Seco

Catalog & technical guide 2024.1

Tooling Systems



Seco

At Seco, we make tools, tech, and solutions for the most advanced manufacturing challenges on Earth. From our founding in Fagersta Sweden, to today's global company, our business has always been made to measure, and built on trust.

Combining cutting-edge, precision tools with lasting, personal partnerships, we're a true people company helping our partners discover the future of the manufacturing industry.

We're proud to make for makers, invent for inventors, and partner with pioneers. Driving the future forward with our focus on innovation. In short - if the right tool for the job exists, we'll deliver it. If it doesn't, we'll create it.

We're proud to put sustainability at the heart of everything we do, challenging perceptions of our industry, changing the process of manufacturing, and playing our own small part in shaping a brighter looking future.

Made for Makers

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Welcome to Seco Tools Tooling Systems



STTS (Seco Tools Tooling Systems), formerly EPB, was created in 1924 in Bouxwiller located in the eastern part of France, near the German border.

STTS is the competence center for CNC Tooling systems, responsible for the development and the manufacturing of rotating tool holders, Boring heads, and Antivibration solutions within the Seco Tools Group.

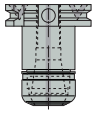
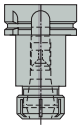
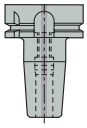
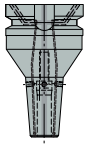
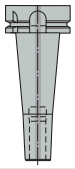
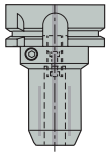
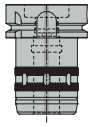
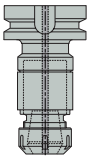
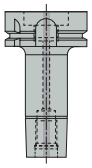
With modern production means from latest's generation, and a high degree of automation, STTS is producing a range of Premium solutions with the utmost quality and performance, with an environmental focus.

STTS offers a comprehensive range of rotating tool holders including:

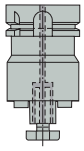
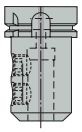
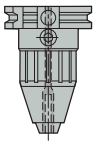
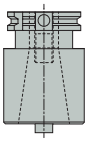
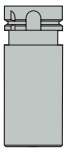
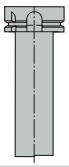
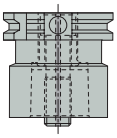
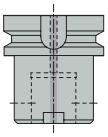
– High precision collet chucks, and standard ER collet chucks
– A large range of Shrinkfit holders, standard DIN, reinforced and slim designs
– Hydraulic expansion chucks
– Power Milling chucks
– Synchronized tapping chucks
– Basic holders for the Seco screw-in system Combimaster, also in Steadyline antivibration style
– Different type of face mill holders for tenon driven cutters and disc mill cutters, also in Steadyline antivibration version
– Endmill holders with coolant channels through the face
– NC drill chucks
– Blanks
– Easyshrink EVO Heating device
– Operating accessories like pullstuds, collets, ToolBoy…

coming in all kind of classical taper back ends.

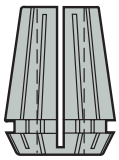
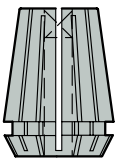
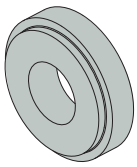
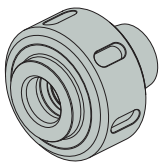
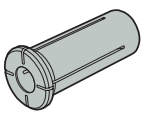
Tool holders – Machine side vs Workpiece side

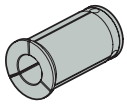
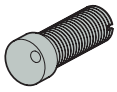
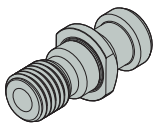
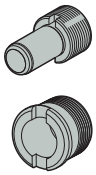
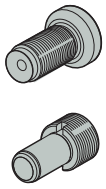
	ER HP Collet chucks	ER Collet chucks	Shrinkfit DIN 4,5°	Shrinkfit HD	Shrinkfit M&D	Hydro chucks	PMC	ER Tapping chucks	Combimas-ter
									
HSK-A	90, 91	97, 98-99	71, 72, 73-81, 82	83, 84-87	88, 89	92, 93, 94	95-96	101	245-246, 247
HSK-E	109, 110	111	106, 107		108				
DIN69871 DIN T/F	131, 132	136, 137	125, 126, 127	128, 129	130	133, 134	135	139	248-250, 251
DIN2080									
BT JIS	168, 169	174-175, 176	160-161, 162, 163, 164	165, 166	167	170, 171, 172	173	178, 179	252-253, 254
BT T/F	199-200, 201	205	195-196	197, 198		202, 203	204		255
CAT-V	220, 221	226, 227	214, 215-216, 217	218-219		222, 224	225	228	256-258
CAT-V T/F	238	242	233, 234-235	236-237		239, 240	241		259-262
Capto	360, 361	365, 366	354, 355-356, 357	358-359		362, 363	364	367, 368	263-264, 265
Graflex		303, 304				302			
Combimaster			268						266-267
Cylindrical Weldon MT		375			373-374			377, 378-379	370, 371, 380, 381

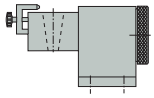
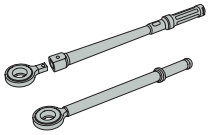
Tool holders – Machine side vs Workpiece side

	Shell mill holders	Weldon	NC Drill Chucks	SAxSA adapter	Blanks	Control bars	Seco Capto	Graflex
								
HSK-A	54, 55-65	66, 67-70	100		102	103	312, 313-314, 315	272, 273
HSK-E								
DIN69871 DIN T/F	114, 115-121	122, 123-124	138	140	141	142	316, 317-318, 319	274, 275
DIN2080							308, 309	276
BT JIS	145, 146-155	156, 157-159	177	180	181	182	320, 321-322, 323	277-278, 279
BT T/F	185-190, 191	192-194					324, 325	280, 281
CAT-V	207-210	211-212, 213					310, 311	282, 283
CAT-V T/F	230-231	232					326, 327-328	284, 285
Capto	337, 338-345	347, 348-352, 353					329, 330-335, 336	286, 287
Graflex	295, 296-299	300, 301	305					288, 289-294
Combimaster								
Cylindrical Weldon MT								

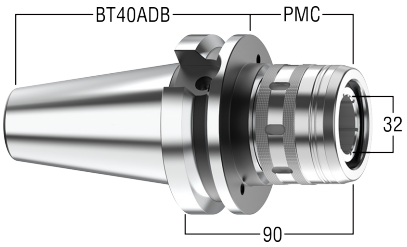
Operating & setting accessories

ER HP Collets	ER collets	ER tapping collets with square drive	ER sealing rings	ER to Combimaster arbors	Hydro chucks sleeves
					
402, 403, 404-410	411, 412, 413, 414	415, 416-417	418, 419	269	394, 395, 396, 397

PMC Sleeves	PMC coolant stop screws	Pull studs	HSK coolant tubes and sealing plugs (incl. tube fitting keys)	MQL coolant tubes & screws
				
398-399	400-401	386-393	383-384	384-385

Assembly supports, Tool Boy	Roller keys	Easyshrink® Evo	Easyshrink® Evo accessories and spare parts
			
420	421	423	425, 426-427

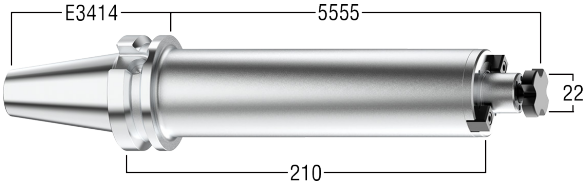
New codes (after September 2018)



BT40ADB	-	PMC	32	-	090
1		2	3		4

1	2	3	4
Machine side taper type	Workpiece side	Tool fitting size	Gage length

Codes (before September 2018)



E	3414	5555	22	210
1	2	3	4	5

1	2	3	4	5
Monobloc holder (EM for Graflex)	Machine side taper type	Workpiece side	Tool fitting size	Gage length

Products released for sales before Seco News 2018-2	Products released for sales from Seco News 2018-2	
5555/5556	SM...-KL1	Steadyline®, vibration damping shell mill holders
5525	SM...L1	Shell mill holders, with through coolant channels
552	SM...F3	Shell mill holders, small face
5524	SM...F3L1	Shell mill holders, small face with through coolant channels
569	SMF	Milling cutter holders, flange mounting
5656/5657	DM	Disc mill holders
584	EM	Side lock holders, Weldon
5842	EM...F5	Side lock holders, Weldon short
5603/5403	SFD	Shrinkfit holders, DIN type
5402	SFD...-L1	Shrinkfit holders, DIN type, with peripheral coolant channels
5403M, 5403M1	SFD...M, SFD...M1	Shrinkfit holders, MQL type
5600	SFR	Shrinkfit holders reinforced
5801	SFS	Shrinkfit holders, Mold and Die type
5672	ERHP	High precision collet chucks
5834	HC	Hydraulic chucks
–	HCR	Hydraulic chucks reinforced
–	HCS	Hydraulic chucks slim
–	PMC	Power milling chucks
5675	ER	ER collet chucks
5450	ER	ER collet chucks, with cylindrical shank
5085	UDC	Drill chucks
5867	TCER	Tapping chucks for synchronized tapping, with micro compensation
543	TA	Taper adapters SA
5023	BLK	Greenstock blanks
586	CTRB	Control bars
K820/K821	M...-K	Steadyline® vibration damping Combimaster holders
5820/5821/5822	M	Combimaster holders
GL/BA	GL/BA	Steadyline® vibration damping turning/boring bars
401/402/403	G	Graflex® adapters
C	C	Seco-Capto™ adapters

ISO attributes

ISO attribute	Explanation
ADIF1	Additional information 1
ADIF2	Additional information 2
ADIF3	Additional information 3
BD	Body diameter
BD1	Body diameter 1
BD2	Body diameter 2
BD3	Body diameter 3
BHTA	Body half taper angle
BHTA1	Body half taper angle 1
CBDP	Connection bore depth
CND	Coolant entry diameter
CNDP	Coolant entry depth
CNT	Coolant entry thread size
CRKS	Connection retention knob thread size
CTMS	Connection text machine side
CTWS	Connection text workpiece side
DCB	Connection bore diameter
DCBN	Connection bore diameter minimum
DCBX	Connection bore diameter maximum
DCN	Cutting diameter minimum
DCON	Connection diameter
DCX	Cutting diameter maximum
DF	Flange diameter
DMM	Shank diameter
FLGT	Flange thickness
KWW	Keyway width
LB	Body length
LB1	Body length 1
LB2	Body length 2
LB3	Body length 3
LB4	Body length 4
LCOG	Position of the center of gravity
LF	Functional length
LFN	Minimum functional length
LFS	Functional length secondary
LPR	Protruding length
LSC	Clamping length
LSCN	Clamping length minimum
LSCX	Clamping length maximum
LU	Usable length
OAL	Overall length
RFID	Data chip provision
RL	Radial location (of the balancing screw)
RPM	Rotational speed
SRR	Recommended stock removal
SW	Wrench size
TDZ	Thread diameter size
TDZ1	Thread diameter size 1
TDZ2	Thread diameter size 2
WF	Functional width

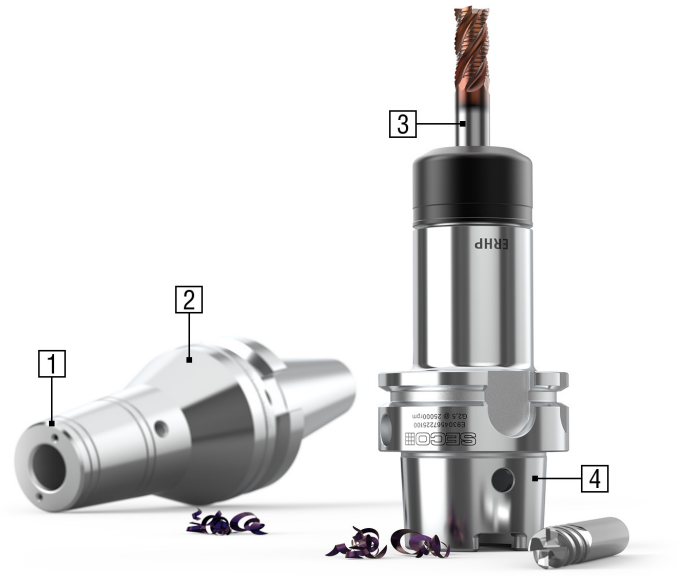
Our value proposition

Precise machine tools and advanced cutting tools together provide outstanding metal cutting productivity. However, the link between the cutting tool and machine spindle – the tool holder – is crucial in fully achieving that productivity.

Each application has different requirements for a tool holding system. No holder can cover all the different applications. Seco Tools offer a wide variety of holding methods featuring a repeatable accuracy, high holding power and an adapted design to provide you an affordable way to fully utilize your cutting materials and machine capability to profitable advantages.

Your main expectations

– Less scraps and rework costs
– Finished product first-pass quality yield
– Maximize machine capabilities and spindle utilization
– Control costs / part
– Time reduction
– Achieve tight tolerances in complex workpiece shapes
– Fast and easy tool preparation



Our value proposition		Your benefits
1	• Secured tool gripping	• Increased rigidity for superior cutting results including high speed applications • Combine with SECO advanced cutting materials for considerable gains in productivity
2	• Optimal designs • Fine balanced in standard or pre-balanced by Design • Made from Premium steels • Through coolant delivery • Pre-drilled holes for RFID tags	• Designed for optimal rigidity and ensure workpiece accessibility • Faster speeds and feeds, without vibrations, delivering better surface finishes • Longer service life
3	• High quality tool holders with exceptional and repeatable concentricity	• Even chip load on the cutting tool edges • Extended tool life • Less vibrations excellent surface finishes
4	• Precisely ground taper back ends, tolerance class ≤ AT3 for SA, HSK according to ISO12164, and Seco-Capto™ according to ISO 26623-1-PSC	• Perfect fit in the spindle for higher torque transmissibility • Better tool centering • No premature spindle wear

Tool holders for round tools clamping

		Shrinkfit		
		 SFD 5403 / 5603	 SFR 5600	 SFS 5801
Operations	Finishing milling	■■■■■	■■■■□	■■■■■
	Medium milling	■■■■□	■■■■■	■■□□□
	Rough milling	■■■□□	■■■■■	NA
	High speed milling	■■■■■	■■■■□	■■■■■
	Drilling	■■■□□	■■■□□	■■■□□
	Reaming	■■■□□	■■□□□	■■□□□
	Tapping	NA	NA	NA
Characteristics	Clamping range (mm)	∅3 – ∅32	∅6 – ∅32	∅3– ∅16
	Clamping range (inch)	∅0.25 – ∅1.25	∅0.5 – ∅1.25	∅0.125 – ∅0.312
	Run-out	≤3 µm/.0001"	≤3 µm/.0001"	≤3 µm/.0001"
	Max RPM*	45 000 rpm	45 000 rpm	60 000 rpm
	Transmittable torque	550 Nm/405 ft/lb (∅32 mm/1.25")	750 Nm/553 ft/lb (∅32 mm/1.25")	180 Nm/132 ft/lb (∅16 mm/0.312")
	Tool change	Easyshrink device	Easyshrink device	Easyshrink device
	Axial adjustment	Screw / stop rods	Screw / stop rods	Stop rods
	Max coolant pressure*	100 bar/1450 psi	100 bar/1450 psi	100 bar/1450 psi
	Type of cooling	Central + Option peripheral	Central + Peripheral	Central
	Balancing quality	G2.5 - 25 000 rpm or U ≤ 1g.mm	G2.5 - 25 000 rpm or U ≤ 1g.mm	G2.5 - 25 000 rpm or U ≤ 1g.mm
	Option	MQL Peripheral cooling Balancing screws	Safe-Lock	/
Recommandations		▪ First choice for semi-finishing and finishing in HSC applications, where quality is required ▪ Slim design ideal for 5 axis machines, deep cavities ▪ High static stiffness but low dynamic stiffness not adapted for HD roughing	▪ First choice for heavy roughing applications (HPM) where Weldon finds its limits in terms of precision, balance and bulky design ▪ Can be used for finishing operations as well	▪ Designed for semi-finishing and finishing in deep cavities, like in M&D, or aerospace components
Tool shank quality		Needs to be: h5 < ∅ 6 mm/0.236" h6 ≥ ∅ 6 mm/0.236"	Needs to be: h5 < ∅ 6 mm/0.236" h6 ≥ ∅ 6 mm/0.236"	Needs to be: h5 < ∅ 6 mm/0.236" h6 ≥ ∅ 6 mm/0.236"

Tool holders for round tools clamping

		Collet chucks	
			
		ERHP 5672	**ER 5675**
Operations	Finishing milling	■■■■■	■■■□□
	Medium milling	■■■■□	■■■□□
	Rough milling	■■■□□	■■□□□
	High speed milling	■■■■■	■■■□□
	Drilling	■■■■□	■■■■□
	Reaming	■■■■□	■■□□□
	Tapping	■■■□□	■■■□□
Characteristics	Clamping range (mm)	∅1 – ∅20	∅0,5 – ∅26
	Clamping range (inch)	∅0.0625 – ∅0.75	∅0.0625 – ∅1
	Run-out	3 µm/.0001" (3x ∅)	10 µm/.0004" (3x ∅)
	Max RPM*	60 000 rpm	20 000 rpm
	Transmittable torque	250 Nm/184 ft/lb (∅20 mm/0.75")	100 Nm/73 ft/lb (∅26 mm/1")
	Tool change	Spanner & torque spanner	Spanner & torque spanner
	Axial adjustment	Screw	Screw
	Max coolant pressure*	100 bar/1450 psi	100 bar/1450 psi
	Type of cooling	Central + Through collet	Central
	Balancing quality	G2.5 - 25 000 rpm or U ≤ 1g.mm	G2.5 - 25 000 rpm or U ≤ 1g.mm
	Option	Sealed collets Collets with cooling holes Collets with square	Collet with square Nut for sealing discs Sealing discs
Recommandations		▪ Ideally for precision HSC applications in finishing and light roughing to generate a good surface quality ▪ Alternative to shrinkfit holders (or cold clamping systems) for small diameters (∅<20 mm/0.75"), offering a great versatility ▪ Damping effect ▪ Tool breakage friendly (Easy to replace compare to shrinkfit holders)	▪ Popular system, very versatile (one chuck + several collets to clamp a full range) ▪ 10µm/.0004" runout (all attachments except CAT & CAT TF) ▪ Ideal for general applications ▪ Perfect for small tool shanks <∅20 mm/0.75"
Tool shank quality		Needs to be: h10 max	Needs to be: h10 max

Tool holders for round tools clamping

		Power milling chuck	Hydraulic chuck HC	Hydraulic chuck HCR	Hydraulic chuck HCS
		 PMC	 HC 5834	 HCR	 HCS
Operations	Finishing milling	■■■□□	■■■■■	■■■■■	■■■■■
	Medium milling	■■■■□	■■■□□	■■■■■	■■□□□
	Rough milling	■■■■□	NA	■■■■■	NA
	High speed milling	■□□□□	■■■■□	■■■■□	■■■■□
	Drilling	■■■□□	■■■□□	■■■□□	■■■□□
	Reaming	■■□□□	■■■■■	■■■□□	■■■□□
	Tapping	NA	NA	NA	NA
Characteristics	Clamping range (mm)	∅6 – ∅32	∅3 – ∅32	∅12 – ∅20 – ∅32 in direct ∅3 – ∅32 through sleeves	∅6 – ∅20
	Clamping range (inch)	∅0.75 – ∅1.25	∅0.118 – ∅1.25	∅0.472 – ∅0.787 – ∅1.25 in direct ∅0.118 – ∅1.25 through sleeves	∅0.236 – ∅0.787
	Run-out	>10 µm/.0004" (3x ∅)	≤3 µm/.0001'	≤3 µm/.0001"	≤3 µm/.0001'
	Max RPM*	15 000 rpm	40 000 rpm	50 000 rpm (∅32/1.25" max 25 000 rpm)	40 000 rpm
	Transmittable torque	1500 Nm/1106 ft/lb (∅32 mm/1.25")	650 Nm/480 ft/lb (∅32 mm/1.25") (250 Nm for Seco-Capto/Graflex)	900 Nm/664 ft/lb (∅32 mm/1.25")	231 Nm/170 ft/lb (∅20 mm/0.787")
	Tool change	Spanner	Locking hex key	Locking hex key	Locking hex key
	Axial adjustment	Screw		Screw	Screw
	Max coolant pressure*	30 bar/435 psi	80 bar/1160 psi (70 bar/1015 psi for Seco-Capto/Graflex)	80 bar/1160 psi	80 bar/1160 psi
	Type of cooling	Central		Central	Central
	Balancing quality	Pre-balanced	G2.5 - 25 000 or U≤1g.mm (except Seco-Capto)	G2.5 - 25 000 or U≤1g.mm	G2.5 - 25 000 or U≤1g.mm
	Option	Stop screws for through coolant Sleeves	Sleeves (sealed or peripheral coolant)	Sleeves (sealed or peripheral coolant)	Sleeves (sealed or peripheral coolant)
Recommandations		▪ Ideal for heavy duty operations, high chips removale rates ▪ Alternative to shrinkfit or Weldon ▪ Easy to implement ▪ Versatile through use of reduction sleeves	▪ Semi-finishing and finishing operations in High Speed Cutting (HSC) ▪ Not recommended for heavy milling with big radial loads ▪ Simple to use, but needs maintenance ▪ Flexibility thru red. sleeves ▪ Dampening effect	▪ Universal chuck, for heavy roughing applications (HPM) or High Speed Cutting (HSC) in all kind of applications ▪ High rigidity, high torques ▪ Very easy to use ▪ Flexibility thru red. Sleeves ▪ Damping effect	▪ For semi-finishing and finishing applications in deep cavities, like M&D ▪ Very easy to use ▪ Flexibility thru red. Sleeves
Tool shank quality		Recommanded: h6 (max h7)	Needs to be: h6		

*** Depending on the holder's machine side taper type and size**

Tool holders for round tools clamping

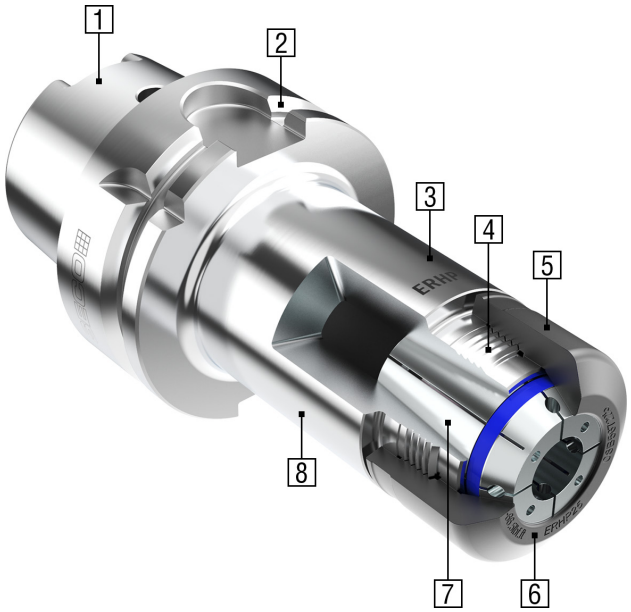
		Side lock	Tapping chuck	Drill chuck
				
		EM 584	**TCER 5867**	**UDC 5085**
Operations	**Finishing milling**	NA	NA	NA
	Medium milling	■■■□□	NA	NA
	Rough milling	■■■■■	NA	NA
	High speed milling	NA	NA	NA
	Drilling	■■■□□	NA	■■■□□
	Reaming	NA	NA	NA
	Tapping	NA	■■■■■	NA
Characteristics	**Clamping range (mm)**	∅6 – ∅50	M2 – M48	∅1 – ∅16
	Clamping range (inch)	∅0.25 – ∅2	UNC6-32 – UNC1-8	∅0.0625 – ∅0.625
	Run-out	≤15 µm/.0006" (3x ∅)	NA	40 µm/.0016" (3x ∅)
	Max RPM*	15 000 rpm	NA	10 000 rpm
	Transmittable torque	NA (Anti-pulling)	320 Nm/236 ft/lb (ER40)	120 Nm/88 ft/lb (∅16 mm/0.625")
	Tool change	Locking hex key	Locking key & spanner	Locking hex key
	Axial adjustment	NA	/	/
	Max coolant pressure*	120 bar/1740 psi	80 bar/1160 psi	100 bar/1450 psi
	Type of cooling	Central + Peripheral	Central	Central
	Balancing quality	Pre-balanced	Pre-balanced	Pre-balanced
	Option	/	Nut for sealing discs Sealing discs	/
Recommandations		▪ Very simple and quick tool changeover ▪ Most popular anti-pulling solution ▪ Rigid. Good for heavy roughing ▪ Can be very short ▪ Find its limits in terms of balance (flats) and accuracy, especially at HSC (risk to break expensive HPC tools) ▪ Not versatile ▪ Not tool breakage friendly ▪ Bore sizes 20, 25, 32 mm/0.787, 0.984, 1.260" with Seco Weldon ground face	▪ First choice for CNC machine tools and synchronized tapping operations ▪ High volume production / high precision ▪ Better surface quality on the flanks of the cut threads ▪ Longer tap life due to less friction and no tap breakage ▪ Greater process security ▪ Very accurate depth control ▪ Will never wear out ▪ Improved chip evacuation due to slim design	▪ Recommended for standard drills ▪ For carbide drills we highly recommend (for better run out): – ERHP 5672 – SFD 5403/5603 – HC 5834 ▪ Easy handle
Tool shank quality		DIN 1835-1 Form B DIN 6535 Form HB	Needs to be: h9 with square	DIN 1835-1 Form A DIN 6535 Form HA

*** Depending on the holder's machine side taper type and size**

High precision collet chuck ER HP – 5672

Collet chucks and interchangeable collets are the most common form of round-tool holding technology. Cost-effective ER styles are available in a wide range of sizes and offer sufficient grip for reliable light milling and drilling operations.

High-Precision ER collet holders feature low runout, a symmetrical design, and are fine balanced for high-speed operations. A perfect combination with Seco drills and solid end mills for best performance!



Most important features			
1	Made from Premium material	5	Combination of a high precision antifriction nut and a high precision collet mounted onto a high precision chuck, resulting in repeatable runout ≤ 3 µm at 3xD
2	Fine balanced in standard at G2,5-25,000 rpm or U ≤1 g. mm* symmetrical design, ideal for high speed applications	6	Quick tool change, large clamping capacity through HP collets
3	Strong body design for highest static rigidity	7	Selection of diverse HP collet designs (blue ring): standard, sealed up to 100 bar, sealed with coolant channels (maxi 100 bar)
4	Stable and strong tool gripping thanks to a trapezoidal thread, double guidance and a perfect seat for the collet inside the tapered hole	8	Different lengths available

* Seco-Capto: at G6,3-20.000 rpm. When using axial stop screw do not exceed 10.000 rpm.

ER Standard collet chucks ISO15488

Our standard range of ER collet chucks ISO15488 feature a unique 10 µm/.0004" (CAT 12µm/.0005") runout at 3xD.

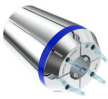
They are equipped with a very accurate nut ensuring perfect clamping and precise tool centering. All ER standard collet chucks are fine balanced to G2,5-25.000 rpm quality (except CAT-V and Seco-Capto, see product pages).

ER collet chucks come also in extended version with a cylindrical shank, tolerance h5. They can be used when a long reach is required to access restricted areas. Maximum run out measures between 15 µm/.0006" to 18 µm/.0007".



High precision collets HP ER – 5672

The HP ER collets, based on the external design ISO15488-B, feature a 2 µm direct runout and are identified with a blue ring. Produced from special steel, with only 12 slots, they are more rigid. All collets are with an anti-rust coating. To ensure a good clamping force and best accuracy it is recommended to clamp on nominal diameter tools with shank tolerance h10 max (sealed design even h8 max.).

Collet size	Not sealed	Sealed (100 bar max)	Sealed with 4 coolant channels (100 bar max)
			
ER HP 11	∅ 1 - 7 mm (steps 0,5 mm) *∅ 0.039 - 0.275" (steps 0.020")*	∅ 3 - 6 mm (steps 1 mm) *∅ 0.118 - 0.236" (steps 0.020")*	–
ER HP 16*	∅ 1 - 10 mm (steps 0,5 mm) *∅ 0.039 - 0.394" (steps 0.020")*	∅ 3 - 10 mm (steps 1 mm) *∅ 0.118 - 0.394" (steps 0.020")*	∅ 3 - 8 mm (steps 1 mm) *∅ 0.118 - 0.315" (steps 0.020")*
ER HP 25	∅ 2 - 10 mm (steps 0,5 mm) *∅ 0.079 - 0.394" (steps 0.020")*	∅ 3 - 16 mm (steps 1 mm) *∅ 0.118 - 0.630" (steps 0.020")*	∅ 3 - 14 mm (steps 1 mm) *∅ 0.118 - 0.551" (steps 0.020")*
ER HP 32	∅ 2 - 20 (steps 1 mm) *∅ 0.079 - 0.787" (steps 0.020")*	∅ 3 - 20 (steps 1 mm) *∅ 0.118 - 0.394" (steps 0.020")*	∅ 3 - 20 (steps 1 mm) *∅ 0.118 to 0.394" (steps 0.020")*

* The collet size ER HP 16 is suitable for both chuck sizes HP 16R and HP16

Note: when using tool shanks with flats into sealed collets, make sure the tool flat is located behind the rubber seal i.o. to achieve a good sealing

High precision collets HP ER



Without sealing



Sealed for tools with internal coolant supply



Sealed for tools with internal coolant supply and additional coolant channels in order to bring the coolant to the cutting edge in tools without coolant supply

Standard collets ER ISO15488

Standard ER collets feature 5 µm direct runout. They offer a high flexibility in clamping, from nominal to -0,5 mm to -1 mm (0.020" to 0.039").

Collet size	Capacity	Clamping range
		
ER 08	∅ 1 - 5 mm (steps 0,5 mm) *∅ 0.039 - 0.197" (steps 0.020")*	-0,5 mm *-0.020"*
ER 11	∅ 1 - 7 (steps 0,5 mm) *∅ 0.039 - 0.275" (steps 0.020")*	-0,5 mm *-0.020"*
ER 16	∅ 1 - 2 mm (steps 0,5 mm) *∅ 0.039 - 0.787" (steps 0.020")* ∅ 2,5 - 10 mm (steps 0,5 mm) *∅ 0.098 - 0.394" (steps 0.020")*	-0,5 mm *-0.020"* -1 mm *-0.039"*
ER 25	∅ 1 - 2 mm (steps 0,5 mm) *∅ 0.039 - 0.787" (steps 0.020")* ∅ 2,5 - 16 mm (steps 0,5 mm) *∅ 0.098 - 0.630" (steps 0.020")*	-0,5 mm *-0.020"* -1 mm *-0.039"*
ER 32	∅ 2 - 20 mm (steps 0,5 mm) *∅ 0.079 - 0.787" (steps 0.020")*	-1 mm *-0.039"*
ER 40	∅ 3 - 26 mm (steps 0,5 mm) *∅ 0.118 - 1.023" (steps 0.020")*	-1 mm *-0.039"*

Sealing rings for ER sealing nuts

Sealing can be achieved by applying the concave front face of the stop end screw equipping the ER collet chucks onto the tool shank (for tool shanks without groove). The second method, is to use a selection of sealing rings available in most current diameters with a clamping range of nominal to -0,5 mm (-0.020"), to ensure a good flow when using tools with internal coolant. They are mounted on a specific nut. Can be applied up to 100 bar.

Collet size*	Capacity	Clamping range
		
ER 16	∅ 3 - 10 mm (steps 0,5 mm) *∅ 0.118 - 0.394" (steps 0.020")*	-0,5 mm *-0.020"*
ER 20	∅ 3 - 12 mm (steps 0,5 mm) *∅ 0.118 - 0.472" (steps 0.020")*	-0,5 mm *-0.020"*
ER 25	∅ 3 - 16 mm (steps 0,5 mm) *∅ 0.118 - 0.630" (steps 0.020")*	-0,5 mm *-0.020"*
ER 32	∅ 3 - 20 (steps 0,5 mm) *∅ 0.118 to 0.394" (steps 0.020")*	-0,5 mm *-0.020"*

* ER40 and ER50 on request. ER08 and ER11 not available

Collet chuck torque wrench

A collet chuck torque wrench is highly recommended to close the nut of the HP ER collet chucks, in order to achieve a secured and accurate clamping. To release the nut, utilize the classic roller spanner (use of the collet chuck torque wrench to open a nut would cause damages to the key mechanism). The roller spanner are optional for the standard ER collet chucks. Follow strict instructions delivered along with the products.





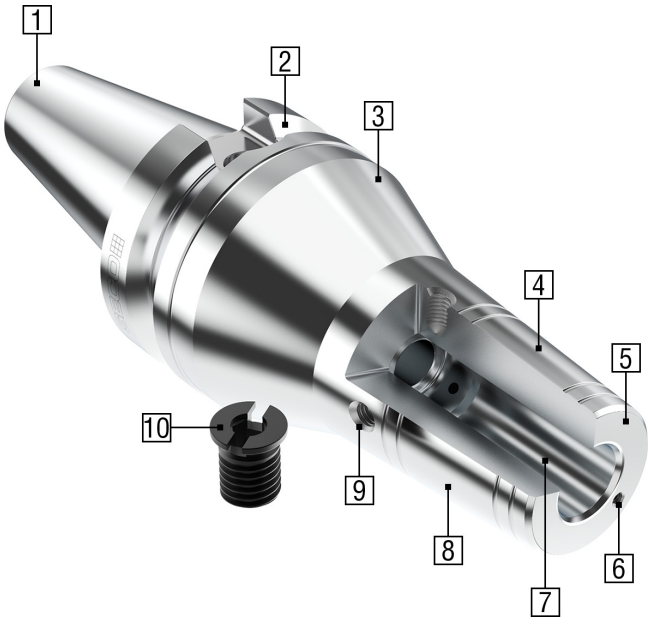
Collet chuck torque wrench = Torque key + Socket



Classic roller spanner

Heat shrinkfit holders – SFD 5403/5603, SFD 5402, SFR 5600, SFS 5801

Shrinkfit holders are used extensively in complex 5-axis machining because of their ability to maintain excellent runout characteristics over a long tool length ,and because they can be used in tight places. Furthermore, shrinkfit chucks are excellent for transferring high torque,and therefore are well-suited for High Performance Machining (HPM) applications.The balanced design, without mechanical moving parts, make them also the ideal system for high-speed machining.



Most important features			
1	Made from Premium heat resistant material (maxi 400°C acceptable temperature), through hardened 56 HRc +/- 2	6	Peripheral coolant channels as standard on HSK-A63/100 SFD DIN type and SFR Reinforced type. MQL1 according to DIN69090-3 in standard. Others on request.
2	Fine balanced is standard at G2.5-25,000 rpm or ≤1 g.mm*	7	Grips the cutting tool 360° around the shank, leading to high gripping torque
3	Strong body design for highest static rigidity. SFD DIN version acc. to DIN69882-8; Type SFR is a reinforced version.	8	Slim design, available in different lengths preventing collision with workpiece. Use of extensions provide many options to machine deep cavities
4	Sealed system by design, ideal when machining materials generating dust	9	Threaded holes for balancing screws is standard**
5	Repeatable runout ≤ 3 µm	10	Axial stop screw delivered along with the holder (not mounted), featuring a central hole for coolant through

* Seco-Capto: G6,3-20.000 rpm
** Except ∅ 3 to 5 mm (∅ 0.118" to 0.200"), and some SFR- 5600 version, see product pages

Our standard designs

DIN 4.5° version (5403/5603-SFD)

Based on the DIN69882-8 shape, delivered with a stop screw (except diam. 3 and 5 mm), and 4 balancing threaded holes. Comes in diverse lengths.

HSK version is “ready” for MQL option. Coolant channels through the face is standard for some HSK types (see product pages), others on request.



Reinforced version (5600-SFR)

The dimensions of the OD is one size wider compared to the DIN 4.5° type and features a conical reinforced outside contour resulting in higher rigidity and a higher transmittable torque. Coolant channels throught the face delivered as standard.(2 channels up to ∅20 mm / ∅0.787”, 3 channels for ∅25 mm / ∅0.984” and ∅32 mm / ∅1.260”). Exists with Safelock tool pull-out protection (see product pages)



Slim Mold & Die version (5801-SFS)

Long and slim design with a conical 5°/3° nose for easy access to difficult to reach surfaces like in Mold & Die applications. Also available as cylindrical extensions.



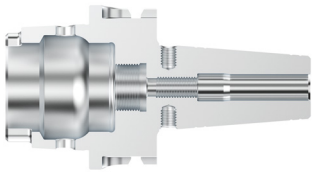


MQL for shrinkfit holders HSK-A DIN type (SFDMx/5403)

MQL (Minimum Quanity Lubrication) is a “near-dry” coolant solution, consisting in a mix of air and oil. Seco offers in standard a range of HSK-A shrinkit DIN 4,5° holders (5403/SFD) which can be equiped with specific coolant tubes and stop screws to apply MQL1, i.e. coolant through one channel.

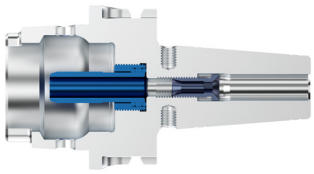
Type SFD 5403M

Shrinkfit holders, according to standard DIN 69090-3, prepared for MQL1. Accessories to be ordered separately.



Type SFD 5403M1

Shrinkfit holders ready for MQL1, delivered with MQL accessories fitted. MQL1 Shrinkfit holders, coolant tubes and stop screws according to standard DIN 69090-3.



Accessories for MQL Shrinkfit holders

MQL 1: coolant tubes

– HSK-A63, MQL1 Shrinkfit holders need a conventional coolant tube 20E9304, as available for DIN type Shrinkfit holders.

– HSK-A100, MQL1 Shrinkfit holders need a specific coolant tube 20E9306M1: the internal diameters are optimized for MQL flow.



MQL1: Stop screws

Stop screws for MQL1 feature a tapered face, for efficient contact with tapered MQL tool shanks, according to standard DIN 69090-3.

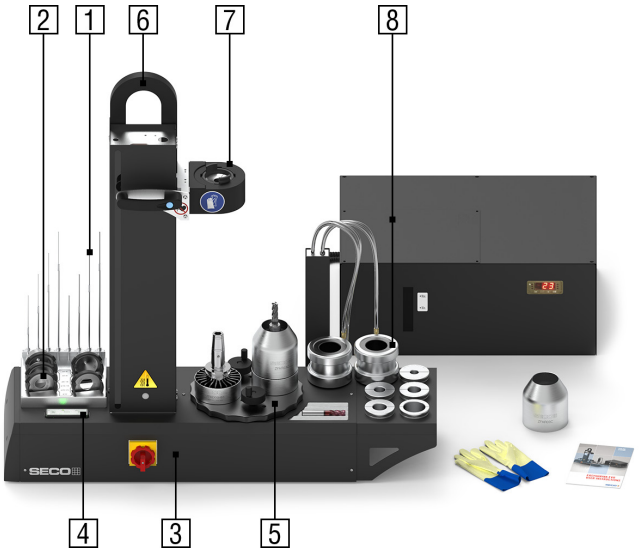




Easyshrink EVO

The easyshrink EVO offers fast, ergonomic shrinking and unshrinking for steel, high speed steel (HSS), heavy metal or carbide tools, reducing tool-change downtime. Featuring a heating unit with optimized automatic heating programs, the Easyshrink EVO uses an induction heating element to prevent overheating, minimize energy consumption and keep focused on the clamping area.

Simple, Ergonomic and easy to use.





Easyshrink EVO

Most important features			
1	Different sizes of stop rods to easily adjust the depth of tool	6	Shrink and unshrink tool holders with a maximum length of: – 480 mm (18.898") with HSK-32 finned support – 430 mm (16.929") with SA50 finned support – 490 mm (19.291") with other finned support
2	Set of heat focusing stoppers enabling shrinking of Carbide and HSS tool shanks ∅3 to 32 mm (0.118 to 1.260"). Split version available for large tools	7	Inductor: fast and optimized shrink and unshrink cycles for steel, HSS, heavy metal or carbide tools with Seco Tools holders
3	Small computer allowing a smart web interface through WIFI or ethernet (RJ45) connection – TDM Systems compatible – Special program easily programmable – Global view of the System status	8	Water cooler unit including 2 cooling bells and a water tank (optional, sold separately)
4	Simple control panel with led indicator: – 3 Standards programs for all Seco Tools Holders – 1 programmable mode for other tool holders (specific shape or competitors) – 1 manual mode	9	All new holders (>SN2020.1) are marked with a program code, helping operator to easily select the adapted heating mode of the device, preventing overheating and thus ensuing a long service life
5	Rotary plate with shrink depth setting – Prevents the user to have any contact with hot holders and allow to switch from the heating position to a cooling position – Adjustment for setting the depth of the cutting tool in your holder by moving the stop rod up & down – Standard integrated air fan cooler		

Easyshrink EVO Features

Power	Capacity	Max. tool length	Max. machine interface	Dimensions (WxDxH)	Weight	Cooling time	Connections
16 Kw	∅3-32 mm ∅0.118-1.260"	430 to 490 mm 16.929 to 19.291"	HSK-A125	317x943x820 mm 12.480x37.126x32.283"	50 kg 115 lb	±7 min	The device accepts following voltage : AC 3 x 400V (+/-10%) + PEN/25A/50-60Hz AC 3 x 400V (+/-10%) + N + PE/25A/50-60Hz For other voltages, the usage of transformer ZFM30IN30 is required and need to be bought separately

DELIVERY CONTENT: 5 standard heat focusing stoppers for ∅3 to ∅32, 8 stop rods, 2 cooling bells, 1 pair of gloves, 1 operating instructions

Accessories

Finned support

Provides positioning of the tool holder onto the support module.
Finned supports for each type of machine side taper used on Shrinkfit tool holders.
Available for all types of tool holders



Contact bushing

Contact bushing for each type and size of Shrinkfit tool holder used.
Available for all types of Shrinkfit holders and diameters.
Required to extract heat from the front end of the holder towards the liquid cooling bell.



Spare parts

Stops rods

Set of standard and thin stop rods.

Enables the tool shrinking depth setting and ejection of broken tools.

4 stop rods with 2.5 mm (0.098") front end & 4 stop rods with 5 mm (0.197") front end covering a shrink depth capacity 0 to 240 mm (0 to 9.449") : 0-60 (0 to 2.362") / 60-120 (2.362"-4.724") /120-180 (4.724-7.087") / 180-240 mm (7.087-9.449")



Air cooling cone

Directs the air stream against the front end of the holder for cooling.



Heat focusing stopper

Magnetic insulator that allows the magnetic field to be concentrated on the front part of the tool holder and to achieve optimised heating.

Available for shrinking and unshrinking tool holders ∅3 to ∅32 mm (∅0.118" to ∅1.26").



Split heat focusing stopper

Split magnetic insulator that allows the magnetic field to be concentrated on the front part of the tool holder and to achieve optimised heating of tools with a front end that is larger than shank.



Water cooler Features

Cooling time	Extension table	Dimensions of refrigeration unit (WxDxH)	Weight
±1min	Storage of 5 contact bushings & 1 cooling bell	314x650x285 mm 12.362x25.590x11.220"	35 kg 77 lb

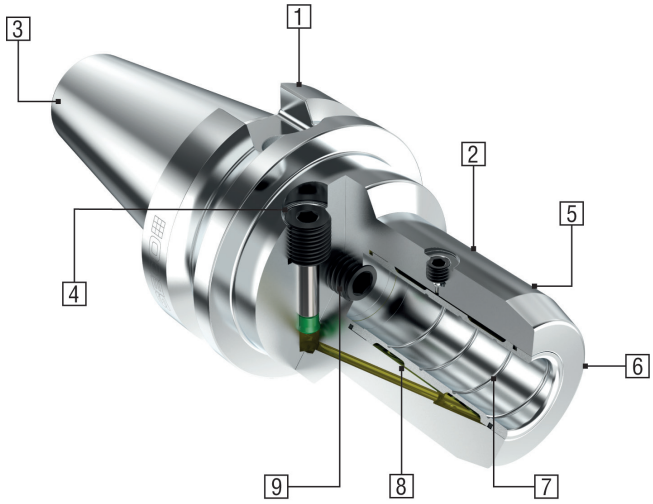


DELIVERY CONTENT: 1 refrigeration unit, tubes support, 2 bells, 1 extension table

Hydraulic expansion chucks – HC (former 5834), HCR and HCS

Hydraulic chucks, that use oil pressure to compress an internal membrane within the holder body, feature repeatable low runout, quick and easy tool change, and are effective for reaming, drilling, threading and light milling with end mills at high spindle speeds. The HCR Power version can perform High Machining Performance thanks to a high radial rigidity, as well as High-Speed Machining.

Most important features	
1	Fine balanced in standard at G2,5-25,000 rpm or ≤1 g.mm (Seco-Capto: G6,3-20.000 rpm)
2	HC version with body shape according to DIN69882-7
3	Made from Premium material, high mechanical strength and good resistance to thermal shocks
4	Very easy to use, just turn one screw until stop. Not additional equipment needed
5	Good gripping forces (shank tolerance h6 maximum), especially Power version offering high clamping forces
6	Repeatable runout ≤ 3 µm HC Straight shanks: runout ≤ 6 µm
7	Helical groove to ensure oil-free or debris-free tool shank surface
8	Oil reservoir acts as a damping agent
9	Axial stop screw for tool length adjustment



Our standard designs

HC Conventional version

The HC conventional hydro-chucks are an easy and efficient solution for high precision works like for drilling, reaming, threading, and light milling in all kind of components. Can be used along with slotted reduction sleeves offering a great flexibility.

Very easy tool changes, reducing set-up times, without need of peripherical equipment's.



HCR Reinforced version

The HCR reinforced version is a universal solution for round tools, dedicated for all kind of machining applications from high performance machining (HPM) to high-speed cutting (HSC)

Its short and compact design offers a high radial rigidity, and high gripping forces (up to 900 Nm for diam 32 !)

Fine balanced, it is suitable for high-speed applications up to 50.000 rpm (diam. 12 and 20 mm).

The range features a direct clamping for diam. 12, 20 and 32, but various other diameters can be clamped through slotted reduction sleeves. All kind of tool shank types can be clamped even in direct mount.



HCS Slim 3° version

The HCS Slim 3° designs are ideal for excellent workpiece accessibility, machining of narrow and deep areas in light milling and drilling operations.

This range is completed with cylindrical extensions enabling to build long and slim assemblies once mounted into the HCR Power chucks for example.



Reduction sleeves for hydraulic chucks

Slotted reduction sleeves from diam. 12, 20 and 32 mm allow the clamping of several different tool shank sizes with just one toolholder, offering a great flexibility and reducing inventory costs.

They are available in two versions:

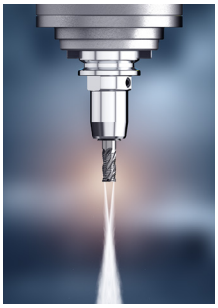
– coolant-proof for tools with coolant facilities,

– with peripheral coolant channels for tools without internal cooling holes.

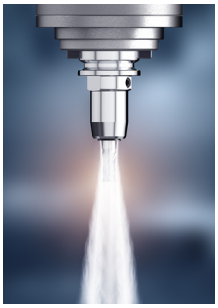
Both versions are equipped with a length pre-adjustement ring.

Runout and transmissible torque will remain unchanged.

All kind of tool shank types can be mounted into the sleeves



Sealed reduction sleeves 05FHC for tools with coolant holes



Reduction sleeves 05FHC…L1 with peripheral coolant channels for tools without coolant holes

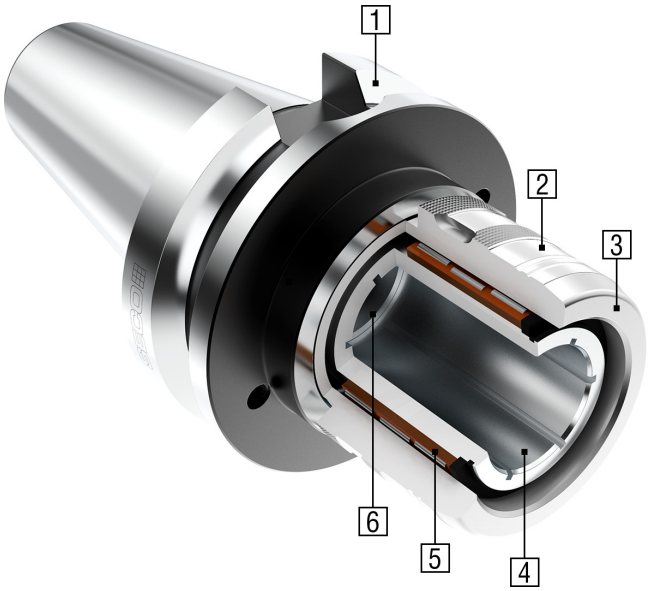


Acceptable tool shanks

	Designs	Cylindrical Form A	Weldon 1 flat Form B	Weldon 2 flats Form B	Whistle Notch Form E
					
Direct clamping	HC (Conventional)	∅ 6 - 32 mm *∅ 0.236 - 1.260”*	∅ 6 - 20 mm *∅ 0.236 - 0.787”*	∅ 25 - 32 mm *∅ 1 - 1.260”*	∅ 6 - 32 mm *∅ 0.236 - 1.260”*
	HCR (Reinforced)	∅ 6 - 32 mm *∅ 0.236 - 1.260”*	∅ 6 - 20 mm *∅ 0.236 - 0.787”*	∅ 25 - 32 mm *∅ 1 - 1.260”*	∅ 6 - 32 mm *∅ 0.236 - 1.260”*
	HC (Capto/Graflex)	∅ 6 - 32 mm *∅ 0.236 - 1.260”*	∅ 6 - 20 mm *∅ 0.236 - 0.787”*	cannot be clamped in direct	cannot be clamped in direct
	HCS (Slim)	∅ 6 - 32 mm *∅ 0.236 - 1.260”*	∅ 6 - 20 mm *∅ 0.236 - 0.787”*	cannot be clamped in direct	cannot be clamped in direct
Through reduction sleeves	HC (Conventional)	∅ 3 - 25 mm *∅ 0.118 - 1”*	∅ 6 - 20 mm *∅ 0.236 - 0.787”*	∅ 25 mm *∅ 1”*	∅ 6 - 25 mm *∅ 0.236 - 1”*
	HCR (Reinforced)	∅ 3 - 25 mm *∅ 0.118 - 1”*	∅ 6 - 20 mm *∅ 0.236 - 0.787”*	∅ 25 mm *∅ 1”*	∅ 6 - 25 mm *∅ 0.236 - 1”*
	HCS (Slim)	∅ 3 - 25 mm *∅ 0.118 - 1”*	∅ 6 - 20 mm *∅ 0.236 - 0.787”*	∅ 25 mm *∅ 1”*	∅ 6 - 25 mm *∅ 0.236 - 1”*

Power Milling Chucks (PMC)

Mechanical milling chucks provide strong gripping force and high radial rigidity via multiple rows of needle bearings. The design enables heavy milling and quick tool changes as an alternative to shrink fit holders. When using reduction sleeves, a larger clamping capacity can be covered with just one holder, reducing shop's inventory. Optional coolant-stop screws enable Power Milling Chucks to engage through-tool coolant.



Most important features			
1	Pre-balanced by design, maxi 15,000 Rpm for ∅20 mm (0.787") and 10,000 Rpm for ∅32 mm (1.260")	4	High gripping forces enabling torques transmissions up to 640 Nm (472 ft/lbf) minimum for ∅20 mm (∅ 0.787") and 1500 Nm (1106 ft/lbf) minimum for ∅32 mm (∅ 1.260") Shank tolerance maxi h6
2	Strong body shape, high rigidity	5	Needle bearing design for better clamping power
3	Runout: 10 to 15 µm at 3 x D	6	Axial stop screw for tool length adjustment (not for HSK and Seco-Capto). Stop screw for coolant in option

Reduction sleeves for PMC

Reduction sleeves allow a great clamping versatility: with only one chuck and several sleeves you can cover a large range of clamping capacity and reduce your tool inventory.

Care: PMC reduction sleeves are only intended for PMC holders (all other sleeves not compatible).



Through coolant capabilities and accessories

For tools without coolant channels

– Direct chuck clamping: coolant flows through grooves in chucks' bore, along the tool
– Clamping through reduction sleeve: coolant flows through sleeve slots along the tool
– Chucks delivered with stop end screw: to ensure the best coolant flow, rotate the screw backwards or remove it completely.



For tools with coolant channels

For reliable coolant flow, use a "stop screws for through coolant", available as accessories. Select the suitable screw according to chuck size, or reduction sleeve thanks to the chart shown in the product pages.



Acceptable tool shanks

Shank types	Cylindrical DIN1835-1A DIN6535 HA	Weldon DIN1835-1 B DIN6535 HB	Weldon DIN1835-1 B DIN6535 HB	Whistle & Notch
				
Direct clamping	∅ 20 - 32 mm *∅ 0.750 - 1.260"*	∅ 20 mm *∅ 0.787"*	Do not clamp ∅ 32 mm / *∅ 1.260"*	Do not clamp
Clamping with reduction sleeves	∅ 6 - 25 mm *∅ 0.236 - 0.984"*	∅ 6 - 20 mm *∅ 0.236 - 0.787"*	∅ 25 mm *∅ 10.984"*	∅ 6 - 25 mm *∅ 0.236 - 10.984"*

Tapping chucks with micro-compensation, for synchronized tapping TCER5867

Improves tapping performances during synchronized tapping. The built-in axial micro flexure (+/- 0,5 mm) prevents stress on taps, which may appear from micro-deviation of the synchronism between the spindle rotation, feed and tap pitch. That micro-compensation mechanism offers longer tap life, protects taps against breakage, increases productivity and improves thread quality.



Most important features			
1	Internal coolant through, or through sealing discs in specific nuts up to 80 bar /1160 psi	3	Built-in patented axial micro flexure (+/- 0,5mm) preventing from tap stress
2	Using standard ER Collets with square drives, ER11 (M2-M5), ER20 (M4-M12, ER25 (M8-M20), ER40 (M16-M30), ER50 (M20-M48)	4	Strong body shape, Available as straight shanks with Weldon flats, HSK, DIN, BT and Seco-Capto high rigidity

ER Collets with inner square

The specific ER collets feature an internal driving square at the back to fit the tap's square in order to prevent it from rotating in the collet.

Dedicated clamping size on the nominal diameter.

Collet size	Capacity	Clamping range	Collet size*	Capacity with sealing rings	Clamping range
					
ER 11	∅2,5 to 6 mm ∅ 0.098 to 0.236"	0	ER 16	∅ 3 to 10 mm (steps 0,5 mm) ∅ 0.118 to 0.394" (steps 0.020")	-0,5 mm -0.020"
ER 20	∅ 4 to 12 mm ∅ 0.157 to 0.472"	0	ER 20	∅ 3 to 12 mm (steps 0,5 mm) ∅ 0.118 to 0.472" (steps 0.020")	-0,5 mm -0.020"
ER 25	∅ 4 to 16 mm ∅ 0.0157 to 0.629"	0	ER 25	∅ 3 to 16 mm (steps 0,5 mm) ∅ 0.118 to 0.630" (steps 0.020")	-0,5 mm -0.020"
ER 40	∅ 12 to 22 mm ∅ 0.472 to 0.866"	0	ER 32	∅ 3-20 (steps 0,5 mm) ∅ 0.118 to 0.394" (steps 0.020")	-0,5 mm -0.020"
ER 50	∅ 22 to 36 mm ∅ 0.866 to 1.417"	0			

* ER40 and ER50 on request. ER08 and ER11 not availbale
Note: ER50 collet comes without square (included in the chuck)

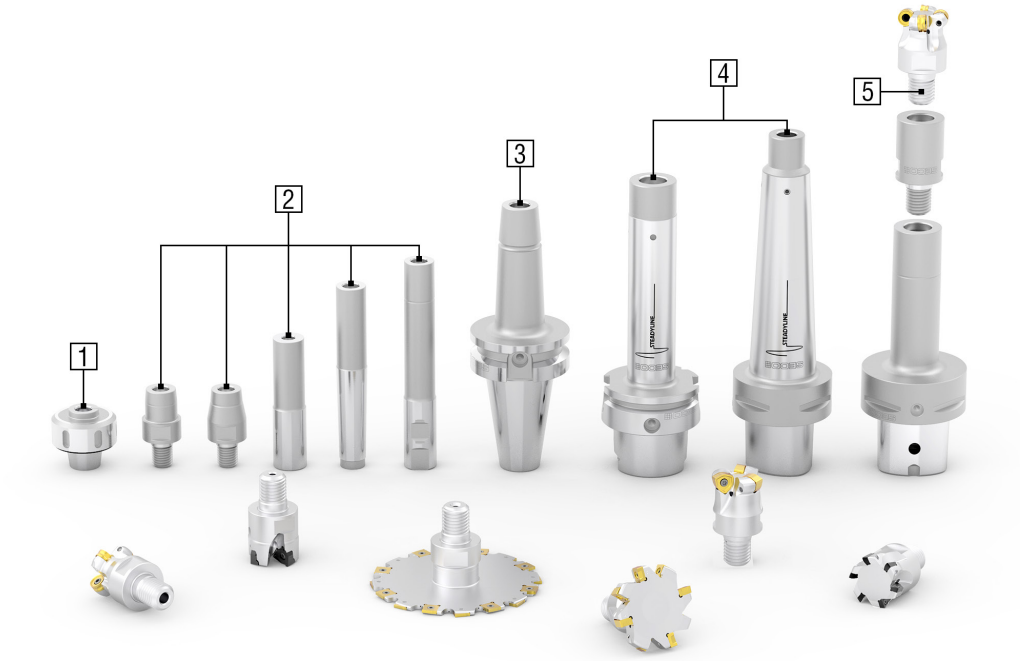
Combimaster – 5820/5821/K820/K821/BE…

Combimaster is a modular milling cutter system with a wide range of shank types, lengths, and interchangeable cutter heads.

With square shoulder and end mills, copy mills, face mills, plunge mills and disc mills included, the system offers maximum flexibility over a wide range of applications. All Combimaster heads and shanks have coolant holes and many of the cutter heads are available in different pitch versions. The range includes the Steadyline vibration damping holders that automatically counteracts and eliminates tool vibration, and an ER collet system for face, disc and side milling operations.

Most important features

1	ER collet system with ball bearing nut, sizes ER25, ER32 and ER40, ideal to use on Multitask rotating turret	4	Steadyline antivibration version for optimium workpiece access, conical shape for highest rigidity (K820) or straight shape for best accessibility (K821) available in several lengths
2	A variety of extensions and reducers allow to build the optimal suited tool for best workpiece accessibility. Includes cylindrical extensions in steel, heavy metal and carbide allowing applications up to 10xD	5	“Screw-in” connection system in different pitches from M6 to M20. Very rigid and precise. Suitable for HSM
3	Optimized designs to improve stability. Exist in conical shape for highest rigidty (5820) or straight forms (5821) for best accessibility, all fine balanced G6,3-20.000	6	All adapters have coolant through facility



Combimaster to shrinkfit DIN holders

A range of DIN 4,5° shrinkfit adapters with M16 Combimaster connection size allow to use round tools like solid end mills with shanks diameter 6, 8, 10 and 12 mm (∅ 0.236”, 0.315”, 0.394” and 0.472”)

Note: when mounted on Steadyline version fine tuning of assembly is recommended-please request.



Milling cutters holders

Seco Tools offers a broad range of shell mill holders based on spigot and tenon drive features according to ISO 3937 or DIN6357. Providing excellent results in rough to fine milling applications, this portfolio includes options for most machine side connections, as well as most workpiece side diameters.



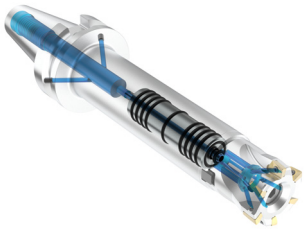
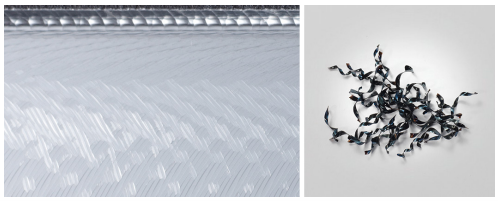
Type	Features	Designs
Type SM…L1 (5525) Holder for tenon driven milling cutters, enlarged bearing face with coolant channels	• Spigot and tenon drive acc. to ISO 3937, with enlarged (>ISO) bearing face for optimized rigidity • Multiple coolant channels through the spigot's face • Diam. 40 mm (1.575") with 4 threaded holes acc. to DIN6357 • Available in standard in Steadyline antivibration version • In case the cutter has no through coolant, use cross head center bolt with coolant channels, available in option • G6.3-20.000 rpm balancing (except CAT, HSK-A125 and Graflex)	
Type SM…F3L1 (5524) Holder for tenon driven milling cutters and disc mills type B, small bearing face with coolant channels	• Spigot and tenon drive acc. to ISO 3937, small bearing face • Suitable for disc mill cutters type B • Multiple coolant channels through the spigot's face • In case the cutter has no through coolant, use cross head center bolt with coolant channels, option available • G6.3-20.000 rpm balancing (except CAT, HSK-A125 and Graflex)	
Type SMF (569) Holder for tenon driven milling cutters, large bearing face	• Spigot and large tenon drive as well as enlarged bearing face acc. to DIN6357/DIN2079 with 4 screws to secure clamping when heavy roughing applications with high torque transmissions • Coolant through the spigot, one central channel • G6.3-20.000 rpm balancing (except CAT, HSK-A125 and Graflex)	
Type DM (5656/5657) Disc mill holder piston type, for disc mills type A	• The disc mill is held by an adjustable sliding shaft arbor equipped with a driving key. The arbor and disc mill are locked using a pulling screw. • Slim workpiece side clamping flange for optimized accessibility • Prebalanced by design	

Steadyline Milling cutter holders

As the use of long overhang tools becomes increasingly popular throughout the manufacturing industry, Seco offers a patented line of Steadyline® damping tools including shell mill holders and Combimaster holders covering a broad range of milling applications from ∅20 (∅0.787") to over ∅160 mm (∅6.299").

The highly rigid and stable Steadyline® system effectively reduces unwanted vibrations in extreme cutting conditions via a "dynamic passive system" inside the holder body where a damping mass counter vibrates against the first flex vibration.

As such, these products can perform typical long overhang operations twice as fast as traditional tools, reduce spindle stress as well as offer high metal-removal rates, smooth part surface finishes and long tool life.

Inside view of a Steadyline Combimaster screw in system equipped with a R217.96-1640.RE-08-3A Square 6 shoulder and slot milling cutter	Inside view of Steadyline Shell mill holder equipped with a R220.69-0040-10-6A Turbo Mill cutter for challenging face milling applications
	
Machined with Steadyline	**Machined with conventional holder, equivalent dimension**
	

Designs	Steadyline Shell mill holder		Steadyline Combimaster	
– Conical-reinforced shape maximizes the rigidity of the holder, to achieve high static and up to three times greater dynamic rigidity than equivalent solid holders	**SM-KM-L1 ("5556 ") conical-reinforced shape** 	– Spigot sizes from ∅16 to 40 mm (∅0.630 to 1.575") – Enlarged bearing face – Multiple coolant channels through the spigot's face – Available in different projections up to 350 mm (∅13.780")	**M…K (K820) conical reinforced shape** 	– Connection sizes from M12 to M20 – Rigid and accurate Screw-in system, enabling to mount a large panel of replaceable milling heads for all kind of applications – Available in different projections
– When the accessibility to the machining area does not allow conical holders, the **cylindrical shape** provides an excellent compromise between strong rigidity and accessibility. This enables machining over 5xD overhang with cutting speeds similar to short assemblies, increasing depth of cut by up to 3 times compared to classic long holders	**SM-K-L1 ("5555") cylindrical shape** 		**M…K (K821) cylindrical shape** 	

Interested in finding out how to overcome tool overhang challenges?

Then we have an great overview of our Steadyline® products, which include cost-effective milling holders as well as turning and boring bars, perform typical long overhang operations twice as fast as traditional tools. Plus, these highly productive vibration-damping solutions offer high metal-removal rates, smooth part surface finishes and long tool life – all while reducing machine tool stress.

You will find out how the very accurate and rigid GL Connection will enable you to exchange in record times the front heads or just get expertise on how to achieve stable conditions with our solutions.

Visit secotools.com for all the latest information, machining data, manufacturing techniques and other developments on Steadyline® products or access our comprehensive Steadyline® brochure directly thru the QR code.

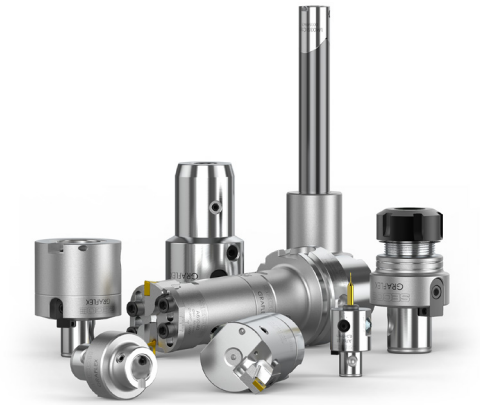


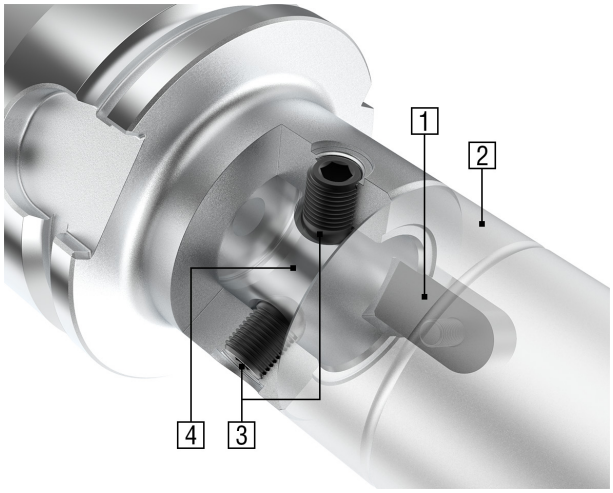
Graflex Modular system

Graflex assemblies include arbors, intermediates, tool holders and boring heads that can be rapidly built together when they are needed.

Suitable for milling, drilling, tapping, reaming and boring, Graflex modules offer tooling of variable lengths and diameters and can be fitted on all types of machines simply by substituting the Graflex basic arbor.

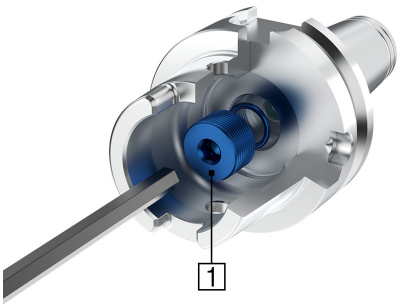
Excellent connection rigidity and precision enables Graflex assemblies to be used in similar machining conditions as the same sized Monobloc holders. The wide range of modules permits tooling dimensions closest to the required machining operation for optimized cutting conditions.

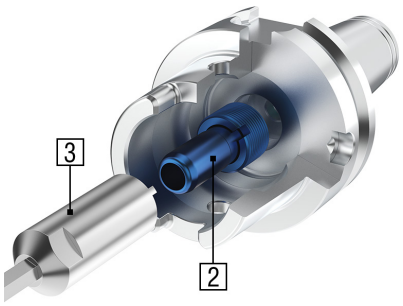




Most important features			
1	The tenon secures the assembly. For operations involving interrupted cuts , the blocking screw on the tenon can be tightened to avoid micro rotational movements	3	Two ball screws, with fine pitched thread , turn radial pressure into axial locking pressure that forces the two faces together. The self-locking features amplifies the interfacial pressure: the harder the cutting forces, the tighter the connection becomes and the higher the rigidity of the assembly Radial access to the ball screw makes it very easy to handle, even directly on the machine
2	Great flexibility: assemblies of variable lengths and diameters can rapidly be built together, when they are needed. Graflex® modules e.g. tool holders and boring heads, as well as cutting tools can be fitted on all types of machines, by the substitution of only the basic Graflex® arbors, available in variety of machine side connections (HSK-A, HSK-E, DIN, BT, CAT, Seco-Capto™ ...). The Graflex® modules are suitable for milling, drilling, tapping, reaming and boring.	4	The long spigot and face connection, combined with tight manufacturing tolerances, offer a strong and very accurate clamping of the assemblies.

WARNING:
Using holders without a coolant tube or a plug fitted, when required by machine tool builder, could cause unseen machine spindle damages.





HSK-A and HSK-E coolant tubes and sealing plugs

1	Sealing plugs are recommended to protect the spindle	**3**	Key need to be ordered separately (see product pages)
2	Coolant tubes are screwed into the backend of the HSK-A and HSK-E holders (HSK-C and F not required) to allow the distribution of the coolant from spindle to tool and protect the spindle and have a +/-1° of angular motion. This degree of freedom is provided to compensate for any misalignment during HSK clamping process		

Pull studs (retention knobs)

The pull stud is the component on which the machine drawbar grabs to pull back the tapered back end of the holder into the spindle.

Mainly designed according to international standards (DIN, BT-JIS ANSI, ISO...), it can also exist in different specific designs (on request). It is important to select the appropriate pull stud to avoid damages to the spindle



Assembly supports, Tool Boy

Provides a safe and efficient tool preparation facility. Can be easily fixed on a workbench. The head can be oriented in 4 indexed positions (horizontal and vertical). Different locking systems designs, depending on the holder's tapers designs (see product pages).

Tool boy is composed by a base unit and an interchangeable head but delivered as a complete unit.



Seco Tools Tooling Systems can offer you all kind of special made rotating tool holders, fine and roughing boring bars as well as Steadyline holders for turning, boring and milling.

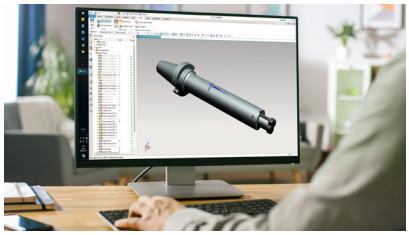
With our long experience, over 60 years in the industry, we have the expertise to design and manufacture your custom-made tools with the highest quality and best performance guarantees.

A Team of Application Engineers can support you to develop the best adapted solutions for your specific needs. Our design Team will provide you with an approval drawing before manufacturing.

And finally, a dedicated workshop, only for custom-made orders, located in France, will produce your solutions within promised lead times.

We have already supplied a large number of winning solutions in the past to customers active in all main industry segments (Aerospace, Automotive, Power generation, General engineering, ...) which helped them to stay competitive, cost-effective, and deliver in time their finished components.

Please contact your Seco representative.





Balancing qualities

At high spindle speeds (rpm) raises a number of dynamic forces which generate vibrations, shortening tool life, lowers quality of the machined surface, and creates machine wear.

Not all holders are dedicated to run at higher rotations, depending also from the back-end types and sizes, it's why at Seco Tooling Systems, we apply a specific balancing strategy based on the commonly accepted industry standard (ISO1940) which express the balancing quality with G grades.

You will find through the product pages (under column "balancing") and through this guide pages, indications about the balancing quality for each of our holders:

– not balanced at all

– PB: pre-balanced holders by design

– G6.3-20.000 rpm

– G2.5-25.000 rpm or U≤ 1 g.mm for all holders dedicated for High Speed Cutting applications

On request, and if feasible, we can fine balance all holders to G2.5.





Holes for RFID carrier

Product pages contain a column 'RFID hole', mentioning if a hole for RFID carrier is available on the tool holders:

RFID hole = 1: the tool holder feature a hole for RFID carrier, according to respective machine side norms.

RFID carriers can be fitted on request, please enquire.

RFID hole = 0: RFID carrier hole not available. Holes for RFID carriers can be machined and RFID carriers fitted on request, please enquire.

Preliminary notice

The maximum indicated RPM is often restricted by the holder's machine side taper type and size.

HP ER Collet chucks (ER HP-5672)

Collet size	Capacity DCBN-DCBX	Recommended tightening torque*	Recommended max rpm
HP ER 11	∅1 - 7 mm *∅ 0.039 - 0.275"*	10 Nm 7.376 ft lb	50.000
HP ER 16R	∅ 1 mm - *∅ 0.039"* ∅ 1,5 - 3,5 mm *∅ 0.059 - 0.138"* ∅ 4 - 10 mm *∅ 0.157 - 0.394"*	10 Nm *7.376 ft lb* 15 - 20 Nm *11.06 - 14.75 ft lb* 25 - 30 Nm *18.44 - 22.13 ft lb*	50.000
HP ER 16	∅ 1 mm - *∅ 0.039"* ∅ 1,5- 3,5 mm *∅ 0.059 - 0.138"* ∅ 4 - 10 mm *∅ 0.157 - 0.394"*	10 Nm *7.376 ft lb* 15 - 20 Nm *11.06 - 14.75 ft lb* 50 - 55 Nm *36.88 - 40.57 ft lb*	60.000
HP ER 25	∅ 2 - 3 mm *∅ 0.079 - 0.118"* ∅ 3,5 - 6,5 mm *∅ 0.138 - 0.256"* ∅ 7 - 10 mm *∅ 0.276 - 0.394"* ∅ 10,5 - 16 mm *∅ 0.413 - 0.630"*	25 - 30 Nm *18.44 - 22.13 ft lb* 35 - 40 Nm *25.81 - 29.50 ft lb* 55 - 60 Nm *40.57 - 44.25 ft lb* 80 - 90 Nm *59.00 - 73.01 ft lb*	42.000
HP ER 32	∅ 2 - 3 mm *∅ 0.079 - 0.118"* ∅ 3,5 - 6,5 mm *∅ 0.138 - 0.256"* ∅ 7 - 15,5 mm *∅ 0.276 - 0.610"* ∅ 16 - 20 mm *∅ 0.630 - 0.787"*	30 - 35 Nm *33.13 - 25.81 ft lb* 55 - 60 Nm *40.57 - 44.25 ft lb* 110 - 120 Nm *81.13 - 88.50 ft lb* 130 - 140 Nm *95.88 - 103.26 ft lb*	30.000

* For nut tightening and releasing, both key types hook and roller (torque spanner and classic spanner) are available as Accessories, see Product Pages
Note: To ensure lowest runout, clamp only cylindrical tool shanks DIN 1835-1 Form A/ DIN 6535 Form HA, shank tol. maxi h10, clamped on nominal diameter. Runout can vary when using axial stop screw.

ER Collet chucks (ER-5675)

Collet size	Capacity DCBN-DCBX	Recommended tightening torque*
ER 16	∅ 0,5 - 10 mm *∅ 0.020 - 0.394"*	60 Nm *44.25 ft lb*
ER 25	∅ 1 - 16 mm *∅ 0.039 - 0.630"*	110 Nm *81.13 ft lb*
ER 32	∅ 2 - 20 mm *∅ 0.079 - 0.787"*	160 Nm *118.00 ft lb*
ER 40	∅ 3 - 26 mm *∅ 0.079 - 0.118"*	180 Nm *132.76 ft lb*

* For nut tightening and releasing, both key types hook and roller (torque spanner and classic spanner) are available as Accessories, see Product Pages
Note: To ensure lowest runout, clamp only cylindrical tool shanks DIN 1835-1 Form A/ DIN 6535 Form HA, shank tol. maxi h10, clamped on nominal diameter. Runout can vary when using axial stop screw.

ER Collet chucks, cylindrical extensions (ER-5450)

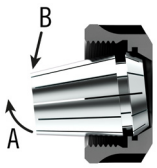
Collet size	Capacity DCBN-DCBX	Recommended tightening torque*
ER 08R	∅ 0,5 - 5 mm *∅ 0.020 - 0.197”*	12 Nm *8.85 ft lb*
ER 11R	∅ 0,5 - 7 mm *∅ 0.020 - 0.276”*	25 Nm *18.44 ft lb*
ER 16R	∅ 0,5 - 10 mm *∅ 0.020 - 0.394”*	35 Nm *25.81 ft lb*
ER 25R	∅ 1 - 16 mm *∅ 0.039 - 0.630”*	45 Nm *33.19 ft lb*
ER 32	∅ 2 - 20 mm *∅ 0.079 - 0.787”*	160 Nm *118.00 ft lb*

* For nut tightening and releasing, both key types hook and roller (torque spanner and classic spanner) are available as Accessories, see Product Pages
Note: To ensure lowest runout, clamp only cylindrical tool shanks DIN 1835-1 Form A/ DIN 6535 Form HA, shank tol. maxi h10, clamped on nominal diameter. Runout can vary when using axial stop screw.

Mounting advice

Collet

- Insert collet into the nut aligned with the mark. Push collet by applying pressure (A) until hearing a « click ».
- Fit the tool and screw the nut onto the tool holder.
- To release the collet, unscrew the nut from the tool holder, apply radial pressure (B).
- Never lock the nut without a tool in place.



Sealing ring

- Insert sealing ring into the nut from the back, until it “clicks” into the nut’s front face. The sealing ring’s marked face should be oriented inside the nut to avoid erosion of the diameter information marking.
- Release by pressure onto the sealing ring’s front face



Shrinkfit holders

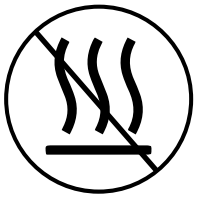
Clamping ∅	Recommended Max RPM**		
	Type DIN (SFD-/SFD…L1-5603/5403)/5402)*	Type reinforced (SFR-5600)	Type Slim M&D (SFS-5801)
3 mm *0.118”*	45.000	–	60.000
4 mm *0.157”*	45.000	–	60.000
5 mm *0.196”*	45.000	–	60.000
6 mm *0.236”*	45.000	45.000	40.000
8 mm *0.315”*	45.000	45.000	40.000
10 mm *0.394”*	40.000	40.000	40.000
12 mm *0.472”*	40.000	40.000	40.000
14 mm *0.551”*	38.000	–	40.000
16 mm *0.630”*	38.000	38.000	40.000
18 mm *0.708”*	35.000	–	–
20 mm *0.787”*	35.000	35.000	–
25 mm *0.984”*	32.000	30.000	–
32 mm *1.260”*	30.000	25.000	–

* Tool shanks
– Type: Cylindrical DIN 1835-1 Form A/ DIN 6535 Form HA
– Tolerances: ∅ 3 to 5 mm (∅ 0.118” to 0.197”) maximum h5, tool shank must be carbide or heavy metal (e.g. Densimet). ∅ 6 to 32 mm (∅ 0.236” to 1.260”) maximum h6, tool shank can be steel, HSS, carbide or heavy metal. Using h5 for ∅ 6 to 32 mm (∅ 0.236” to 1.260”) provides a safer minimum clamping torque. Make sure the minimum shrinking depth LSC shown in the Product pages for each holder is followed when fitting the tool shank into the holder.
** For Shrink fit holders equipped with MQL1: maxi 16.000 rpm.
***Heat resistance: maximum acceptable temperature: 400°C

Kit of balancing screws for Shrinkfit holders (all except Slim types)

These kits contain screws of different sizes, to be mounted into the balancing threaded holes of all shrinkfit holders except the slim version. The screws will allow to fine tune the balancing quality of the assemblies holder+tool on a suitable balancing machine. The screws must be inserted until stop in the threaded holes with a torque of 1 Nm (0.736 ft lb).





Hydraulic chucks are not Shrinkfit chucks: don't heat them!

Hydraulic expansion chucks (HC-5834)

Clamping ∅	Max rpm (min $^{-1}$)				Minimum clamping depth	
	Standard design HC		Reinforced design HCR	Slim design 3° HCS		
	HSK-A, DIN, BT, BT T/F, CAT	Seco-Capto, Graflex, CAT T/F	All	All	Standard HC and Reinforced HCR in HSK-A, DIN, BT, BT T/F, CAT, Seco-Capto, Graflex	Standard HC in CAT-T/F, and all slim HCS 3°
6 mm *0.236"*	50.000	40.000		40.000	27 mm *1.063"*	27 mm *1.063"*
8 mm *0.315"*	50.000	40.000		40.000	27 mm *1.063"*	27 mm *1.063"*
10 mm *0.394"*	50.000	40.000		40.000	31 mm *1.220"*	32 mm *1.260"*
12 mm *0.472"*	50.000	40.000	50.000	40.000	36 mm *1.417"*	37 mm *1.457"*
14 mm *0.551"*	50.000	40.000		40.000	36 mm *1.417"*	37 mm *1.457"*
16 mm *0.630"*	50.000	40.000		40.000	39 mm *1.535"*	42 mm *1.654"*
20 mm *0.787"*	50.000	40.000	50.000	40.000	41 mm *1.614"*	42 mm *1.654"*
25 mm *0.984"*	25.000	25.000		25.000	47 mm *1.850"*	48 mm *1.890"*
32 mm *1.260"*	25.000	25.000	25.000	25.000	51 mm *2.000"*	55 mm *2.165"*

– Operating temperature: 20-50°C
– Max. coolant pressure: 80 bar/1160 psi, Seco-Capto and Graflex: 70 bar/1015 psi
– Adjustment range of the length: 10 mm. Tool must be inserted at recommended minimum clamping length (see chart)
– Tool shank quality: h6 or better
– Adapt your parameters in case of long tools, heavy tools, and when using extensions
– HC Straight shanks limited to maxi 10.000 rpm

Tapping chucks with micro-compensation (TCER-5867)

Tapping chuck size	Recommended tightening torque
ER 11	30 Nm *22.13 ft lb*
ER 20	100 Nm *73.76 ft lb*
ER 25	130 Nm *95.88 ft lb*
ER 40	220 Nm *163.26 ft lb*
ER 50	260 Nm *191.77 ft lb*

– For nut tightening and releasing, both spanner types: hook and roller (torque spanner and classic spanner) are available as Accessories, see Product Pages and detailed description of the roller spanners in chapter Operating & setting accessories.

NC Drill chucks (UDC-5085)

Capacity ∅	Minimum transmissible torque	Maximum tightening torque
∅ 1 - 13 mm *∅ 0.039 - 0.512”*	80 Nm *59.00 ft lb*	10 - 15 Nm *7.37 - 11.06 ft lb*
∅ 2,5 - 16 mm *∅ 0.098 - 0.630”*	120 Nm *88.51 ft lb*	10 - 15 Nm *7.37 - 11.06 ft lb*

Combimaster (M-5820/5821/5822)

Combimaster connection size	Tightening torque	Tightening key size SW
M6	10 Nm *7.38 ft lb*	9 mm *0.354”*
M8	25 Nm *18.44 ft lb*	11 mm *0.433”*
M10	40 Nm *29.50 ft lb*	15 mm *0.590”*
M12	60 Nm *44.25 ft lb*	19 mm *0.748”*
M16	80 Nm *59.00 ft lb*	26 mm *1.023”*
M20	120 Nm *88.51 ft lb*	32 mm *1.260”*

Recommendations of use for Combimaster extensions in Heavy Metal and Carbide:
– Heavy Metal and Carbide extensions are recommended for long overhangs
– Heavy Metal provides a high modulus of rigidity, but is sensitive to bending. Carbide is very rigid but brittle, thus sensitive to shocks. Only to use for finishing operations with small ap and ae
– Use Combimaster cutters with fewer inserts to reduce vibrations
– Select inserts with light geometries, with small edge rounding and preferably with PVD coating
– High feed is a perfect solution in correlation for long applications
– Ensure a very good chips evacuations

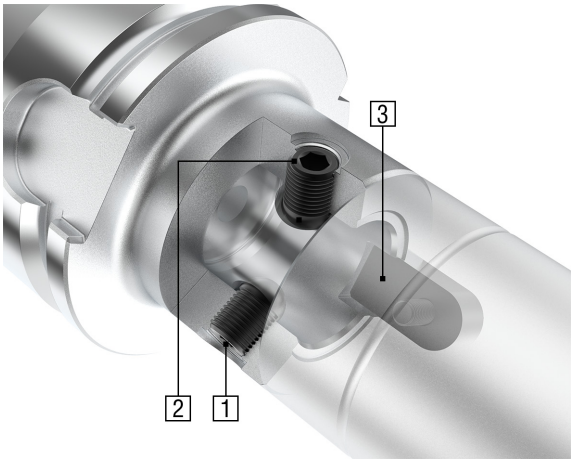
ER to Combimaster arbors

ER Collet size	Combimaster coonection size	ER Nut tightening torque	Combimaster tool tightening torque
ER 25	M8 M10 M12	60 Nm *44.25 ft lb*	25 Nm - *18.44 ft lb* 40 Nm - *29.50 ft lb* 60 Nm - *44.25 ft lb*
ER 32	M10 M12 M16	90 Nm *66.38 ft lb*	40 Nm - *29.50 ft lb* 60 Nm - *44.25 ft lb* 80 Nm - *59.00 ft lb*
ER 40	M12 M16 M20	120 Nm *88.50 ft lb*	60 Nm - *44.25 ft lb* 80 Nm - *59.00 ft lb* 120 Nm - *88.50 ft lb*

Seco-Capto

Seco-Capto sizes	Center Bolt tightening torque	Cam tightening torque for receivers with segment clamping
C3	40 - 50 Nm *29.50 - 36.88 ft lb*	35 Nm *25.81 ft lb*
C4	50 - 60 Nm *36.88 - 44.25 ft lb*	50 Nm *36.88 ft lb*
C5	90 - 100 Nm *66.38 - 73.76 ft lb*	70 Nm *51.69 ft lb*
C6	160 - 180 Nm *118.00 - 132.76 ft lb*	90 Nm *66.38 ft lb*
C8	160 - 180 Nm *118.00 - 132.76 ft lb*	130 Nm *95.88 ft lb*

Graflex Modular System



Case 1: normal cuts

– Clean properly the pieces to be assembled
– Lightly tighten screw #1 until it makes contact
– Lightly tighten screw #2 until it makes contact
– Torque screw #1 (low values= light cutting; High values= heavy duty cutting)
– Torque screw #2 (low values= light cutting; High values= heavy duty cutting)

Case 2: intermittent cuts

– Tighten key with radial screw #3, before final tightening of screw #1 and #2

Graflex Modular System

Graflex size	Gralex screws 1 and 2 Low – High	Tenon blocking screw 3
G0	1,5 - 2 Nm *1.106 - 1.47 ft lb*	–
G1	1,5 - 2 Nm *1.106 - 1.47 ft lb*	–
G2	2,5 - 4 Nm *1.844 - 2.95 ft lb*	–
G3	5 - 8 Nm *3.69 - 5.90 ft lb*	0,4 Nm *0.29 ft lb*
G4	13 - 20 Nm *9.59 - 14.75 ft lb*	0,7 Nm *0.52 ft lb*
G5	17 - 25 Nm *12.54 - 18.44 ft lb*	2 Nm *1.47 ft lb*
G6	23 - 35 Nm *16.97 - 25.81 ft lb*	4 Nm *2.95 ft lb*
G7	40 - 60 Nm *29.50 - 44.25 ft lb*	8 Nm *5.9 ft lb*

Sealing screws and sealing dowels

Tool holders with steep tapers (DIN, BT, CAT) featuring ADB coolant holes, are equipped with two removable sealing screws or sealing dowels mounted into the flange.

Sealing screws Part No 950A0406 for taper size 40 and Part No 950A0606 for taper size 50 (reusable)

- To use the coolant channels through the flange (Form B type), remove the sealing screws / Dowel, and utilize a sealed pull stud
- To use coolant through the center (Form AD type), be sure the plugs are mounted in the flanges, and utilize a pull stud with a drilled coolant channel
- To mount the sealing screws: clean, apply some sealing paste onto the thread (recommended: Loctite 577); screw the sealing screw until its back face is flush with holder's flange; It is recommended to wait 24 hours to reach the maximum sealing resistance (100 bar)



Sealing dowels Part No 564301701 for taper size 40 and Part No 564301702 for taper size 50 (single use only !)

1.1
The holders are delivered from stock with plugged B coolant channels (ready for central coolant form AD) with two plastic dowels

Dismounting:
2.1
To allow coolant through the flange (Form B type), remove the dowel locking screw with a hex key 1,5 mm
2.2
Mount two hexagon socket head screws M3 by screwing it 1,5 to 2 turns into the plastic body 2.3-With pliers, pull out the screw and the plastic body together
2.3
With pliers, pull out the screw and the plastic body together

Mounting:
3.1
Sealing dowels, available as spare parts are for single use only.
3.2
Introduce the two new sealing dowel's plastic bodies, without screw, completely into the two through coolant channels by using an assembly tool, the dowels must not stand out of the flange.
3.3
Tighten the two dowels completely with a size 1,5 mm hex key.

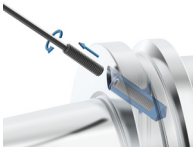


Fig. 2.1

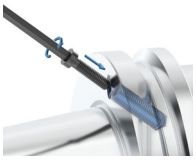


Fig. 2.2



Fig. 2.3

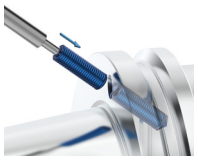


Fig. 3.2

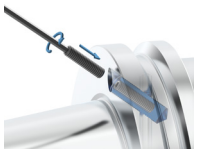


Fig. 3.3

Safety

- Always select the best appropriate tool holder type in accordance with your machining application, and tool shank design (see advices in the technical guide)
- Tool must be inserted all the way and securely clamped into or onto the tool holder, using appropriate means (like torque wrenches when clamping torque is recommended). In any case don't over torque, or do not overheat when using a shrink fit heating device.
- Use a Toolboy fixture strongly bolted on a workbench to handle tool assembling/disassembling in safe conditions
- Carefully follow the instructions when delivered along with the products. Special care is requested for the use of the Easyshrink EVO and the Steadyline antivibration holders.
- Use gloves to protect hands and wear protective foot wear. Direct touch of sharp cutting edges may cause injuries
- Handle and carry heavy assemblies with appropriate lifting equipment's
- Make sure to never exceed the maximum cutting conditions recommended for the tool and/or the tool holder
- Do not touch the tool or tool holders when rotating on the machine



Maintenance

- Check on a regular basis the machine spindle's pulling power
- Thoroughly clean all parts (tool holder inner bore and taper, tool shank, spindle,...) before and after use to guarantee best performance.
- Dismount your assemblies periodically to clean and oil them
- Store the holders in a clean and dry place; spray a fine layer of oil to prevent corrosion
- Look for wear on the taper (fretting corrosion) and bores, as well as on the accessories like collets, pull studs,... replace them whenever needed. Make sure the tool shank is undamaged before insertion
- We can offer maintenance/repair services for all our Hydro chucks, please send a request. Never remove the pressurizing screw or the air-release screw



Recycling

- Recycling of our products, when they have come to the end of their useful life, must be done following the local regulations and legislations. Preferably dismantle products to sort out parts of the tool holders according to material type: ferrous materials (steel), nonferrous materials, plastics, others.
- Most of the products are delivered in paper card or plastic boxes which can be recycled accordingly to local regulations and legislations
- Some products are wrapped in anti-corrosion protection papers which can be treated like brown/craft paper according to local regulations and legislations.
- Products which are wrapped in oily plastic bags can be considered as Industrial hazardous waste to be treated according to local regulations and legislations.



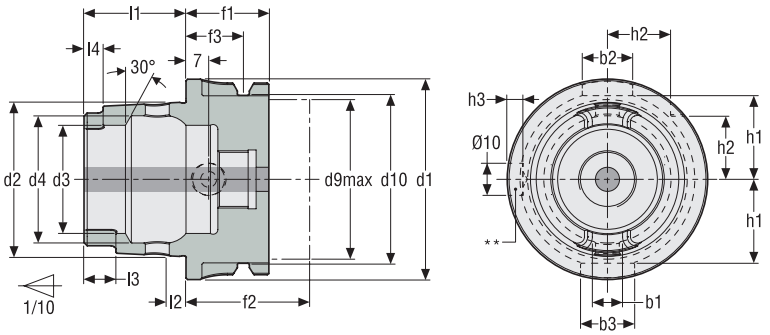


HSK-A

Seco allows you to get the most out of both your machine and tools by offering a comprehensive range of tool holders to connect them. **HSK-A** is a lighter weight tool compared to ISO-tapers and offers high consistency in terms of radial and axial accuracy. The range covers all standard workpiece side connections, as well Seco's unique connections.

- Steadyline, vibration damping shell mill holders
- Shell mill holders, with through coolant channels
- Milling cutter holders, flange mounting
- Disc mill holders
- Side lock holders, Weldon
- Shrinkfit holders
- High precision collet chucks
- Hydraulic chucks and Power milling chucks
- ER collet chucks
- Drill chucks and Tapping chucks
- Greenstock blanks and Control bars

ISO 12164-1-HSK-A



Machine side catalogue designation	Hole for RFID carrier**	d_1	d_2	d_9 max	d_3	d_{10}	d_4	f_1	f_2	f_3	l_1	l_2	l_3	l_4	b_1	b_2	b_3	h_1	h_2	$h_3^{+0,2}$
		mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*
HSK-A32	**	32 *1.260*	24 *0.945*	26 *1.024*	17 *0.669*	26,5 *1.043*	20,5 *0.807*	20 *0.787*	35 *1.378*	16 *0.630*	16 *0.630*	3,2 *0.126*	5 *0.197*	3 *0.118*	7,05 *0.278*	7 *0.276*	9 *0.354*	13 *0.512*	9,5 *0.374*	5,4 *0.213*
HSK-A100	**	100 *3.937*	75 *2.953*	88 *3.465*	53 *2.087*	92 *3.622*	63 *2.480*	29 *1.142*	45 *1.772*	20 *0.787*	50 *1.969*	10 *0.394*	15 *0.591*	10 *0.394*	20,02 *0.788*	20 *0.787*	22 *0.866*	44 *1.732*	31,5 *1.240*	4,9 *0.193*
HSK-A125	**	125 *4.921*	95 *3.740*	111 *4.370*	67 *2.638*	117 *4.606*	80 *3.150*	29 *1.142*	45 *1.772*	20 *0.787*	63 *2.480*	12,5 *0.492*	19 *0.748*	12 *0.472*	25,02 *0.985*	25 *0.984*	28 *1.102*	55,5 *2.185*	31,5 *1.240*	4,8 *0.189*
HSK-A40	**	40 *1.575*	30 *1.181*	34 *1.339*	21 *0.827*	34,8 *1.370*	25,5 *1.004*	20 *0.787*	35 *1.378*	16 *0.630*	20 *0.787*	4 *0.157*	6 *0.236*	3,5 *0.138*	8,05 *0.317*	9 *0.354*	11 *0.433*	17 *0.669*	12 *0.472*	5,2 *0.205*
HSK-A50	**	50 *1.969*	38 *1.496*	42 *1.654*	26 *1.024*	43 *1.693*	32 *1.260*	26 *1.024*	42 *1.654*	18 *0.709*	25 *0.984*	5 *0.197*	7,5 *0.295*	4,5 *0.177*	10,54 *0.415*	12 *0.472*	14 *0.551*	231 *9.094*	15,5 *0.610*	5,1 *0.201*
HSK-A63	**	63 *2.480*	48 *1.890*	53 *2.087*	34 *1.339*	55 *2.165*	40 *1.575*	26 *1.024*	42 *1.654*	18 *0.709*	32 *1.260*	6,3 *0.248*	10 *0.394*	6 *0.236*	12,54 *0.494*	16 *0.630*	18 *0.709*	26,5 *1.043*	20 *0.787*	5 *0.197*
HSK-A80	**	80 *3.150*	60 *2.362*	67 *2.638*	42 *1.654*	70 *2.756*	50 *1.969*	26 *1.024*	42 *1.654*	18 *0.709*	40 *1.575*	8 *0.315*	12 *0.472*	8 *0.315*	16,04 *0.631*	18 *0.709*	20 *0.787*	34 *1.339*	25 *0.984*	4,9 *0.193*

Seco's holders HSK-A have a radial hole through the taper for manual clamping, compatible with HSK-C.

Note: These machine side dimensions are applied to all the holders shown in the Product pages.

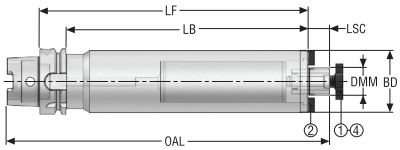
** In order to know if a hole for RFID carrier exists, see 'RFID hole' column in Product pages:
1= hole for RFID carrier available, if required a carrier can be fitted on request, please enquire.
0= hole for RFID carrier not available, if required hole can be machined and a carrier can be fitted on request, please enquire.

Steadyline®, vibration damping – Metric / *Inch*

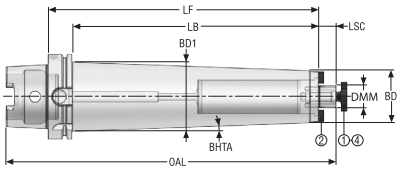
HSK-A/ ISO12164-1-HSK-A



Design 1 (5555)



Design 2 (5556)



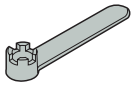
- DMM 40 mm / *1.575"*, includes 4 threaded holes for M12 screws on the bearing face ∅66,7 mm / *2.626"* according to DIN 6357
- For HSK sealing plugs, coolant tubes and tube spanners, see page(s) 383
- For ISO attribute explanation, see page 14

Accessories:
4 = Bolt, through coolant

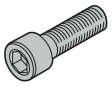
Spare parts:
1 = Bolt
2 = Tenon/Screw

Designation	Item number	CTMS	DMM	LF	BD	BD1	OAL	LB	LSC	Design	BHTA°	RFID hole	Balancing	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*					kg *lbs*
E9304555516160	02706254	HSK-A63	16,0 *0.630*	160,0 *6.299*	38,0 *1.496*	38,0 *1.496*	209,0 *8.228*	134,0 *5.276*	17,0 *0.669*	1	–	1	PB	2,4 *5.290*
E9304555522210	02675615	HSK-A63	22,0 *0.866*	210,0 *8.268*	48,0 *1.890*	48,0 *1.890*	261,0 *10.276*	184,0 *7.244*	19,0 *0.748*	1	–	1	PB	3,54 *7.800*
E9304555622260	02675617	HSK-A63	22,0 *0.866*	260,0 *10.236*	48,0 *1.890*	63,925 *2.517*	311,0 *12.244*	234,0 *9.213*	19,0 *0.748*	2	1,8	1	PB	5,38 *11.860*
E9304555527260	02675619	HSK-A63	27,0 *1.063*	260,0 *10.236*	60,0 *2.362*	60,0 *2.362*	313,0 *12.323*	234,0 *9.213*	21,0 *0.827*	1	–	1	PB	6,56 *14.460*
E9306555522210	02675620	HSK-A100	22,0 *0.866*	210,0 *8.268*	48,0 *1.890*	48,0 *1.890*	279,0 *10.984*	181,0 *7.126*	19,0 *0.748*	1	–	1	PB	4,8 *10.580*
E9306555622260	02675621	HSK-A100	22,0 *0.866*	260,0 *10.236*	48,0 *1.890*	65,0 *2.559*	329,0 *12.953*	231,0 *9.094*	19,0 *0.748*	2	2,0	1	PB	6,78 *14.950*
E9306555527260	02670609	HSK-A100	27,0 *1.063*	260,0 *10.236*	60,0 *2.362*	60,0 *2.362*	331,0 *13.031*	231,0 *9.094*	21,0 *0.827*	1	–	1	PB	7,92 *17.460*
E9306555627320	02670605	HSK-A100	27,0 *1.063*	320,0 *12.598*	60,0 *2.362*	82,0 *3.228*	391,0 *15.394*	291,0 *11.457*	21,0 *0.827*	2	2,0	1	PB	11,86 *26.150*
E9306555532330	02706255	HSK-A100	32,0 *1.260*	330,0 *12.992*	78,0 *3.071*	78,0 *3.071*	404,0 *15.906*	301,0 *11.850*	24,0 *0.945*	1	–	1	PB	14,42 *31.790*
E9306555540350	02753468	HSK-A100	40,0 *1.575*	350,0 *13.780*	89,0 *3.504*	89,0 *3.504*	427,0 *16.811*	321,0 *12.638*	27,0 *1.063*	1	–	1	PB	19,4 *42.770*
HSKA125-SM27-260-KL1	03229663	HSK-A125	27,0 *1.063*	260,0 *10.236*	60,0 *2.362*	60,0 *2.362*	344,0 *13.543*	231,0 *9.094*	21,0 *0.827*	1	–	1	PB	9,2 *20.280*
HSKA125-SM40-350-KL1	03229664	HSK-A125	40,0 *1.575*	350,0 *13.780*	89,0 *3.504*	89,0 *3.504*	440,0 *17.323*	321,0 *12.638*	27,0 *1.063*	1	–	1	PB	20,9 *46.080*

Accessories

For DMM	Bolt, through coolant	Spanner
		
16 / *0.630*	5801608L	5811608
22 / *0.866*	5802210L	5812210
27 / *1.063*	5802712L	5812712
32 / *1.260*	5803216L	5813216
40 / *1.575*	5804020L	5814020

Spare Parts, included in delivery

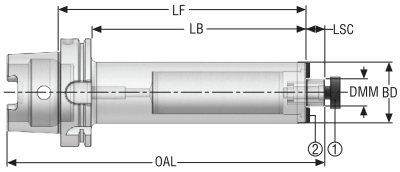
For DMM	Bolt	Screw	Tenon
			
16 / *0.630*	5801608	950D0312	16C2080810A
22 / *0.866*	5802210	950D0416	16C2101111
27 / *1.063*	5802712	950D0516	16C2121214A
32 / *1.260*	5803216	950D0516	16C2141421A
40 / *1.575*	5804020	950D0616	16C2161621A

Steadyline®, vibration damping – Inch

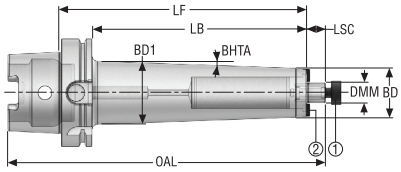
HSK-A/ ISO12164-1-HSK-A



Design 1 (5555)



Design 2 (5556)

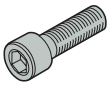


- For HSK sealing plugs, coolant tubes and tube spanners, see page(s) 383
- For ISO attribute explanation, see page 14

Spare parts:
1 = Bolt
2 = Tenon/Screw

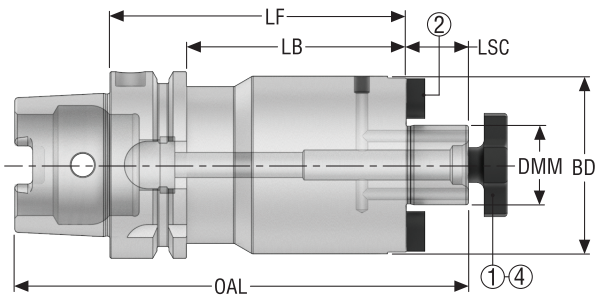
Designation	Item number	CTMS	DMM	LF	BD	BD1	OAL	LB	LSC	Design	BHTA°	RFID hole	Balancing	Weight
			inch	inch	inch	inch	inch	inch	inch					lbs
E93045555075750	02689502	HSK-A63	0.750	7.500	1.750	1.750	9.449	6.476	0.689	1	–	1	PB	6.610
E93065555075750	02689508	HSK-A100	0.750	7.500	1.750	1.750	10.157	6.358	0.689	1	–	1	PB	9.480
E93065556075900	02689510	HSK-A100	0.750	9.000	1.750	2.336	11.657	7.858	0.689	2	2,0	1	PB	12.570
E93065555100900	02689511	HSK-A100	1.000	9.000	2.250	2.250	11.657	7.858	0.689	1	–	1	PB	14.990

Spare Parts, included in delivery

For DMM	Bolt	Screw	Tenon
			
0.750	58211905	950D0312	16C2080712A
1.000	58212540	950D0416	16C2091014A

HSK-A/ ISO12164-1-HSK-A

With through coolant channels – ISO 3937 – Metric / *Inch*





Accessories:
4 = Bolt, through coolant

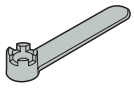
Spare parts:
1 = Bolt
2 = Tenon/Screw

- DMM 40 mm / *1.575"*, includes 4 threaded holes for M12 screws on the bearing face ∅66,7 mm / *2.626"* according to DIN 6357
- For HSK sealing plugs, coolant tubes and tube spanners, see page(s) 383
- For ISO attribute explanation, see page 14

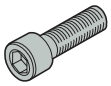
Designation	Item number	CTMS	DMM	LF	BD	OAL	LB	LSC	RFID hole	Balancing	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*			kg *lbs*
HSKA63-SM16-050-L1	03301550	HSK-A63	16,0 *0.630*	50,0 *1.969*	38,0 *1.496*	99,0 *3.898*	24,0 *0.945*	17,0 *0.669*	1	G6.3	0,9 *1.980*
HSKA63-SM16-100-L1	03301551	HSK-A63	16,0 *0.630*	100,0 *3.937*	38,0 *1.496*	148,0 *5.827*	74,0 *2.913*	17,0 *0.669*	1	G6.3	1,4 *3.090*
HSKA63-SM16-145-L1	03301552	HSK-A63	16,0 *0.630*	145,0 *5.709*	38,0 *1.496*	194,0 *7.638*	119,0 *4.685*	17,0 *0.669*	1	G6.3	1,8 *3.970*
HSKA63-SM22-050-L1	03301556	HSK-A63	22,0 *0.866*	50,0 *1.969*	48,0 *1.890*	101,0 *3.976*	24,0 *0.945*	19,0 *0.748*	1	G6.3	1,1 *2.430*
HSKA63-SM22-100-L1	03301557	HSK-A63	22,0 *0.866*	100,0 *3.937*	48,0 *1.890*	151,0 *5.945*	74,0 *2.913*	19,0 *0.748*	1	G6.3	1,8 *3.970*
HSKA63-SM22-160-L1	03301558	HSK-A63	22,0 *0.866*	160,0 *6.299*	48,0 *1.890*	211,0 *8.307*	134,0 *5.276*	19,0 *0.748*	1	G6.3	2,6 *5.730*
HSKA63-SM27-060-L1	03301563	HSK-A63	27,0 *1.063*	60,0 *2.362*	60,0 *2.362*	113,0 *4.449*	34,0 *1.339*	21,0 *0.827*	1	G6.3	1,5 *3.310*
HSKA63-SM27-100-L1	03301564	HSK-A63	27,0 *1.063*	100,0 *3.937*	60,0 *2.362*	153,0 *6.024*	74,0 *2.913*	21,0 *0.827*	1	G6.3	2,3 *5.070*
HSKA63-SM27-160-L1	03301565	HSK-A63	27,0 *1.063*	160,0 *6.299*	60,0 *2.362*	213,0 *8.386*	134,0 *5.276*	21,0 *0.827*	1	G6.3	3,1 *6.830*
HSKA63-SM32-060-L1	03301568	HSK-A63	32,0 *1.260*	60,0 *2.362*	78,0 *3.071*	116,0 *4.567*	34,0 *1.339*	24,0 *0.945*	1	G6.3	1,8 *3.970*
HSKA63-SM32-100-L1	03301569	HSK-A63	32,0 *1.260*	100,0 *3.937*	78,0 *3.071*	156,0 *6.142*	74,0 *2.913*	24,0 *0.945*	1	G6.3	3,1 *6.830*
HSKA63-SM40-060-L1	03301571	HSK-A63	40,0 *1.575*	60,0 *2.362*	89,0 *3.504*	119,0 *4.685*	34,0 *1.339*	27,0 *1.063*	1	G6.3	2,1 *4.630*
HSKA100-SM16-100-L1	03301572	HSK-A100	16,0 *0.630*	100,0 *3.937*	38,0 *1.496*	167,0 *6.575*	71,0 *2.795*	17,0 *0.669*	1	G6.3	2,7 *5.950*
HSKA100-SM22-050-L1	03301576	HSK-A100	22,0 *0.866*	50,0 *1.969*	48,0 *1.890*	119,0 *4.685*	21,0 *0.827*	19,0 *0.748*	1	G6.3	2,4 *5.290*
HSKA100-SM22-100-L1	03301577	HSK-A100	22,0 *0.866*	100,0 *3.937*	48,0 *1.890*	169,0 *6.654*	71,0 *2.795*	19,0 *0.748*	1	G6.3	3,1 *6.830*
HSKA100-SM22-160-L1	03301578	HSK-A100	22,0 *0.866*	160,0 *6.299*	48,0 *1.890*	229,0 *9.016*	131,0 *5.157*	19,0 *0.748*	1	G6.3	4,0 *8.820*
HSKA100-SM27-050-L1	03301583	HSK-A100	27,0 *1.063*	50,0 *1.969*	60,0 *2.362*	121,0 *4.764*	21,0 *0.827*	21,0 *0.827*	1	G6.3	2,6 *5.730*
HSKA100-SM27-100-L1	03301584	HSK-A100	27,0 *1.063*	100,0 *3.937*	60,0 *2.362*	171,0 *6.732*	71,0 *2.795*	21,0 *0.827*	1	G6.3	3,7 *8.160*
HSKA100-SM27-160-L1	03301585	HSK-A100	27,0 *1.063*	160,0 *6.299*	60,0 *2.362*	231,0 *9.094*	131,0 *5.157*	21,0 *0.827*	1	G6.3	5,0 *11.020*
HSKA100-SM32-050-L1	03301589	HSK-A100	32,0 *1.260*	50,0 *1.969*	78,0 *3.071*	124,0 *4.882*	21,0 *0.827*	24,0 *0.945*	1	G6.3	3,0 *6.610*

Designation	Item number	CTMS	DMM	LF	BD	OAL	LB	LSC	RFID hole	Balancing	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*			kg *lbs*
HSKA100-SM32-100-L1	03301590	HSK-A100	32,0 *1.260*	100,0 *3.937*	78,0 *3.071*	174,0 *6.850*	71,0 *2.795*	24,0 *0.945*	1	G6.3	4,8 *10.580*
HSKA100-SM32-160-L1	03301591	HSK-A100	32,0 *1.260*	160,0 *6.299*	78,0 *3.071*	234,0 *9.213*	131,0 *5.157*	24,0 *0.945*	1	G6.3	7,1 *15.650*
HSKA100-SM40-060-L1	03301595	HSK-A100	40,0 *1.575*	60,0 *2.362*	89,0 *3.504*	137,0 *5.394*	31,0 *1.220*	27,0 *1.063*	1	G6.3	3,7 *8.160*
HSKA100-SM40-100-L1	03301596	HSK-A100	40,0 *1.575*	100,0 *3.937*	89,0 *3.504*	177,5 *6.988*	71,0 *2.795*	27,0 *1.063*	1	G6.3	5,6 *12.350*
HSKA100-SM40-160-L1	03301597	HSK-A100	40,0 *1.575*	160,0 *6.299*	89,0 *3.504*	237,0 *9.331*	131,0 *5.157*	27,0 *1.063*	1	G6.3	8,5 *18.740*
HSKA125-SM22-100-L1	03229672	HSK-A125	22,0 *0.866*	100,0 *3.937*	48,0 *1.890*	182,0 *7.165*	71,0 *2.795*	19,0 *0.748*	1	PB	4,4 *9.700*
HSKA125-SM27-100-L1	03229673	HSK-A125	27,0 *1.063*	100,0 *3.937*	60,0 *2.362*	184,0 *7.244*	71,0 *2.795*	21,0 *0.827*	1	PB	5,0 *11.020*
HSKA125-SM32-100-L1	03229674	HSK-A125	32,0 *1.260*	100,0 *3.937*	78,0 *3.071*	187,0 *7.362*	71,0 *2.795*	24,0 *0.945*	1	PB	6,1 *13.450*
HSKA125-SM40-100-L1	03229675	HSK-A125	40,0 *1.575*	100,0 *3.937*	89,0 *3.504*	190,0 *7.480*	71,0 *2.795*	27,0 *1.063*	1	PB	6,1 *13.450*

Accessories

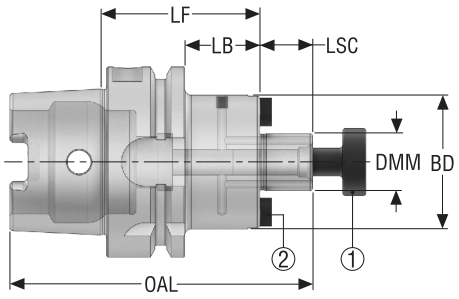
For Taper/ DMM	Bolt, through coolant	Spanner
		
A63-A100/ 16/ *0.630*	5801608L	5811608
A63-A100/ 22/ *0.866*	5802210L	5812210
A63-A100/ 27/ *1.063*	5802712L	5812712
A63-A100/ 32/ *1.260*	5803216L	5813216
A63-A100/ 40/ *1.575*	5804020L	5814020
A125/ 22/ *0.866*	5802210L	5812210
A125/ 27/ *1.063*	5802712L	5812712
A125/ 32/ *1.260*	5803216L	5813216
A125/ 40/ *1.575*	5804020L	5814020

Spare Parts, included in delivery

For Taper/ DMM	Bolt	Screw	Tenon
			
A63-A100/ 16/ *0.630*	5801608	950D0312	16C716A
A63-A100/ 22/ *0.866*	5802210	950D0416	16C722A
A63-A100/ 27/ *1.063*	5802712	951D0512	16C727A
A63-A100/ 32/ *1.260*	5803216	951D0616	16C732A
A63-A100/ 40/ *1.575*	5804020	951D0616	16C740A
A125/ 22/ *0.866*	5802210	950D0414	16C11012206
A125/ 27/ *1.063*	5802712	950D0516	16C11214243
A125/ 32/ *1.260*	5803216	950D0516	16C2141421
A125/ 40/ *1.575*	5804020	950D0616	16C2161621

HSK-A/ ISO12164-1-HSK-A

With through coolant channels – ISO 3937 – Inch



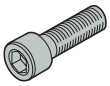


Spare parts:
1 = Bolt
2 = Tenon/Screw

- For HSK sealing plugs, coolant tubes and tube spanners, see page(s) 383
- For ISO attribute explanation, see page 14

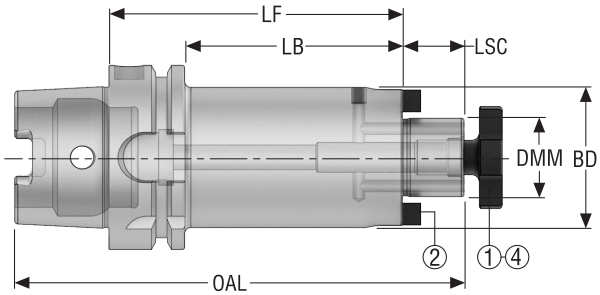
Designation	Item number	CTMS	DMM	LF	BD	OAL	LB	LSC	RFID hole	Balan-cing	Weight
			inch	inch	inch	inch	inch	inch			lbs
HSKA63-SM0.750-2.000-L1	03301669	HSK-A63	0.750	2.000	1.750	3.948	0.976	0.688	1	G6.3	2.200
HSKA63-SM0.750-3.000-L1	03301670	HSK-A63	0.750	3.000	1.750	4.948	1.976	0.688	1	G6.3	2.870
HSKA63-SM1.000-2.370-L1	03301671	HSK-A63	1.000	2.370	2.250	4.318	1.346	0.688	1	G6.3	3.090
HSKA63-SM1.250-2.370-L1	03301672	HSK-A63	1.250	2.370	2.750	4.318	1.346	0.688	1	G6.3	3.750
HSKA63-SM1.500-2.370-L1	03301673	HSK-A63	1.500	2.370	3.500	4.570	1.346	0.940	1	G6.3	4.630
HSKA100-SM0.750-4.000-L1	03301674	HSK-A100	0.750	4.000	1.750	6.657	2.858	0.688	1	G6.3	6.390
HSKA100-SM1.000-2.000-L1	03301675	HSK-A100	1.000	2.000	2.250	4.657	0.858	0.688	1	G6.3	5.730
HSKA100-SM1.000-4.000-L1	03301676	HSK-A100	1.000	4.000	2.250	6.657	2.858	0.688	1	G6.3	7.720
HSKA100-SM1.250-4.000-L1	03301677	HSK-A100	1.250	4.000	2.750	6.657	2.858	0.688	1	G6.3	9.480
HSKA100-SM1.500-2.250-L1	03301678	HSK-A100	1.500	2.250	3.500	5.158	1.108	0.940	1	G6.3	8.160
HSKA100-SM2.000-4.000-L1	03301679	HSK-A100	2.000	4.000	4.870	6.908	2.858	0.940	1	G6.3	17.640
HSKA125-SM0.750-4.000-L1	03229702	HSK-A125	0.750	4.000	1.750	7.169	2.858	0.689	1	PB	9.920
HSKA125-SM1.000-4.000-L1	03229703	HSK-A125	1.000	4.000	2.250	7.169	2.858	0.689	1	PB	11.020
HSKA125-SM1.250-4.000-L1	03229704	HSK-A125	1.250	4.000	1.250	7.169	2.858	0.689	1	PB	12.570
HSKA125-SM1.500-4.000-L1	03229705	HSK-A125	1.500	4.000	3.500	7.421	2.858	0.941	1	PB	15.650
HSKA125-SM2.000-4.000-L1	03229706	HSK-A125	2.000	4.000	4.874	7.421	2.858	0.941	1	PB	22.490

Spare Parts, included in delivery

For DMM	Bolt	Screw	Tenon
			
0.750	58271905	950DNC012031	16C71905
1.000	58272540	950DNC016037	16C72540
1.250	58273175	950DNC019050	16C73175
1.500	58273810	950DNC025050	16C73810
2.000	58275080	950DNC031075	16C75080
0.750 (-A125)	58211905	950D0312	16C11905A
1.000 (-A125)	58212540	950D0416	16C12540A
1.250 (-A125)	58213175	950D0516	16C23175
1.500 (-A125)	58213810	950D0616	16C23810
2.000 (-A125)	58215080	–	16C25080

HSK-A/ ISO12164-1-HSK-A

Small face with through coolant channels – ISO 3937 – Metric / *Inch*





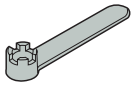
Accessories:
4 = Bolt, through coolant

Spare parts:
1 = Bolt
2 = Tenon/Screw

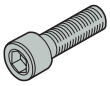
- Small workpiece side diameter BD according to ISO 3937, suitable for Seco disc mill cutters Type B
- For HSK sealing plugs, coolant tubes and tube spanners, see page(s) 383
- For ISO attribute explanation, see page 14

Designation	Item number	CTMS	DMM	LF	BD	OAL	LB	LSC	RFID hole	Balancing	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*			kg *lbs*
HSKA63-SM22-050-F3L1	03301553	HSK-A63	22,0 *0.866*	50,0 *1.969*	40,0 *1.575*	101,0 *3.976*	24,0 *0.945*	19,0 *0.748*	1	G6.3	1,0 *2.200*
HSKA63-SM22-100-F3L1	03301554	HSK-A63	22,0 *0.866*	100,0 *3.937*	40,0 *1.575*	151,0 *5.945*	74,0 *2.913*	19,0 *0.748*	1	G6.3	1,5 *3.310*
HSKA63-SM22-160-F3L1	03301555	HSK-A63	22,0 *0.866*	160,0 *6.299*	40,0 *1.575*	211,0 *8.307*	134,0 *5.276*	19,0 *0.748*	1	G6.3	2,0 *4.410*
HSKA63-SM27-060-F3L1	03301559	HSK-A63	27,0 *1.063*	60,0 *2.362*	48,0 *1.890*	113,0 *4.449*	34,0 *1.339*	21,0 *0.827*	1	G6.3	1,3 *2.870*
HSKA63-SM27-100-F3L1	03301560	HSK-A63	27,0 *1.063*	100,0 *3.937*	48,0 *1.890*	153,0 *6.024*	74,0 *2.913*	21,0 *0.827*	1	G6.3	1,8 *3.970*
HSKA63-SM27-160-F3L1	03301561	HSK-A63	27,0 *1.063*	160,0 *6.299*	48,0 *1.890*	213,0 *8.386*	134,0 *5.276*	21,0 *0.827*	1	G6.3	2,7 *5.950*
HSKA63-SM32-060-F3L1	03301566	HSK-A63	32,0 *1.260*	60,0 *2.362*	58,0 *2.283*	116,0 *4.567*	34,0 *1.339*	24,0 *0.945*	1	G6.3	1,5 *3.310*
HSKA63-SM32-100-F3L1	03301567	HSK-A63	32,0 *1.260*	100,0 *3.937*	58,0 *2.283*	156,0 *6.142*	74,0 *2.913*	24,0 *0.945*	1	G6.3	2,3 *5.070*
HSKA63-SM40-060-F3L1	03301570	HSK-A63	40,0 *1.575*	60,0 *2.362*	70,0 *2.756*	119,0 *4.685*	34,0 *1.339*	27,0 *1.063*	1	G6.3	1,8 *3.970*
HSKA100-SM22-050-F3L1	03301573	HSK-A100	22,0 *0.866*	50,0 *1.969*	40,0 *1.575*	119,0 *4.685*	21,0 *0.827*	19,0 *0.748*	1	G6.3	2,3 *5.070*
HSKA100-SM22-100-F3L1	03301574	HSK-A100	22,0 *0.866*	100,0 *3.937*	40,0 *1.575*	169,0 *6.654*	71,0 *2.795*	19,0 *0.748*	1	G6.3	2,8 *6.170*
HSKA100-SM22-160-F3L1	03301575	HSK-A100	22,0 *0.866*	160,0 *6.299*	40,0 *1.575*	229,0 *9.016*	131,0 *5.157*	19,0 *0.748*	1	G6.3	3,4 *7.500*
HSKA100-SM27-050-F3L1	03301580	HSK-A100	27,0 *1.063*	50,0 *1.969*	48,0 *1.890*	121,0 *4.764*	21,0 *0.827*	21,0 *0.827*	1	G6.3	2,4 *5.290*
HSKA100-SM27-100-F3L1	03301581	HSK-A100	27,0 *1.063*	100,0 *3.937*	48,0 *1.890*	171,0 *6.732*	71,0 *2.795*	21,0 *0.827*	1	G6.3	3,1 *6.830*
HSKA100-SM27-160-F3L1	03301582	HSK-A100	27,0 *1.063*	160,0 *6.299*	48,0 *1.890*	231,0 *9.094*	131,0 *5.157*	21,0 *0.827*	1	G6.3	3,9 *8.600*
HSKA100-SM32-050-F3L1	03301586	HSK-A100	32,0 *1.260*	50,0 *1.969*	58,0 *2.283*	124,0 *4.882*	21,0 *0.827*	24,0 *0.945*	1	G6.3	2,6 *5.730*
HSKA100-SM32-100-F3L1	03301587	HSK-A100	32,0 *1.260*	100,0 *3.937*	58,0 *2.283*	174,0 *6.850*	71,0 *2.795*	24,0 *0.945*	1	G6.3	3,6 *7.940*
HSKA100-SM32-160-F3L1	03301588	HSK-A100	32,0 *1.260*	160,0 *6.299*	58,0 *2.283*	234,0 *9.213*	131,0 *5.157*	24,0 *0.945*	1	G6.3	4,9 *10.800*
HSKA100-SM40-060-F3L1	03301592	HSK-A100	40,0 *1.575*	60,0 *2.362*	70,0 *2.756*	137,0 *5.394*	31,0 *1.220*	27,0 *1.063*	1	G6.3	3,3 *7.280*
HSKA100-SM40-100-F3L1	03301593	HSK-A100	40,0 *1.575*	100,0 *3.937*	70,0 *2.756*	177,0 *6.969*	71,0 *2.795*	27,0 *1.063*	1	G6.3	4,4 *9.700*
HSKA100-SM40-160-F3L1	03301594	HSK-A100	40,0 *1.575*	160,0 *6.299*	70,0 *2.756*	237,0 *9.331*	131,0 *5.157*	27,0 *1.063*	1	G6.3	6,2 *13.670*

Accessories

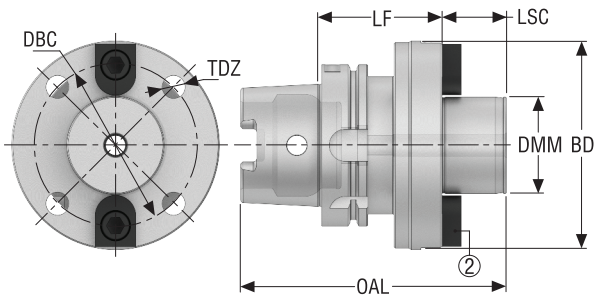
For DMM	Bolt, through coolant	Spanner
		
22/ *0.866*	5802210L	5812210
27/ *1.063*	5802712L	5812712
32/ *1.260*	5803216L	5813216
40/ *1.575*	5804020L	5814020

Spare Parts, included in delivery

For DMM	Bolt	Screw	Tenon
			
22/ *0.866*	5802210	951D0410	16C722
27/ *1.063*	5802712	951D0512	16C727
32/ *1.260*	5803216	951D0616	16C732
40/ *1.575*	5804020	951D0616	16C740

HSK-A/ ISO12164-1-HSK-A

Flange mounting – DIN 6357/ DIN 2079 – Metric / *Inch*



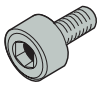


Spare parts:
2 = Tenon/Screw

- For HSK sealing plugs, coolant tubes and tube spanners, see page(s) 383
- For ISO attribute explanation, see page 14

Designation	Item number	CTMS	DMM	LF	BD	OAL	LSC	DBC	TDZ	RFID hole	Balan-cing	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*				kg *lbs*
HSKA100-SMF60-075	03301598	HSK-A100	60,0 *2.362*	75,0 *2.953*	129,0 *5.079*	165,0 *6.496*	40,0 *1.575*	101,6 *4.000*	M16x2	1	G6.3	6,5 *14.330*
HSKA125-SMF60-085	03229644	HSK-A125	60,0 *2.362*	85,0 *3.346*	129,0 *5.079*	188,0 *7.402*	40,0 *1.575*	101,6 *4.000*	M16x2	1	PB	9,2 *20.280*

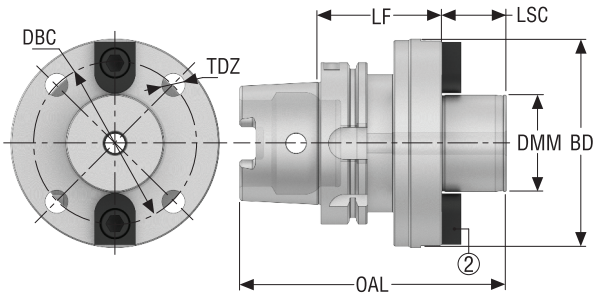
Spare Parts, included in delivery

For	Screw	Tenon
		
HSKA100-SMF60-075	950D1225	16C35060
HSKA125-SMF60-085	950D1225	16C35060

Flange mounting – DIN 6357/ DIN 2079 – Inch

HSK-A/ ISO12164-1-HSK-A



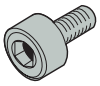


- For HSK sealing plugs, coolant tubes and tube spanners, see page(s) 383
- For ISO attribute explanation, see page 14

Spare parts:
2 = Tenon/Screw

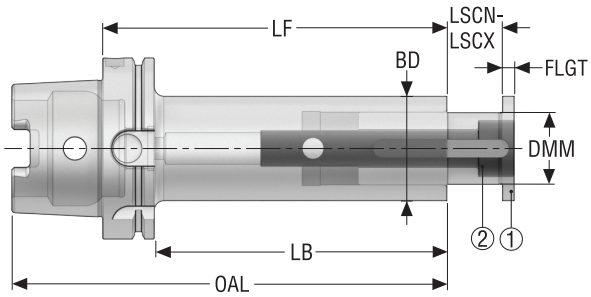
Designation	Item number	CTMS	DMM	LF	BD	OAL	LSC	DBC	TDZ	RFID hole	Balancing	Weight
			inch	inch	inch	inch	inch	inch				lbs
HSKA125-SMF2.500-3.500	03229685	HSK-A125	2.500	3.500	4.874	7.122	1.142	4.000	5/8" UNC	1	PB	20.280

Spare Parts, included in delivery

For	Screw	Tenon
		
HSKA125-SMF2.500-3.500	950D1225	16C35060

HSK-A/ ISO12164-1-HSK-A

– Metric / *Inch*



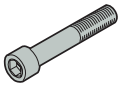


Spare parts:
1 = Slide rod
2 = Screw

- Best suited for Seco disc mill cutters Type A
- For HSK sealing plugs, coolant tubes and tube spanners, see page(s) 383
- For ISO attribute explanation, see page 14

Designation	Item number	CTMS	DMM	LF	BD	OAL	LB	FLGT	LSCN	LSCX	RFID hole	Balan-cing	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*			kg *lbs*
E930456572290	02602714	HSK-A63	22,0 *0.866*	90,0 *3.543*	35,0 *1.378*	122,0 *4.803*	64,0 *2.520*	4,0 *0.157*	0,0 *0.0*	12,0 *0.472*	1	PB	1,2 *2.650*
E9304565727120	02602715	HSK-A63	27,0 *1.063*	120,0 *4.724*	42,0 *1.654*	152,0 *5.984*	94,0 *3.701*	5,0 *0.197*	0,0 *0.0*	15,0 *0.591*	1	PB	1,7 *3.750*
E9306565740190	02602720	HSK-A100	40,0 *1.575*	190,0 *7.480*	58,0 *2.283*	240,0 *9.449*	161,0 *6.339*	7,0 *0.276*	0,0 *0.0*	30,0 *1.181*	1	PB	5,3 *11.680*
E9306565750235	02602721	HSK-A100	50,0 *1.969*	235,0 *9.252*	72,0 *2.835*	285,0 *11.220*	206,0 *8.110*	8,0 *0.315*	0,0 *0.0*	32,0 *1.260*	1	PB	8,5 *18.740*

Spare Parts, included in delivery

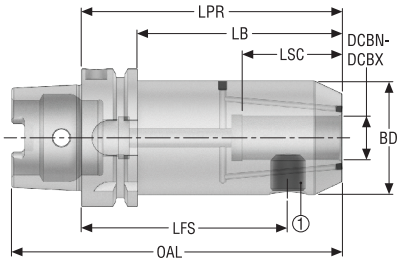
For	Screw	Slide rod
		
E930456572290	19C565722	565722
E9304565727120	19C565727	565727
E9306565740190	19C565740	565740
E9306565750235	19C565750	565750

DIN 1835 Form B/ DIN 6535 Form HB
– Metric / *Inch*

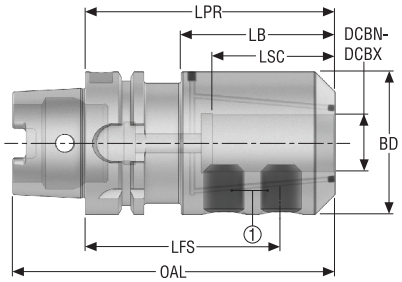
HSK-A/ ISO12164-1-HSK-A



Design 1



Design 2



- Weldon ∅DCBN-DCBX 20, 25, 32 and 40 mm / *0.787, 0.984, 1.260 and 1.575"* with ground face (Seco-Weldon compatible)
- With 2 coolant channels for front lubrication which can be sealed with included screws
- For HSK sealing plugs, coolant tubes and tube spanners, see page(s) 383
- For ISO attribute explanation, see page 14

Spare parts:
1 = Locking screw

Designation	Item number	CTMS	DCBN-DCBX	LPR	LB	LSC	BD	OAL	LFS	Design	RFID hole	Balancing	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*				kg *lbs*
HSKA63-EM06-065-L1	03301689	HSK-A63	6,0 *0.236*	65,0 *2.559*	39,0 *1.535*	35,0 *1.378*	25,0 *0.984*	97,0 *3.819*	47,0 *1.850*	1	1	G6.3	0,8 *1.760*
HSKA63-EM08-065-L1	03301690	HSK-A63	8,0 *0.315*	65,0 *2.559*	39,0 *1.535*	32,0 *1.260*	28,0 *1.102*	97,0 *3.819*	47,0 *1.850*	1	1	G6.3	0,8 *1.760*
HSKA63-EM08-120-L1	03301691	HSK-A63	8,0 *0.315*	120,0 *4.724*	94,0 *3.701*	32,0 *1.260*	28,0 *1.102*	152,0 *5.984*	102,0 *4.016*	1	1	G6.3	1,1 *2.430*
HSKA63-EM10-065-L1	03301692	HSK-A63	10,0 *0.394*	65,0 *2.559*	39,0 *1.535*	36,0 *1.417*	35,0 *1.378*	97,0 *3.819*	45,0 *1.772*	1	1	G6.3	0,9 *1.980*
HSKA63-EM10-120-L1	03301693	HSK-A63	10,0 *0.394*	120,0 *4.724*	94,0 *3.701*	36,0 *1.417*	35,0 *1.378*	152,0 *5.984*	100,0 *3.937*	1	1	G6.3	1,3 *2.870*
HSKA63-EM12-080-L1	03301694	HSK-A63	12,0 *0.472*	80,0 *3.150*	54,0 *2.126*	41,0 *1.614*	42,0 *1.654*	112,0 *4.409*	57,5 *2.264*	1	1	G6.3	1,2 *2.650*
HSKA63-EM12-120-L1	03301695	HSK-A63	12,0 *0.472*	120,0 *4.724*	94,0 *3.701*	41,0 *1.614*	42,0 *1.654*	152,0 *5.984*	97,5 *3.839*	1	1	G6.3	1,6 *3.530*
HSKA63-EM14-080-L1	03301696	HSK-A63	14,0 *0.551*	80,0 *3.150*	54,0 *2.126*	41,0 *1.614*	44,0 *1.732*	112,0 *4.409*	57,5 *2.264*	1	1	G6.3	1,2 *2.650*
HSKA63-EM16-080-L1	03301697	HSK-A63	16,0 *0.630*	80,0 *3.150*	54,0 *2.126*	44,0 *1.732*	48,0 *1.890*	112,0 *4.409*	56,0 *2.205*	1	1	G6.3	1,3 *2.870*
HSKA63-EM16-120-L1	03301698	HSK-A63	16,0 *0.630*	120,0 *4.724*	94,0 *3.701*	44,0 *1.732*	48,0 *1.890*	152,0 *5.984*	96,0 *3.780*	1	1	G6.3	1,9 *4.190*
HSKA63-EM18-080-L1	03301699	HSK-A63	18,0 *0.709*	80,0 *3.150*	54,0 *2.126*	44,0 *1.732*	50,0 *1.969*	112,0 *4.409*	56,0 *2.205*	1	1	G6.3	1,4 *3.090*
HSKA63-EM20-080-L1	03301700	HSK-A63	20,0 *0.787*	80,0 *3.150*	54,0 *2.126*	46,0 *1.811*	52,0 *2.047*	112,0 *4.409*	55,0 *2.165*	1	1	G6.3	1,4 *3.090*
HSKA63-EM20-120-L1	03301701	HSK-A63	20,0 *0.787*	120,0 *4.724*	94,0 *3.701*	46,0 *1.811*	52,0 *2.047*	152,0 *5.984*	95,0 *3.740*	1	1	G6.3	2,1 *4.630*
HSKA63-EM25-110-L1	03301702	HSK-A63	25,0 *0.984*	110,0 *4.331*	68,0 *2.677*	54,0 *2.126*	63,0 *2.480*	142,0 *5.591*	86,0 *3.386*	2	1	G6.3	2,3 *5.070*
HSKA63-EM32-110-L1	10007275	HSK-A63	32,0 *1.260*	110,0 *4.331*	84,0 *3.307*	58,0 *2.283*	72,0 *2.835*	142,0 *5.591*	86,0 *3.386*	2	1	G6.3	2,6 *5.730*
HSKA100-EM06-080-L1	03301703	HSK-A100	6,0 *0.236*	80,0 *3.150*	51,0 *2.008*	35,0 *1.378*	25,0 *0.984*	130,0 *5.118*	62,0 *2.441*	1	1	G6.3	2,2 *4.850*
HSKA100-EM08-080-L1	03301704	HSK-A100	8,0 *0.315*	80,0 *3.150*	51,0 *2.008*	35,0 *1.378*	28,0 *1.102*	130,0 *5.118*	62,0 *2.441*	1	1	G6.3	2,2 *4.850*
HSKA100-EM10-080-L1	03301705	HSK-A100	10,0 *0.394*	80,0 *3.150*	51,0 *2.008*	35,0 *1.378*	35,0 *1.378*	130,0 *5.118*	60,0 *2.362*	1	1	G6.3	2,4 *5.290*
HSKA100-EM12-080-L1	03301706	HSK-A100	12,0 *0.472*	80,0 *3.150*	51,0 *2.008*	41,0 *1.614*	42,0 *1.654*	130,0 *5.118*	57,5 *2.264*	1	1	G6.3	2,5 *5.510*
HSKA100-EM14-080-L1	03301707	HSK-A100	14,0 *0.551*	80,0 *3.150*	51,0 *2.008*	41,0 *1.614*	44,0 *1.732*	130,0 *5.118*	57,5 *2.264*	1	1	G6.3	2,5 *5.510*

Designation	Item number	CTMS	DCBN-DCBX	LPR	LB	LSC	BD	OAL	LFS	Design	RFID hole	Balan-cing	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*				kg *lbs*
HSKA100-EM16-100-L1	03301708	HSK-A100	16,0 *0.630*	100,0 *3.937*	71,0 *2.795*	44,0 *1.732*	48,0 *1.890*	150,0 *5.906*	76,0 *2.992*	1	1	G6.3	2,9 *6.390*
HSKA100-EM16-160-L1	03301709	HSK-A100	16,0 *0.630*	160,0 *6.299*	131,0 *5.157*	44,0 *1.732*	48,0 *1.890*	210,0 *8.268*	136,0 *5.354*	1	1	G6.3	3,7 *8.160*
HSKA100-EM20-100-L1	03301710	HSK-A100	20,0 *0.787*	100,0 *3.937*	71,0 *2.795*	46,0 *1.811*	52,0 *2.047*	150,0 *5.906*	75,0 *2.953*	1	1	G6.3	3,0 *6.610*
HSKA100-EM20-160-L1	03301711	HSK-A100	20,0 *0.787*	160,0 *6.299*	131,0 *5.157*	46,0 *1.811*	52,0 *2.047*	210,0 *8.268*	135,0 *5.315*	1	1	G6.3	4,0 *8.820*
HSKA100-EM25-100-L1	03301712	HSK-A100	25,0 *0.984*	100,0 *3.937*	71,0 *2.795*	54,0 *2.126*	65,0 *2.559*	150,0 *5.906*	76,0 *2.992*	2	1	G6.3	3,5 *7.720*
HSKA100-EM25-160-L1	03301713	HSK-A100	25,0 *0.984*	160,0 *6.299*	131,0 *5.157*	54,0 *2.126*	65,0 *2.559*	210,0 *8.268*	136,0 *5.354*	2	1	G6.3	5,0 *11.020*
HSKA100-EM32-100-L1	10007273	HSK-A100	32,0 *1.260*	100,0 *3.937*	71,0 *2.795*	58,0 *2.283*	72,0 *2.835*	150,0 *5.906*	76,0 *2.992*	2	1	G6.3	3,8 *8.380*
HSKA100-EM32-160-L1	10007274	HSK-A100	32,0 *1.260*	160,0 *6.299*	131,0 *5.157*	58,0 *2.283*	72,0 *2.835*	210,0 *8.268*	136,0 *5.354*	2	1	G6.3	5,7 *12.570*
HSKA100-EM40-120-L1	03301714	HSK-A100	40,0 *1.575*	120,0 *4.724*	91,0 *3.583*	68,0 *2.677*	80,0 *3.150*	170,0 *6.693*	90,0 *3.543*	2	1	G6.3	4,7 *10.360*
HSKA100-EM50-130-L1	03301715	HSK-A100	50,0 *1.969*	130,0 *5.118*	101,0 *3.976*	78,0 *3.071*	100,0 *3.937*	180,0 *7.087*	95,0 *3.740*	2	1	G6.3	6,4 *14.110*

Spare Parts, included in delivery

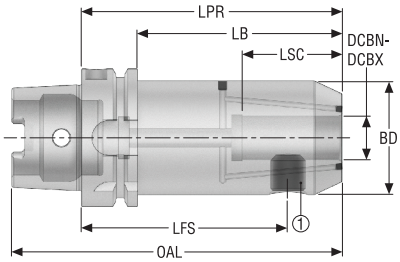
For DCBN-DCBX	Coolant screw	Locking screw
		
6 / *0.236*	950A0304	951C0610
8 / *0.315*	950A0304	951C0810
10 / *0.394*	950A0304	951C1012
12 / *0.472*	950A0304	951C1216
14 / *0.551*	950A0304	951C1214
16 / *0.630* - 18 / *0.709*	950A0304	951C1416
20 / *0.787*	950A0304	951C1616
25 / *0.984*	950A0304	951C1820
32 / *1.260* - 40 / *1.575*	950A0304	951C2020
50 / *1.969*	950A0304	951C2425

DIN 1835 Form B/ DIN 6535 Form HB – Inch

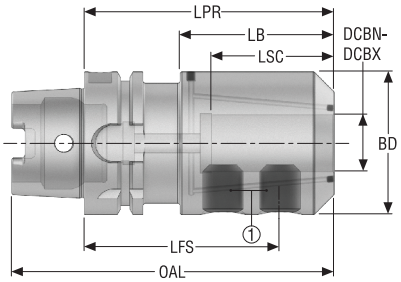
HSK-A/ ISO12164-1-HSK-A



Design 1



Design 2



- With 2 coolant channels for front lubrication which can be sealed with included screws
- For HSK sealing plugs, coolant tubes and tube spanners, see page(s) 383
- For ISO attribute explanation, see page 14

Spare parts:
1 = Locking screw

Designation	Item number	CTMS	DCBN-DCBX	LPR	LB	LSC	BD	OAL	LFS	Design	RFID hole	Balancing	Weight
			inch	inch	inch	inch	inch	inch	inch				lbs
HSKA63-EM0.375-2.750-L1	03301734	HSK-A63	0.375	2.750	1.726	1.500	1.000	4.010	2.000	1	1	G6.3	1.760
HSKA63-EM0.500-3.250-L1	03301735	HSK-A63	0.500	3.250	2.226	1.620	1.250	4.510	2.380	1	1	G6.3	2.200
HSKA63-EM0.625-3.250-L1	03301736	HSK-A63	0.625	3.250	2.226	1.870	1.500	4.510	2.340	1	1	G6.3	2.430
HSKA63-EM0.750-3.370-L1	03301737	HSK-A63	0.750	3.370	2.346	2.000	1.750	4.630	2.370	1	1	G6.3	2.650
HSKA63-EM1.000-4.500-L1	03301738	HSK-A63	1.000	4.500	3.476	2.250	2.000	5.760	3.380	2	1	G6.3	3.750
HSKA63-EM1.250-4.500-L1	03301739	HSK-A63	1.250	4.500	3.476	2.250	2.500	5.760	3.380	2	1	G6.3	4.850
HSKA100-EM0.500-6.000-L1	03301740	HSK-A100	0.500	6.000	4.858	1.620	1.250	7.969	5.130	1	1	G6.3	6.170
HSKA100-EM0.625-6.000-L1	03301741	HSK-A100	0.625	6.000	4.858	1.870	1.500	7.969	5.090	1	1	G6.3	6.610
HSKA100-EM0.750-4.000-L1	03301742	HSK-A100	0.750	4.000	2.858	2.000	1.750	5.969	3.000	1	1	G6.3	6.170
HSKA100-EM0.875-4.000-L1	03301743	HSK-A100	0.875	4.000	2.858	2.000	2.000	5.969	3.000	2	1	G6.3	6.390
HSKA100-EM1.000-4.000-L1	03301744	HSK-A100	1.000	4.000	2.858	2.250	2.000	5.969	2.880	2	1	G6.3	6.170
HSKA100-EM1.250-4.000-L1	03301745	HSK-A100	1.250	4.000	2.858	2.250	2.500	5.969	2.880	2	1	G6.3	7.280
HSKA100-EM1.500-5.000-L1	03301746	HSK-A100	1.500	5.000	3.858	2.620	2.750	6.969	3.880	2	1	G6.3	9.260

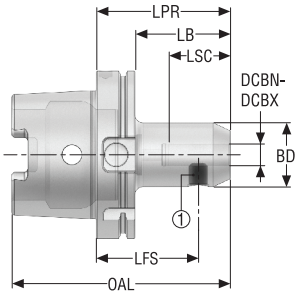
Spare Parts, included in delivery

For DCBN-DCBX	Coolant screw	Locking screw
		
0.375	950A0304	951CNF037031
0.500	950A0304	951CNF043037
0.625	950A0304	951CNF056050
0.750-0.875	950A0304	951CNF062050
1.000-1.500	950A0304	951CNF075068

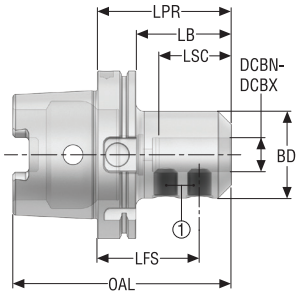
HSK-A/ ISO12164-1-HSK-A

DIN 1835 Form B/ DIN 6535 Form HB – Metric / *Inch*

Design 1



Design 2





Spare parts:
1 = Locking screw

- Weldon ∅DCBN-DCBX 20, 25, 32 and 40 mm / *0.787, 0.984, 1.260 and 1.575"* with ground face (Seco-Weldon compatible)
- For HSK sealing plugs, coolant tubes and tube spanners, see page(s) 383
- For ISO attribute explanation, see page 14

Designation	Item number	CTMS	DCBN-DCBX	LPR	LB	LSC	BD	OAL	LFS	Design	RFID hole	Balan-cing	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*				kg *lbs*
HSKA125-EM16-100	03229629	HSK-A125	16,0 *0.630*	100,0 *3.937*	71,0 *2.795*	46,0 *1.811*	48,0 *1.890*	163,0 *6.417*	76,0 *2.992*	1	1	PB	4,2 *9.260*
HSKA125-EM20-100	03229630	HSK-A125	20,0 *0.787*	100,0 *3.937*	71,0 *2.795*	48,0 *1.890*	52,0 *2.047*	163,0 *6.417*	75,0 *2.953*	1	1	PB	4,5 *9.920*
HSKA125-EM20-160	03229631	HSK-A125	20,0 *0.787*	160,0 *6.299*	131,0 *5.157*	48,0 *1.890*	52,0 *2.047*	223,0 *8.780*	135,0 *5.315*	1	1	PB	5,3 *11.680*
HSKA125-EM25-100	03229632	HSK-A125	25,0 *0.984*	100,0 *3.937*	71,0 *2.795*	54,0 *2.126*	65,0 *2.559*	163,0 *6.417*	76,0 *2.992*	2	1	PB	4,8 *10.580*
HSKA125-EM25-160	03229633	HSK-A125	25,0 *0.984*	160,0 *6.299*	131,0 *5.157*	54,0 *2.126*	65,0 *2.559*	223,0 *8.780*	136,0 *5.354*	2	1	PB	6,4 *14.110*
HSKA125-EM32-100	03229634	HSK-A125	32,0 *1.260*	100,0 *3.937*	71,0 *2.795*	58,0 *2.283*	72,0 *2.835*	163,0 *6.417*	76,0 *2.992*	2	1	PB	5,1 *11.240*
HSKA125-EM32-160	03229635	HSK-A125	32,0 *1.260*	160,0 *6.299*	131,0 *5.157*	58,0 *2.283*	72,0 *2.835*	223,0 *8.780*	136,0 *5.354*	2	1	PB	7,1 *15.650*
HSKA125-EM40-120	03229636	HSK-A125	40,0 *1.575*	120,0 *4.724*	91,0 *3.583*	68,0 *2.677*	80,0 *3.150*	183,0 *7.205*	90,0 *3.543*	2	1	PB	6,0 *13.230*
HSKA125-EM50-120	03229637	HSK-A125	50,0 *1.969*	120,0 *4.724*	91,0 *3.583*	78,0 *3.071*	100,0 *3.937*	183,0 *7.205*	85,0 *3.346*	2	1	PB	7,3 *16.090*

Spare Parts, included in delivery

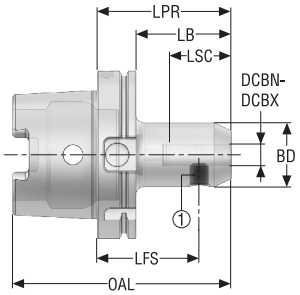
For DCBN-DCBX	Locking screw
	
16/ *0.630*	951C1416
20/ *0.787*	951C1616
25/ *0.984*	951C1820
32/ *1.260*-40/ *1.575*	951C2020
50/ *1.969*	951C2425

DIN 1835 Form B/ DIN 6535 Form HB – Inch

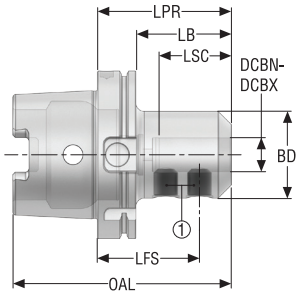
HSK-A/ ISO12164-1-HSK-A



Design 1



Design 2



- For HSK sealing plugs, coolant tubes and tube spanners, see page(s) 383
- For ISO attribute explanation, see page 14

Spare parts:
1 = Locking screw

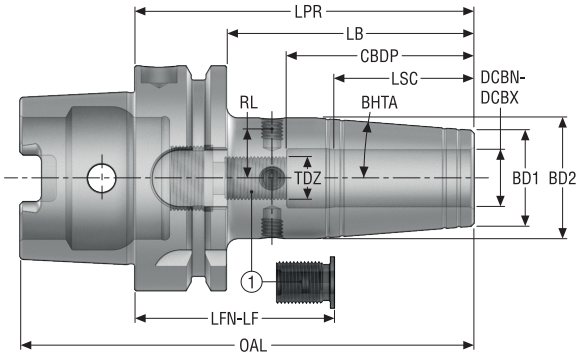
Designation	Item number	CTMS	DCBN-DCBX	LPR	LB	LSC	BD	OAL	LFS	Design	RFID hole	Balancing	Weight
			inch	inch	inch	inch	inch	inch	inch				lbs
HSKA125-EM0.500-3.500	03229676	HSK-A125	0.500	3.500	2.358	1.614	1.614	5.980	2.630	1	1	PB	8.380
HSKA125-EM0.625-3.750	03229677	HSK-A125	0.625	3.750	2.608	1.870	1.870	6.230	2.840	1	1	PB	9.040
HSKA125-EM0.750-3.750	03229678	HSK-A125	0.750	3.750	2.608	2.008	2.000	6.230	2.750	1	1	PB	9.260
HSKA125-EM0.750-6.000	03229679	HSK-A125	0.750	6.000	4.858	2.008	2.000	8.480	5.000	1	1	PB	11.020
HSKA125-EM1.000-4.250	03229680	HSK-A125	1.000	4.250	3.108	2.244	2.500	6.730	3.130	2	1	PB	10.360
HSKA125-EM1.000-6.000	03229681	HSK-A125	1.000	6.000	4.858	2.244	2.500	8.480	4.880	2	1	PB	13.010
HSKA125-EM1.250-4.250	03229682	HSK-A125	1.250	4.250	3.108	2.244	2.748	6.730	3.130	2	1	PB	11.460
HSKA125-EM1.500-4.500	03229683	HSK-A125	1.500	4.500	3.358	2.618	3.500	6.980	3.000	2	1	PB	14.330
HSKA125-EM2.000-5.250	03229684	HSK-A125	2.000	5.250	4.108	3.110	4.000	7.730	3.840	2	1	PB	18.300

Spare Parts, included in delivery

For DCBN-DCBX	Locking screw
	
0.500	951CNC043037
0.625	951CNC056050
0.750	951CNC062050
1.000	951CNC075068
1.250	951CNC075068
2.000	951CNC062050

HSK-A/ ISO12164-1-HSK-A

DIN type
– Metric / *Inch*





Spare parts:
1 = Stop screw

- Run-out ≤3 µm
- Delivered with one stop screw
- For Shrinkfit extensions, see page(s) 373-374
- For HSK sealing plugs, coolant tubes and tube spanners, see page(s) 383
- For ISO attribute explanation, see page 14

Designation	Item number	CTMS	DCBN-DCBX	LPR	LB	CBDP	LSC	BD1	BD2	OAL	LFN	LF	RL	TDZ	BHTA°	RFID hole	Balan-cing	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*					kg *lbs*
E930256030680	02752844	HSK-A40	6,0 *0.236*	80,0 *3.150*	60,0 *2.362*	37,5 *1.476*	22,0 *0.866*	21,0 *0.827*	27,0 *1.063*	100,0 *3.937*	44,0 *1.732*	54,0 *2.126*	10,5 *0.413*	M5x0.8	4,5	0	G2.5	0,5 *1.100*
E930256030880	02752847	HSK-A40	8,0 *0.315*	80,0 *3.150*	60,0 *2.362*	37,5 *1.476*	26,0 *1.024*	21,0 *0.827*	27,0 *1.063*	100,0 *3.937*	44,0 *1.732*	54,0 *2.126*	10,5 *0.413*	M6x1	4,5	0	G2.5	0,5 *1.100*
E930256031080	02752848	HSK-A40	10,0 *0.394*	80,0 *3.150*	60,0 *2.362*	42,5 *1.673*	31,0 *1.220*	24,0 *0.945*	32,0 *1.260*	100,0 *3.937*	39,0 *1.535*	49,0 *1.929*	13,0 *0.512*	M8x1	4,5	0	G2.5	0,5 *1.100*
E930256031290	02752849	HSK-A40	12,0 *0.472*	90,0 *3.543*	70,0 *2.756*	47,5 *1.870*	34,0 *1.339*	24,0 *0.945*	32,0 *1.260*	110,0 *4.331*	44,0 *1.732*	54,0 *2.126*	13,0 *0.512*	M10x1	4,5	0	G2.5	0,49 *1.080*
E930256031690	02752850	HSK-A40	16,0 *0.630*	90,0 *3.543*	70,0 *2.756*	50,5 *1.988*	39,0 *1.535*	27,0 *1.063*	34,0 *1.339*	110,0 *4.331*	41,0 *1.614*	51,0 *2.008*	14,0 *0.551*	M12x1	4,5	0	G2.5	0,6 *1.320*
E930454030680	03098277	HSK-A63	6,0 *0.236*	80,0 *3.150*	54,0 *2.126*	37,5 *1.476*	22,0 *0.866*	21,0 *0.827*	27,0 *1.063*	112,0 *4.409*	44,0 *1.732*	54,0 *2.126*	10,5 *0.413*	M5x0.8	4,5	1	G2.5	0,9 *1.980*
E9304540306120	03098278	HSK-A63	6,0 *0.236*	120,0 *4.724*	94,0 *3.701*	37,5 *1.476*	22,0 *0.866*	21,0 *0.827*	27,0 *1.063*	152,0 *5.984*	84,0 *3.307*	94,0 *3.701*	10,5 *0.413*	M5x0.8	4,5	1	G2.5	1,0 *2.200*
E9304540306160	03098279	HSK-A63	6,0 *0.236*	160,0 *6.299*	134,0 *5.276*	37,5 *1.476*	22,0 *0.866*	21,0 *0.827*	27,0 *1.063*	192,0 *7.559*	124,0 *4.882*	134,0 *5.276*	10,5 *0.413*	M5x0.8	4,5	1	G2.5	1,2 *2.650*
E930454030880	03098280	HSK-A63	8,0 *0.315*	80,0 *3.150*	54,0 *2.126*	38,0 *1.496*	26,0 *1.024*	21,0 *0.827*	27,0 *1.063*	112,0 *4.409*	43,5 *1.713*	54,0 *2.126*	10,5 *0.413*	M6x1	4,5	1	G2.5	0,9 *1.980*
E9304540308120	03098281	HSK-A63	8,0 *0.315*	120,0 *4.724*	94,0 *3.701*	38,0 *1.496*	26,0 *1.024*	21,0 *0.827*	27,0 *1.063*	152,0 *5.984*	83,5 *3.287*	94,0 *3.701*	10,5 *0.413*	M6x1	4,5	1	G2.5	1,0 *2.200*
E9304540308160	03098282	HSK-A63	8,0 *0.315*	160,0 *6.299*	134,0 *5.276*	38,0 *1.496*	26,0 *1.024*	21,0 *0.827*	27,0 *1.063*	192,0 *7.559*	123,5 *4.862*	134,0 *5.276*	10,5 *0.413*	M6x1	4,5	1	G2.5	1,2 *2.650*
E930454031085	03098283	HSK-A63	10,0 *0.394*	85,0 *3.346*	59,0 *2.323*	43,5 *1.713*	31,0 *1.220*	24,0 *0.945*	32,0 *1.260*	117,0 *4.606*	43,0 *1.693*	54,0 *2.126*	13,0 *0.512*	M8x1	4,5	1	G2.5	0,9 *1.980*
E9304540310120	03098284	HSK-A63	10,0 *0.394*	120,0 *4.724*	94,0 *3.701*	43,5 *1.713*	31,0 *1.220*	24,0 *0.945*	32,0 *1.260*	152,0 *5.984*	78,0 *3.071*	89,0 *3.504*	13,0 *0.512*	M8x1	4,5	1	G2.5	1,2 *2.650*
E9304540310160	03098285	HSK-A63	10,0 *0.394*	160,0 *6.299*	134,0 *5.276*	43,5 *1.713*	31,0 *1.220*	24,0 *0.945*	32,0 *1.260*	192,0 *7.559*	118,0 *4.646*	129,0 *5.079*	13,0 *0.512*	M8x1	4,5	1	G2.5	1,4 *3.090*
E930454031290	03098286	HSK-A63	12,0 *0.472*	90,0 *3.543*	64,0 *2.520*	48,0 *1.890*	34,0 *1.339*	24,0 *0.945*	32,0 *1.260*	122,0 *4.803*	43,5 *1.713*	54,0 *2.126*	13,0 *0.512*	M10x1	4,5	1	G2.5	1,0 *2.200*
E9304540312120	03098287	HSK-A63	12,0 *0.472*	120,0 *4.724*	94,0 *3.701*	48,0 *1.890*	34,0 *1.339*	24,0 *0.945*	32,0 *1.260*	152,0 *5.984*	73,5 *2.894*	84,0 *3.307*	13,0 *0.512*	M10x1	4,5	1	G2.5	1,1 *2.430*
E9304540312160	03098288	HSK-A63	12,0 *0.472*	160,0 *6.299*	134,0 *5.276*	48,0 *1.890*	34,0 *1.339*	24,0 *0.945*	32,0 *1.260*	192,0 *7.559*	113,5 *4.469*	124,0 *4.882*	13,0 *0.512*	M10x1	4,5	1	G2.5	1,4 *3.090*
E930454031490	03098289	HSK-A63	14,0 *0.551*	90,0 *3.543*	64,0 *2.520*	49,0 *1.929*	34,0 *1.339*	27,0 *1.063*	34,0 *1.339*	122,0 *4.803*	42,5 *1.673*	54,0 *2.126*	14,0 *0.551*	M10x1	4,5	1	G2.5	1,0 *2.200*
E9304540314120	03098290	HSK-A63	14,0 *0.551*	120,0 *4.724*	94,0 *3.701*	49,0 *1.929*	34,0 *1.339*	27,0 *1.063*	34,0 *1.339*	152,0 *5.984*	72,5 *2.854*	84,0 *3.307*	14,0 *0.551*	M10x1	4,5	1	G2.5	1,2 *2.650*
E930454031695	03098291	HSK-A63	16,0 *0.630*	95,0 *3.740*	69,0 *2.717*	52,5 *2.067*	39,0 *1.535*	27,0 *1.063*	34,0 *1.339*	127,0 *5.000*	45,0 *1.772*	56,0 *2.205*	14,0 *0.551*	M12x1	4,5	1	G2.5	1,0 *2.200*

Designation	Item number	CTMS	DCBN-DCBX	LPR	LB	CBDP	LSC	BD1	BD2	OAL	LFN	LF	RL	TDZ	BHTA°	RFID hole	Balan-cing	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*					kg *lbs*
E9304540316120	03098292	HSK-A63	16,0 *0.630*	120,0 *4.724*	94,0 *3.701*	52,5 *2.067*	39,0 *1.535*	27,0 *1.063*	34,0 *1.339*	152,0 *5.984*	69,0 *2.717*	81,0 *3.189*	14,0 *0.551*	M12x1	4,5	1	G2.5	1,2 *2.650*
E9304540316160	03098293	HSK-A63	16,0 *0.630*	160,0 *6.299*	134,0 *5.276*	52,5 *2.067*	39,0 *1.535*	27,0 *1.063*	34,0 *1.339*	192,0 *7.559*	111,0 *4.370*	121,0 *4.764*	14,0 *0.551*	M12x1	4,5	1	G2.5	1,4 *3.090*
E930454031895	03098294	HSK-A63	18,0 *0.709*	95,0 *3.740*	69,0 *2.717*	53,0 *2.087*	39,0 *1.535*	33,0 *1.299*	42,0 *1.654*	127,0 *5.000*	44,5 *1.752*	56,0 *2.205*	18,0 *0.709*	M12x1	4,5	1	G2.5	1,2 *2.650*
E9304540318120	03098295	HSK-A63	18,0 *0.709*	120,0 *4.724*	94,0 *3.701*	53,0 *2.087*	39,0 *1.535*	33,0 *1.299*	42,0 *1.654*	152,0 *5.984*	71,0 *2.795*	81,0 *3.189*	18,0 *0.709*	M12x1	4,5	1	G2.5	1,4 *3.090*
E9304540320100	03098296	HSK-A63	20,0 *0.787*	100,0 *3.937*	74,0 *2.913*	55,5 *2.185*	41,0 *1.614*	33,0 *1.299*	42,0 *1.654*	132,0 *5.197*	47,5 *1.870*	59,0 *2.323*	18,0 *0.709*	M16x1	4,5	1	G2.5	1,2 *2.650*
E9304540320120	03098297	HSK-A63	20,0 *0.787*	120,0 *4.724*	94,0 *3.701*	55,5 *2.185*	41,0 *1.614*	33,0 *1.299*	42,0 *1.654*	152,0 *5.984*	67,5 *2.657*	79,0 *3.110*	18,0 *0.709*	M16x1	4,5	1	G2.5	1,4 *3.090*
E9304540320160	03098298	HSK-A63	20,0 *0.787*	160,0 *6.299*	134,0 *5.276*	55,5 *2.185*	41,0 *1.614*	33,0 *1.299*	42,0 *1.654*	192,0 *7.559*	107,5 *4.232*	119,0 *4.685*	18,0 *0.709*	M16x1	4,5	1	G2.5	1,8 *3.970*
E9304540325115	03098299	HSK-A63	25,0 *0.984*	115,0 *4.528*	89,0 *3.504*	63,5 *2.500*	47,0 *1.850*	44,0 *1.732*	53,0 *2.087*	147,0 *5.787*	58,0 *2.283*	68,0 *2.677*	23,5 *0.925*	M16x1	4,5	1	G2.5	1,8 *3.970*
E9304540325160	03098300	HSK-A63	25,0 *0.984*	160,0 *6.299*	134,0 *5.276*	63,5 *2.500*	47,0 *1.850*	44,0 *1.732*	53,0 *2.087*	192,0 *7.559*	98,0 *3.858*	113,0 *4.449*	23,5 *0.925*	M16x1	4,5	1	G2.5	2,5 *5.510*
E9304540332120	03098301	HSK-A63	32,0 *1.260*	120,0 *4.724*	94,0 *3.701*	70,0 *2.756*	51,0 *2.008*	44,0 *1.732*	53,0 *2.087*	152,0 *5.984*	56,5 *2.224*	69,0 *2.717*	23,5 *0.925*	M16x1	4,5	1	G2.5	1,7 *3.750*
E930654030685	03098308	HSK-A100	6,0 *0.236*	85,0 *3.346*	56,0 *2.205*	37,5 *1.476*	22,0 *0.866*	21,0 *0.827*	27,0 *1.063*	135,0 *5.315*	49,0 *1.929*	59,0 *2.323*	10,5 *0.413*	M5x0.8	4,5	1	G2.5	2,2 *4.850*
E9306540306120	03098309	HSK-A100	6,0 *0.236*	120,0 *4.724*	91,0 *3.583*	37,5 *1.476*	22,0 *0.866*	21,0 *0.827*	27,0 *1.063*	170,0 *6.693*	84,0 *3.307*	94,0 *3.701*	10,5 *0.413*	M5x0.8	4,5	1	G2.5	2,3 *5.070*
E9306540306160	03098310	HSK-A100	6,0 *0.236*	160,0 *6.299*	131,0 *5.157*	37,5 *1.476*	22,0 *0.866*	21,0 *0.827*	27,0 *1.063*	210,0 *8.268*	124,0 *4.882*	134,0 *5.276*	10,5 *0.413*	M5x0.8	4,5	1	G2.5	2,5 *5.510*
E930654030885	03098311	HSK-A100	8,0 *0.315*	85,0 *3.346*	56,0 *2.205*	38,0 *1.496*	26,0 *1.024*	21,0 *0.827*	27,0 *1.063*	135,0 *5.315*	48,5 *1.909*	59,0 *2.323*	10,5 *0.413*	M6x1	4,5	1	G2.5	2,2 *4.850*
E9306540308120	03098312	HSK-A100	8,0 *0.315*	120,0 *4.724*	91,0 *3.583*	38,0 *1.496*	26,0 *1.024*	21,0 *0.827*	27,0 *1.063*	170,0 *6.693*	83,5 *3.287*	94,0 *3.701*	10,5 *0.413*	M6x1	4,5	1	G2.5	2,3 *5.070*
E9306540308160	03098313	HSK-A100	8,0 *0.315*	160,0 *6.299*	131,0 *5.157*	38,0 *1.496*	26,0 *1.024*	21,0 *0.827*	27,0 *1.063*	210,0 *8.268*	123,5 *4.862*	134,0 *5.276*	10,5 *0.413*	M6x1	4,5	1	G2.5	2,5 *5.510*
E930654031090	03098314	HSK-A100	10,0 *0.394*	90,0 *3.543*	61,0 *2.402*	43,5 *1.713*	31,0 *1.220*	24,0 *0.945*	32,0 *1.260*	140,0 *5.512*	48,0 *1.890*	59,0 *2.323*	13,0 *0.512*	M8x1	4,5	1	G2.5	2,3 *5.070*
E9306540310120	03098315	HSK-A100	10,0 *0.394*	120,0 *4.724*	91,0 *3.583*	43,5 *1.713*	31,0 *1.220*	24,0 *0.945*	32,0 *1.260*	170,0 *6.693*	78,0 *3.071*	89,0 *3.504*	13,0 *0.512*	M8x1	4,5	1	G2.5	2,5 *5.510*
E9306540310160	03098316	HSK-A100	10,0 *0.394*	160,0 *6.299*	131,0 *5.157*	43,5 *1.713*	31,0 *1.220*	24,0 *0.945*	32,0 *1.260*	210,0 *8.268*	118,0 *4.646*	129,0 *5.079*	13,0 *0.512*	M8x1	4,5	1	G2.5	2,7 *5.950*
E930654031295	03098317	HSK-A100	12,0 *0.472*	95,0 *3.740*	66,0 *2.598*	48,0 *1.890*	34,0 *1.339*	24,0 *0.945*	32,0 *1.260*	145,0 *5.709*	48,5 *1.909*	59,0 *2.323*	13,0 *0.512*	M10x1	4,5	1	G2.5	2,3 *5.070*
E9306540312120	03098318	HSK-A100	12,0 *0.472*	120,0 *4.724*	91,0 *3.583*	48,0 *1.890*	34,0 *1.339*	24,0 *0.945*	32,0 *1.260*	170,0 *6.693*	73,5 *2.894*	86,0 *3.386*	13,0 *0.512*	M10x1	4,5	1	G2.5	2,4 *5.290*
E9306540312160	03098319	HSK-A100	12,0 *0.472*	160,0 *6.299*	131,0 *5.157*	48,0 *1.890*	34,0 *1.339*	24,0 *0.945*	32,0 *1.260*	210,0 *8.268*	113,5 *4.469*	124,0 *4.882*	13,0 *0.512*	M10x1	4,5	1	G2.5	2,7 *5.950*
E930654031495	03098320	HSK-A100	14,0 *0.551*	95,0 *3.740*	66,0 *2.598*	49,0 *1.929*	34,0 *1.339*	27,0 *1.063*	34,0 *1.339*	145,0 *5.709*	47,5 *1.870*	59,0 *2.323*	14,0 *0.551*	M10x1	4,5	1	G2.5	2,3 *5.070*
E9306540316100	03098321	HSK-A100	16,0 *0.630*	100,0 *3.937*	71,0 *2.795*	52,5 *2.067*	39,0 *1.535*	27,0 *1.063*	34,0 *1.339*	150,0 *5.906*	50,0 *1.969*	61,0 *2.402*	14,0 *0.551*	M12x1	4,5	1	G2.5	2,3 *5.070*
E9306540316130	03098322	HSK-A100	16,0 *0.630*	130,0 *5.118*	101,0 *3.976*	52,5 *2.067*	39,0 *1.535*	27,0 *1.063*	34,0 *1.339*	180,0 *7.087*	78,0 *3.071*	91,0 *3.583*	14,0 *0.551*	M12x1	4,5	1	G2.5	2,5 *5.510*
E9306540316160	03098323	HSK-A100	16,0 *0.630*	160,0 *6.299*	131,0 *5.157*	52,5 *2.067*	39,0 *1.535*	27,0 *1.063*	34,0 *1.339*	210,0 *8.268*	108,0 *4.252*	121,0 *4.764*	14,0 *0.551*	M12x1	4,5	1	G2.5	2,8 *6.170*
E9306540318100	03098324	HSK-A100	18,0 *0.709*	100,0 *3.937*	71,0 *2.795*	53,0 *2.087*	39,0 *1.535*	33,0 *1.299*	42,0 *1.654*	150,0 *5.906*	51,0 *2.008*	61,0 *2.402*	18,0 *0.709*	M12x1	4,5	1	G2.5	2,5 *5.510*
E9306540320105	03098325	HSK-A100	20,0 *0.787*	105,0 *4.134*	76,0 *2.992*	55,5 *2.185*	41,0 *1.614*	33,0 *1.299*	42,0 *1.654*	155,0 *6.102*	51,0 *2.008*	64,0 *2.520*	18,0 *0.709*	M16x1	4,5	1	G2.5	2,5 *5.510*
E9306540320130	03098326	HSK-A100	20,0 *0.787*	130,0 *5.118*	101,0 *3.976*	55,5 *2.185*	41,0 *1.614*	33,0 *1.299*	42,0 *1.654*	180,0 *7.087*	77,5 *3.051*	89,0 *3.504*	18,0 *0.709*	M16x1	4,5	1	G2.5	2,8 *6.170*
E9306540320160	03098327	HSK-A100	20,0 *0.787*	160,0 *6.299*	131,0 *5.157*	55,5 *2.185*	41,0 *1.614*	33,0 *1.299*	42,0 *1.654*	210,0 *8.268*	107,5 *4.232*	119,0 *4.685*	18,0 *0.709*	M16x1	4,5	1	G2.5	3,1 *6.830*
E9306540325115	03098328	HSK-A100	25,0 *0.984*	115,0 *4.528*	86,0 *3.386*	63,5 *2.500*	47,0 *1.850*	44,0 *1.732*	53,0 *2.087*	165,0 *6.496*	58,0 *2.283*	68,0 *2.677*	23,5 *0.925*	M16x1	4,5	1	G2.5	3,1 *6.830*
E9306540325160	03098329	HSK-A100	25,0 *0.984*	160,0 *6.299*	131,0 *5.157*	63,5 *2.500*	47,0 *1.850*	44,0 *1.732*	53,0 *2.087*	210,0 *8.268*	103,0 *4.055*	113,0 *4.449*	23,5 *0.925*	M16x1	4,5	1	G2.5	3,8 *8.380*
E9306540332120	03098330	HSK-A100	32,0 *1.260*	120,0 *4.724*	91,0 *3.583*	70,0 *2.756*	51,0 *2.008*	44,0 *1.732*	53,0 *2.087*	170,0 *6.693*	56,5 *2.224*	69,0 *2.717*	23,5 *0.925*	M16x1	4,5	1	G2.5	2,9 *6.390*
HSKA125-SFD06-160	03229645	HSK-A125	6,0 *0.236*	160,0 *6.299*	131,0 *5.157*	37,5 *1.476*	22,0 *0.866*	21,0 *0.827*	27,0 *1.063*	223,0 *8.780*	124,0 *4.882*	134,0 *5.276*	10,5 *0.413*	M5x0.8	4,5	1	PB	3,9 *8.600*

Designation	Item number	CTMS	DCBN-DCBX	LPR	LB	CBDP	LSC	BD1	BD2	OAL	LFN	LF	RL	TDZ	BHTA°	RFID hole	Balan-cing	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*					kg *lbs*
HSKA125-SFD08-160	03229646	HSK-A125	8,0 *0.315*	160,0 *6.299*	131,0 *5.157*	37,5 *1.476*	26,0 *1.024*	21,0 *0.827*	27,0 *1.063*	223,0 *8.780*	124,0 *4.882*	134,0 *5.276*	10,5 *0.413*	M6x1	4,5	1	PB	3,9 *8.600*
HSKA125-SFD10-120	03229647	HSK-A125	10,0 *0.394*	120,0 *4.724*	91,0 *3.583*	42,5 *1.673*	31,0 *1.220*	24,0 *0.945*	32,0 *1.260*	183,0 *7.205*	79,0 *3.110*	89,0 *3.504*	13,0 *0.512*	M8x1	4,5	1	PB	3,8 *8.380*
HSKA125-SFD10-160	03229648	HSK-A125	10,0 *0.394*	160,0 *6.299*	131,0 *5.157*	42,5 *1.673*	31,0 *1.220*	24,0 *0.945*	32,0 *1.260*	223,0 *8.780*	119,0 *4.685*	129,0 *5.079*	13,0 *0.512*	M8x1	4,5	1	PB	4,1 *9.040*
HSKA125-SFD10-200	03229649	HSK-A125	10,0 *0.394*	200,0 *7.874*	171,0 *6.732*	42,5 *1.673*	31,0 *1.220*	24,0 *0.945*	32,0 *1.260*	263,0 *10.354*	159,0 *6.260*	169,0 *6.654*	13,0 *0.512*	M8x1	4,5	1	PB	4,2 *9.260*
HSKA125-SFD12-120	03229650	HSK-A125	12,0 *0.472*	120,0 *4.724*	91,0 *3.583*	47,5 *1.870*	34,0 *1.339*	24,0 *0.945*	32,0 *1.260*	183,0 *7.205*	74,0 *2.913*	84,0 *3.307*	13,0 *0.512*	M10x1	4,5	1	PB	3,8 *8.380*
HSKA125-SFD12-160	03229651	HSK-A125	12,0 *0.472*	160,0 *6.299*	131,0 *5.157*	47,5 *1.870*	34,0 *1.339*	24,0 *0.945*	32,0 *1.260*	223,0 *8.780*	114,0 *4.488*	124,0 *4.882*	13,0 *0.512*	M10x1	4,5	1	PB	4,1 *9.040*
HSKA125-SFD12-200	03229652	HSK-A125	12,0 *0.472*	200,0 *7.874*	171,0 *6.732*	47,5 *1.870*	34,0 *1.339*	24,0 *0.945*	32,0 *1.260*	263,0 *10.354*	154,0 *6.063*	166,0 *6.535*	13,0 *0.512*	M10x1	4,5	1	PB	4,3 *9.480*

Accessories

For	Balancing screws
	
All	90ZQ01

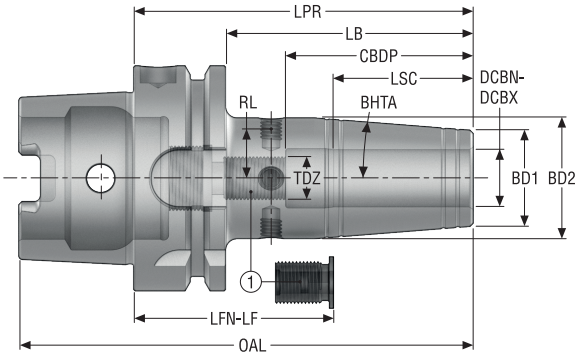
Spare Parts, included in delivery

For DCBN-DCBX/ LPR		Stop screw
		
6/ *0.236*		19BDR05165
8/ *0.315*		19BDR06165
10/ *0.394*		19BDR08165
12/ *0.472*-14/ *0.551*		19BDR10165
16/ *0.630*-18/ *0.709*	90/ *3.543*-100/ *3.937*	19BDR12165
16/ *0.630*-18/ *0.709*	120/ *4.724*-160/ *6.299*	19BDR12195
20/ *0.787*		19BDR16190
25/ *0.984*-32/ *1.260*		19BDR16225

DIN type – Inch

HSK-A/ ISO12164-1-HSK-A





- Run-out ≤3 µm
- Delivered with one stop screw
- For Shrinkfit extensions, see page(s) 373-374
- For HSK sealing plugs, coolant tubes and tube spanners, see page(s) 383
- For ISO attribute explanation, see page 14

Spare parts:
1 = Stop screw

Designation	Item number	CTMS	DCBN-DCBX	LPR	LB	CBDP	LSC	BD1	BD2	OAL	LFN	LF	RL	TDZ	BHTA°	RFID hole	Balancing	Weight
			inch	inch	inch	inch	inch	inch	inch	inch	inch	inch	inch					lbs
E9304560302580	02753196	HSK-A63	0.250	3.150	2.126	1.476	0.866	0.827	1.063	4.409	1.732	2.126	0.413	M5x0.8	4,5	1	G2.5	1.980
E93045603025120	02753194	HSK-A63	0.250	4.724	3.701	1.476	0.866	0.827	1.063	5.984	3.307	3.701	0.413	M5x0.8	4,5	1	G2.5	2.200
E9304560303785	02753198	HSK-A63	0.375	3.346	2.323	1.673	1.220	0.945	1.260	4.606	1.732	2.126	0.512	M8x1	4,5	1	G2.5	1.980
E93045603037120	02753197	HSK-A63	0.375	4.724	3.701	1.673	1.220	0.945	1.260	5.984	3.110	3.504	0.512	M8x1	4,5	1	G2.5	2.650
E9304560305090	02753202	HSK-A63	0.500	3.543	2.520	1.791	1.339	0.945	1.260	4.803	1.811	2.205	0.512	M10x1	4,5	1	G2.5	1.980
E93045603050120	02753200	HSK-A63	0.500	4.724	3.701	1.791	1.339	0.945	1.260	5.984	2.992	3.386	0.512	M10x1	4,5	1	G2.5	2.430
E9304560306295	02753204	HSK-A63	0.625	3.740	2.717	1.988	1.535	1.063	1.339	5.000	1.811	2.205	0.551	M12x1	4,5	1	G2.5	2.200
E93045603062120	02753203	HSK-A63	0.625	4.724	3.701	1.988	1.535	1.063	1.339	5.984	2.795	3.189	0.551	M12x1	4,5	1	G2.5	2.650
E93045603075100	02753206	HSK-A63	0.750	3.937	2.913	2.067	1.614	1.299	1.654	5.197	1.929	2.323	0.709	M16x1	4,5	1	G2.5	2.650
E93045603100115	02753208	HSK-A63	1.000	4.528	3.504	2.303	1.850	1.732	2.087	5.787	2.283	2.677	0.925	M16x1	4,5	1	G2.5	3.970
E9306560302585	02753212	HSK-A100	0.250	3.346	2.205	1.476	0.866	0.827	1.063	5.315	1.929	2.323	0.413	M5x0.8	4,5	1	G2.5	4.850
E93065603025160	02753211	HSK-A100	0.250	6.299	5.157	1.476	0.866	0.827	1.063	8.268	4.882	5.276	0.413	M5x0.8	4,5	1	G2.5	5.510
E9306560303785	02753214	HSK-A100	0.375	3.346	2.205	1.673	1.220	0.945	1.260	5.315	1.732	2.126	0.512	M8x1	4,5	1	G2.5	5.070
E93065603037160	02753213	HSK-A100	0.375	6.299	5.157	1.673	1.220	0.945	1.260	8.268	4.685	5.079	0.512	M8x1	4,5	1	G2.5	5.950
E9306560305095	02753216	HSK-A100	0.500	3.740	2.598	1.791	1.339	0.945	1.260	5.709	2.008	2.402	0.512	M10x1	4,5	1	G2.5	5.070
E93065603050160	02753215	HSK-A100	0.500	6.299	5.157	1.791	1.339	0.945	1.260	8.268	4.567	4.961	0.512	M10x1	4,5	1	G2.5	5.950
E93065603062100	02753217	HSK-A100	0.625	3.937	2.795	1.988	1.535	1.063	1.339	5.906	2.008	2.402	0.551	M12x1	4,5	1	G2.5	5.290
E93065603062160	02753218	HSK-A100	0.625	6.299	5.157	1.988	1.535	1.063	1.339	8.268	4.370	4.764	0.551	M12x1	4,5	1	G2.5	5.950
E93065603075105	02753219	HSK-A100	0.750	4.134	2.992	2.067	1.614	1.299	1.654	6.102	2.126	2.520	0.709	M16x1	4,5	1	G2.5	5.730
E93065603075130	02753220	HSK-A100	0.750	5.118	3.976	2.067	1.614	1.299	1.654	7.087	3.110	3.504	0.709	M16x1	4,5	1	G2.5	6.170
E93065603075160	02753221	HSK-A100	0.750	6.299	5.157	2.067	1.614	1.299	1.654	8.268	4.291	4.685	0.709	M16x1	4,5	1	G2.5	6.830
E93065603100115	02753223	HSK-A100	1.000	4.528	3.386	2.303	1.850	1.732	2.087	6.496	2.283	2.677	0.925	M16x1	4,5	1	G2.5	6.830
E93065603100160	02753224	HSK-A100	1.000	6.299	5.157	2.303	1.850	1.732	2.087	8.268	4.055	4.449	0.925	M16x1	4,5	1	G2.5	8.380
E93065603125120	02753225	HSK-A100	1.250	4.724	3.583	2.461	2.008	1.732	2.087	6.693	2.323	2.717	0.925	M16x1	4,5	1	G2.5	6.610
HSKA125-SFD0.375-4.000	03229686	HSK-A125	0.375	4.000	2.858	1.673	1.220	0.945	1.260	6.480	2.386	2.780	0.512	M8x1	4,5	1	PB	8.160
HSKA125-SFD0.375-6.250	03229688	HSK-A125	0.375	6.250	5.108	1.673	1.220	0.945	1.260	8.730	4.636	5.030	0.512	M8x1	4,5	1	PB	9.040
HSKA125-SFD0.500-4.000	03229689	HSK-A125	0.500	4.000	2.858	1.791	1.339	0.945	1.260	6.480	2.268	2.661	0.512	M10x1	4,5	1	PB	8.160
HSKA125-SFD0.500-6.250	03229691	HSK-A125	0.500	6.250	5.108	1.791	1.339	0.945	1.260	8.730	4.518	4.911	0.512	M10x1	4,5	1	PB	9.480

Accessories

For	Balancing screws
	
All	90ZQ01

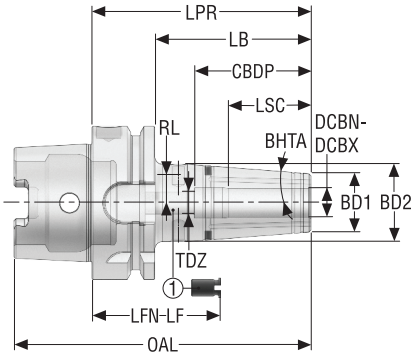
Spare Parts, included in delivery

For DCBN-DCBX	Stop screw
	
0.250 - 0.625	19BDR05165
0.375	19BDR08165
0.500	19BDR10165
0.625	19BDR12165
0.750 - 1.250	19BDR16165

DIN type, with peripheral coolant channels – Metric / *Inch*

HSK-A/ ISO12164-1-HSK-A





- Run-out ≤3 µm
- With coolant supply channels towards the tool (not plugged)
- Delivered with one stop screw
- For HSK sealing plugs, coolant tubes and tube spanners, see page(s) 383
- For ISO attribute explanation, see page 14

Spare parts:
1 = Stop screw

Designation	Item number	CTMS	DCBN-DCBX	LPR	LB	CBDP	LSC	BD1	BD2	OAL	LFN	LF	RL	TDZ	BHTA°	RFID hole	Balancing	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*					kg *lbs*
E930454020680	03157532	HSK-A63	6,0 *0.236*	80,0 *3.150*	54,0 *2.126*	37,5 *1.476*	22,0 *0.866*	21,0 *0.827*	27,0 *1.063*	112,0 *4.409*	44,0 *1.732*	54,0 *2.126*	10,5 *0.413*	M5x0.8	4,5	1	G2.5	0,9 *1.980*
E9304540206120	03180054	HSK-A63	6,0 *0.236*	120,0 *4.724*	94,0 *3.701*	37,5 *1.476*	22,0 *0.866*	21,0 *0.827*	27,0 *1.063*	152,0 *5.984*	84,0 *3.307*	94,0 *3.701*	10,5 *0.413*	M5x0.8	4,5	1	G2.5	1,0 *2.200*
E9304540206160	03157529	HSK-A63	6,0 *0.236*	160,0 *6.299*	134,0 *5.276*	37,5 *1.476*	22,0 *0.866*	21,0 *0.827*	27,0 *1.063*	192,0 *7.559*	124,0 *4.882*	134,0 *5.276*	10,5 *0.413*	M5x0.8	4,5	1	G2.5	1,2 *2.650*
E930454020880	03157533	HSK-A63	8,0 *0.315*	80,0 *3.150*	54,0 *2.126*	38,0 *1.496*	26,0 *1.024*	21,0 *0.827*	27,0 *1.063*	112,0 *4.409*	43,5 *1.713*	54,0 *2.126*	10,5 *0.413*	M6x1	4,5	1	G2.5	0,9 *1.980*
E9304540208120	03180055	HSK-A63	8,0 *0.315*	120,0 *4.724*	94,0 *3.701*	38,0 *1.496*	26,0 *1.024*	21,0 *0.827*	27,0 *1.063*	152,0 *5.984*	83,5 *3.287*	94,0 *3.701*	10,5 *0.413*	M6x1	4,5	1	G2.5	1,0 *2.200*
E9304540208160	03180056	HSK-A63	8,0 *0.315*	160,0 *6.299*	134,0 *5.276*	38,0 *1.496*	26,0 *1.024*	21,0 *0.827*	27,0 *1.063*	192,0 *7.559*	123,5 *4.862*	134,0 *5.276*	10,5 *0.413*	M6x1	4,5	1	G2.5	1,2 *2.650*
E930454021085	03157537	HSK-A63	10,0 *0.394*	85,0 *3.346*	59,0 *2.323*	43,5 *1.713*	31,0 *1.220*	24,0 *0.945*	32,0 *1.260*	117,0 *4.606*	43,0 *1.693*	54,0 *2.126*	13,0 *0.512*	M8x1	4,5	1	G2.5	0,9 *1.980*
E9304540210120	03180057	HSK-A63	10,0 *0.394*	120,0 *4.724*	94,0 *3.701*	43,5 *1.713*	31,0 *1.220*	24,0 *0.945*	32,0 *1.260*	152,0 *5.984*	78,0 *3.071*	89,0 *3.504*	13,0 *0.512*	M8x1	4,5	1	G2.5	1,1 *2.430*
E9304540210160	03157534	HSK-A63	10,0 *0.394*	160,0 *6.299*	134,0 *5.276*	43,5 *1.713*	31,0 *1.220*	24,0 *0.945*	32,0 *1.260*	192,0 *7.559*	118,0 *4.646*	129,0 *5.079*	13,0 *0.512*	M8x1	4,5	1	G2.5	1,4 *3.090*
E930454021290	03157538	HSK-A63	12,0 *0.472*	90,0 *3.543*	64,0 *2.520*	48,0 *1.890*	34,0 *1.339*	24,0 *0.945*	32,0 *1.260*	122,0 *4.803*	43,5 *1.713*	54,0 *2.126*	13,0 *0.512*	M10x1	4,5	1	G2.5	0,9 *1.980*
E9304540212120	03180058	HSK-A63	12,0 *0.472*	120,0 *4.724*	94,0 *3.701*	48,0 *1.890*	34,0 *1.339*	24,0 *0.945*	32,0 *1.260*	152,0 *5.984*	73,5 *2.894*	84,0 *3.307*	13,0 *0.512*	M10x1	4,5	1	G2.5	1,1 *2.430*
E9304540212160	03180059	HSK-A63	12,0 *0.472*	160,0 *6.299*	134,0 *5.276*	48,0 *1.890*	34,0 *1.339*	24,0 *0.945*	32,0 *1.260*	192,0 *7.559*	113,5 *4.469*	124,0 *4.882*	13,0 *0.512*	M10x1	4,5	1	G2.5	1,3 *2.870*
E930454021490	03180060	HSK-A63	14,0 *0.551*	90,0 *3.543*	64,0 *2.520*	49,0 *1.929*	34,0 *1.339*	27,0 *1.063*	34,0 *1.339*	122,0 *4.803*	42,5 *1.673*	54,0 *2.126*	14,0 *0.551*	M10x1	4,5	1	G2.5	1,0 *2.200*
E9304540214120	03180061	HSK-A63	14,0 *0.551*	120,0 *4.724*	94,0 *3.701*	49,0 *1.929*	34,0 *1.339*	27,0 *1.063*	34,0 *1.339*	152,0 *5.984*	72,5 *2.854*	84,0 *3.307*	14,0 *0.551*	M10x1	4,5	1	G2.5	1,2 *2.650*
E930454021695	03157541	HSK-A63	16,0 *0.630*	95,0 *3.740*	69,0 *2.717*	52,5 *2.067*	39,0 *1.535*	27,0 *1.063*	34,0 *1.339*	127,0 *5.000*	45,0 *1.772*	56,0 *2.205*	14,0 *0.551*	M12x1	4,5	1	G2.5	1,0 *2.200*
E9304540216120	03180062	HSK-A63	16,0 *0.630*	120,0 *4.724*	94,0 *3.701*	52,5 *2.067*	39,0 *1.535*	27,0 *1.063*	34,0 *1.339*	152,0 *5.984*	69,0 *2.717*	81,0 *3.189*	14,0 *0.551*	M12x1	4,5	1	G2.5	1,2 *2.650*
E9304540216160	03157539	HSK-A63	16,0 *0.630*	160,0 *6.299*	134,0 *5.276*	52,5 *2.067*	39,0 *1.535*	27,0 *1.063*	34,0 *1.339*	192,0 *7.559*	111,0 *4.370*	121,0 *4.764*	14,0 *0.551*	M12x1	4,5	1	G2.5	1,4 *3.090*
E930454021895	03180063	HSK-A63	18,0 *0.709*	95,0 *3.740*	69,0 *2.717*	53,0 *2.087*	39,0 *1.535*	33,0 *1.299*	42,0 *1.654*	127,0 *5.000*	44,5 *1.752*	56,0 *2.205*	18,0 *0.709*	M12x1	4,5	1	G2.5	1,2 *2.650*
E9304540218120	03180064	HSK-A63	18,0 *0.709*	120,0 *4.724*	94,0 *3.701*	53,0 *2.087*	39,0 *1.535*	33,0 *1.299*	42,0 *1.654*	152,0 *5.984*	71,0 *2.795*	81,0 *3.189*	18,0 *0.709*	M12x1	4,5	1	G2.5	1,4 *3.090*
E9304540220100	03157543	HSK-A63	20,0 *0.787*	100,0 *3.937*	74,0 *2.913*	55,5 *2.185*	41,0 *1.614*	33,0 *1.299*	42,0 *1.654*	132,0 *5.197*	47,5 *1.870*	59,0 *2.323*	18,0 *0.709*	M16x1	4,5	1	G2.5	1,2 *2.650*

Designation	Item number	CTMS	DCBN-DCBX	LPR	LB	CBDP	LSC	BD1	BD2	OAL	LFN	LF	RL	TDZ	BHTA°	RFID hole	Balan-cing	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*					kg *lbs*
E9304540220120	03180065	HSK-A63	20,0 *0.787*	120,0 *4.724*	94,0 *3.701*	55,5 *2.185*	41,0 *1.614*	33,0 *1.299*	42,0 *1.654*	152,0 *5.984*	67,5 *2.657*	79,0 *3.110*	18,0 *0.709*	M16x1	4,5	1	G2.5	1,4 *3.090*
E9304540220160	03180066	HSK-A63	20,0 *0.787*	160,0 *6.299*	134,0 *5.276*	55,5 *2.185*	41,0 *1.614*	33,0 *1.299*	42,0 *1.654*	192,0 *7.559*	107,5 *4.232*	119,0 *4.685*	18,0 *0.709*	M16x1	4,5	1	G2.5	1,8 *3.970*
E9304540225115	03180067	HSK-A63	25,0 *0.984*	115,0 *4.528*	89,0 *3.504*	63,5 *2.500*	47,0 *1.850*	44,0 *1.732*	53,0 *2.087*	147,0 *5.787*	58,0 *2.283*	68,0 *2.677*	23,5 *0.925*	M16x1	4,5	1	G2.5	1,8 *3.970*
E9304540225160	03180068	HSK-A63	25,0 *0.984*	160,0 *6.299*	134,0 *5.276*	63,5 *2.500*	47,0 *1.850*	44,0 *1.732*	53,0 *2.087*	192,0 *7.559*	98,0 *3.858*	113,0 *4.449*	23,5 *0.925*	M16x1	4,5	1	G2.5	2,5 *5.510*
E9304540232120	03180069	HSK-A63	32,0 *1.260*	120,0 *4.724*	94,0 *3.701*	70,0 *2.756*	51,0 *2.008*	44,0 *1.732*	53,0 *2.087*	152,0 *5.984*	56,5 *2.224*	69,0 *2.717*	23,5 *0.925*	M16x1	4,5	1	G2.5	1,7 *3.750*
E9306540020685	03180070	HSK-A100	6,0 *0.236*	85,0 *3.346*	56,0 *2.205*	37,5 *1.476*	22,0 *0.866*	21,0 *0.827*	27,0 *1.063*	135,0 *5.315*	49,0 *1.929*	59,0 *2.323*	10,5 *0.413*	M5x0.8	4,5	1	G2.5	2,2 *4.850*
E9306540206120	03168473	HSK-A100	6,0 *0.236*	120,0 *4.724*	91,0 *3.583*	37,5 *1.476*	22,0 *0.866*	21,0 *0.827*	27,0 *1.063*	170,0 *6.693*	84,0 *3.307*	94,0 *3.701*	10,5 *0.413*	M5x0.8	4,5	1	G2.5	2,4 *5.290*
E9306540206160	03180071	HSK-A100	6,0 *0.236*	160,0 *6.299*	131,0 *5.157*	37,5 *1.476*	22,0 *0.866*	21,0 *0.827*	27,0 *1.063*	210,0 *8.268*	124,0 *4.882*	134,0 *5.276*	10,5 *0.413*	M5x0.8	4,5	1	G2.5	2,5 *5.510*
E9306540020885	03180072	HSK-A100	8,0 *0.315*	85,0 *3.346*	56,0 *2.205*	38,0 *1.496*	26,0 *1.024*	21,0 *0.827*	27,0 *1.063*	135,0 *5.315*	48,5 *1.909*	59,0 *2.323*	10,5 *0.413*	M6x1	4,5	1	G2.5	2,2 *4.850*
E9306540208120	03168475	HSK-A100	8,0 *0.315*	120,0 *4.724*	91,0 *3.583*	38,0 *1.496*	26,0 *1.024*	21,0 *0.827*	27,0 *1.063*	170,0 *6.693*	83,5 *3.287*	94,0 *3.701*	10,5 *0.413*	M6x1	4,5	1	G2.5	2,4 *5.290*
E9306540208160	03180073	HSK-A100	8,0 *0.315*	160,0 *6.299*	131,0 *5.157*	38,0 *1.496*	26,0 *1.024*	21,0 *0.827*	27,0 *1.063*	210,0 *8.268*	123,5 *4.862*	134,0 *5.276*	10,5 *0.413*	M6x1	4,5	1	G2.5	2,5 *5.510*
E930654021090	03180074	HSK-A100	10,0 *0.394*	90,0 *3.543*	61,0 *2.402*	43,5 *1.713*	31,0 *1.220*	24,0 *0.945*	32,0 *1.260*	140,0 *5.512*	48,0 *1.890*	59,0 *2.323*	13,0 *0.512*	M8x1	4,5	1	G2.5	2,3 *5.070*
E9306540210120	03168476	HSK-A100	10,0 *0.394*	120,0 *4.724*	91,0 *3.583*	43,5 *1.713*	31,0 *1.220*	24,0 *0.945*	32,0 *1.260*	170,0 *6.693*	78,0 *3.071*	89,0 *3.504*	13,0 *0.512*	M8x1	4,5	1	G2.5	2,5 *5.510*
E9306540210160	03180075	HSK-A100	10,0 *0.394*	160,0 *6.299*	131,0 *5.157*	43,5 *1.713*	31,0 *1.220*	24,0 *0.945*	32,0 *1.260*	210,0 *8.268*	118,0 *4.646*	129,0 *5.079*	13,0 *0.512*	M8x1	4,5	1	G2.5	2,7 *5.950*
E930654021295	03180076	HSK-A100	12,0 *0.472*	95,0 *3.740*	66,0 *2.598*	48,0 *1.890*	34,0 *1.339*	24,0 *0.945*	32,0 *1.260*	145,0 *5.709*	48,5 *1.909*	59,0 *2.323*	13,0 *0.512*	M10x1	4,5	1	G2.5	2,3 *5.070*
E9306540212120	03167256	HSK-A100	12,0 *0.472*	120,0 *4.724*	91,0 *3.583*	48,0 *1.890*	34,0 *1.339*	24,0 *0.945*	32,0 *1.260*	170,0 *6.693*	73,5 *2.894*	86,0 *3.386*	13,0 *0.512*	M10x1	4,5	1	G2.5	2,4 *5.290*
E9306540212160	03180077	HSK-A100	12,0 *0.472*	160,0 *6.299*	131,0 *5.157*	48,0 *1.890*	34,0 *1.339*	24,0 *0.945*	32,0 *1.260*	210,0 *8.268*	113,5 *4.469*	124,0 *4.882*	13,0 *0.512*	M10x1	4,5	1	G2.5	2,7 *5.950*
E930654021495	03180078	HSK-A100	14,0 *0.551*	95,0 *3.740*	66,0 *2.598*	49,0 *1.929*	34,0 *1.339*	27,0 *1.063*	34,0 *1.339*	145,0 *5.709*	47,5 *1.870*	59,0 *2.323*	14,0 *0.551*	M10x1	4,5	1	G2.5	2,3 *5.070*
E9306540216100	03180079	HSK-A100	16,0 *0.630*	100,0 *3.937*	71,0 *2.795*	52,5 *2.067*	39,0 *1.535*	27,0 *1.063*	34,0 *1.339*	150,0 *5.906*	50,0 *1.969*	61,0 *2.402*	14,0 *0.551*	M12x1	4,5	1	G2.5	2,3 *5.070*
E9306540216130	03180080	HSK-A100	16,0 *0.630*	130,0 *5.118*	101,0 *3.976*	52,5 *2.067*	39,0 *1.535*	27,0 *1.063*	34,0 *1.339*	180,0 *7.087*	78,0 *3.071*	91,0 *3.583*	14,0 *0.551*	M12x1	4,5	1	G2.5	2,5 *5.510*
E9306540216160	03180081	HSK-A100	16,0 *0.630*	160,0 *6.299*	131,0 *5.157*	52,5 *2.067*	39,0 *1.535*	27,0 *1.063*	34,0 *1.339*	210,0 *8.268*	108,0 *4.252*	121,0 *4.764*	14,0 *0.551*	M12x1	4,5	1	G2.5	2,8 *6.170*
E9306540218100	03180082	HSK-A100	18,0 *0.709*	100,0 *3.937*	71,0 *2.795*	53,0 *2.087*	39,0 *1.535*	33,0 *1.299*	42,0 *1.654*	150,0 *5.906*	52,5 *2.067*	61,0 *2.402*	18,0 *0.709*	M12x1	4,5	1	G2.5	2,5 *5.510*
E9306540220105	03180083	HSK-A100	20,0 *0.787*	105,0 *4.134*	76,0 *2.992*	55,5 *2.185*	41,0 *1.614*	33,0 *1.299*	42,0 *1.654*	155,0 *6.102*	51,0 *2.008*	64,0 *2.520*	18,0 *0.709*	M16x1	4,5	1	G2.5	2,5 *5.510*
E9306540220130	03180084	HSK-A100	20,0 *0.787*	130,0 *5.118*	101,0 *3.976*	55,5 *2.185*	41,0 *1.614*	33,0 *1.299*	42,0 *1.654*	180,0 *7.087*	77,5 *3.051*	89,0 *3.504*	18,0 *0.709*	M16x1	4,5	1	G2.5	2,5 *5.510*
E9306540220160	03180085	HSK-A100	20,0 *0.787*	160,0 *6.299*	131,0 *5.157*	55,5 *2.185*	41,0 *1.614*	33,0 *1.299*	42,0 *1.654*	210,0 *8.268*	107,5 *4.232*	119,0 *4.685*	18,0 *0.709*	M16x1	4,5	1	G2.5	3,1 *6.830*
E9306540225115	03180087	HSK-A100	25,0 *0.984*	115,0 *4.528*	86,0 *3.386*	63,5 *2.500*	47,0 *1.850*	44,0 *1.732*	53,0 *2.087*	165,0 *6.496*	58,0 *2.283*	68,0 *2.677*	23,5 *0.925*	M16x1	4,5	1	G2.5	3,1 *6.830*
E9306540225160	03180088	HSK-A100	25,0 *0.984*	160,0 *6.299*	131,0 *5.157*	63,5 *2.500*	47,0 *1.850*	44,0 *1.732*	53,0 *2.087*	210,0 *8.268*	103,0 *4.055*	113,0 *4.449*	23,5 *0.925*	M16x1	4,5	1	G2.5	3,8 *8.380*
E9306540232120	03180089	HSK-A100	32,0 *1.260*	120,0 *4.724*	91,0 *3.583*	70,0 *2.756*	51,0 *2.008*	44,0 *1.732*	53,0 *2.087*	170,0 *6.693*	56,5 *2.224*	69,0 *2.717*	23,5 *0.925*	M16x1	4,5	1	G2.5	3,0 *6.610*

Accessories

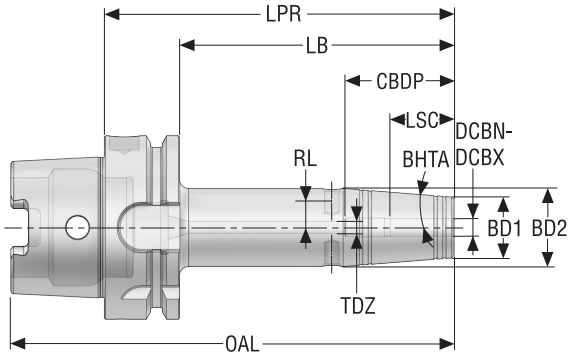
For	Balancing screws
	
All	90ZQ01

Spare Parts, included in delivery

For DCBN-DCBX/ LPR		Stop screw
		
6/ *0.236*		19BDR05165
8/ *0.315*		19BDR06165
10/ *0.394*		19BDR08165
12/ *0.472*-14/ *0.551*		19BDR10165
16/ *0.630*-18/ *0.709*	95/ *3.740*-100/ *3.937*	19BDR12165
16/ *0.630*-18/ *0.709*	120/ *4.724*-160/ *6.299*	19BDR12195
20/ *0.787*		19BDR16190
25/ *0.984*-32/ *1.260*		19BDR16225

HSK-A/ ISO12164-1-HSK-A

MQL 1, DIN type – DIN 69090-3 – Metric / *Inch*





- Run-out ≤3 µm
- Designed for MQL1, accessories to be ordered separately
- For MQL1 coolant tubes and stop screws, see page(s) 384-385
- For ISO attribute explanation, see page 14

Designation	Item number	CTMS	DCBN-DCBX	LPR	LB	CBDP	LSC	BD1	BD2	OAL	RL	TDZ	BHTA°	RFID hole	Balan-cing	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*					kg *lbs*
E930454030680M	03098401	HSK-A63	6,0 *0.236*	80,0 *3.150*	54,0 *2.126*	37,5 *1.476*	22,0 *0.866*	21,0 *0.827*	27,0 *1.063*	112,0 *4.409*	10,5 *0.413*	M5x0.8	4,5	1	G2.5	0,9 *1.980*
E9304540306120M	03098402	HSK-A63	6,0 *0.236*	120,0 *4.724*	94,0 *3.701*	37,5 *1.476*	22,0 *0.866*	21,0 *0.827*	27,0 *1.063*	152,0 *5.984*	10,5 *0.413*	M5x0.8	4,5	1	G2.5	1,1 *2.430*
E9304540306160M	03098403	HSK-A63	6,0 *0.236*	160,0 *6.299*	134,0 *5.276*	37,5 *1.476*	22,0 *0.866*	21,0 *0.827*	27,0 *1.063*	192,0 *7.559*	10,5 *0.413*	M5x0.8	4,5	1	G2.5	1,2 *2.650*
E930454030880M	03098404	HSK-A63	8,0 *0.315*	80,0 *3.150*	54,0 *2.126*	38,0 *1.496*	26,0 *1.024*	21,0 *0.827*	27,0 *1.063*	112,0 *4.409*	10,5 *0.413*	M6x1	4,5	1	G2.5	0,9 *1.980*
E9304540308120M	03098405	HSK-A63	8,0 *0.315*	120,0 *4.724*	94,0 *3.701*	38,0 *1.496*	26,0 *1.024*	21,0 *0.827*	27,0 *1.063*	152,0 *5.984*	10,5 *0.413*	M6x1	4,5	1	G2.5	1,0 *2.200*
E9304540308160M	03098406	HSK-A63	8,0 *0.315*	160,0 *6.299*	134,0 *5.276*	38,0 *1.496*	26,0 *1.024*	21,0 *0.827*	27,0 *1.063*	192,0 *7.559*	10,5 *0.413*	M6x1	4,5	1	G2.5	1,2 *2.650*
E930454031085M	03098407	HSK-A63	10,0 *0.394*	85,0 *3.346*	59,0 *2.323*	43,5 *1.713*	31,0 *1.220*	24,0 *0.945*	32,0 *1.260*	117,0 *4.606*	13,0 *0.512*	M8x1	4,5	1	G2.5	0,9 *1.980*
E9304540310120M	03098408	HSK-A63	10,0 *0.394*	120,0 *4.724*	94,0 *3.701*	43,5 *1.713*	31,0 *1.220*	24,0 *0.945*	32,0 *1.260*	152,0 *5.984*	13,0 *0.512*	M8x1	4,5	1	G2.5	1,2 *2.650*
E9304540310160M	03098409	HSK-A63	10,0 *0.394*	160,0 *6.299*	134,0 *5.276*	43,5 *1.713*	31,0 *1.220*	24,0 *0.945*	32,0 *1.260*	192,0 *7.559*	13,0 *0.512*	M8x1	4,5	1	G2.5	1,4 *3.090*
E930454031290M	03098410	HSK-A63	12,0 *0.472*	90,0 *3.543*	64,0 *2.520*	48,0 *1.890*	34,0 *1.339*	24,0 *0.945*	32,0 *1.260*	122,0 *4.803*	13,0 *0.512*	M10x1	4,5	1	G2.5	0,9 *1.980*
E9304540312120M	03098411	HSK-A63	12,0 *0.472*	120,0 *4.724*	94,0 *3.701*	48,0 *1.890*	34,0 *1.339*	24,0 *0.945*	32,0 *1.260*	152,0 *5.984*	13,0 *0.512*	M10x1	4,5	1	G2.5	1,1 *2.430*
E9304540312160M	03098412	HSK-A63	12,0 *0.472*	160,0 *6.299*	134,0 *5.276*	48,0 *1.890*	34,0 *1.339*	24,0 *0.945*	32,0 *1.260*	192,0 *7.559*	13,0 *0.512*	M10x1	4,5	1	G2.5	1,4 *3.090*
E930454031490M	03098413	HSK-A63	14,0 *0.551*	90,0 *3.543*	64,0 *2.520*	49,0 *1.929*	34,0 *1.339*	27,0 *1.063*	34,0 *1.339*	122,0 *4.803*	14,0 *0.551*	M10x1	4,5	1	G2.5	1,0 *2.200*
E9304540314120M	03098414	HSK-A63	14,0 *0.551*	120,0 *4.724*	94,0 *3.701*	49,0 *1.929*	34,0 *1.339*	27,0 *1.063*	34,0 *1.339*	152,0 *5.984*	14,0 *0.551*	M10x1	4,5	1	G2.5	1,2 *2.650*
E930454031695M	03098415	HSK-A63	16,0 *0.630*	95,0 *3.740*	69,0 *2.717*	52,5 *2.067*	39,0 *1.535*	27,0 *1.063*	34,0 *1.339*	127,0 *5.000*	14,0 *0.551*	M10x1	4,5	1	G2.5	1,1 *2.430*
E9304540316120M	03098416	HSK-A63	16,0 *0.630*	120,0 *4.724*	94,0 *3.701*	52,5 *2.067*	39,0 *1.535*	27,0 *1.063*	34,0 *1.339*	152,0 *5.984*	14,0 *0.551*	M10x1	4,5	1	G2.5	1,2 *2.650*
E9304540316160M	03098417	HSK-A63	16,0 *0.630*	160,0 *6.299*	134,0 *5.276*	52,5 *2.067*	39,0 *1.535*	27,0 *1.063*	34,0 *1.339*	192,0 *7.559*	14,0 *0.551*	M10x1	4,5	1	G2.5	1,5 *3.310*
E930454031895M	03098418	HSK-A63	18,0 *0.709*	95,0 *3.740*	69,0 *2.717*	53,0 *2.087*	39,0 *1.535*	33,0 *1.299*	42,0 *1.654*	127,0 *5.000*	18,0 *0.709*	M10x1	4,5	1	G2.5	1,2 *2.650*
E9304540318120M	03098419	HSK-A63	18,0 *0.709*	120,0 *4.724*	94,0 *3.701*	53,0 *2.087*	39,0 *1.535*	33,0 *1.299*	42,0 *1.654*	152,0 *5.984*	18,0 *0.709*	M10x1	4,5	1	G2.5	1,5 *3.310*
E9304540320100M	03098420	HSK-A63	20,0 *0.787*	100,0 *3.937*	74,0 *2.913*	55,5 *2.185*	41,0 *1.614*	33,0 *1.299*	42,0 *1.654*	132,0 *5.197*	18,0 *0.709*	M10x1	4,5	1	G2.5	1,2 *2.650*
E9304540320120M	03098421	HSK-A63	20,0 *0.787*	120,0 *4.724*	94,0 *3.701*	55,5 *2.185*	41,0 *1.614*	33,0 *1.299*	42,0 *1.654*	152,0 *5.984*	18,0 *0.709*	M10x1	4,5	1	G2.5	1,4 *3.090*

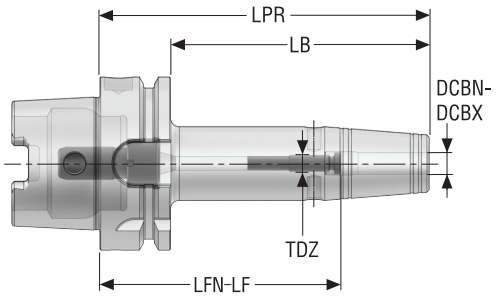
Designation	Item number	CTMS	DCBN-DCBX	LPR	LB	CBDP	LSC	BD1	BD2	OAL	RL	TDZ	BHTA°	RFID hole	Balancing	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*					kg *lbs*
E9304540320160M	03098422	HSK-A63	20,0 *0.787*	160,0 *6.299*	134,0 *5.276*	55,5 *2.185*	41,0 *1.614*	33,0 *1.299*	42,0 *1.654*	192,0 *7.559*	18,0 *0.709*	M10x1	4,5	1	G2.5	1,8 *3.970*
E9304540325115M	03098423	HSK-A63	25,0 *0.984*	115,0 *4.528*	89,0 *3.504*	63,5 *2.500*	47,0 *1.850*	44,0 *1.732*	53,0 *2.087*	147,0 *5.787*	23,5 *0.925*	M10x1	4,5	1	G2.5	1,8 *3.970*
E9304540325160M	03098424	HSK-A63	25,0 *0.984*	160,0 *6.299*	134,0 *5.276*	63,5 *2.500*	47,0 *1.850*	44,0 *1.732*	53,0 *2.087*	192,0 *7.559*	23,5 *0.925*	M10x1	4,5	1	G2.5	2,5 *5.510*
E9304540332120M	03098425	HSK-A63	32,0 *1.260*	120,0 *4.724*	94,0 *3.701*	70,0 *2.756*	51,0 *2.008*	44,0 *1.732*	53,0 *2.087*	152,0 *5.984*	23,5 *0.925*	M10x1	4,5	1	G2.5	1,6 *3.530*
E9306540306850M	03098582	HSK-A100	6,0 *0.236*	85,0 *3.346*	56,0 *2.205*	37,5 *1.476*	22,0 *0.866*	21,0 *0.827*	27,0 *1.063*	135,0 *5.315*	10,5 *0.413*	M5x0.8	4,5	1	G2.5	2,2 *4.850*
E9306540306120M	03098583	HSK-A100	6,0 *0.236*	120,0 *4.724*	91,0 *3.583*	37,5 *1.476*	22,0 *0.866*	21,0 *0.827*	27,0 *1.063*	170,0 *6.693*	10,5 *0.413*	M5x0.8	4,5	1	G2.5	2,4 *5.290*
E9306540306160M	03098584	HSK-A100	6,0 *0.236*	160,0 *6.299*	131,0 *5.157*	37,5 *1.476*	22,0 *0.866*	21,0 *0.827*	27,0 *1.063*	210,0 *8.268*	10,5 *0.413*	M5x0.8	4,5	1	G2.5	2,0 *4.410*
E9306540308850M	03098585	HSK-A100	8,0 *0.315*	85,0 *3.346*	56,0 *2.205*	38,0 *1.496*	26,0 *1.024*	21,0 *0.827*	27,0 *1.063*	135,0 *5.315*	10,5 *0.413*	M6x1	4,5	1	G2.5	2,2 *4.850*
E9306540308120M	03098586	HSK-A100	8,0 *0.315*	120,0 *4.724*	91,0 *3.583*	38,0 *1.496*	26,0 *1.024*	21,0 *0.827*	27,0 *1.063*	170,0 *6.693*	10,5 *0.413*	M6x1	4,5	1	G2.5	2,4 *5.290*
E9306540308160M	03098587	HSK-A100	8,0 *0.315*	160,0 *6.299*	131,0 *5.157*	38,0 *1.496*	26,0 *1.024*	21,0 *0.827*	27,0 *1.063*	210,0 *8.268*	10,5 *0.413*	M6x1	4,5	1	G2.5	2,6 *5.730*
E9306540310900M	03098588	HSK-A100	10,0 *0.394*	90,0 *3.543*	61,0 *2.402*	43,5 *1.713*	31,0 *1.220*	24,0 *0.945*	32,0 *1.260*	140,0 *5.512*	13,0 *0.512*	M8x1	4,5	1	G2.5	2,3 *5.070*
E9306540310120M	03098589	HSK-A100	10,0 *0.394*	120,0 *4.724*	91,0 *3.583*	43,5 *1.713*	31,0 *1.220*	24,0 *0.945*	32,0 *1.260*	170,0 *6.693*	13,0 *0.512*	M8x1	4,5	1	G2.5	2,0 *4.410*
E9306540310160M	03098590	HSK-A100	10,0 *0.394*	160,0 *6.299*	131,0 *5.157*	43,5 *1.713*	31,0 *1.220*	24,0 *0.945*	32,0 *1.260*	210,0 *8.268*	13,0 *0.512*	M8x1	4,5	1	G2.5	2,9 *6.390*
E9306540312950M	03098591	HSK-A100	12,0 *0.472*	95,0 *3.740*	66,0 *2.598*	48,0 *1.890*	34,0 *1.339*	24,0 *0.945*	32,0 *1.260*	145,0 *5.709*	13,0 *0.512*	M10x1	4,5	1	G2.5	2,3 *5.070*
E9306540312120M	03098592	HSK-A100	12,0 *0.472*	120,0 *4.724*	91,0 *3.583*	48,0 *1.890*	34,0 *1.339*	24,0 *0.945*	32,0 *1.260*	170,0 *6.693*	13,0 *0.512*	M10x1	4,5	1	G2.5	2,5 *5.510*
E9306540312160M	03098593	HSK-A100	12,0 *0.472*	160,0 *6.299*	131,0 *5.157*	48,0 *1.890*	34,0 *1.339*	24,0 *0.945*	32,0 *1.260*	210,0 *8.268*	13,0 *0.512*	M10x1	4,5	1	G2.5	2,7 *5.950*
E9306540314950M	03098594	HSK-A100	14,0 *0.551*	95,0 *3.740*	66,0 *2.598*	49,0 *1.929*	34,0 *1.339*	27,0 *1.063*	34,0 *1.339*	145,0 *5.709*	14,0 *0.551*	M10x1	4,5	1	G2.5	2,4 *5.290*
E9306540316100M	03098595	HSK-A100	16,0 *0.630*	100,0 *3.937*	71,0 *2.795*	52,5 *2.067*	39,0 *1.535*	27,0 *1.063*	34,0 *1.339*	150,0 *5.906*	14,0 *0.551*	M10x1	4,5	1	G2.5	2,4 *5.290*
E9306540316130M	03098596	HSK-A100	16,0 *0.630*	130,0 *5.118*	101,0 *3.976*	52,5 *2.067*	39,0 *1.535*	27,0 *1.063*	34,0 *1.339*	180,0 *7.087*	14,0 *0.551*	M10x1	4,5	1	G2.5	2,6 *5.730*
E9306540316160M	03098597	HSK-A100	16,0 *0.630*	160,0 *6.299*	131,0 *5.157*	52,5 *2.067*	39,0 *1.535*	27,0 *1.063*	34,0 *1.339*	210,0 *8.268*	14,0 *0.551*	M10x1	4,5	1	G2.5	2,9 *6.390*
E9306540318100M	03098598	HSK-A100	18,0 *0.709*	100,0 *3.937*	71,0 *2.795*	53,0 *2.087*	39,0 *1.535*	33,0 *1.299*	42,0 *1.654*	150,0 *5.906*	18,0 *0.709*	M10x1	4,5	1	G2.5	2,6 *5.730*
E9306540320105M	03098599	HSK-A100	20,0 *0.787*	105,0 *4.134*	76,0 *2.992*	55,5 *2.185*	41,0 *1.614*	33,0 *1.299*	42,0 *1.654*	155,0 *6.102*	18,0 *0.709*	M10x1	4,5	1	G2.5	2,6 *5.730*
E9306540320130M	03098600	HSK-A100	20,0 *0.787*	130,0 *5.118*	101,0 *3.976*	55,5 *2.185*	41,0 *1.614*	33,0 *1.299*	42,0 *1.654*	180,0 *7.087*	18,0 *0.709*	M10x1	4,5	1	G2.5	2,8 *6.170*
E9306540320160M	03098601	HSK-A100	20,0 *0.787*	160,0 *6.299*	131,0 *5.157*	55,5 *2.185*	41,0 *1.614*	33,0 *1.299*	42,0 *1.654*	210,0 *8.268*	18,0 *0.709*	M10x1	4,5	1	G2.5	3,3 *7.280*
E9306540325115M	03098602	HSK-A100	25,0 *0.984*	115,0 *4.528*	86,0 *3.386*	63,5 *2.500*	47,0 *1.850*	44,0 *1.732*	53,0 *2.087*	165,0 *6.496*	23,5 *0.925*	M10x1	4,5	1	G2.5	3,1 *6.830*
E9306540325160M	03098603	HSK-A100	25,0 *0.984*	160,0 *6.299*	131,0 *5.157*	63,5 *2.500*	47,0 *1.850*	44,0 *1.732*	53,0 *2.087*	210,0 *8.268*	23,5 *0.925*	M10x1	4,5	1	G2.5	3,9 *8.600*
E9306540332120M	03098604	HSK-A100	32,0 *1.260*	120,0 *4.724*	91,0 *3.583*	70,0 *2.756*	51,0 *2.008*	44,0 *1.732*	53,0 *2.087*	170,0 *6.693*	23,5 *0.925*	M10x1	4,5	1	G2.5	3,1 *6.830*

Accessories

For	Balancing screws
	
All	90ZQ01

HSK-A/ ISO12164-1-HSK-A

MQL 1, DIN type – DIN 69090-3 – Metric / *Inch*





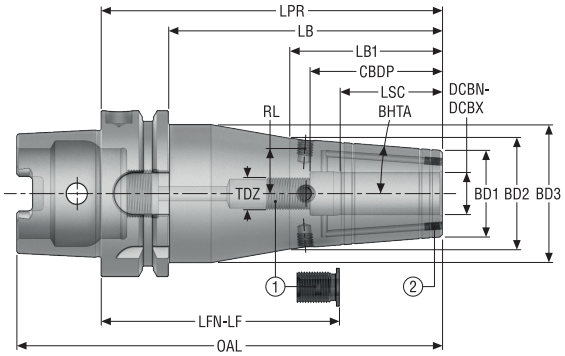
- Run-out ≤3 µm
- Delivered ready for MQL1 with stop screw and coolant tube fitted
- For MQL1 coolant tubes and stop screws, see page(s) 384-385
- For ISO attribute explanation, see page 14

Designation	Item number	CTMS	DCBN-DCBX	LPR	LB	LFN	LF	TDZ	Weight	Tool holders	Coolant tube MQL1	Stop screw MQL1
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*		kg *lbs*			
E930454030680M1	03098623	HSK-A63	6,0 *0.236*	80,0 *3.150*	54,0 *2.126*	44,0 *1.732*	54,0 *2.126*	M5x0.8	0,9 *1.980*	E930454030680M	20E9304	19MQL106S
E9304540306120M1	03098624	HSK-A63	6,0 *0.236*	120,0 *4.724*	94,0 *3.701*	84,0 *3.307*	94,0 *3.701*	M5x0.8	1,1 *2.430*	E9304540306120M	20E9304	19MQL106L
E9304540306160M1	03098625	HSK-A63	6,0 *0.236*	160,0 *6.299*	134,0 *5.276*	124,0 *4.882*	134,0 *5.276*	M5x0.8	1,3 *2.870*	E9304540306160M	20E9304	19MQL106L
E930454030880M1	03098626	HSK-A63	8,0 *0.315*	80,0 *3.150*	54,0 *2.126*	44,0 *1.732*	54,0 *2.126*	M6x1	0,9 *1.980*	E930454030880M	20E9304	19MQL108S
E9304540308120M1	03098627	HSK-A63	8,0 *0.315*	120,0 *4.724*	94,0 *3.701*	84,0 *3.307*	94,0 *3.701*	M6x1	1,1 *2.430*	E9304540308120M	20E9304	19MQL108L
E9304540308160M1	03098628	HSK-A63	8,0 *0.315*	160,0 *6.299*	134,0 *5.276*	124,0 *4.882*	134,0 *5.276*	M6x1	1,2 *2.650*	E9304540308160M	20E9304	19MQL108L
E930454031085M1	03098629	HSK-A63	10,0 *0.394*	85,0 *3.346*	59,0 *2.323*	44,0 *1.732*	54,0 *2.126*	M8x1	1,0 *2.200*	E930454031085M	20E9304	19MQL110S
E9304540310120M1	03098630	HSK-A63	10,0 *0.394*	120,0 *4.724*	94,0 *3.701*	79,0 *3.110*	89,0 *3.504*	M8x1	1,2 *2.650*	E9304540310120M	20E9304	19MQL110L
E9304540310160M1	03098631	HSK-A63	10,0 *0.394*	160,0 *6.299*	134,0 *5.276*	119,0 *4.685*	129,0 *5.079*	M8x1	1,4 *3.090*	E9304540310160M	20E9304	19MQL110L
E930454031290M1	03098632	HSK-A63	12,0 *0.472*	90,0 *3.543*	64,0 *2.520*	44,0 *1.732*	54,0 *2.126*	M10x1	1,0 *2.200*	E930454031290M	20E9304	19MQL112S
E9304540312120M1	03098633	HSK-A63	12,0 *0.472*	120,0 *4.724*	94,0 *3.701*	74,0 *2.913*	84,0 *3.307*	M10x1	1,2 *2.650*	E9304540312120M	20E9304	19MQL112L
E9304540312160M1	03098634	HSK-A63	12,0 *0.472*	160,0 *6.299*	134,0 *5.276*	114,0 *4.488*	124,0 *4.882*	M10x1	1,4 *3.090*	E9304540312160M	20E9304	19MQL112L
E930454031490M1	03098635	HSK-A63	14,0 *0.551*	90,0 *3.543*	64,0 *2.520*	44,0 *1.732*	54,0 *2.126*	M10x1	1,1 *2.430*	E930454031490M	20E9304	19MQL114S
E9304540314120M1	03098636	HSK-A63	14,0 *0.551*	120,0 *4.724*	94,0 *3.701*	74,0 *2.913*	84,0 *3.307*	M10x1	1,0 *2.200*	E9304540314120M	20E9304	19MQL114L
E930454031695M1	03098637	HSK-A63	16,0 *0.630*	95,0 *3.740*	69,0 *2.717*	46,0 *1.811*	56,0 *2.205*	M10x1	1,1 *2.430*	E930454031695M	20E9304	19MQL116S
E9304540316120M1	03098638	HSK-A63	16,0 *0.630*	120,0 *4.724*	94,0 *3.701*	71,0 *2.795*	81,0 *3.189*	M10x1	1,2 *2.650*	E9304540316120M	20E9304	19MQL116L
E9304540316160M1	03098639	HSK-A63	16,0 *0.630*	160,0 *6.299*	134,0 *5.276*	111,0 *4.370*	121,0 *4.764*	M10x1	1,5 *3.310*	E9304540316160M	20E9304	19MQL116L
E930454031895M1	03098640	HSK-A63	18,0 *0.709*	95,0 *3.740*	69,0 *2.717*	46,0 *1.811*	56,0 *2.205*	M10x1	1,2 *2.650*	E930454031895M	20E9304	19MQL118S
E9304540318120M1	03098641	HSK-A63	18,0 *0.709*	120,0 *4.724*	94,0 *3.701*	71,0 *2.795*	81,0 *3.189*	M10x1	1,5 *3.310*	E9304540318120M	20E9304	19MQL118L
E9304540320100M1	03098642	HSK-A63	20,0 *0.787*	100,0 *3.937*	74,0 *2.913*	49,0 *1.929*	59,0 *2.323*	M10x1	1,3 *2.870*	E9304540320100M	20E9304	19MQL120S
E9304540320120M1	03098643	HSK-A63	20,0 *0.787*	120,0 *4.724*	94,0 *3.701*	69,0 *2.717*	79,0 *3.110*	M10x1	1,4 *3.090*	E9304540320120M	20E9304	19MQL120L

Designation	Item number	CTMS	DCBN-DCBX	LPR	LB	LFN	LF	TDZ	Weight	Tool holders	Coolant tube MQL1	Stop screw MQL1
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*		kg *lbs*			
E9304540320160M1	03098644	HSK-A63	20,0 *0.787*	160,0 *6.299*	134,0 *5.276*	109,0 *4.291*	119,0 *4.685*	M10x1	1,9 *4.190*	E9304540320160M	20E9304	19MQL120L
E9304540325115M1	03098645	HSK-A63	25,0 *0.984*	115,0 *4.528*	89,0 *3.504*	58,0 *2.283*	68,0 *2.677*	M10x1	1,8 *3.970*	E9304540325115M	20E9304	19MQL125S
E9304540325160M1	03098646	HSK-A63	25,0 *0.984*	160,0 *6.299*	134,0 *5.276*	103,0 *4.055*	113,0 *4.449*	M10x1	2,6 *5.730*	E9304540325160M	20E9304	19MQL125L
E9304540332120M1	03098647	HSK-A63	32,0 *1.260*	120,0 *4.724*	94,0 *3.701*	59,0 *2.323*	69,0 *2.717*	M10x1	1,7 *3.750*	E9304540332120M	20E9304	19MQL132S
E9306540306120M1	03099159	HSK-A100	6,0 *0.236*	120,0 *4.724*	91,0 *3.583*	84,0 *3.307*	94,0 *3.701*	M5x0.8	2,5 *5.510*	E9306540306120M	20E9306M1	19MQL106L
E9306540306160M1	03099160	HSK-A100	6,0 *0.236*	160,0 *6.299*	131,0 *5.157*	124,0 *4.882*	134,0 *5.276*	M5x0.8	2,6 *5.730*	E9306540306160M	20E9306M1	19MQL106L
E9306540308120M1	03099162	HSK-A100	8,0 *0.315*	120,0 *4.724*	91,0 *3.583*	84,0 *3.307*	94,0 *3.701*	M6x1	2,5 *5.510*	E9306540308120M	20E9306M1	19MQL108L
E9306540308160M1	03099163	HSK-A100	8,0 *0.315*	160,0 *6.299*	131,0 *5.157*	124,0 *4.882*	134,0 *5.276*	M6x1	2,8 *6.170*	E9306540308160M	20E9306M1	19MQL108L
E9306540310120M1	03099165	HSK-A100	10,0 *0.394*	120,0 *4.724*	91,0 *3.583*	79,0 *3.110*	89,0 *3.504*	M8x1	2,7 *5.950*	E9306540310120M	20E9306M1	19MQL110L
E9306540310160M1	03099166	HSK-A100	10,0 *0.394*	160,0 *6.299*	131,0 *5.157*	119,0 *4.685*	129,0 *5.079*	M8x1	2,8 *6.170*	E9306540310160M	20E9306M1	19MQL110L
E9306540312120M1	03099168	HSK-A100	12,0 *0.472*	120,0 *4.724*	91,0 *3.583*	74,0 *2.913*	84,0 *3.307*	M10x1	2,6 *5.730*	E9306540312120M	20E9306M1	19MQL112L
E9306540312160M1	03099169	HSK-A100	12,0 *0.472*	160,0 *6.299*	131,0 *5.157*	114,0 *4.488*	124,0 *4.882*	M10x1	2,7 *5.950*	E9306540312160M	20E9306M1	19MQL112L
E9306540316100M1	03099171	HSK-A100	16,0 *0.630*	100,0 *3.937*	71,0 *2.795*	51,0 *2.008*	61,0 *2.402*	M10x1	2,4 *5.290*	E9306540316100M	20E9306M1	19MQL116S
E9306540316130M1	03099172	HSK-A100	16,0 *0.630*	130,0 *5.118*	101,0 *3.976*	81,0 *3.189*	91,0 *3.583*	M10x1	2,8 *6.170*	E9306540316130M	20E9306M1	19MQL116L
E9306540316160M1	03099173	HSK-A100	16,0 *0.630*	160,0 *6.299*	131,0 *5.157*	111,0 *4.370*	121,0 *4.764*	M10x1	3,0 *6.610*	E9306540316160M	20E9306M1	19MQL116L
E9306540318100M1	03099174	HSK-A100	18,0 *0.709*	100,0 *3.937*	71,0 *2.795*	51,0 *2.008*	61,0 *2.402*	M10x1	2,6 *5.730*	E9306540318100M	20E9306M1	19MQL118S
E9306540320105M1	03099175	HSK-A100	20,0 *0.787*	105,0 *4.134*	76,0 *2.992*	54,0 *2.126*	64,0 *2.520*	M10x1	2,6 *5.730*	E9306540320105M	20E9306M1	19MQL120S
E9306540320130M1	03099176	HSK-A100	20,0 *0.787*	130,0 *5.118*	101,0 *3.976*	79,0 *3.110*	89,0 *3.504*	M10x1	2,9 *6.390*	E9306540320130M	20E9306M1	19MQL120L
E9306540320160M1	03099177	HSK-A100	20,0 *0.787*	160,0 *6.299*	131,0 *5.157*	109,0 *4.291*	119,0 *4.685*	M10x1	3,2 *7.050*	E9306540320160M	20E9306M1	19MQL120L
E9306540325115M1	03099178	HSK-A100	25,0 *0.984*	115,0 *4.528*	86,0 *3.386*	58,0 *2.283*	68,0 *2.677*	M10x1	3,3 *7.280*	E9306540325115M	20E9306M1	19MQL125S
E9306540325160M1	03099179	HSK-A100	25,0 *0.984*	160,0 *6.299*	131,0 *5.157*	103,0 *4.055*	113,0 *4.449*	M10x1	4,0 *8.820*	E9306540325160M	20E9306M1	19MQL125L
E9306540332120M1	03099180	HSK-A100	32,0 *1.260*	120,0 *4.724*	91,0 *3.583*	59,0 *2.323*	69,0 *2.717*	M10x1	3,0 *6.610*	E9306540332120M	20E9306M1	19MQL132S

HSK-A/ ISO12164-1-HSK-A

Reinforced type
– Metric / *Inch*





Spare parts:
1 = Stop screw
2 = Sealing plugs

- Run-out ≤3 µm
- With coolant supply channels towards the tool (plugged)
- Delivered with one stop screw
- * Holder without thread for a stop screw
- ** Holder without threaded holes for balancing screw
- For HSK sealing plugs, coolant tubes and tube spanners, see page(s) 383
- For ISO attribute explanation, see page 14

Designation	Item number	CTMS	DCBN-DCBX	LPR	LB	LB1	CBDP	LSC	BD1	BD2	BD3	OAL	LFN	LF	RL	TDZ	BHTA°	*	**	RFID hole	Balan-cing	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*							kg *lbs*
E9304560000670	02845449	HSK-A63	6,0 *0.236*	70,0 *2.756*	44,0 *1.732*	–	37,5 *1.476*	22,0 *0.866*	24,0 *0.945*	30,9 *1.217*	–	102,0 *4.016*	–	–	12,0 *0.472*	–	4,5	*		1	G2.5	0,9 *1.980*
E9304560006130	02845469	HSK-A63	6,0 *0.236*	130,0 *5.118*	104,0 *4.094*	52,0 *2.047*	37,5 *1.476*	22,0 *0.866*	24,0 *0.945*	32,2 *1.267*	52,5 *2.067*	162,0 *6.378*	94,0 *3.701*	104,0 *4.094*	12,0 *0.472*	M5x0.8	4,5			1	G2.5	1,6 *3.530*
E9304560006160	02845477	HSK-A63	6,0 *0.236*	160,0 *6.299*	134,0 *5.276*	52,0 *2.047*	37,5 *1.476*	22,0 *0.866*	24,0 *0.945*	32,2 *1.267*	52,5 *2.067*	192,0 *7.559*	124,0 *4.882*	134,0 *5.276*	12,0 *0.472*	M5x0.8	4,5			1	G2.5	1,9 *4.190*
E9304560000870	02845450	HSK-A63	8,0 *0.315*	70,0 *2.756*	44,0 *1.732*	–	37,5 *1.476*	26,0 *1.024*	24,0 *0.945*	32,2 *1.267*	–	102,0 *4.016*	34,0 *1.339*	44,0 *1.732*	12,0 *0.472*	M6x1	4,5	*		1	G2.5	0,9 *1.980*
E9304560008130	02845470	HSK-A63	8,0 *0.315*	130,0 *5.118*	104,0 *4.094*	52,0 *2.047*	37,5 *1.476*	26,0 *1.024*	24,0 *0.945*	32,2 *1.267*	52,5 *2.067*	162,0 *6.378*	94,0 *3.701*	104,0 *4.094*	12,0 *0.472*	M6x1	4,5			1	G2.5	1,6 *3.530*
E9304560001070	02845451	HSK-A63	10,0 *0.394*	70,0 *2.756*	44,0 *1.732*	–	42,5 *1.673*	31,0 *1.220*	27,0 *1.063*	35,2 *1.385*	–	102,0 *4.016*	29,0 *1.142*	39,0 *1.535*	13,5 *0.531*	M8x1	4,5	*		1	G2.5	0,85 *1.870*
E9304560010130	02845471	HSK-A63	10,0 *0.394*	130,0 *5.118*	104,0 *4.094*	52,0 *2.047*	42,5 *1.673*	31,0 *1.220*	27,0 *1.063*	35,2 *1.385*	52,5 *2.067*	162,0 *6.378*	89,0 *3.504*	99,0 *3.898*	13,5 *0.531*	M8x1	4,5			1	G2.5	1,6 *3.530*
E9304560010160	02845479	HSK-A63	10,0 *0.394*	160,0 *6.299*	134,0 *5.276*	52,0 *2.047*	42,5 *1.673*	31,0 *1.220*	27,0 *1.063*	35,2 *1.385*	52,5 *2.067*	192,0 *7.559*	119,0 *4.685*	129,0 *5.079*	13,5 *0.531*	M8x1	4,5			1	G2.5	1,95 *4.300*
E9304560001270	02845452	HSK-A63	12,0 *0.472*	70,0 *2.756*	44,0 *1.732*	–	46,0 *1.811*	34,0 *1.339*	27,0 *1.063*	35,2 *1.386*	–	102,0 *4.016*	24,0 *0.945*	36,0 *1.417*	13,5 *0.531*	M10x1	4,5	*		1	G2.5	0,9 *1.980*
E9304560012130	02845472	HSK-A63	12,0 *0.472*	130,0 *5.118*	104,0 *4.094*	52,0 *2.047*	47,5 *1.870*	34,0 *1.339*	27,0 *1.063*	35,2 *1.385*	52,5 *2.067*	162,0 *6.378*	84,0 *3.307*	94,0 *3.701*	13,5 *0.531*	M10x1	4,5			1	G2.5	1,6 *3.530*
E9304560012160	02845480	HSK-A63	12,0 *0.472*	160,0 *6.299*	134,0 *5.276*	52,0 *2.047*	47,5 *1.870*	34,0 *1.339*	27,0 *1.063*	35,2 *1.385*	52,5 *2.067*	192,0 *7.559*	114,0 *4.488*	124,0 *4.882*	13,5 *0.531*	M10x1	4,5			1	G2.5	2,0 *4.410*
E9304560001675	02845453	HSK-A63	16,0 *0.630*	75,0 *2.953*	49,0 *1.929*	–	50,5 *1.988*	39,0 *1.535*	33,0 *1.299*	42,1 *1.659*	–	107,0 *4.213*	26,0 *1.024*	36,0 *1.417*	17,0 *0.669*	M12x1	4,5	*		1	G2.5	1,0 *2.200*
E9304560016130	02845473	HSK-A63	16,0 *0.630*	130,0 *5.118*	104,0 *4.094*	58,0 *2.283*	50,5 *1.988*	39,0 *1.535*	33,0 *1.299*	42,1 *1.659*	52,5 *2.067*	162,0 *6.378*	81,0 *3.189*	91,0 *3.583*	17,0 *0.669*	M12x1	4,5			1	G2.5	1,8 *3.970*
E9304560002075	02845454	HSK-A63	20,0 *0.787*	75,0 *2.953*	49,0 *1.929*	–	50,5 *1.988*	41,0 *1.614*	44,0 *1.732*	53,1 *2.092*	–	107,0 *4.213*	24,0 *0.945*	34,0 *1.339*	21,5 *0.846*	M16x1	4,5	*		1	G2.5	1,2 *2.650*
E9304560020130	02845474	HSK-A63	20,0 *0.787*	130,0 *5.118*	104,0 *4.094*	58,0 *2.283*	52,5 *2.067*	41,0 *1.614*	44,0 *1.732*	53,1 *2.092*	52,5 *2.067*	162,0 *6.378*	79,0 *3.110*	89,0 *3.504*	21,5 *0.846*	M16x1	4,5			1	G2.5	2,2 *4.850*
E9304560002585	02845456	HSK-A63	25,0 *0.984*	85,0 *3.346*	59,0 *2.323*	–	58,5 *2.303*	47,0 *1.850*	48,0 *1.890*	57,1 *2.249*	52,5 *2.067*	117,0 *4.606*	28,0 *1.102*	38,0 *1.496*	25,0 *0.984*	M16x1	4,5	*	**	1	G2.5	1,4 *3.090*
E9304560003285	02845457	HSK-A63	32,0 *1.260*	85,0 *3.346*	59,0 *2.323*	–	61,0 *2.402*	51,0 *2.008*	48,0 *1.890*	57,1 *2.249*	52,5 *2.067*	117,0 *4.606*	24,0 *0.945*	34,0 *1.339*	25,0 *0.984*	M16x1	4,5	*	**	1	G2.5	1,3 *2.870*
E9306560006160	02845493	HSK-A100	6,0 *0.236*	160,0 *6.299*	131,0 *5.157*	52,0 *2.047*	37,5 *1.476*	22,0 *0.866*	24,0 *0.945*	32,2 *1.267*	87,5 *3.445*	210,0 *8.268*	124,0 *4.882*	134,0 *5.276*	12,0 *0.472*	M5x0.8	4,5			1	G2.5	4,4 *9.700*
E9306560008160	02845494	HSK-A100	8,0 *0.315*	160,0 *6.299*	131,0 *5.157*	52,0 *2.047*	37,5 *1.476*	26,0 *1.024*	24,0 *0.945*	32,2 *1.267*	87,5 *3.445*	210,0 *8.268*	124,0 *4.882*	134,0 *5.276*	12,0 *0.472*	M6x1	4,5			1	G2.5	4,45 *9.810*

Designation	Item number	CTMS	DCBN-DCBX	LPR	LB	LB1	CBDP	LSC	BD1	BD2	BD3	OAL	LFN	LF	RL	TDZ	BHTA°	*	**	RFID hole	Balancing	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*							kg *lbs*
E930656001090	02845486	HSK-A100	10,0 *0.394*	90,0 *3.543*	61,0 *2.402*	–	42,5 *1.673*	31,0 *1.220*	27,0 *1.063*	35,2 *1.385*	–	140,0 *5.512*	49,0 *1.929*	59,0 *2.323*	13,5 *0.531*	M8x1	4,5			1	G2.5	2,4 *5.290*
E9306560010160	02845495	HSK-A100	10,0 *0.394*	160,0 *6.299*	131,0 *5.157*	52,0 *2.047*	42,5 *1.673*	31,0 *1.220*	27,0 *1.063*	35,2 *1.385*	87,5 *3.445*	210,0 *8.268*	119,0 *4.685*	129,0 *5.079*	13,5 *0.531*	M8x1	4,5			1	G2.5	4,5 *9.920*
E930656001295	02845487	HSK-A100	12,0 *0.472*	95,0 *3.740*	66,0 *2.598*	–	47,5 *1.870*	34,0 *1.339*	27,0 *1.063*	35,2 *1.385*	–	145,0 *5.709*	49,0 *1.929*	59,0 *2.323*	13,5 *0.531*	M10x1	4,5			1	G2.5	2,4 *5.290*
E9306560012160	02845496	HSK-A100	12,0 *0.472*	160,0 *6.299*	131,0 *5.157*	58,0 *2.283*	47,5 *1.870*	34,0 *1.339*	27,0 *1.063*	35,2 *1.385*	87,5 *3.445*	210,0 *8.268*	114,0 *4.488*	124,0 *4.882*	13,5 *0.531*	M10x1	4,5			1	G2.5	4,5 *9.920*
E9306560016100	02845488	HSK-A100	16,0 *0.630*	100,0 *3.937*	71,0 *2.795*	71,0 *2.795*	50,5 *1.988*	39,0 *1.535*	33,0 *1.299*	42,1 *1.659*	–	150,0 *5.906*	51,0 *2.008*	61,0 *2.402*	17,0 *0.669*	M12x1	4,5			1	G2.5	2,6 *5.730*
E9306560016160	02845497	HSK-A100	16,0 *0.630*	160,0 *6.299*	131,0 *5.157*	58,0 *2.283*	50,5 *1.988*	39,0 *1.535*	33,0 *1.299*	42,1 *1.659*	87,5 *3.445*	210,0 *8.268*	111,0 *4.370*	121,0 *4.764*	17,0 *0.669*	M12x1	4,5			1	G2.5	4,7 *10.360*
E9306560016200	02845507	HSK-A100	16,0 *0.630*	200,0 *7.874*	171,0 *6.732*	58,0 *2.283*	50,5 *1.988*	39,0 *1.535*	33,0 *1.299*	42,1 *1.659*	87,5 *3.445*	250,0 *9.843*	151,0 *5.945*	161,0 *6.339*	17,0 *0.669*	M12x1	4,5			1	G2.5	5,7 *12.570*
E9306560020105	02845489	HSK-A100	20,0 *0.787*	105,0 *4.134*	76,0 *2.992*	–	52,5 *2.067*	41,0 *1.614*	44,0 *1.732*	53,1 *2.092*	–	155,0 *6.102*	54,0 *2.126*	64,0 *2.520*	21,5 *0.846*	M16x1	4,5			1	G2.5	3,0 *6.610*
E9306560020160	02845498	HSK-A100	20,0 *0.787*	160,0 *6.299*	131,0 *5.157*	131,0 *5.157*	52,5 *2.067*	41,0 *1.614*	44,0 *1.732*	53,1 *2.092*	87,5 *3.445*	210,0 *8.268*	109,0 *4.291*	119,0 *4.685*	21,5 *0.846*	M16x1	4,5			1	G2.5	5,1 *11.240*
E9306560020200	02845508	HSK-A100	20,0 *0.787*	200,0 *7.874*	171,0 *6.732*	171,0 *6.732*	52,5 *2.067*	41,0 *1.614*	44,0 *1.732*	53,1 *2.092*	87,5 *3.445*	250,0 *9.843*	149,0 *5.866*	159,0 *6.260*	21,5 *0.846*	M16x1	4,5			1	G2.5	6,3 *13.890*
E9306560025115	02845490	HSK-A100	25,0 *0.984*	115,0 *4.528*	86,0 *3.386*	–	58,5 *2.303*	47,0 *1.850*	48,0 *1.890*	57,1 *2.249*	87,5 *3.445*	165,0 *6.496*	58,0 *2.283*	68,0 *2.677*	25,0 *0.984*	M16x1	4,5			1	G2.5	3,8 *8.380*
E9306560025160	02845499	HSK-A100	25,0 *0.984*	160,0 *6.299*	131,0 *5.157*	161,0 *6.339*	58,5 *2.303*	47,0 *1.850*	48,0 *1.890*	57,1 *2.249*	87,5 *3.445*	210,0 *8.268*	103,0 *4.055*	113,0 *4.449*	25,0 *0.984*	M16x1	4,5			1	G2.5	5,3 *11.680*
E9306560025200	02845509	HSK-A100	25,0 *0.984*	200,0 *7.874*	171,0 *6.732*	58,0 *2.283*	58,5 *2.303*	47,0 *1.850*	48,0 *1.890*	57,1 *2.249*	87,5 *3.445*	250,0 *9.843*	143,0 *5.630*	153,0 *6.024*	25,0 *0.984*	M16x1	4,5			1	G2.5	6,67 *14.700*
E9306560032115	02845491	HSK-A100	32,0 *1.260*	115,0 *4.528*	86,0 *3.386*	–	62,5 *2.461*	51,0 *2.008*	48,0 *1.890*	57,1 *2.249*	87,5 *3.445*	165,0 *6.496*	54,0 *2.126*	64,0 *2.520*	25,0 *0.984*	M16x1	4,5			1	G2.5	3,7 *8.160*
E9306560032160	02845500	HSK-A100	32,0 *1.260*	160,0 *6.299*	131,0 *5.157*	58,0 *2.283*	62,5 *2.461*	51,0 *2.008*	48,0 *1.890*	57,1 *2.249*	87,5 *3.445*	210,0 *8.268*	99,0 *3.898*	109,0 *4.291*	25,0 *0.984*	M16x1	4,5			1	G2.5	5,1 *11.240*

Accessories

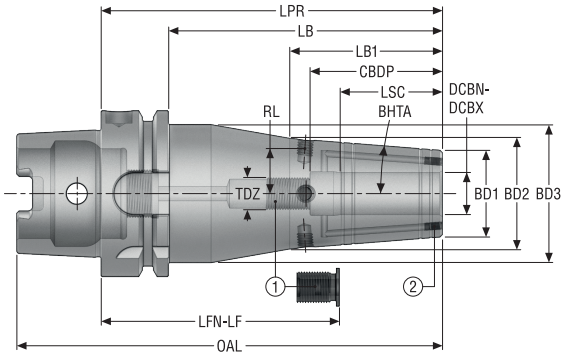
For	Balancing screws
	
All	90ZQ01

Spare Parts, included in delivery

For DCBN-DCBX	Sealing plugs	Stop screw
		
6/ *0.236* (.....670)	90AI03	–
6/ *0.236*	90AI03	19BDR05165
8/ *0.315* (.....870)	90AI03	–
8/ *0.315*	90AI03	19BDR06165
10/ *0.394* (.....070)	90AI03	–
10/ *0.394*	90AI03	19BDR08165
12/ *0.472* (.....270)	90AI03	–
12/ *0.472*	90AI03	19BDR10165
16/ *0.630* (.....675)	90AI03	–
16/ *0.630*	90AI03	19BDR12165
20/ *0.787-32/ 1.260* (.....075, ...285, ...585)	90AI04	–
20/ *0.787-32/ 1.260*	90AI04	19BDR16165

HSK-A/ ISO 12164-1-A

Reinforced type – Inch





Spare parts:
1 = Stop screw
2 = Sealing plugs

- Run-out ≤3 µm
- With coolant supply channels towards the tool (plugged)
- Delivered with one stop screw
- * Holder without thread for a stop screw
- For HSK sealing plugs, coolant tubes and tube spanners, see page(s) 383
- For ISO attribute explanation, see page 14

Designation	Item number	CTMS	DCBN-DCBX	LPR	LB	LB1	CBDP	LSC	BD1	BD2	BD3	OAL	LFN	LF	RL	TDZ	BHTA°	*	RFID hole	Balan-cing	Weight
			inch	inch	inch	inch	inch	inch	inch	inch	inch	inch	inch	inch	inch						lbs
E93045600050275	02904841	HSK-A63	0.500	2.750	1.726	–	1.811	1.339	1.063	1.385	–	4.010	0.939	1.333	0.531	–	4,5	*	1	G2.5	1.980
E93045600062300	02904842	HSK-A63	0.625	3.000	1.976	–	1.988	1.535	1.299	1.659	–	4.260	1.071	1.465	0.669	–	4,5	*	1	G2.5	2.200
E93045600075300	02904843	HSK-A63	0.750	3.000	1.976	–	1.988	1.614	1.732	2.092	–	4.260	0.992	1.386	0.846	M16x1	4,5	*	1	G2.5	2.870
E93065600075412	02904844	HSK-A100	0.750	4.125	2.983	–	2.067	1.614	1.732	2.092	–	6.094	2.117	2.511	0.846	M16x1	4,5		1	G2.5	6.610
E93065600100450	02904845	HSK-A100	1.000	4.500	3.358	2.283	2.303	1.850	1.890	2.249	3.445	6.469	2.256	2.650	0.984	M16x1	4,5		1	G2.5	8.600
E93065600125450	02904846	HSK-A100	1.250	4.500	3.358	2.283	2.461	2.008	1.890	2.249	3.445	6.469	2.098	2.492	0.984	M16x1	4,5		1	G2.5	8.160

Accessories

For	Balancing screws
	
All	90ZQ01

Spare Parts, included in delivery

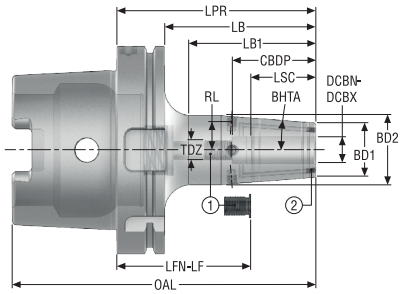
For	Sealing plugs	Stop screw
		
HSK-A63	90AI03	–
HSK-A63, DCBN = 0.750	90AI04	–
HSK-A100	90AI04	19BDR16165

Reinforced type
– Metric / *Inch*

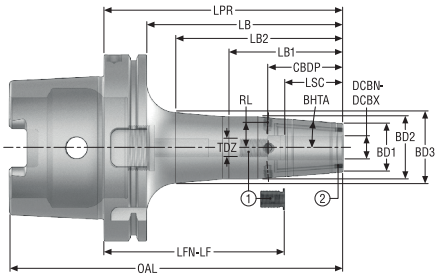
HSK-A/ ISO12164-1-HSK-A



Design 1



Design 2



- Run-out ≤3 µm
- With coolant supply channels towards the tool (plugged)
- Delivered with one stop screw
- For HSK sealing plugs, coolant tubes and tube spanners, see page(s) 383
- For ISO attribute explanation, see page 14

Spare parts:
1 = Stop screw
2 = Sealing plugs

Designation	Item number	CTMS	DCBN-DCBX	LPR	LB	LB1	LB2	CBDP	LSC	BD1	BD2	BD3	OAL	LFN	LF	TDZ	BHTA°	Design	RFID hole	Balancing	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*						kg *lbs*
HSKA125-SFR16-120-F6	03252951	HSK-A125	16,0 *0.630*	120,0 *4.724*	91,0 *3.583*	75,0 *2.953*	–	50,5 *1.988*	39,0 *1.535*	33,0 *1.299*	42,0 *1.654*	–	183,0 *7.205*	71,0 *2.795*	81,0 *3.189*	M12x1	4,5	1	1	PB	4,1 *9.040*
HSKA125-SFR16-160-F6	03252952	HSK-A125	16,0 *0.630*	160,0 *6.299*	131,0 *5.157*	75,0 *2.953*	112,74 *4.439*	50,5 *1.988*	39,0 *1.535*	33,0 *1.299*	42,0 *1.654*	47,84 *1.883*	223,0 *8.780*	111,0 *4.370*	121,0 *4.764*	M12x1	4,5	2	1	PB	4,6 *10.140*
HSKA125-SFR16-200-F6	03252953	HSK-A125	16,0 *0.630*	200,0 *7.874*	171,0 *6.732*	75,0 *2.953*	152,74 *6.013*	50,5 *1.988*	39,0 *1.535*	33,0 *1.299*	42,0 *1.654*	54,84 *2.159*	263,0 *10.354*	151,0 *5.945*	161,0 *6.339*	M12x1	4,5	2	1	PB	5,3 *11.680*
HSKA125-SFR20-120-F6	03252954	HSK-A125	20,0 *0.787*	120,0 *4.724*	91,0 *3.583*	80,0 *3.150*	–	52,5 *2.067*	41,0 *1.614*	44,0 *1.732*	53,0 *2.087*	–	183,0 *7.205*	69,0 *2.717*	79,0 *3.110*	M16x1	4,5	1	1	PB	4,5 *9.920*
HSKA125-SFR20-160-F6	03252955	HSK-A125	20,0 *0.787*	160,0 *6.299*	131,0 *5.157*	80,0 *3.150*	112,74 *4.439*	52,5 *2.067*	41,0 *1.614*	44,0 *1.732*	53,0 *2.087*	57,97 *2.282*	223,0 *8.780*	109,0 *4.291*	119,0 *4.685*	M16x1	4,5	2	1	PB	5,4 *11.900*
HSKA125-SFR20-200-F6	03252956	HSK-A125	20,0 *0.787*	200,0 *7.874*	171,0 *6.732*	80,0 *3.150*	152,74 *6.013*	52,5 *2.067*	41,0 *1.614*	44,0 *1.732*	53,0 *2.087*	64,96 *2.557*	263,0 *10.354*	149,0 *5.866*	159,0 *6.260*	M16x1	4,5	2	1	PB	6,3 *13.890*
HSKA125-SFR25-120-F6	03252957	HSK-A125	25,0 *0.984*	120,0 *4.724*	91,0 *3.583*	85,0 *3.346*	–	58,5 *2.303*	47,0 *1.850*	48,0 *1.890*	57,0 *2.244*	–	183,0 *7.205*	63,0 *2.480*	73,0 *2.874*	M16x1	4,5	1	1	PB	4,6 *10.140*

Accessories

For	Balancing screws
	
All	90ZQ01

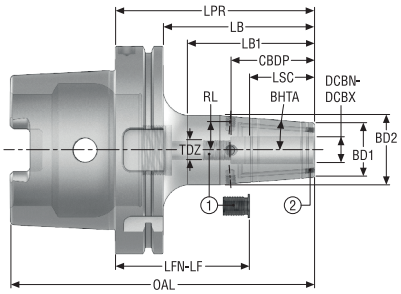
Spare Parts, included in delivery

For DCBN-DCBX	Sealing plugs	Stop screw
		
16/ *0.630*	90AI03	19BDR12165
20/ *0.787-25/ 0.984*	90AI04	19BDR16165

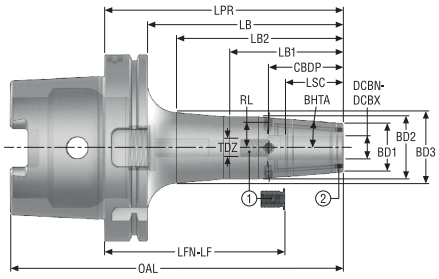
HSK-A/ ISO12164-1-HSK-A

Reinforced type – Inch

Design 1



Design 2





Spare parts:
1 = Stop screw
2 = Sealing plugs

- Run-out ≤3 µm
- With coolant supply channels towards the tool (plugged)
- Delivered with one stop screw
- * Holder without thread for a stop screw
- For HSK sealing plugs, coolant tubes and tube spanners, see page(s) 383
- For ISO attribute explanation, see page 14

Designation	Item number	CTMS	DCBN-DCBX	LPR	LB	LB1	LB2	CBDP	LSC	BD1	BD2	BD3	OAL	LFN	LF	TDZ	BHTA°	*	Design	RFID hole	Balan-cing	Weight
			inch	inch	inch	inch	inch	inch	inch	inch	inch	inch	inch	inch	inch							lbs
HSKA125-SFR0.625-4.000	03229695	HSK-A125	0.750	4.000	2.858	–	–	1.988	1.535	1.299	1.659	–	6.480	2.071	2.465	M12x1	4,5		1	1	PB	8.600
HSKA125-SFR0.625-6.250-F6	03252958	HSK-A125	0.750	6.250	5.108	2.953	4.389	1.988	1.535	1.299	1.654	1.875	8.730	4.321	4.715	M12x1	4,5		2	1	PB	10.360
HSKA125-SFR0.750-4.000	03229697	HSK-A125	0.750	4.000	2.858	–	–	2.067	1.614	1.732	2.092	–	6.480	1.992	2.386	M16x1	4,5	*	1	1	PB	9.920
HSKA125-SFR0.750-6.250-F6	03252959	HSK-A125	0.750	6.250	5.108	3.150	4.389	2.067	1.614	1.732	2.087	2.274	8.730	4.242	4.636	M16x1	4,5		2	1	PB	11.900
HSKA125-SFR1.000-4.500	03229699	HSK-A125	1.000	4.500	3.358	2.283	–	2.303	1.850	1.890	2.249	4.350	6.980	2.256	2.650	M16x1	4,5		1	1	PB	12.570
HSKA125-SFR1.000-6.250-F6	03252960	HSK-A125	1.000	6.250	5.108	3.346	4.389	2.303	1.850	1.890	2.244	2.396	8.730	4.006	4.400	M16x1	4,5		2	1	PB	12.350
HSKA125-SFR1.250-4.750-F6	03252961	HSK-A125	1.250	4.750	3.608	3.346	–	2.461	2.008	1.890	2.244	–	7.230	2.348	2.742	M16x1	4,5		1	1	PB	10.140

Accessories

For	Balancing screws
	
All	90ZQ01

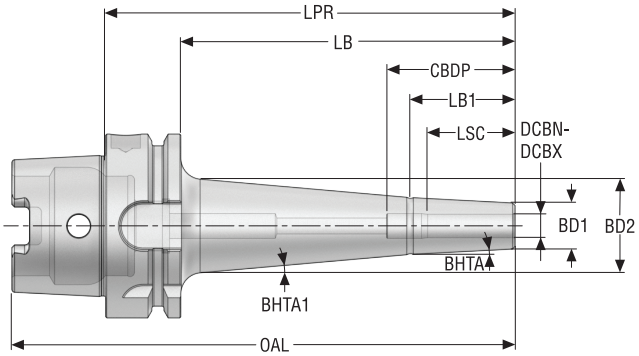
Spare Parts, included in delivery

For	Sealing plugs	Stop screw
		
...-SFR0.625	90AI04	19BDR12165
...-SFR0.750 -4.000	90AI04	–
...-SFR0.750 - ...-SFR1.250	90AI04	19BDR16165

Mold and Die type
– Metric / *Inch*

HSK-A/ ISO12164-1-HSK-A





- Run-out ≤3 µm
- For Shrinkfit extensions, see page(s) 373-374
- For HSK sealing plugs, coolant tubes and tube spanners, see page(s) 383
- For ISO attribute explanation, see page 14

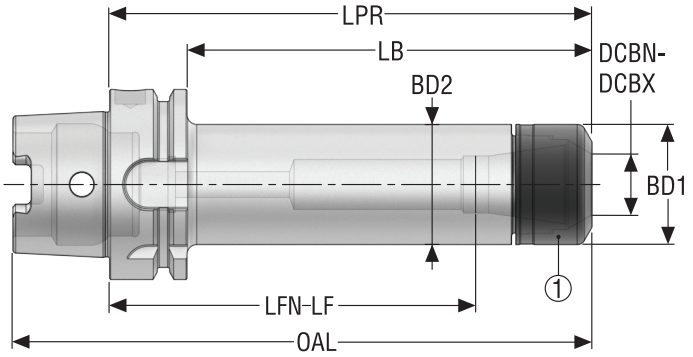
Designation	Item number	CTMS	DCBN-DCBX	LPR	LB	LB1	CBDP	LSC	BD1	BD2	OAL	BHTA°	BHTA1°	RFID hole	Balancing	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*					kg *lbs*
E930258010370	00039384	HSK-A40	3,0 *0.118*	70,0 *2.756*	50,0 *1.969*	50,0 *1.969*	–	13,0 *0.512*	9,0 *0.354*	16,0 *0.630*	90,0 *3.543*	3,0	5,0	0	G2.5	0,3 *0.660*
E9302580103100	00047886	HSK-A40	3,0 *0.118*	100,0 *3.937*	80,0 *3.150*	25,0 *0.984*	–	13,0 *0.512*	9,0 *0.354*	21,2 *0.836*	120,0 *4.724*	3,0	5,0	0	G2.5	0,4 *0.880*
E930258010470	00039386	HSK-A40	4,0 *0.157*	70,0 *2.756*	50,0 *1.969*	25,0 *0.984*	–	15,0 *0.591*	10,0 *0.394*	17,0 *0.669*	90,0 *3.543*	3,0	5,0	0	G2.5	0,3 *0.660*
E930258010670	00039402	HSK-A40	6,0 *0.236*	70,0 *2.756*	50,0 *1.969*	50,0 *1.969*	40,0 *1.575*	26,0 *1.024*	12,0 *0.472*	18,5 *0.728*	90,0 *3.543*	3,0	5,0	0	G2.5	0,3 *0.660*
E9304580103100	00096470	HSK-A63	3,0 *0.118*	100,0 *3.937*	74,0 *2.913*	25,0 *0.984*	–	13,0 *0.512*	9,0 *0.354*	20,2 *0.795*	132,0 *5.197*	3,0	5,0	1	G2.5	0,8 *1.760*
E9304580103140	00096471	HSK-A63	3,0 *0.118*	140,0 *5.512*	114,0 *4.488*	25,0 *0.984*	–	13,0 *0.512*	9,0 *0.354*	27,2 *1.071*	172,0 *6.772*	3,0	5,0	1	G2.5	0,9 *1.980*
E9304580104100	00096472	HSK-A63	4,0 *0.157*	100,0 *3.937*	74,0 *2.913*	25,0 *0.984*	–	15,0 *0.591*	10,0 *0.394*	21,2 *0.834*	132,0 *5.197*	3,0	5,0	1	G2.5	0,72 *1.590*
E9304580104140	00096473	HSK-A63	4,0 *0.157*	140,0 *5.512*	114,0 *4.488*	25,0 *0.984*	–	15,0 *0.591*	10,0 *0.394*	28,2 *1.110*	172,0 *6.772*	3,0	5,0	1	G2.5	0,9 *1.980*
E9304580105100	00096474	HSK-A63	5,0 *0.197*	100,0 *3.937*	74,0 *2.913*	25,0 *0.984*	–	18,0 *0.709*	11,0 *0.433*	22,2 *0.874*	132,0 *5.197*	3,0	5,0	1	G2.5	0,73 *1.610*
E9304580105140	00096475	HSK-A63	5,0 *0.197*	140,0 *5.512*	114,0 *4.488*	25,0 *0.984*	–	18,0 *0.709*	11,0 *0.433*	29,2 *1.149*	172,0 *6.772*	3,0	5,0	1	G2.5	0,9 *1.980*
E9304580106100	00096476	HSK-A63	6,0 *0.236*	100,0 *3.937*	74,0 *2.913*	32,0 *1.260*	40,0 *1.575*	26,0 *1.024*	12,0 *0.472*	22,7 *0.894*	132,0 *5.197*	3,0	5,0	1	G2.5	0,8 *1.760*
E9304580106140	00096477	HSK-A63	6,0 *0.236*	140,0 *5.512*	114,0 *4.488*	32,0 *1.260*	40,0 *1.575*	26,0 *1.024*	12,0 *0.472*	29,7 *1.169*	172,0 *6.772*	3,0	5,0	1	G2.5	0,91 *2.010*
E9304580108100	00096478	HSK-A63	8,0 *0.315*	100,0 *3.937*	74,0 *2.913*	36,0 *1.417*	44,0 *1.732*	30,0 *1.181*	16,0 *0.630*	26,4 *1.040*	132,0 *5.197*	3,0	5,0	1	G2.5	0,9 *1.980*
E9304580108140	00096479	HSK-A63	8,0 *0.315*	140,0 *5.512*	114,0 *4.488*	36,0 *1.417*	44,0 *1.732*	30,0 *1.181*	16,0 *0.630*	33,4 *1.316*	172,0 *6.772*	3,0	5,0	1	G2.5	1,1 *2.430*
E9304580110120	00096480	HSK-A63	10,0 *0.394*	120,0 *4.724*	94,0 *3.701*	38,0 *1.496*	45,0 *1.772*	32,0 *1.260*	18,0 *0.709*	31,8 *1.251*	152,0 *5.984*	3,0	5,0	1	G2.5	1,0 *2.200*
E9304580110160	00096482	HSK-A63	10,0 *0.394*	160,0 *6.299*	134,0 *5.276*	38,0 *1.496*	45,0 *1.772*	32,0 *1.260*	18,0 *0.709*	38,8 *1.527*	192,0 *7.559*	3,0	5,0	1	G2.5	1,3 *2.870*
E9304580112130	00096764	HSK-A63	12,0 *0.472*	130,0 *5.118*	104,0 *4.094*	40,0 *1.575*	46,0 *1.811*	34,0 *1.339*	20,0 *0.787*	35,4 *1.393*	162,0 *6.378*	3,0	5,0	1	G2.5	1,1 *2.430*
E9304580112170	00096484	HSK-A63	12,0 *0.472*	170,0 *6.693*	144,0 *5.669*	40,0 *1.575*	46,0 *1.811*	34,0 *1.339*	20,0 *0.787*	42,4 *1.669*	202,0 *7.953*	3,0	5,0	1	G2.5	1,5 *3.310*
E9304580114180	00096487	HSK-A63	14,0 *0.551*	180,0 *7.087*	154,0 *6.063*	40,0 *1.575*	48,0 *1.890*	34,0 *1.339*	22,0 *0.866*	46,1 *1.817*	212,0 *8.346*	3,0	5,0	1	G2.5	1,7 *3.750*
E9304580116150	00099665	HSK-A63	16,0 *0.630*	150,0 *5.906*	124,0 *4.882*	45,0 *1.772*	52,0 *2.047*	38,0 *1.496*	24,0 *0.945*	42,5 *1.675*	182,0 *7.165*	3,0	5,0	1	G2.5	1,4 *3.090*
E9304580116190	00099666	HSK-A63	16,0 *0.630*	190,0 *7.480*	164,0 *6.457*	45,0 *1.772*	52,0 *2.047*	38,0 *1.496*	24,0 *0.945*	49,5 *1.950*	222,0 *8.740*	3,0	5,0	1	G2.5	1,9 *4.190*

Designation	Item number	CTMS	DCBN-DCBX	LPR	LB	LB1	CBDP	LSC	BD1	BD2	OAL	BHTA°	BHTA1°	RFID hole	Balan-cing	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*					kg *lbs*
E9306580106160	00096461	HSK-A100	6,0 *0.236*	160,0 *6.299*	131,0 *5.157*	131,0 *5.157*	40,0 *1.575*	26,0 *1.024*	12,0 *0.472*	32,7 *1.286*	210,0 *8.268*	3,0	5,0	1	G2.5	2,3 *5.070*
E9306580108160	00096462	HSK-A100	8,0 *0.315*	160,0 *6.299*	131,0 *5.157*	36,0 *1.417*	44,0 *1.732*	30,0 *1.181*	16,0 *0.630*	36,4 *1.433*	210,0 *8.268*	3,0	5,0	1	G2.5	2,5 *5.510*
E9306580110180	00096463	HSK-A100	10,0 *0.394*	180,0 *7.087*	151,0 *5.945*	38,0 *1.496*	45,0 *1.772*	32,0 *1.260*	18,0 *0.709*	41,8 *1.644*	230,0 *9.055*	3,0	5,0	1	G2.5	2,7 *5.950*
E9306580112180	00096464	HSK-A100	12,0 *0.472*	180,0 *7.087*	151,0 *5.945*	40,0 *1.575*	46,0 *1.811*	34,0 *1.339*	20,0 *0.787*	43,6 *1.717*	230,0 *9.055*	3,0	5,0	1	G2.5	2,76 *6.080*
E9306580114180	00096465	HSK-A100	14,0 *0.551*	180,0 *7.087*	151,0 *5.945*	151,0 *5.945*	48,0 *1.890*	34,0 *1.339*	22,0 *0.866*	45,6 *1.796*	230,0 *9.055*	3,0	5,0	1	G2.5	2,9 *6.390*
E9306580116200	00096468	HSK-A100	16,0 *0.630*	200,0 *7.874*	171,0 *6.732*	45,0 *1.772*	52,0 *2.047*	38,0 *1.496*	24,0 *0.945*	50,8 *1.999*	250,0 *9.843*	3,0	5,0	1	G2.5	3,24 *7.140*

HSK-A/ ISO12164-1-HSK-A

– **Metric** / *Inch*



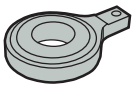
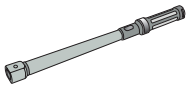


- Run-out 3 µm maximum at 3 x ∅DCBN-DCBX
- For ER HP collets type 5672, see page(s) 402, 403, 404-410
- * Chuck without thread for stop screw
- For HSK sealing plugs, coolant tubes and tube spanners, see page(s) 383
- For ISO attribute explanation, see page 14

Spare parts:
1 = Nut

Designation	Item number	CTMS	DCBN	DCBX	Chuck & Collet Size	LPR	BD2	BD1	OAL	LB	LFN	LF	*	RFID hole	Balancing	Weight
			mm *inch*	mm *inch*		mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*				kg *lbs*
E930256721660	02827127	HSK-A40	0,5 *0.020*	10,0 *0.394*	HP 16	60,0 *2.362*	30,0 *1.181*	30,0 *1.181*	80,0 *3.150*	40,0 *1.575*	29,0 *1.142*	30,0 *1.181*	*	0	G2.5	0,4 *0.880*
E9304567211100	02882772	HSK-A63	0,5 *0.020*	7,0 *0.276*	HP 11	100,0 *3.937*	16,0 *0.630*	16,0 *0.630*	132,0 *5.197*	74,0 *2.913*	64,0 *2.520*	82,0 *3.228*		1	G2.5	0,8 *1.760*
E930456721660	02827135	HSK-A63	0,5 *0.020*	10,0 *0.394*	HP 16	60,0 *2.362*	30,0 *1.181*	30,0 *1.181*	92,0 *3.622*	34,0 *1.339*	29,0 *1.142*	30,0 *1.181*	*	1	G2.5	0,8 *1.760*
E9304567216100	02827139	HSK-A63	0,5 *0.020*	10,0 *0.394*	HP 16	100,0 *3.937*	30,0 *1.181*	30,0 *1.181*	132,0 *5.197*	74,0 *2.913*	69,0 *2.717*	70,0 *2.756*		1	G2.5	1,0 *2.200*
E9304567216130	02827146	HSK-A63	0,5 *0.020*	10,0 *0.394*	HP 16	130,0 *5.118*	30,0 *1.181*	30,0 *1.181*	162,0 *6.378*	104,0 *4.094*	99,0 *3.898*	100,0 *3.937*		1	G2.5	1,2 *2.650*
E9304567216160	02827150	HSK-A63	0,5 *0.020*	10,0 *0.394*	HP 16	160,0 *6.299*	30,0 *1.181*	30,0 *1.181*	192,0 *7.559*	134,0 *5.276*	129,0 *5.079*	130,0 *5.118*		1	G2.5	1,3 *2.870*
E9304567225100	02827152	HSK-A63	1,0 *0.039*	16,0 *0.630*	HP 25	100,0 *3.937*	40,0 *1.575*	40,0 *1.575*	132,0 *5.197*	74,0 *2.913*	44,0 *1.732*	62,0 *2.441*		1	G2.5	1,2 *2.650*
E9304567225130	02827154	HSK-A63	1,0 *0.039*	16,0 *0.630*	HP 25	130,0 *5.118*	40,0 *1.575*	40,0 *1.575*	162,0 *6.378*	104,0 *4.094*	74,0 *2.913*	92,0 *3.622*		1	G2.5	1,5 *3.310*
E9304567225160	02827156	HSK-A63	1,0 *0.039*	16,0 *0.630*	HP 25	160,0 *6.299*	40,0 *1.575*	40,0 *1.575*	192,0 *7.559*	134,0 *5.276*	104,0 *4.094*	122,0 *4.803*		1	G2.5	1,69 *3.730*
E9304567232100	02827162	HSK-A63	2,0 *0.079*	20,0 *0.787*	HP 32	100,0 *3.937*	50,0 *1.969*	50,0 *1.969*	132,0 *5.197*	74,0 *2.913*	44,0 *1.732*	48,0 *1.890*		1	G2.5	1,5 *3.310*
E9304567232130	02827176	HSK-A63	2,0 *0.079*	20,0 *0.787*	HP 32	130,0 *5.118*	50,0 *1.969*	50,0 *1.969*	162,0 *6.378*	104,0 *4.094*	74,0 *2.913*	78,0 *3.071*		1	G2.5	1,9 *4.190*
E9304567232160	02827180	HSK-A63	2,0 *0.079*	20,0 *0.787*	HP 32	160,0 *6.299*	50,0 *1.969*	50,0 *1.969*	192,0 *7.559*	134,0 *5.276*	104,0 *4.094*	108,0 *4.252*		1	G2.5	2,3 *5.070*
E9306567225160	02827183	HSK-A100	1,0 *0.039*	16,0 *0.630*	HP 25	160,0 *6.299*	40,0 *1.575*	40,0 *1.575*	210,0 *8.268*	131,0 *5.157*	104,0 *4.094*	122,0 *4.803*		1	G2.5	2,99 *6.590*
E9306567232100	02827186	HSK-A100	2,0 *0.079*	20,0 *0.787*	HP 32	100,0 *3.937*	50,0 *1.969*	50,0 *1.969*	150,0 *5.906*	71,0 *2.795*	44,0 *1.732*	48,0 *1.890*		1	G2.5	2,74 *6.040*
E9306567232160	02827192	HSK-A100	2,0 *0.079*	20,0 *0.787*	HP 32	160,0 *6.299*	50,0 *1.969*	50,0 *1.969*	210,0 *8.268*	131,0 *5.157*	104,0 *4.094*	108,0 *4.252*		1	G2.5	3,55 *7.830*

Accessories

For size	Socket	Spanner	Stop screw	Torque key
				
HP 11	03ER016	03BR016	19B5870812P1	03DYD010100
HP 16	03ER030B	03BR030	19B58711	03DYD010100B
HP 25	03ER040	03BR040	19B58718	03DYD020200
HP 32	03ER050	03BR050	19B58722	03DYD020200

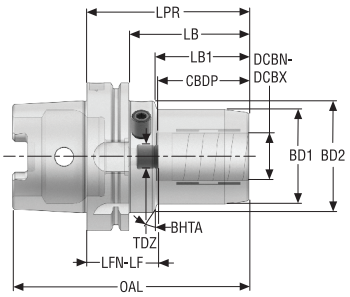
Spare Parts, included in delivery

For size	Nut
	
HP 11	08B567211
HP 16	08B567216
HP 25	08B567225
HP 32	08B567232

Conventional type
– Metric / *Inch*

HSK-A/ ISO12164-1-HSK-A





- Run-out ≤3 µm
- For reduction sleeves, see page(s) 394, 395
- For HSK sealing plugs, coolant tubes and tube spanners, see page(s) 383
- For ISO attribute explanation, see page 14

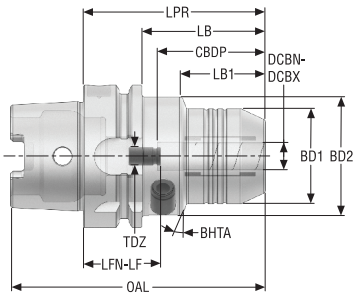
Designation	Item number	CTMS	DCBN-DCBX	LPR	LB	LB1	CBDP	BD2	BD1	OAL	LFN	LF	TDZ	BHTA°	RFID hole	Balancing	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*					kg *lbs*
HSKA63-HC06-070	10137261	HSK-A63	6,0 *0.236*	70,0 *2.756*	44,05 *1.734*	24,0 *0.945*	38,5 *1.516*	50,0 *1.969*	26,0 *1.024*	101,9 *4.012*	33,0 *1.299*	43,0 *1.693*	M5	20,0	1	G2.5	1,0 *2.200*
HSKA63-HC08-070	10137262	HSK-A63	8,0 *0.315*	70,0 *2.756*	44,05 *1.734*	25,0 *0.984*	38,5 *1.516*	50,0 *1.969*	28,0 *1.102*	101,9 *4.012*	33,0 *1.299*	43,0 *1.693*	M6	20,0	1	G2.5	1,0 *2.200*
HSKA63-HC10-080	10137263	HSK-A63	10,0 *0.394*	80,0 *3.150*	54,05 *2.128*	35,0 *1.378*	42,5 *1.673*	50,0 *1.969*	30,0 *1.181*	111,9 *4.406*	39,0 *1.535*	49,0 *1.929*	M8x1	20,0	1	G2.5	1,1 *2.430*
HSKA63-HC12-085	10137264	HSK-A63	12,0 *0.472*	85,0 *3.346*	59,05 *2.325*	40,0 *1.575*	47,5 *1.870*	50,0 *1.969*	32,0 *1.260*	116,9 *4.602*	39,0 *1.535*	49,0 *1.929*	M10x1	20,0	1	G2.5	1,1 *2.430*
HSKA63-HC14-085	10137265	HSK-A63	14,0 *0.551*	85,0 *3.346*	59,05 *2.325*	40,0 *1.575*	47,5 *1.870*	50,0 *1.969*	34,0 *1.339*	116,9 *4.602*	39,0 *1.535*	49,0 *1.929*	M10x1	20,0	1	G2.5	1,1 *2.430*
HSKA63-HC16-090	10137266	HSK-A63	16,0 *0.630*	90,0 *3.543*	64,05 *2.522*	46,0 *1.811*	50,5 *1.988*	50,0 *1.969*	38,0 *1.496*	121,9 *4.799*	41,0 *1.614*	51,0 *2.008*	M12x1	20,0	1	G2.5	1,2 *2.650*
HSKA63-HC20-090	10137267	HSK-A63	20,0 *0.787*	90,0 *3.543*	64,05 *2.522*	48,0 *1.890*	52,5 *2.067*	50,0 *1.969*	42,0 *1.654*	121,9 *4.799*	39,0 *1.535*	49,0 *1.929*	M16x1	20,0	1	G2.5	1,2 *2.650*
HSKA63-HC25-120	10137268	HSK-A63	25,0 *0.984*	120,0 *4.724*	94,05 *3.703*	–	58,5 *2.303*	–	57,0 *2.244*	151,9 *5.980*	63,0 *2.480*	73,0 *2.874*	M16x1	–	1	G2.5	2,1 *4.630*
HSKA63-HC32-125	10137269	HSK-A63	32,0 *1.260*	125,0 *4.921*	99,05 *3.900*	82,8 *3.260*	62,5 *2.461*	50,0 *1.969*	62,0 *2.441*	156,9 *6.177*	64,0 *2.520*	74,0 *2.913*	M16x1	–	1	G2.5	2,4 *5.290*
HSKA100-HC12-095	10137270	HSK-A100	12,0 *0.472*	95,0 *3.740*	66,05 *2.600*	47,0 *1.850*	47,5 *1.870*	50,3 *1.978*	32,0 *1.260*	144,9 *5.705*	49,0 *1.929*	59,0 *2.323*	M10x1	20,0	1	G2.5	2,5 *5.510*
HSKA100-HC16-100	10137271	HSK-A100	16,0 *0.630*	100,0 *3.937*	71,05 *2.797*	53,0 *2.087*	50,5 *1.988*	50,3 *1.978*	38,0 *1.496*	149,9 *5.902*	51,0 *2.008*	61,0 *2.402*	M12x1	20,0	1	G2.5	2,6 *5.730*
HSKA100-HC20-105	10137272	HSK-A100	20,0 *0.787*	105,0 *4.134*	76,05 *2.994*	59,0 *2.323*	52,5 *2.067*	50,3 *1.978*	42,0 *1.654*	154,9 *6.098*	54,0 *2.126*	64,0 *2.520*	M16x1	20,0	1	G2.5	2,7 *5.950*
HSKA100-HC25-110	10137273	HSK-A100	25,0 *0.984*	110,0 *4.331*	81,05 *3.191*	62,0 *2.441*	58,5 *2.303*	63,3 *2.490*	57,0 *2.244*	159,9 *6.295*	53,0 *2.087*	63,0 *2.480*	M16x1	20,0	1	G2.5	3,4 *7.500*
HSKA100-HC32-110	10137274	HSK-A100	32,0 *1.260*	110,0 *4.331*	81,05 *3.191*	62,0 *2.441*	62,5 *2.461*	75,3 *2.963*	64,0 *2.520*	159,9 *6.295*	49,0 *1.929*	59,0 *2.323*	M16x1	20,0	1	G2.5	3,7 *8.160*

Accessories

For size	Key
	
HSKA63, DCBN = 6-20	H05-4
HSKA63, DCBN = 25-32	03MS06L
HSKA100, DCBN = 12-20	H05-4
HSKA100, DCBN = 25-32	03MS06L

HSK-A/ ISO12164-1-HSK-A

Reinforced type
– Metric / *Inch*

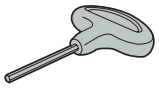




- Run-out ≤3 µm
- For reduction sleeves, see page(s) 394, 395
- For HSK sealing plugs, coolant tubes and tube spanners, see page(s) 383
- For ISO attribute explanation, see page 14

Designation	Item number	CTMS	DCBN-DCBX	LPR	LB	LB1	CBDP	BD2	BD1	OAL	LFN	LF	TDZ	BHTA°	RFID hole	Balan-cing	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*					kg *lbs*
HSKA50-HCR20-094	10137148	HSK-A50	20,0 *0.787*	94,0 *3.701*	68,05 *2.679*	51,8 *2.039*	52,5 *2.067*	40,3 *1.585*	42,0 *1.654*	118,9 *4.681*	41,5 *1.634*	41,5 *1.634*	–	–	1	G2.5	1,0 *2.200*
HSKA63-HCR12-080	10137125	HSK-A63	12,0 *0.472*	80,0 *3.150*	54,05 *2.128*	36,5 *1.437*	47,5 *1.870*	52,5 *2.067*	42,0 *1.654*	111,9 *4.406*	34,0 *1.339*	44,0 *1.732*	M8x1	20,0	1	G2.5	1,3 *2.870*
HSKA63-HCR20-080	10137126	HSK-A63	20,0 *0.787*	80,0 *3.150*	54,05 *2.128*	–	52,5 *2.067*	–	52,5 *2.067*	111,9 *4.406*	29,0 *1.142*	39,0 *1.535*	M8x1	–	1	G2.5	1,4 *3.090*
HSKA100-HCR20-090	10137127	HSK-A100	20,0 *0.787*	90,0 *3.543*	61,05 *2.404*	–	52,5 *2.067*	–	52,5 *2.067*	139,9 *5.508*	39,0 *1.535*	49,0 *1.929*	M8x1	–	1	G2.5	2,8 *6.170*
HSKA100-HCR32-100	10137128	HSK-A100	32,0 *1.260*	100,0 *3.937*	71,05 *2.797*	–	62,5 *2.461*	–	72,0 *2.835*	149,9 *5.902*	39,0 *1.535*	49,0 *1.929*	M8x1	–	1	G2.5	3,7 *8.160*

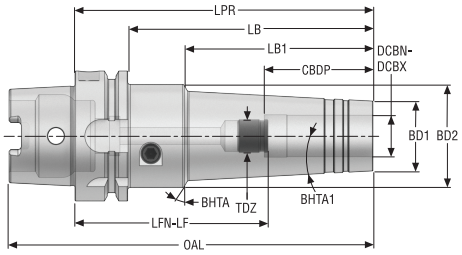
Accessories

For	Key
	
HSKA50	H05-4
HSKA63	H05-4
HSKA100-HCR20	H05-4
HSKA100-HCR32	03MS06L

Slim type
– Metric / *Inch*

HSK-A/ ISO12164-1-HSK-A





- Run-out ≤3 µm
- For reduction sleeves, see page(s) 394, 395
- For HSK sealing plugs, coolant tubes and tube spanners, see page(s) 383
- For ISO attribute explanation, see page 14

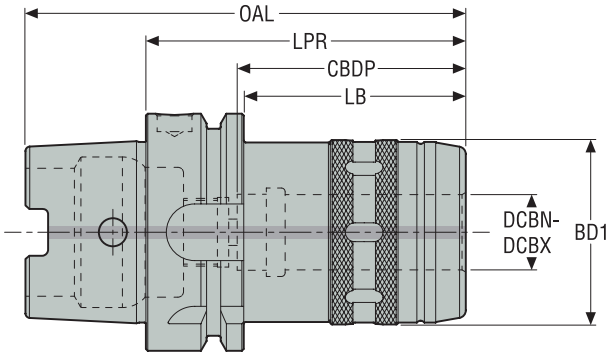
Designation	Item number	CTMS	DCBN-DCBX	LPR	LB	LB1	CBDP	BD2	BD1	OAL	LFN	LF	TDZ	BHTA°	BHTA1°	RFID hole	Balancing	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*						kg *lbs*
HSKA63-HCS06-145	10137328	HSK-A63	6,0 *0.236*	145,0 *5.709*	119,0 *4.685*	90,0 *3.543*	37,0 *1.457*	50,0 *1.969*	20,0 *0.787*	177,0 *6.969*	108,0 *4.252*	118,0 *4.646*	M5x0.8	30,0	3,0	1	G2.5	1,4 *3.090*
HSKA63-HCS08-145	10137329	HSK-A63	8,0 *0.315*	145,0 *5.709*	119,0 *4.685*	90,0 *3.543*	37,0 *1.457*	50,0 *1.969*	22,0 *0.866*	177,0 *6.969*	108,0 *4.252*	118,0 *4.646*	M6x1	30,0	3,0	1	G2.5	1,5 *3.310*
HSKA63-HCS10-145	10137330	HSK-A63	10,0 *0.394*	145,0 *5.709*	119,0 *4.685*	90,0 *3.543*	42,0 *1.654*	50,0 *1.969*	24,0 *0.945*	177,0 *6.969*	103,0 *4.055*	113,0 *4.449*	M8x1	30,0	3,0	1	G2.5	1,5 *3.310*
HSKA63-HCS12-145	10137331	HSK-A63	12,0 *0.472*	145,0 *5.709*	119,0 *4.685*	90,0 *3.543*	49,0 *1.929*	50,0 *1.969*	25,0 *0.984*	177,0 *6.969*	98,0 *3.858*	108,0 *4.252*	M10x1	30,0	3,0	1	G2.5	1,5 *3.310*
HSKA63-HCS16-145	10137332	HSK-A63	16,0 *0.630*	145,0 *5.709*	119,0 *4.685*	90,0 *3.543*	51,0 *2.008*	50,0 *1.969*	32,0 *1.260*	177,0 *6.969*	93,0 *3.661*	103,0 *4.055*	M12x1	30,0	3,0	1	G2.5	1,8 *3.970*
HSKA63-HCS20-145	10137333	HSK-A63	20,0 *0.787*	145,0 *5.709*	119,0 *4.685*	90,0 *3.543*	53,0 *2.087*	50,0 *1.969*	34,0 *1.339*	177,0 *6.969*	93,0 *3.661*	103,0 *4.055*	M16x1	30,0	3,0	1	G2.5	1,9 *4.190*
HSKA100-HCS06-150	10137334	HSK-A100	6,0 *0.236*	150,0 *5.906*	121,0 *4.764*	90,0 *3.543*	37,0 *1.457*	50,0 *1.969*	20,0 *0.787*	200,0 *7.874*	113,0 *4.449*	123,0 *4.843*	M5x0.8	30,0	3,0	1	G2.5	2,8 *6.170*
HSKA100-HCS08-150	10137335	HSK-A100	8,0 *0.315*	150,0 *5.906*	121,0 *4.764*	90,0 *3.543*	37,0 *1.457*	50,0 *1.969*	22,0 *0.866*	200,0 *7.874*	113,0 *4.449*	123,0 *4.843*	M6x1	30,0	3,0	1	G2.5	2,9 *6.390*
HSKA100-HCS10-150	10137336	HSK-A100	10,0 *0.394*	150,0 *5.906*	121,0 *4.764*	90,0 *3.543*	42,5 *1.673*	50,0 *1.969*	24,0 *0.945*	200,0 *7.874*	108,0 *4.252*	118,0 *4.646*	M8x1	30,0	3,0	1	G2.5	2,9 *6.390*
HSKA100-HCS12-150	10137337	HSK-A100	12,0 *0.472*	150,0 *5.906*	121,0 *4.764*	90,0 *3.543*	48,0 *1.890*	50,0 *1.969*	25,0 *0.984*	200,0 *7.874*	103,0 *4.055*	113,0 *4.449*	M10x1	30,0	3,0	1	G2.5	2,9 *6.390*
HSKA100-HCS16-150	10137338	HSK-A100	16,0 *0.630*	150,0 *5.906*	121,0 *4.764*	90,0 *3.543*	52,0 *2.047*	50,0 *1.969*	32,0 *1.260*	200,0 *7.874*	98,0 *3.858*	108,0 *4.252*	M12x1	30,0	3,0	1	G2.5	3,1 *6.830*
HSKA100-HCS20-150	10137339	HSK-A100	20,0 *0.787*	150,0 *5.906*	121,0 *4.764*	90,0 *3.543*	52,0 *2.047*	50,0 *1.969*	34,0 *1.339*	200,0 *7.874*	100,0 *3.937*	110,0 *4.331*	M16x1	30,0	3,0	1	G2.5	3,2 *7.050*

Accessories

For	Key
	
All	H05-4

HSK-A/ ISO12164-1-HSK-A

– Metric / *Inch*

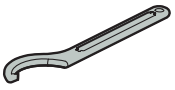




- For reduction sleeves, see page(s) 398-399
- For 'Stop screws for through coolant', see page(s) 400-401
- For HSK sealing plugs, coolant tubes and tube spanners, see page(s) 383
- For ISO attribute explanation, see page 14

Designation	Item number	CTMS	DCBN-DCBX	OAL	LPR	LB	CBDP	BD1	RFID hole	Balan-cing	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*			kg *lbs*
HSKA63-PMC20-085	03211188	HSK-A63	20,0 *0.787*	117,0 *4.606*	85,0 *3.346*	59,0 *2.323*	60,0 *2.362*	49,0 *1.929*	1	PB	1,3 *2.870*
HSKA63-PMC32-105	03211189	HSK-A63	32,0 *1.260*	137,0 *5.394*	105,0 *4.134*	79,0 *3.110*	80,0 *3.150*	67,0 *2.638*	1	PB	2,0 *4.410*
HSKA100-PMC20-095	03211190	HSK-A100	20,0 *0.787*	145,0 *5.709*	95,0 *3.740*	66,0 *2.598*	60,0 *2.362*	49,0 *1.929*	1	PB	2,8 *6.170*
HSKA100-PMC32-110	03211191	HSK-A100	32,0 *1.260*	160,0 *6.299*	110,0 *4.331*	81,0 *3.189*	80,0 *3.150*	68,0 *2.677*	1	PB	3,7 *8.160*
HSKA125-PMC32-120	03211192	HSK-A125	32,0 *1.260*	183,0 *7.205*	120,0 *4.724*	91,0 *3.583*	80,0 *3.150*	68,0 *2.677*	1	PB	5,2 *11.460*

Accessories

For DCBN-DCBX	Spanner
	
20/ *0.787*	03BPMC20
32/ *1.260*	03BPMC32

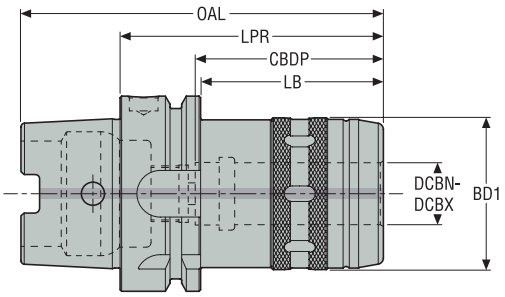
Spare Parts, included in delivery

For DCBN-DCBX	Extractor for reduction sleeves
	
20/ *0.787*	03EXTPMC
32/ *1.260*	03EXTPMC

HSK-A/ ISO12164-1-HSK-A

– Inch

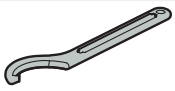




- For reduction sleeves, see page(s) 398-399
- For 'Stop screws for through coolant', see page(s) 400-401
- For HSK sealing plugs, coolant tubes and tube spanners, see page(s) 383
- For ISO attribute explanation, see page 14

Designation	Item number	CTMS	DCBN-DCBX	OAL	LPR	LB	CBDP	BD1	RFID hole	Balan-cing	Weight
			inch	inch	inch	inch	inch	inch			lbs
HSKA63-PMC0.750-3.500	03211210	HSK-A63	0.750	4.760	3.500	2.476	2.362	1.929	1	PB	3.090
HSKA63-PMC1.250-4.250	03211211	HSK-A63	1.250	5.510	4.250	3.226	3.150	2.638	1	PB	4.630
HSKA100-PMC0.750-3.750	03211212	HSK-A100	0.750	5.719	3.750	2.608	2.362	1.929	1	PB	6.170
HSKA100-PMC1.250-4.500	03211213	HSK-A100	1.250	6.469	4.500	3.358	3.150	2.677	1	PB	8.380
HSKA125-PMC1.250-4.750	03211214	HSK-A125	1.250	7.320	4.750	3.608	3.150	2.677	1	PB	11.680

Accessories

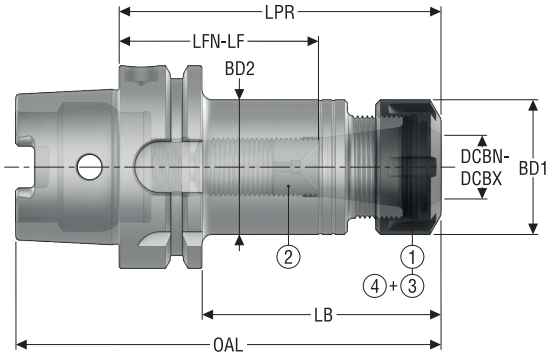
For DCB	Spanner
	
HSKA63-PMC0.750-3.500	03BPMC20
HSKA63-PMC1.250-4.250	03BPMC32
HSKA100-PMC0.750-3.750	03BPMC32
HSKA100-PMC1.250-4.500	03BPMC32
HSKA125-PMC1.250-4.750	03BPMC32

Spare Parts, included in delivery

For DCB	Extractor for reduction sleeves
	
All	03EXTPMC

HSK-A/ ISO12164-1-HSK-A

ISO 15488
– Metric / *Inch*





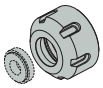
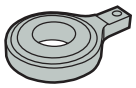
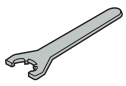
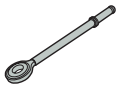
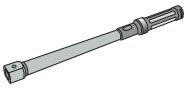
Accessories:
3 = Sealing ring
4 = Sealing nut

Spare parts:
1 = Nut
2 = Stop screw

- Run-out 10 µm maximum at 3 x ∅DCBN-DCBX
- For ER extensions and ER collets, see page(s) 375, 411, 412, 413, 414
- For ER sealing rings, see page(s) 418, 419
- For HSK sealing plugs, coolant tubes and tube spanners, see page(s) 383
- For ISO attribute explanation, see page 14

Designation	Item number	CTMS	DCBN	DCBX	CTWS	LPR	BD2	BD1	OAL	LB	LFN	LF	RFID hole	Balan-cing	Weight
			mm *Inch*	mm *Inch*		mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*			kg *lbs*
E930256751660	02750219	HSK-A40	0,5 *0.020*	10,0 *0.394*	ER 16	60,0 *2.362*	32,0 *1.260*	32,0 *1.260*	80,0 *3.150*	40,0 *1.575*	26,0 *1.024*	30,0 *1.181*	0	G2.5	0,4 *0.880*
E930256752570	02750220	HSK-A40	1,0 *0.039*	16,0 *0.630*	ER 25	70,0 *2.756*	34,0 *1.339*	42,0 *1.654*	90,0 *3.543*	50,0 *1.969*	32,0 *1.260*	32,0 *1.260*	0	G2.5	0,5 *1.100*
E9304567516100	02750221	HSK-A63	0,5 *0.020*	10,0 *0.394*	ER 16	100,0 *3.937*	32,0 *1.260*	32,0 *1.260*	132,0 *5.197*	74,0 *2.913*	52,0 *2.047*	68,0 *2.677*	1	G2.5	0,99 *2.180*
E9304567516160	02750224	HSK-A63	0,5 *0.020*	10,0 *0.394*	ER 16	160,0 *6.299*	32,0 *1.260*	32,0 *1.260*	192,0 *7.559*	134,0 *5.276*	112,0 *4.409*	128,0 *5.039*	1	G2.5	1,4 *3.090*
E9304567525100	02750225	HSK-A63	1,0 *0.039*	16,0 *0.630*	ER 25	100,0 *3.937*	41,7 *1.642*	42,0 *1.654*	132,0 *5.197*	74,0 *2.913*	44,0 *1.732*	62,0 *2.441*	1	G2.5	1,3 *2.870*
E9304567525160	02750226	HSK-A63	1,0 *0.039*	16,0 *0.630*	ER 25	160,0 *6.299*	41,7 *1.642*	42,0 *1.654*	192,0 *7.559*	134,0 *5.276*	91,0 *3.583*	122,0 *4.803*	1	G2.5	1,8 *3.970*
E9304567532100	02750227	HSK-A63	2,0 *0.079*	20,0 *0.787*	ER 32	100,0 *3.937*	50,0 *1.969*	50,0 *1.969*	132,0 *5.197*	74,0 *2.913*	45,0 *1.772*	60,0 *2.362*	1	G2.5	1,4 *3.090*
E9304567532160	02750228	HSK-A63	2,0 *0.079*	20,0 *0.787*	ER 32	160,0 *6.299*	50,0 *1.969*	50,0 *1.969*	192,0 *7.559*	134,0 *5.276*	92,0 *3.622*	120,0 *4.724*	1	G2.5	2,3 *5.070*
E9304567540120	02750230	HSK-A63	3,0 *0.118*	26,0 *1.024*	ER 40	120,0 *4.724*	53,0 *2.087*	63,0 *2.480*	152,0 *5.984*	94,0 *3.701*	53,0 *2.087*	75,0 *2.953*	1	G2.5	1,8 *3.970*
E9306567525100	02750234	HSK-A100	1,0 *0.039*	16,0 *0.630*	ER 25	100,0 *3.937*	41,7 *1.642*	42,0 *1.654*	150,0 *5.906*	71,0 *2.795*	43,0 *1.693*	62,0 *2.441*	1	G2.5	2,6 *5.730*
E9306567525160	02750235	HSK-A100	1,0 *0.039*	16,0 *0.630*	ER 25	160,0 *6.299*	41,7 *1.642*	42,0 *1.654*	210,0 *8.268*	131,0 *5.157*	103,0 *4.055*	122,0 *4.803*	1	G2.5	3,2 *7.050*
E9306567532100	02750236	HSK-A100	2,0 *0.079*	20,0 *0.787*	ER 32	100,0 *3.937*	50,0 *1.969*	50,0 *1.969*	150,0 *5.906*	71,0 *2.795*	53,0 *2.087*	60,0 *2.362*	1	G2.5	2,8 *6.170*
E9306567532160	02750237	HSK-A100	2,0 *0.079*	20,0 *0.787*	ER 32	160,0 *6.299*	41,7 *1.642*	50,0 *1.969*	210,0 *8.268*	131,0 *5.157*	103,0 *4.055*	120,0 *4.724*	1	G2.5	3,6 *7.940*
E9306567540120	02750238	HSK-A100	3,0 *0.118*	26,0 *1.024*	ER 40	120,0 *4.724*	63,0 *2.480*	63,0 *2.480*	170,0 *6.693*	91,0 *3.583*	58,0 *2.283*	75,0 *2.953*	1	G2.5	3,6 *7.940*

Accessories

For size	Sealing nut	Socket	Spanner	Spanner 1	Torque key
					
ER16	08B587516IC	03ER032B	03B587516	03BR032	03DYD010100B
ER25	08B587525IC	–	03B587525	–	03DYD020200
ER32	08B587532IC	03ER050	03B587532	03BR050	03DYD020200
ER40	08B587540IC	03ER063	03B587540	03BR063	03DYD020200

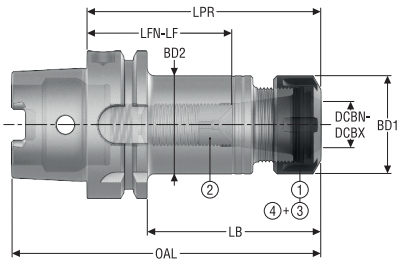
Spare Parts, included in delivery

For size	Nut	Stop screw
		
ER 16	08B587516X	19B58711
HSK-A40/ ER 25	08B587525X	–
ER 25	08B587525X	19B58718
ER 32	08B587532X	19B58722
ER 40	08B587540X	19B58730

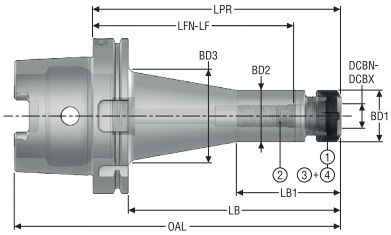
HSK-A/ ISO12164-1-HSK-A

ISO 15488
– Metric / *Inch*

Design 1



Design 2





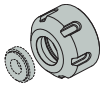
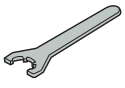
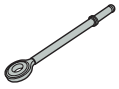
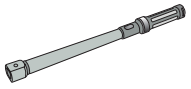
Accessories:
3 = Sealing ring
4 = Sealing nut

Spare parts:
1 = Nut
2 = Stop screw

- Run-out 10 µm maximum at 3 x ∅DCBN-DCBX
- For ER extensions and ER collets, see page(s) 375, 411, 412, 413, 414
- For ER sealing rings, see page(s) 418, 419
- For HSK sealing plugs, coolant tubes and tube spanners, see page(s) 383
- For ISO attribute explanation, see page 14

Designation	Item number	CTMS	DCBN	DCBX	CTWS	LPR	BD3	BD2	BD1	OAL	LB	LB1	LFN	LF	Design	RFID hole	Balan-cing	Weight
			mm *inch*	mm *inch*		mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*				kg *lbs*
HSKA125-ER25-120	03229638	HSK-A125	1,0 *0.039*	16,0 *0.630*	ER 25	120,0 *4.724*	–	42,0 *1.654*	42,0 *1.654*	183,0 *7.205*	91,0 *3.583*	–	57,0 *2.244*	82,0 *3.228*	1	1	PB	4,3 *9.480*
HSKA125-ER25-160	03229639	HSK-A125	1,0 *0.039*	16,0 *0.630*	ER 25	160,0 *6.299*	–	42,0 *1.654*	42,0 *1.654*	223,0 *8.780*	131,0 *5.157*	–	91,0 *3.583*	122,0 *4.803*	1	1	PB	4,6 *10.140*
HSKA125-ER25-200-VF6	03240290	HSK-A125	1,0 *0.039*	16,0 *0.630*	ER 25	200,0 *7.874*	72,7 *2.861*	42,0 *1.654*	42,0 *1.654*	263,0 *10.354*	171,0 *6.732*	84,0 *3.307*	131,0 *5.157*	162,0 *6.378*	2	1	PB	5,7 *12.570*
HSKA125-ER32-120	03229641	HSK-A125	2,0 *0.079*	20,0 *0.787*	ER 32	120,0 *4.724*	–	50,0 *1.969*	50,0 *1.969*	183,0 *7.205*	91,0 *3.583*	–	60,0 *2.362*	80,0 *3.150*	1	1	PB	4,3 *9.480*
HSKA125-ER32-160	03229642	HSK-A125	2,0 *0.079*	20,0 *0.787*	ER 32	160,0 *6.299*	–	50,0 *1.969*	50,0 *1.969*	223,0 *8.780*	131,0 *5.157*	–	92,0 *3.622*	120,0 *4.724*	1	1	PB	4,9 *10.800*
HSKA125-ER32-200-VF6	03240291	HSK-A125	2,0 *0.079*	20,0 *0.787*	ER 32	200,0 *7.874*	75,0 *2.954*	50,0 *1.969*	50,0 *1.969*	263,0 *10.354*	171,0 *6.732*	100,0 *3.937*	132,0 *5.197*	160,0 *6.299*	2	1	PB	6,1 *13.450*

Accessories

For size	Sealing nut	Socket	Spanner	Spanner 1	Torque key
					
ER 25	08B587525IC	–	03B587525	–	03DYD020200
ER 32	08B587532IC	03ER050	03B587532	03BR050	03DYD020200

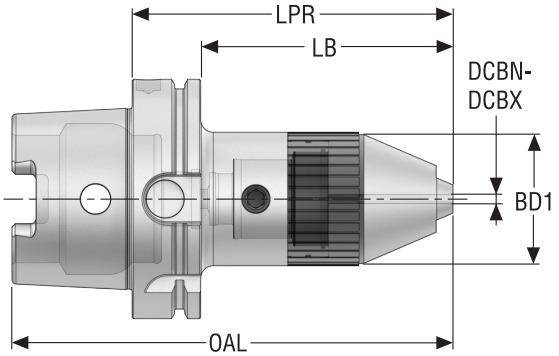
Spare Parts, included in delivery

For size	Nut	Stop screw
		
ER 25	08B587525X	19B58718
ER 32	08B587532X	19B58722

HSK-A/ ISO12164-1-HSK-A

– **Metric** / *Inch*





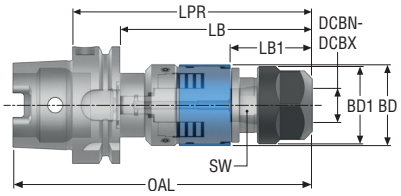
- Run-out 40 µm maximum at 2,5 x ∅DCBN-DCBX
- For HSK sealing plugs, coolant tubes and tube spanners, see page(s) 383
- For ISO attribute explanation, see page 14

Designation	Item number	CTMS	DCBN	DCBX	OAL	LPR	LB	BD1	RFID hole	Balancing	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*			kg *lbs*
E9304508513	75041587	HSK-A63	1,0 *0.039*	13,0 *0.512*	142,0 *5.591*	110,0 *4.331*	84,0 *3.307*	43,0 *1.693*	1	PB	1,2 *2.650*
E9306508516	75041588	HSK-A100	2,5 *0.098*	16,0 *0.630*	184,0 *7.244*	134,0 *5.276*	105,0 *4.134*	56,0 *2.205*	1	PB	3,3 *7.280*

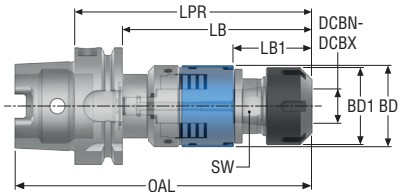
HSK-A/ ISO12164-1-HSK-A

For synchronized tapping, with micro-compensation – Metric / *Inch*

Design 1



Design 2

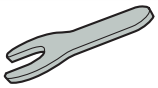
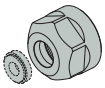
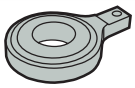
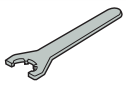
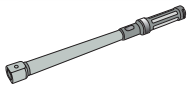




- Maximum coolant pressure 80 bar/ *1160 psi*
- For ER tapping collets with square drive, see page(s) 415, 416-417
- For TCER 5867 sealing rings, see page(s) 418, 419
- For HSK sealing plugs, coolant tubes and tube spanners, see page(s) 383
- For ISO attribute explanation, see page 14

Designation	Item number	CTMS	CTWS	DCBN	DCBX	LPR	LB	LB1	BD	BD1	OAL	SW	Design	RFID hole	Balan-cing	Weight
						mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*				kg *lbs*
E9304586720108	02926954	HSK-A63	ER 20	M4	M12	103,1 *4.059*	77,2 *3.039*	35,3 *1.390*	35,0 *1.378*	33,7 *1.327*	135,0 *5.315*	22 *0.866*	1	0	–	1,1 *2.430*
E9304586725128	02926955	HSK-A63	ER 25	M8	M20	122,5 *4.823*	96,5 *3.799*	37,1 *1.461*	44,0 *1.732*	42,0 *1.654*	154,4 *6.079*	28 *1.102*	2	0	–	1,4 *3.090*
E9304586740160	02926956	HSK-A63	ER 40	M16	M33	154,5 *6.083*	128,6 *5.063*	46,6 *1.835*	62,0 *2.441*	62,7 *2.469*	186,4 *7.339*	39.6 *1.559*	2	0	–	2,9 *6.390*
E9306586720115	02926952	HSK-A100	ER 20	M4	M12	109,6 *4.315*	80,7 *3.177*	35,3 *1.390*	35,0 *1.378*	33,7 *1.327*	159,5 *6.280*	22 *0.866*	1	0	–	2,5 *5.510*
E9306586725134	02926953	HSK-A100	ER 25	M8	M20	129,0 *5.079*	100,0 *3.937*	37,1 *1.461*	44,0 *1.732*	42,0 *1.654*	178,9 *7.043*	28 *1.102*	2	0	–	2,5 *5.510*
E9306586740163	02926951	HSK-A100	ER 40	M16	M33	158,0 *6.220*	129,1 *5.083*	46,6 *1.835*	62,0 *2.441*	62,7 *2.469*	207,9 *8.185*	39.6 *1.559*	2	0	–	4,2 *9.260*

Accessories

For size	Locking key	Seal nut	Socket	Spanner	Torque key
					
ER 20	5680092-04	5533051-02	–	03B587520UM	–
ER 25	5680092-05	5533051-03	–	03B587525	03DYD020200
ER 40	5680092-06	5533051-05	03ER063	03B587540	03DYD020200

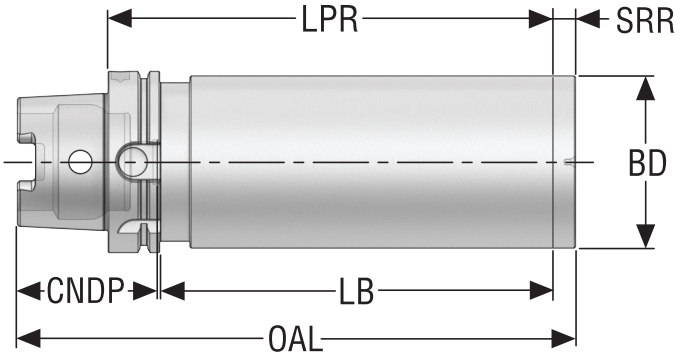
Spare Parts, included in delivery

For size	Nut
	
ER 20	5533050-08
ER 25	5533050-02
ER 40	5533050-04

HSK-A/ ISO12164-1-HSK-A

– Metric / *Inch*



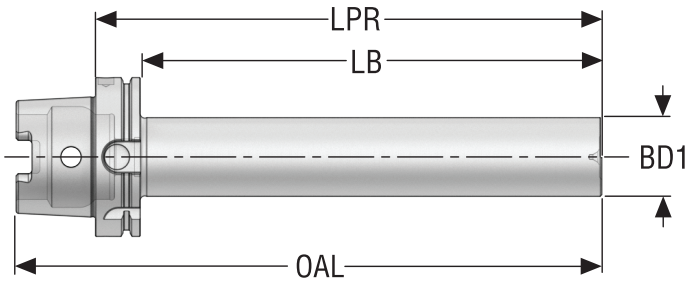


- The cylindrical front part is hardened to 120-130 daN/mm^2, allowing machining
- For HSK sealing plugs, coolant tubes and tube spanners, see page(s) 383
- For ISO attribute explanation, see page 14

Designation	Item number	CTMS	LPR	SRR	BD	OAL	CNDP	LB	RFID hole	Balancing	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*			kg *lbs*
E9302502340150	00007486	HSK-A40	150,0 *5.906*	8,0 *0.315*	40,0 *1.575*	178,0 *7.008*	36,0 *1.417*	130,0 *5.118*	0	PB	1,6 *3.530*
E9304502363250	75041753	HSK-A63	250,0 *9.843*	8,0 *0.315*	63,0 *2.480*	290,0 *11.417*	54,0 *2.126*	224,0 *8.819*	1	PB	6,2 *13.670*
E9306502363250	75041755	HSK-A100	250,0 *9.843*	8,0 *0.315*	63,0 *2.480*	308,0 *12.126*	78,5 *3.091*	221,0 *8.701*	1	PB	7,6 *16.760*
E9306502395250	75041756	HSK-A100	250,0 *9.843*	8,0 *0.315*	95,0 *3.740*	308,0 *12.126*	78,5 *3.091*	221,0 *8.701*	1	PB	14,0 *30.860*

HSK-A/ ISO12164-1-HSK-A

– Metric / *Inch*





- Diameter, length values and measurement positions are laser engraved on each test bar
- With protective case and measurement report
- For HSK sealing plugs, coolant tubes and tube spanners, see page(s) 383
- For ISO attribute explanation, see page 14

Designation	Item number	CTMS	LPR	LB	BD	OAL	RFID hole	Balancing	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*			kg *lbs*
E930458640250	00083582	HSK-A63	250,0 *9.843*	224,0 *8.819*	40,0 *1.575*	282,0 *11.102*	1	–	2,9 *6.390*
E930658650320	00083021	HSK-A100	320,0 *12.598*	291,0 *11.457*	50,0 *1.969*	370,0 *14.567*	1	–	6,4 *14.110*

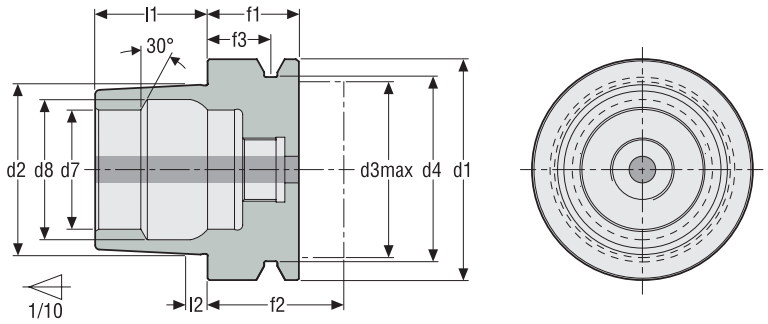


HSK-E

Seco allows you to get the most out of both your machine and tools by offering a comprehensive range of tool holders to connect them. **HSK - E** is designed for high spindles speed therefore there is no slots on the flange, it's completely cylindrical.
The range covers all standard workpiece side connections, as well Seco's unique connections.

- Shrinkfit holders
- High precision collet chucks
- ER collet chucks

DIN 69893-HSK-E



Machine side catalogue designation	Hole for RFID carrier*	d_1	d_2	d_3 max	d_4	d_7	d_8	f_1	f_2	f_3	l_1	l_2
		mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*
HSK-E32	No*	32 *1.260*	24 *0.945*	26 *1.024*	26,5 *1.043*	17 *0.669*	21 *0.827*	20 *0.787*	35 *1.378*	16 *0.630*	16 *0.630*	3,2 *0.126*
HSK-E40	No*	40 *1.575*	30 *1.181*	34 *1.339*	34,8 *1.370*	21 *0.827*	25,5 *1.004*	20 *0.787*	35 *1.378*	16 *0.630*	20 *0.787*	4 *0.157*
HSK-E50	No*	50 *1.969*	38 *1.496*	42 *1.654*	43 *1.693*	26 *1.024*	32 *1.260*	26 *1.024*	42 *1.654*	18 *0.709*	25 *0.984*	5 *0.197*

Note: These machine side dimensions are applied to all the holders shown in the Product pages.

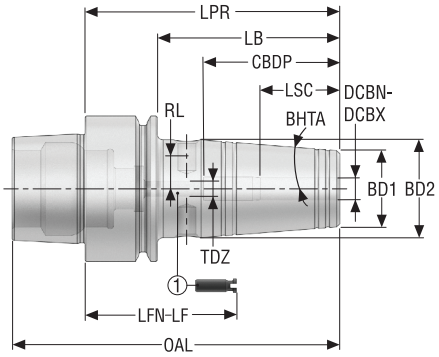
For HSK sealing plugs, coolant tubes and tube spanners, see chapter Operating & setting accessories.

* No hole for RFID carriers. If required, hole can be machined and a RFID carrier can be fitted on request, please enquire.

DIN type
– Metric / *Inch*

HSK-E / DIN 69893





- Run-out ≤3 µm
- Delivered with one stop screw
- For HSK sealing plugs, coolant tubes and tube spanners, see page(s) 383
- For Shrinkfit extensions, see page(s) 373-374
- For ISO attribute explanation, see page 14

Spare parts:
1 = Stop screw

Designation	Item number	CTMS	DCBN-DCBX	LPR	LB	CBDP	LSC	BD1	BD2	OAL	LFN	LF	RL	TDZ	BHTA°	RFID hole	Balancing	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*					kg *lbs*
E934156030345	02752951	HSK-E32	3,0 *0.118*	45,0 *1.772*	25,0 *0.984*	16,0 *0.630*	13,0 *0.512*	15,0 *0.591*	20,0 *0.787*	61,0 *2.402*	30,5 *1.201*	32,0 *1.260*	10,5 *0.413*	–	4,5	0	G2.5	0,16 *0.350*
E934156030445	02752953	HSK-E32	4,0 *0.157*	45,0 *1.772*	25,0 *0.984*	18,0 *0.709*	15,0 *0.591*	15,0 *0.591*	20,0 *0.787*	61,0 *2.402*	28,5 *1.122*	30,0 *1.181*	10,5 *0.413*	M5x0.8	4,5	0	G2.5	0,2 *0.440*
E934156030650	02752954	HSK-E32	6,0 *0.236*	50,0 *1.969*	30,0 *1.181*	33,0 *1.299*	22,0 *0.866*	21,0 *0.827*	27,0 *1.063*	66,0 *2.598*	18,5 *0.728*	28,0 *1.102*	10,5 *0.413*	M5x0.8	4,5	0	G2.5	0,22 *0.490*
E934156030850	02752955	HSK-E32	8,0 *0.315*	50,0 *1.969*	30,0 *1.181*	33,0 *1.299*	26,0 *1.024*	21,0 *0.827*	27,0 *1.063*	66,0 *2.598*	18,5 *0.728*	24,0 *0.945*	10,5 *0.413*	M6x1	4,5	0	G2.5	0,3 *0.660*
E934256030350	02752956	HSK-E40	3,0 *0.118*	50,0 *1.969*	30,0 *1.181*	31,0 *1.220*	13,0 *0.512*	15,0 *0.591*	20,0 *0.787*	70,0 *2.756*	20,5 *0.807*	37,0 *1.457*	10,5 *0.413*	–	4,5	0	G2.5	0,3 *0.660*
E934256030450	02752957	HSK-E40	4,0 *0.157*	50,0 *1.969*	30,0 *1.181*	31,0 *1.220*	15,0 *0.591*	15,0 *0.591*	20,0 *0.787*	70,0 *2.756*	20,5 *0.807*	35,0 *1.378*	10,5 *0.413*	M5x0.8	4,5	0	G2.5	0,3 *0.660*
E934256030650	02752959	HSK-E40	6,0 *0.236*	50,0 *1.969*	30,0 *1.181*	31,0 *1.220*	22,0 *0.866*	21,0 *0.827*	27,0 *1.063*	70,0 *2.756*	20,5 *0.807*	28,0 *1.102*	10,5 *0.413*	M5x0.8	4,5	0	G2.5	0,3 *0.660*
E934256030670	02752960	HSK-E40	6,0 *0.236*	70,0 *2.756*	50,0 *1.969*	37,5 *1.476*	22,0 *0.866*	21,0 *0.827*	27,0 *1.063*	90,0 *3.543*	34,0 *1.339*	44,0 *1.732*	10,5 *0.413*	M5x0.8	4,5	0	G2.5	0,4 *0.880*
E934256030870	02752964	HSK-E40	8,0 *0.315*	70,0 *2.756*	50,0 *1.969*	37,5 *1.476*	26,0 *1.024*	21,0 *0.827*	27,0 *1.063*	90,0 *3.543*	34,0 *1.339*	44,0 *1.732*	10,5 *0.413*	M6x1	4,5	0	G2.5	0,36 *0.790*
E934256031055	02752966	HSK-E40	10,0 *0.394*	55,0 *2.165*	35,0 *1.378*	36,0 *1.417*	31,0 *1.220*	24,0 *0.945*	32,0 *1.260*	75,0 *2.953*	20,5 *0.807*	24,0 *0.945*	13,0 *0.512*	M8x1	4,5	0	G2.5	0,4 *0.880*
E934256031260	02752969	HSK-E40	12,0 *0.472*	60,0 *2.362*	40,0 *1.575*	41,0 *1.614*	34,0 *1.339*	24,0 *0.945*	32,0 *1.260*	80,0 *3.150*	20,5 *0.807*	26,0 *1.024*	13,0 *0.512*	M10x1	4,5	0	G2.5	0,4 *0.880*
E934256031665	02752973	HSK-E40	16,0 *0.630*	65,0 *2.559*	45,0 *1.772*	46,0 *1.811*	39,0 *1.535*	27,0 *1.063*	34,0 *1.339*	85,0 *3.346*	20,5 *0.807*	26,0 *1.024*	14,0 *0.551*	–	4,5	0	G2.5	0,4 *0.880*
E934356030355	02752979	HSK-E50	3,0 *0.118*	55,0 *2.165*	29,0 *1.142*	31,0 *1.220*	13,0 *0.512*	15,0 *0.591*	20,0 *0.787*	80,0 *3.150*	25,5 *1.004*	42,0 *1.654*	10,5 *0.413*	–	4,5	0	G2.5	0,5 *1.100*
E934356030455	02752980	HSK-E50	4,0 *0.157*	55,0 *2.165*	29,0 *1.142*	31,0 *1.220*	15,0 *0.591*	15,0 *0.591*	20,0 *0.787*	80,0 *3.150*	25,5 *1.004*	40,0 *1.575*	10,5 *0.413*	–	4,5	0	G2.5	0,5 *1.100*
E934356030655	02752981	HSK-E50	6,0 *0.236*	55,0 *2.165*	29,0 *1.142*	32,0 *1.260*	22,0 *0.866*	21,0 *0.827*	27,0 *1.063*	80,0 *3.150*	24,5 *0.965*	33,0 *1.299*	10,5 *0.413*	–	4,5	0	G2.5	0,5 *1.100*
E934356030855	02752983	HSK-E50	8,0 *0.315*	55,0 *2.165*	29,0 *1.142*	32,0 *1.260*	22,0 *0.866*	21,0 *0.827*	27,0 *1.063*	80,0 *3.150*	24,5 *0.965*	33,0 *1.299*	10,5 *0.413*	–	4,5	0	G2.5	0,5 *1.100*
E934356031060	02752985	HSK-E50	10,0 *0.394*	60,0 *2.362*	34,0 *1.339*	37,0 *1.457*	31,0 *1.220*	24,0 *0.945*	32,0 *1.260*	85,0 *3.346*	24,5 *0.965*	29,0 *1.142*	13,0 *0.512*	M8x1	4,5	0	G2.5	0,6 *1.320*
E934356031265	02752987	HSK-E50	12,0 *0.472*	65,0 *2.559*	39,0 *1.535*	42,0 *1.654*	34,0 *1.339*	24,0 *0.945*	32,0 *1.260*	90,0 *3.543*	24,5 *0.965*	31,0 *1.220*	13,0 *0.512*	M10x1	4,5	0	G2.5	0,6 *1.320*
E934356031290	02752988	HSK-E50	12,0 *0.472*	90,0 *3.543*	64,0 *2.520*	47,5 *1.870*	34,0 *1.339*	24,0 *0.945*	32,0 *1.260*	115,0 *4.528*	44,0 *1.732*	54,0 *2.126*	13,0 *0.512*	M10x1	4,5	0	G2.5	0,7 *1.540*
E934356031670	02752989	HSK-E50	16,0 *0.630*	70,0 *2.756*	44,0 *1.732*	47,0 *1.850*	39,0 *1.535*	27,0 *1.063*	34,0 *1.339*	95,0 *3.740*	24,5 *0.965*	31,0 *1.220*	14,0 *0.551*	–	4,5	0	G2.5	0,6 *1.320*

Accessories

For	Balancing screws
	
E934256030670	90ZQ01
E934256030870	90ZQ01
E934356031290	90ZQ01

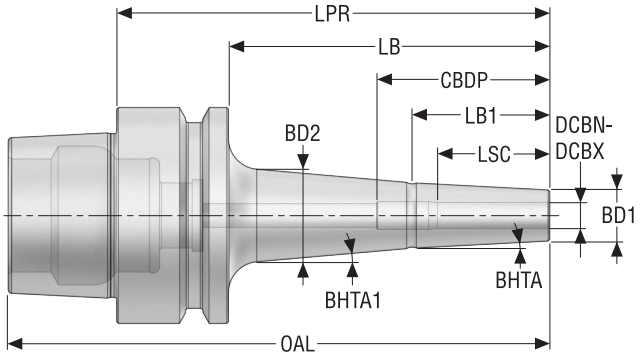
Spare Parts, included in delivery

For	Stop screw
	
E934256030670	19BDR05165
E934256030870	19BDR06165
E934356031290	19BDR10165

Mold and Die type
– Metric / *Inch*

HSK-E



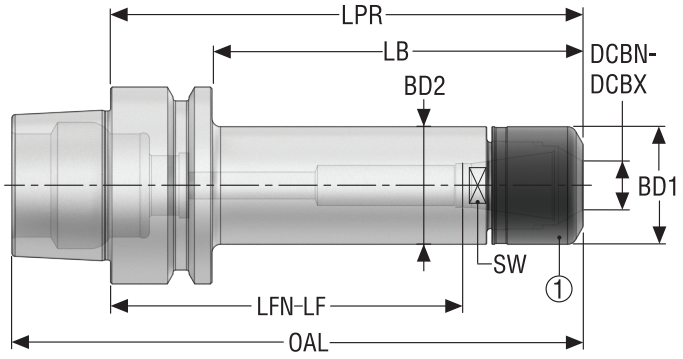


- Run-out ≤3 µm
- For HSK sealing plugs, coolant tubes and tube spanners, see page(s) 383
- For Shrinkfit extensions, see page(s) 373-374
- For ISO attribute explanation, see page 14

Designation	Item number	CTMS	DCBN-DCBX	LPR	LB	LB1	CBDP	LSC	BD1	BD2	OAL	BHTA°	BHTA1°	RFID hole	Balan-cing	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*					kg *lbs*
E934258010360	02418319	HSK-E40	3,0 *0.118*	60,0 *2.362*	40,0 *1.575*	–	–	13,0 *0.512*	9,0 *0.354*	13,2 *0.519*	80,0 *3.150*	3,0	–	0	G2.5	0,3 *0.660*
E9342580103100	00048013	HSK-E40	3,0 *0.118*	100,0 *3.937*	80,0 *3.150*	25,0 *0.984*	–	13,0 *0.512*	9,0 *0.354*	21,2 *0.836*	120,0 *4.724*	3,0	5,0	0	G2.5	0,3 *0.660*
E934258010460	02418320	HSK-E40	4,0 *0.157*	60,0 *2.362*	40,0 *1.575*	–	–	15,0 *0.591*	10,0 *0.394*	14,2 *0.559*	80,0 *3.150*	3,0	–	0	G2.5	0,24 *0.530*
E9342580104100	00047774	HSK-E40	4,0 *0.157*	100,0 *3.937*	80,0 *3.150*	25,0 *0.984*	–	15,0 *0.591*	10,0 *0.394*	22,2 *0.876*	120,0 *4.724*	3,0	5,0	0	G2.5	0,4 *0.880*
E934258010660	02418323	HSK-E40	6,0 *0.236*	60,0 *2.362*	40,0 *1.575*	–	40,0 *1.575*	26,0 *1.024*	12,0 *0.472*	16,2 *0.638*	80,0 *3.150*	3,0	–	0	G2.5	0,25 *0.550*
E9342580106100	00047778	HSK-E40	6,0 *0.236*	100,0 *3.937*	80,0 *3.150*	32,0 *1.260*	40,0 *1.575*	26,0 *1.024*	12,0 *0.472*	23,8 *0.935*	120,0 *4.724*	3,0	5,0	0	G2.5	0,4 *0.880*
E934258010860	02418324	HSK-E40	8,0 *0.315*	60,0 *2.362*	40,0 *1.575*	–	42,0 *1.654*	30,0 *1.181*	16,0 *0.630*	20,2 *0.795*	80,0 *3.150*	3,0	–	0	G2.5	0,3 *0.660*
E934258011060	02418325	HSK-E40	10,0 *0.394*	60,0 *2.362*	40,0 *1.575*	40,0 *1.575*	42,0 *1.654*	32,0 *1.260*	18,0 *0.709*	22,2 *0.874*	80,0 *3.150*	3,0	–	0	G2.5	0,3 *0.660*
E9343580103100	00047797	HSK-E50	3,0 *0.118*	100,0 *3.937*	74,0 *2.913*	25,0 *0.984*	–	13,0 *0.512*	9,0 *0.354*	20,2 *0.795*	125,0 *4.921*	3,0	5,0	0	G2.5	0,5 *1.100*
E9343580104100	00047799	HSK-E50	4,0 *0.157*	100,0 *3.937*	74,0 *2.913*	25,0 *0.984*	–	15,0 *0.591*	10,0 *0.394*	21,2 *0.834*	125,0 *4.921*	3,0	5,0	0	G2.5	0,6 *1.320*
E9343580106100	00047807	HSK-E50	6,0 *0.236*	100,0 *3.937*	74,0 *2.913*	32,0 *1.260*	40,0 *1.575*	26,0 *1.024*	12,0 *0.472*	22,7 *0.894*	125,0 *4.921*	3,0	5,0	0	G2.5	0,6 *1.320*
E9343580108100	00047812	HSK-E50	8,0 *0.315*	100,0 *3.937*	74,0 *2.913*	36,0 *1.417*	44,0 *1.732*	30,0 *1.181*	16,0 *0.630*	26,4 *1.040*	125,0 *4.921*	3,0	5,0	0	G2.5	0,6 *1.320*

HSK-E

– Metric / *Inch*



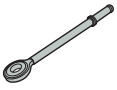
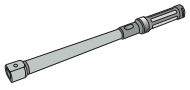


Spare parts:
1 = Nut

- Run-out 3 µm maximum at 3 x ∅DCBN-DCBX
- For ER HP collets type 5672, see page(s) 402, 403, 404-410
- * Chuck without thread for stop screw
- For HSK sealing plugs, coolant tubes and tube spanners, see page(s) 383
- For ISO attribute explanation, see page 14

Designation	Item number	CTMS	DCBN	DCBX	CTWS	LPR	BD2	BD1	OAL	LB	LFN	LF	SW	*	RFID hole	Balan-cing	Weight
			mm *inch*	mm *inch*		mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*				kg *lbs*
E934056721655R	02827206	HSK-E25	0,5 *0.020*	10,0 *0.394*	HP 16R	55,0 *2.165*	24,0 *0.945*	24,0 *0.945*	68,0 *2.677*	45,0 *1.772*	24,0 *0.945*	25,0 *0.984*	21 *0.827*	*	0	G2.5	0,14 *0.310*
E934156721150	02882774	HSK-E32	0,5 *0.020*	7,0 *0.276*	HP 11	50,0 *1.969*	16,0 *0.630*	16,0 *0.630*	66,0 *2.598*	30,0 *1.181*	14,0 *0.551*	32,0 *1.260*	13 *0.512*	*	0	G2.5	0,2 *0.440*
E934156721660R	02827215	HSK-E32	0,5 *0.020*	10,0 *0.394*	HP 16R	60,0 *2.362*	24,0 *0.945*	24,0 *0.945*	76,0 *2.992*	40,0 *1.575*	29,0 *1.142*	30,0 *1.181*	21 *0.827*	*	0	G2.5	0,3 *0.660*
E934256721150	02882775	HSK-E40	0,5 *0.020*	7,0 *0.276*	HP 11	50,0 *1.969*	16,0 *0.630*	16,0 *0.630*	70,0 *2.756*	30,0 *1.181*	14,0 *0.551*	32,0 *1.260*	13 *0.512*	*	0	G2.5	0,3 *0.660*
E934256721660	02827218	HSK-E40	0,5 *0.020*	10,0 *0.394*	HP 16	60,0 *2.362*	30,0 *1.181*	30,0 *1.181*	80,0 *3.150*	40,0 *1.575*	29,0 *1.142*	30,0 *1.181*	27 *1.063*	*	0	G2.5	0,4 *0.880*
E9342567216120	02827220	HSK-E40	0,5 *0.020*	10,0 *0.394*	HP 16	120,0 *4.724*	30,0 *1.181*	30,0 *1.181*	140,0 *5.512*	100,0 *3.937*	89,0 *3.504*	90,0 *3.543*	27 *1.063*		0	G2.5	0,7 *1.540*
E934256722570	02827221	HSK-E40	1,0 *0.039*	16,0 *0.630*	HP 25	70,0 *2.756*	40,0 *1.575*	40,0 *1.575*	90,0 *3.543*	50,0 *1.969*	14,0 *0.551*	32,0 *1.260*	36 *1.417*	*	0	G2.5	0,5 *1.100*
E934356721660	02827225	HSK-E50	0,5 *0.020*	10,0 *0.394*	HP 16	60,0 *2.362*	30,0 *1.181*	30,0 *1.181*	85,0 *3.346*	34,0 *1.339*	29,0 *1.142*	30,0 *1.181*	27 *1.063*	*	0	G2.5	0,6 *1.320*
E9343567216120	02827223	HSK-E50	0,5 *0.020*	10,0 *0.394*	HP 16	120,0 *4.724*	30,0 *1.181*	30,0 *1.181*	145,0 *5.709*	94,0 *3.701*	89,0 *3.504*	90,0 *3.543*	27 *1.063*		0	G2.5	0,9 *1.980*
E934356722570	02827226	HSK-E50	1,0 *0.039*	16,0 *0.630*	HP 25	70,0 *2.756*	40,0 *1.575*	40,0 *1.575*	95,0 *3.740*	44,0 *1.732*	14,0 *0.551*	32,0 *1.260*	36 *1.417*	*	0	G2.5	0,7 *1.540*

Accessories

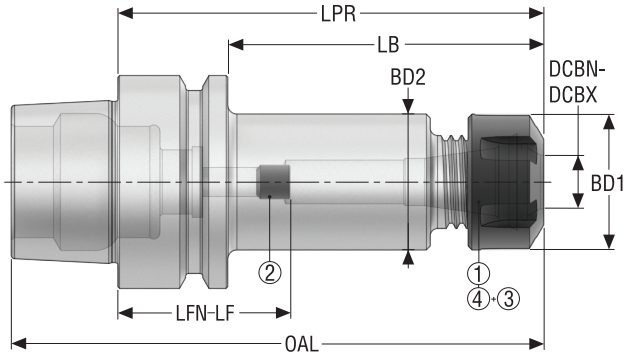
For	Socket	Spanner	Stop screw	Torque key
				
HP 11	03ER016	03BR016	–	03DYD010100
HP 16	03ER030B	03BR030	–	03DYD010100B
HP 16 (E...120)	03ER030B	03BR030	19B58711	03DYD010100B
HP 16R	03ER024	03BR024	–	03DYD010100
HP 25	03ER040	03BR040	–	03DYD020200

Spare Parts, included in delivery

For	Nut
	
HP 11	08B567211
HP 16	08B567216
HP 16R	08B567216R
HP 25	08B567225

HSK-E

ISO 15488
– Metric / *Inch*





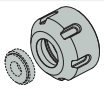
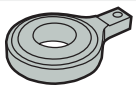
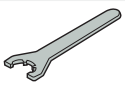
Accessories:
3 = Sealing ring
4 = Sealing nut

Spare parts:
1 = Nut
2 = Stop screw

- Run-out 10 µm maximum at 3 x ∅DCBN-DCBX
- For ER extensions and ER collets, see page(s) 375, 411, 412, 413, 414
- * Chuck without thread for stop screw
- For HSK sealing plugs, coolant tubes and tube spanners, see page(s) 383
- For ER sealing rings, see page(s) 418, 419
- For ISO attribute explanation, see page 14

Designation	Item number	CTMS	DCBN	DCBX	CTWS	LPR	BD2	BD1	OAL	LB	LFN	LF	SW	*	RFID hole	Balan-cing	Weight
			mm *inch*	mm *inch*		mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*				kg *lbs*
E934156751660	02750240	HSK-E32	0,5 *0.020*	10,0 *0.394*	ER 16	60,0 *2.362*	26,0 *1.024*	32,0 *1.260*	76,0 *2.992*	40,0 *1.575*	23,0 *0.906*	28,0 *1.102*	22 *0.866*		0	G2.5	0,25 *0.550*
E934256751660	02750241	HSK-E40	0,5 *0.020*	10,0 *0.394*	ER 16	60,0 *2.362*	32,0 *1.260*	32,0 *1.260*	80,0 *3.150*	40,0 *1.575*	26,0 *1.024*	30,0 *1.181*	27 *1.063*		0	G2.5	0,4 *0.880*
E934256752570	02750243	HSK-E40	1,0 *0.039*	16,0 *0.630*	ER 25	70,0 *2.756*	34,0 *1.339*	42,0 *1.654*	90,0 *3.543*	50,0 *1.969*	32,0 *1.260*	32,0 *1.260*	30 *1.181*	*	0	G2.5	0,5 *1.100*
E9343567516100	02750244	HSK-E50	0,5 *0.020*	10,0 *0.394*	ER 16	100,0 *3.937*	32,0 *1.260*	32,0 *1.260*	125,0 *4.921*	74,0 *2.913*	53,0 *2.087*	68,0 *2.677*	21 *0.827*		0	G2.5	0,8 *1.760*
E9343567525100	02750245	HSK-E50	1,0 *0.039*	16,0 *0.630*	ER 25	100,0 *3.937*	42,0 *1.654*	42,0 *1.654*	125,0 *4.921*	74,0 *2.913*	44,0 *1.732*	62,0 *2.441*	38 *1.496*		0	G2.5	1,0 *2.200*
E9343567532100	02750246	HSK-E50	2,0 *0.079*	20,0 *0.787*	ER 32	100,0 *3.937*	42,0 *1.654*	50,0 *1.969*	125,0 *4.921*	74,0 *2.913*	45,0 *1.772*	60,0 *2.362*	38 *1.496*		0	G2.5	1,0 *2.200*

Accessories

For size	Seal nut	Socket	Spanner	Spanner 1	Torque key
					
ER 16	08B587516IC	03ER032B	03B587516	03BR032	03DYD010100B
E40/ ER 25	08B587525IC	–	03B587525	–	03DYD020200
ER 25	08B587525IC	–	03B587525	–	03DYD020200
ER 32	08B587532IC	03ER050	03B587532	03BR050	03DYD020200

Spare Parts, included in delivery

For size	Nut	Stop screw
		
ER 16	08B587516X	19B58711
E40/ ER 25	08B587525X	–
ER 25	08B587525X	19B58718
ER 32	08B587532X	19B58722

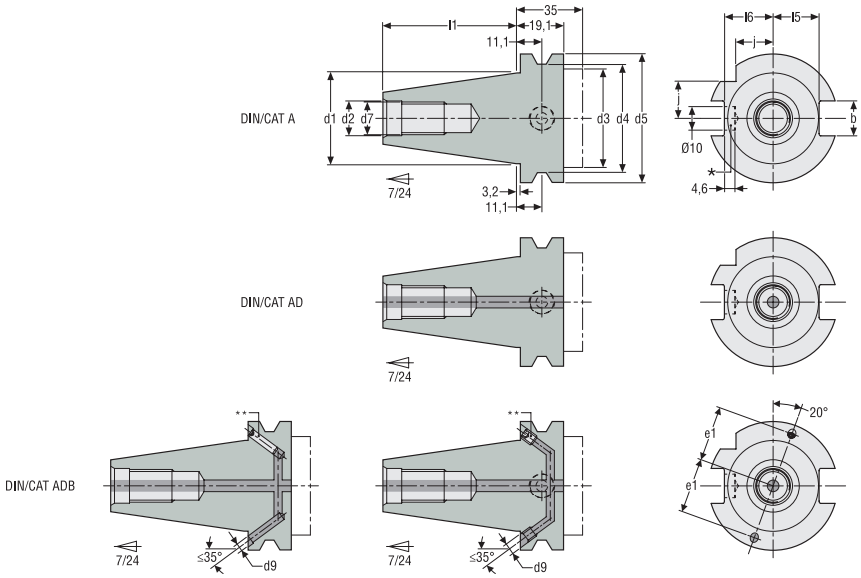


DIN

Seco range of rotating holders allow you to get the most out of both your machine and tool by offering a comprehensive array of solutions to connect them. The range covers all standard workpiece side connections, as well as unique connections. Machine side connections are included for most of the norms, including **DIN 69871**.

- Steadyline, vibration damping shell mill holders
- Shell mill holders, with through coolant channels
- Milling cutter holders, flange mounting
- Disc mill holders
- Side lock holders, Weldon
- Shrinkfit holders
- High precision collet chucks
- Hydraulics chucks and Power milling chucks
- ER collet chucks
- Drill chucks and Tapping chucks
- Taper adapters SA
- Greenstock blanks and Control bars

DIN 69871-A/AD/B (ISO 7388-1-A/AD/AF) and CAT-A/AD/B (ISO 7388-1-U/UD/UF)



** DIN40 ADB/CAT 40 and DIN50 ADB/CAT50 with sealing dowel

** DIN40 ADB/CAT 40 and DIN50 ADB/CAT50 with sealing screw

Machine side catalogue designation	Through coolant Form	Hole for RFID carrier*	d_1	d_3 max	d_4	d_5	l_1 $^{-0,2/0}$	d_7 ^{6H}	d_2 ^{H7}	d_9	e_1	l_5	l_6	b	j
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*		mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*
DIN30	A/AD	No*	31,75 *1.250*	45 *1.772*	44,3 *1.744*	50 *1.969*	47,8 *1.882*	M12	13 *0.512*	–	–	16,4 *0.646*	19 *0.748*	16,1 *0.634*	15 *0.591*
DIN40	A/AD	*	44,45 *1.750*	50 *1.969*	56,25 *2.215*	63,55 *2.502*	68,4 *2.693*	M16	17 *0.669*	–	–	22,8 *0.898*	25 *0.984*	16,1 *0.634*	18,5 *0.728*
DIN40 AD / CAT40	A/AD	*	44,45 *1.750*	44,45 *1.750*	56,25 *2.215*	63,55 *2.502*	68,4 *2.693*	M16	17 *0.669*	–	–	22,8 *0.898*	25 *0.984*	16,1 *0.634*	18,5 *0.728*
DIN40 ADB / CAT40	A/AD/B	*	44,45 *1.750*	44,45 *1.750*	56,25 *2.215*	63,55 *2.502*	68,4 *2.693*	M16	17 *0.669*	4 *0.157*	27 *1.063*	22,8 *0.898*	25 *0.984*	16,1 *0.634*	18,5 *0.728*
DIN40 ADB	A/AD/B	*	44,45 *1.750*	50 *1.969*	56,25 *2.215*	63,55 *2.502*	68,4 *2.693*	M16	17 *0.669*	4 *0.157*	27 *1.063*	22,8 *0.898*	25 *0.984*	16,1 *0.634*	18,5 *0.728*
DIN45	A/AD	*	57,15 *2.250*	63 *2.480*	75 *2.953*	82,55 *3.250*	82,7 *3.256*	M20	21 *0.827*	–	–	29,1 *1.146*	31,3 *1.232*	19,3 *0.760*	24 *0.945*
DIN50	A/AD	*	69,85 *2.750*	80 *3.150*	91,25 *3.593*	97,5 *3.839*	101,75 *4.006*	M24	25 *0.984*	–	–	35,5 *1.398*	37,7 *1.484*	25,7 *1.012*	30 *1.181*
DIN50 AD / CAT50	A/AD	*	69,85 *2.750*	69,85 *2.750*	91,25 *3.593*	97,5 *3.839*	101,75 *4.006*	M24	25 *0.984*	–	–	35,5 *1.398*	37,7 *1.484*	25,7 *1.012*	30 *1.181*
DIN50 ADB / CAT50	A/AD/B	*	69,85 *2.750*	69,85 *2.750*	91,25 *3.593*	97,5 *3.839*	101,75 *4.006*	M24	25 *0.984*	6 *0.236*	42 *1.654*	35,5 *1.398*	37,7 *1.484*	25,7 *1.012*	30 *1.181*
DIN50 ADB	A/AD/B	*	69,85 *2.750*	80 *3.150*	91,25 *3.593*	97,5 *3.839*	101,75 *4.006*	M24	25 *0.984*	6 *0.236*	42 *1.654*	35,5 *1.398*	37,7 *1.484*	25,7 *1.012*	30 *1.181*

Note: These machine side dimensions are applied to all the holders shown in the Product pages.

* In order to know if a hole for RFID carrier exists, see 'RFID hole' column in Product pages:
1= hole for RFID carrier available, if required a carrier can be fitted on request, please enquire.
0= hole for RFID carrier not available, if required hole can be machined and a carrier can be fitted on request, please enquire.

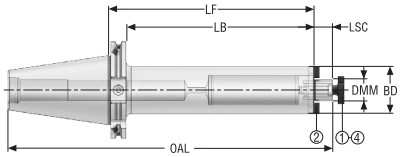
DIN/ CAT (Combined) indicate these holders of the DIN 69871 range feature the fixed diameter d3 of the ANSI B5 50/CAT norm (full ANSICAT conformity restricted by timing notch inclusion and metric pull-stud thread).

Steadyline®, vibration damping – Metric / *Inch*

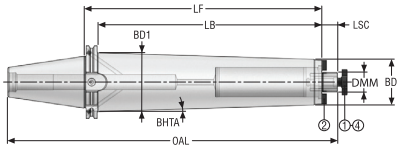
DIN 69871-ADB



Design 1



Design 2



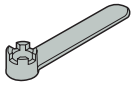
- DMM 40 mm / *1.575"*, includes 4 threaded holes for M12 screws on the bearing face ∅66,7 mm / *2.626"* according to DIN 6357
- For ISO attribute explanation, see page 14

Accessories:
4 = Bolt, through coolant

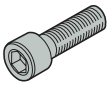
Spare parts:
1 = Bolt
2 = Tenon/Screw

Designation	Item number	CTMS	DMM	LF	BD	BD1	OAL	LB	LSC	Design	BHTA°	RFID hole	Balancing	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*					kg *lbs*
E3469555516160	02706262	DIN40 ADB	16,0 *0.630*	160,0 *6.299*	38,0 *1.496*	38,0 *1.496*	245,4 *9.661*	140,9 *5.547*	17,0 *0.669*	1	–	1	PB	2,12 *4.670*
E3469555522210	02675726	DIN40 ADB	22,0 *0.866*	210,0 *8.268*	48,0 *1.890*	48,0 *1.890*	297,4 *11.709*	190,9 *7.516*	19,0 *0.748*	1	–	1	PB	3,74 *8.250*
E3469555622260	02675741	DIN40 ADB	22,0 *0.866*	260,0 *10.236*	48,0 *1.890*	63,2 *2.488*	347,4 *13.677*	241,0 *9.488*	19,0 *0.748*	2	1,9	1	PB	5,56 *12.260*
E3471555522210	02675749	DIN50 ADB	22,0 *0.866*	210,0 *8.268*	48,0 *1.890*	48,0 *1.890*	330,75 *13.022*	190,9 *7.516*	19,0 *0.748*	1	–	1	PB	5,36 *11.820*
E3471555622260	02675750	DIN50 ADB	22,0 *0.866*	260,0 *10.236*	48,0 *1.890*	66,0 *2.598*	380,7 *14.988*	241,0 *9.488*	19,0 *0.748*	2	2,0	1	PB	7,52 *16.580*
E3471555527260	02675751	DIN50 ADB	27,0 *1.063*	260,0 *10.236*	60,0 *2.362*	60,0 *2.362*	382,75 *15.069*	240,9 *9.484*	21,0 *0.827*	1	–	1	PB	8,52 *18.780*
E3471555627320	02675752	DIN50 ADB	27,0 *1.063*	320,0 *12.598*	60,0 *2.362*	79,3 *3.122*	442,75 *17.431*	300,9 *11.846*	21,0 *0.827*	2	1,7	1	PB	12,26 *27.030*
E3471555532330	02706263	DIN50 ADB	32,0 *1.260*	330,0 *12.992*	78,0 *3.071*	78,0 *3.071*	455,75 *17.943*	310,9 *12.240*	24,0 *0.945*	1	–	1	PB	14,96 *32.980*
E3471555540350	02753471	DIN50 ADB	40,0 *1.575*	350,0 *13.780*	89,0 *3.504*	89,0 *3.504*	478,75 *18.848*	330,9 *13.028*	27,0 *1.063*	1	–	1	PB	20,4 *44.970*

Accessories

For Taper/ DMM	Bolt, through coolant	Spanner
		
DIN40/ 16/ *0.630*	5801608L	5811608
DIN40/ 22/ *0.866*	5802210L	5812210
DIN50/ 22/ *0.866*	5802210L	5812210
DIN50/ 27/ *1.063*	5802712L	5812712
DIN50/ 32/ *1.260*	5803216L	5813216
DIN50/ 40/ *1.575*	5804020L	5814020

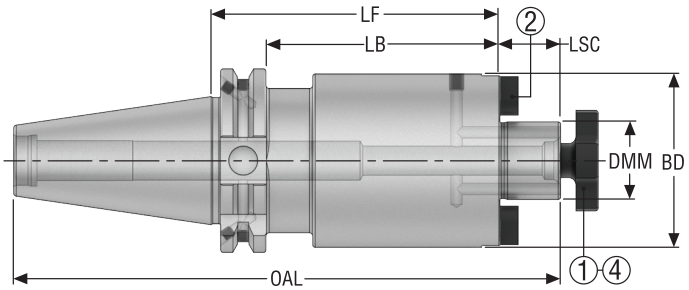
Spare Parts, included in delivery

For Taper/ DMM	Bolt	Screw	Sealing Screws	Tenon
				
DIN40/ 16/ *0.630*	5801608	950D0312	950A0406	16C2080810A
DIN40/ 22/ *0.866*	5802210	950D0416	950A0406	16C2101111
DIN50/ 22/ *0.866*	5802210	950D0416	950A0606	16C2101111
DIN50/ 27/ *1.063*	5802712	950D0516	950A0606	16C2121214A
DIN50/ 32/ *1.260*	5803216	950D0516	950A0606	16C2141421A
DIN50/ 40/ *1.575*	5804020	950D0616	950A0606	16C2161621A

With through coolant channels – ISO 3937 – Metric / *Inch*

DIN 69871-ADB





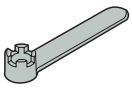
- DMM 40 mm / *1.575"*, includes 4 threaded holes for M12 screws on the bearing face ∅66,7 mm / *2.626"* according to DIN 6357
- For ISO attribute explanation, see page 14

Accessories:
4 = Bolt, through coolant

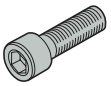
Spare parts:
1 = Bolt
2 = Tenon/Screw

Designation	Item number	CTMS	DMM	LF	BD	OAL	LB	LSC	RFID hole	Balancing	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*			kg *lbs*
DIN40ADB-SM16-035-L1	10007162	DIN40 ADB	16,0 *0.630*	35,0 *1.378*	38,0 *1.496*	120,4 *4.740*	15,9 *0.626*	17,0 *0.669*	1	G6.3	1,0 *2.200*
DIN40ADB-SM16-100-L1	10007163	DIN40 ADB	16,0 *0.630*	100,0 *3.937*	38,0 *1.496*	185,4 *7.299*	80,9 *3.185*	17,0 *0.669*	1	G6.3	1,6 *3.530*
DIN40ADB-SM22-035-L1	10007164	DIN40 ADB	22,0 *0.866*	35,0 *1.378*	48,0 *1.890*	122,4 *4.819*	15,9 *0.626*	19,0 *0.748*	1	G6.3	1,1 *2.430*
DIN40ADB-SM22-100-L1	10007167	DIN40 ADB	22,0 *0.866*	100,0 *3.937*	48,0 *1.890*	187,4 *7.378*	80,9 *3.185*	19,0 *0.748*	1	G6.3	2,0 *4.410*
DIN40ADB-SM27-045-L1	10007169	DIN40 ADB	27,0 *1.063*	45,0 *1.772*	60,0 *2.362*	134,4 *5.291*	25,9 *1.020*	21,0 *0.827*	1	G6.3	1,4 *3.090*
DIN40ADB-SM27-100-L1	10007171	DIN40 ADB	27,0 *1.063*	100,0 *3.937*	60,0 *2.362*	189,4 *7.457*	80,9 *3.185*	21,0 *0.827*	1	G6.3	2,6 *5.730*
DIN40ADB-SM32-050-L1	10007172	DIN40 ADB	32,0 *1.260*	50,0 *1.969*	78,0 *3.071*	142,4 *5.606*	30,9 *1.217*	24,0 *0.945*	1	G6.3	1,8 *3.970*
DIN40ADB-SM40-050-L1	10007174	DIN40 ADB	40,0 *1.575*	50,0 *1.969*	89,0 *3.504*	145,4 *5.724*	30,9 *1.217*	27,0 *1.063*	1	G6.3	2,0 *4.410*
DIN50ADB-SM16-100-L1	10007177	DIN50 ADB	16,0 *0.630*	100,0 *3.937*	38,0 *1.496*	218,75 *8.612*	80,9 *3.185*	17,0 *0.669*	1	G6.3	3,3 *7.280*
DIN50ADB-SM22-035-L1	10007178	DIN50 ADB	22,0 *0.866*	35,0 *1.378*	48,0 *1.890*	155,75 *6.132*	15,9 *0.626*	19,0 *0.748*	1	G6.3	2,8 *6.170*
DIN50ADB-SM22-100-L1	10007179	DIN50 ADB	22,0 *0.866*	100,0 *3.937*	48,0 *1.890*	220,75 *8.691*	80,9 *3.185*	19,0 *0.748*	1	G6.3	3,7 *8.160*
DIN50ADB-SM22-160-L1	10007180	DIN50 ADB	22,0 *0.866*	160,0 *6.299*	48,0 *1.890*	280,75 *11.053*	140,9 *5.547*	19,0 *0.748*	1	G6.3	4,6 *10.140*
DIN50ADB-SM27-040-L1	10007181	DIN50 ADB	27,0 *1.063*	40,0 *1.575*	60,0 *2.362*	162,75 *6.407*	20,9 *0.823*	21,0 *0.827*	1	G6.3	3,1 *6.830*
DIN50ADB-SM27-100-L1	10007182	DIN50 ADB	27,0 *1.063*	100,0 *3.937*	60,0 *2.362*	222,75 *8.770*	80,9 *3.185*	21,0 *0.827*	1	G6.3	4,4 *9.700*
DIN50ADB-SM27-160-L1	10007183	DIN50 ADB	27,0 *1.063*	160,0 *6.299*	60,0 *2.362*	282,75 *11.132*	140,9 *5.547*	21,0 *0.827*	1	G6.3	5,7 *12.570*
DIN50ADB-SM32-050-L1	10007184	DIN50 ADB	32,0 *1.260*	50,0 *1.969*	78,0 *3.071*	175,75 *6.919*	30,9 *1.217*	24,0 *0.945*	1	G6.3	3,8 *8.380*
DIN50ADB-SM32-100-L1	10007185	DIN50 ADB	32,0 *1.260*	100,0 *3.937*	78,0 *3.071*	225,75 *8.888*	80,9 *3.185*	24,0 *0.945*	1	G6.3	5,7 *12.570*
DIN50ADB-SM32-160-L1	10007186	DIN50 ADB	32,0 *1.260*	160,0 *6.299*	78,0 *3.071*	285,75 *11.250*	140,9 *5.547*	24,0 *0.945*	1	G6.3	7,9 *17.420*
DIN50ADB-SM40-050-L1	10007187	DIN50 ADB	40,0 *1.575*	50,0 *1.969*	89,0 *3.504*	178,75 *7.037*	30,9 *1.217*	27,0 *1.063*	1	G6.3	4,1 *9.040*
DIN50ADB-SM40-100-L1	10007188	DIN50 ADB	40,0 *1.575*	100,0 *3.937*	89,0 *3.504*	228,75 *9.006*	80,9 *3.185*	27,0 *1.063*	1	G6.3	6,5 *14.330*
DIN50ADB-SM40-160-L1	10007189	DIN50 ADB	40,0 *1.575*	160,0 *6.299*	89,0 *3.504*	288,75 *11.368*	140,9 *5.547*	27,0 *1.063*	1	G6.3	9,3 *20.500*

Accessories

For Taper/ DMM	Bolt, through coolant	Spanner
		
DIN40/ 16/ *0.630*	5801608L	5811608
DIN40/ 22/ *0.866*	5802210L	5812210
DIN40/ 27/ *1.063*	5802712L	5812712
DIN40/ 32/ *1.260*	5803216L	5813216
DIN40/ 40/ *1.575*	5804020L	5814020
DIN50/ 16/ *0.630*	5801608L	5811608
DIN50/ 22/ *0.866*	5802210L	5812210
DIN50/ 27/ *1.063*	5802712L	5812712
DIN50/ 32/ *1.260*	5803216L	5813216
DIN50/ 40/ *1.575*	5804020L	5814020

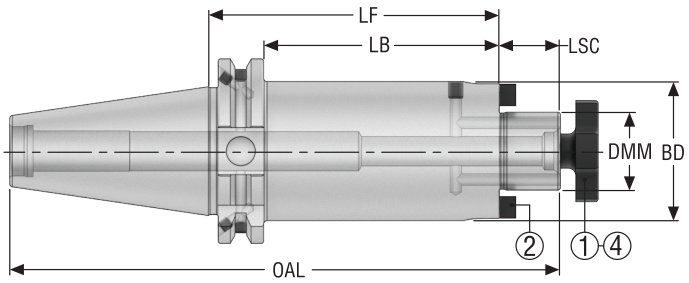
Spare Parts, included in delivery

For Taper/ DMM	Bolt	Plug	Screw	Tenon
				
DIN40/ 16/ *0.630*	5801608	950AIE0404	950D0312	16C716A
DIN40/ 22/ *0.866*	5802210	950AIE0404	950D0412	16C722A
DIN40/ 27/ *1.063*	5802712	950AIE0404	950D0515	16C727A
DIN40/ 32/ *1.260*	5803216	950AIE0404	950D0615	16C732A
DIN40/ 40/ *1.575*	5804020	950AIE0404	950D0615	16C740A
DIN50/ 16/ *0.630*	5801608	950AIE0505	950D0312	16C716A
DIN50/ 22/ *0.866*	5802210	950AIE0505	950D0412	16C722A
DIN50/ 27/ *1.063*	5802712	950AIE0505	950D0515	16C727A
DIN50/ 32/ *1.260*	5803216	950AIE0505	950D0615	16C732A
DIN50/ 40/ *1.575*	5804020	950AIE0505	950D0615	16C740A

Small face with through coolant channels – ISO 3937 – **Metric** / *Inch*

DIN 69871-ADB





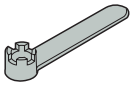
- Small workpiece side diameter BD according to ISO 3937, suitable for Seco disc mill cutters Type B
- For ISO attribute explanation, see page 14

Accessories:
4 = Bolt, through coolant

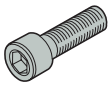
Spare parts:
1 = Bolt
2 = Tenon/Screw

Designation	Item number	CTMS	DMM	LF	BD	OAL	LB	LSC	RFID hole	Balancing	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*			kg *lbs*
DIN40ADB-SM22-044-F3L1	10007165	DIN40 ADB	22,0 *0.866*	44,0 *1.732*	40,0 *1.575*	131,4 *5.173*	24,9 *0.980*	19,0 *0.748*	1	G6.3	1,1 *2.430*
DIN40ADB-SM22-100-F3L1	10007166	DIN40 ADB	22,0 *0.866*	100,0 *3.937*	40,0 *1.575*	187,4 *7.378*	80,9 *3.185*	19,0 *0.748*	1	G6.3	1,7 *3.750*
DIN40ADB-SM27-044-F3L1	10007175	DIN40 ADB	27,0 *1.063*	44,0 *1.732*	48,0 *1.890*	133,4 *5.252*	24,9 *0.980*	21,0 *0.827*	1	G6.3	1,3 *2.870*
DIN40ADB-SM27-100-F3L1	10007170	DIN40 ADB	27,0 *1.063*	100,0 *3.937*	48,0 *1.890*	189,4 *7.457*	80,9 *3.185*	21,0 *0.827*	1	G6.3	2,0 *4.410*
DIN40ADB-SM32-060-F3L1	10007176	DIN40 ADB	32,0 *1.260*	60,0 *2.362*	58,0 *2.283*	152,4 *6.000*	40,9 *1.610*	24,0 *0.945*	1	G6.3	1,6 *3.530*
DIN40ADB-SM40-060-F3L1	10007173	DIN40 ADB	40,0 *1.575*	60,0 *2.362*	70,0 *2.756*	155,4 *6.118*	40,9 *1.610*	27,0 *1.063*	1	G6.3	2,1 *4.630*
DIN50ADB-SM22-044-F3L1	03301599	DIN50 ADB	22,0 *0.866*	44,0 *1.732*	40,0 *1.575*	164,75 *6.486*	24,9 *0.980*	19,0 *0.748*	1	G6.3	2,8 *6.170*
DIN50ADB-SM22-100-F3L1	03301600	DIN50 ADB	22,0 *0.866*	100,0 *3.937*	40,0 *1.575*	220,75 *8.691*	80,9 *3.185*	19,0 *0.748*	1	G6.3	3,4 *7.500*
DIN50ADB-SM22-160-F3L1	03301601	DIN50 ADB	22,0 *0.866*	160,0 *6.299*	40,0 *1.575*	280,75 *11.053*	140,9 *5.547*	19,0 *0.748*	1	G6.3	3,9 *8.600*
DIN50ADB-SM27-044-F3L1	10007147	DIN50 ADB	27,0 *1.063*	44,0 *1.732*	48,0 *1.890*	166,75 *6.565*	24,9 *0.980*	27,0 *1.063*	1	G6.3	2,8 *6.170*
DIN50ADB-SM27-100-F3L1	03301602	DIN50 ADB	27,0 *1.063*	100,0 *3.937*	48,0 *1.890*	222,75 *8.770*	80,9 *3.185*	21,0 *0.827*	1	G6.3	3,8 *8.380*
DIN50ADB-SM27-160-F3L1	03301603	DIN50 ADB	27,0 *1.063*	160,0 *6.299*	48,0 *1.890*	282,75 *11.132*	140,9 *5.547*	21,0 *0.827*	1	G6.3	4,6 *10.140*
DIN50ADB-SM32-044-F3L1	10007161	DIN50 ADB	32,0 *1.260*	44,0 *1.732*	58,0 *2.283*	169,75 *6.683*	24,9 *0.980*	27,0 *1.063*	1	G6.3	3,2 *7.050*
DIN50ADB-SM32-100-F3L1	03301604	DIN50 ADB	32,0 *1.260*	100,0 *3.937*	58,0 *2.283*	225,75 *8.888*	80,9 *3.185*	24,0 *0.945*	1	G6.3	4,4 *9.700*
DIN50ADB-SM32-160-F3L1	03301605	DIN50 ADB	32,0 *1.260*	160,0 *6.299*	58,0 *2.283*	285,75 *11.250*	140,9 *5.547*	24,0 *0.945*	1	G6.3	5,5 *12.130*
DIN50ADB-SM40-044-F3L1	10007168	DIN50 ADB	40,0 *1.575*	44,0 *1.732*	70,0 *2.756*	172,75 *6.801*	24,9 *0.980*	27,0 *1.063*	1	G6.3	3,6 *7.940*
DIN50ADB-SM40-100-F3L1	03301606	DIN50 ADB	40,0 *1.575*	100,0 *3.937*	70,0 *2.756*	228,75 *9.006*	80,9 *3.185*	27,0 *1.063*	1	G6.3	5,2 *11.460*
DIN50ADB-SM40-160-F3L1	03301607	DIN50 ADB	40,0 *1.575*	160,0 *6.299*	70,0 *2.756*	288,75 *11.368*	140,9 *5.547*	27,0 *1.063*	1	G6.3	6,9 *15.210*

Accessories

For DMM	Bolt, through coolant	Spanner
		
DIN40/ 22/ *0.866*	5802210L	5812210
DIN40/ 27/ *1.063*	5802712L	5812712
DIN40/ 32/ *1.260*	5803216L	5813216
DIN40/ 40/ *1.575*	5804020L	5814020
DIN50/ 22/ *0.866* (-044)	5802210L	5812210
DIN50/ 22/ *0.866*	5802210L	5812210
DIN50/ 27/ *1.063* (-044)	5802712L	5812712
DIN50/ 27/ *1.063*	5802712L	5812712
DIN50/ 32/ *1.260*	5803216L	5813216
DIN50/ 40/ *1.575*	5804020L	5814020

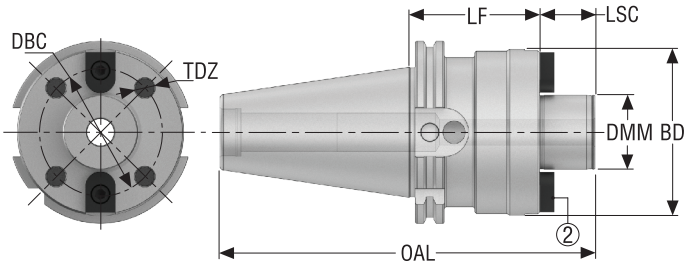
Spare Parts, included in delivery

For DMM	Bolt	Plug	Screw	Tenon
				
DIN40/ 22/ *0.866*	5802210	950AIE0404	951D0410	16C722
DIN40/ 27/ *1.063*	5802712	950AIE0404	951D0512	16C727
DIN40/ 32/ *1.260*	5803216	950AIE0404	950D0612	16C732
DIN40/ 40/ *1.575*	5804020	950AIE0404	950D0615	16C740
DIN50/ 22/ *0.866* (-044)	5802210	950AIE0505	951D0410	16C727
DIN50/ 22/ *0.866*	5802210	950AIE0505	951D0410	16C722
DIN50/ 27/ *1.063* (-044)	5802712	950AIE0505	950D0515	16C727A
DIN50/ 27/ *1.063*	5802712	950AIE0505	951D0512	16C727
DIN50/ 32/ *1.260*	5803216	950AIE0505	951D0616	16C732
DIN50/ 40/ *1.575*	5804020	950AIE0505	951D0616	16C740

Flange mounting – DIN 6357/ DIN 2079 – **Metric** / *Inch*

DIN 69871-AD



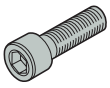


• For ISO attribute explanation, see page 14

Spare parts:
2 = Tenon/Screw

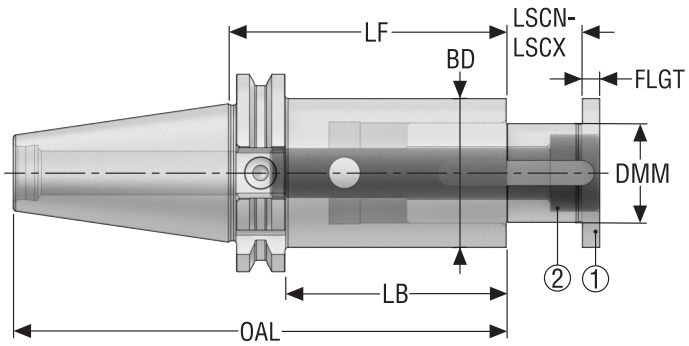
Designation	Item number	CTMS	DMM	LF	BD	OAL	LSC	DBC	TDZ	RFID hole	Balan-cing	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*				kg *lbs*
DIN50AD-SMF40-070	03301611	DIN50 AD	40,0 *1.575*	70,0 *2.756*	89,0 *3.504*	201,75 *7.943*	30,0 *1.181*	66,7 *2.626*	M12	1	G6.3	5,0 *11.020*
DIN50AD-SMF60-070	03301612	DIN50 AD	60,0 *2.362*	70,0 *2.756*	129,0 *5.079*	211,75 *8.337*	40,0 *1.575*	101,6 *4.000*	M16	1	G6.3	7,4 *16.310*

Spare Parts, included in delivery

For	Screw	Tenon
		
DIN50AD-SMF40-070	951D0616	16C34040
DIN50AD-SMF60-070	950D1225	16C35060

DIN 69871-AD

– **Metric** / *Inch*



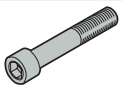


Spare parts:
1 = Slide rod
2 = Screw

- Best suited for Seco disc mill cutters Type A
- For ISO attribute explanation, see page 14

Designation	Item number	CTMS	DMM	LF	BD	OAL	LB	FLGT	LSCN	LSCX	RFID hole	Balan-cing	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*			kg *lbs*
E446956572265	02602691	DIN40 AD	22,0 *0.866*	65,0 *2.559*	35,0 *1.378*	133,4 *5.252*	45,9 *1.807*	4,0 *0.157*	0,0 *0.0*	12,0 *0.472*	1	PB	1,2 *2.650*
E446956572765	02602693	DIN40 AD	27,0 *1.063*	65,0 *2.559*	42,0 *1.654*	133,4 *5.252*	45,9 *1.807*	5,0 *0.197*	0,0 *0.0*	15,0 *0.591*	1	PB	1,4 *3.090*
E446956573290	02602694	DIN40 AD	32,0 *1.260*	90,0 *3.543*	48,0 *1.890*	158,4 *6.236*	70,9 *2.791*	6,0 *0.236*	0,0 *0.0*	24,0 *0.945*	1	PB	1,9 *4.190*
E4471565740100	02602697	DIN50 AD	40,0 *1.575*	100,0 *3.937*	58,0 *2.283*	201,7 *7.941*	80,9 *3.185*	7,0 *0.276*	0,0 *0.0*	30,0 *1.181*	1	PB	4,4 *9.700*
E4471565750160	02602699	DIN50 AD	50,0 *1.969*	160,0 *6.299*	72,0 *2.835*	261,7 *10.303*	140,9 *5.547*	8,0 *0.315*	0,0 *0.0*	32,0 *1.260*	1	PB	7,06 *15.560*

Spare Parts, included in delivery

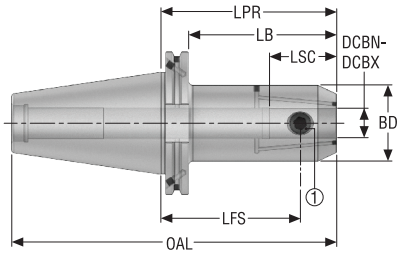
For DMM	Screw	Slide rod
		
22/ *0.866*	19C565722	565722
27/ *1.063*	19C565727	565727
32/ *1.260*	950D1690	565732
40/ *1.575*	19C565740	565740
50/ *1.969*	19C565750	565750

DIN 1835 Form B/ DIN 6535 Form HB
– Metric / *Inch*

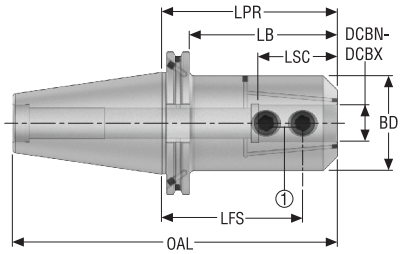
DIN 69871-ADB



Design 1



Design 2



- Weldon ∅DCBN-DCBX 20, 25, 32 and 40 mm / *0.787, 0.984, 1.260 and 1.575"* with ground face (Seco-Weldon compatible)
- With 2 coolant channels for front lubrication which can be sealed with included screws
- For ISO attribute explanation, see page 14

Spare parts:
1 = Locking screw

Designation	Item number	CTMS	DCBN-DCBX	LPR	LB	LSC	BD	OAL	LFS	Design	RFID hole	Balan-cing	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*				kg *lbs*
DIN40ADB-EM06-050-L1	10007238	DIN40 ADB	6,0 *0.236*	50,0 *1.969*	30,9 *1.217*	35,0 *1.378*	25,0 *0.984*	118,4 *4.661*	32,0 *1.260*	1	1	G6.3	0,9 *1.980*
DIN40ADB-EM06-120-L1	10007239	DIN40 ADB	6,0 *0.236*	120,0 *4.724*	100,9 *3.972*	35,0 *1.378*	25,0 *0.984*	188,4 *7.417*	102,0 *4.016*	1	1	G6.3	1,1 *2.430*
DIN40ADB-EM08-050-L1	10007240	DIN40 ADB	8,0 *0.315*	50,0 *1.969*	30,9 *1.217*	35,0 *1.378*	28,0 *1.102*	118,4 *4.661*	32,0 *1.260*	1	1	G6.3	0,9 *1.980*
DIN40ADB-EM10-050-L1	10007241	DIN40 ADB	10,0 *0.394*	50,0 *1.969*	30,9 *1.217*	36,0 *1.417*	35,0 *1.378*	118,4 *4.661*	30,0 *1.181*	1	1	G6.3	1,0 *2.200*
DIN40ADB-EM12-050-L1	10007242	DIN40 ADB	12,0 *0.472*	50,0 *1.969*	30,9 *1.217*	41,0 *1.614*	42,0 *1.654*	118,4 *4.661*	27,5 *1.083*	1	1	G6.3	1,1 *2.430*
DIN40ADB-EM14-050-L1	10007243	DIN40 ADB	14,0 *0.551*	50,0 *1.969*	30,9 *1.217*	41,0 *1.614*	44,0 *1.732*	118,4 *4.661*	27,5 *1.083*	1	1	G6.3	1,1 *2.430*
DIN40ADB-EM16-063-L1	10007244	DIN40 ADB	16,0 *0.630*	63,0 *2.480*	43,9 *1.728*	44,0 *1.732*	48,0 *1.890*	131,4 *5.173*	39,0 *1.535*	1	1	G6.3	1,3 *2.870*
DIN40ADB-EM16-120-L1	10007245	DIN40 ADB	16,0 *0.630*	120,0 *4.724*	100,9 *3.972*	44,0 *1.732*	48,0 *1.890*	188,4 *7.417*	96,0 *3.780*	1	1	G6.3	2,1 *4.630*
DIN40ADB-EM18-063-L1	10007246	DIN40 ADB	18,0 *0.709*	63,0 *2.480*	43,9 *1.728*	44,0 *1.732*	50,0 *1.969*	131,4 *5.173*	39,0 *1.535*	1	1	G6.3	1,3 *2.870*
DIN40ADB-EM20-063-L1	10007248	DIN40 ADB	20,0 *0.787*	63,0 *2.480*	43,9 *1.728*	46,0 *1.811*	52,0 *2.047*	131,4 *5.173*	38,0 *1.496*	1	1	G6.3	1,4 *3.090*
DIN40ADB-EM20-120-L1	10007249	DIN40 ADB	20,0 *0.787*	120,0 *4.724*	100,9 *3.972*	46,0 *1.811*	52,0 *2.047*	188,4 *7.417*	95,0 *3.740*	1	1	G6.3	2,3 *5.070*
DIN40ADB-EM25-100-L1	10007251	DIN40 ADB	25,0 *0.984*	100,0 *3.937*	80,9 *3.185*	54,0 *2.126*	63,0 *2.480*	168,4 *6.630*	76,0 *2.992*	2	1	G6.3	2,2 *4.850*
DIN40ADB-EM32-100-L1	10007253	DIN40 ADB	32,0 *1.260*	100,0 *3.937*	80,9 *3.185*	58,0 *2.283*	72,0 *2.835*	168,4 *6.630*	76,0 *2.992*	2	1	G6.3	2,5 *5.510*
DIN50ADB-EM06-063-L1	10007254	DIN50 ADB	6,0 *0.236*	63,0 *2.480*	43,9 *1.728*	35,0 *1.378*	25,0 *0.984*	164,75 *6.486*	45,0 *1.772*	1	1	G6.3	2,7 *5.950*
DIN50ADB-EM06-120-L1	03301716	DIN50 ADB	6,0 *0.236*	120,0 *4.724*	100,9 *3.972*	35,0 *1.378*	25,0 *0.984*	221,75 *8.730*	102,0 *4.016*	1	1	G6.3	2,9 *6.390*
DIN50ADB-EM08-063-L1	10007255	DIN50 ADB	8,0 *0.315*	63,0 *2.480*	43,9 *1.728*	35,0 *1.378*	28,0 *1.102*	164,75 *6.486*	45,0 *1.772*	1	1	G6.3	2,7 *5.950*
DIN50ADB-EM08-120-L1	10007256	DIN50 ADB	8,0 *0.315*	120,0 *4.724*	100,9 *3.972*	35,0 *1.378*	28,0 *1.102*	221,75 *8.730*	102,0 *4.016*	1	1	G6.3	3,0 *6.610*
DIN50ADB-EM10-063-L1	10007257	DIN50 ADB	10,0 *0.394*	63,0 *2.480*	43,9 *1.728*	36,0 *1.417*	35,0 *1.378*	164,75 *6.486*	43,0 *1.693*	1	1	G6.3	2,8 *6.170*
DIN50ADB-EM10-120-L1	10007258	DIN50 ADB	10,0 *0.394*	120,0 *4.724*	100,9 *3.972*	36,0 *1.417*	35,0 *1.378*	221,75 *8.730*	100,0 *3.937*	1	1	G6.3	3,0 *6.610*
DIN50ADB-EM12-063-L1	10007259	DIN50 ADB	12,0 *0.472*	63,0 *2.480*	43,9 *1.728*	41,0 *1.614*	42,0 *1.654*	164,75 *6.486*	40,5 *1.594*	1	1	G6.3	2,9 *6.390*

Designation	Item number	CTMS	DCBN-DCBX	LPR	LB	LSC	BD	OAL	LFS	Design	RFID hole	Balan-cing	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*				kg *lbs*
DIN50ADB-EM12-120-L1	10007260	DIN50 ADB	12,0 *0.472*	120,0 *4.724*	100,9 *3.972*	41,0 *1.614*	42,0 *1.654*	221,75 *8.730*	97,5 *3.839*	1	1	G6.3	3,5 *7.720*
DIN50ADB-EM14-063-L1	10007261	DIN50 ADB	14,0 *0.551*	63,0 *2.480*	43,9 *1.728*	41,0 *1.614*	44,0 *1.732*	164,75 *6.486*	40,5 *1.594*	1	1	G6.3	2,9 *6.390*
DIN50ADB-EM16-063-L1	10007262	DIN50 ADB	16,0 *0.630*	63,0 *2.480*	43,9 *1.728*	44,0 *1.732*	48,0 *1.890*	164,75 *6.486*	39,0 *1.535*	1	1	G6.3	3,0 *6.610*
DIN50ADB-EM16-120-L1	10007263	DIN50 ADB	16,0 *0.630*	120,0 *4.724*	100,9 *3.972*	44,0 *1.732*	48,0 *1.890*	221,75 *8.730*	96,0 *3.780*	1	1	G6.3	3,7 *8.160*
DIN50ADB-EM16-160-L1	10007264	DIN50 ADB	16,0 *0.630*	160,0 *6.299*	140,9 *5.547*	44,0 *1.732*	48,0 *1.890*	261,75 *10.305*	136,0 *5.354*	1	1	G6.3	3,3 *7.280*
DIN50ADB-EM18-063-L1	10007265	DIN50 ADB	18,0 *0.709*	63,0 *2.480*	43,9 *1.728*	44,0 *1.732*	50,0 *1.969*	164,75 *6.486*	39,0 *1.535*	1	1	G6.3	3,1 *6.830*
DIN50ADB-EM20-063-L1	10007266	DIN50 ADB	20,0 *0.787*	63,0 *2.480*	43,9 *1.728*	46,0 *1.811*	52,0 *2.047*	164,75 *6.486*	38,0 *1.496*	1	1	G6.3	3,1 *6.830*
DIN50ADB-EM20-120-L1	10007267	DIN50 ADB	20,0 *0.787*	120,0 *4.724*	100,9 *3.972*	46,0 *1.811*	52,0 *2.047*	221,75 *8.730*	95,0 *3.740*	1	1	G6.3	3,9 *8.600*
DIN50ADB-EM25-080-L1	10007268	DIN50 ADB	25,0 *0.984*	80,0 *3.150*	60,9 *2.398*	54,0 *2.126*	65,0 *2.559*	181,75 *7.156*	56,0 *2.205*	2	1	G6.3	3,8 *8.380*
DIN50ADB-EM25-120-L1	10007269	DIN50 ADB	25,0 *0.984*	120,0 *4.724*	100,9 *3.972*	54,0 *2.126*	65,0 *2.559*	221,75 *8.730*	96,0 *3.780*	2	1	G6.3	4,7 *10.360*
DIN50ADB-EM32-100-L1	10007270	DIN50 ADB	32,0 *1.260*	100,0 *3.937*	80,9 *3.185*	58,0 *2.283*	72,0 *2.835*	201,75 *7.943*	76,0 *2.992*	2	1	G6.3	4,5 *9.920*
DIN50ADB-EM40-120-L1	10007271	DIN50 ADB	40,0 *1.575*	120,0 *4.724*	100,9 *3.972*	68,0 *2.677*	80,0 *3.150*	221,75 *8.730*	90,0 *3.543*	2	1	G6.3	5,6 *12.350*
DIN50ADB-EM50-130-L1	10007272	DIN50 ADB	50,0 *1.969*	130,0 *5.118*	110,9 *4.366*	78,0 *3.071*	100,0 *3.937*	231,75 *9.124*	95,0 *3.740*	2	1	G6.3	7,3 *16.090*

Spare Parts, included in delivery

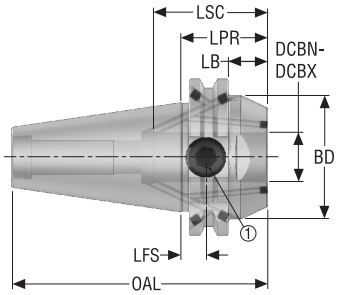
For DCBN-DCBX	Coolant screw	Locking screw	Plug
			
DIN40/ 6/ *0.236*	950A0304	951C0610	950AIE0404
DIN40/ 8/ *0.315*	950A0304	951C0810	950AIE0404
DIN40/ 10/ *0.394*	950A0304	951C1012	950AIE0404
DIN40/ 12/ *0.472*	950A0304	951C1216	950AIE0404
DIN40/ 14/ *0.551*	950A0304	951C1216	950AIE0404
DIN40/ 16/ *0.630*-18/ *0.709*	950A0304	951C1416	950AIE0404
DIN40/ 20/ *0.787*	950A0304	951C1616	950AIE0404
DIN40/ 25/ *0.984*	950A0304	951C1820	950AIE0404
DIN40/ 32/ *1.260*	950A0304	951C2020	950AIE0404
DIN50/ 6/ *0.236*	950A0304	951C0610	950AIE0505
DIN50/ 8/ *0.315*	950A0304	951C0810	950AIE0505
DIN50/ 10/ *0.394*	950A0304	951C1012	950AIE0505
DIN50/ 12/ *0.472*	950A0304	951C1216	950AIE0505
DIN50/ 14/ *0.551*	950A0304	951C1216	950AIE0505
DIN50/ 16/ *0.630*-18/ *0.709*	950A0304	951C1416	950AIE0505
DIN50/ 20/ *0.787*	950A0304	951C1616	950AIE0505
DIN50/ 25/ *0.984*	950A0304	951C1820	950AIE0505
DIN50/ 32/ *1.260*-40/ *1.575*	950A0304	951C2020	950AIE0505
DIN50/ 50/ *1.969*	950A0304	951C2425	950AIE0505

Short type
– Metric / *Inch*

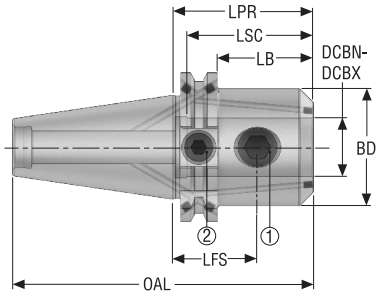
DIN 69871-ADB



Design 1



Design 2



- Weldon ∅DCBN-DCBX 20, 25, 32 and 40 mm / *0.787, 0.984, 1.260 and 1.575"* with ground face (Seco-Weldon compatible)
- With 2 coolant channels for front lubrication which can be sealed with included screws
- For ISO attribute explanation, see page 14

Spare parts:
1 = Locking screw
2 = Locking screw, reduced

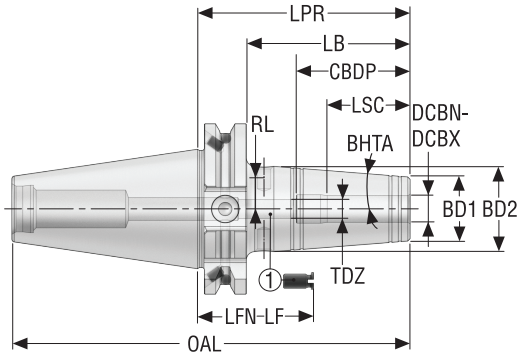
Designation	Item number	CTMS	DCBN-DCBX	LPR	LB	LSC	BD	OAL	LFS	Design	RFID hole	Balancing	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*				kg *lbs*
DIN40ADB-EM20-035-F5L1	10007247	DIN40 ADB	20,0 *0.787*	35,0 *1.378*	15,9 *0.626*	46,0 *1.811*	50,0 *1.969*	103,4 *4.071*	10,0 *0.394*	1	1	G6.3	0,9 *1.980*
DIN40ADB-EM25-060-F5L1	10007250	DIN40 ADB	25,0 *0.984*	60,0 *2.362*	40,9 *1.610*	54,0 *2.126*	50,0 *1.969*	128,4 *5.055*	36,0 *1.417*	2	1	G6.3	1,2 *2.650*
DIN40ADB-EM32-075-F5L1	10007252	DIN40 ADB	32,0 *1.260*	75,0 *2.953*	55,9 *2.201*	58,0 *2.283*	72,0 *2.835*	143,4 *5.646*	51,0 *2.008*	2	1	G6.3	1,7 *3.750*
DIN50ADB-EM25-060-F5L1	03301717	DIN50 ADB	25,0 *0.984*	60,0 *2.362*	40,9 *1.610*	55,0 *2.165*	65,0 *2.559*	161,75 *6.368*	36,5 *1.437*	2	0	G6.3	3,3 *7.280*
DIN50ADB-EM32-060-F5L1	03301718	DIN50 ADB	32,0 *1.260*	60,0 *2.362*	40,9 *1.610*	58,0 *2.283*	72,0 *2.835*	161,75 *6.368*	36,0 *1.417*	2	0	G6.3	3,4 *7.500*

Spare Parts, included in delivery

For	Coolant screw	Locking screw	Locking screw, reduced	Plug
				
DIN40ADB-EM20-035-F5L1	950A0304	951C1614	–	950AIE0404
DIN40ADB-EM25-060-F5L1	950A0304	951C1814	950A1410	950AIE0404
DIN40ADB-EM32-075-F5L1	950A0304	951C2020	950A1410	950AIE0404
DIN50ADB-EM25-060-F5L1	950A0304	951C1820	950A1416	950AIE0505
DIN50ADB-EM32-060-F5L1	950A0304	951C2020	950A1416	950AIE0505

DIN 69871-ADB

DIN type
– Metric / *Inch*





- Run-out ≤3 µm
- Delivered with one stop screw
- For Shrinkfit extensions, see page(s) 373-374
- For ISO attribute explanation, see page 14

Designation	Item number	CTMS	DCBN-DCBX	LPR	LB	CBDP	LSC	BD1	BD2	OAL	LFN	LF	RL	TDZ	BHTA°	RFID hole	Balancing	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*					kg *lbs*
E346956030680	02752997	DIN40 ADB	6,0 *0.236*	80,0 *3.150*	60,9 *2.398*	37,5 *1.476*	22,0 *0.866*	21,0 *0.827*	27,0 *1.063*	148,4 *5.843*	44,0 *1.732*	54,0 *2.126*	10,5 *0.413*	M5x0.8	4,5	1	G2.5	1,1 *2.430*
E3469560306120	02752994	DIN40 ADB	6,0 *0.236*	120,0 *4.724*	100,9 *3.972*	37,5 *1.476*	22,0 *0.866*	21,0 *0.827*	27,0 *1.063*	188,4 *7.417*	84,0 *3.307*	94,0 *3.701*	10,5 *0.413*	M5x0.8	4,5	1	G2.5	1,2 *2.650*
E3469560306160	02752996	DIN40 ADB	6,0 *0.236*	160,0 *6.299*	140,9 *5.547*	37,5 *1.476*	22,0 *0.866*	21,0 *0.827*	27,0 *1.063*	228,4 *8.992*	124,0 *4.882*	134,0 *5.276*	10,5 *0.413*	M5x0.8	4,5	1	G2.5	1,4 *3.090*
E346956030880	02753002	DIN40 ADB	8,0 *0.315*	80,0 *3.150*	60,9 *2.398*	37,5 *1.476*	26,0 *1.024*	21,0 *0.827*	27,0 *1.063*	148,4 *5.843*	44,0 *1.732*	54,0 *2.126*	10,5 *0.413*	M6x1	4,5	1	G2.5	1,0 *2.200*
E3469560308120	02752999	DIN40 ADB	8,0 *0.315*	120,0 *4.724*	100,9 *3.972*	37,5 *1.476*	26,0 *1.024*	21,0 *0.827*	27,0 *1.063*	188,4 *7.417*	84,0 *3.307*	94,0 *3.701*	10,5 *0.413*	M6x1	4,5	1	G2.5	1,2 *2.650*
E3469560308160	02753001	DIN40 ADB	8,0 *0.315*	160,0 *6.299*	140,9 *5.547*	37,5 *1.476*	26,0 *1.024*	21,0 *0.827*	27,0 *1.063*	228,4 *8.992*	124,0 *4.882*	134,0 *5.276*	10,5 *0.413*	M6x1	4,5	1	G2.5	1,4 *3.090*
E346956031080	02753006	DIN40 ADB	10,0 *0.394*	80,0 *3.150*	60,9 *2.398*	42,5 *1.673*	31,0 *1.220*	24,0 *0.945*	32,0 *1.260*	148,4 *5.843*	39,0 *1.535*	49,0 *1.929*	13,0 *0.512*	M8x1	4,5	1	G2.5	1,1 *2.430*
E3469560310120	02753003	DIN40 ADB	10,0 *0.394*	120,0 *4.724*	100,9 *3.972*	42,5 *1.673*	31,0 *1.220*	24,0 *0.945*	32,0 *1.260*	188,4 *7.417*	79,0 *3.110*	89,0 *3.504*	13,0 *0.512*	M8x1	4,5	1	G2.5	1,4 *3.090*
E3469560310160	02753004	DIN40 ADB	10,0 *0.394*	160,0 *6.299*	140,9 *5.547*	42,5 *1.673*	31,0 *1.220*	24,0 *0.945*	32,0 *1.260*	228,4 *8.992*	119,0 *4.685*	129,0 *5.079*	13,0 *0.512*	M8x1	4,5	1	G2.5	1,6 *3.530*
E346956031280	02753009	DIN40 ADB	12,0 *0.472*	80,0 *3.150*	60,9 *2.398*	47,5 *1.870*	34,0 *1.339*	24,0 *0.945*	32,0 *1.260*	148,4 *5.843*	34,0 *1.339*	44,0 *1.732*	13,0 *0.512*	M10x1	4,5	1	G2.5	1,1 *2.430*
E3469560312120	02753007	DIN40 ADB	12,0 *0.472*	120,0 *4.724*	100,9 *3.972*	47,5 *1.870*	34,0 *1.339*	24,0 *0.945*	32,0 *1.260*	188,4 *7.417*	74,0 *2.913*	84,0 *3.307*	13,0 *0.512*	M10x1	4,5	1	G2.5	1,3 *2.870*
E3469560312160	02753008	DIN40 ADB	12,0 *0.472*	160,0 *6.299*	140,9 *5.547*	47,5 *1.870*	34,0 *1.339*	24,0 *0.945*	32,0 *1.260*	228,4 *8.992*	114,0 *4.488*	124,0 *4.882*	13,0 *0.512*	M10x1	4,5	1	G2.5	1,6 *3.530*
E346956031480	02753012	DIN40 ADB	14,0 *0.551*	80,0 *3.150*	60,9 *2.398*	47,5 *1.870*	34,0 *1.339*	27,0 *1.063*	34,0 *1.339*	148,4 *5.843*	34,0 *1.339*	44,0 *1.732*	14,0 *0.551*	M10x1	4,5	1	G2.5	1,1 *2.430*
E3469560314120	02753010	DIN40 ADB	14,0 *0.551*	120,0 *4.724*	100,9 *3.972*	47,5 *1.870*	34,0 *1.339*	27,0 *1.063*	34,0 *1.339*	188,4 *7.417*	74,0 *2.913*	84,0 *3.307*	14,0 *0.551*	M10x1	4,5	1	G2.5	1,4 *3.090*
E346956031680	02753015	DIN40 ADB	16,0 *0.630*	80,0 *3.150*	60,9 *2.398*	50,5 *1.988*	39,0 *1.535*	27,0 *1.063*	34,0 *1.339*	148,4 *5.843*	31,0 *1.220*	41,0 *1.614*	14,0 *0.551*	M12x1	4,5	1	G2.5	1,1 *2.430*
E3469560316120	02753013	DIN40 ADB	16,0 *0.630*	120,0 *4.724*	100,9 *3.972*	50,5 *1.988*	39,0 *1.535*	27,0 *1.063*	34,0 *1.339*	188,4 *7.417*	71,0 *2.795*	81,0 *3.189*	14,0 *0.551*	M12x1	4,5	1	G2.5	1,4 *3.090*
E3469560316160	02753014	DIN40 ADB	16,0 *0.630*	160,0 *6.299*	140,9 *5.547*	50,5 *1.988*	39,0 *1.535*	27,0 *1.063*	34,0 *1.339*	228,4 *8.992*	111,0 *4.370*	121,0 *4.764*	14,0 *0.551*	M12x1	4,5	1	G2.5	1,6 *3.530*
E346956031880	02753018	DIN40 ADB	18,0 *0.709*	80,0 *3.150*	60,9 *2.398*	50,5 *1.988*	39,0 *1.535*	33,0 *1.299*	42,0 *1.654*	148,4 *5.843*	31,0 *1.220*	41,0 *1.614*	18,0 *0.709*	M12x1	4,5	1	G2.5	1,3 *2.870*
E346956032080	02753021	DIN40 ADB	20,0 *0.787*	80,0 *3.150*	60,9 *2.398*	52,5 *2.067*	41,0 *1.614*	33,0 *1.299*	42,0 *1.654*	148,4 *5.843*	29,0 *1.142*	39,0 *1.535*	18,0 *0.709*	M16x1	4,5	1	G2.5	1,2 *2.650*
E3469560320120	02753019	DIN40 ADB	20,0 *0.787*	120,0 *4.724*	100,9 *3.972*	52,5 *2.067*	41,0 *1.614*	33,0 *1.299*	42,0 *1.654*	188,4 *7.417*	69,0 *2.717*	79,0 *3.110*	18,0 *0.709*	M16x1	4,5	1	G2.5	1,6 *3.530*
E3469560325100	02753022	DIN40 ADB	25,0 *0.984*	100,0 *3.937*	80,9 *3.185*	58,5 *2.303*	47,0 *1.850*	44,0 *1.732*	53,0 *2.087*	168,4 *6.630*	43,0 *1.693*	53,0 *2.087*	23,5 *0.925*	M16x1	4,5	1	G2.5	1,8 *3.970*

Designation	Item number	CTMS	DCBN-DCBX	LPR	LB	CBDP	LSC	BD1	BD2	OAL	LFN	LF	RL	TDZ	BHTA°	RFID hole	Balancing	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*					kg *lbs*
E347156030680	02753023	DIN50 ADB	6,0 *0.236*	80,0 *3.150*	60,9 *2.398*	37,5 *1.476*	22,0 *0.866*	21,0 *0.827*	27,0 *1.063*	181,75 *7.156*	44,0 *1.732*	54,0 *2.126*	10,5 *0.413*	M5x0.8	4,5	1	G2.5	2,8 *6.170*
E3471560306160	02753024	DIN50 ADB	6,0 *0.236*	160,0 *6.299*	140,9 *5.547*	37,5 *1.476*	22,0 *0.866*	21,0 *0.827*	27,0 *1.063*	261,75 *10.305*	124,0 *4.882*	134,0 *5.276*	10,5 *0.413*	M5x0.8	4,5	1	G2.5	3,05 *6.720*
E347156030880	02753025	DIN50 ADB	8,0 *0.315*	80,0 *3.150*	60,9 *2.398*	37,5 *1.476*	26,0 *1.024*	21,0 *0.827*	27,0 *1.063*	181,75 *7.156*	44,0 *1.732*	54,0 *2.126*	10,5 *0.413*	M6x1	4,5	1	G2.5	2,7 *5.950*
E3471560308160	02753026	DIN50 ADB	8,0 *0.315*	160,0 *6.299*	140,9 *5.547*	37,5 *1.476*	26,0 *1.024*	21,0 *0.827*	27,0 *1.063*	261,75 *10.305*	124,0 *4.882*	134,0 *5.276*	10,5 *0.413*	M6x1	4,5	1	G2.5	3,1 *6.830*
E347156031080	02753027	DIN50 ADB	10,0 *0.394*	80,0 *3.150*	60,9 *2.398*	42,5 *1.673*	31,0 *1.220*	24,0 *0.945*	32,0 *1.260*	181,75 *7.156*	39,0 *1.535*	49,0 *1.929*	13,0 *0.512*	M8x1	4,5	1	G2.5	2,83 *6.240*
E3471560310160	02753028	DIN50 ADB	10,0 *0.394*	160,0 *6.299*	140,9 *5.547*	42,5 *1.673*	31,0 *1.220*	24,0 *0.945*	32,0 *1.260*	261,75 *10.305*	119,0 *4.685*	129,0 *5.079*	13,0 *0.512*	M8x1	4,5	1	G2.5	3,3 *7.280*
E347156031280	02753029	DIN50 ADB	12,0 *0.472*	80,0 *3.150*	60,9 *2.398*	47,5 *1.870*	34,0 *1.339*	24,0 *0.945*	32,0 *1.260*	181,75 *7.156*	34,0 *1.339*	44,0 *1.732*	13,0 *0.512*	M10x1	4,5	1	G2.5	2,9 *6.390*
E3471560312160	02753030	DIN50 ADB	12,0 *0.472*	160,0 *6.299*	140,9 *5.547*	47,5 *1.870*	34,0 *1.339*	24,0 *0.945*	32,0 *1.260*	261,75 *10.305*	114,0 *4.488*	124,0 *4.882*	13,0 *0.512*	M10x1	4,5	1	G2.5	3,25 *7.170*
E347156031480	02753031	DIN50 ADB	14,0 *0.551*	80,0 *3.150*	60,9 *2.398*	47,5 *1.870*	34,0 *1.339*	27,0 *1.063*	34,0 *1.339*	181,75 *7.156*	34,0 *1.339*	44,0 *1.732*	14,0 *0.551*	M10x1	4,5	1	G2.5	2,9 *6.390*
E347156031680	02753032	DIN50 ADB	16,0 *0.630*	80,0 *3.150*	60,9 *2.398*	50,5 *1.988*	39,0 *1.535*	27,0 *1.063*	34,0 *1.339*	181,75 *7.156*	31,0 *1.220*	41,0 *1.614*	14,0 *0.551*	M12x1	4,5	1	G2.5	2,9 *6.390*
E3471560316160	02753033	DIN50 ADB	16,0 *0.630*	160,0 *6.299*	140,9 *5.547*	50,5 *1.988*	39,0 *1.535*	27,0 *1.063*	34,0 *1.339*	261,75 *10.305*	111,0 *4.370*	121,0 *4.764*	14,0 *0.551*	M12x1	4,5	1	G2.5	3,4 *7.500*
E347156031880	02753035	DIN50 ADB	18,0 *0.709*	80,0 *3.150*	60,9 *2.398*	50,5 *1.988*	39,0 *1.535*	33,0 *1.299*	42,0 *1.654*	181,75 *7.156*	31,0 *1.220*	41,0 *1.614*	18,0 *0.709*	M12x1	4,5	1	G2.5	3,0 *6.610*
E347156032080	02753037	DIN50 ADB	20,0 *0.787*	80,0 *3.150*	60,9 *2.398*	52,5 *2.067*	41,0 *1.614*	33,0 *1.299*	42,0 *1.654*	181,75 *7.156*	29,0 *1.142*	39,0 *1.535*	18,0 *0.709*	M16x1	4,5	1	G2.5	3,0 *6.610*
E3471560320160	02753039	DIN50 ADB	20,0 *0.787*	160,0 *6.299*	140,9 *5.547*	52,5 *2.067*	41,0 *1.614*	33,0 *1.299*	42,0 *1.654*	261,75 *10.305*	109,0 *4.291*	119,0 *4.685*	18,0 *0.709*	M16x1	4,5	1	G2.5	3,8 *8.380*
E347156032590	02753040	DIN50 ADB	25,0 *0.984*	90,0 *3.543*	70,9 *2.791*	58,5 *2.303*	47,0 *1.850*	44,0 *1.732*	53,0 *2.087*	191,75 *7.549*	33,0 *1.299*	43,0 *1.693*	23,5 *0.925*	M16x1	4,5	1	G2.5	3,4 *7.500*
E3471560325160	02753041	DIN50 ADB	25,0 *0.984*	160,0 *6.299*	140,9 *5.547*	58,5 *2.303*	47,0 *1.850*	44,0 *1.732*	53,0 *2.087*	261,75 *10.305*	103,0 *4.055*	113,0 *4.449*	23,5 *0.925*	M16x1	4,5	1	G2.5	4,47 *9.850*
E347156033290	02753042	DIN50 ADB	32,0 *1.260*	90,0 *3.543*	70,9 *2.791*	62,5 *2.461*	51,0 *2.008*	44,0 *1.732*	53,0 *2.087*	191,75 *7.549*	29,0 *1.142*	39,0 *1.535*	23,5 *0.925*	M16x1	4,5	1	G2.5	3,3 *7.280*

Accessories

For	Balancing screws
	
All	90ZQ01

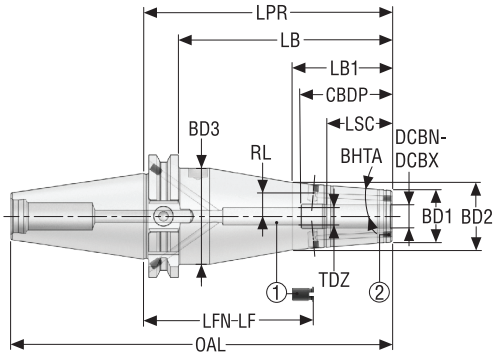
Spare Parts, included in delivery

For Taper/ DCBN-DCBX	Sealing Screws	Stop screw
		
DIN40/ 6/ *0.236*	950A0406	19BDR05165
DIN40/ 8/ *0.315*	950A0406	19BDR06165
DIN40/ 10/ *0.394*	950A0406	19BDR08165
DIN40/ 12/ *0.472*	950A0406	19BDR10165
DIN40/ 14/ *0.551*	950A0406	19BDR10165
DIN40/ 16/ *0.630*-18/ *0.709*	950A0406	19BDR12165
DIN40/ 20/ *0.787*-25/ *0.984*	950A0406	19BDR16165
DIN50/ 6/ *0.236*	950A0606	19BDR05165
DIN50/ 8/ *0.315*	950A0606	19BDR06165
DIN50/ 10/ *0.394*	950A0606	19BDR08165
DIN50/ 12/ *0.472*	950A0606	19BDR10165
DIN50/ 14/ *0.551*	950A0606	19BDR10165
DIN50/ 16/ *0.630*-18/ *0.709*	950A0606	19BDR12165
DIN50/ 20/ *0.787*-32/ *1.260*	950A0606	19BDR16165

Reinforced type
– Metric / *Inch*

DIN 69871-ADB





- Run-out ≤3 µm
- With coolant supply channels towards the tool (plugged)
- Delivered with one stop screw
- * Holder without threaded holes for balancing screw
- For ISO attribute explanation, see page 14

Spare parts:
1 = Stop screw
2 = Sealing plugs

Designation	Item number	CTMS	DCBN-DCBX	LPR	LB	LB1	CBDP	LSC	BD1	BD2	BD3	OAL	LFN	LF	RL	TDZ	BHTA°	*	RFID hole	Balancing	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*						kg *lbs*
E346956001065	02845510	DIN40 ADB	10,0 *0.394*	65,0 *2.559*	45,9 *1.807*	–	42,5 *1.673*	31,0 *1.220*	27,0 *1.063*	35,2 *1.385*	–	133,4 *5.252*	24,0 *0.945*	34,0 *1.339*	13,5 *0.531*	M8x1	4,5		1	G2.5	1,1 *2.430*
E3469560010130	02845521	DIN40 ADB	10,0 *0.394*	130,0 *5.118*	110,9 *4.366*	52,0 *2.047*	42,5 *1.673*	31,0 *1.220*	27,0 *1.063*	35,2 *1.385*	49,5 *1.949*	198,4 *7.811*	89,0 *3.504*	99,0 *3.898*	13,5 *0.531*	M8x1	4,5		1	G2.5	1,8 *3.970*
E346956001265	02845511	DIN40 ADB	12,0 *0.472*	65,0 *2.559*	45,9 *1.807*	–	47,5 *1.870*	34,0 *1.339*	27,0 *1.063*	35,2 *1.385*	–	133,4 *5.252*	19,0 *0.748*	29,0 *1.142*	13,5 *0.531*	M10x1	4,5		1	G2.5	1,1 *2.430*
E3469560012130	02845522	DIN40 ADB	12,0 *0.472*	130,0 *5.118*	110,9 *4.366*	52,0 *2.047*	47,5 *1.870*	34,0 *1.339*	27,0 *1.063*	35,2 *1.385*	49,5 *1.949*	198,4 *7.811*	84,0 *3.307*	94,0 *3.701*	13,5 *0.531*	M10x1	4,5		1	G2.5	1,8 *3.970*
E346956001665	02845512	DIN40 ADB	16,0 *0.630*	65,0 *2.559*	45,9 *1.807*	–	50,5 *1.988*	39,0 *1.535*	33,0 *1.299*	42,1 *1.659*	–	133,4 *5.252*	16,0 *0.630*	26,0 *1.024*	17,0 *0.669*	M12x1	4,5		1	G2.5	1,1 *2.430*
E3469560016130	02845523	DIN40 ADB	16,0 *0.630*	130,0 *5.118*	110,9 *4.366*	58,0 *2.283*	50,5 *1.988*	39,0 *1.535*	33,0 *1.299*	42,1 *1.659*	49,5 *1.949*	198,4 *7.811*	81,0 *3.189*	91,0 *3.583*	17,0 *0.669*	M12x1	4,5		1	G2.5	1,9 *4.190*
E346956002065	02845513	DIN40 ADB	20,0 *0.787*	65,0 *2.559*	45,9 *1.807*	–	52,5 *2.067*	41,0 *1.614*	44,0 *1.732*	53,1 *2.092*	49,5 *1.949*	133,4 *5.252*	14,0 *0.551*	24,0 *0.945*	21,5 *0.846*	M16x1	4,5	*	1	G2.5	1,3 *2.870*
E3469560020130	02845524	DIN40 ADB	20,0 *0.787*	130,0 *5.118*	110,9 *4.366*	–	52,5 *2.067*	41,0 *1.614*	44,0 *1.732*	53,1 *2.092*	49,5 *1.949*	198,4 *7.811*	79,0 *3.110*	89,0 *3.504*	21,5 *0.846*	M16x1	4,5		1	G2.5	2,4 *5.290*
E3471560006160	02845544	DIN50 ADB	6,0 *0.236*	160,0 *6.299*	140,9 *5.547*	–	37,5 *1.476*	22,0 *0.866*	24,0 *0.945*	32,2 *1.267*	79,5 *3.130*	261,75 *10.305*	124,0 *4.882*	134,0 *5.276*	12,0 *0.472*	M5x0.8	4,5		1	G2.5	4,9 *10.800*
E3471560008160	02845545	DIN50 ADB	8,0 *0.315*	160,0 *6.299*	140,9 *5.547*	52,0 *2.047*	37,5 *1.476*	26,0 *1.024*	24,0 *0.945*	32,2 *1.267*	79,5 *3.130*	261,75 *10.305*	124,0 *4.882*	134,0 *5.276*	12,0 *0.472*	M6x1	4,5		1	G2.5	4,9 *10.800*
E3471560010160	02845546	DIN50 ADB	10,0 *0.394*	160,0 *6.299*	140,9 *5.547*	52,0 *2.047*	42,5 *1.673*	31,0 *1.220*	27,0 *1.063*	35,2 *1.385*	79,5 *3.130*	261,75 *10.305*	119,0 *4.685*	129,0 *5.079*	13,5 *0.531*	M8x1	4,5		1	G2.5	5,0 *11.020*
E347156001280	02845537	DIN50 ADB	12,0 *0.472*	80,0 *3.150*	60,9 *2.398*	–	47,5 *1.870*	34,0 *1.339*	27,0 *1.063*	35,2 *1.385*	–	181,75 *7.156*	34,0 *1.339*	44,0 *1.732*	13,5 *0.531*	M10x1	4,5		1	G2.5	3,0 *6.610*
E3471560012160	02845547	DIN50 ADB	12,0 *0.472*	160,0 *6.299*	140,9 *5.547*	181,0 *7.126*	47,5 *1.870*	34,0 *1.339*	27,0 *1.063*	35,2 *1.385*	79,5 *3.130*	261,75 *10.305*	114,0 *4.488*	124,0 *4.882*	13,5 *0.531*	M10x1	4,5		1	G2.5	5,0 *11.020*
E3471560012200	02845554	DIN50 ADB	12,0 *0.472*	200,0 *7.874*	180,9 *7.122*	52,0 *2.047*	47,5 *1.870*	34,0 *1.339*	27,0 *1.063*	35,2 *1.385*	79,5 *3.130*	301,75 *11.880*	154,0 *6.063*	164,0 *6.457*	13,5 *0.531*	M10x1	4,5		1	G2.5	5,75 *12.680*
E347156001680	02845538	DIN50 ADB	16,0 *0.630*	80,0 *3.150*	60,9 *2.398*	–	50,5 *1.988*	39,0 *1.535*	33,0 *1.299*	42,1 *1.659*	–	181,75 *7.156*	31,0 *1.220*	41,0 *1.614*	17,0 *0.669*	M12x1	4,5		1	G2.5	3,1 *6.830*
E3471560016160	02845548	DIN50 ADB	16,0 *0.630*	160,0 *6.299*	140,9 *5.547*	58,0 *2.283*	50,5 *1.988*	39,0 *1.535*	33,0 *1.299*	42,1 *1.659*	79,5 *3.130*	261,75 *10.305*	111,0 *4.370*	121,0 *4.764*	17,0 *0.669*	M12x1	4,5		1	G2.5	5,1 *11.240*
E3471560016200	02845555	DIN50 ADB	16,0 *0.630*	200,0 *7.874*	180,9 *7.122*	58,0 *2.283*	50,5 *1.988*	39,0 *1.535*	33,0 *1.299*	42,1 *1.659*	79,5 *3.130*	301,75 *11.880*	151,0 *5.945*	161,0 *6.339*	17,0 *0.669*	M12x1	4,5		1	G2.5	6,0 *13.230*
E347156002080	02845539	DIN50 ADB	20,0 *0.787*	80,0 *3.150*	60,9 *2.398*	–	52,5 *2.067*	41,0 *1.614*	44,0 *1.732*	53,1 *2.092*	–	181,75 *7.156*	29,0 *1.142*	39,0 *1.535*	21,5 *0.846*	M16x1	4,5		1	G2.5	3,4 *7.500*
E347156002590	02845540	DIN50 ADB	25,0 *0.984*	90,0 *3.543*	70,9 *2.791*	–	58,5 *2.303*	47,0 *1.850*	48,0 *1.890*	57,1 *2.249*	–	191,75 *7.549*	33,0 *1.299*	43,0 *1.693*	25,0 *0.984*	M16x1	4,5		1	G2.5	3,6 *7.940*
E347156003290	02845541	DIN50 ADB	32,0 *1.260*	90,0 *3.543*	70,9 *2.791*	–	62,5 *2.461*	51,0 *2.008*	48,0 *1.890*	57,1 *2.249*	–	191,75 *7.549*	29,0 *1.142*	39,0 *1.535*	25,0 *0.984*	M16x1	4,5		1	G2.5	3,4 *7.500*

Accessories

For	Balancing screws
	
All	90ZQ01

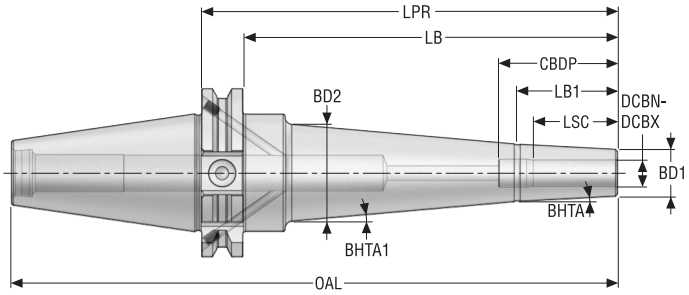
Spare Parts, included in delivery

For Taper/ DCBN-DCBX	Sealing plugs	Sealing Screws	Stop screw
			
DIN40/ 10/ *0.394*	90AI03	950A0406	19BDR08165
DIN40/ 12/ *0.472*	90AI03	950A0406	19BDR10165
DIN40/ 16/ *0.630*	90AI03	950A0406	19BDR12165
DIN40/ 20/ *0.787-25/ 0.984*	90AI04	950A0406	19BDR16165
DIN50/ 6/ *0.236*	90AI03	950A0606	19BDR05165
DIN50/ 8/ *0.315*	90AI03	950A0606	19BDR06165
DIN50/ 10/ *0.394*	90AI03	950A0606	19BDR08165
DIN50/ 12/ *0.472*	90AI03	950A0606	19BDR10165
DIN50/ 16/ *0.630*	90AI03	950A0606	19BDR12165
DIN50/ 20/ *0.787-32/ 1.260*	90AI04	950A0606	19BDR16165

Mold and Die type
– Metric / *Inch*

DIN/CAT (Combined)





- Run-out ≤3 µm
- For Shrinkfit extensions, see page(s) 373-374
- For ISO attribute explanation, see page 14

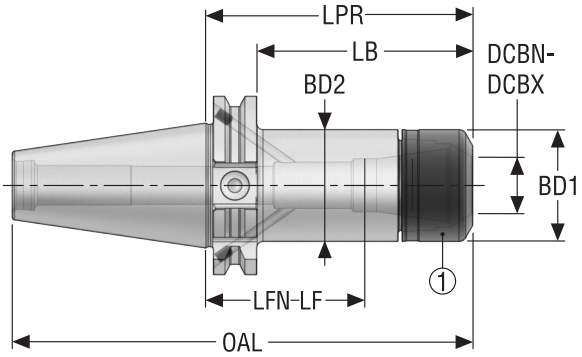
Designation	Item number	CTMS	DCBN-DCBX	LPR	LB	LB1	CBDP	LSC	BD1	BD2	OAL	BHTA°	BHTA1°	RFID hole	Balancing	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*					kg *lbs*
E347658010380	00034443	DIN40 ADB/ CAT40	3,0 *0.118*	80,0 *3.150*	60,9 *2.398*	25,0 *0.984*	–	13,0 *0.512*	9,0 *0.354*	15,1 *0.595*	148,4 *5.843*	3,0	5,0	1	G2.5	1,0 *2.200*
E3476580103140	00047866	DIN40 ADB/ CAT40	3,0 *0.118*	140,0 *5.512*	120,9 *4.760*	25,0 *0.984*	–	13,0 *0.512*	9,0 *0.354*	25,6 *1.009*	208,4 *8.205*	3,0	5,0	1	G2.5	1,12 *2.470*
E347658010480	00034446	DIN40 ADB/ CAT40	4,0 *0.157*	80,0 *3.150*	60,9 *2.398*	25,0 *0.984*	–	15,0 *0.591*	10,0 *0.394*	16,1 *0.635*	148,4 *5.843*	3,0	5,0	1	G2.5	1,0 *2.200*
E3476580104140	00048122	DIN40 ADB/ CAT40	4,0 *0.157*	140,0 *5.512*	120,9 *4.760*	25,0 *0.984*	–	15,0 *0.591*	10,0 *0.394*	26,6 *1.048*	208,4 *8.205*	3,0	5,0	1	G2.5	1,2 *2.650*
E347658010680	00034448	DIN40 ADB/ CAT40	6,0 *0.236*	80,0 *3.150*	60,9 *2.398*	–	40,0 *1.575*	26,0 *1.024*	12,0 *0.472*	16,7 *0.658*	148,4 *5.843*	3,0	–	1	G2.5	1,1 *2.430*
E3476580106140	00048125	DIN40 ADB/ CAT40	6,0 *0.236*	140,0 *5.512*	120,9 *4.760*	32,0 *1.260*	40,0 *1.575*	26,0 *1.024*	12,0 *0.472*	28,1 *1.107*	208,4 *8.205*	3,0	5,0	1	G2.5	1,2 *2.650*
E347658010880	00034449	DIN40 ADB/ CAT40	8,0 *0.315*	80,0 *3.150*	60,9 *2.398*	–	44,0 *1.732*	30,0 *1.181*	16,0 *0.630*	20,7 *0.816*	148,4 *5.843*	3,0	–	1	G2.5	1,1 *2.430*
E3476580108140	00048139	DIN40 ADB/ CAT40	8,0 *0.315*	140,0 *5.512*	120,9 *4.760*	36,0 *1.417*	44,0 *1.732*	30,0 *1.181*	16,0 *0.630*	31,8 *1.254*	208,4 *8.205*	3,0	5,0	1	G2.5	1,3 *2.870*
E347658011080	00034450	DIN40 ADB/ CAT40	10,0 *0.394*	80,0 *3.150*	60,9 *2.398*	–	45,0 *1.772*	32,0 *1.260*	18,0 *0.709*	22,7 *0.894*	148,4 *5.843*	3,0	–	1	G2.5	1,1 *2.430*
E3476580110160	00048163	DIN40 ADB/ CAT40	10,0 *0.394*	160,0 *6.299*	140,9 *5.547*	38,0 *1.496*	45,0 *1.772*	32,0 *1.260*	18,0 *0.709*	37,2 *1.465*	228,4 *8.992*	3,0	5,0	1	G2.5	1,5 *3.310*
E347658011280	00034452	DIN40 ADB/ CAT40	12,0 *0.472*	80,0 *3.150*	60,9 *2.398*	–	46,0 *1.811*	34,0 *1.339*	20,0 *0.787*	24,7 *0.973*	148,4 *5.843*	3,0	–	1	G2.5	1,1 *2.430*

Spare Parts, included in delivery

For	Sealing Screws
	
All	950A0406

DIN 69871-ADB

– Metric / *Inch*



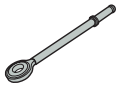
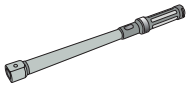


Spare parts:
1 = Nut

- Run-out 3 µm maximum at 3 x ∅DCBN-DCBX
- For ER HP collets type 5672, see page(s) 402, 403, 404-410
- For ISO attribute explanation, see page 14

Designation	Item number	CTMS	DCBN	DCBX	CTWS	LPR	BD2	BD1	OAL	LB	LFN	LF	RFID hole	Balan-cing	Weight
			mm *inch*	mm *inch*		mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*			kg *lbs*
E346956721670	02827228	DIN40 ADB	0,5 *0.020*	10,0 *0.394*	HP 16	70,0 *2.756*	30,0 *1.181*	30,0 *1.181*	138,4 *5.449*	50,9 *2.004*	39,0 *1.535*	40,0 *1.575*	1	G2.5	1,0 *2.200*
E3469567216130	02827230	DIN40 ADB	0,5 *0.020*	10,0 *0.394*	HP 16	130,0 *5.118*	30,0 *1.181*	30,0 *1.181*	198,4 *7.811*	110,9 *4.366*	99,0 *3.898*	100,0 *3.937*	1	G2.5	1,4 *3.090*
E346956722570	02827231	DIN40 ADB	1,0 *0.039*	16,0 *0.630*	HP 25	70,0 *2.756*	40,0 *1.575*	40,0 *1.575*	138,4 *5.449*	50,9 *2.004*	14,0 *0.551*	32,0 *1.260*	1	G2.5	1,1 *2.430*
E3469567225160	02827232	DIN40 ADB	1,0 *0.039*	16,0 *0.630*	HP 25	160,0 *6.299*	40,0 *1.575*	40,0 *1.575*	228,4 *8.992*	140,9 *5.547*	104,0 *4.094*	122,0 *4.803*	1	G2.5	1,9 *4.190*
E346956723270	02827235	DIN40 ADB	2,0 *0.079*	20,0 *0.787*	HP 32	70,0 *2.756*	50,0 *1.969*	50,0 *1.969*	138,4 *5.449*	50,9 *2.004*	14,0 *0.551*	18,0 *0.709*	1	G2.5	1,2 *2.650*
E347156722580	02827236	DIN50 ADB	1,0 *0.039*	16,0 *0.630*	HP 25	80,0 *3.150*	40,0 *1.575*	40,0 *1.575*	181,75 *7.156*	60,9 *2.398*	24,0 *0.945*	42,0 *1.654*	1	G2.5	3,0 *6.610*
E347156723280	02827239	DIN50 ADB	2,0 *0.079*	20,0 *0.787*	HP 32	80,0 *3.150*	50,0 *1.969*	50,0 *1.969*	181,75 *7.156*	60,9 *2.398*	24,0 *0.945*	28,0 *1.102*	1	G2.5	3,2 *7.050*

Accessories

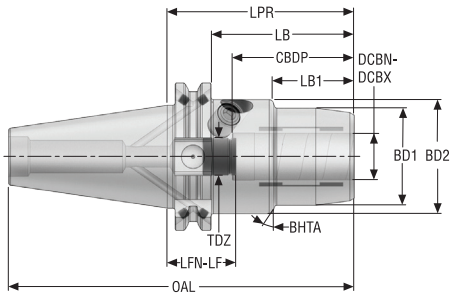
For Taper/ size	Socket	Spanner	Stop screw	Torque key
				
DIN40/ HP16	03ER030B	03BR030	19B58711	03DYD010100B
DIN40/ HP25	03ER040	03BR040	19B58718	03DYD020200
DIN40/ HP32	03ER050	03BR050	19B58722	03DYD020200
DIN50/ HP25	03ER040	03BR040	19B58718	03DYD020200
DIN50/ HP32	03ER050	03BR050	19B58722	03DYD020200

Spare Parts, included in delivery

For Taper/ size	Nut	Sealing Screws
		
DIN40/ HP16	08B567216	950A0406
DIN40/ HP25	08B567225	950A0406
DIN40/ HP32	08B567232	950A0406
DIN50/ HP25	08B567225	950A0606
DIN50/ HP32	08B567232	950A0606

DIN 69871-ADB

Conventional type
– Metric / *Inch*

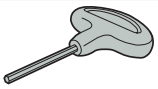




- Run-out ≤3 µm
- For reduction sleeves, see page(s) 394, 395
- For ISO attribute explanation, see page 14

Designation	Item number	CTMS	DCBN-DCBX	LPR	LB	LB1	CBDP	BD2	BD1	OAL	LFN	LF	TDZ	BHTA°	RFID hole	Balan-cing	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*					kg *lbs*
DIN40ADB-HC06-080	10137275	DIN40 ADB	6,0 *0.236*	80,5 *3.169*	61,45 *2.419*	29,5 *1.161*	38,5 *1.516*	49,3 *1.939*	26,0 *1.024*	148,75 *5.856*	43,5 *1.713*	53,5 *2.106*	M5	20,0	1	G2.5	1,2 *2.650*
DIN40ADB-HC08-080	10137276	DIN40 ADB	8,0 *0.315*	80,5 *3.169*	61,45 *2.419*	30,0 *1.181*	38,5 *1.516*	49,3 *1.939*	28,0 *1.102*	148,75 *5.856*	43,5 *1.713*	53,5 *2.106*	M6	20,0	1	G2.5	1,4 *3.090*
DIN40ADB-HC10-080	10137277	DIN40 ADB	10,0 *0.394*	80,5 *3.169*	61,45 *2.419*	31,0 *1.220*	42,5 *1.673*	49,3 *1.939*	30,0 *1.181*	148,75 *5.856*	39,5 *1.555*	49,5 *1.949*	M8x1	20,0	1	G2.5	1,4 *3.090*
DIN40ADB-HC12-080	10137278	DIN40 ADB	12,0 *0.472*	80,5 *3.169*	61,45 *2.419*	31,5 *1.240*	47,5 *1.870*	49,3 *1.939*	32,0 *1.260*	148,75 *5.856*	34,5 *1.358*	44,5 *1.752*	M10x1	20,0	1	G2.5	1,4 *3.090*
DIN40ADB-HC16-080	10137279	DIN40 ADB	16,0 *0.630*	80,5 *3.169*	61,45 *2.419*	33,0 *1.299*	50,5 *1.988*	49,3 *1.939*	38,0 *1.496*	148,75 *5.856*	31,5 *1.240*	41,5 *1.634*	M12x1	20,0	1	G2.5	1,4 *3.090*
DIN40ADB-HC20-080	10138581	DIN40 ADB	20,0 *0.787*	80,5 *3.169*	61,45 *2.419*	34,0 *1.339*	52,5 *2.067*	49,3 *1.939*	42,0 *1.654*	148,75 *5.856*	29,5 *1.161*	39,5 *1.555*	M16x1	20,0	1	G2.5	1,4 *3.090*
DIN50ADB-HC12-080	10137280	DIN50 ADB	12,0 *0.472*	80,5 *3.169*	61,45 *2.419*	31,5 *1.240*	47,5 *1.870*	49,3 *1.939*	32,0 *1.260*	182,1 *7.169*	34,5 *1.358*	44,5 *1.752*	M10x1	20,0	1	G2.5	3,0 *6.610*
DIN50ADB-HC20-080	10138582	DIN50 ADB	20,0 *0.787*	80,5 *3.169*	61,45 *2.419*	34,0 *1.339*	52,5 *2.067*	49,3 *1.939*	42,0 *1.654*	182,1 *7.169*	29,5 *1.161*	39,5 *1.555*	M16x1	20,0	1	G2.5	3,2 *7.050*
DIN50ADB-HC32-103	10138583	DIN50 ADB	32,0 *1.260*	103,2 *4.063*	84,15 *3.313*	62,5 *2.461*	62,5 *2.461*	70,3 *2.766*	64,0 *2.520*	204,8 *8.063*	42,2 *1.661*	52,2 *2.055*	M16x1	20,0	1	G2.5	4,4 *9.700*

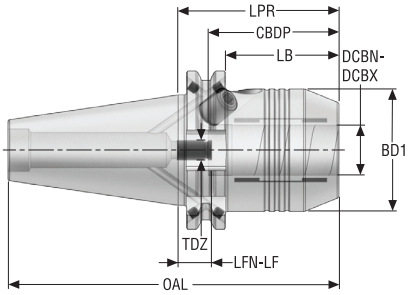
Accessories

For	Key
	
DIN40	H05-4
DIN50, DCBN = 12-20	H05-4
DIN50, DCBN = 32	03MS06L

Reinforced type
– Metric / *Inch*

DIN 69871-ADB

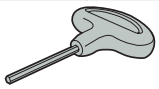




- Run-out ≤3 µm
- For reduction sleeves, see page(s) 394, 395
- For ISO attribute explanation, see page 14

Designation	Item number	CTMS	DCBN-DCBX	LPR	LB	LB1	CBDP	BD2	BD1	OAL	LFN	LF	TDZ	BHTA°	RFID hole	Balancing	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*					kg *lbs*
DIN40ADB-HCR12-050	10137129	DIN40 ADB	12,0 *0.472*	50,0 *1.969*	31,0 *1.220*	–	47,5 *1.870*	–	42,0 *1.654*	118,25 *4.656*	4,0 *0.157*	14,0 *0.551*	M8x1	–	0	G2.5	1,1 *2.430*
DIN40ADB-HCR20-064	10137130	DIN40 ADB	20,0 *0.787*	64,5 *2.539*	45,45 *1.789*	–	52,5 *2.067*	–	49,25 *1.939*	132,75 *5.226*	13,5 *0.531*	23,5 *0.925*	M8x1	–	0	G2.5	1,3 *2.870*
DIN50ADB-HCR20-064	10137131	DIN50 ADB	20,0 *0.787*	64,5 *2.539*	45,5 *1.791*	–	52,5 *2.067*	–	49,25 *1.939*	166,0 *6.535*	13,5 *0.531*	23,5 *0.925*	M8x1	–	0	G2.5	3,1 *6.830*
DIN50ADB-HCR32-081	10137132	DIN50 ADB	32,0 *1.260*	81,0 *3.189*	61,95 *2.439*	–	62,5 *2.461*	–	72,0 *2.835*	182,6 *7.189*	20,0 *0.787*	30,0 *1.181*	M8x1	–	0	G2.5	4,1 *9.040*

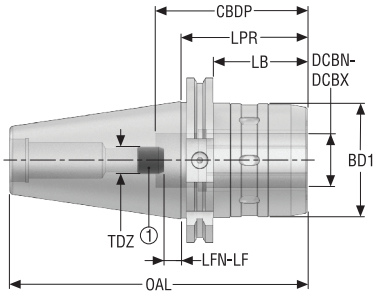
Accessories

For size	Key
	
DIN40	H05-4
DIN50, DCBN = 20	H05-4
DIN50, DCBN = 32	03MS06L

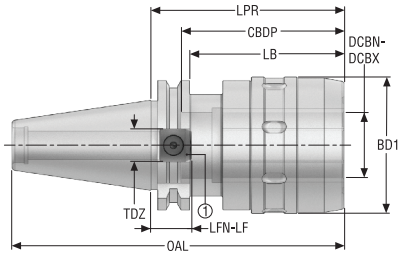
DIN 69871-AD

– Metric / *Inch*

Design 1



Design 2



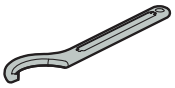


Spare parts:
1 = Stop screw

- For reduction sleeves, see page(s) 398-399
- For 'Stop screws for through coolant', see page(s) 400-401
- For ISO attribute explanation, see page 14

Designation	Item number	CTMS	DCBN-DCBX	OAL	LPR	LB	CBDP	BD1	LFN	LF	KWW	TDZ	Design	RFID hole	Balan-cing	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*						kg *lbs*
DIN40AD-PMC20-060	10185650	DIN40 AD	20,0 *0.787*	128,4 *5.055*	60,0 *2.362*	40,9 *1.610*	63,0 *2.480*	49,0 *1.929*	-3,0 *-0.118*	2,0 *0.079*	8,0	M16	1	1	PB	1,2 *2.650*
DIN40AD-PMC32-095	10185649	DIN40 AD	32,0 *1.260*	163,4 *6.433*	95,0 *3.740*	75,9 *2.988*	80,0 *3.150*	67,0 *2.638*	15,0 *0.591*	20,0 *0.787*	8,0	M16	2	1	PB	2,1 *4.630*
DIN50AD-PMC20-080	10185648	DIN50 AD	20,0 *0.787*	181,8 *7.157*	80,0 *3.150*	60,9 *2.398*	63,0 *2.480*	49,0 *1.929*	17,0 *0.669*	22,0 *0.866*	8,0	M16	1	1	PB	3,2 *7.050*
DIN50AD-PMC32-075	10185645	DIN50 AD	32,0 *1.260*	176,8 *6.961*	75,0 *2.953*	55,9 *2.201*	90,0 *3.543*	68,0 *2.677*	-15,0 *-0.591*	-10,0 *-0.394*	8,0	M16	1	1	PB	3,6 *7.940*

Accessories

For	Spanner
	
-PMC20	19BPMC2002A
-PMC32	03BPMC32
-PMC20	03BPMC20

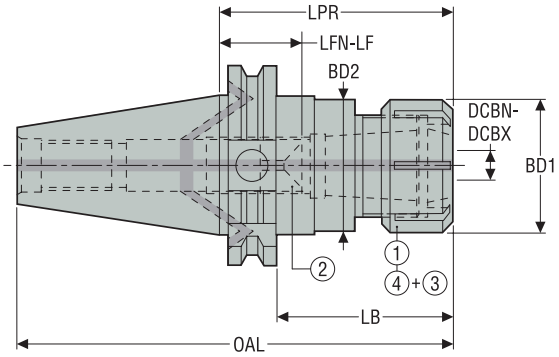
Spare Parts, included in delivery

For	Extractor for reduction sleeves	Stop screw
		
All	03EXTPMC	19BEPMC01

ISO 15488
– Metric / *Inch*

DIN 69871-AD/ADB





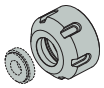
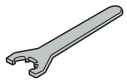
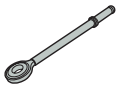
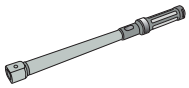
- Run-out 10 µm maximum at 3 x ∅DCBN-DCBX
- For ER extensions and ER collets, see page(s) 375, 411, 412, 413, 414
- For ER sealing rings, see page(s) 418, 419
- For ISO attribute explanation, see page 14

Accessories:
3 = Sealing ring
4 = Sealing nut

Spare parts:
1 = Nut
2 = Stop screw

Designation	Item number	CTMS	DCBN	DCBX	Chuck & Collet Size	LPR	BD2	BD1	OAL	LB	LFN	LF	RFID hole	Balancing	Weight
			mm *inch*	mm *inch*		mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*			kg *lbs*
E346956751670	02750201	DIN40 ADB	0,5 *0.020*	10,0 *0.394*	ER 16	70,0 *2.756*	32,0 *1.260*	32,0 *1.260*	138,4 *5.449*	51,0 *2.008*	22,0 *0.866*	38,0 *1.496*	1	G2.5	1,0 *2.200*
E3469567516120	02750200	DIN40 ADB	0,5 *0.020*	10,0 *0.394*	ER 16	120,0 *4.724*	32,0 *1.260*	32,0 *1.260*	188,4 *7.417*	101,0 *3.976*	72,0 *2.835*	88,0 *3.465*	1	G2.5	1,3 *2.870*
E346956752570	02750203	DIN40 ADB	1,0 *0.039*	16,0 *0.630*	ER 25	70,0 *2.756*	42,0 *1.654*	42,0 *1.654*	138,4 *5.449*	51,0 *2.008*	11,0 *0.433*	32,0 *1.260*	1	G2.5	1,2 *2.650*
E3469567525120	02750202	DIN40 ADB	1,0 *0.039*	16,0 *0.630*	ER 25	120,0 *4.724*	42,0 *1.654*	42,0 *1.654*	188,4 *7.417*	101,0 *3.976*	51,0 *2.008*	82,0 *3.228*	1	G2.5	1,6 *3.530*
E346956753270	02750206	DIN40 ADB	2,0 *0.079*	20,0 *0.787*	ER 32	70,0 *2.756*	50,0 *1.969*	50,0 *1.969*	138,4 *5.449*	51,0 *2.008*	12,0 *0.472*	30,0 *1.181*	1	G2.5	1,17 *2.580*
E3469567532120	02750204	DIN40 ADB	2,0 *0.079*	20,0 *0.787*	ER 32	120,0 *4.724*	50,0 *1.969*	50,0 *1.969*	188,4 *7.417*	100,9 *3.972*	65,0 *2.559*	80,0 *3.150*	1	G2.5	1,9 *4.190*
E446956754070	02750188	DIN40 AD	3,0 *0.118*	26,0 *1.024*	ER 40	70,0 *2.756*	50,0 *1.969*	63,0 *2.480*	138,4 *5.449*	50,9 *2.004*	13,0 *0.512*	25,0 *0.984*	1	G2.5	1,2 *2.650*
E3471567516120	02750207	DIN50 ADB	0,5 *0.020*	10,0 *0.394*	ER 16	120,0 *4.724*	32,0 *1.260*	32,0 *1.260*	221,7 *8.728*	101,0 *3.976*	72,0 *2.835*	88,0 *3.465*	1	G2.5	3,1 *6.830*
E347156752590	02750211	DIN50 ADB	1,0 *0.039*	16,0 *0.630*	ER 25	90,0 *3.543*	42,0 *1.654*	42,0 *1.654*	191,7 *7.547*	71,0 *2.795*	21,0 *0.827*	52,0 *2.047*	1	G2.5	3,1 *6.830*
E347156753290	02750213	DIN50 ADB	2,0 *0.079*	20,0 *0.787*	ER 32	90,0 *3.543*	50,0 *1.969*	50,0 *1.969*	191,7 *7.547*	71,0 *2.795*	22,0 *0.866*	50,0 *1.969*	1	G2.5	3,3 *7.280*
E3471567532150	02750212	DIN50 ADB	2,0 *0.079*	20,0 *0.787*	ER 32	150,0 *5.906*	50,0 *1.969*	50,0 *1.969*	251,7 *9.909*	131,0 *5.157*	82,0 *3.228*	110,0 *4.331*	1	G2.5	4,0 *8.820*
E3471567540100	02750214	DIN50 ADB	3,0 *0.118*	26,0 *1.024*	ER 40	100,0 *3.937*	63,0 *2.480*	63,0 *2.480*	201,7 *7.941*	81,0 *3.189*	28,0 *1.102*	55,0 *2.165*	1	G2.5	3,8 *8.380*

Accessories

For Taper/ size	Seal nut	Socket	Spanner	Spanner 1	Torque key
					
DIN40/ ER16	08B587516IC	03ER032B	03B587516	03BR032	03DYD010100B
DIN40/ ER25	08B587525IC	–	03B587525	–	03DYD020200
DIN40/ ER32	08B587532IC	03ER050	03B587532	03BR050	03DYD020200
DIN40/ ER40	08B587540IC	03ER063	03B587540	03BR063	03DYD020200
DIN50/ ER16	08B587516IC	03ER032B	03B587516	03BR032	03DYD010100B
DIN50/ ER25	08B587525IC	–	03B587525	–	03DYD020200
DIN50/ ER32	08B587532IC	03ER050	03B587532	03BR050	03DYD020200
DIN50/ ER40	08B587540IC	03ER063	03B587540	03BR063	03DYD020200

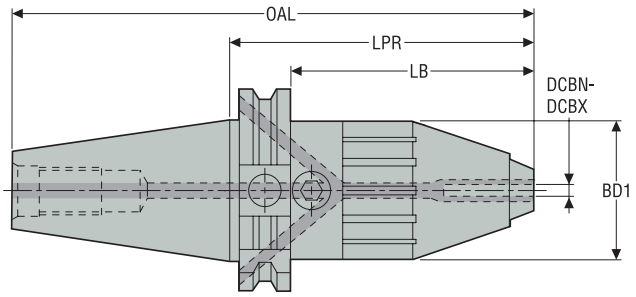
Spare Parts, included in delivery

For Taper/ size	Nut	Sealing Screws	Stop screw
			
DIN40/ ER16	08B587516X	950A0406	19B58711
DIN40/ ER25	08B587525X	950A0406	19B58718
DIN40/ ER32	08B587532X	950A0406	19B58722
DIN40/ ER40	08B587540X	–	19B58730
DIN50/ ER16	08B587516X	950A0606	19B58711
DIN50/ ER25	08B587525X	950A0606	19B58718
DIN50/ ER32	08B587532X	950A0606	19B58722
DIN50/ ER40	08B587540X	950A0606	19B58730

DIN 69871-ADB

– Metric / *Inch*





- Run-out 40 µm maximum at 2,5 x ∅DCBN-DCBX
- For ISO attribute explanation, see page 14

Designation	Item number	CTMS	DCBN	DCBX	OAL	LPR	LB	BD1	RFID hole	Balancing	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*			kg *lbs*
E3469508513	00048223	DIN40 ADB	1,0 *0.039*	13,0 *0.512*	164,4 *6.472*	96,0 *3.780*	77,0 *3.031*	43,0 *1.693*	1	PB	1,24 *2.730*
E3471508516	00099664	DIN50 ADB	2,5 *0.098*	16,0 *0.630*	213,7 *8.413*	112,0 *4.409*	93,0 *3.661*	56,0 *2.205*	1	PB	3,68 *8.110*

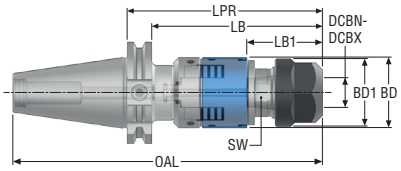
Spare Parts, included in delivery

For	Sealing Screws
	
E3469508513	950A0406
E3471508516	950A0606

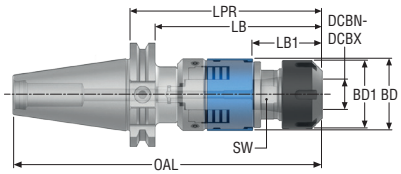
DIN 69871-AD

For synchronized tapping, with micro-compensation
– Metric / *Inch*

Design 1



Design 2

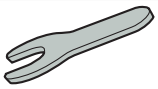
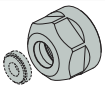
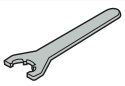
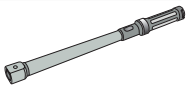




- Maximum coolant pressure 80 bar/ *1160 psi*
- For ER tapping collets with square drive, see page(s) 415, 416-417
- For TCER 5867 sealing rings, see page(s) 418, 419
- For ISO attribute explanation, see page 14

Designation	Item number	CTMS	CTWS	DCBN	DCBX	LPR	LB	LB1	BD	BD1	OAL	SW	Design	RFID hole	Balan-cing	Weight
						mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*				kg *lbs*
E4469586720102	02926979	DIN40 AD	ER 20	M4	M12	97,2 *3.827*	78,2 *3.079*	35,3 *1.390*	35,0 *1.378*	33,7 *1.327*	165,45 *6.514*	22 *0.866*	1	0	–	1,3 *2.870*
E4469586725122	02926980	DIN40 AD	ER 25	M8	M20	116,6 *4.591*	97,5 *3.839*	37,1 *1.461*	44,0 *1.732*	42,0 *1.654*	184,85 *7.278*	28 *1.102*	2	0	–	1,6 *3.530*
E4471586720106	02926981	DIN50 AD	ER 20	M4	M12	101,2 *3.984*	82,2 *3.236*	35,3 *1.390*	35,0 *1.378*	33,7 *1.327*	202,8 *7.984*	22 *0.866*	1	0	–	3,0 *6.610*
E4471586725126	02926982	DIN50 AD	ER 25	M8	M20	120,6 *4.748*	101,5 *3.996*	37,1 *1.461*	44,0 *1.732*	42,0 *1.654*	222,2 *8.748*	28 *1.102*	2	0	–	3,4 *7.500*
E4471586740155	02926983	DIN50 AD	ER 40	M16	M33	149,6 *5.890*	130,6 *5.142*	46,6 *1.835*	62,0 *2.441*	62,7 *2.469*	251,2 *9.890*	39 *1.535*	2	0	–	4,8 *10.580*

Accessories

For size	Locking key	Seal nut	Socket	Spanner	Spanner 1	Torque key
						
ER 20	5680092-04	5533051-02	–	03B587520UM	–	–
ER 25	5680092-05	5533051-03	–	03B587525	–	03DYD020200
ER 40	5680092-06	5533051-05	03ER063	03B587540	03BR063	03DYD020200

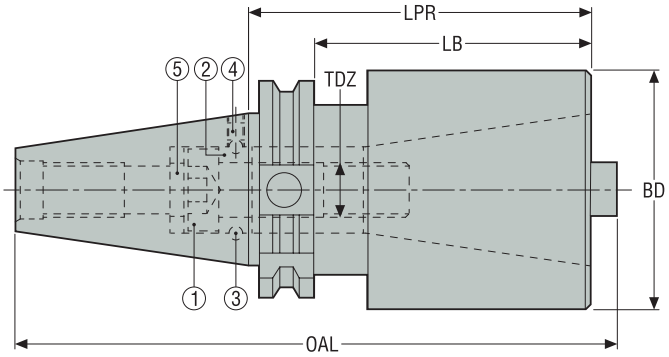
Spare Parts, included in delivery

For size	Nut
	
ER 20	5533050-08
ER 25	5533050-02
ER 40	5533050-04

SA – DIN 69871-BT
– Metric / *Inch*

DIN 69871-A



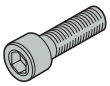


- Direct run-out 5 µm maximum
- For ISO attribute explanation, see page 14

Spare parts:
1 = Screw
2 = Ring
3 = Balls
4 = Screw
5 = Washer

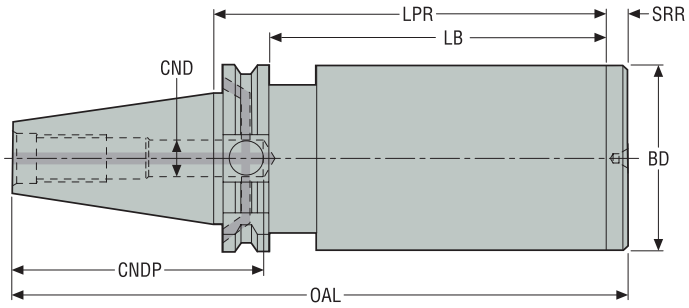
Designation	Item number	CTMS	CTWS	LPR	LB	BD	OAL	TDZ	RFID hole	Balan-cing	Weight
				mm *inch*	mm *inch*	mm *inch*	mm *inch*				kg *lbs*
E44715434070T	75040732	DIN50 A	40 DIN 69871 *BT*	70,0 *2.756*	51,0 *2.008*	70,0 *2.756*	179,7 *2.756*	M16	1	PB	3,66 *8.070*
E447154350120T	75040733	DIN50 A	50 DIN 69871 *BT*	120,0 *4.724*	–	98,0 *3.858*	234,2 *4.724*	M24	1	PB	6,2 *13.670*

Spare Parts, included in delivery

For	Plug	Ring	Screw	Washer
				
E44715434070T	950A0505	02B54240	950E1670	15B54240
E447154350120T	950A0806	02B54250	19B172490	–

DIN 69871-ADB

– Metric / *Inch*





- The cylindrical front part is hardened to 120-130 daN/mm^2, allowing machining
- For ISO attribute explanation, see page 14

Designation	Item number	CTMS	LPR	LB	SRR	BD	CND	OAL	CNDP	RFID hole	Balan-cing	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*			kg *lbs*
E3469502363250	02503167	DIN40 ADB	250,0 *9.843*	230,9 *9.091*	8,0 *0.315*	63,0 *2.480*	10,0 *0.394*	326,4 *12.850*	85,0 *3.346*	1	PB	6,48 *14.290*
E3471502363315	02503168	DIN50 ADB	315,0 *12.402*	295,9 *11.650*	8,0 *0.315*	63,0 *2.480*	8,0 *0.315*	424,75 *16.722*	120,0 *4.724*	1	PB	10,04 *22.130*
E3471502395315	02503169	DIN50 ADB	315,0 *12.402*	295,9 *11.650*	8,0 *0.315*	95,0 *3.740*	20,5 *0.807*	424,75 *16.722*	130,0 *5.118*	1	PB	19,0 *41.890*

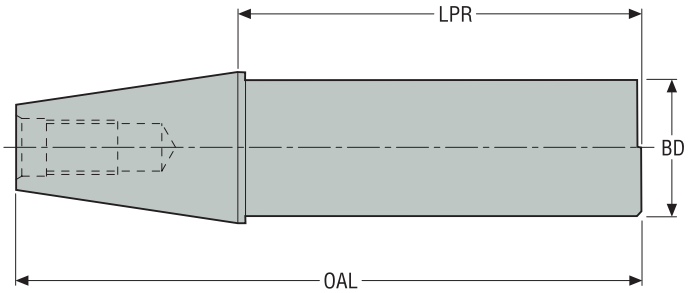
Spare Parts, included in delivery

For Taper	Sealing Screws
	
DIN40	950A0406
DIN50	950A0606

DIN 69871

– **Metric** / *Inch*





- Diameter, length values and measurement positions are laser engraved on each test bar
- DIN50 also suitable for BT50 spindles
- With protective case and measurement report
- For ISO attribute explanation, see page 14

Designation	Item number	CTMS	LPR	BD	OAL	RFID hole	Balancing	Weight
			mm *inch*	mm *inch*	mm *inch*			kg *lbs*
E446958640330	75041806	DIN40 A	330,0 *12.992*	40,0 *1.575*	398,4 *15.685*	1	–	2,7 *5.950*
E447158650330	75041808	DIN50 A	330,0 *12.992*	50,0 *1.969*	431,7 *16.996*	1	–	6,8 *14.990*

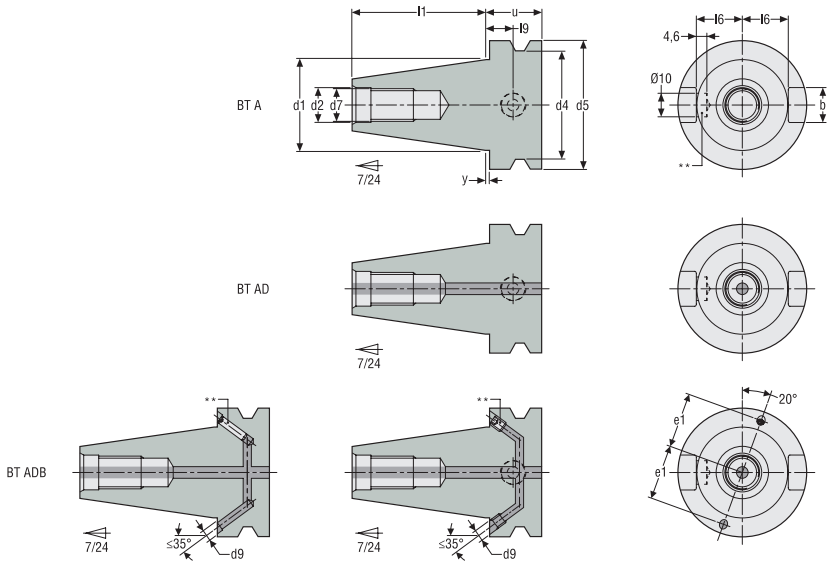


BT

Seco range of rotating holders allow you to get the most out of both your machine and tool by offering a comprehensive array of solutions to connect them. The range covers all standard workpiece side connections, as well Seco's unique connections

- Steadyline, vibration damping shell mill holders
- Shell mill holders, with through coolant channels
- Milling cutter holders, flange mounting
- Disc mill holders
- Side lock holders, Weldon
- Shrinkfit holders
- High precision collet chucks
- Hydraulics chucks and Power milling chucks
- ER collet chucks
- Drill chucks and Tapping chucks
- Taper adapters SA
- Greenstock blanks and Control bars

JIS B 6339 with coolant through A/AD/B from DIN (ISO 7388-2-J/JD/JF)



Machine side catalogue designation	Through coolant Form	Hole for RFID carrier*	d_1	d_2	d_4	d_5****	d_7	d_9	e_1	u	l_1	l_6	l_9	b	y
			mm *inch*	mm *inch*	mm *inch*	mm *inch*		mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*
BT30	A/AD	No***	31,75 *1.250*	12,5 *0.492*	38 *1.496*	46 *1.811*	M12	–	–	22 *0.866*	48,4 *1.906*	16,3 *0.642*	11 *0.433*	16,1 *0.634*	2 *0.079*
BT40	A/AD	***	44,45 *1.750*	17 *0.669*	53 *2.087*	63 *2.480*	M16	–	–	27 *1.063*	65,4 *2.575*	22,5 *0.886*	14,5 *0.571*	16,1 *0.634*	2 *0.079*
BT40 ADB	A/AD/B	***	44,45 *1.750*	17 *0.669*	53 *2.087*	63 *2.480*	M16	4 *0.157*	27 *1.063*	27 *1.063*	65,4 *2.575*	22,5 *0.886*	14,5 *0.571*	16,1 *0.634*	2 *0.079*
BT50	A/AD	***	69,85 *2.750*	25 *0.984*	85 *3.346*	100 *3.937*	M24	–	–	38 *1.496*	101,8 *4.008*	35,4 *1.394*	20,5 *0.807*	25,7 *1.012*	3 *0.118*
BT50 ADB	A/AD/B	***	69,85 *2.750*	25 *0.984*	85 *3.346*	100 *3.937*	M24	6 *0.236*	42 *1.654*	38 *1.496*	101,8 *4.008*	35,4 *1.394*	20,5 *0.807*	25,7 *1.012*	3 *0.118*

Note: These machine side dimensions are applied to all the holders shown in the Product pages.

The B through coolant design of ADB holders is made according to DIN 69871-B.

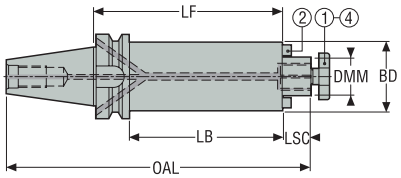
* BT holders with a front end diameter in excess of diameter d5, are produced with a flange clearance length: BT30 = ∅ 45 mm x 3 mm; BT40 = ∅ 62 mm x 8 mm; BT50 = ∅ 98 mm x 12 mm. This is compatible with the BT JIS norm which permits free dimensions on workpiece side.

*** In order to know if a hole for RFID carrier exists, see 'RFID hole' column in Product pages:
1= hole for RFID carrier available, if required a carrier can be fitted on request, please enquire.
0= hole for RFID carrier not available, if required hole can be machined and a carrier can be fitted on request, please enquire.

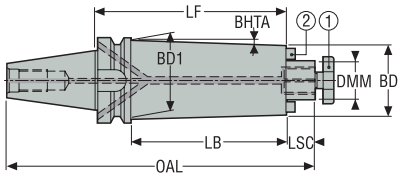
BT JIS B 6339-ADB

Steadyline®, vibration damping
– Metric / *Inch*

Design 1 (5555)



Design 2 (5556)





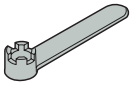
Accessories:
4 = Bolt, through coolant

Spare parts:
1 = Bolt
2 = Tenon/Screw

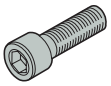
• For ISO attribute explanation, see page 14

Designation	Item number	CTMS	DMM	LF	BD	BD1	OAL	LB	LSC	Design	BHTA°	RFID hole	Balan-cing	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*					kg *lbs*
E3414555516160	02706264	BT40 ADB	16,0 *0.630*	160,0 *6.299*	38,0 *1.496*	38,0 *1.496*	242,4 *9.543*	133,0 *5.236*	17,0 *0.669*	1	–	1	PB	2,23 *4.920*
E3414555522210	02675756	BT40 ADB	22,0 *0.866*	210,0 *8.268*	48,0 *1.890*	48,0 *1.890*	294,4 *11.591*	183,0 *7.205*	19,0 *0.748*	1	–	1	PB	3,78 *8.330*
E3414555622260	02675757	BT40 ADB	22,0 *0.866*	260,0 *10.236*	48,0 *1.890*	60,0 *2.362*	344,4 *13.559*	233,0 *9.173*	19,0 *0.748*	2	1,3	1	PB	5,4 *11.900*
E3414555527260	02675758	BT40 ADB	27,0 *1.063*	260,0 *10.236*	60,0 *2.362*	60,0 *2.362*	346,4 *13.638*	233,0 *9.173*	21,0 *0.827*	1	–	1	PB	6,86 *15.120*
E3416555522210	02675760	BT50 ADB	22,0 *0.866*	210,0 *8.268*	48,0 *1.890*	48,0 *1.890*	330,8 *13.024*	172,0 *6.772*	19,0 *0.748*	1	–	1	PB	6,08 *13.400*
E3416555622260	02671860	BT50 ADB	22,0 *0.866*	260,0 *10.236*	48,0 *1.890*	64,0 *2.520*	380,8 *14.992*	222,0 *8.740*	19,0 *0.748*	2	1,9	1	PB	7,9 *17.420*
E3416555527260	02675761	BT50 ADB	27,0 *1.063*	260,0 *10.236*	60,0 *2.362*	60,0 *2.362*	382,8 *15.071*	222,0 *8.740*	21,0 *0.827*	1	–	1	PB	9,06 *19.970*
E3416555627320	02675762	BT50 ADB	27,0 *1.063*	320,0 *12.598*	60,0 *2.362*	80,0 *3.150*	442,8 *17.433*	282,0 *11.102*	21,0 *0.827*	2	1,9	1	PB	12,64 *27.870*
E3416555532330	02706265	BT50 ADB	32,0 *1.260*	330,0 *12.992*	78,0 *3.071*	78,0 *3.071*	455,8 *17.945*	292,0 *11.496*	24,0 *0.945*	1	–	1	PB	15,34 *33.820*

Accessories

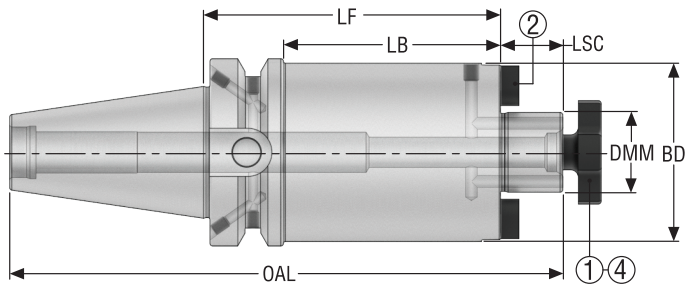
For Taper/ DMM	Bolt, through coolant	Spanner
		
BT40/ 16	5801608L	5811608
BT40/ 22	5802210L	5812210
BT40/ 27	5802712L	5812712
BT50/ 22	5802210L	5812210
BT50/ 27	5802712L	5812712
BT50/ 32	5803216L	5813216

Spare Parts, included in delivery

For Taper/ DMM	Bolt	Screw	Sealing Screws	Tenon
				
BT40/ 16	5801608	950D0312	950A0406	16C2080810A
BT40/ 22	5802210	950D0416	950A0406	16C2101111
BT40/ 27	5802712	950D0516	950A0406	16C2121214A
BT50/ 22	5802210	950D0416	950A0606	16C2101111
BT50/ 27	5802712	950D0516	950A0606	16C2121214A
BT50/ 32	5803216	950D0516	950A0606	16C2141421A

BT JIS B 6339-ADB

With through coolant channels – ISO 3937 – Metric / *Inch*





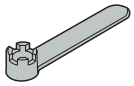
Accessories:
4 = Bolt, through coolant

Spare parts:
1 = Bolt
2 = Tenon/Screw

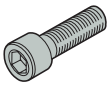
- DMM 40 mm / *1.575"*, includes 4 threaded holes for M12 screws on the bearing face ∅66,7 mm / *2.626"* according to DIN 6357
- For ISO attribute explanation, see page 14

Designation	Item number	CTMS	DMM	LF	BD	OAL	LB	LSC	RFID hole	Balancing	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*			kg *lbs*
BT40ADB-SM16-045-L1	10007139	BT40 ADB	16,0 *0.630*	45,0 *1.772*	38,0 *1.496*	127,4 *5.016*	18,0 *0.709*	17,0 *0.669*	1	G6.3	1,2 *2.650*
BT40ADB-SM16-100-L1	10007140	BT40 ADB	16,0 *0.630*	100,0 *3.937*	38,0 *1.496*	182,4 *7.181*	73,0 *2.874*	17,0 *0.669*	1	G6.3	1,7 *3.750*
BT40ADB-SM22-045-L1	10007141	BT40 ADB	22,0 *0.866*	45,0 *1.772*	48,0 *1.890*	129,4 *5.094*	18,0 *0.709*	19,0 *0.748*	1	G6.3	1,3 *2.870*
BT40ADB-SM22-100-L1	10007142	BT40 ADB	22,0 *0.866*	100,0 *3.937*	48,0 *1.890*	184,4 *7.260*	73,0 *2.874*	19,0 *0.748*	1	G6.3	2,0 *4.410*
BT40ADB-SM27-045-L1	10007143	BT40 ADB	27,0 *1.063*	45,0 *1.772*	60,0 *2.362*	131,4 *5.173*	18,0 *0.709*	21,0 *0.827*	1	G6.3	1,5 *3.310*
BT40ADB-SM27-100-L1	10007144	BT40 ADB	27,0 *1.063*	100,0 *3.937*	60,0 *2.362*	186,4 *7.339*	73,0 *2.874*	21,0 *0.827*	1	G6.3	2,7 *5.950*
BT40ADB-SM32-050-L1	10007145	BT40 ADB	32,0 *1.260*	50,0 *1.969*	78,0 *3.071*	139,4 *5.488*	23,0 *0.906*	24,0 *0.945*	1	G6.3	1,8 *3.970*
BT40ADB-SM40-050-L1	10007146	BT40 ADB	40,0 *1.575*	50,0 *1.969*	89,0 *3.504*	142,4 *5.606*	23,0 *0.906*	27,0 *1.063*	1	G6.3	2,1 *4.630*
BT50ADB-SM16-100-L1	10007148	BT50 ADB	16,0 *0.630*	100,0 *3.937*	38,0 *1.496*	218,8 *8.614*	62,0 *2.441*	17,0 *0.669*	1	G6.3	4,1 *9.040*
BT50ADB-SM22-055-L1	10007149	BT50 ADB	22,0 *0.866*	55,0 *2.165*	48,0 *1.890*	175,8 *6.921*	17,0 *0.669*	19,0 *0.748*	1	G6.3	3,8 *8.380*
BT50ADB-SM22-100-L1	10007150	BT50 ADB	22,0 *0.866*	100,0 *3.937*	48,0 *1.890*	220,8 *8.693*	62,0 *2.441*	19,0 *0.748*	1	G6.3	4,2 *9.260*
BT50ADB-SM22-160-L1	10007151	BT50 ADB	22,0 *0.866*	160,0 *6.299*	48,0 *1.890*	280,8 *11.055*	122,0 *4.803*	19,0 *0.748*	1	G6.3	5,3 *11.680*
BT50ADB-SM27-055-L1	10007152	BT50 ADB	27,0 *1.063*	55,0 *2.165*	60,0 *2.362*	177,8 *7.000*	17,0 *0.669*	21,0 *0.827*	1	G6.3	4,0 *8.820*
BT50ADB-SM27-100-L1	10007153	BT50 ADB	27,0 *1.063*	100,0 *3.937*	60,0 *2.362*	222,8 *8.772*	62,0 *2.441*	21,0 *0.827*	1	G6.3	5,0 *11.020*
BT50ADB-SM27-160-L1	10007154	BT50 ADB	27,0 *1.063*	160,0 *6.299*	60,0 *2.362*	282,8 *11.134*	122,0 *4.803*	21,0 *0.827*	1	G6.3	6,3 *13.890*
BT50ADB-SM32-055-L1	10007155	BT50 ADB	32,0 *1.260*	55,0 *2.165*	78,0 *3.071*	180,8 *7.118*	17,0 *0.669*	24,0 *0.945*	1	G6.3	4,3 *9.480*
BT50ADB-SM32-100-L1	10007156	BT50 ADB	32,0 *1.260*	100,0 *3.937*	78,0 *3.071*	225,8 *8.890*	62,0 *2.441*	24,0 *0.945*	1	G6.3	6,0 *13.230*
BT50ADB-SM32-160-L1	10007157	BT50 ADB	32,0 *1.260*	160,0 *6.299*	78,0 *3.071*	285,8 *11.252*	122,0 *4.803*	24,0 *0.945*	1	G6.3	8,2 *18.080*
BT50ADB-SM40-055-L1	10007158	BT50 ADB	40,0 *1.575*	55,0 *2.165*	89,0 *3.504*	183,8 *7.236*	17,0 *0.669*	27,0 *1.063*	1	G6.3	4,6 *10.140*
BT50ADB-SM40-100-L1	10007159	BT50 ADB	40,0 *1.575*	100,0 *3.937*	89,0 *3.504*	228,8 *9.008*	62,0 *2.441*	27,0 *1.063*	1	G6.3	6,7 *14.770*
BT50ADB-SM40-160-L1	10007160	BT50 ADB	40,0 *1.575*	160,0 *6.299*	89,0 *3.504*	288,8 *11.370*	122,0 *4.803*	27,0 *1.063*	1	G6.3	9,2 *20.280*

Accessories

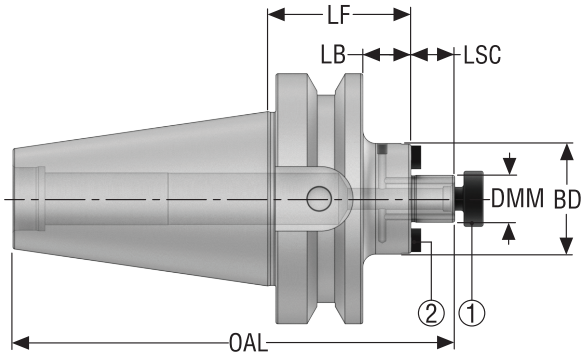
For Taper/ DMM	Bolt, through coolant	Spanner
		
BT40/ 16	5801608L	5811608
BT40/ 22	5802210L	5812210
BT40/ 27	5802712L	5812712
BT40/ 32	5803216L	5813216
BT40/ 40	5804020L	5814020
BT50/ 16	5801608L	5811608
BT50/ 22	5802210L	5812210
BT50/ 27	5802712L	5812712
BT50/ 32	5803216L	5813216
BT50/ 40	5804020L	5814020

Spare Parts, included in delivery

For Taper/ DMM	Bolt	Plug	Screw	Tenon
				
BT40/ 16	5801608	950AIE0404	950D0312	16C716A
BT40/ 22	5802210	950AIE0404	950D0412	16C722A
BT40/ 27	5802712	950AIE0404	950D0515	16C727A
BT40/ 32	5803216	950AIE0404	950D0615	16C732A
BT40/ 40	5804020	950AIE0404	950D0615	16C740A
BT50/ 16	5801608	950AIE0505	950D0312	16C716A
BT50/ 22	5802210	950AIE0505	950D0412	16C722A
BT50/ 27	5802712	950AIE0505	950D0515	16C727A
BT50/ 32	5803216	950AIE0505	950D0615	16C732A
BT50/ 40	5804020	950AIE0505	950D0615	16C740A

BT JIS B 6339-AD

With through coolant channels – ISO 3937 – Inch



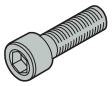


Spare parts:
1 = Bolt
2 = Tenon/Screw

• For ISO attribute explanation, see page 14

Designation	Item number	CTMS	DMM	LF	BD	OAL	LB	LSC	RFID hole	Balan-cing	Weight
			inch	inch	inch	inch	inch	inch			lbs
BT40AD-SM0.750-1.750-L1	03301687	BT40 AD	0.750	1.750	1.750	5.013	0.687	0.688	1	G6.3	2.650
BT40AD-SM1.000-1.750-L1	03301684	BT40 AD	1.000	1.750	2.250	5.013	0.687	0.688	1	G6.3	3.090
BT40AD-SM1.500-2.000-L1	03301685	BT40 AD	1.500	2.000	3.500	2.000	0.937	0.940	1	G6.3	4.850
BT50AD-SM0.750-2.250-L1	03301680	BT50 AD	0.750	2.250	1.750	6.946	0.754	0.688	1	G6.3	8.380
BT50AD-SM1.000-2.250-L1	03301681	BT50 AD	1.000	2.250	2.250	6.946	0.754	0.688	1	G6.3	8.820
BT50AD-SM1.500-2.250-L1	03301682	BT50 AD	1.500	2.250	3.500	7.198	0.754	0.940	1	G6.3	10.360

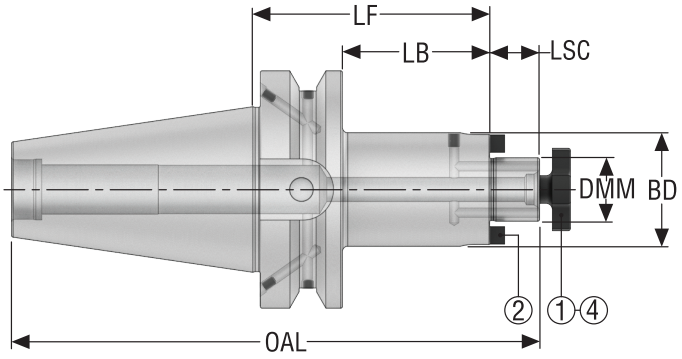
Spare Parts, included in delivery

For DMM	Bolt	Plug	Screw	Tenon
				
BT40/ 0.750	58271905	950AIE0404	950DNC012031	16C71905
BT40/ 1.000	58272540	950AIE0404	950DNC016037	16C72540
BT40/ 1.500	58273810	950AIE0404	950DNC025050	16C73810
BT50/ 0.750	58271905	950AIE0505	950DNC012031	16C71905
BT50/ 1.000	58272540	950AIE0505	950DNC016037	16C72540
BT50/ 1.500	58273810	950AIE0505	950DNC025050	16C73810

Small face with through coolant channels – ISO 3937 – Metric / *Inch*

BT JIS B 6339-AD





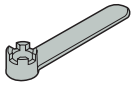
- Small workpiece side diameter BD according to ISO 3937, suitable for Seco disc mill cutters Type B
- For ISO attribute explanation, see page 14

Accessories:
4 = Bolt, through coolant

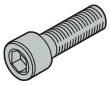
Spare parts:
1 = Bolt
2 = Tenon/Screw

Designation	Item number	CTMS	DMM	LF	BD	OAL	LB	LSC	RFID hole	Balancing	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*			kg *lbs*
BT30AD-SM22-040-F3L1	03301665	BT30 AD	22,0 *0.866*	40,0 *1.575*	40,0 *1.575*	107,4 *4.228*	18,0 *0.709*	19,0 *0.748*	0	G6.3	0,6 *1.320*
BT30AD-SM22-100-F3L1	03301666	BT30 AD	22,0 *0.866*	100,0 *3.937*	40,0 *1.575*	167,4 *6.591*	78,0 *3.071*	19,0 *0.748*	0	G6.3	1,2 *2.650*
BT30AD-SM27-040-F3L1	03301667	BT30 AD	27,0 *1.063*	40,0 *1.575*	48,0 *1.890*	109,4 *4.307*	18,0 *0.709*	21,0 *0.827*	0	G6.3	0,8 *1.760*
BT30AD-SM27-100-F3L1	03301668	BT30 AD	27,0 *1.063*	100,0 *3.937*	48,0 *1.890*	169,4 *6.669*	78,0 *3.071*	21,0 *0.827*	0	G6.3	1,6 *3.530*

Accessories

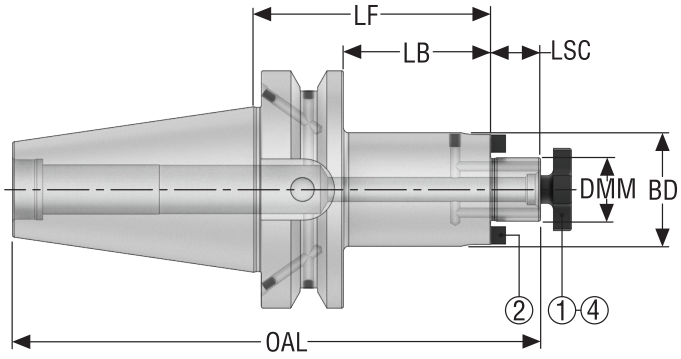
For DMM	Bolt, through coolant	Spanner
		
22	5802210L	5812210
27	5802712L	5812712

Spare Parts, included in delivery

For DMM	Bolt	Screw	Tenon
			
22	5802210	951D0410	16C722
27	5802712	951D0512	16C727

BT JIS B 6339-AD

Small face with through coolant channels – ISO 3937 – Metric / *Inch*





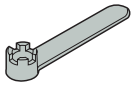
Accessories:
4 = Bolt, through coolant

Spare parts:
1 = Bolt
2 = Tenon/Screw

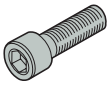
- Small workpiece side diameter BD according to ISO 3937, suitable for Seco disc mill cutters Type B
- For ISO attribute explanation, see page 14

Designation	Item number	CTMS	DMM	LF	BD	OAL	LB	LSC	RFID hole	Balan-cing	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*			kg *lbs*
BT40ADB-SM22-052-F3L1	03301654	BT40 ADB	22,0 *0.866*	52,0 *2.047*	40,0 *1.575*	136,4 *5.370*	25,0 *0.984*	19,0 *0.748*	1	G6.3	1,3 *2.870*
BT40ADB-SM22-100-F3L1	03301655	BT40 ADB	22,0 *0.866*	100,0 *3.937*	40,0 *1.575*	184,4 *7.260*	73,0 *2.874*	19,0 *0.748*	1	G6.3	1,8 *3.970*
BT40ADB-SM27-052-F3L1	03301656	BT40 ADB	27,0 *1.063*	52,0 *2.047*	48,0 *1.890*	138,4 *5.449*	25,0 *0.984*	21,0 *0.827*	1	G6.3	1,4 *3.090*
BT40ADB-SM27-100-F3L1	03301657	BT40 ADB	27,0 *1.063*	100,0 *3.937*	48,0 *1.890*	186,4 *7.339*	73,0 *2.874*	21,0 *0.827*	1	G6.3	2,1 *4.630*
BT40ADB-SM32-052-F3L1	03301659	BT40 ADB	32,0 *1.260*	52,0 *2.047*	58,0 *2.283*	141,4 *5.567*	25,0 *0.984*	24,0 *0.945*	1	G6.3	1,7 *3.750*
BT40ADB-SM40-060-F3L1	03301660	BT40 ADB	40,0 *1.575*	60,0 *2.362*	70,0 *2.756*	152,4 *6.000*	33,0 *1.299*	27,0 *1.063*	1	G6.3	2,2 *4.850*
BT50ADB-SM22-063-F3L1	03301630	BT50 ADB	22,0 *0.866*	63,0 *2.480*	40,0 *1.575*	183,8 *7.236*	25,0 *0.984*	19,0 *0.748*	1	G6.3	3,8 *8.380*
BT50ADB-SM22-100-F3L1	03301631	BT50 ADB	22,0 *0.866*	100,0 *3.937*	40,0 *1.575*	220,8 *8.693*	62,0 *2.441*	19,0 *0.748*	1	G6.3	4,2 *9.260*
BT50ADB-SM22-160-F3L1	03301632	BT50 ADB	22,0 *0.866*	160,0 *6.299*	40,0 *1.575*	280,8 *11.055*	122,0 *4.803*	19,0 *0.748*	1	G6.3	4,7 *10.360*
BT50ADB-SM27-063-F3L1	03301634	BT50 ADB	27,0 *1.063*	63,0 *2.480*	48,0 *1.890*	185,8 *7.315*	25,0 *0.984*	21,0 *0.827*	1	G6.3	3,9 *8.600*
BT50ADB-SM27-100-F3L1	03301635	BT50 ADB	27,0 *1.063*	100,0 *3.937*	48,0 *1.890*	222,8 *8.772*	62,0 *2.441*	21,0 *0.827*	1	G6.3	4,5 *9.920*
BT50ADB-SM27-160-F3L1	03301636	BT50 ADB	27,0 *1.063*	160,0 *6.299*	48,0 *1.890*	282,8 *11.134*	122,0 *4.803*	21,0 *0.827*	1	G6.3	5,3 *11.680*
BT50ADB-SM32-063-F3L1	03301637	BT50 ADB	32,0 *1.260*	63,0 *2.480*	58,0 *2.283*	188,8 *7.433*	25,0 *0.984*	24,0 *0.945*	1	G6.3	4,2 *9.260*
BT50ADB-SM32-100-F3L1	03301638	BT50 ADB	32,0 *1.260*	100,0 *3.937*	58,0 *2.283*	225,8 *8.890*	62,0 *2.441*	24,0 *0.945*	1	G6.3	4,9 *10.800*
BT50ADB-SM32-160-F3L1	03301639	BT50 ADB	32,0 *1.260*	160,0 *6.299*	58,0 *2.283*	285,8 *11.252*	122,0 *4.803*	24,0 *0.945*	1	G6.3	6,1 *13.450*
BT50ADB-SM40-063-F3L1	03301640	BT50 ADB	40,0 *1.575*	63,0 *2.480*	70,0 *2.756*	191,8 *7.551*	25,0 *0.984*	27,0 *1.063*	1	G6.3	4,5 *9.920*
BT50ADB-SM40-100-F3L1	03301641	BT50 ADB	40,0 *1.575*	100,0 *3.937*	70,0 *2.756*	228,8 *9.008*	62,0 *2.441*	27,0 *1.063*	1	G6.3	5,6 *12.350*
BT50ADB-SM40-160-F3L1	03301642	BT50 ADB	40,0 *1.575*	160,0 *6.299*	70,0 *2.756*	288,8 *11.370*	122,0 *4.803*	27,0 *1.063*	1	G6.3	7,3 *16.090*

Accessories

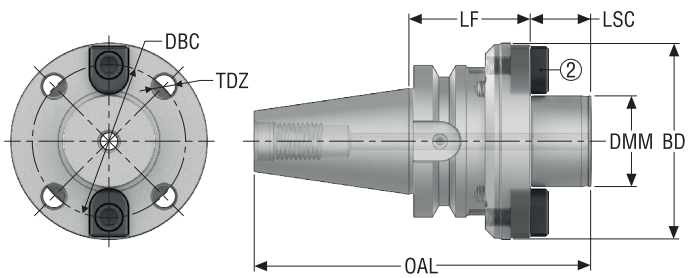
For Taper/ DMM	Bolt, through coolant	Spanner
		
BT40/ 22	5802210L	5812210
BT40/ 27	5802712L	5812712
BT40/ 32	5803216L	5813216
BT40/ 40	5804020L	5814020
BT50/ 22	5802210L	5812210
BT50/ 27	5802712L	5812712
BT50/ 32	5803216L	5813216
BT50/ 40	5804020L	5814020

Spare Parts, included in delivery

For Taper/ DMM	Bolt	Plug	Screw	Tenon
				
BT40/ 22	5802210	950AIE0404	951D0410	16C722
BT40/ 27	5802712	950AIE0404	951D0512	16C727
BT40/ 32	5803216	950AIE0404	951D0616	16C732
BT40/ 40	5804020	950AIE0404	951D0616	16C740
BT50/ 22	5802210	950AIE0505	951D0410	16C722
BT50/ 27	5802712	950AIE0505	951D0512	16C727
BT50/ 32	5803216	950AIE0505	951D0616	16C732
BT50/ 40	5804020	950AIE0505	951D0616	16C740

BT JIS B 6339-AD

Flange mounting – DIN 6357/ DIN 2079 – Metric / *Inch*



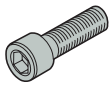


Spare parts:
2 = Tenon/Screw

• For ISO attribute explanation, see page 14

Designation	Item number	CTMS	DMM	LF	BD	OAL	LSC	DBC	TDZ	RFID hole	Balan-cing	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*				kg *lbs*
BT50AD-SMF40-070	03301643	BT50 AD	40,0 *1.575*	70,0 *2.756*	89,0 *3.504*	201,8 *7.945*	30,0 *1.181*	66,7 *2.626*	M12	1	G6.3	5,3 *11.680*
BT50AD-SMF60-080	03301644	BT50 AD	60,0 *2.362*	80,0 *3.150*	129,0 *5.079*	221,8 *8.732*	40,0 *1.575*	101,6 *4.000*	M16	1	G6.3	8,0 *17.640*

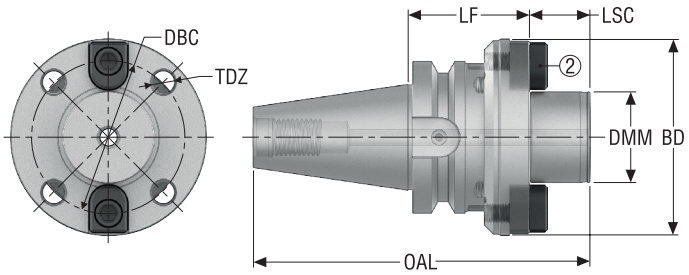
Spare Parts, included in delivery

For DMM	Screw	Tenon
		
40	951D0616	16C34040
60	950D1225	16C35060

Flange mounting – DIN 6357/ DIN 2079 – Inch

BT JIS B 6339-AD



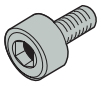


• For ISO attribute explanation, see page 14

Spare parts:
2 = Tenon/Screw

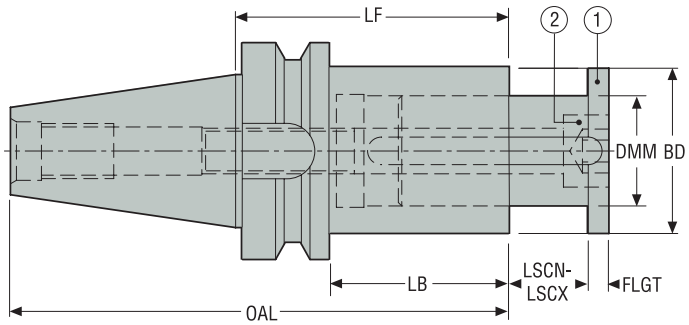
Designation	Item number	CTMS	DMM	LF	BD	OAL	LSC	LB	TDZ	RFID hole	Balan-cing	Weight
			inch	inch	inch	inch	inch	inch				lbs
BT50AD-SMF2.500-3.000	03301683	BT50 AD	2.500	3.000	4.874	8.150	1.142	4.000	5/8 UNC	1	G6.3	16.530

Spare Parts, included in delivery

For DMM	Plug	Screw	Tenon
			
2.500	950AIE0505	950D1225	16C76350

BT JIS B 6339-A

– Metric / *Inch*



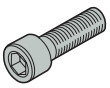


Spare parts:
1 = Slide rod
2 = Screw

- Best suited for Seco disc mill cutters Type A
- For ISO attribute explanation, see page 14

Designation	Item number	CTMS	DMM	LF	BD	OAL	LB	FLGT	LSCN	LSCX	RFID hole	Balan-cing	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*			kg *lbs*
E404156573290	02602705	BT40 A	32,0 *1.260*	90,0 *3.543*	48,0 *1.890*	155,4 *6.118*	63,0 *2.480*	6,0 *0.236*	0,0 *0.0*	24,0 *0.945*	1	PB	1,91 *4.210*
E5766565740120	02602710	BT50 A	40,0 *1.575*	120,0 *4.724*	58,0 *2.283*	221,8 *8.732*	82,0 *3.228*	7,0 *0.276*	0,0 *0.0*	30,0 *1.181*	1	PB	5,4 *11.900*
E5766565750145	02602712	BT50 A	50,0 *1.969*	145,0 *5.709*	72,0 *2.835*	246,8 *9.717*	107,0 *4.213*	8,0 *0.315*	0,0 *0.0*	32,0 *1.260*	1	PB	7,04 *15.520*

Spare Parts, included in delivery

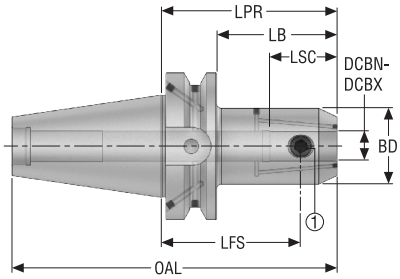
For	Screw	Slide rod
		
E404156573290	950D1690	565732
E5766565740120	19C565740	565740
E5766565750145	19C565750	565750

DIN 1835 Form B/ DIN 6535 Form HB
– Metric / *Inch*

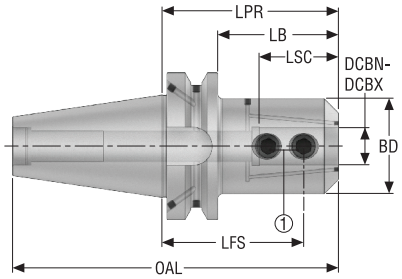
BT JIS B 6339-ADB



Design 1



Design 2



- Weldon ∅DCBN-DCBX 20, 25, 32 and 40 mm / *0.787, 0.984, 1.260 and 1.575"* with ground face (Seco-Weldon compatible)
- With 2 coolant channels for front lubrication which can be sealed with included screws
- For ISO attribute explanation, see page 14

Spare parts:
1 = Locking screw

Designation	Item number	CTMS	DCBN-DCBX	LPR	LB	LSC	BD	OAL	LFS	Design	RFID hole	Balancing	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*				kg *lbs*
BT40ADB-EM06-050-L1	10007206	BT40 ADB	6,0 *0.236*	50,0 *1.969*	23,0 *0.906*	35,0 *1.378*	25,0 *0.984*	115,4 *4.543*	32,0 *1.260*	1	1	G6.3	1,1 *2.430*
BT40ADB-EM06-120-L1	10007207	BT40 ADB	6,0 *0.236*	120,0 *4.724*	93,0 *3.661*	35,0 *1.378*	25,0 *0.984*	185,4 *7.299*	102,0 *4.016*	1	1	G6.3	1,3 *2.870*
BT40ADB-EM08-050-L1	10007208	BT40 ADB	8,0 *0.315*	50,0 *1.969*	23,0 *0.906*	35,0 *1.378*	28,0 *1.102*	115,4 *4.543*	32,0 *1.260*	1	1	G6.3	1,1 *2.430*
BT40ADB-EM10-063-L1	10007209	BT40 ADB	10,0 *0.394*	63,0 *2.480*	36,0 *1.417*	36,0 *1.417*	35,0 *1.378*	128,4 *5.055*	43,0 *1.693*	1	1	G6.3	1,2 *2.650*
BT40ADB-EM12-063-L1	10007210	BT40 ADB	12,0 *0.472*	63,0 *2.480*	36,0 *1.417*	41,0 *1.614*	42,0 *1.654*	128,4 *5.055*	40,5 *1.594*	1	1	G6.3	1,3 *2.870*
BT40ADB-EM12-120-L1	10007211	BT40 ADB	12,0 *0.472*	120,0 *4.724*	93,0 *3.661*	41,0 *1.614*	42,0 *1.654*	185,4 *7.299*	97,5 *3.839*	1	1	G6.3	1,9 *4.190*
BT40ADB-EM14-063-L1	10007212	BT40 ADB	14,0 *0.551*	63,0 *2.480*	36,0 *1.417*	41,0 *1.614*	44,0 *1.732*	128,4 *5.055*	40,5 *1.594*	1	1	G6.3	1,3 *2.870*
BT40ADB-EM16-063-L1	10007213	BT40 ADB	16,0 *0.630*	63,0 *2.480*	36,0 *1.417*	44,0 *1.732*	48,0 *1.890*	128,4 *5.055*	39,0 *1.535*	1	1	G6.3	1,4 *3.090*
BT40ADB-EM16-120-L1	10007214	BT40 ADB	16,0 *0.630*	120,0 *4.724*	93,0 *3.661*	44,0 *1.732*	48,0 *1.890*	185,4 *7.299*	96,0 *3.780*	1	1	G6.3	2,1 *4.630*
BT40ADB-EM18-063-L1	10007215	BT40 ADB	18,0 *0.709*	63,0 *2.480*	36,0 *1.417*	44,0 *1.732*	50,0 *1.969*	128,4 *5.055*	39,0 *1.535*	1	1	G6.3	1,4 *3.090*
BT40ADB-EM20-063-L1	10007216	BT40 ADB	20,0 *0.787*	63,0 *2.480*	36,0 *1.417*	46,0 *1.811*	52,0 *2.047*	128,4 *5.055*	38,0 *1.496*	1	1	G6.3	1,4 *3.090*
BT40ADB-EM20-120-L1	10007217	BT40 ADB	20,0 *0.787*	120,0 *4.724*	93,0 *3.661*	46,0 *1.811*	52,0 *2.047*	185,4 *7.299*	95,0 *3.740*	1	1	G6.3	2,3 *5.070*
BT40ADB-EM25-090-L1	10007219	BT40 ADB	25,0 *0.984*	90,0 *3.543*	63,0 *2.480*	54,0 *2.126*	63,0 *2.480*	155,4 *6.118*	66,0 *2.598*	2	1	G6.3	2,2 *4.850*
BT40ADB-EM32-100-L1	10007221	BT40 ADB	32,0 *1.260*	100,0 *3.937*	73,0 *2.874*	58,0 *2.283*	72,0 *2.835*	165,4 *6.512*	76,0 *2.992*	2	1	G6.3	2,7 *5.950*
BT50ADB-EM12-080-L1	10007222	BT50 ADB	12,0 *0.472*	80,0 *3.150*	42,0 *1.654*	41,0 *1.614*	42,0 *1.654*	181,8 *7.157*	57,5 *2.264*	1	1	G6.3	3,9 *8.600*
BT50ADB-EM14-080-L1	10007223	BT50 ADB	14,0 *0.551*	80,0 *3.150*	42,0 *1.654*	41,0 *1.614*	44,0 *1.732*	181,8 *7.157*	57,5 *2.264*	1	1	G6.3	3,9 *8.600*
BT50ADB-EM16-080-L1	10007224	BT50 ADB	16,0 *0.630*	80,0 *3.150*	42,0 *1.654*	44,0 *1.732*	48,0 *1.890*	181,8 *7.157*	56,0 *2.205*	1	1	G6.3	4,0 *8.820*
BT50ADB-EM16-120-L1	10007225	BT50 ADB	16,0 *0.630*	120,0 *4.724*	82,0 *3.228*	44,0 *1.732*	48,0 *1.890*	221,8 *8.732*	96,0 *3.780*	1	1	G6.3	4,5 *9.920*
BT50ADB-EM18-080-L1	10007226	BT50 ADB	18,0 *0.709*	80,0 *3.150*	42,0 *1.654*	44,0 *1.732*	50,0 *1.969*	181,8 *7.157*	56,0 *2.205*	1	1	G6.3	4,0 *8.820*
BT50ADB-EM20-080-L1	10007227	BT50 ADB	20,0 *0.787*	80,0 *3.150*	42,0 *1.654*	46,0 *1.811*	52,0 *2.047*	181,8 *7.157*	55,0 *2.165*	1	1	G6.3	4,0 *8.820*

Designation	Item number	CTMS	DCBN-DCBX	LPR	LB	LSC	BD	OAL	LFS	Design	RFID hole	Balan-cing	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*				kg *lbs*
BT50ADB-EM20-120-L1	10007228	BT50 ADB	20,0 *0.787*	120,0 *4.724*	82,0 *3.228*	46,0 *1.811*	52,0 *2.047*	221,8 *8.732*	95,0 *3.740*	1	1	G6.3	4,6 *10.140*
BT50ADB-EM25-100-L1	10007229	BT50 ADB	25,0 *0.984*	100,0 *3.937*	62,0 *2.441*	54,0 *2.126*	65,0 *2.559*	201,8 *7.945*	76,0 *2.992*	2	1	G6.3	4,8 *10.580*
BT50ADB-EM25-120-L1	10007230	BT50 ADB	25,0 *0.984*	120,0 *4.724*	82,0 *3.228*	54,0 *2.126*	65,0 *2.559*	221,8 *8.732*	96,0 *3.780*	2	1	G6.3	5,2 *11.460*
BT50ADB-EM32-105-L1	10007232	BT50 ADB	32,0 *1.260*	105,0 *4.134*	67,0 *2.638*	58,0 *2.283*	72,0 *2.835*	206,8 *8.142*	81,0 *3.189*	2	1	G6.3	5,1 *11.240*
BT50ADB-EM40-120-L1	10007233	BT50 ADB	40,0 *1.575*	120,0 *4.724*	82,0 *3.228*	68,0 *2.677*	80,0 *3.150*	221,8 *8.732*	90,0 *3.543*	2	1	G6.3	5,6 *12.350*
BT50ADB-EM50-130-L1	10007234	BT50 ADB	50,0 *1.969*	130,0 *5.118*	92,0 *3.622*	78,0 *3.071*	100,0 *3.937*	231,8 *9.126*	95,0 *3.740*	2	1	G6.3	7,5 *16.530*

Spare Parts, included in delivery

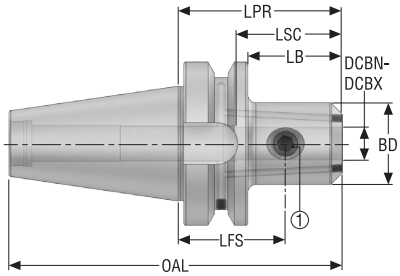
For DCBN-DCBX	Coolant screw	Locking screw	Plug
			
BT40/ 6	950A0304	951C0610	950AIE0404
BT40/ 8	950A0304	951C0810	950AIE0404
BT40/ 10	950A0304	951C1012	950AIE0404
BT40/ 12-14	950A0304	951C1216	950AIE0404
BT40/ 16-18	950A0304	951C1416	950AIE0404
BT40/ 20	950A0304	951C1616	950AIE0404
BT40/ 25	950A0304	951C1820	950AIE0404
BT40/ 32	950A0304	951C2020	950AIE0404
BT50/ 12-14	950A0304	951C1216	950AIE0505
BT50/ 16-18	950A0304	951C1416	950AIE0505
BT50/ 20	950A0304	951C1616	950AIE0505
BT50/ 25	950A0304	951C1820	950AIE0505
BT50/ 32-40	950A0304	951C2020	950AIE0505
BT50/ 50	950A0304	951C2425	950AIE0505

DIN 1835 Form B/ DIN 6535 Form HB – Inch

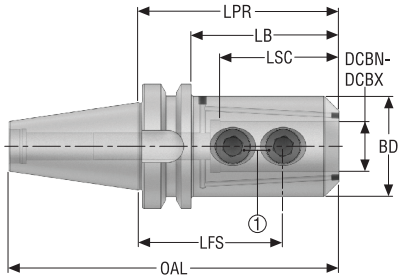
BT JIS B 6339-AD



Design 1



Design 2



- With 2 coolant channels for front lubrication which can be sealed with included screws
- For ISO attribute explanation, see page 14

Spare parts:
1 = Locking screw

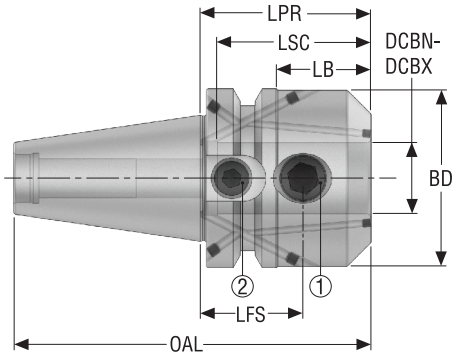
Designation	Item number	CTMS	DCBN-DCBX	LPR	LB	LSC	BD	OAL	LFS	Design	RFID hole	Balancing	Weight
			inch	inch	inch	inch	inch	inch	inch				lbs
BT40AD-EM0.375-2.500-L1	03301757	BT40 AD	0.375	2.500	1.437	1.500	1.000	5.075	1.750	1	1	G6.3	2.430
BT40AD-EM0.500-2.500-L1	03301758	BT40 AD	0.500	2.500	1.437	1.620	1.250	5.075	1.630	1	1	G6.3	2.650
BT40AD-EM0.750-2.500-L1	03301759	BT40 AD	0.750	2.500	1.437	2.000	1.750	5.075	1.500	1	1	G6.3	2.870
BT40AD-EM1.000-4.000-L1	03301760	BT40 AD	1.000	4.000	2.937	2.250	2.000	6.575	2.880	2	1	G6.3	3.970
BT40AD-EM1.250-4.000-L1	03301761	BT40 AD	1.250	4.000	2.937	2.250	2.500	6.575	2.880	2	1	G6.3	5.070
BT50AD-EM0.625-3.000-L1	03301752	BT50 AD	0.625	3.000	1.504	1.870	1.500	7.008	2.060	1	1	G6.3	8.160
BT50AD-EM0.750-3.000-L1	03301753	BT50 AD	0.750	3.000	1.504	2.000	1.750	7.008	2.000	1	1	G6.3	8.600
BT50AD-EM1.000-4.000-L1	03301754	BT50 AD	1.000	4.000	2.504	2.250	2.000	8.008	2.880	2	1	G6.3	9.260
BT50AD-EM1.250-4.000-L1	03301755	BT50 AD	1.250	4.000	2.504	2.250	2.500	8.008	2.880	2	1	G6.3	10.140
BT50AD-EM1.500-4.500-L1	03301756	BT50 AD	1.500	4.500	3.012	2.620	2.750	8.508	3.000	2	1	G6.3	11.020

Spare Parts, included in delivery

For DCBN-DCBX	Coolant screw	Locking screw
		
0.375	950A0304	951CNF037031
0.500	950A0304	951CNF043037
0.625	950A0304	951CNF056050
0.750	950A0304	951CNF062050
1.000-1.500	950A0304	951CNF075068

BT JIS B 6339-ADB

Short type
– Metric / *Inch*





Spare parts:
1 = Locking screw
2 = Locking screw, reduced

- Weldon ∅DCBN-DCBX 20, 25, 32 and 40 mm / *0.787, 0.984, 1.260 and 1.575"* with ground face (Seco-Weldon compatible)
- With 2 coolant channels for front lubrication which can be sealed with included screws
- For ISO attribute explanation, see page 14

Designation	Item number	CTMS	DCBN-DCBX	LPR	LB	LSC	BD	OAL	LFS	TDZ1	TDZ2	RFID hole	Balan-cing	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*					kg *lbs*
BT40ADB-EM25-060-F5L1	10007218	BT40 ADB	25,0 *0.984*	60,0 *2.362*	33,0 *1.299*	54,0 *2.126*	62,0 *2.441*	125,4 *4.937*	36,0 *1.417*	M18x2	M14	0	G6.3	1,5 *3.310*
BT40ADB-EM32-065-F5L1	10007220	BT40 ADB	32,0 *1.260*	65,0 *2.559*	38,0 *1.496*	58,0 *2.283*	62,0 *2.441*	130,4 *5.134*	41,0 *1.614*	M20x2	M14	0	G6.3	1,5 *3.310*
BT50ADB-EM25-044-F5L1	03301733	BT50 ADB	25,0 *0.984*	44,0 *1.732*	6,0 *0.236*	54,0 *2.126*	57,0 *2.244*	145,8 *5.740*	20,5 *0.807*	M18x2	M14	0	G6.3	3,4 *7.500*
BT50ADB-EM32-060-F5L1	10007231	BT50 ADB	32,0 *1.260*	60,0 *2.362*	22,0 *0.866*	58,0 *2.283*	72,0 *2.835*	161,8 *6.370*	36,0 *1.417*	M20x2	M14	0	G6.3	3,6 *7.940*

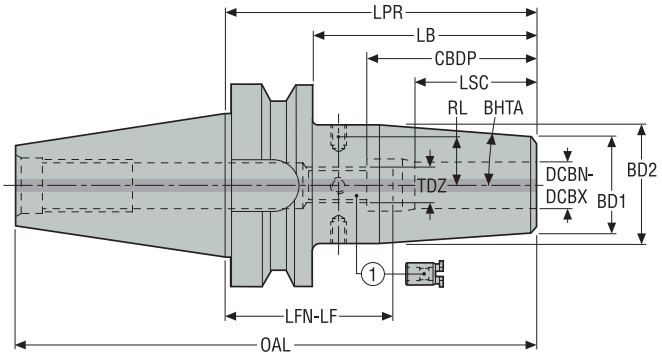
Spare Parts, included in delivery

For	Coolant screw	Locking screw	Locking screw, reduced	Plug
				
BT40ADB-EM25-060-F5L1	950A0304	951C1817	950A1410	950AIE0404
BT40ADB-EM32-065-F5L1	950A0304	951C2014	951C1407	950AIE0404
BT50ADB-EM25-044-F5L1	950A0304	951C1820	–	950AIE0505
BT50ADB-EM32-060-F5L1	950A0304	951C2020	950A1416	950AIE0505

DIN type
– Metric / *Inch*

BT JIS B 6339-AD





- Run-out ≤3 µm
- Delivered with one stop screw
- For Shrinkfit extensions, see page(s) 373-374
- For ISO attribute explanation, see page 14

Spare parts:
1 = Stop screw

Designation	Item number	CTMS	DCBN-DCBX	LPR	LB	CBDP	LSC	BD1	BD2	OAL	LFN	LF	RL	TDZ	BHTA°	RFID hole	Balancing	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*					kg *lbs*
E404056030680	02753111	BT30 AD	6,0 *0.236*	80,0 *3.150*	58,0 *2.283*	37,5 *1.476*	22,0 *0.866*	21,0 *0.827*	27,0 *1.063*	128,4 *5.055*	44,0 *1.732*	54,0 *2.126*	10,5 *0.413*	M5x0.8	4,5	0	G2.5	0,6 *1.320*
E404056030880	02753112	BT30 AD	8,0 *0.315*	80,0 *3.150*	58,0 *2.283*	37,5 *1.476*	26,0 *1.024*	21,0 *0.827*	27,0 *1.063*	128,4 *5.055*	44,0 *1.732*	54,0 *2.126*	10,5 *0.413*	M6x1	4,5	0	G2.5	0,6 *1.320*
E404056031080	02753113	BT30 AD	10,0 *0.394*	80,0 *3.150*	58,0 *2.283*	42,5 *1.673*	31,0 *1.220*	24,0 *0.945*	32,0 *1.260*	128,4 *5.055*	39,0 *1.535*	49,0 *1.929*	13,0 *0.512*	M8x1	4,5	0	G2.5	0,7 *1.540*
E404056031280	02753114	BT30 AD	12,0 *0.472*	80,0 *3.150*	58,0 *2.283*	47,5 *1.870*	34,0 *1.339*	24,0 *0.945*	32,0 *1.260*	128,4 *5.055*	34,0 *1.339*	44,0 *1.732*	13,0 *0.512*	M10x1	4,5	0	G2.5	0,7 *1.540*

Accessories

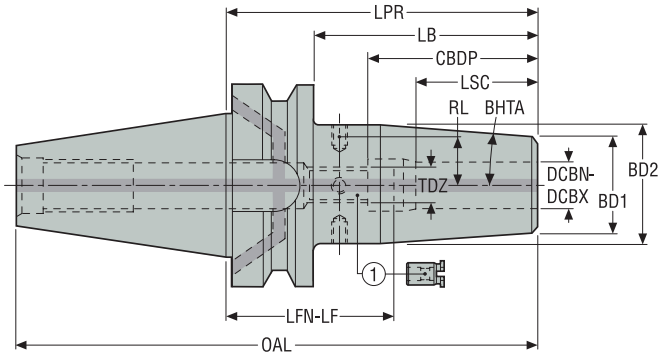
For	Balancing screws
	
All	90ZQ01

Spare Parts, included in delivery

For	Stop screw
	
E404056030680	19BDR05165
E404056030880	19BDR06165
E404056031080	19BDR08165
E404056031280	19BDR10165

BT JIS B 6339-ADB

DIN type
– Metric / *Inch*





Spare parts:
1 = Stop screw

- Run-out ≤3 µm
- Delivered with one stop screw
- For Shrinkfit extensions, see page(s) 373-374
- For ISO attribute explanation, see page 14

Designation	Item number	CTMS	DCBN-DCBX	LPR	LB	CBDP	LSC	BD1	BD2	OAL	LFN	LF	RL	TDZ	BHTA°	RFID hole	Balancing	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*					kg *lbs*
E341456030690	02753045	BT40 ADB	6,0 *0.236*	90,0 *3.543*	63,0 *2.480*	37,5 *1.476*	22,0 *0.866*	21,0 *0.827*	27,0 *1.063*	155,4 *6.118*	54,0 *2.126*	64,0 *2.520*	10,5 *0.413*	M5x0.8	4,5	1	G2.5	1,2 *2.650*
E3414560306120	02753043	BT40 ADB	6,0 *0.236*	120,0 *4.724*	93,0 *3.661*	37,5 *1.476*	22,0 *0.866*	21,0 *0.827*	27,0 *1.063*	185,4 *7.299*	84,0 *3.307*	94,0 *3.701*	10,5 *0.413*	M5x0.8	4,5	1	G2.5	1,4 *3.090*
E3414560306160	02753044	BT40 ADB	6,0 *0.236*	160,0 *6.299*	133,0 *5.236*	37,5 *1.476*	22,0 *0.866*	21,0 *0.827*	27,0 *1.063*	225,4 *8.874*	124,0 *4.882*	134,0 *5.276*	10,5 *0.413*	M5x0.8	4,5	1	G2.5	1,5 *3.310*
E341456030890	02753048	BT40 ADB	8,0 *0.315*	90,0 *3.543*	63,0 *2.480*	37,5 *1.476*	26,0 *1.024*	21,0 *0.827*	27,0 *1.063*	155,4 *6.118*	54,0 *2.126*	64,0 *2.520*	10,5 *0.413*	M6x1	4,5	1	G2.5	1,18 *2.600*
E3414560308120	02753046	BT40 ADB	8,0 *0.315*	120,0 *4.724*	93,0 *3.661*	37,5 *1.476*	26,0 *1.024*	21,0 *0.827*	27,0 *1.063*	185,4 *7.299*	84,0 *3.307*	94,0 *3.701*	10,5 *0.413*	M6x1	4,5	1	G2.5	1,3 *2.870*
E3414560308160	02753047	BT40 ADB	8,0 *0.315*	160,0 *6.299*	133,0 *5.236*	37,5 *1.476*	26,0 *1.024*	21,0 *0.827*	27,0 *1.063*	225,4 *8.874*	124,0 *4.882*	134,0 *5.276*	10,5 *0.413*	M6x1	4,5	1	G2.5	1,5 *3.310*
E341456031090	02753051	BT40 ADB	10,0 *0.394*	90,0 *3.543*	63,0 *2.480*	42,5 *1.673*	31,0 *1.220*	24,0 *0.945*	32,0 *1.260*	155,4 *6.118*	49,0 *1.929*	59,0 *2.323*	13,0 *0.512*	M8x1	4,5	1	G2.5	1,3 *2.870*
E3414560310120	02753049	BT40 ADB	10,0 *0.394*	120,0 *4.724*	93,0 *3.661*	42,5 *1.673*	31,0 *1.220*	24,0 *0.945*	32,0 *1.260*	185,4 *7.299*	79,0 *3.110*	89,0 *3.504*	13,0 *0.512*	M8x1	4,5	1	G2.5	1,5 *3.310*
E3414560310160	02753050	BT40 ADB	10,0 *0.394*	160,0 *6.299*	133,0 *5.236*	42,5 *1.673*	31,0 *1.220*	24,0 *0.945*	32,0 *1.260*	225,4 *8.874*	119,0 *4.685*	129,0 *5.079*	13,0 *0.512*	M8x1	4,5	1	G2.5	1,7 *3.750*
E341456031290	02753054	BT40 ADB	12,0 *0.472*	90,0 *3.543*	63,0 *2.480*	47,5 *1.870*	34,0 *1.339*	24,0 *0.945*	32,0 *1.260*	155,4 *6.118*	44,0 *1.732*	54,0 *2.126*	13,0 *0.512*	M10x1	4,5	1	G2.5	1,3 *2.870*
E3414560312120	02753052	BT40 ADB	12,0 *0.472*	120,0 *4.724*	93,0 *3.661*	47,5 *1.870*	34,0 *1.339*	24,0 *0.945*	32,0 *1.260*	185,4 *7.299*	74,0 *2.913*	84,0 *3.307*	13,0 *0.512*	M10x1	4,5	1	G2.5	1,4 *3.090*
E3414560312160	02753053	BT40 ADB	12,0 *0.472*	160,0 *6.299*	133,0 *5.236*	47,5 *1.870*	34,0 *1.339*	24,0 *0.945*	32,0 *1.260*	225,4 *8.874*	114,0 *4.488*	124,0 *4.882*	13,0 *0.512*	M10x1	4,5	1	G2.5	1,7 *3.750*
E341456031490	02753057	BT40 ADB	14,0 *0.551*	90,0 *3.543*	63,0 *2.480*	47,5 *1.870*	34,0 *1.339*	27,0 *1.063*	34,0 *1.339*	155,4 *6.118*	44,0 *1.732*	54,0 *2.126*	14,0 *0.551*	M10x1	4,5	1	G2.5	1,35 *2.980*
E3414560314120	02753056	BT40 ADB	14,0 *0.551*	120,0 *4.724*	93,0 *3.661*	47,5 *1.870*	34,0 *1.339*	27,0 *1.063*	34,0 *1.339*	185,4 *7.299*	74,0 *2.913*	84,0 *3.307*	14,0 *0.551*	M10x1	4,5	1	G2.5	1,5 *3.310*
E341456031690	02753060	BT40 ADB	16,0 *0.630*	90,0 *3.543*	63,0 *2.480*	50,5 *1.988*	39,0 *1.535*	27,0 *1.063*	34,0 *1.339*	155,4 *6.118*	41,0 *1.614*	51,0 *2.008*	14,0 *0.551*	M12x1	4,5	1	G2.5	1,3 *2.870*
E3414560316120	02753058	BT40 ADB	16,0 *0.630*	120,0 *4.724*	93,0 *3.661*	50,5 *1.988*	39,0 *1.535*	27,0 *1.063*	34,0 *1.339*	185,4 *7.299*	71,0 *2.795*	81,0 *3.189*	14,0 *0.551*	M12x1	4,5	1	G2.5	1,5 *3.310*
E3414560316160	02753059	BT40 ADB	16,0 *0.630*	160,0 *6.299*	133,0 *5.236*	50,5 *1.988*	39,0 *1.535*	27,0 *1.063*	34,0 *1.339*	225,4 *8.874*	111,0 *4.370*	121,0 *4.764*	14,0 *0.551*	M12x1	4,5	1	G2.5	1,8 *3.970*
E341456031890	02753062	BT40 ADB	18,0 *0.709*	90,0 *3.543*	63,0 *2.480*	50,5 *1.988*	39,0 *1.535*	33,0 *1.299*	42,0 *1.654*	155,4 *6.118*	41,0 *1.614*	51,0 *2.008*	18,0 *0.709*	M12x1	4,5	1	G2.5	1,4 *3.090*
E341456032090	02753064	BT40 ADB	20,0 *0.787*	90,0 *3.543*	63,0 *2.480*	52,5 *2.067*	41,0 *1.614*	33,0 *1.299*	42,0 *1.654*	155,4 *6.118*	39,0 *1.535*	49,0 *1.929*	18,0 *0.709*	M16x1	4,5	1	G2.5	1,4 *3.090*
E3414560320120	02753063	BT40 ADB	20,0 *0.787*	120,0 *4.724*	93,0 *3.661*	52,5 *2.067*	41,0 *1.614*	33,0 *1.299*	42,0 *1.654*	185,4 *7.299*	69,0 *2.717*	79,0 *3.110*	18,0 *0.709*	M16x1	4,5	1	G2.5	1,7 *3.750*

Designation	Item number	CTMS	DCBN-DCBX	LPR	LB	CBDP	LSC	BD1	BD2	OAL	LFN	LF	RL	TDZ	BHTA°	RFID hole	Balancing	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*					kg *lbs*
E3414560325100	02753065	BT40 ADB	25,0 *0.984*	100,0 *3.937*	73,0 *2.874*	58,5 *2.303*	47,0 *1.850*	44,0 *1.732*	53,0 *2.087*	165,4 *6.512*	43,0 *1.693*	53,0 *2.087*	23,5 *0.925*	M16x1	4,5	1	G2.5	1,8 *3.970*
E3416560306100	02753092	BT50 ADB	6,0 *0.236*	100,0 *3.937*	62,0 *2.441*	37,5 *1.476*	22,0 *0.866*	21,0 *0.827*	27,0 *1.063*	201,8 *7.945*	64,0 *2.520*	74,0 *2.913*	10,5 *0.413*	M5x0.8	4,5	1	G2.5	3,8 *8.380*
E3416560306160	02753093	BT50 ADB	6,0 *0.236*	160,0 *6.299*	122,0 *4.803*	37,5 *1.476*	22,0 *0.866*	21,0 *0.827*	27,0 *1.063*	261,8 *10.307*	124,0 *4.882*	134,0 *5.276*	10,5 *0.413*	M5x0.8	4,5	1	G2.5	4,0 *8.820*
E3416560308100	02753094	BT50 ADB	8,0 *0.315*	100,0 *3.937*	62,0 *2.441*	37,5 *1.476*	26,0 *1.024*	21,0 *0.827*	27,0 *1.063*	201,8 *7.945*	64,0 *2.520*	74,0 *2.913*	10,5 *0.413*	M6x1	4,5	1	G2.5	3,8 *8.380*
E3416560308160	02753095	BT50 ADB	8,0 *0.315*	160,0 *6.299*	122,0 *4.803*	37,5 *1.476*	26,0 *1.024*	21,0 *0.827*	27,0 *1.063*	261,8 *10.307*	124,0 *4.882*	134,0 *5.276*	10,5 *0.413*	M6x1	4,5	1	G2.5	4,0 *8.820*
E3416560310100	02753096	BT50 ADB	10,0 *0.394*	100,0 *3.937*	62,0 *2.441*	42,5 *1.673*	31,0 *1.220*	24,0 *0.945*	32,0 *1.260*	201,8 *7.945*	59,0 *2.323*	69,0 *2.717*	13,0 *0.512*	M8x1	4,5	1	G2.5	3,81 *8.400*
E3416560310160	02753097	BT50 ADB	10,0 *0.394*	160,0 *6.299*	122,0 *4.803*	42,5 *1.673*	31,0 *1.220*	24,0 *0.945*	32,0 *1.260*	261,8 *10.307*	119,0 *4.685*	129,0 *5.079*	13,0 *0.512*	M8x1	4,5	1	G2.5	4,2 *9.260*
E3416560312100	02753098	BT50 ADB	12,0 *0.472*	100,0 *3.937*	62,0 *2.441*	47,5 *1.870*	34,0 *1.339*	24,0 *0.945*	32,0 *1.260*	201,8 *7.945*	54,0 *2.126*	64,0 *2.520*	13,0 *0.512*	M10x1	4,5	1	G2.5	3,8 *8.380*
E3416560312160	02753099	BT50 ADB	12,0 *0.472*	160,0 *6.299*	122,0 *4.803*	47,5 *1.870*	34,0 *1.339*	24,0 *0.945*	32,0 *1.260*	261,8 *10.307*	114,0 *4.488*	124,0 *4.882*	13,0 *0.512*	M10x1	4,5	1	G2.5	4,14 *9.130*
E3416560314100	02753100	BT50 ADB	14,0 *0.551*	100,0 *3.937*	62,0 *2.441*	47,5 *1.870*	34,0 *1.339*	27,0 *1.063*	34,0 *1.339*	201,8 *7.945*	54,0 *2.126*	64,0 *2.520*	14,0 *0.551*	M10x1	4,5	1	G2.5	3,9 *8.600*
E3416560316100	02753101	BT50 ADB	16,0 *0.630*	100,0 *3.937*	62,0 *2.441*	50,5 *1.988*	39,0 *1.535*	27,0 *1.063*	34,0 *1.339*	201,8 *7.945*	51,0 *2.008*	61,0 *2.402*	14,0 *0.551*	M12x1	4,5	1	G2.5	3,9 *8.600*
E3416560316160	02753102	BT50 ADB	16,0 *0.630*	160,0 *6.299*	122,0 *4.803*	50,5 *1.988*	39,0 *1.535*	27,0 *1.063*	34,0 *1.339*	261,8 *10.307*	111,0 *4.370*	121,0 *4.764*	14,0 *0.551*	M12x1	4,5	1	G2.5	4,3 *9.480*
E3416560318100	02753103	BT50 ADB	18,0 *0.709*	100,0 *3.937*	62,0 *2.441*	50,5 *1.988*	39,0 *1.535*	33,0 *1.299*	42,0 *1.654*	201,8 *7.945*	51,0 *2.008*	61,0 *2.402*	18,0 *0.709*	M12x1	4,5	1	G2.5	4,0 *8.820*
E3416560320100	02753104	BT50 ADB	20,0 *0.787*	100,0 *3.937*	62,0 *2.441*	52,5 *2.067*	41,0 *1.614*	33,0 *1.299*	42,0 *1.654*	201,8 *7.945*	49,0 *1.929*	59,0 *2.323*	18,0 *0.709*	M16x1	4,5	1	G2.5	3,9 *8.600*
E3416560320160	02753105	BT50 ADB	20,0 *0.787*	160,0 *6.299*	122,0 *4.803*	52,5 *2.067*	41,0 *1.614*	33,0 *1.299*	42,0 *1.654*	261,8 *10.307*	109,0 *4.291*	119,0 *4.685*	18,0 *0.709*	M16x1	4,5	1	G2.5	4,6 *10.140*
E3416560325110	02753106	BT50 ADB	25,0 *0.984*	110,0 *4.331*	72,0 *2.835*	58,5 *2.303*	47,0 *1.850*	44,0 *1.732*	53,0 *2.087*	211,8 *8.339*	53,0 *2.087*	63,0 *2.480*	23,5 *0.925*	M16x1	4,5	1	G2.5	4,4 *9.700*
E3416560325160	02753107	BT50 ADB	25,0 *0.984*	160,0 *6.299*	122,0 *4.803*	58,5 *2.303*	47,0 *1.850*	44,0 *1.732*	53,0 *2.087*	261,8 *10.307*	103,0 *4.055*	113,0 *4.449*	23,5 *0.925*	M16x1	4,5	1	G2.5	5,2 *11.460*
E3416560332110	02753108	BT50 ADB	32,0 *1.260*	110,0 *4.331*	72,0 *2.835*	62,5 *2.461*	51,0 *2.008*	44,0 *1.732*	53,0 *2.087*	211,8 *8.339*	49,0 *1.929*	59,0 *2.323*	23,5 *0.925*	M16x1	4,5	1	G2.5	4,2 *9.260*

Accessories

For	Balancing screws
	
All	90ZQ01

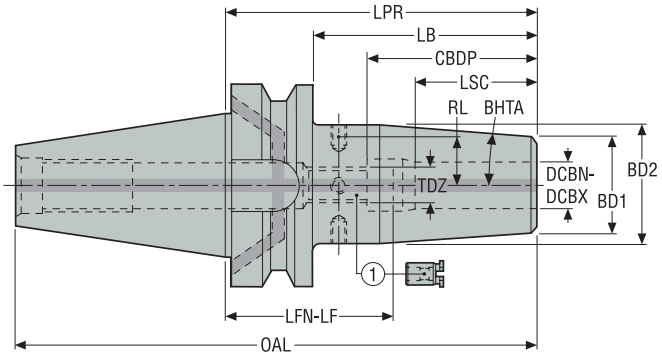
Spare Parts, included in delivery

For Taper/ DCBN-DCBX		Sealing Screws	Stop screw
			
BT40	6/ *0.236*	950A0406	19BDR05165
BT40	8/ *0.315*	950A0406	19BDR06165
BT40	10/ *0.394*	950A0406	19BDR08165
BT40	12/ *0.472*-14/ *0.551*	950A0406	19BDR10165
BT40	16/ *0.630*-18/ *0.709*	950A0406	19BDR12165
BT40	20/ *0.787*-25/ *0.984*	950A0406	19BDR16165
BT50	6/ *0.236*	950A0606	19BDR05165
BT50	8/ *0.315*	950A0606	19BDR06165
BT50	10/ *0.394*	950A0606	19BDR08165
BT50	12/ *0.472*-14/ *0.551*	950A0606	19BDR10165
BT50	16/ *0.630*-18/ *0.709*	950A0606	19BDR12165
BT50	20/ *0.787*-25/ *0.984*	950A0606	19BDR16165
BT40	32/ *1.260*	950A0606	19BDR16165

DIN type – Inch

BT JIS B 6339-ADB





- Run-out ≤3 µm
- Delivered with one stop screw
- For Shrinkfit extensions, see page(s) 373-374
- For ISO attribute explanation, see page 14

Spare parts:
1 = Stop screw

Designation	Item number	CTMS	DCBN-DCBX	LPR	LB	CBDP	LSC	BD1	BD2	OAL	LFN	LF	RL	TDZ	BHTA°	RFID hole	Balancing	Weight
			inch	inch	inch	inch	inch	inch	inch	inch	inch	inch	inch					lbs
E3414560302590	02753317	BT40 ADB	0.250	3.543	2.480	1.476	0.866	0.827	1.063	6.118	2.126	2.520	0.413	M5x0.8	4,5	1	G2.5	2.650
E34145603025120	02753316	BT40 ADB	0.250	4.724	3.661	1.476	0.866	0.827	1.063	7.299	3.307	3.701	0.413	M5x0.8	4,5	1	G2.5	2.870
E3414560303790	02753319	BT40 ADB	0.375	3.543	2.480	1.673	1.220	0.945	1.260	6.118	1.929	2.323	0.512	M8x1	4,5	1	G2.5	2.870
E3414560305090	02753321	BT40 ADB	0.500	3.543	2.480	1.791	1.339	0.945	1.260	6.118	1.811	2.205	0.512	M10x1	4,5	1	G2.5	2.870
E34145603050120	02753320	BT40 ADB	0.500	4.724	3.661	1.791	1.339	0.945	1.260	7.299	2.992	3.386	0.512	M10x1	4,5	1	G2.5	3.090
E3414560306290	02753323	BT40 ADB	0.625	3.543	2.480	1.988	1.535	1.063	1.339	6.118	1.614	2.008	0.551	M12x1	4,5	1	G2.5	2.870
E34145603062120	02753322	BT40 ADB	0.625	4.724	3.661	1.988	1.535	1.063	1.339	7.299	2.795	3.189	0.551	M12x1	4,5	1	G2.5	3.310
E3414560307590	02753325	BT40 ADB	0.750	3.543	2.480	2.067	1.614	1.299	1.654	6.118	1.535	1.929	0.709	M16x1	4,5	1	G2.5	3.090
E34145603100100	02753326	BT40 ADB	1.000	3.937	2.874	2.303	1.850	1.732	2.087	6.512	1.693	2.087	0.925	M16x1	4,5	1	G2.5	3.970

Accessories

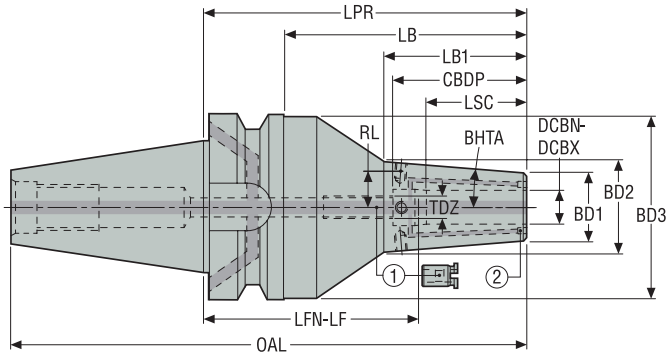
For	Balancing screws
	
All	90ZQ01

Spare Parts, included in delivery

For DCBN-DCBX	Sealing Screws	Stop screw
		
0.250	950A0406	19BDR05165
0.375	950A0406	19BDR06165
0.500	950A0406	19BDR08165
0.625	950A0406	19BDR10165
0.750/1.000	950A0406	19BDR12165

BT JIS B 6339-ADB

Reinforced type
– Metric / *Inch*





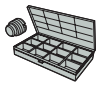
Spare parts:
1 = Stop screw
2 = Sealing plugs

- Run-out ≤3 µm
- With coolant supply channels towards the tool (plugged)
- Delivered with one stop screw
- For ISO attribute explanation, see page 14

Designation	Item number	CTMS	DCBN-DCBX	LPR*	LB	LB1	CBDP	LSC	BD1	BD2	BD3	OAL	LFN	LF	RL	TDZ	BHTA°	RFID hole	Balan-cing	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*					kg *lbs*
E3414560006130	02845565	BT40 ADB	6,0 *0.236*	130,0 *5.118*	103,0 *4.055*	52,0 *2.047*	37,5 *1.476*	22,0 *0.866*	24,0 *0.945*	32,2 *1.267*	61,5 *2.421*	195,4 *7.693*	94,0 *3.701*	104,0 *4.094*	12,0 *0.472*	M5x0.8	4,5	1	G2.5	2,0 *4.410*
E3414560008130	02845566	BT40 ADB	8,0 *0.315*	130,0 *5.118*	103,0 *4.055*	52,0 *2.047*	37,5 *1.476*	26,0 *1.024*	24,0 *0.945*	32,2 *1.267*	61,5 *2.421*	195,4 *7.693*	94,0 *3.701*	104,0 *4.094*	12,0 *0.472*	M6x1	4,5	1	G2.5	2,0 *4.410*
E341456001070	02845559	BT40 ADB	10,0 *0.394*	70,0 *2.756*	43,0 *1.693*	–	42,5 *1.673*	31,0 *1.220*	27,0 *1.063*	35,2 *1.385*	–	135,4 *5.331*	29,0 *1.142*	39,0 *1.535*	13,5 *0.531*	M8x1	4,5	1	G2.5	1,2 *2.650*
E3414560010130	02845567	BT40 ADB	10,0 *0.394*	130,0 *5.118*	103,0 *4.055*	52,0 *2.047*	42,5 *1.673*	31,0 *1.220*	27,0 *1.063*	35,2 *1.385*	61,5 *2.421*	195,4 *7.693*	89,0 *3.504*	99,0 *3.898*	13,5 *0.531*	M8x1	4,5	1	G2.5	2,1 *4.630*
E341456001270	02845560	BT40 ADB	12,0 *0.472*	70,0 *2.756*	43,0 *1.693*	–	47,5 *1.870*	34,0 *1.339*	27,0 *1.063*	35,2 *1.385*	–	135,4 *5.331*	24,0 *0.945*	34,0 *1.339*	13,5 *0.531*	M10x1	4,5	1	G2.5	1,2 *2.650*
E3414560012130	02845568	BT40 ADB	12,0 *0.472*	130,0 *5.118*	103,0 *4.055*	103,0 *4.055*	47,5 *1.870*	34,0 *1.339*	27,0 *1.063*	35,2 *1.385*	61,5 *2.421*	195,4 *7.693*	84,0 *3.307*	94,0 *3.701*	13,5 *0.531*	M10x1	4,5	1	G2.5	2,1 *4.630*
E341456001675	02845561	BT40 ADB	16,0 *0.630*	75,0 *2.953*	48,0 *1.890*	–	50,5 *1.988*	39,0 *1.535*	33,0 *1.299*	42,1 *1.659*	–	140,4 *5.528*	26,0 *1.024*	36,0 *1.417*	17,0 *0.669*	M12x1	4,5	1	G2.5	1,3 *2.870*
E3414560016130	02845569	BT40 ADB	16,0 *0.630*	130,0 *5.118*	103,0 *4.055*	58,0 *2.283*	50,5 *1.988*	39,0 *1.535*	33,0 *1.299*	42,1 *1.659*	61,5 *2.421*	195,4 *7.693*	81,0 *3.189*	91,0 *3.583*	17,0 *0.669*	M12x1	4,5	1	G2.5	2,2 *4.850*
E341456002075	02845562	BT40 ADB	20,0 *0.787*	75,0 *2.953*	48,0 *1.890*	–	52,5 *2.067*	41,0 *1.614*	44,0 *1.732*	53,1 *2.092*	–	140,4 *5.528*	24,0 *0.945*	34,0 *1.339*	21,5 *0.846*	M16x1	4,5	1	G2.5	1,5 *3.310*
E3416560006160	02845588	BT50 ADB	6,0 *0.236*	160,0 *6.299*	122,0 *4.803*	52,0 *2.047*	37,5 *1.476*	22,0 *0.866*	24,0 *0.945*	32,2 *1.267*	97,5 *3.839*	261,8 *10.307*	124,0 *4.882*	134,0 *5.276*	12,0 *0.472*	M5x0.8	4,5	1	G2.5	6,2 *13.670*
E3416560008160	02845589	BT50 ADB	8,0 *0.315*	160,0 *6.299*	122,0 *4.803*	122,0 *4.803*	37,5 *1.476*	26,0 *1.024*	24,0 *0.945*	32,2 *1.267*	97,5 *3.839*	261,8 *10.307*	124,0 *4.882*	134,0 *5.276*	12,0 *0.472*	M6x1	4,5	1	G2.5	6,2 *13.670*
E3416560010100	02845582	BT50 ADB	10,0 *0.394*	100,0 *3.937*	62,0 *2.441*	–	42,5 *1.673*	31,0 *1.220*	27,0 *1.063*	35,2 *1.385*	–	201,8 *7.945*	59,0 *2.323*	69,0 *2.717*	13,5 *0.531*	M8x1	4,5	1	G2.5	4,0 *8.820*
E3416560010160	02845590	BT50 ADB	10,0 *0.394*	160,0 *6.299*	122,0 *4.803*	52,0 *2.047*	42,5 *1.673*	31,0 *1.220*	27,0 *1.063*	35,2 *1.385*	97,5 *3.839*	261,8 *10.307*	119,0 *4.685*	129,0 *5.079*	13,5 *0.531*	M8x1	4,5	1	G2.5	6,2 *13.670*
E3416560012100	02845583	BT50 ADB	12,0 *0.472*	100,0 *3.937*	62,0 *2.441*	–	47,5 *1.870*	34,0 *1.339*	27,0 *1.063*	35,2 *1.385*	–	201,8 *7.945*	54,0 *2.126*	64,0 *2.520*	13,5 *0.531*	M10x1	4,5	1	G2.5	4,0 *8.820*
E3416560012160	02845591	BT50 ADB	12,0 *0.472*	160,0 *6.299*	122,0 *4.803*	52,0 *2.047*	47,5 *1.870*	34,0 *1.339*	27,0 *1.063*	35,2 *1.385*	97,5 *3.839*	261,8 *10.307*	114,0 *4.488*	124,0 *4.882*	13,5 *0.531*	M10x1	4,5	1	G2.5	6,2 *13.670*
E3416560016100	02845584	BT50 ADB	16,0 *0.630*	100,0 *3.937*	62,0 *2.441*	–	50,5 *1.988*	39,0 *1.535*	33,0 *1.299*	42,1 *1.659*	–	201,8 *7.945*	51,0 *2.008*	61,0 *2.402*	17,0 *0.669*	M12x1	4,5	1	G2.5	4,1 *9.040*
E3416560016160	02845592	BT50 ADB	16,0 *0.630*	160,0 *6.299*	122,0 *4.803*	58,0 *2.283*	50,5 *1.988*	39,0 *1.535*	33,0 *1.299*	42,1 *1.659*	97,5 *3.839*	261,8 *10.307*	111,0 *4.370*	121,0 *4.764*	17,0 *0.669*	M12x1	4,5	1	G2.5	6,3 *13.890*
E3416560020100	02845585	BT50 ADB	20,0 *0.787*	100,0 *3.937*	62,0 *2.441*	–	52,5 *2.067*	41,0 *1.614*	44,0 *1.732*	53,1 *2.092*	–	201,8 *7.945*	49,0 *1.929*	59,0 *2.323*	21,5 *0.846*	M16x1	4,5	1	G2.5	4,3 *9.480*
E3416560020160	02845593	BT50 ADB	20,0 *0.787*	160,0 *6.299*	122,0 *4.803*	58,0 *2.283*	52,5 *2.067*	41,0 *1.614*	44,0 *1.732*	53,1 *2.092*	97,5 *3.839*	261,8 *10.307*	109,0 *4.291*	119,0 *4.685*	21,5 *0.846*	M16x1	4,5	1	G2.5	6,8 *14.990*
E3416560025100	02845586	BT50 ADB	25,0 *0.984*	100,0 *3.937*	62,0 *2.441*	–	58,5 *2.303*	47,0 *1.850*	48,0 *1.890*	57,1 *2.249*	–	201,8 *7.945*	43,0 *1.693*	53,0 *2.087*	25,0 *0.984*	M16x1	4,5	1	G2.5	4,46 *9.830*

Designation	Item number	CTMS	DCBN-DCBX	LPR*	LB	LB1	CBDP	LSC	BD1	BD2	BD3	OAL	LFN	LF	RL	TDZ	BHTA°	RFID hole	Balancing	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*					kg *lbs*
E3416560025160	02845594	BT50 ADB	25,0 *0.984*	160,0 *6.299*	122,0 *4.803*	–	58,5 *2.303*	47,0 *1.850*	48,0 *1.890*	57,1 *2.249*	97,5 *3.839*	261,8 *10.307*	103,0 *4.055*	113,0 *4.449*	25,0 *0.984*	M16x1	4,5	1	G2.5	7,0 *15.430*
E3416560032105	02845587	BT50 ADB	32,0 *1.260*	105,0 *4.134*	67,0 *2.638*	–	62,5 *2.461*	51,0 *2.008*	48,0 *1.890*	57,1 *2.249*	–	206,8 *8.142*	44,0 *1.732*	54,0 *2.126*	25,0 *0.984*	M16x1	4,5	1	G2.5	4,4 *9.700*

Accessories

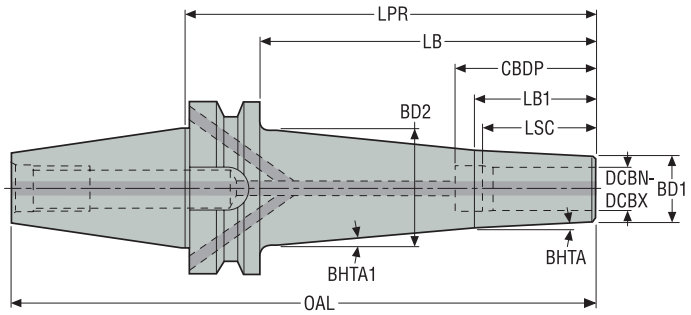
For	Balancing screws
	
All	90ZQ01

Spare Parts, included in delivery

For Taper/ DCBN-DCBX		Sealing plugs	Sealing Screws	Stop screw
				
BT40	6/ *0.236*	90AI03	950A0406	19BDR05165
BT40	8/ *0.315*	90AI03	950A0406	19BDR06165
BT40	10/ *0.394*	90AI03	950A0406	19BDR08165
BT40	12/ *0.472*	90AI03	950A0406	19BDR10165
BT40	16/ *0.630*	90AI03	950A0406	19BDR12165
BT40	20/ *0.787*-25/ *0.984*	90AI04	950A0406	19BDR16165
BT50	6/ *0.236*	90AI03	950A0606	19BDR05165
BT50	8/ *0.315*	90AI03	950A0606	19BDR06165
BT50	10/ *0.394*	90AI03	950A0606	19BDR08165
BT50	12/ *0.472*	90AI03	950A0606	19BDR10165
BT50	16/ *0.630*	90AI03	950A0606	19BDR12165
BT50	20/ *0.787*-32/ *1.260*	90AI04	950A0606	19BDR16165

BT JIS B 6339-ADB

Mold and Die type
– Metric / *Inch*





- Run-out ≤3 µm
- For Shrinkfit extensions, see page(s) 373-374
- For ISO attribute explanation, see page 14

Designation	Item number	CTMS	DCBN-DCBX	LPR	LB	CBDP	LB1	LSC	BD1	BD2	OAL	BHTA°	BHTA1°	RFID hole	Balan-cing	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*					kg *lbs*
E341458010390	00034385	BT40 ADB	3,0 *0.118*	90,0 *3.543*	63,0 *2.480*	–	25,0 *0.984*	13,0 *0.512*	9,0 *0.354*	18,3 *0.719*	155,4 *6.118*	3,0	5,0	1	G2.5	0,99 *2.180*
E3414580103140	00096374	BT40 ADB	3,0 *0.118*	140,0 *5.512*	113,0 *4.449*	–	25,0 *0.984*	13,0 *0.512*	9,0 *0.354*	27,0 *1.064*	205,4 *8.087*	3,0	5,0	1	G2.5	1,2 *2.650*
E341458010490	00034386	BT40 ADB	4,0 *0.157*	90,0 *3.543*	63,0 *2.480*	–	25,0 *0.984*	15,0 *0.591*	10,0 *0.394*	19,3 *0.759*	155,4 *6.118*	3,0	5,0	1	G2.5	1,0 *2.200*
E3414580104140	00096375	BT40 ADB	4,0 *0.157*	140,0 *5.512*	113,0 *4.449*	–	25,0 *0.984*	15,0 *0.591*	10,0 *0.394*	28,0 *1.103*	205,4 *8.087*	3,0	5,0	1	G2.5	1,2 *2.650*
E3414580105140	00096376	BT40 ADB	5,0 *0.197*	140,0 *5.512*	113,0 *4.449*	–	25,0 *0.984*	18,0 *0.709*	11,0 *0.433*	29,0 *1.142*	205,4 *8.087*	3,0	5,0	1	G2.5	1,2 *2.650*
E341458010690	00034388	BT40 ADB	6,0 *0.236*	90,0 *3.543*	63,0 *2.480*	40,0 *1.575*	32,0 *1.260*	26,0 *1.024*	12,0 *0.472*	20,8 *0.818*	155,4 *6.118*	3,0	5,0	1	G2.5	1,01 *2.230*
E3414580106140	00096377	BT40 ADB	6,0 *0.236*	140,0 *5.512*	113,0 *4.449*	40,0 *1.575*	32,0 *1.260*	26,0 *1.024*	12,0 *0.472*	29,5 *1.162*	205,4 *8.087*	3,0	5,0	1	G2.5	1,2 *2.650*
E341458010890	00034389	BT40 ADB	8,0 *0.315*	90,0 *3.543*	63,0 *2.480*	44,0 *1.732*	36,0 *1.417*	30,0 *1.181*	16,0 *0.630*	24,5 *0.964*	155,4 *6.118*	3,0	5,0	1	G2.5	1,05 *2.310*
E3414580108140	00096378	BT40 ADB	8,0 *0.315*	140,0 *5.512*	113,0 *4.449*	44,0 *1.732*	36,0 *1.417*	30,0 *1.181*	16,0 *0.630*	33,2 *1.309*	205,4 *8.087*	3,0	5,0	1	G2.5	1,3 *2.870*
E341458011090	00034390	BT40 ADB	10,0 *0.394*	90,0 *3.543*	63,0 *2.480*	45,0 *1.772*	38,0 *1.496*	32,0 *1.260*	18,0 *0.709*	26,4 *1.038*	155,4 *6.118*	3,0	5,0	1	G2.5	1,1 *2.430*
E3414580110160	00096379	BT40 ADB	10,0 *0.394*	160,0 *6.299*	133,0 *5.236*	45,0 *1.772*	38,0 *1.496*	32,0 *1.260*	18,0 *0.709*	38,6 *1.520*	225,4 *8.874*	3,0	5,0	1	G2.5	1,5 *3.310*
E341458011290	00034391	BT40 ADB	12,0 *0.472*	90,0 *3.543*	63,0 *2.480*	46,0 *1.811*	40,0 *1.575*	34,0 *1.339*	20,0 *0.787*	28,2 *1.111*	155,4 *6.118*	3,0	5,0	1	G2.5	1,1 *2.430*

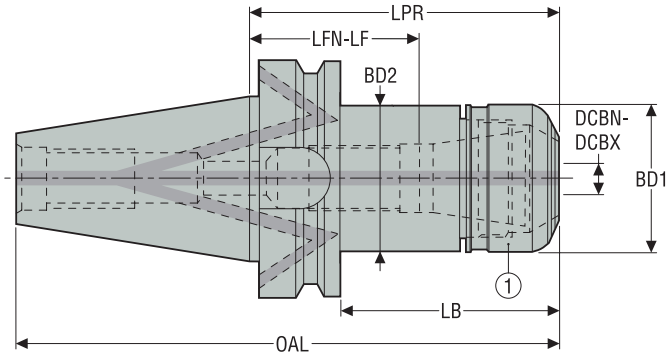
Spare Parts, included in delivery

For	Sealing Screws
	
All	950A0406

BT JIS B 6339-AD/ADB

– **Metric** / *Inch*



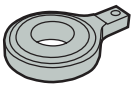
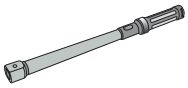


- Run-out 3 µm maximum at 3 x ∅DCBN-DCBX
- For ER HP collets type 5672, see page(s) 402, 403, 404-410
- For ISO attribute explanation, see page 14

Spare parts:
1 = Nut

Designation	Item number	CTMS	DCBN	DCBX	CTWS	LPR	BD2	BD1	OAL	LB	LFN*	LF*	RFID hole	Balancing	Weight
			mm *inch*	mm *inch*		mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*			kg *lbs*
E404056721150	02882776	BT30 AD	0,5 *0.020*	7,0 *0.276*	HP 11	50,0 *1.969*	16,0 *0.630*	16,0 *0.630*	98,4 *3.874*	28,0 *1.102*	14,0 *0.551*	32,0 *1.260*	0	G2.5	0,5 *1.100*
E341456721670	02827243	BT40 ADB	0,5 *0.020*	10,0 *0.394*	HP 16	70,0 *2.756*	30,0 *1.181*	30,0 *1.181*	135,4 *5.331*	43,0 *1.693*	39,0 *1.535*	40,0 *1.575*	1	G2.5	1,2 *2.650*
E3414567216160	02827245	BT40 ADB	0,5 *0.020*	10,0 *0.394*	HP 16	160,0 *6.299*	30,0 *1.181*	30,0 *1.181*	225,4 *8.874*	133,0 *5.236*	129,0 *5.079*	130,0 *5.118*	1	G2.5	1,6 *3.530*
E341456722570	02827247	BT40 ADB	1,0 *0.039*	16,0 *0.630*	HP 25	70,0 *2.756*	40,0 *1.575*	40,0 *1.575*	135,4 *5.331*	43,0 *1.693*	14,0 *0.551*	32,0 *1.260*	1	G2.5	1,2 *2.650*
E3414567225160	02827249	BT40 ADB	1,0 *0.039*	16,0 *0.630*	HP 25	160,0 *6.299*	40,0 *1.575*	40,0 *1.575*	225,4 *8.874*	133,0 *5.236*	104,0 *4.094*	122,0 *4.803*	1	G2.5	1,96 *4.320*
E341456723270	02827253	BT40 ADB	2,0 *0.079*	20,0 *0.787*	HP 32	70,0 *2.756*	50,0 *1.969*	50,0 *1.969*	135,4 *5.331*	43,0 *1.693*	14,0 *0.551*	18,0 *0.709*	1	G2.5	1,3 *2.870*
E3416567225100	02827254	BT50 ADB	1,0 *0.039*	16,0 *0.630*	HP 25	100,0 *3.937*	40,0 *1.575*	40,0 *1.575*	201,8 *7.945*	62,0 *2.441*	44,0 *1.732*	62,0 *2.441*	1	G2.5	4,0 *8.820*
E3416567232100	02827255	BT50 ADB	2,0 *0.079*	20,0 *0.787*	HP 32	100,0 *3.937*	50,0 *1.969*	50,0 *1.969*	201,8 *7.945*	62,0 *2.441*	44,0 *1.732*	48,0 *1.890*	1	G2.5	4,1 *9.040*

Accessories

For Taper/ size	Socket	Spanner	Stop screw	Torque key
				
BT30/ HP 11	03ER016	03BR016	19B5870812P1	03DYD010100
BT40/ HP 16	03ER030B	03BR030	19B58711	03DYD010100B
BT40/ HP 25	03ER040	03BR040	19B58718	03DYD020200
BT40/ HP 32	03ER050	03BR050	19B58722	03DYD020200
BT50/ HP 25	03ER040	03BR040	19B58718	03DYD020200
BT50/ HP 32	03ER050	03BR050	19B58722	03DYD020200

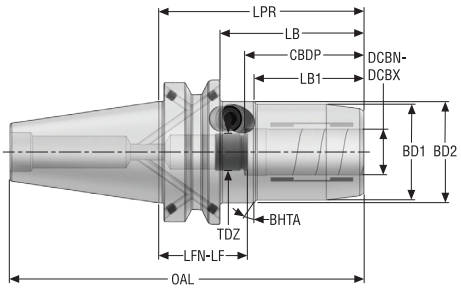
Spare Parts, included in delivery

For Taper/ size	Nut	Sealing Screws
		
BT30/ HP 11	08B567211	–
BT40/ HP 16	08B567216	950A0406
BT40/ HP 25	08B567225	950A0406
BT40/ HP 32	08B567232	950A0406
BT50/ HP 25	08B567225	950A0606
BT50/ HP 32	08B567232	950A0606

Conventional type
– Metric / *Inch*

BT JIS B 6339-ADB

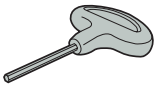




- Run-out ≤3 µm
- For reduction sleeves, see page(s) 394, 395
- For ISO attribute explanation, see page 14

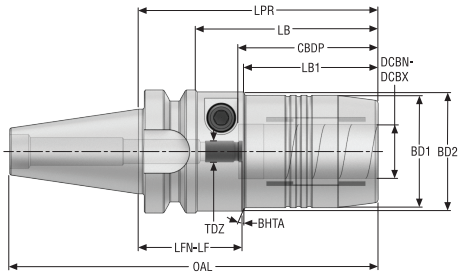
Designation	Item number	CTMS	DCBN-DCBX	LPR	LB	LB1	CBDP	BD2	BD1	OAL	LFN	LF	TDZ	BHTA°	RFID hole	Balan-cing	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*					kg *lbs*
BT40ADB-HC06-090	10137297	BT40 ADB	6,0 *0.236*	90,0 *3.543*	63,0 *2.480*	43,0 *1.693*	38,5 *1.516*	44,5 *1.752*	26,05 *1.026*	155,4 *6.118*	53,0 *2.087*	63,0 *2.480*	M5	20,0	1	G2.5	1,3 *2.870*
BT40ADB-HC08-090	10137298	BT40 ADB	8,0 *0.315*	90,0 *3.543*	63,0 *2.480*	44,5 *1.752*	38,5 *1.516*	44,5 *1.752*	28,0 *1.102*	155,4 *6.118*	53,0 *2.087*	63,0 *2.480*	M6x1	20,0	1	G2.5	1,4 *3.090*
BT40ADB-HC10-090	10137299	BT40 ADB	10,0 *0.394*	90,0 *3.543*	63,0 *2.480*	44,5 *1.752*	42,5 *1.673*	44,5 *1.752*	30,0 *1.181*	155,4 *6.118*	49,0 *1.929*	59,0 *2.323*	M8x1	20,0	1	G2.5	1,4 *3.090*
BT40ADB-HC12-090	10137300	BT40 ADB	12,0 *0.472*	90,0 *3.543*	63,0 *2.480*	44,5 *1.752*	47,5 *1.870*	44,5 *1.752*	32,0 *1.260*	155,4 *6.118*	44,0 *1.732*	54,0 *2.126*	M10x1	20,0	1	G2.5	1,4 *3.090*
BT40ADB-HC16-090	10137301	BT40 ADB	16,0 *0.630*	90,0 *3.543*	63,0 *2.480*	47,5 *1.870*	50,5 *1.988*	44,5 *1.752*	38,0 *1.496*	155,4 *6.118*	41,0 *1.614*	51,0 *2.008*	M12x1	20,0	1	G2.5	1,5 *3.310*
BT40ADB-HC20-090	10137302	BT40 ADB	20,0 *0.787*	90,0 *3.543*	63,0 *2.480*	47,5 *1.870*	52,5 *2.067*	44,5 *1.752*	42,0 *1.654*	155,4 *6.118*	39,0 *1.535*	49,0 *1.929*	M16x1	20,0	1	G2.5	1,5 *3.310*
BT50ADB-HC20-090	10137303	BT50 ADB	20,0 *0.787*	90,0 *3.543*	52,0 *2.047*	34,0 *1.339*	52,5 *2.067*	49,3 *1.939*	42,0 *1.654*	191,8 *7.551*	39,0 *1.535*	49,0 *1.929*	M16x1	20,0	1	G2.5	3,9 *8.600*
BT50ADB-HC32-120	10137304	BT50 ADB	32,0 *1.260*	120,0 *4.724*	82,0 *3.228*	62,5 *2.461*	62,5 *2.461*	70,3 *2.766*	64,0 *2.520*	221,8 *8.732*	59,0 *2.323*	69,0 *2.717*	M16x1	20,0	1	G2.5	5,2 *11.460*

Accessories

For size	Key
	
BT40	H05-4
BT50, DCBN = 20	H05-4
BT50, DCBN = 32	03MS06L

BT JIS B 6339-AD/ADB

Reinforced type
– Metric / *Inch*

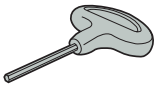




- Run-out ≤3 µm
- For reduction sleeves, see page(s) 394, 395
- For ISO attribute explanation, see page 14

Designation	Item number	CTMS	DCBN-DCBX	LPR	LB	LB1	CBDP	BD2	BD1	OAL	LFN	LF	TDZ	BHTA°	RFID hole	Balan-cing	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*					kg *lbs*
BT30AD-HCR12-069	10137136	BT30 AD	12,0 *0.472*	69,0 *2.717*	47,0 *1.850*	32,0 *1.260*	47,5 *1.870*	44,5 *1.752*	42,0 *1.654*	117,4 *4.622*	23,0 *0.906*	33,0 *1.299*	M8x1	20,0	0	G2.5	0,9 *1.980*
BT30AD-HCR20-090	10137137	BT30 AD	20,0 *0.787*	90,0 *3.543*	68,0 *2.677*	50,0 *1.969*	52,5 *2.067*	44,5 *1.752*	42,0 *1.654*	138,4 *5.449*	39,0 *1.535*	49,0 *1.929*	M8x1	20,0	0	G2.5	1,0 *2.200*
BT40ADB-HCR12-058	10137140	BT40 ADB	12,0 *0.472*	58,0 *2.283*	31,0 *1.220*	–	47,5 *1.870*	–	42,0 *1.654*	123,4 *4.858*	12,0 *0.472*	22,0 *0.866*	M8x1	–	0	G2.5	1,2 *2.650*
BT40ADB-HCR20-072	10137141	BT40 ADB	20,0 *0.787*	72,5 *2.854*	45,5 *1.791*	–	52,5 *2.067*	–	49,25 *1.939*	137,9 *5.429*	21,5 *0.846*	31,5 *1.240*	M8x1	–	0	G2.5	1,4 *3.090*
BT50ADB-HCR20-083	10137144	BT50 ADB	20,0 *0.787*	83,5 *3.287*	45,5 *1.791*	–	52,5 *2.067*	–	49,25 *1.939*	185,3 *7.295*	32,5 *1.280*	42,5 *1.673*	M8x1	–	0	G2.5	4,1 *9.040*
BT50ADB-HCR32-090	10137145	BT50 ADB	32,0 *1.260*	90,0 *3.543*	52,0 *2.047*	–	62,5 *2.461*	–	72,0 *2.835*	191,8 *7.551*	29,0 *1.142*	39,0 *1.535*	M8x1	–	0	G2.5	4,7 *10.360*

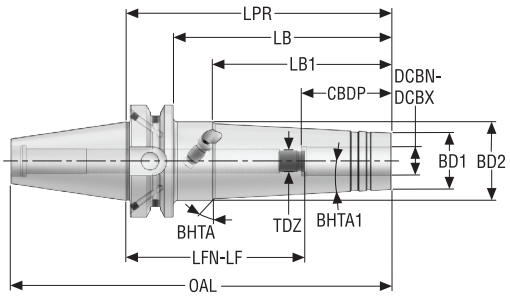
Accessories

For size	Key
	
BT30	H05-4
BT40	H05-4
BT50, DCBN = 20	H05-4
BT50, DCBN = 32	03MS06L

Slim type
– Metric / *Inch*

BT JIS B 6339-ADB





- Run-out ≤3 µm
- For reduction sleeves, see page(s) 394, 395
- For ISO attribute explanation, see page 14

Designation	Item number	CTMS	DCBN-DCBX	LPR	LB	LB1	CBDP	BD2	BD1	OAL	LFN	LF	TDZ	BHTA°	BHTA1°	RFID hole	Balancing	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*						kg *lbs*
BT40ADB-HCS06-150	10137340	BT40 ADB	6,0 *0.236*	150,0 *5.906*	123,0 *4.843*	100,0 *3.937*	37,0 *1.457*	44,5 *1.752*	20,0 *0.787*	215,4 *8.480*	113,0 *4.449*	123,0 *4.843*	M5x0.8	30,0	3,0	1	G2.5	1,6 *3.530*
BT40ADB-HCS08-150	10137341	BT40 ADB	8,0 *0.315*	150,0 *5.906*	123,0 *4.843*	100,0 *3.937*	37,0 *1.457*	44,5 *1.752*	22,0 *0.866*	215,4 *8.480*	113,0 *4.449*	123,0 *4.843*	M6x1	30,0	3,0	1	G2.5	1,7 *3.750*
BT40ADB-HCS10-150	10137342	BT40 ADB	10,0 *0.394*	150,0 *5.906*	123,0 *4.843*	100,0 *3.937*	42,0 *1.654*	44,5 *1.752*	24,0 *0.945*	215,4 *8.480*	110,0 *4.331*	120,0 *4.724*	M8x1	30,0	3,0	1	G2.5	1,7 *3.750*
BT40ADB-HCS12-150	10137343	BT40 ADB	12,0 *0.472*	150,0 *5.906*	123,0 *4.843*	100,0 *3.937*	47,0 *1.850*	44,5 *1.752*	25,0 *0.984*	215,4 *8.480*	105,0 *4.134*	115,0 *4.528*	M10x1	30,0	3,0	1	G2.5	1,8 *3.970*
BT40ADB-HCS16-150	10137344	BT40 ADB	16,0 *0.630*	150,0 *5.906*	123,0 *4.843*	100,0 *3.937*	52,0 *2.047*	44,5 *1.752*	32,0 *1.260*	215,4 *8.480*	100,0 *3.937*	110,0 *4.331*	M12x1	30,0	3,0	1	G2.5	2,0 *4.410*
BT40ADB-HCS20-150	10137345	BT40 ADB	20,0 *0.787*	150,0 *5.906*	123,0 *4.843*	–	52,0 *2.047*	46,9 *1.846*	34,0 *1.339*	215,4 *8.480*	100,0 *3.937*	110,0 *4.331*	M16x1	–	3,0	1	G2.5	2,0 *4.410*

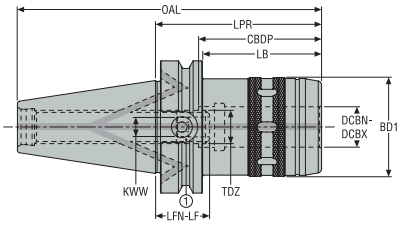
Accessories

For	Key
	
All	03MS04C

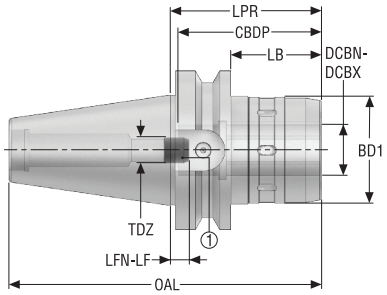
BT JIS B 6339-AD/ADB

– Metric / *Inch*

Design 1



Design 2



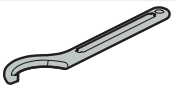


Spare parts:
1 = Stop screw

- For reduction sleeves, see page(s) 398-399
- For 'Stop screws for through coolant', see page(s) 400-401
- For ISO attribute explanation, see page 14

Designation	Item number	CTMS	DCBN-DCBX	OAL	LPR	LB	CBDP	BD1	LFN	LF	KWW	TDZ	Design	RFID hole	Balancing	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*						kg *lbs*
BT40ADB-PMC20-065	03242412	BT40 ADB	20,0 *0.787*	128,4 *5.055*	65,0 *2.559*	38,5 *1.516*	63,0 *2.480*	49,0 *1.929*	0,0 *0*	5,0 *0.197*	8,0	M16	1	1	PB	1,3 *2.870*
BT40AD-PMC32-090	10185651	BT40 AD	32,0 *1.260*	155,4 *6.118*	90,0 *3.543*	75,9 *2.988*	80,0 *3.150*	67,0 *2.638*	10,0 *0.394*	15,0 *0.591*	8,0	M16	2	1	PB	2,1 *4.630*
BT50AD-PMC20-085	10185659	BT50 AD	20,0 *0.787*	186,8 *7.354*	85,0 *3.346*	47,0 *1.850*	63,0 *2.480*	49,0 *1.929*	22,0 *0.866*	27,0 *1.063*	8,0	M16	2	1	PB	4,0 *8.820*
BT50AD-PMC32-095	10185652	BT50 AD	32,0 *1.260*	196,8 *7.748*	95,0 *3.740*	57,0 *2.244*	90,0 *3.543*	67,0 *2.638*	5,0 *0.197*	10,0 *0.394*	8,0	M16	2	1	PB	4,5 *9.920*

Accessories

For	Spanner
	
BT40ADB-PMC20-065	03BPMC20
BT40AD-PMC32-090	03BPMC32
BT50AD-PMC20-085	03BPMC20
BT50AD-PMC32-095	03BPMC32

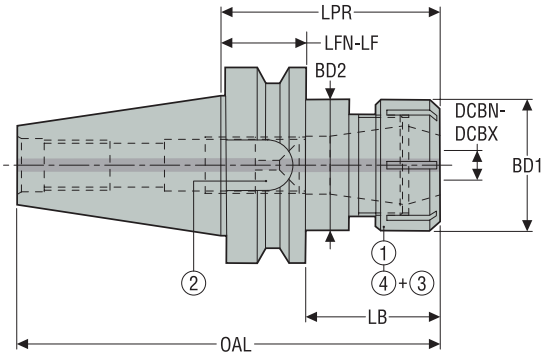
Spare Parts, included in delivery

For	Extractor for reduction sleeves	Sealing Screws	Stop screw
			
BT40ADB-PMC20-065	03EXTPMC	950A0406	19BEPMC01
BT40AD-PMC32-090	03EXTPMC	–	19BEPMC01
BT50AD-PMC20-085	03EXTPMC	–	19BEPMC01
BT50AD-PMC32-095	03EXTPMC	–	19BEPMC01

ISO 15488
– Metric / *Inch*

BT JIS B 6339-AD





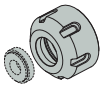
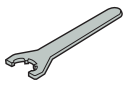
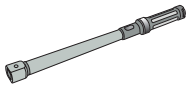
- Run-out 10 µm maximum at 3 x ∅DCBN-DCBX
- For ER extensions and ER collets, see page(s) 375, 411, 412, 413, 414
- For ER sealing rings, see page(s) 418, 419
- For ISO attribute explanation, see page 14

Accessories:
3 = Sealing ring
4 = Sealing nut

Spare parts:
1 = Nut
2 = Stop screw

Designation	Item number	CTMS	DCBN	DCBX	CTWS	LPR	BD2	BD1	OAL	LB	LFN	LF	RFID hole	Balancing	Weight
			mm *inch*	mm *inch*		mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*			kg *lbs*
E404056751660	02750132	BT30 AD	0,5 *0.020*	10,0 *0.394*	ER 16	60,0 *2.362*	32,0 *1.260*	32,0 *1.260*	108,4 *4.268*	40,0 *1.575*	15,0.0 *0.0.591*	30,0 *1.181*	0	G2.5	0,6 *1.320*
E404056752565	02750133	BT30 AD	1,0 *0.039*	16,0 *0.630*	ER 25	65,0 *2.559*	42,0 *1.654*	42,0 *1.654*	113,4 *4.465*	45,0 *1.772*	0,0 *0.0*	27,0 *1.063*	0	G2.5	0,6 *1.320*
E404156754075	02750134	BT40 AD	3,0 *0.118*	26,0 *1.024*	ER 40	75,0 *2.953*	63,0 *2.480*	63,0 *2.480*	140,4 *5.528*	48,0 *1.890*	3,0.0 *0.0.118*	25,0 *0.984*	1	G2.5	1,42 *3.130*

Accessories

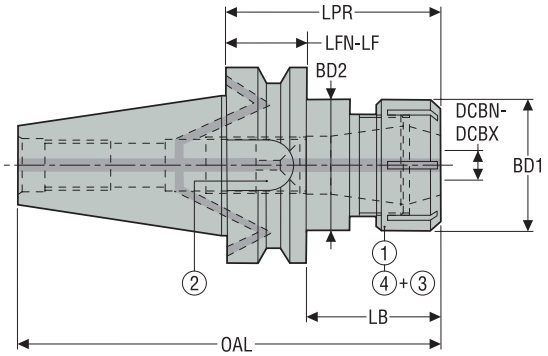
For	Seal nut	Socket	Spanner	Spanner 1	Torque key
					
E404056751660	08B587516IC	03ER032B	03B587516	03BR032	03DYD010100B
E404056752565	08B587525IC	–	03B587525	–	03DYD020200
E404156754075	08B587540IC	03ER063	03B587540	03BR063	03DYD020200

Spare Parts, included in delivery

For	Nut	Stop screw
		
E404056751660	08B587516X	19B58711
E404056752565	08B587525X	19B58718
E404156754075	08B587540X	19B58730

BT JIS B 6339-ADB

ISO 15488
– Metric / *Inch*





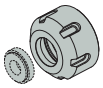
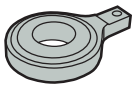
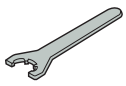
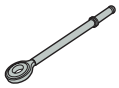
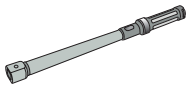
Accessories:
3 = Sealing ring
4 = Sealing nut

Spare parts:
1 = Nut
2 = Stop screw

- Run-out 10 µm maximum at 3 x ∅DCBN-DCBX
- For ER extensions and ER collets, see page(s) 375, 411, 412, 413, 414
- For ER sealing rings, see page(s) 418, 419
- For ISO attribute explanation, see page 14

Designation	Item number	CTMS	DCBN	DCBX	CTWS	LPR	BD2	BD1	OAL	LB	LFN	LF	RFID hole	Balan-cing	Weight
			mm *inch*	mm *inch*		mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*			kg *lbs*
E341456751670	02750136	BT40 ADB	0,5 *0.020*	10,0 *0.394*	ER 16	70,0 *2.756*	32,0 *1.260*	32,0 *1.260*	135,4 *5.331*	43,0 *1.693*	25,0 *0.984*	40,0 *1.575*	1	G2.5	1,2 *2.650*
E3414567516120	02750135	BT40 ADB	0,5 *0.020*	10,0 *0.394*	ER 16	120,0 *4.724*	32,0 *1.260*	32,0 *1.260*	185,4 *7.299*	93,0 *3.661*	75,0 *2.953*	90,0 *3.543*	1	G2.5	1,4 *3.090*
E341456752570	02750138	BT40 ADB	1,0 *0.039*	16,0 *0.630*	ER 25	70,0 *2.756*	42,0 *1.654*	42,0 *1.654*	135,4 *5.331*	43,0 *1.693*	2,0 *0.079*	32,0 *1.260*	1	G2.5	1,18 *2.600*
E3414567525120	02750137	BT40 ADB	1,0 *0.039*	16,0 *0.630*	ER 25	120,0 *4.724*	42,0 *1.654*	42,0 *1.654*	185,4 *7.299*	93,0 *3.661*	52,0 *2.047*	82,0 *3.228*	1	G2.5	1,67 *3.680*
E341456753270	02750140	BT40 ADB	2,0 *0.079*	20,0 *0.787*	ER 32	70,0 *2.756*	50,0 *1.969*	50,0 *1.969*	135,4 *5.331*	43,0 *1.693*	0,0 *0*	27,0 *1.063*	1	G2.5	1,3 *2.870*
E3414567532120	02750139	BT40 ADB	2,0 *0.079*	20,0 *0.787*	ER 32	120,0 *4.724*	50,0 *1.969*	50,0 *1.969*	185,4 *7.299*	93,0 *3.661*	33,0 *1.299*	77,0 *3.031*	1	G2.5	2,0 *4.410*
E3414567540100	02750143	BT40 ADB	3,0 *0.118*	26,0 *1.024*	ER 40	100,0 *3.937*	63,0 *2.480*	63,0 *2.480*	165,4 *6.512*	73,0 *2.874*	27,0 *1.063*	50,0 *1.969*	1	G2.5	2,0 *4.410*
E3416567516120	02750145	BT50 ADB	0,5 *0.020*	10,0 *0.394*	ER 16	120,0 *4.724*	32,0 *1.260*	32,0 *1.260*	221,8 *8.732*	82,0 *3.228*	76,0 *2.992*	90,0 *3.543*	1	G2.5	3,9 *8.600*
E341656752590	02750148	BT50 ADB	1,0 *0.039*	16,0 *0.630*	ER 25	90,0 *3.543*	42,0 *1.654*	42,0 *1.654*	191,8 *7.551*	52,0 *2.047*	22,0 *0.866*	52,0 *2.047*	1	G2.5	3,9 *8.600*
E341656753290	02750152	BT50 ADB	2,0 *0.079*	20,0 *0.787*	ER 32	90,0 *3.543*	50,0 *1.969*	50,0 *1.969*	191,8 *7.551*	52,0 *2.047*	0,0 *0*	47,0 *1.850*	1	G2.5	4,0 *8.820*
E3416567532150	02750151	BT50 ADB	2,0 *0.079*	20,0 *0.787*	ER 32	150,0 *5.906*	50,0 *1.969*	50,0 *1.969*	251,8 *9.913*	112,0 *4.409*	29,0 *1.142*	107,0 *4.213*	1	G2.5	4,8 *10.580*
E3416567540100	02750153	BT50 ADB	3,0 *0.118*	26,0 *1.024*	ER 40	100,0 *3.937*	63,0 *2.480*	63,0 *2.480*	201,8 *7.945*	62,0 *2.441*	16,0 *0.630*	50,0 *1.969*	1	G2.5	4,3 *9.480*

Accessories

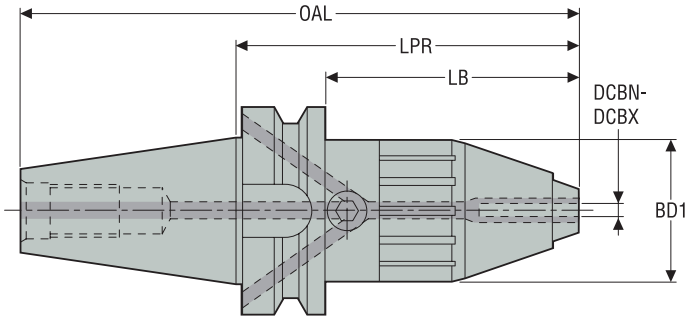
For Taper/ size	Seal nut	Socket	Spanner	Spanner 1	Torque key
					
BT40/ ER 16	08B587516IC	03ER032B	03B587516	03BR032	03DYD010100B
BT40/ ER 25	08B587525IC	–	03B587525	–	03DYD020200
BT40/ ER 32	08B587532IC	03ER050	03B587532	03BR050	03DYD020200
BT40/ ER 40	08B587540IC	03ER063	03B587540	03BR063	03DYD020200
BT50/ ER 16	08B587516IC	03ER032B	03B587516	03BR032	03DYD010100B
BT50/ ER 25	08B587525IC	–	03B587525	–	03DYD020200
BT50/ ER 32	08B587532IC	03ER050	03B587532	03BR050	03DYD020200
BT50/ ER 40	08B587540IC	03ER063	03B587540	03BR063	03DYD020200

Spare Parts, included in delivery

For Taper/ size	Nut	Sealing Screws	Stop screw
			
BT40/ ER 16	08B587516X	950A0406	19B58711
BT40/ ER 25	08B587525X	950A0406	19B58718
BT40/ ER 32	08B587532X	950A0406	19B58722
BT40/ ER 40	08B587540X	950A0406	19B58730
BT50/ ER 16	08B587516X	950A0606	19B58711
BT50/ ER 25	08B587525X	950A0606	19B58718
BT50/ ER 32	08B587532X	950A0606	19B58722
BT50/ ER 40	08B587540X	950A0606	19B58730

BT JIS B 6339-ADB

– **Metric** / *Inch*





- Run-out 40 µm maximum at 2,5 x ∅DCBN-DCBX
- For ISO attribute explanation, see page 14

Designation	Item number	CTMS	DCBN	DCBX	OAL	LPR	LB	BD1	RFID hole	Balan-cing	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*			kg *lbs*
E3414508513	00048215	BT40 ADB	1,0 *0.039*	13,0 *0.512*	169,4 *6.669*	104,0 *4.094*	77,0 *3.031*	43,0 *1.693*	1	PB	1,4 *3.090*
E3416508516	00048218	BT50 ADB	2,5 *0.098*	16,0 *0.630*	232,8 *9.165*	131,0 *5.157*	93,0 *3.661*	56,0 *2.205*	1	PB	4,66 *10.270*

Spare Parts, included in delivery

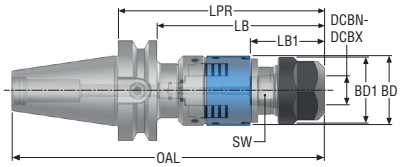
For	Sealing Screws
	
E3414508513	950A0406
E3416508516	950A0606

For synchronized tapping, with micro-compensation – **Metric** / *Inch*

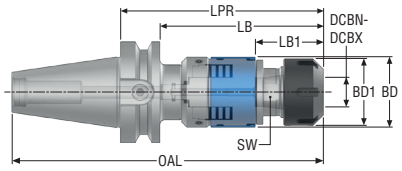
BT JIS B 6339-AD



Design 1



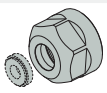
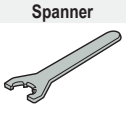
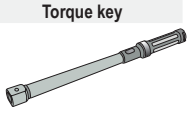
Design 2



- Maximum coolant pressure 80 bar/ *1160 psi*
- For ER tapping collets with square drive, see page(s) 415, 416-417
- For TCER 5867 sealing rings, see page(s) 418, 419
- For ISO attribute explanation, see page 14

Designation	Item number	CTMS	CTWS	DCBN	DCBX	LPR	LB	LB1	BD	BD1	OAL	SW	Design	RFID hole	Balancing	Weight
						mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*				kg *lbs*
E404058671182	02926971	BT30 AD	ER 11	M2	M5	82,0 *3.228*	60,0 *2.362*	24,1 *0.949*	23,5 *0.925*	18,7 *0.736*	130,4 *5.134*	12.7 *0.500*	1	0	–	0,6 *1.320*
E4040586720105	02926972	BT30 AD	ER 20	M4	M12	100,2 *3.945*	78,2 *3.079*	35,3 *1.390*	35,0 *1.378*	33,7 *1.327*	148,6 *5.850*	22 *0.866*	1	0	–	0,9 *1.980*
E4040586725125	02926973	BT30 AD	ER 25	M8	M20	119,6 *4.709*	97,6 *3.843*	37,1 *1.461*	44,0 *1.732*	42,0 *1.654*	168,0 *6.614*	28 *1.102*	2	0	–	1,2 *2.650*
E4041586720110	02926974	BT40 AD	ER 20	M4	M12	105,2 *4.142*	78,2 *3.079*	35,3 *1.390*	35,0 *1.378*	33,7 *1.327*	170,6 *6.717*	22 *0.866*	1	0	–	1,4 *3.090*
E4041586725130	02926975	BT40 AD	ER 25	M8	M20	124,6 *4.906*	97,6 *3.843*	37,1 *1.461*	44,0 *1.732*	42,0 *1.654*	190,0 *7.480*	28 *1.102*	2	0	–	1,8 *3.970*
E5766586720125	02926976	BT50 AD	ER 20	M4	M12	120,2 *4.732*	82,2 *3.236*	35,3 *1.390*	35,0 *1.378*	33,7 *1.327*	222,0 *8.740*	22 *0.866*	1	0	–	3,9 *8.600*
E5766586725145	02926977	BT50 AD	ER 25	M8	M20	139,6 *5.496*	101,6 *4.000*	37,1 *1.461*	44,0 *1.732*	42,0 *1.654*	241,4 *9.504*	28 *1.102*	2	0	–	4,3 *9.480*
E5766586740174	02926978	BT50 AD	ER 40	M16	M33	168,6 *6.638*	130,6 *5.142*	46,6 *1.835*	62,0 *2.441*	62,7 *2.469*	270,4 *10.646*	39.6 *1.559*	2	0	–	5,8 *12.790*

Accessories

For	Locking key	Seal nut	Socket	Spanner	Spanner 1	Torque key
						
ER 11	5680092-03	–	–	03B587511UM	–	–
ER 20	5680092-04	5533051-02	–	03B587520UM	–	–
ER 25	5680092-05	5533051-03	–	03B587525	–	03DYD020200
ER 40	5680092-06	5533051-05	03ER063	03B587540	03BR063	03DYD020200

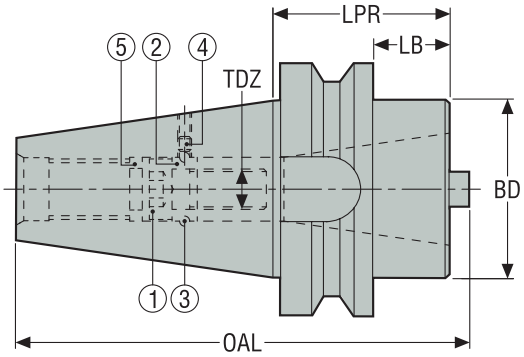
Spare Parts, included in delivery

For	Nut
	
ER 11	5533050-07
ER 20	5533050-08
ER 25	5533050-02
ER 40	5533050-04

SA – DIN 69871-BT
– Metric / *Inch*

BT JIS B 6339-A



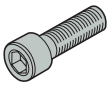


- Direct run-out 5 µm maximum
- For ISO attribute explanation, see page 14

Spare parts:
1 = Plug
2 = Ring
3 = Balls
4 = Screw
5 = Washer

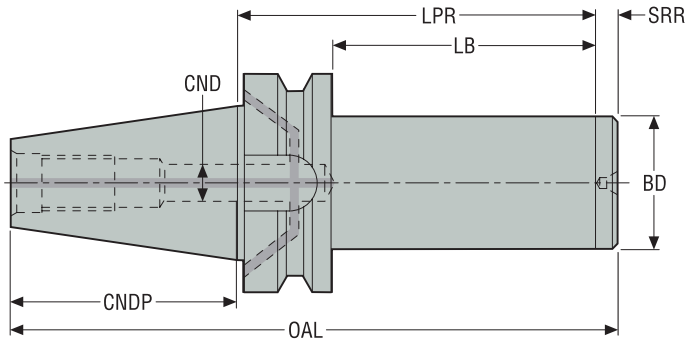
Designation	Item number	CTMS	CTWS	LPR	LB	BD	OAL	TDZ	RFID hole	Balancing	Weight
				mm *inch*	mm *inch*	mm *inch*	mm *inch*				kg *lbs*
E57665434070T	00041981	BT50 A	DIN40 *BT40*	70,0 *2.756*	32,0 *1.260*	70,0 *2.756*	179,8 *2.756*	M16	1	PB	4,1 *9.040*

Spare Parts, included in delivery

For	Plug	Ring	Screw	Washer
				
E57665434070T	950A0505	02B54240	950E1670	15B54240

BT JIS B 6339-ADB

– Metric / *Inch*





- The cylindrical front part is hardened to 120-130 daN/mm^2, allowing machining
- For ISO attribute explanation, see page 14

Designation	Item number	CTMS	LPR	LB	SRR	BD	CND	OAL	CNDP	RFID hole	Balan-cing	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*			kg *lbs*
E3414502363250	02503289	BT40 ADB	250,0 *9.843*	215,0 *8.465*	8,0 *0.315*	63,0 *2.480*	13,5 *0.531*	323,4 *12.732*	85,0 *3.346*	1	PB	6,58 *14.510*
E3416502363315	02503290	BT50 ADB	315,0 *12.402*	277,0 *10.906*	8,0 *0.315*	63,0 *2.480*	20,5 *0.807*	424,8 *16.724*	130,0 *5.118*	1	PB	10,42 *22.970*
E3416502395315	02503291	BT50 ADB	315,0 *12.402*	277,0 *10.906*	8,0 *0.315*	95,0 *3.740*	20,5 *0.807*	424,8 *16.724*	130,0 *5.118*	1	PB	20,0 *44.090*

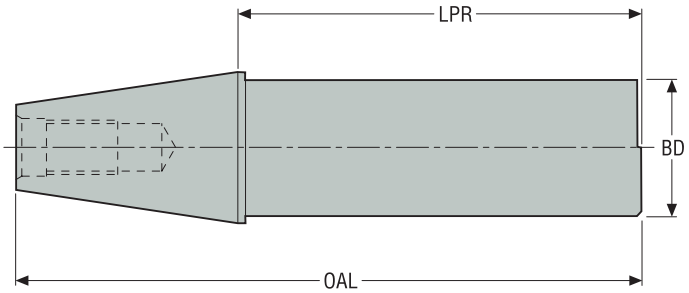
Spare Parts, included in delivery

For Taper	Sealing Screws
	
BT40	950A0406
BT50	950A0606

BT JIS B 6339-A

– **Metric** / *Inch*





- Diameter, length values and measurement positions are laser engraved on each test bar
- With protective case and measurement report
- **Note:** For BT50, use suitable DIN50 Control bars (E447158650330)
- For ISO attribute explanation, see page 14

Designation	Item number	CTMS	LPR	BD	OAL	RFID hole	Balancing	Weight
			mm *inch*	mm *inch*	mm *inch*			kg *lbs*
E404158640330	75041810	BT40 A	330,0 *12.992*	40,0 *1.575*	395,4 *15.567*	1	-	3,64 *8.020*

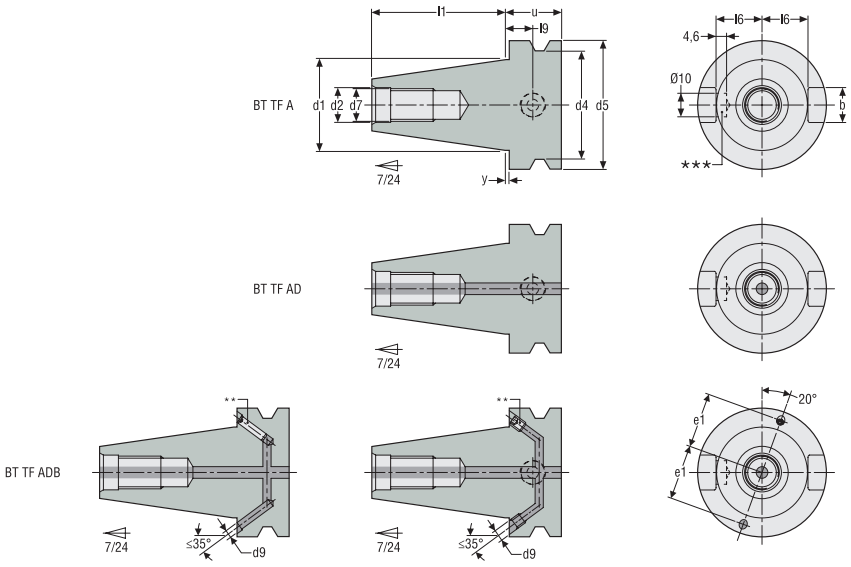


BT TF

Seco range of rotating holders allow you to get the most out of both your machine and tool by offering a comprehensive array of solutions to connect them. The range covers all standard workpiece side connections, as well Seco's unique connections. BT JIS TF brings a better accuracy and is ideal for long tools.

- Steadyline, vibration damping shell mill holders
- Shell mill holders, with through coolant channels
- Side lock holders, Weldon
- Shrinkfit holders
- High precision collet chucks
- Power milling chucks
- ER collet chucks

BT with Taper-Face*



BT40 TF and 50 ADB with sealing dowel **BT40 TF and 50 ADB with sealing screw**

Machine side catalogue designation	Through coolant Form	Hole for RFID carrier***	d_1	d_2	d_4	d_5****	d_7	d_9	e_1	u	l_1	l_6	l_9	b	y
			mm *inch*	mm *inch*	mm *inch*	mm *inch*		mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*
BT30 TF AD	A/AD	No	31,75 *1.250*	12,5 *0.492*	38 *1.496*	46 *1.811*	M12	–	–	22 *0.866*	48,4 *1.906*	16,3 *0.642*	11 *0.433*	16,1 *0.634*	1 *0.039*
BT40 TF ADB	A/AD/B	Yes***	44,45 *1.750*	17 *0.669*	53 *2.087*	63 *2.480*	M16	4 *0.157*	27 *1.063*	27 *1.063*	65,4 *2.575*	22,5 *0.886*	14,5 *0.571*	16,1 *0.634*	1 *0.039*
BT50 TF ADB	A/AD/B	Yes***	69,85 *2.750*	25 *0.984*	85 *3.346*	100 *3.937*	M24	6 *0.236*	42 *1.654*	38 *1.496*	101,8 *4.008*	35,4 *1.394*	20,5 *0.807*	25,7 *1.012*	1,5 *0.059*

Note: These machine side dimensions are applied to all the holders shown in the Product pages.

* BT with Taper-Face tooling machine sides are:

– conform to the JIS B 6339 (ISO 7388-2) norm.

– except that they have a larger flange towards machine side, with tight tolerances: this achieves taper and face contacts on machine spindles with Taper-Face dimensions. Taper-Face tooling is also usable on standard spindles, but in that case a gap remains between spindle and flange faces.

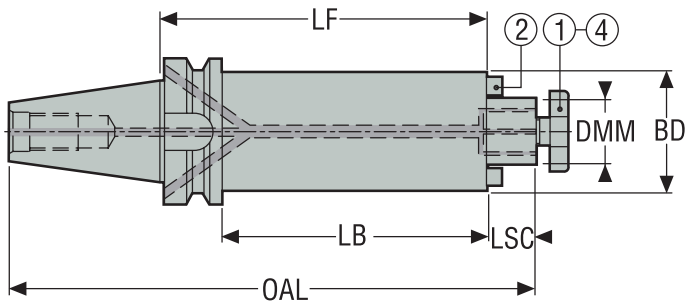
*** In order to know if a hole for RFID carrier exists, see 'RFID hole' column in Product pages:
1= hole for RFID carrier available, if required a carrier can be fitted on request, please enquire.
0= hole for RFID carrier not available, if required hole can be machined and a carrier can be fitted on request, please enquire.

**** BT holders with a front end diameter in excess of diameter d5, are produced with a flange clearance length: BT30 = ∅ 45 mm x 3 mm;

BT40 = ∅ 62 mm x 8 mm; BT50 = ∅ 98 mm x 12 mm. This is compatible with the BT JIS norm which permits free dimensions on workpiece side.

BT Taper-Face-ADB

Steadyline®, vibration damping
– Metric / *Inch*





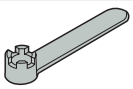
Accessories:
4 = Bolt, through coolant

Spare parts:
1 = Bolt
2 = Tenon/Screw

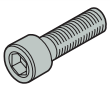
- DMM 40 mm / *1.575”*, includes 4 threaded holes on the bearing face according to DIN 6357
- For ISO attribute explanation, see page 14

Designation	Item number	CTMS	DMM	LF	BD	OAL	LB	LSC	Max. RPM	RFID hole	Balan-cing	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*				kg *lbs*
E3216555532330	02926042	BT50 TF ADB	32,0 *1.260*	330,0 *12.992*	78,0 *3.071*	455,8 *17.945*	292,0 *11.496*	24,0 *0.945*	4000	1	PB	15,3 *33.730*
E3216555540350	02926043	BT50 TF ADB	40,0 *1.575*	350,0 *13.780*	89,0 *3.504*	478,8 *18.850*	312,0 *12.283*	27,0 *1.063*	3000	1	PB	20,7 *45.640*

Accessories

For	Bolt, through coolant	Spanner
		
E3216555532330	5803216L	5813216
E3216555540350	5804020L	5814020

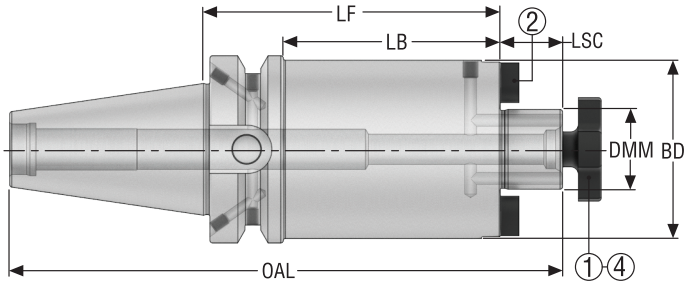
Spare Parts, included in delivery

For	Bolt	Screw	Sealing Screws	Tenon
				
E3216555532330	5803216	950D0516	950A0606	16C2141421A
E3216555540350	5804020	950D0616	950A0606	16C2161621A

With through coolant channels – ISO 3937 – Metric / *Inch*

BT Taper-Face-AD





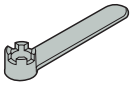
• For ISO attribute explanation, see page 14

Accessories:
4 = Bolt, through coolant

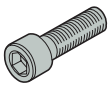
Spare parts:
1 = Bolt
2 = Tenon/Screw

Designation	Item number	CTMS	DMM	LF	BD	OAL	LB	LSC	RFID hole	Balancing	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*			kg *lbs*
BT30TFAD-SM16-040-L1	03301661	BT30 TF AD	16,0 *0.630*	40,0 *1.575*	38,0 *1.496*	105,4 *4.150*	18,0 *0.709*	17,0 *0.669*	1	G6.3	0,6 *1.320*
BT30TFAD-SM22-040-L1	03301662	BT30 TF AD	22,0 *0.866*	40,0 *1.575*	48,0 *1.890*	107,4 *4.228*	18,0 *0.709*	19,0 *0.748*	1	G6.3	0,7 *1.540*
BT30TFAD-SM27-040-L1	03301663	BT30 TF AD	27,0 *1.063*	40,0 *1.575*	60,0 *2.362*	109,4 *4.307*	18,0 *0.709*	21,0 *0.827*	1	G6.3	0,9 *1.980*
BT30TFAD-SM32-045-L1	03301664	BT30 TF AD	32,0 *1.260*	45,0 *1.772*	78,0 *3.071*	117,4 *4.622*	23,0 *0.906*	24,0 *0.945*	1	G6.3	1,4 *3.090*

Accessories

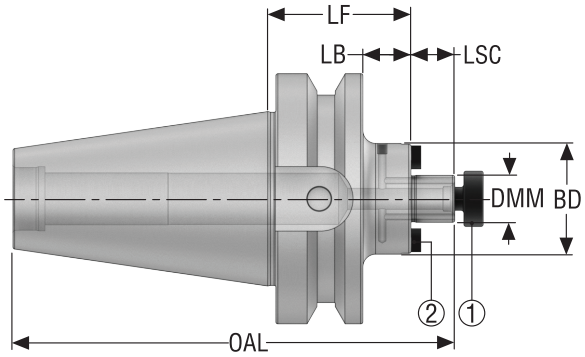
For	Bolt, through coolant	Spanner
		
BT30TFAD-SM16-040-L1	5801608L	5811608
BT30TFAD-SM22-040-L1	5802210L	5812210
BT30TFAD-SM27-040-L1	5802712L	5812712
BT30TFAD-SM32-045-L1	5803216L	5813216

Spare Parts, included in delivery

For	Bolt	Screw	Tenon
			
BT30TFAD-SM16-040-L1	5801608	950D0312	16C716A
BT30TFAD-SM22-040-L1	5802210	950D0416	16C722A
BT30TFAD-SM27-040-L1	5802712	951D0512	16C727A
BT30TFAD-SM32-045-L1	5803216	951D0616	16C732A

BT Taper-Face-AD

Small face with through coolant channels – Inch



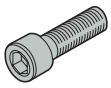


Spare parts:
1 = Bolt
2 = Tenon/Screw

• For ISO attribute explanation, see page 14

Designation	Item number	CTMS	DMM	LF	BD	OAL	LB	LSC	RFID hole	Balan-cing	Weight
			inch	inch	inch	inch	inch	inch			lbs
BT30TFAD-SM0.750-2.000-L1	03301686	BT30 TF AD	0.750	2.000	1.750	4.594	1.134	0.688	1	G6.3	1.760

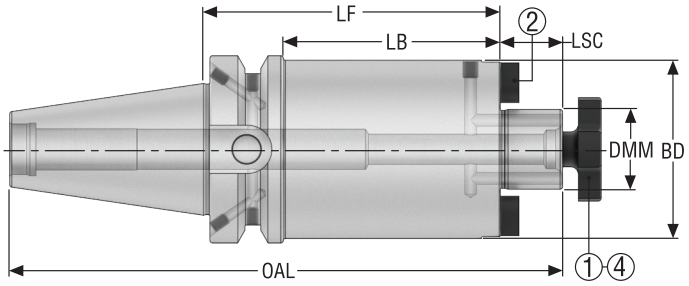
Spare Parts, included in delivery

For	Bolt	Screw	Tenon
			
BT30TFAD-SM0.750-2.000-L1	58271905	950DNC012031	16C71905

With through coolant channels – ISO 3937 – Metric / *Inch*

BT Taper-Face-ADB





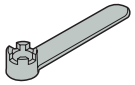
- DMM 40 mm / *1.575"*, includes 4 threaded holes on the bearing face according to DIN 6357
- For ISO attribute explanation, see page 14

Accessories:
4 = Bolt, through coolant

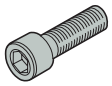
Spare parts:
1 = Bolt
2 = Tenon/Screw

Designation	Item number	CTMS	DMM	LF	BD	OAL	LB	LSC	RFID hole	Balancing	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*			kg *lbs*
BT40TFADB-SM16-050-L1	03301645	BT40 TF ADB	16,0 *0.630*	50,0 *1.969*	38,0 *1.496*	132,4 *5.213*	23,0 *0.906*	17,0 *0.669*	1	G6.3	1,2 *2.650*
BT40TFADB-SM22-045-L1	03301648	BT40 TF ADB	22,0 *0.866*	45,0 *1.772*	48,0 *1.890*	129,4 *5.094*	18,0 *0.709*	19,0 *0.748*	1	G6.3	1,3 *2.870*
BT40TFADB-SM27-045-L1	03301651	BT40 TF ADB	27,0 *1.063*	45,0 *1.772*	60,0 *2.362*	131,4 *5.173*	18,0 *0.709*	21,0 *0.827*	1	G6.3	1,5 *3.310*
BT40TFADB-SM32-050-L1	03301652	BT40 TF ADB	32,0 *1.260*	50,0 *1.969*	78,0 *3.071*	139,4 *5.488*	23,0 *0.906*	24,0 *0.945*	1	G6.3	1,9 *4.190*
BT40TFADB-SM40-050-L1	03301653	BT40 TF ADB	40,0 *1.575*	50,0 *1.969*	89,0 *3.504*	142,4 *5.606*	23,0 *0.906*	27,0 *1.063*	1	G6.3	2,1 *4.630*
BT50TFADB-SM22-055-L1	03301620	BT50 TF ADB	22,0 *0.866*	55,0 *2.165*	48,0 *1.890*	175,8 *6.921*	17,0 *0.669*	19,0 *0.748*	1	G6.3	3,8 *8.380*
BT50TFADB-SM27-055-L1	03301623	BT50 TF ADB	27,0 *1.063*	55,0 *2.165*	60,0 *2.362*	177,8 *7.000*	17,0 *0.669*	21,0 *0.827*	1	G6.3	4,0 *8.820*
BT50TFADB-SM32-055-L1	03301626	BT50 TF ADB	32,0 *1.260*	55,0 *2.165*	78,0 *3.071*	180,8 *7.118*	17,0 *0.669*	24,0 *0.945*	1	G6.3	4,4 *9.700*
BT50TFADB-SM40-055-L1	03301629	BT50 TF ADB	40,0 *1.575*	55,0 *2.165*	89,0 *3.504*	183,8 *7.236*	17,0 *0.669*	27,0 *1.063*	1	G6.3	4,6 *10.140*

Accessories

For Taper/ DMM	Bolt, through coolant	Spanner
		
BT40/ 16/ *0.630*	5801608L	5811608
BT40/ 22/ *0.866*	5802210L	5812210
BT40/ 27/ *1.063*	5802712L	5812712
BT40/ 32/ *1.260*	5803216L	5813216
BT40/ 40/ *1.575*	5804020L	5814020
BT50/ 22/ *0.866*	5802210L	5812210
BT50/ 27/ *1.063*	5802712L	5812712
BT50/ 32/ *1.260*	5803216L	5813216
BT50/ 40/ *1.575*	5804020L	5814020

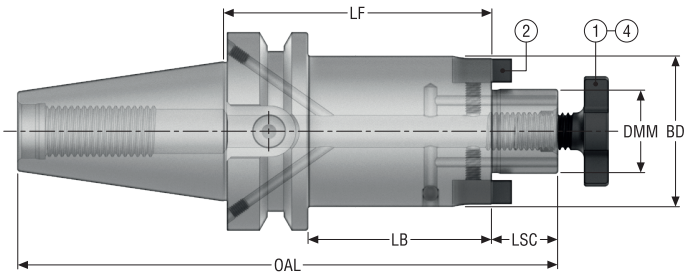
Spare Parts, included in delivery

For Taper/ DMM	Bolt	Plug	Screw	Tenon
				
BT40/ 16/ *0.630*	5801608	950AIE0404	950D0312	16C716A
BT40/ 22/ *0.866*	5802210	950AIE0404	950D0416	16C722A
BT40/ 27/ *1.063*	5802712	950AIE0404	951D0512	16C727A
BT40/ 32/ *1.260*	5803216	950AIE0404	951D0616	16C732A
BT40/ 40/ *1.575*	5804020	950AIE0404	951D0616	16C740A
BT50/ 22/ *0.866*	5802210	950AIE0505	950D0416	16C722A
BT50/ 27/ *1.063*	5802712	950AIE0505	951D0512	16C727A
BT50/ 32/ *1.260*	5803216	950AIE0505	951D0616	16C732A
BT50/ 40/ *1.575*	5804020	950AIE0505	951D0616	16C740A

Small face with through coolant channels – ISO 3937 – Metric / *Inch*

BT Taper-Face-ADB





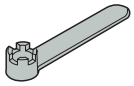
- Small workpiece side diameter BD according to ISO 3937, suitable for Seco disc mill cutters Type B
- For ISO attribute explanation, see page 14

Accessories:
4 = Bolt, through coolant

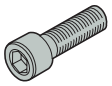
Spare parts:
1 = Bolt
2 = Tenon/Screw

Designation	Item number	CTMS	DMM	LF	BD	OAL	LB	LSC	RFID hole	Balancing	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*			kg *lbs*
BT40TFADB-SM22-060-F3L1	03301646	BT40 TF ADB	22,0 *0.866*	60,0 *2.362*	40,0 *1.575*	144,4 *5.685*	33,0 *1.299*	19,0 *0.748*	1	G6.3	1,4 *3.090*
BT40TFADB-SM22-120-F3L1	03301647	BT40 TF ADB	22,0 *0.866*	120,0 *4.724*	40,0 *1.575*	204,4 *8.047*	93,0 *3.661*	19,0 *0.748*	1	G6.3	1,9 *4.190*
BT40TFADB-SM27-060-F3L1	03301649	BT40 TF ADB	27,0 *1.063*	60,0 *2.362*	48,0 *1.890*	146,4 *5.764*	33,0 *1.299*	21,0 *0.827*	1	G6.3	1,5 *3.310*
BT40TFADB-SM27-120-F3L1	03301650	BT40 TF ADB	27,0 *1.063*	120,0 *4.724*	48,0 *1.890*	206,4 *8.126*	93,0 *3.661*	21,0 *0.827*	1	G6.3	2,4 *5.290*
BT50TFADB-SM22-075-F3L1	03301618	BT50 TF ADB	22,0 *0.866*	75,0 *2.953*	40,0 *1.575*	195,8 *7.709*	37,0 *1.457*	19,0 *0.748*	1	G6.3	4,0 *8.820*
BT50TFADB-SM22-120-F3L1	03301619	BT50 TF ADB	22,0 *0.866*	120,0 *4.724*	40,0 *1.575*	240,8 *9.480*	82,0 *3.228*	19,0 *0.748*	1	G6.3	4,4 *9.700*
BT50TFADB-SM27-075-F3L1	03301621	BT50 TF ADB	27,0 *1.063*	75,0 *2.953*	48,0 *1.890*	197,8 *7.787*	37,0 *1.457*	21,0 *0.827*	1	G6.3	4,3 *9.480*
BT50TFADB-SM27-120-F3L1	03301622	BT50 TF ADB	27,0 *1.063*	120,0 *4.724*	48,0 *1.890*	242,8 *9.559*	82,0 *3.228*	21,0 *0.827*	1	G6.3	4,8 *10.580*
BT50TFADB-SM32-075-F3L1	03301624	BT50 TF ADB	32,0 *1.260*	75,0 *2.953*	58,0 *2.283*	200,8 *7.906*	37,0 *1.457*	24,0 *0.945*	1	G6.3	4,5 *9.920*
BT50TFADB-SM32-120-F3L1	03301625	BT50 TF ADB	32,0 *1.260*	120,0 *4.724*	58,0 *2.283*	245,8 *9.677*	82,0 *3.228*	24,0 *0.945*	1	G6.3	5,3 *11.680*
BT50TFADB-SM40-075-F3L1	03301627	BT50 TF ADB	40,0 *1.575*	75,0 *2.953*	70,0 *2.756*	203,8 *8.024*	37,0 *1.457*	27,0 *1.063*	1	G6.3	4,9 *10.800*
BT50TFADB-SM40-120-F3L1	03301628	BT50 TF ADB	40,0 *1.575*	120,0 *4.724*	70,0 *2.756*	248,8 *9.795*	82,0 *3.228*	27,0 *1.063*	1	G6.3	6,2 *13.670*

Accessories

For Taper/ DMM	Bolt, through coolant	Spanner
		
BT40/ 22	5802210L	5812210
BT40/ 27	5802712L	5812712
BT50/ 22	5802210L	5812210
BT50/ 27	5802712L	5812712
BT50/ 32	5803216L	5813216
BT50/ 40	5804020L	5814020

Spare Parts, included in delivery

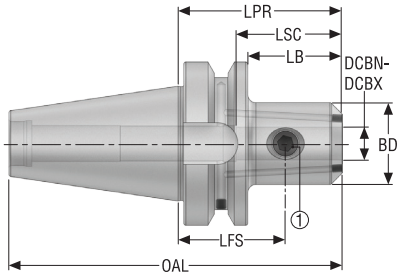
For Taper/ DMM	Bolt	Plug	Screw	Tenon
				
BT40/ 22	5802210	950AIE0404	951D0410	16C722
BT40/ 27	5802712	950AIE0404	951D0512	16C727
BT50/ 22	5802210	950AIE0505	951D0410	16C722
BT50/ 27	5802712	950AIE0505	951D0512	16C727
BT50/ 32	5803216	950AIE0505	951D0616	16C732
BT50/ 40	5804020	950AIE0505	951D0616	16C740

DIN 1835 Form B/ DIN 6535 Form HB
– Metric / *Inch*

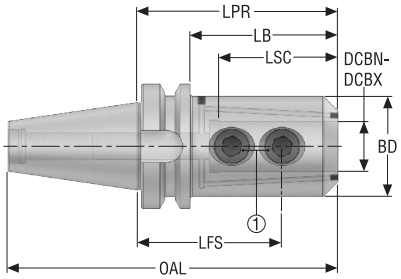
BT Taper-Face-AD



Design 1



Design 2



- Weldon ∅DCBN-DCBX 20, 25, 32 and 40 mm / *0.787, 0.984, 1.260 and 1.575"* with ground face (Seco-Weldon compatible)
- With 2 coolant channels for front lubrication which can be sealed with included screws
- For ISO attribute explanation, see page 14

Spare parts:
1 = Locking screw

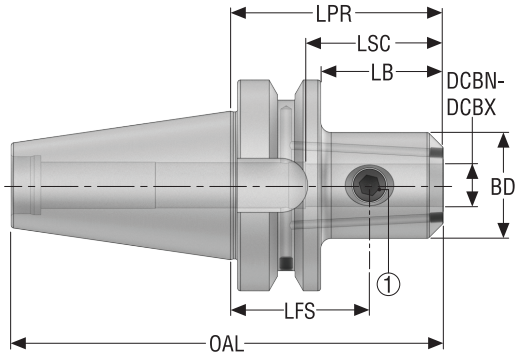
Designation	Item number	CTMS	DCBN-DCBX	LPR	LB	LSC	BD	OAL	LFS	Design	RFID hole	Balancing	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*				kg *lbs*
BT30TFAD-EM06-065-L1	03301726	BT30 TF AD	6,0 *0.236*	65,0 *2.559*	43,0 *1.693*	35,0 *1.378*	25,0 *0.984*	113,4 *4.465*	47,0 *1.850*	1	1	G6.3	0,5 *1.100*
BT30TFAD-EM08-065-L1	03301727	BT30 TF AD	8,0 *0.315*	65,0 *2.559*	43,0 *1.693*	35,0 *1.378*	28,0 *1.102*	113,4 *4.465*	47,0 *1.850*	1	1	G6.3	0,6 *1.320*
BT30TFAD-EM10-065-L1	03301728	BT30 TF AD	10,0 *0.394*	65,0 *2.559*	43,0 *1.693*	36,0 *1.417*	35,0 *1.378*	113,4 *4.465*	45,0 *1.772*	1	1	G6.3	0,7 *1.540*
BT30TFAD-EM12-065-L1	03301729	BT30 TF AD	12,0 *0.472*	65,0 *2.559*	43,0 *1.693*	41,0 *1.614*	42,0 *1.654*	113,4 *4.465*	42,5 *1.673*	1	1	G6.3	0,8 *1.760*
BT30TFAD-EM16-060-L1	03301730	BT30 TF AD	16,0 *0.630*	60,0 *2.362*	35,0 *1.378*	44,0 *1.732*	48,0 *1.890*	108,4 *4.268*	36,0 *1.417*	1	1	G6.3	0,8 *1.760*
BT30TFAD-EM20-065-L1	03301731	BT30 TF AD	20,0 *0.787*	66,0 *2.598*	43,0 *1.693*	46,0 *1.811*	52,0 *2.047*	113,4 *4.465*	40,0 *1.575*	1	1	G6.3	0,9 *1.980*
BT30TFAD-EM25-090-L1	03301732	BT30 TF AD	25,0 *0.984*	90,0 *3.543*	68,0 *2.677*	54,0 *2.126*	63,0 *2.480*	138,4 *5.449*	66,0 *2.598*	2	1	G6.3	1,7 *3.750*
BT30TFAD-EM32-095-L1	10007235	BT30 TF AD	32,0 *1.260*	95,0 *3.740*	73,0 *2.874*	58,0 *2.283*	72,0 *2.835*	143,4 *5.646*	71,0 *2.795*	2	0	G6.3	2,2 *4.850*

Spare Parts, included in delivery

For	Coolant screw	Locking screw
		
BT30TFAD-EM06-065-L1	950A0304	951C0610
BT30TFAD-EM08-065-L1	950A0304	951C0810
BT30TFAD-EM10-065-L1	950A0304	951C1012
BT30TFAD-EM12-065-L1	950A0304	951C1216
BT30TFAD-EM16-060-L1	950A0304	951C1416
BT30TFAD-EM20-065-L1	950A0304	951C1616
BT30TFAD-EM25-090-L1	950A0304	951C1820
BT30TFAD-EM32-095-L1	950A0304	951C2020

BT Taper-Face-AD

DIN 1835 Form B/ DIN 6535 Form HB – Inch





Spare parts:
1 = Locking screw

- With 2 coolant channels for front lubrication which can be sealed with included screws
- For ISO attribute explanation, see page 14

Designation	Item number	CTMS	DCBN-DCBX	LPR	LB	LSC	BD	OAL	LFS	RFID hole	Balan-cing	Weight
			inch	inch	inch	inch	inch	inch	inch			lbs
BT30TFAD-EM0.250-2.500-L1	03301747	BT30 TF AD	0.250	2.500	1.634	1.024	0.880	4.406	1.940	1	G6.3	1.100
BT30TFAD-EM0.375-2.500-L1	03301748	BT30 TF AD	0.375	2.500	1.634	1.500	1.000	4.406	1.750	1	G6.3	1.320
BT30TFAD-EM0.500-2.500-L1	03301749	BT30 TF AD	0.500	2.500	1.634	1.620	1.250	4.406	1.630	1	G6.3	1.320
BT30TFAD-EM0.625-2.500-L1	03301750	BT30 TF AD	0.625	2.500	1.634	1.870	1.500	4.406	1.560	1	G6.3	1.540
BT30TFAD-EM0.750-2.500-L1	03301751	BT30 TF AD	0.750	2.500	1.634	2.000	1.750	4.406	1.500	1	G6.3	1.760

Spare Parts, included in delivery

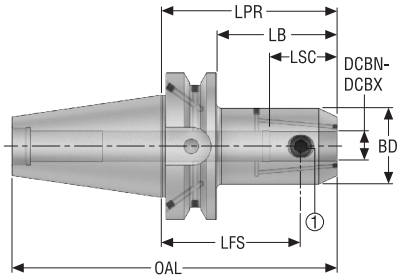
For	Coolant screw	Locking screw
		
BT30TFAD-EM0.250-2.500-L1	950A0304	951CNF025025
BT30TFAD-EM0.375-2.500-L1	950A0304	951CNF037031
BT30TFAD-EM0.500-2.500-L1	950A0304	951CNF043037
BT30TFAD-EM0.625-2.500-L1	950A0304	951CNF056050
BT30TFAD-EM0.750-2.500-L1	950A0304	951CNF062050

DIN 1835 Form B/ DIN 6535 Form HB
– Metric / *Inch*

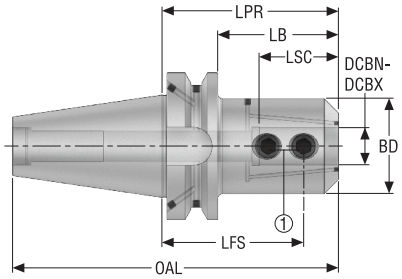
BT Taper-Face-ADB



Design 1



Design 2



- Weldon ∅DCBN-DCBX 20, 25, 32 and 40 mm / *0.787, 0.984, 1.260 and 1.575"* with ground face (Seco-Weldon compatible)
- With 2 coolant channels for front lubrication which can be sealed with included screws
- For ISO attribute explanation, see page 14

Spare parts:
1 = Locking screw

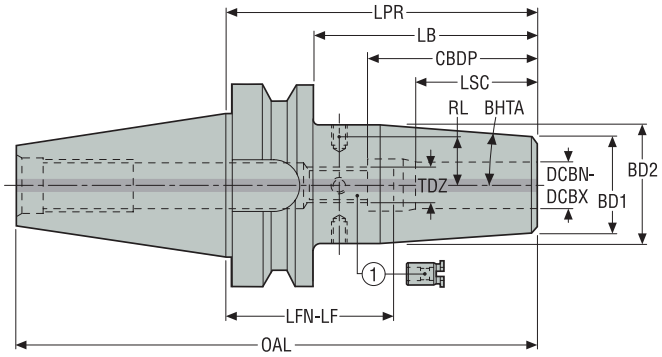
Designation	Item number	CTMS	DCBN-DCBX	LPR	LB	LSC	BD	OAL	LFS	Design	RFID hole	Balancing	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*				kg *lbs*
BT40TFADB-EM16-065-L1	03301722	BT40 TF ADB	16,0 *0.630*	65,0 *2.559*	38,0 *1.496*	44,0 *1.732*	48,0 *1.890*	130,4 *5.134*	41,0 *1.614*	1	1	G6.3	1,4 *3.090*
BT40TFADB-EM20-065-L1	03301723	BT40 TF ADB	20,0 *0.787*	65,0 *2.559*	38,0 *1.496*	46,0 *1.811*	52,0 *2.047*	130,4 *5.134*	40,0 *1.575*	1	1	G6.3	1,4 *3.090*
BT40TFADB-EM25-090-L1	03301724	BT40 TF ADB	25,0 *0.984*	90,0 *3.543*	63,0 *2.480*	54,0 *2.126*	63,0 *2.480*	155,4 *6.118*	66,0 *2.598*	2	1	G6.3	2,2 *4.850*
BT40TFADB-EM32-100-L1	10007236	BT40 TF ADB	32,0 *1.260*	100,0 *3.937*	73,0 *2.874*	58,0 *2.283*	72,0 *2.835*	165,4 *6.512*	76,0 *2.992*	2	1	G6.3	2,7 *5.950*
BT40TFADB-EM40-110-L1	03301725	BT40 TF ADB	40,0 *1.575*	110,0 *4.331*	75,0 *2.953*	68,0 *2.677*	80,0 *3.150*	175,4 *6.906*	80,0 *3.150*	2	1	G6.3	3,2 *7.050*
BT50TFADB-EM25-100-L1	03301719	BT50 TF ADB	25,0 *0.984*	100,0 *3.937*	62,0 *2.441*	54,0 *2.126*	63,0 *2.480*	201,8 *7.945*	76,0 *2.992*	2	1	G6.3	4,8 *10.580*
BT50TFADB-EM32-105-L1	10007237	BT50 TF ADB	32,0 *1.260*	105,0 *4.134*	67,0 *2.638*	58,0 *2.283*	72,0 *2.835*	206,8 *8.142*	81,0 *3.189*	2	1	G6.3	5,1 *11.240*
BT50TFADB-EM40-115-L1	03301720	BT50 TF ADB	40,0 *1.575*	115,0 *4.528*	77,0 *3.031*	68,0 *2.677*	80,0 *3.150*	216,8 *8.535*	85,0 *3.346*	2	1	G6.3	5,7 *12.570*
BT50TFADB-EM50-130-L1	03301721	BT50 TF ADB	50,0 *1.969*	130,0 *5.118*	92,0 *3.622*	78,0 *3.071*	100,0 *3.937*	231,8 *9.126*	95,0 *3.740*	2	1	G6.3	7,4 *16.310*

Spare Parts, included in delivery

For Taper/ DCBN-DCBX	Coolant screw	Locking screw	Plug
			
BT40/ 16/ *0.630*	950A0304	951C1416	950AIE0404
BT40/ 20/ *0.787*	950A0304	951C1616	950AIE0404
BT40/ 25/ *0.984*	950A0304	951C1820	950AIE0404
BT40/ 32/ *1.260*-40/ *1.575*	950A0304	951C2020	950AIE0404
BT50/ 25/ *0.984*	950A0304	951C1820	950AIE0505
BT50/ 32/ *1.260*-40/ *1.575*	950A0304	951C2020	950AIE0505
BT50/ 50/ *1.969*	950A0304	951C2425	950AIE0505

BT Taper-Face-AD

DIN type
– Metric / *Inch*





Spare parts:
1 = Stop screw

- Run-out ≤3 µm
- Delivered with one stop screw
- For Shrinkfit extensions, see page(s) 373-374
- For ISO attribute explanation, see page 14

Designation	Item number	CTMS	DCBN-DCBX	LPR	LB	CBDP	LSC	BD1	BD2	OAL	LFN	LF	RL	TDZ	BHTA°	RFID hole	Balancing	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*					kg *lbs*
E400256030680	02998719	BT30 TF AD	6,0 *0.236*	80,0 *3.150*	58,0 *2.283*	37,5 *1.476*	22,0 *0.866*	21,0 *0.827*	27,0 *1.063*	128,4 *5.055*	44,0 *1.732*	54,0 *2.126*	10,5 *0.413*	M5x0.8	4,5	0	G2.5	0,6 *1.320*
E400256030880	02998720	BT30 TF AD	8,0 *0.315*	80,0 *3.150*	58,0 *2.283*	37,5 *1.476*	26,0 *1.024*	21,0 *0.827*	27,0 *1.063*	128,4 *5.055*	44,0 *1.732*	54,0 *2.126*	10,5 *0.413*	M6x1	4,5	0	G2.5	0,6 *1.320*
E400256031080	02998721	BT30 TF AD	10,0 *0.394*	80,0 *3.150*	58,0 *2.283*	42,5 *1.673*	31,0 *1.220*	24,0 *0.945*	32,0 *1.260*	128,4 *5.055*	39,0 *1.535*	49,0 *1.929*	13,0 *0.512*	M8x1	4,5	0	G2.5	0,7 *1.540*
E400256031280	02998722	BT30 TF AD	12,0 *0.472*	80,0 *3.150*	58,0 *2.283*	47,5 *1.870*	34,0 *1.339*	24,0 *0.945*	32,0 *1.260*	128,4 *5.055*	34,0 *1.339*	44,0 *1.732*	13,0 *0.512*	M10x1	4,5	0	G2.5	0,7 *1.540*

Accessories

For	Balancing screws
	
	90ZQ01

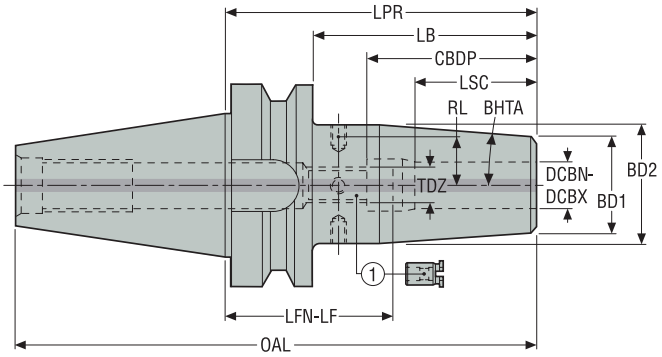
Spare Parts, included in delivery

For	Stop screw
	
E400256030680	19BDR05165
E400256030880	19BDR06165
E400256031080	19BDR08165
E400256031280	19BDR10165

DIN type – Inch

BT Taper-Face-AD





- Run-out ≤3 µm
- Delivered with one stop screw
- For Shrinkfit extensions, see page(s) 373-374
- For ISO attribute explanation, see page 14

Spare parts:
1 = Stop screw

Designation	Item number	CTMS	DCBN-DCBX	LPR	LB	CBDP	LSC	BD1	BD2	OAL	LFN	LF	RL	TDZ	BHTA°	RFID hole	Balancing	Weight
			inch	inch	inch	inch	inch	inch	inch	inch	inch	inch	inch					lbs
E40025603025315	02998693	BT30 TF AD	0.250	3.150	2.283	1.476	0.866	0.827	1.063	5.055	1.732	2.126	0.413	M5x0.8	4,5	0	G2.5	1.320
E40025603037315	02998694	BT30 TF AD	0.375	3.150	2.283	1.673	1.220	0.945	1.260	5.055	1.535	1.929	0.512	M8x1	4,5	0	G2.5	1.540
E40025603050315	02998695	BT30 TF AD	0.500	3.150	2.283	1.791	1.339	0.945	1.260	5.055	1.417	1.811	0.512	M10x1	4,5	0	G2.5	1.540

Accessories

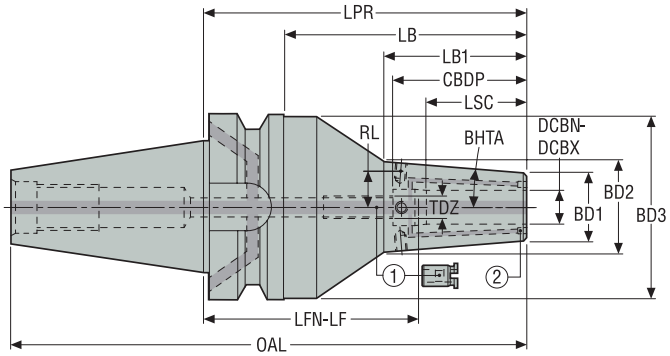
For	Balancing screws
	
All	90ZQ01

Spare Parts, included in delivery

For	Stop screw
	
E40025603025315	19BDR05165
E40025603037315	19BDR08165
E40025603050315	19BDR10165

BT Taper-Face-ADB

Reinforced type
– Metric / *Inch*





Spare parts:
1 = Stop screw
2 = Sealing plugs

- Run-out ≤3 µm
- With coolant supply channels towards the tool (plugged)
- Delivered with one stop screw
- For ISO attribute explanation, see page 14

Designation	Item number	CTMS	DCBN-DCBX	LPR	LB	LB1	CBDP	LSC	BD1	BD2	BD3	OAL	LFN	LF	RL	TDZ	BHTA°	RFID hole	Balan-cing	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*					kg *lbs*
E321456001270	02904803	BT40 TF ADB	12,0 *0.472*	70,0 *2.756*	43,0 *1.693*	–	47,5 *1.870*	34,0 *1.339*	27,0 *1.063*	35,2 *1.385*	–	135,4 *5.331*	24,0 *0.945*	34,0 *1.339*	13,5 *0.531*	M10x1	4,5	1	G2.5	1,2 *2.650*
E321456001675	02904804	BT40 TF ADB	16,0 *0.630*	75,0 *2.953*	48,0 *1.890*	–	50,5 *1.988*	39,0 *1.535*	33,0 *1.299*	42,1 *1.659*	–	140,4 *5.528*	26,0 *1.024*	36,0 *1.417*	17,0 *0.669*	M12x1	4,5	1	G2.5	1,3 *2.870*
E321456002075	02904805	BT40 TF ADB	20,0 *0.787*	75,0 *2.953*	48,0 *1.890*	–	52,5 *2.067*	41,0 *1.614*	44,0 *1.732*	53,1 *2.092*	–	140,4 *5.528*	24,0 *0.945*	34,0 *1.339*	21,5 *0.846*	M16x1	4,5	1	G2.5	1,5 *3.310*
E321456002585	02904806	BT40 TF ADB	25,0 *0.984*	85,0 *3.346*	58,0 *2.283*	–	58,5 *2.303*	47,0 *1.850*	48,0 *1.890*	57,1 *2.249*	–	150,4 *5.921*	28,0 *1.102*	38,0 *1.496*	25,0 *0.984*	M16x1	4,5	1	G2.5	1,7 *3.750*
E3216560012100	02904815	BT50 TF ADB	12,0 *0.472*	100,0 *3.937*	62,0 *2.441*	–	47,5 *1.870*	34,0 *1.339*	27,0 *1.063*	35,2 *1.385*	–	201,8 *7.945*	54,0 *2.126*	64,0 *2.520*	13,5 *0.531*	M10x1	4,5	1	G2.5	4,1 *9.040*
E3216560016100	02904816	BT50 TF ADB	16,0 *0.630*	100,0 *3.937*	62,0 *2.441*	–	50,5 *1.988*	39,0 *1.535*	33,0 *1.299*	42,1 *1.659*	–	201,8 *7.945*	51,0 *2.008*	61,0 *2.402*	17,0 *0.669*	M12x1	4,5	1	G2.5	4,2 *9.260*
E3216560020100	02904817	BT50 TF ADB	20,0 *0.787*	100,0 *3.937*	62,0 *2.441*	–	52,5 *2.067*	41,0 *1.614*	44,0 *1.732*	53,1 *2.092*	–	201,8 *7.945*	49,0 *1.929*	59,0 *2.323*	21,5 *0.846*	M16x1	4,5	1	G2.5	4,5 *9.920*
E3216560025100	02904818	BT50 TF ADB	25,0 *0.984*	100,0 *3.937*	62,0 *2.441*	–	58,5 *2.303*	47,0 *1.850*	48,0 *1.890*	57,1 *2.249*	–	201,8 *7.945*	43,0 *1.693*	53,0 *2.087*	25,0 *0.984*	M16x1	4,5	1	G2.5	4,5 *9.920*
E3216560032105	02904819	BT50 TF ADB	32,0 *1.260*	105,0 *4.134*	67,0 *2.638*	–	62,5 *2.461*	51,0 *2.008*	48,0 *1.890*	57,1 *2.249*	–	206,8 *8.142*	44,0 *1.732*	54,0 *2.126*	25,0 *0.984*	M16x1	4,5	1	G2.5	4,5 *9.920*

Accessories

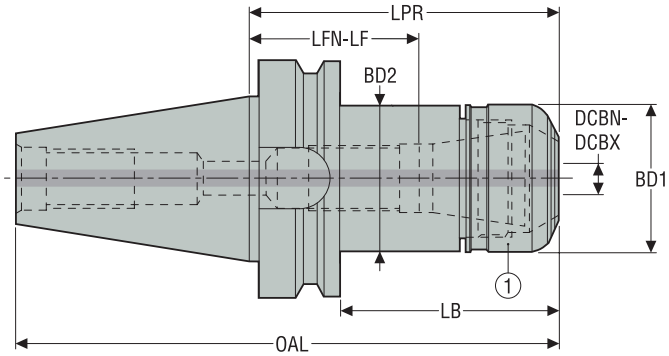
For	Balancing screws
	
All	90ZQ01

Spare Parts, included in delivery

For Taper/ DCBN-DCBX	Sealing plugs	Sealing Screws	Stop screw
			
BT40 TF/ 12	90AI03	950A0406	19BDR10165
BT40 TF/ 16	90AI03	950A0406	19BDR12165
BT40 TF/ 20-25	90AI04	950A0406	19BDR16165
BT50 TF/ 12	90AI03	950A0606	19BDR10165
BT50 TF/ 16	90AI03	950A0606	19BDR12165
BT50 TF/ 20-25	90AI04	950A0606	19BDR16165
BT50 TF/ 32	90AI04	950A0606	19BDR16165

BT Taper-Face-AD

– Metric / *Inch*



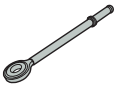
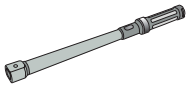


Spare parts:
1 = Nut

- Run-out 3 µm maximum at 3 x ∅DCBN-DCBX
- For ER HP collets type 5672, see page(s) 402, 403, 404-410
- For ISO attribute explanation, see page 14

Designation	Item number	CTMS	DCBN	DCBX	CTWS	LPR	BD2	BD1	OAL	LB	LFN	LF	RFID hole	Balan-cing	Weight
			mm *inch*	mm *inch*		mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*			kg *lbs*
E400256721150	02998734	BT30 TF AD	0,5 *0.020*	7,0 *0.276*	HP 11	50,0 *1.969*	16,0 *0.630*	16,0 *0.630*	98,4 *3.874*	28,0 *1.102*	14,0 *0.551*	32,0 *1.260*	0	G2.5	0,5 *1.100*
E400256721660	02998735	BT30 TF AD	0,5 *0.020*	10,0 *0.394*	HP 16	60,0 *2.362*	30,0 *1.181*	30,0 *1.181*	108,4 *4.268*	38,0 *1.496*	29,0 *1.142*	30,0 *1.181*	0	G2.5	0,6 *1.320*
E400256722570	02998736	BT30 TF AD	1,0 *0.039*	16,0 *0.630*	HP 25	70,0 *2.756*	40,0 *1.575*	40,0 *1.575*	118,4 *4.661*	48,0 *1.890*	14,0 *0.551*	32,0 *1.260*	0	G2.5	0,7 *1.540*

Accessories

For	Socket	Spanner	Stop screw	Torque key
				
E400256721150	03ER016	03BR016	19B5870812P1	03DYD010100
E400256721660	03ER030B	03BR030	19B58711	03DYD010100B
E400256722570	03ER040	03BR040	19B58718	03DYD020200

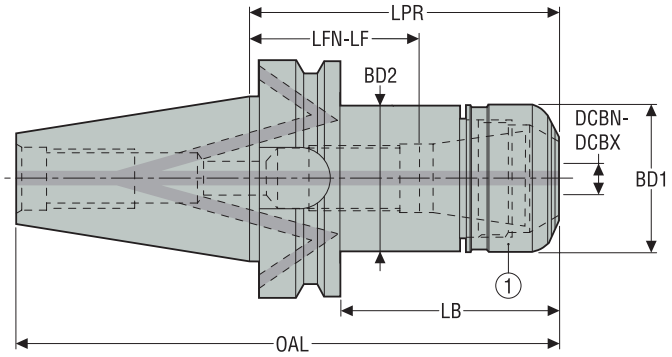
Spare Parts, included in delivery

For	Nut
	
E400256721150	08B567211
E400256721660	08B567216
E400256722570	08B567225

BT Taper-Face-ADB

– Metric / *Inch*



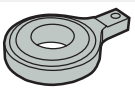
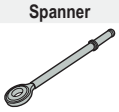
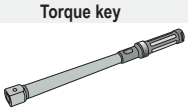


- Run-out 3 µm maximum at 3 x ∅DCBN-DCBX
- For ER HP collets type 5672, see page(s) 402, 403, 404-410
- For ISO attribute explanation, see page 14

Spare parts:
1 = Nut

Designation	Item number	CTMS	DCBN	DCBX	CTWS	LPR	BD2	BD1	OAL	LB	LFN	LF	RFID hole	Balancing	Weight
			mm *inch*	mm *inch*		mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*			kg *lbs*
E3214567216160	02998729	BT40 TF ADB	0,5 *0.020*	10,0 *0.394*	HP 16	160,0 *6.299*	30,0 *1.181*	30,0 *1.181*	225,4 *8.874*	133,0 *5.236*	129,0 *5.079*	130,0 *5.118*	1	G2.5	1,6 *3.530*
E3214567225160	02998730	BT40 TF ADB	1,0 *0.039*	16,0 *0.630*	HP 25	160,0 *6.299*	40,0 *1.575*	40,0 *1.575*	225,4 *8.874*	133,0 *5.236*	104,0 *4.094*	122,0 *4.803*	1	G2.5	2,0 *4.410*
E3216567216100	02998731	BT50 TF ADB	0,5 *0.020*	10,0 *0.394*	HP 16	100,0 *3.937*	30,0 *1.181*	30,0 *1.181*	201,8 *7.945*	62,0 *2.441*	69,0 *2.717*	70,0 *2.756*	1	G2.5	4,0 *8.820*
E3216567216160	02998732	BT50 TF ADB	0,5 *0.020*	10,0 *0.394*	HP 16	160,0 *6.299*	30,0 *1.181*	30,0 *1.181*	261,8 *10.307*	122,0 *4.803*	129,0 *5.079*	130,0 *5.118*	1	G2.5	4,2 *9.260*
E3216567232100	02926023	BT50 TF ADB	2,0 *0.079*	20,0 *0.787*	HP 32	100,0 *3.937*	50,0 *1.969*	50,0 *1.969*	201,8 *7.945*	62,0 *2.441*	44,0 *1.732*	48,0 *1.890*	1	G2.5	4,2 *9.260*
E3216567232160	02998733	BT50 TF ADB	2,0 *0.079*	20,0 *0.787*	HP 32	160,0 *6.299*	50,0 *1.969*	50,0 *1.969*	261,8 *10.307*	122,0 *4.803*	104,0 *4.094*	108,0 *4.252*	1	G2.5	5,1 *11.240*

Accessories

For size	Socket	Spanner	Stop screw	Torque key
				
BT40 TF/ HP 16	03ER030B	03BR030	19B58711	03DYD010100B
BT40 TF/ HP 25	03ER040	03BR040	19B58718	03DYD020200
BT50 TF/ HP 16	03ER030B	03BR030	19B58711	03DYD010100B
BT50 TF/ HP 32	03ER050	03BR050	19B58722	03DYD020200

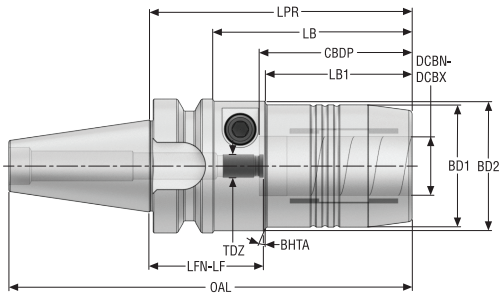
Spare Parts, included in delivery

For size	Nut	Sealing Screws
		
BT40 TF/ HP 16	08B567216	950A0406
BT40 TF/ HP 25	08B567225	950A0406
BT50 TF/ HP 16	08B567216	950A0606
BT50 TF/ HP 32	08B567232	950A0606

Reinforced type
– Metric / *Inch*

BT Taper-Face-AD/ADB

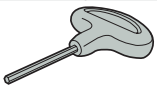




- Run-out ≤3 µm
- For reduction sleeves, see page(s) 394, 395
- For ISO attribute explanation, see page 14

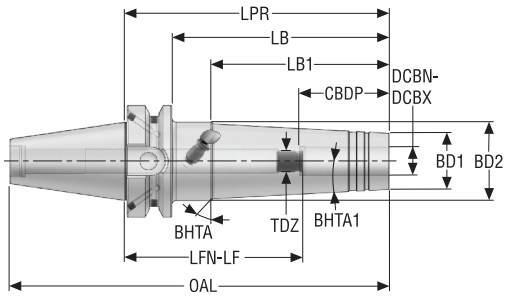
Designation	Item number	CTMS	DCBN-DCBX	LPR	LB	LB1	CBDP	BD2	BD1	OAL	LFN	LF	TDZ	BHTA°	RFID hole	Balan-cing	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*					kg *lbs*
BT30TFAD-HCR12-069	10137138	BT30 TF AD	12,0 *0.472*	69,0 *2.717*	47,0 *1.850*	32,0 *1.260*	47,5 *1.870*	44,5 *1.752*	42,0 *1.654*	117,4 *4.622*	23,0 *0.906*	33,0 *1.299*	M8x1	20,0	0	G2.5	0,9 *1.980*
BT30TFAD-HCR20-090	10137139	BT30 TF AD	20,0 *0.787*	90,0 *3.543*	68,0 *2.677*	50,0 *1.969*	52,5 *2.067*	44,5 *1.752*	42,0 *1.654*	138,4 *5.449*	39,0 *1.535*	49,0 *1.929*	M8x1	20,0	0	G2.5	1,0 *2.200*
BT40TFADB-HCR12-058	10137142	BT40 TF ADB	12,0 *0.472*	58,0 *2.283*	31,0 *1.220*	–	47,5 *1.870*	–	42,0 *1.654*	123,4 *4.858*	12,0 *0.472*	22,0 *0.866*	M8x1	–	0	G2.5	1,2 *2.650*
BT40TFADB-HCR20-072	10137143	BT40 TF ADB	20,0 *0.787*	72,5 *2.854*	45,5 *1.791*	–	52,5 *2.067*	–	49,25 *1.939*	137,9 *5.429*	21,5 *0.846*	31,5 *1.240*	M8x1	–	0	G2.5	1,5 *3.310*

Accessories

For size	Key
	
All	H05-4

BT Taper-Face-ADB

Slim type
– Metric / *Inch*





- Run-out ≤3 µm
- For reduction sleeves, see page(s) 394, 395
- For ISO attribute explanation, see page 14

Designation	Item number	CTMS	DCBN-DCBX	LPR	LB	LB1	CBDP	BD2	BD1	OAL	LFN	LF	TDZ	BHTA°	BHTA1°	RFID hole	Balan-cing	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*						kg *lbs*
BT40TFADB-HCS06-150	10137346	BT40 TF ADB	6,0 *0.236*	150,0 *5.906*	123,0 *4.843*	100,0 *3.937*	37,0 *1.457*	44,5 *1.752*	20,0 *0.787*	215,4 *8.480*	113,0 *4.449*	123,0 *4.843*	M5x0.8	30,0	3,0	1	G2.5	1,6 *3.530*
BT40TFADB-HCS08-150	10137347	BT40 TF ADB	8,0 *0.315*	150,0 *5.906*	123,0 *4.843*	100,0 *3.937*	37,0 *1.457*	44,5 *1.752*	22,0 *0.866*	215,4 *8.480*	113,0 *4.449*	123,0 *4.843*	M6x1	30,0	3,0	1	G2.5	1,7 *3.750*
BT40TFADB-HCS10-150	10137348	BT40 TF ADB	10,0 *0.394*	150,0 *5.906*	123,0 *4.843*	100,0 *3.937*	42,0 *1.654*	44,5 *1.752*	24,0 *0.945*	215,4 *8.480*	110,0 *4.331*	120,0 *4.724*	M8x1	30,0	3,0	1	G2.5	1,7 *3.750*
BT40TFADB-HCS12-150	10137349	BT40 TF ADB	12,0 *0.472*	150,0 *5.906*	123,0 *4.843*	100,0 *3.937*	47,0 *1.850*	44,5 *1.752*	25,0 *0.984*	215,4 *8.480*	103,0 *4.055*	113,0 *4.449*	M10x1	30,0	3,0	1	G2.5	1,8 *3.970*
BT40TFADB-HCS16-150	10137350	BT40 TF ADB	16,0 *0.630*	150,0 *5.906*	123,0 *4.843*	100,0 *3.937*	52,0 *2.047*	44,5 *1.752*	32,0 *1.260*	215,4 *8.480*	100,0 *3.937*	110,0 *4.331*	M12x1	30,0	3,0	1	G2.5	2,0 *4.410*
BT40TFADB-HCS20-150	10137351	BT40 TF ADB	20,0 *0.787*	150,0 *5.906*	123,0 *4.843*	–	52,0 *2.047*	46,9 *1.846*	34,0 *1.339*	215,4 *8.480*	100,0 *3.937*	110,0 *4.331*	M16x1	–	3,0	1	G2.5	2,0 *4.410*

Accessories

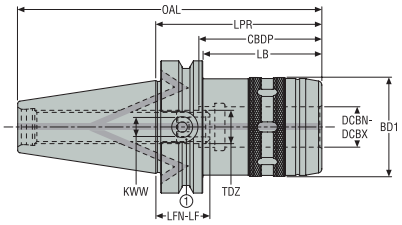
For	Key
	
All	03MS04C

BT Taper-Face-AD/ADB

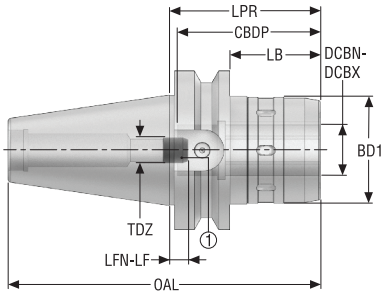
– Metric / *Inch*



Design 1



Design 2

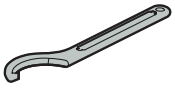


- For reduction sleeves, see page(s) 398-399
- For 'Stop screws for through coolant', see page(s) 400-401
- For ISO attribute explanation, see page 14

Spare parts:
1 = Stop screw

Designation	Item number	CTMS	DCBN-DCBX	OAL	LPR	LB	CBDP	BD1	LFN	LF	KWW	TDZ	Design	RFID hole	Balancing	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*						kg *lbs*
BT40TFADB-PMC20-065	03242413	BT40 TF ADB	20,0 *0.787*	128,4 *5.055*	65,0 *2.559*	36,5 *1.437*	63,0 *2.480*	65,0 *2.559*	2,0 *0.079*	7,0 *0.276*	8,0	M16	1	1	PB	1,4 *3.090*
BT40TFADB-PMC32-090	03211207	BT40 TF ADB	32,0 *1.260*	155,4 *6.118*	90,0 *3.543*	63,5 *2.500*	80,0 *3.150*	67,0 *2.638*	10,0 *0.394*	15,0 *0.591*	8,0	M16	1	1	PB	2,1 *4.630*
BT50TFADB-PMC20-085	03211208	BT50 TF ADB	20,0 *0.787*	186,8 *7.354*	85,0 *3.346*	47,0 *1.850*	63,0 *2.480*	49,0 *1.929*	22,0 *0.866*	27,0 *1.063*	8,0	M16	1	1	PB	4,0 *8.820*
BT50TFAD-PMC32-095	10185658	BT50 TF AD	32,0 *1.260*	196,8 *7.748*	95,0 *3.740*	57,0 *2.244*	90,0 *3.543*	67,0 *2.638*	5,0 *0.197*	10,0 *0.394*	8,0	M16	2	1	PB	4,6 *10.140*

Accessories

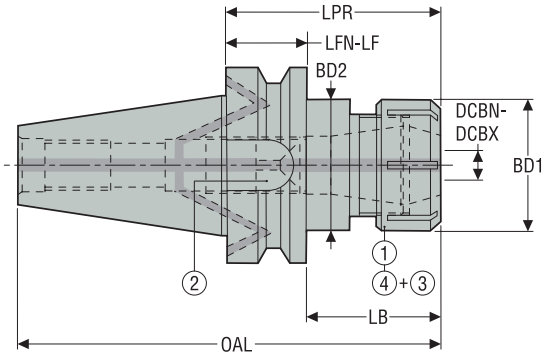
For	Spanner
	
BT40TFADB-PMC20-065	03BPMC20
BT40TFADB-PMC32-090	03BPMC32
BT50TFADB-PMC20-085	03BPMC20
BT50TFAD-PMC32-095	03BPMC32

Spare Parts, included in delivery

For	Extractor for reduction sleeves	Sealing Screws	Stop screw
			
BT40TFADB-PMC20-065	03EXTPMC	950A0406	19BEPMC01
BT40TFADB-PMC32-090	03EXTPMC	950A0406	19BEPMC01
BT50TFADB-PMC20-085	03EXTPMC	950A0606	19BEPMC01
BT50TFAD-PMC32-095	03EXTPMC	–	19BEPMC01

BT Taper-Face-ADB

ISO 15488
– Metric / *Inch*





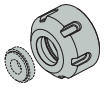
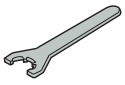
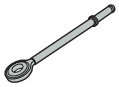
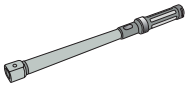
Accessories:
3 = Sealing ring
4 = Sealing nut

Spare parts:
1 = Nut
2 = Stop screw

- Run-out 10 µm maximum at 3 x ∅DCBN-DCBX
- For ER extensions and ER collets, see page(s) 375, 411, 412, 413, 414
- For ER sealing rings, see page(s) 418, 419
- For ISO attribute explanation, see page 14

Designation	Item number	CTMS	DCBN	DCBX	CTWS	LPR	BD2	BD1	OAL	LB	LFN	LF	RFID hole	Balan-cing	Weight
			mm *inch*	mm *inch*		mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*			kg *lbs*
E3214567525120	02926024	BT40 TF ADB	1,0 *0.039*	16,0 *0.630*	ER 25	120,0 *4.724*	42,0 *1.654*	42,0 *1.654*	185,4 *7.299*	95,0 *3.740*	52,0 *2.047*	82,0 *3.228*	1	G2.5	1,7 *3.750*
E321456753270	02926025	BT40 TF ADB	2,0 *0.079*	20,0 *0.787*	ER 32	70,0 *2.756*	50,0 *1.969*	50,0 *1.969*	135,4 *5.331*	45,0 *1.772*	7,0 *0.276*	27,0 *1.063*	1	G2.5	1,3 *2.870*
E3214567532120	02926026	BT40 TF ADB	2,0 *0.079*	20,0 *0.787*	ER 32	120,0 *4.724*	50,0 *1.969*	50,0 *1.969*	185,4 *7.299*	95,0 *3.740*	33,0 *1.299*	77,0 *3.031*	1	G2.5	2,0 *4.410*
E321656753290	02926027	BT50 TF ADB	2,0 *0.079*	20,0 *0.787*	ER 32	90,0 *3.543*	50,0 *1.969*	50,0 *1.969*	191,8 *7.551*	55,0 *2.165*	27,0 *1.063*	47,0 *1.850*	1	G2.5	4,0 *8.820*
E3216567532150	02926028	BT50 TF ADB	2,0 *0.079*	20,0 *0.787*	ER 32	150,0 *5.906*	50,0 *1.969*	50,0 *1.969*	251,8 *9.913*	115,0 *4.528*	29,0 *1.142*	107,0 *4.213*	1	G2.5	4,8 *10.580*
E3216567540100	02926029	BT50 TF ADB	3,0 *0.118*	26,0 *1.024*	ER 40	100,0 *3.937*	63,0 *2.480*	63,0 *2.480*	201,8 *7.945*	65,0 *2.559*	16,0 *0.630*	50,0 *1.969*	1	G2.5	4,4 *9.700*

Accessories

For Taper/ size	Sealing nut	Socket	Spanner	Spanner 1	Torque key
					
BT40 TF/ ER25	08B587525IC	–	03B587525	–	03DYD020200
BT40 TF/ ER32	08B587532IC	03ER050	03B587532	03BR050	03DYD020200
BT50 TF/ ER32	08B587532IC	03ER050	03B587532	03BR050	03DYD020200
BT50 TF/ ER40	08B587540IC	03ER063	03B587540	03BR063	03DYD020200

Spare Parts, included in delivery

For Taper/ size	Nut	Sealing Screws	Stop screw
			
BT40 TF/ ER25	08B587525X	950A0406	19B58718
BT40 TF/ ER32	08B587532X	950A0406	19B58722
BT50 TF/ ER32	08B587532X	950A0606	19B58722
BT50 TF/ ER40	08B587540X	950A0606	19B58730



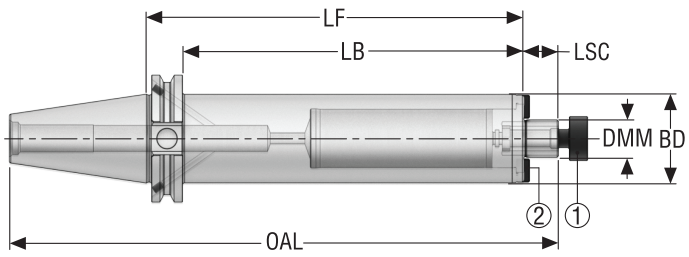
CAT

Seco range of rotating holders allow you to get the most out of both your machine and tool by offering a comprehensive array of solutions to connect them. The range covers all standard workpiece side connections, as well Seco's unique connections. Machine side connections are included for most of the norms, including **CAT-V**.

- Steadyline, vibration damping shell mill holders
- Shell mill holders, with through coolant channels
- Disc mill holders
- Side lock holders, Weldon
- Shrinkfit holders
- High precision collet chucks
- Hydraulic chucks and Power milling chucks
- ER collet chucks
- Tapping chucks

CAT / ASME B5.50-1994-ADB

Steadyline®, vibration damping – Inch



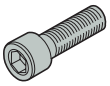


Spare parts:
1 = Bolt
2 = Tenon/Screw

• For ISO attribute explanation, see page 14

Designation	Item number	CTMS	DMM	LF	BD	OAL	LB	LSC	Design	RFID hole	Balan-cing	Weight
			inch	inch	inch	inch	inch	inch				lbs
E25025555075750	02675787	CAT40 ADB	0.750	7.500	1.750	10.882	6.748	0.689	1	1	PB	6.920
E25025555100900	02675797	CAT40 ADB	1.000	9.004	2.250	12.386	8.252	0.689	1	1	PB	12.570
E25045555150D75	02753477	CAT50 ADB	1.500	13.752	3.500	18.699	13.000	0.941	1	1	PB	44.090

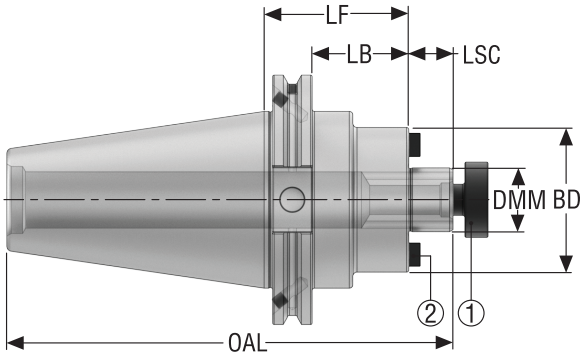
Spare Parts, included in delivery

For	Bolt	Screw	Sealing Screws	Tenon
				
E25025555075750	58211905	950D0312	950A0406	16C2080712A
E25025555100900	58212540	950D0416	950A0406	16C2091014A
E25045555150D75	58213810	950D0616	950A0606	16C2151421A

With through coolant channels – Inch

CAT / ASME B5.50-1994-ADB



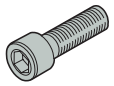


- DMM 2.500", includes 4 threaded holes for 5/8-11 UNC screws on the bearing face on ∅4"
- For ISO attribute explanation, see page 14

Spare parts:
1 = Bolt
2 = Tenon/Screw (not removable)

Designation	Item number	CTMS	DMM	LF	BD	OAL	LB	LSC	RFID hole	Balancing	Weight
			inch	inch	inch	inch	inch	inch			lbs
CAT40ADB-SM0.500-1.500-L1	03197127	CAT40 ADB	0.500	1.500	1.437	4.749	0.750	0.562	1	PB	2.200
CAT40ADB-SM0.750-1.500-L1	03197128	CAT40 ADB	0.750	1.500	1.750	4.874	0.750	0.687	1	PB	2.430
CAT40ADB-SM0.750-1.750-L1	03197129	CAT40 ADB	0.750	1.750	1.750	5.124	1.000	0.687	1	PB	2.650
CAT40ADB-SM0.750-4.000-L1	03197130	CAT40 ADB	0.750	4.000	1.750	7.374	3.250	0.687	1	PB	4.190
CAT40ADB-SM1.000-2.000-L1	03197131	CAT40 ADB	1.000	2.000	2.250	5.374	1.250	0.687	1	PB	6.610
CAT40ADB-SM1.000-2.250-L1	03197132	CAT40 ADB	1.000	2.250	2.250	5.624	1.500	0.687	1	PB	3.530
CAT40ADB-SM1.000-4.000-L1	03197133	CAT40 ADB	1.000	4.000	2.250	7.374	3.250	0.687	1	PB	4.850
CAT40ADB-SM1.250-2.250-L1	03197134	CAT40 ADB	1.250	2.250	2.750	5.624	1.500	0.687	1	PB	3.750
CAT40ADB-SM1.500-2.250-L1	03197136	CAT40 ADB	1.500	2.250	3.750	5.874	1.500	0.937	1	PB	5.950
CAT40ADB-SM1.500-4.000-L1	03197138	CAT40 ADB	1.500	4.000	3.750	7.624	3.250	0.937	1	PB	9.040
CAT50ADB-SM0.750-2.000-L1	03197141	CAT50 ADB	0.750	2.000	1.750	6.687	1.250	0.687	1	PB	7.280
CAT50ADB-SM0.750-3.500-L1	03197142	CAT50 ADB	0.750	3.500	1.750	8.187	2.750	0.687	1	PB	8.600
CAT50ADB-SM1.000-2.250-L1	03197145	CAT50 ADB	1.000	2.250	2.250	6.937	1.500	0.687	1	PB	8.160
CAT50ADB-SM1.000-4.000-L1	03197146	CAT50 ADB	1.000	4.000	2.250	8.687	3.250	0.687	1	PB	9.700
CAT50ADB-SM1.000-6.000-L1	03197147	CAT50 ADB	1.000	6.000	2.250	10.687	5.250	0.687	1	PB	11.900
CAT50ADB-SM1.250-1.500-L1	03197148	CAT50 ADB	1.250	1.500	2.750	6.187	0.750	0.687	1	PB	7.500
CAT50ADB-SM1.500-2.250-L1	03197150	CAT50 ADB	1.500	2.250	3.750	7.187	1.500	0.937	1	PB	10.140
CAT50ADB-SM1.500-4.000-L1	03197152	CAT50 ADB	1.500	4.000	3.750	8.937	3.250	0.937	1	PB	14.330
CAT50ADB-SM1.500-6.000-L1	03197153	CAT50 ADB	1.500	6.000	3.750	10.937	5.250	0.937	1	PB	17.200
CAT50ADB-SM2.000-2.400-L1	03197154	CAT50 ADB	2.000	2.400	4.874	7.337	1.650	0.937	1	PB	12.790
CAT50ADB-SM2.000-4.000-L1	03197156	CAT50 ADB	2.000	4.000	4.874	8.937	3.250	0.937	1	PB	18.740
CAT50ADB-SM2.500-2.400-L1	03197155	CAT50 ADB	2.500	2.400	4.874	7.525	1.650	1.125	1	PB	14.330

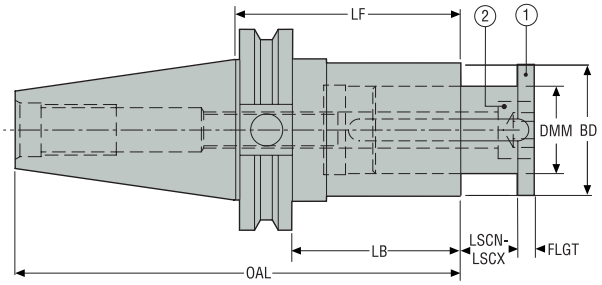
Spare Parts, included in delivery

For	Bolt	Plug	Screw
		 1x	
CAT40ADB-SM0.500-1.500-L1	58281270	564301701	950DNF025050
CAT40ADB-SM0.750-1.500-L1	58281905	564301701	950DNF037100
CAT40ADB-SM0.750-1.750-L1	58281905	564301701	950DNF037100
CAT40ADB-SM0.750-4.000-L1	58281905	564301701	950DNF037100
CAT40ADB-SM1.000-2.000-L1	58282540	564301701	950DNF050125
CAT40ADB-SM1.000-2.250-L1	58282540	564301701	950DNF050125
CAT40ADB-SM1.000-4.000-L1	58282540	564301701	950DNF050125
CAT40ADB-SM1.250-2.250-L1	58283175	564301701	950DNF062125
CAT40ADB-SM1.500-2.250-L1	58283810	564301701	58283810A
CAT40ADB-SM1.500-4.000-L1	58283810	564301701	58283810A
CAT50ADB-SM0.750-2.000-L1	58281905	564301702	950DNF037100
CAT50ADB-SM0.750-3.500-L1	58281905	564301702	950DNF037100
CAT50ADB-SM1.000-2.250-L1	58282540	564301702	950DNF050125
CAT50ADB-SM1.000-4.000-L1	58282540	564301702	950DNF050125
CAT50ADB-SM1.000-6.000-L1	58282540	564301702	950DNF050125
CAT50ADB-SM1.250-1.500-L1	58283175	564301702	950DNF062125
CAT50ADB-SM1.500-2.250-L1	58283810	564301702	58283810A
CAT50ADB-SM1.500-4.000-L1	58283810	564301702	58283810A
CAT50ADB-SM1.500-6.000-L1	58283810	564301702	58283810A
CAT50ADB-SM2.000-2.400-L1	58285080	564301702	–
CAT50ADB-SM2.000-4.000-L1	58285080	564301702	–
CAT50ADB-SM2.500-2.400-L1	58286350	564301702	950DNC062225

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– Inch



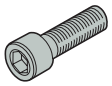


- Best suited for Seco disc mill cutters Type A
- For ISO attribute explanation, see page 14

Spare parts:
1 = Slide rod
2 = Screw

Designation	Item number	CTMS	DMM	LF	BD	OAL	LB	FLGT	LSCN	LSCX	RFID hole	Balancing	Weight
			inch	inch	inch	inch	inch	inch	inch	inch			lbs
E25225657100350	02870716	CAT40 AD	1.000	3.500	1.650	7.506	2.750	0.196	0	0.591	1	PB	3.530
E25225657125475	02870717	CAT40 AD	1.250	4.750	1.970	7.443	4.000	0.236	0	0.945	1	PB	5.290
E25245657100350	02870718	CAT50 AD	1.000	3.500	1.650	7.504	2.750	0.196	0	0.591	1	PB	8.160
E25245657125475	02870719	CAT50 AD	1.250	4.750	1.970	8.756	4.000	0.236	0	0.945	1	PB	9.700
E25245657150600	02870720	CAT50 AD	1.500	6.000	2.245	10.004	5.250	0.276	0	1.180	1	PB	11.900
E25245657200625	02870721	CAT50 AD	2.000	6.250	2.835	10.256	5.500	0.315	0	1.260	1	PB	15.650

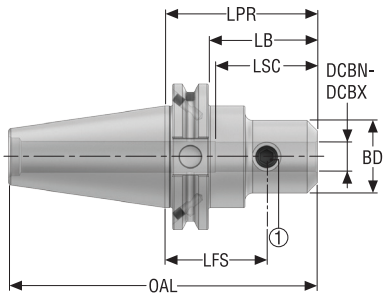
Spare Parts, included in delivery

For DMM	Screw	Slide rod
		
1.000	950D1070	5657100
1.250	950D1270	5657125
1.500	950D16100	5657150
2.000	950D16120	5657200

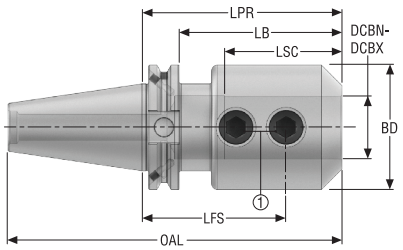
CAT / ASME B5.50-1994-ADB

– Metric / *Inch*

Design 1



Design 2





Spare parts:
1 = Locking screw

• For ISO attribute explanation, see page 14

Designation	Item number	CTMS	DCBN-DCBX	LPR	LB	LSC	BD	OAL	LFS	Design	RFID hole	Balan-cing	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*				kg *lbs*
CAT40ADB-EM16-2.750	10008188	CAT40 ADB	16,0 *0.630*	69,85 *2.750*	50,8 *2.000*	47,0 *1.850*	48,0 *1.890*	138,1 *5.437*	45,85 *1.805*	1	1	PB	1,4 *3.090*
CAT40ADB-EM20-3.500	10008189	CAT40 ADB	20,0 *0.787*	88,9 *3.500*	69,85 *2.750*	49,0 *1.929*	52,0 *2.047*	157,15 *6.187*	63,9 *2.516*	1	1	PB	1,7 *3.750*
CAT40ADB-EM25-4.000	10008190	CAT40 ADB	25,0 *0.984*	101,6 *4.000*	82,55 *3.250*	54,0 *2.126*	65,0 *2.559*	169,85 *6.687*	77,6 *3.055*	2	1	PB	2,4 *5.290*
CAT40ADB-EM32-4.000	10008191	CAT40 ADB	32,0 *1.260*	101,6 *4.000*	82,55 *3.250*	58,0 *2.283*	72,0 *2.835*	101,6 *4.000*	77,6 *3.055*	2	1	PB	2,6 *5.730*
CAT50ADB-EM12-2.620	10008192	CAT50 ADB	12,0 *0.472*	66,548 *2.620*	47,498 *1.870*	46,0 *1.811*	42,0 *1.654*	168,148 *6.620*	44,048 *1.734*	1	1	PB	3,3 *7.280*
CAT50ADB-EM16-3.750	10008193	CAT50 ADB	16,0 *0.630*	95,25 *3.750*	76,2 *3.000*	49,0 *1.929*	48,0 *1.890*	196,85 *7.750*	71,25 *2.805*	1	1	PB	3,6 *7.940*
CAT50ADB-EM20-3.750	10008194	CAT50 ADB	20,0 *0.787*	95,25 *3.750*	76,2 *3.000*	51,0 *2.008*	52,0 *2.047*	196,85 *7.750*	70,25 *2.766*	1	1	PB	3,7 *8.160*
CAT50ADB-EM25-4.000	10008195	CAT50 ADB	25,0 *0.984*	101,6 *4.000*	82,55 *3.250*	54,0 *2.126*	54,0 *2.126*	203,2 *8.000*	77,6 *3.055*	2	1	PB	4,3 *9.480*
CAT50ADB-EM32-4.000	10008196	CAT50 ADB	32,0 *1.260*	101,6 *4.000*	82,55 *3.250*	60,0 *2.362*	72,0 *2.835*	203,2 *8.000*	77,6 *3.055*	2	1	PB	4,5 *9.920*
CAT50ADB-EM40-4.500	10008197	CAT50 ADB	40,0 *1.575*	114,3 *4.500*	95,25 *3.750*	70,0 *2.756*	80,0 *3.150*	215,9 *8.500*	84,3 *3.319*	2	1	PB	5,2 *11.460*

Spare Parts, included in delivery

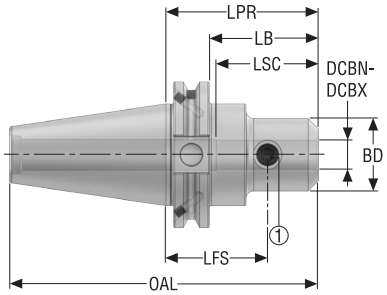
For size	Locking screw	Plug
		
CAT40ADB-EM16-2.750	951C1416	564301701
CAT40ADB-EM20-3.500	951C1616	564301701
CAT40ADB-EM25-4.000	951C1820	564301701
CAT40ADB-EM32-4.000	951C2020	564301701
CAT50ADB-EM12-2.620	951C1216	564301702
CAT50ADB-EM16-3.750	951C1416	564301702
CAT50ADB-EM20-3.750	951C1616	564301702
CAT50ADB-EM25-4.000	951C1820	564301702
CAT50ADB-EM32-4.000	951C2020	564301702
CAT50ADB-EM40-4.500	951C2020	564301702

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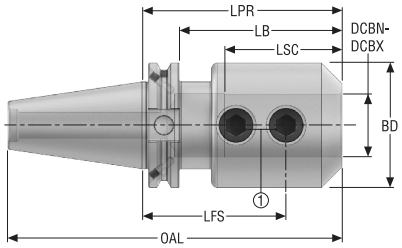
– Inch



Design 1



Design 2



• For ISO attribute explanation, see page 14

Spare parts:
1 = Locking screw

Designation	Item number	CTMS	DCBN-DCBX	LPR	LB	LSC	BD	OAL	LFS	Design	RFID hole	Balancing	Weight
			inch	inch	inch	inch	inch	inch	inch				lbs
CAT40ADB-EM0.250-2.500	03201497	CAT40 ADB	0.250	2.500	1.750	0.750	0.875	5.187	2.125	1	1	PB	2.430
CAT40ADB-EM0.375-2.000	03201499	CAT40 ADB	0.375	2.000	1.250	1.500	1.340	4.687	1.250	1	1	PB	2.650
CAT40ADB-EM0.500-1.750	03201501	CAT40 ADB	0.500	1.750	1.000	1.764	1.750	4.437	0.875	1	1	PB	2.430
CAT40ADB-EM0.500-2.620	03201503	CAT40 ADB	0.500	2.620	1.870	1.764	1.250	5.307	1.745	1	1	PB	2.650
CAT40ADB-EM0.625-1.750	03201504	CAT40 ADB	0.625	1.750	1.000	1.764	1.750	4.437	0.889	1	1	PB	2.200
CAT40ADB-EM0.625-2.500	03201505	CAT40 ADB	0.625	2.500	1.750	1.890	1.875	5.187	1.562	1	1	PB	2.870
CAT40ADB-EM0.750-1.750	03201507	CAT40 ADB	0.750	1.750	1.000	2.000	1.750	4.437	0.875	1	1	PB	2.200
CAT40ADB-EM0.750-2.500	03201508	CAT40 ADB	0.750	2.500	1.750	2.000	2.000	5.187	1.500	1	1	PB	2.870
CAT40ADB-EM0.750-3.500	03201509	CAT40 ADB	0.750	3.500	2.750	2.000	1.750	6.187	2.500	1	1	PB	7.280
CAT40ADB-EM1.000-1.750	03201510	CAT40 ADB	1.000	1.750	1.000	2.000	1.900	4.437	0.625	1	1	PB	2.200
CAT40ADB-EM1.000-4.000	03201511	CAT40 ADB	1.000	4.000	3.250	2.750	2.000	6.687	2.875	2	1	PB	5.070
CAT40ADB-EM1.250-4.000	03201512	CAT40 ADB	1.250	4.000	3.250	3.250	2.500	6.687	2.875	2	1	PB	4.410
CAT40ADB-EM1.500-4.000	03201513	CAT40 ADB	1.500	4.000	3.250	2.375	2.628	6.687	2.875	2	1	PB	5.070
CAT50ADB-EM0.375-2.500	03201515	CAT50 ADB	0.375	2.500	1.750	1.500	1.000	6.500	1.750	1	1	PB	6.830
CAT50ADB-EM0.500-2.620	03201516	CAT50 ADB	0.500	2.620	1.875	1.750	1.250	6.625	1.775	1	1	PB	6.830
CAT50ADB-EM0.625-3.750	03201518	CAT50 ADB	0.625	2.500	3.000	1.880	1.500	7.750	2.812	1	1	PB	7.720
CAT50ADB-EM0.750-2.500	03201521	CAT50 ADB	0.750	2.500	1.750	2.000	1.750	6.500	1.500	1	1	PB	7.050
CAT50ADB-EM0.750-3.750	03201522	CAT50 ADB	0.750	3.750	3.000	2.000	1.750	7.750	2.750	1	1	PB	8.380
CAT50ADB-EM1.000-1.620	03201524	CAT50 ADB	1.000	1.620	0.870	2.361	2.750	5.620	0.495	2	1	PB	6.610
CAT50ADB-EM1.000-4.000	03201526	CAT50 ADB	1.000	4.000	3.250	2.750	2.000	8.000	2.875	2	1	PB	8.380
CAT50ADB-EM1.000-6.000	03201527	CAT50 ADB	1.000	6.000	5.250	2.750	2.000	10.000	4.875	2	1	PB	10.140
CAT50ADB-EM1.250-4.000	03201528	CAT50 ADB	1.250	4.000	3.250	2.350	2.500	8.000	2.885	2	1	PB	9.260
CAT50ADB-EM1.500-2.620	03201530	CAT50 ADB	1.500	2.620	1.870	3.000	2.750	6.620	1.495	2	1	PB	7.500
CAT50ADB-EM1.500-4.000	03201531	CAT50 ADB	1.500	4.000	3.250	3.000	2.750	8.000	2.875	2	1	PB	9.260
CAT50ADB-EM1.500-6.000	03201533	CAT50 ADB	1.500	6.000	5.250	3.000	2.750	10.000	4.875	2	1	PB	11.680
CAT50ADB-EM2.000-5.620	03201534	CAT50 ADB	2.000	5.620	4.875	3.250	3.750	9.625	4.219	2	1	PB	16.530

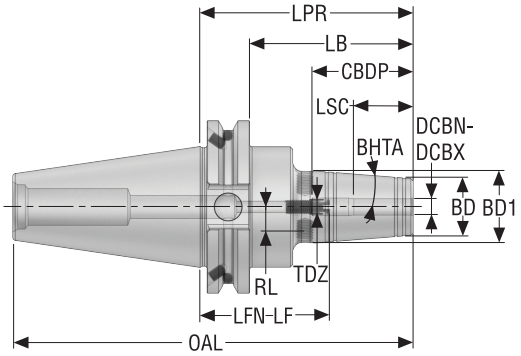
Spare Parts, included in delivery

For CTMS / DCBN	Locking screw	Locking screw, reduced	Plug
			
CAT40 / 0.250	951CNP025025	–	564301701
CAT40 / 0.375	951CNP037031	–	564301701
CAT40 / 0.500	951CNP043038	–	564301701
CAT40 / 0.625	951CNP056044	–	564301701
CAT40 / 0.750	951CNP062050	–	564301701
CAT40 / 1.000	951CNP075050	–	564301701
CAT40 / 1.250-1.500	951CNP075062	–	564301701
CAT50 / 0.375	951CNP037031	–	564301702
CAT50 / 0.500	951CNP043038	–	564301702
CAT50 / 0.625	951CNP056044	–	564301702
CAT50 / 0.750	951CNP062050	–	564301702
CAT50 / 1.000	951CNP075050	–	564301702
CAT50 / 1.250-1.500	951CNP075062	–	564301702
CAT50 / 2.000	951CNS100087	–	564301702
CAT50ADB-EM1.000-1.620	951CNP075050	951CNP062050	564301702

DIN type
– Metric / *Inch*

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- Run-out ≤3 µm
- Delivered with one stop screw
- For Shrinkfit extensions, see page(s) 373-374
- For ISO attribute explanation, see page 14

Designation	Item number	CTMS	DCBN-DCBX	LPR	LB	CBDP	LSC	BD1	BD2	OAL	LFN	LF	RL	TDZ	BHTA°	RFID hole	Balancing	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*					kg *lbs*
E2502560306312	02753286	CAT40 ADB	6,0 *0.236*	79,38 *3.125*	60,28 *2.373*	37,5 *1.476*	22,0 *0.866*	21,0 *0.827*	27,0 *1.063*	147,78 *5.818*	43,38 *1.708*	53,38 *2.102*	10,5 *0.413*	M5x0.8	4,5	1	G2.5	1,2 *2.650*
E2502560308312	02753287	CAT40 ADB	8,0 *0.315*	79,38 *3.125*	60,28 *2.373*	37,5 *1.476*	26,0 *1.024*	21,0 *0.827*	27,0 *1.063*	147,78 *5.818*	43,38 *1.708*	53,38 *2.102*	10,5 *0.413*	M6x1	4,5	1	G2.5	1,13 *2.490*
E2502560310350	02753288	CAT40 ADB	10,0 *0.394*	88,9 *3.500*	69,8 *2.748*	42,5 *1.673*	31,0 *1.220*	24,0 *0.945*	32,0 *1.260*	157,3 *6.193*	47,9 *1.886*	57,9 *2.280*	13,0 *0.512*	M8x1	4,5	1	G2.5	1,3 *2.870*
E2502560312350	02753290	CAT40 ADB	12,0 *0.472*	88,9 *3.500*	69,8 *2.748*	47,5 *1.870*	34,0 *1.339*	24,0 *0.945*	32,0 *1.260*	157,3 *6.193*	42,9 *1.689*	52,9 *2.083*	13,0 *0.512*	M10x1	4,5	1	G2.5	1,2 *2.650*
E2502560314350	02753292	CAT40 ADB	14,0 *0.551*	88,9 *3.500*	69,8 *2.748*	47,5 *1.870*	34,0 *1.339*	27,0 *1.063*	34,0 *1.339*	157,3 *6.193*	42,9 *1.689*	52,9 *2.083*	14,0 *0.551*	M10x1	4,5	1	G2.5	1,3 *2.870*
E2502560316350	02753293	CAT40 ADB	16,0 *0.630*	88,9 *3.500*	69,8 *2.748*	50,5 *1.988*	39,0 *1.535*	27,0 *1.063*	34,0 *1.339*	157,3 *6.193*	39,9 *1.571*	49,9 *1.965*	14,0 *0.551*	M12x1	4,5	1	G2.5	1,3 *2.870*
E2502560318375	02753294	CAT40 ADB	18,0 *0.709*	95,25 *3.750*	76,15 *2.998*	50,5 *1.988*	39,0 *1.535*	33,0 *1.299*	42,0 *1.654*	163,65 *6.443*	46,25 *1.821*	56,25 *2.215*	18,0 *0.709*	M12x1	4,5	1	G2.5	1,4 *3.090*
E2502560320375	02753295	CAT40 ADB	20,0 *0.787*	95,25 *3.750*	76,15 *2.998*	52,5 *2.067*	41,0 *1.614*	33,0 *1.299*	42,0 *1.654*	163,65 *6.443*	44,25 *1.742*	54,25 *2.136*	18,0 *0.709*	M16x1	4,5	1	G2.5	1,4 *3.090*
E2502560325400	02753296	CAT40 ADB	25,0 *0.984*	101,6 *4.000*	82,5 *3.248*	58,5 *2.303*	47,0 *1.850*	44,0 *1.732*	53,0 *2.087*	170,0 *6.693*	44,6 *1.756*	54,6 *2.150*	23,5 *0.925*	M16x1	4,5	1	G2.5	1,7 *3.750*
E2504560306400	02753297	CAT50 ADB	6,0 *0.236*	101,6 *4.000*	82,5 *3.248*	37,5 *1.476*	22,0 *0.866*	21,0 *0.827*	27,0 *1.063*	203,35 *8.006*	65,6 *2.583*	75,6 *2.976*	10,5 *0.413*	M5x0.8	4,5	1	G2.5	3,3 *7.280*
E2504560308400	02753299	CAT50 ADB	8,0 *0.315*	101,6 *4.000*	82,5 *3.248*	37,5 *1.476*	26,0 *1.024*	21,0 *0.827*	27,0 *1.063*	203,35 *8.006*	65,6 *2.583*	75,6 *2.976*	10,5 *0.413*	M6x1	4,5	1	G2.5	3,3 *7.280*
E2504560310400	02753300	CAT50 ADB	10,0 *0.394*	101,6 *4.000*	82,5 *3.248*	42,5 *1.673*	31,0 *1.220*	24,0 *0.945*	32,0 *1.260*	203,35 *8.006*	60,6 *2.386*	70,6 *2.780*	13,0 *0.512*	M8x1	4,5	1	G2.5	3,4 *7.500*
E2504560312400	02753301	CAT50 ADB	12,0 *0.472*	101,6 *4.000*	82,5 *3.248*	47,5 *1.870*	34,0 *1.339*	24,0 *0.945*	32,0 *1.260*	203,35 *8.006*	55,6 *2.189*	65,6 *2.583*	13,0 *0.512*	M10x1	4,5	1	G2.5	3,3 *7.280*
E2504560314400	02753302	CAT50 ADB	14,0 *0.551*	101,6 *4.000*	82,5 *3.248*	47,5 *1.870*	34,0 *1.339*	27,0 *1.063*	34,0 *1.339*	203,35 *8.006*	55,6 *2.189*	65,6 *2.583*	14,0 *0.551*	M10x1	4,5	1	G2.5	3,4 *7.500*
E2504560316400	02753303	CAT50 ADB	16,0 *0.630*	101,6 *4.000*	82,5 *3.248*	50,5 *1.988*	39,0 *1.535*	27,0 *1.063*	34,0 *1.339*	203,35 *8.006*	52,6 *2.071*	62,6 *2.465*	14,0 *0.551*	M12x1	4,5	1	G2.5	3,4 *7.500*
E2504560318400	02753304	CAT50 ADB	18,0 *0.709*	101,6 *4.000*	82,5 *3.248*	50,5 *1.988*	39,0 *1.535*	33,0 *1.299*	42,0 *1.654*	203,35 *8.006*	52,6 *2.071*	62,6 *2.465*	18,0 *0.709*	M12x1	4,5	1	G2.5	3,5 *7.720*
E2504560320400	02753305	CAT50 ADB	20,0 *0.787*	101,6 *4.000*	82,5 *3.248*	52,5 *2.067*	41,0 *1.614*	33,0 *1.299*	42,0 *1.654*	203,35 *8.006*	50,6 *1.992*	60,6 *2.386*	18,0 *0.709*	M16x1	4,5	1	G2.5	3,5 *7.720*
E2504560325400	02753306	CAT50 ADB	25,0 *0.984*	101,6 *4.000*	82,5 *3.248*	58,5 *2.303*	47,0 *1.850*	44,0 *1.732*	53,0 *2.087*	203,35 *8.006*	44,6 *1.756*	54,6 *2.150*	23,5 *0.925*	M16x1	4,5	1	G2.5	3,8 *8.380*
E2504560332400	02753308	CAT50 ADB	32,0 *1.260*	101,6 *4.000*	82,5 *3.248*	62,5 *2.461*	51,0 *2.008*	44,0 *1.732*	53,0 *2.087*	203,35 *8.006*	40,6 *1.598*	50,6 *1.992*	23,5 *0.925*	M16x1	4,5	1	G2.5	3,6 *7.940*

Accessories

For	Balancing screws
	
All	90ZQ01

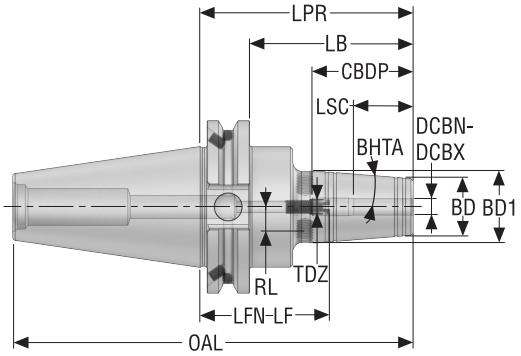
Spare Parts, included in delivery

For Taper/ DCBN-DCBX		Sealing Screws	Stop screw
			
CAT40	6/ *0.236*	950A0406	19BDR05165
CAT40	8/ *0.315*	950A0406	19BDR06165
CAT40	10/ *0.394*	950A0406	19BDR08165
CAT40	12/ *0.472*-14/ *0.551*	950A0406	19BDR10165
CAT40	16/ *0.630*-18/ *0.709*	950A0406	19BDR12165
CAT40	20/ *0.787*-32/ *1.260*	950A0406	19BDR16165
CAT50	6/ *0.236*	950A0606	19BDR05165
CAT50	8/ *0.315*	950A0606	19BDR06165
CAT50	10/ *0.394*	950A0606	19BDR08165
CAT50	12/ *0.472*-14/ *0.551*	950A0606	19BDR10165
CAT50	16/ *0.630*-18/ *0.709*	950A0606	19BDR12165
CAT50	20/ *0.787*-32/ *1.260*	950A0606	19BDR16165

DIN type – Inch

CAT / ASME B5.50-1994-ADB





- Run-out ≤3 µm
- Delivered with one stop screw
- For Shrinkfit extensions, see page(s) 373-374
- For ISO attribute explanation, see page 14

Designation	Item number	CTMS	DCBN-DCBX	LPR	LB	CBDP	LSC	BD1	BD2	OAL	LFN	LF	RL	TDZ	BHTA°	RFID hole	Balancing	Weight
			inch	inch	inch	inch	inch	inch	inch	inch	inch	inch	inch					lbs
E2502560302595	02753252	CAT40 ADB	0.250	3.740	2.988	1.476	0.866	0.827	1.063	6.433	2.323	2.717	0.413	M5x0.8	4,5	1	G2.5	2.650
E25025603025160	02753249	CAT40 ADB	0.250	6.299	5.547	1.476	0.866	0.827	1.063	8.992	4.882	5.276	0.413	M5x0.8	4,5	1	G2.5	3.310
E2502560303795	02753256	CAT40 ADB	0.375	3.740	2.988	1.673	1.220	0.945	1.260	6.433	2.126	2.520	0.512	M8x1	4,5	1	G2.5	2.870
E25025603037160	02753255	CAT40 ADB	0.375	6.299	5.547	1.673	1.220	0.945	1.260	8.992	4.685	5.079	0.512	M8x1	4,5	1	G2.5	3.750
E2502560305095	02753258	CAT40 ADB	0.500	3.740	2.988	1.791	1.339	0.945	1.260	6.433	2.008	2.402	0.512	M10x1	4,5	1	G2.5	2.870
E25025603050160	02753257	CAT40 ADB	0.500	6.299	5.547	1.791	1.339	0.945	1.260	8.992	4.567	4.961	0.512	M10x1	4,5	1	G2.5	3.530
E2502560306295	02753260	CAT40 ADB	0.625	3.740	2.988	1.988	1.535	1.063	1.339	6.433	1.811	2.205	0.551	M12x1	4,5	1	G2.5	2.870
E25025603062160	02753259	CAT40 ADB	0.625	6.299	5.547	1.988	1.535	1.063	1.339	8.992	4.370	4.764	0.551	M12x1	4,5	1	G2.5	3.750
E2502560307595	02753264	CAT40 ADB	0.750	3.740	2.988	2.067	1.614	1.299	1.654	6.433	1.732	2.126	0.709	M16x1	4,5	1	G2.5	3.090
E25025603075160	02753261	CAT40 ADB	0.750	6.299	5.547	2.067	1.614	1.299	1.654	8.992	4.291	4.685	0.709	M16x1	4,5	1	G2.5	4.190
E25025603100115	02753265	CAT40 ADB	1.000	4.528	3.776	2.303	1.850	1.732	2.087	7.220	2.283	2.677	0.925	M16x1	4,5	1	G2.5	4.190
E25045603025100	02753268	CAT50 ADB	0.250	3.937	3.185	1.476	0.866	0.827	1.063	7.943	2.520	2.913	0.413	M5x0.8	4,5	1	G2.5	7.280
E25045603025160	02753269	CAT50 ADB	0.250	6.299	5.547	1.476	0.866	0.827	1.063	10.305	4.882	5.276	0.413	M5x0.8	4,5	1	G2.5	7.720
E25045603037100	02753271	CAT50 ADB	0.375	3.937	3.185	1.673	1.220	0.945	1.260	7.943	2.323	2.717	0.512	M8x1	4,5	1	G2.5	7.500
E25045603037160	02753272	CAT50 ADB	0.375	6.299	5.547	1.673	1.220	0.945	1.260	10.305	4.685	5.079	0.512	M8x1	4,5	1	G2.5	8.160
E25045603050100	02753273	CAT50 ADB	0.500	3.937	3.185	1.791	1.339	0.945	1.260	7.943	2.205	2.598	0.512	M10x1	4,5	1	G2.5	7.280
E25045603050160	02753274	CAT50 ADB	0.500	6.299	5.547	1.791	1.339	0.945	1.260	10.305	4.567	4.961	0.512	M10x1	4,5	1	G2.5	8.160
E25045603062100	02753276	CAT50 ADB	0.625	3.937	3.185	1.988	1.535	1.063	1.339	7.943	2.008	2.402	0.551	M12x1	4,5	1	G2.5	7.500
E25045603062160	02753277	CAT50 ADB	0.625	6.299	5.547	1.988	1.535	1.063	1.339	10.305	4.370	4.764	0.551	M12x1	4,5	1	G2.5	8.160
E25045603075100	02753280	CAT50 ADB	0.750	3.937	3.185	2.067	1.614	1.299	1.654	7.943	1.929	2.323	0.709	M16x1	4,5	1	G2.5	7.720
E25045603075160	02753281	CAT50 ADB	0.750	6.299	5.547	2.067	1.614	1.299	1.654	10.305	4.291	4.685	0.709	M16x1	4,5	1	G2.5	9.040
E25045603100100	02753282	CAT50 ADB	1.000	3.947	3.195	2.303	1.850	1.732	2.087	7.953	1.703	2.096	0.925	M16x1	4,5	1	G2.5	8.380
E25045603100160	02753283	CAT50 ADB	1.000	6.299	5.547	2.303	1.850	1.732	2.087	10.305	4.055	4.449	0.925	M16x1	4,5	1	G2.5	10.360
E25045603125110	02753284	CAT50 ADB	1.250	4.331	3.579	2.461	2.008	1.732	2.087	8.337	1.929	2.323	0.925	M16x1	4,5	1	G2.5	8.160

Accessories

For	Balancing screws
	
All	90ZQ01

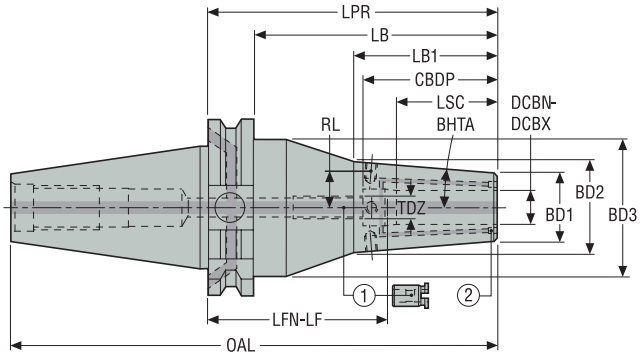
Spare Parts, included in delivery

For Taper/ DCBN-DCBX	Sealing Screws	Stop screw
		
CAT40/ 0.250	950A0406	19BDR05165
CAT40/ 0.375	950A0406	19BDR08165
CAT40/ 0.500	950A0406	19BDR10165
CAT40/ 0.625	950A0406	19BDR12165
CAT40/ 0.750-1.000	950A0406	19BDR16165
CAT50/ 0.250	950A0606	19BDR05165
CAT50/ 0.375	950A0606	19BDR08165
CAT50/ 0.500	950A0606	19BDR10165
CAT50/ 0.625	950A0606	19BDR12165
CAT50/ 0.750-1.250	950A0606	19BDR16165

Reinforced type
– Metric / *Inch*

CAT / ASME B5.50-1994-ADB





- Run-out ≤3 µm
- With coolant supply channels towards the tool (plugged)
- Delivered with one stop screw
- For ISO attribute explanation, see page 14

Spare parts:
1 = Stop screw
2 = Sealing plugs

Designation	Item number	CTMS	DCBN-DCBX	LPR	LB	LB1	CBDP	LSC	BD1	BD2	BD3	OAL	LFN	LF	RL	TDZ	BHTA°	RFID hole	Balancing	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*					kg *lbs*
E250256001275	02904796	CAT40 ADB	12,0 *0.472*	75,0 *2.953*	55,9 *2.201*	40,0 *1.575*	47,5 *1.870*	34,0 *1.339*	27,0 *1.063*	35,2 *1.385*	44,45 *1.750*	143,4 *5.646*	29,0 *1.142*	39,0 *1.535*	13,5 *0.531*	M10x1	4,5	1	G2.5	1,2 *2.650*
E250256001680	02904797	CAT40 ADB	16,0 *0.630*	80,0 *3.150*	60,9 *2.398*	45,0 *1.772*	50,5 *1.988*	39,0 *1.535*	33,0 *1.299*	42,1 *1.659*	44,45 *1.750*	148,4 *5.843*	31,0 *1.220*	41,0 *1.614*	17,0 *0.669*	M12x1	4,5	1	G2.5	1,3 *2.870*
E250256002080	02904798	CAT40 ADB	20,0 *0.787*	80,0 *3.150*	60,9 *2.398*	45,0 *1.772*	52,5 *2.067*	41,0 *1.614*	44,0 *1.732*	53,1 *2.092*	44,45 *1.750*	148,4 *5.843*	29,0 *1.142*	39,0 *1.535*	21,5 *0.846*	M16x1	4,5	1	G2.5	1,5 *3.310*
E250456001285	02904799	CAT50 ADB	12,0 *0.472*	85,0 *3.346*	65,9 *2.594*	50,0 *1.969*	47,5 *1.870*	34,0 *1.339*	27,0 *1.063*	35,2 *1.385*	69,95 *2.754*	186,75 *7.352*	39,0 *1.535*	49,0 *1.929*	13,5 *0.531*	M10x1	4,5	1	G2.5	3,4 *7.500*
E250456001685	02904800	CAT50 ADB	16,0 *0.630*	85,0 *3.346*	65,9 *2.594*	50,0 *1.969*	50,5 *1.988*	39,0 *1.535*	33,0 *1.299*	42,1 *1.659*	69,95 *2.754*	186,75 *7.352*	36,0 *1.417*	46,0 *1.811*	17,0 *0.669*	M12x1	4,5	1	G2.5	3,4 *7.500*
E250456002090	02904801	CAT50 ADB	20,0 *0.787*	90,0 *3.543*	70,9 *2.791*	55,0 *2.165*	52,5 *2.067*	41,0 *1.614*	44,0 *1.732*	53,1 *2.092*	69,95 *2.754*	191,75 *7.549*	39,0 *1.535*	49,0 *1.929*	21,5 *0.846*	M16x1	4,5	1	G2.5	3,8 *8.380*

Accessories

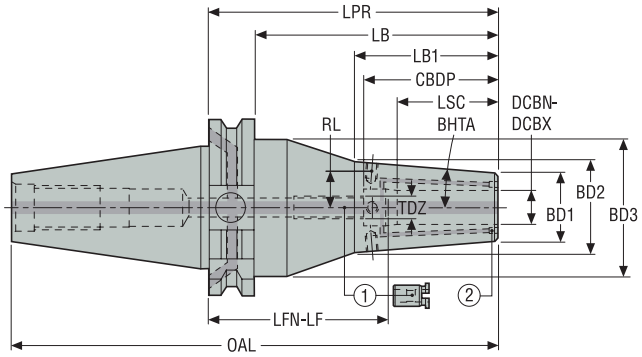
For	Balancing screws
	
All	90ZQ01

Spare Parts, included in delivery

For	Sealing plugs	Sealing Screws	Stop screw
			
E250256001275	90AI03	950A0406	19BDR10165
E250256001680	90AI03	950A0406	19BDR12165
E250256002080	90AI04	950A0406	19BDR16165
E250456001285	90AI03	950A0606	19BDR10165
E250456001685	90AI03	950A0606	19BDR12165
E250456002090	90AI04	950A0606	19BDR16165

CAT / ASME B5.50-1994-ADB

Reinforced type – Inch





Spare parts:
1 = Stop screw
2 = Sealing plugs

- Run-out ≤3 µm
- With coolant supply channels towards the tool (plugged)
- Delivered with one stop screw
- For ISO attribute explanation, see page 14

Designation	Item number	CTMS	DCBN-DCBX	LPR	LB	LB1	CBDP	LSC	BD1	BD2	BD3	OAL	LFN	LF	RL	TDZ	BHTA°	RFID hole	Balan-cing	Weight
			inch	inch	inch	inch	inch	inch	inch	inch	inch	inch	inch	inch	inch					lbs
E25025600050287	02904855	CAT40 ADB	0.500	2.874	2.122	1.496	1.870	1.339	1.063	1.385	1.750	5.567	1.063	1.457	0.531	M10x1	4,5	1	G2.5	2.650
E25025600062300	02904856	CAT40 ADB	0.625	3.000	2.248	1.622	1.988	1.535	1.299	1.659	1.750	5.693	1.071	1.465	0.669	M12x1	4,5	1	G2.5	2.870
E25025600075312	02904857	CAT40 ADB	0.750	3.125	2.373	1.747	1.747	1.614	1.732	2.092	1.750	5.818	1.117	1.511	0.846	M16x1	4,5	1	G2.5	3.310
E25045600050325	02904858	CAT50 ADB	0.500	3.252	2.500	1.874	1.870	1.339	1.063	1.385	2.754	7.258	1.441	1.835	0.531	M10x1	4,5	1	G2.5	7.280
E25045600062325	02904859	CAT50 ADB	0.625	3.252	2.500	1.874	1.988	1.535	1.299	1.659	2.754	7.258	1.323	1.717	0.669	M12x1	4,5	1	G2.5	7.500
E25045600075350	02904860	CAT50 ADB	0.750	3.500	2.748	2.122	2.067	1.614	1.732	2.092	2.754	7.506	1.492	1.886	0.846	M16x1	4,5	1	G2.5	8.160
E25045600100400	02904861	CAT50 ADB	1.000	4.000	3.248	2.622	2.303	1.850	1.890	2.249	2.754	8.006	1.756	2.150	0.984	M16x1	4,5	1	G2.5	8.820
E25045600125400	02904862	CAT50 ADB	1.250	4.000	3.248	2.622	2.461	2.008	1.890	2.249	2.754	8.006	1.598	1.992	0.984	M16x1	4,5	1	G2.5	8.600

Accessories

For	Balancing screws
	
All	90ZQ01

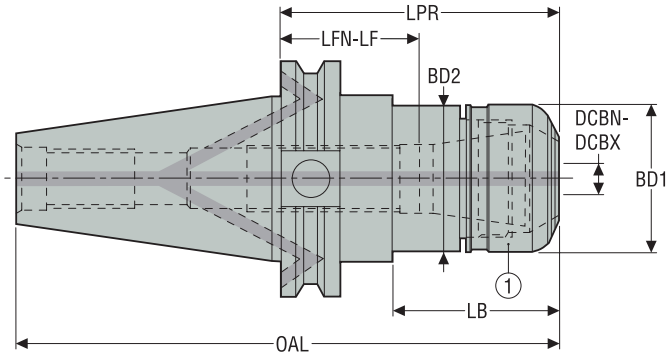
Spare Parts, included in delivery

For Taper/ DCBN-DCBX	Sealing plugs	Sealing Screws	Stop screw
			
CAT40/ 0.500	90AI03	950A0406	19BDR10165
CAT40/ 0.625	90AI03	950A0406	19BDR12165
CAT40/ 0.750	90AI04	950A0406	19BDR16165
CAT50/ 0.500	90AI03	950A0606	19BDR10165
CAT50/0.625	90AI03	950A0606	19BDR12165
CAT50/ 0.750-1.250	90AI04	950A0606	19BDR16165

CAT / ASME B5.50-1994-ADB

– **Metric** / *Inch*



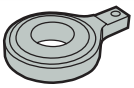
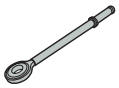
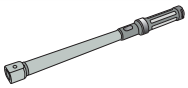


- Run-out 3 µm maximum at 3 x ∅DCBN-DCBX
- For ER HP collets type 5672, see page(s) 402, 403, 404-410
- For ISO attribute explanation, see page 14

Spare parts:
1 = Nut

Designation	Item number	CTMS	DCBN	DCBX	CTWS	LPR	BD2	BD1	OAL	LB	LFN	LF	RFID hole	Balancing	Weight
			mm *inch*	mm *inch*		mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*			kg *lbs*
E250256721670	02827264	CAT40 ADB	0,5 *0.020*	10,0 *0.394*	HP 16	70,0 *2.756*	30,0 *1.181*	30,0 *1.181*	138,4 *5.449*	50,9 *2.004*	39,0 *1.535*	40,0 *1.575*	1	G2.5	1,2 *2.650*
E2502567216130	02827265	CAT40 ADB	0,5 *0.020*	10,0 *0.394*	HP 16	130,0 *5.118*	30,0 *1.181*	30,0 *1.181*	198,4 *7.811*	110,9 *4.366*	99,0 *3.898*	100,0 *3.937*	1	G2.5	1,5 *3.310*
E2502567225160	02827267	CAT40 ADB	1,0 *0.039*	16,0 *0.630*	HP 25	160,0 *6.299*	40,0 *1.575*	40,0 *1.575*	228,4 *8.992*	140,9 *5.547*	104,0 *4.094*	122,0 *4.803*	1	G2.5	1,9 *4.190*
E250256722570	02827266	CAT40 ADB	1,0 *0.039*	16,0 *0.630*	HP 25	70,0 *2.756*	40,0 *1.575*	40,0 *1.575*	138,4 *5.449*	50,9 *2.004*	14,0 *0.551*	32,0 *1.260*	1	G2.5	1,2 *2.650*
E250256723270	02827268	CAT40 ADB	2,0 *0.079*	20,0 *0.787*	HP 32	70,0 *2.756*	50,0 *1.969*	50,0 *1.969*	138,4 *5.449*	50,9 *2.004*	14,0 *0.551*	18,0 *0.709*	1	G2.5	1,2 *2.650*
E250456722580	02827269	CAT50 ADB	1,0 *0.039*	16,0 *0.630*	HP 25	80,0 *3.150*	40,0 *1.575*	40,0 *1.575*	181,75 *7.156*	60,9 *2.398*	24,0 *0.945*	42,0 *1.654*	1	G2.5	3,3 *7.280*
E250456723280	02827270	CAT50 ADB	2,0 *0.079*	20,0 *0.787*	HP 32	80,0 *3.150*	50,0 *1.969*	50,0 *1.969*	181,75 *7.156*	60,9 *2.398*	24,0 *0.945*	28,0 *1.102*	1	G2.5	3,3 *7.280*

Accessories

For Taper/ size	Socket	Spanner	Stop screw	Torque key
				
CAT40/ HP 16	03ER030B	03BR030	19B58711	03DYD010100B
CAT40/ HP 25	03ER040	03BR040	19B58718	03DYD020200
CAT40/ HP 32	03ER050	03BR050	19B58722	03DYD020200
CAT50/ HP 25	03ER040	03BR040	19B58718	03DYD020200
CAT50/ HP 32	03ER050	03BR050	19B58722	03DYD020200

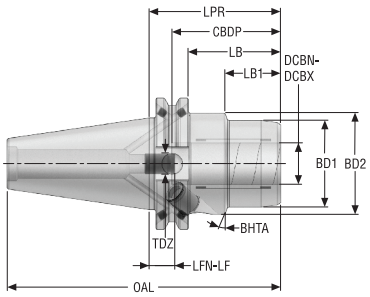
Spare Parts, included in delivery

For Taper/ size	Nut	Sealing Screws
		
CAT40/ HP 16	08B567216	950A0406
CAT40/ HP 25	08B567225	950A0406
CAT40/ HP 32	08B567232	950A0406
CAT50/ HP 25	08B567225	950A0606
CAT50/ HP 32	08B567232	950A0606

Conventional type
– Metric / *Inch*

CAT / ASME B5.50-1994-ADB

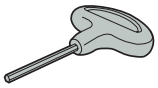




- Run-out ≤3 µm
- For reduction sleeves, see page(s) 394, 395
- For ISO attribute explanation, see page 14

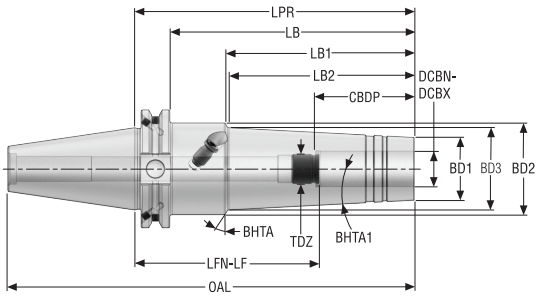
Designation	Item number	CTMS	DCBN-DCBX	LPR	LB	LB1	CBDP	BD2	BD1	OAL	LFN	LF	TDZ	BHTA°	RFID hole	Balan-cing	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*					kg *lbs*
CAT40ADB-HC06-063	10137281	CAT40 ADB	6,0 *0.236*	63,5 *2.500*	44,45 *1.750*	24,56 *0.967*	38,5 *1.516*	44,5 *1.750*	26,0 *1.024*	131,75 *5.187*	26,5 *1.043*	36,5 *1.437*	M5	20,0	1	G2.5	1,2 *2.650*
CAT40ADB-HC08-063	10137282	CAT40 ADB	8,0 *0.315*	63,5 *2.500*	44,45 *1.750*	25,56 *1.006*	38,5 *1.516*	49,0 *1.929*	28,0 *1.102*	131,75 *5.187*	26,5 *1.043*	36,5 *1.437*	M5	20,0	1	G2.5	1,2 *2.650*
CAT40ADB-HC10-063	10137283	CAT40 ADB	10,0 *0.394*	63,5 *2.500*	44,45 *1.750*	27,56 *1.085*	42,5 *1.673*	49,0 *1.929*	30,0 *1.181*	131,75 *5.187*	22,5 *0.886*	32,5 *1.280*	M5	20,0	1	G2.5	1,2 *2.650*
CAT40ADB-HC12-063	10137284	CAT40 ADB	12,0 *0.472*	63,5 *2.500*	44,45 *1.750*	26,56 *1.046*	47,5 *1.870*	49,0 *1.929*	32,0 *1.260*	131,75 *5.187*	17,5 *0.689*	27,5 *1.083*	M10x1	20,0	1	G2.5	1,2 *2.650*
CAT40ADB-HC16-063	10137285	CAT40 ADB	16,0 *0.630*	63,5 *2.500*	44,45 *1.750*	27,56 *1.085*	51,0 *2.008*	49,0 *1.929*	38,0 *1.496*	131,75 *5.187*	14,5 *0.571*	24,5 *0.965*	M10x1	20,0	1	G2.5	1,2 *2.650*
CAT40ADB-HC20-063	10137286	CAT40 ADB	20,0 *0.787*	63,5 *2.500*	44,45 *1.750*	25,56 *1.006*	52,5 *2.067*	49,0 *1.929*	42,0 *1.654*	131,75 *5.187*	12,5 *0.492*	22,5 *0.886*	M10x1	20,0	1	G2.5	1,2 *2.650*
CAT50ADB-HC12-081	10137293	CAT50 ADB	12,0 *0.472*	81,0 *3.189*	61,95 *2.439*	40,0 *1.575*	47,5 *1.870*	49,0 *1.929*	32,0 *1.260*	182,6 *7.189*	35,0 *1.378*	45,0 *1.772*	M10x1	20,0	1	G2.5	3,1 *6.830*
CAT50ADB-HC20-081	10137294	CAT50 ADB	20,0 *0.787*	81,0 *3.189*	61,95 *2.439*	46,0 *1.811*	52,5 *2.067*	51,0 *2.008*	42,0 *1.654*	182,6 *7.189*	30,0 *1.181*	40,0 *1.575*	M10x1	20,0	1	G2.5	3,2 *7.050*
CAT50ADB-HC25-081	10137295	CAT50 ADB	25,0 *0.984*	81,0 *3.189*	61,95 *2.439*	36,0 *1.417*	58,5 *2.303*	68,0 *2.677*	48,0 *1.890*	182,6 *7.189*	24,0 *0.945*	34,0 *1.339*	M10x1	20,0	1	G2.5	3,6 *7.940*
CAT50ADB-HC32-081	10137296	CAT50 ADB	32,0 *1.260*	81,0 *3.189*	61,95 *2.439*	40,0 *1.575*	62,5 *2.461*	75,0 *2.953*	62,0 *2.441*	182,6 *7.189*	20,0 *0.787*	30,0 *1.181*	M10x1	20,0	1	G2.5	3,8 *8.380*

Accessories

For size	Key
	
CAT40	H05-4
CAT50, DCBN = 12-25	H05-4
CAT50, DCBN = 32	03MS06L

CAT / ASME B5.50-1994-ADB

Conventional type – Inch





- Run-out ≤3 µm
- For reduction sleeves, see page(s) 394, 395
- For ISO attribute explanation, see page 14

Designation	Item number	CTMS	DCBN-DCBX	LPR	LB	LB1	CBDP	BD2	BD1	OAL	LFN	LF	TDZ	BHTA°	RFID hole	Balan-cing	Weight
			inch	inch	inch	inch	inch	inch	inch	inch	inch	inch					lbs
CAT40ADB-HCS0.500-5.906	10214923	CAT40 ADB	0.500	5.906	5.156	4.087	1.890	1.949	1.024	8.593	4.075	4.469	M10x1.0	30,0	1	G2.5	3.970
CAT40ADB-HCS0.625-5.906	10214924	CAT40 ADB	0.625	5.906	5.156	4.016	2.008	1.949	1.260	8.593	3.976	4.370	M12x1.0	30,0	1	G2.5	4.410
CAT40ADB-HCS0.750-5.906	10214925	CAT40 ADB	0.750	5.906	5.156	3.994	2.087	1.949	1.339	8.593	3.898	4.291	M16x1.0	30,0	1	G2.5	4.410
CAT50ADB-HCS0.500-5.906	10214926	CAT50 ADB	0.500	5.906	5.156	4.028	1.890	1.752	1.024	9.906	4.075	4.469	M10x1.0	30,0	1	G2.5	7.720
CAT50ADB-HCS0.625-5.906	10214927	CAT50 ADB	0.625	5.906	5.156	3.960	2.008	1.752	1.260	9.906	3.976	4.370	M12x1.0	30,0	1	G2.5	7.940
CAT50ADB-HCS0.750-5.906	10214928	CAT50 ADB	0.750	5.906	5.156	3.944	2.087	1.752	1.339	9.906	3.898	4.291	M16x1.0	–	1	G2.5	8.160

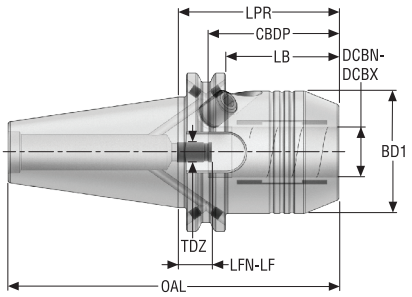
Accessories

For	Key
	
All	03MS04C

Reinforced type
– Metric / *Inch*

CAT / ASME B5.50-1994-ADB

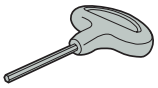




- Run-out ≤3 µm
- For reduction sleeves, see page(s) 394, 395
- For ISO attribute explanation, see page 14

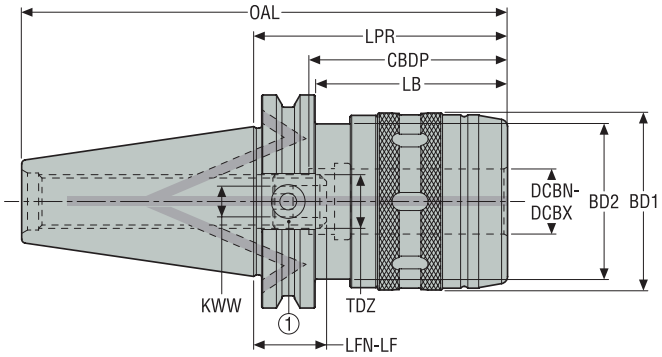
Designation	Item number	CTMS	DCBN-DCBX	LPR	LB	LB1	CBDP	BD2	BD1	OAL	LFN	LF	TDZ	BHTA°	RFID hole	Balan-cing	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*					kg *lbs*
CAT40ADB-HCR20-064	10137133	CAT40 ADB	20,0 *0.787*	64,5 *2.539*	45,45 *1.789*	–	52,5 *2.067*	–	49,25 *1.939*	132,75 *5.226*	13,5 *0.531*	23,5 *0.925*	M8x1	–	0	G2.5	1,3 *2.870*
CAT50ADB-HCR32-081	10137135	CAT50 ADB	32,0 *1.260*	81,0 *3.189*	61,95 *2.439*	–	62,5 *2.461*	–	72,0 *2.835*	182,6 *7.189*	20,0 *0.787*	30,0 *1.181*	M8x1	–	0	G2.5	4,0 *8.820*

Accessories

For	Key
	
CAT40ADB-HCR20-064	H05-4
CAT50ADB-HCR32-081	03MS06L

CAT / ASME B5.50-1994-AD

– Inch



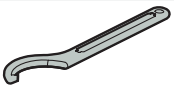


Spare parts:
1 = Stop screw

- For reduction sleeves, see page(s) 398-399
- For 'Stop screws for through coolant', see page(s) 400-401
- For ISO attribute explanation, see page 14

Designation	Item number	CTMS	DCBN-DCBX	OAL	LPR	LB	CBDP	BD1	BD2	LFN	LF	KWW	TDZ	RFID hole	Balan-cing	Weight
			inch	inch	inch	inch	inch	inch	inch	inch	inch					lbs
CAT40ADB-PMC0.750-3.000	03211215	CAT40 ADB	0.750	5.693	3.000	2.250	2.480	1.929	1.750	0.520	0.717	0,31	UNF 5/8"	1	PB	3.090
CAT40ADB-PMC1.250-4.250	03211216	CAT40 ADB	1.250	6.943	4.250	3.498	3.540	2.638	1.750	1.100	1.297	7,9375	UNF 5/8"	1	PB	5.070
CAT50ADB-PMC0.750-3.000	03211217	CAT50 ADB	0.750	7.006	3.000	1.560	2.480	1.929	2.750	0.520	0.717	0,31	UNF 5/8"	1	PB	7.720
CAT50ADB-PMC1.250-3.250	03211218	CAT50 ADB	1.250	7.256	3.250	2.500	3.540	2.756	2.750	0.100	0.297	7,9375	UNF 5/8"	1	PB	8.380

Accessories

For	Spanner
	
CAT40ADB-PMC0.750-3.000	03BPMC20
CAT40ADB-PMC1.250-4.250	03BPMC32
CAT50ADB-PMC0.750-3.000	03BPMC20
CAT50ADB-PMC1.250-3.250	03BPMC32

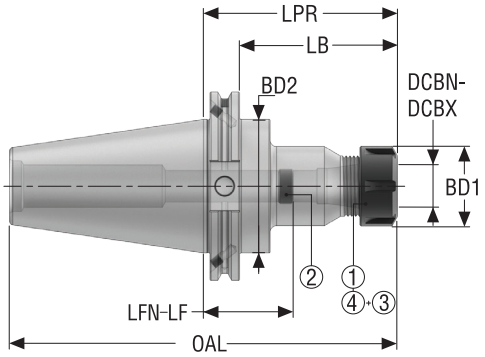
Spare Parts, included in delivery

For	Extractor for reduction sleeves	Sealing Screws	Stop screw
			
CAT40ADB-PMC0.750-3.000	03EXTPMC	950A0406	19BEPMC02
CAT40ADB-PMC1.250-4.250	03EXTPMC	950A0406	19BEPMC02
CAT50ADB-PMC0.750-3.000	03EXTPMC	950A0606	19BEPMC02
CAT50ADB-PMC1.250-3.250	03EXTPMC	950A0606	19BEPMC02

ISO 15488
– Metric / *Inch*

CAT / ASME B5.50-1994-ADB





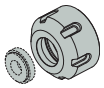
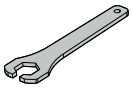
- Run-out 12 µm maximum at 3 x ∅DCBN-DCBX
- For ER extensions and ER collets, see page(s) 375, 411, 412, 413, 414
- For ER sealing rings, see page(s) 418, 419
- CAT40ADB-ER16-2.000 following ASME B5.50-2009
- For ISO attribute explanation, see page 14

Accessories:
3 = Sealing ring
4 = Sealing nut

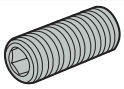
Spare parts:
1 = Nut
2 = Stop screw

Designation	Item number	CTMS	DCBN	DCBX	CTWS	LPR	BD2	BD1	OAL	LB	LFN	LF	RFID hole	Balancing	Weight
			mm *inch*	mm *inch*		mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*			kg *lbs*
CAT40ADB-ER16-2.000	03201473	CAT40 ADB	0,5 *0.020*	10,0 *0.394*	ER 16	50,8 *2.000*	21,9 *0.860*	28,0 *1.102*	119,05 *4.687*	31,75 *1.250*	-4,2 *-0.165*	16,8 *0.661*	1	PB	1,0 *2.200*
CAT40ADB-ER16-4.000	03201474	CAT40 ADB	0,5 *0.020*	10,0 *0.394*	ER 16	101,6 *4.000*	27,6 *1.087*	28,0 *1.102*	169,85 *6.687*	82,55 *3.250*	11,6 *0.457*	67,6 *2.661*	1	PB	1,3 *2.870*
CAT40ADB-ER25-2.500	03201475	CAT40 ADB	1,0 *0.039*	16,0 *0.630*	ER 25	63,5 *2.500*	44,5 *1.750*	42,0 *1.654*	131,75 *5.187*	44,45 *1.750*	-11,5 *-0.453*	21,5 *0.846*	1	PB	1,1 *2.430*
CAT40ADB-ER25-4.000	03201476	CAT40 ADB	1,0 *0.039*	16,0 *0.630*	ER 25	101,6 *4.000*	41,6 *1.638*	42,0 *1.654*	169,85 *6.687*	82,55 *3.250*	1,6 *0.063*	59,6 *2.346*	1	PB	1,5 *3.310*
CAT40ADB-ER32-3.000	03201477	CAT40 ADB	2,0 *0.079*	20,0 *0.787*	ER 32	76,2 *3.000*	44,5 *1.750*	50,0 *1.969*	144,45 *5.687*	57,15 *2.250*	-8,8 *-0.346*	27,2 *1.071*	1	PB	1,3 *2.870*
CAT40ADB-ER32-4.000	03201478	CAT40 ADB	2,0 *0.079*	20,0 *0.787*	ER 32	101,6 *4.000*	44,5 *1.750*	50,0 *1.969*	169,85 *6.687*	82,55 *3.250*	1,6 *0.063*	52,6 *2.071*	1	PB	1,3 *2.870*
CAT40ADB-ER40-4.000	03201479	CAT40 ADB	3,0 *0.118*	26,0 *1.024*	ER 40	101,6 *4.000*	62,6 *2.465*	63,0 *2.480*	169,85 *6.687*	82,55 *3.250*	1,6 *0.063*	46,6 *1.835*	1	PB	1,8 *3.970*
CAT50ADB-ER16-4.000	03201480	CAT50 ADB	0,5 *0.020*	10,0 *0.394*	ER 16	101,6 *4.000*	27,6 *1.087*	28,0 *1.102*	203,2 *8.000*	82,55 *3.250*	1,6 *0.063*	61,6 *2.425*	1	PB	3,2 *7.050*
CAT50ADB-ER16-6.000	03201481	CAT50 ADB	0,5 *0.020*	10,0 *0.394*	ER 16	152,4 *6.000*	27,6 *1.087*	28,0 *1.102*	254,0 *10.000*	133,35 *5.250*	32,4 *1.276*	112,4 *4.425*	1	PB	3,7 *8.160*
CAT50ADB-ER25-4.000	03201482	CAT50 ADB	1,0 *0.039*	16,0 *0.630*	ER 25	101,6 *4.000*	41,6 *1.638*	42,0 *1.654*	203,2 *8.000*	82,55 *3.250*	1,6 *0.063*	59,6 *2.346*	1	PB	3,5 *7.720*
CAT50ADB-ER25-6.000	03201483	CAT50 ADB	1,0 *0.039*	16,0 *0.630*	ER 25	152,4 *6.000*	41,6 *1.638*	42,0 *1.654*	254,0 *10.000*	133,35 *5.250*	12,4 *0.488*	110,4 *4.346*	1	PB	3,9 *8.600*
CAT50ADB-ER32-4.000	03201484	CAT50 ADB	2,0 *0.079*	20,0 *0.787*	ER 32	101,6 *4.000*	49,6 *1.953*	50,0 *1.969*	203,2 *8.000*	82,55 *3.250*	-18,4 *-0.724*	50,6 *1.992*	1	PB	3,8 *8.380*
CAT50ADB-ER32-6.000	03201485	CAT50 ADB	2,0 *0.079*	20,0 *0.787*	ER 32	152,4 *6.000*	49,6 *1.953*	50,0 *1.969*	254,0 *10.000*	133,35 *5.250*	22,4 *0.882*	101,4 *3.992*	1	PB	4,3 *9.480*
CAT50ADB-ER40-4.000	03201486	CAT50 ADB	3,0 *0.118*	26,0 *1.024*	ER 40	101,6 *4.000*	62,6 *2.465*	63,0 *2.480*	203,2 *8.000*	82,55 *3.250*	-18,4 *-0.724*	46,6 *1.835*	1	PB	4,1 *9.040*

Accessories

For Taper/ size	Seal nut	Spanner
		
CAT40/ ER16	08B587516IC	03B587516UM
CAT40/ ER25	08B587525IC	03B587525
CAT40/ ER32	08B587532IC	03B587532
CAT40/ ER40	08B587540IC	03B587540
CAT50/ ER16	08B587516IC	03B587516UM
CAT50/ ER25	08B587525IC	03B587525
CAT50/ ER32	08B587532IC	03B587532
CAT50/ ER40	08B587540IC	03B587540

Spare Parts, included in delivery

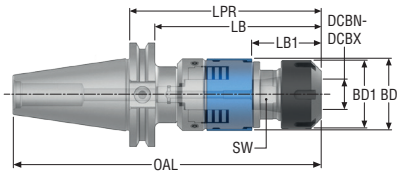
For Taper/ size	Nut	Plug	Stop screw
			
CAT40/ ER16	5533050-06	564301701	19BS567510
CAT40/ ER25	5533050-02	564301701	19BS567518
CAT40/ ER32	5533050-03	564301701	19BS567522
CAT40/ ER40	5533050-04	564301701	19BS567528
CAT50/ ER16	5533050-06	564301702	19BS567510
CAT50/ ER25	5533050-02	564301702	19BS567518
CAT50/ ER32	5533050-03	564301702	19BS567522
CAT50/ ER40	5533050-04	564301702	19BS567528

For synchronized tapping, with micro-compensation – Inch

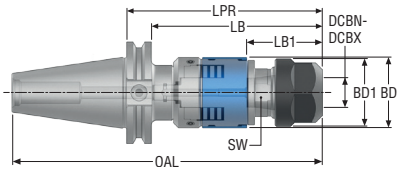
CAT / ASME B5.50-2009-AD



Design 1



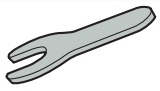
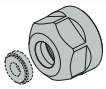
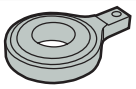
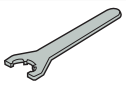
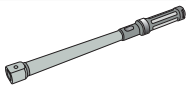
Design 2



- Maximum coolant pressure 80 bar/ *1160 psi*
- For ER tapping collets with square drive, see page(s) 415, 416-417
- For TCER 5867 sealing rings, see page(s) 418, 419
- For ISO attribute explanation, see page 14

Designation	Item number	CTMS	CTWS	DCBN	DCBX	LPR	LB	LB1	BD	BD1	OAL	SW	Design	RFID hole	Balancing	Weight
						inch	inch	inch	inch	inch	inch	inch				lbs
E2622586720102	03131168	CAT40 AD	ER 20	M4	M12	3.827	3.079	1.390	1.339	1.378	6.514	0.866	1	0	–	2.870
E2622586725122	03131169	CAT40 AD	ER 25	M8	M20	4.591	3.839	1.461	1.654	1.732	7.278	1.102	1	0	–	3.530
E2624586720106	03131170	CAT50 AD	ER 20	M4	M12	3.984	3.236	1.390	1.339	1.378	7.984	0.866	1	0	–	6.610
E2624586725126	03131171	CAT50 AD	ER 25	M8	M20	4.748	3.996	1.461	1.654	1.732	8.748	1.102	1	0	–	7.500
E2624586740155	03131172	CAT50 AD	ER 40	M16	M33	5.890	5.130	1.835	2.480	2.441	9.890	1.559	1	0	–	10.360

Accessories

For size	Locking key	Seal nut	Socket	Spanner	Spanner 1	Torque key
						
ER 20	5680092-04	5533051-02	–	03B587520UM	–	–
ER 25	5680092-05	5533051-03	–	03B587525	–	03DYD020200
ER 40	5680092-06	5533051-05	03ER063	03B587540	03BR063	03DYD020200

Spare Parts, included in delivery

For size	Nut
	
ER 20	5533050-08
ER 25	5533050-02
ER 40	5533050-04



CAT TF

The Seco range of rotating holders allows you to get the most out of both your machine and tool by offering a comprehensive array of solutions to connect them. The range covers all standard workpiece side connections, as well as Seco's unique connections. **CAT-V TF** brings a better accuracy and is ideal for long tools.

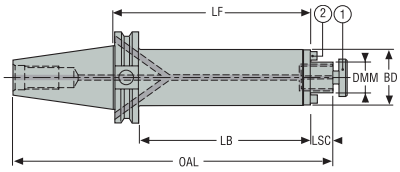
- Steadyline, vibration damping shell mill holders
- Shell mill holders, with through coolant channels
- Side lock holders, Weldon
- Shrinkfit holders
- High precision collet chucks
- Power milling chucks
- ER collet chucks

Steadyline®, vibration damping – Inch

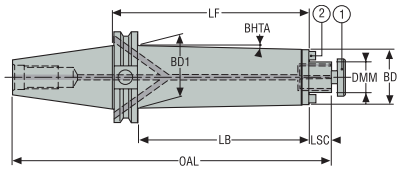
CAT TF / ASME B5.50-2009-ADB



Design 1 (5555)



Design 2 (5556)

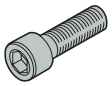


• For ISO attribute explanation, see page 14

Spare parts:
1 = Bolt
2 = Tenon/Screw

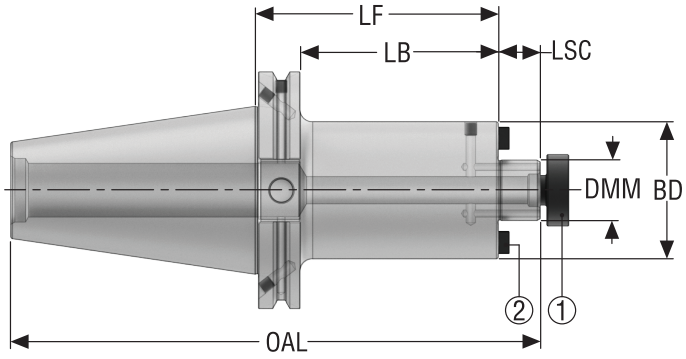
Designation	Item number	CTMS	DMM	LF	BD	BD1	OAL	LB	LSC	Design	BHTA°	RFID hole	Balancing	Weight
			inch	inch	inch	inch	inch	inch	inch					lbs
E26425556075900	02964301	CAT40 TF ADB	0.750	9.000	1.750	2.541	12.382	8.248	0.689	2	2,7	1	PB	11.020
E26445555075750	02926887	CAT50 TF ADB	0.750	7.500	1.750	1.750	12.195	6.748	0.689	1	0,0	1	PB	10.800
E26445556075900	02998686	CAT50 TF ADB	0.750	9.000	1.750	2.520	13.695	8.248	0.689	2	2,6	1	PB	14.550
E26445555100900	02998685	CAT50 TF ADB	1.000	9.000	2.250	2.250	13.695	8.248	0.689	1	0,0	1	PB	16.530
E26445556100C00	02926888	CAT50 TF ADB	1.000	12.000	2.250	3.000	16.695	11.250	0.689	2	1,8	1	PB	24.030

Spare Parts, included in delivery

For	Bolt	Screw	Sealing Screws	Tenon
				
E26425556075900	58211905	950D0312	950A0406	16C2080712A
E26445555075750	58211905	950D0312	950A0606	16C2080712A
E26445555100900	58212540	950D0416	950A0606	16C2091014A
E26445556075900	58211905	950D0312	950A0606	16C2080712A
E26445556100C00	58212540	950D0416	950A0606	16C2091014A

CAT TF / ASME B5.50-2009-ADB

With through coolant channels – Inch



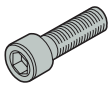


Spare parts:
1 = Bolt
2 = Tenon/Screw (not removable)

• For ISO attribute explanation, see page 14

Designation	Item number	CTMS	DMM	LF	BD	OAL	LB	LSC	RFID hole	Balan-cing	Weight
			inch	inch	inch	inch	inch	inch			lbs
CAT40TFADB-SM0.750-4.000-L1	10008257	CAT40 TF ADB	0.750	4.000	1.750	7.374	3.250	0.687	1	PB	4.190
CAT40TFADB-SM1.000-4.000-L1	10008258	CAT40 TF ADB	1.000	4.000	2.250	7.374	3.250	0.687	1	PB	5.950
CAT40TFADB-SM1.250-4.000-L1	10008260	CAT40 TF ADB	1.250	4.000	2.750	7.374	3.250	0.687	1	PB	7.280
CAT40TFADB-SM1.500-4.000-L1	10008261	CAT40 TF ADB	1.500	4.000	3.500	7.624	3.250	0.937	1	PB	10.580
CAT50TFADB-SM0.750-4.000-L1	10008262	CAT50 TF ADB	0.750	4.000	1.750	8.687	3.250	0.687	1	PB	7.940
CAT50TFADB-SM1.000-4.000-L1	10008263	CAT50 TF ADB	1.000	4.000	2.250	8.687	3.250	0.687	1	PB	9.920
CAT50TFADB-SM1.250-4.000-L1	10008264	CAT50 TF ADB	1.250	4.000	2.750	8.687	3.250	0.687	1	PB	11.460
CAT50TFADB-SM1.500-4.000-L1	10008265	CAT50 TF ADB	1.500	4.000	3.500	8.937	3.250	0.937	1	PB	15.210
CAT50TFADB-SM2.000-4.000-L1	10008266	CAT50 TF ADB	2.000	4.000	4.882	8.937	3.250	0.937	1	PB	22.050

Spare Parts, included in delivery

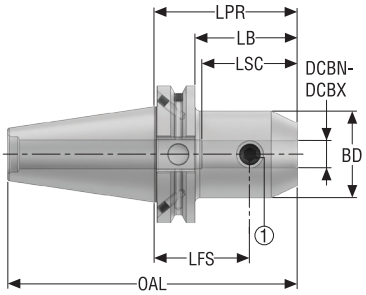
For	Bolt	Plug	Screw
		 1x	
CAT40TFADB-SM0.750-4.000-L1	58281905	564301701	950DNF037100
CAT40TFADB-SM1.000-4.000-L1	58282540	564301701	950DNF050125
CAT40TFADB-SM1.250-4.000-L1	58283175	564301701	950DNF062125
CAT40TFADB-SM1.500-4.000-L1	58283810	564301701	58283810A
CAT50TFADB-SM0.750-4.000-L1	58281905	564301702	950DNF037100
CAT50TFADB-SM1.000-4.000-L1	58282540	564301702	950DNF050125
CAT50TFADB-SM1.250-4.000-L1	58283175	564301702	950DNF062125
CAT50TFADB-SM1.500-4.000-L1	58283810	564301702	58283810A
CAT50TFADB-SM2.000-4.000-L1	58285080	564301702	–

DIN 1835 Form B/ DIN 6535 Form HB – Inch

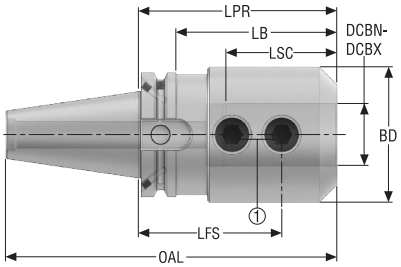
CAT TF / ASME B5.50-2009-ADB



Design 1



Design 2



• For ISO attribute explanation, see page 14

Spare parts:
1 = Locking screw

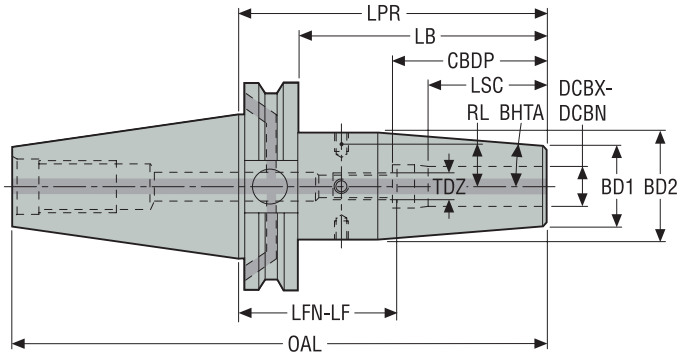
Designation	Item number	CTMS	DCBN-DCBX	LPR	LB	LSC	BD	OAL	LFS	Design	RFID hole	Balancing	Weight
			inch	inch	inch	inch	inch	inch	inch				lbs
CAT40TFADB-EM0.500-2.620	10008198	CAT40 TF ADB	0.500	2.581	1.870	1.750	1.594	5.307	1.745	1	1	PB	2.650
CAT40TFADB-EM0.625-3.000	10008199	CAT40 TF ADB	0.625	3.000	2.250	1.870	1.850	5.687	2.062	1	1	PB	3.310
CAT40TFADB-EM0.750-3.000	10008200	CAT40 TF ADB	0.750	3.000	2.250	2.008	1.980	5.687	2.000	1	1	PB	3.530
CAT40TFADB-EM1.000-4.000	10008201	CAT40 TF ADB	1.000	4.000	3.250	2.244	2.480	6.687	2.875	2	1	PB	5.290
CAT40TFADB-EM1.250-4.000	10008202	CAT40 TF ADB	1.250	4.000	3.250	2.244	2.728	6.687	2.875	2	1	PB	5.730
CAT50TFADB-EM0.500-4.620	10008203	CAT50 TF ADB	0.500	4.620	3.870	1.750	1.594	8.620	3.745	1	1	PB	7.500
CAT50TFADB-EM0.625-5.750	10008204	CAT50 TF ADB	0.625	5.750	5.000	1.870	1.850	9.750	4.812	1	1	PB	8.820
CAT50TFADB-EM0.750-2.620	10008205	CAT50 TF ADB	0.750	2.620	1.870	2.000	1.980	6.620	1.620	1	1	PB	6.830
CAT50TFADB-EM0.750-4.000	10008206	CAT50 TF ADB	0.750	4.000	3.250	2.000	1.980	8.000	3.000	1	1	PB	7.940
CAT50TFADB-EM1.000-4.000	10008207	CAT50 TF ADB	1.000	4.000	3.368	2.244	2.480	8.000	2.875	2	1	PB	9.040
CAT50TFADB-EM1.250-4.000	10008208	CAT50 TF ADB	1.250	4.000	3.250	2.244	2.730	8.000	2.875	2	1	PB	9.700
CAT50TFADB-EM1.500-4.000	10008209	CAT50 TF ADB	1.500	4.000	3.250	2.618	3.480	8.000	2.500	2	1	PB	12.130
CAT50TFADB-EM2.000-5.620	10008210	CAT50 TF ADB	2.000	5.625	4.875	3.189	3.980	9.625	4.219	2	1	PB	18.520

Spare Parts, included in delivery

For DCBX	Locking screw
	
0.500	951CNP043038
0.625	951CNP056044
0.750	951CNP062050
1.000	951CNP075062
1.250	951CNP075062
1.500	951CNP075062
2.000	951CNS100087

CAT TF / ASME B5.50-2009-ADB

– Metric / *Inch*





- Run-out ≤3 µm
- Delivered with one stop screw
- For Shrinkfit extensions, see page(s) 373-374
- For ISO attribute explanation, see page 14

Designation	Item number	CTMS	DCBN-DCBX	LPR	LB	CBDP	LSC	BD1	BD2	OAL	LFN	LF	RL	TDZ	BHTA°	RFID hole	Balancing	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*					kg *lbs*
E264256030695	02998704	CAT40 TF ADB	6,0 *0.236*	95,0 *3.740*	75,9 *2.988*	37,5 *1.476*	22,0 *0.866*	21,0 *0.827*	27,0 *1.063*	163,4 *6.433*	59,0 *2.323*	69,0 *2.717*	10,5 *0.413*	M5x0.8	4,5	1	G2.5	1,2 *2.650*
E264256030895	02998705	CAT40 TF ADB	8,0 *0.315*	95,0 *3.740*	75,9 *2.988*	37,5 *1.476*	26,0 *1.024*	21,0 *0.827*	27,0 *1.063*	163,4 *6.433*	59,0 *2.323*	69,0 *2.717*	10,5 *0.413*	M6x1	4,5	1	G2.5	1,2 *2.650*
E264256031095	02998706	CAT40 TF ADB	10,0 *0.394*	95,0 *3.740*	75,9 *2.988*	42,5 *1.673*	31,0 *1.220*	24,0 *0.945*	32,0 *1.260*	163,4 *6.433*	54,0 *2.126*	64,0 *2.520*	13,0 *0.512*	M8x1	4,5	1	G2.5	1,3 *2.870*
E264256031295	02998707	CAT40 TF ADB	12,0 *0.472*	95,0 *3.740*	75,9 *2.988*	47,5 *1.870*	34,0 *1.339*	24,0 *0.945*	32,0 *1.260*	163,4 *6.433*	49,0 *1.929*	59,0 *2.323*	13,0 *0.512*	M10x1	4,5	1	G2.5	1,2 *2.650*
E264256031695	02998708	CAT40 TF ADB	16,0 *0.630*	95,0 *3.740*	75,9 *2.988*	50,5 *1.988*	39,0 *1.535*	27,0 *1.063*	34,0 *1.339*	163,4 *6.433*	46,0 *1.811*	56,0 *2.205*	14,0 *0.551*	M12x1	4,5	1	G2.5	1,3 *2.870*
E264256032095	02998709	CAT40 TF ADB	20,0 *0.787*	95,0 *3.740*	75,9 *2.988*	52,5 *2.067*	41,0 *1.614*	33,0 *1.299*	42,0 *1.654*	163,4 *6.433*	44,0 *1.732*	54,0 *2.126*	18,0 *0.709*	M16x1	4,5	1	G2.5	1,4 *3.090*
E2644560308100	02998711	CAT50 TF ADB	8,0 *0.315*	100,0 *3.937*	80,9 *3.185*	37,5 *1.476*	26,0 *1.024*	21,0 *0.827*	27,0 *1.063*	201,75 *7.943*	64,0 *2.520*	74,0 *2.913*	10,5 *0.413*	M6x1	4,5	1	G2.5	3,0 *6.610*
E2644560310100	02998713	CAT50 TF ADB	10,0 *0.394*	100,0 *3.937*	80,9 *3.185*	42,5 *1.673*	31,0 *1.220*	24,0 *0.945*	32,0 *1.260*	201,75 *7.943*	59,0 *2.323*	69,0 *2.717*	13,0 *0.512*	M8x1	4,5	1	G2.5	3,1 *6.830*
E2644560312100	02998714	CAT50 TF ADB	12,0 *0.472*	100,0 *3.937*	80,9 *3.185*	47,5 *1.870*	34,0 *1.339*	24,0 *0.945*	32,0 *1.260*	201,75 *7.943*	54,0 *2.126*	64,0 *2.520*	13,0 *0.512*	M10x1	4,5	1	G2.5	3,1 *6.830*
E2644560316100	02998715	CAT50 TF ADB	16,0 *0.630*	100,0 *3.937*	80,9 *3.185*	50,5 *1.988*	39,0 *1.535*	27,0 *1.063*	34,0 *1.339*	201,75 *7.943*	51,0 *2.008*	61,0 *2.402*	14,0 *0.551*	M12x1	4,5	1	G2.5	3,0 *6.610*
E2644560320100	02998716	CAT50 TF ADB	20,0 *0.787*	100,25 *3.947*	81,15 *3.195*	52,5 *2.067*	41,0 *1.614*	33,0 *1.299*	42,0 *1.654*	202,0 *7.953*	49,25 *1.939*	59,25 *2.333*	18,0 *0.709*	M16x1	4,5	1	G2.5	3,2 *7.050*
E2644560325100	02998717	CAT50 TF ADB	25,0 *0.984*	100,0 *3.937*	80,9 *3.185*	58,5 *2.303*	47,0 *1.850*	44,0 *1.732*	53,0 *2.087*	201,75 *7.943*	43,0 *1.693*	53,0 *2.087*	23,5 *0.925*	M16x1	4,5	1	G2.5	3,7 *8.160*

Accessories

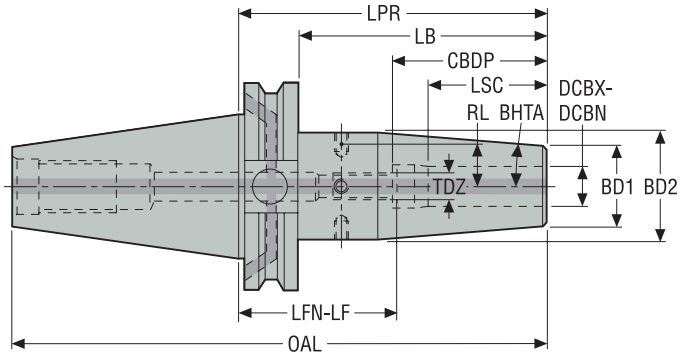
For	Balancing screws
	
All	90ZQ01

Spare Parts, included in delivery

For Taper/ DCBN-DCBX		Sealing Screws	Stop screw
			
CAT40	6/ *0.236*	950A0406	19BDR12165
CAT40	8/ *0.315*	950A0406	19BDR08165
CAT40	10/ *0.394*	950A0406	19BDR12165
CAT40	12/ *0.472*	950A0406	19BDR05165
CAT40	16/ *0.630*	950A0406	19BDR12165
CAT40	20/ *0.787*	950A0406	19BDR16165
CAT50	8/ *0.315*	950A0606	19BDR06165
CAT50	10/ *0.394*	950A0606	19BDR08165
CAT50	12/ *0.472*	950A0606	19BDR10165
CAT50	16/ *0.630*	950A0606	19BDR12165
CAT50	20/ *0.787-25/ 0.984*	950A0606	19BDR16165

CAT TF / ASME B5.50-2009-ADB

DIN type – Inch





- Run-out ≤3 µm
- Delivered with one stop screw
- For Shrinkfit extensions, see page(s) 373-374
- For ISO attribute explanation, see page 14

Designation	Item number	CTMS	DCBN-DCBX	LPR	LB	CBDP	LSC	BD1	BD2	OAL	LFN	LF	RL	TDZ	BHTA°	RFID hole	Balancing	Weight
			inch	inch	inch	inch	inch	inch	inch	inch	inch	inch	inch					lbs
E26425603025375	02999165	CAT40 TF ADB	0.250	3.750	2.998	1.476	0.866	0.827	1.063	6.443	2.333	2.726	0.413	M5x0.8	4,5	1	G2.5	2.650
E26425603037375	02999166	CAT40 TF ADB	0.375	3.750	2.998	1.673	1.220	0.945	1.260	6.443	2.136	2.530	0.512	M8x1	4,5	1	G2.5	2.870
E26425603050375	02999167	CAT40 TF ADB	0.500	3.750	2.998	1.791	1.339	0.945	1.260	6.443	2.018	2.411	0.512	M10x1	4,5	1	G2.5	2.650
E26445603037400	02998688	CAT50 TF ADB	0.375	4.000	3.248	1.673	1.220	0.945	1.260	8.006	2.386	2.780	0.512	M8x1	4,5	1	G2.5	6.830
E26445603050400	02998689	CAT50 TF ADB	0.500	4.000	3.248	1.791	1.339	0.945	1.260	8.006	2.268	2.661	0.512	M10x1	4,5	1	G2.5	6.830
E26445603062400	02998690	CAT50 TF ADB	0.625	4.000	3.248	1.988	1.535	1.063	1.339	8.006	2.071	2.465	0.551	M12x1	4,5	1	G2.5	6.830
E26445603075400	02998691	CAT50 TF ADB	0.750	4.000	3.248	2.067	1.614	1.299	1.654	8.006	1.992	2.386	0.709	M16x1	4,5	1	G2.5	7.280
E26445603100400	02998692	CAT50 TF ADB	1.000	4.000	3.248	2.303	1.850	1.732	2.087	8.006	1.756	2.150	0.925	M16x1	4,5	1	G2.5	8.160

Accessories

For	Balancing screws
	
All	90ZQ01

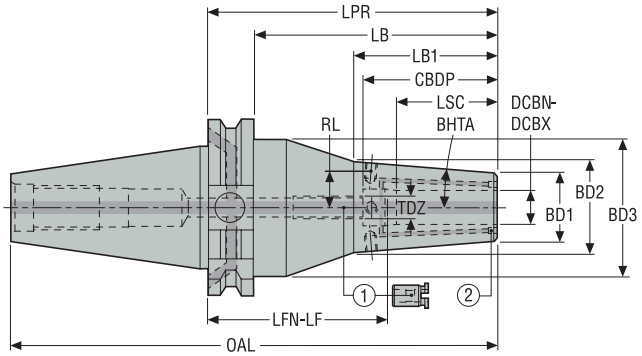
Spare Parts, included in delivery

For	Sealing Screws	Stop screw
		
E26425603025375	950A0406	19BDR05165
E26425603037375	950A0406	19BDR08165
E26425603050375	950A0406	19BDR10165
E26445603037400	950A0606	19BDR08165
E26445603050400	950A0606	19BDR10165
E26445603062400	950A0606	19BDR12165
E26445603075400	950A0606	19BDR16165
E26445603100400	950A0606	19BDR16165

Reinforced type
– Metric / *Inch*

CAT TF / ASME B5.50-1994-ADB





- Run-out ≤3 µm
- With coolant supply channels towards the tool (plugged)
- Delivered with one stop screw
- For ISO attribute explanation, see page 14

Spare parts:
1 = Stop screw
2 = Sealing plugs

Designation	Item number	CTMS	DCBN-DCBX	LPR	LB	LB1	CBDP	LSC	BD1	BD2	BD3	OAL	LFN	LF	RL	TDZ	BHTA°	RFID hole	Balancing	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*					kg *lbs*
E254256001275	02904790	CAT40 TF ADB	12,0 *0.472*	75,0 *2.953*	55,9 *2.201*	40,0 *1.575*	47,5 *1.870*	34,0 *1.339*	27,0 *1.063*	35,2 *1.385*	44,45 *1.750*	143,4 *5.646*	29,0 *1.142*	39,0 *1.535*	13,5 *0.531*	M10x1	4,5	1	G2.5	1,3 *2.870*
E254256001680	02904791	CAT40 TF ADB	16,0 *0.630*	80,0 *3.150*	60,9 *2.398*	45,0 *1.772*	50,5 *1.988*	39,0 *1.535*	33,0 *1.299*	42,1 *1.659*	44,45 *1.750*	148,4 *5.843*	31,0 *1.220*	41,0 *1.614*	17,0 *0.669*	M12x1	4,5	1	G2.5	1,3 *2.870*
E254256002080	02904792	CAT40 TF ADB	20,0 *0.787*	80,0 *3.150*	60,9 *2.398*	45,0 *1.772*	50,5 *1.988*	41,0 *1.614*	44,0 *1.732*	53,1 *2.092*	44,45 *1.750*	148,4 *5.843*	29,0 *1.142*	39,0 *1.535*	21,5 *0.846*	M16x1	4,5	1	G2.5	1,5 *3.310*
E254456001285	02904793	CAT50 TF ADB	12,0 *0.472*	85,0 *3.346*	65,9 *2.594*	50,0 *1.969*	47,5 *1.870*	34,0 *1.339*	27,0 *1.063*	35,2 *1.385*	69,95 *2.754*	186,75 *7.352*	39,0 *1.535*	49,0 *1.929*	13,5 *0.531*	M10x1	4,5	1	G2.5	3,4 *7.500*
E254456001685	02904794	CAT50 TF ADB	16,0 *0.630*	85,0 *3.346*	65,9 *2.594*	50,0 *1.969*	50,5 *1.988*	39,0 *1.535*	33,0 *1.299*	42,1 *1.659*	69,95 *2.754*	186,75 *7.352*	36,0 *1.417*	46,0 *1.811*	17,0 *0.669*	M12x1	4,5	1	G2.5	3,5 *7.720*
E254456002090	02904795	CAT50 TF ADB	20,0 *0.787*	90,0 *3.543*	70,9 *2.791*	55,0 *2.165*	52,5 *2.067*	41,0 *1.614*	44,0 *1.732*	53,1 *2.092*	69,95 *2.754*	191,75 *7.549*	39,0 *1.535*	49,0 *1.929*	21,5 *0.846*	M16x1	4,5	1	G2.5	3,8 *8.380*

Accessories

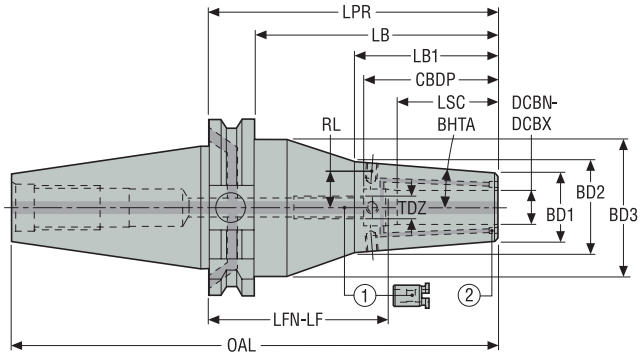
For	Balancing screws
	
All	90ZQ01

Spare Parts, included in delivery

For	Sealing plugs	Sealing Screws	Stop screw
			
E254256001275	90AI03	950A0406	19BDR10165
E254256001680	90AI03	950A0406	19BDR12165
E254256002080	90AI03	950A0406	19BDR16165
E254456001285	90AI03	950A0606	19BDR10165
E254456001685	90AI03	950A0606	19BDR12165
E254456002090	90AI03	950A0606	19BDR16165

CAT TF / ASME B5.50-1994-ADB

Reinforced type – Inch





Spare parts:
1 = Stop screw
2 = Sealing plugs

- Run-out ≤3 µm
- With coolant supply channels towards the tool (plugged)
- Delivered with one stop screw
- For ISO attribute explanation, see page 14

Designation	Item number	CTMS	DCBN-DCBX	LPR	LB	LB1	CBDP	LSC	BD1	BD2	BD3	OAL	LFN	LF	RL	TDZ	BHTA°	RFID hole	Balan-cing	Weight
			inch	inch	inch	inch	inch	inch	inch	inch	inch	inch	inch	inch	inch					lbs
E25425600050287	02904847	CAT40 TF ADB	0.500	2.874	2.122	1.496	1.870	1.339	1.063	1.385	1.750	5.567	1.063	1.457	0.531	M10x1	4,5	1	G2.5	2.650
E25425600062300	02904848	CAT40 TF ADB	0.625	3.000	2.248	1.622	1.988	1.535	1.299	1.659	1.750	5.693	1.071	1.465	0.669	M12x1	4,5	1	G2.5	2.870
E25425600075312	02904849	CAT40 TF ADB	0.750	3.125	2.373	1.747	2.067	1.614	1.732	2.092	1.750	5.818	1.117	1.511	0.846	M16x1	4,5	1	G2.5	3.530
E25445600050325	02904850	CAT50 TF ADB	0.500	3.252	2.500	1.874	1.870	1.339	1.063	1.385	2.754	7.258	1.441	1.835	0.531	M10x1	4,5	1	G2.5	7.500
E25445600062325	02904851	CAT50 TF ADB	0.625	3.252	2.500	1.874	1.988	1.535	1.299	1.659	2.754	7.258	1.323	1.717	0.669	M12x1	4,5	1	G2.5	7.720
E25445600075350	02904852	CAT50 TF ADB	0.750	3.500	2.748	2.122	2.067	1.614	1.732	2.092	2.754	7.506	1.492	1.886	0.846	M16x1	4,5	1	G2.5	8.380
E25445600100400	02904853	CAT50 TF ADB	1.000	4.000	3.248	2.622	2.303	1.850	1.890	2.249	2.754	8.006	1.756	2.150	0.984	M16x1	4,5	1	G2.5	9.040
E25445600125400	02904854	CAT50 TF ADB	1.250	4.000	3.248	2.622	2.461	2.008	1.890	2.249	2.754	8.006	1.598	1.992	0.984	M16x1	4,5	1	G2.5	8.600

Accessories

For	Balancing screws
	
All	90ZQ01

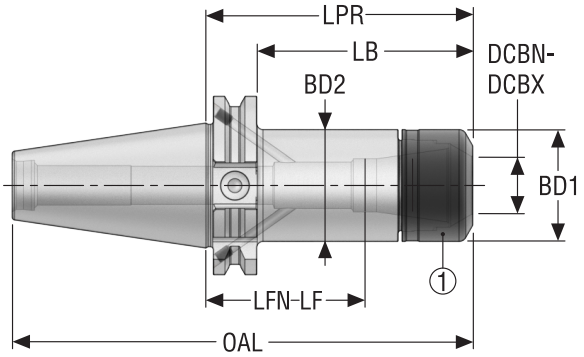
Spare Parts, included in delivery

For Taper/ DCBN-DCBX	Sealing plugs	Sealing Screws	Stop screw
			
CAT40/ 0.500	90AI03	950A0406	19BDR10165
CAT40/ 0.625	90AI03	950A0406	19BDR12165
CAT40/ 0.750	90AI04	950A0406	19BDR16165
CAT50/ 0.500	90AI03	950A0606	19BDR10165
CAT50/ 0.625	90AI03	950A0606	19BDR12165
CAT50/ 0.750-1.250	90AI04	950A0606	19BDR16165

CAT TF / ASME B5.50-1994-ADB

– Inch



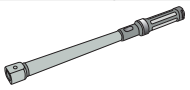


- Run-out 3 µm maximum at 3 x ∅DCBN-DCBX
- For ER HP collets type 5672, see page(s) 402, 403, 404-410
- For ISO attribute explanation, see page 14

Spare parts:
1 = Nut

Designation	Item number	CTMS	DCBN	DCBX	CTWS	LPR	BD2	BD1	OAL	LB	LFN	LF	RFID hole	Balancing	Weight
			Inch	*Inch*		*Inch*	*Inch*	*Inch*	*Inch*	*Inch*	*Inch*	*Inch*			lbs
E2642567211100	02998724	CAT40 TF ADB	0.020	0.276	HP 11	3.937	0.630	0.630	6.630	3.185	2.520	3.228	1	G2.5	2.200
E2642567216160	02998725	CAT40 TF ADB	0.020	0.394	HP 16	6.299	1.181	1.181	8.992	5.547	5.079	5.118	1	G2.5	3.310
CAT40TFADB-ERHP25-4.000	10190243	CAT40 TF ADB	0.039	0.630	HP 25	4.000	1.575	1.575	6.693	3.248	1.795	2.504	1	G2.5	3.090
E2642567225160	02998726	CAT40 TF ADB	0.039	0.630	HP 25	6.299	1.575	1.575	8.992	5.547	4.094	4.803	1	G2.5	4.410
E2644567216160	02998727	CAT50 TF ADB	0.020	0.394	HP 16	6.299	1.181	1.181	10.305	5.547	5.079	5.118	1	G2.5	7.050
E2644567232160	02998728	CAT50 TF ADB	0.079	0.787	HP 32	6.299	1.969	1.969	10.305	5.547	4.094	4.252	1	G2.5	9.700

Accessories

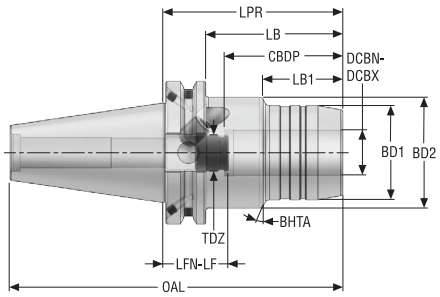
For	Socket	Spanner	Stop screw	Torque key
				
E2642567211100	03ER016	03BR016	19B5870812P1	03DYD010100
E2642567216160	03ER030B	03BR030	19B58711	03DYD010100B
CAT40TFADB-ERHP25-4.000	03ER040	03BR040	19B58718	03DYD020200
E2642567225160	03ER040	03BR040	19B58718	03DYD020200
E2644567216160	03ER030B	03BR030	19B58711	03DYD010100B
E2644567232160	03ER050	03BR050	19B58722	03DYD020200

Spare Parts, included in delivery

For	Nut	Sealing Screws
		
E2642567211100	08B567211	950A0406
E2642567216160	08B567216	950A0406
CAT40TFADB-ERHP25-4.000	08B567225	950A0406
E2642567225160	08B567225	950A0406
E2644567216160	08B567216	950A0606
E2644567232160	08B567232	950A0606

CAT TF / ASME B5.50-1994-ADB

Conventional type
– Metric / *Inch*

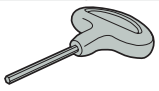




- Run-out ≤3 µm
- For reduction sleeves, see page(s) 394, 395
- For ISO attribute explanation, see page 14

Designation	Item number	CTMS	DCBN-DCBX	LPR	LB	LB1	CBDP	BD2	BD1	OAL	LFN	LF	TDZ	BHTA°	RFID hole	Balan-cing	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*					kg *lbs*
CAT40TFADB-HC06-080	10137287	CAT40 TF ADB	6,0 *0.236*	80,0 *3.150*	60,95 *2.400*	29,5 *1.161*	37,0 *1.457*	49,5 *1.949*	26,0 *1.024*	148,25 *5.837*	43,0 *1.693*	53,0 *2.087*	M5x0.8	30,0	1	G2.5	1,5 *3.310*
CAT40TFADB-HC08-080	10137288	CAT40 TF ADB	8,0 *0.315*	80,0 *3.150*	60,95 *2.400*	30,0 *1.181*	37,0 *1.457*	49,5 *1.949*	28,0 *1.102*	148,25 *5.837*	43,0 *1.693*	53,0 *2.087*	M6x1	30,0	1	G2.5	1,4 *3.090*
CAT40TFADB-HC10-080	10137289	CAT40 TF ADB	10,0 *0.394*	80,0 *3.150*	60,95 *2.400*	31,0 *1.220*	42,0 *1.654*	49,5 *1.949*	30,0 *1.181*	148,25 *5.837*	40,0 *1.575*	50,0 *1.969*	M8x1	30,0	1	G2.5	1,4 *3.090*
CAT40TFADB-HC12-080	10137290	CAT40 TF ADB	12,0 *0.472*	80,0 *3.150*	60,95 *2.400*	31,5 *1.240*	47,0 *1.850*	49,5 *1.949*	32,0 *1.260*	148,25 *5.837*	35,0 *1.378*	45,0 *1.772*	M10x1	30,0	1	G2.5	1,4 *3.090*
CAT40TFADB-HC16-080	10137291	CAT40 TF ADB	16,0 *0.630*	80,0 *3.150*	60,95 *2.400*	33,0 *1.299*	52,0 *2.047*	49,5 *1.949*	38,0 *1.496*	148,25 *5.837*	30,0 *1.181*	40,0 *1.575*	M12x1	30,0	1	G2.5	1,5 *3.310*
CAT40TFADB-HC20-080	10137292	CAT40 TF ADB	20,0 *0.787*	80,0 *3.150*	60,95 *2.400*	34,0 *1.339*	52,0 *2.047*	49,5 *1.949*	42,0 *1.654*	148,25 *5.837*	30,0 *1.181*	40,0 *1.575*	M16x1	30,0	1	G2.5	1,5 *3.310*

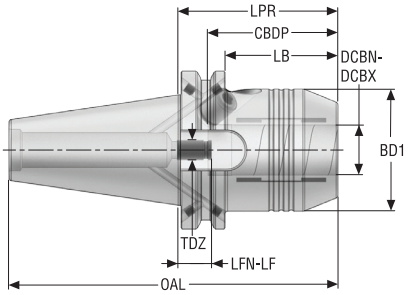
Accessories

For size	Key
	
All	H05-4

Reinforced type
– Metric / *Inch*

CAT TF / ASME B5.50-1994-ADB





- Run-out ≤3 µm
- For reduction sleeves, see page(s) 394, 395
- For ISO attribute explanation, see page 14

Designation	Item number	CTMS	DCBN-DCBX	LPR	LB	LB1	CBDP	BD2	BD1	OAL	LFN	LF	TDZ	BHTA°	RFID hole	Balancing	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*					kg *lbs*
CAT40TFADB-HCR20-064	10137134	CAT40 TF ADB	20,0 *0.787*	64,5 *2.539*	45,45 *1.789*	–	52,5 *2.067*	–	49,25 *1.939*	132,75 *5.226*	13,5 *0.531*	23,5 *0.925*	M8x1	–	0	G2.5	1,3 *2.870*

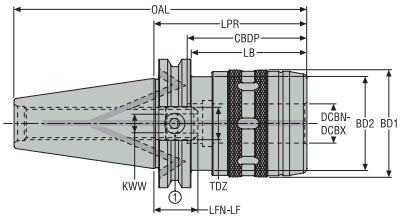
Accessories

For	Key
	
CAT40TFADB-HCR20-064	H05-4

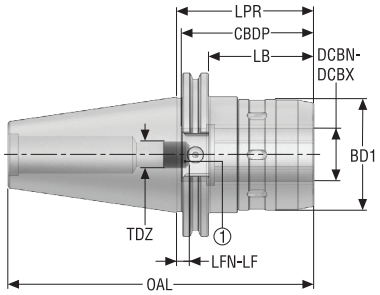
CAT TF / ASME B5.50-1994-AD/ADB

– Inch

Design 1



Design 2



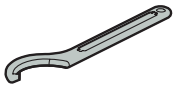


Spare parts:
1 = Stop screw

- For reduction sleeves, see page(s) 398-399
- For 'Stop screws for through coolant', see page(s) 400-401
- For ISO attribute explanation, see page 14

Designation	Item number	CTMS	DCBN-DCBX	OAL	LPR	LB	CBDP	BD1	BD2	LFN	LF	KWW	TDZ	Design	RFID hole	Balan-cing	Weight
			inch	inch	inch	inch	inch	inch	inch	inch	inch						lbs
CAT40TFAD-PMC0.750-3.000	10185655	CAT40 TF AD	0.750	5.693	3.000	2.248	2.248	1.929	1.760	0.520	0.717	7,9375	UNF 5/8"-18	2	1	PB	3.310
CAT40TFADB-PMC1.250-4.250	03211220	CAT40 TF ADB	1.250	6.943	4.250	1.560	3.540	2.638	1.750	1.100	1.297	0,31	UNF 5/8"	1	1	PB	5.070
CAT50TFADB-PMC1.250-3.250	03211221	CAT50 TF ADB	1.250	7.256	3.250	2.500	3.540	2.756	2.750	0.100	0.197	0,31	UNF 5/8"	1	1	PB	8.380

Accessories

For	Spanner
	
CAT40TFAD-PMC0.750-3.000	03BPMC20
CAT40TFADB-PMC1.250-4.250	03BPMC32
CAT50TFADB-PMC1.250-3.250	03BPMC32

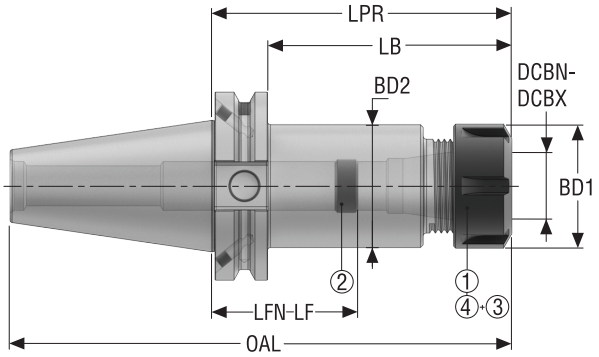
Spare Parts, included in delivery

For	Extractor for reduction sleeves	Sealing Screws	Stop screw
			
CAT40TFAD-PMC0.750-3.000	03EXTPMC	–	19BEPMC02
CAT40TFADB-PMC1.250-4.250	03EXTPMC	950A0406	19BEPMC02
CAT50TFADB-PMC1.250-3.250	03EXTPMC	950A0606	19BEPMC02

ISO 15488
– Metric / *Inch*

CAT TF / ASME B5.50-1994-ADB





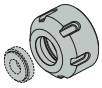
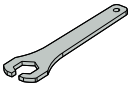
- Run-out 12 µm maximum at 3 x ∅DCBN-DCBX
- For ER sealing rings, see page(s) 418, 419
- For ISO attribute explanation, see page 14

Accessories:
3 = Sealing ring
4 = Sealing nut

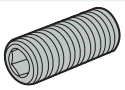
Spare parts:
1 = Nut
2 = Stop screw

Designation	Item number	CTMS	DCBN	DCBX	CTWS	LPR	BD2	BD1	OAL	LB	LFN	LF	RFID hole	Balancing	Weight
			mm *inch*	mm *inch*		mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*			kg *lbs*
CAT40TFADB-ER16-4.000	10008238	CAT40 TF ADB	0,5 *0.020*	10,0 *0.394*	ER 16	101,6 *4.000*	–	–	169,85 *6.687*	82,55 *3.250*	11,6 *0.457*	67,6 *2.661*	1	PB	1,2 *2.650*
CAT40TFADB-ER25-4.000	10008239	CAT40 TF ADB	1,0 *0.039*	16,0 *0.630*	ER 25	101,6 *4.000*	–	–	169,85 *6.687*	82,55 *3.250*	1,6 *0.063*	59,6 *2.346*	1	PB	1,4 *3.090*
CAT40TFADB-ER32-4.000	10008240	CAT40 TF ADB	2,0 *0.079*	20,0 *0.787*	ER 32	101,6 *4.000*	–	–	169,85 *6.687*	82,55 *3.250*	1,6 *0.063*	52,6 *2.071*	1	PB	1,7 *3.750*
CAT50TFADB-ER32-6.000	10008241	CAT50 TF ADB	2,0 *0.079*	20,0 *0.787*	ER 32	152,4 *6.000*	–	–	254,0 *10.000*	133,35 *5.250*	52,4 *2.063*	104,4 *4.110*	1	PB	4,0 *8.820*
CAT50TFADB-ER40-4.000	10008242	CAT50 TF ADB	3,0 *0.118*	26,0 *1.024*	ER 40	101,6 *4.000*	–	–	203,2 *8.000*	82,55 *3.250*	-18,4 *-0.724*	46,6 *1.835*	1	PB	3,8 *8.380*

Accessories

For	Seal nut	Spanner
		
CAT40TFADB-ER16-4.000	08B587516IC	03B587516UM
CAT40TFADB-ER25-4.000	08B587525IC	03B587525
CAT40TFADB-ER32-4.000	08B587532IC	03B587532
CAT50TFADB-ER32-6.000	08B587532IC	03B587532
CAT50TFADB-ER40-4.000	08B587540IC	03B587540

Spare Parts, included in delivery

For	Nut	Plug	Stop screw
		 1x	
CAT40TFADB-ER16-4.000	5533050-06	564301701	19BS567510
CAT40TFADB-ER25-4.000	5533050-02	564301701	19BS567518
CAT40TFADB-ER32-4.000	5533050-03	564301701	19BS567522
CAT50TFADB-ER32-6.000	5533050-03	564301702	19BS567522
CAT50TFADB-ER40-4.000	5533050-04	564301702	19BS567528



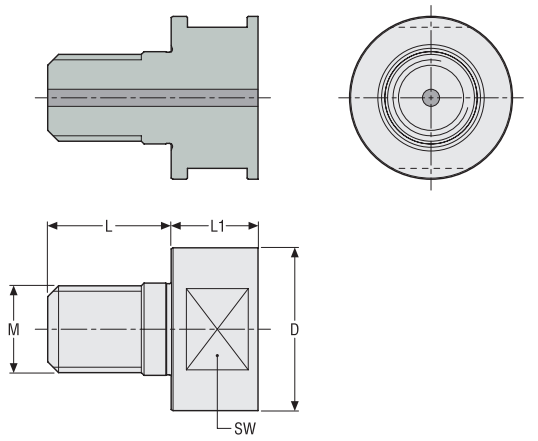
Combimaster

Poorly designed holders can’t provide the rigidity, stability or precision needed for optimized milling strategies and, subsequently, superior performance. Maximize these factors for fully secure milling processes with the expanded line of **Combimaster™** holders.

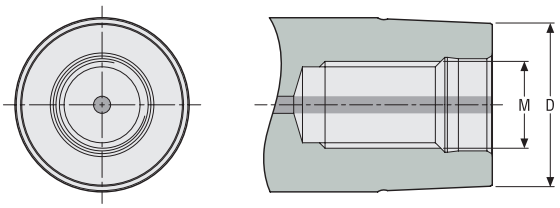
- Combimaster with different taper backends
- Shrinkfit holders
- Steadyline solutions
- Intermediates to cover extensions and reducers

Combimaster

Machine side



Workpiece side



Machine side catalogue designation	Hole for RFID carrier*	L	L1	D	M	SW
		mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*
M10	No	18,75 *0.738*	13 *0.512*	18,5 *0.728*	10 *0.394*	15 *0.591*
M12	No	21,75 *0.856*	15 *0.591*	23 *0.906*	12 *0.472*	19 *0.748*
M16	No	22,75 *0.896*	16 *0.630*	30 *1.181*	16 *0.630*	26 *1.024*
M20	No	27 *1.063*	18 *0.709*	36,5 *1.437*	20 *0.787*	32 *1.260*
M6	No	13,5 *0.531*	9 *0.354*	11 *0.433*	6 *0.236*	9 *0.354*
M8	No	17,75 *0.699*	11 *0.433*	13,5 *0.531*	8 *0.315*	11 *0.433*

Workpiece side catalogue designation	Hole for RFID carrier*	D	M
		mm *Inch*	mm *Inch*
M10	No	18,5 *0.728*	10 *0.394*
M12	No	23 *0.906*	12 *0.472*
M16	No	30 *1.181*	16 *0.630*
M20	No	36,5 *1.437*	20 *0.787*
M6	No	11 *0.433*	6 *0.236*
M8	No	13,5 *0.531*	8 *0.315*

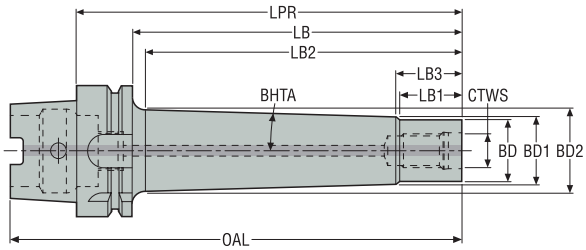
Note: These machine side and workpiece side dimensions are applied to all the holders shown in the Product pages.

* No hole for RFID carriers

HSK-A/ ISO12164-1-HSK-A

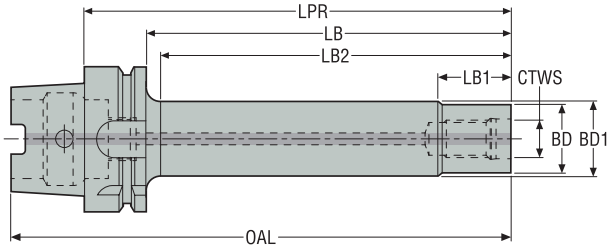
Steadyline®, vibration damping – Metric / *Inch*

Design 1





Design 2



- For HSK sealing plugs, coolant tubes and tube spanners, see page(s) 383
- For ISO attribute explanation, see page 14

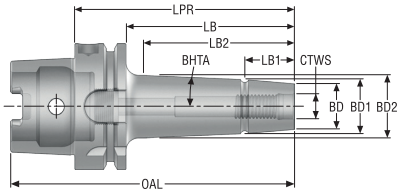
Designation	Item number	CTMS	CTWS	LPR	LB	LB2	LB3	LB1	BD	BD2	BD1	OAL	BHTA°	Design	Max. RPM	RFID hole	Balancing	Weight
				mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*						kg *lbs*
E9304K82010185	02904472	HSK-A63	M10	185,0 *7.283*	159,0 *6.260*	154,2 *6.071*	22,8 *0.898*	20,0 *0.787*	18,5 *0.728*	36,6 *1.441*	24,0 *0.945*	217,0 *8.543*	2,75	1	0	1	PB	1,51 *3.330*
E9304K82012185	02904473	HSK-A63	M12	185,0 *7.283*	159,0 *6.260*	154,24 *6.072*	23,4 *0.921*	20,0 *0.787*	23,0 *0.906*	42,01 *1.654*	30,0 *1.181*	217,0 *8.543*	2,75	1	0	1	PB	1,9 *4.190*
E9304K82016235	02904476	HSK-A63	M16	235,0 *9.252*	193,0 *7.598*	190,55 *7.502*	23,7 *0.933*	20,0 *0.787*	30,0 *1.181*	53,0 *2.087*	37,0 *1.457*	267,0 *10.512*	2,75	1	0	1	PB	3,5 *7.720*
E9304K82116160	02904474	HSK-A63	M16	160,0 *6.299*	134,0 *5.276*	129,0 *5.079*	–	22,0 *0.866*	30,0 *1.181*	–	30,5 *1.201*	192,0 *7.559*	–	2	0	1	PB	1,4 *3.090*
E9304K82020235	03029798	HSK-A63	M20	235,0 *9.252*	193,0 *7.598*	186,4 *7.339*	29,0 *1.142*	24,5 *0.965*	36,5 *1.437*	60,1 *2.366*	45,0 *1.772*	267,0 *10.512*	2,75	1	0	1	PB	4,3 *9.480*
HSKA63-M20-160-K	03308049	HSK-A63	M20	160,0 *6.299*	134,0 *5.276*	131,0 *5.157*	–	31,0 *1.220*	36,5 *1.437*	–	37,0 *1.457*	192,0 *7.559*	–	2	0	1	PB	2,1 *4.630*
E9306K82012235	02904477	HSK-A100	M12	235,0 *9.252*	206,0 *8.110*	201,24 *7.923*	23,4 *0.921*	20,0 *0.787*	23,0 *0.906*	46,56 *1.833*	30,0 *1.181*	285,0 *11.220*	2,75	1	0	1	PB	4,0 *8.820*
E9306K82016235	02904479	HSK-A100	M16	235,0 *9.252*	206,0 *8.110*	201,24 *7.923*	23,7 *0.933*	20,0 *0.787*	30,0 *1.181*	54,03 *2.127*	37,0 *1.457*	285,0 *11.220*	2,75	1	0	1	PB	4,78 *10.540*
E9306K82016285	02904480	HSK-A100	M16	285,0 *11.220*	256,0 *10.079*	251,24 *9.891*	23,7 *0.933*	20,0 *0.787*	30,0 *1.181*	58,83 *2.316*	37,0 *1.457*	335,0 *13.189*	2,75	1	0	1	PB	5,86 *12.920*
E9306K82116185	02904478	HSK-A100	M16	185,0 *7.283*	156,0 *6.142*	151,0 *5.945*	–	22,0 *0.866*	30,0 *1.181*	–	30,5 *1.201*	235,0 *9.252*	–	2	0	1	PB	2,91 *6.420*
E9306K82020235	03029804	HSK-A100	M20	235,0 *9.252*	206,0 *8.110*	201,2 *7.921*	29,0 *1.142*	24,5 *0.965*	36,5 *1.437*	61,6 *2.425*	45,0 *1.772*	285,0 *11.220*	2,75	1	0	1	PB	5,7 *12.570*
E9306K82020285	03029803	HSK-A100	M20	285,0 *11.220*	256,0 *10.079*	251,2 *9.890*	29,0 *1.142*	24,5 *0.965*	36,5 *1.437*	66,4 *2.614*	45,0 *1.772*	335,0 *13.189*	2,75	1	0	1	PB	7,2 *15.870*
HSKA100-M20-185-K	03308052	HSK-A100	M20	185,0 *7.283*	156,0 *6.142*	151,0 *5.945*	–	31,0 *1.220*	36,5 *1.437*	–	37,0 *1.457*	235,0 *9.252*	–	2	0	1	PB	3,9 *8.600*
HSKA125-M16-185-K	03229658	HSK-A125	M16	185,0 *7.283*	156,0 *6.142*	130,0 *5.118*	–	22,0 *0.866*	30,0 *1.181*	–	30,5 *1.201*	248,0 *9.764*	–	2	0	1	PB	4,5 *9.920*
HSKA125-M20-225-K	03229662	HSK-A125	M20	225,0 *8.858*	196,0 *7.717*	176,0 *6.929*	–	31,0 *1.220*	36,5 *1.437*	–	37,0 *1.457*	288,0 *11.339*	–	2	0	1	PB	5,3 *11.680*

HSK-A to Combimaster
– Metric / *Inch*

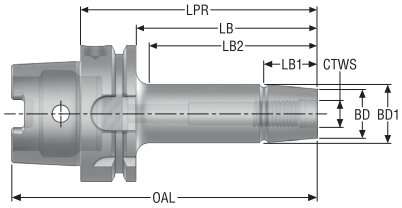
HSK-A/ ISO12164-1-HSK-A



Design 1



Design 2



- For HSK sealing plugs, coolant tubes and tube spanners, see page(s) 383
- For ISO attribute explanation, see page 14

Designation	Item number	CTMS	CTWS	LPR	LB	LB2	LB1	BD	BD2	BD1	OAL	BHTA°	Design	RFID hole	Balancing	Weight
				mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*					kg *lbs*
E930458200660	02643801	HSK-A63	M6	60,0 *2.362*	34,0 *1.339*	25,0 *0.984*	10,0 *0.394*	11,0 *0.433*	14,5 *0.571*	11,7 *0.461*	92,0 *3.622*	5,3	1	1	G6.3	0,7 *1.540*
E930458200860	02438495	HSK-A63	M8	60,0 *2.362*	34,0 *1.339*	25,0 *0.984*	10,0 *0.394*	13,5 *0.531*	18,5 *0.728*	15,7 *0.618*	92,0 *3.622*	5,3	1	1	G6.3	0,7 *1.540*
E930458200885	02438497	HSK-A63	M8	85,0 *3.346*	59,0 *2.323*	50,0 *1.969*	15,0 *0.591*	13,5 *0.531*	20,0 *0.787*	15,7 *0.618*	117,0 *4.606*	3,5	1	1	G6.3	0,8 *1.760*
E930458201060	02444885	HSK-A63	M10	60,0 *2.362*	34,0 *1.339*	25,0 *0.984*	10,0 *0.394*	18,5 *0.728*	23,0 *0.906*	19,7 *0.776*	92,0 *3.622*	6,3	1	1	G6.3	0,8 *1.760*
E930458201085	02444889	HSK-A63	M10	85,0 *3.346*	59,0 *2.323*	50,0 *1.969*	15,0 *0.591*	18,5 *0.728*	24,5 *0.965*	19,7 *0.776*	117,0 *4.606*	3,9	1	1	G6.3	0,8 *1.760*
E9304582010135	02438500	HSK-A63	M10	135,0 *5.315*	109,0 *4.291*	100,0 *3.937*	20,0 *0.787*	18,5 *0.728*	27,5 *1.083*	19,7 *0.776*	167,0 *6.575*	2,8	1	1	G6.3	1,0 *2.200*
E930458211060	02444948	HSK-A63	M10	60,0 *2.362*	34,0 *1.339*	25,0 *0.984*	10,0 *0.394*	18,5 *0.728*	–	18,5 *0.728*	92,0 *3.622*	–	2	1	G6.3	0,7 *1.540*
E930458201260	02444905	HSK-A63	M12	60,0 *2.362*	34,0 *1.339*	25,0 *0.984*	10,0 *0.394*	23,0 *0.906*	28,5 *1.122*	24,7 *0.972*	92,0 *3.622*	7,2	1	1	G6.3	0,8 *1.760*
E930458201285	02444907	HSK-A63	M12	85,0 *3.346*	59,0 *2.323*	50,0 *1.969*	20,0 *0.787*	23,0 *0.906*	30,0 *1.181*	24,7 *0.972*	117,0 *4.606*	5,0	1	1	G6.3	0,9 *1.980*
E9304582012110	02444894	HSK-A63	M12	110,0 *4.331*	84,0 *3.307*	75,0 *2.953*	25,0 *0.984*	23,0 *0.906*	31,5 *1.240*	24,7 *0.972*	142,0 *5.591*	3,9	1	1	G6.3	1,0 *2.200*
E9304582012135	02444903	HSK-A63	M12	135,0 *5.315*	109,0 *4.291*	100,0 *3.937*	30,0 *1.181*	23,0 *0.906*	33,0 *1.299*	24,7 *0.972*	167,0 *6.575*	3,4	1	1	G6.3	1,2 *2.650*
E930458211260	02444950	HSK-A63	M12	60,0 *2.362*	34,0 *1.339*	25,0 *0.984*	10,0 *0.394*	23,0 *0.906*	–	23,5 *0.925*	92,0 *3.622*	–	2	1	G6.3	0,8 *1.760*
E930458211285	02444953	HSK-A63	M12	85,0 *3.346*	59,0 *2.323*	50,0 *1.969*	20,0 *0.787*	23,0 *0.906*	–	23,5 *0.925*	117,0 *4.606*	–	2	1	G6.3	0,9 *1.980*
E930458201660	02444942	HSK-A63	M16	60,0 *2.362*	34,0 *1.339*	25,0 *0.984*	10,0 *0.394*	30,0 *1.181*	35,5 *1.398*	31,7 *1.248*	92,0 *3.622*	6,9	1	1	G6.3	0,9 *1.980*
E930458201685	02444944	HSK-A63	M16	85,0 *3.346*	59,0 *2.323*	50,0 *1.969*	20,0 *0.787*	30,0 *1.181*	37,0 *1.457*	31,7 *1.248*	117,0 *4.606*	5,0	1	1	G6.3	1,0 *2.200*
E9304582016110	02444908	HSK-A63	M16	110,0 *4.331*	84,0 *3.307*	75,0 *2.953*	25,0 *0.984*	30,0 *1.181*	38,5 *1.516*	31,7 *1.248*	142,0 *5.591*	3,9	1	1	G6.3	1,2 *2.650*
E9304582016135	02444910	HSK-A63	M16	135,0 *5.315*	109,0 *4.291*	100,0 *3.937*	30,0 *1.181*	30,0 *1.181*	40,0 *1.575*	31,7 *1.248*	167,0 *6.575*	3,4	1	1	G6.3	1,4 *3.090*
E9304582016185	02444912	HSK-A63	M16	185,0 *7.283*	159,0 *6.260*	150,0 *5.906*	35,0 *1.378*	30,0 *1.181*	50,0 *1.969*	31,7 *1.248*	217,0 *8.543*	4,5	1	1	G6.3	2,1 *4.630*
E930458211685	02438506	HSK-A63	M16	85,0 *3.346*	59,0 *2.323*	50,0 *1.969*	20,0 *0.787*	30,0 *1.181*	–	30,5 *1.201*	117,0 *4.606*	–	2	1	G6.3	1,0 *2.200*
E9304582116110	02438507	HSK-A63	M16	110,0 *4.331*	84,0 *3.307*	77,0 *3.031*	25,0 *0.984*	30,0 *1.181*	–	30,5 *1.201*	142,0 *5.591*	–	2	1	G6.3	1,1 *2.430*
E9304582116135	02438508	HSK-A63	M16	135,0 *5.315*	109,0 *4.291*	100,0 *3.937*	30,0 *1.181*	30,0 *1.181*	–	30,5 *1.201*	167,0 *6.575*	–	2	1	G6.3	1,2 *2.650*
E930458202065	02971293	HSK-A63	M20	65,0 *2.559*	39,0 *1.535*	30,0 *1.181*	10,0 *0.394*	36,5 *1.437*	44,5 *1.752*	37,5 *1.476*	97,0 *3.819*	6,4	1	1	G6.3	1,0 *2.200*

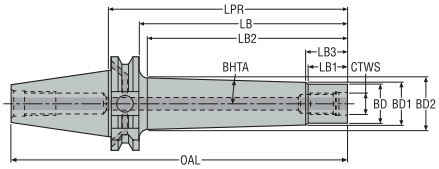
Designation	Item number	CTMS	CTWS	LPR	LB	LB2	LB1	BD	BD2	BD1	OAL	BHTA°	Design	RFID hole	Balan-cing	Weight
				mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*					kg *lbs*
E9304582120110	02971294	HSK-A63	M20	110,0 *4.331*	84,0 *3.307*	75,0 *2.953*	25,0 *0.984*	36,5 *1.437*	–	37,0 *1.457*	142,0 *5.591*	–	2	1	G6.3	1,2 *2.650*
HSKA63-M20-085	03308047	HSK-A63	M20	85,0 *3.346*	59,0 *2.323*	50,0 *1.969*	20,0 *0.787*	36,5 *1.437*	–	37,0 *1.457*	117,0 *4.606*	–	2	1	PB	1,1 *2.430*
HSKA63-M20-135	03308048	HSK-A63	M20	135,0 *5.315*	109,0 *4.291*	100,0 *3.937*	30,0 *1.181*	36,5 *1.437*	–	37,0 *1.457*	167,0 *6.575*	–	2	1	G6.3	1,4 *3.090*
HSKA63-M20-185	03308050	HSK-A63	M20	185,0 *7.283*	159,0 *6.260*	150,0 *5.906*	35,0 *1.378*	36,5 *1.437*	–	37,0 *1.457*	217,0 *8.543*	–	2	1	G6.3	1,8 *3.970*
E930658201085	02445323	HSK-A100	M10	85,0 *3.346*	56,0 *2.205*	50,0 *1.969*	15,0 *0.591*	18,5 *0.728*	27,0 *1.063*	19,7 *0.776*	135,0 *5.315*	7,6	1	1	G6.3	2,2 *4.850*
E930658201285	02445356	HSK-A100	M12	85,0 *3.346*	56,0 *2.205*	50,0 *1.969*	20,0 *0.787*	23,0 *0.906*	35,0 *1.378*	24,7 *0.972*	135,0 *5.315*	9,7	1	1	G6.3	2,3 *5.070*
E9306582012110	02445326	HSK-A100	M12	110,0 *4.331*	81,0 *3.189*	75,0 *2.953*	25,0 *0.984*	23,0 *0.906*	38,0 *1.496*	24,7 *0.972*	160,0 *6.299*	7,6	1	1	G6.3	2,4 *5.290*
E9306582012135	02445329	HSK-A100	M12	135,0 *5.315*	106,0 *4.173*	100,0 *3.937*	30,0 *1.181*	23,0 *0.906*	41,0 *1.614*	24,7 *0.972*	185,0 *7.283*	6,6	1	1	G6.3	2,6 *5.730*
E9306582012185	02445333	HSK-A100	M12	185,0 *7.283*	156,0 *6.142*	150,0 *5.906*	30,0 *1.181*	23,0 *0.906*	42,5 *1.673*	24,7 *0.972*	235,0 *9.252*	4,2	1	1	G6.3	2,9 *6.390*
E930658201685	02445390	HSK-A100	M16	85,0 *3.346*	56,0 *2.205*	50,0 *1.969*	20,0 *0.787*	30,0 *1.181*	42,5 *1.673*	31,7 *1.248*	135,0 *5.315*	10,2	1	1	G6.3	2,4 *5.290*
E9306582016135	02445366	HSK-A100	M16	135,0 *5.315*	106,0 *4.173*	100,0 *3.937*	30,0 *1.181*	30,0 *1.181*	49,0 *1.929*	31,7 *1.248*	185,0 *7.283*	7,0	1	1	G6.3	2,9 *6.390*
E9306582016185	02445388	HSK-A100	M16	185,0 *7.283*	156,0 *6.142*	150,0 *5.906*	35,0 *1.378*	30,0 *1.181*	50,0 *1.969*	31,7 *1.248*	235,0 *9.252*	4,5	1	1	G6.3	3,4 *7.500*
E9306582016235	02445389	HSK-A100	M16	235,0 *9.252*	206,0 *8.110*	200,0 *7.874*	35,0 *1.378*	30,0 *1.181*	55,0 *2.165*	31,7 *1.248*	285,0 *11.220*	4,0	1	1	G6.3	4,1 *9.040*
E9306582020135	02928179	HSK-A100	M20	135,0 *5.315*	106,0 *4.173*	100,0 *3.937*	30,0 *1.181*	36,5 *1.437*	54,5 *2.146*	37,5 *1.476*	185,0 *7.283*	6,9	1	1	G6.3	3,1 *6.830*
HSKA100-M20-085	03308051	HSK-A100	M20	85,0 *3.346*	56,0 *2.205*	50,0 *1.969*	20,0 *0.787*	36,5 *1.437*	–	37,0 *1.457*	135,0 *5.315*	–	2	1	G6.3	2,4 *5.290*
HSKA125-M16-085	03229655	HSK-A125	M16	85,0 *3.346*	56,0 *2.205*	35,0 *1.378*	20,0 *0.787*	30,0 *1.181*	–	30,5 *1.201*	148,0 *5.827*	–	2	1	PB	3,6 *7.940*
HSKA125-M16-135	03229656	HSK-A125	M16	135,0 *5.315*	106,0 *4.173*	85,0 *3.346*	35,0 *1.378*	30,0 *1.181*	–	30,5 *1.201*	198,0 *7.795*	–	2	1	PB	3,9 *8.600*
HSKA125-M16-185-VF6	03240292	HSK-A125	M16	185,0 *7.283*	156,0 *6.142*	150,0 *5.906*	60,0 *2.362*	30,0 *1.181*	54,9 *2.161*	30,0 *1.181*	248,0 *9.764*	7,88	1	1	PB	4,6 *10.140*
HSKA125-M20-075	03229659	HSK-A125	M20	75,0 *2.953*	46,0 *1.811*	30,0 *1.181*	10,0 *0.394*	36,5 *1.437*	–	37,0 *1.457*	138,0 *5.433*	–	2	1	PB	3,7 *8.160*
HSKA125-M20-135	03229660	HSK-A125	M20	135,0 *5.315*	106,0 *4.173*	90,0 *3.543*	30,0 *1.181*	36,5 *1.437*	–	37,0 *1.457*	198,0 *7.795*	–	2	1	PB	4,1 *9.040*
HSKA125-M20-185-VF6	03240293	HSK-A125	M20	185,0 *7.283*	156,0 *6.142*	150,0 *5.906*	73,0 *2.874*	36,5 *1.437*	62,9 *2.476*	36,5 *1.437*	248,0 *9.764*	9,73	1	1	PB	5,0 *11.020*

Steadyline®, vibration damping – Metric / *Inch*

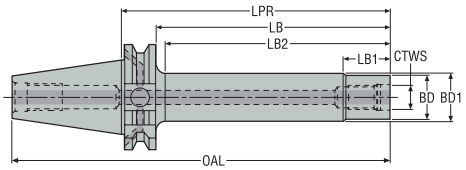
DIN 69871-ADB



Design 1



Design 2



• For ISO attribute explanation, see page 14

Designation	Item number	CTMS	CTWS	LPR	LB	LB2	LB1	BD	BD2	BD1	OAL	BHTA°	Design	Max. RPM	RFID hole	Balan-cing	Weight
				mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*						kg *lbs*
E3469K82012185	02904485	DIN40 ADB	M12	185,0 *7.283*	165,9 *6.531*	130,12 *5.123*	20,0 *0.787*	23,0 *0.906*	42,7 *1.681*	30,0 *1.181*	253,4 *9.976*	2,75	1	0	1	PB	2,2 *4.850*
E3469K82116160	02904486	DIN40 ADB	M16	160,0 *6.299*	140,9 *5.547*	135,9 *5.350*	22,0 *0.866*	30,0 *1.181*	–	30,5 *1.201*	228,4 *8.992*	–	2	0	1	PB	1,7 *3.750*
DIN40ADB-M20-160-K	03308042	DIN40 ADB	M20	160,0 *6.299*	140,9 *5.547*	137,9 *5.429*	31,0 *1.220*	36,5 *1.437*	–	37,0 *1.457*	228,4 *8.992*	–	2	0	1	PB	2,1 *4.630*
E3471K82116185	02904490	DIN50 ADB	M16	185,0 *7.283*	165,9 *6.531*	160,9 *6.335*	22,0 *0.866*	30,0 *1.181*	–	30,5 *1.201*	286,75 *11.289*	–	2	0	1	PB	3,5 *7.720*
DIN50ADB-M20-185-K	03308045	DIN50 ADB	M20	185,0 *7.283*	165,9 *6.531*	160,9 *6.335*	31,0 *1.220*	36,5 *1.437*	–	37,0 *1.457*	286,75 *11.289*	–	2	0	1	PB	4,6 *10.140*

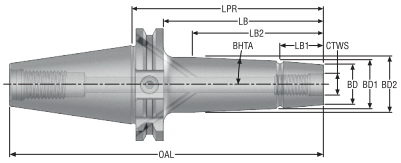
Spare Parts, included in delivery

For Taper	Sealing Screws
	
DIN40	950A0406
DIN50	950A0606

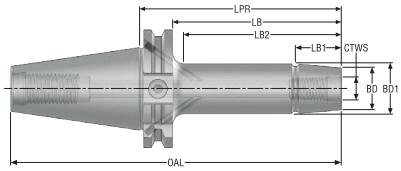
DIN 69871-ADB

DIN 69871 to Combimaster – Metric / *Inch*

Design 1



Design 2





• For ISO attribute explanation, see page 14

Designation	Item number	CTMS	CTWS	LPR	LB	LB2	LB1	BD	BD2	BD1	OAL	BHTA°	Design	RFID hole	Balan-cing	Weight
				mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*					kg *lbs*
DIN40ADB-M20-060-V	03308039	DIN40 ADB	M20	60,0 *2.362*	40,9 *1.610*	25,0 *0.984*	10,0 *0.394*	36,5 *1.437*	44,0 *1.732*	37,0 *1.457*	128,4 *5.055*	12,23	1	1	G6.3	1,1 *2.430*
E346958212085	02971302	DIN40 ADB	M20	85,0 *3.346*	65,9 *2.594*	60,0 *2.362*	20,0 *0.787*	36,5 *1.437*	–	37,0 *1.457*	153,4 *6.039*	–	2	1	G6.3	1,2 *2.650*
DIN40ADB-M20-110	03308040	DIN40 ADB	M20	110,0 *4.331*	90,9 *3.579*	75,0 *2.953*	25,0 *0.984*	36,5 *1.437*	–	37,0 *1.457*	178,4 *7.024*	–	2	1	G6.3	1,4 *3.090*
DIN40ADB-M20-135	03308041	DIN40 ADB	M20	135,0 *5.315*	115,9 *4.563*	100,0 *3.937*	30,0 *1.181*	36,5 *1.437*	–	37,0 *1.457*	203,4 *8.008*	–	2	1	G6.3	1,6 *3.530*
DIN40ADB-M20-185	03308043	DIN40 ADB	M20	185,0 *7.283*	165,9 *6.531*	150,0 *5.906*	35,0 *1.378*	36,5 *1.437*	–	37,0 *1.457*	253,4 *9.976*	–	2	1	G6.3	2,0 *4.410*
E347158202095	02971303	DIN50 ADB	M20	95,0 *3.740*	75,9 *2.988*	65,0 *2.559*	25,0 *0.984*	36,5 *1.437*	50,5 *1.988*	37,5 *1.476*	196,75 *7.746*	9,3	1	1	G6.3	3,3 *7.280*
DIN50ADB-M20-145	03308044	DIN50 ADB	M20	145,0 *5.709*	125,9 *4.957*	100,0 *3.937*	30,0 *1.181*	36,5 *1.437*	–	37,0 *1.457*	246,75 *9.715*	–	2	1	G6.3	3,4 *7.500*
DIN50ADB-M20-295-V	03308046	DIN50 ADB	M20	295,0 *11.614*	275,9 *10.862*	250,0 *9.843*	35,0 *1.378*	36,5 *1.437*	68,0 *2.677*	37,0 *1.457*	396,75 *15.620*	4,06	1	1	G6.3	7,2 *15.870*

Spare Parts, included in delivery

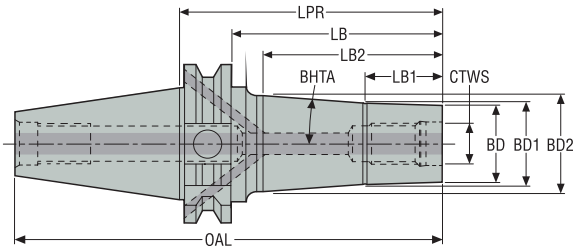
For Taper	Sealing Screws
	
DIN40	950A0406
DIN50	950A0606

DIN/CAT (Combined) to Combimaster – Metric / *Inch*

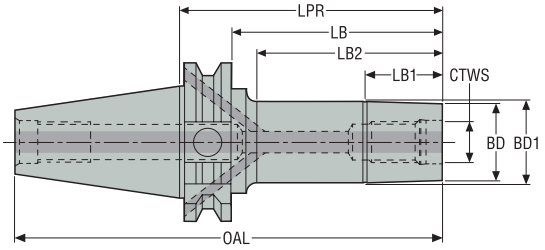
DIN/CAT (Combined)



Design 1



Design 2



• For ISO attribute explanation, see page 14

Designation	Item number	CTMS	CTWS	LPR	LB	LB2	LB1	BD	BD2	BD1	OAL	BHTA°	Design	RFID hole	Balancing	Weight
				mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*					kg *lbs*
E347658200660	02628844	DIN40 ADB/ CAT40	M6	60,0 *2.362*	41,0 *1.614*	25,0 *0.984*	10,0 *0.394*	11,0 *0.433*	14,5 *0.571*	11,7 *0.461*	128,4 *5.055*	5,3	1	1	G6.3	1,0 *2.200*
E347658200860	02438484	DIN40 ADB/ CAT40	M8	60,0 *2.362*	41,0 *1.614*	25,0 *0.984*	10,0 *0.394*	13,5 *0.531*	18,5 *0.728*	15,7 *0.618*	128,4 *5.055*	5,3	1	1	G6.3	1,0 *2.200*
E347658201040	02444577	DIN40 ADB/ CAT40	M10	40,0 *1.575*	21,0 *0.827*	5,0 *0.197*	5,0 *0.197*	18,5 *0.728*	–	19,7 *0.776*	108,4 *4.268*	6,8	1	1	G6.3	1,0 *2.200*
E347658201060	02444588	DIN40 ADB/ CAT40	M10	60,0 *2.362*	41,0 *1.614*	25,0 *0.984*	10,0 *0.394*	18,5 *0.728*	23,0 *0.906*	19,7 *0.776*	128,4 *5.055*	6,3	1	1	G6.3	1,0 *2.200*
E347658201085	02444594	DIN40 ADB/ CAT40	M10	85,0 *3.346*	66,0 *2.598*	50,0 *1.969*	15,0 *0.591*	18,5 *0.728*	24,5 *0.965*	19,7 *0.776*	153,4 *6.039*	3,9	1	1	G6.3	1,1 *2.430*
E3476582010135	02438487	DIN40 ADB/ CAT40	M10	135,0 *5.315*	116,0 *4.567*	100,0 *3.937*	20,0 *0.787*	18,5 *0.728*	27,5 *1.083*	19,7 *0.776*	203,4 *8.008*	2,8	1	1	G6.3	1,3 *2.870*
E347658211060	02444670	DIN40 ADB/ CAT40	M10	60,0 *2.362*	41,0 *1.614*	25,0 *0.984*	10,0 *0.394*	18,5 *0.728*	–	18,5 *0.728*	128,4 *5.055*	–	2	1	G6.3	1,0 *2.200*
E347658201240	02444621	DIN40 ADB/ CAT40	M12	40,0 *1.575*	21,0 *0.827*	5,0 *0.197*	5,0 *0.197*	23,0 *0.906*	24,7 *0.972*	24,7 *0.972*	108,4 *4.268*	9,6	1	1	G6.3	1,0 *2.200*
E347658201260	02444623	DIN40 ADB/ CAT40	M12	60,0 *2.362*	41,0 *1.614*	25,0 *0.984*	10,0 *0.394*	23,0 *0.906*	28,5 *1.122*	24,7 *0.972*	128,4 *5.055*	7,2	1	1	G6.3	1,1 *2.430*
E347658201285	02444637	DIN40 ADB/ CAT40	M12	85,0 *3.346*	66,0 *2.598*	50,0 *1.969*	20,0 *0.787*	23,0 *0.906*	30,0 *1.181*	24,7 *0.972*	153,4 *6.039*	5,0	1	1	G6.3	1,2 *2.650*
E3476582012110	02444600	DIN40 ADB/ CAT40	M12	110,0 *4.331*	91,0 *3.583*	75,0 *2.953*	25,0 *0.984*	23,0 *0.906*	31,5 *1.240*	24,7 *0.972*	178,4 *7.024*	3,9	1	1	G6.3	1,3 *2.870*
E3476582012185	02438489	DIN40 ADB/ CAT40	M12	185,0 *7.283*	166,0 *6.535*	150,0 *5.906*	30,0 *1.181*	23,0 *0.906*	42,5 *1.673*	24,7 *0.972*	253,4 *9.976*	4,2	1	1	G6.3	1,8 *3.970*
E347658211260	02444672	DIN40 ADB/ CAT40	M12	60,0 *2.362*	41,0 *1.614*	25,0 *0.984*	10,0 *0.394*	23,0 *0.906*	–	23,5 *0.925*	128,4 *5.055*	–	2	1	G6.3	1,1 *2.430*
E347658211285	02444673	DIN40 ADB/ CAT40	M12	85,0 *3.346*	66,0 *2.598*	50,0 *1.969*	20,0 *0.787*	23,0 *0.906*	–	23,5 *0.925*	153,4 *6.039*	–	2	1	G6.3	1,1 *2.430*
E347658201640	02444659	DIN40 ADB/ CAT40	M16	40,0 *1.575*	21,0 *0.827*	5,0 *0.197*	5,0 *0.197*	30,0 *1.181*	31,7 *1.248*	31,7 *1.248*	108,4 *4.268*	9,6	1	1	G6.3	1,0 *2.200*
E347658201660	02444662	DIN40 ADB/ CAT40	M16	60,0 *2.362*	41,0 *1.614*	25,0 *0.984*	10,0 *0.394*	30,0 *1.181*	35,5 *1.398*	31,7 *1.248*	128,4 *5.055*	7,2	1	1	G6.3	1,1 *2.430*

Designation	Item number	CTMS	CTWS	LPR	LB	LB2	LB1	BD	BD2	BD1	OAL	BHTA°	Design	RFID hole	Balan-cing	Weight
				mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*					kg *lbs*
E347658201685	02444664	DIN40 ADB/ CAT40	M16	85,0 *3.346*	66,0 *2.598*	50,0 *1.969*	20,0 *0.787*	30,0 *1.181*	37,0 *1.457*	31,7 *1.248*	153,4 *6.039*	5,0	1	1	G6.3	1,3 *2.870*
E3476582016110	02444650	DIN40 ADB/ CAT40	M16	110,0 *4.331*	91,0 *3.583*	75,0 *2.953*	25,0 *0.984*	30,0 *1.181*	38,5 *1.516*	31,7 *1.248*	178,4 *7.024*	3,9	1	1	G6.3	1,5 *3.310*
E3476582016135	02444652	DIN40 ADB/ CAT40	M16	135,0 *5.315*	116,0 *4.567*	100,0 *3.937*	30,0 *1.181*	30,0 *1.181*	40,5 *1.594*	31,7 *1.248*	203,4 *8.008*	3,6	1	1	G6.3	1,7 *3.750*
E3476582016185	02444656	DIN40 ADB/ CAT40	M16	185,0 *7.283*	166,0 *6.535*	150,0 *5.906*	35,0 *1.378*	30,0 *1.181*	43,5 *1.713*	31,7 *1.248*	253,4 *9.976*	2,9	1	1	G6.3	2,1 *4.630*
E347658211685	02438490	DIN40 ADB/ CAT40	M16	85,0 *3.346*	66,0 *2.598*	50,0 *1.969*	20,0 *0.787*	30,0 *1.181*	–	30,5 *1.201*	153,4 *6.039*	–	2	1	G6.3	1,2 *2.650*
E3476582116110	02438491	DIN40 ADB/ CAT40	M16	110,0 *4.331*	91,0 *3.583*	75,0 *2.953*	25,0 *0.984*	30,0 *1.181*	–	30,5 *1.201*	178,4 *7.024*	–	2	1	G6.3	1,4 *3.090*
E3476582116135	02438492	DIN40 ADB/ CAT40	M16	135,0 *5.315*	116,0 *4.567*	100,0 *3.937*	30,0 *1.181*	30,0 *1.181*	–	30,5 *1.201*	203,4 *8.008*	–	2	1	G6.3	1,5 *3.310*
E347858201295	02444754	DIN50 ADB/ CAT50	M12	95,0 *3.740*	76,0 *2.992*	50,0 *1.969*	20,0 *0.787*	23,0 *0.906*	35,0 *1.378*	24,7 *0.972*	196,7 *7.744*	9,7	1	1	G6.3	3,3 *7.280*
E3478582012145	02444725	DIN50 ADB/ CAT50	M12	145,0 *5.709*	126,0 *4.961*	100,0 *3.937*	30,0 *1.181*	23,0 *0.906*	41,0 *1.614*	24,7 *0.972*	246,7 *9.713*	6,6	1	1	G6.3	3,6 *7.940*
E3478582012195	02444726	DIN50 ADB/ CAT50	M12	195,0 *7.677*	176,0 *6.929*	150,0 *5.906*	30,0 *1.181*	23,0 *0.906*	42,5 *1.673*	24,7 *0.972*	296,7 *11.681*	4,2	1	1	G6.3	3,9 *8.600*
E3478582012245	02444732	DIN50 ADB/ CAT50	M12	245,0 *9.646*	226,0 *8.898*	200,0 *7.874*	30,0 *1.181*	23,0 *0.906*	47,5 *1.870*	24,7 *0.972*	346,7 *13.650*	3,8	1	1	G6.3	4,5 *9.920*
E347858201695	02444763	DIN50 ADB/ CAT50	M16	95,0 *3.740*	76,0 *2.992*	50,0 *1.969*	20,0 *0.787*	30,0 *1.181*	42,5 *1.673*	31,7 *1.248*	196,7 *7.744*	10,2	1	1	G6.3	3,4 *7.500*
E3478582016145	02444755	DIN50 ADB/ CAT50	M16	145,0 *5.709*	126,0 *4.961*	100,0 *3.937*	30,0 *1.181*	30,0 *1.181*	49,0 *1.929*	31,7 *1.248*	246,7 *9.713*	7,0	1	1	G6.3	4,1 *9.040*
E3478582016195	02444756	DIN50 ADB/ CAT50	M16	195,0 *7.677*	176,0 *6.929*	150,0 *5.906*	35,0 *1.378*	30,0 *1.181*	50,0 *1.969*	31,7 *1.248*	296,7 *11.681*	4,5	1	1	G6.3	4,4 *9.700*
E3478582016245	02444757	DIN50 ADB/ CAT50	M16	245,0 *9.646*	226,0 *8.898*	200,0 *7.874*	35,0 *1.378*	30,0 *1.181*	55,0 *2.165*	31,7 *1.248*	346,7 *13.650*	4,0	1	1	G6.3	5,1 *11.240*
E3478582016295	02444759	DIN50 ADB/ CAT50	M16	295,0 *11.614*	276,0 *10.866*	250,0 *9.843*	35,0 *1.378*	30,0 *1.181*	59,5 *2.343*	31,7 *1.248*	396,7 *15.618*	3,7	1	1	G6.3	5,8 *12.790*

Spare Parts, included in delivery

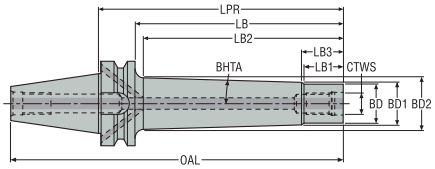
For Taper	Sealing Screws
	
DIN40	950A0406
DIN50	950A0606

Steadyline®, vibration damping – Metric / *Inch*

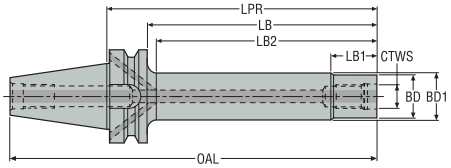
BT JIS B 6339-ADB



Design 1



Design 2



• For ISO attribute explanation, see page 14

Designation	Item number	CTMS	CTWS	LPR	LB	LB2	LB3	LB1	BD	BD2	BD1	OAL	BHTA°	Design	Max. RPM	RFID hole	Balancing	Weight
				mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*						kg *lbs*
E3414K82012185	02904500	BT40 ADB	M12	185,0 *7.283*	158,0 *6.220*	153,24 *6.033*	24,0 *0.945*	20,0 *0.787*	23,0 *0.906*	41,9 *1.650*	30,0 *1.181*	250,4 *9.858*	2,75	1	0	1	PB	2,2 *4.850*
E3414K82016185	02904502	BT40 ADB	M16	185,0 *7.283*	158,0 *6.220*	153,24 *6.033*	24,0 *0.945*	20,0 *0.787*	30,0 *1.181*	49,4 *1.945*	37,0 *1.457*	250,4 *9.858*	2,75	1	0	1	PB	2,8 *6.170*
E3414K82116160	02904501	BT40 ADB	M16	160,0 *6.299*	133,0 *5.236*	128,0 *5.039*	–	22,0 *0.866*	30,0 *1.181*	–	30,5 *1.201*	225,4 *8.874*	–	2	0	1	PB	2,0 *4.410*
BT40ADB-M20-160-K	03308016	BT40 ADB	M20	160,0 *6.299*	133,0 *5.236*	130,0 *5.118*	–	31,0 *1.220*	36,5 *1.437*	–	37,0 *1.457*	225,4 *8.874*	–	2	0	1	PB	5,0 *11.020*
E3416K82016235	02904505	BT50 ADB	M16	235,0 *9.252*	197,0 *7.756*	192,24 *7.569*	24,0 *0.945*	20,0 *0.787*	30,0 *1.181*	53,2 *2.094*	37,0 *1.457*	336,8 *13.260*	2,75	1	0	1	PB	6,1 *13.450*
E3416K82016285	02904506	BT50 ADB	M16	285,0 *11.220*	247,0 *9.724*	242,24 *9.537*	24,0 *0.945*	20,0 *0.787*	30,0 *1.181*	57,0 *2.244*	37,0 *1.457*	386,8 *15.228*	2,75	1	0	1	PB	7,2 *15.870*
E3416K82116185	02904504	BT50 ADB	M16	185,0 *7.283*	147,0 *5.787*	142,0 *5.591*	–	22,0 *0.866*	30,0 *1.181*	–	30,5 *1.201*	286,8 *11.291*	–	2	0	1	PB	4,4 *9.700*
BT50ADB-M20-185-K	03308018	BT50 ADB	M20	185,0 *7.283*	147,0 *5.787*	142,0 *5.591*	–	31,0 *1.220*	36,5 *1.437*	–	37,0 *1.457*	286,8 *11.291*	–	2	0	1	PB	5,1 *11.240*

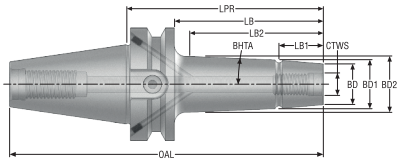
Spare Parts, included in delivery

For Taper	Sealing Screws
	
BT40	950A0406
BT50	950A0606

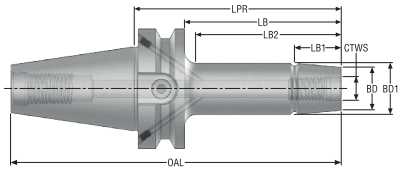
BT JIS B 6339-ADB

BT JIS to Combimaster – Metric / *Inch*

Design 1



Design 2





• For ISO attribute explanation, see page 14

Designation	Item number	CTMS	CTWS	LPR	LB	LB2	LB1	BD	BD2	BD1	OAL	BHTA°	Design	RFID hole	Balan-cing	Weight
				mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*					kg *lbs*
E341458200660	02643832	BT40 ADB	M6	60,0 *2.362*	33,0 *1.299*	25,0 *0.984*	10,0 *0.394*	11,0 *0.433*	14,5 *0.571*	11,7 *0.461*	125,4 *4.937*	5,3	1	1	G6.3	1,0 *2.200*
E341458210860	02444289	BT40 ADB	M8	60,0 *2.362*	33,0 *1.299*	25,0 *0.984*	10,0 *0.394*	13,5 *0.531*	–	14,5 *0.571*	125,4 *4.937*	–	2	1	G6.3	1,0 *2.200*
E341458201060	02444177	BT40 ADB	M10	60,0 *2.362*	33,0 *1.299*	25,0 *0.984*	10,0 *0.394*	18,5 *0.728*	23,0 *0.906*	19,7 *0.776*	125,4 *4.937*	6,3	1	1	G6.3	1,1 *2.430*
E341458211060	02444314	BT40 ADB	M10	60,0 *2.362*	33,0 *1.299*	25,0 *0.984*	10,0 *0.394*	18,5 *0.728*	–	19,7 *0.776*	125,4 *4.937*	–	2	1	G6.3	1,1 *2.430*
E341458201085	02444181	BT40 ADB	M10	85,0 *3.346*	58,0 *2.283*	50,0 *1.969*	15,0 *0.591*	18,5 *0.728*	24,5 *0.965*	19,7 *0.776*	150,4 *5.921*	3,9	1	1	G6.3	1,1 *2.430*
E3414582010135	02444160	BT40 ADB	M10	135,0 *5.315*	108,0 *4.252*	100,0 *3.937*	20,0 *0.787*	18,5 *0.728*	27,5 *1.083*	19,7 *0.776*	200,4 *7.890*	2,8	1	1	G6.3	1,3 *2.870*
E341458201240	02444230	BT40 ADB	M12	40,0 *1.575*	13,0 *0.512*	5,0 *0.197*	5,0 *0.197*	23,0 *0.906*	24,7 *0.972*	24,7 *0.972*	105,4 *4.150*	9,6	1	1	G6.3	1,0 *2.200*
E341458201260	02444239	BT40 ADB	M12	60,0 *2.362*	33,0 *1.299*	25,0 *0.984*	10,0 *0.394*	23,0 *0.906*	28,5 *1.122*	24,7 *0.972*	125,4 *4.937*	7,2	1	1	G6.3	1,1 *2.430*
E341458211260	02444315	BT40 ADB	M12	60,0 *2.362*	33,0 *1.299*	25,0 *0.984*	10,0 *0.394*	23,0 *0.906*	–	23,5 *0.925*	125,4 *4.937*	–	2	1	G6.3	1,1 *2.430*
E341458201285	02444242	BT40 ADB	M12	85,0 *3.346*	58,0 *2.283*	50,0 *1.969*	20,0 *0.787*	23,0 *0.906*	30,0 *1.181*	24,7 *0.972*	150,4 *5.921*	5,0	1	1	G6.3	1,2 *2.650*
E341458211285	02444321	BT40 ADB	M12	85,0 *3.346*	58,0 *2.283*	50,0 *1.969*	20,0 *0.787*	23,0 *0.906*	–	23,5 *0.925*	150,4 *5.921*	–	2	1	G6.3	1,1 *2.430*
E3414582012110	02444182	BT40 ADB	M12	110,0 *4.331*	83,0 *3.268*	75,0 *2.953*	25,0 *0.984*	23,0 *0.906*	31,5 *1.240*	24,7 *0.972*	175,4 *6.906*	3,9	1	1	G6.3	1,3 *2.870*
E3414582012135	02444183	BT40 ADB	M12	135,0 *5.315*	108,0 *4.252*	100,0 *3.937*	30,0 *1.181*	23,0 *0.906*	33,0 *1.299*	24,7 *0.972*	200,4 *7.890*	3,4	1	1	G6.3	1,4 *3.090*
E341458201640	02444275	BT40 ADB	M16	40,0 *1.575*	13,0 *0.512*	5,0 *0.197*	5,0 *0.197*	30,0 *1.181*	31,7 *1.248*	31,7 *1.248*	105,4 *4.150*	9,6	1	1	G6.3	1,0 *2.200*
E341458201660	02444280	BT40 ADB	M16	60,0 *2.362*	33,0 *1.299*	25,0 *0.984*	10,0 *0.394*	30,0 *1.181*	35,5 *1.398*	31,7 *1.248*	125,4 *4.937*	7,2	1	1	G6.3	1,2 *2.650*
E341458201685	02444283	BT40 ADB	M16	85,0 *3.346*	58,0 *2.283*	50,0 *1.969*	20,0 *0.787*	30,0 *1.181*	37,0 *1.457*	31,7 *1.248*	150,4 *5.921*	5,0	1	1	G6.3	1,3 *2.870*
E3414582016110	02444243	BT40 ADB	M16	110,0 *4.331*	83,0 *3.268*	75,0 *2.953*	25,0 *0.984*	30,0 *1.181*	38,5 *1.516*	31,7 *1.248*	175,4 *6.906*	3,9	1	1	G6.3	1,5 *3.310*
E3414582016135	02444252	BT40 ADB	M16	135,0 *5.315*	108,0 *4.252*	100,0 *3.937*	30,0 *1.181*	30,0 *1.181*	40,5 *1.594*	31,7 *1.248*	200,4 *7.890*	3,6	1	1	G6.3	1,7 *3.750*
E3414582016185	02444269	BT40 ADB	M16	185,0 *7.283*	158,0 *6.220*	150,0 *5.906*	35,0 *1.378*	30,0 *1.181*	50,0 *1.969*	31,7 *1.248*	250,4 *9.858*	4,5	1	1	G6.3	2,4 *5.290*
E341458212045	02971297	BT40 ADB	M20	45,0 *1.772*	18,0 *0.709*	10,0 *0.394*	5,0 *0.197*	36,5 *1.437*	–	37,0 *1.457*	110,4 *4.346*	–	2	1	G6.3	1,1 *2.430*
E341458212085	02971298	BT40 ADB	M20	85,0 *3.346*	58,0 *2.283*	50,0 *1.969*	20,0 *0.787*	36,5 *1.437*	–	37,0 *1.457*	150,4 *5.921*	–	2	1	G6.3	1,3 *2.870*
E3414582020110	02928181	BT40 ADB	M20	110,0 *4.331*	83,0 *3.268*	75,0 *2.953*	25,0 *0.984*	36,5 *1.437*	44,5 *1.752*	37,5 *1.476*	175,4 *6.906*	4,0	1	1	G6.3	1,6 *3.530*

Designation	Item number	CTMS	CTWS	LPR	LB	LB2	LB1	BD	BD2	BD1	OAL	BHTA°	Design	RFID hole	Balancing	Weight
				mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*					kg *lbs*
BT40ADB-M20-135	03308015	BT40 ADB	M20	135,0 *5.315*	108,0 *4.252*	100,0 *3.937*	30,0 *1.181*	36,5 *1.437*	–	37,0 *1.457*	200,4 *7.890*	–	2	1	G6.3	1,7 *3.750*
BT40ADB-M20-185	03308017	BT40 ADB	M20	185,0 *7.283*	158,0 *6.220*	150,0 *5.906*	35,0 *1.378*	36,5 *1.437*	–	37,0 *1.457*	250,4 *9.858*	–	2	1	G6.3	2,1 *4.630*
E341658201295	02444349	BT50 ADB	M12	95,0 *3.740*	57,0 *2.244*	50,0 *1.969*	20,0 *0.787*	23,0 *0.906*	35,0 *1.378*	24,7 *0.972*	196,8 *7.748*	9,7	1	1	G6.3	3,8 *8.380*
E3416582012145	02444323	BT50 ADB	M12	145,0 *5.709*	107,0 *4.213*	100,0 *3.937*	30,0 *1.181*	23,0 *0.906*	41,0 *1.614*	24,7 *0.972*	246,8 *9.717*	6,6	1	1	G6.3	4,1 *9.040*
E3416582012195	02444326	BT50 ADB	M12	195,0 *7.677*	157,0 *6.181*	150,0 *5.906*	30,0 *1.181*	23,0 *0.906*	42,5 *1.673*	24,7 *0.972*	296,8 *11.685*	4,2	1	1	G6.3	4,4 *9.700*
E341658201695	02444382	BT50 ADB	M16	95,0 *3.740*	57,0 *2.244*	50,0 *1.969*	20,0 *0.787*	30,0 *1.181*	42,5 *1.673*	31,7 *1.248*	196,8 *7.748*	10,2	1	1	G6.3	3,9 *8.600*
E3416582016145	02444378	BT50 ADB	M16	145,0 *5.709*	107,0 *4.213*	100,0 *3.937*	30,0 *1.181*	30,0 *1.181*	49,0 *1.929*	31,7 *1.248*	246,8 *9.717*	7,0	1	1	G6.3	4,4 *9.700*
E3416582016195	02444380	BT50 ADB	M16	195,0 *7.677*	157,0 *6.181*	150,0 *5.906*	35,0 *1.378*	30,0 *1.181*	50,0 *1.969*	31,7 *1.248*	296,9 *11.689*	4,5	1	1	G6.3	4,8 *10.580*
E3416582016245	02444381	BT50 ADB	M16	245,0 *9.646*	207,0 *8.150*	200,0 *7.874*	35,0 *1.378*	30,0 *1.181*	55,0 *2.165*	31,7 *1.248*	346,8 *13.654*	4,0	1	1	G6.3	5,4 *11.900*
E3416582016295	02453355	BT50 ADB	M16	295,0 *11.614*	257,0 *10.118*	250,0 *9.843*	35,0 *1.378*	30,0 *1.181*	59,5 *2.343*	31,7 *1.248*	396,8 *15.622*	3,7	1	1	G6.3	6,3 *13.890*
E341658202095	02928182	BT50 ADB	M20	95,0 *3.740*	57,0 *2.244*	50,0 *1.969*	20,0 *0.787*	36,5 *1.437*	48,5 *1.909*	37,5 *1.476*	196,8 *7.748*	10,4	1	1	G6.3	4,0 *8.820*
BT50ADB-M20-145	03308019	BT50 ADB	M20	145,0 *5.709*	107,0 *4.213*	100,0 *3.937*	30,0 *1.181*	36,5 *1.437*	–	37,0 *1.457*	246,8 *9.717*	–	2	1	G6.3	4,3 *9.480*
BT50ADB-M20-295-V	03308020	BT50 ADB	M20	295,0 *11.614*	257,0 *10.118*	249,0 *9.803*	35,0 *1.378*	36,5 *1.437*	68,0 *2.677*	37,0 *1.457*	396,8 *15.622*	4,8	1	1	G6.3	7,8 *17.200*

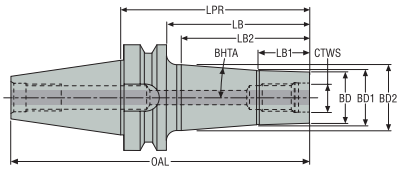
Spare Parts, included in delivery

For Taper	Sealing Screws
	
BT40	950A0406
BT50	950A0606

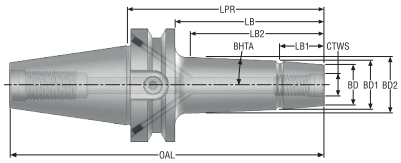
BT Taper-Face-AD/ADB

BT Taper Face to Combimaster – Metric / *Inch*

Design 1



Design 2





• For ISO attribute explanation, see page 14

Designation	Item number	CTMS	CTWS	LPR	LB	LB2	LB1	BD2	BD1	BD	OAL	BHTA°	Design	RFID hole	Balan-cing	Weight
				mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*					kg *lbs*
E400258201060	02998769	BT30 TF AD	M10	60,0 *2.362*	38,0 *1.496*	35,0 *1.378*	15,0 *0.591*	23,5 *0.925*	19,7 *0.776*	18,5 *0.728*	108,4 *4.268*	5,4	1	0	G2.5	0,5 *1.100*
E400258201260	02998770	BT30 TF AD	M12	60,0 *2.362*	38,0 *1.496*	25,0 *0.984*	10,0 *0.394*	28,5 *1.122*	24,7 *0.972*	23,0 *0.906*	108,4 *4.268*	7,2	1	0	G2.5	0,6 *1.320*
E400258201660	02998771	BT30 TF AD	M16	60,0 *2.362*	38,0 *1.496*	25,0 *0.984*	10,0 *0.394*	35,5 *1.398*	31,7 *1.248*	30,0 *1.181*	108,4 *4.268*	7,2	1	0	G2.5	0,6 *1.320*
E321458201660	02926030	BT40 TF ADB	M16	60,0 *2.362*	33,0 *1.299*	25,0 *0.984*	10,0 *0.394*	35,5 *1.398*	31,7 *1.248*	30,0 *1.181*	125,4 *4.937*	7,2	2	1	G6.3	1,2 *2.650*
E3214582016135	02926031	BT40 TF ADB	M16	135,0 *5.315*	108,0 *4.252*	100,0 *3.937*	30,0 *1.181*	40,5 *1.594*	31,7 *1.248*	30,0 *1.181*	200,4 *7.890*	3,6	2	1	G6.3	1,7 *3.750*
E321658201695	02926040	BT50 TF ADB	M16	95,0 *3.740*	57,0 *2.244*	50,0 *1.969*	20,0 *0.787*	42,5 *1.673*	31,7 *1.248*	30,0 *1.181*	196,8 *7.748*	10,2	2	1	G6.3	4,0 *8.820*
E3216582016195	02926041	BT50 TF ADB	M16	195,0 *7.677*	157,0 *6.181*	150,0 *5.906*	35,0 *1.378*	50,0 *1.969*	31,7 *1.248*	30,0 *1.181*	296,8 *11.685*	4,5	2	1	G6.3	4,8 *10.580*

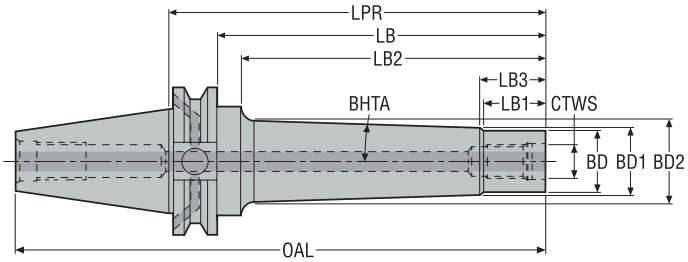
Spare Parts, included in delivery

For Taper	Sealing Screws
	
BT30	–
BT40	950A0406
BT50	950A0606

Steadyline®, vibration damping – Metric / *Inch*

CAT / ASME B5.50-1994-ADB





• For ISO attribute explanation, see page 14

Designation	Item number	CTMS	CTWS	LPR	LB	LB2	LB1	LB3	BD	BD2	BD1	OAL	BHTA°	Max. RPM	RFID hole	Balancing	Weight
				mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*					kg *lbs*
E2502K82012185	02904493	CAT40 ADB	M12	185,0 *7.283*	150,0 *5.906*	150,0 *5.906*	20,0 *0.787*	24,0 *0.945*	23,0 *0.906*	42,1 *1.657*	30,0 *1.181*	253,4 *9.976*	2,75	0	1	PB	2,2 *4.850*

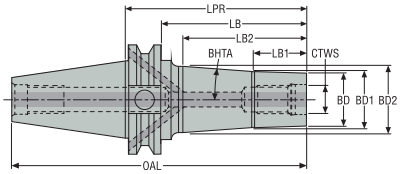
Spare Parts, included in delivery

For	Sealing Screws
	
E2502K82012185	950A0406

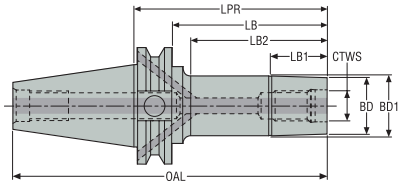
CAT / ASME B5.50-1994-ADB

CAT to Combimaster
– Metric / *Inch*

Design 1



Design 2





• For ISO attribute explanation, see page 14

Designation	Item number	CTMS	CTWS	LPR	LB	LB2	LB1	BD	BD2	BD1	OAL	BHTA°	Design	RFID hole	Balan-cing	Weight
				mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*					kg *lbs*
E250258200860	02870633	CAT40 ADB	M8	60,0 *2.362*	40,95 *1.612*	25,0 *0.984*	10,0 *0.394*	13,5 *0.531*	18,5 *0.728*	15,7 *0.618*	128,4 *5.055*	5,3	1	1	G6.3	1,0 *2.200*
E250258201040	02870634	CAT40 ADB	M10	40,0 *1.575*	20,95 *0.825*	5,0 *0.197*	5,0 *0.197*	18,5 *0.728*	19,7 *0.776*	19,7 *0.776*	108,4 *4.268*	6,8	1	1	G6.3	1,0 *2.200*
E250258201085	02870507	CAT40 ADB	M10	85,0 *3.346*	65,95 *2.596*	50,0 *1.969*	15,0 *0.591*	18,5 *0.728*	24,5 *0.965*	19,7 *0.776*	153,4 *6.039*	3,9	1	1	G6.3	1,1 *2.430*
E250258201240	02870635	CAT40 ADB	M12	40,0 *1.575*	20,95 *0.825*	5,0 *0.197*	5,0 *0.197*	23,0 *0.906*	25,7 *1.012*	25,7 *1.012*	108,4 *4.268*	9,6	1	1	G6.3	1,0 *2.200*
E250258211285	02870509	CAT40 ADB	M12	85,0 *3.346*	65,95 *2.596*	50,0 *1.969*	20,0 *0.787*	23,0 *0.906*	–	23,5 *0.925*	153,4 *6.039*	–	2	1	G6.3	1,1 *2.430*
E250258201640	02870636	CAT40 ADB	M16	40,0 *1.575*	20,95 *0.825*	5,0 *0.197*	5,0 *0.197*	30,0 *1.181*	32,7 *1.287*	32,7 *1.287*	108,4 *4.268*	9,6	1	1	G6.3	1,0 *2.200*
E250258211685	02870511	CAT40 ADB	M16	85,0 *3.346*	65,95 *2.596*	50,0 *1.969*	20,0 *0.787*	30,0 *1.181*	–	30,5 *1.201*	153,4 *6.039*	–	2	1	G6.3	1,2 *2.650*
E2502582116135	02870512	CAT40 ADB	M16	135,0 *5.315*	115,95 *4.565*	100,0 *3.937*	30,0 *1.181*	30,0 *1.181*	–	–	203,4 *8.008*	–	2	1	G6.3	1,5 *3.310*
E250458201295	02870639	CAT50 ADB	M12	95,0 *3.740*	75,95 *2.990*	60,0 *2.362*	25,0 *0.984*	23,0 *0.906*	30,5 *1.201*	24,7 *0.972*	196,75 *7.746*	4,7	1	1	G6.3	3,2 *7.050*
E2504582012145	02870640	CAT50 ADB	M12	145,0 *5.709*	125,95 *4.959*	110,0 *4.331*	30,0 *1.181*	23,0 *0.906*	38,5 *1.516*	24,7 *0.972*	246,75 *9.715*	4,9	1	1	G6.3	3,5 *7.720*
E250458201695	02870641	CAT50 ADB	M16	95,0 *3.740*	75,95 *2.990*	50,0 *1.969*	20,0 *0.787*	30,0 *1.181*	42,5 *1.673*	31,7 *1.248*	196,75 *7.746*	10,2	1	1	G6.3	3,4 *7.500*
E2504582016145	02870642	CAT50 ADB	M16	145,0 *5.709*	125,95 *4.959*	100,0 *3.937*	30,0 *1.181*	30,0 *1.181*	49,0 *1.929*	31,7 *1.248*	246,75 *9.715*	7,0	1	1	G6.3	3,9 *8.600*
E2504582016195	02870643	CAT50 ADB	M16	195,0 *7.677*	175,95 *6.927*	150,0 *5.906*	35,0 *1.378*	30,0 *1.181*	50,0 *1.969*	31,7 *1.248*	296,75 *11.683*	4,55	1	1	G6.3	4,4 *9.700*
CAT50ADB-M20-3.740	03308033	CAT50 ADB	M20	95,0 *3.740*	75,89 *2.988*	50,0 *1.969*	20,0 *0.787*	36,5 *1.437*	–	37,0 *1.457*	196,75 *7.746*	–	2	1	G6.3	3,4 *7.500*
CAT50ADB-M20-5.709	03308034	CAT50 ADB	M20	145,0 *5.709*	125,9 *4.957*	100,0 *3.937*	30,0 *1.181*	36,5 *1.437*	–	37,0 *1.457*	246,5 *9.705*	–	2	1	G6.3	3,8 *8.380*

Spare Parts, included in delivery

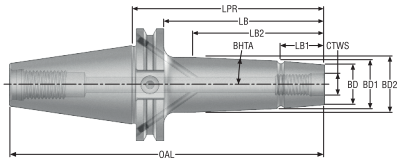
For Taper	Sealing Screws
	
CAT40	950A0406
CAT50	950A0606

CAT to Combimaster – Inch

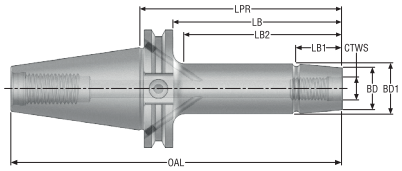
CAT / ASME B5.50-2009-ADB



Design 1



Design 2



• For ISO attribute explanation, see page 14

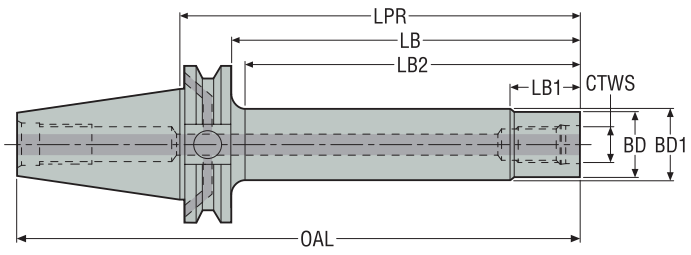
Designation	Item number	CTMS	CTWS	LPR	LB	LB2	LB1	BD	BD2	BD1	OAL	BHTA°	Design	RFID hole	Balan-cing	Weight
				inch	inch	inch	inch	inch	inch	inch	inch					lbs
E260258202040	03029742	CAT40 ADB	M20	1.575	0.823	0.783	0.197	1.437	1.476	1.476	4.268	5,7	1	1	G6.3	1.980
E260258212085	03029743	CAT40 ADB	M20	3.346	2.594	2.437	0.787	1.437	–	1.457	6.039	–	2	1	G6.3	2.650
E2602582120135	03029746	CAT40 ADB	M20	5.315	4.563	4.445	0.787	1.437	–	1.457	8.008	–	2	1	G6.3	3.530
E260458202095	03029757	CAT50 ADB	M20	3.740	2.988	1.969	0.787	1.437	1.909	1.476	7.748	6,9	1	1	G6.3	7.280
E2604582020145	03029758	CAT50 ADB	M20	5.709	4.957	3.937	1.181	1.437	2.146	1.476	9.717	4,1	1	1	G6.3	8.600
E2604582020195	03029759	CAT50 ADB	M20	7.677	6.925	5.906	0.787	1.437	2.205	1.476	11.685	10,4	1	1	G6.3	10.140

Spare Parts, included in delivery

For Taper	Sealing Screws
	
CAT40	950A0406
CAT50	950A0606

CAT TF / ASME B5.50-2009-ADB

Steadyline®, vibration damping
– Metric / *Inch*





• For ISO attribute explanation, see page 14

Designation	Item number	CTMS	CTWS	LPR	LB	LB2	LB1	BD	BD1	OAL	Max. RPM	RFID hole	Balan-cing	Weight
				mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*				kg *lbs*
CAT40TFADB-M20-6.299-K	03308032	CAT40 TF ADB	M20	160,0 *6.299*	140,9 *5.547*	137,9 *5.429*	31,0 *1.220*	36,5 *1.437*	37,0 *1.457*	228,4 *8.992*	0	1	PB	2,4 *5.290*
CAT50TFADB-M20-7.283-K	03308038	CAT50 TF ADB	M20	185,0 *7.283*	165,9 *6.531*	160,9 *6.335*	31,0 *1.220*	36,5 *1.437*	37,0 *1.457*	286,75 *11.289*	0	1	PB	4,7 *10.360*

Spare Parts, included in delivery

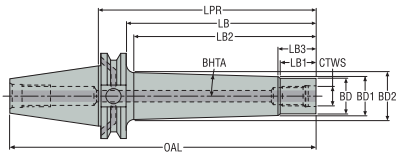
For	Sealing Screws
	
CAT40TFADB-M20-6.299-K	950A0406
CAT50TFADB-M20-7.283-K	950A0606

Steadyline®, vibration damping – Inch

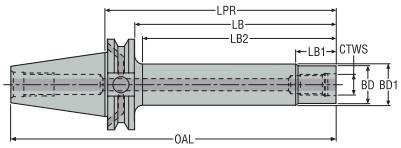
CAT TF / ASME B5.50-2009-ADB



Design 1



Design 2



• For ISO attribute explanation, see page 14

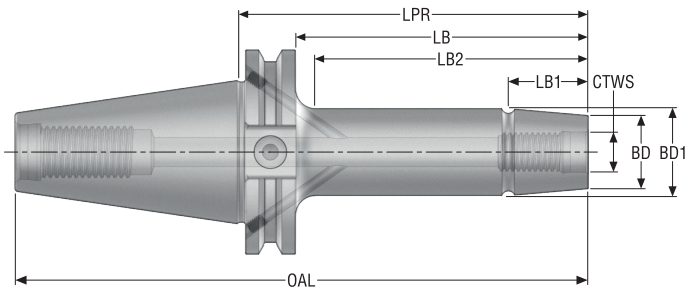
Designation	Item number	CTMS	CTWS	LPR	LB	LB2	LB1	LB3	BD	BD2	BD1	OAL	BHTA°	Design	Max. RPM	RFID hole	Balancing	Weight
				inch	inch	inch	inch	inch	inch	inch	inch	inch						lbs
E2642K82012185	02998762	CAT40 TF ADB	M12	7.283	6.531	6.335	0.787	–	0.906	1.717	1.181	9.976	2,75	1	0	1	PB	4.850
E2642K82116160	02998765	CAT40 TF ADB	M16	6.299	5.547	5.352	0.866	–	1.181	–	1.201	8.992	–	2	0	1	PB	3.750
E2644K82116185	02998768	CAT50 TF ADB	M16	7.283	6.531	6.335	0.866	–	1.181	–	1.201	11.289	–	2	0	1	PB	7.940

Spare Parts, included in delivery

For	Sealing Screws
	
E2642K82012185	950A0406
E2642K82116160	950A0406
E2644K82116185	950A0606

CAT TF / ASME B5.50-2009-ADB

CAT Taper Face to Combimaster – Metric / *Inch*





• For ISO attribute explanation, see page 14

Designation	Item number	CTMS	CTWS	LPR	LB	LB2	LB1	BD	BD1	OAL	RFID hole	Balan-cing	Weight
				mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*			kg *lbs*
CAT40TFADB-M16-5.315	03308028	CAT40 TF ADB	M16	135,0 *5.315*	115,9 *4.563*	100,0 *3.937*	30,0 *1.181*	30,0 *1.181*	30,5 *1.201*	203,4 *8.008*	1	G6.3	1,4 *3.090*
CAT40TFADB-M20-1.772	03308029	CAT40 TF ADB	M20	45,0 *1.772*	25,9 *1.020*	10,0 *0.394*	5,0 *0.197*	36,5 *1.437*	37,0 *1.457*	113,4 *4.465*	1	G6.3	1,0 *2.200*
CAT40TFADB-M20-3.346	03308030	CAT40 TF ADB	M20	85,0 *3.346*	65,9 *2.594*	50,0 *1.969*	20,0 *0.787*	36,5 *1.437*	37,0 *1.457*	153,4 *6.039*	1	G6.3	1,3 *2.870*
CAT40TFADB-M20-5.315	03308031	CAT40 TF ADB	M20	135,0 *5.315*	115,9 *4.563*	100,0 *3.937*	30,0 *1.181*	36,5 *1.437*	37,0 *1.457*	203,4 *8.008*	1	G6.3	1,7 *3.750*
CAT50TFADB-M16-5.709	03308035	CAT50 TF ADB	M16	145,0 *5.709*	125,9 *4.957*	100,0 *3.937*	30,0 *1.181*	30,0 *1.181*	30,5 *1.201*	246,75 *9.715*	1	G6.3	3,4 *7.500*
CAT50TFADB-M20-3.740	03308036	CAT50 TF ADB	M20	95,0 *3.740*	75,9 *2.988*	60,0 *2.362*	25,0 *0.984*	36,5 *1.437*	37,0 *1.457*	196,75 *7.746*	1	G6.3	3,1 *6.830*
CAT50TFADB-M20-5.709	03308037	CAT50 TF ADB	M20	145,0 *5.709*	125,9 *4.957*	100,0 *3.937*	30,0 *1.181*	36,5 *1.437*	37,0 *1.457*	246,75 *9.715*	1	G6.3	3,5 *7.720*

Spare Parts, included in delivery

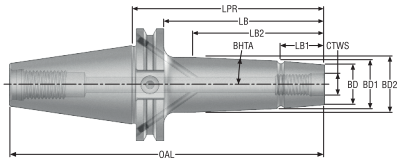
For Taper	Sealing Screws
	
CAT40	950A0406
CAT50	950A0606

CAT Taper Face to Combimaster – Inch

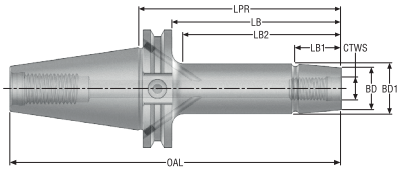
CAT TF / ASME B5.50-2009-ADB



Design 1



Design 2



• For ISO attribute explanation, see page 14

Designation	Item number	CTMS	CTWS	LPR	LB	LB2	LB1	BD	BD2	BD1	OAL	BHTA°	Design	RFID hole	Balan-cing	Weight
				inch	inch	inch	inch	inch	inch	inch	inch					lbs
E264258201685	02998760	CAT40 TF ADB	M16	3.346	2.596	1.969	0.787	1.181	1.457	1.248	6.039	5,0	1	1	G6.3	2.870
E264258211685	02998761	CAT40 TF ADB	M16	3.346	2.596	2.400	0.984	1.181	–	1.201	6.039	–	2	1	G6.3	2.650
E264458201695	02926852	CAT50 TF ADB	M16	3.740	2.990	2.362	0.984	1.181	1.732	1.248	7.748	10,0	1	1	G6.3	7.050

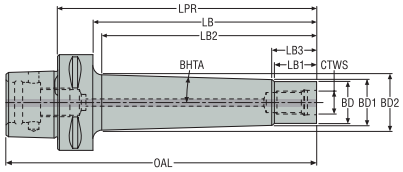
Spare Parts, included in delivery

For Taper	Sealing Screws
	
CAT40	950A0406
CAT50	950A0606

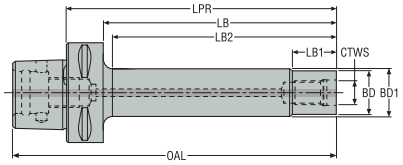
Seco-Capto™

Steadyline®, vibration damping – Metric / *Inch*

Design 1



Design 2





- With through coolant
- For ISO attribute explanation, see page 14

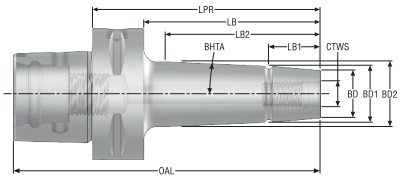
Designation	Item number	CTMS	CTWS	LPR	LB	LB2	LB3	LB1	BD	BD1	BD2	OAL	BHTA°	Design	Max. RPM	RFID hole	Balan-cing	Weight
				mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*						kg *lbs*
C6-391.K820-12185	02904481	C6	M12	185,0 *7.283*	160,0 *6.299*	155,24 *6.112*	24,0 *0.945*	20,0 *0.787*	23,0 *0.906*	30,0 *1.181*	42,1 *1.657*	223,0 *8.780*	2,75	1	0	1	PB	2,1 *4.630*
C6-391.K820-16185	02904483	C6	M16	185,0 *7.283*	160,0 *6.299*	155,24 *6.112*	24,0 *0.945*	20,0 *0.787*	30,0 *1.181*	37,0 *1.457*	49,6 *1.953*	223,0 *8.780*	2,75	1	0	1	PB	2,8 *6.170*
C6-391.K820-16235	02904484	C6	M16	235,0 *9.252*	210,0 *8.268*	205,24 *8.080*	24,0 *0.945*	20,0 *0.787*	30,0 *1.181*	37,0 *1.457*	54,4 *2.142*	273,0 *10.748*	2,75	1	0	1	PB	3,6 *7.940*
C6-391.K821-16160	02904482	C6	M16	160,0 *6.299*	135,0 *5.315*	130,0 *5.118*	–	22,0 *0.866*	30,0 *1.181*	30,5 *1.201*	–	198,0 *7.795*	–	2	0	1	PB	0,7 *1.540*
C6-391.K820-20185	03029792	C6	M20	185,0 *7.283*	160,0 *6.299*	158,1 *6.224*	29,0 *1.142*	24,5 *0.965*	36,5 *1.437*	45,0 *1.772*	57,4 *2.260*	223,0 *8.780*	2,75	1	0	1	PB	3,6 *7.940*
C6-391.K820-20235	03029793	C6	M20	235,0 *9.252*	210,0 *8.268*	209,6 *8.252*	29,0 *1.142*	24,5 *0.965*	36,5 *1.437*	45,0 *1.772*	62,4 *2.457*	273,0 *10.748*	2,75	1	0	1	PB	4,6 *10.140*

Seco-Capto™ to Combimaster – **Metric** / *Inch*

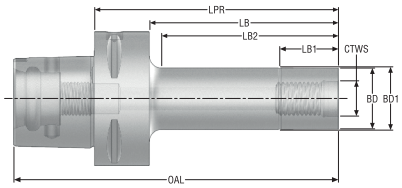
Seco-Capto™



Design 1



Design 2



• For ISO attribute explanation, see page 14

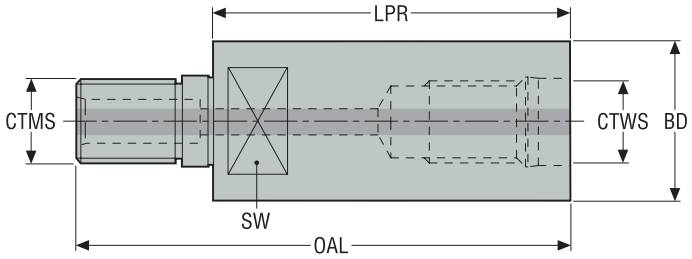
Designation	Item number	CTMS	CTWS	LPR	LB	LB2	LB1	BD	BD1	BD2	OAL	BHTA°	Design	RFID hole	Balancing	Weight
				mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*					kg *lbs*
C4-391.5820-08030	02532914	C4	M8	30,0 *1.181*	7,0 *0.276*	5,0 *0.197*	5,0 *0.197*	13,5 *0.531*	15,7 *0.618*	–	54,0 *2.126*	–	2	0	G6.3	0,3 *0.660*
C4-391.5820-10035	02532915	C4	M10	35,0 *1.378*	12,0 *0.472*	10,0 *0.394*	5,0 *0.197*	18,5 *0.728*	19,7 *0.776*	22,0 *0.866*	59,0 *2.323*	13,0	1	0	G6.3	0,3 *0.660*
C4-391.5820-12040	02532916	C4	M12	40,0 *1.575*	17,0 *0.669*	15,0 *0.591*	10,0 *0.394*	23,0 *0.906*	24,7 *0.972*	28,0 *1.102*	64,0 *2.520*	18,3	1	0	G6.3	0,4 *0.880*
C4-391.5820-16045	02532917	C4	M16	45,0 *1.772*	22,0 *0.866*	21,0 *0.827*	10,0 *0.394*	30,0 *1.181*	31,7 *1.248*	35,5 *1.398*	69,0 *2.717*	10,8	1	0	G6.3	0,4 *0.880*
C5-391.5820-08050	02532918	C5	M8	50,0 *1.969*	27,0 *1.063*	25,0 *0.984*	10,0 *0.394*	13,5 *0.531*	15,7 *0.618*	18,5 *0.728*	80,0 *3.150*	5,3	1	1	G6.3	0,47 *1.040*
C5-391.5820-10050	02532920	C5	M10	50,0 *1.969*	27,0 *1.063*	25,0 *0.984*	10,0 *0.394*	18,5 *0.728*	19,7 *0.776*	23,0 *0.906*	80,0 *3.150*	6,3	1	1	G6.3	0,52 *1.150*
C5-391.5820-12050	02532922	C5	M12	50,0 *1.969*	27,0 *1.063*	25,0 *0.984*	10,0 *0.394*	23,0 *0.906*	24,7 *0.972*	28,5 *1.122*	80,0 *3.150*	7,2	1	1	G6.3	0,6 *1.320*
C5-391.5820-16075	02532925	C5	M16	75,0 *2.953*	52,0 *2.047*	50,0 *1.969*	20,0 *0.787*	30,0 *1.181*	31,7 *1.248*	37,0 *1.457*	105,0 *4.134*	5,0	1	1	G6.3	0,75 *1.650*
C5-M16-135	03308021	C5	M16	135,0 *5.315*	112,0 *4.409*	110,0 *4.331*	35,0 *1.378*	30,0 *1.181*	30,5 *1.201*	–	165,0 *6.496*	–	2	1	G6.3	1,1 *2.430*
C5-391.5820-20075	02928187	C5	M20	75,0 *2.953*	52,0 *2.047*	50,0 *1.969*	20,0 *0.787*	36,5 *1.437*	37,5 *1.476*	43,0 *1.693*	105,0 *4.134*	5,3	1	1	G6.3	0,9 *1.980*
C5-M20-135	03308022	C5	M20	135,0 *5.315*	112,0 *4.409*	110,0 *4.331*	35,0 *1.378*	36,5 *1.437*	37,0 *1.457*	–	165,0 *6.496*	–	2	1	G6.3	1,3 *2.870*
C6-391.5820-08075	02532928	C6	M8	75,0 *2.953*	50,0 *1.969*	45,0 *1.772*	15,0 *0.591*	13,5 *0.531*	15,7 *0.618*	20,0 *0.787*	113,0 *4.449*	4,1	1	1	G6.3	0,9 *1.980*
C6-391.5820-10075	02532930	C6	M10	75,0 *2.953*	50,0 *1.969*	45,0 *1.772*	15,0 *0.591*	18,5 *0.728*	19,7 *0.776*	24,0 *0.945*	113,0 *4.449*	4,1	1	1	G6.3	1,0 *2.200*
C6-391.5820-12050	02532931	C6	M12	50,0 *1.969*	25,0 *0.984*	20,0 *0.787*	10,0 *0.394*	23,0 *0.906*	24,7 *0.972*	28,0 *1.102*	88,0 *3.465*	9,4	1	1	G6.3	0,9 *1.980*
C6-391.5820-12075	02532932	C6	M12	75,0 *2.953*	50,0 *1.969*	45,0 *1.772*	20,0 *0.787*	23,0 *0.906*	24,7 *0.972*	29,5 *1.161*	113,0 *4.449*	5,5	1	1	G6.3	0,99 *2.180*
C6-391.5820-16050	02532933	C6	M16	50,0 *1.969*	25,0 *0.984*	20,0 *0.787*	10,0 *0.394*	30,0 *1.181*	31,7 *1.248*	35,5 *1.398*	88,0 *3.465*	10,8	1	1	G6.3	1,0 *2.200*
C6-391.5820-16075	02532934	C6	M16	75,0 *2.953*	50,0 *1.969*	45,0 *1.772*	20,0 *0.787*	30,0 *1.181*	31,7 *1.248*	37,0 *1.457*	113,0 *4.449*	6,1	1	1	G6.3	1,1 *2.430*
C6-M16-110	03308023	C6	M16	110,0 *4.331*	85,0 *3.346*	80,0 *3.150*	25,0 *0.984*	30,0 *1.181*	30,5 *1.201*	–	148,0 *5.827*	–	2	1	G6.3	1,3 *2.870*
C6-M16-145	03308024	C6	M16	145,0 *5.709*	120,0 *4.724*	115,0 *4.528*	35,0 *1.378*	30,0 *1.181*	30,5 *1.201*	–	183,0 *7.205*	–	2	1	G6.3	1,5 *3.310*
C6-391.5820-20075	02928188	C6	M20	75,0 *2.953*	50,0 *1.969*	45,0 *1.772*	20,0 *0.787*	36,5 *1.437*	37,5 *1.476*	42,5 *1.673*	113,0 *4.449*	5,8	1	1	G6.3	1,2 *2.650*
C6-M20-110	03308025	C6	M20	110,0 *4.331*	85,0 *3.346*	80,0 *3.150*	25,0 *0.984*	36,5 *1.437*	37,0 *1.457*	–	110,0 *4.331*	–	2	1	G6.3	1,4 *3.090*
C6-M20-145	03308026	C6	M20	145,0 *5.709*	120,0 *4.724*	115,0 *4.528*	35,0 *1.378*	36,5 *1.437*	37,0 *1.457*	–	183,0 *7.205*	–	2	1	G6.3	1,7 *3.750*

Designation	Item number	CTMS	CTWS	LPR	LB	LB2	LB1	BD	BD1	BD2	OAL	BHTA°	Design	RFID hole	Balan-cing	Weight
				mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*					kg *lbs*
C8-391.5820-12085	02532937	C8	M12	85,0 *3.346*	52,0 *2.047*	50,0 *1.969*	20,0 *0.787*	23,0 *0.906*	24,7 *0.972*	35,0 *1.378*	133,0 *5.236*	9,7	1	1	G6.3	2,04 *4.500*
C8-391.5820-16085	02532938	C8	M16	85,0 *3.346*	52,0 *2.047*	50,0 *1.969*	20,0 *0.787*	30,0 *1.181*	31,7 *1.248*	42,5 *1.673*	133,0 *5.236*	10,2	1	1	G6.3	2,2 *4.850*
C8-M20-145	03308027	C8	M20	145,0 *5.709*	112,0 *4.409*	110,0 *4.331*	35,0 *1.378*	36,5 *1.437*	37,0 *1.457*	–	193,0 *7.598*	–	2	1	G6.3	2,6 *5.730*

Combimaster to Combimaster – Metric / *Inch*

Combimaster





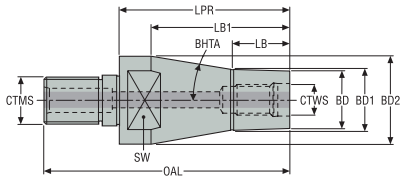
• For ISO attribute explanation, see page 14

Designation	Item number	CTMS	CTWS	LPR	BD	OAL	SW	RFID hole	Balancing	Weight
				mm *inch*	mm *inch*	mm *inch*	mm *inch*			kg *lbs*
BS00658200625	02643834	M6	M6	25,0 *0.984*	11,0 *0.433*	38,5 *1.516*	9 *0.354*	0	PB	0,1 *0.220*
BS00858200830	02439880	M8	M8	30,0 *1.181*	13,5 *0.531*	47,75 *1.880*	11 *0.433*	0	PB	0,1 *0.220*
BS01058201035	02444086	M10	M10	35,0 *1.378*	18,5 *0.728*	53,75 *2.116*	15 *0.591*	0	PB	0,1 *0.220*
BS01258201240	02444093	M12	M12	40,0 *1.575*	23,0 *0.906*	61,75 *2.431*	19 *0.748*	0	PB	0,2 *0.440*
BS01658201640	02444106	M16	M16	40,0 *1.575*	30,0 *1.181*	62,75 *2.470*	26 *1.024*	0	PB	0,2 *0.440*
BS02058202045	02928185	M20	M20	45,0 *1.772*	36,5 *1.437*	72,0 *2.835*	32 *1.260*	0	PB	0,4 *0.880*

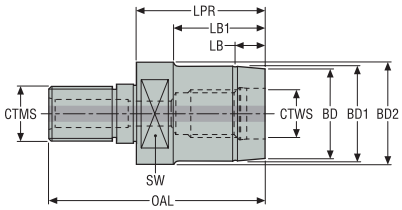
Combimaster

Combimaster to Combimaster – Metric / *Inch*

Design 1



Design 2





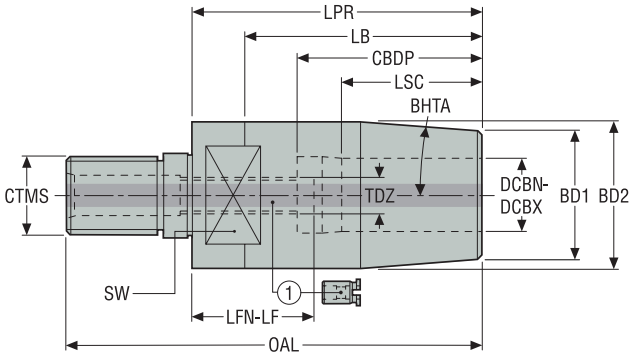
• For ISO attribute explanation, see page 14

Designation	Item number	CTMS	CTWS	LPR	LB1	LB	BD	BD1	BD2	OAL	SW	BHTA°	Design	RFID hole	Balancing	Weight
				mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*					kg *lbs*
BS01058200635	02643838	M10	M6	35,0 *1.378*	22,0 *0.866*	6,0 *0.236*	11,0 *0.433*	11,7 *0.461*	18,5 *0.728*	53,75 *2.116*	15 *0.591*	12,0	1	0	PB	0,1 *0.220*
BS01058200830	02439881	M10	M8	30,0 *1.181*	17,0 *0.669*	8,0 *0.315*	13,7 *0.539*	15,7 *0.618*	18,5 *0.728*	48,75 *1.919*	15 *0.591*	8,8	1	0	PB	0,1 *0.220*
BS01258201035	02444092	M12	M10	35,0 *1.378*	24,0 *0.945*	8,0 *0.315*	18,5 *0.728*	19,7 *0.776*	23,0 *0.906*	56,75 *2.234*	19 *0.748*	5,9	1	0	PB	0,1 *0.220*
BS01658201060	02444098	M16	M10	60,0 *2.362*	49,0 *1.929*	8,0 *0.315*	18,5 *0.728*	19,7 *0.776*	30,0 *1.181*	82,75 *3.258*	26 *1.024*	7,15	1	0	PB	0,3 *0.660*
BS01658201240	02444102	M16	M12	40,0 *1.575*	29,0 *1.142*	8,0 *0.315*	23,0 *0.906*	24,7 *0.972*	30,0 *1.181*	62,75 *2.470*	26 *1.024*	7,2	1	0	PB	0,2 *0.440*
BS02058201645	02971312	M20	M16	45,0 *1.772*	27,0 *1.063*	10,0 *0.394*	30,0 *1.181*	31,7 *1.248*	36,5 *1.437*	72,0 *2.835*	32 *1.260*	–	2	0	PB	0,3 *0.660*

Combimaster to Shrinkfit
– Metric / *Inch*

Combimaster





- Delivered with one stop screw
- For ISO attribute explanation, see page 14

Spare parts:
1 = Stop screw

Designation	Item number	CTMS	DCBN	LPR	OAL	LB	LSC	CBDP	BD1	BD2	LFN	LF	SW	TDZ	BHTA°	RFID hole	Balancing	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*					kg *lbs*
BS01656030665	02753121	M16	6,0 *0.236*	65,0 *2.559*	87,75 *3.455*	49,0 *1.929*	22,0 *0.866*	37,5 *1.476*	21,0 *0.827*	27,0 *1.063*	29,0 *1.142*	39,0 *1.535*	26 *1.024*	M5x0.8	4,5	0	PB	0,3 *0.660*
BS01656030865	02753123	M16	8,0 *0.315*	65,0 *2.559*	87,75 *3.455*	49,0 *1.929*	26,0 *1.024*	37,5 *1.476*	21,0 *0.827*	27,0 *1.063*	29,0 *1.142*	39,0 *1.535*	26 *1.024*	M6x1	4,5	0	PB	0,3 *0.660*
BS01656031070	02753125	M16	10,0 *0.394*	70,0 *2.756*	92,75 *3.652*	54,0 *2.126*	31,0 *1.220*	42,5 *1.673*	24,0 *0.945*	32,0 *1.260*	29,0 *1.142*	39,0 *1.535*	26 *1.024*	M8x1	4,5	0	PB	0,4 *0.880*
BS01656031270	02753126	M16	12,0 *0.472*	70,0 *2.756*	92,75 *3.652*	54,0 *2.126*	34,0 *1.339*	47,5 *1.870*	24,0 *0.945*	32,0 *1.260*	24,0 *0.945*	34,0 *1.339*	26 *1.024*	M10x1	4,5	0	PB	0,4 *0.880*

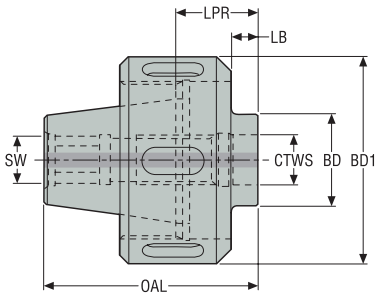
Accessories

For	Balancing screws
	
All	90ZQ01

Spare Parts, included in delivery

For	Stop screw
	
BS01656030665	19BDR05165
BS01656030865	19BDR06165
BS01656031070	19BDR08165
BS01656031270	19BDR10165

ER/ ISO 15488
– Metric / *Inch*

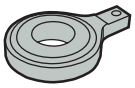
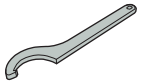
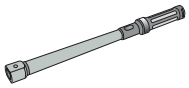




- Ready to use assembly
- To equip ER machine spindles or ER collet chucks
- For ISO attribute explanation, see page 14

Designation	Item number	Machine side Chuck size	Workpiece side Combimaster CTWS	LPR	LB	BD	BD1	OAL	SW	RFID hole	Weight
				mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*		kg *lbs*
BE025582008005	03077319	ER 25	M8	14,5 *0.571*	5,0 *0.197*	13,5 *0.531*	42,0 *1.654*	39,5 *1.555*	10 *0.394*	0	0,2 *0.440*
BE025582010005	03033102	ER 25	M10	14,5 *0.571*	5,0 *0.197*	18,5 *0.728*	42,0 *1.654*	39,5 *1.555*	10 *0.394*	0	0,2 *0.440*
BE025582012005	03033103	ER 25	M12	14,5 *0.571*	5,0 *0.197*	23,0 *0.906*	42,0 *1.654*	39,5 *1.555*	10 *0.394*	0	0,2 *0.440*
BE032582010005	03077320	ER 32	M10	15,5 *0.610*	5,0 *0.197*	18,5 *0.728*	50,0 *1.969*	46,5 *1.831*	10 *0.394*	0	0,4 *0.880*
BE032582012005	03033104	ER 32	M12	15,5 *0.610*	5,0 *0.197*	23,0 *0.906*	50,0 *1.969*	46,5 *1.831*	10 *0.394*	0	0,4 *0.880*
BE032582016005	03033105	ER 32	M16	15,5 *0.610*	5,0 *0.197*	30,0 *1.181*	50,0 *1.969*	46,5 *1.831*	10 *0.394*	0	0,4 *0.880*
BE040582012005	03077321	ER 40	M12	16,5 *0.650*	5,0 *0.197*	23,0 *0.906*	63,0 *2.480*	52,5 *2.067*	10 *0.394*	0	0,7 *1.540*
BE040582016005	03077322	ER 40	M16	16,5 *0.650*	5,0 *0.197*	30,0 *1.181*	63,0 *2.480*	52,5 *2.067*	10 *0.394*	0	0,7 *1.540*
BE040582020005	03033107	ER 40	M20	16,5 *0.650*	5,0 *0.197*	36,5 *1.437*	63,0 *2.480*	52,5 *2.067*	10 *0.394*	0	0,6 *1.320*

Accessories

For size	Socket	Spanner 1	Spanner 2	Torque key
				
ER 25	–	03B587312	–	03DYD020200
ER 32	03ER050	03B587316	03BR050	03DYD020200
ER 40	03ER063	03B587325	03BR063	03DYD020200



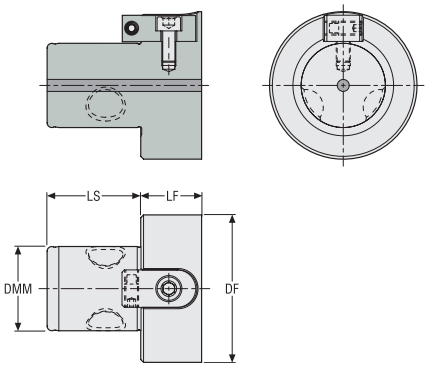
Graflex

Graflex assemblies include arbors, intermediates, tool holders and boring heads that can be rapidly built together when they are needed. Suitable for milling, drilling, tapping, reaming and boring, Graflex modules offer tooling of variable lengths and diameters and can be fitted on all types of machines simply by substituting the Graflex basic arbor.

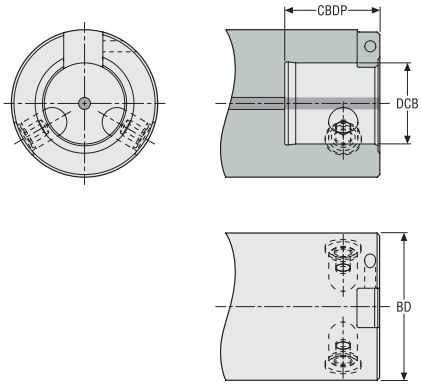
- Excellent connection rigidity
- Wide range of modules offer high flexibility
- Through coolant possibilities

Graflex®

Machine side



Workpiece side



Machine side catalogue designation	Hole for RFID carrier*	DF	DMM	LS	LF
		mm *inch*	mm *inch*	mm *inch*	mm *inch*
G0	No	16 *0.630*	8 *0.315*	12 *0.472*	8 *0.315*
G1	No	20 *0.787*	11 *0.433*	13 *0.512*	9,5 *0.374*
G2	No	25 *0.984*	14 *0.551*	16 *0.630*	11 *0.433*
G3	No	32 *1.260*	18 *0.709*	20 *0.787*	14 *0.551*
G4	No	40 *1.575*	22 *0.866*	24 *0.945*	17 *0.669*
G5	No	50 *1.969*	28 *1.102*	30 *1.181*	20 *0.787*
G6	No	63 *2.480*	36 *1.417*	40 *1.575*	26 *1.024*
G7	No	90 *3.543*	46 *1.811*	50 *1.969*	26 *1.024*

Workpiece side catalogue designation	Hole for RFID carrier*	CBDP	DCB	BD
		mm *Inch*	mm *Inch*	mm *Inch*
G0	No	16 *0.630*	8 *0.315*	12 *0.472*
G1	No	20 *0.787*	11 *0.433*	13 *0.512*
G2	No	25 *0.984*	14 *0.551*	16 *0.630*
G3	No	32 *1.260*	18 *0.709*	20 *0.787*
G4	No	40 *1.575*	22 *0.866*	24 *0.945*
G5	No	50 *1.969*	28 *1.102*	30 *1.181*
G6	No	63 *2.480*	36 *1.417*	40 *1.575*
G7	No	90 *3.543*	46 *1.811*	50 *1.969*

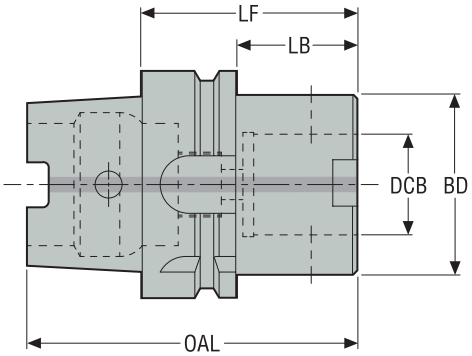
Note: These machine side and workpiece side dimensions are applied to all the holders shown in the Product pages.

* No hole for RFID carriers

HSK-A to Graflex
– Metric / *Inch*

HSK-A/ ISO12164-1-HSK-A





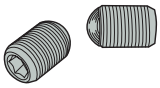
- For HSK sealing plugs, coolant tubes and tube spanners, see page(s) 383
- For ISO attribute explanation, see page 14

Designation	Item number	CTMS	CTWS	DCB	LF	LB	BD	OAL	RFID hole	Balancing	Weight
				mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*			kg *lbs*
EM93034012870	00086917	HSK-A50	G5	28,0 *1.102*	70,0 *2.756*	44,0 *1.732*	50,0 *1.969*	95,0 *3.740*	1	PB	0,9 *1.980*
EM93044011445	02469722	HSK-A63	G2	14,0 *0.551*	45,0 *1.772*	19,0 *0.748*	25,0 *0.984*	77,0 *3.031*	1	G6.3	0,69 *1.520*
EM93044011850	00086918	HSK-A63	G3	18,0 *0.709*	50,0 *1.969*	24,0 *0.945*	32,0 *1.260*	82,0 *3.228*	1	G6.3	0,73 *1.610*
EM93044012255	00088217	HSK-A63	G4	22,0 *0.866*	55,0 *2.165*	29,0 *1.142*	40,0 *1.575*	87,0 *3.425*	1	G6.3	0,9 *1.980*
EM93044012860	00086920	HSK-A63	G5	28,0 *1.102*	60,0 *2.362*	34,0 *1.339*	50,0 *1.969*	92,0 *3.622*	1	PB	1,0 *2.200*
EM930440128100	00086921	HSK-A63	G5	28,0 *1.102*	100,0 *3.937*	74,0 *2.913*	50,0 *1.969*	132,0 *5.197*	1	PB	1,6 *3.530*
EM930440128140	00086922	HSK-A63	G5	28,0 *1.102*	140,0 *5.512*	114,0 *4.488*	50,0 *1.969*	172,0 *6.772*	1	PB	2,18 *4.810*
EM93044013670	00086923	HSK-A63	G6	36,0 *1.417*	70,0 *2.756*	44,0 *1.732*	63,0 *2.480*	102,0 *4.016*	1	PB	1,3 *2.870*
EM930440136120	00086924	HSK-A63	G6	36,0 *1.417*	120,0 *4.724*	94,0 *3.701*	63,0 *2.480*	152,0 *5.984*	1	PB	2,38 *5.250*
EM93064011855	00086925	HSK-A100	G3	18,0 *0.709*	55,0 *2.165*	26,0 *1.024*	32,0 *1.260*	105,0 *4.134*	1	G6.3	2,2 *4.850*
EM93064012260	00086926	HSK-A100	G4	22,0 *0.866*	60,0 *2.362*	31,0 *1.220*	40,0 *1.575*	110,0 *4.331*	1	G6.3	2,3 *5.070*
EM93064012865	00086927	HSK-A100	G5	28,0 *1.102*	65,0 *2.559*	36,0 *1.417*	50,0 *1.969*	115,0 *4.528*	1	PB	2,37 *5.220*
EM930640128110	00086928	HSK-A100	G5	28,0 *1.102*	110,0 *4.331*	81,0 *3.189*	50,0 *1.969*	160,0 *6.299*	1	PB	3,1 *6.830*
EM930640128150	00086929	HSK-A100	G5	28,0 *1.102*	150,0 *5.906*	121,0 *4.764*	50,0 *1.969*	200,0 *7.874*	1	PB	3,7 *8.160*
EM93064013675	00083432	HSK-A100	G6	36,0 *1.417*	75,0 *2.953*	46,0 *1.811*	63,0 *2.480*	125,0 *4.921*	1	PB	2,8 *6.170*
EM930640136120	00086931	HSK-A100	G6	36,0 *1.417*	120,0 *4.724*	91,0 *3.583*	63,0 *2.480*	170,0 *6.693*	1	PB	3,9 *8.600*
EM930640136160	00086932	HSK-A100	G6	36,0 *1.417*	160,0 *6.299*	131,0 *5.157*	63,0 *2.480*	210,0 *8.268*	1	PB	4,8 *10.580*
EM93064014685	00074385	HSK-A100	G7	46,0 *1.811*	85,0 *3.346*	56,0 *2.205*	90,0 *3.543*	135,0 *5.315*	1	PB	4,0 *8.820*
EM930640146160	00086933	HSK-A100	G7	46,0 *1.811*	160,0 *6.299*	131,0 *5.157*	90,0 *3.543*	210,0 *8.268*	1	PB	7,67 *16.910*
HSKA125-G6-120	03229653	HSK-A125	G6	36,0 *1.417*	120,0 *4.724*	91,0 *3.583*	63,0 *2.480*	183,0 *7.205*	1	PB	5,1 *11.240*
HSKA125-G7-120	03229654	HSK-A125	G7	46,0 *1.811*	120,0 *4.724*	91,0 *3.583*	90,0 *3.543*	183,0 *7.205*	1	PB	7,1 *15.650*

Accessories

For size	Locking key
	
G2	03H025
G3	03H03
G4	03H04
G5	03H05
G6	03H06
G7	03H10

Spare Parts, included in delivery

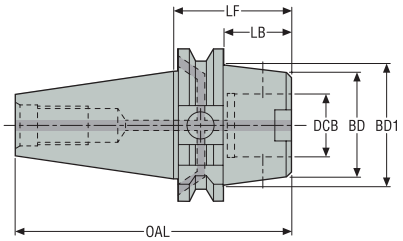
For size	Assembly screw
	
G2	90F2
G3	90F3
G4	90F4
G5	90F5
G6	90F6
G7	90F7

DIN 69871 to Graflex
– Metric / *Inch*

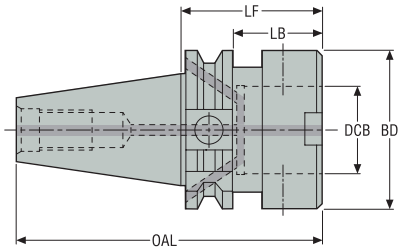
DIN 69871-ADB



Design 1



Design 2



• For ISO attribute explanation, see page 14

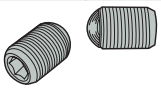
Designation	Item number	CTMS	CTWS	DCB	LF	LB	BD1	BD	OAL	Design	RFID hole	Balancing	Weight
				mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*				kg *lbs*
EM34694011190	02503292	DIN40 ADB	G1	11,0 *0.433*	90,0 *3.543*	70,9 *2.791*	–	20,0 *0.787*	158,4 *6.236*	2	1	G6.3	1,0 *2.200*
EM34694011435	02469729	DIN40 ADB	G2	14,0 *0.551*	35,0 *1.378*	15,9 *0.626*	–	25,0 *0.984*	103,4 *4.071*	2	1	G6.3	0,83 *1.830*
EM34694011490	02503293	DIN40 ADB	G2	14,0 *0.551*	90,0 *3.543*	70,9 *2.791*	–	25,0 *0.984*	158,4 *6.236*	2	1	G6.3	1,1 *2.430*
EM34694011835	02420097	DIN40 ADB	G3	18,0 *0.709*	35,0 *1.378*	15,9 *0.626*	50,0 *1.969*	32,0 *1.260*	103,4 *4.071*	1	1	G6.3	1,0 *2.200*
EM346940118100	02503298	DIN40 ADB	G3	18,0 *0.709*	100,0 *3.937*	80,9 *3.185*	–	32,0 *1.260*	168,4 *6.630*	2	1	G6.3	1,22 *2.690*
EM34694012235	02503299	DIN40 ADB	G4	22,0 *0.866*	35,0 *1.378*	15,9 *0.626*	50,0 *1.969*	40,0 *1.575*	103,4 *4.071*	1	1	G6.3	0,92 *2.030*
EM346940122100	02503300	DIN40 ADB	G4	22,0 *0.866*	100,0 *3.937*	80,9 *3.185*	–	40,0 *1.575*	168,4 *6.630*	2	1	G6.3	1,5 *3.310*
EM34694012840	02458421	DIN40 ADB	G5	28,0 *1.102*	40,0 *1.575*	20,9 *0.823*	–	50,0 *1.969*	108,4 *4.268*	2	1	PB	1,0 *2.200*
EM34694012880	02503301	DIN40 ADB	G5	28,0 *1.102*	80,0 *3.150*	60,9 *2.398*	–	50,0 *1.969*	148,4 *5.843*	2	1	PB	1,5 *3.310*
EM346940128120	02503302	DIN40 ADB	G5	28,0 *1.102*	120,0 *4.724*	100,9 *3.972*	–	50,0 *1.969*	188,4 *7.417*	2	1	PB	2,1 *4.630*
EM34694013660	02503303	DIN40 ADB	G6	36,0 *1.417*	60,0 *2.362*	40,9 *1.610*	–	63,0 *2.480*	128,4 *5.055*	2	1	PB	1,3 *2.870*
EM346940136120	02503304	DIN40 ADB	G6	36,0 *1.417*	120,0 *4.724*	100,9 *3.972*	–	63,0 *2.480*	188,4 *7.417*	2	1	PB	2,7 *5.950*
EM347140114100	02503306	DIN50 ADB	G2	14,0 *0.551*	100,0 *3.937*	80,9 *3.185*	–	25,0 *0.984*	201,7 *7.941*	2	1	G6.3	2,9 *6.390*
EM34714011835	02503307	DIN50 ADB	G3	18,0 *0.709*	35,0 *1.378*	15,9 *0.626*	–	32,0 *1.260*	136,7 *5.382*	2	1	G6.3	2,67 *5.890*
EM347140118110	02503308	DIN50 ADB	G3	18,0 *0.709*	110,0 *4.331*	90,9 *3.579*	–	32,0 *1.260*	211,7 *8.335*	2	1	G6.3	3,1 *6.830*
EM34714012235	02503309	DIN50 ADB	G4	22,0 *0.866*	35,0 *1.378*	15,9 *0.626*	80,0 *3.150*	40,0 *1.575*	136,7 *5.382*	1	1	G6.3	2,88 *6.350*
EM347140122120	02503311	DIN50 ADB	G4	22,0 *0.866*	120,0 *4.724*	100,9 *3.972*	–	40,0 *1.575*	221,7 *8.728*	2	1	G6.3	3,4 *7.500*
EM34714012840	02503312	DIN50 ADB	G5	28,0 *1.102*	40,0 *1.575*	20,9 *0.823*	–	50,0 *1.969*	141,7 *5.579*	2	1	PB	2,75 *6.060*
EM347140128100	02503315	DIN50 ADB	G5	28,0 *1.102*	100,0 *3.937*	80,9 *3.185*	–	50,0 *1.969*	201,7 *7.941*	2	1	PB	3,56 *7.850*
EM347140128140	02503316	DIN50 ADB	G5	28,0 *1.102*	140,0 *5.512*	120,9 *4.760*	–	50,0 *1.969*	241,7 *9.516*	2	1	PB	4,08 *8.990*
EM34714013645	02503317	DIN50 ADB	G6	36,0 *1.417*	45,0 *1.772*	25,9 *1.020*	–	63,0 *2.480*	146,7 *5.776*	2	1	PB	2,9 *6.390*
EM347140136100	02503318	DIN50 ADB	G6	36,0 *1.417*	100,0 *3.937*	80,9 *3.185*	–	63,0 *2.480*	201,7 *7.941*	2	1	PB	4,1 *9.040*

Designation	Item number	CTMS	CTWS	DCB	LF	LB	BD1	BD	OAL	Design	RFID hole	Balan-cing	Weight
				mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*				kg *lbs*
EM347140136140	02503319	DIN50 ADB	G6	36,0 *1.417*	140,0 *5.512*	120,9 *4.760*	–	63,0 *2.480*	241,7 *9.516*	2	1	PB	5,1 *11.240*
EM34714014650	02503320	DIN50 ADB	G7	46,0 *1.811*	50,0 *1.969*	30,9 *1.217*	–	90,0 *3.543*	151,7 *5.972*	2	1	PB	3,3 *7.280*
EM347140146120	02503321	DIN50 ADB	G7	46,0 *1.811*	120,0 *4.724*	100,9 *3.972*	–	90,0 *3.543*	221,7 *8.728*	2	1	PB	6,5 *14.330*
EM347140146200	02503324	DIN50 ADB	G7	46,0 *1.811*	200,0 *7.874*	180,9 *7.122*	–	90,0 *3.543*	301,7 *11.878*	2	1	PB	10,4 *22.930*

Accessories

For size	Locking key
	
DIN40/ G1	03H02
DIN40/ G2	03H025
DIN40/ G3	03H03
DIN40/ G4	03H04
DIN40/ G5	03H05
DIN40/ G6	03H06
DIN50/ G2	03H025
DIN50/ G3	03H03
DIN50/ G4	03H04
DIN50/ G5	03H05
DIN50/ G6	03H06
DIN50/ G7	03H10
EM34714014650	03H10

Spare Parts, included in delivery

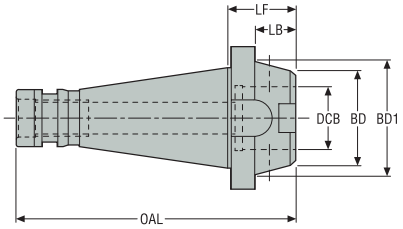
For size	Assembly screw	Sealing Screws
		
DIN40/ G1	90F1	950A0406
DIN40/ G2	90F2	950A0406
DIN40/ G3	90F3	950A0406
DIN40/ G4	90F4	950A0406
DIN40/ G5	90F5	950A0406
DIN40/ G6	90F6	950A0406
DIN50/ G2	90F2	950A0606
DIN50/ G3	90F3	950A0606
DIN50/ G4	90F4	950A0606
DIN50/ G5	90F5	950A0606
DIN50/ G6	90F6	950A0606
DIN50/ G7	90F7	950A0606
EM34714014650	90F71	950A0606

DIN 2080 to Graflex
– Metric / *Inch*

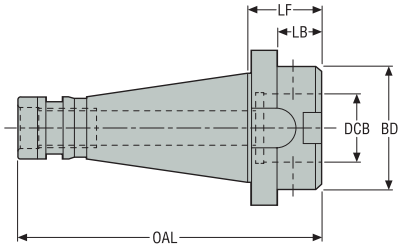
DIN 2080



Design 1



Design 2



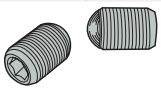
• For ISO attribute explanation, see page 14

Designation	Item number	CTMS	CTWS	DCB	LF	LB	BD1	BD	OAL	Design	RFID hole	Balancing	Weight
				mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*				kg *lbs*
EM00404013650	00076707	DIN(2080)40	G6	36,0 *1.417*	50,0 *1.969*	0,0 –	–	63,0 *2.480*	143,4 *5.646*	2	0	PB	1,3 *2.870*
EM00504012835	00076710	DIN(2080)50	G5	28,0 *1.102*	35,0 *1.378*	19,8 *0.780*	78,0 *3.071*	50,0 *1.969*	161,8 *6.370*	1	0	PB	2,94 *6.480*
EM00504013640	00076714	DIN(2080)50	G6	36,0 *1.417*	40,0 *1.575*	24,8 *0.976*	–	63,0 *2.480*	166,8 *6.567*	2	0	PB	2,9 *6.390*
EM00504014645	00076718	DIN(2080)50	G7	46,0 *1.811*	45,0 *1.772*	29,8 *1.173*	–	90,0 *3.543*	171,8 *6.764*	2	0	PB	3,34 *7.360*

Accessories

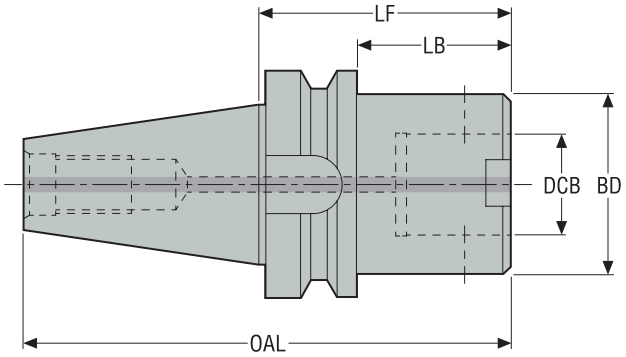
For size	Locking key
	
G5	03H05
G6	03H06
G7	03H10

Spare Parts, included in delivery

For size	Assembly screw
	
G5	90F5
G6	90F6
G7	90F7

BT JIS B 6339-AD

BT JIS to Graflex – Metric / *Inch*





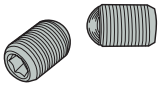
• For ISO attribute explanation, see page 14

Designation	Item number	CTMS	CTWS	DCB	LF	LB	BD	OAL	RFID hole	Balan-cing	Weight
				mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*			kg *lbs*
EM40404011835	00056699	BT30 AD	G3	18,0 *0.709*	35,0 *1.378*	13,0 *0.512*	32,0 *1.260*	83,4 *3.283*	0	G6.3	0,5 *1.100*
EM40404012850	00056705	BT30 AD	G5	28,0 *1.102*	50,0 *1.969*	25,0 *0.984*	50,0 *1.969*	98,4 *3.874*	0	PB	0,7 *1.540*

Accessories

For	Locking key
	
EM40404011835	03H03
EM40404012850	03H05

Spare Parts, included in delivery

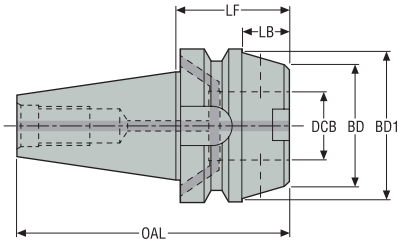
For	Assembly screw
	
EM40404011835	90F3
EM40404012850	90F5

BT JIS to Graflex
– Metric / *Inch*

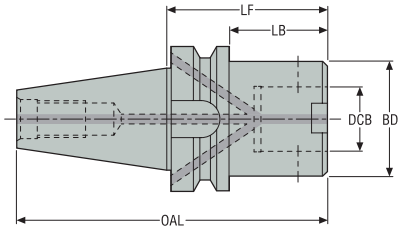
BT JIS B 6339-ADB



Design 1



Design 2



• For ISO attribute explanation, see page 14

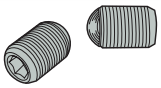
Designation	Item number	CTMS	CTWS	DCB	LF	LB	BD1	BD	OAL	Design	RFID hole	Balancing	Weight
				mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*				kg *lbs*
EM34144011190	02503364	BT40 ADB	G1	11,0 *0.433*	90,0 *3.543*	63,0 *2.480*	–	20,0 *0.787*	155,4 *6.118*	2	1	G6.3	1,1 *2.430*
EM34144011440	02469725	BT40 ADB	G2	14,0 *0.551*	40,0 *1.575*	13,0 *0.512*	–	25,0 *0.984*	105,4 *4.150*	2	1	G6.3	0,98 *2.160*
EM34144011490	02503365	BT40 ADB	G2	14,0 *0.551*	90,0 *3.543*	63,0 *2.480*	–	25,0 *0.984*	155,4 *6.118*	2	1	G6.3	1,2 *2.650*
EM34144011840	02503366	BT40 ADB	G3	18,0 *0.709*	40,0 *1.575*	13,0 *0.512*	62,0 *2.441*	32,0 *1.260*	105,4 *4.150*	1	1	G6.3	1,07 *2.360*
EM341440118100	02503367	BT40 ADB	G3	18,0 *0.709*	100,0 *3.937*	73,0 *2.874*	–	32,0 *1.260*	165,4 *6.512*	2	1	G6.3	1,31 *2.890*
EM34144012245	02503368	BT40 ADB	G4	22,0 *0.866*	45,0 *1.772*	18,0 *0.709*	62,0 *2.441*	40,0 *1.575*	110,4 *4.346*	1	1	G6.3	1,2 *2.650*
EM341440122100	02503370	BT40 ADB	G4	22,0 *0.866*	100,0 *3.937*	73,0 *2.874*	–	40,0 *1.575*	165,4 *6.512*	2	1	G6.3	1,6 *3.530*
EM34144012845	02457989	BT40 ADB	G5	28,0 *1.102*	45,0 *1.772*	18,0 *0.709*	62,0 *2.441*	50,0 *1.969*	110,4 *4.346*	1	1	PB	1,2 *2.650*
EM34144012880	02503371	BT40 ADB	G5	28,0 *1.102*	80,0 *3.150*	53,0 *2.087*	–	50,0 *1.969*	145,4 *5.724*	2	1	PB	1,6 *3.530*
EM341440128120	02503372	BT40 ADB	G5	28,0 *1.102*	120,0 *4.724*	93,0 *3.661*	–	50,0 *1.969*	185,4 *7.299*	2	1	PB	2,2 *4.850*
EM34144013650	02503373	BT40 ADB	G6	36,0 *1.417*	50,0 *1.969*	0,0 –	–	63,0 *2.480*	115,4 *4.543*	2	0	PB	1,2 *2.650*
EM341440136120	02503374	BT40 ADB	G6	36,0 *1.417*	120,0 *4.724*	0,0 –	–	63,0 *2.480*	185,4 *7.299*	2	1	PB	2,8 *6.170*
EM341640114110	02503375	BT50 ADB	G2	14,0 *0.551*	110,0 *4.331*	72,0 *2.835*	–	25,0 *0.984*	211,8 *8.339*	2	1	G6.3	3,8 *8.380*
EM34164011845	02503376	BT50 ADB	G3	18,0 *0.709*	45,0 *1.772*	7,0 *0.276*	70,0 *2.756*	32,0 *1.260*	146,8 *5.780*	1	1	G6.3	3,6 *7.940*
EM341640118120	02503377	BT50 ADB	G3	18,0 *0.709*	120,0 *4.724*	82,0 *3.228*	–	32,0 *1.260*	221,8 *8.732*	2	1	G6.3	4,0 *8.820*
EM34164012250	02503378	BT50 ADB	G4	22,0 *0.866*	50,0 *1.969*	12,0 *0.472*	70,0 *2.756*	40,0 *1.575*	151,8 *5.976*	1	1	G6.3	3,7 *8.160*
EM341640122140	02503379	BT50 ADB	G4	22,0 *0.866*	140,0 *5.512*	102,0 *4.016*	–	40,0 *1.575*	241,8 *9.520*	2	1	G6.3	4,4 *9.700*
EM34164012855	02503380	BT50 ADB	G5	28,0 *1.102*	55,0 *2.165*	17,0 *0.669*	98,0 *3.858*	50,0 *1.969*	156,8 *6.173*	1	1	PB	4,0 *8.820*
EM341640128100	02503381	BT50 ADB	G5	28,0 *1.102*	100,0 *3.937*	62,0 *2.441*	–	50,0 *1.969*	201,8 *7.945*	2	1	PB	4,3 *9.480*
EM341640128140	02503382	BT50 ADB	G5	28,0 *1.102*	140,0 *5.512*	102,0 *4.016*	–	50,0 *1.969*	241,8 *9.520*	2	1	PB	4,9 *10.800*
EM34164013663	02503383	BT50 ADB	G6	36,0 *1.417*	63,0 *2.480*	25,0 *0.984*	98,0 *3.858*	63,0 *2.480*	164,8 *6.488*	1	1	PB	4,3 *9.480*
EM341640136100	02503384	BT50 ADB	G6	36,0 *1.417*	100,0 *3.937*	62,0 *2.441*	–	63,0 *2.480*	201,8 *7.945*	2	1	PB	4,7 *10.360*

Designation	Item number	CTMS	CTWS	DCB	LF	LB	BD1	BD	OAL	Design	RFID hole	Balan-cing	Weight
				mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*				kg *lbs*
EM341640136140	02503385	BT50 ADB	G6	36,0 *1.417*	140,0 *5.512*	102,0 *4.016*	–	63,0 *2.480*	241,8 *9.520*	2	1	PB	5,6 *12.350*
EM34164014665	02503386	BT50 ADB	G7	46,0 *1.811*	65,0 *2.559*	27,0 *1.063*	98,0 *3.858*	90,0 *3.543*	166,8 *6.567*	1	1	PB	4,4 *9.700*
EM341640146120	02503387	BT50 ADB	G7	46,0 *1.811*	120,0 *4.724*	82,0 *3.228*	–	90,0 *3.543*	221,8 *8.732*	2	1	PB	6,9 *15.210*
EM341640146200	02503388	BT50 ADB	G7	46,0 *1.811*	200,0 *7.874*	162,0 *6.378*	–	90,0 *3.543*	301,8 *11.882*	2	1	PB	10,7 *23.590*

Accessories

For Taper/ size	Locking key
	
BT40/ G1	03H02
BT40/ G2	03H025
BT40/ G3	03H03
BT40/ G4	03H04
BT40/ G5	03H05
BT40/ G6	03H06
BT50/ G2	03H025
BT50/ G3	03H03
BT50/ G4	03H04
BT50/ G5	03H05
BT50/ G6	03H06
BT50/ G7	03H10

Spare Parts, included in delivery

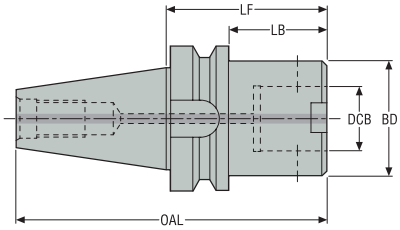
For Taper/ size	Assembly screw	Sealing Screws
		
BT40/ G1	90F1	950A0406
BT40/ G2	90F2	950A0406
BT40/ G3	90F3	950A0406
BT40/ G4	90F4	950A0406
BT40/ G5	90F5	950A0406
BT40/ G6	90F6	950A0406
BT50/ G2	90F2	950A0606
BT50/ G3	90F3	950A0606
BT50/ G4	90F4	950A0606
BT50/ G5	90F5	950A0606
BT50/ G6	90F6	950A0606
BT50/ G7	90F7	950A0606

BT Taper Face to Graflex
– Metric / *Inch*

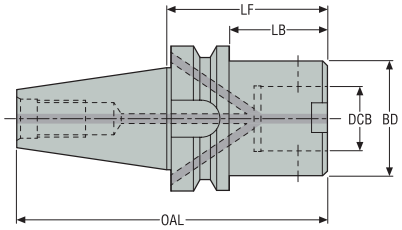
BT Taper-Face-AD/ADB



Design 1



Design 2



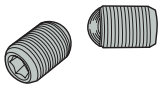
• For ISO attribute explanation, see page 14

Designation	Item number	CTMS	CTWS	DCB	LF	LB	BD	OAL	Design	RFID hole	Balancing	Weight
				mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*				kg *lbs*
EM40024011850	02998757	BT30 TF AD	G3	18,0 *0.709*	50,0 *1.969*	28,0 *1.102*	32,0 *1.260*	98,4 *3.874*	1	0	G6.3	0,6 *1.320*
EM40024012250	02998758	BT30 TF AD	G4	22,0 *0.866*	50,0 *1.969*	28,0 *1.102*	40,0 *1.575*	98,4 *3.874*	1	0	G6.3	0,6 *1.320*
EM321440122100	02998754	BT40 TF ADB	G4	22,0 *0.866*	100,0 *3.937*	73,0 *2.874*	40,0 *1.575*	165,4 *6.512*	2	1	G6.3	1,6 *3.530*
EM321440128120	02926006	BT40 TF ADB	G5	28,0 *1.102*	120,0 *4.724*	93,0 *3.661*	50,0 *1.969*	185,4 *7.299*	2	1	PB	2,2 *4.850*
EM321440136120	02998755	BT40 TF ADB	G6	36,0 *1.417*	120,0 *4.724*	93,0 *3.661*	63,0 *2.480*	185,4 *7.299*	2	1	PB	2,8 *6.170*
EM321640128140	02998756	BT50 TF ADB	G5	28,0 *1.102*	140,0 *5.512*	102,0 *4.016*	50,0 *1.969*	241,8 *9.520*	2	1	PB	4,9 *10.800*
EM321640136140	02926009	BT50 TF ADB	G6	36,0 *1.417*	140,0 *5.512*	102,0 *4.016*	63,0 *2.480*	241,8 *9.520*	2	1	PB	5,6 *12.350*
EM321640146200	02926010	BT50 TF ADB	G7	46,0 *1.811*	200,0 *7.874*	162,0 *6.378*	90,0 *3.543*	301,8 *11.882*	2	1	PB	10,8 *23.810*

Accessories

For	Locking key
	
EM40024011850	03H03
EM40024012250	03H04
EM321440122100	03H04
EM321440128120	03H05
EM321440136120	03H06
EM321640128140	03H05
EM321640136140	03H06
EM321640146200	03H10

Spare Parts, included in delivery

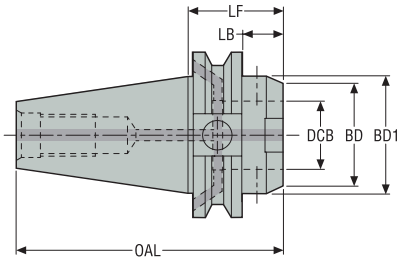
For	Assembly screw	Sealing Screws
		
EM40024011850	90F3	–
EM40024012250	90F4	–
EM321440122100	90F4	950A0406
EM321440128120	90F5	950A0406
EM321440136120	90F6	950A0406
EM321640128140	90F5	950A0606
EM321640136140	90F6	950A0606
EM321640146200	90F7	950A0606

CAT to Graflex – Inch

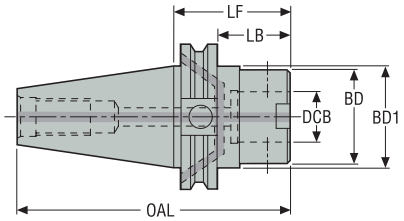
CAT / ASME B5.50-1994-ADB



Design 1



Design 2



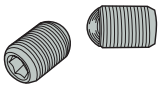
• For ISO attribute explanation, see page 14

Designation	Item number	CTMS	CTWS	DCB	LF	LB	BD1	BD	OAL	Design	RFID hole	Balancing	Weight
				inch	inch	inch	inch	inch	inch				lbs
EM25024011435	02469734	CAT40 ADB	G2	0.551	1.380	0.630	1.750	0.984	4.070	1	1	G6.3	2.120
EM25024011835	00056660	CAT40 ADB	G3	0.709	1.380	0.630	1.750	1.260	4.070	1	1	G6.3	2.200
EM25024012235	00056661	CAT40 ADB	G4	0.866	1.380	0.630	1.750	1.575	4.070	1	1	G6.3	1.980
EM25024012840	00056663	CAT40 ADB	G5	1.102	1.570	0.820	1.750	1.969	4.270	2	1	PB	1.980
EM250240128100	00056662	CAT40 ADB	G5	1.102	3.940	3.190	1.750	1.969	7.420	2	1	PB	3.970
EM25024013660	00056665	CAT40 ADB	G6	1.417	2.360	1.610	1.750	2.480	5.060	2	1	PB	2.870
EM25044011835	00056666	CAT50 ADB	G3	0.709	1.380	0.630	2.750	1.260	5.380	1	1	G6.3	6.720
EM25044012235	00056667	CAT50 ADB	G4	0.866	1.380	0.630	2.750	1.575	5.380	1	1	G6.3	6.610
EM25044012840	00056669	CAT50 ADB	G5	1.102	1.570	0.820	2.750	1.969	5.580	2	1	PB	6.610
EM250440128100	00056668	CAT50 ADB	G5	1.102	3.940	3.190	2.750	1.969	7.940	2	1	PB	8.380
EM25044013645	00056671	CAT50 ADB	G6	1.417	1.770	1.020	2.750	2.480	5.780	1	1	PB	6.610
EM250440136120	00056670	CAT50 ADB	G6	1.417	4.720	3.970	2.750	2.480	9.520	1	1	PB	10.360
EM25044014665	00056675	CAT50 ADB	G7	1.811	2.560	1.810	2.750	3.543	5.970	2	1	PB	8.380
EM250440146120	00056673	CAT50 ADB	G7	1.811	4.720	3.970	2.750	3.543	8.730	2	1	PB	13.890
EM250440146200	00056674	CAT50 ADB	G7	1.811	7.870	7.120	2.750	3.543	11.880	2	1	PB	22.270

Accessories

For Taper/ size	Locking key
	
CAT40/ G2	03H025
CAT40/ G3	03H03
CAT40/ G4	03H04
CAT40/ G5	03H05
CAT40/ G6	03H06
CAT50/ G3	03H03
CAT50/ G4	03H04
CAT50/ G5	03H05
CAT50/ G6	03H06
CAT50/ G7	03H10

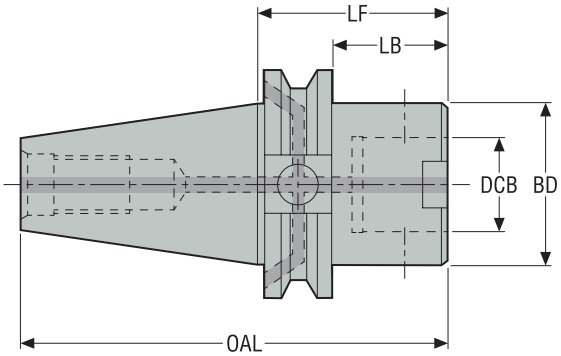
Spare Parts, included in delivery

For Taper/ size	Assembly screw	Sealing Screws
		
CAT40/ G2	90F2	950A0406
CAT40/ G3	90F3	950A0406
CAT40/ G4	90F4	950A0406
CAT40/ G5	90F5	950A0406
CAT40/ G6	90F6	950A0406
CAT50/ G3	90F3	950A0606
CAT50/ G4	90F4	950A0606
CAT50/ G5	90F5	950A0606
CAT50/ G6	90F6	950A0606
CAT50/ G7	90F7	950A0606

CAT Taper Face to Graflex – Inch

CAT TF / ASME B5.50-2009-ADB





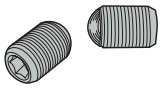
• For ISO attribute explanation, see page 14

Designation	Item number	CTMS	CTWS	DCB	LF	LB	BD	OAL	Design	RFID hole	Balancing	Weight
				inch	inch	inch	inch	inch				lbs
EM26424011880	02998750	CAT40 TF ADB	G3	0.709	3.150	2.398	1.260	5.843	2	1	G6.3	2.650
EM26424012280	02998751	CAT40 TF ADB	G4	0.866	3.150	2.398	1.575	5.843	2	1	G6.3	3.090
EM264240128100	02998752	CAT40 TF ADB	G5	1.102	3.937	3.185	1.969	6.630	2	1	PB	4.190
EM264240136100	02998753	CAT40 TF ADB	G6	1.417	3.937	3.185	2.480	6.630	2	1	PB	5.290
EM264440122100	02964322	CAT50 TF ADB	G4	0.866	3.937	3.185	1.575	7.943	2	1	G6.3	7.280
EM264440128100	02964323	CAT50 TF ADB	G5	1.102	3.937	3.185	1.969	7.943	2	1	PB	7.940
EM264440136120	02926850	CAT50 TF ADB	G6	1.417	4.724	3.972	2.480	8.732	1	1	PB	10.140
EM264440146200	02926851	CAT50 TF ADB	G7	1.811	7.874	7.122	3.543	11.880	2	1	PB	22.710

Accessories

For	Locking key
	
EM26424011880	03H03
EM26424012280	03H04
EM264240128100	03H05
EM264240136100	03H06
EM264440122100	03H04
EM264440128100	03H05
EM264440136120	03H06
EM264440146200	03H10

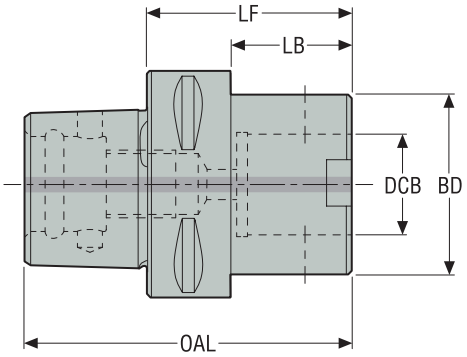
Spare Parts, included in delivery

For	Assembly screw	Sealing Screws
		
EM26424011880	90F3	950A0406
EM26424012280	90F4	950A0406
EM264240128100	90F5	950A0406
EM264240136100	90F6	950A0406
EM264440122100	90F4	950A0606
EM264440128100	90F5	950A0606
EM264440136120	90F6	950A0606
EM264440146200	90F7	950A0606

Seco-Capto™ to Graflex
– Metric / *Inch*

Seco-Capto™





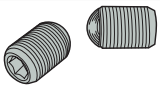
• For ISO attribute explanation, see page 14

Designation	Item number	CTMS	CTWS	DCB	LF	LB	BD	OAL	RFID hole	Balancing	Weight
				mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*			kg *lbs*
C3-391.0401-08025	02532939	C3	G0	8,0 *0.315*	25,0 *0.984*	7,0 *0.276*	16,0 *0.630*	44,0 *1.732*	0	G6.3	0,2 *0.440*
C3-391.0401-11025	02532940	C3	G1	11,0 *0.433*	25,0 *0.984*	7,0 *0.276*	20,0 *0.787*	44,0 *1.732*	0	G6.3	0,14 *0.310*
C3-391.0401-14025	02532941	C3	G2	14,0 *0.551*	25,0 *0.984*	7,0 *0.276*	25,0 *0.984*	44,0 *1.732*	0	G6.3	0,2 *0.440*
C3-391.0401-18030	02532942	C3	G3	18,0 *0.709*	30,0 *1.181*	0,0 –	32,0 *1.260*	49,0 *1.929*	0	G6.3	0,16 *0.350*
C4-391.0401-18035	02532943	C4	G3	18,0 *0.709*	35,0 *1.378*	12,0 *0.472*	32,0 *1.260*	59,0 *2.323*	0	G6.3	0,4 *0.880*
C4-391.0401-22035	02532944	C4	G4	22,0 *0.866*	35,0 *1.378*	0,0 –	40,0 *1.575*	59,0 *2.323*	0	G6.3	0,31 *0.680*
C5-391.0401-14030	02532945	C5	G2	14,0 *0.551*	30,0 *1.181*	7,0 *0.276*	25,0 *0.984*	60,0 *2.362*	1	G6.3	0,47 *1.040*
C5-391.0401-18035	02532947	C5	G3	18,0 *0.709*	35,0 *1.378*	12,0 *0.472*	32,0 *1.260*	65,0 *2.559*	1	G6.3	0,5 *1.100*
C5-391.0401-22035	02532948	C5	G4	22,0 *0.866*	35,0 *1.378*	12,0 *0.472*	40,0 *1.575*	65,0 *2.559*	1	G6.3	0,5 *1.100*
C5-391.0401-28045	02532949	C5	G5	28,0 *1.102*	45,0 *1.772*	22,0 *0.866*	50,0 *1.969*	75,0 *2.953*	1	PB	0,64 *1.410*
C6-391.0401-18035	02532950	C6	G3	18,0 *0.709*	35,0 *1.378*	10,0 *0.394*	32,0 *1.260*	73,0 *2.874*	1	G6.3	0,9 *1.980*
C6-391.0401-22040	02532951	C6	G4	22,0 *0.866*	40,0 *1.575*	15,0 *0.591*	40,0 *1.575*	78,0 *3.071*	1	G6.3	0,9 *1.980*
C6-391.0401-28050	02532952	C6	G5	28,0 *1.102*	50,0 *1.969*	25,0 *0.984*	50,0 *1.969*	88,0 *3.465*	1	PB	1,1 *2.430*
C6-391.0401-36055	02532953	C6	G6	36,0 *1.417*	55,0 *2.165*	0,0 –	63,0 *2.480*	93,0 *3.661*	1	PB	1,2 *2.650*
C8-391.0401-28050	02532954	C8	G5	28,0 *1.102*	50,0 *1.969*	17,0 *0.669*	50,0 *1.969*	98,0 *3.858*	1	PB	2,0 *4.410*
C8-391.0401-36055	02532955	C8	G6	36,0 *1.417*	55,0 *2.165*	22,0 *0.866*	63,0 *2.480*	103,0 *4.055*	1	PB	2,1 *4.630*
C8-391.0401-46065	02532956	C8	G7	46,0 *1.811*	65,0 *2.559*	35,0 *1.378*	90,0 *3.543*	113,0 *4.449*	1	PB	2,71 *5.970*

Accessories

For size	Locking key
	
G0	03H02
G1	03H02
G2	03H025
G3	03H03
G4	03H04
G5	03H05
G6	03H06
G7	03H10

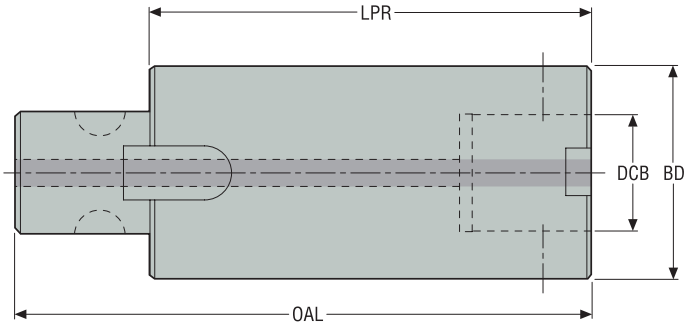
Spare Parts, included in delivery

For size	Assembly screw
	
G0	90F0
G1	90F1
G2	90F2
G3	90F3
G4	90F4
G5	90F5
G6	90F6
G7	90F7

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• For ISO attribute explanation, see page 14

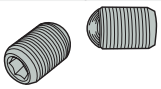
Designation	Item number	CTMS	CTWS	LPR	DCB	BD	OAL	RFID hole	Balancing	Weight
				mm *inch*	mm *inch*	mm *inch*	mm *inch*			kg *lbs*
M402000	00056752	G0	G0	30,0 *1.181*	8,0 *0.315*	16,0 *0.630*	42,0 *1.654*	0	PB	0,1 *0.220*
M402001	00056753	G0	G0	50,0 *1.969*	8,0 *0.315*	16,0 *0.630*	62,0 *2.441*	0	PB	0,1 *0.220*
M402110	00056754	G1	G1	30,0 *1.181*	11,0 *0.433*	20,0 *0.787*	43,0 *1.693*	0	PB	0,1 *0.220*
M402111	00056755	G1	G1	50,0 *1.969*	11,0 *0.433*	20,0 *0.787*	63,0 *2.480*	0	PB	0,2 *0.440*
M402220	00056756	G2	G2	30,0 *1.181*	14,0 *0.551*	25,0 *0.984*	46,0 *1.811*	0	PB	0,2 *0.440*
M402221	00056757	G2	G2	50,0 *1.969*	14,0 *0.551*	25,0 *0.984*	66,0 *2.598*	0	PB	0,2 *0.440*
M402330	00056758	G3	G3	40,0 *1.575*	18,0 *0.709*	32,0 *1.260*	60,0 *2.362*	0	PB	0,3 *0.660*
M402331	75056759	G3	G3	60,0 *2.362*	18,0 *0.709*	32,0 *1.260*	80,0 *3.150*	0	PB	0,4 *0.880*
M402440	00056760	G4	G4	40,0 *1.575*	22,0 *0.866*	40,0 *1.575*	64,0 *2.520*	0	PB	0,4 *0.880*
M402441	00056761	G4	G4	60,0 *2.362*	22,0 *0.866*	40,0 *1.575*	84,0 *3.307*	0	PB	0,6 *1.320*
M402444	02786252	G4	G4	200,0 *7.874*	22,0 *0.866*	40,0 *1.575*	224,0 *8.819*	0	PB	1,95 *4.300*
M402550	00056762	G5	G5	50,0 *1.969*	28,0 *1.102*	50,0 *1.969*	80,0 *3.150*	0	PB	0,8 *1.760*
M402551	00056763	G5	G5	75,0 *2.953*	28,0 *1.102*	50,0 *1.969*	105,0 *4.134*	0	PB	1,2 *2.650*
M402552	00056764	G5	G5	100,0 *3.937*	28,0 *1.102*	50,0 *1.969*	130,0 *5.118*	0	PB	1,5 *3.310*
M402554	02786254	G5	G5	250,0 *9.843*	28,0 *1.102*	50,0 *1.969*	280,0 *11.024*	0	PB	3,8 *8.380*
M402660	00056765	G6	G6	60,0 *2.362*	36,0 *1.417*	63,0 *2.480*	100,0 *3.937*	0	PB	1,4 *3.090*
M402661	00056766	G6	G6	90,0 *3.543*	36,0 *1.417*	63,0 *2.480*	130,0 *5.118*	0	PB	2,2 *4.850*
M402662	00056767	G6	G6	120,0 *4.724*	36,0 *1.417*	63,0 *2.480*	160,0 *6.299*	0	PB	2,9 *6.390*
M402664	02786255	G6	G6	300,0 *11.811*	36,0 *1.417*	63,0 *2.480*	340,0 *13.386*	0	PB	7,2 *15.870*
M402770	00056768	G7	G7	60,0 *2.362*	46,0 *1.811*	90,0 *3.543*	110,0 *4.331*	0	-	2,9 *6.390*
M402771	00056769	G7	G7	90,0 *3.543*	46,0 *1.811*	90,0 *3.543*	140,0 *5.512*	0	-	4,4 *9.700*

Designation	Item number	CTMS	CTWS	LPR	DCB	BD	OAL	RFID hole	Balancing	Weight
				mm *inch*	mm *inch*	mm *inch*	mm *inch*			kg *lbs*
M402772	00056770	G7	G7	120,0 *4.724*	46,0 *1.811*	90,0 *3.543*	170,0 *6.693*	0	-	5,8 *12.790*
M402774	02786257	G7	G7	300,0 *11.811*	46,0 *1.811*	90,0 *3.543*	350,0 *13.780*	0	-	14,6 *32.190*

Accessories

For size	Locking key
	
G0	03H02
G1	03H02
G2	03H025
G3	03H03
G4	03H04
G5	03H05
G6	03H06
G7	03H10

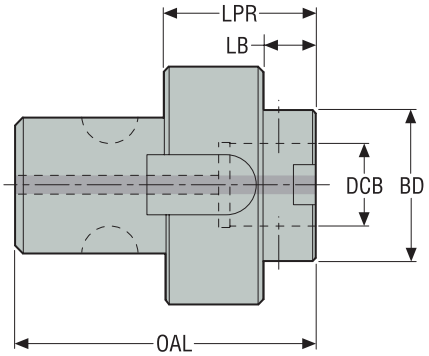
Spare Parts, included in delivery

For size	Assembly screw	Tenon
		
G0	90F0	90M0
G1	90F1	90M1
G2	90F2	90M2
G3	90F3	90M3
G4	90F4	90M4
G5	90F5	90M5
G6	90F6	90M6
G7	90F7	90M7

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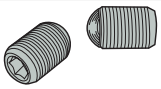
• For ISO attribute explanation, see page 14

Designation	Item number	CTMS	CTWS	LPR	LB	DCB	BD	OAL	RFID hole	Balancing	Weight
				mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*			kg *lbs*
M40310	00056771	G1	G0	30,0 *1.181*	22,0 *0.866*	8,0 *0.315*	16,0 *0.630*	43,0 *1.693*	0	PB	0,1 *0.220*
M40320	00056772	G2	G0	30,0 *1.181*	19,0 *0.748*	8,0 *0.315*	16,0 *0.630*	46,0 *1.811*	0	PB	0,1 *0.220*
M40321	00056773	G2	G1	30,0 *1.181*	19,0 *0.748*	11,0 *0.433*	20,0 *0.787*	46,0 *1.811*	0	PB	0,1 *0.220*
M40330	00056774	G3	G0	30,0 *1.181*	16,0 *0.630*	8,0 *0.315*	16,0 *0.630*	50,0 *1.969*	0	PB	0,2 *0.440*
M40331	00056775	G3	G1	30,0 *1.181*	16,0 *0.630*	11,0 *0.433*	20,0 *0.787*	50,0 *1.969*	0	PB	0,15 *0.330*
M40332	00056776	G3	G2	30,0 *1.181*	16,0 *0.630*	14,0 *0.551*	25,0 *0.984*	50,0 *1.969*	0	PB	0,2 *0.440*
M40341	00056778	G4	G1	30,0 *1.181*	13,0 *0.512*	11,0 *0.433*	20,0 *0.787*	54,0 *2.126*	0	PB	0,25 *0.550*
M40342	00056779	G4	G2	30,0 *1.181*	13,0 *0.512*	14,0 *0.551*	25,0 *0.984*	54,0 *2.126*	0	PB	0,3 *0.660*
M40343	00056780	G4	G3	30,0 *1.181*	13,0 *0.512*	18,0 *0.709*	32,0 *1.260*	54,0 *2.126*	0	PB	0,3 *0.660*
M40350	00056781	G5	G0	40,0 *1.575*	20,0 *0.787*	8,0 *0.315*	16,0 *0.630*	70,0 *2.756*	0	PB	0,47 *1.040*
M40351	00056783	G5	G1	40,0 *1.575*	20,0 *0.787*	11,0 *0.433*	20,0 *0.787*	70,0 *2.756*	0	PB	0,5 *1.100*
M40352	00056785	G5	G2	40,0 *1.575*	20,0 *0.787*	14,0 *0.551*	25,0 *0.984*	70,0 *2.756*	0	PB	0,5 *1.100*
M40353	00056787	G5	G3	40,0 *1.575*	20,0 *0.787*	18,0 *0.709*	32,0 *1.260*	70,0 *2.756*	0	PB	0,6 *1.320*
M40354	00056789	G5	G4	40,0 *1.575*	20,0 *0.787*	22,0 *0.866*	40,0 *1.575*	70,0 *2.756*	0	PB	0,6 *1.320*
M40363	00056797	G6	G3	40,0 *1.575*	14,0 *0.551*	18,0 *0.709*	32,0 *1.260*	80,0 *3.150*	0	PB	1,0 *2.200*
M40364	00056799	G6	G4	40,0 *1.575*	14,0 *0.551*	22,0 *0.866*	40,0 *1.575*	80,0 *3.150*	0	PB	1,0 *2.200*
M40365	00056807	G6	G5	45,0 *1.772*	19,0 *0.748*	28,0 *1.102*	50,0 *1.969*	85,0 *3.346*	0	PB	1,1 *2.430*
M40375	00056811	G7	G5	50,0 *1.969*	24,0 *0.945*	28,0 *1.102*	50,0 *1.969*	100,0 *3.937*	0	–	2,1 *4.630*
M40376	00056812	G7	G6	55,0 *2.165*	29,0 *1.142*	36,0 *1.417*	63,0 *2.480*	105,0 *4.134*	0	–	2,3 *5.070*

Accessories

For size	Locking key
	
M40310	03H02
M40320	03H02
M40321	03H02
M40330	03H02
M40331	03H02
M40332	03H025
M40341	03H02
M40342	03H025
M40343	03H03
M40350	03H02
M40351	03H02
M40352	03H025
M40353	03H03
M40354	03H04
M40363	03H03
M40364	03H04
M40365	03H05
M40375	03H05
M40376	03H06

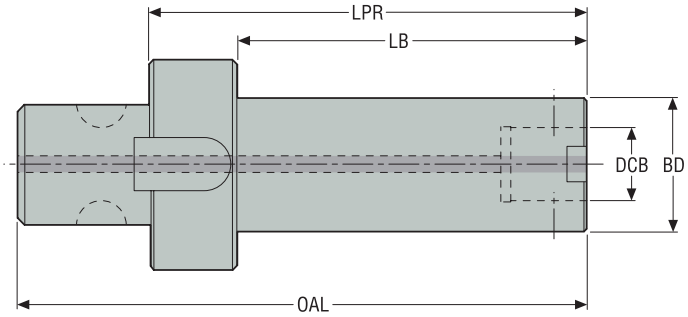
Spare Parts, included in delivery

For size	Assembly screw	Tenon
		
M40310	90F0	90M1
M40320	90F0	90M2
M40321	90F1	90M2
M40330	90F0	90M3
M40331	90F1	90M3
M40332	90F2	90M3
M40341	90F1	90M4
M40342	90F2	90M4
M40343	90F3	90M4
M40350	90F0	90M5
M40351	90F1	90M5
M40352	90F2	90M5
M40353	90F3	90M5
M40354	90F4	90M5
M40363	90F3	90M6
M40364	90F4	90M6
M40365	90F5	90M6
M40375	90F5	90M7
M40376	90F6	90M7

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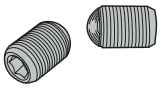
• For ISO attribute explanation, see page 14

Designation	Item number	CTMS	CTWS	LPR	LB	DCB	BD	OAL	RFID hole	Balancing	Weight
				mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*			kg *lbs*
M40350070	00056782	G5	G0	70,0 *2.756*	50,0 *1.969*	8,0 *0.315*	16,0 *0.630*	100,0 *3.937*	0	PB	0,6 *1.320*
M40351080	00056784	G5	G1	80,0 *3.150*	60,0 *2.362*	11,0 *0.433*	20,0 *0.787*	110,0 *4.331*	0	PB	0,6 *1.320*
M40352100	00056786	G5	G2	100,0 *3.937*	80,0 *3.150*	14,0 *0.551*	25,0 *0.984*	130,0 *5.118*	0	PB	0,8 *1.760*
M40353120	00056788	G5	G3	120,0 *4.724*	100,0 *3.937*	18,0 *0.709*	32,0 *1.260*	150,0 *5.906*	0	PB	1,02 *2.250*
M40354150	00056790	G5	G4	150,0 *5.906*	130,0 *5.118*	22,0 *0.866*	40,0 *1.575*	180,0 *7.087*	0	PB	1,7 *3.750*
M40361090	00056794	G6	G1	90,0 *3.543*	64,0 *2.520*	11,0 *0.433*	20,0 *0.787*	130,0 *5.118*	0	PB	1,08 *2.380*
M40362110	00056796	G6	G2	110,0 *4.331*	84,0 *3.307*	14,0 *0.551*	25,0 *0.984*	150,0 *5.906*	0	PB	1,3 *2.870*
M40363120	00056798	G6	G3	120,0 *4.724*	94,0 *3.701*	18,0 *0.709*	32,0 *1.260*	160,0 *6.299*	0	PB	1,5 *3.310*
M40364150	00056800	G6	G4	150,0 *5.906*	124,0 *4.882*	22,0 *0.866*	40,0 *1.575*	190,0 *7.480*	0	PB	2,1 *4.630*
M40365190	00056808	G6	G5	190,0 *7.480*	164,0 *6.457*	28,0 *1.102*	50,0 *1.969*	230,0 *9.055*	0	PB	3,3 *7.280*

Accessories

For	Locking key
	
M40350070	03H02
M40351080	03H02
M40352100	03H025
M40353120	03H03
M40354150	03H04
M40361090	03H02
M40362110	03H025
M40363120	03H03
M40364150	03H04
M40365190	03H05

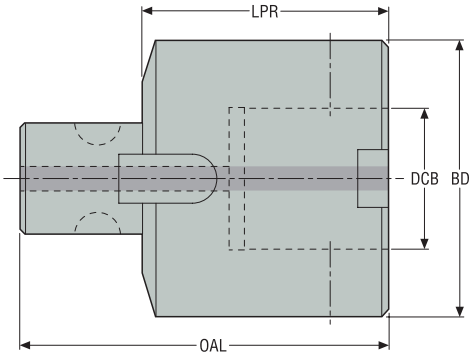
Spare Parts, included in delivery

For	Assembly screw	Tenon
		
M40350070	90F0	90M5
M40351080	90F1	90M5
M40352100	90F2	90M5
M40353120	90F3	90M5
M40354150	90F4	90M5
M40361090	90F1	90M6
M40362110	90F2	90M6
M40363120	90F3	90M6
M40364150	90F4	90M6
M40365190	90F5	90M6

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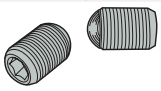
• For ISO attribute explanation, see page 14

Designation	Item number	CTMS	CTWS	LPR	DCB	BD	OAL	RFID hole	Balancing	Weight
				mm *inch*	mm *inch*	mm *inch*	mm *inch*			kg *lbs*
M40356	00056791	G5	G6	55,0 *2.165*	36,0 *1.417*	63,0 *2.480*	85,0 *3.346*	0	PB	1,1 *2.430*
M40367	00056810	G6	G7	80,0 *3.150*	46,0 *1.811*	90,0 *3.543*	120,0 *4.724*	0	PB	3,5 *7.720*

Accessories

For	Locking key
	
M40356	03H06
M40367	03H10

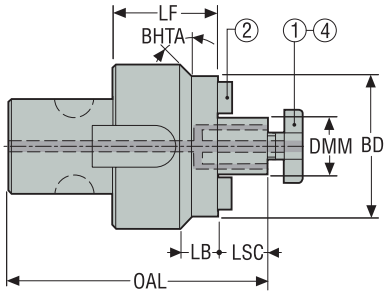
Spare Parts, included in delivery

For	Assembly screw	Tenon
		
M40356	90F6	90M5
M40367	90F7	90M6

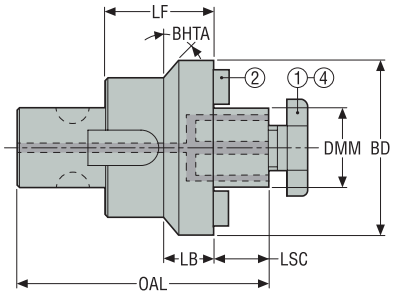
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With through coolant channels
– Metric / *Inch*

Design 1



Design 2





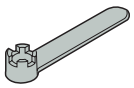
Accessories:
4 = Bolt, through coolant

Spare parts:
1 = Bolt
2 = Tenon/Screw

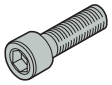
- * Diameter BD on type 5524 is smaller than on type 5525
- For ISO attribute explanation, see page 14

Designation	Item number	CTMS	DMM	LF	BD	OAL	LB	LSC	*	Design	BHTA°	RFID hole	Balan-cing	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*						kg *lbs*
M55251816	02422059	G3	16,0 *0.630*	20,0 *0.787*	32,0 *1.260*	57,0 *2.244*	6,0 *0.236*	17,0 *0.669*		1	–	0	PB	0,2 *0.440*
M55252216R	02422060	G4R	16,0 *0.630*	25,0 *0.984*	38,0 *1.496*	66,0 *2.598*	8,0 *0.315*	17,0 *0.669*		1	–	0	PB	0,4 *0.880*
M55252222	02422061	G4	22,0 *0.866*	25,0 *0.984*	48,0 *1.890*	68,0 *2.677*	8,0 *0.315*	19,0 *0.748*		2	45,0	0	PB	0,5 *1.100*
M55252816	02422063	G5	16,0 *0.630*	32,0 *1.260*	38,0 *1.496*	79,0 *3.110*	12,0 *0.472*	17,0 *0.669*		1	45,0	0	PB	0,6 *1.320*
M55252822R	02422064	G5R	22,0 *0.866*	32,0 *1.260*	48,0 *1.890*	81,0 *3.189*	12,0 *0.472*	19,0 *0.748*		1	–	0	PB	0,7 *1.540*
M55252827	02422065	G5	27,0 *1.063*	32,0 *1.260*	60,0 *2.362*	83,0 *3.268*	12,0 *0.472*	21,0 *0.827*	*	2	45,0	0	PB	0,86 *1.900*
M55242827R	02449581	G5R	27,0 *1.063*	32,0 *1.260*	48,0 *1.890*	83,0 *3.268*	12,0 *0.472*	21,0 *0.827*	*	1	–	0	PB	0,7 *1.540*
M55253622	02422067	G6	22,0 *0.866*	40,0 *1.575*	48,0 *1.890*	99,0 *3.898*	14,0 *0.551*	19,0 *0.748*		1	45,0	0	PB	1,3 *2.870*
M55253622120	02422066	G6	22,0 *0.866*	120,0 *4.724*	48,0 *1.890*	179,0 *7.047*	94,0 *3.701*	19,0 *0.748*		1	30,0	0	PB	2,4 *5.290*
M55253627R	02422069	G6R	27,0 *1.063*	40,0 *1.575*	60,0 *2.362*	101,0 *3.976*	14,0 *0.551*	21,0 *0.827*		1	–	0	PB	1,3 *2.870*
M55253627120R	02422068	G6R	27,0 *1.063*	120,0 *4.724*	60,0 *2.362*	181,0 *7.126*	94,0 *3.701*	21,0 *0.827*		1	–	0	PB	3,1 *6.830*
M55253632	02422070	G6	32,0 *1.260*	40,0 *1.575*	78,0 *3.071*	104,0 *4.094*	14,0 *0.551*	24,0 *0.945*		2	30,0	0	PB	1,7 *3.750*
M55254627R	02422071	G7R	27,0 *1.063*	40,0 *1.575*	60,0 *2.362*	111,0 *4.370*	14,0 *0.551*	21,0 *0.827*		1	45,0	0	PB	2,0 *4.410*
M55254632	02422072	G7	32,0 *1.260*	40,0 *1.575*	78,0 *3.071*	114,0 *4.488*	14,0 *0.551*	24,0 *0.945*		1	45,0	0	PB	2,7 *5.950*

Accessories

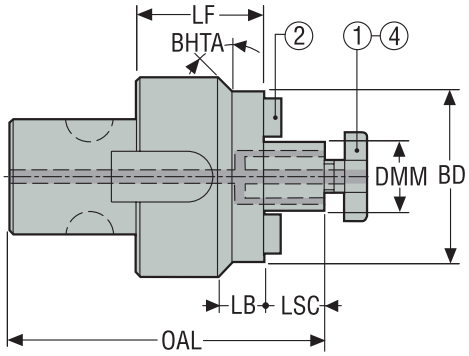
For	Bolt, through coolant	Spanner
		
M55251816	5801608L	5811608
M55252216R	5801608L	5811608
M55252222	5802210L	5812210
M55252816	5801608L	5811608
M55252822R	5802210L	5812210
M55252827	5802712L	5812712
M55242827R	5802712L	5812712
M55253622	5802210L	5812210
M55253622120	5802210L	5812210
M55253627R	5802712L	5812712
M55253627120R	5802712L	5812712
M55253632	5803216L	5813216
M55254627R	5802712L	5812712
M55254632	5803216L	5813216

Spare Parts, included in delivery

For	Bolt	Screw	Tenon (machine side)	Tenon (workpiece side)
				
M55242827R	5802712	951D0512	90M5R	16C127
M55251816	5801608	950D0308	90M3	16C116
M55252216R	5801608	950D0310	90M4	16C10810164
M55252222	5802210	950D0414	90M4	16C11012206
M55252816	5801608	950D0310	90M5	16C10810164
M55252822R	5802210	950D0414	90M5R	16C11012206
M55252827	5802712	950D0516	90M5	16C11214243
M55253622	5802210	950D0414	90M6	16C11012206
M55253622120	5802210	950D0414	90M6	16C11012206
M55253627120R	5802712	950D0516	90M6R	16C11214243
M55253627R	5802712	951D0516	90M6R	16C11214243
M55253632	5803216	950D0516	90M6	16C2141421
M55254627R	5802712	950D0516	90M7R	16C11214243
M55254632	5803216	950D0516	90M7	16C2141421

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With through coolant channels – Inch





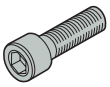
Accessories:
4 = Bolt, through coolant

Spare parts:
1 = Bolt
2 = Tenon/Screw

• For ISO attribute explanation, see page 14

Designation	Item number	CTMS	DMM	LF	BD	OAL	LB	LSC	BHTA°	RFID hole	Balan-cing	Weight
			inch	inch	inch	inch	inch	inch				lbs
M552528075	14000757	G5	0.750	1.260	1.750	3.130	0.472	0.689	45,0	0	PB	1.370
M552536100	14000760	G6	1.000	1.575	2.250	3.839	0.551	0.689	45,0	0	PB	2.840
M552546150	14000763	G7	1.500	2.000	3.500	4.909	0.976	0.941	45,0	0	PB	8.160

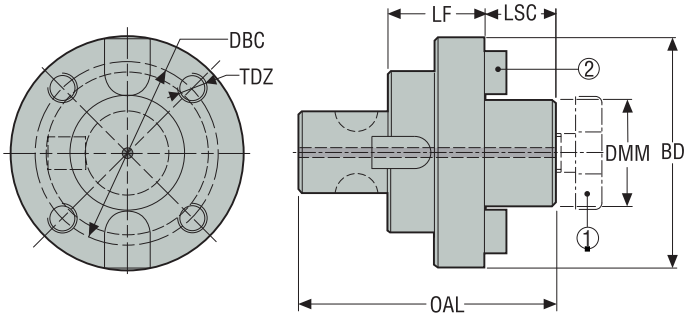
Spare Parts, included in delivery

For	Bolt	Screw	Tenon (machine side)	Tenon (workpiece side)
				
M552528075	58211905	950D0312	90M5	16C11905
M552536100	58212540	950D0416	90M6	16C12540
M552546150	58213810	950D0616	90M7	16C23810

Flange mounting – DIN 6357/ DIN 2079 – **Metric** / *Inch*

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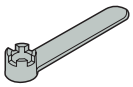


- DMM 40, with additional central thread and bolt according to ISO 3937
- For ISO attribute explanation, see page 14

Spare parts:
1 = Bolt
2 = Tenon/Screw

Designation	Item number	CTMS	DMM	LF	LSC	BD	OAL	DBC	TDZ	RFID hole	Balancing	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*				kg *lbs*
M5694640	00076744	G7	40,0 *1.575*	46,0 *1.811*	27,0 *1.063*	89,0 *3.504*	123,0 *4.843*	66,7 *2.626*	M12x1.75	0	PB	3,1 *6.830*
M5694660	00076745	G7	60,0 *2.362*	54,0 *2.126*	40,0 *1.575*	129,0 *5.079*	144,0 *5.669*	101,6 *4.000*	M16x2	0	PB	5,5 *12.130*

Accessories

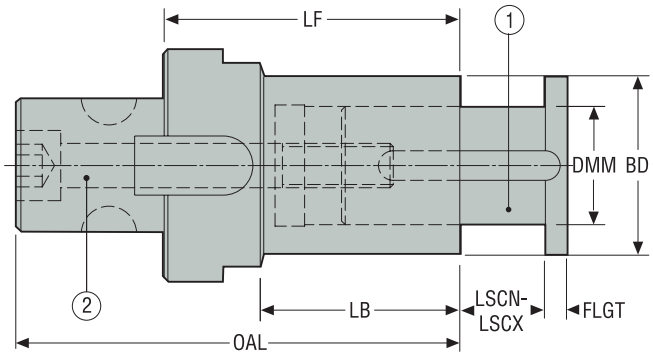
For	Spanner
	
M5694640	5814020
M5694660	–

Spare Parts, included in delivery

For	Bolt	Screw	Tenon (machine side)	Tenon (workpiece side)
				
M5694640	5804020	950D0616	90M7	16C34040
M5694660	–	950D1225	90M7	16C35060

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– Metric / *Inch*



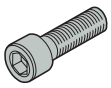


Spare parts:
1 = Slide rod
2 = Screw

- Best suited for Seco disc mill cutters Type A
- For ISO attribute explanation, see page 14

Designation	Item number	CTMS	DMM	LF	BD	LB	OAL	FLGT	LSCN	LSCX	RFID hole	Balancing	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*			kg *lbs*
M56562222	00076737	G4	22,0 *0.866*	60,0 *2.362*	35,0 *1.378*	43,0 *1.693*	84,0 *3.307*	4,0 *0.157*	0,0 *0.0*	12,0 *0.472*	0	PB	0,6 *1.320*
M56562827	00076738	G5	27,0 *1.063*	65,0 *2.559*	42,0 *1.654*	45,0 *1.772*	95,0 *3.740*	5,0 *0.197*	0,0 *0.0*	15,0 *0.591*	0	PB	0,95 *2.090*
M5656283212	02422074	G5	32,0 *1.260*	80,0 *3.150*	48,0 *1.890*	60,0 *2.362*	110,0 *4.331*	6,0 *0.236*	0,0 *0.0*	24,0 *0.945*	0	PB	1,32 *2.910*
M56563640	00076741	G6	40,0 *1.575*	110,0 *4.331*	58,0 *2.283*	84,0 *3.307*	150,0 *5.906*	7,0 *0.276*	0,0 *0.0*	30,0 *1.181*	0	PB	2,8 *6.170*
M56564650	00076743	G7	50,0 *1.969*	130,0 *5.118*	72,0 *2.835*	104,0 *4.094*	180,0 *7.087*	8,0 *0.315*	0,0 *0.0*	32,0 *1.260*	0	PB	5,4 *11.900*

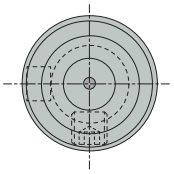
Spare Parts, included in delivery

For	Screw	Slide rod	Tenon
			
M56562222	950D0860	565622	90M4
M56562827	950D1070	565627	90M5
M5656283212	950D1290	56563202	90M5
M56563640	950D16110	565640	90M6
M56564650	950D16120	565650	90M7

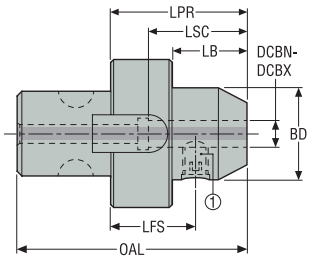
DIN 1835 Form B/ DIN 6535 Form HB
– Metric / *Inch*

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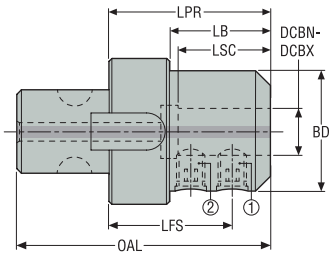




Design 1



Design 2



- Weldon ∅DCBN-DCBX 20, 25, 32 and 40 mm / *0.787, 0.984, 1.260 and 1.575"* with ground face (Seco-Weldon compatible)
- For ISO attribute explanation, see page 14

Spare parts:
1 = Locking screw 1
2 = Locking screw 2

Designation	Item number	CTMS	DCBN-DCBX	LPR	LSC	LB	BD	OAL	LFS	Design	RFID hole	Balancing	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*				kg *lbs*
M5842806	00076748	G5	6,0 *0.236*	45,0 *1.772*	27,0 *1.063*	25,0 *0.984*	25,0 *0.984*	75,0 *2.953*	27,5 *1.083*	1	0	PB	0,6 *1.320*
M5842808	00076749	G5	8,0 *0.315*	45,0 *1.772*	30,0 *1.181*	25,0 *0.984*	28,0 *1.102*	75,0 *2.953*	27,5 *1.083*	1	0	PB	0,52 *1.150*
M5842810	00076750	G5	10,0 *0.394*	55,0 *2.165*	36,0 *1.417*	35,0 *1.378*	35,0 *1.378*	85,0 *3.346*	35,5 *1.398*	1	0	PB	0,7 *1.540*
M5842812	00076751	G5	12,0 *0.472*	60,0 *2.362*	43,0 *1.693*	40,0 *1.575*	42,0 *1.654*	90,0 *3.543*	38,0 *1.496*	1	0	PB	0,8 *1.760*
M5842814	00076752	G5	14,0 *0.551*	60,0 *2.362*	43,0 *1.693*	40,0 *1.575*	44,0 *1.732*	90,0 *3.543*	38,0 *1.496*	1	0	PB	0,81 *1.790*
M5842816	00076753	G5	16,0 *0.630*	65,0 *2.559*	46,0 *1.811*	45,0 *1.772*	48,0 *1.890*	95,0 *3.740*	41,5 *1.634*	1	0	PB	1,0 *2.200*
M5842818	00076754	G5	18,0 *0.709*	65,0 *2.559*	46,0 *1.811*	45,0 *1.772*	50,0 *1.969*	95,0 *3.740*	41,5 *1.634*	1	0	PB	0,96 *2.120*
M5842820	00071723	G5	20,0 *0.787*	65,0 *2.559*	48,0 *1.890*	45,0 *1.772*	52,0 *2.047*	95,0 *3.740*	40,5 *1.594*	1	0	PB	1,0 *2.200*
M5843616	00076761	G6	16,0 *0.630*	65,0 *2.559*	46,0 *1.811*	39,0 *1.535*	48,0 *1.890*	105,0 *4.134*	41,5 *1.634*	1	0	PB	1,4 *3.090*
M5843620	00076763	G6	20,0 *0.787*	65,0 *2.559*	48,0 *1.890*	39,0 *1.535*	52,0 *2.047*	105,0 *4.134*	40,5 *1.594*	1	0	PB	1,4 *3.090*
M5843625	00072478	G6	25,0 *0.984*	80,0 *3.150*	54,0 *2.126*	54,0 *2.126*	63,0 *2.480*	120,0 *4.724*	56,5 *2.224*	2	0	PB	1,9 *4.190*
M5843632	00071725	G6	32,0 *1.260*	80,0 *3.150*	58,0 *2.283*	54,0 *2.126*	72,0 *2.835*	120,0 *4.724*	56,5 *2.224*	2	0	PB	2,1 *4.630*
M5844640	00076767	G7	40,0 *1.575*	100,0 *3.937*	68,0 *2.677*	74,0 *2.913*	80,0 *3.150*	150,0 *5.906*	70,5 *2.776*	2	0	PB	3,9 *8.600*

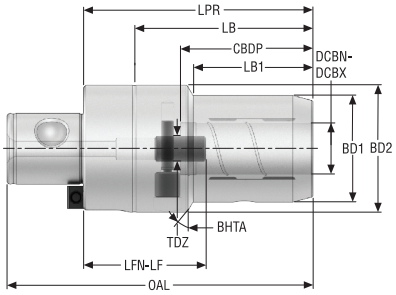
Spare Parts, included in delivery

For	Locking screw	Locking screw, reduced	Tenon
			
M5842806	951C0610	–	90M5
M5842808	951C0810	–	90M5
M5842810	951C1012	–	90M5
M5842812	951C1216	–	90M5
M5842814	951C1216	–	90M5
M5842816	951C1416	–	90M5
M5842818	951C1416	–	90M5
M5842820	951C1616	–	90M5
M5843616	951C1416	–	90M6
M5843620	951C1616	–	90M6
M5843625	951C1820	–	90M6
M5843632	951C2020	951C2017	90M6
M5844640	951C2020	–	90M7

Conventional type
– Metric / *Inch*

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- For reduction sleeves, see page(s) 394, 395
- For ISO attribute explanation, see page 14

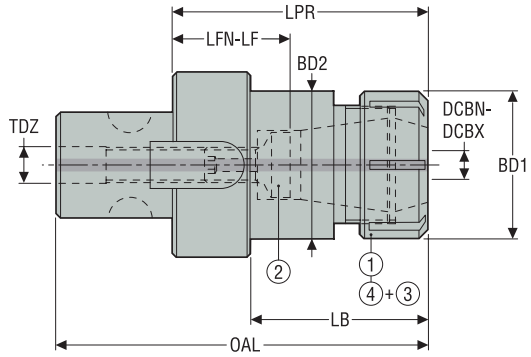
Designation	Item number	CTMS	DCBN-DCBX	LPR	LB	LB1	CBDP	BD2	BD1	OAL	LFN	LF	TDZ	BHTA°	RFID hole	Balancing	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*					kg *lbs*
G5-HC20-090	10137322	G5	20,0 *0.787*	90,0 *3.543*	70,0 *2.756*	47,0 *1.850*	52,0 *2.047*	50,0 *1.969*	42,0 *1.654*	120,0 *4.724*	38,0 *1.496*	48,0 *1.890*	M10x1.5	30,0	0	PB	1,2 *2.650*
G6-HC25-100	10137323	G6	25,0 *0.984*	100,0 *3.937*	74,0 *2.913*	50,0 *1.969*	58,0 *2.283*	63,0 *2.480*	58,0 *2.283*	140,0 *5.512*	42,0 *1.654*	52,0 *2.047*	M10x1.5	45,0	0	PB	2,3 *5.070*
G6-HC32-100	10137324	G6	32,0 *1.260*	100,0 *3.937*	74,0 *2.913*	–	63,0 *2.480*	–	64,0 *2.520*	140,0 *5.512*	37,0 *1.457*	62,0 *2.441*	–	–	0	PB	2,3 *5.070*

Accessories

For	Key
	
G5-HC20-090	03MS04C
G6-HC25-100	03MS04C
G6-HC32-100	03MS04C

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ISO 15488
– Metric / *Inch*





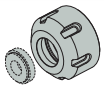
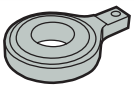
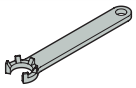
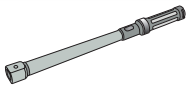
Accessories:
3 = Sealing ring
4 = Sealing nut

Spare parts:
1 = Nut
2 = Stop screw

- For ER extensions and ER collets, see page(s) 375, 411, 412, 413, 414
- For ER sealing rings, see page(s) 418, 419
- For ISO attribute explanation, see page 14

Designation	Item number	CTMS	DCBN	DCBX	CTWS	LPR	BD2	BD1	OAL	LB	LFN	LF	TDZ	RFID hole	Balan-cing	Weight
			mm *inch*	mm *inch*		mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*				kg *lbs*
BM03056752570R	02750250	G3	1,0 *0.039*	16,0 *0.630*	ER 25	70,0 *2.756*	32,0 *1.260*	35,0 *1.378*	90,0 *3.543*	56,0 *2.205*	30,0 *1.181*	32,0 *1.260*	M10	0	PB	0,4 *0.880*
BM05056752560	02750251	G5	1,0 *0.039*	16,0 *0.630*	ER 25	60,0 *2.362*	42,0 *1.654*	42,0 *1.654*	90,0 *3.543*	40,0 *1.575*	17,0 *0.669*	22,0 *0.866*	M12	0	PB	0,7 *1.540*
BM05056753275	02750252	G5	2,0 *0.079*	20,0 *0.787*	ER 32	75,0 *2.953*	50,0 *1.969*	50,0 *1.969*	105,0 *4.134*	55,0 *2.165*	25,0 *0.984*	32,0 *1.260*	M12	0	PB	1,0 *2.200*
BM06056752560	02750254	G6	1,0 *0.039*	16,0 *0.630*	ER 25	60,0 *2.362*	42,0 *1.654*	42,0 *1.654*	100,0 *3.937*	34,0 *1.339*	3,0 *0.118*	22,0 *0.866*	M12	0	PB	1,1 *2.430*
BM06056753275	02750256	G6	2,0 *0.079*	20,0 *0.787*	ER 32	75,0 *2.953*	50,0 *1.969*	50,0 *1.969*	115,0 *4.528*	49,0 *1.929*	25,0 *0.984*	32,0 *1.260*	M12	0	PB	1,4 *3.090*
BM06056754085	02750257	G6	3,0 *0.118*	26,0 *1.024*	ER 40	85,0 *3.346*	63,0 *2.480*	63,0 *2.480*	125,0 *4.921*	59,0 *2.323*	26,0 *1.024*	35,0 *1.378*	M12	0	PB	1,8 *3.970*

Accessories

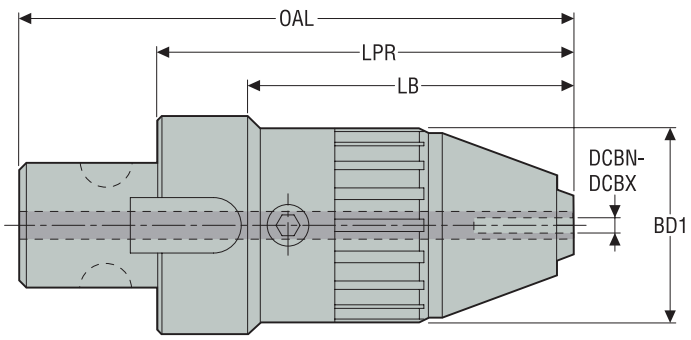
For	Seal nut	Socket	Spanner	Spanner 1	Torque key
					
BM03056752570R	–	–	03B545025	–	03DYD010100B
BM05056752560	08B587525IC	–	03B587525	–	03DYD020200
BM05056753275	08B587532IC	03ER050	03B587532	03BR050	03DYD020200
BM06056752560	08B587525IC	–	03B587525	–	03DYD020200
BM06056753275	08B587532IC	03ER050	03B587532	03BR050	03DYD020200
BM06056754085	08B587540IC	03ER063	03B587540	03BR063	03DYD020200

Spare Parts, included in delivery

For	Nut	Stop screw	Tenon
			
BM03056752570R	08B587525M	19PM1016	90M3
BM05056752560	08B587525X	19PM1216	90M5
BM05056753275	08B587532X	19PM1220	90M5
BM06056752560	08B587525X	19PM1216	90M62
BM06056753275	08B587532X	19PM1220	90M6
BM06056754085	08B587540X	19PM1225	90M6

Graflex®

– Metric / *Inch*





• For ISO attribute explanation, see page 14

Designation	Item number	CTMS	DCBN	DCBX	OAL	LPR	LB	BD1	RFID hole	Balan-cing	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*			kg *lbs*
M50852813L	00055942	G5	1,0 *0.039*	13,0 *0.512*	130,0 *5.118*	100,0 *3.937*	80,0 *3.150*	43,0 *1.693*	0	PB	0,92 *2.030*
M50853616L	00055943	G6	2,5 *0.098*	16,0 *0.630*	160,0 *6.299*	120,0 *4.724*	94,0 *3.701*	56,0 *2.205*	0	PB	2,01 *4.430*

Spare Parts, included in delivery

For	Tenon
	
M50852813L	90M5
M50853616L	90M6



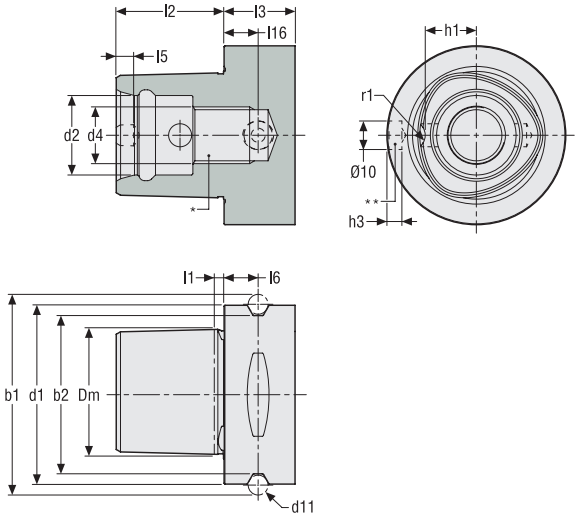
Seco-Capto™

Seco-Capto™ is a leading quick-change modular tooling system for quick setup and replacement of cutting edge holders. The Seco-Capto™ modular tooling range uses Polygonal Shank Coupling (PSC) in accordance with ISO 26623 and features a self-locking taper joint.

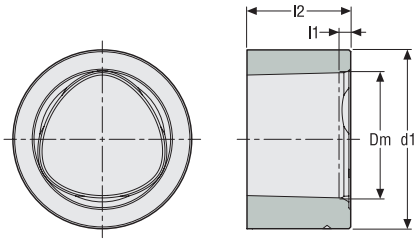
- Tool holders range, such as Shrinkfit, collet chuck and shell mill
- Seco-Capto™ basic arbors with HSK, DIN, BT connections
- Seco-Capto™ cassette for greater reliability and insert clamping

ISO 26623-1-PSC/ ISO 26623-2-PSC

Machine side



Workpiece side



Machine side catalogue designation	Hole for RFID carrier**	d_1	d_2	d_4	d_{11}	Dm	b_1	b_2	l_1	l_2	$l_{3\ min}$	l_5	l_6	l_{16}	h_1	h_3	r_1
		mm *inch*	mm *inch*		mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*
C3	No**	32 *1.260*	15 *0.591*	M12	5 *0.197*	22 *0.866*	39 *1.535*	28,3 *1.114*	2,5 *0.098*	19 *0.748*	15 *0.591*	3,2 *0.126*	6 *0.236*	9 *0.354*	9 *0.354*	5,4 *0.213*	3 *0.118*
C4	No**	40 *1.575*	18 *0.709*	M14	5 *0.197*	28 *1.102*	46 *1.811*	35,3 *1.390*	2,5 *0.098*	24 *0.945*	20 *0.787*	4 *0.157*	8 *0.315*	12 *0.472*	11 *0.433*	5,2 *0.205*	3 *0.118*
C5	**	50 *1.969*	21 *0.827*	M16	7 *0.276*	35 *1.378*	59,3 *2.335*	44,4 *1.748*	3 *0.118*	30 *1.181*	20 *0.787*	5,3 *0.209*	10 *0.394*	12 *0.472*	14 *0.551*	5,1 *0.201*	4 *0.157*
C6	**	63 *2.480*	28 *1.102*	M20	7 *0.276*	44 *1.732*	70,7 *2.783*	55,8 *2.197*	3 *0.118*	38 *1.496*	22 *0.866*	6,2 *0.244*	12 *0.472*	12 *0.472*	18 *0.709*	5 *0.197*	5 *0.197*
C8	**	80 *3.150*	32 *1.260*	M20	7 *0.276*	55 *2.165*	86 *3.386*	71,1 *2.799*	3 *0.118*	48 *1.890*	30 *1.181*	8 *0.315*	12 *0.472*	12 *0.472*	22,2 *0.874*	4,9 *0.193*	6 *0.236*

Workpiece side catalogue designation	Hole for RFID carrier**	$d_{1\ min}$	d_3	Dm	l_1	l_2	l_3	l_4
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*
C3	No	32 *1.260*	2 *0.079*	22 *0.866*	2,3 *0.091*	18,4 *0.724*	16,5 *0.650*	9,4 *0.370*
C4	No	40 *1.575*	2,5 *0.098*	28 *1.102*	2,3 *0.091*	23,4 *0.921*	21 *0.827*	11,5 *0.453*
C5	No	50 *1.969*	3 *0.118*	35 *1.378*	2,8 *0.110*	29,4 *1.157*	26 *1.024*	14,5 *0.571*
C6	**	63 *2.480*	4 *0.157*	44 *1.732*	2,8 *0.110*	37,4 *1.472*	33,5 *1.319*	18,5 *0.728*
C8	**	80 *3.150*	5 *0.197*	55 *2.165*	2,8 *0.110*	47,4 *1.866*	43 *1.693*	22,8 *0.898*

Note: These machine side and workpiece side dimensions are applied to all the holders shown in the Product pages.

* The Seco-Capto™ machine side of short extensions can only be hold by spindles with segment clamping (not with center bolt clamping). The Seco-Capto™ machine side of short reducers can only be hold by spindles with segment clamping (not with center bolt clamping).

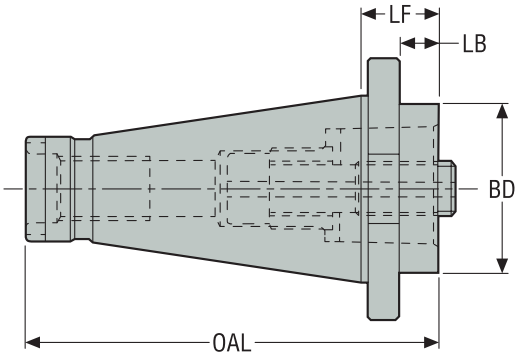
** In order to know if a hole for RFID carrier exists, see 'RFID hole' column in Product pages: 1= hole for RFID carrier available, if required a carrier can be fitted on request, please enquire.

0= hole for RFID carrier not available, if required hole can be machined and a carrier can be fitted on request, please enquire.

Seco-Capto™ – ISO 26623-2 – Metric / *Inch*

DIN 2080

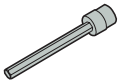
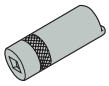




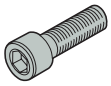
• For ISO attribute explanation, see page 14

Designation	Item number	CTMS	CTWS	LF	LB	BD	OAL	RFID hole	Balancing	Weight
				mm *inch*	mm *inch*	mm *inch*	mm *inch*			kg *lbs*
C3-390.00-40030	75039844	DIN(2080)40	C3	30,0 *1.181*	18,4 *0.724*	32,0 *1.260*	123,4 *4.858*	0	–	0,9 *1.980*
C4-390.00-40030	75039848	DIN(2080)40	C4	30,0 *1.181*	18,4 *0.724*	40,0 *1.575*	123,4 *4.858*	0	–	1,0 *2.200*
C4-390.00-40060	75039849	DIN(2080)40	C4	60,0 *2.362*	48,4 *1.906*	40,0 *1.575*	153,4 *6.039*	0	–	1,08 *2.380*
C5-390.00-40030	75039852	DIN(2080)40	C5	30,0 *1.181*	18,4 *0.724*	50,0 *1.969*	123,4 *4.858*	0	–	0,81 *1.790*
C6-390.00-40075	00048158	DIN(2080)40	C6	75,0 *2.953*	0,0 –	63,0 *2.480*	168,4 *6.630*	0	–	1,82 *4.010*
C3-390.00-50030	75039846	DIN(2080)50	C3	30,0 *1.181*	14,8 *0.583*	32,0 *1.260*	156,8 *6.173*	0	–	2,5 *5.510*
C3-390.00-50060	75039847	DIN(2080)50	C3	60,0 *2.362*	44,8 *1.764*	32,0 *1.260*	186,8 *7.354*	0	–	2,5 *5.510*
C4-390.00-50030	75039850	DIN(2080)50	C4	30,0 *1.181*	14,8 *0.583*	40,0 *1.575*	156,8 *6.173*	0	–	2,5 *5.510*
C4-390.00-50060	75039851	DIN(2080)50	C4	60,0 *2.362*	44,8 *1.764*	40,0 *1.575*	186,8 *7.354*	0	–	2,5 *5.510*
C5-390.00-50030	75039854	DIN(2080)50	C5	30,0 *1.181*	14,8 *0.583*	50,0 *1.969*	156,8 *6.173*	0	–	2,62 *5.780*
C5-390.00-50070	75039855	DIN(2080)50	C5	70,0 *2.756*	54,8 *2.157*	50,0 *1.969*	196,8 *7.748*	0	–	3,29 *7.250*
C6-390.00-50030	75039856	DIN(2080)50	C6	30,0 *1.181*	14,8 *0.583*	63,0 *2.480*	156,8 *6.173*	0	–	2,56 *5.640*
C6-390.00-50080	75039857	DIN(2080)50	C6	80,0 *3.150*	64,8 *2.551*	63,0 *2.480*	206,8 *8.142*	0	–	3,27 *7.210*
C8-390.00-50070	75039858	DIN(2080)50	C8	70,0 *2.756*	54,8 *2.157*	80,0 *3.150*	196,8 *7.748*	0	–	3,8 *8.380*
C8-390.00-50120	75039859	DIN(2080)50	C8	120,0 *4.724*	104,8 *4.126*	80,0 *3.150*	246,8 *9.717*	0	–	5,6 *12.350*

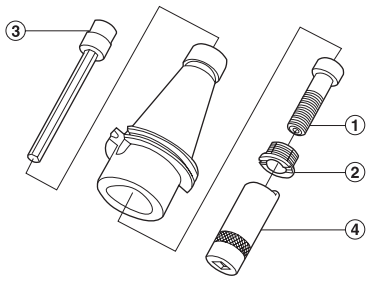
Accessories

For	Extension key	Spanner
		
C3	5680015-05	5680065-13
C4	5680015-05	5680065-10
C5	5680015-01	5680065-11
C6-400	5680015-01	5680065-12
C6-500	5680015-02	5680065-12
C8	5680015-02	5680065-12

Spare Parts, included in delivery

For	Center screw	Retaining nut
		
C3	5512063-10	5512091-04
C4	5512063-07	5512091-03
C5	5512063-08	5512091-01
C6-400	5512063-13	5512091-02
C6-500	5512063-09	5512091-02
C8	5512063-09	5512091-02

Accessories / Spare Parts



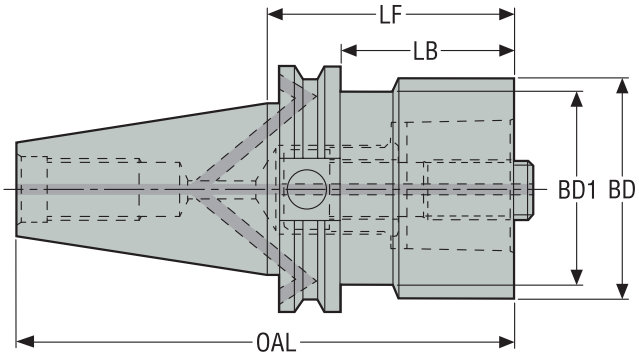
Accessories:
3 = Extension key
4 = Spanner

Spare parts:
1 = Center screw
2 = Retaining nut

Seco-Capto™ – ISO 26623-2 – Inch

CAT / ASME B5.50-2009-ADB

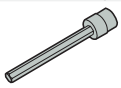
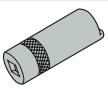




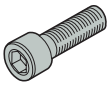
• For ISO attribute explanation, see page 14

Designation	Item number	CTMS	CTWS	LF	LB	BD	BD1	OAL	Design	RFID hole	Balancing	Weight
				inch	inch	inch	inch	inch				lbs
C3-A390B.45-40060	02925929	CAT40 ADB	C3	2.362	1.610	1.260	1.260	5.055	2	0	PB	2.200
C4-A390B.45-40030	02925932	CAT40 ADB	C4	1.181	0.429	1.575	1.575	3.874	2	0	PB	1.980
C4-A390B.45-40060	02925933	CAT40 ADB	C4	2.362	1.610	1.575	1.575	5.055	2	0	PB	2.430
C5-A390B.45-40040	02925935	CAT40 ADB	C5	1.575	0.823	1.969	1.969	4.268	2	0	PB	2.200
C5-A390B.45-40080	02925936	CAT40 ADB	C5	3.150	2.398	1.969	1.969	5.843	2	0	PB	3.310
C6-A390B.45-40085	02925939	CAT40 ADB	C6	3.346	1.378	2.480	2.480	6.039	2	0	PB	4.190
C3-A390B.45-50030	02925930	CAT50 ADB	C3	1.181	0.429	1.260	1.260	5.185	2	0	PB	6.390
C3-A390B.45-50060	02925931	CAT50 ADB	C3	2.362	1.610	1.260	1.260	6.366	2	0	PB	5.970
C4-A390B.45-50030	02925948	CAT50 ADB	C4	1.181	0.429	1.575	1.575	5.185	2	0	PB	5.780
C4-A390B.45-50060	02925934	CAT50 ADB	C4	2.362	1.610	1.969	1.575	6.366	2	0	PB	6.610
C5-A390B.45-50030	02925937	CAT50 ADB	C5	1.181	0.429	1.969	1.969	5.185	2	0	PB	5.290
C5-A390B.45-50070	02925938	CAT50 ADB	C5	2.756	2.004	1.969	1.969	6.760	2	0	PB	6.830
C6-A390B.45-50030	02925940	CAT50 ADB	C6	1.181	0.429	2.480	2.480	5.185	2	0	PB	5.510
C6-A390B.45-50080	02925941	CAT50 ADB	C6	3.150	2.398	2.480	2.480	7.154	2	0	PB	7.940
C8-A390B.45-50070	02925942	CAT50 ADB	C8	2.756	2.004	3.150	3.150	6.760	2	0	PB	8.160
C8-A390B.45-50120	02925943	CAT50 ADB	C8	4.724	3.972	3.150	3.150	8.728	2	0	PB	12.350

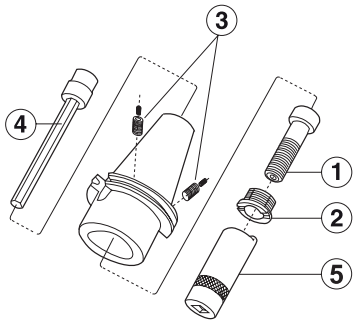
Accessories

For size	Extension key	Spanner
		
CAT40/ C3	5680015-05	5680065-13
CAT40/ C4	5680015-05	5680065-10
CAT40/ C5	5680015-01	5680065-11
CAT40/ C6	5680015-01	5680065-12
CAT50/ C3	5680015-05	5680065-13
CAT50/ C4-50030	5680015-05	5680065-10
CAT50/ C4-50060	5680015-05	5680065-10
CAT50/ C5	5680015-01	5680065-11
CAT50/ C6	5680015-02	5680065-12
CAT50/ C8	5680015-02	5680065-12

Spare Parts, included in delivery

For size	Center screw	Plug	Retaining nut
			
CAT40/ C3	5512063-10	564301701	5512091-04
CAT40/ C4	5512063-07	564301701	5512091-03
CAT40/ C5	5512063-08	564301701	5512091-01
CAT40/ C6	5512063-13	564301701	5512091-02
CAT50/ C3	5512063-10	564301702	5512091-04
CAT50/ C4-50030	5512063-07	564301701	5512091-03
CAT50/ C4-50060	5512063-07	564301702	5512091-03
CAT50/ C5	5512063-08	564301702	5512091-01
CAT50/ C6	5512063-09	564301702	5512091-02
CAT50/ C8	5512063-09	564301702	5512091-02

Accessories / Spare Parts



Accessories:
4 = Extension key
5 = Spanner

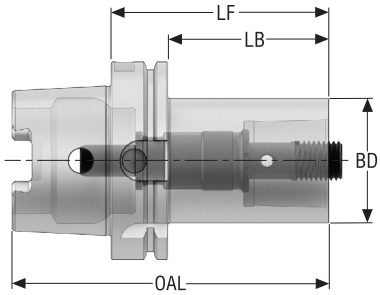
Spare parts:
1 = Center screw
2 = Retaining nut
3 = Plugs (dowels)

Seco-Capto™ – ISO 26623-2 – **Metric** / *Inch*

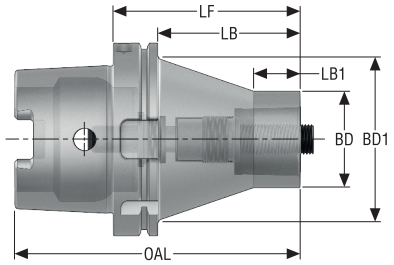
HSK-A/ ISO12164-1-HSK-A



Design 1



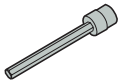
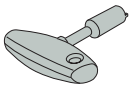
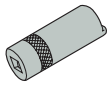
Design 2



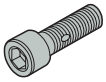
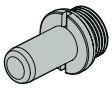
• For ISO attribute explanation, see page 14

Designation	Item number	CTMS	CTWS	LF	LB	LB1	BD	BD1	OAL	Design	RFID hole	Balancing	Weight
				mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*				kg *lbs*
HA06-C3-032-075	10197962	HSK-A63	C3	75,0 *2.953*	49,0 *1.929*	–	32,0 *1.260*	–	107,0 *4.213*	1	1	PB	0,9 *1.980*
HA06-C4-040-080	10197964	HSK-A63	C4	80,0 *3.150*	54,0 *2.126*	–	40,0 *1.575*	–	112,0 *4.409*	1	1	PB	1,1 *2.430*
HA06-C5-050-090	10197966	HSK-A63	C5	90,0 *3.543*	64,0 *2.520*	–	50,0 *1.969*	–	122,0 *4.803*	1	1	PB	3,1 *6.830*
HA10-C3-032-080	10197961	HSK-A100	C3	80,0 *3.150*	51,0 *2.008*	–	32,0 *1.260*	–	130,0 *5.118*	1	1	PB	2,5 *5.510*
HA10-C4-040-090	10197963	HSK-A100	C4	90,0 *3.543*	61,0 *2.402*	–	40,0 *1.575*	–	140,0 *5.512*	1	1	PB	2,5 *5.510*
HA10-C5-050-100	10197965	HSK-A100	C5	100,0 *3.937*	71,0 *2.795*	–	50,0 *1.969*	–	150,0 *5.906*	1	1	PB	2,9 *6.390*
HA10-C6-063-110	10197967	HSK-A100	C6	110,0 *4.331*	81,0 *3.189*	–	63,0 *2.480*	–	160,0 *6.299*	1	1	PB	3,8 *8.380*
HA10-C8-080-120	10197968	HSK-A100	C8	120,0 *4.724*	91,0 *3.583*	–	80,0 *3.150*	–	170,0 *6.693*	1	1	PB	4,1 *9.040*
HSKA125-C6-120	03229625	HSK-A125	C6	120,0 *4.724*	91,0 *3.583*	–	63,0 *2.480*	–	183,0 *7.205*	1	1	PB	5,2 *11.460*
HSKA125-C6-120-V	03229626	HSK-A125	C6	120,0 *4.724*	91,0 *3.583*	30,0 *1.181*	63,0 *2.480*	108,0 *4.252*	183,0 *7.205*	2	1	PB	6,4 *14.110*
HSKA125-C8-130	03229627	HSK-A125	C8	130,0 *5.118*	101,0 *3.976*	–	80,0 *3.150*	–	193,0 *7.598*	1	1	PB	6,5 *14.330*
HSKA125-C8-130-V	03229628	HSK-A125	C8	130,0 *5.118*	101,0 *3.976*	30,0 *1.181*	80,0 *3.150*	105,0 *4.134*	193,0 *7.598*	2	1	PB	7,8 *17.200*

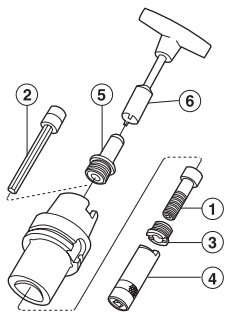
Accessories

For	Extension key	Key	Spanner
			
HA06-C3-032-075	5680015-05	5680094-04	5680065-13
HA06-C4-040-080	5680015-05	5680094-04	5680065-10
HA06-C5-050-090	5680015-01	5680094-04	5680065-11
HA10-C3-032-080	5680015-05	5680094-06	5680065-13
HA10-C4-040-090	5680015-05	5680094-06	5680065-10
HA10-C5-050-100	5680015-01	5680094-06	5680065-11
HA10-C6-063-110	5680015-02	5680094-06	5680065-12
HA10-C8-080-120	5680015-02	5680094-06	5680065-12
HSKA125-C6-120	5680015-02	5680094-07	5680065-12
HSKA125-C6-120-V	5680015-02	5680094-07	5680065-12
HSKA125-C8-130	5680015-02	5680094-07	5680065-12
HSKA125-C8-130-V	5680015-02	5680094-07	5680065-12

Spare Parts, included in delivery

For	Center screw	Coolant tube	Retaining nut
			
HA06-C3-032-075	5512067-01	5692020-04	5512091-04
HA06-C4-040-080	5512067-02	5692020-04	5512091-03
HA06-C5-050-090	5512067-03	5692020-04	5512091-01
HA10-C3-032-080	5512067-01	5692020-06	5512091-04
HA10-C4-040-090	5512067-02	5692020-06	5512091-03
HA10-C5-050-100	5512067-03	5692020-06	5512091-01
HA10-C6-063-110	5512067-04	5692020-06	5512091-02
HA10-C8-080-120	5512067-04	5692020-06	5512091-02
HSKA125-C6-120	5512063-09	5692020-07	5512091-02
HSKA125-C6-120-V	5512063-09	5692020-07	5512091-02
HSKA125-C8-130	5512063-09	5692020-07	5512091-02
HSKA125-C8-130-V	5512063-09	5692020-07	5512091-02

Accessories / Spare Parts



Accessories:
2 = Extension key
4 = Spanner
6 = Key for coolant tube

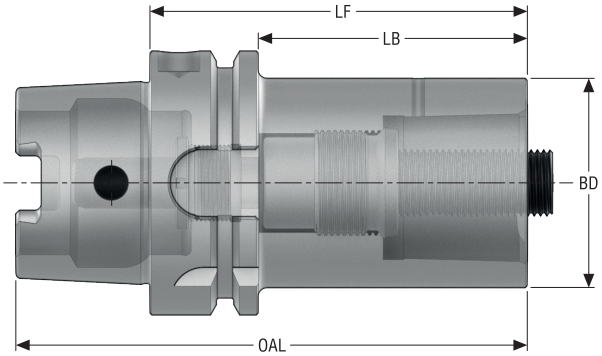
Spare parts:
1 = Center screw
3 = Retaining nut
5 = Coolant tube*

*A specific coolant tube is delivered together with each HSK-A to Seco-Capto™ holder

Seco-Capto™ – ISO 26623-2 – Metric / *Inch*

HSK-T/ ISO12164-3-HSK-T

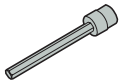
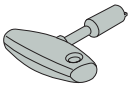
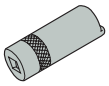




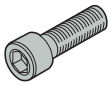
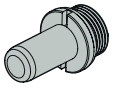
• For ISO attribute explanation, see page 14

Designation	Item number	CTMS	CTWS	LF	LB	BD	OAL	RFID hole	Balancing	Weight
				mm *inch*	mm *inch*	mm *inch*	mm *inch*			kg *lbs*
C4-390.411-63080	02786511	HSK-T63	C4	80,0 *3.150*	54,0 *2.126*	40,0 *1.575*	112,0 *4.409*	1	–	1,1 *2.430*
C5-390.411-63090	02786520	HSK-T63	C5	90,0 *3.543*	64,0 *2.520*	50,0 *1.969*	122,0 *4.803*	1	–	1,5 *3.310*
C4-390.411-100090	02786519	HSK-T100	C4	90,0 *3.543*	61,0 *2.402*	40,0 *1.575*	140,0 *5.512*	1	–	2,6 *5.730*
C5-390.411-100100	02786521	HSK-T100	C5	100,0 *3.937*	71,0 *2.795*	50,0 *1.969*	150,0 *5.906*	1	–	3,0 *6.610*
C6-390.411-100110	02786522	HSK-T100	C6	110,0 *4.331*	81,0 *3.189*	63,0 *2.480*	160,0 *6.299*	1	–	3,6 *7.940*
C8-390.411-100120	02786523	HSK-T100	C8	120,0 *4.724*	91,0 *3.583*	80,0 *3.150*	170,0 *6.693*	1	–	4,8 *10.580*

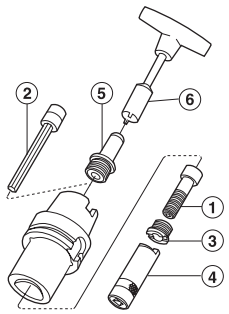
Accessories

For	Extension key	Key	Spanner
			
C4-390.411-63080	5680015-05	5680094-04	5680065-10
C5-390.411-63090	5680015-01	5680094-04	5680065-11
C4-390.411-100090	5680015-05	5680094-06	5680065-10
C5-390.411-100100	5680015-01	5680094-06	5680065-11
C6-390.411-100110	5680015-02	5680094-06	5680065-12
C8-390.411-100120	5680015-02	5680094-06	5680065-12

Spare Parts, included in delivery

For	Center screw	Coolant tube	Retaining nut
			
C4-390.411-63080	5512063-07	5692020-04	5512091-03
C5-390.411-63090	5512063-08	5692020-04	5512091-01
C4-390.411-100090	5512063-07	20E9306	5512091-03
C5-390.411-100100	5512063-08	20E9306	5512091-01
C6-390.411-100110	5512063-09	5692020-06	5512091-02
C8-390.411-100120	5512063-09	5692020-06	5512091-02

Accessories / Spare Parts



Accessories:
2 = Extension key
4 = Spanner
6 = Key for coolant tube

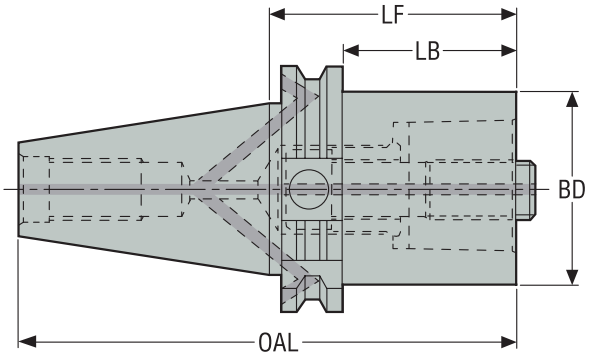
Spare parts:
1 = Center screw
3 = Retaining nut
5 = Coolant tube*

*A specific coolant tube is delivered together with each HSK-A to Seco-Capto™ holder

Seco-Capto™ – ISO 26623-2 – Metric / *Inch*

DIN 69871-ADB

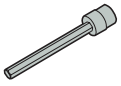
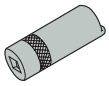




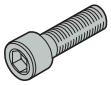
• For ISO attribute explanation, see page 14

Designation	Item number	CTMS	CTWS	LF	LB	BD	OAL	RFID hole	Balancing	Weight
				mm *inch*	mm *inch*	mm *inch*	mm *inch*			kg *lbs*
C3-390B.140-40030	02924104	DIN40 ADB	C3	30,0 *1.181*	10,9 *0.429*	32,0 *1.260*	98,4 *3.874*	0	PB	0,8 *1.760*
C3-390B.140-40060	02924105	DIN40 ADB	C3	60,0 *2.362*	40,9 *1.610*	32,0 *1.260*	128,4 *5.055*	0	PB	0,9 *1.980*
C4-390B.140-40030	02924108	DIN40 ADB	C4	30,0 *1.181*	10,9 *0.429*	40,0 *1.575*	98,4 *3.874*	0	PB	0,8 *1.760*
C4-390B.140-40060	02924109	DIN40 ADB	C4	60,0 *2.362*	40,9 *1.610*	40,0 *1.575*	128,4 *5.055*	0	PB	1,1 *2.430*
C5-390B.140-40040	02924112	DIN40 ADB	C5	40,0 *1.575*	20,9 *0.823*	50,0 *1.969*	108,4 *4.268*	0	PB	0,9 *1.980*
C5-390B.140-40080	02924113	DIN40 ADB	C5	80,0 *3.150*	60,9 *2.398*	50,0 *1.969*	148,4 *5.843*	0	PB	1,5 *3.310*
C6-390B.140-40085	02924116	DIN40 ADB	C6	85,0 *3.346*	65,9 *2.594*	63,0 *2.480*	153,4 *6.039*	0	PB	1,8 *3.970*
C3-390B.140-50030	02924106	DIN50 ADB	C3	30,0 *1.181*	10,9 *0.429*	32,0 *1.260*	131,7 *5.185*	0	PB	2,6 *5.730*
C3-390B.140-50060	02924107	DIN50 ADB	C3	60,0 *2.362*	40,9 *1.610*	32,0 *1.260*	161,7 *6.366*	0	PB	2,7 *5.950*
C4-390B.140-50030	02924110	DIN50 ADB	C4	30,0 *1.181*	10,9 *0.429*	40,0 *1.575*	131,7 *5.185*	0	PB	2,6 *5.730*
C4-390B.140-50060	02924111	DIN50 ADB	C4	60,0 *2.362*	40,9 *1.610*	40,0 *1.575*	161,7 *6.366*	0	PB	2,8 *6.170*
C5-390B.140-50030	02924114	DIN50 ADB	C5	30,0 *1.181*	10,9 *0.429*	50,0 *1.969*	131,7 *5.185*	0	PB	2,6 *5.730*
C5-390B.140-50070	02924115	DIN50 ADB	C5	70,0 *2.756*	50,9 *2.004*	50,0 *1.969*	171,7 *6.760*	0	PB	3,1 *6.830*
C6-390B.140-50030	02924117	DIN50 ADB	C6	30,0 *1.181*	10,9 *0.429*	63,0 *2.480*	131,7 *5.185*	0	PB	2,4 *5.290*
C6-390B.140-50080	02924118	DIN50 ADB	C6	80,0 *3.150*	60,9 *2.398*	63,0 *2.480*	181,7 *7.154*	0	PB	3,6 *7.940*
C8-390B.140-50070	02924119	DIN50 ADB	C8	70,0 *2.756*	50,9 *2.004*	80,0 *3.150*	171,7 *6.760*	0	PB	3,7 *8.160*
C8-390B.140-50120	02924120	DIN50 ADB	C8	120,0 *4.724*	100,9 *3.972*	80,0 *3.150*	221,7 *8.728*	0	PB	5,6 *12.350*

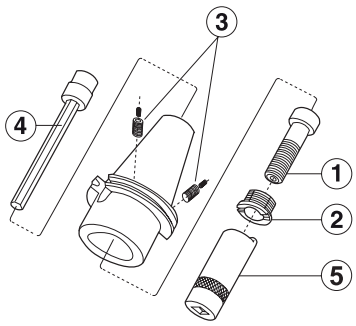
Accessories

For	Extension key	Spanner
		
C3-400	5680015-05	5680065-13
C4-400	5680015-05	5680065-10
C5-400	5680015-01	5680065-11
C6-400	5680015-01	5680065-12
C3-500	5680015-05	5680065-13
C4-500	5680015-05	5680065-10
C5-500	5680015-01	5680065-11
C6-500	5680015-02	5680065-12
C8	5680015-02	5680065-12

Spare Parts, included in delivery

For	Center screw	Plug	Retaining nut
			
C3-400	5512063-10	564301701	5512091-04
C4-400	5512063-07	564301701	5512091-03
C5-400	5512063-08	564301701	5512091-01
C6-400	5512063-13	564301701	5512091-02
C3-500	5512063-10	564301702	5512091-04
C4-500	5512063-07	564301702	5512091-03
C5-500	5512063-08	564301702	5512091-01
C6-500	5512063-09	564301702	5512091-02
C8	5512063-09	564301702	5512091-02

Accessories / Spare Parts



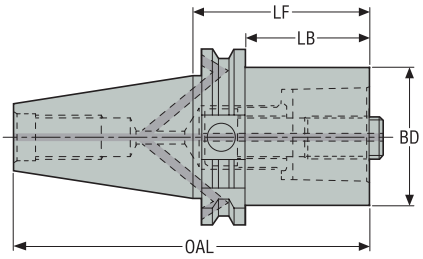
Accessories:
4 = Extension key
5 = Spanner

Spare parts:
1 = Center screw
2 = Retaining nut
3 = Plugs (dowels)

Seco-Capto™ – ISO 26623-2 – Metric / *Inch*

DIN Taper-Face-ADB

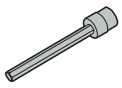
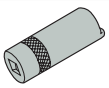




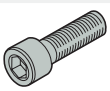
• For ISO attribute explanation, see page 14

Designation	Item number	CTMS	CTWS	LF	LB	BD	OAL	RFID hole	Balancing	Weight
				mm *inch*	mm *inch*	mm *inch*	mm *inch*			kg *lbs*
E316951915050	03030258	DIN40 TF ADB	C5	50,0 *1.969*	30,9 *1.217*	50,0 *1.969*	118,4 *4.661*	1	PB	1,1 *2.430*
E317151915070	03030264	DIN50 TF ADB	C5	70,0 *2.756*	50,9 *2.004*	50,0 *1.969*	171,7 *6.760*	1	PB	3,1 *6.830*
E317151916350	03030262	DIN50 TF ADB	C6	50,0 *1.969*	30,9 *1.217*	63,0 *2.480*	151,7 *5.972*	0	–	2,9 *6.390*
E3171519163100	03030265	DIN50 TF ADB	C6	100,0 *3.937*	80,9 *3.185*	63,0 *2.480*	201,7 *7.941*	1	PB	4,0 *8.820*
E317151918070	03030263	DIN50 TF ADB	C8	70,0 *2.756*	50,9 *2.004*	80,0 *3.150*	171,7 *6.760*	0	–	3,9 *8.600*
E3171519180120	03030266	DIN50 TF ADB	C8	120,0 *4.724*	100,9 *3.972*	80,0 *3.150*	221,7 *8.728*	0	–	5,6 *12.350*

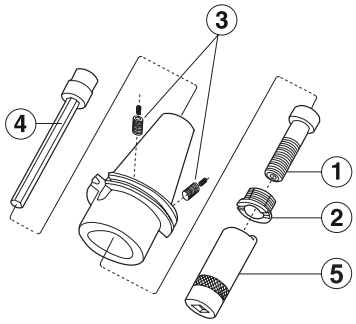
Accessories

For	Extension key	Spanner
		
DIN40 TF/ C5	5680015-01	5680065-11
DIN50 TF/ C5	5680015-01	5680065-11
DIN50 TF/ C6-C8	5680015-02	5680065-12

Spare Parts, included in delivery

For	Center screw	Plug	Retaining nut
			
DIN40 TF/ C5	5512063-08	564301701	5512091-01
DIN50 TF/ C5	5512063-08	564301702	5512091-01
DIN50 TF/ C6-C8	5512063-09	564301702	5512091-02

Accessories / Spare Parts



Accessories:
4 = Extension key
5 = Spanner

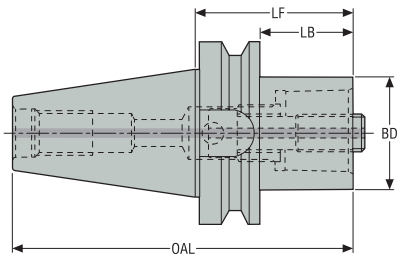
Spare parts:
1 = Center screw
2 = Retaining nut
3 = Plugs (dowels)

Seco-Capto™ – ISO 26623-2 – **Metric** / *Inch*

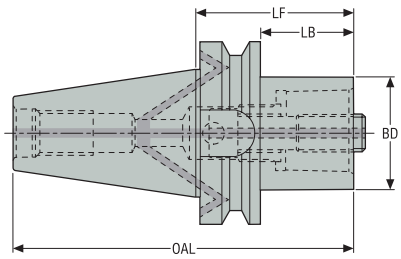
BT JIS B 6339



Design 1



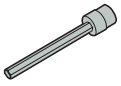
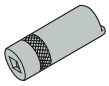
Design 2



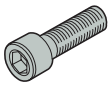
• For ISO attribute explanation, see page 14

Designation	Item number	CTMS	CTWS	LF	LB	BD	OAL	Design	RFID hole	Balancing	Weight
				mm *inch*	mm *inch*	mm *inch*	mm *inch*				kg *lbs*
C3-390.55-30030	75039807	BT30 AD	C3	30,0 *1.181*	8,0 *0.315*	32,0 *1.260*	78,4 *3.087*	1	0	PB	0,53 *1.170*
C3-390.55-30060	75039808	BT30 AD	C3	60,0 *2.362*	38,0 *1.496*	32,0 *1.260*	108,4 *4.268*	1	0	PB	0,73 *1.610*
C3-390B.55-40030	02925959	BT40 ADB	C3	30,0 *1.181*	3,0 *0.118*	32,0 *1.260*	95,4 *3.756*	2	0	PB	1,0 *2.200*
C3-390B.55-40060	02925960	BT40 ADB	C3	60,0 *2.362*	33,0 *1.299*	32,0 *1.260*	125,4 *4.937*	2	0	PB	1,1 *2.430*
C4-390B.55-40030	02925963	BT40 ADB	C4	30,0 *1.181*	3,0 *0.118*	40,0 *1.575*	95,4 *3.756*	2	0	PB	0,9 *1.980*
C4-390B.55-40060	02925964	BT40 ADB	C4	60,0 *2.362*	33,0 *1.299*	40,0 *1.575*	125,4 *4.937*	2	0	PB	1,2 *2.650*
C5-390B.55-40050	02925967	BT40 ADB	C5	50,0 *1.969*	23,0 *0.906*	50,0 *1.969*	115,4 *4.543*	2	0	PB	1,1 *2.430*
C5-390B.55-40090	02925968	BT40 ADB	C5	90,0 *3.543*	63,0 *2.480*	50,0 *1.969*	155,4 *6.118*	2	0	PB	1,7 *3.750*
C6-390B.55-40075	02925971	BT40 ADB	C6	75,0 *2.953*	54,6 *2.150*	63,0 *2.480*	140,4 *5.528*	2	0	PB	1,7 *3.750*
C3-390B.58-50040	02925961	BT50 ADB	C3	40,0 *1.575*	2,0 *0.079*	32,0 *1.260*	141,8 *5.583*	2	0	PB	3,5 *7.720*
C3-390B.58-50070	02925962	BT50 ADB	C3	70,0 *2.756*	32,0 *1.260*	32,0 *1.260*	171,8 *6.764*	2	0	PB	3,7 *8.160*
C4-390B.58-50040	02925965	BT50 ADB	C4	40,0 *1.575*	2,0 *0.079*	40,0 *1.575*	141,8 *5.583*	2	0	PB	3,5 *7.720*
C4-390B.58-50070	02925966	BT50 ADB	C4	70,0 *2.756*	32,0 *1.260*	40,0 *1.575*	171,8 *6.764*	2	0	PB	3,8 *8.380*
C5-390B.58-50040	02925969	BT50 ADB	C5	40,0 *1.575*	2,0 *0.079*	50,0 *1.969*	141,8 *5.583*	2	0	PB	3,5 *7.720*
C5-390B.58-50080	02925970	BT50 ADB	C5	80,0 *3.150*	42,0 *1.654*	50,0 *1.969*	181,8 *7.157*	2	0	PB	3,9 *8.600*
C6-390B.58-50050	02925972	BT50 ADB	C6	50,0 *1.969*	12,0 *0.472*	63,0 *2.480*	151,8 *5.976*	2	0	PB	3,4 *7.500*
C6-390B.58-50100	02925973	BT50 ADB	C6	100,0 *3.937*	62,0 *2.441*	63,0 *2.480*	201,8 *7.945*	2	0	PB	4,6 *10.140*
C8-390B.58-50070	02925974	BT50 ADB	C8	70,0 *2.756*	32,0 *1.260*	80,0 *3.150*	171,8 *6.764*	2	0	PB	4,0 *8.820*
C8-390B.58-50120	02925975	BT50 ADB	C8	120,0 *4.724*	82,0 *3.228*	80,0 *3.150*	221,8 *8.732*	2	0	PB	5,9 *13.010*

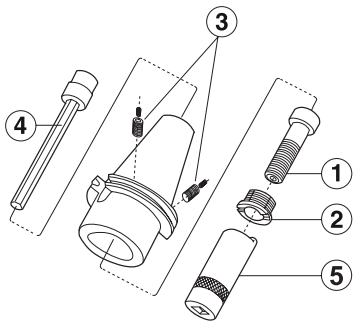
Accessories

For	Extension key	Spanner
		
C3-390.55	5680015-05	5680065-13
C3-390B.55	5680015-05	5680065-13
C4-390B.55	5680015-05	5680065-10
C5-390B.55	5680015-01	5680065-11
C6-390B.55	5680015-01	5680065-12
C3-390B.58	5680015-05	5680065-13
C4-390B.58	5680015-05	5680065-10
C5-390B.58	5680015-01	5680065-11
C6-390B.58	5680015-02	5680065-12
C8	5680015-02	5680065-12

Spare Parts, included in delivery

For	Center screw	Plug	Retaining nut
			
C3-390.55	5512063-10	–	5512091-04
C3-390B.55	5512063-10	564301701	5512091-04
C4-390B.55	5512063-07	564301701	5512091-03
C5-390B.55	5512063-08	564301701	5512091-01
C6-390B.55	5512063-13	564301701	5512091-02
C3-390B.58	5512063-10	564301702	5512091-04
C4-390B.58	5512063-07	564301702	5512091-03
C5-390B.58	5512063-08	564301702	5512091-01
C6-390B.58	5512063-09	564301702	5512091-02
C8	5512063-09	564301702	5512091-02

Accessories / Spare Parts

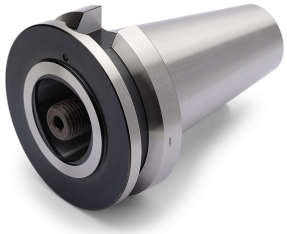


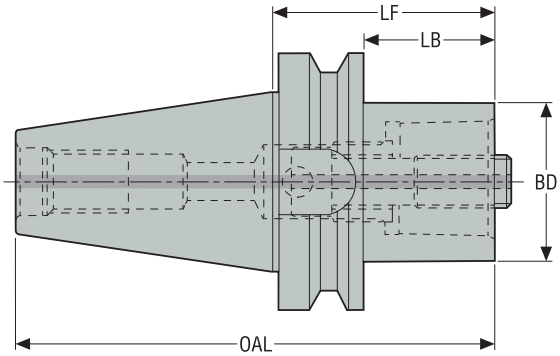
Accessories:
4 = Extension key
5 = Spanner

Spare parts:
1 = Center screw
2 = Retaining nut
3 = Plugs (dowels)

Seco-Capto™ – ISO 26623-2 – Metric / *Inch*

BT Mazak™

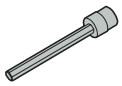
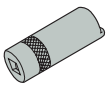




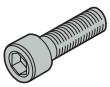
- Mazak design means 90° rotated Seco-Capto™ polygon compared to classic BT basic holders
- For Mazak e-machines
- For ISO attribute explanation, see page 14

Designation	Item number	CTMS	CTWS	LF	LB	BD	OAL	RFID hole	Balancing	Weight
				mm *inch*	mm *inch*	mm *inch*	mm *inch*			kg *lbs*
C5-390.605-40030	02606358	BT40 AD Mazak	C5	30,0 *1.181*	3,0 *0.118*	50,0 *1.969*	95,4 *3.756*	0	–	1,1 *2.430*
C6-390.605-50040	02606354	BT50 AD Mazak	C6	40,0 *1.575*	2,0 *0.079*	63,0 *2.480*	141,8 *5.583*	0	–	3,3 *7.280*
C8-390.605-50070	02646032	BT50 AD Mazak	C8	70,0 *2.756*	70,0 *2.756*	80,0 *3.150*	171,8 *6.764*	0	–	4,0 *8.820*

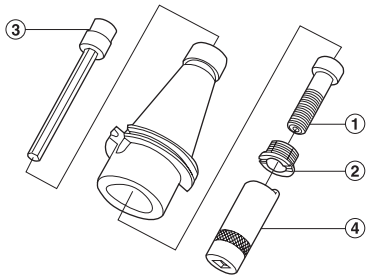
Accessories

For size	Extension key	Spanner
		
C5	5680015-01	5680065-11
C6	5680015-02	5680065-12
C8	5680015-02	5680065-12

Spare Parts, included in delivery

For size	Center screw	Retaining nut
		
C5	5512063-08	5512091-01
C6	5512063-09	5512091-02
C8	5512063-09	5512091-02

Accessories / Spare Parts



Accessories:
3 = Extension key
4 = Spanner

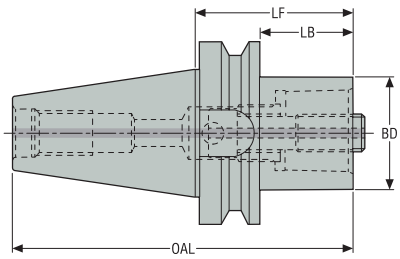
Spare parts:
1 = Center screw
2 = Retaining nut

Seco-Capto™ – ISO 26623-2 – **Metric** / *Inch*

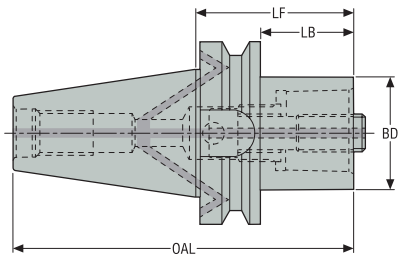
BT Taper-Face-AD/ADB



Design 1



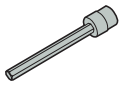
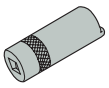
Design 2



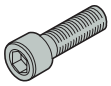
• For ISO attribute explanation, see page 14

Designation	Item number	CTMS	CTWS	LF	LB	BD	OAL	Design	RFID hole	Balancing	Weight
				mm *inch*	mm *inch*	mm *inch*	mm *inch*				kg *lbs*
E400251913240	03030234	BT30 TF AD	C3	40,0 *1.575*	22,0 *0.866*	32,0 *1.260*	88,4 *3.480*	1	1	PB	0,454 *1.000*
E400251914060	03030235	BT30 TF AD	C4	60,0 *2.362*	22,0 *0.866*	40,0 *1.575*	108,4 *4.268*	1	1	PB	0,7 *1.540*
E311451914040	03030236	BT40 TF ADB	C4	40,0 *1.575*	13,0 *0.512*	40,0 *1.575*	105,4 *4.150*	2	0	PB	1,1 *2.430*
E311451915050	03030237	BT40 TF ADB	C5	50,0 *1.969*	23,0 *0.906*	50,0 *1.969*	115,4 *4.543*	2	0	PB	1,2 *2.650*
E311451916375	03030238	BT40 TF ADB	C6	75,0 *2.953*	48,0 *1.890*	63,0 *2.480*	140,4 *5.528*	2	0	PB	1,7 *3.750*
E311651914040	03030239	BT50 TF ADB	C4	40,0 *1.575*	2,0 *0.079*	50,0 *1.969*	141,8 *5.583*	2	1	PB	3,5 *7.720*
E311651915040	03030240	BT50 TF ADB	C5	40,0 *1.575*	2,0 *0.079*	50,0 *1.969*	141,8 *5.583*	2	0	PB	3,4 *7.500*
E311651916350	03030241	BT50 TF ADB	C6	50,0 *1.969*	12,0 *0.472*	63,0 *2.480*	151,8 *5.976*	2	0	PB	3,5 *7.720*
E3116519163100	03030242	BT50 TF ADB	C6	100,0 *3.937*	62,0 *2.441*	63,0 *2.480*	201,8 *7.945*	2	0	PB	4,8 *10.580*
E311651918070	03030243	BT50 TF ADB	C8	70,0 *2.756*	32,0 *1.260*	80,0 *3.150*	171,8 *6.764*	2	0	PB	4,2 *9.260*
E3116519180120	03030244	BT50 TF ADB	C8	120,0 *4.724*	82,0 *3.228*	80,0 *3.150*	121,8 *4.795*	2	1	PB	5,9 *13.010*

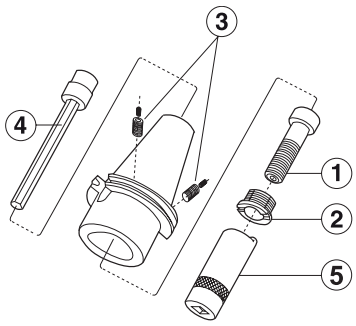
Accessories

For Taper/ size	Extension key	Spanner
		
BT30 TF/ C3	5680015-05	5680065-13
BT30 TF/ C4	5680015-05	5680065-10
BT40 TF/ C4	5680015-05	5680065-10
BT40 TF/ C5	5680015-01	5680065-11
BT40 TF/ C6	5680015-01	5680065-12
BT50 TF/ C4	5680015-05	5680065-10
BT50 TF/ C5	5680015-01	5680065-11
BT50 TF/ C6-C8	5680015-02	5680065-12

Spare Parts, included in delivery

For Taper/ size	Center screw	Plug	Retaining nut
		 1x	
BT30 TF/ C3	5512063-10	–	5512091-04
BT30 TF/ C4	5512063-07	–	5512091-03
BT40 TF/ C4	5512063-07	564301701	5512091-03
BT40 TF/ C5	5512063-08	564301701	5512091-01
BT40 TF/ C6	5512063-13	564301701	5512091-02
BT50 TF/ C4	5512063-07	564301702	5512091-03
BT50 TF/ C5	5512063-08	564301702	5512091-01
BT50 TF/ C6-C8	5512063-09	564301702	5512091-02

Accessories / Spare Parts



Accessories:
4 = Extension key
5 = Spanner

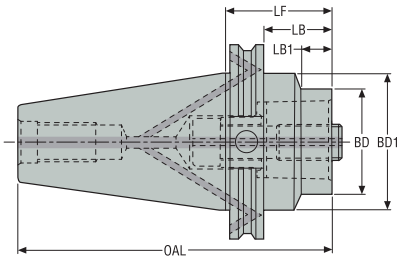
Spare parts:
1 = Center screw
2 = Retaining nut
3 = Plugs (dowels)

Seco-Capto™ – ISO 26623-2 – Inch

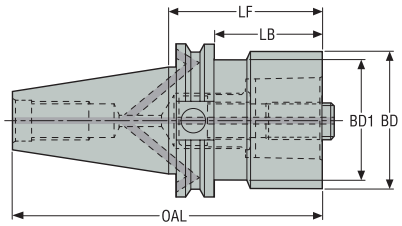
CAT TF / ASME B5.50-1994-ADB



Design 1



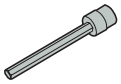
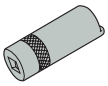
Design 2



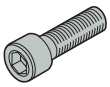
• For ISO attribute explanation, see page 14

Designation	Item number	CTMS	CTWS	LF	LB	LB1	BD	BD1	OAL	Design	RFID hole	Balancing	Weight
				inch	inch	inch	inch	inch	inch				lbs
E234251915050	03030247	CAT40 TF ADB	C5	1.969	1.220	1.220	1.969	1.750	4.660	2	1	PB	2.250
E234451914040	03030249	CAT50 TF ADB	C4	1.575	0.090	0.090	1.575	2.750	5.580	1	1	PB	6.830
E234451915040	03030250	CAT50 TF ADB	C5	1.575	0.090	0.090	1.969	2.750	5.580	1	0	–	6.610
E234451916340	03030251	CAT50 TF ADB	C6	1.575	0.120	0.120	2.480	2.750	5.580	1	0	–	6.170
E234451916390	03030252	CAT50 TF ADB	C6	3.543	2.085	2.085	2.480	2.750	7.543	1	0	–	8.600
E2344519180100	03030253	CAT50 TF ADB	C8	3.937	3.185	3.185	3.150	2.750	7.937	2	1	PB	10.140

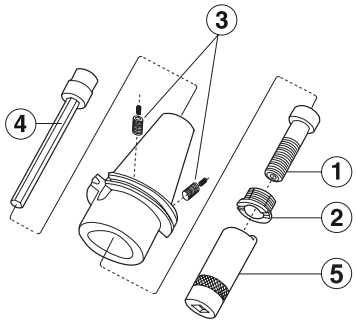
Accessories

For size	Extension key	Spanner
		
CAT40/ C5	5680015-01	5680065-11
CAT50/ C4	5680015-05	5680065-10
CAT50/ C5	5680015-01	5680065-11
CAT50/ C6	5680015-02	5680065-12
CAT50/ C8	5680015-02	5680065-12

Spare Parts, included in delivery

For size	Center screw	Plug	Retaining nut
			
CAT40/ C5	5512063-08	564301701	5512091-01
CAT50/ C4	5512063-07	564301702	5512091-03
CAT50/ C5	5512063-08	564301702	5512091-01
CAT50/ C6	5512063-09	564301702	5512091-02
CAT50/ C8	5512063-09	564301702	5512091-02

Accessories / Spare Parts



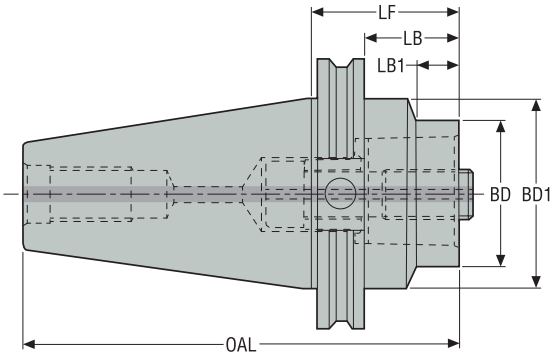
Accessories:
4 = Extension key
5 = Spanner

Spare parts:
1 = Center screw
2 = Retaining nut
3 = Plugs (dowels)

Seco-Capto™ – ISO 26623-2 – Inch

CAT TF Mazak™ e-machine and Mori Seiki NT™ -Series

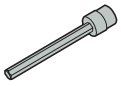
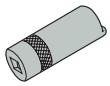




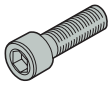
- 90° rotated polygon for precision tool tip control
- For ISO attribute explanation, see page 14

Designation	Item number	CTMS	CTWS	LF	LB	LB1	BD	BD1	OAL	Design	RFID hole	Balancing	Weight
				inch	inch	inch	inch	inch	inch				lbs
E947451916350	03030255	CAT50 TF AD Mazak	C6	1.969	0.510	0.510	2.480	2.750	5.960	1	0	PB	6.830

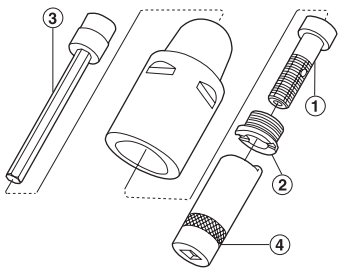
Accessories

For	Extension key	Spanner
		
E947451916350	5680015-02	5680065-12

Spare Parts, included in delivery

For	Center screw	Retaining nut
		
E947451916350	5512063-09	5512091-02

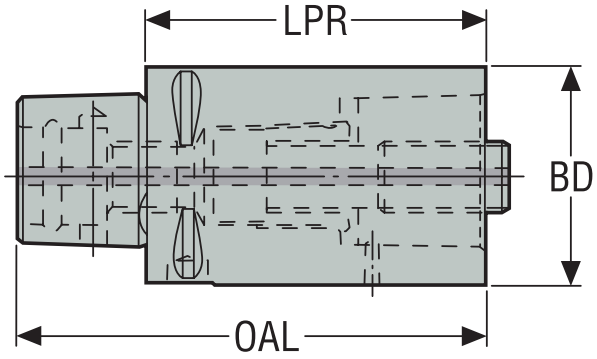
Accessories / Spare Parts



Accessories:
3 = Extension key
4 = Retaining nut spanner

Spare parts:
1 = Center screw
2 = Retaining nut

Seco-Capto™ – ISO 26623-1



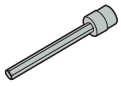
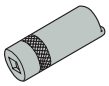
Seco-Capto™ – ISO 26623-2 – Metric / *Inch*



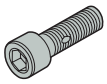
• For ISO attribute explanation, see page 14

Designation	Item number	CTMS	CTWS	LPR	BD	OAL	RFID hole	Balancing	Weight
				mm *inch*	mm *inch*	mm *inch*			kg *lbs*
C3-391.01-32060A	75039884	C3	C3	60,0 *2.362*	32,0 *1.260*	79,0 *3.110*	0	–	0,4 *0.880*
C3-391.01-32080A	00090847	C3	C3	80,0 *3.150*	32,0 *1.260*	99,0 *3.898*	0	–	0,5 *1.100*
C4-391.01-40060A	75039885	C4	C4	60,0 *2.362*	40,0 *1.575*	84,0 *3.307*	0	–	0,6 *1.320*
C4-391.01-40080A	02207391	C4	C4	80,0 *3.150*	40,0 *1.575*	104,0 *4.094*	0	–	0,71 *1.570*
C5-391.01-50080A	75039886	C5	C5	80,0 *3.150*	50,0 *1.969*	110,0 *4.331*	0	–	1,1 *2.430*
C5-391.01-50100A	00004773	C5	C5	100,0 *3.937*	50,0 *1.969*	130,0 *5.118*	0	–	1,39 *3.060*
C6-391.01-63100A	75039887	C6	C6	100,0 *3.937*	63,0 *2.480*	138,0 *5.433*	0	–	2,2 *4.850*
C6-391.01-63140A	00004840	C6	C6	140,0 *5.512*	63,0 *2.480*	178,0 *7.008*	0	–	3,2 *7.050*
C8-391.01-80100A	75039888	C8	C8	100,0 *3.937*	80,0 *3.150*	148,0 *5.827*	0	–	3,6 *7.940*
C8-391.01-80125A	00004841	C8	C8	125,0 *4.921*	80,0 *3.150*	173,0 *6.811*	0	–	4,7 *10.360*

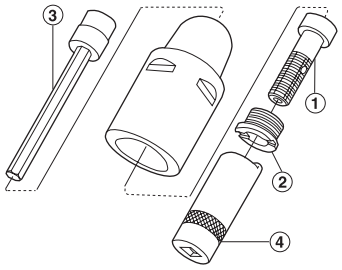
Accessories

For size	Extension key	Spanner
		
C3	5680015-05	5680065-13
C4	5680015-05	5680065-10
C5	5680015-01	5680065-11
C6	5680015-02	5680065-12
C8	5680015-02	5680065-12

Spare Parts, included in delivery

For size	Center screw	Retaining nut
		
C3	5512067-01	5512091-04
C4	5512067-02	5512091-03
C5	5512067-03	5512091-01
C6	5512067-04	5512091-02
C8	5512067-04	5512091-02

Accessories / Spare Parts

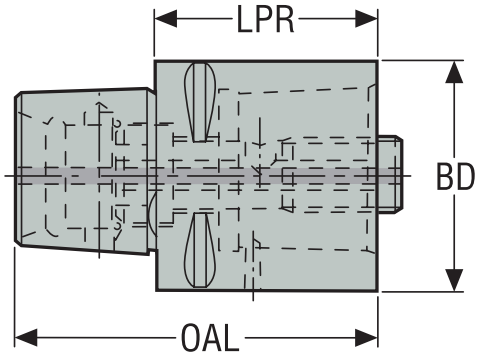


Accessories:
3 = Extension key
4 = Retaining nut spanner

Spare parts:
1 = Center screw
2 = Retaining nut

Short version for segment clamping only – ISO 26623-1

Seco-Capto™ – ISO 26623-2 – Metric / *Inch*

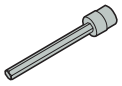




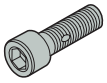
- The Seco-Capto™ machine side of short extensions can only be hold by spindles with segment clamping (not with center bolt clamping)
- For ISO attribute explanation, see page 14

Designation	Item number	CTMS	CTWS	LPR	BD	OAL	RFID hole	Balancing	Weight
				mm *inch*	mm *inch*	mm *inch*			kg *lbs*
C3-391.01-32035	02535685	C3	C3	35,0 *1.378*	32,0 *1.260*	54,0 *2.126*	0	–	0,3 *0.660*
C4-391.01-40040	02535686	C4	C4	40,0 *1.575*	40,0 *1.575*	64,0 *2.520*	0	–	0,4 *0.880*
C5-391.01-50050	02484934	C5	C5	50,0 *1.969*	50,0 *1.969*	80,0 *3.150*	0	–	0,7 *1.540*
C6-391.01-63060	02300834	C6	C6	60,0 *2.362*	63,0 *2.480*	98,0 *3.858*	0	–	1,3 *2.870*
C8-391.01-80065	02417041	C8	C8	65,0 *2.559*	80,0 *3.150*	113,0 *4.449*	0	–	2,4 *5.290*

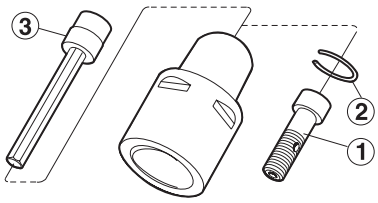
Accessories

For	Extension key
	
C3-391.01-32035	5680015-05
C4-391.01-40040	5680015-05
C5-391.01-50050	5680015-05
C6-391.01-63060	5680015-02
C8-391.01-80065	5680015-02

Spare Parts, included in delivery

For	Center screw	Circlip
		
C3-391.01-32035	5512068-01	5545040-02
C4-391.01-40040	5512068-02	5545040-03
C5-391.01-50050	5512068-03	5545040-07
C6-391.01-63060	5512068-04	5545040-08
C8-391.01-80065	5512068-05	5545040-08

Accessories / Spare Parts



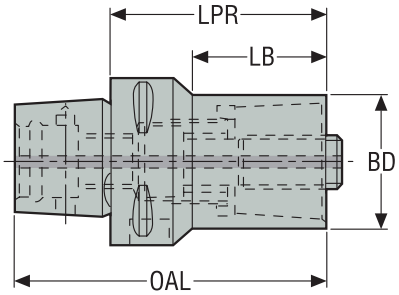
Accessories:
3 = Extension key

Spare parts:
1 = Center screw
2 = Circlip

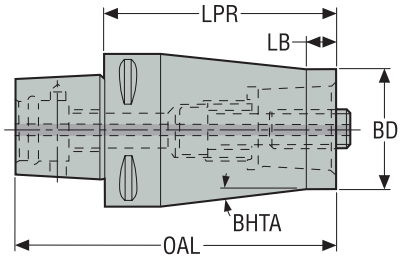
Seco-Capto™ – ISO 26623-1

Seco-Capto™ – ISO 26623-2 – Metric / *Inch*

Design 1



Design 2

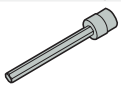
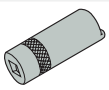




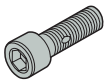
• For ISO attribute explanation, see page 14

Designation	Item number	CTMS	CTWS	LPR	LB	BD	OAL	Design	BHTA°	RFID hole	Balancing	Weight
				mm *inch*	mm *inch*	mm *inch*	mm *inch*					kg *lbs*
C4-391.02-32055A	75039889	C4	C3	55,0 *2.165*	31,0 *1.220*	32,0 *1.260*	79,0 *3.110*	1	–	0	–	0,42 *0.930*
C4-391.02-32070A	02535687	C4	C3	70,0 *2.756*	–	32,0 *1.260*	94,0 *3.701*	2	6,0	0	–	0,56 *1.230*
C5-391.02-32060A	75039890	C5	C3	60,0 *2.362*	34,8 *1.370*	32,0 *1.260*	90,0 *3.543*	1	–	0	–	0,7 *1.540*
C5-391.02-40065A	75039891	C5	C4	65,0 *2.559*	40,0 *1.575*	40,0 *1.575*	95,0 *3.740*	1	–	0	–	0,8 *1.760*
C6-391.02-32070A	75039892	C6	C3	70,0 *2.756*	39,0 *1.535*	32,0 *1.260*	108,0 *4.252*	1	–	0	–	1,1 *2.430*
C6-391.02-40080A	75039893	C6	C4	80,0 *3.150*	51,4 *2.024*	40,0 *1.575*	118,0 *4.646*	1	–	0	–	1,2 *2.650*
C6-391.02-50080A	75039894	C6	C5	80,0 *3.150*	51,5 *2.028*	50,0 *1.969*	118,0 *4.646*	1	–	0	–	1,5 *3.310*
C6-391.02-50110A	02207400	C6	C5	110,0 *4.331*	12,0 *0.472*	50,0 *1.969*	148,0 *5.827*	2	4,5	0	–	2,2 *4.850*
C8-391.02-32060B	03080008	C8	C3	60,0 *2.362*	20,7 *0.815*	32,0 *1.260*	108,0 *4.252*	1	–	0	–	2,0 *4.410*
C8-391.02-40070B	03080009	C8	C4	70,0 *2.756*	31,4 *1.236*	40,0 *1.575*	118,0 *4.646*	1	–	0	–	2,1 *4.630*
C8-391.02-50080B	03080011	C8	C5	80,0 *3.150*	42,8 *1.685*	50,0 *1.969*	128,0 *5.039*	1	–	0	–	2,4 *5.290*
C8-391.02-63080B	02527212	C8	C6	80,0 *3.150*	44,5 *1.752*	63,0 *2.480*	128,0 *5.039*	1	–	0	–	2,6 *5.730*
C8-391.02-63120A	02207176	C8	C6	120,0 *4.724*	12,0 *0.472*	63,0 *2.480*	168,0 *6.614*	2	6,0	0	–	4,1 *9.040*

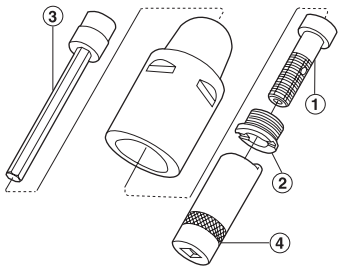
Accessories

For size	Extension key	Spanner
		
C...-32	5680015-05	5680065-13
C...-40	5680015-05	5680065-10
C...-50	5680015-01	5680065-11
C...-63	5680015-02	5680065-12

Spare Parts, included in delivery

For size	Center screw	Retaining nut
		
C...-32	5512067-01	5512091-04
C...-40	5512067-02	5512091-03
C...-50	5512067-03	5512091-01
C...-63	5512067-04	5512091-02

Accessories / Spare Parts

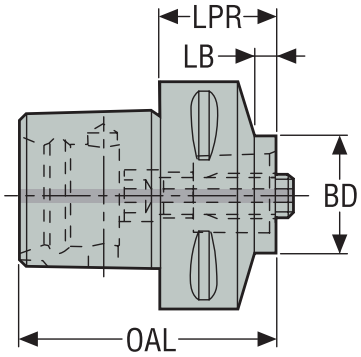


Accessories:
3 = Extension key
4 = Retaining nut spanner

Spare parts:
1 = Center screw
2 = Retaining nut

Short version for segment clamping only – ISO 26623-1

Seco-Capto™ – ISO 26623-2 – Metric / *Inch*

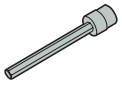




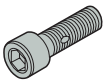
- The Seco-Capto™ machine side of short reducers can only be hold by spindles with segment clamping (not with center bolt clamping)
- * With 180° offset Machine side vs Workpiece side
- For ISO attribute explanation, see page 14

Designation	Item number	CTMS	CTWS	LPR	LB	BD	OAL	*	RFID hole	Balancing	Weight
				mm *inch*	mm *inch*	mm *inch*	mm *inch*				kg *lbs*
C5-391.02-32033A	03080025	C5	C3	33,0 *1.299*	5,0 *0.197*	32,0 *1.260*	63,0 *2.480*		0	PB	0,6 *1.320*
C5-391.02-40040A	03079983	C5	C4	40,0 *1.575*	15,0 *0.591*	40,0 *1.575*	70,0 *2.756*		0	–	0,6 *1.320*
C6-391.02-32032	02535690	C6	C3	32,0 *1.260*	6,0 *0.236*	32,0 *1.260*	70,0 *2.756*		0	–	0,85 *1.870*
C6-391.02-40040	02459467	C6	C4	40,0 *1.575*	11,0 *0.433*	40,0 *1.575*	78,0 *3.071*		0	–	0,9 *1.980*
C6-391.02-50050A	03080019	C6	C5	50,0 *1.969*	20,0 *0.787*	50,0 *1.969*	88,0 *3.465*		0	–	1,1 *2.430*
C8-391.02-50045A	03080010	C8	C5	45,0 *1.772*	5,0 *0.197*	50,0 *1.969*	93,0 *3.661*		0	–	2,0 *4.410*
C8-391.02-63055A	03080012	C8	C6	55,0 *2.165*	15,0 *0.591*	63,0 *2.480*	103,0 *4.055*		0	–	2,1 *4.630*
C8-391.02R-63055A	03080030	C8	C6	55,0 *2.165*	15,0 *0.591*	63,0 *2.480*	103,0 *4.055*	*	0	–	1,9 *4.190*

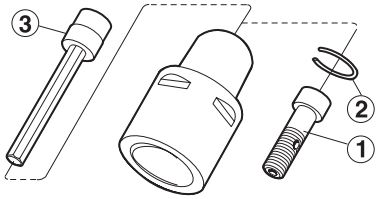
Accessories

For	Extension key
	
C5-391.02-32033A	5680015-05
C5-391.02-40040A	5680015-05
C6-391.02-32032	5680015-05
C6-391.02-40040	5680015-05
C6-391.02-50050A	5680015-01
C8-391.02-50045A	5680015-01
C8-391.02-63055A	5680015-02
C8-391.02R-63055A	5680015-02

Spare Parts, included in delivery

For	Center screw	Circlip
		
C5-391.02-32033A	5512068-01	5545040-02
C5-391.02-40040A	5512068-06	5545040-07
C6-391.02-32032	5512068-01	5545040-02
C6-391.02-40040	5512068-02	5545040-03
C6-391.02-50050A	5512068-07	5545040-08
C8-391.02-50045A	5512068-08	5545040-08
C8-391.02-63055A	5512068-05	5545040-08
C8-391.02R-63055A	5512068-05	5545040-08

Accessories / Spare Parts



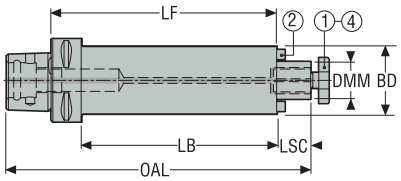
Accessories:
3 = Extension key

Spare parts:
1 = Center screw
2 = Circlip

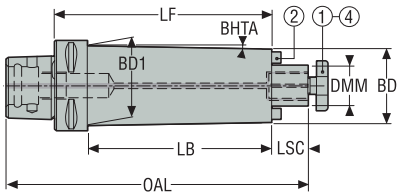
Seco-Capto™

Steadyline®, vibration damping – Metric / *Inch*

Design 1



Design 2





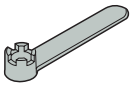
Accessories:
4 = Bolt, through coolant

Spare parts:
1 = Bolt
2 = Tenon/Screw

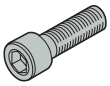
- DMM 40 mm / *1.575"*, includes 4 threaded holes on the bearing face according to DIN 6357
- For ISO attribute explanation, see page 14

Designation	Item number	CTMS	DMM	LF	BD	BD1	OAL	LB	LSC	Design	BHTA°	RFID hole	Balancing	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*					kg *lbs*
C6-391.5555-16160	02706268	C6	16,0 *0.630*	160,0 *6.299*	38,0 *1.496*	38,0 *1.496*	215,0 *8.465*	135,0 *5.315*	17,0 *0.669*	1	–	1	PB	2,12 *4.670*
C6-391.5555-22210	02675777	C6	22,0 *0.866*	210,0 *8.268*	48,0 *1.890*	48,0 *1.890*	267,0 *10.512*	185,0 *7.283*	19,0 *0.748*	1	–	1	PB	3,64 *8.020*
C6-391.5556-22260	02675778	C6	22,0 *0.866*	260,0 *10.236*	48,0 *1.890*	60,0 *2.362*	317,0 *12.480*	235,0 *9.252*	19,0 *0.748*	2	1,3	1	PB	4,0 *8.820*
C6-391.5555-27260	02675779	C6	27,0 *1.063*	260,0 *10.236*	60,0 *2.362*	60,0 *2.362*	319,0 *12.559*	235,0 *9.252*	21,0 *0.827*	1	–	1	PB	6,78 *14.950*
C8-391.5555-22210	02675780	C8	22,0 *0.866*	210,0 *8.268*	48,0 *1.890*	48,0 *1.890*	277,0 *10.906*	177,0 *6.969*	19,0 *0.748*	1	–	1	PB	4,54 *10.010*
C8-391.5556-22260	02675781	C8	22,0 *0.866*	260,0 *10.236*	48,0 *1.890*	64,0 *2.520*	327,0 *12.874*	227,0 *8.937*	19,0 *0.748*	2	1,8	1	PB	6,42 *14.150*
C8-391.5555-27260	02675782	C8	27,0 *1.063*	260,0 *10.236*	60,0 *2.362*	60,0 *2.362*	329,0 *12.953*	227,0 *8.937*	21,0 *0.827*	1	–	1	PB	7,62 *16.800*
C8-391.5556-27320	02675783	C8	27,0 *1.063*	320,0 *12.598*	60,0 *2.362*	78,0 *3.071*	389,0 *15.315*	287,0 *11.299*	21,0 *0.827*	2	1,6	1	PB	10,6 *23.370*
C8-391.5555-32330	02706271	C8	32,0 *1.260*	330,0 *12.992*	78,0 *3.071*	78,0 *3.071*	402,0 *15.827*	297,0 *11.693*	24,0 *0.945*	1	–	1	PB	14,5 *31.970*
C8-391.5555-40350	02753473	C8	40,0 *1.575*	350,0 *13.780*	89,0 *3.504*	89,0 *3.504*	425,0 *16.732*	317,0 *12.480*	27,0 *1.063*	1	–	1	PB	19,0 *41.890*

Accessories

For DMM	Bolt, through coolant	Spanner
		
16/ *0.630*	5801608L	5811608
22/ *0.866*	5802210L	5812210
27/ *1.063*	5802712L	5812712
32/ *1.260*	5803216L	5813216
40/ *1.575*	5804020L	5814020

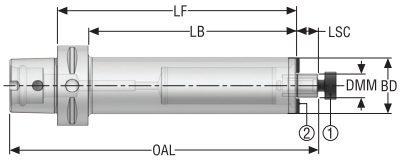
Spare Parts, included in delivery

For DMM	Bolt	Screw	Tenon
			
16/ *0.630*	5801608	950D0312	16C2080810A
22/ *0.866*	5802210	950D0416	16C2101111
27/ *1.063*	5802712	950D0516	16C2121214A
32/ *1.260*	5803216	950D0516	16C2141421A
40/ *1.575*	5804020	950D0616	16C2161621A

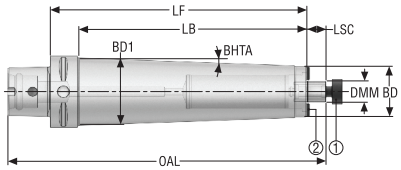
Seco-Capto™

Steadyline®, vibration damping – Inch

Design 1



Design 2



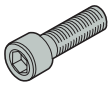


Spare parts:
1 = Bolt
2 = Tenon/Screw

- DMM 40 mm / *1.575”*, includes 4 threaded holes on the bearing face according to DIN 6357
- For ISO attribute explanation, see page 14

Designation	Item number	CTMS	DMM	LF	BD	BD1	OAL	LB	LSC	Design	BHTA°	RFID hole	Balan-cing	Weight
			inch	inch	inch	inch	inch	inch	inch					lbs
C6-391.5555-075750	02753487	C6	0.750	7.500	1.750	1.750	9.685	6.516	0.689	1	–	1	PB	6.770
C6-391.5556-075900	02753488	C6	0.750	9.000	1.750	2.347	11.185	8.016	0.689	2	2,0	1	PB	10.140
C6-391.5555-100900	02753490	C6	1.000	9.000	2.250	2.250	11.185	8.016	0.689	1	–	1	PB	12.790
C8-391.5556-075900	02753492	C8	0.750	9.000	1.750	2.328	11.579	7.701	0.689	2	2,0	1	PB	11.680
C8-391.5556-100C00	02753494	C8	1.000	12.000	2.250	3.051	14.579	10.701	0.689	2	2,0	1	PB	22.930
C8-391.5555-150D75	02753485	C8	1.500	13.752	3.500	3.500	16.583	12.453	0.941	1	–	1	PB	41.230

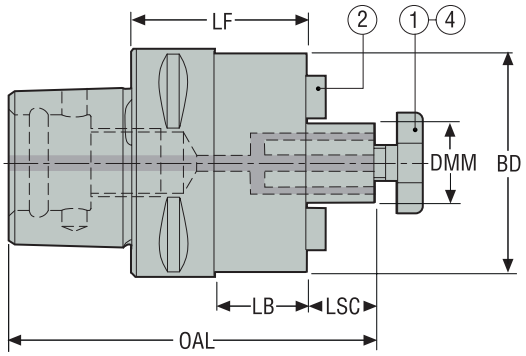
Spare Parts, included in delivery

For DMM	Bolt	Screw	Tenon
			
0.750	58211905	950D0308	16C11905
1.000 (C6)	58212540	950D0416	16C2091014A
1.000 (C8)	58212540	950D0416	16C12540
1.500	58213810	950D0616	16C2151421A

With through coolant channels – ISO 3937 – Metric / *Inch*

Seco-Capto™





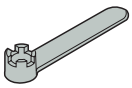
- Type 5524: small face shell mill holders
- For ISO attribute explanation, see page 14

Accessories:
4 = Bolt, through coolant

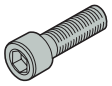
Spare parts:
1 = Bolt
2 = Tenon/Screw

Designation	Item number	CTMS	DMM	LF	BD	OAL	LB	LSC	RFID hole	Balancing	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*			kg *lbs*
C3-391.5525-16030	02532782	C3	16,0 *0.630*	30,0 *1.181*	38,0 *1.496*	66,0 *2.598*	12,0 *0.472*	17,0 *0.669*	0	G6.3	0,27 *0.600*
C4-391.5525-16035	02532783	C4	16,0 *0.630*	35,0 *1.378*	38,0 *1.496*	76,0 *2.992*	12,0 *0.472*	17,0 *0.669*	0	G6.3	0,5 *1.100*
C4-391.5525-22040	02532784	C4	22,0 *0.866*	40,0 *1.575*	48,0 *1.890*	83,0 *3.268*	17,0 *0.669*	19,0 *0.748*	0	G6.3	0,6 *1.320*
C5-391.5525-16035	02532786	C5	16,0 *0.630*	35,0 *1.378*	38,0 *1.496*	82,0 *3.228*	12,0 *0.472*	17,0 *0.669*	1	G6.3	0,6 *1.320*
C5-391.5525-22040	02532787	C5	22,0 *0.866*	40,0 *1.575*	48,0 *1.890*	89,0 *3.504*	17,0 *0.669*	19,0 *0.748*	1	G6.3	0,8 *1.760*
C5-391.5525-27040	02532788	C5	27,0 *1.063*	40,0 *1.575*	60,0 *2.362*	91,0 *3.583*	17,0 *0.669*	21,0 *0.827*	1	G6.3	0,95 *2.090*
C5-391.5524-27040	02532785	C5	27,0 *1.063*	40,0 *1.575*	48,0 *1.890*	91,0 *3.583*	17,0 *0.669*	21,0 *0.827*	1	G6.3	0,9 *1.980*
C6-391.5525-16035	02532790	C6	16,0 *0.630*	35,0 *1.378*	38,0 *1.496*	90,0 *3.543*	10,0 *0.394*	17,0 *0.669*	1	G6.3	1,0 *2.200*
C6-391.5525-22040	02532791	C6	22,0 *0.866*	40,0 *1.575*	48,0 *1.890*	97,0 *3.819*	15,0 *0.591*	19,0 *0.748*	1	G6.3	1,1 *2.430*
C6-391.5525-27040	02532792	C6	27,0 *1.063*	40,0 *1.575*	60,0 *2.362*	99,0 *3.898*	15,0 *0.591*	21,0 *0.827*	1	G6.3	1,3 *2.870*
C6-391.5525-32040	02532793	C6	32,0 *1.260*	40,0 *1.575*	78,0 *3.071*	102,0 *4.016*	15,0 *0.591*	24,0 *0.945*	1	G6.3	1,6 *3.530*
C6-391.5524-27040	02532789	C6	27,0 *1.063*	40,0 *1.575*	48,0 *1.890*	99,0 *3.898*	15,0 *0.591*	21,0 *0.827*	1	G6.3	1,12 *2.470*
C8-391.5525-27050	02532795	C8	27,0 *1.063*	50,0 *1.969*	60,0 *2.362*	119,0 *4.685*	17,0 *0.669*	21,0 *0.827*	1	G6.3	2,29 *5.050*
C8-391.5525-32050	02532796	C8	32,0 *1.260*	50,0 *1.969*	78,0 *3.071*	122,0 *4.803*	17,0 *0.669*	24,0 *0.945*	1	G6.3	2,7 *5.950*
C8-391.5525-40055	02532797	C8	40,0 *1.575*	55,0 *2.165*	89,0 *3.504*	130,0 *5.118*	22,0 *0.866*	27,0 *1.063*	1	G6.3	3,06 *6.750*

Accessories

For DMM	Bolt, through coolant	Spanner
		
16/ *0.630*	5801608L	5811608
22/ *0.866*	5802210L	5812210
27/ *1.063* -5524	5802712L	5812712
27/ *1.063* -5525	5802712L	5812712
32/ *1.260*	5803216L	5813216
40/ *1.575*	5804020L	5814020

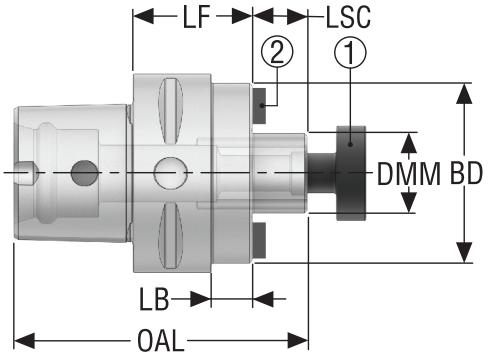
Spare Parts, included in delivery

For DMM	Bolt	Screw	Tenon
			
16/ *0.630*	5801608	950D0310	16C10810164
22/ *0.866*	5802210	950D0414	16C11012206
27/ *1.063* -5524	5802712	951D0512	16C127
27/ *1.063* -5525	5802712	950D0516	16C11214243
32/ *1.260*	5803216	950D0516	16C2141421
40/ *1.575*	5804020	950D0616	16C2161621

With through coolant channels – Inch

Seco-Capto™



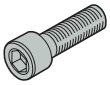


• For ISO attribute explanation, see page 14

Spare parts:
1 = Bolt
2 = Tenon/Screw

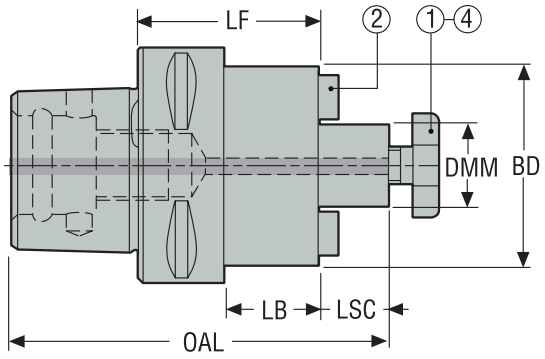
Designation	Item number	CTMS	DMM	LF	BD	OAL	LB	LSC	RFID hole	Balancing	Weight
			inch	inch	inch	inch	inch	inch			lbs
C4-391.5525-075150	02610375	C4	0.750	1.500	1.750	3.134	0.594	0.689	0	G6.3	1.100
C5-391.5525-075150	02610376	C5	0.750	1.500	1.750	3.370	0.594	0.689	1	G6.3	1.500
C5-391.5525-100150	02610377	C5	1.000	1.500	2.067	3.370	0.594	0.689	1	G6.3	1.760
C6-391.5525-075150	02610378	C6	0.750	1.500	1.750	3.685	0.516	0.689	1	G6.3	2.430
C6-391.5525-100150	02610379	C6	1.000	1.500	2.250	3.685	0.516	0.689	1	G6.3	2.650
C6-391.5525-125150	02610380	C6	1.250	1.500	2.750	3.685	0.516	0.689	1	G6.3	3.020
C6-391.5525-150175	02610388	C6	1.500	1.750	3.500	4.187	0.766	0.941	1	G6.3	5.070
C8-391.5525-125200	02610391	C8	1.250	2.000	2.750	4.579	0.701	0.689	1	G6.3	5.580
C8-391.5525-150200	02610394	C8	1.500	2.000	3.500	4.831	0.701	0.941	1	G6.3	6.500

Spare Parts, included in delivery

For DMM	Bolt	Screw	Tenon
			
0.750	58211905	950D0312	16C11905A
1.000	58212540	950D0414	16C12540A
1.000	58212540	950D0416	16C12540A
1.250	58213175	950D0516	16C23175
1.500	58213810	950D0616	16C23810

Seco-Capto™

Small face without through coolant channels – ISO 3937 – Metric / *Inch*





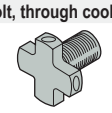
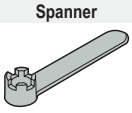
Accessories:
4 = Bolt, through coolant

Spare parts:
1 = Bolt
2 = Tenon/Screw

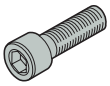
• For ISO attribute explanation, see page 14

Designation	Item number	CTMS	DMM	LF	BD	OAL	LB	LSC	RFID hole	Balan-cing	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*			kg *lbs*
C3-391.0552-16030	02752390	C3	16,0 *0.630*	30,0 *1.181*	32,0 *1.260*	66,0 *2.598*	15,0 *0.591*	17,0 *0.669*	0	G6.3	0,24 *0.530*
C4-391.0552-16032	02752391	C4	16,0 *0.630*	32,0 *1.260*	32,0 *1.260*	73,0 *2.874*	9,0 *0.354*	17,0 *0.669*	0	G6.3	0,36 *0.790*
C4-391.0552-22055	02752392	C4	22,0 *0.866*	55,0 *2.165*	40,0 *1.575*	98,0 *3.858*	32,0 *1.260*	19,0 *0.748*	0	G6.3	0,66 *1.460*
C5-391.0552-22070	02752397	C5	22,0 *0.866*	70,0 *2.756*	40,0 *1.575*	119,0 *4.685*	47,0 *1.850*	19,0 *0.748*	1	G6.3	0,98 *2.160*
C5-391.0552-27035	02752398	C5	27,0 *1.063*	35,0 *1.378*	48,0 *1.890*	86,0 *3.386*	12,0 *0.472*	21,0 *0.827*	1	G6.3	0,8 *1.760*
C6-391.0552-22035	02752399	C6	22,0 *0.866*	35,0 *1.378*	40,0 *1.575*	92,0 *3.622*	10,0 *0.394*	19,0 *0.748*	1	G6.3	0,98 *2.160*
C6-391.0552-27035	02752400	C6	27,0 *1.063*	35,0 *1.378*	48,0 *1.890*	94,0 *3.701*	10,0 *0.394*	21,0 *0.827*	1	G6.3	1,1 *2.430*
C6-391.0552-32035	02752401	C6	32,0 *1.260*	35,0 *1.378*	58,0 *2.283*	97,0 *3.819*	10,0 *0.394*	24,0 *0.945*	1	G6.3	1,22 *2.690*
C8-391.0552-27035	02752403	C8	27,0 *1.063*	35,0 *1.378*	48,0 *1.890*	104,0 *4.094*	2,0 *0.079*	21,0 *0.827*	1	G6.3	2,0 *4.410*
C8-391.0552-32035	02752404	C8	32,0 *1.260*	35,0 *1.378*	58,0 *2.283*	107,0 *4.213*	2,0 *0.079*	24,0 *0.945*	1	G6.3	2,03 *4.480*
C8-391.0552-40035	02752405	C8	40,0 *1.575*	35,0 *1.378*	70,0 *2.756*	110,0 *4.331*	2,0 *0.079*	27,0 *1.063*	1	G6.3	2,3 *5.070*

Accessories

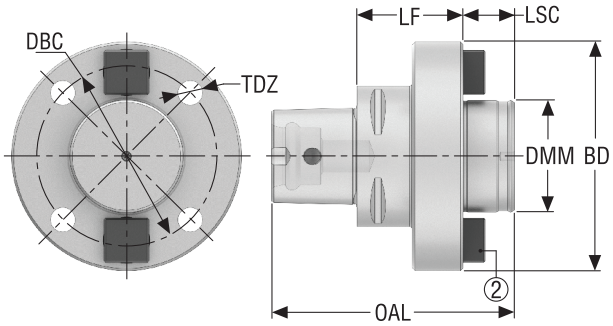
For DMM	Bolt, through coolant	Spanner
		
16/ *0.630*	5801608L	5811608
22/ *0.866*	5802210L	5812210
27/ *1.063*	5802712L	5812712
32/ *1.260*	5803216L	5813216
40/ *1.575*	5804020L	5814020

Spare Parts, included in delivery

For DMM	Bolt	Screw	Tenon
			
16/ *0.630*	5801608	950D0308	16C116
22/ *0.866*	5802210	950D0414	16C122
27/ *1.063*	5802712	951D0512	16C127
32/ *1.260*	5803216	950D0514	16C132
40/ *1.575*	5804020	950D0616	16C140

Seco-Capto™

Flange mounting – DIN 6357/ DIN 2079 – Inch





Spare parts:
2 = Tenon/Screw (not removable)

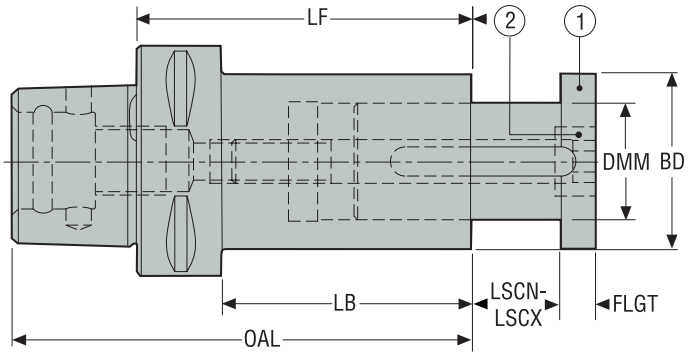
• For ISO attribute explanation, see page 14

Designation	Item number	CTMS	LSC	DMM	LF	BD	OAL	LSC	DBC	TDZ	RFID hole	Balan-cing	Weight
			inch	inch	inch	inch	inch	inch	inch				lbs
C8-A391.05-63060	10116829	C8	1.142	2.500	2.362	5.118	5.394	1.142	4.000	5/8" - 11 UNC	–	PB	13.450

Seco-Capto™

– Metric / *Inch*



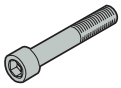


• For ISO attribute explanation, see page 14

Spare parts:
1 = Slide rod
2 = Screw

Designation	Item number	CTMS	DMM	LF	BD	OAL	LB	LSCN	LSCX	FLGT	RFID hole	Balancing	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*			kg *lbs*
C5-391.5657-27090	02532800	C5	27,0 *1.063*	90,0 *3.543*	42,0 *1.654*	120,0 *4.724*	67,0 *2.638*	0,0 *0.0*	15,0 *0.591*	5,0 *0.197*	1	PB	1,21 *2.670*
C6-391.5657-22080	02532802	C6	22,0 *0.866*	80,0 *3.150*	35,0 *1.378*	118,0 *4.646*	55,0 *2.165*	0,0 *0.0*	12,0 *0.472*	4,0 *0.157*	1	PB	1,24 *2.730*
C6-391.5657-27090	02532803	C6	27,0 *1.063*	90,0 *3.543*	42,0 *1.654*	128,0 *5.039*	65,0 *2.559*	0,0 *0.0*	15,0 *0.591*	5,0 *0.197*	1	PB	1,54 *3.400*
C6-391.5657-40150	02532805	C6	40,0 *1.575*	150,0 *5.906*	58,0 *2.283*	188,0 *7.402*	125,0 *4.921*	0,0 *0.0*	30,0 *1.181*	7,0 *0.276*	1	PB	3,5 *7.720*
C8-391.5657-50200	02532809	C8	50,0 *1.969*	200,0 *7.874*	72,0 *2.835*	248,0 *9.764*	167,0 *6.575*	0,0 *0.0*	32,0 *1.260*	8,0 *0.315*	1	PB	7,12 *15.700*
C8-391.5657-60220	02532810	C8	60,0 *2.362*	220,0 *8.661*	90,0 *3.543*	268,0 *10.551*	190,0 *7.480*	0,0 *0.0*	40,0 *1.575*	8,0 *0.315*	1	PB	11,2 *24.690*

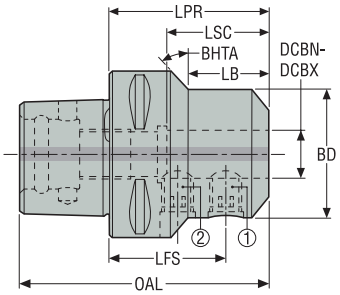
Spare Parts, included in delivery

For	Screw	Slide rod
		
C5-391.5657-27090	19C565727	565727
C6-391.5657-22080	19C565722	565722
C6-391.5657-27090	19C565727	565727
C6-391.5657-40150	19C565740	565740
C8-391.5657-50200	19C565750	565750
C8-391.5657-60220	19C565760	565760

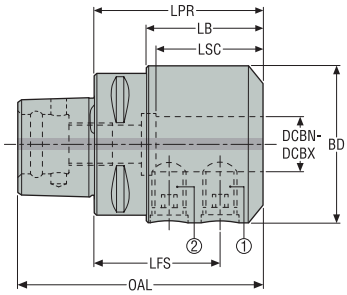
Seco-Capto™

DIN 1835 Form B/ DIN 6535 Form HB – Metric / *Inch*

Design 1



Design 2





Spare parts:
1 = Locking screw 1
2 = Locking screw 2

• For ISO attribute explanation, see page 14

Designation	Item number	CTMS	DCBN-DCBX	LPR	LFS	BD	OAL	LB	LSC	Design	BHTA°	RFID hole	Balancing	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*					kg *lbs*
C3-391.20-06045A	75039958	C3	6,0 *0.236*	46,0 *1.811*	28,0 *1.102*	25,0 *0.984*	65,0 *2.559*	27,5 *1.083*	27,0 *1.063*	1	30,0	0	PB	0,29 *0.640*
C3-391.20-08045A	75039959	C3	8,0 *0.315*	46,0 *1.811*	28,0 *1.102*	28,0 *1.102*	65,0 *2.559*	29,0 *1.142*	30,0 *1.181*	1	45,0	0	PB	0,3 *0.660*
C3-391.20-10050	75039960	C3	10,0 *0.394*	50,0 *1.969*	30,0 *1.181*	35,0 *1.378*	69,0 *2.717*	32,0 *1.260*	36,0 *1.417*	2	–	0	PB	0,34 *0.750*
C3-391.20-12055	75039961	C3	12,0 *0.472*	55,0 *2.165*	32,5 *1.280*	42,0 *1.654*	74,0 *2.913*	47,0 *1.850*	40,0 *1.575*	2	–	0	PB	0,48 *1.060*
C4-391.20-06050	75039962	C4	6,0 *0.236*	50,0 *1.969*	32,0 *1.260*	25,0 *0.984*	74,0 *2.913*	25,5 *1.004*	27,0 *1.063*	1	30,0	0	PB	0,36 *0.790*
C4-391.20-08050	75039963	C4	8,0 *0.315*	50,0 *1.969*	32,0 *1.260*	28,0 *1.102*	74,0 *2.913*	26,5 *1.043*	30,0 *1.181*	1	45,0	0	PB	0,4 *0.880*
C4-391.20-10050A	75039964	C4	10,0 *0.394*	51,0 *2.008*	31,0 *1.220*	35,0 *1.378*	75,0 *2.953*	29,6 *1.165*	36,0 *1.417*	1	30,0	0	PB	0,5 *1.100*
C4-391.20-12055A	75039965	C4	12,0 *0.472*	56,0 *2.205*	33,5 *1.319*	42,0 *1.654*	80,0 *3.150*	53,0 *2.087*	43,0 *1.693*	2	–	0	PB	0,6 *1.320*
C4-391.20-14055	02437800	C4	14,0 *0.551*	55,0 *2.165*	32,5 *1.280*	44,0 *1.732*	79,0 *3.110*	55,0 *2.165*	43,0 *1.693*	2	–	0	PB	0,6 *1.320*
C5-391.20-06050	75039967	C5	6,0 *0.236*	50,0 *1.969*	32,0 *1.260*	25,0 *0.984*	80,0 *3.150*	25,5 *1.004*	27,0 *1.063*	1	20,0	0	PB	0,6 *1.320*
C5-391.20-08050	75039968	C5	8,0 *0.315*	50,0 *1.969*	32,0 *1.260*	28,0 *1.102*	80,0 *3.150*	26,0 *1.024*	30,0 *1.181*	1	20,0	0	PB	0,6 *1.320*
C5-391.20-10055	75039969	C5	10,0 *0.394*	55,0 *2.165*	35,0 *1.378*	35,0 *1.378*	85,0 *3.346*	27,5 *1.083*	36,0 *1.417*	1	45,0	0	PB	0,7 *1.540*
C5-391.20-12060	75039970	C5	12,0 *0.472*	60,0 *2.362*	37,5 *1.476*	42,0 *1.654*	90,0 *3.543*	36,0 *1.417*	43,0 *1.693*	1	45,0	0	PB	0,81 *1.790*
C5-391.20-14060	02453322	C5	14,0 *0.551*	60,0 *2.362*	37,5 *1.476*	44,0 *1.732*	90,0 *3.543*	37,0 *1.457*	43,0 *1.693*	1	45,0	0	PB	0,84 *1.850*
C5-391.20-18060	02535699	C5	18,0 *0.709*	60,0 *2.362*	36,0 *1.417*	50,0 *1.969*	90,0 *3.543*	40,0 *1.575*	46,0 *1.811*	2	–	0	PB	1,0 *2.200*
C6-391.20-06055	75039974	C6	6,0 *0.236*	55,0 *2.165*	37,0 *1.457*	25,0 *0.984*	93,0 *3.661*	25,0 *0.984*	27,0 *1.063*	1	22,0	0	PB	0,9 *1.980*
C6-391.20-08055	75039975	C6	8,0 *0.315*	55,0 *2.165*	37,0 *1.457*	28,0 *1.102*	93,0 *3.661*	26,0 *1.024*	30,0 *1.181*	1	22,0	0	PB	1,0 *2.200*
C6-391.20-10060	75039976	C6	10,0 *0.394*	60,0 *2.362*	40,0 *1.575*	35,0 *1.378*	98,0 *3.858*	30,0 *1.181*	36,0 *1.417*	1	30,0	0	PB	1,1 *2.430*
C6-391.20-12060	75039977	C6	12,0 *0.472*	60,0 *2.362*	37,5 *1.476*	42,0 *1.654*	98,0 *3.858*	33,0 *1.299*	43,0 *1.693*	1	25,0	0	PB	1,2 *2.650*
C6-391.20-14060	00013463	C6	14,0 *0.551*	60,0 *2.362*	37,5 *1.476*	44,0 *1.732*	98,0 *3.858*	33,5 *1.319*	43,0 *1.693*	1	25,0	0	PB	1,2 *2.650*

Designation	Item number	CTMS	DCBN-DCBX	LPR	LFS	BD	OAL	LB	LSC	Design	BHTA°	RFID hole	Balancing	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*					kg *lbs*
C6-391.20-18065	02207592	C6	18,0 *0.709*	65,0 *2.559*	41,0 *1.614*	50,0 *1.969*	103,0 *4.055*	39,0 *1.535*	46,0 *1.811*	1	30,0	0	PB	1,31 *2.890*
C8-391.20-06070	02535700	C8	6,0 *0.236*	70,0 *2.756*	52,0 *2.047*	25,0 *0.984*	118,0 *4.646*	27,0 *1.063*	27,0 *1.063*	1	25,0	0	PB	2,2 *4.850*
C8-391.20-08070	02427562	C8	8,0 *0.315*	70,0 *2.756*	52,0 *2.047*	28,0 *1.102*	118,0 *4.646*	28,0 *1.102*	30,0 *1.181*	1	25,0	0	PB	2,2 *4.850*
C8-391.20-10070	02535701	C8	10,0 *0.394*	70,0 *2.756*	50,0 *1.969*	35,0 *1.378*	118,0 *4.646*	29,5 *1.161*	36,0 *1.417*	1	25,0	0	PB	2,21 *4.870*
C8-391.20-12070	02207401	C8	12,0 *0.472*	70,0 *2.756*	47,5 *1.870*	42,0 *1.654*	118,0 *4.646*	31,0 *1.220*	43,0 *1.693*	1	25,0	0	PB	2,48 *5.470*
C8-391.20-14070	02535702	C8	14,0 *0.551*	70,0 *2.756*	47,5 *1.870*	44,0 *1.732*	118,0 *4.646*	31,6 *1.244*	43,0 *1.693*	1	25,0	0	PB	2,24 *4.940*
C8-391.20-18070	02535703	C8	18,0 *0.709*	70,0 *2.756*	46,0 *1.811*	50,0 *1.969*	118,0 *4.646*	33,0 *1.299*	46,0 *1.811*	1	25,0	0	PB	2,21 *4.870*
C8-391.20-50120	75039986	C8	50,0 *1.969*	120,0 *4.724*	85,0 *3.346*	100,0 *3.937*	168,0 *6.614*	90,0 *3.543*	78,0 *3.071*	2	–	0	PB	6,0 *13.230*

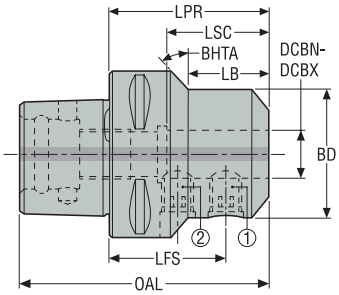
Spare Parts, included in delivery

For DCBN-DCBX	Locking screw	Locking screw, reduced
		
6/ *0.236*	3214050-357	–
8/ *0.315*	3214050-407	–
10/ *0.394*	3214050-458	–
12/ *0.472*	3214050-509	–
14/ *0.551*	3214050-509	–
18/ *0.709*	3214050-539	–
50/ *1.969*	3214050-661	3214050-611

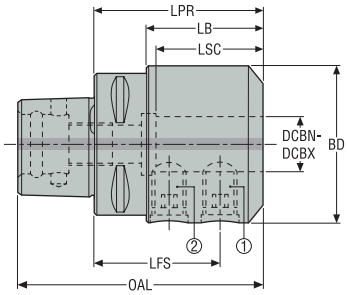
Seco-Capto™

DIN 1835 Form B/ DIN 6535 Form HB – Inch

Design 1



Design 2





Spare parts:
1 = Locking screw 1
2 = Locking screw 2

• For ISO attribute explanation, see page 14

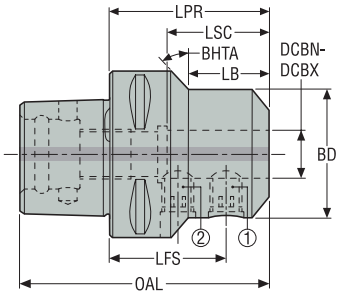
Designation	Item number	CTMS	DCBN-DCBX	LPR	LFS	BD	OAL	LB	LSC	Design	BHTA°	RFID hole	Balan-cing	Weight
			inch	inch	inch	inch	inch	inch	inch					lbs
C5-A391.20-19060	00089977	C5	0.750	2.360	1.378	1.752	3.541	1.510	2.008	1	60,0	0	PB	1.740
C6-A391.20-09060	02459374	C6	0.375	2.360	1.575	1.000	3.856	1.140	1.575	1	65,0	0	PB	2.120
C6-A391.20-12060	00078614	C6	0.500	2.360	1.476	1.248	3.856	1.260	1.772	1	70,0	0	PB	2.200
C6-A391.20-15065	00078615	C6	0.625	2.560	1.606	1.614	4.056	1.440	1.890	1	60,0	0	PB	2.650
C6-A391.20-19065A	00078616	C6	0.750	2.560	1.614	1.752	4.056	1.480	2.008	1	60,0	0	PB	2.650
C6-A391.20-25085	02459380	C6	1.000	3.350	2.402	2.248	4.846	2.400	2.262	1	60,0	0	PB	3.970
C6-A391.20-31085	00078656	C6	1.250	3.350	2.402	2.480	4.846	3.350	2.520	2	–	0	PB	4.060
C6-A391.20-38090	02466277	C6	1.500	3.350	2.362	2.756	4.846	2.680	2.717	2	–	0	PB	4.850
C8-A391.20-31080	02527210	C8	1.250	3.150	2.205	2.480	5.040	2.090	2.284	1	60,0	0	PB	5.290
C8-A391.20-38085	02527211	C8	1.500	3.350	2.165	2.756	5.240	2.370	2.559	1	60,0	0	PB	5.860
C8-A391.20-50115	75079761	C8	2.000	4.530	3.402	3.681	6.420	3.270	3.071	2	–	0	PB	10.710

DIN 1835 Form B/ DIN 6535 Form HB
– Metric / *Inch*

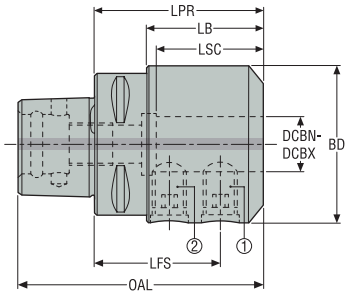
Seco-Capto™



Design 1



Design 2



• For ISO attribute explanation, see page 14

Spare parts:
1 = Locking screw 1
2 = Locking screw 2

Designation	Item number	CTMS	DCBN-DCBX	LPR	LFS	BD	OAL	LB	LSC	Design	BHTA°	RFID hole	Balancing	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*					kg *lbs*
C4-391.0584-16055	02532811	C4	16,0 *0.630*	55,0 *2.165*	31,5 *1.240*	48,0 *1.890*	79,0 *3.110*	35,0 *1.378*	46,0 *1.811*	2	–	0	PB	0,7 *1.540*
C5-391.0584-16060	02532812	C5	16,0 *0.630*	60,0 *2.362*	36,5 *1.437*	48,0 *1.890*	90,0 *3.543*	37,0 *1.457*	46,0 *1.811*	1	45,0	1	PB	0,87 *1.920*
C5-391.0584-20060	02532813	C5	20,0 *0.787*	60,0 *2.362*	35,0 *1.378*	52,0 *2.047*	90,0 *3.543*	40,0 *1.575*	48,0 *1.890*	2	–	1	PB	0,9 *1.980*
C5-391.0584-25080	02532814	C5	25,0 *0.984*	80,0 *3.150*	56,0 *2.205*	63,0 *2.480*	110,0 *4.331*	60,0 *2.362*	54,0 *2.126*	2	–	1	PB	1,6 *3.530*
C6-391.0584-16065	02532815	C6	16,0 *0.630*	65,0 *2.559*	41,5 *1.634*	48,0 *1.890*	103,0 *4.055*	40,0 *1.575*	46,0 *1.811*	1	90,0	1	PB	1,3 *2.870*
C6-391.0584-20065	02532816	C6	20,0 *0.787*	65,0 *2.559*	40,0 *1.575*	52,0 *2.047*	103,0 *4.055*	40,0 *1.575*	48,0 *1.890*	1	90,0	1	PB	1,3 *2.870*
C6-391.0584-25080	02532817	C6	25,0 *0.984*	80,0 *3.150*	56,0 *2.205*	63,0 *2.480*	118,0 *4.646*	58,0 *2.283*	54,0 *2.126*	1	–	1	PB	1,8 *3.970*
C6-391.0584-32090	02532818	C6	32,0 *1.260*	90,0 *3.543*	66,0 *2.598*	72,0 *2.835*	128,0 *5.039*	68,0 *2.677*	58,0 *2.283*	2	–	1	PB	2,35 *5.180*
C6-391.0584-40100	02532819	C6	40,0 *1.575*	100,0 *3.937*	70,0 *2.756*	80,0 *3.150*	138,0 *5.433*	78,0 *3.071*	68,0 *2.677*	2	–	1	PB	2,9 *6.390*
C8-391.0584-16070	02532820	C8	16,0 *0.630*	70,0 *2.756*	46,5 *1.831*	48,0 *1.890*	118,0 *4.646*	37,0 *1.457*	46,0 *1.811*	1	90,0	1	PB	2,3 *5.070*
C8-391.0584-20070	02532821	C8	20,0 *0.787*	70,0 *2.756*	45,0 *1.772*	52,0 *2.047*	118,0 *4.646*	37,0 *1.457*	48,0 *1.890*	1	90,0	1	PB	2,3 *5.070*
C8-391.0584-25080	02532822	C8	25,0 *0.984*	80,0 *3.150*	56,0 *2.205*	65,0 *2.559*	128,0 *5.039*	47,0 *1.850*	54,0 *2.126*	1	90,0	1	PB	2,7 *5.950*
C8-391.0584-32080	02532824	C8	32,0 *1.260*	80,0 *3.150*	56,0 *2.205*	72,0 *2.835*	128,0 *5.039*	47,0 *1.850*	58,0 *2.283*	1	90,0	1	PB	2,8 *6.170*
C8-391.0584-40110	02532825	C8	40,0 *1.575*	110,0 *4.331*	80,0 *3.150*	80,0 *3.150*	158,0 *6.220*	80,0 *3.150*	68,0 *2.677*	1	–	1	PB	4,0 *8.820*

Spare Parts, included in delivery

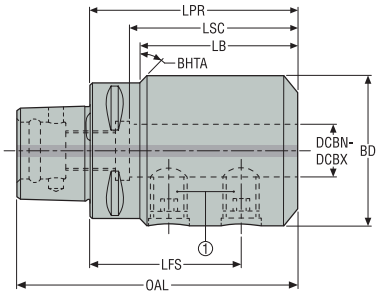
For	Locking screw
	
C4-391.0584-16055	951C1416
C5-391.0584-16060	951C1416
C5-391.0584-20060	951C1616
C5-391.0584-25080	951C1820
C6-391.0584-16065	951C1416
C6-391.0584-20065	951C1616
C6-391.0584-25080	951C1820
C6-391.0584-32090	951C2020
C6-391.0584-40100	951C2020
C8-391.0584-16070	951C1416
C8-391.0584-20070	951C1616
C8-391.0584-25080	951C1820
C8-391.0584-32080	951C2020
C8-391.0584-40110	951C2020

ISO 9766
– Metric / *Inch*

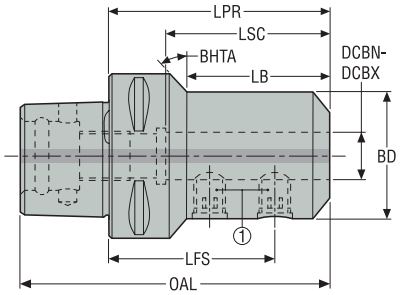
Seco-Capto™



Design 1



Design 2



- Only for ISO 9766 drill shank
- For ISO attribute explanation, see page 14

Spare parts:
1 = Locking screw

Designation	Item number	CTMS	DCBN-DCBX	LPR	LFS	BD	OAL	LB	LSC	Design	BHTA°	RFID hole	Balancing	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*					kg *lbs*
C3-391.27-16056	75040036	C3	16,0 *0.630*	56,0 *2.205*	41,2 *1.622*	36,0 *1.417*	75,0 *2.953*	41,0 *1.614*	49,5 *1.949*	1	60,0	0	PB	0,4 *0.880*
C3-391.27-20060	75040039	C3	20,0 *0.787*	60,0 *2.362*	45,2 *1.780*	40,0 *1.575*	79,0 *3.110*	45,0 *1.772*	51,5 *2.028*	1	–	0	PB	0,42 *0.930*
C4-391.27-16056	75040040	C4	16,0 *0.630*	56,0 *2.205*	41,2 *1.622*	36,0 *1.417*	80,0 *3.150*	32,5 *1.280*	49,5 *1.949*	2	60,0	0	PB	0,5 *1.100*
C4-391.27-20060	75040041	C4	20,0 *0.787*	60,0 *2.362*	45,2 *1.780*	40,0 *1.575*	84,0 *3.307*	51,5 *2.028*	51,5 *2.028*	2	–	0	PB	0,51 *1.120*
C4-391.27-25077	75040042	C4	25,0 *0.984*	77,0 *3.031*	60,2 *2.370*	45,0 *1.772*	101,0 *3.976*	57,0 *2.244*	57,5 *2.264*	1	–	0	PB	0,8 *1.760*
C5-391.27-16065	75040043	C5	16,0 *0.630*	65,0 *2.559*	50,2 *1.976*	36,0 *1.417*	95,0 *3.740*	41,7 *1.642*	49,5 *1.949*	2	25,0	0	PB	0,8 *1.760*
C5-391.27-20060	75040044	C5	20,0 *0.787*	60,0 *2.362*	45,2 *1.780*	40,0 *1.575*	90,0 *3.543*	37,7 *1.484*	51,5 *2.028*	2	25,0	0	PB	0,7 *1.540*
C5-391.27-25071	02432677	C5	25,0 *0.984*	71,0 *2.795*	54,2 *2.134*	45,0 *1.772*	101,0 *3.976*	46,7 *1.839*	62,5 *2.461*	2	60,0	0	PB	0,9 *1.980*
C5-391.27-32075	75040046	C5	32,0 *1.260*	75,0 *2.953*	75,0 *2.953*	52,0 *2.047*	105,0 *4.134*	55,0 *2.165*	61,5 *2.421*	1	–	0	PB	1,0 *2.200*
C6-391.27-16070	75040047	C6	16,0 *0.630*	70,0 *2.756*	55,2 *2.173*	36,0 *1.417*	108,0 *4.252*	43,0 *1.693*	49,5 *1.949*	2	20,0	0	PB	1,1 *2.430*
C6-391.27-20070	75040048	C6	20,0 *0.787*	70,0 *2.756*	55,2 *2.173*	40,0 *1.575*	108,0 *4.252*	43,8 *1.724*	51,5 *2.028*	2	20,0	0	PB	1,1 *2.430*
C6-391.27-25070A	02450595	C6	25,0 *0.984*	72,0 *2.835*	55,2 *2.173*	45,0 *1.772*	110,0 *4.331*	45,8 *1.803*	59,5 *2.343*	2	25,0	0	PB	1,2 *2.650*
C6-391.27-32075	75040050	C6	32,0 *1.260*	75,0 *2.953*	58,2 *2.291*	52,0 *2.047*	113,0 *4.449*	49,8 *1.961*	61,5 *2.421*	2	30,0	0	PB	1,3 *2.870*
C6-391.27-40085	00024796	C6	40,0 *1.575*	85,0 *3.346*	85,0 *3.346*	65,0 *2.559*	123,0 *4.843*	63,0 *2.480*	71,5 *2.815*	1	–	0	PB	1,7 *3.750*
C8-391.27-16080	02300843	C8	16,0 *0.630*	80,0 *3.150*	80,0 *3.150*	36,0 *1.417*	128,0 *5.039*	42,0 *1.654*	49,5 *1.949*	2	20,0	0	PB	2,14 *4.720*
C8-391.27-20080	02300847	C8	20,0 *0.787*	80,0 *3.150*	80,0 *3.150*	40,0 *1.575*	128,0 *5.039*	43,8 *1.724*	51,5 *2.028*	2	17,0	0	PB	2,16 *4.760*
C8-391.27-25085	02300848	C8	25,0 *0.984*	85,0 *3.346*	85,0 *3.346*	45,0 *1.772*	133,0 *5.236*	49,8 *1.961*	57,5 *2.264*	2	17,0	0	PB	2,3 *5.070*
C8-391.27-32090	02300849	C8	32,0 *1.260*	90,0 *3.543*	90,0 *3.543*	52,0 *2.047*	138,0 *5.433*	53,8 *2.118*	61,5 *2.421*	2	14,0	0	PB	2,4 *5.290*
C8-391.27-40095	02207177	C8	40,0 *1.575*	95,0 *3.740*	95,0 *3.740*	65,0 *2.559*	143,0 *5.630*	62,8 *2.472*	71,5 *2.815*	2	17,0	0	PB	2,7 *5.950*

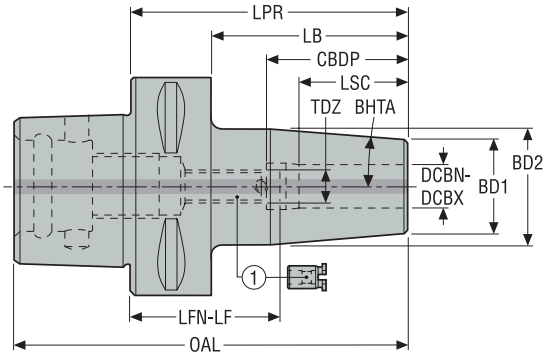
Spare Parts, included in delivery

For DCBN-DCBX	Locking screw
	
16/ *0.630*	5514042-04
20/ *0.787*	5514042-04
25/ *0.984*	416.1-838
32/ *1.260*	416.1-838
40/ *1.575*	5514042-06

DIN type
– Metric / *Inch*

Seco-Capto™





- Run-out ≤3 µm
- Delivered with one stop screw
- Without threads for balancing screws
- For ISO attribute explanation, see page 14

Spare parts:
1 = Stop screw

Designation	Item number	CTMS	DCBN-DCBX	LPR	LB	CBDP	LSC	BD1	BD2	OAL	LFN	LF	TDZ	BHTA°	RFID hole	Balancing	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*					kg *lbs*
C3-391.5603-06065	02753139	C3	6,0 *0.236*	65,0 *2.559*	47,0 *1.850*	37,5 *1.476*	22,0 *0.866*	21,0 *0.827*	27,0 *1.063*	84,0 *3.307*	29,0 *1.142*	39,0 *1.535*	M5x0.8	4,5	0	G6.3	0,3 *0.660*
C3-391.5603-08065	02753140	C3	8,0 *0.315*	65,0 *2.559*	47,0 *1.850*	37,5 *1.476*	26,0 *1.024*	21,0 *0.827*	27,0 *1.063*	84,0 *3.307*	29,0 *1.142*	39,0 *1.535*	M6x1	4,5	0	G6.3	0,3 *0.660*
C3-391.5603-10070	02753141	C3	10,0 *0.394*	70,0 *2.756*	55,0 *2.165*	42,5 *1.673*	31,0 *1.220*	24,0 *0.945*	32,0 *1.260*	89,0 *3.504*	29,0 *1.142*	39,0 *1.535*	M8x1	4,5	0	G6.3	0,4 *0.880*
C3-391.5603-12070	02753142	C3	12,0 *0.472*	70,0 *2.756*	55,0 *2.165*	47,5 *1.870*	34,0 *1.339*	24,0 *0.945*	32,0 *1.260*	89,0 *3.504*	24,0 *0.945*	34,0 *1.339*	M10x1	4,5	0	G6.3	0,4 *0.880*
C4-391.5603-06075	02753144	C4	6,0 *0.236*	75,0 *2.953*	52,0 *2.047*	37,5 *1.476*	22,0 *0.866*	21,0 *0.827*	27,0 *1.063*	99,0 *3.898*	39,0 *1.535*	49,0 *1.929*	M5x0.8	4,5	0	G6.3	0,5 *1.100*
C4-391.5603-08075	02753145	C4	8,0 *0.315*	75,0 *2.953*	52,0 *2.047*	37,5 *1.476*	26,0 *1.024*	21,0 *0.827*	27,0 *1.063*	99,0 *3.898*	39,0 *1.535*	49,0 *1.929*	M6x1	4,5	0	G6.3	0,5 *1.100*
C4-391.5603-10075	02753146	C4	10,0 *0.394*	75,0 *2.953*	52,0 *2.047*	42,5 *1.673*	31,0 *1.220*	24,0 *0.945*	32,0 *1.260*	99,0 *3.898*	34,0 *1.339*	44,0 *1.732*	M8x1	4,5	0	G6.3	0,5 *1.100*
C4-391.5603-12075	02753147	C4	12,0 *0.472*	75,0 *2.953*	52,0 *2.047*	47,5 *1.870*	34,0 *1.339*	24,0 *0.945*	32,0 *1.260*	99,0 *3.898*	29,0 *1.142*	39,0 *1.535*	M10x1	4,5	0	G6.3	0,5 *1.100*
C4-391.5603-14080	02753149	C4	14,0 *0.551*	80,0 *3.150*	57,0 *2.244*	47,5 *1.870*	34,0 *1.339*	27,0 *1.063*	34,0 *1.339*	104,0 *4.094*	34,0 *1.339*	44,0 *1.732*	M10x1	4,5	0	G6.3	0,6 *1.320*
C4-391.5603-16080	02753150	C4	16,0 *0.630*	80,0 *3.150*	57,0 *2.244*	50,5 *1.988*	39,0 *1.535*	27,0 *1.063*	34,0 *1.339*	104,0 *4.094*	31,0 *1.220*	41,0 *1.614*	M12x1	4,5	0	G6.3	0,6 *1.320*
C5-391.5603-06075	02753151	C5	6,0 *0.236*	75,0 *2.953*	52,0 *2.047*	37,5 *1.476*	22,0 *0.866*	21,0 *0.827*	27,0 *1.063*	105,0 *4.134*	39,0 *1.535*	49,0 *1.929*	M5x0.8	4,5	1	G6.3	0,7 *1.540*
C5-391.5603-08075	02753153	C5	8,0 *0.315*	75,0 *2.953*	52,0 *2.047*	37,5 *1.476*	26,0 *1.024*	21,0 *0.827*	27,0 *1.063*	105,0 *4.134*	39,0 *1.535*	49,0 *1.929*	M6x1	4,5	1	G6.3	0,7 *1.540*
C5-391.5603-10075	02753154	C5	10,0 *0.394*	75,0 *2.953*	52,0 *2.047*	42,5 *1.673*	31,0 *1.220*	24,0 *0.945*	32,0 *1.260*	105,0 *4.134*	34,0 *1.339*	44,0 *1.732*	M8x1	4,5	1	G6.3	0,68 *1.500*
C5-391.5603-12075	02753156	C5	12,0 *0.472*	75,0 *2.953*	52,0 *2.047*	47,5 *1.870*	34,0 *1.339*	24,0 *0.945*	32,0 *1.260*	105,0 *4.134*	29,0 *1.142*	39,0 *1.535*	M10x1	4,5	1	G6.3	0,67 *1.480*
C5-391.5603-14080	02753157	C5	14,0 *0.551*	80,0 *3.150*	57,0 *2.244*	47,5 *1.870*	34,0 *1.339*	27,0 *1.063*	34,0 *1.339*	110,0 *4.331*	34,0 *1.339*	44,0 *1.732*	M10x1	4,5	1	G6.3	0,74 *1.630*
C5-391.5603-16080	02753158	C5	16,0 *0.630*	80,0 *3.150*	57,0 *2.244*	50,5 *1.988*	39,0 *1.535*	27,0 *1.063*	34,0 *1.339*	110,0 *4.331*	31,0 *1.220*	41,0 *1.614*	M12x1	4,5	1	G6.3	0,8 *1.760*
C5-391.5603-18080	02753159	C5	18,0 *0.709*	80,0 *3.150*	57,0 *2.244*	50,5 *1.988*	39,0 *1.535*	33,0 *1.299*	42,0 *1.654*	110,0 *4.331*	31,0 *1.220*	41,0 *1.614*	M12x1	4,5	1	G6.3	0,9 *1.980*
C5-391.5603-20085	02753160	C5	20,0 *0.787*	85,0 *3.346*	62,0 *2.441*	52,5 *2.067*	41,0 *1.614*	33,0 *1.299*	42,0 *1.654*	115,0 *4.528*	34,0 *1.339*	44,0 *1.732*	M16x1	4,5	1	G6.3	0,9 *1.980*
C5-391.5603-25090	02753161	C5	25,0 *0.984*	90,0 *3.543*	70,0 *2.756*	58,5 *2.303*	47,0 *1.850*	44,0 *1.732*	53,0 *2.087*	120,0 *4.724*	33,0 *1.299*	43,0 *1.693*	M16x1	4,5	1	G6.3	1,3 *2.870*
C6-391.5603-06080	02753167	C6	6,0 *0.236*	80,0 *3.150*	55,0 *2.165*	37,5 *1.476*	22,0 *0.866*	21,0 *0.827*	27,0 *1.063*	118,0 *4.646*	44,0 *1.732*	54,0 *2.126*	M5x0.8	4,5	1	G6.3	1,1 *2.430*

Designation	Item number	CTMS	DCBN-DCBX	LPR	LB	CBDP	LSC	BD1	BD2	OAL	LFN	LF	TDZ	BHTA°	RFID hole	Balan-cing	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*					kg *lbs*
C6-391.5603-08080	02753168	C6	8,0 *0.315*	80,0 *3.150*	55,0 *2.165*	37,5 *1.476*	26,0 *1.024*	21,0 *0.827*	27,0 *1.063*	118,0 *4.646*	44,0 *1.732*	54,0 *2.126*	M6x1	4,5	1	G6.3	1,0 *2.200*
C6-391.5603-10080	02753169	C6	10,0 *0.394*	80,0 *3.150*	55,0 *2.165*	42,5 *1.673*	31,0 *1.220*	24,0 *0.945*	32,0 *1.260*	118,0 *4.646*	39,0 *1.535*	49,0 *1.929*	M8x1	4,5	1	G6.3	1,1 *2.430*
C6-391.5603-12080	02753170	C6	12,0 *0.472*	80,0 *3.150*	55,0 *2.165*	47,5 *1.870*	34,0 *1.339*	24,0 *0.945*	32,0 *1.260*	118,0 *4.646*	34,0 *1.339*	44,0 *1.732*	M10x1	4,5	1	G6.3	1,1 *2.430*
C6-391.5603-14085	02753172	C6	14,0 *0.551*	85,0 *3.346*	60,0 *2.362*	47,5 *1.870*	34,0 *1.339*	27,0 *1.063*	34,0 *1.339*	123,0 *4.843*	39,0 *1.535*	49,0 *1.929*	M10x1	4,5	1	G6.3	1,2 *2.650*
C6-391.5603-16085	02753174	C6	16,0 *0.630*	85,0 *3.346*	60,0 *2.362*	50,5 *1.988*	39,0 *1.535*	27,0 *1.063*	34,0 *1.339*	123,0 *4.843*	36,0 *1.417*	46,0 *1.811*	M12x1	4,5	1	G6.3	1,1 *2.430*
C6-391.5603-18085	02753175	C6	18,0 *0.709*	85,0 *3.346*	60,0 *2.362*	50,5 *1.988*	39,0 *1.535*	33,0 *1.299*	42,0 *1.654*	123,0 *4.843*	36,0 *1.417*	46,0 *1.811*	M12x1	4,5	1	G6.3	1,3 *2.870*
C6-391.5603-20085	02753176	C6	20,0 *0.787*	85,0 *3.346*	60,0 *2.362*	52,5 *2.067*	41,0 *1.614*	33,0 *1.299*	42,0 *1.654*	123,0 *4.843*	34,0 *1.339*	44,0 *1.732*	M16x1	4,5	1	G6.3	1,2 *2.650*
C6-391.5603-25090	02753178	C6	25,0 *0.984*	90,0 *3.543*	65,0 *2.559*	58,5 *2.303*	47,0 *1.850*	44,0 *1.732*	53,0 *2.087*	128,0 *5.039*	33,0 *1.299*	43,0 *1.693*	M16x1	4,5	1	G6.3	1,6 *3.530*
C6-391.5603-32095	02753185	C6	32,0 *1.260*	95,0 *3.740*	70,0 *2.756*	62,5 *2.461*	51,0 *2.008*	44,0 *1.732*	53,0 *2.087*	133,0 *5.236*	34,0 *1.339*	44,0 *1.732*	M16x1	4,5	1	G6.3	1,5 *3.310*
C8-391.5603-16090	02753186	C8	16,0 *0.630*	90,0 *3.543*	57,0 *2.244*	50,5 *1.988*	39,0 *1.535*	27,0 *1.063*	34,0 *1.339*	138,0 *5.433*	41,0 *1.614*	51,0 *2.008*	M12x1	4,5	1	G6.3	2,1 *4.630*
C8-391.5603-18090	02753187	C8	18,0 *0.709*	90,0 *3.543*	57,0 *2.244*	50,5 *1.988*	39,0 *1.535*	33,0 *1.299*	42,0 *1.654*	138,0 *5.433*	41,0 *1.614*	51,0 *2.008*	M12x1	4,5	1	G6.3	2,2 *4.850*
C8-391.5603-20090	02753189	C8	20,0 *0.787*	90,0 *3.543*	57,0 *2.244*	52,5 *2.067*	41,0 *1.614*	33,0 *1.299*	42,0 *1.654*	138,0 *5.433*	39,0 *1.535*	49,0 *1.929*	M16x1	4,5	1	G6.3	2,2 *4.850*
C8-391.5603-25090	02753190	C8	25,0 *0.984*	90,0 *3.543*	57,0 *2.244*	58,5 *2.303*	47,0 *1.850*	44,0 *1.732*	53,0 *2.087*	138,0 *5.433*	33,0 *1.299*	43,0 *1.693*	M16x1	4,5	1	G6.3	2,4 *5.290*
C8-391.5603-32090	02753191	C8	32,0 *1.260*	90,0 *3.543*	57,0 *2.244*	62,5 *2.461*	51,0 *2.008*	44,0 *1.732*	53,0 *2.087*	138,0 *5.433*	29,0 *1.142*	39,0 *1.535*	M16x1	4,5	1	G6.3	2,3 *5.070*

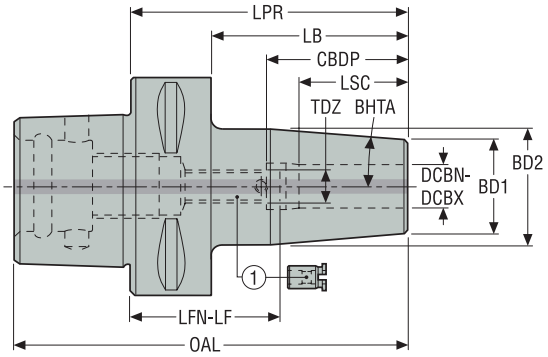
Spare Parts, included in delivery

For DCBN-DCBX	Stop screw
	
6/ *0.236*	19BDR05165
8/ *0.315*	19BDR06165
10/ *0.394*	19BDR08165
12-14/ *0.472-0.551*	19BDR10165
16-18/ *0.630-0.709*	19BDR12165
20-32/ *0.787-1.260*	19BDR16165

DIN type – Inch

Seco-Capto™





- Run-out ≤3 µm
- Delivered with one stop screw
- Without threads for balancing screws
- For ISO attribute explanation, see page 14

Spare parts:
1 = Stop screw

Designation	Item number	CTMS	DCBN-DCBX	LPR	LB	CBDP	LSC	BD1	BD2	OAL	LFN	LF	TDZ	BHTA°	RFID hole	Balancing	Weight
			inch	inch	inch	inch	inch	inch	inch	inch	inch	inch					lbs
C3-391.5603-025065	02753407	C3	0.250	2.559	1.850	1.476	0.866	0.827	1.063	3.307	1.142	1.535	M5x0.8	4,5	0	G6.3	0.660
C3-391.5603-031065	02753409	C3	0.3135	2.559	1.850	1.476	1.024	0.827	1.063	3.307	1.142	1.535	M6x1	4,5	0	G6.3	0.660
C3-391.5603-037070	02753410	C3	0.375	2.756	2.165	1.673	1.220	0.945	1.260	3.504	1.142	1.535	M8x1	4,5	0	G6.3	0.880
C3-391.5603-050070	02753411	C3	0.500	2.756	2.165	1.791	1.339	0.945	1.260	3.504	1.024	1.417	M10x1	4,5	0	G6.3	0.880
C4-391.5603-025075	02753415	C4	0.250	2.953	2.047	1.476	0.866	0.827	1.063	3.898	1.535	1.929	M5x0.8	4,5	0	G6.3	1.100
C4-391.5603-031075	02753418	C4	0.3135	2.953	2.047	1.476	1.024	0.827	1.063	3.898	1.535	1.929	M6x1	4,5	0	G6.3	1.100
C4-391.5603-037075	02753419	C4	0.375	2.953	2.047	1.673	1.220	0.945	1.260	3.898	1.339	1.732	M8x1	4,5	0	G6.3	1.320
C4-391.5603-050075	02753421	C4	0.500	2.953	2.047	1.791	1.339	0.945	1.260	3.898	1.220	1.614	M10x1	4,5	0	G6.3	1.100
C4-391.5603-062080	02753422	C4	0.625	3.150	2.244	1.988	1.535	1.063	1.339	4.094	1.220	1.614	M12x1	4,5	0	G6.3	1.320
C5-391.5603-025075	02753423	C5	0.250	2.953	2.047	1.476	0.866	0.827	1.063	4.134	1.535	1.929	M5x0.8	4,5	1	G6.3	1.540
C5-391.5603-031075	02753424	C5	0.3135	2.953	2.047	1.476	1.024	0.827	1.063	4.134	1.535	1.929	M6x1	4,5	1	G6.3	1.540
C5-391.5603-037075	02753425	C5	0.375	2.953	2.047	1.673	1.220	0.945	1.260	4.134	1.339	1.732	M8x1	4,5	1	G6.3	1.540
C5-391.5603-050075	02753426	C5	0.500	2.953	2.047	1.791	1.339	0.945	1.260	4.134	1.220	1.614	M10x1	4,5	1	G6.3	1.540
C5-391.5603-062080	02753428	C5	0.625	3.150	2.244	1.988	1.535	1.063	1.339	4.331	1.220	1.614	M12x1	4,5	1	G6.3	1.760
C5-391.5603-075085	02753429	C5	0.750	3.346	2.441	2.067	1.614	1.299	1.654	4.528	1.339	1.732	M16x1	4,5	1	G6.3	1.980
C5-391.5603-100090	02753430	C5	1.000	3.543	2.756	2.303	1.850	1.732	2.087	4.724	1.299	1.693	M16x1	4,5	1	G6.3	2.870
C5-391.5603-125090	02753431	C5	1.250	3.543	2.756	2.461	2.008	1.732	2.087	4.724	1.142	1.535	M16x1	4,5	1	G6.3	2.430
C6-391.5603-025075	02753432	C6	0.250	2.953	1.969	1.476	0.866	0.827	1.063	4.449	1.535	1.929	M5x0.8	4,5	1	G6.3	2.200
C6-391.5603-031075	02753433	C6	0.3135	2.953	1.969	1.476	1.024	0.827	1.063	4.449	1.535	1.929	M6x1	4,5	1	G6.3	2.200
C6-391.5603-037080	02753434	C6	0.375	3.150	2.165	1.673	1.220	0.945	1.260	4.646	1.535	1.929	M8x1	4,5	1	G6.3	2.430
C6-391.5603-050080	02753435	C6	0.500	3.150	2.165	1.791	1.339	0.945	1.260	4.646	1.417	1.811	M10x1	4,5	1	G6.3	2.430
C6-391.5603-062085	02753436	C6	0.625	3.346	2.362	1.988	1.535	1.063	1.339	4.843	1.417	1.811	M12x1	4,5	1	G6.3	2.430
C6-391.5603-075085	02753437	C6	0.750	3.346	2.362	2.067	1.614	1.299	1.654	4.843	1.339	1.732	M16x1	4,5	1	G6.3	2.650
C6-391.5603-100090	02753439	C6	1.000	3.543	2.559	2.303	1.850	1.732	2.087	5.039	1.299	1.693	M16x1	4,5	1	G6.3	3.530
C6-391.5603-125095	02753440	C6	1.250	3.740	2.756	2.461	2.008	1.732	2.087	5.236	1.339	1.732	M16x1	4,5	1	G6.3	3.310
C8-391.5603-062090	02753441	C8	0.625	3.543	2.244	1.988	1.535	1.063	1.339	5.433	1.614	2.008	M12x1	4,5	1	G6.3	4.630
C8-391.5603-075095	02753442	C8	0.750	3.740	2.441	2.067	1.614	1.299	1.654	5.630	1.732	2.126	M16x1	4,5	1	G6.3	4.850
C8-391.5603-100095	02753443	C8	1.000	3.740	2.441	2.303	1.850	1.732	2.087	5.630	1.496	1.890	M16x1	4,5	1	G6.3	5.510
C8-391.5603-125095	02753445	C8	1.250	3.740	2.441	2.461	2.008	1.732	2.087	5.630	1.339	1.732	M16x1	4,5	1	G6.3	5.290

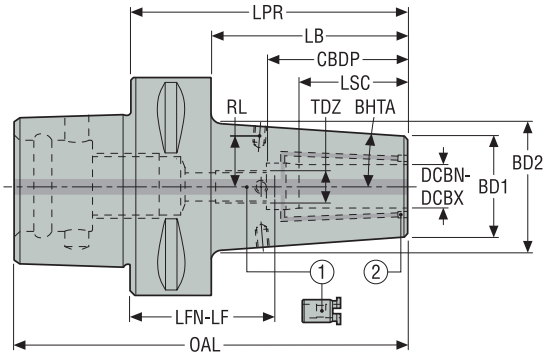
Accessories

For DCBN-DCBX	Stop screw
	
0.250	19BDR05165
0.313	19BDR06165
0.375	19BDR08165
0.500	19BDR10165
0.625	19BDR12165
0.750	19BDR16165
1.000	19BDR16165
1.250	19BDR16165

Reinforced type
– Metric / *Inch*

Seco-Capto™





- Run-out ≤3 µm
- With coolant supply channels towards the tool (plugged)
- Delivered with one stop screw
- For ISO attribute explanation, see page 14

Spare parts:
1 = Stop screw
2 = Sealing plugs

Designation	Item number	CTMS	DCBN-DCBX	LPR*	LB	CBDP	LSC	BD1	BD2	OAL	LFN	LF	RL	TDZ	BHTA°	RFID hole	Balancing	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*					kg *lbs*
C6-391.5600-12080	02904834	C6	12,0 *0.472*	80,0 *3.150*	55,0 *2.165*	47,5 *1.870*	34,0 *1.339*	27,0 *1.063*	35,2 *1.385*	118,0 *4.646*	34,0 *1.339*	44,0 *1.732*	13,5 *0.531*	M10x1	4,5	1	G6.3	1,2 *2.650*
C6-391.5600-16085	02904835	C6	16,0 *0.630*	85,0 *3.346*	60,0 *2.362*	50,5 *1.988*	39,0 *1.535*	33,0 *1.299*	42,1 *1.659*	123,0 *4.843*	36,0 *1.417*	46,0 *1.811*	17,0 *0.669*	M12x1	4,5	1	G6.3	1,3 *2.870*
C6-391.5600-20085	02904836	C6	20,0 *0.787*	85,0 *3.346*	60,0 *2.362*	52,5 *2.067*	41,0 *1.614*	44,0 *1.732*	53,1 *2.092*	123,0 *4.843*	34,0 *1.339*	44,0 *1.732*	21,5 *0.846*	M16x1	4,5	1	G6.3	1,6 *3.530*
C6-391.5600-25090	02904837	C6	25,0 *0.984*	90,0 *3.543*	65,0 *2.559*	58,5 *2.303*	47,0 *1.850*	48,0 *1.890*	57,1 *2.249*	128,0 *5.039*	33,0 *1.299*	43,0 *1.693*	25,0 *0.984*	M16x1	4,5	1	G6.3	1,7 *3.750*
C8-391.5600-16095	02904838	C8	16,0 *0.630*	95,0 *3.740*	62,0 *2.441*	50,5 *1.988*	39,0 *1.535*	33,0 *1.299*	42,1 *1.659*	143,0 *5.630*	46,0 *1.811*	56,0 *2.205*	17,0 *0.669*	M12x1	4,5	1	G6.3	2,3 *5.070*
C8-391.5600-20095	02904839	C8	20,0 *0.787*	95,0 *3.740*	62,0 *2.441*	52,5 *2.067*	41,0 *1.614*	44,0 *1.732*	53,1 *2.092*	143,0 *5.630*	44,0 *1.732*	54,0 *2.126*	21,5 *0.846*	M16x1	4,5	1	G6.3	2,6 *5.730*
C8-391.5600-25100	02904840	C8	25,0 *0.984*	100,0 *3.937*	67,0 *2.638*	58,5 *2.303*	47,0 *1.850*	48,0 *1.890*	57,1 *2.249*	148,0 *5.827*	43,0 *1.693*	53,0 *2.087*	25,0 *0.984*	M16x1	4,5	1	G6.3	2,8 *6.170*

Accessories

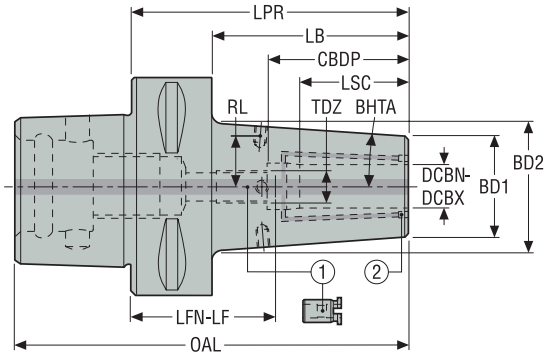
For DCBN-DCBX	Balancing screws
	
All	90ZQ01

Spare Parts, included in delivery

For DCBN-DCBX	Sealing plugs	Stop screw
		
12/ *0.472*	90AI03	19BDR10165
16/ *0.630*	90AI03	19BDR12165
20-25/ *0.787-0.984*	90AI04	19BDR16165

Seco-Capto/ ISO 26623-1

Reinforced type – Inch





Spare parts:
1 = Stop screw
2 = Sealing plugs

- Run-out ≤3 µm
- With coolant supply channels towards the tool (plugged)
- Delivered with one stop screw
- For ISO attribute explanation, see page 14

Designation	Item number	CTMS	DCBN-DCBX	LPR	LB	CBDP	LSC	BD1	BD2	OAL	LFN	LF	RL	TDZ	BHTA°	RFID hole	Balan-cing	Weight
			inch	inch	inch	inch	inch	inch	inch	inch	inch	inch	inch					lbs
C6-391.5600-050312	02904863	C6	0.500	3.125	2.141	1.870	1.339	1.063	1.385	4.621	1.314	1.708	0.531	M10x1	4,5	1	G6.3	2.430
C6-391.5600-062337	02904864	C6	0.625	3.375	2.391	1.988	1.535	1.299	1.659	4.871	1.446	1.840	0.669	M12x1	4,5	1	G6.3	2.870
C6-391.5600-075337	02904865	C6	0.750	3.375	2.391	2.067	1.614	1.732	2.092	4.871	1.367	1.761	0.846	M16x1	4,5	1	G6.3	3.530
C8-391.5600-075375	02904866	C8	0.750	3.750	2.451	2.067	1.614	1.732	2.092	5.640	1.742	2.136	0.846	M16x1	4,5	1	G6.3	5.730
C8-391.5600-100400	02904867	C8	1.000	4.000	2.701	2.303	1.850	1.890	2.249	5.890	1.756	2.150	0.984	M16x1	4,5	1	G6.3	6.170
C8-391.5600-125400	02904868	C8	1.250	4.000	2.701	2.461	2.008	1.890	2.249	5.890	1.598	1.992	0.984	M16x1	4,5	1	G6.3	5.730

Accessories

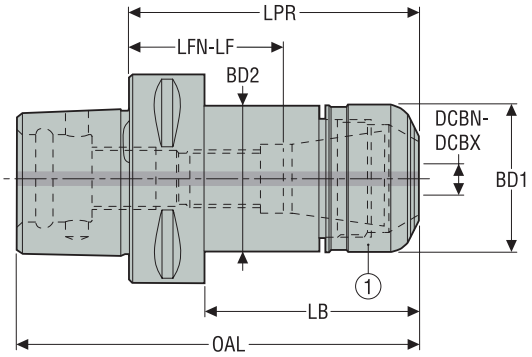
For DCBN-DCBX	Balancing screws
	
All	90ZQ01

Spare Parts, included in delivery

For DCBN-DCBX	Sealing plugs	Stop screw
		
0.500	90AI03	19BDR10165
0.625	90AI03	19BDR12165
0.750-1.250	90AI04	19BDR16165

– **Metric** / *Inch*



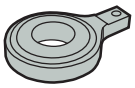
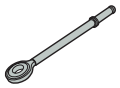
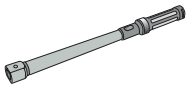


- Run-out 3 µm maximum at 3 x ∅DCBN-DCBX
- For ER HP collets type 5672, see page(s) 402, 403, 404-410
- * Chuck without thread for stop screw
- For ISO attribute explanation, see page 14

Spare parts:
1 = Nut

Designation	Item number	CTMS	DCBN	DCBX	CTWS	LPR	BD1	BD2	OAL	LB	LFN	LF	*	RFID hole	Balancing	Weight
			mm *inch*	mm *inch*		mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*				kg *lbs*
C3-391.5672-11045	02882777	C3	0,5 *0.020*	7,0 *0.276*	HP 11	45,0 *1.772*	16,0 *0.630*	16,0 *0.630*	64,0 *2.520*	30,0 *1.181*	9,0 *0.354*	27,0 *1.063*	*	0	G6.3	0,2 *0.440*
C3-391.5672-16045R	02827272	C3	0,5 *0.020*	10,0 *0.394*	HP 16R	45,0 *1.772*	24,0 *0.945*	24,0 *0.945*	64,0 *2.520*	30,0 *1.181*	14,0 *0.551*	15,0 *0.591*	*	0	G6.3	0,2 *0.440*
C3-391.5672-16060	02827271	C3	0,5 *0.020*	10,0 *0.394*	HP 16	60,0 *2.362*	30,0 *1.181*	30,0 *1.181*	79,0 *3.110*	45,0 *1.772*	29,0 *1.142*	30,0 *1.181*		0	G6.3	0,3 *0.660*
C4-391.5672-11045	02882778	C4	0,5 *0.020*	7,0 *0.276*	HP 11	45,0 *1.772*	16,0 *0.630*	16,0 *0.630*	69,0 *2.717*	25,0 *0.984*	9,0 *0.354*	27,0 *1.063*	*	0	G6.3	0,3 *0.660*
C4-391.5672-16045R	02827275	C4	0,5 *0.020*	10,0 *0.394*	HP 16R	45,0 *1.772*	24,0 *0.945*	24,0 *0.945*	69,0 *2.717*	25,0 *0.984*	14,0 *0.551*	15,0 *0.591*	*	0	G6.3	0,4 *0.880*
C4-391.5672-16060	02827274	C4	0,5 *0.020*	10,0 *0.394*	HP 16	60,0 *2.362*	30,0 *1.181*	30,0 *1.181*	84,0 *3.307*	40,0 *1.575*	29,0 *1.142*	30,0 *1.181*		0	G6.3	0,5 *1.100*
C5-391.5672-16065	02827276	C5	0,5 *0.020*	10,0 *0.394*	HP 16	65,0 *2.559*	30,0 *1.181*	30,0 *1.181*	95,0 *3.740*	45,0 *1.772*	34,0 *1.339*	35,0 *1.378*		1	G6.3	0,64 *1.410*
C5-391.5672-25085	02827277	C5	1,0 *0.039*	16,0 *0.630*	HP 25	85,0 *3.346*	40,0 *1.575*	40,0 *1.575*	115,0 *4.528*	65,0 *2.559*	29,0 *1.142*	47,0 *1.850*		1	G6.3	0,9 *1.980*
C6-391.5672-16075	02827278	C6	0,5 *0.020*	10,0 *0.394*	HP 16	75,0 *2.953*	30,0 *1.181*	30,0 *1.181*	113,0 *4.449*	53,0 *2.087*	44,0 *1.732*	45,0 *1.772*		1	G6.3	1,1 *2.430*
C6-391.5672-25090	02827279	C6	1,0 *0.039*	16,0 *0.630*	HP 25	90,0 *3.543*	40,0 *1.575*	40,0 *1.575*	128,0 *5.039*	68,0 *2.677*	34,0 *1.339*	52,0 *2.047*		1	G6.3	1,3 *2.870*
C8-391.5672-25100	02827281	C8	1,0 *0.039*	16,0 *0.630*	HP 25	100,0 *3.937*	40,0 *1.575*	40,0 *1.575*	148,0 *5.827*	70,0 *2.756*	44,0 *1.732*	62,0 *2.441*		1	G6.3	2,3 *5.070*
C8-391.5672-32100	02827282	C8	2,0 *0.079*	20,0 *0.787*	HP 32	100,0 *3.937*	50,0 *1.969*	50,0 *1.969*	148,0 *5.827*	70,0 *2.756*	44,0 *1.732*	48,0 *1.890*		1	G6.3	2,5 *5.510*

Accessories

For size	Socket	Spanner	Stop screw	Torque key
				
HP 11	03ER016	03BR016	–	03DYD010100
HP 16 C3	03ER030B	03BR030	19B58711	03DYD010100B
HP 16 C4	03ER030B	03BR030	19B58711	03DYD010100B
HP 16 C5	03ER030B	03BR030	19B58711	03DYD010100B
HP 16 C6	03ER030B	03BR030	19B58711	03DYD010100B
HP 16R	03ER024	03BR024	–	03DYD010100
HP 25	03ER040	03BR040	19B58718	03DYD020200
HP 32	03ER050	03BR050	19B58722	03DYD020200

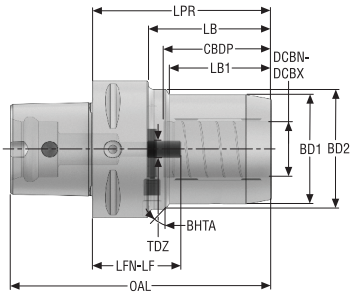
Spare Parts, included in delivery

For size	Nut
	
HP 11	08B567211
HP 16	08B567216
HP 16R	08B567216R
HP 25	08B567225
HP 32	08B567232

Conventional type
– Metric / *Inch*

Seco-Capto™





- Run-out ≤3 µm
- For ISO attribute explanation, see page 14

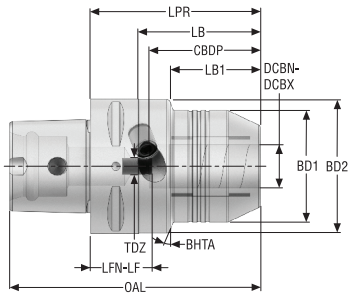
Designation	Item number	CTMS	DCBN-DCBX	LPR	LB	LB1	CBDP	BD2	BD1	OAL	LFN	LF	TDZ	BHTA°	RFID hole	Balancing	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*					kg *lbs*
C5-HC06-065	10137305	C5	6,0 *0.236*	65,0 *2.559*	45,0 *1.772*	23,0 *0.906*	38,0 *1.496*	50,0 *1.969*	26,0 *1.024*	95,0 *3.740*	27,0 *1.063*	37,0 *1.457*	M5x0.8	30,0	1	–	0,8 *1.760*
C5-HC08-065	10137306	C5	8,0 *0.315*	65,0 *2.559*	45,0 *1.772*	24,0 *0.945*	38,0 *1.496*	50,0 *1.969*	28,0 *1.102*	95,0 *3.740*	27,0 *1.063*	37,0 *1.457*	M5x0.8	30,0	1	–	0,8 *1.760*
C5-HC10-075	10137307	C5	10,0 *0.394*	75,0 *2.953*	55,0 *2.165*	34,0 *1.339*	42,0 *1.654*	50,0 *1.969*	30,0 *1.181*	105,0 *4.134*	33,0 *1.299*	43,0 *1.693*	M8x1.25	30,0	1	–	0,9 *1.980*
C5-HC12-080	10137308	C5	12,0 *0.472*	80,0 *3.150*	60,0 *2.362*	40,0 *1.575*	47,0 *1.850*	50,0 *1.969*	32,0 *1.260*	110,0 *4.331*	33,0 *1.299*	43,0 *1.693*	M10x1.5	30,0	1	–	0,9 *1.980*
C5-HC16-085	10137309	C5	16,0 *0.630*	85,0 *3.346*	65,0 *2.559*	46,0 *1.811*	50,0 *1.969*	50,0 *1.969*	38,0 *1.496*	115,0 *4.528*	35,0 *1.378*	45,0 *1.772*	M10x1.5	30,0	1	–	1,0 *2.200*
C5-HC20-085	10137310	C5	20,0 *0.787*	85,0 *3.346*	65,0 *2.559*	47,0 *1.850*	52,0 *2.047*	50,0 *1.969*	42,0 *1.654*	115,0 *4.528*	33,0 *1.299*	43,0 *1.693*	M10x1.5	30,0	1	–	1,1 *2.430*
C5-HC25-095	10137311	C5	25,0 *0.984*	95,0 *3.740*	75,0 *2.953*	–	58,0 *2.283*	–	58,0 *2.283*	125,0 *4.921*	37,0 *1.457*	47,0 *1.850*	M10x1.5	–	1	–	1,7 *3.750*
C6-HC06-065	10137312	C6	6,0 *0.236*	65,0 *2.559*	40,0 *1.575*	23,0 *0.906*	38,0 *1.496*	50,0 *1.969*	26,0 *1.024*	103,0 *4.055*	27,0 *1.063*	37,0 *1.457*	M5x0.8	30,0	1	–	1,2 *2.650*
C6-HC08-065	10137313	C6	8,0 *0.315*	65,0 *2.559*	40,0 *1.575*	24,0 *0.945*	38,0 *1.496*	50,0 *1.969*	28,0 *1.102*	103,0 *4.055*	27,0 *1.063*	37,0 *1.457*	M5x0.8	30,0	1	–	1,2 *2.650*
C6-HC10-075	10137314	C6	10,0 *0.394*	75,0 *2.953*	50,0 *1.969*	34,0 *1.339*	42,0 *1.654*	50,0 *1.969*	30,0 *1.181*	113,0 *4.449*	33,0 *1.299*	43,0 *1.693*	M8x1.25	30,0	1	–	1,2 *2.650*
C6-HC12-080	10137315	C6	12,0 *0.472*	80,0 *3.150*	55,0 *2.165*	40,0 *1.575*	47,0 *1.850*	50,0 *1.969*	32,0 *1.260*	118,0 *4.646*	33,0 *1.299*	43,0 *1.693*	M10x1.5	30,0	1	–	1,2 *2.650*
C6-HC16-085	10137316	C6	16,0 *0.630*	85,0 *3.346*	60,0 *2.362*	46,0 *1.811*	50,0 *1.969*	50,0 *1.969*	38,0 *1.496*	123,0 *4.843*	35,0 *1.378*	45,0 *1.772*	M10x1.5	30,0	1	–	1,4 *3.090*
C6-HC20-085	10137317	C6	20,0 *0.787*	85,0 *3.346*	60,0 *2.362*	47,0 *1.850*	52,0 *2.047*	50,0 *1.969*	42,0 *1.654*	123,0 *4.843*	33,0 *1.299*	43,0 *1.693*	M10x1.5	30,0	1	–	1,4 *3.090*
C6-HC25-095	10137318	C6	25,0 *0.984*	95,0 *3.740*	70,0 *2.756*	–	58,0 *2.283*	–	58,0 *2.283*	133,0 *5.236*	37,0 *1.457*	47,0 *1.850*	–	–	1	–	2,0 *4.410*
C6-HC32-100	10137319	C6	32,0 *1.260*	100,0 *3.937*	78,0 *3.071*	–	63,0 *2.480*	–	64,0 *2.520*	138,0 *5.433*	37,0 *1.457*	47,0 *1.850*	M10x1.5	–	1	–	2,3 *5.070*
C8-HC20-095	10137320	C8	20,0 *0.787*	95,0 *3.740*	62,0 *2.441*	47,0 *1.850*	52,0 *2.047*	50,0 *1.969*	42,0 *1.654*	143,0 *5.630*	43,0 *1.693*	53,0 *2.087*	M10x1.5	30,0	1	–	2,4 *5.290*
C8-HC32-105	10137321	C8	32,0 *1.260*	105,0 *4.134*	72,0 *2.835*	60,0 *2.362*	63,0 *2.480*	70,0 *2.756*	64,0 *2.520*	153,0 *6.024*	42,0 *1.654*	52,0 *2.047*	M10x1.5	30,0	1	G6.3	3,2 *7.050*

Accessories

For size	Key
	
All	03MS04C

Seco-Capto™

Reinforced type
– Metric / *Inch*

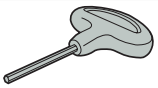




- Run-out ≤3 µm
- For reduction sleeves, see page(s) 394, 395
- For ISO attribute explanation, see page 14

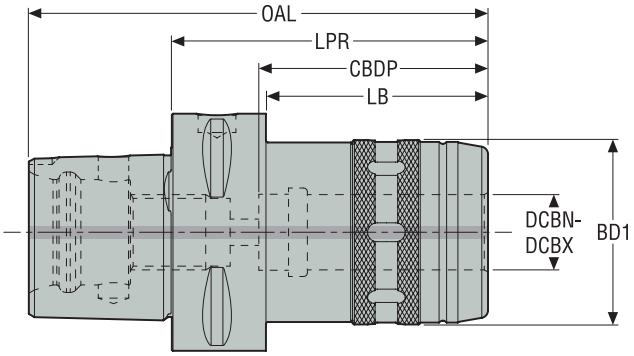
Designation	Item number	CTMS	DCBN-DCBX	LPR	LB	LB1	CBDP	BD2	BD1	OAL	LFN	LF	TDZ	BHTA°	RFID hole	Balan-cing	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*					kg *lbs*
C6-HCR12-075	10137146	C6	12,0 *0.472*	75,0 *2.953*	53,0 *2.087*	33,0 *1.299*	47,5 *1.870*	62,5 *2.461*	42,0 *1.654*	113,0 *4.449*	29,0 *1.142*	39,0 *1.535*	M8x1	20,0	0	G2.5	1,5 *3.310*
C6-HCR20-080	10137147	C6	20,0 *0.787*	80,0 *3.150*	57,4 *2.260*	41,0 *1.614*	52,5 *2.067*	62,5 *2.461*	52,5 *2.067*	118,0 *4.646*	29,0 *1.142*	39,0 *1.535*	M8x1	20,0	0	G2.5	1,7 *3.750*

Accessories

For size	Key
	
All	H05-4

– Metric / *Inch*

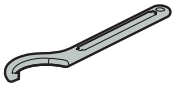




- For reduction sleeves, see page(s) 398-399
- For 'Stop screws for through coolant', see page(s) 400-401
- For ISO attribute explanation, see page 14

Designation	Item number	CTMS	DCBN-DCBX	OAL	LPR	LB	CBDP	BD1	RFID hole	Balancing	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*			kg *lbs*
C6-PMC20-080	03211193	C6	20,0 *0.787*	118,0 *4.646*	80,0 *3.150*	58,0 *2.283*	60,0 *2.362*	49,0 *1.929*	1	PB	1,4 *3.090*
C6-PMC32-100	03211194	C6	32,0 *1.260*	138,0 *5.433*	100,0 *3.937*	78,0 *3.071*	80,0 *3.150*	67,0 *2.638*	1	PB	2,2 *4.850*
C8-PMC20-080	03211195	C8	20,0 *0.787*	128,0 *5.039*	80,0 *3.150*	50,0 *1.969*	60,0 *2.362*	49,0 *1.929*	1	PB	2,3 *5.070*
C8-PMC32-100	03211196	C8	32,0 *1.260*	148,0 *5.827*	100,0 *3.937*	70,0 *2.756*	80,0 *3.150*	67,0 *2.638*	1	PB	3,0 *6.610*

Accessories

For DCB	Spanner
	
20/ *0.787*	03BPMC20
32/ *1.260*	03BPMC32

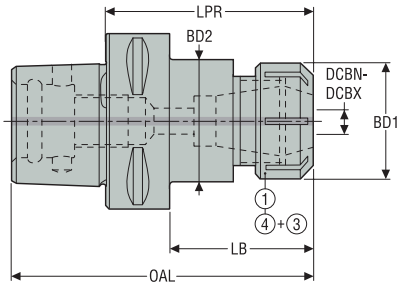
Spare Parts, included in delivery

For DCB	Extractor for reduction sleeves
	
20/ *0.787*	03EXTPMC
32/ *1.260*	03EXTPMC

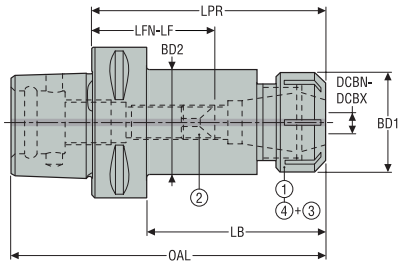
Seco-Capto™

ISO 15488
– Metric / *Inch*

Design 1



Design 2





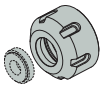
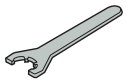
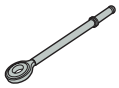
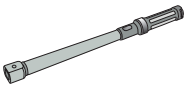
Accessories:
3 = Sealing ring
4 = Sealing nut

Spare parts:
1 = Nut
2 = Stop screw

- Run-out 10 µm maximum at 3 x ∅DCBN-DCBX
- For ER extensions and ER collets, see page(s) 375, 411, 412, 413, 414
- For ER sealing rings, see page(s) 418, 419
- For ISO attribute explanation, see page 14

Designation	Item number	CTMS	DCBN	DCBX	CTWS	LPR	BD2	BD1	OAL	LB	LFN	LF	Design	RFID hole	Balan-cing	Weight
			mm *inch*	mm *inch*		mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*				kg *lbs*
C3-391.5675-16045	02750072	C3	0,5 *0.020*	10,0 *0.394*	ER 16	45,0 *1.772*	32,0 *1.260*	32,0 *1.260*	64,0 *2.520*	27,0 *1.063*	13,0 *0.512*	13,0 *0.512*	1	0	G6.3	0,3 *0.660*
C4-391.5675-25052	02750074	C4	1,0 *0.039*	16,0 *0.630*	ER 25	52,0 *2.047*	42,0 *1.654*	42,0 *1.654*	76,0 *2.992*	29,0 *1.142*	14,0 *0.551*	14,0 *0.551*	1	0	G6.3	0,4 *0.880*
C4-391.5675-32054	02750076	C4	2,0 *0.079*	20,0 *0.787*	ER 32	54,0 *2.126*	40,0 *1.575*	50,0 *1.969*	78,0 *3.071*	31,0 *1.220*	14,0 *0.551*	14,0 *0.551*	1	0	G6.3	0,5 *1.100*
C5-391.5675-25055	02750077	C5	1,0 *0.039*	16,0 *0.630*	ER 25	55,0 *2.165*	42,0 *1.654*	42,0 *1.654*	85,0 *3.346*	32,0 *1.260*	17,0 *0.669*	17,0 *0.669*	1	1	G6.3	0,7 *1.540*
C5-391.5675-25100	02750079	C5	1,0 *0.039*	16,0 *0.630*	ER 25	100,0 *3.937*	42,0 *1.654*	42,0 *1.654*	130,0 *5.118*	77,0 *3.031*	43,0 *1.693*	62,0 *2.441*	2	1	G6.3	1,1 *2.430*
C5-391.5675-32057	02750080	C5	2,0 *0.079*	20,0 *0.787*	ER 32	57,0 *2.244*	50,0 *1.969*	50,0 *1.969*	87,0 *3.425*	34,0 *1.339*	17,0 *0.669*	17,0 *0.669*	1	1	G6.3	0,66 *1.460*
C6-391.5675-16100	02750081	C6	0,5 *0.020*	10,0 *0.394*	ER 16	100,0 *3.937*	32,0 *1.260*	32,0 *1.260*	138,0 *5.433*	75,0 *2.953*	52,0 *2.047*	68,0 *2.677*	2	1	G6.3	1,2 *2.650*
C6-391.5675-25060	02750082	C6	1,0 *0.039*	16,0 *0.630*	ER 25	60,0 *2.362*	42,0 *1.654*	42,0 *1.654*	98,0 *3.858*	35,0 *1.378*	22,0 *0.866*	22,0 *0.866*	1	1	G6.3	0,99 *2.180*
C6-391.5675-25100	02750084	C6	1,0 *0.039*	16,0 *0.630*	ER 25	100,0 *3.937*	42,0 *1.654*	42,0 *1.654*	138,0 *5.433*	75,0 *2.953*	31,0 *1.220*	62,0 *2.441*	2	1	G6.3	1,4 *3.090*
C6-391.5675-25130	02750085	C6	1,0 *0.039*	16,0 *0.630*	ER 25	130,0 *5.118*	42,0 *1.654*	42,0 *1.654*	168,0 *6.614*	105,0 *4.134*	61,0 *2.402*	92,0 *3.622*	2	1	G6.3	1,7 *3.750*
C6-391.5675-25160	02750086	C6	1,0 *0.039*	16,0 *0.630*	ER 25	160,0 *6.299*	42,0 *1.654*	42,0 *1.654*	198,0 *7.795*	135,0 *5.315*	91,0 *3.583*	122,0 *4.803*	2	1	G6.3	2,0 *4.410*
C6-391.5675-32060	02750087	C6	2,0 *0.079*	20,0 *0.787*	ER 32	60,0 *2.362*	50,0 *1.969*	50,0 *1.969*	98,0 *3.858*	35,0 *1.378*	20,0 *0.787*	20,0 *0.787*	1	1	G6.3	1,1 *2.430*
C6-391.5675-32100	02750088	C6	2,0 *0.079*	20,0 *0.787*	ER 32	100,0 *3.937*	50,0 *1.969*	50,0 *1.969*	138,0 *5.433*	78,0 *3.071*	32,0 *1.260*	60,0 *2.362*	2	1	G6.3	1,6 *3.530*
C6-391.5675-32130	02750089	C6	2,0 *0.079*	20,0 *0.787*	ER 32	130,0 *5.118*	50,0 *1.969*	50,0 *1.969*	168,0 *6.614*	108,0 *4.252*	62,0 *2.441*	90,0 *3.543*	2	1	G6.3	2,1 *4.630*
C6-391.5675-40065	02750091	C6	3,0 *0.118*	26,0 *1.024*	ER 40	65,0 *2.559*	63,0 *2.480*	63,0 *2.480*	103,0 *4.055*	40,0 *1.575*	20,0 *0.787*	20,0 *0.787*	1	1	G6.3	1,3 *2.870*
C8-391.5675-32070	02750092	C8	2,0 *0.079*	20,0 *0.787*	ER 32	70,0 *2.756*	50,0 *1.969*	50,0 *1.969*	118,0 *4.646*	37,0 *1.457*	15,0 *0.591*	30,0 *1.181*	2	1	G6.3	2,1 *4.630*
C8-391.5675-32160	02750094	C8	2,0 *0.079*	20,0 *0.787*	ER 32	160,0 *6.299*	50,0 *1.969*	50,0 *1.969*	208,0 *8.189*	130,0 *5.118*	92,0 *3.622*	120,0 *4.724*	2	1	G6.3	3,4 *7.500*
C8-391.5675-40070	02750095	C8	3,0 *0.118*	26,0 *1.024*	ER 40	70,0 *2.756*	63,0 *2.480*	63,0 *2.480*	118,0 *4.646*	37,0 *1.457*	25,0 *0.984*	25,0 *0.984*	2	1	G6.3	2,2 *4.850*

Accessories

For size	Seal nut	Socket	Spanner	Spanner 1	Torque key
					
...-16045	08B587516IC	03ER032B	03B587516	03BR032	03DYD010100B
...-25052	08B587525IC	–	03B587525	–	03DYD020200
...-32054	08B587532IC	03ER050	03B587532	03BR050	03DYD020200
...-25055	08B587525IC	–	03B587525	–	03DYD020200
...-25100	08B587525IC	–	03B587525	–	03DYD020200
...-32057	08B587532IC	03ER050	03B587532	03BR050	03DYD020200
...-16100	08B587516IC	03ER032B	03B587516	03BR032	03DYD010100B
...-25060	08B587525IC	–	03B587525	–	03DYD020200
...-25130	08B587525IC	–	03B587525	–	03DYD020200
...-25160	08B587525IC	–	03B587525	–	03DYD020200
...-32060	08B587532IC	03ER050	03B587532	03BR050	03DYD020200
...-32100	08B587532IC	03ER050	03B587532	03BR050	03DYD020200
...-32130	08B587532IC	03ER050	03B587532	03BR050	03DYD020200
...-40065	08B587540IC	03ER063	03B587540	03BR063	03DYD020200
...-32070	08B587532IC	03ER050	03B587532	03BR050	03DYD020200
...-32160	08B587532IC	03ER050	03B587532	03BR050	03DYD020200
...-40070	08B587540IC	03ER063	03B587540	03BR063	03DYD020200

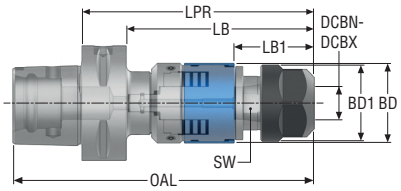
Spare Parts, included in delivery

For size	Nut	Stop screw
		
...-16045	08B587516X	–
...-16100	08B587516X	19B58711
...-25052	08B587525X	–
...-25055	08B587525X	–
...-25060	08B587525X	–
...-25100	08B587525X	19B58718
...-25130	08B587525X	19B58718
...-25160	08B587525X	19B58718
...-32054	08B587532X	–
...-32057	08B587532X	–
...-32060	08B587532X	–
...-32070	08B587532X	19B58722
...-32100	08B587532X	19B58722
...-32130	08B587532X	19B58722
...-32160	08B587532X	19B58722
...-40065	08B587540X	–
...-40070	08B587540X	19B58730

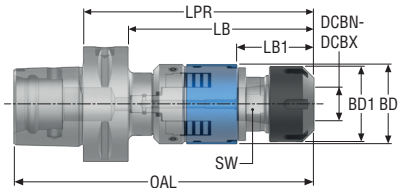
Seco-Capto™

For synchronized tapping, with micro-compensation – Metric / *Inch*

Design 1



Design 2

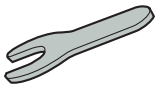
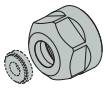
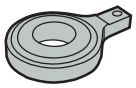
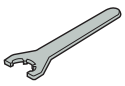
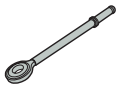
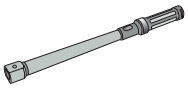




- Maximum coolant pressure 80 bar/ *1160 psi*
- For ER tapping collets with square drive, see page(s) 415, 416-417
- For TCER 5867 sealing rings, see page(s) 418, 419
- For ISO attribute explanation, see page 14

Designation	Item number	CTMS	CTWS	DCBN	DCBX	LPR	LB	LB1	BD	BD1	OAL	SW	Design	RFID hole	Balan-cing	Weight
						mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*				kg *lbs*
C4-391.5867-11080	02926957	C4	ER 11	M2	M5	80,0 *3.150*	60,0 *2.362*	24,1 *0.949*	23,5 *0.925*	18,7 *0.736*	104,0 *4.094*	12.7 *0.500*	1	0	–	0,4 *0.880*
C4-391.5867-20102	02926958	C4	ER 20	M4	M12	97,2 *3.827*	77,0 *3.031*	35,3 *1.390*	35,0 *1.378*	33,7 *1.327*	121,2 *4.772*	22 *0.866*	1	0	–	0,7 *1.540*
C4-391.5867-25122	02926959	C4	ER 25	M8	M20	116,6 *4.591*	96,6 *3.803*	37,1 *1.461*	44,0 *1.732*	42,0 *1.654*	140,6 *5.535*	28 *1.102*	2	0	–	0,9 *1.980*
C5-391.5867-20103	02926960	C5	ER 20	M4	M12	97,7 *3.846*	77,7 *3.059*	35,3 *1.390*	35,0 *1.378*	33,7 *1.327*	127,7 *5.028*	22 *0.866*	1	0	–	0,9 *1.980*
C5-391.5867-25122	02926961	C5	ER 25	M8	M20	117,1 *4.610*	97,1 *3.823*	37,1 *1.461*	44,0 *1.732*	42,0 *1.654*	147,1 *5.791*	28 *1.102*	2	0	–	1,2 *2.650*
C5-391.5867-40154	02926962	C5	ER 40	M16	M33	148,6 *5.850*	46,6 *1.835*	25,5 *1.004*	62,0 *2.441*	62,7 *2.469*	178,6 *7.031*	39.6875 *1.563*	2	0	–	2,8 *6.170*
C6-391.5867-20105	02926963	C6	ER 20	M4	M12	99,7 *3.925*	77,7 *3.059*	35,3 *1.390*	35,0 *1.378*	33,7 *1.327*	137,7 *5.421*	22 *0.866*	1	0	–	1,2 *2.650*
C6-391.5867-25124	02926964	C6	ER 25	M8	M20	119,1 *4.689*	97,1 *3.823*	37,1 *1.461*	44,0 *1.732*	42,0 *1.654*	157,1 *6.185*	28 *1.102*	2	0	–	1,6 *3.530*
C6-391.5867-40154	02926965	C6	ER 40	M16	M33	148,1 *5.831*	126,1 *4.965*	46,6 *1.835*	62,0 *2.441*	62,7 *2.469*	186,1 *7.327*	39.6875 *1.563*	2	0	–	2,9 *6.390*
C6-391.5867-50210	03131173	C6	ER 50	M20	M48	208,0 *8.189*	134,5 *5.295*	76,5 *3.012*	86,0 *3.386*	78,0 *3.071*	246,0 *9.685*	56.2 *2.213*	2	0	–	5,9 *13.010*
C8-391.5867-20112	02926966	C8	ER 20	M4	M12	106,7 *4.201*	76,7 *3.020*	35,3 *1.390*	35,0 *1.378*	33,7 *1.327*	154,7 *6.091*	22 *0.866*	1	0	–	2,2 *4.850*
C8-391.5867-25131	02926967	C8	ER 25	M8	M20	126,1 *4.965*	96,1 *3.783*	37,1 *1.461*	44,0 *1.732*	42,0 *1.654*	174,1 *6.854*	28 *1.102*	2	0	–	2,5 *5.510*
C8-391.5867-40161	02926968	C8	ER 40	M16	M33	155,1 *6.106*	125,1 *4.925*	46,6 *1.835*	62,0 *2.441*	62,7 *2.469*	203,1 *7.996*	39.6 *1.559*	2	0	–	3,9 *8.600*

Accessories

For size	Locking key	Seal nut	Socket	Spanner	Spanner 1	Torque key
						
ER 11	5680092-03	–	–	03B587511UM	–	–
ER 20	5680092-04	5533051-02	–	03B587520UM	–	–
ER 25	5680092-05	5533051-03	–	03B587525	–	03DYD020200
ER 40	5680092-06	5533051-05	03ER063	03B587540	03BR063	03DYD020200
ER 50	5680092-07	5533051-14	–	03B587550	–	–

Spare Parts, included in delivery

For size	Nut
	
ER 11	5533050-07
ER 20	5533050-08
ER 25	5533050-02
ER 40	5533050-04
ER 50	5533050-05



Cylindrical/ Weldon

Seco allows you to get the most out of both your machine and tools by offering a comprehensive range of tool holders to connect them. Besides all common connections Seco also offer Cylidrical and Weldon back ends.

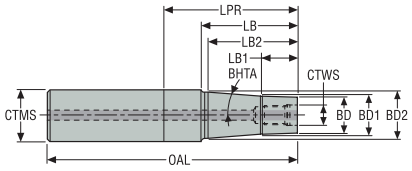
- Cylindrical Tool holders for Combimaster and Graflex solutions
- Cylindrical shrinkfit extensions
- Cylindrical ER extensions
- Weldon Tool holders for Combimaster and Tapping chucks

Steel, Heavy metal or Carbide
– Metric / *Inch*

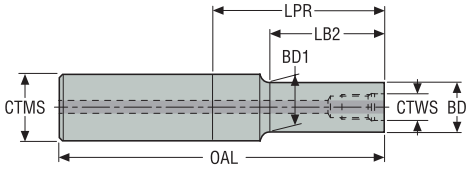
Cylindrical



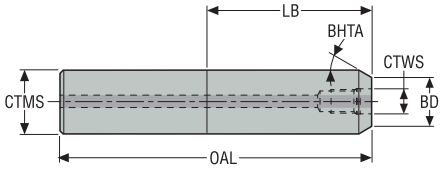
Design 1



Design 2



Design 3



- D = heavy metal, E = carbide
- CTMS tolerance h5
- For ISO attribute explanation, see page 14

Designation	Item number	CTMS	CTWS	LPR	LB	LB2	LB1	BD	BD2	BD1	OAL	BHTA°	Design	RFID hole	Balancing	Weight
				mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*					kg *lbs*
BD01258220660	02643840	12	M6	60,0 *2.362*	60,0 *2.362*	–	–	11,0 *0.433*	–	–	105,0 *4.134*	–	3	0	PB	0,1 *0.220*
BD01258220695E	02643841	12	M6	95,0 *3.740*	95,0 *3.740*	–	–	11,0 *0.433*	–	–	140,0 *5.512*	30,0	3	0	PB	0,3 *0.660*
BD01458220860	02447683	14	M8	60,0 *2.362*	60,0 *2.362*	–	–	13,5 *0.531*	–	–	105,0 *4.134*	30,0	3	0	PB	0,1 *0.220*
BD01458220895E	02447684	14	M8	95,0 *3.740*	95,0 *3.740*	–	–	13,5 *0.531*	–	–	140,0 *5.512*	30,0	3	0	PB	0,3 *0.660*
BD01658220865	02453089	16	M8	65,0 *2.559*	65,0 *2.559*	–	–	13,5 *0.531*	–	–	113,0 *4.449*	30,0	3	0	PB	0,2 *0.440*
BD016582208105E	02453090	16	M8	105,0 *4.134*	105,0 *4.134*	–	–	13,5 *0.531*	–	–	153,0 *6.024*	30,0	3	0	PB	0,5 *1.100*
BD016582108105E	02549210	16	M8	105,0 *4.134*	105,0 *4.134*	50,0 *1.969*	–	13,5 *0.531*	–	14,5 *0.571*	153,0 *6.024*	–	2	0	PB	0,4 *0.880*
BD01858221070	02447686	18	M10	70,0 *2.756*	70,0 *2.756*	–	–	18,0 *0.709*	–	–	118,0 *4.646*	30,0	3	0	PB	0,2 *0.440*
BD018582210125E	02447685	18	M10	125,0 *4.921*	125,0 *4.921*	–	–	18,0 *0.709*	–	–	173,0 *6.811*	30,0	3	0	PB	0,6 *1.320*
BD02058221075	02447687	20	M10	–	75,0 *2.953*	–	–	18,5 *0.728*	–	–	125,0 *4.921*	30,0	3	0	PB	0,3 *0.660*
BD020582211040D	02447653	20	M10	40,0 *1.575*	25,0 *0.984*	25,0 *0.984*	–	18,5 *0.728*	–	18,5 *0.728*	90,0 *3.543*	–	2	0	PB	0,5 *1.100*
BD020582110110	02447652	20	M10	110,0 *4.331*	65,0 *2.559*	65,0 *2.559*	–	18,5 *0.728*	–	18,5 *0.728*	160,0 *6.299*	–	2	0	PB	0,4 *0.880*
BD020582110110D	02441829	20	M10	110,0 *4.331*	65,0 *2.559*	65,0 *2.559*	–	18,5 *0.728*	–	18,5 *0.728*	160,0 *6.299*	–	2	0	PB	0,8 *1.760*
BD02558221280	02447689	25	M12	80,0 *3.150*	80,0 *3.150*	–	–	23,0 *0.906*	–	–	136,0 *5.354*	30,0	3	0	PB	0,5 *1.100*
BD025582112185E	02549211	25	M12	185,0 *7.283*	85,0 *3.346*	–	–	23,0 *0.906*	–	23,5 *0.925*	241,0 *9.488*	–	2	0	PB	1,6 *3.530*

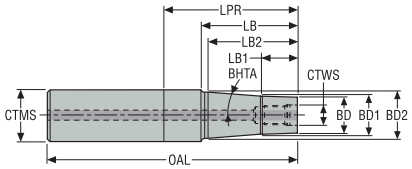
Designation	Item number	CTMS	CTWS	LPR	LB	LB2	LB1	BD	BD2	BD1	OAL	BHTA°	Design	RFID hole	Balan-cing	Weight
				mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*					kg *lbs*
BD025582112185	02441831	25	M12	185,0 *7.283*	85,0 *3.346*	–	–	23,0 *0.906*	–	23,5 *0.925*	241,0 *9.488*	–	2	0	PB	0,8 *1.760*
BD025582112185D	02447656	25	M12	185,0 *7.283*	85,0 *3.346*	–	–	23,0 *0.906*	–	23,0 *0.906*	241,0 *9.488*	–	2	0	PB	1,9 *4.190*
BD032582012100	02447657	32	M12	100,0 *3.937*	65,0 *2.559*	–	25,0 *0.984*	23,0 *0.906*	31,0 *1.220*	24,7 *0.972*	160,0 *6.299*	4,5	1	0	PB	0,9 *1.980*
BD032582012240	02447659	32	M12	240,0 *9.449*	145,0 *5.709*	–	30,0 *1.181*	23,0 *0.906*	31,0 *1.220*	24,7 *0.972*	300,0 *11.811*	1,6	1	0	PB	1,4 *3.090*
BD03258221695	02447690	32	M16	95,0 *3.740*	95,0 *3.740*	–	–	30,0 *1.181*	–	–	155,0 *6.102*	30,0	3	0	PB	1,0 *2.200*
BD032582116100	02447663	32	M16	100,0 *3.937*	65,0 *2.559*	–	–	30,0 *1.181*	–	30,0 *1.181*	160,0 *6.299*	–	2	0	PB	0,9 *1.980*
BD032582116100D	02442105	32	M16	100,0 *3.937*	65,0 *2.559*	–	–	30,0 *1.181*	–	30,0 *1.181*	160,0 *6.299*	–	2	0	PB	2,0 *4.410*
BD032582116145D	02447665	32	M16	145,0 *5.709*	110,0 *4.331*	–	–	30,0 *1.181*	–	30,0 *1.181*	205,0 *8.071*	–	2	0	PB	2,6 *5.730*
BD032582116240	02447667	32	M16	240,0 *9.449*	145,0 *5.709*	–	–	30,0 *1.181*	–	30,0 *1.181*	300,0 *11.811*	–	2	0	PB	1,7 *3.750*
BD032582116240D	02442107	32	M16	240,0 *9.449*	145,0 *5.709*	–	–	30,0 *1.181*	–	30,0 *1.181*	300,0 *11.811*	–	2	0	PB	3,8 *8.380*
BD04058201690	02447672	40	M16	90,0 *3.543*	65,0 *2.559*	–	25,0 *0.984*	30,0 *1.181*	39,0 *1.535*	31,7 *1.248*	160,0 *6.299*	5,2	1	0	PB	1,4 *3.090*
BD040582016135	02447668	40	M16	135,0 *5.315*	110,0 *4.331*	–	35,0 *1.378*	30,0 *1.181*	39,0 *1.535*	31,7 *1.248*	205,0 *8.071*	2,8	1	0	PB	1,7 *3.750*
BD040582016230	02447669	40	M16	230,0 *9.055*	145,0 *5.709*	–	35,0 *1.378*	30,0 *1.181*	39,0 *1.535*	31,7 *1.248*	300,0 *11.811*	1,9	1	0	PB	2,5 *5.510*

Steel, Heavy metal or Carbide – Inch

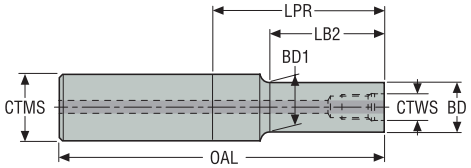
Cylindrical



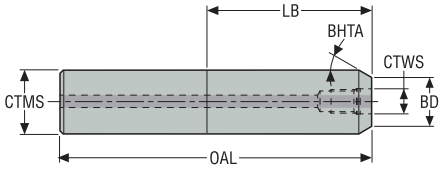
Design 1



Design 2



Design 3



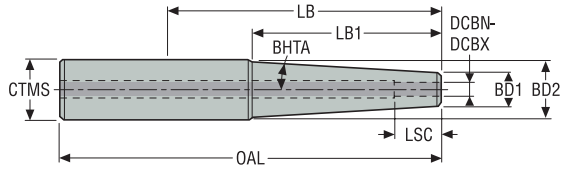
- D = heavy metal, E = carbide
- CTMS tolerance h5
- For ISO attribute explanation, see page 14

Designation	Item number	CTMS	CTWS	LPR	LB	LB2	LB1	BD	BD2	BD1	OAL	BHTA°	Design	RFID hole	Balancing	Weight
		inch		inch	inch	inch	inch	inch	inch	inch	inch					lbs
BD115582208275	02487317	0.625	M8	2.750	2.750	–	–	0.512	–	–	4.500	30,0	3	0	PB	0.440
BD115582208425E	02487322	0.625	M8	4.250	4.250	–	–	0.512	–	–	6.000	30,0	3	0	PB	1.100
BD119582210150	02454190	0.750	M10	1.500	1.500	–	–	0.709	–	–	3.500	30,0	3	0	PB	1.980
BD119582210300	02487324	0.750	M10	3.000	3.000	–	–	0.709	–	–	5.000	30,0	3	0	PB	0.660
BD119582210500E	02487327	0.750	M10	5.000	5.000	–	–	0.709	–	–	7.000	30,0	3	0	PB	1.540
BD125582212325	02487329	1.000	M12	3.250	3.250	–	–	0.906	–	–	5.500	30,0	3	0	PB	1.320
BD125582212675E	02487330	1.000	M12	6.750	6.750	–	–	0.906	–	–	9.000	30,0	3	0	PB	3.310
BD131582012425	02454199	1.250	M12	4.250	4.250	–	0.790	0.906	1.210	0.970	6.500	3,5	1	0	PB	1.980
BD131582116425	02454203	1.250	M16	4.250	2.750	–	–	1.181	–	–	6.500	–	2	0	PB	2.200
BD131582116600	02454204	1.250	M16	6.000	4.480	–	–	1.181	–	–	8.250	–	2	0	PB	2.650
BD131582116600D	02454205	1.250	M16	6.000	4.480	–	–	1.181	–	–	8.250	–	2	0	PB	5.730
BD131582216375	02487331	1.250	M16	3.748	3.748	–	–	1.181	–	–	5.949	30,0	3	0	PB	1.980
BD131582220375	03029778	1.250	M20	3.748	1.972	–	–	1.437	–	1.437	6.000	30,0	2	0	PB	2.200
BD131582220425	03029776	1.250	M20	4.248	2.472	–	–	1.437	–	1.437	6.500	30,0	2	0	PB	2.290
BD131582220600	03029777	1.250	M20	6.000	4.220	–	–	1.437	–	1.437	8.252	30,0	2	0	PB	3.090

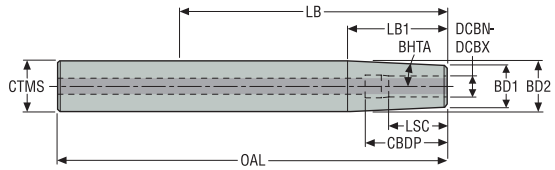
Cylindrical

Mold and Die type
– Metric / *Inch*

Design 1



Design 2





- Run-out ≤3 µm
- CTMS tolerance h5
- For ISO attribute explanation, see page 14

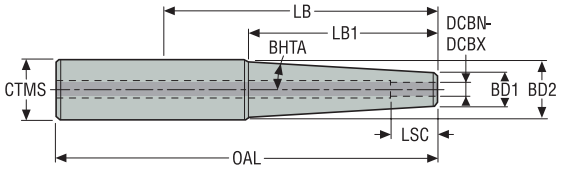
Designation	Item number	CTMS	DCBN-DCBX	LB	LB1	BD1	BD2	OAL	CBDP	LSC	Design	BHTA°	RFID hole	Balancing	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*					kg *lbs*
BD01658010352	00030175	16	3,0 *0.118*	52,0 *2.047*	51,2 *2.016*	9,0 *0.354*	14,4 *0.567*	100,0 *3.937*	–	13,0 *0.512*	1	3,0	0	PB	0,2 *0.440*
BD016580103102	00030174	16	3,0 *0.118*	102,0 *4.016*	66,8 *2.630*	9,0 *0.354*	16,0 *0.630*	150,0 *5.906*	–	13,0 *0.512*	2	3,0	0	PB	0,2 *0.440*
BD01658010452	00030178	16	4,0 *0.157*	52,0 *2.047*	51,7 *2.035*	10,0 *0.394*	15,4 *0.606*	100,0 *3.937*	–	15,0 *0.591*	1	3,0	0	PB	0,12 *0.260*
BD016580104102	00030750	16	4,0 *0.157*	102,0 *4.016*	57,2 *2.252*	10,0 *0.394*	16,0 *0.630*	150,0 *5.906*	–	15,0 *0.591*	2	3,0	0	PB	0,2 *0.440*
BD01658010552	00030180	16	5,0 *0.197*	52,0 *2.047*	47,7 *1.878*	11,0 *0.433*	16,0 *0.630*	100,0 *3.937*	–	18,0 *0.709*	2	3,0	0	PB	0,2 *0.440*
BD01658010652	00030182	16	6,0 *0.236*	52,0 *2.047*	38,2 *1.504*	12,0 *0.472*	16,0 *0.630*	100,0 *3.937*	40,0 *1.575*	26,0 *1.024*	2	3,0	0	PB	0,2 *0.440*
BD016580106102	00030181	16	6,0 *0.236*	96,0 *3.780*	38,2 *1.504*	12,0 *0.472*	16,0 *0.630*	144,0 *5.669*	40,0 *1.575*	22,0 *0.866*	2	4,5	0	PB	0,2 *0.440*
BD02058010850	00030185	20	8,0 *0.315*	50,0 *1.969*	38,2 *1.504*	16,0 *0.630*	20,0 *0.787*	100,0 *3.937*	44,0 *1.732*	30,0 *1.181*	2	3,0	0	PB	0,2 *0.440*
BD020580108100	00030184	20	8,0 *0.315*	100,0 *3.937*	38,2 *1.504*	16,0 *0.630*	20,0 *0.787*	150,0 *5.906*	44,0 *1.732*	30,0 *1.181*	2	3,0	0	PB	0,32 *0.710*
BD02058011050	00030190	20	10,0 *0.394*	50,0 *1.969*	19,1 *0.752*	18,0 *0.709*	20,0 *0.787*	100,0 *3.937*	45,0 *1.772*	32,0 *1.260*	2	3,0	0	PB	0,21 *0.460*
BD020580110100	00030186	20	10,0 *0.394*	100,0 *3.937*	19,1 *0.752*	18,0 *0.709*	20,0 *0.787*	150,0 *5.906*	45,0 *1.772*	32,0 *1.260*	2	3,0	0	PB	0,4 *0.880*
BD02058011250	00030195	20	12,0 *0.472*	50,0 *1.969*	40,0 *1.575*	20,0 *0.787*	20,0 *0.787*	100,0 *3.937*	46,0 *1.811*	34,0 *1.339*	2	3,0	0	PB	0,19 *0.420*
BD020580112100	00030194	20	12,0 *0.472*	100,0 *3.937*	50,0 *1.969*	20,0 *0.787*	20,0 *0.787*	150,0 *5.906*	46,0 *1.811*	34,0 *1.339*	2	3,0	0	PB	0,4 *0.880*

Mold and Die type – Inch

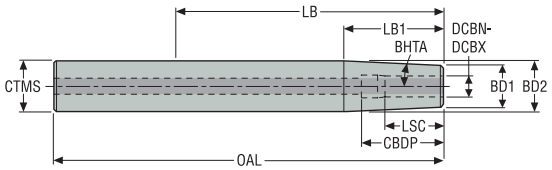
Cylindrical



Design 1



Design 2

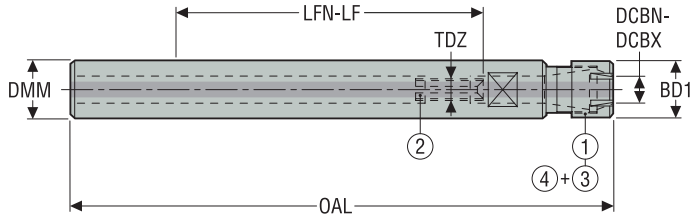


- Run-out ≤3 µm
- CTMS tolerance h5
- For ISO attribute explanation, see page 14

Designation	Item number	CTMS	DCBN-DCBX	LB	LB1	BD1	BD2	OAL	CBDP	LSC	Design	BHTA°	RFID hole	Balancing	
		inch	inch	inch	inch	inch	inch	inch	inch	inch					lbs
BD1155801012400	02522850	0.625	0.125	4.000	2.582	0.354	0.625	5.875	–	0.512	1	3,0	0	PB	0.440
BD1155801018400	02522851	0.625	0.188	4.000	1.831	0.433	0.625	5.875	–	0.709	1	3,0	0	PB	0.400
BD1155801025400	02522854	0.625	0.250	4.000	1.456	0.472	0.625	5.875	1.476	0.866	2	3,0	0	PB	0.420
BD1195801031400	02522857	0.750	0.313	4.000	1.897	0.551	0.750	6.000	1.575	1.181	2	3,0	0	PB	0.660

Cylindrical

ISO 15488
– Metric / *Inch*





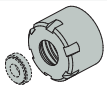
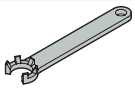
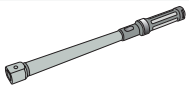
Accessories:
3 = Sealing ring
4 = Sealing nut

Spare parts:
1 =Nut
2 = Stop screw

- Run-out 15 µm maximum at 3 x ∅DCBN-DCBX (18 µm when using the smallest ER 08)
- DMM tolerance h5
- For ER collets, see page(s) 411, 412, 413, 414
- For ER sealing rings, see page(s) 418, 419
- For ISO attribute explanation, see page 14

Designation	Item number	DMM	DCBN	DCBX	Size	BD1	OAL	LFN	LF	TDZ	RFID hole	Balan-cing	Weight
		mm *inch*	mm *inch*	mm *inch*		mm *inch*	mm *inch*	mm *inch*	mm *inch*				kg *lbs*
54501208R	75041188	12,0 *0.472*	0,5 *0.020*	5,0 *0.197*	ER 08	12,0 *0.472*	150,0 *5.906*	65,0 *2.559*	86,0 *3.386*	M5	0	PB	0,1 *0.220*
54501612R	75041192	16,0 *0.630*	0,5 *0.020*	7,0 *0.276*	ER 11	16,0 *0.630*	150,0 *5.906*	62,0 *2.441*	83,0 *3.268*	M6	0	PB	0,2 *0.440*
54501616R	75041193	16,0 *0.630*	0,5 *0.020*	10,0 *0.394*	ER 16	22,0 *0.866*	160,0 *6.299*	72,0 *2.835*	82,0 *3.228*	M8	0	PB	0,2 *0.440*
54502525R	02422054	25,0 *0.984*	1,0 *0.039*	16,0 *0.630*	ER 25	35,0 *1.378*	160,0 *6.299*	36,0 *1.417*	61,0 *2.402*	M18x1,5	0	PB	0,39 *0.860*
54503232	02422055	32,0 *1.260*	2,0 *0.079*	20,0 *0.787*	ER 32	50,0 *1.969*	160,0 *6.299*	33,0 *1.299*	53,0 *2.087*	M22x1,5	0	PB	0,8 *1.760*

Accessories

For	Seal nut	Socket	Spanner	Spanner 1	Torque key
					
54501208R	–	–	03B545008	–	–
54501612R	–	03ER016	03B545011	03BR016	03DYD010100
54501616R	08B587516MC	03ER022	03B545016	03BR022	03DYD010100
54502525R	08B587525MC	–	03B545025	–	03DYD010100B
54503232	08B587532IC	03ER050	03B587532	03BR050	03DYD020200

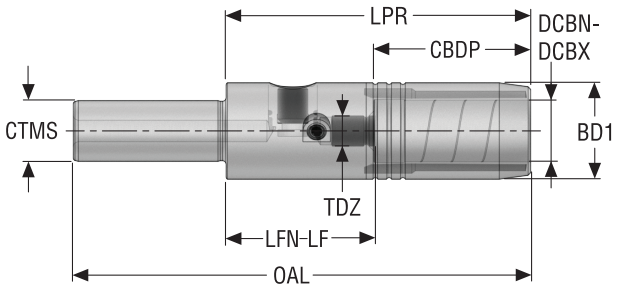
Spare Parts, included in delivery

For	Nut	Stop screw
		
54501208R	08B587508M	19B58705
54501612R	08B587511M	19B58706
54501616R	08B587516M	19B58708R10
54502525R	08B587525M	19B58718
54503232	08B587532X	19B58722

Conventional type
– Metric / *Inch*

Cylindrical

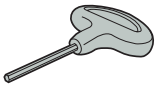




- Run-out ≤6 µm
- For ISO attribute explanation, see page 14

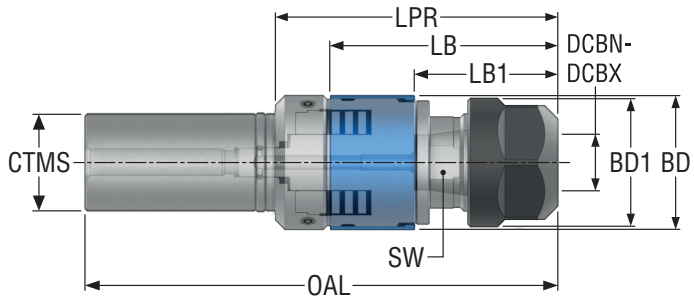
Designation	Item number	CTMS	DCBN-DCBX	LPR	CBDP	BD1	OAL	LFN	LF	TDZ	RFID hole	Balancing	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*				kg *lbs*
ST20-HC12-100	10137352	20	12,0 *0.472*	100,0 *3.937*	47,5 *1.870*	25,0 *0.984*	150,0 *5.906*	54,0 *2.126*	64,0 *2.520*	M6	0	G2.5	0,5 *1.100*
ST20-HC20-100	10137353	20	20,0 *0.787*	100,0 *3.937*	51,5 *2.028*	31,5 *1.240*	150,0 *5.906*	49,0 *1.929*	59,0 *2.323*	M10x1	0	G2.5	0,6 *1.320*
ST32-HC20-090	10137354	32	20,0 *0.787*	90,0 *3.543*	51,5 *2.028*	31,5 *1.240*	150,0 *5.906*	39,0 *1.535*	49,0 *1.929*	M10x1	0	G2.5	0,8 *1.760*

Accessories

For size	Key
	
All	H05-4

Cylindrical

For synchronized tapping, with micro-compensation – Metric / *Inch*

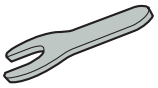
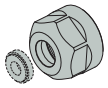
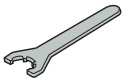




- Maximum coolant pressure 80 bar/ *1160 psi*
- For ER collets, see page(s) 411, 412, 413, 414
- For ER sealing rings, see page(s) 418, 419
- Cylindrical machine side shank CTMS with tolerance g6, not compatible with Shrinkfit holders
- For ISO attribute explanation, see page 14

Designation	Item number	CTMS	CTWS	DCBN	DCBX	LPR	LB	LB1	BD1	BD	OAL	SW	RFID hole	Balancing	Weight
		mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	kg *lbs*					
BD01658671152	02926969	16	ER 11	M2	M5	51,9 *2.043*	25,2 *0.992*	11,5 *0.453*	18,7 *0.736*	23,5 *0.925*	96,4 *3.795*	12.7 *0.500*	0	–	0,2 *0.440*
BD02058672069	02926970	20	ER 20	M4	M12	63,7 *2.508*	35,3 *1.390*	19,1 *0.752*	34,0 *1.339*	34,6 *1.362*	114,5 *4.508*	22 *0.866*	0	–	0,5 *1.100*

Accessories

For	Locking key	Seal nut	Spanner
			
BD01658671152	5680092-03	–	03B587511UM
BD02058672069	5680092-04	5533051-02	03B587520UM

Spare Parts, included in delivery

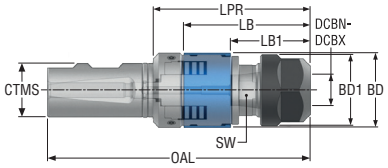
For	Nut
	
BD01658671152	5533050-07
BD02058672069	5533050-08

For synchronized tapping, with micro-compensation – **Metric** / *Inch*

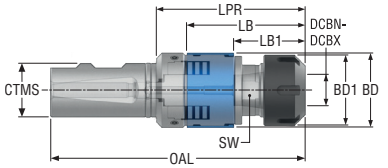
Weldon and WN shanks



Design 1



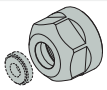
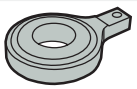
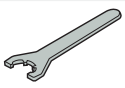
Design 2



- Maximum coolant pressure 80 bar/ *1160 psi*
- For ER collets, see page(s) 411, 412, 413, 414
- For ER sealing rings, see page(s) 418, 419
- For ISO attribute explanation, see page 14

Designation	Item number	CTMS	CTWS	DCBN	DCBX	LPR	LB	LB1	BD1	BD	OAL	SW	Design	RFID hole	Balancing	Weight
		mm *inch*				mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*				kg *lbs*
BW22058671151	02926947	20 *0.787*	ER 11	M2	M5	51,9 *2.043*	49,1 *1.933*	25,2 *0.992*	18,7 *0.736*	23,5 *0.925*	102,7 *4.043*	12.7 *0.500*	1	0	–	0,2 *0.440*
BW22558672069	02926948	25 *0.984*	ER 20	M4	M12	63,7 *2.508*	63,7 *2.508*	36,1 *1.421*	34,0 *1.339*	34,6 *1.362*	114,5 *4.508*	22.3 *0.878*	1	0	–	0,5 *1.100*
BW22558672588	02926949	25 *0.984*	ER 25	M8	M20	83,1 *3.272*	83,1 *3.272*	37,2 *1.465*	41,7 *1.642*	44,0 *1.732*	133,9 *5.272*	28 *1.102*	2	0	–	0,8 *1.760*
BW225586740117	02926950	25 *0.984*	ER 40	M16	M33	112,1 *4.413*	112,1 *4.413*	45,7 *1.799*	63,0 *2.480*	62,0 *2.441*	162,9 *6.413*	39.7 *1.563*	2	0	–	2,0 *4.410*
BW240586750164	03131179	40 *1.575*	ER 50	M20	M48	155,8 *6.134*	126,3 *4.972*	70,0 *2.756*	78,0 *3.071*	86,0 *3.386*	225,8 *8.890*	56.2 *2.213*	2	0	–	5,4 *11.900*

Accessories

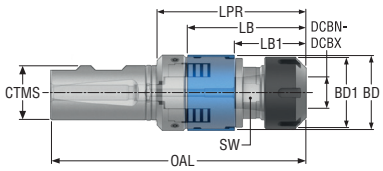
For	Locking key	Seal nut	Socket	Spanner	Spanner 1	Torque key
						
BW22058671151	5680092-03	–	–	03B587511UM	–	–
BW22558672069	5680092-04	5533051-02	–	03B587520UM	–	–
BW22558672588	5680092-05	5533051-03	–	03B587525	–	03DYD020200
BW225586740117	5680092-06	5533051-05	03ER063	03B587540	03BR063	03DYD020200
BW240586750164	5680092-07	5533051-14	–	03B587550	–	–

Spare Parts, included in delivery

For	Nut
	
BW22058671151	5533050-07
BW22558672069	5533050-08
BW22558672588	5533050-02
BW225586740117	5533050-04
BW240586750164	5533050-05

Weldon and WN shanks

For synchronized tapping, with micro-compensation – Inch

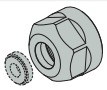
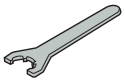
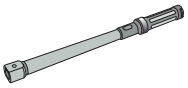




- Maximum coolant pressure 80 bar/ *1160 psi*
- For ER collets, see page(s) 411, 412, 413, 414
- For ER sealing rings, see page(s) 418, 419
- For ISO attribute explanation, see page 14

Designation	Item number	CTMS	CTWS	DCBN	DCBX	LPR	LB	LB1	BD1	BD	OAL	SW	RFID hole	Balan-cing	Weight
		Inch				inch	inch	inch	inch	inch	inch	inch			lbs
BW925586711052	03131176	1.000	ER 11	M2	M5	2.043	0.992	0.453	0.925	0.748	4.043	0.500	0	–	0.660
BW925586720069	03131177	1.000	ER 20	M4	M12	2.508	1.382	0.752	1.362	1.339	4.508	0.866	0	–	1.100
BW925586725088	03131178	1.000	ER 25	M8	M20	3.272	1.465	0.787	1.732	1.654	5.272	1.102	0	–	1.980

Accessories

For	Locking key	Seal nut	Spanner	Torque key
				
BW925586711052	5680092-03	–	03B587511UM	–
BW925586720069	5680092-04	5533051-02	03B587520UM	–
BW925586725088	5680092-05	5533051-03	03B587525	03DYD020200

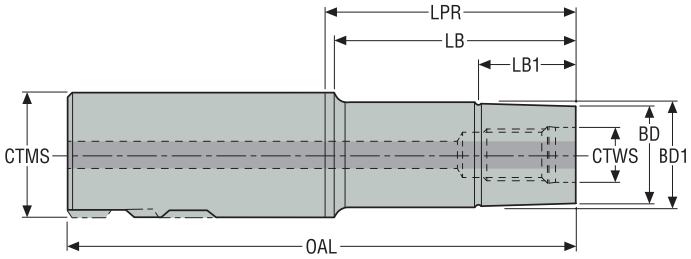
Spare Parts, included in delivery

For	Nut
	
BW925586711052	5533050-07
BW925586720069	5533050-08
BW925586725088	5533050-02

Arbors
– Metric / *Inch*

Weldon/ DIN 1835-1 Form B



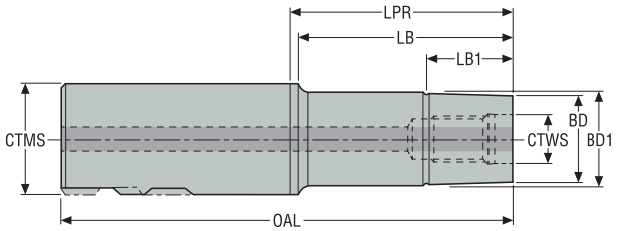


• For ISO attribute explanation, see page 14

Designation	Item number	CTMS	CTWS	LPR	LB	LB1	BD	BD1	OAL	RFID hole	Balancing	Weight
				mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*			kg *lbs*
BW02058211030	02501657	20	M10	30,0 *1.181*	25,0 *0.984*	10,0 *0.394*	18,5 *0.728*	18,5 *0.728*	80,0 *3.150*	0	PB	0,2 *0.440*
BW020582110102	02501661	20	M10	102,0 *4.016*	97,0 *3.819*	20,0 *0.787*	18,5 *0.728*	18,5 *0.728*	152,0 *5.984*	0	PB	0,4 *0.880*
BW02558211245	02501663	25	M12	45,0 *1.772*	40,0 *1.575*	20,0 *0.787*	23,0 *0.906*	23,5 *0.925*	101,0 *3.976*	0	PB	0,4 *0.880*
BW025582112115	02501664	25	M12	115,0 *4.528*	110,0 *4.331*	30,0 *1.181*	23,0 *0.906*	23,5 *0.925*	171,0 *6.732*	0	PB	0,6 *1.320*
BW03258211645	02501665	32	M16	45,0 *1.772*	40,0 *1.575*	20,0 *0.787*	30,0 *1.181*	30,5 *1.201*	105,0 *4.134*	0	PB	0,6 *1.320*
BW040582120102	02971313	40	M20	102,0 *4.016*	97,0 *3.819*	30,0 *1.181*	36,5 *1.437*	37,0 *1.457*	172,0 *6.772*	0	PB	1,5 *3.310*

Weldon/ DIN 1835-1 Form B

Arbors – Inch





• For ISO attribute explanation, see page 14

Designation	Item number	CTMS	CTWS	LPR	LB	LB1	BD	BD1	OAL	RFID hole	Balan-cing	Weight
		inch		inch	inch	inch	inch	inch	inch			lbs
BW519582210125	02454250	0.750	M10	1.250	0.591	–	0.732	0.732	3.250	0	PB	0.440
BW525582212075	02454252	1.000	M12	0.750	0.591	–	0.984	0.984	3.000	0	PB	0.660
BW625582112250	02454256	1.000	M12	2.500	2.250	–	0.925	0.925	5.750	0	PB	1.100
BW531582116150	02454254	1.250	M16	1.500	1.250	–	1.201	1.201	3.750	0	PB	1.320
BW631582116300	02454261	1.250	M16	3.000	2.559	–	1.181	1.181	6.250	0	PB	1.980
BW631582116400	02454262	1.250	M16	4.000	3.750	–	1.201	1.201	7.250	0	PB	2.430

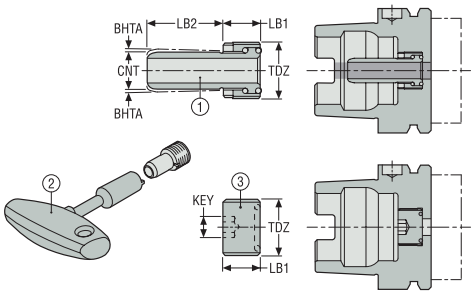


Operating and setting accessories

Seco offers a wide variety of operating accessories to ensure you get the most out of your tooling systems. Seco's range of setting accessories allow you to quickly and correctly set tools to ensure your application benefits from the full accuracy capabilities of your tooling and holder.

- Coolant tubes, Operating accessories, Sealing plugs and Pull studs
- Reduction sleves, Collets for Collet chucks and Sealing rings
- Tool boy for assemly support and Control gauges

– **Metric** / *Inch*





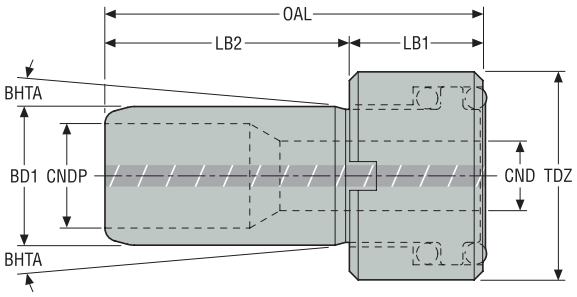
- HSK-A to Seco-Capto holders are delivered with a specific coolant tube available as spare parts and need a specific coolant tube spanner, see product page(s) 312, 313-314, 315
- For ISO attribute explanation, see page 14

Description	Designation	Item number	For holders HSK A and E	LB1	LB2	KEY	CNT	TDZ	BHTA°
				mm *inch*	mm *inch*	mm *inch*	mm		
Coolant tubes (1)	20E9301	00088814	HSK-A32 & HSK-E32	5,5 *0.217*	20,5 *0.807*	–	6	M10x1	1,0
	20E9302	00088815	HSK-A40 & HSK-E40	7,5 *0.295*	22,0 *0.866*	–	8	M12x1	1,0
	20E9303	00086740	HSK-A50 & HSK-E50	9,5 *0.374*	23,5 *0.925*	–	6	M16x1	1,0
	20E9304	00086741	HSK-A63 & HSK-E63	11,5 *0.453*	25,0 *0.984*	–	8	M18x1	1,0
	20E9306	00086742	HSK-A100 & HSK-E100	15,5 *0.610*	28,5 *1.122*	–	6	M24x1,5	1,0
	20E9307	00088816	HSK-A125	17,5 *0.689*	30,5 *1.201*	–	18	M30x1.5	1,0
Coolant tube spanners (2)	03E9301	00088811	HSK-A32 & HSK-E32	–	–	–	–	–	–
	03E9302	00088812	HSK-A40 & HSK-E40	–	–	–	–	–	–
	03E9303	00069969	HSK-A50 & HSK-E50	–	–	–	–	–	–
	03E9304	00069970	HSK-A63 & HSK-E63	–	–	–	–	–	–
	03E9305	00032296	HSK-A80 & HSK-E80	–	–	–	–	–	–
	03E9306	00084012	HSK-A100 & HSK-E100	–	–	–	–	–	–
	5680094-07	03248614	HSK-A125	–	–	–	–	–	–
Sealing plugs (3)	02E9301	00031588	HSK-A32 & HSK-E32	5,0 *0.197*	–	3,0 *0.118*	–	M10x1	–
	02E9302	00031593	HSK-A40 & HSK-E40	7,0 *0.276*	–	4,0 *0.157*	–	M12x1	–
	02E9303	00001002	HSK-A50 & HSK-E50	9,0 *0.354*	–	5,0 *0.197*	–	M16x1	–
	02E9304	00010101	HSK-A63 & HSK-E63	11,0 *0.433*	–	6,0 *0.236*	–	M18x1	–
	02E9306	00014002	HSK-A100 & HSK-E100	15,0 *0.591*	–	10,0 *0.394*	–	M24x1,5	–
	02E9307	00033649	HSK-A125	17,0 *0.669*	–	12,0 *0.472*	–	M30x1.5	–

DIN 69090-3

– Metric / *Inch*





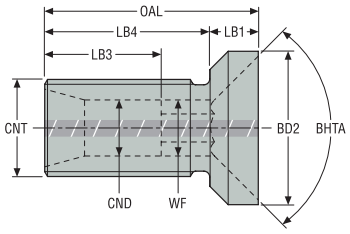
- For HSK coolant tube spanners, see page(s) 383
- For ISO attribute explanation, see page 14

Designation	Item number	For holders	CND	LB1	LB2	CNDP	BD1	OAL	TDZ	BHTA°	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*			kg *lbs*
20E9304	00086741	HSK-A63 & HSK-E63	8,0 *0.315*	11,5 *0.453*	25,0 *0.984*	8,0 *0.315*	12,0 *0.472*	36,5 *1.437*	M18x1	1,0	0,1 *0.220*
20E9306M1	03103663	HSK-A100	8,0 *0.315*	16,0 *0.630*	28,0 *1.102*	12,0 *0.472*	16,0 *0.630*	44,0 *1.732*	M24x1.5	1,0	0,1 *0.220*

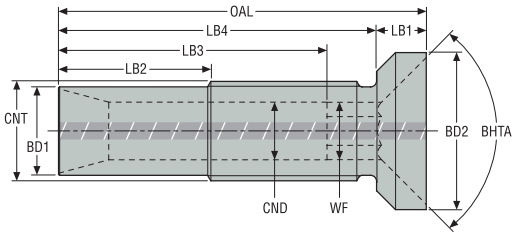
DIN 69090-3

– Metric / *Inch*

Design 1



Design 2





- With tapered contact surface for MQL tool according to DIN 69090-3
- For ISO attribute explanation, see page 14

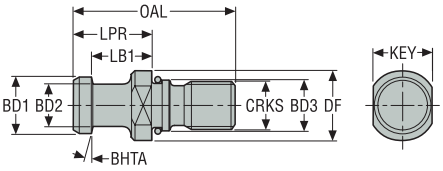
Description	Designation	Item number	OAL	CND	LB4	LB3	LB2	LB1	BD2	BD1	WF	CNT	BHTA°	Design	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*				kg *lbs*
Short	19MQL106S	02967758	17,0 *0.669*	3,0 *0.118*	15,5 *0.610*	12,0 *0.472*	–	1,5 *0.059*	5,8 *0.228*	–	2,5 *0.098*	M5	90,0	1	0,1 *0.220*
	19MQL108S	02967759	18,0 *0.709*	3,5 *0.138*	15,5 *0.610*	12,0 *0.472*	–	2,5 *0.098*	7,8 *0.307*	–	3,0 *0.118*	M6	90,0	1	0,1 *0.220*
	19MQL110S	02967760	18,0 *0.709*	4,7 *0.185*	15,0 *0.591*	12,0 *0.472*	–	3,0 *0.118*	9,8 *0.386*	–	4,0 *0.157*	M8x1	90,0	1	0,1 *0.220*
	19MQL112S	02967761	18,0 *0.709*	5,8 *0.228*	15,0 *0.591*	11,0 *0.433*	–	3,0 *0.118*	11,8 *0.465*	–	5,0 *0.197*	M10x1	90,0	1	0,1 *0.220*
	19MQL114S	02967762	19,5 *0.768*	5,8 *0.228*	15,5 *0.610*	12,5 *0.492*	–	4,0 *0.157*	13,8 *0.543*	–	5,0 *0.197*	M10x1	90,0	1	0,1 *0.220*
	19MQL116S	02967763	22,0 *0.866*	5,8 *0.228*	17,0 *0.669*	12,0 *0.472*	–	5,0 *0.197*	15,8 *0.622*	–	5,0 *0.197*	M10x1	90,0	1	0,1 *0.220*
	19MQL118S	02967764	22,0 *0.866*	5,8 *0.228*	16,0 *0.630*	12,0 *0.472*	–	6,0 *0.236*	17,8 *0.701*	–	5,0 *0.197*	M10x1	90,0	1	0,1 *0.220*
	19MQL120S	02967765	23,5 *0.925*	5,8 *0.228*	16,5 *0.650*	12,0 *0.472*	–	7,0 *0.276*	19,8 *0.780*	–	5,0 *0.197*	M10x1	90,0	1	0,1 *0.220*
	19MQL125S	02967766	27,5 *1.083*	5,8 *0.228*	18,0 *0.709*	13,0 *0.512*	–	9,5 *0.374*	24,8 *0.976*	–	5,0 *0.197*	M10x1	90,0	1	0,1 *0.220*
	19MQL132S	02967767	30,5 *1.201*	5,8 *0.228*	17,5 *0.689*	13,0 *0.512*	–	13,0 *0.512*	31,8 *1.252*	–	5,0 *0.197*	M10x1	90,0	1	0,1 *0.220*
Long	19MQL106L	02967768	34,0 *1.339*	3,0 *0.118*	32,5 *1.280*	30,0 *1.181*	15,0 *0.591*	1,5 *0.059*	5,8 *0.228*	4,1 *0.161*	2,5 *0.098*	M5x0.8	90,0	2	0,1 *0.220*
	19MQL108L	02967769	34,0 *1.339*	3,5 *0.138*	31,5 *1.240*	29,0 *1.142*	15,0 *0.591*	2,5 *0.098*	7,8 *0.307*	4,9 *0.193*	3,0 *0.118*	M6x1	90,0	2	0,1 *0.220*
	19MQL110L	02967770	35,0 *1.378*	4,7 *0.185*	32,0 *1.260*	28,0 *1.102*	15,0 *0.591*	3,0 *0.118*	9,8 *0.386*	6,9 *0.272*	4,0 *0.157*	M8x1	90,0	2	0,1 *0.220*
	19MQL112L	02967771	35,0 *1.378*	5,8 *0.228*	32,0 *1.260*	27,0 *1.063*	15,0 *0.591*	3,0 *0.118*	11,8 *0.465*	8,9 *0.350*	5,0 *0.197*	M10x1	90,0	2	0,1 *0.220*
	19MQL114L	02967772	35,5 *1.398*	5,8 *0.228*	31,5 *1.240*	26,0 *1.024*	15,5 *0.610*	4,0 *0.157*	13,8 *0.543*	8,9 *0.350*	5,0 *0.197*	M10x1	90,0	2	0,1 *0.220*
	19MQL116L	02967773	37,0 *1.457*	5,8 *0.228*	32,0 *1.260*	27,0 *1.063*	15,0 *0.591*	5,0 *0.197*	15,8 *0.622*	8,9 *0.350*	5,0 *0.197*	M10x1	90,0	2	0,1 *0.220*
	19MQL118L	02967774	37,5 *1.476*	5,8 *0.228*	31,5 *1.240*	26,0 *1.024*	15,5 *0.610*	6,0 *0.236*	17,8 *0.701*	8,9 *0.350*	5,0 *0.197*	M10x1	90,0	2	0,1 *0.220*
	19MQL120L	02967775	40,0 *1.575*	5,8 *0.228*	33,0 *1.299*	28,0 *1.102*	15,0 *0.591*	7,0 *0.276*	19,8 *0.780*	8,9 *0.350*	5,0 *0.197*	M10x1	90,0	2	0,1 *0.220*
	19MQL125L	02967776	44,0 *1.732*	5,8 *0.228*	34,5 *1.358*	29,0 *1.142*	15,0 *0.591*	9,5 *0.374*	24,8 *0.976*	8,9 *0.350*	5,0 *0.197*	M10x1	90,0	2	0,1 *0.220*
	19MQL132L	02967777	45,0 *1.772*	5,8 *0.228*	32,0 *1.260*	27,0 *1.063*	14,0 *0.551*	13,0 *0.512*	31,8 *1.252*	8,9 *0.350*	5,0 *0.197*	M10x1	90,0	2	0,1 *0.220*

ISO / DIN
– Metric / *Inch*

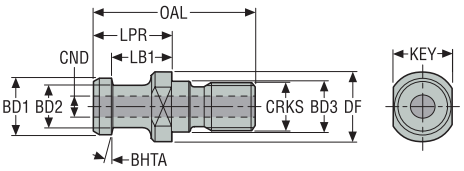
ISO 7388-3/ DIN 69871



Design 1 = Without through coolant



Design 2 = With through coolant



With chamfer



With radius



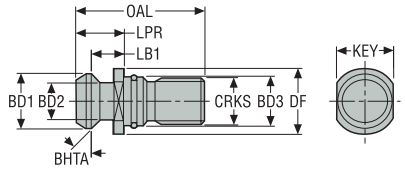
- * With external sealing ring
- ** With internal and external sealing rings
- For ISO attribute explanation, see page 14

Designation	Item number	Machine side For taper	OAL	LPR	LB1	DF	BD3	BD2	BD1	CND	KEY	CRKS	* / **	With chamfer	With radius	BHTA°	Design	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*							kg *lbs*
PS-I40-75-001	03119900	DIN 40	54,0 *2.126*	26,0 *1.024*	20,0 *0.787*	23,0 *0.906*	17,0 *0.669*	14,0 *0.551*	19,0 *0.748*	–	19,0 *0.748*	M16	*	■		15,0	1	0,1 *0.220*
PS-I40C-75-001	03119899	DIN 40	54,0 *2.126*	26,0 *1.024*	20,0 *0.787*	23,0 *0.906*	17,0 *0.669*	14,0 *0.551*	19,0 *0.748*	7,0 *0.276*	19,0 *0.748*	M16		■		15,0	2	0,1 *0.220*
PS-I40C-75-002	03119901	DIN 40	54,0 *2.126*	26,0 *1.024*	20,0 *0.787*	23,0 *0.906*	17,0 *0.669*	14,0 *0.551*	19,0 *0.748*	7,0 *0.276*	19,0 *0.748*	M16			■	15,0	2	0,1 *0.220*
PS-I40C-75-003	03119946	DIN 40	54,0 *2.126*	29,0 *1.142*	23,0 *0.906*	23,0 *0.906*	17,0 *0.669*	14,0 *0.551*	19,0 *0.748*	7,0 *0.276*	19,0 *0.748*	M16	**	■		15,0	2	0,1 *0.220*
PS-I50-75-001	03119903	DIN 50	74,0 *2.913*	34,0 *1.339*	25,0 *0.984*	36,0 *1.417*	25,0 *0.984*	21,0 *0.827*	28,0 *1.102*	–	30,0 *1.181*	M24	*	■		15,0	1	0,3 *0.660*
PS-I50-75-002	03119944	DIN 50	74,0 *2.913*	34,0 *1.339*	25,0 *0.984*	36,0 *1.417*	25,0 *0.984*	21,0 *0.827*	28,0 *1.102*	–	30,0 *1.181*	M24	*		■	15,0	1	0,3 *0.660*
PS-I50-75-003	03119945	DIN 50	74,0 *2.913*	34,0 *1.339*	25,0 *0.984*	36,0 *1.417*	25,0 *0.984*	21,0 *0.827*	28,0 *1.102*	–	30,0 *1.181*	M24	*		■	15,0	1	0,3 *0.660*
PS-I50C-75-001	03119902	DIN 50	74,0 *2.913*	34,0 *1.339*	25,0 *0.984*	36,0 *1.417*	25,0 *0.984*	21,0 *0.827*	28,0 *1.102*	11,5 *0.453*	30,0 *1.181*	M24		■		15,0	2	0,3 *0.660*
PS-I50C-75-002	03119904	DIN 50	74,0 *2.913*	34,0 *1.339*	25,0 *0.984*	36,0 *1.417*	25,0 *0.984*	21,0 *0.827*	28,0 *1.102*	11,5 *0.453*	30,0 *1.181*	M24			■	15,0	2	0,3 *0.660*

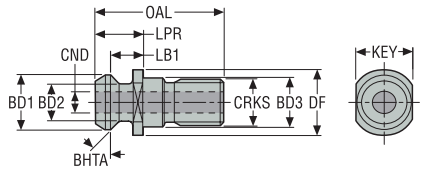
ISO 7388-3/ DIN 69871

ISO / DIN
– Metric / *Inch*

Design 1 = Without through coolant



Design 2 = With through coolant



With chamfer



With radius





- * With external sealing ring
- ** With internal sealing ring
- For ISO attribute explanation, see page 14

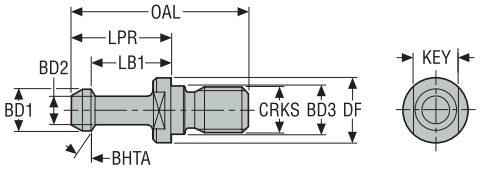
Designation	Item number	Machine side For taper	OAL	LPR	LB1	DF	BD3	BD2	BD1	CND	KEY	CRKS	* / **			BHTA°	Design	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*			With chamfer	With radius			kg *lbs*
PS-I40C-45-001	03119898	ISO 40	44,4 *1.748*	16,4 *0.646*	11,15 *0.439*	22,5 *0.886*	17,0 *0.669*	12,95 *0.510*	18,95 *0.746*	7,35 *0.289*	18,0 *0.709*	M16			■	45,0	2	0,1 *0.220*
PS-I40C-45-002	03119947	DIN 40	41,25 *1.624*	16,25 *0.640*	11,18 *0.440*	21,8 *0.858*	17,0 *0.669*	12,45 *0.490*	18,8 *0.740*	7,0 *0.276*	19,0 *0.748*	M16			■	45,0	2	0,1 *0.220*
PS-I40C-45-003	03119950	DIN 40	44,106 *1.736*	19,106 *0.752*	14,026 *0.552*	22,0 *0.866*	17,0 *0.669*	12,446 *0.490*	18,796 *0.740*	7,0 *0.276*	19,0 *0.748*	M16			■	45,0	2	0,1 *0.220*
PS-I50-45-001	03119897	ISO 50	65,55 *2.581*	25,55 *1.006*	17,95 *0.707*	37,0 *1.457*	25,0 *0.984*	19,6 *0.772*	29,1 *1.146*	–	30,0 *1.181*	M24	*		■	45,0	1	0,3 *0.660*
PS-I50C-45-001	03119896	ISO 50	65,55 *2.581*	25,55 *1.006*	17,95 *0.707*	37,0 *1.457*	25,0 *0.984*	19,6 *0.772*	29,1 *1.146*	11,5 *0.453*	30,0 *1.181*	M24			■	45,0	2	0,2 *0.440*
PS-I50C-45-003	03119949	DIN 50	65,4 *2.575*	25,4 *1.000*	17,78 *0.700*	36,56 *1.439*	25,0 *0.984*	20,828 *0.820*	28,956 *1.140*	10,0 *0.394*	30,15 *1.187*	M24			■	45,0	2	0,2 *0.440*
PS-I50C-45-004	03119948	DIN 50	65,4 *2.575*	25,4 *1.000*	17,78 *0.700*	36,56 *1.439*	25,0 *0.984*	20,828 *0.820*	28,956 *1.140*	10,0 *0.394*	30,15 *1.187*	M24	**		■	45,0	2	0,2 *0.440*

ISO / BT JIS
– Metric / *Inch*

ISO 7388-3/ JIS B 6339



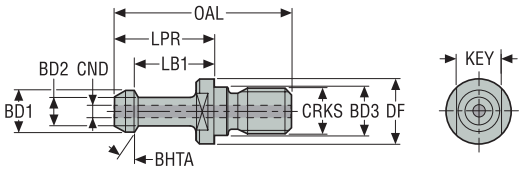
Design 1 = Without through coolant



With chamfer



Design 2 = With through coolant



With radius



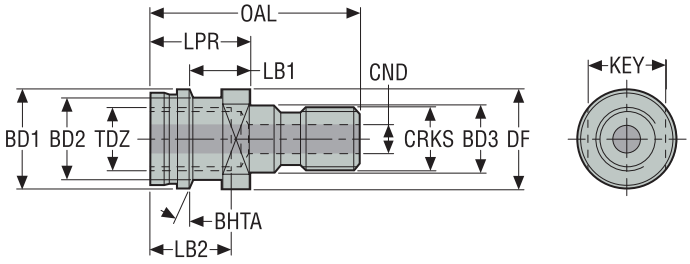
- * With external sealing ring
- ** With internal and external sealing rings
- For ISO attribute explanation, see page 14

Designation	Item number	Machine side For taper	OAL	LPR	LB1	DF	BD3	BD2	BD1	CND	KEY	CRKS	* / **			BHTA°	Design	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*			With chamfer	With radius			kg *lbs*
PS-B30-45-001	03119886	BT 30	43,0 *1.693*	23,0 *0.906*	18,0 *0.709*	16,5 *0.650*	12,5 *0.492*	7,0 *0.276*	11,0 *0.433*	–	13,0 *0.512*	M12			■	45,0	1	0,1 *0.220*
PS-B30-60-001	03119889	BT 30	43,0 *1.693*	23,0 *0.906*	18,0 *0.709*	16,5 *0.650*	12,5 *0.492*	7,0 *0.276*	11,0 *0.433*	–	13,0 *0.512*	M12			■	30,0	1	0,1 *0.220*
PS-B30C-45-001	03119887	BT 30	43,0 *1.693*	23,0 *0.906*	18,0 *0.709*	16,5 *0.650*	12,5 *0.492*	7,0 *0.276*	11,0 *0.433*	3,0 *0.118*	13,0 *0.512*	M12			■	45,0	2	0,1 *0.220*
PS-B30C-45-003	03119939	BT 30	43,0 *1.693*	23,0 *0.906*	18,0 *0.709*	16,5 *0.650*	12,5 *0.492*	8,0 *0.315*	11,0 *0.433*	4,0 *0.157*	13,0 *0.512*	M12	*		■	45,0	2	0,1 *0.220*
PS-B30C-60-001	03119890	BT 30	43,0 *1.693*	23,0 *0.906*	18,0 *0.709*	16,5 *0.650*	12,5 *0.492*	7,0 *0.276*	11,0 *0.433*	3,0 *0.118*	13,0 *0.512*	M12			■	30,0	2	0,1 *0.220*
PS-B30C-60-002	03119891	BT 30	43,0 *1.693*	23,0 *0.906*	18,0 *0.709*	16,5 *0.650*	12,5 *0.492*	7,5 *0.295*	11,0 *0.433*	3,0 *0.118*	13,0 *0.512*	M12			■	30,0	2	0,1 *0.220*
PS-B40-45-001	03119894	BT 40	60,0 *2.362*	35,0 *1.378*	28,0 *1.102*	23,0 *0.906*	17,0 *0.669*	10,0 *0.394*	15,0 *0.591*	–	19,0 *0.748*	M16			■	45,0	1	0,1 *0.220*
PS-B40-60-001	03119906	BT 40	60,0 *2.362*	35,0 *1.378*	28,0 *1.102*	23,0 *0.906*	17,0 *0.669*	10,0 *0.394*	15,0 *0.591*	–	19,0 *0.748*	M16			■	30,0	1	0,1 *0.220*
PS-B40-90-001	03119884	BT 40	60,0 *2.362*	35,0 *1.378*	28,0 *1.102*	23,0 *0.906*	17,0 *0.669*	10,0 *0.394*	15,0 *0.591*	–	19,0 *0.748*	M16			■	0,0	1	0,1 *0.220*
PS-B40C-45-001	03119895	BT 40	60,0 *2.362*	35,0 *1.378*	28,0 *1.102*	23,0 *0.906*	17,0 *0.669*	10,0 *0.394*	15,0 *0.591*	3,0 *0.118*	19,0 *0.748*	M16			■	45,0	2	0,1 *0.220*
PS-B40C-60-001	03119930	BT 40	60,0 *2.362*	35,0 *1.378*	28,0 *1.102*	23,0 *0.906*	17,0 *0.669*	10,0 *0.394*	15,0 *0.591*	3,0 *0.118*	19,0 *0.748*	M16			■	30,0	2	0,1 *0.220*
PS-B40C-90-001	03119885	BT 40	60,0 *2.362*	35,0 *1.378*	28,0 *1.102*	23,0 *0.906*	17,0 *0.669*	10,0 *0.394*	15,0 *0.591*	3,0 *0.118*	19,0 *0.748*	M16			■	0,0	2	0,1 *0.220*
PS-B50-45-001	03119931	BT 50	85,0 *3.346*	45,0 *1.772*	35,0 *1.378*	38,0 *1.496*	25,0 *0.984*	17,0 *0.669*	23,0 *0.906*	–	30,0 *1.181*	M24			■	45,0	1	0,3 *0.660*
PS-B50-45-002	03119983	BT 50	84,8 *3.339*	45,0 *1.772*	35,0 *1.378*	34,8 *1.370*	25,0 *0.984*	16,9 *0.665*	23,0 *0.906*	–	30,1 *1.185*	M24			■	45,0	1	0,3 *0.660*
PS-B50-90-001	03119934	BT 50	85,0 *3.346*	45,0 *1.772*	35,0 *1.378*	38,0 *1.496*	25,0 *0.984*	17,0 *0.669*	23,0 *0.906*	–	30,0 *1.181*	M24			■	0,0	1	0,3 *0.660*
PS-B50C-45-001	03119932	BT 50	85,0 *3.346*	45,0 *1.772*	35,0 *1.378*	38,0 *1.496*	25,0 *0.984*	17,0 *0.669*	23,0 *0.906*	8,5 *0.335*	30,0 *1.181*	M24			■	45,0	2	0,3 *0.660*
PS-B50C-60-001	03119938	BT 50	85,0 *3.346*	45,0 *1.772*	35,0 *1.378*	38,0 *1.496*	25,0 *0.984*	17,0 *0.669*	23,0 *0.906*	9,5 *0.374*	30,0 *1.181*	M24			■	30,0	2	0,3 *0.660*
PS-B50C-90-001	03119933	BT 50	71,0 *2.795*	31,0 *1.220*	23,0 *0.906*	36,0 *1.417*	25,0 *0.984*	18,0 *0.709*	24,0 *0.945*	6,0 *0.236*	30,0 *1.181*	M24			■	0,0	2	0,3 *0.660*
PS-B50C-90-002	03119935	BT 50	85,0 *3.346*	45,0 *1.772*	35,0 *1.378*	38,0 *1.496*	25,0 *0.984*	17,0 *0.669*	23,0 *0.906*	8,0 *0.315*	30,0 *1.181*	M24			■	0,0	2	0,3 *0.660*

DIN 69871/ DIN 2080

DIN
– Metric / *Inch*

With through coolant





• For ISO attribute explanation, see page 14

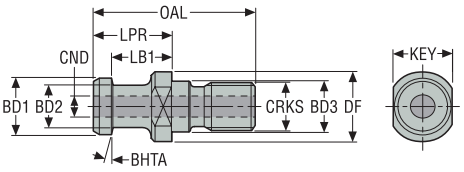
Designation	Item number	Machine side For taper	OAL	LPR	LB1	DF	BD3	BD2	BD1	CND	KEY	CRKS	TDZ	BHTA°	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*				kg *lbs*
PS-B40C-75-001	03119936	CAT *DIN 40, DIN 2080 compatible*	53,1 *2.091*	25,1 *0.988*	13,7 *0.539*	25,3 *0.996*	17,0 *0.669*	21,1 *0.831*	25,3 *0.996*	7,35 *0.289*	18,0 *0.709*	M16	M16	15,0	0,1 *0.220*

BT JIS
– Metric / *Inch*

JIS B 6339



With through coolant



With chamfer



With radius



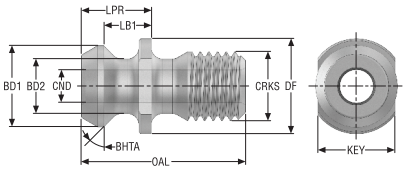
- * With external sealing ring
- ** With internal and external sealing rings
- For ISO attribute explanation, see page 14

Designation	Item number	Machine side For taper	OAL	LPR	LB1	DF	BD3	BD2	BD1	CND	KEY	CRKS	* / **			BHTA°	Design	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*			With chamfer	With radius			kg *lbs*
PS-B40C-75-002	03119940	BT 40	54,0 *2.126*	29,0 *1.142*	23,0 *0.906*	23,0 *0.906*	17,0 *0.669*	14,0 *0.551*	19,0 *0.748*	7,0 *0.276*	19,0 *0.748*	M16			■	15,0	–	0,1 *0.220*
PS-B40C-75-003	03119987	BT40	54,0 *2.126*	26,0 *1.024*	20,0 *0.787*	23,0 *0.906*	17,0 *0.669*	13,9 *0.547*	19,0 *0.748*	7,0 *0.276*	18,8 *0.740*	M16		■		15,0	1	0,1 *0.220*
PS-B50C-75-001	03119973	BT 50	74,0 *2.913*	34,0 *1.339*	25,0 *0.984*	38,0 *1.496*	25,0 *0.984*	21,0 *0.827*	28,0 *1.102*	11,5 *0.453*	30,0 *1.181*	M24			■	15,0	–	0,3 *0.660*

ANSI B5-50

DIN / CAT-V
– Metric / *Inch*

With through coolant



With chamfer



With radius





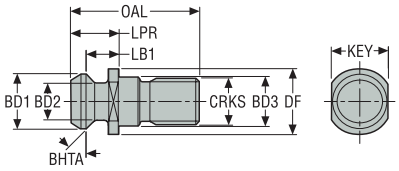
- * With external sealing ring
- ** With internal and external sealing rings
- For ISO attribute explanation, see page 14

Designation	Item number	Machine side For taper	OAL	LPR	LB1	DF	BD2	BD1	CND	KEY	CRKS	* / **	ADIF1		BHTA°	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*			With chamfer	With radius		kg *lbs*
PS-V40C-45-001	03119892	DIN *CAT 40, ANSI B5-50 metric thread*	38,0 *1.496*	16,25 *0.640*	11,0 *0.433*	22,0 *0.866*	12,8 *0.504*	18,8 *0.740*	7,5 *0.295*	17,8 *0.701*	M16	–	Flange connec-tion: radius		45,0	0,1 *0.220*
PS-V50C-45-001	03119893	DIN *CAT 50, ANSI B5-50 metric thread*	58,4 *2.299*	25,4 *1.000*	17,8 *0.701*	36,5 *1.437*	19,45 *0.766*	29,0 *1.142*	11,5 *0.453*	30,0 *1.181*	M24	–	Flange connec-tion: radius		45,0	0,2 *0.440*

CAT-V
– Inch



Design 1 = Without through coolant



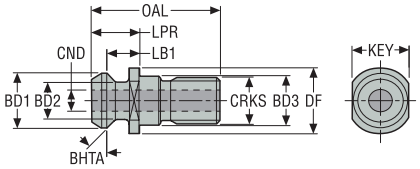
With chamfer



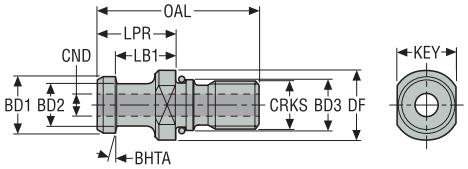
With radius



Design 2 = With through coolant



Design 3 = With through coolant

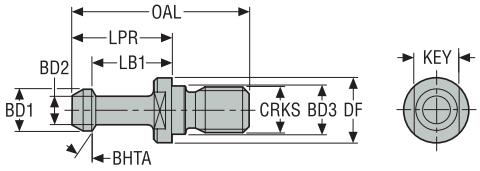


- * With external sealing ring
- ** With internal and external sealing rings
- For ISO attribute explanation, see page 14

Designation	Item number	Machine side For taper	OAL	LPR	LB1	DF	BD3	BD2	BD1	CND	KEY	CRKS	* / **			BHTA°	Design	Weight
			inch	*inch*	*inch*	*inch*	*inch*	*inch*	*inch*	*inch*	*inch*			With chamfer	With radius			lbs
PS-V40-45-003	03119989	CAT 40	1.681	0.642	0.441	0.929	0.642	0.488	0.740	–	0.744	5/8-11 UNC			■	45,0	1	0.880
PS-V40C-45-002	03119960	CAT 40	1.500	0.642	0.441	0.929	–	0.488	0.740	0.280	0.744	5/8-11 UNC			■	45,0	2	0.220
PS-V40C-45-004	03119963	CAT 40	1.626	0.642	0.441	0.929	–	0.488	0.740	0.236	0.744	5/8-11 UNC			■	45,0	2	0.440
PS-V40C-45-005	03119965	CAT 40	1.650	0.642	0.441	0.929	0.669	0.492	0.740	0.280	0.752	M16			■	45,0	2	0.440
PS-V40C-45-007	03119977	CAT 40	1.500	0.642	0.441	0.929	–	0.492	0.740	0.280	0.744	M16			■	45,0	2	0.220
PS-V40C-45-009	03119981	CAT 40	1.681	0.642	0.441	0.929	0.642	0.488	0.740	0.280	0.744	5/8-11 UNC			■	45,0	2	0.220
PS-V40C-75-001	03119964	CAT 40	2.063	1.024	0.787	0.906	0.642	0.547	0.744	0.276	0.740	5/8-11 UNC			■	15,0	3	0.220
PS-V40C-75-002	03119979	CAT 40	2.008	1.028	0.791	0.906	0.642	0.547	0.744	0.236	0.740	5/8-11 UNC	*		■	15,0	3	0.220
PS-V50C-45-002	03119967	CAT 50	2.299	1.000	0.701	1.429	–	0.819	1.142	0.469	1.252	1-8 UNC			■	45,0	2	0.440
PS-V50C-45-005	03119970	CAT 50	2.299	1.000	0.701	1.429	1.031	0.819	1.142	0.469	1.252	1-8 UNC			■	45,0	2	0.440
PS-V50C-45-006	03119972	CAT 50	2.579	1.000	0.701	1.429	0.984	0.819	1.142	0.469	1.252	M24			■	45,0	2	0.440
PS-V50C-45-007	03119974	CAT 50	2.539	1.000	0.701	1.429	1.031	0.819	1.142	0.280	1.252	1-8 UNC			■	45,0	2	1.100
PS-V50C-45-008	03119976	CAT 50	3.142	1.780	1.386	1.496	0.984	0.665	0.906	0.252	1.181	1-8 UNC	*		■	45,0	3	0.660
PS-V50C-60-001	03119971	CAT 50	3.248	1.772	1.378	1.496	1.024	0.669	0.906	0.236	1.181	1-8 UNC	*		■	30,0	3	0.660

CAT-V – Inch

Design 1 = Without through coolant



With chamfer

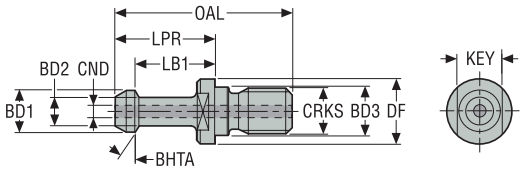


With radius





Design 2 = With through coolant

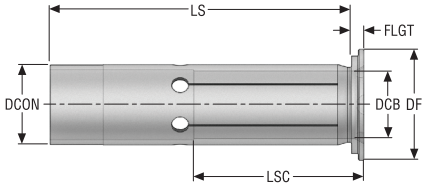


- * With external sealing ring
- ** With internal and external sealing rings
- For ISO attribute explanation, see page 14

Designation	Item number	Machine side For taper	OAL	LPR	LB1	DF	BD3	BD2	BD1	CND	KEY	CRKS	* / **		BHTA°	Design	Weight
			inch	*inch*	*inch*	*inch*	*inch*	*inch*	*inch*	*inch*	*inch*		With chamfer	With radius			lbs
PS-V40-45-001	03119956	CAT 40	2.252	1.272	0.988	0.941	0.614	0.394	0.591	–	0.744	5/8-11 UNC		■	45,0	1	0.220
PS-V40-45-002	03119957	CAT 40	2.303	1.264	0.988	0.941	0.642	0.394	0.591	–	0.744	5/8-11 UNC		■	45,0	1	0.220
PS-V40-45-004	03119990	CAT 40	2.264	1.264	1.000	0.909	–	0.394	0.591	–	0.744	5/8-11 UNC		■	45,0	1	0.440
PS-V40-90-001	03119958	CAT 40	2.315	1.276	0.988	0.858	0.642	0.390	0.587	–	0.689	5/8-11 UNC		■	0,0	1	0.220
PS-V40C-45-003	03119961	CAT 40	2.307	1.272	0.988	0.858	0.642	0.390	0.587	0.157	0.689	5/8-11 UNC		■	45,0	2	0.440
PS-V40C-45-008	03119980	CAT 40	2.303	1.264	0.988	0.941	0.642	0.394	0.591	0.197	0.744	5/8-11 UNC		■	45,0	2	0.220
PS-V40C-45-010	03119986	CAT 40	2.252	1.264	0.988	0.933	0.669	0.394	0.587	0.173	0.744	M16		■	45,0	2	0.220
PS-V40C-75-004	03119988	CAT 40	2.122	1.024	0.787	0.906	0.642	0.547	0.744	0.236	0.740	5/8-11 UNC		■	15,0	2	0.220
PS-V50C-45-003	03119968	CAT 50	3.331	1.787	1.374	1.370	1.031	0.661	0.898	0.252	1.185	1-8 UNC		■	45,0	2	0.660

Hydraulic chucks
– Metric / *Inch*





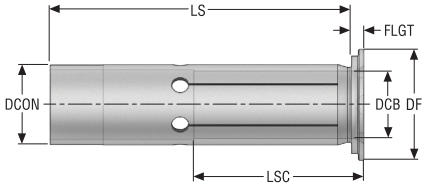
- Nominal clamping diameter only (no clamping range): tool shank tolerance h6 maximum
- ...L1 = with peripheral coolant
- For ISO attribute explanation, see page 14

Designation	Item number	Machine side DCON	Workpiece side DCB	LS	FLGT	DF	LSC
		mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*
05FHC1203	10137358	12,0 *0.472*	3,0 *0.118*	45,0 *0.608*	2,0 *0.079*	16,5 *0.650*	15,45 *0.608*
05FHC1204	10137359	12,0 *0.472*	4,0 *0.157*	45,0 *0.620*	2,0 *0.079*	16,5 *0.650*	15,75 *0.620*
05FHC1205	10137360	12,0 *0.472*	5,0 *0.197*	45,0 *0.634*	2,0 *0.079*	16,5 *0.650*	16,1 *0.634*
05FHC1206	10137361	12,0 *0.472*	6,0 *0.236*	45,0 *0.953*	2,0 *0.079*	16,5 *0.650*	24,21 *0.953*
05FHC1208	10137362	12,0 *0.472*	8,0 *0.315*	45,0 *0.977*	2,0 *0.079*	16,5 *0.650*	24,81 *0.977*
05FHC1210	10137363	12,0 *0.472*	10,0 *0.394*	45,0 *1.000*	2,0 *0.079*	16,5 *0.650*	25,41 *1.000*
05FHC2003	10137364	20,0 *0.787*	3,0 *0.118*	50,5 *0.616*	2,0 *0.079*	24,0 *0.945*	15,65 *0.616*
05FHC2004	10137365	20,0 *0.787*	4,0 *0.157*	50,5 *0.628*	2,0 *0.079*	24,0 *0.945*	15,95 *0.628*
05FHC2005	10137366	20,0 *0.787*	5,0 *0.197*	50,5 *0.640*	2,0 *0.079*	24,0 *0.945*	16,25 *0.640*
05FHC2006	10137367	20,0 *0.787*	6,0 *0.236*	50,5 *1.006*	2,0 *0.079*	24,0 *0.945*	25,55 *1.006*
05FHC2008	10137368	20,0 *0.787*	8,0 *0.315*	50,5 *1.030*	2,0 *0.079*	24,0 *0.945*	26,15 *1.030*
05FHC2010	10137369	20,0 *0.787*	10,0 *0.394*	50,5 *1.211*	2,0 *0.079*	24,0 *0.945*	30,75 *1.211*
05FHC2012	10137370	20,0 *0.787*	12,0 *0.472*	50,5 *1.367*	2,0 *0.079*	24,0 *0.945*	34,71 *1.367*
05FHC2014	10137371	20,0 *0.787*	14,0 *0.551*	50,5 *1.390*	2,0 *0.079*	24,0 *0.945*	35,31 *1.390*
05FHC2016	10137372	20,0 *0.787*	16,0 *0.630*	50,5 *1.414*	2,0 *0.079*	24,0 *0.945*	35,91 *1.414*
05FHC3206	10137373	32,0 *1.260*	6,0 *0.236*	60,5 *0.922*	2,0 *0.079*	35,5 *1.398*	23,42 *0.922*
05FHC3208	10137374	32,0 *1.260*	8,0 *0.315*	60,5 *0.946*	2,0 *0.079*	35,5 *1.398*	24,03 *0.946*
05FHC3210	10137375	32,0 *1.260*	10,0 *0.394*	60,5 *1.107*	2,0 *0.079*	35,5 *1.398*	28,13 *1.107*
05FHC3212	10137376	32,0 *1.260*	12,0 *0.472*	60,5 *1.131*	2,0 *0.079*	35,5 *1.398*	28,73 *1.131*
05FHC3214	10137377	32,0 *1.260*	14,0 *0.551*	60,5 *1.155*	2,0 *0.079*	35,5 *1.398*	29,33 *1.155*
05FHC3216	10137378	32,0 *1.260*	16,0 *0.630*	60,5 *1.583*	2,0 *0.079*	35,5 *1.398*	40,2 *1.583*

Designation	Item number	Machine side DCON	Workpiece side DCB	LS	FLGT	DF	LSC
		mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*
05FHC3218	10137379	32,0 *1.260*	18,0 *0.709*	60,5 *1.594*	2,0 *0.079*	35,5 *1.398*	40,5 *1.594*
05FHC3220	10137380	32,0 *1.260*	20,0 *0.787*	60,5 *1.618*	2,0 *0.079*	35,5 *1.398*	41,1 *1.618*
05FHC3225	10137381	32,0 *1.260*	25,0 *0.984*	60,5 *1.846*	2,0 *0.079*	35,5 *1.398*	46,9 *1.846*
05FHC1203L1	10137409	12,0 *0.472*	3,0 *0.118*	45,0 *0.608*	2,0 *0.079*	16,5 *0.650*	15,45 *0.608*
05FHC1204L1	10137410	12,0 *0.472*	4,0 *0.157*	45,0 *0.620*	2,0 *0.079*	16,5 *0.650*	15,75 *0.620*
05FHC1205L1	10137411	12,0 *0.472*	5,0 *0.197*	45,0 *0.632*	2,0 *0.079*	16,5 *0.650*	16,05 *0.632*
05FHC1206L1	10137412	12,0 *0.472*	6,0 *0.236*	45,0 *0.953*	2,0 *0.079*	16,5 *0.650*	24,21 *0.953*
05FHC1208L1	10137413	12,0 *0.472*	8,0 *0.315*	45,0 *0.977*	2,0 *0.079*	16,5 *0.650*	24,81 *0.977*
05FHC2003L1	10137414	20,0 *0.787*	3,0 *0.118*	50,5 *0.616*	2,0 *0.079*	24,0 *0.945*	15,65 *0.616*
05FHC2004L1	10137415	20,0 *0.787*	4,0 *0.157*	50,5 *0.628*	2,0 *0.079*	24,0 *0.945*	15,95 *0.628*
05FHC2005L1	10137416	20,0 *0.787*	5,0 *0.197*	50,5 *0.640*	2,0 *0.079*	24,0 *0.945*	16,25 *0.640*
05FHC2006L1	10137417	20,0 *0.787*	6,0 *0.236*	50,5 *1.007*	2,0 *0.079*	24,0 *0.945*	25,57 *1.007*
05FHC2008L1	10137418	20,0 *0.787*	8,0 *0.315*	50,5 *1.030*	2,0 *0.079*	24,0 *0.945*	26,15 *1.030*
05FHC2010L1	10137419	20,0 *0.787*	10,0 *0.394*	50,5 *1.211*	2,0 *0.079*	24,0 *0.945*	30,75 *1.211*
05FHC2012L1	10137420	20,0 *0.787*	12,0 *0.472*	50,5 *1.367*	2,0 *0.079*	24,0 *0.945*	34,71 *1.367*
05FHC2014L1	10137421	20,0 *0.787*	14,0 *0.551*	50,5 *1.390*	2,0 *0.079*	24,0 *0.945*	35,31 *1.390*
05FHC2016L1	10137422	20,0 *0.787*	16,0 *0.630*	50,5 *1.414*	2,0 *0.079*	24,0 *0.945*	35,91 *1.414*
05FHC3206L1	10137423	32,0 *1.260*	6,0 *0.236*	60,5 *0.922*	2,0 *0.079*	35,5 *1.398*	23,42 *0.922*
05FHC3208L1	10137424	32,0 *1.260*	8,0 *0.315*	60,5 *0.946*	2,0 *0.079*	35,5 *1.398*	24,02 *0.946*
05FHC3210L1	10137425	32,0 *1.260*	10,0 *0.394*	60,5 *1.107*	2,0 *0.079*	35,5 *1.398*	28,13 *1.107*
05FHC3212L1	10137426	32,0 *1.260*	12,0 *0.472*	60,5 *1.131*	2,0 *0.079*	35,5 *1.398*	28,73 *1.131*
05FHC3214L1	10137427	32,0 *1.260*	14,0 *0.551*	60,5 *1.155*	2,0 *0.079*	35,5 *1.398*	29,33 *1.155*
05FHC3216L1	10137428	32,0 *1.260*	16,0 *0.630*	60,5 *1.583*	2,0 *0.079*	35,5 *1.398*	40,2 *1.583*
05FHC3218L1	10137429	32,0 *1.260*	18,0 *0.709*	60,5 *1.594*	2,0 *0.079*	35,5 *1.398*	40,5 *1.594*
05FHC3220L1	10137430	32,0 *1.260*	20,0 *0.787*	60,5 *1.618*	2,0 *0.079*	35,5 *1.398*	41,1 *1.618*
05FHC3225L1	10137431	32,0 *1.260*	25,0 *0.984*	60,5 *1.847*	2,0 *0.079*	35,5 *1.398*	46,91 *1.847*

Hydraulic chucks – Inch





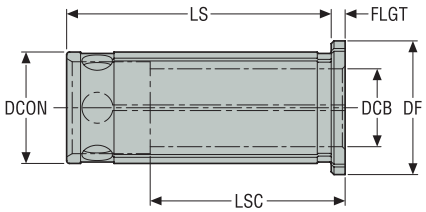
- Nominal clamping diameter only (no clamping range): tool shank tolerance h6 maximum
- ...L1 = with peripheral coolant
- For ISO attribute explanation, see page 14

Designation	Item number	Machine side DCON	Workpiece side DCB	LS	FLGT	DF	LSC
		inch	*inch*	*inch*	*inch*	*inch*	*inch*
05FHC120125	10137382	0.472	0.125	1.772	0.079	0.650	0.610
05FHC120187	10137383	0.472	0.188	1.772	0.079	0.650	0.629
05FHC120250	10137384	0.472	0.250	1.772	0.079	0.650	0.957
05FHC120312	10137385	0.472	0.313	1.772	0.079	0.650	0.976
05FHC120375	10137386	0.472	0.375	1.772	0.079	0.650	0.995
05FHC200125	10137387	0.787	0.125	1.988	0.079	0.945	0.618
05FHC200187	10137388	0.787	0.188	1.988	0.079	0.945	0.637
05FHC200250	10137389	0.787	0.250	1.988	0.079	0.945	1.010
05FHC200312	10137390	0.787	0.313	1.988	0.079	0.945	1.029
05FHC200375	10137391	0.787	0.375	1.988	0.079	0.945	1.048
05FHC200437	10137392	0.787	0.438	1.988	0.079	0.945	1.224
05FHC200500	10137393	0.787	0.500	1.988	0.079	0.945	1.375
05FHC200562	10137394	0.787	0.563	1.988	0.079	0.945	1.394
05FHC200625	10137395	0.787	0.625	1.988	0.079	0.945	1.412
05FHC320250	10137396	1.260	0.250	2.382	0.079	1.398	0.926
05FHC320312	10137397	1.260	0.313	2.382	0.079	1.398	0.945
05FHC320375	10137398	1.260	0.375	2.382	0.079	1.398	1.102
05FHC320437	10137399	1.260	0.438	2.382	0.079	1.398	1.120
05FHC320500	10137400	1.260	0.500	2.382	0.079	1.398	1.139
05FHC320562	10137401	1.260	0.563	2.382	0.079	1.398	1.158
05FHC320625	10137402	1.260	0.625	2.382	0.079	1.398	1.581
05FHC320687	10137403	1.260	0.687	2.382	0.079	1.398	1.588
05FHC320750	10137404	1.260	0.750	2.382	0.079	1.398	1.607
05FHC320812	10137405	1.260	0.812	2.382	0.079	1.398	1.600
05FHC320875	10137406	1.260	0.875	2.382	0.079	1.398	1.619
05FHC320937	10137407	1.260	0.937	2.382	0.079	1.398	1.833
05FHC321000	10137408	1.260	1.000	2.382	0.079	1.398	1.850
05FHC120125L1	10137432	0.472	0.125	1.772	0.079	0.650	0.610
05FHC120187L1	10137433	0.472	0.188	1.772	0.079	0.650	0.629
05FHC120250L1	10137434	0.472	0.250	1.772	0.079	0.650	0.957
05FHC120312L1	10137435	0.472	0.313	1.772	0.079	0.650	0.976
05FHC120375L1	10137436	0.472	0.375	1.772	0.079	0.650	0.995
05FHC200187L1	10137438	0.787	0.188	1.988	0.079	0.945	0.637

Designation	Item number	Machine side DCON	Workpiece side DCB	LS	FLGT	DF	LSC
		inch	*inch*	*inch*	*inch*	*inch*	*inch*
05FHC200250L1	10137439	0.787	0.250	1.988	0.079	0.945	1.010
05FHC200312L1	10137440	0.787	0.313	1.988	0.079	0.945	1.029
05FHC200375L1	10137441	0.787	0.375	1.988	0.079	0.945	1.048
05FHC200437L1	10137442	0.787	0.438	1.988	0.079	0.945	1.224
05FHC200500L1	10137443	0.787	0.500	1.988	0.079	0.945	1.375
05FHC200562L1	10137444	0.787	0.563	1.988	0.079	0.945	1.394
05FHC200625L1	10137445	0.787	0.625	1.988	0.079	0.945	1.412
05FHC201250L1	10137437	0.787	0.125	1.988	0.079	0.945	0.618
05FHC320500L1	10137446	1.260	0.500	2.382	0.079	1.398	1.139
05FHC320625L1	10137447	1.260	0.625	2.382	0.079	1.398	1.581
05FHC320750L1	10137448	1.260	0.750	2.382	0.079	1.398	1.607
05FHC320875L1	10137449	1.260	0.875	2.382	0.079	1.398	1.619
05FHC321000L1	10137450	1.260	1.000	2.382	0.079	1.398	1.850

Power milling chucks
– Metric / *Inch*

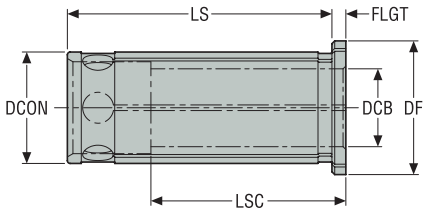




- Nominal clamping diameter only (no clamping range): tool shank tolerance h6 maximum
- For ISO attribute explanation, see page 14

Designation	Item number	Machine side DCON	Workpiece side DCB	LS	FLGT	DF	LSC
		mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*
05FPMC2006	03211223	20,0 *0.787*	6,0 *0.236*	47,5 *1.181*	2,5 *0.098*	24,0 *0.945*	30,0 *1.181*
05FPMC2008	03211224	20,0 *0.787*	8,0 *0.315*	47,5 *1.260*	2,5 *0.098*	24,0 *0.945*	32,0 *1.260*
05FPMC2010	03211225	20,0 *0.787*	10,0 *0.394*	47,5 *1.378*	2,5 *0.098*	24,0 *0.945*	35,0 *1.378*
05FPMC2012	03211226	20,0 *0.787*	12,0 *0.472*	47,5 *1.378*	2,5 *0.098*	24,0 *0.945*	35,0 *1.378*
05FPMC2014	03211227	20,0 *0.787*	14,0 *0.551*	47,5 *1.378*	2,5 *0.098*	24,0 *0.945*	35,0 *1.378*
05FPMC2016	03211228	20,0 *0.787*	16,0 *0.630*	47,5 *1.575*	2,5 *0.098*	24,0 *0.945*	40,0 *1.575*
05FPMC3210	03211229	32,0 *1.260*	10,0 *0.394*	60,5 *1.378*	2,5 *0.098*	36,0 *1.417*	35,0 *1.378*
05FPMC3212	03211230	32,0 *1.260*	12,0 *0.472*	60,5 *1.575*	2,5 *0.098*	36,0 *1.417*	40,0 *1.575*
05FPMC3214	03211231	32,0 *1.260*	14,0 *0.551*	60,5 *1.575*	2,5 *0.098*	36,0 *1.417*	40,0 *1.575*
05FPMC3216	03211232	32,0 *1.260*	16,0 *0.630*	60,5 *1.575*	2,5 *0.098*	36,0 *1.417*	40,0 *1.575*
05FPMC3218	03211233	32,0 *1.260*	18,0 *0.709*	60,5 *1.732*	2,5 *0.098*	36,0 *1.417*	44,0 *1.732*
05FPMC3220	03211234	32,0 *1.260*	20,0 *0.787*	60,5 *1.732*	2,5 *0.098*	36,0 *1.417*	44,0 *1.732*
05FPMC3225	03211235	32,0 *1.260*	25,0 *0.984*	60,5 *1.890*	2,5 *0.098*	36,0 *1.417*	48,0 *1.890*

Power milling chucks – Inch





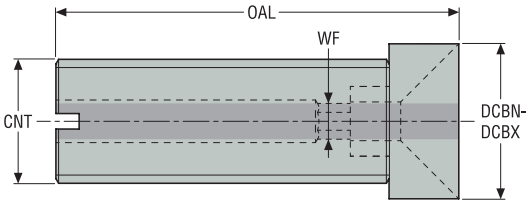
- Nominal clamping diameter only (no clamping range): tool shank tolerance h6 maximum
- For ISO attribute explanation, see page 14

Designation	Item number	Machine side DCON	Workpiece side DCB	LS	FLGT	DF	LSC
		inch	*inch*	*inch*	*inch*	*inch*	*inch*
05FPMC075006	03211245	0.750	0.236	1.870	0.098	0.945	1.181
05FPMC07500250	03211256	0.750	0.250	1.870	0.098	0.945	1.181
05FPMC075008	03211246	0.750	0.315	1.870	0.098	0.945	1.260
05FPMC07500375	03211257	0.750	0.375	1.870	0.098	0.945	1.378
05FPMC075010	03211247	0.750	0.394	1.870	0.098	0.945	1.378
05FPMC075012	03211248	0.750	0.472	1.870	0.098	0.945	1.378
05FPMC07500500	03211258	0.750	0.500	1.870	0.098	0.945	1.378
05FPMC07500625	03211259	0.750	0.625	1.870	0.098	0.945	1.575
05FPMC075016	03211249	0.750	0.630	1.870	0.098	0.945	1.575
05FPMC200250	03211236	0.787	0.250	1.870	0.098	0.945	1.181
05FPMC200375	03211237	0.787	0.375	1.870	0.098	0.945	1.378
05FPMC200500	03211238	0.787	0.500	1.870	0.098	0.945	1.378
05FPMC200625	03211239	0.787	0.625	1.870	0.098	0.945	1.575
05FPMC12500375	03211260	1.250	0.375	2.382	0.098	1.417	1.378
05FPMC125010	03211250	1.250	0.394	2.382	0.098	1.417	1.378
05FPMC125012	03211251	1.250	0.472	2.382	0.098	1.417	1.575
05FPMC12500500	03211261	1.250	0.500	2.382	0.098	1.417	1.575
05FPMC12500625	03211262	1.250	0.625	2.382	0.098	1.417	1.575
05FPMC125016	03211252	1.250	0.630	2.382	0.098	1.417	1.575
05FPMC125018	03211253	1.250	0.709	2.382	0.098	1.417	1.732
05FPMC12500750	03211263	1.250	0.750	2.382	0.098	1.417	1.732
05FPMC125020	03211254	1.250	0.787	2.382	0.098	1.417	1.732
05FPMC125025	03211255	1.250	0.984	2.382	0.098	1.417	1.890
05FPMC12501000	03211264	1.250	1.000	2.382	0.098	1.417	1.890
05FPMC320375	03211240	1.260	0.375	2.382	0.098	1.417	1.378
05FPMC320500	03211241	1.260	0.500	2.382	0.098	1.417	1.575
05FPMC320625	03211242	1.260	0.625	2.382	0.098	1.417	1.575
05FPMC320750	03211243	1.260	0.750	2.382	0.098	1.417	1.732
05FPMC321000	03211244	1.260	1.000	2.382	0.098	1.417	1.890

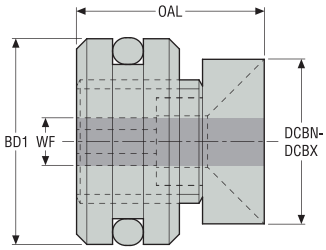
– **Metric** / *Inch*



Design 1



Design 2



- For reliable coolant flow for tools with coolant through channel(s)
- Select the suitable screw in the 'Stop screws for through coolant' selection chart
- For ISO attribute explanation, see page 14

Designation	Item number	DCBN	DCBX	OAL	BD1	WF	CNT	Design
		mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*		
19BPMC2001A	03211273	6,0 *0.236*	12,0 *0.472*	21,5 *0.846*	20,0 *0.787*	4,0 *0.157*	–	2
19BPMC2001B	03211274	14,0 *0.551*	20,0 *0.787*	18,0 *0.709*	20,0 *0.787*	4,0 *0.157*	–	2
19BPMC2002A	03211275	6,0 *0.236*	12,0 *0.472*	35,5 *1.398*	–	4,0 *0.157*	M16	1
19BPMC2002B	03211276	14,0 *0.551*	20,0 *0.787*	27,5 *1.083*	–	4,0 *0.157*	M16	1
19BPMC3201A	03211277	6,0 *0.236*	12,0 *0.472*	37,5 *1.476*	32,0 *1.260*	4,0 *0.157*	–	2
19BPMC3201B	03211278	14,0 *0.551*	20,0 *0.787*	31,0 *1.220*	32,0 *1.260*	4,0 *0.157*	–	2
19BPMC3201C	03211279	25,0 *0.984*	32,0 *1.260*	28,5 *1.122*	32,0 *1.260*	4,0 *0.157*	–	2
19BPMC3203A	03211280	6,0 *0.236*	12,0 *0.472*	55,5 *2.185*	–	4,0 *0.157*	M16	1
19BPMC3203B	03211281	14,0 *0.551*	20,0 *0.787*	52,0 *2.047*	–	4,0 *0.157*	M16	1
19BPMC3203C	03211282	25,0 *0.984*	32,0 *1.260*	37,5 *1.476*	–	4,0 *0.157*	M16	1
19BPMC3204A	03211283	6,0 *0.236*	12,0 *0.472*	77,5 *3.051*	–	4,0 *0.157*	M16	1
19BPMC3204B	03211284	14,0 *0.551*	20,0 *0.787*	74,0 *2.913*	–	4,0 *0.157*	M16	1
19BPMC3204C	03211285	25,0 *0.984*	32,0 *1.260*	58,5 *2.303*	–	4,0 *0.157*	M16	1

Selection chart for Stop screws for coolant through, for Power milling chucks: selection is according to PMC ∅ size used, taper type and tool shank diameter.

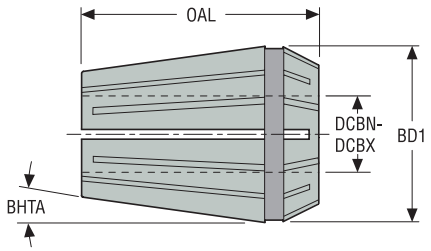
PMC ∅ size	Taper type	Tool shank ∅	Designation Screw	Item number
20	HSK63 / HSK 100 / C6 / C8	6 - 8 - 10 - 12	19BPMC2001A	03211273
		14 - 16 - 18 - 20	19BPMC2001B	03211274
	DIN 40 / DIN 50 / BT40 /BT 50	6 - 8 - 10 - 12	19BPMC2002A	03211275
		14 - 16 - 18 - 20	19BPMC2002B	03211276
32	HSK63 / HSK 100 / C6 / C8	6 - 8 - 10 - 12	19BPMC3201A	03211277
		14 - 16 - 18 - 20	19BPMC3201B	03211278
		25 - 32	19BPMC3201C	03211279
	DIN 40 / BT 40	6 - 8 - 10 - 12	19BPMC3203A	03211280
		14 - 16 - 18 - 20	19BPMC3203B	03211281
		25 - 32	19BPMC3203C	03211282
	DIN 50 / BT 50	6 - 8 - 10 - 12	19BPMC3204A	03211283
		14 - 16 - 18 - 20	19BPMC3204B	03211284
		25 - 32	19BPMC3204C	03211285

PMC ∅ size	Taper type	Tool shank ∅	Designation Screw	Item number
3/4	HSK63 / HSK 100	1/4 - 3/8	19BPMC190505D	03211287
		1/2 - 5/8	19BPMC190505E	03211288
	CAT 40 / CAT 50	1/4 - 3/8	19BPMC190506D	03211289
		1/2 - 5/8	19BPMC190506E	03211290
1-1/4	HSK63 / HSK 100	3/8 - 1/2	19BPMC317505F	03211291
		5/8 - 3/4	19BPMC317505G	03211292
		1 - 1-1/4	19BPMC317505H	03211293
	CAT 40 / CAT 50	3/8 - 1/2	19BPMC317506F	03211294
		5/8 - 3/4	19BPMC317506G	03211295
		1 - 1-1/4	19BPMC317506H	03211296

Not sealed
– Metric / *Inch*

Similar to ISO 15488-B





- Run-out 3 µm maximum at 3 x ∅DCBN-DCBX when assembled on a HP collet chuck, ERHP 5672
- Nominal clamping diameter only (no clamping range): tool shank tolerance h10 maximum
- For ISO attribute explanation, see page 14

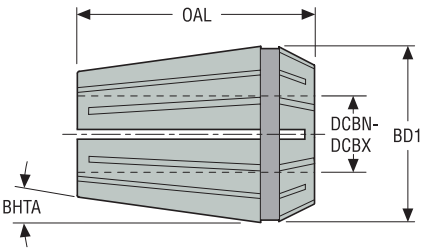
Designation	Item number	Machine side Chuck size	Workpiece side Collet bore size DCBN-DCBX	OAL	BD1	BHTA°
			mm *inch*	mm *inch*	mm *inch*	
56721101	02882782	HP 11	1,0 *0.039*	18,0 *0.709*	11,5 *0.453*	8,0
567211015	02882783	HP 11	1,5 *0.059*	18,0 *0.709*	11,5 *0.453*	8,0
56721102	02882784	HP 11	2,0 *0.079*	18,0 *0.709*	11,5 *0.453*	8,0
567211025	02882785	HP 11	2,5 *0.098*	18,0 *0.709*	11,5 *0.453*	8,0
56721103	02882786	HP 11	3,0 *0.118*	18,0 *0.709*	11,5 *0.453*	8,0
567211035	02882787	HP 11	3,5 *0.138*	18,0 *0.709*	11,5 *0.453*	8,0
56721104	02882788	HP 11	4,0 *0.157*	18,0 *0.709*	11,5 *0.453*	8,0
567211045	02882789	HP 11	4,5 *0.177*	18,0 *0.709*	11,5 *0.453*	8,0
56721105	02882791	HP 11	5,0 *0.197*	18,0 *0.709*	11,5 *0.453*	8,0
567211055	02882792	HP 11	5,5 *0.217*	18,0 *0.709*	11,5 *0.453*	8,0
56721106	02882793	HP 11	6,0 *0.236*	18,0 *0.709*	11,5 *0.453*	8,0
567211065	02882794	HP 11	6,5 *0.256*	18,0 *0.709*	11,5 *0.453*	8,0
56721107	02882795	HP 11	7,0 *0.276*	18,0 *0.709*	11,5 *0.453*	8,0
56721601	02828312	HP 16	1,0 *0.039*	27,5 *1.083*	17,0 *0.669*	8,0
567216015	02828313	HP 16	1,5 *0.059*	27,5 *1.083*	17,0 *0.669*	8,0
56721602	02828314	HP 16	2,0 *0.079*	27,5 *1.083*	17,0 *0.669*	8,0
567216025	02828315	HP 16	2,5 *0.098*	27,5 *1.083*	17,0 *0.669*	8,0
56721603	02828316	HP 16	3,0 *0.118*	27,5 *1.083*	17,0 *0.669*	8,0
567216035	02828317	HP 16	3,5 *0.138*	27,5 *1.083*	17,0 *0.669*	8,0
56721604	02828318	HP 16	4,0 *0.157*	27,5 *1.083*	17,0 *0.669*	8,0

Designation	Item number	Machine side Chuck size	Workpiece side Collet bore size DCBN-DCBX	OAL	BD1	BHTA°
			mm *inch*	mm *inch*	mm *inch*	
567216045	02828319	HP 16	4,5 *0.177*	27,5 *1.083*	17,0 *0.669*	8,0
56721605	02828320	HP 16	5,0 *0.197*	27,5 *1.083*	17,0 *0.669*	8,0
567216055	02828321	HP 16	5,5 *0.217*	27,5 *1.083*	17,0 *0.669*	8,0
56721606	02828322	HP 16	6,0 *0.236*	27,5 *1.083*	17,0 *0.669*	8,0
567216065	02828323	HP 16	6,5 *0.256*	27,5 *1.083*	17,0 *0.669*	8,0
56721607	02828324	HP 16	7,0 *0.276*	27,5 *1.083*	17,0 *0.669*	8,0
567216075	02828325	HP 16	7,5 *0.295*	27,5 *1.083*	17,0 *0.669*	8,0
56721608	02828326	HP 16	8,0 *0.315*	27,5 *1.083*	17,0 *0.669*	8,0
567216085	02828327	HP 16	8,5 *0.335*	27,5 *1.083*	17,0 *0.669*	8,0
56721609	02828328	HP 16	9,0 *0.354*	27,5 *1.083*	17,0 *0.669*	8,0
567216095	02828329	HP 16	9,5 *0.374*	27,5 *1.083*	17,0 *0.669*	8,0
56721610	02828330	HP 16	10,0 *0.394*	27,5 *1.083*	17,0 *0.669*	8,0
56722502	02828342	HP 25	2,0 *0.079*	34,0 *1.339*	26,0 *1.024*	8,0
567225025	02828343	HP 25	2,5 *0.098*	34,0 *1.339*	26,0 *1.024*	8,0
56722503	02828344	HP 25	3,0 *0.118*	34,0 *1.339*	26,0 *1.024*	8,0
567225035	02828345	HP 25	3,5 *0.138*	34,0 *1.339*	26,0 *1.024*	8,0
56722504	02828346	HP 25	4,0 *0.157*	34,0 *1.339*	26,0 *1.024*	8,0
567225045	02828347	HP 25	4,5 *0.177*	34,0 *1.339*	26,0 *1.024*	8,0
56722505	02828348	HP 25	5,0 *0.197*	34,0 *1.339*	26,0 *1.024*	8,0
567225055	02828349	HP 25	5,5 *0.217*	34,0 *1.339*	26,0 *1.024*	8,0
56722506	02828350	HP 25	6,0 *0.236*	34,0 *1.339*	26,0 *1.024*	8,0
567225065	02828351	HP 25	6,5 *0.256*	34,0 *1.339*	26,0 *1.024*	8,0
56722507	02828352	HP 25	7,0 *0.276*	34,0 *1.339*	26,0 *1.024*	8,0
567225075	02828353	HP 25	7,5 *0.295*	34,0 *1.339*	26,0 *1.024*	8,0
56722508	02828354	HP 25	8,0 *0.315*	34,0 *1.339*	26,0 *1.024*	8,0
567225085	02828355	HP 25	8,5 *0.335*	34,0 *1.339*	26,0 *1.024*	8,0
56722509	02828356	HP 25	9,0 *0.354*	34,0 *1.339*	26,0 *1.024*	8,0
567225095	02828357	HP 25	9,5 *0.374*	34,0 *1.339*	26,0 *1.024*	8,0
56722510	02828358	HP 25	10,0 *0.394*	34,0 *1.339*	26,0 *1.024*	8,0
56722511	02828359	HP 25	11,0 *0.433*	34,0 *1.339*	26,0 *1.024*	8,0
56722512	02828360	HP 25	12,0 *0.472*	34,0 *1.339*	26,0 *1.024*	8,0
56722513	02828361	HP 25	13,0 *0.512*	34,0 *1.339*	26,0 *1.024*	8,0
56722514	02828362	HP 25	14,0 *0.551*	34,0 *1.339*	26,0 *1.024*	8,0

Designation	Item number	Machine side Chuck size	Workpiece side Collet bore size DCBN-DCBX	OAL	BD1	BHTA°
			mm *inch*	mm *inch*	mm *inch*	
56722515	02828363	HP 25	15,0 *0.591*	34,0 *1.339*	26,0 *1.024*	8,0
56722516	02828364	HP 25	16,0 *0.630*	34,0 *1.339*	26,0 *1.024*	8,0
56723202	02828366	HP 32	2,0 *0.079*	40,0 *1.575*	33,0 *1.299*	8,0
56723203	02828367	HP 32	3,0 *0.118*	40,0 *1.575*	33,0 *1.299*	8,0
56723204	02828368	HP 32	4,0 *0.157*	40,0 *1.575*	33,0 *1.299*	8,0
56723205	02828369	HP 32	5,0 *0.197*	40,0 *1.575*	33,0 *1.299*	8,0
56723206	02828370	HP 32	6,0 *0.236*	40,0 *1.575*	33,0 *1.299*	8,0
56723207	02828371	HP 32	7,0 *0.276*	40,0 *1.575*	33,0 *1.299*	8,0
56723208	02828372	HP 32	8,0 *0.315*	40,0 *1.575*	33,0 *1.299*	8,0
56723209	02828373	HP 32	9,0 *0.354*	40,0 *1.575*	33,0 *1.299*	8,0
56723210	02828374	HP 32	10,0 *0.394*	40,0 *1.575*	33,0 *1.299*	8,0
56723211	02828375	HP 32	11,0 *0.433*	40,0 *1.575*	33,0 *1.299*	8,0
56723212	02828376	HP 32	12,0 *0.472*	40,0 *1.575*	33,0 *1.299*	8,0
56723213	02828377	HP 32	13,0 *0.512*	40,0 *1.575*	33,0 *1.299*	8,0
56723214	02828378	HP 32	14,0 *0.551*	40,0 *1.575*	33,0 *1.299*	8,0
56723215	02828379	HP 32	15,0 *0.591*	40,0 *1.575*	33,0 *1.299*	8,0
56723216	02828380	HP 32	16,0 *0.630*	40,0 *1.575*	33,0 *1.299*	8,0
56723217	02828381	HP 32	17,0 *0.669*	40,0 *1.575*	33,0 *1.299*	8,0
56723218	02828382	HP 32	18,0 *0.709*	40,0 *1.575*	33,0 *1.299*	8,0
56723219	02828383	HP 32	19,0 *0.748*	40,0 *1.575*	33,0 *1.299*	8,0
56723220	02828384	HP 32	20,0 *0.787*	40,0 *1.575*	33,0 *1.299*	8,0

Similar to ISO 15488-B

Not sealed
– Inch





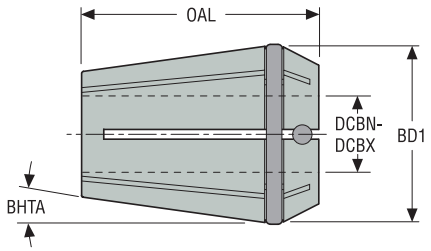
- Run-out 3 µm maximum at 3 x ∅DCBN-DCBX when assembled on a HP collet chuck, ERHP 5672
- Nominal clamping diameter only (no clamping range): tool shank tolerance h10 maximum
- For ISO attribute explanation, see page 14

Designation	Item number	Machine side Chuck size	Workpiece side Collet bore size DCBN-DCBX	OAL	BD1	BHTA°
			inch	*inch*	*inch*	
5672110158	02882796	HP 11	0.062	0.709	0.453	8,0
5672110317	02882797	HP 11	0.125	0.709	0.453	8,0
5672110476	02882798	HP 11	0.188	0.709	0.453	8,0
5672110635	02882799	HP 11	0.250	0.709	0.453	8,0
5672160317	02828385	HP 16	0.125	1.083	0.669	8,0
5672160476	02828386	HP 16	0.188	1.083	0.669	8,0
5672160635	02828417	HP 16	0.250	1.083	0.669	8,0
5672160952	02828428	HP 16	0.375	1.083	0.669	8,0
5672250317	02828429	HP 25	0.125	1.339	1.024	8,0
5672250476	02828434	HP 25	0.188	1.339	1.024	8,0
5672250635	02828435	HP 25	0.250	1.339	1.024	8,0
5672250793	02828436	HP 25	0.313	1.339	1.024	8,0
5672250952	02828446	HP 25	0.375	1.339	1.024	8,0
567225127	02828387	HP 25	0.500	1.339	1.024	8,0
5672320317	02828448	HP 32	0.125	1.575	1.299	8,0
5672320635	02828452	HP 32	0.250	1.575	1.299	8,0
5672320952	02828453	HP 32	0.375	1.575	1.299	8,0
567232127	02828388	HP 32	0.500	1.575	1.299	8,0
5672321587	02828455	HP 32	0.625	1.575	1.299	8,0
5672321905	02828456	HP 32	0.750	1.575	1.299	8,0

Sealed
– Metric / *Inch*

Similar to ISO 15488-B





- Run-out 3 µm maximum at 3 x ∅DCBN-DCBX when assembled on a HP collet chuck, ERHP 5672
- Nominal clamping diameter only (no clamping range): tool shank tolerance h8 maximum
- For ISO attribute explanation, see page 14

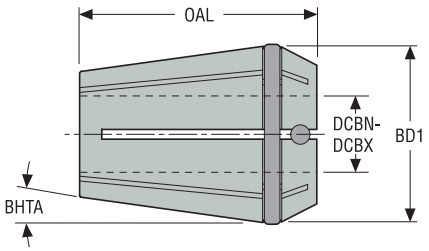
Designation	Item number	Machine side Chuck size	Workpiece side Collet bore size DCBN-DCBX	OAL	BD1	BHTA°
			mm *inch*	mm *inch*	mm *inch*	
5672S1103	02892583	HP 11	3,0 *0.118*	18,0 *0.709*	11,5 *0.453*	8,0
5672S1104	02892584	HP 11	4,0 *0.157*	18,0 *0.709*	11,5 *0.453*	8,0
5672S1105	02892585	HP 11	5,0 *0.197*	18,0 *0.709*	11,5 *0.453*	8,0
5672S1106	02892586	HP 11	6,0 *0.236*	18,0 *0.709*	11,5 *0.453*	8,0
5672S1603	02845288	HP 16	3,0 *0.118*	27,5 *1.083*	17,0 *0.669*	8,0
5672S1604	02845289	HP 16	4,0 *0.157*	27,5 *1.083*	17,0 *0.669*	8,0
5672S1605	02845290	HP 16	5,0 *0.197*	27,5 *1.083*	17,0 *0.669*	8,0
5672S1606	02845291	HP 16	6,0 *0.236*	27,5 *1.083*	17,0 *0.669*	8,0
5672S1607	02845292	HP 16	7,0 *0.276*	27,5 *1.083*	17,0 *0.669*	8,0
5672S1608	02845293	HP 16	8,0 *0.315*	27,5 *1.083*	17,0 *0.669*	8,0
5672S1609	02845294	HP 16	9,0 *0.354*	27,5 *1.083*	17,0 *0.669*	8,0
5672S1610	02845295	HP 16	10,0 *0.394*	27,5 *1.083*	17,0 *0.669*	8,0
5672S2503	02845297	HP 25	3,0 *0.118*	34,0 *1.339*	26,0 *1.024*	8,0
5672S2504	02845298	HP 25	4,0 *0.157*	34,0 *1.339*	26,0 *1.024*	8,0
5672S2505	02845299	HP 25	5,0 *0.197*	34,0 *1.339*	26,0 *1.024*	8,0
5672S2506	02845300	HP 25	6,0 *0.236*	34,0 *1.339*	26,0 *1.024*	8,0
5672S2507	02845301	HP 25	7,0 *0.276*	34,0 *1.339*	26,0 *1.024*	8,0
5672S2508	02845302	HP 25	8,0 *0.315*	34,0 *1.339*	26,0 *1.024*	8,0
5672S2509	02845303	HP 25	9,0 *0.354*	34,0 *1.339*	26,0 *1.024*	8,0
5672S2510	02845304	HP 25	10,0 *0.394*	34,0 *1.339*	26,0 *1.024*	8,0

Designation	Item number	Machine side Chuck size	Workpiece side Collet bore size DCBN-DCBX	OAL	BD1	BHTA°
			mm *inch*	mm *inch*	mm *inch*	
5672S2511	02845305	HP 25	11,0 *0.433*	34,0 *1.339*	26,0 *1.024*	8,0
5672S2512	02845306	HP 25	12,0 *0.472*	34,0 *1.339*	26,0 *1.024*	8,0
5672S2513	02845307	HP 25	13,0 *0.512*	34,0 *1.339*	26,0 *1.024*	8,0
5672S2514	02845308	HP 25	14,0 *0.551*	34,0 *1.339*	26,0 *1.024*	8,0
5672S2515	02845309	HP 25	15,0 *0.591*	34,0 *1.339*	26,0 *1.024*	8,0
5672S2516	02845310	HP 25	16,0 *0.630*	34,0 *1.339*	26,0 *1.024*	8,0
5672S3203	02845314	HP 32	3,0 *0.118*	40,0 *1.575*	33,0 *1.299*	8,0
5672S3204	02845315	HP 32	4,0 *0.157*	40,0 *1.575*	33,0 *1.299*	8,0
5672S3205	02845316	HP 32	5,0 *0.197*	40,0 *1.575*	33,0 *1.299*	8,0
5672S3206	02845317	HP 32	6,0 *0.236*	40,0 *1.575*	33,0 *1.299*	8,0
5672S3207	02845318	HP 32	7,0 *0.276*	40,0 *1.575*	33,0 *1.299*	8,0
5672S3208	02845319	HP 32	8,0 *0.315*	40,0 *1.575*	33,0 *1.299*	8,0
5672S3209	02845320	HP 32	9,0 *0.354*	40,0 *1.575*	33,0 *1.299*	8,0
5672S3210	02845321	HP 32	10,0 *0.394*	40,0 *1.575*	33,0 *1.299*	8,0
5672S3211	02845322	HP 32	11,0 *0.433*	40,0 *1.575*	33,0 *1.299*	8,0
5672S3212	02845323	HP 32	12,0 *0.472*	40,0 *1.575*	33,0 *1.299*	8,0
5672S3213	02845324	HP 32	13,0 *0.512*	40,0 *1.575*	33,0 *1.299*	8,0
5672S3214	02845325	HP 32	14,0 *0.551*	40,0 *1.575*	33,0 *1.299*	8,0
5672S3215	02845326	HP 32	15,0 *0.591*	40,0 *1.575*	33,0 *1.299*	8,0
5672S3216	02845327	HP 32	16,0 *0.630*	40,0 *1.575*	33,0 *1.299*	8,0
5672S3217	02845328	HP 32	17,0 *0.669*	40,0 *1.575*	33,0 *1.299*	8,0
5672S3218	02845329	HP 32	18,0 *0.709*	40,0 *1.575*	33,0 *1.299*	8,0
5672S3219	02845330	HP 32	19,0 *0.748*	40,0 *1.575*	33,0 *1.299*	8,0
5672S3220	02845331	HP 32	20,0 *0.787*	40,0 *1.575*	33,0 *1.299*	8,0

Sealed – Inch

Similar to ISO 15488-B



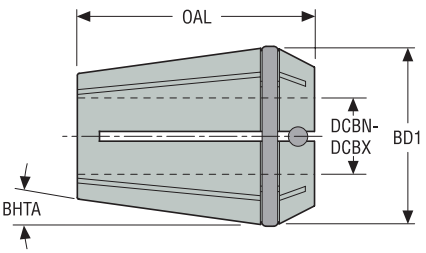


- Run-out 3 µm maximum at 3 x ∅DCBN-DCBX when assembled on a HP collet chuck, ERHP 5672
- Nominal clamping diameter only (no clamping range): tool shank tolerance h8 maximum
- For ISO attribute explanation, see page 14

Designation	Item number	Machine side Chuck size	Workpiece side Collet bore size DCBN-DCBX	OAL	BD1	BHTA°
			inch	*inch*	*inch*	
5672S110317	02892587	HP 11	0.125	0.709	0.453	8,0
5672S110476	02892588	HP 11	0.188	0.709	0.453	8,0
5672S110635	02892589	HP 11	0.250	0.709	0.453	8,0
5672S160317	02845332	HP 16	0.125	1.083	0.669	8,0
5672S160476	02845333	HP 16	0.188	1.083	0.669	8,0
5672S160635	02845334	HP 16	0.250	1.083	0.669	8,0
5672S160793	02845335	HP 16	0.313	1.083	0.669	8,0
5672S160952	02845336	HP 16	0.375	1.083	0.669	8,0
5672S250317	02845337	HP 25	0.125	1.339	1.024	8,0
5672S250476	02845338	HP 25	0.188	1.339	1.024	8,0
5672S250635	02845339	HP 25	0.250	1.339	1.024	8,0
5672S250793	02845340	HP 25	0.313	1.339	1.024	8,0
5672S250952	02845341	HP 25	0.375	1.339	1.024	8,0
5672S25127	02845342	HP 25	0.500	1.339	1.024	8,0
5672S251587	02845343	HP 25	0.625	1.339	1.024	8,0
5672S320317	02845344	HP 32	0.125	1.575	1.299	8,0
5672S320476	02845345	HP 32	0.188	1.575	1.299	8,0
5672S320635	02845346	HP 32	0.250	1.575	1.299	8,0
5672S320793	02845347	HP 32	0.313	1.575	1.299	8,0
5672S320952	02845348	HP 32	0.375	1.575	1.299	8,0
5672S32127	02845349	HP 32	0.500	1.575	1.299	8,0
5672S321587	02845350	HP 32	0.625	1.575	1.299	8,0
5672S321905	02845351	HP 32	0.750	1.575	1.299	8,0

Similar to ISO 15488-B

With coolant supply channels towards the tool – Metric / *Inch*





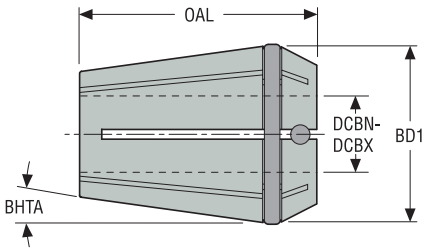
- Run-out 3 µm maximum at 3 x ∅DCBN-DCBX when assembled on a HP collet chuck, ERHP 5672
- Nominal clamping diameter only (no clamping range): tool shank tolerance h8 maximum
- For ISO attribute explanation, see page 14

Designation	Item number	Machine side Chuck size	Workpiece side Collet bore size DCBN-DCBX	OAL	BD1	BHTA°
			mm *inch*	mm *inch*	mm *inch*	
5672S1604L	03070197	HP 16	4,0 *0.157*	27,5 *1.083*	17,0 *0.669*	8,0
5672S1606L	03070198	HP 16	6,0 *0.236*	27,5 *1.083*	17,0 *0.669*	8,0
5672S1608L	03070199	HP 16	8,0 *0.315*	27,5 *1.083*	17,0 *0.669*	8,0
5672S2504L	03070200	HP 25	4,0 *0.157*	34,0 *1.339*	26,0 *1.024*	8,0
5672S2506L	03070201	HP 25	6,0 *0.236*	34,0 *1.339*	26,0 *1.024*	8,0
5672S2508L	03070202	HP 25	8,0 *0.315*	34,0 *1.339*	26,0 *1.024*	8,0
5672S2510L	03070203	HP 25	10,0 *0.394*	34,0 *1.339*	26,0 *1.024*	8,0
5672S2512L	03070204	HP 25	12,0 *0.472*	34,0 *1.339*	26,0 *1.024*	8,0
5672S2514L	03070205	HP 25	14,0 *0.551*	34,0 *1.339*	26,0 *1.024*	8,0
5672S3204L	03070206	HP 32	4,0 *0.157*	40,0 *1.575*	33,0 *1.299*	8,0
5672S3206L	03070207	HP 32	6,0 *0.236*	40,0 *1.575*	33,0 *1.299*	8,0
5672S3208L	03070208	HP 32	8,0 *0.315*	40,0 *1.575*	33,0 *1.299*	8,0
5672S3210L	03070209	HP 32	10,0 *0.394*	40,0 *1.575*	33,0 *1.299*	8,0
5672S3212L	03070210	HP 32	12,0 *0.472*	40,0 *1.575*	33,0 *1.299*	8,0
5672S3214L	03070211	HP 32	14,0 *0.551*	40,0 *1.575*	33,0 *1.299*	8,0
5672S3216L	03070212	HP 32	16,0 *0.630*	40,0 *1.575*	33,0 *1.299*	8,0
5672S3218L	03070213	HP 32	18,0 *0.709*	40,0 *1.575*	33,0 *1.299*	8,0
5672S3220L	03070214	HP 32	20,0 *0.787*	40,0 *1.575*	33,0 *1.299*	8,0

With coolant supply channels towards the tool – Inch

Similar to ISO 15488-B



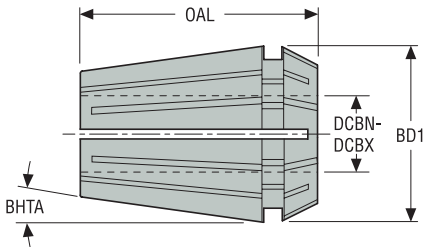


- Run-out 3 µm maximum at 3 x ∅DCBN-DCBX when assembled on a HP collet chuck, ERHP 5672
- Nominal clamping diameter only (no clamping range): tool shank tolerance h8 maximum
- For ISO attribute explanation, see page 14

Designation	Item number	Machine side Chuck size	Workpiece side Collet bore size DCBN-DCBX	OAL	BD1	BHTA°
			inch	*inch*	*inch*	
5672S160317L	03070215	HP 16	0.125	1.083	0.669	8,0
5672S160476L	03070216	HP 16	0.187	1.083	0.669	8,0
5672S160635L	03070217	HP 16	0.250	1.083	0.669	8,0
5672S250317L	03070219	HP 25	0.125	1.339	1.024	8,0
5672S250476L	03070220	HP 25	0.187	1.339	1.024	8,0
5672S250635L	03070221	HP 25	0.250	1.339	1.024	8,0
5672S250793L	03070222	HP 25	0.312	1.339	1.024	8,0
5672S250952L	03070223	HP 25	0.375	1.339	1.024	8,0
5672S251111L	03070225	HP 25	0.437	1.339	1.024	8,0
5672S25127L	03070226	HP 25	0.500	1.339	1.024	8,0
5672S251428L	03070227	HP 25	0.562	1.339	1.024	8,0
5672S320317L	03070228	HP 32	0.125	1.575	1.299	8,0
5672S320476L	03070229	HP 32	0.187	1.575	1.299	8,0
5672S320635L	03070230	HP 32	0.250	1.575	1.299	8,0
5672S320793L	03070231	HP 32	0.312	1.575	1.299	8,0
5672S320952L	03070232	HP 32	0.375	1.575	1.299	8,0
5672S321111L	03070233	HP 32	0.437	1.575	1.299	8,0
5672S32127L	03070234	HP 32	0.500	1.575	1.299	8,0
5672S321428L	03070235	HP 32	0.562	1.575	1.299	8,0
5672S321587L	03070236	HP 32	0.625	1.575	1.299	8,0
5672S321746L	03070237	HP 32	0.687	1.575	1.299	8,0
5672S321905L	03070238	HP 32	0.750	1.575	1.299	8,0

ISO 15488-B

– Metric / *Inch*





- Run-out 10 µm maximum at 3 x ∅DCBN-DCBX when assembled on an ER collet chuck, ER 5675
- Clamping range -0,5 or -1 mm
- For ISO attribute explanation, see page 14

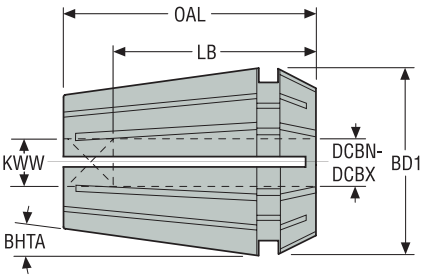
Designation	Item number	Machine side Chuck size	DCBN	DCBX	OAL	BD1	BHTA°
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	
58800801	75042144	ER 08	0,5 *0.020*	1,0 *0.039*	13,5 *0.531*	8,5 *0.335*	8,0
588008015	75042145	ER 08	1,0 *0.039*	1,5 *0.059*	13,5 *0.531*	8,5 *0.335*	8,0
58800802	75042146	ER 08	1,5 *0.059*	2,0 *0.079*	13,5 *0.531*	8,5 *0.335*	8,0
588008025	75042147	ER 08	2,0 *0.079*	2,5 *0.098*	13,5 *0.531*	8,5 *0.335*	8,0
58800803	75042148	ER 08	2,5 *0.098*	3,0 *0.118*	13,5 *0.531*	8,5 *0.335*	8,0
588008035	75042149	ER 08	3,0 *0.118*	3,5 *0.138*	13,5 *0.531*	8,5 *0.335*	8,0
58800804	75042151	ER 08	3,5 *0.138*	4,0 *0.157*	13,5 *0.531*	8,5 *0.335*	8,0
588008045	75042152	ER 08	4,0 *0.157*	4,5 *0.177*	13,5 *0.531*	8,5 *0.335*	8,0
58800805	75042153	ER 08	4,5 *0.177*	5,0 *0.197*	13,5 *0.531*	8,5 *0.335*	8,0
58801101	75042154	ER 11	0,5 *0.020*	1,0 *0.039*	18,0 *0.709*	11,3 *0.445*	8,0
588011015	75042155	ER 11	1,0 *0.039*	1,5 *0.059*	18,0 *0.709*	11,3 *0.445*	8,0
58801102	75042156	ER 11	1,5 *0.059*	2,0 *0.079*	18,0 *0.709*	11,3 *0.445*	8,0
588011025	75042157	ER 11	2,0 *0.079*	2,5 *0.098*	18,0 *0.709*	11,3 *0.445*	8,0
58801103	75042158	ER 11	2,5 *0.098*	3,0 *0.118*	18,0 *0.709*	11,3 *0.445*	8,0
588011035	75042159	ER 11	3,0 *0.118*	3,5 *0.138*	18,0 *0.709*	11,3 *0.445*	8,0
58801104	75042161	ER 11	3,5 *0.138*	4,0 *0.157*	18,0 *0.709*	11,3 *0.445*	8,0
588011045	75042163	ER 11	4,0 *0.157*	4,5 *0.177*	18,0 *0.709*	11,3 *0.445*	8,0
58801105	75042164	ER 11	4,5 *0.177*	5,0 *0.197*	18,0 *0.709*	11,3 *0.445*	8,0
588011055	75042165	ER 11	5,0 *0.197*	5,5 *0.217*	18,0 *0.709*	11,3 *0.445*	8,0
58801106	75042166	ER 11	5,5 *0.217*	6,0 *0.236*	18,0 *0.709*	11,3 *0.445*	8,0

Designation	Item number	Machine side Chuck size	DCBN	DCBX	OAL	BD1	BHTA°
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	
588011065	75042167	ER 11	6,0 *0.236*	6,5 *0.256*	18,0 *0.709*	11,3 *0.445*	8,0
58801107	75042168	ER 11	6,5 *0.256*	7,0 *0.276*	18,0 *0.709*	11,3 *0.445*	8,0
58801601	75042062	ER 16	0,5 *0.020*	1,0 *0.039*	27,0 *1.063*	17,0 *0.669*	8,0
58801602	75042064	ER 16	1,5 *0.059*	2,0 *0.079*	27,0 *1.063*	17,0 *0.669*	8,0
58801603	75042065	ER 16	2,0 *0.079*	3,0 *0.118*	27,0 *1.063*	17,0 *0.669*	8,0
58801604	75042066	ER 16	3,0 *0.118*	4,0 *0.157*	27,0 *1.063*	17,0 *0.669*	8,0
58801605	75042067	ER 16	4,0 *0.157*	5,0 *0.197*	27,0 *1.063*	17,0 *0.669*	8,0
58801606	75042068	ER 16	5,0 *0.197*	6,0 *0.236*	27,0 *1.063*	17,0 *0.669*	8,0
58801607	75042073	ER 16	6,0 *0.236*	7,0 *0.276*	27,0 *1.063*	17,0 *0.669*	8,0
58801608	75042074	ER 16	7,0 *0.276*	8,0 *0.315*	27,0 *1.063*	17,0 *0.669*	8,0
58801609	75042075	ER 16	8,0 *0.315*	9,0 *0.354*	27,0 *1.063*	17,0 *0.669*	8,0
58801610	75042076	ER 16	9,0 *0.354*	10,0 *0.394*	27,0 *1.063*	17,0 *0.669*	8,0
58802502	75042081	ER 25	1,5 *0.059*	2,0 *0.079*	34,0 *1.339*	25,8 *1.016*	8,0
58802503	75042083	ER 25	2,0 *0.079*	3,0 *0.118*	34,0 *1.339*	25,8 *1.016*	8,0
58802504	75042084	ER 25	3,0 *0.118*	4,0 *0.157*	34,0 *1.339*	25,8 *1.016*	8,0
58802505	75042085	ER 25	4,0 *0.157*	5,0 *0.197*	34,0 *1.339*	25,8 *1.016*	8,0
58802506	75042086	ER 25	5,0 *0.197*	6,0 *0.236*	34,0 *1.339*	25,8 *1.016*	8,0
58802507	75042087	ER 25	6,0 *0.236*	7,0 *0.276*	34,0 *1.339*	25,8 *1.016*	8,0
58802508	75042088	ER 25	7,0 *0.276*	8,0 *0.315*	34,0 *1.339*	25,8 *1.016*	8,0
58802509	75042089	ER 25	8,0 *0.315*	9,0 *0.354*	34,0 *1.339*	25,8 *1.016*	8,0
58802510	75042090	ER 25	9,0 *0.354*	10,0 *0.394*	34,0 *1.339*	25,8 *1.016*	8,0
58802511	75042091	ER 25	10,0 *0.394*	11,0 *0.433*	34,0 *1.339*	25,8 *1.016*	8,0
58802512	75042094	ER 25	11,0 *0.433*	12,0 *0.472*	34,0 *1.339*	25,8 *1.016*	8,0
58802513	75042095	ER 25	12,0 *0.472*	13,0 *0.512*	34,0 *1.339*	25,8 *1.016*	8,0
58802514	75042097	ER 25	13,0 *0.512*	14,0 *0.551*	34,0 *1.339*	25,8 *1.016*	8,0
58802515	75042098	ER 25	14,0 *0.551*	15,0 *0.591*	34,0 *1.339*	25,8 *1.016*	8,0
58802516	75042099	ER 25	15,0 *0.591*	16,0 *0.630*	34,0 *1.339*	25,8 *1.016*	8,0
58803203	75041874	ER 32	2,0 *0.079*	3,0 *0.118*	40,0 *1.575*	33,0 *1.299*	8,0
58803204	75041875	ER 32	3,0 *0.118*	4,0 *0.157*	40,0 *1.575*	33,0 *1.299*	8,0
58803205	75041876	ER 32	4,0 *0.157*	5,0 *0.197*	40,0 *1.575*	33,0 *1.299*	8,0
58803206	75041886	ER 32	5,0 *0.197*	6,0 *0.236*	40,0 *1.575*	33,0 *1.299*	8,0
58803207	75041888	ER 32	6,0 *0.236*	7,0 *0.276*	40,0 *1.575*	33,0 *1.299*	8,0
58803208	75041890	ER 32	7,0 *0.276*	8,0 *0.315*	40,0 *1.575*	33,0 *1.299*	8,0

Designation	Item number	Machine side Chuck size	DCBN	DCBX	OAL	BD1	BHTA°
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	
58803209	75041891	ER 32	8,0 *0.315*	9,0 *0.354*	40,0 *1.575*	33,0 *1.299*	8,0
58803210	75041892	ER 32	9,0 *0.354*	10,0 *0.394*	40,0 *1.575*	33,0 *1.299*	8,0
58803211	75041894	ER 32	10,0 *0.394*	11,0 *0.433*	40,0 *1.575*	33,0 *1.299*	8,0
58803212	75041895	ER 32	11,0 *0.433*	12,0 *0.472*	40,0 *1.575*	33,0 *1.299*	8,0
58803213	75041896	ER 32	12,0 *0.472*	13,0 *0.512*	40,0 *1.575*	33,0 *1.299*	8,0
58803214	75041925	ER 32	13,0 *0.512*	14,0 *0.551*	40,0 *1.575*	33,0 *1.299*	8,0
58803215	75042101	ER 32	14,0 *0.551*	15,0 *0.591*	40,0 *1.575*	33,0 *1.299*	8,0
58803216	75041927	ER 32	15,0 *0.591*	16,0 *0.630*	40,0 *1.575*	33,0 *1.299*	8,0
58803217	75042102	ER 32	16,0 *0.630*	17,0 *0.669*	40,0 *1.575*	33,0 *1.299*	8,0
58803218	75042103	ER 32	17,0 *0.669*	18,0 *0.709*	40,0 *1.575*	33,0 *1.299*	8,0
58803219	75042104	ER 32	18,0 *0.709*	19,0 *0.748*	40,0 *1.575*	33,0 *1.299*	8,0
58803220	75041940	ER 32	19,0 *0.748*	20,0 *0.787*	40,0 *1.575*	33,0 *1.299*	8,0
58804004	75042105	ER 40	3,0 *0.118*	4,0 *0.157*	46,0 *1.811*	41,0 *1.614*	8,0
58804005	75042106	ER 40	4,0 *0.157*	5,0 *0.197*	46,0 *1.811*	41,0 *1.614*	8,0
58804006	75042109	ER 40	5,0 *0.197*	6,0 *0.236*	46,0 *1.811*	41,0 *1.614*	8,0
58804007	75042112	ER 40	6,0 *0.236*	7,0 *0.276*	46,0 *1.811*	41,0 *1.614*	8,0
58804008	75042113	ER 40	7,0 *0.276*	8,0 *0.315*	46,0 *1.811*	41,0 *1.614*	8,0
58804009	75042114	ER 40	8,0 *0.315*	9,0 *0.354*	46,0 *1.811*	41,0 *1.614*	8,0
58804010	75042115	ER 40	9,0 *0.354*	10,0 *0.394*	46,0 *1.811*	41,0 *1.614*	8,0
58804011	75042118	ER 40	10,0 *0.394*	11,0 *0.433*	46,0 *1.811*	41,0 *1.614*	8,0
58804012	75042119	ER 40	11,0 *0.433*	12,0 *0.472*	46,0 *1.811*	41,0 *1.614*	8,0
58804013	75042121	ER 40	12,0 *0.472*	13,0 *0.512*	46,0 *1.811*	41,0 *1.614*	8,0
58804014	75042122	ER 40	13,0 *0.512*	14,0 *0.551*	46,0 *1.811*	41,0 *1.614*	8,0
58804015	75042123	ER 40	14,0 *0.551*	15,0 *0.591*	46,0 *1.811*	41,0 *1.614*	8,0
58804016	75042124	ER 40	15,0 *0.591*	16,0 *0.630*	46,0 *1.811*	41,0 *1.614*	8,0
58804017	75042125	ER 40	16,0 *0.630*	17,0 *0.669*	46,0 *1.811*	41,0 *1.614*	8,0
58804018	75042126	ER 40	17,0 *0.669*	18,0 *0.709*	46,0 *1.811*	41,0 *1.614*	8,0
58804019	75042127	ER 40	18,0 *0.709*	19,0 *0.748*	46,0 *1.811*	41,0 *1.614*	8,0
58804020	75042128	ER 40	19,0 *0.748*	20,0 *0.787*	46,0 *1.811*	41,0 *1.614*	8,0
58804021	75042129	ER 40	20,0 *0.787*	21,0 *0.827*	46,0 *1.811*	41,0 *1.614*	8,0
58804022	75042130	ER 40	21,0 *0.827*	22,0 *0.866*	46,0 *1.811*	41,0 *1.614*	8,0
58804023	75042131	ER 40	22,0 *0.866*	23,0 *0.906*	46,0 *1.811*	41,0 *1.614*	8,0
58804024	75042132	ER 40	23,0 *0.906*	24,0 *0.945*	46,0 *1.811*	41,0 *1.614*	8,0

Designation	Item number	Machine side Chuck size	DCBN	DCBX	OAL	BD1	BHTA°
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	
58804025	75042133	ER 40	24,0 *0.945*	25,0 *0.984*	46,0 *1.811*	41,0 *1.614*	8,0
58804026	00042134	ER 40	25,0 *0.984*	26,0 *1.024*	46,0 *1.811*	41,0 *1.614*	8,0

– Metric / *Inch*



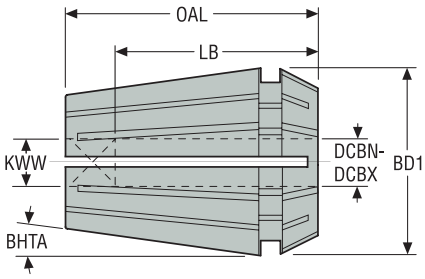


- For TCER 5867 tapping chucks
- * Without square in the collet (use squarre inside the TCER tapping holder)
- For ISO attribute explanation, see page 14

Designation	Item number	Machine side Chuck size	DCBN-DCBX	OAL	LB	BD1	KWW	*	BHTA°
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*		
393.14-11D025X021	03131636	ER 11	2,5 *0.098*	18,0 *0.709*	12,0 *0.472*	11,3 *0.445*	2,1 *0.083*		8,0
393.14-11D028X021	02926995	ER 11	2,8 *0.110*	18,0 *0.709*	12,0 *0.472*	11,3 *0.445*	2,1 *0.083*		8,0
393.14-11D035X027	02926996	ER 11	3,5 *0.138*	18,0 *0.709*	14,0 *0.551*	11,3 *0.445*	2,7 *0.106*		8,0
393.14-11D040X030	02926997	ER 11	4,0 *0.157*	18,0 *0.709*	14,0 *0.551*	11,3 *0.445*	3,0 *0.118*		8,0
393.14-11D040X0315	03131670	ER 11	4,0 *0.157*	18,0 *0.709*	14,0 *0.551*	11,3 *0.445*	3,1 *0.122*		8,0
393.14-11D045X034	02926998	ER 11	4,5 *0.177*	18,0 *0.709*	14,0 *0.551*	11,3 *0.445*	3,4 *0.134*		8,0
393.14-11D050X040	03131671	ER 11	5,0 *0.197*	18,0 *0.709*	14,0 *0.551*	11,3 *0.445*	4,0 *0.157*		8,0
393.14-11D060X049	02926999	ER 11	6,0 *0.236*	18,0 *0.709*	14,0 *0.551*	11,3 *0.445*	4,9 *0.193*		8,0
393.14-20D035X027	03131672	ER 20	3,5 *0.138*	31,5 *1.240*	14,0 *0.551*	20,8 *0.819*	2,7 *0.106*		8,0
393.14-20D040X0315	03131673	ER 20	4,0 *0.157*	31,5 *1.240*	15,0 *0.591*	20,8 *0.819*	3,15 *0.124*		8,0
393.14-20D045X034	02927000	ER 20	4,5 *0.177*	31,5 *1.240*	18,0 *0.709*	20,8 *0.819*	3,4 *0.134*		8,0
393.14-20D050X040	03131674	ER 20	5,0 *0.197*	31,5 *1.240*	18,0 *0.709*	20,8 *0.819*	4,0 *0.157*		8,0
393.14-20D055X043	03131675	ER 20	5,5 *0.217*	31,5 *1.240*	18,0 *0.709*	20,8 *0.819*	4,3 *0.169*		8,0
393.14-20D060X049	02927001	ER 20	6,0 *0.236*	31,5 *1.240*	18,0 *0.709*	20,8 *0.819*	4,9 *0.193*		8,0
393.14-20D063X050	03131676	ER 20	6,3 *0.248*	31,5 *1.240*	18,0 *0.709*	20,8 *0.819*	5,0 *0.197*		8,0
393.14-20D070X055	02927002	ER 20	7,0 *0.276*	31,5 *1.240*	18,0 *0.709*	20,8 *0.819*	5,5 *0.217*		8,0
393.14-20D071X056	03131677	ER 20	7,1 *0.280*	31,5 *1.240*	18,0 *0.709*	20,8 *0.819*	5,6 *0.220*		8,0
393.14-20D080X063	02927003	ER 20	8,0 *0.315*	31,5 *1.240*	22,0 *0.866*	20,8 *0.819*	6,3 *0.248*		8,0
393.14-20D090X071	02927004	ER 20	9,0 *0.354*	31,5 *1.240*	22,0 *0.866*	20,8 *0.819*	7,1 *0.280*		8,0
393.14-20D100X080	02927005	ER 20	10,0 *0.394*	31,5 *1.240*	25,0 *0.984*	20,8 *0.819*	8,0 *0.315*		8,0

Designation	Item number	Machine side Chuck size	DCBN-DCBX	OAL	LB	BD1	KWW	*	BHTA°
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*		
393.14-25D060X049	03131691	ER 25	6,0 *0.236*	34,0 *1.339*	18,0 *0.709*	25,8 *1.016*	4,9 *0.193*		8,0
393.14-25D070X055	03131692	ER 25	7,0 *0.276*	34,0 *1.339*	18,0 *0.709*	25,8 *1.016*	5,5 *0.217*		8,0
393.14-25D080X063	02927006	ER 25	8,0 *0.315*	34,0 *1.339*	22,0 *0.866*	25,8 *1.016*	6,3 *0.248*		8,0
393.14-25D090X071	02728005	ER 25	9,0 *0.354*	34,0 *1.339*	22,0 *0.866*	25,8 *1.016*	7,1 *0.280*		8,0
393.14-25D100X080	02927007	ER 25	10,0 *0.394*	34,0 *1.339*	25,0 *0.984*	25,8 *1.016*	8,0 *0.315*		8,0
393.14-25D110X090	02927008	ER 25	11,0 *0.433*	34,0 *1.339*	25,0 *0.984*	25,8 *1.016*	9,0 *0.354*		8,0
393.14-25D112X090	03131693	ER 25	11,2 *0.441*	34,0 *1.339*	24,8 *0.976*	25,8 *1.016*	9,0 *0.354*		8,0
393.14-25D120X090	02927009	ER 25	12,0 *0.472*	34,0 *1.339*	25,0 *0.984*	25,8 *1.016*	9,0 *0.354*		8,0
393.14-25D125X100	03131694	ER 25	12,5 *0.492*	34,0 *1.339*	24,8 *0.976*	25,8 *1.016*	10,0 *0.394*		8,0
393.14-25D140X112	02927010	ER 25	14,0 *0.551*	34,0 *1.339*	25,0 *0.984*	25,8 *1.016*	11,2 *0.441*		8,0
393.14-25D160X120	02927011	ER 25	16,0 *0.630*	34,0 *1.339*	25,0 *0.984*	25,8 *1.016*	12,0 *0.472*		8,0
393.14-40D120X090	02927012	ER 40	12,0 *0.472*	46,0 *1.811*	25,0 *0.984*	41,0 *1.614*	9,0 *0.354*		8,0
393.14-40D125X100	03131695	ER 40	12,5 *0.492*	46,0 *1.811*	24,8 *0.976*	41,0 *1.614*	10,0 *0.394*		8,0
393.14-40D140X112	02927013	ER 40	14,0 *0.551*	46,0 *1.811*	25,0 *0.984*	41,0 *1.614*	11,2 *0.441*		8,0
393.14-40D160X125	02927015	ER 40	16,0 *0.630*	46,0 *1.811*	25,0 *0.984*	41,0 *1.614*	12,5 *0.492*		8,0
393.14-40D180X145	02927016	ER 40	18,0 *0.709*	46,0 *1.811*	25,0 *0.984*	41,0 *1.614*	14,5 *0.571*		8,0
393.14-40D200X160	02927017	ER 40	20,0 *0.787*	46,0 *1.811*	28,0 *1.102*	41,0 *1.614*	16,0 *0.630*		8,0
393.14-40D220X180	02927018	ER 40	22,0 *0.866*	46,0 *1.811*	28,0 *1.102*	41,0 *1.614*	18,0 *0.709*		8,0
393.14-50D220X180	03131696	ER 50	22,0 *0.866*	60,0 *2.362*	41,0 *1.614*	50,0 *1.969*	18,0 *0.709*		8,0
393.14-50D250X200	03131697	ER 50	25,0 *0.984*	60,0 *2.362*	41,0 *1.614*	50,0 *1.969*	20,0 *0.787*		8,0
393.14-50D280X220	03131698	ER 50	28,0 *1.102*	60,0 *2.362*	41,0 *1.614*	50,0 *1.969*	22,0 *0.866*		8,0
393.14-50D320X240	03131699	ER 50	32,0 *1.260*	60,0 *2.362*	41,0 *1.614*	50,0 *1.969*	24,0 *0.945*		8,0
393.14-50360	03131700	ER 50	36,0 *1.417*	60,0 *2.362*	41,0 *1.614*	50,0 *1.969*	–	*	8,0

– Inch



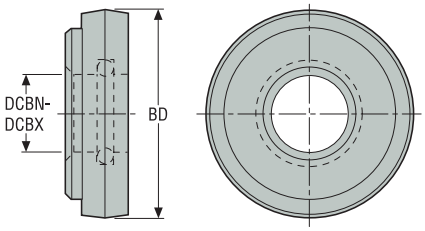


- For TCER 5867 tapping chucks
- For ISO attribute explanation, see page 14

Designation	Item number	Machine side Chuck size	DCBN-DCBX	OAL	LB	BD1	KWW	BHTA°
			inch	*inch*	*inch*	*inch*	*inch*	
A393.14-11-0-6NO	03131719	ER 11	0.141	0.709	0.551	0.445	0.110	8,0
A393.14-11-8NO	03131720	ER 11	0.168	0.709	0.551	0.445	0.131	8,0
A393.14-11-10NO	03131721	ER 11	0.194	0.709	0.551	0.445	0.152	8,0
A393.14-20-8NO	03131722	ER 20	0.168	1.240	0.709	0.819	0.131	8,0
A393.14-20-10NO	03131723	ER 20	0.194	1.240	0.701	0.819	0.152	8,0
A393.14-20-12NO	03131724	ER 20	0.220	1.240	0.701	0.819	0.165	8,0
A393.14-20-1/4	03131725	ER 20	0.255	1.240	0.701	0.819	0.191	8,0
A393.14-20-5/16	03131726	ER 20	0.318	1.240	0.858	0.819	0.238	8,0
A393.14-20-7/16	03131727	ER 20	0.323	1.240	0.858	0.819	0.242	8,0
A393.14-20-1/2	03131728	ER 20	0.367	1.240	0.866	0.819	0.275	8,0
A393.14-20-3/8	03131733	ER 20	0.381	1.240	0.858	0.819	0.286	8,0
A393.14-25-1/4	03131738	ER 25	0.255	1.339	0.701	1.016	0.191	8,0
A393.14-25-5/16	03131739	ER 25	0.318	1.339	0.858	1.016	0.238	8,0
A393.14-25-7/16	03131741	ER 25	0.323	1.339	0.858	1.016	0.242	8,0
A393.14-25-1/2	03131742	ER 25	0.367	1.339	0.858	1.016	0.275	8,0
A393.14-25-3/8	03131743	ER 25	0.381	1.339	0.858	1.016	0.286	8,0
A393.14-25-9/16	03131744	ER 25	0.429	1.339	0.976	1.016	0.322	8,0
A393.14-25-1/8P	03131745	ER 25	0.437	1.339	0.976	1.016	0.328	8,0
A393.14-25-5/8	03131746	ER 25	0.480	1.339	0.976	1.016	0.360	8,0
A393.14-25-3/4	03131747	ER 25	0.590	1.339	0.976	1.016	0.442	8,0
A393.14-40-5/8	03131748	ER 40	0.480	1.811	0.976	1.614	0.360	8,0
A393.14-40-1/2P	03131749	ER 40	0.687	1.811	0.976	1.614	0.515	8,0
A393.14-40-M18	03131750	ER 40	0.542	1.811	0.976	1.614	0.406	8,0
A393.14-40-1/8P	03131751	ER 40	0.562	1.811	0.976	1.614	0.421	8,0
A393.14-40-3/4	03131752	ER 40	0.590	1.811	0.976	1.614	0.442	8,0
A393.14-40-M20	03131753	ER 40	0.652	1.811	0.976	1.614	0.489	8,0
A393.14-40-7/8	03131754	ER 40	0.697	1.811	0.976	1.614	0.523	8,0
A393.14-40-3/8P	03131755	ER 40	0.700	1.811	0.976	1.614	0.531	8,0
A393.14-40-M24	03131756	ER 40	0.760	1.811	1.094	1.614	0.570	8,0
A393.14-40-1	03131757	ER 40	0.800	1.811	1.094	1.614	0.600	8,0

– **Metric** / *Inch*





- For fitting into ER sealing nuts, for TCER 5867 Tapping chucks and ER 5675 ER Collet chucks
- For sealing nuts, see Accessories in ER collet chucks or Tapping chucks pages
- ER40 and ER50 on request, ER08 and ER11 not available
- For ISO attribute explanation, see page 14

Designation	Item number	For sealing nut size	DCBN	DCBX	BD
			mm *inch*	mm *inch*	mm *inch*
01B58751605	00029961	ER 16	4,5 *0.177*	5,0 *0.197*	13,0 *0.512*
01B58751606	00030314	ER 16	5,5 *0.217*	6,0 *0.236*	13,0 *0.512*
01B58751607	00029963	ER 16	6,5 *0.256*	7,0 *0.276*	13,0 *0.512*
01B58751608	00030315	ER 16	7,5 *0.295*	8,0 *0.315*	13,0 *0.512*
01B58751609	00029967	ER 16	8,5 *0.335*	9,0 *0.354*	13,0 *0.512*
01B58751610	00029968	ER 16	9,5 *0.374*	10,0 *0.394*	13,0 *0.512*
01B587520045	03131184	ER 20	4,0 *0.157*	4,5 *0.177*	16,0 *0.630*
01B58752005	03131182	ER 20	4,5 *0.177*	5,0 *0.197*	16,0 *0.630*
01B58752006	02427909	ER 20	5,5 *0.217*	6,0 *0.236*	16,0 *0.630*
01B58752007	02451138	ER 20	6,5 *0.256*	7,0 *0.276*	16,0 *0.630*
01B587520075	03131185	ER 20	7,0 *0.276*	7,5 *0.295*	16,0 *0.630*
01B58752008	02465404	ER 20	7,5 *0.295*	8,0 *0.315*	16,0 *0.630*
01B58752009	02700032	ER 20	8,5 *0.335*	9,0 *0.354*	16,0 *0.630*
01B58752010	02685743	ER 20	9,5 *0.374*	10,0 *0.394*	16,0 *0.630*
01B58752505	00029973	ER 25	4,5 *0.177*	5,0 *0.197*	21,0 *0.827*
01B58752506	00029978	ER 25	5,5 *0.217*	6,0 *0.236*	21,0 *0.827*
01B58752507	00029981	ER 25	6,5 *0.256*	7,0 *0.276*	21,0 *0.827*
01B58752508	00029982	ER 25	7,5 *0.295*	8,0 *0.315*	21,0 *0.827*
01B58752509	00029983	ER 25	8,5 *0.335*	9,0 *0.354*	21,0 *0.827*
01B58752510	00029992	ER 25	9,5 *0.374*	10,0 *0.394*	21,0 *0.827*
01B58752511	00029998	ER 25	10,5 *0.413*	11,0 *0.433*	21,0 *0.827*

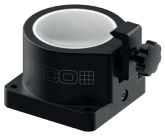
Designation	Item number	For sealing nut size	DCBN	DCBX	BD
			mm *inch*	mm *inch*	mm *inch*
01B58752512	00030000	ER 25	11,5 *0.453*	12,0 *0.472*	21,0 *0.827*
01B58752514	00088809	ER 25	13,5 *0.531*	14,0 *0.551*	21,0 *0.827*
01B58752516	00030010	ER 25	15,5 *0.610*	16,0 *0.630*	21,0 *0.827*
01B58753205	00030017	ER 32	4,5 *0.177*	5,0 *0.197*	27,0 *1.063*
01B58753206	00030316	ER 32	5,5 *0.217*	6,0 *0.236*	27,0 *1.063*
01B58753207	00030020	ER 32	6,5 *0.256*	7,0 *0.276*	27,0 *1.063*
01B58753208	00030023	ER 32	7,5 *0.295*	8,0 *0.315*	27,0 *1.063*
01B58753209	00030026	ER 32	8,5 *0.335*	9,0 *0.354*	27,0 *1.063*
01B58753210	00030028	ER 32	9,5 *0.374*	10,0 *0.394*	27,0 *1.063*
01B58753211	00030317	ER 32	10,5 *0.413*	11,0 *0.433*	27,0 *1.063*
01B58753212	00003370	ER 32	11,5 *0.453*	12,0 *0.472*	27,0 *1.063*
01B58753214	00057876	ER 32	13,5 *0.531*	14,0 *0.551*	27,0 *1.063*
01B58753216	00030319	ER 32	15,5 *0.610*	16,0 *0.630*	27,0 *1.063*
01B58753218	00030320	ER 32	17,5 *0.689*	18,0 *0.709*	27,0 *1.063*
01B58753220	00030321	ER 32	19,5 *0.768*	20,0 *0.787*	27,0 *1.063*

– **Metric** / *Inch*

Design 1



Design 2



Design 3



Design 4



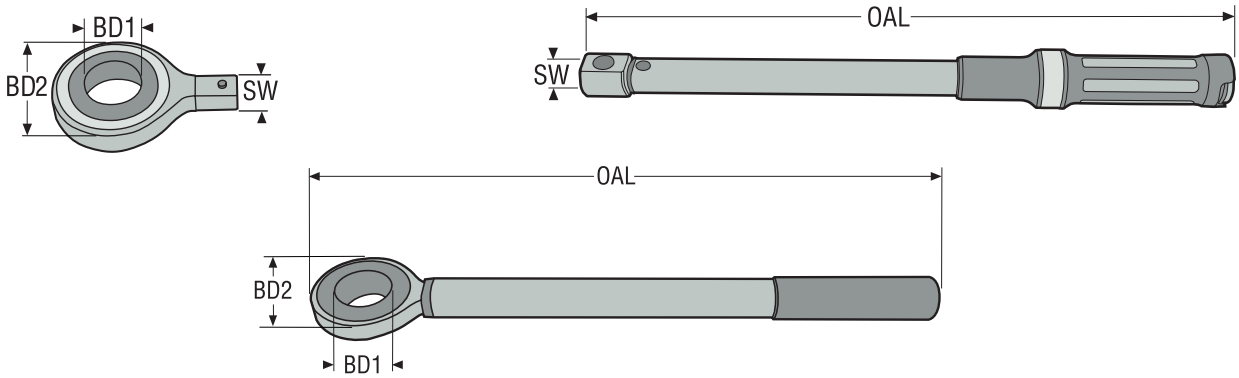
Design 5



- Tool Boy assembly supports are made of a base unit and a head
- All heads are interchangeable
- For ISO attribute explanation, see page 14

Designation	Item number	For holder size(s)	Design	Weight
				kg *lbs*
M211H32	00029893	HSK-A32	1	7,2 *15.870*
M211H40	00029894	HSK-A40	1	7,2 *15.870*
M211H50	00029895	HSK-A50	1	7,4 *16.310*
M211H63	00029897	HSK-A63	1	6,3 *13.890*
M211H10	00029892	HSK-A100	1	8,4 *18.520*
M100H125A	03229707	HSK-A125	2	3,6 *7.940*
M211S30	00029888	DIN30, DIN30 TF, BT30, BT30 TF, CAT30, CAT30 TF	3	7,2 *15.870*
M211S40	00029889	DIN40, DIN40 TF, BT40, BT40 TF, CAT40, CAT40 TF	3	6,4 *14.110*
M211S50	00029891	DIN50, DIN50 TF, BT50, BT50 TF, CAT50, CAT50 TF	3	9,2 *20.280*
M211H40E	02432816	HSK-E40	4	7,2 *15.870*
M211C3	02753746	Seco-Capto C3	4	7,2 *15.870*
M211C4	02753747	Seco-Capto C4	4	7,2 *15.870*
M211C5	02753748	Seco-Capto C5	4	7,4 *16.310*
M211C6	02753749	Seco-Capto C6	4	6,3 *13.890*
M211C8	02753750	Seco-Capto C8	4	7,5 *16.530*
M211V30	02754029	VDI30	5	6,3 *13.890*
M211V40	02754031	VDI40	5	6,6 *14.550*
M211V50	02754032	VDI50	5	7,4 *16.310*

Collet chuck torque wrench (socket / torque key) and classic roller spanner for ER collet chucks – Metric / *Inch*



- * Tightening torque capacity in Nm / ft/lb.
- For ISO attribute explanation, see page 14

	Designation	Item number	For size	Min*	Max*	For Nut BD1 ∅	OAL	BD2	SW	Design
				Nm *ft/lb.*	Nm *ft/lb.*	mm *inch*	mm *inch*	mm *inch*	mm	
Roller socket for torque spanner	03ER016	03070411	ER HP 11, ER 11R	–	–	16,0 *0.630*	–	36,0 *1.417*	–	1
	03ER022	03070412	ER 16R	–	–	22,0 *0.866*	–	47,0 *1.850*	–	1
	03ER024	03070444	ER HP 16 R	–	–	24,0 *0.945*	–	47,0 *1.850*	–	1
	03ER030B	03312521	ER HP 16	–	–	30,0 *1.181*	–	55,0 *2.165*	14x18	1
	03ER032B	03312522	ER 16	–	–	32,0 *1.260*	–	55,0 *2.165*	14x18	1
	03ER040	03070415	ER HP 25	–	–	40,0 *1.575*	–	80,0 *3.150*	14x18	1
	03ER050	03070417	ER HP 32, ER 32	–	–	50,0 *1.969*	–	80,0 *3.150*	14x18	1
	03ER063	03070418	ER 40	–	–	63,0 *2.480*	–	90,0 *3.543*	14x18	1
Torque key for torque spanner	03DYD010100	02828217		20 *14.75*	100 *73.76*	–	375,0 *14.764*	–	–	2
	03DYD010100B	03312520		20 *14.75*	100 *73.76*	–	375,0 *14.764*	–	14x18	2
	03DYD020200	02828219		40 *29.50*	200 *147.51*	–	470,0 *18.504*	–	14x18	2
Classic roller spanner	03BR016	03070420	ER HP 11, ER 11R	–	–	16,0 *0.630*	188,0 *7.402*	34,0 *1.339*	–	3
	03BR022	03070446	ER 16R	–	–	22,0 *0.866*	211,5 *8.327*	47,0 *1.850*	–	3
	03BR024	03070421	ER HP 16R	–	–	24,0 *0.945*	211,5 *8.327*	47,0 *1.850*	–	3
	03BR040	03070423	ER HP 25	–	–	40,0 *1.575*	471,0 *18.543*	80,0 *3.150*	–	3
	03BR050	03070425	ER HP 32, ER 32	–	–	50,0 *1.969*	472,0 *18.583*	80,0 *3.150*	–	3
	03BR063	03070426	ER 40	–	–	63,0 *2.480*	487,5 *19.193*	95,0 *3.740*	–	3



Shrinkfit devices

Our range of Shinkfit devices can meet the needs of any manufacturer, offering fast performance and incredibly reliable precision. These systems incorporate automatic heating cycles and efficient cooling cycles that use forced air or water cooling bells. Additionally, the use of stop rods for height setting further ensures stability, reliability and accuracy.

- Easyshrink EVO with latest technology
- Fast and easy operation due to simple interface
- Extended tool holder life because of individual optimized heat settings
- Ergonomic tool setting ensures safety due to the machine design
- Versatility and flexibility with an all-in-one solution

– Metric / *Inch*

Delivery content – 1 Easyshrink Evo device, including:
5 standard heat focusing stoppers for ∅3 to 32 mm
8 stop rods
2 cooling cones
1 pair of gloves
1 operating instruction



- The device accepts only the voltage:
  AC 3 x 400V (+/-10%) + PEN/25A/50-60Hz
  AC 3 x 400V (+/-10%) + N + PE/25A/50-60Hz
- For other voltages, the usage of transformer ZFM30IN30 is required and need to be bought separately
- For ISO attribute explanation, see page 14

Designation	Item number	Capacity, tool shank Carbide/ Heavy metal	Capacity, tool shank Steel/ HSS	Shrinking time, approx. (sec.)	Width	Depth	Height	Weight
		mm	mm		mm *inch*	mm *inch*	mm *inch*	kg *lbs*
ZFM30IN10	03309162	3-32	6-32	10	317,0 *12.480*	943,0 *37.126*	920,0 *36.220*	50,0 *110.230*

– Metric / *Inch*

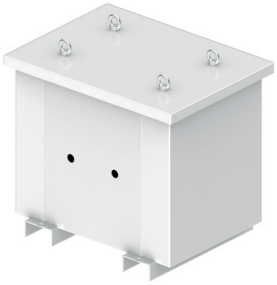
Delivery content – 1 Refrigeration unit, including:
1 column for Tubes Support
2 cooling bells with connecting tubes
1 Extension Table



- For usage of refrigeration unit, contact bushing are required, see page(s) 425, 426
- For ISO attribute explanation, see page 14

Designation	Item number	Cooling Bells Qty.	Cooling time approx. (minutes)	Width	Depth	Height	Weight
				mm *inch*	mm *inch*	mm *inch*	kg *lbs*
ZFM30RE1	03309164	2	1	490,0 *19.291*	630,0 *24.803*	285,0 *11.220*	45,0 *99.210*

– **Metric** / *Inch*

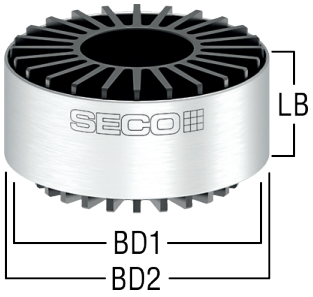


- **Input voltages:** 3 x 208 / 240 / 480 / 600 VAC + GND/28 amp/50-60Hz
- **Output voltages:** AC 3 x 400V + N + PE/28A/50-60Hz
- For ISO attribute explanation, see page 14

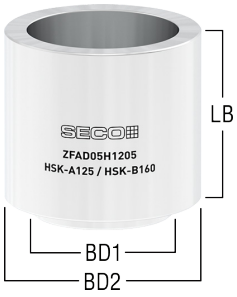
Designation	Item number	Width	Depth	Height	Weight
		mm *inch*	mm *inch*	mm *inch*	kg *lbs*
ZFM30IN30	03327608	550,0 *21.654*	490,0 *19.291*	480,0 *18.898*	104,0 *229.280*

– **Metric** / *Inch*

Group 1A
Finned support



Group 1B
Support



Group 2
Contact bushing for cooling bells



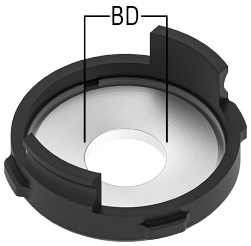
• For ISO attribute explanation, see page 14

Group	Designation	Item number	For Shrinkfit holder and tool shank sizes ∅ mm	BD1	BD2	LB	Weight
				mm *inch*	mm *inch*	mm *inch*	kg *lbs*
1A	ZFAD05H32	02464615	HSK-A32 / HSK-C32 / HSK-E32 / HSK-B40 / HSK-D40	90,0 *3.543*	114,0 *4.488*	60,0 *2.362*	1,2 *2.650*
1A	ZFAD05H40	02464616	HSK-A40 / HSK-C40 / HSK-E40 / HSK-B50 / HSK-D50 / HSK-F50	90,0 *3.543*	114,0 *4.488*	60,0 *2.362*	1,0 *2.200*
1A	ZFAD05H50	02464618	HSK-A50 / HSK-C50 / HSK-E50 / HSK-B63 / HSK-D63 / HSK-F63	90,0 *3.543*	114,0 *4.488*	50,0 *1.969*	0,9 *1.980*
1A	ZFAD05H63	02464622	HSK-A63 / HSK-C63 / HSK-E63 / HSK-B80 / HSK-D80 / HSK-F80	90,0 *3.543*	114,0 *4.488*	50,0 *1.969*	0,8 *1.760*
1A	ZFAD05H10	02464611	HSK-A100 / HSK-C100 / HSK-B125 / HSK-D125	90,0 *3.543*	114,0 *4.488*	50,0 *1.969*	0,7 *1.540*
1A	ZFAD05S30	02464625	SA30	90,0 *3.543*	114,0 *4.488*	50,0 *1.969*	0,9 *1.980*
1A	ZFAD05S40	02464626	SA40	90,0 *3.543*	114,0 *4.488*	50,0 *1.969*	0,8 *1.760*
1A	ZFAD05S50	02464628	SA50	90,0 *3.543*	114,0 *4.488*	110,0 *4.331*	1,3 *2.870*
1A	ZFAD05C3	02549220	Seco-Capto C3	90,0 *3.543*	114,0 *4.488*	50,0 *1.969*	0,7 *1.540*
1A	ZFAD05C4	02549221	Seco-Capto C4	90,0 *3.543*	114,0 *4.488*	50,0 *1.969*	0,9 *1.980*
1A	ZFAD05C5	02549222	Seco-Capto C5	90,0 *3.543*	114,0 *4.488*	50,0 *1.969*	0,7 *1.540*
1A	ZFAD05C6	02549223	Seco-Capto C6	90,0 *3.543*	114,0 *4.488*	50,0 *1.969*	0,8 *1.760*
1A	ZFAD05C8	02549225	Seco-Capto C8	90,0 *3.543*	114,0 *4.488*	50,0 *1.969*	0,7 *1.540*
1B	ZFAD05H1205	03267331	HSK-A125 / HSK-B160	90,0 *3.543*	125,0 *4.921*	110,0 *4.331*	2,5 *5.510*
2	ZFAR10D103	02414213	5801 - ∅3	–	–	–	0,6 *1.320*
2	ZFAR10D104	02414214	5801 - ∅4	–	–	–	0,6 *1.320*
2	ZFAR10D105	02414215	5801 - ∅5	–	–	–	0,6 *1.320*
2	ZFAR10D106	02414216	5801 - ∅6	–	–	–	0,6 *1.320*
2	ZFAR10D108	02414217	5801 - ∅8	–	–	–	0,6 *1.320*
2	ZFAR10D110	02414218	5801 - ∅10	–	–	–	0,6 *1.320*
2	ZFAR10D112	02414219	5801 - ∅12	–	–	–	0,6 *1.320*

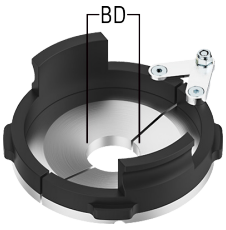
Group	Designation	Item number	For Shrinkfit holder and tool shank sizes ∅ mm	BD1	BD2	LB	Weight
				mm *inch*	mm *inch*	mm *inch*	kg *lbs*
2	ZFAR10D114	02414220	5801 - ∅14	–	–	–	0,6 *1.320*
2	ZFAR10D116	02414221	5801 - ∅16	–	–	–	0,6 *1.320*
2	ZFAR10D306	02414222	5603 - ∅6, ∅8	–	–	–	0,6 *1.320*
2	ZFAR10D310	02422100	5603 - ∅10, ∅12 & 5600 - ∅6, ∅8	–	–	–	0,5 *1.100*
2	ZFAR10D314	02414223	5603 - ∅14, ∅16 & 5600 - ∅10, ∅12	–	–	–	0,6 *1.320*
2	ZFAR10D318	02414225	5603 - ∅18, ∅20 & 5600 - ∅14, ∅16	–	–	–	0,5 *1.100*
2	ZFAR10D325	02414226	5603 - ∅25, ∅32 & 5600 - ∅18, ∅20	–	–	–	0,3 *0.660*
2	ZFAR10D425	02857518	5600 - ∅25, ∅32	–	–	–	0,3 *0.660*

– **Metric** / *Inch*

Group 1
Heat focusing stopper



Group 2
Heat focusing stopper for tools with a larger head*



Group 3
Stop rods set



Group 4
Pair of protective gloves



Group 5
Cooling cone



- * Maximum tool head that can pass through the inductor is 65 mm
- For ISO attribute explanation, see page 14

Group	Designation	Item number	For tool shank ∅	BD	BD1	Thread fitting/ ∅ Front	For length capacity, min	For length capacity, max	Weight
				mm *inch*	mm *inch*	mm	mm *inch*	mm *inch*	kg *lbs*
1	ZFAT30C01	03309165	3-6 mm	7,0 *0.276*	–	–	–	–	0,4 *0.880*
	ZFAT30C02	03309166	8-14 mm	15,0 *0.591*	–	–	–	–	0,4 *0.880*
	ZFAT30C03	03309167	16-18 mm	20,0 *0.787*	–	–	–	–	0,3 *0.660*
	ZFAT30C04	03309168	20-25 mm	27,0 *1.063*	–	–	–	–	0,2 *0.440*
	ZFAT30C05	03309169	32 mm	33,0 *1.299*	–	–	–	–	0,2 *0.440*
	ZFAT30C06	03309170	3-8 mm	8,5 *0.335*	–	–	–	–	0,4 *0.880*
2	ZFAT30H01	03309171	3-6 mm	6,5 *0.256*	–	–	–	–	0,4 *0.880*
	ZFAT30H02	03309172	8-14 mm	15,0 *0.591*	–	–	–	–	0,4 *0.880*
	ZFAT30H03	03309173	16-18 mm	20,0 *0.787*	–	–	–	–	0,3 *0.660*
	ZFAT30H04	03309174	20-25 mm	27,0 *1.063*	–	–	–	–	0,2 *0.440*
	ZFAT30H05	03309175	32 mm	34,0 *1.339*	–	–	–	–	0,2 *0.440*
3	ZFS07IN018	02518546	3-5 mm	–	2,5 *0.098*	2,5	0,0 *0.0*	240,0 *9.449*	0,1 *0.220*
	ZFS07IN043	02753706	6-32 mm	–	4,2 *0.165*	4,2	0,0 *0.0*	240,0 *9.449*	0,2 *0.440*
4	ZFAG01	00032423	–	–	–	–	–	–	0,3 *0.660*
5	ZFAR03C	02774585	–	–	110,0 *4.331*	–	–	–	0,1 *0.220*

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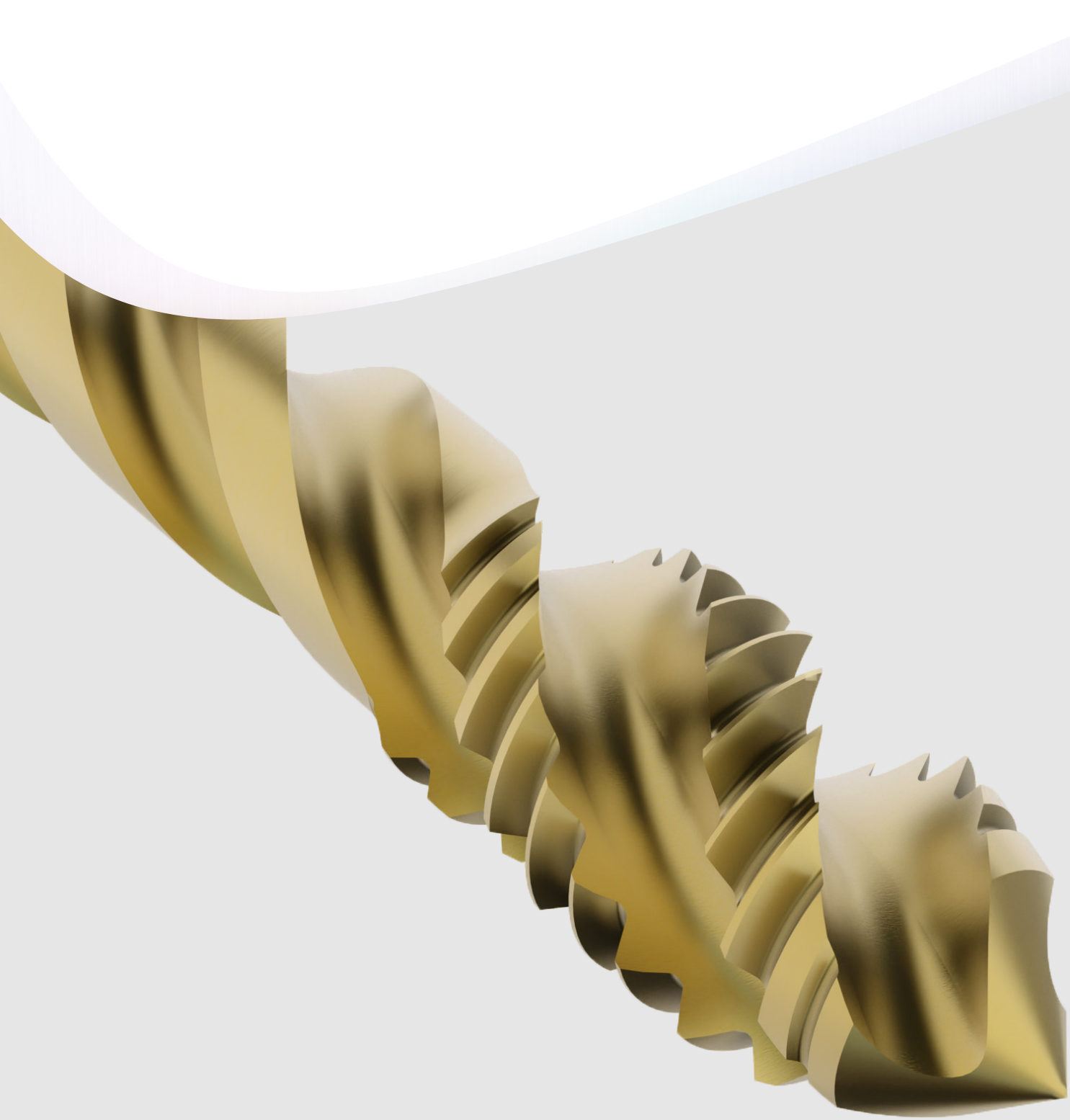
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Seco

Catalog & technical guide 2024.1

Threading



Seco

At Seco, we make tools, tech, and solutions for the most advanced manufacturing challenges on Earth. From our founding in Fagersta Sweden, to today's global company, our business has always been made to measure, and built on trust.

Combining cutting-edge, precision tools with lasting, personal partnerships, we're a true people company helping our partners discover the future of the manufacturing industry.

We're proud to make for makers, invent for inventors, and partner with pioneers. Driving the future forward with our focus on innovation. In short - if the right tool for the job exists, we'll deliver it. If it doesn't, we'll create it.

We're proud to put sustainability at the heart of everything we do, challenging perceptions of our industry, changing the process of manufacturing, and playing our own small part in shaping a brighter looking future.

Made for Makers

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22ER/L / ..PAC 170
22ER/L / ..RD 158
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22ER/L / ..UN 138-139
22ER/L / ..W 148-149
22NR/L / ..ACME 163
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26NR / ..ACME 163
26NR / ..K55 125
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27ER/L / ..API 168
27ER/L / ..H 170
27ER/L / ..ISO 131-132
27ER/L / ..PAC 170
27ER/L / ..RD 158
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27ER/L / ..UN 138
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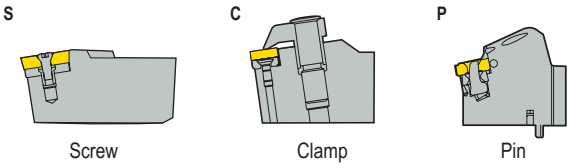
Code keys

Toolholders



C	E	R	25	25	M	16	Q	HD
1	2	3	4	5	6	7	8	9

1. Insert clamping



2. External/Internal

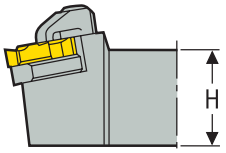
E = External
N = Internal

3. Cutting direction



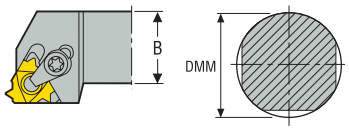
X = Special

4. Shank height



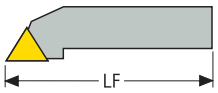
00 = Round toolholders S & C
25 = 25 mm *(0.984")*
32 = 32 mm *(1.260")*
etc.

5. Shank width/diameter



20 = 20 mm *(0.787")*
25 = 25 mm *(0.984")*
etc.

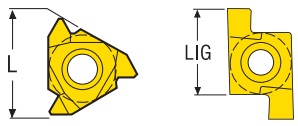
6. Tool length



H = 100 mm *(3.937")*
K = 125 mm *(4.921")*
L = 140 mm *(5.512")*
M = 150 mm *(5.906")*
P = 170 mm *(6.693")*

Q = 180 mm *(7.087")*
R = 200 mm *(7.874")*
S = 250 mm *(9.843")*
T = 300 mm *(11.811")*
U = 350 mm *(13.780")*
V = 400 mm *(15.748")*

7. Cutting edge length



If the cutting edge length consists of only one digit, the designation should start with a 0.

Example:

Cutting edge length	= 16,5 mm *(0.650")*
Symbol	= 16
Cutting edge length	= 9,525 mm *(0.375")*
Symbol	= 09

8. Other information

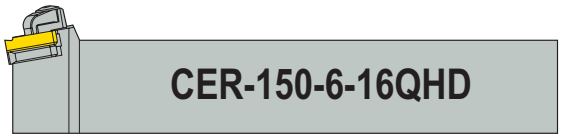
A = Steel with coolant passage
Q = Toolholder/cranked
CQ = For mounting upside down

9. Other information

H = High density bar
HD = Heavy duty
JET = Jetstream Tooling®
JETI = Jetstream Tooling® Jeti

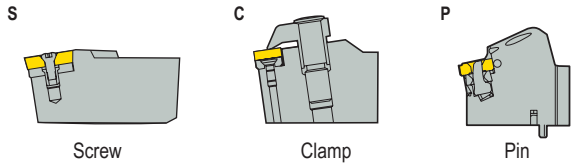
Code keys

Toolholders



C	E	R		-	150	-	6	-	16	Q	HD
1	2	3	4		5		6		7	8	9

1. Insert clamping



2. External/Internal

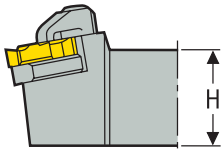
E = External
N = Internal

3. Cutting direction



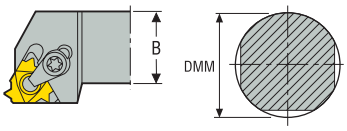
X = Special

4. Shank definition



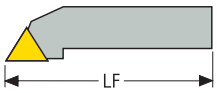
00 = Boring bars
= Square shanks

5. Square shank height/width and bar diameter



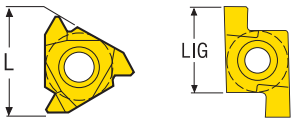
For square shank tools height and width in inches.
For boring bars bar diameter in inches.
075 = 0.75
100 = 1.00
125 = 1.25
etc.

6. Tool length



3 = 3 inches
4 = 4 inches
5 = 5 inches
6 = 6 inches

7. Cutting edge length



If the cutting edge length consists of only one digit, the designation should start with a 0.

Example:

Cutting edge length	= 16,5 mm (0.650")
Symbol	= 16
Cutting edge length	= 9,525 mm (0.375")
Symbol	= 09

8. Other information

A = Steel with coolant passage
Q = Qualified
CQ = For mounting upside down

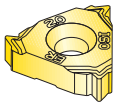
9. Other information

H = High density bar
HD = Heavy duty
JET = Jetstream Tooling®
JETI = Jetstream Tooling® Jeti

Code keys

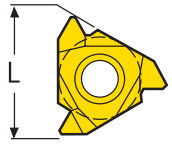
Inserts





16	E	R	1.5	ISO	-	A1
1	2	3	4	5		6

1. Cutting edge length



Example:

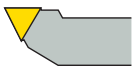
Cutting edge length	= 16,5 mm (0.650")
Symbol	= 16
Cutting edge length	= 9,525 mm (0.375")
Symbol	= 09

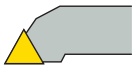
If the cutting edge length consists of only one digit, the designation should start with a 0.

2. External/Internal

E = External
N = Internal

3. Cutting direction

L 

R 

X = Special

4. Pitch

Full profile: (mm)	0,50	1,25	3,00	6,00	
	0,70	1,50	4,00	8,00	
	0,75	1,75	4,50	10,0	
	0,80	2,00	5,00	12,0	
	1,00	2,50	5,50	14,0	
Full profile: (TPI)	48	18	11	6.0	2.5
	40	16	10	5.0	2.0
	32	14	9	4.5	
	24	13	8	4.0	
	20	12	7	3.0	

Partial profile:	A	= 0,50-1,50 mm	48-16 TPI
	AG	= 0,50-3,00 mm	48-8 TPI
	G	= 1,75-3,00 mm	14-8 TPI
	N	= 3,50-5,00 mm	7-5 TPI
	K	= 5,50-10,00 mm	4.5-2.5 TPI

5. Thread

Thread =

60	= V profile, 60°
55	= V profile, 55°
ISO	= ISO, Metric
UN	= Am. UN
UNJ	= Am. Aerospace
MJ	= Metr. Aerospace
W	= Whitworth, BSW
BSPT	= Whitworth, Taper
NPT	= Am. NPT
NPTF	= Am. NPTF (Dryseal)
RD	= Round, DIN405
TR	= Trapezoidal, DIN103
ACME	= Am. ACME-G
STACME	= Am. Stub-ACME
API 384	= API V 038R 1:4
API 386	= API V 038R 1:6
API 404	= API V 040 1:4
API 504	= API V 050 1:4
API 506	= API V 050 1:6
API RD	= API Round Casing
BUT 2.5	= Buttress, 1°47'
BUT 2.6	= Buttress, 2°23'

6. Number of teeth per cutting edge/ Type of chipbreaker

2M = 2 teeth
3M = 3 teeth
TT = TWIN THREADER

A = Universal
A1 = Chipbreaker designation
A2 = Chipbreaker designation

Selection process

Seco Suggest

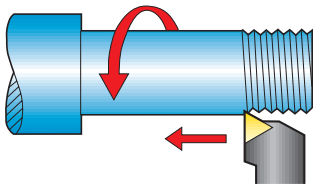
In order to simplify the selection of tools and cutting parameters Seco Tools introduce Suggest which eliminates complicated searching, programming and calculation. Suggest gives you the best suggestion of holder, insert and optimized parameters for your application and the possibility to download information to the CNC machine.

The application can be found at https://www.secotools.com/dashboard/Suggest/Suggest.

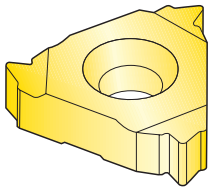
Use the selection process below to choose a suitable tool, insert, cutting data and production method.



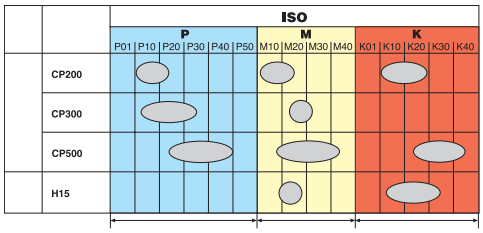
1. Selection of production method, page 8.



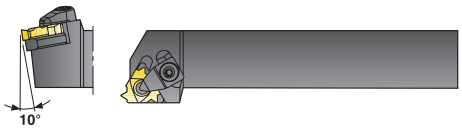
2. Selection of insert type, page 9.



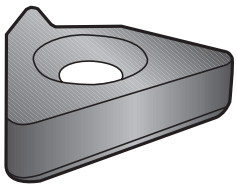
3. Selection of grade, page 10.



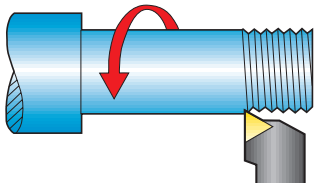
4. Selection of toolholder, page 12.



5. Selection of insert shim, pages 13-14.



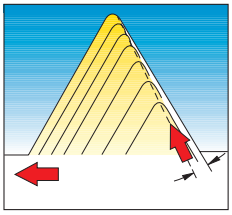
6. Selection of cutting speed, pages 15-19.



7. Selection of number of passes and infeed depths, pages 20-31.

P_h	6.0	5.5	5.0	4.5	4.0	3.5	3.0	2.5	2.0
a_p	3,82 *(0.150)*	3,52 *(0.139)*	3,19 *(0.126)*	2,87 *(0.113)*	2,53 *(0.100)*	2,23 *(0.088)*	1,92 *(0.076)*	1,60 *(0.063)*	1,25 *(0.049)*
1	0,46 *(0.018)*	0,43 *(0.017)*	0,41 *(0.016)*	0,37 *(0.015)*	0,34 *(0.013)*	0,34 *(0.013)*	0,28 *(0.011)*	0,27 *(0.011)*	0,24 *(0.009)*
2	0,43 *(0.017)*	0,40 *(0.016)*	0,39 *(0.015)*	0,34 *(0.013)*	0,32 *(0.013)*	0,31 *(0.012)*	0,26 *(0.010)*	0,24 *(0.009)*	0,22 *(0.009)*
3	0,35 *(0.014)*	0,32 *(0.013)*	0,32 *(0.013)*	0,28 *(0.011)*	0,25 *(0.010)*	0,25 *(0.010)*	0,21 *(0.008)*	0,20 *(0.008)*	0,18 *(0.007)*

8. Selection of infeed method, page 32.

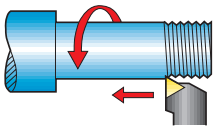


Production methods

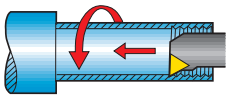
Workpiece
-External or internal thread
-Right or left hand thread
Machine
-Right or left hand tool

Threading towards the chuck		Threading away from the chuck*	
Benefit:	• Best stability • Originally fitted insert shims can be used for most operations	**Benefit:**	• Chip flow is correctly directed during internal threading
Note:	• Chip build-up may occur during internal threading, particularly if there is little space between the threading bar and bore of the hole	**Note:**	• Secure clamping of the insert and mounting of the toolholder are necessary
		Internal threading:	• Use only CNR/L toolholders

Right-hand thread – Right-hand tool

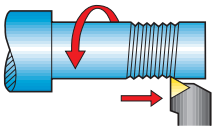


ER

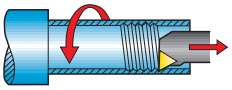


NR

Left-hand thread – Right-hand tool

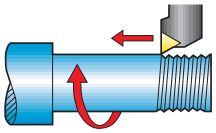


ER

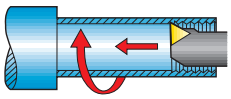


NR

Left-hand thread – Left-hand tool

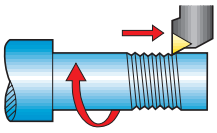


EL

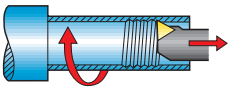


NL

Right-hand thread – Left-hand tool

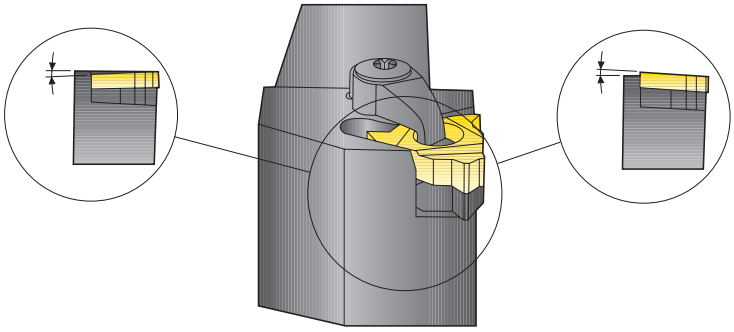


EL



NL

*Notice that the insert shim must be changed when threading away from the chuck.



Threading away from the chuck

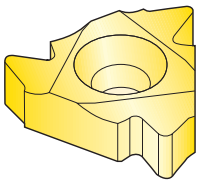
Threading towards the chuck

Insert types

For single tooth inserts choose a full profile or partial profile design

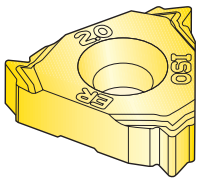
Single-tooth insert (Type S) A or Original

First choice, can be used for applications in a variety of materials. Low cutting forces.



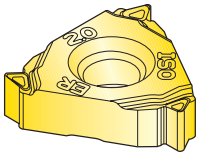
Single-tooth insert (Type S) A1 chipbreaker

First choice for general applications in steel.



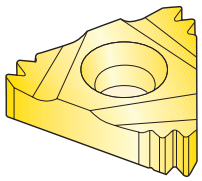
Single-tooth insert (Type S) A2 chipbreaker

First choice for general applications in stainless steel.



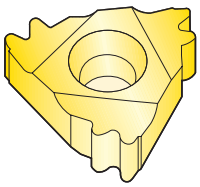
Multi-tooth insert (Type M)

First choice for mass production, since fewer passes are necessary.
Only for radial infeed.
2M = 2 teeth version
3M = 3 teeth version



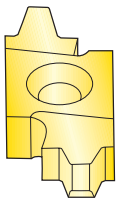
Multi-tooth insert (TWIN THREADER, TT)

Lower cutting forces than M type.
Shorter undercut length than M type.
Only for radial infeed.
Use insert shim for 2M.



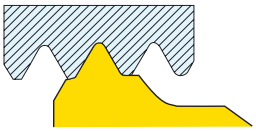
K insert (Type K)

First choice for large/coarse threads.



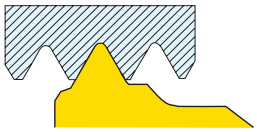
Full profile

By topping the thread, the workpiece need not be pre-machined to the exact diameter and may be a little oversized for external threads and undersize for internal threads. The threading operation is simplified since only one tool is needed for the entire thread (no subsequent deburring is needed).



Partial profile

Covers a wide range of thread pitches, which simplifies stock-keeping. Requires a correct workpiece diameter prior to threading. The nose radius of the insert is sized to suit the smallest profile within the pitch range of the insert.



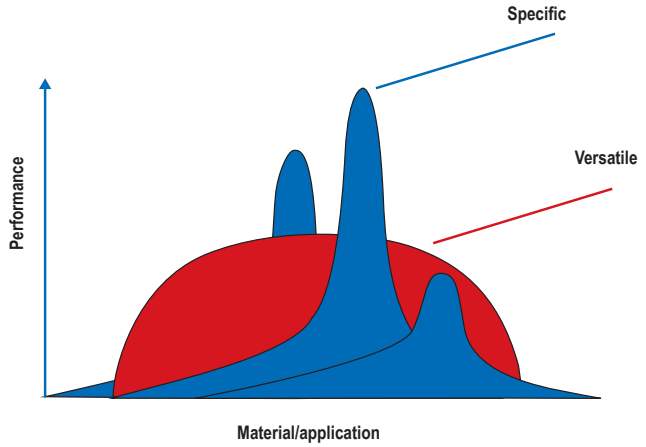
Insert grades

Thread turning – Insert grades

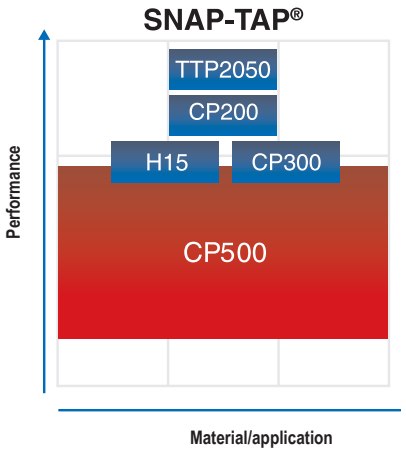
Continuous research and development of better materials, coatings and optimal geometries help fulfil customers requirements.

Our product strategy is to provide the market with versatile first choice tools and specific optimized solutions for threading.

Product strategy grades

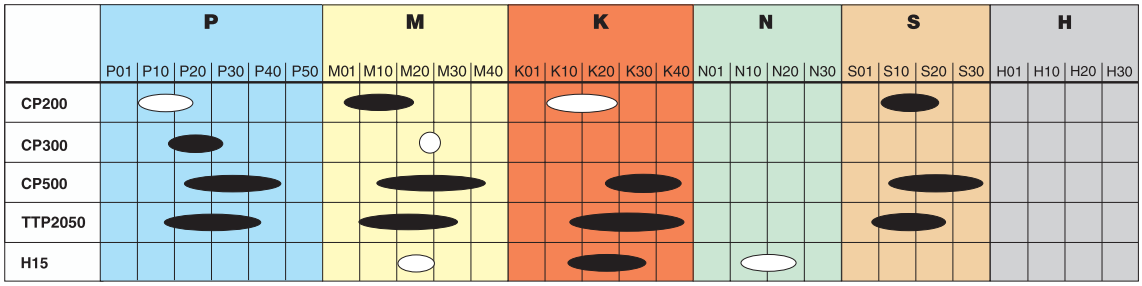


Grade assortment Snap-Tap®

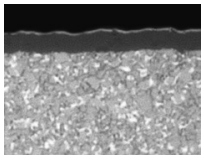
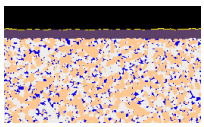
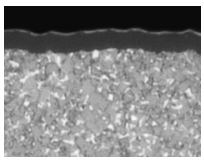
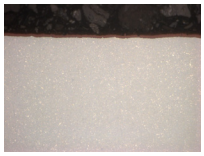


Insert grades

Grades
The black areas in the chart indicate a grade's main ISO application groups and the white areas indicate other supplementary application groups.



PVD coated grades

CP200		First choice for high-strength steel, martensitic stainless steel, cast iron with low hardness, superalloys and titanium alloys. First choice for high cutting speeds. Hard micrograin with sharp edge, highly resistant to plastic deformation. (Ti,Al)N + TiN
CP300		Wear-resistant grade which is principally intended for high cutting speeds. Optimizing grade in steel and stainless steel. (Ti,Al)N + TiN
CP500		Universal very tough micrograin grade for all types of threading in most materials. Excellent for stainless steel and difficult operations. (Ti,Al)N + TiN
TTP2050		Peak performance, wear resistant micrograin grade to be used in steel, stainless steel and cast iron. The nano-laminated coating increases the wear resistance of the grade. (TiAl)N/(TiSi)N
TTP1550		Fine grain wear resistant grade for optimized performance in carbon steels. (TiAl)N

Uncoated grades

H15		First choice for machining normal to hard cast iron. Also suitable for hard steel with a hardness in excess of 350 HB. Micro-grain with excellent wear-resistance and sharp edge.

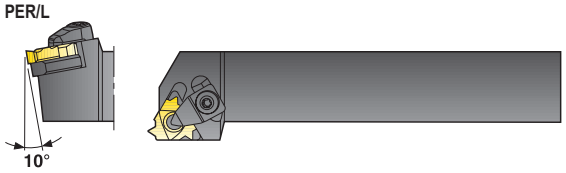
Toolholders

Use the guidelines below to choose a suitable toolholder type.

External threading

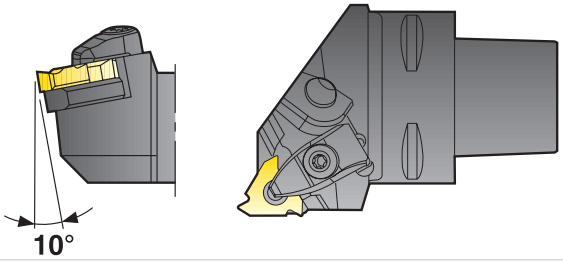
Basic choice
Type C (clamp)
Type P (Pin)

CER/L, PER/L



Insert size
16, 20, 22, 26, 27
With insert shim

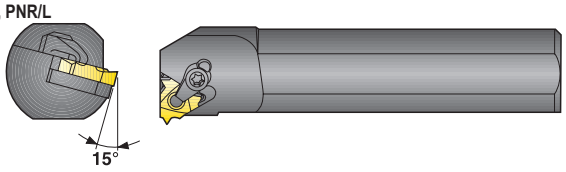
Cx-CER/L



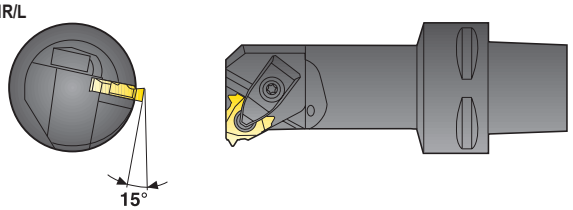
Internal threading

Basic choice
Type C (clamp)
Type P (Pin)

CNR/L, PNR/L



Cx-CNR/L

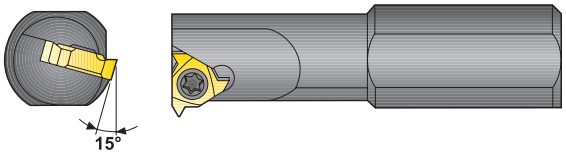


Insert size
16, 20, 22, 26, 27
With insert shim

N.B. On 27 mm inserts this angle is 10°

For small holes
Type-S (screw)

SNR/L



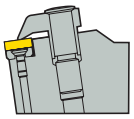
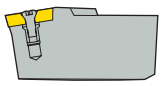
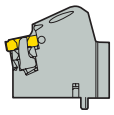
Insert sizes
09,11,16, 22

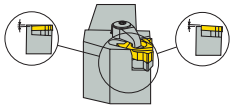
(No insert shim. To be used only when threading towards the chuck)

Insert shim

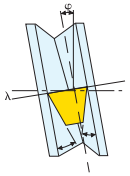
Originally fitted insert shims

The table below shows the originally fitted insert shims. These insert shims are suitable for most operations when threading towards the chuck.

		Clamp		Screw	Jetstream Tooling®
Toolholders		 External and internal threading		 Internal threading	 External and internal threading
Insert type		Single-tooth insert (Type S)	Single-tooth insert (Type K)	Single-tooth insert (Type S)	Single-tooth insert (Type S)
Insert shim				No insert shim (λ=2°)	
Insert size	16	GX 16-1			GXA16-1
	20		KX 20-2		
	22	NX22-1			NXA22-1
	26		KX26-2		
	27	VX27-1			VXA27-1



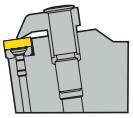
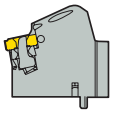
The helix angle can be selected from +5 to -2 by changing the insert shim. The same insert shims are used for both right and left hand holders. The centre height remains constant.



To receive the correct shape on the thread and uniform wear on the insert the cutting edge helix angle (λ) should be equal to the thread lead angle (φ).

The helix angle (λ) can also be calculated. See page 33 for formula.
SNR/L toolholders have no exchangeable insert shim and can therefore only be used for threading towards the chuck. The table below shows the available insert shim range.

Insert shim range

		Clamp				Jetstream Tooling® Thread turning		
Toolholders		 External and internal threading				 External and internal threading		
Insert type		Multi-tooth insert (Type M)	Single-tooth insert (Type S)		Single-tooth insert (Type K)	Multi-tooth insert (Type M)	Single-tooth insert (Type S)	
Insert shim		 Threading towards the chuck	 Threading towards the chuck	 Threading away from the chuck	 Threading towards the chuck	 Threading away from the chuck	 Threading towards the chuck	 Threading away from the chuck
Insert size	16	MX16-1	GX16-0, -1, -2, -3, -4	GX16-0 -99 -98			MXA16-1	GXA16-0, -1, -2, -3, -4	GXA16-0, -99, -98
	20				KX20-0, -1, -2, -3, -4, -5	KX20-0, -99			
	22	MX22-1	NX22-0, -1, -2, -3, -4	NX22-0 -99 -98			MXA22-1	NXA22-0, -1, -2, -3, -4	NXA22-0, -99, -98
	26				KX26-0, -1, -2, -3, -4, -5	KX26-0, -99			
	27	MX27-1	VX27-0, -1, -2, -3, -4	VX27-0 -99 -98			MXA27-1	VXA27-0, -1, -2, -3, -4	VXA27-0,-99,-98

Insert shim

Choice of insert shim

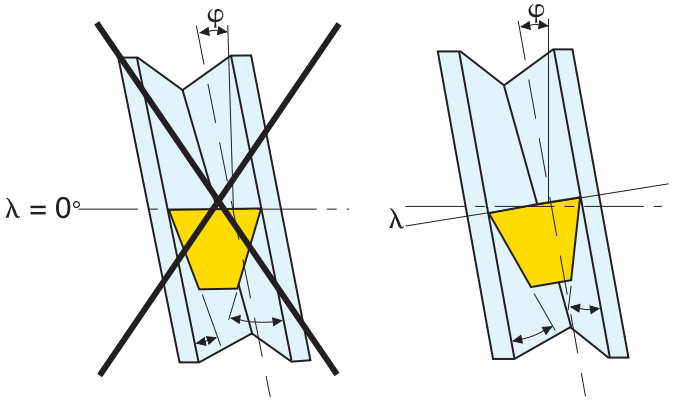
Use the graph below to choose the correct insert shim.
The graph gives the last digit in the insert shim code.
Example: GX16-1

Production method

Threading towards the chuck, use right side of the graph.
Threading away from the chuck, use left side of the graph.

Vertical column - lead

Thread with one start, Lead (Ph) = pitch (P).
Thread with several starts, Lead (Ph) = pitch (P) x number of starts.



Horizontal column = pitch diameter (D_2)

Pitch diameter D_2 – threading away from the chuck

mm	inch	5 .25	15	20 .75	25 1	30 1.25	40 1.5	45 1.75	50 2	60 2.25	65 2.5	70 2.75	75 3	85	90 3.5	95 3.75	100 4	110 4.25	115 4.5	120 4.75	130 5	135 5.25	140 5.5	150 6	155	160 6.25	165 6.5	170 6.75	180 7	190 7.5	200 8	225 8.75	250 9	300 12	TPI	Ph mm
–	2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	98	98	98	98	98	98	98	98	98	99	99	99	99	99	99	99	99	99					0	0	1	80	–
–	3	–	–	–	–	–	–	–	–	–	98	98	98	98	98	98	98	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99				0	0	0	1	72	–
8,0	–	–	–	–	–	–	–	–	–	98	98	98	98	98	98	98	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	0			0	0	0	0	1	64	–
–	4	–	–	–	–	–	–	–	98	98	98	98	98	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	0			0	0	0	0	1	2	56	–
6,0	–	–	–	–	–	–	–	98	98	98	98	98	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	0			0	0	0	0	1	2	–	0,5
–	5	–	–	–	–	–	98	98	98	98	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	0	0			0	0	0	0	0	1	2	48	–
5,0	–	–	–	–	–	–	98	98	98	98	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	0			0	0	0	0	0	1	1	2	44	–
–	6	–	–	–	–	–	98	98	98	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	0	0	0	0				0	0	0	0	0	1	1	2	40	–
4,0	–	–	–	–	–	98	98	98	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	0	0	0	0	0				0	0	0	0	1	1	1	3	36	–
–	7	–	–	–	–	98	98	99	99	99	99	99	99	99	99	99	99	99	99	99	99	0	0	0	0	0	0				0	0	0	0	0	1	1	1	3	–	0,75
3,5	–	–	–	–	–	98	98	99	99	99	99	99	99	99	99	99	99	99	99	99	0	0	0	0	0	0				0	0	0	0	0	0	1	1	1	3	32	–
–	8	–	–	–	98	98	99	99	99	99	99	99	99	99	99	99	99	99	99	0	0	0	0	0	0	0				0	0	0	0	0	0	1	1	1	1	3	28	–
3,0	–	–	–	–	98	98	99	99	99	99	99	99	99	99	99	99	99	0	0	0	0	0	0	0	0				0	0	0	0	0	0	0	1	1	1	1	4	–	1,0
–	9	–	–	–	98	98	99	99	99	99	99	99	99	99	99	99	99	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	1	1	1	1	4	24	–
–	10	–	–	98	98	98	99	99	99	99	99	99	99	99	99	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0	1	1	1	1	2	5	–	1,25
2.5	–	–	–	98	98	98	99	99	99	99	99	99	99	99	99	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0	1	1	1	1	2	5	20	–
–	11	–	–	98	98	99	99	99	99	99	99	99	99	0	0	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	1	1	1	1	1	1	2	5	18	–
–	12	–	–	98	98	99	99	99	99	99	99	99	99	0	0	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	1	1	1	1	1	1	2	5	–	1,5
2,0	–	–	98	98	99	99	99	99	99	99	99	99	0	0	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	1	1	1	1	1	1	2	–	16	–
–	13	–	98	98	99	99	99	99	99	99	99	99	0	0	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	1	1	1	1	1	1	2	2	–	–	1,75
–	14	–	98	98	99	99	99	99	99	99	99	0	0	0	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	1	1	1	1	1	1	2	2	–	14	–
1,75	–	–	98	98	99	99	99	99	99	99	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	2	2	–	13	–
–	16	–	98	99	99	99	99	99	99	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	2	2	–	–	2,0
1,5	–	–	98	99	99	99	99	99	99	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	2	2	3	–	12	–
–	18	–	98	99	99	99	99	99	99	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	2	2	3	–	11	–
–	20	–	98	99	99	99	99	99	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	2	2	2	3	–	–	2,5
1,25	–	–	98	99	99	99	99	99	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	2	2	2	3	–	10	–
–	24	–	99	99	99	99	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	2	2	3	3	–	9	–
1,0	–	–	99	99	99	99	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	2	2	3	4	–	–	3,0
–	28	–	99	99	99	99	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	2	2	3	4	–	8	–
–	32	–	99	99	99	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	2	2	3	3	4	–	–	3,5
0,75	–	–	99	99	99	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	2	2	3	3	4	–	7	–
–	36	–	99	99	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	3	4	5	–	–	4,0
–	40	98	99	99	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	3	3	4	5	–	6	–
–	44	98	99	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	3	4	5	–	–	–	5,0
–	48	98	99	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	3	4	5	–	–	5	–
0,5	–	98	99	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	3	4	4	5	–	–	–	6,0
–	56	98	99	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	3	3	4	5	–	–	–	4	–
–	64	99	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	3	3	4	5	–	–	–	–	–	8,0
–	72	99	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	3	3	3	4	5	–	–	–	–	3	–
–	80	99	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	3	3	3	3	4	4	5	5	–	–	–	–	–	–		–
Ph mm	TPI	inch	12	9	8.75	8	7.5	7	6.75	6.5	6.25		6	5.5	5.25	5	4.75	4.5	4.25	4	3.75	3.5		3	2.75	2.5	2.25	2	1.75	1.5	1.25	1	.75		.25		
		mm	300	250	225	200	190	180	170	165	160	155	150	140	135	130	120	115	110	100	95	90	85	75	70	65	60	50	45	40	30	25	20	15	5		

Pitch diameter D_2 – threading towards the chuck

SMG – Cutting data

In SMG classification of workpiece materials involves a specific material standard in a specific condition assigned as reference for easy and unabiguous adjustment of cutting data for any actual material compared to any Seco reference material. As examples the reference materials EN C45E for SMG P4 and EN 42 CrMo 4 for both SMG P5 and SMG H5 shown below in table 1 where the reference level material property is indicated. A more complete extract can be found on page(s) 476-487.

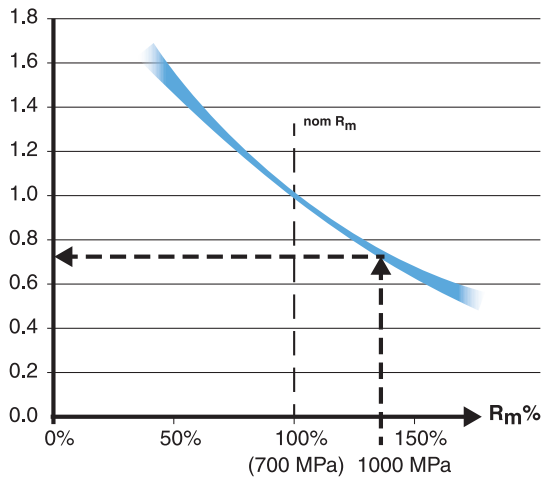
SMG	Description	Properties	Reference
P4	Low-alloy general structural steels, 0.25% < C < 0.67%wt Low-alloy Quench & Temper steels	520 < R_m < 1200	C 45E R_m = 660 N/mm²
P5	Structural steels, 0.25% < C < 0.67%wt Quench & Temper steels	550 < R_m < 1200	42 CrMo 4 R_m = 700 N/mm²

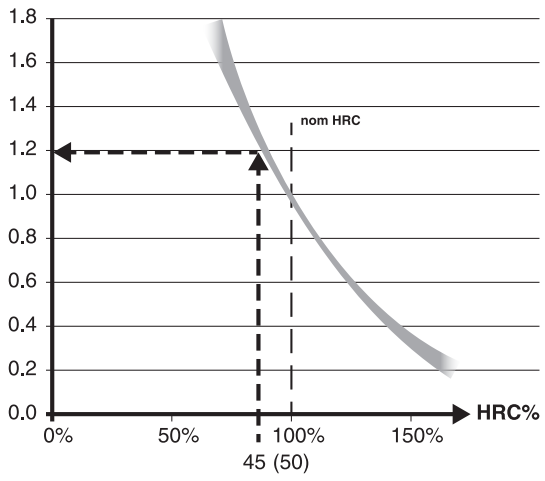
SMG	Description	Properties	Reference
H5	Quenched & Tempered steels	38 < HRC < 56	42 CrMo 4 50 HRC

Focusing specifically on EN 42 CrMo 4 in annealed condition, the ultimate tensile strength R_m may typically vary between Rm = 630 N/mm² and R_m = 780 N/mm², which provide a reference level for SMG P5. In Quenched & Tempered condition, the ultimate tensile strength R_m may typically be between R_m = 900 N/mm² and R_m = 1100 N/mm² thus still belongs to SMG P5. However, if hardened above R_m = 1200 N/mm² it instead belongs to SMG H5.

SMG	EN	W.-Nr	AFNOR	BS	UNI	JIS	AISI / ASTM	GOST	Condition	R_{m_nom}	HRC_{nom}
P5	42 CrMo 4	1.1201	42 CD 4	708 M 40	42 CrMo 4	SCM 440 (H)	4142, 4140	38HM	Annealed	700	
	42 CrMo 4	1.1201	42 CD 4	708 M 40	42 CrMo 4	SCM 440 (H)	4142, 4140	38HM	Quenched & Tempered	1000	
H5	42 CrMo 4	1.1201	42 CD 4	708 M 40	42 CrMo 4	SCM 440 (H)	4142, 4140	38HM	Quenched & Tempered		45
	42 CrMo 4	1.1201	42 CD 4	708 M 40	42 CrMo 4	SCM 440 (H)	4142, 4140	38HM	Quenched & Tempered		50

The EN 42CrMo4 quench & tempered steel could be used to illustrate the machinability dependence of materials' condition.
The graphs below indicate how speed recommendations for a nominal material conditions may be adjusted for relative R_m (left diagram valid for ISO-P) and for relative HRC (valid for ISO-H).





To further illustrate how the SMG P5 nominal v_c can be adjusted to a more accurate recommended v_c we need ultimate tensile strength R_m data and in this case we use the EN 42 CrMo 4 quenched & tempered to R_m = 1000 N/mm² according to above table (bold blue arrows).
Assume that we find that the SMG P5 nominal v_c = 280 m/min for a certain product and machining.
Then, actual recommended v_c = 280 m/min x 0,75 = 210 m/min.
Consequently in the SMG H5 the nominal v_c can be adjusted using the hardened EN 42 CrMo 4 at HRC 45 (smaller grey arrows).
Assume that the SMG H5 nominal v_c = 50 m/min for a certain product and machining using a coated cemented carbide tools then, actual recommended v_c = 50 m/min x 1,2 = 60 m/min.
For further workpiece material details please see page(s) 476-487 and suggested cutting data at applicable pages.
For more convenient cutting data handling we recommend applicable tools in My Pages – Suggest on www.secotools.com

Cutting speed metric (*Inch*)

SMG	v_c m/min *sf/min*				
	CP200	CP300	CP500	H15	TTP2050
P1	— —	275 *900*	205 *670*	— —	205 *670*
P2	— —	270 *890*	200 *660*	— —	200 *660*
P3	— —	230 *750*	170 *560*	— —	170 *560*
P4	— —	205 *670*	150 *490*	— —	150 *490*
P5	— —	195 *640*	145 *475*	— —	145 *475*
P6	— —	220 *720*	165 *540*	— —	165 *540*
P7	— —	205 *670*	155 *510*	— —	155 *510*
P8	— —	195 *640*	145 *475*	— —	145 *475*
P11	— —	200 *660*	150 *490*	— —	150 *490*
P12	— —	120 *395*	90 *295*	— —	90 *295*
M1	150 *490*	— —	135 *445*	100 *330*	135 *445*
M2	120 *395*	— —	110 *360*	80 *260*	110 *360*
M3	90 *295*	— —	85 *280*	60 *195*	85 *280*
M4	70 *230*	— —	65 *215*	— —	65 *215*
M5	55 *180*	— —	50 *165*	— —	50 *165*
K1	130 *425*	— —	120 *395*	105 *345*	120 *395*
K2	110 *360*	— —	105 *345*	95 *310*	105 *345*
K3	95 *310*	— —	90 *295*	80 *260*	90 *295*
K4	90 *295*	— —	85 *280*	75 *245*	85 *280*
K5	55 *180*	— —	50 *165*	— —	50 *165*
K6	80 *260*	— —	75 *245*	— —	75 *245*
K7	70 *230*	— —	65 *215*	— —	65 *215*
N1	— —	— —	— —	255 *840*	— —
N2	— —	— —	— —	165 *540*	— —
N3	— —	— —	— —	110 *360*	— —
N11	— —	— —	100 *330*	150 *490*	100 *330*
S1	20 *65*	— —	20 *65*	— —	20 *65*
S2	15 *49*	— —	15 *49*	— —	15 *49*
S3	15 *49*	— —	15 *49*	— —	15 *49*
S11	45 *150*	— —	39 *130*	— —	39 *130*
S12	35 *115*	— —	30 *100*	— —	30 *100*
S13	27 *90*	— —	23 *75*	— —	23 *75*

Use the SMG tables to classify the workpiece material. Use the table to choose cutting speed. Cutting speeds (v_c) in the table are recommendations for a start value. Due to machine, material and setup condition it is advisable to optimize cutting data. Recommended ranges to use for each grade is CP200, CP300, CP500, TTP2050 and H15 +/-15%

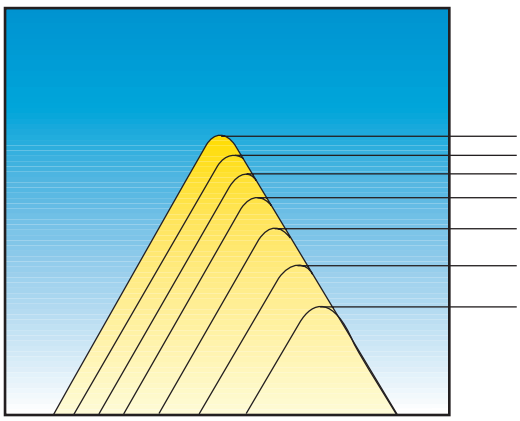
SMG=Seco Material Group
v_c = Cutting speed (m/min)

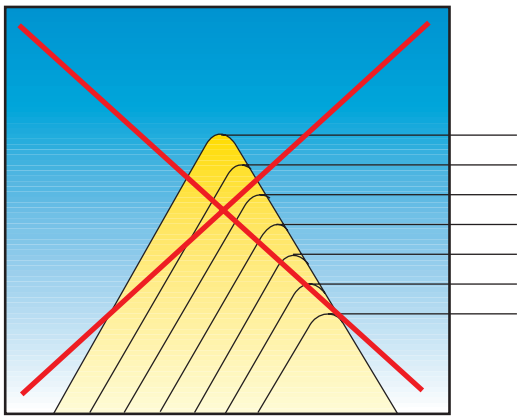
Note that there is a fixed relationship between rotational speed and feed rate in threading. Check that the chosen cutting speed does not result in a too high feed speed.

Number of passes and infeed depths

A thread cannot be made in one cut because of the relatively brittle cutting edge. The total cutting depth must be divided into several passes. Those passes should all have similar cutting forces (equal chip areas), see figures.

Use the tables on page 20-31 to find recommendations for number of passes and infeed depths. The tables give basic recommendations and are applicable on all geometries - Original, A, A1 and A2.





- The infeed series given is based on a good control of the OD/ID tolerances for the selected profile.
- If insert fracture should occur, the number of passes should be increased.
- The infeed depth should not be less than 0,05 mm (0.0020") /pass.
- On stainless steel, the infeed depth per pass should be greater than 0,08 mm (0.0031").
- The recommendations can also be used for part-profile inserts. The number of passes should then, in most cases, be increased.
- The threading insert nose radius is relatively small and can easily be damaged if it is overloaded.

Cutting speed – MDT metric (*Inch*)

SMG	v_c m/min *sf/min*
	CP500
P1	155 *510*
P2	150 *490*
P3	130 *425*
P4	115 *375*
P5	110 *360*
P6	125 *410*
P7	115 *375*
P8	110 *360*
P11	115 *375*
P12	65 *215*
M1	135 *445*
M2	110 *360*
M3	85 *280*
M4	65 *215*
M5	50 *165*
K1	130 *425*
K2	110 *360*
K3	95 *310*
K4	90 *295*
K5	55 *180*
K6	80 *260*
K7	70 *230*
N1	— —
N2	— —
N3	— —
N11	85 *280*
S1	21 *70*
S2	17 *55*
S3	15 *49*
S11	— —
S12	— —
S13	— —

Use the SMG tables to classify the workpiece material. Use the table to choose cutting speed.
SMG = Seco Material Group
v_c = m/min
Cutting speeds (v_c) in the table are recommendations for a start value.
Due to machine, material and setup condition it is advisable to optimize cutting data. Recommended ranges to use for CP500 +/-15%

Cutting speed – Mini Shaft metric (*Inch*)

SMG	v_c m/min *sf/min*
	CP500
P1	155 *510*
P2	150 *490*
P3	130 *425*
P4	115 *375*
P5	110 *360*
P6	125 *410*
P7	115 *375*
P8	110 *360*
P11	115 *375*
P12	65 *215*
M1	80 *260*
M2	65 *215*
M3	50 *165*
M4	37 *120*
M5	31 *100*
K1	150 *490*
K2	130 *425*
K3	110 *360*
K4	105 *345*
K5	65 *215*
K6	95 *310*
K7	80 *260*
N1	— —
N2	— —
N3	— —
N11	95 *310*
S1	19 *60*
S2	15 *49*
S3	13 *43*
S11	— —
S12	— —
S13	— —

Use the SMG tables to classify the workpiece material. Use the table to choose cutting speed.
SMG = Seco Material Group
v_c = m/min
Cutting speeds (v_c) in the table are recommendations for a start value.
Due to machine, material and setup condition it is advisable to optimize cutting data. Recommended ranges to use for CP500 +/-15%

Number of passes and infeed depths

External ISO-metric threads, metric (*Inch*)

P_h	6.0	5.5	5.0	4.5	4.0	3.5	3.0	2.5	2.0	1.75	1.5	1.25	1.0	0.80	0.75	0.50
a_p	3,82 *(0.150)*	3,52 *(0.139)*	3,19 *(0.126)*	2,87 *(0.113)*	2,53 *(0.100)*	2,23 *(0.088)*	1,92 *(0.076)*	1,60 *(0.063)*	1,25 *(0.049)*	1,13 *(0.044)*	0,93 *(0.037)*	0,81 *(0.032)*	0,65 *(0.026)*	0,52 *(0.020)*	0,48 *(0.019)*	0,33 *(0.013)*
1	0,46 *(0.018)*	0,43 *(0.017)*	0,41 *(0.016)*	0,37 *(0.015)*	0,34 *(0.013)*	0,34 *(0.013)*	0,28 *(0.011)*	0,27 *(0.011)*	0,24 *(0.009)*	0,22 *(0.009)*	0,22 *(0.009)*	0,21 *(0.008)*	0,18 *(0.007)*	0,17 *(0.007)*	0,16 *(0.006)*	0,11 *(0.004)*
2	0,43 *(0.017)*	0,40 *(0.016)*	0,39 *(0.015)*	0,34 *(0.013)*	0,32 *(0.013)*	0,31 *(0.012)*	0,26 *(0.010)*	0,24 *(0.009)*	0,22 *(0.009)*	0,20 *(0.008)*	0,20 *(0.008)*	0,17 *(0.007)*	0,16 *(0.006)*	0,15 *(0.006)*	0,14 *(0.006)*	0,09 *(0.004)*
3	0,35 *(0.014)*	0,32 *(0.013)*	0,32 *(0.013)*	0,28 *(0.011)*	0,25 *(0.010)*	0,25 *(0.010)*	0,21 *(0.008)*	0,20 *(0.008)*	0,18 *(0.007)*	0,17 *(0.007)*	0,17 *(0.007)*	0,14 *(0.006)*	0,12 *(0.005)*	0,12 *(0.005)*	0,11 *(0.004)*	0,07 *(0.003)*
4	0,30 *(0.012)*	0,28 *(0.011)*	0,27 *(0.011)*	0,24 *(0.009)*	0,22 *(0.009)*	0,21 *(0.008)*	0,18 *(0.007)*	0,17 *(0.007)*	0,16 *(0.006)*	0,14 *(0.006)*	0,14 *(0.006)*	0,11 *(0.004)*	0,11 *(0.004)*	0,08 *(0.003)*	0,07 *(0.003)*	0,06 *(0.002)*
5	0,29 *(0.011)*	0,26 *(0.010)*	0,24 *(0.009)*	0,22 *(0.009)*	0,20 *(0.008)*	0,18 *(0.007)*	0,16 *(0.006)*	0,15 *(0.006)*	0,14 *(0.006)*	0,12 *(0.005)*	0,12 *(0.005)*	0,10 *(0.004)*	0,08 *(0.003)*	–	–	–
6	0,26 *(0.010)*	0,24 *(0.009)*	0,24 *(0.009)*	0,22 *(0.009)*	0,18 *(0.007)*	0,18 *(0.007)*	0,15 *(0.006)*	0,15 *(0.006)*	0,12 *(0.005)*	0,10 *(0.004)*	0,08 *(0.003)*	0,08 *(0.003)*	–	–	–	–
7	0,24 *(0.009)*	0,21 *(0.008)*	0,22 *(0.009)*	0,20 *(0.008)*	0,17 *(0.007)*	0,16 *(0.006)*	0,14 *(0.006)*	0,12 *(0.005)*	0,11 *(0.004)*	0,10 *(0.004)*	–	–	–	–	–	–
8	0,23 *(0.009)*	0,20 *(0.008)*	0,20 *(0.008)*	0,18 *(0.007)*	0,15 *(0.006)*	0,15 *(0.006)*	0,13 *(0.005)*	0,11 *(0.004)*	0,08 *(0.003)*	0,08 *(0.003)*	–	–	–	–	–	–
9	0,22 *(0.009)*	0,19 *(0.007)*	0,19 *(0.007)*	0,17 *(0.007)*	0,14 *(0.006)*	0,14 *(0.006)*	0,12 *(0.005)*	0,11 *(0.004)*	–	–	–	–	–	–	–	–
10	0,19 *(0.007)*	0,18 *(0.007)*	0,18 *(0.007)*	0,16 *(0.006)*	0,13 *(0.005)*	0,12 *(0.005)*	0,11 *(0.004)*	0,08 *(0.003)*	–	–	–	–	–	–	–	–
11	0,18 *(0.007)*	0,17 *(0.007)*	0,16 *(0.006)*	0,14 *(0.006)*	0,12 *(0.005)*	0,11 *(0.004)*	0,10 *(0.004)*	–	–	–	–	–	–	–	–	–
12	0,16 *(0.006)*	0,15 *(0.006)*	0,15 *(0.006)*	0,13 *(0.005)*	0,12 *(0.005)*	0,08 *(0.003)*	0,08 *(0.003)*	–	–	–	–	–	–	–	–	–
13	0,15 *(0.006)*	0,14 *(0.006)*	0,12 *(0.005)*	0,12 *(0.005)*	0,11 *(0.004)*	–	–	–	–	–	–	–	–	–	–	–
14	0,13 *(0.005)*	0,13 *(0.005)*	0,10 *(0.004)*	0,10 *(0.004)*	0,08 *(0.003)*	–	–	–	–	–	–	–	–	–	–	–
15	0,13 *(0.005)*	0,12 *(0.005)*	–	–	–	–	–	–	–	–	–	–	–	–	–	–
16	0,10 *(0.004)*	0,10 *(0.004)*	–	–	–	–	–	–	–	–	–	–	–	–	–	–

Ph = Lead
a_p = Total infeed depth
TPI = Threads per inch
Recommendations are for steel with a hardness < 300 HB

Internal ISO-metric threads, metric (*Inch*)

P_h	6.0	5.5	5.0	4.5	4.0	3.5	3.0	2.5	2.0	1.75	1.5	1.25	1.0	0.80	0.75	0.50
a_p	3,54 *(0.139)*	3,25 *(0.128)*	2,96 *(0.117)*	2,65 *(0.104)*	2,33 *(0.092)*	2,05 *(0.081)*	1,78 *(0.070)*	1,48 *(0.058)*	1,17 *(0.046)*	1,05 *(0.041)*	0,85 *(0.033)*	0,75 *(0.030)*	0,60 *(0.024)*	0,49 *(0.019)*	0,46 *(0.018)*	0,31 *(0.012)*
1	0,46 *(0.018)*	0,43 *(0.017)*	0,42 *(0.017)*	0,37 *(0.015)*	0,34 *(0.013)*	0,32 *(0.013)*	0,28 *(0.011)*	0,26 *(0.010)*	0,23 *(0.009)*	0,22 *(0.009)*	0,20 *(0.008)*	0,17 *(0.007)*	0,17 *(0.007)*	0,17 *(0.007)*	0,16 *(0.006)*	0,10 *(0.004)*
2	0,43 *(0.017)*	0,40 *(0.016)*	0,40 *(0.016)*	0,34 *(0.013)*	0,31 *(0.012)*	0,30 *(0.012)*	0,26 *(0.010)*	0,25 *(0.010)*	0,21 *(0.008)*	0,20 *(0.008)*	0,18 *(0.007)*	0,17 *(0.007)*	0,15 *(0.006)*	0,14 *(0.006)*	0,13 *(0.005)*	0,08 *(0.003)*
3	0,35 *(0.014)*	0,33 *(0.013)*	0,32 *(0.013)*	0,28 *(0.011)*	0,24 *(0.009)*	0,24 *(0.009)*	0,21 *(0.008)*	0,18 *(0.007)*	0,17 *(0.007)*	0,15 *(0.006)*	0,15 *(0.006)*	0,14 *(0.006)*	0,11 *(0.004)*	0,11 *(0.004)*	0,10 *(0.004)*	0,07 *(0.003)*
4	0,30 *(0.012)*	0,26 *(0.010)*	0,26 *(0.010)*	0,23 *(0.009)*	0,21 *(0.008)*	0,19 *(0.007)*	0,16 *(0.006)*	0,15 *(0.006)*	0,15 *(0.006)*	0,13 *(0.005)*	0,13 *(0.005)*	0,10 *(0.004)*	0,09 *(0.004)*	0,07 *(0.003)*	0,07 *(0.003)*	0,06 *(0.002)*
5	0,26 *(0.010)*	0,22 *(0.009)*	0,22 *(0.009)*	0,21 *(0.008)*	0,18 *(0.007)*	0,17 *(0.007)*	0,14 *(0.006)*	0,13 *(0.005)*	0,12 *(0.005)*	0,10 *(0.004)*	0,11 *(0.004)*	0,09 *(0.004)*	0,08 *(0.003)*	–	–	–
6	0,22 *(0.009)*	0,20 *(0.008)*	0,20 *(0.008)*	0,19 *(0.007)*	0,15 *(0.006)*	0,15 *(0.006)*	0,13 *(0.005)*	0,12 *(0.005)*	0,11 *(0.004)*	0,09 *(0.004)*	0,08 *(0.003)*	0,08 *(0.003)*	–	–	–	–
7	0,20 *(0.008)*	0,18 *(0.007)*	0,17 *(0.007)*	0,16 *(0.006)*	0,14 *(0.006)*	0,14 *(0.006)*	0,12 *(0.005)*	0,11 *(0.004)*	0,10 *(0.004)*	0,08 *(0.003)*	–	–	–	–	–	–
8	0,19 *(0.007)*	0,17 *(0.007)*	0,16 *(0.006)*	0,15 *(0.006)*	0,13 *(0.005)*	0,13 *(0.005)*	0,11 *(0.004)*	0,10 *(0.004)*	0,08 *(0.003)*	0,08 *(0.003)*	–	–	–	–	–	–
9	0,18 *(0.007)*	0,16 *(0.006)*	0,16 *(0.006)*	0,14 *(0.006)*	0,12 *(0.005)*	0,12 *(0.005)*	0,10 *(0.004)*	0,10 *(0.004)*	–	–	–	–	–	–	–	–
10	0,16 *(0.006)*	0,15 *(0.006)*	0,15 *(0.006)*	0,13 *(0.005)*	0,12 *(0.005)*	0,11 *(0.004)*	0,10 *(0.004)*	0,08 *(0.003)*	–	–	–	–	–	–	–	–
11	0,15 *(0.006)*	0,14 *(0.006)*	0,14 *(0.006)*	0,12 *(0.005)*	0,11 *(0.004)*	0,10 *(0.004)*	0,09 *(0.004)*	–	–	–	–	–	–	–	–	–
12	0,15 *(0.006)*	0,14 *(0.006)*	0,14 *(0.006)*	0,12 *(0.005)*	0,10 *(0.004)*	0,08 *(0.003)*	0,08 *(0.003)*	–	–	–	–	–	–	–	–	–
13	0,14 *(0.006)*	0,13 *(0.005)*	0,12 *(0.005)*	0,11 *(0.004)*	0,10 *(0.004)*	–	–	–	–	–	–	–	–	–	–	–
14	0,13 *(0.005)*	0,12 *(0.005)*	0,10 *(0.004)*	0,10 *(0.004)*	0,08 *(0.003)*	–	–	–	–	–	–	–	–	–	–	–
15	0,12 *(0.005)*	0,12 *(0.005)*	–	–	–	–	–	–	–	–	–	–	–	–	–	–
16	0,10 *(0.004)*	0,10 *(0.004)*	–	–	–	–	–	–	–	–	–	–	–	–	–	–

Ph = Lead
a_p = Total infeed depth
TPI = Threads per inch
Recommendations are for steel with a hardness < 300 HB

External/Internal Whitworth threads, metric (*Inch*)

TPI	4.0	4.5	5	6	7	8	9	10	11	12	14	16	18	19	20	26	28
a_p	4,29 *(0.169)*	3,82 *(0.150)*	3,44 *(0.135)*	2,90 *(0.114)*	2,50 *(0.098)*	2,17 *(0.085)*	1,93 *(0.076)*	1,76 *(0.069)*	1,58 *(0.062)*	1,45 *(0.057)*	1,20 *(0.047)*	1,13 *(0.044)*	1,01 *(0.040)*	0,96 *(0.038)*	0,92 *(0.036)*	0,72 *(0.028)*	0,69 *(0.027)*
1	0,49 *(0.019)*	0,46 *(0.018)*	0,45 *(0.018)*	0,38 *(0.015)*	0,37 *(0.015)*	0,32 *(0.013)*	0,30 *(0.012)*	0,29 *(0.069)*	0,28 *(0.011)*	0,28 *(0.011)*	0,24 *(0.009)*	0,24 *(0.009)*	0,23 *(0.009)*	0,22 *(0.0090)*	0,21 *(0.008)*	0,19 *(0.007)*	0,18 *(0.007)*
2	0,46 *(0.018)*	0,43 *(0.017)*	0,43 *(0.017)*	0,36 *(0.014)*	0,35 *(0.014)*	0,30 *(0.012)*	0,28 *(0.011)*	0,27 *(0.011)*	0,26 *(0.010)*	0,26 *(0.010)*	0,22 *(0.009)*	0,22 *(0.009)*	0,22 *(0.009)*	0,22 *(0.009)*	0,21 *(0.008)*	0,18 *(0.007)*	0,17 *(0.007)*
3	0,38 *(0.015)*	0,38 *(0.015)*	0,38 *(0.015)*	0,30 *(0.012)*	0,29 *(0.011)*	0,24 *(0.009)*	0,23 *(0.009)*	0,22 *(0.009)*	0,22 *(0.009)*	0,22 *(0.009)*	0,18 *(0.007)*	0,19 *(0.007)*	0,19 *(0.007)*	0,18 *(0.007)*	0,17 *(0.007)*	0,15 *(0.006)*	0,14 *(0.006)*
4	0,36 *(0.014)*	0,33 *(0.013)*	0,32 *(0.013)*	0,26 *(0.010)*	0,25 *(0.010)*	0,21 *(0.008)*	0,20 *(0.008)*	0,19 *(0.007)*	0,19 *(0.007)*	0,18 *(0.007)*	0,15 *(0.006)*	0,16 *(0.006)*	0,16 *(0.006)*	0,14 *(0.006)*	0,14 *(0.006)*	0,12 *(0.005)*	0,12 *(0.005)*
5	0,34 *(0.013)*	0,29 *(0.011)*	0,28 *(0.011)*	0,22 *(0.009)*	0,22 *(0.009*	0,19 *(0.007)*	0,18 *(0.007)*	0,17 *(0.007)*	0,16 *(0.006)*	0,16 *(0.006)*	0,13 *(0.005)*	0,13 *(0.005)*	0,13 *(0.005)*	0,12 *(0.005)*	0,11 *(0.004)*	0,08 *(0.003)*	0,08 *(0.003)*
6	0,31 *(0.012)*	0,25 *(0.010)*	0,25 *(0.010)*	0,21 *(0.008)*	0,19 *(0.007)*	0,17 *(0.007)*	0,15 *(0.006)*	0,15 *(0.006)*	0,14 *(0.006)*	0,14 *(0.006)*	0,11 *(0.004)*	0,11 *(0.004)*	0,08 *(0.003)*	0,08 *(0.003)*	0,08 *(0.003)*	–	–
7	0,29 *(0.011)*	0,24 *(0.009)*	0,22 *(0.009)*	0,19 *(0.007)*	0,18 *(0.007)*	0,15 *(0.006)*	0,14 *(0.006)*	0,14 *(0.006)*	0,13 *(0.005)*	0,13 *(0.005)*	0,09 *(0.004)*	0,08 *(0.003)*	–	–	–	–	–
8	0,27 *(0.011)*	0,22 *(0.009)*	0,20 *(0.008)*	0,17 *(0.007)*	0,16 *(0.006)*	0,14 *(0.006)*	0,13 *(0.005)*	0,13 *(0.005)*	0,12 *(0.005)*	0,08 *(0.003)*	0,08 *(0.003)*	–	–	–	–	–	–
9	0,24 *(0.009)*	0,20 *(0.008)*	0,19 *(0.007)*	0,16 *(0.006)*	0,15 *(0.006)*	0,13 *(0.005)*	0,12 *(0.005)*	0,12 *(0.005)*	0,08 *(0.003)*	–	–	–	–	–	–	–	–
10	0,22 *(0.009)*	0,18 *(0.007)*	0,18 *(0.007)*	0,15 *(0.006)*	0,14 *(0.006)*	0,12 *(0.005)*	0,12 *(0.005)*	0,08 *(0.003)*	–	–	–	–	–	–	–	–	–
11	0,20 *(0.008)*	0,17 *(0.007)*	0,17 *(0.007)*	0,14 *(0.006)*	0,12 *(0.005)*	0,12 *(0.005)*	0,08 *(0.003)*	–	–	–	–	–	–	–	–	–	–
12	0,19 *(0.007)*	0,16 *(0.006)*	0,15 *(0.006)*	0,14 *(0.006)*	0,08 *(0.003)*	0,08 *(0.003)*	–	–	–	–	–	–	–	–	–	–	–
13	0,17 *(0.007)*	0,15 *(0.006)*	0,12 *(0.005)*	0,12 *(0.005)*	–	–	–	–	–	–	–	–	–	–	–	–	–
14	0,15 *(0.006)*	0,14 *(0.006)*	0,10 *(0.004)*	0,10 *(0.004)*	–	–	–	–	–	–	–	–	–	–	–	–	–
15	0,12 *(0.005)*	0,12 *(0.005)*	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
16	0,10 *(0.004)*	0,10 *(0.004)*	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–

Ph = Lead
a_p = Total infeed depth
TPI = Threads per inch
Recommendations are for steel with a hardness < 300 HB

External UN threads, metric (*Inch*)

TPI	4.0	4.5	5	6	7	8	9	10	11	12	13	14	16	18	20	24	28	32
a_p	4,07 *(0.160)*	3,62 *(0.143)*	3,29 *(0.130)*	2,71 *(0.107)*	2,33 *(0.092)*	2,08 *(0.082)*	1,84 *(0.072)*	1,66 *(0.065)*	1,52 *(0.060)*	1,39 *(0.055)*	1,29 *(0.051)*	1,19 *(0.047)*	1,05 *(0.041)*	0,94 *(0.037)*	0,84 *(0.033)*	0,70 *(0.028)*	0,60 *(0.024)*	0,53 *(0.021)*
1	0,47 *(0.019)*	0,45 *(0.018)*	0,43 *(0.017)*	0,36 *(0.014)*	0,35 *(0.014)*	0,30 *(0.012)*	0,28 *(0.011)*	0,27 *(0.011)*	0,27 *(0.011)*	0,27 *(0.011)*	0,25 *(0.010)*	0,23 *(0.009)*	0,22 *(0.009)*	0,23 *(0.009)*	0,20 *(0.008)*	0,19 *(0.007)*	0,17 *(0.007)*	0,17 *(0.007)*
2	0,44 *(0.017)*	0,41 *(0.016)*	0,40 *(0.016)*	0,34 *(0.013)*	0,33 *(0.013)*	0,28 *(0.011)*	0,26 *(0.010)*	0,26 *(0.010)*	0,25 *(0.010)*	0,26 *(0.010)*	0,24 *(0.009)*	0,22 *(0.009)*	0,21 *(0.008)*	0,21 *(0.008)*	0,19 *(0.007)*	0,17 *(0.007)*	0,15 *(0.006)*	0,15 *(0.006)*
3	0,40 *(0.016)*	0,39 *(0.015)*	0,36 *(0.014)*	0,27 *(0.011)*	0,26 *(0.010)*	0,25 *(0.010)*	0,21 *(0.008)*	0,20 *(0.008)*	0,20 *(0.008)*	0,20 *(0.008)*	0,18 *(0.007)*	0,17 *(0.007)*	0,16 *(0.006)*	0,16 *(0.006)*	0,15 *(0.006)*	0,14 *(0.006)*	0,11 *(0.004)*	0,13 *(0.005)*
4	0,36 *(0.014)*	0,31 *(0.012)*	0,31 *(0.012)*	0,23 *(0.009)*	0,22 *(0.009)*	0,21 *(0.008)*	0,20 *(0.008)*	0,17 *(0.007)*	0,19 *(0.007)*	0,18 *(0.007)*	0,17 *(0.007)*	0,15 *(0.006)*	0,14 *(0.006)*	0,14 *(0.006)*	0,12 *(0.005)*	0,12 *(0.005)*	0,09 *(0.004)*	0,08 *(0.003)*
5	0,32 *(0.013)*	0,26 *(0.010)*	0,26 *(0.010)*	0,22 *(0.009)*	0,21 *(0.008)*	0,18 *(0.007)*	0,17 *(0.007)*	0,16 *(0.006)*	0,16 *(0.006)*	0,15 *(0.006)*	0,14 *(0.006)*	0,13 *(0.005)*	0,13 *(0.005)*	0,12 *(0.005)*	0,10 *(0.004)*	0,08 *(0.003)*	0,08 *(0.003)*	–
6	0,27 *(0.011)*	0,23 *(0.009)*	0,23 *(0.009)*	0,20 *(0.008)*	0,19 *(0.007)*	0,16 *(0.006)*	0,15 *(0.006)*	0,15 *(0.006)*	0,14 *(0.006)*	0,13 *(0.005)*	0,12 *(0.005)*	0,11 *(0.004)*	0,11 *(0.004)*	0,08 *(0.003)*	0,08 *(0.003)*	–	–	–
7	0,25 *(0.010)*	0,21 *(0.008)*	0,20 *(0.008)*	0,18 *(0.007)*	0,17 *(0.007)*	0,14 *(0.006)*	0,14 *(0.006)*	0,14 *(0.006)*	0,12 *(0.005)*	0,12 *(0.005)*	0,11 *(0.004)*	0,10 *(0.004)*	0,08 *(0.003)*	–	–	–	–	–
8	0,23 *(0.009)*	0,20 *(0.008)*	0,19 *(0.007)*	0,16 *(0.006)*	0,15 *(0.006)*	0,13 *(0.005)*	0,12 *(0.005)*	0,12 *(0.005)*	0,11 *(0.004)*	0,08 *(0.003)*	0,08 *(0.003)*	0,08 *(0.003)*	–	–	–	–	–	–
9	0,22 *(0.009)*	0,18 *(0.007)*	0,19 *(0.007)*	0,15 *(0.006)*	0,14 *(0.006)*	0,12 *(0.005)*	0,12 *(0.005)*	0,11 *(0.004)*	0,08 *(0.003)*	–	–	–	–	–	–	–	–	–
10	0,21 *(0.008)*	0,17 *(0.007)*	0,18 *(0.007)*	0,14 *(0.006)*	0,12 *(0.005)*	0,12 *(0.005)*	0,11 *(0.004)*	0,08 *(0.003)*	–	–	–	–	–	–	–	–	–	–
11	0,19 *(0.007)*	0,16 *(0.006)*	0,17 *(0.007)*	0,13 *(0.005)*	0,11 *(0.004)*	0,11 *(0.004)*	0,08 *(0.003)*	–	–	–	–	–	–	–	–	–	–	–
12	0,18 *(0.007)*	0,15 *(0.006)*	0,15 *(0.006)*	0,12 *(0.005)*	0,08 *(0.003)*	0,08 *(0.003)*	–	–	–	–	–	–	–	–	–	–	–	–
13	0,16 *(0.006)*	0,14 *(0.006)*	0,12 *(0.005)*	0,11 *(0.004)*	–	–	–	–	–	–	–	–	–	–	–	–	–	–
14	0,15 *(0.006)*	0,14 *(0.006)*	0,10 *(0.004)*	0,10 *(0.004)*	–	–	–	–	–	–	–	–	–	–	–	–	–	–
15	0,12 *(0.005)*	0,12 *(0.005)*	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
16	0,10 *(0.004)*	0,10 *(0.004)*	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–

Ph = Lead
a_p = Total infeed depth
TPI = Threads per inch
Recommendations are for steel with a hardness < 300 HB

Internal UN threads, metric (*Inch*)

TPI	4	4.5	5	6	7	8	9	10	11	12	13	14	16	18	20	24	28	32
a_p	3,74 *(0.147)*	3,32 *(0.131)*	2,99 *(0.118)*	2,46 *(0.097)*	2,13 *(0.084)*	1,88 *(0.074)*	1,66 *(0.065)*	1,49 *(0.059)*	1,36 *(0.054)*	1,25 *(0.049)*	1,14 *(0.045)*	1,06 *(0.042)*	0,93 *(0.037)*	0,84 *(0.033)*	0,76 *(0.030)*	0,64 *(0.025)*	0,56 *(0.022)*	0,49 *(0.019)*
1	0,44 *(0.017)*	0,41 *(0.016)*	0,42 *(0.017)*	0,35 *(0.014)*	0,34 *(0.013)*	0,30 *(0.012)*	0,28 *(0.011)*	0,27 *(0.011)*	0,27 *(0.011)*	0,27 *(0.011)*	0,25 *(0.010)*	0,23 *(0.009)*	0,22 *(0.009)*	0,23 *(0.009)*	0,20 *(0.008)*	0,18 *(0.007)*	0,17 *(0.007)*	0,17 *(0.007)*
2	0,41 *(0.016)*	0,38 *(0.015)*	0,38 *(0.015)*	0,33 *(0.013)*	0,32 *(0.013)*	0,28 *(0.011)*	0,26 *(0.010)*	0,25 *(0.010)*	0,23 *(0.009)*	0,23 *(0.009)*	0,20 *(0.008)*	0,18 *(0.007)*	0,18 *(0.007)*	0,17 *(0.007)*	0,16 *(0.006)*	0,15 *(0.006)*	0,14 *(0.006)*	0,14 *(0.006*
3	0,39 *(0.015)*	0,34 *(0.013)*	0,33 *(0.013)*	0,25 *(0.010)*	0,24 *(0.009)*	0,22 *(0.009)*	0,19 *(0.007)*	0,18 *(0.007)*	0,18 *(0.007)*	0,18 *(0.007)*	0,15 *(0.006)*	0,14 *(0.006)*	0,14 *(0.006)*	0,14 *(0.006)*	0,13 *(0.005)*	0,13 *(0.005)*	0,09 *(0.004)*	0,10 *(0.004)*
4	0,33 *(0.013)*	0,28 *(0.011)*	0,27 *(0.011)*	0,21 *(0.008)*	0,21 *(0.008)*	0,18 *(0.007)*	0,16 *(0.006)*	0,15 *(0.006)*	0,15 *(0.006)*	0,15 *(0.006)*	0,13 *(0.005)*	0,13 *(0.005)*	0,12 *(0.005)*	0,12 *(0.005)*	0,10 *(0.004)*	0,10 *(0.004)*	0,08 *(0.003)*	0,08 *(0.003)*
5	0,28 *(0.011)*	0,23 *(0.009)*	0,23 *(0.009)*	0,18 *(0.007)*	0,17 *(0.007)*	0,15 *(0.006)*	0,14 *(0.006)*	0,13 *(0.005)*	0,13 *(0.005)*	0,13 *(0.005)*	0,12 *(0.005)*	0,11 *(0.004)*	0,10 *(0.004)*	0,10 *(0.004)*	0,09 *(0.004)*	0,08 *(0.003)*	0,08 *(0.003)*	–
6	0,24 *(0.009)*	0,20 *(0.008)*	0,20 *(0.008)*	0,16 *(0.006)*	0,15 *(0.006)*	0,13 *(0.005)*	0,13 *(0.005)*	0,12 *(0.005)*	0,11 *(0.004)*	0,11 *(0.004)*	0,11 *(0.004)*	0,10 *(0.004)*	0,09 *(0.004)*	0,08 *(0.003)*	0,08 *(0.003)*	–	–	–
7	0,22 *(0.009)*	0,19 *(0.007)*	0,18 *(0.007)*	0,15 *(0.006)*	0,14 *(0.006)*	0,12 *(0.005)*	0,12 *(0.005)*	0,11 *(0.004)*	0,11 *(0.004)*	0,10 *(0.004)*	0,10 *(0.004)*	0,09 *(0.004)*	0,08 *(0.003)*	–	–	–	–	–
8	0,21 *(0.008)*	0,18 *(0.007)*	0,17 *(0.007)*	0,14 *(0.006)*	0,13 *(0.005)*	0,11 *(0.004)*	0,11 *(0.004)*	0,10 *(0.004)*	0,10 *(0.004)*	0,08 *(0.003)*	0,08 *(0.003)*	0,08 *(0.003)*	–	–	–	–	–	–
9	0,20 *(0.008)*	0,17 *(0.007)*	0,16 *(0.006)*	0,13 *(0.005)*	0,12 *(0.005)*	0,11 *(0.004)*	0,10 *(0.004)*	0,10 *(0.004)*	0,08 *(0.003)*	–	–	–	–	–	–	–	–	–
10	0,18 *(0.007)*	0,16 *(0.006)*	0,15 *(0.006)*	0,12 *(0.005)*	0,12 *(0.005)*	0,10 *(0.004)*	0,09 *(0.004)*	0,08 *(0.003)*	–	–	–	–	–	–	–	–	–	–
11	0,17 *(0.007)*	0,15 *(0.006)*	0,14 *(0.006)*	0,12 *(0.005)*	0,11 *(0.004)*	0,10 *(0.004)*	0,08 *(0.003)*	–	–	–	–	–	–	–	–	–	–	–
12	0,16 *(0.006)*	0,14 *(0.006)*	0,14 *(0.006)*	0,11 *(0.004)*	0,08 *(0.003)*	0,08 *(0.003)*	–	–	–	–	–	–	–	–	–	–	–	–
13	0,15 *(0.006)*	0,14 *(0.006)*	0,12 *(0.005)*	0,11 *(0.004)*	–	–	–	–	–	–	–	–	–	–	–	–	–	–
14	0,14 *(0.006)*	0,13 *(0.005)*	0,10 *(0.004)*	*0,10 (0.004)*	–	–	–	–	–	–	–	–	–	–	–	–	–	–
15	0,12 *(0.005)*	0,12 *(0.005)*	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
16	0,10 *(0.004)*	0,10 *(0.004)*	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–

External multi-tooth inserts, metric (*Inch*)

	ISO Metric						UN					Whitworth	NPT		
Type	**3M**	**2M**	**3M**	**2M**	**3M**	**2M**	**2M**	**3M**	**2M**	**3M**	**2M**	**2M**	**2M**	**3M**	**2M**
P_h mm	1,0	1,5	1,5	2,0	2,0	3,0	–	–	–	–	–	–	–	–	–
TPI	–	–	–	–	–	–	16	16	12	12	8	11	11,5	11,5	8
a_p mm (*inch*)	0,65 *(0.026)*	0,93 *(0.037)*	0,93 *(0.037)*	1,25 *(0.049)*	1,25 *(0.049)*	1,92 *(0.076)*	1,05 *(0.041)*	1,05 *(0.041)*	1,39 *(0.055)*	1,39 *(0.055)*	2,08 *(0.082)*	1,58 *(0.062)*	1,76 *(0.069)*	1,76 *(0.069)*	2,54 *(0.100)*
Pass 1 mm (*inch*)	0,36 *(0.026)*	0,43 *(0.017)*	0,56 *(0.022)*	0,57 *(0.022)*	0,75 *(0.030)*	0,65 *(0.026)*	0,49 *(0.019)*	0,64 *(0.025)*	0,64 *(0.025)*	0,84 *(0.033)*	0,70 *(0.028)*	0,73 *(0.029)*	0,59 *(0.023)*	0,81 *(0.032)*	0,88 *(0.035)*
2	0,29 *(0.011)*	0,30 *(0.012)*	0,37 *(0.015)*	0,40 *(0.016)*	0,50 *(0.020)*	0,53 *(0.021)*	0,33 *(0.013)*	0,41 *(0.016)*	0,44 *(0.017)*	0,55 *(0.022)*	0,57 *(0.022)*	0,50 *(0.020)*	0,50 *(0.020)*	0,57 *(0.022)*	0,64 *(0.025)*
3	–	0,20 *(0.008)*	–	0,28 *(0.011)*	–	0,42 *(0.017)*	0,23 *(0.009)*	–	0,31 *(0.012)*	–	0,46 *(0.018)*	0,35 *(0.014)*	0,37 *(0.015)*	0,38 *(0.015)*	0,57 *(0.022)*
4	–	–	–	–	–	0,32 *(0.013)*	–	–	–	–	0,35 *(0.014)*	–	0,30 *(0.012)*	–	0,45 *(0.018)*

Ph = Lead
a_p = Total infeed depth
TPI = Threads per inch
Recommendations are for steel with a hardness < 300 HB

Internal multi-tooth inserts, metric (*Inch*)

	ISO Metric						UN					Whitworth	NPT		
Type	**3M**	**2M**	**3M**	**2M**	**3M**	**2M**	**2M**	**3M**	**2M**	**3M**	**2M**	**2M**	**2M**	**3M**	**2M**
P_h mm	1,0	1,5	1,5	2,0	2,0	3,0	–	–	–	–	–	–	–	–	–
TPI	–	–	–	–	–	–	16	16	12	12	8	11	11,5	11,5	8
a_p mm (*inch*)	0,60 *(0.024)*	0,85 *(0.033)*	0,85 *(0.033)*	1,17 *(0.046)*	1,17 *(0.046)*	1,78 *(0.070)*	0,93 *(0.037)*	0,93 *(0.037)*	1,25 *(0.049)*	1,25 *(0.049)*	1,88 *(0.074)*	1,58 *(0.062)*	1,76 *(0.069)*	1,76 *(0.069)*	2,54 *(0.100)*
Pass 1 mm (*inch*)	0,33 *(0.013)*	0,38 *(0.015)*	0,51 *(0.020)*	0,51 *(0.020)*	0,70 *(0.028)*	0,55 *(0.022)*	0,42 *(0.017)*	0,56 *(0.022)*	0,56 *(0.022)*	0,75 *(0.030)*	0,58 *(0.023)*	0,73 *(0.029)*	0,59 *(0.023)*	0,81 *(0.032)*	0,88 *(0.035)*
2	0,27 *(0.011)*	0,27 *(0.011)*	0,34 *(0.013)*	0,38 *(0.015)*	0,47 *(0.019)*	0,49 *(0.019)*	0,30 *(0.017)*	0,37 *(0.015)*	0,40 *(0.016)*	0,50 *(0.020)*	0,51 *(0.020)*	0,50 *(0.020)*	0,50 *(0.020)*	0,57 *(0.022)*	0,64 *(0.025)*
3	–	0,20 *(0.008)*	–	0,28 *(0.011)*	–	0,42 *(0.017)*	0,21 *(0.008)*	–	0,29 *(0.011)*	–	0,44 *(0.017)*	0,35 *(0.014)*	0,37 *(0.015)*	0,38 *(0.015)*	0,57 *(0.022)*
4	–	–	–	–	–	0,32 *(0.013)*	–	–	–	–	0,35 *(0.014)*	–	0,30 *(0.012)*	–	0,45 *(0.018)*

External/Internal NPT threads, metric (*Inch*)

TPI	8	11,5	14	18	27
a_p	2,54 *(0.100)*	1,76 *(0.069)*	1,45 *(0.057)*	1,12 *(0.044)*	0,75 *(0.030)*
1	0,28 *(0.011)*	0,25 *(0.010)*	0,24 *(0.009)*	0,22 *(0.009)*	0,19 *(0.007)*
2	0,25 *(0.010)*	0,22 *(0.009*	0,22 *(0.009)*	0,18 *(0.007)*	0,15 *(0.006)*
3	0,22 *(0.009)*	0,18 *(0.007)*	0,17 *(0.007)*	0,15 *(0.006)*	0,13 *(0.005)*
4	0,19 *(0.007)*	0,16 *(0.006)*	0,15 *(0.006)*	0,14 *(0.006)*	0,11 *(0.004)*
5	0,18 *(0.007)*	0,16 *(0.006)*	0,14 *(0.006)*	0,13 *(0.005)*	0,09 *(0.004)*
6	0,18 *(0.007)*	0,14 *(0.006)*	0,13 *(0.005)*	0,12 *(0.005)*	0,08 *(0.003)*
7	0,17 *(0.007)*	0,14 *(0.006)*	0,12 *(0.005)*	0,10 *(0.004)*	–
8	0,17 *(0.007)*	0,12 *(0.005)*	0,10 *(0.004)*	0,08 *(0.003)*	–
9	0,16 *(0.006)*	0,12 *(0.005)*	0,10 *(0.004)*	–	–
10	0,16 *(0.006)*	0,10 *(0.004)*	0,08 *(0.003)*	–	–
11	0,14 *(0.006)*	0,09 *(0.004)*	–	–	–
12	0,13 *(0.005)*	0,08 *(0.003)*	–	–	–
13	0,12 *(0.005)*	–	–	–	–
14	0,11 *(0.004)*	–	–	–	–
15	0,08 *(0.003)*	–	–	–	–

Ph = Lead
a_p = Total infeed depth
TPI = Threads per inch
Recommendations are for steel with a hardness < 300 HB

External Round DIN 405, metric (*Inch*)

TPI	4	6	8	10
a_p	3,43 *(0.135)*	2,23 *(0.088)*	1,73 *(0.068)*	1,40 *(0.055)*
1	0,44 *(0.017)*	0,33 *(0.013)*	0,29 *(0.011)*	0,26 *(0.010)*
2	0,40 *(0.016)*	0,29 *(0.011)*	0,26 *(0.010)*	0,25 *(0.010)*
3	0,34 *(0.013)*	0,25 *(0.010)*	0,21 *(0.008)*	0,23 *(0.009)*
4	0,32 *(0.013)*	0,23 *(0.009)*	0,19 *(0.007)*	0,20 *(0.008)*
5	0,28 *(0.011)*	0,20 *(0.008)*	0,18 *(0.007)*	0,16 *(0.006)*
6	0,26 *(0.010)*	0,18 *(0.007)*	0,16 *(0.006)*	0,12 *(0.005)*
7	0,24 *(0.009)*	0,16 *(0.006)*	0,14 *(0.006)*	0,10 *(0.004)*
8	0,22 *(0.009)*	0,15 *(0.006)*	0,12 *(0.005)*	0,08 *(0.003)*
9	0,20 *(0.008)*	0,14 *(0.006)*	0,10 *(0.004)*	–
10	0,19 *(0.007)*	0,12 *(0.005)*	0,08 *(0.003)*	–
11	0,17 *(0.007)*	0,10 *(0.004)*	–	–
12	0,15 *(0.006)*	0,08 *(0.003)*	–	–
13	0,12 *(0.005)*	–	–	–
14	0,10 *(0.004)*	–	–	–

Internal Round DIN 405, metric (*Inch*)

TPI	4	6	8	10
a_p	3,59 *(0.141)*	2,44 *(0.096)*	1,66 *(0.065)*	1,49 *(0.059)*
1	0,46 *(0.018)*	0,38 *(0.015)*	0,26 *(0.010)*	027 *(0.011)*
2	0,43 *(0.017)*	0,34 *(0.013)*	0,22 *(0.009)*	0,26 *(0.010)*
3	0,40 *(0.016)*	0,30 *(0.012)*	0,21 *(0.009)*	0,25 *(0.010)*
4	0,35 *(0.014)*	0,25 *(0.010)*	0,19 *(0.007)*	0,22 *(0.009)*
5	0,30 *(0.012)*	0,21 *(0.008)*	0,18 *(0.007)*	0,18 *(0.007)*
6	0,26 *(0.010)*	0,19 *(0.007)*	0,16 *(0.006)*	0,13 *(0.005)*
7	0,24 *(0.009)*	0,17 *(0.007)*	0,14 *(0.006)*	0,10 *(0.004)*
8	0,22 *(0.009)*	0,16 *(0.006)*	0,12 *(0.005)*	0,08 *(0.003)*
9	0,20 *(0.008)*	0,14 *(0.006)*	0,10 *(0.004)*	–
10	0,19 *(0.007)*	0,12 *(0.005)*	0,08 *(0.003)*	–
11	0,17 *(0.007)*	0,10 *(0.004)*	–	–
12	0,15 *(0.006)*	0,08 *(0.003)*	–	–
13	0,12 *(0.005)*	–	–	–
14	0,10 *(0.004)*	–	–	–

Ph = Lead
a_p = Total infeed depth
TPI = Threads per inch
Recommendations are for steel with a hardness < 300 HB

External TR thread, metric

P_h	14.0	12.0	10.0	9.0	8.0	7.0	6.0	5.0	4.0	3.0	2.0	1.5
a_p	8,2	6,72	5,7	5,16	4,68	4,17	3,66	2,89	2,38	1,83	1,33	0,97
1	0,40	0,38	0,38	0,38	0,37	0,37	0,37	0,34	0,31	0,27	0,25	0,23
2	0,37	0,36	0,36	0,35	0,35	0,34	0,35	0,33	0,28	0,25	0,24	0,22
3	0,36	0,34	0,34	0,34	0,34	0,33	0,32	0,27	0,24	0,21	0,20	0,18
4	0,36	0,34	0,34	0,33	0,33	0,31	0,29	0,25	0,20	0,17	0,17	0,14
5	0,35	0,32	0,32	0,31	0,31	0,29	0,27	0,23	0,19	0,15	0,14	0,12
6	0,35	0,32	0,32	0,30	0,29	0,26	0,25	0,21	0,18	0,13	0,13	0,08
7	0,34	0,30	0,31	0,29	0,28	0,26	0,23	0,20	0,16	0,13	0,11	–
8	0,34	0,30	0,29	0,28	0,27	0,26	0,22	0,20	0,15	0,12	0,09	–
9	0,34	0,30	0,28	0,26	0,25	0,24	0,22	0,18	0,15	0,12	–	–
10	0,33	0,29	0,27	0,25	0,24	0,23	0,20	0,16	0,15	0,10	–	–
11	0,33	0,29	0,25	0,24	0,23	0,22	0,18	0,15	0,14	0,10	–	–
12	0,32	0,29	0,24	0,23	0,21	0,22	0,17	0,14	0,13	0,08	–	–
13	0,32	0,28	0,23	0,22	0,20	0,20	0,17	0,13	0,10	–	–	–
14	0,31	0,27	0,22	0,21	0,19	0,19	0,16	0,10	–	–	–	–
15	0,31	0,25	0,22	0,21	0,19	0,17	0,14	–	–	–	–	–
16	0,30	0,25	0,20	0,19	0,18	0,16	0,12	–	–	–	–	–
17	0,30	0,24	0,19	0,18	0,17	0,12	–	–	–	–	–	–
18	0,29	0,22	0,18	0,16	0,15	–	–	–	–	–	–	–
19	0,28	0,20	0,17	0,15	0,13	–	–	–	–	–	–	–
20	0,27	0,20	0,16	0,15	–	–	–	–	–	–	–	–
21	0,23	0,19	0,15	0,13	–	–	–	–	–	–	–	–
22	0,23	0,18	0,15	–	–	–	–	–	–	–	–	–
23	0,21	0,17	0,13	–	–	–	–	–	–	–	–	–
24	0,19	0,16	–	–	–	–	–	–	–	–	–	–
25	0,17	0,15	–	–	–	–	–	–	–	–	–	–
26	0,16	0,13	–	–	–	–	–	–	–	–	–	–
27	0,16	–	–	–	–	–	–	–	–	–	–	–
28	0,15	–	–	–	–	–	–	–	–	–	–	–
29	0,13	–	–	–	–	–	–	–	–	–	–	–

Ph = Lead
a_p = Total infeed depth
TPI = Threads per inch
Recommendations are for steel with a hardness < 300 HB

Internal TR threads, metric

P_h	14.0	12.0	10.0	9.0	8.0	7.0	6.0	5.0	4.0	3.0	2.0	1.5
a_p	8,47	6,71	5,7	5,19	4,68	4,17	3,65	2,89	2,38	1,85	1,34	0,98
1	0,40	0,38	0,38	0,38	0,37	0,37	0,37	0,34	0,31	0,27	0,25	0,23
2	0,37	0,36	0,36	0,35	0,35	0,34	0,34	0,33	0,28	0,25	0,24	0,22
3	0,36	0,34	0,34	0,34	0,34	0,33	0,32	0,27	0,24	0,22	0,21	0,19
4	0,36	0,34	0,34	0,33	0,33	0,31	0,29	0,25	0,20	0,17	0,17	0,14
5	0,35	0,32	0,32	0,31	0,31	0,29	0,27	0,23	0,19	0,15	0,14	0,12
6	0,35	0,32	0,32	0,31	0,29	0,26	0,25	0,21	0,18	0,14	0,13	0,08
7	0,34	0,30	0,31	0,29	0,28	0,26	0,23	0,20	0,16	0,13	0,11	–
8	0,34	0,30	0,29	0,29	0,27	0,26	0,22	0,20	0,15	0,12	0,09	–
9	0,34	0,30	0,28	0,26	0,25	0,24	0,22	0,18	0,15	0,12	–	–
10	0,33	0,29	0,27	0,25	0,24	0,23	0,20	0,16	0,15	0,10	–	–
11	0,33	0,29	0,25	0,24	0,23	0,22	0,18	0,15	0,14	0,10	–	–
12	0,32	0,28	0,24	0,23	0,21	0,22	0,17	0,14	0,13	0,08	–	–
13	0,32	0,28	0,23	0,22	0,20	0,20	0,17	0,13	0,10	–	–	–
14	0,31	0,27	0,22	0,21	0,19	0,19	0,16	0,10	–	–	–	–
15	0,31	0,25	0,22	0,21	0,19	0,17	0,14	–	–	–	–	–
16	0,30	0,25	0,20	0,19	0,18	0,16	0,12	–	–	–	–	–
17	0,30	0,24	0,19	0,18	0,17	0,12	–	–	–	–	–	–
18	0,29	0,22	0,18	0,16	0,15	–	–	–	–	–	–	–
19	0,28	0,20	0,17	0,15	0,13	–	–	–	–	–	–	–
20	0,27	0,20	0,16	0,15	–	–	–	–	–	–	–	–
21	0,23	0,19	0,15	0,13	–	–	–	–	–	–	–	–
22	0,23	0,18	0,15	–	–	–	–	–	–	–	–	–
23	0,21	0,17	0,13	–	–	–	–	–	–	–	–	–
24	0,19	0,16	–	–	–	–	–	–	–	–	–	–
25	0,17	0,15	–	–	–	–	–	–	–	–	–	–
26	0,16	0,13	–	–	–	–	–	–	–	–	–	–
27	0,16	–	–	–	–	–	–	–	–	–	–	–
28	0,15	–	–	–	–	–	–	–	–	–	–	–
29	0,13	–	–	–	–	–	–	–	–	–	–	–
30	0,13	–	–	–	–	–	–	–	–	–	–	–

Ph = Lead
a_p = Total infeed depth
TPI = Threads per inch
Recommendations are for steel with a hardness < 300 HB

External ACME, *Inch*

TPI	2	3	4	5	6	8	10	12	14	16
a_p	0.265	0.18	0.138	0.112	0.095	0.074	0.063	0.050	0.041	0.039
1	0.028	0.019	0.013	0.012	0.011	0.010	0.010	0.009	0.008	0.009
2	0.026	0.018	0.012	0.011	0.011	0.010	0.009	0.009	0.008	0.009
3	0.023	0.016	0.011	0.010	0.010	0.009	0.009	0.007	0.007	0.007
4	0.022	0.015	0.011	0.01	0.009	0.007	0.007	0.007	0.006	0.006
5	0.019	0.013	0.010	0.009	0.008	0.006	0.006	0.005	0.005	0.005
6	0.017	0.011	0.010	0.008	0.007	0.005	0.005	0.005	0.004	0.003
7	0.015	0.011	0.009	0.007	0.006	0.005	0.005	0.004	0.003	–
8	0.013	0.009	0.008	0.007	0.006	0.005	0.004	0.004	–	–
9	0.013	0.009	0.008	0.007	0.006	0.005	0.004	–	–	–
10	0.011	0.009	0.007	0.006	0.006	0.004	0.004	–	–	–
11	0.011	0.008	0.007	0.006	0.006	0.004	–	–	–	–
12	0.01	0.007	0.006	0.006	0.005	0.004	–	–	–	–
13	0.009	0.007	0.006	0.005	0.004	–	–	–	–	–
14	0.009	0.007	0.006	0.004	–	–	–	–	–	–
15	0.008	0.006	0.006	0.004	–	–	–	–	–	–
16	0.007	0.005	0.004	–	–	–	–	–	–	–
17	0.007	0.005	0.004	–	–	–	–	–	–	–
18	0.006	0.005	–	–	–	–	–	–	–	–
19	0.006	–	–	–	–	–	–	–	–	–
20	0.005	–	–	–	–	–	–	–	–	–

Internal ACME, *Inch*

TPI	2	3	4	5	6	8	10	12	14	16
a_p	0.265	0.182	0.142	0.114	0.098	0.078	0.065	0.049	0.042	0.040
1	0.028	0.020	0.013	0.012	0.012	0.011	0.010	0.009	0.009	0.009
2	0.026	0.018	0.012	0.012	0.011	0.011	0.010	0.009	0.008	0.009
3	0.023	0.016	0.012	0.011	0.011	0.009	0.009	0.007	0.007	0.008
4	0.022	0.015	0.011	0.010	0.009	0.007	0.007	0.006	0.006	0.006
5	0.019	0.013	0.011	0.009	0.008	0.006	0.006	0.005	0.005	0.005
6	0.017	0.011	0.010	0.008	0.007	0.006	0.006	0.005	0.004	0.003
7	0.015	0.011	0.009	0.007	0.007	0.005	0.005	0.004	0.003	–
8	0.013	0.009	0.008	0.007	0.006	0.005	0.004	0.004	–	–
9	0.013	0.009	0.008	0.007	0.006	0.005	0.004	–	–	–
10	0.011	0.009	0.007	0.006	0.006	0.005	0.004	–	–	–
11	0.011	0.008	0.007	0.006	0.006	0.004	–	–	–	–
12	0.010	0.007	0.006	0.006	0.005	0.004	–	–	–	–
13	0.009	0.007	0.006	0.005	0.004	–	–	–	–	–
14	0.009	0.007	0.006	0.004	–	–	–	–	–	–
15	0.008	0.006	0.006	0.004	–	–	–	–	–	–
16	0.007	0.005	0.005	–	–	–	–	–	–	–
17	0.007	0.005	0.005	–	–	–	–	–	–	–
18	0.006	0.005	–	–	–	–	–	–	–	–
19	0.006	–	–	–	–	–	–	–	–	–
20	0.005	–	–	–	–	–	–	–	–	–

Ph = Lead
a_p = Total infeed depth
TPI = Threads per inch
Recommendations are for steel with a hardness < 300 HB

Multi-tooth insert TWIN THREADER, TT
External 60° threads, metric (*Inch*)

P_h mm	2.0	1.5	1.0
a_p mm (*inch*)	1,25 *(0.049)*	0,93 *(0.037)*	0,65 *(0.026)*
Pass 1 mm (*inch*)	0,25 *(0.010)*	0,22 *(0.009)*	0,22 *(0.009)*
2	0,36 *(0.014)*	0,31 *(0.012)*	0,25 *(0.010)*
3	0,25 *(0.010)*	0,22 *(0.009)*	0,18 *(0.007)*
4	0,21 *(0.008)*	0,18 *(0.007)*	–
5	0,18 *(0.007)*	–	–

Internal 60° threads, metric (*Inch*)

P_h mm	2.0	1.5	1.0
a_p mm (*inch*)	1,17 *(0.046)*	0,85 *(0.033)*	0,60 *(0.024)*
Pass 1 mm (*inch*)	0,23 *(0.009)*	0,20 *(0.008)*	0,19 *(0.007)*
2	0,34 *(0.013)*	0,27 *(0.011)*	0,23 *(0.009)*
3	0,23 *(0.009)*	0,20 *(0.008)*	0,18 *(0.007)*
4	0,19 *(0.007)*	0,18 *(0.007)*	–
5	0,18 *(0.007)*	–	–

External and internal Whitworth and BSPT threads, metric (*Inch*)

TPI	11	14
a_p mm (*inch*)	1,58 *(0.062)*	1,20 *(0.047)*
Pass 1 mm (*inch*)	0,26 *(0.010)*	0,22 *(0.009)*
2	0,38 *(0.015)*	0,35 *(0.014)*
3	0,27 *(0.011)*	0,24 *(0.009)*
4	0,25 *(0.010)*	0,21 *(0.008)*
5	0,22 *(0.009)*	0,18 *(0.007)*
6	0,20 *(0.008)*	–

Ph = Lead
a_p = Total infeed depth
TPI = Threads per inch
Recommendations are for steel with a hardness < 300 HB

External UN threads, metric (*Inch*)

TPI	12	16
a_p mm (*inch*)	1,39 *(0.055)*	1,05 *(0.041)*
Pass 1 mm (*inch*)	0,28 *(0.011)*	0,25 *(0.010)*
2	0,38 *(0.015)*	0,36 *(0.014)*
3	0,28 *(0.011)*	0,26 *(0.010)*
4	0,25 *(0.010)*	0,18 *(0.007)*
5	0,20 *(0.008)*	–

Internal UN threads, metric (*Inch*)

TPI	12	16
a_p mm (*inch*)	1,25 *(0.049)*	0,93 *(0.037)*
Pass 1 mm (*inch*)	0,24 *(0.009)*	0,21 *(0.008)*
2	0,35 *(0.014)*	0,32 *(0.013)*
3	0,25 *(0.010)*	0,22 *(0.009)*
4	0,22 *(0.009)*	0,18 *(0.007)*
5	0,19 *(0.007)*	–

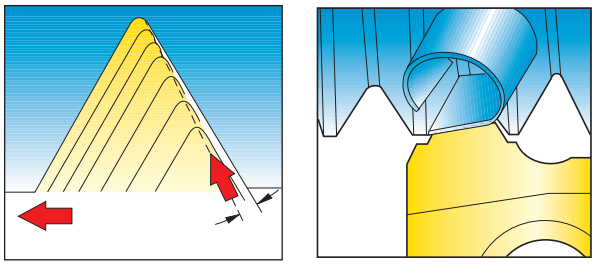
Ph = Lead
a_p = Total infeed depth
TPI = Threads per inch
Recommendations are for steel with a hardness < 300 HB

Infeed method

The choice of infeed method is most important for long chipping materials to ensure good chip control.

Modified flank infeed

For CNC machines and conventional machines

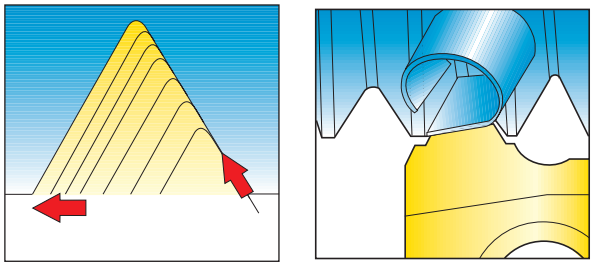


First choice for CNC machines
The infeed angle should be 2,5–5% less than the flank angle

- Good chip control (important for internal threading)
- Good surface finish on thread
- Long tool life

Flank infeed

For CNC machines and conventional machines

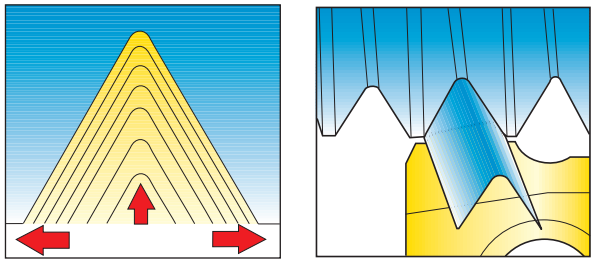


Choose flank infeed when modified flank infeed cannot be used

- Good chip control
- Can result in bad surface on thread
- Not suitable for work hardening materials

Radial infeed

For conventional machines and multi-tooth inserts

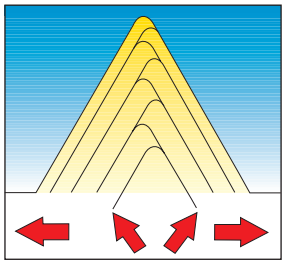


Multitooth inserts demand radial infeed
First choice for work hardening materials

- Difficult to control the chip
- High cutting forces

Alternate flank infeed

For CNC machines



First choice for large coarse threads

- Long tool life
- Chipbreaking problems can arise

Nomenclature and formula

RPM

$$n = \frac{v_c \cdot 1000}{\pi \cdot D_c} \quad \text{(rev/min)}$$

Cutting speed

$$v_c = \frac{n \cdot \pi \cdot D_c}{1000} \quad \text{(m/min)}$$

Slide velocity/feed rate

$$v_f = \frac{n \cdot P_h}{1000} \quad \text{(mm/min)}$$

Lead

$P_h = P \cdot$ numbers of starts (mm)

Helix angle

$$\lambda = \arctan \frac{P_h}{D_2 \cdot \pi} \quad (°)$$

Conversion of P to TPI

$$TPI = \frac{25{,}4}{P}$$

D_c = Workpiece diameter (mm)
D_2 = Pitch diameter (mean diameter) (mm)
n = RPM (rev/min)
P = Pitch (mm)
P_h = Lead (mm)
v_f = Slide velocity (feed rate) (m/min)
TPI = Number of threads per inch
v_c = Cutting speed (mm/min)
λ = Helix angle (°)

RPM

$$n = \frac{v_c \cdot 3.82}{D} \quad \text{(rev/min)}$$

Cutting speed

$$v_c = \frac{0.262 \cdot D \cdot n}{1000} \quad \text{(sf/min)}$$

Slide velocity/feed rate

$$Sv = \frac{n \cdot P_h}{1000} \quad \text{(in/min)}$$

Lead

$P_h = P \cdot$ numbers of starts (inch)

Helix angle

$$\lambda = \arctan \frac{P_h}{D_2 \cdot \pi} \quad (°)$$

Conversion Pitch – TPI

$$P = \frac{1}{TPI}$$

D = Workpiece diameter (inch)
D_2 = Pitch diameter (effective diameter) (inch)
n = RPM (r/min)
P = Pitch (inch)
P_h = Lead (inch)
Sv = Slide velocity (in/min)
TPI = Thread per inch
v_c = Cutting speed (sf/min)
λ = Helix angle (°)

Toolholder modification to thread small ID

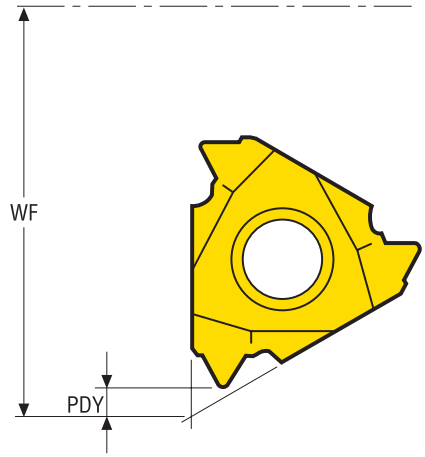
It is often necessary to cut internal threads which are too small to be made with a standard toolholder.

Several standard internal toolholders can be modified by a simple reworking so that threads can be cut in approximately 30% smaller bores.
This modification work can be made on an lathe with a four-jaw chuck.
In the dimension table DCINN at pages 'Toolholders Internal' you will find the dimensions required for the alteration.

On demand, these internal toolholders can also be supplied as special design.

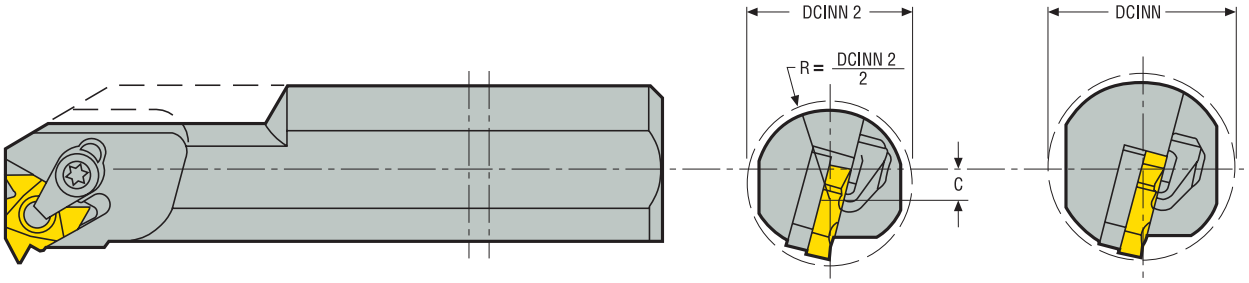
For some holders it is possible to work inside smaller bores than indicated by the DCINN2 dimension, here it is necessary "to back off" the bottom corner of the insert (possibly also the insert shim).

Reference dimensions on insert



WF and PDY dimensions can be found on the pages for internal toolholders and threading inserts.

Reference dimensions on bar



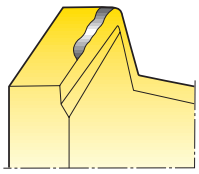
C = WF – PDY + R – DCINN2

C = Centre-point displacement when modifying the tool.
DCINN = Minimum bore diameter of standard tool.
DCINN2 = Minimum bore diameter with a modified tool.

Troubleshooting

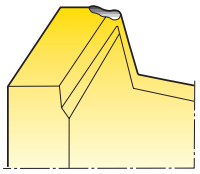
Rapid flank wear

- Reduce the cutting speed
- Increase the infeed per pass
- Use modified flank infeed
- Check that the correct insert shim has been selected
- Select a more wear-resistant grade



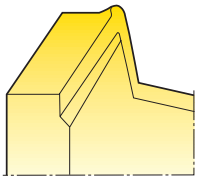
Insert fracture

- Increase the number of passes
- Check the workpiece mounting
- Check the centre height of the cutting edge
- Check for built-up edge
- Select a tougher grade



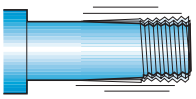
Plastic deformation

- Select a grade with better resistance to plastic deformation
- Reduce the cutting speed
- Increase the number of passes
- Increase the coolant supply
- Check that the workpiece diameter is correct prior to cutting the thread



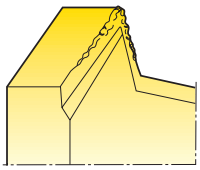
Vibrations

- Change the cutting speed
- Reduce the overhang and use the most stable toolholder
- Check the centre height of the cutting edge
- Check that the workpiece diameter is correct



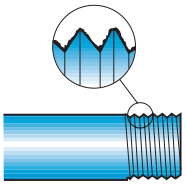
Build-up edge

- Increase the cutting speed
- Do not use coolant



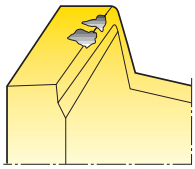
Poor finish

- Increase the cutting speed
- Check that the correct insert shim has been selected
- Use modified flank infeed or radial infeed



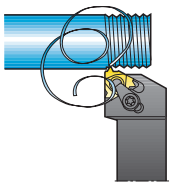
Edge chipping

- Check the workpiece mounting
- Check the cutting speed
- Use modified flank infeed
- Select a tougher grade



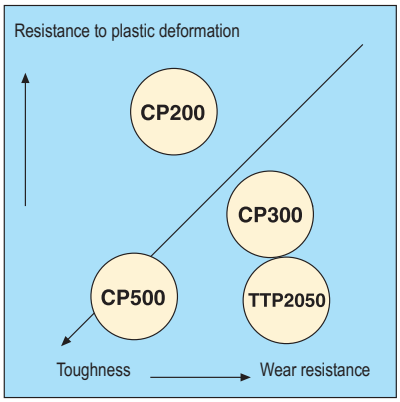
Poor chip control

- Reduce the number of passes
- Increase the cutting speed
- Use modified flank infeed
- Increase the coolant supply

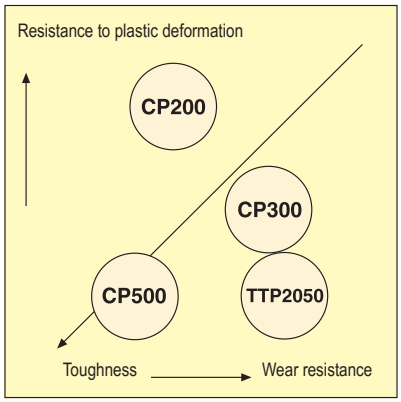


Optimisation

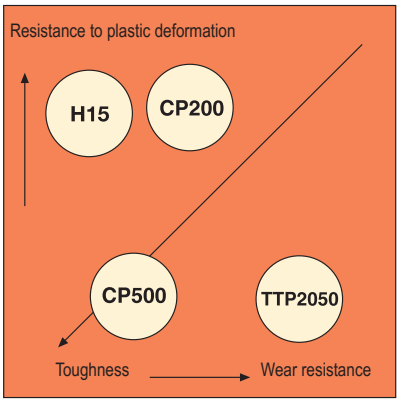
ISO-P (steel)



ISO-M (stainless steel)



ISO-K (cast iron)



Torque values for clamping screws

Maximum Torque value for each screw is shown below

Screw designation	Torque Nm	Torque key
110.26-655	10,0	H00T-60100
117.26-655	5,0	H00T-3050
117.26-657	3,0	H00-2530
170.26-655	6,0	H00T-4060
C02205-T07P	0,9	T00-07P09
C02505-T07P	0,9	T00-07P09
C02506-T07P	0,9	T00-07P09
C03007-T09P	2,0	T00-09P20
C03508-T15P	3,0	T00-15P30
C03509-T15P	3,0	T00-15P30
C03510-T15P	3,0	T00-15P30
C03511-T09P	2,0	T00-09P20
C03512-T15P	3,0	T00-15P30
C04008-T15P	3,5	T00-15P35
C04010-T15P	3,5	T00-15P35
C04011-T15P	3,5	T00-15P35
C04014-T15P	3,5	T00-15P35
C04512-T15P	5,0	T00-15P50
C04518-T15P	5,0	T00-15P50
C05010-T20P	5,0	T00-20P50
C05012-T15P	5,0	T00-15P50
C05013-T20P	5,0	T00-20P50
C05018-T20P	5,0	T00-20P50
C11804-T06P	0,5	T00-06P05
C46017-T20P	6,0	T00T-20P60
C82204-T06P	0,5	T00-06P05
CC05	0,9	H00-1509
CC08P-V13	2,0	T00-09P20
CC09P-D11	2,0	T00-09P20
CC12P-S12	3,5	T00-15P35
CC14	6,0	H00T-4060
CC16	10,0	–
CC17P	10,0	–
CC17P-06	10,0	–
CC17P-09	10,0	–
CC20P	10,0	–
CC20P-V13	10,0	–
CD09-S09	2,0	T00-09P20
CD12-S12	3,5	T00-15P35
CD16-S16	5,0	T00-20P50
CD19-S19	5,0	T00-20P50
CD19-V16	5,0	T00-20P50
CSC8015-T20P	5,0	T00-20P50
CSC1015-T20P	5,0	T00-20P50
CSP16-T15P	2,0	T00-15P20
CSP22-T15P	3,0	T00-15P30
CSP27-T25P	6,0	T00T-25P60

Screw designation	Torque Nm	Torque key
L84017-T09P	2,0	T00-09P20
L85011-T15P	5,0	T00-15P50
L85012-T15P	5,0	T00-15P50
L85017-T09P	2,0	T00-09P20
L85020-T15P	3,5	T00-15P35
L85021-T15P	3,5	T00-15P35
L86015-T20P	6,0	T00T-20P60
L86025-T20P	6,0	T00T-20P60
LD1035-T25P	6,0	T00T-25P60
LD5020-T09P	2,0	T00-09P20
LD6020-T15P	3,0	T00-15P30
LD6021-T09P	2,0	T00-09P20
LD6024-T20P	3,0	T00-15P30
LD6025-T15P	3,0	T00-15P30
LD6026-T09P	2,0	T00-09P20
LD8025-T25P	6,0	T00T-25P60
LD8030-T25P	6,0	T00T-25P60
LS0512	2,5	–
LS0613	3,0	H00-2530
LS0616	3,0	H00-2530
LS0818	4,0	–
LS0822	4,0	–
MC6S4X14	3,5	–
MC6S4X18	3,5	–
MC6S5X14	5,0	H00T-4050
MC6S5X18	5,0	H00T-4050
MN0909L-T09P	2,0	T00-09P20
MN1215L-T15P	3,0	T00-15P30
MN1215R-T15P	3,0	T00-15P30
MN1215S-T15P	3,0	T00-15P30
MN1215T-T15P	3,0	T00-15P30
MN1515-T15P	3,0	T00-15P30
MN1515SL-T15P	3,0	T00-15P30
MN1520-T20P	6,0	T00T-20P60
MN1920-T20P	6,0	T00T-20P60
MN1925-T25P	5,0	T00T-25P50
MN2525-T25P	6,0	T00T-25P60
PL1403-T09P	2,5	T00-09P20
TCEI0409	3,5	–
TCEI0509	6,0	H00T-4060
TCEI0513	6,0	H00T-4060
TCEI0609	8,0	H00T-5080
TCEI0613	8,0	H00T-5080
TCEI0614	8,0	H00T-5080
TCEI0620	8,0	H00T-5080
TCEI0815	10,0	H00T-60100
TCEI0825	10,0	H00T-60100
TCEI1020	15,0	–
WS1620-T20P	3,5	T00-20P35
WS1920-T20P	3,5	T00-20P35
WS2325-T25P	5,0	T00T-25P50

For the Seco range of torque keys, please see next page

Torque keys

The range of torque keys with fixed torque values are available, in combinations key grip/torque value for insert locking, for most of the Seco turning products. By using a torque key you always ensure the correct tightening force when mounting the insert. The torque value is given on page(s) 36 for each screw. Torque keys are calibrated according to ISO 6789.

Code key: T00-15P35

T00 = Torque screwdriver type for Torx Plus blade
T00T = Torque T-handle type for Torx Plus blade
H00 = Torque screwdriver for hexagonal blade
H00T = Torque T-handle type for hexagonal blade

15P = Torx Plus size
35 = Torque value 3,5 Nm

Torque key*	Replaceable blade	Torx Plus size	Torque value
			
T00-06P05	T00-06P	T06P	0,5 Nm
T00-07P05	T00-07P	T07P	0,5 Nm
T00-07P09	T00-07P	T07P	0,9 Nm
T00-08P12	T00-08P	T08P	1,2 Nm
T00-08P20	T00-08P	T08P	2,0 Nm
T00-09P09	T00-09P	T09P	0,9 Nm
T00-09P12	T00-09P	T09P	1,2 Nm
T00-09P20	T00-09P	T09P	2,0 Nm
T00-10P20	T00-10P	T10P	2,0 Nm
T00-10P30	T00-10P	T10P	3,0 Nm
T00-10P35	T00-10P	T10P	3,5 Nm
T00-15P20	T00-15P	T15P	2,0 Nm
T00-15P30	T00-15P	T15P	3,0 Nm
T00-15P35	T00-15P	T15P	3,5 Nm
T00-15P40	T00-15P	T15P	4,0 Nm
T00-15P50	T00-15P	T15P	5,0 Nm
T00-20P35	T00-20P	T20P	3,5 Nm
T00-20P50	T00-20P	T20P	5,0 Nm

*Including blade

Torque key*	Replaceable blade	Torx Plus size	Torque value
			
T00T-15P50	T00T-15P	T15P	5,0 Nm
T00T-20P50	T00T-20P	T20P	5,0 Nm
T00T-20P60	T00T-20P	T20P	6,0 Nm
T00T-20P80	T00T-20P	T20P	8,0 Nm
T00T-25P50	T00T-25P	T25P	5,0 Nm
T00T-25P60	T00T-25P	T25P	6,0 Nm
T00T-25P80	T00T-25P	T25P	8,0 Nm
T00T-30P80	T00T-30P	T30P	8,0 Nm

*Including blade

Torque key*	Replaceable blade	Hexagonal size	Torque value
			
H00-1305	H00-1.3	1,3 mm	0,5 Nm
H00-1505	H00-1.5	1,5 mm	0,5 Nm
H00-1509	H00-1.5	1,5 mm	0,9 Nm
H00-2009	H00-2.0	2,0 mm	0,9 Nm
H00-2016	H00-2.0	2,0 mm	1,6 Nm
H00-2020	H00-2.0	2,0 mm	2,0 Nm
H00-2512	H00-2.5	2,5 mm	1,2 Nm
H00-2530	H00-2.5	2,5 mm	3,0 Nm
H00-2535	H00-2.5	2,5 mm	3,5 Nm
H00-3020	H00-3.0	3,0 mm	2,0 Nm
H00-3030	H00-3.0	3,0 mm	3,0 Nm
H00-4030	H00-4.0	4,0 mm	3,0 Nm

*Including blade

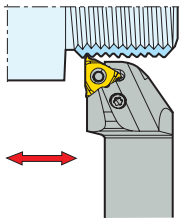
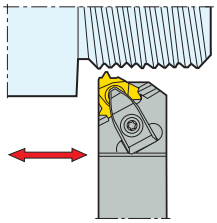
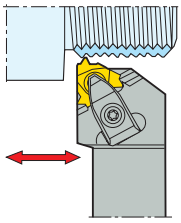
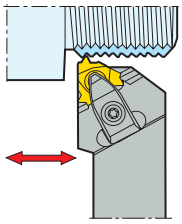
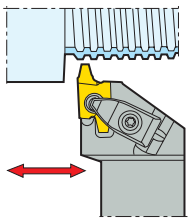
Torque key*	Replaceable blade	Hexagonal size	Torque value
			
H00T-3050	H00T-3.0	3 mm	5,0 Nm
H00T-4050	H00T-4.0	4 mm	5,0 Nm
H00T-4060	H00T-4.0	4 mm	6,0 Nm
H00T-5050	H00T-5.0	5 mm	5,0 Nm
H00T-5080	H00T-5.0	5 mm	8,0 Nm
H00T-50100	H00T-5.0	5 mm	10,0 Nm
H00T-60100	H00T-6.0	6 mm	10,0 Nm

*Including blade

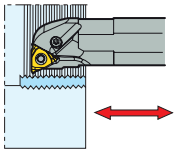
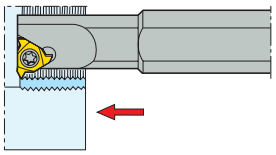
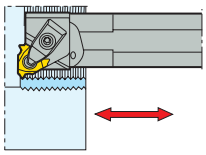
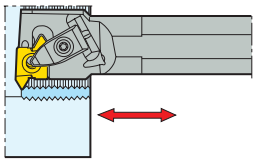
Please note that the blades are not interchangeable between screwdriver type and T-handle type.
Torx Plus® is a registered trade mark belonging to Camcar-Textron (USA)

Application overview, toolholders

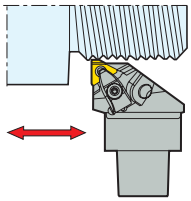
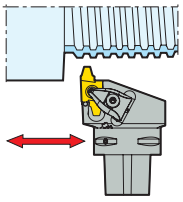
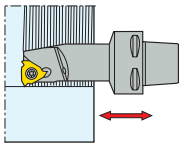
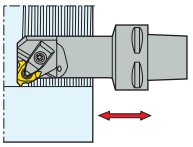
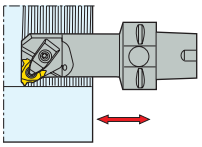
External toolholders

PER/L...QHDJETI PER/L...QHDJET	CER/L CER/L...HD	CER/L...Q CER/L...QHD	CER...CQHD	CER...HD CER/L...QHD
				
Page(s) 53-54	Page(s) 58	Page(s) 60, 61	Page(s) 64	Page(s) 67

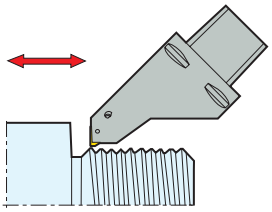
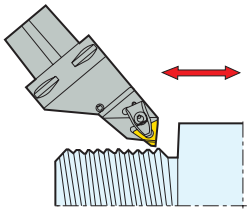
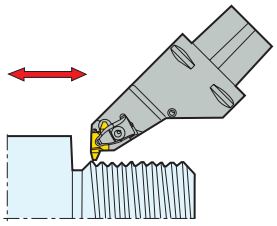
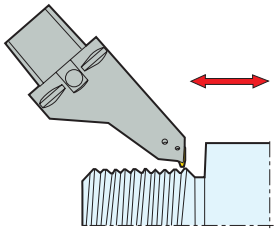
Internal toolholders

PNR/L...AHDJET	SNR/L	CNR/L...AHD CNR/L...APIHD	CNR/L...AHD
			
Page(s) 55, 56-57	Page(s) 68	Page(s) 69, 70	Page(s) 76

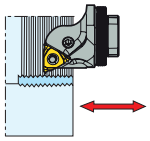
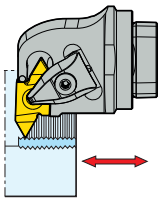
Seco-Capto™

CER/L-..HD...CHD Ext.	CER..HD Ext.	SNR Int.	CNR/L-..HD Int.	CNR/L-..CHD Int.
				
Page(s) 77, 78	Page(s) 81	Page(s) 82, 83	Page(s) 84, 85-88	Page(s) 89-91

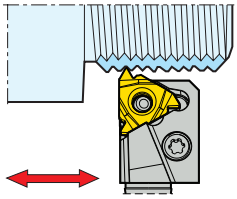
Seco-Capto™ for MTM

CER-..HD		CEL..HD	
			
Page(s) 92		Page(s) 93	

Steadyline® with GL connection

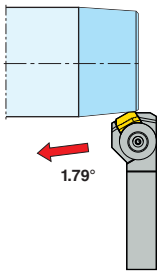
GL...-PNR/L...AHDJET	GL50-CNR...26AHD
	
Page(s) 94, 95	Page(s) 96

Quick Change, Jetstream Tooling®, QC-heads, external

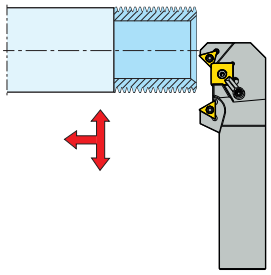
QC..-PER/L-HDJET

Page(s) 97

Toolholders for peeling

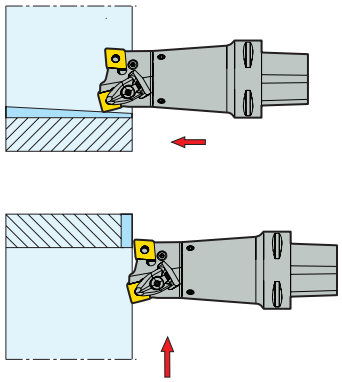
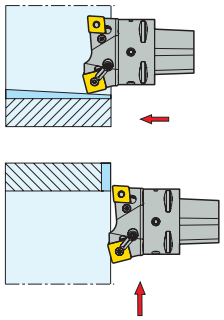
Inserts for peeling

CSXCR...	SCNN
	
Page(s) 98-99	Page(s) 122

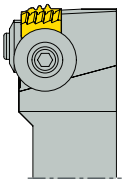
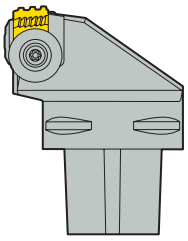
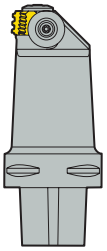
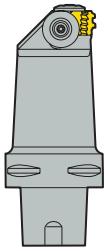
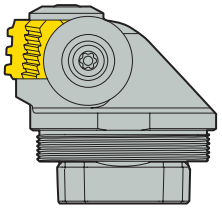
Toolholders for pipe-facing

MSGNR...

Page(s) 100-101

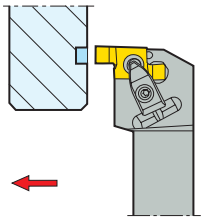
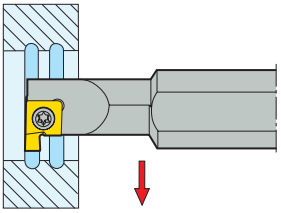
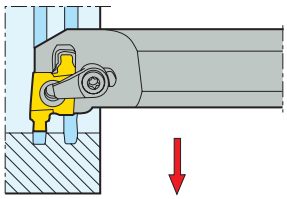
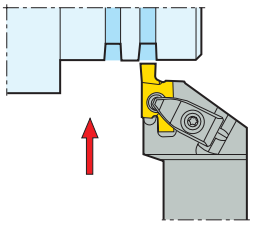
Toolholders for inserts SNMA, SNMG, SNMM / CNMA, CNMG, CNMM

C.-DSKNR/L - CLNR/L 75°	C.-MSKNR/L - PCLNR/L 75°
	
Page(s) 102	Page(s) 103

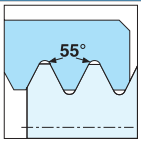
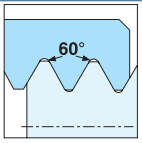
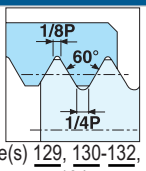
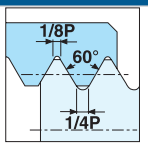
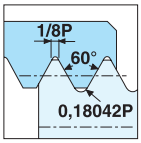
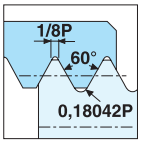
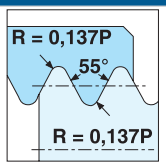
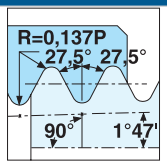
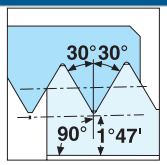
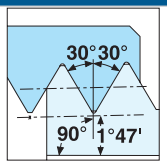
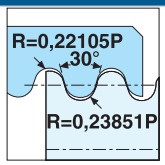
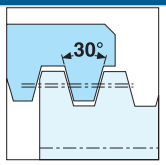
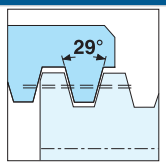
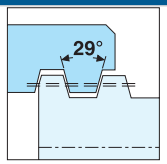
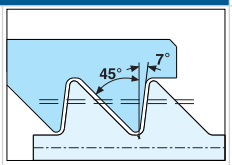
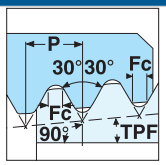
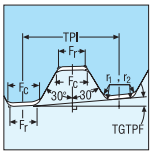
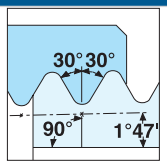
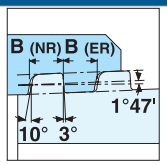
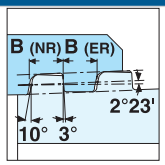
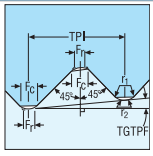
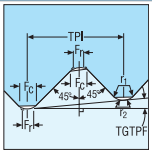
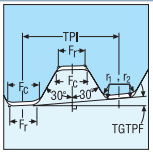
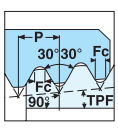
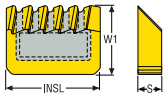
Toolholders for chasers

External toolholders for chasers CER...X	Seco-Capto™ CER...X	Seco-Capto™ CNR/L...X	Seco-Capto™ CNL...C-X	Steadyline® GL.. -CNR/L...-I/X
				
Page(s) 104-105	Page(s) 106	Page(s) 107-108	Page(s) 109-110	Page(s) 111

Toolholders for Precision Grooves

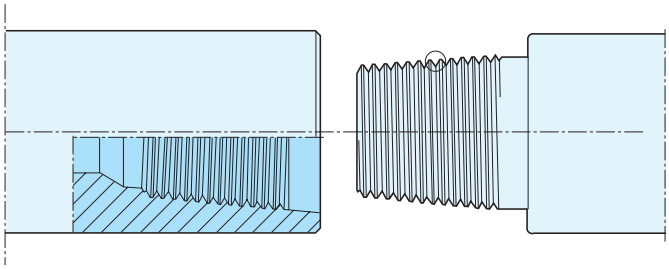
CEAR/L...	SNR/L...	CNR/L...	CER/L...
			
Page(s) 112	Page(s) 114	Page(s) 116	Page(s) 121

Application overview, inserts

Partial profile inserts	55° V profile	60° V profile			
					
	Page(s) 123-124	Page(s) 125-127, 128			
Full profile inserts	**ISO metric**	**UN**			
Reusable threaded joints					
	Page(s) 129, 130-132, 133, 134	Page(s) 136, 137-139, 140			
Full profile inserts	**UNJ**	**MJ**			
Reusable threaded joints for the aerospace industry					
	Page(s) 142-143	Page(s) 144-145			
Full profile inserts	**Whitworth, BSW**	**BSPT**	**NPT**	**NPTF**	**Round-DIN405**
Permanent threaded joints for pipe mountings and couplings					
	Page(s) 146, 147-148, 149	Page(s) 150-151	Page(s) 152-153	Page(s) 154-155	Page(s) 156-157
Partial profile inserts	**TR-DIN103**	**ACME**	**Stub-ACME**	**American Buttress**	
Motion-transmitting threads					
	Page(s) 158-159	Page(s) 160-161	Page(s) 162-163	Page(s) 164-165	
Full profile inserts	**API Rotary Drill Connection**	**Hughes Flush**	**API ROUND**	**API Buttress 1:16**	**API Buttress 1:12**
Threads for the oil industry					
	Page(s) 166-167	Page(s) 168-169	Page(s) 170-171	Page(s) 172-173	Page(s) 174-175
Full profile inserts	**Hughes H90**	**Hughes Slimline H90**	**P.A.C**	**Chasers API/Gost**	**Chipformers for chasers**
Threads for the oil industry					
	Page(s) 168-169	Page(s) 168-169	Page(s) 168-169	Page(s) 176, 177	Page(s) 178, 179, 180

Rotary drilling connections

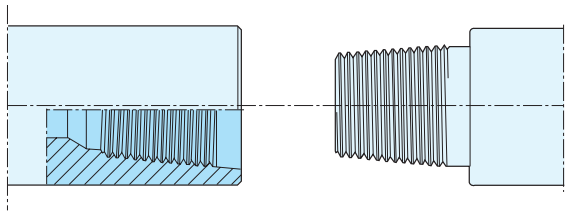
OCTG pipe and coupling illustration



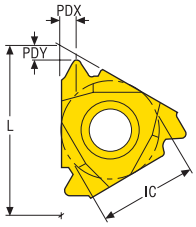
Connections	Pitch TPI	TGTPF	API code	Snap-Tap® code
API Number				
NC10 - NC16	6.0	1.5	V055	6API558
NC23 - NC50	4.0	2.0	V038R	4API386
NC56 - NC77	4.0	3.0	V038R	4API384
API Regular				
1 - 1 1/2 REG	6.0	1.5	V055	6API558
2 3/8 REG - 4 1/2 REG	5.0	3.0	V040	5API404
5 1/2 REG, 7 5/8 REG, 8 5/8 REG	4.0	3.0	V050	4API504
6 5/8 REG	4.0	2.0	V050	4API506
Internal Flush				
2 3/8 IF - 6 5/8 IF	4.0	2.0	V038R	4API386
Full Hole				
3 1/2 FH, 4 1/2 FH	5.0	3.0	V040	5API404
4 FH	4.0	2.0	V038R	4API386
5 1/2 FH, 6 5/8 FH	4.0	2.0	V050	4API506
Hughes External Flush				
2 3/8, 2 7/8	6.0	2.0	–	6HEF
3 1/2, 4 1/2	4.0	2.0	V038R	4API386
Hughes Xtra Hole				
2 7/8 - 5	4.0	2.0	V038R	4API386
Hughes Slim Hole				
2 3/8 - 4 1/2	4.0	2.0	V038R	4API386
Hughes Double Streamline				
3 1/2 - 5 1/2	4.0	2.0	V038R	4API386
Hughes H90				
3 1/2 - 6 5/8	3.5	2.0	90V050	3.5H906
7 - 8 5/8	3.5	3.0	90V050	3.5H904
Hughes Slimline H90				
2 3/8 - 3 1/2	3.0	1.25	90V050	3H90
Hughes ACME Regular				
2 3/8 - 6 5/8	4.0	3.373	–	4HACME
Hughes ACME Streamline				
2 3/8 - 5 1/2	4.0	3.373	–	4HACME
P.A.C.				
2 3/8 PAC - 3 1/2 PAC	4.0	1.5	V076	4PAC
Macaroni				
MT, AMT, AMMT	6.0	1.5	V055	6API558

Rotary drilling connections

Connections

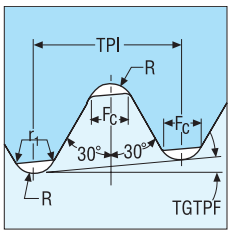
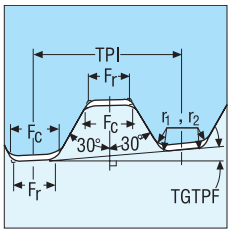
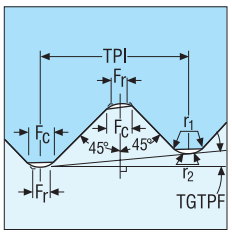
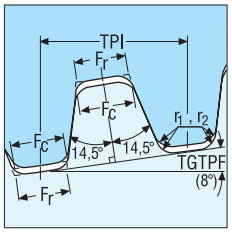


Insert dimensions



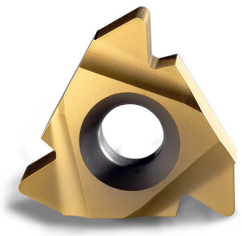
Connections							
Snap-Tap® code	API code	Pitch TPI	TGTPF *inch*	L mm	IC mm	PDX mm	PDY mm
6API558	V055	6.0	*1.5*	22,0	12,700	2,5	2,0
5API404	V040	5.0	*3.0*	22,0	12,700	2,5	2,0
5API404	V040	5.0	*3.0*	27,5	15,875	3,2	2,2
4API386	V038R	4.0	*2.0*	22,0	12,700	2,5	1,9
4API386	V038R	4.0	*2.0*	27,5	15,875	3,2	2,2
4API384	V038R	4.0	*3.0*	27,5	15,875	3,2	2,2
4API506	V050	4.0	*2.0*	27,5	15,875	3,2	2,2
4API504	V050	4.0	*3.0*	27,5	15,875	3,2	2,2
6HEF	–	6.0	*2.0*	22,0	12,700	2,5	2,0
4PAC	V076	4.0	*1.5*	27,5	15,875	3,2	2,2
3,5H906	90V050	3.5	*2.0*	27,5	15,875	3,2	2,2
3,5H904	90V050	3.5	*3.0*	27,5	15,875	3,2	2,2
3H90	90V050	3.0	*1.25*	27,5	15,875	3,2	2,2
4HACME	–	4.0	*3.373*	27,5	15,875	3,2	2,2

Thread profile

Profile	TPI	TGTPF	R/F_r mm (*inch*)	F_c mm (*inch*)	r_1 mm (*inch*)	r_2 mm (*inch*)	API code	Snap-Tap® code
	5.0	3.0	0,508 *(0.200)*	1,016 *(0.0400)*	0,381 *(0.0150)*	–	V040	5API404
	4.0	2.0	0,965 *(0.0380)*	1,651 *(0.0650)*	0,381 *(0.0150)*	–	V038R	4API386
	4.0	3.0	0,965 *(0.0380)*	1,651 *(0.0650)*	0,381 *(0.0150)*	–	V038R	4API384
	4.0	2.0	0,635 *(0.0250)*	1,270 *(0.0500)*	0,381 *(0.0150)*	–	V050	4API506
	4.0	3.0	0,635 *(0.0250)*	1,270 *(0.0500)*	0,381 *(0.0150)*	–	V050	4API504
	6.0	1.5	1,194 *(0.0470)*	1,397 *(0.0550)*	0,381 *(0.0150)*	0,381 *(0.0150)*	V055	6API558
	6.0	2.0	0,559 *(0.0220)*	0,813 *(0.0320)*	0,381 *(0.0150)*	0,381 *(0.0150)*	–	6HEF
	4.0	1.5	1,702 *(0.0670)*	1,930 *(0.0760)*	0,381 *(0.0150)*	0,381 *(0.0150)*	V076	4PAC
	3.5	2.0	0,864 *(0.0340)*	1,270 *(0.0500)*	0,381 *(0.0150)*	0,762	90V050	3,5H906
	3.5	3.0	0,864 *(0.0340)*	1,270 *(0.0500)*	0,381 *(0.0150)*	0,762	90V050	3,5H904
	3.0	1.25	1,727 *(0.0680)*	2,134 *(0.0840)*	0,381 *(0.0150)*	0,762	90V050	3H90
	4.0	3.373	2,253 *(0.0887)*	2,388 *(0.0940)*	0,787 *(0.0310)*	0,787 (0.0310)	–	4HACME

Oil and gas threading

Seco Snap-Tap® Quality Assurance



1. Metallurgical control of substrate
Check of substrate regarding Hc, MM and porosity.
Measured according to SPM.
Values stored in a database.

2. Dimension check after sintering
Measuring of IC and thickness.
Measured according to SPM.
Values stored in a database.

3. Dimension control after bottom grinding
Thickness and cutting edge height.
Flatness.
Measured according to SPM.

4. Dimension control after grinding
Profile and radius.
Measured according to SPM.

5. Edge measuring
Edge radius checked during honing.
Measured according to SPM.
Values stored in a database.

6. Measuring of coating
Coating, check of thickness and adhesion.
Measured according to SPM.
Values stored in a database.

7. Final inspection
Visual Inspection.
Sampling in accordance to AQL.

8. Production management System
SGS (SPM1) - Control specifications.
LS - Production instructions.
Seco Act - System for preventive and corrective actions.
Approved to ISO 9001 and 14001 standard.

9. Abbreviations
LS - Local management Systems - contains local process descriptions, routines, procedures and instructions.
SGS - Seco Global Standards - consists of instructions common for all Seco companies.
SPM - Seco Production Manual - Part of SGS is a collection of instructions and documents with the purpose to guide and maintain the quality level of Seco products.
AQL - Accepted Quality Level (Mil-std).
MM - Content of Tungsten in binder.
Hc - Coercivity, describing grainsize.

Oil and gas threading

Seco Chasers Quality Assurance



1. Metallurgical control of substrate
Check of substrate regarding Hc, MM and porosity.
Measured according to SPM.
Values stored in a database.

2. Dimension control after top and bottom grinding
Thickness.
Roughness Ra.
Flatness.
Measured according to SPM.

3. Measuring after periphery Grinding
Optical measuring.
Data stored in a database.

4. Dimension control after grinding
Profile and radius.
Measured according to SPM.

5. Edge measuring
Edge radius checked during honing.
Measured according to SPM.
Values stored in a database.

6. Measuring of coating
Coating (PVD), check of thickness and adhesion.
Measured according to SPM.
Values stored in a database.

7. Height classification
Optical measuring of height.
Graphic presentation of values.
Sorted and labelled with height classification.

8. Final inspection
Edge inspection 100%.
Profile check with tolerance drawing, sampling in accordance to AQL.

9. Traceability
Finished products from each order saved for future reference.
Saved 5 years from production date.
Finished product has full traceability.

10. Overlay drawings
Printer for overlays is calibrated with glass scale monthly.
Scaled master printout is saved according to SPM.

11. Production management System
SGS (SPM1) - Control specifications.
LS - Production instructions.
Seco Act - System for preventive and corrective actions.
Approved to ISO 9001 and 14001 standard.

12. Abbreviations
LS - Local management Systems - contains local process descriptions, routines, procedures and instructions.
SGS - Seco Global Standards - consists of instructions common for all Seco companies.
SPM - Seco Production Manual - Part of SGS is a collection of instructions and documents with the purpose to guide and maintain the quality level of Seco products.
AQL - Accepted Quality Level (Mil-std).
MM - Content of Tungsten in binder.
Hc - Coercivity, describing grainsize.

ISO attributes

ISO attribute	Explanation
AN	clearance angle major
B	shank width
BAWS	workpiece side body angle
BD	body diameter
BLQ	balance quality code
CDRX	cutting depth radial maximum
CDX	cutting depth maximum
CDXI	cutting depth maximum insert
CDXSH	cutting depth maximum shank
CF	spot chamfer
CNT	coolant entry thread size
CP	coolant pressure
CTMS	connection text machine side
CTWS	connection text workpiece side
CUTDIA	work piece parting diameter maximum
CW	cutting width
D1	fixing hole diameter
DCB	connection bore diameter
DCB1	connection bore diameter 1
DCB2	connection bore diameter 2
DCINN	cutting diameter internal minimum
DCINN2	cutting diameter internal minimum 2
DCINN3	cutting diameter internal minimum 3
DCP	data chip provision
DCSFMS	contact surface diameter machine side
DF	flange diameter
DIX	tool changer interference diameter maximum
DMM	shank diameter
EPSR	insert included angle
GAMO	rake angle orthogonal
H	shank height
HF	functional height
HRY	measure, Measure from ref. plane of mounting to bottom plane of unit in direction Y m
IC	inscribed circle diameter
INPLM	minimum initial plunge diameter
INPLX	initial plunge maximum
INSD	insert diameter
INSL	insert length
KCHL	corner chamfer angle left hand
KCHR	corner chamfer angle right hand
L	cutting edge length
LAMS	inclination angle
LB1	body length 1
LB2	body length 2
LCOG	length to center of gravity
LF	functional length
LF2	functional length_2
LFS	functional length secondary
LH	head length
LH2	head length 2
LIG	insert gauge length
LPR	protruding length

ISO attributes

ISO attribute	Explanation
LS	shank length
LSC	clamping length
LU	usable length
OAH	overall height
OAL	overall length
OAW	overall width
PDX	profile distance ex
PSIRL	cutting edge angle major left hand
PHDR	recommended premachined hole diameter
PSIRR	cutting edge angle major right hand
RADH	radial body height
RADW	radial body width
RE	corner radius
RETL	flank radius left hand
RETR	flank radius right hand
RPMX	rotational speed maximum
S	insert thickness
TDZ	thread diameter size
TPI	threads per inch
W1	insert width
WF	functional width
WF2	functional width 2
WFS	functional width secondary

Jetstream Tooling® Introduction

Seco Jetstream Tooling® is a revolutionary solution to the problem of delivering coolant precisely to the cutting zone.

It works by delivering a concentrated high pressure jet of coolant at high velocity straight to the optimum position precisely to the cutting edge.

The jet lifts the chips away from the rake face, improving chip control and tool life, enabling increased cutting data.

It has been proven to show improvements in nearly all material groups with a wide choice of coolant pressures.

Seco Jetstream Tooling® Duo holders, yet another innovation introduced to the market, features both a rake face and a flank face jet, that may provide even better chip control and significantly longer tool life.

For many years, Seco has been supporting the market with Jetstream Tooling® solutions for ISO-turning and grooving applications. Now the Jetstream Tooling® technique will also be available on holders for thread turning (Snap-Tap®).

Coolant can either be supplied to the toolholder externally through a coolant hose, which is attached to one of the inlet positions of the toolholder, or by the new JETI connection.

When it comes to boring bars, the coolant is supplied internally from the back end.

For internal applications, holders for Steadyline® bars are also available, designated GL-. Please see more information regarding Steadyline® in catalog Turning.

Square shank holders for external applications are designed with the Duo technique. They also have the option for coolant supply through JETI connection.

The JETI is developed with a compact assembly in mind, the tooling eliminates the need for any external piping and connections that would otherwise obstruct machine movements in tight workspaces. Coolant hole underneath the square shank holder make it possible for coolant to reach the cutting edge directly from the tool block.

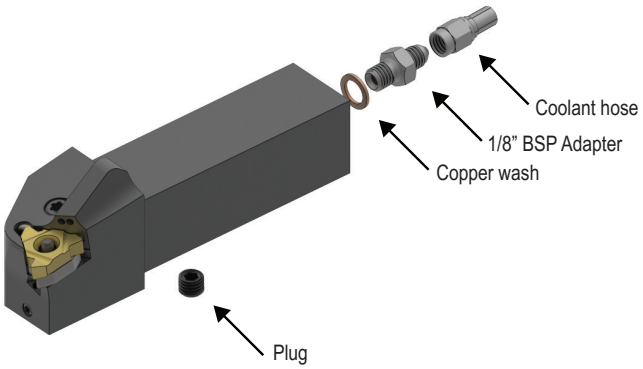


Jetstream Tooling® Assembly instructions

Description of parts

For personal safety, Jetstream Tooling® should only be used with the machine door in a fully closed position in accordance with general machine safety procedures.

Please ensure that the coolant hose is located correctly and fully tightened with all seals in position. The unused coolant hole should have a blanking plug fitted. Please note the maximum safe working pressures shown below.

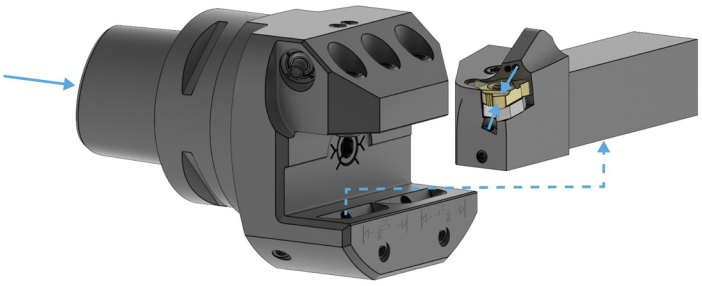


For accessories, see next page.

JETI Assembly instructions

To use the benefits of a JETI-holder there is a need to use a basic holder designed for JETI-connections. Maximum coolant pressure when using this feature is 150 bar.

Note: The unused coolant hole (from the back) should have a blanking plug fitted.



Accessories and spare parts

Hoses, Part No. ordering code includes spare parts

Connection type	Part No.	Length mm (*inch*)
Straight fitting 	JET-HOSE150SS	150 *(5.906)*
	JET-HOSE200SS	200 *(7.874)*
	JET-HOSE250SS	250 *(9.843)*
	JET-HOSE300SS	300 *(11.811)*
Banjo fitting 	JET-HOSE150BS	150 *(5.906)*
	JET-HOSE200BS	200 *(7.874)*
	JET-HOSE250BS	250 *(9.843)*
	JET-HOSE300BS	300 *(11.811)*
Banjo-to-Banjo fitting 	JET-HOSE150BB	150 *(5.906)*
	JET-HOSE200BB	200 *(7.874)*
	JET-HOSE250BB	250 *(9.843)*
	JET-HOSE300BB	300 *(11.811)*

All hoses are pressure rated to a maximum of 275 bar (3990 psi).

Spare Parts, Parts included in delivery

Part No.		...SS	...BS	...BB
JET-CFP1/8BSP		■	■	■
JET-CBP15		■	■	■
JET-AD1/8BSP		■	■	
JET-ADM10		■		
JET-BBM10			■	■
JET-BB1/8BSP			■	■
JET-C1/4-1/8BSP			■	■
JET-P1/8-5mm		■	■	■
JET-WM10*		■	■	■
JET-ORING10X1*/**		■	■	■

Pack of 2, except *Pack of 20
** Not suitable for use in inducer
For assembly instructions, see page(s) 50



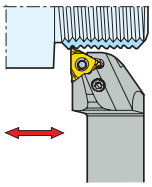
Thread turning Toolholders

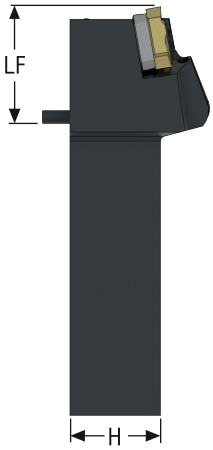
The innovative toolholders made for use with Snap-Tap® inserts offer the best possible holding power available for long tool life and high accuracy. They employ an Anti-Twist insert locking system that features a carbide pin in the back of the insert pocket that resists wear and prevents the insert from turning or twisting under pressure during machining.

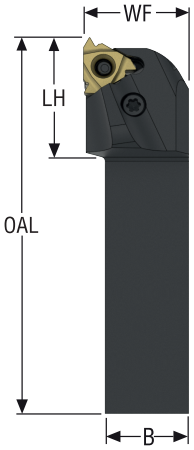
- Anti-Twist Toolholders.
- D-style clamp for securely pulls insert down and into the pocket.

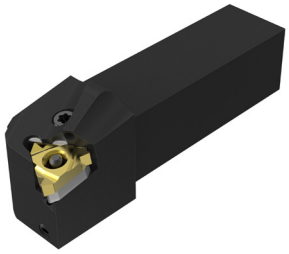
Jetstream Tooling® – Toolholders, external

For S-inserts, Snap-Tap®





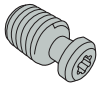




- Right-hand version shown
- For inserts program, see page(s) 123, 125, 126, 129, 130, 136, 137, 142, 144, 146, 147, 150, 152, 154, 156, 158, 160, 162, 164, 166, 168, 170, 172, 174
- CP* Max coolant pressure (bar) using hose connection otherwise according machine side adapter

Designation	Item number	H	B	LF	OAL	WF	LH	Weight	CP	CTWS
		mm	mm	mm	mm	mm	mm	kg	bar	
PER2020X16QHDJETI	03007228	20,0	20,0	27,0	91,0	25,0	30,0	0,3	275,0	16
PEL2020X16QHDJETI	03007229	20,0	20,0	27,0	91,0	25,0	30,0	0,3	275,0	16
PER2525X16QHDJETI	03007230	25,0	25,0	27,0	111,0	32,0	30,0	0,6	275,0	16
PEL2525X16QHDJETI	03007231	25,0	25,0	27,0	111,0	32,0	30,0	0,6	275,0	16
PER2525X22QHDJETI	03007241	25,0	25,0	41,0	125,0	32,0	44,0	0,7	275,0	22
PER2525X27QHDJETI	03007246	25,0	25,0	41,0	125,0	32,0	44,0	0,7	275,0	27

Spare Parts, included in delivery

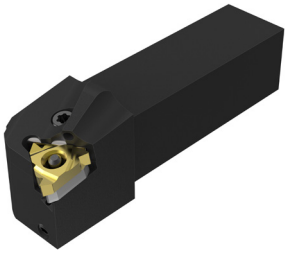
For holders	Insert lever	Insert shim (S)	Lever screw	Locking key	Shim pin
					
...16QHD...	PP3712	GXA16-1	LS0612-T15P	T15P-7	AC4625
...22QHD...	PP4816	NXA22-1	LS0815-T25P	T25P-7	AC5035
...27QHD...	PP6019	VXA27-1	LS0820-T25P	T25P-7	AC6050

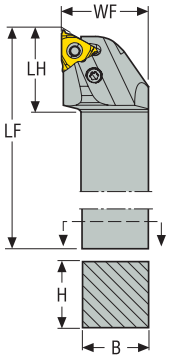
Accessories

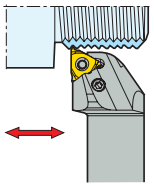
For holders	Insert shim (M)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Plug
													
...16QHD...	MXA16-1	GXA16-0	–	–	GXA16-2	GXA16-3	GXA16-4	GXA16-99	GXA16-98	–	–	–	P6SS4X8
...22QHD...	MXA22-1	NXA22-0	NXA22-98	NXA22-97.5	NXA22-0.5	NXA22-1.5	NXA22-2	NXA22-3	NXA22-4	NXA22-99.5	NXA22-99	NXA22-98.5	P6SS4X8
...27QHD...	MXA27-1	VXA27-0	VXA27-98	–	VXA27-0.5	VXA27-1.5	VXA27-2	VXA27-3	VXA27-4	VXA27-99.5	VXA27-99	VXA27-98.5	P6SS4X8

Jetstream Tooling® – Toolholders, external

For S-inserts, Snap-Tap®







- Right-hand version shown
- For inserts program, see page(s) 123, 125, 126, 129, 130, 136, 137, 142, 144, 146, 147, 150, 152, 154, 156, 158, 160, 162, 164, 166, 168, 170, 172, 174
- CP* Max coolant pressure (bar) using hose connection otherwise according machine side adapter

Designation	Item number	H	B	LF	WF	LH	Weight	CP	CTWS
		Inch	*Inch*	*Inch*	*Inch*	*Inch*	lbs	psi	
PER075516QHDJET	03007234	0.750	0.750	5.000	0.970	1.181	0.880	10.827	16
PEL075516QHDJET	03007235	0.750	0.750	5.000	0.970	1.181	0.880	10.827	16
PER100616QHDJET	03007236	1.000	1.000	6.000	1.250	1.181	1.760	10.827	16
PEL100616QHDJET	03007237	1.000	1.000	6.000	1.250	1.181	1.760	10.827	16
PER125616QHDJET	03007238	1.250	1.250	6.000	1.500	1.181	2.650	10.827	16
PEL125616QHDJET	03007240	1.250	1.250	6.000	1.500	1.181	2.650	10.827	16
PER100622QHDJET	03007244	0.984	0.984	6.000	1.250	1.732	1.760	10.827	22
PER125622QHDJET	03007245	0.984	0.984	6.000	1.500	1.732	2.650	10.827	22
PER100627QHDJET	03007249	0.984	0.984	6.000	1.250	1.732	1.760	10.827	27
PER125627QHDJET	03007250	0.984	0.984	6.000	1.500	1.732	2.650	10.827	27

Spare Parts, included in delivery

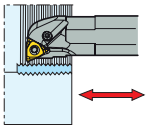
For holders	Insert lever	Insert shim (S)	Lever screw	Locking key	Shim pin
					
..16QHJET	PP3712	GXA16-1	LS0612-T15P	T15P-7	AC4625
..22QHJET	PP4816	NXA22-1	LS0815-T25P	T25P-7	AC5035
..27QHJET	PP6019	VXA27-1	LS0820-T25P	T25P-7	AC6050

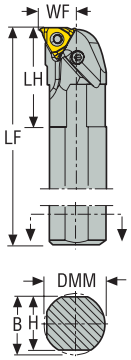
Accessories

For holders	Insert shim (M)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Plug
													
..16QHJET	MXA16-1	GXA16-0	–	–	GXA16-2	GXA16-3	GXA16-4	GXA16-99	GXA16-98	–	–	–	P6SS4X8
..22QHJET	MXA22-1	NXA22-0	NXA22-98	NXA22-97.5	NXA22-0.5	NXA22-1.5	NXA22-2	NXA22-3	NXA22-4	NXA22-99.5	NXA22-99	NXA22-98.5	P6SS4X8
..27QHJET	MXA27-1	VXA27-0	VXA27-98	–	VXA27-0.5	VXA27-1.5	VXA27-2	VXA27-3	VXA27-4	VXA27-99.5	VXA27-99	VXA27-98.5	P6SS4X8

Jetstream Tooling® – Toolholders, internal

For S-inserts, Snap-Tap®







- Right-hand version shown
- For inserts program, see page(s) 124, 127, 128, 132, 133, 134, 139, 140, 143, 145, 148, 149, 151, 153, 155, 157, 159, 161, 163, 171
- CP* Max coolant pressure (bar) using hose connection otherwise according machine side adapter

Designation	Item number	H	B	LF	WF	LH	DCINN	DMM	Weight	CP	CTWS
		mm	mm	mm	mm	mm	mm	mm	kg	bar	
PNR0020P16AHDJET	03006930	19,0	18,0	171,0	13,8	42,0	24,0	20,0	0,4	275,0	16
PNL0020P16AHDJET	03006931	19,0	18,0	171,0	13,8	42,0	24,0	20,0	0,4	275,0	16
PNR0025R16AHDJET	03006932	24,0	23,0	200,0	16,3	42,0	29,0	25,0	0,7	275,0	16
PNL0025R16AHDJET	03006933	24,0	23,0	200,0	16,3	42,0	29,0	25,0	0,6	275,0	16
PNR0032S16AHDJET	03006934	30,0	31,0	250,0	19,8	42,0	36,0	32,0	1,2	275,0	16
PNL0032S16AHDJET	03006935	30,0	31,0	250,0	19,8	42,0	36,0	32,0	1,5	275,0	16
PNR0040T16AHDJET	03006936	38,5	37,0	300,0	23,8	45,0	44,0	40,0	2,2	275,0	16
PNR0050U16AHDJET	03006937	47,0	48,5	350,0	28,8	52,0	54,0	50,0	4,5	275,0	16
PNR0025R22AHDJET	03006945	23,0	24,0	200,0	17,8	42,0	30,0	25,0	0,7	275,0	22
PNL0025R22AHDJET	03006946	23,0	24,0	200,0	17,8	42,0	30,0	25,0	0,7	275,0	22
PNR0032S22AHDJET	03006947	30,0	31,0	250,0	21,3	42,0	38,0	32,0	1,5	275,0	22
PNL0032S22AHDJET	03006948	30,0	31,0	250,0	21,3	42,0	38,0	32,0	1,5	275,0	22
PNR0040T22AHDJET	03006949	37,0	38,5	300,0	25,3	42,0	46,0	40,0	2,9	275,0	22
PNL0040T22AHDJET	03006950	37,0	38,5	300,0	25,3	42,0	46,0	40,0	2,6	275,0	22
PNR0050U22AHDJET	03006951	47,0	48,5	350,0	30,3	48,0	56,0	50,0	4,9	275,0	22
PNR0040T27AHDJET	03006955	37,0	38,5	300,0	26,8	62,0	48,0	40,0	2,6	275,0	27
PNR0050U27AHDJET	03006956	47,0	48,5	350,0	31,8	62,0	58,0	50,0	4,3	275,0	27
PNR0063V27AHDJET	03006957	60,0	61,5	400,0	38,3	62,0	70,0	63,0	8,9	275,0	27

Spare Parts, included in delivery

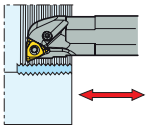
For holders	Insert lever	Insert shim (S)	Lever screw	Locking key	Shim pin
					
...20...	PP3712	GXA16-1	LS0610-T15P	T15P-7	AC4625
...25/32/40/50...	PP3712	GXA16-1	LS0612-T15P	T15P-7	AC4625
...22...	PP4816	NXA22-1	LS0815-T25P	T25P-7	AC5035
...27...	PP6019	VXA27-1	LS0820-T25P	T25P-7	AC6050

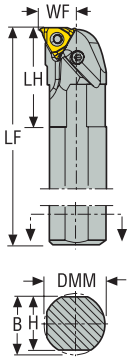
Accessories

For holders	Insert shim (M)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)
												
...20...	MXA16-1	GXA16-0	–	–	GXA16-2	GXA16-3	GXA16-4	GXA16-99	GXA16-98	–	–	–
...25/32/40/50...	MXA16-1	GXA16-0	–	–	GXA16-2	GXA16-3	GXA16-4	GXA16-99	GXA16-98	–	–	–
...22...	MXA22-1	NXA22-0	NXA22-98	NXA22-97.5	NXA22-0.5	NXA22-1.5	NXA22-2	NXA22-3	NXA22-4	NXA22-99.5	NXA22-99	NXA22-98.5
...27...	MXA27-1	VXA27-0	VXA27-98	–	VXA27-0.5	VXA27-1.5	VXA27-2	VXA27-3	VXA27-4	VXA27-99.5	VXA27-99	VXA27-98.5

Jetstream Tooling® – Toolholders, internal

For S-inserts, Snap-Tap®



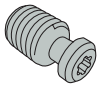




- Right-hand version shown
- For inserts program, see page(s) 124, 127, 128, 132, 133, 134, 139, 140, 143, 145, 148, 149, 151, 153, 155, 157, 159, 161, 163, 171
- CP* Max coolant pressure (bar) using hose connection otherwise according machine side adapter

Designation	Item number	H	B	LF	WF	LH	DCINN	DMM	Weight	CP	CTWS
		Inch	*Inch*	*Inch*	*Inch*	*Inch*	*Inch*	*Inch*	lbs	psi	
PNR00075716AHDJET	03006939	0.700	0.650	7.000	0.520	1.654	0.950	0.750	0.660	10.827	16
PNL00075716AHDJET	03006940	0.700	0.650	7.000	0.520	1.654	0.950	0.750	1.100	10.827	16
PNR00100816AHDJET	03006941	0.951	0.902	8.000	0.650	1.654	1.150	1.000	1.540	10.827	16
PNL00100816AHDJET	03006942	0.951	0.902	8.000	0.650	1.654	1.150	1.000	1.320	10.827	16
PNR001251016AHDJET	03006943	1.200	1.150	10.000	0.780	1.654	1.404	1.250	3.090	10.827	16
PNR001501216AHDJET	03006944	1.339	1.419	12.000	0.900	1.654	1.700	1.500	5.070	10.827	16
PNR00100822AHDJET	03006952	0.902	0.951	8.000	0.710	1.654	1.181	1.000	1.980	10.827	22
PNR001251022AHDJET	03006953	1.200	1.150	10.000	0.840	1.654	1.500	1.250	3.090	10.827	22
PNR001501222AHDJET	03006954	1.339	1.419	12.000	0.970	1.654	1.800	1.500	5.290	10.827	22
PNR001501227AHDJET	03006958	1.339	1.419	12.000	1.020	2.441	1.890	1.500	5.070	10.827	27

Spare Parts, included in delivery

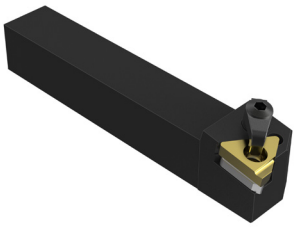
For holders	Insert lever	Insert shim (S)	Lever screw	Locking key	Shim pin
					
PNR/L000757..	PP3712	GXA16-1	LS0610-T15P	T15P-7	AC4625
..16AHDJET	PP3712	GXA16-1	LS0612-T15P	T15P-7	AC4625
..22AHDJET	PP4816	NXA22-1	LS0815-T25P	T25P-7	AC5035
..27AHDJET	PP6019	VXA27-1	LS0820-T25P	T25P-7	AC6050

Accessories

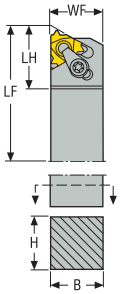
For holders	Insert shim (M)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)
												
PNR/L000757..	MXA16-1	GXA16-0	–	–	GXA16-2	GXA16-3	GXA16-4	GXA16-99	GXA16-98	–	–	–
..16AHDJET	MXA16-1	GXA16-0	–	–	GXA16-2	GXA16-3	GXA16-4	GXA16-99	GXA16-98	–	–	–
..22AHDJET	MXA22-1	NXA22-0	NXA22-98	NXA22-97.5	NXA22-0.5	NXA22-1.5	NXA22-2	NXA22-3	NXA22-4	NXA22-99.5	NXA22-99	NXA22-98.5
..27AHDJET	MXA27-1	VXA27-0	VXA27-98	–	VXA27-0.5	VXA27-1.5	VXA27-2	VXA27-3	VXA27-4	VXA27-99.5	VXA27-99	VXA27-98.5

Toolholders, external

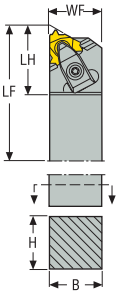
For S-inserts, Snap-Tap®

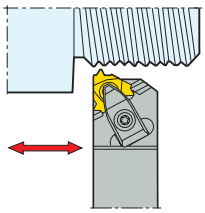


CER/L



CER/L..HD

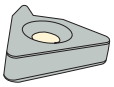




- Right-hand version shown
- For inserts program, see page(s) 123, 125, 126, 129, 130, 136, 137, 142, 144, 146, 147, 150, 152, 154, 156, 158, 160, 162, 164, 168

Designation	Item number	H	B	LF	WF	LH	Weight	CTWS
		mm	mm	mm	mm	mm	kg	
CER1616H16	02454783	16,0	16,0	100,0	16,0	22,0	0,2	16
CER2020K16HD	02475454	20,0	20,0	125,0	20,0	32,0	0,5	16
CER2525M16HD	02457882	25,0	25,0	150,0	25,0	32,0	0,8	16
CER4040R16HD	02853574	40,0	40,0	200,0	40,0	37,0	2,5	16
CEL1616H16	02454781	16,0	16,0	100,0	16,0	22,0	0,2	16
CEL2020K16HD	02475482	20,0	20,0	125,0	20,0	32,0	0,4	16
CEL2525M16HD	02457885	25,0	25,0	150,0	25,0	32,0	0,8	16
CER2525M22HD	02457888	25,0	25,0	150,0	25,0	38,0	0,8	22
CER4040R22HD	02853575	40,0	40,0	200,0	40,0	42,0	2,5	22
CEL2525M22HD	02457890	25,0	25,0	150,0	25,0	38,0	0,8	22
CER4040R27HD	02853576	40,0	40,0	200,0	40,0	48,0	2,5	27

Spare Parts, included in delivery

For holders	Cantilever clamp	Clamp key	Clamp kit	Clamp screw	Insert shim (S)	Shim screw	Spring
							
...16	–	T15P-2	CSP16-T15P	–	GX16-1	CS3507-T09P	–
...16HD	CHD16	T15P-7	–	L85020-T15P	GX16-1	CS3507-T09P	S6912
...22HD	CHD22	T20P-7L	–	L86025-T20P	NX22-1	CS4009-T15P	S7616
...27HD	CHD27	T20P-7L	–	L86025-T20P	VX27-1	C05012-T15P	S7616

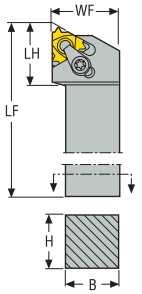
Accessories

For holders	Insert shim (M)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Shim key
													
...16	MX16-1	GX16-0	–	–	GX16-2	GX16-3	GX16-4	GX16-98	GX16-99	–	–	–	T09P-2
...16HD	MX16-1	GX16-0	–	–	GX16-2	GX16-3	GX16-4	GX16-98	GX16-99	–	–	–	T09P-2
...22HD	MX22-1	NX22-97.5	NX22-98	NX22-99	NX22-98.5	NX22-99.5	NX22-0.5	NX22-1.5	NX22-0	NX22-2	NX22-3	NX22-4	T15P-2
...27HD	MX27-1	VX27-98.5	VX27-2	–	VX27-99.5	VX27-0.5	VX27-1.5	VX27-98	VX27-99	VX27-3	VX27-4	VX27-0	T15P-2

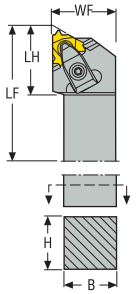
Toolholders, external

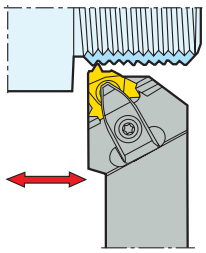
For S-inserts, Snap-Tap®

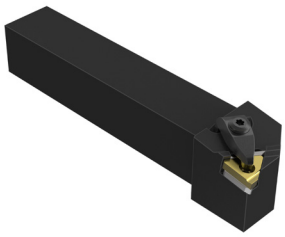
CER/L..Q



CER/L..QHD



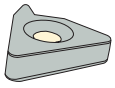




- Right-hand version shown
- For inserts program, see page(s) 123, 125, 126, 129, 130, 136, 137, 142, 144, 146, 147, 150, 152, 154, 156, 158, 160, 162, 164, 168

Designation	Item number	H	B	LF	WF	LH	Weight	CTWS
		Inch	*Inch*	*Inch*	*Inch*	*Inch*	lbs	
CER03753-16Q	00072538	0.375	0.375	3.000	0.375	0.900	0.220	16ER...
CER06254-16Q	00072498	0.625	0.625	4.000	0.750	0.900	0.660	16ER...
CEL06254-16Q	00072544	0.625	0.625	4.000	0.750	0.900	0.660	16EL...
CER0504-16Q	00072524	0.500	0.500	4.000	0.625	0.900	0.440	16ER...
CEL0504-16Q	00072466	0.500	0.500	4.000	0.625	0.900	0.440	16ER...
CEL0755-16HD	02483997	0.750	0.750	5.000	1.000	0.900	0.880	16EL...
CER0755-16HD	02483996	0.750	0.750	5.000	1.000	0.900	0.880	16ER...
CER1006-16QHD	02462821	1.000	1.000	6.000	1.250	1.100	1.760	16ER...
CEL1006-16QHD	02462852	1.000	1.000	6.000	1.250	1.100	1.980	16EL...
CER1256-16QHD	02462823	1.250	1.250	6.000	1.500	1.181	2.870	16ER...
CEL1256-16QHD	02462853	1.250	1.250	6.000	1.500	1.100	2.870	16EL...
CER1506-16QHD	02462825	1.500	1.500	6.000	1.750	1.100	3.750	16ER...

Spare Parts, included in delivery

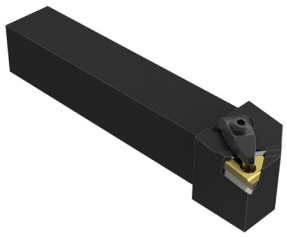
For holders	Cantilever clamp	Clamp key	Clamp kit	Clamp screw	Insert shim (S)	Shim screw	Spring
							
CER/L 3753..0504..	–	T15P-2	CSP16-T15P	–	GX16-1	CS3507-T09P	–
CER 06254..	–	T15P-2	CSP16-T15P	–	GX16-1	CS3507-T09P	–
CEL 06254..	–	T15P-2	CSP16-T15P	–	GX16-1	CS3507-T09P	–
CER/L 0755..1006..	CHD16	T15P-7	–	L85020-T15P	GX16-1	CS3507-T09P	S6912
CER/L 1256..1506..	CHD16	T15P-7	–	L85020-T15P	GX16-1	CS3507-T09P	S6912

Accessories

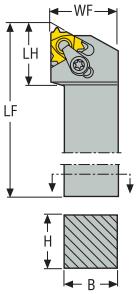
For holders	Insert shim (K)	Insert shim (M)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Shim key
									
CER/L 3753..0504..	–	MX16-1	GX16-0	GX16-2	GX16-3	GX16-4	GX16-98	GX16-99	T09P-2
CER 06254..	GX16-2	MX16-1	GX16-0	–	GX16-3	GX16-4	GX16-98	GX16-99	T09P-2
CEL 06254..	–	MX16-1	GX16-0	GX16-2	GX16-3	GX16-4	GX16-98	GX16-99	T09P-2
CER/L 0755..1006..	–	MX16-1	GX16-0	GX16-2	GX16-3	GX16-4	GX16-98	GX16-99	T09P-2
CER/L 1256..1506..	–	MX16-1	GX16-0	GX16-2	GX16-3	GX16-4	GX16-98	GX16-99	T09P-2

Toolholders, external

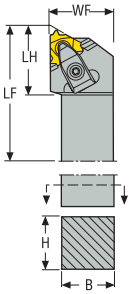
For S-inserts, Snap-Tap®

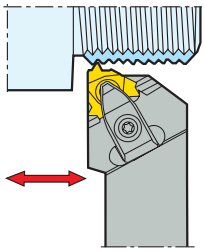


CER/L...Q



CER/L...QHD

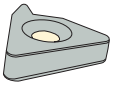




- Right-hand version shown
- For inserts program, see page(s) 123, 125, 126, 129, 130, 136, 137, 142, 144, 146, 147, 150, 152, 154, 156, 158, 160, 162, 164, 168

Designation	Item number	H	B	LF	WF	LH	Weight	CTWS
		mm	mm	mm	mm	mm	kg	
CER1212H16Q	75025274	12,0	12,0	100,0	16,0	22,0	0,2	16
CER1616H16Q	75025276	16,0	16,0	100,0	20,0	22,0	0,3	16
CER2020K16QHD	02475493	20,0	20,0	125,0	25,0	32,0	0,5	16
CER2525M16QHD	00016769	25,0	25,0	150,0	32,0	32,0	0,8	16
CER3225P16QHD	00016771	32,0	25,0	170,0	32,0	32,0	1,1	16
CER3232P16QHD	00016776	32,0	32,0	170,0	40,0	32,0	1,4	16
CEL1212H16Q	75025275	12,0	12,0	100,0	16,0	22,0	0,2	16
CEL1616H16Q	75025277	16,0	16,0	100,0	20,0	22,0	0,3	16
CEL2020K16QHD	02475514	20,0	20,0	125,0	25,0	32,0	0,4	16
CEL2525M16QHD	00016766	25,0	25,0	150,0	32,0	32,0	0,8	16
CEL3225P16QHD	00016770	32,0	25,0	170,0	32,0	32,0	1,1	16
CEL3232P16QHD	00016774	32,0	32,0	170,0	40,0	32,0	1,4	16
CER2525M22QHD	00016781	25,0	25,0	150,0	32,0	38,0	0,8	22
CER3225P22QHD	00016783	32,0	25,0	170,0	32,0	38,0	1,1	22
CER3232P22QHD	00016788	32,0	32,0	170,0	40,0	38,0	1,4	22
CEL2525M22QHD	00016777	25,0	25,0	150,0	32,0	38,0	0,8	22
CEL3225P22QHD	00016782	32,0	25,0	170,0	32,0	38,0	1,1	22
CEL3232P22QHD	00016785	32,0	32,0	170,0	40,0	38,0	1,4	22
CER2525M27QHD	00016800	25,0	25,0	150,0	32,0	46,0	0,9	27
CER3225P27QHD	00016857	32,0	25,0	170,0	32,0	46,0	1,1	27
CER3232P27QHD	00016878	32,0	32,0	170,0	40,0	46,0	1,5	27
CEL2525M27QHD	00016791	25,0	25,0	150,0	32,0	46,0	0,8	27
CEL3225P27QHD	00016830	32,0	25,0	170,0	32,0	46,0	1,2	27
CEL3232P27QHD	00016864	32,0	32,0	170,0	40,0	46,0	1,5	27

Spare Parts, included in delivery

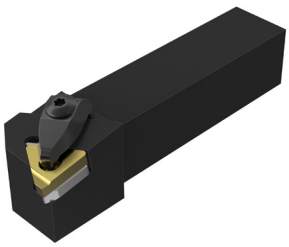
For holders	Cantilever clamp	Clamp key	Clamp kit	Clamp screw	Insert shim (S)	Shim screw	Spring
							
...16Q	–	T15P-2	CSP16-T15P	–	GX16-1	CS3507-T09P	–
...16QHD	CHD16	T15P-7	–	L85020-T15P	GX16-1	CS3507-T09P	S6912
...22QHD	CHD22	T20P-7L	–	L86025-T20P	NX22-1	CS4009-T15P	S7616
...27QHD	CHD27	T20P-7L	–	L86025-T20P	VX27-1	C05012-T15P	S7616

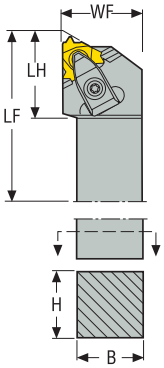
Accessories

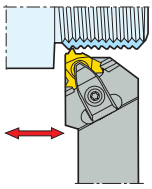
For holders	Insert shim (M)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Shim key
													
...16Q	MX16-1	GX16-0	–	–	GX16-2	GX16-3	GX16-4	GX16-98	GX16-99	–	–	–	T09P-2
...16QHD	MX16-1	GX16-0	–	–	GX16-2	GX16-3	GX16-4	GX16-98	GX16-99	–	–	–	T09P-2
...22QHD	MX22-1	NX22-97.5	NX22-98	NX22-99	NX22-98.5	NX22-99.5	NX22-0.5	NX22-1.5	NX22-0	NX22-2	NX22-3	NX22-4	T15P-2
...27QHD	MX27-1	VX27-98.5	VX27-2	–	VX27-99.5	VX27-0.5	VX27-1.5	VX27-98	VX27-99	VX27-3	VX27-4	VX27-0	T15P-2

Toolholders, external

For S-inserts, Snap-Tap®



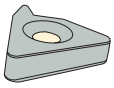




- Right-hand version shown
- For inserts program, see page(s) 123, 125, 126, 129, 130, 136, 137, 142, 144, 146, 147, 150, 152, 154, 156, 158, 160, 162, 164, 168

Designation	Item number	H	B	LF	WF	LH	Weight	CTWS
		Inch	*Inch*	*Inch*	*Inch*	*Inch*	lbs	
CER1005-22QHD	02462826	1.000	1.000	5.000	1.250	1.300	1.540	22ER...
CEL1005-22QHD	02462854	1.000	1.000	5.000	1.250	1.300	1.760	22EL...
CER1006-22QHD	02462827	1.000	1.000	6.000	1.250	1.300	1.980	22ER...
CEL1006-22QHD	02462856	1.000	1.000	6.000	1.250	1.300	1.980	22EL...
CER1256-22QHD	02462829	1.250	1.250	6.000	1.500	1.417	2.870	22ER...
CEL1256-22QHD	02462857	1.250	1.250	6.000	1.500	1.300	3.090	22EL...
CER1506-22QHD	02462831	1.500	1.500	6.000	1.750	1.300	3.970	22ER...

Spare Parts, included in delivery

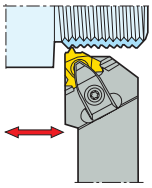
For holders	Cantilever clamp	Clamp key	Clamp screw	Insert shim (S)	Shim screw	Spring
						
CER/L..22..	CHD22	T20P-7L	L86025-T20P	NX22-1	CS4009-T15P	S7616

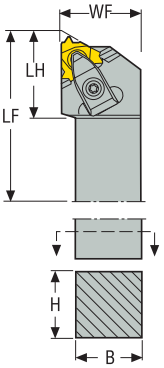
Accessories

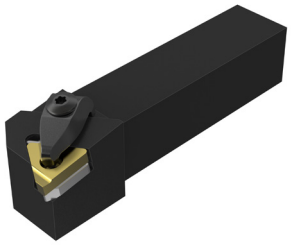
For holders	Insert shim (M)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Shim key
													
CER/L..22..	MX22-1	NX22-97.5	NX22-98	NX22-99	NX22-98.5	NX22-99.5	NX22-0.5	NX22-1.5	NX22-0	NX22-2	NX22-3	NX22-4	T15P-2

Toolholders, external

For S-inserts, Snap-Tap®



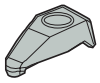
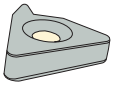




- Right-hand version shown
- For inserts program, see page(s) 123, 125, 126, 129, 130, 136, 137, 142, 144, 146, 147, 150, 152, 154, 156, 158, 160, 162, 164, 168

Designation	Item number	H	B	LF	WF	LH	Weight	CTWS
		Inch	*Inch*	*Inch*	*Inch*	*Inch*	lbs	
CER1006-27QHD	02462835	1.000	1.000	6.000	1.250	1.600	2.200	27ER...
CEL1006-27QHD	02462859	1.000	1.000	6.000	1.250	2.000	2.200	27EL...
CER1256-27QHD	02462837	1.250	1.250	6.000	1.500	1.732	2.870	27ER...
CEL1256-27QHD	02462861	1.250	1.250	6.000	1.500	1.600	2.870	27EL...
CER1506-27QHD	02462839	1.500	1.500	6.000	1.750	1.600	3.970	27ER...
CEL1506-27QHD	02462863	1.500	1.500	6.000	1.750	1.600	4.190	27EL...

Spare Parts, included in delivery

For holders	Cantilever clamp	Clamp key	Clamp screw	Insert shim (S)	Shim screw	Spring
						
CER 1006-27	CHD27	T20P-7L	L86025-T20P	VX27-1	C05012-T15P	S7616
CEL 1006-27..	CHD27	T20P-7L	L86025-T20P	VX27-1	C05012-T15P	S7616
CER/L 1256-27	CHD27	T20P-7L	L86025-T20P	VX27-1	C05012-T15P	S7616
CER 1506-27..	CHD27	T20P-7L	L86025-T20P	VX27-1	C05012-T15P	S7616
CEL 1506-27	CHD27	T20P-7L	L86025-T20P	VX27-1	C05012-T15P	S7616

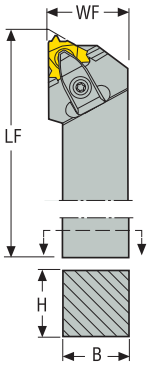
Accessories

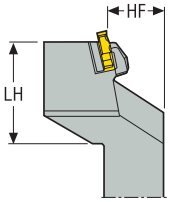
For holders	Insert shim (M)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Shim key
												
CER 1006-27	MX27-1	VX27-98.5	VX27-2	VX27-99.5	VX27-0.5	VX27-1.5	VX27-98	VX27-99	VX27-3	VX27-4	VX27-0	T15P-2
CEL 1006-27..	MX27-1	VX27-98.5	–	VX27-0.5	VX27-1.5	VX27-98	VX27-99	VX27-3	VX27-4	VX27-0	VX27-2	T15P-2
CER/L 1256-27	MX27-1	VX27-98.5	VX27-2	VX27-99.5	VX27-0.5	VX27-1.5	VX27-98	VX27-99	VX27-3	VX27-4	VX27-0	T15P-2
CER 1506-27..	MX27-1	VX27-99.5	VX27-2	–	VX27-0.5	VX27-1.5	VX27-98	VX27-99	VX27-3	VX27-4	VX27-0	T15P-2
CEL 1506-27	MX27-1	VX27-98.5	VX27-2	VX27-99.5	VX27-0.5	VX27-1.5	VX27-98	VX27-99	VX27-3	VX27-4	VX27-0	T15P-2

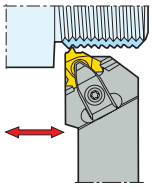
Toolholders, external

For S-inserts, Snap-Tap®





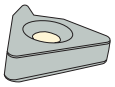




- Right-hand version shown
- For inserts program, see page(s) 123, 125, 126, 129, 130, 136, 137, 146, 147, 152, 154, 156, 158, 160, 162, 164, 166, 168, 170, 172, 174

Designation	Item number	H	B	LF	HF	WF	LH	Weight	CTWS
		mm	mm	mm	mm	mm	mm	kg	
CER2525M16CQHD	02457892	25,0	25,0	150,0	25,0	32,0	45,0	0,9	16
CER3232P16CQHD	02457893	32,0	32,0	170,0	32,0	40,0	45,0	1,6	16
CER2525M22CQHD	02457895	25,0	25,0	150,0	25,0	32,0	50,0	0,9	22
CER3232P22CQHD	02457897	32,0	32,0	170,0	32,0	40,0	50,0	1,6	22

Spare Parts, included in delivery

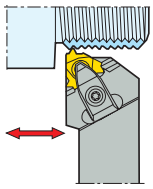
For holders	Cantilever clamp	Clamp key	Clamp screw	Insert shim (S)	Shim screw	Spring
						
..16CQHD	CHD16	T15P-7	L85020-T15P	GX16-1	CS3507-T09P	S6912
..22CQHD	CHD22	T20P-7L	L86025-T20P	NX22-1	CS4009-T15P	S7616

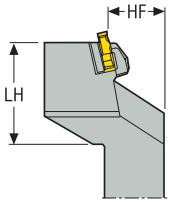
Accessories

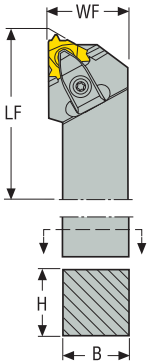
For holders	Insert shim (M)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Shim key
								
..16CQHD	MX16-1	GX16-0	GX16-2	GX16-3	GX16-4	GX16-98	GX16-99	T09P-2
..22CQHD	MX22-1	NX22-0	NX22-2	NX22-3	NX22-4	NX22-98	NX22-99	T15P-2

Toolholders, external

For S-inserts, Snap-Tap®









- Right-hand version shown
- For inserts program, see page(s) 123, 125, 126, 129, 130, 136, 137, 146, 147, 152, 154, 156, 158, 160, 162, 164, 166, 168, 170, 172, 174

Designation	Item number	H	B	LF	WF	LH	HF	Weight	CTWS
		Inch	*Inch*	*Inch*	*Inch*	*Inch*	*Inch*	lbs	
CER1006-16CQHD	02467118	1.000	1.000	6.000	1.250	2.000	1.000	1.980	16ER..
CEL1006-16CQHD	02462864	1.000	1.000	6.000	1.250	2.000	1.000	1.980	16EL..
CER1256-16CQHD	02462840	1.250	1.250	6.000	1.250	2.500	1.250	2.650	16ER..
CER1006-22CQHD	02462842	1.000	1.000	6.000	1.250	2.000	1.000	2.200	22ER..
CER1006-27CQHD	02462847	1.000	1.000	6.000	1.250	2.000	1.000	1.980	27ER..

Spare Parts, included in delivery

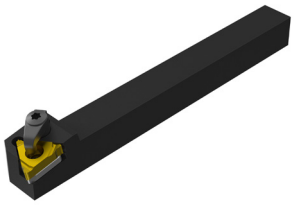
For holders	Cantilever clamp	Clamp key	Clamp screw	Insert shim (S)	Screw	Shim screw	Spring
CER 1006-16..	CHD16	T15P-7	L85020-T15P	GX16-1	–	CS3507-T09P	S6912
CEL 1006-16..	CHD16	T15P-7	L85020-T15P	GX16-1	–	CS3507-T09P	S6912
CER 1256-16..	CHD16	T15P-7	L85020-T15P	GX16-1	–	CS3507-T09P	S6912
..22CQHD	CHD22	T20P-7L	L86025-T20P	NX22-1	S7616	CS4009-T15P	–
..27CQHD	CHD27	T20P-7L	L86025-T20P	VX27-1	–	C05012-T15P	S7616

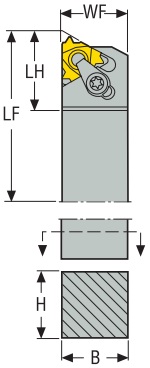
Accessories

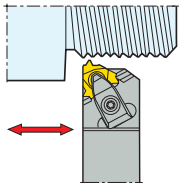
For holders	Insert shim (M)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Shim key
CER 1006-16..	MX16-1	GX16-99	–	–	–	–	–	–	–	–	–	–	–	T09P-2
CEL 1006-16..	MX16-1	–	GX16-0	–	–	GX16-2	GX16-3	GX16-4	GX16-98	GX16-99	–	–	–	T09P-2
CER 1256-16..	MX16-1	–	GX16-0	–	–	GX16-2	GX16-3	GX16-4	GX16-98	GX16-99	–	–	–	T09P-2
..22CQHD	MX22-1	–	NX22-97.5	NX22-98	NX22-99	NX22-98.5	NX22-99.5	NX22-0.5	NX22-1.5	NX22-0	NX22-2	NX22-3	NX22-4	T15P-2
..27CQHD	MX27-1	–	VX27-98.5	VX27-2	–	VX27-99.5	VX27-0.5	VX27-1.5	VX27-98	VX27-99	VX27-3	VX27-4	VX27-0	T15P-2

Toolholders, external

For S-inserts, Snap-Tap®



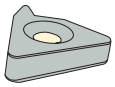




- Right-hand version shown
- For inserts program, see page(s) 123, 125, 126, 129, 130, 136, 137, 142, 144, 146, 147, 150, 152, 154, 156, 158, 160, 162, 164, 168

Designation	Item number	H	B	LF	WF	LH	Weight	CTWS
		Inch	*Inch*	*Inch*	*Inch*	*Inch*	lbs	
CER0505-16Q-S	02508066	0.500	0.500	5.000	0.630	0.840	0.440	16ER..
CER06255-16Q-S	02508068	0.625	0.625	5.000	0.750	0.840	0.880	16ER..

Spare Parts, included in delivery

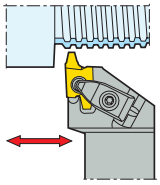
For holders	Clamp key	Clamp kit	Insert shim (S)	Shim screw
				
..16Q-S	T15P-2	CSP16-T15P	GX16-1	CS3507-T09P

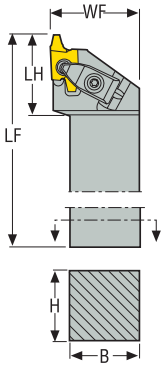
Accessories

For holders	Insert shim (M)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Shim key
								
..16Q-S	MX16-1	GX16-0	GX16-2	GX16-3	GX16-4	GX16-98	GX16-99	T09P-2

Toolholders, external

For K-inserts, Snap-Tap®



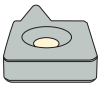




- Right-hand version shown
- For inserts program, see page(s) 158, 160, 162

Designation	Item number	H	B	LF	WF	LH	Weight	CTWS
		mm	mm	mm	mm	mm	kg	
CER2525M20QHD	02528502	25,0	25,0	150,0	32,0	34,0	0,8	20
CER3225P20QHD	02528504	32,0	25,0	170,0	32,0	34,0	1,1	20
CER3232P20QHD	02528507	32,0	32,0	170,0	40,0	34,0	1,4	20
CER4040R20HD	02853577	40,0	40,0	200,0	42,0	35,0	2,6	20
CEL2525M20QHD	02528503	25,0	25,0	150,0	32,0	34,0	0,8	20
CEL3225P20QHD	02528505	32,0	25,0	170,0	32,0	34,0	1,1	20
CEL3232P20QHD	02528508	32,0	32,0	170,0	40,0	34,0	1,4	20
CER2525M26QHD	02528509	25,0	25,0	150,0	40,0	44,0	0,9	26
CER3225P26QHD	02528512	32,0	25,0	170,0	40,0	44,0	1,2	26
CER3232P26QHD	02528516	32,0	32,0	170,0	40,0	44,0	1,4	26
CER4040R26HD	02853578	40,0	40,0	200,0	42,0	45,0	2,5	26
CEL2525M26QHD	02528511	25,0	25,0	150,0	40,0	44,0	0,9	26
CEL3225P26QHD	02528513	32,0	25,0	170,0	40,0	44,0	1,2	26
CEL3232P26QHD	02528517	32,0	32,0	170,0	40,0	44,0	1,4	26

Spare Parts, included in delivery

For holders	Cantilever clamp	Clamp key	Clamp screw	Insert shim (K)	Shim screw	Spring
						
..20	CHD22	T20P-7	L86025-T20P	KX20-2	CS4009-T15P	S7616
...20	CHD22	T20P-7	L86025-T20P	KX20-2	CS4009-T15P	S7616
..26	CHD27	T20P-7	L86025-T20P	KX26-2	C05012-T15P	S7616
...26	CHD27	T20P-7	L86025-T20P	KX26-2	C05012-T15P	S7616

Accessories

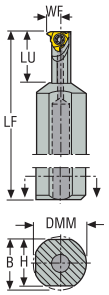
For holders	Insert shim (K)	Insert shim (K)	Insert shim (K)	Insert shim (K)	Insert shim (K)	Insert shim (K)	Shim key
							
..20	KX20-99	KX20-0	KX20-1	KX20-3	KX20-4	KX20-5	T15P-2
...20	KX20-99	KX20-0	KX20-1	KX20-3	KX20-4	KX20-5	T15P-2
..26	KX26-99	KX26-0	KX26-1	KX26-3	KX26-4	KX26-5	T15P-2
...26	KX26-99	KX26-0	KX26-1	KX26-3	KX26-4	KX26-5	T15P-2

Toolholders, internal

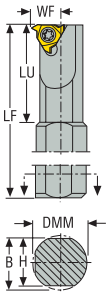
For S-inserts, Snap-Tap®

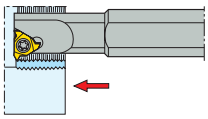


SNR...09A



SNR/L





- Right-hand version shown
- For inserts program, see page(s) 124, 127, 128, 132, 133, 134, 139, 140, 143, 145, 148, 149, 151, 153, 155, 157, 159, 161, 163, 165, 167, 169, 171, 173, 175

Designation	Item number	H	B	LF	WF	LU	DCINN	DCINN2	Weight	CTWS
		mm	mm	mm	mm	mm	mm	mm	kg	
SNR0020L09A	75069222	18,0	19,0	140,0	5,1	20,0	10,2	–	0,3	09
SNR0010H11	75029184	–	9,5	100,0	7,5	–	13,0	11,0	0,1	11
SNR0010K11	75025251	14,0	15,5	125,0	6,5	30,0	12,0	11,0	0,2	11
SNR0013L11	75025249	14,0	15,5	140,0	8,0	32,0	15,0	13,0	0,2	11
SNL0010H11	75025415	–	9,5	100,0	7,5	–	13,0	11,0	0,1	11
SNL0010K11	75025250	14,0	15,5	125,0	6,5	30,0	12,0	11,0	0,2	11
SNL0013L11	75025248	14,0	15,5	140,0	8,0	32,0	15,0	13,0	0,2	11
SNR0016M16	75025244	14,0	15,5	150,0	10,3	40,0	19,0	16,0	0,3	16
SNL0016M16	75025243	14,0	15,5	150,0	10,3	40,0	19,0	16,0	0,3	16
SNR0020Q22	75025414	18,0	19,0	180,0	13,0	45,0	24,0	22,0	0,4	22
SNL0020Q22	75025416	18,0	19,0	180,0	13,0	45,0	24,0	22,0	0,4	22

Spare Parts, included in delivery

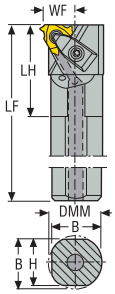
For holders	Insert key	Insert screw
		
...09A	T07P-2	C02205-T07P
...11	T07P-2	C02506-T07P
...16	T15P-2	C03508-T15P
...22	T15P-2	C04011-T15P

DCINN2, modified. Please see page 34, 36

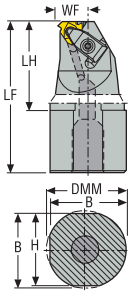
Toolholders, internal

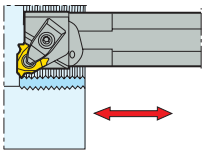
For S-inserts, Snap-Tap®

CNR/L...AHD



CNR/L...APIHD



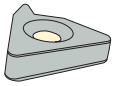




- Right-hand version shown
- For inserts program, see page(s) 124, 127, 128, 132, 133, 134, 139, 140, 143, 145, 148, 149, 151, 153, 155, 157, 159, 161, 163, 165, 167, 169, 171, 173, 175

Designation	Item number	H	B	LF	WF	LH	DMM	DCINN	DCINN2	Weight	CTWS
		mm	mm	mm	mm	mm	mm	mm	mm	kg	
CNR0020P16AHD	02555888	18,0	19,0	170,0	13,8	41,0	20,0	24,0	–	0,4	16..
CNR0025R16AHD	02555891	23,0	24,0	200,0	16,3	40,0	25,0	29,0	26,0	0,6	16..
CNR0032S16AHD	02555895	30,0	31,0	250,0	19,8	47,0	32,0	36,0	32,0	1,4	16..
CNR0040T16AHD	02555900	37,0	38,5	300,0	23,8	47,0	40,0	44,0	40,0	2,6	16..
CNR0050U16AHD	02555906	47,0	48,5	350,0	28,8	45,0	50,0	54,0	50,0	4,9	16..
CNL0020P16AHD	02555907	18,0	19,0	171,0	11,78	41,0	20,0	24,0	–	0,4	16..
CNL0025R16AHD	02555908	23,0	24,0	171,0	11,78	40,0	25,0	29,0	26,0	0,6	16..
CNL0032S16AHD	02555909	30,0	31,0	250,0	19,8	47,0	32,0	36,0	32,0	1,4	16..
CNL0040T16AHD	02555910	37,0	38,5	300,0	23,8	47,0	40,0	44,0	40,0	2,6	16..
CNR0025R22AHD	02555913	23,0	24,0	200,0	17,8	45,0	25,0	30,0	–	0,6	22..
CNR0032S22AHD	02555919	30,0	31,0	250,0	21,3	46,0	32,0	38,0	32,0	1,4	22..
CNR0040T22AHD	02556097	37,0	38,5	300,0	25,3	53,0	40,0	46,0	40,0	2,6	22..
CNR0050U22AHD	02556101	47,0	48,5	350,0	30,3	51,0	50,0	56,0	50,0	4,8	22..
CNR0063V22AHD	02556102	60,0	61,5	400,0	36,8	56,0	63,0	69,0	63,0	9,1	22..
CNL0025R22AHD	02556104	23,0	24,0	200,0	17,8	45,0	25,0	30,0	–	0,6	22..
CNL0032S22AHD	02556106	30,0	31,0	250,0	21,3	46,0	32,0	38,0	32,0	1,4	22..
CNL0040T22AHD	02556107	37,0	38,5	300,0	25,3	53,0	40,0	46,0	40,0	2,6	22..
CNL0050U22AHD	02556108	47,0	48,5	350,0	30,3	51,0	50,0	56,0	50,0	4,8	22..
CNR0050T22APIHD	02556244	47,0	48,5	300,0	20,5	114,0	50,0	49,0	–	3,7	22..
CNR0063T22APIHD	02817098	60,0	61,5	300,0	22,6	119,0	63,0	50,5	–	5,4	22..
CNL0063T22APIHD	02817100	60,0	61,5	300,0	22,6	119,0	63,0	50,5	–	5,4	22..
CNR0040T27AHD	02556109	37,0	38,5	300,0	26,8	62,0	40,0	48,0	44,0	2,5	27..
CNR0050U27AHD	02556110	47,0	48,5	350,0	31,8	61,0	50,0	58,0	50,0	4,8	27..
CNR0063V27AHD	02556120	60,0	61,5	400,0	38,3	70,0	63,0	70,0	63,0	9,0	27..
CNL0040T27AHD	02556122	37,0	38,5	300,0	26,8	62,0	40,0	48,0	44,0	2,5	27..
CNL0050U27AHD	02556130	47,0	48,5	350,0	31,8	61,0	50,0	58,0	50,0	4,8	27..
CNR0063T27APIHD	02817102	60,0	61,5	300,0	23,1	119,0	63,0	50,5	–	5,6	27..
CNL0063T27APIHD	02817105	60,0	61,5	300,0	23,1	119,0	63,0	50,5	–	5,4	27..

Spare Parts, included in delivery

For holders	Cantilever clamp	Clamp key	Clamp kit	Clamp screw	Insert shim (S)	Shim screw	Spring
							
..P, ..R16AHD	–	T15P-2	CSP16HD-T15P	–	GX16-1	CS3507-T09P	–
..S, ..T, ..U16AHD	CHD16	T15P-2	–	L85020-T15P	GX16-1	CS3507-T09P	S6912
...R22, ...S22	–	T15P-2	CSP22HD-T15P	–	NX22-1	CS4009-T15P	–
...T22, ...U22, ...V22	CHD22	T20P-7L	–	L86025-T20P	NX22-1	CS4009-T15P	S7616
..27..	CHD27	T20P-7L	–	L86025-T20P	VX27-1	C05012-T15P	S7616

Accessories

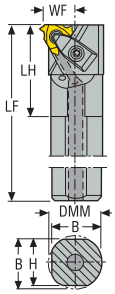
For holders	Insert shim (M)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Shim key
													
..P, ..R16AHD	MX16-1	GX16-0	–	–	GX16-2	GX16-3	GX16-4	GX16-98	GX16-99	–	–	–	T09P-2
..S, ..T, ..U16AHD	MX16-1	GX16-0	–	–	GX16-2	GX16-3	GX16-4	GX16-98	GX16-99	–	–	–	T09P-2
...R22, ...S22	MX22-1	NX22-97.5	NX22-98	NX22-99	NX22-98.5	NX22-99.5	NX22-0.5	NX22-1.5	NX22-0	NX22-2	NX22-3	NX22-4	–
...T22, ...U22, ...V22	MX22-1	NX22-97.5	NX22-98	NX22-99	NX22-98.5	NX22-99.5	NX22-0.5	NX22-1.5	NX22-0	NX22-2	NX22-3	NX22-4	T15P-2
..27..	MX27-1	VX27-98.5	VX27-2	–	VX27-99.5	VX27-0.5	VX27-1.5	VX27-98	VX27-99	VX27-3	VX27-4	VX27-0	T15P-2

DCINN2, modified. Please see page 34, 36

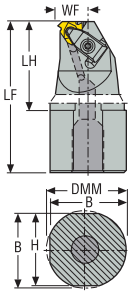
Toolholders, internal

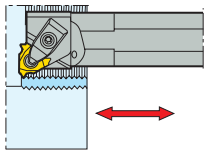
For S-inserts, Snap-Tap®

CNR/L...AHD



CNR/L...APIHD



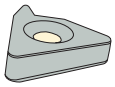




- Right-hand version shown
- For inserts program, see page(s) 124, 127, 128, 132, 133, 134, 139, 140, 143, 145, 148, 149, 151, 153, 155, 157, 159, 161, 163, 165, 167, 169, 171, 173, 175

Designation	Item number	DMM	H	B	LF	WF	LH	DCINN	DCINN2	Weight	CTWS
		Inch	*Inch*	*Inch*	*Inch*	*Inch*	*Inch*	*Inch*	*Inch*	lbs	
CNR000757-16AHD	02562574	0.750	0.650	0.707	6.693	0.520	1.181	0.950	0.800	0.660	16..
CNL000757-16AHD	02562790	0.750	0.650	0.707	6.693	0.520	1.181	0.950	0.800	0.880	16..
CNR001008-16AHD	02562785	1.000	0.902	0.957	7.874	0.650	2.126	1.150	1.000	1.540	16..
CNL001008-16AHD	02562791	1.000	0.902	0.957	7.874	0.650	2.126	1.150	1.000	1.540	16..
CNR0012510-16AHD	02562786	1.250	1.150	1.209	9.843	0.780	1.811	1.400	1.200	2.870	16..
CNL0012510-16AHD	02562792	1.250	1.150	1.209	9.843	0.780	1.811	1.400	1.200	2.870	16..
CNR0015012-16AHD	02562787	1.500	1.339	1.427	11.811	0.898	1.811	1.700	1.500	5.070	16..
CNL0015012-16AHD	02562793	1.500	1.339	1.427	11.811	0.898	1.811	1.700	1.500	5.070	16..
CNR0017514-16AHD	02562788	1.750	1.591	1.677	13.780	1.028	2.165	2.000	1.800	8.160	16..
CNL0017514-16AHD	02562794	1.750	1.591	1.677	13.780	1.028	2.165	2.000	1.800	7.940	16..
CNR0020014-16AHD	02562789	2.000	1.843	1.929	13.780	1.150	2.244	2.200	2.000	10.800	16..
CNL0020014-16AHD	02562795	2.000	1.843	1.929	13.780	1.150	2.244	2.200	2.000	10.800	16..

Spare Parts, included in delivery

For holders	Cantilever clamp	Clamp key	Clamp kit	Clamp screw	Insert shim (S)	Shim screw	Spring
							
CNR/L..0757..1008..	–	T15P-2	CSP16HD-T15P	–	GX16-1	CS3507-T09P	–
CNR..2510..	CHD16	T15P-7	–	L85020-T15P	GX16-1	CS3507-T09P	S6912
CNL..2510..	CHD16	T15P-2	–	L85020-T15P	GX16-1	CS3507-T09P	S6912
CNR..5012..	CHD16	T15P-2	–	L85020-T15P	GX16-1	CS3507-T09P	S6912
CNL..5012..	CHD16	T15P-2	–	L85020-T15P	GX16-1	CS3507-T09P	S6912
CNR..7514..	CHD16	–	–	L85020-T15P	GX16-1	CS3507-T09P	S6912
CNL..7514..	CHD16	T15P-2	–	L85020-T15P	GX16-1	CS3507-T09P	S6912
CNR/L..0014..	CHD16	T15P-2	–	L85020-T15P	GX16-1	CS3507-T09P	S6912

Accessories

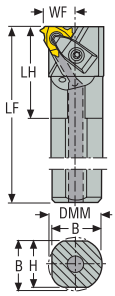
For holders	Insert shim (M)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Shim key
								
CNR/L..0757..1008..	MX16-1	GX16-0	GX16-2	GX16-3	GX16-4	GX16-98	GX16-99	T09P-2
CNR..2510..	MX16-1	GX16-0	GX16-2	GX16-3	GX16-4	GX16-98	GX16-99	T09P-2
CNL..2510..	MX16-1	GX16-0	GX16-2	GX16-3	GX16-4	GX16-98	GX16-99	T09P-2
CNR..5012..	MX16-1	GX16-0	GX16-2	GX16-3	GX16-4	GX16-98	GX16-99	T09P-2
CNL..5012..	MX16-1	GX16-0	GX16-2	GX16-4	GX16-98	GX16-99	–	T09P-2
CNR..7514..	MX16-1	GX16-0	GX16-2	GX16-3	GX16-4	GX16-98	GX16-99	T09P-2
CNL..7514..	MX16-1	GX16-0	GX16-2	GX16-3	GX16-4	GX16-98	GX16-99	T09P-2
CNR/L..0014..	MX16-1	GX16-0	GX16-2	GX16-3	GX16-4	GX16-98	GX16-99	T09P-2

DCINN2, modified. Please see page 34, 36

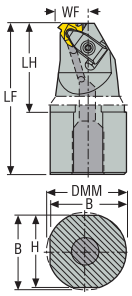
Toolholders, internal

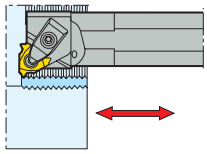
For S-inserts, Snap-Tap®

CNR/L...AHD



CNR/L...APIHD







- Right-hand version shown
- For inserts program, see page(s) 124, 127, 128, 132, 133, 134, 139, 140, 143, 145, 148, 149, 151, 153, 155, 157, 159, 161, 163, 165, 167, 169, 171, 173, 175

Designation	Item number	DMM	H	B	LF	WF	LH	DCINN	DCINN2	Weight	CTWS
		Inch	*Inch*	*Inch*	*Inch*	*Inch*	*Inch*	*Inch*	*Inch*	lbs	
CNR001008-22AHD	02562797	1.000	0.902	0.957	7.917	0.709	1.736	1.200	1.000	1.540	22..
CNL001008-22AHD	02562803	1.000	0.902	0.957	7.917	0.709	1.736	1.200	1.000	1.540	22..
CNR0012510-22AHD	02562798	1.250	1.150	1.209	9.843	0.839	2.126	1.500	1.200	2.870	22..
CNL0012510-22AHD	02562804	1.250	1.150	1.209	9.843	0.839	2.126	1.500	1.200	2.870	22..
CNR0015012-22AHD	02562799	1.500	1.339	1.427	11.811	0.969	2.126	1.800	1.800	5.070	22..
CNL0015012-22AHD	02562805	1.500	1.339	1.427	11.811	1.183	2.126	1.800	1.800	5.290	22..
CNR0017514-22AHD	02562800	1.750	1.591	1.677	13.780	1.091	2.126	2.100	1.800	8.160	22..
CNL0017514-22AHD	02562806	1.750	1.591	1.677	13.780	1.091	2.126	2.100	1.800	8.160	22..
CNR0020014-22AHD	02562801	2.000	1.843	1.929	13.780	1.209	2.323	2.300	2.000	11.020	22..
CNL0020014-22AHD	02562807	2.000	1.843	1.929	13.780	1.209	2.323	2.300	2.000	10.580	22..
CNR0025016-22AHD	02562802	2.500	2.343	2.429	15.748	1.457	2.402	2.800	2.500	20.280	22..
CNL0025016-22AHD	02562808	2.500	2.343	2.429	15.748	1.457	2.402	2.800	2.500	19.840	22..
CNR00200T22APIHD	02562815	2.000	1.843	1.929	12.000	0.880	5.000	1.600	–	8.380	22..
CNR00250T22APIHD	02562816	2.500	2.343	2.429	12.000	0.880	5.000	1.600	–	11.900	22..

Spare Parts, included in delivery

For holders	Cantilever clamp	Clamp key	Clamp kit	Clamp screw	Insert shim (S)	Shim/clamp key	Shim screw	Spring
CNR..1008..2510..	–	–	CSP22HD-T15P	–	NX22-1	T15P-2	CS4009-T15P	–
CNL..1008..2510..	–	T15P-2	CSP22HD-T15P	–	NX22-1	–	CS4009-T15P	–
CNR/L..5012..5016..	CHD22	T20P-7L	–	L86025-T20P	NX22-1	–	CS4009-T15P	S7616
CNR..200..250T..	CHD22	T20P-7L	–	L86025-T20P	NX22-1	–	CS4009-T15P	S7616

Accessories

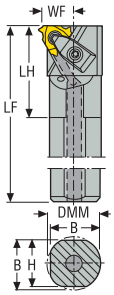
For holders	Insert shim (M)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Shim key
CNR..1008..2510..	MX22-1	NX22-97.5	NX22-98	NX22-99	NX22-98.5	NX22-99.5	NX22-0.5	NX22-1.5	NX22-0	NX22-2	NX22-3	NX22-4	–
CNL..1008..2510..	MX22-1	NX22-97.5	NX22-98	NX22-99	NX22-98.5	NX22-99.5	NX22-0.5	NX22-1.5	NX22-0	NX22-2	NX22-3	NX22-4	–
CNR/L..5012..5016..	MX22-1	NX22-97.5	NX22-98	NX22-99	NX22-98.5	NX22-99.5	NX22-0.5	NX22-1.5	NX22-0	NX22-2	NX22-3	NX22-4	T15P-2
CNR..200..250T..	MX22-1	NX22-97.5	NX22-98	NX22-99	NX22-98.5	NX22-99.5	NX22-0.5	NX22-1.5	NX22-0	NX22-2	NX22-3	NX22-4	T15P-2

Toolholders, internal

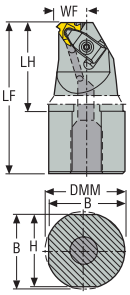
For S-inserts, Snap-Tap®

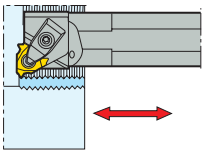


CNR/L...AHD



CNR/L...APIHD

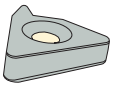




- Right-hand version shown
- For inserts program, see page(s) 124, 127, 128, 132, 133, 134, 139, 140, 143, 145, 148, 149, 151, 153, 155, 157, 159, 161, 163, 165, 167, 169, 171, 173, 175

Designation	Item number	DMM	H	B	LF	WF	LH	DCINN	DCINN2	Weight	CTWS
		Inch	*Inch*	*Inch*	*Inch*	*Inch*	*Inch*	*Inch*	*Inch*	lbs	
CNR0015012-27AHD	02562809	1.500	1.339	1.427	11.811	1.020	2.441	1.900	1.500	4.850	27..
CNL0015012-27AHD	02562812	1.500	1.339	1.427	11.811	1.020	2.441	1.900	1.500	4.850	27..
CNR0017514-27AHD	02562810	1.750	1.591	1.677	13.780	1.150	2.402	2.200	1.800	8.160	27..
CNL0017514-27AHD	02562813	1.750	1.591	1.677	13.780	1.150	2.402	2.200	1.800	8.380	27..
CNR0020014-27HD	02790281	2.000	1.843	1.929	13.780	1.346	2.283	2.362	2.000	11.460	27..
CNR0025016-27AHD	02562811	2.500	2.343	2.429	15.748	1.520	2.756	2.900	2.500	19.620	27..
CNL0025016-27AHD	02562814	2.500	2.343	2.429	15.748	1.520	2.756	2.900	2.500	20.280	27..
CNR00200T27APIHD	02562819	2.000	1.843	1.929	12.000	0.900	5.000	1.600	1.600	8.380	27...
CNR00250T27APIHD	02562820	2.500	2.343	2.429	12.000	0.900	5.000	1.600	1.600	11.900	27...

Spare Parts, included in delivery

For holders	Cantilever clamp	Clamp key	Clamp screw	Insert shim (S)	Shim screw	Spring
						
CNR/L..15012-25016..	CHD27	T20P-7L	L86025-T20P	VX27-1	C05012-T15P	S7616
CNR..200..250T..	CHD27	T20P-7	L86025-T20P	VX27-1	C05012-T15P	S7616

Accessories

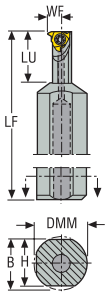
For holders	Insert shim (M)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Shim key
												
CNR/L..15012-25016..	MX27-1	VX27-98.5	VX27-2	VX27-99.5	VX27-0.5	VX27-1.5	VX27-98	VX27-99	VX27-3	VX27-4	VX27-0	T15P-2
CNR..200..250T..	MX27-1	VX27-98.5	VX27-2	VX27-99.5	VX27-0.5	VX27-1.5	VX27-98	VX27-99	VX27-3	VX27-4	VX27-0	T15P-2

DCINN2, modified. Please see page 34, 36

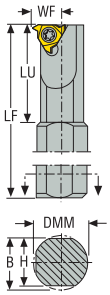
Toolholders, internal

For S-inserts, Snap-Tap®

SNR...09A



SNR/L





- Right-hand version shown
- For inserts program, see page(s) 124, 127, 128, 132, 133, 134, 139, 140, 143, 145, 148, 149, 151, 153, 155, 157, 159, 161, 163, 165, 167, 169, 171, 173, 175

Designation	Item number	DMM	H	B	LF	WF	LU	Weight	CTWS
		Inch	*Inch*	*Inch*	*Inch*	*Inch*	*Inch*	lbs	
SNR000750-55-09A	00086856	0.750	0.691	0.707	5.500	0.201	–	0.660	09NR..
SNR000375-40-11	00072380	0.375	0.336	0.350	4.000	0.285	–	0.220	11NR..
SNL00037540-11	00072403	0.375	0.336	0.350	4.000	0.285	–	0.220	11NL..
SNR00062555-11	00072332	0.625	0.441	0.470	5.500	0.315	1.250	0.660	11NR..
SNL00062555-11	00072405	0.625	0.441	0.470	5.500	0.315	–	0.440	11NL..
SNR000375-60-11H	00072376	0.375	0.336	0.350	6.000	0.285	–	0.440	11NR..
SNR000625-60-16	00072374	0.625	0.566	0.587	6.000	0.406	–	0.660	16NR..
SNL00062560-16	00072407	0.625	0.566	0.587	6.000	0.406	–	0.660	16NL..
SNR000625-80-16H	00072330	0.625	0.566	0.587	8.000	0.406	–	1.540	16NR..
SNR00075-70-22	00072314	0.750	0.691	0.707	7.000	0.492	–	0.660	22NR..
SNL0007570-22	00072411	0.750	0.691	0.707	7.000	0.492	–	0.880	22NL..
SNR000750-10-22H	00072370	0.750	0.691	0.707	10.000	0.492	–	2.650	22NR..

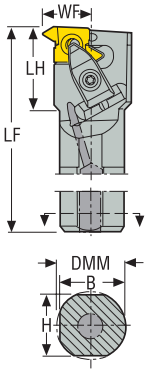
Spare Parts, included in delivery

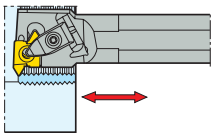
For holders	Insert key	Insert screw
		
..09	T07P-2	C02205-T07P
..11	T07P-2	C02506-T07P
..16	T15P-2	C03508-T15P
..22	T15P-2	C04011-T15P

Toolholders, internal

For K-inserts, Snap-Tap®



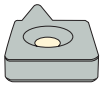




- Right-hand version shown
- For inserts program, see page(s) 124, 127, 128, 159, 161, 163

Designation	Item number	H	B	LF	WF	LH	DMM	DCINN	DCINN2	Weight	CTWS
		mm	mm	mm	mm	mm	mm	mm	mm	kg	
CNR0025R20AHD	02556131	23,0	24,0	200,0	20,5	50,0	25,0	38,0	–	0,7	20
CNR0032S20AHD	02556132	30,0	31,0	250,0	24,0	50,0	32,0	44,0	38,0	1,4	20
CNR0040T20AHD	02556133	37,0	38,5	300,0	28,0	50,0	40,0	51,0	40,0	2,6	20
CNL0025R20AHD	02556134	23,0	24,0	200,0	20,5	50,0	25,0	38,0	–	0,7	20
CNL0032S20AHD	02556135	30,0	31,0	250,0	24,0	50,0	32,0	44,0	38,0	1,4	20
CNR0032S26AHD	02556136	30,0	31,0	250,0	27,0	61,0	32,0	50,0	50,0	1,5	26
CNR0040T26AHD	02556137	37,0	38,5	300,0	31,0	60,0	40,0	55,0	50,0	2,6	26
CNR0050U26AHD	02556138	47,0	48,5	350,0	36,0	62,0	50,0	65,0	–	4,9	26
CNR0063V26AHD	02556139	60,0	61,5	400,0	42,5	64,0	63,0	80,0	63,0	8,9	26
CNL0040T26AHD	02556140	37,0	38,5	300,0	31,0	60,0	40,0	55,0	50,0	2,6	26

Spare Parts, included in delivery

For holders	Cantilever clamp	Clamp key	Clamp screw	Insert shim (K)	Shim screw	Spring
						
..20	CHD22	T20P-7L	L86025-T20P	KX20-2	CS4009-T15P	S7616
..26	CHD27	T20P-7L	L86025-T20P	KX26-2	C05012-T15P	S7616

Accessories

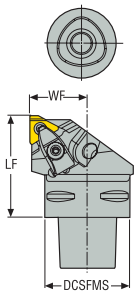
For holders	Insert shim (K)	Insert shim (K)	Insert shim (K)	Insert shim (K)	Insert shim (K)	Insert shim (K)	Shim key
							
..20	KX20-99	KX20-0	KX20-1	KX20-3	KX20-4	KX20-5	T15P-2
..26	KX26-99	KX26-0	KX26-1	KX26-3	KX26-4	KX26-5	T15P-2

DCINN2, modified. Please see page 34, 36

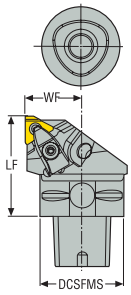
Seco-Capto™ – Toolholders, external

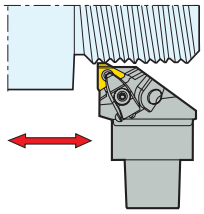
For S-inserts, Snap-Tap®

CER/L-..HD



CER/L-..CHD



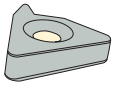




- Right-hand version shown
- For inserts program, see page(s) 123, 125, 126, 129, 130, 136, 137, 142, 144, 146, 147, 150, 152, 154, 156, 158, 160, 162, 164, 166, 168, 170, 172, 174

Designation	Item number	DCSFMS	LF	WF	Weight	CTWS
		mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*	
C4-CER-27050-16HD	02484547	40,0 *1.575*	50,0 *1.063*	27,0 *1.063*	0,5 *1.100*	16..
C4-CEL-27050-16HD	02484655	40,0 *1.575*	50,0 *1.063*	27,0 *1.063*	0,5 *1.100*	16..
C4-CER-27050-22HD	02484649	40,0 *1.575*	50,0 *1.063*	27,0 *1.063*	0,5 *1.100*	22..
C4-CEL-27050-22HD	02484656	40,0 *1.575*	50,0 *1.063*	27,0 *1.063*	0,5 *1.100*	22..
C5-CER-35060-16HD	02484650	50,0 *1.969*	60,0 *1.378*	35,0 *1.378*	0,8 *1.760*	16..
C5-CEL-35060-16HD	02484657	50,0 *1.969*	60,0 *1.378*	35,0 *1.378*	0,8 *1.760*	16..
C5-CER-35060-22HD	02484652	50,0 *1.969*	60,0 *1.378*	35,0 *1.378*	0,9 *1.980*	22..
C5-CEL-35060-22HD	02484658	50,0 *1.969*	60,0 *1.378*	35,0 *1.378*	0,9 *1.980*	22..
C5-CER-35060-27HD	02844418	50,0 *1.969*	60,0 *1.378*	35,0 *1.378*	0,8 *1.760*	27..
C5-CEL-35060-27HD	02844420	50,0 *1.969*	60,0 *1.378*	35,0 *1.378*	0,8 *1.760*	27..
C6-CER-45065-16HD	02484653	63,0 *2.480*	65,0 *1.772*	45,0 *1.772*	1,3 *2.870*	16..
C6-CEL-45065-16HD	02484661	63,0 *2.480*	65,0 *1.772*	45,0 *1.772*	1,3 *2.870*	16..
C6-CER-45065-22HD	02484654	63,0 *2.480*	65,0 *1.772*	45,0 *1.772*	1,3 *2.870*	22..
C6-CEL-45065-22HD	02484663	63,0 *2.480*	65,0 *1.772*	45,0 *1.772*	1,3 *2.870*	22..
C6-CER-45065-27HD	02484848	63,0 *2.480*	65,0 *1.772*	45,0 *1.772*	1,3 *2.870*	27..
C6-CEL-45065-27HD	02484860	63,0 *2.480*	65,0 *1.772*	45,0 *1.772*	1,3 *2.870*	27..

Spare Parts, included in delivery

For holders	Cantilever clamp	Clamp key	Clamp screw	Coolant nozzle	Insert shim (S)	Shim screw	Spring
							
...16HD	CHD16	T15P-7	L85020-T15P	CN16	GX16-1	CS3507-T09P	S6912
...22HD	CHD22	T20P-7L	L86025-T20P	CN16	NX22-1	CS4009-T15P	S7616
...27HD	CHD27	T20P-7L	L86025-T20P	CN16	VX27-1	C05012-T15P	S7616
...45065-27HD	CHD27	T20P-7L	L86025-T20P	CN16	VX27-1	C05012-T15P	S7616

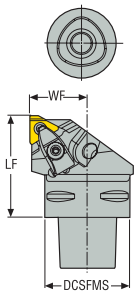
Accessories

For holders	Insert shim (M)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Shim key
													
...16HD	MX16-1	GX16-0	–	–	GX16-2	GX16-3	GX16-4	GX16-98	GX16-99	–	–	–	T09P-2
...22HD	MX22-1	NX22-97.5	NX22-98	NX22-99	NX22-98.5	NX22-99.5	NX22-0.5	NX22-1.5	NX22-0	NX22-2	NX22-3	NX22-4	T15P-2
...27HD	MX27-1	VX27-98.5	VX27-2	–	VX27-99.5	VX27-0.5	VX27-1.5	VX27-98	VX27-99	VX27-3	VX27-4	VX27-0	T15P-7
...45065-27HD	MX27-1	VX27-98.5	VX27-2	–	VX27-99.5	VX27-0.5	VX27-1.5	VX27-98	VX27-99	VX27-3	VX27-4	VX27-0	T15P-2

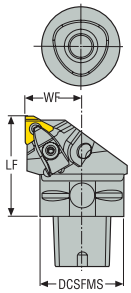
Seco-Capto™ – Toolholders, external

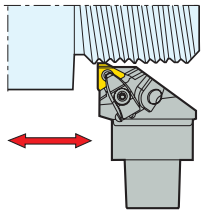
For S-inserts, Snap-Tap®

CER/L-..HD



CER/L-..CHD



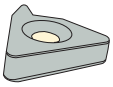




- Right-hand version shown
- For inserts program, see page(s) 123, 125, 126, 129, 130, 136, 137, 142, 144, 146, 147, 150, 152, 154, 156, 158, 160, 162, 164

Designation	Item number	DCSFMS	LF	WF	Weight	CTWS
		mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*	
C4-CER-27050-16CHD	02484668	40,0 *1.575*	50,0 *1.063*	27,0 *1.063*	0,5 *1.100*	16
C4-CEL-27050-16CHD	02484795	40,0 *1.575*	50,0 *1.063*	27,0 *1.063*	0,5 *1.100*	16
C5-CER-35060-16CHD	02484784	50,0 *1.969*	60,0 *1.378*	35,0 *1.378*	0,8 *1.760*	16
C5-CEL-35060-16CHD	02484802	50,0 *1.969*	60,0 *1.378*	35,0 *1.378*	0,9 *1.980*	16
C6-CER-45065-16CHD	02484786	63,0 *2.480*	65,0 *1.772*	45,0 *1.772*	1,3 *2.870*	16
C6-CEL-45065-16CHD	02484843	63,0 *2.480*	65,0 *1.772*	45,0 *1.772*	1,3 *2.870*	16
C4-CER-27050-22CHD	02484775	40,0 *1.575*	50,0 *1.063*	27,0 *1.063*	0,5 *1.100*	22
C4-CEL-27050-22CHD	02484800	40,0 *1.575*	50,0 *1.063*	27,0 *1.063*	0,5 *1.100*	22
C5-CER-35060-22CHD	02484785	50,0 *1.969*	60,0 *1.378*	35,0 *1.378*	0,9 *1.980*	22
C5-CEL-35060-22CHD	02484804	50,0 *1.969*	60,0 *1.378*	35,0 *1.378*	0,8 *1.760*	22
C6-CER-45065-22CHD	02484790	63,0 *2.480*	65,0 *1.772*	45,0 *1.772*	1,4 *3.090*	22
C6-CEL-45065-22CHD	02484845	63,0 *2.480*	65,0 *1.772*	45,0 *1.772*	1,3 *2.870*	22
C6-CER-45065-27CHD	02484854	63,0 *2.480*	65,0 *1.772*	45,0 *1.772*	1,4 *3.090*	27
C6-CEL-45065-27CHD	02484862	63,0 *2.480*	65,0 *1.772*	45,0 *1.772*	1,3 *2.870*	27

Spare Parts, included in delivery

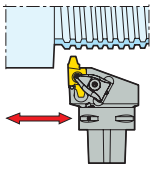
For holders	Cantilever clamp	Clamp key	Clamp screw	Coolant nozzle	Insert shim (S)	Shim screw	Spring
							
...16CHD	CHD16	T15P-7	L85020-T15P	CN16	GX16-1	CS3507-T09P	S6912
...22CHD	CHD22	T20P-7L	L86025-T20P	CN16	NX22-1	CS4009-T15P	S7616
...27CHD	CHD27	T20P-7L	L86025-T20P	CN16	VX27-1	C05012-T15P	S7616

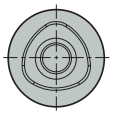
Accessories

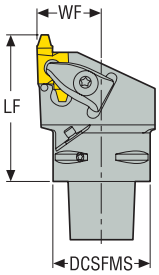
For holders	Insert shim (M)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Shim key
													
...16CHD	MX16-1	GX16-0	–	–	GX16-2	GX16-3	GX16-4	GX16-98	GX16-99	–	–	–	T09P-2
...22CHD	MX22-1	NX22-97.5	NX22-98	NX22-99	NX22-98.5	NX22-99.5	NX22-0.5	NX22-1.5	NX22-0	NX22-2	NX22-3	NX22-4	T15P-2
...27CHD	MX27-1	VX27-98.5	VX27-2	–	VX27-99.5	VX27-0.5	VX27-1.5	VX27-98	VX27-99	VX27-3	VX27-4	VX27-0	T15P-2

Seco-Capto™ – Toolholders, external

For K-inserts, Snap-Tap®





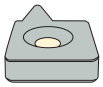




- Right-hand version shown
- For inserts program, see page(s) 123, 125, 126, 158, 160, 162

Designation	Item number	DCSFMS	LF	WF	Weight	CTWS
		mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*	
C4-CER-27060-20HD	02853589	40,0 *1.575*	60,0 *1.063*	27,0 *1.063*	0,6 *1.320*	20..
C4-CER-27065-26HD	02853590	40,0 *1.575*	65,0 *1.063*	27,0 *1.063*	0,6 *1.320*	26..
C5-CER-35060-20HD	02853591	50,0 *1.969*	60,0 *1.378*	35,0 *1.378*	0,8 *1.760*	20..
C5-CER-35065-26HD	02790776	50,0 *1.969*	65,0 *1.378*	35,0 *1.378*	0,8 *1.760*	26..
C6-CER-45065-20HD	02853587	63,0 *2.480*	65,0 *1.772*	45,0 *1.772*	1,3 *2.870*	20..
C6-CER-45070-26HD	02853595	63,0 *2.480*	70,0 *1.772*	45,0 *1.772*	1,5 *3.310*	26..

Spare Parts, included in delivery

For holders	Cantilever clamp	Clamp key	Clamp screw	Coolant nozzle	Insert shim (K)	Shim screw	Spring
							
...20HD	CHD22	T20P-7	L86025-T20P	CN6	KX20-2	CS4009-T15P	S7616
...26HD	CHD27	T20P-7	L86025-T20P	CN6	KX26-2	C05012-T15P	S7616

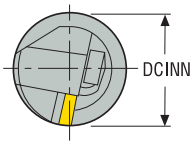
Accessories

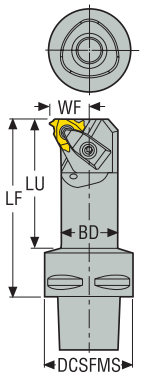
For holders	Insert shim (K)	Insert shim (K)	Insert shim (K)	Insert shim (K)	Insert shim (K)	Insert shim (K)	Shim key
							
...20HD	KX20-99	KX20-0	KX20-1	KX20-3	KX20-4	KX20-5	T15P-2
...26HD	KX26-99	KX26-0	KX26-1	KX26-3	KX26-4	KX26-5	T15P-2

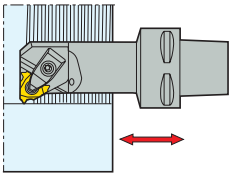
Seco-Capto™ – Toolholders, internal

For S-inserts, Snap-Tap®





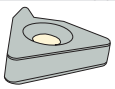




- Right-hand version shown
- For inserts program, see page(s) 124, 127, 128, 132, 133, 134, 139, 140, 143, 145, 148, 149, 151, 153, 155, 157, 159, 161, 163, 165, 167, 169, 171, 173, 175

Designation	Item number	BD	DCSFMS	LF	WF	DCINN	LU	Weight	CTWS
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*	
C4-SNR-10060-16	00008610	16,0 *0.630*	40,0 *1.575*	60,0 *2.362*	10,0 *0.394*	19,0 *0.748*	37,0 *1.457*	0,3 *0.660*	16..
C4-CNR-14060-16HD	02555280	20,0 *0.787*	40,0 *1.575*	60,0 *2.362*	13,8 *0.543*	24,0 *0.945*	36,0 *1.417*	0,4 *0.880*	16..
C4-CNR-17070-16HD	02555284	25,0 *0.984*	40,0 *1.575*	70,0 *2.756*	16,3 *0.642*	29,0 *1.142*	48,0 *1.890*	0,4 *0.880*	16..
C4-CNR-20090-16HD	02555320	32,0 *1.260*	40,0 *1.575*	90,0 *3.543*	19,8 *0.780*	36,0 *1.417*	69,0 *2.717*	0,7 *1.540*	16..
C4-CNL-14060-16HD	02555337	20,0 *0.787*	40,0 *1.575*	60,0 *2.362*	13,8 *0.543*	24,0 *0.945*	36,0 *1.417*	0,4 *0.880*	16..
C4-CNL-17070-16HD	02555331	25,0 *0.984*	40,0 *1.575*	70,0 *2.756*	16,3 *0.642*	29,0 *1.142*	48,0 *1.890*	0,5 *1.100*	16..
C4-CNL-20090-16HD	02555371	32,0 *1.260*	40,0 *1.575*	90,0 *3.543*	19,8 *0.780*	36,0 *1.417*	69,0 *2.717*	0,7 *1.540*	16..
C4-CNR-22090-22HD	02555375	32,0 *1.260*	40,0 *1.575*	90,0 *3.543*	21,3 *0.839*	38,0 *1.496*	69,0 *2.717*	0,6 *1.320*	22..
C4-CNL-22090-22HD	02555384	32,0 *1.260*	40,0 *1.575*	90,0 *3.543*	21,3 *0.839*	38,0 *1.496*	69,0 *2.717*	0,6 *1.320*	22..

Spare Parts, included in delivery

For holders	Cantilever clamp	Clamp key	Clamp kit	Clamp screw	Insert key	Insert screw	Insert shim (S)	Shim screw	Spring
									
...10060-16	–	–	–	–	T15P-2	C03508-T15P	–	–	–
...14060, 17070-16HD	–	T15P-2	CSP16HD-T15P	–	–	–	GX16-1	CS3507-T09P	–
...20090-16HD	CHD16	T15P-2	–	L85020-T15P	–	–	GX16-1	CS3507-T09P	S6912
...22090-22HD	–	T15P-2	CSP22HD-T15P	–	–	–	NX22-1	CS4009-T15P	–

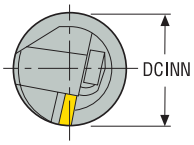
Accessories

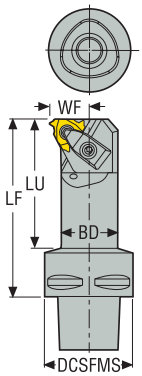
For holders	Insert shim (M)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Shim key
													
...10060-16	–	–	–	–	–	–	–	–	–	–	–	–	–
...14060, 17070-16HD	MX16-1	GX16-0	–	–	GX16-2	GX16-3	GX16-4	GX16-98	GX16-99	–	–	–	T09P-2
...20090-16HD	MX16-1	GX16-0	–	–	GX16-2	GX16-3	GX16-4	GX16-98	GX16-99	–	–	–	T09P-2
...22090-22HD	MX22-1	NX22-97.5	NX22-98	NX22-99	NX22-98.5	NX22-99.5	NX22-0.5	NX22-1.5	NX22-0	NX22-2	NX22-3	NX22-4	–

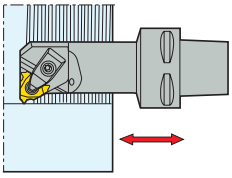
Seco-Capto™ – Toolholders, internal

For S-inserts, Snap-Tap®





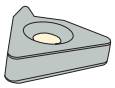




- Right-hand version shown
- For inserts program, see page(s) 124, 127, 128, 132, 133, 134, 139, 140, 143, 145, 148, 149, 151, 153, 155, 157, 159, 161, 163, 165, 167, 169, 171, 173, 175

Designation	Item number	BD	DCSFMS	LF	WF	DCINN	LU	Weight	CTWS
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*	
C5-CNR-14060-16HD	02555383	20,0 *0.787*	50,0 *1.969*	60,0 *2.362*	13,8 *0.543*	24,0 *0.945*	36,0 *1.417*	0,6 *1.320*	16..
C5-CNR-17070-16HD	02555388	25,0 *0.984*	50,0 *1.969*	70,0 *2.756*	16,3 *0.642*	29,0 *1.142*	47,0 *1.850*	0,6 *1.320*	16..
C5-CNR-20090-16HD	02555391	32,0 *1.260*	50,0 *1.969*	90,0 *3.543*	19,8 *0.780*	36,0 *1.417*	68,0 *2.677*	0,8 *1.760*	16..
C5-CNL-14060-16HD	02555739	20,0 *0.787*	50,0 *1.969*	60,0 *2.362*	13,8 *0.543*	24,0 *0.945*	36,0 *1.417*	0,6 *1.320*	16..
C5-CNL-17070-16HD	02555740	25,0 *0.984*	50,0 *1.969*	70,0 *2.756*	16,3 *0.642*	29,0 *1.142*	47,0 *1.850*	0,6 *1.320*	16..
C5-CNL-20090-16HD	02555741	32,0 *1.260*	50,0 *1.969*	90,0 *3.543*	19,8 *0.780*	36,0 *1.417*	68,0 *2.677*	0,8 *1.760*	16..
C5-CNR-18070-22HD	02555742	25,0 *0.984*	50,0 *1.969*	70,0 *2.756*	17,8 *0.701*	30,0 *1.181*	47,0 *1.850*	0,6 *1.320*	22..
C5-CNR-22090-22HD	02555743	32,0 *1.260*	50,0 *1.969*	90,0 *3.543*	21,3 *0.839*	38,0 *1.496*	68,0 *2.677*	0,8 *1.760*	22..
C5-CNL-18070-22HD	02555745	25,0 *0.984*	50,0 *1.969*	70,0 *2.756*	17,8 *0.701*	30,0 *1.181*	47,0 *1.850*	0,6 *1.320*	22..
C5-CNL-22090-22HD	02555747	32,0 *1.260*	50,0 *1.969*	90,0 *3.543*	21,3 *0.839*	38,0 *1.496*	68,0 *2.677*	0,8 *1.760*	22..
C5-CNR-26105-27HD	02823806	40,0 *1.575*	50,0 *1.969*	105,0 *4.134*	24,78 *0.976*	46,0 *1.811*	83,7 *3.295*	1,2 *2.650*	27..
C5-CNL-26105-27HD	02823807	40,0 *1.575*	50,0 *1.969*	105,0 *4.134*	24,78 *0.976*	46,0 *1.811*	83,7 *3.295*	1,2 *2.650*	27..

Spare Parts, included in delivery

For holders	Cantilever clamp	Clamp key	Clamp kit	Clamp screw	Insert shim (S)	Shim screw	Spring
							
...14060, 17070-16HD	–	T15P-2	CSP16HD-T15P	–	GX16-1	CS3507-T09P	–
...20090-16HD	CHD16	T15P-2	–	L85020-T15P	GX16-1	CS3507-T09P	S6912
...22HD	–	T15P-2	CSP22HD-T15P	–	NX22-1	CS4009-T15P	–
...27HD	CHD27	T20P-7	–	L86025-T20P	VX27-1	C05012-T15P	S7616

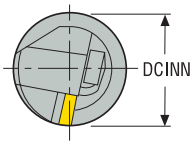
Accessories

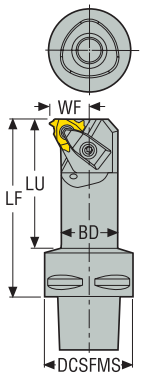
For holders	Insert shim (M)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Shim key
													
...14060, 17070-16HD	MX16-1	GX16-0	–	–	GX16-2	GX16-3	GX16-4	GX16-98	GX16-99	–	–	–	T09P-2
...20090-16HD	MX16-1	GX16-0	–	–	GX16-2	GX16-3	GX16-4	GX16-98	GX16-99	–	–	–	T09P-2
...22HD	MX22-1	NX22-97.5	NX22-98	NX22-99	NX22-98.5	NX22-99.5	NX22-0.5	NX22-1.5	NX22-0	NX22-2	NX22-3	NX22-4	T15P-2
...27HD	MX27-1	VX27-98.5	VX27-2	–	VX27-99.5	VX27-0.5	VX27-1.5	VX27-98	VX27-99	VX27-3	VX27-4	VX27-0	T15P-2

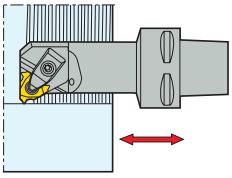
Seco-Capto™ – Toolholders, internal

For S-inserts, Snap-Tap®





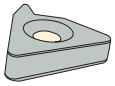




- Right-hand version shown
- For inserts program, see page(s) 124, 127, 128, 132, 133, 134, 139, 140, 143, 145, 148, 149, 151, 153, 155, 157, 159, 161, 163, 165, 171

Designation	Item number	BD	DCSFMS	LF	WF	DCINN	LU	Weight	CTWS
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*	
C6-CNR-17075-16HD	02555750	25,0 *0.984*	63,0 *2.480*	75,0 *2.953*	16,3 *0.642*	29,0 *1.142*	53,0 *2.087*	0,9 *1.980*	16
C6-CNR-20090-16HD	02555762	32,0 *1.260*	63,0 *2.480*	90,0 *3.543*	19,8 *0.780*	36,0 *1.417*	68,0 *2.677*	1,1 *2.430*	16
C6-CNR-24105-16HD	02555766	40,0 *1.575*	63,0 *2.480*	105,0 *4.134*	23,8 *0.937*	44,0 *1.732*	80,0 *3.150*	1,5 *3.310*	16
C6-CNL-17075-16HD	02555768	25,0 *0.984*	63,0 *2.480*	75,0 *2.953*	16,3 *0.642*	29,0 *1.142*	53,0 *2.087*	0,9 *1.980*	16
C6-CNL-20090-16HD	02555769	32,0 *1.260*	63,0 *2.480*	90,0 *3.543*	19,8 *0.780*	36,0 *1.417*	68,0 *2.677*	1,1 *2.430*	16
C6-CNL-24105-16HD	02555771	40,0 *1.575*	63,0 *2.480*	105,0 *4.134*	23,8 *0.937*	44,0 *1.732*	80,0 *3.150*	1,5 *3.310*	16

Spare Parts, included in delivery

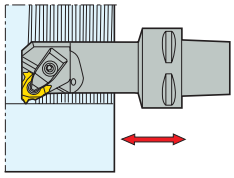
For holders	Cantilever clamp	Clamp key	Clamp kit	Clamp screw	Insert shim (S)	Shim screw	Spring
							
...17075-16HD	–	T15P-2	CSP16HD-T15P	–	GX16-1	CS3507-T09P	–
...20090, 24105-16HD	CHD16	T15P-2	–	L85020-T15P	GX16-1	CS3507-T09P	S6912

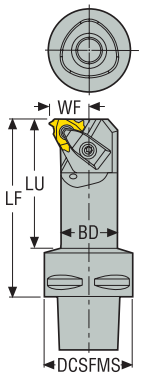
Accessories

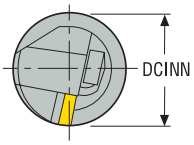
For holders	Insert shim (M)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Shim key
								
...17075-16HD	MX16-1	GX16-0	GX16-2	GX16-3	GX16-4	GX16-98	GX16-99	T09P-2
...20090, 24105-16HD	MX16-1	GX16-0	GX16-2	GX16-3	GX16-4	GX16-98	GX16-99	T09P-2

Seco-Capto™ – Toolholders, internal

For S-inserts, Snap-Tap®





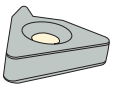




- Right-hand version shown
- For inserts program, see page(s) 124, 127, 128, 132, 133, 134, 139, 140, 143, 145, 148, 149, 153, 157, 159, 161, 163, 165, 167, 169, 173, 175

Designation	Item number	BD	DCSFMS	LF	WF	DCINN	LU	Weight	CTWS
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*	
C6-CNR-18075-22HD	02555772	25,0 *0.984*	63,0 *2.480*	75,0 *2.953*	17,8 *0.701*	30,0 *1.181*	53,0 *2.087*	0,9 *1.980*	22
C6-CNR-22090-22HD	02555773	32,0 *1.260*	63,0 *2.480*	90,0 *3.543*	21,3 *0.839*	38,0 *1.496*	68,0 *2.677*	1,1 *2.430*	22
C6-CNR-26105-22HD	02555776	40,0 *1.575*	63,0 *2.480*	105,0 *4.134*	25,3 *0.996*	46,0 *1.811*	80,0 *3.150*	1,5 *3.310*	22
C6-CNL-18075-22HD	02555777	25,0 *0.984*	63,0 *2.480*	75,0 *2.953*	17,8 *0.701*	30,0 *1.181*	53,0 *2.087*	0,9 *1.980*	22
C6-CNL-22090-22HD	02555832	32,0 *1.260*	63,0 *2.480*	90,0 *3.543*	21,3 *0.839*	38,0 *1.496*	68,0 *2.677*	1,1 *2.430*	22
C6-CNL-26105-22HD	02555833	40,0 *1.575*	63,0 *2.480*	105,0 *4.134*	25,3 *0.996*	46,0 *1.811*	80,0 *3.150*	1,5 *3.310*	22

Spare Parts, included in delivery

For holders	Cantilever clamp	Clamp key	Clamp kit	Clamp screw	Insert shim (S)	Shim screw	Spring
							
..18075, 22090..	–	T15P-2	CSP22HD-T15P	–	NX22-1	CS4009-T15P	–
..26105..	CHD22	T20P-7L	–	L86025-T20P	NX22-1	CS4009-T15P	S7616

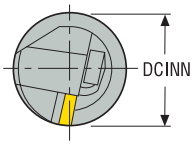
Accessories

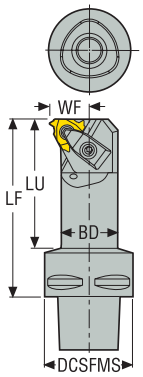
For holders	Insert shim (M)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Shim key
													
..18075, 22090..	MX22-1	NX22-97.5	NX22-98	NX22-99	NX22-98.5	NX22-99.5	NX22-0.5	NX22-1.5	NX22-0	NX22-2	NX22-3	NX22-4	T15P-2
..26105..	MX22-1	NX22-97.5	NX22-98	NX22-99	NX22-98.5	NX22-99.5	NX22-0.5	NX22-1.5	NX22-0	NX22-2	NX22-3	NX22-4	T15P-2

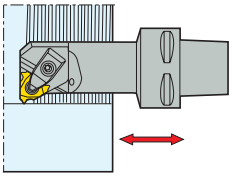
Seco-Capto™ – Toolholders, internal

For S-inserts, Snap-Tap®





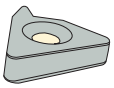




- Right-hand version shown
- For inserts program, see page(s) 132, 133, 134 139, 140, 157, 159, 161, 163, 165, 167, 169, 171

Designation	Item number	BD	DCSFMS	LF	WF	DCINN	LU	Weight	CTWS
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*	
C6-CNR-26105-27HD	02644670	40,0 *1.575*	63,0 *2.480*	105,0 *4.134*	25,3 *0.996*	46,0 *1.811*	77,0 *3.031*	1,5 *3.310*	27
C6-CNR-36182-27HD	02485584	63,0 *2.480*	63,0 *2.480*	182,0 *7.165*	36,0 *1.417*	70,0 *2.756*	–	4,1 *9.040*	27
C6-CNL-26105-27HD	02644672	40,0 *1.575*	63,0 *2.480*	105,0 *4.134*	25,3 *0.996*	46,0 *1.811*	77,0 *3.031*	1,6 *3.530*	27
C6-CNL-36182-27HD	02644681	63,0 *2.480*	63,0 *2.480*	182,0 *7.165*	36,0 *1.417*	70,0 *2.756*	–	3,3 *7.280*	27
C8-CNR-36190-27HD	02644684	54,0 *2.126*	80,0 *3.150*	190,0 *7.480*	36,0 *1.417*	70,0 *2.756*	160,0 *6.299*	4,2 *9.260*	27
C8-CNL-36190-27HD	02644685	54,0 *2.126*	80,0 *3.150*	190,0 *7.480*	36,0 *1.417*	70,0 *2.756*	160,0 *6.299*	4,2 *9.260*	27

Spare Parts, included in delivery

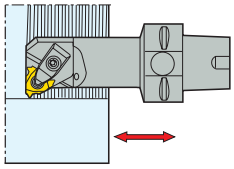
For holders	Cantilever clamp	Clamp key	Clamp screw	Coolant nozzle	Insert shim (S)	Shim screw	Spring
							
C6...	CHD27	T20P-7	L86025-T20P	–	VX27-1	C05012-T15P	S7616
C8...	CHD27	T20P-7	L86025-T20P	CN8	VX27-1	C05012-T15P	S7616

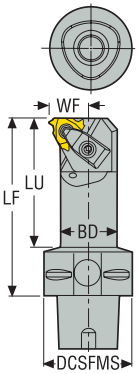
Accessories

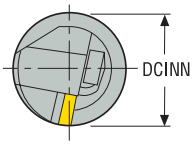
For holders	Insert shim (M)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Shim key
												
C6...	MX27-1	VX27-98.5	VX27-2	VX27-99.5	VX27-0.5	VX27-1.5	VX27-98	VX27-99	VX27-3	VX27-4	VX27-0	T15P-2
C8...	MX27-1	VX27-98.5	VX27-2	VX27-99.5	VX27-0.5	VX27-1.5	VX27-98	VX27-99	VX27-3	VX27-4	VX27-0	T15P-2

Seco-Capto™ – Toolholders, internal

For S-inserts, Snap-Tap®





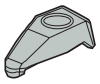
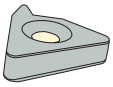




- Right-hand version shown
- For inserts program, see page(s) 124, 127, 128, 132, 133, 134, 139, 140, 143, 145, 148, 149, 151, 153, 155, 157, 159, 161, 163, 165, 167, 169, 171, 173, 175

Designation	Item number	BD	DCSFMS	LF	WF	DCINN	LU	Weight	CTWS
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*	
C4-CNR-14060-16CHD	02555834	20,0 *0.787*	40,0 *1.575*	60,0 *2.362*	13,8 *0.543*	24,0 *0.945*	36,0 *1.417*	0,4 *0.880*	16
C4-CNL-14060-16CHD	02555835	20,0 *0.787*	40,0 *1.575*	60,0 *2.362*	13,8 *0.543*	24,0 *0.945*	36,0 *1.417*	0,4 *0.880*	16
C5-CNR-17070-16CHD	02555836	25,0 *0.984*	50,0 *1.969*	70,0 *2.756*	16,3 *0.642*	29,0 *1.142*	47,0 *1.850*	0,6 *1.320*	16
C5-CNR-20090-16CHD	02555837	32,0 *1.260*	50,0 *1.969*	90,0 *3.543*	19,8 *0.780*	36,0 *1.417*	68,0 *2.677*	0,8 *1.760*	16
C5-CNL-17070-16CHD	02555839	25,0 *0.984*	50,0 *1.969*	70,0 *2.756*	16,3 *0.642*	29,0 *1.142*	47,0 *1.850*	0,6 *1.320*	16
C5-CNL-20090-16CHD	02555840	32,0 *1.260*	50,0 *1.969*	90,0 *3.543*	19,8 *0.780*	36,0 *1.417*	68,0 *2.677*	0,8 *1.760*	16
C5-CNR-18070-22CHD	02555841	25,0 *0.984*	50,0 *1.969*	70,0 *2.756*	17,8 *0.701*	30,0 *1.181*	47,0 *1.850*	0,6 *1.320*	22
C5-CNL-18070-22CHD	02555842	25,0 *0.984*	50,0 *1.969*	70,0 *2.756*	17,8 *0.701*	30,0 *1.181*	47,0 *1.850*	0,6 *1.320*	22

Spare Parts, included in delivery

For holders	Cantilever clamp	Clamp key	Clamp kit	Clamp screw	Insert shim (S)	Shim screw	Spring
							
...14060, ...17070-16CHD	–	T15P-2	CSP16HD-T15P	–	GX16-1	CS3507-T09P	–
...20090-16CHD	CHD16	T15P-2	–	L85020-T15P	GX16-1	CS3507-T09P	S6912
...18070-22CHD	–	T15P-2	CSP22HD-T15P	–	NX22-1	CS4009-T15P	–

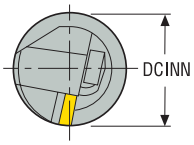
Accessories

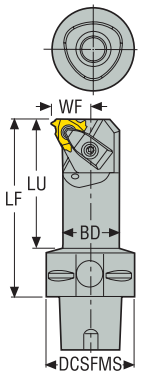
For holders	Insert shim (M)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Shim key
													
...14060, ...17070-16CHD	MX16-1	GX16-0	–	–	GX16-2	GX16-3	GX16-4	GX16-98	GX16-99	–	–	–	T09P-2
...20090-16CHD	MX16-1	GX16-0	–	–	GX16-2	GX16-3	GX16-4	GX16-98	GX16-99	–	–	–	T09P-2
...18070-22CHD	MX22-1	NX22-97.5	NX22-98	NX22-99	NX22-98.5	NX22-99.5	NX22-0.5	NX22-1.5	NX22-0	NX22-2	NX22-3	NX22-4	–

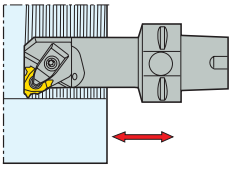
Seco-Capto™ – Toolholders, internal

For S-inserts, Snap-Tap®





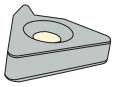




- Right-hand version shown
- For inserts program, see page(s) 124, 127, 128, 132, 133, 134, 139, 140, 143, 145, 148, 149, 151, 153, 155, 157, 159, 161, 163, 165, 167, 169, 171, 173, 175

Designation	Item number	BD	DCSFMS	LF	WF	DCINN	LU	Weight	CTWS
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*	
C6-CNR-20090-16CHD	02555843	32,0 *1.260*	63,0 *2.480*	90,0 *3.543*	19,8 *0.780*	36,0 *1.417*	68,0 *2.677*	1,1 *2.430*	16
C6-CNR-24105-16CHD	02555844	40,0 *1.575*	63,0 *2.480*	105,0 *4.134*	23,8 *0.937*	44,0 *1.732*	80,0 *3.150*	1,5 *3.310*	16
C6-CNL-20090-16CHD	02555845	32,0 *1.260*	63,0 *2.480*	90,0 *3.543*	19,8 *0.780*	36,0 *1.417*	68,0 *2.677*	1,1 *2.430*	16
C6-CNL-24105-16CHD	02555847	40,0 *1.575*	63,0 *2.480*	105,0 *4.134*	23,8 *0.937*	44,0 *1.732*	80,0 *3.150*	1,5 *3.310*	16
C6-CNR-22090-22CHD	02555848	32,0 *1.260*	63,0 *2.480*	90,0 *3.543*	21,3 *0.839*	38,0 *1.496*	68,0 *2.677*	1,1 *2.430*	22
C6-CNR-26105-22CHD	02555849	40,0 *1.575*	63,0 *2.480*	105,0 *4.134*	25,3 *0.996*	46,0 *1.811*	80,0 *3.150*	1,5 *3.310*	22
C6-CNL-22090-22CHD	02555850	32,0 *1.260*	63,0 *2.480*	90,0 *3.543*	21,3 *0.839*	38,0 *1.496*	68,0 *2.677*	1,1 *2.430*	22
C6-CNL-26105-22CHD	02555852	40,0 *1.575*	63,0 *2.480*	105,0 *4.134*	25,3 *0.996*	46,0 *1.811*	80,0 *3.150*	1,5 *3.310*	22

Spare Parts, included in delivery

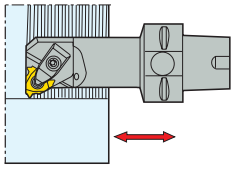
For holders	Cantilever clamp	Clamp key	Clamp kit	Clamp screw	Insert shim (S)	Shim screw	Spring
							
...16CHD	CHD16	T15P-2	–	L85020-T15P	GX16-1	CS3507-T09P	S6912
...22090-22CHD	–	T15P-2	CSP22HD-T15P	–	NX22-1	CS4009-T15P	–
...26105-22CHD	CHD22	T20P-7L	–	L86025-T20P	NX22-1	CS4009-T15P	S7616

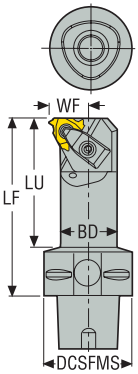
Accessories

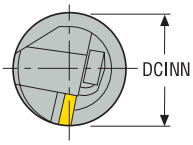
For holders	Insert shim (M)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Shim key
													
...16CHD	MX16-1	GX16-0	–	–	GX16-2	GX16-3	GX16-4	GX16-98	GX16-99	–	–	–	T09P-2
...22090-22CHD	MX22-1	NX22-97.5	NX22-98	NX22-99	NX22-98.5	NX22-99.5	NX22-0.5	NX22-1.5	NX22-0	NX22-2	NX22-3	NX22-4	T15P-2
...26105-22CHD	MX22-1	NX22-97.5	NX22-98	NX22-99	NX22-98.5	NX22-99.5	NX22-0.5	NX22-1.5	NX22-0	NX22-2	NX22-3	NX22-4	T15P-2

Seco-Capto™ – Toolholders, internal

For S-inserts, Snap-Tap®





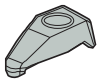
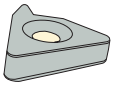




- Right-hand version shown
- For inserts program, see page(s) 132, 133, 134, 139, 140, 157, 159, 161, 163, 165, 167, 169, 171

Designation	Item number	BD	DCSFMS	LF	WF	DCINN	LU	Weight	CTWS
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*	
C6-CNR-26105-27CHD	02644674	40,0 *1.575*	63,0 *2.480*	105,0 *4.134*	25,3 *0.996*	46,0 *1.811*	80,0 *3.150*	1,5 *3.310*	27
C6-CNR-36182-27CHD	02644686	63,0 *2.480*	63,0 *2.480*	182,0 *7.165*	36,0 *1.417*	70,0 *2.756*	–	3,1 *6.830*	27
C6-CNL-26105-27CHD	02644677	40,0 *1.575*	63,0 *2.480*	105,0 *4.134*	25,3 *0.996*	46,0 *1.811*	80,0 *3.150*	1,5 *3.310*	27
C6-CNL-36182-27CHD	02644687	63,0 *2.480*	63,0 *2.480*	182,0 *7.165*	36,0 *1.417*	70,0 *2.756*	–	4,1 *9.040*	27

Spare Parts, included in delivery

For holders	Cantilever clamp	Clamp key	Clamp screw	Insert shim (S)	Shim screw	Spring
						
C6...	CHD27	T20P-7	L86025-T20P	VX27-1	C05012-T15P	S7616

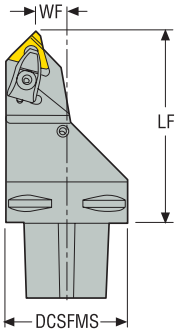
Accessories

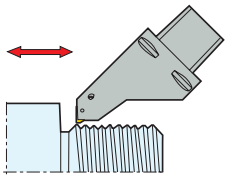
For holders	Insert shim (M)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Shim key
												
C6...	MX27-1	VX27-98.5	VX27-2	VX27-99.5	VX27-0.5	VX27-1.5	VX27-98	VX27-99	VX27-3	VX27-4	VX27-0	T15P-2

Seco-Capto™ – Toolholders for MTM

For S-inserts, Snap-Tap®



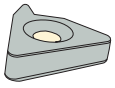




- Right-hand version shown
- For inserts program, see page(s) 123, 125, 126, 129, 130, 136, 137, 142, 144, 146, 147, 150, 152, 154, 156, 158, 160, 162, 164, 166, 168, 170, 172, 174

Designation	Item number	DCSFMS	LF	WF	Weight	CTWS
		mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*	
C6-CER-18100-16HD	02509302	63,0 *2.480*	100,0 *3.937*	18,0 *0.709*	1,6 *3.530*	16
C6-CER-16100-22HD	02509303	63,0 *2.480*	100,0 *3.937*	16,0 *0.630*	1,6 *3.530*	22
C6-CER-12100-27HD	02509304	63,0 *2.480*	100,0 *3.937*	12,0 *0.472*	1,6 *3.530*	27

Spare Parts, included in delivery

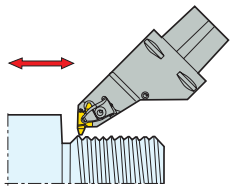
For holders	Cantilever clamp	Clamp key	Clamp screw	Coolant nozzle	Insert shim (S)	Shim screw	Spring
							
...16HD	CHD16	T15P-7	L85020-T15P	CN8	GX16-1	CS3507-T09P	S6912
...22HD	CHD22	T20P-7L	L86025-T20P	CN8	NX22-1	CS4009-T15P	S7616
...27HD	CHD27	T20P-7L	L86025-T20P	CN3	VX27-1	C05012-T15P	S7616

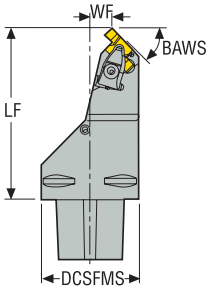
Accessories

For holders	Insert shim (M)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Shim key
													
...16HD	MX16-1	GX16-0	–	–	GX16-2	GX16-3	GX16-4	GX16-98	GX16-99	–	–	–	T09P-2
...22HD	MX22-1	NX22-97.5	NX22-98	NX22-99	NX22-98.5	NX22-99.5	NX22-0.5	NX22-1.5	NX22-0	NX22-2	NX22-3	NX22-4	T15P-2
...27HD	MX27-1	VX27-98.5	VX27-2	–	VX27-99.5	VX27-0.5	VX27-1.5	VX27-98	VX27-99	VX27-3	VX27-4	VX27-0	T15P-2

Seco-Capto™ – Toolholders for MTM

For K-inserts, Snap-Tap®







- Left-hand version shown
- For inserts program, see page(s) 123, 125, 126, 158, 160, 162

Designation	Item number	DCSFMS	LF	WF	Weight	BAWS°	CTWS
		mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*		
C6-CEL-14110-20HD	02509308	63,0 *2.480*	110,0 *4.331*	14,0 *0.551*	1,7 *3.750*	45	20..
C6-CEL-07110-26HD	02509309	63,0 *2.480*	110,0 *4.331*	7,0 *0.276*	1,7 *3.750*	45	26..
C6-CEL-18110-14	02509306	63,0 *2.480*	110,0 *4.331*	18,0 *0.709*	1,7 *3.750*	45	14..

Spare Parts, included in delivery

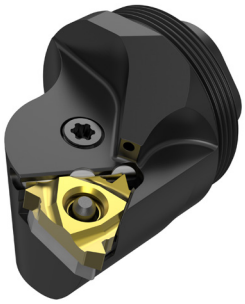
For holders	Cantilever clamp	Clamp key	Clamp kit	Clamp screw	Coolant nozzle	Insert shim (K)	Shim screw	Spring
-20	CHD22	T20P-7	–	L86025-T20P	CN8	KX20-2	CS4009-T15P	S7616
-26	CHD27	T20P-7	–	L86025-T20P	CN8	KX26-2	C05012-T15P	S7616
-14	–	T15P-2	CSP16-T15P	–	CN8	KX14-2	CS3507-T09P	–

Accessories

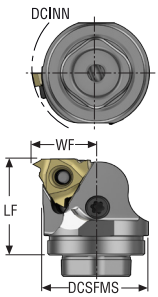
For holders	Insert shim (K)	Insert shim (K)	Insert shim (K)	Insert shim (K)	Insert shim (K)	Insert shim (K)	Shim key
-20	KX20-99	KX20-0	KX20-1	KX20-3	KX20-4	KX20-5	T15P-2
-26	KX26-99	KX26-0	KX26-1	KX26-3	KX26-4	KX26-5	T15P-2
-14	KX14-0	KX14-1	KX14-3	KX14-4	KX14-5	–	T09P-2

Steadyline®, GL-heads, Jetstream Tooling®

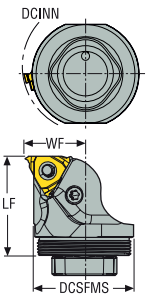
For S-inserts, Snap-Tap®

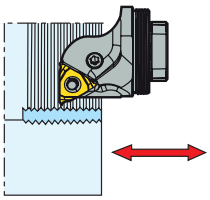


..16AHDJET



..22/32AHDJET

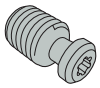




- Right-hand version shown
- For inserts program, see page(s) 124, 127, 128, 132, 133, 134, 139, 140, 143, 145, 148, 149, 151, 153, 155, 157, 159, 161, 163, 171
- CP * Max coolant pressure

Designation	Item number	DCSFMS	LF	WF	DCINN	CP	Weight	CTWS
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	bar *psi*	kg *lbs*	
GL25-PNR-17025-16AHDJET	03212499	25,0 *0.984*	25,0 *0.984*	16,3 *0.642*	29,0 *1.142*	200,0 *2900.8*	0,1 *0.220*	16
GL25-PNL-17025-16AHDJET	03212502	25,0 *0.984*	25,0 *0.984*	16,3 *0.642*	29,0 *1.142*	200,0 *2900.8*	0,1 *0.220*	16
GL32-PNR-20032-16AHDJET	03007255	32,0 *1.260*	32,0 *1.260*	19,8 *0.780*	36,0 *1.417*	200,0 *2900.8*	0,2 *0.440*	16
GL32-PNL-20032-16AHDJET	03007256	32,0 *1.260*	32,0 *1.260*	19,8 *0.780*	36,0 *1.417*	200,0 *2900.8*	0,2 *0.440*	16
GL40-PNR-24032-16AHDJET	03007261	40,0 *1.575*	32,0 *1.260*	23,8 *0.937*	44,0 *1.732*	200,0 *2900.8*	0,3 *0.660*	16
GL40-PNL-24032-16AHDJET	03007262	40,0 *1.575*	32,0 *1.260*	23,8 *0.937*	44,0 *1.732*	200,0 *2900.8*	0,3 *0.660*	16
GL50-PNR-29032-16AHDJET	03007264	50,0 *1.969*	32,0 *1.260*	28,8 *1.134*	54,0 *2.126*	200,0 *2900.8*	0,4 *0.880*	16
GL50-PNL-29032-16AHDJET	03007265	50,0 *1.969*	32,0 *1.260*	28,8 *1.134*	54,0 *2.126*	200,0 *2900.8*	0,5 *1.100*	16
GL32-PNR-22032-22AHDJET	03007257	32,0 *1.260*	32,0 *1.260*	21,3 *0.839*	38,0 *1.496*	200,0 *2900.8*	0,2 *0.440*	22
GL32-PNL-22032-22AHDJET	03007258	32,0 *1.260*	32,0 *1.260*	21,3 *0.839*	38,0 *1.496*	200,0 *2900.8*	0,2 *0.440*	22
GL40-PNR-26032-22AHDJET	03007263	40,0 *1.575*	32,0 *1.260*	25,3 *0.996*	46,0 *1.811*	200,0 *2900.8*	0,2 *0.440*	22
GL40-PNL-26032-22AHDJET	03007468	40,0 *1.575*	32,0 *1.260*	25,3 *0.996*	46,0 *1.811*	200,0 *2900.8*	0,3 *0.660*	22
GL50-PNR-31032-22AHDJET	03007266	50,0 *1.969*	32,0 *1.260*	30,3 *1.193*	56,0 *2.205*	200,0 *2900.8*	0,4 *0.880*	22
GL50-PNL-31032-22AHDJET	03007267	50,0 *1.969*	32,0 *1.260*	30,3 *1.193*	56,0 *2.205*	200,0 *2900.8*	0,5 *1.100*	22
GL40-PNR-27037-27AHDJET	03007260	40,0 *1.575*	37,0 *1.457*	26,8 *1.055*	48,0 *1.890*	200,0 *2900.8*	0,3 *0.660*	27
GL50-PNR-32037-27AHDJET	03007259	50,0 *1.969*	37,0 *1.457*	31,8 *1.252*	58,0 *2.283*	200,0 *2900.8*	0,4 *0.880*	27

Spare Parts, included in delivery

For holders	Insert lever	Insert shim (S)	Lever screw	Locking key	Shim pin
					
..16..	PP3712	GXA16-1	LS0612-T15P	T15P-2	AC4625
..22A..	PP4816	NXA22-1	LS0815-T25P	T25P-7	AC5035
..27A..	PP6019	VXA27-1	LS0820-T25P	T25P-7	AC6050

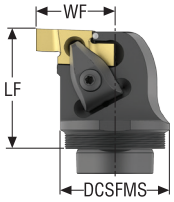
Accessories

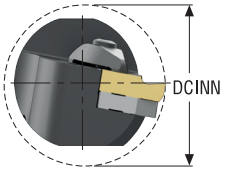
For holders	Insert shim (M)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)
												
..16..	MXA16-1	GXA16-0	–	–	GXA16-2	GXA16-3	GXA16-4	GXA16-99	GXA16-98	–	–	–
..22A..	MXA22-1	NXA22-0	NXA22-98	NXA22-97.5	NXA22-0.5	NXA22-1.5	NXA22-2	NXA22-3	NXA22-4	NXA22-99.5	NXA22-99	NXA22-98.5
..27A..	MXA27-1	VXA27-0	VXA27-98	–	VXA27-0.5	VXA27-1.5	VXA27-2	VXA27-3	VXA27-4	VXA27-99.5	VXA27-99	VXA27-98.5

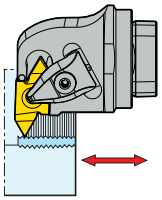
Steadyline®, GL-heads

For K-inserts, Snap-Tap®





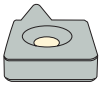




- Right-hand version shown
- For inserts program, see page(s)123, 124, 125, 125, 126, 127, 128, 159, 161, 163
- CP * Max coolant pressure

Designation	Item number	DCSFMS	LF	WF	DCINN	CP	Weight	CTWS
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	bar *psi*	kg *lbs*	
GL50-CNR-36055-26AHD	03051391	50,0 *1.969*	55,0 *2.165*	36,0 *1.417*	65,0 *2.559*	200,0 *2900.8*	0,6 *1.320*	26 NR..

Spare Parts, included in delivery

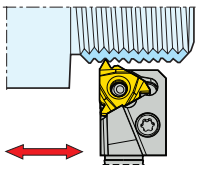
For holders	Cantilever clamp	Clamp screw	Insert shim (K)	Key, clamp	Shim screw	Spring
						
GL50...	CHD27	L86025-T20P	KX26-2	T20P-2D	C05012-T15P	S7616

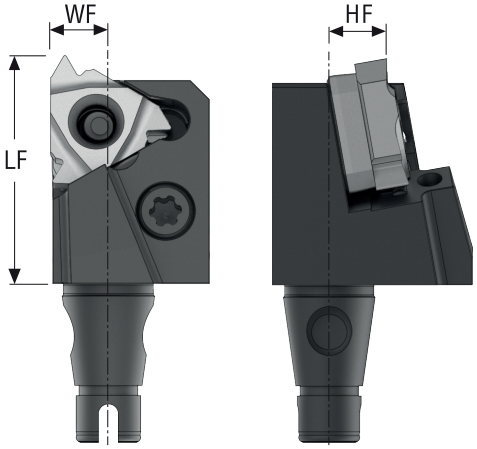
Accessories

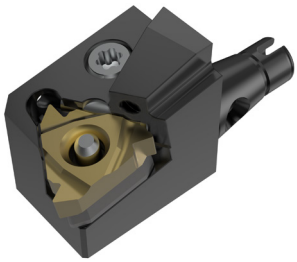
For holders	Insert shim (K)	Insert shim (K)	Insert shim (K)	Insert shim (K)	Insert shim (K)	Insert shim (K)	Insert shim (K)	Shim key
								
GL50...	KX26-99	KX26-0	KX26-1	KX26-3	KX26-4	KX26-5	KX26-2	T15P-2

Quick Change, Jetstream Tooling® QC-heads – External

For S-inserts, Snap-Tap®







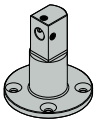
- Right-hand version shown
- For inserts program, see page(s) 123, 125, 126, 129, 130, 136, 137, 142, 144, 146, 147, 150, 152, 154, 156, 158, 160, 162, 164, 174
- CP * Max coolant pressure
- For Technical Guide, se catalog Turning

Designation	Item number	LF	WF	HF	CP	Weight	CTWS
		mm *Inch*	mm *Inch*	mm *Inch*	bar *psi*	kg *lbs*	
QC12-PER-16HDJET	03280772	25,0 *0.984*	6,0 *0.236*	5,975 *0.235*	200,0 *7.9*	0,1 *0.220*	16
QC12-PEL-16HDJET	03280773	25,0 *0.984*	6,0 *0.236*	5,975 *0.235*	200,0 *7.9*	0,1 *0.220*	16
QC16-PER-16HDJET	03280774	25,0 *0.984*	8,0 *0.315*	7,9 *0.311*	200,0 *7.9*	0,1 *0.220*	16
QC16-PEL-16HDJET	03280775	25,0 *0.984*	8,0 *0.315*	7,9 *0.311*	200,0 *7.9*	0,1 *0.220*	16

Spare Parts, included in delivery

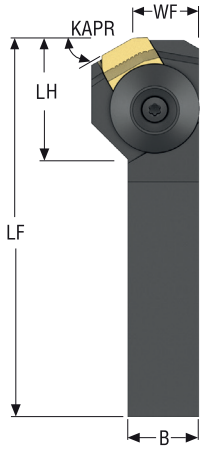
For holders	Insert lever	Insert shim (S)	Lever key	Lever screw	Shim pin
					
..-16	PP3712	GXA16-1	T15P-2	LS0612-T15P	AC4625

Accessories

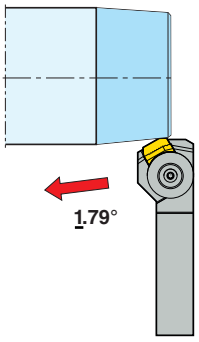
For holders	Insert clamping torque	Insert shim (M)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Mounting fixture	Torque key
										
..-16	3.0NM	MXA16-1	GXA16-0	GXA16-2	GXA16-3	GXA16-4	GXA16-99	GXA16-98	SECO-MF7075-QC	T00-15P30

Toolholder for peeling





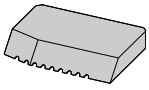
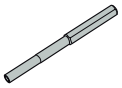




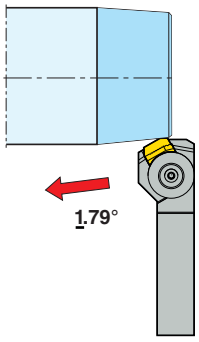
- Right-hand version shown
- For inserts program, see page(s) 122

Designation	Item number	KAPR°	B	H	LF	LH	WF	HF	Weight	CTWS
			mm	mm	mm	mm	mm	mm	kg	
CSXCR3232P25-R30	03120990	30	32,0	32,0	170,0	64,61	29,53	32,0	0,5	SCNN-R30

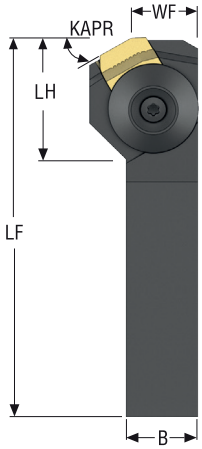
Spare Parts, included in delivery

For holders	Anvil screw	Chipbreaker	Insert screw	Key	Key (T-handle)	Plug	Shim
							
CSXCR...	CA4012	PS2518	W400820-T30P	H6B-T30PL	DOUBLE-T	JET-P1/8-5MM	SSN250630

Toolholder for peeling





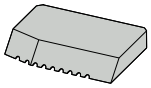
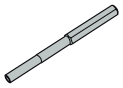




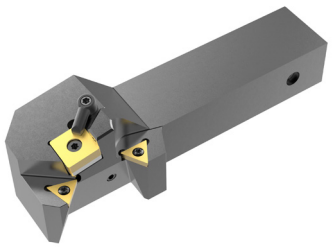
- Right-hand version shown
- For inserts program, see page(s) 122

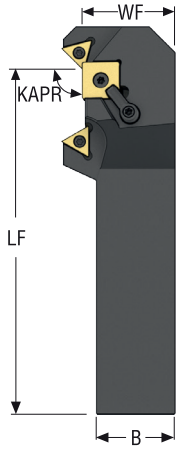
Designation	Item number	KAPR°	B	H	LF	LH	WF	HF	Weight	CTWS
			Inch	*Inch*	*Inch*	*Inch*	*Inch*	*Inch*	lbs	
CSXCR20-8D-R30	03120991	30	1.250	1.250	6.693	2.545	1.163	1.250	3.310	SCNN-R30

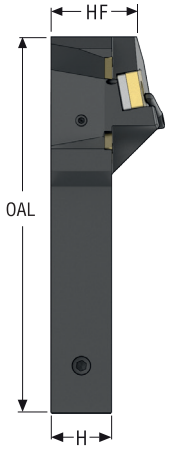
Spare Parts, included in delivery

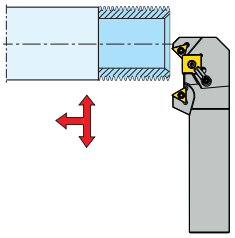
For holders	Anvil screw	Chipbreaker	Insert screw	Key	Key (T-handle)	Plug	Shim
							
CSXCR...	CA4012	PS2518	W400820-T30P	H6B-T30PL	DOUBLE-T	JET-P1/8-5MM	SSN250630

Toolholder for pipe-facing





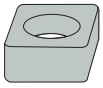
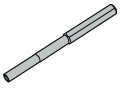




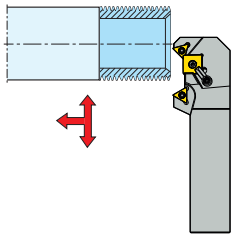
- Right-hand version shown
- For inserts program, see catalog Turning

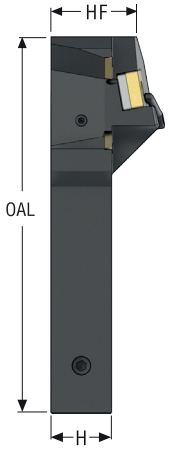
Designation	Item number	KAPR°	B	H	LF	WF	HF	OAL	Weight	CTWS	CTWS
			mm	mm	mm	mm	mm	mm	kg		
MSGNR3240R19-TC-45-60	03120992	90,0	40,0	32,0	174,0	47,0	32,0	195,6	0,7	SN...1906... TCMT16T3...	SN...1906... TCMT16T3...

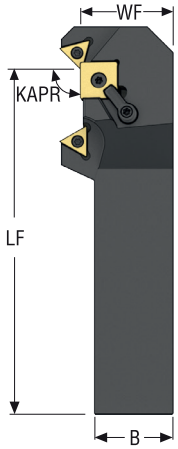
Spare Parts, included in delivery

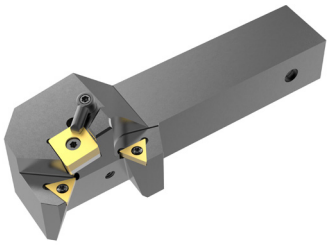
For holders	Cantilever clamp	Clamp screw	Insert key	Insert screw	Insert shim	Key	Key (T-handle)	Plug	Shim pin
									
MSGNR...	MC22	LD6024-T20P	H4B-T15P	C03508-T15P	SSN190412	H6B-T20P	DOUBLE-T	JET-P1/8-5MM	MN1920-T20P

Toolholder for pipe-facing





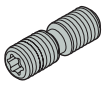
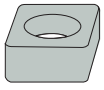
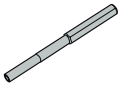




- Right-hand version shown
- For inserts program, see catalog Turning

Designation	Item number	KAPR°	B	H	LF	WF	HF	OAL	Weight	CTWS	CTWS
			Inch	*Inch*	*Inch*	*Inch*	*Inch*	*Inch*	lbs		
MSGNR-125-6-TC-45-60	03120993	90	1.500	1.250	6.850	1.850	1.260	7.701	5.070	SN...1906... TCMT16T3...	SN...1906... TCMT16T3...

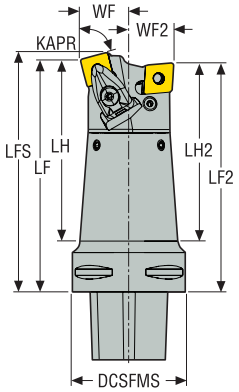
Spare Parts, included in delivery

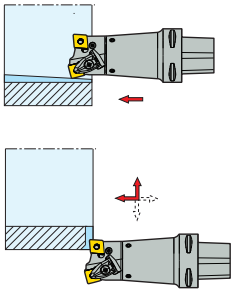
For holders	Cantilever clamp	Clamp screw	Insert key	Insert screw	Insert shim	Key	Key (T-handle)	Plug	Shim pin
									
MSGNR...	MC22	LD6024-T20P	H4B-T15P	C03508-T15P	SSN190412	H6B-T20P	DOUBLE-T	JET-P1/8-5MM	MN1920-T20P

Seco-Capto™, Multi insert pocket tools, internal

Toolholders for inserts SNMA, SNMG, SNMM / CNMA, CNMG, CNMM



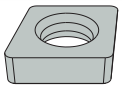




- Right-hand version shown
- For inserts program, see catalog Turning
- GAMO° = Rake angle, LAMS° = Inclination angle
- KAPR = 75°
- C.-DSKNR/L - CLNR/L 75°

Designation	Item number	Seco-Capto size	GAMO°	LAMS°	DCSFMS	LF	LF2	LFS	LH	LH2	WF	WF2	Weight	CTWS
					mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*	
C6-DSKNR2713015-PCLNL2512816	03031406	C6	-5,0 °	-10,0 °	63,0 *2.480*	130,0 *5.118*	128,0 *5.039*	134,0 *5.276*	101,5 *3.996*	99,5 *3.917*	27,0 *1.063*	25,0 *0.984*	0,9 *1.980*	SN1506-CN1606/SN..54-CN..54
C6-DSKNL2713015-PCLNR2512816C	03032390	C6	-5,0 °	-10,0 °	63,0 *2.480*	130,0 *5.118*	128,0 *5.039*	134,0 *5.276*	101,5 *3.996*	99,5 *3.917*	27,0 *1.063*	25,0 *0.984*	2,3 *5.070*	SN1506-CN1606/SN..54-CN..54

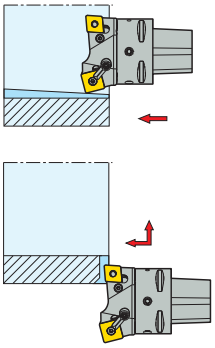
Spare Parts, included in delivery

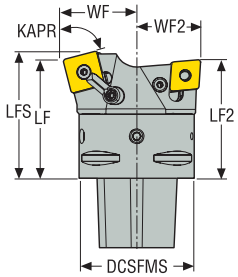
For holders	Clamp	Clamp pin	Clamp screw	Insert shim	Lever pin	Lever screw	Plug	Shim pin	Shim screw	Spring
										
C6	CD16-S	FP2012	L86026-T20P	PCN160412	PP6017	LS0820	P6SS6X5G	RP8286	C05010-T20P	S7010

Accessories

For holders	Clamp kit	Key	Lever key
			
C6	CD16-S16	T20P-7L	3SMS795

Seco-Capto™, Multi insert pocket tools, internal





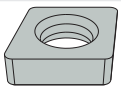
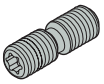


KAPR = 75°
C.-DSKNR/L - CLNR/L 75°

- Right-hand version shown
- For inserts program, see catalog Turning
- GAMO° = Rake angle, LAMS° = Inclination angle
- KAPR = 75°
- C.-DSKNR/L - CLNR/L 75°

Designation	Item number	Seco-Capto size	GAMO°	LAMS°	DCSFMS	LF	LF2	LFS	WF	WF2	Weight	CTWS
					mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*	
C6-MSKNR4006519-PCLNL3506516	03032391	C6	-5,0 °	-10,0 °	63,0 *2.480*	65,0 *2.559*	65,0 *2.559*	69,8 *2.748*	40,0 *1.575*	35,0 *1.378*	0,7 *1.540*	SN1906-CN1606/ SN..64-CN..54
C6-MSKNL4006519-PCLNR3506516C	03032405	C6	-5,0 °	-10,0 °	63,0 *2.480*	65,0 *2.559*	65,0 *2.559*	69,8 *2.748*	40,0 *1.575*	35,0 *1.378*	1,5 *3.310*	SN1906-CN1606/ SN..64-CN..54
C8-MSKNR4508019-PCLNL4508016	03032403	C8	-5,0 °	-10,0 °	80,0 *3.150*	80,0 *3.150*	80,0 *3.150*	85,0 *3.346*	45,0 *1.772*	45,0 *1.772*	3,3 *7.280*	SN1906-CN1606/ SN..64-CN..54
C8-MSKNL4508019-PCLNR4508016C	03031407	C8	-5,0 °	-10,0 °	80,0 *3.150*	80,0 *3.150*	80,0 *3.150*	85,0 *3.346*	45,0 *1.772*	45,0 *1.772*	3,1 *6.830*	SN1906-CN1606/ SN..64-CN..54

Spare Parts, included in delivery

For size	Clamp	Coolant nozzle	Insert shim	Lever pin	Lever screw	Pin	Plug	Screw	Shim pin
									
C6/C8	MC22	CN6	SSN190412	PP6017	LS0820	MN1920-T20P	P6SS6X5G	LD6024-T20P	RP8286

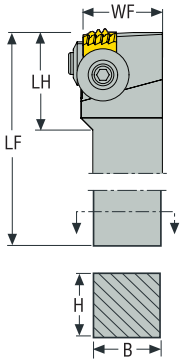
Accessories

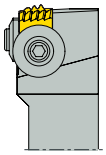
For holders	Key	Lever key
		
C6/C8	T20P-7L	3SMS795

Toolholders for chasers, External

Snap-Tap®







- Right-hand version shown
- For inserts program, see page(s) 176, 177

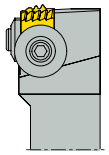
Designation	Item number	B	H	LF	WF	LH	Weight	CTWS
		mm	mm	mm	mm	mm	kg	
CER3232P1-X	03048363	32,0	32,0	170,24	37,25	47,54	1,4	15.875
CER3232P5-X	03048364	32,0	32,0	170,24	37,25	47,54	1,4	25.000

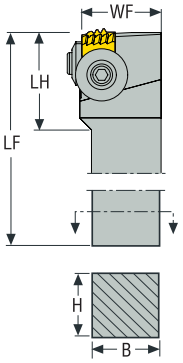
Spare Parts, included in delivery

For holders	Clamp kit side	Clamp kit top	Key, side clamp	Key, top clamp
				
CER	W200613-T20P	W240618-T25P	T20P-7	T25P-7

Toolholders for chasers, External

Snap-Tap®







- Right-hand version shown
- For inserts program, see page(s) 176, 177

Designation	Item number	B	H	LF	WF	LH	Weight	CTWS
		Inch	*Inch*	*Inch*	*Inch*	*Inch*	lbs	
CER1256-1-X	03048365	1.250	1.250	6.702	1.467	1.872	3.310	15.875
CER1256-5-X	03048366	1.250	1.250	6.702	1.467	1.872	3.310	25.000

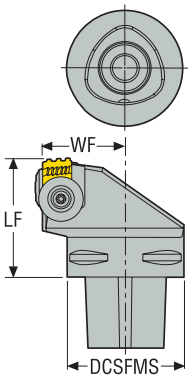
Spare Parts, included in delivery

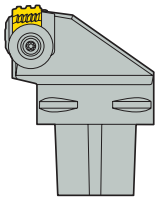
For holders	Clamp kit side	Clamp kit top	Key, side clamp	Key, top clamp
				
CER	W200613-T20P	W240618-T25P	T20P-7	T25P-7

Seco-Capto™ – Toolholders for chasers, external

Snap-Tap®







- Right-hand version shown
- For inserts program, see page(s) 176, 177

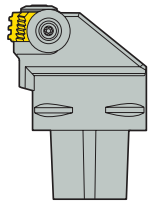
Designation	Item number	DCSFMS	LF	WF	Weight	CTWS
		mm	mm	mm	kg	
C6-CER-45065-1-X	02995827	63,0	65,0	45,0	1,3	15.875
C6-CER-45065-5-X	02995828	63,0	65,0	45,0	1,4	25.000
C8-CER-55080-1-X	02995821	80,0	80,0	55,0	2,7	15.875
C8-CER-55080-5-X	02995822	80,0	80,0	55,0	2,8	25.000

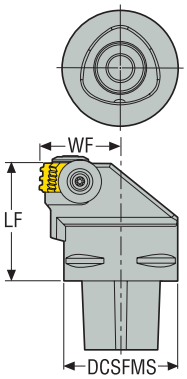
Spare Parts, included in delivery

For holders	Clamp kit side	Clamp kit top	Key, side clamp	Key, top clamp
				
C6/C8-X	W200613-T20P	W240618-T25P	T20P-7	T25P-7

Seco-Capto™ – Toolholders for chasers, internal

Snap-Tap®







- Right-hand version shown
- For inserts program, see page(s) 176, 177

Designation	Item number	DCSFMS	LF	WF	Weight	CTWS
		mm	mm	mm	kg	
C6-CNR-45065-1-X	02995829	63,0	65,0	45,0	1,5	15.875
C6-CNR-45065-5-X	02995831	63,0	65,0	45,0	1,5	25.000
C8-CNR-55080-1-X	02995823	80,0	80,0	55,0	2,9	15.875
C8-CNR-55080-5-X	02995825	80,0	80,0	55,0	3,0	25.000
C8-CNL-55080-1-X	03118011	80,0	80,0	55,0	1,9	15.875
C8-CNL-55080-5-X	03118015	80,0	80,0	55,0	1,7	25.000

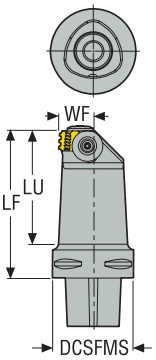
Spare Parts, included in delivery

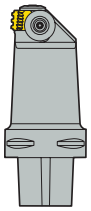
For holders	Clamp kit side	Clamp kit top	Coolant nozzle	Key, side clamp	Key, top clamp
					
...CNR...	W200613-T20P	W240618-T25P	CN6	T20P-7	T25P-7
...CNL...	W200613-T20P	W240618-T25P	–	T20P-7	T25P-7

Seco-Capto™ – Toolholders for chasers, internal

Snap-Tap®







- Right-hand version shown
- For inserts program, see page(s) 176, 177

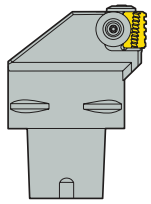
Designation	Item number	DCSFMS	LF	WF	LU	Weight	CTWS
		mm	mm	mm	mm	kg	
C6-CNR-27115-1-X	03003765	63,0	115,0	27,0	88,0	1,9	15.875
C6-CNR-27115-5-X	03010914	63,0	115,0	27,0	88,0	1,9	25.000

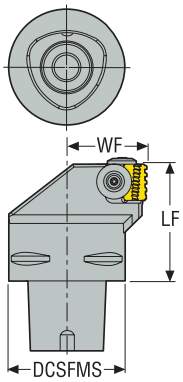
Spare Parts, included in delivery

For holders	Clamp kit side	Clamp kit top	Coolant nozzle	Key, side clamp	Key, top clamp
					
C6...	W200613-T20P	W240618-T25P	CN6	T20P-7	T25P-7

Seco-Capto™ – Toolholders for chasers, internal

Snap-Tap®







- Left-hand version shown
- For inserts program, see page(s) 176, 177

Designation	Item number	DCSFMS	LF	WF	Weight	CTWS
		mm	mm	mm	kg	
C6-CNL-45065-1C-X	02995830	63,0	65,0	45,0	1,4	15.875
C6-CNL-45065-5C-X	02995832	63,0	65,0	45,0	1,3	25.000
C8-CNL-55080-1C-X	02995824	80,0	80,0	55,0	2,9	15.875
C8-CNL-55080-5C-X	02995826	80,0	80,0	55,0	0,7	25.000

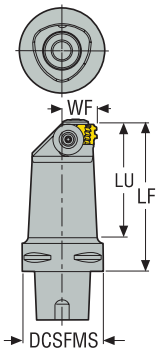
Spare Parts, included in delivery

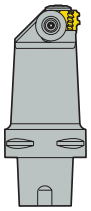
For holders	Clamp kit side	Clamp kit top	Coolant nozzle	Key, side clamp	Key, top clamp
					
C6/C8...	W200613-T20P	W240618-T25P	CN6	T20P-7	T25P-7

Seco-Capto™ – Toolholders for chasers, internal

Snap-Tap®







- Left-hand version shown
- For inserts program, see page(s) 176, 177

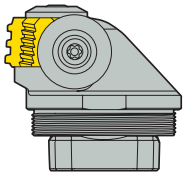
Designation	Item number	DCSFMS	LF	WF	LU	Weight	CTWS
		mm	mm	mm	mm	kg	
C6-CNL-27115-1C-X	03003766	63,0	115,0	27,0	88,0	2,0	15.875
C6-CNL-27115-5C-X	03010915	63,0	115,0	27,0	88,0	1,9	25.000

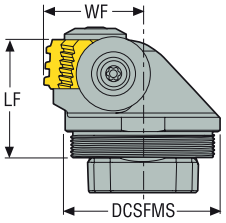
Spare Parts, included in delivery

For holders	Clamp kit side	Clamp kit top	Coolant nozzle	Key, side clamp	Key, top clamp
					
C6...	W200613-T20P	W240618-T25P	CN6	T20P-7	T25P-7

Steadyline®, GL-heads – Toolholders for chasers, internal

Snap-Tap®







- Right-hand version shown
- For inserts program, see page(s) 176, 177

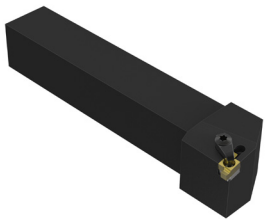
Designation	Item number	DCSFMS	LF	WF	Weight	CTWS
		mm	mm	mm	kg	
GL50-CNR-32035-9-I	03011855	50,0	35,0	32,0	0,4	12.700
GL50-CNR-32038-1-X	03008525	50,0	38,0	32,0	0,5	15.875
GL50-CNR-32044-5-X	03008552	50,0	44,0	32,0	0,5	25.000
GL50-CNL-32035-9-I	03011856	50,0	35,0	32,0	0,5	12.700
GL50-CNL-32038-1-X	03008526	50,0	38,0	32,0	0,5	15.875
GL50-CNL-32044-5-X	03008553	50,0	44,0	32,0	0,4	25.000

Spare Parts, included in delivery

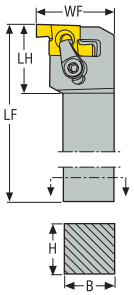
For holders	Clamp kit side	Clamp kit top	Key, clamp	Key, side clamp	Key, top clamp
					
...9-1	W200613-T20P	–	T20P-2D	–	–
...1-X, ...5-X	W200613-T20P	W240618-T25P	–	T20P-2D	T25P-7

Toolholders for Precision Axial Grooves

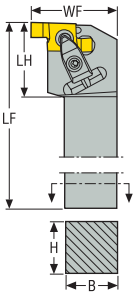
Snap-Tap®

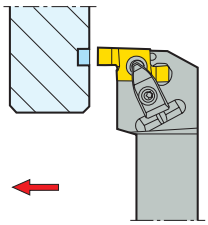


CEAR/L...D



CEAR/L...HD/QHD





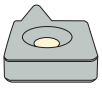
- Right-hand version shown
- For inserts program and INPLM, se catalog Turning

Designation	Item number	H	B	LF	WF 10../14../20..	WF2 12	LH 10../14..	INPLM 10../14../20..	INPLM2 12..	Weight	CTWS
		mm	mm	mm	mm	mm	mm	mm	mm	kg	
CEAR2525M10D	02411447	25,0	25,0	150,0	35,35	38,35	22,0	16,0	18,0	0,8	10../ 12..
CEAL2525M10D	02411448	25,0	25,0	150,0	35,35	38,35	22,0	16,0	18,0	0,8	10../ 12..
CEAR2525M14HD	02627517	25,0	25,0	150,0	36,85	–	31,0	22,0	–	0,8	14..
CEAL2525M14HD	02627516	25,0	25,0	150,0	36,85	–	31,0	22,0	–	0,9	14..
CEAR2525M20QHD	02528518	25,0	25,0	150,0	39,35	–	35,0	28,0	–	0,9	20..
CEAL2525M20QHD	02528519	25,0	25,0	150,0	39,35	–	35,0	28,0	–	0,9	20..

Spare Parts, included in delivery

For holders	Cantilever clamp	Clamp key	Clamp kit	Clamp screw	Insert shim (KL)	Insert shim (KR)	Shim screw	Spring
								
CEAR..10	–	T15P-2	CSP16-T15P	–	–	AKR10	CS2507-T07P	–
CEAL..10	–	T15P-2	CSP16-T15P	–	AKL10	–	CS2507-T07P	–
CEAR..14	CHD16	T15P-2	–	L85020-T15P	–	AKR14	CS3507-T09P	S6912
CEAL..14	CHD16	T15P-2	–	L85020-T15P	AKL14	–	CS3507-T09P	S6912
CEAR..20	CHD22	T20P-7	–	L86025-T20P	–	AKR20	CS4009-T15P	S7616
CEAL..20	CHD22	T20P-7	–	L86025-T20P	AKL20	–	CS4009-T15P	S7616

Accessories

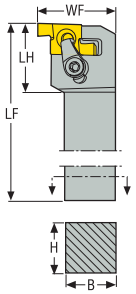
For holders	Insert shim (K)	Shim key
		
CEAR..10	KX12-2	T07P-2
CEAL..10	KX12-2	T07P-2
CEAR..14	–	T09P-2
CEAL..14	–	T09P-2
CEAR..20	–	T15P-2
CEAL..20	–	T15P-2

Shim KX12-2 for insert 12..

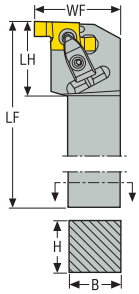
Toolholders for Precision Axial Grooves

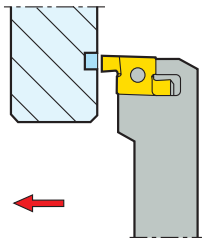
Snap-Tap®

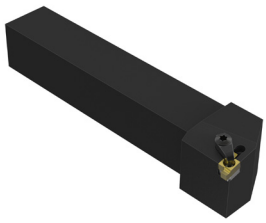
CEAR/L...D



CEAR/L...HD/QHD







- For inserts program, see catalog Turning

Designation	Item number	H	B	LF	WF	LH	Weight	CTWS
		Inch	*Inch*	*Inch*	*Inch*	*Inch*	lbs	
CEAR1006-10	00072625	1.000	1.000	6.000	1.392	1.110	2.200	10 *12EAR*
CEAL1006-10	00072613	1.000	1.000	6.000	1.392	1.110	1.980	10 *12EAL*
CEAR1006-14	00072623	1.000	1.000	6.000	1.451	1.110	2.200	14EAR

Spare Parts, included in delivery

For size	Clamp key	Clamp kit	Insert shim	Insert shim (KL)	Insert shim (KR)	Shim key	Shim screw
							
CEAR..-10	T15P-2	CSP16-T15P	–	–	AKR10	–	CS2507-T07P
CEAL..-10	T15P-2	CSP16-T15P	–	AKL10	–	–	CS2507-T07P
CEAR..-14	T15P-2	CSP16-T15P	AKR14	–	–	T09P-2	CS3507-T09P

Accessories

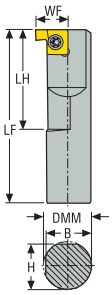
For size	Insert shim (K)	Shim key
		
CEAR..-10	–	T07P-2
CEAL..-10	KX12-2	T07P-2
CEAR..-14	–	–

Toolholders for Precision Grooves

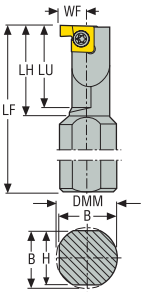
Snap-Tap®

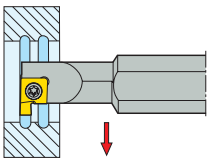


SNR/L..H09



SNR/L





- Right-hand version shown
- For inserts program, see catalog Turning
- DCINN - minimum bore diameter

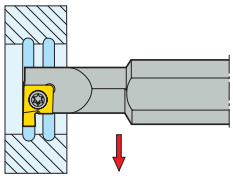
Designation	Item number	H	B	LF	WF	LH	LU	DMM	DCINN	Weight	CTWS
		mm	mm	mm	mm	mm	mm	mm	mm	kg	
SNR0010H9	75025330	9,5	9,5	100,0	7,5	20,0	–	10,0	14,0	0,1	9..
SNR0010K9	75025332	15,5	15,5	125,0	6,5	25,0	23,0	16,0	14,0	0,2	9..
SNR0013L9	75025334	15,5	15,5	140,0	8,0	32,0	30,0	16,0	17,0	0,2	9..
SNR0016M9	75025336	15,5	15,5	150,0	9,5	40,0	38,0	16,0	20,0	0,3	9..
SNL0010H9	75025331	9,5	9,5	100,0	7,5	20,0	–	10,0	14,0	0,1	9..
SNL0010K9	75025333	15,5	15,5	125,0	6,5	25,0	23,0	16,0	14,0	0,2	9..
SNL0013L9	75025335	15,5	15,5	140,0	8,0	32,0	30,0	16,0	17,0	0,2	9..
SNL0016M9	75025337	15,5	15,5	150,0	9,5	40,0	38,0	16,0	20,0	0,3	9..

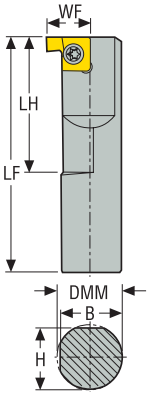
Spare Parts, included in delivery

For holders	Insert key	Insert screw
		
..9	T07P-2	C02506-T07P

Toolholders for Precision Grooves

Snap-Tap®







- Right-hand version shown
- For inserts program, see catalog Turning

Designation	Item number	H	B	DMM	LF	LH	WF	Weight	CTWS
		Inch	*Inch*	*Inch*	*Inch*	*Inch*	*Inch*	lbs	
SNR00037550-9	00072560	0.625	0.654	0.375	5.000	1.000	0.266	0.440	9..
SNR0005055-9	00072586	0.441	0.470	0.500	5.500	1.250	0.319	0.440	9..
SNR00062560-9	00072588	0.566	0.587	0.625	6.000	1.500	0.378	0.660	9..
SNL00037540-9	00072552	0.336	0.350	0.375	4.000	–	0.299	0.220	9..
SNL00037550-9	00072595	0.336	0.350	0.375	5.000	1.000	0.259	0.440	9..
SNR00037560-9-H	00072562	0.441	0.350	0.375	6.000	–	0.299	0.660	9..

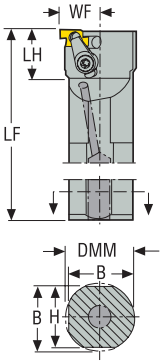
Spare Parts, included in delivery

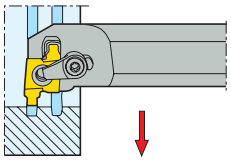
For size	Insert key	Insert screw
		
..-9	T07P-2	C02506-T07P

Toolholders for Precision Grooves

Snap-Tap®



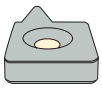




- Right-hand version shown
- For inserts program, see catalog Turning
- DCINN - minimum bore diameter
- WF (10../14../20../26..) = WF2 (12..)

Designation	Item number	H	B	LF	WF	WF2	LH	DMM	DCINN	DCINN2	Weight	CTWS
		mm	mm	mm	mm	mm	mm	mm	mm	mm	kg	
CNR0020P10DA	02411454	18,0	19,0	170,0	13,5	16,5	26,0	20,0	26,0	29,0	0,4	10../12..
CNR0025R10DA	02411459	23,0	24,0	200,0	16,0	19,0	28,0	25,0	31,0	34,0	0,6	10../12..
CNR0032S10DA	02411467	30,0	31,0	250,0	19,5	22,5	31,0	32,0	38,0	41,0	1,4	10../12..
CNL0020P10DA	02411456	18,0	19,0	170,0	13,5	16,5	26,0	20,0	26,0	29,0	0,4	10../12..
CNL0025R10DA	02411464	23,0	24,0	200,0	16,0	19,0	28,0	25,0	31,0	34,0	0,6	10../12..
CNL0032S10DA	02411468	30,0	31,0	250,0	19,5	22,5	31,0	32,0	38,0	41,0	1,4	10../12..
CNR0020P14A	00040041	18,0	19,0	170,0	15,0	–	32,0	20,0	30,0	–	0,4	14..
CNR0025R14A	00040042	23,0	24,0	200,0	17,5	–	45,0	25,0	34,0	–	0,7	14..
CNR0032S14A	00040043	30,0	31,0	250,0	21,0	–	48,0	32,0	40,0	–	1,4	14..
CNR0040T14A	00040044	37,0	38,5	300,0	25,0	–	50,0	40,0	48,0	–	2,6	14..
CNL0020P14A	00040045	18,0	19,0	170,0	15,0	–	32,0	20,0	30,0	–	0,4	14..
CNL0025R14A	00040046	23,0	24,0	200,0	17,5	–	45,0	25,0	34,0	–	0,7	14..
CNL0032S14A	00040047	30,0	31,0	250,0	21,0	–	48,0	32,0	40,0	–	1,4	14..

Spare Parts, included in delivery

For holders	Clamp key	Clamp kit	Insert shim (K)	Shim screw
				
..10	T15P-2	CSP16-T15P	KX10-2	CS2507-T07P
..14	T15P-2	CSP16-T15P	KX14-2	CS3507-T09P

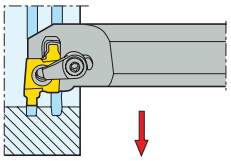
Accessories

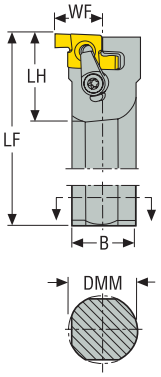
For holders	Insert shim (K)	Shim key
		
..10	KX12-2	T07P-2
..14	–	T09P-2

Shim KX12-2 for insert 12..

Toolholders for Precision Grooves

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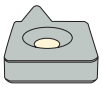




- Right-hand version shown
- For inserts program, see catalog Turning

Designation	Item number	H	B	LF	WF	LH	Weight	CTWS
		Inch	*Inch*	*Inch*	*Inch*	*Inch*	lbs	
CNR000757-10	00072573	0.691	0.707	7.000	0.490	1.480	0.880	10../12..
CNL000757-10	00072624	0.650	0.707	7.000	0.490	1.480	0.880	10../12..
CNR001008-10	00072569	0.921	0.957	8.000	0.618	2.500	1.760	10../12..
CNL001008-10	00072610	0.902	0.957	8.000	0.620	1.559	1.760	10../12..
CNR0012510-10	00072563	1.150	1.209	10.000	0.750	1.772	3.310	10../12..
CNR0015012-10	00072592	1.339	1.427	12.008	0.858	1.772	0.440	10../12..
CNR00075010-10-H	00072583	0.691	0.730	10.000	0.490	1.480	2.650	10../12..
CNR000757-14	00072571	0.691	0.707	7.000	0.570	1.693	0.880	14..
CNR001008-14	00072567	0.921	0.957	8.000	0.700	1.732	1.980	14..
CNL001008-14	00072582	1.000	0.961	8.000	0.704	–	1.760	14..
CNR0012510-14	00072561	1.150	1.209	10.000	0.831	1.969	3.310	–

Spare Parts, included in delivery

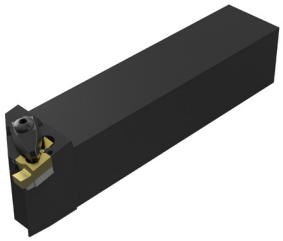
For size	Clamp key	Clamp kit	Insert shim (K)	Shim screw
				
..-10	T15P-2	CSP16-T15P	KX10-2	CS2507-T07P
..-10-10-H	T15P-2	CSP16-T15P	KX10-2	CS2507-T07P
..-14	T15P-2	CSP16-T15P	KX14-2	CS3507-T09P

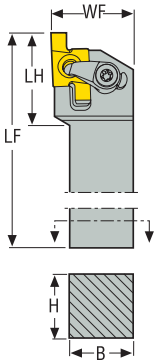
Accessories

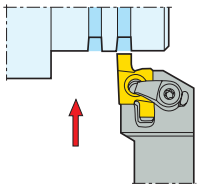
For size	Insert shim (K)	Shim key
		
..-10	KX12-2	T07P-2
..-10-10-H	–	T07P-2
..-14	–	–

Toolholders for Precision Grooves

Snap-Tap



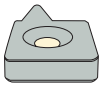




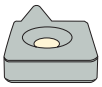
- Right-hand version shown
- For inserts program, see catalog Turning

Designation	Item number	H	B	LF	WF	LH	Weight	CTWS
		Inch	*Inch*	*Inch*	*Inch*	*Inch*	lbs	
CER0504-10Q	00072566	0.500	0.500	4.000	0.625	0.900	0.440	10../12..
CER0755-10Q	00072564	0.750	0.750	5.000	1.000	0.900	0.880	10../12..
CEL0755-10Q	00072559	0.750	0.750	5.000	1.000	0.900	1.100	10../12..
CER1006-10Q	00072600	1.000	1.000	6.000	1.250	0.900	1.760	10../12..
CEL1006-10Q	00072596	1.000	1.000	6.000	1.250	0.900	1.760	10../12..
CER1006-14Q	00072634	1.000	1.000	6.000	1.250	1.100	1.760	14..
CEL1006-14Q	00072628	1.000	1.000	6.000	1.250	1.100	1.980	14..

Spare Parts, included in delivery

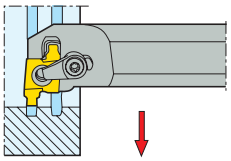
For size	Clamp key	Clamp kit	Insert shim (K)	Shim screw
				
..-10Q	T15P-2	CSP16-T15P	KX10-2	CS2507-T07P
R..-14Q	T15P-2	CSP16-T15P	KX14-2	CS3507-T09P
L..-14Q	T15P-2	CSP16-T15P	KX14-2	CS3507-T09P

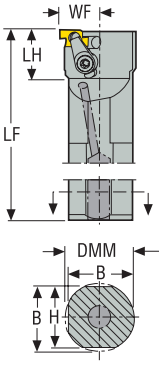
Accessories

For size	Insert shim (K)	Shim key
		
..-10Q	KX12-2	T07P-2
R..-14Q	–	T09P-2
L..-14Q	–	T09P-2

Toolholders for Precision Grooves

Snap-Tap®



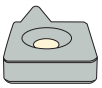




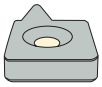
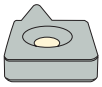
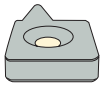
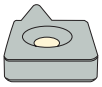
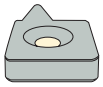
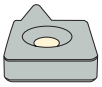
- Right-hand version shown
- For inserts program, see catalog Turning
- DCINN - minimum bore diameter
- WF (10../14../20../26..) = WF2 (12..)

Designation	Item number	DMM	H	B	LF	WF	LH	DCINN	DCINN2	Weight	CTWS
		Inch	*Inch*	*Inch*	*Inch*	*Inch*	*Inch*	*Inch*	*Inch*	lbs	
CNR001008-20AHD	02562823	1.000	0.902	0.957	7.992	0.705	1.969	1.400	–	1.760	20..
CNL001008-20AHD	02562826	1.000	0.902	0.957	7.992	0.705	1.969	1.400	–	1.540	20..
CNR0012510-20AHD	02562824	1.250	1.150	1.209	10.000	0.945	2.165	1.700	1.400	3.310	20..
CNL0012510-20AHD	02562827	1.250	1.150	1.209	10.000	0.945	2.165	1.700	1.400	2.870	20..
CNR0015012-20AHD	02562825	1.500	1.339	1.427	12.008	1.063	2.165	2.000	1.600	5.510	20..
CNL0015012-20AHD	02562828	1.500	1.339	1.427	12.008	1.063	2.165	2.000	1.600	5.070	20..
CNR0012510-26AHD	02562830	1.250	1.150	1.209	10.000	1.063	2.323	2.000	1.600	3.090	26..
CNL0012510-26AHD	02564043	1.250	1.150	1.209	10.000	1.063	2.323	2.000	1.600	3.090	26..
CNR0015012-26AHD	02562831	1.500	1.339	1.427	12.008	1.183	2.323	2.100	2.100	5.070	26..
CNL0015012-26AHD	02563555	1.500	1.339	1.427	12.008	1.177	2.323	2.100	2.100	4.850	26..
CNR0017514-26AHD	02562832	1.750	1.591	1.677	13.976	1.307	2.283	2.300	1.800	8.160	26..
CNL0017514-26AHD	02563563	1.750	1.591	1.677	13.976	1.307	2.283	2.300	1.800	8.380	26..
CNR0020014-26AHD	02562833	2.000	1.843	1.929	13.976	1.433	2.283	2.500	2.000	11.460	26..
CNR0025016-26AHD	02562834	2.500	2.343	2.429	15.984	1.683	2.283	3.000	2.500	20.720	26..
CNL0025016-26AHD	02563564	2.500	2.343	2.429	15.984	1.683	2.283	3.000	2.500	20.720	26..

Spare Parts, included in delivery

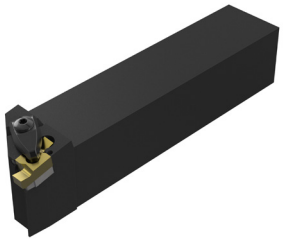
For holders	Cantilever clamp	Clamp key	Clamp screw	Insert shim (K)	Shim screw	Spring
						
..-20	CHD22	T20P-7	L86025-T20P	KX20-2	CS4009-T15P	S7616
..-26	CHD27	T20P-7	L86025-T20P	KX26-2	C05012-T15P	S7616

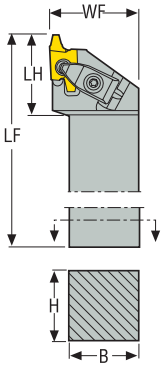
Accessories

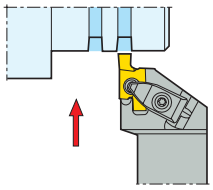
For holders	Insert shim (K) 1	Insert shim (K) 2	Insert shim (K) 3	Insert shim (K) 4	Insert shim (K) 5	Insert shim (K) 6	Shim key
							
..-20	KX20-99	KX20-0	KX20-1	KX20-3	KX20-4	KX20-5	T15P-2
..-26	KX26-99	KX26-0	KX26-1	KX26-3	KX26-4	KX26-5	T15P-2

Toolholders for Precision Grooves

Snap-Tap







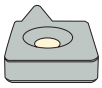
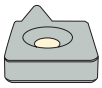
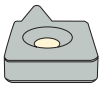
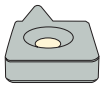
- Right-hand version shown
- For inserts program, see catalog Turning

Designation	Item number	H	B	LF	WF	LH	Weight	CTWS
		Inch	*Inch*	*Inch*	*Inch*	*Inch*	lbs	
CER1006-20QHD	02529045	1.000	1.000	6.000	1.250	1.300	1.760	20..
CEL1006-20QHD	02529053	1.000	1.000	6.000	1.250	1.300	1.760	20..
CER1256-20QHD	02529057	1.250	1.250	6.000	1.500	1.417	2.650	20..
CEL1256-20QHD	02529061	1.250	1.250	6.000	1.500	1.300	2.870	20..
CER1006-26QHD	02529063	1.000	1.000	6.000	1.250	1.800	1.980	26..
CEL1006-26QHD	02529064	1.000	1.000	6.000	1.250	1.800	2.200	26..
CER1256-26QHD	02529066	1.250	1.250	6.000	1.500	1.800	2.870	26..
CER1506-26QHD	02529069	1.500	1.500	6.000	1.750	1.800	3.970	26..

Spare Parts, included in delivery

For size	Cantilever clamp	Clamp key	Clamp screw	Insert shim (K)	Shim screw	Spring
						
..-20Q	CHD22	T20P-7	L86025-T20P	KX20-2	CS4009-T15P	S7616
..-26Q	CHD27	T20P-7	L86025-T20P	KX26-2	C05012-T15P	S7616

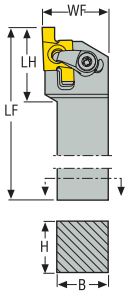
Accessories

For size	Insert shim (K) 1	Insert shim (K) 2	Insert shim (K) 3	Insert shim (K) 4	Insert shim (K) 5	Insert shim (K) 6	Shim key
							
..-20	KX20-99	KX20-0	KX20-1	KX20-3	KX20-4	KX20-5	T15P-2
..-26	KX26-99	KX26-0	KX26-1	KX26-3	KX26-4	KX26-5	T15P-2

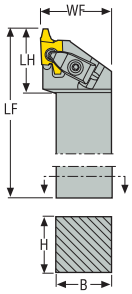
Toolholders for Precision Grooves

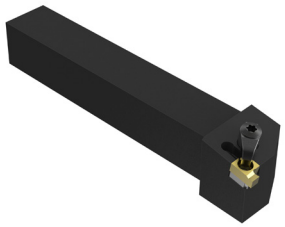
Snap-Tap®

CER/L...D



CER/L...QHD

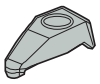
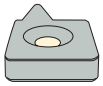




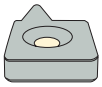
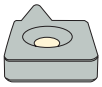
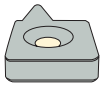
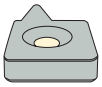
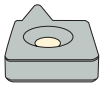
- Right-hand version shown
- For inserts program, see catalog Turning

Designation	Item number	H	B	LF 10../14..	LF2 12	WF	LH 10../14..	LH2 12	Weight	CTWS
		mm	mm	mm	mm	mm	mm	mm	kg	
CER1212M10D	02435850	12,0	12,0	150,0	153,0	16,0	21,5	24,5	0,2	10../ 12..
CER1616H10D	02411427	16,0	16,0	100,0	103,0	16,0	21,5	24,5	0,3	10../ 12..
CER2020K10D	02411428	20,0	20,0	125,0	128,0	25,0	21,5	24,5	0,4	10../ 12..
CER2525M10D	02411430	25,0	25,0	150,0	153,0	32,0	21,5	24,5	0,8	10../ 12..
CER3225P10D	02411432	32,0	25,0	170,0	173,0	32,0	22,5	25,5	1,1	10../ 12..
CEL1212M10D	02435852	12,0	12,0	150,0	153,0	16,0	21,5	24,5	0,2	10../ 12..
CEL1616H10D	02411436	16,0	16,0	100,0	103,0	16,0	21,5	24,5	0,3	10../ 12..
CEL2020K10D	02411437	20,0	20,0	125,0	128,0	25,0	21,5	24,5	0,4	10../ 12..
CEL2525M10D	02411438	25,0	25,0	150,0	153,0	32,0	21,5	24,5	0,8	10../ 12..
CEL3225P10D	02411440	32,0	25,0	170,0	173,0	32,0	22,5	25,5	1,1	10../ 12..
CER2525M14QHD	02538606	25,0	25,0	150,0	–	32,0	26,0	–	0,8	14..
CER3225P14QHD	02627519	32,0	25,0	170,0	–	32,0	26,0	–	1,1	14..
CER3232P14QHD	02627520	32,0	32,0	170,0	–	32,0	26,0	–	1,4	14..
CEL2525M14QHD	02627518	25,0	25,0	150,0	–	32,0	26,0	–	0,8	14..

Spare Parts, included in delivery

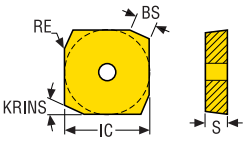
For holders	Cantilever clamp	Clamp key	Clamp kit	Clamp screw	Insert shim (K)	Shim screw	Spring
							
..10	–	T15P-2	CSP16-T15P	–	KX10-2	CS2507-T07P	–
..14	CHD16	T15P-2	–	L85020-T15P	KX14-2	CS3507-T09P	S6912

Accessories

For holders	Insert shim (K)	Insert shim (K) 1	Insert shim (K) 2	Insert shim (K) 3	Insert shim (K) 4	Insert shim (K) 5	Shim key
							
..10	KX12-2	–	–	–	–	–	T07P-2
..14	–	KX14-0	KX14-1	KX14-3	KX14-4	KX14-5	T09P-2

Shim KX12-2 for insert 12..

SCNN for peeling

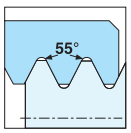


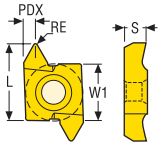
Designation	Note	RE	BS	IC	S	KRINS°	Grades Coated
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		TP250T
SCNN250640-R25	*	4,0 *0.157*	6,2 *0.244*	25,0 *0.984*	6,35 *0.250*	23	■
SCNN250640-R30		4,0 *0.157*	6,6 *0.260*	25,0 *0.984*	6,35 *0.250*	28	■

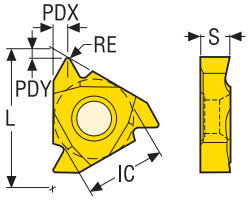
* R25 for use in 25 degree pockets only - not the 30 degree - R30
■ **Stock standard.**

Partial Profile 55° – External Threading

Snap-Tap®







16ER..



16ER..A



16ER..A1



16ER..A2



16V55*



22ER..



26ER/26NR..





Insert Part No. Right	Pitch		RE	PDY	PDX	IC	W1	L	S	Grades				
										Coated				Uncoated
	mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	CP200	CP300	CP500	TTP2050	H15
16ERA55	0,5-1,5	48-16	0,08 *0.003*	0,6 *0.024*	0,8 *0.031*	9,525 *0.375*	– –	16,5 *0.650*	3,47 *0.137*			■		
16ERAG55	0,5-3	48-8	0,08 *0.003*	1,1 *0.043*	1,5 *0.059*	9,525 *0.375*	– –	16,5 *0.650*	3,47 *0.137*	■		■	■	■
16ERAG55-A	0,5-3	48-8	0,08 *0.003*	1,1 *0.043*	1,5 *0.059*	9,525 *0.375*	– –	16,5 *0.650*	3,47 *0.137*			■	■	
16ERAG55-A1	0,5-3	48-8	0,08 *0.003*	1,1 *0.043*	1,5 *0.059*	9,525 *0.375*	– –	16,5 *0.650*	3,47 *0.137*			■		
16ERAG55-A2	0,5-3	48-8	0,08 *0.003*	1,1 *0.043*	1,5 *0.059*	9,525 *0.375*	– –	16,5 *0.650*	3,47 *0.137*			■		
16ERG55	1,75-3	14-8	0,2 *0.008*	1,1 *0.043*	1,5 *0.059*	9,525 *0.375*	– –	16,5 *0.650*	3,47 *0.137*	■		■	■	
16ERG55-A	1,75-3	14-8	0,2 *0.008*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	– –	16,5 *0.650*	3,47 *0.137*			■	■	
16ERG55-A1	1,75-3	14-8	0,2 *0.008*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	– –	16,5 *0.650*	3,47 *0.137*			■		
16ERG55-A2	1,75-3	14-8	0,2 *0.008*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	– –	16,5 *0.650*	3,47 *0.137*			■		
22ERN55	3,5-5	7-5	0,4 *0.016*	1,8 *0.071*	2,5 *0.098*	12,7 *0.500*	– –	22,0 *0.866*	4,71 *0.185*			■		■
26ERK55	5,5-10	4.5-2.5	0,7 *0.028*	– –	5,0 *0.197*	– –	15,875 *0.625*	26,0 *1.024*	7,88 *0.310*		■	■		
26NRK55	5,5-10	4.5-2.5	0,7 *0.028*	– –	5,0 *0.197*	– –	15,875 *0.625*	26,0 *1.024*	7,88 *0.310*			■		
16V55	–	–	– –	– –	– –	– –	– –	– –	– –			■		

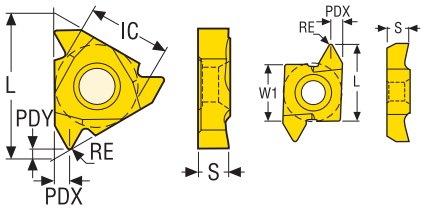
Insert Part No. Left	Pitch		RE	PDY	PDX	IC	W1	L	S	Grades				
										Coated				Uncoated
	mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	CP200	CP300	CP500	TTP2050	H15
16ELA55	0,5-1,5	48-16	0,08 *0.003*	0,6 *0.024*	0,8 *0.031*	9,525 *0.375*	– –	16,5 *0.650*	3,47 *0.137*			■		
16ELAG55	0,5-3	48-8	0,08 *0.003*	1,1 *0.043*	1,5 *0.059*	9,525 *0.375*	– –	16,5 *0.650*	3,47 *0.137*			■		
16ELG55	1,75-3	14-8	0,2 *0.008*	1,1 *0.043*	1,5 *0.059*	9,525 *0.375*	– –	16,5 *0.650*	3,47 *0.137*			■		
22ELN55	3,5-5	7-5	0,4 *0.016*	1,8 *0.071*	2,5 *0.098*	12,7 *0.500*	– –	22,0 *0.866*	4,71 *0.185*			■		

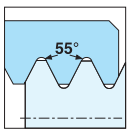
■ **Stock standard.**

* Toolset contents: 3 pcs 16ERG55, CP500, 3 pcs 16NRG55, CP500, 2 pcs 16ERA55, CP500 and 2 pcs 16NRA55, CP500

Partial Profile 55° – Internal Threading

Snap-Tap®





09NR/11Nx/16Nx/22Nx..



16NR..A



16NR..A1



16NR..A2



26ER/26NR..



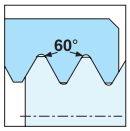


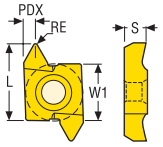
Insert Part No. Right	Pitch		RE	PDY	PDX	IC	W1	L	S	Grades				
										Coated				Uncoated
	mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	CP200	CP300	CP500	TTP2050	H15
09NRA55	0,5-1,5	48-16	0,08 *0.003*	0,7 *0.028*	0,8 *0.031*	5,56 *0.219*	– –	9,6 *0.378*	2,4 *0.094*			■		
11NRA55	0,5-1,5	48-16	0,08 *0.003*	0,6 *0.024*	0,8 *0.031*	6,35 *0.250*	– –	11,0 *0.433*	3,0 *0.118*			■		■
16NRA55	0,5-1,5	48-16	0,08 *0.003*	0,6 *0.024*	0,8 *0.031*	9,525 *0.375*	– –	16,5 *0.650*	3,47 *0.137*			■		■
16NRAG55	0,5-3	48-8	0,08 *0.003*	1,1 *0.043*	1,5 *0.059*	9,525 *0.375*	– –	16,5 *0.650*	3,47 *0.137*	■		■	■	
16NRAG55-A	0,5-3	48-8	0,08 *0.003*	1,1 *0.043*	1,5 *0.059*	9,525 *0.375*	– –	16,5 *0.650*	3,47 *0.137*			■	■	
16NRAG55-A1	0,5-3	48-8	0,08 *0.003*	1,1 *0.043*	1,5 *0.059*	9,525 *0.375*	– –	16,5 *0.650*	3,47 *0.137*			■		
16NRAG55-A2	0,5-3	48-8	0,08 *0.003*	1,1 *0.043*	1,5 *0.059*	9,525 *0.375*	– –	16,5 *0.650*	3,47 *0.137*			■		
16NRG55	1,75-3	14-8	0,2 *0.008*	1,1 *0.043*	1,5 *0.059*	9,525 *0.375*	– –	16,5 *0.650*	3,47 *0.137*	■		■	■	
16NRG55-A	1,75-3	14-8	0,2 *0.008*	1,1 *0.043*	1,5 *0.059*	9,525 *0.375*	– –	16,5 *0.650*	3,47 *0.137*			■	■	
16NRG55-A1	1,75-3	14-8	0,2 *0.008*	1,1 *0.043*	1,5 *0.059*	9,525 *0.375*	– –	16,5 *0.650*	3,47 *0.137*			■		
16NRG55-A2	1,75-3	14-8	0,2 *0.008*	1,1 *0.043*	1,5 *0.059*	9,525 *0.375*	– –	16,5 *0.650*	3,47 *0.137*			■		
22NRN55	3,5-5	7-5	0,4 *0.016*	1,8 *0.071*	2,5 *0.098*	12,7 *0.500*	– –	22,0 *0.866*	4,71 *0.185*			■		
26ERK55	5,5-10	4.5-2.5	0,7 *0.028*	– –	5,0 *0.197*	– –	15,875 *0.625*	26,0 *1.024*	7,88 *0.310*		■	■		

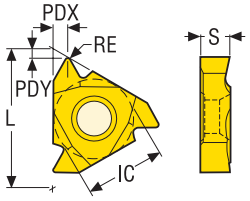
Insert Part No. Left	Pitch		RE	PDY	PDX	IC	W1	L	S	Grades				
										Coated				Uncoated
	mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	CP200	CP300	CP500	TTP2050	H15
11NLA55	0,5-1,5	48-16	0,08 *0.003*	0,6 *0.024*	0,8 *0.031*	6,35 *0.250*	– –	11,0 *0.433*	3,0 *0.118*			■		
16NLA55	0,5-1,5	48-16	0,08 *0.003*	0,6 *0.024*	0,8 *0.031*	9,525 *0.375*	– –	16,5 *0.650*	3,47 *0.137*			■		
16NLAG55	0,5-3	48-8	0,08 *0.003*	1,1 *0.043*	1,5 *0.059*	9,525 *0.375*	– –	16,5 *0.650*	3,47 *0.137*			■		
16NLG55	1,75-3	14-8	0,2 *0.008*	1,1 *0.043*	1,5 *0.059*	9,525 *0.375*	– –	16,5 *0.650*	3,47 *0.137*			■		
22NLN55	3,5-5	7-5	0,4 *0.016*	1,8 *0.071*	2,5 *0.098*	12,7 *0.500*	– –	22,0 *0.866*	4,71 *0.185*			■		

Partial Profile 60° – External Threading

Snap-Tap®







16ER..A



16ER..A1



16ER..A2



16Ex/22Ex..



16V60*



26ER/26NR





Insert Part No. Right	Pitch		RE	PDY	PDX	IC	W1	L	S	Grades				
										Coated				Uncoated
	mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	CP200	CP300	CP500	TTP2050	H15
16ERA60	0,5-1,5	48-16	0,08 *0.003*	0,6 *0.024*	0,8 *0.031*	9,525 *0.375*	– –	16,5 *0.650*	3,47 *0.137*	■		■	■	■
16ERA60-A	0,5-1,5	48-16	0,08 *0.003*	0,6 *0.024*	0,8 *0.031*	9,525 *0.375*	– –	16,5 *0.650*	3,47 *0.137*			■	■	
16ERA60-A1	0,5-1,5	48-16	0,08 *0.003*	0,6 *0.024*	0,8 *0.031*	9,525 *0.375*	– –	16,5 *0.650*	3,47 *0.137*			■		
16ERA60-A2	0,5-1,5	48-16	0,08 *0.003*	0,6 *0.024*	0,8 *0.031*	9,525 *0.375*	– –	16,5 *0.650*	3,47 *0.137*			■		
16ERAG60-A	0,5-3	48-8	0,08 *0.003*	1,1 *0.043*	1,5 *0.059*	9,525 *0.375*	– –	16,5 *0.650*	3,47 *0.137*			■	■	
16ERAG60-A1	0,5-3	48-8	0,08 *0.003*	1,1 *0.043*	1,5 *0.059*	9,525 *0.375*	– –	16,5 *0.650*	3,47 *0.137*			■		
16ERAG60-A2	0,5-3	48-8	0,08 *0.003*	1,1 *0.043*	1,5 *0.059*	9,525 *0.375*	– –	16,5 *0.650*	3,47 *0.137*			■		
16ERAG60	0,5-3	48-8	0,08 *0.003*	1,1 *0.043*	1,5 *0.059*	9,525 *0.375*	– –	16,5 *0.650*	3,47 *0.137*	■		■	■	■
16ERG60	1,75-3	14-8	0,18 *0.007*	1,1 *0.043*	1,5 *0.059*	9,525 *0.375*	– –	16,5 *0.650*	3,47 *0.137*	■		■	■	■
16ERG60-A	1,75-3	14-8	0,18 *0.007*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	– –	16,5 *0.650*	3,47 *0.137*			■	■	
16ERG60-A1	1,75-3	14-8	0,18 *0.007*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	– –	16,5 *0.650*	3,47 *0.137*			■		
16ERG60-A2	1,75-3	14-8	0,18 *0.007*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	– –	16,5 *0.650*	3,47 *0.137*			■		
22ERN60	3,5-5	7-5	0,4 *0.016*	1,8 *0.071*	2,5 *0.098*	12,7 *0.500*	– –	22,0 *0.866*	4,71 *0.185*	■	■	■		■
26ERK60	5,5-10	4.5-2.5	0,4 *0.016*	– –	5,0 *0.197*	– –	15,875 *0.625*	26,0 *1.024*	7,88 *0.310*		■	■		
26NRK60	5,5-10	4.5-2.5	0,4 *0.016*	– –	5,0 *0.197*	– –	15,875 *0.625*	26,0 *1.024*	7,88 *0.310*		■	■		
16V60	–	–	– –	– –	– –	– –	– –	– –	– –			■		

■ **Stock standard.**

* Toolset contents: 3 pcs 16ERG60, CP500, 3 pcs 16NRG60, CP500, 2 pcs 16ERA60, CP500 and 2 pcs 16NRA60, CP500

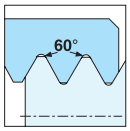
Insert Part No. Left	Pitch		RE	PDY	PDX	IC	W1	L	S	Grades				
										Coated				Uncoated
	mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	CP200	CP300	CP500	TTP2050	H15
16ELA60	0,5-1,5	48-16	0,08 *0.003*	0,6 *0.024*	0,8 *0.031*	9,525 *0.375*	– –	16,5 *0.650*	3,47 *0.137*			■		

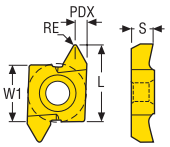
Insert Part No. Left	Pitch		RE	PDY	PDX	IC	W1	L	S	Grades				
										Coated				Uncoated
	mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	CP200	CP300	CP500	TTP2050	H15
16ELAG60	0,5-3	48-8	0,08 *0.003*	1,1 *0.043*	1,5 *0.059*	9,525 *0.375*	– –	16,5 *0.650*	3,47 *0.137*			■		
16ELG60	1,75-3	8-14	0,18 *0.007*	1,1 *0.043*	1,5 *0.059*	9,525 *0.375*	– –	16,5 *0.650*	3,47 *0.137*			■		
22ELN60	3,5-5	5-7	0,4 *0.016*	1,8 *0.071*	2,5 *0.098*	12,7 *0.500*	– –	22,0 *0.866*	4,71 *0.185*			■		

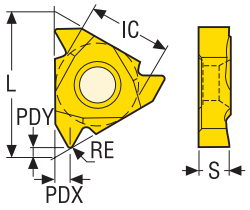
■ **Stock standard.**

Partial Profile 60° – Internal Threading

Snap-Tap®







11NR/16NR..A



11NR/16NR..A1



11NR/16NR..A2



26ER/26NR





Insert Part No. Right	Pitch		RE	PDY	PDX	IC	W1	L	S	Grades				
										Coated				Uncoated
	mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	CP200	CP300	CP500	TTP2050	H15
09NRA60	0,5-1,5	48-16	0,08 *0.003*	0,7 *0.028*	0,8 *0.031*	5,56 *0.219*	– –	9,6 *0.378*	2,4 *0.094*			■		
11NRA60	0,5-1,5	48-16	0,08 *0.003*	0,7 *0.028*	0,8 *0.031*	6,35 *0.250*	– –	11,0 *0.433*	3,0 *0.118*	■		■	■	■
16NRA60	0,5-1,5	48-16	0,08 *0.003*	0,7 *0.028*	0,8 *0.031*	9,525 *0.375*	– –	16,5 *0.650*	3,47 *0.137*			■		■
11NRA60-A	0,5-1,5	48-16	0,08 *0.003*	0,7 *0.028*	0,8 *0.031*	6,35 *0.250*	– –	11,0 *0.433*	3,0 *0.118*			■	■	
11NRA60-A1	0,5-1,5	48-16	0,08 *0.003*	0,7 *0.028*	0,8 *0.031*	6,35 *0.250*	– –	11,0 *0.433*	3,0 *0.118*			■		
11NRA60-A2	0,5-1,5	48-16	0,08 *0.003*	0,7 *0.028*	0,8 *0.031*	6,35 *0.250*	– –	11,0 *0.433*	3,0 *0.118*			■		
16NRAG60	0,5-3	48-8	0,08 *0.003*	1,1 *0.043*	1,5 *0.059*	9,525 *0.375*	– –	16,5 *0.650*	3,47 *0.137*	■		■	■	■
16NRAG60-A	0,5-3	48-8	0,08 *0.003*	1,1 *0.043*	1,5 *0.059*	9,525 *0.375*	– –	16,5 *0.650*	3,47 *0.137*			■	■	
16NRAG60-A1	0,5-3	48-8	0,08 *0.003*	1,1 *0.043*	1,5 *0.059*	9,525 *0.375*	– –	16,5 *0.650*	3,47 *0.137*			■		
16NRAG60-A2	0,5-3	48-8	0,08 *0.003*	1,1 *0.043*	1,5 *0.059*	9,525 *0.375*	– –	16,5 *0.650*	3,47 *0.137*			■		
16NRG60	1,75-3	14-8	0,12 *0.005*	1,1 *0.043*	1,5 *0.059*	9,525 *0.375*	– –	16,5 *0.650*	3,47 *0.137*	■		■	■	■
16NRG60-A	1,75-3	14-8	0,12 *0.005*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	– –	16,5 *0.650*	3,47 *0.137*			■	■	
16NRG60-A1	1,75-3	14-8	0,12 *0.005*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	– –	16,5 *0.650*	3,47 *0.137*			■		
16NRG60-A2	1,75-3	14-8	0,12 *0.005*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	– –	16,5 *0.650*	3,47 *0.137*			■		
22NRN60	3,5-5	7-5	0,25 *0.010*	1,8 *0.071*	2,5 *0.098*	12,7 *0.500*	– –	22,0 *0.866*	4,71 *0.185*	■	■	■		■
26NRK60	5,5-10	4.5-2.5	0,4 *0.016*	– –	5,0 *0.197*	– –	15,875 *0.625*	26,0 *1.024*	7,88 *0.310*		■	■		
26ERK60	5,5-10	4.5-2.5	0,4 *0.016*	– –	5,0 *0.197*	– –	15,875 *0.625*	26,0 *1.024*	7,88 *0.310*		■	■		

Insert Part No. Left	Pitch		RE	PDY	PDX	IC	W1	L	S	Grades				
										Coated				Uncoated
	mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	CP200	CP300	CP500	TTP2050	H15
11NLA60	0,5-1,5	48-16	0,08 *0.003*	0,7 *0.028*	0,8 *0.031*	6,35 *0.250*	– –	11,0 *0.433*	3,0 *0.118*			■		

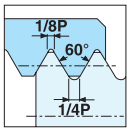
Insert Part No. Left	Pitch		RE	PDY	PDX	IC	W1	L	S	Grades				
										Coated				Uncoated
	mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	CP200	CP300	CP500	TTP2050	H15
16NLA60	0,5-1,5	48-16	0,08 *0.003*	0,7 *0.028*	0,8 *0.031*	9,525 *0.375*	– –	16,5 *0.650*	3,47 *0.137*			■		
16NLAG60	0,5-3	48-8	0,08 *0.003*	1,1 *0.043*	1,5 *0.059*	9,525 *0.375*	– –	16,5 *0.650*	3,47 *0.137*			■		
16NLG60	1,75-3	14-8	0,12 *0.005*	1,1 *0.043*	1,5 *0.059*	9,525 *0.375*	– –	16,5 *0.650*	3,47 *0.137*			■		
22NLN60	3,5-5	7-5	0,25 *0.010*	1,8 *0.071*	2,5 *0.098*	12,7 *0.500*	– –	22,0 *0.866*	4,71 *0.185*			■		

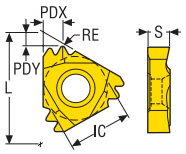
■ **Stock standard.**

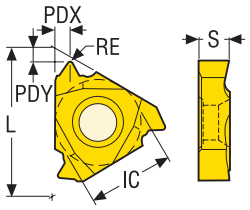
ISO Metric – External Threading

Snap-Tap®

ISO965/1 - 1980
3h/4h







16ER/22ER/27ER..M



16ER..A



16ER..A1



16ER..A2



16ER..TT



16Ex/22Ex/27ER



Insert Part No. Right	Pitch		RE	PDY	PDX	IC	L	S	Grades				
									Coated				Uncoated
	mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	CP200	CP300	CP500	TTP2050	H15
16ER0.5ISO	0,5	–	0,06 *0.002*	0,8 *0.031*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		■
16ER0.75ISO	0,75	–	0,11 *0.004*	0,8 *0.031*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		■
16ER0.8ISO	0,8	–	0,11 *0.004*	0,8 *0.031*	0,6 *0.024*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16ER1.0ISO	1	–	0,14 *0.006*	0,8 *0.031*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*	■		■	■	■
16ER1.0ISO-A	1	–	0,14 *0.006*	0,8 *0.031*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■	■	
16ER1.0ISO-A1	1	–	0,14 *0.006*	0,8 *0.031*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16ER1.0ISO-A2	1	–	0,14 *0.006*	0,8 *0.031*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16ER1.0ISO-TT	1	–	0,14 *0.006*	1,3 *0.051*	1,3 *0.051*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16ER1.0ISO3M	1	–	0,14 *0.006*	1,5 *0.059*	2,4 *0.094*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16ER1.25ISO	1,25	–	0,17 *0.007*	0,8 *0.031*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*	■		■	■	■
16ER1.25ISO-A	1,25	–	0,17 *0.007*	0,8 *0.031*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■	■	
16ER1.25ISO-A1	1,25	–	0,17 *0.007*	0,8 *0.031*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16ER1.25ISO-A2	1,25	–	0,17 *0.007*	0,8 *0.031*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16ER1.5ISO	1,5	–	0,22 *0.009*	0,8 *0.031*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*	■		■	■	■
16ER1.5ISO-A	1,5	–	0,22 *0.009*	0,8 *0.031*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■	■	
16ER1.5ISO-A1	1,5	–	0,22 *0.009*	0,8 *0.031*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16ER1.5ISO-A2	1,5	–	0,22 *0.009*	0,8 *0.031*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16ER1.5ISO-TT	1,5	–	0,22 *0.009*	1,3 *0.051*	1,8 *0.071*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16ER1.5ISO2M	1,5	–	0,22 *0.009*	1,5 *0.059*	2,2 *0.087*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
22ER1.5ISO3M	1,5	–	0,22 *0.009*	2,3 *0.091*	3,6 *0.142*	12,7 *0.500*	22,0 *0.866*	4,71 *0.185*			■		
16ER1.75ISO	1,75	–	0,25 *0.010*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*	■		■	■	■
16ER1.75ISO-A	1,75	–	0,25 *0.010*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■	■	

Insert Part No. Right	Pitch		RE	PDY	PDX	IC	L	S	Grades				
									Coated				Uncoated
	mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	CP200	CP300	CP500	TTP2050	H15
16ER1.75ISO-A1	1,75	–	0,25 *0.010*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16ER1.75ISO-A2	1,75	–	0,25 *0.010*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16ER2.0ISO	2	–	0,29 *0.011*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*	■		■	■	■
16ER2.0ISO-A	2	–	0,29 *0.011*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■	■	
16ER2.0ISO-A1	2	–	0,29 *0.011*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16ER2.0ISO-A2	2	–	0,29 *0.011*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16ER2.0ISO-TT	2	–	0,29 *0.011*	1,6 *0.063*	2,4 *0.094*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
22ER2.0ISO2M	2	–	0,29 *0.011*	2,0 *0.079*	2,9 *0.114*	12,7 *0.500*	22,0 *0.866*	4,71 *0.185*			■		
22ER2.0ISO3M	2	–	0,29 *0.011*	3,0 *0.118*	4,8 *0.189*	12,7 *0.500*	22,0 *0.866*	4,71 *0.185*			■		
16ER2.5ISO	2,5	–	0,34 *0.013*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*	■		■	■	■
16ER2.5ISO-A	2,5	–	0,34 *0.013*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■	■	
16ER2.5ISO-A1	2,5	–	0,34 *0.013*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16ER2.5ISO-A2	2,5	–	0,34 *0.013*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16ER3.0ISO	3	–	0,42 *0.017*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*	■		■	■	■
16ER3.0ISO-A	3	–	0,42 *0.017*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■	■	
16ER3.0ISO-A1	3	–	0,42 *0.017*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16ER3.0ISO-A2	3	–	0,42 *0.017*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
27ER3.0ISO2M	3	–	0,42 *0.017*	2,8 *0.110*	4,3 *0.169*	15,875 *0.625*	27,0 *1.063*	6,15 *0.242*			■		
22ER3.5ISO	3,5	–	0,47 *0.019*	1,8 *0.071*	2,5 *0.098*	12,7 *0.500*	22,0 *0.866*	4,71 *0.185*	■	■	■		■
22ER4.0ISO	4	–	0,53 *0.021*	1,8 *0.071*	2,5 *0.098*	12,7 *0.500*	22,0 *0.866*	4,71 *0.185*	■	■	■		■
22ER4.5ISO	4,5	–	0,59 *0.023*	1,8 *0.071*	2,5 *0.098*	12,7 *0.500*	22,0 *0.866*	4,71 *0.185*			■		■
22ER5.0ISO	5	–	0,66 *0.026*	1,8 *0.071*	2,5 *0.098*	12,7 *0.500*	22,0 *0.866*	4,71 *0.185*	■		■		■
27ER5.5ISO	5,5	–	0,72 *0.028*	2,2 *0.087*	3,2 *0.126*	15,875 *0.625*	27,0 *1.063*	6,15 *0.242*			■		
27ER6.0ISO	6	–	0,79 *0.031*	2,2 *0.087*	3,2 *0.126*	15,875 *0.625*	27,0 *1.063*	6,15 *0.242*		■	■		

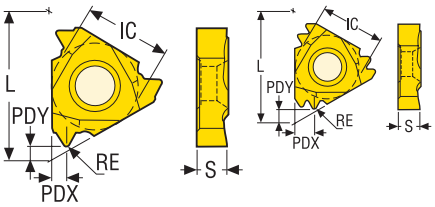
Insert Part No. Left	Pitch		RE	PDY	PDX	IC	L	S	Grades				
									Coated				Uncoated
	mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	CP200	CP300	CP500	TTP2050	H15
16EL0.5ISO	0,5	–	0,06 *0.002*	0,8 *0.031*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16EL0.75ISO	0,75	–	0,09 *0.004*	0,8 *0.031*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16EL0.8ISO	0,8	–	0,11 *0.004*	0,8 *0.031*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		

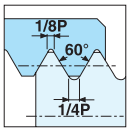
Insert Part No. Left	Pitch		RE	PDY	PDX	IC	L	S	Grades				
									Coated				Uncoated
	mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	CP200	CP300	CP500	TTP2050	H15
16EL1.0ISO	1	–	0,12 *0.005*	0,8 *0.031*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16EL1.25ISO	1,25	–	0,15 *0.006*	0,8 *0.031*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16EL1.5ISO	1,5	–	0,22 *0.009*	0,8 *0.031*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*		■	■		
16EL1.75ISO	1,75	–	0,22 *0.009*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16EL2.0ISO	2	–	0,29 *0.011*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16EL2.5ISO	2,5	–	0,31 *0.012*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16EL3.0ISO	3	–	0,42 *0.017*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
22EL3.5ISO	3,5	–	0,47 *0.019*	1,8 *0.071*	2,5 *0.098*	12,7 *0.500*	22,0 *0.866*	4,71 *0.185*			■		
22EL4.0ISO	4	–	0,53 *0.021*	1,8 *0.071*	2,5 *0.098*	12,7 *0.500*	22,0 *0.866*	4,71 *0.185*			■		
22EL4.5ISO	4,5	–	0,59 *0.023*	1,8 *0.071*	2,5 *0.098*	12,7 *0.500*	22,0 *0.866*	4,71 *0.185*			■		
22EL5.0ISO	5	–	0,66 *0.026*	1,8 *0.071*	2,5 *0.098*	12,7 *0.500*	22,0 *0.866*	4,71 *0.185*			■		

■ **Stock standard.**

ISO Metric – Internal Threading

Snap-Tap®





ISO965/1 - 1980
3h/4h

09NR/11Nx/16Nx/22Nx/27NR



11NR/16NR..A



11NR/16NR..A1



11NR/16NR..A2



16NR/22NR..M



16NR..TT



Insert Part No. Right	Pitch		RE	PDY	PDX	IC	L	S	Grades				
									Coated				Uncoated
	mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	CP200	CP300	CP500	TTP2050	H15
09NR0.5ISO	0,5	–	0,04 *0.002*	0,7 *0.028*	0,6 *0.024*	5,56 *0.219*	9,6 *0.378*	2,4 *0.094*			■		
11NR0.5ISO	0,5	–	0,03 *0.001*	0,8 *0.031*	0,8 *0.031*	6,35 *0.250*	11,0 *0.433*	3,0 *0.118*			■		■
16NR0.5ISO	0,5	–	0,03 *0.001*	0,8 *0.031*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		■
11NR0.75ISO	0,75	–	0,04 *0.002*	0,8 *0.031*	0,8 *0.031*	6,35 *0.250*	11,0 *0.433*	3,0 *0.118*			■		■
16NR0.75ISO	0,75	–	0,04 *0.002*	0,8 *0.031*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		■
09NR0.8ISO	0,8	–	0,07 *0.003*	0,7 *0.028*	0,6 *0.024*	5,56 *0.219*	9,6 *0.378*	2,4 *0.094*			■		
09NR1.0ISO	1	–	0,07 *0.003*	0,7 *0.028*	0,8 *0.031*	5,56 *0.219*	9,6 *0.378*	2,4 *0.094*			■		
11NR1.0ISO	1	–	0,08 *0.003*	0,8 *0.031*	0,8 *0.031*	6,35 *0.250*	11,0 *0.433*	3,0 *0.118*	■		■	■	■
16NR1.0ISO	1	–	0,08 *0.003*	0,8 *0.031*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*	■		■	■	■
11NR1.0ISO-A	1	–	0,08 *0.003*	0,8 *0.031*	0,8 *0.031*	6,35 *0.250*	11,0 *0.433*	3,0 *0.118*			■	■	
16NR1.0ISO-A	1	–	0,09 *0.004*	0,8 *0.031*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■	■	
11NR1.0ISO-A1	1	–	0,08 *0.003*	0,8 *0.031*	0,8 *0.031*	6,35 *0.250*	11,0 *0.433*	3,0 *0.118*			■		
16NR1.0ISO-A1	1	–	0,09 *0.004*	0,8 *0.031*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
11NR1.0ISO-A2	1	–	0,08 *0.003*	0,8 *0.031*	0,8 *0.031*	6,35 *0.250*	11,0 *0.433*	3,0 *0.118*			■		
16NR1.0ISO-A2	1	–	0,09 *0.004*	0,8 *0.031*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16NR1.0ISO-TT	1	–	0,09 *0.004*	1,3 *0.051*	1,2 *0.047*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16NR1.0ISO3M	1	–	0,08 *0.003*	1,5 *0.059*	2,4 *0.094*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
09NR1.25ISO	1,25	–	0,11 *0.004*	0,7 *0.028*	0,8 *0.031*	5,56 *0.219*	9,6 *0.378*	2,4 *0.094*			■		
11NR1.25ISO	1,25	–	0,09 *0.004*	0,8 *0.031*	0,8 *0.031*	6,35 *0.250*	11,0 *0.433*	3,0 *0.118*			■		■
16NR1.25ISO	1,25	–	0,09 *0.004*	0,8 *0.031*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*	■		■		■
09NR1.5ISO	1,5	–	0,12 *0.005*	0,7 *0.028*	0,8 *0.031*	5,56 *0.219*	9,6 *0.378*	2,4 *0.094*			■		

Insert Part No. Right	Pitch		RE	PDY	PDX	IC	L	S	Grades				
									Coated				Uncoated
	mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	CP200	CP300	CP500	TTP2050	H15
11NR1.5ISO	1,5	–	0,12 *0.005*	0,8 *0.031*	0,8 *0.031*	6,35 *0.250*	11,0 *0.433*	3,0 *0.118*	■		■	■	■
16NR1.5ISO	1,5	–	0,12 *0.005*	0,8 *0.031*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*	■		■	■	■
11NR1.5ISO-A	1,5	–	0,12 *0.005*	0,8 *0.031*	0,8 *0.031*	6,35 *0.250*	11,0 *0.433*	3,0 *0.118*			■	■	
16NR1.5ISO-A	1,5	–	0,12 *0.005*	0,8 *0.031*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■	■	
11NR1.5ISO-A1	1,5	–	0,12 *0.005*	0,8 *0.031*	0,8 *0.031*	6,35 *0.250*	11,0 *0.433*	3,0 *0.118*			■		
16NR1.5ISO-A1	1,5	–	0,12 *0.005*	0,8 *0.031*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
11NR1.5ISO-A2	1,5	–	0,12 *0.005*	0,8 *0.031*	0,8 *0.031*	6,35 *0.250*	11,0 *0.433*	3,0 *0.118*			■		
16NR1.5ISO-A2	1,5	–	0,12 *0.005*	0,8 *0.031*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16NR1.5ISO-TT	1,5	–	0,12 *0.005*	1,3 *0.051*	1,8 *0.071*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16NR1.5ISO2M	1,5	–	0,12 *0.005*	1,4 *0.055*	2,1 *0.083*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
22NR1.5ISO3M	1,5	–	0,12 *0.005*	2,3 *0.091*	3,6 *0.142*	12,7 *0.500*	22,0 *0.866*	4,71 *0.185*			■		
09NR1.75ISO	1,75	–	0,12 *0.005*	0,7 *0.028*	0,8 *0.031*	5,56 *0.219*	9,6 *0.378*	2,4 *0.094*			■		
11NR1.75ISO	1,75	–	0,12 *0.005*	0,8 *0.031*	0,8 *0.031*	6,35 *0.250*	11,0 *0.433*	3,0 *0.118*			■		■
16NR1.75ISO	1,75	–	0,12 *0.005*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		■
09NR2.0ISO	2	–	0,17 *0.007*	0,7 *0.028*	0,9 *0.035*	5,56 *0.219*	9,6 *0.378*	2,4 *0.094*			■		
11NR2.0ISO	2	–	0,17 *0.007*	0,8 *0.031*	0,9 *0.035*	6,35 *0.250*	11,0 *0.433*	3,0 *0.118*	■		■	■	■
16NR2.0ISO	2	–	0,17 *0.007*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*	■		■	■	■
11NR2.0ISO-A	2	–	0,17 *0.007*	0,8 *0.031*	0,9 *0.035*	6,35 *0.250*	11,0 *0.433*	3,0 *0.118*			■	■	
16NR2.0ISO-A	2	–	0,16 *0.006*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■	■	
11NR2.0ISO-A1	2	–	0,17 *0.007*	0,8 *0.031*	0,9 *0.035*	6,35 *0.250*	11,0 *0.433*	3,0 *0.118*			■		
16NR2.0ISO-A1	2	–	0,16 *0.006*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
11NR2.0ISO-A2	2	–	0,17 *0.007*	0,8 *0.031*	0,9 *0.035*	6,35 *0.250*	11,0 *0.433*	3,0 *0.118*			■		
16NR2.0ISO-A2	2	–	0,16 *0.006*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16NR2.0ISO-TT	2	–	0,18 *0.007*	1,6 *0.063*	2,4 *0.094*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
22NR2.0ISO2M	2	–	0,17 *0.007*	2,0 *0.079*	2,9 *0.114*	12,7 *0.500*	22,0 *0.866*	4,71 *0.185*			■		
22NR2.0ISO3M	2	–	0,17 *0.007*	3,0 *0.118*	4,8 *0.189*	12,7 *0.500*	22,0 *0.866*	4,71 *0.185*			■		
16NR2.5ISO	2,5	–	0,18 *0.007*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*	■		■	■	■
16NR2.5ISO-A	2,5	–	0,18 *0.007*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■	■	
16NR2.5ISO-A1	2,5	–	0,18 *0.007*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16NR2.5ISO-A2	2,5	–	0,18 *0.007*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		

Insert Part No. Right	Pitch		RE	PDY	PDX	IC	L	S	Grades				
									Coated				Uncoated
	mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	CP200	CP300	CP500	TTP2050	H15
16NR3.0ISO	3	–	0,21 *0.008*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*	■		■	■	■
16NR3.0ISO-A	3	–	0,21 *0.008*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■	■	
16NR3.0ISO-A1	3	–	0,21 *0.008*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16NR3.0ISO-A2	3	–	0,21 *0.008*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
27NR3.0ISO2M	3	–	0,21 *0.008*	2,8 *0.110*	4,3 *0.169*	15,875 *0.625*	27,0 *1.063*	6,15 *0.242*			■		
22NR3.5ISO	3,5	–	0,25 *0.010*	1,9 *0.075*	2,3 *0.091*	12,7 *0.500*	22,0 *0.866*	4,71 *0.185*	■		■		■
22NR4.0ISO	4	–	0,28 *0.011*	2,0 *0.079*	2,5 *0.098*	12,7 *0.500*	22,0 *0.866*	4,71 *0.185*	■	■	■		■
22NR4.5ISO	4,5	–	0,32 *0.013*	2,1 *0.083*	2,5 *0.098*	12,7 *0.500*	22,0 *0.866*	4,71 *0.185*			■		■
22NR5.0ISO	5	–	0,35 *0.014*	1,8 *0.071*	2,5 *0.098*	12,7 *0.500*	22,0 *0.866*	4,71 *0.185*	■		■		■
27NR5.5ISO	5,5	–	0,38 *0.015*	2,2 *0.087*	3,2 *0.126*	15,875 *0.625*	27,0 *1.063*	6,15 *0.242*			■		
27NR6.0ISO	6	–	0,42 *0.017*	2,2 *0.087*	3,2 *0.126*	15,875 *0.625*	27,0 *1.063*	6,15 *0.242*		■	■		

■ **Stock standard.**

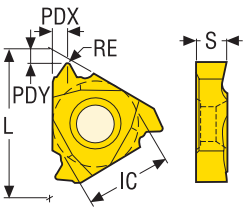
Insert Part No. Left	Pitch		RE	PDY	PDX	IC	L	S	Grades				
									Coated				Uncoated
	mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	CP200	CP300	CP500	TTP2050	H15
11NL0.5ISO	0,5	–	0,03 *0.001*	0,8 *0.031*	0,8 *0.031*	6,35 *0.250*	11,0 *0.433*	3,0 *0.118*			■		
16NL0.5ISO	0,5	–	0,03 *0.001*	0,8 *0.031*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
11NL0.75ISO	0,75	–	0,04 *0.002*	0,8 *0.031*	0,8 *0.031*	6,35 *0.250*	11,0 *0.433*	3,0 *0.118*			■		
16NL0.75ISO	0,75	–	0,04 *0.002*	0,8 *0.031*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
11NL1.0ISO	1	–	0,07 *0.003*	0,8 *0.031*	0,8 *0.031*	6,35 *0.250*	11,0 *0.433*	3,0 *0.118*			■		
16NL1.0ISO	1	–	0,07 *0.003*	0,8 *0.031*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*	■		■		
11NL1.25ISO	1,25	–	0,09 *0.004*	0,8 *0.031*	0,8 *0.031*	6,35 *0.250*	11,0 *0.433*	3,0 *0.118*			■		
16NL1.25ISO	1,25	–	0,09 *0.004*	0,8 *0.031*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
11NL1.5ISO	1,5	–	0,12 *0.005*	0,8 *0.031*	0,8 *0.031*	6,35 *0.250*	11,0 *0.433*	3,0 *0.118*			■		
16NL1.5ISO	1,5	–	0,12 *0.005*	0,8 *0.031*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*	■		■		
16NL1.75ISO	1,75	–	0,12 *0.005*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16NL2.0ISO	2	–	0,17 *0.007*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16NL2.5ISO	2,5	–	0,18 *0.007*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16NL3.0ISO	3	–	0,21 *0.008*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
22NL3.5ISO	3,5	–	0,25 *0.010*	1,9 *0.075*	2,3 *0.091*	12,7 *0.500*	22,0 *0.866*	4,71 *0.185*			■		

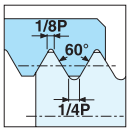
Insert Part No. Left	Pitch		RE	PDY	PDX	IC	L	S	Grades				
									Coated				Uncoated
	mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	CP200	CP300	CP500	TTP2050	H15
22NL4.0ISO	4	–	0,28 *0.011*	2,0 *0.079*	2,5 *0.098*	12,7 *0.500*	22,0 *0.866*	4,71 *0.185*			■		
22NL4.5ISO	4,5	–	0,32 *0.013*	2,1 *0.083*	2,5 *0.098*	12,7 *0.500*	22,0 *0.866*	4,71 *0.185*			■		
22NL5.0ISO	5	–	0,35 *0.014*	1,8 *0.071*	2,5 *0.098*	12,7 *0.500*	22,0 *0.866*	4,71 *0.185*			■		

■ **Stock standard.**

UN – External Threading

Snap-Tap®





ANSI B1.1 - 1983
3A

16ER..A



16ER..A1



16ER..A2



16ER..TT



16Ex/22Ex/27ER



22ER..M



Insert Part No. Right	Pitch		RE	PDY	PDX	IC	L	S	Grades				
									Coated				Uncoated
	mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	CP200	CP300	CP500	TTP2050	H15
27ER4UN	–	4	0,79 *0.031*	2,2 *0.087*	3,2 *0.126*	15,875 *0.625*	27,0 *1.063*	6,15 *0.242*			■		
22ER5UN	–	5	0,6 *0.024*	1,8 *0.071*	2,5 *0.098*	12,7 *0.500*	22,0 *0.866*	4,71 *0.185*			■		
22ER6UN	–	6	0,52 *0.020*	2,0 *0.079*	2,5 *0.098*	12,7 *0.500*	22,0 *0.866*	4,71 *0.185*			■		■
22ER7UN	–	7	0,47 *0.019*	1,8 *0.071*	2,5 *0.098*	12,7 *0.500*	22,0 *0.866*	4,71 *0.185*			■		■
16ER8UN	–	8	0,38 *0.015*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*	■		■	■	■
16ER8UN-A	–	8	0,43 *0.017*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■	■	
16ER8UN-A1	–	8	0,43 *0.017*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16ER8UN-A2	–	8	0,43 *0.017*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16ER9UN	–	9	0,34 *0.013*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		■
16ER10UN	–	10	0,34 *0.013*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16ER11UN	–	11	0,28 *0.011*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		■
16ER12UN	–	12	0,26 *0.010*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*	■		■	■	■
16ER12UN-A	–	12	0,29 *0.011*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■	■	
16ER12UN-A1	–	12	0,29 *0.011*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16ER12UN-A2	–	12	0,29 *0.011*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16ER12UN-TT	–	12	0,29 *0.011*	1,7 *0.067*	2,6 *0.102*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
22ER12UN2M	–	12	0,26 *0.010*	2,0 *0.079*	3,1 *0.122*	12,7 *0.500*	22,0 *0.866*	4,71 *0.185*			■		
16ER13UN	–	13	0,24 *0.009*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16ER14UN	–	14	0,22 *0.009*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*	■		■	■	■
16ER14UN-A	–	14	0,22 *0.009*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■	■	
16ER14UN-A1	–	14	0,22 *0.009*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		

Insert Part No. Right	Pitch		RE	PDY	PDX	IC	L	S	Grades				
									Coated				Uncoated
	mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	CP200	CP300	CP500	TTP2050	H15
16ER14UN-A2	–	14	0,22 *0.009*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16ER16UN	–	16	0,22 *0.009*	1,2 *0.047*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*	■		■	■	■
16ER16UN-A	–	16	0,22 *0.009*	0,8 *0.031*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■	■	
16ER16UN-A1	–	16	0,22 *0.009*	0,8 *0.031*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16ER16UN-A2	–	16	0,22 *0.009*	0,8 *0.031*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16ER16UN-TT	–	16	0,21 *0.008*	1,4 *0.055*	1,9 *0.075*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
22ER16UN3M	–	16	0,21 *0.008*	2,5 *0.098*	4,0 *0.157*	12,7 *0.500*	22,0 *0.866*	4,71 *0.185*			■		
16ER18UN	–	18	0,18 *0.007*	1,2 *0.047*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■	■	■
16ER18UN-A	–	18	0,18 *0.007*	0,8 *0.031*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■	■	
16ER18UN-A1	–	18	0,18 *0.007*	0,8 *0.031*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16ER18UN-A2	–	18	0,18 *0.007*	0,8 *0.031*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16ER20UN	–	20	0,16 *0.006*	0,8 *0.031*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■	■	■
16ER20UN-A	–	20	0,16 *0.006*	0,8 *0.031*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■	■	
16ER20UN-A1	–	20	0,16 *0.006*	0,8 *0.031*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16ER20UN-A2	–	20	0,16 *0.006*	0,8 *0.031*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16ER20UN-TT	–	20	0,16 *0.006*	1,2 *0.047*	1,6 *0.063*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16ER24UN	–	24	0,13 *0.005*	0,8 *0.031*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*		■	■		■
16ER28UN	–	28	0,11 *0.004*	0,8 *0.031*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*		■	■		■
16ER32UN	–	32	0,09 *0.004*	0,8 *0.031*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		■
16ER40UN	–	40	0,08 *0.003*	1,2 *0.047*	0,5 *0.020*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		

Insert Part No. Left	Pitch		RE	PDY	PDX	IC	L	S	Grades				
									Coated				Uncoated
	mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	CP200	CP300	CP500	TTP2050	H15
22EL5UN	–	5	0,6 *0.024*	1,8 *0.071*	2,5 *0.098*	12,7 *0.500*	22,0 *0.866*	4,71 *0.185*			■		
22EL6UN	–	6	0,52 *0.020*	2,0 *0.079*	2,5 *0.098*	12,7 *0.500*	22,0 *0.866*	4,71 *0.185*			■		
22EL7UN	–	7	0,47 *0.019*	1,8 *0.071*	2,5 *0.098*	12,7 *0.500*	22,0 *0.866*	4,71 *0.185*			■		
16EL8UN	–	8	0,38 *0.015*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16EL9UN	–	9	0,34 *0.013*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16EL10UN	–	10	0,31 *0.012*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16EL11UN	–	11	0,28 *0.011*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		

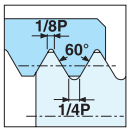
Insert Part No. Left	Pitch		RE	PDY	PDX	IC	L	S	Grades				
									Coated				Uncoated
	mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	CP200	CP300	CP500	TTP2050	H15
16EL12UN	–	12	0,26 *0.010*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16EL14UN	–	14	0,22 *0.009*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16EL16UN	–	16	0,22 *0.009*	1,2 *0.047*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16EL18UN	–	18	0,18 *0.007*	1,2 *0.047*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16EL20UN	–	20	0,16 *0.006*	0,8 *0.031*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16EL24UN	–	24	0,13 *0.005*	0,8 *0.031*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16EL28UN	–	28	0,11 *0.004*	0,8 *0.031*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16EL32UN	–	32	0,09 *0.004*	0,8 *0.031*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		

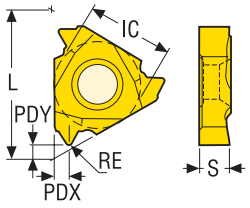
■ **Stock standard.**

UN – Internal Threading

Snap-Tap®

ANSI B1.1 - 1983
3B





09NR/11Nx/16Nx/22Nx/27NR



16NR/22NR..M



16NR..A



16NR..A1



16NR..A2



16NR..TT



Insert Part No. Right	Pitch		RE	PDY	PDX	IC	L	S	Grades				
									Coated				Uncoated
	mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	CP200	CP300	CP500	TTP2050	H15
27NR4UN	–	4	0,45 *0.018*	2,2 *0.087*	3,2 *0.126*	15,875 *0.625*	27,0 *1.063*	6,15 *0.242*			■		
22NR5UN	–	5	0,36 *0.014*	1,8 *0.071*	2,5 *0.098*	12,7 *0.500*	22,0 *0.866*	4,71 *0.185*			■		
22NR6UN	–	6	0,3 *0.012*	2,2 *0.087*	2,5 *0.098*	12,7 *0.500*	22,0 *0.866*	4,71 *0.185*			■		■
22NR7UN	–	7	0,25 *0.010*	2,0 *0.079*	2,4 *0.094*	12,7 *0.500*	22,0 *0.866*	4,71 *0.185*			■		
16NR8UN	–	8	0,25 *0.010*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*	■		■	■	■
16NR8UN-A	–	8	0,25 *0.010*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■	■	
16NR8UN-A1	–	8	0,25 *0.010*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16NR8UN-A2	–	8	0,25 *0.010*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16NR9UN	–	9	0,19 *0.007*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16NR10UN	–	10	0,18 *0.007*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*	■		■		■
16NR11UN	–	11	0,16 *0.006*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		■
16NR12UN	–	12	0,15 *0.006*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*	■		■	■	■
16NR12UN-A	–	12	0,15 *0.006*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■	■	
16NR12UN-A1	–	12	0,15 *0.006*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16NR12UN-A2	–	12	0,15 *0.006*	1,5 *0.059*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16NR12UN-TT	–	12	0,16 *0.006*	1,65 *0.065*	2,45 *0.096*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
22NR12UN2M	–	12	0,15 *0.006*	2,0 *0.079*	3,0 *0.118*	12,7 *0.500*	22,0 *0.866*	4,71 *0.185*			■		
22NR12UN3M	–	12	0,15 *0.006*	3,0 *0.118*	5,0 *0.197*	12,7 *0.500*	22,0 *0.866*	4,71 *0.185*			■		
09NR13UN	–	13	0,15 *0.006*	0,7 *0.028*	0,9 *0.035*	5,56 *0.219*	9,6 *0.378*	2,4 *0.094*			■		
16NR13UN	–	13	0,15 *0.006*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
11NR14UN	–	14	0,14 *0.006*	0,8 *0.031*	0,9 *0.035*	6,35 *0.250*	11,0 *0.433*	3,0 *0.118*			■		
16NR14UN	–	14	0,14 *0.006*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*	■		■	■	■

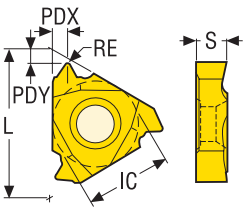
Insert Part No. Right	Pitch		RE	PDY	PDX	IC	L	S	Grades				
									Coated				Uncoated
	mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	CP200	CP300	CP500	TTP2050	H15
16NR14UN-A	–	14	0,14 *0.006*	1,2 *0.047*	1,3 *0.051*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■	■	
16NR14UN-A1	–	14	0,14 *0.006*	1,2 *0.047*	1,3 *0.051*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16NR14UN-A2	–	14	0,14 *0.006*	1,2 *0.047*	1,3 *0.051*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
11NR16UN	–	16	0,13 *0.005*	0,8 *0.031*	0,8 *0.031*	6,35 *0.250*	11,0 *0.433*	3,0 *0.118*			■		■
16NR16UN	–	16	0,13 *0.005*	0,8 *0.031*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*	■		■	■	■
16NR16UN-A	–	16	0,12 *0.005*	0,8 *0.031*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■	■	
16NR16UN-A1	–	16	0,12 *0.005*	0,8 *0.031*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16NR16UN-A2	–	16	0,12 *0.005*	0,8 *0.031*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16NR16UN-TT	–	16	0,13 *0.005*	1,4 *0.055*	1,9 *0.075*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16NR16UN2M	–	16	0,13 *0.005*	1,5 *0.059*	2,3 *0.091*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
22NR16UN3M	–	16	0,13 *0.005*	2,4 *0.094*	3,8 *0.150*	12,7 *0.500*	22,0 *0.866*	4,71 *0.185*			■		
09NR18UN	–	18	0,1 *0.004*	0,7 *0.028*	0,8 *0.031*	5,56 *0.219*	9,6 *0.378*	2,4 *0.094*			■		
11NR18UN	–	18	0,1 *0.004*	0,8 *0.031*	0,8 *0.031*	6,35 *0.250*	11,0 *0.433*	3,0 *0.118*			■		■
16NR18UN	–	18	0,1 *0.004*	0,8 *0.031*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*	■		■	■	■
16NR18UN-A	–	18	0,1 *0.004*	0,8 *0.031*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■	■	
16NR18UN-A1	–	18	0,1 *0.004*	0,8 *0.031*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16NR18UN-A2	–	18	0,1 *0.004*	0,8 *0.031*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
09NR20UN	–	20	0,09 *0.004*	0,7 *0.028*	0,8 *0.031*	5,56 *0.219*	9,6 *0.378*	2,4 *0.094*			■		
11NR20UN	–	20	0,09 *0.004*	0,8 *0.031*	0,8 *0.031*	6,35 *0.250*	11,0 *0.433*	3,0 *0.118*			■		
16NR20UN	–	20	0,09 *0.004*	0,8 *0.031*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*	■		■	■	■
16NR20UN-A	–	20	0,09 *0.004*	0,8 *0.031*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■	■	
16NR20UN-A1	–	20	0,09 *0.004*	0,8 *0.031*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16NR20UN-A2	–	20	0,09 *0.004*	0,8 *0.031*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
11NR24UN	–	24	0,07 *0.003*	0,8 *0.031*	0,8 *0.031*	6,35 *0.250*	11,0 *0.433*	3,0 *0.118*			■		■
16NR24UN	–	24	0,07 *0.003*	0,8 *0.031*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*	■		■		■
11NR28UN	–	28	0,05 *0.002*	0,8 *0.031*	0,8 *0.031*	6,35 *0.250*	11,0 *0.433*	3,0 *0.118*			■		■
16NR28UN	–	28	0,05 *0.002*	0,8 *0.031*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*	■		■		
11NR32UN	–	32	0,04 *0.002*	0,8 *0.031*	0,8 *0.031*	6,35 *0.250*	11,0 *0.433*	3,0 *0.118*			■		■
16NR32UN	–	32	0,04 *0.002*	0,8 *0.031*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*	■		■		■
16NR40UN	–	40	0,04 *0.002*	1,2 *0.047*	0,5 *0.020*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		

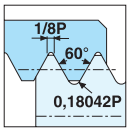
Insert Part No. Left	Pitch		RE	PDY	PDX	IC	L	S	Grades				
									Coated				Uncoated
	mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	CP200	CP300	CP500	TTP2050	H15
22NL6UN	–	6	0,3 *0.012*	2,2 *0.087*	2,5 *0.098*	12,7 *0.500*	22,0 *0.866*	4,71 *0.185*			■		
22NL7UN	–	7	0,25 *0.010*	2,0 *0.079*	2,4 *0.094*	12,7 *0.500*	22,0 *0.866*	4,71 *0.185*			■		
16NL8UN	–	8	0,25 *0.010*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16NL10UN	–	10	0,18 *0.007*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16NL12UN	–	12	0,15 *0.006*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
11NL14UN	–	14	0,14 *0.006*	0,8 *0.031*	0,9 *0.035*	6,35 *0.250*	11,0 *0.433*	3,0 *0.118*			■		
16NL14UN	–	14	0,14 *0.006*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*	■		■		
11NL16UN	–	16	0,13 *0.005*	0,8 *0.031*	0,8 *0.031*	6,35 *0.250*	11,0 *0.433*	3,0 *0.118*			■		
16NL16UN	–	16	0,13 *0.005*	0,8 *0.031*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*	■		■		
11NL18UN	–	18	0,1 *0.004*	0,8 *0.031*	0,8 *0.031*	6,35 *0.250*	11,0 *0.433*	3,0 *0.118*			■		
16NL18UN	–	18	0,1 *0.004*	0,8 *0.031*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
11NL20UN	–	20	0,09 *0.004*	0,8 *0.031*	0,8 *0.031*	6,35 *0.250*	11,0 *0.433*	3,0 *0.118*			■		
16NL20UN	–	20	0,09 *0.004*	0,8 *0.031*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
11NL24UN	–	24	0,07 *0.003*	0,8 *0.031*	0,8 *0.031*	6,35 *0.250*	11,0 *0.433*	3,0 *0.118*			■		
16NL24UN	–	24	0,07 *0.003*	0,8 *0.031*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16NL28UN	–	28	0,05 *0.002*	0,8 *0.031*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16NL32UN	–	32	0,04 *0.002*	0,8 *0.031*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		

■ **Stock standard.**

UNJ – External Threading

Snap-Tap®





BS4084 - 1996
MIL-SPECS - 8879A
3A

16Ex



Insert Part No. Right	Pitch		RE	PDY	PDX	IC	L	S	Grades				
									Coated				Uncoated
	mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	CP200	CP300	CP500	TTP2050	H15
16ER8UNJ	–	8	0,5 *0.020*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*	■		■		
16ER10UNJ	–	10	0,405 *0.016*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*	■		■		
16ER12UNJ	–	12	0,34 *0.013*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*	■		■		■
16ER14UNJ	–	14	0,295 *0.012*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*	■		■		
16ER16UNJ	–	16	0,255 *0.010*	1,2 *0.047*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*	■		■		■
16ER18UNJ	–	18	0,23 *0.009*	1,2 *0.047*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*	■		■		
16ER20UNJ	–	20	0,208 *0.008*	0,8 *0.031*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*	■		■		■
16ER24UNJ	–	24	0,175 *0.007*	0,8 *0.031*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*	■		■		
16ER28UNJ	–	28	0,148 *0.006*	0,8 *0.031*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*	■		■		
16ER32UNJ	–	32	0,13 *0.005*	0,8 *0.031*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*	■		■		

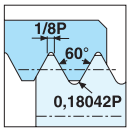
Insert Part No. Left	Pitch		RE	PDY	PDX	IC	L	S	Grades				
									Coated				Uncoated
	mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	CP200	CP300	CP500	TTP2050	H15
16EL12UNJ	–	12	0,34 *0.013*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*	■				

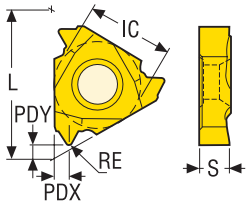
■ **Stock standard.**

UNJ – Internal Threading

Snap-Tap®

BS4084 - 1996
MIL-SPECS - 8879A
3B





16Ex

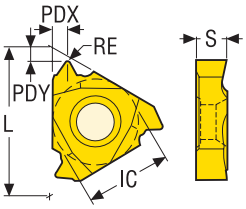


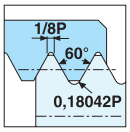
Insert Part No. Right	Pitch		RE	PDY	PDX	IC	L	S	Grades				
									Coated				Uncoated
	mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	CP200	CP300	CP500	TTP2050	H15
16NR8UNJ	–	8	0,22 *0.009*	1,2 *0.047*	1,2 *0.047*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*	■				
16NR10UNJ	–	10	0,17 *0.007*	1,2 *0.047*	1,0 *0.039*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*	■				
16NR12UNJ	–	12	0,12 *0.005*	1,2 *0.047*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*	■				
16NR14UNJ	–	14	0,11 *0.004*	1,2 *0.047*	0,7 *0.028*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*	■				
16NR16UNJ	–	16	0,1 *0.004*	1,2 *0.047*	0,6 *0.024*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*	■				
16NR18UNJ	–	18	0,09 *0.004*	1,2 *0.047*	0,6 *0.024*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*	■				
16NR20UNJ	–	20	0,08 *0.003*	1,2 *0.047*	0,5 *0.020*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*	■				
16NR24UNJ	–	24	0,06 *0.002*	1,2 *0.047*	0,5 *0.020*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*	■				
16NR28UNJ	–	28	0,04 *0.002*	1,2 *0.047*	0,4 *0.016*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*	■				
16NR32UNJ	–	32	0,03 *0.001*	1,2 *0.047*	0,4 *0.016*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*	■				

■ **Stock standard.**

MJ – External Threading

Snap-Tap®





ISO5855 - 1983
4h/6h

16Ex



Insert Part No. Right	Pitch		RE	PDY	PDX	IC	L	S	Grades				
									Coated				Uncoated
	mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	CP200	CP300	CP500	TTP2050	H15
16ER1.0MJ	1	–	0,16 *0.006*	0,8 *0.031*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*	■		■		■
16ER1.25MJ	1,25	–	0,21 *0.008*	0,8 *0.031*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*	■				
16ER1.5MJ	1,5	–	0,25 *0.010*	0,8 *0.031*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*	■		■		■
16ER2.0MJ	2	–	0,32 *0.013*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*	■				

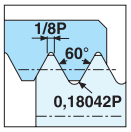
Insert Part No. Left	Pitch		RE	PDY	PDX	IC	L	S	Grades				
									Coated				Uncoated
	mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	CP200	CP300	CP500	TTP2050	H15
16EL1.0MJ	1	–	0,16 *0.006*	0,8 *0.031*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*	■				
16EL1.5MJ	1,5	–	0,25 *0.010*	0,8 *0.031*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*	■				

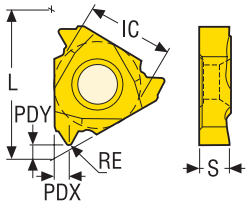
■ **Stock standard.**

MJ – Internal Threading

Snap-Tap®

ISO5855 - 1983
4H/5H





16Ex

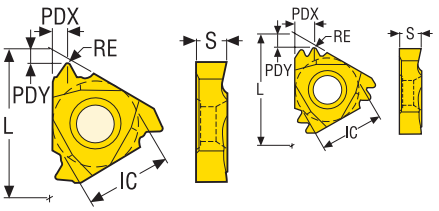


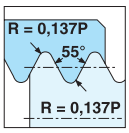
Insert Part No. Right	Pitch		RE	PDY	PDX	IC	L	S	Grades				
									Coated				Uncoated
	mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	CP200	CP300	CP500	TTP2050	H15
16NR1.0MJ	1	–	0,06 *0.002*	1,2 *0.047*	0,4 *0.016*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*	■				
16NR1.25MJ	1,25	–	0,08 *0.003*	1,2 *0.047*	0,5 *0.020*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*	■				
16NR1.5MJ	1,5	–	0,09 *0.004*	1,2 *0.047*	0,6 *0.024*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*	■				
16NR2.0MJ	2	–	0,12 *0.005*	1,2 *0.047*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*	■				

■ **Stock standard.**

Whitworth, BSW – External Threading

Snap-Tap®





BS84 -1956
ISO228 - 1982
BS2779 - 1973

16ER..A



16ER..A1



16ER..A2



16ER..TT



16Ex/22Ex



22ER..M



Insert Part No. Right	Pitch		RE	PDY	PDX	IC	L	S	Grades				
									Coated				Uncoated
	mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	CP200	CP300	CP500	TTP2050	H15
22ER5W	–	5	0,63 *0.025*	1,7 *0.067*	2,5 *0.098*	12,7 *0.500*	22,0 *0.866*	4,71 *0.185*			■		■
22ER6W	–	6	0,5 *0.020*	1,8 *0.071*	2,5 *0.098*	12,7 *0.500*	22,0 *0.866*	4,71 *0.185*			■		
22ER7W	–	7	0,43 *0.017*	1,8 *0.071*	2,5 *0.098*	12,7 *0.500*	22,0 *0.866*	4,71 *0.185*			■		
16ER8W	–	8	0,42 *0.017*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		■
16ER9W	–	9	0,31 *0.012*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16ER10W	–	10	0,27 *0.011*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		■
16ER11W	–	11	0,3 *0.012*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*	■		■	■	■
16ER11W-A	–	11	0,3 *0.012*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■	■	
16ER11W-A1	–	11	0,3 *0.012*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16ER11W-A2	–	11	0,3 *0.012*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16ER11W-TT	–	11	0,3 *0.012*	1,8 *0.071*	2,8 *0.110*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
22ER11W2M	–	11	0,3 *0.012*	2,3 *0.091*	3,5 *0.138*	12,7 *0.500*	22,0 *0.866*	4,71 *0.185*			■		
16ER12W	–	12	0,24 *0.009*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		■
16ER14W	–	14	0,24 *0.009*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*	■		■	■	■
16ER14W-A	–	14	0,24 *0.009*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■	■	
16ER14W-A1	–	14	0,24 *0.009*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16ER14W-A2	–	14	0,24 *0.009*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16ER14W-TT	–	14	0,24 *0.009*	1,5 *0.059*	2,2 *0.087*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16ER16W	–	16	0,2 *0.008*	0,8 *0.031*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		■
16ER18W	–	18	0,16 *0.006*	0,8 *0.031*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16ER19W	–	19	0,15 *0.006*	0,8 *0.031*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*	■		■	■	■

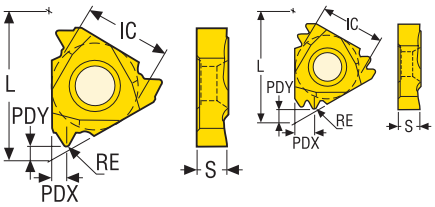
Insert Part No. Right	Pitch		RE	PDY	PDX	IC	L	S	Grades				
									Coated				Uncoated
	mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	CP200	CP300	CP500	TTP2050	H15
16ER19W-A	–	19	0,16 *0.006*	0,8 *0.031*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■	■	
16ER19W-A1	–	19	0,16 *0.006*	0,8 *0.031*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16ER19W-A2	–	19	0,16 *0.006*	0,8 *0.031*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16ER20W	–	20	0,14 *0.006*	0,8 *0.031*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		■
16ER28W	–	28	0,09 *0.004*	0,8 *0.031*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		■

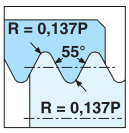
Insert Part No. Left	Pitch		RE	PDY	PDX	IC	L	S	Grades				
									Coated				Uncoated
	mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	CP200	CP300	CP500	TTP2050	H15
22EL5W	–	5	0,63 *0.025*	1,7 *0.067*	2,5 *0.098*	12,7 *0.500*	22,0 *0.866*	4,71 *0.185*			■		
22EL6W	–	6	0,5 *0.020*	1,8 *0.071*	2,5 *0.098*	12,7 *0.500*	22,0 *0.866*	4,71 *0.185*			■		
22EL7W	–	7	0,43 *0.017*	1,8 *0.071*	2,5 *0.098*	12,7 *0.500*	22,0 *0.866*	4,71 *0.185*			■		
16EL8W	–	8	0,42 *0.017*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16EL9W	–	9	0,31 *0.012*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16EL10W	–	10	0,27 *0.011*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16EL11W	–	11	0,3 *0.012*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16EL12W	–	12	0,24 *0.009*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16EL14W	–	14	0,24 *0.009*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16EL16W	–	16	0,2 *0.008*	0,8 *0.031*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16EL19W	–	19	0,15 *0.006*	0,8 *0.031*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16EL20W	–	20	0,14 *0.006*	0,8 *0.031*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16EL28W	–	28	0,09 *0.004*	0,8 *0.031*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		

■ **Stock standard.**

Whitworth, BSW – Internal Threading

Snap-Tap®





BS84 -1956
ISO228 - 1982
BS2779 - 1973

09NR/11Nx/16Nx/22Nx



11NR/16NR..A



11NR/16NR..A1



11NR/16NR..A2



16NR..TT



22NR..M



Insert Part No. Right	Pitch		RE	PDY	PDX	IC	L	S	Grades				
									Coated				Uncoated
	mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	CP200	CP300	CP500	TTP2050	H15
22NR5W	–	5	0,63 *0.025*	1,7 *0.067*	2,5 *0.098*	12,7 *0.500*	22,0 *0.866*	4,71 *0.185*			■		■
22NR6W	–	6	0,5 *0.020*	1,8 *0.071*	2,5 *0.098*	12,7 *0.500*	22,0 *0.866*	4,71 *0.185*			■		■
22NR7W	–	7	0,43 *0.017*	1,8 *0.071*	2,5 *0.098*	12,7 *0.500*	22,0 *0.866*	4,71 *0.185*			■		
16NR8W	–	8	0,42 *0.017*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		■
16NR9W	–	9	0,31 *0.012*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16NR10W	–	10	0,27 *0.011*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		■
16NR11W	–	11	0,3 *0.012*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*	■		■	■	■
16NR11W-A	–	11	0,3 *0.012*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■	■	
16NR11W-A1	–	11	0,3 *0.012*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16NR11W-A2	–	11	0,3 *0.012*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16NR11W-TT	–	11	0,31 *0.012*	1,8 *0.071*	2,8 *0.110*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
22NR11W2M	–	11	0,3 *0.012*	2,3 *0.091*	3,5 *0.138*	12,7 *0.500*	22,0 *0.866*	4,71 *0.185*			■		
16NR12W	–	12	0,24 *0.009*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		■
16NR12W-TT	–	12	0,24 *0.009*	1,7 *0.067*	2,7 *0.106*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
09NR14W	–	14	0,24 *0.009*	0,7 *0.028*	0,9 *0.035*	5,56 *0.219*	9,6 *0.378*	2,4 *0.094*			■		
11NR14W	–	14	0,24 *0.009*	0,7 *0.028*	0,9 *0.035*	6,35 *0.250*	11,0 *0.433*	3,0 *0.118*	■		■	■	■
16NR14W	–	14	0,24 *0.009*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*	■		■	■	■
11NR14W-A	–	14	0,24 *0.009*	0,7 *0.028*	0,9 *0.035*	6,35 *0.250*	11,0 *0.433*	3,0 *0.118*			■	■	
16NR14W-A	–	14	0,23 *0.009*	1,2 *0.047*	1,1 *0.043*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■	■	
11NR14W-A1	–	14	0,24 *0.009*	0,7 *0.028*	0,9 *0.035*	6,35 *0.250*	11,0 *0.433*	3,0 *0.118*			■		
16NR14W-A1	–	14	0,23 *0.009*	1,2 *0.047*	1,1 *0.043*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
11NR14W-A2	–	14	0,24 *0.009*	0,7 *0.028*	0,9 *0.035*	6,35 *0.250*	11,0 *0.433*	3,0 *0.118*			■		

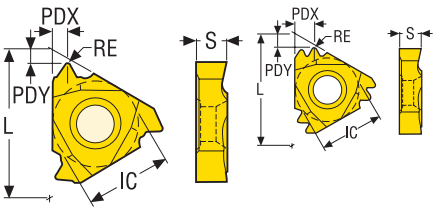
Insert Part No. Right	Pitch		RE	PDY	PDX	IC	L	S	Grades				
									Coated				Uncoated
	mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	CP200	CP300	CP500	TTP2050	H15
16NR14W-A2	–	14	0,23 *0.009*	1,2 *0.047*	1,1 *0.043*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16NR14W-TT	–	14	0,23 *0.009*	1,5 *0.059*	2,2 *0.087*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16NR16W	–	16	0,2 *0.008*	0,8 *0.031*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		■
09NR19W	–	19	0,15 *0.006*	0,7 *0.028*	0,8 *0.031*	5,56 *0.219*	9,6 *0.378*	2,4 *0.094*			■		
11NR19W	–	19	0,15 *0.006*	0,8 *0.031*	0,8 *0.031*	6,35 *0.250*	11,0 *0.433*	3,0 *0.118*	■		■	■	■
16NR19W	–	19	0,15 *0.006*	0,8 *0.031*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*	■		■		■
11NR19W-A	–	19	0,15 *0.006*	0,8 *0.031*	0,8 *0.031*	6,35 *0.250*	11,0 *0.433*	3,0 *0.118*			■	■	
11NR19W-A1	–	19	0,15 *0.006*	0,8 *0.031*	0,8 *0.031*	6,35 *0.250*	11,0 *0.433*	3,0 *0.118*			■		
11NR19W-A2	–	19	0,15 *0.006*	0,8 *0.031*	0,8 *0.031*	6,35 *0.250*	11,0 *0.433*	3,0 *0.118*			■		
16NR20W	–	20	0,14 *0.006*	0,8 *0.031*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		■
16NR28W	–	28	0,09 *0.004*	0,8 *0.031*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		

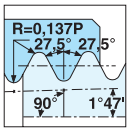
Insert Part No. Left	Pitch		RE	PDY	PDX	IC	L	S	Grades				
									Coated				Uncoated
	mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	CP200	CP300	CP500	TTP2050	H15
22NL6W	–	6	0,5 *0.020*	1,8 *0.071*	2,5 *0.098*	12,7 *0.500*	22,0 *0.866*	4,71 *0.185*			■		
22NL7W	–	7	0,43 *0.017*	1,8 *0.071*	2,5 *0.098*	12,7 *0.500*	22,0 *0.866*	4,71 *0.185*			■		
16NL8W	–	8	0,42 *0.017*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16NL9W	–	9	0,31 *0.012*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16NL10W	–	10	0,27 *0.011*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16NL11W	–	11	0,3 *0.012*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16NL12W	–	12	0,24 *0.009*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
11NL14W	–	14	0,24 *0.009*	1,2 *0.047*	0,9 *0.035*	6,35 *0.250*	11,0 *0.433*	3,0 *0.118*			■		
16NL14W	–	14	0,24 *0.009*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16NL16W	–	16	0,2 *0.008*	0,8 *0.031*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
11NL19W	–	19	0,15 *0.006*	0,8 *0.031*	0,8 *0.031*	6,35 *0.250*	11,0 *0.433*	3,0 *0.118*			■		
16NL19W	–	19	0,15 *0.006*	0,8 *0.031*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16NL20W	–	20	0,14 *0.006*	0,8 *0.031*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16NL28W	–	28	0,09 *0.004*	0,8 *0.031*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		

■ **Stock standard.**

BSPT – External Threading

Snap-Tap®





ISO228/1 35 21 1959 ISO7/1

16ER..TT



Insert Part No. Right	Pitch		RE	PDY	PDX	IC	L	S	Grades				
									Coated				Uncoated
	mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	CP200	CP300	CP500	TTP2050	H15
16ER11BSPT	–	11	0,3 *0.012*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16ER11BSPT-TT	–	11	0,3 *0.012*	1,8 *0.071*	2,8 *0.110*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16ER14BSPT	–	14	0,24 *0.009*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16ER14BSPT-TT	–	14	0,24 *0.009*	1,5 *0.059*	2,2 *0.087*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16ER19BSPT	–	19	0,15 *0.006*	0,8 *0.031*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16ER28BSPT	–	28	0,08 *0.003*	0,7 *0.028*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		

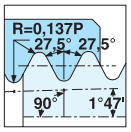
Insert Part No. Left	Pitch		RE	PDY	PDX	IC	L	S	Grades				
									Coated				Uncoated
	mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	CP200	CP300	CP500	TTP2050	H15
16EL11BSPT	–	11	0,3 *0.012*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16EL14BSPT	–	14	0,24 *0.009*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		

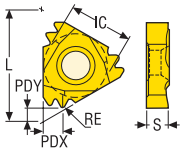
■ **Stock standard.**

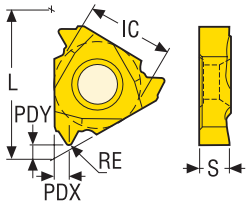
BSPT – Internal Threading

Snap-Tap®

ISO228/1 35 21 1959 ISO7/1







09NR/16Nx..



16NR..TT



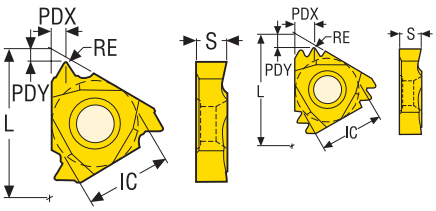
Insert Part No. Right	Pitch		RE	PDY	PDX	IC	L	S	Grades				
									Coated				Uncoated
	mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	CP200	CP300	CP500	TTP2050	H15
16NR11BSPT	–	11	0,3 *0.012*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16NR11BSPT-TT	–	11	0,3 *0.012*	1,8 *0.071*	2,8 *0.110*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16NR14BSPT	–	14	0,24 *0.009*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16NR14BSPT-TT	–	14	0,24 *0.009*	1,5 *0.059*	2,2 *0.087*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
09NR19BSPT	–	19	0,15 *0.006*	0,8 *0.031*	0,8 *0.031*	5,56 *0.219*	9,6 *0.378*	2,4 *0.094*			■		

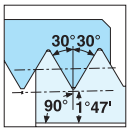
Insert Part No. Left	Pitch		RE	PDY	PDX	IC	L	S	Grades				
									Coated				Uncoated
	mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	CP200	CP300	CP500	TTP2050	H15
16NL11BSPT	–	11	0,3 *0.012*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16NL14BSPT	–	14	0,24 *0.009*	1,2 *0.047*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		

■ **Stock standard.**

NPT– External Threading

Snap-Tap®





ANSI B1.20.1 - 1983

16ER..A1



16ER..A2



16Ex..



22ER/27ER..M



Insert Part No. Right	Pitch		RE	PDY	PDX	IC	L	S	Grades				
									Coated				Uncoated
	mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	CP200	CP300	CP500	TTP2050	H15
16ER8NPT	–	8	0,07 *0.003*	1,1 *0.043*	1,6 *0.063*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		■
16ER11.5NPT	–	11.5	0,07 *0.003*	1,1 *0.043*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		■
16ER11.5NPT-A1	–	11.5	0,09 *0.004*	1,1 *0.043*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16ER11.5NPT-A2	–	11.5	0,09 *0.004*	1,1 *0.043*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
22ER11.5NPT2M	–	11.5	0,07 *0.003*	2,1 *0.083*	3,3 *0.130*	12,7 *0.500*	22,0 *0.866*	4,71 *0.185*			■		
16ER14NPT	–	14	0,07 *0.003*	1,1 *0.043*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		■
16ER18NPT	–	18	0,06 *0.002*	0,7 *0.028*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		■
16ER27NPT	–	27	0,04 *0.002*	0,7 *0.028*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		

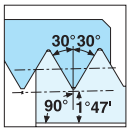
Insert Part No. Left	Pitch		RE	PDY	PDX	IC	L	S	Grades				
									Coated				Uncoated
	mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	CP200	CP300	CP500	TTP2050	H15
16EL8NPT	–	8	0,09 *0.004*	1,1 *0.043*	1,6 *0.063*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16EL11.5NPT	–	11.5	0,07 *0.003*	1,1 *0.043*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16EL14NPT	–	14	0,07 *0.003*	1,1 *0.043*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16EL18NPT	–	18	0,06 *0.002*	0,7 *0.028*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		

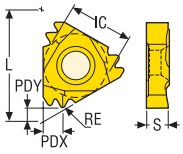
■ **Stock standard.**

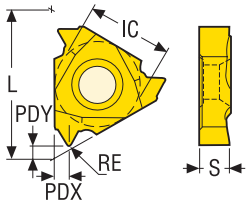
NPT – Internal Threading

Snap-Tap®

ANSI B1.20.1 - 1983







16NR..A1



16NR..A2



22NR..M



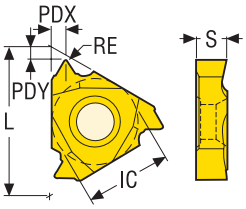
Insert Part No. Right	Pitch		RE	PDY	PDX	IC	L	S	Grades				
									Coated				Uncoated
	mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	CP200	CP300	CP500	TTP2050	H15
16NR8NPT	–	8	0,1 *0.004*	1,1 *0.043*	1,6 *0.063*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		■
16NR8NPT-A2	–	8	0,12 *0.005*	1,1 *0.043*	1,6 *0.063*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16NR11.5NPT	–	11.5	0,09 *0.004*	1,1 *0.043*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		■
16NR11.5NPT-A1	–	11.5	0,1 *0.004*	1,1 *0.043*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16NR11.5NPT-A2	–	11.5	0,1 *0.004*	1,1 *0.043*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
22NR11.5NPT2M	–	11.5	0,05 *0.002*	2,1 *0.083*	3,3 *0.130*	12,7 *0.500*	22,0 *0.866*	4,71 *0.185*			■		
11NR14NPT	–	14	0,07 *0.003*	0,7 *0.028*	1,0 *0.039*	6,35 *0.250*	11,0 *0.433*	3,0 *0.118*			■		
16NR14NPT	–	14	0,08 *0.003*	1,1 *0.043*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		■
16NR14NPT-A2	–	14	0,08 *0.003*	1,1 *0.043*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
09NR18NPT	–	18	0,06 *0.002*	0,7 *0.028*	0,8 *0.031*	5,56 *0.219*	9,6 *0.378*	2,4 *0.094*			■		
11NR18NPT	–	18	0,06 *0.002*	0,7 *0.028*	0,8 *0.031*	6,35 *0.250*	11,0 *0.433*	3,0 *0.118*			■		
09NR27NPT	–	27	0,04 *0.002*	0,7 *0.028*	0,8 *0.031*	5,56 *0.219*	9,6 *0.378*	2,4 *0.094*			■		

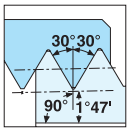
Insert Part No. Left	Pitch		RE	PDY	PDX	IC	L	S	Grades				
									Coated				Uncoated
	mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	CP200	CP300	CP500	TTP2050	H15
16NL8NPT	–	8	0,1 *0.004*	1,2 *0.047*	1,6 *0.063*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
27ER8NPT2M	–	8	0,07 *0.003*	3,0 *0.118*	4,8 *0.189*	15,875 *0.625*	27,0 *1.063*	6,15 *0.242*			■		
16NL11.5NPT	–	11.5	0,09 *0.004*	1,1 *0.043*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16NL14NPT	–	14	0,08 *0.003*	1,1 *0.043*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		

■ **Stock standard.**

NPTF– External Threading

Snap-Tap®





ANSI B1.4 - 1976
ANSI B1.20.3 - 1976

16ER..



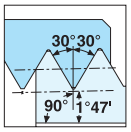
Insert Part No. Right	Pitch		RE	PDY	PDX	IC	L	S	Grades				
									Coated				Uncoated
	mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	CP200	CP300	CP500	TTP2050	H15
16ER11.5NPTF	–	11.5	0,06 *0.002*	1,1 *0.043*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16ER14NPTF	–	14	0,05 *0.002*	1,1 *0.043*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16ER18NPTF	–	18	0,04 *0.002*	0,7 *0.028*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16ER27NPTF	–	27	0,04 *0.002*	0,7 *0.028*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		

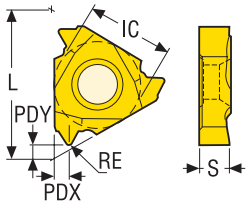
■ **Stock standard.**

NPTF – Internal Threading

Snap-Tap®

ANSI B1.4 - 1976
ANSI B1.20.3 - 1976





11NR/16Nx



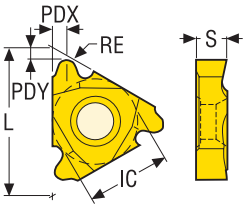
Insert Part No. Right	Pitch		RE	PDY	PDX	IC	L	S	Grades				
									Coated				Uncoated
	mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	CP200	CP300	CP500	TTP2050	H15
16NR11.5NPTF	–	11.5	0,06 *0.002*	1,1 *0.043*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16NR14NPTF	–	14	0,05 *0.002*	1,1 *0.043*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
11NR18NPTF	–	18	0,04 *0.002*	0,7 *0.028*	0,8 *0.031*	6,35 *0.250*	11,0 *0.433*	3,0 *0.118*			■		

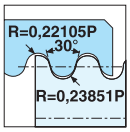
Insert Part No. Left	Pitch		RE	PDY	PDX	IC	L	S	Grades				
									Coated				Uncoated
	mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	CP200	CP300	CP500	TTP2050	H15
16NL11.5NPTF	–	11.5	0,06 *0.002*	1,1 *0.043*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		

■ **Stock standard.**

Round-DIN405 – External Threading

Snap-Tap®





DIN405 - 1981
7h/6h

16ER/22Ex/27ER



Insert Part No. Right	Pitch		RE	PDY	PDX	IC	L	S	Grades				
									Coated				Uncoated
	mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	CP200	CP300	CP500	TTP2050	H15
27ER4RD	–	4	1,46 *0.057*	2,2 *0.087*	3,2 *0.126*	15,875 *0.625*	27,0 *1.063*	6,15 *0.242*			■		
16ER6RD	–	6	0,97 *0.038*	1,3 *0.051*	1,8 *0.071*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
22ER6RD	–	6	0,97 *0.038*	2,0 *0.079*	2,5 *0.098*	12,7 *0.500*	22,0 *0.866*	4,71 *0.185*			■		
16ER8RD	–	8	0,73 *0.029*	1,3 *0.051*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16ER10RD	–	10	0,58 *0.023*	1,3 *0.051*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		

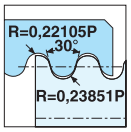
Insert Part No. Left	Pitch		RE	PDY	PDX	IC	L	S	Grades				
									Coated				Uncoated
	mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	CP200	CP300	CP500	TTP2050	H15
22EL6RD	–	6	0,97 *0.038*	2,0 *0.079*	2,5 *0.098*	12,7 *0.500*	22,0 *0.866*	4,71 *0.185*			■		

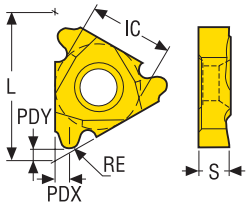
■ **Stock standard.**

Round-DIN405 – Internal Threading

Snap-Tap®

DIN405 - 1981
7h/6h





16NR/22Nx/27NR



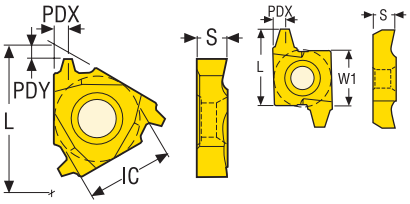
Insert Part No. Right	Pitch		RE	PDY	PDX	IC	L	S	Grades				
									Coated				Uncoated
	mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	CP200	CP300	CP500	TTP2050	H15
27NR4RD	–	4	1,31 *0.052*	2,2 *0.087*	3,2 *0.126*	15,875 *0.625*	27,0 *1.063*	6,15 *0.242*			■		
16NR6RD	–	6	0,87 *0.034*	1,3 *0.051*	1,8 *0.071*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
22NR6RD	–	6	0,87 *0.034*	2,0 *0.079*	2,5 *0.098*	12,7 *0.500*	22,0 *0.866*	4,71 *0.185*			■		
16NR8RD	–	8	0,69 *0.027*	1,3 *0.051*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16NR10RD	–	10	0,51 *0.020*	1,3 *0.051*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		

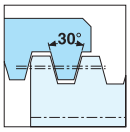
Insert Part No. Left	Pitch		RE	PDY	PDX	IC	L	S	Grades				
									Coated				Uncoated
	mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	CP200	CP300	CP500	TTP2050	H15
22NL6RD	–	6	0,87 *0.034*	2,0 *0.079*	2,5 *0.098*	12,7 *0.500*	22,0 *0.866*	4,71 *0.185*			■		

■ **Stock standard.**

TR-DIN103 – External Threading

Snap-Tap®





DIN103 - 1977
ISO2901/3 - 1977
7e

16Ex/22Ex27ER



20ER/26ER



Insert Part No. Right	Pitch		W1	PDY	PDX	IC	L	S	Grades				
									Coated				Uncoated
	mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	CP200	CP300	CP500	TTP2050	H15
16ER1.5TR	1,5	–	– –	0,9 *0.035*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16ER2.0TR	2	–	– –	1,3 *0.051*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16ER3.0TR	3	–	– –	1,3 *0.051*	1,6 *0.063*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
22ER4.0TR	4	–	– –	2,0 *0.079*	2,5 *0.098*	12,7 *0.500*	22,0 *0.866*	4,71 *0.185*			■		
22ER5.0TR	5	–	– –	2,0 *0.079*	2,3 *0.091*	12,7 *0.500*	22,0 *0.866*	4,71 *0.185*		■	■		
27ER6.0TR	6	–	– –	2,5 *0.098*	3,2 *0.126*	15,875 *0.625*	27,0 *1.063*	6,15 *0.242*			■		
20ER7.0TR	7	–	12,7 *0.500*	– –	3,2 *0.126*	– –	20,0 *0.787*	6,3 *0.248*		■	■		
20ER8.0TR	8	–	12,7 *0.500*	– –	3,2 *0.126*	– –	20,0 *0.787*	6,3 *0.248*		■	■		
26ER9.0TR	9	–	15,875 *0.625*	– –	5,0 *0.197*	– –	26,0 *1.024*	7,88 *0.310*			■		
26ER10.0TR	10	–	15,875 *0.625*	– –	5,0 *0.197*	– –	26,0 *1.024*	7,88 *0.310*		■	■		
26ER12.0TR	12	–	15,875 *0.625*	– –	5,0 *0.197*	– –	26,0 *1.024*	7,88 *0.310*		■	■		
26ER14.0TR	14	–	15,875 *0.625*	– –	5,1 *0.201*	– –	26,0 *1.024*	7,88 *0.310*			■		

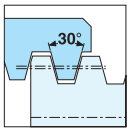
Insert Part No. Left	Pitch		W1	PDY	PDX	IC	L	S	Grades				
									Coated				Uncoated
	mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	CP200	CP300	CP500	TTP2050	H15
16EL1.5TR	1,5	–	– –	0,9 *0.035*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16EL2.0TR	2	–	– –	1,3 *0.051*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16EL3.0TR	3	–	– –	1,3 *0.051*	1,6 *0.063*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
22EL4.0TR	4	–	– –	2,0 *0.079*	2,5 *0.098*	12,7 *0.500*	22,0 *0.866*	4,71 *0.185*			■		
22EL5.0TR	5	–	– –	2,0 *0.079*	2,3 *0.091*	12,7 *0.500*	22,0 *0.866*	4,71 *0.185*			■		

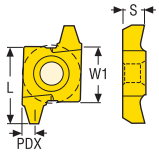
■ **Stock standard.**

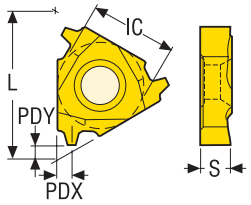
TR-DIN103 – Internal Threading

Snap-Tap®

DIN103 - 1977
ISO2901/3 - 1977
7H







16Nx/22Nx/27NR



20NR/26NR



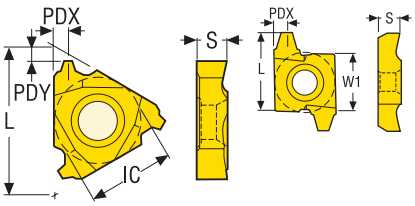
Insert Part No. Right	Pitch		W1	PDY	PDX	IC	L	S	Grades				
									Coated				Uncoated
	mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	CP200	CP300	CP500	TTP2050	H15
16NR1.5TR	1,5	–	– –	0,9 *0.035*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16NR2.0TR	2	–	– –	1,3 *0.051*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16NR3.0TR	3	–	– –	1,3 *0.051*	1,6 *0.063*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
22NR4.0TR	4	–	– –	2,0 *0.079*	2,5 *0.098*	12,7 *0.500*	22,0 *0.866*	4,71 *0.185*			■		
22NR5.0TR	5	–	– –	2,0 *0.079*	2,3 *0.091*	12,7 *0.500*	22,0 *0.866*	4,71 *0.185*			■		
27NR6.0TR	6	–	– –	2,5 *0.098*	3,2 *0.126*	15,875 *0.625*	27,0 *1.063*	6,15 *0.242*			■		
20NR7.0TR	7	–	12,7 *0.500*	– –	3,2 *0.126*	– –	20,0 *0.787*	6,3 *0.248*		■	■		
20NR8.0TR	8	–	12,7 *0.500*	– –	3,2 *0.126*	– –	20,0 *0.787*	6,3 *0.248*		■	■		
26NR9.0TR	9	–	15,875 *0.625*	– –	5,0 *0.197*	– –	26,0 *1.024*	7,88 *0.310*			■		
26NR10.0TR	10	–	15,875 *0.625*	– –	5,0 *0.197*	– –	26,0 *1.024*	7,88 *0.310*		■	■		
26NR12.0TR	12	–	15,875 *0.625*	– –	5,0 *0.197*	– –	26,0 *1.024*	7,88 *0.310*		■	■		
26NR14.0TR	14	–	15,875 *0.625*	– –	5,1 *0.201*	– –	26,0 *1.024*	7,88 *0.310*			■		

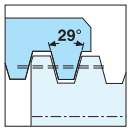
Insert Part No. Left	Pitch		W1	PDY	PDX	IC	L	S	Grades				
									Coated				Uncoated
	mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	CP200	CP300	CP500	TTP2050	H15
16NL1.5TR	1,5	–	– –	0,9 *0.035*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16NL2.0TR	2	–	– –	1,3 *0.051*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16NL3.0TR	3	–	– –	1,3 *0.051*	1,6 *0.063*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
22NL4.0TR	4	–	– –	2,0 *0.079*	2,5 *0.098*	12,7 *0.500*	22,0 *0.866*	4,71 *0.185*			■		
22NL5.0TR	5	–	– –	2,0 *0.079*	2,3 *0.091*	12,7 *0.500*	22,0 *0.866*	4,71 *0.185*			■		

■ **Stock standard.**

ACME – External Threading

Snap-Tap®





ANSI B1.5 - 1988
3G

16Ex/22Ex/27Ex



20ER/26ER



Insert Part No. Right	Pitch		RE	PDY	PDX	IC	L	S	Grades				
									Coated				Uncoated
	mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	CP200	CP300	CP500	TTP2050	H15
26ER2ACME	–	2	– –	– –	5,0 *0.197*	– –	26,0 *1.024*	7,88 *0.310*		■	■		
20ER3ACME	–	3	– –	– –	3,2 *0.126*	– –	20,0 *0.787*	6,3 *0.248*		■	■		
20ER3.5ACME	–	3.5	– –	– –	3,2 *0.126*	– –	20,0 *0.787*	6,3 *0.248*			■		
27ER4ACME	–	4	– –	2,5 *0.098*	3,0 *0.118*	15,875 *0.625*	27,0 *1.063*	6,15 *0.242*			■		
22ER5ACME	–	5	– –	2,0 *0.079*	2,3 *0.091*	12,7 *0.500*	22,0 *0.866*	4,71 *0.185*			■		
22ER6ACME	–	6	– –	2,0 *0.079*	2,5 *0.098*	12,7 *0.500*	22,0 *0.866*	4,71 *0.185*			■		
16ER8ACME	–	8	– –	1,3 *0.051*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16ER10ACME	–	10	– –	1,4 *0.055*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16ER12ACME	–	12	– –	1,3 *0.051*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16ER14ACME	–	14	– –	1,3 *0.051*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16ER16ACME	–	16	– –	0,9 *0.035*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		

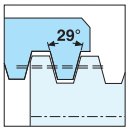
Insert Part No. Left	Pitch		RE	PDY	PDX	IC	L	S	Grades				
									Coated				Uncoated
	mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	CP200	CP300	CP500	TTP2050	H15
27EL4ACME	–	4	– –	2,5 *0.098*	3,0 *0.118*	15,875 *0.625*	27,0 *1.063*	6,15 *0.242*			■		
22EL5ACME	–	5	– –	2,0 *0.079*	2,3 *0.091*	12,7 *0.500*	22,0 *0.866*	4,71 *0.185*			■		
22EL6ACME	–	6	– –	2,0 *0.079*	2,5 *0.098*	12,7 *0.500*	22,0 *0.866*	4,71 *0.185*			■		
16EL8ACME	–	8	– –	1,3 *0.051*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16EL10ACME	–	10	– –	1,4 *0.055*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		

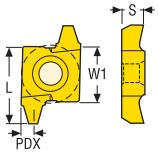
■ **Stock standard.**

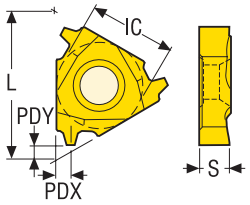
ACME – Internal Threading

Snap-Tap®

ANSI B1.5 - 1988
3G







16NR/22Nx/27NR



20NR/26NR



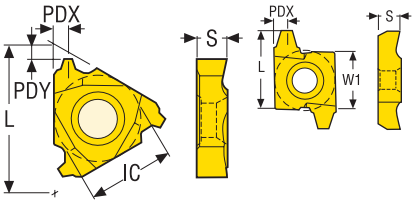
Insert Part No. Right	Pitch		RE	PDY	PDX	IC	L	S	Grades				
									Coated				Uncoated
	mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	CP200	CP300	CP500	TTP2050	H15
26NR2ACME	–	2	– –	– –	5,0 *0.197*	– –	26,0 *1.024*	7,88 *0.310*		■			
20NR3ACME	–	3	– –	– –	3,2 *0.126*	– –	20,0 *0.787*	6,3 *0.248*		■	■		
20NR3.5ACME	–	3.5	– –	– –	3,2 *0.126*	– –	20,0 *0.787*	6,3 *0.248*		■	■		
27NR4ACME	–	4	– –	2,5 *0.098*	3,0 *0.118*	15,875 *0.625*	27,0 *1.063*	6,15 *0.242*		■	■		
22NR5ACME	–	5	– –	2,0 *0.079*	2,3 *0.091*	12,7 *0.500*	22,0 *0.866*	4,71 *0.185*			■		
22NR6ACME	–	6	– –	2,0 *0.079*	2,5 *0.098*	12,7 *0.500*	22,0 *0.866*	4,71 *0.185*		■	■		
16NR8ACME	–	8	– –	1,3 *0.051*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16NR10ACME	–	10	– –	1,3 *0.051*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16NR12ACME	–	12	– –	1,3 *0.051*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16NR16ACME	–	16	– –	0,9 *0.035*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		

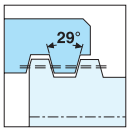
Insert Part No. Left	Pitch		RE	PDY	PDX	IC	L	S	Grades				
									Coated				Uncoated
	mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	CP200	CP300	CP500	TTP2050	H15
22NL5ACME	–	5	– –	2,0 *0.079*	2,3 *0.091*	12,7 *0.500*	22,0 *0.866*	4,71 *0.185*			■		

■ **Stock standard.**

Stub-ACME – External Threading

Snap-Tap®





ANSI B1.8 - 1988
2G

16ER



16ER/22Ex/27ER





20ER/26ER



Insert Part No. Right	Pitch		RE	PDY	PDX	IC	L	S	Grades				
									Coated				Uncoated
	mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	CP200	CP300	CP500	TTP2050	H15
26ER2STACME	–	2	– –	– –	5,0 *0.197*	– –	26,0 *1.024*	7,88 *0.310*			■		
20ER3STACME	–	3	– –	– –	3,2 *0.126*	– –	20,0 *0.787*	6,3 *0.248*			■		
27ER4STACME	–	4	– –	2,6 *0.102*	2,8 *0.110*	15,875 *0.625*	27,0 *1.063*	6,15 *0.242*		■	■		
22ER5STACME	–	5	– –	2,0 *0.079*	2,1 *0.083*	12,7 *0.500*	22,0 *0.866*	4,71 *0.185*			■		
22ER6STACME	–	6	– –	2,4 *0.094*	2,5 *0.098*	12,7 *0.500*	22,0 *0.866*	4,71 *0.185*			■		
16ER8STACME	–	8	– –	1,8 *0.071*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*		■	■		
16ER10STACME	–	10	– –	1,5 *0.059*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16ER12STACME	–	12	– –	1,5 *0.059*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16ER14STACME	–	14	– –	1,3 *0.051*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		

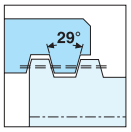
Insert Part No. Left	Pitch		RE	PDY	PDX	IC	L	S	Grades				
									Coated				Uncoated
	mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	CP200	CP300	CP500	TTP2050	H15
22EL6STACME	–	6	– –	2,4 *0.094*	2,5 *0.098*	12,7 *0.500*	22,0 *0.866*	4,71 *0.185*			■		

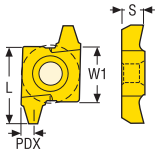
■ **Stock standard.**

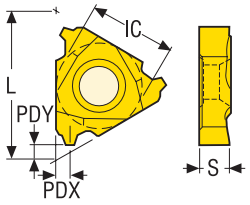
Stub-ACME – Internal Threading

Snap-Tap®

ANSI B1.8 - 1988
2G







16NR



16NR/22NR/27NR



20NR

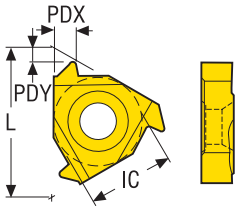


Insert Part No. Right	Pitch		RE	PDY	PDX	IC	L	S	Grades				
									Coated				Uncoated
	mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	CP200	CP300	CP500	TTP2050	H15
20NR3STACME	–	3	– –	– –	3,2 *0.126*	– –	20,0 *0.787*	6,3 *0.248*			■		
27NR4STACME	–	4	– –	2,6 *0.102*	2,8 *0.110*	15,875 *0.625*	27,0 *1.063*	6,15 *0.242*		■	■		
22NR5STACME	–	5	– –	2,0 *0.079*	2,1 *0.083*	12,7 *0.500*	22,0 *0.866*	4,71 *0.185*			■		
22NR6STACME	–	6	– –	2,4 *0.094*	2,5 *0.098*	12,7 *0.500*	22,0 *0.866*	4,71 *0.185*			■		
16NR8STACME	–	8	– –	1,8 *0.071*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*		■	■		
16NR10STACME	–	10	– –	1,5 *0.059*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16NR12STACME	–	12	– –	1,5 *0.059*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
16NR14STACME	–	14	– –	1,3 *0.051*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		

■ **Stock standard.**

AMERICAN BUTTRESS – External Threading

Snap-Tap®



16ER

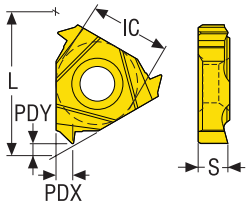


Insert Part No. Right	Pitch		PDY	PDX	IC	L	S	Grades				
								Coated				Uncoated
	mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	CP200	CP300	CP500	TTP2050	H15
16ER12BUT-S31217	–	12	2,0 *0.079*	1,3 *0.051*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		

■ **Stock standard.**

AMERICAN BUTTRESS – Internal Threading

Snap-Tap®



16NR

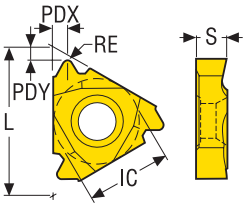


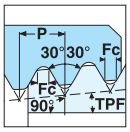
Insert Part No. Right	Pitch		PDY	PDX	IC	L	S	Grades				
								Coated				Uncoated
	mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	CP200	CP300	CP500	TTP2050	H15
16NR12BUT-S31220	–	12	2,0 *0.079*	1,3 *0.051*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		

■ **Stock standard.**

API Rotary Drilling connection - External threading

Snap-Tap®





API Spec 7-2 2017

22ER/27ER



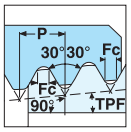
Insert Part No. Right	Pitch		RE	PDY	PDX	IC	L	S	APICODE	TGTPF	Grades				
											Coated				Uncoated
	mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			CP200	CP300	CP500	TTP2050	H15
27ER4APIS384	–	4	0,965 *0.038*	2,2 *0.087*	3,2 *0.126*	15,875 *0.625*	27,0 *1.063*	6,15 *0.242*	V038R	3	■		■		
22ER4APIS386	–	4	0,965 *0.038*	1,95 *0.077*	2,55 *0.100*	12,7 *0.500*	22,0 *0.866*	4,71 *0.185*	V038R	2		■	■		
27ER4APIS386	–	4	0,965 *0.038*	2,2 *0.087*	3,2 *0.126*	15,875 *0.625*	27,0 *1.063*	6,15 *0.242*	V038R	2	■	■	■		
27ER4APIS504	–	4	0,635 *0.025*	2,2 *0.087*	3,2 *0.126*	15,875 *0.625*	27,0 *1.063*	6,15 *0.242*	V050	3	■	■	■		
27ER4APIS506	–	4	0,635 *0.025*	2,2 *0.087*	3,2 *0.126*	15,875 *0.625*	27,0 *1.063*	6,15 *0.242*	V050	2	■	■	■		
22ER5APIS404	–	5	0,508 *0.020*	2,0 *0.079*	2,5 *0.098*	12,7 *0.500*	22,0 *0.866*	4,71 *0.185*	V040	3		■	■		
27ER5APIS404	–	5	0,508 *0.020*	2,2 *0.087*	3,2 *0.126*	15,875 *0.625*	27,0 *1.063*	6,15 *0.242*	V040	3		■	■		

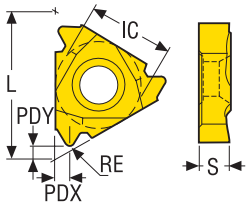
■ **Stock standard.**

API Rotary Drilling connection - Internal threading

Snap-Tap®

API Spec 7-2 2017





22NR/27NR

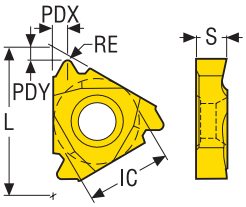


Insert Part No. Right	Pitch		RE	PDY	PDX	IC	L	S	APICODE	TGTPF	Grades				
											Coated				Uncoated
	mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			CP200	CP300	CP500	TTP2050	H15
22NR4API386	–	4	0,965 *0.038*	1,9 *0.075*	2,5 *0.098*	12,7 *0.500*	22,0 *0.866*	4,71 *0.185*	V038R	2		■	■		■
27NR4API384	–	4	0,965 *0.038*	2,2 *0.087*	3,2 *0.126*	15,875 *0.625*	27,0 *1.063*	6,15 *0.242*	V038R	3	■		■		
27NR4API386	–	4	0,965 *0.038*	2,2 *0.087*	3,2 *0.126*	15,875 *0.625*	27,0 *1.063*	6,15 *0.242*	V038R	2	■	■	■		
27NR4API504	–	4	0,635 *0.025*	2,2 *0.087*	3,2 *0.126*	15,875 *0.625*	27,0 *1.063*	6,15 *0.242*	V050	3	■	■	■		
27NR4API506	–	4	0,635 *0.025*	2,2 *0.087*	3,2 *0.126*	15,875 *0.625*	27,0 *1.063*	6,15 *0.242*	V050	2	■	■	■		
22NR5API404	–	5	0,508 *0.020*	2,0 *0.079*	2,5 *0.098*	12,7 *0.500*	22,0 *0.866*	4,71 *0.185*	V040	3		■	■		
27NR5API404	–	5	0,508 *0.020*	2,2 *0.087*	3,2 *0.126*	15,875 *0.625*	27,0 *1.063*	6,15 *0.242*	V040	3		■			

■ **Stock standard.**

Rotary drill connection - External threading

Snap-Tap®



HEF = Hughes External Flush
904/906 = Hughes H90
H90 = Hughes Slimline H90
PAC = P.A.C.

904/906



HEF



PAC



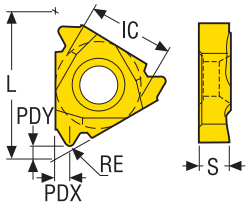
Insert Part No. Right	Pitch		RE	PDY	PDX	IC	L	S	APICODE	TGTPF	Grades				
											Coated				Uncoated
	mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			CP200	CP300	CP500	TTP2050	H15
27ER3H90	–	3	– –	3,5 *0.138*	3,6 *0.142*	15,875 *0.625*	27,0 *1.063*	6,15 *0.242*	90V050	1,25			■		
27ER3.5H904	–	3.5	– –	2,7 *0.106*	3,5 *0.138*	15,875 *0.625*	27,0 *1.063*	6,15 *0.242*	90V050	3			■		
27ER3.5H906	–	3.5	– –	2,7 *0.106*	3,5 *0.138*	15,875 *0.625*	27,0 *1.063*	6,15 *0.242*	90V050	2			■		
22ER4PAC	–	4	– –	2,4 *0.094*	2,63 *0.104*	12,7 *0.500*	22,0 *0.866*	4,71 *0.185*	V076	1,5			■		
27ER4PAC	–	4	– –	2,75 *0.108*	3,2 *0.126*	15,875 *0.625*	27,0 *1.063*	6,15 *0.242*	V076	1,5			■		
22ER6HEF	–	6	0,382 *0.015*	2,0 *0.079*	2,5 *0.098*	12,7 *0.500*	22,0 *0.866*	4,71 *0.185*	–	2			■		

■ **Stock standard.**

Rotary drill connection - Internal threading

Snap-Tap®

HEF = Hughes External Flush
904/906 = Hughes H90
H90 = Hughes Slimline H90
PAC = P.A.C.



904/906



HEF



PAC

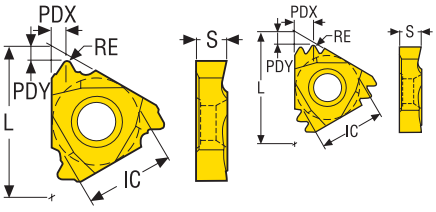


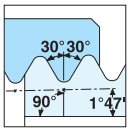
Insert Part No. Right	Pitch		RE	PDY	PDX	IC	L	S	APICODE	TGTPF	Grades				
											Coated				Uncoated
	mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			CP200	CP300	CP500	TTP2050	H15
27NR3H90	–	3	– –	3,5 *0.138*	3,6 *0.142*	15,875 *0.625*	27,0 *1.063*	6,15 *0.242*	90V050	1,25			■		
27NR3.5H904	–	3.5	– –	2,7 *0.106*	3,5 *0.138*	15,875 *0.625*	27,0 *1.063*	6,15 *0.242*	90V050	3			■		
27NR3.5H906	–	3.5	– –	2,7 *0.106*	3,5 *0.138*	15,875 *0.625*	27,0 *1.063*	6,15 *0.242*	90V050	2			■		
22NR4PAC	–	4	– –	2,4 *0.094*	2,6 *0.102*	12,7 *0.500*	22,0 *0.866*	4,71 *0.185*	V076	1,5			■		
27NR4PAC	–	4	– –	2,75 *0.108*	3,2 *0.126*	15,875 *0.625*	27,0 *1.063*	6,15 *0.242*	V076	1,5			■		
22NR6HEF	–	6	0,381 *0.015*	2,0 *0.079*	2,5 *0.098*	12,7 *0.500*	22,0 *0.866*	4,71 *0.185*	–	2			■		

■ **Stock standard.**

API Spec. 5B ROUND - External Threading

Snap-Tap®





API spec. 5B - 1988

16ER



22ER/27ER..M



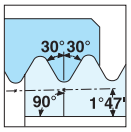
Insert Part No. Right	Pitch		RE	PDY	PDX	IC	L	S	Grades				
									Coated				Uncoated
	mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	CP200	CP300	CP500	TTP2050	H15
16ER8APIRD	–	8	0,46 *0.018*	1,5 *0.059*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
27ER8APIRD2M	–	8	0,46 *0.018*	2,9 *0.114*	4,5 *0.177*	15,875 *0.625*	27,0 *1.063*	6,15 *0.242*		■			
16ER10APIRD	–	10	0,38 *0.015*	1,5 *0.059*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
22ER10APIRD2M	–	10	0,38 *0.015*	2,4 *0.094*	3,7 *0.146*	12,7 *0.500*	22,0 *0.866*	4,71 *0.185*			■		

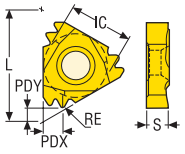
■ **Stock standard.**

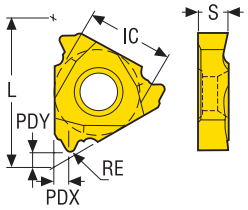
API Spec. 5B ROUND - Internal Threading

Snap-Tap®

API spec. 5B - 1988







16NR



27NR..M

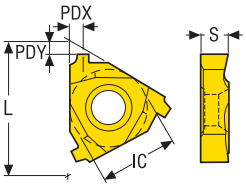


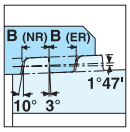
Insert Part No. Right	Pitch		RE	PDY	PDX	IC	L	S	Grades				
									Coated				Uncoated
	mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	CP200	CP300	CP500	TTP2050	H15
16NR8APIRD	–	8	0,46 *0.018*	1,5 *0.059*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		
27NR8APIRD2M	–	8	0,46 *0.018*	2,9 *0.114*	4,5 *0.177*	15,875 *0.625*	27,0 *1.063*	6,15 *0.242*		■			
16NR10APIRD	–	10	0,38 *0.015*	1,5 *0.059*	1,5 *0.059*	9,525 *0.375*	16,5 *0.650*	3,47 *0.137*			■		

■ **Stock standard.**

API 5B BUTTRESS, 1:16 Taper – External Threading

Snap-Tap®





Vallourec ST-D453.02
API spec. 5B - 1988

Crest and root are parallel to taper

22ER



Insert Part No. Right	Pitch		PDY	PDX	IC	L	S	TGTPF	Grades				
									Coated				Uncoated
	mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		CP200	CP300	CP500	TTP2050	H15
22ER5BUT2.5	–	5	2,2 *0.087*	2,5 *0.098*	12,7 *0.500*	22,0 *0.866*	4,71 *0.185*	3/4"			■		

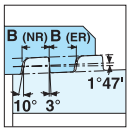
■ **Stock standard.**

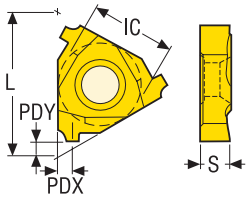
API 5B BUTTRESS, 1:16 Taper - Internal Threading

Snap-Tap®

Vallourec ST-D453.02
API spec. 5B - 1988

Crest and root are parallel to taper





22NR

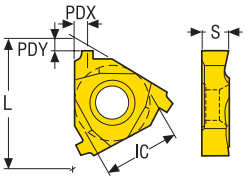


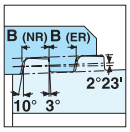
Insert Part No. Right	Pitch		PDY	PDX	IC	L	S	TGTPF	Grades				
									Coated				Uncoated
	mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		CP200	CP300	CP500	TTP2050	H15
22NR5BUT2.5	–	5	2,0 *0.079*	2,1 *0.083*	12,7 *0.500*	22,0 *0.866*	4,71 *0.185*	3/4"		■	■		

■ **Stock standard.**

API BUTTRESS 1:12 Taper - External Threading

Snap-Tap®





API spec. 5B - 1988
Crest and root are parallel to axis

22ER



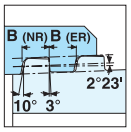
Insert Part No. Right	Pitch		PDY	PDX	IC	L	S	TGTPF	Grades				
									Coated				Uncoated
	mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		CP200	CP300	CP500	TTP2050	H15
22ER5BUT2.6	–	5	2,2 *0.087*	2,5 *0.098*	12,7 *0.500*	22,0 *0.866*	4,71 *0.185*	1			■		

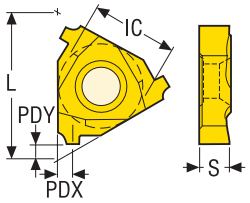
■ **Stock standard.**

API BUTTRESS 1:12 Taper - Internal Threading

Snap-Tap®

API spec. 5B - 1988
Crest and root are parallel to axis





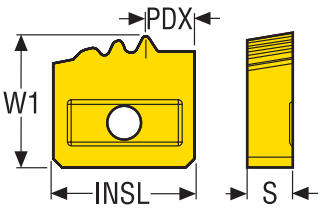
22NR



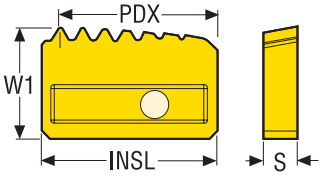
Insert Part No. Right	Pitch		PDY	PDX	IC	L	S	TGTPF	Grades				
									Coated				Uncoated
	mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		CP200	CP300	CP500	TTP2050	H15
22NR5BUT2.6	–	5	2,0 *0.079*	2,1 *0.083*	12,7 *0.500*	22,0 *0.866*	4,71 *0.185*	1			■		

■ **Stock standard.**

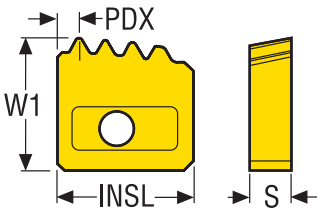
Chasers



Type 1



Type 2

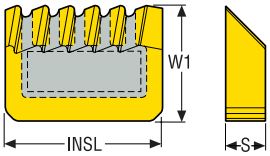


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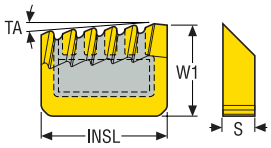
Designation	Pitch	Thread Form Product	INSL	W1	PDX	S	NT	Int./Ext.	Type	CHF1	Grades			
											Coated			
	TPI		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*					CP250T	CP500T	TP150T	TTP1550
5-1102	5,0	API_BUTTRESS_5TPI_1/16_EXT	15,875 *0.625*	15,875 *0.625*	2,1 *0.083*	4,76 *0.187*	3	External	1	C-1004-4	■			
5-5102	5,0	API_BUTTRESS_5TPI_1/16_EXT,	25,0 *0.984*	15,875 *0.625*	2,0 *0.079*	5,0 *0.197*	5	External	1	C-5003-4	■		■	■
5-1113	5,0	API_BUTTRESS_5TPI_1/16_INT,	15,875 *0.625*	15,875 *0.625*	2,5 *0.098*	4,76 *0.187*	3	Internal	3	C-1018-96	■			
5-5112-C	5,0	API_BUTTRESS_5TPI_1/16_INT	25,0 *0.984*	15,875 *0.625*	1,964 *0.077*	5,0 *0.197*	5	Internal	3	C-5003-96	■	■		
5-5108	5,0	API_BUTTRESS_5TPI_1/16_INT	25,0 *0.984*	15,875 *0.625*	2,5 *0.098*	5,0 *0.197*	5	Internal	3	C-5003-96	■			
5-1134	5,0	API_BUTT_5TPI_CAS_1/16_INTPUL	15,875 *0.625*	15,875 *0.625*	13,375 *0.527*	4,76 *0.187*	3	Internal	2	C-1018-96	■			■
5-5110	5,0	API_BUTT_5TPI_1/16_INTPULLING	25,0 *0.984*	15,875 *0.625*	22,5 *0.886*	5,0 *0.197*	5	Internal	2	C-5003-96	■			
5-4131-1	5,0	API_BUTTRESS_1/16_5TPI_EXT_1	20,0 *0.787*	15,692 *0.618*	4,84 *0.191*	4,76 *0.187*	3	External	1	C-4001-4	■			
5-4131-2	5,0	API_BUTTRESS_1/16_5TPI_EXT_2	20,0 *0.787*	15,875 *0.625*	2,3 *0.091*	4,76 *0.187*	4	External	1	C-4001-4	■			
5-3105-1	5,0	API_BUTTRESS_5TPI_1/16_PMC_1	17,0 *0.669*	14,57 *0.574*	5,552 *0.219*	5,2 *0.205*	3	External	1	C-3901-1	■			
5-3105-2	5,0	API_BUTTRESS_5TPI_1/16_PMC_2	17,0 *0.669*	14,825 *0.584*	3,858 *0.152*	5,2 *0.205*	3	External	1	C-3901-2	■			
5-3105-3	5,0	API_BUTTRESS_5TPI_1/16_PMC_3	17,0 *0.669*	14,98 *0.590*	2,165 *0.085*	5,2 *0.205*	3	External	1	C-3901-3	■			
8-1116	8,0	API_RD_CAS_8TPI_EXT,	15,875 *0.625*	15,875 *0.625*	5,6 *0.220*	4,76 *0.187*	3	External	1	C-1005-4	■			
8-1128	8,0	API_RD_8TPI_INT,	15,875 *0.625*	15,875 *0.625*	2,5 *0.098*	4,76 *0.187*	4	Internal	3	C-1002-96	■			
8-5111	8,0	API_RD_8TPI_INT	25,0 *0.984*	15,875 *0.625*	2,5 *0.098*	5,0 *0.197*	7	Internal	3	C-5002-96	■			
8-4133-1	8,0	API_RD_8TPI_EXT_CASING_1	20,0 *0.787*	15,875 *0.625*	10,19 *0.401*	4,76 *0.187*	3	External	1	C-4003-4	■			
8-4133-2	8,0	API_RD_8TPI_EXT_CASING_2	20,0 *0.787*	15,875 *0.625*	8,6 *0.339*	4,76 *0.187*	3	External	1	C-4003-4	■			
8-2115-1	8,0	API_RD_8TPI_CAS_3/4_TPF_PMC_1	16,0 *0.630*	14,62 *0.576*	7,697 *0.303*	5,2 *0.205*	3	External	1	–	■			
8-2115-2	8,0	API_RD_8TPI_CAS_3/4_TPF_PMC_2	16,0 *0.630*	14,87 *0.585*	6,638 *0.261*	5,2 *0.205*	3	External	1	–	■			
8-2115-3	8,0	API_RD_8TPI_CAS_3/4_TPF_PMC_3	16,0 *0.630*	15,0 *0.591*	5,58 *0.220*	5,2 *0.205*	3	External	1	–	■			
8-1117	8,0	API_RD_TUBING_8TPI_EXT,	15,875 *0.625*	15,875 *0.625*	5,6 *0.220*	4,76 *0.187*	3	External	1	C-1005-4	■			
8-2118-1	8,0	API_RD_8TPI_TUB_3/4_TPF_PMC_1	16,0 *0.630*	14,62 *0.576*	7,697 *0.303*	5,2 *0.205*	3	External	1	–	■			
8-2118-2	8,0	API_RD_8TPI_TUB_3/4_TPF_PMC_2	16,0 *0.630*	14,87 *0.585*	6,638 *0.261*	5,2 *0.205*	3	External	1	–	■			

Designation	Pitch	Thread Form Product	INSL	W1	PDX	S	NT	Int./Ext.	Type	CHF1	Grades			
											Coated			
	TPI		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*					CP250T	CP500T	TP150T	TTP1550
8-2118-3	8,0	API_RD_8TPI_TUB_3/4_TPF_PMC_3	16,0 *0.630*	15,0 *0.591*	5,58 *0.220*	5,2 *0.205*	3	External	1	–	■			
8-5114	8,0	API_RD_8TPI_INTPULLING	25,0 *0.984*	15,875 *0.625*	22,5 *0.886*	5,0 *0.197*	7	Internal	2	C-5002-96	■			
10-1120	10,0	API_RD_10TPI_TUB_INT	15,875 *0.625*	15,875 *0.625*	5,0 *0.197*	4,76 *0.187*	4	Internal	3	C-1001-96	■			
10-1133-2	10,0	API_RD_10TPI_TUB_EXT_2	15,875 *0.625*	15,875 *0.625*	4,4 *0.173*	4,76 *0.187*	3	External	1	C-1001-4	■			

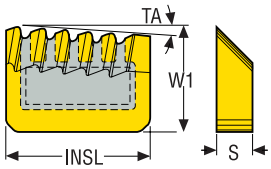
Chipformers



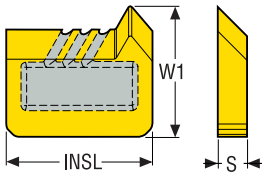
Type 1



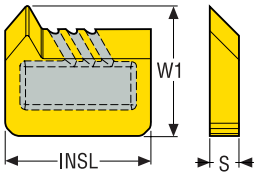
Type 2



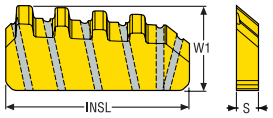
Type 3



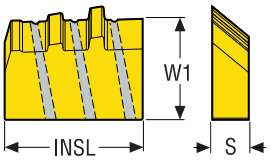
Type 4



Type 5



Type 6



Type 7

Designation	Type	INSL	W1	S
		mm *Inch*	mm *Inch*	mm *Inch*
C-1001	1	15,7 *0.618*	11,5 *0.453*	3,97 *0.156*
C-1001-4	2	15,7 *0.618*	11,5 *0.453*	3,97 *0.156*
C-1001-96	3	15,7 *0.618*	11,5 *0.453*	3,97 *0.156*
C-1002	1	15,7 *0.618*	11,5 *0.453*	3,97 *0.156*
C-1002-4	2	15,7 *0.618*	11,5 *0.453*	3,97 *0.156*
C-1002-96	3	15,7 *0.618*	11,5 *0.453*	3,97 *0.156*
C-1003	1	15,7 *0.618*	11,5 *0.453*	3,97 *0.156*
C-1004	1	15,7 *0.618*	11,5 *0.453*	3,97 *0.156*
C-1004-4	2	15,7 *0.618*	11,5 *0.453*	3,97 *0.156*
C-1004-96	3	15,7 *0.618*	11,5 *0.453*	3,97 *0.156*
C-1005-4	2	15,7 *0.618*	11,5 *0.453*	3,97 *0.156*
C-1005-96	3	15,7 *0.618*	11,5 *0.453*	3,97 *0.156*
C-1006-4	2	15,7 *0.618*	11,5 *0.453*	3,97 *0.156*
C-1009	1	15,7 *0.618*	11,5 *0.453*	3,97 *0.156*
C-1009-4	1	15,7 *0.618*	11,5 *0.453*	3,97 *0.156*
C-1009-96	3	15,7 *0.618*	11,5 *0.453*	3,97 *0.156*
C-1010	1	15,7 *0.618*	11,5 *0.453*	3,97 *0.156*
C-1010-4	2	15,7 *0.618*	11,5 *0.453*	3,97 *0.156*
C-1010-96	3	15,7 *0.618*	11,5 *0.453*	3,97 *0.156*
C-1013-96	3	15,7 *0.618*	11,5 *0.453*	3,97 *0.156*
C-1018	1	15,7 *0.618*	11,5 *0.453*	3,97 *0.156*

Designation	Type	INSL	W1	S
		mm *Inch*	mm *Inch*	mm *Inch*
C-1018-96	3	15,7 *0.618*	11,5 *0.453*	3,97 *0.156*
C-1021-96	3	15,7 *0.618*	11,5 *0.453*	3,97 *0.156*
C-1022	4	15,7 *0.618*	11,5 *0.453*	3,18 *0.125*
C-1023	5	15,7 *0.618*	11,5 *0.453*	3,18 *0.125*
C-1024	4	15,7 *0.618*	11,5 *0.453*	3,97 *0.156*
C-1025	5	15,7 *0.618*	11,5 *0.453*	3,97 *0.156*
C-1032	5	15,7 *0.618*	11,5 *0.453*	3,18 *0.125*
C-1033	4	15,7 *0.618*	11,5 *0.453*	3,18 *0.125*
C-1034	5	15,7 *0.618*	11,5 *0.453*	3,18 *0.125*
C-1035	4	15,7 *0.618*	11,5 *0.453*	3,18 *0.125*
C-1601-96	3	15,7 *0.618*	12,5 *0.492*	3,97 *0.156*
C-1604-4	2	15,7 *0.618*	12,5 *0.492*	3,97 *0.156*
C-1X37-I-145	4	15,7 *0.618*	14,5 *0.571*	3,18 *0.125*
C-1X38-I-145	5	15,7 *0.618*	14,5 *0.571*	3,18 *0.125*
C-1X39-I-145	4	15,7 *0.618*	14,5 *0.571*	3,18 *0.125*
C-1X40-I-145	5	15,7 *0.618*	14,5 *0.571*	3,18 *0.125*
C-1X41-I-145	4	15,7 *0.618*	14,5 *0.571*	3,18 *0.125*
C-1X42-I-145	5	15,7 *0.618*	14,5 *0.571*	3,18 *0.125*
C-3901-1	7	16,9 *0.665*	13,9 *0.547*	4,47 *0.176*
C-3901-2	7	16,9 *0.665*	14,0 *0.551*	4,47 *0.176*
C-3901-3	7	16,9 *0.665*	14,2 *0.559*	4,47 *0.176*
C-4001-4	2	19,8 *0.780*	11,5 *0.453*	3,97 *0.156*
C-4003-4	2	19,8 *0.780*	11,5 *0.453*	3,97 *0.156*
C-5001-4	2	24,8 *0.976*	11,5 *0.453*	3,97 *0.156*
C-5001-96	3	24,8 *0.976*	11,5 *0.453*	3,97 *0.156*
C-5002-4	2	24,8 *0.976*	11,5 *0.453*	3,97 *0.156*
C-5002-96	3	24,8 *0.976*	11,5 *0.453*	3,97 *0.156*
C-5003	1	24,8 *0.976*	11,5 *0.453*	3,97 *0.156*
C-5003-4	2	24,8 *0.976*	11,5 *0.453*	3,97 *0.156*
C-5003-96	3	24,8 *0.976*	11,5 *0.453*	3,97 *0.156*
C-5005	1	24,8 *0.976*	11,5 *0.453*	3,0 *0.118*

Designation	Type	INSL	W1	S
		mm *Inch*	mm *Inch*	mm *Inch*
C-5006	1	24,8 *0.976*	11,5 *0.453*	3,0 *0.118*
C-5705-G	6	24,8 *0.976*	13,0 *0.512*	3,0 *0.118*
C-5803-4	6	24,8 *0.976*	13,5 *0.531*	3,97 *0.156*
C-5805-G	6	24,8 *0.976*	13,5 *0.531*	3,0 *0.118*
C-5905-G	6	24,8 *0.976*	14,0 *0.551*	3,0 *0.118*
C-9001-I	4	12,6 *0.496*	11,5 *0.453*	3,18 *0.125*



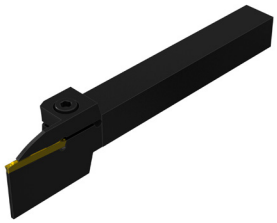
Thread turning MDT

The highly stable and reliable Seco MDT (Multi-Directional Turning) system consists of holders and inserts that offers excellent performance in thread-turning operations. Products are available for both external and internal threads. Its unique clamping method is a combination of V-shaped top clamp and serrated contact surfaces between the underside of the insert and toolholder, resulting in superb stability.

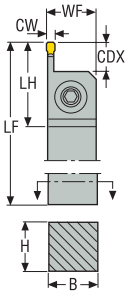
- External and Internal threads.
- Unique clamping method.
- V-shaped top clamp secure stability.

MDT Toolholders, external

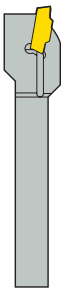
Toolholders for inserts LCGN



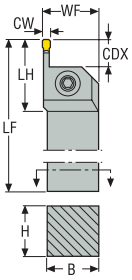
CFIR/L1212../1616

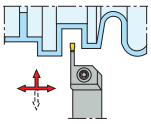


CFIR/L1212..



CFIR/L





- Right-hand version shown
- For inserts program, see page(s) 191-193
- $a_r = 3 \times a_p$
- CW = indicative Cutting Width, may vary depending on the chosen insert

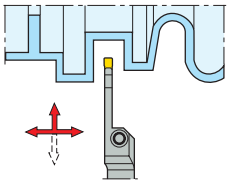
Designation	Item number	H	B	LF	CW	WF	LH	CDX	Weight	CTWS
		mm	mm	mm	mm	mm	mm	mm	kg	
CFIR1212M03	02435854	12,0	12,0	150,0	3,0	12,0	31,0	9,0	0,2	LC..1603..
CFIR1616H03	00091799	16,0	16,0	100,0	3,0	16,0	28,0	9,0	0,2	LC..1603..
CFIR2020K03	00068771	20,0	20,0	125,0	3,0	21,5	28,0	9,0	0,4	LC..1603..
CFIR2525M03	00068773	25,0	25,0	150,0	3,0	26,5	28,0	9,0	0,7	LC..1603..
CFIR3225P03	00013453	32,0	25,0	170,0	3,0	26,5	28,0	9,0	1,0	LC..1603..
CFIL1212M03	02435855	12,0	12,0	150,0	3,0	12,0	31,0	9,0	0,2	LC..1603..
CFIL1616H03	00091798	16,0	16,0	100,0	3,0	16,0	28,0	9,0	0,2	LC..1603..
CFIL2020K03	00068770	20,0	20,0	125,0	3,0	21,5	28,0	9,0	0,4	LC..1603..
CFIL2525M03	00068772	25,0	25,0	150,0	3,0	26,5	28,0	9,0	0,8	LC..1603..
CFIL3225P03	00013452	32,0	25,0	170,0	3,0	26,5	28,0	9,0	1,0	LC..1603..

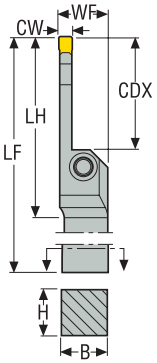
Spare Parts, included in delivery

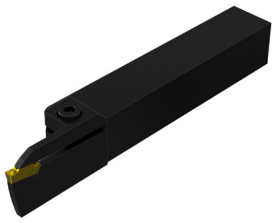
For holders	Clamp key	Clamp screw
		
..1212M03	3SMS795	TCEI0409
..1616H03	4SMS795	TCEI0509
..2020K03	4SMS795	TCEI0513
..2525M03	4SMS795	TCEI0513
..3225P03	4SMS795	TCEI0513

MDT Toolholders, external

Toolholders for inserts LCGF, LCGN, LCMF and LCMR







CDX = 8 x CW

- Right-hand version shown
- For inserts program, see page(s) 191-193
- DCINN3 - minimum bore diameter for internal application, see catalog Turning
- CDX – Max depth of cut for LCGF/LCMF16.. = 14 mm, LCGF/LCMF30.. = 28
- CW = indicative Cutting Width, may vary depending on the chosen insert

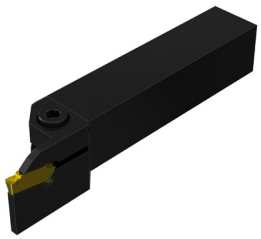
Designation	Item number	H	B	LF	CW	WF	LH	CDX	DCINN3	Weight	CTWS
		mm	mm	mm	mm	mm	mm	mm	mm	kg	
CFSR2525M03	02703367	25,0	25,0	150,0	3,0	26,5	46,0	24,0	195,0	0,7	LC..1603..
CFSR3225P03	02703375	32,0	25,0	170,0	3,0	26,1	46,0	24,0	195,0	1,0	LC..1603..
CFSL2525M03	02703363	25,0	25,0	150,0	3,0	26,5	46,0	24,0	195,0	0,7	LC..1603..
CFSL3225P03	02703371	32,0	25,0	170,0	3,0	26,1	46,0	24,0	195,0	1,0	LC..1603..

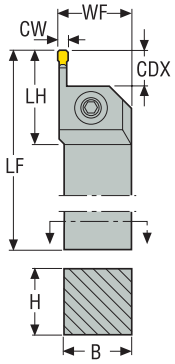
Spare Parts, included in delivery

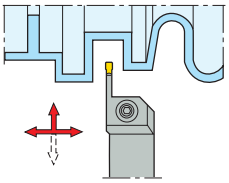
For holders	Clamp key	Clamp screw
		
CFSR/L..03	4SMS795	TCEI0513

MDT Toolholders, external

Toolholders for inserts LCGF, LCGN, LCMF and LCMR







- Right-hand version shown
- For inserts program, see page(s) 191-193
- DCINN3 - minimum bore diameter for internal application, see catalog Turning
- CDX – Max depth of cut for LCGF/LCMF16.. = 14 mm
- CW = indicative Cutting Width, may vary depending on the chosen insert

CDX = 5 x CW

Designation	Item number	H	B	LF	CW	WF	LH	CDX	DCINN3	Weight	CTWS
		mm	mm	mm	mm	mm	mm	mm	mm	kg	
CFMR2020K03	00068777	20,0	20,0	125,0	3,0	21,5	36,0	15,0	–	0,4	LC..1603..
CFMR2525M03	00068779	25,0	25,0	150,0	3,0	26,5	36,0	15,0	195,0	0,7	LC..1603..
CFMR3225P03	00013460	32,0	25,0	170,0	3,0	26,5	36,0	15,0	195,0	1,0	LC..1603..
CFML2020K03	00068776	20,0	20,0	125,0	3,0	21,5	36,0	15,0	–	0,4	LC..1603..
CFML2525M03	00068778	25,0	25,0	150,0	3,0	26,5	36,0	15,0	195,0	0,7	LC..1603..
CFML3225P03	00013459	32,0	25,0	170,0	3,0	26,5	36,0	15,0	195,0	1,0	LC..1603..

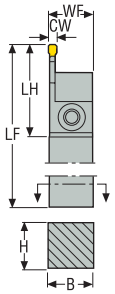
Spare Parts, included in delivery

For holders	Clamp key	Clamp screw
		
CFMR/L..-03	4SMS795	TCEI0513

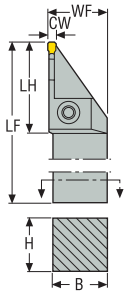
MDT Toolholders, external

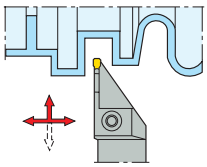
Toolholders for inserts LCGN and LCMR

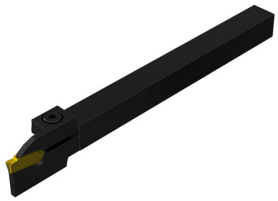
CF..1212, 1616



CF..2020, 2525







- Right-hand version shown
- For inserts program, see page(s) 191-193
- CUTDIA – Due to the design, grooving depth is limited, see catalog Turning
- CW = indicative Cutting Width, may vary depending on the chosen insert

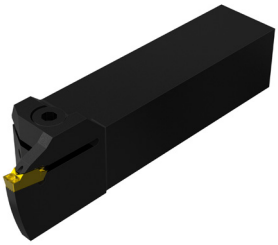
Designation	Item number	H	B	LF	WF	LH	CW	CUTDIA	Weight	CTWS
		mm	mm	mm	mm	mm	mm	mm	kg	
CFOR1212M03	00053367	12,0	12,0	150,0	12,0	32,1	3,0	37,0	0,2	LC..1603..
CFOL1212M03	00053357	12,0	12,0	150,0	12,0	32,1	3,0	37,0	0,2	LC..1603..
CFTR1616M03	00054058	16,0	16,0	150,0	16,0	42,0	3,0	50,0	0,3	LC..1603..
CFTR2020K03	00054060	20,0	20,0	125,0	21,5	43,0	3,0	50,0	0,4	LC..1603..
CFTR2525M03	00054066	25,0	25,0	150,0	26,5	42,5	3,0	50,0	0,7	LC..1603..
CFTL1616M03	00054057	16,0	16,0	150,0	16,0	42,0	3,0	50,0	0,3	LC..1603..
CFTL2020K03	00054059	20,0	20,0	125,0	21,5	43,0	3,0	50,0	0,4	LC..1603..
CFTL2525M03	00054063	25,0	25,0	150,0	26,5	42,5	3,0	50,0	0,7	LC..1603..

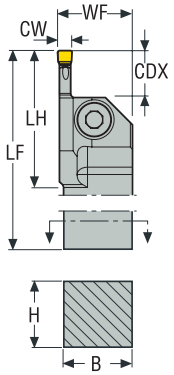
Spare Parts, included in delivery

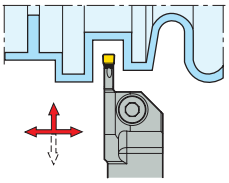
For holders	Clamp key	Clamp screw
		
CFOR/L..-03	3SMS795	TCEI0409
CFTR/L..-03	4SMS795	TCEI0513

MDT Toolholders, external

Toolholders for inserts LCGF, LCGN, LCMF and LCMR







- Right-hand version shown
- For inserts program, see page(s) 191-193
- CDX – Max depth of cut for LCGF/LCMF16.. = 14 mm, LCGF/LCMF30.. = 28
- CP – Max coolant pressure (bar) using hose connection
- CW = indicative Cutting Width, may vary depending on the chosen insert

CFIR/L CDX = 3 x CW
CFMR/L CDX = 5 x CW

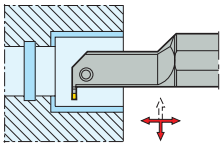
Designation	Item number	H	B	LF	WF	LH	CDX	CW	CP	Weight	CTWS
		mm	mm	mm	mm	mm	mm	mm	mm	kg	
CFIR3225P03JET	02599873	32,0	25,0	170,0	26,5	33,0	9,0	3,0	275,0	1,1	LC..1603..
CFIL3225P03JET	02599874	32,0	25,0	170,0	26,5	33,0	9,0	3,0	275,0	1,0	LC..1603..
CFMR3225P03JET	02702825	32,0	25,0	170,0	26,5	41,0	15,0	3,0	275,0	1,0	LC..1603..
CFML3225P03JET	02702829	32,0	25,0	170,0	26,5	41,0	15,0	3,0	275,0	1,0	LC..1603..

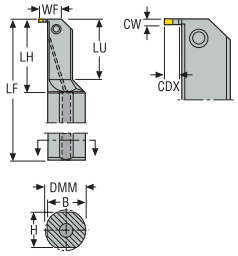
Spare Parts, included in delivery

For holders	Clamp key	Clamp screw	Plug
			
CFIR/L..-03	4SMS795	TCEI0513	JET-P1/8-5MM
CFMR/L..-03	4SMS795	TCEI0513	JET-P1/8-5MM

MDT Toolholders, internal

Toolholders for inserts LCGF, LCGN, LCMF and LCMR







- Right-hand version shown
- For inserts program, see page(s) 191-193
- DCINN - minimum bore diameter
- CW = indicative Cutting Width, may vary depending on the chosen insert

Designation	Item number	H	B	LF	CW	WF	LH	CDX	DCINN	Weight	CTWS
		mm	mm	mm	mm	mm	mm	mm	mm	kg	
A32T-CGIR1603	02717661	30,0	31,0	300,0	3,0	24,0	60,0	9,0	32,0	1,5	LC..1603..
A32T-CGIL1603	02718385	30,0	31,0	300,0	3,0	24,0	60,0	9,0	32,0	1,5	LC..1603..

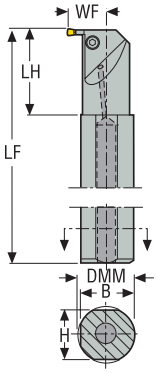
Spare Parts, included in delivery

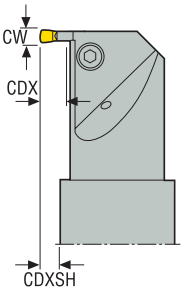
For holders	Clamp key	Clamp screw
		
CG.R/L..03	T15P-7	L85011-T15P

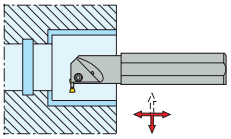
MDT Toolholders, internal

Toolholders for inserts LCGF, LCGN, LCMF and LCMR







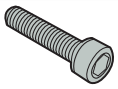


- Right-hand version shown
- For inserts program, see page(s) 191-193
- DCINN - minimum bore diameter
- CDXSH – If toolholder enters bore more than LH
- CW = indicative Cutting Width, may vary depending on the chosen insert

CDX = 2 x CW

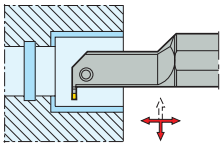
Designation	Item number	H	B	LF	CW	WF	LH	CDX	DCINN	CDXSH	DMM	Weight	CTWS
		mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	kg	
A40T-CGGR03	00093896	37,0	38,5	300,0	3,0	26,0	60,0	6,0	45,0	5,5	40,0	2,5	LC..1603..
A40T-CGGL03	00093897	37,0	38,5	300,0	3,0	26,0	60,0	6,0	45,0	5,5	40,0	2,5	LC..1603..

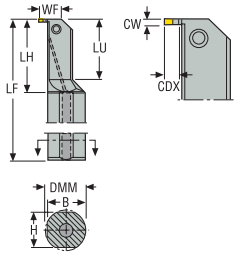
Spare Parts, included in delivery

For holders	Clamp key	Clamp screw
		
-..03	3SMS795	MC6S4X14

MDT Toolholders, internal

Toolholders for inserts LCGF, LCGN, LCMF and LCMR







- Right-hand version shown
- For inserts program, see page(s) 191-193
- DCINN - minimum bore diameter
- CW = indicative Cutting Width, may vary depending on the chosen insert

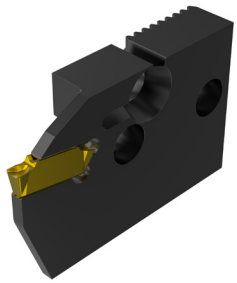
Designation	Item number	B	H	LF	LH	WF	LU	DCINN	CW	CDX	Weight	CTWS
		Inch	*Inch*	*Inch*	*Inch*	*Inch*	*Inch*	*Inch*	*Inch*	*Inch*	*lbs*	
A20-CGIR03	02717401	1.211	1.171	12.000	2.362	0.929	1.969	1.260	0.118	0.354	3.310	LC..1603..
A20-CGIL03	02718392	1.211	1.171	12.000	2.362	0.929	1.969	1.260	0.118	0.354	3.310	LC..1603..

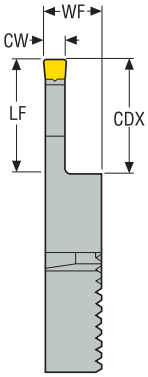
Spare Parts, included in delivery

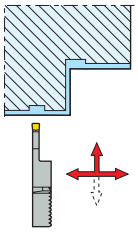
For holders	Clamp key	Clamp screw
		
..03	T15P-7	L85011-T15P

MDT Blades modular

Blades for inserts LCGF, LCGN, LCMF and LCMR





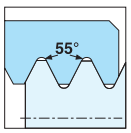


- Right-hand version shown
- For inserts program, see page(s) 191-193
- CDX – Max depth of cut for LCGF/LCMF13.. = 11 mm
  LCGF/LCMF16.. = 14 mm
- CW = indicative Cutting Width, may vary depending on the chosen insert

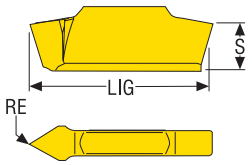
Designation	Item number	LF	WF	CW	CDX	Weight	CTWS
		mm	mm	mm	mm	kg	
V21-CMR1603	00030310	16,2	9,2	3,0	15,0	0,1	LC..1603..
V21-CML1603	02719038	16,2	9,2	3,0	15,0	0,1	LC..1603..

MDT Inserts LCGN – Partial profile 55°

Tolerances:
LIG = ±0,025
RE = ±0,025
Helix angle not to exceed λ +2°



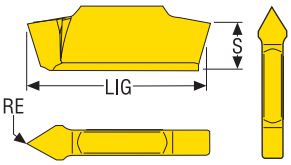


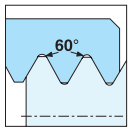


Designation	Pitch		RE	LIG	S	Grades				
						Coated				Uncoated
	mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	CP200	CP300	CP500	TTP2050	H15
LCGN1603-A55	0,5-1,5	48-16	0,08 *0.003*	16,6 *0.654*	4,5 *0.177*			■		
LCGN1603-G55	1,75-3	14-8	0,18 *0.007*	16,6 *0.654*	4,5 *0.177*			■		

■ **Stock standard.**

MDT Inserts LCGN – Partial profile 60°





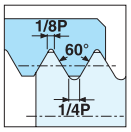
Tolerances:
LIG = ±0,025
RE = ±0,025
Helix angle not to exceed λ +2°

Designation	Pitch		RE	LIG	S	Grades				
						Coated				Uncoated
	mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	CP200	CP300	CP500	TTP2050	H15
LCGN1603-A60	0,5-1,5	48-16	0,08 *0.003*	16,6 *0.654*	4,5 *0.177*			■		
LCGN1603-G60	1,75-3	14-8	0,18 *0.007*	16,6 *0.654*	4,5 *0.177*			■		

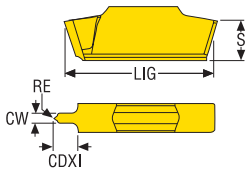
■ **Stock standard.**

MDT Inserts – LCGN – ISO Metric

Tolerances:
LIG = ±0,025
Helix angle not to exceed λ +2°







Designation	Note	Pitch		RE	LIG	S	CW	CDXI	Grades				
									Coated				Uncoated
		mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	CP200	CP300	CP500	TTP2050	H15
LCGN1603-E0.5ISO	*	0,5	–	0,07 *0.003*	16,6 *0.654*	4,5 *0.177*	0,75 *0.030*	1,9 *0.075*			■		
LCGN1603-E0.8ISO	*	0,8	–	0,11 *0.004*	16,6 *0.654*	4,5 *0.177*	1,2 *0.047*	3,0 *0.118*			■		
LCGN1603-E1.0ISO	*	1,0	–	0,13 *0.005*	16,6 *0.654*	4,5 *0.177*	1,5 *0.059*	3,75 *0.148*			■		
LCGN1603-E1.25ISO	*	1,25	–	0,17 *0.007*	16,6 *0.654*	4,5 *0.177*	1,88 *0.074*	4,2 *0.165*			■		
LCGN1603-E1.5ISO	–	1,5	–	0,21 *0.008*	16,6 *0.654*	4,5 *0.177*	2,4 *0.094*	0,92 *0.036*			■		

*Toolholders have to be modified
■ **Stock standard.**



Thread turning Mini-Shaft™

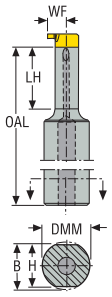
The highly versatile Mini-Shaft™ consists of inserts and holders providing stable, high-precision internal threading operations. Mini-Shaft™ features a special double-serrated joint that creates a secure connection point for its exchangeable inserts and toolholders, resulting in a repeatability of +/- 0.02 mm (+/- .0008 inch).

- All toolholders can accommodate R- and L-handed inserts.
- Through coolant possibility.
- Use in holes as small as 8 mm (0.315 inch).

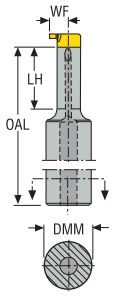
Mini-Shaft™ Holders

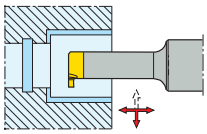
Toolholders for inserts LCEX

A..-SGXN



A..-SGXN-R







- Right-hand version shown
- For inserts program, see page(s) 198-204

Designation	Item number	H	B	OAL	WF	LH	DMM	DCINN	Weight	CTWS
		mm	mm	mm	mm	mm	mm	mm	kg	
A12G-SGXN08-20	02411140	11	12	86,5	4,8	16,5	12,0	8,0	0,1	LCEX08..
A12G-SGXN08-20-R	02511871	–	–	86,5	4,8	16,5	12,0	8,0	0,1	LCEX08..
A16H-SGXN11-25	02411142	15	16	96,0	6,7	21,0	16,0	11,0	0,2	LCEX11..
A16H-SGXN11-25-R	02511872	–	–	96,0	6,7	21,0	16,0	11,0	0,2	LCEX11..

Spare Parts, included in delivery

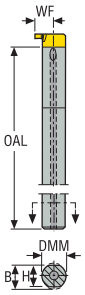
For holders	Insert key	Insert screw
		
A12G-..	T08P-2	C02506-T08P
A16H-..	T10P-2	C03509-T10P

Mini-Shaft™ Holders

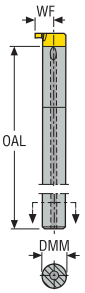
Toolholders for inserts LCEX

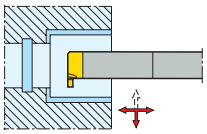


E...-SGXN



E...-SGXN-R





- Right-hand version shown
- For inserts program, see page(s) 198-204

Designation	Item number	H	B	OAL	WF	DMM	DCINN	Weight	CTWS
		mm	mm	mm	mm	mm	mm	kg	
E06G-SGXN08	02411141	6	6	86,5	4,8	6,0	8,0	0,1	LCEX08..
E06G-SGXN08-R	02513692	–	–	86,5	4,8	6,0	8,0	0,1	LCEX08..
E08H-SGXN11	02411143	7	8	96,0	6,7	8,0	11,0	0,1	LCEX11..
E08H-SGXN11-R	02513696	–	–	96,0	6,7	8,0	11,0	0,1	LCEX11..

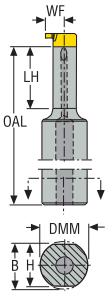
Spare Parts, included in delivery

For holders	Insert key	Insert screw
		
E06G-..	T08P-2	C02506-T08P
E08H-..	T10P-2	C03509-T10P

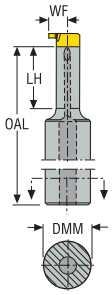
SGXN Mini-Shaft™ Holders

Toolholders for inserts LCEX

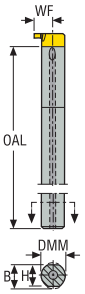
A..-SGXN



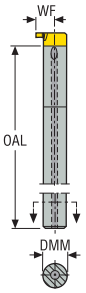
A..-SGXN-R



E..-SGXN



E..-SGXN-R





- Right-hand version shown
- For inserts program, see page(s) 198-204

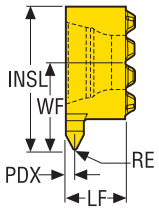
Designation	Item number	B	H	OAL	LH	WF	DCINN	DMM	Weight	CTWS
		Inch	*Inch*	*Inch*	*Inch*	*Inch*	*Inch*	*Inch*	*lbs*	
A10G-SGXN08-078	02450441	0.605	0.586	3.406	0.650	0.188	0.315	0.625	0.440	LCEX08..
E04G-SGXN08	02450442	0.233	0.217	3.406	–	0.189	0.315	0.250	0.220	LCEX08..
A10H-SGXN11-098	02450443	0.605	0.586	3.780	0.827	0.264	0.433	0.625	0.440	LCEX11..
E05H-SGXN11	02450445	0.300	0.287	3.780	–	0.264	0.433	0.312	0.220	LCEX11..
A10G-SGXN08-078-R	02511873	–	–	3.406	0.650	0.188	0.315	0.625	0.220	LCEX08..
A10H-SGXN11-098-R	02511874	–	–	3.780	0.827	0.264	0.433	0.625	0.440	LCEX11..
E04G-SGXN08-R	02513700	–	–	3.406	–	0.189	0.315	0.250	0.220	LCEX08..
E05H-SGXN11-R	02513704	–	–	3.780	–	0.264	0.433	0.312	0.220	LCEX11..

Spare Parts, included in delivery

For holders	Insert key	Insert screw
		
A10G-../E04G-..	T08P-2	C02506-T08P
A10H-../E05H-..	T10P-2	C03509-T10P

Mini-Shaft™ Inserts

Partial profile 60°





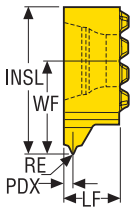


Designation	Pitch		RE	PDX	WF	INSL	LF	Grades				
								Coated				Uncoated
	mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	CP200	CP300	CP500	TTP2050	H15
LCEX0804-A60R	0,5-0,75	48-36	0,03 *0.001*	0,48 *0.019*	4,78 *0.188*	7,78 *0.306*	3,3 *0.130*			■		
LCEX0804-A60L	0,5-0,75	48-36	0,03 *0.001*	0,48 *0.019*	4,78 *0.188*	7,78 *0.306*	3,3 *0.130*			■		
LCEX1105-A60R	0,5-0,75	48-36	0,03 *0.001*	0,48 *0.019*	6,7 *0.264*	10,7 *0.421*	4,0 *0.157*			■		
LCEX1105-A60L	0,5-0,75	48-36	0,03 *0.001*	0,48 *0.019*	6,7 *0.264*	10,7 *0.421*	4,0 *0.157*			■		
LCEX0804-AG60R	0,75-1,25	36-20	0,07 *0.003*	0,73 *0.029*	4,78 *0.188*	7,78 *0.306*	3,3 *0.130*			■		
LCEX0804-AG60L	0,75-1,25	36-20	0,07 *0.003*	0,73 *0.029*	4,78 *0.188*	7,78 *0.306*	3,3 *0.130*			■		
LCEX1105-AG60R	0,75-1,25	36-20	0,07 *0.003*	0,73 *0.029*	6,7 *0.264*	10,7 *0.421*	4,0 *0.157*			■		
LCEX1105-AG60L	0,75-1,25	36-20	0,07 *0.003*	0,73 *0.029*	6,7 *0.264*	10,7 *0.421*	4,0 *0.157*			■		
LCEX0804-G60R	1,25-1,75	20-16	0,12 *0.005*	0,98 *0.039*	4,78 *0.188*	7,78 *0.306*	3,3 *0.130*			■		
LCEX0804-G60L	1,25-1,75	20-16	0,12 *0.005*	0,98 *0.039*	4,78 *0.188*	7,78 *0.306*	3,3 *0.130*			■		
LCEX1105-G60R	1,25-1,75	16-20	0,12 *0.005*	0,98 *0.039*	6,7 *0.264*	10,7 *0.421*	4,0 *0.157*			■		
LCEX1105-G60L	1,25-1,75	20-16	0,12 *0.005*	0,98 *0.039*	6,7 *0.264*	10,7 *0.421*	4,0 *0.157*			■		

■ **Stock standard.**

Mini-Shaft™ Inserts

ISO Metric



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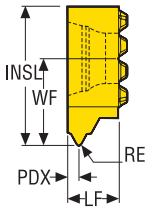


Designation	Pitch		RE	PDX	WF	INSL	LF	Grades				
								Coated				Uncoated
	mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	CP200	CP300	CP500	TTP2050	H15
LCEX1105-1.0ISOR	1	–	0,07 *0.003*	0,6 *0.024*	6,7 *0.264*	10,7 *0.421*	4,0 *0.157*			■		
LCEX1105-1.0ISOL	1	–	0,07 *0.003*	0,6 *0.024*	6,7 *0.264*	10,7 *0.421*	4,0 *0.157*			■		
LCEX1105-1.5ISOR	1,5	–	0,12 *0.005*	0,85 *0.033*	6,7 *0.264*	10,7 *0.421*	4,0 *0.157*			■		
LCEX1105-1.5ISOL	1,5	–	0,12 *0.005*	0,8 *0.031*	6,7 *0.264*	10,7 *0.421*	4,0 *0.157*			■		
LCEX1105-2.0ISOR	2	–	0,17 *0.007*	1,1 *0.043*	6,7 *0.264*	10,7 *0.421*	4,0 *0.157*			■		
LCEX1105-2.0ISOL	2	–	0,17 *0.007*	1,1 *0.043*	6,7 *0.264*	10,7 *0.421*	4,0 *0.157*			■		
LCEX1105-2.5ISOR	2,5	–	0,18 *0.007*	1,35 *0.053*	6,7 *0.264*	10,7 *0.421*	4,0 *0.157*			■		
LCEX1105-2.5ISOL	2,5	–	0,18 *0.007*	1,35 *0.053*	6,7 *0.264*	10,7 *0.421*	4,0 *0.157*			■		
LCEX1105-3.0ISOR	3	–	0,21 *0.008*	1,6 *0.063*	6,7 *0.264*	10,7 *0.421*	4,0 *0.157*			■		
LCEX1105-3.0ISOL	3	–	0,21 *0.008*	1,6 *0.063*	6,7 *0.264*	10,7 *0.421*	4,0 *0.157*			■		

■ **Stock standard.**

Mini-Shaft™ Inserts

Whitworth, BSW



..L



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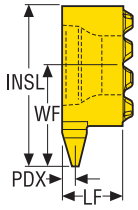


Designation	Pitch		RE	PDX	WF	INSL	LF	Grades				
								Coated				Uncoated
	mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	CP200	CP300	CP500	TTP2050	H15
LCEX1105-14WR	–	14	0,24 *0.009*	1,0 *0.039*	6,7 *0.264*	10,7 *0.421*	4,0 *0.157*			■		
LCEX1105-14WL	–	14	0,24 *0.009*	1,0 *0.039*	6,7 *0.264*	10,7 *0.421*	4,0 *0.157*			■		
LCEX1105-19WR	–	19	0,15 *0.006*	0,77 *0.030*	6,7 *0.264*	10,7 *0.421*	4,0 *0.157*			■		
LCEX1105-19WL	–	19	0,15 *0.006*	0,77 *0.030*	6,7 *0.264*	10,7 *0.421*	4,0 *0.157*			■		

■ **Stock standard.**

Mini-Shaft™ Inserts

TR-DIN103



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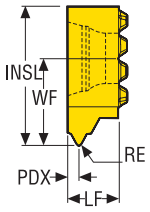


Designation	Pitch		RE	PDX	WF	INSL	LF	Grades				
								Coated				Uncoated
	mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	CP200	CP300	CP500	TTP2050	H15
LCEX1105-1.5TRR	1,5	–	0,1 *0.004*	0,8 *0.031*	6,7 *0.264*	10,7 *0.421*	4,0 *0.157*			■		
LCEX1105-1.5TRL	1,5	–	0,1 *0.004*	0,8 *0.031*	6,7 *0.264*	10,7 *0.421*	4,0 *0.157*			■		
LCEX1105-2.0TRR	2	–	0,15 *0.006*	1,1 *0.043*	6,7 *0.264*	10,7 *0.421*	4,0 *0.157*			■		
LCEX1105-2.0TRL	2	–	0,15 *0.006*	1,1 *0.043*	6,7 *0.264*	10,7 *0.421*	4,0 *0.157*			■		
LCEX1105-3.0TRR	3	–	0,15 *0.006*	1,6 *0.063*	6,7 *0.264*	10,7 *0.421*	4,0 *0.157*			■		
LCEX1105-3.0TRL	3	–	0,15 *0.006*	1,6 *0.063*	6,7 *0.264*	10,7 *0.421*	4,0 *0.157*			■		

■ **Stock standard.**

Mini-Shaft™ Inserts

UN



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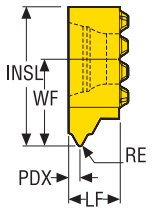


Designation	Pitch		RE	PDX	WF	INSL	LF	Grades				
								Coated				Uncoated
	mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	CP200	CP300	CP500	TTP2050	H15
LCEX0804-16UNR	–	16	0,13 *0.005*	0,9 *0.035*	4,78 *0.188*	7,78 *0.306*	3,3 *0.130*			■		
LCEX0804-16UNL	–	16	0,13 *0.005*	0,9 *0.035*	4,78 *0.188*	7,78 *0.306*	3,3 *0.130*			■		
LCEX0804-20UNR	–	20	0,09 *0.004*	0,7 *0.028*	4,78 *0.188*	7,78 *0.306*	3,3 *0.130*			■		
LCEX0804-20UNL	–	20	0,09 *0.004*	0,7 *0.028*	4,78 *0.188*	7,78 *0.306*	3,3 *0.130*			■		
LCEX0804-24UNR	–	24	0,07 *0.003*	0,6 *0.024*	4,78 *0.188*	7,78 *0.306*	3,3 *0.130*			■		
LCEX0804-24UNL	–	24	0,07 *0.003*	0,6 *0.024*	4,78 *0.188*	7,78 *0.306*	3,3 *0.130*			■		
LCEX0804-32UNR	–	32	0,04 *0.002*	0,5 *0.020*	4,78 *0.188*	7,78 *0.306*	3,3 *0.130*			■		
LCEX0804-32UNL	–	32	0,04 *0.002*	0,5 *0.020*	4,78 *0.188*	7,78 *0.306*	3,3 *0.130*			■		

■ **Stock standard.**

Mini-Shaft™ Inserts

NPT



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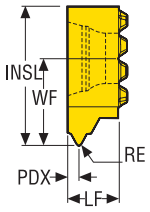


Designation	Pitch		RE	PDX	WF	INSL	LF	Grades				
								Coated				Uncoated
	mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	CP200	CP300	CP500	TTP2050	H15
LCEX0804-27NPTR	–	27	0,03 *0.001*	0,57 *0.022*	4,78 *0.188*	7,78 *0.306*	3,3 *0.130*			■		

■ **Stock standard.**

Mini-Shaft™ Inserts

NPTF



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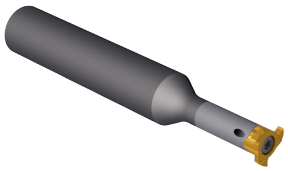
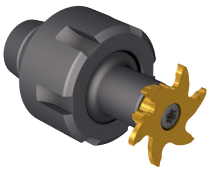
..R



Designation	Pitch		RE	PDX	WF	INSL	LF	Grades				
								Coated				Uncoated
	mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	CP200	CP300	CP500	TTP2050	H15
LCEX0804-27NPTFR	–	27	0,04 *0.002*	0,57 *0.022*	4,78 *0.188*	7,78 *0.306*	3,3 *0.130*			■		
LCEX0804-27NPTFL	–	27	0,04 *0.002*	0,57 *0.022*	4,78 *0.188*	7,78 *0.306*	3,3 *0.130*			■		

■ **Stock standard.**

Range overview

Threading	∅ Range	Length
Threadmaster™  Page(s) 214, 215-218	M1-M20	~ 1,5-2 x D
R396.18/19/20  Page(s) 228-233	14 ≤	~ 2 - 3.5 x D
R335.14   Page(s) 240-242	12<	~1xD<
Threadmaster™ Taps  Page(s) 257-472	M1-M64	~ 1,5–3,5 x D

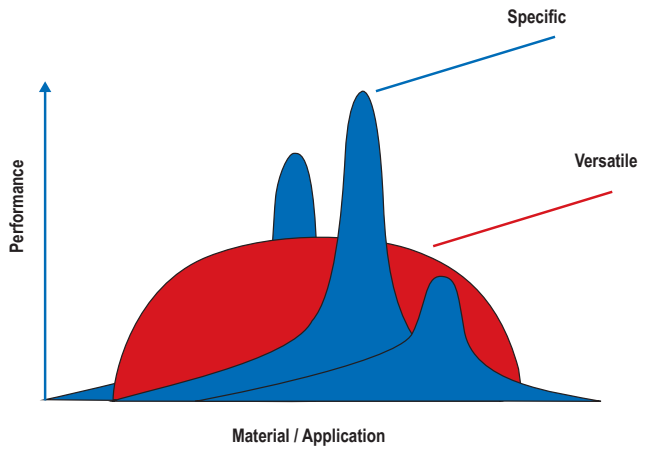
Versatile & Specific

Thread milling and Tapping – Choice of tool

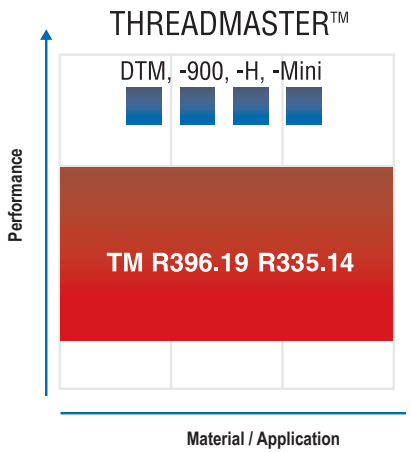
Continuous research and development of better materials, coatings and optimal geometries help fulfil customer's requirements.

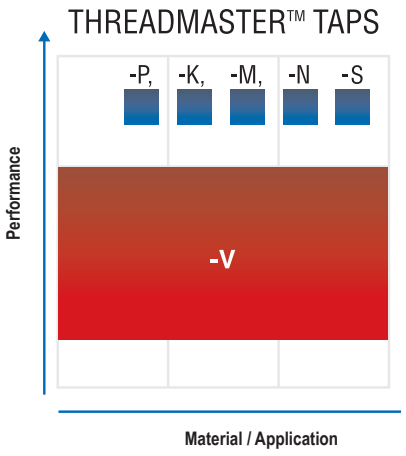
Our product strategy is to provide the market with versatile first choice tools and specific optimized solutions for threading.

Product Strategy



Product Assortment





Thread milling – Choice of cutter, inserts and cutting data

Solid carbide cutter – Threadmaster™

1. General

The same cutter can be used for machining both right and left hand threads. Metric and UN versions are only for internal threading. The remaining of the range can be used for both external and internal threading.

- The cutters are regrindable

2. Select cutter diameter

- Look up the pages with the Threadmaster programmes
- Look up the column for the required thread type
- Look up the required pitch
- When more alternatives are available note that:

- Smaller cutter diameter allows smaller threading diameter (minimum thread diameter is found in the designation).
- Larger cutter diameter allows larger threading depth (maximum threading depth is 2 x cutter diameter, D_c).

3. Selection of cutter

- TM: Basic choice
- TM...-900: Choice for steel and stainless steel with tensile strength > 900 N/mm^2
- TM...-H: Choice for hardened steel with hardness 45-60 HRC
- DTM: Drill, thread and chamfer with same tool. To be used in aluminium and cast iron

4. Select cutting data

- Use the tables beginning on page 476 to classify the workpiece material into a SMG (Seco Material Group)
- Cutting speed recommendations are found on the cutting data page for Threadmaster
- Feed per tooth (= flute) recommendations are found on the cutting data page for Threadmaster
- Formulae for cutting data calculation are on page 209
- For best suggestion and performance use Seco Suggest https://www.secotools.com/dashboard/Suggest/Suggest.

5. Machining methods

- Helical interpolation must be used to create the pitch
- Clockwise or counterclockwise feed direction can be used depending on thread type and machining method (right or left hand), external or internal thread
- Climb milling is recommended
- Coolant supply is recommended. Except when threading hardened material
- Special machining recommendations for certain workpiece materials are found on the cutting data page for Threadmaster

Feed recommendations

Threadmaster™

- Feed recommendations for TM-M4X0.7ISO-6R1 except for TM-Mini, that recommendation is for TM-M1.0X0.25ISO-3R1-H and only a start value
- For best suggestion and performance use Seco Suggest https://www.secotools.com/dashboard/Suggest/Suggest
- All feed are related to the centre of the cutter and not the periphery
- In the entrance loop reduce feed by 50%. In the exit loop increase feed by 50%
- In the entrance and exit loop feed the cutter 15% of the pitch axially
- For free cutting steel, low alloy and ferritic steel, quench & temper steel, low to medium alloy stainless steels and austenitic cast irons, leave 0,05 mm in a_e for a finishing cut
- For high strength steels, martensitic and high alloy stainless steels, Ni-based superalloys and titanium alloys remove 2/3 of a_e in the first cut and the remaining 1/3 in the second cut
- For hardened steels remove 1/3 of a_e in the first cut, 1/3 of a_e in the second cut and the remaining 1/3 in the third cut
- For NPT and NPTF threads take the whole a_e in one cut
- Coolant is recommended (except when using -H in hardened materials)
- The Metric and UN thread mills are only for internal threads

TM-Mini:

- Left-hand cutting (M4)
- Do the entrance loop before entering into the workpiece

DTM:

- Use peck drilling

Choice of cutter, inserts and cutting data

1. General

- The same cutter can be used for machining external and internal, right-hand and left-hand threads

2. Select cutter diameter

- Look up the pages for thread milling cutters and choose a suitable diameter in the tool data table
- The insert size varies with the cutter diameters. Check the available insert programme for the different sizes before deciding cutter diameter
- For internal thread milling check the 'minimum thread diameter' table before deciding cutter diameter. This table shows the relation between the cutter diameter and the smallest thread diameter to be machined

3. Select insert

- Look up the thread milling inserts pages and choose the required thread type in the correct insert size for the cutter. Choose the grade F30M/ CP500 for general machining

4. Select cutting data

Radial cutting depth

- Use the formulae to calculate the radial cutting depth (a_e). (See figures)

Feed rate

- Divide the radial cutting depth with the cutter diameter to get the actual cutter engagement percentage (a_e/D_c%). Use the cutting data table to get a feed per tooth recommendation, see page(s) 219 - 224.

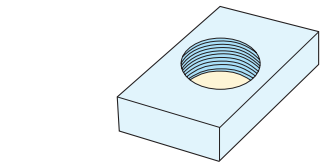
Cutting speed

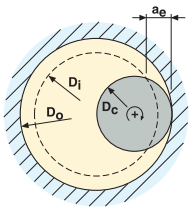
- Use the tables beginning at page 476 to classify the workpiece material into a Seco Material Group.
- Cutting speed recommendations (for 10% engagement) are in the basic cutting speed table in the catalogue
- For safety reasons, maximum rpm that should never be exceeded
- Formulae for cutting data calculation are found on page 209

5. Machining methods

- Helical interpolation must be used to create the pitch
- Clockwise or counterclockwise feed direction can be used depending on thread type and machining method (right or left hand, external or internal thread)
- Climb milling and coolant is recommended. Coolant supply is recommended except when threading hardened material

Internal





$D_i = D_o$ - 2h

Thread	
ISO	0,60 x p
UN	0,60 x p
W	0,69 x p
BSPT	0,69 x p
NPT	0,78 x p

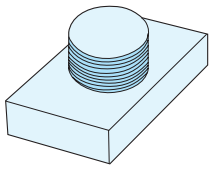
Radial infeed value a_e:

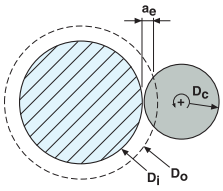
$$a_e = \frac{D_o^2 - D_i^2}{4\,(D_o - D_c)}$$

p = pitch (mm)
h = depth of thread

D_c = Cutter dia
D_o = Major dia
D_i = Minor dia

External





$D_i = D_o$ - 2h

Thread	
ISO	0,65 x p
UN	0,65 x p
W	0,69 x p
BSPT	0,69 x p
NPT	0,78 x p

Radial infeed value a_e:

$$a_e = \frac{D_o^2 - D_i^2}{4\,(D_i + D_c)}$$

p = pitch (mm)
h = depth of thread

D_c = Cutter dia
D_o = Major dia
D_i = Minor dia

Choice of cutter, inserts and cutting data

RPM

$$n = \frac{v_c \cdot 1000}{\pi \cdot D_c} \quad \text{(rev/min)}$$

Cutting speed

$$v_c = \frac{n \cdot \pi \cdot D_c}{1000} \quad \text{(m/min)}$$

Feed speed

$$v_f = n \cdot z_n \cdot f_z \quad \text{(mm/min)}$$

$$v_f = n \cdot z_c \cdot f_z \quad \text{(mm/min)}$$

Feed per revolution

$$f = z_n \cdot f_z \quad \text{(mm/rev)}$$

$$f = z_c \cdot f_z \quad \text{(mm/rev)}$$

D_c = Cutter diameter (mm)
f = Feed per revolution (mm)
f_z = Feed per tooth (mm/tooth)
z_c = Effective No. of teeth for calculation of feed speed or feed per rev

n = RPM (rev/min)
v_c = Cutting speed (m/min)
v_f = Feed speed (mm/min)
z_n = No. of teeth

RPM

$$n = \frac{v_c \cdot 3.82}{D_c} \quad \text{(rev/min)}$$

Cutting speed

$$v_c = \frac{n \cdot D_c}{3.82} \quad \text{(sf/min)}$$

Feed speed

$$v_f = n \cdot z_n \cdot f_z \quad \text{(in/min)}$$

$$v_f = n \cdot z_c \cdot f_z \quad \text{(in/min)}$$

Feed per revolution

$$f = z_n \cdot f_z \quad \text{(in/rev)}$$

$$f = z_c \cdot f_z \quad \text{(in/rev)}$$

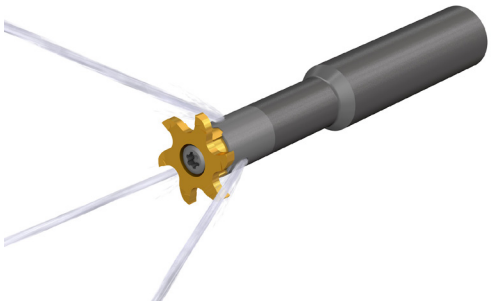
D_c = Cutter diameter (inch)
f = Feed per revolution (inch)
f_z = Feed per tooth (in/tooth)
z_c = Effective No. of teeth for calculation of feed speed or feed per rev

n = RPM (rev/min)
v_c = Cutting speed (sf/min)
v_f = Feed speed (sf/min)
z_n = No. of teeth

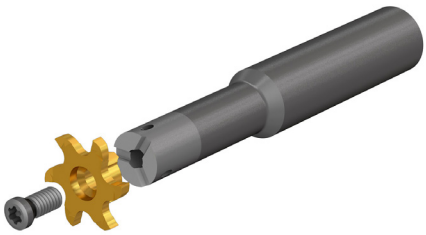
Disc Milling cutter 335.14

Disc milling cutter with exchangeable carbide head from diameter 9,7 mm *(0.382")*

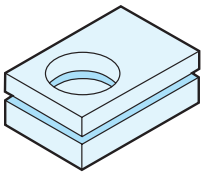
A broad range of heads and shanks available for all your disc milling operation by circular interpolation or linear slotting.



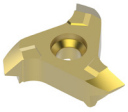
Strong, reliable and precise connection between the head and the cutter body.

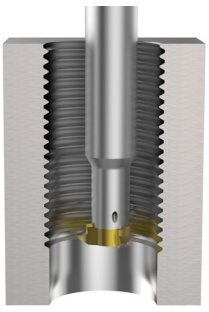


Cover all type of material with universal M geometry and F32M grade.

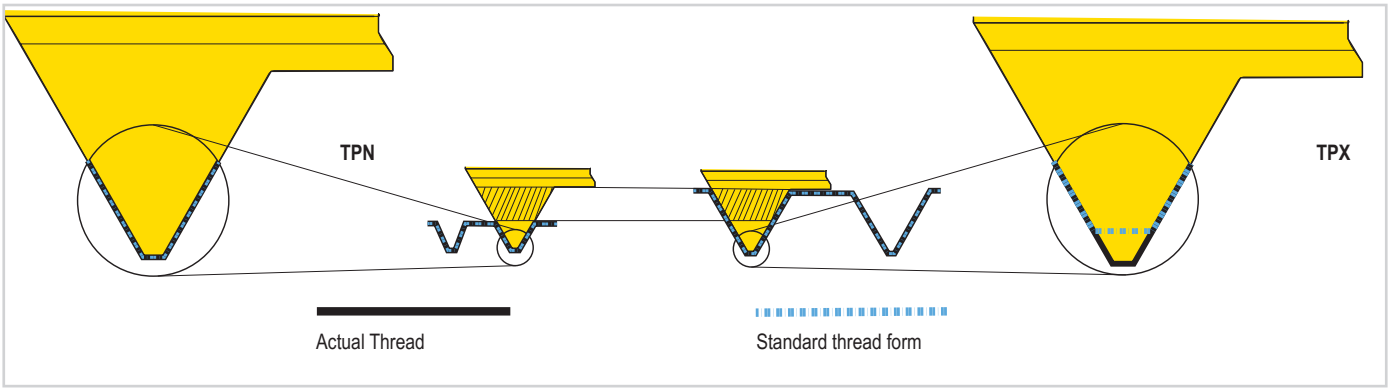


Threading:
Head from dia 11,7 to 27,7 mm *(0.461 to 1.091")* for partial metric threads with pitch 1-6 mm *(0.039-0.236")* and full profile whitworth threads with pitch 19 to 11 tpi and UN threads with pitch 24 to 6 tpi.





Deviation from standard thread profile



Thread milling by circular interpolation can cause thread profile violation when using insert designed for partial thread. Keep this in mind while selecting a tool. The tool diameter needs to be small enough compared to the hole diameter. The pitch also needs to be considered.

Insert with partial profile for Metric ISO-Threads are multi tools. That means that each insert could machine different pitches. The insert is designed to meet the minimum pitch size (TPN); Machining this pitch will result in a thread form that conforms to the standard.

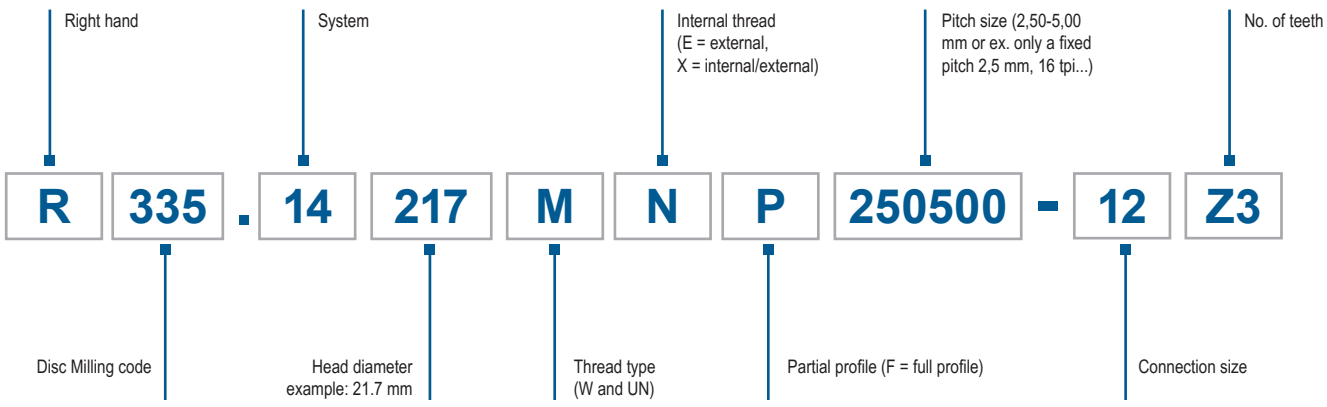
The recommended maximum pitch size (TPX) can also be machined with this insert at the expense of standard conformity: The result will be a slightly deeper thread than the standard. The deeper thread is normally accepted, but the application and use needs to be evaluated.

Following table is a recommendation over maximum tool diameter in relation to the thread size and pitch:

ISO-Thread, partial profile

Pitch	M12	M16	M20	M24	M27	M30	M36	M42	M48	M56	M60
1	10	14	18	22	25	28	34	40	45	53	57
1,5	8	12	16	20	24	26	32	37	43	51	55
2	7	10	14	18	22	24	30	35	40	48	52
2,5	6	8	12	16	20	22	28	32	37	45	48
3		6	10	14	18	20	26	30	36	43	47
3,5				12	16	18	24	29	35	42	46
4							22	27	32	39	43
4,5								24	30	37	40
5								22	27	34	37
5,5								20	25	31	35
6								19	23	29	32

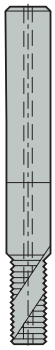
Code key Threading insert



Application overview milling cutters

Solid carbide

Threadmaster™

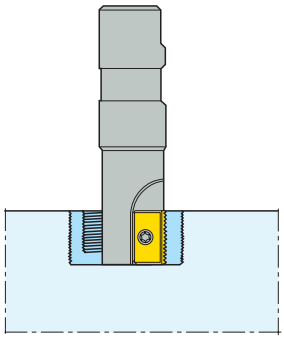


TM - Thread size M1-M20
Solid carbide thread milling cutters

Page(s) 214, 215-218

Cutter with inserts

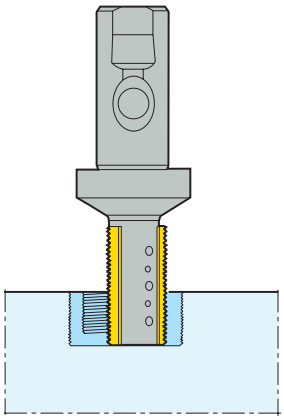
396.18



Ø 12 mm (0.472")
Thread milling cutters with indexable insert

Page(s) 228-229

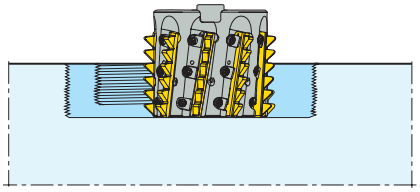
396.19



Ø 17-58 mm (0.669-2.283")
Thread milling cutters with indexable inserts

Page(s) 228-231

396.20

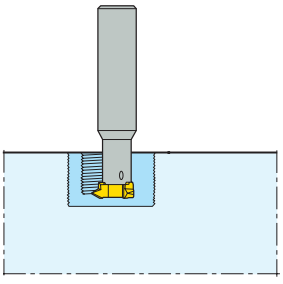


Ø 63 mm (2.480")
Thread milling cutters with indexable inserts

Page(s) 233

Cutter with changeable head

335.14



Ø 11,7-27,7 mm (0.461-1.091")
Thread milling cutters with changeable head

Page(s) 240



Threadmaster™

Threadmaster™ thread mills provide high thread quality at low cost per hole. Machining up to 100 percent depth, Threadmasters have high helix angles that reduce cutting forces and eliminate chatter. They feature an excellent carbide substrate and TiCN-coating (TM and TM-900) or TiAlN-coating (TM-H and DTM) for high toughness and wear resistance milling aluminum, steel, stainless steel and cast iron.

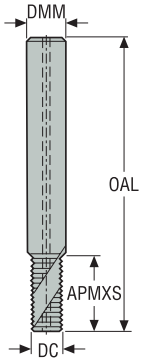
Drilling Threadmaster is a multi-tool producing a thread by drilling and chamfering in a single pass for high thread quality at a low cost per hole.

- Some versions with through-coolant holes.
- Threads range from M4 to M20.
- Mini thread mills for thread sizes from M1 - M2.5.

Threadmaster™

Solid carbide thread milling cutters





Thread profile
* = Metric coarse, for Internal Threading
** = Metric fine, for Internal Threading
*** = UNC, for Internal Threading

- For cutting data see page(s) 219
- TM; 2 x D
- Chamfer angle STA = 45°

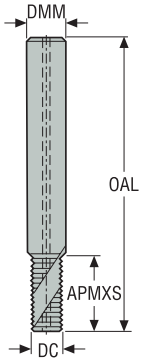
Designation	Item number	TDZ	Pitch		Thread profile	DC	DMM	OAL	APMXS	NOF	Through coolant
			TPX	TPIX		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		
TM-M4X0.7ISO-6R1	02827408	M4	0,7	–	*	3,15 *0.124*	6,0 *0.236*	49,0 *1.929*	8,0 *0.315*	3	–
TM-M4X0.7ISO-6R1-900	02827358	M4	0,7	–	*	3,15 *0.124*	6,0 *0.236*	49,0 *1.929*	8,0 *0.315*	3	–
TM-M4X0.7ISO-6R1-H	02827349	M4	0,7	–	*	3,15 *0.124*	6,0 *0.236*	46,0 *1.811*	6,3 *0.248*	4	–
TM-M5X0.8ISO-6R1	02827407	M5	0,8	–	*	3,95 *0.156*	6,0 *0.236*	49,0 *1.929*	10,0 *0.394*	3	–
TM-M5X0.8ISO-6R1-900	02827359	M5	0,8	–	*	3,95 *0.156*	6,0 *0.236*	49,0 *1.929*	10,0 *0.394*	3	–
TM-M5X0.8ISO-6R1-H	02827350	M5	0,8	–	*	3,95 *0.156*	6,0 *0.236*	47,0 *1.850*	7,2 *0.283*	4	–
TM-M6X1.0ISO-6R1	02827406	M6	1,0	–	*	4,7 *0.185*	6,0 *0.236*	55,0 *2.165*	12,5 *0.492*	3	–
TM-M6X1.0ISO-6R1-900	02827360	M6	1,0	–	*	4,7 *0.185*	6,0 *0.236*	55,0 *2.165*	12,5 *0.492*	3	–
TM-M6X1.0ISO-6R1-H	02827351	M6	1,0	–	*	4,7 *0.185*	6,0 *0.236*	52,0 *2.047*	8,5 *0.335*	4	–
TM-M8X1.25ISO-8R1	02827405	M8	1,25	–	*	6,2 *0.244*	8,0 *0.315*	62,0 *2.441*	16,9 *0.665*	3	✓
TM-M8X1.25ISO-8R1-900	02827361	M8	1,25	–	*	6,2 *0.244*	8,0 *0.315*	62,0 *2.441*	16,9 *0.665*	3	✓
TM-M8X1.25ISO-8R1-H	02827352	M8	1,25	–	*	6,2 *0.244*	8,0 *0.315*	57,0 *2.244*	12,5 *0.492*	4	–
TM-M10X1.5ISO-10R1	02827404	M10	1,5	–	*	7,8 *0.307*	10,0 *0.394*	74,0 *2.913*	20,3 *0.799*	3	✓
TM-M10X1.5ISO-10R1-900	02827362	M10	1,5	–	*	7,8 *0.307*	10,0 *0.394*	74,0 *2.913*	20,3 *0.799*	3	✓
TM-M10X1.5ISO-10R1-H	02827353	M10	1,5	–	*	7,8 *0.307*	10,0 *0.394*	66,0 *2.598*	15,0 *0.591*	5	–
TM-M12X1.75ISO-12R1	02827403	M12	1,75	–	*	9,4 *0.370*	12,0 *0.472*	79,0 *3.110*	25,4 *1.000*	3	✓
TM-M12X1.75ISO-12R1-900	02827363	M12	1,75	–	*	9,4 *0.370*	12,0 *0.472*	79,0 *3.110*	25,4 *1.000*	3	✓
TM-M12X1.75ISO-12R1-H	02827354	M12	1,75	–	*	9,4 *0.370*	12,0 *0.472*	76,0 *2.992*	17,5 *0.689*	5	–
TM-M14X2.0ISO-14R1	02827402	M14	2,0	–	*	10,9 *0.429*	14,0 *0.551*	89,0 *3.504*	29,0 *1.142*	4	✓
TM-M14X2.0ISO-14R1-900	02827364	M14	2,0	–	*	10,9 *0.429*	14,0 *0.551*	89,0 *3.504*	29,0 *1.142*	4	✓
TM-M20X2.5ISO-20R1	02827348	M20	2,5	–	*	15,83 *0.623*	20,0 *0.787*	108,0 *4.252*	40,0 *1.575*	4	✓

Designation	Item number	TDZ	Pitch		Thread profile	DC	DMM	OAL	APMXS	NOF	Through coolant
			TPX	TPIX		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		
TM-MF4X0.5ISO-6R1	02827392	M4	0,5	–	**	3,15 *0.124*	6,0 *0.236*	49,0 *1.929*	8,3 *0.327*	3	–
TM-MF5X0.5ISO-6R1	02827430	M5	0,5	–	**	3,95 *0.156*	6,0 *0.236*	49,0 *1.929*	10,3 *0.406*	3	–
TM-MF6X0.75ISO-6R1	02827429	M6	0,75	–	**	4,7 *0.185*	6,0 *0.236*	55,0 *2.165*	12,4 *0.488*	3	–
TM-MF10X1.0ISO-10R1	02827401	M10	1,0	–	**	7,8 *0.307*	10,0 *0.394*	74,0 *2.913*	20,5 *0.807*	3	✓
TM-MF12X1.5ISO-12R1	02827400	M12	1,5	–	**	9,4 *0.370*	12,0 *0.472*	79,0 *3.110*	24,8 *0.976*	3	✓
TM-MF12X1.5ISO-12R1-900	02827365	M12	1,5	–	**	9,4 *0.370*	12,0 *0.472*	79,0 *3.110*	24,8 *0.976*	3	✓
TM-MF12X1.5ISO-12R1-H	02827355	M12	1,5	–	**	9,4 *0.370*	12,0 *0.472*	76,0 *2.992*	17,9 *0.705*	5	–
TM-MF14X1.5ISO-14R1-H	02827356	M14	1,5	–	**	10,92 *0.430*	14,0 *0.551*	82,0 *3.228*	21,4 *0.843*	5	–
TM-MF16X1.5ISO-16R1-H	02827357	M16	1,5	–	**	12,82 *0.505*	16,0 *0.630*	94,0 *3.701*	23,9 *0.941*	5	–
TM-NR.10X24UNC-6R1	02827491	No.10	–	24.0	***	3,7 *0.146*	6,0 *0.236*	49,0 *1.929*	10,1 *0.398*	3	–
TM-1/4X20UNC-6R1	02827511	1/4	–	20.0	***	4,7 *0.185*	6,0 *0.236*	55,0 *2.165*	14,6 *0.575*	3	–
TM-5/16X18UNC-8R1	02827495	5/16	–	18.0	***	6,2 *0.244*	8,0 *0.315*	62,0 *2.441*	16,2 *0.638*	3	✓
TM-3/8X16UNC-10R1	02827399	3/8	–	16.0	***	7,35 *0.289*	10,0 *0.394*	74,0 *2.913*	19,8 *0.780*	3	✓
TM-7/16X14UNC-12R1	02827398	7/16	–	14.0	***	8,55 *0.337*	12,0 *0.472*	79,0 *3.110*	22,7 *0.894*	3	✓
TM-1/2X13UNC-12R1	02827494	1/2	–	13.0	***	9,4 *0.370*	12,0 *0.472*	79,0 *3.110*	26,4 *1.039*	3	✓
TM-9/16X12UNC-14R1	02827493	9/16	–	12.0	***	10,9 *0.429*	14,0 *0.551*	89,0 *3.504*	30,7 *1.209*	4	✓

Threadmaster™

Solid carbide thread milling cutters





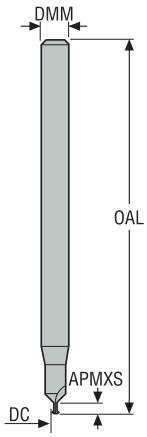
Thread profile
* = UNF, for Internal Threading
** = NPT, for Internal and External Threading
*** = NPTF, for Internal and External Threading
**** = BSP, for Internal and External Threading

- For cutting data see page(s) 219
- TM; 2 x D
- Chamfer angle = 45°

Designation	Item number	TDZ	Pitch		Thread profile	DC	DMM	OAL	APMXS	NOF	Through coolant
			TPX	TPIX		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		
TM-NR.10X32UNF-6R1	02827397	No.10	–	32.0	*	3,95 *0.156*	6,0 *0.236*	49,0 *1.929*	9,9 *0.390*	3	–
TM-1/4X28UNF-6R1	02827396	1/4	–	28.0	*	4,7 *0.185*	6,0 *0.236*	55,0 *2.165*	14,1 *0.555*	3	–
TM-5/16X24UNF-8R1	02765298	5/16	–	24.0	*	6,2 *0.244*	8,0 *0.315*	62,0 *2.441*	16,4 *0.646*	3	✓
TM-3/8X24UNF-10R1	02827395	3/8	–	24.0	*	7,8 *0.307*	10,0 *0.394*	74,0 *2.913*	19,6 *0.772*	3	✓
TM-7/16X20UNF-12R1	02827394	7/16	–	20.0	*	9,32 *0.367*	12,0 *0.472*	79,0 *3.110*	22,2 *0.874*	3	✓
TM-1/2X20UNF-12R1	02827393	1/2	–	20.0	*	9,4 *0.370*	12,0 *0.472*	79,0 *3.110*	26,0 *1.024*	3	✓
TM-9/16X18UNF-14R1	02827492	9/16	–	18.0	*	10,9 *0.429*	14,0 *0.551*	89,0 *3.504*	28,9 *1.138*	4	✓
TM-1/8X27NPT-12R1	02827435	1/8	–	27.0	**	7,8 *0.307*	12,0 *0.472*	70,0 *2.756*	8,9 *0.350*	3	✓
TM-1/4X18NPT-16R1	02827434	1/4	–	18.0	**	10,05 *0.396*	16,0 *0.630*	81,0 *3.189*	13,4 *0.528*	4	✓
TM-3/8X18NPT-18R1	02827409	3/8	–	18.0	**	13,45 *0.530*	18,0 *0.709*	81,0 *3.189*	13,4 *0.528*	4	✓
TM-1/8X27NPTF-12R1	02827433	1/8	–	27.0	***	7,7 *0.303*	12,0 *0.472*	70,0 *2.756*	8,9 *0.350*	3	✓
TM-1/4X18NPTF-16R1	02827432	1/4	–	18.0	***	10,0 *0.394*	16,0 *0.630*	81,0 *3.189*	13,4 *0.528*	4	✓
TM-3/8X18NPTF-18R1	02827410	3/8	–	18.0	***	13,4 *0.528*	18,0 *0.709*	81,0 *3.189*	13,4 *0.528*	4	✓
TM-1/8X28W-10R1	02827431	1/8	–	28.0	****	7,8 *0.307*	10,0 *0.394*	74,0 *2.913*	20,4 *0.803*	3	✓
TM-1/4X19W-14R1	02543519	1/4	–	19.0	****	10,9 *0.429*	14,0 *0.551*	89,0 *3.504*	27,4 *1.079*	4	✓
TM-3/8X19W-18R1	02765294	3/8	–	19.0	****	13,9 *0.547*	18,0 *0.709*	102,0 *4.016*	35,4 *1.394*	4	✓

Threadmaster™ – TM-Mini

Solid carbide thread milling cutters



Thread profile
* = Metric coarse, for Internal Threading



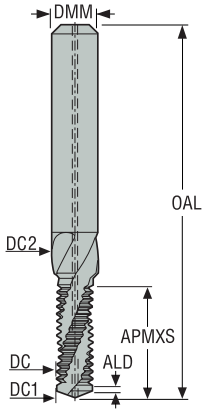
- Left-hand cutter
- For cutting data see page(s) 219
- TM : 1.5 x D
- Chamfer angle = 90°

Designation	Item number	TDZ	Pitch		Thread profile	DC	DMM	OAL	APMXS	NOF	Through coolant
			TPX	TPIX		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		
TM-M1.0X0.25ISO-3R1-H	02807939	M1.0	0,25	–	*	0,7 *0.028*	3,0 *0.118*	40,0 *1.575*	2,05 *0.081*	2	–
TM-M1.4X0.30ISO-3R1-H	02807940	M1.4	0,3	–	*	0,97 *0.038*	3,0 *0.118*	40,0 *1.575*	2,63 *0.104*	2	–
TM-M1.6X0.35ISO-3R1-H	02807941	M1.6	0,35	–	*	1,15 *0.045*	3,0 *0.118*	40,0 *1.575*	3,07 *0.121*	2	–
TM-M2.0X0.40ISO-3R1-H	02807942	M2.0	0,4	–	*	1,56 *0.061*	3,0 *0.118*	40,0 *1.575*	3,74 *0.147*	2	–
TM-M2.2X0.45ISO-3R1-H	02807943	M2.2	0,45	–	*	1,71 *0.067*	3,0 *0.118*	40,0 *1.575*	3,9 *0.154*	2	–
TM-M2.5X0.45ISO-3R1-H	02807944	M2.5	0,45	–	*	2,01 *0.079*	3,0 *0.118*	40,0 *1.575*	4,45 *0.175*	3	–

Drilling Threadmaster™

Solid carbide thread milling cutters





Thread profile
* = Metric coarse
** = Metric fine
*** = UNC
**** = UNF
***** = BSP

- For cutting data see page(s) 221
- DTM: 2 x D
- Chamfer angle = 90°
- Drill Point = 140°

Designation	Item number	TDZ	Pitch		Thread profile	DC	DC1	DC2	DMM	ALD	OAL	APMXS	NOF	Through coolant
			TPX	TPIX		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		
DTM-M4X0.7ISO-6R1	02827366	M4	0,7	–	*	3,24 *0.128*	3,3 *0.130*	4,3 *0.169*	6,0 *0.236*	0,7 *0.028*	49,0 *1.929*	9,42 *0.371*	2	✓
DTM-M5X0.8ISO-6R1	02827367	M5	0,8	–	*	4,1 *0.161*	4,2 *0.165*	5,3 *0.209*	6,0 *0.236*	0,8 *0.031*	55,0 *2.165*	11,65 *0.459*	2	✓
DTM-M6X1.0ISO-8R1	02827368	M6	1,0	–	*	4,85 *0.191*	5,0 *0.197*	6,3 *0.248*	8,0 *0.315*	1,0 *0.039*	62,0 *2.441*	14,49 *0.570*	2	✓
DTM-M8X1.25ISO-10R1	02827369	M8	1,25	–	*	6,45 *0.254*	6,75 *0.266*	8,3 *0.327*	10,0 *0.394*	1,2 *0.047*	74,0 *2.913*	18,17 *0.715*	2	✓
DTM-M10X1.5ISO-12R1	02827370	M10	1,5	–	*	8,08 *0.318*	8,5 *0.335*	10,3 *0.406*	12,0 *0.472*	1,5 *0.059*	79,0 *3.110*	23,37 *0.920*	2	✓
DTM-M12X1.75ISO-14R1	02827371	M12	1,75	–	*	9,74 *0.383*	10,25 *0.404*	12,3 *0.484*	14,0 *0.551*	1,5 *0.059*	89,0 *3.504*	27,06 *1.065*	2	✓
DTM-M14X2.0ISO-16R1	02827372	M14	2,0	–	*	11,36 *0.447*	12,0 *0.472*	14,3 *0.563*	16,0 *0.630*	1,5 *0.059*	102,0 *4.016*	32,77 *1.290*	2	✓
DTM-M16X2.0ISO-18R1	02827373	M16	2,0	–	*	13,28 *0.523*	14,0 *0.551*	16,3 *0.642*	18,0 *0.709*	1,5 *0.059*	102,0 *4.016*	37,12 *1.461*	2	✓
DTM-MF8X1.0ISO-10R1	02827374	M8	1,0	–	**	6,79 *0.267*	7,0 *0.276*	8,3 *0.327*	10,0 *0.394*	1,0 *0.039*	74,0 *2.913*	18,8 *0.740*	2	✓
DTM-MF10X1.0ISO-12R1	02827375	M10	1,0	–	**	8,75 *0.344*	9,0 *0.354*	10,3 *0.406*	12,0 *0.472*	1,5 *0.059*	79,0 *3.110*	23,18 *0.913*	2	✓
DTM-MF12X1.5ISO-14R1	02827376	M12	1,5	–	**	10,06 *0.396*	10,5 *0.413*	12,3 *0.484*	14,0 *0.551*	1,5 *0.059*	89,0 *3.504*	28,19 *1.110*	2	✓
DTM-1/4X20UNC-8R1	02827377	1/4	–	20.0	***	4,7 *0.185*	5,08 *0.200*	6,65 *0.262*	8,0 *0.315*	1,2 *0.047*	62,0 *2.441*	15,71 *0.619*	2	✓
DTM-5/16X18UNC-10R1	02827378	5/16	–	18.0	***	6,01 *0.237*	6,53 *0.257*	8,24 *0.324*	10,0 *0.394*	1,4 *0.055*	74,0 *2.913*	19,0 *0.748*	2	✓
DTM-3/8X16UNC-12R1	02827379	3/8	–	16.0	***	7,36 *0.290*	7,94 *0.313*	9,83 *0.387*	12,0 *0.472*	1,5 *0.059*	79,0 *3.110*	22,97 *0.904*	2	✓
DTM-1/2X13UNC-14R1	02827380	1/2	–	13.0	***	9,87 *0.389*	10,75 *0.423*	13,0 *0.512*	14,0 *0.551*	1,5 *0.059*	89,0 *3.504*	30,07 *1.184*	2	✓
DTM-1/4X28UNF-8R1	02827381	1/4	–	28.0	****	5,17 *0.204*	5,44 *0.214*	6,65 *0.262*	8,0 *0.315*	0,9 *0.035*	62,0 *2.441*	15,16 *0.597*	2	✓
DTM-5/16X24UNF-10R1	02827382	5/16	–	24.0	****	6,51 *0.256*	6,88 *0.271*	8,24 *0.324*	10,0 *0.394*	1,1 *0.043*	74,0 *2.913*	18,83 *0.741*	2	✓
DTM-3/8X24UNF-12R1	02827383	3/8	–	24.0	****	8,07 *0.318*	8,47 *0.333*	9,83 *0.387*	12,0 *0.472*	1,1 *0.043*	79,0 *3.110*	21,2 *0.835*	2	✓
DTM-1/2X20UNF-14R1	02827384	1/2	–	20.0	****	10,88 *0.428*	11,43 *0.450*	13,0 *0.512*	14,0 *0.551*	1,3 *0.051*	89,0 *3.504*	28,19 *1.110*	2	✓
DTM-1/8X28W-12R1	02827385	1/8	–	28.0	*****	8,4 *0.331*	8,71 *0.343*	10,03 *0.395*	12,0 *0.472*	0,9 *0.035*	79,0 *3.110*	22,03 *0.867*	2	✓
DTM-1/4X19W-16R1	02827386	1/4	–	19.0	*****	11,44 *0.450*	11,67 *0.459*	13,46 *0.530*	16,0 *0.630*	1,3 *0.051*	102,0 *4.016*	29,45 *1.159*	2	✓

Threadmaster™ – Cutting data metric *Inch*

SMG	TM		TM-900		TM-H		TM-MINI	
	f_z	v_c	f_z	v_c	f_z	v_c	f_z	v_c
P1	0,010 *0.00040*	145 *475*	— —	— —	— —	— —	— —	— —
P2	0,010 *0.00040*	140 *460*	— —	— —	— —	— —	— —	— —
P3	0,0095 *0.00038*	120 *395*	— —	— —	— —	— —	— —	— —
P4	0,0095 *0.00038*	105 *345*	0,0040 *0.00016*	105 *345*	— —	— —	— —	— —
P5	0,0090 *0.00036*	100 *330*	0,0040 *0.00016*	100 *330*	— —	— —	— —	— —
P6	0,0090 *0.00036*	115 *375*	0,0040 *0.00016*	115 *375*	— —	— —	— —	— —
P7	0,0090 *0.00036*	110 *360*	0,0040 *0.00016*	110 *360*	— —	— —	— —	— —
P8	0,0095 *0.00038*	100 *330*	0,0042 *0.00017*	100 *330*	— —	— —	— —	— —
P11	0,0090 *0.00036*	105 *345*	0,0040 *0.00016*	105 *345*	— —	— —	— —	— —
P12	0,0060 *0.00024*	60 *195*	0,0028 *0.00011*	60 *195*	— —	— —	— —	— —
M1	0,010 *0.00040*	100 *330*	0,0044 *0.00017*	100 *330*	— —	— —	— —	— —
M2	0,0090 *0.00036*	80 *260*	0,0040 *0.00016*	80 *260*	— —	— —	— —	— —
M3	0,0075 *0.00030*	60 *195*	0,0032 *0.00013*	60 *195*	— —	— —	— —	— —
M4	0,0065 *0.00026*	47 *155*	0,0028 *0.00011*	47 *155*	— —	— —	— —	— —
M5	0,0065 *0.00026*	39 *130*	0,0028 *0.00011*	39 *130*	— —	— —	— —	— —
K1	0,010 *0.00040*	145 *475*	0,0044 *0.00017*	100 *330*	— —	— —	— —	— —
K2	0,0090 *0.00036*	125 *410*	0,0040 *0.00016*	90 *295*	— —	— —	— —	— —
K3	0,0090 *0.00036*	105 *345*	0,0040 *0.00016*	75 *245*	— —	— —	— —	— —
K4	0,0090 *0.00036*	100 *330*	0,0040 *0.00016*	70 *230*	— —	— —	— —	— —
K5	0,0080 *0.00032*	60 *195*	0,0036 *0.00014*	42 *140*	— —	— —	— —	— —
K6	0,0090 *0.00036*	90 *295*	0,0040 *0.00016*	65 *215*	— —	— —	— —	— —
K7	0,0080 *0.00032*	80 *260*	0,0036 *0.00014*	55 *180*	— —	— —	— —	— —
N1	0,013 *0.00050*	395 *1300*	0,0055 *0.00022*	335 *1100*	— —	— —	— —	— —
N2	0,013 *0.00050*	255 *840*	0,0055 *0.00022*	215 *710*	— —	— —	— —	— —
N3	0,013 *0.00050*	170 *560*	0,0055 *0.00022*	145 *475*	— —	— —	— —	— —
N11	0,013 *0.00050*	225 *740*	0,0055 *0.00022*	195 *640*	— —	— —	— —	— —
S1	0,0065 *0.00026*	50 *165*	0,0028 *0.00011*	20 *65*	— —	— —	— —	— —
S2	0,0065 *0.00026*	41 *135*	0,0028 *0.00011*	15 *49*	— —	— —	— —	— —
S3	0,0060 *0.00024*	20 *65*	0,0026 *0.00010*	10 *33*	— —	— —	— —	— —
S11	0,0075 *0.00030*	105 *345*	0,0032 *0.00013*	40 *130*	— —	— —	— —	— —
S12	0,0075 *0.00030*	80 *260*	0,0032 *0.00013*	31 *100*	— —	— —	— —	— —
S13	0,0065 *0.00026*	65 *215*	0,0028 *0.00011*	24 *80*	— —	— —	— —	— —
H3	— —	— —	— —	— —	0,0016 *0.000065*	19 *60*	0,0022 *0.000085*	11 *36*
H5	— —	— —	— —	— —	0,0025 *0.00010*	36 *120*	0,0032 *0.00013*	21 *70*
H7	— —	— —	— —	— —	0,0016 *0.000065*	19 *60*	0,0022 *0.000085*	11 *36*
H8	— —	— —	— —	— —	0,0019 *0.000075*	36 *120*	0,0025 *0.00010*	21 *70*
H11	— —	— —	— —	— —	0,0025 *0.00010*	45 *150*	0,0032 *0.00013*	26 *85*

SMG	TM		TM-900		TM-H		TM-MINI	
	f_z	v_c	f_z	v_c	f_z	v_c	f_z	v_c
H12	—	—	—	—	0,0019	41	0,0025	24
	—	—	—	—	*0.000075*	*135*	*0.00010*	*80*
H21	—	—	—	—	0,0019	36	0,0025	21
	—	—	—	—	*0.000075*	*120*	*0.00010*	*70*
H31	—	—	—	—	—	—	—	—

SMG = Seco Material Group
f_z = mm/tooth (mm/flute)
v_c= m/min
All cutting data are start values

All feed are related to the centre of the cutter and not the periphery.

Drilling Threadmaster™ – Cutting data, threadmilling metric *inch*

SMG	DTM	
	f_z	v_c
K1	0,0065 *0.00026*	175 *570*
K2	0,0060 *0.00024*	155 *510*
K3	0,0060 *0.00024*	130 *425*
K4	0,0060 *0.00024*	125 *410*
K5	0,0055 *0.00022*	75 *245*
K6	0,0060 *0.00024*	110 *360*
K7	0,0055 *0.00022*	95 *310*
N1	0,0085 *0.00034*	400 *1300*
N2	0,0085 *0.00034*	255 *840*
N3	0,0085 *0.00034*	170 *560*
N11	0,0085 *0.00034*	225 *740*

Drilling Threadmaster™ – Cutting data, drilling metric *inch*

SMG	f						v_c
	Ø 3.01-5.0 Ø 0.118-0.196	Ø 5.01-7.0 Ø 0.197-0.275	Ø 7.01-9.0 Ø 0.276-0.354	Ø 9.01-11.0 Ø 0.355-0.433	Ø 11.01-13.0 Ø 0.434-0.511	Ø 13.01-15.0 Ø 0.512-0.590	
K1	0,12 *0.0048*	0,15 *0.0060*	0,18 *0.0070*	0,19 *0.0075*	0,22 *0.0085*	0,25 *0.010*	170 *560*
K2	0,11 *0.0044*	0,13 *0.0050*	0,16 *0.0065*	0,17 *0.0065*	0,20 *0.0080*	0,22 *0.0085*	150 *490*
K3	0,11 *0.0044*	0,13 *0.0050*	0,16 *0.0065*	0,17 *0.0065*	0,20 *0.0080*	0,22 *0.0085*	125 *410*
K4	0,11 *0.0044*	0,13 *0.0050*	0,16 *0.0065*	0,17 *0.0065*	0,20 *0.0080*	0,22 *0.0085*	120 *395*
K5	0,095 *0.0038*	0,12 *0.0048*	0,14 *0.0055*	0,16 *0.0065*	0,18 *0.0070*	0,20 *0.0080*	70 *230*
K6	0,11 *0.0044*	0,13 *0.0050*	0,16 *0.0065*	0,17 *0.0065*	0,20 *0.0080*	0,22 *0.0085*	105 *345*
K7	0,095 *0.0038*	0,12 *0.0048*	0,14 *0.0055*	0,16 *0.0065*	0,18 *0.0070*	0,20 *0.0080*	90 *295*
N1	0,15 *0.0060*	0,19 *0.0075*	0,22 *0.0085*	0,24 *0.0095*	0,28 *0.011*	0,32 *0.013*	390 *1275*
N2	0,15 *0.0060*	0,19 *0.0075*	0,22 *0.0085*	0,24 *0.0095*	0,28 *0.011*	0,32 *0.013*	250 *820*
N3	0,15 *0.0060*	0,19 *0.0075*	0,22 *0.0085*	0,24 *0.0095*	0,28 *0.011*	0,32 *0.013*	165 *540*
N11	0,15 *0.0060*	0,19 *0.0075*	0,22 *0.0085*	0,24 *0.0095*	0,28 *0.011*	0,32 *0.013*	220 *720*

SMG = Seco Material Group
f_z = mm/tooth (mm/flute)
f = mm/rev
v_c= m/min
All cutting data are start values

Feed are related to the centre of the cutter and not the periphery.

Thread Milling 396.18/19/20 Cutting data metric *inch*

SMG	CP500		F30M		H15	
	f_z	v_c	f_z	v_c	f_z	v_c
P1	0,050 *0.0020*	385 *1275*	0,050 *0.0020*	385 *1275*	— —	— —
P2	0,055 *0.0022*	375 *1225*	0,055 *0.0022*	375 *1225*	— —	— —
P3	0,050 *0.0020*	325 *1075*	0,050 *0.0020*	325 *1075*	— —	— —
P4	0,050 *0.0020*	285 *940*	0,050 *0.0020*	285 *940*	— —	— —
P5	0,048 *0.0019*	275 *900*	0,048 *0.0019*	275 *900*	— —	— —
P6	0,048 *0.0019*	305 *1000*	0,048 *0.0019*	305 *1000*	— —	— —
P7	0,048 *0.0019*	290 *950*	0,048 *0.0019*	290 *950*	— —	— —
P8	0,050 *0.0020*	275 *900*	0,050 *0.0020*	275 *900*	— —	— —
P11	0,048 *0.0019*	280 *920*	0,048 *0.0019*	280 *920*	— —	— —
P12	0,032 *0.0013*	165 *540*	0,032 *0.0013*	165 *540*	— —	— —
M1	0,055 *0.0022*	285 *940*	0,055 *0.0022*	285 *940*	— —	— —
M2	0,048 *0.0019*	230 *750*	0,048 *0.0019*	230 *750*	— —	— —
M3	0,038 *0.0015*	175 *570*	0,038 *0.0015*	175 *570*	— —	— —
M4	0,034 *0.0013*	130 *425*	0,034 *0.0013*	130 *425*	— —	— —
M5	0,034 *0.0013*	110 *360*	0,034 *0.0013*	110 *360*	— —	— —
K1	0,055 *0.0022*	300 *980*	0,055 *0.0022*	300 *980*	0,040 *0.0016*	270 *890*
K2	0,048 *0.0019*	260 *850*	0,048 *0.0019*	260 *850*	0,038 *0.0015*	235 *770*
K3	0,048 *0.0019*	220 *720*	0,048 *0.0019*	220 *720*	0,038 *0.0015*	200 *660*
K4	0,048 *0.0019*	210 *690*	0,048 *0.0019*	210 *690*	0,038 *0.0015*	190 *620*
K5	0,044 *0.0017*	125 *410*	0,044 *0.0017*	125 *410*	0,034 *0.0013*	115 *375*
K6	0,048 *0.0019*	185 *610*	0,048 *0.0019*	185 *610*	0,038 *0.0015*	170 *560*
K7	0,044 *0.0017*	160 *520*	0,044 *0.0017*	160 *520*	0,034 *0.0013*	145 *475*
N1	0,070 *0.0028*	1375 *4500*	0,070 *0.0028*	1375 *4500*	0,050 *0.0020*	1375 *4500*
N2	0,070 *0.0028*	890 *2925*	0,070 *0.0028*	890 *2925*	0,050 *0.0020*	890 *2925*
N3	0,070 *0.0028*	590 *1925*	0,070 *0.0028*	590 *1925*	0,050 *0.0020*	590 *1925*
N11	0,070 *0.0028*	780 *2550*	0,070 *0.0028*	780 *2550*	— —	— —

SMG = Seco Material Group
f_z = mm/tooth (mm/flute)
v_c= m/min (for holder types -065AM, -079AM and -080AM use factor 0,75 on vc)
All cutting data are start values

All feed are related to the centre of the cutter and not the periphery.

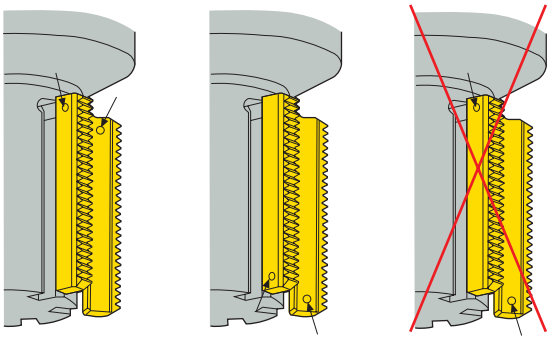
Feed related to the centre of the cutter

When calculating feed and feed/tooth from average chip thickness using circular interpolation or helical interpolation ramping in an operation, the feed and feed/tooth are always related to the centre and not to the periphery of the cutter.

Tolerance on the machined component.

The tolerance on the thread diameter is 6H when using a cutter with more than one tooth. With a single cutting insert the tolerance is 4H. If a multi-tooth milling cutter is used with one cutting insert, the other insert seat(s) must be equipped with non-cutting blank insert(s) to stabilise the milling cutter during the cutting process.

As all 396.19 inserts are double sided, it is important that all inserts are mounted in the same position to achieve best possible tolerance. It must be done by indexing the identification dots in the same position. See figure.

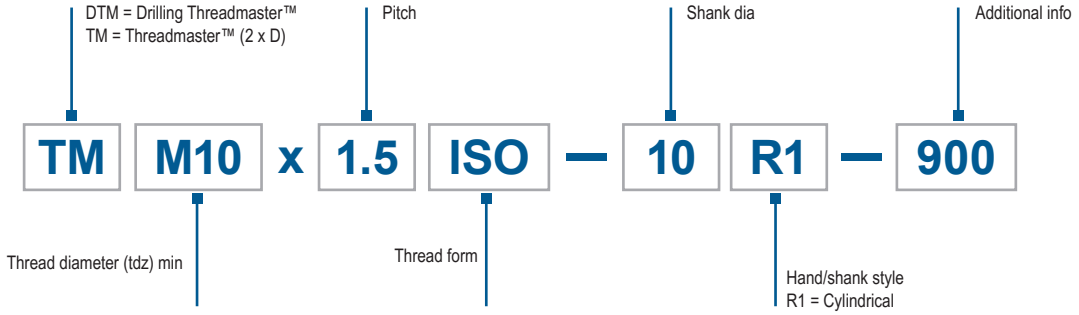


Cutting speed Thread milling 335.14 metric *inch*

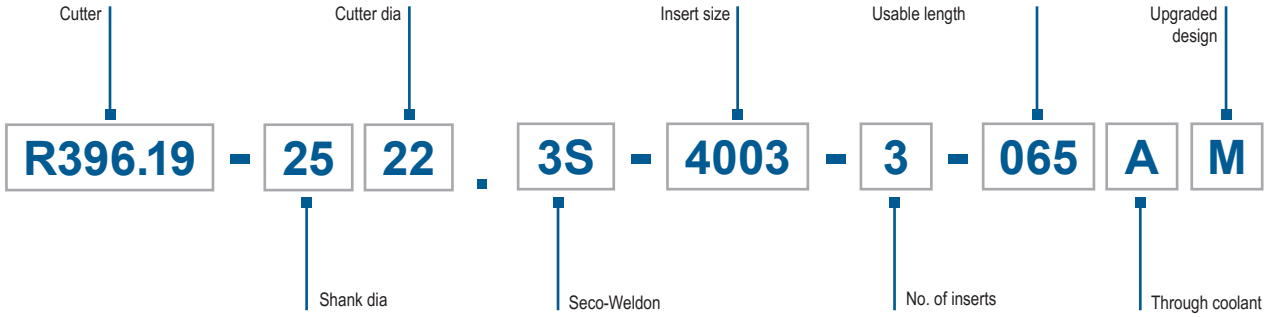
SMG	R335.14	
	f_z	v_c
P1	0,070 *0.0028*	275 *900*
P2	0,070 *0.0028*	270 *890*
P3	0,070 *0.0028*	230 *750*
P4	0,065 *0.0026*	205 *670*
P5	0,065 *0.0026*	195 *640*
P6	0,065 *0.0026*	215 *710*
P7	0,065 *0.0026*	205 *670*
P8	0,070 *0.0028*	195 *640*
P11	0,065 *0.0026*	200 *660*
P12	0,044 *0.0017*	120 *395*
M1	0,070 *0.0028*	215 *710*
M2	0,065 *0.0026*	175 *570*
M3	0,050 *0.0020*	130 *425*
M4	0,046 *0.0018*	100 *330*
M5	0,046 *0.0018*	80 *260*
K1	0,070 *0.0028*	210 *690*
K2	0,065 *0.0026*	185 *610*
K3	0,065 *0.0026*	180 *590*
K4	0,065 *0.0026*	150 *490*
K5	0,060 *0.0024*	90 *295*
K6	0,065 *0.0026*	130 *425*
K7	0,060 *0.0024*	115 *375*
N1	0,090 *0.0036*	970 *3175*
N2	0,090 *0.0036*	620 *2025*
N3	0,090 *0.0036*	415 *1350*
N11	0,090 *0.0036*	475 *1550*
S1	0,046 *0.0018*	50 *165*
S2	0,046 *0.0018*	41 *135*
S3	0,042 *0.0017*	35 *115*
S11	0,050 *0.0020*	65 *215*
S12	0,050 *0.0020*	50 *165*
S13	0,046 *0.0018*	39 *130*
H5	0,044 *0.0017*	43 *140*
H8	0,034 *0.0013*	45 *150*
H11	0,044 *0.0017*	60 *195*
H12	0,034 *0.0013*	55 *180*
H21	0,034 *0.0013*	45 *150*

Code keys

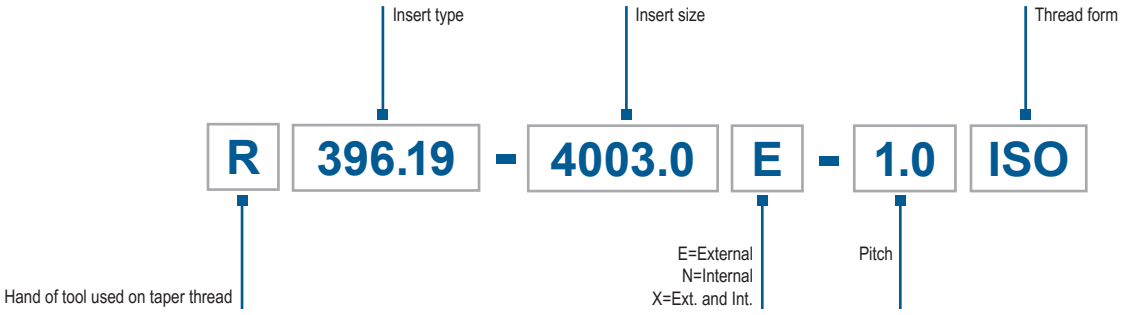
Threadmaster™



R396.18/19/20

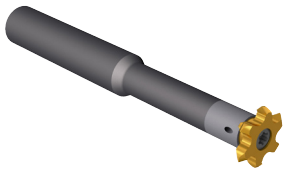


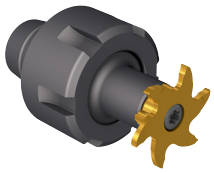
Insert 396.19/20



Code keys

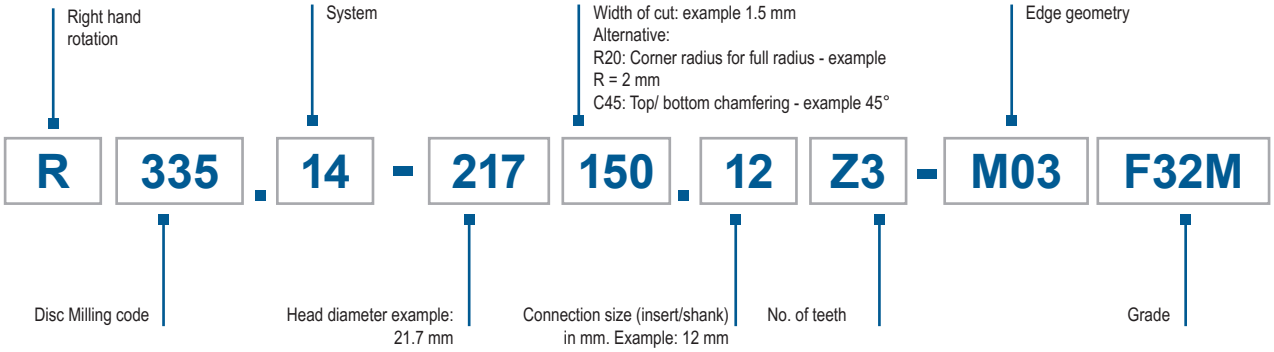
Disc Milling cutter 335.14



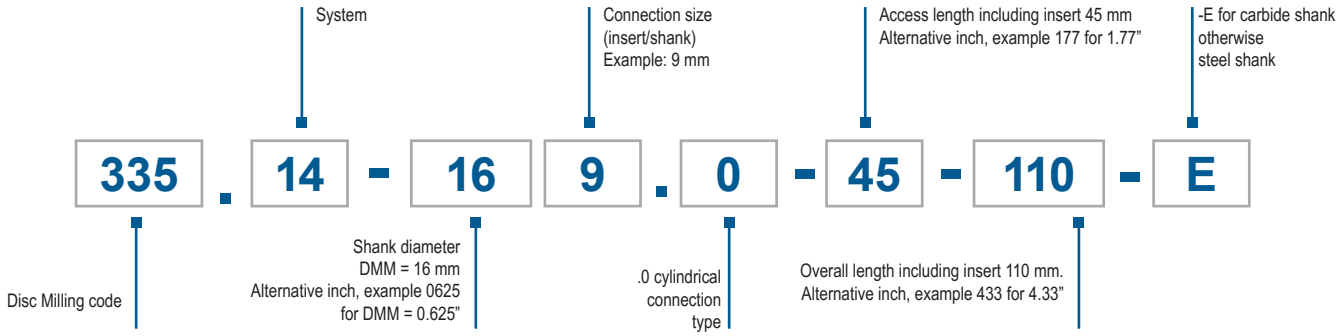


2 types of shanks available: cylindrical available both in steel and carbide, or ER collet chuck system

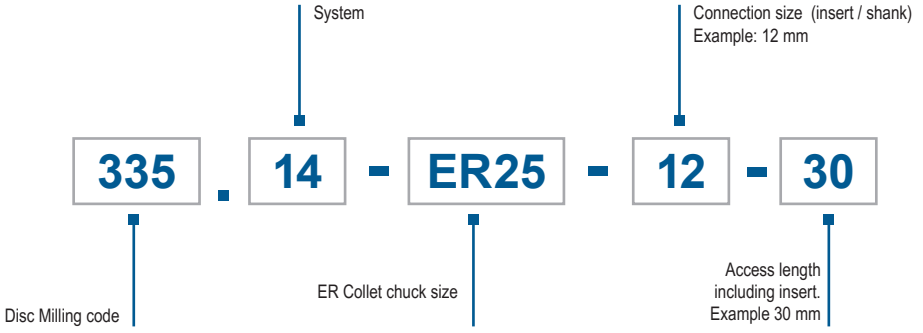
Mini disc



Cylindrical shank



Collet chuck





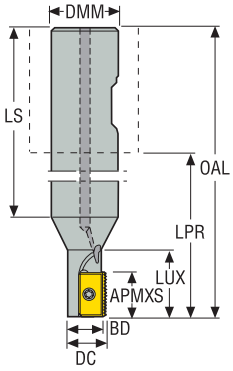
Thread milling Indexable

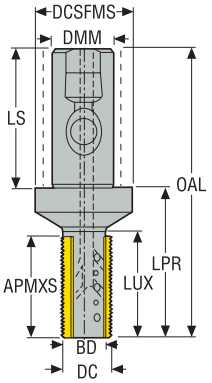
Seco 396.18/19/20 thread mills are versatile, cost-effective process tools for anyone facing a variety of threads, parts and workpiece materials on the same machine. Multi-tooth indexable insert cutters use a double sided multi-tooth insert usable above Ø 14 mm for both internal and external threads.

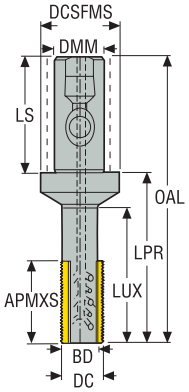
- Inserts available with different thread profiles and pitches.
- Multi-tooth cutters for high productivity.
- Arbor, Weldon and SecoWeldon shanktypes.

R396.18/R396.19









- For cutting data see page(s) 222, 224
- For insert information see page(s) 235-237
- Min thread diameter, see page(s) 234
- Note: Type of mounting * = Weldon
- Note: Type of mounting ** = Seco-Weldon

Tool angle:
GAMO= -15°
GAMP= 0°
GAMF= -15°

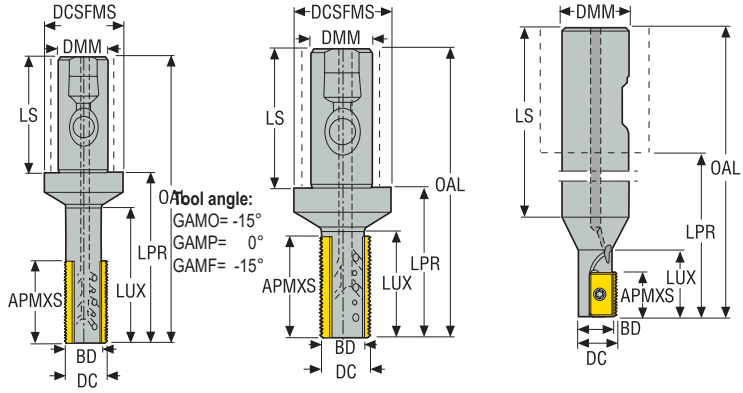
Designation	Item number	DC	DMM	OAL	APMXS	BD	DCSFMS	LPR	LUX	LS	Weight	NOF	RPMX	Note	Insert
		mm	mm	mm	mm	mm	mm	mm	mm	mm	kg				
R396.18-2012.3-13A	75036662	12,0	20,0	105,0	13,0	10,0	–	38,0	20,0	67,0	0,3	1	30000	*	–
R396.19-2517.3S-4003-2AM	02534461	17,0	25,0	116,0	25,0	13,0	40,0	60,0	26,0	56,0	0,5	2	22400	**	–
R396.19-2522.3S-4003-3AM	02514532	22,0	25,0	116,0	40,0	17,6	40,0	60,0	43,0	56,0	0,4	3	20000	**	–
R396.19-2522.3S-4003-3-065AM	02546918	22,0	25,0	140,0	40,0	17,6	40,0	84,0	65,0	56,0	0,5	3	20000	**	–
R396.19-2525.3S-4005-2AM	02544660	25,0	25,0	116,0	40,0	19,0	40,0	60,0	43,0	56,0	0,4	2	13600	**	–
R396.19-2530.3S-4005-3AM	02546916	30,0	25,0	116,0	40,0	23,0	40,0	60,0	43,0	56,0	0,5	3	12000	**	–
R396.19-2530.3S-4005-3-080AM	02544662	30,0	25,0	154,0	40,0	22,2	40,0	98,0	80,0	56,0	0,6	3	12000	**	–
R396.19-3232.3S-4003-6AM	02546915	32,0	32,0	120,0	40,0	27,4	50,0	60,0	43,0	60,0	0,7	6	16800	**	–
R396.19-3236.3S-4005-6AM	02546917	36,0	32,0	120,0	40,0	28,2	50,0	60,0	42,0	60,0	0,7	6	11200	**	–

Spare Parts, included in delivery

For holders	Fastening screw	Insert key	Insert screw	Key (T-handle)
				
R396.18	–	H4B-T07P	C02506-T07P	DOUBLE-T
R396.19	P6SS4X4-T09P	T09P-2	–	–

Note! When milling threads to smaller diameters than indicated for a certain pitch/cutter combination, an incorrect thread form will result.
Note! R396.19-2525.3S-4005-2AM Max pitch sze 4,5 ISO/6 TPI can be used.
*Torque key T00-07P09, T00-09P20.

R396.18/R396.19





- For cutting data see page(s) 222, 224
- For insert information see page(s) 235-237
- Min thread diameter, see page(s) 234
- Note: Type of mounting * = Weldon
- Note: Type of mounting ** = Seco-Weldon

Designation	Item number	DC	DMM	OAL	APMXS	BD	DCSFMS	LPR	LUX	LS	Weight	NOF	RPMX	Note	Insert
		Inch	*Inch*	*Inch*	*Inch*	*Inch*	*Inch*	*Inch*	*Inch*	*Inch*	*lbs*				
R396.18-00.39-3-13AT	00087568	0.390	0.750	4.140	0.510	0.310	–	–	0.530	3.610	0.440	1	30000	*	–
R396.18-00.50-3-13A	75054862	0.472	0.750	4.140	0.510	0.390	–	–	0.780	3.360	0.440	1	30000	*	–
R396.18-00.50-3-13AT	00074293	0.509	0.750	4.134	0.512	0.310	–	–	0.746	2.997	0.440	1	30000	*	–
R396.19-00.58-3S-1AM	02546957	0.591	1.000	4.803	1.102	0.450	1.575	2.362	1.024	2.441	1.100	1	22400	**	–
R396.19-00.67-3S-4003-2AM	02546937	0.669	1.000	4.547	0.984	0.512	1.575	2.362	1.024	2.185	1.100	2	22000	**	–
R396.19-00.87-3S-4003-3AM	02546938	0.866	1.000	4.547	1.575	0.709	1.575	2.362	1.693	2.185	0.880	3	20000	**	–
R396.19-00.87-3S-4003-LAM	02546950	0.866	1.000	5.512	1.575	0.709	1.575	3.307	2.559	2.185	1.100	3	20000	**	–
R396.19-01.00-3S-4005-2AM	02546944	0.984	1.000	4.547	1.575	0.748	1.575	2.362	1.693	2.185	1.100	2	13600	**	–
R396.19-01.18-3S-4005-3AM	02546946	1.181	1.000	4.547	1.575	0.906	1.575	2.362	1.693	2.185	1.100	3	12000	**	–
R396.19-01.18-3S-4005-LAM	02546954	1.181	1.000	6.043	1.575	0.906	1.575	3.858	3.150	2.185	1.320	3	12000	**	–
R396.19-01.25-3S-4003-6AM	02546941	1.260	1.250	4.547	1.575	1.102	1.969	2.362	1.654	2.343	1.540	6	16800	**	–
R396.19-01.42-3S-4005-6AM	02546947	1.417	1.250	4.705	1.575	1.142	1.969	2.362	1.654	2.343	1.540	6	11200	**	–

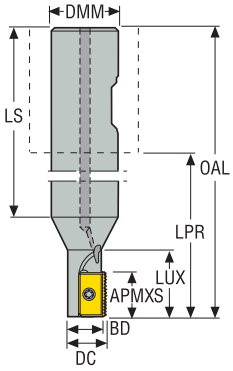
Spare Parts, included in delivery

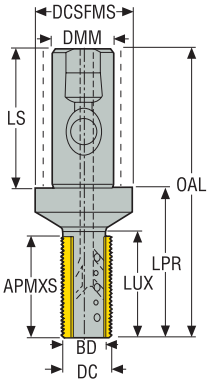
For holders	Fastening screw	Insert key	Insert screw	Key (T-handle)	Screw
					
..18-00.39..	–	H4B-T07P	–	DOUBLE-T	C02505-T07P
..18-00.50..A	–	H4B-T07P	C02506-T07P	DOUBLE-T	–
..18-00.50..AT	–	H4B-T07P	C02505-T07P	DOUBLE-T	–
..19-00.58..–..19-01.42..	P6SS4X4-T09P	T09P-2	–	–	–

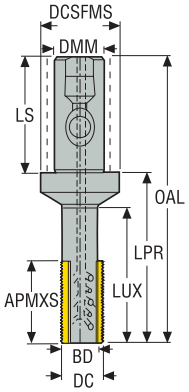
Note! When milling threads to smaller diameters than indicated for a certain pitch/cutter combination, an incorrect thread form will result.
Note! R396.19-2525.3S-4005-2AM Max pitch sze 4,5 ISO/6 TPI can be used.
*Torque key T00-07P09, T00-09P20.

R396.19









- For cutting data see page(s) 222, 224
- For insert information see page(s) 235-237
- Min thread diameter, see page(s) 234
- Note: Type of mounting ** = Seco-Weldon

Tool angle:
GAMO= -15°
GAMP= 0°
GAMF= -15°

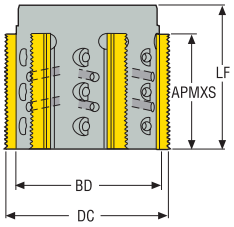
Designation	Item number	DC	DMM	OAL	APMXS	BD	DCSFMS	LPR	LUX	LS	Weight	NOF	RPMX	Note	Insert
		mm	mm	mm	mm	mm	mm	mm	mm	mm	kg				
R396.19-3232.3S-4003-3-079AM	02963138	32,0	32,0	156,0	40,0	27,4	50,0	96,0	79,57	60,0	0,9	3	20000	**	–
R396.19-3232.3S-4005-3-079AM	02963139	32,0	32,0	156,0	40,0	24,2	50,0	96,0	79,0	60,0	0,8	3	11200	**	–

Spare Parts, included in delivery

For holders	Fastening screw	Insert key
		
R396.19	P6SS4X4-T09P	T09P-2

Note! When milling threads to smaller diameters than indicated for a certain pitch/cutter combination, an incorrect thread form will result.
Note! R396.19-2525.3S-4005-2AM Max pitch sze 4,5 ISO/6 TPI can be used.
*Torque key T00-07P09, T00-09P20.

R396.19



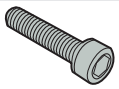


- For cutting data see page(s) 222, 224
- For insert information see page(s) 235-237
- Min thread diameter, see page(s) 234

Tool angle:
GAMO= -15°
GAMP= 0°
GAMF= -15°

Designation	Item number	DC	APMXS	BD	LF	Weight	NOF	RPMX	Insert
		mm	mm	mm	mm	kg			
R396.19-0058-4003-6AM	02546921	58,0	40,0	53,0	50,0	0,7	6	8600	–
R396.19-0058-4005-6AM	02546920	58,0	40,0	50,0	50,0	0,6	6	8600	–

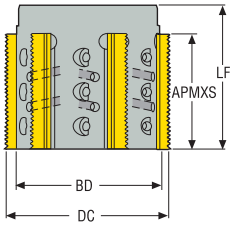
Spare Parts, included in delivery

For holders	Arbor screw	Fastening screw	Insert key
			
...6AM	MC6S12X40	P6SS4X4-T09P	T09P-2

***Torque values 2 Nm**. Torque key, T00-09P20.

R396.19



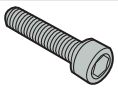


- For cutting data see page(s) 222, 224
- For insert information see page(s) 235-237
- Min thread diameter, see page(s) 234

Tool angle:
GAMO= -15°
GAMP= 0°
GAMF= -15°

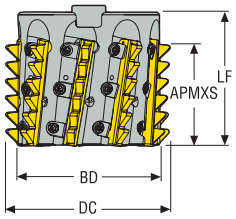
Designation	Item number	DC	APMXS	BD	LF	Weight	NOF	RPMX	Insert
		Inch	*Inch*	*Inch*	*Inch*	*lbs*			
R396.19-02.28-4003-6AM	02546955	2.283	1.575	2.087	1.969	1.540	6	8600	–
R396.19-02.28-4005-6AM	02546956	2.283	1.575	1.969	1.969	1.320	6	8600	–

Spare Parts, included in delivery

For holders	Arbor screw	Fastening screw	Insert key
			
	UC6S1/2UNFX1-1/4	P6SS4X4-T09P	T09P-2

***Torque values 2 Nm**. Torque key, T00-09P20.

R396.20



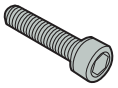
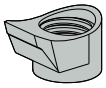
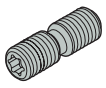


Tool angle:
GAMO= -15°
GAMP= -15°
GAMF= -15°

- For cutting data see page(s) 222, 224
- For insert information see page(s) 238
- Min thread diameter, see page(s) 234

Designation	Item number	DC	APMXS	BD	LF	Weight	NOF	RPMX	Insert
		Inch	*Inch*	*Inch*	*Inch*	*lbs*			
R396.20-02.478-4005-9AW	03013869	2.478	1.575	2.106	1.992	1.320	9	8600	–

Spare Parts, included in delivery

For holders	Arbor screw	Key	Key (T-handle)	Wedge clamp	Wedge screw
					
R396.20	UC6S1/2UNFX1-1/2	H4B-T08P	DOUBLE-T	CW0405M	LD4012-T08P

***Torque values 2 Nm**. Torque key, T00-09P20.

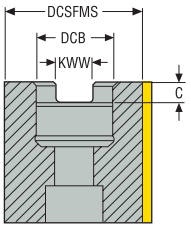
Min thread diameter (major dia), for different pitch and cutter combinations

R396.18/R396.19/R396.20

For cutter	Pitch mm / TPI										
	1 24	1,5 16	2 12	2,5 10	3 8	3,5 7	4 6	4,5	5 5	5,5	6 4
R396.18-2012.3-13A	14	15	16	–	–	–	–	–	–	–	–
R396.19-2517.3S-4003-2AM	19	20	21	22	24	–	–	–	–	–	–
R396.19-2522.3S-4003-3AM	24	25	26	27	27	–	–	–	–	–	–
R396.19-2522.3S-4003-3-065AM	24	25	26	27	27	–	–	–	–	–	–
R396.19-3232.3S-4003-6AM	34	35	36	39	40	–	–	–	–	–	–
R396.19-2525.3S-4005-2AM	–	–	–	–	30	33	35	37	–	–	–
R396.19-2530.3S-4005-3AM	–	–	–	–	38	40	42	44	45	47	48
R396.19-2530.3S-4005-3-080AM	–	–	–	–	38	40	42	44	45	47	48
R396.19-3236.3S-4005-6AM	–	–	–	–	43	45	47	47	48	50	53
R396.19-0058-4003-6AM	62	63	65	66	67	–	–	–	–	–	–
R396.19-0058-4005-6AM	–	–	–	–	67	69	70	71	72	73	74
R396.19-3232.3S-4003-3-079AM	34	35	36	39	40	–	–	–	–	–	–
R396.19-3232.3S-4005-3-079AM	–	–	–	–	39	41	43	45	46	48	49
R396.20-02.478-4005-9AW	–	–	–	–	80	–	84	–	–	–	89

Note! When milling threads to smaller diameters than indicated for a certain pitch/cutter combination, an incorrect thread form will result.

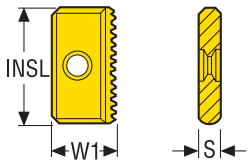
Dimensions of mounting



For cutter	Item number	DCB	DCSFMS	KWW	C	For arbor
		mm	mm	mm	mm	
R396.19-0058-4003-6AM	02546921	27,0	53,0	12,4	7,0	27
R396.19-0058-4005-6AM	02546920	27,0	50,0	12,4	7,0	27
R396.20-02.478-4005-9AW	03013869	25,4	53,5	9,7	5,7	25,4

13NMS/XMS

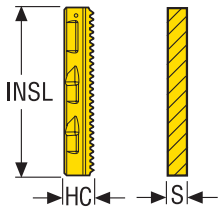
Tolerances:
INSL = ± 0,012 mm
HC = ± 0,012 mm
S = ± 0,025 mm



Designation	Insert	INSL	S	Grades		
		mm *Inch*	mm *Inch*	CP500	F30M	H15
13NMS1.0ISO	For internal threading	13,0 *0.512*	2,5 *0.098*	■		
13NMS1.5ISO	For internal threading	13,0 *0.512*	2,5 *0.098*	■		
13NMS2.0ISO	For internal threading	13,0 *0.512*	2,5 *0.098*	■		
13NMS24UN	For internal threading	13,0 *0.512*	2,5 *0.098*	■		
13NMS20UN	For internal threading	13,0 *0.512*	2,5 *0.098*	■		
13NMS16UN	For internal threading	13,0 *0.512*	2,5 *0.098*	■		
13XMS19W	For external and internal threading	13,0 *0.512*	2,5 *0.098*	■		
13XMS14W	For external and internal threading	13,0 *0.512*	2,5 *0.098*	■		

■ **Stock standard.**

396.19-4003

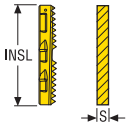


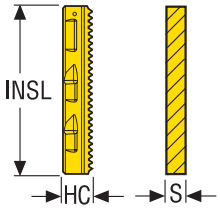
Tolerances:
INSL = ± 0,007 mm
HC = ± 0,012 mm
S = ± 0,05 mm

Designation	Insert	INSL	S	Grades		
		mm *Inch*	mm *Inch*	CP500	F30M	H15
396.19-4003.0E1.0ISO	For external threading	40,0 *1.575*	3,5 *0.138*		■	
396.19-4003.0E1.5ISO	For external threading	40,0 *1.575*	3,5 *0.138*		■	
396.19-4003.0E2.0ISO	For external threading	40,0 *1.575*	3,5 *0.138*		■	
396.19-4003.0E18UN	For external threading	40,0 *1.575*	3,5 *0.138*		■	
396.19-4003.0E16UN	For external threading	40,0 *1.575*	3,5 *0.138*		■	
396.19-4003.0E14UN	For external threading	40,0 *1.575*	3,5 *0.138*		■	
396.19-4003.0E12UN	For external threading	40,0 *1.575*	3,5 *0.138*		■	
396.19-4003.0N1.0ISO	For internal threading	40,0 *1.575*	3,5 *0.138*		■	■
396.19-4003.0N1.5ISO	For internal threading	40,0 *1.575*	3,5 *0.138*		■	■
396.19-4003.0N2.0ISO	For internal threading	40,0 *1.575*	3,5 *0.138*		■	■
396.19-4003.0N2.5ISO	For internal threading	40,0 *1.575*	3,5 *0.138*		■	
396.19-4003.0N3.0ISO	For internal threading	40,0 *1.575*	3,5 *0.138*		■	
396.19-4003.0N20UN	For internal threading	40,0 *1.575*	3,5 *0.138*		■	
396.19-4003.0N18UN	For internal threading	40,0 *1.575*	3,5 *0.138*		■	
396.19-4003.0N16UN	For internal threading	40,0 *1.575*	3,5 *0.138*		■	■
396.19-4003.0N14UN	For internal threading	40,0 *1.575*	3,5 *0.138*		■	■
396.19-4003.0N12UN	For internal threading	40,0 *1.575*	3,5 *0.138*		■	■
396.19-4003.0N10UN	For internal threading	40,0 *1.575*	3,5 *0.138*		■	
396.19-4003.0N9UN	For internal threading	40,0 *1.575*	3,5 *0.138*		■	
396.19-4003.0N8UN	For internal threading	40,0 *1.575*	3,5 *0.138*		■	
396.19-4003.0X16W	For external and internal threading	40,0 *1.575*	3,5 *0.138*		■	
396.19-4003.0X14W	For external and internal threading	40,0 *1.575*	3,5 *0.138*		■	
396.19-4003.0X12W	For external and internal threading	40,0 *1.575*	3,5 *0.138*		■	
396.19-4003.0X11W	For external and internal threading	40,0 *1.575*	3,5 *0.138*		■	

■ **Stock standard.**

396.19-4003/4005

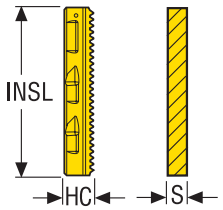




Designation	Insert	INSL	S	Grades		
		mm *Inch*	mm *Inch*	CP500	F30M	H15
396.19-4005.0N3.5ISO	For internal threading	40,0 *1.575*	4,85 *0.191*		■	
396.19-4005.0N4.0ISO	For internal threading	40,0 *1.575*	4,85 *0.191*		■	
396.19-4005.0N4.5ISO	For internal threading	40,0 *1.575*	4,85 *0.191*		■	
396.19-4005.0N5.0ISO	For internal threading	40,0 *1.575*	4,85 *0.191*		■	
396.19-4005.0N5.5ISO	For internal threading	40,0 *1.575*	4,85 *0.191*		■	
396.19-4005.0N6.0ISO	For internal threading	40,0 *1.575*	4,85 *0.191*		■	
396.19-4005.0N7UN	For internal threading	40,0 *1.575*	4,85 *0.191*		■	
396.19-4005.0N6UN	For internal threading	40,0 *1.575*	4,85 *0.191*		■	
396.19-4005.0N5UN	For internal threading	40,0 *1.575*	4,85 *0.191*		■	
396.19-4005.0N4.5UN	For internal threading	40,0 *1.575*	4,85 *0.191*		■	
396.19-4005.0N4UN	For internal threading	40,0 *1.575*	4,85 *0.191*		■	
396.19-4005.0X8W	For external and internal threading	40,0 *1.575*	4,85 *0.191*		■	
R396.19-4003.0X14NPT	For external and internal threading	40,0 *1.575*	3,5 *0.138*		■	
R396.19-4003.0X11.5NPT	For external and internal threading	40,0 *1.575*	3,5 *0.138*		■	
R396.19-4005.0X8NPT	For external and internal threading	40,0 *1.575*	4,85 *0.191*		■	
R396.19-4003.0X14NPTF	For external and internal threading	40,0 *1.575*	3,5 *0.138*		■	
R396.19-4003.0X11.5NPTF	For external and internal threading	40,0 *1.575*	3,5 *0.138*		■	
R396.19-4003.0X14BSPT	For external and internal threading	40,0 *1.575*	3,5 *0.138*		■	
R396.19-4003.0X11BSPT	For external and internal threading	40,0 *1.575*	3,5 *0.138*		■	
396.19-4003XX	Non cutting blank	40,0 *1.575*	3,5 *0.138*			■
396.19-4005XX	Non cutting blank	40,0 *1.575*	4,85 *0.191*			■

■ **Stock standard.**

396.20-4005



Designation	Insert	INSL	S	Grades		
		mm *Inch*	mm *Inch*	CP500	F30M	H15
396.20-4005.0N3ACME	For internal threading	40,0 *1.575*	4,9 *0.193*		■	
396.20-4005.0N4ACME	For internal threading	40,0 *1.575*	4,9 *0.193*		■	
396.20-4005.0N8ACME	For internal threading	40,0 *1.575*	4,9 *0.193*		■	
396.20-4005.0N4BUT	For internal threading	40,0 *1.575*	4,85 *0.191*		■	

■ **Stock standard.**

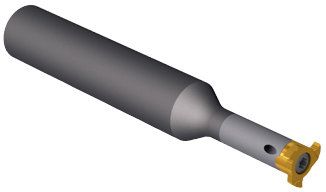


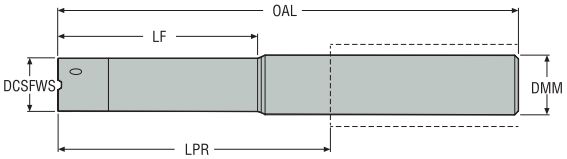
Thread milling Shanks

Generate precision threads in holes as deep as 106 mm with Seco's new single raw Disc Mill 335.14 interchangeable threading heads and matching holder shanks. You will also be able to boost processing speed and versatility, as each head performs both chamfering and threading operations. Additionally, performing two operations with the same tool helps reduce required tooling inventories.

- Both carbide and steel shank types.
- Internal coolant capability.
- Over 31 different carbide-coated heads.

335.14 Shank - Cylindrical version





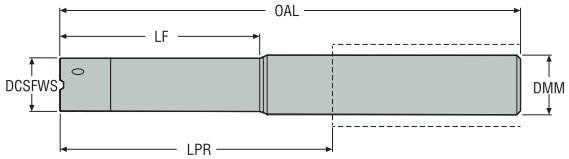
- For cutting data see page(s) 224, 226
- Technical information, see page 211, 213
- -E = Carbide shank with DMM tolerance = h6
- Steel shank: DMM tolerance = g6
- Max RPM = 30 000 rev/min

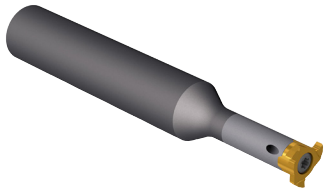
Designation	Item number	DCSFWS	DMM	LF	OAL	LPR	Weight	Through coolant	Insert
		mm	mm	mm	mm	mm	kg		
335.14-1006.0-015-060	03042024	6,0	10,0	11,5	56,5	16,5	0,1	–	R335.14...06Z..
335.14-1206.0-021-080-E	03042025	6,0	12,0	17,5	76,5	31,5	0,2	✓	R335.14...06Z..
335.14-1206.0-030-090-E	03042026	6,0	12,0	26,5	86,5	41,5	0,2	✓	R335.14...06Z..
335.14-1206.0-042-100-E	03042027	6,0	12,0	38,5	96,5	51,5	0,2	✓	R335.14...06Z..
335.14-1008.0-017-060	03042040	8,0	10,0	12,5	55,5	15,5	0,1	–	R335.14...08Z..
335.14-1208.0-029-095-E	03042041	8,0	12,0	24,5	90,5	45,5	0,2	✓	R335.14...08Z..
335.14-1208.0-042-110-E	03042042	8,0	12,0	37,5	105,5	60,5	0,2	✓	R335.14...08Z..
335.14-1208.0-056-120-E	03042043	8,0	12,0	51,5	115,5	70,5	0,2	✓	R335.14...08Z..
335.14-1609.0-018-080	03042028	9,0	16,0	12,2	74,2	26,2	0,2	✓	R335.14...09Z..
335.14-1609.0-032-100-E	03042029	9,0	16,0	26,2	94,2	46,2	0,3	✓	R335.14...09Z..
335.14-1609.0-045-110-E	03042030	9,0	16,0	39,2	104,2	56,2	0,3	✓	R335.14...09Z..
335.14-1609.0-064-130-E	03042031	9,0	16,0	58,2	124,2	76,2	0,3	✓	R335.14...09Z..
335.14-1612.0-024-080	03042032	12,0	16,0	18,3	74,3	26,3	0,2	✓	R335.14...12Z..
335.14-1612.0-042-100-E	03042033	12,0	16,0	36,3	94,3	46,3	0,2	✓	R335.14...12Z..
335.14-1612.0-060-130-E	03042034	12,0	16,0	54,3	124,3	76,3	0,3	✓	R335.14...12Z..
335.14-1612.0-085-160-E	03042035	12,0	16,0	76,3	154,3	106,3	0,4	✓	R335.14...12Z..
335.14-1614.0-042-100-E	03042036	14,3	16,0	35,5	93,5	45,5	0,3	✓	R335.14...14Z..
335.14-1614.0-060-130-E	03042037	14,3	16,0	53,5	123,5	75,5	0,3	✓	R335.14...14Z..
335.14-1614.0-085-160-E	03042038	14,3	16,0	78,5	153,5	105,5	0,4	✓	R335.14...14Z..
335.14-2014.0-036-100	03042039	14,0	20,0	29,2	93,5	43,5	0,2	✓	R335.14...14Z..

Spare Parts, included in delivery

For cutter	Insert key	Insert screw	Key (T-handle)
			
335.14-..06	H4B-T08P	C92608-T08P	DOUBLE-T
335.14-..08	H4B-T10P	C93510-T10P	DOUBLE-T
335.14-..09	H4B-T15P	C94012-T15P	DOUBLE-T
335.14-..12/14	H6B-T20P	C95012-T20P	DOUBLE-T

335.14 Shank - Cylindrical version





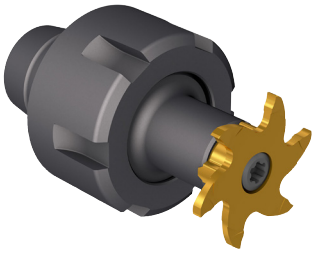
- For cutting data see page(s) 224, 226
- Technical information, see page 211, 213
- -E = Carbide shank with DMM tolerance = h6
- Steel shank: DMM tolerance = g6
- Max RPM = 30 000 rev/min

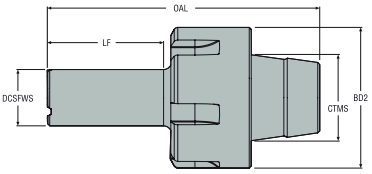
Designation	Item number	DCSFWS	DMM	LF	OAL	LPR	Weight	Through coolant	Insert
		Inch	*Inch*	*Inch*	*Inch*	*Inch*	*lbs*		
335.14-050006.0-083-315-E	03042121	0.236	0.500	0.689	3.012	1.240	0.220	✓	R334.14...06Z..
335.14-050006.0-118-354-E	03042122	0.236	0.500	1.043	3.406	1.634	0.440	✓	R334.14...06Z..
335.14-050006.0-165-394-E	03042107	0.236	0.500	1.516	3.799	2.028	0.440	✓	R334.14...06Z..
335.14-050008.0-114-374-E	03042123	0.315	0.500	0.965	3.563	1.791	0.440	✓	R334.14...08Z..
335.14-050008.0-165-433-E	03042124	0.315	0.500	1.476	4.154	2.382	0.440	✓	R334.14...08Z..
335.14-050008.0-220-472-E	03042119	0.315	0.500	2.028	4.547	2.776	0.440	✓	R334.14...08Z..
335.14-062509.0-071-315	03042108	0.354	0.625	0.480	2.921	1.031	0.440	✓	R334.14...09Z..
335.14-062509.0-126-394-E	03042109	0.354	0.625	1.031	3.709	1.819	0.440	✓	R334.14...09Z..
335.14-062509.0-177-433-E	03042110	0.354	0.625	1.543	4.102	2.213	0.440	✓	R334.14...09Z..
335.14-062509.0-252-512-E	03042111	0.354	0.625	2.291	4.890	3.000	0.660	✓	R334.14...09Z..
335.14-062512.0-094-315	03042112	0.472	0.625	0.720	2.925	1.035	0.440	✓	R334.14...12Z..
335.14-062512.0-165-394-E	03042113	0.472	0.625	1.429	3.713	1.823	0.440	✓	R334.14...12Z..
335.14-062512.0-236-512-E	03042114	0.472	0.625	2.138	4.894	3.004	0.660	✓	R334.14...12Z..
335.14-062512.0-335-630-E	03042115	0.472	0.625	3.122	6.075	4.185	0.880	✓	R334.14...12Z..
335.14-062514.0-165-394-E	03042116	0.551	0.625	1.398	3.681	1.791	0.660	✓	R334.14...14Z..
335.14-062514.0-236-512-E	03042117	0.551	0.625	2.106	4.862	2.972	0.880	✓	R334.14...14Z..
335.14-062514.0-335-630-E	03042118	0.551	0.625	3.091	6.043	4.154	0.880	✓	R334.14...14Z..

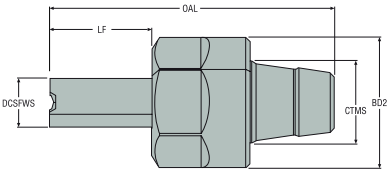
Spare Parts, included in delivery

For cutter	Insert key	Insert screw	Key (T-handle)
			
335.14-..06	H4B-T08P	C92608-T08P	DOUBLE-T
335.14-..08	H4B-T10P	C93510-T10P	DOUBLE-T
335.14-..09	H4B-T15P	C94012-T15P	DOUBLE-T
335.14-..12/14	H6B-T20P	C95012-T20P	DOUBLE-T

335.14 Shank with ER collet







- For cutting data see page(s) 224, 226
- Technical information, see page 211, 213

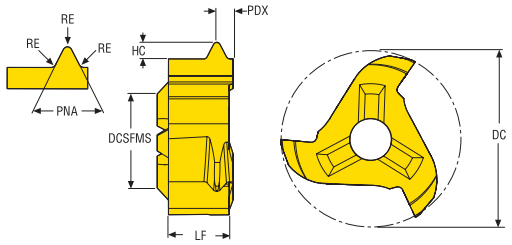
Designation	Item number	DCSFWS	BD2	LF	OAL	CTMS	Weight	Through coolant	Insert
		mm	mm	mm	mm	mm	kg		
335.14-ER11-06-016	03042072	6,0	16,0	12,5	34,9	ER 11	0,1	–	R335.14...06Z..
335.14-ER11-08-016	03042085	8,0	16,0	11,5	33,8	ER 11	0,1	–	R335.14...08Z..
335.14-ER16-08-022	03042086	8,0	32,0	17,5	49,6	ER 16	0,2	–	R335.14...08Z..
335.14-ER11-09-022	03042073	9,0	16,0	16,2	38,5	ER 11	0,1	–	R335.14...09Z..
335.14-ER16-09-022	03042074	9,0	32,0	16,2	48,3	ER 16	0,2	–	R335.14...09Z..
335.14-ER25-09-022	03042075	9,0	35,0	16,2	55,3	ER 25	0,2	–	R335.14...09Z..
335.14-ER16-12-030	03042076	12,0	32,0	24,3	56,4	ER 16	0,2	–	R335.14...12Z..
335.14-ER25-12-030	03042078	12,0	35,0	24,3	63,4	ER 25	0,2	–	R335.14...12Z..
335.14-ER32-12-030	03042079	12,0	50,0	24,3	69,4	ER 32	0,4	–	R335.14...12Z..
335.14-ER25-14-019	03042080	14,0	35,0	12,5	52,3	ER 25	0,2	–	R335.14...14Z..
335.14-ER25-14-035	03042081	14,0	35,0	28,5	67,6	ER 25	0,2	–	R335.14...14Z..
335.14-ER32-14-019	03042082	14,0	50,0	12,5	58,3	ER 32	0,5	–	R335.14...14Z..
335.14-ER32-14-035	03042083	14,0	50,0	28,5	73,6	ER 32	0,4	–	R335.14...14Z..

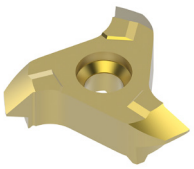
Spare Parts, included in delivery

For cutter	Insert key	Insert screw	Key (T-handle)
			
335.14-ER..-06	H4B-T08P	C92608-T08P	DOUBLE-T
335.14-ER..-08	H4B-T10P	C93510-T10P	DOUBLE-T
335.14-ER..-09	H4B-T15P	C94012-T15P	DOUBLE-T
335.14-ER..-12/14	H6B-T20P	C95012-T20P	DOUBLE-T

335.14 Inserts

Thread profile Whitworth - Metric





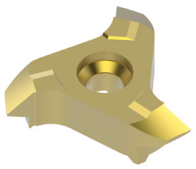
- For cutting data see page(s) 224, 226
- Technical information, see page 211, 213

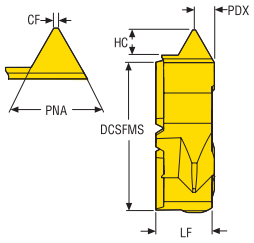
Designation	Pitch		DC	RE	DCSFMS	HC	LF	PDX	PNA	ZEFP	Grades
											Coated
	mm	*TPIX*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		F32M
R335.14-117WXF11.06Z3	–	*11*	11,7 *0.461*	0,31 *0.012*	6,0 *0.236*	1,48 *0.058*	3,6 *0.142*	1,6 *0.063*	55,0 *2.165*	3	■
R335.14-117WXF14.06Z3	–	*14*	11,7 *0.461*	0,24 *0.009*	6,0 *0.236*	1,16 *0.046*	3,6 *0.142*	1,3 *0.051*	55,0 *2.165*	3	■
R335.14-117WXF19.06Z3	–	*19*	11,7 *0.461*	0,18 *0.007*	6,0 *0.236*	0,86 *0.034*	3,6 *0.142*	1,1 *0.043*	55,0 *2.165*	3	■
R335.14-157WXF14.08Z3	–	*14*	15,7 *0.618*	0,24 *0.009*	8,0 *0.315*	1,17 *0.046*	4,6 *0.181*	1,5 *0.059*	55,0 *2.165*	3	■
R335.14-177WXF11.09Z3	–	*11*	17,7 *0.697*	0,31 *0.012*	9,0 *0.354*	1,48 *0.058*	5,85 *0.230*	1,45 *0.057*	55,0 *2.165*	3	■
R335.14-177WXF14.09Z3	–	*14*	17,7 *0.697*	0,24 *0.009*	9,0 *0.354*	1,16 *0.046*	5,85 *0.230*	1,25 *0.049*	55,0 *2.165*	3	■
R335.14-177WXF19.09Z3	–	*19*	17,7 *0.697*	0,18 *0.007*	9,0 *0.354*	0,856 *0.034*	5,85 *0.230*	0,95 *0.037*	55,0 *2.165*	3	■

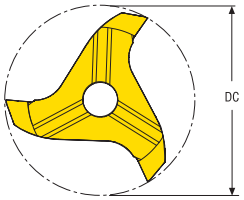
■ **Stock standard.**

335.14 Inserts

Thread profile Partial Metric







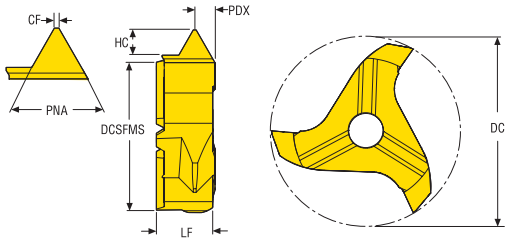
- For cutting data see page(s) 224, 226
- Technical information, see page 211, 213

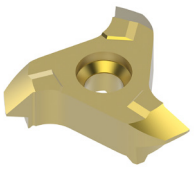
Designation	Pitch		DC	CF	DCSFMS	HC	LF	PDX	PNA	ZEFP	Grades
											Coated
	mm	*TPI*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		F32M
R335.14-117MNP100200.06Z3	1,0-2,0	0.039-0.079	11,7 *0.461*	0.13 *0.005*	6,0 *0.236*	1,25 *0.049*	3,6 *0.142*	0,8 *0.031*	60,0 *2.362*	3	■
R335.14-117MNP200300.06Z3	2,0-3,0	0.079-0.118	11,7 *0.461*	0.25 *0.010*	6,0 *0.236*	1,78 *0.070*	3,6 *0.142*	1,2 *0.047*	60,0 *2.362*	3	■
R335.14-157MNP150275.08Z3	1,5-2,75	0.059-0.108	15,7 *0.618*	0.19 *0.007*	8,0 *0.315*	1,67 *0.066*	4,6 *0.181*	1,1 *0.043*	60,0 *2.362*	3	■
R335.14-157MNP250300.08Z3	2,5-3,0	0.098-0.118	15,7 *0.618*	0.31 *0.012*	8,0 *0.315*	1,78 *0.070*	4,6 *0.181*	1,2 *0.047*	60,0 *2.362*	3	■
R335.14-177MNP100200.09Z3	1,0-2,0	0.039-0.079	17,7 *0.697*	0.12 *0.005*	9,0 *0.354*	1,19 *0.047*	5,85 *0.230*	1,15 *0.045*	60,0 *2.362*	3	■
R335.14-177MNP150275.09Z3	1,5-2,75	0.059-0.108	17,7 *0.697*	0.19 *0.007*	9,0 *0.354*	1,62 *0.064*	5,85 *0.230*	1,25 *0.049*	60,0 *2.362*	3	■
R335.14-177MNP200375.09Z3	2,0-3,75	0.079-0.148	17,7 *0.697*	0.25 *0.010*	9,0 *0.354*	2,22 *0.087*	5,85 *0.230*	1,65 *0.065*	60,0 *2.362*	3	■
R335.14-177MNP300550.09Z3	3,0-5,5	0.118-0.217	17,7 *0.697*	0.38 *0.015*	9,0 *0.354*	3,25 *0.128*	5,85 *0.230*	2,25 *0.089*	60,0 *2.362*	3	■
R335.14-217MNP100200.12Z3	1,0-2,0	0.039-0.079	21,7 *0.854*	0.12 *0.005*	12,0 *0.472*	1,19 *0.047*	5,85 *0.230*	1,25 *0.049*	60,0 *2.362*	3	■
R335.14-217MNP200375.12Z3	2,0-3,75	0.079-0.148	21,7 *0.854*	0.25 *0.010*	12,0 *0.472*	2,22 *0.087*	5,85 *0.230*	1,65 *0.065*	60,0 *2.362*	3	■
R335.14-217MNP250450.12Z3	2,5-4,5	0.098-0.177	21,7 *0.854*	0.25 *0.010*	12,0 *0.472*	2,7 *0.106*	5,85 *0.230*	2,15 *0.085*	60,0 *2.362*	3	■
R335.14-217MNP350600.12Z3	3,5-6,0	0.138-0.236	21,7 *0.854*	0.44 *0.017*	12,0 *0.472*	3,84 *0.151*	5,85 *0.230*	2,65 *0.104*	60,0 *2.362*	3	■
R335.14-277MNP250500.14Z3	2,5-5,0	0.098-0.197	27,7 *1.091*	0.37 *0.015*	14,0 *0.551*	2,93 *0.115*	6,6 *0.260*	2,6 *0.102*	60,0 *2.362*	3	■
R335.14-277MNP400600.14Z3	4,0-6,0	0.157-0.236	27,7 *1.091*	0.5 *0.020*	14,0 *0.551*	4,6 *0.181*	6,6 *0.260*	3,0 *0.118*	60,0 *2.362*	3	■

■ **Stock standard.**

335.14 Inserts

Thread profile UN - Metric





- For cutting data see page(s) 224, 226
- Technical information, see page 211, 213

Designation	Pitch		DC	CF	DCSFMS	HC	LF	PDX	PNA	ZEFP	Grades
											Coated
	mm	*TPIX*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		F32M
R335.14-177UNNF10.09Z3	–	*10*	17,7 *0.697*	0,32 *0.013*	9,0 *0.354*	1,375 *0.054*	5,85 *0.230*	1,25 *0.049*	60,0 *2.362*	3	■
R335.14-177UNNF11.09Z3	–	*11*	17,7 *0.697*	0,29 *0.011*	9,0 *0.354*	1,249 *0.049*	5,85 *0.230*	1,05 *0.041*	60,0 *2.362*	3	■
R335.14-177UNNF12.09Z3	–	*12*	17,7 *0.697*	0,27 *0.011*	9,0 *0.354*	1,146 *0.045*	5,85 *0.230*	1,05 *0.041*	60,0 *2.362*	3	■
R335.14-177UNNF14.09Z3	–	*14*	17,7 *0.697*	0,23 *0.009*	9,0 *0.354*	0,982 *0.039*	5,85 *0.230*	0,85 *0.033*	60,0 *2.362*	3	■
R335.14-177UNNF16.09Z3	–	*16*	17,7 *0.697*	0,2 *0.008*	9,0 *0.354*	0,859 *0.034*	5,85 *0.230*	0,85 *0.033*	60,0 *2.362*	3	■
R335.14-177UNNF18.09Z3	–	*18*	17,7 *0.697*	0,18 *0.007*	9,0 *0.354*	0,763 *0.030*	5,85 *0.230*	0,85 *0.033*	60,0 *2.362*	3	■
R335.14-177UNNF20.09Z3	–	*20*	17,7 *0.697*	0,16 *0.006*	9,0 *0.354*	0,687 *0.027*	5,85 *0.230*	0,65 *0.026*	60,0 *2.362*	3	■
R335.14-177UNNF24.09Z3	–	*24*	17,7 *0.697*	0,13 *0.005*	9,0 *0.354*	0,572 *0.023*	5,85 *0.230*	0,65 *0.026*	60,0 *2.362*	3	■
R335.14-177UNNF6.09Z3	–	*6*	17,7 *0.697*	0,53 *0.021*	9,0 *0.354*	2,291 *0.090*	5,85 *0.230*	1,65 *0.065*	60,0 *2.362*	3	■
R335.14-177UNNF8.09Z3	–	*8*	17,7 *0.697*	0,4 *0.016*	9,0 *0.354*	1,718 *0.068*	5,85 *0.230*	1,45 *0.057*	60,0 *2.362*	3	■

■ **Stock standard.**



Threadmaster™ Taps

Designed to be universal in application, the high-speed steel Threadmaster Tap effectively threads holes in a wide range of workpiece types and materials. The tool features an advanced coating technology that enables it to achieve higher cutting data and output in steel up to 350 HB, stainless steels and cast irons when compared to the uncoated solutions typically found in this product area.

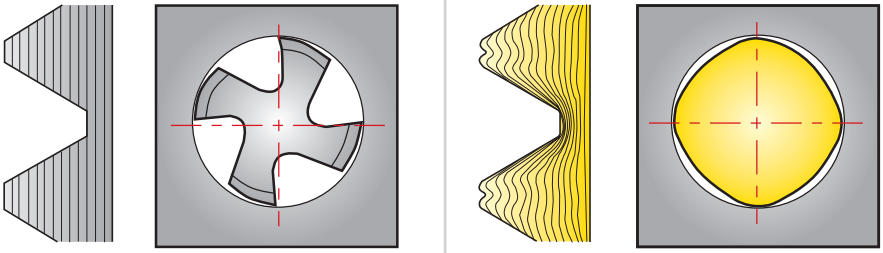
- Features spiral helixes for blind holes and spiral points for through holes.
- Straight flutes accommodate for short chipping materials.
- Advanced coatings for faster tapping.

Introduction to taps

What are you looking for in a thread?

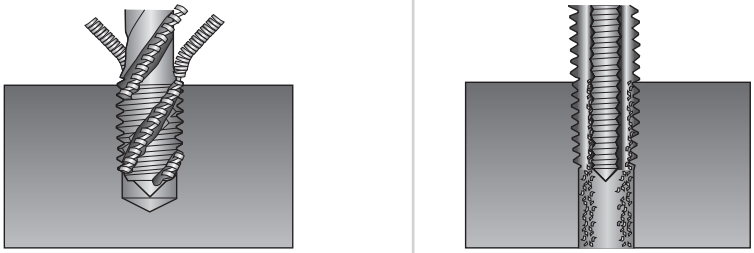
Cutting a thread vs forming a thread

There are two way of making a thread, cutting or forming. Cutting is to be used in most materials, while forming is to be used in steel, stainless steel and aluminium.



Through hole, blind hole

Taps have different designs. Depending on application (through or blind hole).

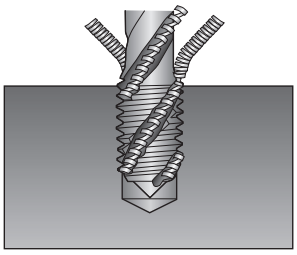


Hole size

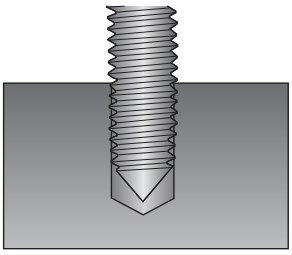
Dimension of the hole differs between cutting and forming the thread.

D = Hole diameter
TD = Major thread diameter
PTH = Thread pitch

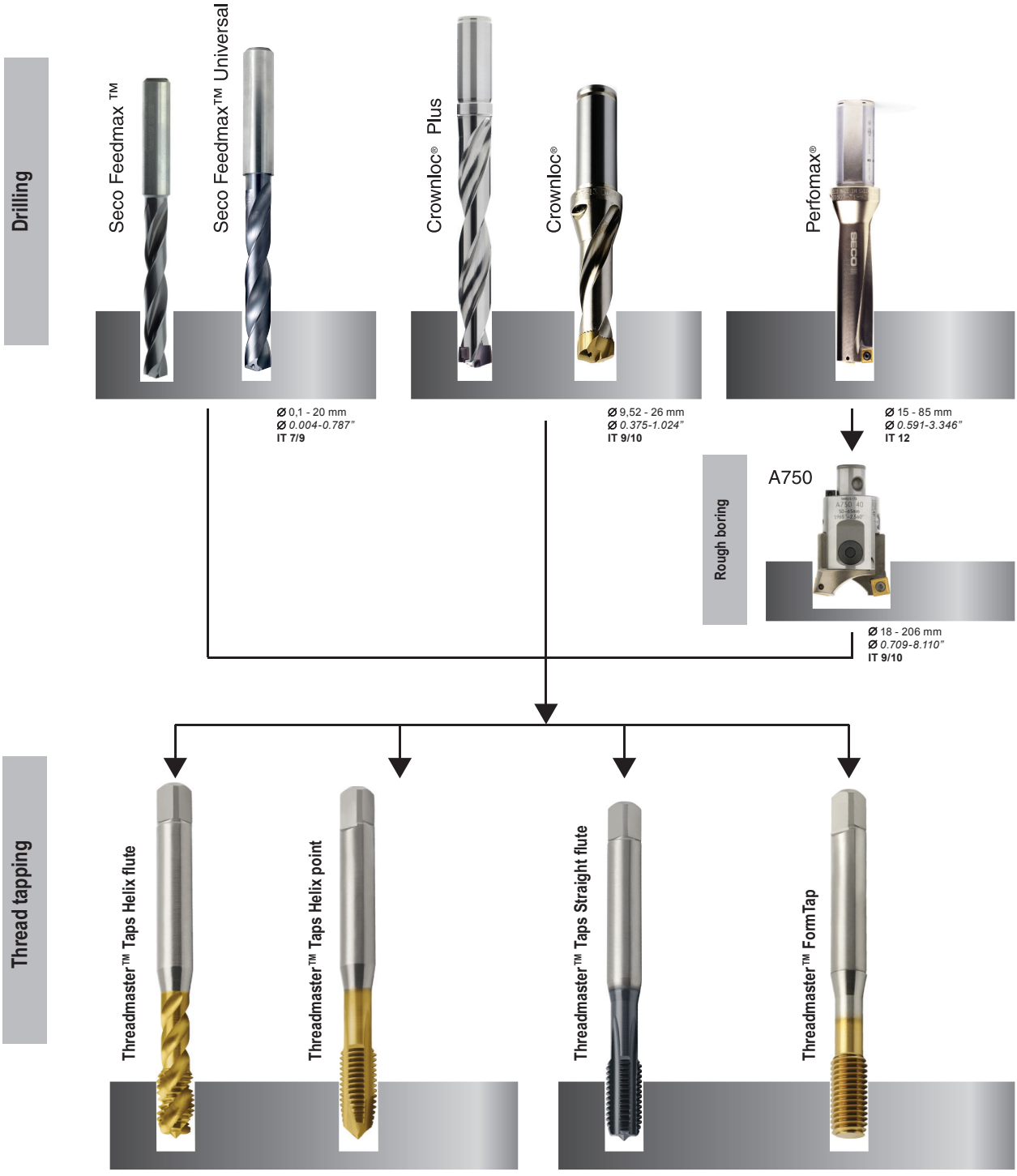
Cutting tap
D = TD-PTH



Forming tap
D = TD-PTH/2
($D = D_{nom}$ - 0.0068 x PTH x 65)



Introduction to taps – Tool guide



Taps – Choice of Tap tolerance

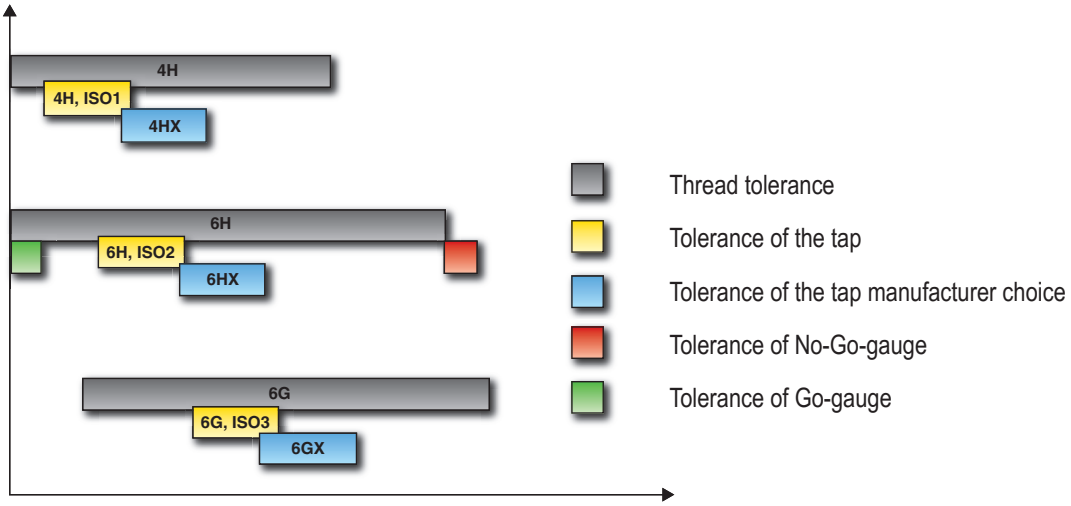
The Threadmaster™ Taps from Seco are available for threads with different tolerences 6H and 6G, as well in 6HX and 6GX.

Normal standard tolerance is H.

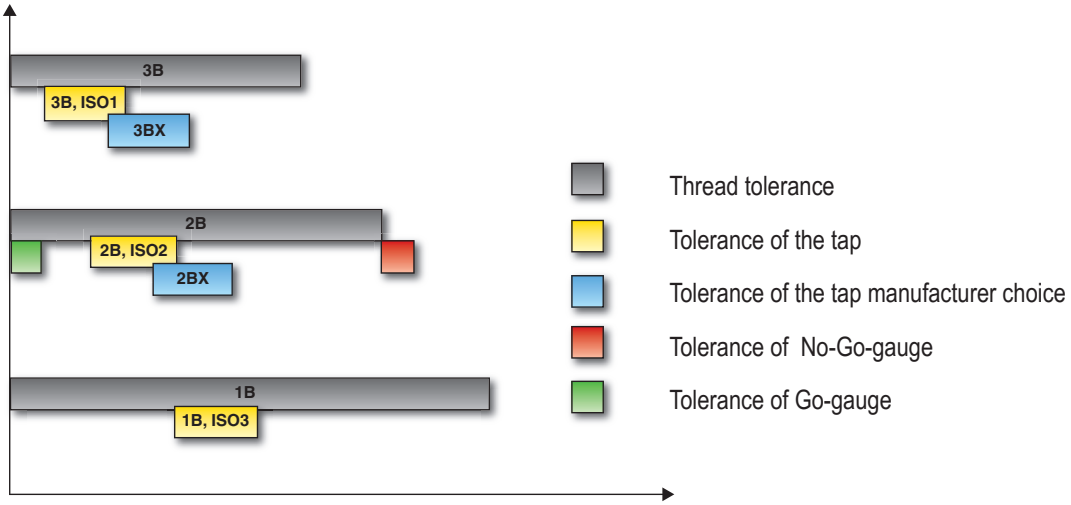
Tolerance GX/HX and BX is to be used when risk of oversize is limited, this also increases tool life of the tap.

Taps for UNC/UNF are designed for tolerance 2B.

Tolerance class for G and NPT/NPTF is normal.



Metric threads



UN threads

Code key – Taps T34, T33 and T32

T34	A	-	R	45	H	01	C	03	-	6	X	1	-	65	R
1	2		3	4	5	6	7	8		9		10		11	12

No. 3, 4



R40/R45
Blind holes
ULDR = 2,5

P
Through holes
ULDR = 3

S
Blind and through holes
ULDR = 1,5

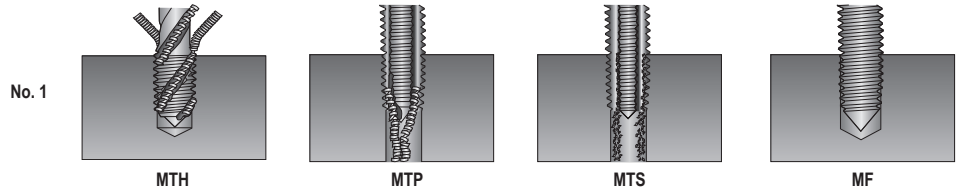
F/FS - forming taps
Blind and through holes
ULDR = 3

ULDR = Usable length diameter ratio

	Description		
1	**Family**	T34 – High performance versatile cutting taps T33 – Forming taps T32 – Versatile cutting taps	
2	**Internal coolant**	[Blank] – Without coolant A – Axial B – Radial	
3	**Design**	P – Helix Point S – Straight Flutes R – Right hand spiral flutes	L – Left hand flute F – Forming tap FS – Forming tap with oil grooves
4	**Flute angle**	40 45	Used for Design R and L
5	**Coating**	C – TiN + TiCN H – TiAlN + WC/C N – TiAlN + TiN	
6	**Thread Type**	01 – M 02 – MF 04 – EGM - taps for Helicoil/STI threads 08 – UNC	09 – UNF 16 – EGUNC - taps for Helicoil/STI threads 17 – EGUNF - taps for Helicoil/STI threads 21 – G
7	**Type of chamfer**	B = Cutting chamfer 3,5-5 threads C = Cutting chamfer 2-3 threads E = Cutting chamfer 1,5-2 threads	
8	**Standard**	03 – DIN371 - with reinforced shank 04 – DIN371/EL - extra-long with reinforced shank 05 – DIN374 - reduced shank (for fine threads)	06 – DIN376 - reduced shank (for coarse threads) 07 – DIN376/EL - extra-long with reduced shank 09 – DIN5156 - reduced shank (for pipe threads)
9	**Thread size**		
10	**Pitch**		
11	**Tolerance**	M threads: 41 – 4H 61 – 6G 62 – 6GX 63 – 6H 64 – 6H mod (for EG M) 65 – 6HX	For UNC and UNF threads 21 – 2B 22 – 2BX For G threads: 11 – Normal 12 – Normal X
12	**Hand**	R - Right L - Left	

Code key – Taps MTH, MTS, MF and MTP

MTS	-	M10	X	1.5ISO	6H	-	B	C	-	V	0	01	-	A
1		2		3	4		5	6		7	8	9		10

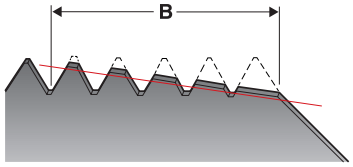


	Description
1	MTH = Threadmaster™ Tap Helix flute MTP = Threadmaster™ Tap Helix point MTS = Threadmaster™ Tap Straight flute tap MF = Threadmaster™ FormTap
2	Thread type and size
3	Pitch and thread form
4	Tolerance (tctr) 4H, 6H, 6HX, 6G, 6GX metric and 2B, 2BX, 3B, 3BX, Normal, NormalX inch
5	Operation B = Blind hole T = Through hole X = Blind and Through hole
6	Entering Chamfer(THCHT) B = Entering chamfer 3,5 - 5 threads C = Entering chamfer 2 - 3 threads E = Entering chamfer 1,5 - 2 threads
7	V = Versatile P = Steel M = Stainless Steel K = Cast Iron N = Non ferrous metals S = Superalloys and titanium
8	Release No. = 0 (2014)
9	Tool type No. = 01, 02, 03, 04 etc
10	A = Through coolant

Taps – Entering chamfer THCHT

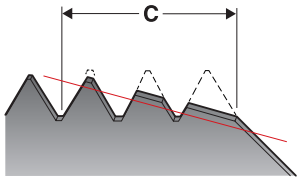
B-type

Length 3.5 – 5 threads
Low load
Best surface finish
Thin chip thickness
Low pressure at the chamfer
Long tool life
Most common for through holes (Helix point)



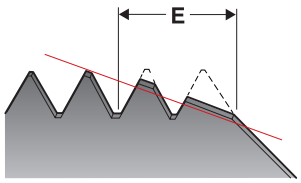
C-type

Length 2 - 3 threads
Medium load
Good surface finish
Normal chip thickness
Normal pressure at the chamfer
Normal tool life
Most common design
Standard for blind holes
Most common for blind holes (Helix flute)

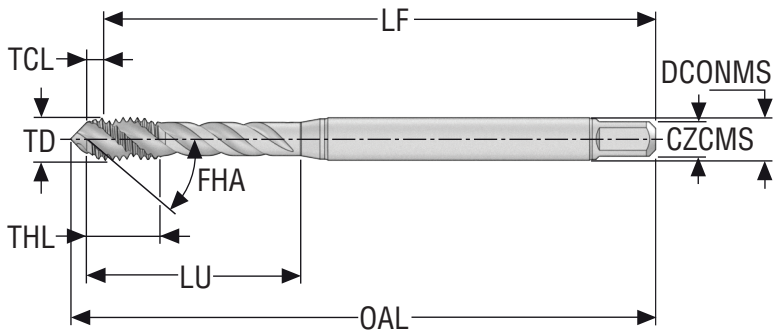


E-type

Length 1.5 – 2 threads
High load
Good surface finish
Thick chip thickness
High pressure at the chamfer
Shorter tool life
When limited space in the bottom of a hole

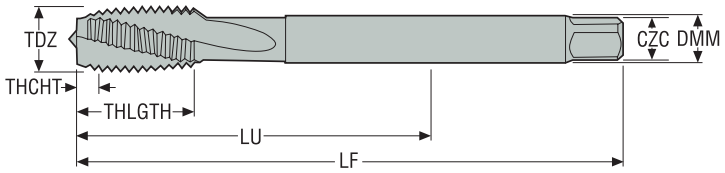


Definitions for T32, T33 and T34



Definitions Seco Threadmaster™	
BSG	= Basic standard group
TD	= Thread diameter
TDZ	= Thread diameter size
THCHT	= Threading chamfer type
TCL	= Thread chamfer length
THL	= Thread length
LU	= Usable length
LF	= Functional length
OAL	= Overall length
FHA	= Flute Helix angle
DCONS	= Connection diameter machine side
CZCMS	= Connection size code machine side
NOF	= Flute count
PHDR	= Recommended premachined hole diameter
PHDX	= Maximum premachined hole diameter
TCTR	= Thread tolerance class
TPI	= Threads per inch
ULDR	= Usable length diameter ratio

Definitions for -P, -M, -K, -N, -S, -V and MF



Definitions Seco Threadmaster™	
BSG	= Basic standard group
CZC	= Connection size code
DMM	= Shank diameter
FHA	= Flute helix angle
LF	= Functional length
LU	= Usable length
NOF	= Number of flutes
PHDR	= Recommended premachined hole diameter
PHDX	= Maximum premachined hole diameter
TCTR	= Thread tolerance class
TD	= Thread diameter
TDZ	= Thread diameter size
THCHT	= Thread chamfer type
THFT	= Thread form type ISO, Withworth, UN...
THLGTH	= Thread length
TPIX	= Threads per inch maximum
TTP	= Thread type internal/external/both
TPX	= Thread pitch maximum
ULDR	= Usable length diameter ratio

Taps - Choice of toolholder

The tool holder choice is made according to the machine spindle, with or without synchronization.

Modern CNC machine with synchronization:

The modern CNC machines can synchronize the spindle feed rate and rotation in order to make a rigid tapping operation. The TCER – tapping chucks with micro-compensation is the most suitable for synchronized tapping.

TCER Tapping chucks with micro-compensation, for synchronized tapping:

TCER for synchronized tapping has a micro-compensation system to avoid the small discrepancies and axial forces during rigid tapping machining. The taps are mounted in specific ER collets with square drive.

Note: These ER collets with square drive can also be mounted in ER collet chucks, but then without micro-compensation.



TCER

Troubleshooting

Oversized thread

Wrong tap for application
- Refer to application charts

Incorrect axial feed
- Ensure feed rate is controlled
- If possible, use tool holder for syncronized tapping

Wrong cutting speed
- Refer to recommendations

Wrong tolerance
- Choose tap with lower tolerance



Undersized thread

Tap worn out
- Replace tap

Tap drill hole too small
- Check drilling recommendations

Material closing after tapping
- Increase drill diameter

Wrong tolerance on tap
- Choose tap with higher tolerance



Chipping

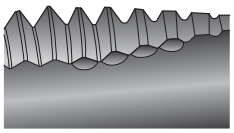
Wrong tap for the application
- Check for tool selection

Incorrect or lack of lubricant
- Use appropriate emulsion or oil

Tap hitting bottom of hole
- Increase drill depth or reduce thread depth

Trapped chip
- Check tool selection

Surface hardening in drilled hole
- Check drilling recommendations



Breakage

Too high torque
- Use tap holder with torque settings

Tap worn out
- Replace tap

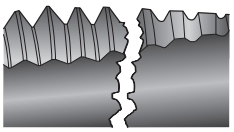
Incorrect or lack of lubricant
- Use appropriate emulsion or oil

Tap hitting bottom of hole
- Increase drill depth or reduce thread depth

Wrong cutting speed
- Refer to recommendations

“Birdnest” around tool
- Check tool selection

Tap drill hole too small
- Check drilling recommendations



Rapid wear

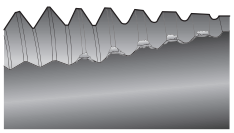
Wrong type of tap for application
- Refer to tap choice

Incorrect or lack of lubricant
- Use appropriate emulsion or oil

Too high cutting speed
- Refer to recommendations

Work (surface) hardening in drilled hole
- Check drilling recommendations
- Drill worn out

Tap drill hole too small
- Check drilling recommendations



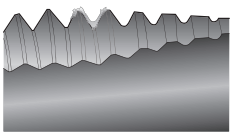
Built-up edge

Incorrect or lack of lubricant
- Use appropriate emulsion or oil

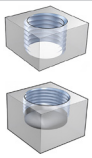
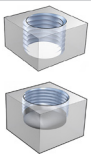
Tap worn out
- Replace tap

Wrong cutting speed
- Refer to recommendations

Wrong type of tap for application
- Refer to tap choice



Taps Selection T32

Type of tap	T32-SNC-micro	T32-SNC	T32-PNB-micro	T32-PNB	T32-PNB	T32-R40NC-micro	T32-R40NC	T32-R40NC
	TDZ < M3		TDZ < M3			TDZ < M3		
								
Type of hole								
Chamfer form	C	C	B	B	B	C	C	C
Coolant	External	External	External	External	External	External	External	External
Substrate:	HSS-PM	HSSE	HSSE	HSSE	HSSE	HSS-PM	HSSE	HSSE
ULDR	1,5	1,5	3	3	3	2,5	2,5	2,5
FHA	–	–	–	–	–	40°	40°	40°
Page(s) **M**	285, 286	287, 288, 289	296, 297	298, 299, 300	301, 302	315, 316	317, 318, 319	320, 321
M 6G				303, 304			322, 323	
M LH		290, 291		305, 306			324, 325	
MF		292, 293, 294		307, 308, 309			326, 327, 328	
UNC				310, 311			329, 330	
UNF				312, 313			331, 332	
G		295		314			333	
EG M								
EG UNC								
EG UNF								

For cutting data, see next page

Cutting data T32

SMG	v_c					
	T32-SNC-micro	T32-SNC	T32-PNB-micro	T32-PNB	T32-R40NC-micro	T32-R40NC
P1	20 *65*	20 *65*	20 *65*	20 *65*	20 *65*	20 *65*
P2	20 *65*	20 *65*	20 *65*	20 *65*	20 *65*	20 *65*
P3	17 *55*	17 *55*	17 *55*	17 *55*	17 *55*	17 *55*
P4	15 *49*	15 *49*	15 *49*	15 *49*	15 *49*	15 *49*
P5	14 *46*	14 *46*	14 *46*	14 *46*	14 *46*	14 *46*
P6	16 *50*	16 *50*	16 *50*	16 *50*	16 *50*	16 *50*
P7	15 *49*	15 *49*	15 *49*	15 *49*	15 *49*	15 *49*
P8	14 *46*	14 *46*	14 *46*	14 *46*	14 *46*	14 *46*
P11	15 *49*	15 *49*	15 *49*	15 *49*	15 *49*	15 *49*
P12	8,7 *29*	8,7 *29*	8,7 *29*	8,7 *29*	8,7 *29*	8,7 *29*
M1	12 *39*	12 *39*	12 *39*	12 *39*	12 *39*	12 *39*
M2	10 *33*	10 *33*	10 *33*	10 *33*	10 *33*	10 *33*
M3	7,6 *25*	7,6 *25*	7,6 *25*	7,6 *25*	7,6 *25*	7,6 *25*
M4	5,7 *19*	5,7 *19*	5,7 *19*	5,7 *19*	5,7 *19*	5,7 *19*
M5	4,8 *16*	4,8 *16*	4,8 *16*	4,8 *16*	4,8 *16*	4,8 *16*
K1	17 *55*	17 *55*	17 *55*	17 *55*	— —	— —
K2	15 *49*	15 *49*	15 *49*	15 *49*	— —	— —
K3	13 *43*	13 *43*	13 *43*	13 *43*	13 *43*	13 *43*
K4	12 *39*	12 *39*	12 *39*	12 *39*	12 *39*	12 *39*
K5	— —	— —	— —	— —	— —	— —
K6	— —	— —	— —	— —	— —	— —
K7	— —	— —	— —	— —	— —	— —
N1	23 *75*	23 *75*	23 *75*	23 *75*	23 *75*	23 *75*
N2	15 *49*	15 *49*	15 *49*	15 *49*	15 *49*	15 *49*
N3	10 *33*	10 *33*	10 *33*	10 *33*	10 *33*	10 *33*
N11	13 *43*	13 *43*	13 *43*	13 *43*	13 *43*	13 *43*
S1	— —	— —	— —	— —	— —	— —
S2	— —	— —	— —	— —	— —	— —
S3	— —	— —	— —	— —	— —	— —
S11	— —	— —	— —	— —	— —	— —
S12	— —	— —	— —	— —	— —	— —
S13	— —	— —	— —	— —	— —	— —

SMG = Seco material group
v_c = m/min (*sf/min*)

Cutting speeds (v_c) in the table are recommendations for a start value.

For more detailed information on cuttingdata, please visit MyPages or Seco Suggest on secotools.com

Taps Selection T34

Type of tap		T34-PHB-micro	T34-PHB	T34B-PHB	T34-R45HC-micro	T34-R45HC	T34A-R45HC	T34-R45HE	T34A-R45HE
		TDZ < M3			TDZ < M3				
									
Type of hole									
Chamfer form		B	B	B	C	C	C	E	E
Coolant		External	External	Internal	External	External	Internal	External	Internal
Substrate:		HSS-PM	HSSE-PM	HSSE-PM	HSS-PM	HSSE-PM	HSSE-PM	HSSE-PM	HSSE-PM
ULDR		3	3	3	2,5	2,5	2,5	2,5	2,5
FHA		–	–	–	45°	45°	45°	45°	45°
Page(s)	M	334, 335	336, 337	338, 339	355, 356	357, 358	361, 362	359, 360	
	M 6G								
	M LH								
	MF		340, 341	342, 343		363, 364	367, 368	365, 366	369
	UNC		344, 345			370, 371			
	UNF		346, 347			372, 373			
	G		348			374			
	EG M		349, 350					375, 376	
	EG UNC		351, 352					377, 378	
	EG UNF		353, 354					379, 380	

For cutting data, see next page

Cutting data T34

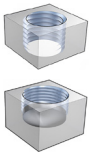
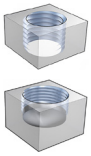
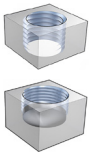
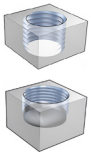
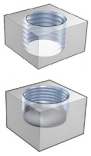
SMG	v_c							
	T34-PHB-micro	T34-PHB	T34B-PHB	T34-R45HC-micro	T34-R45HC	T34A-R45HC	T34-R45HE	T34A-R45HE
P1	28 *90*	28 *90*	43 *140*	28 *90*	28 *90*	43 *140*	28 *90*	43 *140*
P2	28 *90*	28 *90*	41 *135*	28 *90*	28 *90*	41 *135*	28 *90*	41 *135*
P3	24 *80*	24 *80*	36 *120*	24 *80*	24 *80*	36 *120*	24 *80*	36 *120*
P4	21 *70*	21 *70*	31 *100*	21 *70*	21 *70*	31 *100*	21 *70*	31 *100*
P5	20 *65*	20 *65*	30 *100*	20 *65*	20 *65*	30 *100*	20 *65*	30 *100*
P6	22 *70*	22 *70*	34 *110*	22 *70*	22 *70*	34 *110*	22 *70*	34 *110*
P7	21 *70*	21 *70*	32 *105*	21 *70*	21 *70*	32 *105*	21 *70*	32 *105*
P8	20 *65*	20 *65*	30 *100*	20 *65*	20 *65*	30 *100*	20 *65*	30 *100*
P11	21 *70*	21 *70*	31 *100*	21 *70*	21 *70*	31 *100*	21 *70*	31 *100*
P12	12 *39*	12 *39*	18 *60*	12 *39*	12 *39*	18 *60*	12 *39*	18 *60*
M1	15 *49*	15 *49*	21 *70*	15 *49*	15 *49*	21 *70*	15 *49*	21 *70*
M2	12 *39*	12 *39*	17 *55*	12 *39*	12 *39*	17 *55*	12 *39*	17 *55*
M3	9,1 *30*	9,1 *30*	13 *43*	9,1 *30*	9,1 *30*	13 *43*	9,1 *30*	13 *43*
M4	6,9 *23*	6,9 *23*	9,7 *32*	6,9 *23*	6,9 *23*	9,7 *32*	6,9 *23*	9,7 *32*
M5	5,7 *19*	5,7 *19*	8,1 *27*	5,7 *19*	5,7 *19*	8,1 *27*	5,7 *19*	8,1 *27*
K1	24 *80*	24 *80*	36 *120*	24 *80*	24 *80*	36 *120*	24 *80*	36 *120*
K2	21 *70*	21 *70*	31 *100*	21 *70*	21 *70*	31 *100*	21 *70*	31 *100*
K3	18 *60*	18 *60*	26 *85*	18 *60*	18 *60*	26 *85*	18 *60*	26 *85*
K4	17 *55*	17 *55*	25 *80*	17 *55*	17 *55*	25 *80*	17 *55*	25 *80*
K5	— —	10 *33*	15 *49*	— —	10 *33*	15 *49*	10 *33*	15 *49*
K6	15 *49*	15 *49*	22 *70*	15 *49*	15 *49*	22 *70*	15 *49*	22 *70*
K7	13 *43*	13 *43*	19 *60*	13 *43*	13 *43*	19 *60*	13 *43*	19 *60*
N1	26 *85*	26 *85*	39 *130*	26 *85*	26 *85*	39 *130*	26 *85*	39 *130*
N2	17 *55*	17 *55*	25 *80*	17 *55*	17 *55*	25 *80*	17 *55*	25 *80*
N3	11 *36*	11 *36*	17 *55*	11 *36*	11 *36*	17 *55*	11 *36*	17 *55*
N11	15 *49*	15 *49*	22 *70*	15 *49*	15 *49*	22 *70*	15 *49*	22 *70*
S1	— —	4,0 *13*	4,0 *13*	— —	4,0 *13*	4,0 *13*	4,0 *13*	4,0 *13*
S2	— —	— —	— —	— —	— —	— —	— —	— —
S3	— —	— —	— —	— —	— —	— —	— —	— —
S11	— —	4,0 *13*	4,0 *13*	— —	4,0 *13*	4,0 *13*	4,0 *13*	4,0 *13*
S12	— —	— —	— —	— —	— —	— —	— —	— —
S13	— —	— —	— —	— —	— —	— —	— —	— —

SMG = Seco material group
v_c = m/min (*sf/min*)

Cutting speeds (v_c) in the table are recommendations for a start value.

For more detailed information on cuttingdata, please visit MyPages or Seco Suggest on secotools.com

Taps Selection T33

Type of tap		T33-FNC	T33-FSNC	T33-FSCC	T33-FSCE	T33B-FSCE/FSCC	T33A-FSCE
							
Type of hole							
Chamfer form		C	C	C	E	E/C	E
Coolant		External	External	External	External	Internal	Internal
Substrate:		HSSE-PM	HSSE-PM	HSSE-PM	HSSE-PM	HSSE-PM	HSSE-PM
ULDR		3	3	3	3	3	3
Page(s)	M	381, 382	383, 384	394	395	397, 398	396
	M 6G		385, 386				
	M LH						
	MF		387, 388	399, 400		401	
	UNC		389, 390				
	UNF		391, 392				
	G		393				
	EG M						
	EG UNC						
	EG UNF						

For cutting data, see next page

Cutting data T33

SMG	v_c					
	T33-FNC	T33-FSNC	T33-FSCC	T33-FSCE	T33A-FSCE	T33B-FSCE/FSCC
P1	21 *70*	21 *70*	21 *70*	21 *70*	28 *90*	28 *90*
P2	21 *70*	21 *70*	21 *70*	21 *70*	28 *90*	28 *90*
P3	18 *60*	18 *60*	18 *60*	18 *60*	24 *80*	24 *80*
P4	16 *50*	16 *50*	16 *50*	16 *50*	21 *70*	21 *70*
P5	15 *49*	15 *49*	15 *49*	15 *49*	20 *65*	20 *65*
P6	17 *55*	17 *55*	17 *55*	17 *55*	22 *70*	22 *70*
P7	16 *50*	16 *50*	16 *50*	16 *50*	21 *70*	21 *70*
P8	— —	— —	— —	— —	— —	— —
P11	— —	— —	— —	— —	— —	— —
P12	— —	— —	— —	— —	— —	— —
M1	19 *60*	19 *60*	19 *60*	19 *60*	19 *60*	19 *60*
M2	15 *49*	15 *49*	15 *49*	15 *49*	15 *49*	15 *49*
M3	11 *36*	11 *36*	11 *36*	11 *36*	11 *36*	11 *36*
M4	— —	— —	8,6 *28*	8,6 *28*	8,6 *28*	8,6 *28*
M5	— —	— —	— —	— —	— —	— —
K1	— —	— —	— —	— —	— —	— —
K2	— —	— —	— —	— —	— —	— —
K3	— —	— —	— —	— —	— —	— —
K4	— —	— —	— —	— —	— —	— —
K5	— —	— —	— —	— —	— —	— —
K6	— —	— —	— —	— —	— —	— —
K7	— —	— —	— —	— —	— —	— —
N1	31 *100*	31 *100*	47 *155*	47 *155*	47 *155*	47 *155*
N2	20 *65*	20 *65*	30 *100*	30 *100*	30 *100*	30 *100*
N3	— —	— —	20 *65*	20 *65*	20 *65*	20 *65*
N11	— —	— —	27 *90*	27 *90*	27 *90*	27 *90*
S1	— —	— —	— —	— —	— —	— —
S2	— —	— —	— —	— —	— —	— —
S3	— —	— —	— —	— —	— —	— —
S11	— —	— —	— —	— —	— —	— —
S12	— —	— —	— —	— —	— —	— —
S13	— —	— —	— —	— —	— —	— —

SMG = Seco material group
v_c = m/min (*sf/min*)

Cutting speeds (v_c) in the table are recommendations for a start value.

For more detailed information on cuttingdata, please visit MyPages or Seco Suggest on secotools.com

Taps Selection MTH-P001 (-A) – MTH-P011

Tool type	MTH-P001 30-48 HRC	MTH-P001-A 30-48 HRC	MTH-P002 30-48 HRC	MTH-P002-A 30-48 HRC	MTH-P003	MTH-P003-A	MTH-P004	MTH-P004-A	MTH-P011
Thread type	M	M	M	M	M	M	M	M	MF
TCTR	6H	6H	6H	6H	6HX	6HX	6HX	6HX	6HX
ULDR	1.5	1.5	1.5	1.5	3	3	3	3	3
THCHT	C	C	C	C	C	C	C	C	C
BSG	SECO-DIN	SECO-DIN	DIN376	DIN376	DIN371	DIN371	DIN376	DIN376	DIN374
Thread size	M3 - M10	M4 - M10	M12 - M20	M12 - M20	M1.6 - M10	M4 - M10	M5 - M30	M12 - M30	MF 4X0.5 - MF 30X2.0
FHA	15°	15°	15°	15°	48°	48°	48°	48°	48°
									
Coolant	No	Yes	No	Yes	No	Yes	No	Yes	No
Page(s)	424	425	426	427	428	429	430	431	432, 433

For cutting data, see next page

Cutting data MTH-P001 (-A) – P011

SMG	v_c								
	MTH- P001	MTH- P001-A	MTH- P002	MTH- P002-A	MTH- P003	MTH- P003-A	MTH- P004	MTH- P004-A	MTH- P011
P1	— —	— —	— —	— —	55 *180*	55 *180*	55 *180*	55 *180*	55 *180*
P2	— —	— —	— —	— —	55 *180*	55 *180*	55 *180*	55 *180*	55 *180*
P3	— —	— —	— —	— —	45 *150*	45 *150*	45 *150*	45 *150*	45 *150*
P4	— —	— —	— —	— —	40 *130*	40 *130*	40 *130*	40 *130*	40 *130*
P5	— —	— —	— —	— —	38 *125*	38 *125*	38 *125*	38 *125*	38 *125*
P6	— —	— —	— —	— —	43 *140*	43 *140*	43 *140*	43 *140*	43 *140*
P7	— —	— —	— —	— —	40 *130*	40 *130*	40 *130*	40 *130*	40 *130*
P8	— —	— —	— —	— —	38 *125*	38 *125*	38 *125*	38 *125*	38 *125*
P11	— —	— —	— —	— —	39 *130*	39 *130*	39 *130*	39 *130*	39 *130*
P12	— —	— —	— —	— —	23 *75*	23 *75*	23 *75*	23 *75*	23 *75*
M1	— —	— —	— —	— —	— —	— —	— —	— —	— —
M2	— —	— —	— —	— —	— —	— —	— —	— —	— —
M3	— —	— —	— —	— —	— —	— —	— —	— —	— —
M4	— —	— —	— —	— —	— —	— —	— —	— —	— —
M5	— —	— —	— —	— —	— —	— —	— —	— —	— —
K1	— —	— —	— —	— —	— —	— —	— —	— —	— —
K2	— —	— —	— —	— —	— —	— —	— —	— —	— —
K3	— —	— —	— —	— —	— —	— —	— —	— —	— —
K4	— —	— —	— —	— —	— —	— —	— —	— —	— —
K5	— —	— —	— —	— —	— —	— —	— —	— —	— —
K6	— —	— —	— —	— —	— —	— —	— —	— —	— —
K7	— —	— —	— —	— —	— —	— —	— —	— —	— —
N1	— —	— —	— —	— —	— —	— —	— —	— —	— —
N2	— —	— —	— —	— —	— —	— —	— —	— —	— —
N3	— —	— —	— —	— —	— —	— —	— —	— —	— —
N11	— —	— —	— —	— —	— —	— —	— —	— —	— —
H5	17 *55*	17 *55*	17 *55*	17 *55*	— —	— —	— —	— —	— —
H8	17 *55*	17 *55*	17 *55*	17 *55*	— —	— —	— —	— —	— —

SMG = Seco material group, v_c = m/min (*sf/min*)

Cutting speeds (v_c) in the table are recommendations for a start value and calculated when running in 2xD, except for V048, V050 and MTH-S (001, 002, 003, 004, 011, 012, 031, 032, 041, 042 and 044) that are calculated from 1,5xD.

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Taps Selection MTP-P001 – MTP-P011

Tool type	MTP-P001 30-48 HRC	MTP-P002 30-48 HRC	MTP-P003	MTP-P003-A	MTP-P004	MTP-P004-A	MTP-P011
Thread type	M	M	M	M	M	M	MF
TCTR	6H	6H	5HX/6HX	6HX	6HX	6HX	6HX
ULDR	2.5	2.5	3	3	3	3	3
THCHT	B	B	B	B	B	B	B
BSG	SECO-DIN	DIN376	DIN371	DIN371	DIN376	DIN376	DIN374
Thread size	M3 - M10	M12 - M20	M1 - M10	M4 - M10	M4 - M30	M12 - M30	MF 4X0.5 - MF 30X2.0
							
Coolant	No	No	No	Yes	No	Yes	No
Page(s)	402	403	404	405	406	407	408, 409

For cutting data, see next page

Cutting data MTP-P001 – P011

SMG	v_c						
	MTP- P001	MTP- P002	MTP- P003	MTP- P003-A	MTP- P004	MTP- P004-A	MTP- P011
P1	—	—	60	60	60	60	60
	—	—	*195*	*195*	*195*	*195*	*195*
P2	—	—	60	60	60	60	60
	—	—	*195*	*195*	*195*	*195*	*195*
P3	—	—	50	50	50	50	50
	—	—	*165*	*165*	*165*	*165*	*165*
P4	—	—	45	45	45	45	45
	—	—	*150*	*150*	*150*	*150*	*150*
P5	—	—	43	43	43	43	43
	—	—	*140*	*140*	*140*	*140*	*140*
P6	—	—	48	48	48	48	48
	—	—	*155*	*155*	*155*	*155*	*155*
P7	—	—	46	46	46	46	46
	—	—	*150*	*150*	*150*	*150*	*150*
P8	—	—	43	43	43	43	43
	—	—	*140*	*140*	*140*	*140*	*140*
P11	—	—	44	44	44	44	44
	—	—	*145*	*145*	*145*	*145*	*145*
P12	—	—	26	26	26	26	26
	—	—	*85*	*85*	*85*	*85*	*85*
M1	—	—	—	—	—	—	—
	—	—	—	—	—	—	—
M2	—	—	—	—	—	—	—
	—	—	—	—	—	—	—
M3	—	—	—	—	—	—	—
	—	—	—	—	—	—	—
M4	—	—	—	—	—	—	—
	—	—	—	—	—	—	—
M5	—	—	—	—	—	—	—
	—	—	—	—	—	—	—
K1	—	—	—	—	—	—	—
	—	—	—	—	—	—	—
K2	—	—	—	—	—	—	—
	—	—	—	—	—	—	—
K3	—	—	—	—	—	—	—
	—	—	—	—	—	—	—
K4	—	—	—	—	—	—	—
	—	—	—	—	—	—	—
K5	—	—	—	—	—	—	—
	—	—	—	—	—	—	—
K6	—	—	—	—	—	—	—
	—	—	—	—	—	—	—
K7	—	—	—	—	—	—	—
	—	—	—	—	—	—	—
N1	—	—	—	—	—	—	—
	—	—	—	—	—	—	—
N2	—	—	—	—	—	—	—
	—	—	—	—	—	—	—
N3	—	—	—	—	—	—	—
	—	—	—	—	—	—	—
N11	—	—	—	—	—	—	—
	—	—	—	—	—	—	—
H5	17	17	—	—	—	—	—
	55	*55*	—	—	—	—	—
H8	17	17	—	—	—	—	—
	55	*55*	—	—	—	—	—

SMG = Seco material group, v_c = m/min (*sf/min*)

Cutting speeds (v_c) in the table are recommendations for a start value and calculated when running in 2xD, except for V048, V050 and MTH-S (001, 002, 003, 004, 011, 012, 031, 032, 041, 042 and 044) that are calculated from 1,5xD.

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Taps Selection MTH-M003 (-A) – MTP-M004 (-A)

Tool type	MTH-M003	MTH-M003-A	MTH-M004	MTH-M004-A	MTP-M003-A	MTP-M004	MTP-M004-A
Thread type	M	M	M	M	M	M	M
TCTR	6H	6H	6H	6H	6H	6H	6H
ULDR	2.5	2.5	2.5	2.5	2.5	2.5	2.5
THCHT	C	C	C	C	B	B	B
BSG	DIN371	DIN371	DIN376	DIN376	DIN371	DIN376	DIN376
Thread size	M1.6 - M10	M4 - M10	M12 - M20	M12 - M20	M4 - M10	M12 - M20	M12 - M24
FHA	48°	48°	48°	48°	–	–	–
							
Coolant	No	Yes	No	Yes	Yes	No	Yes
Page(s)	434	435	436	437	410	411	412

For cutting data, see next page

Cutting data MTH-M003 (-A) – M004 (-A)

SMG	v_c						
	MTH- M003	MTH- M003-A	MTH- M004	MTH- M004-A	MTP- M003-A	MTP- M004	MTP- M004-A
P1	— —	— —	— —	— —	— —	— —	— —
P2	— —	— —	— —	— —	— —	— —	— —
P3	— —	— —	— —	— —	— —	— —	— —
P4	— —	— —	— —	— —	— —	— —	— —
P5	— —	— —	— —	— —	— —	— —	— —
P6	— —	— —	— —	— —	— —	— —	— —
P7	— —	— —	— —	— —	— —	— —	— —
P8	— —	— —	— —	— —	— —	— —	— —
P11	— —	— —	— —	— —	— —	— —	— —
P12	— —	— —	— —	— —	— —	— —	— —
M1	12 *39*	12 *39*	12 *39*	12 *39*	12 *39*	12 *39*	12 *39*
M2	10 *33*	10 *33*	10 *33*	10 *33*	10 *33*	10 *33*	10 *33*
M3	8 *26*	8 *26*	8 *26*	8 *26*	8 *26*	8 *26*	8 *26*
M4	6 *20*	6 *20*	6 *20*	6 *20*	6 *20*	6 *20*	6 *20*
M5	5 *16*	5 *16*	5 *16*	5 *16*	5 *16*	5 *16*	5 *16*
K1	— —	— —	— —	— —	— —	— —	— —
K2	— —	— —	— —	— —	— —	— —	— —
K3	— —	— —	— —	— —	— —	— —	— —
K4	— —	— —	— —	— —	— —	— —	— —
K5	— —	— —	— —	— —	— —	— —	— —
K6	— —	— —	— —	— —	— —	— —	— —
K7	— —	— —	— —	— —	— —	— —	— —
N1	— —	— —	— —	— —	— —	— —	— —
N2	— —	— —	— —	— —	— —	— —	— —
N3	— —	— —	— —	— —	— —	— —	— —
N11	— —	— —	— —	— —	— —	— —	— —
H5	— —	— —	— —	— —	— —	— —	— —
H8	— —	— —	— —	— —	— —	— —	— —

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Taps Selection MTH-N001 – MTP-N002 (-A)

Tool type	MTH-N001	MTH-N002	MTP-N001	MTP-N001-A	MTP-N002	MTP-N002-A
Thread type	M	M	M	M	M	M
TCTR	6H	6H	6H	6H	6H	6H
ULDR	1.5	1.5	3	3	3	3
THCHT	C	C	B	B	B	B
BSG	DIN371	DIN376	DIN371	DIN371	DIN376	DIN376
Thread size	M3 - M10	M12 - M16	M3 - M10	M4 - M10	M12 - M16	M12 - M16
FHA	15°	15°	–	–	–	–
						
Coolant	No	No	No	Yes	No	Yes
Page(s)	438	439	413	414	415	416

For cutting data, see next page

Cutting data MTH-N001 – N002 (-A)

SMG	v_c					
	MTH- N001	MTH- N002	MTP- N001	MTP- N001-A	MTP- N002	MTP- N002-A
P1	— —	— —	— —	— —	— —	— —
P2	— —	— —	— —	— —	— —	— —
P3	— —	— —	— —	— —	— —	— —
P4	— —	— —	— —	— —	— —	— —
P5	— —	— —	— —	— —	— —	— —
P6	— —	— —	— —	— —	— —	— —
P7	— —	— —	— —	— —	— —	— —
P8	— —	— —	— —	— —	— —	— —
P11	— —	— —	— —	— —	— —	— —
P12	— —	— —	— —	— —	— —	— —
M1	— —	— —	— —	— —	— —	— —
M2	— —	— —	— —	— —	— —	— —
M3	— —	— —	— —	— —	— —	— —
M4	— —	— —	— —	— —	— —	— —
M5	— —	— —	— —	— —	— —	— —
K1	— —	— —	— —	— —	— —	— —
K2	— —	— —	— —	— —	— —	— —
K3	— —	— —	— —	— —	— —	— —
K4	— —	— —	— —	— —	— —	— —
K5	— —	— —	— —	— —	— —	— —
K6	— —	— —	— —	— —	— —	— —
K7	— —	— —	— —	— —	— —	— —
N1	55 *180*	55 *180*	55 *180*	55 *180*	55 *180*	55 *180*
N2	35 *115*	35 *115*	35 *115*	35 *115*	35 *115*	35 *115*
N3	23 *75*	23 *75*	23 *75*	23 *75*	23 *75*	23 *75*
N11	31 *100*	31 *100*	31 *100*	31 *100*	31 *100*	31 *100*
H5	— —	— —	— —	— —	— —	— —
H8	— —	— —	— —	— —	— —	— —

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Taps Selection MTH-S001 – MTH-S032

Tool type	MTH-S001	MTH-S002	MTH-S003	MTH-S004	MTH-S011	MTH-S012	MTH-S031	MTH-S032
Thread type	M	M	M	M	MF	MJ	UNC	UNJC
TCTR	6HX	6HX	6HX	6HX	6HX	4H	2B	3B
ULDR	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
THCHT	C	C	C	C	C	C	C	C
BSG	DIN371	DIN371	DIN371	DIN371	DIN371	DIN371	DIN2184-1	DIN2184-1
Thread size	M3-M10	M12-M16	M3-M10	M12-M16	MF8X1-MF12X1,5	MJ3-MJ6	UNC2-56-UNC3/8-16	UNJC4-40-UNJC3/8-16
FHA	10°	10°	10°	10°	10°	10°	25°	10°
								
Coolant	No	No	No	No	No	No	No	No
Page(s)	440	441	442	443	444	445	446	447

For cutting data, see next page

Cutting data MTH-S001 – S032

SMG	v_c							
	MTH-S001	MTH-S002	MTH-S003	MTH-S004	MTH-S011	MTH-S012	MTH-S031	MTH-S032
P1	— —	— —	— —	— —	— —	— —	— —	— —
P2	— —	— —	— —	— —	— —	— —	— —	— —
P3	— —	— —	— —	— —	— —	— —	— —	— —
P4	— —	— —	— —	— —	— —	— —	— —	— —
P5	— —	— —	— —	— —	— —	— —	— —	— —
P6	3 *10*	3 *10*	7 *23*	7 *23*	3 *10*	3 *10*	3 *10*	3 *10*
P7	3 *10*	3 *10*	7 *23*	7 *23*	3 *10*	3 *10*	3 *10*	3 *10*
P8	— —	— —	— —	— —	— —	— —	— —	— —
P11	3 *10*	3 *10*	6 *20*	6 *20*	3 *10*	3 *10*	3 *10*	3 *10*
P12	2 *7*	2 *7*	4 *13*	4 *13*	2 *7*	2 *7*	2 *7*	2 *7*
M1	— —	— —	— —	— —	— —	— —	— —	— —
M2	— —	— —	— —	— —	— —	— —	— —	— —
M3	— —	— —	— —	— —	— —	— —	— —	— —
M4	— —	— —	— —	— —	— —	— —	2 *7*	— —
M5	— —	— —	— —	— —	— —	— —	2 *7*	— —
K1	— —	— —	— —	— —	— —	— —	— —	— —
K2	— —	— —	— —	— —	— —	— —	— —	— —
K3	— —	— —	— —	— —	— —	— —	— —	— —
K4	— —	— —	— —	— —	— —	— —	— —	— —
K5	— —	— —	— —	— —	— —	— —	— —	— —
K6	— —	— —	— —	— —	— —	— —	— —	— —
K7	— —	— —	— —	— —	— —	— —	— —	— —
N1	— —	— —	— —	— —	— —	— —	— —	— —
N2	— —	— —	— —	— —	— —	— —	— —	— —
N3	16 *50*	16 *50*	25 *80*	25 *80*	16 *50*	16 *50*	— —	16 *50*
N11	— —	— —	— —	— —	— —	— —	— —	— —
S1	2 *7*	2 *7*	4 *13*	4 *13*	2 *7*	2 *7*	2 *7*	2 *7*
S2	2 *7*	2 *7*	3 *10*	3 *10*	2 *7*	2 *7*	2 *7*	2 *7*
S3	2 *7*	2 *7*	3 *10*	3 *10*	2 *7*	2 *7*	2 *7*	2 *7*
S11	— —	— —	— —	— —	— —	— —	— —	— —
S12	— —	— —	— —	— —	— —	— —	— —	— —
S13	— —	— —	— —	— —	— —	— —	— —	— —
H5	— —	— —	— —	— —	— —	— —	— —	— —
H8	— —	— —	— —	— —	— —	— —	— —	— —

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Taps Selection MTH-S041 – MTH-S142

Tool type	MTH-S041	MTH-S042	MTH-S043	MTH-S044	MTH-S101	MTH-S102	MTH-S111	MTH-S112	MTH-S142
Thread type	UNF	UNJF	EGUNF	EGUNF	M	M	MF	MJ	UNJF
TCTR	3B	3B	3B	3B	6HX	6HX	6HX	4H	3B
ULDR	1.5	1.5	2.0	1.5	2.0	2.0	2.0	2.0	2.0
THCHT	C	C	C	C	C	C	C	C	C
BSG	DIN2184-1	DIN2184-1	DIN2184-1	DIN2184-1	DIN371	DIN376	DIN376	DIN371	DIN2184-1
Thread size	UNF6-40-UNF3/8-24	UNJF6-40-UNJF3/8-24	EGUNF6-40-EGUNF3/8-24	EGUNF6-40-EGUNF3/8-24	M2-M10	M12-M20	MF6X0,75-MF14X1,5	MJ3-MJ10	UNJF10-32-UNJF3/8-24
FHA	25°	10°	15°	10°	15°	15°	15°	15°	15°
									
Coolant	No	No	No	No	No	No	No	No	No
Page(s)	448	449	450	451	452	453	454	455	456

For cutting data, see next page

Cutting data MTH-S041 – S142

SMG	v_c								
	MTH-S041	MTH-S042	MTH-S043	MTH-S044	MTH-S101	MTH-S102	MTH-S111	MTH-S112	MTH-S142
P1	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—
P2	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—
P3	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—
P4	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—
P5	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—
P6	3	3	7	3	7	7	7	7	7
	10	*10*	*23*	*10*	*23*	*23*	*23*	*23*	*23*
P7	3	3	7	3	7	7	7	7	7
	10	*10*	*23*	*10*	*23*	*23*	*23*	*23*	*23*
P8	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—
P11	3	3	6	3	6	6	6	6	6
	10	*10*	*20*	*10*	*20*	*20*	*20*	*20*	*20*
P12	2	2	4	2	4	4	4	4	4
	7	*7*	*13*	*7*	*13*	*13*	*13*	*13*	*13*
M1	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—
M2	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—
M3	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—
M4	2	—	6	—	6	6	6	6	6
	7	—	*20*	—	*20*	*20*	*20*	*20*	*20*
M5	2	—	5	—	5	5	5	5	5
	7	—	*16*	—	*16*	*16*	*16*	*16*	*16*
K1	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—
K2	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—
K3	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—
K4	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—
K5	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—
K6	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—
K7	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—
N1	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—
N2	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—
N3	—	16	25	16	25	25	25	25	25
	—	*50*	*80*	*50*	*80*	*80*	*80*	*80*	*80*
N11	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—
S1	2	2	—	2	—	—	—	—	—
	7	*7*	—	*7*	—	—	—	—	—
S2	2	2	—	2	—	—	—	—	—
	7	*7*	—	*7*	—	—	—	—	—
S3	2	2	—	2	—	—	—	—	—
	7	*7*	—	*7*	—	—	—	—	—
S11	—	—	5	—	5	5	5	5	5
	—	—	*16*	—	*16*	*16*	*16*	*16*	*16*
S12	—	—	4	—	4	4	4	4	4
	—	—	*13*	—	*13*	*13*	*13*	*13*	*13*
S13	—	—	3	—	3	3	3	3	3
	—	—	*10*	—	*10*	*10*	*10*	*10*	*10*
H5	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—
H8	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—

SMG = Seco material group, v_c = m/min (*sf/min*)

Cutting speeds (v_c) in the table are recommendations for a start value and calculated when running in 2xD, except for V048, V050 and MTH-S (001, 002, 003, 004, 011, 012, 031, 032, 041, 042 and 044) that are calculated from 1,5xD. When running in 1,5xD increse speed by 20% and at 2,5 x D reduce speed by 20%. At 3 x D reduce by 30%. Due to machine, material and setup condition it is advisable also to optimize cutting data.

Recommended ranges to use for each type of tap: K001-K002: +25% / -25%, V015-V016: +15% / -15%, V001-V045: +15% / -15%, V048-V050: +35% / -35%, V053-V063: +15% / -15%

Taps Selection MTP-S001 – MTP-S043

Tool type	MTP-S001	MTP-S002	MTP-S011	MTP-S012	MTP-S013	MTP-S042	MTP-S043
Thread type	M	M	MF	MJ	EGM	UNFJ	EGUNF
TCTR	6HX	6HX	6HX	4H	4H	3B	3B
ULDR	2.0	2.0	2.0	2.0	2.0	2.0	2.0
THCHT	B	B	B	B	B	B	B
BSG	DIN371	DIN376	DIN371	DIN371	DIN40435	DIN2184-1	DIN2184-1
Thread size	M2-M10	M12-M20	MF6X0,75-MF14X1,5	MJ4-MJ8	EGM4-EGM8	UNJF10-32-UNJF3/8-24	EGUNF10-32-EGUNF3/8-24
FHA	–	–	–	–	–	–	–
							
Coolant	No	No	No	No	No	No	No
Page(s)	417	418	419	420	421	422	423

For cutting data, see next page

Cutting data MTP-S001 – S043

SMG	v_c						
	MTP-S001	MTP-S002	MTP-S011	MTP-S012	MTP-S013	MTP-S042	MTP-S043
P1	— —	— —	— —	— —	— —	— —	— —
P2	— —	— —	— —	— —	— —	— —	— —
P3	— —	— —	— —	— —	— —	— —	— —
P4	— —	— —	— —	— —	— —	— —	— —
P5	— —	— —	— —	— —	— —	— —	— —
P6	— —	— —	— —	— —	— —	— —	— —
P7	— —	— —	— —	— —	— —	— —	— —
P8	— —	— —	— —	— —	— —	— —	— —
P11	— —	— —	— —	— —	— —	— —	— —
P12	— —	— —	— —	— —	— —	— —	— —
M1	— —	— —	— —	— —	— —	— —	— —
M2	— —	— —	— —	— —	— —	— —	— —
M3	— —	— —	— —	— —	— —	— —	— —
M4	6 *20*	6 *20*	6 *20*	6 *20*	2 *7*	6 *20*	2 *7*
M5	5 *16*	5 *16*	5 *16*	5 *16*	2 *7*	5 *16*	2 *7*
K1	— —	— —	— —	— —	— —	— —	— —
K2	— —	— —	— —	— —	— —	— —	— —
K3	— —	— —	— —	— —	— —	— —	— —
K4	— —	— —	— —	— —	— —	— —	— —
K5	— —	— —	— —	— —	— —	— —	— —
K6	— —	— —	— —	— —	— —	— —	— —
K7	— —	— —	— —	— —	— —	— —	— —
N1	— —	— —	— —	— —	— —	— —	— —
N2	— —	— —	— —	— —	— —	— —	— —
N3	25 *80*	25 *80*	25 *80*	25 *80*	16 *50*	25 *80*	16 *50*
N11	— —	— —	— —	— —	— —	— —	— —
S1	4 *13*	4 *13*	4 *13*	4 *13*	4 *13*	4 *13*	4 *13*
S2	3 *10*	3 *10*	3 *10*	3 *10*	3 *10*	3 *10*	3 *10*
S3	3 *10*	3 *10*	3 *10*	3 *10*	3 *10*	3 *10*	3 *10*
S11	5 *16*	5 *16*	5 *16*	5 *16*	4 *13*	5 *16*	4 *13*
S12	4 *13*	4 *13*	4 *13*	4 *13*	3 *10*	4 *13*	3 *10*
S13	3 *10*	3 *10*	3 *10*	3 *10*	2 *7*	3 *10*	2 *7*
H5	— —	— —	— —	— —	— —	— —	— —
H8	— —	— —	— —	— —	— —	— —	— —

SMG = Seco material group, v_c = m/min (*sf/min*)

Cutting speeds (v_c) in the table are recommendations for a start value and calculated when running in 2xD, except for V048, V050 and MTH-S (001, 002, 003, 004, 011, 012, 031, 032, 041, 042 and 044) that are calculated from 1,5xD. When running in 1,5xD increse speed by 20% and at 2,5 x D reduce speed by 20%. At 3 x D reduce by 30%. Due to machine, material and setup condition it is advisable also to optimize cutting data.

Recommended ranges to use for each type of tap: K001-K002: +25% / -25%, V015-V016: +15% / -15%, V001-V045: +15% / -15%, V048-V050: +35% / -35%, V053-V063: +15% / -15%

Taps Selection MTS-K101 (-A) – MTS-K141

Tool type	MTS-K101	MTS-K101-A	MTS-K002	MTS-K002-A	MTS-K102	MTS-K102-A	MTS-K111	MTS-K121	MTS-K131	MTS-K141
Thread type	M	M	M	M	M	M	MF	G	UNC	UNF
TCTR	6HX	6HX	6HX	6HX	6HX	6HX	6HX	NORMAL-X	2BX	2BX
ULDR	2.5	2.5	2	2.5	2.5	2.5	2.5	2.5	2.5	2.5
THCHT	C	C/E	C	C/E	C	C/E	C	C	C	C
BSG	DIN371	DIN371	DIN376	DIN376	DIN376	DIN376	DIN374	DIN5156	DIN2184-1	DIN2184-1
Thread size	M3 - M10	M4 - M10	M27 - M42	M27 - M42	M8 - M24	M12 - M24	MF 10X1 - MF 20X1.5	G1/8-28 - G1-11	UNC 1/4-20 - UNC 7/8-9	UNF 1/4-28 - UNF 7/8-14
FHA	–	–	–	–	–	–	–	–	–	–
										
Coolant	No	Yes	No	Yes	No	Yes	No	No	No	No
Page(s)	461	462	463	464	465	466	467	468	469	470

For cutting data, see next page

Cutting data MTS-K101 – MTS-K141

SMG	v_c							
	MTS- K101	MTS- K101-A	MTS- K102	MTS- K102-A	MTS- K111	MTS- K121	MTS- K131	MTS- K141
P1	— —	— —	— —	— —	— —	— —	— —	— —
P2	— —	— —	— —	— —	— —	— —	— —	— —
P3	— —	— —	— —	— —	— —	— —	— —	— —
P4	— —	— —	— —	— —	— —	— —	— —	— —
P5	— —	— —	— —	— —	— —	— —	— —	— —
P6	— —	— —	— —	— —	— —	— —	— —	— —
P7	— —	— —	— —	— —	— —	— —	— —	— —
P8	— —	— —	— —	— —	— —	— —	— —	— —
P11	— —	— —	— —	— —	— —	— —	— —	— —
P12	— —	— —	— —	— —	— —	— —	— —	— —
M1	— —	— —	— —	— —	— —	— —	— —	— —
M2	— —	— —	— —	— —	— —	— —	— —	— —
M3	— —	— —	— —	— —	— —	— —	— —	— —
M4	— —	— —	— —	— —	— —	— —	— —	— —
M5	— —	— —	— —	— —	— —	— —	— —	— —
K1	85 *280*	85 *280*	85 *280*	85 *280*	85 *280*	85 *280*	85 *280*	85 *280*
K2	75 *245*	75 *245*	75 *245*	75 *245*	75 *245*	75 *245*	75 *245*	75 *245*
K3	65 *215*	65 *215*	65 *215*	65 *215*	65 *215*	65 *215*	65 *215*	65 *215*
K4	60 *195*	60 *195*	60 *195*	60 *195*	60 *195*	60 *195*	60 *195*	60 *195*
K5	36 *120*	36 *120*	36 *120*	36 *120*	36 *120*	36 *120*	36 *120*	36 *120*
K6	55 *180*	55 *180*	55 *180*	55 *180*	55 *180*	55 *180*	55 *180*	55 *180*
K7	46 *150*	46 *150*	46 *150*	46 *150*	46 *150*	46 *150*	46 *150*	46 *150*
N1	— —	— —	— —	— —	— —	— —	— —	— —
N2	— —	— —	— —	— —	— —	— —	— —	— —
N3	— —	— —	— —	— —	— —	— —	— —	— —
N11	— —	— —	— —	— —	— —	— —	— —	— —
H5	— —	— —	— —	— —	— —	— —	— —	— —
H8	— —	— —	— —	— —	— —	— —	— —	— —

SMG = Seco material group, v_c = m/min (*sf/min*)

Cutting speeds (v_c) in the table are recommendations for a start value and calculated when running in 2xD, except for V048, V050 and MTH-S (001, 002, 003, 004, 011, 012, 031, 032, 041, 042 and 044) that are calculated from 1,5xD.

When running in 1,5xD increse speed by 20% and at 2,5 x D reduce speed by 20%. At 3 x D reduce by 30%. Due to machine, material and setup condition it is advisable also to optimize cutting data.

Recommended ranges to use for each type of tap: K001-K002: +25% / -25%, V015-V016: +15% / -15%, V001-V045: +15% / -15%, V048-V050: +35% / -35%, V053-V063: +15% / -15%

Taps Selection MTH-V015 – MTH-V016

Tool type	MTH-V015	MTH-V016
Thread type	M	M
TCTR	6H	6H
ULDR	2	2
THCHT	C	C
BSG	DIN371	DIN376
Thread size	M3 - M10	M12 - M36
FHA	15°	15°
		
Coolant	No	No
Page(s)	457	458

For cutting data, see next page

Cutting data MTH-V015 – MTH-V016

SMG	MTH- V015	MTH- V016
P1	40 *130*	40 *130*
P2	39 *130*	39 *130*
P3	33 *110*	33 *110*
P4	29 *95*	29 *95*
P5	28 *90*	28 *90*
P6	31 *100*	31 *100*
P7	30 *100*	30 *100*
P8	28 *90*	28 *90*
P11	29 *95*	29 *95*
P12	17 *55*	17 *55*
M1	9 *30*	9 *30*
M2	7 *23*	7 *23*
M3	5 *16*	5 *16*
M4	4 *13*	4 *13*
M5	3 *10*	3 *10*
K1	— —	— —
K2	— —	— —
K3	— —	— —
K4	— —	— —
K5	— —	— —
K6	— —	— —
K7	— —	— —
N1	37 *120*	37 *120*
N2	24 *80*	24 *80*
N3	16 *50*	16 *50*
N11	21 *70*	21 *70*
H5	— —	— —
H8	— —	— —

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Recommended ranges to use for each type of tap: K001-K002: +25% / -25%, V015-V016: +15% / -15%, V001-V045: +15% / -15%, V048-V050: +35% / -35%, V053-V063: +15% / -15%

Taps Selection MTH-V048 – MTH-V050

Tool type	MTH-V048	MTH-V050
Thread type	NPT	NPTF
TCTR	NORMAL	NORMAL
ULDR	1.5	1.5
THCHT	C	C
BSG	DIN/ANSI	DIN/ANSI
Thread size	NPT 1/16-27 NPT 1-11.5	NPTF 1/16-27 NPTF 3/4-14
FHA	15°	15°
		
Coolant	No	No
Page(s)	459	460

For cutting data, see next page

Cutting data MTH-V048 – V050

SMG	v_c	
	MTH- V048	MTH- V050
P1	11 *36*	11 *36*
P2	11 *36*	11 *36*
P3	10 *33*	10 *33*
P4	8 *26*	8 *26*
P5	8 *26*	8 *26*
P6	9 *30*	9 *30*
P7	8 *26*	8 *26*
P8	8 *26*	8 *26*
P11	8 *26*	8 *26*
P12	5 *16*	5 *16*
M1	9 *30*	9 *30*
M2	7 *23*	7 *23*
M3	5 *16*	5 *16*
M4	4 *13*	4 *13*
M5	3 *10*	3 *10*
K1	14 *46*	14 *46*
K2	12 *39*	12 *39*
K3	10 *33*	10 *33*
K4	10 *33*	10 *33*
K5	6 *20*	6 *20*
K6	9 *30*	9 *30*
K7	8 *26*	8 *26*
N1	23 *75*	23 *75*
N2	15 *49*	15 *49*
N3	10 *33*	10 *33*
N11	13 *43*	13 *43*
H5	— —	— —
H8	— —	— —

SMG = Seco material group, v_c = m/min (*sf/min*)

Cutting speeds (v_c) in the table are recommendations for a start value and calculated when running in 2xD, except for V048, V050 and MTH-S (001, 002, 003, 004, 011, 012, 031, 032, 041, 042 and 044) that are calculated from 1,5xD.

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Taps Selection MF-V060-A – MF-V063-A

Tool type	MF-V060-A	MF-V063-A
Thread type	M	MF
TCTR	6HX	6HX
ULDR	3	3
THCHT	C	C
BSG	DIN2174	DIN2174
Thread size	M12 - M24	MF12x1.25 - MF16x1.5
FHA	–	–
		
Coolant	Yes	Yes
Page(s)	471	472

For cutting data, see next page

Cutting data MF-V060-A – MF-V063-A

SMG	MF- V060	MF- V063-A
P1	55 *180*	55 *180*
P2	55 *180*	55 *180*
P3	48 *155*	48 *155*
P4	42 *140*	42 *140*
P5	40 *130*	40 *130*
P6	45 *150*	45 *150*
P7	42 *140*	42 *140*
P8	40 *130*	40 *130*
P11	41 *135*	41 *135*
P12	24 *80*	24 *80*
M1	17 *55*	17 *55*
M2	14 *46*	14 *46*
M3	11 *36*	11 *36*
M4	8 *26*	8 *26*
M5	7 *23*	7 *23*
K1	— —	— —
K2	— —	— —
K3	— —	— —
K4	— —	— —
K5	— —	— —
K6	— —	— —
K7	— —	— —
N1	55 *180*	55 *180*
N2	35 *115*	35 *115*
N3	23 *75*	23 *75*
N11	31 *100*	31 *100*
H5	— —	— —
H8	— —	— —

SMG = Seco material group, v_c = m/min (*sf/min*)

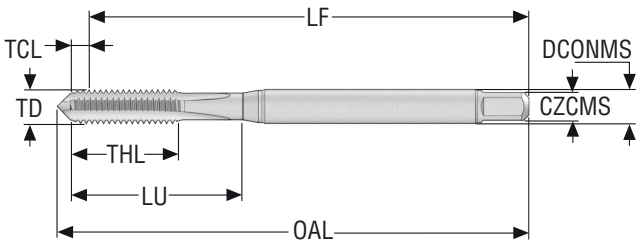
Cutting speeds (v_c) in the table are recommendations for a start value and calculated when running in 2xD, except for V048, V050 and MTH-S (001, 002, 003, 004, 011, 012, 031, 032, 041, 042 and 044) that are calculated from 1,5xD.

When running in 1,5xD increse speed by 20% and at 2,5 x D reduce speed by 20%. At 3 x D reduce by 30%. Due to machine, material and setup condition it is advisable also to optimize cutting data.

Recommended ranges to use for each type of tap: K001-K002: +25% / -25%, V015-V016: +15% / -15%, V001-V045: +15% / -15%, V048-V050: +35% / -35%, V053-V063: +15% / -15%

T32-SNC-micro

Blind and through holes – Metric coarse threads





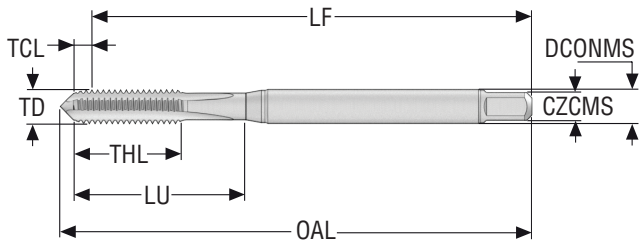
- Substrate: HSS-PM
- Coating: TiAlN + TiN
- Standard: DIN371
- Thread tolerance class: 4H
- For cutting data see page(s) 258, 260

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		mm *Inch*		
T32-SN01C03-1X0.25-41R	10139661	M1	0,25	0,68 *0.027*	6,0 *0.236*	13 *0.512*	39,32 *1.548*	40,9 *1.610*	2,5 *0.098*	2.50X2.10	0,75 *0.030*	2	C
T32-SN01C03-1.1X0.25-41R	10139662	M1.1	0,25	0,68 *0.027*	6,0 *0.236*	13 *0.512*	39,32 *1.548*	41,0 *1.614*	2,5 *0.098*	2.50X2.10	0,85 *0.033*	2	C
T32-SN01C03-1.2X0.25-41R	10139663	M1.2	0,25	0,68 *0.027*	6,0 *0.236*	13 *0.512*	39,32 *1.548*	41,1 *1.618*	2,5 *0.098*	2.50X2.10	0,95 *0.037*	2	C
T32-SN01C03-1.4X0.3-41R	10139664	M1.4	0,3	0,79 *0.031*	7,0 *0.276*	13 *0.512*	39,21 *1.544*	41,3 *1.626*	2,5 *0.098*	2.50X2.10	1,1 *0.043*	2	C

T32-SNC-micro

Blind and through holes – Metric coarse threads



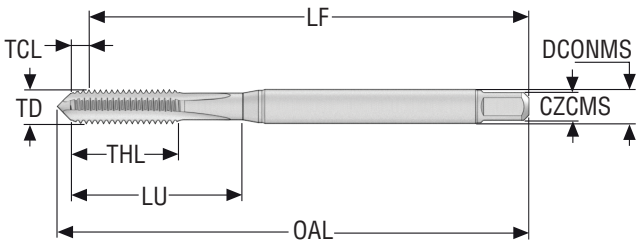


- Substrate: HSS-PM
- Coating: TiAlN + TiN
- Standard: DIN371
- Thread tolerance class: 6H
- For cutting data see page(s) 258, 260

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		mm *Inch*		
T32-SN01C03-1.6X0.35-63R	10139665	M1.6	0,35	0,92 *0.036*	8,0 *0.315*	13 *0.512*	39,08 *1.539*	41,4 *1.630*	2,5 *0.098*	2.50X2.10	1,25 *0.049*	2	C
T32-SN01C03-1.7X0.35-63R	10139666	M1.7	0,35	0,92 *0.036*	8,0 *0.315*	13 *0.512*	39,08 *1.539*	41,5 *1.634*	2,5 *0.098*	2.50X2.10	1,35 *0.053*	2	C
T32-SN01C03-1.8X0.35-63R	10139667	M1.8	0,35	0,92 *0.036*	8,0 *0.315*	13 *0.512*	39,08 *1.539*	41,6 *1.638*	2,5 *0.098*	2.50X2.10	1,45 *0.057*	2	C
T32-SN01C03-2X0.4-63R	10139668	M2	0,4	1,13 *0.044*	10,0 *0.394*	13 *0.512*	43,87 *1.727*	46,3 *1.823*	2,8 *0.110*	2.80X2.10	1,6 *0.063*	2	C
T32-SN01C03-2.2X0.45-63R	10139669	M2.2	0,45	1,24 *0.049*	10,0 *0.394*	13 *0.512*	43,76 *1.723*	46,3 *1.823*	2,8 *0.110*	2.80X2.10	1,75 *0.069*	2	C
T32-SN01C03-2.3X0.4-63R	10139670	M2.3	0,4	1,13 *0.044*	10,0 *0.394*	13 *0.512*	43,87 *1.727*	46,3 *1.823*	2,8 *0.110*	2.80X2.10	1,9 *0.075*	2	C
T32-SN01C03-2.5X0.45-63R	10139672	M2.5	0,45	1,24 *0.049*	9,0 *0.354*	14 *0.551*	48,76 *1.920*	51,7 *2.035*	2,8 *0.110*	2.80X2.10	2,05 *0.081*	2	C
T32-SN01C03-2.6X0.45-63R	10139673	M2.6	0,45	1,24 *0.049*	9,0 *0.354*	14 *0.551*	48,76 *1.920*	51,7 *2.035*	2,8 *0.110*	2.80X2.10	2,15 *0.085*	2	C

T32-SNC

Blind and through holes – Metric coarse threads





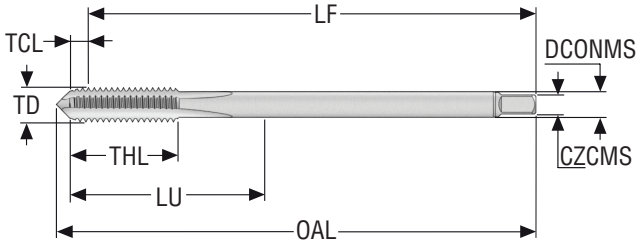
- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN371
- Thread tolerance class: 6H
- For cutting data see page(s) 258, 260

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		mm *Inch*		
T32-SN01C03-3X0.5-63R	10139674	M3	0,5	1,1 *0.043*	10,0 *0.394*	18 *0.709*	54,9 *2.161*	57,2 *2.252*	3,5 *0.138*	3.50X2.70	2,5 *0.098*	3	C
T32-SN01C03-3.5X0.6-63R	10139675	M3.5	0,6	1,28 *0.050*	12,0 *0.472*	20 *0.787*	54,72 *2.154*	57,4 *2.260*	4,0 *0.157*	4.00X3.00	2,9 *0.114*	3	C
T32-SN01C03-4X0.7-63R	10139676	M4	0,7	1,61 *0.063*	12,0 *0.472*	21 *0.827*	61,39 *2.417*	64,6 *2.543*	4,5 *0.177*	4.50X3.40	3,3 *0.130*	3	C
T32-SN01C03-4.5X0.75-63R	10139677	M4.5	0,75	1,61 *0.063*	14,0 *0.551*	25 *0.984*	68,39 *2.693*	71,8 *2.827*	6,0 *0.236*	6.00X4.90	3,8 *0.150*	3	C
T32-SN01C03-5X0.8-63R	10139678	M5	0,8	1,78 *0.070*	14,0 *0.551*	25 *0.984*	68,22 *2.686*	72,0 *2.835*	6,0 *0.236*	6.00X4.90	4,2 *0.165*	3	C
T32-SN01C03-6X1-63R	10139679	M6	1,0	2,14 *0.084*	18,0 *0.709*	30 *1.181*	77,86 *3.065*	82,4 *3.244*	6,0 *0.236*	6.00X4.90	5,0 *0.197*	3	C
T32-SN01C03-7X1-63R	10139680	M7	1,0	2,14 *0.084*	18,0 *0.709*	30 *1.181*	77,86 *3.065*	82,9 *3.264*	7,0 *0.276*	7.00X5.50	6,0 *0.236*	3	C
T32-SN01C03-8X1.25-63R	10139681	M8	1,25	2,94 *0.116*	20,0 *0.787*	35 *1.378*	87,06 *3.428*	93,3 *3.673*	8,0 *0.315*	8.00X6.20	6,8 *0.268*	3	C
T32-SN01C03-9X1.25-63R	10139682	M9	1,25	2,94 *0.116*	20,0 *0.787*	35 *1.378*	87,06 *3.428*	91,7 *3.610*	9,0 *0.354*	9.00X7.00	7,8 *0.307*	3	C
T32-SN01C03-10X1.5-63R	10139683	M10	1,5	3,55 *0.140*	20,0 *0.787*	39 *1.535*	96,45 *3.797*	101,8 *4.008*	10,0 *0.394*	10.00X8.00	8,5 *0.335*	3	C

T32-SNC

Blind and through holes – Metric coarse threads



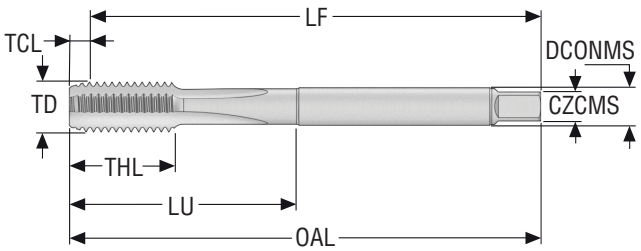


- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN376
- Thread tolerance class: 6H
- For cutting data see page(s) 258, 260

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		mm *Inch*		
T32-SN01C06-3X0.5-63R	10139694	M3	0,5	1,1 *0.043*	11,0 *0.433*	36 *1.417*	54,9 *2.161*	57,2 *2.252*	2,2 *0.087*	2.20X1.80	2,5 *0.098*	3	C
T32-SN01C06-4X0.7-63R	10139696	M4	0,7	1,61 *0.063*	12,0 *0.472*	43 *1.693*	61,39 *2.417*	64,6 *2.543*	2,8 *0.110*	2.80X2.10	3,3 *0.130*	3	C
T32-SN01C06-5X0.8-63R	10139697	M5	0,8	1,78 *0.070*	14,0 *0.551*	49 *1.929*	68,22 *2.686*	72,0 *2.835*	3,5 *0.138*	3.50X2.70	4,2 *0.165*	3	C
T32-SN01C06-6X1-63R	10139698	M6	1,0	2,14 *0.084*	18,0 *0.709*	59 *2.323*	77,86 *3.065*	82,4 *3.244*	4,5 *0.177*	4.50X3.40	5,0 *0.197*	3	C

T32-SNC

Blind and through holes – Metric coarse threads





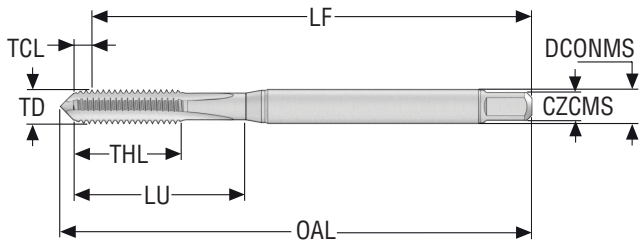
- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN376
- Thread tolerance class: 6H
- For cutting data see page(s) 258, 260

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		mm *Inch*		
T32-SN01C06-8X1.25-63R	10139700	M8	1,25	2,94 *0.116*	20,0 *0.787*	67 *2.638*	87,06 *3.428*	90,0 *3.543*	6,0 *0.236*	6.00X4.90	6,8 *0.268*	3	C
T32-SN01C06-10X1.5-63R	10139702	M10	1,5	3,55 *0.140*	20,0 *0.787*	77 *3.031*	96,45 *3.797*	100,0 *3.937*	7,0 *0.276*	7.00X5.50	8,5 *0.335*	3	C
T32-SN01C06-12X1.75-63R	10139703	M12	1,75	4,17 *0.164*	24,0 *0.945*	83 *3.268*	105,83 *4.167*	110,0 *4.331*	9,0 *0.354*	9.00X7.00	10,2 *0.402*	3	C
T32-SN01C06-14X2-63R	10139704	M14	2,0	4,78 *0.188*	25,0 *0.984*	81 *3.189*	105,22 *4.143*	110,0 *4.331*	11,0 *0.433*	11.00X9.00	12,0 *0.472*	4	C
T32-SN01C06-16X2-63R	10139705	M16	2,0	4,88 *0.192*	32,0 *1.260*	68 *2.677*	105,12 *4.139*	110,0 *4.331*	12,0 *0.472*	12.00X9.00	14,0 *0.551*	4	C
T32-SN01C06-18X2.5-63R	10139706	M18	2,5	5,97 *0.235*	32,0 *1.260*	81 *3.189*	119,03 *4.686*	125,0 *4.921*	14,0 *0.551*	14.00X11.00	15,5 *0.610*	4	C
T32-SN01C06-20X2.5-63R	10139707	M20	2,5	6,17 *0.243*	32,0 *1.260*	95 *3.740*	133,83 *5.269*	140,0 *5.512*	16,0 *0.630*	16.00X12.00	17,5 *0.689*	4	C
T32-SN01C06-22X2.5-63R	10139708	M22	2,5	6,17 *0.243*	32,0 *1.260*	93 *3.661*	133,83 *5.269*	140,0 *5.512*	18,0 *0.709*	18.00X14.50	19,5 *0.768*	4	C
T32-SN01C06-24X3-63R	10139709	M24	3,0	7,4 *0.291*	38,0 *1.496*	113 *4.449*	152,6 *6.008*	160,0 *6.299*	18,0 *0.709*	18.00X14.50	21,0 *0.827*	4	C
T32-SN01C06-27X3-63R	10139710	M27	3,0	7,4 *0.291*	38,0 *1.496*	97 *3.819*	152,6 *6.008*	160,0 *6.299*	20,0 *0.787*	20.00X16.00	24,0 *0.945*	4	C
T32-SN01C06-30X3.5-63R	10139711	M30	3,5	8,4 *0.331*	45,0 *1.772*	115 *4.528*	171,6 *6.756*	180,0 *7.087*	22,0 *0.866*	22.00X18.00	26,5 *1.043*	4	C
T32-SN01C06-33X3.5-63R	10139712	M33	3,5	8,4 *0.331*	45,0 *1.772*	113 *4.449*	171,6 *6.756*	180,0 *7.087*	25,0 *0.984*	25.00X20.00	29,5 *1.161*	4	C
T32-SN01C06-36X4-63R	10139713	M36	4,0	9,4 *0.370*	50,0 *1.969*	131 *5.157*	190,6 *7.504*	200,0 *7.874*	28,0 *1.102*	28.00X22.00	32,0 *1.260*	4	C
T32-SN01C06-39X4-63R	10139714	M39	4,0	9,4 *0.370*	50,0 *1.969*	102 *4.016*	190,6 *7.504*	200,0 *7.874*	32,0 *1.260*	32.00X24.00	35,0 *1.378*	4	C
T32-SN01C06-42X4.5-63R	10139715	M42	4,5	10,4 *0.409*	60,0 *2.362*	102 *4.016*	189,6 *7.465*	200,0 *7.874*	32,0 *1.260*	32.00X24.00	37,5 *1.476*	5	C
T32-SN01C06-45X4.5-63R	10139716	M45	4,5	10,42 *0.410*	60,0 *2.362*	117 *4.606*	209,58 *8.251*	220,0 *8.661*	36,0 *1.417*	36.00X29.00	40,5 *1.594*	5	C
T32-SN01C06-48X5-63R	10139717	M48	5,0	11,4 *0.449*	65,0 *2.559*	147 *5.787*	238,6 *9.394*	250,0 *9.843*	36,0 *1.417*	36.00X29.00	43,0 *1.693*	5	C
T32-SN01C06-52X5-63R	10139718	M52	5,0	11,4 *0.449*	65,0 *2.559*	120 *4.724*	238,6 *9.394*	250,0 *9.843*	40,0 *1.575*	40.00X32.00	47,0 *1.850*	5	C

T32-SNC

Blind and through holes – Metric coarse threads, left hand thread



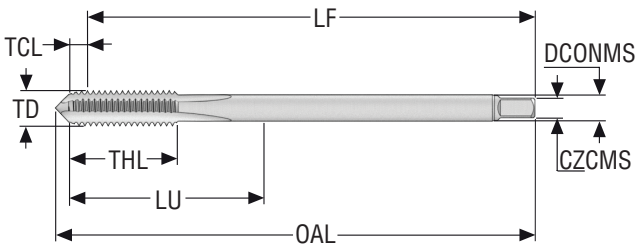


- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN371
- Thread tolerance class: 6H
- For cutting data see page(s) 258, 260

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		mm *Inch*		
T32-SN01C03-3X0.5-63L	10139686	M3	0,5	1,1 *0.043*	10,0 *0.394*	18 *0.709*	54,9 *2.161*	57,2 *2.252*	3,5 *0.138*	3.50X2.70	2,5 *0.098*	3	C
T32-SN01C03-4X0.7-63L	10139687	M4	0,7	1,61 *0.063*	12,0 *0.472*	21 *0.827*	61,39 *2.417*	64,6 *2.543*	4,5 *0.177*	4.50X3.40	3,3 *0.130*	3	C
T32-SN01C03-5X0.8-63L	10139688	M5	0,8	1,78 *0.070*	14,0 *0.551*	25 *0.984*	68,22 *2.686*	72,0 *2.835*	6,0 *0.236*	6.00X4.90	4,2 *0.165*	3	C
T32-SN01C03-6X1-63L	10139689	M6	1,0	2,14 *0.084*	18,0 *0.709*	30 *1.181*	77,86 *3.065*	82,4 *3.244*	6,0 *0.236*	6.00X4.90	5,0 *0.197*	3	C
T32-SN01C03-7X1-63L	10139690	M7	1,0	2,14 *0.084*	18,0 *0.709*	30 *1.181*	77,86 *3.065*	82,9 *3.264*	7,0 *0.276*	7.00X5.50	6,0 *0.236*	3	C
T32-SN01C03-8X1.25-63L	10139691	M8	1,25	2,94 *0.116*	20,0 *0.787*	35 *1.378*	87,06 *3.428*	93,3 *3.673*	8,0 *0.315*	8.00X6.20	6,8 *0.268*	3	C
T32-SN01C03-9X1.25-63L	10139692	M9	1,25	2,94 *0.116*	20,0 *0.787*	35 *1.378*	87,06 *3.428*	91,7 *3.610*	9,0 *0.354*	9.00X7.00	7,8 *0.307*	3	C
T32-SN01C03-10X1.5-63L	10139693	M10	1,5	3,55 *0.140*	20,0 *0.787*	39 *1.535*	96,45 *3.797*	101,8 *4.008*	10,0 *0.394*	10.00X8.00	8,5 *0.335*	3	C

T32-SNC

Blind and through holes – Metric coarse threads, left hand thread





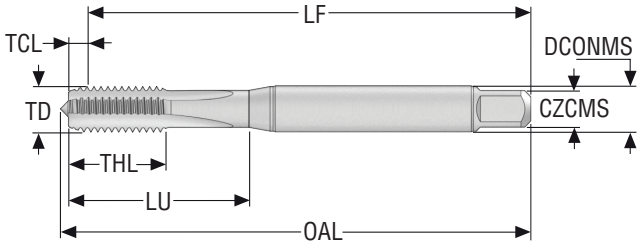
- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN376
- Thread tolerance class: 6H
- For cutting data see page(s) 258, 260

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		mm *Inch*		
T32-SN01C06-12X1.75-63L	10139751	M12	1,75	4,17 *0.164*	24,0 *0.945*	83 *3.268*	105,83 *4.167*	110,0 *4.331*	9,0 *0.354*	9.00X7.00	10,2 *0.402*	3	C
T32-SN01C06-16X2-63L	10139752	M16	2,0	4,88 *0.192*	32,0 *1.260*	68 *2.677*	105,12 *4.139*	110,0 *4.331*	12,0 *0.472*	12.00X9.00	14,0 *0.551*	4	C
T32-SN01C06-20X2.5-63L	10139753	M20	2,5	6,17 *0.243*	32,0 *1.260*	95 *3.740*	133,83 *5.269*	140,0 *5.512*	16,0 *0.630*	16.00X12.00	17,5 *0.689*	4	C
T32-SN01C06-24X3-63L	10139754	M24	3,0	7,4 *0.291*	38,0 *1.496*	113 *4.449*	152,6 *6.008*	160,0 *6.299*	18,0 *0.709*	18.00X14.50	21,0 *0.827*	4	C

T32-SNC

Blind and through holes – MF threads



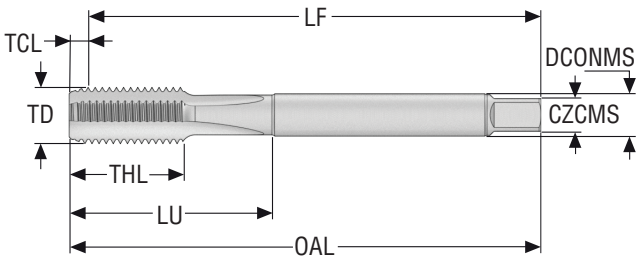


- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN371
- Thread tolerance class: 6H
- For cutting data see page(s) 258, 260

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		mm *Inch*		
T32-SN02C03-8X1-63R	10139684	MF8X1.0	1,0	2,44 *0.096*	20,0 *0.787*	35 *1.378*	87,56 *3.447*	93,3 *3.673*	8,0 *0.315*	8.00X6.20	7,0 *0.276*	3	C
T32-SN02C03-10X1-63R	10139685	MF10X1.0	1,0	2,54 *0.100*	20,0 *0.787*	35 *1.378*	87,46 *3.443*	91,8 *3.614*	10,0 *0.394*	10.00X8.00	9,0 *0.354*	3	C

T32-SNC

Blind and through holes – MF threads





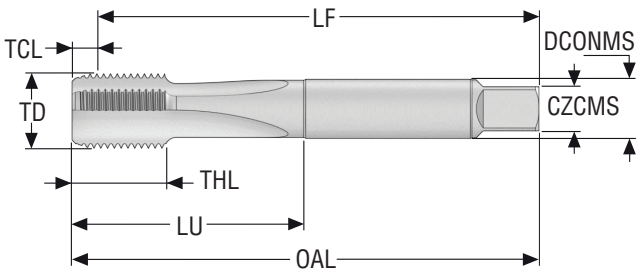
- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN374
- Thread tolerance class: 6H
- For cutting data see page(s) 258, 260

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		mm *Inch*		
T32-SN02C05-8X1-63R	10139719	MF8X1.0	1,0	2,44 *0.096*	20,0 *0.787*	67 *2.638*	87,56 *3.447*	90,0 *3.543*	6,0 *0.236*	6.00X4.90	7,0 *0.276*	3	C
T32-SN02C05-10X0.75-63R	10139720	MF10X0.75	0,75	3,43 *0.135*	18,0 *0.709*	67 *2.638*	86,57 *3.408*	90,0 *3.543*	7,0 *0.276*	7.00X5.50	9,2 *0.362*	3	C
T32-SN02C05-10X1-63R	10139721	MF10X1.0	1,0	2,54 *0.100*	20,0 *0.787*	67 *2.638*	87,46 *3.443*	90,0 *3.543*	7,0 *0.276*	7.00X5.50	9,0 *0.354*	3	C
T32-SN02C05-10X1.25-63R	10139722	MF10X1.25	1,25	3,04 *0.120*	20,0 *0.787*	77 *3.031*	96,96 *3.817*	100,0 *3.937*	7,0 *0.276*	7.00X5.50	8,8 *0.346*	3	C
T32-SN02C05-12X1-63R	10139723	MF12X1.0	1,0	2,65 *0.104*	20,0 *0.787*	73 *2.874*	97,35 *3.833*	100,0 *3.937*	9,0 *0.354*	9.00X7.00	11,0 *0.433*	3	C
T32-SN02C05-12X1.25-63R	10139724	MF12X1.25	1,25	3,16 *0.124*	20,0 *0.787*	73 *2.874*	96,84 *3.813*	100,0 *3.937*	9,0 *0.354*	9.00X7.00	10,8 *0.425*	3	C
T32-SN02C05-12X1.5-63R	10139725	MF12X1.5	1,5	3,66 *0.144*	20,0 *0.787*	73 *2.874*	96,34 *3.793*	100,0 *3.937*	9,0 *0.354*	9.00X7.00	10,5 *0.413*	3	C
T32-SN02C05-14X1-63R	10139726	MF14X1.0	1,0	2,75 *0.108*	20,0 *0.787*	71 *2.795*	97,25 *3.829*	100,0 *3.937*	11,0 *0.433*	11.00X9.00	13,0 *0.512*	4	C
T32-SN02C05-14X1.25-63R	10139727	MF14X1.25	1,25	3,26 *0.128*	20,0 *0.787*	71 *2.795*	96,74 *3.809*	100,0 *3.937*	11,0 *0.433*	11.00X9.00	12,8 *0.504*	4	C
T32-SN02C05-14X1.5-63R	10139728	MF14X1.5	1,5	3,76 *0.148*	20,0 *0.787*	71 *2.795*	96,24 *3.789*	100,0 *3.937*	11,0 *0.433*	11.00X9.00	12,5 *0.492*	4	C
T32-SN02C05-16X1-63R	10139729	MF16X1.0	1,0	2,85 *0.112*	20,0 *0.787*	58 *2.283*	97,15 *3.825*	100,0 *3.937*	12,0 *0.472*	12.00X9.00	15,0 *0.591*	4	C
T32-SN02C05-16X1.5-63R	10139730	MF16X1.5	1,5	3,86 *0.152*	20,0 *0.787*	58 *2.283*	96,14 *3.785*	100,0 *3.937*	12,0 *0.472*	12.00X9.00	14,5 *0.571*	4	C
T32-SN02C05-18X1.5-63R	10139731	MF18X1.5	1,5	3,96 *0.156*	24,0 *0.945*	66 *2.598*	106,04 *4.175*	110,0 *4.331*	14,0 *0.551*	14.00X11.00	16,5 *0.650*	4	C
T32-SN02C05-18X2-63R	10139732	MF18X2.0	2,0	4,98 *0.196*	27,0 *1.063*	81 *3.189*	120,02 *4.725*	125,0 *4.921*	14,0 *0.551*	14.00X11.00	16,0 *0.630*	4	C
T32-SN02C05-20X1.5-63R	10139733	MF20X1.5	1,5	4,16 *0.164*	24,0 *0.945*	80 *3.150*	120,84 *4.757*	125,0 *4.921*	16,0 *0.630*	16.00X12.00	18,5 *0.728*	4	C
T32-SN02C05-20X2-63R	10139734	MF20X2.0	2,0	5,18 *0.204*	27,0 *1.063*	95 *3.740*	134,82 *5.308*	140,0 *5.512*	16,0 *0.630*	16.00X12.00	18,0 *0.709*	4	C
T32-SN02C05-22X1.5-63R	10139735	MF22X1.5	1,5	4,16 *0.164*	24,0 *0.945*	78 *3.071*	120,84 *4.757*	125,0 *4.921*	18,0 *0.709*	18.00X14.50	20,5 *0.807*	4	C
T32-SN02C05-22X2-63R	10139736	MF22X2.0	2,0	5,18 *0.204*	27,0 *1.063*	93 *3.661*	134,82 *5.308*	140,0 *5.512*	18,0 *0.709*	18.00X14.50	20,0 *0.787*	4	C
T32-SN02C05-24X1.5-63R	10139737	MF24X1.5	1,5	3,88 *0.153*	27,0 *1.063*	93 *3.661*	136,12 *5.359*	140,0 *5.512*	18,0 *0.709*	18.00X14.50	22,5 *0.886*	4	C
T32-SN02C05-24X2-63R	10139738	MF24X2.0	2,0	4,89 *0.193*	27,0 *1.063*	93 *3.661*	135,11 *5.319*	140,0 *5.512*	18,0 *0.709*	18.00X14.50	22,0 *0.866*	4	C

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		mm *Inch*		
T32-SN02C05-27X1.5-63R	10139739	MF27X1.5	1,5	4,38 *0.172*	27,0 *1.063*	77 *3.031*	135,62 *5.339*	140,0 *5.512*	20,0 *0.787*	20.00X16.00	25,5 *1.004*	4	C
T32-SN02C05-27X2-63R	10139740	MF27X2.0	2,0	5,39 *0.212*	27,0 *1.063*	77 *3.031*	134,61 *5.300*	140,0 *5.512*	20,0 *0.787*	20.00X16.00	25,0 *0.984*	4	C
T32-SN02C05-30X1.5-63R	10139741	MF30X1.5	1,5	4,38 *0.172*	27,0 *1.063*	85 *3.346*	145,62 *5.733*	150,0 *5.906*	22,0 *0.866*	22.00X18.00	28,5 *1.122*	4	C
T32-SN02C05-30X2-63R	10139742	MF30X1.0	2,0	5,39 *0.212*	27,0 *1.063*	85 *3.346*	144,61 *5.693*	150,0 *5.906*	22,0 *0.866*	22.00X18.00	28,0 *1.102*	4	C

T32-SNC

Blind and through holes – G threads





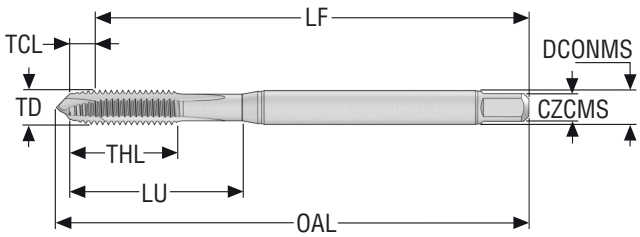
- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN5156
- Thread tolerance class: NORMAL
- For cutting data see page(s) 258, 260

Designation	Item number	TDZ	TD	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm *Inch*	*TPI*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		mm *Inch*		
T32-SN21C09-1/8-28-11R	10139743	G1/8-28	9,728 *0.383*	*28.0*	2,43 *0.096*	18,0 *0.709*	67 *2.638*	87,57 *3.448*	90,0 *3.543*	7,0 *0.276*	7.00X5.50	8,8 *0.346*	3	C
T32-SN21C09-1/4-19-11R	10139744	G1/4-19	13,157 *0.518*	*19.0*	3,52 *0.139*	22,0 *0.866*	71 *2.795*	96,48 *3.798*	100,0 *3.937*	11,0 *0.433*	11.00X9.00	11,8 *0.465*	4	C
T32-SN21C09-3/8-19-11R	10139745	G3/8-19	16,662 *0.656*	*19.0*	3,72 *0.146*	22,0 *0.866*	58 *2.283*	96,28 *3.791*	100,0 *3.937*	12,0 *0.472*	12.00X9.00	15,25 *0.600*	4	C
T32-SN21C09-1/2-14-11R	10139746	G1/2-14	20,955 *0.825*	*14.0*	5,02 *0.198*	25,0 *0.984*	80 *3.150*	119,98 *4.724*	125,0 *4.921*	16,0 *0.630*	16.00X12.00	19,0 *0.748*	4	C
T32-SN21C09-5/8-14-11R	10139747	G5/8-14	22,911 *0.902*	*14.0*	4,94 *0.194*	25,0 *0.984*	78 *3.071*	120,06 *4.727*	125,0 *4.921*	18,0 *0.709*	18.00X14.50	21,0 *0.827*	4	C
T32-SN21C09-3/4-14-11R	10139748	G3/4-14	26,441 *1.041*	*14.0*	5,19 *0.204*	28,0 *1.102*	77 *3.031*	134,81 *5.307*	140,0 *5.512*	20,0 *0.787*	20.00X16.00	24,5 *0.965*	4	C
T32-SN21C09-7/8-14-11R	10139749	G7/8-14	30,201 *1.189*	*14.0*	5,13 *0.202*	30,0 *1.181*	85 *3.346*	144,87 *5.704*	150,0 *5.906*	22,0 *0.866*	22.00X18.00	28,25 *1.112*	4	C
T32-SN21C09-1-11-11R	10139750	G1-11	33,249 *1.309*	*11.0*	6,03 *0.237*	32,0 *1.260*	93 *3.661*	153,97 *6.062*	160,0 *6.299*	25,0 *0.984*	25.00X20.00	30,75 *1.211*	4	C

T32-PNB-micro

Through holes – Metric coarse threads



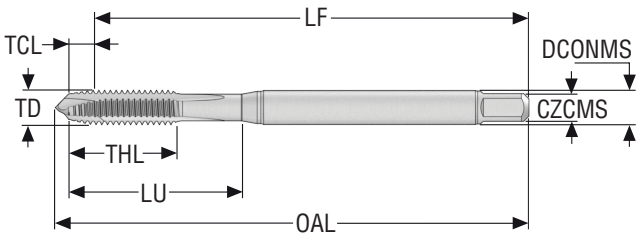


- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN371
- Thread tolerance class: 4H
- For cutting data see page(s) 258, 260

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		mm *Inch*		
T32-PN01B03-1X0.25-41R	10139427	M1	0,25	1,13 *0.044*	6,0 *0.236*	13 *0.512*	38,87 *1.530*	40,9 *1.610*	2,5 *0.098*	2.50X2.10	0,75 *0.030*	2	B
T32-PN01B03-1.1X0.25-41R	10139428	M1.1	0,25	1,13 *0.044*	6,0 *0.236*	13 *0.512*	38,87 *1.530*	41,0 *1.614*	2,5 *0.098*	2.50X2.10	0,85 *0.033*	2	B
T32-PN01B03-1.2X0.25-41R	10139429	M1.2	0,25	1,13 *0.044*	6,0 *0.236*	13 *0.512*	38,87 *1.530*	41,1 *1.618*	2,5 *0.098*	2.50X2.10	0,95 *0.037*	2	B
T32-PN01B03-1.4X0.3-41R	10139430	M1.4	0,3	1,32 *0.052*	7,0 *0.276*	13 *0.512*	38,68 *1.523*	41,3 *1.626*	2,5 *0.098*	2.50X2.10	1,1 *0.043*	2	B

T32-PNB-micro

Through holes – Metric coarse threads





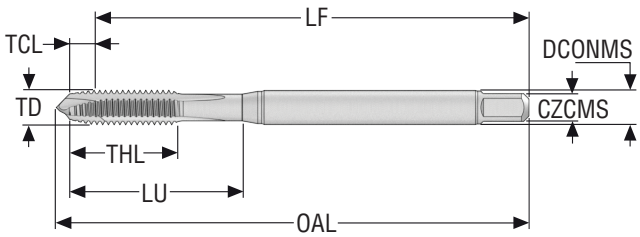
- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN371
- Thread tolerance class: 6H
- For cutting data see page(s) 258, 260

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		mm *Inch*		
T32-PN01B03-1.6X0.35-63R	10139431	M1.6	0,35	1,54 *0.061*	8,0 *0.315*	13 *0.512*	38,46 *1.514*	41,4 *1.630*	2,5 *0.098*	2.50X2.10	1,25 *0.049*	2	B
T32-PN01B03-1.7X0.35-63R	10139432	M1.7	0,35	1,54 *0.061*	8,0 *0.315*	13 *0.512*	38,46 *1.514*	41,5 *1.634*	2,5 *0.098*	2.50X2.10	1,35 *0.053*	2	B
T32-PN01B03-1.8X0.35-63R	10139433	M1.8	0,35	1,54 *0.061*	8,0 *0.315*	13 *0.512*	38,46 *1.514*	41,6 *1.638*	2,5 *0.098*	2.50X2.10	1,45 *0.057*	2	B
T32-PN01B03-2X0.4-63R	10139434	M2	0,4	1,89 *0.074*	10,0 *0.394*	13 *0.512*	43,11 *1.697*	46,3 *1.823*	2,8 *0.110*	2.80X2.10	1,6 *0.063*	2	B
T32-PN01B03-2.2X0.45-63R	10139435	M2.2	0,45	2,07 *0.081*	10,0 *0.394*	13 *0.512*	42,93 *1.690*	46,3 *1.823*	2,8 *0.110*	2.80X2.10	1,75 *0.069*	2	B
T32-PN01B03-2.3X0.4-63R	10139436	M2.3	0,4	1,89 *0.074*	10,0 *0.394*	13 *0.512*	43,11 *1.697*	46,3 *1.823*	2,8 *0.110*	2.80X2.10	1,9 *0.075*	2	B
T32-PN01B03-2.5X0.45-63R	10139437	M2.5	0,45	2,07 *0.081*	9,0 *0.354*	14 *0.551*	47,93 *1.887*	51,7 *2.035*	2,8 *0.110*	2.80X2.10	2,05 *0.081*	2	B
T32-PN01B03-2.6X0.45-63R	10139438	M2.6	0,45	2,07 *0.081*	9,0 *0.354*	14 *0.551*	47,93 *1.887*	51,7 *2.035*	2,8 *0.110*	2.80X2.10	2,15 *0.085*	2	B

T32-PNB

Through holes – Metric coarse threads



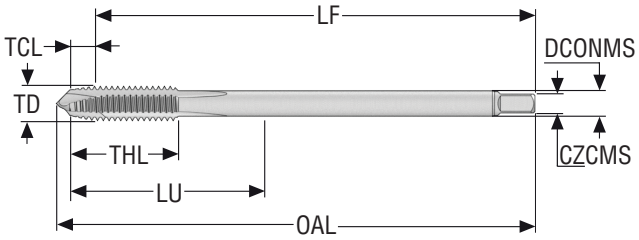


- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN371
- Thread tolerance class: 6H
- For cutting data see page(s) 258, 260

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		mm *Inch*		
T32-PN01B03-3X0.5-63R	10139439	M3	0,5	2,28 *0.090*	10,0 *0.394*	18 *0.709*	53,72 *2.115*	57,2 *2.252*	3,5 *0.138*	3.50X2.70	2,5 *0.098*	3	B
T32-PN01B03-3.5X0.6-63R	10139440	M3.5	0,6	2,65 *0.104*	12,0 *0.472*	20 *0.787*	53,35 *2.100*	57,4 *2.260*	4,0 *0.157*	4.00X3.00	2,9 *0.114*	3	B
T32-PN01B03-4X0.7-63R	10139441	M4	0,7	3,33 *0.131*	12,0 *0.472*	21 *0.827*	59,67 *2.349*	64,6 *2.543*	4,5 *0.177*	4.50X3.40	3,3 *0.130*	3	B
T32-PN01B03-4.5X0.75-63R	10139442	M4.5	0,75	3,33 *0.131*	14,0 *0.551*	25 *0.984*	66,67 *2.625*	71,8 *2.827*	6,0 *0.236*	6.00X4.90	3,8 *0.150*	3	B
T32-PN01B03-5X0.8-63R	10139443	M5	0,8	3,68 *0.145*	14,0 *0.551*	25 *0.984*	66,32 *2.611*	72,0 *2.835*	6,0 *0.236*	6.00X4.90	4,2 *0.165*	3	B
T32-PN01B03-6X1-63R	10139444	M6	1,0	4,41 *0.174*	18,0 *0.709*	30 *1.181*	75,59 *2.976*	82,4 *3.244*	6,0 *0.236*	6.00X4.90	5,0 *0.197*	3	B
T32-PN01B03-7X1-63R	10139445	M7	1,0	4,41 *0.174*	18,0 *0.709*	30 *1.181*	75,59 *2.976*	82,9 *3.264*	7,0 *0.276*	7.00X5.50	6,0 *0.236*	3	B
T32-PN01B03-8X1.25-63R	10139446	M8	1,25	5,43 *0.214*	20,0 *0.787*	35 *1.378*	84,57 *3.330*	93,3 *3.673*	8,0 *0.315*	8.00X6.20	6,8 *0.268*	3	B
T32-PN01B03-9X1.25-63R	10139447	M9	1,25	5,7 *0.224*	20,0 *0.787*	35 *1.378*	84,3 *3.319*	91,7 *3.610*	9,0 *0.354*	9.00X7.00	7,8 *0.307*	3	B
T32-PN01B03-10X1.5-63R	10139448	M10	1,5	6,84 *0.269*	20,0 *0.787*	39 *1.535*	93,16 *3.668*	101,8 *4.008*	10,0 *0.394*	10.00X8.00	8,5 *0.335*	3	B

T32-PNB

Through holes – Metric coarse threads





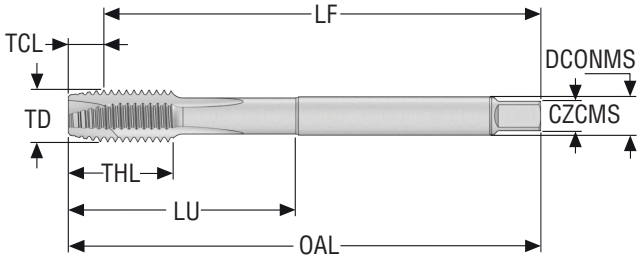
- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN376
- Thread tolerance class: 6H
- For cutting data see page(s) 258, 260

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		mm *Inch*		
T32-PN01B06-3X0.5-63R	10139482	M3	0,5	2,2 *0.087*	11,0 *0.433*	36 *1.417*	53,8 *2.118*	57,2 *2.252*	2,2 *0.087*	2.20X1.80	2,5 *0.098*	3	B
T32-PN01B06-4X0.7-63R	10139484	M4	0,7	3,3 *0.130*	12,0 *0.472*	43 *1.693*	59,7 *2.350*	64,6 *2.543*	2,8 *0.110*	2.80X2.10	3,3 *0.130*	3	B
T32-PN01B06-5X0.8-63R	10139485	M5	0,8	3,6 *0.142*	14,0 *0.551*	49 *1.929*	66,4 *2.614*	72,0 *2.835*	3,5 *0.138*	3.50X2.70	4,2 *0.165*	3	B
T32-PN01B06-6X1-63R	10139486	M6	1,0	4,4 *0.173*	18,0 *0.709*	59 *2.323*	75,6 *2.976*	82,4 *3.244*	4,5 *0.177*	4.50X3.40	5,0 *0.197*	3	B

T32-PNB

Through holes – Metric coarse threads



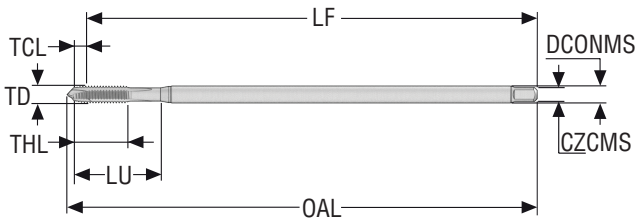


- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN376
- Thread tolerance class: 6H
- For cutting data see page(s) 258, 260

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		mm *Inch*		
T32-PN01B06-8X1.25-63R	10139488	M8	1,25	5,7 *0.224*	20,0 *0.787*	67 *2.638*	84,3 *3.319*	90,0 *3.543*	6,0 *0.236*	6.00X4.90	6,8 *0.268*	3	B
T32-PN01B06-9X1.25-63R	10139489	M9	1,25	5,7 *0.224*	20,0 *0.787*	67 *2.638*	84,3 *3.319*	90,0 *3.543*	7,0 *0.276*	7.00X5.50	7,8 *0.307*	3	B
T32-PN01B06-10X1.5-63R	10139490	M10	1,5	6,84 *0.269*	20,0 *0.787*	77 *3.031*	93,16 *3.668*	100,0 *3.937*	7,0 *0.276*	7.00X5.50	8,5 *0.335*	3	B
T32-PN01B06-12X1.75-63R	10139491	M12	1,75	8,01 *0.315*	24,0 *0.945*	83 *3.268*	101,99 *4.015*	110,0 *4.331*	9,0 *0.354*	9.00X7.00	10,2 *0.402*	3	B
T32-PN01B06-14X2-63R	10139492	M14	2,0	9,14 *0.360*	25,0 *0.984*	81 *3.189*	100,86 *3.971*	110,0 *4.331*	11,0 *0.433*	11.00X9.00	12,0 *0.472*	3	B
T32-PN01B06-16X2-63R	10139493	M16	2,0	9,24 *0.364*	32,0 *1.260*	68 *2.677*	100,76 *3.967*	110,0 *4.331*	12,0 *0.472*	12.00X9.00	14,0 *0.551*	3	B
T32-PN01B06-18X2.5-63R	10139494	M18	2,5	11,38 *0.448*	32,0 *1.260*	81 *3.189*	113,62 *4.473*	125,0 *4.921*	14,0 *0.551*	14.00X11.00	15,5 *0.610*	4	B
T32-PN01B06-20X2.5-63R	10139495	M20	2,5	11,58 *0.456*	32,0 *1.260*	95 *3.740*	128,42 *5.056*	140,0 *5.512*	16,0 *0.630*	16.00X12.00	17,5 *0.689*	4	B
T32-PN01B06-22X2.5-63R	10139496	M22	2,5	11,78 *0.464*	32,0 *1.260*	93 *3.661*	128,22 *5.048*	140,0 *5.512*	18,0 *0.709*	18.00X14.50	19,5 *0.768*	4	B
T32-PN01B06-24X3-63R	10139497	M24	3,0	13,68 *0.539*	38,0 *1.496*	113 *4.449*	146,32 *5.761*	160,0 *6.299*	18,0 *0.709*	18.00X14.50	21,0 *0.827*	4	B
T32-PN01B06-27X3-63R	10139498	M27	3,0	13,88 *0.546*	38,0 *1.496*	97 *3.819*	146,12 *5.753*	160,0 *6.299*	20,0 *0.787*	20.00X16.00	24,0 *0.945*	4	B
T32-PN01B06-30X3.5-63R	10139499	M30	3,5	15,93 *0.627*	45,0 *1.772*	115 *4.528*	164,07 *6.459*	180,0 *7.087*	22,0 *0.866*	22.00X18.00	26,5 *1.043*	4	B
T32-PN01B06-33X3.5-63R	10139500	M33	3,5	15,93 *0.627*	45,0 *1.772*	113 *4.449*	164,07 *6.459*	180,0 *7.087*	25,0 *0.984*	25.00X20.00	29,5 *1.161*	4	B
T32-PN01B06-36X4-63R	10139501	M36	4,0	17,97 *0.707*	50,0 *1.969*	131 *5.157*	182,03 *7.167*	200,0 *7.874*	28,0 *1.102*	28.00X22.00	32,0 *1.260*	4	B
T32-PN01B06-39X4-63R	10139502	M39	4,0	17,97 *0.707*	50,0 *1.969*	102 *4.016*	182,03 *7.167*	200,0 *7.874*	32,0 *1.260*	32.00X24.00	35,0 *1.378*	4	B
T32-PN01B06-42X4.5-63R	10139503	M42	4,5	20,02 *0.788*	60,0 *2.362*	102 *4.016*	179,98 *7.086*	200,0 *7.874*	32,0 *1.260*	32.00X24.00	37,5 *1.476*	5	B
T32-PN01B06-45X4.5-63R	10139504	M45	4,5	20,02 *0.788*	60,0 *2.362*	117 *4.606*	199,98 *7.873*	220,0 *8.661*	36,0 *1.417*	36.00X29.00	40,5 *1.594*	5	B
T32-PN01B06-48X5-63R	10139505	M48	5,0	22,07 *0.869*	65,0 *2.559*	147 *5.787*	227,93 *8.974*	250,0 *9.843*	36,0 *1.417*	36.00X29.00	43,0 *1.693*	5	B
T32-PN01B06-52X5-63R	10139506	M52	5,0	22,07 *0.869*	65,0 *2.559*	120 *4.724*	227,93 *8.974*	250,0 *9.843*	40,0 *1.575*	40.00X32.00	47,0 *1.850*	5	B

T32-PNB

Through holes – Metric coarse threads





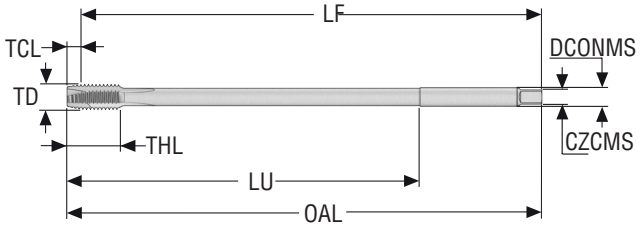
- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN371/EL
- Thread tolerance class: 6H
- For cutting data see page(s) 258, 260

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		mm *Inch*		
T32-PN01B04-3X0.5-63R	10139652	M3	0,5	2,28 *0.090*	10,0 *0.394*	18 *0.709*	97,72 *3.847*	101,2 *3.984*	3,5 *0.138*	3.50X2.70	2,5 *0.098*	3	B
T32-PN01B04-4X0.7-63R	10139653	M4	0,7	3,33 *0.131*	12,0 *0.472*	21 *0.827*	121,67 *4.790*	126,6 *4.984*	4,5 *0.177*	4.50X3.40	3,3 *0.130*	3	B
T32-PN01B04-5X0.8-63R	10139654	M5	0,8	3,68 *0.145*	14,0 *0.551*	25 *0.984*	136,32 *5.367*	142,0 *5.591*	6,0 *0.236*	6.00X4.90	4,2 *0.165*	3	B
T32-PN01B04-6X1-63R	10139655	M6	1,0	4,41 *0.174*	18,0 *0.709*	30 *1.181*	155,59 *6.126*	162,4 *6.394*	6,0 *0.236*	6.00X4.90	5,0 *0.197*	3	B

T32-PNB

Through holes – Metric coarse threads



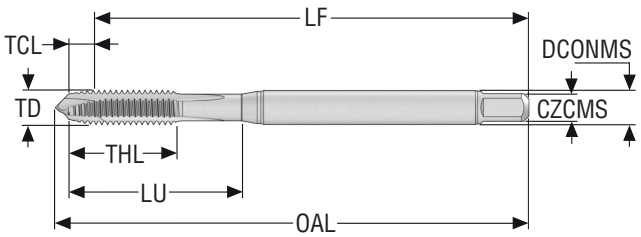


- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN376/EL
- Thread tolerance class: 6H
- For cutting data see page(s) 258, 260

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		mm *Inch*		
T32-PN01B07-8X1.25-63R	10139656	M8	1,25	5,7 *0.224*	20,0 *0.787*	157 *6.181*	174,3 *6.862*	180,0 *7.087*	6,0 *0.236*	6.00X4.90	6,8 *0.268*	3	B
T32-PN01B07-10X1.5-63R	10139657	M10	1,5	6,84 *0.269*	20,0 *0.787*	177 *6.969*	193,16 *7.605*	200,0 *7.874*	7,0 *0.276*	7.00X5.50	8,5 *0.335*	3	B
T32-PN01B07-12X1.75-63R	10139658	M12	1,75	8,01 *0.315*	24,0 *0.945*	83 *3.268*	211,99 *8.346*	220,0 *8.661*	9,0 *0.354*	9.00X7.00	10,2 *0.402*	3	B
T32-PN01B07-16X2-63R	10139659	M16	2,0	9,24 *0.364*	32,0 *1.260*	191 *7.520*	210,76 *8.298*	220,0 *8.661*	11,0 *0.433*	11.00X9.00	14,0 *0.551*	3	B

T32-PNB

Through holes – Metric coarse threads, 6G





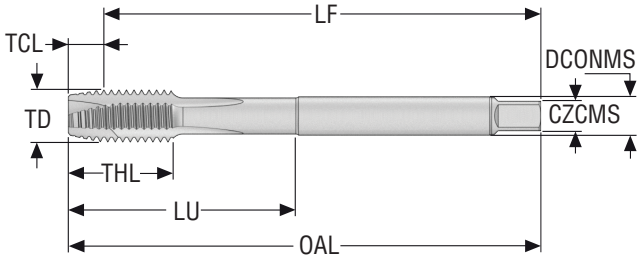
- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN371
- Thread tolerance class: 6G
- For cutting data see page(s) 258, 260

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		mm *Inch*		
T32-PN01B03-3X0.5-61R	10139474	M3	0,5	2,28 *0.090*	10,0 *0.394*	18 *0.709*	53,72 *2.115*	57,2 *2.252*	3,5 *0.138*	3.50X2.70	2,5 *0.098*	3	B
T32-PN01B03-4X0.7-61R	10139475	M4	0,7	3,33 *0.131*	12,0 *0.472*	21 *0.827*	59,67 *2.349*	64,6 *2.543*	4,5 *0.177*	4.50X3.40	3,3 *0.130*	3	B
T32-PN01B03-5X0.8-61R	10139476	M5	0,8	3,68 *0.145*	14,0 *0.551*	25 *0.984*	66,32 *2.611*	72,0 *2.835*	6,0 *0.236*	6.00X4.90	4,2 *0.165*	3	B
T32-PN01B03-6X1-61R	10139477	M6	1,0	4,41 *0.174*	18,0 *0.709*	30 *1.181*	75,59 *2.976*	82,4 *3.244*	6,0 *0.236*	6.00X4.90	5,0 *0.197*	3	B
T32-PN01B03-7X1-61R	10139478	M7	1,0	4,41 *0.174*	18,0 *0.709*	30 *1.181*	75,59 *2.976*	82,9 *3.264*	7,0 *0.276*	7.00X5.50	6,0 *0.236*	3	B
T32-PN01B03-8X1.25-61R	10139479	M8	1,25	5,43 *0.214*	20,0 *0.787*	35 *1.378*	84,57 *3.330*	93,3 *3.673*	8,0 *0.315*	8.00X6.20	6,8 *0.268*	3	B
T32-PN01B03-9X1.25-61R	10139480	M9	1,25	5,7 *0.224*	20,0 *0.787*	35 *1.378*	84,3 *3.319*	91,7 *3.610*	9,0 *0.354*	9.00X7.00	7,8 *0.307*	3	B
T32-PN01B03-10X1.5-61R	10139481	M10	1,5	6,84 *0.269*	20,0 *0.787*	39 *1.535*	93,16 *3.668*	101,8 *4.008*	10,0 *0.394*	10.00X8.00	8,5 *0.335*	3	B

T32-PNB

Through holes – Metric coarse threads, 6G



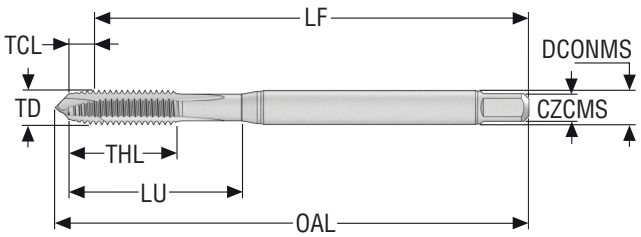


- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN376
- Thread tolerance class: 6G
- For cutting data see page(s) 258, 260

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		mm *Inch*		
T32-PN01B06-12X1.75-61R	10139564	M12	1,75	8,01 *0.315*	24,0 *0.945*	83 *3.268*	101,99 *4.015*	110,0 *4.331*	9,0 *0.354*	9.00X7.00	10,2 *0.402*	3	B
T32-PN01B06-16X2-61R	10139565	M16	2,0	9,24 *0.364*	32,0 *1.260*	68 *2.677*	100,76 *3.967*	110,0 *4.331*	12,0 *0.472*	12.00X9.00	14,0 *0.551*	3	B
T32-PN01B06-20X2.5-61R	10139566	M20	2,5	11,58 *0.456*	32,0 *1.260*	95 *3.740*	128,42 *5.056*	140,0 *5.512*	16,0 *0.630*	16.00X12.00	17,5 *0.689*	4	B
T32-PN01B06-24X3-61R	10139567	M24	3,0	13,68 *0.539*	38,0 *1.496*	113 *4.449*	146,32 *5.761*	160,0 *6.299*	18,0 *0.709*	18.00X14.50	21,0 *0.827*	4	B

T32-PNB

Through holes – Metric coarse threads, left hand thread





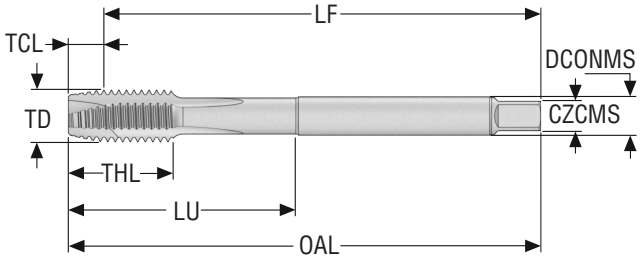
- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN371
- Thread tolerance class: 6H
- For cutting data see page(s) 258, 260

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		mm *Inch*		
T32-PN01B03-3X0.5-63L	10139466	M3	0,5	2,2 *0.087*	10,0 *0.394*	18 *0.709*	53,8 *2.118*	57,2 *2.252*	3,5 *0.138*	3.50X2.70	2,5 *0.098*	3	B
T32-PN01B03-4X0.7-63L	10139467	M4	0,7	3,3 *0.130*	12,0 *0.472*	21 *0.827*	59,7 *2.350*	64,6 *2.543*	4,5 *0.177*	4.50X3.40	3,3 *0.130*	3	B
T32-PN01B03-5X0.8-63L	10139468	M5	0,8	3,6 *0.142*	14,0 *0.551*	25 *0.984*	66,4 *2.614*	72,0 *2.835*	6,0 *0.236*	6.00X4.90	4,2 *0.165*	3	B
T32-PN01B03-6X1-63L	10139469	M6	1,0	4,4 *0.173*	18,0 *0.709*	30 *1.181*	75,6 *2.976*	82,4 *3.244*	6,0 *0.236*	6.00X4.90	5,0 *0.197*	3	B
T32-PN01B03-7X1-63L	10139470	M7	1,0	4,4 *0.173*	18,0 *0.709*	30 *1.181*	75,6 *2.976*	82,9 *3.264*	7,0 *0.276*	7.00X5.50	6,0 *0.236*	3	B
T32-PN01B03-8X1.25-63L	10139471	M8	1,25	5,4 *0.213*	20,0 *0.787*	35 *1.378*	84,6 *3.331*	93,3 *3.673*	8,0 *0.315*	8.00X6.20	6,8 *0.268*	3	B
T32-PN01B03-9X1.25-63L	10139472	M9	1,25	5,7 *0.224*	20,0 *0.787*	35 *1.378*	84,3 *3.319*	91,7 *3.610*	9,0 *0.354*	9.00X7.00	7,8 *0.307*	3	B
T32-PN01B03-10X1.5-63L	10139473	M10	1,5	6,8 *0.268*	20,0 *0.787*	39 *1.535*	93,2 *3.669*	101,8 *4.008*	10,0 *0.394*	10.00X8.00	8,5 *0.335*	3	B

T32-PNB

Through holes – Metric coarse threads, left hand thread



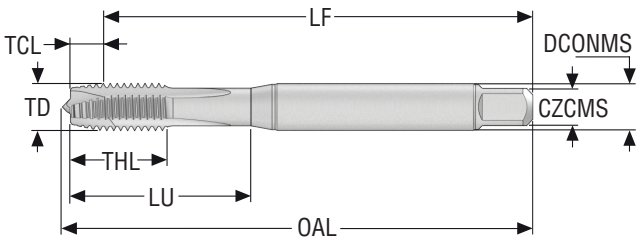


- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN376
- Thread tolerance class: 6H
- For cutting data see page(s) 258, 260

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		mm *Inch*		
T32-PN01B06-12X1.75-63L	10139560	M12	1,75	8,01 *0.315*	24,0 *0.945*	83 *3.268*	101,99 *4.015*	110,0 *4.331*	9,0 *0.354*	9.00X7.00	10,2 *0.402*	3	B
T32-PN01B06-16X2-63L	10139561	M16	2,0	9,24 *0.364*	32,0 *1.260*	68 *2.677*	100,76 *3.967*	110,0 *4.331*	12,0 *0.472*	12.00X9.00	14,0 *0.551*	3	B
T32-PN01B06-20X2.5-63L	10139562	M20	2,5	11,58 *0.456*	32,0 *1.260*	95 *3.740*	128,42 *5.056*	140,0 *5.512*	16,0 *0.630*	16.00X12.00	17,5 *0.689*	4	B
T32-PN01B06-24X3-63L	10139563	M24	3,0	13,68 *0.539*	38,0 *1.496*	113 *4.449*	146,32 *5.761*	160,0 *6.299*	18,0 *0.709*	18.00X14.50	21,0 *0.827*	4	B

T32-PNB

Through holes – MF threads



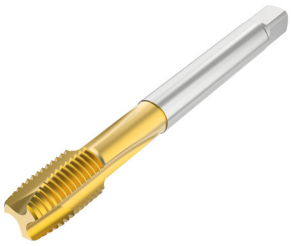


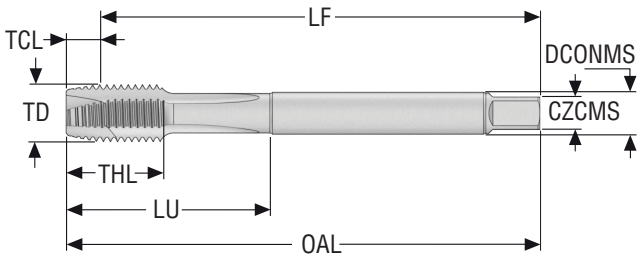
- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN371
- Thread tolerance class: 6H
- For cutting data see page(s) 258, 260

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		mm *Inch*		
T32-PN02B03-8X1-63R	10139449	MF8X1.0	1,0	4,41 *0.174*	20,0 *0.787*	35 *1.378*	85,59 *3.370*	93,3 *3.673*	8,0 *0.315*	8.00X6.20	7,0 *0.276*	3	B
T32-PN02B03-10X1-63R	10139450	MF10X1.0	1,0	4,77 *0.188*	20,0 *0.787*	35 *1.378*	85,23 *3.356*	91,8 *3.614*	10,0 *0.394*	10.00X8.00	9,0 *0.354*	3	B
T32-PN02B03-10X1.25-63R	10139451	MF10X1.25	1,25	5,8 *0.228*	20,0 *0.787*	39 *1.535*	94,2 *3.709*	101,8 *4.008*	10,0 *0.394*	10.00X8.00	8,8 *0.346*	3	B

T32-PNB

Through holes – MF threads





- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN374
- Thread tolerance class: 6H
- For cutting data see page(s) 258, 260

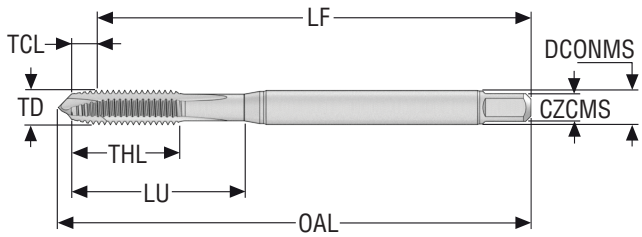
Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		mm *Inch*		
T32-PN02B05-8X1-63R	10139507	MF8X1.0	1,0	4,67 *0.184*	20,0 *0.787*	67 *2.638*	85,33 *3.359*	90,0 *3.543*	6,0 *0.236*	6.00X4.90	7,0 *0.276*	3	B
T32-PN02B05-10X0.75-63R	10139508	MF10X0.75	0,75	3,73 *0.147*	18,0 *0.709*	67 *2.638*	86,27 *3.396*	90,0 *3.543*	7,0 *0.276*	7.00X5.50	9,2 *0.362*	3	B
T32-PN02B05-10X1-63R	10139509	MF10X1.0	1,0	4,79 *0.189*	20,0 *0.787*	67 *2.638*	85,21 *3.355*	90,0 *3.543*	7,0 *0.276*	7.00X5.50	9,0 *0.354*	3	B
T32-PN02B05-10X1.25-63R	10139510	MF10X1.25	1,25	5,8 *0.228*	20,0 *0.787*	77 *3.031*	94,2 *3.709*	100,0 *3.937*	7,0 *0.276*	7.00X5.50	8,8 *0.346*	3	B
T32-PN02B05-12X1-63R	10139511	MF12X1.0	1,0	4,89 *0.193*	20,0 *0.787*	73 *2.874*	95,11 *3.744*	100,0 *3.937*	9,0 *0.354*	9.00X7.00	11,0 *0.433*	3	B
T32-PN02B05-12X1.25-63R	10139512	MF12X1.25	1,25	5,94 *0.234*	20,0 *0.787*	73 *2.874*	94,06 *3.703*	100,0 *3.937*	9,0 *0.354*	9.00X7.00	10,8 *0.425*	3	B
T32-PN02B05-12X1.5-63R	10139513	MF12X1.5	1,5	6,97 *0.274*	20,0 *0.787*	73 *2.874*	93,03 *3.663*	100,0 *3.937*	9,0 *0.354*	9.00X7.00	10,5 *0.413*	3	B
T32-PN02B05-14X1-63R	10139514	MF14X1.0	1,0	4,99 *0.196*	20,0 *0.787*	71 *2.795*	95,01 *3.741*	100,0 *3.937*	11,0 *0.433*	11.00X9.00	13,0 *0.512*	3	B
T32-PN02B05-14X1.25-63R	10139515	MF14X1.25	1,25	6,04 *0.238*	20,0 *0.787*	71 *2.795*	93,96 *3.699*	100,0 *3.937*	11,0 *0.433*	11.00X9.00	12,8 *0.504*	3	B
T32-PN02B05-14X1.5-63R	10139516	MF14X1.5	1,5	7,07 *0.278*	20,0 *0.787*	71 *2.795*	92,93 *3.659*	100,0 *3.937*	11,0 *0.433*	11.00X9.00	12,5 *0.492*	3	B
T32-PN02B05-16X1-63R	10139517	MF16X1.0	1,0	5,09 *0.200*	20,0 *0.787*	58 *2.283*	94,91 *3.737*	100,0 *3.937*	12,0 *0.472*	12.00X9.00	15,0 *0.591*	3	B
T32-PN02B05-16X1.5-63R	10139518	MF16X1.5	1,5	7,17 *0.282*	20,0 *0.787*	58 *2.283*	92,83 *3.655*	100,0 *3.937*	12,0 *0.472*	12.00X9.00	14,5 *0.571*	3	B
T32-PN02B05-18X1.5-63R	10139519	MF18X1.5	1,5	7,27 *0.286*	24,0 *0.945*	66 *2.598*	102,73 *4.044*	110,0 *4.331*	14,0 *0.551*	14.00X11.00	16,5 *0.650*	4	B
T32-PN02B05-18X2-63R	10139520	MF18X2.0	2,0	9,34 *0.368*	27,0 *1.063*	81 *3.189*	115,66 *4.554*	125,0 *4.921*	14,0 *0.551*	14.00X11.00	16,0 *0.630*	4	B
T32-PN02B05-20X1.5-63R	10139521	MF20X1.5	1,5	7,47 *0.294*	24,0 *0.945*	80 *3.150*	117,53 *4.627*	125,0 *4.921*	16,0 *0.630*	16.00X12.00	18,5 *0.728*	4	B
T32-PN02B05-20X2-63R	10139522	MF20X2.0	2,0	9,54 *0.376*	27,0 *1.063*	95 *3.740*	130,46 *5.136*	140,0 *5.512*	16,0 *0.630*	16.00X12.00	18,0 *0.709*	4	B
T32-PN02B05-22X1.5-63R	10139523	MF22X1.5	1,5	7,67 *0.302*	24,0 *0.945*	78 *3.071*	117,33 *4.619*	125,0 *4.921*	18,0 *0.709*	18.00X14.50	20,5 *0.807*	4	B
T32-PN02B05-22X2-63R	10139524	MF22X2.0	2,0	9,74 *0.383*	27,0 *1.063*	93 *3.661*	130,26 *5.128*	140,0 *5.512*	18,0 *0.709*	18.00X14.50	20,0 *0.787*	4	B
T32-PN02B05-24X1.5-63R	10139525	MF24X1.5	1,5	7,5 *0.295*	27,0 *1.063*	93 *3.661*	132,5 *5.217*	140,0 *5.512*	18,0 *0.709*	18.00X14.50	22,5 *0.886*	4	B
T32-PN02B05-24X2-63R	10139526	MF24X2.0	2,0	9,57 *0.377*	27,0 *1.063*	93 *3.661*	130,43 *5.135*	140,0 *5.512*	18,0 *0.709*	18.00X14.50	22,0 *0.866*	4	B

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		mm *Inch*		
T32-PN02B05-27X1.5-63R	10139527	MF27X1.5	1,5	7,7 *0.303*	27,0 *1.063*	77 *3.031*	132,3 *5.209*	140,0 *5.512*	20,0 *0.787*	20.00X16.00	25,5 *1.004*	4	B
T32-PN02B05-27X2-63R	10139528	MF27X2.0	2,0	9,77 *0.385*	27,0 *1.063*	77 *3.031*	130,23 *5.127*	140,0 *5.512*	20,0 *0.787*	20.00X16.00	25,0 *0.984*	4	B
T32-PN02B05-30X1.5-63R	10139529	MF30X1.5	1,5	7,7 *0.303*	27,0 *1.063*	85 *3.346*	142,3 *5.602*	150,0 *5.906*	22,0 *0.866*	22.00X18.00	28,5 *1.122*	4	B
T32-PN02B05-30X2-63R	10139530	MF30X1.0	2,0	9,77 *0.385*	27,0 *1.063*	85 *3.346*	140,23 *5.521*	150,0 *5.906*	22,0 *0.866*	22.00X18.00	28,0 *1.102*	4	B

T32-PNB

Through holes – UNC threads



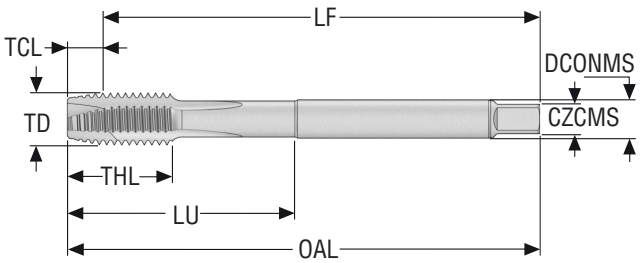


- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN371
- Thread tolerance class: 2B
- For cutting data see page(s) 258, 260

Designation	Item number	TDZ	TD	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm *Inch*	*TPI*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		mm *Inch*		
T32-PN08B03-4-40-21R	10139452	UNC4-40	2,845 *0.112*	*40.0*	2,81 *0.111*	10,0 *0.394*	18 *0.709*	53,19 *2.094*	56,0 *2.205*	3,5 *0.138*	3.50X2.70	2.35 *0.093*	3	B
T32-PN08B03-5-40-21R	10139453	UNC5-40	3,175 *0.125*	*40.0*	2,92 *0.115*	10,0 *0.394*	18 *0.709*	53,08 *2.090*	57,2 *2.252*	3,5 *0.138*	3.50X2.70	2.65 *0.104*	3	B
T32-PN08B03-6-32-21R	10139454	UNC6-32	3,505 *0.138*	*32.0*	3,71 *0.146*	12,0 *0.472*	20 *0.787*	52,29 *2.059*	57,4 *2.260*	4,0 *0.157*	4.00X3.00	2.85 *0.112*	3	B
T32-PN08B03-8-32-21R	10139455	UNC8-32	4,166 *0.164*	*32.0*	3,59 *0.141*	12,0 *0.472*	21 *0.827*	59,41 *2.339*	64,6 *2.543*	4,5 *0.177*	4.50X3.40	3.5 *0.138*	3	B
T32-PN08B03-10-24-21R	10139456	UNC10-24	4,826 *0.190*	*24.0*	4,82 *0.190*	14,0 *0.551*	25 *0.984*	65,18 *2.566*	72,0 *2.835*	6,0 *0.236*	6.00X4.90	3.9 *0.154*	3	B
T32-PN08B03-12-24-21R	10139457	UNC12-24	5,486 *0.216*	*24.0*	4,69 *0.185*	18,0 *0.709*	30 *1.181*	75,31 *2.965*	82,2 *3.236*	6,0 *0.236*	6.00X4.90	4.5 *0.177*	3	B
T32-PN08B03-1/4-20-21R	10139458	UNC1/4-20	6,35 *0.250*	*20.0*	5,6 *0.220*	18,0 *0.709*	32 *1.260*	74,4 *2.929*	82,4 *3.244*	7,0 *0.276*	7.00X5.50	5.1 *0.201*	3	B
T32-PN08B03-5/16-18-21R	10139459	UNC5/16-18	7,937 *0.312*	*18.0*	6,26 *0.246*	20,0 *0.787*	35 *1.378*	83,74 *3.297*	93,3 *3.673*	8,0 *0.315*	8.00X6.20	6.6 *0.260*	3	B
T32-PN08B03-3/8-16-21R	10139460	UNC3/8-16	9,525 *0.375*	*16.0*	7,28 *0.287*	20,0 *0.787*	39 *1.535*	92,72 *3.650*	100,0 *3.937*	10,0 *0.394*	10.00X8.00	8.0 *0.315*	3	B

T32-PNB

Through holes – UNC threads





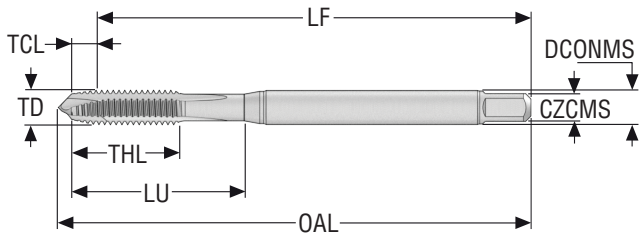
- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN376
- Thread tolerance class: 2B
- For cutting data see page(s) 258, 260

Designation	Item number	TDZ	TD	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm *Inch*	*TPI*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		mm *Inch*		
T32-PN08B06-7/16-14-21R	10139531	UNC7/16-14	11,112 *0.437*	*14.0*	8,27 *0.326*	22,0 *0.866*	76 *2.992*	91,73 *3.611*	100,0 *3.937*	8,0 *0.315*	8.00X6.20	9,3 *0.366*	3	B
T32-PN08B06-1/2-13-21R	10139540	UNC1/2-13	12,7 *0.500*	*13.0*	9,01 *0.355*	24,0 *0.945*	83 *3.268*	100,99 *3.976*	110,0 *4.331*	9,0 *0.354*	9.00X7.00	10,7 *0.421*	3	B
T32-PN08B06-9/16-12-21R	10139533	UNC9/16-12	14,287 *0.562*	*12.0*	9,76 *0.384*	25,0 *0.984*	81 *3.189*	100,24 *3.946*	110,0 *4.331*	11,0 *0.433*	11.00X9.00	12,3 *0.484*	3	B
T32-PN08B06-5/8-11-21R	10139534	UNC5/8-11	15,875 *0.625*	*11.0*	10,51 *0.414*	32,0 *1.260*	68 *2.677*	99,49 *3.917*	110,0 *4.331*	12,0 *0.472*	12.00X9.00	13,5 *0.531*	3	B
T32-PN08B06-3/4-10-21R	10139535	UNC3/4-10	19,05 *0.750*	*10.0*	11,55 *0.455*	32,0 *1.260*	81 *3.189*	113,45 *4.467*	125,0 *4.921*	14,0 *0.551*	14.00X11.00	16,5 *0.650*	4	B
T32-PN08B06-7/8-9-21R	10139536	UNC7/8-9	22,225 *0.875*	*9.0*	13,04 *0.513*	32,0 *1.260*	93 *3.661*	126,96 *4.998*	140,0 *5.512*	18,0 *0.709*	18.00X14.50	19,5 *0.768*	4	B
T32-PN08B06-1-8-21R	10139537	UNC1-8	25,4 *1.000*	*8.0*	14,86 *0.585*	38,0 *1.496*	97 *3.819*	145,14 *5.714*	160,0 *6.299*	20,0 *0.787*	20.00X16.00	22,25 *0.876*	4	B
T32-PN08B06-1_1/8-7-21R	10139756	UNC1 1/8-7	28,575 *1.125*	*7.0*	16,48 *0.649*	45,0 *1.772*	115 *4.528*	163,52 *6.438*	180,0 *7.087*	22,0 *0.866*	22.00X18.00	25,0 *0.984*	4	B
T32-PN08B06-1_1/4-7-21R	10139538	UNC1 1/4-7	31,75 *1.250*	*7.0*	16,74 *0.659*	45,0 *1.772*	115 *4.528*	163,26 *6.428*	180,0 *7.087*	22,0 *0.866*	22.00X18.00	28,0 *1.102*	4	B
T32-PN08B06-1_3/8-6-21R	10139532	UNC1 3/8-6	34,925 *1.375*	*6.0*	19,04 *0.750*	50,0 *1.969*	131 *5.157*	180,96 *7.124*	200,0 *7.874*	28,0 *1.102*	28.00X22.00	30,75 *1.211*	4	B
T32-PN08B06-1_1/2-6-21R	10139539	UNC1 1/2-6	38,1 *1.500*	*6.0*	19,3 *0.760*	55,0 *2.165*	131 *5.157*	180,7 *7.114*	200,0 *7.874*	28,0 *1.102*	28.00X22.00	34,0 *1.339*	4	B

T32-PNB

Through holes – UNF threads



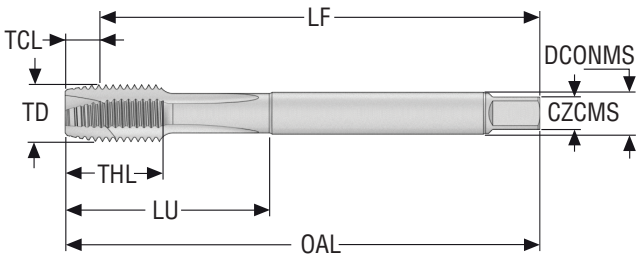


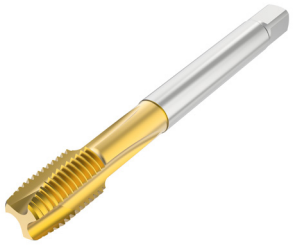
- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN371
- Thread tolerance class: 2B
- For cutting data see page(s) 258, 260

Designation	Item number	TDZ	TD	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm *Inch*	*TPI*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		mm *Inch*		
T32-PN09B03-10-32-21R	10139461	UNF10-32	4,826 *0.190*	*32.0*	3,8 *0.150*	14,0 *0.551*	25 *0.984*	66,2 *2.606*	72,0 *2.835*	6,0 *0.236*	6.00X4.90	4,1 *0.161*	3	B
T32-PN09B03-12-28-21R	10139462	UNF12-28	5,486 *0.216*	*28.0*	4,01 *0.158*	18,0 *0.709*	30 *1.181*	75,99 *2.992*	82,4 *3.244*	6,0 *0.236*	6.00X4.90	4,6 *0.181*	3	B
T32-PN09B03-1/4-28-21R	10139463	UNF1/4-28	6,35 *0.250*	*28.0*	4,24 *0.167*	18,0 *0.709*	30 *1.181*	75,76 *2.983*	82,4 *3.244*	7,0 *0.276*	7.00X5.50	5,5 *0.217*	3	B
T32-PN09B03-5/16-24-21R	10139464	UNF5/16-24	7,937 *0.312*	*24.0*	4,89 *0.193*	20,0 *0.787*	35 *1.378*	85,11 *3.351*	93,3 *3.673*	8,0 *0.315*	8.00X6.20	6,9 *0.272*	3	B
T32-PN09B03-3/8-24-21R	10139465	UNF3/8-24	9,525 *0.375*	*24.0*	5,22 *0.206*	20,0 *0.787*	35 *1.378*	84,78 *3.338*	90,0 *3.543*	10,0 *0.394*	10.00X8.00	8,5 *0.335*	3	B

T32-PNB

Through holes – UNF threads





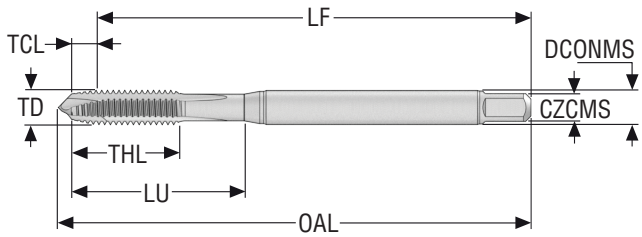
- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN374
- Thread tolerance class: 2B
- For cutting data see page(s) 258, 260

Designation	Item number	TDZ	TD	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm *Inch*	*TPI*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		mm *Inch*		
T32-PN09B05-7/16-20-21R	10139542	UNF7/16-20	11,112 *0.437*	*20.0*	5,88 *0.231*	20,0 *0.787*	76 *2.992*	94,12 *3.706*	100,0 *3.937*	8,0 *0.315*	8.00X6.20	9,9 *0.390*	3	B
T32-PN09B05-1/2-20-21R	10139551	UNF1/2-20	12,7 *0.500*	*20.0*	6,28 *0.247*	20,0 *0.787*	73 *2.874*	93,72 *3.690*	100,0 *3.937*	9,0 *0.354*	9.00X7.00	11,5 *0.453*	3	B
T32-PN09B05-9/16-18-21R	10139544	UNF9/16-18	14,287 *0.562*	*18.0*	6,69 *0.263*	20,0 *0.787*	71 *2.795*	93,31 *3.674*	100,0 *3.937*	11,0 *0.433*	11.00X9.00	13,0 *0.512*	3	B
T32-PN09B05-5/8-18-21R	10139545	UNF5/8-18	15,875 *0.625*	*18.0*	6,76 *0.266*	20,0 *0.787*	58 *2.283*	93,24 *3.671*	100,0 *3.937*	12,0 *0.472*	12.00X9.00	14,5 *0.571*	3	B
T32-PN09B05-3/4-16-21R	10139546	UNF3/4-16	19,05 *0.750*	*16.0*	7,81 *0.307*	24,0 *0.945*	66 *2.598*	102,19 *4.023*	110,0 *4.331*	14,0 *0.551*	14.00X11.00	17,5 *0.689*	4	B
T32-PN09B05-7/8-14-21R	10139547	UNF7/8-14	22,225 *0.875*	*14.0*	8,96 *0.353*	24,0 *0.945*	78 *3.071*	116,04 *4.569*	125,0 *4.921*	18,0 *0.709*	18.00X14.50	20,5 *0.807*	4	B
T32-PN09B05-1-12-21R	10139548	UNF1-12	25,4 *1.000*	*12.0*	10,44 *0.411*	27,0 *1.063*	93 *3.661*	129,56 *5.101*	140,0 *5.512*	18,0 *0.709*	18.00X14.50	23,3 *0.917*	4	B
T32-PN09B05-1_1/8-12-21R	10139757	UNF1 1/8-12	28,575 *1.125*	*12.0*	10,37 *0.408*	27,0 *1.063*	85 *3.346*	139,63 *5.497*	150,0 *5.906*	22,0 *0.866*	22.00X18.00	26,5 *1.043*	4	B
T32-PN09B05-1_1/4-12-21R	10139549	UNF1 1/4-12	31,75 *1.250*	*12.0*	10,29 *0.405*	27,0 *1.063*	85 *3.346*	139,71 *5.500*	150,0 *5.906*	22,0 *0.866*	22.00X18.00	29,5 *1.161*	4	B
T32-PN09B05-1_3/8-12-21R	10139543	UNF1 3/8-12	34,925 *1.375*	*12.0*	10,55 *0.415*	30,0 *1.181*	101 *3.976*	159,45 *6.278*	170,0 *6.693*	28,0 *1.102*	28.00X22.00	32,8 *1.291*	4	B
T32-PN09B05-1_1/2-12-21R	10139550	UNF1 1/2-12	38,1 *1.500*	*12.0*	10,48 *0.413*	30,0 *1.181*	101 *3.976*	159,52 *6.280*	170,0 *6.693*	28,0 *1.102*	28.00X22.00	36,0 *1.417*	4	B

T32-PNB

Through holes – G threads



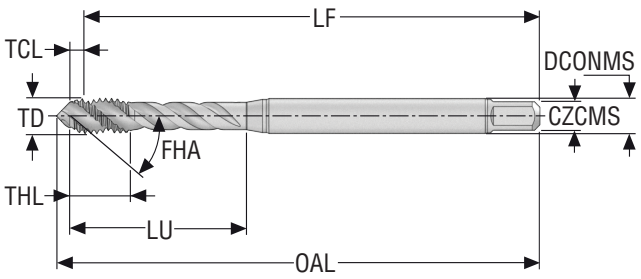


- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN5156
- Thread tolerance class: NORMAL
- For cutting data see page(s) 258, 260

Designation	Item number	TDZ	TD	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm *Inch*	*TPI*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		mm *Inch*		
T32-PN21B09-1/8-28-11R	10139552	G1/8-28	9,728 *0.383*	*28.0*	4,76 *0.187*	18,0 *0.709*	67 *2.638*	85,24 *3.356*	90,0 *3.543*	7,0 *0.276*	7.00X5.50	8,8 *0.346*	3	B
T32-PN21B09-1/4-19-11R	10139553	G1/4-19	13,157 *0.518*	*19.0*	6,77 *0.267*	22,0 *0.866*	71 *2.795*	93,23 *3.670*	100,0 *3.937*	11,0 *0.433*	11.00X9.00	11,8 *0.465*	3	B
T32-PN21B09-3/8-19-11R	10139554	G3/8-19	16,662 *0.656*	*19.0*	6,89 *0.271*	22,0 *0.866*	58 *2.283*	93,11 *3.666*	100,0 *3.937*	12,0 *0.472*	12.00X9.00	15,25 *0.600*	4	B
T32-PN21B09-1/2-14-11R	10139555	G1/2-14	20,955 *0.825*	*14.0*	9,22 *0.363*	25,0 *0.984*	80 *3.150*	115,78 *4.558*	125,0 *4.921*	16,0 *0.630*	16.00X12.00	19,0 *0.748*	4	B
T32-PN21B09-5/8-14-11R	10139556	G5/8-14	22,911 *0.902*	*14.0*	9,4 *0.370*	25,0 *0.984*	78 *3.071*	115,6 *4.551*	125,0 *4.921*	18,0 *0.709*	18.00X14.50	21,0 *0.827*	4	B
T32-PN21B09-3/4-14-11R	10139557	G3/4-14	26,441 *1.041*	*14.0*	9,36 *0.369*	28,0 *1.102*	77 *3.031*	130,64 *5.143*	140,0 *5.512*	20,0 *0.787*	20.00X16.00	24,5 *0.965*	4	B
T32-PN21B09-7/8-14-11R	10139558	G7/8-14	30,201 *1.189*	*14.0*	9,03 *0.356*	30,0 *1.181*	85 *3.346*	140,97 *5.550*	150,0 *5.906*	22,0 *0.866*	22.00X18.00	28,25 *1.112*	4	B
T32-PN21B09-1-11-11R	10139559	G1-11	33,249 *1.309*	*11.0*	11,49 *0.452*	32,0 *1.260*	93 *3.661*	148,51 *5.847*	160,0 *6.299*	25,0 *0.984*	25.00X20.00	30,75 *1.211*	4	B

T32-R40NC-micro

Blind holes – Metric coarse threads





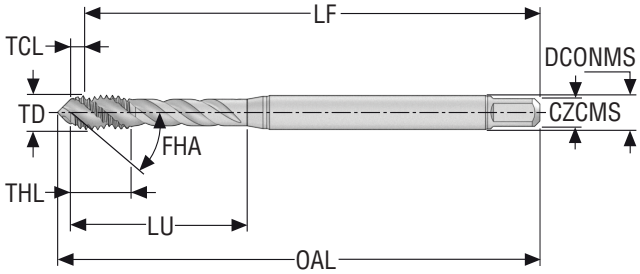
- Substrate: HSS-PM
- Coating: TiAlN + TiN
- Standard: DIN371
- Thread tolerance class: 4H
- FHA = 40°
- For cutting data see page(s) 258, 260

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		mm *Inch*		
T32-R40N01C03-1X0.25-41R	10139129	M1	0,25	0,59 *0.023*	6,0 *0.236*	13 *0.512*	39,41 *1.552*	40,9 *1.610*	2,5 *0.098*	2.50X2.10	0,75 *0.030*	2	C
T32-R40N01C03-1.1X0.25-41R	10139130	M1.1	0,25	0,59 *0.023*	6,0 *0.236*	13 *0.512*	39,41 *1.552*	41,0 *1.614*	2,5 *0.098*	2.50X2.10	0,85 *0.033*	2	C
T32-R40N01C03-1.2X0.25-41R	10139131	M1.2	0,25	0,59 *0.023*	6,0 *0.236*	13 *0.512*	39,41 *1.552*	41,1 *1.618*	2,5 *0.098*	2.50X2.10	0,95 *0.037*	2	C
T32-R40N01C03-1.4X0.3-41R	10139132	M1.4	0,3	0,69 *0.027*	8,0 *0.315*	13 *0.512*	39,31 *1.548*	41,3 *1.626*	2,5 *0.098*	2.50X2.10	1,1 *0.043*	2	C

T32-R40NC-micro

Blind holes – Metric coarse threads



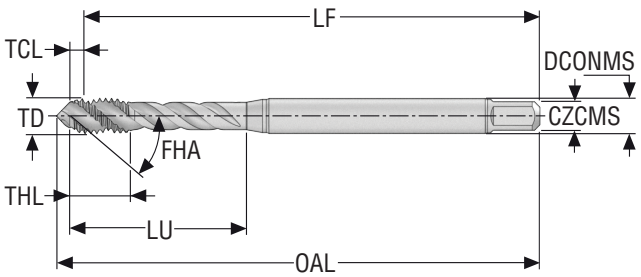


- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN371
- Thread tolerance class: 6H
- FHA = 40°
- For cutting data see page(s) 258, 260

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		mm *Inch*		
T32-R40N01C03-1.6X0.35-63R	10139133	M1.6	0,35	0,8 *0.031*	8,0 *0.315*	13 *0.512*	39,2 *1.543*	41,4 *1.630*	2,5 *0.098*	2.50X2.10	1,25 *0.049*	2	C
T32-R40N01C03-1.7X0.35-63R	10139134	M1.7	0,35	0,8 *0.031*	8,0 *0.315*	13 *0.512*	39,2 *1.543*	41,5 *1.634*	2,5 *0.098*	2.50X2.10	1,35 *0.053*	2	C
T32-R40N01C03-1.8X0.35-63R	10139135	M1.8	0,35	0,8 *0.031*	8,0 *0.315*	13 *0.512*	39,2 *1.543*	41,6 *1.638*	2,5 *0.098*	2.50X2.10	1,45 *0.057*	2	C
T32-R40N01C03-2X0.4-63R	10139136	M2	0,4	1,03 *0.041*	10,0 *0.394*	13 *0.512*	43,974 *1.731*	46,3 *1.823*	2,8 *0.110*	2.80X2.10	1,6 *0.063*	2	C
T32-R40N01C03-2.2X0.45-63R	10139137	M2.2	0,45	1,15 *0.045*	10,0 *0.394*	13 *0.512*	43,847 *1.726*	46,3 *1.823*	2,8 *0.110*	2.80X2.10	1,75 *0.069*	2	C
T32-R40N01C03-2.3X0.4-63R	10139138	M2.3	0,4	1,05 *0.041*	10,0 *0.394*	13 *0.512*	43,948 *1.730*	46,3 *1.823*	2,8 *0.110*	2.80X2.10	1,9 *0.075*	2	C
T32-R40N01C03-2.5X0.45-63R	10139139	M2.5	0,45	1,06 *0.042*	5,0 *0.197*	14 *0.551*	48,94 *1.927*	51,7 *2.035*	2,8 *0.110*	2.80X2.10	2,05 *0.081*	2	C
T32-R40N01C03-2.6X0.45-63R	10139140	M2.6	0,45	1,15 *0.045*	5,0 *0.197*	14 *0.551*	48,847 *1.923*	51,7 *2.035*	2,8 *0.110*	2.80X2.10	2,15 *0.085*	2	C

T32-R40NC

Blind holes – Metric coarse threads





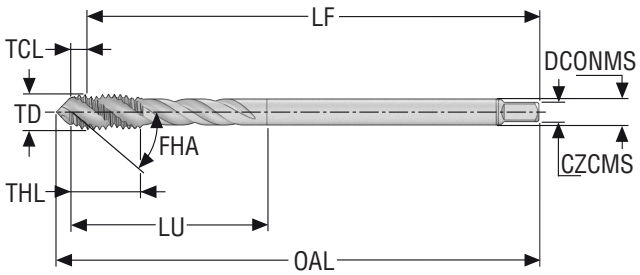
- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN371
- Thread tolerance class: 6H
- FHA = 40°
- For cutting data see page(s) 258, 260

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		mm *Inch*		
T32-R40N01C03-3X0.5-63R	10139141	M3	0,5	1,2 *0.047*	5,0 *0.197*	18 *0.709*	54,8 *2.157*	57,2 *2.252*	3,5 *0.138*	3.50X2.70	2,5 *0.098*	3	C
T32-R40N01C03-3.5X0.6-63R	10139142	M3.5	0,6	1,36 *0.054*	6,0 *0.236*	20 *0.787*	54,64 *2.151*	57,4 *2.260*	4,0 *0.157*	4.00X3.00	2,9 *0.114*	3	C
T32-R40N01C03-4X0.7-63R	10139143	M4	0,7	1,54 *0.061*	7,0 *0.276*	21 *0.827*	61,46 *2.420*	64,6 *2.543*	4,5 *0.177*	4.50X3.40	3,3 *0.130*	3	C
T32-R40N01C03-5X0.8-63R	10139144	M5	0,8	1,9 *0.075*	8,0 *0.315*	25 *0.984*	68,1 *2.681*	72,0 *2.835*	6,0 *0.236*	6.00X4.90	4,2 *0.165*	3	C
T32-R40N01C03-6X1-63R	10139145	M6	1,0	2,28 *0.090*	10,0 *0.394*	30 *1.181*	77,72 *3.060*	82,4 *3.244*	6,0 *0.236*	6.00X4.90	5,0 *0.197*	3	C
T32-R40N01C03-7X1-63R	10139146	M7	1,0	2,28 *0.090*	10,0 *0.394*	30 *1.181*	77,72 *3.060*	82,9 *3.264*	7,0 *0.276*	7.00X5.50	6,0 *0.236*	3	C
T32-R40N01C03-8X1.25-63R	10139147	M8	1,25	3,11 *0.122*	13,0 *0.512*	35 *1.378*	86,89 *3.421*	91,7 *3.610*	8,0 *0.315*	8.00X6.20	6,8 *0.268*	3	C
T32-R40N01C03-9X1.25-63R	10139148	M9	1,25	3,11 *0.122*	13,0 *0.512*	35 *1.378*	86,89 *3.421*	91,7 *3.610*	9,0 *0.354*	9.00X7.00	7,8 *0.307*	3	C
T32-R40N01C03-10X1.5-63R	10139149	M10	1,5	3,76 *0.148*	15,0 *0.591*	39 *1.535*	96,24 *3.789*	101,8 *4.008*	10,0 *0.394*	10.00X8.00	8,5 *0.335*	3	C

T32-R40NC

Blind holes – Metric coarse threads





- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN376
- Thread tolerance class: 6H
- FHA = 40°
- For cutting data see page(s) 258, 260

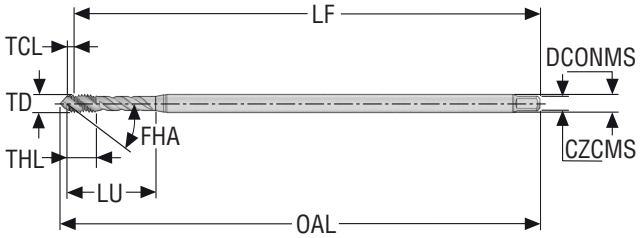
Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		mm *Inch*		
T32-R40N01C06-3X0.5-63R	10139568	M3	0,5	1,17 *0.046*	5,0 *0.197*	36 *1.417*	54,83 *2.159*	57,2 *2.252*	2,2 *0.087*	2.20X1.80	2,5 *0.098*	3	C
T32-R40N01C06-4X0.7-63R	10139570	M4	0,7	1,72 *0.068*	8,0 *0.315*	43 *1.693*	61,28 *2.413*	64,6 *2.543*	2,8 *0.110*	2.80X2.10	3,3 *0.130*	3	C
T32-R40N01C06-5X0.8-63R	10139571	M5	0,8	1,9 *0.075*	10,0 *0.394*	49 *1.929*	68,1 *2.681*	72,0 *2.835*	3,5 *0.138*	3.50X2.70	4,2 *0.165*	3	C
T32-R40N01C06-6X1-63R	10139572	M6	1,0	2,28 *0.090*	12,0 *0.472*	59 *2.323*	77,72 *3.060*	82,4 *3.244*	4,5 *0.177*	4.50X3.40	5,0 *0.197*	3	C
T32-R40N01C06-8X1.25-63R	10139574	M8	1,25	3,11 *0.122*	15,0 *0.591*	67 *2.638*	86,89 *3.421*	90,0 *3.543*	6,0 *0.236*	6.00X4.90	6,8 *0.268*	3	C
T32-R40N01C06-9X1.25-63R	10139575	M9	1,25	3,21 *0.126*	15,0 *0.591*	67 *2.638*	86,79 *3.417*	90,0 *3.543*	7,0 *0.276*	7.00X5.50	7,8 *0.307*	3	C
T32-R40N01C06-10X1.5-63R	10139576	M10	1,5	3,76 *0.148*	17,0 *0.669*	77 *3.031*	96,24 *3.789*	100,0 *3.937*	7,0 *0.276*	7.00X5.50	8,5 *0.335*	3	C
T32-R40N01C06-12X1.75-63R	10139577	M12	1,75	4,41 *0.174*	18,0 *0.709*	83 *3.268*	105,59 *4.157*	110,0 *4.331*	9,0 *0.354*	9.00X7.00	10,2 *0.402*	3	C
T32-R40N01C06-14X2-63R	10139578	M14	2,0	5,07 *0.200*	20,0 *0.787*	81 *3.189*	104,93 *4.131*	110,0 *4.331*	11,0 *0.433*	11.00X9.00	12,0 *0.472*	4	C
T32-R40N01C06-16X2-63R	10139579	M16	2,0	5,15 *0.203*	20,0 *0.787*	68 *2.677*	104,85 *4.128*	110,0 *4.331*	12,0 *0.472*	12.00X9.00	14,0 *0.551*	4	C
T32-R40N01C06-18X2.5-63R	10139580	M18	2,5	6,31 *0.248*	25,0 *0.984*	81 *3.189*	118,69 *4.673*	125,0 *4.921*	14,0 *0.551*	14.00X11.00	15,5 *0.610*	4	C
T32-R40N01C06-20X2.5-63R	10139581	M20	2,5	6,51 *0.256*	25,0 *0.984*	95 *3.740*	133,49 *5.256*	140,0 *5.512*	16,0 *0.630*	16.00X12.00	17,5 *0.689*	4	C
T32-R40N01C06-22X2.5-63R	10139582	M22	2,5	6,51 *0.256*	25,0 *0.984*	93 *3.661*	133,49 *5.256*	140,0 *5.512*	18,0 *0.709*	18.00X14.50	19,5 *0.768*	4	C
T32-R40N01C06-24X3-63R	10139583	M24	3,0	7,81 *0.307*	30,0 *1.181*	113 *4.449*	152,19 *5.992*	160,0 *6.299*	18,0 *0.709*	18.00X14.50	21,0 *0.827*	4	C
T32-R40N01C06-27X3-63R	10139584	M27	3,0	7,81 *0.307*	30,0 *1.181*	97 *3.819*	152,19 *5.992*	160,0 *6.299*	20,0 *0.787*	20.00X16.00	24,0 *0.945*	4	C
T32-R40N01C06-30X3.5-63R	10139585	M30	3,5	8,88 *0.350*	35,0 *1.378*	115 *4.528*	171,12 *6.737*	180,0 *7.087*	22,0 *0.866*	22.00X18.00	26,5 *1.043*	4	C
T32-R40N01C06-33X3.5-63R	10139586	M33	3,5	8,88 *0.350*	35,0 *1.378*	113 *4.449*	171,12 *6.737*	180,0 *7.087*	25,0 *0.984*	25.00X20.00	29,5 *1.161*	4	C
T32-R40N01C06-36X4-63R	10139587	M36	4,0	9,94 *0.391*	40,0 *1.575*	131 *5.157*	190,06 *7.483*	200,0 *7.874*	28,0 *1.102*	28.00X22.00	32,0 *1.260*	4	C
T32-R40N01C06-39X4-63R	10139588	M39	4,0	9,94 *0.391*	40,0 *1.575*	102 *4.016*	190,06 *7.483*	200,0 *7.874*	32,0 *1.260*	32.00X24.00	35,0 *1.378*	4	C
T32-R40N01C06-42X4.5-63R	10139589	M42	4,5	11,01 *0.433*	45,0 *1.772*	102 *4.016*	188,99 *7.441*	200,0 *7.874*	32,0 *1.260*	32.00X24.00	37,5 *1.476*	5	C

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		mm *Inch*		
T32-R40N01C06-45X4.5-63R	10139590	M45	4,5	11,01 *0.433*	45,0 *1.772*	117 *4.606*	208,99 *8.228*	220,0 *8.661*	36,0 *1.417*	36.00X29.00	40,5 *1.594*	5	C
T32-R40N01C06-48X5-63R	10139591	M48	5,0	12,08 *0.476*	50,0 *1.969*	147 *5.787*	237,92 *9.367*	250,0 *9.843*	36,0 *1.417*	36.00X29.00	43,0 *1.693*	5	C
T32-R40N01C06-52X5-63R	10139592	M52	5,0	12,08 *0.476*	50,0 *1.969*	120 *4.724*	237,92 *9.367*	250,0 *9.843*	40,0 *1.575*	40.00X32.00	47,0 *1.850*	5	C

T32-R40NC

Blind holes – Metric coarse threads



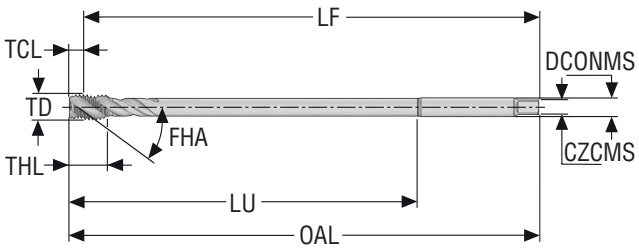


- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN371/EL
- Thread tolerance class: 6H
- FHA = 40°
- For cutting data see page(s) 258, 260

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		mm *Inch*		
T32-R40N01C04-3X0.5-63R	10139179	M3	0,5	1,17 *0.046*	5,0 *0.197*	18 *0.709*	98,83 *3.891*	101,2 *3.984*	3,5 *0.138*	3.50X2.70	2,5 *0.098*	3	C
T32-R40N01C04-4X0.7-63R	10139180	M4	0,7	1,45 *0.057*	7,0 *0.276*	21 *0.827*	123,55 *4.864*	126,6 *4.984*	4,5 *0.177*	4.50X3.40	3,3 *0.130*	3	C
T32-R40N01C04-5X0.8-63R	10139181	M5	0,8	1,9 *0.075*	8,0 *0.315*	25 *0.984*	138,1 *5.437*	142,0 *5.591*	6,0 *0.236*	6.00X4.90	4,2 *0.165*	3	C
T32-R40N01C04-6X1-63R	10139182	M6	1,0	2,28 *0.090*	10,0 *0.394*	30 *1.181*	157,72 *6.209*	162,4 *6.394*	6,0 *0.236*	6.00X4.90	5,0 *0.197*	3	C

T32-R40NC

Blind holes – Metric coarse threads





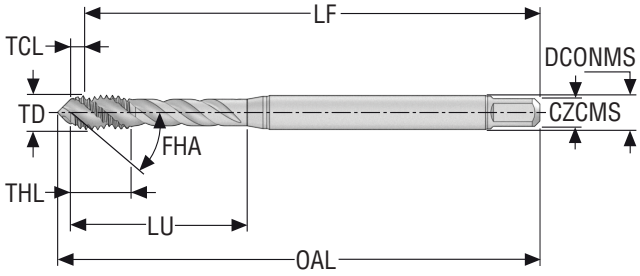
- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN376/EL
- Thread tolerance class: 6H
- FHA = 40°
- For cutting data see page(s) 258, 260

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		mm *Inch*		
T32-R40N01C07-8X1.25-63R	10139183	M8	1,25	3,11 *0.122*	15,0 *0.591*	157 *6.181*	176,89 *6.964*	180,0 *7.087*	6,0 *0.236*	6.00X4.90	6,8 *0.268*	3	C
T32-R40N01C07-10X1.5-63R	10139185	M10	1,5	3,76 *0.148*	17,0 *0.669*	177 *6.969*	196,24 *7.726*	200,0 *7.874*	7,0 *0.276*	7.00X5.50	8,5 *0.335*	3	C
T32-R40N01C07-12X1.75-63R	10139186	M12	1,75	4,41 *0.174*	18,0 *0.709*	193 *7.598*	215,59 *8.488*	220,0 *8.661*	9,0 *0.354*	9.00X7.00	10,2 *0.402*	3	C
T32-R40N01C07-16X2-63R	10139187	M16	2,0	5,21 *0.205*	20,0 *0.787*	178 *7.008*	214,79 *8.456*	220,0 *8.661*	12,0 *0.472*	12.00X9.00	14,0 *0.551*	4	C

T32-R40NC

Blind holes – Metric coarse threads, 6G



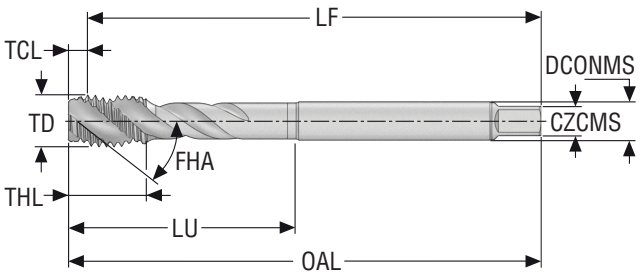


- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN371
- Thread tolerance class: 6G
- FHA = 40°
- For cutting data see page(s) 258, 260

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		mm *Inch*		
T32-R40N01C03-3X0.5-61R	10139173	M3	0,5	1,2 *0.047*	5,0 *0.197*	18 *0.709*	54,8 *2.157*	57,2 *2.252*	3,5 *0.138*	3.50X2.70	2,5 *0.098*	3	C
T32-R40N01C03-4X0.7-61R	10139174	M4	0,7	1,54 *0.061*	7,0 *0.276*	21 *0.827*	61,46 *2.420*	64,6 *2.543*	4,5 *0.177*	4.50X3.40	3,3 *0.130*	3	C
T32-R40N01C03-5X0.8-61R	10139175	M5	0,8	1,9 *0.075*	8,0 *0.315*	25 *0.984*	68,1 *2.681*	72,0 *2.835*	6,0 *0.236*	6.00X4.90	4,2 *0.165*	3	C
T32-R40N01C03-6X1-61R	10139176	M6	1,0	2,28 *0.090*	10,0 *0.394*	30 *1.181*	77,72 *3.060*	82,4 *3.244*	6,0 *0.236*	6.00X4.90	5,0 *0.197*	3	C
T32-R40N01C03-8X1.25-61R	10139177	M8	1,25	3,11 *0.122*	13,0 *0.512*	35 *1.378*	86,89 *3.421*	91,7 *3.610*	8,0 *0.315*	8.00X6.20	6,8 *0.268*	3	C
T32-R40N01C03-10X1.5-61R	10139178	M10	1,5	3,76 *0.148*	15,0 *0.591*	39 *1.535*	96,24 *3.789*	101,8 *4.008*	10,0 *0.394*	10.00X8.00	8,5 *0.335*	3	C

T32-R40NC

Blind holes – Metric coarse threads, 6G





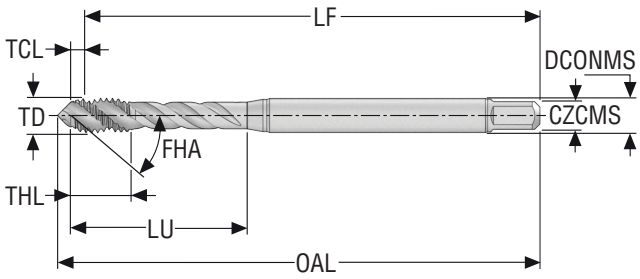
- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN376
- Thread tolerance class: 6G
- FHA = 40°
- For cutting data see page(s) 258, 260

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		mm *Inch*		
T32-R40N01C06-12X1.75-61R	10139649	M12	1,75	4,41 *0.174*	18,0 *0.709*	83 *3.268*	105,59 *4.157*	110,0 *4.331*	9,0 *0.354*	9.00X7.00	10,2 *0.402*	3	C
T32-R40N01C06-16X2-61R	10139650	M16	2,0	5,15 *0.203*	20,0 *0.787*	81 *3.189*	104,85 *4.128*	110,0 *4.331*	11,0 *0.433*	11.00X9.00	14,0 *0.551*	4	C
T32-R40N01C06-20X2.5-61R	10139651	M20	2,5	6,51 *0.256*	25,0 *0.984*	95 *3.740*	133,49 *5.256*	140,0 *5.512*	16,0 *0.630*	16.00X12.00	17,5 *0.689*	4	C

T32-R40NC

Blind holes – Metric coarse threads, left hand thread



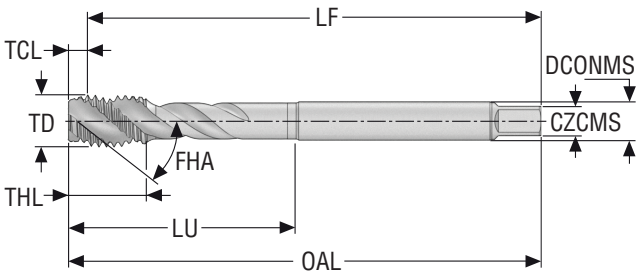


- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN371
- Thread tolerance class: 6H
- FHA = 40°
- For cutting data see page(s) 258, 260

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		mm *Inch*		
T32-L40N01C03-3X0.5-63L	10139167	M3	0,5	1,2 *0.047*	5,0 *0.197*	18 *0.709*	54,8 *2.157*	57,2 *2.252*	3,5 *0.138*	3.50X2.70	2,5 *0.098*	3	C
T32-L40N01C03-4X0.7-63L	10139168	M4	0,7	1,54 *0.061*	7,0 *0.276*	21 *0.827*	61,46 *2.420*	64,6 *2.543*	4,5 *0.177*	4.50X3.40	3,3 *0.130*	3	C
T32-L40N01C03-5X0.8-63L	10139169	M5	0,8	1,9 *0.075*	8,0 *0.315*	25 *0.984*	68,1 *2.681*	72,0 *2.835*	6,0 *0.236*	6.00X4.90	4,2 *0.165*	3	C
T32-L40N01C03-6X1-63L	10139170	M6	1,0	2,28 *0.090*	10,0 *0.394*	30 *1.181*	77,72 *3.060*	82,4 *3.244*	6,0 *0.236*	6.00X4.90	5,0 *0.197*	3	C
T32-L40N01C03-8X1.25-63L	10139171	M8	1,25	3,11 *0.122*	13,0 *0.512*	35 *1.378*	86,89 *3.421*	91,7 *3.610*	8,0 *0.315*	8.00X6.20	6,8 *0.268*	3	C
T32-L40N01C03-10X1.5-63L	10139172	M10	1,5	3,76 *0.148*	15,0 *0.591*	39 *1.535*	96,24 *3.789*	101,8 *4.008*	10,0 *0.394*	10.00X8.00	8,5 *0.335*	3	C

T32-R40NC

Blind holes – Metric coarse threads, left hand thread





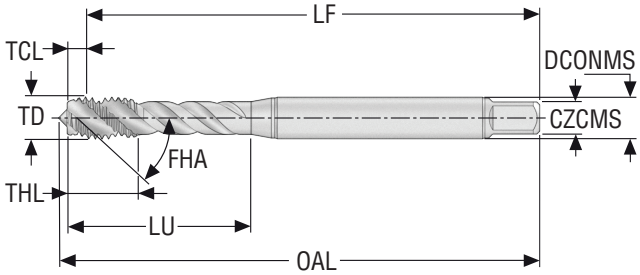
- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN376
- Thread tolerance class: 6H
- FHA = 40°
- For cutting data see page(s) 258, 260

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		mm *Inch*		
T32-L40N01C06-12X1.75-63L	10139645	M12	1,75	4,41 *0.174*	18,0 *0.709*	83 *3.268*	105,59 *4.157*	110,0 *4.331*	9,0 *0.354*	9.00X7.00	10,2 *0.402*	3	C
T32-L40N01C06-16X2-63L	10139646	M16	2,0	5,15 *0.203*	20,0 *0.787*	68 *2.677*	104,85 *4.128*	110,0 *4.331*	12,0 *0.472*	12.00X9.00	14,0 *0.551*	4	C
T32-L40N01C06-20X2.5-63L	10139647	M20	2,5	6,51 *0.256*	25,0 *0.984*	95 *3.740*	133,49 *5.256*	140,0 *5.512*	16,0 *0.630*	16.00X12.00	17,5 *0.689*	4	C
T32-L40N01C06-24X3-63L	10139648	M24	3,0	7,81 *0.307*	30,0 *1.181*	113 *4.449*	152,19 *5.992*	160,0 *6.299*	18,0 *0.709*	18.00X14.50	21,0 *0.827*	4	C

T32-R40NC

Blind holes – MF threads



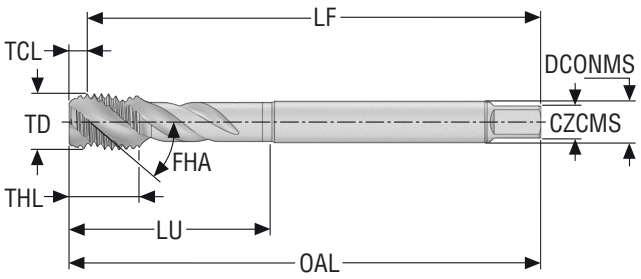


- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN371
- Thread tolerance class: 6H
- FHA = 40°
- For cutting data see page(s) 258, 260

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		mm *Inch*		
T32-R40N02C03-8X1-63R	10139150	MF8X1.0	1,0	2,58 *0.102*	13,0 *0.512*	35 *1.378*	87,42 *3.442*	91,7 *3.610*	8,0 *0.315*	8.00X6.20	7,0 *0.276*	3	C
T32-R40N02C03-10X1-63R	10139151	MF10X1.0	1,0	2,68 *0.106*	13,0 *0.512*	35 *1.378*	87,32 *3.438*	90,0 *3.543*	10,0 *0.394*	10.00X8.00	9,0 *0.354*	3	C
T32-R40N02C03-10X1.25-63R	10139152	MF10X1.25	1,25	3,21 *0.126*	15,0 *0.591*	39 *1.535*	96,79 *3.811*	101,8 *4.008*	10,0 *0.394*	10.00X8.00	8,8 *0.346*	3	C

T32-R40NC

Blind holes – MF threads





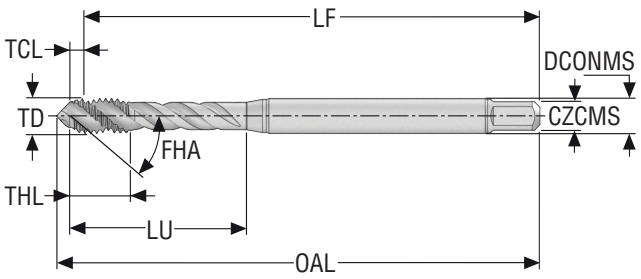
- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN374
- Thread tolerance class: 6H
- FHA = 40°
- For cutting data see page(s) 258, 260

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		mm *Inch*		
T32-R40N02C05-8X1-63R	10139593	MF8X1.0	1,0	2,58 *0.102*	10,0 *0.394*	67 *2.638*	87,42 *3.442*	90,0 *3.543*	6,0 *0.236*	6.00X4.90	7,0 *0.276*	3	C
T32-R40N02C05-10X0.75-63R	10139594	MF10X0.75	0,75	2,13 *0.084*	10,0 *0.394*	67 *2.638*	87,87 *3.459*	90,0 *3.543*	7,0 *0.276*	7.00X5.50	9,2 *0.362*	3	C
T32-R40N02C05-10X1-63R	10139595	MF10X1.0	1,0	2,68 *0.106*	13,0 *0.512*	67 *2.638*	87,32 *3.438*	90,0 *3.543*	7,0 *0.276*	7.00X5.50	9,0 *0.354*	3	C
T32-R40N02C05-10X1.25-63R	10139596	MF10X1.25	1,25	3,21 *0.126*	15,0 *0.591*	77 *3.031*	96,79 *3.811*	100,0 *3.937*	7,0 *0.276*	7.00X5.50	8,8 *0.346*	3	C
T32-R40N02C05-12X1-63R	10139597	MF12X1.0	1,0	2,79 *0.110*	10,0 *0.394*	73 *2.874*	97,21 *3.827*	100,0 *3.937*	9,0 *0.354*	9.00X7.00	11,0 *0.433*	3	C
T32-R40N02C05-12X1.25-63R	10139598	MF12X1.25	1,25	3,34 *0.131*	15,0 *0.591*	73 *2.874*	96,66 *3.806*	100,0 *3.937*	9,0 *0.354*	9.00X7.00	10,8 *0.425*	3	C
T32-R40N02C05-12X1.5-63R	10139599	MF12X1.5	1,5	3,87 *0.152*	15,0 *0.591*	73 *2.874*	96,13 *3.785*	100,0 *3.937*	9,0 *0.354*	9.00X7.00	10,5 *0.413*	3	C
T32-R40N02C05-14X1-63R	10139600	MF14X1.0	1,0	2,89 *0.114*	10,0 *0.394*	71 *2.795*	97,11 *3.823*	100,0 *3.937*	11,0 *0.433*	11.00X9.00	13,0 *0.512*	4	C
T32-R40N02C05-14X1.25-63R	10139601	MF14X1.25	1,25	3,44 *0.135*	15,0 *0.591*	71 *2.795*	96,56 *3.802*	100,0 *3.937*	11,0 *0.433*	11.00X9.00	12,8 *0.504*	4	C
T32-R40N02C05-14X1.5-63R	10139602	MF14X1.5	1,5	3,97 *0.156*	15,0 *0.591*	71 *2.795*	96,03 *3.781*	100,0 *3.937*	11,0 *0.433*	11.00X9.00	12,5 *0.492*	4	C
T32-R40N02C05-16X1-63R	10139603	MF16X1.0	1,0	2,79 *0.110*	10,0 *0.394*	58 *2.283*	97,21 *3.827*	100,0 *3.937*	12,0 *0.472*	12.00X9.00	15,0 *0.591*	4	C
T32-R40N02C05-16X1.5-63R	10139604	MF16X1.5	1,5	4,07 *0.160*	15,0 *0.591*	58 *2.283*	95,93 *3.777*	100,0 *3.937*	12,0 *0.472*	12.00X9.00	14,5 *0.571*	4	C
T32-R40N02C05-18X1.5-63R	10139605	MF18X1.5	1,5	4,17 *0.164*	17,0 *0.669*	66 *2.598*	105,83 *4.167*	110,0 *4.331*	14,0 *0.551*	14.00X11.00	16,5 *0.650*	4	C
T32-R40N02C05-18X2-63R	10139606	MF18X2.0	2,0	5,25 *0.207*	20,0 *0.787*	81 *3.189*	119,75 *4.715*	125,0 *4.921*	14,0 *0.551*	14.00X11.00	16,0 *0.630*	4	C
T32-R40N02C05-20X1.5-63R	10139607	MF20X1.5	1,5	4,37 *0.172*	17,0 *0.669*	80 *3.150*	120,63 *4.749*	125,0 *4.921*	16,0 *0.630*	16.00X12.00	18,5 *0.728*	4	C
T32-R40N02C05-20X2-63R	10139608	MF20X2.0	2,0	5,45 *0.215*	20,0 *0.787*	95 *3.740*	134,55 *5.297*	140,0 *5.512*	16,0 *0.630*	16.00X12.00	18,0 *0.709*	4	C
T32-R40N02C05-22X1.5-63R	10139609	MF22X1.5	1,5	4,37 *0.172*	17,0 *0.669*	78 *3.071*	120,63 *4.749*	125,0 *4.921*	18,0 *0.709*	18.00X14.50	20,5 *0.807*	4	C
T32-R40N02C05-22X2-63R	10139610	MF22X2.0	2,0	5,45 *0.215*	20,0 *0.787*	93 *3.661*	134,55 *5.297*	140,0 *5.512*	18,0 *0.709*	18.00X14.50	20,0 *0.787*	4	C
T32-R40N02C05-24X1.5-63R	10139611	MF24X1.5	1,5	4,39 *0.173*	20,0 *0.787*	93 *3.661*	135,61 *5.339*	140,0 *5.512*	18,0 *0.709*	18.00X14.50	22,5 *0.886*	4	C
T32-R40N02C05-24X2-63R	10139612	MF24X2.0	2,0	5,67 *0.223*	20,0 *0.787*	93 *3.661*	134,33 *5.289*	140,0 *5.512*	18,0 *0.709*	18.00X14.50	22,0 *0.866*	4	C

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		mm *Inch*		
T32-R40N02C05-27X1.5-63R	10139613	MF27X1.5	1,5	4,59 *0.181*	20,0 *0.787*	77 *3.031*	135,41 *5.331*	140,0 *5.512*	20,0 *0.787*	20.00X16.00	25,5 *1.004*	4	C
T32-R40N02C05-27X2-63R	10139614	MF27X2.0	2,0	5,67 *0.223*	20,0 *0.787*	77 *3.031*	134,33 *5.289*	140,0 *5.512*	20,0 *0.787*	20.00X16.00	25,0 *0.984*	4	C
T32-R40N02C05-30X1.5-63R	10139615	MF30X1.5	1,5	4,19 *0.165*	22,0 *0.866*	85 *3.346*	145,81 *5.741*	150,0 *5.906*	22,0 *0.866*	22.00X18.00	28,5 *1.122*	4	C
T32-R40N02C05-30X2-63R	10139616	MF30X1.0	2,0	5,67 *0.223*	22,0 *0.866*	85 *3.346*	144,33 *5.682*	150,0 *5.906*	22,0 *0.866*	22.00X18.00	28,0 *1.102*	4	C

T32-R40NC

Blind holes – UNC threads





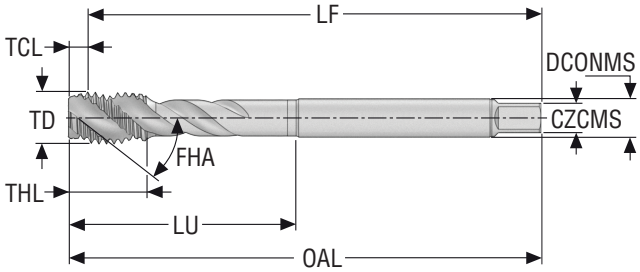
- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN371
- Thread tolerance class: 2B
- FHA = 40°
- For cutting data see page(s) 258, 260

Designation	Item number	TDZ	TD	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm *Inch*	*TPI*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		mm *Inch*		
T32-R40N08C03-4-40-21R	10139153	UNC4-40	2,845 *0.112*	*40.0*	1,45 *0.057*	5,0 *0.197*	18 *0.709*	54,55 *2.148*	56,0 *2.205*	3,5 *0.138*	3.50X2.70	2,35 *0.093*	3	C
T32-R40N08C03-5-40-21R	10139154	UNC5-40	3,175 *0.125*	*40.0*	1,5 *0.059*	7,0 *0.276*	18 *0.709*	54,5 *2.146*	57,2 *2.252*	3,5 *0.138*	3.50X2.70	2,65 *0.104*	3	C
T32-R40N08C03-6-32-21R	10139155	UNC6-32	3,505 *0.138*	*32.0*	1,92 *0.076*	6,0 *0.236*	20 *0.787*	54,08 *2.129*	57,4 *2.260*	4,0 *0.157*	4.00X3.00	2,85 *0.112*	3	C
T32-R40N08C03-8-32-21R	10139156	UNC8-32	4,166 *0.164*	*32.0*	1,85 *0.073*	7,0 *0.276*	21 *0.827*	61,15 *2.407*	64,6 *2.543*	4,5 *0.177*	4.50X3.40	3,5 *0.138*	3	C
T32-R40N08C03-10-24-21R	10139157	UNC10-24	4,826 *0.190*	*24.0*	2,49 *0.098*	8,0 *0.315*	25 *0.984*	67,51 *2.658*	72,0 *2.835*	6,0 *0.236*	6.00X4.90	3,9 *0.154*	3	C
T32-R40N08C03-12-24-21R	10139158	UNC12-24	5,486 *0.216*	*24.0*	2,43 *0.096*	10,0 *0.394*	30 *1.181*	77,57 *3.054*	82,2 *3.236*	6,0 *0.236*	6.00X4.90	4,5 *0.177*	3	C
T32-R40N08C03-1/4-20-21R	10139159	UNC1/4-20	6,35 *0.250*	*20.0*	2,9 *0.114*	13,0 *0.512*	32 *1.260*	77,1 *3.035*	82,4 *3.244*	7,0 *0.276*	7.00X5.50	5,1 *0.201*	3	C
T32-R40N08C03-5/16-18-21R	10139160	UNC5/16-18	7,937 *0.312*	*18.0*	3,54 *0.139*	13,0 *0.512*	35 *1.378*	86,46 *3.404*	90,0 *3.543*	8,0 *0.315*	8.00X6.20	6,6 *0.260*	3	C
T32-R40N08C03-3/8-16-21R	10139161	UNC3/8-16	9,525 *0.375*	*16.0*	3,99 *0.157*	15,0 *0.591*	39 *1.535*	96,01 *3.780*	100,0 *3.937*	10,0 *0.394*	10.00X8.00	8,0 *0.315*	3	C

T32-R40NC

Blind holes – UNC threads



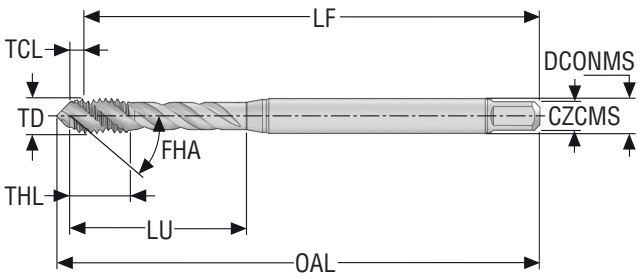


- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN376
- Thread tolerance class: 2B
- FHA = 40°
- For cutting data see page(s) 258, 260

Designation	Item number	TDZ	TD	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm *Inch*	*TPI*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		mm *Inch*		
T32-R40N08C06-7/16-14-21R	10139617	UNC7/16-14	11,112 *0.437*	*14.0*	4,6 *0.181*	15,0 *0.591*	76 *2.992*	95,4 *3.756*	100,0 *3.937*	8,0 *0.315*	8.00X6.20	9,3 *0.366*	3	C
T32-R40N08C06-1/2-13-21R	10139626	UNC1/2-13	12,7 *0.500*	*13.0*	4,94 *0.194*	18,0 *0.709*	83 *3.268*	105,06 *4.136*	110,0 *4.331*	9,0 *0.354*	9.00X7.00	10,7 *0.421*	4	C
T32-R40N08C06-9/16-12-21R	10139619	UNC9/16-12	14,287 *0.562*	*12.0*	5,37 *0.211*	20,0 *0.787*	81 *3.189*	104,63 *4.119*	110,0 *4.331*	11,0 *0.433*	11.00X9.00	12,3 *0.484*	4	C
T32-R40N08C06-5/8-11-21R	10139620	UNC5/8-11	15,875 *0.625*	*11.0*	5,81 *0.229*	22,0 *0.866*	68 *2.677*	104,19 *4.102*	110,0 *4.331*	12,0 *0.472*	12.00X9.00	13,5 *0.531*	4	C
T32-R40N08C06-3/4-10-21R	10139621	UNC3/4-10	19,05 *0.750*	*10.0*	6,78 *0.267*	25,0 *0.984*	81 *3.189*	118,22 *4.654*	125,0 *4.921*	14,0 *0.551*	14.00X11.00	16,5 *0.650*	4	C
T32-R40N08C06-7/8-9-21R	10139622	UNC7/8-9	22,225 *0.875*	*9.0*	7,27 *0.286*	30,0 *1.181*	93 *3.661*	132,73 *5.226*	140,0 *5.512*	18,0 *0.709*	18.00X14.50	19,5 *0.768*	4	C
T32-R40N08C06-1-8-21R	10139623	UNC1-8	25,4 *1.000*	*8.0*	8,32 *0.328*	30,0 *1.181*	97 *3.819*	151,68 *5.972*	160,0 *6.299*	20,0 *0.787*	20.00X16.00	22,25 *0.876*	4	C
T32-R40N08C06-1_1/8-7-21R	10139758	UNC1 1/8-7	28,575 *1.125*	*7.0*	9,17 *0.361*	37,0 *1.457*	115 *4.528*	170,83 *6.726*	180,0 *7.087*	22,0 *0.866*	22.00X18.00	25,0 *0.984*	4	C
T32-R40N08C06-1_1/4-7-21R	10139624	UNC1 1/4-7	31,75 *1.250*	*7.0*	9,3 *0.366*	37,0 *1.457*	115 *4.528*	170,7 *6.720*	180,0 *7.087*	22,0 *0.866*	22.00X18.00	28,0 *1.102*	4	C
T32-R40N08C06-1_3/8-6-21R	10139618	UNC1 3/8-6	34,925 *1.375*	*6.0*	10,5 *0.413*	40,0 *1.575*	131 *5.157*	189,5 *7.461*	200,0 *7.874*	28,0 *1.102*	28.00X22.00	30,75 *1.211*	4	C
T32-R40N08C06-1_1/2-6-21R	10139625	UNC1 1/2-6	38,1 *1.500*	*6.0*	10,63 *0.419*	40,0 *1.575*	131 *5.157*	189,37 *7.456*	200,0 *7.874*	28,0 *1.102*	28.00X22.00	34,0 *1.339*	4	C

T32-R40NC

Blind holes – UNF threads





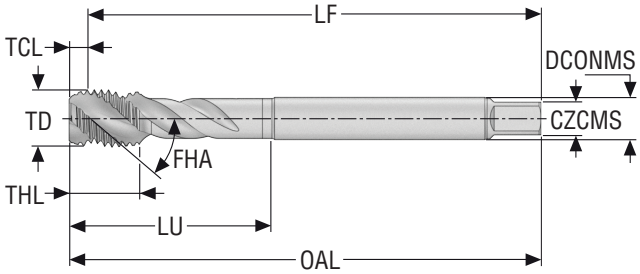
- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN371
- Thread tolerance class: 2B
- FHA = 40°
- For cutting data see page(s) 258, 260

Designation	Item number	TDZ	TD	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm *Inch*	*TPI*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		mm *Inch*		
T32-R40N09C03-10-32-21R	10139162	UNF10-32	4,826 *0.190*	*32.0*	1,96 *0.077*	8,0 *0.315*	25 *0.984*	68,04 *2.679*	72,0 *2.835*	6,0 *0.236*	6.00X4.90	4,1 *0.161*	3	C
T32-R40N09C03-12-28-21R	10139163	UNF12-28	5,486 *0.216*	*28.0*	2,07 *0.081*	10,0 *0.394*	30 *1.181*	77,93 *3.068*	82,4 *3.244*	6,0 *0.236*	6.00X4.90	4,6 *0.181*	3	C
T32-R40N09C03-1/4-28-21R	10139164	UNF1/4-28	6,35 *0.250*	*28.0*	2,19 *0.086*	10,0 *0.394*	30 *1.181*	77,81 *3.063*	82,4 *3.244*	7,0 *0.276*	7.00X5.50	5,5 *0.217*	3	C
T32-R40N09C03-5/16-24-21R	10139165	UNF5/16-24	7,937 *0.312*	*24.0*	2,83 *0.111*	13,0 *0.512*	35 *1.378*	87,17 *3.432*	90,0 *3.543*	8,0 *0.315*	8.00X6.20	6,9 *0.272*	3	C
T32-R40N09C03-3/8-24-21R	10139166	UNF3/8-24	9,525 *0.375*	*24.0*	2,91 *0.115*	15,0 *0.591*	35 *1.378*	87,09 *3.429*	90,0 *3.543*	10,0 *0.394*	10.00X8.00	8,5 *0.335*	3	C

T32-R40NC

Blind holes – UNF threads



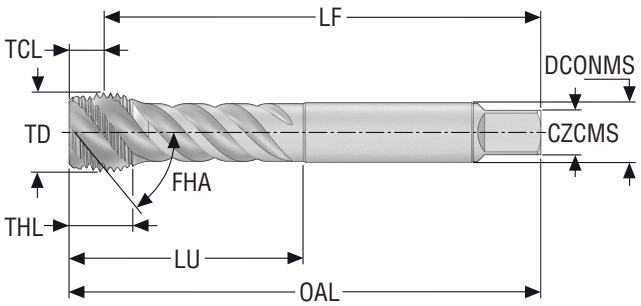


- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN374
- Thread tolerance class: 2B
- FHA = 40°
- For cutting data see page(s) 258, 260

Designation	Item number	TDZ	TD	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm *Inch*	*TPI*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		mm *Inch*		
T32-R40N09C05-7/16-20-21R	10139627	UNF7/16-20	11,112 *0.437*	*20.0*	3,35 *0.132*	15,0 *0.591*	76 *2.992*	96,65 *3.805*	100,0 *3.937*	8,0 *0.315*	8.00X6.20	9,9 *0.390*	3	C
T32-R40N09C05-1/2-20-21R	10139636	UNF1/2-20	12,7 *0.500*	*20.0*	3,51 *0.138*	15,0 *0.591*	73 *2.874*	96,49 *3.799*	100,0 *3.937*	9,0 *0.354*	9.00X7.00	11,5 *0.453*	4	C
T32-R40N09C05-9/16-18-21R	10139629	UNF9/16-18	14,287 *0.562*	*18.0*	3,77 *0.148*	15,0 *0.591*	71 *2.795*	96,23 *3.789*	100,0 *3.937*	11,0 *0.433*	11.00X9.00	13,0 *0.512*	4	C
T32-R40N09C05-5/8-18-21R	10139630	UNF5/8-18	15,875 *0.625*	*18.0*	3,86 *0.152*	15,0 *0.591*	58 *2.283*	96,14 *3.785*	100,0 *3.937*	12,0 *0.472*	12.00X9.00	14,5 *0.571*	4	C
T32-R40N09C05-3/4-16-21R	10139631	UNF3/4-16	19,05 *0.750*	*16.0*	4,45 *0.175*	17,0 *0.669*	66 *2.598*	105,55 *4.156*	110,0 *4.331*	14,0 *0.551*	14.00X11.00	17,5 *0.689*	4	C
T32-R40N09C05-7/8-14-21R	10139632	UNF7/8-14	22,225 *0.875*	*14.0*	5,15 *0.203*	17,0 *0.669*	78 *3.071*	119,85 *4.719*	125,0 *4.921*	18,0 *0.709*	18.00X14.50	20,5 *0.807*	4	C
T32-R40N09C05-1-12-21R	10139633	UNF1-12	25,4 *1.000*	*12.0*	5,82 *0.229*	22,0 *0.866*	93 *3.661*	134,18 *5.283*	140,0 *5.512*	18,0 *0.709*	18.00X14.50	23,3 *0.917*	4	C
T32-R40N09C05-1_1/8-12-21R	10139759	UNF1 1/8-12	28,575 *1.125*	*12.0*	5,98 *0.235*	22,0 *0.866*	85 *3.346*	144,02 *5.670*	150,0 *5.906*	22,0 *0.866*	22.00X18.00	26,5 *1.043*	4	C
T32-R40N09C05-1_1/4-12-21R	10139634	UNF1 1/4-12	31,75 *1.250*	*12.0*	5,94 *0.234*	22,0 *0.866*	85 *3.346*	144,06 *5.672*	150,0 *5.906*	22,0 *0.866*	22.00X18.00	29,5 *1.161*	4	C
T32-R40N09C05-1_3/8-12-21R	10139628	UNF1 3/8-12	34,925 *1.375*	*12.0*	6,07 *0.239*	22,0 *0.866*	101 *3.976*	163,93 *6.454*	170,0 *6.693*	28,0 *1.102*	28.00X22.00	32,8 *1.291*	4	C
T32-R40N09C05-1_1/2-12-21R	10139635	UNF1 1/2-12	38,1 *1.500*	*12.0*	6,04 *0.238*	24,0 *0.945*	101 *3.976*	163,96 *6.455*	170,0 *6.693*	28,0 *1.102*	28.00X22.00	36,0 *1.417*	4	C

T32-R40NC

Blind holes – G threads





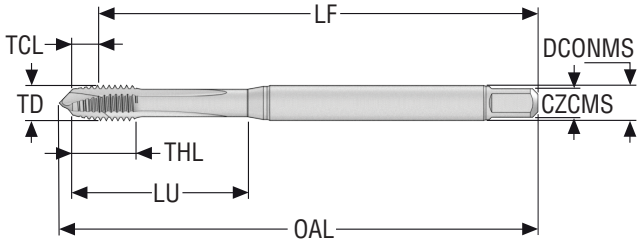
- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN5156
- Thread tolerance class: NORMAL
- FHA = 40°
- For cutting data see page(s) 258, 260

Designation	Item number	TDZ	TD	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm *Inch*	*TPI*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		mm *Inch*		
T32-R40N21C09-1/8-28-11R	10139637	G1/8-28	9,728 *0.383*	*28.0*	2,67 *0.105*	10,0 *0.394*	67 *2.638*	87,33 *3.438*	90,0 *3.543*	7,0 *0.276*	7.00X5.50	8,8 *0.346*	3	C
T32-R40N21C09-1/4-19-11R	10139638	G1/4-19	13,157 *0.518*	*19.0*	3,72 *0.146*	14,0 *0.551*	71 *2.795*	96,28 *3.791*	100,0 *3.937*	11,0 *0.433*	11.00X9.00	11,8 *0.465*	3	C
T32-R40N21C09-3/8-19-11R	10139639	G3/8-19	16,662 *0.656*	*19.0*	3,92 *0.154*	15,0 *0.591*	58 *2.283*	96,08 *3.783*	100,0 *3.937*	12,0 *0.472*	12.00X9.00	15,25 *0.600*	4	C
T32-R40N21C09-1/2-14-11R	10139640	G1/2-14	20,955 *0.825*	*14.0*	5,28 *0.208*	17,0 *0.669*	80 *3.150*	119,72 *4.713*	125,0 *4.921*	16,0 *0.630*	16.00X12.00	19,0 *0.748*	4	C
T32-R40N21C09-5/8-14-11R	10139641	G5/8-14	22,911 *0.902*	*14.0*	5,21 *0.205*	20,0 *0.787*	78 *3.071*	119,79 *4.716*	125,0 *4.921*	18,0 *0.709*	18.00X14.50	21,0 *0.827*	4	C
T32-R40N21C09-3/4-14-11R	10139642	G3/4-14	26,441 *1.041*	*14.0*	5,45 *0.215*	20,0 *0.787*	77 *3.031*	134,55 *5.297*	140,0 *5.512*	20,0 *0.787*	20.00X16.00	24,5 *0.965*	4	C
T32-R40N21C09-7/8-14-11R	10139643	G7/8-14	30,201 *1.189*	*14.0*	5,38 *0.212*	22,0 *0.866*	85 *3.346*	144,62 *5.694*	150,0 *5.906*	22,0 *0.866*	22.00X18.00	28,25 *1.112*	4	C
T32-R40N21C09-1-11-11R	10139644	G1-11	33,249 *1.309*	*11.0*	6,56 *0.258*	24,0 *0.945*	93 *3.661*	153,44 *6.041*	160,0 *6.299*	25,0 *0.984*	25.00X20.00	30,75 *1.211*	4	C

T34-PHB-micro

Through holes – Metric coarse threads



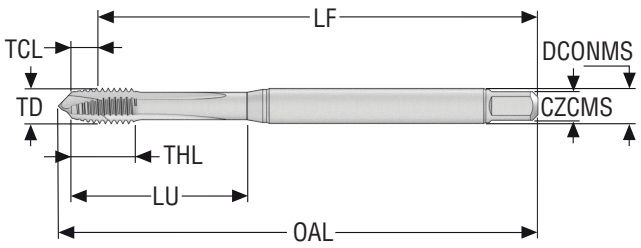


- Substrate: HSS-PM
- Coating: TiAlN + WC/C
- Standard: DIN371
- Thread tolerance class: 4H
- For cutting data see page(s) 260, 262

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		mm *Inch*		
T34-PH01B03-1X0.25-41R	10139302	M1	0,25	1,13 *0.044*	6,0 *0.236*	13 *0.512*	38,87 *1.530*	40,9 *1.610*	2,5 *0.098*	2.50X2.10	0,75 *0.030*	2	B
T34-PH01B03-1.1X0.25-41R	10139303	M1.1	0,25	1,13 *0.044*	6,0 *0.236*	13 *0.512*	38,87 *1.530*	41,0 *1.614*	2,5 *0.098*	2.50X2.10	0,85 *0.033*	2	B
T34-PH01B03-1.2X0.25-41R	10139304	M1.2	0,25	1,13 *0.044*	6,0 *0.236*	13 *0.512*	38,87 *1.530*	41,1 *1.618*	2,5 *0.098*	2.50X2.10	0,95 *0.037*	2	B
T34-PH01B03-1.4X0.3-41R	10139305	M1.4	0,3	1,32 *0.052*	8,0 *0.315*	13 *0.512*	38,68 *1.523*	41,3 *1.626*	2,5 *0.098*	2.50X2.10	1,1 *0.043*	2	B

T34-PHB-micro

Through holes – Metric coarse threads





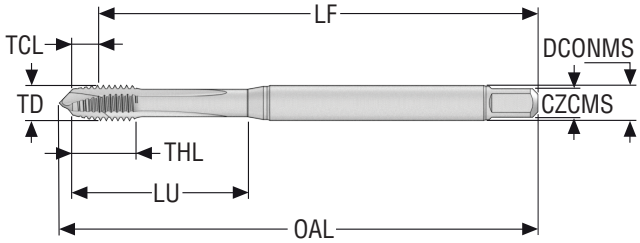
- Substrate: HSS-PM
- Coating: TiAlN + WC/C
- Standard: DIN371
- Thread tolerance class: 6H
- For cutting data see page(s) 260, 262

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		mm *Inch*		
T34-PH01B03-1.6X0.35-63R	10139306	M1.6	0,35	1,54 *0.061*	8,0 *0.315*	13 *0.512*	38,46 *1.514*	41,4 *1.630*	2,5 *0.098*	2.50X2.10	1,25 *0.049*	2	B
T34-PH01B03-1.7X0.35-63R	10139307	M1.7	0,35	1,54 *0.061*	8,0 *0.315*	13 *0.512*	38,46 *1.514*	41,5 *1.634*	2,5 *0.098*	2.50X2.10	1,35 *0.053*	2	B
T34-PH01B03-1.8X0.35-63R	10139308	M1.8	0,35	1,54 *0.061*	8,0 *0.315*	13 *0.512*	38,46 *1.514*	41,6 *1.638*	2,5 *0.098*	2.50X2.10	1,45 *0.057*	2	B
T34-PH01B03-2X0.4-63R	10139309	M2	0,4	1,89 *0.074*	10,0 *0.394*	13 *0.512*	43,11 *1.697*	46,3 *1.823*	2,8 *0.110*	2.80X2.10	1,6 *0.063*	2	B
T34-PH01B03-2.2X0.45-63R	10139310	M2.2	0,45	2,07 *0.081*	10,0 *0.394*	13 *0.512*	42,93 *1.690*	46,3 *1.823*	2,8 *0.110*	2.80X2.10	1,75 *0.069*	2	B
T34-PH01B03-2.3X0.4-63R	10139311	M2.3	0,4	1,89 *0.074*	10,0 *0.394*	13 *0.512*	43,11 *1.697*	46,3 *1.823*	2,8 *0.110*	2.80X2.10	1,9 *0.075*	2	B
T34-PH01B03-2.5X0.45-63R	10139312	M2.5	0,45	2,07 *0.081*	9,0 *0.354*	14 *0.551*	47,93 *1.887*	51,7 *2.035*	2,8 *0.110*	2.80X2.10	2,05 *0.081*	2	B
T34-PH01B03-2.6X0.45-63R	10139313	M2.6	0,45	2,07 *0.081*	9,0 *0.354*	14 *0.551*	47,93 *1.887*	51,7 *2.035*	2,8 *0.110*	2.80X2.10	2,15 *0.085*	2	B

T34-PHB

Through holes – Metric coarse threads



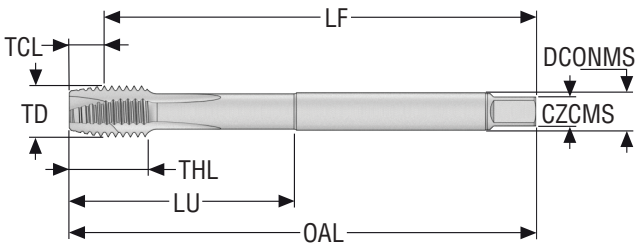


- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN371
- Thread tolerance class: 6HX
- For cutting data see page(s) 260, 262

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		mm *Inch*		
T34-PH01B03-3X0.5-65R	10139314	M3	0,5	2,3 *0.091*	5,0 *0.197*	18 *0.709*	53,7 *2.114*	57,2 *2.252*	3,5 *0.138*	3.50X2.70	2,5 *0.098*	3	B
T34-PH01B03-3.5X0.6-65R	10139315	M3.5	0,6	2,67 *0.105*	6,0 *0.236*	20 *0.787*	53,33 *2.100*	57,4 *2.260*	4,0 *0.157*	4.00X3.00	2,9 *0.114*	3	B
T34-PH01B03-4X0.7-65R	10139316	M4	0,7	3,03 *0.119*	7,0 *0.276*	21 *0.827*	59,97 *2.361*	64,6 *2.543*	4,5 *0.177*	4.50X3.40	3,3 *0.130*	3	B
T34-PH01B03-4.5X0.75-65R	10139317	M4.5	0,75	3,36 *0.132*	7,5 *0.295*	25 *0.984*	66,64 *2.624*	71,8 *2.827*	6,0 *0.236*	6.00X4.90	3,8 *0.150*	3	B
T34-PH01B03-5X0.8-65R	10139318	M5	0,8	3,71 *0.146*	8,0 *0.315*	25 *0.984*	66,29 *2.610*	72,0 *2.835*	6,0 *0.236*	6.00X4.90	4,2 *0.165*	3	B
T34-PH01B03-6X1-65R	10139319	M6	1,0	4,5 *0.177*	10,0 *0.394*	30 *1.181*	75,5 *2.972*	82,4 *3.244*	6,0 *0.236*	6.00X4.90	5,0 *0.197*	3	B
T34-PH01B03-8X1.25-65R	10139320	M8	1,25	5,48 *0.216*	13,0 *0.512*	35 *1.378*	84,52 *3.328*	93,3 *3.673*	8,0 *0.315*	8.00X6.20	6,8 *0.268*	3	B
T34-PH01B03-10X1.5-65R	10139321	M10	1,5	6,9 *0.272*	15,0 *0.591*	39 *1.535*	93,1 *3.665*	101,8 *4.008*	10,0 *0.394*	10.00X8.00	8,5 *0.335*	3	B

T34-PHB

Through holes – Metric coarse threads





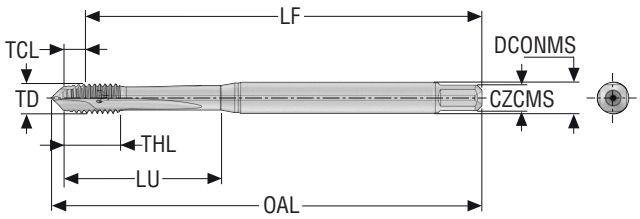
- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN376
- Thread tolerance class: 6HX
- For cutting data see page(s) 260, 262

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		mm *Inch*		
T34-PH01B06-12X1.75-65R	10139322	M12	1,75	8,11 *0.319*	18,0 *0.709*	83 *3.268*	101,89 *4.011*	110,0 *4.331*	9,0 *0.354*	9.00X7.00	10,2 *0.402*	3	B
T34-PH01B06-14X2-65R	10139323	M14	2,0	9,26 *0.365*	20,0 *0.787*	81 *3.189*	100,74 *3.966*	110,0 *4.331*	11,0 *0.433*	11.00X9.00	12,0 *0.472*	3	B
T34-PH01B06-16X2-65R	10139324	M16	2,0	9,36 *0.369*	20,0 *0.787*	68 *2.677*	100,64 *3.962*	110,0 *4.331*	12,0 *0.472*	12.00X9.00	14,0 *0.551*	3	B
T34-PH01B06-18X2.5-65R	10139325	M18	2,5	11,3 *0.445*	25,0 *0.984*	81 *3.189*	113,7 *4.476*	125,0 *4.921*	14,0 *0.551*	14.00X11.00	15,5 *0.610*	4	B
T34-PH01B06-20X2.5-65R	10139326	M20	2,5	11,4 *0.449*	25,0 *0.984*	95 *3.740*	128,6 *5.063*	140,0 *5.512*	16,0 *0.630*	16.00X12.00	17,5 *0.689*	4	B
T34-PH01B06-22X2.5-65R	10139327	M22	2,5	11,4 *0.449*	25,0 *0.984*	93 *3.661*	128,6 *5.063*	140,0 *5.512*	18,0 *0.709*	18.00X14.50	19,5 *0.768*	4	B
T34-PH01B06-24X3-65R	10139328	M24	3,0	13,62 *0.536*	30,0 *1.181*	113 *4.449*	146,38 *5.763*	160,0 *6.299*	18,0 *0.709*	18.00X14.50	21,0 *0.827*	4	B
T34-PH01B06-27X3-65R	10139329	M27	3,0	13,82 *0.544*	30,0 *1.181*	97 *3.819*	146,18 *5.755*	160,0 *6.299*	20,0 *0.787*	20.00X16.00	24,0 *0.945*	4	B
T34-PH01B06-30X3.5-65R	10139330	M30	3,5	15,87 *0.625*	35,0 *1.378*	115 *4.528*	164,13 *6.462*	180,0 *7.087*	22,0 *0.866*	22.00X18.00	26,5 *1.043*	4	B
T34-PH01B06-33X3.5-65R	10139331	M33	3,5	15,87 *0.625*	35,0 *1.378*	113 *4.449*	164,13 *6.462*	180,0 *7.087*	25,0 *0.984*	25.00X20.00	29,5 *1.161*	4	B
T34-PH01B06-36X4-65R	10139332	M36	4,0	18,13 *0.714*	40,0 *1.575*	131 *5.157*	181,87 *7.160*	200,0 *7.874*	28,0 *1.102*	28.00X22.00	32,0 *1.260*	4	B

T34B-PHB

Through holes – Metric coarse threads



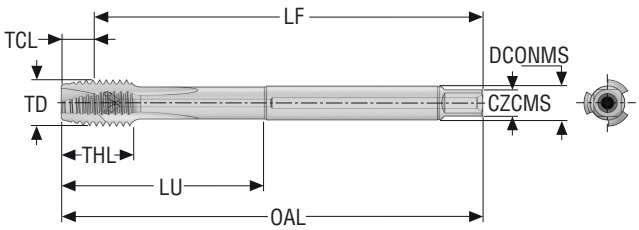


- Internal coolant
- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN371
- Thread tolerance class: 6HX
- For cutting data see page(s) 260, 262

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		mm *Inch*		
T34B-PH01B03-5X0.8-65R	10139333	M5	0,8	3,71 *0.146*	8,0 *0.315*	25 *0.984*	66,29 *2.610*	72,0 *2.835*	6,0 *0.236*	6.00X4.90	4,2 *0.165*	3	B
T34B-PH01B03-6X1-65R	10139334	M6	1,0	4,5 *0.177*	10,0 *0.394*	30 *1.181*	75,5 *2.972*	82,4 *3.244*	6,0 *0.236*	6.00X4.90	5,0 *0.197*	3	B
T34B-PH01B03-8X1.25-65R	10139335	M8	1,25	5,48 *0.216*	13,0 *0.512*	35 *1.378*	84,52 *3.328*	93,3 *3.673*	8,0 *0.315*	8.00X6.20	6,8 *0.268*	3	B
T34B-PH01B03-10X1.5-65R	10139336	M10	1,5	6,9 *0.272*	15,0 *0.591*	39 *1.535*	93,1 *3.665*	100,0 *3.937*	10,0 *0.394*	10.00X8.00	8,5 *0.335*	3	B

T34B-PHB

Through holes – Metric coarse threads





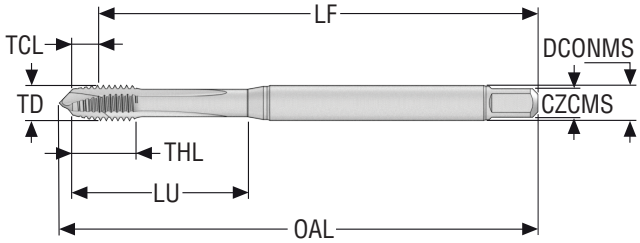
- Internal coolant
- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN376
- Thread tolerance class: 6HX
- For cutting data see page(s) 260, 262

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		mm *Inch*		
T34B-PH01B06-12X1.75-65R	10139337	M12	1,75	8,11 *0.319*	18,0 *0.709*	83 *3.268*	101,89 *4.011*	110,0 *4.331*	9,0 *0.354*	9.00X7.00	10,2 *0.402*	3	B
T34B-PH01B06-14X2-65R	10139338	M14	2,0	9,26 *0.365*	20,0 *0.787*	81 *3.189*	100,74 *3.966*	110,0 *4.331*	11,0 *0.433*	11.00X9.00	12,0 *0.472*	3	B
T34B-PH01B06-16X2-65R	10139339	M16	2,0	9,36 *0.369*	20,0 *0.787*	68 *2.677*	100,64 *3.962*	110,0 *4.331*	12,0 *0.472*	12.00X9.00	14,0 *0.551*	3	B

T34-PHB

Through holes – MF threads



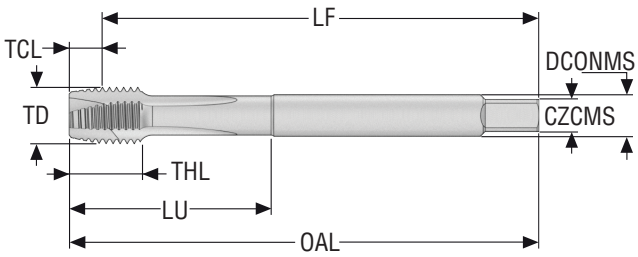


- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN371
- Thread tolerance class: 6HX
- For cutting data see page(s) 260, 262

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		mm *Inch*		
T34-PH02B03-3X0.35-65R	10139340	MF3X0.35	0,35	1,6 *0.063*	5,0 *0.197*	18 *0.709*	54,4 *2.142*	57,2 *2.252*	3,5 *0.138*	3.50X2.70	2,65 *0.104*	3	B
T34-PH02B03-3.5X0.35-65R	10139341	MF3.5X0.35	0,35	1,6 *0.063*	5,0 *0.197*	20 *0.787*	54,4 *2.142*	57,4 *2.260*	4,0 *0.157*	4.00X3.00	3,15 *0.124*	3	B
T34-PH02B03-4X0.5-65R	10139342	MF4X0.5	0,5	2,3 *0.091*	7,0 *0.276*	21 *0.827*	60,7 *2.390*	64,6 *2.543*	4,5 *0.177*	4.50X3.40	3,5 *0.138*	3	B
T34-PH02B03-5X0.5-65R	10139343	MF5X0.5	0,5	2,3 *0.091*	8,0 *0.315*	25 *0.984*	67,7 *2.665*	72,0 *2.835*	6,0 *0.236*	6.00X4.90	4,5 *0.177*	3	B
T34-PH02B03-6X0.5-65R	10139344	MF6X0.5	0,5	2,34 *0.092*	10,0 *0.394*	30 *1.181*	77,66 *3.057*	82,4 *3.244*	6,0 *0.236*	6.00X4.90	5,5 *0.217*	3	B
T34-PH02B03-6X0.75-65R	10139345	MF6X0.75	0,75	3,4 *0.134*	10,0 *0.394*	30 *1.181*	76,6 *3.016*	82,4 *3.244*	6,0 *0.236*	6.00X4.90	5,2 *0.205*	3	B
T34-PH02B03-8X0.75-65R	10139346	MF8X0.75	0,75	3,4 *0.134*	10,0 *0.394*	30 *1.181*	76,6 *3.016*	83,6 *3.291*	8,0 *0.315*	8.00X6.20	7,2 *0.283*	3	B
T34-PH02B03-8X1-65R	10139347	MF8X1.0	1,0	4,45 *0.175*	13,0 *0.512*	35 *1.378*	85,55 *3.368*	93,3 *3.673*	8,0 *0.315*	8.00X6.20	7,0 *0.276*	3	B
T34-PH02B03-10X0.75-65R	10139348	MF10X0.75	0,75	3,8 *0.150*	13,0 *0.512*	35 *1.378*	86,2 *3.394*	91,8 *3.614*	10,0 *0.394*	10.00X8.00	9,2 *0.362*	3	B
T34-PH02B03-10X1-65R	10139349	MF10X1.0	1,0	5,25 *0.207*	13,0 *0.512*	35 *1.378*	84,75 *3.337*	91,8 *3.614*	10,0 *0.394*	10.00X8.00	9,0 *0.354*	3	B
T34-PH02B03-10X1.25-65R	10139350	MF10X1.25	1,25	6,28 *0.247*	15,0 *0.591*	39 *1.535*	93,72 *3.690*	101,8 *4.008*	10,0 *0.394*	10.00X8.00	8,8 *0.346*	3	B

T34-PHB

Through holes – MF threads





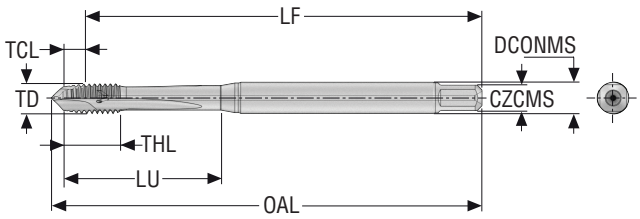
- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN374
- Thread tolerance class: 6HX
- For cutting data see page(s) 260, 262

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		mm *Inch*		
T34-PH02B05-8X1-65R	10139351	MF8X1.0	1,0	4,75 *0.187*	10,0 *0.394*	35 *1.378*	85,25 *3.356*	90,0 *3.543*	6,0 *0.236*	6.00X4.90	7,0 *0.276*	3	B
T34-PH02B05-10X1-65R	10139352	MF10X1.0	1,0	4,85 *0.191*	10,0 *0.394*	35 *1.378*	85,15 *3.352*	90,0 *3.543*	7,0 *0.276*	7.00X5.50	9,0 *0.354*	3	B
T34-PH02B05-12X1-65R	10139353	MF12X1.0	1,0	4,98 *0.196*	10,0 *0.394*	73 *2.874*	95,02 *3.741*	100,0 *3.937*	9,0 *0.354*	9.00X7.00	11,0 *0.433*	3	B
T34-PH02B05-12X1.25-65R	10139354	MF12X1.25	1,25	7,07 *0.278*	15,0 *0.591*	73 *2.874*	92,93 *3.659*	100,0 *3.937*	9,0 *0.354*	9.00X7.00	10,8 *0.425*	3	B
T34-PH02B05-12X1.5-65R	10139355	MF12X1.5	1,5	6,03 *0.237*	15,0 *0.591*	73 *2.874*	93,97 *3.700*	100,0 *3.937*	9,0 *0.354*	9.00X7.00	10,5 *0.413*	3	B
T34-PH02B05-14X1.5-65R	10139356	MF14X1.5	1,5	7,17 *0.282*	15,0 *0.591*	71 *2.795*	92,83 *3.655*	100,0 *3.937*	11,0 *0.433*	11.00X9.00	12,5 *0.492*	3	B
T34-PH02B05-16X1.5-65R	10139357	MF16X1.5	1,5	7,27 *0.286*	15,0 *0.591*	58 *2.283*	92,73 *3.651*	100,0 *3.937*	12,0 *0.472*	12.00X9.00	14,5 *0.571*	3	B
T34-PH02B05-18X1.5-65R	10139358	MF18X1.5	1,5	7,17 *0.282*	17,0 *0.669*	66 *2.598*	102,83 *4.048*	110,0 *4.331*	14,0 *0.551*	14.00X11.00	16,5 *0.650*	4	B
T34-PH02B05-20X1.5-65R	10139359	MF20X1.5	1,5	7,27 *0.286*	17,0 *0.669*	80 *3.150*	117,73 *4.635*	125,0 *4.921*	16,0 *0.630*	16.00X12.00	18,5 *0.728*	4	B
T34-PH02B05-22X1.5-65R	10139360	MF22X1.5	1,5	7,27 *0.286*	17,0 *0.669*	78 *3.071*	117,73 *4.635*	125,0 *4.921*	18,0 *0.709*	18.00X14.50	20,5 *0.807*	4	B
T34-PH02B05-24X1.5-65R	10139361	MF24X1.5	1,5	7,41 *0.292*	20,0 *0.787*	93 *3.661*	132,59 *5.220*	140,0 *5.512*	18,0 *0.709*	18.00X14.50	22,5 *0.886*	4	B

T34B-PHB

Through holes – MF threads



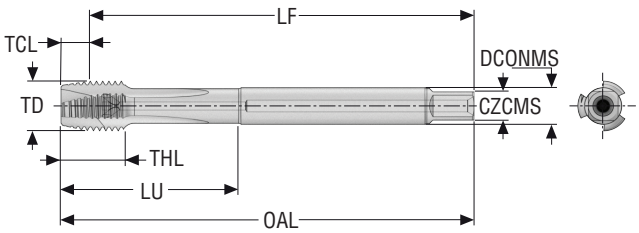


- Internal coolant
- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN371
- Thread tolerance class: 6HX
- For cutting data see page(s) 260, 262

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		mm *Inch*		
T34B-PH02B03-8X1-65R	10139362	MF8X1.0	1,0	4,45 *0.175*	13,0 *0.512*	35 *1.378*	85,55 *3.368*	93,4 *3.677*	8,0 *0.315*	8.00X6.20	7,0 *0.276*	3	B
T34B-PH02B03-10X1-65R	10139363	MF10X1.0	1,0	5,25 *0.207*	13,0 *0.512*	35 *1.378*	84,75 *3.337*	90,0 *3.543*	10,0 *0.394*	10.00X8.00	9,0 *0.354*	3	B

T34B-PHB

Through holes – MF threads





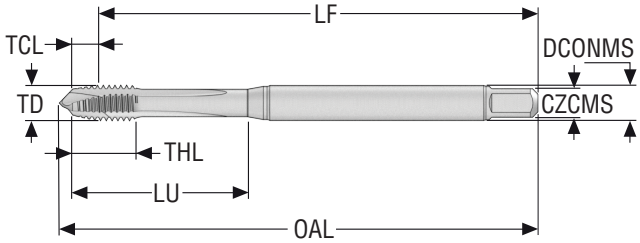
- Internal coolant
- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN374
- Thread tolerance class: 6HX
- For cutting data see page(s) 260, 262

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		mm *Inch*		
T34B-PH02B05-8X1-65R	10139364	MF8X1.0	1,0	4,75 *0.187*	10,0 *0.394*	35 *1.378*	85,25 *3.356*	90,0 *3.543*	6,0 *0.236*	6.00X4.90	7,0 *0.276*	3	B
T34B-PH02B05-10X1-65R	10139365	MF10X1.0	1,0	4,85 *0.191*	10,0 *0.394*	35 *1.378*	85,15 *3.352*	90,0 *3.543*	7,0 *0.276*	7.00X5.50	9,0 *0.354*	3	B
T34B-PH02B05-12X1.5-65R	10139366	MF12X1.5	1,5	7,07 *0.278*	15,0 *0.591*	73 *2.874*	92,93 *3.659*	100,0 *3.937*	9,0 *0.354*	9.00X7.00	10,5 *0.413*	3	B
T34B-PH02B05-14X1.5-65R	10139367	MF14X1.5	1,5	7,17 *0.282*	15,0 *0.591*	71 *2.795*	92,83 *3.655*	100,0 *3.937*	11,0 *0.433*	11.00X9.00	12,5 *0.492*	3	B
T34B-PH02B05-16X1.5-65R	10139368	MF16X1.5	1,5	7,27 *0.286*	15,0 *0.591*	58 *2.283*	92,73 *3.651*	100,0 *3.937*	12,0 *0.472*	12.00X9.00	14,5 *0.571*	3	B

T34-PHB

Through holes – UNC threads



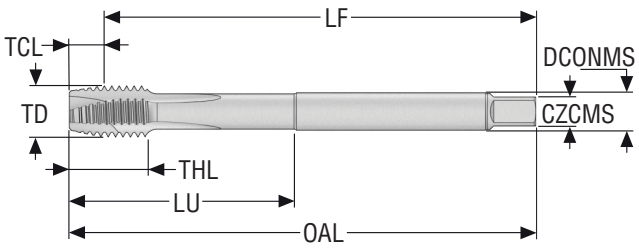


- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN371
- Thread tolerance class: 2BX
- For cutting data see page(s) 260, 262

Designation	Item number	TDZ	TD	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm *Inch*	*TPI*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		mm *Inch*		
T34-PH08B03-4-40-22R	10139041	UNC4-40	2,845 *0.112*	*40.0*	2,83 *0.111*	5,0 *0.197*	18 *0.709*	53,17 *2.093*	56,0 *2.205*	3,5 *0.138*	3.50X2.70	2,35 *0.093*	3	B
T34-PH08B03-5-40-22R	10139042	UNC5-40	3,175 *0.125*	*40.0*	2,94 *0.116*	7,0 *0.276*	18 *0.709*	53,06 *2.089*	57,2 *2.252*	3,5 *0.138*	3.50X2.70	2,65 *0.104*	3	B
T34-PH08B03-6-32-22R	10139043	UNC6-32	3,505 *0.138*	*32.0*	3,74 *0.147*	6,0 *0.236*	20 *0.787*	52,26 *2.057*	57,4 *2.260*	4,0 *0.157*	4.00X3.00	2,85 *0.112*	3	B
T34-PH08B03-8-32-22R	10139044	UNC8-32	4,166 *0.164*	*32.0*	3,62 *0.143*	7,0 *0.276*	21 *0.827*	59,38 *2.338*	64,6 *2.543*	4,5 *0.177*	4.50X3.40	3,5 *0.138*	3	B
T34-PH08B03-10-24-22R	10139045	UNC10-24	4,826 *0.190*	*24.0*	4,86 *0.191*	8,0 *0.315*	25 *0.984*	65,14 *2.565*	72,0 *2.835*	6,0 *0.236*	6.00X4.90	3,9 *0.154*	3	B
T34-PH08B03-12-24-22R	10139046	UNC12-24	5,486 *0.216*	*24.0*	4,74 *0.187*	10,0 *0.394*	30 *1.181*	75,26 *2.963*	82,2 *3.236*	6,0 *0.236*	6.00X4.90	4,5 *0.177*	3	B
T34-PH08B03-1/4-20-22R	10139047	UNC1/4-20	6,35 *0.250*	*20.0*	5,65 *0.222*	13,0 *0.512*	32 *1.260*	74,35 *2.927*	82,4 *3.244*	7,0 *0.276*	7.00X5.50	5,1 *0.201*	3	B
T34-PH08B03-5/16-18-22R	10139048	UNC5/16-18	7,937 *0.312*	*18.0*	6,31 *0.248*	13,0 *0.512*	35 *1.378*	83,69 *3.295*	93,3 *3.673*	8,0 *0.315*	8.00X6.20	6,6 *0.260*	3	B
T34-PH08B03-3/8-16-22R	10139049	UNC3/8-16	9,525 *0.375*	*16.0*	7,37 *0.290*	15,0 *0.591*	39 *1.535*	92,63 *3.647*	100,0 *3.937*	10,0 *0.394*	10.00X8.00	8,0 *0.315*	3	B

T34-PHB

Through holes – UNC threads





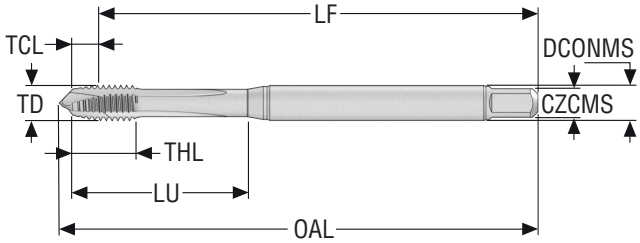
- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN376
- Thread tolerance class: 2BX
- For cutting data see page(s) 260, 262

Designation	Item number	TDZ	TD	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm *Inch*	*TPI*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		mm *Inch*		
T34-PH08B06-7/16-14-22R	10139050	UNC7/16-14	11,112 *0.437*	*14.0*	8,36 *0.329*	15,0 *0.591*	76 *2.992*	91,64 *3.608*	100,0 *3.937*	8,0 *0.315*	8.00X6.20	9,3 *0.366*	3	B
T34-PH08B06-1/2-13-22R	10139051	UNC1/2-13	12,7 *0.500*	*13.0*	9,01 *0.355*	18,0 *0.709*	83 *3.268*	100,99 *3.976*	110,0 *4.331*	9,0 *0.354*	9.00X7.00	10,7 *0.421*	3	B
T34-PH08B06-9/16-12-22R	10139052	UNC9/16-12	14,287 *0.562*	*12.0*	9,87 *0.389*	20,0 *0.787*	81 *3.189*	100,13 *3.942*	110,0 *4.331*	11,0 *0.433*	11.00X9.00	12,3 *0.484*	3	B
T34-PH08B06-5/8-11-22R	10139053	UNC5/8-11	15,875 *0.625*	*11.0*	10,62 *0.418*	22,0 *0.866*	68 *2.677*	99,38 *3.913*	110,0 *4.331*	12,0 *0.472*	12.00X9.00	13,5 *0.531*	3	B

T34-PHB

Through holes – UNF threads



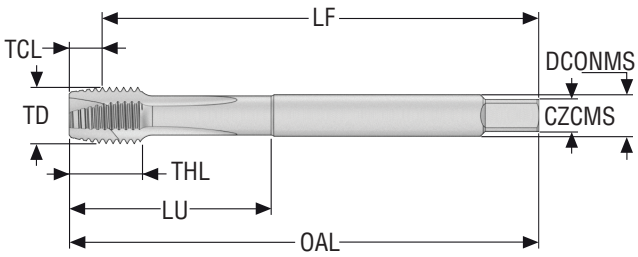


- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN371
- Thread tolerance class: 2BX
- For cutting data see page(s) 260, 262

Designation	Item number	TDZ	TD	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm *Inch*	*TPI*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		mm *Inch*		
T34-PH09B03-4-48-22R	10139369	UNF4-48	2,845 *0.112*	*48.0*	2,48 *0.098*	5,0 *0.197*	18 *0.709*	53,52 *2.107*	57,2 *2.252*	3,5 *0.138*	3.50X2.70	2,4 *0.094*	3	B
T34-PH09B03-5-44-22R	10139370	UNF5-44	3,175 *0.125*	*44.0*	2,6 *0.102*	7,0 *0.276*	18 *0.709*	53,4 *2.102*	57,2 *2.252*	3,5 *0.138*	3.50X2.70	2,7 *0.106*	3	B
T34-PH09B03-6-40-22R	10139371	UNF6-40	3,505 *0.138*	*40.0*	3,05 *0.120*	6,0 *0.236*	20 *0.787*	52,95 *2.085*	57,4 *2.260*	4,0 *0.157*	4.00X3.00	2,95 *0.116*	3	B
T34-PH09B03-8-36-22R	10139372	UNF8-36	4,166 *0.164*	*36.0*	3,28 *0.129*	7,0 *0.276*	21 *0.827*	59,72 *2.351*	64,6 *2.543*	4,5 *0.177*	4.50X3.40	3,5 *0.138*	3	B
T34-PH09B03-10-32-22R	10139373	UNF10-32	4,826 *0.190*	*32.0*	3,5 *0.138*	8,0 *0.315*	25 *0.984*	66,5 *2.618*	72,0 *2.835*	6,0 *0.236*	6.00X4.90	4,1 *0.161*	3	B
T34-PH09B03-12-28-22R	10139374	UNF12-28	5,486 *0.216*	*28.0*	4,05 *0.159*	10,0 *0.394*	30 *1.181*	75,95 *2.990*	82,2 *3.236*	6,0 *0.236*	6.00X4.90	4,6 *0.181*	3	B
T34-PH09B03-1/4-28-22R	10139375	UNF1/4-28	6,35 *0.250*	*28.0*	3,94 *0.155*	10,0 *0.394*	30 *1.181*	76,06 *2.994*	82,4 *3.244*	7,0 *0.276*	7.00X5.50	5,5 *0.217*	3	B
T34-PH09B03-5/16-24-22R	10139376	UNF5/16-24	7,937 *0.312*	*24.0*	4,6 *0.181*	13,0 *0.512*	35 *1.378*	85,4 *3.362*	93,3 *3.673*	8,0 *0.315*	8.00X6.20	6,9 *0.272*	3	B
T34-PH09B03-3/8-24-22R	10139377	UNF3/8-24	9,525 *0.375*	*24.0*	4,98 *0.196*	15,0 *0.591*	35 *1.378*	85,02 *3.347*	90,0 *3.543*	10,0 *0.394*	10.00X8.00	8,5 *0.335*	3	B

T34-PHB

Through holes – UNF threads





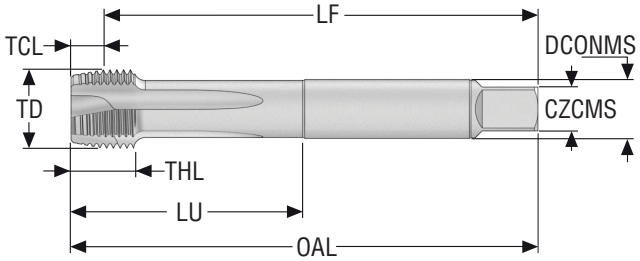
- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN376
- Thread tolerance class: 2BX
- For cutting data see page(s) 260, 262

Designation	Item number	TDZ	TD	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm *Inch*	*TPI*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		mm *Inch*		
T34-PH09B05-7/16-20-22R	10139378	UNF7/16-20	11,112 *0.437*	*20.0*	5,95 *0.234*	15,0 *0.591*	76 *2.992*	94,05 *3.703*	100,0 *3.937*	8,0 *0.315*	8.00X6.20	9,9 *0.390*	3	B
T34-PH09B05-1/2-20-22R	10139379	UNF1/2-20	12,7 *0.500*	*20.0*	6,14 *0.242*	15,0 *0.591*	73 *2.874*	93,86 *3.695*	100,0 *3.937*	9,0 *0.354*	9.00X7.00	11,5 *0.453*	3	B
T34-PH09B05-9/16-18-22R	10139380	UNF9/16-18	14,287 *0.562*	*18.0*	6,8 *0.268*	15,0 *0.591*	71 *2.795*	93,2 *3.669*	100,0 *3.937*	11,0 *0.433*	11.00X9.00	13,0 *0.512*	3	B
T34-PH09B05-5/8-18-22R	10139381	UNF5/8-18	15,875 *0.625*	*18.0*	6,87 *0.270*	15,0 *0.591*	58 *2.283*	93,13 *3.667*	100,0 *3.937*	12,0 *0.472*	12.00X9.00	14,5 *0.571*	3	B

T34-PHB

Through holes – G threads



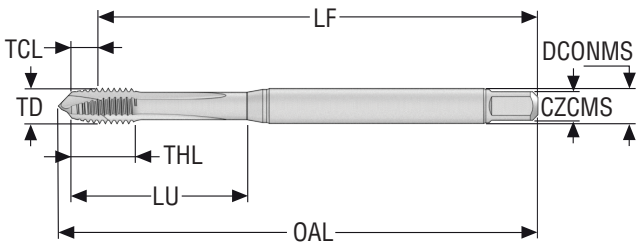


- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN5156
- Thread tolerance class: NORMAL-X
- For cutting data see page(s) 260, 262

Designation	Item number	TDZ	TD	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm *Inch*	*TPI*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		mm *Inch*		
T34-PH21B09-1/8-28-12R	10139401	G1/8-28	9,728 *0.383*	*28.0*	4,49 *0.177*	10,0 *0.394*	36 *1.417*	85,51 *3.367*	90,0 *3.543*	7,0 *0.276*	7.00X5.50	8,8 *0.346*	3	B
T34-PH21B09-1/4-19-12R	10139402	G1/4-19	13,157 *0.518*	*19.0*	6,85 *0.270*	14,0 *0.551*	71 *2.795*	93,15 *3.667*	100,0 *3.937*	11,0 *0.433*	11.00X9.00	11,8 *0.465*	3	B
T34-PH21B09-3/8-19-12R	10139403	G3/8-19	16,662 *0.656*	*19.0*	6,97 *0.274*	15,0 *0.591*	58 *2.283*	93,03 *3.663*	100,0 *3.937*	12,0 *0.472*	12.00X9.00	15,25 *0.600*	4	B
T34-PH21B09-1/2-14-12R	10139404	G1/2-14	20,955 *0.825*	*14.0*	9,0 *0.354*	17,0 *0.669*	80 *3.150*	116,0 *4.567*	125,0 *4.921*	16,0 *0.630*	16.00X12.00	19,0 *0.748*	4	B
T34-PH21B09-5/8-14-12R	10139405	G5/8-14	22,911 *0.902*	*14.0*	9,4 *0.370*	20,0 *0.787*	78 *3.071*	115,6 *4.551*	125,0 *4.921*	18,0 *0.709*	18.00X14.50	21,0 *0.827*	4	B
T34-PH21B09-3/4-14-12R	10139406	G3/4-14	26,441 *1.041*	*14.0*	9,16 *0.361*	20,0 *0.787*	77 *3.031*	130,84 *5.151*	140,0 *5.512*	20,0 *0.787*	20.00X16.00	24,5 *0.965*	4	B
T34-PH21B09-7/8-14-12R	10139407	G7/8-14	30,201 *1.189*	*14.0*	9,03 *0.356*	22,0 *0.866*	85 *3.346*	140,97 *5.550*	150,0 *5.906*	22,0 *0.866*	22.00X18.00	28,25 *1.112*	4	B
T34-PH21B09-1-11-12R	10139408	G1-11	33,249 *1.309*	*11.0*	11,49 *0.452*	24,0 *0.945*	93 *3.661*	148,51 *5.847*	160,0 *6.299*	25,0 *0.984*	25.00X20.00	30,75 *1.211*	4	B

T34-PHB

Through holes – EGM threads





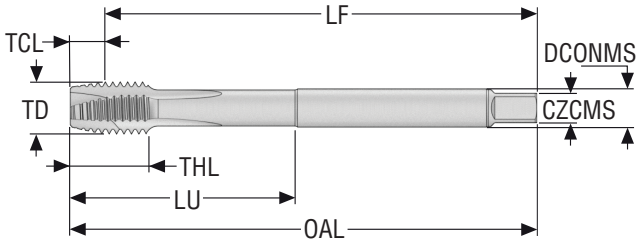
- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN371
- Thread tolerance class: 6H mod.
- For cutting data see page(s) 260, 262

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		mm *Inch*		
T34-PH04B03-2X0.4-64R	10139382	EGM2	0,4	2,07 *0.081*	9,0 *0.354*	14 *0.551*	47,93 *1.887*	51,7 *2.035*	2,8 *0.110*	2.80X2.10	2,1 *0.083*	2	B
T34-PH04B03-2.5X0.45-64R	10139383	EGM2.5	0,45	2,13 *0.084*	10,0 *0.394*	18 *0.709*	53,87 *2.121*	57,2 *2.252*	3,5 *0.138*	3.50X2.70	2,65 *0.104*	3	B
T34-PH04B03-3X0.5-64R	10139384	EGM3	0,5	2,03 *0.080*	12,0 *0.472*	21 *0.827*	60,97 *2.400*	64,6 *2.543*	4,5 *0.177*	4.50X3.40	3,15 *0.124*	3	B
T34-PH04B03-4X0.7-64R	10139385	EGM4	0,7	3,27 *0.129*	14,0 *0.551*	25 *0.984*	66,73 *2.627*	72,0 *2.835*	6,0 *0.236*	6.00X4.90	4,2 *0.165*	3	B
T34-PH04B03-5X0.8-64R	10139386	EGM5	0,8	3,72 *0.146*	18,0 *0.709*	30 *1.181*	76,28 *3.003*	82,4 *3.244*	6,0 *0.236*	6.00X4.90	5,25 *0.207*	3	B
T34-PH04B03-6X1-64R	10139387	EGM6	1,0	4,7 *0.185*	18,0 *0.709*	35 *1.378*	85,3 *3.358*	90,0 *3.543*	8,0 *0.315*	8.00X6.20	6,3 *0.248*	3	B
T34-PH04B03-8X1.25-64R	10139388	EGM8	1,25	5,8 *0.228*	20,0 *0.787*	39 *1.535*	94,2 *3.709*	100,0 *3.937*	10,0 *0.394*	10.00X8.00	8,4 *0.331*	3	B

T34-PHB

Through holes – EGM threads



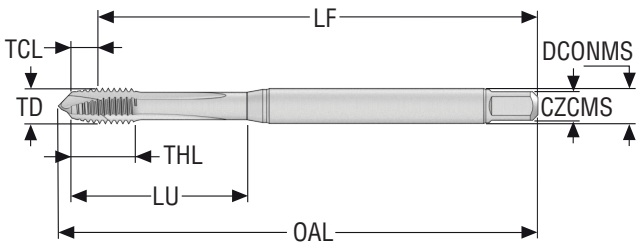


- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN376
- Thread tolerance class: 6H mod.
- For cutting data see page(s) 260, 262

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		mm *Inch*		
T34-PH04B06-10X1.5-64R	10139409	EGM10	1,5	7,41 *0.292*	15,0 *0.591*	73 *2.874*	92,59 *3.645*	100,0 *3.937*	9,0 *0.354*	9.00X7.00	10,5 *0.413*	3	B
T34-PH04B06-12X1.75-64R	10139410	EGM12	1,75	8,29 *0.326*	20,0 *0.787*	81 *3.189*	101,71 *4.004*	110,0 *4.331*	11,0 *0.433*	11.00X9.00	12,5 *0.492*	4	B
T34-PH04B06-14X2-64R	10139411	EGM14	2,0	9,14 *0.360*	20,0 *0.787*	68 *2.677*	100,86 *3.971*	110,0 *4.331*	12,0 *0.472*	12.00X9.00	14,5 *0.571*	4	B
T34-PH04B06-16X2-64R	10139412	EGM16	2,0	9,14 *0.360*	20,0 *0.787*	81 *3.189*	115,86 *4.561*	125,0 *4.921*	14,0 *0.551*	14.00X11.00	16,5 *0.650*	4	B
T34-PH04B06-18X2.5-64R	10139413	EGM18	2,5	11,45 *0.451*	27,0 *1.063*	93 *3.661*	128,55 *5.061*	140,0 *5.512*	18,0 *0.709*	18.00X14.50	18,75 *0.738*	4	B
T34-PH04B06-20X2.5-64R	10139414	EGM20	2,5	11,45 *0.451*	30,0 *1.181*	113 *4.449*	148,55 *5.848*	160,0 *6.299*	18,0 *0.709*	18.00X14.50	20,75 *0.817*	4	B

T34-PHB

Through holes – EGUNC threads





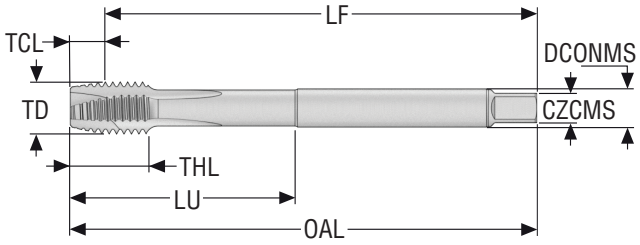
- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN371
- Thread tolerance class: 2B
- For cutting data see page(s) 260, 262

Designation	Item number	TDZ	TD	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm *Inch*	*TPI*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		mm *Inch*		
T34-PH16B03-4-40-21R	10139389	EGUNC4-40	3,67 *0.144*	*40.0*	2,83 *0.111*	13,0 *0.512*	21 *0.827*	60,17 *2.369*	64,6 *2.543*	4,5 *0.177*	4.50X3.40	3,1 *0.122*	3	B
T34-PH16B03-6-32-21R	10139390	EGUNC6-32	4,536 *0.179*	*32.0*	3,75 *0.148*	14,0 *0.551*	25 *0.984*	66,25 *2.608*	71,8 *2.827*	6,0 *0.236*	6.00X4.90	3,8 *0.150*	3	B
T34-PH16B03-8-32-21R	10139391	EGUNC8-32	5,197 *0.205*	*32.0*	3,73 *0.147*	16,0 *0.630*	30 *1.181*	76,27 *3.003*	82,1 *3.232*	6,0 *0.236*	6.00X4.90	4,4 *0.173*	3	B
T34-PH16B03-10-24-21R	10139392	EGUNC10-24	6,2 *0.244*	*24.0*	3,5 *0.138*	17,0 *0.669*	30 *1.181*	76,5 *3.012*	82,4 *3.244*	7,0 *0.276*	7.00X5.50	5,2 *0.205*	3	B
T34-PH16B03-1/4-20-21R	10139393	EGUNC1/4-20	8,001 *0.315*	*20.0*	5,71 *0.225*	20,0 *0.787*	35 *1.378*	84,29 *3.319*	93,3 *3.673*	8,0 *0.315*	8.00X6.20	6,7 *0.264*	3	B
T34-PH16B03-5/16-18-21R	10139394	EGUNC5/16-18	9,771 *0.385*	*18.0*	6,61 *0.260*	22,0 *0.866*	39 *1.535*	93,39 *3.677*	100,0 *3.937*	10,0 *0.394*	10.00X8.00	8,4 *0.331*	3	B

T34-PHB

Through holes – EGUNC threads



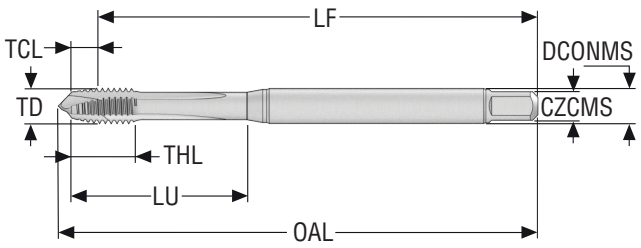


- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN376
- Thread tolerance class: 2B
- For cutting data see page(s) 260, 262

Designation	Item number	TDZ	TD	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm *Inch*	*TPI*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		mm *Inch*		
T34-PH16B06-3/8-16-21R	10139415	EGUNC3/8-16	11,587 *0.456*	*16.0*	7,6 *0.299*	15,0 *0.591*	73 *2.874*	92,4 *3.638*	100,0 *3.937*	9,0 *0.354*	9.00X7.00	10,0 *0.394*	3	B
T34-PH16B06-7/16-14-21R	10139416	EGUNC7/16-14	13,47 *0.530*	*14.0*	8,6 *0.339*	18,0 *0.709*	81 *3.189*	101,4 *3.992*	110,0 *4.331*	11,0 *0.433*	11.00X9.00	11,6 *0.457*	3	B
T34-PH16B06-1/2-13-21R	10139417	EGUNC1/2-13	15,237 *0.600*	*13.0*	9,3 *0.366*	18,0 *0.709*	68 *2.677*	100,7 *3.965*	110,0 *4.331*	12,0 *0.472*	12.00X9.00	13,3 *0.524*	3	B
T34-PH16B06-9/16-12-21R	10139418	EGUNC9/16-12	17,038 *0.671*	*12.0*	9,7 *0.382*	20,0 *0.787*	68 *2.677*	100,3 *3.949*	110,0 *4.331*	12,0 *0.472*	12.00X9.00	14,9 *0.587*	4	B
T34-PH16B06-5/8-11-21R	10139419	EGUNC5/8-11	18,875 *0.743*	*11.0*	10,6 *0.417*	20,0 *0.787*	81 *3.189*	114,4 *4.504*	125,0 *4.921*	14,0 *0.551*	14.00X11.00	16,5 *0.650*	4	B
T34-PH16B06-3/4-10-21R	10139420	EGUNC3/4-10	22,349 *0.880*	*10.0*	11,8 *0.465*	25,0 *0.984*	93 *3.661*	128,2 *5.047*	140,0 *5.512*	18,0 *0.709*	18.00X14.50	19,75 *0.778*	4	B

T34-PHB

Through holes – EGUNF threads





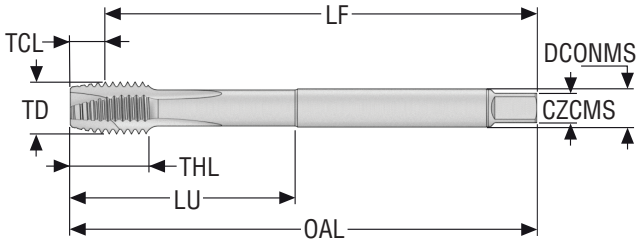
- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN371
- Thread tolerance class: 2B
- For cutting data see page(s) 260, 262

Designation	Item number	TDZ	TD	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm *Inch*	*TPI*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		mm *Inch*		
T34-PH17B03-4-48-21R	10139395	EGUNF4-48	3,533 *0.139*	*48.0*	2,36 *0.093*	9,0 *0.354*	20 *0.787*	53,64 *2.112*	57,4 *2.260*	4,0 *0.157*	4.00X3.00	3,0 *0.118*	3	B
T34-PH17B03-6-40-21R	10139396	EGUNF6-40	4,331 *0.171*	*40.0*	2,75 *0.108*	10,0 *0.394*	25 *0.984*	67,25 *2.648*	71,8 *2.827*	6,0 *0.236*	6.00X4.90	3,7 *0.146*	3	B
T34-PH17B03-8-36-21R	10139397	EGUNF8-36	5,083 *0.200*	*36.0*	2,93 *0.115*	13,0 *0.512*	30 *1.181*	77,07 *3.034*	82,1 *3.232*	6,0 *0.236*	6.00X4.90	4,4 *0.173*	3	B
T34-PH17B03-10-32-21R	10139398	EGUNF10-32	5,857 *0.231*	*32.0*	3,5 *0.138*	13,0 *0.512*	30 *1.181*	76,5 *3.012*	82,4 *3.244*	6,0 *0.236*	6.00X4.90	5,1 *0.201*	3	B
T34-PH17B03-1/4-28-21R	10139399	EGUNF1/4-28	7,529 *0.296*	*28.0*	4,09 *0.161*	17,0 *0.669*	35 *1.378*	85,91 *3.382*	93,2 *3.669*	8,0 *0.315*	8.00X6.20	6,6 *0.260*	3	B
T34-PH17B03-5/16-24-21R	10139400	EGUNF5/16-24	9,312 *0.367*	*24.0*	5,1 *0.201*	18,0 *0.709*	35 *1.378*	84,97 *3.345*	90,0 *3.543*	10,0 *0.394*	10.00X8.00	8,25 *0.325*	3	B

T34-PHB

Through holes – EGUNF threads



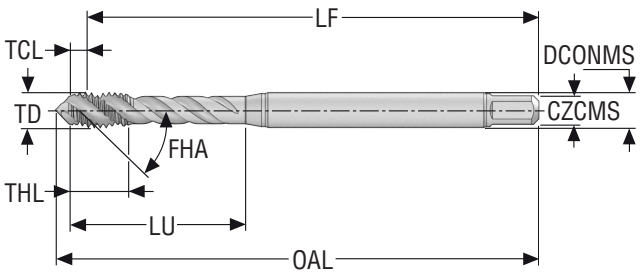


- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN376
- Thread tolerance class: 2B
- For cutting data see page(s) 260, 262

Designation	Item number	TDZ	TD	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm *Inch*	*TPI*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		mm *Inch*		
T34-PH17B06-3/8-24-21R	10139421	EGUNF3/8-24	10,899 *0.429*	*24.0*	4,43 *0.174*	12,0 *0.472*	66 *2.598*	85,57 *3.369*	90,0 *3.543*	8,0 *0.315*	8.00X6.00	9,8 *0.386*	3	B
T34-PH17B06-7/16-20-21R	10139422	EGUNF7/16-20	12,763 *0.502*	*20.0*	6,2 *0.244*	15,0 *0.591*	73 *2.874*	93,8 *3.693*	100,0 *3.937*	9,0 *0.354*	9.00X7.00	11,5 *0.453*	3	B
T34-PH17B06-1/2-20-21R	10139423	EGUNF1/2-20	14,351 *0.565*	*20.0*	6,2 *0.244*	15,0 *0.591*	71 *2.795*	93,8 *3.693*	100,0 *3.937*	11,0 *0.433*	11.00X9.00	13,1 *0.516*	3	B
T34-PH17B06-9/16-18-21R	10139424	EGUNF9/16-18	16,121 *0.635*	*18.0*	6,9 *0.272*	15,0 *0.591*	58 *2.283*	93,1 *3.665*	100,0 *3.937*	12,0 *0.472*	12.00X9.00	14,7 *0.579*	4	B
T34-PH17B06-5/8-18-21R	10139425	EGUNF5/8-18	17,709 *0.697*	*18.0*	6,9 *0.272*	15,0 *0.591*	66 *2.598*	103,1 *4.059*	110,0 *4.331*	14,0 *0.551*	14.00X11.00	16,25 *0.640*	4	B
T34-PH17B06-3/4-16-21R	10139426	EGUNF3/4-16	21,112 *0.831*	*16.0*	7,9 *0.311*	17,0 *0.669*	80 *3.150*	117,1 *4.610*	125,0 *4.921*	16,0 *0.630*	16.00X12.00	19,5 *0.768*	4	B

T34-R45HC-micro

Blind holes – Metric coarse threads





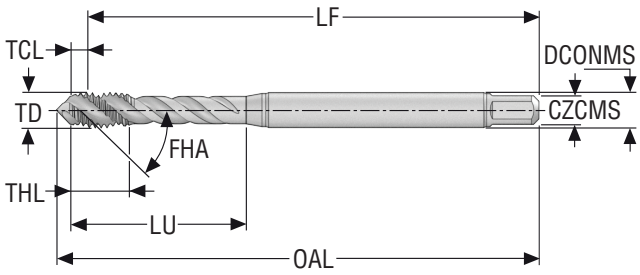
- Substrate: HSS-PM
- Coating: TiAlN + WC/C
- Standard: DIN371
- Thread tolerance class: 4H
- FHA = 45°
- For cutting data see page(s) 260, 262

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		mm *Inch*		
T34-R45H01C03-1X0.25-41R	10138952	M1	0,25	0,59 *0.023*	6,0 *0.236*	13 *0.512*	39,41 *1.552*	40,9 *1.610*	2,5 *0.098*	2.50X2.10	0,75 *0.030*	2	C
T34-R45H01C03-1.1X0.25-41R	10138953	M1.1	0,25	0,59 *0.023*	6,0 *0.236*	13 *0.512*	39,41 *1.552*	41,0 *1.614*	2,5 *0.098*	2.50X2.10	0,85 *0.033*	2	C
T34-R45H01C03-1.2X0.25-41R	10138954	M1.2	0,25	0,59 *0.023*	6,0 *0.236*	13 *0.512*	39,41 *1.552*	41,1 *1.618*	2,5 *0.098*	2.50X2.10	0,95 *0.037*	2	C
T34-R45H01C03-1.4X0.3-41R	10138955	M1.4	0,3	0,69 *0.027*	8,0 *0.315*	13 *0.512*	39,31 *1.548*	41,3 *1.626*	2,5 *0.098*	2.50X2.10	1,1 *0.043*	2	C

T34-R45HC-micro

Blind holes – Metric coarse threads



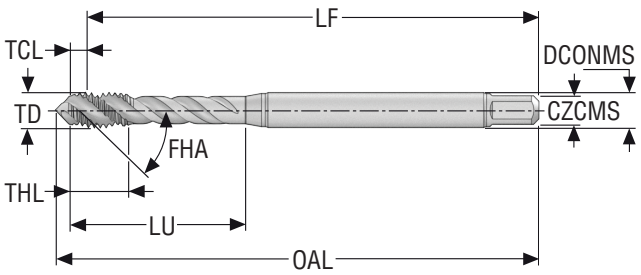


- Substrate: HSS-PM
- Coating: TiAlN + WC/C
- Standard: DIN371
- Thread tolerance class: 6H
- FHA = 45°
- For cutting data see page(s) 260, 262

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		mm *Inch*		
T34-R45H01C03-1.6X0.35-63R	10138956	M1.6	0,35	0,8 *0.031*	8,0 *0.315*	13 *0.512*	39,2 *1.543*	41,4 *1.630*	2,5 *0.098*	2.50X2.10	1,25 *0.049*	2	C
T34-R45H01C03-1.7X0.35-63R	10138957	M1.7	0,35	0,8 *0.031*	8,0 *0.315*	13 *0.512*	39,2 *1.543*	41,5 *1.634*	2,5 *0.098*	2.50X2.10	1,35 *0.053*	2	C
T34-R45H01C03-1.8X0.35-63R	10138958	M1.8	0,35	0,8 *0.031*	8,0 *0.315*	13 *0.512*	39,2 *1.543*	41,6 *1.638*	2,5 *0.098*	2.50X2.10	1,45 *0.057*	2	C
T34-R45H01C03-2X0.4-63R	10138959	M2	0,4	1,05 *0.041*	10,0 *0.394*	13 *0.512*	43,95 *1.730*	46,3 *1.823*	2,8 *0.110*	2.80X2.10	1,6 *0.063*	2	C
T34-R45H01C03-2.2X0.45-63R	10138960	M2.2	0,45	1,15 *0.045*	10,0 *0.394*	13 *0.512*	43,85 *1.726*	46,3 *1.823*	2,8 *0.110*	2.80X2.10	1,75 *0.069*	2	C
T34-R45H01C03-2.3X0.4-63R	10138961	M2.3	0,4	1,05 *0.041*	10,0 *0.394*	13 *0.512*	43,95 *1.730*	46,3 *1.823*	2,8 *0.110*	2.80X2.10	1,9 *0.075*	2	C
T34-R45H01C03-2.5X0.45-63R	10138962	M2.5	0,45	1,06 *0.042*	5,0 *0.197*	14 *0.551*	48,94 *1.927*	51,7 *2.035*	2,8 *0.110*	2.80X2.10	2,05 *0.081*	2	C
T34-R45H01C03-2.6X0.45-63R	10138963	M2.6	0,45	1,15 *0.045*	5,0 *0.197*	14 *0.551*	48,85 *1.923*	51,7 *2.035*	2,8 *0.110*	2.80X2.10	2,15 *0.085*	2	C

T34-R45HC

Blind holes – Metric coarse threads





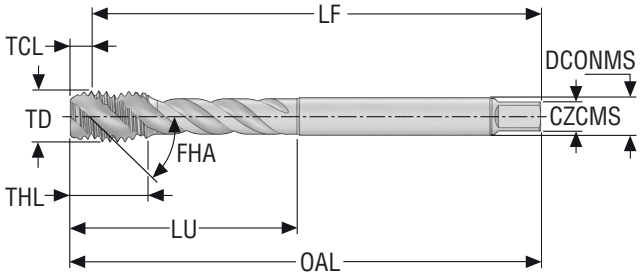
- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN371
- Thread tolerance class: 6HX
- FHA = 45°
- For cutting data see page(s) 260, 262

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		mm *Inch*		
T34-R45H01C03-3X0.5-65R	10138964	M3	0,5	1,2 *0.047*	5,0 *0.197*	18 *0.709*	54,8 *2.157*	57,2 *2.252*	3,5 *0.138*	3.50X2.70	2,5 *0.098*	3	C
T34-R45H01C03-3.5X0.6-65R	10138966	M3.5	0,6	1,31 *0.052*	6,0 *0.236*	20 *0.787*	54,69 *2.153*	57,4 *2.260*	4,0 *0.157*	4.00X3.00	2,9 *0.114*	3	C
T34-R45H01C03-4X0.7-65R	10138967	M4	0,7	1,82 *0.072*	7,0 *0.276*	21 *0.827*	61,18 *2.409*	64,6 *2.543*	4,5 *0.177*	4.50X3.40	3,3 *0.130*	3	C
T34-R45H01C03-4.5X0.75-65R	10138968	M4.5	0,75	1,82 *0.072*	7,5 *0.295*	25 *0.984*	68,18 *2.684*	71,8 *2.827*	6,0 *0.236*	6.00X4.90	3,8 *0.150*	3	C
T34-R45H01C03-5X0.8-65R	10138969	M5	0,8	2,01 *0.079*	8,0 *0.315*	25 *0.984*	67,99 *2.677*	72,0 *2.835*	6,0 *0.236*	6.00X4.90	4,2 *0.165*	3	C
T34-R45H01C03-6X1-65R	10138970	M6	1,0	2,32 *0.091*	10,0 *0.394*	30 *1.181*	77,68 *3.058*	82,4 *3.244*	6,0 *0.236*	6.00X4.90	5,0 *0.197*	3	C
T34-R45H01C03-8X1.25-65R	10138971	M8	1,25	3,16 *0.124*	13,0 *0.512*	35 *1.378*	86,84 *3.419*	91,7 *3.610*	8,0 *0.315*	8.00X6.20	6,8 *0.268*	3	C
T34-R45H01C03-10X1.5-65R	10138972	M10	1,5	3,81 *0.150*	15,0 *0.591*	39 *1.535*	96,19 *3.787*	101,8 *4.008*	10,0 *0.394*	10.00X8.00	8,5 *0.335*	3	C

T34-R45HC

Blind holes – Metric coarse threads



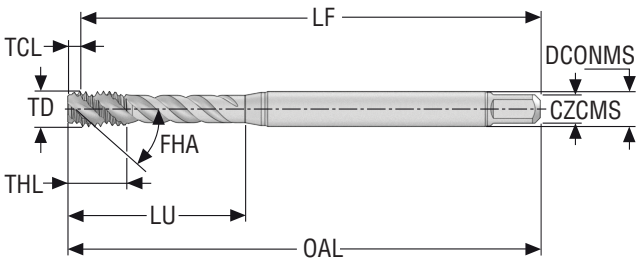


- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN376
- Thread tolerance class: 6HX
- FHA = 45°
- For cutting data see page(s) 260, 262

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		mm *Inch*		
T34-R45H01C06-12X1.75-65R	10138973	M12	1,75	4,47 *0.176*	18,0 *0.709*	83 *3.268*	105,53 *4.155*	110,0 *4.331*	9,0 *0.354*	9.00X7.00	10,2 *0.402*	3	C
T34-R45H01C06-14X2-65R	10138974	M14	2,0	5,11 *0.201*	20,0 *0.787*	81 *3.189*	104,89 *4.130*	110,0 *4.331*	11,0 *0.433*	11.00X9.00	12,0 *0.472*	4	C
T34-R45H01C06-16X2-65R	10138975	M16	2,0	5,21 *0.205*	20,0 *0.787*	68 *2.677*	104,79 *4.126*	110,0 *4.331*	12,0 *0.472*	12.00X9.00	14,0 *0.551*	4	C
T34-R45H01C06-18X2.5-65R	10138976	M18	2,5	6,28 *0.247*	25,0 *0.984*	81 *3.189*	118,72 *4.674*	125,0 *4.921*	14,0 *0.551*	14.00X11.00	15,5 *0.610*	4	C
T34-R45H01C06-20X2.5-65R	10138977	M20	2,5	6,28 *0.247*	25,0 *0.984*	95 *3.740*	133,72 *5.265*	140,0 *5.512*	16,0 *0.630*	16.00X12.00	17,5 *0.689*	4	C
T34-R45H01C06-22X2.5-65R	10138978	M22	2,5	6,28 *0.247*	25,0 *0.984*	93 *3.661*	133,72 *5.265*	140,0 *5.512*	18,0 *0.709*	18.00X14.50	19,5 *0.768*	4	C
T34-R45H01C06-24X3-65R	10138979	M24	3,0	7,48 *0.294*	30,0 *1.181*	113 *4.449*	152,52 *6.005*	160,0 *6.299*	18,0 *0.709*	18.00X14.50	21,0 *0.827*	4	C
T34-R45H01C06-27X3-65R	10138980	M27	3,0	7,68 *0.302*	30,0 *1.181*	97 *3.819*	152,32 *5.997*	160,0 *6.299*	20,0 *0.787*	20.00X16.00	24,0 *0.945*	4	C
T34-R45H01C06-30X3.5-65R	10138981	M30	3,5	8,75 *0.344*	35,0 *1.378*	115 *4.528*	171,25 *6.742*	180,0 *7.087*	22,0 *0.866*	22.00X18.00	26,5 *1.043*	4	C
T34-R45H01C06-33X3.5-65R	10138982	M33	3,5	8,75 *0.344*	35,0 *1.378*	113 *4.449*	171,25 *6.742*	180,0 *7.087*	25,0 *0.984*	25.00X20.00	29,5 *1.161*	4	C
T34-R45H01C06-36X4-65R	10138983	M36	4,0	10,02 *0.394*	40,0 *1.575*	131 *5.157*	189,98 *7.480*	200,0 *7.874*	28,0 *1.102*	28.00X22.00	32,0 *1.260*	4	C

T34-R45HE

Blind holes – Metric coarse threads





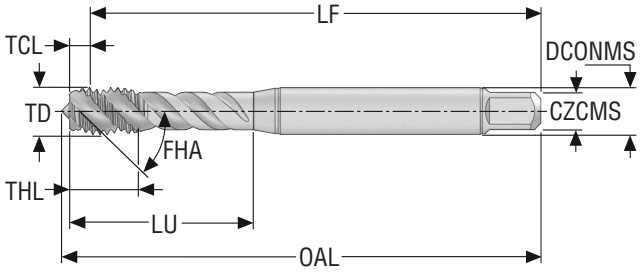
- Internal coolant
- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN371
- Thread tolerance class: 6HX
- FHA = 45°
- For cutting data see page(s) 260, 262

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		mm *Inch*		
T34-R45H01E03-3X0.5-65R	10138991	M3	0,5	0,81 *0.032*	5,0 *0.197*	18 *0.709*	55,19 *2.173*	56,0 *2.205*	3,5 *0.138*	3.50X2.70	2,5 *0.098*	3	E
T34-R45H01E03-3.5X0.6-65R	10138992	M3.5	0,6	0,94 *0.037*	6,0 *0.236*	20 *0.787*	55,06 *2.168*	56,0 *2.205*	4,0 *0.157*	4.00X3.00	2,9 *0.114*	3	E
T34-R45H01E03-4X0.7-65R	10138993	M4	0,7	1,18 *0.046*	7,0 *0.276*	21 *0.827*	61,82 *2.434*	63,0 *2.480*	4,5 *0.177*	4.50X3.40	3,3 *0.130*	3	E
T34-R45H01E03-4.5X0.75-65R	10138994	M4.5	0,75	1,18 *0.046*	7,5 *0.295*	25 *0.984*	68,82 *2.709*	70,0 *2.756*	6,0 *0.236*	6.00X4.90	3,8 *0.150*	3	E
T34-R45H01E03-5X0.8-65R	10138995	M5	0,8	1,31 *0.052*	8,0 *0.315*	25 *0.984*	68,69 *2.704*	70,0 *2.756*	6,0 *0.236*	6.00X4.90	4,2 *0.165*	3	E
T34-R45H01E03-6X1-65R	10138996	M6	1,0	1,57 *0.062*	10,0 *0.394*	30 *1.181*	78,43 *3.088*	80,0 *3.150*	6,0 *0.236*	6.00X4.90	5,0 *0.197*	3	E
T34-R45H01E03-8X1.25-65R	10138997	M8	1,25	2,23 *0.088*	13,0 *0.512*	35 *1.378*	87,77 *3.456*	90,0 *3.543*	8,0 *0.315*	8.00X6.20	6,8 *0.268*	3	E
T34-R45H01E03-10X1.5-65R	10138998	M10	1,5	2,6 *0.102*	15,0 *0.591*	39 *1.535*	97,4 *3.835*	100,0 *3.937*	10,0 *0.394*	10.00X8.00	8,5 *0.335*	3	E

T34-R45HE

Blind holes – Metric coarse threads



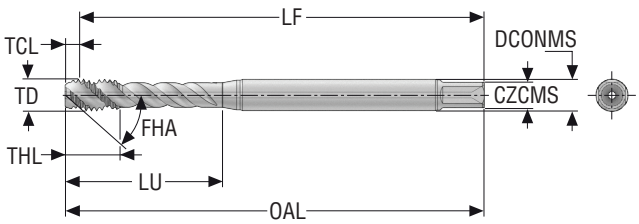


- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN376
- Thread tolerance class: 6HX
- FHA = 45°
- For cutting data see page(s) 260, 262

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		mm *Inch*		
T34-R45H01E06-12X1.75-65R	10138999	M12	1,75	3,18 *0.125*	18,0 *0.709*	83 *3.268*	106,82 *4.206*	110,0 *4.331*	9,0 *0.354*	9.00X7.00	10,2 *0.402*	3	E
T34-R45H01E06-14X2-65R	10139000	M14	2,0	3,65 *0.144*	20,0 *0.787*	81 *3.189*	106,35 *4.187*	110,0 *4.331*	11,0 *0.433*	11.00X9.00	12,0 *0.472*	4	E
T34-R45H01E06-16X2-65R	10139001	M16	2,0	3,75 *0.148*	20,0 *0.787*	68 *2.677*	106,25 *4.183*	110,0 *4.331*	12,0 *0.472*	12.00X9.00	14,0 *0.551*	4	E

T34A-R45HC

Blind holes – Metric coarse threads





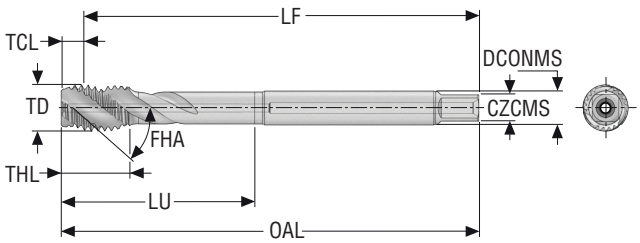
- Internal coolant
- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN371
- Thread tolerance class: 6HX
- FHA = 45°
- For cutting data see page(s) 260, 262

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		mm *Inch*		
T34A-R45H01C03-5X0.8-65R	10138984	M5	0,8	1,94 *0.076*	8,0 *0.315*	25 *0.984*	68,06 *2.680*	70,0 *2.756*	6,0 *0.236*	6.00X4.90	4,2 *0.165*	3	C
T34A-R45H01C03-6X1-65R	10138985	M6	1,0	2,32 *0.091*	10,0 *0.394*	30 *1.181*	77,68 *3.058*	80,0 *3.150*	6,0 *0.236*	6.00X4.90	5,0 *0.197*	3	C
T34A-R45H01C03-8X1.25-65R	10138986	M8	1,25	3,16 *0.124*	13,0 *0.512*	35 *1.378*	86,84 *3.419*	90,0 *3.543*	8,0 *0.315*	8.00X6.20	6,8 *0.268*	3	C
T34A-R45H01C05-10X1.5-65R	10138987	M10	1,5	3,81 *0.150*	17,0 *0.669*	39 *1.535*	96,19 *3.787*	100,0 *3.937*	10,0 *0.394*	10.00X8.00	8,5 *0.335*	3	C

T34A-R45HC

Blind holes – Metric coarse threads



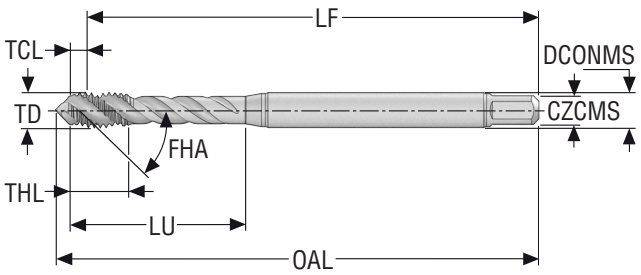


- Internal coolant
- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN376
- Thread tolerance class: 6HX
- FHA = 45°
- For cutting data see page(s) 260, 262

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		mm *Inch*		
T34A-R45H01C06-12X1.75-65R	10138988	M12	1,75	4,47 *0.176*	18,0 *0.709*	83 *3.268*	105,53 *4.155*	110,0 *4.331*	9,0 *0.354*	9.00X7.00	10,2 *0.402*	3	C
T34A-R45H01C06-14X2-65R	10138989	M14	2,0	5,11 *0.201*	20,0 *0.787*	81 *3.189*	104,89 *4.130*	110,0 *4.331*	11,0 *0.433*	11.00X9.00	12,0 *0.472*	4	C
T34A-R45H01C06-16X2-65R	10138990	M16	2,0	5,21 *0.205*	20,0 *0.787*	68 *2.677*	104,79 *4.126*	110,0 *4.331*	12,0 *0.472*	12.00X9.00	14,0 *0.551*	4	C

T34-R45HC

Blind holes – MF threads





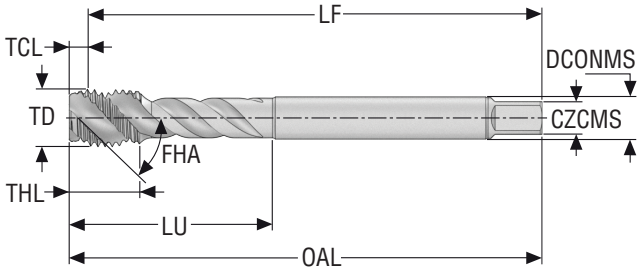
- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN371
- Thread tolerance class: 6HX
- FHA = 45°
- For cutting data see page(s) 260, 262

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		mm *Inch*		
T34-R45H02C03-3X0.35-65R	10139002	MF3X0.35	0,35	0,7 *0.028*	5,0 *0.197*	18 *0.709*	55,3 *2.177*	57,2 *2.252*	3,5 *0.138*	3.50X2.70	2,65 *0.104*	3	C
T34-R45H02C03-3.5X0.35-65R	10139003	MF3.5X0.35	0,35	0,69 *0.027*	5,0 *0.197*	20 *0.787*	55,31 *2.178*	57,4 *2.260*	4,0 *0.157*	4.00X3.00	3,15 *0.124*	3	C
T34-R45H02C03-4X0.5-65R	10139004	MF4X0.5	0,5	1,31 *0.052*	7,0 *0.276*	21 *0.827*	61,69 *2.429*	64,6 *2.543*	4,5 *0.177*	4.50X3.40	3,5 *0.138*	3	C
T34-R45H02C03-5X0.5-65R	10139005	MF5X0.5	0,5	1,2 *0.047*	8,0 *0.315*	25 *0.984*	68,8 *2.709*	72,0 *2.835*	6,0 *0.236*	6.00X4.90	4,5 *0.177*	3	C
T34-R45H02C03-6X0.5-65R	10139006	MF6X0.5	0,5	1,22 *0.048*	10,0 *0.394*	30 *1.181*	78,78 *3.102*	82,4 *3.244*	6,0 *0.236*	6.00X4.90	5,5 *0.217*	3	C
T34-R45H02C03-6X0.75-65R	10139007	MF6X0.75	0,75	1,77 *0.070*	10,0 *0.394*	30 *1.181*	78,23 *3.080*	82,4 *3.244*	6,0 *0.236*	6.00X4.90	5,2 *0.205*	3	C
T34-R45H02C03-8X0.75-65R	10139008	MF8X0.75	0,75	2,07 *0.081*	10,0 *0.394*	30 *1.181*	77,93 *3.068*	81,7 *3.217*	8,0 *0.315*	8.00X6.20	7,2 *0.283*	3	C
T34-R45H02C03-8X1-65R	10139009	MF8X1.0	1,0	2,62 *0.103*	13,0 *0.512*	35 *1.378*	87,38 *3.440*	91,7 *3.610*	8,0 *0.315*	8.00X6.20	7,0 *0.276*	3	C
T34-R45H02C03-10X0.75-65R	10139011	MF10X0.75	0,75	2,17 *0.085*	13,0 *0.512*	35 *1.378*	87,83 *3.458*	91,8 *3.614*	10,0 *0.394*	10.00X8.00	9,2 *0.362*	3	C
T34-R45H02C03-10X1-65R	10139012	MF10X1.0	1,0	2,72 *0.107*	13,0 *0.512*	35 *1.378*	87,28 *3.436*	91,8 *3.614*	10,0 *0.394*	10.00X8.00	9,0 *0.354*	3	C
T34-R45H02C03-10X1.25-65R	10139013	MF10X1.25	1,25	3,26 *0.128*	15,0 *0.591*	39 *1.535*	96,74 *3.809*	101,8 *4.008*	10,0 *0.394*	10.00X8.00	8,8 *0.346*	3	C

T34-R45HC

Blind holes – MF threads



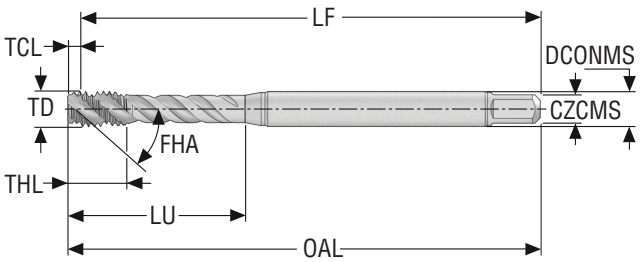


- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN374
- Thread tolerance class: 6HX
- FHA = 45°
- For cutting data see page(s) 260, 262

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		mm *Inch*		
T34-R45H02C05-8X1-65R	10139014	MF8X1.0	1,0	2,62 *0.103*	10,0 *0.394*	35 *1.378*	87,38 *3.440*	90,0 *3.543*	6,0 *0.236*	6.00X4.90	7,0 *0.276*	3	C
T34-R45H02C05-10X1-65R	10139015	MF10X1.0	1,0	2,62 *0.103*	10,0 *0.394*	35 *1.378*	87,38 *3.440*	90,0 *3.543*	7,0 *0.276*	7.00X5.50	9,0 *0.354*	3	C
T34-R45H02C05-12X1-65R	10139016	MF12X1.0	1,0	2,83 *0.111*	10,0 *0.394*	73 *2.874*	97,17 *3.826*	100,0 *3.937*	9,0 *0.354*	9.00X7.00	11,0 *0.433*	3	C
T34-R45H02C05-12X1.25-65R	10139017	MF12X1.25	1,25	3,38 *0.133*	15,0 *0.591*	73 *2.874*	96,62 *3.804*	100,0 *3.937*	9,0 *0.354*	9.00X7.00	10,8 *0.425*	3	C
T34-R45H02C05-12X1.5-65R	10139018	MF12X1.5	1,5	3,93 *0.155*	15,0 *0.591*	73 *2.874*	96,07 *3.782*	100,0 *3.937*	9,0 *0.354*	9.00X7.00	10,5 *0.413*	3	C
T34-R45H02C05-14X1.5-65R	10139019	MF14X1.5	1,5	4,03 *0.159*	15,0 *0.591*	71 *2.795*	95,97 *3.778*	100,0 *3.937*	11,0 *0.433*	11.00X9.00	12,5 *0.492*	4	C
T34-R45H02C05-16X1.5-65R	10139020	MF16X1.5	1,5	4,13 *0.163*	15,0 *0.591*	58 *2.283*	95,87 *3.774*	100,0 *3.937*	12,0 *0.472*	12.00X9.00	14,5 *0.571*	4	C
T34-R45H02C05-18X1.5-65R	10139021	MF18X1.5	1,5	4,13 *0.163*	17,0 *0.669*	66 *2.598*	105,87 *4.168*	110,0 *4.331*	14,0 *0.551*	14.00X11.00	16,5 *0.650*	4	C
T34-R45H02C05-20X1.5-65R	10139022	MF20X1.5	1,5	4,13 *0.163*	17,0 *0.669*	80 *3.150*	120,87 *4.759*	125,0 *4.921*	16,0 *0.630*	16.00X12.00	18,5 *0.728*	4	C
T34-R45H02C05-22X1.5-65R	10139023	MF22X1.5	1,5	4,13 *0.163*	17,0 *0.669*	78 *3.071*	120,87 *4.759*	125,0 *4.921*	18,0 *0.709*	18.00X14.50	20,5 *0.807*	4	C
T34-R45H02C05-24X1.5-65R	10139024	MF24X1.5	1,5	4,25 *0.167*	20,0 *0.787*	93 *3.661*	135,75 *5.344*	140,0 *5.512*	18,0 *0.709*	18.00X14.50	22,5 *0.886*	4	C

T34-R45HE

Blind holes – MF threads





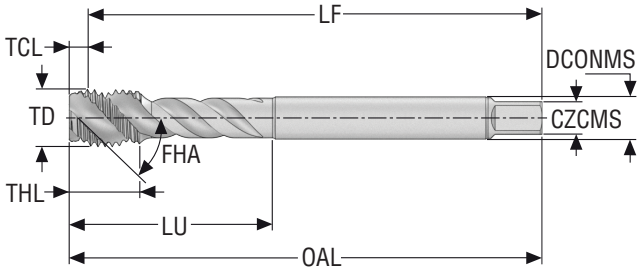
- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN371
- Thread tolerance class: 6HX
- FHA = 45°
- For cutting data see page(s) 260, 262

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		mm *Inch*		
T34-R45H02E03-8X1-65R	10139032	MF8X1.0	1,0	1,87 *0.074*	13,0 *0.512*	35 *1.378*	88,13 *3.470*	90,0 *3.543*	8,0 *0.315*	8.00X6.20	7,0 *0.276*	3	E
T34-R45H02E03-10X1-65R	10139033	MF10X1.0	1,0	1,97 *0.078*	13,0 *0.512*	35 *1.378*	88,03 *3.466*	90,0 *3.543*	10,0 *0.394*	10.00X8.00	9,0 *0.354*	3	E

T34-R45HE

Blind holes – MF threads



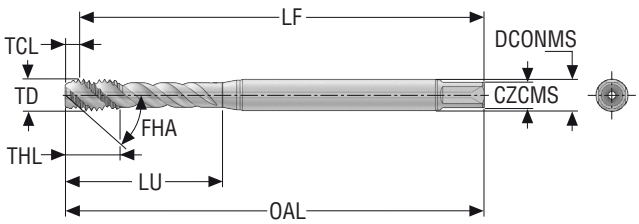


- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN374
- Thread tolerance class: 6HX
- FHA = 45°
- For cutting data see page(s) 260, 262

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		mm *Inch*		
T34-R45H02E05-8X1-65R	10139034	MF8X1.0	1,0	1,87 *0.074*	10,0 *0.394*	35 *1.378*	88,13 *3.470*	90,0 *3.543*	6,0 *0.236*	6.00X4.90	7,0 *0.276*	3	E
T34-R45H02E05-10X1-65R	10139035	MF10X1.0	1,0	1,87 *0.074*	10,0 *0.394*	35 *1.378*	88,13 *3.470*	90,0 *3.543*	7,0 *0.276*	7.00X5.50	9,0 *0.354*	3	E
T34-R45H02E05-12X1.5-65R	10139036	MF12X1.5	1,5	2,81 *0.111*	15,0 *0.591*	73 *2.874*	97,19 *3.826*	100,0 *3.937*	9,0 *0.354*	9.00X7.00	10,5 *0.413*	3	E
T34-R45H02E05-14X1.5-65R	10139037	MF14X1.5	1,5	3,01 *0.119*	15,0 *0.591*	71 *2.795*	96,99 *3.819*	100,0 *3.937*	11,0 *0.433*	11.00X9.00	12,5 *0.492*	4	E
T34-R45H02E05-16X1.5-65R	10139038	MF16X1.5	1,5	3,01 *0.119*	15,0 *0.591*	58 *2.283*	96,99 *3.819*	100,0 *3.937*	12,0 *0.472*	12.00X9.00	14,5 *0.571*	4	E

T34A-R45HC

Blind holes – MF threads





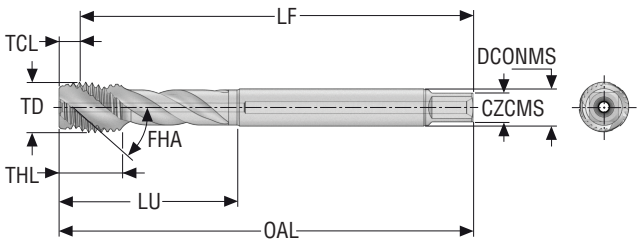
- Internal coolant
- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN371
- Thread tolerance class: 6HX
- FHA = 45°
- For cutting data see page(s) 260, 262

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		mm *Inch*		
T34A-R45H02C03-8X1-65R	10139025	MF8X1.0	1,0	2,62 *0.103*	13,0 *0.512*	35 *1.378*	87,38 *3.440*	90,0 *3.543*	8,0 *0.315*	8.00X6.20	7,0 *0.276*	3	C
T34A-R45H02C03-10X1-65R	10139026	MF10X1.0	1,0	2,72 *0.107*	13,0 *0.512*	35 *1.378*	87,28 *3.436*	90,0 *3.543*	10,0 *0.394*	10.00X8.00	9,0 *0.354*	3	C

T34A-R45HC

Blind holes – MF threads



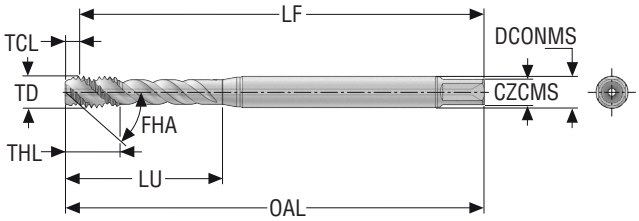


- Internal coolant
- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN374
- Thread tolerance class: 6HX
- FHA = 45°
- For cutting data see page(s) 260, 262

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		mm *Inch*		
T34A-R45H02C05-8X1-65R	10139027	MF8X1.0	1,0	2,62 *0.103*	10,0 *0.394*	35 *1.378*	87,38 *3.440*	90,0 *3.543*	6,0 *0.236*	6.00X4.90	7,0 *0.276*	3	C
T34A-R45H02C05-10X1-65R	10139028	MF10X1.0	1,0	2,62 *0.103*	10,0 *0.394*	35 *1.378*	87,38 *3.440*	90,0 *3.543*	7,0 *0.276*	7.00X5.50	9,0 *0.354*	3	C
T34A-R45H02C05-12X1.5-65R	10139029	MF12X1.5	1,5	3,93 *0.155*	15,0 *0.591*	73 *2.874*	96,07 *3.782*	100,0 *3.937*	9,0 *0.354*	9.00X7.00	10,5 *0.413*	3	C
T34A-R45H02C05-14X1.5-65R	10139030	MF14X1.5	1,5	4,03 *0.159*	15,0 *0.591*	71 *2.795*	95,97 *3.778*	100,0 *3.937*	11,0 *0.433*	11.00X9.00	12,5 *0.492*	4	C
T34A-R45H02C05-16X1.5-65R	10139031	MF16X1.5	1,5	4,13 *0.163*	15,0 *0.591*	58 *2.283*	95,87 *3.774*	100,0 *3.937*	12,0 *0.472*	12.00X9.00	14,5 *0.571*	4	C

T34A-R45HE

Blind holes – MF threads





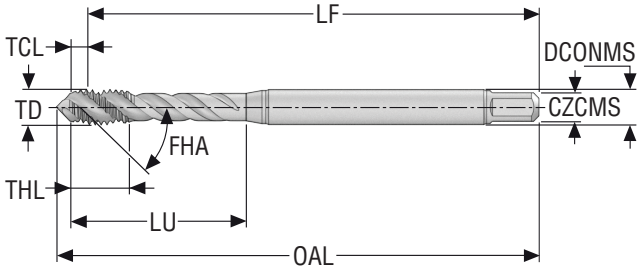
- Internal coolant
- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN371
- Thread tolerance class: 6HX
- FHA = 45°
- For cutting data see page(s) 260, 262

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		mm *Inch*		
T34A-R45H02E03-8X1-65R	10139039	MF8X1.0	1,0	1,87 *0.074*	13,0 *0.512*	35 *1.378*	88,13 *3.470*	90,0 *3.543*	8,0 *0.315*	8.00X6.20	7,0 *0.276*	3	E
T34A-R45H02E03-10X1-65R	10139040	MF10X1.0	1,0	1,97 *0.078*	13,0 *0.512*	35 *1.378*	88,03 *3.466*	90,0 *3.543*	10,0 *0.394*	10.00X8.00	9,0 *0.354*	3	E

T34-R45HC

Blind holes – UNC threads



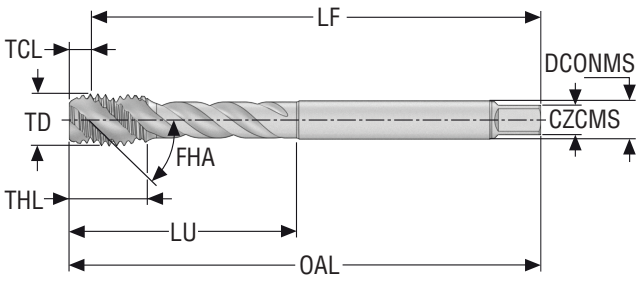


- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN371
- Thread tolerance class: 2BX
- FHA = 45°
- For cutting data see page(s) 260, 262

Designation	Item number	TDZ	TD	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm *Inch*	*TPI*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		mm *Inch*		
T34-R45H08C03-4-40-22R	10139054	UNC4-40	2,845 *0.112*	*40.0*	1,48 *0.058*	5,0 *0.197*	18 *0.709*	54,52 *2.146*	56,0 *2.205*	3,5 *0.138*	3.50X2.70	2,35 *0.093*	3	C
T34-R45H08C03-5-40-22R	10139055	UNC5-40	3,175 *0.125*	*40.0*	1,53 *0.060*	7,0 *0.276*	18 *0.709*	54,47 *2.144*	57,2 *2.252*	3,5 *0.138*	3.50X2.70	2,65 *0.104*	3	C
T34-R45H08C03-6-32-22R	10139056	UNC6-32	3,505 *0.138*	*32.0*	1,95 *0.077*	6,0 *0.236*	20 *0.787*	54,05 *2.128*	57,4 *2.260*	4,0 *0.157*	4.00X3.00	2,85 *0.112*	3	C
T34-R45H08C03-8-32-22R	10139057	UNC8-32	4,166 *0.164*	*32.0*	1,89 *0.074*	7,0 *0.276*	21 *0.827*	61,11 *2.406*	64,6 *2.543*	4,5 *0.177*	4.50X3.40	3,5 *0.138*	3	C
T34-R45H08C03-10-24-22R	10139058	UNC10-24	4,826 *0.190*	*24.0*	2,53 *0.100*	8,0 *0.315*	25 *0.984*	67,47 *2.656*	72,0 *2.835*	6,0 *0.236*	6.00X4.90	3,9 *0.154*	3	C
T34-R45H08C03-12-24-22R	10139059	UNC12-24	5,486 *0.216*	*24.0*	2,47 *0.097*	10,0 *0.394*	30 *1.181*	77,53 *3.052*	82,2 *3.236*	6,0 *0.236*	6.00X4.90	4,5 *0.177*	3	C
T34-R45H08C03-1/4-20-22R	10139060	UNC1/4-20	6,35 *0.250*	*20.0*	2,94 *0.116*	13,0 *0.512*	32 *1.260*	77,06 *3.034*	82,4 *3.244*	7,0 *0.276*	7.00X5.50	5,1 *0.201*	3	C
T34-R45H08C03-5/16-18-22R	10139061	UNC5/16-18	7,937 *0.312*	*18.0*	3,59 *0.141*	13,0 *0.512*	35 *1.378*	86,41 *3.402*	90,0 *3.543*	8,0 *0.315*	8.00X6.20	6,6 *0.260*	3	C
T34-R45H08C03-3/8-16-22R	10139062	UNC3/8-16	9,525 *0.375*	*16.0*	4,03 *0.159*	15,0 *0.591*	39 *1.535*	95,97 *3.778*	100,0 *3.937*	10,0 *0.394*	10.00X8.00	8,0 *0.315*	3	C

T34-R45HC

Blind holes – UNC threads





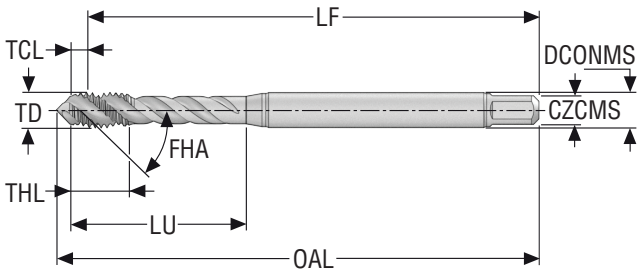
- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN376
- Thread tolerance class: 2BX
- FHA = 45°
- For cutting data see page(s) 260, 262

Designation	Item number	TDZ	TD	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm *Inch*	*TPI*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		mm *Inch*		
T34-R45H08C06-7/16-14-22R	10139063	UNC7/16-14	11,112 *0.437*	*14.0*	4,65 *0.183*	15,0 *0.591*	76 *2.992*	95,35 *3.754*	100,0 *3.937*	8,0 *0.315*	8.00X6.20	9,3 *0.366*	3	C
T34-R45H08C06-1/2-13-22R	10139064	UNC1/2-13	12,7 *0.500*	*13.0*	4,99 *0.196*	18,0 *0.709*	83 *3.268*	105,01 *4.134*	110,0 *4.331*	9,0 *0.354*	9.00X7.00	10,7 *0.421*	4	C
T34-R45H08C06-9/16-12-22R	10139065	UNC9/16-12	14,287 *0.562*	*12.0*	5,43 *0.214*	20,0 *0.787*	81 *3.189*	104,57 *4.117*	110,0 *4.331*	11,0 *0.433*	11.00X9.00	12,3 *0.484*	4	C
T34-R45H08C06-5/8-11-22R	10139066	UNC5/8-11	15,875 *0.625*	*11.0*	5,87 *0.231*	22,0 *0.866*	68 *2.677*	104,13 *4.100*	110,0 *4.331*	12,0 *0.472*	12.00X9.00	13,5 *0.531*	4	C

T34-R45HC

Blind holes – UNF threads



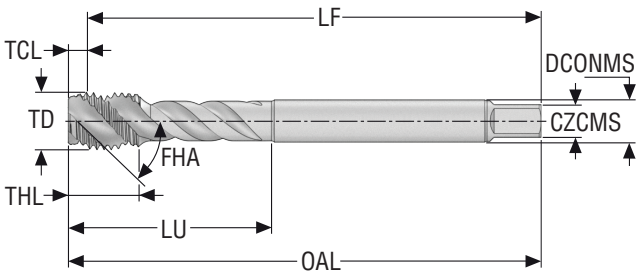


- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN371
- Thread tolerance class: 2BX
- FHA = 45°
- For cutting data see page(s) 260, 262

Designation	Item number	TDZ	TD	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm *Inch*	*TPI*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		mm *Inch*		
T34-R45H09C03-4-48-22R	10139067	UNF4-48	2,845 *0.112*	*48.0*	1,29 *0.051*	5,0 *0.197*	18 *0.709*	54,71 *2.154*	57,2 *2.252*	3,5 *0.138*	3.50X2.70	2,4 *0.094*	3	C
T34-R45H09C03-5-44-22R	10139068	UNF5-44	3,175 *0.125*	*44.0*	1,35 *0.053*	7,0 *0.276*	18 *0.709*	54,65 *2.152*	57,2 *2.252*	3,5 *0.138*	3.50X2.70	2,7 *0.106*	3	C
T34-R45H09C03-6-40-22R	10139073	UNF6-40	3,505 *0.138*	*40.0*	1,59 *0.063*	6,0 *0.236*	20 *0.787*	54,41 *2.142*	57,4 *2.260*	4,0 *0.157*	4.00X3.00	2,95 *0.116*	3	C
T34-R45H09C03-8-36-22R	10139074	UNF8-36	4,166 *0.164*	*36.0*	1,71 *0.067*	7,0 *0.276*	21 *0.827*	61,29 *2.413*	64,6 *2.543*	4,5 *0.177*	4.50X3.40	3,5 *0.138*	3	C
T34-R45H09C03-10-32-22R	10139075	UNF10-32	4,826 *0.190*	*32.0*	2,0 *0.079*	8,0 *0.315*	25 *0.984*	68,0 *2.677*	72,0 *2.835*	6,0 *0.236*	6.00X4.90	4,1 *0.161*	3	C
T34-R45H09C03-12-28-22R	10139076	UNF12-28	5,486 *0.216*	*28.0*	2,11 *0.083*	10,0 *0.394*	30 *1.181*	77,89 *3.067*	82,2 *3.236*	6,0 *0.236*	6.00X4.90	4,6 *0.181*	3	C
T34-R45H09C03-1/4-28-22R	10139077	UNF1/4-28	6,35 *0.250*	*28.0*	2,23 *0.088*	10,0 *0.394*	30 *1.181*	77,77 *3.062*	82,4 *3.244*	7,0 *0.276*	7.00X5.50	5,5 *0.217*	3	C
T34-R45H09C03-5/16-24-22R	10139078	UNF5/16-24	7,937 *0.312*	*24.0*	2,87 *0.113*	13,0 *0.512*	35 *1.378*	87,13 *3.430*	90,0 *3.543*	8,0 *0.315*	8.00X6.20	6,9 *0.272*	3	C
T34-R45H09C03-3/8-24-22R	10139079	UNF3/8-24	9,525 *0.375*	*24.0*	2,96 *0.117*	15,0 *0.591*	35 *1.378*	87,04 *3.427*	90,0 *3.543*	10,0 *0.394*	10.00X8.00	8,5 *0.335*	3	C

T34-R45HC

Blind holes – UNF threads





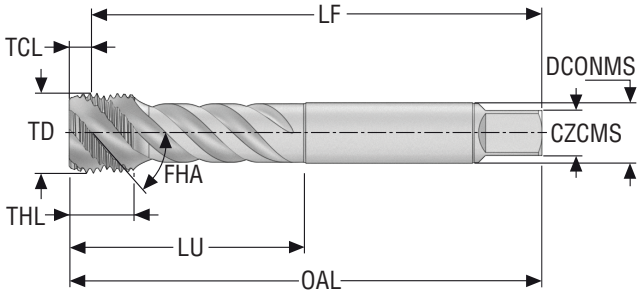
- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN374
- Thread tolerance class: 2BX
- FHA = 45°
- For cutting data see page(s) 260, 262

Designation	Item number	TDZ	TD	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm *Inch*	*TPI*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		mm *Inch*		
T34-R45H09C05-7/16-20-22R	10139080	UNF7/16-20	11,112 *0.437*	*20.0*	3,39 *0.133*	15,0 *0.591*	76 *2.992*	96,61 *3.804*	100,0 *3.937*	8,0 *0.315*	8.00X6.20	9,9 *0.390*	3	C
T34-R45H09C05-1/2-20-22R	10139081	UNF1/2-20	12,7 *0.500*	*20.0*	3,56 *0.140*	15,0 *0.591*	73 *2.874*	96,44 *3.797*	100,0 *3.937*	9,0 *0.354*	9.00X7.00	11,5 *0.453*	4	C
T34-R45H09C05-9/16-18-22R	10139082	UNF9/16-18	14,287 *0.562*	*18.0*	3,86 *0.152*	15,0 *0.591*	71 *2.795*	96,14 *3.785*	100,0 *3.937*	11,0 *0.433*	11.00X9.00	13,0 *0.512*	4	C
T34-R45H09C05-5/8-18-22R	10139083	UNF5/8-18	15,875 *0.625*	*18.0*	3,91 *0.154*	15,0 *0.591*	58 *2.283*	96,09 *3.783*	100,0 *3.937*	12,0 *0.472*	12.00X9.00	14,5 *0.571*	4	C

T34-R45HC

Blind holes – G threads



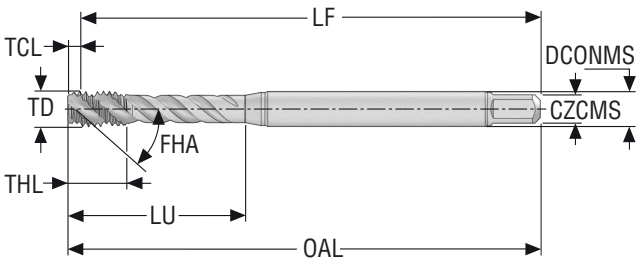


- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN5156
- Thread tolerance class: NORMAL-X
- FHA = 45°
- For cutting data see page(s) 260, 262

Designation	Item number	TDZ	TD	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm *Inch*	*TPI*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		mm *Inch*		
T34-R45H21C09-1/8-28-12R	10139084	G1/8-28	9,728 *0.383*	*28.0*	2,43 *0.096*	10,0 *0.394*	36 *1.417*	87,57 *3.448*	90,0 *3.543*	7,0 *0.276*	7.00X5.50	8,8 *0.346*	3	C
T34-R45H21C09-1/4-19-12R	10139085	G1/4-19	13,157 *0.518*	*19.0*	3,66 *0.144*	14,0 *0.551*	71 *2.795*	96,34 *3.793*	100,0 *3.937*	11,0 *0.433*	11.00X9.00	11,8 *0.465*	3	C
T34-R45H21C09-3/8-19-12R	10139086	G3/8-19	16,662 *0.656*	*19.0*	3,67 *0.144*	15,0 *0.591*	58 *2.283*	96,33 *3.793*	100,0 *3.937*	12,0 *0.472*	12.00X9.00	15,25 *0.600*	4	C
T34-R45H21C09-1/2-14-12R	10139087	G1/2-14	20,955 *0.825*	*14.0*	4,93 *0.194*	17,0 *0.669*	80 *3.150*	120,07 *4.727*	125,0 *4.921*	16,0 *0.630*	16.00X12.00	19,0 *0.748*	4	C
T34-R45H21C09-5/8-14-12R	10139088	G5/8-14	22,911 *0.902*	*14.0*	5,06 *0.199*	20,0 *0.787*	78 *3.071*	119,94 *4.722*	125,0 *4.921*	18,0 *0.709*	18.00X14.50	21,0 *0.827*	4	C
T34-R45H21C09-3/4-14-12R	10139089	G3/4-14	26,441 *1.041*	*14.0*	5,05 *0.199*	20,0 *0.787*	73 *2.874*	134,95 *5.313*	140,0 *5.512*	20,0 *0.787*	20.00X16.00	24,5 *0.965*	4	C
T34-R45H21C09-7/8-14-12R	10139090	G7/8-14	30,201 *1.189*	*14.0*	4,98 *0.196*	22,0 *0.866*	85 *3.346*	145,02 *5.709*	150,0 *5.906*	22,0 *0.866*	22.00X18.00	28,25 *1.112*	4	C
T34-R45H21C09-1-11-12R	10139091	G1-11	33,249 *1.309*	*11.0*	6,56 *0.258*	24,0 *0.945*	93 *3.661*	153,44 *6.041*	160,0 *6.299*	25,0 *0.984*	25.00X20.00	30,75 *1.211*	4	C

T34-R45HE

Blind holes – EGM threads





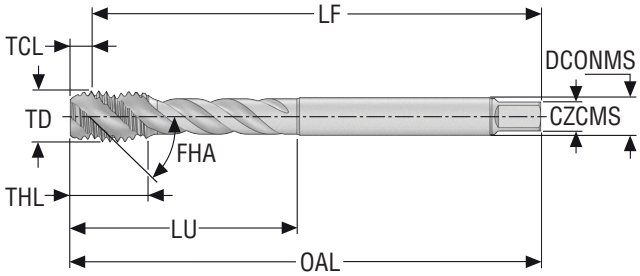
- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN371
- Thread tolerance class: 6H mod.
- FHA = 45°
- For cutting data see page(s) 260, 262

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		mm *Inch*		
T34-R45H04E03-2X0.4-64R	10139092	EGM2	0,4	0,73 *0.029*	5,0 *0.197*	14 *0.551*	49,27 *1.940*	50,0 *1.969*	2,8 *0.110*	2.80X2.10	2,1 *0.083*	2	E
T34-R45H04E03-2.5X0.45-64R	10139093	EGM2.5	0,45	0,75 *0.030*	5,0 *0.197*	18 *0.709*	55,25 *2.175*	56,0 *2.205*	3,5 *0.138*	3.50X2.70	2,65 *0.104*	3	E
T34-R45H04E03-3X0.5-64R	10139094	EGM3	0,5	0,83 *0.033*	5,0 *0.197*	21 *0.827*	62,17 *2.448*	63,0 *2.480*	4,5 *0.177*	4.50X3.40	3,15 *0.124*	3	E
T34-R45H04E03-4X0.7-64R	10139095	EGM4	0,7	1,15 *0.045*	8,0 *0.315*	25 *0.984*	68,85 *2.711*	70,0 *2.756*	6,0 *0.236*	6.00X4.90	4,2 *0.165*	3	E
T34-R45H04E03-5X0.8-64R	10139096	EGM5	0,8	1,19 *0.047*	10,0 *0.394*	30 *1.181*	78,81 *3.103*	80,0 *3.150*	6,0 *0.236*	6.00X4.90	5,25 *0.207*	3	E
T34-R45H04E03-6X1-64R	10139097	EGM6	1,0	1,81 *0.071*	10,0 *0.394*	35 *1.378*	88,19 *3.472*	90,0 *3.543*	8,0 *0.315*	8.00X6.20	6,3 *0.248*	3	E
T34-R45H04E03-8X1.25-64R	10139098	EGM8	1,25	2,2 *0.087*	13,0 *0.512*	39 *1.535*	97,8 *3.850*	100,0 *3.937*	10,0 *0.394*	10.00X8.00	8,4 *0.331*	3	E

T34-R45HE

Blind holes – EGM threads



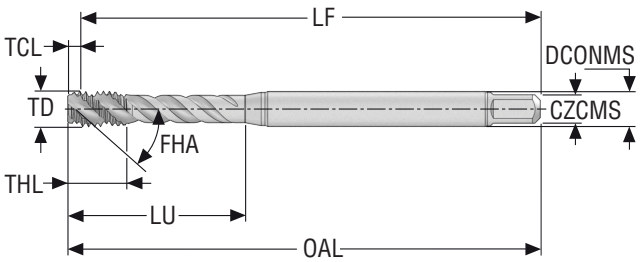


- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN376
- Thread tolerance class: 6H mod.
- FHA = 45°
- For cutting data see page(s) 260, 262

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		mm *Inch*		
T34-R45H04E06-10X1.5-64R	10139111	EGM10	1,5	2,83 *0.111*	15,0 *0.591*	73 *2.874*	97,17 *3.826*	100,0 *3.937*	9,0 *0.354*	9.00X7.00	10,5 *0.413*	3	E
T34-R45H04E06-12X1.75-64R	10139112	EGM12	1,75	3,21 *0.126*	20,0 *0.787*	81 *3.189*	106,79 *4.204*	110,0 *4.331*	11,0 *0.433*	11.00X9.00	12,5 *0.492*	4	E
T34-R45H04E06-14X2-64R	10139113	EGM14	2,0	3,67 *0.144*	20,0 *0.787*	68 *2.677*	106,33 *4.186*	110,0 *4.331*	12,0 *0.472*	12.00X9.00	14,5 *0.571*	4	E
T34-R45H04E06-16X2-64R	10139114	EGM16	2,0	3,67 *0.144*	20,0 *0.787*	81 *3.189*	121,33 *4.777*	125,0 *4.921*	14,0 *0.551*	14.00X11.00	16,5 *0.650*	4	E
T34-R45H04E06-18X2.5-64R	10139115	EGM18	2,5	4,45 *0.175*	27,0 *1.063*	93 *3.661*	135,55 *5.337*	140,0 *5.512*	18,0 *0.709*	18.00X14.50	18,75 *0.738*	4	E
T34-R45H04E06-20X2.5-64R	10139116	EGM20	2,5	4,55 *0.179*	30,0 *1.181*	113 *4.449*	155,45 *6.120*	160,0 *6.299*	18,0 *0.709*	18.00X14.50	20,75 *0.817*	4	E

T34-R45HE

Blind holes – EGUNC threads





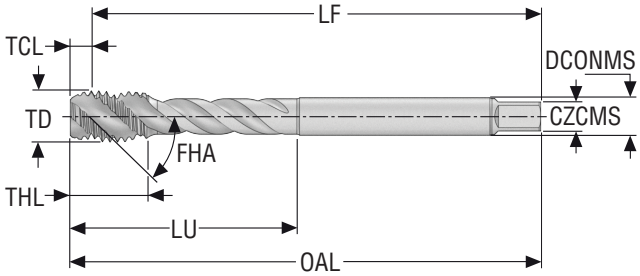
- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN371
- Thread tolerance class: 2B
- FHA = 45°
- For cutting data see page(s) 260, 262

Designation	Item number	TDZ	TD	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm *Inch*	*TPI*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		mm *Inch*		
T34-R45H16E03-4-40-21R	10139099	EGUNC4-40	3,67 *0.144*	*40.0*	1,0 *0.039*	7,0 *0.276*	21 *0.827*	62,0 *2.441*	63,0 *2.480*	4,5 *0.177*	4.50X3.40	3,1 *0.122*	3	E
T34-R45H16E03-6-32-21R	10139100	EGUNC6-32	4,536 *0.179*	*32.0*	1,32 *0.052*	8,0 *0.315*	25 *0.984*	68,68 *2.704*	70,0 *2.756*	6,0 *0.236*	6.00X4.90	3,8 *0.150*	3	E
T34-R45H16E03-8-32-21R	10139101	EGUNC8-32	5,197 *0.205*	*32.0*	1,32 *0.052*	10,0 *0.394*	30 *1.181*	78,68 *3.098*	80,0 *3.150*	6,0 *0.236*	6.00X4.90	4,4 *0.173*	3	E
T34-R45H16E03-10-24-21R	10139102	EGUNC10-24	6,2 *0.244*	*24.0*	1,64 *0.065*	12,0 *0.472*	30 *1.181*	78,36 *3.085*	80,0 *3.150*	7,0 *0.276*	7.00X5.50	5,2 *0.205*	3	E
T34-R45H16E03-1/4-20-21R	10139103	EGUNC1/4-20	8,001 *0.315*	*20.0*	2,29 *0.090*	15,0 *0.591*	35 *1.378*	87,71 *3.453*	90,0 *3.543*	8,0 *0.315*	8.00X6.20	6,7 *0.264*	3	E
T34-R45H16E03-5/16-18-21R	10139104	EGUNC5/16-18	9,771 *0.385*	*18.0*	2,5 *0.098*	18,0 *0.709*	39 *1.535*	97,5 *3.839*	100,0 *3.937*	10,0 *0.394*	10.00X8	8,4 *0.331*	3	E

T34-R45HE

Blind holes – EGUNC threads



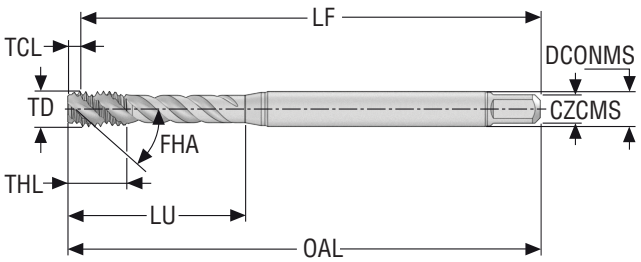


- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN376
- Thread tolerance class: 2B
- FHA = 45°
- For cutting data see page(s) 260, 262

Designation	Item number	TDZ	TD	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm *Inch*	*TPI*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		mm *Inch*		
T34-R45H16E06-3/8-16-21R	10139117	EGUNC3/8-16	11,587 *0.456*	*16.0*	2,99 *0.118*	15,0 *0.591*	73 *2.874*	97,01 *3.819*	100,0 *3.937*	9,0 *0.354*	9.00X7.00	10,0 *0.394*	3	E
T34-R45H16E06-7/16-14-21R	10139118	EGUNC7/16-14	13,47 *0.530*	*14.0*	3,3 *0.130*	18,0 *0.709*	81 *3.189*	106,7 *4.201*	110,0 *4.331*	11,0 *0.433*	11.00X9.00	11,6 *0.457*	3	E
T34-R45H16E06-1/2-13-21R	10139119	EGUNC1/2-13	15,237 *0.600*	*13.0*	3,74 *0.147*	18,0 *0.709*	68 *2.677*	106,26 *4.183*	110,0 *4.331*	12,0 *0.472*	12.00X9.00	13,3 *0.524*	3	E
T34-R45H16E06-9/16-12-21R	10139120	EGUNC9/16-12	17,038 *0.671*	*12.0*	3,6 *0.142*	20,0 *0.787*	68 *2.677*	106,4 *4.189*	110,0 *4.331*	12,0 *0.472*	12.00X9.00	14,9 *0.587*	4	E
T34-R45H16E06-5/8-11-21R	10139121	EGUNC5/8-11	18,875 *0.743*	*11.0*	4,3 *0.169*	20,0 *0.787*	81 *3.189*	120,7 *4.752*	125,0 *4.921*	14,0 *0.551*	14.00X11.00	16,5 *0.650*	4	E
T34-R45H16E06-3/4-10-21R	10139122	EGUNC3/4-10	22,349 *0.880*	*10.0*	4,8 *0.189*	25,0 *0.984*	93 *3.661*	135,2 *5.323*	140,0 *5.512*	18,0 *0.709*	18.00X14.50	19,75 *0.778*	4	E

T34-R45HE

Blind holes – EGUNF threads





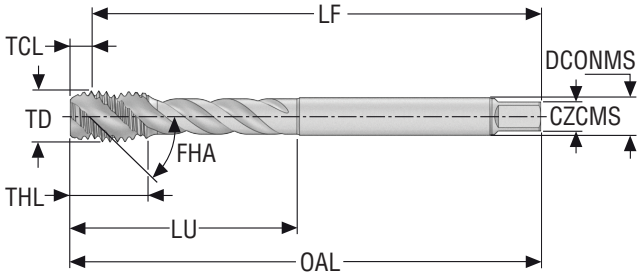
- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN371
- Thread tolerance class: 2B
- FHA = 45°
- For cutting data see page(s) 260, 262

Designation	Item number	TDZ	TD	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm *Inch*	*TPI*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		mm *Inch*		
T34-R45H17E03-4-48-21R	10139105	EGUNF4-48	3,533 *0.139*	*48.0*	0,83 *0.033*	6,0 *0.236*	20 *0.787*	55,17 *2.172*	56,0 *2.205*	4,0 *0.157*	4.00X3.00	3,0 *0.118*	3	E
T34-R45H17E03-6-40-21R	10139106	EGUNF6-40	4,331 *0.171*	*40.0*	1,12 *0.044*	7,0 *0.276*	25 *0.984*	68,88 *2.712*	70,0 *2.756*	6,0 *0.236*	6.00X4.90	3,7 *0.146*	3	E
T34-R45H17E03-8-36-21R	10139107	EGUNF8-36	5,083 *0.200*	*36.0*	1,32 *0.052*	9,0 *0.354*	30 *1.181*	78,68 *3.098*	80,0 *3.150*	6,0 *0.236*	6.00X4.90	4,4 *0.173*	3	E
T34-R45H17E03-10-32-21R	10139108	EGUNF10-32	5,857 *0.231*	*32.0*	1,23 *0.048*	9,0 *0.354*	30 *1.181*	78,77 *3.101*	80,0 *3.150*	6,0 *0.236*	6.00X4.90	5,1 *0.201*	3	E
T34-R45H17E03-1/4-28-21R	10139109	EGUNF1/4-28	7,529 *0.296*	*28.0*	1,74 *0.069*	10,0 *0.394*	35 *1.378*	88,26 *3.475*	90,0 *3.543*	8,0 *0.315*	8.00X6.20	6,6 *0.260*	3	E
T34-R45H17E03-5/16-24-21R	10139110	EGUNF5/16-24	9,312 *0.367*	*24.0*	2,52 *0.099*	12,0 *0.472*	35 *1.378*	87,48 *3.444*	90,0 *3.543*	10,0 *0.394*	10.00X8.00	8,25 *0.325*	3	E

T34-R45HE

Blind holes – EGUNF threads



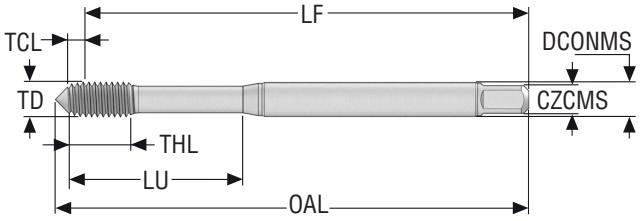


- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN376
- Thread tolerance class: 2B
- FHA = 45°
- For cutting data see page(s) 260, 262

Designation	Item number	TDZ	TD	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm *Inch*	*TPI*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		mm *Inch*		
T34-R45H17E06-3/8-24-21R	10139123	EGUNF3/8-24	10,899 *0.429*	*24.0*	2,0 *0.079*	12,0 *0.472*	66 *2.598*	88,0 *3.465*	90,0 *3.543*	8,0 *0.315*	8.00X6.00	9,8 *0.386*	3	E
T34-R45H17E06-7/16-20-21R	10139124	EGUNF7/16-20	12,763 *0.502*	*20.0*	2,5 *0.098*	15,0 *0.591*	73 *2.874*	97,5 *3.839*	100,0 *3.937*	9,0 *0.354*	9.00X7.00	11,5 *0.453*	3	E
T34-R45H17E06-1/2-20-21R	10139125	EGUNF1/2-20	14,351 *0.565*	*20.0*	2,5 *0.098*	15,0 *0.591*	71 *2.795*	97,5 *3.839*	100,0 *3.937*	11,0 *0.433*	11.00X9.00	13,1 *0.516*	3	E
T34-R45H17E06-9/16-18-21R	10139126	EGUNF9/16-18	16,121 *0.635*	*18.0*	2,58 *0.102*	15,0 *0.591*	58 *2.283*	97,42 *3.835*	100,0 *3.937*	12,0 *0.472*	12.00X9.00	14,7 *0.579*	4	E
T34-R45H17E06-5/8-18-21R	10139127	EGUNF5/8-18	17,709 *0.697*	*18.0*	2,7 *0.106*	15,0 *0.591*	66 *2.598*	107,3 *4.224*	110,0 *4.331*	14,0 *0.551*	14.00X11.00	16,25 *0.640*	4	E
T34-R45H17E06-3/4-16-21R	10139128	EGUNF3/4-16	21,112 *0.831*	*16.0*	3,0 *0.118*	17,0 *0.669*	80 *3.150*	122,0 *4.803*	125,0 *4.921*	16,0 *0.630*	16.00X12.00	19,5 *0.768*	4	E

T33-FNC

Forming taps – Blind and through holes – Metric coarse threads





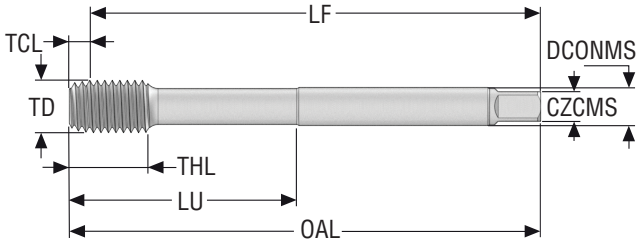
- Substrate: HSSE-PM
- Coating: TiAlN + TiN
- Standard: DIN371
- Thread tolerance class: 6HX
- For cutting data see page(s) 262, 264

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		mm *Inch*		
T33-FN01C03-2X0.4-65R	10139189	M2	0,4	1,02 *0.040*	8,0 *0.315*	8 *0.315*	43,98 *1.731*	46,3 *1.823*	2,8 *0.110*	2.80X2.10	1,85 *0.073*	0	C
T33-FN01C03-2.5X0.45-65R	10139190	M2.5	0,45	1,1 *0.043*	9,0 *0.354*	9 *0.354*	48,9 *1.925*	51,7 *2.035*	2,8 *0.110*	2.80X2.10	2,33 *0.092*	0	C
T33-FN01C03-3X0.5-65R	10139191	M3	0,5	1,2 *0.047*	10,0 *0.394*	18 *0.709*	54,8 *2.157*	57,2 *2.252*	3,5 *0.138*	3.50X2.70	2,8 *0.110*	0	C
T33-FN01C03-4X0.7-65R	10139192	M4	0,7	1,6 *0.063*	7,0 *0.276*	21 *0.827*	61,4 *2.417*	64,6 *2.543*	4,5 *0.177*	4.50X3.40	3,7 *0.146*	0	C
T33-FN01C03-5X0.8-65R	10139193	M5	0,8	2,1 *0.083*	8,0 *0.315*	25 *0.984*	67,9 *2.673*	72,0 *2.835*	6,0 *0.236*	6.00X4.90	4,65 *0.183*	0	C
T33-FN01C03-6X1-65R	10139195	M6	1,0	2,3 *0.091*	10,0 *0.394*	30 *1.181*	77,7 *3.059*	82,4 *3.244*	6,0 *0.236*	6.00X4.90	5,6 *0.220*	0	C
T33-FN01C03-8X1.25-65R	10139196	M8	1,25	3,1 *0.122*	13,0 *0.512*	35 *1.378*	86,9 *3.421*	93,3 *3.673*	8,0 *0.315*	8.00X6.20	7,45 *0.293*	0	C
T33-FN01C03-10X1.5-65R	10139197	M10	1,5	3,5 *0.138*	15,0 *0.591*	39 *1.535*	96,5 *3.799*	101,8 *4.008*	10,0 *0.394*	10.00X8.00	9,35 *0.368*	0	C

T33-FNC

Forming taps – Blind and through holes – Metric coarse threads



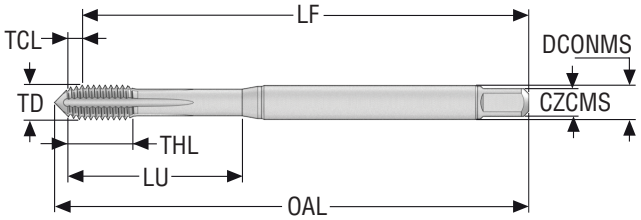


- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN376
- Thread tolerance class: 6HX
- For cutting data see page(s) 262, 264

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		mm *Inch*		
T33-FN01C06-12X1.75-65R	10139198	M12	1,75	3,7 *0.146*	18,0 *0.709*	83 *3.268*	106,3 *4.185*	110,0 *4.331*	9,0 *0.354*	9.00X7.00	11,25 *0.443*	0	C
T33-FN01C06-14X2-65R	10139199	M14	2,0	4,6 *0.181*	20,0 *0.787*	81 *3.189*	105,4 *4.150*	110,0 *4.331*	11,0 *0.433*	11.00X9.00	13,1 *0.516*	0	C
T33-FN01C06-16X2-65R	10139200	M16	2,0	4,6 *0.181*	20,0 *0.787*	81 *3.189*	105,4 *4.150*	110,0 *4.331*	11,0 *0.433*	11.00X9.00	15,1 *0.594*	0	C
T33-FN01C06-18X2.5-65R	10139201	M18	2,5	5,76 *0.227*	25,0 *0.984*	81 *3.189*	119,24 *4.694*	125,0 *4.921*	14,0 *0.551*	14.00X11.00	16,85 *0.663*	0	C
T33-FN01C06-20X2.5-65R	10139202	M20	2,5	5,8 *0.228*	25,0 *0.984*	95 *3.740*	134,2 *5.283*	140,0 *5.512*	16,0 *0.630*	16.00X12.00	18,85 *0.742*	0	C

T33-FSNC

Forming taps – Blind and through holes – Metric coarse threads





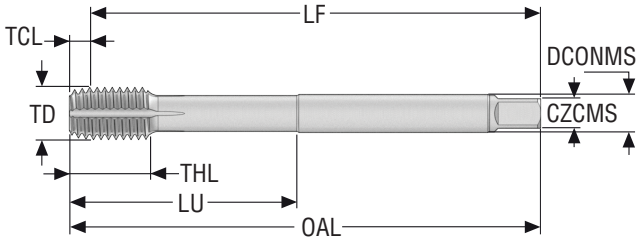
- Substrate: HSSE-PM
- Coating: TiAlN + TiN
- Standard: DIN371
- Thread tolerance class: 6HX
- For cutting data see page(s) 262, 264

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		mm *Inch*		
T33-FSN01C03-2X0.4-65R	10139204	M2	0,4	1,02 *0.040*	8,0 *0.315*	8 *0.315*	43,98 *1.731*	46,3 *1.823*	2,8 *0.110*	2.80X2.10	1,85 *0.073*	3	C
T33-FSN01C03-2.5X0.45-65R	10139205	M2.5	0,45	1,1 *0.043*	9,0 *0.354*	9 *0.354*	48,9 *1.925*	51,7 *2.035*	2,8 *0.110*	2.80X2.10	2,33 *0.092*	3	C
T33-FSN01C03-3X0.5-65R	10139206	M3	0,5	1,2 *0.047*	10,0 *0.394*	18 *0.709*	54,8 *2.157*	57,2 *2.252*	3,5 *0.138*	3.50X2.70	2,8 *0.110*	3	C
T33-FSN01C03-4X0.7-65R	10139207	M4	0,7	1,6 *0.063*	7,0 *0.276*	21 *0.827*	61,4 *2.417*	64,6 *2.543*	4,5 *0.177*	4.50X3.40	3,7 *0.146*	5	C
T33-FSN01C03-5X0.8-65R	10139208	M5	0,8	2,1 *0.083*	8,0 *0.315*	25 *0.984*	67,9 *2.673*	72,0 *2.835*	6,0 *0.236*	6.00X4.90	4,65 *0.183*	5	C
T33-FSN01C03-6X1-65R	10139209	M6	1,0	2,3 *0.091*	10,0 *0.394*	30 *1.181*	77,7 *3.059*	82,4 *3.244*	6,0 *0.236*	6.00X4.90	5,6 *0.220*	5	C
T33-FSN01C03-8X1.25-65R	10139210	M8	1,25	3,1 *0.122*	13,0 *0.512*	35 *1.378*	86,9 *3.421*	93,3 *3.673*	8,0 *0.315*	8.00X6.20	7,45 *0.293*	5	C
T33-FSN01C03-10X1.5-65R	10139211	M10	1,5	3,5 *0.138*	15,0 *0.591*	39 *1.535*	96,5 *3.799*	101,8 *4.008*	10,0 *0.394*	10.00X8.00	9,35 *0.368*	5	C

T33-FSNC

Forming taps – Blind and through holes – Metric coarse threads



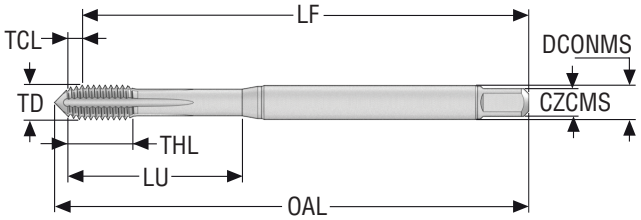


- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN376
- Thread tolerance class: 6HX
- For cutting data see page(s) 262, 264

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		mm *Inch*		
T33-FSN01C06-12X1.75-65R	10139212	M12	1,75	3,9 *0.154*	18,0 *0.709*	83 *3.268*	106,1 *4.177*	110,0 *4.331*	9,0 *0.354*	9.00X7.00	11,25 *0.443*	5	C
T33-FSN01C06-14X2-65R	10139213	M14	2,0	4,77 *0.188*	20,0 *0.787*	81 *3.189*	105,23 *4.143*	110,0 *4.331*	11,0 *0.433*	11.00X9.00	13,1 *0.516*	6	C
T33-FSN01C06-16X2-65R	10139214	M16	2,0	4,6 *0.181*	20,0 *0.787*	81 *3.189*	105,4 *4.150*	110,0 *4.331*	11,0 *0.433*	12.00X9.00	15,1 *0.594*	6	C
T33-FSN01C06-18X2.5-65R	10139215	M18	2,5	5,76 *0.227*	25,0 *0.984*	81 *3.189*	119,24 *4.694*	125,0 *4.921*	14,0 *0.551*	14.00X11.00	16,85 *0.663*	6	C
T33-FSN01C06-20X2.5-65R	10139216	M20	2,5	5,47 *0.215*	25,0 *0.984*	95 *3.740*	134,53 *5.296*	140,0 *5.512*	16,0 *0.630*	16.00X12.00	18,85 *0.742*	6	C

T33-FSNC

Forming taps – Blind and through holes – Metric coarse threads, 6GX





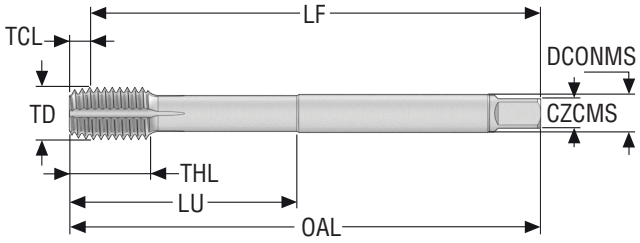
- Substrate: HSSE-PM
- Coating: TiAlN + TiN
- Standard: DIN371
- Thread tolerance class: 6GX
- For cutting data see page(s) 262, 264

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		mm *Inch*		
T33-FSN01C03-3X0.5-62R	10139258	M3	0,5	1,2 *0.047*	10,0 *0.394*	18 *0.709*	54,8 *2.157*	57,2 *2.252*	3,5 *0.138*	3.50X2.70	2,8 *0.110*	3	C
T33-FSN01C03-4X0.7-62R	10139259	M4	0,7	1,7 *0.067*	7,0 *0.276*	21 *0.827*	61,3 *2.413*	64,6 *2.543*	4,5 *0.177*	4.50X3.40	3,7 *0.146*	5	C
T33-FSN01C03-5X0.8-62R	10139260	M5	0,8	2,2 *0.087*	8,0 *0.315*	25 *0.984*	67,8 *2.669*	72,0 *2.835*	6,0 *0.236*	6.00X4.90	4,65 *0.183*	5	C
T33-FSN01C03-6X1-62R	10139261	M6	1,0	2,3 *0.091*	10,0 *0.394*	30 *1.181*	77,7 *3.059*	82,4 *3.244*	6,0 *0.236*	6.00X4.90	5,6 *0.220*	5	C
T33-FSN01C03-8X1.25-62R	10139262	M8	1,25	3,2 *0.126*	13,0 *0.512*	35 *1.378*	86,8 *3.417*	93,3 *3.673*	8,0 *0.315*	8.00X6.20	7,45 *0.293*	5	C
T33-FSN01C03-10X1.5-62R	10139263	M10	1,5	4,4 *0.173*	15,0 *0.591*	39 *1.535*	95,6 *3.764*	101,8 *4.008*	10,0 *0.394*	10.00X8.00	9,35 *0.368*	5	C

T33-FSNC

Forming taps – Blind and through holes – Metric coarse threads, 6GX



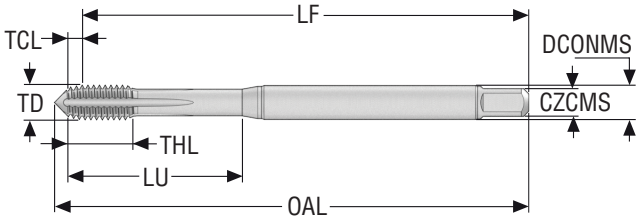


- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN376
- Thread tolerance class: 6GX
- For cutting data see page(s) 262, 264

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		mm *Inch*		
T33-FSN01C06-12X1.75-62R	10139264	M12	1,75	3,9 *0.154*	18,0 *0.709*	83 *3.268*	106,1 *4.177*	110,0 *4.331*	9,0 *0.354*	9.00X7.00	11,25 *0.443*	5	C
T33-FSN01C06-14X2-62R	10139265	M14	2,0	4,77 *0.188*	20,0 *0.787*	81 *3.189*	105,23 *4.143*	110,0 *4.331*	11,0 *0.433*	11.00X9.00	13,1 *0.516*	6	C
T33-FSN01C06-16X2-62R	10139266	M16	2,0	5,88 *0.231*	20,0 *0.787*	81 *3.189*	104,12 *4.099*	110,0 *4.331*	11,0 *0.433*	11.00X9.00	15,1 *0.594*	6	C
T33-FSN01C06-18X2.5-62R	10139267	M18	2,5	5,47 *0.215*	25,0 *0.984*	81 *3.189*	119,53 *4.706*	125,0 *4.921*	14,0 *0.551*	14.00X11.00	16,85 *0.663*	6	C
T33-FSN01C06-20X2.5-62R	10139268	M20	2,5	6,68 *0.263*	25,0 *0.984*	95 *3.740*	133,32 *5.249*	140,0 *5.512*	16,0 *0.630*	16.00X12.00	18,85 *0.742*	6	C

T33-FSNC

Forming taps – Blind and through holes – MF threads



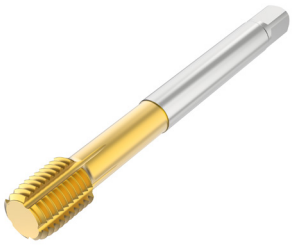


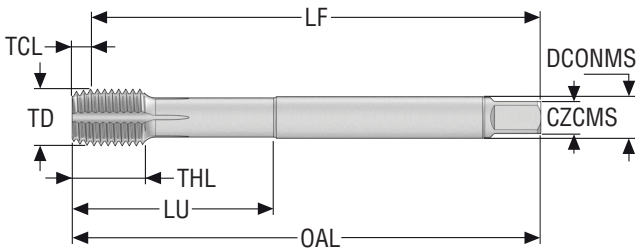
- Substrate: HSSE-PM
- Coating: TiAlN + TiN
- Standard: DIN371
- Thread tolerance class: 6HX
- For cutting data see page(s) 262, 264

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		mm *Inch*		
T33-FSN02C03-4X0.5-65R	10139217	MF4X0.5	0,5	1,4 *0.055*	7,0 *0.276*	21 *0.827*	61,6 *2.425*	64,6 *2.543*	4,5 *0.177*	4.50X3.40	3,8 *0.150*	5	C
T33-FSN02C03-5X0.5-65R	10139218	MF5X0.5	0,5	1,2 *0.047*	8,0 *0.315*	25 *0.984*	68,8 *2.709*	72,0 *2.835*	6,0 *0.236*	6.00X4.90	4,8 *0.189*	5	C
T33-FSN02C03-6X0.5-65R	10139219	MF6X0.5	0,5	1,35 *0.053*	10,0 *0.394*	30 *1.181*	78,65 *3.096*	82,4 *3.244*	6,0 *0.236*	6.00X4.90	5,8 *0.228*	5	C
T33-FSN02C03-6X0.75-65R	10139220	MF6X0.75	0,75	1,8 *0.071*	10,0 *0.394*	30 *1.181*	78,2 *3.079*	82,4 *3.244*	6,0 *0.236*	6.00X4.90	5,7 *0.224*	5	C
T33-FSN02C03-8X1-65R	10139221	MF8X1.0	1,0	2,25 *0.089*	13,0 *0.512*	35 *1.378*	87,75 *3.455*	93,3 *3.673*	8,0 *0.315*	8.00X6.20	7,6 *0.299*	5	C
T33-FSN02C03-10X1-65R	10139222	MF10X1.0	1,0	2,9 *0.114*	13,0 *0.512*	35 *1.378*	87,1 *3.429*	91,8 *3.614*	10,0 *0.394*	10.00X8.00	9,6 *0.378*	5	C
T33-FSN02C03-10X1.25-65R	10139223	MF10X1.25	1,25	3,1 *0.122*	15,0 *0.591*	39 *1.535*	96,9 *3.815*	101,8 *4.008*	10,0 *0.394*	10.00X8.00	9,45 *0.372*	5	C

T33-FSNC

Forming taps – Blind and through holes – MF threads



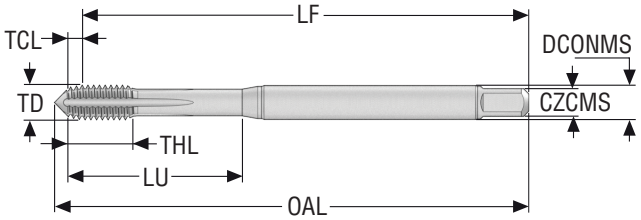


- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN374
- Thread tolerance class: 6HX
- For cutting data see page(s) 262, 264

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		mm *Inch*		
T33-FSN02C05-12X1-65R	10139224	MF12X1.0	1,0	3,27 *0.129*	10,0 *0.394*	73 *2.874*	96,73 *3.808*	100,0 *3.937*	9,0 *0.354*	9.00X7.00	11,6 *0.457*	5	C
T33-FSN02C05-12X1.25-65R	10139225	MF12X1.25	1,25	3,96 *0.156*	15,0 *0.591*	73 *2.874*	96,04 *3.781*	100,0 *3.937*	9,0 *0.354*	9.00X7.00	11,45 *0.451*	5	C
T33-FSN02C05-12X1.5-65R	10139226	MF12X1.5	1,5	4,15 *0.163*	15,0 *0.591*	73 *2.874*	95,85 *3.774*	100,0 *3.937*	9,0 *0.354*	9.00X7.00	11,35 *0.447*	5	C
T33-FSN02C05-16X1.5-65R	10139227	MF16X1.5	1,5	4,33 *0.170*	15,0 *0.591*	71 *2.795*	95,67 *3.767*	100,0 *3.937*	11,0 *0.433*	11.00X9.00	15,35 *0.604*	6	C
T33-FSN02C05-18X1.5-65R	10139228	MF18X1.5	1,5	4,4 *0.173*	17,0 *0.669*	66 *2.598*	105,6 *4.157*	110,0 *4.331*	14,0 *0.551*	14.00X11.00	17,35 *0.683*	6	C
T33-FSN02C05-20X1.5-65R	10139229	MF20X1.5	1,5	4,6 *0.181*	17,0 *0.669*	80 *3.150*	120,4 *4.740*	125,0 *4.921*	16,0 *0.630*	16.00X12.00	19,35 *0.762*	6	C

T33-FSNC

Forming taps – Blind and through holes – UNC threads





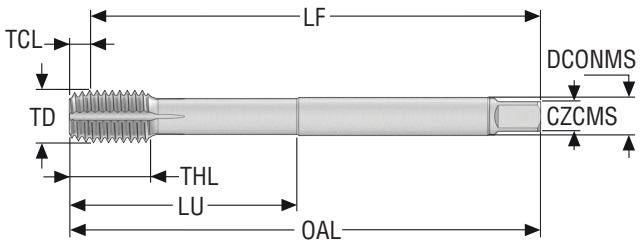
- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN371
- Thread tolerance class: 2BX
- For cutting data see page(s) 262, 264

Designation	Item number	TDZ	TD	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm *Inch*	*TPI*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		mm *Inch*		
T33-FSN08C03-5-40-22R	10139230	UNC5-40	3,175 *0.125*	*40.0*	1,6 *0.063*	7,0 *0.276*	18 *0.709*	54,4 *2.142*	57,2 *2.252*	3,5 *0.138*	3.50X2.70	2,9 *0.114*	3	C
T33-FSN08C03-6-32-22R	10139231	UNC6-32	3,505 *0.138*	*32.0*	1,8 *0.071*	6,0 *0.236*	20 *0.787*	54,2 *2.134*	57,4 *2.260*	4,0 *0.157*	4.00X3.00	3,15 *0.124*	3	C
T33-FSN08C03-8-32-22R	10139232	UNC8-32	4,166 *0.164*	*32.0*	2,0 *0.079*	7,0 *0.276*	21 *0.827*	61,0 *2.402*	64,6 *2.543*	4,5 *0.177*	4.50X3.40	3,8 *0.150*	5	C
T33-FSN08C03-10-24-22R	10139233	UNC10-24	4,826 *0.190*	*24.0*	2,7 *0.106*	8,0 *0.315*	25 *0.984*	67,3 *2.650*	72,0 *2.835*	6,0 *0.236*	6.00X4.90	4,35 *0.171*	5	C
T33-FSN08C03-12-24-22R	10139234	UNC12-24	5,486 *0.216*	*24.0*	2,7 *0.106*	10,0 *0.394*	30 *1.181*	77,3 *3.043*	82,4 *3.244*	6,0 *0.236*	6.00X4.90	5,0 *0.197*	5	C
T33-FSN08C03-1/4-20-22R	10139235	UNC1/4-20	6,35 *0.250*	*20.0*	3,9 *0.154*	13,0 *0.512*	30 *1.181*	76,1 *2.996*	80,0 *3.150*	7,0 *0.276*	7.00X5.50	5,75 *0.226*	5	C
T33-FSN08C03-5/16-18-22R	10139236	UNC5/16-18	7,937 *0.312*	*18.0*	3,6 *0.142*	13,0 *0.512*	35 *1.378*	86,4 *3.402*	93,3 *3.673*	8,2 *0.323*	8.20X6.20	7,3 *0.287*	5	C
T33-FSN08C03-3/8-16-22R	10139237	UNC3/8-16	9,525 *0.375*	*16.0*	4,74 *0.187*	15,0 *0.591*	39 *1.535*	95,26 *3.750*	100,0 *3.937*	10,0 *0.394*	10.00X8.00	8,8 *0.346*	5	C

T33-FSNC

Forming taps – Blind and through holes – UNC threads



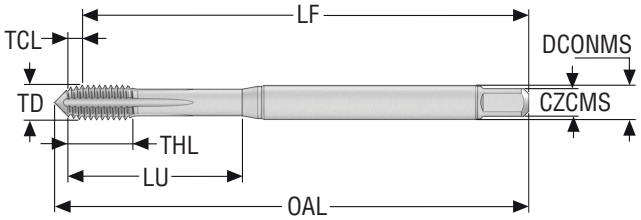


- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN376
- Thread tolerance class: 2BX
- For cutting data see page(s) 262, 264

Designation	Item number	TDZ	TD	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm *Inch*	*TPI*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		mm *Inch*		
T33-FSN08C06-7/16-14-22R	10139238	UNC7/16-14	11,112 *0.437*	*14.0*	5,4 *0.213*	15,0 *0.591*	76 *2.992*	94,6 *3.724*	100,0 *3.937*	8,0 *0.315*	8.00X6.20	10,25 *0.404*	5	C
T33-FSN08C06-1/2-13-22R	10139239	UNC1/2-13	12,7 *0.500*	*13.0*	5,8 *0.228*	18,0 *0.709*	83 *3.268*	104,2 *4.102*	110,0 *4.331*	9,0 *0.354*	9.00X7.00	11,8 *0.465*	5	C
T33-FSN08C06-5/8-11-22R	10139240	UNC5/8-11	15,875 *0.625*	*11.0*	6,8 *0.268*	20,0 *0.787*	81 *3.189*	103,2 *4.063*	110,0 *4.331*	12,0 *0.472*	12.00x9.00	14,8 *0.583*	6	C

T33-FSNC

Forming taps – Blind and through holes – UNF threads



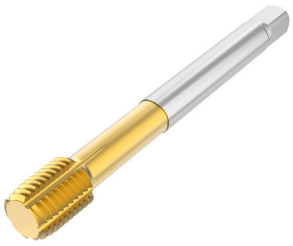


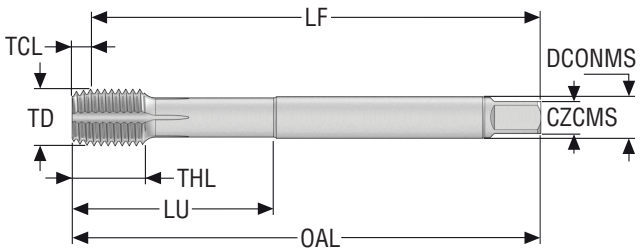
- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN371
- Thread tolerance class: 2BX
- For cutting data see page(s) 262, 264

Designation	Item number	TDZ	TD	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm *Inch*	*TPI*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		mm *Inch*		
T33-FSN09C03-5-44-22R	10139241	UNF5-44	3,175 *0.125*	*44.0*	1,4 *0.055*	7,0 *0.276*	18 *0.709*	54,6 *2.150*	57,2 *2.252*	3,5 *0.138*	3.50X2.70	2,92 *0.115*	3	C
T33-FSN09C03-6-40-22R	10139242	UNF6-40	3,505 *0.138*	*40.0*	1,6 *0.063*	6,0 *0.236*	20 *0.787*	54,4 *2.142*	57,4 *2.260*	4,0 *0.157*	4.00X3.00	3,22 *0.127*	3	C
T33-FSN09C03-8-36-22R	10139243	UNF8-36	4,166 *0.164*	*36.0*	1,8 *0.071*	7,0 *0.276*	21 *0.827*	61,2 *2.409*	64,6 *2.543*	4,5 *0.177*	4.50X3.40	3,85 *0.152*	5	C
T33-FSN09C03-10-32-22R	10139244	UNF10-32	4,826 *0.190*	*32.0*	1,9 *0.075*	8,0 *0.315*	25 *0.984*	68,1 *2.681*	72,0 *2.835*	6,0 *0.236*	6.00X4.90	4,45 *0.175*	5	C
T33-FSN09C03-12-28-22R	10139245	UNF12-28	5,486 *0.216*	*28.0*	1,9 *0.075*	10,0 *0.394*	30 *1.181*	78,1 *3.075*	82,4 *3.244*	6,0 *0.236*	6.00X4.90	5,1 *0.201*	5	C
T33-FSN09C03-1/4-28-22R	10139246	UNF1/4-28	6,35 *0.250*	*28.0*	2,23 *0.088*	10,0 *0.394*	30 *1.181*	77,77 *3.062*	82,4 *3.244*	7,0 *0.276*	7.00X5.50	5,95 *0.234*	5	C
T33-FSN09C03-5/16-24-22R	10139247	UNF5/16-24	7,937 *0.312*	*24.0*	2,6 *0.102*	13,0 *0.512*	35 *1.378*	87,4 *3.441*	93,3 *3.673*	8,0 *0.315*	8.00X6.20	7,45 *0.293*	5	C
T33-FSN09C03-3/8-24-22R	10139248	UNF3/8-24	9,525 *0.375*	*24.0*	3,5 *0.138*	15,0 *0.591*	35 *1.378*	86,5 *3.406*	90,0 *3.543*	10,0 *0.394*	10.00X8.00	9,05 *0.356*	5	C

T33-FSNC

Forming taps – Blind and through holes – UNF threads



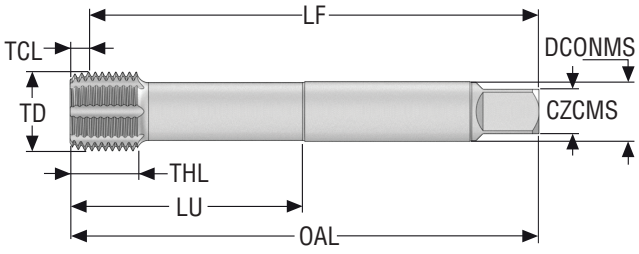


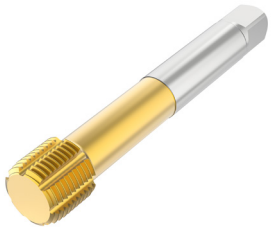
- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN374
- Thread tolerance class: 2BX
- For cutting data see page(s) 262, 264

Designation	Item number	TDZ	TD	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm *Inch*	*TPI*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		mm *Inch*		
T33-FSN09C05-7/16-20-22R	10139249	UNF7/16-20	11,112 *0.437*	*20.0*	3,8 *0.150*	15,0 *0.591*	76 *2.992*	96,2 *3.787*	100,0 *3.937*	8,0 *0.315*	8.00X6.20	10,55 *0.415*	5	C
T33-FSN09C05-1/2-20-22R	10139250	UNF1/2-20	12,7 *0.500*	*20.0*	3,8 *0.150*	15,0 *0.591*	83 *3.268*	106,2 *4.181*	110,0 *4.331*	9,0 *0.354*	9.00X7.00	12,15 *0.478*	5	C
T33-FSN09C05-5/8-18-22R	10139251	UNF5/8-18	15,875 *0.625*	*18.0*	4,7 *0.185*	15,0 *0.591*	68 *2.677*	105,3 *4.146*	110,0 *4.331*	12,0 *0.472*	12.00X9.00	15,25 *0.600*	6	C

T33-FSNC

Forming taps – Blind and through holes – G threads





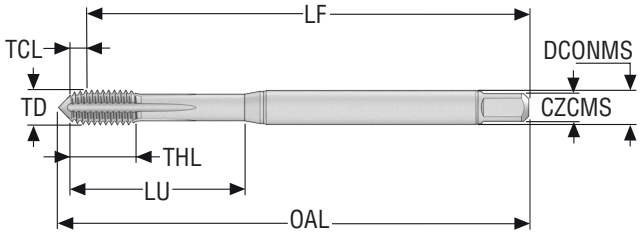
- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN5156
- Thread tolerance class: NORMAL-X
- For cutting data see page(s) 262, 264

Designation	Item number	TDZ	TD	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm *Inch*	*TPI*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		mm *Inch*		
T33-FSN21C09-1/8-28-12R	10139252	G1/8-28	9,728 *0.383*	*28.0*	2,6 *0.102*	10,0 *0.394*	67 *2.638*	87,4 *3.441*	90,0 *3.543*	7,0 *0.276*	7.00X5.50	9,25 *0.364*	5	C
T33-FSN21C09-1/4-19-12R	10139253	G1/4-19	13,157 *0.518*	*19.0*	3,7 *0.146*	14,0 *0.551*	71 *2.795*	96,3 *3.791*	100,0 *3.937*	11,0 *0.433*	11.00X9.00	12,55 *0.494*	6	C
T33-FSN21C09-3/8-19-12R	10139254	G3/8-19	16,662 *0.656*	*19.0*	3,85 *0.152*	15,0 *0.591*	71 *2.795*	96,15 *3.785*	100,0 *3.937*	11,0 *0.433*	11.00X9.00	16,05 *0.632*	7	C
T33-FSN21C09-1/2-14-12R	10139255	G1/2-14	20,955 *0.825*	*14.0*	5,1 *0.201*	17,0 *0.669*	80 *3.150*	119,9 *4.720*	125,0 *4.921*	16,0 *0.630*	16.00X12.00	20,1 *0.791*	7	C
T33-FSN21C09-5/8-14-12R	10139256	G5/8-14	22,911 *0.902*	*14.0*	5,1 *0.201*	20,0 *0.787*	78 *3.071*	119,9 *4.720*	125,0 *4.921*	18,0 *0.709*	18.00X14.50	22,05 *0.868*	7	C
T33-FSN21C09-3/4-14-12R	10139257	G3/4-14	26,441 *1.041*	*14.0*	5,1 *0.201*	22,0 *0.866*	73 *2.874*	134,9 *5.311*	140,0 *5.512*	20,0 *0.787*	20.00X16.00	25,6 *1.008*	7	C

T33-FSCC

Forming taps – Blind and through holes – Metric coarse threads



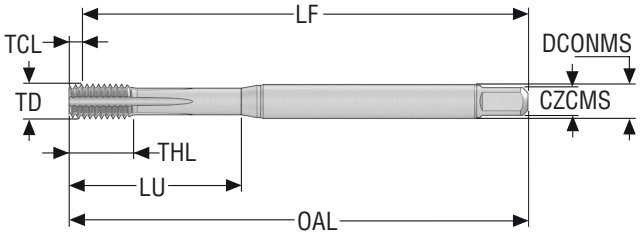


- Substrate: HSSE-PM
- Coating: TiN + TiCN
- Standard: DIN371
- Thread tolerance class: 6HX
- For cutting data see page(s) 262, 264

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		mm *Inch*		
T33-FSC01C03-3X0.5-65R	10139282	M3	0,5	1,2 *0.047*	10,0 *0.394*	18 *0.709*	54,8 *2.157*	57,2 *2.252*	3,5 *0.138*	3.50X2.70	2,8 *0.110*	3	C
T33-FSC01C03-4X0.7-65R	10139283	M4	0,7	1,6 *0.063*	7,0 *0.276*	21 *0.827*	61,4 *2.417*	64,6 *2.543*	4,5 *0.177*	4.50X3.40	3,7 *0.146*	5	C
T33-FSC01C03-5X0.8-65R	10139284	M5	0,8	2,1 *0.083*	8,0 *0.315*	25 *0.984*	67,9 *2.673*	72,0 *2.835*	6,0 *0.236*	6.00X4.90	4,65 *0.183*	5	C
T33-FSC01C03-6X1-65R	10139285	M6	1,0	2,3 *0.091*	10,0 *0.394*	30 *1.181*	77,7 *3.059*	82,4 *3.244*	6,0 *0.236*	6.00X4.90	5,6 *0.220*	5	C
T33-FSC01C03-8X1.25-65R	10139286	M8	1,25	3,1 *0.122*	13,0 *0.512*	35 *1.378*	86,9 *3.421*	93,3 *3.673*	8,0 *0.315*	8.00X6.20	7,45 *0.293*	5	C
T33-FSC01C03-10X1.5-65R	10139287	M10	1,5	3,5 *0.138*	15,0 *0.591*	39 *1.535*	96,5 *3.799*	101,8 *4.008*	10,0 *0.394*	10.00X8.00	9,35 *0.368*	5	C

T33-FSCE

Forming taps – Blind and through holes – Metric coarse threads





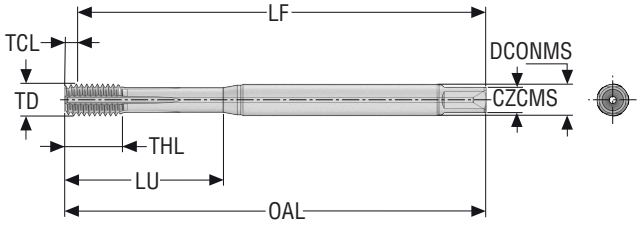
- Substrate: HSSE-PM
- Coating: TiN + TiCN
- Standard: DIN371
- Thread tolerance class: 6HX
- For cutting data see page(s) 262, 264

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		mm *Inch*		
T33-FSC01E03-3X0.5-65R	10139288	M3	0,5	1,2 *0.047*	10,0 *0.394*	18 *0.709*	54,8 *2.157*	56,0 *2.205*	3,5 *0.138*	3.50X2.70	2,8 *0.110*	3	E
T33-FSC01E03-4X0.7-65R	10139289	M4	0,7	1,6 *0.063*	7,0 *0.276*	21 *0.827*	61,4 *2.417*	63,0 *2.480*	4,5 *0.177*	4.50X3.40	3,7 *0.146*	5	E
T33-FSC01E03-5X0.8-65R	10139290	M5	0,8	1,5 *0.059*	8,0 *0.315*	25 *0.984*	68,5 *2.697*	70,0 *2.756*	6,0 *0.236*	6.00X4.90	4,65 *0.183*	5	E

T33A-FSCE

Forming taps – Blind holes – Metric coarse threads



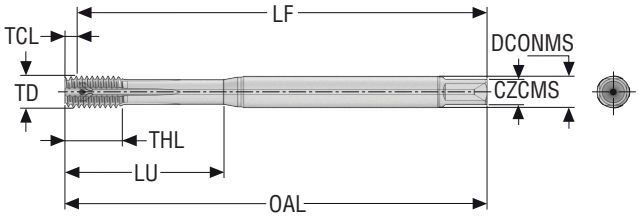


- Internal coolant
- Substrate: HSSE-PM
- Coating: TiN + TiCN
- Standard: DIN371
- Thread tolerance class: 6HX
- For cutting data see page(s) 262, 264

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		mm *Inch*		
T33A-FSC01E03-5X0.8-65R	10139294	M5	0,8	1,7 *0.067*	8,0 *0.315*	25 *0.984*	68,3 *2.689*	70,0 *2.756*	6,0 *0.236*	6.00X4.90	4,65 *0.183*	5	E
T33A-FSC01E03-6X1-65R	10139295	M6	1,0	1,95 *0.077*	10,0 *0.394*	30 *1.181*	78,05 *3.073*	80,0 *3.150*	6,0 *0.236*	6.00X4.90	5,6 *0.220*	5	E
T33A-FSC01E03-8X1.25-65R	10139296	M8	1,25	2,55 *0.100*	13,0 *0.512*	35 *1.378*	87,45 *3.443*	90,0 *3.543*	8,0 *0.315*	8.00X6.20	7,45 *0.293*	5	E
T33A-FSC01E03-10X1.5-65R	10139297	M10	1,5	2,84 *0.112*	15,0 *0.591*	39 *1.535*	97,16 *3.825*	100,0 *3.937*	10,0 *0.394*	10.00X8.00	9,35 *0.368*	5	E

T33B-FSCE

Forming taps – Blind and through holes – Metric coarse threads





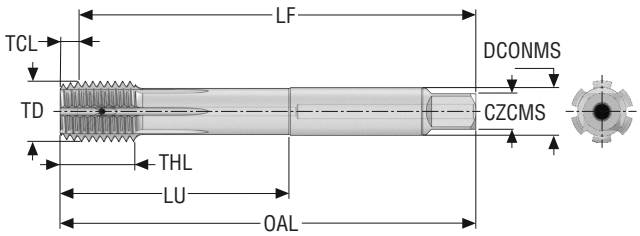
- Internal coolant
- Substrate: HSSE-PM
- Coating: TiN + TiCN
- Standard: DIN371
- Thread tolerance class: 6HX
- For cutting data see page(s) 262, 264

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		mm *Inch*		
T33B-FSC01E03-5X0.8-65R	10139298	M5	0,8	1,57 *0.062*	8,0 *0.315*	25 *0.984*	68,43 *2.694*	70,0 *2.756*	6,0 *0.236*	6.00X4.90	4,65 *0.183*	5	E
T33B-FSC01E03-6X1-65R	10139299	M6	1,0	1,95 *0.077*	10,0 *0.394*	30 *1.181*	78,05 *3.073*	80,0 *3.150*	6,0 *0.236*	6.00X4.90	5,6 *0.220*	5	E
T33B-FSC01E03-8X1.25-65R	10139300	M8	1,25	2,42 *0.095*	13,0 *0.512*	35 *1.378*	87,58 *3.448*	90,0 *3.543*	8,0 *0.315*	8.00X6.20	7,45 *0.293*	5	E
T33B-FSC01E03-10X1.5-65R	10139301	M10	1,5	2,84 *0.112*	15,0 *0.591*	39 *1.535*	97,16 *3.825*	100,0 *3.937*	10,0 *0.394*	10.00X8.00	9,35 *0.368*	5	E

T33B-FSCC

Forming taps – Blind and through holes – Metric coarse threads



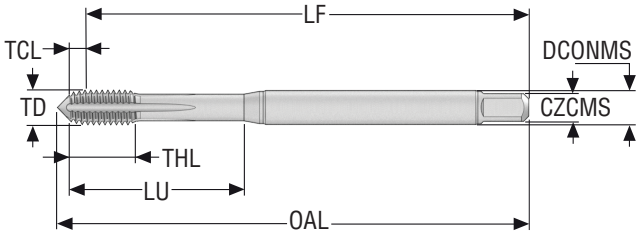


- Internal coolant
- Substrate: HSSE-PM
- Coating: TiN + TiCN
- Standard: DIN376
- Thread tolerance class: 6HX
- For cutting data see page(s) 262, 264

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm	mm	mm	mm	mm	mm		mm		
T33B-FSC01C06-12X1.75-65R	10208929	M12	1,75	3,9	18,0	83	105,1	110,0	9,0	9.00x7.00	11,25	5	C
T33B-FSC01C06-14X2-65R	10208930	M14	2,0	5,88	20,0	81	104,3	110,0	11,0	11.00x9.00	13,1	6	C
T33B-FSC01C06-16X2-65R	10208931	M16	2,0	5,88	20,0	68	104,3	110,0	12,0	12.00x9.00	15,1	6	C
T33B-FSC01C06-18X2.5-65R	10208932	M18	2,5	6,95	25,0	81	118,0	125,0	14,0	14.00x11.00	16,85	6	C
T33B-FSC01C06-20X2.5-65R	10208933	M20	2,5	6,62	25,0	95	133,0	140,0	16,0	16.00x12.00	18,85	6	C
T33B-FSC01C06-22X2.5-65R	10208934	M22	2,5	6,92	25,0	93	133,0	140,0	18,0	18.00x14.50	20,85	6	C
T33B-FSC01C06-24X3-65R	10208935	M24	3,0	8,44	30,0	113	151,3	160,0	18,0	18.00x14.50	22,65	6	C

T33-FSCC

Forming taps – Blind and through holes – MF threads





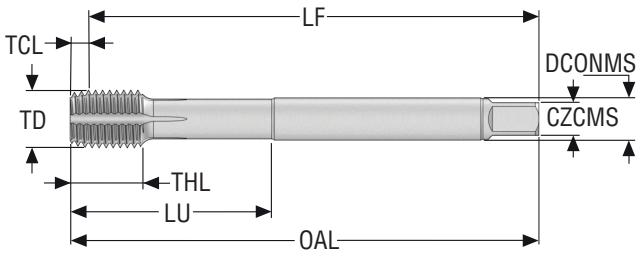
- Substrate: HSSE-PM
- Coating: TiN + TiCN
- Standard: DIN371
- Thread tolerance class: 6HX
- For cutting data see page(s) 262, 264

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		mm *Inch*		
T33-FSC02C03-4X0.5-65R	10139269	MF4X0.5	0,5	1,4 *0.055*	7,0 *0.276*	21 *0.827*	61,6 *2.425*	64,6 *2.543*	4,5 *0.177*	4.50X3.40	3,8 *0.150*	5	C
T33-FSC02C03-5X0.5-65R	10139270	MF5X0.5	0,5	1,2 *0.047*	8,0 *0.315*	25 *0.984*	68,8 *2.709*	72,0 *2.835*	6,0 *0.236*	6.00X4.90	4,8 *0.189*	5	C
T33-FSC02C03-6X0.5-65R	10139271	MF6X0.5	0,5	1,35 *0.053*	10,0 *0.394*	30 *1.181*	78,65 *3.096*	82,4 *3.244*	6,0 *0.236*	6.00X4.90	5,8 *0.228*	5	C
T33-FSC02C03-6X0.75-65R	10139272	MF6X0.75	0,75	1,8 *0.071*	10,0 *0.394*	30 *1.181*	78,2 *3.079*	82,4 *3.244*	6,0 *0.236*	6.00X4.90	5,7 *0.224*	5	C
T33-FSC02C03-8X1-65R	10139273	MF8X1.0	1,0	2,25 *0.089*	13,0 *0.512*	35 *1.378*	87,75 *3.455*	93,3 *3.673*	8,0 *0.315*	8.00X6.20	7,6 *0.299*	5	C
T33-FSC02C03-10X1-65R	10139274	MF10X1.0	1,0	2,9 *0.114*	13,0 *0.512*	35 *1.378*	87,1 *3.429*	91,8 *3.614*	10,0 *0.394*	10.00X8.00	9,6 *0.378*	5	C
T33-FSC02C03-10X1.25-65R	10139275	MF10X1.25	1,25	4,0 *0.157*	15,0 *0.591*	39 *1.535*	96,0 *3.780*	101,8 *4.008*	10,0 *0.394*	10.00X8.00	9,45 *0.372*	5	C

T33-FSCC

Forming taps – Blind and through holes – MF threads



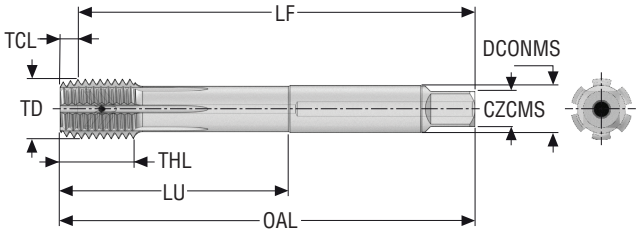


- Substrate: HSSE-PM
- Coating: TiN + TiCN
- Standard: DIN374
- Thread tolerance class: 6HX
- For cutting data see page(s) 262, 264

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		mm *Inch*		
T33-FSC02C05-12X1-65R	10139276	MF12X1.0	1,0	3,27 *0.129*	10,0 *0.394*	73 *2.874*	96,73 *3.808*	100,0 *3.937*	9,0 *0.354*	9.00X7.00	11,6 *0.457*	5	C
T33-FSC02C05-12X1.25-65R	10139277	MF12X1.25	1,25	3,96 *0.156*	15,0 *0.591*	73 *2.874*	96,04 *3.781*	100,0 *3.937*	9,0 *0.354*	9.00X7.00	11,45 *0.451*	5	C
T33-FSC02C05-12X1.5-65R	10139278	MF12X1.5	1,5	4,2 *0.165*	15,0 *0.591*	73 *2.874*	95,8 *3.772*	100,0 *3.937*	9,0 *0.354*	9.00X7.00	11,35 *0.447*	5	C
T33-FSC02C05-16X1.5-65R	10139279	MF16X1.5	1,5	4,33 *0.170*	15,0 *0.591*	71 *2.795*	95,67 *3.767*	100,0 *3.937*	11,0 *0.433*	11.00X9.00	15,35 *0.604*	5	C
T33-FSC02C05-18X1.5-65R	10139280	MF18X1.5	1,5	4,4 *0.173*	17,0 *0.669*	66 *2.598*	105,6 *4.157*	110,0 *4.331*	14,0 *0.551*	14.00X11.00	17,35 *0.683*	5	C
T33-FSC02C05-20X1.5-65R	10139281	MF20X1.5	1,5	4,6 *0.181*	17,0 *0.669*	80 *3.150*	120,4 *4.740*	125,0 *4.921*	16,0 *0.630*	16.00X12.00	19,35 *0.762*	5	C

T33B-FSCC

Forming taps – Blind and through holes – MF threads





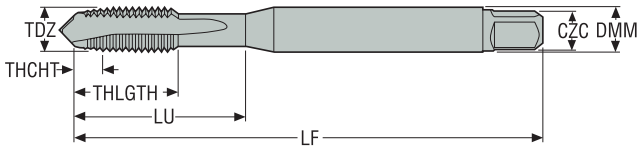
- Internal coolant
- Substrate: HSSE-PM
- Coating: TiN + TiCN
- Standard: DIN374
- Thread tolerance class: 6HX
- For cutting data see page(s) 262, 264

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm	mm	mm	mm	mm	mm		mm		
T33B-FSC02C05-12X1.25-65R	10208936	MF12X1.25	1,25	3,96	15,0	73	95,9	100,0	9,0	9.00x7.00	11,45	5	C
T33B-FSC02C05-14X1.5-65R	10208937	MF14X1.5	1,5	4,33	15,0	81	95,7	100,0	11,0	11.00x9.00	13,35	6	C
T33B-FSC02C05-16X1.5-65R	10208938	MF16X1.5	1,5	4,27	15,0	58	95,7	100,0	12,0	12.00x9.00	15,35	6	C

MTP-P001

Through holes – Metric coarse threads



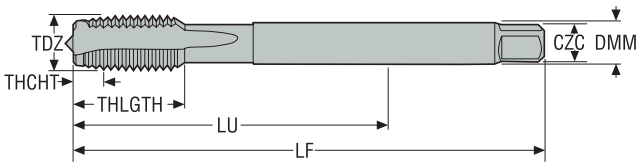


- Substrate: HSS-E-PM
- Coating: TiAlN
- For cutting data see page(s) 266, 268

Designation	Item number	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*					
MTP-M3X0.50ISO6H-TB-P001	02999886	M3	0,5	–	4,5 *0.177*	12,0 *0.472*	12,0 *0.472*	61,625 *2.426*	2,5 *0.098*	4.50X3.40	3	SECO-DIN	6H	B
MTP-M4X0.70ISO6H-TB-P001	02999887	M4	0,7	–	6,0 *0.236*	13,0 *0.512*	13,0 *0.512*	68,075 *2.680*	3,4 *0.134*	6.00X4.90	3	SECO-DIN	6H	B
MTP-M5X0.80ISO6H-TB-P001	02999888	M5	0,8	–	6,0 *0.236*	15,0 *0.591*	15,0 *0.591*	76,3 *3.004*	4,3 *0.169*	6.00X4.90	3	SECO-DIN	6H	B
MTP-M6X1.00ISO6H-TB-P001	02999889	M6	1,0	–	8,0 *0.315*	18,0 *0.709*	18,0 *0.709*	85,375 *3.361*	5,1 *0.201*	8.00X6.20	3	SECO-DIN	6H	B
MTP-M8X1.25ISO6H-TB-P001	02999890	M8	1,25	–	10,0 *0.394*	20,0 *0.787*	20,0 *0.787*	94,21875 *3.709*	6,8 *0.268*	10.00X8.00	3	SECO-DIN	6H	B
MTP-M10X1.50ISO6H-TB-P001	02999891	M10	1,5	–	10,0 *0.394*	39,0 *1.535*	20,0 *0.787*	95,875 *3.775*	8,6 *0.339*	10.00X8.00	3	SECO-DIN	6H	B

MTP-P002

Through holes – Metric coarse threads





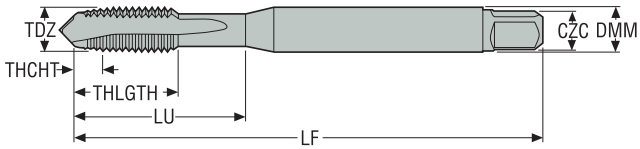
- Substrate: HSS-E-PM
- Coating: TiAlN
- For cutting data see page(s) 266, 268

Designation	Item number	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*					
MTP-M12X1.75ISO6H-TB-P002	02999892	M12	1,75	–	9,0 *0.354*	83,0 *3.268*	23,0 *0.906*	105,1875 *4.141*	10,4 *0.409*	9.00X7.00	4	DIN376	6H	B
MTP-M14X2.00ISO6H-TB-P002	02999893	M14	2,0	–	11,0 *0.433*	81,0 *3.189*	25,0 *0.984*	104,5 *4.114*	12,1 *0.476*	11.00X9.00	4	DIN376	6H	B
MTP-M16X2.00ISO6H-TB-P002	02999894	M16	2,0	–	12,0 *0.472*	68,0 *2.677*	25,0 *0.984*	104,5 *4.114*	14,1 *0.555*	12.00X9.00	4	DIN376	6H	B
MTP-M18X2.50ISO6H-TB-P002	02999895	M18	2,5	–	14,0 *0.551*	81,0 *3.189*	30,0 *1.181*	112,63 *4.434*	15,7 *0.618*	14.00X11.00	4	DIN376	6H	B
MTP-M20X2.50ISO6H-TB-P002	02999896	M20	2,5	–	16,0 *0.630*	95,0 *3.740*	30,0 *1.181*	133,125 *5.241*	17,7 *0.697*	16.00X12.00	4	DIN376	6H	B

MTP-P003

Through holes – Metric coarse threads



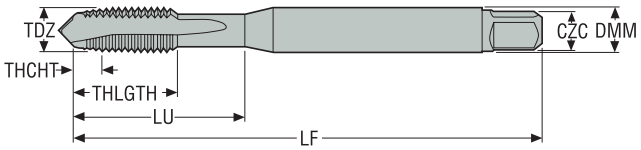


- Substrate: HSS-E-PM
- Coating: AlTiN-based
- For cutting data see page(s) 266, 268

Designation	Item number	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*					
MTP-M1X0.25ISO5HX-TB-P003	02999897	M1	0,25	–	2,5 *0.098*	20,0 *0.787*	5,0 *0.197*	38,87 *1.530*	0,75 *0.030*	2.50X2.10	2	DIN371	5HX	B
MTP-M1.2X0.25ISO5HX-TB-P003	02999898	M1.2	0,25	–	2,5 *0.098*	20,0 *0.787*	5,0 *0.197*	38,87 *1.530*	0,95 *0.037*	2.50X2.10	2	DIN371	5HX	B
MTP-M1.4X0.30ISO5HX-TB-P003	02999899	M1.4	0,3	–	2,5 *0.098*	20,0 *0.787*	6,5 *0.256*	38,65 *1.522*	1,1 *0.043*	2.50X2.10	2	DIN371	5HX	B
MTP-M1.6X0.35ISO6HX-TB-P003	02999900	M1.6	0,35	–	2,5 *0.098*	12,5 *0.492*	7,0 *0.276*	38,42 *1.513*	1,3 *0.051*	2.50X2.10	2	DIN371	6HX	B
MTP-M1.8X0.35ISO6HX-TB-P003	02999901	M1.8	0,35	–	2,5 *0.098*	20,0 *0.787*	7,0 *0.276*	38,42 *1.513*	1,5 *0.059*	2.50X2.10	2	DIN371	6HX	B
MTP-M2X0.40ISO6HX-TB-P003	02999902	M2	0,4	–	2,8 *0.110*	9,0 *0.354*	6,0 *0.236*	43,2 *1.701*	1,6 *0.063*	2.80X2.10	2	DIN371	6HX	B
MTP-M2.2X0.45ISO6HX-TB-P003	02999903	M2.2	0,45	–	2,8 *0.110*	12,0 *0.472*	7,0 *0.276*	42,97 *1.692*	1,8 *0.071*	2.80X2.10	2	DIN371	6HX	B
MTP-M2.3X0.40ISO6HX-TB-P003	02999904	M2.3	0,4	–	2,8 *0.110*	12,0 *0.472*	7,0 *0.276*	43,2 *1.701*	1,9 *0.075*	2.80X2.10	2	DIN371	6HX	B
MTP-M2.5X0.45ISO6HX-TB-P003	02999905	M2.5	0,45	–	2,8 *0.110*	12,5 *0.492*	8,0 *0.315*	47,97 *1.889*	2,1 *0.083*	2.80X2.10	2	DIN371	6HX	B
MTP-M2.6X0.45ISO6HX-TB-P003	02999906	M2.6	0,45	–	2,8 *0.110*	12,5 *0.492*	8,0 *0.315*	47,97 *1.889*	2,15 *0.085*	2.80X2.10	2	DIN371	6HX	B
MTP-M3X0.50ISO6HX-TB-P003	02999907	M3	0,5	–	3,5 *0.138*	18,0 *0.709*	8,9 *0.350*	53,6875 *2.114*	2,5 *0.098*	3.50X2.70	3	DIN371	6HX	B
MTP-M3.5X0.60ISO6HX-TB-P003	02999908	M3.5	0,6	–	4,0 *0.157*	20,0 *0.787*	10,8 *0.425*	53,225 *2.095*	2,9 *0.114*	4.00X3.00	3	DIN371	6HX	B
MTP-M4X0.70ISO6HX-TB-P003	02999909	M4	0,7	–	4,5 *0.177*	21,0 *0.827*	11,7 *0.461*	59,7625 *2.353*	3,4 *0.134*	4.50X3.40	3	DIN371	6HX	B
MTP-M5X0.80ISO6HX-TB-P003	02999910	M5	0,8	–	6,0 *0.236*	25,0 *0.984*	12,6 *0.496*	66,3 *2.610*	4,3 *0.169*	6.00X4.90	3	DIN371	6HX	B
MTP-M6X1.00ISO6HX-TB-P003	02999911	M6	1,0	–	6,0 *0.236*	30,0 *1.181*	14,5 *0.571*	75,375 *2.968*	5,1 *0.201*	6.00X4.90	3	DIN371	6HX	B
MTP-M7X1.00ISO6HX-TB-P003	02999912	M7	1,0	–	7,0 *0.276*	30,0 *1.181*	14,5 *0.571*	78,275 *3.082*	6,1 *0.240*	7.00X5.50	3	DIN371	6HX	B
MTP-M8X1.25ISO6HX-TB-P003	02999913	M8	1,25	–	8,0 *0.315*	35,0 *1.378*	17,4 *0.685*	84,21875 *3.316*	6,8 *0.268*	8.00X6.20	3	DIN371	6HX	B
MTP-M10X1.50ISO6HX-TB-P003	02999914	M10	1,5	–	10,0 *0.394*	39,0 *1.535*	19,2 *0.756*	93,0625 *3.664*	8,6 *0.339*	10.00X8.00	3	DIN371	6HX	B

MTP-P003-A

Through holes – Metric coarse threads





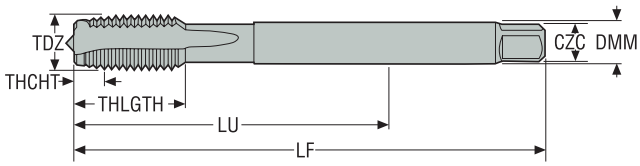
- Internal coolant
- Substrate: HSS-E-PM
- Coating: AlTiN-based
- For cutting data see page(s) 266, 268

Designation	Item number	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*					
MTP-M4X0.70ISO6HX-TB-P003-A	02999929	M4	0,7	–	4,5 *0.177*	21,0 *0.827*	11,7 *0.461*	59,73 *2.352*	3,4 *0.134*	4.50X3.40	3	DIN371	6HX	B
MTP-M5X0.80ISO6HX-TB-P003-A	02999930	M5	0,8	–	6,0 *0.236*	25,0 *0.984*	12,6 *0.496*	66,35 *2.612*	4,3 *0.169*	6.00X4.90	3	DIN371	6HX	B
MTP-M6X1.00ISO6HX-TB-P003-A	02999931	M6	1,0	–	6,0 *0.236*	30,0 *1.181*	14,5 *0.571*	75,51 *2.973*	5,1 *0.201*	6.00X4.90	3	DIN371	6HX	B
MTP-M7X1.00ISO6HX-TB-P003-A	02999932	M7	1,0	–	7,0 *0.276*	30,0 *1.181*	14,5 *0.571*	75,51 *2.973*	6,1 *0.240*	7.00X5.50	3	DIN371	6HX	B
MTP-M8X1.25ISO6HX-TB-P003-A	02999933	M8	1,25	–	8,0 *0.315*	35,0 *1.378*	17,4 *0.685*	84,48 *3.326*	6,8 *0.268*	8.00X6.20	3	DIN371	6HX	B
MTP-M10X1.50ISO6HX-TB-P003-A	02999934	M10	1,5	–	10,0 *0.394*	39,0 *1.535*	19,2 *0.756*	93,46 *3.680*	8,6 *0.339*	10.00X8.00	3	DIN371	6HX	B

MTP-P004

Through holes – Metric coarse threads



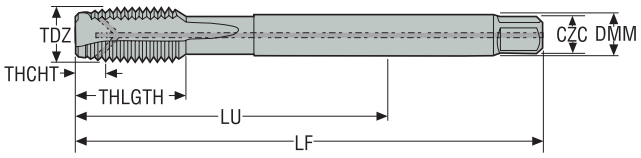


- Substrate: HSS-E-PM
- Coating: AlTiN-based
- For cutting data see page(s) 266, 268

Designation	Item number	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*					
MTP-M4X0.70ISO6HX-TB-P004	02999915	M4	0,7	–	2,8 *0.110*	43,0 *1.693*	12,0 *0.472*	59,7625 *2.353*	3,4 *0.134*	2.80X2.10	3	DIN376	6HX	B
MTP-M5X0.80ISO6HX-TB-P004	02999916	M5	0,8	–	3,5 *0.138*	49,0 *1.929*	13,2 *0.520*	66,3 *2.610*	4,3 *0.169*	3.50X2.70	3	DIN376	6HX	B
MTP-M6X1.00ISO6HX-TB-P004	02999917	M6	1,0	–	4,5 *0.177*	59,0 *2.323*	15,1 *0.594*	75,375 *2.968*	5,1 *0.201*	4.50X3.40	3	DIN376	6HX	B
MTP-M8X1.25ISO6HX-TB-P004	02999918	M8	1,25	–	6,0 *0.236*	67,0 *2.638*	18,0 *0.709*	84,21875 *3.316*	6,8 *0.268*	6.00X4.90	3	DIN376	6HX	B
MTP-M10X1.50ISO6HX-TB-P004	02999919	M10	1,5	–	7,0 *0.276*	77,0 *3.031*	19,8 *0.780*	93,0625 *3.664*	8,6 *0.339*	7.00X5.50	3	DIN376	6HX	B
MTP-M12X1.75ISO6HX-TB-P004	02999920	M12	1,75	–	9,0 *0.354*	83,0 *3.268*	23,0 *0.906*	101,90625 *4.012*	10,4 *0.409*	9.00X7.00	4	DIN376	6HX	B
MTP-M14X2.00ISO6HX-TB-P004	02999921	M14	2,0	–	11,0 *0.433*	81,0 *3.189*	25,0 *0.984*	100,75 *3.967*	12,1 *0.476*	11.00X9.00	4	DIN376	6HX	B
MTP-M16X2.00ISO6HX-TB-P004	02999922	M16	2,0	–	12,0 *0.472*	68,0 *2.677*	25,0 *0.984*	100,75 *3.967*	14,1 *0.555*	12.00X9.00	4	DIN376	6HX	B
MTP-M18X2.50ISO6HX-TB-P004	02999923	M18	2,5	–	14,0 *0.551*	81,0 *3.189*	30,0 *1.181*	114,46 *4.506*	15,7 *0.618*	14.00X11.00	4	DIN376	6HX	B
MTP-M20X2.50ISO6HX-TB-P004	02999924	M20	2,5	–	16,0 *0.630*	95,0 *3.740*	30,0 *1.181*	128,4375 *5.057*	17,7 *0.697*	16.00X12.00	4	DIN376	6HX	B
MTP-M22X2.50ISO6HX-TB-P004	02999925	M22	2,5	–	18,0 *0.709*	93,0 *3.661*	34,0 *1.339*	129,36 *5.093*	19,7 *0.776*	18.00X14.50	4	DIN376	6HX	B
MTP-M24X3.00ISO6HX-TB-P004	02999926	M24	3,0	–	18,0 *0.709*	113,0 *4.449*	38,0 *1.496*	146,125 *5.753*	21,0 *0.827*	18.00X14.50	4	DIN376	6HX	B
MTP-M27X3.00ISO6HX-TB-P004	02999927	M27	3,0	–	20,0 *0.787*	97,0 *3.819*	38,0 *1.496*	147,37 *5.802*	24,0 *0.945*	20.00X16.00	4	DIN376	6HX	B
MTP-M30X3.50ISO6HX-TB-P004	02999928	M30	3,5	–	22,0 *0.866*	115,0 *4.528*	45,0 *1.772*	165,42 *6.513*	26,5 *1.043*	22.00X18.00	4	DIN376	6HX	B

MTP-P004-A

Through holes – Metric coarse threads





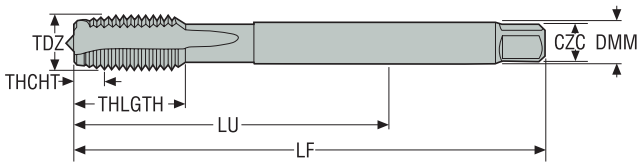
- Internal coolant
- Substrate: HSS-E-PM
- Coating: AlTiN-based
- For cutting data see page(s) 266, 268

Designation	Item number	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*					
MTP-M12X1.75ISO6HX-TB-P004-A	02999935	M12	1,75	–	9,0 *0.354*	83,0 *3.268*	23,0 *0.906*	101,90625 *4.012*	10,4 *0.409*	9.00X7.00	4	DIN376	6HX	B
MTP-M14X2.00ISO6HX-TB-P004-A	02999936	M14	2,0	–	11,0 *0.433*	81,0 *3.189*	25,0 *0.984*	101,41 *3.993*	12,1 *0.476*	11.00X9.00	4	DIN376	6HX	B
MTP-M16X2.00ISO6HX-TB-P004-A	02999937	M16	2,0	–	12,0 *0.472*	68,0 *2.677*	25,0 *0.984*	100,75 *3.967*	14,1 *0.555*	12.00X9.00	4	DIN376	6HX	B
MTP-M18X2.50ISO6HX-TB-P004-A	02999938	M18	2,5	–	14,0 *0.551*	81,0 *3.189*	30,0 *1.181*	114,46 *4.506*	15,7 *0.618*	14.00X11.00	4	DIN376	6HX	B
MTP-M20X2.50ISO6HX-TB-P004-A	02999939	M20	2,5	–	16,0 *0.630*	95,0 *3.740*	30,0 *1.181*	129,46 *5.097*	17,7 *0.697*	16.00X12.00	4	DIN376	6HX	B
MTP-M22X2.50ISO6HX-TB-P004-A	02999940	M22	2,5	–	18,0 *0.709*	93,0 *3.661*	34,0 *1.339*	129,36 *5.093*	19,7 *0.776*	18.00X14.50	4	DIN376	6HX	B
MTP-M24X3.00ISO6HX-TB-P004-A	02999941	M24	3,0	–	18,0 *0.709*	113,0 *4.449*	38,0 *1.496*	146,125 *5.753*	21,0 *0.827*	18.00X14.50	4	DIN376	6HX	B
MTP-M27X3.00ISO6HX-TB-P004-A	02999942	M27	3,0	–	20,0 *0.787*	97,0 *3.819*	38,0 *1.496*	147,37 *5.802*	24,0 *0.945*	20.00X16.00	4	DIN376	6HX	B
MTP-M30X3.50ISO6HX-TB-P004-A	02999943	M30	3,5	–	22,0 *0.866*	115,0 *4.528*	45,0 *1.772*	165,42 *6.513*	26,5 *1.043*	22.00X18.00	4	DIN376	6HX	B

MTP-P011

Through holes – MF threads





- Substrate: HSS-E-PM
- Coating: AlTiN-based
- For cutting data see page(s) 266, 268

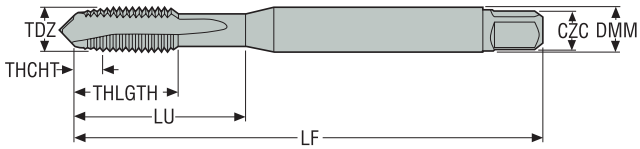
Designation	Item number	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*					
MTP-M4X0.50ISO6HX-TB-P011	02999944	MF4X0.5	0,5	–	2,8 *0.110*	43,0 *1.693*	12,0 *0.472*	60,6875 *2.389*	3,5 *0.138*	2.80X2.10	3	DIN374	6HX	B
MTP-M5X0.50ISO6HX-TB-P011	02999945	MF5X0.5	0,5	–	3,5 *0.138*	49,0 *1.929*	13,0 *0.512*	67,57 *2.660*	4,5 *0.177*	3.50X2.70	3	DIN374	6HX	B
MTP-M6X0.75ISO6HX-TB-P011	02999946	MF6X0.75	0,75	–	4,5 *0.177*	59,0 *2.323*	15,0 *0.591*	76,5 *3.012*	5,3 *0.209*	4.50X3.40	3	DIN374	6HX	B
MTP-M8X0.75ISO6HX-TB-P011	02999947	MF8X0.75	0,75	–	6,0 *0.236*	57,0 *2.244*	15,0 *0.591*	76,43 *3.009*	7,3 *0.287*	6.00X4.90	3	DIN374	6HX	B
MTP-M8X1.00ISO6HX-TB-P011	02999948	MF8X1.0	1,0	–	6,0 *0.236*	67,0 *2.638*	18,0 *0.709*	85,375 *3.361*	7,1 *0.280*	6.00X4.90	3	DIN374	6HX	B
MTP-M10X0.75ISO6HX-TB-P011	02999949	MF10X0.75	0,75	–	7,0 *0.276*	67,0 *2.638*	17,6 *0.693*	86,42 *3.402*	9,3 *0.366*	7.00X5.50	3	DIN374	6HX	B
MTP-M10X1.00ISO6HX-TB-P011	02999950	MF10X1.0	1,0	–	7,0 *0.276*	67,0 *2.638*	17,6 *0.693*	85,375 *3.361*	9,1 *0.358*	7.00X5.50	3	DIN374	6HX	B
MTP-M10X1.25ISO6HX-TB-P011	02999951	MF10X1.25	1,25	–	7,0 *0.276*	77,0 *3.031*	19,8 *0.780*	98,51875 *3.879*	8,8 *0.346*	7.00X5.50	3	DIN374	6HX	B
MTP-M12X1.00ISO6HX-TB-P011	02999952	MF12X1.0	1,0	–	9,0 *0.354*	73,0 *2.874*	21,0 *0.827*	95,36 *3.754*	11,1 *0.437*	9.00X7.00	4	DIN374	6HX	B
MTP-M12X1.25ISO6HX-TB-P011	02999953	MF12X1.25	1,25	–	9,0 *0.354*	73,0 *2.874*	21,0 *0.827*	94,21875 *3.709*	10,8 *0.425*	9.00X7.00	4	DIN374	6HX	B
MTP-M12X1.50ISO6HX-TB-P011	02999954	MF12X1.5	1,5	–	9,0 *0.354*	73,0 *2.874*	21,0 *0.827*	93,37 *3.676*	10,6 *0.417*	9.00X7.00	4	DIN374	6HX	B
MTP-M14X1.00ISO6HX-TB-P011	02999955	MF14X1.0	1,0	–	11,0 *0.433*	71,0 *2.795*	21,0 *0.827*	95,35 *3.754*	13,1 *0.516*	11.00X9.00	4	DIN374	6HX	B
MTP-M14X1.25ISO6HX-TB-P011	02999956	MF14X1.25	1,25	–	11,0 *0.433*	71,0 *2.795*	21,0 *0.827*	94,33 *3.714*	12,8 *0.504*	11.00X9.00	4	DIN374	6HX	B
MTP-M14X1.50ISO6HX-TB-P011	02999957	MF14X1.5	1,5	–	11,0 *0.433*	71,0 *2.795*	21,0 *0.827*	93,0625 *3.664*	12,6 *0.496*	11.00X9.00	4	DIN374	6HX	B
MTP-M16X1.00ISO6HX-TB-P011	02999958	MF16X1.0	1,0	–	12,0 *0.472*	58,0 *2.283*	21,0 *0.827*	95,35 *3.754*	15,1 *0.594*	12.00X9.00	4	DIN374	6HX	B
MTP-M16X1.50ISO6HX-TB-P011	02999959	MF16X1.5	1,5	–	12,0 *0.472*	58,0 *2.283*	21,0 *0.827*	93,0625 *3.664*	14,6 *0.575*	12.00X9.00	4	DIN374	6HX	B
MTP-M18X1.00ISO6HX-TB-P011	02999960	MF18X1.0	1,0	–	14,0 *0.551*	66,0 *2.598*	24,0 *0.945*	105,35 *4.148*	17,1 *0.673*	14.00X11.00	4	DIN374	6HX	B
MTP-M18X1.50ISO6HX-TB-P011	02999961	MF18X1.5	1,5	–	14,0 *0.551*	66,0 *2.598*	24,0 *0.945*	103,35 *4.069*	16,6 *0.654*	14.00X11.00	4	DIN374	6HX	B
MTP-M20X1.00ISO6HX-TB-P011	02999962	MF20X1.0	1,0	–	16,0 *0.630*	80,0 *3.150*	24,0 *0.945*	120,24 *4.734*	19,1 *0.752*	16.00X12.00	4	DIN374	6HX	B
MTP-M20X1.50ISO6HX-TB-P011	02999963	MF20X1.5	1,5	–	16,0 *0.630*	80,0 *3.150*	24,0 *0.945*	118,25 *4.656*	18,6 *0.732*	16.00X12.00	4	DIN374	6HX	B
MTP-M22X1.50ISO6HX-TB-P011	02999964	MF22X1.5	1,5	–	18,0 *0.709*	78,0 *3.071*	25,0 *0.984*	118,25 *4.656*	20,5 *0.807*	18.00X14.50	4	DIN374	6HX	B

Designation	Item number	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*					
MTP-M24X1.50ISO6HX-TB-P011	02999965	MF24X1.5	1,5	–	18,0 *0.709*	93,0 *3.661*	28,0 *1.102*	133,23 *5.245*	22,5 *0.886*	18.00X14.50	4	DIN374	6HX	B
MTP-M24X2.00ISO6HX-TB-P011	02999966	MF24X2.0	2,0	–	18,0 *0.709*	93,0 *3.661*	28,0 *1.102*	131,28 *5.169*	22,0 *0.866*	18.00X14.50	4	DIN374	6HX	B
MTP-M25X1.50ISO6HX-TB-P011	02999967	MF25X1.5	1,5	–	18,0 *0.709*	93,0 *3.661*	28,0 *1.102*	133,23 *5.245*	23,5 *0.925*	18.00X14.50	4	DIN374	6HX	B
MTP-M26X1.50ISO6HX-TB-P011	02999968	MF26X1.5	1,5	–	18,0 *0.709*	93,0 *3.661*	28,0 *1.102*	133,23 *5.245*	24,5 *0.965*	18.00X14.50	4	DIN374	6HX	B
MTP-M27X1.50ISO6HX-TB-P011	02999969	MF27X1.5	1,5	–	20,0 *0.787*	77,0 *3.031*	28,0 *1.102*	133,22 *5.245*	25,5 *1.004*	20.00X16.00	4	DIN374	6HX	B
MTP-M27X2.00ISO6HX-TB-P011	02999970	MF27X2.0	2,0	–	20,0 *0.787*	77,0 *3.031*	28,0 *1.102*	131,28 *5.169*	25,0 *0.984*	20.00X16.00	4	DIN374	6HX	B
MTP-M28X1.50ISO6HX-TB-P011	02999971	MF28X1.5	1,5	–	20,0 *0.787*	77,0 *3.031*	28,0 *1.102*	133,22 *5.245*	26,5 *1.043*	20.00X16.00	4	DIN374	6HX	B
MTP-M30X1.50ISO6HX-TB-P011	02999972	MF30X1.5	1,5	–	22,0 *0.866*	85,0 *3.346*	28,0 *1.102*	143,22 *5.639*	28,5 *1.122*	22.00X18.00	4	DIN374	6HX	B
MTP-M30X2.00ISO6HX-TB-P011	02999973	MF30X2.0	2,0	–	22,0 *0.866*	85,0 *3.346*	28,0 *1.102*	141,27 *5.562*	28,0 *1.102*	22.00X18.00	4	DIN374	6HX	B

MTP-M003-A

Through holes – Metric coarse threads



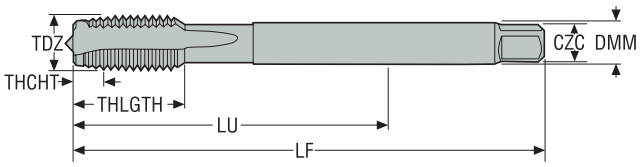


- Internal coolant
- Substrate: HSS-E
- Coating: TiCN
- For cutting data see page(s) 268, 270

Designation	Item number	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*					
MTP-M4X0.70ISO6H-TB-M003-A	03000094	M4	0,7	–	4,5 *0.177*	21,0 *0.827*	11,7 *0.461*	59,82 *2.355*	3,4 *0.134*	4.50X3.40	3	DIN371	6H	B
MTP-M5X0.80ISO6H-TB-M003-A	03000095	M5	0,8	–	6,0 *0.236*	25,0 *0.984*	12,6 *0.496*	66,4 *2.614*	4,3 *0.169*	6.00X4.90	3	DIN371	6H	B
MTP-M6X1.00ISO6H-TB-M003-A	03000096	M6	1,0	–	6,0 *0.236*	30,0 *1.181*	14,5 *0.571*	75,375 *2.968*	5,1 *0.201*	6.00X4.90	3	DIN371	6H	B
MTP-M8X1.25ISO6H-TB-M003-A	03000097	M8	1,25	–	8,0 *0.315*	35,0 *1.378*	17,4 *0.685*	84,21875 *3.316*	6,8 *0.268*	8.00X6.20	3	DIN371	6H	B
MTP-M10X1.50ISO6H-TB-M003-A	03000098	M10	1,5	–	10,0 *0.394*	39,0 *1.535*	19,2 *0.756*	93,0625 *3.664*	8,6 *0.339*	10.00X8.00	3	DIN371	6H	B

MTP-M004

Through holes – Metric coarse threads





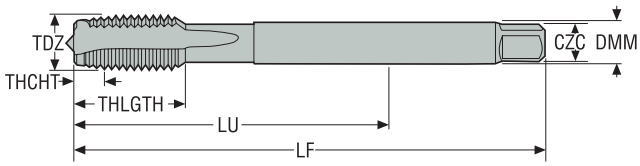
- Internal coolant
- Substrate: HSS-E
- Coating: TiCN
- For cutting data see page(s) 268, 270

Designation	Item number	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*					
MTP-M12X1.75ISO6H-TB-M004	03000087	M12	1,75	–	9,0 *0.354*	83,0 *3.268*	23,0 *0.906*	101,90625 *4.012*	10,4 *0.409*	9.00X7.00	4	DIN376	6H	B
MTP-M14X2.00ISO6H-TB-M004	03000088	M14	2,0	–	11,0 *0.433*	81,0 *3.189*	25,0 *0.984*	100,75 *3.967*	12,1 *0.476*	11.00X9.00	4	DIN376	6H	B
MTP-M16X2.00ISO6H-TB-M004	03000090	M16	2,0	–	12,0 *0.472*	68,0 *2.677*	25,0 *0.984*	100,75 *3.967*	14,1 *0.555*	12.00X9.00	4	DIN376	6H	B
MTP-M18X2.50ISO6H-TB-M004	03000091	M18	2,5	–	14,0 *0.551*	81,0 *3.189*	30,0 *1.181*	113,4375 *4.466*	15,7 *0.618*	14.00X11.00	4	DIN376	6H	B
MTP-M20X2.50ISO6H-TB-M004	03000092	M20	2,5	–	16,0 *0.630*	95,0 *3.740*	30,0 *1.181*	128,4375 *5.057*	17,7 *0.697*	16.00X12.00	4	DIN376	6H	B

MTP-M004-A

Through holes – Metric coarse threads



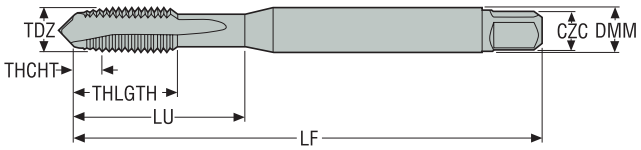


- Internal coolant
- Substrate: HSS-E
- Coating: TiCN
- For cutting data see page(s) 268, 270

Designation	Item number	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*					
MTP-M12X1.75ISO6H-TB-M004-A	03000099	M12	1,75	–	9,0 *0.354*	83,0 *3.268*	23,0 *0.906*	101,90625 *4.012*	10,4 *0.409*	9.00X7.00	4	DIN376	6H	B
MTP-M14X2.00ISO6H-TB-M004-A	03000100	M14	2,0	–	11,0 *0.433*	81,0 *3.189*	25,0 *0.984*	101,14 *3.982*	12,1 *0.476*	11.00X9.00	4	DIN376	6H	B
MTP-M16X2.00ISO6H-TB-M004-A	03000101	M16	2,0	–	12,0 *0.472*	68,0 *2.677*	25,0 *0.984*	101,05 *3.978*	14,1 *0.555*	12.00X9.00	4	DIN376	6H	B
MTP-M18X2.50ISO6H-TB-M004-A	03000102	M18	2,5	–	14,0 *0.551*	81,0 *3.189*	30,0 *1.181*	114,15 *4.494*	15,7 *0.618*	14.00X11.00	4	DIN376	6H	B
MTP-M20X2.50ISO6H-TB-M004-A	03000103	M20	2,5	–	16,0 *0.630*	95,0 *3.740*	30,0 *1.181*	129,15 *5.085*	17,7 *0.697*	16.00X12.00	4	DIN376	6H	B
MTP-M22X2.50ISO6H-TB-M004-A	03000104	M22	2,5	–	18,0 *0.709*	93,0 *3.661*	34,0 *1.339*	129,53 *5.100*	19,7 *0.776*	18.00X14.50	4	DIN376	6H	B
MTP-M24X3.00ISO6H-TB-M004-A	03000105	M24	3,0	–	18,0 *0.709*	113,0 *4.449*	38,0 *1.496*	147,58 *5.810*	21,0 *0.827*	18.00X14.50	4	DIN376	6H	B

MTP-N001

Through holes – Metric coarse threads





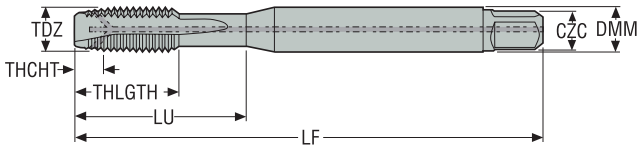
- Substrate: HSS-E
- Coating: BRIGHT
- For cutting data see page(s) 270, 272

Designation	Item number	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*					
MTP-M3X0.50ISO6H-TB-N001	03000136	M3	0,5	–	3,5 *0.138*	16,0 *0.630*	9,0 *0.354*	54,625 *2.151*	2,5 *0.098*	3.50X2.70	2	DIN371	6H	B
MTP-M4X0.70ISO6H-TB-N001	03000137	M4	0,7	–	4,5 *0.177*	19,0 *0.748*	12,0 *0.472*	59,85 *2.356*	3,4 *0.134*	4.50X3.40	2	DIN371	6H	B
MTP-M5X0.80ISO6H-TB-N001	03000138	M5	0,8	–	6,0 *0.236*	23,0 *0.906*	13,0 *0.512*	66,4 *2.614*	4,3 *0.169*	6.00X4.90	2	DIN371	6H	B
MTP-M6X1.00ISO6H-TB-N001	03000139	M6	1,0	–	6,0 *0.236*	27,0 *1.063*	15,0 *0.591*	75,375 *2.968*	5,1 *0.201*	6.00X4.90	3	DIN371	6H	B
MTP-M8X1.25ISO6H-TB-N001	03000140	M8	1,25	–	8,0 *0.315*	28,0 *1.102*	18,0 *0.709*	84,21875 *3.316*	6,8 *0.268*	8.00X6.20	3	DIN371	6H	B
MTP-M10X1.50ISO6H-TB-N001	03000141	M10	1,5	–	10,0 *0.394*	30,0 *1.181*	20,0 *0.787*	93,25 *3.671*	8,6 *0.339*	10.00X8.00	3	DIN371	6H	B

MTP-N001-A

Through holes – Metric coarse threads



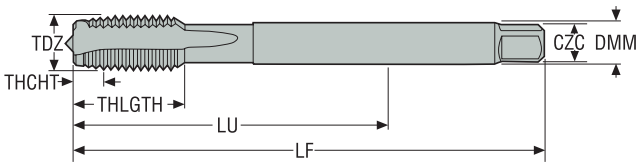


- Internal coolant
- Substrate: HSS-PM
- Coating: BRIGHT
- For cutting data see page(s) 270, 272

Designation	Item number	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*					
MTP-M4X0.70ISO6H-TB-N001-A	03000145	M4	0,7	–	4,5 *0.177*	19,0 *0.748*	12,0 *0.472*	59,85 *2.356*	3,4 *0.134*	4.50X3.40	2	DIN371	6H	B
MTP-M5X0.80ISO6H-TB-N001-A	03000146	M5	0,8	–	6,0 *0.236*	23,0 *0.906*	13,0 *0.512*	66,4 *2.614*	4,3 *0.169*	6.00X4.90	2	DIN371	6H	B
MTP-M6X1.00ISO6H-TB-N001-A	03000147	M6	1,0	–	6,0 *0.236*	27,0 *1.063*	15,0 *0.591*	75,5 *2.972*	5,1 *0.201*	6.00X4.90	3	DIN371	6H	B
MTP-M8X1.25ISO6H-TB-N001-A	03000148	M8	1,25	–	8,0 *0.315*	28,0 *1.102*	18,0 *0.709*	84,37 *3.322*	6,8 *0.268*	8.00X6.20	3	DIN371	6H	B
MTP-M10X1.50ISO6H-TB-N001-A	03000149	M10	1,5	–	10,0 *0.394*	30,0 *1.181*	20,0 *0.787*	93,25 *3.671*	8,6 *0.339*	10.00X8.00	3	DIN371	6H	B

MTP-N002

Through holes – Metric coarse threads





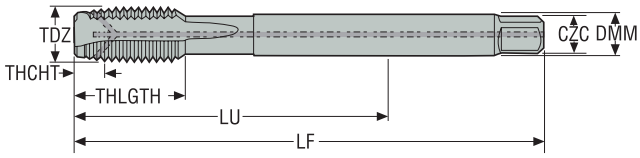
- Substrate: HSS-E
- Coating: BRIGHT
- For cutting data see page(s) 270, 272

Designation	Item number	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*					
MTP-M12X1.75ISO6H-TB-N002	03000142	M12	1,75	–	9,0 *0.354*	83,0 *3.268*	23,0 *0.906*	102,1 *4.020*	10,4 *0.409*	9.00X7.00	3	DIN376	6H	B
MTP-M14X2.00ISO6H-TB-N002	03000143	M14	2,0	–	11,0 *0.433*	81,0 *3.189*	25,0 *0.984*	101,0 *3.976*	12,1 *0.476*	11.00X9.00	4	DIN376	6H	B
MTP-M16X2.00ISO6H-TB-N002	03000144	M16	2,0	–	12,0 *0.472*	68,0 *2.677*	25,0 *0.984*	101,0 *3.976*	14,1 *0.555*	12.00X9.00	4	DIN376	6H	B

MTP-N002-A

Through holes – Metric coarse threads



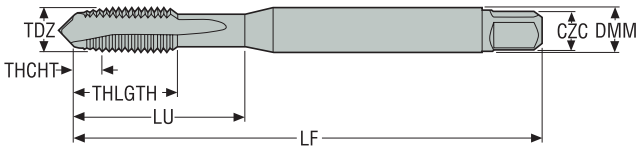


- Internal coolant
- Substrate: HSS-PM
- Coating: BRIGHT
- For cutting data see page(s) 270, 272

Designation	Item number	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*					
MTP-M12X1.75ISO6H-TB-N002-A	03000150	M12	1,75	–	9,0 *0.354*	83,0 *3.268*	23,0 *0.906*	102,1 *4.020*	10,4 *0.409*	9.00X7.00	3	DIN376	6H	B
MTP-M14X2.00ISO6H-TB-N002-A	03000151	M14	2,0	–	11,0 *0.433*	81,0 *3.189*	25,0 *0.984*	101,0 *3.976*	12,1 *0.476*	11.00X9.00	4	DIN376	6H	B
MTP-M16X2.00ISO6H-TB-N002-A	03000152	M16	2,0	–	12,0 *0.472*	68,0 *2.677*	25,0 *0.984*	101,0 *3.976*	14,1 *0.555*	12.00X9.00	4	DIN376	6H	B

MTP-S001

Through holes – Metric coarse threads





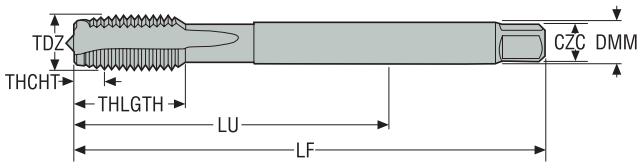
- Substrate: HSS-E-PM
- Coating: AlCrN
- For cutting data see page(s) 276, 278

Designation	Item number	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*					
MTP-M2X0.40ISO6HX-TB-S001	10001159	M2	0,4	–	2,8 *0.110*	8,0 *0.315*	8,0 *0.315*	43,2 *1.701*	1,6 *0.063*	2.80X2.10	2	DIN371	6HX	B
MTP-M2.5X0.45ISO6HX-TB-S001	10001161	M2.5	0,45	–	2,8 *0.110*	9,0 *0.354*	9,0 *0.354*	47,97 *1.889*	2,1 *0.083*	2.80X2.10	2	DIN371	6HX	B
MTP-M3X0.50ISO6HX-TB-S001	10001162	M3	0,5	–	3,5 *0.138*	10,0 *0.394*	10,0 *0.394*	53,75 *2.116*	2,5 *0.098*	3.50X2.70	2	DIN371	6HX	B
MTP-M3.5X0.60ISO6HX-TB-S001	10001163	M3.5	0,6	–	4,0 *0.157*	12,0 *0.472*	12,0 *0.472*	53,3 *2.098*	2,9 *0.114*	4.00X3.00	3	DIN371	6HX	B
MTP-M4X0.70ISO6HX-TB-S001	10001164	M4	0,7	–	4,5 *0.177*	13,0 *0.512*	13,0 *0.512*	59,85 *2.356*	3,4 *0.134*	4.50X3.40	3	DIN371	6HX	B
MTP-M5X0.80ISO6HX-TB-S001	10001165	M5	0,8	–	6,0 *0.236*	16,0 *0.630*	16,0 *0.630*	66,4 *2.614*	4,3 *0.169*	6.00X4.90	3	DIN371	6HX	B
MTP-M6X1.00ISO6HX-TB-S001	10001166	M6	1,0	–	6,0 *0.236*	23,0 *0.906*	15,0 *0.591*	75,5 *2.972*	5,1 *0.201*	6.00X4.90	3	DIN371	6HX	B
MTP-M8X1.25ISO6HX-TB-S001	10001167	M8	1,25	–	8,0 *0.315*	29,5 *1.161*	18,0 *0.709*	84,37 *3.322*	6,8 *0.268*	8.00X6.20	3	DIN371	6HX	B
MTP-M10X1.50ISO6HX-TB-S001	10001168	M10	1,5	–	10,0 *0.394*	33,5 *1.319*	20,0 *0.787*	93,25 *3.671*	8,6 *0.339*	10.00X8.00	3	DIN371	6HX	B

MTP-S002

Through holes – Metric coarse threads



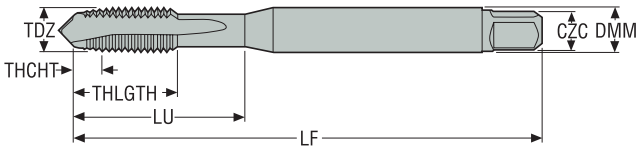


- Substrate: HSS-E-PM
- Coating: AlCrN
- For cutting data see page(s) 276, 278

Designation	Item number	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*					
MTP-M12X1.75ISO6HX-TB-S002	10001169	M12	1,75	–	9,0 *0.354*	83,0 *3.268*	23,0 *0.906*	102,12 *4.020*	10,4 *0.409*	9.00X7.00	4	DIN376	6HX	B
MTP-M16X2.00ISO6HX-TB-S002	10001170	M16	2,0	–	12,0 *0.472*	68,0 *2.677*	25,0 *0.984*	101,0 *3.976*	14,1 *0.555*	12.00X9.00	4	DIN376	6HX	B
MTP-M20X2.50ISO6HX-TB-S002	10001171	M20	2,5	–	16,0 *0.630*	95,0 *3.740*	30,0 *1.181*	128,75 *5.069*	17,7 *0.697*	16.00X12.00	4	DIN376	6HX	B

MTP-S011

Through holes – MF threads





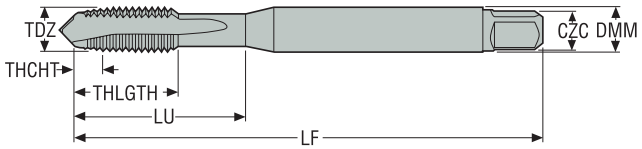
- Substrate: HSS-E-PM
- Coating: AlCrN
- For cutting data see page(s) 276, 278

Designation	Item number	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*					
MTP-M6X0.75ISO6HX-TB-S011	10001176	MF6X0.75	0,75	–	6,0 *0.236*	23,0 *0.906*	15,0 *0.591*	76,62 *3.017*	5,25 *0.207*	6.00X4.90	3	DIN371	6HX	B
MTP-M8X0.750ISO6HX-TB-S011	10001177	MF8X0.75	0,75	–	8,0 *0.315*	29,5 *1.161*	18,0 *0.709*	86,62 *3.410*	7,25 *0.285*	8.00X6.20	3	DIN371	6HX	B
MTP-M8X1.00ISO6HX-TB-S011	10001178	MF8X1.0	1,0	–	8,0 *0.315*	29,5 *1.161*	18,0 *0.709*	85,5 *3.366*	7,0 *0.276*	8.00X6.20	3	DIN371	6HX	B
MTP-M10X1.00ISO6HX-TB-S011	10001179	MF10X1.0	1,0	–	10,0 *0.394*	33,5 *1.319*	20,0 *0.787*	95,5 *3.760*	9,0 *0.354*	10.00X8.00	3	DIN371	6HX	B
MTP-M12X1.00ISO6HX-TB-S011	10001180	MF12X1.0	1,0	–	9,0 *0.354*	73,0 *2.874*	21,0 *0.827*	95,5 *3.760*	11,0 *0.433*	9.00X7.00	4	DIN374	6HX	B
MTP-M12X1.50ISO6HX-TB-S011	10001181	MF12X1.5	1,5	–	9,0 *0.354*	73,0 *2.874*	21,0 *0.827*	93,25 *3.671*	10,5 *0.413*	9.00X7.00	4	DIN374	6HX	B
MTP-M14X1.50ISO6HX-TB-S011	10001182	MF14X1.5	1,5	–	11,0 *0.433*	71,0 *2.795*	21,0 *0.827*	93,25 *3.671*	12,5 *0.492*	11.00X9.00	4	DIN374	6HX	B

MTP-S012

Through holes – MJ threads



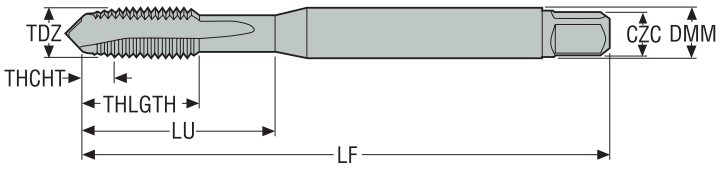


- Substrate: HSS-E-PM
- Coating: AlCrN
- For cutting data see page(s) 276, 278

Designation	Item number	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*					
MTP-MJ4X0.70ISO4H-TB-S012	10001172	MJ4X0.7	0,7	–	4,5 *0.177*	13,0 *0.512*	13,0 *0.512*	59,85 *2.356*	3,4 *0.134*	4.50X3.40	3	DIN371	4H	B
MTP-MJ5X0.80ISO4H-TB-S012	10001173	MJ5X0.8	0,8	–	6,0 *0.236*	16,0 *0.630*	16,0 *0.630*	66,4 *2.614*	4,3 *0.169*	6.00X4.90	3	DIN371	4H	B
MTP-MJ6X1.00ISO4H-TB-S012	10001174	MJ6X1	1,0	–	6,0 *0.236*	23,0 *0.906*	15,0 *0.591*	75,5 *2.972*	5,1 *0.201*	6.00X4.90	3	DIN371	4H	B
MTP-MJ8X1.25ISO4H-TB-S012	10001175	MJ8X1.25	1,25	–	8,0 *0.315*	29,5 *1.161*	18,0 *0.709*	84,37 *3.322*	6,9 *0.272*	8.00X6.20	3	DIN371	4H	B

MTP-S013

Through holes – EGM threads





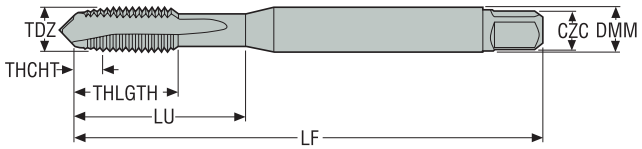
- Substrate: HSS-E-PM
- For cutting data see page(s) 276, 278

Designation	Item number	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	TPI	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*					
MTP-EGM4X0.7ISO4H-TB-S013 *MTP-STIM4X0.7ISO4H-TB-S013*	10001218	EGM4	0,7	–	6,0 *0.236*	16 *0.630*	16,0 *0.630*	66,9 *2.632*	4,2 *0.165*	6.00X4.90	3	DIN40435	4H	B
MTP-EGM5X0.8ISO4H-TB-S013 *MTP-STIM5X0.8ISO4H-TB-S013*	10001219	EGM5	0,8	–	6,0 *0.236*	23 *0.906*	15,0 *0.591*	76,4 *3.008*	5,3 *0.207*	6.00X4.90	3	DIN40435	4H	B
MTP-EGM6X1.0ISO4H-TB-S013 *MTP-STIM6X1.0ISO4H-TB-S013*	10001220	EGM6	1,0	–	8,0 *0.315*	35 *1.378*	18,0 *0.709*	85,5 *3.366*	6,3 *0.248*	8.00X6.20	3	DIN40435	4H	B
MTP-EGM8X1.25ISO4H-TB-S013 *MTP-STIM8X1.25ISO4H-TB-S013*	10001221	EGM8	1,25	–	10,0 *0.394*	34 *1.319*	20,0 *0.787*	94,4 *3.715*	8,4 *0.331*	10.00X8.00	3	DIN40435	4H	B

MTP-S042

Through holes – UNJF threads



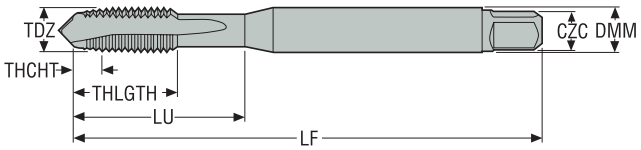


- Substrate: HSS-E-PM
- Coating: AlCrN
- For cutting data see page(s) 276, 278

Designation	Item number	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*					
MTP-10-32UNJF3B-TB-S042	10001183	UNJF10-32	–	32.0	6,0 *0.236*	16,0 *0.630*	16,0 *0.630*	66,43 *2.615*	4,15 *0.163*	6.00X4.90	3	DIN2184-1	3B	B
MTP-1/4-28UNJF3B-TB-S042	10001184	UNJF1/4-28	–	28.0	7,0 *0.276*	25,0 *0.984*	15,0 *0.591*	75,92 *2.989*	5,6 *0.220*	7.00X5.50	3	DIN2184-1	3B	B
MTP-5/16-24UNJF3B-TB-S042	10001186	UNJF5/16-24	–	24.0	8,0 *0.315*	29,5 *1.161*	18,0 *0.709*	85,24 *3.356*	7,0 *0.276*	8.00X6.20	3	DIN2184-1	3B	B
MTP-3/8-24UNJF3B-TB-S042	10001185	UNJF3/8-24	–	24.0	10,0 *0.394*	33,5 *1.319*	20,0 *0.787*	95,24 *3.750*	8,6 *0.339*	10.00X8.00	3	DIN2184-1	3B	B

MTP-S043

Through holes – EGUNF threads





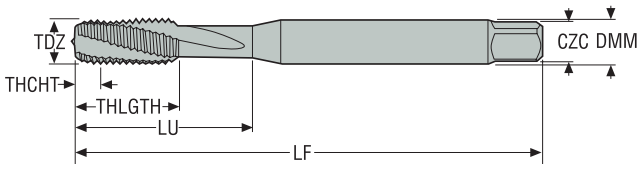
- Substrate: HSS-E-PM
- For cutting data see page(s) 276, 278

Designation	Item number	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*					
MTP-10-32EGUNF3B-TB-S043	10001214	EGUNF10-32	–	32.0	6,0 *0.236*	23,0 *0.906*	15,0 *0.591*	76,43 *3.009*	5,1 *0.201*	6.00X4.90	3	DIN2184-1	3B	B
MTP-1/4-28EGUNF3B-TB-S043	10001215	EGUNF1/4-28	–	28.0	8,0 *0.315*	29,5 *1.161*	18,0 *0.709*	85,92 *3.383*	6,6 *0.260*	8.00X6.20	3	DIN2184-1	3B	B
MTP-5/16-24EGUNF3B-TB-S043	10001216	EGUNF5/16-24	–	24.0	10,0 *0.394*	33,5 *1.319*	20,0 *0.787*	95,24 *3.750*	8,2 *0.323*	10.00X8.00	3	DIN2184-1	3B	B
MTP-3/8-24EGUNF3B-TB-S043	10001217	EGUNF3/8-24	–	24.0	8,0 *0.315*	76,0 *2.992*	20,0 *0.787*	95,24 *3.750*	9,8 *0.386*	8.00X6.20	3	DIN2184-1	3B	B

MTH-P001

Blind holes – Metric coarse threads



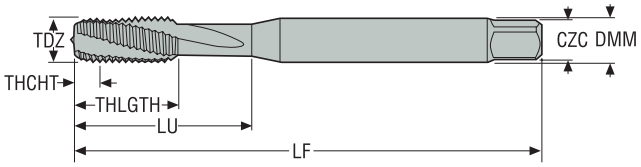


- Substrate: HSS-E-PM
- Coating: TiAlN
- For cutting data see page(s) 264, 266

Designation	Item number	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*					
MTH-M3X0.50ISO6H-BC-P001	02999974	M3	0,5	–	4,5 *0.177*	12,0 *0.472*	12,0 *0.472*	61,625 *2.426*	2,5 *0.098*	4.50X3.40	3	SECO-DIN	6H	C
MTH-M4X0.70ISO6H-BC-P001	02999975	M4	0,7	–	6,0 *0.236*	13,0 *0.512*	13,0 *0.512*	67,97 *2.676*	3,4 *0.134*	6.00X4.90	3	SECO-DIN	6H	C
MTH-M5X0.80ISO6H-BC-P001	02999976	M5	0,8	–	6,0 *0.236*	15,0 *0.591*	15,0 *0.591*	77,67 *3.058*	4,3 *0.169*	6.00X4.90	3	SECO-DIN	6H	C
MTH-M6X1.00ISO6H-BC-P001	02999977	M6	1,0	–	8,0 *0.315*	18,0 *0.709*	18,0 *0.709*	87,25 *3.435*	5,1 *0.201*	8.00X6.20	3	SECO-DIN	6H	C
MTH-M8X1.25ISO6H-BC-P001	02999978	M8	1,25	–	10,0 *0.394*	20,0 *0.787*	20,0 *0.787*	96,5625 *3.802*	6,8 *0.268*	10.00X8.00	3	SECO-DIN	6H	C
MTH-M10X1.50ISO6H-BC-P001	02999979	M10	1,5	–	10,0 *0.394*	39,0 *1.535*	20,0 *0.787*	95,875 *3.775*	8,6 *0.339*	10.00X8.00	3	SECO-DIN	6H	C

MTH-P001-A

Blind holes – Metric coarse threads





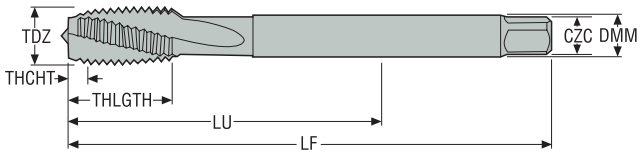
- Internal coolant
- Substrate: HSS-E-PM
- Coating: TiAlN
- For cutting data see page(s) 264, 266

Designation	Item number	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*					
MTH-M4X0.70ISO6H-BC-P001-A	02999985	M4	0,7	–	6,0 *0.236*	13,0 *0.512*	13,0 *0.512*	67,97 *2.676*	3,4 *0.134*	6.00X4.90	3	SECO-DIN	6H	C
MTH-M5X0.80ISO6H-BC-P001-A	02999986	M5	0,8	–	6,0 *0.236*	15,0 *0.591*	15,0 *0.591*	77,67 *3.058*	4,3 *0.169*	6.00X4.90	3	SECO-DIN	6H	C
MTH-M6X1.00ISO6H-BC-P001-A	02999987	M6	1,0	–	8,0 *0.315*	18,0 *0.709*	18,0 *0.709*	87,07 *3.428*	5,1 *0.201*	8.00X6.20	3	SECO-DIN	6H	C
MTH-M8X1.25ISO6H-BC-P001-A	02999988	M8	1,25	–	10,0 *0.394*	20,0 *0.787*	20,0 *0.787*	96,32 *3.792*	6,8 *0.268*	10.00X8.00	3	SECO-DIN	6H	C
MTH-M10X1.50ISO6H-BC-P001-A	02999989	M10	1,5	–	10,0 *0.394*	39,0 *1.535*	20,0 *0.787*	95,57 *3.763*	8,6 *0.339*	10.00X8.00	3	SECO-DIN	6H	C

MTH-P002

Blind holes – Metric coarse threads



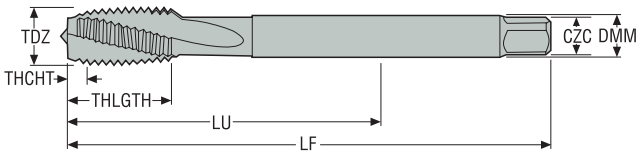


- Substrate: HSS-E-PM
- Coating: TiAlN
- For cutting data see page(s) 264, 266

Designation	Item number	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*					
MTH-M12X1.75ISO6H-BC-P002	02999980	M12	1,75	–	9,0 *0.354*	83,0 *3.268*	23,0 *0.906*	105,1875 *4.141*	10,4 *0.409*	9.00X7.00	4	DIN376	6H	C
MTH-M14X2.00ISO6H-BC-P002	02999981	M14	2,0	–	11,0 *0.433*	81,0 *3.189*	25,0 *0.984*	104,5 *4.114*	12,1 *0.476*	11.00X9.00	4	DIN376	6H	C
MTH-M16X2.00ISO6H-BC-P002	02999982	M16	2,0	–	12,0 *0.472*	68,0 *2.677*	25,0 *0.984*	104,5 *4.114*	14,1 *0.555*	12.00X9.00	4	DIN376	6H	C
MTH-M18X2.50ISO6H-BC-P002	02999983	M18	2,5	–	14,0 *0.551*	81,0 *3.189*	30,0 *1.181*	118,125 *4.651*	15,7 *0.618*	14.00X11.00	4	DIN376	6H	C
MTH-M20X2.50ISO6H-BC-P002	02999984	M20	2,5	–	16,0 *0.630*	95,0 *3.740*	30,0 *1.181*	133,125 *5.241*	17,7 *0.697*	16.00X12.00	4	DIN376	6H	C

MTH-P002-A

Blind holes – Metric coarse threads





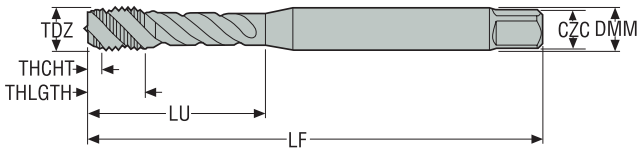
- Internal coolant
- Substrate: HSS-E-PM
- Coating: TiAlN
- For cutting data see page(s) 264, 266

Designation	Item number	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*					
MTH-M12X1.75ISO6H-BC-P002-A	02999990	M12	1,75	–	9,0 *0.354*	83,0 *3.268*	23,0 *0.906*	104,38 *4.109*	10,4 *0.409*	9.00X7.00	4	DIN376	6H	C
MTH-M14X2.00ISO6H-BC-P002-A	02999991	M14	2,0	–	11,0 *0.433*	81,0 *3.189*	25,0 *0.984*	103,74 *4.084*	12,1 *0.476*	11.00X9.00	4	DIN376	6H	C
MTH-M16X2.00ISO6H-BC-P002-A	02999992	M16	2,0	–	12,0 *0.472*	68,0 *2.677*	25,0 *0.984*	103,74 *4.084*	14,1 *0.555*	12.00X9.00	4	DIN376	6H	C
MTH-M18X2.50ISO6H-BC-P002-A	02999993	M18	2,5	–	14,0 *0.551*	81,0 *3.189*	30,0 *1.181*	117,05 *4.608*	15,7 *0.618*	14.00X11.00	4	DIN376	6H	C
MTH-M20X2.50ISO6H-BC-P002-A	02999994	M20	2,5	–	16,0 *0.630*	95,0 *3.740*	30,0 *1.181*	132,05 *5.199*	17,7 *0.697*	16.00X12.00	4	DIN376	6H	C

MTH-P003

Blind holes – Metric coarse threads



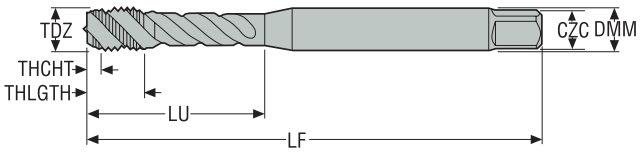


- Internal coolant
- Substrate: HSS-E-PM
- Coating: TiAlN
- For cutting data see page(s) 264, 266

Designation	Item number	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*					
MTH-M1.6X0.35ISO6HX-BC-P003	02999995	M1.6	0,35	–	2,5 *0.098*	6,0 *0.236*	4,0 *0.157*	39,3 *1.547*	1,3 *0.051*	2.50X2.10	2	DIN371	6HX	C
MTH-M2X0.40ISO6HX-BC-P003	02999996	M2	0,4	–	2,8 *0.110*	9,0 *0.354*	4,0 *0.157*	44,2 *1.740*	1,6 *0.063*	2.80X2.10	2	DIN371	6HX	C
MTH-M2.2X0.45ISO6HX-BC-P003	02999997	M2.2	0,45	–	2,8 *0.110*	12,0 *0.472*	4,0 *0.157*	44,1 *1.736*	1,8 *0.071*	2.80X2.10	2	DIN371	6HX	C
MTH-M2.3X0.40ISO6HX-BC-P003	02999998	M2.3	0,4	–	2,8 *0.110*	12,0 *0.472*	4,0 *0.157*	44,2 *1.740*	1,9 *0.075*	2.80X2.10	2	DIN371	6HX	C
MTH-M2.5X0.45ISO6HX-BC-P003	02999999	M2.5	0,45	–	2,8 *0.110*	12,5 *0.492*	4,0 *0.157*	49,1 *1.933*	2,1 *0.083*	2.80X2.10	2	DIN371	6HX	C
MTH-M2.6X0.45ISO6HX-BC-P003	03000000	M2.6	0,45	–	2,8 *0.110*	12,5 *0.492*	4,0 *0.157*	49,1 *1.933*	2,15 *0.085*	2.80X2.10	2	DIN371	6HX	C
MTH-M3X0.50ISO6HX-BC-P003	03000001	M3	0,5	–	3,5 *0.138*	18,0 *0.709*	5,9 *0.232*	54,625 *2.151*	2,5 *0.098*	3.50X2.70	3	DIN371	6HX	C
MTH-M3.5X0.60ISO6HX-BC-P003	03000002	M3.5	0,6	–	4,0 *0.157*	20,0 *0.787*	7,0 *0.276*	54,35 *2.140*	2,9 *0.114*	4.00X3.00	3	DIN371	6HX	C
MTH-M4X0.70ISO6HX-BC-P003	03000003	M4	0,7	–	4,5 *0.177*	21,0 *0.827*	6,7 *0.264*	61,075 *2.405*	3,4 *0.134*	4.50X3.40	3	DIN371	6HX	C
MTH-M5X0.80ISO6HX-BC-P003	03000004	M5	0,8	–	6,0 *0.236*	25,0 *0.984*	7,7 *0.303*	67,8 *2.669*	4,3 *0.169*	6.00X4.90	3	DIN371	6HX	C
MTH-M6X1.00ISO6HX-BC-P003	03000006	M6	1,0	–	6,0 *0.236*	30,0 *1.181*	10,0 *0.394*	77,25 *3.041*	5,1 *0.201*	6.00X4.90	3	DIN371	6HX	C
MTH-M7X1.00ISO6HX-BC-P003	03000007	M7	1,0	–	7,0 *0.276*	30,0 *1.181*	10,0 *0.394*	77,25 *3.041*	6,1 *0.240*	7.00X5.50	3	DIN371	6HX	C
MTH-M8X1.25ISO6HX-BC-P003	03000008	M8	1,25	–	8,0 *0.315*	35,0 *1.378*	11,6 *0.457*	86,5625 *3.408*	6,8 *0.268*	8.00X6.20	3	DIN371	6HX	C
MTH-M10X1.50ISO6HX-BC-P003	03000009	M10	1,5	–	10,0 *0.394*	39,0 *1.535*	15,1 *0.594*	95,875 *3.775*	8,6 *0.339*	10.00X8.00	3	DIN371	6HX	C

MTH-P003-A

Blind holes – Metric coarse threads





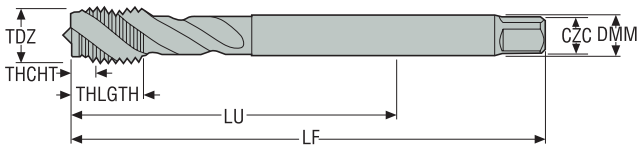
- Internal coolant
- Substrate: HSS-E-PM
- Coating: AlTiN-based
- For cutting data see page(s) 264, 266

Designation	Item number	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*					
MTH-M4X0.70ISO6HX-BC-P003-A	03000024	M4	0,7	–	4,5 *0.177*	21,0 *0.827*	6,7 *0.264*	61,075 *2.405*	3,4 *0.134*	4.50X3.40	3	DIN371	6HX	C
MTH-M5X0.80ISO6HX-BC-P003-A	03000025	M5	0,8	–	6,0 *0.236*	25,0 *0.984*	7,7 *0.303*	68,1 *2.681*	4,3 *0.169*	6.00X4.90	3	DIN371	6HX	C
MTH-M6X1.00ISO6HX-BC-P003-A	03000026	M6	1,0	–	6,0 *0.236*	30,0 *1.181*	10,0 *0.394*	77,39 *3.047*	5,1 *0.201*	6.00X4.90	3	DIN371	6HX	C
MTH-M7X1.00ISO6HX-BC-P003-A	03000027	M7	1,0	–	7,0 *0.276*	30,0 *1.181*	10,0 *0.394*	77,25 *3.041*	6,1 *0.240*	7.00X5.50	3	DIN371	6HX	C
MTH-M8X1.25ISO6HX-BC-P003-A	03000028	M8	1,25	–	8,0 *0.315*	35,0 *1.378*	11,6 *0.457*	86,5625 *3.408*	6,8 *0.268*	8.00X6.20	3	DIN371	6HX	C
MTH-M10X1.50ISO6HX-BC-P003-A	03000029	M10	1,5	–	10,0 *0.394*	39,0 *1.535*	15,1 *0.594*	95,875 *3.775*	8,6 *0.339*	10.00X8.00	3	DIN371	6HX	C

MTH-P004

Blind holes – Metric coarse threads



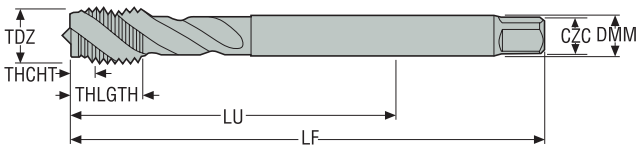


- Substrate: HSS-E-PM
- Coating: AlTiN-based
- For cutting data see page(s) 264, 266

Designation	Item number	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*					
MTH-M5X0.80ISO6HX-BC-P004	03000010	M5	0,8	–	3,5 *0.138*	49,0 *1.929*	8,0 *0.315*	67,8 *2.669*	4,3 *0.169*	3.50X2.70	3	DIN376	6HX	C
MTH-M6X1.00ISO6HX-BC-P004	03000011	M6	1,0	–	4,5 *0.177*	59,0 *2.323*	10,0 *0.394*	77,25 *3.041*	5,1 *0.201*	4.50X3.40	3	DIN376	6HX	C
MTH-M7X1.00ISO6HX-BC-P004	03000012	M7	1,0	–	5,5 *0.217*	59,0 *2.323*	10,0 *0.394*	77,25 *3.041*	6,1 *0.240*	5.50X4.30	3	DIN376	6HX	C
MTH-M8X1.25ISO6HX-BC-P004	03000013	M8	1,25	–	6,0 *0.236*	67,0 *2.638*	13,0 *0.512*	86,5625 *3.408*	6,8 *0.268*	6.00X4.90	3	DIN376	6HX	C
MTH-M10X1.50ISO6HX-BC-P004	03000014	M10	1,5	–	7,0 *0.276*	77,0 *3.031*	20,0 *0.787*	95,875 *3.775*	8,6 *0.339*	7.00X5.50	3	DIN376	6HX	C
MTH-M12X1.75ISO6HX-BC-P004	03000015	M12	1,75	–	9,0 *0.354*	83,0 *3.268*	16,0 *0.630*	105,59 *4.157*	10,4 *0.409*	9.00X7.00	3	DIN376	6HX	C
MTH-M14X2.00ISO6HX-BC-P004	03000016	M14	2,0	–	11,0 *0.433*	81,0 *3.189*	25,0 *0.984*	104,5 *4.114*	12,1 *0.476*	11.00X9.00	3	DIN376	6HX	C
MTH-M16X2.00ISO6HX-BC-P004	03000017	M16	2,0	–	12,0 *0.472*	68,0 *2.677*	20,0 *0.787*	104,5 *4.114*	14,1 *0.555*	12.00X9.00	4	DIN376	6HX	C
MTH-M18X2.50ISO6HX-BC-P004	03000018	M18	2,5	–	14,0 *0.551*	81,0 *3.189*	25,0 *0.984*	118,75 *4.675*	15,7 *0.618*	14.00X11.00	4	DIN376	6HX	C
MTH-M20X2.50ISO6HX-BC-P004	03000019	M20	2,5	–	16,0 *0.630*	95,0 *3.740*	25,0 *0.984*	133,75 *5.266*	17,7 *0.697*	16.00X12.00	4	DIN376	6HX	C
MTH-M22X2.50ISO6HX-BC-P004	03000020	M22	2,5	–	18,0 *0.709*	93,0 *3.661*	25,0 *0.984*	133,73 *5.265*	19,7 *0.776*	18.00X14.50	4	DIN376	6HX	C
MTH-M24X3.00ISO6HX-BC-P004	03000021	M24	3,0	–	18,0 *0.709*	113,0 *4.449*	30,0 *1.181*	152,72 *6.013*	21,0 *0.827*	18.00X14.50	4	DIN376	6HX	C
MTH-M27X3.00ISO6HX-BC-P004	03000022	M27	3,0	–	20,0 *0.787*	97,0 *3.819*	30,0 *1.181*	152,76 *6.014*	24,0 *0.945*	20.00X16.00	4	DIN376	6HX	C
MTH-M30X3.50ISO6HX-BC-P004	03000023	M30	3,5	–	22,0 *0.866*	115,0 *4.528*	36,0 *1.417*	171,78 *6.763*	26,5 *1.043*	22.00X18.00	4	DIN376	6HX	C

MTH-P004-A

Blind holes – Metric coarse threads





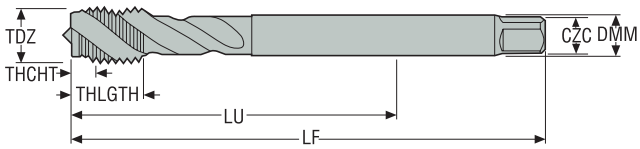
- Internal coolant
- Substrate: HSS-E-PM
- Coating: AlTiN-based
- For cutting data see page(s) 264, 266

Designation	Item number	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*					
MTH-M12X1.75ISO6HX-BC-P004-A	03000030	M12	1,75	–	9,0 *0.354*	83,0 *3.268*	16,0 *0.630*	105,59 *4.157*	10,4 *0.409*	9.00X7.00	3	DIN376	6HX	C
MTH-M14X2.00ISO6HX-BC-P004-A	03000031	M14	2,0	–	11,0 *0.433*	81,0 *3.189*	25,0 *0.984*	105,08 *4.137*	12,1 *0.476*	11.00X9.00	3	DIN376	6HX	C
MTH-M16X2.00ISO6HX-BC-P004-A	03000032	M16	2,0	–	12,0 *0.472*	68,0 *2.677*	20,0 *0.787*	104,5 *4.114*	14,1 *0.555*	12.00X9.00	4	DIN376	6HX	C
MTH-M18X2.50ISO6HX-BC-P004-A	03000033	M18	2,5	–	14,0 *0.551*	81,0 *3.189*	25,0 *0.984*	118,75 *4.675*	15,7 *0.618*	14.00X11.00	4	DIN376	6HX	C
MTH-M20X2.50ISO6HX-BC-P004-A	03000034	M20	2,5	–	16,0 *0.630*	95,0 *3.740*	25,0 *0.984*	133,75 *5.266*	17,7 *0.697*	16.00X12.00	4	DIN376	6HX	C
MTH-M22X2.50ISO6HX-BC-P004-A	03000036	M22	2,5	–	18,0 *0.709*	93,0 *3.661*	25,0 *0.984*	133,73 *5.265*	19,7 *0.776*	18.00X14.50	4	DIN376	6HX	C
MTH-M24X3.00ISO6HX-BC-P004-A	03000037	M24	3,0	–	18,0 *0.709*	113,0 *4.449*	30,0 *1.181*	152,72 *6.013*	21,0 *0.827*	18.00X14.50	4	DIN376	6HX	C
MTH-M27X3.00ISO6HX-BC-P004-A	03000038	M27	3,0	–	20,0 *0.787*	97,0 *3.819*	30,0 *1.181*	151,75 *5.974*	24,0 *0.945*	20.00X16.00	4	DIN376	6HX	C
MTH-M30X3.50ISO6HX-BC-P004-A	03000039	M30	3,5	–	22,0 *0.866*	115,0 *4.528*	36,0 *1.417*	171,78 *6.763*	26,5 *1.043*	22.00X18.00	4	DIN376	6HX	C

MTH-P011

Blind holes – MF threads





- Substrate: HSS-E-PM
- Coating: AlTiN-based
- For cutting data see page(s) 264, 266

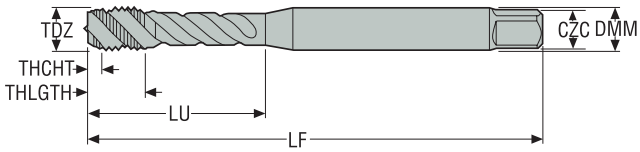
Designation	Item number	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*					
MTH-M4X0.50ISO6HX-BC-P011	03000040	MF4X0.5	0,5	–	2,8 *0.110*	43,0 *1.693*	7,0 *0.276*	61,625 *2.426*	3,5 *0.138*	2.80X2.10	3	DIN374	6HX	C
MTH-M5X0.50ISO6HX-BC-P011	03000041	MF5X0.5	0,5	–	3,5 *0.138*	49,0 *1.929*	8,0 *0.315*	68,75 *2.707*	4,5 *0.177*	3.50X2.70	3	DIN374	6HX	C
MTH-M6X0.75ISO6HX-BC-P011	03000042	MF6X0.75	0,75	–	4,5 *0.177*	59,0 *2.323*	10,0 *0.394*	77,7 *3.059*	5,3 *0.209*	4.50X3.40	3	DIN374	6HX	C
MTH-M8X0.75ISO6HX-BC-P011	03000043	MF8X0.75	0,75	–	6,0 *0.236*	57,0 *2.244*	13,0 *0.512*	77,72 *3.060*	7,3 *0.287*	6.00X4.90	3	DIN374	6HX	C
MTH-M8X1.00ISO6HX-BC-P011	03000044	MF8X1.0	1,0	–	6,0 *0.236*	67,0 *2.638*	13,0 *0.512*	87,2 *3.433*	7,1 *0.280*	6.00X4.90	3	DIN374	6HX	C
MTH-M10X0.75ISO6HX-BC-P011	03000045	MF10X0.75	0,75	–	7,0 *0.276*	67,0 *2.638*	13,0 *0.512*	87,73 *3.454*	9,3 *0.366*	7.00X5.50	3	DIN374	6HX	C
MTH-M10X1.00ISO6HX-BC-P011	03000046	MF10X1.0	1,0	–	7,0 *0.276*	67,0 *2.638*	13,0 *0.512*	87,25 *3.435*	9,1 *0.358*	7.00X5.50	3	DIN374	6HX	C
MTH-M10X1.25ISO6HX-BC-P011	03000047	MF10X1.25	1,25	–	7,0 *0.276*	77,0 *3.031*	15,0 *0.591*	96,5625 *3.802*	8,8 *0.346*	7.00X5.50	3	DIN374	6HX	C
MTH-M12X1.00ISO6HX-BC-P011	03000048	MF12X1.0	1,0	–	9,0 *0.354*	73,0 *2.874*	15,0 *0.591*	97,25 *3.829*	11,1 *0.437*	9.00X7.00	3	DIN374	6HX	C
MTH-M12X1.25ISO6HX-BC-P011	03000049	MF12X1.25	1,25	–	9,0 *0.354*	73,0 *2.874*	15,0 *0.591*	96,5625 *3.802*	10,8 *0.425*	9.00X7.00	3	DIN374	6HX	C
MTH-M12X1.50ISO6HX-BC-P011	03000050	MF12X1.5	1,5	–	9,0 *0.354*	73,0 *2.874*	15,0 *0.591*	96,07 *3.782*	10,6 *0.417*	9.00X7.00	3	DIN374	6HX	C
MTH-M14X1.00ISO6HX-BC-P011	03000051	MF14X1.0	1,0	–	11,0 *0.433*	71,0 *2.795*	15,0 *0.591*	97,11 *3.823*	13,1 *0.516*	11.00X9.00	3	DIN374	6HX	C
MTH-M14X1.25ISO6HX-BC-P011	03000052	MF14X1.25	1,25	–	11,0 *0.433*	71,0 *2.795*	15,0 *0.591*	96,5625 *3.802*	12,8 *0.504*	11.00X9.00	3	DIN374	6HX	C
MTH-M14X1.50ISO6HX-BC-P011	03000053	MF14X1.5	1,5	–	11,0 *0.433*	71,0 *2.795*	15,0 *0.591*	95,875 *3.775*	12,6 *0.496*	11.00X9.00	3	DIN374	6HX	C
MTH-M16X1.00ISO6HX-BC-P011	03000054	MF16X1.0	1,0	–	12,0 *0.472*	58,0 *2.283*	15,0 *0.591*	97,25 *3.829*	15,1 *0.594*	12.00X9.00	4	DIN374	6HX	C
MTH-M16X1.50ISO6HX-BC-P011	03000055	MF16X1.5	1,5	–	12,0 *0.472*	58,0 *2.283*	15,0 *0.591*	95,875 *3.775*	14,6 *0.575*	12.00X9.00	4	DIN374	6HX	C
MTH-M18X1.00ISO6HX-BC-P011	03000056	MF18X1.0	1,0	–	14,0 *0.551*	66,0 *2.598*	17,0 *0.669*	105,875 *4.168*	17,1 *0.673*	14.00X11.00	4	DIN374	6HX	C
MTH-M18X1.50ISO6HX-BC-P011	03000057	MF18X1.5	1,5	–	14,0 *0.551*	66,0 *2.598*	17,0 *0.669*	105,71 *4.162*	16,6 *0.654*	14.00X11.00	4	DIN374	6HX	C
MTH-M20X1.00ISO6HX-BC-P011	03000058	MF20X1.0	1,0	–	16,0 *0.630*	80,0 *3.150*	17,0 *0.669*	122,25 *4.813*	19,1 *0.752*	16.00X12.00	4	DIN374	6HX	C
MTH-M20X1.50ISO6HX-BC-P011	03000059	MF20X1.5	1,5	–	16,0 *0.630*	80,0 *3.150*	17,0 *0.669*	120,875 *4.759*	18,6 *0.732*	16.00X12.00	4	DIN374	6HX	C
MTH-M22X1.50ISO6HX-BC-P011	03000060	MF22X1.5	1,5	–	18,0 *0.709*	78,0 *3.071*	17,0 *0.669*	120,875 *4.759*	20,5 *0.807*	18.00X14.50	4	DIN374	6HX	C

Designation	Item number	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*					
MTH-M24X1.50ISO6HX-BC-P011	03000061	MF24X1.5	1,5	–	18,0 *0.709*	93,0 *3.661*	20,0 *0.787*	135,875 *5.349*	22,5 *0.886*	18.00X14.50	4	DIN374	6HX	C
MTH-M24X2.00ISO6HX-BC-P011	03000062	MF24X2.0	2,0	–	18,0 *0.709*	93,0 *3.661*	20,0 *0.787*	134,7 *5.303*	22,0 *0.866*	18.00X14.50	4	DIN374	6HX	C
MTH-M25X1.50ISO6HX-BC-P011	03000063	MF25X1.5	1,5	–	18,0 *0.709*	93,0 *3.661*	20,0 *0.787*	135,7 *5.343*	23,5 *0.925*	18.00X14.50	4	DIN374	6HX	C
MTH-M26X1.50ISO6HX-BC-P011	03000064	MF26X1.5	1,5	–	18,0 *0.709*	93,0 *3.661*	20,0 *0.787*	135,7 *5.343*	24,5 *0.965*	18.00X14.50	4	DIN374	6HX	C
MTH-M27X1.50ISO6HX-BC-P011	03000065	MF27X1.5	1,5	–	20,0 *0.787*	77,0 *3.031*	20,0 *0.787*	135,875 *5.349*	25,5 *1.004*	20.00X16.00	4	DIN374	6HX	C
MTH-M27X2.00ISO6HX-BC-P011	03000066	MF27X2.0	2,0	–	20,0 *0.787*	77,0 *3.031*	20,0 *0.787*	134,73 *5.304*	25,0 *0.984*	20.00X16.00	4	DIN374	6HX	C
MTH-M28X1.50ISO6HX-BC-P011	03000067	MF28X1.5	1,5	–	20,0 *0.787*	77,0 *3.031*	20,0 *0.787*	135,72 *5.343*	26,5 *1.043*	20.00X16.00	4	DIN374	6HX	C
MTH-M30X1.50ISO6HX-BC-P011	03000068	MF30X1.5	1,5	–	22,0 *0.866*	85,0 *3.346*	20,0 *0.787*	150,0 *5.906*	28,5 *1.122*	22.00X18.00	4	DIN374	6HX	C
MTH-M30X2.00ISO6HX-BC-P011	03000069	MF30X2.0	2,0	–	22,0 *0.866*	85,0 *3.346*	20,0 *0.787*	144,73 *5.698*	28,0 *1.102*	22.00X18.00	4	DIN374	6HX	C

MTH-M003

Blind holes – Metric coarse threads



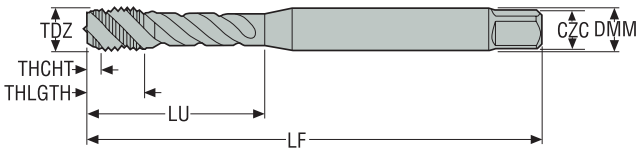


- Substrate: HSS-E
- Coating: TiCN
- For cutting data see page(s) 268, 270

Designation	Item number	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*					
MTH-M1.6X0.35ISO6H-BC-M003	03000106	M1.6	0,35	–	2,5 *0.098*	6,0 *0.236*	4,0 *0.157*	39,21 *1.544*	1,3 *0.051*	2.50X2.10	2	DIN371	6H	C
MTH-M2X0.40ISO6H-BC-M003	03000107	M2	0,4	–	2,8 *0.110*	9,0 *0.354*	4,0 *0.157*	44,2 *1.740*	1,6 *0.063*	2.80X2.10	3	DIN371	6H	C
MTH-M2.2X0.45ISO6H-BC-M003	03000108	M2.2	0,45	–	2,8 *0.110*	12,0 *0.472*	4,0 *0.157*	44,41 *1.748*	1,8 *0.071*	2.80X2.10	3	DIN371	6H	C
MTH-M2.3X0.40ISO6H-BC-M003	03000109	M2.3	0,4	–	2,8 *0.110*	12,0 *0.472*	4,0 *0.157*	44,4 *1.748*	1,9 *0.075*	2.80X2.10	3	DIN371	6H	C
MTH-M2.5X0.45ISO6H-BC-M003	03000110	M2.5	0,45	–	2,8 *0.110*	12,5 *0.492*	4,0 *0.157*	49,32 *1.942*	2,1 *0.083*	2.80X2.10	3	DIN371	6H	C
MTH-M2.6X0.45ISO6H-BC-M003	03000111	M2.6	0,45	–	2,8 *0.110*	12,5 *0.492*	4,0 *0.157*	49,32 *1.942*	2,15 *0.085*	2.80X2.10	3	DIN371	6H	C
MTH-M3X0.50ISO6H-BC-M003	03000112	M3	0,5	–	3,5 *0.138*	18,0 *0.709*	5,9 *0.232*	54,625 *2.151*	2,5 *0.098*	3.50X2.70	3	DIN371	6H	C
MTH-M3.5X0.60ISO6H-BC-M003	03000113	M3.5	0,6	–	4,0 *0.157*	20,0 *0.787*	7,0 *0.276*	54,35 *2.140*	2,9 *0.114*	4.00X3.00	3	DIN371	6H	C
MTH-M4X0.70ISO6H-BC-M003	03000114	M4	0,7	–	4,5 *0.177*	21,0 *0.827*	6,7 *0.264*	61,075 *2.405*	3,4 *0.134*	4.50X3.40	3	DIN371	6H	C
MTH-M5X0.80ISO6H-BC-M003	03000115	M5	0,8	–	6,0 *0.236*	25,0 *0.984*	7,7 *0.303*	67,8 *2.669*	4,3 *0.169*	6.00X4.90	3	DIN371	6H	C
MTH-M6X1.00ISO6H-BC-M003	03000116	M6	1,0	–	6,0 *0.236*	30,0 *1.181*	10,0 *0.394*	77,25 *3.041*	5,1 *0.201*	6.00X4.90	3	DIN371	6H	C
MTH-M7X1.00ISO6H-BC-M003	03000117	M7	1,0	–	7,0 *0.276*	30,0 *1.181*	10,0 *0.394*	77,25 *3.041*	6,1 *0.240*	7.00X5.50	3	DIN371	6H	C
MTH-M8X1.25ISO6H-BC-M003	03000118	M8	1,25	–	8,0 *0.315*	35,0 *1.378*	11,6 *0.457*	86,5625 *3.408*	6,8 *0.268*	8.00X6.20	3	DIN371	6H	C
MTH-M10X1.50ISO6H-BC-M003	03000119	M10	1,5	–	10,0 *0.394*	39,0 *1.535*	15,1 *0.594*	95,875 *3.775*	8,6 *0.339*	10.00X8.00	3	DIN371	6H	C

MTH-M003-A

Blind holes – Metric coarse threads





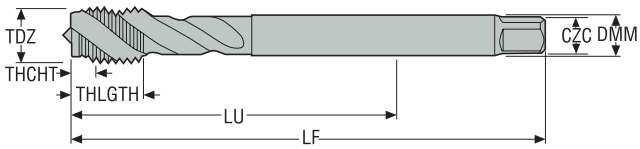
- Internal coolant
- Substrate: HSS-E
- Coating: TiCN
- For cutting data see page(s) 268, 270

Designation	Item number	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*					
MTH-M4X0.70ISO6H-BC-M003-A	03000125	M4	0,7	–	4,5 *0.177*	21,0 *0.827*	6,7 *0.264*	61,075 *2.405*	3,4 *0.134*	4.50X3.40	3	DIN371	6H	C
MTH-M5X0.80ISO6H-BC-M003-A	03000126	M5	0,8	–	6,0 *0.236*	25,0 *0.984*	7,7 *0.303*	67,8 *2.669*	4,3 *0.169*	6.00X4.90	3	DIN371	6H	C
MTH-M6X1.00ISO6H-BC-M003-A	03000127	M6	1,0	–	6,0 *0.236*	30,0 *1.181*	10,0 *0.394*	77,25 *3.041*	5,1 *0.201*	6.00X4.90	3	DIN371	6H	C
MTH-M7X1.00ISO6H-BC-M003-A	03000128	M7	1,0	–	7,0 *0.276*	30,0 *1.181*	10,0 *0.394*	77,57 *3.054*	6,1 *0.240*	7.00X5.50	3	DIN371	6H	C
MTH-M8X1.25ISO6H-BC-M003-A	03000129	M8	1,25	–	8,0 *0.315*	35,0 *1.378*	11,6 *0.457*	86,5625 *3.408*	6,8 *0.268*	8.00X6.20	3	DIN371	6H	C
MTH-M10X1.50ISO6H-BC-M003-A	03000130	M10	1,5	–	10,0 *0.394*	39,0 *1.535*	15,1 *0.594*	95,875 *3.775*	8,6 *0.339*	10.00X8.00	3	DIN371	6H	C

MTH-M004

Blind holes – Metric coarse threads



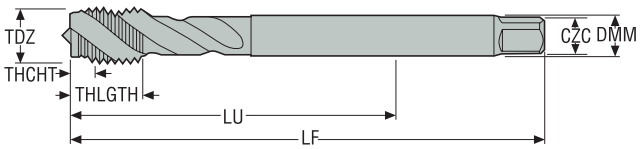


- Substrate: HSS-E
- Coating: TiCN
- For cutting data see page(s) 268, 270

Designation	Item number	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*					
MTH-M12X1.75ISO6H-BC-M004	03000120	M12	1,75	–	9,0 *0.354*	83,0 *3.268*	23,0 *0.906*	105,1875 *4.141*	10,4 *0.409*	9.00X7.00	3	DIN376	6H	C
MTH-M14X2.00ISO6H-BC-M004	03000121	M14	2,0	–	11,0 *0.433*	81,0 *3.189*	25,0 *0.984*	104,5 *4.114*	12,1 *0.476*	11.00X9.00	3	DIN376	6H	C
MTH-M16X2.00ISO6H-BC-M004	03000122	M16	2,0	–	12,0 *0.472*	68,0 *2.677*	20,0 *0.787*	104,5 *4.114*	14,1 *0.555*	12.00X9.00	4	DIN376	6H	C
MTH-M18X2.50ISO6H-BC-M004	03000123	M18	2,5	–	14,0 *0.551*	81,0 *3.189*	25,0 *0.984*	118,125 *4.651*	15,7 *0.618*	14.00X11.00	4	DIN376	6H	C
MTH-M20X2.50ISO6H-BC-M004	03000124	M20	2,5	–	16,0 *0.630*	95,0 *3.740*	25,0 *0.984*	133,125 *5.241*	17,7 *0.697*	16.00X12.00	4	DIN376	6H	C

MTH-M004-A

Blind holes – Metric coarse threads





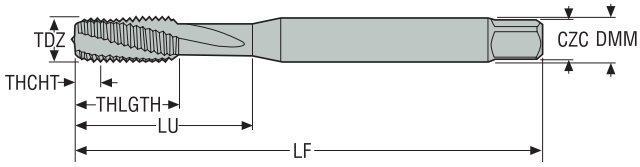
- Internal coolant
- Substrate: HSS-E
- Coating: TiCN
- For cutting data see page(s) 268, 270

Designation	Item number	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*					
MTH-M12X1.75ISO6H-BC-M004-A	03000131	M12	1,75	–	9,0 *0.354*	83,0 *3.268*	23,0 *0.906*	105,1875 *4.141*	10,4 *0.409*	9.00X7.00	3	DIN376	6H	C
MTH-M14X2.00ISO6H-BC-M004-A	03000132	M14	2,0	–	11,0 *0.433*	81,0 *3.189*	25,0 *0.984*	105,63 *4.159*	12,1 *0.476*	11.00X9.00	3	DIN376	6H	C
MTH-M16X2.00ISO6H-BC-M004-A	03000133	M16	2,0	–	12,0 *0.472*	68,0 *2.677*	20,0 *0.787*	104,5 *4.114*	14,1 *0.555*	12.00X9.00	4	DIN376	6H	C
MTH-M18X2.50ISO6H-BC-M004-A	03000134	M18	2,5	–	14,0 *0.551*	81,0 *3.189*	25,0 *0.984*	119,42 *4.702*	15,7 *0.618*	14.00X11.00	4	DIN376	6H	C
MTH-M20X2.50ISO6H-BC-M004-A	03000135	M20	2,5	–	16,0 *0.630*	95,0 *3.740*	25,0 *0.984*	134,43 *5.293*	17,7 *0.697*	16.00X12.00	4	DIN376	6H	C

MTH-N001

Blind holes – Metric coarse threads



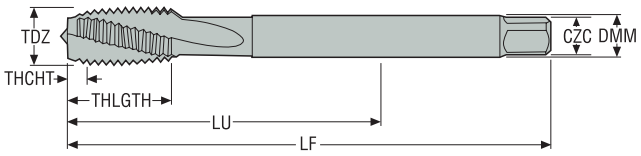


- Substrate: HSS-E-PM
- Coating: BRIGHT
- For cutting data see page(s) 270, 272

Designation	Item number	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*					
MTH-M3X0.50ISO6H-BC-N001	03000153	M3	0,5	–	3,5 *0.138*	18,0 *0.709*	9,0 *0.354*	54,625 *2.151*	2,5 *0.098*	3.50X2.70	3	DIN371	6H	C
MTH-M4X0.70ISO6H-BC-N001	03000154	M4	0,7	–	4,5 *0.177*	21,0 *0.827*	12,0 *0.472*	61,075 *2.405*	3,4 *0.134*	4.50X3.40	3	DIN371	6H	C
MTH-M5X0.80ISO6H-BC-N001	03000155	M5	0,8	–	6,0 *0.236*	25,0 *0.984*	13,0 *0.512*	68,2 *2.685*	4,3 *0.169*	6.00X4.90	3	DIN371	6H	C
MTH-M6X1.00ISO6H-BC-N001	03000156	M6	1,0	–	6,0 *0.236*	30,0 *1.181*	15,0 *0.591*	77,25 *3.041*	5,1 *0.201*	6.00X4.90	3	DIN371	6H	C
MTH-M8X1.25ISO6H-BC-N001	03000157	M8	1,25	–	8,0 *0.315*	35,0 *1.378*	18,0 *0.709*	87,0 *3.425*	6,8 *0.268*	8.00X6.20	3	DIN371	6H	C
MTH-M10X1.50ISO6H-BC-N001	03000158	M10	1,5	–	10,0 *0.394*	39,0 *1.535*	20,0 *0.787*	96,3 *3.791*	8,6 *0.339*	10.00X8.00	3	DIN371	6H	C

MTH-N002

Blind holes – Metric coarse threads





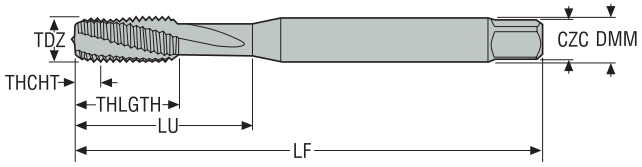
- Substrate: HSS-E-PM
- Coating: BRIGHT
- For cutting data see page(s) 270, 272

Designation	Item number	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*					
MTH-M12X1.75ISO6H-BC-N002	03000159	M12	1,75	–	9,0 *0.354*	83,0 *3.268*	23,0 *0.906*	105,25 *4.144*	10,4 *0.409*	9.00X7.00	3	DIN376	6H	C
MTH-M14X2.00ISO6H-BC-N002	03000160	M14	2,0	–	11,0 *0.433*	81,0 *3.189*	25,0 *0.984*	104,6 *4.118*	12,1 *0.476*	11.00X9.00	3	DIN376	6H	C
MTH-M16X2.00ISO6H-BC-N002	03000161	M16	2,0	–	12,0 *0.472*	68,0 *2.677*	25,0 *0.984*	104,5 *4.114*	14,1 *0.555*	12.00X9.00	3	DIN376	6H	C

MTH-S001

Blind holes – Metric coarse threads



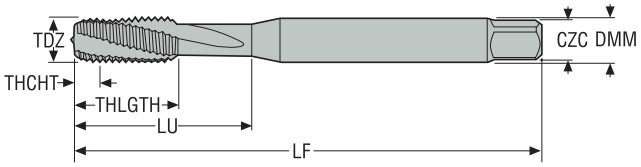


- Substrate: HSS-E-PM
- For cutting data see page(s) 272, 274

Designation	Item number	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*					
MTH-M3X0.50ISO6HX-BC-S001	10001105	M3	0,5	–	3,5 *0.138*	8,0 *0.315*	8,0 *0.315*	54,75 *2.156*	2,5 *0.098*	3.50X2.70	3	DIN371	6HX	C
MTH-M4X0.70ISO6HX-BC-S001	10001106	M4	0,7	–	4,5 *0.177*	10,5 *0.413*	10,5 *0.413*	61,25 *2.411*	3,4 *0.134*	4.50X3.40	3	DIN371	6HX	C
MTH-M5X0.80ISO6HX-BC-S001	10001107	M5	0,8	–	6,0 *0.236*	13,0 *0.512*	13,0 *0.512*	68,0 *2.677*	4,3 *0.169*	6.00X4.90	3	DIN371	6HX	C
MTH-M6X1.00ISO6HX-BC-S001	10001108	M6	1,0	–	6,0 *0.236*	16,0 *0.630*	16,0 *0.630*	77,5 *3.051*	5,1 *0.201*	6.00X4.90	3	DIN371	6HX	C
MTH-M8X1.25ISO6HX-BC-S001	10001109	M8	1,25	–	8,0 *0.315*	20,5 *0.807*	20,5 *0.807*	86,87 *3.420*	6,8 *0.268*	8.00X6.20	3	DIN371	6HX	C
MTH-M10X1.50ISO6HX-BC-S001	10001110	M10	1,5	–	10,0 *0.394*	25,5 *1.004*	25,5 *1.004*	96,25 *3.789*	8,6 *0.339*	10.00X8.00	3	DIN371	6HX	C

MTH-S002

Blind holes – Metric coarse threads



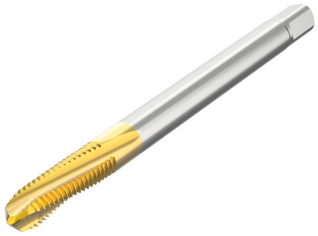


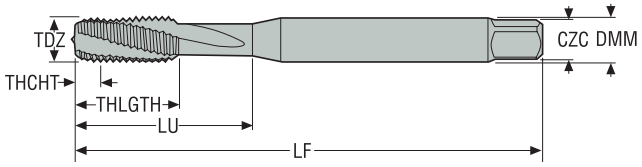
- Substrate: HSS-E-PM
- For cutting data see page(s) 272, 274

Designation	Item number	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*					
MTH-M12X1.75ISO6HX-BC-S002	10001111	M12	1,75	–	12,0 *0.472*	30,5 *1.201*	30,5 *1.201*	105,09 *4.137*	10,4 *0.409*	12.00X9.00	4	DIN371	6HX	C
MTH-M16X2.00ISO6HX-BC-S002	10001112	M16	2,0	–	16,0 *0.630*	39,5 *1.555*	39,5 *1.555*	104,4 *4.110*	14,1 *0.555*	16.00X12.00	4	DIN371	6HX	C

MTH-S003

Blind holes – Metric coarse threads



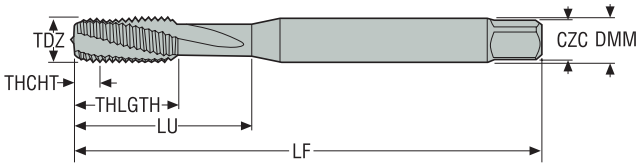


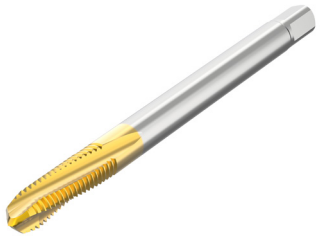
- Substrate: HSS-E-PM
- Coating: TiN
- For cutting data see page(s) 272, 274

Designation	Item number	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*					
MTH-M3X0.50ISO6HX-BC-S003	10001073	M3	0,5	–	3,5 *0.138*	8,0 *0.315*	8,0 *0.315*	54,75 *2.156*	2,5 *0.098*	3.50X2.70	3	DIN371	6HX	C
MTH-M4X0.70ISO6HX-BC-S003	10001074	M4	0,7	–	4,5 *0.177*	10,5 *0.413*	10,5 *0.413*	61,25 *2.411*	3,4 *0.134*	4.50X3.40	3	DIN371	6HX	C
MTH-M5X0.80ISO6HX-BC-S003	10001075	M5	0,8	–	6,0 *0.236*	13,0 *0.512*	13,0 *0.512*	68,0 *2.677*	4,3 *0.169*	6.00X4.90	3	DIN371	6HX	C
MTH-M6X1.00ISO6HX-BC-S003	10001076	M6	1,0	–	6,0 *0.236*	16,0 *0.630*	16,0 *0.630*	77,5 *3.051*	5,1 *0.201*	6.00X4.90	3	DIN371	6HX	C
MTH-M8X1.25ISO6HX-BC-S003	10001077	M8	1,25	–	8,0 *0.315*	20,5 *0.807*	20,5 *0.807*	86,87 *3.420*	6,8 *0.268*	8.00X6.20	3	DIN371	6HX	C
MTH-M10X1.50ISO6HX-BC-S003	10001078	M10	1,5	–	10,0 *0.394*	25,5 *1.004*	25,5 *1.004*	96,25 *3.789*	8,6 *0.339*	10.00X8.00	3	DIN371	6HX	C

MTH-S004

Blind holes – Metric coarse threads





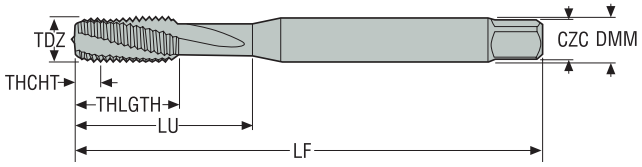
- Substrate: HSS-E-PM
- Coating: TiN
- For cutting data see page(s) 272, 274

Designation	Item number	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*					
MTH-M12X1.75ISO6HX-BC-S004	10001079	M12	1,75	–	12,0 *0.472*	30,5 *1.201*	30,5 *1.201*	105,09 *4.137*	10,4 *0.409*	12.00X9.00	4	DIN371	6HX	C
MTH-M16X2.00ISO6HX-BC-S004	10001080	M16	2,0	–	16,0 *0.630*	39,5 *1.555*	39,5 *1.555*	104,4 *4.110*	14,1 *0.555*	16.00X12.00	4	DIN371	6HX	C

MTH-S011

Blind holes – MF threads



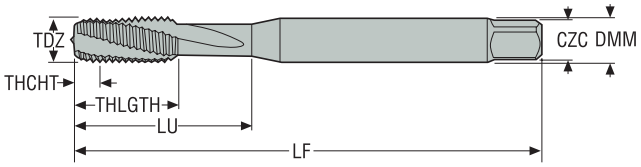


- Substrate: HSS-E-PM
- For cutting data see page(s) 272, 274

Designation	Item number	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*					
MTH-M8X1.00ISO6HX-BC-S011	10001082	MF8X1.0	1,0	–	8,0 *0.315*	20,0 *0.787*	20,0 *0.787*	87,5 *3.445*	7,0 *0.276*	8.00X6.20	3	DIN371	6HX	C
MTH-M10X1.00ISO6HX-BC-S011	10001083	MF10X1.0	1,0	–	10,0 *0.394*	24,0 *0.945*	24,0 *0.945*	87,5 *3.445*	9,0 *0.354*	10.00X8.00	3	DIN371	6HX	C
MTH-M10X1.25ISO6HX-BC-S011	10001084	MF10X1.25	1,25	–	10,0 *0.394*	24,5 *0.965*	24,5 *0.965*	96,87 *3.814*	8,75 *0.344*	10.00X8.00	3	DIN371	6HX	C
MTH-M12X1.25ISO6HX-BC-S011	10001085	MF12X1.25	1,25	–	12,0 *0.472*	28,5 *1.122*	28,5 *1.122*	96,49 *3.799*	10,75 *0.423*	12.00X9.00	4	DIN371	6HX	C
MTH-M12X1.50ISO6HX-BC-S011	10001086	MF12X1.5	1,5	–	12,0 *0.472*	29,5 *1.161*	29,5 *1.161*	95,8 *3.772*	10,5 *0.413*	12.00X9.00	4	DIN371	6HX	C

MTH-S012

Blind holes – MJ threads





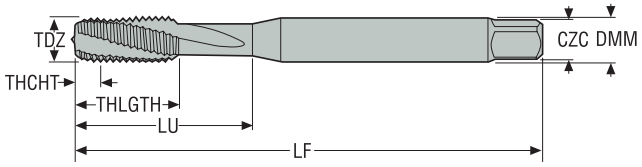
- Substrate: HSS-E-PM
- For cutting data see page(s) 272, 274

Designation	Item number	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*					
MTH-MJ3X0.50ISO4H-BC-S012	10001069	MJ3X0.5	0,5	–	3,5 *0.138*	8,0 *0.315*	8,0 *0.315*	54,75 *2.156*	2,6 *0.102*	3.50X2.70	3	DIN371	4H	C
MTH-MJ4X0.70ISO4H-BC-S012	10001070	MJ4X0.7	0,7	–	4,5 *0.177*	10,5 *0.413*	10,5 *0.413*	61,25 *2.411*	3,4 *0.134*	4.50X3.40	3	DIN371	4H	C
MTH-MJ5X0.80ISO4H-BC-S012	10001071	MJ5X0.8	0,8	–	6,0 *0.236*	13,0 *0.512*	13,0 *0.512*	68,0 *2.677*	4,3 *0.169*	6.00X4.90	3	DIN371	4H	C
MTH-MJ6X1.00ISO4H-BC-S012	10001072	MJ6X1	1,0	–	6,0 *0.236*	15,5 *0.610*	15,5 *0.610*	77,5 *3.051*	5,1 *0.201*	6.00X4.90	3	DIN371	4H	C

MTH-S031

Blind holes – UNC threads



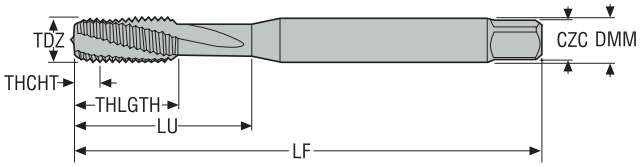


- Substrate: HSS-E-PM
- For cutting data see page(s) 272, 274

Designation	Item number	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*					
MTH-2-56UNC2B-BC-S031	10001113	UNC2-56	–	56.0	2,8 *0.110*	9,0 *0.354*	9,0 *0.354*	43,87 *1.727*	1,85 *0.073*	2.80X2.10	3	DIN2184-1	2B	C
MTH-3-48UNC2B-BC-S031	10001114	UNC3-48	–	48.0	2,8 *0.110*	9,0 *0.354*	9,0 *0.354*	48,68 *1.917*	2,1 *0.083*	2.80X2.10	3	DIN2184-1	2B	C
MTH-4-40UNC2B-BC-S031	10001115	UNC4-40	–	40.0	3,5 *0.138*	10,0 *0.394*	10,0 *0.394*	54,41 *2.142*	2,35 *0.093*	3.50X2.70	3	DIN2184-1	2B	C
MTH-6-32UNC2B-BC-S031	10001116	UNC6-32	–	32.0	4,0 *0.157*	12,0 *0.472*	12,0 *0.472*	54,02 *2.127*	2,85 *0.112*	4.00X3.00	3	DIN2184-1	2B	C
MTH-8-32UNC2B-BC-S031	10001117	UNC8-32	–	32.0	4,5 *0.177*	13,0 *0.512*	13,0 *0.512*	61,02 *2.402*	3,5 *0.138*	4.50X3.40	3	DIN2184-1	2B	C
MTH-10-24UNC2B-BC-S031	10001119	UNC10-24	–	24.0	6,0 *0.236*	16,0 *0.630*	16,0 *0.630*	67,35 *2.652*	3,9 *0.154*	6.00X4.90	3	DIN2184-1	2B	C
MTH-1/4-20UNC2B-BC-S031	10001120	UNC1/4-20	–	20.0	7,0 *0.276*	15,0 *0.591*	15,0 *0.591*	76,44 *3.009*	5,1 *0.201*	7.00X5.50	3	DIN2184-1	2B	C
MTH-5/16-18UNC2B-BC-S031	10001122	UNC5/16-18	–	18.0	8,0 *0.315*	18,0 *0.709*	18,0 *0.709*	86,05 *3.388*	6,6 *0.260*	8.00X6.20	3	DIN2184-1	2B	C
MTH-3/8-16UNC2B-BC-S031	10001121	UNC3/8-16	–	16.0	10,0 *0.394*	20,0 *0.787*	20,0 *0.787*	95,55 *3.762*	8,0 *0.315*	10.00X8.00	4	DIN2184-1	2B	C

MTH-S032

Blind holes – UNJC threads





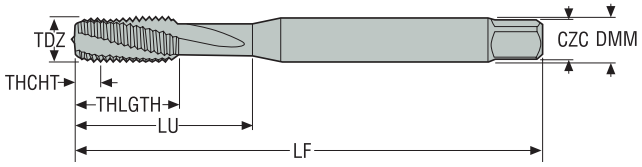
- Substrate: HSS-E-PM
- For cutting data see page(s) 272, 274

Designation	Item number	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*					
MTH-4-40UNJC3B-BC-S032	10001087	UNJC4-40	–	40.0	3,5 *0.138*	8,0 *0.315*	8,0 *0.315*	54,41 *2.142*	2,3 *0.091*	3.50X2.70	3	DIN2184-1	3B	C
MTH-6-32UNJC3B-BC-S032	10001088	UNJC6-32	–	32.0	4,0 *0.157*	10,0 *0.394*	10,0 *0.394*	54,02 *2.127*	2,8 *0.110*	4.00X3.00	3	DIN2184-1	3B	C
MTH-8-32UNJC3B-BC-S032	10001089	UNJC8-32	–	32.0	4,5 *0.177*	11,0 *0.433*	11,0 *0.433*	61,02 *2.402*	3,5 *0.138*	4.50X3.40	3	DIN2184-1	3B	C
MTH-10-24UNJC3B-BC-S032	10001090	UNJC10-24	–	24.0	6,0 *0.236*	13,5 *0.531*	13,5 *0.531*	67,35 *2.652*	3,9 *0.154*	6.00X4.90	3	DIN2184-1	3B	C
MTH-1/4-20UNJC3B-BC-S032	10001091	UNJC1/4-20	–	20.0	7,0 *0.276*	17,5 *0.689*	17,5 *0.689*	76,82 *3.024*	5,2 *0.205*	7.00X5.50	3	DIN2184-1	3B	C
MTH-5/16-18UNJC3B-BC-S032	10001093	UNJC5/16-18	–	18.0	8,0 *0.315*	21,0 *0.827*	21,0 *0.827*	86,47 *3.404*	6,7 *0.264*	8.00X6.20	3	DIN2184-1	3B	C
MTH-3/8-16UNJC3B-BC-S032	10001092	UNJC3/8-16	–	16.0	10,0 *0.394*	25,0 *0.984*	25,0 *0.984*	96,03 *3.781*	8,1 *0.319*	10.00X8.00	3	DIN2184-1	3B	C

MTH-S041

Blind holes – UNF threads



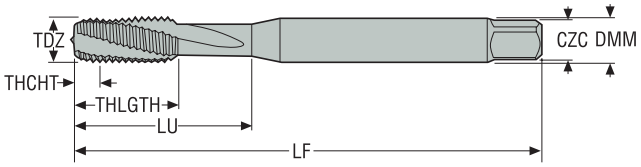


- Substrate: HSS-E-PM
- For cutting data see page(s) 274, 276

Designation	Item number	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*					
MTH-6-40UNF3B-BC-S041	10001123	UNF6-40	–	40.0	4,0 *0.157*	12,0 *0.472*	12,0 *0.472*	54,41 *2.142*	2,95 *0.116*	4.00X3.00	3	DIN2184-1	3B	C
MTH-8-36UNF3B-BC-S041	10001126	UNF8-36	–	36.0	4,5 *0.177*	13,0 *0.512*	13,0 *0.512*	61,24 *2.411*	3,5 *0.138*	4.50X3.40	3	DIN2184-1	3B	C
MTH-10-32UNF3B-BC-S041	10001127	UNF10-32	–	32.0	6,0 *0.236*	16,0 *0.630*	16,0 *0.630*	68,02 *2.678*	4,1 *0.161*	6.00X4.90	3	DIN2184-1	3B	C
MTH-12-28UNF3B-BC-S041	10001129	UNF12-28	–	28.0	6,0 *0.236*	15,0 *0.591*	15,0 *0.591*	77,46 *3.050*	4,6 *0.181*	6.00X4.90	3	DIN2184-1	3B	C
MTH-1/4-28UNF3B-BC-S041	10001130	UNF1/4-28	–	28.0	7,0 *0.276*	25,0 *0.984*	15,0 *0.591*	77,46 *3.050*	5,5 *0.217*	7.00X5.50	3	DIN2184-1	3B	C
MTH-5/16-24UNF3B-BC-S041	10001133	UNF5/16-24	–	24.0	8,0 *0.315*	29,5 *1.161*	18,0 *0.709*	87,03 *3.426*	6,9 *0.272*	8.00X6.20	3	DIN2184-1	3B	C
MTH-3/8-24UNF3B-BC-S041	10001131	UNF3/8-24	–	24.0	10,0 *0.394*	33,5 *1.319*	20,0 *0.787*	97,03 *3.820*	8,5 *0.335*	10.00X8.00	4	DIN2184-1	3B	C

MTH-S042

Blind holes – UNJF threads





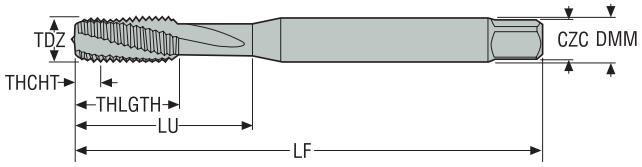
- Substrate: HSS-E-PM
- For cutting data see page(s) 274, 276

Designation	Item number	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*					
MTH-6-40UNJF3B-BC-S042	10001094	UNJF6-40	–	40.0	4,0 *0.157*	9,5 *0.374*	9,5 *0.374*	54,41 *2.142*	2,95 *0.116*	4.00X3.00	3	DIN2184-1	3B	C
MTH-8-36UNJF3B-BC-S042	10001095	UNJF8-36	–	36.0	4,5 *0.177*	11,0 *0.433*	11,0 *0.433*	61,24 *2.411*	3,6 *0.142*	4.50X3.40	3	DIN2184-1	3B	C
MTH-10-32UNJF3B-BC-S042	10001097	UNJF10-32	–	32.0	6,0 *0.236*	12,5 *0.492*	12,5 *0.492*	68,02 *2.678*	4,15 *0.163*	6.00X4.90	3	DIN2184-1	3B	C
MTH-1/4-28UNJF3B-BC-S042	10001098	UNJF1/4-28	–	28.0	7,0 *0.276*	16,0 *0.630*	16,0 *0.630*	77,73 *3.060*	5,6 *0.220*	7.00X5.50	3	DIN2184-1	3B	C
MTH-5/16-24UNJF3B-BC-S042	10001100	UNJF5/16-24	–	24.0	8,0 *0.315*	20,0 *0.787*	20,0 *0.787*	87,35 *3.439*	7,0 *0.276*	8.00X6.20	3	DIN2184-1	3B	C
MTH-3/8-24UNJF3B-BC-S042	10001099	UNJF3/8-24	–	24.0	10,0 *0.394*	23,0 *0.906*	23,0 *0.906*	97,35 *3.833*	8,6 *0.339*	10.00X8.00	3	DIN2184-1	3B	C

MTH-S043

Blind holes – EGUNF threads



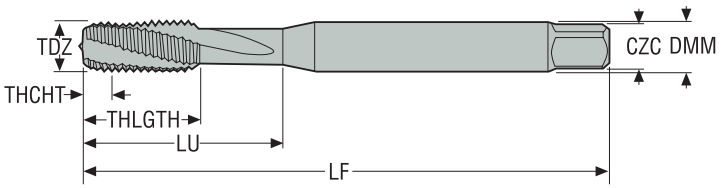


- Substrate: HSS-E-PM
- Coating: AlCrN
- For cutting data see page(s) 274, 276

Designation	Item number	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	TPI	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*					
MTH-10-32EGUNF3B-BC-S043 *MTH-10-32STIUNF3B-BC-S043*	10001199	EGUNF10-32	–	32.0	6,0 *0.236*	23 *0.906*	15,0 *0.591*	77,8 *3.062*	5,1 *0.201*	6.00X4.90	3	DIN2184-1	3B	C
MTH-1/4-28EGUNF3B-BC-S043 *MTH-1/4-28STIUNF3B-BC-S043*	10001200	EGUNF1/4-28	–	28.0	8,0 *0.315*	30 *1.161*	18,0 *0.709*	87,5 *3.443*	6,6 *0.260*	8.00X6.20	3	DIN2184-1	3B	C
MTH-5/16-24EGUNF3B-BC-S043 *MTH-5/16-24STIUNF3B-BC-S043*	10001201	EGUNF5/16-24	–	24.0	10,0 *0.394*	34 *1.319*	20,0 *0.787*	97,0 *3.820*	8,2 *0.323*	10.00X8.00	3	DIN2184-1	3B	C
MTH-3/8-24EGUNF3B-BC-S043 *MTH-3/8-24STIUNF3B-BC-S043*	10001202	EGUNF3/8-24	–	24.0	8,0 *0.315*	76 *2.992*	20,0 *0.787*	97,0 *3.820*	9,8 *0.386*	8.00X6.20	4	DIN2184-1	3B	C

MTH-S044

Blind holes – EGUNF threads





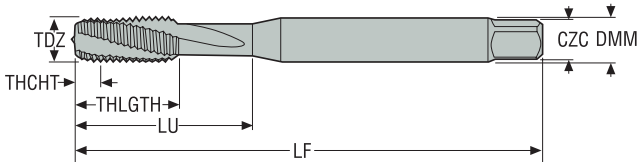
- Substrate: HSS-E-PM
- For cutting data see page(s) 274, 276

Designation	Item number	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	TPI	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*					
MTH-10-32EGUNF3B-BC-S044 *MTH-10-32STIUNF3B-BC-S044*	10001101	EGUNF10-32	–	32.0	6,0 *0.236*	15 *0.591*	15,0 *0.591*	78,0 *3.072*	5,1 *0.201*	6.00X4.90	3	DIN2184-1	3B	C
MTH-1/4-28EGUNF3B-BC-S044 *MTH-1/4-28STIUNF3B-BC-S044*	10001102	EGUNF1/4-28	–	28.0	8,0 *0.315*	18 *0.709*	18,0 *0.709*	87,7 *3.454*	6,6 *0.260*	8.00X6.20	3	DIN2184-1	3B	C
MTH-3/8-24EGUNF3B-BC-S044 *MTH-3/8-24STIUNF3B-BC-S044*	10001103	EGUNF3/8-24	–	24.0	11,0 *0.433*	20 *0.787*	20,0 *0.787*	87,0 *3.426*	9,8 *0.386*	11.00X9.00	4	DIN2184-1	3B	C
MTH-5/16-24EGUNF3B-BC-S044 *MTH-5/16-24STIUNF3B-BC-S044*	10001104	EGUNF5/16-24	–	24.0	10,0 *0.394*	20 *0.787*	20,0 *0.787*	87,4 *3.439*	8,2 *0.323*	10.00X8.00	3	DIN2184-1	3B	C

MTH-S101

Blind holes – Metric coarse threads



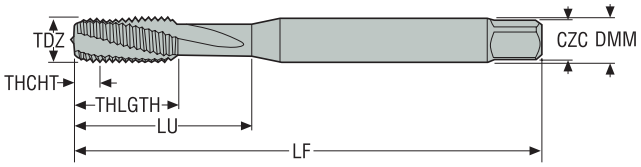


- Substrate: HSS-E-PM
- Coating: AlCrN
- For cutting data see page(s) 274, 276

Designation	Item number	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*					
MTH-M2X0.40ISO6HX-BC-S101	10001134	M2	0,4	–	2,8 *0.110*	8,0 *0.315*	8,0 *0.315*	44,0 *1.732*	1,6 *0.063*	2.80X2.10	3	DIN371	6HX	C
MTH-M2.5X0.45ISO6HX-BC-S101	10001135	M2.5	0,45	–	2,8 *0.110*	9,0 *0.354*	9,0 *0.354*	48,87 *1.924*	2,1 *0.083*	2.80X2.10	3	DIN371	6HX	C
MTH-M3X0.50ISO6HX-BC-S101	10001136	M3	0,5	–	3,5 *0.138*	10,0 *0.394*	10,0 *0.394*	54,75 *2.156*	2,5 *0.098*	3.50X2.70	3	DIN371	6HX	C
MTH-M3.5X0.60ISO6HX-BC-S101	10001137	M3.5	0,6	–	4,0 *0.157*	12,0 *0.472*	12,0 *0.472*	54,5 *2.146*	2,9 *0.114*	4.00X3.00	3	DIN371	6HX	C
MTH-M4X0.70ISO6HX-BC-S101	10001138	M4	0,7	–	4,5 *0.177*	13,0 *0.512*	13,0 *0.512*	61,25 *2.411*	3,4 *0.134*	4.50X3.40	3	DIN371	6HX	C
MTH-M5X0.80ISO6HX-BC-S101	10001139	M5	0,8	–	6,0 *0.236*	16,0 *0.630*	16,0 *0.630*	68,0 *2.677*	4,3 *0.169*	6.00X4.90	3	DIN371	6HX	C
MTH-M6X1.00ISO6HX-BC-S101	10001140	M6	1,0	–	6,0 *0.236*	23,0 *0.906*	15,0 *0.591*	77,2 *3.039*	5,1 *0.201*	6.00X4.90	3	DIN371	6HX	C
MTH-M8X1.25ISO6HX-BC-S101	10001141	M8	1,25	–	8,0 *0.315*	29,5 *1.161*	18,0 *0.709*	86,49 *3.405*	6,8 *0.268*	8.00X6.20	3	DIN371	6HX	C
MTH-M10X1.50ISO6HX-BC-S101	10001142	M10	1,5	–	10,0 *0.394*	33,5 *1.319*	20,0 *0.787*	95,8 *3.772*	8,6 *0.339*	10.00X8.00	3	DIN371	6HX	C

MTH-S102

Blind holes – Metric coarse threads





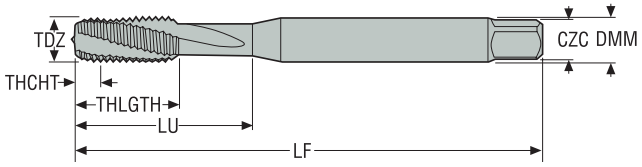
- Substrate: HSS-E-PM
- Coating: AlCrN
- For cutting data see page(s) 274, 276

Designation	Item number	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*					
MTH-M12X1.75ISO6HX-BC-S102	10001143	M12	1,75	–	9,0 *0.354*	83,0 *3.268*	23,0 *0.906*	105,09 *4.137*	10,4 *0.409*	9.00X7.00	4	DIN376	6HX	C
MTH-M16X2.00ISO6HX-BC-S102	10001145	M16	2,0	–	12,0 *0.472*	68,0 *2.677*	25,0 *0.984*	104,4 *4.110*	14,1 *0.555*	12.00X9.00	4	DIN376	6HX	C
MTH-M20X2.50ISO6HX-BC-S102	10001146	M20	2,5	–	16,0 *0.630*	95,0 *3.740*	30,0 *1.181*	133,0 *5.236*	17,7 *0.697*	16.00X12.00	4	DIN376	6HX	C

MTH-S111

Blind holes – MF threads



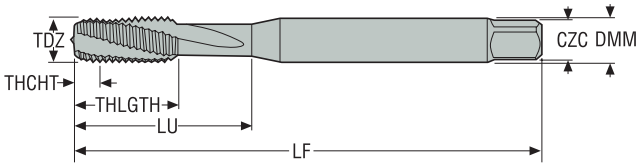


- Substrate: HSS-E-PM
- Coating: AlCrN
- For cutting data see page(s) 274, 276

Designation	Item number	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*					
MTH-M6X0.75ISO6HX-BC-S111	10001147	MF6X0.75	0,75	–	6,0 *0.236*	23,0 *0.906*	15,0 *0.591*	77,89 *3.067*	5,25 *0.207*	6.00X4.90	3	DIN371	6HX	C
MTH-M8X0.75ISO6HX-BC-S111	10001148	MF8X0.75	0,75	–	8,0 *0.315*	29,5 *1.161*	18,0 *0.709*	87,89 *3.460*	7,25 *0.285*	8.00X6.20	3	DIN371	6HX	C
MTH-M8X1.00ISO6HX-BC-S111	10001149	MF8X1.0	1,0	–	8,0 *0.315*	29,5 *1.161*	18,0 *0.709*	87,2 *3.433*	7,0 *0.276*	8.00X6.20	3	DIN371	6HX	C
MTH-M10X1.00ISO6HX-BC-S111	10001150	MF10X1.0	1,0	–	10,0 *0.394*	33,5 *1.319*	20,0 *0.787*	97,2 *3.827*	9,0 *0.354*	10.00X8.00	3	DIN371	6HX	C
MTH-M12X1.50ISO6HX-BC-S111	10001151	MF12X1.5	1,5	–	9,0 *0.354*	73,0 *2.874*	21,0 *0.827*	95,8 *3.772*	10,5 *0.413*	9.00X7.00	4	DIN374	6HX	C
MTH-M14X1.50ISO6HX-BC-S111	10001152	MF14X1.5	1,5	–	11,0 *0.433*	71,0 *2.795*	21,0 *0.827*	95,8 *3.772*	12,5 *0.492*	11.00X9.00	4	DIN374	6HX	C

MTH-S112

Blind holes – MJ threads





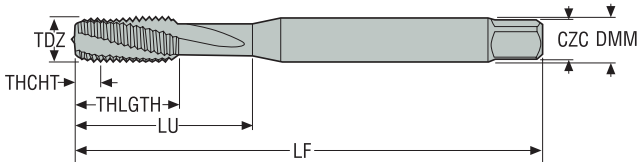
- Substrate: HSS-E-PM
- Coating: AlCrN
- For cutting data see page(s) 274, 276

Designation	Item number	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*					
MTH-MJ3X0.50ISO4H-BC-S112	10001203	MJ3X0.5	0,5	–	3,5 *0.138*	10,0 *0.394*	10,0 *0.394*	54,75 *2.156*	2,6 *0.102*	3.50X2.70	3	DIN371	4H	C
MTH-MJ4X0.70ISO4H-BC-S112	10001204	MJ4X0.7	0,7	–	4,5 *0.177*	13,0 *0.512*	13,0 *0.512*	61,25 *2.411*	3,4 *0.134*	4.50X3.40	3	DIN371	4H	C
MTH-MJ5X0.80ISO4H-BC-S112	10001205	MJ5X0.8	0,8	–	6,0 *0.236*	16,0 *0.630*	16,0 *0.630*	68,0 *2.677*	4,3 *0.169*	6.00X4.90	3	DIN371	4H	C
MTH-MJ6X1.00ISO4H-BC-S112	10001206	MJ6X1	1,0	–	6,0 *0.236*	23,0 *0.906*	15,0 *0.591*	77,2 *3.039*	5,1 *0.201*	6.00X4.90	3	DIN371	4H	C
MTH-MJ8X1.25ISO4H-BC-S112	10001207	MJ8X1.25	1,25	–	8,0 *0.315*	29,5 *1.161*	18,0 *0.709*	86,49 *3.405*	6,9 *0.272*	8.00X6.20	3	DIN371	4H	C
MTH-MJ10X1.5ISO4H-BC-S112	10001208	MJ10X1.5	1,5	–	10,0 *0.394*	33,5 *1.319*	20,0 *0.787*	95,8 *3.772*	8,7 *0.343*	10.00X8.00	3	DIN371	4H	C

MTH-S142

Blind holes – UNJF threads



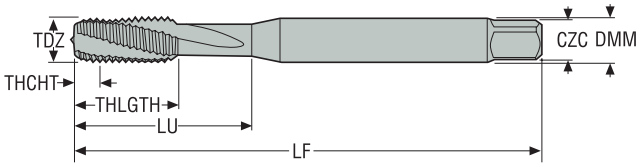


- Substrate: HSS-E-PM
- Coating: AlCrN
- For cutting data see page(s) 274, 276

Designation	Item number	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*					
MTH-10-32UNJF3B-BC-S142	10001153	UNJF10-32	–	32.0	6,0 *0.236*	16,0 *0.630*	16,0 *0.630*	68,02 *2.678*	4,15 *0.163*	6.00X4.90	3	DIN2184-1	3B	C
MTH-1/4-28UNJF3B-BC-S142	10001154	UNJF1/4-28	–	28.0	7,0 *0.276*	25,0 *0.984*	15,0 *0.591*	77,73 *3.060*	5,6 *0.220*	7.00X5.50	3	DIN2184-1	3B	C
MTH-5/16-24UNJF3B-BC-S142	10001155	UNJF5/16-24	–	24.0	8,0 *0.315*	29,5 *1.161*	18,0 *0.709*	87,03 *3.426*	7,0 *0.276*	8.00X6.20	3	DIN2184-1	3B	C
MTH-3/8-24UNJF3B-BC-S142	10001156	UNJF3/8-24	–	24.0	10,0 *0.394*	33,5 *1.319*	20,0 *0.787*	97,03 *3.820*	8,6 *0.339*	10.00X8.00	3	DIN2184-1	3B	C

MTH-V015

Blind holes – Metric coarse threads





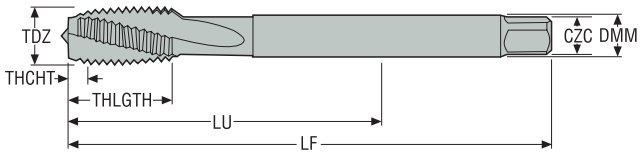
- Substrate: HSS-E
- Coating: TiN
- For cutting data see page(s) 280, 282

Designation	Item number	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*					
MTH-M3X0.50ISO6H-BC-V015	03019188	M3	0,5	–	3,5 *0.138*	18,0 *0.709*	9,0 *0.354*	54,625 *2.151*	2,5 *0.098*	3.50X2.70	3	DIN371	6H	C
MTH-M4X0.70ISO6H-BC-V015	03019189	M4	0,7	–	4,5 *0.177*	21,0 *0.827*	11,0 *0.433*	61,075 *2.405*	3,4 *0.134*	4.50X3.40	3	DIN371	6H	C
MTH-M5X0.80ISO6H-BC-V015	03019190	M5	0,8	–	6,0 *0.236*	25,0 *0.984*	13,0 *0.512*	67,8 *2.669*	4,3 *0.169*	6.00X4.90	3	DIN371	6H	C
MTH-M6X1.00ISO6H-BC-V015	03019191	M6	1,0	–	6,0 *0.236*	30,0 *1.181*	15,0 *0.591*	77,25 *3.041*	5,1 *0.201*	6.00X4.90	3	DIN371	6H	C
MTH-M8X1.25ISO6H-BC-V015	03019193	M8	1,25	–	8,0 *0.315*	35,0 *1.378*	18,0 *0.709*	86,5625 *3.408*	6,8 *0.268*	8.00X6.20	3	DIN371	6H	C
MTH-M10X1.50ISO6H-BC-V015	03019194	M10	1,5	–	10,0 *0.394*	39,0 *1.535*	20,0 *0.787*	95,875 *3.775*	8,6 *0.339*	10.00X8.00	3	DIN371	6H	C

MTH-V016

Blind holes – Metric coarse threads



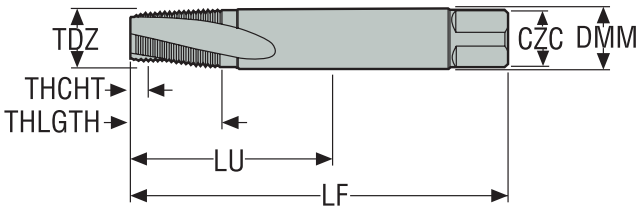


- Substrate: HSS-E
- Coating: TiN
- For cutting data see page(s) 280, 282

Designation	Item number	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*					
MTH-M12X1.75ISO6H-BC-V016	03019195	M12	1,75	–	9,0 *0.354*	83,0 *3.268*	23,0 *0.906*	105,1875 *4.141*	10,4 *0.409*	9.00X7.00	3	DIN376	6H	C
MTH-M14X2.00ISO6H-BC-V016	03019196	M14	2,0	–	11,0 *0.433*	81,0 *3.189*	25,0 *0.984*	104,5 *4.114*	12,1 *0.476*	11.00X9.00	3	DIN376	6H	C
MTH-M16X2.00ISO6H-BC-V016	03019197	M16	2,0	–	12,0 *0.472*	68,0 *2.677*	25,0 *0.984*	104,5 *4.114*	14,1 *0.555*	12.00X9.00	3	DIN376	6H	C
MTH-M18X2.50ISO6H-BC-V016	03019198	M18	2,5	–	14,0 *0.551*	81,0 *3.189*	30,0 *1.181*	118,125 *4.651*	15,7 *0.618*	14.00X11.00	3	DIN376	6H	C
MTH-M20X2.50ISO6H-BC-V016	03019199	M20	2,5	–	16,0 *0.630*	95,0 *3.740*	30,0 *1.181*	133,125 *5.241*	17,7 *0.697*	16.00X12.00	3	DIN376	6H	C
MTH-M22X2.50ISO6H-BC-V016	03019200	M22	2,5	–	18,0 *0.709*	93,0 *3.661*	34,0 *1.339*	133,125 *5.241*	19,7 *0.776*	18.00X14.50	4	DIN376	6H	C
MTH-M24X3.00ISO6H-BC-V016	03019201	M24	3,0	–	18,0 *0.709*	113,0 *4.449*	38,0 *1.496*	151,75 *5.974*	21,0 *0.827*	18.00X14.50	4	DIN376	6H	C
MTH-M27X3.00ISO6H-BC-V016	03019202	M27	3,0	–	20,0 *0.787*	97,0 *3.819*	38,0 *1.496*	151,75 *5.974*	24,0 *0.945*	20.00X16.00	4	DIN376	6H	C
MTH-M30X3.50ISO6H-BC-V016	03019203	M30	3,5	–	22,0 *0.866*	115,0 *4.528*	45,0 *1.772*	171,79 *6.763*	26,5 *1.043*	22.00X18.00	4	DIN376	6H	C
MTH-M33X3.50ISO6H-BC-V016	03019204	M33	3,5	–	25,0 *0.984*	113,0 *4.449*	50,0 *1.969*	171,79 *6.763*	29,5 *1.161*	25.00X20.00	4	DIN376	6H	C
MTH-M36X4.00ISO6H-BC-V016	03019205	M36	4,0	–	28,0 *1.102*	131,0 *5.157*	55,0 *2.165*	190,7 *7.508*	32,0 *1.260*	28.00X22.00	4	DIN376	6H	C

MTH-V048

Blind holes – NPT threads





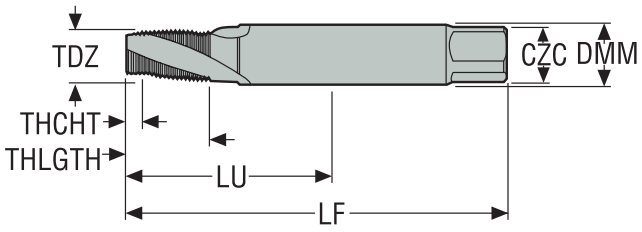
- Substrate: HSS-E
- Vaporised
- For cutting data see page(s) 282, 284

Designation	Item number	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*					
MTH-1/16-27NPT-XC-V048	02880750	NPT1/16-27	–	27.0	7,95 *0.313*	56,0 *2.205*	14,0 *0.551*	80,0 *3.150*	6,15 *0.242*	7.95X5.94	3	DIN/ANSI	NORMAL	C
MTH-1/8-27NPT-XC-V048	02880751	NPT1/8-27	–	27.0	11,1 *0.437*	64,0 *2.520*	14,0 *0.551*	90,0 *3.543*	8,4 *0.331*	11.10X8.33	4	DIN/ANSI	NORMAL	C
MTH-1/4-18NPT-XC-V048	02880752	NPT1/4-18	–	18.0	14,27 *0.562*	59,0 *2.323*	20,0 *0.787*	100,0 *3.937*	11,1 *0.437*	14.27X10.69	4	DIN/ANSI	NORMAL	C
MTH-3/8-18NPT-XC-V048	02880753	NPT3/8-18	–	18.0	17,78 *0.700*	67,0 *2.638*	20,0 *0.787*	110,0 *4.331*	14,3 *0.563*	17.78X13.49	5	DIN/ANSI	NORMAL	C
MTH-1/2-14NPT-XC-V048	02880754	NPT1/2-14	–	14.0	17,45 *0.687*	79,0 *3.110*	26,0 *1.024*	125,0 *4.921*	17,9 *0.705*	17.45X13.08	5	DIN/ANSI	NORMAL	C
MTH-3/4-14NPT-XC-V048	02880755	NPT3/4-14	–	14.0	23,01 *0.906*	78,0 *3.071*	26,0 *1.024*	140,0 *5.512*	23,2 *0.913*	23.01X17.25	5	DIN/ANSI	NORMAL	C
MTH-1-11.5NPT-XC-V048	02880756	NPT1-11.5	–	11.5	28,58 *1.125*	58,0 *2.283*	31,0 *1.220*	150,0 *5.906*	29,0 *1.142*	28.58X21.41	5	DIN/ANSI	NORMAL	C

MTH-V050

Blind holes – NPTF threads



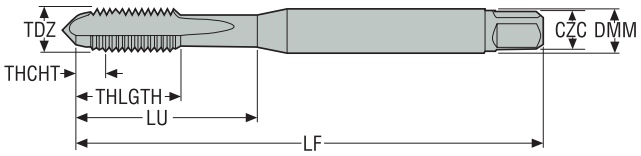


- Substrate: HSS-E
- Vaporised
- For cutting data see page(s) 282, 284

Designation	Item number	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*					
MTH-1/16-27NPTF-XC-V050	02880757	NPTF1/16-27	–	27.0	7,95 *0.313*	56,0 *2.205*	14,0 *0.551*	80,0 *3.150*	6,1 *0.240*	7.95X5.94	3	DIN/ANSI	NORMAL	C
MTH-1/8-27NPTF-XC-V050	02880758	NPTF1/8-27	–	27.0	11,1 *0.437*	64,0 *2.520*	14,0 *0.551*	90,0 *3.543*	8,4 *0.331*	11.10X8.33	4	DIN/ANSI	NORMAL	C
MTH-1/4-18NPTF-XC-V050	02880759	NPTF1/4-18	–	18.0	14,27 *0.562*	59,0 *2.323*	20,0 *0.787*	100,0 *3.937*	11,0 *0.433*	14.27X10.69	4	DIN/ANSI	NORMAL	C
MTH-3/8-18NPTF-XC-V050	02880760	NPTF3/8-18	–	18.0	17,78 *0.700*	67,0 *2.638*	20,0 *0.787*	110,0 *4.331*	14,3 *0.563*	17.78X13.49	5	DIN/ANSI	NORMAL	C
MTH-1/2-14NPTF-XC-V050	02880761	NPTF1/2-14	–	14.0	17,45 *0.687*	79,0 *3.110*	26,0 *1.024*	125,0 *4.921*	17,6 *0.693*	17.45X13.08	5	DIN/ANSI	NORMAL	C
MTH-3/4-14NPTF-XC-V050	02880762	NPTF3/4-14	–	14.0	23,01 *0.906*	78,0 *3.071*	26,0 *1.024*	140,0 *5.512*	23,0 *0.906*	23X17.25	5	DIN/ANSI	NORMAL	C

MTS-K101

Blind and through holes – Metric coarse threads





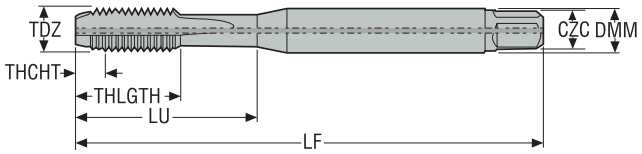
- Substrate: HSS-E-PM
- Coating: TiAlN
- For cutting data see page(s) 278, 280

Designation	Item number	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*					
MTS-M3X0.50ISO6HX-XC-K101	03305497	M3	0,5	–	3,5 *0.138*	18,0 *0.709*	9,0 *0.354*	54,63 *2.151*	2,5 *0.098*	3.50X2.70	4	DIN371	6HX	C
MTS-M4X0.70ISO6HX-XC-K101	03305498	M4	0,7	–	4,5 *0.177*	21,0 *0.827*	12,0 *0.472*	61,08 *2.405*	3,4 *0.134*	4.50X3.40	4	DIN371	6HX	C
MTS-M5X0.80ISO6HX-XC-K101	03305499	M5	0,8	–	6,0 *0.236*	25,0 *0.984*	13,0 *0.512*	67,80 *2.669*	4,3 *0.169*	6.00X4.90	5	DIN371	6HX	C
MTS-M6X1.00ISO6HX-XC-K101	03305500	M6	1,0	–	6,0 *0.236*	30,0 *1.181*	15,0 *0.591*	77,25 *3.041*	5,1 *0.201*	6.00X4.90	5	DIN371	6HX	C
MTS-M8X1.25ISO6HX-XC-K101	03305501	M8	1,25	–	8,0 *0.315*	35,0 *1.378*	18,0 *0.709*	86,56 *3.408*	6,8 *0.268*	8.00X6.20	5	DIN371	6HX	C
MTS-M10X1.50ISO6HX-XC-K101	03305502	M10	1,5	–	10,0 *0.394*	39,0 *1.535*	20,0 *0.787*	95,88 *3.775*	8,6 *0.339*	10.00X8.00	5	DIN371	6HX	C

MTS-K101-A

Blind and through holes – Metric coarse threads



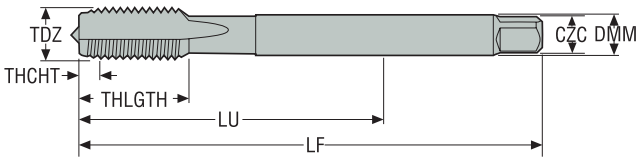


- Internal coolant
- Substrate: HSS-E-PM
- Coating: TiAlN
- For cutting data see page(s) 278, 280

Designation	Item number	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*					
MTS-M4X0.70ISO6HX-XC-K101-A	03305448	M4	0,7	–	4,5 *0.177*	21,0 *0.827*	12,0 *0.472*	61,07 *2.404*	3,4 *0.134*	4.50X3.40	4	DIN371	6HX	C
MTS-M5X0.80ISO6HX-XC-K101-A	03305450	M5	0,8	–	6,0 *0.236*	25,0 *0.984*	13,0 *0.512*	67,80 *2.669*	4,3 *0.169*	6.00X4.90	5	DIN371	6HX	C
MTS-M5X0.80ISO6HX-XE-K101-A	03305460	M5	0,8	–	6,0 *0.236*	25,0 *0.984*	13,0 *0.512*	67,80 *2.669*	4,3 *0.169*	6.00X4.90	5	DIN371	6HX	E
MTS-M6X1.00ISO6HX-XC-K101-A	03305451	M6	1,0	–	6,0 *0.236*	30,0 *1.181*	15,0 *0.591*	77,25 *3.041*	5,1 *0.201*	6.00X4.90	5	DIN371	6HX	C
MTS-M6X1.00ISO6HX-XE-K101-A	03305461	M6	1,0	–	6,0 *0.236*	30,0 *1.181*	15,0 *0.591*	78,25 *3.081*	5,1 *0.201*	6.00X4.90	5	DIN371	6HX	E
MTS-M8X1.25ISO6HX-XC-K101-A	03305452	M8	1,25	–	8,0 *0.315*	35,0 *1.378*	18,0 *0.709*	86,56 *3.408*	6,8 *0.268*	8.00X6.20	5	DIN371	6HX	C
MTS-M8X1.25ISO6HX-XE-K101-A	03305462	M8	1,25	–	8,0 *0.315*	35,0 *1.378*	18,0 *0.709*	87,81 *3.457*	6,8 *0.268*	8.00X6.20	5	DIN371	6HX	E
MTS-M10X1.50ISO6HX-XC-K101-A	03305453	M10	1,5	–	10,0 *0.394*	39,0 *1.535*	20,0 *0.787*	95,88 *3.775*	8,6 *0.339*	10.00X8.00	5	DIN371	6HX	C
MTS-M10X1.50ISO6HX-XE-K101-A	03305463	M10	1,5	–	10,0 *0.394*	39,0 *1.535*	20,0 *0.787*	97,38 *3.834*	8,6 *0.339*	10.00X8.00	5	DIN371	6HX	E

MTS-K002

Blind and through holes – Metric coarse threads





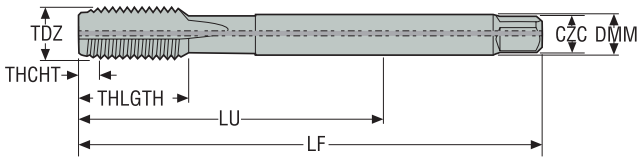
- Substrate: HSS-E-PM
- Coating: TiAlN
- For cutting data see page(s) 278, 280

Designation	Item number	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*					
MTS-M27X3.00ISO6HX-XC-K002	02999880	M27	3,0	–	20,0 *0.787*	97,0 *3.819*	38,0 *1.496*	151,6 *5.969*	24,0 *0.945*	20.00X16.00	4	DIN376	6HX	C
MTS-M30X3.50ISO6HX-XC-K002	02999881	M30	3,5	–	22,0 *0.866*	115,0 *4.528*	45,0 *1.772*	170,2 *6.701*	26,5 *1.043*	22.00X18.00	4	DIN376	6HX	C
MTS-M33X3.50ISO6HX-XC-K002	02999882	M33	3,5	–	25,0 *0.984*	113,0 *4.449*	50,0 *1.969*	170,2 *6.701*	29,5 *1.161*	25.00X20.00	4	DIN376	6HX	C
MTS-M36X4.00ISO6HX-XC-K002	02999883	M36	4,0	–	28,0 *1.102*	131,0 *5.157*	55,0 *2.165*	188,8 *7.433*	32,0 *1.260*	28.00X22.00	4	DIN376	6HX	C
MTS-M39X4.00ISO6HX-XC-K002	02999884	M39	4,0	–	32,0 *1.260*	102,0 *4.016*	60,0 *2.362*	188,8 *7.433*	35,0 *1.378*	32.00X24.00	4	DIN376	6HX	C
MTS-M42X4.50ISO6HX-XC-K002	02999885	M42	4,5	–	32,0 *1.260*	102,0 *4.016*	60,0 *2.362*	187,4 *7.378*	37,5 *1.476*	32.00X24.00	4	DIN376	6HX	C

MTS-K002-A

Blind and through holes – Metric coarse threads



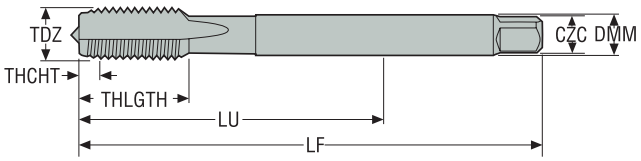


- Internal coolant
- Substrate: HSS-E-PM
- Coating: TiAlN
- For cutting data see page(s) 278, 280

Designation	Item number	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*					
MTS-M27X3.00ISO6HX-XC-K002-A	02999838	M27	3,0	–	20,0 *0.787*	97,0 *3.819*	38,0 *1.496*	152,5 *6.004*	24,0 *0.945*	20.00X16.00	4	DIN376	6HX	C
MTS-M30X3.50ISO6HX-XC-K002-A	02999839	M30	3,5	–	22,0 *0.866*	115,0 *4.528*	45,0 *1.772*	171,25 *6.742*	26,5 *1.043*	22.00X18.00	4	DIN376	6HX	C
MTS-M33X3.50ISO6HX-XC-K002-A	02999840	M33	3,5	–	25,0 *0.984*	113,0 *4.449*	50,0 *1.969*	170,2 *6.701*	29,5 *1.161*	25.00X20.00	4	DIN376	6HX	C
MTS-M36X4.00ISO6HX-XC-K002-A	02999841	M36	4,0	–	28,0 *1.102*	131,0 *5.157*	55,0 *2.165*	188,8 *7.433*	32,0 *1.260*	28.00X22.00	4	DIN376	6HX	C
MTS-M39X4.00ISO6HX-XC-K002-A	02999842	M39	4,0	–	32,0 *1.260*	102,0 *4.016*	60,0 *2.362*	188,8 *7.433*	35,0 *1.378*	32.00X24.00	4	DIN376	6HX	C
MTS-M42X4.50ISO6HX-XC-K002-A	02999843	M42	4,5	–	32,0 *1.260*	102,0 *4.016*	60,0 *2.362*	187,4 *7.378*	37,5 *1.476*	32.00X24.00	4	DIN376	6HX	C

MTS-K102

Blind and through holes – Metric coarse threads





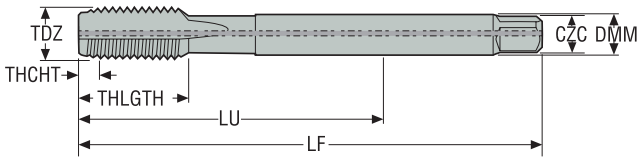
- Substrate: HSS-E-PM
- Coating: TiAlN
- For cutting data see page(s) 278, 280

Designation	Item number	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*					
MTS-M8X1.25ISO6HX-XC-K102	03305503	M8	1,25	–	6,0 *0.236*	67,0 *2.638*	20,0 *0.787*	86,56 *3.408*	6,8 *0.268*	6.00X4.90	5	DIN376	6HX	C
MTS-M10X1.50ISO6HX-XC-K102	03305504	M10	1,5	–	7,0 *0.276*	77,0 *3.031*	23,5 *0.925*	95,88 *3.775*	8,6 *0.339*	7.00X5.50	5	DIN376	6HX	C
MTS-M12X1.75ISO6HX-XC-K102	03305505	M12	1,75	–	9,0 *0.354*	83,0 *3.268*	23,0 *0.906*	105,19 *4.141*	10,4 *0.409*	9.00X7.00	5	DIN376	6HX	C
MTS-M14X2.00ISO6HX-XC-K102	03305506	M14	2,0	–	11,0 *0.433*	81,0 *3.189*	25,0 *0.984*	104,50 *4.114*	12,1 *0.476*	11.00X9.00	5	DIN376	6HX	C
MTS-M16X2.00ISO6HX-XC-K102	03305507	M16	2,0	–	12,0 *0.472*	68,0 *2.677*	25,0 *0.984*	104,50 *4.114*	14,1 *0.555*	12.00X9.00	5	DIN376	6HX	C
MTS-M18X2.50ISO6HX-XC-K102	03305508	M18	2,5	–	14,0 *0.551*	81,0 *3.189*	30,0 *1.181*	118,13 *4.651*	15,7 *0.618*	14.00X11.00	5	DIN376	6HX	C
MTS-M20X2.50ISO6HX-XC-K102	03305509	M20	2,5	–	16,0 *0.630*	95,0 *3.740*	30,0 *1.181*	133,13 *5.241*	17,7 *0.697*	16.00X12.00	5	DIN376	6HX	C
MTS-M22X2.50ISO6HX-XC-K102	03305510	M22	2,5	–	18,0 *0.709*	93,0 *3.661*	34,0 *1.339*	133,13 *5.241*	19,7 *0.776*	18.00X14.50	5	DIN376	6HX	C
MTS-M24X3.00ISO6HX-XC-K102	03305511	M24	3,0	–	18,0 *0.709*	113,0 *4.449*	38,0 *1.496*	151,75 *5.974*	21,0 *0.827*	18.00X14.50	5	DIN376	6HX	C

MTS-K102-A

Blind and through holes – Metric coarse threads



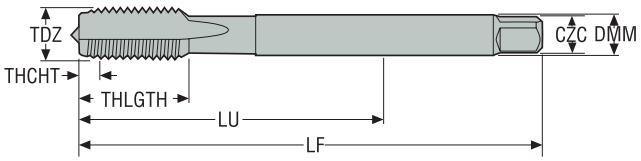


- Internal coolant
- Substrate: HSS-E-PM
- Coating: TiAlN
- For cutting data see page(s) 278, 280

Designation	Item number	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*					
MTS-M12X1.75ISO6HX-XC-K102-A	03305454	M12	1,75	–	9,0 *0.354*	83,0 *3.268*	23,0 *0.906*	105,19 *4.141*	10,4 *0.409*	9.00X7.00	5	DIN376	6HX	C
MTS-M12X1.75ISO6HX-XE-K102-A	03305464	M12	1,75	–	9,0 *0.354*	83,0 *3.268*	23,0 *0.906*	106,94 *4.210*	10,4 *0.409*	9.00X7.00	5	DIN376	6HX	E
MTS-M14X2.00ISO6HX-XC-K102-A	03305455	M14	2,0	–	11,0 *0.433*	81,0 *3.189*	25,0 *0.984*	104,50 *4.114*	12,1 *0.476*	11.00X9.00	5	DIN376	6HX	C
MTS-M16X2.00ISO6HX-XC-K102-A	03305456	M16	2,0	–	12,0 *0.472*	68,0 *2.677*	25,0 *0.984*	104,50 *4.114*	14,1 *0.555*	12.00X9.00	5	DIN376	6HX	C
MTS-M16X2.00ISO6HX-XE-K102-A	03305465	M16	2,0	–	12,0 *0.472*	68,0 *2.677*	25,0 *0.984*	106,50 *4.193*	14,1 *0.555*	12.00X9.00	5	DIN376	6HX	E
MTS-M20X2.50ISO6HX-XC-K102-A	03305457	M20	2,5	–	16,0 *0.630*	95,0 *3.740*	30,0 *1.181*	133,13 *5.241*	17,7 *0.697*	16.00X12.00	5	DIN376	6HX	C
MTS-M22X2.50ISO6HX-XC-K102-A	03305458	M22	2,5	–	18,0 *0.709*	93,0 *3.661*	34,0 *1.339*	133,13 *5.241*	19,7 *0.776*	18.00X14.50	5	DIN376	6HX	C
MTS-M24X3.00ISO6HX-XC-K102-A	03305459	M24	3,0	–	18,0 *0.709*	113,0 *4.449*	38,0 *1.496*	151,75 *5.974*	21,0 *0.827*	18.00X14.50	5	DIN376	6HX	C

MTS-K111

Blind and through holes – MF threads





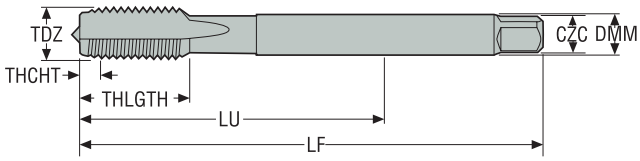
- Substrate: HSS-E-PM
- Coating: TiAlN
- For cutting data see page(s) 278, 280

Designation	Item number	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*					
MTS-M10X1.00ISO6HX-XC-K111	03305466	MF10X1.0	1,0	–	7,0 *0.276*	67,0 *2.638*	18,0 *0.709*	87,25 *3.435*	9,0 *0.354*	7.00X5.50	5	DIN374	6HX	C
MTS-M10X1.25ISO6HX-XC-K111	03305467	MF10X1.25	1,25	–	7,0 *0.276*	77,0 *3.031*	20,0 *0.787*	96,56 *3.802*	8,8 *0.346*	7.00X5.50	5	DIN374	6HX	C
MTS-M12X1.25ISO6HX-XC-K111	03305468	MF12X1.25	1,25	–	9,0 *0.354*	73,0 *2.874*	21,0 *0.827*	96,56 *3.802*	10,75 *0.423*	9.00X7.00	5	DIN374	6HX	C
MTS-M12X1.50ISO6HX-XC-K111	03305469	MF12X1.5	1,5	–	9,0 *0.354*	73,0 *2.874*	21,0 *0.827*	95,88 *3.775*	10,5 *0.413*	9.00X7.00	5	DIN374	6HX	C
MTS-M14X1.50ISO6HX-XC-K111	03305470	MF14X1.5	1,5	–	11,0 *0.433*	71,0 *2.795*	21,0 *0.827*	95,88 *3.775*	12,5 *0.492*	11.00X9.00	5	DIN374	6HX	C
MTS-M16X1.50ISO6HX-XC-K111	03305471	MF16X1.5	1,5	–	12,0 *0.472*	58,0 *2.283*	21,0 *0.827*	95,88 *3.775*	14,5 *0.571*	12.00X9.00	5	DIN374	6HX	C
MTS-M18X1.50ISO6HX-XC-K111	03305472	MF18X1.5	1,5	–	14,0 *0.551*	66,0 *2.598*	24,0 *0.945*	105,88 *4.168*	16,5 *0.650*	14.00X11.00	5	DIN374	6HX	C
MTS-M20X1.50ISO6HX-XC-K111	03305473	MF20X1.5	1,5	–	16,0 *0.630*	80,0 *3.150*	24,0 *0.945*	120,88 *4.759*	18,5 *0.728*	16.00X12.00	5	DIN374	6HX	C

MTS-K121

Blind and through holes – G threads



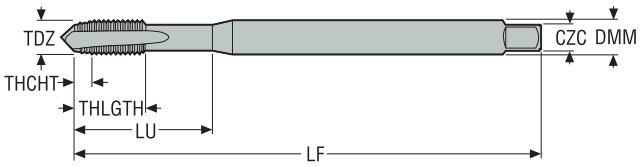


- Substrate: HSS-E-PM
- Coating: TiAlN
- For cutting data see page(s) 278, 280

Designation	Item number	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*					
MTS-1/8-28G-XC-K121	03305474	G1/8-28	–	28,0	7,0 *0.276*	67,0 *2.638*	13,0 *0.512*	87,51 *3.445*	8,8 *0.346*	7.00X5.50	4	DIN5156	NORMAL-X	C
MTS-1/4-19G-XC-K121	03305475	G1/4-19	–	19,0	11,0 *0.433*	71,0 *2.795*	15,0 *0.591*	96,32 *3.792*	11,8 *0.465*	11.00X9.00	4	DIN5156	NORMAL-X	C
MTS-3/8-19G-XC-K121	03305476	G3/8-19	–	19,0	12,0 *0.472*	58,0 *2.283*	21,0 *0.827*	96,32 *3.792*	15,25 *0.600*	12.00X9.00	5	DIN5156	NORMAL-X	C
MTS-1/2-14G-XC-K121	03305477	G1/2-14	–	14,0	16,0 *0.630*	80,0 *3.150*	21,0 *0.827*	120,01 *4.725*	19,0 *0.748*	16.00X12.00	5	DIN5156	NORMAL-X	C
MTS-3/4-14G-XC-K121	03305478	G3/4-14	–	14,0	20,0 *0.787*	77,0 *3.031*	21,0 *0.827*	135,01 *5.315*	24,5 *0.965*	20.00X16.00	6	DIN5156	NORMAL-X	C
MTS-1-11G-XC-K121	03305479	G1-11	–	11,0	25,0 *0.984*	93,0 *3.661*	27,0 *1.063*	153,65 *6.049*	30,75 *1.211*	25.00X20.00	6	DIN5156	NORMAL-X	C

MTS-K131

Blind and through holes – UNC threads





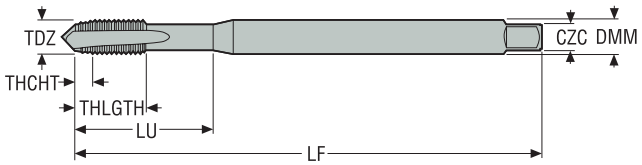
- Substrate: HSS-E-PM
- Coating: TiAlN
- For cutting data see page(s) 278, 280

Designation	Item number	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*					
MTS-1/4-20UNC-XC-K131	03305480	UNC1/4-20	–	20.0	7,0 *0.276*	25,0 *0.984*	15,6 *0.614*	76,50 *3.012*	5,1 *0.201*	8.25X5.5	5	DIN2184-1	2BX	C
MTS-5/16-18UNC-XC-K131	03305481	UNC5/16-18	–	18.0	8,0 *0.315*	33,5 *1.319*	18,7 *0.736*	86,12 *3.391*	6,6 *0.260*	9.25X6.20	5	DIN2184-1	2BX	C
MTS-3/8-16UNC-XC-K131	03305482	UNC3/8-16	–	16.0	10,0 *0.394*	38,0 *1.496*	20,6 *0.811*	95,63 *3.765*	8,0 *0.315*	11.25X8.00	5	DIN2184-1	2BX	C
MTS-7/16-14UNC-XC-K131	03305483	UNC7/16-14	–	14.0	8,0 *0.315*	72,7 *2.862*	20,0 *0.787*	95,01 *3.741*	9,4 *0.370*	9.25X6.20	5	DIN2184-1	2BX	C
MTS-1/2-13UNC-XC-K131	03305484	UNC1/2-13	–	13.0	9,0 *0.354*	81,9 *3.224*	23,0 *0.906*	104,63 *4.119*	10,8 *0.425*	10.25X7.00	5	DIN2184-1	2BX	C
MTS-5/8-11UNC-XC-K131	03305485	UNC5/8-11	–	11.0	12,0 *0.472*	65,7 *2.587*	23,0 *0.906*	103,65 *4.081*	13,5 *0.531*	12.25X9.00	5	DIN2184-1	2BX	C
MTS-3/4-10UNC-XC-K131	03305486	UNC3/4-10	–	10.0	14,0 *0.551*	77,5 *3.051*	30,0 *1.181*	118,02 *4.646*	16,5 *0.650*	14.25X11.00	5	DIN2184-1	2BX	C
MTS-7/8-9UNC-XC-K131	03305487	UNC7/8-9	–	9.0	18,0 *0.709*	90,95 *3.581*	34,0 *1.339*	132,24 *5.206*	19,5 *0.768*	17.25X14.5	5	DIN2184-1	2BX	C

MTS-K141

Blind and through holes – UNF threads



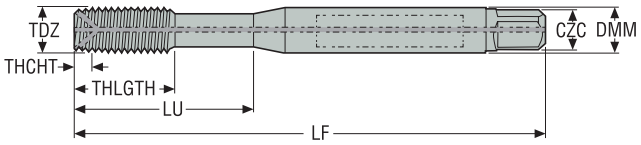


- Substrate: HSS-E-PM
- Coating: TiAlN
- For cutting data see page(s) 278, 280

Designation	Item number	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*					
MTS-1/4-28UNF-XC-K141	03305488	UNF1/4-28	–	28.0	7,0 *0.276*	25,0 *0.984*	15,6 *0.614*	77,50 *3.051*	5,5 *0.217*	8.25X5.5	5	DIN2184-1	2BX	C
MTS-5/16-24UNF-XC-K141	03305489	UNF5/16-24	–	24.0	8,0 *0.315*	33,5 *1.319*	18,7 *0.736*	87,09 *3.429*	6,9 *0.272*	9.25X6.20	5	DIN2184-1	2BX	C
MTS-3/8-24UNF-XC-K141	03305491	UNF3/8-24	–	24.0	10,0 *0.394*	38,0 *1.496*	20,6 *0.811*	97,09 *3.822*	8,5 *0.335*	11.25X8.00	5	DIN2184-1	2BX	C
MTS-7/16-20UNF-XC-K141	03305492	UNF7/16-20	–	20.0	8,0 *0.315*	72,7 *2.862*	20,0 *0.787*	96,51 *3.800*	9,9 *0.390*	9.25X6.20	5	DIN2184-1	2BX	C
MTS-1/2-20UNF-XC-K141	03305493	UNF1/2-20	–	20.0	9,0 *0.354*	71,9 *2.831*	23,0 *0.906*	106,51 *4.193*	11,5 *0.453*	10.25X7.00	5	DIN2184-1	2BX	C
MTS-5/8-18UNF-XC-K141	03305494	UNF5/8-18	–	18.0	12,0 *0.472*	55,7 *2.193*	23,0 *0.906*	106,12 *4.178*	14,5 *0.571*	12.25X9.00	5	DIN2184-1	2BX	C
MTS-3/4-16UNF-XC-K141	03305495	UNF3/4-16	–	16.0	14,0 *0.551*	62,5 *2.461*	25,0 *0.984*	120,63 *4.749*	17,5 *0.689*	14.25X11.00	5	DIN2184-1	2BX	C
MTS-7/8-14UNF-XC-K141	03305496	UNF7/8-14	–	14.0	18,0 *0.709*	75,95 *2.990*	25,0 *0.984*	135,01 *5.315*	20,4 *0.803*	17.25X14.5	5	DIN2184-1	2BX	C

MF-V060-A

Forming holes – Metric coarse threads





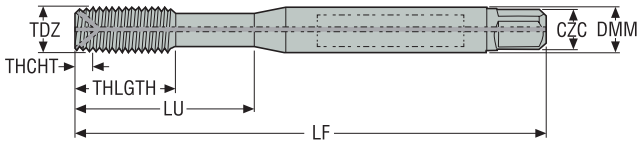
- Internal coolant
- Substrate: HSS-E
- Coating: TiN
- For cutting data see page(s) 284, 286

Designation	Item number	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*					
MF-M12X1.75ISO6HX-XC-V060-A	02880487	M12	1,75	–	9,0 *0.354*	83,0 *3.268*	23,0 *0.906*	104,75 *4.124*	11,2 *0.441*	9.00X7.00	5	DIN2174	6HX	C
MF-M14X2.00ISO6HX-XC-V060-A	03000329	M14	2,0	–	11,0 *0.433*	81,0 *3.189*	25,0 *0.984*	103,0 *4.055*	13,1 *0.516*	11.00X9.00	6	DIN2174	6HX	C
MF-M16X2.00ISO6HX-XC-V060-A	03000330	M16	2,0	–	12,0 *0.472*	68,0 *2.677*	25,0 *0.984*	104,0 *4.094*	15,1 *0.594*	12.00X9.00	6	DIN2174	6HX	C
MF-M18X2.50ISO6HX-XC-V060-A	03000331	M18	2,5	–	14,0 *0.551*	81,0 *3.189*	30,0 *1.181*	116,25 *4.577*	16,9 *0.665*	14.00X11.00	7	DIN2174	6HX	C
MF-M20X2.50ISO6HX-XC-V060-A	03000332	M20	2,5	–	16,0 *0.630*	95,0 *3.740*	30,0 *1.181*	132,5 *5.217*	18,9 *0.744*	16.00X12.00	7	DIN2174	6HX	C
MF-M22X2.50ISO6HX-XC-V060-A	03000333	M22	2,5	–	18,0 *0.709*	93,0 *3.661*	34,0 *1.339*	131,25 *5.167*	20,9 *0.823*	18.00X14.50	7	DIN2174	6HX	C
MF-M24X3.00ISO6HX-XC-V060-A	03000334	M24	3,0	–	18,0 *0.709*	113,0 *4.449*	38,0 *1.496*	149,5 *5.886*	22,65 *0.892*	18.00X14.50	8	DIN2174	6HX	C

MF-V063-A

Forming holes – MF threads





- Internal coolant
- Substrate: HSS-E
- Coating: TiN
- For cutting data see page(s) 284, 286

Designation	Item number	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	TPI	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*					
MF-M12X1.25ISO6HX-XC-V063-A	03000351	MF12X1.25	1,25	–	9,0 *0.354*	73,0 *2.874*	21,0 *0.827*	95,62 *3.765*	11,45 *0.451*	9.00X7.00	5	DIN2174	6HX	C
MF-M14X1.50ISO6HX-XC-V063-A	03000355	MF14X1.5	1,5	–	11,0 *0.433*	71,0 *2.795*	21,0 *0.827*	95,5 *3.760*	13,35 *0.526*	11.00X9.00	6	DIN2174	6HX	C
MF-M16X1.50ISO6HX-XC-V063-A	03000357	MF16X1.5	1,5	–	12,0 *0.472*	58,0 *2.283*	21,0 *0.827*	95,5 *3.760*	15,35 *0.604*	12.00X9.00	6	DIN2174	6HX	C

Cemented carbide inserts and insert carriers

Cemented carbide inserts and cemented carbide insert carriers from Seco Tools are not included in the product range intended for the following requirements.
Nevertheless Seco Tools can make the following declaration.
These products meet all requirements in RoHS (Restriction of the use of certain Hazardous Substances in electrical and electronic equipment), WEEE (Waste Electrical & Electronic Equipment) and ELV (End of Life Vehicles) requirements.
Products do not contain mercury, lead, hexavalent chromium, cadmium, CFC, HCFC, flame retardants or solvents in concentrations that exceed specifications in the regulations.

Regrinding:
Wet or dry grinding can produce potentially hazardous dusts or mists that can irritate skin, eyes, nose, throat and result in lung damage or disease. To avoid injury use proper safety precautions and protective equipment.

Disposal:
Seco Tools will buy back used inserts and solid carbide tools for recycling. Inserts and solid carbide tools should be separated from other metal waste (steel, aluminium, copper etc).
All packing material is fully recyclable.

CBN and PCD inserts

Inserts from Seco Tools are not included in the product range intended for the following requirements. Nevertheless Seco Tools can make the following declaration.
This product meets all requirements in RoHS (Restriction of the use of certain Hazardous Substances in electrical and electronic equipment), WEEE (Waste Electrical & Electronic Equipment) and ELV (End of Life Vehicles) requirements.
Products do not contain mercury, lead, hexavalent chromium, cadmium, CFC, HCFC, flame retardants or solvents in concentrations that exceed specifications in the regulations.

Regrinding:
Wet or dry grinding can produce potentially hazardous dusts or mists that can irritate skin, eyes, nose, throat and result in lung damage or disease. To avoid injury use proper safety precautions and protective equipment.

Disposal:
Seco Tools will buy back used CBN- or PCD-tipped inserts for recycling. Inserts should be separated from other metal waste (steel, aluminium, copper etc). Solid CBN-inserts may be discarded as landfill waste.
All packing material is fully recyclable.

Black oxide insert carriers

Insert carriers from Seco Tools are not included in the product range intended for the following requirements. Nevertheless Seco Tools can make the following declaration.
This product meets all requirements in RoHS (Restriction of the use of certain Hazardous Substances in electrical and electronic equipment), WEEE (Waste Electrical & Electronic Equipment) and ELV (End of Life Vehicles) requirements.
Products do not contain mercury, lead, hexavalent chromium, cadmium, CFC, HCFC, flame retardants or solvents in concentrations that exceed specifications in the regulations.

Disposal:
Used insert carriers may be sent for recycling together with ordinary steel waste (swarf and discarded steel scrap) for recycling.
All packing material is fully recyclable.

Cermet inserts

Inserts from Seco Tools are not included in the product range intended for the following requirements. Nevertheless Seco Tools can make the following declaration.
This product meets all requirements in RoHS (Restriction of the use of certain Hazardous Substances in electrical and electronic equipment), WEEE (Waste Electrical & Electronic Equipment) and ELV (End of Life Vehicles) requirements.
Cermet grade C15M inserts do contain nickel and will leach nickel when in contact with the skin. Amount of leaching is higher than specified in norm SS-EN 1811 Reference test method for release of nickel from products intended to come into direct and prolonged contact with the skin. These norms are intended for products that are in direct and prolonged contact with the skin and are therefore not directly applicable for cermet inserts. Persons with known allergic reactions to nickel are advised to wear protective gloves when handling cermet inserts.

Regrinding:
Wet or dry grinding can produce potentially hazardous dusts or mists that can irritate skin, eyes, nose, throat and result in lung damage or disease. To avoid injury use proper safety precautions and protective equipment.

Disposal:
Used inserts may be recycled. Inserts should be separated from other metal waste (steel, aluminium, copper, etc) including cemented carbide inserts.
All packing material is fully recyclable.

Nickel coated insert carriers

Insert carriers from Seco Tools are not included in the product range intended for the following requirements. Nevertheless Seco Tools can make the following declaration.
This product meets all requirements in RoHS (Restriction of the use of certain Hazardous Substances in electrical and electronic equipment), WEEE (Waste Electrical & Electronic Equipment) and ELV (End of Life Vehicles) requirements.
Products do not contain mercury, lead, hexavalent chromium, cadmium, CFC, HCFC, flame retardants or solvents in concentrations that exceed specifications in the regulations.
Insert carriers do contain nickel and will leach nickel when in contact with the skin. Amount of leaching is not higher then norm SS-EN 1811 Reference test method for release of nickel from products intended to come into direct and prolonged contact with the skin.
These norms are intended for products that are in direct and prolonged contact with the skin and are therefore not directly applicable for insert carriers.
Persons with known allergic reactions to nickel are advised to wear protective gloves when handling nickel coated insert carriers.

Disposal:
Used tools maybe sent for recycling together with ordinary steel waste (swarf and discarded steel scrap) for recycling.
All packing material is fully recyclable.

Intentionally added alloying elements

Grade	Cemented carbide											Coating						
	W	Ti	Ta	Nb	Co	Cr	Ni	Mo	C	N	Ru	Ti	Al	C	N	O	Si	Nb
CP20	■				■				■			■			■			
CP200	■				■	■			■			■	■		■			
CP300	■	■	■	■	■				■			■	■		■			
CP500	■				■	■			■			■	■		■			
CP600	■				■	■			■			■	■		■			
C15M	■	■	■	■	■		■	■	■	■								
CF	■		■		■		■	■	■									
CM	■		■		■		■	■	■									
DP2000	■		■	■	■				■			■	■	■	■	■		
DP3000	■	■	■	■	■				■	■		■	■	■	■	■		
DS2050	■				■	■			■			■	■		■			■
DS4050	■				■	■			■			■	■		■			■
F15M	■				■	■			■			■	■		■			
F25M	■	■	■	■	■				■			■	■		■			
F30M	■				■	■			■			■	■		■			
F40M	■				■	■			■			■	■		■			
HX	■		■		■				■									
H02	■		■		■	■			■									
H15	■				■	■			■									
H25	■				■	■			■									
KX	■				■	■			■									
MH1000	■				■	■			■			■	■		■			
MK1500	■		■		■				■			■	■	■	■	■		
MK2050	■		■		■	■			■			■	■		■		■	
MM4500	■				■	■			■			■	■	■	■	■		
MP1501	■		■	■	■				■			■	■	■	■	■		
MP2050	■				■						■	■	■		■		■	
MP2501	■		■	■	■				■			■	■	■	■	■		
MP3000	■				■	■			■			■	■		■			
MP3501	■		■	■	■				■			■	■	■	■	■		
MS2500	■		■	■	■				■			■	■	■	■	■		
MS2050	■				■	■			■			■	■		■			■
RX1500	■		■		■		■	■	■			■	■		■			
RX2000	■		■		■	■			■			■	■		■			
RM2020	■				■				■			■						
RM2090	■				■	■			■			■	■				■	
RN2010	■				■	■			■									
RS2090	■				■	■			■			■	■				■	
T350M	■		■	■	■				■			■	■	■	■	■		
T25M	■		■	■	■				■			■		■	■			
TGH1050	■				■	■			■			■	■		■		■	
TGK1500	■		■		■				■			■	■	■	■	■		
TGP25	■	■	■	■	■				■			■	■	■	■	■		
TGP35	■		■	■	■				■			■	■	■	■	■		
TGP45	■		■	■	■				■			■	■	■	■	■		
TGS2050	■				■	■			■			■	■		■		■	
TH1000	■				■	■			■			■	■		■		■	
TH1500	■				■	■			■			■	■	■	■	■		
TK0501	■				■	■			■			■	■	■	■	■		
TK1501	■		■		■	■			■			■	■	■	■	■		
TM1501	■	■	■	■	■	■			■	■		■	■	■	■	■		
TM2000	■	■	■	■	■				■	■		■	■	■	■	■		
TM2501	■	■	■	■	■				■	■		■	■	■	■	■		
TM3501	■				■				■			■	■	■	■	■		
TM4000	■	■	■	■	■				■	■		■	■	■	■	■		
TP0501	■	■	■	■	■	■			■			■	■	■	■	■		
TP1020	■	■	■	■	■				■	■								
TP1030	■	■	■	■	■				■	■		■	■		■		■	
TP1501	■	■	■	■	■				■	■		■	■	■	■	■		
TP25	■	■	■	■	■	■			■	■		■	■	■	■	■		
TP200	■	■	■	■	■				■	■		■	■	■	■	■		
TP2501	■	■	■	■	■	■			■	■		■	■	■	■	■		
TP3501	■	■	■	■	■				■	■		■	■	■	■	■		
TP40	■		■	■	■				■			■		■	■			
TS2000	■				■	■			■			■	■		■			
TS2050	■				■	■			■			■	■		■		■	
TS2500	■		■		■				■			■	■		■			
TTP2050	■				■	■			■			■	■		■		■	
T250D	■				■	■			■			■	■		■			
T400D	■				■	■			■			■	■		■			
T100R	■		■		■	■			■			■	■		■			
T60M	■	■	■	■	■				■			■	■		■			
883	■		■		■				■									
890	■				■	■			■									

Steels, ferritic and martensitic stainless steels

SMG	Description	Properties	Reference	$k_{c1.1}$	m_c
P1	Free-cutting steels	360 < R_m < 880	11 SMn30 R_m = 385 N/mm^2	1500	0,14
P2	Low-alloy ferritic steels, C < 0.25%wt Low-alloy weldable general structural steels	320 < R_m < 600	S235JRG2 R_m = 420 N/mm^2	1600	0,23
P3	Ferritic & ferritic/pearlitic steels, C < 0.25%wt Weldable general structural steels Case-hardening steels	430 < R_m < 610	16 MnCr 5 R_m = 550 N/mm^2	1800	0,14
P4	Low-alloy general structural steels, 0.25% < C < 0.67%wt Low-alloy Quench & Temper steels	520 < R_m < 1200	C 45E R_m = 660 N/mm^2	2000	0,15
P5	Structural steels, 0.25% < C < 0.67%wt Quench & Temper steels	550 < R_m < 1200	42 CrMo 4 R_m = 700 N/mm^2	2020	0,18
P6	Low-alloy through-hardening steels, C > 0.67%wt Low-alloy spring and bearing steels	520 < R_m < 1200	C 100S R_m = 600 N/mm^2	2100	0,17
P7	Through-hardening steels, C > 0.67%wt Spring and bearing steels	600 < R_m < 1200	100 Cr 6 R_m = 650 N/mm^2	2160	0,17
P8	Tool steels High Speed Steels (HSS)	600 < R_m < 1200	X 40 CrMoV 5 1 R_m = 700 N/mm^2	2400	0,20
P11	Ferritic & martensitic stainless steels	415 < R_m < 1200	X 20 Cr 13 R_m = 675 N/mm^2	2000	0,15
P12	Maraging and precipitation-hardening stainless steels	500 < R_m < 1200	X 5 CrNiCuNb 16 4 R_m = 1100 N/mm^2	2100	0,17

Free-cutting, austenitic and duplex stainless steels

SMG	Description	Properties	Reference	$k_{c1.1}$	m_c
M1	Free-cutting austenitic stainless steels		X 10 CrNiS 18 9	1700	0,14
M2	Low-alloy austenitic stainless steels		X 5 CrNi 18 10	1920	0,18
M3	Medium-alloy austenitic stainless steels		X 2 CrNiMo 18 14 3	2070	0,17
M4	High-alloy austenitic and duplex stainless steels		X 2 CrNiMoN 22 5 3	2230	0,16
M5	Difficult high-alloy austenitic and duplex stainless steels		X 2 CrNiMoN 25 7 4	2510	0,13

Cast irons

SMG	Description	Properties	Reference	$k_{c1.1}$	m_c
K1	Grey cast irons (GCI)		EN-GJL-250	930	0,32
K2	Compacted graphite irons (CGI)		EN-GJV-400	1000	0,35
K3	Malleable cast irons (MCI)		EN-GJMB-550-4	1050	0,37
K4	Nodular cast irons (SGI)		EN-GJS-500-7	1160	0,37
K5	Austempered ductile irons (ADI)		EN-GJS-1000-5		
K6	Austenitic lamellar cast irons		EN-GJLA-XNiCuCr15-6-2		
K7	Austenitic nodular cast irons		EN-GJSA-XNiMn23-4		

Non-ferrous metals

SMG	Description	Properties	Reference	$k_{c1.1}$	m_c
N1	Aluminium alloys, Si < 9%		AW-7075		
N2	Aluminium alloys, 9% < Si < 16%		AC-44200 Si = 12%		
N3	Aluminium alloys, Si >16%		AlSi17Cu5		
N11	Copper alloys		CW614N	740	0,26

Superalloys and titanium

SMG	Description	Properties	Reference	$k_{c1.1}$	m_c
S1	Iron-based superalloys		Discalloy		
S2	Cobalt-based superalloys		Stellite 21		
S3	Nickel-based superalloys		Inconel 718	2530	0,21
S11	Titanium, low alloyed, (α)		Ti		
S12	Titanium, medium alloyed, (α+β)		TiAl6V4	1500	0,24
S13	Titanium, high alloyed, (near β and β)		Ti10V2Fe3Al		

Hard materials

SMG	Description	Properties	Reference	$k_{c1.1}$	m_c
H3	Case-hardened steels	58 < HRC < 62	16 MnCr 5 60 HRC	2070	0,14
H5	Quenched & Tempered steels	38 < HRC < 56	42 CrMo 4 50 HRC	2320	0,18
H7	Quenched & Tempered steels Bearing steels	56 < HRC < 64	100 Cr 6 60 HRC	2480	0,17
H8	Tool steels High Speed Steels (HSS)	38 < HRC < 64	X 40 CrMoV 5 1 50 HRC	2750	0,20
H11	Martensitic stainless steels	38 < HRC < 50	X 20 Cr 13 45 HRC	2300	0,15
H12	Maraged and precipitation-hardened stainless steels	1200 < R_m < 1650	X 5 CrNiCuNb 16 4 R_m = 1450 N/mm^2	2410	0,17
H21	Manganese steels	23 < HRC < 64	X 120 Mn 12 50 HRC		
H31	White cast irons	50 < HRC < 64	EN-GJN-HV600(XCr11) 55 HRC		

Other difficult materials

SMG	Description	Properties	Reference	$k_{c1.1}$	m_c
PM1	Low-alloy PM-materials		F-0008 Fe-0.7C		
PM2	Medium-alloy PM-materials		FLC-4608 Fe2Cu1.8Ni 0.5Mo0.2Mn0.8C		
PM3	High-alloy PM-materials Exhaust valve seat materials, etc.				
HF1	Hardfacing alloys Welded or plasma-deposited iron-based alloys				
HF2	Hardfacing alloys Welded or plasma-deposited cobalt- and nickel-based alloys				
CC1	Sintered tungsten carbide		G50		

Plastics and Composites

SMG	Description	Properties	Reference	$k_{c1.1}$	m_c
TS1	Thermosetting polymers		Urea formaldehyde (UF)		
TS2	Thermosetting carbon-fibre composites		T300 T700 T800 HTA-S IMA - Epoxy (M21)...		
TS3	Thermosetting glass-fibre composites		Epoxy - HX..(42..)/E glass (7781...)...		
TS4	Thermosetting aramide-fibre composites		Kevlar 49		
TP1	Thermoplastic polymers		Polycarbonate (PC)		
TP2	Thermoplastic carbon-fibre composites		PPS/PEEK - T300..		
TP3	Thermoplastic glass-fibre composites		PPS/PEEK - E-glass or A-glass...		
TP4	Thermoplastic aramide-fibre composites				

Graphite

SMG	Description	Properties	Reference	$k_{c1.1}$	m_c
GR1	Graphite		R 8500		

SMG

SMG	EN	EN-Nr	W.-Nr	DIN	AFNOR	BS	UNI	JIS	SS	UNS
	11 SMn 30	1.0715	1.0715	9 SMn 28	S 250	230 M 07	CF 9 SMn 28	SUM 22	1912	G12130
	11 SMnPb 30	1.0718	1.0718	9 SMnPb 28	S 250 Pb		CF 9 SMnPb 28	SUM 22 L	1914	G12134
	10 S 20	1.0721	1.0721	10 S 20	10 F 1	210 M 15	CF 10 S 20			
			1.0722	10 SPb 20	10 PbF 2		CF 10 SPb 20			
P1	15 SMn 13	1.0725	1.0723	15 S 20		210 A 15		SUM 32	1922	
	35 S20	1.0726	1.0726	35 S 20	35 MF 4	212 M 36			1957	G11400
	46 S20	1.0727	1.0727	46 S 20	45 MF 4	212 M 44			1973	G11460
	11 SMn 37	1.0736	1.0736	9 SMn 36	S 300	240 M 07	CF 9 SMn 36			G12150
	11 SMn 37	1.0736	1.0736	9 SMn 36	S 300	240 M 07	CF 9 SMn 36			G12150
	S235JR	1.0037	1.0037	St 37-2	E 24-2		Fe 360 B	STKM 12 C	1311	
	S235JRG2	1.0038	1.0116	St 37-3	E 24-3, E 24-4	4360-40 C	Fe 360 D FF		1312, 1313	
	S275J2G3	1.0144	1.0144	St 44-3 N	E 28-3, E 28-4	4360-43 C	Fe 430 D FF	SM 41 C	1412, 1414	
	C 10	1.0301	1.0301	C 10	34 C 10, XC 10	045 M 10	C 10	S 10 C		G10100
P2			1.0401	C 15	37 C 12, XC 18	080 M 15	C 15, C 16		1350	G10170
	C22	1.0402	1.0402	C 22	C 20	050 A 20	C 20, C 21		1450	G10200
	S355JR	1.0570	1.0570	St 52-3	E 36-3, E 36-4	4360-50 C	Fe 510 B	SM 50 YA	2172, 2132	
	C 15R	1.1141	1.1141	Ck 15	XC 15, XC 18	080 M 15	C 15, C 16	S 15 C, S 15 CK	1370	G10170
			1.1158	Ck 25	XC 25	060 A 25	C 25	S 25 C		G10250
			1.2162	21 MnCr 5	20 NC 5			SCR 420 H		
	16 Mo 3	1.5415	1.5415	15 Mo 3	15 D 3	1501-240	16 Mo 3		2912	
			1.5423	16 Mo 5		1503-245-420	16 Mo 5	SB 450 M		G45200
	14 NiCr 14	1.5752	1.5752	14 NiCr 14	12 NC 15	655 M 13		SNC 815 (H)		G33106
			1.5919	15 CrNi 6	16 NC 6	S 107	16 CrNi 4			
	18 NiCrMo 7 6	1.6587	1.6587	18 CrNiMo 7 6	18 NCD 6	820 A 16	18 NiCrMo 7			
P3	16 MnCr 5	1.7131	1.7131	16 MnCr 5	16 MC 5	527 M 17	16 MnCr 5	SCR 415	2511	G51170
	16 MnCrS 5	1.7139	1.7139	16 MnCrS 5						
	20 MnCr 5	1.7147	1.7147	20 MnCr 5	20 MC 5		20 MnCr 5	SMnC 420 (H)		G51200
	20 MnCrS 5	1.7149	1.7149	20 MnCrS 5	20 MnCrS 5			SMnC 21 H		
	13 CrMo 4 5	1.7335	1.7335	13 CrMo 4 4	15 CD 3.5	1501-620 Gr. 27	14 CrMo 4 5		2216	
			1.7337	16 CrMo 4 4	15 CD 4.5	1501-620 Gr. 27	14 CrMo 4 5		2216	
	10 CrMo 9 10	1.7380	1.7380	10 CrMo 9 10	10 CD 9.10	1501-622 Gr. 31	12 CrMo 9 10		2218	J21890
	C35		1.0501	C 35	55 C 35	060 A 35	C 35		1550	G10350
	E 335	1.0503	1.0503	C 45	65 C 45	80 M 46	C 45	S 45 C	1650	G10430
	C40		1.0511	C 40	60 C 40	080 M 40	C 40	S 40 C		
	E 360	1.0070	1.0535	St 70-2	A 70-2		Fe 690		1655	
	C60	1.0601	1.0601	C 60	CC 55	080 A 62	C 60			G10600
P4			1.1157	40 Mn 4	35 M 5	150 M 36				G10390
	G 28 Mn6	1.1165	1.1165	30 Mn 5		120 M 36		SMn 1 H, SCMn 2		G13300
	C 35E	1.1181	1.1181	Ck 35	XC 38 H1	080 M 36	C 35	S 35 C	1572	G10340
	C 45E	1.1191	1.1191	Ck 45	XC 42	080 M 46	C 45	S 45 C	1672	G10420
	C 60E	1.1221	1.1221	Ck 60	XC 60	080 A 62	C 60	S 58 C	1665, 1678	G10640
			1.1740	C 60 W	Y3 55			SK 7		
	55 SiCr7	1.7100	1.0904	55 Si 7	55 S 7	250 A 53	55 Si 8		2085, 2090	
			1.2330	35 CrMo 4	34 CD 4	708 A 37	35 CrMo 4		2234	T51620
			1.2542	45 WCrV 7		BS 1	45 WCrV 8 KU		2710	T41901
		1.2714	1.2714	56 NiCrMoV 7		BH 224-5	56 NiCrMoV7-KU	SKT 4		T61206
			1.5121	46 MnSi 4						
			1.5710	36 NiCr 6	35 NC 6	640 A 35		SNC 236		
			1.5736	36 NiCr 10	35 NC 11		35 NiCr 9	SNC 631 (H)		
	36 CrNiMo 4		1.6511	36 CrNiMo 4	40 NCD 3	816 M 40	38 NiCrMo 4 (KB)			G98400
P5	34 CrNiMo 6	1.6582	1.6582	34 CrNiMo 6	35 NCD 6	817 M 40	35 NiCrMo 6 (KW)	SNCM 447	2541	G43400
	34 Cr 4	1.7033	1.7033	34 Cr 4	32 C 4	530 A 32	34 Cr 4 (KB)	SCR 430 (H)		G51320
	41 Cr 4	1.7035	1.7035	41 Cr 4	42 C 4	530 M 40	41 Cr 4	SCR 440 (H)		G51400
	25 CrMo 4	1.7218	1.7218	25 CrMo 4	25 CD 4 S	708 M 25	25 CrMo 4 (KB)	SCM 425	2225	G41300
	42 CrMo 4	1.7225	1.7225	42 CrMo 4	42 CD 4	708 M 40	42 CrMo 4	SCM 440 (H)	2244	G41400
	42 CrMo 4	1.7225	1.7225	42 CrMo 4	42 CD 4	708 M 40	42 CrMo 4	SCM 440 (H)	2244	G41400
			1.7361	32 CrMo 12	30 CD 12	722 M 24	32 CrMo 12		2240	
	50 CrV 4	1.8159	1.8159	50 CrV 4	50 CV 4	735 A 50	51 CrV 4	SUP 10	2230	H61500
	41 CrAlMo 7 10	1.8509	1.8509	41 CrAlMo 7	40 CAD 6.12	905 M 39	41 CrAlMo 7	SACM 645	2940	K24065
	C 67S	1.1231	1.1231	Ck 67	XC 68	060 A 67	C 70		1770	G10700
	C 100S	1.1274	1.1274	Ck 101		060 A 96		SUP 4	1870	G10950
P6	C 105U	1.1545	1.1545	C 105 W1	Y1 105		C 100 KU		1880	
			1.1645	C 105 W2	Y1 105		C 100 KU	SK 3		
			1.1663	C 125 W	Y2 120		C 120 KU	SK 2		

SMG

U.N.E./ I.H.A.	AISI / ASTM	GOST	ČSN	Misc. Brands	Condition	Structure
	1213				Annealed	
	12 L 13				Annealed	
	1108				Annealed	
	11 L 08				Annealed	
					Annealed	
	1140	40			Annealed	
	1146				Annealed	
	1215				Annealed	
	12 L 14				Annealed	
		16D			Annealed	
	A573 Grade 58	18kp	11 378		Annealed	
	A573 Grade 70	St14kP	11 448		Annealed	
	1010	10			Annealed	
F.1110	1015	15			Annealed	
	1020, 1023	20	12 024		Annealed	
		17G1S	11 523		Annealed	
F.1511	1015	15			Annealed	
F.1120	1025	25			Annealed	
					Annealed	
	A204 Grade A		15 020		Annealed	
	4520				Annealed	
	3310, 9314	20X2H4A	16 420		Annealed	
	4320		16 220		Annealed	
					Annealed	
F.1516	5115	12KHN2	14 220		Annealed	
		18HG			Annealed	
	5120	20KH	14 221		Annealed	
	5120 H	20KH			Annealed	
	A182-F11, A182-F12	12KHM	15 121		Annealed	
	A387 Grade 12 Cl. 2				Annealed	
F.155	A182-F22	12KH8	15 313		Annealed	
F.1130	1035	35	12 040		Annealed	
F.5110	1045	45	12 050		Annealed	
	1040	40	12 041		Annealed	
F.1150	1055	55			Annealed	
	1060	60	12 061		Annealed	
	1039	40G			Annealed	
	1330	30G2			Annealed	
F.1135	1035	35			Annealed	
F.1140	1045	45	12 050		Annealed	
F.1150	1064	60			Annealed	
	1060	60			Annealed	
F.144	9255	55S2			Annealed	
F.1250	4135	35KHM			Annealed	
F.5241	S1	5KHV2S			Annealed	
	L6	5KHNV			Annealed	
	5045				Annealed	
	3135				Quenched & Tempered	
	3435				Annealed	
	9840				Quenched & Tempered	
F.1280	4340	38H2N2MA	16 343		Annealed	
	5132	35KH			Quenched & Tempered	
	5140	40H	14 140		Quenched & Tempered	
F.1251	4130	20KHM	15 130		Quenched & Tempered	
F.1252	4142, 4140	38HM	15 142		Annealed	
F.1252	4142, 4140	38HM	15 142		Quenched & Tempered	
					Quenched & Tempered	
F.143	6150	50KHFA	15 260		Quenched & Tempered	
F.1740	A355 Cl. A				Annealed	
F.5103	1070	70			Annealed	
F.5117	1095				Annealed	
F.5118	W1	U10A			Annealed	
		U10			Annealed	
	W1	U13			Annealed	

SMG

SMG	EN	EN-Nr	W.-Nr	DIN	AFNOR	BS	UNI	JIS	SS	UNS
P7	107 CrV 3	1.2210	1.2210	115 CrV 3	100 C 3		107 CrV 3 KU			T61202
			1.2510	100 MnCrW 4	90 MWCV 5	BO 1	95 MnWCr 5 KU	SKS 3	2140	T31501
	90 MnCrV 8	1.2842	1.2842	90 MnCrV 8	90 MV 8	BO 2	90 MnVCr 8 KU			T31502
	100 Cr 6	1.3505	1.3505	100 Cr 6	100 C 6	534 A 99	100 Cr 6	SUJ 2	2258	G51986
P8	X 210 Cr 12	1.2080	1.2080	X 210 Cr 12	Z 200 C 12	BD 3	X 210 Cr 13 KU	SKD 1		T30403
			1.2343	X 38 CrMoV 5 1	Z 38 CDV 5	BH 11	X 37 CrMoV 5 1 KU	SKD 6		T20811
	X 40 CrMoV 5 1	1.2344	1.2344	X 40 CrMoV 5 1	Z 40 CDV 5	BH 13	X 40 CrMo 5 1 1 KU	SKD 61	2242	T20813
	X 100 CrMoV 5	1.2363	1.2363	X 100 CrMoV 5 1	Z 100 CDV 5	BA 2	X 100 CrMoV 5 1 KU	SKD 12	2260	T30102
			1.2365	X 32 CrMoV 3 3	32 DCV 28	BH 10	30 CrMoV 12 27 KU	SKD 7		T20810
			1.2436	X 210 CrW 12			X 215 CrW 12 1 KU	SKD 2	2312	
			1.2601	X 165 CrMoV 12			X 165 CrMoW 12 KU		2310	
			1.2713	55 NiCrMoV 6	55 NCDV 7			SKT 4		T61206
	HS 6-5-2-5	1.3243	1.3243	S 6-5-2-5	Z 85 WDKCV 06-05-05-04-02		HS 6-5-2-5	SKH 55	2723	
	HS 2-10-1-8	1.3247	1.3247	S 2-10-1-8	Z 110 DKCWV 09-08-04	BM 42	HS 2-9-1-8	SKH 51		T11342
	HS 18-1-2-5	1.3255	1.3255	S 18-1-2-5	Z 80 WKCV 18-05-04-01	BT 4	HS 18-1-1-5	SKH 3		T12004
	HS 6-5-2	1.3343	1.3343	S 6-5-2	Z 85 WDCV 06-05-04-02	BM 2	HS 6-5-2	SKH 9, SKH 51	2722	T11302
	HS 2-9-2	1.3348	1.3348	S 2-9-2	Z 100 DCWV 09-04-02-02		HS 2-9-2	SKH 58	2782	T11307
	HS 18-0-1	1.3355	1.3355	S 18-0-1	Z 80 WCV 18-04-01	BT 1	HS 18-0-1	SKH 2		T12001
P11	X 6 Cr 13	1.4000	1.4000	X 6 Cr 13	Z 6 C 12	403 S 17	X 6 Cr 13	SUS 403	2301	S41008
	X 12 Cr 13	1.4006	1.4006	X 10 Cr 13	Z 10 C 13	410 S 21	X 12 Cr 13	SUS 410	2302	S41000
	X 6 Cr 17	1.4016	1.4016	X 6 Cr 17	Z 8 C 17	430 S 15	X 8 Cr 17	SUS 430	2320	S43000
	X 20 Cr 13	1.4021	1.4021	X 20 Cr 13	Z 20 C 13	420 S 37	X 20 Cr 13	SUS 420 J 1	2303	S42000
	X 39 Cr 13	1.4031	1.4031	X 40 Cr 13	Z 40 C 14	420 S 45	X 40 Cr 14	SUS 420	2304	S40280
	X 70 CrMo 15	1.4109	1.4109	X 65 CrMo 14	Z 70 D 14			SUS 440 A		S44002
	X 90 CrMoV 18	1.4112	1.4112	X 90 CrMoV 18	Z 2 CND 18 05	409 S 19	X CrTi 12	SUS 440 B	2327	S44003
	X 105 CrMo 17	1.4125	1.4125	X 105 CrMo 17	Z 100 CD 17		X 105 CrMo 17	SUS 440 C		S44004
	X 3 CrNIMo 13 3	1.4313	1.4313	X 5 CrNi 13 4	Z 5 CN 13.4	425 C 11	X 6 CrNi 13 04	SCS 5	2385	S41500
	X 18 CrN 28	1.4749	1.4749	X 18 CrN 28	Z 18 C 25				2322	S44600
P12	X 6 NiCrTiMoV 25 15	1.4534	1.4534	X 3 CrNiMoAl 13 8 2						S13800
	X 4 CrNiCuNb 16 4	1.4540	1.4540	X 4 CrNiCuNb 16 4						S15500
		1.4540	1.4540	X 4 CrNiCuNb 16 4	Z 4 CNUNb 16.4 M					S15500
	X 4 CrNiCuNb 16 4	1.4540	1.4540	X 4 CrNiCuNb 16 4						S15500
	X 5 CrNiCuNb 16 4	1.4542	1.4542	X 5 CrNiCuNb 16 4				SUS 630		S17400
	X 5 CrNiCuNb 17 4	1.4548	1.4542	X 5 CrNiCuNb 17 4	Z 6 CNU 17.4			SCS 24, SUS 630		S17400
	X 7 CrNiAl 17 7	1.4564	1.4564	X 7 CrNiAl 17 7	Z 9 CAN 17.7	301 S 81	X 7 CrNiAl 17 7	SUS 631	2388	S17700
	X 2 NiCoMoTi 18 12 4	1.6356	1.6356	X 2 NiCoMoTi 18 12 4						K93160
	X 2 NiCoMoTi 18 9 5	1.6358	1.6358	X 2 NiCoMoTi 18 9 5	Z 2 NKD 19-09					K93120
	X 2 NiCoMo 18 9 5	1.6358	1.6358	X 2 NiCoMoTi 18 9 5	Z 2 NKD 19-09					K93120
	X 2 NiCoMo 18 8 5	1.6359	1.6359	X 2 NiCoMo 18 8 5		S 162				K92890
	X 2 NiCoMo 18 8 5	1.6359	1.6359	X 2 NiCoMo 18 8 5		S 162				K92890
M1	X 10 CrNiS 18 9	1.4305	1.4305	X 10 CrNiS 18 9	Z 10 CNF 18.09	303 S 31	X 10 CrNi 18 09	SUS 303	2346	S30300
M2	X 2 CrNi 19 11	1.4306	1.4306	X 2 CrNi 19 11	Z 2 CN 18.10	304 S 12	X 3 Cr Ni 18 11	SUS 304 L	2352	S30403
	X 5 CrNi 18 10	1.4301	1.4301	X 5 CrNi 18 10	Z 6 CN 18.09	304 S 31	X 5 CrNi 18 11	SUS 304	2333	S30400
	X 5 CrNiMo 17 12 2	1.4401	1.4401	X 5 CrNiMo 17 12 2	Z 3 CND 17.11.1	316 S 31	X 5 CrNiMo 17 12	SUS 316	2347	S31600
	X 6 CrNiNb 18 10	1.4550	1.4550	X 6 CrNiNb 18 10	Z 6 CNNb 18.10	347 S 31	X 6 CrNiNb 18 11	SUS 347	2338	S34700
	X 9 CrNi 18 8	1.4310	1.4310	X 12 CrNi 17 7	Z 12 CN 17.07	301 S 21	X 12 CrNi 17 07	SUS 301	(2331)	S30100
	X 12 CrNi 18 8	1.4300	1.4300	X 12 CrNi 18 8	Z 12 CN 18	302 S 25		SUS 302	2331	S30200
M3	X 2 CrNiMo 18 14 3	1.4435	1.4435	X 2 CrNiMo 18 14 3	Z 2 CND 17.13	316 S 12	X 2 CrNiMo 17 13 2	SCS 16, SUS 316 L	2353	S31603
	X 2 CrNiMoN 17 13 3	1.4429	1.4429	X 2 CrNiMoN 17 13 3	Z 2 CND 17.13 Az	316 S 62	X 2 CrNiMoN 17 13 3	SUS 316 LN	2375	S31653
	X 2 CrNiN 18 10	1.4311	1.4311	X 2 CrNiN 19 11	Z 2 CN 18 .10 Az	304 S 62	X 2 CrNiN 18 11	SUS 304 LN	2371	S30453
	X 3 CrNiMo 18 12 3	1.4466	1.4466	X 5 CrNi 18 15		317 S 16	X 5 CrNi 18 15	SUS 317	2366	S31700
	X 9 CrNiSiNCe 21 11 2	1.4835	1.4893	X 9 CrNiSiNCe 21 11 2		310 S 31			2368	S30815
	X 12 CrNi 25 21	1.4335	1.4335	X 12 CrNi 25 21	Z 12 CN 25.20	310 S 24	X 6 CrNi 26 20	SUH 310, SUS 310 S	2361	S31008
M4	X 2 CrNiMoN 22 5 3	1.4462	1.4462	X 2 CrNiMoN 22 5	Z 2 CND 22.05 Az	332 S 15	X 2 CrNiMoN 22 5		2377	S31803
	X 2 CrNiMoSi 19 5	1.4424	1.4417	X 2 CrNiMoSi 19 5	Z 2 CND 18.05.03				2376	S31500
	X 2 NiCrMoCu 25 20 5	1.4539	1.4539	X 2 NiCrMoCu 25 20 5	Z 2 NCDU 25 20	904 S 13			2562	N08904
	X 3 CrNiMo 27 5 2	1.4460	1.4460	X 4 CrNiMo 27 5 2	Z 3 CND 25.7 Az		X 3 CrNiMo 27 5 2	SUS 329 J 1	2324	S32900
	X 5 CrNiCuNb 16 4	1.4980	1.4943	X 4 NiCrTi 25 15	Z 6 NCTDV 25.15	HR 51		SUH 660	2570	S66286
M5	X 1 CrNiMoN 20 18 7	1.4547	1.4529	X 1 CrNiMoN 20 18 7	Z 1 CNDU 20.18.05 Az		X 1 CrNiMoN 20 18 7		2778	S31254
	X 1 CrNiMoN 25 22 8	1.4652	1.4652	X 2 CrNiMoN 25 22 7						S32654
	X 10 NiCrAlTi 32 20	1.4876	1.4876	X 10 NiCrAlTi 32 20	Z 10 NC 32.21			NCF 800		N08800
	X 2 CrNiMoN 25 7 4	1.4410	1.4410	X 2 CrNiMoN 25 7 4	Z 3 CND 25.07 Az		X 2 CrNiMoN 25 7 4		2328	S32750

SMG

U.N.E./ I.H.A.	AISI / ASTM	GOST	ČSN	Misc. Brands	Condition	Structure
F.520L	L2	11KHF			Annealed	
F.5220	O1	9KHVG			Annealed	
	O2	9G2F			Annealed	
F.5230	52100	SHKH15	14 109		Annealed	
F.5212	D3	KH12			Annealed	
	H11	4KH5MFS			Annealed	
F.5318	H13	4KH5MF1S			Annealed	
F.5227	A2	9KH5VF			Annealed	
	H10	3KH3M3F			Annealed	
F.5213		KH12			Annealed	
		KH12MF			Annealed	
F.520.S	L6	5KHNM			Annealed	
F.5613	M35	R6M5K5			Annealed	
	M42	R2AM9K5			Annealed	
	T4	R18K5F2			Annealed	
F.5603	M2	R6M5			Annealed	
	M7				Annealed	
	T1	R18			Annealed	
	403	08KH13			Annealed	Ferritic
F.3401	410, CA-15	12KH13, 08KH13			Annealed	Martensitic
F.3113	430	12KH17			Annealed	Ferritic
F.5261	420	20KH13	17 022		Annealed	Martensitic
F.3404	420	40KH13			Annealed	Martensitic
	440 A				Annealed	Martensitic
	440 B	95KH18			Annealed	Martensitic
	440 C	95KH18			Annealed	Martensitic
	A182 F6NM			F6NM	Annealed	Martensitic
	446	15KH28			Annealed	Ferritic
	XM-13			PH 13-8 Mo	Solution annealed	Austenitic
	XM-12			15-5 PH	H1150	Martensitic
	XM-12			15-5 PH	Solution annealed	Martensitic
	XM-12			15-5 PH	H1025	Martensitic
	SAE 630			17-4 PH	H1150	Martensitic
	630			17-4 PH	Solution annealed	Martensitic
	631	09KH17N7YU1		17-7 PH	Solution annealed	Austenitic/Ferritic
	AMS 6515			Marage 350	Solution annealed	Martensitic
	AMS 6521			Marage 300	Solution annealed	Martensitic
	AMS 6514			Marage 300, Vascomax C300	Solution annealed	Martensitic
	AMS 6512			Marage 250	Solution annealed	Martensitic
	AMS 6512			Marage 250, Vascomax C250	Solution annealed	Martensitic
F.3508	303	12KH19N9			Annealed	Austenitic
F.3504	304 L	03KH18N11			Annealed	Austenitic
F.3504	304	08KH18N10	17 240		Annealed	Austenitic
F.3534	316	08KH17H13M2T	17 346		Annealed	Austenitic
F.3524	347	08KH18N12B			Annealed	Austenitic
F.3517	301	07KH16N6			Annealed	Austenitic
	302	12KH18N9			Annealed	Austenitic
F.3533	(316 L)	03KH17N14M3	17 349		Annealed	Austenitic
	316 LN	03KH16N15M3			Annealed	Austenitic
F.3541	304 LN	03KH18N11			Annealed	Austenitic
	317	08KH17H15M3T			Annealed	Austenitic
				253 MA	Annealed	Austenitic
	310 S	12KH25N20			Annealed	Austenitic
	329 LN			SAF 2205	Annealed	Duplex
				3RE60	Annealed	Duplex
	904L				Annealed	Super austenitic
	329				Annealed	Duplex
	660			A286	Solution annealed	Austenitic
				254 SMO	Annealed	Super austenitic
				654 SMO	Annealed	Super austenitic
				Alloy 800	Annealed	Austenitic
	F 53			SAF 2507	Annealed	Super duplex

SMG

SMG	EN	EN-Nr	W.-Nr	DIN	AFNOR	BS	UNI	JIS	SS	UNS
	EN-GJL-150	0.6150	0.6150	GG-15	Ft 15 D	Grade 150	G15	FC 150	01 15-00	F11601
	EN-GJL-200	0.6200	0.6200	GG-20	Ft 20 D	Grade 220	G20	FC 200	01 20-00	F12101
K1	EN-GJL-250	0.6250	0.6250	GG-25	Ft 25 D	Grade 260	G25	FC 250	01 25-00	F12401
	EN-GJL-350	0.6350	0.6350	GG-35	Ft 35 D	Grade 350	G35	FC 350	01 35-00	F13502
	EN-GJL-215			GG-220 HB					02 19	
	EN-GJV-300			GJV-300						
	EN-GJV-350			GJV-350						
K2	EN-GJV-400			GJV-400						
	EN-GJV-450			GJV-450						
	EN-GJV-500			GJV-500						
K3	EN-GJMB-550-4	0.8155		GTS-55-04	P 540/5	P 540/5	P 55-04	PCMP55-04	08 54-00	F24130
	EN-GJS-350-22	0.7033	0.7033	GGG-35.3	FGS 370-17	Grade 350/22		FCD 350-22L	07 17-15	
	EN-GJS-400-15	0.7040	0.7040	GGG-40	FGS 400-12	Grade 420/12	GS 400-12	FCD 400-18L	07 17-02	F32800
K4	EN-GJS-400-18	0.7043	0.7043	GGG-40.3	FGS 370-17	Grade 370/17	GSO 42/17		07 17-12	F32800
	EN-GJS-500-7	0.7050	0.7050	GGG-50	FGS 500-7	Grade 500/7	GS 500-7	FCD 500-7	07 27-02	F33800
	EN-GJS-600-3	0.7060	0.7060	GGG-60	FGS 600-3	Grade 600/3	GS 600-3	FCD 600-3	07 32-03	F34100
	EN-GJS-700-2	0.7070	0.7070	GGG-70	FGS 700-2	Grade 700/2	GS 700-2	FCD 700-2	07 37-01	F34800
										ADI grade 5
	EN-GJS-1000-5			GJS-1000-5						ADI grade 2
K5	EN-GJS-1200-2			GJS-1200-2						ADI grade 3
	EN-GJS-1400-1			GJS-1400-1						ADI grade 4
	EN-GJS-800-8			GJS-800-8						ADI grade 1
	EN-GJLA-XNiCr 20-2	0.6660	0.6660	GGL-NiCr 20 2	FGL Ni20 Cr2	Grade F2			05 23-00	F41002
K6	EN-GJLA-XNiCr 30-3	0.6676	0.6676	GGL-NiCr 30 3	FGL Ni30 Cr3	Grade F3				F41004
	EN-GJLA-XNiCuCr 15-6-2	0.6655	0.6655	GGL-NiCuCr 15 6 2	FGL Ni15 Cu6 Cr2	Grade F1				F41000
	EN-GJSA-XNiMn 13-7	0.7652	0.7652	GGG-NiMn 13 7	FGS Ni13 Mn7	Grade S6			07 72-00	
	EN-GJSA-XNiCr 20-2	0.7660	0.7660	GGG-NiCr 20 2	FGS Ni20 Cr2	Grade S2				F43000
K7	EN-GJSA-XNiMn 23-4	0.7673	0.7673	GGG-NiMn 23 4	FGS Ni23 Mn4	Grade S2M				F43010
	EN-GJSA-XNiCr 30-3	0.7676	0.7676	GGG-NiCr 30 3	FGS Ni30 Cr3	Grade S3				F43003
	EN-GJSA-XNi 35	0.7683	0.7683	GGG-Ni 35	FGS Ni35					F43006
	AW-1050A	Al99.5	3.0255	Al99.5	A-5/1050A	1B		(A1050)	4007	AA1050A
	AW-2011	AlCuBiPb	3.1655	AlCuBiPb	A-U5PbBi/2011	FC1		A2011	4355	AA2011
	AW-2014	AlCuSiMn	3.1255	AlCuSiMn	A-U4SG/2014	H15			4338	AA2014
	AW-5005	AlMg1	3.3315	AlMg1	A-G0.6	N41			4106	AA5005
	AW-6060	AlMgSi0.5	3.3206	AlMgSi0.5	A-GS/6060	(H9)			4103	AA6060
	AW-6063	AlMgSi0.7	3.3210	AlMgSi0.7	A-GSUC/6061	(H10)		(A6063)	4104, 4107	AA6005
	AW-3103	AlMn1	3.0515	AlMn1		N3			4054	AA3103
N1	AW-3003	AlMn1Cu	3.0517	AlMn1Cu	A-M1/3003			A3003		AA3003
	AW-7020	AlZn4.5Mg1	3.4335	AlZn4.5Mg1	A-Z5G/7020	H17			4425	AA7020
	AW-7075		3.4365	AlZnMgCu1.5	A-Z5GU/7075	2L95/2L96		A7075		AA7075
	AC-42000		3.2341	G-AlSi5Mg	A-S7G	LM25	3599	AC 4C	4244	
	AC-46200	AlSi8Cu3(Si)	3.2161	G-AlSi8Cu3					4251	A13800
	MG-P-63	MgAl6Zn	3.5612	G-MgAl6Zn	G-A6-Z1	MAG-E-121				M11600
	MG-P-61	MgAl8Zn	3.5812	G-MgAl8Zn	(G-A7-Z1)					
	MN65120	MgSe3Zn2Zr1	3.5103	G-MgSe3Zn2Zr1	ZRE1	MAG6-TE				M12330
	AC-43400	AlSi10Mg(Fe)	3.2381	G-AlSi10Mg	A-S10G	LM9			4253	A13600
N2	AC-44200	AlSi12	3.2382	GD-AlSi12						
	AW-6082	AlMgSi1	3.2315	AlMgSi1	A-SGM0.7/6082	H30			4212	AA6082
N3		AlSi17Cu5						ADC14		
	CC331G		2.0940.01	CuAl10Fe	CuAl10Fe	AB1			5710	C95200
	CC333G		2.0975.01	CuAl10Ni	CuAl10Ni5Fe5	AB2			5716	C95500
		CuNi10Fe1Mn	2.0872	CuNi10Fe1Mn	CuNi10Fe1Mn	CN102			5667	C70600
				CuNi10Zn45						
		CW408J	2.0790	CuNi18Zn19Pb	CuNi18Zn19Pb1					C76300
	CW352H		2.1176	CuPb10Sn	CuSn10Pb10	LB2			5640	C93700
	CC480K		2.1050.01	CuSn10	CuSn10	CT1			5443	C90700
N11			2.1087	CuSn10Zn					5458	C90500
	CW452K	CuSn6	2.1020	CuSn6	CuSn6	PB103		C5191	5428	C51900
	CW502L	CuZn15	2.0240	CuZn15	CuZn15	CZ102		C2300	5112	C23000
	CW706R	CuZn28Sn1	2.0470	CuZn28Sn1	CuZn29Sn1				5220	C44300
	CW508L	CuZn37	2.0321	CuZn37	CuZn37	CZ108			5150	C27200
	CW717R	CuZn38Sn1	2.0530	CuZn38Sn1						C46400
	CW614N	CuZn39Pb3	2.0401	CuZn39Pb3	CuZn39Pb3	CZ121			5170	C38500
	CW612N	CuZn40Pb2	2.0402	CuZn40Pb2	CuZn39Pb2	CZ120			5168	C37800
	CW622N	CuZn44Pb2	2.0410	CuZn44Pb2		CZ104			5272	C68700

SMG

U.N.E./ I.H.A.	AISI / ASTM	GOST	ČSN	Misc. Brands	Condition	Structure
	A48 25 B	Sc 15	422 415			Grey cast iron (GCI)
	A48 30 B	Sc 20	422 420			Grey cast iron (GCI)
	A48 35 B	Sc 25	422 425			Grey cast iron (GCI)
	A48 50 B	Sc 35				Grey cast iron (GCI)
	G 3500					Grey cast iron (GCI)
	Grade 350					Compacted graphite iron (CGI)
	Grade 400					Compacted graphite iron (CGI)
	Grade 400-15					Compacted graphite iron (CGI)
	Grade 450					Compacted graphite iron (CGI)
	Grade 500					Compacted graphite iron (CGI)
	A220 60004				Tempered	Malleable cast iron (MCI)
						Nodular cast iron (SGI)
FGE 38-17	60-40-18	Vc 42-12	422 304			Nodular cast iron (SGI)
	60-40-18	Vc 42-12				Nodular cast iron (SGI)
FGE 50-7	A536, 80-55-06	Vc 50-2	422 305			Nodular cast iron (SGI)
FGE 60-2	A476, 80-60-03	Vc 60-2	422 306			Nodular cast iron (SGI)
FGE 70-2	A536, 100-70-03	Vc 70-2				Nodular cast iron (SGI)
	1600/1300/-					Austempered ductile iron (ADI)
	1050/700/7					Austempered ductile iron (ADI)
	1200/850/4					Austempered ductile iron (ADI)
	1400/1100/1					Austempered ductile iron (ADI)
	850/550/10					Austempered ductile iron (ADI)
	A436 Type 2			Ni-Resist 2		Austenitic lamellar cast iron
	A436 Type 3			Ni-Resist 3		Austenitic lamellar cast iron
	A436 Type 1			Ni-Resist 1		Austenitic lamellar cast iron
				Nodumag		Austenitic nodular cast iron
	A436 Type D-2			Ni-Resist D-2		Austenitic nodular cast iron
	A439 Type D-2M			Ni-Resist D-2M		Austenitic nodular cast iron
	A436 Type D-3			Ni-Resist D-3		Austenitic nodular cast iron
	A439 Type D-5			Ni-Resist D-5		Austenitic nodular cast iron
	B26					
	A380					
	AZ61A					
	AZ80A					
	AMS 4442					
	B85					
	A413.2					
	B390.0					
	CA952	BrA9ZH3L				
	CA955	BrA10ZH4N4L				
	CA937					
		BrOF6.5-0.15				
		L90				
		LOMsh70-1-0.05				
		LO60-1				
		LAMsh77-2-0.05				

SMG

SMG	EN	EN-Nr	W.-Nr	DIN	AFNOR	BS	UNI	JIS	SS	UNS
S1										
S2										
S3	NiMo30		2.4810							N10002
	NiMo16Cr15W		2.4819							N10276
	NiCr19Fe19Nb5Mo3		2.4668							N07718
			2.4669							N07750
	NiCr20TiAl		2.4631							N07080
	NiCr19Co18Mo4Ti3Al3									N07500
	NiCr20Co13Mo4Ti3Al		2.4654							N07001
S11			3.7024							
										R54620
S12										R56320
	TiAl6V4		3.7164							R56400
S13				TiV10Fe2Al3						
H3	16 MnCr 5	1.7131	1.7131	16 MnCr 5	16 MC 5	527 M 17	16 MnCr 5	SCR 415	2511	G51170
H5	C 67S	1.1231	1.1231	Ck 67	XC 68	060 A 67	C 70		1770	G10700
	C 75S	1.1248	1.1248	Ck 75	XC 75	060 A 78	C 75		1774, 1778	G10780
	C 100S	1.1274	1.1274	Ck 101		060 A 96		SUP 4	1870	G10950
	C 105U	1.1545	1.1545	C 105 W1	Y1 105		C 100 KU		1880	
			1.2550	60 WCrV 7	55 WC 20		55 WCrV 8 KU			
	55 Cr 3	1.7176	1.7176	55 Cr 3	55 C 3	527 A 60	55 Cr 3	SUP 9 (A)	2253	G51550
	42 CrMo 4	1.7225	1.7225	42 CrMo 4	42 CD 4	708 M 40	42 CrMo 4	SCM 440 (H)	2244	G41400
H7	107 CrV 3	1.2210	1.2210	115 CrV 3	100 C 3		107 CrV 3 KU			T61202
			1.2510	100 MnCrW 4	90 MWCV 5	BO 1	95 MnWCr 5 KU	SKS 3	2140	T31501
	90 MnCrV 8	1.2842	1.2842	90 MnCrV 8	90 MV 8	BO 2	90 MnVCr 8 KU			T31502
	100 Cr 6	1.3505	1.3505	100 Cr 6	100 C 6	534 A 99	100 Cr 6	SUJ 2	2258	G51986
H8	X 40 CrMoV 5 1	1.2344	1.2344	X 40 CrMoV 5 1	Z 40 CDV 5	BH 13	X 40 CrMo 5 1 1 KU	SKD 61	2242	T20813
	X 100 CrMoV 5	1.2363	1.2363	X 100 CrMoV 5 1	Z 100 CDV 5	BA 2	X 100 CrMoV 5 1 KU	SKD 12	2260	T30102
	X 155 CrVMo 12 1		1.2379	X 155 CrVMo 12 1	Z 160 CDV 12	BD 2	X 155 CrVMo 12 1 KU	SKD 11		T30402
			1.2436	X 210 CrW 12			X 215 CrW 12 1 KU	SKD 2	2312	
			1.2601	X 165 CrMoV 12			X 165 CrMoW 12 KU		2310	
			1.2713	55 NiCrMoV 6	55 NCDV 7			SKT 4		T61206
	HS 6-5-2-5	1.3243	1.3243	S 6-5-2-5	Z 85 WDKCV 06-05-05-04-02		HS 6-5-2-5	SKH 55	2723	
	HS 2-10-1-8	1.3247	1.3247	S 2-10-1-8	Z 110 DKCWV 09-08-	BM 42	HS 2-9-1-8	SKH 51		T11342
	HS 18-0-1	1.3355	1.3355	S 18-0-1	Z 80 WCV 18-04-01	BT 1	HS 18-0-1	SKH 2		T12001
H11	X 20 Cr 13	1.4021	1.4021	X 20 Cr 13	Z 20 C 13	420 S 37	X 20 Cr 13	SUS 420 J 1	2303	S42000
	X 70 CrMo 15	1.4109	1.4109	X 65 CrMo 14	Z 70 D 14			SUS 440 A		S44002
	X 90 CrMoV 18	1.4112	1.4112	X 90 CrMoV 18	Z 2 CND 18 05	409 S 19	X CrTi 12	SUS 440 B	2327	S44003
	X 105 CrMo 17	1.4125	1.4125	X 105 CrMo 17	Z 100 CD 17		X 105 CrMo 17	SUS 440 C		S44004
H12	X 4 CrNiCuNb 16 4	1.4540	1.4540	X 4 CrNiCuNb 16 4						S15500
	X 5 CrNiCuNb 16 4	1.4542	1.4542	X 5 CrNiCuNb 16 4				SUS 630		S17400
	X 5 CrNiCuNb 16 4	1.4542	1.4542	X 5 CrNiCuNb 16 4				SUS 630		S17400
	X 7 CrNiAl 17 7	1.4568	1.4568	X 7 CrNiAl 17 7	Z 9 CAN 17.7	301 S 81	X 7 CrNiAl 17 7	SUS 631	2388	S17700
	X 8 CrNiMoAl 15 7 5	1.4574	1.4574	X 8 CrNiMoAl 15 7 5						S15700
	X 6 NiCrTiMoV 25 15	1.4980	1.4943	X 4 NiCrTi 25 15	Z 6 NCTDV 25.15	HR 51		SUH 660	2570	S66286
	X 2 NiCoMo 18 8 5	1.6359	1.6359	X 2 NiCoMo 18 8 5		S 162				K92890
	X 2 NiCoMoTi 18 9 5	1.6358	1.6358	X 2 NiCoMoTi 18 9 5	Z 2 NKD 19-09					K93120
	X 2 NiCoMoTi 18 9 5	1.6358	1.6358	X 2 NiCoMoTi 18 9 5	Z 2 NKD 19-09					K93120
	X 2 NiCoMoTi 18 12 4	1.6356	1.6356	X 2 NiCoMoTi 18 12 4						K93160
H21	X 120 Mn 12	1.3401	1.3401	X 120 Mn 12	Z 120 M 12	BW 10		SC MnH 1	2183	
H31	EN-GJN-HV520	0.9620	0.9620	G-X330 NiCr 4 2	FB Ni4 Cr2 BC	Grade 2 A			05 12-00	F45001
	EN-GJN-HV550	0.9625	0.9625	G-X260 NiCr 4 2	FB Ni4 Cr2 HC	Grade 2 B			05 13-00	F45000
	EN-GJN-HV600(XCr11)	0.9630	0.9630	G-X300 CrNiSi 9 5 2	FB Cr9 Ni5	Grade 2 C, D, E			04 57-00	F45003

SMG

U.N.E./ I.H.A.	AISI / ASTM	GOST	ČSN	Misc. Brands	Condition	Structure
				Discalloy	Precipitation hardened	
				Haynes 25		
				Stellite 21		
				Hastelloy C		
		KHN65MV		Hastelloy C-276		
				IN 100		
				Inconel 718		
				Inconel X-750	Solution annealed	
				Nimonic 80A		
				René 41		
				Udimet 500		
				Waspalloy		
				Ti	Commercially pure	Ti (α)
	AMS 4919			Ti 6-2-4-2	Annealed	Ti (α)
	AMS 4943			Ti 3Al-2.5V (grd 9)	Annealed	Ti (α+β)
	AMS 4920, Grade 5	VT6		Ti 6Al-4V	Annealed	Ti (α+β)
	AMS 4986			Ti 10V-2Fe-3Al	Annealed	Ti (β)
F.1516	5115	12KHN2	14 220		Case hardened	
F.5103	1070	70			Quenched & Tempered	
F.5107	1078, 1080	75			Quenched & Tempered	
F.5117	1095				Quenched & Tempered	
F.5118	W1	U10A			Quenched & Tempered	
	S1	5KHV2SF			Quenched & Tempered	
	5155				Quenched & Tempered	
F.1252	4142, 4140	38HM	15 142		Quenched & Tempered	
F.520L	L2	11KHF			Quenched & Tempered	
F.5220	O1	9KHVG			Quenched & Tempered	
	O2	9G2F			Quenched & Tempered	
F.5230	52100	SHKH15	14 109		Quenched & Tempered	
F.5318	H13	4KH5MF1S			Quenched & Tempered	
F.5227	A2	9KH5VF			Quenched & Tempered	
F.5211	D2	KH12MF			Quenched & Tempered	
F.5213		KH12			Quenched & Tempered	
		KH12MF			Quenched & Tempered	
F.520.S	L6	5KHNM			Quenched & Tempered	
F.5613	M35	R6M5K5			Quenched & Tempered	
	M42	R2AM9K5			Quenched & Tempered	
	T1	R18			Quenched & Tempered	
F.5261	420	20KH13	17 022		Quenched & Tempered	Martensitic
	440 A				Quenched & Tempered	Martensitic
	440 B	95KH18			Quenched & Tempered	Martensitic
	440 C	95KH18			Quenched & Tempered	Martensitic
	XM-12			15-5 PH	H900	Martensitic
	SAE 630			17-4 PH	H1025	Martensitic
	SAE 630			17-4 PH	H900	Martensitic
	AMS 5528	09KH17N7YU1		17-7 PH	TH1050	Martensitic
	632			PH 15-7 Mo	TH1050	Martensitic
	660			A286	Precipitation hardened	Austenitic
	AMS 6512			Marage 250	Precipitation hardened	Martensitic
	AMS 6521			Marage 300	Precipitation hardened	Martensitic
	AMS 6521			Marage 300	Precipitation hardened	Martensitic
	AMS 6515			Marage 350	Precipitation hardened	Martensitic
	A128 Grade A			Hadfield		
	A532 IB (NiCr-LC			Ni-Hard 2		White cast iron
	A532 IA (NiCr-HC)			Ni-Hard 1		White cast iron
	A532 ID (Ni-HiCr)			Ni-Hard 4		White cast iron

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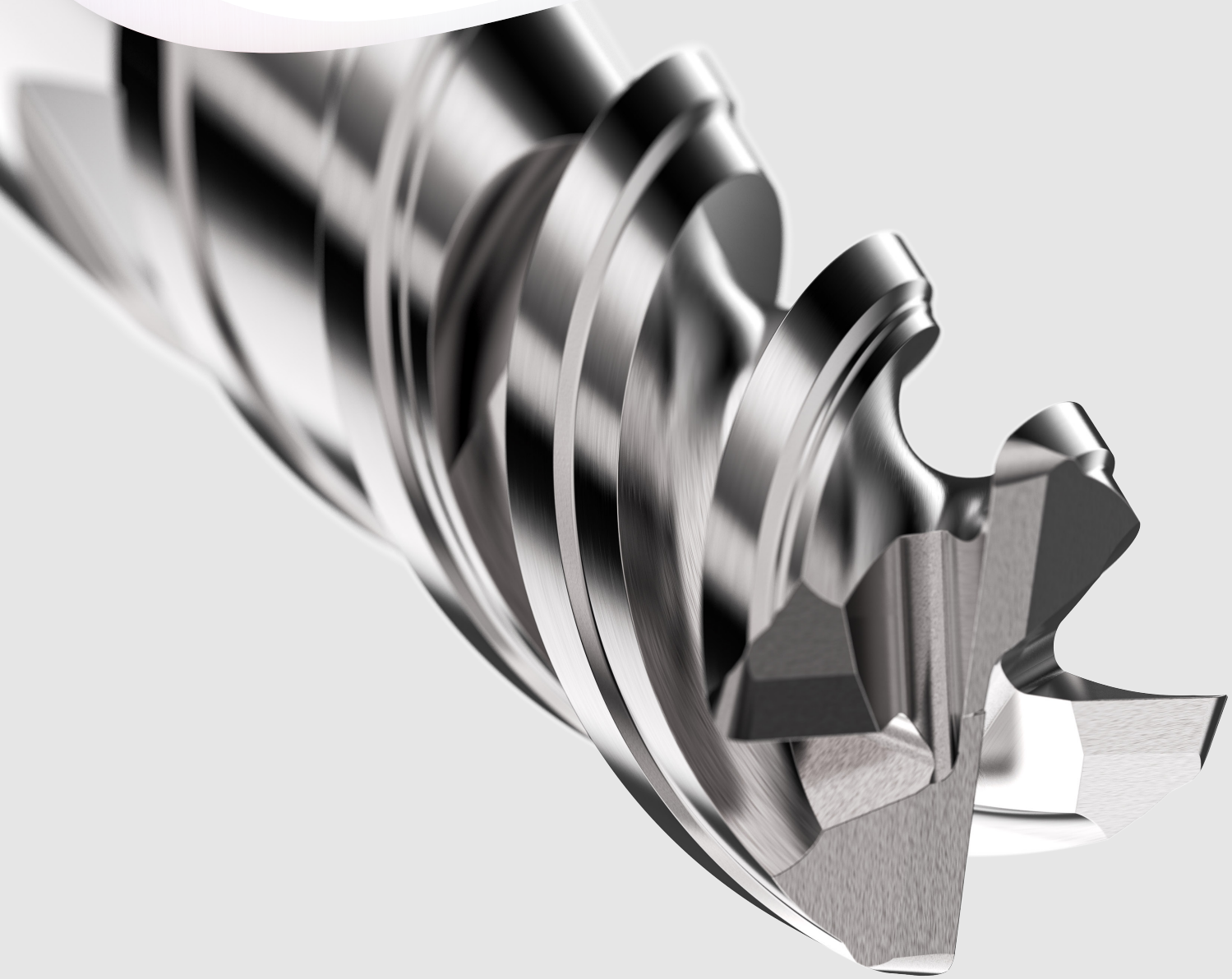
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Seco

Catalog & technical guide 2024.1

Solid End Mills



At Seco, we make tools, tech, and solutions for the most advanced manufacturing challenges on Earth. From our founding in Fagersta Sweden, to today's global company, our business has always been made to measure, and built on trust.

Combining cutting-edge, precision tools with lasting, personal partnerships, we're a true people company helping our partners discover the future of the manufacturing industry.

We're proud to make for makers, invent for inventors, and partner with pioneers. Driving the future forward with our focus on innovation. In short - if the right tool for the job exists, we'll deliver it. If it doesn't, we'll create it.

We're proud to put sustainability at the heart of everything we do, challenging perceptions of our industry, changing the process of manufacturing, and playing our own small part in shaping a brighter looking future.

Made for Makers

WELCOME TO SECO SOLID MILLING



JABRO was founded in 1976 in Lottum, Netherlands.
JABRO is Seco's competence centre for solid milling solutions, and has the global responsibility for Research & Development, Manufacturing and Application Engineering.

Seco JABRO´s products provide the world market with a wide range of standard tools and custom tool solutions, including reconditioning, mainly for General Engineering, Aerospace, Energy, Medical and Mould & Die customers.

Advanced manufacturing technology and an environmental focus, ensures Seco's sustainable development and production of products that successfully respond to market demands in milling operations for both ferrous and non-ferrous materials.

- General Engineering
- Mould & Die
- Aerospace
- Medical
- Power energy
- 3C segment (Computer Customer Electronics and Communications)

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Product family overview

SOLID²



Jabro-Solid² is a range of solid carbide end mills for applications in general machining, offering flexibility, speed and cost efficiency. Jabro-Solid² is available in a diameter range of ∅1-∅32 mm and in *inch* ∅1/32 - 1 1/4.
Jabro-Solid² also includes a group of dedicated advanced roughing tools (JS564 and JS565).
The 564 and 565 offer excellent performance when applied in well defined tool paths with constant arc of contact with high cutting speed and high cutting depth applications (advanced roughing).
For the complete range of JS500 series tools all chamfer (c*45°) have the following tolerances: c = DC</=3=+0,01, 3<DC</=6=+0,02, 6<DC</=10=+0,03,
10<DC</=14=+0,04, 14<DC</=18=+0,05, 18<DC</=24=+0,06,
All Jabro-Solid² product codes begin with JS.
Please see page 9 for a grouped overview of JS² products.

HSM/TORNADO



These tools are characterized by high precision tolerances, short cutting lengths, reduced necks and significant core diameters, maximizing rigidity. These tools have been developed to excel in peripheral milling and copy milling machining methods.
Please see page 9 for a grouped overview of HSM/TORNADO (high speed machining) products.

HPM



Optimized endmills are dedicated for original equipment manufacturers and first-tier suppliers where large batches of a single component have to be machined and where processes need to be fully optimized to reduce cycle times, reducing costs per part.
Please see page 10 for a grouped overview of HPM (high performance machining) products.

HFM



High feed machining is the first choice for applications with deep and shallow workpiece features, 3D profiling for mold & die applications and machining in unstable conditions. High feed tools excel in plunge milling machine methods.
Please see page 10 for a grouped overview of HFM (high feed machining) products.

Product family overview

MINI



Seco's range of micro solid carbide end mills consists of square end mills and ballnose cutters with small cutting diameters. Universal tools are applicable for common workpiece materials and specific tools are dedicated for graphite and hardened-steel applications. All tools have a thin layered coating for optimal performance in small-sized applications.
Please see page 10 for a grouped overview of MINI (micro machining) products.

DIAMOND



Available in a variety of geometries and an extensive diameter range, these tools feature the best possible substrate to ensure the perfect adhesion of the diamond coating across a range of cutting parameters. Overall, these end mills significantly increase productivity and lower tooling costs by requiring fewer tool changes and being able to produce precision parts at high feed rates.
Please see page 10 for a grouped overview of DIAMOND (diamond coated) products.

COMPOSITE



It consists of diamond-coated and uncoated solid carbide and PCD end mills incorporating different geometries as well as with PCD-brazed cutting edges. This is a product range offering optimized tools for difficult cutting conditions on challenging workpiece materials.
Please see page 10 for a grouped overview of COMPOSITE (JC) products.

VHM



Includes universal coated and uncoated endmills, a range of products dedicated for machining plastics and aluminum, chamfer end mills and conical tools. These products consist of high-quality grades and coatings for predictable and premium tool life.
Please see page 11, 12 for a grouped overview of VHM (general engineering) products.

Product family overview

CERAMIC



To cut the world's toughest heat-resistant superalloys (HRSAs) quickly, you need a tool just as strong and advanced as the materials themselves. Streamline your processes and cut your HRSA parts considerably faster with these high-performance ceramic solid end mills.
Please see page 11, 12 for a grouped overview of CERAMIC products.

HSS-CO



High speed steel cobalt is a premium grade that offers higher performance compared to traditional high speed steels. Due to increased hardness, these end mills last longer in today's abrasive, heat resistant and exotic materials.
The high-quality, low-cost production advantages of these end mills are a direct result of engineered flute designs, wear resistant coatings and optimized features like internal coolant channels for these challenging materials.
Please see page 11, 12 for a grouped overview of HSS-CO products.

X-Heads



With the Seco exchangeable head milling system, quickly and easily change between various solid carbide milling head profiles and types to optimize all your milling operations while you reduce manufacturing costs and tooling inventories. X-Heads end mills mount to a variety of available shank lengths for even greater versatility, with long-reach capability. End mill changes only require a simple turn of a wrench, and the shank could remain in the machine. Eliminate the need to reset tool lengths thanks to a secure and reliable connection that provides exchange accuracies within 50 microns.
Please see page 487 for a grouped overview of X-heads (exchangeable heads) products.

Product family overview

Product family	Technology	Product	1xx	4xx	5xx	6xx	7xx	8xx	9xx
Jabro-Solid²	General machining	JS		■	■		■		
Jabro - HPM	High performance machining	JHP	■	■			■		■
Jabro - HFM	High feed machining	JHF	■						■
Jabro - Mini	Micro machining	JM	■	■	■	■			■
Jabro - HSM/Tornado	High speed machining	JH	■	■			■		■
Jabro - Ceramic	High performance machining	JCG					■		
Jabro - Diamond	Graphite machining	JD				■			
Jabro - Composite	Composite machining	JC, JPD						■	
Jabro - VHM	General machining	J		■					■
Jabro - HSS-E	General machining	JCO					■		
X-Heads - Solid²	High performance machining	XS		■	■		■		
X-Heads - HFM	High feed machining	XHF			■		■		
X-Heads - HSM/Tornado	High speed machining	XH			■		■		
X-Heads - VHM	General machining	XV			■		■		
SMG									
P1-8					■				■
P11-12					■				■
M1-3					■		■		
M4-5					■		■		
K1-7					■				■
S1-3					■		■		
S11-13					■		■		
H			■		■				
N1				■	■				
N2-3				■	■				
N11				■	■				
TS				■				■	
TP				■				■	
GR						■			
For further explanation on SMG (Seco material group) please see page 676									

Summary

	Page	Family name	Name	P1-8	P11-12	M1-3	M4-5	K1-7	N1	N2-3	N11	S1-3	S11-13	H3-31	TS1	TS2-3	TS4	TP1	TP2-3	TP4	Honeycomb	GR
	37	SOLID[2]	JSE512	●	○	●	○	●	○	○	○	○	○	○	○			○				○
	41		JSE513	●	○	●	○	●	○	○	○	○	○	○	○			○				○
	47		JSE514	●	○	●	○	●	○	○	○	○	○	○	○			○				○
	117		JSB512	●	○	●	○	●	○	○	○	○	○	○	○			○				○
	57		JS553	●	●	●	●	●	●	●	●	●	●	●	●			●				○
	77		JS554	●	●	●	●	●	●	●	●	●	●	●	●			●				○
	338		JS412						●	●					●			●				
	341		JS413						●	●					●			●				
	344		JS452						●	●					●			●				
	349		JS453						●	●					●			●				
	110		JS520	●	○	○	○	●	●	●	●	○	●	○	●			●				○
	114		JS522	●	●	●	●	●	●	●	●	○	●		●			●				○
	119		JS532	●	○	●	●	●	●	●	●	○	●		●			●				○
	123		JS533	●	○	●	●	●	●	●	●	○	●		●			●				○
	127		JS534	●	○	●	●	●	●	●	●	○	●		●			●				○
	131		JS506	●	○	●	●	●	●	●	●	○	●	●	●			●				○
	135		JS509	●	○	●	●	●	●	●	●	○	●	●	●			●				○
	102		JS564	●	○	●	●	●	●	●	●	●	●	●								
	106		JS565	●	○	●	●	●	●	●	●	●	●	●								
	249		JS720			●	●					●	●									
	269		JS730			●	●					●	●									
	221		JS754		○	●	●					●	●									
	238		JS755		○	●	●					●	●									
	358	HSM/TORNADO	JH40					●	●		●				●							
	208, 398		JH112					●						●								
	388		JH120											●								
	390		JH130											●								
	203, 395		JH142	●	●			●						●								
	401		JH150					●						●								
	403		JH160	●	○									●								
	365		JH410						●		●				●							
	361		JH421						●		●				●			●				
	367		JH440						●	●	●				●			●				
	369		JH450						●	●	●				●			●				
	371		JH460						●		●		●		●			●				
	312		JH710									●	●									
	322		JHB720			●	●		●	●	●	○	●		●			●				
	324		JH721									●	●									
	326		JH722									●	●									
	296		JH724			●	●					●	●									
	298		JH726			●	●					●	●									
	316		JH730									●	●									
	300		JH734	○	●	●						○	●									
	302		JH736	○	●	●						○	●									
	304		JH740									●	●									
	304		JH744	○	●	●						○	●									
	306		JH746	○	●	●						○	●									
	308		JH770									●	●									
	320		JH780									●	●									
	314		JH790									●	●									
	139		JH910	●	○	●	●	●				●	●					●				●
	143, 392		JH930	●	○			●				●	●	●								
	145, 206		JHB970	●	○	●	●					●	●									

● Preferred choice, ○ Alternative choice

Summary

	Page	Family name	Name	P1-8	P11-12	M1-3	M4-5	K1-7	N1	N2-3	N11	S1-3	S11-13	H3-31	TS1	TS2-3	TP1	TP2-3	TS2/TP2+N1	TS2/TP2+S12	Honeycomb	GR
	382	HPM	JHP170											●								
	273		JHP751									●	●									
	276		JHP760			●	●															
	280		JHP770										●									
	287		JHP780									●										
	292		JHP794			●	●															
	354		JHP490						●	●												
	199		JHP951	●	○			●														
	193		JHP993	●	○			●														
	318		JHP994									●	●									
	385	HFM	JHF181	○	○			●				●	●	●								
	328		SHF712																			
	147		JHF980	●	○	●	●	●				●	●	○								
	412	MINI	JMB112											●								
	405		JME142											●								
	410		JME144											●								
	375		JM403/404/406						●	●												
	377		JM413/416						●	●	●				●		●					
	377		SMB413/414/416						●	●					●		●					
	181		JMB542	●	●	●	●		○	○	○		●	○								○
	184		JMB562	●	●	●	●		○	○	○		●	○								○
	188		JMB563	●	●	●	●		○	○	○		●	○								○
	171		JME542	●	●	●	●		○	○	○		●	○								○
	174		JME562	●	●	●	●		○	○	○		●	○								○
	178		JME564	●	●	●	●		○	○	○		●	○								○
	178		SMB713/714/416																			
	178		JME714/716									●	●									
	484	MINI DIAMOND	JMB642/JMB662																			●
	484		JMB662																			●
	482		JME642																			●
	480		SMB614/616																			●
	420	COMPOSITE	JC845													●		●				
	422		JC850													●		●				
	424		JC860													●		●			●	
	426		JC870													●		●			●	
	432		JC871													●		●			●	
	438		JC875													●		●				
	442		JC876													●		●				
	446		JC877													●		●				
	450		JC880													●		●				
	452		JC885													●		●				
	454		JC898																●	●		
	456		JC899																●	●		
	459	PCD	JPD850													●		●				
	461		JPD880													●		●				
	463		JPD890													●		●				
	472	DIAMOND	JD620																			●
	474		JD630																			●
	476		JD640																			●
	478		JD660																			●

● Preferred choice, ○ Alternative choice

Summary

	Page	Family name	Name	P1-8	P11-12	M1-3	M4-5	K1-7	N1	N2-3	N11	S1-3	S11-13	H3-31	TS1	TS2-3	TS4	TP1	TP2-3	TP4	Honeycomb	GR
	467	VHM	J28												•							
	154		J36	○	•	○	○	○	○	•	•	○	○		○			○				
	157		HK/HKM	•		•	•	•	•	○		•	•	•	•			•				
	168		V31	•	○	•	○	•	•	•	•	•	•	•	•			•				•
	151		J29	•	•	•	•	•	•	•	•	•	•	○	•			•				•
	465		J93F												•			•				
	294	Ceramic	JCG790									•										
	497-505	X-HEADS SOLID[2]	XSE550	•	•	•	•	•	•	•	•	•	•	•	•			•				○
	514		XSB540	•	○	•	•	•	•	•	•	○	•	○	•			•				○
	567		XSC509	•	•	•	•	•	○	○	○	○	○		•			•				○
	528-529		XSE450						•	•	•				•			•				
	516-517		XSE720	○	•	•	•					•	•									
	522		XSB720	○	•	•	•					•	•									
	304	X-HEADS HSM/TORNADO	XHT740	○	•	•						○	•									
	537	X-HEADS HFM	XHF580	•	•	•	•	•				○	○	○								
	542		XHF780	○	○	•	•					•	•	○								

	555	X-HEADS VHM	XVE540	●	●	●	●	●	●	●	●	○	○	○	●			●				○
	560		XVE510	●	●	●	●	●	○	○	○	○	○		●			●				○
	563-564		XVB510	●	●	●	●	●	○	○	○	○	○		●			●				○
	567		XVC506/509/512	●	●	●	●	●	○	○	○	○	○		●			●				○
	571		XVK310	●	●	●	●	●	●	●	●	○	○	○	●			●				○

● Preferred choice, ○ Alternative choice

Code keys

Solid end mills

R	JS	720	100	D	2	R050	.0	Z6	C	,	HXT
1	2	3	5	6	7	8	9	10	11		12

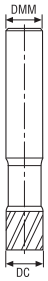
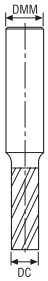
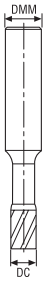
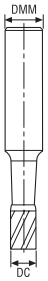
X-Heads – Heads

R	XSE	550	E10	100	D	2	R050	Z4	A	,	SIRA
1	2	3	4	5	6	7	8	10	11		12

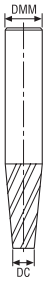
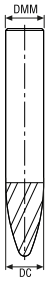
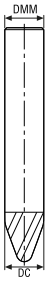
1. Type of product	2. Product range		3. Geometry
BLANK = Standard (catalogue) product R = Reconditioned product (complete) RK = Reconditioned product (frontal)	J = JABRO® VHM JC = JABRO® Composites JD = JABRO® Diamond JH = JABRO® HSM/Tornado JHF = JABRO® HFM JHP = JABRO® HPM JM = JABRO® Mini JS = JABRO® SOLID²	JPD = JABRO® PCD JCO = JABRO® HSS-Co JCG = JABRO® Ceramic XS* = X-Head SOLID² XH* = X-Head HSM/Tornado XV* = X-Head VHM XHF = X-Head HFM	A three-digit combination specifying the cutting geometry. Example: 111, 950, 553, 514, etc.

4. Connection size	5. Cutting diameter
This figure indicates the threading connection size between the head and adaptor E10 = 10 mm E12 = 12 mm E16 = 16 mm E20 = 20 mm E25 = 25 mm	Metric = 3 digit code (in case of 4 digit code – xx,xx mm) Imperial = a dot followed by a 3 digit code Example: (050 = metric, 5 mm) / (.500 = imperial, ½ inch)

6. Tool shape

(DC = DMM)		(DC < DMM)			(DC > DMM)
					
D	E	F	G	J	P

Form shape

		
N	X	T

7. Length of shape

A single digit that gives an indication of the length of the cutter compared to other products with the same cutting geometry.

9. Type of shank

.0 = Cylindrical
.3 = Weldon
.5 = Whistle Notch
.9 = Safe-Lock

10. Number of flutes

This figure indicates the number of flutes in the cutter.
Example: PCEDC2= 2 flutes, PCEDC6 = 6 flutes

11. Coolant channels

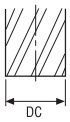
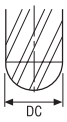
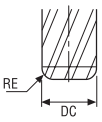
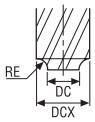
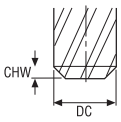
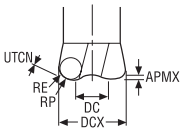
BLANK = No coolant channels
A = Internal coolant channel(s)
C = Chip splitters

12. Grades

4 character code specifying the coating on the cutter.

MEGA =	MEGA	DURA =	DURA
MT =	MEGA-T	NXT =	NXT
M64 =	MEGA-64	HXT =	HXT
M64 T=	MEGA-64-T	STAX =	STAX
SIRA =	SIRON-A	TAN =	TAN
HEMI =	HEMI	M9 =	M9
DIA =	DIAMOND	AXT =	AXT

8. Tip shape

Sharp	Ball-nose	Corner radius	Concave radius	Chamfer	High feed
					
S	**B**	**R...**	**K...**	**C**	**H**

Size of radius for convex and concave radius tipped products

000 = For metric products the tip shape is shown by a three-digit figure.
By dividing this figure by 100 you will get the actual corner radius size in millimetres.

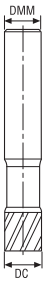
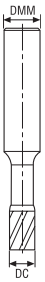
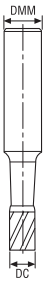
.000 = For imperial products the tip shape is shown by a dot, followed by a three-digit figure.
This figure actually shows the size of the corner radius in *inch* (e.g. R.100 would indicate a radius of 0.100 *inch*).

Code keys

X-Heads – Shanks

X	E10	100	E	2	-	055	-	00	.0	S
1	2	3	4	5		6		7	8	9

1. Product range	2. Connection size	3. Shank diameter
X = X-Head Cylindrical shank	This figure indicates the threading connection size between the head and adaptor E10 = 10 mm E12 = 12 mm E16 = 16 mm E20 = 20 mm E25 = 25 mm	Metric = 3 digit code Imperial = a dot followed by a 3 digit code Example: (050 = metric, 5 mm) / (.500 = imperial, 1/2 inch)

4. Tool shape		
(DC = DMM)	(DC < DMM)	
		
E	G	J

5. Length of shape	6. Overall length
A single digit that gives an indication of the length of the cutter compared to other products with the same cutting geometry.	Metric = 3 digit code Imperial = 3 digit code with a dot after the first digit Example: (055 = metric, 55 mm) / (2.50 = imperial, 2 1/2 inch)

7. Taper angle	8. Type of shank	9. Type of material
Indicates the body half taper angle. Example: (00 = 0°;0°; 05 = 5°; 10 = 10°)	.0 = Cylindrical .3 = Weldon .5 = Whistle Notch .9 = Safe-Lock	Indicates the different shank materials that are available. S = Steel DM = Densimet E = Solid Carbide

How our solutions can benefit you

The individual solution - Custom and modified tools



If the requirements are very special, we have the right solution with our individual and customized tools - solutions that have been tailored specifically to your individual requirements. This will enable you to take your machining productivity to a whole new level.
In addition to the standard solutions, our offer includes:

Custom tools
They are modified geometries or form shaped tools for customer specific demands as we can fully cooperate with the customer and design a specific tool which answers the needs. Examples can be:

- Modified tools within a standard geometry
- MEP (Mechanised edge Profiling)
- Firtree,
- Dovetail
- Tapered ballnose
- Condyle cutter
- Form shaped tools
- Barrel

Modified tools
Seco offers a quick delivery solution for standard tools requiring modification to meet specific dimensional requirements as this can be:

- (full) Radius/Facet/Chamfer/Concave
- OD reduction (neck reduction), including increased length
- Coating (application for uncoated tools)
- Reduced cutting diameter
- Chip breakers
- Adding Weldon / Safelock
- External coolant channels

Reconditioning cuts cost and tools inventory

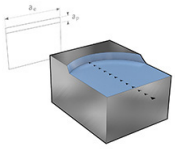
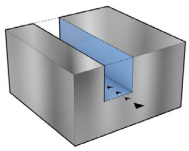
Seco's modern carbide tools offer remarkable performance by utilizing the best combinations of carbide substrates with highly wear resistant coatings, optimized cutting geometry and controlled edge preparation.

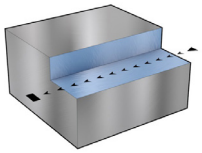
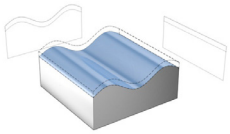
However good a tool is, as part of its function, it will eventually show signs of wear on the cutting edge. Controlling this wear and the timely replacement of the tool will allow the used tool to be reconditioned, thus reducing tool investment costs. And we use the same advanced technology to recondition your solid carbide tools as we use to manufacture new products.

Your benefits from reconditioning

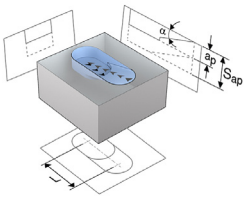
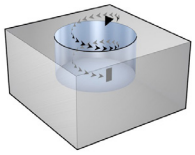
- Manufactured to Seco´s high standards with the original Seco geometry, edge preparation and coating processes.
- Savings on tooling costs by repeated use of the same solid carbide tool.
- Our easy to use and free 'reconditioning box' includes a pre-prepared delivery note.
- Free, reliable collection on the following day when you call your Seco contact for pick up.
- An easy process due to the package service, reconditioning box and prepared delivery note.
- Delivery via the normal Seco channels.
- Safe transportation and storage of the reconditioned tools by packaging them in similar packaging as new tools.
- A new packaging label is included.
- Work towards greener and cleaner environment. -Seco´s processes are globally certified with ISO14001.
- Guaranteed quality, as all processes are ISO9001 certified.

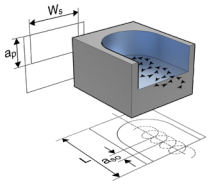
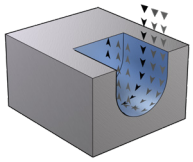
Basic operations:

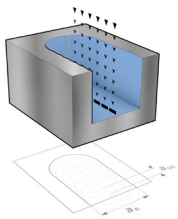
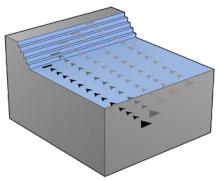
Face milling:	Slot milling:
Operation where the tool is in engagement with less than 180° arc of contact. Tool engagement: Small a_p and large a_e. 	Operation where the full diameter is in engagement, a_e is equal to DC and a_p up to 2 times DC depending on the machining strategy in use. 

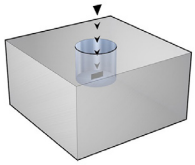
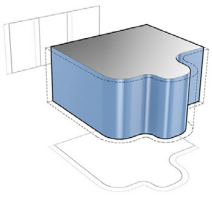
Side milling:	Copy milling:
Operation where the side of the tool is in engagement, a_p is large and a_e is small. 	Operation where the radius is in engagement. a_p and a_e are both small. 

Advanced machining methods:

Ramping:	Helical interpolation ramping:
Opening up a pocket by making a Z axis at an angle. 	Opening a pocket by making a circular movement with the tool while ramping in Z axis. 

Trochoidal:	Push-pull:
Opening a slot by using side milling, making a partial circular movement in X- or Y-axis. (changing slot milling into side milling). 	Machining a 3D form by making a down and up copying movement following the profile of the form. 

Plunge milling:	Z-leveling:
Opening up a deep slot by using drilling (Z) axis. 	Machining a surface by making a small drilling or ramping in Z axis then opening the pocket with X and Y movements. 

Drilling:	Advanced roughing/ Optirough
Making a hole with movement in Z axis. 	Well defined tool paths with constant arc of contact for reliable roughing of simple & complex shapes. The large axial depths (a_p) & small radial depths (a_e) of cut combined with high feeds per tooth (f_z) and cutting speeds (V_c) results in high productivity. 

Definitions, machining strategies:

General machining:
A machining strategy for general use. a_e - a_p ratio can vary depending on the operation.
Tool characteristics: Tools have relatively long cutting lengths and thin core diameters.
There are no high requirements on the tolerances.
Machine requirements: There are no special machine requirements needed.
With basic CNC technology, difficult advanced machining methods are not possible.
Average results will be reached on metal removal rate Q (cm^3/min).
The application area usually includes small batch sizes and a wide range of materials.

High Performance Machining:
Is a machining strategy where very high metal removal rates can be achieved. Typical for this strategy is that a_e is 1 times DC and a_p is 1 to 1½ times DC depending the workpiece material.
With HPM (High Performance Machining) you achieve an extremely high metal removal rate by using a much higher chip load than in general machining.
Tool characteristics: Specially developed chip formers in the flute of the tool, tip protection with a small 45° face or corner radius, special smooth formed chip space and coating, with or without Weldon shank.
Machine requirements: High stability, high power requirements, CNC control, rigid clamping system.
The application areas are: Operations in a mass production environment where production time/lead time is of great importance or on single products where a high metal removal rate Q (cm^3/min.) is required.

High Feed Machining:
Is a machining strategy where high feed rates can be reached with large radial engagements (a_e) in combination with a small a_p.
With HFM (High Feed Machining) you achieve high metal removal rates and/or surface finish by using a much higher table feed compared to general machining.
Tool characteristics: Specially developed front teeth, very short cutting length and coating.

Machine requirements: Good stabillity, CNC, possibility for high table feed (v_f).
The big advantage of this technology is that it is very user friendly, easy, safe and quick to program in CAM. By using the so called Z-leveling strategy it is relatively easy to program complex forms without the necessity of having extensive experience in programming.
The application area is: From soft to hardened steel, titanium and stainless steel and it is very good as a pre operation before HSM is used.
It can also be applied in deep pocket machining.

Micro machining:
Is a machining strategy where extremely small tool diameters are used.
Tool characteristics: Diameter range Ø 0,1 to 2,0 mm, small cutting lengths, a wide range of OD reductions, high accuracy, coating.

Machine requirements: High spindle accuracy, high RPM, CNC, thermal stability against spindle growth.
Application area is: Production of cavities like slots, pockets, holes or engravings in many types of material.

High speed machining:
Is a machining strategy where a combination of a small radial depth of cut and high cutting speed and table feeds are used.
Depending on the method a high metal removal and a low R_a value can be reached.
Typical for this strategy are the low cutting forces, less heat build up in tool and workpiece, less burr formation and high dimensional accuracy on the workpiece.

With HSM (High Speed Machining) you achieve high metal removal rate and/or surface finish by using a much higher cutting speed compared to general machining.
Tool characteristics: Stable, (thick core diameter and a short cutting length) clear and well formed chip space for good chip evacuation, coating.

Machine requirements: Quick CNC control, high RPM, quick transmission to the axis.
The applications area is: Mould & Die industry on pre-finishing and finishing operations in hardened steel (48-62 HRc) in a short lead time.
This technique can also be applied in most other materials when using the right tool and advanced machining method.

Advanced roughing / Optirough:
Well defined tool paths with constant arc of contact for reliable roughing of simple & complex shapes. The large axial depths (ap) & small radial depths (ae) of cut combined with high feeds per tooth (fz) and cutting speeds (Vc) results in high productivity.

These CAM-based rough-machining, or dynamic milling, strategies are ones that centre on a cutting tool's arc of contact and its average chip load.

When reducing the arc of contact, the amount of heat generated during roughing operations is reduced. As the radial depth of cut decreases, so does a cutter's arc of contact. A smaller amount of contact results in less friction and, therefore, less heat between the tool's cutting edges and the workpiece it is machining. These lower machining temperatures, in turn, allow for increased cutting speeds shorter cycle times.

Explanation of Advanced Roughing

Advanced Roughing, what does it mean?

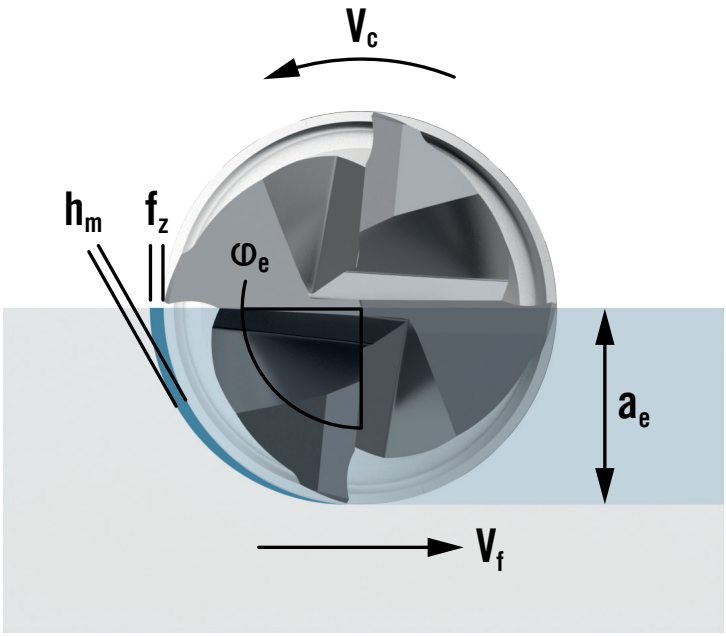
Today's CAM packages offer toolpath strategies specifically for inside/outside radii shapes where changing arcs of contact are common when using conventional tool-paths. These software packages automatically apply different feeds to control arc of contact and keep chip loads consistent.

These CAM-based rough-machining, or advanced roughing, focus on a cutting tool's arc of contact and its average chip load. When reducing the arc of contact, the amount of heat generated during roughing operations is reduced. As the radial depth of cut decreases, so does a cutter's arc of contact. A smaller amount of contact results in less friction and, therefore, less heat between the tool's cutting edges and the workpiece it is machining. These lower machining temperatures, in turn, allow for increased cutting speeds shorter cycle times. Also, the resulting cutting force is lower, allowing high APMXS, or cutting depth to be programmed.

In advanced roughing, to maintain arc of contact, CAM packages need to employ trochoidal machining-like techniques when entering a radius.

When using an optimized roughing toolpath and maintaining consistent arc of contact, the cutter's radius can match that of the inside radius being cut without risk of cutter overload. This capability allows our Advanced Roughing tools (JS554-3C, JS564, JS565, JS754, JS755 and JS720) to remove more stock in the roughing pass, thus reducing the amount of stock the finish pass has to cut – all of which translates to faster machining cycle times and longer tool life. Also, while the remaining stock is constant the finishing tool can generate a better final surface quality and at the same time will have longer tool life.

Impact of arc of contact on cutting speed and feed per tooth



How our products can benefit you

Achieve Revolutionary speeds in superalloys with JABRO® Ceramic end mills



SiAlON ceramics, high-strength geometries and reinforced frontal teeth are some of the main features of these highly optimized tools and allow full utilization of high speed, high-performance machine tools. The tools can operate at cutting speeds of up to 1200M/min and can offer a significant productivity increase when compared to standard solid carbide solutions.

Since high temperatures are needed, also a significant amount of RPM is needed in order to achieve the high vc. The high temperatures are required in order to reach a level where the HRSA softens (850c +). With these tools, multiple strategies can be applied as long as a constant cut and constant contact with the workpiece is maximized.

The tool is designed for side milling, slot milling, high-feed milling and advanced roughing! All these are possible. To maintain the high cutting temperature in the cutting zone, coolant is compressed air. Because the tool operates at high speeds, also run out is of high importance.

You can find JABRO®Ceramic tools on page 294.

Simplify aerospace hybrid materials holemaking with two-in-one-geometry

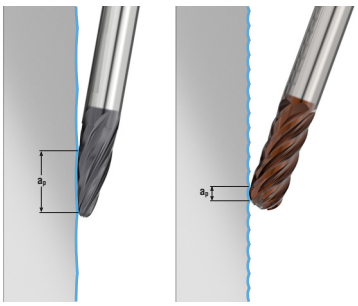


The JC899 has a patented two-in-one double geometry solution, designed for machining hybrid stacked material combinations such as CFRP-Ti and CFRP-Alu. Due to its left-hand helix, right-hand cut design, this tool is preventing delamination, fiber pull-out and chip marks from damaging the workpiece surface (this as chips will be pushed downwards out of the hole). As a result, the JC899 left-hand helix, right-hand cut STAX finisher gives a perfect surface finish and prevents chip pollution between the 2 stack layers.

This means post-machining, unstacking, cleaning and deburring, and re-stacking is not needed anymore which can can boost process efficiency by as much as 200 to 300 percent and provide tool life three to six times longer than that of conventional reamers.
At the same time the drilling process is replaced by applying the JC898 high feed rougher. This tool helical interpolates and allows the JC899 to operate in continuous stock conditions, maximizing quality output while minimizing corellation in hole size and tolerance.

You can find JABRO® JC898/JC899 on pages 454 - 456.

Take bigger stepovers for faster finishing productivity



For the fastest, most reliable finishing operations, new barrel-shaped tools use an innovative “taper” or “drop” geometry to enable large increases in stepover. This is possible through the use of advanced CAD/CAM systems or new plugins built for the uses of these tools. Using 5-axis machine movement, the tool’s cutting profile can remain engaged with the surface of the part at the proper angle at all times.
In addition to our standard barrel-style shapes, Seco can also offer all styles of barrel geometry’s as custom products, such as lens shapes, ensuring you always have access to the ideal tools for your part-production needs.

Take the risk out of micro milling operations

Achieve accuracy, precision and high surface finish quality from the very start when machining small, micro-sized surfaces with our range of solid-carbide JABRO® end mills. SECO's new Mini ranges deliver longer tool life, stability and peace of mind for machining operations where it is typically impossible to actually see the workpiece and cutting tool as it works.



Precisely produced geometries, virtually zero runout, advanced coatings and true line-form radius tolerances give these mini ranges its incredibly long tool life and reliability. Key is to apply these tools in suitable conditions, in which the benifits can be maximized. Minimize run-out of the tool plus the tool holder is essential.
Also the CAM program can be optimized with the SECO JABRO® feed optimizer which calculates the ideal RPM and feed speed (vf) for every applicaton. As a result, the tool and set-up help to eliminate any unforeseen problems during rough, pre-finish and final finish micro milling operations.

You can find an overview of JABRO®Mini tools on page 10.

JS522 long flute finisher

The JS522 long-flute finishing tool is capable of meeting the aerospace industry's stringent criteria for perpendicularity, fine surface finish, high metal removal rates and more effective machining.

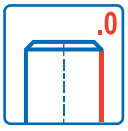
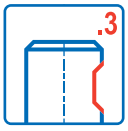
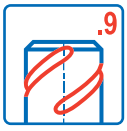
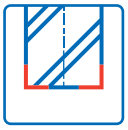
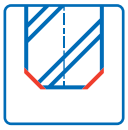
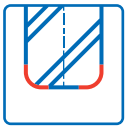
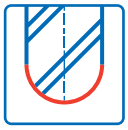
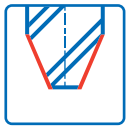
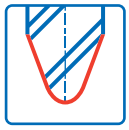
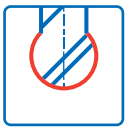
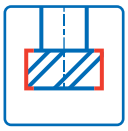
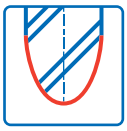


With a cutting length of 5*Dc, an increased core diameter and a slightly negative taper to compensate deflection, the JS522 is specially designed to machine high shoulders in single-pass finishing operations. This single pass saves time (up to 80%) but most important, also delivers instant quality. This tool is often used in mass production areas.

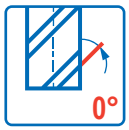
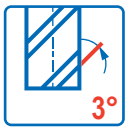
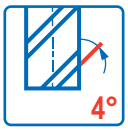
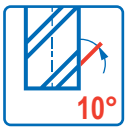
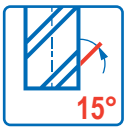
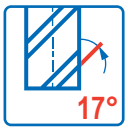
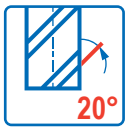
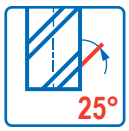
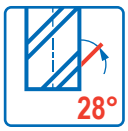
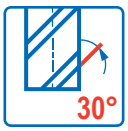
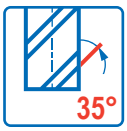
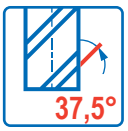
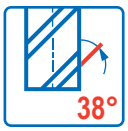
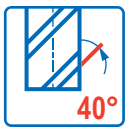
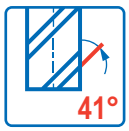
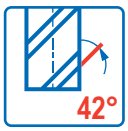
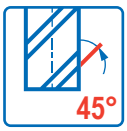
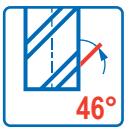
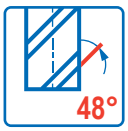
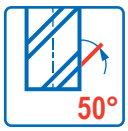
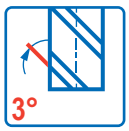
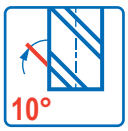
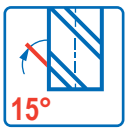
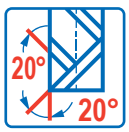
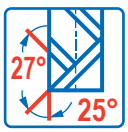
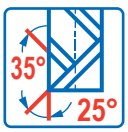
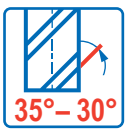
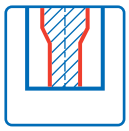
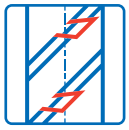
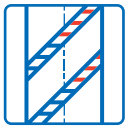
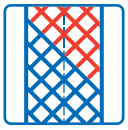
Once in place and optimized, this has proven to be the number one cost saver in multiple applications!

You can find JABRO® JS522 on page 114.

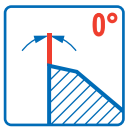
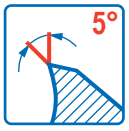
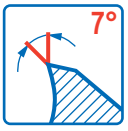
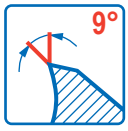
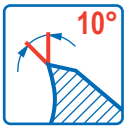
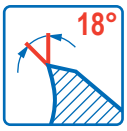
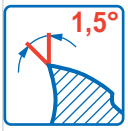
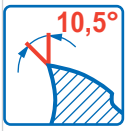
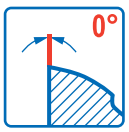
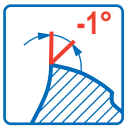
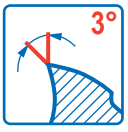
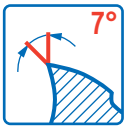
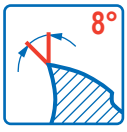
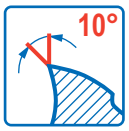
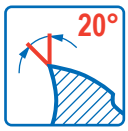
Key symbols

 Center cut PCEDC 1	 Center cut PCEDC 2	 No center cut PCEDC 2	 Center cut PCEDC 3	 No center cut PCEDC 3	 Center cut PCEDC 4
 No center cut PCEDC 4	 Center cut PCEDC 5	 No center cut PCEDC 5	 Center cut PCEDC 6	 No center cut PCEDC 6	 No center cut PCEDC 7
 No center cut PCEDC 8	 No center cut PCEDC 9				
 Cylindrical shank	 Weldon shank	 Safelock shank			
 Sharp	 Chamfer	 Corner radius	 Ball nose	 Tapered sharp	 Tapered ball nose
 Cutter 250°	 T-shape	 Barrel			

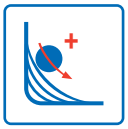
Key symbols

 Helix angle 0°	 Helix angle 3°	 Helix angle 4°	 Helix angle 10°	 Helix angle 15°	 Helix angle 17°	 Helix angle 20°
 Helix angle 25°	 Helix angle 28°	 Helix angle 30°	 Helix angle 35°	 Helix angle 37,5°	 Helix angle 38°	 Helix angle 40°
 Helix angle 41°	 Helix angle 42°	 Helix angle 44°	 Helix angle 45°	 Helix angle 46°	 Helix angle 48°	 Helix angle 50°
 Helix angle Left 3°	 Helix angle Left 10°	 Helix angle Left 15°				 Double left hand helix 40° - 10°
 Double helix 20° - 20°	 Double helix 27° - 25°	 Double helix 35° - 25°	 Double helix 35° - 30°	 Double helix 34° - 36°	 Double helix 36° - 40°	 Double helix 40° - 42°
 Double core	 Tapered Core					
 Chip splitters	 Roughing profile	 Router profile				

Key symbols

 Cutting rake 0° Angular relief	 Cutting rake 1° Angular relief	 Cutting rake -1° Angular relief	 Cutting rake 2° Angular relief	 Cutting rake 3° Angular relief	 Cutting rake 4° Angular relief	 Cutting rake 4-6° Angular relief
 Cutting rake 5° Angular relief	 Cutting rake 6° Angular relief	 Cutting rake 7° Angular relief	 Cutting rake 8° Angular relief	 Cutting rake 9° Angular relief	 Cutting rake 10° Angular relief	 Cutting rake 11° Angular relief
 Cutting rake 12° Angular relief	 Cutting rake -12° Angular relief	 Cutting rake 14° Angular relief	 Cutting rake 15° Angular relief	 Cutting rake 16° Angular relief	 Cutting rake 18° Angular relief	 Cutting rake 20° Angular relief
 Cutting rake -24° Angular relief				 Cutting rake 1,5° Radial relief	 Cutting rake 10,5° Radial relief	 Cutting rake 13° Radial relief
 Cutting rake 0° Radial relief	 Cutting rake -1° Radial relief	 Cutting rake 3° Radial relief	 Cutting rake 5° Radial relief	 Cutting rake 6° Radial relief	 Cutting rake 7° Radial relief	 Cutting rake 8° Radial relief
 Cutting rake 10° Radial relief	 Cutting rake 11° Radial relief	 Cutting rake 15° Radial relief	 Cutting rake 16° Radial relief	 Cutting rake 20° Radial relief	 Cutting rake 7-11° Radial relief	
 ICC straight	 ICC and Y					
Radial	Radial/Ramping	Radial/Ramping/Plunging				

Key symbols

 Diamond	 Dura	 Hemi	 HSCO	 HXT
 Mega	 Mega-T	 Mega-64	 Mega-64-T	 NXT
 Stax	 SIRA	 TAN	 AXT	 Ceramic
 PCD	 M9			
 Regrind possible	 Advanced roughing			

Attributes Solid Milling and X-Heads

Attribute	Explanation
AP1	depth of cut split
APMXS	depth of cut maximum in feed direction side
BHTA	body half taper angle
CA	collision angle
CHW	corner chamfer width
CSP	coolant supply property
CZCMS	connection size code machine side
CZCWS	connection size code workpiece side
DC	cutting diameter
DCSFMS	contact surface diameter machine side
DCSFWS	contact surface diameter workpiece side
DCX	cutting diameter maximum
DMM	shank diameter
DN	neck diameter
FCEDC	face cutting edge count
ICC	internal coolant channel
L	cutting edge length
L2	cutting edge length 2
LF	functional length
LN	neck length
LN2	neck length 2
LSCN	clamping length minimum
NA	neck angle
OAL	overall length
PCEDC	peripheral cutting edge count
PRFA/2	profile angle divided by two
PRFRAD1	profile radius 1
PRFRAD2	profile radius 2
PRFRAD3	profile radius 3
PSIR	tool lead angle
RE	corner radius
RE2	corner radius 2
RP	programming radius
SA	sphere angle
SIG	point angle
SW	wrench size
TQ	torque
TQN	torque minimum
TQX	torque maximum
UTCN	uncut thickness

Attributes Minimaster

Attribute	Explanation
APMXE	depth of cut maximum in feed direction end
APMXS	depth of cut maximum in feed direction side
AZ	plunge depth maximum
BEC	back end chamfer angle
BHTA	body half taper angle
CCER	curved cutting edge radius
Cmax	helical interpolation hole diameter maximum
Cmin	helical interpolation hole diameter minimum
DC	cutting diameter
DCSFMS	contact surface diameter machine side
DCSFWS	contact surface diameter work piece side
DCX	cutting diameter maximum
DMM	shank diameter
DN	neck diameter
FCEDC	face cutting edge count
FHA	flute helix angle
KAPRS	tool cutting edge angle in feed direction side
LE	cutting edge effective length
LF	functional length
LPR	protruding length
OAL	overall length
RA	relief angle
RE	corner radius
RMPX	ramping angle maximum
RP	programming radius
RPMX	rotational speed maximum
SA	sphere angle
SIG	point angle
UTCN	uncut thickness
ZEFP	peripheral effective cutting edge count



UNIVERSAL

Seco offers a complete range of high performance solid carbide square shoulder end mills, ballnose cutters and finish end mills for high productivity and extended tool life. This range covers universal products and optimized end mills for specific workpiece materials.

Universal products offer full machining flexibility at an excellent price/performance ratio.

- JSE512, JSE513, JSE514, JS553, JS554, JS564, JS565 and JS520 with 45° chamfer type.
- JS522, JS553, JS554, JH910, JH930, JHF980, J36, V31, JME542, JME562 and JME564 for radius type.
- JS506, JS509, HK, HKM and J29 for conical type.
- JSB512, JS532, JS533, JS534, JHB970, JMB542, JMB562 and JMB563 for ball-nose type.

Tool Selection Unversal

						
Name		JSE512	JSE513	JSE514	JS553	JS554
Page(s)		37	41	47	57	77
Family name		SOLID²	SOLID²	SOLID²	SOLID²	SOLID²
Type of mill						
Shank	Cylindrical	■	■	■	■	■
	Weldon	■	■	■	■	■
Number of Flutes		2	2	4	3	4
ICC						
Diameter range	Metric	2-12	2-20	2-25	2-25	3-25
	Inch			1/8-3/4	1/8 - 1/2	1/4-1
Length availability		2	2,3	2,3	1,2,3	1,2,3
Operation						
						
						
SMG						
P1-8		●	●	●	●	●
P11-12		○	○	○	●	●
M1-3		●	●	●	●	●
M4-5		○	○	○	●	●
K1-7		●	●	●	●	●
S1-3		○	○	○	●	●
S11-13		○	○	○	●	●
H3 H5 H8 H11 H12 H21 H31		○	○	○	●	●
N1		○	○	○	●	●
N2-3		○	○	○	●	●
N11		○	○	○	●	●
TS1		○	○	○	●	●
TP1		○	○	○	●	●
GR		○	○	○	○	○

■ Stock standard ☐ Weldon available, delivery time is 3 days.
● Preferred choice ○ Alternative choice
*JS554 3C also available. Can be applied in advanced roughing.

Tool Selection Unversal

						
Name		JS564	JS565	JS520	JS522	JSB512
Page(s)		102	106	110	114	117
Family name		SOLID²	SOLID²	SOLID²	SOLID²	SOLID²
Type of mill						
Shank	Cylindrical	■	■	■	■	■
	Weldon	■	■	□		
Number of Flutes		4	5	5,6,8	2	2
ICC						
Diameter range	Metric	3-20	4-20	4-25	6-32	2-12
	Inch					
Length availability		2,3	2,3	2,3	4	2
Operation						
						
						
SMG						
P1-8		●	●	●	●	●
P11-12		○	○	○	●	○
M1-3		●	●	○	●	●
M4-5		●	●	○	●	○
K1-7		●	●	●	●	●
S1-3		●	●	○	○	○
S11-13		●	●	●	●	○
H3 H5 H8 H11 H12 H21 H31		●	●	○		○
N1		●	●	●	●	○
N2-3		●	●	●	●	○
N11		●	●	●	●	○
TS1				●	●	○
TP1				●	●	○
GR				○	○	○

■ Stock standard □ Weldon available, delivery time is 3 days.
● Preferred choice ○ Alternative choice

Tool Selection Unversal

						
Name		JS532	JS533	JS534	JS506	JS509
Page(s)		119	123	127	131	135
Family name		SOLID²	SOLID²	SOLID²	SOLID²	SOLID²
Type of mill						
Shank	Cylindrical	■	■	■	■	■
	Weldon	□	■	■	■	■
Number of Flutes		2	3	4	3-4	3-4
ICC						
Diameter range	Metric	1-20	1-20	2-20	3-12	3-12
	Inch					
Length availability		1,2,3	1,2	1,2,3	2	2
Operation						
						
SMG						
P1-8		●	●	●	●	●
P11-12		○	○	○	○	○
M1-3		●	●	●	●	●
M4-5		●	●	●	●	●
K1-7		●	●	●	●	●
S1-3		○	○	○	○	○
S11-13		●	●	●	●	●
H3 H5 H8 H11 H12 H21 H31					●	●
N1		●	●	●	●	●
N2-3		●	●	●	●	●
N11		●	●	●	●	●
TS1		●	●	●	●	●
TP1		●	●	●	●	●
GR		○	○	○	○	○

■ Stock standard □ Weldon available, delivery time is 3 days.
● Preferred choice ○ Alternative choice

Tool Selection Unversal

					
Name		JH910	JH930	JHB970	JHF980
Page(s)		139	143, 392	145, 206	147
Family name		HSM/TORNADO	HSM/TORNADO	HSM/TORNADO	HFM
Type of mill					
Shank	Cylindrical	■	■	■	■
	Weldon				
Number of Flutes		3	5-6, 8	2	2,3,4,5
ICC					
Diameter range	Metric	2-20	6-20	2-16	1-12
	Inch				
Length availability		2,3,4	2	1,2,3	1,2,3,4
Operation					
					
					
SMG					
P1-8		●	●	●	●
P11-12		○	○	○	○
M1-3		●		●	●
M4-5		●		●	●
K1-7		●	●		●
S1-3		●	●	●	●
S11-13		●	●	●	●
H3 H5 H8 H11 H12 H21 H31			●		○
N1					
N2-3					
N11					
TS1					
TP1		●			
GR		●			

■ Stock standard □ Weldon available, delivery time is 3 days.
● Preferred choice ○ Alternative choice

Tool Selection Unversal

					
Name		J29	J36	HK/HKM	V31
Page(s)		151	154	157	168
Family name		VHM	VHM	VHM	VHM
Type of mill					
Shank	Cylindrical	■	■	■	■
	Weldon				
Number of Flutes		1	3	2,3,4	4
ICC					
Diameter range	Metric	0,2-6	2-20	1-10	6-28
	Inch				
Length availability		2	2	2	2
Operation					
					
					
SMG					
P1-8		●	○	●	●
P11-12		●	●		○
M1-3		●	○	●	●
M4-5		●	○	●	○
K1-7		●	○	●	●
S1-3		●	○	●	●
S11-13		●	○	●	●
H3 H5 H8 H11 H12 H21 H31		○		●	●
N1		●	○	●	●
N2-3		●	●	○	●
N11		●	●		●
TS1		●	○	●	●
TP1		●	○	●	●
GR		●			●

■ Stock standard ☐ Weldon available, delivery time is 3 days.
● Preferred choice ○ Alternative choice

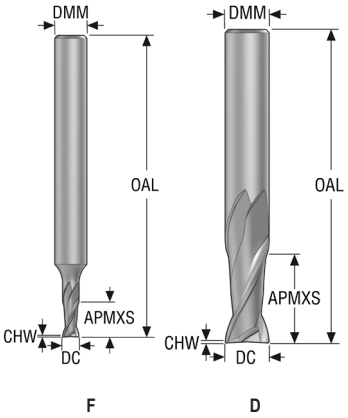
Tool Selection Unversal

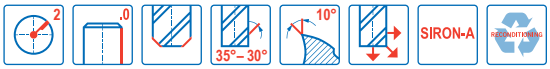
							
Name		JME542	JME562	JME564	JMB542	JMB562	JMB563
Page(s)		171	174	178	181	184	188
Family name		MINI	MINI	MINI	MINI	MINI	MINI
Type of mill							
Shank	Cylindrical	■	■	■	■	■	■
	Weldon						
Number of Flutes		2	2	4	2	2	3
ICC							
Diameter range	Metric	2-20	0,5-3,0	0,5-3,0	0,2-3,0	0,5-3,0	1,0-3,0
	Inch						
Length availability		1,3,4,5,6	2,4,5,6,7	2,4	1,3,4,5,6	1,2,3,4,5,6	2,4
Operation							
							
							
SMG							
P1-8		●	●	●	●	●	●
P11-12		●	●	●	●	●	●
M1-3		●	●	●	●	●	●
M4-5		●	●	●	●	●	●
K1-7							
S1-3							
S11-13		●	●	●	●	●	●
H3 H5 H8 H11 H12 H21 H31							
N1		○	○	○	○	○	○
N2-3		○	○	○	○	○	○
N11		○	○	○	○	○	○
TS1							
TP1							
GR		○	○	○	○	○	○

■ Stock standard ☐ Weldon available, delivery time is 3 days.
● Preferred choice ○ Alternative choice

JSE512

General purpose – Universal – Square – 2 Flutes – Cylindrical – chamfer







- Tolerances:
- DMM=h5
- DC=e8
- Regrind possible if DC is ≥Ø10

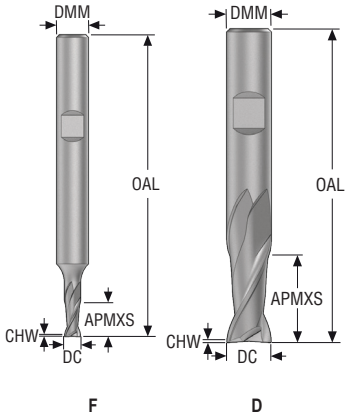
Designation	Grade	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	CHW	PCEDC	Cylindrical
					mm	mm	mm	mm	mm		
JSE512021F2C.0Z2	SIRA	10052986	2	F	2,0	3,0	4,0	50,0	0,02	2	■
JSE512020F2C.0Z2	SIRA	10052990	2	F	2,0	6,0	4,0	57,0	0,02	2	■
JSE512030D2C.0Z2	SIRA	10052987	2	D	3,0	3,0	6,0	50,0	0,03	2	■
JSE512030F2C.0Z2	SIRA	10052991	2	F	3,0	6,0	6,0	57,0	0,03	2	■
JSE512040D2C.0Z2	SIRA	10052988	2	D	4,0	4,0	8,0	50,0	0,04	2	■
JSE512040F2C.0Z2	SIRA	10052992	2	F	4,0	6,0	8,0	57,0	0,04	2	■
JSE512050D2C.0Z2	SIRA	10052989	2	D	5,0	5,0	10,0	50,0	0,05	2	■
JSE512060D2C.0Z2	SIRA	10052993	2	D	6,0	6,0	12,0	57,0	0,06	2	■
JSE512080D2C.0Z2	SIRA	10052994	2	D	8,0	8,0	16,0	63,0	0,08	2	■
JSE512100D2C.0Z2	SIRA	10052995	2	D	10,0	10,0	20,0	72,0	0,1	2	■
JSE512120D2C.0Z2	SIRA	10052996	2	D	12,0	12,0	24,0	83,0	0,12	2	■

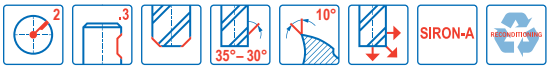
■ Stocked standard.

JSE512

General purpose – Universal – Square – 2 Flutes – Weldon – chamfer







- Tolerances:
- DMM=h5
- DC=e8
- Regrind possible if DC is ≥Ø10

Designation	Grade	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	CHW	PCEDC	Weldon
					mm	mm	mm	mm	mm		
JSE512020F2C.3Z2	SIRA	10053113	2	F	2,0	6,0	4,0	57,0	0,02	2	■
JSE512030F2C.3Z2	SIRA	10053114	2	F	3,0	6,0	6,0	57,0	0,03	2	■
JSE512040F2C.3Z2	SIRA	10053115	2	F	4,0	6,0	8,0	57,0	0,04	2	■
JSE512060D2C.3Z2	SIRA	10053116	2	D	6,0	6,0	12,0	57,0	0,06	2	■
JSE512080D2C.3Z2	SIRA	10053117	2	D	8,0	8,0	16,0	63,0	0,08	2	■
JSE512100D2C.3Z2	SIRA	10053118	2	D	10,0	10,0	20,0	72,0	0,1	2	■
JSE512120D2C.3Z2	SIRA	10053119	2	D	12,0	12,0	24,0	83,0	0,12	2	■

■ Stocked standard.

Cutting data – JSE512 Side milling

SMG		a_e/DC	a_p/DC	f_z								v_c
				2	3	4	5	6	8	10	12	
P1	M/A/D/E	0.250 *0,250*	1.5 *1,5*	0.012 *0,00048*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	145 (61 — 180) *475 (210 — 590)*
P2	M/A/D/E	0.250 *0,250*	1.5 *1,5*	0.012 *0,00048*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	145 (61 — 180) *475 (210 — 590)*
P3	M/A/D/E	0.250 *0,250*	1.5 *1,5*	0.012 *0,00048*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	145 (61 — 180) *475 (210 — 590)*
P4	M/A/D/E	0.250 *0,250*	1.5 *1,5*	0.012 *0,00048*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	145 (61 — 180) *475 (210 — 590)*
P5	M/A/D/E	0.250 *0,250*	1.5 *1,5*	0.012 *0,00048*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	145 (61 — 180) *475 (210 — 590)*
P6	M/A/D/E	0.250 *0,250*	1.5 *1,5*	0.012 *0,00048*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	145 (61 — 180) *475 (210 — 590)*
P7	M/A/D/E	0.250 *0,250*	1.5 *1,5*	0.012 *0,00048*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	145 (61 — 180) *475 (210 — 590)*
P8	M/A/D/E	0.250 *0,250*	1.5 *1,5*	0.012 *0,00048*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	145 (61 — 180) *475 (210 — 590)*
P11	M/A/D/E	0.250 *0,250*	1.5 *1,5*	0.012 *0,00048*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	85 (61 — 120) *280 (210 — 390)*
P12	M/A/D/E	0.250 *0,250*	1.5 *1,5*	0.012 *0,00048*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	85 (61 — 120) *280 (210 — 390)*
M1	E/M/A	0.250 *0,250*	1.5 *1,5*	0.012 *0,00048*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	85 (61 — 120) *280 (210 — 390)*
M2	E/M/A	0.250 *0,250*	1.5 *1,5*	0.012 *0,00048*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	85 (61 — 120) *280 (210 — 390)*
M3	E/M/A	0.250 *0,250*	1.5 *1,5*	0.012 *0,00048*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	85 (61 — 120) *280 (210 — 390)*
M4	E/M/A	0.250 *0,250*	1.5 *1,5*	0.012 *0,00048*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	85 (61 — 120) *280 (210 — 390)*
M5	E/M/A	0.250 *0,250*	1.5 *1,5*	0.012 *0,00048*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	85 (61 — 120) *280 (210 — 390)*
K1	A/D/M/E	0.250 *0,250*	1.5 *1,5*	0.012 *0,00048*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	145 (61 — 180) *475 (210 — 590)*
K2	A/D/M/E	0.250 *0,250*	1.5 *1,5*	0.012 *0,00048*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	145 (61 — 180) *475 (210 — 590)*
K3	A/D/M/E	0.250 *0,250*	1.5 *1,5*	0.012 *0,00048*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	145 (61 — 180) *475 (210 — 590)*
K4	A/D/M/E	0.250 *0,250*	1.5 *1,5*	0.012 *0,00048*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	145 (61 — 180) *475 (210 — 590)*
K5	A/D/M/E	0.250 *0,250*	1.5 *1,5*	0.012 *0,00048*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	145 (61 — 180) *475 (210 — 590)*
K6	A/D/M/E	0.250 *0,250*	1.5 *1,5*	0.012 *0,00048*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	145 (61 — 180) *475 (210 — 590)*
K7	A/D/M/E	0.250 *0,250*	1.5 *1,5*	0.012 *0,00048*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	145 (61 — 180) *475 (210 — 590)*
N1	E/M/A	0.200 *0,200*	1.5 *1,5*	0.020 *0,00080*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	500 (380 — 630) *1650 (1300 — 2000)*
N11	E/M/A	0.250 *0,250*	1.5 *1,5*	0.012 *0,00048*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	365 (250 — 480) *1200 (830 — 1500)*
S11	E	0.250 *0,250*	1.5 *1,5*	0.012 *0,00048*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	85 (61 — 120) *280 (210 — 390)*
S12	E	0.250 *0,250*	1.5 *1,5*	0.012 *0,00048*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	85 (61 — 120) *280 (210 — 390)*
S13	E	0.250 *0,250*	1.5 *1,5*	0.012 *0,00048*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	85 (61 — 120) *280 (210 — 390)*

For cutting data recalculations, see pages 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

Cutting data – JSE512 Slot milling

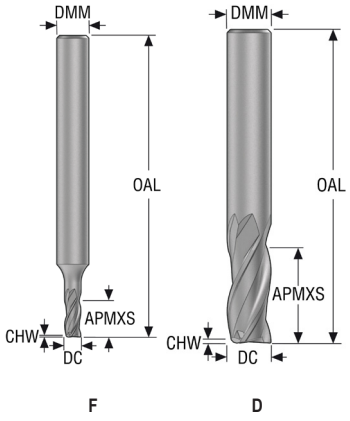
SMG		a_p/DC	f_z								v_c
			2	3	4	5	6	8	10	12	
P1	M/A/D/E	0.60 *0,60*	0.0060 *0,00024*	0.0090 *0,00036*	0.012 *0,00048*	0.015 *0,00060*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	120 (51 — 150) *395 (170 — 490)*
P2	M/A/D/E	0.60 *0,60*	0.0060 *0,00024*	0.0090 *0,00036*	0.012 *0,00048*	0.015 *0,00060*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	120 (50 — 140) *395 (170 — 450)*
P3	M/A/D/E	0.60 *0,60*	0.0060 *0,00024*	0.0090 *0,00036*	0.012 *0,00048*	0.015 *0,00060*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	120 (51 — 150) *395 (170 — 490)*
P4	M/A/D/E	0.60 *0,60*	0.0060 *0,00024*	0.0090 *0,00036*	0.012 *0,00048*	0.015 *0,00060*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	120 (50 — 140) *395 (170 — 450)*
P5	M/A/D/E	0.60 *0,60*	0.0060 *0,00024*	0.0090 *0,00036*	0.012 *0,00048*	0.015 *0,00060*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	120 (50 — 140) *395 (170 — 450)*
P6	M/A/D/E	0.60 *0,60*	0.0060 *0,00024*	0.0090 *0,00036*	0.012 *0,00048*	0.015 *0,00060*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	120 (50 — 140) *395 (170 — 450)*
P7	M/A/D/E	0.60 *0,60*	0.0060 *0,00024*	0.0090 *0,00036*	0.012 *0,00048*	0.015 *0,00060*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	120 (51 — 150) *395 (170 — 490)*
P8	M/A/D/E	0.60 *0,60*	0.0060 *0,00024*	0.0090 *0,00036*	0.012 *0,00048*	0.015 *0,00060*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	120 (50 — 140) *395 (170 — 450)*
P11	M/A/D/E	0.60 *0,60*	0.0060 *0,00024*	0.0090 *0,00036*	0.012 *0,00048*	0.015 *0,00060*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	70 (51 — 100) *230 (170 — 320)*
P12	M/A/D/E	0.60 *0,60*	0.0060 *0,00024*	0.0090 *0,00036*	0.012 *0,00048*	0.015 *0,00060*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	70 (50 — 99) *230 (170 — 320)*
M1	E/M/A	0.60 *0,60*	0.0060 *0,00024*	0.0090 *0,00036*	0.012 *0,00048*	0.015 *0,00060*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	70 (50 — 99) *230 (170 — 320)*
M2	E/M/A	0.60 *0,60*	0.0060 *0,00024*	0.0090 *0,00036*	0.012 *0,00048*	0.015 *0,00060*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	70 (50 — 99) *230 (170 — 320)*
M3	E/M/A	0.60 *0,60*	0.0060 *0,00024*	0.0090 *0,00036*	0.012 *0,00048*	0.015 *0,00060*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	70 (50 — 99) *230 (170 — 320)*
M4	E/M/A	0.60 *0,60*	0.0060 *0,00024*	0.0090 *0,00036*	0.012 *0,00048*	0.015 *0,00060*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	70 (50 — 99) *230 (170 — 320)*
M5	E/M/A	0.60 *0,60*	0.0060 *0,00024*	0.0090 *0,00036*	0.012 *0,00048*	0.015 *0,00060*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	70 (50 — 99) *230 (170 — 320)*
K1	A/D/M/E	0.60 *0,60*	0.0060 *0,00024*	0.0090 *0,00036*	0.012 *0,00048*	0.015 *0,00060*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	120 (50 — 140) *395 (170 — 450)*
K2	A/D/M/E	0.60 *0,60*	0.0060 *0,00024*	0.0090 *0,00036*	0.012 *0,00048*	0.015 *0,00060*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	120 (50 — 140) *395 (170 — 450)*
K3	A/D/M/E	0.60 *0,60*	0.0060 *0,00024*	0.0090 *0,00036*	0.012 *0,00048*	0.015 *0,00060*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	120 (50 — 140) *395 (170 — 450)*
K4	A/D/M/E	0.60 *0,60*	0.0060 *0,00024*	0.0090 *0,00036*	0.012 *0,00048*	0.015 *0,00060*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	120 (50 — 140) *395 (170 — 450)*
K5	A/D/M/E	0.60 *0,60*	0.0060 *0,00024*	0.0090 *0,00036*	0.012 *0,00048*	0.015 *0,00060*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	120 (50 — 140) *395 (170 — 450)*
K6	A/D/M/E	0.60 *0,60*	0.0060 *0,00024*	0.0090 *0,00036*	0.012 *0,00048*	0.015 *0,00060*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	120 (50 — 140) *395 (170 — 450)*
K7	A/D/M/E	0.60 *0,60*	0.0060 *0,00024*	0.0090 *0,00036*	0.012 *0,00048*	0.015 *0,00060*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	120 (50 — 140) *395 (170 — 450)*
N1	E/M/A	0.40 *0,40*	0.010 *0,00040*	0.015 *0,00060*	0.020 *0,00080*	0.025 *0,0010*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	400 (300 — 500) *1300 (990 — 1600)*
N11	E/M/A	0.60 *0,60*	0.0060 *0,00024*	0.0090 *0,00036*	0.012 *0,00048*	0.015 *0,00060*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	300 (200 — 390) *980 (660 — 1200)*
S11	E	0.60 *0,60*	0.0060 *0,00024*	0.0090 *0,00036*	0.012 *0,00048*	0.015 *0,00060*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	70 (50 — 99) *230 (170 — 320)*
S12	E	0.60 *0,60*	0.0060 *0,00024*	0.0090 *0,00036*	0.012 *0,00048*	0.015 *0,00060*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	70 (50 — 99) *230 (170 — 320)*
S13	E	0.60 *0,60*	0.0060 *0,00024*	0.0090 *0,00036*	0.012 *0,00048*	0.015 *0,00060*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	70 (50 — 99) *230 (170 — 320)*

For cutting data recalculations, see pages 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

JSE513

General purpose – Universal – Square – 3 Flutes – Cylindrical – chamfer





- Tolerances:
- DMM=h5
- DC=e8
- Regrind possible if DC is ≥Ø10

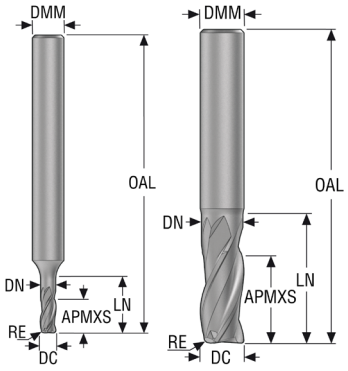
Designation	Grade	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	CHW	PCEDC	Cylindrical
					mm	mm	mm	mm	mm		
JSE513020F2C.0Z3	SIRA	10053000	2	F	2,0	6,0	4,0	57,0	0,02	3	■
JSE513025F2C.0Z3	SIRA	10053001	2	F	2,5	6,0	5,0	57,0	0,025	3	■
JSE513030D2C.0Z3	SIRA	10052998	2	D	3,0	3,0	6,0	50,0	0,03	3	■
JSE513030F2C.0Z3	SIRA	10053002	2	F	3,0	6,0	6,0	57,0	0,03	3	■
JSE513040D2C.0Z3	SIRA	10052999	2	D	4,0	4,0	8,0	50,0	0,04	3	■
JSE513040F2C.0Z3	SIRA	10053003	2	F	4,0	6,0	8,0	57,0	0,04	3	■
JSE513050F2C.0Z3	SIRA	10053004	2	F	5,0	6,0	10,0	57,0	0,05	3	■
JSE513060D2C.0Z3	SIRA	10053005	2	D	6,0	6,0	12,0	57,0	0,06	3	■
JSE513070F2C.0Z3	SIRA	10053006	2	F	7,0	8,0	14,0	63,0	0,07	3	■
JSE513080D2C.0Z3	SIRA	10053007	2	D	8,0	8,0	16,0	63,0	0,08	3	■
JSE513090F2C.0Z3	SIRA	10053008	2	F	9,0	10,0	18,0	72,0	0,09	3	■
JSE513100D2C.0Z3	SIRA	10053009	2	D	10,0	10,0	20,0	72,0	0,1	3	■
JSE513110F2C.0Z3	SIRA	10053010	2	F	11,0	12,0	22,0	83,0	0,11	3	■
JSE513120D2C.0Z3	SIRA	10053011	2	D	12,0	12,0	24,0	83,0	0,12	3	■
JSE513140D2C.0Z3	SIRA	10053012	2	D	14,0	14,0	28,0	80,0	0,14	3	■
JSE513160D2C.0Z3	SIRA	10053013	2	D	16,0	16,0	32,0	92,0	0,16	3	■
JSE513180D2C.0Z3	SIRA	10053014	2	D	18,0	18,0	35,0	100,0	0,18	3	■
JSE513200D2C.0Z3	SIRA	10053015	2	D	20,0	20,0	35,0	104,0	0,2	3	■
JSE513030F3C.0Z3	SIRA	10053038	3	F	3,0	6,0	10,0	57,0	0,03	3	■
JSE513040F3C.0Z3	SIRA	10053039	3	F	4,0	6,0	14,0	57,0	0,04	3	■
JSE513050F3C.0Z3	SIRA	10053040	3	F	5,0	6,0	18,0	57,0	0,05	3	■
JSE513060D3C.0Z3	SIRA	10053046	3	D	6,0	6,0	20,0	63,0	0,06	3	■
JSE513080D3C.0Z3	SIRA	10053047	3	D	8,0	8,0	28,0	80,0	0,08	3	■
JSE513100D3C.0Z3	SIRA	10053048	3	D	10,0	10,0	35,0	89,0	0,1	3	■
JSE513120D3C.0Z3	SIRA	10053049	3	D	12,0	12,0	42,0	100,0	0,12	3	■
JSE513160D3C.0Z3	SIRA	10053050	3	D	16,0	16,0	50,0	115,0	0,16	3	■
JSE513200D3C.0Z3	SIRA	10053052	3	D	20,0	20,0	60,0	125,0	0,2	3	■
JSE513030F4C.0Z3	SIRA	10201454	4	F	3,0	6,0	15,0	57,0	0,03	3	■
JSE513040F4C.0Z3	SIRA	10201455	4	F	4,0	6,0	20,0	63,0	0,04	3	■
JSE513050F4C.0Z3	SIRA	10201456	4	F	5,0	6,0	25,0	75,0	0,05	3	■
JSE513060D4C.0Z3	SIRA	10201457	4	D	6,0	6,0	30,0	75,0	0,06	3	■
JSE513080D4C.0Z3	SIRA	10201458	4	D	8,0	8,0	40,0	87,0	0,08	3	■
JSE513100D4C.0Z3	SIRA	10201459	4	D	10,0	10,0	50,0	104,0	0,1	3	■
JSE513120D4C.0Z3	SIRA	10201460	4	D	12,0	12,0	60,0	125,0	0,12	3	■
JSE513160D4C.0Z3	SIRA	10201461	4	D	16,0	16,0	80,0	150,0	0,16	3	■
JSE513200D4C.0Z3	SIRA	10201462	4	D	20,0	20,0	100,0	170,0	0,2	3	■

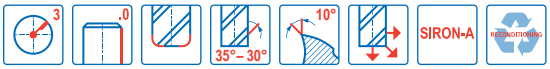
■ Stocked standard.

JSE513

General purpose – Universal – Square – 3 Flutes – Cylindrical – Corner radius







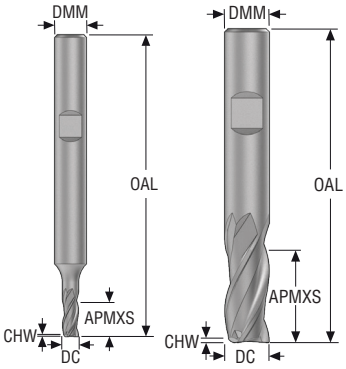
- Tolerances:
- DMM=h5
- DC=e8
- RE= ±0,05 mm
- Regrind possible if DC is ≥Ø10

Designation	Grade	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Cylindrical
					mm	mm	mm	mm	mm	mm	mm		
JSE513030G2R050.0Z3	SIRA	10053023	2	G	3,0	6,0	6,0	57,0	10,0	2,85	0,5	3	■
JSE513040G2R050.0Z3	SIRA	10053024	2	G	4,0	6,0	8,0	57,0	13,0	3,8	0,5	3	■
JSE513050G2R050.0Z3	SIRA	10053025	2	G	5,0	6,0	10,0	57,0	16,0	4,75	0,5	3	■
JSE513060E2R050.0Z3	SIRA	10053026	2	E	6,0	6,0	12,0	57,0	18,0	5,7	0,5	3	■
JSE513060E2R100.0Z3	SIRA	10053032	2	E	6,0	6,0	12,0	57,0	18,0	5,7	1,0	3	■
JSE513080E2R050.0Z3	SIRA	10053027	2	E	8,0	8,0	16,0	63,0	25,0	7,6	0,5	3	■
JSE513080E2R100.0Z3	SIRA	10053033	2	E	8,0	8,0	16,0	63,0	25,0	7,6	1,0	3	■
JSE513100E2R050.0Z3	SIRA	10053028	2	E	10,0	10,0	20,0	72,0	29,0	9,5	0,5	3	■
JSE513100E2R100.0Z3	SIRA	10053034	2	E	10,0	10,0	20,0	72,0	29,0	9,5	1,0	3	■
JSE513120E2R050.0Z3	SIRA	10053029	2	E	12,0	12,0	24,0	83,0	35,0	11,4	0,5	3	■
JSE513120E2R100.0Z3	SIRA	10053035	2	E	12,0	12,0	24,0	83,0	35,0	11,4	1,0	3	■
JSE513160E2R050.0Z3	SIRA	10053030	2	E	16,0	16,0	32,0	92,0	42,0	15,2	0,5	3	■
JSE513160E2R100.0Z3	SIRA	10053036	2	E	16,0	16,0	28,0	92,0	42,0	15,2	1,0	3	■
JSE513200E2R050.0Z3	SIRA	10053031	2	E	20,0	20,0	35,0	104,0	51,0	19,0	0,5	3	■
JSE513200E2R100.0Z3	SIRA	10053037	2	E	20,0	20,0	35,0	104,0	51,0	19,0	1,0	3	■

■ Stocked standard.

JSE513

General purpose – Universal – Square – 3 Flutes – Weldon – chamfer





- Tolerances:
- DMM=h5
- DC=e8
- Regrind possible if DC is ≥Ø10

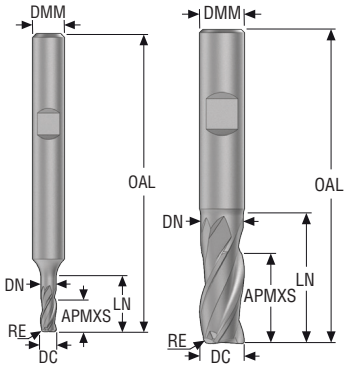
Designation	Grade	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	CHW	PCEDC	Weldon
					mm	mm	mm	mm	mm		
JSE513020F2C.3Z3	SIRA	10053120	2	F	2,0	6,0	4,0	57,0	0,02	3	■
JSE513025F2C.3Z3	SIRA	10053121	2	F	2,5	6,0	5,0	57,0	0,025	3	■
JSE513030F2C.3Z3	SIRA	10053122	2	F	3,0	6,0	6,0	57,0	0,03	3	■
JSE513040F2C.3Z3	SIRA	10053123	2	F	4,0	6,0	8,0	57,0	0,04	3	■
JSE513050F2C.3Z3	SIRA	10053124	2	F	5,0	6,0	10,0	57,0	0,05	3	■
JSE513060D2C.3Z3	SIRA	10053125	2	D	6,0	6,0	12,0	57,0	0,06	3	■
JSE513070F2C.3Z3	SIRA	10053126	2	F	7,0	8,0	14,0	63,0	0,07	3	■
JSE513080D2C.3Z3	SIRA	10053127	2	D	8,0	8,0	16,0	63,0	0,08	3	■
JSE513090F2C.3Z3	SIRA	10053128	2	F	9,0	10,0	18,0	72,0	0,09	3	■
JSE513100D2C.3Z3	SIRA	10053129	2	D	10,0	10,0	20,0	72,0	0,1	3	■
JSE513110F2C.3Z3	SIRA	10053130	2	F	11,0	12,0	22,0	83,0	0,11	3	■
JSE513120D2C.3Z3	SIRA	10053131	2	D	12,0	12,0	24,0	83,0	0,12	3	■
JSE513140D2C.3Z3	SIRA	10053132	2	D	14,0	14,0	28,0	80,0	0,14	3	■
JSE513160D2C.3Z3	SIRA	10053133	2	D	16,0	16,0	32,0	92,0	0,16	3	■
JSE513180D2C.3Z3	SIRA	10053258	2	D	18,0	18,0	35,0	100,0	0,18	3	■
JSE513200D2C.3Z3	SIRA	10053259	2	D	20,0	20,0	35,0	104,0	0,2	3	■
JSE513030F3C.3Z3	SIRA	10053275	3	F	3,0	6,0	10,0	57,0	0,03	3	■
JSE513040F3C.3Z3	SIRA	10053276	3	F	4,0	6,0	14,0	57,0	0,04	3	■
JSE513050F3C.3Z3	SIRA	10053277	3	F	5,0	6,0	18,0	57,0	0,05	3	■
JSE513060D3C.3Z3	SIRA	10053283	3	D	6,0	6,0	20,0	63,0	0,06	3	■
JSE513080D3C.3Z3	SIRA	10053284	3	D	8,0	8,0	28,0	80,0	0,08	3	■
JSE513100D3C.3Z3	SIRA	10053285	3	D	10,0	10,0	35,0	89,0	0,1	3	■
JSE513120D3C.3Z3	SIRA	10053286	3	D	12,0	12,0	42,0	100,0	0,12	3	■
JSE513160D3C.3Z3	SIRA	10053287	3	D	16,0	16,0	50,0	115,0	0,16	3	■
JSE513200D3C.3Z3	SIRA	10053288	3	D	20,0	20,0	60,0	125,0	0,2	3	■
JSE513030F4C.3Z3	SIRA	10201463	4	F	3,0	6,0	15,0	57,0	0,03	3	■
JSE513040F4C.3Z3	SIRA	10201464	4	F	4,0	6,0	20,0	63,0	0,04	3	■
JSE513050F4C.3Z3	SIRA	10201465	4	F	5,0	6,0	25,0	75,0	0,05	3	■
JSE513060D4C.3Z3	SIRA	10201466	4	D	6,0	6,0	30,0	75,0	0,06	3	■
JSE513080D4C.3Z3	SIRA	10201467	4	D	8,0	8,0	40,0	87,0	0,08	3	■
JSE513100D4C.3Z3	SIRA	10201468	4	D	10,0	10,0	50,0	104,0	0,1	3	■
JSE513120D4C.3Z3	SIRA	10201469	4	D	12,0	12,0	60,0	125,0	0,12	3	■
JSE513160D4C.3Z3	SIRA	10201470	4	D	16,0	16,0	80,0	150,0	0,16	3	■
JSE513200D4C.3Z3	SIRA	10201471	4	D	20,0	20,0	100,0	170,0	0,2	3	■

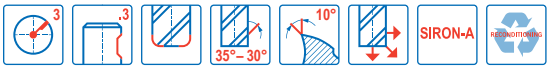
■ Stocked standard.

JSE513

General purpose – Universal – Square – 3 Flutes – Weldon – Corner radius







- Tolerances:
- DMM=h5
- DC=e8
- RE= ±0,05 mm
- Regrind possible if DC is ≥Ø10

Designation	Grade	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Weldon
					mm	mm	mm	mm	mm	mm	mm		
JSE513030G2R050.3Z3	SIRA	10053260	2	G	3,0	6,0	6,0	57,0	10,0	2,85	0,5	3	■
JSE513040G2R050.3Z3	SIRA	10053261	2	G	4,0	6,0	8,0	57,0	13,0	3,8	0,5	3	■
JSE513050G2R050.3Z3	SIRA	10053262	2	G	5,0	6,0	10,0	57,0	16,0	4,75	0,5	3	■
JSE513060E2R050.3Z3	SIRA	10053263	2	E	6,0	6,0	12,0	57,0	18,0	5,7	0,5	3	■
JSE513060E2R100.3Z3	SIRA	10053269	2	E	6,0	6,0	12,0	57,0	18,0	5,7	1,0	3	■
JSE513080E2R050.3Z3	SIRA	10053264	2	E	8,0	8,0	16,0	63,0	25,0	7,6	0,5	3	■
JSE513080E2R100.3Z3	SIRA	10053270	2	E	8,0	8,0	16,0	63,0	25,0	7,6	1,0	3	■
JSE513100E2R050.3Z3	SIRA	10053265	2	E	10,0	10,0	20,0	72,0	29,0	9,5	0,5	3	■
JSE513100E2R100.3Z3	SIRA	10053271	2	E	10,0	10,0	20,0	72,0	29,0	9,5	1,0	3	■
JSE513120E2R050.3Z3	SIRA	10053266	2	E	12,0	12,0	24,0	83,0	35,0	11,4	0,5	3	■
JSE513120E2R100.3Z3	SIRA	10053272	2	E	12,0	12,0	24,0	83,0	35,0	11,4	1,0	3	■
JSE513160E2R050.3Z3	SIRA	10053267	2	E	16,0	16,0	32,0	92,0	42,0	15,2	0,5	3	■
JSE513160E2R100.3Z3	SIRA	10053273	2	E	16,0	16,0	28,0	92,0	42,0	15,2	1,0	3	■
JSE513200E2R050.3Z3	SIRA	10053268	2	E	20,0	20,0	35,0	104,0	51,0	19,0	0,5	3	■
JSE513200E2R100.3Z3	SIRA	10053274	2	E	20,0	20,0	35,0	104,0	51,0	19,0	1,0	3	■

■ Stocked standard.

Cutting data – JSE513 Side milling

SMG		a_e/DC	a_p/DC	f_z														v_c
				2	3	4	5	6	7	8	9	10	11	12	14	16	18	20	
P1	M/A/D/E	0.200	1.5	0.012	0.018	0.024	0.030	0.036	0.042	0.048	0.055	0.060	0.065	0.070	0.080	0.090	0.095	0.10	155 (65 — 190)
		0,200	*1,5*	*0,00048*	*0,00070*	*0,00095*	*0,0012*	*0,0014*	*0,0017*	*0,0019*	*0,0022*	*0,0024*	*0,0026*	*0,0028*	*0,0032*	*0,0036*	*0,0038*	*0,0040*	*510 (220 — 620)*
P2	M/A/D/E	0.200	1.5	0.012	0.018	0.024	0.030	0.036	0.042	0.048	0.055	0.060	0.065	0.070	0.080	0.090	0.095	0.10	155 (65 — 190)
		0,200	*1,5*	*0,00048*	*0,00070*	*0,00095*	*0,0012*	*0,0014*	*0,0017*	*0,0019*	*0,0022*	*0,0024*	*0,0026*	*0,0028*	*0,0032*	*0,0036*	*0,0038*	*0,0040*	*510 (220 — 620)*
P3	M/A/D/E	0.200	1.5	0.012	0.018	0.024	0.030	0.036	0.042	0.048	0.055	0.060	0.065	0.070	0.080	0.090	0.095	0.10	155 (65 — 190)
		0,200	*1,5*	*0,00048*	*0,00070*	*0,00095*	*0,0012*	*0,0014*	*0,0017*	*0,0019*	*0,0022*	*0,0024*	*0,0026*	*0,0028*	*0,0032*	*0,0036*	*0,0038*	*0,0040*	*510 (220 — 620)*
P4	M/A/D/E	0.200	1.5	0.012	0.018	0.024	0.030	0.036	0.042	0.048	0.055	0.060	0.065	0.070	0.080	0.090	0.095	0.10	155 (65 — 190)
		0,200	*1,5*	*0,00048*	*0,00070*	*0,00095*	*0,0012*	*0,0014*	*0,0017*	*0,0019*	*0,0022*	*0,0024*	*0,0026*	*0,0028*	*0,0032*	*0,0036*	*0,0038*	*0,0040*	*510 (220 — 620)*
P5	M/A/D/E	0.200	1.5	0.012	0.018	0.024	0.030	0.036	0.042	0.048	0.055	0.060	0.065	0.070	0.080	0.090	0.095	0.10	155 (65 — 190)
		0,200	*1,5*	*0,00048*	*0,00070*	*0,00095*	*0,0012*	*0,0014*	*0,0017*	*0,0019*	*0,0022*	*0,0024*	*0,0026*	*0,0028*	*0,0032*	*0,0036*	*0,0038*	*0,0040*	*510 (220 — 620)*
P6	M/A/D/E	0.200	1.5	0.012	0.018	0.024	0.030	0.036	0.042	0.048	0.055	0.060	0.065	0.070	0.080	0.090	0.095	0.10	155 (65 — 190)
		0,200	*1,5*	*0,00048*	*0,00070*	*0,00095*	*0,0012*	*0,0014*	*0,0017*	*0,0019*	*0,0022*	*0,0024*	*0,0026*	*0,0028*	*0,0032*	*0,0036*	*0,0038*	*0,0040*	*510 (220 — 620)*
P7	M/A/D/E	0.200	1.5	0.012	0.018	0.024	0.030	0.036	0.042	0.048	0.055	0.060	0.065	0.070	0.080	0.090	0.095	0.10	155 (65 — 190)
		0,200	*1,5*	*0,00048*	*0,00070*	*0,00095*	*0,0012*	*0,0014*	*0,0017*	*0,0019*	*0,0022*	*0,0024*	*0,0026*	*0,0028*	*0,0032*	*0,0036*	*0,0038*	*0,0040*	*510 (220 — 620)*
P8	M/A/D/E	0.200	1.5	0.012	0.018	0.024	0.030	0.036	0.042	0.048	0.055	0.060	0.065	0.070	0.080	0.090	0.095	0.10	155 (65 — 190)
		0,200	*1,5*	*0,00048*	*0,00070*	*0,00095*	*0,0012*	*0,0014*	*0,0017*	*0,0019*	*0,0022*	*0,0024*	*0,0026*	*0,0028*	*0,0032*	*0,0036*	*0,0038*	*0,0040*	*510 (220 — 620)*
P11	M/A/D/E	0.200	1.5	0.012	0.018	0.024	0.030	0.036	0.042	0.048	0.055	0.060	0.065	0.070	0.080	0.090	0.095	0.10	90 (65 — 120)
		0,200	*1,5*	*0,00048*	*0,00070*	*0,00095*	*0,0012*	*0,0014*	*0,0017*	*0,0019*	*0,0022*	*0,0024*	*0,0026*	*0,0028*	*0,0032*	*0,0036*	*0,0038*	*0,0040*	*295 (220 — 390)*
P12	M/A/D/E	0.200	1.5	0.012	0.018	0.024	0.030	0.036	0.042	0.048	0.055	0.060	0.065	0.070	0.080	0.090	0.095	0.10	90 (64 — 120)
		0,200	*1,5*	*0,00048*	*0,00070*	*0,00095*	*0,0012*	*0,0014*	*0,0017*	*0,0019*	*0,0022*	*0,0024*	*0,0026*	*0,0028*	*0,0032*	*0,0036*	*0,0038*	*0,0040*	*295 (210 — 390)*
M1	E/M/A	0.200	1.5	0.012	0.018	0.024	0.030	0.036	0.042	0.048	0.055	0.060	0.065	0.070	0.080	0.090	0.095	0.10	90 (65 — 120)
		0,200	*1,5*	*0,00048*	*0,00070*	*0,00095*	*0,0012*	*0,0014*	*0,0017*	*0,0019*	*0,0022*	*0,0024*	*0,0026*	*0,0028*	*0,0032*	*0,0036*	*0,0038*	*0,0040*	*295 (220 — 390)*
M2	E/M/A	0.200	1.5	0.012	0.018	0.024	0.030	0.036	0.042	0.048	0.055	0.060	0.065	0.070	0.080	0.090	0.095	0.10	90 (65 — 120)
		0,200	*1,5*	*0,00048*	*0,00070*	*0,00095*	*0,0012*	*0,0014*	*0,0017*	*0,0019*	*0,0022*	*0,0024*	*0,0026*	*0,0028*	*0,0032*	*0,0036*	*0,0038*	*0,0040*	*295 (220 — 390)*
M3	E/M/A	0.200	1.5	0.012	0.018	0.024	0.030	0.036	0.042	0.048	0.055	0.060	0.065	0.070	0.080	0.090	0.095	0.10	90 (65 — 120)
		0,200	*1,5*	*0,00048*	*0,00070*	*0,00095*	*0,0012*	*0,0014*	*0,0017*	*0,0019*	*0,0022*	*0,0024*	*0,0026*	*0,0028*	*0,0032*	*0,0036*	*0,0038*	*0,0040*	*295 (220 — 390)*
M4	E/M/A	0.200	1.5	0.012	0.018	0.024	0.030	0.036	0.042	0.048	0.055	0.060	0.065	0.070	0.080	0.090	0.095	0.10	90 (65 — 120)
		0,200	*1,5*	*0,00048*	*0,00070*	*0,00095*	*0,0012*	*0,0014*	*0,0017*	*0,0019*	*0,0022*	*0,0024*	*0,0026*	*0,0028*	*0,0032*	*0,0036*	*0,0038*	*0,0040*	*295 (220 — 390)*
M5	E/M/A	0.200	1.5	0.012	0.018	0.024	0.030	0.036	0.042	0.048	0.055	0.060	0.065	0.070	0.080	0.090	0.095	0.10	90 (65 — 120)
		0,200	*1,5*	*0,00048*	*0,00070*	*0,00095*	*0,0012*	*0,0014*	*0,0017*	*0,0019*	*0,0022*	*0,0024*	*0,0026*	*0,0028*	*0,0032*	*0,0036*	*0,0038*	*0,0040*	*295 (220 — 390)*
K1	A/D/M/E	0.200	1.5	0.012	0.018	0.024	0.030	0.036	0.042	0.048	0.055	0.060	0.065	0.070	0.080	0.090	0.095	0.10	155 (65 — 190)
		0,200	*1,5*	*0,00048*	*0,00070*	*0,00095*	*0,0012*	*0,0014*	*0,0017*	*0,0019*	*0,0022*	*0,0024*	*0,0026*	*0,0028*	*0,0032*	*0,0036*	*0,0038*	*0,0040*	*510 (220 — 620)*
K2	A/D/M/E	0.200	1.5	0.012	0.018	0.024	0.030	0.036	0.042	0.048	0.055	0.060	0.065	0.070	0.080	0.090	0.095	0.10	155 (65 — 190)
		0,200	*1,5*	*0,00048*	*0,00070*	*0,00095*	*0,0012*	*0,0014*	*0,0017*	*0,0019*	*0,0022*	*0,0024*	*0,0026*	*0,0028*	*0,0032*	*0,0036*	*0,0038*	*0,0040*	*510 (220 — 620)*
K3	A/D/M/E	0.200	1.5	0.012	0.018	0.024	0.030	0.036	0.042	0.048	0.055	0.060	0.065	0.070	0.080	0.090	0.095	0.10	155 (65 — 190)
		0,200	*1,5*	*0,00048*	*0,00070*	*0,00095*	*0,0012*	*0,0014*	*0,0017*	*0,0019*	*0,0022*	*0,0024*	*0,0026*	*0,0028*	*0,0032*	*0,0036*	*0,0038*	*0,0040*	*510 (220 — 620)*
K4	A/D/M/E	0.200	1.5	0.012	0.018	0.024	0.030	0.036	0.042	0.048	0.055	0.060	0.065	0.070	0.080	0.090	0.095	0.10	155 (65 — 190)
		0,200	*1,5*	*0,00048*	*0,00070*	*0,00095*	*0,0012*	*0,0014*	*0,0017*	*0,0019*	*0,0022*	*0,0024*	*0,0026*	*0,0028*	*0,0032*	*0,0036*	*0,0038*	*0,0040*	*510 (220 — 620)*
K5	A/D/M/E	0.200	1.5	0.012	0.018	0.024	0.030	0.036	0.042	0.048	0.055	0.060	0.065	0.070	0.080	0.090	0.095	0.10	155 (65 — 190)
		0,200	*1,5*	*0,00048*	*0,00070*	*0,00095*	*0,0012*	*0,0014*	*0,0017*	*0,0019*	*0,0022*	*0,0024*	*0,0026*	*0,0028*	*0,0032*	*0,0036*	*0,0038*	*0,0040*	*510 (220 — 620)*
K6	A/D/M/E	0.200	1.5	0.012	0.018	0.024	0.030	0.036	0.042	0.048	0.055	0.060	0.065	0.070	0.080	0.090	0.095	0.10	155 (65 — 190)
		0,200	*1,5*	*0,00048*	*0,00070*	*0,00095*	*0,0012*	*0,0014*	*0,0017*	*0,0019*	*0,0022*	*0,0024*	*0,0026*	*0,0028*	*0,0032*	*0,0036*	*0,0038*	*0,0040*	*510 (220 — 620)*
K7	A/D/M/E	0.200	1.5	0.012	0.018	0.024	0.030	0.036	0.042	0.048	0.055	0.060	0.065	0.070	0.080	0.090	0.095	0.10	155 (65 — 190)
		0,200	*1,5*	*0,00048*	*0,00070*	*0,00095*	*0,0012*	*0,0014*	*0,0017*	*0,0019*	*0,0022*	*0,0024*	*0,0026*	*0,0028*	*0,0032*	*0,0036*	*0,0038*	*0,0040*	*510 (220 — 620)*
N1	E/M/A	0.200	1.5	0.012	0.018	0.024	0.030	0.036	0.042	0.048	0.055	0.060	0.065	0.070	0.080	0.090	0.095	0.10	510 (390 — 630)
		0,200	*1,5*	*0,00048*	*0,00070*	*0,00095*	*0,0012*	*0,0014*	*0,0017*	*0,0019*	*0,0022*	*0,0024*	*0,0026*	*0,0028*	*0,0032*	*0,0036*	*0,0038*	*0,0040*	*1675 (1300 — 2000)*
N11	E/M/A	0.200	1.5	0.012	0.018	0.024	0.030	0.036	0.042	0.048	0.055	0.060	0.065	0.070	0.080	0.090	0.095	0.10	385 (260 — 510)
		0,200	*1,5*	*0,00048*	*0,00070*	*0,00095*	*0,0012*	*0,0014*	*0,0017*	*0,0019*	*0,0022*	*0,0024*	*0,0026*	*0,0028*	*0,0032*	*0,0036*	*0,0038*	*0,0040*	*1275 (860 — 1600)*
S11	E	0.200	1.5	0.012	0.018	0.024	0.030	0.036	0.042	0.048	0.055	0.060	0.065	0.070	0.080	0.090	0.095	0.10	90 (65 — 120)
		0,200	*1,5*	*0,00048*	*0,00070*	*0,00095*	*0,0012*	*0,0014*	*0,0017*	*0,0019*	*0,0022*	*0,0024*	*0,0026*	*0,0028*	*0,0032*	*0,0036*	*0,0038*	*0,0040*	*295 (220 — 390)*
S12	E	0.200	1.5	0.012	0.018	0.024	0.030	0.036	0.042	0.048	0.055	0.060	0.065	0.070	0.080	0.090	0.095	0.10	90 (65 — 120)
		0,200	*1,5*	*0,00048*	*0,00070*	*0,00095*	*0,0012*	*0,0014*	*0,0017*	*0,0019*	*0,0022*	*0,0024*	*0,0026*	*0,0028*	*0,0032*	*0,0036*	*0,0038*	*0,0040*	*295 (220 — 390)*
S13	E	0.200	1.5	0.012	0.018	0.024	0.030	0.036	0.042	0.048	0.055	0.060	0.065	0.070	0.080	0.090	0.095	0.10	90 (65 — 120)
		0,200	*1,5*	*0,00048*	*0,00070*	*0,00095*	*0,0012*	*0,0014*	*0,0017*	*0,0019*	*0,0022*	*0,0024*	*0,0026*	*0,0028*	*0,0032*	*0,0036*	*0,0038*	*0,0040*	*295 (220 — 390)*

For cutting data recalculations, see pages 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

Cutting data – JSE513 Slot milling

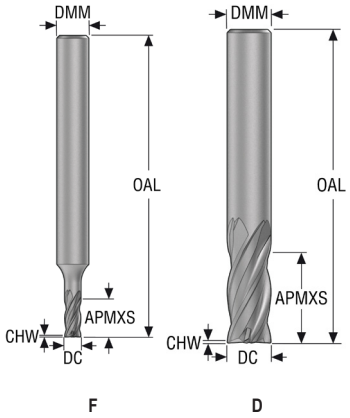
SMG		a_p/DC	f_z															v_c
			2	3	4	5	6	7	8	9	10	11	12	14	16	18	20	
P1	M/A/D/E	0.50	0.0060	0.0090	0.012	0.015	0.018	0.022	0.024	0.028	0.030	0.034	0.036	0.042	0.048	0.055	0.060	120 (51 — 150)
		0,50	*0,00024*	*0,00036*	*0,00048*	*0,00060*	*0,00070*	*0,00085*	*0,00095*	*0,0011*	*0,0012*	*0,0013*	*0,0014*	*0,0017*	*0,0019*	*0,0022*	*0,0024*	*395 (170 — 490)*
P2	M/A/D/E	0.50	0.0060	0.0090	0.012	0.015	0.018	0.022	0.024	0.028	0.030	0.034	0.036	0.042	0.048	0.055	0.060	120 (50 — 140)
		0,50	*0,00024*	*0,00036*	*0,00048*	*0,00060*	*0,00070*	*0,00085*	*0,00095*	*0,0011*	*0,0012*	*0,0013*	*0,0014*	*0,0017*	*0,0019*	*0,0022*	*0,0024*	*395 (170 — 450)*
P3	M/A/D/E	0.50	0.0060	0.0090	0.012	0.015	0.018	0.022	0.024	0.028	0.030	0.034	0.036	0.042	0.048	0.055	0.060	120 (51 — 150)
		0,50	*0,00024*	*0,00036*	*0,00048*	*0,00060*	*0,00070*	*0,00085*	*0,00095*	*0,0011*	*0,0012*	*0,0013*	*0,0014*	*0,0017*	*0,0019*	*0,0022*	*0,0024*	*395 (170 — 490)*
P4	M/A/D/E	0.50	0.0060	0.0090	0.012	0.015	0.018	0.022	0.024	0.028	0.030	0.034	0.036	0.042	0.048	0.055	0.060	120 (50 — 140)
		0,50	*0,00024*	*0,00036*	*0,00048*	*0,00060*	*0,00070*	*0,00085*	*0,00095*	*0,0011*	*0,0012*	*0,0013*	*0,0014*	*0,0017*	*0,0019*	*0,0022*	*0,0024*	*395 (170 — 450)*
P5	M/A/D/E	0.50	0.0060	0.0090	0.012	0.015	0.018	0.022	0.024	0.028	0.030	0.034	0.036	0.042	0.048	0.055	0.060	120 (51 — 150)
		0,50	*0,00024*	*0,00036*	*0,00048*	*0,00060*	*0,00070*	*0,00085*	*0,00095*	*0,0011*	*0,0012*	*0,0013*	*0,0014*	*0,0017*	*0,0019*	*0,0022*	*0,0024*	*395 (170 — 490)*
P6	M/A/D/E	0.50	0.0060	0.0090	0.012	0.015	0.018	0.022	0.024	0.028	0.030	0.034	0.036	0.042	0.048	0.055	0.060	120 (50 — 140)
		0,50	*0,00024*	*0,00036*	*0,00048*	*0,00060*	*0,00070*	*0,00085*	*0,00095*	*0,0011*	*0,0012*	*0,0013*	*0,0014*	*0,0017*	*0,0019*	*0,0022*	*0,0024*	*395 (170 — 450)*
P7	M/A/D/E	0.50	0.0060	0.0090	0.012	0.015	0.018	0.022	0.024	0.028	0.030	0.034	0.036	0.042	0.048	0.055	0.060	120 (51 — 150)
		0,50	*0,00024*	*0,00036*	*0,00048*	*0,00060*	*0,00070*	*0,00085*	*0,00095*	*0,0011*	*0,0012*	*0,0013*	*0,0014*	*0,0017*	*0,0019*	*0,0022*	*0,0024*	*395 (170 — 490)*
P8	M/A/D/E	0.50	0.0060	0.0090	0.012	0.015	0.018	0.022	0.024	0.028	0.030	0.034	0.036	0.042	0.048	0.055	0.060	120 (51 — 150)
		0,50	*0,00024*	*0,00036*	*0,00048*	*0,00060*	*0,00070*	*0,00085*	*0,00095*	*0,0011*	*0,0012*	*0,0013*	*0,0014*	*0,0017*	*0,0019*	*0,0022*	*0,0024*	*395 (170 — 490)*
P11	M/A/D/E	0.50	0.0060	0.0090	0.012	0.015	0.018	0.022	0.024	0.028	0.030	0.034	0.036	0.042	0.048	0.055	0.060	70 (51 — 100)
		0,50	*0,00024*	*0,00036*	*0,00048*	*0,00060*	*0,00070*	*0,00085*	*0,00095*	*0,0011*	*0,0012*	*0,0013*	*0,0014*	*0,0017*	*0,0019*	*0,0022*	*0,0024*	*230 (170 — 320)*
P12	M/A/D/E	0.50	0.0060	0.0090	0.012	0.015	0.018	0.022	0.024	0.028	0.030	0.034	0.036	0.042	0.048	0.055	0.060	70 (50 — 99)
		0,50	*0,00024*	*0,00036*	*0,00048*	*0,00060*	*0,00070*	*0,00085*	*0,00095*	*0,0011*	*0,0012*	*0,0013*	*0,0014*	*0,0017*	*0,0019*	*0,0022*	*0,0024*	*230 (170 — 320)*
M1	E/M/A	0.50	0.0060	0.0090	0.012	0.015	0.018	0.022	0.024	0.028	0.030	0.034	0.036	0.042	0.048	0.055	0.060	70 (50 — 99)
		0,50	*0,00024*	*0,00036*	*0,00048*	*0,00060*	*0,00070*	*0,00085*	*0,00095*	*0,0011*	*0,0012*	*0,0013*	*0,0014*	*0,0017*	*0,0019*	*0,0022*	*0,0024*	*230 (170 — 320)*
M2	E/M/A	0.50	0.0060	0.0090	0.012	0.015	0.018	0.022	0.024	0.028	0.030	0.034	0.036	0.042	0.048	0.055	0.060	70 (50 — 99)
		0,50	*0,00024*	*0,00036*	*0,00048*	*0,00060*	*0,00070*	*0,00085*	*0,00095*	*0,0011*	*0,0012*	*0,0013*	*0,0014*	*0,0017*	*0,0019*	*0,0022*	*0,0024*	*230 (170 — 320)*
M3	E/M/A	0.50	0.0060	0.0090	0.012	0.015	0.018	0.022	0.024	0.028	0.030	0.034	0.036	0.042	0.048	0.055	0.060	70 (50 — 99)
		0,50	*0,00024*	*0,00036*	*0,00048*	*0,00060*	*0,00070*	*0,00085*	*0,00095*	*0,0011*	*0,0012*	*0,0013*	*0,0014*	*0,0017*	*0,0019*	*0,0022*	*0,0024*	*230 (170 — 320)*
M4	E/M/A	0.50	0.0060	0.0090	0.012	0.015	0.018	0.022	0.024	0.028	0.030	0.034	0.036	0.042	0.048	0.055	0.060	70 (50 — 99)
		0,50	*0,00024*	*0,00036*	*0,00048*	*0,00060*	*0,00070*	*0,00085*	*0,00095*	*0,0011*	*0,0012*	*0,0013*	*0,0014*	*0,0017*	*0,0019*	*0,0022*	*0,0024*	*230 (170 — 320)*
M5	E/M/A	0.50	0.0060	0.0090	0.012	0.015	0.018	0.022	0.024	0.028	0.030	0.034	0.036	0.042	0.048	0.055	0.060	70 (50 — 99)
		0,50	*0,00024*	*0,00036*	*0,00048*	*0,00060*	*0,00070*	*0,00085*	*0,00095*	*0,0011*	*0,0012*	*0,0013*	*0,0014*	*0,0017*	*0,0019*	*0,0022*	*0,0024*	*230 (170 — 320)*
K1	A/D/M/E	0.50	0.0060	0.0090	0.012	0.015	0.018	0.022	0.024	0.028	0.030	0.034	0.036	0.042	0.048	0.055	0.060	120 (50 — 140)
		0,50	*0,00024*	*0,00036*	*0,00048*	*0,00060*	*0,00070*	*0,00085*	*0,00095*	*0,0011*	*0,0012*	*0,0013*	*0,0014*	*0,0017*	*0,0019*	*0,0022*	*0,0024*	*395 (170 — 450)*
K2	A/D/M/E	0.50	0.0060	0.0090	0.012	0.015	0.018	0.022	0.024	0.028	0.030	0.034	0.036	0.042	0.048	0.055	0.060	120 (50 — 140)
		0,50	*0,00024*	*0,00036*	*0,00048*	*0,00060*	*0,00070*	*0,00085*	*0,00095*	*0,0011*	*0,0012*	*0,0013*	*0,0014*	*0,0017*	*0,0019*	*0,0022*	*0,0024*	*395 (170 — 450)*
K3	A/D/M/E	0.50	0.0060	0.0090	0.012	0.015	0.018	0.022	0.024	0.028	0.030	0.034	0.036	0.042	0.048	0.055	0.060	120 (50 — 140)
		0,50	*0,00024*	*0,00036*	*0,00048*	*0,00060*	*0,00070*	*0,00085*	*0,00095*	*0,0011*	*0,0012*	*0,0013*	*0,0014*	*0,0017*	*0,0019*	*0,0022*	*0,0024*	*395 (170 — 450)*
K4	A/D/M/E	0.50	0.0060	0.0090	0.012	0.015	0.018	0.022	0.024	0.028	0.030	0.034	0.036	0.042	0.048	0.055	0.060	120 (50 — 140)
		0,50	*0,00024*	*0,00036*	*0,00048*	*0,00060*	*0,00070*	*0,00085*	*0,00095*	*0,0011*	*0,0012*	*0,0013*	*0,0014*	*0,0017*	*0,0019*	*0,0022*	*0,0024*	*395 (170 — 450)*
K5	A/D/M/E	0.50	0.0060	0.0090	0.012	0.015	0.018	0.022	0.024	0.028	0.030	0.034	0.036	0.042	0.048	0.055	0.060	120 (50 — 140)
		0,50	*0,00024*	*0,00036*	*0,00048*	*0,00060*	*0,00070*	*0,00085*	*0,00095*	*0,0011*	*0,0012*	*0,0013*	*0,0014*	*0,0017*	*0,0019*	*0,0022*	*0,0024*	*395 (170 — 450)*
K6	A/D/M/E	0.50	0.0060	0.0090	0.012	0.015	0.018	0.022	0.024	0.028	0.030	0.034	0.036	0.042	0.048	0.055	0.060	120 (50 — 140)
		0,50	*0,00024*	*0,00036*	*0,00048*	*0,00060*	*0,00070*	*0,00085*	*0,00095*	*0,0011*	*0,0012*	*0,0013*	*0,0014*	*0,0017*	*0,0019*	*0,0022*	*0,0024*	*395 (170 — 450)*
K7	A/D/M/E	0.50	0.0060	0.0090	0.012	0.015	0.018	0.022	0.024	0.028	0.030	0.034	0.036	0.042	0.048	0.055	0.060	120 (50 — 140)
		0,50	*0,00024*	*0,00036*	*0,00048*	*0,00060*	*0,00070*	*0,00085*	*0,00095*	*0,0011*	*0,0012*	*0,0013*	*0,0014*	*0,0017*	*0,0019*	*0,0022*	*0,0024*	*395 (170 — 450)*
N1	E/M/A	0.40	0.0060	0.0090	0.012	0.015	0.018	0.022	0.024	0.028	0.030	0.034	0.036	0.042	0.048	0.055	0.060	400 (310 — 500)
		0,40	*0,00024*	*0,00036*	*0,00048*	*0,00060*	*0,00070*	*0,00085*	*0,00095*	*0,0011*	*0,0012*	*0,0013*	*0,0014*	*0,0017*	*0,0019*	*0,0022*	*0,0024*	*1300 (1100 — 1600)*
N11	E/M/A	0.50	0.0060	0.0090	0.012	0.015	0.018	0.022	0.024	0.028	0.030	0.034	0.036	0.042	0.048	0.055	0.060	300 (200 — 400)
		0,50	*0,00024*	*0,00036*	*0,00048*	*0,00060*	*0,00070*	*0,00085*	*0,00095*	*0,0011*	*0,0012*	*0,0013*	*0,0014*	*0,0017*	*0,0019*	*0,0022*	*0,0024*	*980 (660 — 1300)*
S11	E	0.50	0.0060	0.0090	0.012	0.015	0.018	0.022	0.024	0.028	0.030	0.034	0.036	0.042	0.048	0.055	0.060	70 (50 — 99)
		0,50	*0,00024*	*0,00036*	*0,00048*	*0,00060*	*0,00070*	*0,00085*	*0,00095*	*0,0011*	*0,0012*	*0,0013*	*0,0014*	*0,0017*	*0,0019*	*0,0022*	*0,0024*	*230 (170 — 320)*
S12	E	0.50	0.0060	0.0090	0.012	0.015	0.018	0.022	0.024	0.028	0.030	0.034	0.036	0.042	0.048	0.055	0.060	70 (50 — 99)
		0,50	*0,00024*	*0,00036*	*0,00048*	*0,00060*	*0,00070*	*0,00085*	*0,00095*	*0,0011*	*0,0012*	*0,0013*	*0,0014*	*0,0017*	*0,0019*	*0,0022*	*0,0024*	*230 (170 — 320)*
S13	E	0.50	0.0060	0.0090	0.012	0.015	0.018	0.022	0.024	0.028	0.030	0.034	0.036	0.042	0.048	0.055	0.060	70 (50 — 99)
		0,50	*0,00024*	*0,00036*	*0,00048*	*0,00060*	*0,00070*	*0,00085*	*0,00095*	*0,0011*	*0,0012*	*0,0013*	*0,0014*	*0,0017*	*0,0019*	*0,0022*	*0,0024*	*230 (170 — 320)*

For cutting data recalculations, see pages 573 - 580

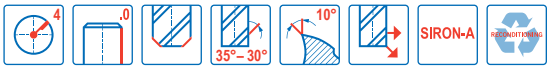
SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

JSE514

General purpose – Universal – Square – 4 Flutes – Cylindrical – chamfer







- Tolerances:
- DMM=h5
- DC=e8
- Regrind possible if DC is ≥Ø10

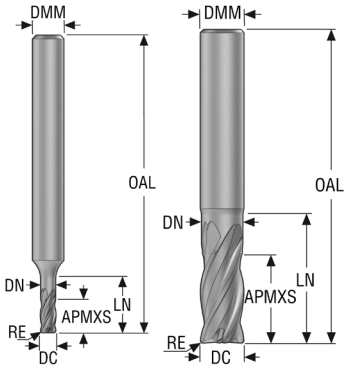
Designation	Grade	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	CHW	PCEDC	Cylindrical
					mm	mm	mm	mm	mm		
JSE514021F2C.0Z4	SIRA	10053053	2	F	2,0	3,0	4,0	50,0	0,02	4	■
JSE514020F2C.0Z4	SIRA	10053057	2	F	2,0	6,0	4,0	57,0	0,02	4	■
JSE514030D2C.0Z4	SIRA	10053054	2	D	3,0	3,0	6,0	50,0	0,03	4	■
JSE514030F2C.0Z4	SIRA	10053058	2	F	3,0	6,0	6,0	57,0	0,03	4	■
JSE514040D2C.0Z4	SIRA	10053055	2	D	4,0	4,0	8,0	50,0	0,04	4	■
JSE514040F2C.0Z4	SIRA	10053059	2	F	4,0	6,0	8,0	57,0	0,04	4	■
JSE514050D2C.0Z4	SIRA	10053056	2	D	5,0	5,0	10,0	50,0	0,05	4	■
JSE514050F2C.0Z4	SIRA	10053060	2	F	5,0	6,0	10,0	57,0	0,05	4	■
JSE514060D2C.0Z4	SIRA	10053061	2	D	6,0	6,0	12,0	57,0	0,06	4	■
JSE514080D2C.0Z4	SIRA	10053062	2	D	8,0	8,0	16,0	63,0	0,08	4	■
JSE514100D2C.0Z4	SIRA	10053063	2	D	10,0	10,0	20,0	72,0	0,1	4	■
JSE514120D2C.0Z4	SIRA	10053064	2	D	12,0	12,0	24,0	83,0	0,12	4	■
JSE514160D2C.0Z4	SIRA	10053067	2	D	16,0	16,0	32,0	92,0	0,16	4	■
JSE514180D2C.0Z4	SIRA	10053068	2	D	18,0	18,0	35,0	100,0	0,18	4	■
JSE514200D2C.0Z4	SIRA	10053069	2	D	20,0	20,0	35,0	104,0	0,2	4	■
JSE514250D2C.0Z4	SIRA	10053070	2	D	25,0	25,0	40,0	125,0	0,25	4	■
JSE514030F3C.0Z4	SIRA	10053090	3	F	3,0	6,0	10,0	57,0	0,03	4	■
JSE514040F3C.0Z4	SIRA	10053091	3	F	4,0	6,0	14,0	57,0	0,04	4	■
JSE514050F3C.0Z4	SIRA	10053092	3	F	5,0	6,0	18,0	57,0	0,05	4	■
JSE514060D3C.0Z4	SIRA	10053093	3	D	6,0	6,0	20,0	63,0	0,06	4	■
JSE514080D3C.0Z4	SIRA	10053094	3	D	8,0	8,0	28,0	80,0	0,08	4	■
JSE514100D3C.0Z4	SIRA	10053095	3	D	10,0	10,0	35,0	89,0	0,1	4	■
JSE514120D3C.0Z4	SIRA	10053096	3	D	12,0	12,0	42,0	100,0	0,12	4	■
JSE514160D3C.0Z4	SIRA	10053097	3	D	16,0	16,0	50,0	115,0	0,16	4	■
JSE514200D3C.0Z4	SIRA	10053098	3	D	20,0	20,0	60,0	125,0	0,2	4	■
JSE514030F4C.0Z4	SIRA	10201472	4	F	3,0	6,0	15,0	57,0	0,03	4	■
JSE514040F4C.0Z4	SIRA	10201473	4	F	4,0	6,0	20,0	63,0	0,04	4	■
JSE514050F4C.0Z4	SIRA	10201474	4	F	5,0	6,0	25,0	75,0	0,05	4	■
JSE514060D4C.0Z4	SIRA	10201475	4	D	6,0	6,0	30,0	75,0	0,06	4	■
JSE514080D4C.0Z4	SIRA	10201476	4	D	8,0	8,0	40,0	87,0	0,08	4	■
JSE514100D4C.0Z4	SIRA	10201477	4	D	10,0	10,0	50,0	104,0	0,1	4	■
JSE514120D4C.0Z4	SIRA	10201478	4	D	12,0	12,0	60,0	125,0	0,12	4	■
JSE514160D4C.0Z4	SIRA	10201479	4	D	16,0	16,0	80,0	150,0	0,16	4	■
JSE514200D4C.0Z4	SIRA	10201480	4	D	20,0	20,0	100,0	170,0	0,2	4	■

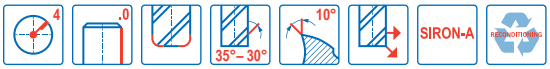
■ Stocked standard.

JSE514

General purpose – Universal – Square – 4 Flutes – Cylindrical – Corner radius







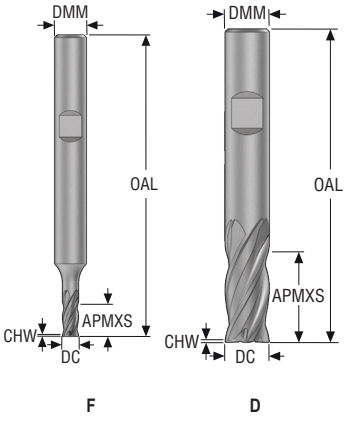
- Tolerances:
- DMM=h5
- DC=e8
- RE= ±0,05 mm
- Regrind possible if DC is ≥Ø10

Designation	Grade	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Cylindrical
					mm	mm	mm	mm	mm	mm	mm		
JSE514030G2R050.0Z4	SIRA	10053071	2	G	3,0	6,0	6,0	57,0	10,0	2,85	0,5	4	■
JSE514040G2R050.0Z4	SIRA	10053072	2	G	4,0	6,0	8,0	57,0	13,0	3,8	0,5	4	■
JSE514050G2R050.0Z4	SIRA	10053073	2	G	5,0	6,0	10,0	57,0	16,0	4,75	0,5	4	■
JSE514060E2R050.0Z4	SIRA	10053074	2	E	6,0	6,0	12,0	57,0	18,0	5,7	0,5	4	■
JSE514060E2R100.0Z4	SIRA	10053081	2	E	6,0	6,0	12,0	57,0	18,0	5,7	1,0	4	■
JSE514080E2R050.0Z4	SIRA	10053075	2	E	8,0	8,0	16,0	63,0	25,0	7,6	0,5	4	■
JSE514080E2R100.0Z4	SIRA	10053082	2	E	8,0	8,0	16,0	63,0	25,0	7,6	1,0	4	■
JSE514100E2R050.0Z4	SIRA	10053076	2	E	10,0	10,0	20,0	72,0	29,0	9,5	0,5	4	■
JSE514100E2R100.0Z4	SIRA	10053083	2	E	10,0	10,0	20,0	72,0	29,0	9,5	1,0	4	■
JSE514120E2R050.0Z4	SIRA	10053077	2	E	12,0	12,0	24,0	83,0	35,0	11,4	0,5	4	■
JSE514120E2R100.0Z4	SIRA	10053084	2	E	12,0	12,0	24,0	83,0	35,0	11,4	1,0	4	■
JSE514160E2R050.0Z4	SIRA	10053078	2	E	16,0	16,0	32,0	92,0	42,0	15,2	0,5	4	■
JSE514160E2R100.0Z4	SIRA	10053087	2	E	16,0	16,0	32,0	92,0	42,0	15,2	1,0	4	■
JSE514200E2R050.0Z4	SIRA	10053079	2	E	20,0	20,0	35,0	104,0	51,0	19,0	0,5	4	■
JSE514200E2R100.0Z4	SIRA	10053088	2	E	20,0	20,0	35,0	104,0	51,0	19,0	1,0	4	■
JSE514250E2R050.0Z4	SIRA	10053080	2	E	25,0	25,0	40,0	125,0	66,0	23,8	0,5	4	■
JSE514250E2R100.0Z4	SIRA	10053089	2	E	25,0	25,0	40,0	125,0	66,0	23,8	1,0	4	■

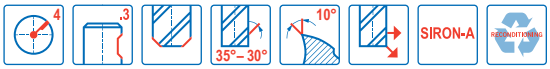
■ Stocked standard.

JSE514

General purpose – Universal – Square – 4 Flutes – Weldon – chamfer







- Tolerances:
- DMM=h5
- DC=e8
- Regrind possible if DC is ≥Ø10

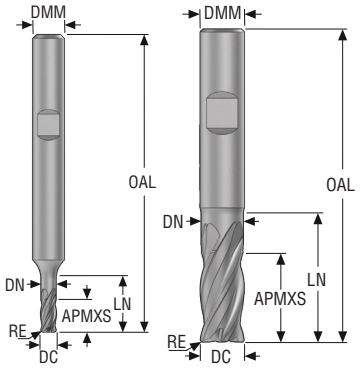
Designation	Grade	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	CHW	PCEDC	Weldon
					mm	mm	mm	mm	mm		
JSE514020F2C.3Z4	SIRA	10053289	2	F	2,0	6,0	4,0	57,0	0,02	4	■
JSE514030F2C.3Z4	SIRA	10053290	2	F	3,0	6,0	6,0	57,0	0,03	4	■
JSE514040F2C.3Z4	SIRA	10053291	2	F	4,0	6,0	8,0	57,0	0,04	4	■
JSE514050F2C.3Z4	SIRA	10053292	2	F	5,0	6,0	10,0	57,0	0,05	4	■
JSE514060D2C.3Z4	SIRA	10053293	2	D	6,0	6,0	12,0	57,0	0,06	4	■
JSE514080D2C.3Z4	SIRA	10053294	2	D	8,0	8,0	16,0	63,0	0,08	4	■
JSE514100D2C.3Z4	SIRA	10053295	2	D	10,0	10,0	20,0	72,0	0,1	4	■
JSE514120D2C.3Z4	SIRA	10053296	2	D	12,0	12,0	24,0	83,0	0,12	4	■
JSE514160D2C.3Z4	SIRA	10053297	2	D	16,0	16,0	32,0	92,0	0,16	4	■
JSE514180D2C.3Z4	SIRA	10053298	2	D	18,0	18,0	35,0	100,0	0,18	4	■
JSE514200D2C.3Z4	SIRA	10053299	2	D	20,0	20,0	35,0	104,0	0,2	4	■
JSE514250D2C.3Z4	SIRA	10053300	2	D	25,0	25,0	40,0	125,0	0,25	4	■
JSE514030F3C.3Z4	SIRA	10053321	3	F	3,0	6,0	10,0	57,0	0,03	4	■
JSE514040F3C.3Z4	SIRA	10053322	3	F	4,0	6,0	14,0	57,0	0,04	4	■
JSE514050F3C.3Z4	SIRA	10053323	3	F	5,0	6,0	18,0	57,0	0,05	4	■
JSE514060D3C.3Z4	SIRA	10053324	3	D	6,0	6,0	20,0	63,0	0,06	4	■
JSE514080D3C.3Z4	SIRA	10053325	3	D	8,0	8,0	28,0	80,0	0,08	4	■
JSE514100D3C.3Z4	SIRA	10053326	3	D	10,0	10,0	35,0	89,0	0,1	4	■
JSE514120D3C.3Z4	SIRA	10053327	3	D	12,0	12,0	42,0	100,0	0,12	4	■
JSE514160D3C.3Z4	SIRA	10053328	3	D	16,0	16,0	50,0	115,0	0,16	4	■
JSE514200D3C.3Z4	SIRA	10053329	3	D	20,0	20,0	60,0	125,0	0,2	4	■
JSE514030F4C.3Z4	SIRA	10201481	4	F	3,0	6,0	15,0	57,0	0,03	4	■
JSE514040F4C.3Z4	SIRA	10201482	4	F	4,0	6,0	20,0	63,0	0,04	4	■
JSE514050F4C.3Z4	SIRA	10201483	4	F	5,0	6,0	25,0	75,0	0,05	4	■
JSE514060D4C.3Z4	SIRA	10201484	4	D	6,0	6,0	30,0	75,0	0,06	4	■
JSE514080D4C.3Z4	SIRA	10201485	4	D	8,0	8,0	40,0	87,0	0,08	4	■
JSE514100D4C.3Z4	SIRA	10201486	4	D	10,0	10,0	50,0	104,0	0,1	4	■
JSE514120D4C.3Z4	SIRA	10201487	4	D	12,0	12,0	60,0	125,0	0,12	4	■
JSE514160D4C.3Z4	SIRA	10201488	4	D	16,0	16,0	80,0	150,0	0,16	4	■
JSE514200D4C.3Z4	SIRA	10201489	4	D	20,0	20,0	100,0	170,0	0,2	4	■

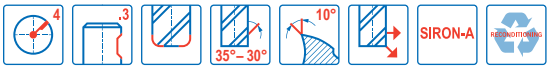
■ Stocked standard.

JSE514

General purpose – Universal – Square – 4 Flutes – Weldon – Corner radius







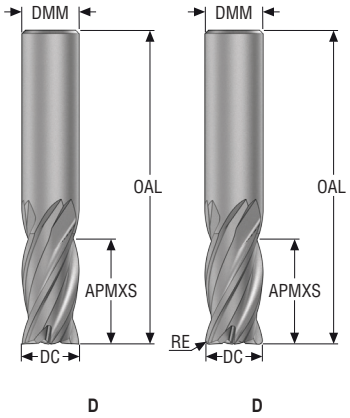
- Tolerances:
- DMM=h5
- DC=e8
- RE= ±0,05 mm
- Regrind possible if DC is ≥Ø10

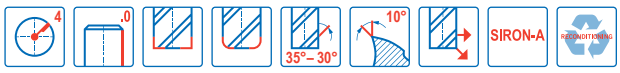
Designation	Grade	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Weldon
					mm	mm	mm	mm	mm	mm	mm		
JSE514030G2R050.3Z4	SIRA	10053301	2	G	3,0	6,0	6,0	57,0	10,0	2,85	0,5	4	■
JSE514040G2R050.3Z4	SIRA	10053302	2	G	4,0	6,0	8,0	57,0	13,0	3,8	0,5	4	■
JSE514050G2R050.3Z4	SIRA	10053306	2	G	5,0	6,0	10,0	57,0	16,0	4,75	0,5	4	■
JSE514060E2R050.3Z4	SIRA	10053307	2	E	6,0	6,0	12,0	57,0	18,0	5,7	0,5	4	■
JSE514060E2R100.3Z4	SIRA	10053314	2	E	6,0	6,0	12,0	57,0	18,0	5,7	1,0	4	■
JSE514080E2R050.3Z4	SIRA	10053308	2	E	8,0	8,0	16,0	63,0	25,0	7,6	0,5	4	■
JSE514080E2R100.3Z4	SIRA	10053315	2	E	8,0	8,0	16,0	63,0	25,0	7,6	1,0	4	■
JSE514100E2R050.3Z4	SIRA	10053309	2	E	10,0	10,0	20,0	72,0	29,0	9,5	0,5	4	■
JSE514100E2R100.3Z4	SIRA	10053316	2	E	10,0	10,0	20,0	72,0	29,0	9,5	1,0	4	■
JSE514120E2R050.3Z4	SIRA	10053310	2	E	12,0	12,0	24,0	83,0	35,0	11,4	0,5	4	■
JSE514120E2R100.3Z4	SIRA	10053317	2	E	12,0	12,0	24,0	83,0	35,0	11,4	1,0	4	■
JSE514160E2R050.3Z4	SIRA	10053311	2	E	16,0	16,0	32,0	92,0	42,0	15,2	0,5	4	■
JSE514160E2R100.3Z4	SIRA	10053318	2	E	16,0	16,0	32,0	92,0	42,0	15,2	1,0	4	■
JSE514200E2R050.3Z4	SIRA	10053312	2	E	20,0	20,0	35,0	104,0	51,0	19,0	0,5	4	■
JSE514200E2R100.3Z4	SIRA	10053319	2	E	20,0	20,0	35,0	104,0	51,0	19,0	1,0	4	■
JSE514250E2R050.3Z4	SIRA	10053313	2	E	25,0	25,0	40,0	125,0	66,0	23,8	0,5	4	■
JSE514250E2R100.3Z4	SIRA	10053320	2	E	25,0	25,0	40,0	125,0	66,0	23,8	1,0	4	■

■ Stocked standard.

JSE514

General purpose – Universal – Square – 4 Flutes – Cylindrical – Sharp or corner radius – *Inch*







- Tolerances:
- DMM=h5
- DC=e8
- RE= ±.002 Inch
- Regrind possible if DC is ≥Ø.375

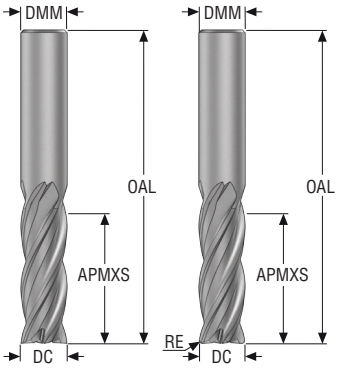
Designation	Grade	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	RE	PCEDC	Cylindrical
					inch	inch	inch	inch	inch		
JSE514.250D1S.0Z4	SIRA	10201805	1	D	0.250	0.250	0.375	2.000	–	4	■
JSE514.250D1R030.0Z4	SIRA	10201812	1	D	0.250	0.250	0.375	2.000	0.030	4	■
JSE514.375D1S.0Z4	SIRA	10201806	1	D	0.375	0.375	0.500	2.000	–	4	■
JSE514.375D1R030.0Z4	SIRA	10201813	1	D	0.375	0.375	0.500	2.000	0.030	4	■
JSE514.500D1S.0Z4	SIRA	10201807	1	D	0.500	0.500	0.625	2.500	–	4	■
JSE514.500D1R030.0Z4	SIRA	10201814	1	D	0.500	0.500	0.625	2.500	0.030	4	■
JSE514.500D1R060.0Z4	SIRA	10201815	1	D	0.500	0.500	0.625	2.500	0.060	4	■
JSE514.625D1S.0Z4	SIRA	10201808	1	D	0.625	0.625	0.750	3.000	–	4	■
JSE514.625D1R030.0Z4	SIRA	10201816	1	D	0.625	0.625	0.750	3.000	0.030	4	■
JSE514.625D1R060.0Z4	SIRA	10201817	1	D	0.625	0.625	0.750	3.000	0.060	4	■
JSE514.750D1S.0Z4	SIRA	10201809	1	D	0.750	0.750	0.875	3.000	–	4	■
JSE514.750D1R030.0Z4	SIRA	10201818	1	D	0.750	0.750	0.875	3.000	0.030	4	■
JSE514.750D1R060.0Z4	SIRA	10201819	1	D	0.750	0.750	0.875	3.000	0.060	4	■
JSE514.125D2S.0Z4	SIRA	10201803	2	D	0.125	0.125	0.250	1.500	–	4	■
JSE514.125D2R015.0Z4	SIRA	10201810	2	D	0.125	0.125	0.250	1.500	0.015	4	■
JSE514.188D2S.0Z4	SIRA	10201804	2	D	0.188	0.188	0.375	2.000	–	4	■
JSE514.188D2R020.0Z4	SIRA	10201811	2	D	0.188	0.188	0.375	2.000	0.020	4	■
JSE514.250D2S.0Z4	SIRA	10201822	2	D	0.250	0.250	0.500	2.000	–	4	■
JSE514.250D2R030.0Z4	SIRA	10201829	2	D	0.250	0.250	0.500	2.000	0.030	4	■
JSE514.375D2S.0Z4	SIRA	10201823	2	D	0.375	0.375	0.625	2.000	–	4	■
JSE514.375D2R030.0Z4	SIRA	10201830	2	D	0.375	0.375	0.625	2.000	0.030	4	■
JSE514.500D2S.0Z4	SIRA	10201824	2	D	0.500	0.500	1.000	3.000	–	4	■
JSE514.500D2R030.0Z4	SIRA	10201831	2	D	0.500	0.500	1.000	3.000	0.030	4	■
JSE514.500D2R060.0Z4	SIRA	10201832	2	D	0.500	0.500	1.000	3.000	0.060	4	■
JSE514.625D2S.0Z4	SIRA	10201825	2	D	0.625	0.625	1.250	3.500	–	4	■
JSE514.625D2R030.0Z4	SIRA	10201833	2	D	0.625	0.625	1.250	3.500	0.030	4	■
JSE514.625D2R060.0Z4	SIRA	10201834	2	D	0.625	0.625	1.250	3.500	0.060	4	■
JSE514.750D2S.0Z4	SIRA	10201826	2	D	0.750	0.750	1.500	4.000	–	4	■
JSE514.750D2R030.0Z4	SIRA	10201835	2	D	0.750	0.750	1.500	4.000	0.030	4	■
JSE514.750D2R060.0Z4	SIRA	10201836	2	D	0.750	0.750	1.500	4.000	0.060	4	■

■ Stocked standard.

JSE514

General purpose – Universal – Square – 4 Flutes – Cylindrical – Sharp or corner radius – *Inch*







- Tolerances:
- DMM=h5
- DC=e8
- RE= ±.002 Inch
- Regrind possible if DC is ≥Ø.375

Designation	Grade	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	RE	PCEDC	Cylindrical
					inch	inch	inch	inch	inch		
JSE514.125D3S.0Z4	SIRA	10201820	3	D	0.125	0.125	0.500	1.500	–	4	■
JSE514.125D3R015.0Z4	SIRA	10201827	3	D	0.125	0.125	0.500	1.500	0.015	4	■
JSE514.188D3S.0Z4	SIRA	10201821	3	D	0.188	0.188	0.625	2.000	–	4	■
JSE514.188D3R020.0Z4	SIRA	10201828	3	D	0.188	0.188	0.625	2.000	0.020	4	■
JSE514.250D3S.0Z4	SIRA	10201837	3	D	0.250	0.250	0.750	2.500	–	4	■
JSE514.250D3R030.0Z4	SIRA	10201842	3	D	0.250	0.250	0.750	2.500	0.030	4	■
JSE514.375D3S.0Z4	SIRA	10201838	3	D	0.375	0.375	1.000	2.500	–	4	■
JSE514.375D3R030.0Z4	SIRA	10201843	3	D	0.375	0.375	1.000	2.500	0.030	4	■
JSE514.500D3S.0Z4	SIRA	10201839	3	D	0.500	0.500	2.000	4.000	–	4	■
JSE514.500D3R030.0Z4	SIRA	10201844	3	D	0.500	0.500	2.000	4.000	0.030	4	■
JSE514.500D3R060.0Z4	SIRA	10201845	3	D	0.500	0.500	2.000	4.000	0.060	4	■
JSE514.625D3S.0Z4	SIRA	10201840	3	D	0.625	0.625	2.250	5.000	–	4	■
JSE514.625D3R030.0Z4	SIRA	10201846	3	D	0.625	0.625	2.250	5.000	0.030	4	■
JSE514.625D3R060.0Z4	SIRA	10201847	3	D	0.625	0.625	2.250	5.000	0.060	4	■
JSE514.750D3S.0Z4	SIRA	10201841	3	D	0.750	0.750	2.250	5.000	–	4	■
JSE514.750D3R030.0Z4	SIRA	10201848	3	D	0.750	0.750	2.250	5.000	0.030	4	■
JSE514.750D3R060.0Z4	SIRA	10201849	3	D	0.750	0.750	2.250	5.000	0.060	4	■

■ Stocked standard.

Cutting data – JSE514 Side milling

SMG		a_e/DC	a_p/DC	f_z												v_c
				2	3	4	5	6	8	10	12	16	18	20	25	
P1	M/A/D/E	0.150 *0,150*	1.5 *1,5*	0.012 *0,00048*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	0.090 *0,0036*	0.095 *0,0038*	0.10 *0,0040*	0.12 *0,0048*	165 (69 — 200) *540 (230 — 650)*
P2	M/A/D/E	0.150 *0,150*	1.5 *1,5*	0.014 *0,00055*	0.020 *0,00080*	0.028 *0,0011*	0.034 *0,0013*	0.040 *0,0016*	0.055 *0,0022*	0.070 *0,0028*	0.080 *0,0032*	0.10 *0,0040*	0.11 *0,0044*	0.11 *0,0044*	0.13 *0,0050*	160 (67 — 190) *520 (220 — 620)*
P3	M/A/D/E	0.150 *0,150*	1.5 *1,5*	0.012 *0,00048*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	0.090 *0,0036*	0.095 *0,0038*	0.10 *0,0040*	0.12 *0,0048*	165 (69 — 200) *540 (230 — 650)*
P4	M/A/D/E	0.150 *0,150*	1.5 *1,5*	0.012 *0,00048*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	0.090 *0,0036*	0.095 *0,0038*	0.10 *0,0040*	0.12 *0,0048*	165 (69 — 200) *540 (230 — 650)*
P5	M/A/D/E	0.150 *0,150*	1.5 *1,5*	0.012 *0,00048*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	0.090 *0,0036*	0.095 *0,0038*	0.10 *0,0040*	0.12 *0,0048*	165 (69 — 200) *540 (230 — 650)*
P6	M/A/D/E	0.150 *0,150*	1.5 *1,5*	0.012 *0,00048*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	0.090 *0,0036*	0.095 *0,0038*	0.10 *0,0040*	0.12 *0,0048*	165 (69 — 200) *540 (230 — 650)*
P7	M/A/D/E	0.150 *0,150*	1.5 *1,5*	0.012 *0,00048*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	0.090 *0,0036*	0.095 *0,0038*	0.10 *0,0040*	0.12 *0,0048*	165 (69 — 200) *540 (230 — 650)*
P8	M/A/D/E	0.150 *0,150*	1.5 *1,5*	0.012 *0,00048*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	0.090 *0,0036*	0.095 *0,0038*	0.10 *0,0040*	0.12 *0,0048*	165 (69 — 200) *540 (230 — 650)*
P11	M/A/D/E	0.150 *0,150*	1.5 *1,5*	0.012 *0,00048*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	0.090 *0,0036*	0.095 *0,0038*	0.10 *0,0040*	0.12 *0,0048*	95 (69 — 130) *310 (230 — 420)*
P12	M/A/D/E	0.150 *0,150*	1.5 *1,5*	0.012 *0,00048*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	0.090 *0,0036*	0.095 *0,0038*	0.10 *0,0040*	0.12 *0,0048*	95 (69 — 130) *310 (230 — 420)*
M1	E/M/A	0.150 *0,150*	1.5 *1,5*	0.012 *0,00048*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	0.090 *0,0036*	0.095 *0,0038*	0.10 *0,0040*	0.12 *0,0048*	95 (69 — 130) *310 (230 — 420)*
M2	E/M/A	0.150 *0,150*	1.5 *1,5*	0.012 *0,00048*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	0.090 *0,0036*	0.095 *0,0038*	0.10 *0,0040*	0.12 *0,0048*	95 (69 — 130) *310 (230 — 420)*
M3	E/M/A	0.150 *0,150*	1.5 *1,5*	0.012 *0,00048*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	0.090 *0,0036*	0.095 *0,0038*	0.10 *0,0040*	0.12 *0,0048*	95 (69 — 130) *310 (230 — 420)*
M4	E/M/A	0.150 *0,150*	1.5 *1,5*	0.012 *0,00048*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	0.090 *0,0036*	0.095 *0,0038*	0.10 *0,0040*	0.12 *0,0048*	95 (69 — 130) *310 (230 — 420)*
M5	E/M/A	0.150 *0,150*	1.5 *1,5*	0.012 *0,00048*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	0.090 *0,0036*	0.095 *0,0038*	0.10 *0,0040*	0.12 *0,0048*	95 (69 — 130) *310 (230 — 420)*
K1	A/D/M/E	0.150 *0,150*	1.5 *1,5*	0.012 *0,00048*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	0.090 *0,0036*	0.095 *0,0038*	0.10 *0,0040*	0.12 *0,0048*	165 (69 — 200) *540 (230 — 650)*
K2	A/D/M/E	0.150 *0,150*	1.5 *1,5*	0.012 *0,00048*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	0.090 *0,0036*	0.095 *0,0038*	0.10 *0,0040*	0.12 *0,0048*	165 (69 — 200) *540 (230 — 650)*
K3	A/D/M/E	0.150 *0,150*	1.5 *1,5*	0.012 *0,00048*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	0.090 *0,0036*	0.095 *0,0038*	0.10 *0,0040*	0.12 *0,0048*	165 (69 — 200) *540 (230 — 650)*
K4	A/D/M/E	0.150 *0,150*	1.5 *1,5*	0.012 *0,00048*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	0.090 *0,0036*	0.095 *0,0038*	0.10 *0,0040*	0.12 *0,0048*	165 (69 — 200) *540 (230 — 650)*
K5	A/D/M/E	0.150 *0,150*	1.5 *1,5*	0.012 *0,00048*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	0.090 *0,0036*	0.095 *0,0038*	0.10 *0,0040*	0.12 *0,0048*	165 (69 — 200) *540 (230 — 650)*
K6	A/D/M/E	0.150 *0,150*	1.5 *1,5*	0.012 *0,00048*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	0.090 *0,0036*	0.095 *0,0038*	0.10 *0,0040*	0.12 *0,0048*	165 (69 — 200) *540 (230 — 650)*
K7	A/D/M/E	0.150 *0,150*	1.5 *1,5*	0.012 *0,00048*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	0.090 *0,0036*	0.095 *0,0038*	0.10 *0,0040*	0.12 *0,0048*	165 (69 — 200) *540 (230 — 650)*
N1	E/M/A	0.150 *0,150*	1.5 *1,5*	0.015 *0,00060*	0.024 *0,00095*	0.030 *0,0012*	0.038 *0,0015*	0.046 *0,0018*	0.060 *0,0024*	0.075 *0,0030*	0.090 *0,0036*	0.11 *0,0044*	0.12 *0,0048*	0.13 *0,0050*	0.15 *0,0060*	520 (400 — 650) *1700 (1400 — 2100)*
N11	E/M/A	0.150 *0,150*	1.5 *1,5*	0.012 *0,00048*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	0.090 *0,0036*	0.095 *0,0038*	0.10 *0,0040*	0.12 *0,0048*	410 (280 — 540) *1350 (920 — 1700)*
S11	E	0.150 *0,150*	1.5 *1,5*	0.012 *0,00048*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	0.090 *0,0036*	0.095 *0,0038*	0.10 *0,0040*	0.12 *0,0048*	95 (69 — 130) *310 (230 — 420)*
S12	E	0.150 *0,150*	1.5 *1,5*	0.012 *0,00048*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	0.090 *0,0036*	0.095 *0,0038*	0.10 *0,0040*	0.12 *0,0048*	95 (69 — 130) *310 (230 — 420)*
S13	E	0.150 *0,150*	1.5 *1,5*	0.012 *0,00048*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	0.090 *0,0036*	0.095 *0,0038*	0.10 *0,0040*	0.12 *0,0048*	95 (69 — 130) *310 (230 — 420)*

For cutting data recalculations, see pages 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

Cutting data – JSE514 Slot milling

SMG		a_p/DC	f_z												v_c
			2	3	4	5	6	8	10	12	16	18	20	25	
P1	M/A/D/E	0.40	0.0060	0.0090	0.012	0.015	0.018	0.024	0.030	0.036	0.048	0.055	0.060	0.075	120 (51 — 150)
		0,40	*0,00024*	*0,00036*	*0,00048*	*0,00060*	*0,00070*	*0,00095*	*0,0012*	*0,0014*	*0,0019*	*0,0022*	*0,0024*	*0,0030*	*395 (170 — 490)*
P2	M/A/D/E	0.40	0.0060	0.0090	0.012	0.015	0.018	0.024	0.030	0.036	0.048	0.055	0.060	0.075	120 (51 — 150)
		0,40	*0,00024*	*0,00036*	*0,00048*	*0,00060*	*0,00070*	*0,00095*	*0,0012*	*0,0014*	*0,0019*	*0,0022*	*0,0024*	*0,0030*	*395 (170 — 490)*
P3	M/A/D/E	0.40	0.0060	0.0090	0.012	0.015	0.018	0.024	0.030	0.036	0.048	0.055	0.060	0.075	120 (51 — 150)
		0,40	*0,00024*	*0,00036*	*0,00048*	*0,00060*	*0,00070*	*0,00095*	*0,0012*	*0,0014*	*0,0019*	*0,0022*	*0,0024*	*0,0030*	*395 (170 — 490)*
P4	M/A/D/E	0.40	0.0060	0.0090	0.012	0.015	0.018	0.024	0.030	0.036	0.048	0.055	0.060	0.075	120 (50 — 140)
		0,40	*0,00024*	*0,00036*	*0,00048*	*0,00060*	*0,00070*	*0,00095*	*0,0012*	*0,0014*	*0,0019*	*0,0022*	*0,0024*	*0,0030*	*395 (170 — 450)*
P5	M/A/D/E	0.40	0.0060	0.0090	0.012	0.015	0.018	0.024	0.030	0.036	0.048	0.055	0.060	0.075	120 (51 — 150)
		0,40	*0,00024*	*0,00036*	*0,00048*	*0,00060*	*0,00070*	*0,00095*	*0,0012*	*0,0014*	*0,0019*	*0,0022*	*0,0024*	*0,0030*	*395 (170 — 490)*
P6	M/A/D/E	0.40	0.0060	0.0090	0.012	0.015	0.018	0.024	0.030	0.036	0.048	0.055	0.060	0.075	120 (50 — 140)
		0,40	*0,00024*	*0,00036*	*0,00048*	*0,00060*	*0,00070*	*0,00095*	*0,0012*	*0,0014*	*0,0019*	*0,0022*	*0,0024*	*0,0030*	*395 (170 — 450)*
P7	M/A/D/E	0.40	0.0060	0.0090	0.012	0.015	0.018	0.024	0.030	0.036	0.048	0.055	0.060	0.075	120 (51 — 150)
		0,40	*0,00024*	*0,00036*	*0,00048*	*0,00060*	*0,00070*	*0,00095*	*0,0012*	*0,0014*	*0,0019*	*0,0022*	*0,0024*	*0,0030*	*395 (170 — 490)*
P8	M/A/D/E	0.40	0.0060	0.0090	0.012	0.015	0.018	0.024	0.030	0.036	0.048	0.055	0.060	0.075	120 (51 — 150)
		0,40	*0,00024*	*0,00036*	*0,00048*	*0,00060*	*0,00070*	*0,00095*	*0,0012*	*0,0014*	*0,0019*	*0,0022*	*0,0024*	*0,0030*	*395 (170 — 490)*
P11	M/A/D/E	0.40	0.0060	0.0090	0.012	0.015	0.018	0.024	0.030	0.036	0.048	0.055	0.060	0.075	70 (51 — 100)
		0,40	*0,00024*	*0,00036*	*0,00048*	*0,00060*	*0,00070*	*0,00095*	*0,0012*	*0,0014*	*0,0019*	*0,0022*	*0,0024*	*0,0030*	*230 (170 — 320)*
P12	M/A/D/E	0.40	0.0060	0.0090	0.012	0.015	0.018	0.024	0.030	0.036	0.048	0.055	0.060	0.075	70 (50 — 99)
		0,40	*0,00024*	*0,00036*	*0,00048*	*0,00060*	*0,00070*	*0,00095*	*0,0012*	*0,0014*	*0,0019*	*0,0022*	*0,0024*	*0,0030*	*230 (170 — 320)*
M1	E/M/A	0.40	0.0060	0.0090	0.012	0.015	0.018	0.024	0.030	0.036	0.048	0.055	0.060	0.075	70 (50 — 99)
		0,40	*0,00024*	*0,00036*	*0,00048*	*0,00060*	*0,00070*	*0,00095*	*0,0012*	*0,0014*	*0,0019*	*0,0022*	*0,0024*	*0,0030*	*230 (170 — 320)*
M2	E/M/A	0.40	0.0060	0.0090	0.012	0.015	0.018	0.024	0.030	0.036	0.048	0.055	0.060	0.075	70 (50 — 99)
		0,40	*0,00024*	*0,00036*	*0,00048*	*0,00060*	*0,00070*	*0,00095*	*0,0012*	*0,0014*	*0,0019*	*0,0022*	*0,0024*	*0,0030*	*230 (170 — 320)*
M3	E/M/A	0.40	0.0060	0.0090	0.012	0.015	0.018	0.024	0.030	0.036	0.048	0.055	0.060	0.075	70 (50 — 99)
		0,40	*0,00024*	*0,00036*	*0,00048*	*0,00060*	*0,00070*	*0,00095*	*0,0012*	*0,0014*	*0,0019*	*0,0022*	*0,0024*	*0,0030*	*230 (170 — 320)*
M4	E/M/A	0.40	0.0060	0.0090	0.012	0.015	0.018	0.024	0.030	0.036	0.048	0.055	0.060	0.075	70 (50 — 99)
		0,40	*0,00024*	*0,00036*	*0,00048*	*0,00060*	*0,00070*	*0,00095*	*0,0012*	*0,0014*	*0,0019*	*0,0022*	*0,0024*	*0,0030*	*230 (170 — 320)*
M5	E/M/A	0.40	0.0060	0.0090	0.012	0.015	0.018	0.024	0.030	0.036	0.048	0.055	0.060	0.075	70 (50 — 99)
		0,40	*0,00024*	*0,00036*	*0,00048*	*0,00060*	*0,00070*	*0,00095*	*0,0012*	*0,0014*	*0,0019*	*0,0022*	*0,0024*	*0,0030*	*230 (170 — 320)*
K1	A/D/M/E	0.40	0.0060	0.0090	0.012	0.015	0.018	0.024	0.030	0.036	0.048	0.055	0.060	0.075	120 (50 — 150)
		0,40	*0,00024*	*0,00036*	*0,00048*	*0,00060*	*0,00070*	*0,00095*	*0,0012*	*0,0014*	*0,0019*	*0,0022*	*0,0024*	*0,0030*	*395 (170 — 490)*
K2	A/D/M/E	0.40	0.0060	0.0090	0.012	0.015	0.018	0.024	0.030	0.036	0.048	0.055	0.060	0.075	120 (50 — 150)
		0,40	*0,00024*	*0,00036*	*0,00048*	*0,00060*	*0,00070*	*0,00095*	*0,0012*	*0,0014*	*0,0019*	*0,0022*	*0,0024*	*0,0030*	*395 (170 — 490)*
K3	A/D/M/E	0.40	0.0060	0.0090	0.012	0.015	0.018	0.024	0.030	0.036	0.048	0.055	0.060	0.075	120 (50 — 150)
		0,40	*0,00024*	*0,00036*	*0,00048*	*0,00060*	*0,00070*	*0,00095*	*0,0012*	*0,0014*	*0,0019*	*0,0022*	*0,0024*	*0,0030*	*395 (170 — 490)*
K4	A/D/M/E	0.40	0.0060	0.0090	0.012	0.015	0.018	0.024	0.030	0.036	0.048	0.055	0.060	0.075	120 (50 — 150)
		0,40	*0,00024*	*0,00036*	*0,00048*	*0,00060*	*0,00070*	*0,00095*	*0,0012*	*0,0014*	*0,0019*	*0,0022*	*0,0024*	*0,0030*	*395 (170 — 490)*
K5	A/D/M/E	0.40	0.0060	0.0090	0.012	0.015	0.018	0.024	0.030	0.036	0.048	0.055	0.060	0.075	120 (50 — 150)
		0,40	*0,00024*	*0,00036*	*0,00048*	*0,00060*	*0,00070*	*0,00095*	*0,0012*	*0,0014*	*0,0019*	*0,0022*	*0,0024*	*0,0030*	*395 (170 — 490)*
K6	A/D/M/E	0.40	0.0060	0.0090	0.012	0.015	0.018	0.024	0.030	0.036	0.048	0.055	0.060	0.075	120 (50 — 150)
		0,40	*0,00024*	*0,00036*	*0,00048*	*0,00060*	*0,00070*	*0,00095*	*0,0012*	*0,0014*	*0,0019*	*0,0022*	*0,0024*	*0,0030*	*395 (170 — 490)*
K7	A/D/M/E	0.40	0.0060	0.0090	0.012	0.015	0.018	0.024	0.030	0.036	0.048	0.055	0.060	0.075	120 (50 — 150)
		0,40	*0,00024*	*0,00036*	*0,00048*	*0,00060*	*0,00070*	*0,00095*	*0,0012*	*0,0014*	*0,0019*	*0,0022*	*0,0024*	*0,0030*	*395 (170 — 490)*
N1	E/M/A	0.30	0.0060	0.0090	0.012	0.015	0.018	0.024	0.030	0.036	0.048	0.055	0.060	0.075	400 (300 — 500)
		0,30	*0,00024*	*0,00036*	*0,00048*	*0,00060*	*0,00070*	*0,00095*	*0,0012*	*0,0014*	*0,0019*	*0,0022*	*0,0024*	*0,0030*	*1300 (990 — 1600)*
N11	E/M/A	0.40	0.0060	0.0090	0.012	0.015	0.018	0.024	0.030	0.036	0.048	0.055	0.060	0.075	300 (200 — 390)
		0,40	*0,00024*	*0,00036*	*0,00048*	*0,00060*	*0,00070*	*0,00095*	*0,0012*	*0,0014*	*0,0019*	*0,0022*	*0,0024*	*0,0030*	*980 (660 — 1200)*
S11	E	0.40	0.0060	0.0090	0.012	0.015	0.018	0.024	0.030	0.036	0.048	0.055	0.060	0.075	70 (50 — 99)
		0,40	*0,00024*	*0,00036*	*0,00048*	*0,00060*	*0,00070*	*0,00095*	*0,0012*	*0,0014*	*0,0019*	*0,0022*	*0,0024*	*0,0030*	*230 (170 — 320)*
S12	E	0.40	0.0060	0.0090	0.012	0.015	0.018	0.024	0.030	0.036	0.048	0.055	0.060	0.075	70 (50 — 99)
		0,40	*0,00024*	*0,00036*	*0,00048*	*0,00060*	*0,00070*	*0,00095*	*0,0012*	*0,0014*	*0,0019*	*0,0022*	*0,0024*	*0,0030*	*230 (170 — 320)*
S13	E	0.40	0.0060	0.0090	0.012	0.015	0.018	0.024	0.030	0.036	0.048	0.055	0.060	0.075	70 (50 — 99)
		0,40	*0,00024*	*0,00036*	*0,00048*	*0,00060*	*0,00070*	*0,00095*	*0,0012*	*0,0014*	*0,0019*	*0,0022*	*0,0024*	*0,0030*	*230 (170 — 320)*

For cutting data recalculations, see pages 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

Cutting data – JS514 Side milling – *Inch*

SMG		a_e/DC	a_p/DC	f_z							v_c
				1/8	3/16	1.4	3/8	1/2	5/8	3/4	
P1	M/A/D/E	0,15 *0.15*	1,2 *1.2*	0,019 *0.00075*	0,028 *0.0011*	0,038 *0.0015*	0,060 *0.0024*	0,075 *0.0030*	0,090 *0.0036*	0,10 *0.0040*	165 (69 — 200) *540 (230 — 650)*
P2	M/A/D/E	0,15 *0.15*	1,2 *1.2*	0,022 *0.00085*	0,032 *0.0013*	0,042 *0.0017*	0,065 *0.0026*	0,085 *0.0034*	0,10 *0.0040*	0,11 *0.0044*	160 (67 — 200) *520 (220 — 650)*
P3	M/A/D/E	0,15 *0.15*	1,2 *1.2*	0,019 *0.00075*	0,028 *0.0011*	0,038 *0.0015*	0,060 *0.0024*	0,075 *0.0030*	0,090 *0.0036*	0,10 *0.0040*	165 (68 — 200) *540 (230 — 650)*
P4	M/A/D/E	0,15 *0.15*	1,2 *1.2*	0,019 *0.00075*	0,028 *0.0011*	0,038 *0.0015*	0,060 *0.0024*	0,075 *0.0030*	0,090 *0.0036*	0,10 *0.0040*	165 (68 — 200) *540 (230 — 650)*
P5	M/A/D/E	0,15 *0.15*	1,2 *1.2*	0,019 *0.00075*	0,028 *0.0011*	0,038 *0.0015*	0,060 *0.0024*	0,075 *0.0030*	0,090 *0.0036*	0,10 *0.0040*	165 (68 — 200) *540 (230 — 650)*
P6	M/A/D/E	0,15 *0.15*	1,2 *1.2*	0,019 *0.00075*	0,028 *0.0011*	0,038 *0.0015*	0,060 *0.0024*	0,075 *0.0030*	0,090 *0.0036*	0,10 *0.0040*	165 (68 — 200) *540 (230 — 650)*
P7	M/A/D/E	0,15 *0.15*	1,2 *1.2*	0,019 *0.00075*	0,028 *0.0011*	0,038 *0.0015*	0,060 *0.0024*	0,075 *0.0030*	0,090 *0.0036*	0,10 *0.0040*	165 (68 — 200) *540 (230 — 650)*
P8	M/A/D/E	0,15 *0.15*	1,2 *1.2*	0,019 *0.00075*	0,028 *0.0011*	0,038 *0.0015*	0,060 *0.0024*	0,075 *0.0030*	0,090 *0.0036*	0,10 *0.0040*	165 (68 — 200) *540 (230 — 650)*
P11	M/A/D/E	0,15 *0.15*	1,2 *1.2*	0,019 *0.00075*	0,028 *0.0011*	0,038 *0.0015*	0,060 *0.0024*	0,075 *0.0030*	0,090 *0.0036*	0,10 *0.0040*	95 (68 — 130) *310 (230 — 420)*
P12	M/A/D/E	0,15 *0.15*	1,2 *1.2*	0,019 *0.00075*	0,028 *0.0011*	0,038 *0.0015*	0,060 *0.0024*	0,075 *0.0030*	0,090 *0.0036*	0,10 *0.0040*	95 (68 — 130) *310 (230 — 420)*
M1	E/M/A	0,15 *0.15*	1,2 *1.2*	0,019 *0.00075*	0,028 *0.0011*	0,038 *0.0015*	0,060 *0.0024*	0,075 *0.0030*	0,090 *0.0036*	0,10 *0.0040*	95 (68 — 130) *310 (230 — 420)*
M2	E/M/A	0,15 *0.15*	1,2 *1.2*	0,019 *0.00075*	0,028 *0.0011*	0,038 *0.0015*	0,060 *0.0024*	0,075 *0.0030*	0,090 *0.0036*	0,10 *0.0040*	95 (68 — 130) *310 (230 — 420)*
M3	E/M/A	0,15 *0.15*	1,2 *1.2*	0,019 *0.00075*	0,028 *0.0011*	0,038 *0.0015*	0,060 *0.0024*	0,075 *0.0030*	0,090 *0.0036*	0,10 *0.0040*	95 (68 — 130) *310 (230 — 420)*
M4	E/M/A	0,15 *0.15*	1,2 *1.2*	0,019 *0.00075*	0,028 *0.0011*	0,038 *0.0015*	0,060 *0.0024*	0,075 *0.0030*	0,090 *0.0036*	0,10 *0.0040*	95 (68 — 130) *310 (230 — 420)*
M5	E/M/A	0,15 *0.15*	1,2 *1.2*	0,019 *0.00075*	0,028 *0.0011*	0,038 *0.0015*	0,060 *0.0024*	0,075 *0.0030*	0,090 *0.0036*	0,10 *0.0040*	95 (68 — 130) *310 (230 — 420)*
K1	A/D/M/E	0,15 *0.15*	1,2 *1.2*	0,019 *0.00075*	0,028 *0.0011*	0,038 *0.0015*	0,060 *0.0024*	0,075 *0.0030*	0,090 *0.0036*	0,10 *0.0040*	165 (68 — 200) *540 (230 — 650)*
K2	A/D/M/E	0,15 *0.15*	1,2 *1.2*	0,019 *0.00075*	0,028 *0.0011*	0,038 *0.0015*	0,060 *0.0024*	0,075 *0.0030*	0,090 *0.0036*	0,10 *0.0040*	165 (68 — 200) *540 (230 — 650)*
K3	A/D/M/E	0,15 *0.15*	1,2 *1.2*	0,019 *0.00075*	0,028 *0.0011*	0,038 *0.0015*	0,060 *0.0024*	0,075 *0.0030*	0,090 *0.0036*	0,10 *0.0040*	165 (68 — 200) *540 (230 — 650)*
K4	A/D/M/E	0,15 *0.15*	1,2 *1.2*	0,019 *0.00075*	0,028 *0.0011*	0,038 *0.0015*	0,060 *0.0024*	0,075 *0.0030*	0,090 *0.0036*	0,10 *0.0040*	165 (68 — 200) *540 (230 — 650)*
K5	A/D/M/E	0,15 *0.15*	1,2 *1.2*	0,019 *0.00075*	0,028 *0.0011*	0,038 *0.0015*	0,060 *0.0024*	0,075 *0.0030*	0,090 *0.0036*	0,10 *0.0040*	165 (68 — 200) *540 (230 — 650)*
K6	A/D/M/E	0,15 *0.15*	1,2 *1.2*	0,019 *0.00075*	0,028 *0.0011*	0,038 *0.0015*	0,060 *0.0024*	0,075 *0.0030*	0,090 *0.0036*	0,10 *0.0040*	165 (68 — 200) *540 (230 — 650)*
K7	A/D/M/E	0,15 *0.15*	1,2 *1.2*	0,019 *0.00075*	0,028 *0.0011*	0,038 *0.0015*	0,060 *0.0024*	0,075 *0.0030*	0,090 *0.0036*	0,10 *0.0040*	165 (68 — 200) *540 (230 — 650)*
N1	E/M/A	0,15 *0.15*	1,2 *1.2*	0,025 *0.0010*	0,036 *0.0014*	0,050 *0.0020*	0,075 *0.0030*	0,095 *0.0038*	0,11 *0.0044*	0,13 *0.0050*	520 (400 — 650) *1700 (1400 — 2100)*
N11	E/M/A	0,15 *0.15*	1,2 *1.2*	0,019 *0.00075*	0,028 *0.0011*	0,038 *0.0015*	0,060 *0.0024*	0,075 *0.0030*	0,090 *0.0036*	0,10 *0.0040*	410 (280 — 540) *1350 (920 — 1700)*
S11	E	0,15 *0.15*	1,2 *1.2*	0,019 *0.00075*	0,028 *0.0011*	0,038 *0.0015*	0,060 *0.0024*	0,075 *0.0030*	0,090 *0.0036*	0,10 *0.0040*	95 (68 — 130) *310 (230 — 420)*
S12	E	0,15 *0.15*	1,2 *1.2*	0,019 *0.00075*	0,028 *0.0011*	0,038 *0.0015*	0,060 *0.0024*	0,075 *0.0030*	0,090 *0.0036*	0,10 *0.0040*	95 (68 — 130) *310 (230 — 420)*
S13	E	0,15 *0.15*	1,2 *1.2*	0,019 *0.00075*	0,028 *0.0011*	0,038 *0.0015*	0,060 *0.0024*	0,075 *0.0030*	0,090 *0.0036*	0,10 *0.0040*	95 (68 — 130) *310 (230 — 420)*

For cutting data recalculations, see pages 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

Cutting data – JS514 Slot milling – *Inch*

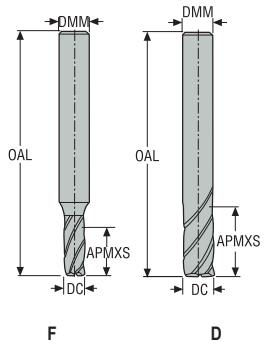
SMG		a_p/DC	f_z							v_c
			1/8	3/16	1/4	3/8	1/2	5/8	3/4	
P1	M/A/D/E	0,40 *0.40*	0,0095 *0.00038*	0,014 *0.00055*	0,019 *0.00075*	0,028 *0.0011*	0,038 *0.0015*	0,048 *0.0019*	0,055 *0.0022*	120 (51 — 150) *395 (170 — 490)*
P2	M/A/D/E	0,40 *0.40*	0,0095 *0.00038*	0,014 *0.00055*	0,019 *0.00075*	0,028 *0.0011*	0,038 *0.0015*	0,048 *0.0019*	0,055 *0.0022*	120 (51 — 150) *395 (170 — 490)*
P3	M/A/D/E	0,40 *0.40*	0,0095 *0.00038*	0,014 *0.00055*	0,019 *0.00075*	0,028 *0.0011*	0,038 *0.0015*	0,048 *0.0019*	0,055 *0.0022*	120 (51 — 150) *395 (170 — 490)*
P4	M/A/D/E	0,40 *0.40*	0,0095 *0.00038*	0,014 *0.00055*	0,019 *0.00075*	0,028 *0.0011*	0,038 *0.0015*	0,048 *0.0019*	0,055 *0.0022*	120 (51 — 150) *395 (170 — 490)*
P5	M/A/D/E	0,40 *0.40*	0,0095 *0.00038*	0,014 *0.00055*	0,019 *0.00075*	0,028 *0.0011*	0,038 *0.0015*	0,048 *0.0019*	0,055 *0.0022*	120 (51 — 150) *395 (170 — 490)*
P6	M/A/D/E	0,40 *0.40*	0,0095 *0.00038*	0,014 *0.00055*	0,019 *0.00075*	0,028 *0.0011*	0,038 *0.0015*	0,048 *0.0019*	0,055 *0.0022*	120 (51 — 150) *395 (170 — 490)*
P7	M/A/D/E	0,40 *0.40*	0,0095 *0.00038*	0,014 *0.00055*	0,019 *0.00075*	0,028 *0.0011*	0,038 *0.0015*	0,048 *0.0019*	0,055 *0.0022*	120 (51 — 150) *395 (170 — 490)*
P8	M/A/D/E	0,40 *0.40*	0,0095 *0.00038*	0,014 *0.00055*	0,019 *0.00075*	0,028 *0.0011*	0,038 *0.0015*	0,048 *0.0019*	0,055 *0.0022*	120 (51 — 150) *395 (170 — 490)*
P11	M/A/D/E	0,40 *0.40*	0,0095 *0.00038*	0,014 *0.00055*	0,019 *0.00075*	0,028 *0.0011*	0,038 *0.0015*	0,048 *0.0019*	0,055 *0.0022*	70 (51 — 100) *230 (170 — 320)*
P12	M/A/D/E	0,40 *0.40*	0,0095 *0.00038*	0,014 *0.00055*	0,019 *0.00075*	0,028 *0.0011*	0,038 *0.0015*	0,048 *0.0019*	0,055 *0.0022*	70 (51 — 100) *230 (170 — 320)*
M1	E/M/A	0,40 *0.40*	0,0095 *0.00038*	0,014 *0.00055*	0,019 *0.00075*	0,028 *0.0011*	0,038 *0.0015*	0,048 *0.0019*	0,055 *0.0022*	70 (51 — 100) *230 (170 — 320)*
M2	E/M/A	0,40 *0.40*	0,0095 *0.00038*	0,014 *0.00055*	0,019 *0.00075*	0,028 *0.0011*	0,038 *0.0015*	0,048 *0.0019*	0,055 *0.0022*	70 (51 — 100) *230 (170 — 320)*
M3	E/M/A	0,40 *0.40*	0,0095 *0.00038*	0,014 *0.00055*	0,019 *0.00075*	0,028 *0.0011*	0,038 *0.0015*	0,048 *0.0019*	0,055 *0.0022*	70 (51 — 100) *230 (170 — 320)*
M4	E/M/A	0,40 *0.40*	0,0095 *0.00038*	0,014 *0.00055*	0,019 *0.00075*	0,028 *0.0011*	0,038 *0.0015*	0,048 *0.0019*	0,055 *0.0022*	70 (51 — 100) *230 (170 — 320)*
M5	E/M/A	0,40 *0.40*	0,0095 *0.00038*	0,014 *0.00055*	0,019 *0.00075*	0,028 *0.0011*	0,038 *0.0015*	0,048 *0.0019*	0,055 *0.0022*	70 (51 — 100) *230 (170 — 320)*
K1	A/D/M/E	0,40 *0.40*	0,0095 *0.00038*	0,014 *0.00055*	0,019 *0.00075*	0,028 *0.0011*	0,038 *0.0015*	0,048 *0.0019*	0,055 *0.0022*	120 (51 — 150) *395 (170 — 490)*
K2	A/D/M/E	0,40 *0.40*	0,0095 *0.00038*	0,014 *0.00055*	0,019 *0.00075*	0,028 *0.0011*	0,038 *0.0015*	0,048 *0.0019*	0,055 *0.0022*	120 (51 — 150) *395 (170 — 490)*
K3	A/D/M/E	0,40 *0.40*	0,0095 *0.00038*	0,014 *0.00055*	0,019 *0.00075*	0,028 *0.0011*	0,038 *0.0015*	0,048 *0.0019*	0,055 *0.0022*	120 (51 — 150) *395 (170 — 490)*
K4	A/D/M/E	0,40 *0.40*	0,0095 *0.00038*	0,014 *0.00055*	0,019 *0.00075*	0,028 *0.0011*	0,038 *0.0015*	0,048 *0.0019*	0,055 *0.0022*	120 (51 — 150) *395 (170 — 490)*
K5	A/D/M/E	0,40 *0.40*	0,0095 *0.00038*	0,014 *0.00055*	0,019 *0.00075*	0,028 *0.0011*	0,038 *0.0015*	0,048 *0.0019*	0,055 *0.0022*	120 (51 — 150) *395 (170 — 490)*
K6	A/D/M/E	0,40 *0.40*	0,0095 *0.00038*	0,014 *0.00055*	0,019 *0.00075*	0,028 *0.0011*	0,038 *0.0015*	0,048 *0.0019*	0,055 *0.0022*	120 (51 — 150) *395 (170 — 490)*
K7	A/D/M/E	0,40 *0.40*	0,0095 *0.00038*	0,014 *0.00055*	0,019 *0.00075*	0,028 *0.0011*	0,038 *0.0015*	0,048 *0.0019*	0,055 *0.0022*	120 (51 — 150) *395 (170 — 490)*
N1	E/M/A	0,30 *0.30*	0,0095 *0.00038*	0,014 *0.00055*	0,019 *0.00075*	0,028 *0.0011*	0,038 *0.0015*	0,048 *0.0019*	0,055 *0.0022*	400 (310 — 500) *1300 (1100 — 1600)*
N11	E/M/A	0,40 *0.40*	0,0095 *0.00038*	0,014 *0.00055*	0,019 *0.00075*	0,028 *0.0011*	0,038 *0.0015*	0,048 *0.0019*	0,055 *0.0022*	300 (210 — 400) *980 (690 — 1300)*
S11	E	0,40 *0.40*	0,0095 *0.00038*	0,014 *0.00055*	0,019 *0.00075*	0,028 *0.0011*	0,038 *0.0015*	0,048 *0.0019*	0,055 *0.0022*	70 (51 — 100) *230 (170 — 320)*
S12	E	0,40 *0.40*	0,0095 *0.00038*	0,014 *0.00055*	0,019 *0.00075*	0,028 *0.0011*	0,038 *0.0015*	0,048 *0.0019*	0,055 *0.0022*	70 (51 — 100) *230 (170 — 320)*
S13	E	0,40 *0.40*	0,0095 *0.00038*	0,014 *0.00055*	0,019 *0.00075*	0,028 *0.0011*	0,038 *0.0015*	0,048 *0.0019*	0,055 *0.0022*	70 (51 — 100) *230 (170 — 320)*

For cutting data recalculations, see pages 573 - 580

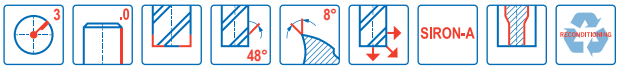
SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

JS553

High performance – Universal – Square – 3 Flutes – Cylindrical – Sharp







- Tolerances:
- DMM=h5
- DC=e7
- Regrind possible if DC is ≥Ø6

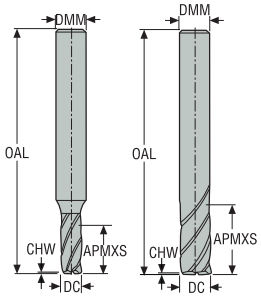
Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	PCEDC	Cylindrical
				mm	mm	mm	mm		
553020SZ3.0-SIRON-A	02733903	2	F	2,0	6,0	5,0	50,0	3	■
553030SZ3.0-SIRON-A	02733906	2	F	3,0	6,0	7,0	50,0	3	■
553040SZ3.0-SIRON-A	02733910	2	F	4,0	6,0	10,0	55,0	3	■
553050SZ3.0-SIRON-A	02733912	2	F	5,0	6,0	12,0	55,0	3	■
553060SZ3.0-SIRON-A	02733914	2	D	6,0	6,0	14,0	55,0	3	■
553080SZ3.0-SIRON-A	02733918	2	D	8,0	8,0	18,0	60,0	3	■
553100SZ3.0-SIRON-A	02733922	2	D	10,0	10,0	22,0	70,0	3	■

■ Stocked standard.

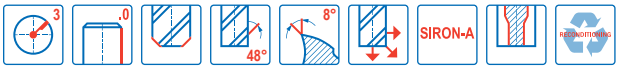
JS553

High performance – Universal – Square – 3 Flutes – Cylindrical – Chamfer





- Tolerances:
- DMM= h5
- DC= e7
- Regrind possible if DC is ≥Ø6

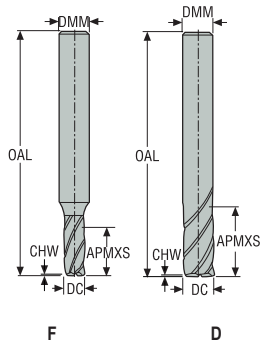


Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	CHW	PCEDC	Cylindrical
				mm	mm	mm	mm	mm		
JS553020F1C.0Z3-SIRA	10041466	1	F	2,0	6,0	3,0	40,0	0,025	3	■
JS553030F1C.0Z3-SIRA	10041467	1	F	3,0	6,0	4,0	40,0	0,035	3	■
JS553040F1C.0Z3-SIRA	10041468	1	F	4,0	6,0	6,0	40,0	0,045	3	■
JS553045F1C.0Z3-SIRA	10041469	1	F	4,5	6,0	6,0	40,0	0,045	3	■
JS553050F1C.0Z3-SIRA	10041470	1	F	5,0	6,0	7,0	40,0	0,055	3	■
JS553055F1C.0Z3-SIRA	10041472	1	F	5,5	6,0	8,0	40,0	0,055	3	■
JS553060D1C.0Z3-SIRA	10041473	1	D	6,0	6,0	8,0	40,0	0,075	3	■
JS553080D1C.0Z3-SIRA	10041474	1	D	8,0	8,0	11,0	50,0	0,1	3	■
JS553100D1C.0Z3-SIRA	10041475	1	D	10,0	10,0	13,0	57,0	0,125	3	■
JS553120D1C.0Z3-SIRA	10041476	1	D	12,0	12,0	15,0	65,0	0,15	3	■
553020Z3.0-SIRON-A	02679241	2	F	2,0	6,0	5,0	50,0	0,025	3	■
553025Z3.0-SIRON-A	02679352	2	F	2,5	6,0	7,0	50,0	0,025	3	■
553030Z3.0-SIRON-A	02679353	2	F	3,0	6,0	7,0	50,0	0,035	3	■
553035Z3.0-SIRON-A	02679359	2	F	3,5	6,0	9,0	55,0	0,035	3	■
553040Z3.0-SIRON-A	02679360	2	F	4,0	6,0	10,0	55,0	0,045	3	■
553045Z3.0-SIRON-A	02679361	2	F	4,5	6,0	12,0	55,0	0,045	3	■
553050Z3.0-SIRON-A	02679364	2	F	5,0	6,0	12,0	55,0	0,055	3	■
553055Z3.0-SIRON-A	02679365	2	F	5,5	6,0	14,0	55,0	0,055	3	■
553060Z3.0-SIRON-A	02679368	2	D	6,0	6,0	14,0	55,0	0,075	3	■
553075Z3.0-SIRON-A	02733916	2	F	7,5	8,0	18,0	60,0	0,1	3	■
553080Z3.0-SIRON-A	02679371	2	D	8,0	8,0	18,0	60,0	0,1	3	■
553095Z3.0-SIRON-A	02733920	2	F	9,5	10,0	22,0	70,0	0,125	3	■
553100Z3.0-SIRON-A	02679374	2	D	10,0	10,0	22,0	70,0	0,125	3	■
553115Z3.0-SIRON-A	02733925	2	F	11,5	12,0	26,0	80,0	0,15	3	■
553120Z3.0-SIRON-A	02679380	2	D	12,0	12,0	26,0	80,0	0,15	3	■
553140Z3.0-SIRON-A	02733932	2	D	14,0	14,0	30,0	85,0	0,175	3	■
553160Z3.0-SIRON-A	02679384	2	D	16,0	16,0	34,0	90,0	0,2	3	■
553200Z3.0-SIRON-A	02679389	2	D	20,0	20,0	42,0	110,0	0,25	3	■
553250Z3.0-SIRON-A	02679393	2	D	25,0	25,0	52,0	125,0	0,3	3	■

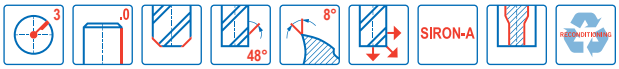
■ Stocked standard.

JS553

High performance – Universal – Square – 3 Flutes – Cylindrical – Chamfer







- Tolerances:
- DMM= h5
- DC= e7
- Regrind possible if DC is ≥Ø6

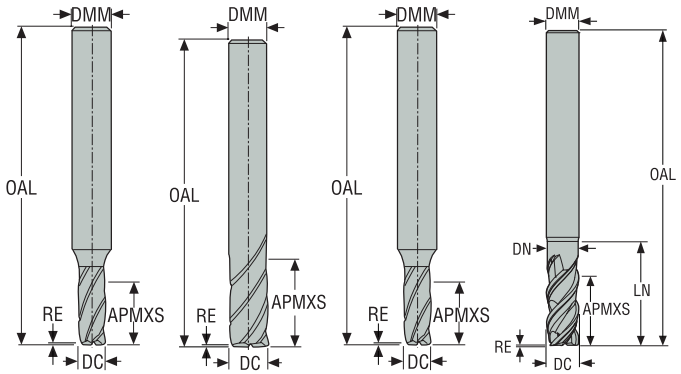
Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	CHW	PCEDC	Cylindrical
				mm	mm	mm	mm	mm		
553L020Z3.0-SIRON-A	02733962	3	F	2,0	6,0	7,0	50,0	0,025	3	■
553L030Z3.0-SIRON-A	02733971	3	F	3,0	6,0	10,0	55,0	0,035	3	■
553L040Z3.0-SIRON-A	02733972	3	F	4,0	6,0	14,0	60,0	0,045	3	■
553L050Z3.0-SIRON-A	02733974	3	F	5,0	6,0	18,0	60,0	0,055	3	■
553L060Z3.0-SIRON-A	02733982	3	D	6,0	6,0	20,0	65,0	0,075	3	■
553L080Z3.0-SIRON-A	02733986	3	D	8,0	8,0	28,0	70,0	0,1	3	■
553L100Z3.0-SIRON-A	02733992	3	D	10,0	10,0	35,0	85,0	0,125	3	■
553L120Z3.0-SIRON-A	02733994	3	D	12,0	12,0	40,0	95,0	0,15	3	■
553L160Z3.0-SIRON-A	02733996	3	D	16,0	16,0	50,0	110,0	0,2	3	■
553L200Z3.0-SIRON-A	02733998	3	D	20,0	20,0	60,0	125,0	0,25	3	■
553L250Z3.0-SIRON-A	02734000	3	D	25,0	25,0	75,0	150,0	0,3	3	■

■ Stocked standard.

JS553

High performance – Universal – Square – 3 Flutes – Cylindrical – Corner radius







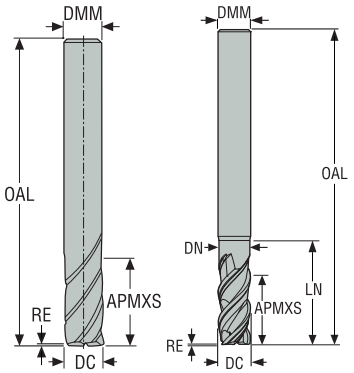
- Tolerances:
- DMM=h5
- DC=e7
- RE= ±0,02 mm
- Regrind possible if DC is ≥Ø6

Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Cylindrical
				mm	mm	mm	mm	mm	mm	mm		
JS553020F1R020.0Z3-SIRA	10194458	1	F	2,0	6,0	3,0	40,0	5,0	2,05	0,2	3	■
JS553030F1R020.0Z3-SIRA	10194459	1	F	3,0	6,0	4,0	40,0	6,0	3,05	0,2	3	■
JS553040F1R020.0Z3-SIRA	10194460	1	F	4,0	6,0	6,0	40,0	9,0	4,05	0,2	3	■
JS553050F1R020.0Z3-SIRA	10194461	1	F	5,0	6,0	7,0	40,0	10,0	5,05	0,2	3	■
JS553060D1R020.0Z3-SIRA	10194462	1	D	6,0	6,0	8,0	40,0	–	–	0,2	3	■
JS553060D1R050.0Z3-SIRA	10194463	1	D	6,0	6,0	8,0	40,0	–	–	0,5	3	■
JS553080D1R050.0Z3-SIRA	10194464	1	D	8,0	8,0	11,0	50,0	–	–	0,5	3	■
JS553100D1R050.0Z3-SIRA	10194465	1	D	10,0	10,0	13,0	57,0	–	–	0,5	3	■
JS553100D1R100.0Z3-SIRA	10194466	1	D	10,0	10,0	13,0	57,0	–	–	1,0	3	■
JS553120D1R050.0Z3-SIRA	10194467	1	D	12,0	12,0	15,0	65,0	–	–	0,5	3	■
JS553120D1R100.0Z3-SIRA	10194468	1	D	12,0	12,0	15,0	65,0	–	–	1,0	3	■
JS553020G2R050.0Z3-SIRA	02881683	2	G	2,0	6,0	5,0	57,0	8,0	1,9	0,5	3	■
553030R015Z3.0-SIRON-A	02733908	2	F	3,0	6,0	7,0	50,0	8,5	3,0	0,15	3	■
JS553030G2R050.0Z3-SIRA	02881684	2	G	3,0	6,0	7,0	57,0	11,0	2,85	0,5	3	■
553040R020Z3.0-SIRON-A	02733911	2	F	4,0	6,0	10,0	55,0	11,7	4,0	0,2	3	■
JS553040G2R050.0Z3-SIRA	02881685	2	G	4,0	6,0	10,0	57,0	13,0	3,8	0,5	3	■
553050R020Z3.0-SIRON-A	02687282	2	F	5,0	6,0	12,0	55,0	14,7	5,0	0,2	3	■
JS553050G2R050.0Z3-SIRA	02881686	2	G	5,0	6,0	10,0	57,0	15,0	4,75	0,5	3	■
553060R020Z3.0-SIRON-A	02679369	2	D	6,0	6,0	14,0	55,0	–	–	0,2	3	■
JS553060E2R050.0Z3-SIRA	02881687	2	E	6,0	6,0	14,0	57,0	19,0	5,7	0,5	3	■
JS553060E2R100.0Z3-SIRA	02881688	2	E	6,0	6,0	14,0	57,0	19,0	5,7	1,0	3	■
553080R050Z3.0-SIRON-A	02679372	2	D	8,0	8,0	18,0	60,0	–	–	0,5	3	■
553100R050Z3.0-SIRON-A	02679375	2	D	10,0	10,0	22,0	70,0	–	–	0,5	3	■
553100R100Z3.0-SIRON-A	02679376	2	D	10,0	10,0	22,0	70,0	–	–	1,0	3	■
553100R200Z3.0-SIRON-A	02810364	2	D	10,0	10,0	22,0	70,0	–	–	2,0	3	■
553100R250Z3.0-SIRON-A	02810365	2	D	10,0	10,0	22,0	70,0	–	–	2,5	3	■
553100R310Z3.0-SIRON-A	02810366	2	D	10,0	10,0	22,0	70,0	–	–	3,1	3	■
553120R050Z3.0-SIRON-A	02679381	2	D	12,0	12,0	26,0	80,0	–	–	0,5	3	■
553120R100Z3.0-SIRON-A	02679382	2	D	12,0	12,0	26,0	80,0	–	–	1,0	3	■
553120R200Z3.0-SIRON-A	02810367	2	D	12,0	12,0	26,0	80,0	–	–	2,0	3	■
553120R250Z3.0-SIRON-A	02810368	2	D	12,0	12,0	26,0	80,0	–	–	2,5	3	■
553120R310Z3.0-SIRON-A	02810369	2	D	12,0	12,0	26,0	80,0	–	–	3,1	3	■

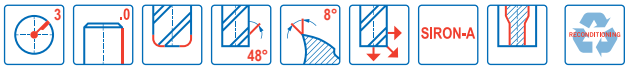
■ Stocked standard.

JS553

High performance – Universal – Square – 3 Flutes – Cylindrical – Corner radius







- Tolerances:
- DMM=h5
- DC=e7
- RE= ±0,02 mm
- Regrind possible

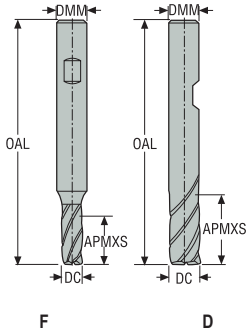
Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Cylindrical
				mm	mm	mm	mm	mm	mm	mm		
553160R050Z3.0-SIRON-A	02679385	2	D	16,0	16,0	34,0	90,0	–	–	0,5	3	■
553160R100Z3.0-SIRON-A	02679386	2	D	16,0	16,0	34,0	90,0	–	–	1,0	3	■
553160R200Z3.0-SIRON-A	02810370	2	D	16,0	16,0	34,0	90,0	–	–	2,0	3	■
553160R250Z3.0-SIRON-A	02810371	2	D	16,0	16,0	34,0	90,0	–	–	2,5	3	■
553160R310Z3.0-SIRON-A	02810372	2	D	16,0	16,0	34,0	90,0	–	–	3,1	3	■
553160R400Z3.0-SIRON-A	02810373	2	D	16,0	16,0	34,0	90,0	–	–	4,0	3	■
553200R050Z3.0-SIRON-A	02679390	2	D	20,0	20,0	42,0	110,0	–	–	0,5	3	■
553200R100Z3.0-SIRON-A	02679391	2	D	20,0	20,0	42,0	110,0	–	–	1,0	3	■
JS553200E2R200.0Z3-SIRA	02881689	2	E	20,0	20,0	42,0	110,0	54,0	19,0	2,0	3	■
553250R050Z3.0-SIRON-A	02679395	2	D	25,0	25,0	52,0	125,0	–	–	0,5	3	■
553250R100Z3.0-SIRON-A	02679396	2	D	25,0	25,0	52,0	125,0	–	–	1,0	3	■

■ Stocked standard.

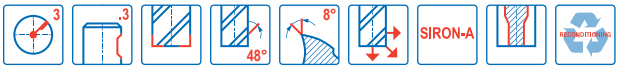
JS553

High performance – Universal – Square – 3 Flutes – Weldon – Sharp





- Tolerances:
- DMM=h5
- DC=e7
- Regrind possible if DC is ≥Ø6

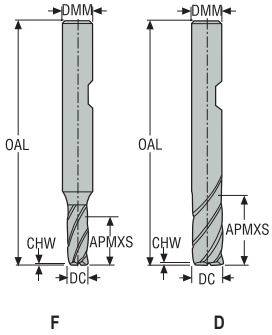


Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	PCEDC	Weldon
				mm	mm	mm	mm		
553020SZ3.0-SIRON-AW	02733936	2	F	2,0	6,0	5,0	50,0	3	■
553030SZ3.0-SIRON-AW	02733939	2	F	3,0	6,0	7,0	50,0	3	■
553040SZ3.0-SIRON-AW	02733943	2	F	4,0	6,0	10,0	55,0	3	■
553050SZ3.0-SIRON-AW	02733945	2	F	5,0	6,0	12,0	55,0	3	■
553060SZ3.0-SIRON-AW	02733946	2	D	6,0	6,0	14,0	55,0	3	■
553080SZ3.0-SIRON-AW	02733950	2	D	8,0	8,0	18,0	60,0	3	■
553100SZ3.0-SIRON-AW	02733952	2	D	10,0	10,0	22,0	70,0	3	■

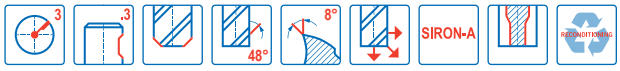
■ Stocked standard.

JS553

High performance – Universal – Square – 3 Flutes – Weldon – Chamfer







- Tolerances:
- DMM= h5
- DC= e7
- Regrind possible if DC is ≥Ø6

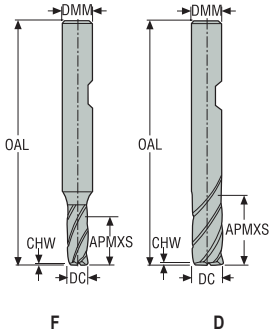
Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	CHW	PCEDC	Weldon
				mm	mm	mm	mm	mm		
JS553020F1C.3Z3-SIRA	10041477	1	F	2,0	6,0	3,0	40,0	0,025	3	■
JS553030F1C.3Z3-SIRA	10041478	1	F	3,0	6,0	4,0	40,0	0,035	3	■
JS553040F1C.3Z3-SIRA	10041479	1	F	4,0	6,0	6,0	40,0	0,045	3	■
JS553045F1C.3Z3-SIRA	10041480	1	F	4,5	6,0	6,0	40,0	0,045	3	■
JS553050F1C.3Z3-SIRA	10041481	1	F	5,0	6,0	7,0	40,0	0,055	3	■
JS553055F1C.3Z3-SIRA	10041482	1	F	5,5	6,0	8,0	40,0	0,055	3	■
JS553060D1C.3Z3-SIRA	10041483	1	D	6,0	6,0	8,0	40,0	0,075	3	■
JS553080D1C.3Z3-SIRA	10041484	1	D	8,0	8,0	11,0	50,0	0,1	3	□
JS553100D1C.3Z3-SIRA	10041485	1	D	10,0	10,0	13,0	57,0	0,125	3	□
JS553120D1C.3Z3-SIRA	10041486	1	D	12,0	12,0	15,0	65,0	0,15	3	□
553020Z3.0-SIRON-AW	02697423	2	F	2,0	6,0	5,0	50,0	0,025	3	□
553025Z3.0-SIRON-AW	02700354	2	F	2,5	6,0	7,0	50,0	0,025	3	■
553030Z3.0-SIRON-AW	02700355	2	F	3,0	6,0	7,0	50,0	0,035	3	■
553035Z3.0-SIRON-AW	02700357	2	F	3,5	6,0	9,0	55,0	0,035	3	■
553040Z3.0-SIRON-AW	02700358	2	F	4,0	6,0	10,0	55,0	0,045	3	■
553045Z3.0-SIRON-AW	02700359	2	F	4,5	6,0	12,0	55,0	0,045	3	□
553050Z3.0-SIRON-AW	02700360	2	F	5,0	6,0	12,0	55,0	0,055	3	■
553055Z3.0-SIRON-AW	02700361	2	F	5,5	6,0	14,0	55,0	0,055	3	□
553060Z3.3-SIRON-A	02679367	2	D	6,0	6,0	14,0	55,0	0,075	3	■
553075Z3.3-SIRON-A	02733915	2	F	7,5	8,0	18,0	60,0	0,1	3	■
553080Z3.3-SIRON-A	02679370	2	D	8,0	8,0	18,0	60,0	0,1	3	■
553095Z3.3-SIRON-A	02733919	2	F	9,5	10,0	22,0	70,0	0,125	3	■
553100Z3.3-SIRON-A	02679373	2	D	10,0	10,0	22,0	70,0	0,125	3	■
553115Z3.3-SIRON-A	02733923	2	F	11,5	12,0	26,0	80,0	0,15	3	■
553120Z3.3-SIRON-A	02679379	2	D	12,0	12,0	26,0	80,0	0,15	3	■
553140Z3.3-SIRON-A	02733929	2	D	14,0	14,0	30,0	85,0	0,175	3	■
553160Z3.3-SIRON-A	02679383	2	D	16,0	16,0	34,0	90,0	0,2	3	■
553200Z3.3-SIRON-A	02679388	2	D	20,0	20,0	42,0	110,0	0,25	3	■
553250Z3.3-SIRON-A	02679392	2	D	25,0	25,0	52,0	125,0	0,3	3	■

■ Stocked standard. □ Weldon available. Delivery time is 3 days.

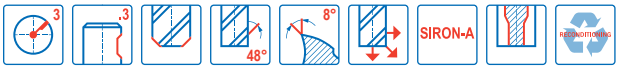
JS553

High performance – Universal – Square – 3 Flutes – Weldon – Chamfer





- Tolerances:
- DMM= h5
- DC= e7
- Regrind possible if DC is ≥Ø6

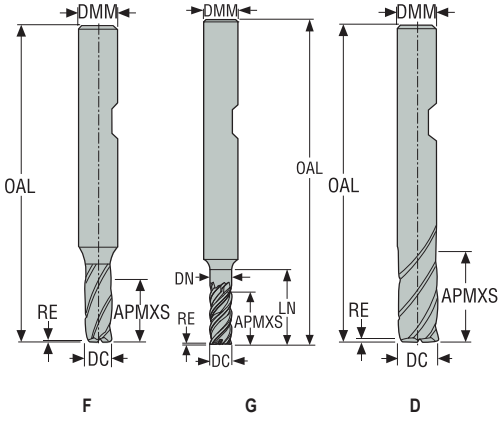


Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	CHW	PCEDC	Weldon
				mm	mm	mm	mm	mm		
553L020Z3.0-SIRON-AW	02734001	3	F	2,0	6,0	7,0	50,0	0,025	3	□
553L030Z3.0-SIRON-AW	02734006	3	F	3,0	6,0	10,0	55,0	0,035	3	■
553L040Z3.0-SIRON-AW	02734007	3	F	4,0	6,0	14,0	60,0	0,045	3	■
553L050Z3.0-SIRON-AW	02734008	3	F	5,0	6,0	18,0	60,0	0,055	3	□
553L060Z3.3-SIRON-A	02733980	3	D	6,0	6,0	20,0	65,0	0,075	3	■
553L080Z3.3-SIRON-A	02733984	3	D	8,0	8,0	28,0	70,0	0,1	3	■
553L100Z3.3-SIRON-A	02733988	3	D	10,0	10,0	35,0	85,0	0,125	3	■
553L120Z3.3-SIRON-A	02733993	3	D	12,0	12,0	40,0	95,0	0,15	3	■
553L160Z3.3-SIRON-A	02733995	3	D	16,0	16,0	50,0	110,0	0,2	3	■
553L200Z3.3-SIRON-A	02733997	3	D	20,0	20,0	60,0	125,0	0,25	3	■
553L250Z3.3-SIRON-A	02733999	3	D	25,0	25,0	75,0	150,0	0,3	3	■

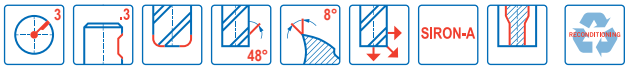
■ Stocked standard. □ Weldon available. Delivery time is 3 days.

JS553

High performance – Universal – Square – 3 Flutes – Weldon – Corner radius







- Tolerances:
- DMM=h5
- DC=e7
- RE= ±0,02 mm
- Regrind possible if DC is ≥Ø6

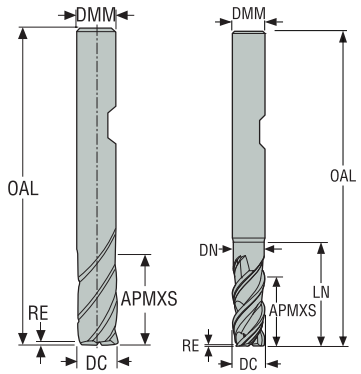
Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Weldon
				mm	mm	mm	mm	mm	mm	mm		
JS553080D1R050.3Z3-SIRA	10194469	1	D	8,0	8,0	11,0	50,0	–	–	0,5	3	☐
JS553100D1R050.3Z3-SIRA	10194470	1	D	10,0	10,0	13,0	57,0	–	–	0,5	3	☐
JS553100D1R100.3Z3-SIRA	10194471	1	D	10,0	10,0	13,0	57,0	–	–	1,0	3	☐
JS553120D1R050.3Z3-SIRA	10194472	1	D	12,0	12,0	15,0	65,0	–	–	0,5	3	☐
JS553120D1R100.3Z3-SIRA	10194474	1	D	12,0	12,0	15,0	65,0	–	–	1,0	3	☐
JS553020G2R050.3Z3-SIRA	02881690	2	G	2,0	6,0	5,0	57,0	8,0	1,9	0,5	3	☐
553030R015Z3.0-SIRON-AW	02733941	2	F	3,0	6,0	7,0	50,0	8,5	3,0	0,15	3	☐
JS553030G2R050.3Z3-SIRA	02881691	2	G	3,0	6,0	7,0	57,0	11,0	2,85	0,5	3	☐
553040R020Z3.0-SIRON-AW	02733944	2	F	4,0	6,0	10,0	55,0	11,7	4,0	0,2	3	☐
JS553040G2R050.3Z3-SIRA	02881692	2	G	4,0	6,0	10,0	57,0	13,0	3,8	0,5	3	☐
553050R020Z3.0-SIRON-AW	02703763	2	F	5,0	6,0	12,0	55,0	14,7	5,0	0,2	3	☐
JS553050G2R050.3Z3-SIRA	02881693	2	G	5,0	6,0	10,0	57,0	15,0	4,75	0,5	3	☐
553060R020Z3.0-SIRON-AW	02700364	2	D	6,0	6,0	14,0	55,0	–	–	0,2	3	☐
JS553060E2R050.3Z3-SIRA	02881694	2	E	6,0	6,0	14,0	57,0	19,0	5,7	0,5	3	☐
JS553060E2R100.3Z3-SIRA	02881695	2	E	6,0	6,0	14,0	57,0	19,0	5,7	1,0	3	■
553080R050Z3.0-SIRON-AW	02700366	2	D	8,0	8,0	18,0	60,0	–	–	0,5	3	■
553100R050Z3.0-SIRON-AW	02700369	2	D	10,0	10,0	22,0	70,0	–	–	0,5	3	☐
553100R100Z3.0-SIRON-AW	02700371	2	D	10,0	10,0	22,0	70,0	–	–	1,0	3	☐
553100R200Z3.3-SIRON-A	02810422	2	D	10,0	10,0	22,0	70,0	–	–	2,0	3	☐
553100R250Z3.3-SIRON-A	02810423	2	D	10,0	10,0	22,0	70,0	–	–	2,5	3	☐
553100R310Z3.3-SIRON-A	02810424	2	D	10,0	10,0	22,0	70,0	–	–	3,1	3	☐
553120R050Z3.0-SIRON-AW	02700373	2	D	12,0	12,0	26,0	80,0	–	–	0,5	3	☐
553120R100Z3.0-SIRON-AW	02700374	2	D	12,0	12,0	26,0	80,0	–	–	1,0	3	☐
553120R200Z3.3-SIRON-A	02810425	2	D	12,0	12,0	26,0	80,0	–	–	2,0	3	☐
553120R250Z3.3-SIRON-A	02810426	2	D	12,0	12,0	26,0	80,0	–	–	2,5	3	☐
553120R310Z3.3-SIRON-A	02810427	2	D	12,0	12,0	26,0	80,0	–	–	3,1	3	☐

■ Stocked standard. ☐ Weldon available. Delivery time is 3 days.

JS553

High performance – Universal – Square – 3 Flutes – Weldon – Corner radius





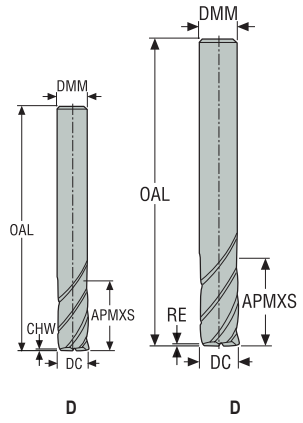
- Tolerances:
- DMM=h5
- DC=e7
- RE= ±0,02 mm
- Regrind possible

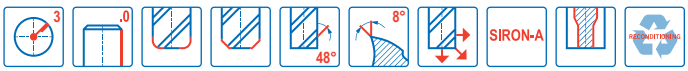
Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	RE	PCEDC	Weldon
				mm	mm	mm	mm	mm		
553160R050Z3.0-SIRON-AW	02700378	2	D	16,0	16,0	34,0	90,0	0,5	3	☐
553160R100Z3.0-SIRON-AW	02700381	2	D	16,0	16,0	34,0	90,0	1,0	3	☐
553160R200Z3.3-SIRON-A	02810428	2	D	16,0	16,0	34,0	90,0	2,0	3	☐
553160R250Z3.3-SIRON-A	02810429	2	D	16,0	16,0	34,0	90,0	2,5	3	☐
553160R310Z3.3-SIRON-A	02810430	2	D	16,0	16,0	34,0	90,0	3,1	3	☐
553160R400Z3.3-SIRON-A	02810431	2	D	16,0	16,0	34,0	90,0	4,0	3	☐
553200R050Z3.0-SIRON-AW	02700383	2	D	20,0	20,0	42,0	110,0	0,5	3	■
553200R100Z3.0-SIRON-AW	02700384	2	D	20,0	20,0	42,0	110,0	1,0	3	☐
JS553200E2R200.3Z3-SIRA	02881696	2	E	20,0	20,0	42,0	110,0	2,0	3	☐
553250R050Z3.0-SIRON-AW	02700386	2	D	25,0	25,0	52,0	125,0	0,5	3	☐
553250R100Z3.0-SIRON-AW	02700385	2	D	25,0	25,0	52,0	125,0	1,0	3	☐

■ Stocked standard. ☐ Weldon available. Delivery time is 3 days.

JS553

High performance – Universal – Square – 3 Flutes – Cylindrical – Corner radius or chamfer – *Inch*







- Tolerances:
- DMM=h5
- DC=e7
- Regrind possible if DC is ≥Ø.375

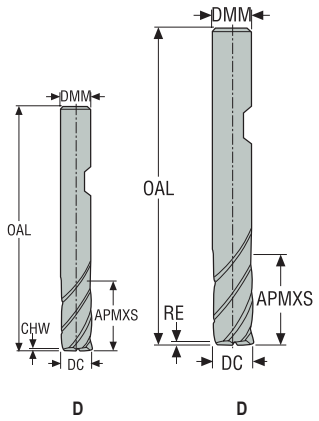
Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	CHW	RE	PCEDC	Cylindrical
				inch	inch	inch	inch	inch	inch		
5530125Z3.0-SIRON-A	02712684	2	D	0.125	0.125	0.250	2.000	0.001	–	3	■
5530187Z3.0-SIRON-A	02712687	2	D	0.188	0.188	0.375	2.000	0.001	–	3	■
5530250Z3.0-SIRON-A	02712688	2	D	0.250	0.250	0.500	2.500	0.003	–	3	■
5530250R015Z3.0-SIRON-A	02712689	2	D	0.250	0.250	0.500	2.500	–	0.015	3	■
5530312Z3.0-SIRON-A	02712690	2	D	0.313	0.313	0.625	2.500	0.004	–	3	■
5530312R015Z3.0-SIRON-A	02712693	2	D	0.313	0.313	0.625	2.500	–	0.015	3	■
5530375Z3.0-SIRON-A	02712694	2	D	0.375	0.375	0.750	3.000	0.005	–	3	■
5530375R015Z3.0-SIRON-A	02712695	2	D	0.375	0.375	0.750	3.000	–	0.015	3	■
5530375R030Z3.0-SIRON-A	02712696	2	D	0.375	0.375	0.750	3.000	–	0.030	3	■
5530500Z3.0-SIRON-A	02712699	2	D	0.500	0.500	1.000	3.500	0.006	–	3	■
5530500R015Z3.0-SIRON-A	02712701	2	D	0.500	0.500	1.000	3.500	–	0.015	3	■
5530500R030Z3.0-SIRON-A	02712703	2	D	0.500	0.500	1.000	3.500	–	0.030	3	■

■ Stocked standard.

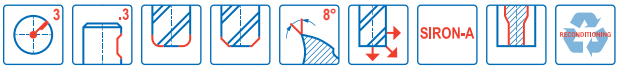
JS553

High performance – Universal – Square – 3 Flutes – Weldon – Corner radius or chamfer – *Inch*





- Tolerances:
- DMM=h5
- DC=e7



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	CHW	RE	PCEDC	Weldon
				inch	inch	inch	inch	inch	inch		
5530500Z3.3-SIRON-A	02712697	2	D	0.500	0.500	1.000	3.500	0.006	–	3	■
5530500R015Z3.3-SIRON-A	02712700	2	D	0.500	0.500	1.000	3.500	–	0.015	3	■
5530500R030Z3.3-SIRON-A	02712702	2	D	0.500	0.500	1.000	3.500	–	0.030	3	■

■ Stocked standard.

Cutting data – JS553 Side milling

SMG		a_e/DC	a_p/DC	f_z												v_c
				2	3	4	5	6	8	10	12	14	16	20	25	
P1	M/A/D/E	0.400 *0,400*	1.0 *1,0*	0.020 *0,00080*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.13 *0,0050*	0.15 *0,0060*	0.17 *0,0065*	0.19 *0,0075*	225 (200 — 250) *740 (660 — 820)*
P2	M/A/D/E	0.400 *0,400*	1.0 *1,0*	0.020 *0,00080*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.13 *0,0050*	0.15 *0,0060*	0.17 *0,0065*	0.19 *0,0075*	220 (190 — 240) *720 (630 — 780)*
P3	M/A/D/E	0.400 *0,400*	1.0 *1,0*	0.019 *0,00075*	0.028 *0,0011*	0.038 *0,0015*	0.048 *0,0019*	0.055 *0,0022*	0.075 *0,0030*	0.095 *0,0038*	0.11 *0,0044*	0.13 *0,0050*	0.14 *0,0055*	0.16 *0,0065*	0.18 *0,0070*	190 (170 — 210) *620 (560 — 680)*
P4	M/A/D/E	0.400 *0,400*	1.0 *1,0*	0.019 *0,00075*	0.028 *0,0011*	0.038 *0,0015*	0.046 *0,0018*	0.055 *0,0022*	0.075 *0,0030*	0.095 *0,0038*	0.11 *0,0044*	0.13 *0,0050*	0.14 *0,0055*	0.16 *0,0065*	0.18 *0,0070*	165 (150 — 190) *540 (500 — 620)*
P5	M/A/D/E	0.400 *0,400*	1.0 *1,0*	0.018 *0,00070*	0.028 *0,0011*	0.036 *0,0014*	0.046 *0,0018*	0.055 *0,0022*	0.075 *0,0030*	0.090 *0,0036*	0.11 *0,0044*	0.12 *0,0048*	0.13 *0,0050*	0.16 *0,0065*	0.18 *0,0070*	160 (140 — 180) *520 (460 — 590)*
P6	M/A/D/E	0.400 *0,400*	1.0 *1,0*	0.018 *0,00070*	0.028 *0,0011*	0.036 *0,0014*	0.046 *0,0018*	0.055 *0,0022*	0.075 *0,0030*	0.090 *0,0036*	0.11 *0,0044*	0.12 *0,0048*	0.13 *0,0050*	0.15 *0,0060*	0.17 *0,0065*	180 (160 — 200) *590 (530 — 650)*
P7	M/A/D/E	0.400 *0,400*	1.0 *1,0*	0.018 *0,00070*	0.028 *0,0011*	0.036 *0,0014*	0.046 *0,0018*	0.055 *0,0022*	0.075 *0,0030*	0.090 *0,0036*	0.11 *0,0044*	0.12 *0,0048*	0.13 *0,0050*	0.15 *0,0060*	0.17 *0,0065*	170 (150 — 190) *560 (500 — 620)*
P8	M/A/D/E	0.400 *0,400*	1.0 *1,0*	0.019 *0,00075*	0.028 *0,0011*	0.038 *0,0015*	0.048 *0,0019*	0.055 *0,0022*	0.075 *0,0030*	0.095 *0,0038*	0.11 *0,0044*	0.13 *0,0050*	0.14 *0,0055*	0.16 *0,0065*	0.18 *0,0070*	160 (140 — 180) *520 (460 — 590)*
P11	M/A/D/E	0.400 *0,400*	1.0 *1,0*	0.018 *0,00070*	0.026 *0,0010*	0.036 *0,0014*	0.044 *0,0017*	0.055 *0,0022*	0.070 *0,0028*	0.090 *0,0036*	0.11 *0,0044*	0.12 *0,0048*	0.13 *0,0050*	0.15 *0,0060*	0.17 *0,0065*	145 (130 — 160) *475 (430 — 520)*
P12	M/A/D/E	0.400 *0,400*	1.0 *1,0*	0.012 *0,00048*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	0.080 *0,0032*	0.090 *0,0036*	0.10 *0,0040*	0.12 *0,0048*	95 (82 — 100) *310 (270 — 320)*
M1	E	0.400 *0,400*	1.0 *1,0*	0.013 *0,00050*	0.020 *0,00080*	0.026 *0,0010*	0.034 *0,0013*	0.040 *0,0016*	0.055 *0,0022*	0.065 *0,0026*	0.080 *0,0032*	0.090 *0,0036*	0.10 *0,0040*	0.11 *0,0044*	0.13 *0,0050*	115 (100 — 120) *375 (330 — 390)*
M2	E	0.400 *0,400*	1.0 *1,0*	0.012 *0,00048*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	0.080 *0,0032*	0.090 *0,0036*	0.10 *0,0040*	0.12 *0,0048*	95 (82 — 100) *310 (270 — 320)*
M3	E	0.400 *0,400*	1.0 *1,0*	0.010 *0,00040*	0.015 *0,00060*	0.020 *0,00080*	0.025 *0,0010*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.070 *0,0028*	0.075 *0,0030*	0.085 *0,0034*	0.10 *0,0040*	60 (47 — 69) *195 (160 — 220)*
M4	E	0.400 *0,400*	1.0 *1,0*	0.0090 *0,00036*	0.013 *0,00050*	0.018 *0,00070*	0.022 *0,00085*	0.026 *0,0010*	0.036 *0,0014*	0.044 *0,0017*	0.055 *0,0022*	0.060 *0,0024*	0.065 *0,0026*	0.075 *0,0030*	0.085 *0,0034*	45 (36 — 53) *150 (120 — 170)*
M5	E	0.400 *0,400*	1.0 *1,0*	0.0090 *0,00036*	0.013 *0,00050*	0.018 *0,00070*	0.022 *0,00085*	0.026 *0,0010*	0.036 *0,0014*	0.044 *0,0017*	0.055 *0,0022*	0.060 *0,0024*	0.065 *0,0026*	0.075 *0,0030*	0.085 *0,0034*	37 (30 — 44) *120 (99 — 140)*
K1	E	0.400 *0,400*	1.2 *1,2*	0.016 *0,00065*	0.024 *0,00095*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	0.11 *0,0044*	0.12 *0,0048*	0.14 *0,0055*	0.16 *0,0065*	165 (160 — 190) *540 (530 — 620)*
K2	E	0.400 *0,400*	1.2 *1,2*	0.015 *0,00060*	0.022 *0,00085*	0.030 *0,0012*	0.038 *0,0015*	0.044 *0,0017*	0.060 *0,0024*	0.075 *0,0030*	0.090 *0,0036*	0.10 *0,0040*	0.11 *0,0044*	0.13 *0,0050*	0.14 *0,0055*	145 (140 — 170) *475 (460 — 550)*
K3	E	0.400 *0,400*	1.2 *1,2*	0.015 *0,00060*	0.022 *0,00085*	0.030 *0,0012*	0.038 *0,0015*	0.044 *0,0017*	0.060 *0,0024*	0.075 *0,0030*	0.090 *0,0036*	0.10 *0,0040*	0.11 *0,0044*	0.13 *0,0050*	0.14 *0,0055*	125 (120 — 140) *410 (400 — 450)*
K4	E	0.400 *0,400*	1.2 *1,2*	0.015 *0,00060*	0.022 *0,00085*	0.030 *0,0012*	0.038 *0,0015*	0.044 *0,0017*	0.060 *0,0024*	0.075 *0,0030*	0.090 *0,0036*	0.10 *0,0040*	0.11 *0,0044*	0.13 *0,0050*	0.14 *0,0055*	120 (110 — 140) *395 (370 — 450)*
K5	E	0.400 *0,400*	1.1 *1,1*	0.016 *0,00065*	0.024 *0,00095*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	0.11 *0,0044*	0.12 *0,0048*	0.14 *0,0055*	0.16 *0,0065*	155 (140 — 170) *510 (460 — 550)*
K6	E	0.400 *0,400*	1.1 *1,1*	0.018 *0,00070*	0.028 *0,0011*	0.036 *0,0014*	0.046 *0,0018*	0.055 *0,0022*	0.070 *0,0028*	0.090 *0,0036*	0.11 *0,0044*	0.12 *0,0048*	0.13 *0,0050*	0.15 *0,0060*	0.17 *0,0065*	220 (190 — 250) *720 (630 — 820)*
K7	E	0.400 *0,400*	1.1 *1,1*	0.016 *0,00065*	0.024 *0,00095*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	0.11 *0,0044*	0.12 *0,0048*	0.14 *0,0055*	0.16 *0,0065*	195 (170 — 220) *640 (560 — 720)*

For cutting data recalculations, see pages 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

Cutting data – JS553 Side milling

SMG		a_e/DC	a_p/DC	f_z												v_c
				2	3	4	5	6	8	10	12	14	16	20	25	
N1	E	0.500	1.0	0.016	0.024	0.032	0.040	0.048	0.065	0.080	0.095	0.11	0.12	0.14	0.15	620 (520 — 720)
		0,500	*1,0*	*0,00065*	*0,00095*	*0,0013*	*0,0016*	*0,0019*	*0,0026*	*0,0032*	*0,0038*	*0,0044*	*0,0048*	*0,0055*	*0,0060*	*2025 (1800 — 2300)*
N2	E	0.500	1.0	0.016	0.024	0.032	0.040	0.048	0.065	0.080	0.095	0.11	0.12	0.14	0.15	400 (340 — 460)
		0,500	*1,0*	*0,00065*	*0,00095*	*0,0013*	*0,0016*	*0,0019*	*0,0026*	*0,0032*	*0,0038*	*0,0044*	*0,0048*	*0,0055*	*0,0060*	*1300 (1200 — 1500)*
N3	E	0.500	1.0	0.016	0.024	0.032	0.040	0.048	0.065	0.080	0.095	0.11	0.12	0.14	0.15	265 (230 — 300)
		0,500	*1,0*	*0,00065*	*0,00095*	*0,0013*	*0,0016*	*0,0019*	*0,0026*	*0,0032*	*0,0038*	*0,0044*	*0,0048*	*0,0055*	*0,0060*	*870 (760 — 980)*
N11	E	0.500	1.1	0.016	0.024	0.032	0.040	0.048	0.065	0.080	0.095	0.11	0.12	0.13	0.15	310 (260 — 350)
		0,500	*1,1*	*0,00065*	*0,00095*	*0,0013*	*0,0016*	*0,0019*	*0,0026*	*0,0032*	*0,0038*	*0,0044*	*0,0048*	*0,0050*	*0,0060*	*1025 (860 — 1100)*
S1	E	0.150	0.50	0.017	0.026	0.034	0.044	0.050	0.070	0.085	0.10	0.12	0.13	0.15	0.17	43 (26 — 60)
		0,150	*0,50*	*0,00065*	*0,0010*	*0,0013*	*0,0017*	*0,0020*	*0,0028*	*0,0034*	*0,0040*	*0,0048*	*0,0050*	*0,0060*	*0,0065*	*140 (86 — 190)*
S2	E	0.150	0.50	0.017	0.026	0.034	0.044	0.050	0.070	0.085	0.10	0.12	0.13	0.15	0.17	35 (21 — 48)
		0,150	*0,50*	*0,00065*	*0,0010*	*0,0013*	*0,0017*	*0,0020*	*0,0028*	*0,0034*	*0,0040*	*0,0048*	*0,0050*	*0,0060*	*0,0065*	*115 (69 — 150)*
S3	E	0.150	0.50	0.016	0.024	0.032	0.040	0.048	0.065	0.080	0.095	0.11	0.12	0.14	0.15	30 (19 — 42)
		0,150	*0,50*	*0,00065*	*0,00095*	*0,0013*	*0,0016*	*0,0019*	*0,0026*	*0,0032*	*0,0038*	*0,0044*	*0,0048*	*0,0055*	*0,0060*	*100 (63 — 130)*
S11	E	0.400	1.0	0.012	0.018	0.024	0.030	0.036	0.048	0.060	0.070	0.080	0.090	0.10	0.12	110 (78 — 130)
		0,400	*1,0*	*0,00048*	*0,00070*	*0,00095*	*0,0012*	*0,0014*	*0,0019*	*0,0024*	*0,0028*	*0,0032*	*0,0036*	*0,0040*	*0,0048*	*360 (260 — 420)*
S12	E	0.400	1.0	0.012	0.018	0.024	0.030	0.036	0.048	0.060	0.070	0.080	0.090	0.10	0.12	85 (60 — 100)
		0,400	*1,0*	*0,00048*	*0,00070*	*0,00095*	*0,0012*	*0,0014*	*0,0019*	*0,0024*	*0,0028*	*0,0032*	*0,0036*	*0,0040*	*0,0048*	*280 (200 — 320)*
S13	E	0.400	1.0	0.011	0.016	0.022	0.026	0.032	0.042	0.055	0.065	0.070	0.080	0.090	0.10	65 (48 — 84)
		0,400	*1,0*	*0,00044*	*0,00065*	*0,00085*	*0,0010*	*0,0013*	*0,0017*	*0,0022*	*0,0026*	*0,0028*	*0,0032*	*0,0036*	*0,0040*	*215 (160 — 270)*
H5	M/A/D	0.200	0.90	0.013	0.020	0.026	0.032	0.040	0.050	0.065	0.075	0.085	0.095	0.11	0.12	75 (62 — 91)
		0,200	*0,90*	*0,00050*	*0,00080*	*0,0010*	*0,0013*	*0,0016*	*0,0020*	*0,0026*	*0,0030*	*0,0034*	*0,0038*	*0,0044*	*0,0048*	*245 (210 — 290)*
H8	M/A/D	0.200	0.90	0.010	0.015	0.020	0.025	0.030	0.040	0.050	0.060	0.065	0.075	0.085	0.095	80 (65 — 96)
		0,200	*0,90*	*0,00040*	*0,00060*	*0,00080*	*0,0010*	*0,0012*	*0,0016*	*0,0020*	*0,0024*	*0,0026*	*0,0030*	*0,0034*	*0,0038*	*260 (220 — 310)*
H21	M/A/D	0.200	0.90	0.010	0.015	0.020	0.025	0.030	0.040	0.050	0.060	0.065	0.075	0.085	0.095	80 (65 — 96)
		0,200	*0,90*	*0,00040*	*0,00060*	*0,00080*	*0,0010*	*0,0012*	*0,0016*	*0,0020*	*0,0024*	*0,0026*	*0,0030*	*0,0034*	*0,0038*	*260 (220 — 310)*
H31	M/A/D	0.200	0.90	0.010	0.015	0.020	0.025	0.030	0.040	0.050	0.060	0.065	0.075	0.085	0.095	60 (49 — 72)
		0,200	*0,90*	*0,00040*	*0,00060*	*0,00080*	*0,0010*	*0,0012*	*0,0016*	*0,0020*	*0,0024*	*0,0026*	*0,0030*	*0,0034*	*0,0038*	*195 (170 — 230)*
TS1	A	0.500	1.2	0.020	0.030	0.040	0.050	0.060	0.080	0.10	0.12	0.13	0.15	0.17	0.19	290 (180 — 400)
		0,500	*1,2*	*0,00080*	*0,0012*	*0,0016*	*0,0020*	*0,0024*	*0,0032*	*0,0040*	*0,0048*	*0,0050*	*0,0060*	*0,0065*	*0,0075*	*950 (600 — 1300)*
TP1	A	0.500	1.2	0.020	0.030	0.040	0.050	0.060	0.080	0.10	0.12	0.13	0.15	0.17	0.19	300 (180 — 410)
		0,500	*1,2*	*0,00080*	*0,0012*	*0,0016*	*0,0020*	*0,0024*	*0,0032*	*0,0040*	*0,0048*	*0,0050*	*0,0060*	*0,0065*	*0,0075*	*980 (600 — 1300)*
GR1	A	0.500	1.2	0.020	0.030	0.040	0.050	0.060	0.080	0.10	0.12	0.13	0.15	0.17	0.19	580 (470 — 690)
		0,500	*1,2*	*0,00080*	*0,0012*	*0,0016*	*0,0020*	*0,0024*	*0,0032*	*0,0040*	*0,0048*	*0,0050*	*0,0060*	*0,0065*	*0,0075*	*1900 (1600 — 2200)*

For cutting data recalculations, see pages 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

Cutting data – JS553 Slot milling

SMG		a_p/DC	f_z												v_c
			2	3	4	5	6	8	10	12	14	16	20	25	
P1	M/A/D/E	1.0	0.014	0.020	0.028	0.034	0.042	0.055	0.070	0.085	0.10	0.11	0.14	0.17	195 (170 — 220)
		1,0	*0,00055*	*0,00080*	*0,0011*	*0,0013*	*0,0017*	*0,0022*	*0,0028*	*0,0034*	*0,0040*	*0,0044*	*0,0055*	*0,0065*	*640 (560 — 720)*
P2	M/A/D/E	1.0	0.014	0.020	0.028	0.034	0.042	0.055	0.070	0.085	0.10	0.11	0.14	0.17	190 (170 — 210)
		1,0	*0,00055*	*0,00080*	*0,0011*	*0,0013*	*0,0017*	*0,0022*	*0,0028*	*0,0034*	*0,0040*	*0,0044*	*0,0055*	*0,0065*	*620 (560 — 680)*
P3	M/A/D/E	1.0	0.014	0.020	0.028	0.034	0.042	0.055	0.070	0.085	0.10	0.11	0.14	0.17	165 (140 — 180)
		1,0	*0,00055*	*0,00080*	*0,0011*	*0,0013*	*0,0017*	*0,0022*	*0,0028*	*0,0034*	*0,0040*	*0,0044*	*0,0055*	*0,0065*	*540 (460 — 590)*
P4	M/A/D/E	1.0	0.014	0.020	0.028	0.034	0.042	0.055	0.070	0.085	0.10	0.11	0.14	0.17	145 (130 — 160)
		1,0	*0,00055*	*0,00080*	*0,0011*	*0,0013*	*0,0017*	*0,0022*	*0,0028*	*0,0034*	*0,0040*	*0,0044*	*0,0055*	*0,0065*	*475 (430 — 520)*
P5	M/A/D/E	1.0	0.014	0.020	0.028	0.034	0.042	0.055	0.070	0.085	0.10	0.11	0.14	0.17	135 (120 — 150)
		1,0	*0,00055*	*0,00080*	*0,0011*	*0,0013*	*0,0017*	*0,0022*	*0,0028*	*0,0034*	*0,0040*	*0,0044*	*0,0055*	*0,0065*	*445 (400 — 490)*
P6	M/A/D/E	1.0	0.014	0.020	0.028	0.034	0.042	0.055	0.070	0.085	0.10	0.11	0.14	0.17	155 (140 — 170)
		1,0	*0,00055*	*0,00080*	*0,0011*	*0,0013*	*0,0017*	*0,0022*	*0,0028*	*0,0034*	*0,0040*	*0,0044*	*0,0055*	*0,0065*	*510 (460 — 550)*
P7	M/A/D/E	1.0	0.014	0.020	0.028	0.034	0.042	0.055	0.070	0.085	0.10	0.11	0.14	0.17	145 (130 — 160)
		1,0	*0,00055*	*0,00080*	*0,0011*	*0,0013*	*0,0017*	*0,0022*	*0,0028*	*0,0034*	*0,0040*	*0,0044*	*0,0055*	*0,0065*	*475 (430 — 520)*
P8	M/A/D/E	1.0	0.014	0.020	0.028	0.034	0.042	0.055	0.070	0.085	0.10	0.11	0.14	0.17	135 (120 — 150)
		1,0	*0,00055*	*0,00080*	*0,0011*	*0,0013*	*0,0017*	*0,0022*	*0,0028*	*0,0034*	*0,0040*	*0,0044*	*0,0055*	*0,0065*	*445 (400 — 490)*
P11	M/A/D/E	0.80	0.010	0.015	0.020	0.025	0.030	0.040	0.050	0.060	0.070	0.080	0.10	0.13	130 (120 — 140)
		0,80	*0,00040*	*0,00060*	*0,00080*	*0,0010*	*0,0012*	*0,0016*	*0,0020*	*0,0024*	*0,0028*	*0,0032*	*0,0040*	*0,0050*	*425 (400 — 450)*
P12	M/A/D/E	0.80	0.010	0.015	0.020	0.025	0.030	0.040	0.050	0.060	0.070	0.080	0.10	0.11	80 (69 — 87)
		0,80	*0,00040*	*0,00060*	*0,00080*	*0,0010*	*0,0012*	*0,0016*	*0,0020*	*0,0024*	*0,0028*	*0,0032*	*0,0040*	*0,0044*	*260 (230 — 280)*
M1	E	0.80	0.010	0.015	0.020	0.025	0.030	0.040	0.050	0.060	0.070	0.080	0.10	0.13	95 (85 — 100)
		0,80	*0,00040*	*0,00060*	*0,00080*	*0,0010*	*0,0012*	*0,0016*	*0,0020*	*0,0024*	*0,0028*	*0,0032*	*0,0040*	*0,0050*	*310 (280 — 320)*
M2	E	0.80	0.010	0.015	0.020	0.025	0.030	0.040	0.050	0.060	0.070	0.080	0.10	0.11	80 (69 — 87)
		0,80	*0,00040*	*0,00060*	*0,00080*	*0,0010*	*0,0012*	*0,0016*	*0,0020*	*0,0024*	*0,0028*	*0,0032*	*0,0040*	*0,0044*	*260 (230 — 280)*
M3	E	0.70	0.0080	0.012	0.016	0.020	0.025	0.032	0.040	0.050	0.055	0.065	0.080	0.095	48 (39 — 58)
		0,70	*0,00032*	*0,00048*	*0,00065*	*0,00080*	*0,0010*	*0,0013*	*0,0016*	*0,0020*	*0,0022*	*0,0026*	*0,0032*	*0,0038*	*155 (130 — 190)*
M4	E	0.70	0.0080	0.012	0.016	0.020	0.025	0.032	0.040	0.050	0.055	0.065	0.075	0.085	36 (30 — 43)
		0,70	*0,00032*	*0,00048*	*0,00065*	*0,00080*	*0,0010*	*0,0013*	*0,0016*	*0,0020*	*0,0022*	*0,0026*	*0,0030*	*0,0034*	*120 (99 — 140)*
M5	E	0.70	0.0080	0.012	0.016	0.020	0.025	0.032	0.040	0.050	0.055	0.065	0.075	0.085	30 (25 — 36)
		0,70	*0,00032*	*0,00048*	*0,00065*	*0,00080*	*0,0010*	*0,0013*	*0,0016*	*0,0020*	*0,0022*	*0,0026*	*0,0030*	*0,0034*	*100 (83 — 110)*
K1	E	1.0	0.010	0.015	0.020	0.025	0.030	0.040	0.050	0.060	0.070	0.080	0.10	0.13	145 (140 — 170)
		1,0	*0,00040*	*0,00060*	*0,00080*	*0,0010*	*0,0012*	*0,0016*	*0,0020*	*0,0024*	*0,0028*	*0,0032*	*0,0040*	*0,0050*	*475 (460 — 550)*
K2	E	1.0	0.010	0.015	0.020	0.025	0.030	0.040	0.050	0.060	0.070	0.080	0.10	0.13	125 (120 — 150)
		1,0	*0,00040*	*0,00060*	*0,00080*	*0,0010*	*0,0012*	*0,0016*	*0,0020*	*0,0024*	*0,0028*	*0,0032*	*0,0040*	*0,0050*	*410 (400 — 490)*
K3	E	1.0	0.010	0.015	0.020	0.025	0.030	0.040	0.050	0.060	0.070	0.080	0.10	0.13	110 (110 — 120)
		1,0	*0,00040*	*0,00060*	*0,00080*	*0,0010*	*0,0012*	*0,0016*	*0,0020*	*0,0024*	*0,0028*	*0,0032*	*0,0040*	*0,0050*	*360 (370 — 390)*
K4	E	1.0	0.010	0.015	0.020	0.025	0.030	0.040	0.050	0.060	0.070	0.080	0.10	0.13	105 (96 — 120)
		1,0	*0,00040*	*0,00060*	*0,00080*	*0,0010*	*0,0012*	*0,0016*	*0,0020*	*0,0024*	*0,0028*	*0,0032*	*0,0040*	*0,0050*	*345 (320 — 390)*
K5	E	0.80	0.010	0.015	0.020	0.025	0.030	0.040	0.050	0.060	0.070	0.080	0.10	0.13	135 (120 — 150)
		0,80	*0,00040*	*0,00060*	*0,00080*	*0,0010*	*0,0012*	*0,0016*	*0,0020*	*0,0024*	*0,0028*	*0,0032*	*0,0040*	*0,0050*	*445 (400 — 490)*
K6	E	0.80	0.010	0.015	0.020	0.025	0.030	0.040	0.050	0.060	0.070	0.080	0.10	0.13	200 (180 — 230)
		0,80	*0,00040*	*0,00060*	*0,00080*	*0,0010*	*0,0012*	*0,0016*	*0,0020*	*0,0024*	*0,0028*	*0,0032*	*0,0040*	*0,0050*	*660 (600 — 750)*
K7	E	0.80	0.010	0.015	0.020	0.025	0.030	0.040	0.050	0.060	0.070	0.080	0.10	0.13	175 (150 — 190)
		0,80	*0,00040*	*0,00060*	*0,00080*	*0,0010*	*0,0012*	*0,0016*	*0,0020*	*0,0024*	*0,0028*	*0,0032*	*0,0040*	*0,0050*	*570 (500 — 620)*

For cutting data recalculations, see pages 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (sf/min)
f_z = mm/tooth (*in*/tooth)
a_p = mm/DC (*in*/DC) = factor
a_e = mm/DC (*in*/DC) = factor
All cutting data are target values

Cutting data – JS553 Slot milling

SMG		a_p/DC	f_z												v_c
			2	3	4	5	6	8	10	12	14	16	20	25	
N1	E	0.70	0.010	0.015	0.020	0.025	0.030	0.040	0.050	0.060	0.070	0.080	0.10	0.13	580 (490 — 670)
		0,70	*0,00040*	*0,00060*	*0,00080*	*0,0010*	*0,0012*	*0,0016*	*0,0020*	*0,0024*	*0,0028*	*0,0032*	*0,0040*	*0,0050*	*1900 (1700 — 2100)*
N2	E	0.70	0.010	0.015	0.020	0.025	0.030	0.040	0.050	0.060	0.070	0.080	0.10	0.13	375 (320 — 430)
		0,70	*0,00040*	*0,00060*	*0,00080*	*0,0010*	*0,0012*	*0,0016*	*0,0020*	*0,0024*	*0,0028*	*0,0032*	*0,0040*	*0,0050*	*1225 (1100 — 1400)*
N3	E	0.70	0.010	0.015	0.020	0.025	0.030	0.040	0.050	0.060	0.070	0.080	0.10	0.13	250 (210 — 290)
		0,70	*0,00040*	*0,00060*	*0,00080*	*0,0010*	*0,0012*	*0,0016*	*0,0020*	*0,0024*	*0,0028*	*0,0032*	*0,0040*	*0,0050*	*820 (690 — 950)*
N11	E	0.60	0.010	0.015	0.020	0.025	0.030	0.040	0.050	0.060	0.070	0.080	0.10	0.13	290 (250 — 330)
		0,60	*0,00040*	*0,00060*	*0,00080*	*0,0010*	*0,0012*	*0,0016*	*0,0020*	*0,0024*	*0,0028*	*0,0032*	*0,0040*	*0,0050*	*950 (830 — 1000)*
S1	E	0.30	0.0065	0.0095	0.013	0.016	0.019	0.025	0.032	0.038	0.044	0.050	0.065	0.080	34 (21 — 47)
		0,30	*0,00026*	*0,00038*	*0,00050*	*0,00065*	*0,00075*	*0,0010*	*0,0013*	*0,0015*	*0,0017*	*0,0020*	*0,0026*	*0,0032*	*110 (69 — 150)*
S2	E	0.30	0.0065	0.0095	0.013	0.016	0.019	0.025	0.032	0.038	0.044	0.050	0.065	0.080	27 (17 — 38)
		0,30	*0,00026*	*0,00038*	*0,00050*	*0,00065*	*0,00075*	*0,0010*	*0,0013*	*0,0015*	*0,0017*	*0,0020*	*0,0026*	*0,0032*	*90 (56 — 120)*
S3	E	0.30	0.0065	0.0095	0.013	0.016	0.019	0.025	0.032	0.038	0.044	0.050	0.065	0.080	23 (15 — 32)
		0,30	*0,00026*	*0,00038*	*0,00050*	*0,00065*	*0,00075*	*0,0010*	*0,0013*	*0,0015*	*0,0017*	*0,0020*	*0,0026*	*0,0032*	*75 (50 — 100)*
S11	E	0.50	0.012	0.018	0.024	0.030	0.036	0.048	0.060	0.070	0.080	0.090	0.10	0.11	85 (63 — 110)
		0,50	*0,00048*	*0,00070*	*0,00095*	*0,0012*	*0,0014*	*0,0019*	*0,0024*	*0,0028*	*0,0032*	*0,0036*	*0,0040*	*0,0044*	*280 (210 — 360)*
S12	E	0.50	0.012	0.018	0.024	0.030	0.036	0.048	0.060	0.070	0.080	0.090	0.10	0.11	65 (48 — 86)
		0,50	*0,00048*	*0,00070*	*0,00095*	*0,0012*	*0,0014*	*0,0019*	*0,0024*	*0,0028*	*0,0032*	*0,0036*	*0,0040*	*0,0044*	*215 (160 — 280)*
S13	E	0.50	0.010	0.016	0.020	0.026	0.032	0.042	0.050	0.060	0.070	0.075	0.090	0.10	55 (39 — 69)
		0,50	*0,00040*	*0,00065*	*0,00080*	*0,0010*	*0,0013*	*0,0017*	*0,0020*	*0,0024*	*0,0028*	*0,0030*	*0,0036*	*0,0040*	*180 (130 — 220)*
H5	M/A/D	0.50	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.025	0.028	0.032	0.040	0.050	65 (52 — 77)
		0,50	*0,00016*	*0,00024*	*0,00032*	*0,00040*	*0,00048*	*0,00065*	*0,00080*	*0,0010*	*0,0011*	*0,0013*	*0,0016*	*0,0020*	*215 (180 — 250)*
H8	M/A/D	0.50	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.025	0.028	0.032	0.040	0.050	65 (52 — 77)
		0,50	*0,00016*	*0,00024*	*0,00032*	*0,00040*	*0,00048*	*0,00065*	*0,00080*	*0,0010*	*0,0011*	*0,0013*	*0,0016*	*0,0020*	*215 (180 — 250)*
H11	M/A/D	0.50	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.025	0.028	0.032	0.040	0.050	80 (66 — 98)
		0,50	*0,00016*	*0,00024*	*0,00032*	*0,00040*	*0,00048*	*0,00065*	*0,00080*	*0,0010*	*0,0011*	*0,0013*	*0,0016*	*0,0020*	*260 (220 — 320)*
H12	M/A/D	1.0	0.0095	0.014	0.019	0.024	0.028	0.038	0.046	0.055	0.060	0.070	0.080	0.090	65 (52 — 77)
		1,0	*0,00038*	*0,00055*	*0,00075*	*0,00095*	*0,0011*	*0,0015*	*0,0018*	*0,0022*	*0,0024*	*0,0028*	*0,0032*	*0,0036*	*215 (180 — 250)*
H21	M/A/D	0.50	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.025	0.028	0.032	0.040	0.050	65 (52 — 77)
		0,50	*0,00016*	*0,00024*	*0,00032*	*0,00040*	*0,00048*	*0,00065*	*0,00080*	*0,0010*	*0,0011*	*0,0013*	*0,0016*	*0,0020*	*215 (180 — 250)*
TS1	A	1.0	0.020	0.030	0.040	0.050	0.060	0.080	0.10	0.12	0.13	0.15	0.17	0.19	245 (150 — 340)
		1,0	*0,00080*	*0,0012*	*0,0016*	*0,0020*	*0,0024*	*0,0032*	*0,0040*	*0,0048*	*0,0050*	*0,0060*	*0,0065*	*0,0075*	*800 (500 — 1100)*
TP1	A	1.0	0.020	0.030	0.040	0.050	0.060	0.080	0.10	0.12	0.13	0.15	0.17	0.19	250 (160 — 350)
		1,0	*0,00080*	*0,0012*	*0,0016*	*0,0020*	*0,0024*	*0,0032*	*0,0040*	*0,0048*	*0,0050*	*0,0060*	*0,0065*	*0,0075*	*820 (530 — 1100)*
GR1	A	1.0	0.020	0.030	0.040	0.050	0.060	0.080	0.10	0.12	0.13	0.15	0.17	0.19	490 (400 — 580)
		1,0	*0,00080*	*0,0012*	*0,0016*	*0,0020*	*0,0024*	*0,0032*	*0,0040*	*0,0048*	*0,0050*	*0,0060*	*0,0065*	*0,0075*	*1600 (1400 — 1900)*

For cutting data recalculations, see pages 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (sf/min)
f_z = mm/tooth (*in*/tooth)
a_p = mm/DC (*in*/DC) = factor
a_e = mm/DC (*in*/DC) = factor
All cutting data are target values

Cutting data – JS553 Side milling – *Inch*

SMG		a_e/DC	a_p/DC	f_z						v_c
				1/8	3/16	1/4	5/16	3/8	1/2	
P1	M/A/D/E	0.400 *0,400*	1.0 *1,0*	0.032 *0,0013*	0.048 *0,0019*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	0.12 *0,0048*	225 (200 — 250) *740 (660 — 820)*
P2	M/A/D/E	0.400 *0,400*	1.0 *1,0*	0.032 *0,0013*	0.048 *0,0019*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	0.13 *0,0050*	220 (190 — 240) *720 (630 — 780)*
P3	M/A/D/E	0.400 *0,400*	1.0 *1,0*	0.030 *0,0012*	0.046 *0,0018*	0.060 *0,0024*	0.075 *0,0030*	0.090 *0,0036*	0.12 *0,0048*	190 (170 — 210) *620 (560 — 680)*
P4	M/A/D/E	0.400 *0,400*	1.0 *1,0*	0.030 *0,0012*	0.044 *0,0017*	0.060 *0,0024*	0.075 *0,0030*	0.090 *0,0036*	0.12 *0,0048*	165 (150 — 190) *540 (500 — 620)*
P5	M/A/D/E	0.400 *0,400*	1.0 *1,0*	0.030 *0,0012*	0.044 *0,0017*	0.060 *0,0024*	0.075 *0,0030*	0.085 *0,0034*	0.11 *0,0044*	160 (140 — 180) *520 (460 — 590)*
P6	M/A/D/E	0.400 *0,400*	1.0 *1,0*	0.028 *0,0011*	0.044 *0,0017*	0.060 *0,0024*	0.070 *0,0028*	0.085 *0,0034*	0.11 *0,0044*	180 (160 — 200) *590 (530 — 650)*
P7	M/A/D/E	0.400 *0,400*	1.0 *1,0*	0.028 *0,0011*	0.044 *0,0017*	0.060 *0,0024*	0.070 *0,0028*	0.085 *0,0034*	0.11 *0,0044*	170 (150 — 190) *560 (500 — 620)*
P8	M/A/D/E	0.400 *0,400*	1.0 *1,0*	0.030 *0,0012*	0.046 *0,0018*	0.060 *0,0024*	0.075 *0,0030*	0.090 *0,0036*	0.12 *0,0048*	160 (140 — 180) *520 (460 — 590)*
P11	M/A/D/E	0.400 *0,400*	1.0 *1,0*	0.028 *0,0011*	0.042 *0,0017*	0.055 *0,0022*	0.070 *0,0028*	0.085 *0,0034*	0.11 *0,0044*	145 (130 — 160) *475 (430 — 520)*
P12	M/A/D/E	0.400 *0,400*	1.0 *1,0*	0.019 *0,00075*	0.030 *0,0012*	0.038 *0,0015*	0.048 *0,0019*	0.060 *0,0024*	0.075 *0,0030*	95 (82 — 100) *310 (270 — 320)*
M1	E	0.400 *0,400*	1.0 *1,0*	0.022 *0,00085*	0.032 *0,0013*	0.042 *0,0017*	0.055 *0,0022*	0.065 *0,0026*	0.085 *0,0034*	115 (100 — 120) *375 (330 — 390)*
M2	E	0.400 *0,400*	1.0 *1,0*	0.019 *0,00075*	0.030 *0,0012*	0.038 *0,0015*	0.048 *0,0019*	0.060 *0,0024*	0.075 *0,0030*	95 (82 — 100) *310 (270 — 320)*
M3	E	0.400 *0,400*	1.0 *1,0*	0.016 *0,00065*	0.024 *0,00095*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.065 *0,0026*	60 (47 — 69) *195 (160 — 220)*
M4	E	0.400 *0,400*	1.0 *1,0*	0.014 *0,00055*	0.022 *0,00085*	0.028 *0,0011*	0.036 *0,0014*	0.042 *0,0017*	0.055 *0,0022*	45 (36 — 53) *150 (120 — 170)*
M5	E	0.400 *0,400*	1.0 *1,0*	0.014 *0,00055*	0.022 *0,00085*	0.028 *0,0011*	0.036 *0,0014*	0.042 *0,0017*	0.055 *0,0022*	37 (30 — 44) *120 (99 — 140)*
K1	E	0.400 *0,400*	1.2 *1,2*	0.026 *0,0010*	0.038 *0,0015*	0.050 *0,0020*	0.065 *0,0026*	0.080 *0,0032*	0.10 *0,0040*	165 (160 — 190) *540 (530 — 620)*
K2	E	0.400 *0,400*	1.2 *1,2*	0.024 *0,00095*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	0.090 *0,0036*	145 (140 — 170) *475 (460 — 550)*
K3	E	0.400 *0,400*	1.2 *1,2*	0.024 *0,00095*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	0.090 *0,0036*	125 (120 — 140) *410 (400 — 450)*
K4	E	0.400 *0,400*	1.2 *1,2*	0.024 *0,00095*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	0.090 *0,0036*	120 (110 — 140) *395 (370 — 450)*
K5	E	0.400 *0,400*	1.1 *1,1*	0.026 *0,0010*	0.038 *0,0015*	0.050 *0,0020*	0.065 *0,0026*	0.080 *0,0032*	0.10 *0,0040*	155 (140 — 170) *510 (460 — 550)*
K6	E	0.400 *0,400*	1.1 *1,1*	0.028 *0,0011*	0.044 *0,0017*	0.060 *0,0024*	0.070 *0,0028*	0.085 *0,0034*	0.11 *0,0044*	220 (190 — 250) *720 (630 — 820)*
K7	E	0.400 *0,400*	1.1 *1,1*	0.026 *0,0010*	0.038 *0,0015*	0.050 *0,0020*	0.065 *0,0026*	0.080 *0,0032*	0.10 *0,0040*	195 (170 — 220) *640 (560 — 720)*

For cutting data recalculations, see pages 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (sf/min)
f_z = mm/tooth (*in*/tooth)
a_p = mm/DC (*in*/DC) = factor
a_e = mm/DC (*in*/DC) = factor
All cutting data are target values

Cutting data – JS553 Side milling – *Inch*

SMG		a_e/DC	a_p/DC	f_z						v_c
				1/8	3/16	1/4	5/16	3/8	1/2	
N1	E	0.500 *0,500*	1.0 *1,0*	0.025 *0,0010*	0.038 *0,0015*	0.050 *0,0020*	0.065 *0,0026*	0.075 *0,0030*	0.10 *0,0040*	620 (520 — 720) *2025 (1800 — 2300)*
N2	E	0.500 *0,500*	1.0 *1,0*	0.025 *0,0010*	0.038 *0,0015*	0.050 *0,0020*	0.065 *0,0026*	0.075 *0,0030*	0.10 *0,0040*	400 (340 — 460) *1300 (1200 — 1500)*
N3	E	0.500 *0,500*	1.0 *1,0*	0.025 *0,0010*	0.038 *0,0015*	0.050 *0,0020*	0.065 *0,0026*	0.075 *0,0030*	0.10 *0,0040*	265 (230 — 300) *870 (760 — 980)*
N11	E	0.500 *0,500*	1.1 *1,1*	0.025 *0,0010*	0.038 *0,0015*	0.050 *0,0020*	0.065 *0,0026*	0.075 *0,0030*	0.10 *0,0040*	310 (260 — 350) *1025 (860 — 1100)*
S1	E	0.150 *0,150*	0.50 *0,50*	0.028 *0,0011*	0.042 *0,0017*	0.055 *0,0022*	0.070 *0,0028*	0.085 *0,0034*	0.11 *0,0044*	43 (26 — 60) *140 (86 — 190)*
S2	E	0.150 *0,150*	0.50 *0,50*	0.028 *0,0011*	0.042 *0,0017*	0.055 *0,0022*	0.070 *0,0028*	0.085 *0,0034*	0.11 *0,0044*	35 (21 — 48) *115 (69 — 150)*
S3	E	0.150 *0,150*	0.50 *0,50*	0.026 *0,0010*	0.038 *0,0015*	0.050 *0,0020*	0.065 *0,0026*	0.075 *0,0030*	0.10 *0,0040*	30 (19 — 42) *100 (63 — 130)*
S11	E	0.400 *0,400*	1.0 *1,0*	0.019 *0,00075*	0.030 *0,0012*	0.038 *0,0015*	0.048 *0,0019*	0.060 *0,0024*	0.075 *0,0030*	110 (78 — 130) *360 (260 — 420)*
S12	E	0.400 *0,400*	1.0 *1,0*	0.019 *0,00075*	0.030 *0,0012*	0.038 *0,0015*	0.048 *0,0019*	0.060 *0,0024*	0.075 *0,0030*	85 (60 — 100) *280 (200 — 320)*
S13	E	0.400 *0,400*	1.0 *1,0*	0.017 *0,00065*	0.025 *0,0010*	0.034 *0,0013*	0.042 *0,0017*	0.050 *0,0020*	0.065 *0,0026*	65 (48 — 84) *215 (160 — 270)*
H5	M/A/D	0.200 *0,200*	0.90 *0,90*	0.020 *0,00080*	0.032 *0,0013*	0.042 *0,0017*	0.050 *0,0020*	0.060 *0,0024*	0.080 *0,0032*	75 (62 — 91) *245 (210 — 290)*
H8	M/A/D	0.200 *0,200*	0.90 *0,90*	0.016 *0,00065*	0.024 *0,00095*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.060 *0,0024*	80 (65 — 96) *260 (220 — 310)*
H21	M/A/D	0.200 *0,200*	0.90 *0,90*	0.016 *0,00065*	0.024 *0,00095*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.060 *0,0024*	80 (65 — 96) *260 (220 — 310)*
H31	M/A/D	0.200 *0,200*	0.90 *0,90*	0.016 *0,00065*	0.024 *0,00095*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.060 *0,0024*	60 (49 — 72) *195 (170 — 230)*
TS1	A	0.500 *0,500*	1.2 *1,2*	0.032 *0,0013*	0.048 *0,0019*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	0.12 *0,0048*	290 (180 — 400) *950 (600 — 1300)*
TP1	A	0.500 *0,500*	1.2 *1,2*	0.032 *0,0013*	0.048 *0,0019*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	0.12 *0,0048*	300 (180 — 410) *980 (600 — 1300)*
GR1	A	0.500 *0,500*	1.2 *1,2*	0.032 *0,0013*	0.048 *0,0019*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	0.12 *0,0048*	580 (470 — 690) *1900 (1600 — 2200)*

For cutting data recalculations, see pages 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (sf/min)
f_z = mm/tooth (*in*/tooth)
a_p = mm/DC (*in*/DC) = factor
a_e = mm/DC (*in*/DC) = factor
All cutting data are target values

Cutting data – JS553 Slot milling – *Inch*

SMG		a_p/DC	f_z						v_c
			1/8	3/16	1/4	5/16	3/8	1/2	
P1	M/A/D/E	1.0 *1,0*	0.022 *0,00085*	0.034 *0,0013*	0.044 *0,0017*	0.055 *0,0022*	0.065 *0,0026*	0.090 *0,0036*	195 (170 — 220) *640 (560 — 720)*
P2	M/A/D/E	1.0 *1,0*	0.022 *0,00085*	0.034 *0,0013*	0.044 *0,0017*	0.055 *0,0022*	0.065 *0,0026*	0.090 *0,0036*	190 (170 — 210) *620 (560 — 680)*
P3	M/A/D/E	1.0 *1,0*	0.022 *0,00085*	0.034 *0,0013*	0.044 *0,0017*	0.055 *0,0022*	0.065 *0,0026*	0.090 *0,0036*	165 (140 — 180) *540 (460 — 590)*
P4	M/A/D/E	1.0 *1,0*	0.022 *0,00085*	0.034 *0,0013*	0.044 *0,0017*	0.055 *0,0022*	0.065 *0,0026*	0.090 *0,0036*	145 (130 — 160) *475 (430 — 520)*
P5	M/A/D/E	1.0 *1,0*	0.022 *0,00085*	0.034 *0,0013*	0.044 *0,0017*	0.055 *0,0022*	0.065 *0,0026*	0.090 *0,0036*	135 (120 — 150) *445 (400 — 490)*
P6	M/A/D/E	1.0 *1,0*	0.022 *0,00085*	0.034 *0,0013*	0.044 *0,0017*	0.055 *0,0022*	0.065 *0,0026*	0.090 *0,0036*	155 (140 — 170) *510 (460 — 550)*
P7	M/A/D/E	1.0 *1,0*	0.022 *0,00085*	0.034 *0,0013*	0.044 *0,0017*	0.055 *0,0022*	0.065 *0,0026*	0.090 *0,0036*	145 (130 — 160) *475 (430 — 520)*
P8	M/A/D/E	1.0 *1,0*	0.022 *0,00085*	0.034 *0,0013*	0.044 *0,0017*	0.055 *0,0022*	0.065 *0,0026*	0.090 *0,0036*	135 (120 — 150) *445 (400 — 490)*
P11	M/A/D/E	0.80 *0,80*	0.016 *0,00065*	0.024 *0,00095*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.065 *0,0026*	130 (120 — 140) *425 (400 — 450)*
P12	M/A/D/E	0.80 *0,80*	0.016 *0,00065*	0.024 *0,00095*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.065 *0,0026*	80 (69 — 87) *260 (230 — 280)*
M1	E	0.80 *0,80*	0.016 *0,00065*	0.024 *0,00095*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.065 *0,0026*	95 (85 — 100) *310 (280 — 320)*
M2	E	0.80 *0,80*	0.016 *0,00065*	0.024 *0,00095*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.065 *0,0026*	80 (69 — 87) *260 (230 — 280)*
M3	E	0.70 *0,70*	0.013 *0,00050*	0.019 *0,00075*	0.026 *0,0010*	0.032 *0,0013*	0.038 *0,0015*	0.050 *0,0020*	48 (39 — 58) *155 (130 — 190)*
M4	E	0.70 *0,70*	0.013 *0,00050*	0.019 *0,00075*	0.026 *0,0010*	0.032 *0,0013*	0.038 *0,0015*	0.050 *0,0020*	36 (30 — 43) *120 (99 — 140)*
M5	E	0.70 *0,70*	0.013 *0,00050*	0.019 *0,00075*	0.026 *0,0010*	0.032 *0,0013*	0.038 *0,0015*	0.050 *0,0020*	30 (25 — 36) *100 (83 — 110)*
K1	E	1.0 *1,0*	0.016 *0,00065*	0.024 *0,00095*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.065 *0,0026*	145 (140 — 170) *475 (460 — 550)*
K2	E	1.0 *1,0*	0.016 *0,00065*	0.024 *0,00095*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.065 *0,0026*	125 (120 — 150) *410 (400 — 490)*
K3	E	1.0 *1,0*	0.016 *0,00065*	0.024 *0,00095*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.065 *0,0026*	110 (110 — 120) *360 (370 — 390)*
K4	E	1.0 *1,0*	0.016 *0,00065*	0.024 *0,00095*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.065 *0,0026*	105 (96 — 120) *345 (320 — 390)*
K5	E	0.80 *0,80*	0.016 *0,00065*	0.024 *0,00095*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.065 *0,0026*	135 (120 — 150) *445 (400 — 490)*
K6	E	0.80 *0,80*	0.016 *0,00065*	0.024 *0,00095*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.065 *0,0026*	200 (180 — 230) *660 (600 — 750)*
K7	E	0.80 *0,80*	0.016 *0,00065*	0.024 *0,00095*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.065 *0,0026*	175 (150 — 190) *570 (500 — 620)*

For cutting data recalculations, see pages 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (sf/min)
f_z = mm/tooth (*in*/tooth)
a_p = mm/DC (*in*/DC) = factor
a_e = mm/DC (*in*/DC) = factor
All cutting data are target values

Cutting data – JS553 Slot milling – *Inch*

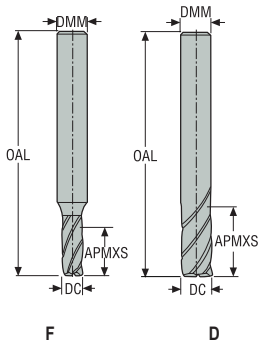
SMG		a_p/DC	f_z						v_c
			1/8	3/16	1/4	5/16	3/8	1/2	
N1	E	0.70 *0,70*	0.016 *0,00065*	0.024 *0,00095*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.065 *0,0026*	580 (490 — 670) *1900 (1700 — 2100)*
N2	E	0.70 *0,70*	0.016 *0,00065*	0.024 *0,00095*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.065 *0,0026*	375 (320 — 430) *1225 (1100 — 1400)*
N3	E	0.70 *0,70*	0.016 *0,00065*	0.024 *0,00095*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.065 *0,0026*	250 (210 — 290) *820 (690 — 950)*
N11	E	0.60 *0,60*	0.016 *0,00065*	0.024 *0,00095*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.065 *0,0026*	290 (250 — 330) *950 (830 — 1000)*
S1	E	0.30 *0,30*	0.010 *0,00040*	0.015 *0,00060*	0.020 *0,00080*	0.025 *0,0010*	0.030 *0,0012*	0.040 *0,0016*	34 (21 — 47) *110 (69 — 150)*
S2	E	0.30 *0,30*	0.010 *0,00040*	0.015 *0,00060*	0.020 *0,00080*	0.025 *0,0010*	0.030 *0,0012*	0.040 *0,0016*	27 (17 — 38) *90 (56 — 120)*
S3	E	0.30 *0,30*	0.010 *0,00040*	0.015 *0,00060*	0.020 *0,00080*	0.025 *0,0010*	0.030 *0,0012*	0.040 *0,0016*	23 (15 — 32) *75 (50 — 100)*
S11	E	0.50 *0,50*	0.019 *0,00075*	0.028 *0,0011*	0.038 *0,0015*	0.048 *0,0019*	0.055 *0,0022*	0.075 *0,0030*	85 (63 — 110) *280 (210 — 360)*
S12	E	0.50 *0,50*	0.019 *0,00075*	0.028 *0,0011*	0.038 *0,0015*	0.048 *0,0019*	0.055 *0,0022*	0.075 *0,0030*	65 (48 — 86) *215 (160 — 280)*
S13	E	0.50 *0,50*	0.017 *0,00065*	0.025 *0,0010*	0.034 *0,0013*	0.042 *0,0017*	0.050 *0,0020*	0.065 *0,0026*	55 (39 — 69) *180 (130 — 220)*
H5	M/A/D	0.50 *0,50*	0.0065 *0,00026*	0.0095 *0,00038*	0.013 *0,00050*	0.016 *0,00065*	0.019 *0,00075*	0.026 *0,0010*	65 (52 — 77) *215 (180 — 250)*
H8	M/A/D	0.50 *0,50*	0.0065 *0,00026*	0.0095 *0,00038*	0.013 *0,00050*	0.016 *0,00065*	0.019 *0,00075*	0.026 *0,0010*	65 (52 — 77) *215 (180 — 250)*
H21	M/A/D	0.50 *0,50*	0.0065 *0,00026*	0.0095 *0,00038*	0.013 *0,00050*	0.016 *0,00065*	0.019 *0,00075*	0.026 *0,0010*	65 (52 — 77) *215 (180 — 250)*
H31	M/A/D	0.50 *0,50*	0.0065 *0,00026*	0.0095 *0,00038*	0.013 *0,00050*	0.016 *0,00065*	0.019 *0,00075*	0.026 *0,0010*	49 (39 — 58) *160 (130 — 190)*
TS1	A	1.0 *1,0*	0.032 *0,0013*	0.048 *0,0019*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	0.12 *0,0048*	245 (150 — 340) *800 (500 — 1100)*
TP1	A	1.0 *1,0*	0.032 *0,0013*	0.048 *0,0019*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	0.12 *0,0048*	250 (160 — 350) *820 (530 — 1100)*
GR1	A	1.0 *1,0*	0.032 *0,0013*	0.048 *0,0019*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	0.12 *0,0048*	490 (400 — 580) *1600 (1400 — 1900)*

For cutting data recalculations, see pages 573 - 580

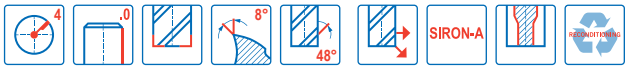
SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (sf/min)
f_z = mm/tooth (*in*/tooth)
a_p = mm/DC (*in*/DC) = factor
a_e = mm/DC (*in*/DC) = factor
All cutting data are target values

JS554

High performance – Universal – Square – 4 Flutes – Cylindrical – Sharp







- Tolerances:
- DMM=h5
- DC=e7
- Regrind possible if DC is ≥Ø6

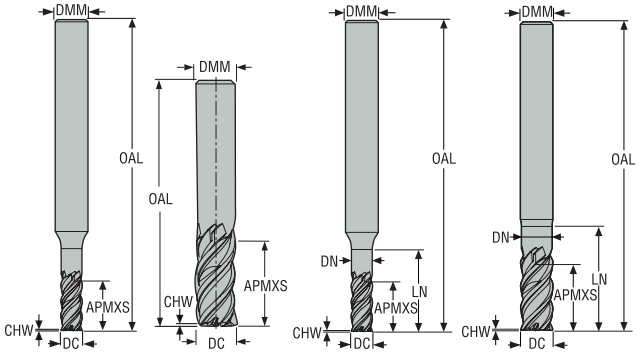
Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	PCEDC	Cylindrical
				mm	mm	mm	mm		
554030SZ4.0-SIRON-A	02733453	2	F	3,0	6,0	7,0	50,0	4	■
554040SZ4.0-SIRON-A	02733458	2	F	4,0	6,0	10,0	55,0	4	■
554050SZ4.0-SIRON-A	02733812	2	F	5,0	6,0	12,0	55,0	4	■
554060SZ4.0-SIRON-A	02733814	2	D	6,0	6,0	14,0	55,0	4	■
554080SZ4.0-SIRON-A	02733815	2	D	8,0	8,0	18,0	60,0	4	■
554100SZ4.0-SIRON-A	02733816	2	D	10,0	10,0	22,0	70,0	4	■

■ Stocked standard.

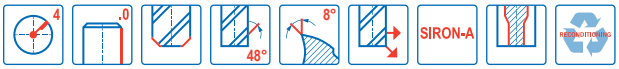
JS554

High performance – Universal – Square – 4 Flutes – Cylindrical – Chamfer





- Tolerances:
- DMM=h5
- DC=e7
- Regrind possible if DC is ≥Ø6

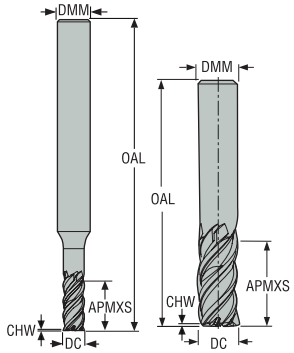


Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	CHW	PCEDC	Cylindrical
				mm	mm	mm	mm	mm	mm	mm		
JS554030F1C.0Z4-SIRA	10194615	1	F	3,0	6,0	4,0	40,0	6,0	3,05	0,035	4	■
JS554040F1C.0Z4-SIRA	10041454	1	F	4,0	6,0	6,0	40,0	9,0	4,05	0,045	4	■
JS554050F1C.0Z4-SIRA	10194616	1	F	5,0	6,0	7,0	40,0	10,0	5,05	0,055	4	■
JS554060D1C.0Z4-SIRA	10041455	1	D	6,0	6,0	8,0	40,0	–	–	0,075	4	■
JS554080D1C.0Z4-SIRA	10041456	1	D	8,0	8,0	11,0	50,0	–	–	0,1	4	■
JS554100D1C.0Z4-SIRA	10041457	1	D	10,0	10,0	13,0	57,0	–	–	0,125	4	■
JS554120D1C.0Z4-SIRA	10041458	1	D	12,0	12,0	15,0	65,0	–	–	0,15	4	■
JS554160D1C.0Z4-SIRA	10041459	1	D	16,0	16,0	19,0	75,0	–	–	0,2	4	■
554030Z4.0-SIRON-A	02733455	2	F	3,0	6,0	7,0	50,0	8,7	3,0	0,035	4	■
JS554030G2C.0Z4-SIRA	03029956	2	G	3,0	6,0	8,0	57,0	10,0	2,85	0,035	4	■
554040Z4.0-SIRON-A	02733459	2	F	4,0	6,0	10,0	55,0	11,7	4,0	0,045	4	■
JS554040G2C.0Z4-SIRA	03029957	2	G	4,0	6,0	10,0	57,0	13,0	3,8	0,045	4	■
554050Z4.0-SIRON-A	02733813	2	F	5,0	6,0	12,0	55,0	13,7	5,0	0,055	4	■
JS554050G2C.0Z4-SIRA	03029958	2	G	5,0	6,0	12,0	57,0	16,0	4,75	0,055	4	■
554060Z4.0-SIRON-A	02679503	2	D	6,0	6,0	14,0	55,0	–	–	0,075	4	■
JS554060E2C.0Z4-SIRA	03029959	2	E	6,0	6,0	14,0	57,0	18,0	5,7	0,075	4	■
554080Z4.0-SIRON-A	02679512	2	D	8,0	8,0	18,0	60,0	–	–	0,1	4	■
JS554080E2C.0Z4-SIRA	03029961	2	E	8,0	8,0	18,0	63,0	25,0	7,6	0,1	4	■
554100Z4.0-SIRON-A	02679537	2	D	10,0	10,0	22,0	70,0	–	–	0,125	4	■
JS554100E2C.0Z4-SIRA	03029963	2	E	10,0	10,0	22,0	72,0	29,0	9,5	0,125	4	■
554120Z4.0-SIRON-A	02679548	2	D	12,0	12,0	26,0	80,0	–	–	0,15	4	■
JS554120E2C.0Z4-SIRA	03029966	2	E	12,0	12,0	26,0	83,0	35,0	11,4	0,15	4	■
554160Z4.0-SIRON-A	02679560	2	D	16,0	16,0	34,0	90,0	–	–	0,2	4	■
JS554160E2C.0Z4-SIRA	03029970	2	E	16,0	16,0	34,0	92,0	42,0	15,2	0,2	4	■
554200Z4.0-SIRON-A	02679566	2	D	20,0	20,0	42,0	100,0	–	–	0,25	4	■
JS554200E2C.0Z4-SIRA	03029972	2	E	20,0	20,0	42,0	109,0	54,0	19,0	0,25	4	■
554250Z4.0-SIRON-A	02679573	2	D	25,0	25,0	52,0	125,0	–	–	0,3	4	■

■ Stocked standard.

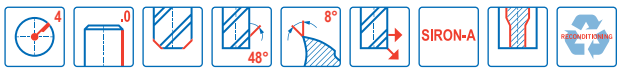
JS554

High performance – Universal – Square – 4 Flutes – Cylindrical – Chamfer



F D





- Tolerances:
- DMM=h5
- DC=e7
- Regrind possible if DC is ≥Ø6

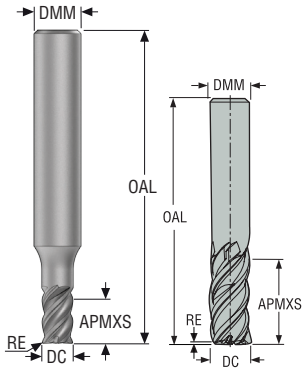
Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	CHW	PCEDC	Cylindrical
				mm	mm	mm	mm	mm	mm	mm		
554L030Z4.0-SIRON-A	02733818	3	F	3,0	6,0	12,0	55,0	13,7	3,0	0,035	4	■
554L040Z4.0-SIRON-A	02733823	3	F	4,0	6,0	16,0	60,0	17,7	4,0	0,045	4	■
554L050Z4.0-SIRON-A	02733825	3	F	5,0	6,0	20,0	65,0	21,7	5,0	0,055	4	■
554L060Z4.0-SIRON-A	02733828	3	D	6,0	6,0	23,0	65,0	–	–	0,075	4	■
554L080Z4.0-SIRON-A	02733830	3	D	8,0	8,0	32,0	75,0	–	–	0,1	4	■
554L100Z4.0-SIRON-A	02733832	3	D	10,0	10,0	40,0	85,0	–	–	0,125	4	■
554L120Z4.0-SIRON-A	02733834	3	D	12,0	12,0	45,0	100,0	–	–	0,15	4	■
554L160Z4.0-SIRON-A	02733836	3	D	16,0	16,0	55,0	115,0	–	–	0,2	4	■
554L200Z4.0-SIRON-A	02733838	3	D	20,0	20,0	65,0	125,0	–	–	0,25	4	■
554L250Z4.0-SIRON-A	02733841	3	D	25,0	25,0	85,0	150,0	–	–	0,3	4	■

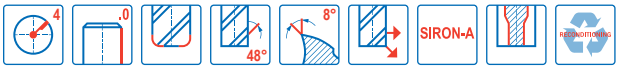
■ Stocked standard.

JS554

High performance – Universal – Square – 4 Flutes – Cylindrical – Corner radius







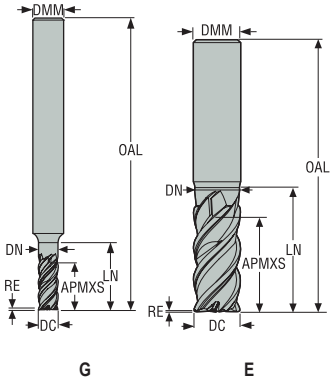
- Tolerances:
- DMM= h5
- DC= e7
- RE= ±0,02 mm
- Regrind possible if DC is ≥Ø6

Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	RE	PCEDC	Cylindrical
				mm	mm	mm	mm	mm		
JS554030F1R020.0Z4-SIRA	10194617	1	F	3,0	6,0	4,0	40,0	0,2	4	■
JS554040F1R020.0Z4-SIRA	10194618	1	F	4,0	6,0	6,0	40,0	0,2	4	■
JS554050F1R020.0Z4-SIRA	10194619	1	F	5,0	6,0	7,0	40,0	0,2	4	■
JS554060D1R020.0Z4-SIRA	10194620	1	D	6,0	6,0	8,0	40,0	0,2	4	■
JS554060D1R050.0Z4-SIRA	10194621	1	D	6,0	6,0	8,0	40,0	0,5	4	■
JS554080D1R050.0Z4-SIRA	10194622	1	D	8,0	8,0	11,0	50,0	0,5	4	■
JS554100D1R050.0Z4-SIRA	10194623	1	D	10,0	10,0	13,0	57,0	0,5	4	■
JS554100D1R100.0Z4-SIRA	10194624	1	D	10,0	10,0	13,0	57,0	1,0	4	■
JS554120D1R050.0Z4-SIRA	10194625	1	D	12,0	12,0	15,0	65,0	0,5	4	■
JS554120D1R100.0Z4-SIRA	10194626	1	D	12,0	12,0	15,0	65,0	1,0	4	■
JS554160D1R050.0Z4-SIRA	10194627	1	D	16,0	16,0	19,0	75,0	0,5	4	■
JS554160D1R100.0Z4-SIRA	10194628	1	D	16,0	16,0	19,0	75,0	1,0	4	■
554060R020Z4.0-SIRON-A	02679507	2	D	6,0	6,0	14,0	55,0	0,2	4	■
554080R050Z4.0-SIRON-A	02679514	2	D	8,0	8,0	18,0	60,0	0,5	4	■
554100R050Z4.0-SIRON-A	02679540	2	D	10,0	10,0	22,0	70,0	0,5	4	■
554100R100Z4.0-SIRON-A	02679544	2	D	10,0	10,0	22,0	70,0	1,0	4	■
554120R050Z4.0-SIRON-A	02679552	2	D	12,0	12,0	26,0	80,0	0,5	4	■
554120R100Z4.0-SIRON-A	02679557	2	D	12,0	12,0	26,0	80,0	1,0	4	■
554160R050Z4.0-SIRON-A	02679562	2	D	16,0	16,0	34,0	90,0	0,5	4	■
554160R100Z4.0-SIRON-A	02679564	2	D	16,0	16,0	34,0	90,0	1,0	4	■
554160R200Z4.0-SIRON-A	02810437	2	D	16,0	16,0	34,0	90,0	2,0	4	■
554160R310Z4.0-SIRON-A	02810439	2	D	16,0	16,0	34,0	90,0	3,1	4	■
554160R400Z4.0-SIRON-A	02810441	2	D	16,0	16,0	34,0	90,0	4,0	4	■
554200R050Z4.0-SIRON-A	02679568	2	D	20,0	20,0	42,0	100,0	0,5	4	■
554200R100Z4.0-SIRON-A	02679571	2	D	20,0	20,0	42,0	100,0	1,0	4	■
554200R250Z4.0-SIRON-A	02810443	2	D	20,0	20,0	42,0	100,0	2,5	4	■
554200R310Z4.0-SIRON-A	02810445	2	D	20,0	20,0	42,0	100,0	3,1	4	■
554200R400Z4.0-SIRON-A	02810447	2	D	20,0	20,0	42,0	100,0	4,0	4	■
554250R050Z4.0-SIRON-A	02679575	2	D	25,0	25,0	52,0	125,0	0,5	4	■
554250R100Z4.0-SIRON-A	02679577	2	D	25,0	25,0	52,0	125,0	1,0	4	■
554250R310Z4.0-SIRON-A	02810449	2	D	25,0	25,0	52,0	125,0	3,1	4	■
554250R400Z4.0-SIRON-A	02810452	2	D	25,0	25,0	52,0	125,0	4,0	4	■

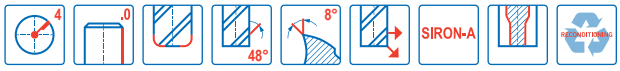
■ Stocked standard.

JS554

High performance– Universal – Square – 4 Flutes – Cylindrical – Corner radius







- Tolerances:
- DMM= h5
- DC= e7
- RE= ±0,02 mm
- Regrind possible if DC is ≥Ø6

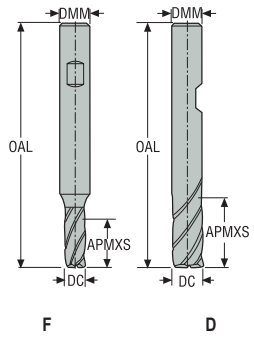
Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Cylindrical
				mm	mm	mm	mm	mm	mm	mm		
JS554030G2R015.0Z4-SIRA	02881697	2	G	3,0	6,0	7,0	57,0	10,0	2,85	0,15	4	■
JS554040G2R020.0Z4-SIRA	02881698	2	G	4,0	6,0	10,0	57,0	13,0	3,8	0,2	4	■
JS554050G2R020.0Z4-SIRA	02881699	2	G	5,0	6,0	12,0	57,0	16,0	4,75	0,2	4	■
JS554060E2R020.0Z4-SIRA	03029960	2	E	6,0	6,0	14,0	57,0	18,0	5,7	0,2	4	■
JS554060E2R050.0Z4-SIRA	02881700	2	E	6,0	6,0	14,0	57,0	18,0	5,7	0,5	4	■
JS554060E2R100.0Z4-SIRA	03029948	2	E	6,0	6,0	14,0	57,0	18,0	5,7	1,0	4	■
JS554080E2R050.0Z4-SIRA	03029962	2	E	8,0	8,0	18,0	63,0	25,0	7,6	0,5	4	■
JS554080E2R100.0Z4-SIRA	02881701	2	E	8,0	8,0	18,0	63,0	25,0	7,6	1,0	4	■
JS554100E2R050.0Z4-SIRA	03029964	2	E	10,0	10,0	22,0	72,0	29,0	9,5	0,5	4	■
JS554100E2R100.0Z4-SIRA	03029965	2	E	10,0	10,0	22,0	72,0	29,0	9,5	1,0	4	■
JS554100E2R200.0Z4-SIRA	02881702	2	E	10,0	10,0	22,0	72,0	29,0	9,5	2,0	4	■
JS554100E2R250.0Z4-SIRA	03029949	2	E	10,0	10,0	22,0	72,0	29,0	9,5	2,5	4	■
JS554120E2R050.0Z4-SIRA	03029968	2	E	12,0	12,0	26,0	83,0	35,0	11,4	0,5	4	■
JS554120E2R100.0Z4-SIRA	03029969	2	E	12,0	12,0	26,0	83,0	35,0	11,4	1,0	4	■
JS554120E2R200.0Z4-SIRA	02881703	2	E	12,0	12,0	26,0	83,0	35,0	11,4	2,0	4	■
JS554120E2R250.0Z4-SIRA	02881704	2	E	12,0	12,0	26,0	83,0	35,0	11,4	2,5	4	■
JS554120E2R300.0Z4-SIRA	03029950	2	E	12,0	12,0	26,0	83,0	35,0	11,4	3,0	4	■
JS554160E2R050.0Z4-SIRA	03029971	2	E	16,0	16,0	34,0	92,0	42,0	15,2	0,5	4	■
JS554160E2R600.0Z4-SIRA	03093685	2	E	16,0	16,0	34,0	92,0	42,0	15,2	6,0	4	■
JS554200E2R200.0Z4-SIRA	02881705	2	E	20,0	20,0	42,0	110,0	54,0	19,0	2,0	4	■
JS554200E2R600.0Z4-SIRA	03029951	2	E	20,0	20,0	42,0	109,0	54,0	19,0	6,0	4	■
JS554250E2R600.0Z4-SIRA	03093686	2	E	25,0	25,0	52,0	125,0	65,0	23,8	6,0	4	■

■ Stocked standard.

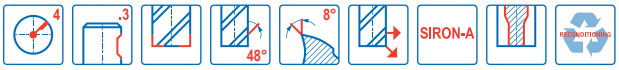
JS554

High performance – Universal – Square – 4 Flutes – Weldon – Sharp





- Tolerances:
- DMM=h5
- DC=e7
- Regrind possible if DC is ≥Ø6

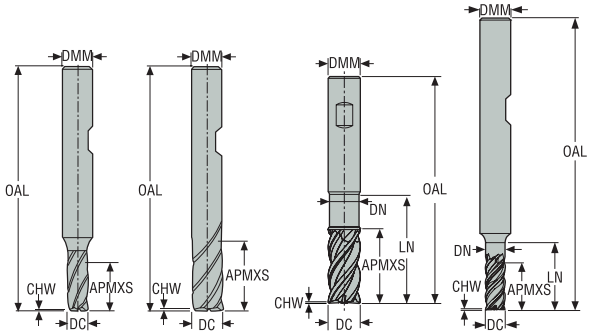


Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	PCEDC	Weldon
				mm	mm	mm	mm		
554030SZ4.0-SIRON-AW	02733844	2	F	3,0	6,0	7,0	50,0	4	☐
554040SZ4.0-SIRON-AW	02733846	2	F	4,0	6,0	10,0	55,0	4	☐
554050SZ4.0-SIRON-AW	02733847	2	F	5,0	6,0	12,0	55,0	4	☐
554060SZ4.0-SIRON-AW	02733848	2	D	6,0	6,0	14,0	55,0	4	☐
554080SZ4.0-SIRON-AW	02733849	2	D	8,0	8,0	18,0	60,0	4	☐
554100SZ4.0-SIRON-AW	02733850	2	D	10,0	10,0	22,0	70,0	4	☐

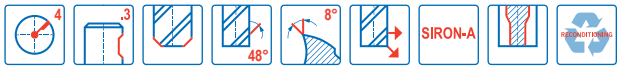
☐ Weldon available. Delivery time is 3 days.

JS554

High performance – Universal – Square – 4 Flutes – Weldon – Chamfer







- Tolerances:
- DMM=h5
- DC=e7
- Regrind possible if DC is ≥Ø6

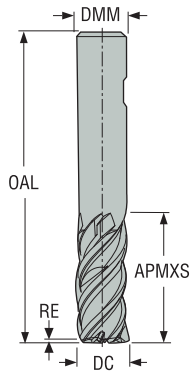
Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	CHW	PCEDC	Weldon
				mm	mm	mm	mm	mm	mm	mm		
JS554040F1C.3Z4-SIRA	10041460	1	F	4,0	6,0	6,0	40,0	9,0	4,05	0,045	4	■
JS554060D1C.3Z4-SIRA	10041461	1	D	6,0	6,0	8,0	40,0	–	–	0,075	4	■
JS554080D1C.3Z4-SIRA	10041462	1	D	8,0	8,0	11,0	50,0	–	–	0,1	4	□
JS554100D1C.3Z4-SIRA	10041463	1	D	10,0	10,0	13,0	57,0	–	–	0,125	4	□
JS554120D1C.3Z4-SIRA	10041464	1	D	12,0	12,0	15,0	65,0	–	–	0,15	4	□
JS554160D1C.3Z4-SIRA	10041465	1	D	16,0	16,0	19,0	75,0	–	–	0,2	4	□
554030Z4.3-SIRON-A	02733450	2	F	3,0	6,0	7,0	50,0	8,7	3,0	0,035	4	■
JS554030G2C.3Z4-SIRA	03029973	2	G	3,0	6,0	8,0	57,0	10,0	2,85	0,035	4	□
554040Z4.3-SIRON-A	02733456	2	F	4,0	6,0	10,0	55,0	11,7	4,0	0,045	4	■
JS554040G2C.3Z4-SIRA	03029974	2	G	4,0	6,0	10,0	57,0	13,0	3,8	0,045	4	□
554050Z4.3-SIRON-A	02733461	2	F	5,0	6,0	12,0	55,0	13,7	5,0	0,055	4	■
JS554050G2C.3Z4-SIRA	03029975	2	G	5,0	6,0	12,0	57,0	16,0	4,75	0,055	4	□
554060Z4.3-SIRON-A	02679502	2	D	6,0	6,0	14,0	55,0	–	–	0,075	4	■
JS554060E2C.3Z4-SIRA	03029976	2	E	6,0	6,0	14,0	57,0	18,0	5,7	0,075	4	□
554080Z4.3-SIRON-A	02679511	2	D	8,0	8,0	18,0	60,0	–	–	0,1	4	■
JS554080E2C.3Z4-SIRA	03029978	2	E	8,0	8,0	18,0	63,0	25,0	7,6	0,1	4	□
JS554100E2C.3Z4-SIRA	03029980	2	E	10,0	10,0	22,0	72,0	29,0	9,5	0,125	4	□
554100Z4.3-SIRON-A	02679535	2	D	10,0	10,0	22,0	70,0	–	–	0,125	4	■
JS554120E2C.3Z4-SIRA	03029983	2	E	12,0	12,0	26,0	83,0	35,0	11,4	0,15	4	□
554120Z4.3-SIRON-A	02679547	2	D	12,0	12,0	26,0	80,0	–	–	0,15	4	■
JS554160E2C.3Z4-SIRA	03029986	2	E	16,0	16,0	34,0	92,0	42,0	15,2	0,2	4	□
554160Z4.3-SIRON-A	02679559	2	D	16,0	16,0	34,0	90,0	–	–	0,2	4	■
JS554200E2C.3Z4-SIRA	03029988	2	E	20,0	20,0	42,0	109,0	54,0	19,0	0,25	4	□
554200Z4.3-SIRON-A	02679565	2	D	20,0	20,0	42,0	100,0	–	–	0,25	4	■
554250Z4.3-SIRON-A	02679572	2	D	25,0	25,0	52,0	125,0	–	–	0,3	4	■
554L030Z4.3-SIRON-A	02733817	3	F	3,0	6,0	12,0	55,0	13,7	3,0	0,035	4	■
554L040Z4.3-SIRON-A	02733820	3	F	4,0	6,0	16,0	60,0	17,7	4,0	0,045	4	■
554L050Z4.3-SIRON-A	02733824	3	F	5,0	6,0	20,0	65,0	21,7	5,0	0,055	4	■
554L060Z4.3-SIRON-A	02733827	3	D	6,0	6,0	23,0	65,0	–	–	0,075	4	■
554L080Z4.3-SIRON-A	02733829	3	D	8,0	8,0	32,0	75,0	–	–	0,1	4	■
554L100Z4.3-SIRON-A	02733831	3	D	10,0	10,0	40,0	85,0	–	–	0,125	4	■
554L120Z4.3-SIRON-A	02733833	3	D	12,0	12,0	45,0	100,0	–	–	0,15	4	■
554L160Z4.3-SIRON-A	02733835	3	D	16,0	16,0	55,0	115,0	–	–	0,2	4	■
554L200Z4.3-SIRON-A	02733837	3	D	20,0	20,0	65,0	125,0	–	–	0,25	4	■
554L250Z4.3-SIRON-A	02733839	3	D	25,0	25,0	85,0	150,0	–	–	0,3	4	■

■ Stocked standard. □ Weldon available. Delivery time is 3 days.

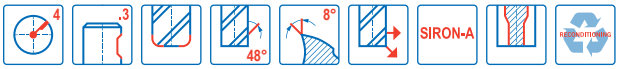
JS554

High performance – Universal – Square – 4 Flutes – Weldon – Corner radius





D



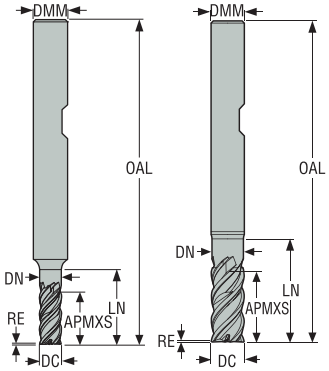
- Tolerances:
- DMM= h5
- DC= e7
- RE= ±0,02 mm
- Regrind possible

Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	RE	PCEDC	Weldon
				mm	mm	mm	mm	mm		
JS554080D1R050.3Z4-SIRA	10194629	1	D	8,0	8,0	11,0	50,0	0,5	4	□
JS554100D1R050.3Z4-SIRA	10194630	1	D	10,0	10,0	13,0	57,0	0,5	4	□
JS554100D1R100.3Z4-SIRA	10194631	1	D	10,0	10,0	13,0	57,0	1,0	4	□
JS554120D1R050.3Z4-SIRA	10194632	1	D	12,0	12,0	15,0	65,0	0,5	4	□
JS554120D1R100.3Z4-SIRA	10194633	1	D	12,0	12,0	15,0	65,0	1,0	4	□
JS554160D1R050.3Z4-SIRA	10194634	1	D	16,0	16,0	19,0	75,0	0,5	4	□
JS554160D1R100.3Z4-SIRA	10194635	1	D	16,0	16,0	19,0	75,0	1,0	4	□
554060R020Z4.3-SIRON-A	02679506	2	D	6,0	6,0	14,0	55,0	0,2	4	■
554080R050Z4.3-SIRON-A	02679513	2	D	8,0	8,0	18,0	60,0	0,5	4	■
554100R050Z4.3-SIRON-A	02679539	2	D	10,0	10,0	22,0	70,0	0,5	4	■
554100R100Z4.3-SIRON-A	02679542	2	D	10,0	10,0	22,0	70,0	1,0	4	■
554120R050Z4.3-SIRON-A	02679549	2	D	12,0	12,0	26,0	80,0	0,5	4	■
554120R100Z4.3-SIRON-A	02679554	2	D	12,0	12,0	26,0	80,0	1,0	4	■
554160R050Z4.3-SIRON-A	02679561	2	D	16,0	16,0	34,0	90,0	0,5	4	■
554160R100Z4.3-SIRON-A	02679563	2	D	16,0	16,0	34,0	90,0	1,0	4	■
554160R200Z4.3-SIRON-A	02810436	2	D	16,0	16,0	34,0	90,0	2,0	4	■
554160R310Z4.3-SIRON-A	02810438	2	D	16,0	16,0	34,0	90,0	3,1	4	■
554160R400Z4.3-SIRON-A	02810440	2	D	16,0	16,0	34,0	90,0	4,0	4	■
554200R050Z4.3-SIRON-A	02679567	2	D	20,0	20,0	42,0	100,0	0,5	4	■
554200R100Z4.3-SIRON-A	02679570	2	D	20,0	20,0	42,0	100,0	1,0	4	■
554200R250Z4.3-SIRON-A	02810442	2	D	20,0	20,0	42,0	100,0	2,5	4	■
554200R310Z4.3-SIRON-A	02810444	2	D	20,0	20,0	42,0	100,0	3,1	4	■
554200R400Z4.3-SIRON-A	02810446	2	D	20,0	20,0	42,0	100,0	4,0	4	■
554250R050Z4.3-SIRON-A	02679574	2	D	25,0	25,0	52,0	125,0	0,5	4	■
554250R100Z4.3-SIRON-A	02679576	2	D	25,0	25,0	52,0	125,0	1,0	4	■
554250R310Z4.3-SIRON-A	02810448	2	D	25,0	25,0	52,0	125,0	3,1	4	■
554250R400Z4.3-SIRON-A	02810451	2	D	25,0	25,0	52,0	125,0	4,0	4	■

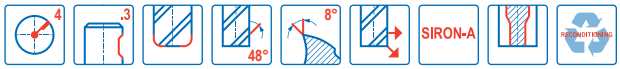
■ Stocked standard.

JS554

High performance – Universal – Square – 4 Flutes – Weldon – Corner radius







- Tolerances:
- DMM= h5
- DC= e7
- RE= ±0,02 mm
- Regrind possible if DC is ≥Ø6

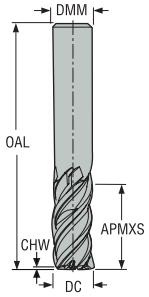
Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Weldon
				mm	mm	mm	mm	mm	mm	mm		
JS554030G2R015.3Z4-SIRA	02881706	2	G	3,0	6,0	7,0	57,0	10,0	2,85	0,15	4	☐
JS554040G2R020.3Z4-SIRA	02881946	2	G	4,0	6,0	10,0	57,0	13,0	3,8	0,2	4	☐
JS554050G2R020.3Z4-SIRA	02881708	2	G	5,0	6,0	12,0	57,0	16,0	4,75	0,2	4	☐
JS554060E2R020.3Z4-SIRA	03029977	2	E	6,0	6,0	14,0	57,0	18,0	5,7	0,2	4	☐
JS554060E2R050.3Z4-SIRA	02881709	2	E	6,0	6,0	14,0	57,0	18,0	5,7	0,5	4	☐
JS554060E2R100.3Z4-SIRA	03029952	2	E	6,0	6,0	14,0	57,0	18,0	5,7	1,0	4	☐
JS554080E2R050.3Z4-SIRA	03029979	2	E	8,0	8,0	18,0	63,0	25,0	7,6	0,5	4	☐
JS554080E2R100.3Z4-SIRA	02881710	2	E	8,0	8,0	18,0	63,0	25,0	7,6	1,0	4	☐
JS554100E2R050.3Z4-SIRA	03029981	2	E	10,0	10,0	22,0	72,0	29,0	9,5	0,5	4	☐
JS554100E2R100.3Z4-SIRA	03029982	2	E	10,0	10,0	22,0	72,0	29,0	9,5	1,0	4	☐
JS554100E2R200.3Z4-SIRA	02881711	2	E	10,0	10,0	22,0	72,0	29,0	9,5	2,0	4	☐
JS554100E2R250.3Z4-SIRA	03029953	2	E	10,0	10,0	22,0	72,0	29,0	9,5	2,5	4	☐
JS554120E2R050.3Z4-SIRA	03029984	2	E	12,0	12,0	26,0	83,0	35,0	11,4	0,5	4	■
JS554120E2R100.3Z4-SIRA	03029985	2	E	12,0	12,0	26,0	83,0	35,0	11,4	1,0	4	☐
JS554120E2R200.3Z4-SIRA	02881712	2	E	12,0	12,0	26,0	83,0	35,0	11,4	2,0	4	☐
JS554120E2R250.3Z4-SIRA	02881713	2	E	12,0	12,0	26,0	83,0	35,0	11,4	2,5	4	☐
JS554120E2R300.3Z4-SIRA	03029954	2	E	12,0	12,0	26,0	83,0	35,0	11,4	3,0	4	☐
JS554160E2R050.3Z4-SIRA	03029987	2	E	16,0	16,0	34,0	92,0	42,0	15,2	0,5	4	☐
JS554160E2R600.3Z4-SIRA	03093687	2	E	16,0	16,0	34,0	92,0	42,0	15,2	6,0	4	☐
JS554200E2R200.3Z4-SIRA	02881714	2	E	20,0	20,0	42,0	110,0	54,0	19,0	2,0	4	☐
JS554200E2R600.3Z4-SIRA	03029955	2	E	20,0	20,0	42,0	109,0	54,0	19,0	6,0	4	☐
JS554250E2R600.3Z4-SIRA	03093688	2	E	25,0	25,0	52,0	125,0	65,0	23,8	6,0	4	☐

■ Stocked standard. ☐ Weldon available. Delivery time is 3 days.

JS554

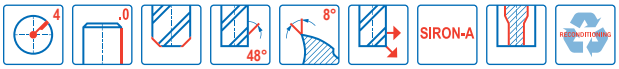
High performance – Universal – Square – 4 Flutes – Cylindrical – Chamfer – *Inch*





D

- Tolerances:
- DMM=h5
- DC=e7
- Regrind possible if DC is ≥Ø.375

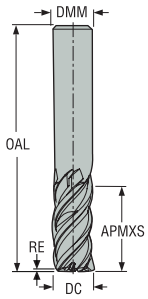


Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	CHW	PCEDC	Cylindrical
				inch	inch	inch	inch	inch		
5540250Z4.0-SIRON-A	02711329	2	D	0.250	0.250	0.500	2.500	0.003	4	■
5540312Z4.0-SIRON-A	02711340	2	D	0.313	0.313	0.625	2.500	0.004	4	■
5540375Z4.0-SIRON-A	02711344	2	D	0.375	0.375	0.750	3.000	0.005	4	■
5540500Z4.0-SIRON-A	02711611	2	D	0.500	0.500	1.000	3.500	0.006	4	■
5540625Z4.0-SIRON-A	02711626	2	D	0.625	0.625	1.250	3.750	0.008	4	■
5540750Z4.0-SIRON-A	02711643	2	D	0.750	0.750	1.500	4.000	0.010	4	■
5541000Z4.0-SIRON-A	02711660	2	D	1.000	1.000	2.000	5.000	0.012	4	■

■ Stocked standard.

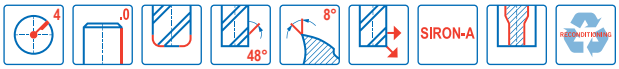
JS554

High performance – Universal – Square – 4 Flutes – Cylindrical – Corner radius – *Inch*



D





- Tolerances:
- DMM=h5
- DC=e7
- RE= ±.0008 *inch*
- Regrind possible if DC is ≥Ø.375

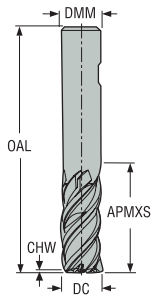
Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	RE	PCEDC	Cylindrical
				inch	inch	inch	inch	inch		
5540250R015Z4.0-SIRON-A	02711335	2	D	0.250	0.250	0.500	2.500	0.015	4	■
5540312R015Z4.0-SIRON-A	02711341	2	D	0.313	0.313	0.625	2.500	0.015	4	■
5540375R015Z4.0-SIRON-A	02711588	2	D	0.375	0.375	0.750	3.000	0.015	4	■
5540375R030Z4.0-SIRON-A	02711589	2	D	0.375	0.375	0.750	3.000	0.030	4	■
5540500R015Z4.0-SIRON-A	02711614	2	D	0.500	0.500	1.000	3.500	0.015	4	■
5540500R030Z4.0-SIRON-A	02711616	2	D	0.500	0.500	1.000	3.500	0.030	4	■
5540500R125Z4.0-SIRON-A	02842370	2	D	0.500	0.500	1.000	3.500	0.125	4	■
5540625R015Z4.0-SIRON-A	02711629	2	D	0.625	0.625	1.250	3.750	0.015	4	■
5540625R030Z4.0-SIRON-A	02711631	2	D	0.625	0.625	1.250	3.750	0.030	4	■
5540625R125Z4.0-SIRON-A	02842371	2	D	0.625	0.625	1.250	3.750	0.125	4	■
5540750R030Z4.0-SIRON-A	02711647	2	D	0.750	0.750	1.500	4.000	0.030	4	■
5540750R060Z4.0-SIRON-A	02711655	2	D	0.750	0.750	1.500	4.000	0.060	4	■

■ Stocked standard.

JS554

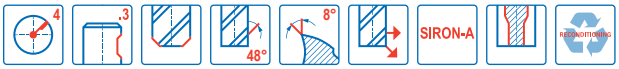
High performance – Universal – Square – 4 Flutes – Weldon – Chamfer – inch





D

- Tolerances:
- DMM=h5
- DC=e7
- Regrind possible

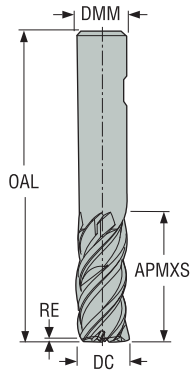


Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	CHW	PCEDC	Weldon
				inch	inch	inch	inch	inch		
5540500Z4.3-SIRON-A	02711608	2	D	0.500	0.500	1.000	3.500	0.006	4	■
5540750Z4.3-SIRON-A	02711632	2	D	0.750	0.750	1.500	4.000	0.010	4	■

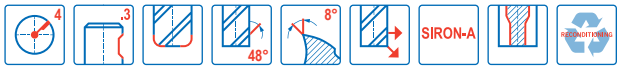
■ Stocked standard.

JS554

High performance – Universal – Square – 4 Flutes – Weldon – Corner radius – *Inch*



D





- Tolerances:
- DMM=h5
- DC=e7
- RE= ±.0008 *inch*
- Regrind possible

Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	RE	PCEDC	Weldon
				inch	inch	inch	inch	inch		
5540500R015Z4.3-SIRON-A	02711613	2	D	0.500	0.500	1.000	3.500	0.015	4	■
5540500R030Z4.3-SIRON-A	02711615	2	D	0.500	0.500	1.000	3.500	0.030	4	■
5540500R125Z4.3-SIRON-A	02856456	2	D	0.500	0.500	1.000	3.500	0.125	4	□
5540625R125Z4.3-SIRON-A	02856457	2	D	0.625	0.625	1.250	3.750	0.125	4	□
5541000R060Z4.3-SIRON-A	02711663	2	D	1.000	1.000	2.000	5.000	0.060	4	■

■ Stocked standard. □ Weldon available. Delivery time is 3 days.

Cutting data – JS554 Side milling roughing

SMG		a_e/DC	a_p/DC	f_z										v_c
				3	4	5	6	8	10	12	16	20	25	
P1	M/A/D/E	0.400 *0,400*	1.0 *1,0*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.15 *0,0060*	0.17 *0,0065*	0.19 *0,0075*	215 (190 — 240) *710 (630 — 780)*
P2	M/A/D/E	0.400 *0,400*	1.0 *1,0*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.15 *0,0060*	0.17 *0,0065*	0.19 *0,0075*	210 (190 — 240) *690 (630 — 780)*
P3	M/A/D/E	0.400 *0,400*	1.0 *1,0*	0.028 *0,0011*	0.038 *0,0015*	0.048 *0,0019*	0.055 *0,0022*	0.075 *0,0030*	0.095 *0,0038*	0.11 *0,0044*	0.14 *0,0055*	0.16 *0,0065*	0.18 *0,0070*	185 (160 — 200) *610 (530 — 650)*
P4	M/A/D/E	0.400 *0,400*	1.0 *1,0*	0.028 *0,0011*	0.038 *0,0015*	0.046 *0,0018*	0.055 *0,0022*	0.075 *0,0030*	0.095 *0,0038*	0.11 *0,0044*	0.14 *0,0055*	0.16 *0,0065*	0.18 *0,0070*	160 (140 — 180) *520 (460 — 590)*
P5	M/A/D/E	0.400 *0,400*	1.0 *1,0*	0.028 *0,0011*	0.036 *0,0014*	0.046 *0,0018*	0.055 *0,0022*	0.075 *0,0030*	0.090 *0,0036*	0.11 *0,0044*	0.13 *0,0050*	0.16 *0,0065*	0.18 *0,0070*	155 (140 — 170) *510 (460 — 550)*
P6	M/A/D/E	0.400 *0,400*	1.0 *1,0*	0.028 *0,0011*	0.036 *0,0014*	0.046 *0,0018*	0.055 *0,0022*	0.075 *0,0030*	0.090 *0,0036*	0.11 *0,0044*	0.13 *0,0050*	0.15 *0,0060*	0.17 *0,0065*	175 (160 — 200) *570 (530 — 650)*
P7	M/A/D/E	0.400 *0,400*	1.0 *1,0*	0.028 *0,0011*	0.036 *0,0014*	0.046 *0,0018*	0.055 *0,0022*	0.075 *0,0030*	0.090 *0,0036*	0.11 *0,0044*	0.13 *0,0050*	0.15 *0,0060*	0.17 *0,0065*	165 (150 — 180) *540 (500 — 590)*
P8	M/A/D/E	0.400 *0,400*	1.0 *1,0*	0.028 *0,0011*	0.038 *0,0015*	0.048 *0,0019*	0.055 *0,0022*	0.075 *0,0030*	0.095 *0,0038*	0.11 *0,0044*	0.14 *0,0055*	0.16 *0,0065*	0.18 *0,0070*	155 (140 — 170) *510 (460 — 550)*
P11	M/A/D/E	0.400 *0,400*	1.0 *1,0*	0.026 *0,0010*	0.036 *0,0014*	0.044 *0,0017*	0.055 *0,0022*	0.070 *0,0028*	0.090 *0,0036*	0.11 *0,0044*	0.13 *0,0050*	0.15 *0,0060*	0.17 *0,0065*	140 (130 — 150) *460 (430 — 490)*
P12	M/A/D/E	0.400 *0,400*	1.0 *1,0*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	0.090 *0,0036*	0.10 *0,0040*	0.12 *0,0048*	90 (79 — 100) *295 (260 — 320)*
M1	E	0.400 *0,400*	1.0 *1,0*	0.020 *0,00080*	0.026 *0,0010*	0.034 *0,0013*	0.040 *0,0016*	0.055 *0,0022*	0.065 *0,0026*	0.080 *0,0032*	0.10 *0,0040*	0.11 *0,0044*	0.13 *0,0050*	110 (96 — 120) *360 (320 — 390)*
M2	E	0.400 *0,400*	1.0 *1,0*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	0.090 *0,0036*	0.10 *0,0040*	0.12 *0,0048*	90 (79 — 100) *295 (260 — 320)*
M3	E	0.400 *0,400*	0.90 *0,90*	0.015 *0,00060*	0.020 *0,00080*	0.025 *0,0010*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.075 *0,0030*	0.085 *0,0034*	0.095 *0,0038*	55 (45 — 66) *180 (150 — 210)*
M4	E	0.400 *0,400*	0.90 *0,90*	0.013 *0,00050*	0.018 *0,00070*	0.022 *0,00085*	0.026 *0,0010*	0.036 *0,0014*	0.044 *0,0017*	0.055 *0,0022*	0.065 *0,0026*	0.075 *0,0030*	0.085 *0,0034*	43 (35 — 51) *140 (120 — 160)*
M5	E	0.400 *0,400*	0.90 *0,90*	0.013 *0,00050*	0.018 *0,00070*	0.022 *0,00085*	0.026 *0,0010*	0.036 *0,0014*	0.044 *0,0017*	0.055 *0,0022*	0.065 *0,0026*	0.075 *0,0030*	0.085 *0,0034*	36 (29 — 42) *120 (96 — 130)*
K1	E	0.400 *0,400*	1.2 *1,2*	0.024 *0,00095*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	0.12 *0,0048*	0.14 *0,0055*	0.16 *0,0065*	175 (160 — 190) *570 (530 — 620)*
K2	E	0.400 *0,400*	1.2 *1,2*	0.022 *0,00085*	0.030 *0,0012*	0.038 *0,0015*	0.044 *0,0017*	0.060 *0,0024*	0.075 *0,0030*	0.090 *0,0036*	0.11 *0,0044*	0.13 *0,0050*	0.14 *0,0055*	155 (140 — 170) *510 (460 — 550)*
K3	E	0.400 *0,400*	1.2 *1,2*	0.022 *0,00085*	0.030 *0,0012*	0.038 *0,0015*	0.044 *0,0017*	0.060 *0,0024*	0.075 *0,0030*	0.090 *0,0036*	0.11 *0,0044*	0.13 *0,0050*	0.14 *0,0055*	130 (120 — 140) *425 (400 — 450)*
K4	E	0.400 *0,400*	1.2 *1,2*	0.022 *0,00085*	0.030 *0,0012*	0.038 *0,0015*	0.044 *0,0017*	0.060 *0,0024*	0.075 *0,0030*	0.090 *0,0036*	0.11 *0,0044*	0.13 *0,0050*	0.14 *0,0055*	125 (110 — 140) *410 (370 — 450)*
K5	E	0.400 *0,400*	1.0 *1,0*	0.024 *0,00095*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	0.12 *0,0048*	0.14 *0,0055*	0.16 *0,0065*	155 (140 — 170) *510 (460 — 550)*
K6	E	0.400 *0,400*	1.0 *1,0*	0.028 *0,0011*	0.036 *0,0014*	0.046 *0,0018*	0.055 *0,0022*	0.070 *0,0028*	0.090 *0,0036*	0.11 *0,0044*	0.13 *0,0050*	0.15 *0,0060*	0.17 *0,0065*	220 (190 — 250) *720 (630 — 820)*
K7	E	0.400 *0,400*	1.0 *1,0*	0.024 *0,00095*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	0.12 *0,0048*	0.14 *0,0055*	0.16 *0,0065*	195 (170 — 220) *640 (560 — 720)*

For cutting data recalculations, see pages 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

Cutting data – JS554 Side milling roughing

SMG		a_e/DC	a_p/DC	f_z										v_c
				3	4	5	6	8	10	12	16	20	25	
N1	E	0.500 *0,500*	0.90 *0,90*	0.024 *0,00095*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	0.12 *0,0048*	0.13 *0,0050*	0.15 *0,0060*	610 (510 — 710) *2000 (1700 — 2300)*
N2	E	0.500 *0,500*	0.90 *0,90*	0.024 *0,00095*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	0.12 *0,0048*	0.13 *0,0050*	0.15 *0,0060*	390 (330 — 450) *1275 (1100 — 1400)*
N11	E	0.500 *0,500*	1.1 *1,1*	0.024 *0,00095*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	0.12 *0,0048*	0.13 *0,0050*	0.15 *0,0060*	320 (270 — 370) *1050 (890 — 1200)*
S11	E	0.400 *0,400*	0.70 *0,70*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	0.090 *0,0036*	0.10 *0,0040*	0.12 *0,0048*	100 (72 — 120) *330 (240 — 390)*
S12	E	0.400 *0,400*	0.70 *0,70*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	0.090 *0,0036*	0.10 *0,0040*	0.12 *0,0048*	75 (56 — 99) *245 (190 — 320)*
S13	E	0.400 *0,400*	0.70 *0,70*	0.016 *0,00065*	0.022 *0,00085*	0.026 *0,0010*	0.032 *0,0013*	0.042 *0,0017*	0.055 *0,0022*	0.065 *0,0026*	0.080 *0,0032*	0.090 *0,0036*	0.10 *0,0040*	60 (44 — 78) *195 (150 — 250)*
H5	M/A/D	0.200 *0,200*	0.90 *0,90*	0.022 *0,00085*	0.030 *0,0012*	0.038 *0,0015*	0.046 *0,0018*	0.060 *0,0024*	0.075 *0,0030*	0.090 *0,0036*	0.11 *0,0044*	0.13 *0,0050*	0.14 *0,0055*	75 (59 — 88) *245 (200 — 280)*
H8	M/A/D	0.200 *0,200*	0.90 *0,90*	0.017 *0,00065*	0.022 *0,00085*	0.028 *0,0011*	0.034 *0,0013*	0.046 *0,0018*	0.055 *0,0022*	0.070 *0,0028*	0.085 *0,0034*	0.095 *0,0038*	0.11 *0,0044*	80 (63 — 93) *260 (210 — 300)*
H11	M/A/D	0.200 *0,200*	0.90 *0,90*	0.022 *0,00085*	0.030 *0,0012*	0.038 *0,0015*	0.046 *0,0018*	0.060 *0,0024*	0.075 *0,0030*	0.090 *0,0036*	0.11 *0,0044*	0.13 *0,0050*	0.14 *0,0055*	95 (75 — 110) *310 (250 — 360)*
H12	M/A/D	0.200 *0,200*	0.90 *0,90*	0.017 *0,00065*	0.022 *0,00085*	0.028 *0,0011*	0.034 *0,0013*	0.046 *0,0018*	0.055 *0,0022*	0.070 *0,0028*	0.085 *0,0034*	0.095 *0,0038*	0.11 *0,0044*	90 (73 — 100) *295 (240 — 320)*
H21	M/A/D	0.200 *0,200*	0.90 *0,90*	0.017 *0,00065*	0.022 *0,00085*	0.028 *0,0011*	0.034 *0,0013*	0.046 *0,0018*	0.055 *0,0022*	0.070 *0,0028*	0.085 *0,0034*	0.095 *0,0038*	0.11 *0,0044*	155 (110 — 190) *510 (370 — 620)*
TS1	A	0.500 *0,500*	1.0 *1,0*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.15 *0,0060*	0.17 *0,0065*	0.19 *0,0075*	285 (180 — 400) *940 (600 — 1300)*
TP1	A	0.500 *0,500*	1.0 *1,0*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.15 *0,0060*	0.17 *0,0065*	0.19 *0,0075*	295 (180 — 410) *970 (600 — 1300)*
GR1	A	0.500 *0,500*	1.1 *1,1*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.15 *0,0060*	0.17 *0,0065*	0.19 *0,0075*	580 (470 — 690) *1900 (1600 — 2200)*

For cutting data recalculations, see pages 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

Cutting data – JS554 Slot milling

SMG		a_p/DC	f_z										v_c
			3	4	5	6	8	10	12	16	20	25	
P1	M/A/D/E	1.0	0.018	0.024	0.030	0.036	0.048	0.060	0.070	0.095	0.12	0.15	195 (170 — 220)
		1,0	*0,00070*	*0,00095*	*0,0012*	*0,0014*	*0,0019*	*0,0024*	*0,0028*	*0,0038*	*0,0048*	*0,0060*	*640 (560 — 720)*
P2	M/A/D/E	1.0	0.018	0.024	0.030	0.036	0.048	0.060	0.070	0.095	0.12	0.15	190 (170 — 210)
		1,0	*0,00070*	*0,00095*	*0,0012*	*0,0014*	*0,0019*	*0,0024*	*0,0028*	*0,0038*	*0,0048*	*0,0060*	*620 (560 — 680)*
P3	M/A/D/E	1.0	0.018	0.024	0.030	0.036	0.048	0.060	0.070	0.095	0.12	0.15	165 (140 — 180)
		1,0	*0,00070*	*0,00095*	*0,0012*	*0,0014*	*0,0019*	*0,0024*	*0,0028*	*0,0038*	*0,0048*	*0,0060*	*540 (460 — 590)*
P4	M/A/D/E	1.0	0.018	0.024	0.030	0.036	0.048	0.060	0.070	0.095	0.12	0.15	145 (130 — 160)
		1,0	*0,00070*	*0,00095*	*0,0012*	*0,0014*	*0,0019*	*0,0024*	*0,0028*	*0,0038*	*0,0048*	*0,0060*	*475 (430 — 520)*
P5	M/A/D/E	1.0	0.018	0.024	0.030	0.036	0.048	0.060	0.070	0.095	0.12	0.15	135 (120 — 150)
		1,0	*0,00070*	*0,00095*	*0,0012*	*0,0014*	*0,0019*	*0,0024*	*0,0028*	*0,0038*	*0,0048*	*0,0060*	*445 (400 — 490)*
P6	M/A/D/E	1.0	0.018	0.024	0.030	0.036	0.048	0.060	0.070	0.095	0.12	0.15	155 (140 — 170)
		1,0	*0,00070*	*0,00095*	*0,0012*	*0,0014*	*0,0019*	*0,0024*	*0,0028*	*0,0038*	*0,0048*	*0,0060*	*510 (460 — 550)*
P7	M/A/D/E	1.0	0.018	0.024	0.030	0.036	0.048	0.060	0.070	0.095	0.12	0.15	145 (130 — 160)
		1,0	*0,00070*	*0,00095*	*0,0012*	*0,0014*	*0,0019*	*0,0024*	*0,0028*	*0,0038*	*0,0048*	*0,0060*	*475 (430 — 520)*
P8	M/A/D/E	1.0	0.018	0.024	0.030	0.036	0.048	0.060	0.070	0.095	0.12	0.15	135 (120 — 150)
		1,0	*0,00070*	*0,00095*	*0,0012*	*0,0014*	*0,0019*	*0,0024*	*0,0028*	*0,0038*	*0,0048*	*0,0060*	*445 (400 — 490)*
P11	M/A/D/E	0.80	0.012	0.016	0.020	0.024	0.032	0.040	0.048	0.065	0.080	0.10	130 (120 — 140)
		0,80	*0,00048*	*0,00065*	*0,00080*	*0,00095*	*0,0013*	*0,0016*	*0,0019*	*0,0026*	*0,0032*	*0,0040*	*425 (400 — 450)*
P12	M/A/D/E	0.80	0.012	0.016	0.020	0.024	0.032	0.040	0.048	0.065	0.080	0.10	80 (69 — 87)
		0,80	*0,00048*	*0,00065*	*0,00080*	*0,00095*	*0,0013*	*0,0016*	*0,0019*	*0,0026*	*0,0032*	*0,0040*	*260 (230 — 280)*
M1	E	0.80	0.012	0.016	0.020	0.024	0.032	0.040	0.048	0.065	0.080	0.10	95 (85 — 100)
		0,80	*0,00048*	*0,00065*	*0,00080*	*0,00095*	*0,0013*	*0,0016*	*0,0019*	*0,0026*	*0,0032*	*0,0040*	*310 (280 — 320)*
M2	E	0.80	0.012	0.016	0.020	0.024	0.032	0.040	0.048	0.065	0.080	0.10	80 (69 — 87)
		0,80	*0,00048*	*0,00065*	*0,00080*	*0,00095*	*0,0013*	*0,0016*	*0,0019*	*0,0026*	*0,0032*	*0,0040*	*260 (230 — 280)*
M3	E	0.60	0.0095	0.013	0.016	0.019	0.025	0.032	0.038	0.050	0.065	0.080	48 (39 — 57)
		0,60	*0,00038*	*0,00050*	*0,00065*	*0,00075*	*0,0010*	*0,0013*	*0,0015*	*0,0020*	*0,0026*	*0,0032*	*155 (130 — 180)*
M4	E	0.60	0.0095	0.013	0.016	0.019	0.025	0.032	0.038	0.050	0.065	0.080	36 (29 — 43)
		0,60	*0,00038*	*0,00050*	*0,00065*	*0,00075*	*0,0010*	*0,0013*	*0,0015*	*0,0020*	*0,0026*	*0,0032*	*120 (96 — 140)*
M5	E	0.60	0.0095	0.013	0.016	0.019	0.025	0.032	0.038	0.050	0.065	0.080	30 (25 — 36)
		0,60	*0,00038*	*0,00050*	*0,00065*	*0,00075*	*0,0010*	*0,0013*	*0,0015*	*0,0020*	*0,0026*	*0,0032*	*100 (83 — 110)*
K1	E	1.0	0.015	0.020	0.025	0.030	0.040	0.050	0.060	0.080	0.10	0.13	155 (140 — 170)
		1,0	*0,00060*	*0,00080*	*0,0010*	*0,0012*	*0,0016*	*0,0020*	*0,0024*	*0,0032*	*0,0040*	*0,0050*	*510 (460 — 550)*
K2	E	1.0	0.015	0.020	0.025	0.030	0.040	0.050	0.060	0.080	0.10	0.13	135 (120 — 150)
		1,0	*0,00060*	*0,00080*	*0,0010*	*0,0012*	*0,0016*	*0,0020*	*0,0024*	*0,0032*	*0,0040*	*0,0050*	*445 (400 — 490)*
K3	E	1.0	0.015	0.020	0.025	0.030	0.040	0.050	0.060	0.080	0.10	0.13	115 (110 — 120)
		1,0	*0,00060*	*0,00080*	*0,0010*	*0,0012*	*0,0016*	*0,0020*	*0,0024*	*0,0032*	*0,0040*	*0,0050*	*375 (370 — 390)*
K4	E	1.0	0.015	0.020	0.025	0.030	0.040	0.050	0.060	0.080	0.10	0.13	110 (96 — 120)
		1,0	*0,00060*	*0,00080*	*0,0010*	*0,0012*	*0,0016*	*0,0020*	*0,0024*	*0,0032*	*0,0040*	*0,0050*	*360 (320 — 390)*
K5	E	0.70	0.015	0.020	0.025	0.030	0.040	0.050	0.060	0.080	0.10	0.13	135 (120 — 150)
		0,70	*0,00060*	*0,00080*	*0,0010*	*0,0012*	*0,0016*	*0,0020*	*0,0024*	*0,0032*	*0,0040*	*0,0050*	*445 (400 — 490)*
K6	E	0.70	0.015	0.020	0.025	0.030	0.040	0.050	0.060	0.080	0.10	0.13	200 (180 — 220)
		0,70	*0,00060*	*0,00080*	*0,0010*	*0,0012*	*0,0016*	*0,0020*	*0,0024*	*0,0032*	*0,0040*	*0,0050*	*660 (600 — 720)*
K7	E	0.70	0.015	0.020	0.025	0.030	0.040	0.050	0.060	0.080	0.10	0.13	175 (150 — 190)
		0,70	*0,00060*	*0,00080*	*0,0010*	*0,0012*	*0,0016*	*0,0020*	*0,0024*	*0,0032*	*0,0040*	*0,0050*	*570 (500 — 620)*

For cutting data recalculations, see pages 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (sf/min)
f_z = mm/tooth (*in*/tooth)
a_p = mm/DC (*in*/DC) = factor
a_e = mm/DC (*in*/DC) = factor
All cutting data are target values

Cutting data – JS554 Slot milling

SMG		a_p/DC	f_z										v_c
			3	4	5	6	8	10	12	16	20	25	
N1	E	0.50 *0,50*	0.015 *0,00060*	0.020 *0,00080*	0.025 *0,0010*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.13 *0,0050*	570 (480 — 670) *1875 (1600 — 2100)*
N2	E	0.50 *0,50*	0.015 *0,00060*	0.020 *0,00080*	0.025 *0,0010*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.13 *0,0050*	370 (310 — 430) *1225 (1100 — 1400)*
N3	E	0.50 *0,50*	0.015 *0,00060*	0.020 *0,00080*	0.025 *0,0010*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.13 *0,0050*	245 (210 — 280) *800 (690 — 910)*
N11	E	0.60 *0,60*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	0.095 *0,0038*	0.12 *0,0048*	0.15 *0,0060*	290 (250 — 330) *950 (830 — 1000)*
S1	E	0.30 *0,30*	0.0095 *0,00038*	0.013 *0,00050*	0.016 *0,00065*	0.019 *0,00075*	0.025 *0,0010*	0.032 *0,0013*	0.038 *0,0015*	0.050 *0,0020*	0.065 *0,0026*	0.080 *0,0032*	30 (25 — 34) *100 (83 — 110)*
S2	E	0.30 *0,30*	0.0095 *0,00038*	0.013 *0,00050*	0.016 *0,00065*	0.019 *0,00075*	0.025 *0,0010*	0.032 *0,0013*	0.038 *0,0015*	0.050 *0,0020*	0.065 *0,0026*	0.080 *0,0032*	27 (17 — 38) *90 (56 — 120)*
S3	E	0.30 *0,30*	0.0095 *0,00038*	0.013 *0,00050*	0.016 *0,00065*	0.019 *0,00075*	0.025 *0,0010*	0.032 *0,0013*	0.038 *0,0015*	0.050 *0,0020*	0.065 *0,0026*	0.080 *0,0032*	23 (15 — 32) *75 (50 — 100)*
S11	E	0.50 *0,50*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	0.025 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	0.050 *0,0020*	0.065 *0,0026*	0.080 *0,0032*	0.10 *0,0040*	85 (63 — 110) *280 (210 — 360)*
S12	E	0.50 *0,50*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	0.025 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	0.050 *0,0020*	0.065 *0,0026*	0.080 *0,0032*	0.10 *0,0040*	65 (48 — 86) *215 (160 — 280)*
S13	E	0.50 *0,50*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	0.025 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	0.050 *0,0020*	0.065 *0,0026*	0.080 *0,0032*	0.10 *0,0040*	50 (38 — 66) *165 (130 — 210)*
H5	M/A/D	0.40 *0,40*	0.0060 *0,00024*	0.0080 *0,00032*	0.010 *0,00040*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	0.025 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	0.050 *0,0020*	65 (52 — 76) *215 (180 — 240)*
H8	M/A/D	0.40 *0,40*	0.0060 *0,00024*	0.0080 *0,00032*	0.010 *0,00040*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	0.025 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	0.050 *0,0020*	65 (52 — 76) *215 (180 — 240)*
H11	M/A/D	0.40 *0,40*	0.0060 *0,00024*	0.0080 *0,00032*	0.010 *0,00040*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	0.025 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	0.050 *0,0020*	80 (66 — 97) *260 (220 — 310)*
H12	M/A/D	0.40 *0,40*	0.0060 *0,00024*	0.0080 *0,00032*	0.010 *0,00040*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	0.025 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	0.050 *0,0020*	75 (60 — 89) *245 (200 — 290)*
H21	M/A/D	0.40 *0,40*	0.0060 *0,00024*	0.0080 *0,00032*	0.010 *0,00040*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	0.025 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	0.050 *0,0020*	125 (90 — 160) *410 (300 — 520)*
TS1	A	0.70 *0,70*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.15 *0,0060*	0.17 *0,0065*	0.19 *0,0075*	240 (150 — 330) *790 (500 — 1000)*
TP1	A	0.70 *0,70*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.15 *0,0060*	0.17 *0,0065*	0.19 *0,0075*	250 (150 — 340) *820 (500 — 1100)*
GR1	A	0.80 *0,80*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.15 *0,0060*	0.17 *0,0065*	0.19 *0,0075*	485 (390 — 580) *1600 (1300 — 1900)*

For cutting data recalculations, see pages 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (sf/min)
f_z = mm/tooth (*in*/tooth)
a_p = mm/DC (*in*/DC) = factor
a_e = mm/DC (*in*/DC) = factor
All cutting data are target values

Cutting data – JS554 Side milling roughing – *Inch*

SMG		a_e/DC	a_p/DC	f_z							v_c
				1/4	5/16	3/8	1/2	5/8	3/4	1	
P1	M/A/D/E	0.400 *0,400*	1.0 *1,0*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	0.12 *0,0048*	0.14 *0,0055*	0.16 *0,0065*	0.19 *0,0075*	215 (190 — 240) *710 (630 — 780)*
P2	M/A/D/E	0.400 *0,400*	1.0 *1,0*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	0.13 *0,0050*	0.15 *0,0060*	0.17 *0,0065*	0.20 *0,0080*	210 (190 — 240) *690 (630 — 780)*
P3	M/A/D/E	0.400 *0,400*	1.0 *1,0*	0.060 *0,0024*	0.075 *0,0030*	0.090 *0,0036*	0.12 *0,0048*	0.14 *0,0055*	0.16 *0,0065*	0.18 *0,0070*	185 (160 — 200) *610 (530 — 650)*
P4	M/A/D/E	0.400 *0,400*	1.0 *1,0*	0.060 *0,0024*	0.075 *0,0030*	0.090 *0,0036*	0.12 *0,0048*	0.14 *0,0055*	0.15 *0,0060*	0.18 *0,0070*	160 (140 — 180) *520 (460 — 590)*
P5	M/A/D/E	0.400 *0,400*	1.0 *1,0*	0.060 *0,0024*	0.075 *0,0030*	0.085 *0,0034*	0.11 *0,0044*	0.13 *0,0050*	0.15 *0,0060*	0.18 *0,0070*	155 (140 — 170) *510 (460 — 550)*
P6	M/A/D/E	0.400 *0,400*	1.0 *1,0*	0.060 *0,0024*	0.070 *0,0028*	0.085 *0,0034*	0.11 *0,0044*	0.13 *0,0050*	0.15 *0,0060*	0.18 *0,0070*	175 (160 — 200) *570 (530 — 650)*
P7	M/A/D/E	0.400 *0,400*	1.0 *1,0*	0.060 *0,0024*	0.070 *0,0028*	0.085 *0,0034*	0.11 *0,0044*	0.13 *0,0050*	0.15 *0,0060*	0.18 *0,0070*	165 (150 — 180) *540 (500 — 590)*
P8	M/A/D/E	0.400 *0,400*	1.0 *1,0*	0.060 *0,0024*	0.075 *0,0030*	0.090 *0,0036*	0.12 *0,0048*	0.14 *0,0055*	0.16 *0,0065*	0.18 *0,0070*	155 (140 — 170) *510 (460 — 550)*
P11	M/A/D/E	0.400 *0,400*	1.0 *1,0*	0.055 *0,0022*	0.070 *0,0028*	0.085 *0,0034*	0.11 *0,0044*	0.13 *0,0050*	0.15 *0,0060*	0.17 *0,0065*	140 (130 — 150) *460 (430 — 490)*
P12	M/A/D/E	0.400 *0,400*	1.0 *1,0*	0.038 *0,0015*	0.048 *0,0019*	0.060 *0,0024*	0.075 *0,0030*	0.090 *0,0036*	0.10 *0,0040*	0.12 *0,0048*	90 (79 — 100) *295 (260 — 320)*
M1	E	0.400 *0,400*	1.0 *1,0*	0.042 *0,0017*	0.055 *0,0022*	0.065 *0,0026*	0.085 *0,0034*	0.10 *0,0040*	0.11 *0,0044*	0.13 *0,0050*	110 (96 — 120) *360 (320 — 390)*
M2	E	0.400 *0,400*	1.0 *1,0*	0.038 *0,0015*	0.048 *0,0019*	0.060 *0,0024*	0.075 *0,0030*	0.090 *0,0036*	0.10 *0,0040*	0.12 *0,0048*	90 (79 — 100) *295 (260 — 320)*
M3	E	0.400 *0,400*	0.90 *0,90*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.065 *0,0026*	0.075 *0,0030*	0.085 *0,0034*	0.10 *0,0040*	55 (45 — 66) *180 (150 — 210)*
M4	E	0.400 *0,400*	0.90 *0,90*	0.028 *0,0011*	0.036 *0,0014*	0.042 *0,0017*	0.055 *0,0022*	0.065 *0,0026*	0.075 *0,0030*	0.085 *0,0034*	43 (35 — 51) *140 (120 — 160)*
M5	E	0.400 *0,400*	0.90 *0,90*	0.028 *0,0011*	0.036 *0,0014*	0.042 *0,0017*	0.055 *0,0022*	0.065 *0,0026*	0.075 *0,0030*	0.085 *0,0034*	36 (29 — 42) *120 (96 — 130)*
K1	E	0.400 *0,400*	1.2 *1,2*	0.050 *0,0020*	0.065 *0,0026*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.13 *0,0050*	0.16 *0,0065*	175 (160 — 190) *570 (530 — 620)*
K2	E	0.400 *0,400*	1.2 *1,2*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	0.090 *0,0036*	0.11 *0,0044*	0.12 *0,0048*	0.14 *0,0055*	155 (140 — 170) *510 (460 — 550)*
K3	E	0.400 *0,400*	1.2 *1,2*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	0.090 *0,0036*	0.11 *0,0044*	0.12 *0,0048*	0.14 *0,0055*	130 (120 — 140) *425 (400 — 450)*
K4	E	0.400 *0,400*	1.2 *1,2*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	0.090 *0,0036*	0.11 *0,0044*	0.12 *0,0048*	0.14 *0,0055*	125 (110 — 140) *410 (370 — 450)*
K5	E	0.400 *0,400*	1.0 *1,0*	0.050 *0,0020*	0.065 *0,0026*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.13 *0,0050*	0.16 *0,0065*	155 (140 — 170) *510 (460 — 550)*
K6	E	0.400 *0,400*	1.0 *1,0*	0.055 *0,0022*	0.070 *0,0028*	0.085 *0,0034*	0.11 *0,0044*	0.13 *0,0050*	0.15 *0,0060*	0.17 *0,0065*	220 (190 — 250) *720 (630 — 820)*
K7	E	0.400 *0,400*	1.0 *1,0*	0.050 *0,0020*	0.065 *0,0026*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.13 *0,0050*	0.16 *0,0065*	195 (170 — 220) *640 (560 — 720)*

For cutting data recalculations, see pages 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (sf/min)
f_z = mm/tooth (*in*/tooth)
a_p = mm/DC (*in*/DC) = factor
a_e = mm/DC (*in*/DC) = factor
All cutting data are target values

Cutting data – JS554 Side milling roughing – *Inch*

SMG		a_e/DC	a_p/DC	f_z							v_c
				1/4	5/16	3/8	1/2	5/8	3/4	1	
N1	E	0.500 *0,500*	0.90 *0,90*	0.050 *0,0020*	0.065 *0,0026*	0.075 *0,0030*	0.10 *0,0040*	0.12 *0,0048*	0.13 *0,0050*	0.15 *0,0060*	610 (510 — 710) *2000 (1700 — 2300)*
N2	E	0.500 *0,500*	0.90 *0,90*	0.050 *0,0020*	0.065 *0,0026*	0.075 *0,0030*	0.10 *0,0040*	0.12 *0,0048*	0.13 *0,0050*	0.15 *0,0060*	390 (330 — 450) *1275 (1100 — 1400)*
N3	E	0.500 *0,500*	0.90 *0,90*	0.050 *0,0020*	0.065 *0,0026*	0.075 *0,0030*	0.10 *0,0040*	0.12 *0,0048*	0.13 *0,0050*	0.15 *0,0060*	260 (220 — 300) *850 (730 — 980)*
N11	E	0.500 *0,500*	1.1 *1,1*	0.050 *0,0020*	0.065 *0,0026*	0.075 *0,0030*	0.10 *0,0040*	0.12 *0,0048*	0.13 *0,0050*	0.15 *0,0060*	320 (270 — 370) *1050 (890 — 1200)*
S1	E	0.150 *0,150*	0.50 *0,50*	0.055 *0,0022*	0.070 *0,0028*	0.085 *0,0034*	0.11 *0,0044*	0.13 *0,0050*	0.14 *0,0055*	0.17 *0,0065*	38 (32 — 44) *125 (110 — 140)*
S2	E	0.150 *0,150*	0.50 *0,50*	0.055 *0,0022*	0.070 *0,0028*	0.085 *0,0034*	0.11 *0,0044*	0.13 *0,0050*	0.14 *0,0055*	0.17 *0,0065*	35 (21 — 48) *115 (69 — 150)*
S3	E	0.150 *0,150*	0.50 *0,50*	0.050 *0,0020*	0.065 *0,0026*	0.075 *0,0030*	0.10 *0,0040*	0.12 *0,0048*	0.13 *0,0050*	0.16 *0,0065*	30 (19 — 42) *100 (63 — 130)*
S11	E	0.400 *0,400*	0.70 *0,70*	0.038 *0,0015*	0.048 *0,0019*	0.060 *0,0024*	0.075 *0,0030*	0.090 *0,0036*	0.10 *0,0040*	0.12 *0,0048*	100 (72 — 120) *330 (240 — 390)*
S12	E	0.400 *0,400*	0.70 *0,70*	0.038 *0,0015*	0.048 *0,0019*	0.060 *0,0024*	0.075 *0,0030*	0.090 *0,0036*	0.10 *0,0040*	0.12 *0,0048*	75 (56 — 99) *245 (190 — 320)*
S13	E	0.400 *0,400*	0.70 *0,70*	0.034 *0,0013*	0.042 *0,0017*	0.050 *0,0020*	0.065 *0,0026*	0.080 *0,0032*	0.090 *0,0036*	0.10 *0,0040*	60 (44 — 78) *195 (150 — 250)*
H5	M/A/D	0.200 *0,200*	0.90 *0,90*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	0.095 *0,0038*	0.11 *0,0044*	0.12 *0,0048*	0.15 *0,0060*	75 (59 — 88) *245 (200 — 280)*
H8	M/A/D	0.200 *0,200*	0.90 *0,90*	0.036 *0,0014*	0.046 *0,0018*	0.055 *0,0022*	0.070 *0,0028*	0.085 *0,0034*	0.095 *0,0038*	0.11 *0,0044*	80 (63 — 93) *260 (210 — 300)*
H21	M/A/D	0.200 *0,200*	0.90 *0,90*	0.036 *0,0014*	0.046 *0,0018*	0.055 *0,0022*	0.070 *0,0028*	0.085 *0,0034*	0.095 *0,0038*	0.11 *0,0044*	155 (110 — 190) *510 (370 — 620)*
H31	M/A/D	0.200 *0,200*	0.90 *0,90*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.060 *0,0024*	0.075 *0,0030*	0.080 *0,0032*	0.095 *0,0038*	60 (48 — 71) *195 (160 — 230)*
TS1	A	0.500 *0,500*	1.0 *1,0*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	0.12 *0,0048*	0.15 *0,0060*	0.16 *0,0065*	0.19 *0,0075*	285 (180 — 400) *940 (600 — 1300)*
TP1	A	0.500 *0,500*	1.0 *1,0*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	0.12 *0,0048*	0.15 *0,0060*	0.16 *0,0065*	0.19 *0,0075*	295 (180 — 410) *970 (600 — 1300)*
GR1	A	0.500 *0,500*	1.1 *1,1*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	0.12 *0,0048*	0.15 *0,0060*	0.16 *0,0065*	0.19 *0,0075*	580 (470 — 690) *1900 (1600 — 2200)*

For cutting data recalculations, see pages 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (sf/min)
f_z = mm/tooth (*in*/tooth)
a_p = mm/DC (*in*/DC) = factor
a_e = mm/DC (*in*/DC) = factor
All cutting data are target values

Cutting data – JS554 Slot milling – *Inch*

SMG		a_p/DC	f_z							v_c
			1/4	5/16	3/8	1/2	5/8	3/4	1	
P1	M/A/D/E	1.0 *1,0*	0.038 *0,0015*	0.048 *0,0019*	0.055 *0,0022*	0.075 *0,0030*	0.095 *0,0038*	0.11 *0,0044*	0.15 *0,0060*	195 (170 — 220) *640 (560 — 720)*
P2	M/A/D/E	1.0 *1,0*	0.038 *0,0015*	0.048 *0,0019*	0.055 *0,0022*	0.075 *0,0030*	0.095 *0,0038*	0.11 *0,0044*	0.15 *0,0060*	190 (170 — 210) *620 (560 — 680)*
P3	M/A/D/E	1.0 *1,0*	0.038 *0,0015*	0.048 *0,0019*	0.055 *0,0022*	0.075 *0,0030*	0.095 *0,0038*	0.11 *0,0044*	0.15 *0,0060*	165 (140 — 180) *540 (460 — 590)*
P4	M/A/D/E	1.0 *1,0*	0.038 *0,0015*	0.048 *0,0019*	0.055 *0,0022*	0.075 *0,0030*	0.095 *0,0038*	0.11 *0,0044*	0.15 *0,0060*	145 (130 — 160) *475 (430 — 520)*
P5	M/A/D/E	1.0 *1,0*	0.038 *0,0015*	0.048 *0,0019*	0.055 *0,0022*	0.075 *0,0030*	0.095 *0,0038*	0.11 *0,0044*	0.15 *0,0060*	135 (120 — 150) *445 (400 — 490)*
P6	M/A/D/E	1.0 *1,0*	0.038 *0,0015*	0.048 *0,0019*	0.055 *0,0022*	0.075 *0,0030*	0.095 *0,0038*	0.11 *0,0044*	0.15 *0,0060*	155 (140 — 170) *510 (460 — 550)*
P7	M/A/D/E	1.0 *1,0*	0.038 *0,0015*	0.048 *0,0019*	0.055 *0,0022*	0.075 *0,0030*	0.095 *0,0038*	0.11 *0,0044*	0.15 *0,0060*	145 (130 — 160) *475 (430 — 520)*
P8	M/A/D/E	1.0 *1,0*	0.038 *0,0015*	0.048 *0,0019*	0.055 *0,0022*	0.075 *0,0030*	0.095 *0,0038*	0.11 *0,0044*	0.15 *0,0060*	135 (120 — 150) *445 (400 — 490)*
P11	M/A/D/E	0.80 *0,80*	0.025 *0,0010*	0.032 *0,0013*	0.038 *0,0015*	0.050 *0,0020*	0.065 *0,0026*	0.075 *0,0030*	0.10 *0,0040*	130 (120 — 140) *425 (400 — 450)*
P12	M/A/D/E	0.80 *0,80*	0.025 *0,0010*	0.032 *0,0013*	0.038 *0,0015*	0.050 *0,0020*	0.065 *0,0026*	0.075 *0,0030*	0.10 *0,0040*	80 (69 — 87) *260 (230 — 280)*
M1	E	0.80 *0,80*	0.025 *0,0010*	0.032 *0,0013*	0.038 *0,0015*	0.050 *0,0020*	0.065 *0,0026*	0.075 *0,0030*	0.10 *0,0040*	95 (85 — 100) *310 (280 — 320)*
M2	E	0.80 *0,80*	0.025 *0,0010*	0.032 *0,0013*	0.038 *0,0015*	0.050 *0,0020*	0.065 *0,0026*	0.075 *0,0030*	0.10 *0,0040*	80 (69 — 87) *260 (230 — 280)*
M3	E	0.60 *0,60*	0.020 *0,00080*	0.025 *0,0010*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.080 *0,0032*	48 (39 — 57) *155 (130 — 180)*
M4	E	0.60 *0,60*	0.020 *0,00080*	0.025 *0,0010*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.080 *0,0032*	36 (29 — 43) *120 (96 — 140)*
M5	E	0.60 *0,60*	0.020 *0,00080*	0.025 *0,0010*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.080 *0,0032*	30 (25 — 36) *100 (83 — 110)*
K1	E	1.0 *1,0*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	0.13 *0,0050*	155 (140 — 170) *510 (460 — 550)*
K2	E	1.0 *1,0*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	0.13 *0,0050*	135 (120 — 150) *445 (400 — 490)*
K3	E	1.0 *1,0*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	0.13 *0,0050*	115 (110 — 120) *375 (370 — 390)*
K4	E	1.0 *1,0*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	0.13 *0,0050*	110 (96 — 120) *360 (320 — 390)*
K5	E	0.70 *0,70*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	0.13 *0,0050*	135 (120 — 150) *445 (400 — 490)*
K6	E	0.70 *0,70*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	0.13 *0,0050*	200 (180 — 220) *660 (600 — 720)*
K7	E	0.70 *0,70*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	0.13 *0,0050*	175 (150 — 190) *570 (500 — 620)*

For cutting data recalculations, see pages 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (sf/min)
f_z = mm/tooth (*in*/tooth)
a_p = mm/DC (*in*/DC) = factor
a_e = mm/DC (*in*/DC) = factor
All cutting data are target values

Cutting data – JS554 Slot milling – *Inch*

SMG		a_p/DC	f_z							v_c
			1/4	5/16	3/8	1/2	5/8	3/4	1	
N1	E	0.50 *0,50*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	0.13 *0,0050*	570 (480 — 670) *1875 (1600 — 2100)*
N2	E	0.50 *0,50*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	0.13 *0,0050*	370 (310 — 430) *1225 (1100 — 1400)*
N3	E	0.50 *0,50*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	0.13 *0,0050*	245 (210 — 280) *800 (690 — 910)*
N11	E	0.60 *0,60*	0.038 *0,0015*	0.048 *0,0019*	0.055 *0,0022*	0.075 *0,0030*	0.095 *0,0038*	0.11 *0,0044*	0.15 *0,0060*	290 (250 — 330) *950 (830 — 1000)*
S1	E	0.30 *0,30*	0.020 *0,00080*	0.025 *0,0010*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.080 *0,0032*	30 (25 — 34) *100 (83 — 110)*
S2	E	0.30 *0,30*	0.020 *0,00080*	0.025 *0,0010*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.080 *0,0032*	27 (17 — 38) *90 (56 — 120)*
S3	E	0.30 *0,30*	0.020 *0,00080*	0.025 *0,0010*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.080 *0,0032*	23 (15 — 32) *75 (50 — 100)*
S11	E	0.50 *0,50*	0.026 *0,0010*	0.032 *0,0013*	0.038 *0,0015*	0.050 *0,0020*	0.065 *0,0026*	0.080 *0,0032*	0.10 *0,0040*	85 (63 — 110) *280 (210 — 360)*
S12	E	0.50 *0,50*	0.026 *0,0010*	0.032 *0,0013*	0.038 *0,0015*	0.050 *0,0020*	0.065 *0,0026*	0.080 *0,0032*	0.10 *0,0040*	65 (48 — 86) *215 (160 — 280)*
S13	E	0.50 *0,50*	0.026 *0,0010*	0.032 *0,0013*	0.038 *0,0015*	0.050 *0,0020*	0.065 *0,0026*	0.080 *0,0032*	0.10 *0,0040*	50 (38 — 66) *165 (130 — 210)*
H5	M/A/D	0.40 *0,40*	0.013 *0,00050*	0.016 *0,00065*	0.019 *0,00075*	0.026 *0,0010*	0.032 *0,0013*	0.038 *0,0015*	0.050 *0,0020*	65 (52 — 76) *215 (180 — 240)*
H8	M/A/D	0.40 *0,40*	0.013 *0,00050*	0.016 *0,00065*	0.019 *0,00075*	0.026 *0,0010*	0.032 *0,0013*	0.038 *0,0015*	0.050 *0,0020*	65 (52 — 76) *215 (180 — 240)*
H21	M/A/D	0.40 *0,40*	0.013 *0,00050*	0.016 *0,00065*	0.019 *0,00075*	0.026 *0,0010*	0.032 *0,0013*	0.038 *0,0015*	0.050 *0,0020*	125 (90 — 160) *410 (300 — 520)*
H31	M/A/D	0.40 *0,40*	0.013 *0,00050*	0.016 *0,00065*	0.019 *0,00075*	0.026 *0,0010*	0.032 *0,0013*	0.038 *0,0015*	0.050 *0,0020*	48 (39 — 57) *155 (130 — 180)*
TS1	A	0.70 *0,70*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	0.12 *0,0048*	0.15 *0,0060*	0.16 *0,0065*	0.19 *0,0075*	240 (150 — 330) *790 (500 — 1000)*
TP1	A	0.70 *0,70*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	0.12 *0,0048*	0.15 *0,0060*	0.16 *0,0065*	0.19 *0,0075*	250 (150 — 340) *820 (500 — 1100)*
GR1	A	0.80 *0,80*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	0.12 *0,0048*	0.15 *0,0060*	0.16 *0,0065*	0.19 *0,0075*	485 (390 — 580) *1600 (1300 — 1900)*

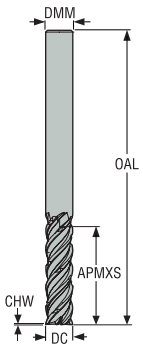
For cutting data recalculations, see pages 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (sf/min)
f_z = mm/tooth (*in*/tooth)
a_p = mm/DC (*in*/DC) = factor
a_e = mm/DC (*in*/DC) = factor
All cutting data are target values

JS554-3C

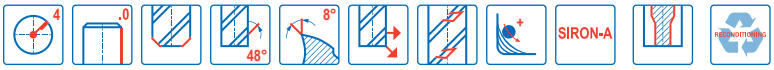
Advanced roughing – Universal – Square – 4 Flutes – Cylindrical – Chamfer





D

- Tolerances:
- DMM= h5
- DC= e7
- Chip splitters
- Regrind possible

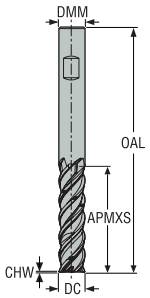


Designation	Item number	Length index	Tool shape	Chip splitters	DC	DMM	APMXS	OAL	CHW	PCEDC	Cylindrical
					mm	mm	mm	mm	mm		
JS554060D3C.0Z4C-SIRA	02810475	3	D	■	6,0	6,0	23,0	65,0	0,075	4	■
JS554080D3C.0Z4C-SIRA	02810477	3	D	■	8,0	8,0	32,0	75,0	0,1	4	■
JS554100D3C.0Z4C-SIRA	02810479	3	D	■	10,0	10,0	40,0	85,0	0,125	4	■
JS554120D3C.0Z4C-SIRA	02810481	3	D	■	12,0	12,0	45,0	100,0	0,15	4	■
JS554160D3C.0Z4C-SIRA	02810483	3	D	■	16,0	16,0	55,0	115,0	0,2	4	■
JS554200D3C.0Z4C-SIRA	02810485	3	D	■	20,0	20,0	65,0	125,0	0,25	4	■
JS554250D3C.0Z4C-SIRA	02810486	3	D	■	25,0	25,0	85,0	150,0	0,3	4	■

■ Stocked standard.

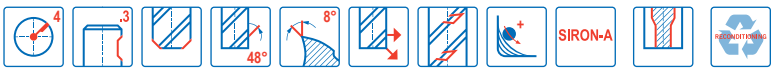
JS554-3C

Advanced roughing – Universal – Square – 4 Flutes – Weldon – Chamfer



D





- Tolerances:
- DMM= h5
- DC= e7
- Chip splitters
- Regrind possible

Designation	Item number	Length index	Tool shape	Chip splitters	DC	DMM	APMXS	OAL	CHW	PCEDC	Weldon
					mm	mm	mm	mm	mm		
JS554060D3C.3Z4C-SIRA	02810474	3	D	■	6,0	6,0	23,0	65,0	0,075	4	■
JS554080D3C.3Z4C-SIRA	02810476	3	D	■	8,0	8,0	32,0	75,0	0,1	4	■
JS554100D3C.3Z4C-SIRA	02810478	3	D	■	10,0	10,0	40,0	85,0	0,125	4	■
JS554120D3C.3Z4C-SIRA	02810480	3	D	■	12,0	12,0	45,0	100,0	0,15	4	■
JS554160D3C.3Z4C-SIRA	02810482	3	D	■	16,0	16,0	55,0	115,0	0,2	4	■
JS554200D3C.3Z4C-SIRA	02810484	3	D	■	20,0	20,0	65,0	125,0	0,25	4	■
JS554250D3C.3Z4C-SIRA	02810487	3	D	■	25,0	25,0	85,0	150,0	0,3	4	■

■ Stocked standard.

Cutting data – JS554-3C Advanced roughing

SMG		a_e/DC	a_p/DC	f_z							v_c
				6	8	10	12	16	20	25	
P1	M/A/D/E	0.100 *0,100*	3.6 *3,6*	0.065 *0,0026*	0.085 *0,0034*	0.11 *0,0044*	0.13 *0,0050*	0.16 *0,0065*	0.18 *0,0070*	0.20 *0,0080*	350 (320 — 380) *1150 (1100 — 1200)*
P2	M/A/D/E	0.100 *0,100*	3.6 *3,6*	0.065 *0,0026*	0.090 *0,0036*	0.11 *0,0044*	0.13 *0,0050*	0.16 *0,0065*	0.19 *0,0075*	0.22 *0,0085*	340 (310 — 370) *1125 (1100 — 1200)*
P3	M/A/D/E	0.100 *0,100*	3.6 *3,6*	0.060 *0,0024*	0.085 *0,0034*	0.10 *0,0040*	0.12 *0,0048*	0.15 *0,0060*	0.18 *0,0070*	0.20 *0,0080*	295 (270 — 320) *970 (890 — 1000)*
P4	M/A/D/E	0.100 *0,100*	3.6 *3,6*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.15 *0,0060*	0.17 *0,0065*	0.19 *0,0075*	260 (240 — 280) *850 (790 — 910)*
P5	M/A/D/E	0.100 *0,100*	3.6 *3,6*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.15 *0,0060*	0.17 *0,0065*	0.19 *0,0075*	250 (230 — 270) *820 (760 — 880)*
P6	M/A/D/E	0.100 *0,100*	3.6 *3,6*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.15 *0,0060*	0.17 *0,0065*	0.19 *0,0075*	280 (260 — 300) *920 (860 — 980)*
P7	M/A/D/E	0.100 *0,100*	3.6 *3,6*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.15 *0,0060*	0.17 *0,0065*	0.19 *0,0075*	265 (240 — 290) *870 (790 — 950)*
P8	M/A/D/E	0.100 *0,100*	3.6 *3,6*	0.060 *0,0024*	0.085 *0,0034*	0.10 *0,0040*	0.12 *0,0048*	0.15 *0,0060*	0.18 *0,0070*	0.20 *0,0080*	250 (230 — 270) *820 (760 — 880)*
P11	M/A/D/E	0.100 *0,100*	3.6 *3,6*	0.070 *0,0028*	0.095 *0,0038*	0.12 *0,0048*	0.14 *0,0055*	0.19 *0,0075*	0.24 *0,0095*	0.28 *0,011*	245 (230 — 270) *800 (760 — 880)*
P12	M/A/D/E	0.100 *0,100*	3.6 *3,6*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.15 *0,0060*	0.17 *0,0065*	0.19 *0,0075*	150 (140 — 160) *490 (460 — 520)*
M1	E	0.100 *0,100*	3.6 *3,6*	0.065 *0,0026*	0.090 *0,0036*	0.11 *0,0044*	0.13 *0,0050*	0.16 *0,0065*	0.19 *0,0075*	0.22 *0,0085*	180 (160 — 210) *590 (530 — 680)*
M2	E	0.100 *0,100*	3.6 *3,6*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.15 *0,0060*	0.17 *0,0065*	0.19 *0,0075*	150 (130 — 170) *490 (430 — 550)*
M3	E	0.100 *0,100*	3.6 *3,6*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.15 *0,0060*	0.17 *0,0065*	0.19 *0,0075*	100 (90 — 100) *330 (300 — 320)*
M4	E	0.100 *0,100*	3.6 *3,6*	0.050 *0,0020*	0.070 *0,0028*	0.085 *0,0034*	0.10 *0,0040*	0.13 *0,0050*	0.15 *0,0060*	0.17 *0,0065*	75 (70 — 85) *245 (230 — 270)*
M5	E	0.100 *0,100*	3.6 *3,6*	0.050 *0,0020*	0.070 *0,0028*	0.085 *0,0034*	0.10 *0,0040*	0.13 *0,0050*	0.15 *0,0060*	0.17 *0,0065*	65 (59 — 71) *215 (200 — 230)*
K1	E	0.100 *0,100*	3.6 *3,6*	0.065 *0,0026*	0.090 *0,0036*	0.11 *0,0044*	0.13 *0,0050*	0.16 *0,0065*	0.19 *0,0075*	0.22 *0,0085*	340 (310 — 370) *1125 (1100 — 1200)*
K2	E	0.100 *0,100*	3.6 *3,6*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.15 *0,0060*	0.17 *0,0065*	0.19 *0,0075*	185 (160 — 210) *610 (530 — 680)*
K3	E	0.100 *0,100*	3.6 *3,6*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.15 *0,0060*	0.17 *0,0065*	0.19 *0,0075*	255 (240 — 280) *840 (790 — 910)*
K4	E	0.100 *0,100*	3.6 *3,6*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.15 *0,0060*	0.17 *0,0065*	0.19 *0,0075*	245 (220 — 260) *800 (730 — 850)*
K5	E	0.100 *0,100*	3.6 *3,6*	0.055 *0,0022*	0.070 *0,0028*	0.090 *0,0036*	0.11 *0,0044*	0.13 *0,0050*	0.15 *0,0060*	0.17 *0,0065*	150 (140 — 160) *490 (460 — 520)*
K6	E	0.100 *0,100*	3.6 *3,6*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.15 *0,0060*	0.17 *0,0065*	0.19 *0,0075*	215 (200 — 230) *710 (660 — 750)*
K7	E	0.100 *0,100*	3.6 *3,6*	0.055 *0,0022*	0.070 *0,0028*	0.090 *0,0036*	0.11 *0,0044*	0.13 *0,0050*	0.15 *0,0060*	0.17 *0,0065*	190 (180 — 200) *620 (600 — 650)*

For cutting data recalculations, see pages 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

Cutting data – JS554-3C Advanced roughing

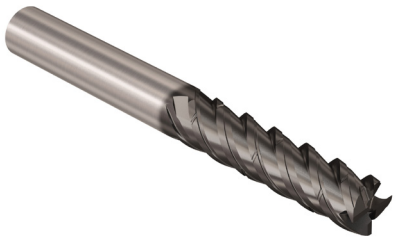
SMG		a_e/DC	a_p/DC	f_z							v_c
				6	8	10	12	16	20	25	
N1	E	0.100 *0,100*	3.6 *3,6*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.15 *0,0060*	0.17 *0,0065*	0.19 *0,0075*	750 (650 — 840) *2450 (2200 — 2700)*
N2	E	0.100 *0,100*	3.6 *3,6*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.15 *0,0060*	0.17 *0,0065*	0.19 *0,0075*	480 (420 — 540) *1575 (1400 — 1700)*
N3	E	0.100 *0,100*	3.6 *3,6*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.15 *0,0060*	0.17 *0,0065*	0.19 *0,0075*	320 (280 — 360) *1050 (920 — 1100)*
N11	E	0.100 *0,100*	3.6 *3,6*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.15 *0,0060*	0.17 *0,0065*	0.19 *0,0075*	375 (330 — 420) *1225 (1100 — 1300)*
S1	E	0.0500 *0,0500*	3.6 *3,6*	0.048 *0,0019*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	0.12 *0,0048*	0.14 *0,0055*	0.15 *0,0060*	50 (40 — 60) *165 (140 — 190)*
S2	E	0.0500 *0,0500*	3.6 *3,6*	0.048 *0,0019*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	0.12 *0,0048*	0.14 *0,0055*	0.15 *0,0060*	40 (33 — 48) *130 (110 — 150)*
S3	E	0.0500 *0,0500*	3.6 *3,6*	0.048 *0,0019*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	0.12 *0,0048*	0.14 *0,0055*	0.15 *0,0060*	25 (20 — 29) *80 (66 — 95)*
S11	E	0.100 *0,100*	3.6 *3,6*	0.048 *0,0019*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	0.12 *0,0048*	0.14 *0,0055*	0.15 *0,0060*	195 (130 — 220) *640 (430 — 720)*
S12	E	0.100 *0,100*	3.6 *3,6*	0.048 *0,0019*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	0.12 *0,0048*	0.14 *0,0055*	0.15 *0,0060*	150 (100 — 160) *490 (330 — 520)*
S13	E	0.100 *0,100*	3.6 *3,6*	0.042 *0,0017*	0.055 *0,0022*	0.070 *0,0028*	0.085 *0,0034*	0.10 *0,0040*	0.12 *0,0048*	0.13 *0,0050*	120 (80 — 130) *395 (270 — 420)*
H5	M/A/D	0.0500 *0,0500*	3.6 *3,6*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.075 *0,0030*	0.085 *0,0034*	0.095 *0,0038*	200 (190 — 220) *660 (630 — 720)*
H8	M/A/D	0.0500 *0,0500*	3.6 *3,6*	0.022 *0,00085*	0.030 *0,0012*	0.038 *0,0015*	0.046 *0,0018*	0.055 *0,0022*	0.065 *0,0026*	0.075 *0,0030*	210 (190 — 220) *690 (630 — 720)*
H11	M/A/D	0.0500 *0,0500*	3.6 *3,6*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.075 *0,0030*	0.085 *0,0034*	0.095 *0,0038*	255 (240 — 280) *840 (790 — 910)*
H12	M/A/D	0.100 *0,100*	3.6 *3,6*	0.032 *0,0013*	0.042 *0,0017*	0.050 *0,0020*	0.060 *0,0024*	0.075 *0,0030*	0.090 *0,0036*	0.10 *0,0040*	205 (190 — 220) *670 (630 — 720)*
H21	M/A/D	0.0500 *0,0500*	3.6 *3,6*	0.022 *0,00085*	0.030 *0,0012*	0.038 *0,0015*	0.046 *0,0018*	0.055 *0,0022*	0.065 *0,0026*	0.075 *0,0030*	210 (190 — 220) *690 (630 — 720)*

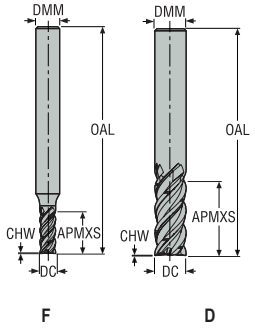
For cutting data recalculations, see pages 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

JS564

Advanced roughing – Universal – Square – 4 Flutes – Cylindrical – Chamfer





- Tolerances:
- DMM= h5
- DC= e7
- Chip splitters
- Regrind possible if DC is ≥Ø8

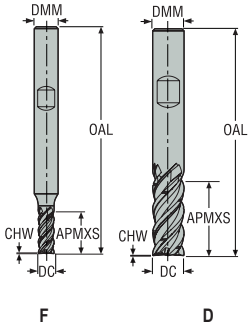


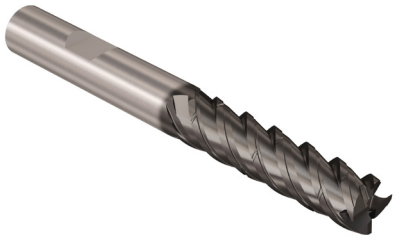
Designation	Item number	Length index	Tool shape	Chip splitters	DC	DMM	APMXS	OAL	CHW	PCEDC	Cylindrical
					mm	mm	mm	mm	mm		
JS564030F2C.0Z4C-NXT	03067338	2	F	■	3,0	6,0	7,0	57,0	0,04	4	■
JS564040F2C.0Z4C-NXT	03067339	2	F	■	4,0	6,0	10,0	57,0	0,05	4	■
JS564050F2C.0Z4C-NXT	03067340	2	F	■	5,0	6,0	12,5	57,0	0,06	4	■
JS564060D2C.0Z4C-NXT	03067341	2	D	■	6,0	6,0	15,0	57,0	0,075	4	■
JS564080D2C.0Z4C-NXT	03067342	2	D	■	8,0	8,0	20,0	63,0	0,1	4	■
JS564100D2C.0Z4C-NXT	03067343	2	D	■	10,0	10,0	25,0	72,0	0,125	4	■
JS564120D2C.0Z4C-NXT	03067344	2	D	■	12,0	12,0	30,0	83,0	0,15	4	■
JS564160D2C.0Z4C-NXT	03067345	2	D	■	16,0	16,0	40,0	99,0	0,2	4	■
JS564200D2C.0Z4C-NXT	03067346	2	D	■	20,0	20,0	50,0	114,0	0,25	4	■
JS564060D3C.0Z4C-NXT	03067347	3	D	■	6,0	6,0	23,0	64,0	0,075	4	■
JS564080D3C.0Z4C-NXT	03067348	3	D	■	8,0	8,0	32,0	74,0	0,1	4	■
JS564100D3C.0Z4C-NXT	03067349	3	D	■	10,0	10,0	40,0	88,0	0,125	4	■
JS564120D3C.0Z4C-NXT	03067350	3	D	■	12,0	12,0	45,0	99,0	0,15	4	■
JS564160D3C.0Z4C-NXT	03067351	3	D	■	16,0	16,0	55,0	114,0	0,2	4	■
JS564200D3C.0Z4C-NXT	03067352	3	D	■	20,0	20,0	65,0	126,0	0,25	4	■

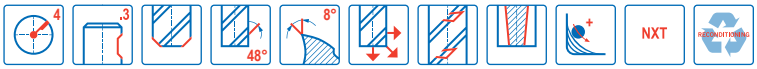
■ Stocked standard.

JS564

Advanced roughing – Universal – Square – 4 Flutes – Weldon – Chamfer







- Tolerances:
- DMM= h5
- DC= e7
- Chip splitters
- Regrind possible if DC is ≥Ø8

Designation	Item number	Length index	Tool shape	Chip splitters	DC	DMM	APMXS	OAL	CHW	PCEDC	Weldon
					mm	mm	mm	mm	mm		
JS564030F2C.3Z4C-NXT	03067353	2	F	■	3,0	6,0	7,0	57,0	0,04	4	■
JS564040F2C.3Z4C-NXT	03067354	2	F	■	4,0	6,0	10,0	57,0	0,05	4	■
JS564050F2C.3Z4C-NXT	03067355	2	F	■	5,0	6,0	12,5	57,0	0,06	4	■
JS564060D2C.3Z4C-NXT	03067356	2	D	■	6,0	6,0	15,0	57,0	0,075	4	■
JS564080D2C.3Z4C-NXT	03067357	2	D	■	8,0	8,0	20,0	63,0	0,1	4	■
JS564100D2C.3Z4C-NXT	03067358	2	D	■	10,0	10,0	25,0	72,0	0,125	4	■
JS564120D2C.3Z4C-NXT	03067359	2	D	■	12,0	12,0	30,0	83,0	0,15	4	■
JS564160D2C.3Z4C-NXT	03067360	2	D	■	16,0	16,0	40,0	99,0	0,2	4	■
JS564200D2C.3Z4C-NXT	03067361	2	D	■	20,0	20,0	50,0	114,0	0,25	4	■
JS564060D3C.3Z4C-NXT	03067362	3	D	■	6,0	6,0	23,0	64,0	0,075	4	■
JS564080D3C.3Z4C-NXT	03067363	3	D	■	8,0	8,0	32,0	74,0	0,1	4	■
JS564100D3C.3Z4C-NXT	03067364	3	D	■	10,0	10,0	40,0	88,0	0,125	4	■
JS564120D3C.3Z4C-NXT	03067365	3	D	■	12,0	12,0	45,0	99,0	0,15	4	■
JS564160D3C.3Z4C-NXT	03067366	3	D	■	16,0	16,0	55,0	114,0	0,2	4	■
JS564200D3C.3Z4C-NXT	03067367	3	D	■	20,0	20,0	65,0	126,0	0,25	4	■

■ Stocked standard.

Cutting data – JS564 Side milling advanced roughing

SMG		a_e/DC	a_p/DC	f_z								v_c
				4	5	6	8	10	12	16	20	
P1	E/M/A/D	0.150 *0,150*	2.4 *2,4*	0.042 *0,0017*	0.055 *0,0022*	0.065 *0,0026*	0.085 *0,0034*	0.11 *0,0044*	0.13 *0,0050*	0.16 *0,0065*	0.18 *0,0070*	305 (270 — 340) *1000 (890 — 1100)*
P2	E/M/A/D	0.150 *0,150*	2.4 *2,4*	0.044 *0,0017*	0.055 *0,0022*	0.065 *0,0026*	0.085 *0,0034*	0.11 *0,0044*	0.13 *0,0050*	0.16 *0,0065*	0.18 *0,0070*	295 (260 — 330) *970 (860 — 1000)*
P3	E/M/A/D	0.150 *0,150*	2.4 *2,4*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.15 *0,0060*	0.17 *0,0065*	260 (230 — 290) *850 (760 — 950)*
P4	E/M/A/D	0.150 *0,150*	2.4 *2,4*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.15 *0,0060*	0.17 *0,0065*	230 (200 — 250) *750 (660 — 820)*
P5	E/M/A/D	0.150 *0,150*	2.4 *2,4*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.15 *0,0060*	0.17 *0,0065*	215 (190 — 240) *710 (630 — 780)*
P6	E/M/A/D	0.150 *0,150*	2.4 *2,4*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.15 *0,0060*	0.17 *0,0065*	240 (210 — 270) *790 (690 — 880)*
P7	E/M/A/D	0.150 *0,150*	2.4 *2,4*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.15 *0,0060*	0.17 *0,0065*	230 (200 — 250) *750 (660 — 820)*
P8	E/M/A/D	0.150 *0,150*	2.4 *2,4*	0.042 *0,0017*	0.050 *0,0020*	0.060 *0,0024*	0.085 *0,0034*	0.10 *0,0040*	0.12 *0,0048*	0.15 *0,0060*	0.18 *0,0070*	215 (190 — 240) *710 (630 — 780)*
P11	E/M/A/D	0.150 *0,150*	2.4 *2,4*	0.060 *0,0024*	0.075 *0,0030*	0.090 *0,0036*	0.12 *0,0048*	0.15 *0,0060*	0.17 *0,0065*	0.22 *0,0085*	0.25 *0,010*	200 (180 — 220) *660 (600 — 720)*
P12	E/M/A/D	0.150 *0,150*	2.4 *2,4*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.15 *0,0060*	0.17 *0,0065*	130 (120 — 140) *425 (400 — 450)*
M1	E	0.150 *0,150*	2.4 *2,4*	0.044 *0,0017*	0.055 *0,0022*	0.065 *0,0026*	0.090 *0,0036*	0.11 *0,0044*	0.13 *0,0050*	0.16 *0,0065*	0.19 *0,0075*	195 (170 — 210) *640 (560 — 680)*
M2	E	0.150 *0,150*	2.4 *2,4*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.15 *0,0060*	0.17 *0,0065*	160 (140 — 170) *520 (460 — 550)*
M3	E	0.100 *0,100*	2.4 *2,4*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.15 *0,0060*	0.17 *0,0065*	130 (110 — 140) *425 (370 — 450)*
M4	E	0.100 *0,100*	2.4 *2,4*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.15 *0,0060*	0.17 *0,0065*	130 (110 — 140) *425 (370 — 450)*
M5	E	0.100 *0,100*	2.4 *2,4*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.15 *0,0060*	0.17 *0,0065*	110 (92 — 120) *360 (310 — 390)*
K1	E	0.150 *0,150*	2.4 *2,4*	0.044 *0,0017*	0.055 *0,0022*	0.065 *0,0026*	0.090 *0,0036*	0.11 *0,0044*	0.13 *0,0050*	0.16 *0,0065*	0.19 *0,0075*	260 (230 — 290) *850 (760 — 950)*
K2	E	0.150 *0,150*	2.4 *2,4*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.15 *0,0060*	0.17 *0,0065*	230 (200 — 250) *750 (660 — 820)*
K3	E	0.150 *0,150*	2.4 *2,4*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.15 *0,0060*	0.17 *0,0065*	195 (170 — 210) *640 (560 — 680)*
K4	E	0.150 *0,150*	2.4 *2,4*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.15 *0,0060*	0.17 *0,0065*	185 (170 — 200) *610 (560 — 650)*
K5	E	0.150 *0,150*	2.4 *2,4*	0.036 *0,0014*	0.044 *0,0017*	0.055 *0,0022*	0.070 *0,0028*	0.090 *0,0036*	0.11 *0,0044*	0.13 *0,0050*	0.15 *0,0060*	115 (99 — 120) *375 (330 — 390)*
K6	E	0.150 *0,150*	2.4 *2,4*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.15 *0,0060*	0.17 *0,0065*	165 (150 — 180) *540 (500 — 590)*
K7	E	0.150 *0,150*	2.4 *2,4*	0.036 *0,0014*	0.044 *0,0017*	0.055 *0,0022*	0.070 *0,0028*	0.090 *0,0036*	0.11 *0,0044*	0.13 *0,0050*	0.15 *0,0060*	145 (130 — 160) *475 (430 — 520)*

For cutting data recalculations, see pages 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

Cutting data – JS564 Side milling advanced roughing

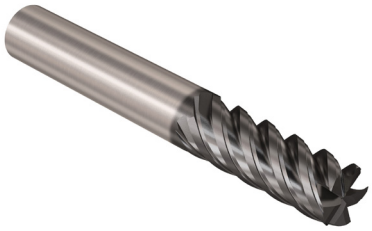
SMG		a_e/DC	a_p/DC	f_z								v_c
				4	5	6	8	10	12	16	20	
N1	E	0.150 *0,150*	2.4 *2,4*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.15 *0,0060*	0.17 *0,0065*	700 (600 — 790) *2300 (2000 — 2500)*
N2	E	0.150 *0,150*	2.4 *2,4*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.15 *0,0060*	0.17 *0,0065*	450 (390 — 510) *1475 (1300 — 1600)*
N3	E	0.100 *0,100*	2.4 *2,4*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.15 *0,0060*	0.17 *0,0065*	500 (400 — 590) *1650 (1400 — 1900)*
N11	E	0.150 *0,150*	2.4 *2,4*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.15 *0,0060*	0.17 *0,0065*	350 (300 — 390) *1150 (990 — 1200)*
S1	E	0.0300 *0,0300*	2.4 *2,4*	0.030 *0,0012*	0.038 *0,0015*	0.046 *0,0018*	0.060 *0,0024*	0.075 *0,0030*	0.090 *0,0036*	0.11 *0,0044*	0.13 *0,0050*	60 (37 — 86) *195 (130 — 280)*
S2	E	0.0300 *0,0300*	2.4 *2,4*	0.030 *0,0012*	0.038 *0,0015*	0.046 *0,0018*	0.060 *0,0024*	0.075 *0,0030*	0.090 *0,0036*	0.11 *0,0044*	0.13 *0,0050*	50 (30 — 69) *165 (99 — 220)*
S3	E	0.0300 *0,0300*	2.4 *2,4*	0.028 *0,0011*	0.034 *0,0013*	0.042 *0,0017*	0.055 *0,0022*	0.070 *0,0028*	0.085 *0,0034*	0.10 *0,0040*	0.12 *0,0048*	43 (26 — 60) *140 (86 — 190)*
S11	E	0.0800 *0,0800*	2.4 *2,4*	0.028 *0,0011*	0.034 *0,0013*	0.042 *0,0017*	0.055 *0,0022*	0.070 *0,0028*	0.085 *0,0034*	0.10 *0,0040*	0.12 *0,0048*	160 (140 — 180) *520 (460 — 590)*
S12	E	0.0800 *0,0800*	2.4 *2,4*	0.028 *0,0011*	0.034 *0,0013*	0.042 *0,0017*	0.055 *0,0022*	0.070 *0,0028*	0.085 *0,0034*	0.10 *0,0040*	0.12 *0,0048*	125 (110 — 140) *410 (370 — 450)*
S13	E	0.0800 *0,0800*	2.4 *2,4*	0.028 *0,0011*	0.034 *0,0013*	0.042 *0,0017*	0.055 *0,0022*	0.070 *0,0028*	0.085 *0,0034*	0.10 *0,0040*	0.12 *0,0048*	125 (110 — 140) *410 (370 — 450)*
H8	M/A/D	0.0500 *0,0500*	2.4 *2,4*	0.022 *0,00085*	0.026 *0,0010*	0.032 *0,0013*	0.042 *0,0017*	0.055 *0,0022*	0.065 *0,0026*	0.080 *0,0032*	0.090 *0,0036*	160 (140 — 180) *520 (460 — 590)*
H21	M/A/D	0.0500 *0,0500*	2.4 *2,4*	0.022 *0,00085*	0.026 *0,0010*	0.032 *0,0013*	0.042 *0,0017*	0.055 *0,0022*	0.065 *0,0026*	0.080 *0,0032*	0.090 *0,0036*	160 (140 — 180) *520 (460 — 590)*
H31	M/A/D	0.0500 *0,0500*	2.4 *2,4*	0.018 *0,00070*	0.024 *0,00095*	0.028 *0,0011*	0.036 *0,0014*	0.046 *0,0018*	0.055 *0,0022*	0.070 *0,0028*	0.080 *0,0032*	125 (110 — 140) *410 (370 — 450)*

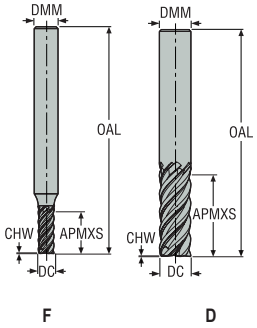
For cutting data recalculations, see pages 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

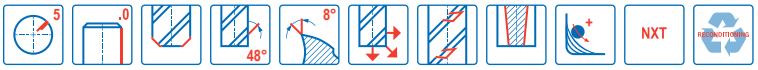
JS565

Advanced roughing – Universal – Square – 5 Flutes – Cylindrical – Chamfer





- Tolerances:
- DMM= h5
- DC= e7
- PCEDC5= no chip splitters
- PCEDC5C= with chip splitters
- Regrind possible if DC is ≥Ø8

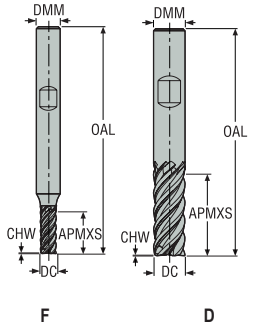


Designation	Item number	Length index	Tool shape	Chip splitters	DC	DMM	APMXS	OAL	CHW	PCEDC	Cylindrical
					mm	mm	mm	mm	mm		
JS565040F2C.0Z5-NXT	03067369	2	F	–	4,0	6,0	10,0	57,0	0,05	5	■
JS565040F2C.0Z5C-NXT	03067378	2	F	■	4,0	6,0	10,0	57,0	0,05	5	■
JS565050F2C.0Z5-NXT	03067370	2	F	–	5,0	6,0	12,5	57,0	0,06	5	■
JS565050F2C.0Z5C-NXT	03067379	2	F	■	5,0	6,0	12,5	57,0	0,06	5	■
JS565060D2C.0Z5-NXT	03067371	2	D	–	6,0	6,0	15,0	57,0	0,075	5	■
JS565060D2C.0Z5C-NXT	03067380	2	D	■	6,0	6,0	15,0	57,0	0,075	5	■
JS565080D2C.0Z5-NXT	03067372	2	D	–	8,0	8,0	20,0	63,0	0,1	5	■
JS565080D2C.0Z5C-NXT	03067381	2	D	■	8,0	8,0	20,0	63,0	0,1	5	■
JS565100D2C.0Z5-NXT	03067373	2	D	–	10,0	10,0	25,0	72,0	0,125	5	■
JS565100D2C.0Z5C-NXT	03067382	2	D	■	10,0	10,0	25,0	72,0	0,125	5	■
JS565120D2C.0Z5-NXT	03067374	2	D	–	12,0	12,0	30,0	83,0	0,15	5	■
JS565120D2C.0Z5C-NXT	03067383	2	D	■	12,0	12,0	30,0	83,0	0,15	5	■
JS565160D2C.0Z5-NXT	03067375	2	D	–	16,0	16,0	40,0	99,0	0,2	5	■
JS565160D2C.0Z5C-NXT	03067384	2	D	■	16,0	16,0	40,0	99,0	0,2	5	■
JS565200D2C.0Z5-NXT	03067376	2	D	–	20,0	20,0	50,0	114,0	0,25	5	■
JS565200D2C.0Z5C-NXT	03067385	2	D	■	20,0	20,0	50,0	114,0	0,25	5	■
JS565060D3C.0Z5C-NXT	03067386	3	D	■	6,0	6,0	23,0	64,0	0,075	5	■
JS565080D3C.0Z5C-NXT	03067387	3	D	■	8,0	8,0	32,0	74,0	0,1	5	■
JS565100D3C.0Z5C-NXT	03067388	3	D	■	10,0	10,0	40,0	88,0	0,125	5	■
JS565120D3C.0Z5C-NXT	03067389	3	D	■	12,0	12,0	45,0	99,0	0,15	5	■
JS565160D3C.0Z5C-NXT	03067390	3	D	■	16,0	16,0	55,0	114,0	0,2	5	■
JS565200D3C.0Z5C-NXT	03067391	3	D	■	20,0	20,0	65,0	126,0	0,25	5	■

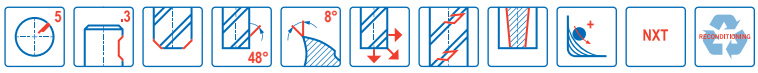
■ Stocked standard.

JS565

Advanced roughing – Universal – Square – 5 Flutes – Weldon – Chamfer







- Tolerances:
- DMM= h5
- DC= e7
- PCEDC5= no chip splitters
- PCEDC5C= with chip splitters
- Regrind possible if DC is ≥Ø8

Designation	Item number	Length index	Tool shape	Chip splitters	DC	DMM	APMXS	OAL	CHW	PCEDC	Weldon
					mm	mm	mm	mm	mm		
JS565040F2C.3Z5-NXT	03067393	2	F	–	4,0	6,0	10,0	57,0	0,05	5	■
JS565040F2C.3Z5C-NXT	03067402	2	F	■	4,0	6,0	10,0	57,0	0,05	5	■
JS565050F2C.3Z5-NXT	03067394	2	F	–	5,0	6,0	12,5	57,0	0,06	5	■
JS565050F2C.3Z5C-NXT	03067403	2	F	■	5,0	6,0	12,5	57,0	0,06	5	■
JS565060D2C.3Z5-NXT	03067395	2	D	–	6,0	6,0	15,0	57,0	0,075	5	■
JS565060D2C.3Z5C-NXT	03067404	2	D	■	6,0	6,0	15,0	57,0	0,075	5	■
JS565080D2C.3Z5-NXT	03067396	2	D	–	8,0	8,0	20,0	63,0	0,1	5	■
JS565080D2C.3Z5C-NXT	03067405	2	D	■	8,0	8,0	20,0	63,0	0,1	5	■
JS565100D2C.3Z5-NXT	03067397	2	D	–	10,0	10,0	25,0	72,0	0,125	5	■
JS565100D2C.3Z5C-NXT	03067406	2	D	■	10,0	10,0	25,0	72,0	0,125	5	■
JS565120D2C.3Z5-NXT	03067398	2	D	–	12,0	12,0	30,0	83,0	0,15	5	■
JS565120D2C.3Z5C-NXT	03067407	2	D	■	12,0	12,0	30,0	83,0	0,15	5	■
JS565160D2C.3Z5-NXT	03067399	2	D	–	16,0	16,0	40,0	99,0	0,2	5	■
JS565160D2C.3Z5C-NXT	03067408	2	D	■	16,0	16,0	40,0	99,0	0,2	5	■
JS565200D2C.3Z5-NXT	03067400	2	D	–	20,0	20,0	50,0	114,0	0,25	5	■
JS565200D2C.3Z5C-NXT	03067409	2	D	■	20,0	20,0	50,0	114,0	0,25	5	■
JS565060D3C.3Z5C-NXT	03067410	3	D	■	6,0	6,0	23,0	64,0	0,075	5	■
JS565080D3C.3Z5C-NXT	03067411	3	D	■	8,0	8,0	32,0	74,0	0,1	5	■
JS565100D3C.3Z5C-NXT	03067412	3	D	■	10,0	10,0	40,0	88,0	0,125	5	■
JS565120D3C.3Z5C-NXT	03067413	3	D	■	12,0	12,0	45,0	99,0	0,15	5	■
JS565160D3C.3Z5C-NXT	03067414	3	D	■	16,0	16,0	55,0	114,0	0,2	5	■
JS565200D3C.3Z5C-NXT	03067415	3	D	■	20,0	20,0	65,0	126,0	0,25	5	■

■ Stocked standard.

Cutting data – JS565 Side milling advanced roughing

SMG		a_e/DC	a_p/DC	f_z								v_c
				4	5	6	8	10	12	16	20	
P1	E/M/A/D	0.100 *0,100*	2.4 *2,4*	0.050 *0,0020*	0.065 *0,0026*	0.075 *0,0030*	0.10 *0,0040*	0.13 *0,0050*	0.15 *0,0060*	0.19 *0,0075*	0.22 *0,0085*	325 (270 — 340) *1075 (890 — 1100)*
P2	E/M/A/D	0.100 *0,100*	2.4 *2,4*	0.050 *0,0020*	0.065 *0,0026*	0.080 *0,0032*	0.10 *0,0040*	0.13 *0,0050*	0.15 *0,0060*	0.19 *0,0075*	0.22 *0,0085*	315 (260 — 330) *1025 (860 — 1000)*
P3	E/M/A/D	0.100 *0,100*	2.4 *2,4*	0.048 *0,0019*	0.060 *0,0024*	0.075 *0,0030*	0.10 *0,0040*	0.12 *0,0048*	0.14 *0,0055*	0.18 *0,0070*	0.20 *0,0080*	280 (230 — 290) *920 (760 — 950)*
P4	E/M/A/D	0.100 *0,100*	2.4 *2,4*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	0.095 *0,0038*	0.12 *0,0048*	0.14 *0,0055*	0.18 *0,0070*	0.20 *0,0080*	245 (200 — 250) *800 (660 — 820)*
P5	E/M/A/D	0.100 *0,100*	2.4 *2,4*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	0.095 *0,0038*	0.12 *0,0048*	0.14 *0,0055*	0.18 *0,0070*	0.20 *0,0080*	230 (190 — 240) *750 (630 — 780)*
P6	E/M/A/D	0.100 *0,100*	2.4 *2,4*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	0.095 *0,0038*	0.12 *0,0048*	0.14 *0,0055*	0.17 *0,0065*	0.20 *0,0080*	260 (210 — 270) *850 (690 — 880)*
P7	E/M/A/D	0.100 *0,100*	2.4 *2,4*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	0.095 *0,0038*	0.12 *0,0048*	0.14 *0,0055*	0.17 *0,0065*	0.20 *0,0080*	245 (200 — 250) *800 (660 — 820)*
P8	E/M/A/D	0.100 *0,100*	2.4 *2,4*	0.050 *0,0020*	0.060 *0,0024*	0.075 *0,0030*	0.10 *0,0040*	0.12 *0,0048*	0.15 *0,0060*	0.18 *0,0070*	0.22 *0,0085*	230 (190 — 240) *750 (630 — 780)*
P11	E/M/A/D	0.100 *0,100*	2.4 *2,4*	0.060 *0,0024*	0.075 *0,0030*	0.090 *0,0036*	0.12 *0,0048*	0.15 *0,0060*	0.18 *0,0070*	0.24 *0,0095*	0.30 *0,012*	225 (190 — 230) *740 (630 — 750)*
P12	E/M/A/D	0.100 *0,100*	2.4 *2,4*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	0.095 *0,0038*	0.12 *0,0048*	0.14 *0,0055*	0.18 *0,0070*	0.20 *0,0080*	140 (120 — 140) *460 (400 — 450)*
M1	E	0.100 *0,100*	2.4 *2,4*	0.055 *0,0022*	0.065 *0,0026*	0.080 *0,0032*	0.11 *0,0044*	0.13 *0,0050*	0.16 *0,0065*	0.19 *0,0075*	0.22 *0,0085*	205 (180 — 210) *670 (600 — 680)*
M2	E	0.100 *0,100*	2.4 *2,4*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	0.095 *0,0038*	0.12 *0,0048*	0.14 *0,0055*	0.18 *0,0070*	0.20 *0,0080*	170 (140 — 170) *560 (460 — 550)*
M3	E	0.100 *0,100*	2.4 *2,4*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.15 *0,0060*	0.17 *0,0065*	130 (110 — 140) *425 (370 — 450)*
M4	E	0.100 *0,100*	2.4 *2,4*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.15 *0,0060*	0.17 *0,0065*	130 (110 — 140) *425 (370 — 450)*
M5	E	0.100 *0,100*	2.4 *2,4*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.15 *0,0060*	0.17 *0,0065*	110 (92 — 120) *360 (310 — 390)*
K1	E	0.100 *0,100*	2.4 *2,4*	0.055 *0,0022*	0.065 *0,0026*	0.080 *0,0032*	0.11 *0,0044*	0.13 *0,0050*	0.16 *0,0065*	0.19 *0,0075*	0.22 *0,0085*	275 (230 — 290) *900 (760 — 950)*
K2	E	0.100 *0,100*	2.4 *2,4*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	0.095 *0,0038*	0.12 *0,0048*	0.14 *0,0055*	0.18 *0,0070*	0.20 *0,0080*	245 (200 — 250) *800 (660 — 820)*
K3	E	0.100 *0,100*	2.4 *2,4*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	0.095 *0,0038*	0.12 *0,0048*	0.14 *0,0055*	0.18 *0,0070*	0.20 *0,0080*	205 (170 — 210) *670 (560 — 680)*
K4	E	0.100 *0,100*	2.4 *2,4*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	0.095 *0,0038*	0.12 *0,0048*	0.14 *0,0055*	0.18 *0,0070*	0.20 *0,0080*	200 (170 — 200) *660 (560 — 650)*
K5	E	0.100 *0,100*	2.4 *2,4*	0.044 *0,0017*	0.055 *0,0022*	0.065 *0,0026*	0.085 *0,0034*	0.11 *0,0044*	0.13 *0,0050*	0.16 *0,0065*	0.18 *0,0070*	120 (98 — 120) *395 (330 — 390)*
K6	E	0.100 *0,100*	2.4 *2,4*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	0.095 *0,0038*	0.12 *0,0048*	0.14 *0,0055*	0.18 *0,0070*	0.20 *0,0080*	175 (150 — 180) *570 (500 — 590)*
K7	E	0.100 *0,100*	2.4 *2,4*	0.044 *0,0017*	0.055 *0,0022*	0.065 *0,0026*	0.085 *0,0034*	0.11 *0,0044*	0.13 *0,0050*	0.16 *0,0065*	0.18 *0,0070*	155 (130 — 160) *510 (430 — 520)*

For cutting data recalculations, see pages 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

Cutting data – JS565 Side milling advanced roughing

SMG		a_e/DC	a_p/DC	f_z								v_c
				4	5	6	8	10	12	16	20	
N1	E	0.100 *0,100*	2.4 *2,4*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	0.095 *0,0038*	0.12 *0,0048*	0.14 *0,0055*	0.18 *0,0070*	0.20 *0,0080*	740 (600 — 790) *2425 (2000 — 2500)*
N2	E	0.100 *0,100*	2.4 *2,4*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	0.095 *0,0038*	0.12 *0,0048*	0.14 *0,0055*	0.18 *0,0070*	0.20 *0,0080*	475 (390 — 510) *1550 (1300 — 1600)*
N3	E	0.100 *0,100*	2.4 *2,4*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.15 *0,0060*	0.17 *0,0065*	500 (400 — 590) *1650 (1400 — 1900)*
N11	E	0.100 *0,100*	2.4 *2,4*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	0.095 *0,0038*	0.12 *0,0048*	0.14 *0,0055*	0.18 *0,0070*	0.20 *0,0080*	370 (300 — 390) *1225 (990 — 1200)*
S1	E	0.0300 *0,0300*	2.4 *2,4*	0.028 *0,0011*	0.034 *0,0013*	0.042 *0,0017*	0.055 *0,0022*	0.070 *0,0028*	0.085 *0,0034*	0.10 *0,0040*	0.12 *0,0048*	60 (38 — 86) *195 (130 — 280)*
S2	E	0.0300 *0,0300*	2.4 *2,4*	0.028 *0,0011*	0.034 *0,0013*	0.042 *0,0017*	0.055 *0,0022*	0.070 *0,0028*	0.085 *0,0034*	0.10 *0,0040*	0.12 *0,0048*	50 (30 — 70) *165 (99 — 220)*
S3	E	0.0300 *0,0300*	2.4 *2,4*	0.026 *0,0010*	0.032 *0,0013*	0.038 *0,0015*	0.050 *0,0020*	0.065 *0,0026*	0.075 *0,0030*	0.095 *0,0038*	0.11 *0,0044*	43 (27 — 60) *140 (89 — 190)*
S11	E	0.0800 *0,0800*	2.4 *2,4*	0.028 *0,0011*	0.034 *0,0013*	0.042 *0,0017*	0.055 *0,0022*	0.070 *0,0028*	0.085 *0,0034*	0.10 *0,0040*	0.12 *0,0048*	160 (140 — 180) *520 (460 — 590)*
S12	E	0.0800 *0,0800*	2.4 *2,4*	0.028 *0,0011*	0.034 *0,0013*	0.042 *0,0017*	0.055 *0,0022*	0.070 *0,0028*	0.085 *0,0034*	0.10 *0,0040*	0.12 *0,0048*	125 (110 — 140) *410 (370 — 450)*
S13	E	0.0800 *0,0800*	2.4 *2,4*	0.028 *0,0011*	0.034 *0,0013*	0.042 *0,0017*	0.055 *0,0022*	0.070 *0,0028*	0.085 *0,0034*	0.10 *0,0040*	0.12 *0,0048*	125 (110 — 140) *410 (370 — 450)*
H8	M/A/D	0.0500 *0,0500*	2.4 *2,4*	0.022 *0,00085*	0.026 *0,0010*	0.032 *0,0013*	0.042 *0,0017*	0.055 *0,0022*	0.065 *0,0026*	0.080 *0,0032*	0.090 *0,0036*	160 (140 — 180) *520 (460 — 590)*
H21	M/A/D	0.0500 *0,0500*	2.4 *2,4*	0.024 *0,00095*	0.028 *0,0011*	0.034 *0,0013*	0.046 *0,0018*	0.060 *0,0024*	0.070 *0,0028*	0.085 *0,0034*	0.10 *0,0040*	155 (140 — 180) *510 (460 — 590)*
H31	M/A/D	0.0500 *0,0500*	2.4 *2,4*	0.020 *0,00080*	0.025 *0,0010*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.075 *0,0030*	0.085 *0,0034*	120 (110 — 140) *395 (370 — 450)*

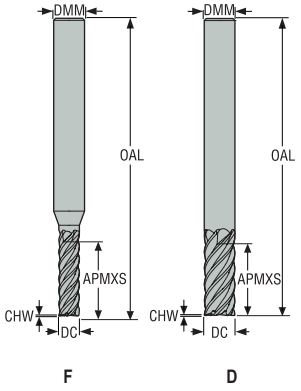
For cutting data recalculations, see pages 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

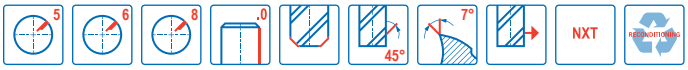
JS520

High performance – Universal – Square – 5-8 Flutes – Cylindrical – Chamfer





- Tolerances:
- DMM=h5
- DC=e7
- Regrind possible if DC is ≥Ø6

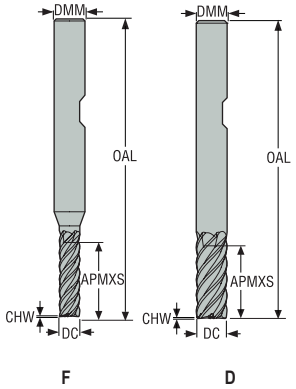


Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	CHW	PCEDC	Cylindrical
				mm	mm	mm	mm	mm		
JS520040F2C.0Z5-NXT	02927474	2	F	4,0	6,0	10,0	57,0	0,04	5	■
JS520050F2C.0Z5-NXT	02927476	2	F	5,0	6,0	12,0	57,0	0,05	5	■
JS520060D2C.0Z5-NXT	02927478	2	D	6,0	6,0	15,0	57,0	0,06	5	■
JS520060D2C.0Z6-NXT	02927479	2	D	6,0	6,0	15,0	57,0	0,06	6	■
JS520080D2C.0Z5-NXT	02927482	2	D	8,0	8,0	20,0	63,0	0,08	5	■
JS520080D2C.0Z6-NXT	02927483	2	D	8,0	8,0	20,0	63,0	0,08	6	■
JS520100D2C.0Z6-NXT	02927486	2	D	10,0	10,0	25,0	72,0	0,1	6	■
JS520120D2C.0Z6-NXT	02927488	2	D	12,0	12,0	25,0	83,0	0,12	6	■
JS520140D2C.0Z6-NXT	02927490	2	D	14,0	14,0	30,0	83,0	0,14	6	■
JS520160D2C.0Z6-NXT	02927491	2	D	16,0	16,0	30,0	92,0	0,16	6	■
JS520160D2C.0Z8-NXT	02927492	2	D	16,0	16,0	30,0	92,0	0,16	8	■
JS520200D2C.0Z8-NXT	02927495	2	D	20,0	20,0	35,0	104,0	0,2	8	■
JS520250D2C.0Z8-NXT	02927497	2	D	25,0	25,0	50,0	125,0	0,25	8	■
JS520040F3C.0Z5-NXT	02927475	3	F	4,0	6,0	15,0	57,0	0,04	5	■
JS520050F3C.0Z5-NXT	02927477	3	F	5,0	6,0	19,0	57,0	0,05	5	■
JS520060D3C.0Z5-NXT	02927480	3	D	6,0	6,0	20,0	63,0	0,06	5	■
JS520060D3C.0Z6-NXT	02927481	3	D	6,0	6,0	20,0	63,0	0,06	6	■
JS520080D3C.0Z5-NXT	02927484	3	D	8,0	8,0	30,0	80,0	0,08	5	■
JS520080D3C.0Z6-NXT	02927485	3	D	8,0	8,0	30,0	80,0	0,08	6	■
JS520100D3C.0Z6-NXT	02927487	3	D	10,0	10,0	40,0	89,0	0,1	6	■
JS520120D3C.0Z6-NXT	02927489	3	D	12,0	12,0	45,0	100,0	0,12	6	■
JS520160D3C.0Z6-NXT	02927493	3	D	16,0	16,0	65,0	125,0	0,16	6	■
JS520160D3C.0Z8-NXT	02927494	3	D	16,0	16,0	65,0	125,0	0,16	8	■
JS520200D3C.0Z8-NXT	02927496	3	D	20,0	20,0	65,0	125,0	0,2	8	■
JS520250D3C.0Z8-NXT	02927498	3	D	25,0	25,0	75,0	150,0	0,25	8	■

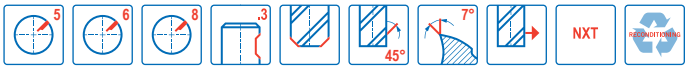
■ Stocked standard.

JS520

High performance – Universal – Square – 5-8 Flutes – Weldon – Chamfer







- Tolerances:
- DMM=h5
- DC=e7
- Regrind possible if DC is ≥Ø6

Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	CHW	PCEDC	Weldon
				mm	mm	mm	mm	mm		
JS520040F2C.3Z5-NXT	02927499	2	F	4,0	6,0	10,0	57,0	0,04	5	□
JS520050F2C.3Z5-NXT	02927501	2	F	5,0	6,0	12,0	57,0	0,05	5	□
JS520060D2C.3Z5-NXT	02927503	2	D	6,0	6,0	15,0	57,0	0,06	5	□
JS520060D2C.3Z6-NXT	02927504	2	D	6,0	6,0	15,0	57,0	0,06	6	□
JS520080D2C.3Z5-NXT	02927507	2	D	8,0	8,0	20,0	63,0	0,08	5	□
JS520080D2C.3Z6-NXT	02927508	2	D	8,0	8,0	20,0	63,0	0,08	6	□
JS520100D2C.3Z6-NXT	02927511	2	D	10,0	10,0	25,0	72,0	0,1	6	□
JS520120D2C.3Z6-NXT	02927513	2	D	12,0	12,0	25,0	83,0	0,12	6	□
JS520140D2C.3Z6-NXT	02927515	2	D	14,0	14,0	30,0	83,0	0,14	6	□
JS520160D2C.3Z6-NXT	02927516	2	D	16,0	16,0	30,0	92,0	0,16	6	□
JS520160D2C.3Z8-NXT	02927517	2	D	16,0	16,0	30,0	92,0	0,16	8	■
JS520200D2C.3Z8-NXT	02927520	2	D	20,0	20,0	35,0	104,0	0,2	8	■
JS520250D2C.3Z8-NXT	02927522	2	D	25,0	25,0	50,0	125,0	0,25	8	□
JS520040F3C.3Z5-NXT	02927500	3	F	4,0	6,0	15,0	57,0	0,04	5	□
JS520050F3C.3Z5-NXT	02927502	3	F	5,0	6,0	19,0	57,0	0,05	5	□
JS520060D3C.3Z5-NXT	02927505	3	D	6,0	6,0	20,0	63,0	0,06	5	□
JS520060D3C.3Z6-NXT	02927506	3	D	6,0	6,0	20,0	63,0	0,06	6	□
JS520080D3C.3Z5-NXT	02927509	3	D	8,0	8,0	30,0	80,0	0,08	5	□
JS520080D3C.3Z6-NXT	02927510	3	D	8,0	8,0	30,0	80,0	0,08	6	□
JS520100D3C.3Z6-NXT	02927512	3	D	10,0	10,0	40,0	89,0	0,1	6	□
JS520120D3C.3Z6-NXT	02927514	3	D	12,0	12,0	45,0	100,0	0,12	6	□
JS520160D3C.3Z6-NXT	02927518	3	D	16,0	16,0	65,0	125,0	0,16	6	□
JS520160D3C.3Z8-NXT	02927519	3	D	16,0	16,0	65,0	125,0	0,16	8	□
JS520200D3C.3Z8-NXT	02927521	3	D	20,0	20,0	65,0	125,0	0,2	8	□
JS520250D3C.3Z8-NXT	02927523	3	D	25,0	25,0	75,0	150,0	0,25	8	□

■ Stocked standard. □ Weldon available. Delivery time is 3 days.

Cutting data – JS520 Side milling

SMG		a_e/DC	a_p/DC	f_z										v_c
				4	5	6	8	10	12	14	16	20	25	
P1	E/M/A	0.100 *0,100*	2.0 *2,0*	0.034 *0,0013*	0.044 *0,0017*	0.050 *0,0020*	0.070 *0,0028*	0.085 *0,0034*	0.10 *0,0040*	0.12 *0,0048*	0.13 *0,0050*	0.15 *0,0060*	0.17 *0,0065*	180 (120 — 250) *590 (400 — 820)*
P2	E/M/A	0.100 *0,100*	2.0 *2,0*	0.036 *0,0014*	0.044 *0,0017*	0.055 *0,0022*	0.070 *0,0028*	0.090 *0,0036*	0.10 *0,0040*	0.12 *0,0048*	0.13 *0,0050*	0.15 *0,0060*	0.17 *0,0065*	175 (110 — 240) *570 (370 — 780)*
P3	E/M/A	0.100 *0,100*	2.0 *2,0*	0.034 *0,0013*	0.042 *0,0017*	0.050 *0,0020*	0.065 *0,0026*	0.085 *0,0034*	0.10 *0,0040*	0.11 *0,0044*	0.12 *0,0048*	0.14 *0,0055*	0.16 *0,0065*	155 (95 — 210) *510 (320 — 680)*
P4	E/M/A	0.100 *0,100*	2.0 *2,0*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	0.11 *0,0044*	0.12 *0,0048*	0.14 *0,0055*	0.16 *0,0065*	135 (84 — 180) *445 (280 — 590)*
P5	E/M/A	0.100 *0,100*	2.0 *2,0*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	0.11 *0,0044*	0.12 *0,0048*	0.14 *0,0055*	0.15 *0,0060*	130 (81 — 180) *425 (270 — 590)*
P6	E/M/A	0.100 *0,100*	2.0 *2,0*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	0.11 *0,0044*	0.12 *0,0048*	0.13 *0,0050*	0.15 *0,0060*	145 (90 — 200) *475 (300 — 650)*
P7	E/M/A	0.100 *0,100*	2.0 *2,0*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	0.11 *0,0044*	0.12 *0,0048*	0.13 *0,0050*	0.15 *0,0060*	140 (85 — 190) *460 (280 — 620)*
P8	E/M/A	0.100 *0,100*	2.0 *2,0*	0.034 *0,0013*	0.042 *0,0017*	0.050 *0,0020*	0.065 *0,0026*	0.085 *0,0034*	0.10 *0,0040*	0.11 *0,0044*	0.12 *0,0048*	0.14 *0,0055*	0.16 *0,0065*	130 (80 — 170) *425 (270 — 550)*
P11	E/M/A	0.100 *0,100*	2.0 *2,0*	0.046 *0,0018*	0.060 *0,0024*	0.070 *0,0028*	0.095 *0,0038*	0.12 *0,0048*	0.14 *0,0055*	0.16 *0,0065*	0.17 *0,0065*	0.20 *0,0080*	0.22 *0,0085*	195 (160 — 230) *640 (530 — 750)*
P12	E/M/A	0.100 *0,100*	2.0 *2,0*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	0.11 *0,0044*	0.12 *0,0048*	0.14 *0,0055*	0.15 *0,0060*	125 (100 — 140) *410 (330 — 450)*
M1	E/M/A	0.100 *0,100*	2.0 *2,0*	0.036 *0,0014*	0.044 *0,0017*	0.055 *0,0022*	0.070 *0,0028*	0.090 *0,0036*	0.10 *0,0040*	0.12 *0,0048*	0.13 *0,0050*	0.15 *0,0060*	0.17 *0,0065*	150 (130 — 180) *490 (430 — 590)*
M2	E/M/A	0.100 *0,100*	2.0 *2,0*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	0.11 *0,0044*	0.12 *0,0048*	0.14 *0,0055*	0.15 *0,0060*	125 (100 — 150) *410 (330 — 490)*
M3	E/M/A	0.100 *0,100*	2.0 *2,0*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	0.11 *0,0044*	0.12 *0,0048*	0.14 *0,0055*	0.15 *0,0060*	100 (75 — 120) *330 (250 — 390)*
M4	E/M/A	0.100 *0,100*	2.0 *2,0*	0.028 *0,0011*	0.034 *0,0013*	0.042 *0,0017*	0.055 *0,0022*	0.070 *0,0028*	0.085 *0,0034*	0.095 *0,0038*	0.10 *0,0040*	0.12 *0,0048*	0.13 *0,0050*	75 (58 — 96) *245 (200 — 310)*
M5	E/M/A	0.100 *0,100*	2.0 *2,0*	0.028 *0,0011*	0.034 *0,0013*	0.042 *0,0017*	0.055 *0,0022*	0.070 *0,0028*	0.085 *0,0034*	0.095 *0,0038*	0.10 *0,0040*	0.12 *0,0048*	0.13 *0,0050*	65 (49 — 80) *215 (170 — 260)*
K1	E/M/A	0.100 *0,100*	2.0 *2,0*	0.036 *0,0014*	0.044 *0,0017*	0.055 *0,0022*	0.070 *0,0028*	0.090 *0,0036*	0.10 *0,0040*	0.12 *0,0048*	0.13 *0,0050*	0.15 *0,0060*	0.17 *0,0065*	175 (110 — 240) *570 (370 — 780)*
K2	E/M/A	0.100 *0,100*	2.0 *2,0*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	0.11 *0,0044*	0.12 *0,0048*	0.14 *0,0055*	0.15 *0,0060*	155 (97 — 210) *510 (320 — 680)*
K3	E/M/A	0.100 *0,100*	2.0 *2,0*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	0.11 *0,0044*	0.12 *0,0048*	0.14 *0,0055*	0.15 *0,0060*	135 (82 — 180) *445 (270 — 590)*
K4	E/M/A	0.100 *0,100*	2.0 *2,0*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	0.11 *0,0044*	0.12 *0,0048*	0.14 *0,0055*	0.15 *0,0060*	125 (79 — 170) *410 (260 — 550)*
K5	E/M/A	0.100 *0,100*	2.0 *2,0*	0.028 *0,0011*	0.036 *0,0014*	0.044 *0,0017*	0.060 *0,0024*	0.070 *0,0028*	0.085 *0,0034*	0.095 *0,0038*	0.11 *0,0044*	0.12 *0,0048*	0.14 *0,0055*	75 (48 — 100) *245 (160 — 320)*
K6	E/M/A	0.100 *0,100*	2.0 *2,0*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	0.11 *0,0044*	0.12 *0,0048*	0.14 *0,0055*	0.15 *0,0060*	110 (69 — 150) *360 (230 — 490)*
K7	E/M/A	0.100 *0,100*	2.0 *2,0*	0.028 *0,0011*	0.036 *0,0014*	0.044 *0,0017*	0.060 *0,0024*	0.070 *0,0028*	0.085 *0,0034*	0.095 *0,0038*	0.11 *0,0044*	0.12 *0,0048*	0.14 *0,0055*	100 (62 — 130) *330 (210 — 420)*

For cutting data recalculations, see pages 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

Cutting data – JS520 Side milling

SMG		a_e/DC	a_p/DC	f_z										v_c
				4	5	6	8	10	12	14	16	20	25	
N1	E/M/A	0.100 *0,100*	2.0 *2,0*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	0.11 *0,0044*	0.12 *0,0048*	0.14 *0,0055*	0.15 *0,0060*	500 (450 — 550) *1650 (1500 — 1800)*
N2	E/M/A	0.100 *0,100*	2.0 *2,0*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	0.11 *0,0044*	0.12 *0,0048*	0.14 *0,0055*	0.15 *0,0060*	320 (290 — 350) *1050 (960 — 1100)*
N3	E/M/A	0.100 *0,100*	2.0 *2,0*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	0.11 *0,0044*	0.12 *0,0048*	0.14 *0,0055*	0.15 *0,0060*	215 (200 — 230) *710 (660 — 750)*
N11	E/M/A	0.100 *0,100*	2.0 *2,0*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	0.11 *0,0044*	0.12 *0,0048*	0.14 *0,0055*	0.15 *0,0060*	400 (350 — 450) *1300 (1200 — 1400)*
S1	E/M/A	0.0600 *0,0600*	2.0 *2,0*	0.020 *0,00080*	0.025 *0,0010*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.065 *0,0026*	0.075 *0,0030*	0.085 *0,0034*	0.095 *0,0038*	75 (63 — 86) *245 (210 — 280)*
S2	E/M/A	0.0600 *0,0600*	2.0 *2,0*	0.020 *0,00080*	0.025 *0,0010*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.065 *0,0026*	0.075 *0,0030*	0.085 *0,0034*	0.095 *0,0038*	60 (50 — 70) *195 (170 — 220)*
S3	E/M/A	0.0600 *0,0600*	2.0 *2,0*	0.020 *0,00080*	0.025 *0,0010*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.065 *0,0026*	0.075 *0,0030*	0.085 *0,0034*	0.095 *0,0038*	40 (30 — 49) *130 (99 — 160)*
S11	E/M/A	0.100 *0,100*	2.0 *2,0*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	0.11 *0,0044*	0.12 *0,0048*	0.14 *0,0055*	0.15 *0,0060*	105 (92 — 110) *345 (310 — 360)*
S12	E/M/A	0.100 *0,100*	2.0 *2,0*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	0.11 *0,0044*	0.12 *0,0048*	0.14 *0,0055*	0.15 *0,0060*	80 (71 — 90) *260 (240 — 290)*
S13	E/M/A	0.100 *0,100*	2.0 *2,0*	0.028 *0,0011*	0.034 *0,0013*	0.042 *0,0017*	0.055 *0,0022*	0.070 *0,0028*	0.085 *0,0034*	0.095 *0,0038*	0.10 *0,0040*	0.12 *0,0048*	0.13 *0,0050*	65 (56 — 71) *215 (190 — 230)*
H5	M/A	0.0600 *0,0600*	2.0 *2,0*	0.030 *0,0012*	0.038 *0,0015*	0.046 *0,0018*	0.060 *0,0024*	0.075 *0,0030*	0.090 *0,0036*	0.10 *0,0040*	0.11 *0,0044*	0.13 *0,0050*	0.14 *0,0055*	125 (64 — 180) *410 (210 — 590)*
H8	M/A	0.0600 *0,0600*	2.0 *2,0*	0.024 *0,00095*	0.028 *0,0011*	0.034 *0,0013*	0.046 *0,0018*	0.060 *0,0024*	0.070 *0,0028*	0.075 *0,0030*	0.085 *0,0034*	0.10 *0,0040*	0.11 *0,0044*	130 (66 — 190) *425 (220 — 620)*
H11	M/A	0.0600 *0,0600*	2.0 *2,0*	0.030 *0,0012*	0.038 *0,0015*	0.046 *0,0018*	0.060 *0,0024*	0.075 *0,0030*	0.090 *0,0036*	0.10 *0,0040*	0.11 *0,0044*	0.13 *0,0050*	0.14 *0,0055*	160 (81 — 240) *520 (270 — 780)*
H12	M/A	0.0600 *0,0600*	2.0 *2,0*	0.024 *0,00095*	0.028 *0,0011*	0.034 *0,0013*	0.046 *0,0018*	0.060 *0,0024*	0.070 *0,0028*	0.075 *0,0030*	0.085 *0,0034*	0.10 *0,0040*	0.11 *0,0044*	150 (76 — 220) *490 (250 — 720)*
H21	M/A	0.0600 *0,0600*	2.0 *2,0*	0.024 *0,00095*	0.028 *0,0011*	0.034 *0,0013*	0.046 *0,0018*	0.060 *0,0024*	0.070 *0,0028*	0.075 *0,0030*	0.085 *0,0034*	0.10 *0,0040*	0.11 *0,0044*	130 (66 — 190) *425 (220 — 620)*
H31	M/A	0.0600 *0,0600*	2.0 *2,0*	0.020 *0,00080*	0.025 *0,0010*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.065 *0,0026*	0.075 *0,0030*	0.085 *0,0034*	0.095 *0,0038*	100 (51 — 150) *330 (170 — 490)*
TS1	A/D	0.100 *0,100*	2.0 *2,0*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	0.11 *0,0044*	0.12 *0,0048*	0.14 *0,0055*	0.15 *0,0060*	500 (450 — 550) *1650 (1500 — 1800)*
TP1	A/D	0.100 *0,100*	2.0 *2,0*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	0.11 *0,0044*	0.12 *0,0048*	0.14 *0,0055*	0.15 *0,0060*	395 (350 — 440) *1300 (1200 — 1400)*
GR1	A/D	0.100 *0,100*	2.0 *2,0*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	0.11 *0,0044*	0.12 *0,0048*	0.14 *0,0055*	0.15 *0,0060*	500 (450 — 550) *1650 (1500 — 1800)*

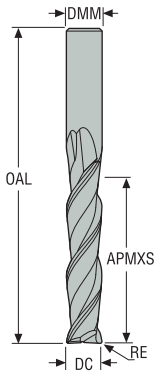
For cutting data recalculations, see pages 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

JS522

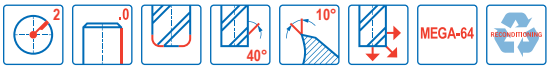
High performance – Universal – Square – 2 Flutes – High shoulder – Cylindrical – Corner radius





D

- Tolerances:
- Run-out= Ø6-Ø8 <0,01, Ø10-Ø12 <0,015, Ø16-Ø32 <0,02
- DMM= h5
- DC= -0,02/-0,04 mm
- RE= 0,1+0,1 mm, RE= 0,5 ±0,03 mm
  RE= 3,1 ±0,05 mm, RE= 4 ±0,05 mm
  RE= 6 ±0,05 mm



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	RE	PCEDC	Cylindrical
				mm	mm	mm	mm	mm		
522060R010Z2.0-MEGA-64	02747756	4	D	6,0	6,0	30,0	80,0	0,1	2	■
522080R010Z2.0-MEGA-64	02747763	4	D	8,0	8,0	40,0	85,0	0,1	2	■
522100R010Z2.0-MEGA-64	02747765	4	D	10,0	10,0	50,0	100,0	0,1	2	■
522120R010Z2.0-MEGA-64	02747766	4	D	12,0	12,0	60,0	115,0	0,1	2	■
522160R050Z2.0-MEGA-64	02747767	4	D	16,0	16,0	80,0	150,0	0,5	2	■
522160R310Z2.0-MEGA-64	02747768	4	D	16,0	16,0	80,0	150,0	3,1	2	■
JS522160D4R600.0Z2-M64	03093681	4	D	16,0	16,0	80,0	150,0	6,0	2	■
522200R050Z2.0-MEGA-64	02747769	4	D	20,0	20,0	100,0	175,0	0,5	2	■
522200R310Z2.0-MEGA-64	02747770	4	D	20,0	20,0	100,0	175,0	3,1	2	■
JS522200D4R600.0Z2-M64	03093682	4	D	20,0	20,0	100,0	175,0	6,0	2	■
522250R050Z2.0-MEGA-64	02747771	4	D	25,0	25,0	125,0	205,0	0,5	2	■
522250R310Z2.0-MEGA-64	02747772	4	D	25,0	25,0	125,0	205,0	3,1	2	■
522250R400Z2.0-MEGA-64	02747773	4	D	25,0	25,0	125,0	205,0	4,0	2	■
JS522250D4R600.0Z2-M64	03093683	4	D	25,0	25,0	125,0	205,0	6,0	2	■
522320R050Z2.0-MEGA-64	02747774	4	D	32,0	32,0	160,0	245,0	0,5	2	■
522320R400Z2.0-MEGA-64	02747775	4	D	32,0	32,0	160,0	245,0	4,0	2	■
JS522320D4R600.0Z2-M64	03093684	4	D	32,0	32,0	160,0	245,0	6,0	2	■

■ Stocked standard.

*JS522 long flute finisher, with its special geometry designed to machine high shoulders with exellent surface finish and perpendicularity.

Cutting data – JS522 Side milling semi finishing

SMG		a_e/DC	a_p/DC	f_z								v_c
				6	8	10	12	16	20	25	32	
P1	E/M/A	0.0500 *0,0500*	4.0 *4,0*	0.046 *0,0018*	0.060 *0,0024*	0.075 *0,0030*	0.090 *0,0036*	0.11 *0,0044*	0.13 *0,0050*	0.14 *0,0055*	0.16 *0,0065*	160 (140 — 170) *520 (460 — 550)*
P2	E/M/A	0.0500 *0,0500*	4.0 *4,0*	0.046 *0,0018*	0.060 *0,0024*	0.075 *0,0030*	0.090 *0,0036*	0.11 *0,0044*	0.13 *0,0050*	0.15 *0,0060*	0.17 *0,0065*	155 (140 — 170) *510 (460 — 550)*
P3	E/M/A	0.0500 *0,0500*	4.0 *4,0*	0.044 *0,0017*	0.060 *0,0024*	0.075 *0,0030*	0.085 *0,0034*	0.11 *0,0044*	0.12 *0,0048*	0.14 *0,0055*	0.16 *0,0065*	165 (150 — 180) *540 (500 — 590)*
P4	E/M/A	0.0500 *0,0500*	4.0 *4,0*	0.042 *0,0017*	0.055 *0,0022*	0.070 *0,0028*	0.085 *0,0034*	0.10 *0,0040*	0.12 *0,0048*	0.14 *0,0055*	0.15 *0,0060*	145 (130 — 160) *475 (430 — 520)*
P5	E/M/A	0.0500 *0,0500*	4.0 *4,0*	0.042 *0,0017*	0.055 *0,0022*	0.070 *0,0028*	0.085 *0,0034*	0.10 *0,0040*	0.12 *0,0048*	0.13 *0,0050*	0.15 *0,0060*	140 (130 — 160) *460 (430 — 520)*
P6	E/M/A	0.0500 *0,0500*	4.0 *4,0*	0.042 *0,0017*	0.055 *0,0022*	0.070 *0,0028*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.13 *0,0050*	0.15 *0,0060*	120 (110 — 140) *395 (370 — 450)*
P7	E/M/A	0.0500 *0,0500*	4.0 *4,0*	0.042 *0,0017*	0.055 *0,0022*	0.070 *0,0028*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.13 *0,0050*	0.15 *0,0060*	115 (95 — 130) *375 (320 — 420)*
P8	E/M/A	0.0500 *0,0500*	4.0 *4,0*	0.044 *0,0017*	0.060 *0,0024*	0.075 *0,0030*	0.085 *0,0034*	0.11 *0,0044*	0.12 *0,0048*	0.14 *0,0055*	0.16 *0,0065*	105 (89 — 120) *345 (300 — 390)*
P11	E/M/A	0.0500 *0,0500*	4.0 *4,0*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.15 *0,0060*	0.17 *0,0065*	0.20 *0,0080*	0.22 *0,0085*	105 (87 — 120) *345 (290 — 390)*
P12	E/M/A	0.0500 *0,0500*	4.0 *4,0*	0.042 *0,0017*	0.055 *0,0022*	0.070 *0,0028*	0.085 *0,0034*	0.10 *0,0040*	0.12 *0,0048*	0.13 *0,0050*	0.15 *0,0060*	65 (55 — 75) *215 (190 — 240)*
M1	E/M/A	0.0500 *0,0500*	4.0 *4,0*	0.046 *0,0018*	0.060 *0,0024*	0.075 *0,0030*	0.090 *0,0036*	0.11 *0,0044*	0.13 *0,0050*	0.15 *0,0060*	0.17 *0,0065*	110 (86 — 130) *360 (290 — 420)*
M2	E/M/A	0.0500 *0,0500*	4.0 *4,0*	0.042 *0,0017*	0.055 *0,0022*	0.070 *0,0028*	0.085 *0,0034*	0.10 *0,0040*	0.12 *0,0048*	0.13 *0,0050*	0.15 *0,0060*	90 (71 — 110) *295 (240 — 360)*
M3	E/M/A	0.0500 *0,0500*	4.0 *4,0*	0.042 *0,0017*	0.055 *0,0022*	0.070 *0,0028*	0.085 *0,0034*	0.10 *0,0040*	0.12 *0,0048*	0.13 *0,0050*	0.15 *0,0060*	80 (61 — 100) *260 (210 — 320)*
M4	E/M/A	0.0500 *0,0500*	4.0 *4,0*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	0.090 *0,0036*	0.10 *0,0040*	0.12 *0,0048*	0.13 *0,0050*	60 (47 — 76) *195 (160 — 240)*
M5	E/M/A	0.0500 *0,0500*	4.0 *4,0*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	0.090 *0,0036*	0.10 *0,0040*	0.12 *0,0048*	0.13 *0,0050*	50 (39 — 63) *165 (130 — 200)*
K1	E/M/A	0.0500 *0,0500*	4.0 *4,0*	0.046 *0,0018*	0.060 *0,0024*	0.075 *0,0030*	0.090 *0,0036*	0.11 *0,0044*	0.13 *0,0050*	0.15 *0,0060*	0.17 *0,0065*	120 (100 — 130) *395 (330 — 420)*
K2	E/M/A	0.0500 *0,0500*	4.0 *4,0*	0.042 *0,0017*	0.055 *0,0022*	0.070 *0,0028*	0.085 *0,0034*	0.10 *0,0040*	0.12 *0,0048*	0.13 *0,0050*	0.15 *0,0060*	105 (87 — 120) *345 (290 — 390)*
K3	E/M/A	0.0500 *0,0500*	4.0 *4,0*	0.042 *0,0017*	0.055 *0,0022*	0.070 *0,0028*	0.085 *0,0034*	0.10 *0,0040*	0.12 *0,0048*	0.13 *0,0050*	0.15 *0,0060*	90 (74 — 100) *295 (250 — 320)*
K4	E/M/A	0.0500 *0,0500*	4.0 *4,0*	0.042 *0,0017*	0.055 *0,0022*	0.070 *0,0028*	0.085 *0,0034*	0.10 *0,0040*	0.12 *0,0048*	0.13 *0,0050*	0.15 *0,0060*	85 (71 — 98) *280 (240 — 320)*
K5	E/M/A	0.0500 *0,0500*	4.0 *4,0*	0.038 *0,0015*	0.050 *0,0020*	0.065 *0,0026*	0.075 *0,0030*	0.090 *0,0036*	0.11 *0,0044*	0.12 *0,0048*	0.14 *0,0055*	100 (81 — 120) *330 (270 — 390)*
K6	E/M/A	0.0500 *0,0500*	4.0 *4,0*	0.042 *0,0017*	0.055 *0,0022*	0.070 *0,0028*	0.085 *0,0034*	0.10 *0,0040*	0.12 *0,0048*	0.13 *0,0050*	0.15 *0,0060*	150 (120 — 170) *490 (400 — 550)*
K7	E/M/A	0.0500 *0,0500*	4.0 *4,0*	0.038 *0,0015*	0.050 *0,0020*	0.065 *0,0026*	0.075 *0,0030*	0.090 *0,0036*	0.11 *0,0044*	0.12 *0,0048*	0.14 *0,0055*	130 (110 — 150) *425 (370 — 490)*

For cutting data recalculations, see pages 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

Cutting data – JS522 Side milling semi finishing

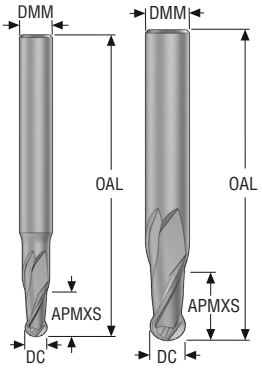
SMG		a_e/DC	a_p/DC	f_z								v_c
				6	8	10	12	16	20	25	32	
N1	E/M/A	0.0500 *0,0500*	4.0 *4,0*	0.042 *0,0017*	0.055 *0,0022*	0.070 *0,0028*	0.085 *0,0034*	0.10 *0,0040*	0.12 *0,0048*	0.13 *0,0050*	0.15 *0,0060*	400 (310 — 500) *1300 (1100 — 1600)*
N2	E/M/A	0.0500 *0,0500*	4.0 *4,0*	0.042 *0,0017*	0.055 *0,0022*	0.070 *0,0028*	0.085 *0,0034*	0.10 *0,0040*	0.12 *0,0048*	0.13 *0,0050*	0.15 *0,0060*	300 (210 — 400) *980 (690 — 1300)*
N3	E/M/A	0.0500 *0,0500*	4.0 *4,0*	0.042 *0,0017*	0.055 *0,0022*	0.070 *0,0028*	0.085 *0,0034*	0.10 *0,0040*	0.12 *0,0048*	0.13 *0,0050*	0.15 *0,0060*	200 (140 — 260) *660 (460 — 850)*
N11	E/M/A	0.0500 *0,0500*	4.0 *4,0*	0.042 *0,0017*	0.055 *0,0022*	0.070 *0,0028*	0.085 *0,0034*	0.10 *0,0040*	0.12 *0,0048*	0.13 *0,0050*	0.15 *0,0060*	300 (260 — 350) *980 (860 — 1100)*
S1	E/M/A	0.0500 *0,0500*	4.0 *4,0*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.044 *0,0017*	0.050 *0,0020*	0.055 *0,0022*	0.065 *0,0026*	48 (39 — 57) *155 (130 — 180)*
S2	E/M/A	0.0500 *0,0500*	4.0 *4,0*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.044 *0,0017*	0.050 *0,0020*	0.055 *0,0022*	0.065 *0,0026*	39 (31 — 46) *130 (110 — 150)*
S3	E/M/A	0.0300 *0,0300*	4.0 *4,0*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.044 *0,0017*	0.050 *0,0020*	0.055 *0,0022*	0.065 *0,0026*	42 (32 — 51) *140 (110 — 160)*
S11	E/M/A	0.0500 *0,0500*	4.0 *4,0*	0.042 *0,0017*	0.055 *0,0022*	0.070 *0,0028*	0.085 *0,0034*	0.10 *0,0040*	0.12 *0,0048*	0.13 *0,0050*	0.15 *0,0060*	125 (100 — 140) *410 (330 — 450)*
S12	E/M/A	0.0500 *0,0500*	4.0 *4,0*	0.042 *0,0017*	0.055 *0,0022*	0.070 *0,0028*	0.085 *0,0034*	0.10 *0,0040*	0.12 *0,0048*	0.13 *0,0050*	0.15 *0,0060*	95 (77 — 110) *310 (260 — 360)*
S13	E/M/A	0.0500 *0,0500*	4.0 *4,0*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	0.090 *0,0036*	0.10 *0,0040*	0.12 *0,0048*	0.13 *0,0050*	75 (61 — 90) *245 (210 — 290)*
TS1	A/D	0.0500 *0,0500*	4.0 *4,0*	0.042 *0,0017*	0.055 *0,0022*	0.070 *0,0028*	0.085 *0,0034*	0.10 *0,0040*	0.12 *0,0048*	0.13 *0,0050*	0.15 *0,0060*	500 (410 — 600) *1650 (1400 — 1900)*
TP1	A/D	0.0500 *0,0500*	4.0 *4,0*	0.042 *0,0017*	0.055 *0,0022*	0.070 *0,0028*	0.085 *0,0034*	0.10 *0,0040*	0.12 *0,0048*	0.13 *0,0050*	0.15 *0,0060*	400 (310 — 500) *1300 (1100 — 1600)*
GR1	A/D	0.0500 *0,0500*	4.0 *4,0*	0.042 *0,0017*	0.055 *0,0022*	0.070 *0,0028*	0.085 *0,0034*	0.10 *0,0040*	0.12 *0,0048*	0.13 *0,0050*	0.15 *0,0060*	500 (410 — 600) *1650 (1400 — 1900)*

For cutting data recalculations, see pages 573 - 580

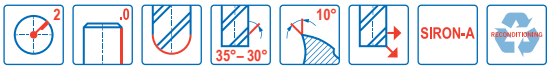
SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

JSB512

General purpose – Universal – Ball nose – 2 Flutes – Cylindrical







- Tolerances:
- DMM=h5
- DC=e8
- RE= ±0,01 mm
- Regrind possible if DC is ≥Ø10

Designation	Grade	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	PCEDC	Cylindrical
					mm	mm	mm	mm		
JSB512020F2B.0Z2	SIRA	10053561	2	F	2,0	3,0	3,0	40,0	2	■
JSB512030D2B.0Z2	SIRA	10053562	2	D	3,0	3,0	5,0	40,0	2	■
JSB512040D2B.0Z2	SIRA	10053563	2	D	4,0	4,0	6,0	50,0	2	■
JSB512050F2B.0Z2	SIRA	10053564	2	F	5,0	6,0	8,0	57,0	2	■
JSB512060D2B.0Z2	SIRA	10053565	2	D	6,0	6,0	9,0	57,0	2	■
JSB512080D2B.0Z2	SIRA	10053566	2	D	8,0	8,0	12,0	63,0	2	■
JSB512100D2B.0Z2	SIRA	10053567	2	D	10,0	10,0	15,0	72,0	2	■
JSB512120D2B.0Z2	SIRA	10053568	2	D	12,0	12,0	18,0	83,0	2	■

■ Stocked standard.

Cutting data – JSB512 Copy milling roughing

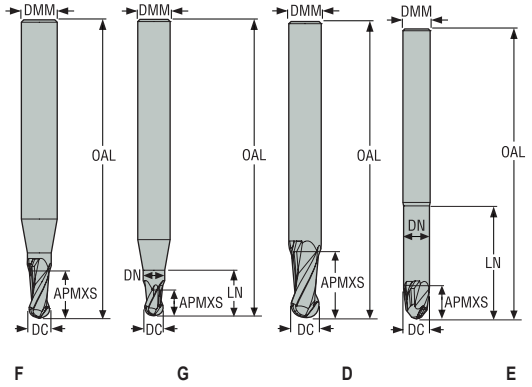
SMG		a_e/DC	a_p/DC	f_z								v_c
				2	3	4	5	6	8	10	12	
P1	M/A/D/E	0.150 *0,150*	1.2 *1,2*	0.010 *0,00040*	0.015 *0,00060*	0.020 *0,00080*	0.025 *0,0010*	0.030 *0,0012*	0.042 *0,0017*	0.050 *0,0020*	0.060 *0,0024*	150 (63 — 180) *490 (210 — 590)*
P2	M/A/D/E	0.150 *0,150*	1.2 *1,2*	0.010 *0,00040*	0.016 *0,00065*	0.020 *0,00080*	0.026 *0,0010*	0.032 *0,0013*	0.042 *0,0017*	0.050 *0,0020*	0.060 *0,0024*	150 (63 — 180) *490 (210 — 590)*
P3	M/A/D/E	0.150 *0,150*	1.2 *1,2*	0.010 *0,00040*	0.016 *0,00065*	0.020 *0,00080*	0.026 *0,0010*	0.032 *0,0013*	0.042 *0,0017*	0.050 *0,0020*	0.060 *0,0024*	150 (63 — 180) *490 (210 — 590)*
P4	M/A/D/E	0.150 *0,150*	1.2 *1,2*	0.010 *0,00040*	0.016 *0,00065*	0.020 *0,00080*	0.026 *0,0010*	0.032 *0,0013*	0.042 *0,0017*	0.050 *0,0020*	0.060 *0,0024*	150 (63 — 180) *490 (210 — 590)*
P5	M/A/D/E	0.150 *0,150*	1.2 *1,2*	0.010 *0,00040*	0.016 *0,00065*	0.020 *0,00080*	0.026 *0,0010*	0.032 *0,0013*	0.042 *0,0017*	0.050 *0,0020*	0.060 *0,0024*	150 (63 — 180) *490 (210 — 590)*
P6	M/A/D/E	0.150 *0,150*	1.2 *1,2*	0.010 *0,00040*	0.016 *0,00065*	0.020 *0,00080*	0.026 *0,0010*	0.032 *0,0013*	0.042 *0,0017*	0.050 *0,0020*	0.060 *0,0024*	150 (63 — 180) *490 (210 — 590)*
P7	M/A/D/E	0.150 *0,150*	1.2 *1,2*	0.010 *0,00040*	0.016 *0,00065*	0.020 *0,00080*	0.026 *0,0010*	0.032 *0,0013*	0.042 *0,0017*	0.050 *0,0020*	0.060 *0,0024*	150 (63 — 180) *490 (210 — 590)*
P8	M/A/D/E	0.150 *0,150*	1.2 *1,2*	0.010 *0,00040*	0.016 *0,00065*	0.020 *0,00080*	0.026 *0,0010*	0.032 *0,0013*	0.042 *0,0017*	0.050 *0,0020*	0.060 *0,0024*	150 (63 — 180) *490 (210 — 590)*
P11	M/A/D/E	0.150 *0,150*	1.2 *1,2*	0.010 *0,00040*	0.016 *0,00065*	0.020 *0,00080*	0.026 *0,0010*	0.032 *0,0013*	0.042 *0,0017*	0.050 *0,0020*	0.060 *0,0024*	90 (63 — 120) *295 (210 — 390)*
P12	M/A/D/E	0.150 *0,150*	1.2 *1,2*	0.010 *0,00040*	0.016 *0,00065*	0.020 *0,00080*	0.026 *0,0010*	0.032 *0,0013*	0.042 *0,0017*	0.050 *0,0020*	0.060 *0,0024*	90 (63 — 120) *295 (210 — 390)*
M1	E/M/A	0.150 *0,150*	1.2 *1,2*	0.010 *0,00040*	0.016 *0,00065*	0.020 *0,00080*	0.026 *0,0010*	0.032 *0,0013*	0.042 *0,0017*	0.050 *0,0020*	0.060 *0,0024*	90 (63 — 120) *295 (210 — 390)*
M2	E/M/A	0.150 *0,150*	1.2 *1,2*	0.010 *0,00040*	0.016 *0,00065*	0.020 *0,00080*	0.026 *0,0010*	0.032 *0,0013*	0.042 *0,0017*	0.050 *0,0020*	0.060 *0,0024*	90 (63 — 120) *295 (210 — 390)*
M3	E/M/A	0.150 *0,150*	1.2 *1,2*	0.010 *0,00040*	0.016 *0,00065*	0.020 *0,00080*	0.026 *0,0010*	0.032 *0,0013*	0.042 *0,0017*	0.050 *0,0020*	0.060 *0,0024*	90 (63 — 120) *295 (210 — 390)*
M4	E/M/A	0.150 *0,150*	1.2 *1,2*	0.010 *0,00040*	0.016 *0,00065*	0.020 *0,00080*	0.026 *0,0010*	0.032 *0,0013*	0.042 *0,0017*	0.050 *0,0020*	0.060 *0,0024*	90 (63 — 120) *295 (210 — 390)*
M5	E/M/A	0.150 *0,150*	1.2 *1,2*	0.010 *0,00040*	0.016 *0,00065*	0.020 *0,00080*	0.026 *0,0010*	0.032 *0,0013*	0.042 *0,0017*	0.050 *0,0020*	0.060 *0,0024*	90 (63 — 120) *295 (210 — 390)*
K1	A/D/M/E	0.150 *0,150*	1.2 *1,2*	0.010 *0,00040*	0.016 *0,00065*	0.020 *0,00080*	0.026 *0,0010*	0.032 *0,0013*	0.042 *0,0017*	0.050 *0,0020*	0.060 *0,0024*	150 (63 — 180) *490 (210 — 590)*
K2	A/D/M/E	0.150 *0,150*	1.2 *1,2*	0.010 *0,00040*	0.016 *0,00065*	0.020 *0,00080*	0.026 *0,0010*	0.032 *0,0013*	0.042 *0,0017*	0.050 *0,0020*	0.060 *0,0024*	150 (63 — 180) *490 (210 — 590)*
K3	A/D/M/E	0.150 *0,150*	1.2 *1,2*	0.010 *0,00040*	0.016 *0,00065*	0.020 *0,00080*	0.026 *0,0010*	0.032 *0,0013*	0.042 *0,0017*	0.050 *0,0020*	0.060 *0,0024*	150 (63 — 180) *490 (210 — 590)*
K4	A/D/M/E	0.150 *0,150*	1.2 *1,2*	0.010 *0,00040*	0.016 *0,00065*	0.020 *0,00080*	0.026 *0,0010*	0.032 *0,0013*	0.042 *0,0017*	0.050 *0,0020*	0.060 *0,0024*	150 (63 — 180) *490 (210 — 590)*
K5	A/D/M/E	0.150 *0,150*	1.2 *1,2*	0.012 *0,00048*	0.018 *0,00070*	0.025 *0,0010*	0.030 *0,0012*	0.036 *0,0014*	0.050 *0,0020*	0.060 *0,0024*	0.070 *0,0028*	145 (61 — 180) *475 (210 — 590)*
K6	A/D/M/E	0.150 *0,150*	1.2 *1,2*	0.010 *0,00040*	0.016 *0,00065*	0.020 *0,00080*	0.026 *0,0010*	0.032 *0,0013*	0.042 *0,0017*	0.050 *0,0020*	0.060 *0,0024*	150 (63 — 180) *490 (210 — 590)*
K7	A/D/M/E	0.150 *0,150*	1.2 *1,2*	0.010 *0,00040*	0.016 *0,00065*	0.020 *0,00080*	0.026 *0,0010*	0.032 *0,0013*	0.042 *0,0017*	0.050 *0,0020*	0.060 *0,0024*	150 (63 — 180) *490 (210 — 590)*
N1	E/M/A	0.150 *0,150*	1.2 *1,2*	0.010 *0,00040*	0.015 *0,00060*	0.020 *0,00080*	0.025 *0,0010*	0.030 *0,0012*	0.042 *0,0017*	0.050 *0,0020*	0.060 *0,0024*	500 (380 — 620) *1650 (1300 — 2000)*
N11	E/M/A	0.150 *0,150*	1.2 *1,2*	0.010 *0,00040*	0.015 *0,00060*	0.020 *0,00080*	0.025 *0,0010*	0.030 *0,0012*	0.042 *0,0017*	0.050 *0,0020*	0.060 *0,0024*	375 (260 — 500) *1225 (860 — 1600)*
S11	E	0.150 *0,150*	1.2 *1,2*	0.010 *0,00040*	0.016 *0,00065*	0.020 *0,00080*	0.026 *0,0010*	0.032 *0,0013*	0.042 *0,0017*	0.050 *0,0020*	0.060 *0,0024*	90 (66 — 130) *295 (220 — 420)*
S12	E	0.150 *0,150*	1.2 *1,2*	0.010 *0,00040*	0.016 *0,00065*	0.020 *0,00080*	0.026 *0,0010*	0.032 *0,0013*	0.042 *0,0017*	0.050 *0,0020*	0.060 *0,0024*	90 (63 — 120) *295 (210 — 390)*
S13	E	0.150 *0,150*	1.2 *1,2*	0.010 *0,00040*	0.016 *0,00065*	0.020 *0,00080*	0.026 *0,0010*	0.032 *0,0013*	0.042 *0,0017*	0.050 *0,0020*	0.060 *0,0024*	90 (63 — 120) *295 (210 — 390)*

For cutting data recalculations, see pages 573 - 580

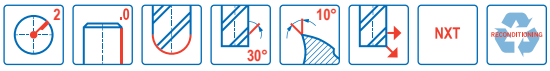
SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

JS532

High performance – Universal – Ball nose – 2 Flutes – Cylindrical







- Tolerances:
- DMM=h5
- DC=e8
- RE= ±0,01 mm
- Regrind possible if DC is ≥Ø6

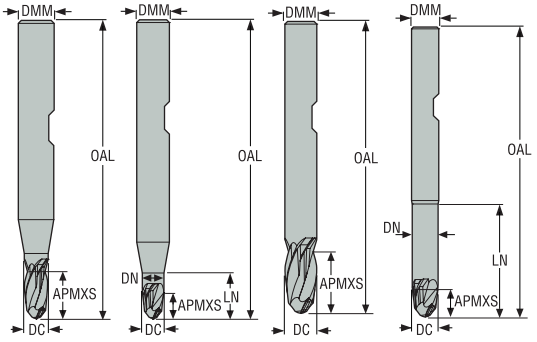
Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Cylindrical
				mm	mm	mm	mm	mm	mm	mm		
JS532010F1B.0Z2-NXT	02928193	1	F	1,0	3,0	2,0	38,0	3,1	1,0	0,5	2	■
JS532015F1B.0Z2-NXT	02928194	1	F	1,5	3,0	3,0	38,0	4,6	1,5	0,75	2	■
JS532020F1B.0Z2-NXT	02928195	1	F	2,0	3,0	4,0	38,0	6,1	2,0	1,0	2	■
JS532025F1B.0Z2-NXT	02928197	1	F	2,5	3,0	5,0	38,0	7,1	2,5	1,25	2	■
JS532030D1B.0Z2-NXT	02928199	1	D	3,0	3,0	6,0	38,0	–	–	1,5	2	■
JS532035F1B.0Z2-NXT	02928202	1	F	3,5	6,0	7,0	57,0	9,6	3,5	1,75	2	■
JS532040F1B.0Z2-NXT	02928203	1	F	4,0	6,0	8,0	57,0	10,75	4,0	2,0	2	■
JS532045F1B.0Z2-NXT	02928206	1	F	4,5	6,0	9,0	57,0	11,75	4,5	2,25	2	■
JS532050F1B.0Z2-NXT	02928207	1	F	5,0	6,0	10,0	57,0	12,75	5,0	2,5	2	■
JS532060D1B.0Z2-NXT	02928210	1	D	6,0	6,0	12,0	57,0	–	–	3,0	2	■
JS532080D1B.0Z2-NXT	02928213	1	D	8,0	8,0	16,0	63,0	–	–	4,0	2	■
JS532100D1B.0Z2-NXT	02928216	1	D	10,0	10,0	20,0	72,0	–	–	5,0	2	■
JS532120D1B.0Z2-NXT	02928219	1	D	12,0	12,0	24,0	83,0	–	–	6,0	2	■
JS532160D1B.0Z2-NXT	02928222	1	D	16,0	16,0	32,0	92,0	–	–	8,0	2	■
JS532200D1B.0Z2-NXT	02928225	1	D	20,0	20,0	40,0	104,0	–	–	10,0	2	■
JS532020G2B.0Z2-NXT	02928196	2	G	2,0	3,0	2,0	38,0	8,0	1,9	1,0	2	■
JS532030E2B.0Z2-NXT	02928200	2	E	3,0	3,0	3,0	38,0	10,0	2,85	1,5	2	■
JS532040G2B.0Z2-NXT	02928204	2	G	4,0	6,0	4,0	57,0	15,0	3,8	2,0	2	■
JS532050G2B.0Z2-NXT	02928208	2	G	5,0	6,0	5,0	57,0	20,0	4,8	2,5	2	■
JS532060E2B.0Z2-NXT	02928211	2	E	6,0	6,0	6,0	63,0	25,0	5,7	3,0	2	■
JS532080E2B.0Z2-NXT	02928214	2	E	8,0	8,0	8,0	80,0	35,0	7,6	4,0	2	■
JS532100E2B.0Z2-NXT	02928217	2	E	10,0	10,0	10,0	82,0	40,0	9,5	5,0	2	■
JS532120E2B.0Z2-NXT	02928220	2	E	12,0	12,0	12,0	100,0	50,0	11,4	6,0	2	■
JS532160E2B.0Z2-NXT	02928223	2	E	16,0	16,0	16,0	125,0	72,0	15,2	8,0	2	■
JS532030E3B.0Z2-NXT	02928201	3	E	3,0	3,0	3,0	52,0	20,0	2,85	1,5	2	■
JS532040G3B.0Z2-NXT	02928205	3	G	4,0	6,0	4,0	63,0	24,0	3,8	2,0	2	■
JS532050G3B.0Z2-NXT	02928209	3	G	5,0	6,0	5,0	75,0	35,0	4,8	2,5	2	■
JS532060E3B.0Z2-NXT	02928212	3	E	6,0	6,0	6,0	80,0	42,0	5,7	3,0	2	■
JS532080E3B.0Z2-NXT	02928215	3	E	8,0	8,0	8,0	100,0	60,0	7,6	4,0	2	■
JS532100E3B.0Z2-NXT	02928218	3	E	10,0	10,0	10,0	125,0	80,0	9,5	5,0	2	■
JS532120E3B.0Z2-NXT	02928221	3	E	12,0	12,0	12,0	125,0	75,0	11,4	6,0	2	■
JS532160E3B.0Z2-NXT	02928224	3	E	16,0	16,0	16,0	150,0	100,0	15,2	8,0	2	■

■ Stocked standard.

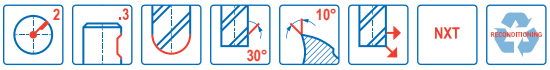
JS532

High performance – Universal – Ball nose – 2 Flutes – Weldon





- Tolerances:
- DMM=h5
- DC=e8
- RE= ±0,01 mm
- Regrind possible if DC is ≥Ø6



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Weldon
				mm	mm	mm	mm	mm	mm	mm		
JS532035F1B.3Z2-NXT	02928254	1	F	3,5	6,0	7,0	57,0	9,6	3,5	1,75	2	☐
JS532040F1B.3Z2-NXT	02928255	1	F	4,0	6,0	8,0	57,0	10,75	4,0	2,0	2	☐
JS532045F1B.3Z2-NXT	02928258	1	F	4,5	6,0	9,0	57,0	11,75	4,5	2,25	2	☐
JS532050F1B.3Z2-NXT	02928259	1	F	5,0	6,0	10,0	57,0	12,75	5,0	2,5	2	☐
JS532060D1B.3Z2-NXT	02928263	1	D	6,0	6,0	12,0	57,0	–	–	3,0	2	☐
JS532080D1B.3Z2-NXT	02928266	1	D	8,0	8,0	16,0	63,0	–	–	4,0	2	☐
JS532100D1B.3Z2-NXT	02928269	1	D	10,0	10,0	20,0	72,0	–	–	5,0	2	☐
JS532120D1B.3Z2-NXT	02928272	1	D	12,0	12,0	24,0	83,0	–	–	6,0	2	☐
JS532160D1B.3Z2-NXT	02928275	1	D	16,0	16,0	32,0	92,0	–	–	8,0	2	☐
JS532200D1B.3Z2-NXT	02928278	1	D	20,0	20,0	40,0	104,0	–	–	10,0	2	☐
JS532040G2B.3Z2-NXT	02928256	2	G	4,0	6,0	4,0	57,0	18,0	3,8	2,0	2	☐
JS532050G2B.3Z2-NXT	02928260	2	G	5,0	6,0	5,0	57,0	18,0	4,8	2,5	2	☐
JS532060E2B.3Z2-NXT	02928264	2	E	6,0	6,0	6,0	63,0	25,0	5,7	3,0	2	☐
JS532080E2B.3Z2-NXT	02928267	2	E	8,0	8,0	8,0	80,0	35,0	7,6	4,0	2	☐
JS532100E2B.3Z2-NXT	02928270	2	E	10,0	10,0	10,0	82,0	40,0	9,5	5,0	2	☐
JS532120E2B.3Z2-NXT	02928273	2	E	12,0	12,0	12,0	100,0	50,0	11,4	6,0	2	☐
JS532160E2B.3Z2-NXT	02928276	2	E	16,0	16,0	16,0	125,0	70,0	15,2	8,0	2	☐
JS532040G3B.3Z2-NXT	02928257	3	G	4,0	6,0	4,0	63,0	24,0	3,8	2,0	2	☐
JS532050G3B.3Z2-NXT	02928261	3	G	5,0	6,0	5,0	75,0	35,0	4,8	2,5	2	☐
JS532060E3B.3Z2-NXT	02928265	3	E	6,0	6,0	6,0	80,0	42,0	5,7	3,0	2	☐
JS532080E3B.3Z2-NXT	02928268	3	E	8,0	8,0	8,0	100,0	60,0	7,6	4,0	2	☐
JS532100E3B.3Z2-NXT	02928271	3	E	10,0	10,0	10,0	125,0	80,0	9,5	5,0	2	☐
JS532120E3B.3Z2-NXT	02928274	3	E	12,0	12,0	12,0	125,0	75,0	11,4	6,0	2	☐
JS532160E3B.3Z2-NXT	02928277	3	E	16,0	16,0	16,0	150,0	100,0	15,2	8,0	2	☐

☐ Weldon available. Delivery time is 3 days.

Cutting data – JS532 Copy milling roughing

SMG		a_e/DC	a_p/DC	f_z											v_c
				1	2	3	4	5	6	8	10	12	16	20	
P1	M/A/D/E	0.200 *0,200*	0.20 *0,20*	0.0060 *0,00024*	0.012 *0,00048*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	0.095 *0,0038*	0.11 *0,0044*	205 (140 — 180) *670 (460 — 590)*
P2	M/A/D/E	0.200 *0,200*	0.20 *0,20*	0.0060 *0,00024*	0.012 *0,00048*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	0.095 *0,0038*	0.11 *0,0044*	200 (130 — 180) *660 (430 — 590)*
P3	M/A/D/E	0.200 *0,200*	0.20 *0,20*	0.0060 *0,00024*	0.012 *0,00048*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	0.095 *0,0038*	0.11 *0,0044*	170 (110 — 150) *560 (370 — 490)*
P4	M/A/D/E	0.200 *0,200*	0.20 *0,20*	0.0060 *0,00024*	0.012 *0,00048*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	0.095 *0,0038*	0.10 *0,0040*	150 (97 — 130) *490 (320 — 420)*
P5	M/A/D/E	0.200 *0,200*	0.20 *0,20*	0.0060 *0,00024*	0.012 *0,00048*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	0.090 *0,0036*	0.10 *0,0040*	145 (93 — 130) *475 (310 — 420)*
P6	M/A/D/E	0.200 *0,200*	0.20 *0,20*	0.0060 *0,00024*	0.012 *0,00048*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	0.090 *0,0036*	0.10 *0,0040*	160 (110 — 140) *520 (370 — 450)*
P7	M/A/D/E	0.200 *0,200*	0.20 *0,20*	0.0060 *0,00024*	0.012 *0,00048*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	0.090 *0,0036*	0.10 *0,0040*	150 (98 — 140) *490 (330 — 450)*
P8	M/A/D/E	0.200 *0,200*	0.20 *0,20*	0.0060 *0,00024*	0.012 *0,00048*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	0.095 *0,0038*	0.11 *0,0044*	145 (93 — 130) *475 (310 — 420)*
P11	M/A/D/E	0.100 *0,100*	0.10 *0,10*	0.0060 *0,00024*	0.012 *0,00048*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	0.095 *0,0038*	0.12 *0,0048*	170 (110 — 150) *560 (370 — 490)*
P12	M/A/D/E	0.100 *0,100*	0.10 *0,10*	0.0060 *0,00024*	0.012 *0,00048*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	0.095 *0,0038*	0.12 *0,0048*	100 (64 — 92) *330 (210 — 300)*
M1	E	0.100 *0,100*	0.10 *0,10*	0.0060 *0,00024*	0.012 *0,00048*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	0.095 *0,0038*	0.12 *0,0048*	195 (170 — 220) *640 (560 — 720)*
M2	E	0.100 *0,100*	0.10 *0,10*	0.0060 *0,00024*	0.012 *0,00048*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	0.095 *0,0038*	0.12 *0,0048*	115 (93 — 130) *375 (310 — 420)*
M3	E	0.100 *0,100*	0.10 *0,10*	0.0050 *0,00020*	0.010 *0,00040*	0.015 *0,00060*	0.020 *0,00080*	0.025 *0,0010*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.080 *0,0032*	0.095 *0,0038*	95 (73 — 110) *310 (240 — 360)*
M4	E	0.100 *0,100*	0.10 *0,10*	0.0048 *0,00019*	0.0095 *0,00038*	0.014 *0,00055*	0.019 *0,00075*	0.024 *0,00095*	0.028 *0,0011*	0.038 *0,0015*	0.048 *0,0019*	0.055 *0,0022*	0.070 *0,0028*	0.080 *0,0032*	70 (55 — 85) *230 (190 — 270)*
M5	E	0.100 *0,100*	0.10 *0,10*	0.0048 *0,00019*	0.0095 *0,00038*	0.014 *0,00055*	0.019 *0,00075*	0.024 *0,00095*	0.028 *0,0011*	0.038 *0,0015*	0.048 *0,0019*	0.055 *0,0022*	0.070 *0,0028*	0.080 *0,0032*	60 (46 — 71) *195 (160 — 230)*
K1	E	0.200 *0,200*	0.20 *0,20*	0.0060 *0,00024*	0.012 *0,00048*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	0.090 *0,0036*	0.10 *0,0040*	195 (180 — 210) *640 (600 — 680)*
K2	E	0.200 *0,200*	0.20 *0,20*	0.0055 *0,00022*	0.011 *0,00044*	0.016 *0,00065*	0.022 *0,00085*	0.028 *0,0011*	0.032 *0,0013*	0.044 *0,0017*	0.055 *0,0022*	0.065 *0,0026*	0.085 *0,0034*	0.095 *0,0038*	170 (160 — 180) *560 (530 — 590)*
K3	E	0.200 *0,200*	0.20 *0,20*	0.0055 *0,00022*	0.011 *0,00044*	0.016 *0,00065*	0.022 *0,00085*	0.028 *0,0011*	0.032 *0,0013*	0.044 *0,0017*	0.055 *0,0022*	0.065 *0,0026*	0.085 *0,0034*	0.095 *0,0038*	145 (130 — 150) *475 (430 — 490)*
K4	E	0.200 *0,200*	0.20 *0,20*	0.0055 *0,00022*	0.011 *0,00044*	0.016 *0,00065*	0.022 *0,00085*	0.028 *0,0011*	0.032 *0,0013*	0.044 *0,0017*	0.055 *0,0022*	0.065 *0,0026*	0.085 *0,0034*	0.095 *0,0038*	140 (130 — 150) *460 (430 — 490)*
K5	E	0.100 *0,100*	0.10 *0,10*	0.0050 *0,00020*	0.010 *0,00040*	0.015 *0,00060*	0.020 *0,00080*	0.025 *0,0010*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.080 *0,0032*	0.095 *0,0038*	165 (150 — 180) *540 (500 — 590)*
K6	E	0.100 *0,100*	0.10 *0,10*	0.0050 *0,00020*	0.010 *0,00040*	0.015 *0,00060*	0.020 *0,00080*	0.025 *0,0010*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	245 (220 — 270) *800 (730 — 880)*
K7	E	0.100 *0,100*	0.10 *0,10*	0.0050 *0,00020*	0.010 *0,00040*	0.015 *0,00060*	0.020 *0,00080*	0.025 *0,0010*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.080 *0,0032*	0.095 *0,0038*	210 (190 — 230) *690 (630 — 750)*

For cutting data recalculations, see pages 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

Cutting data – JS532 Copy milling roughing

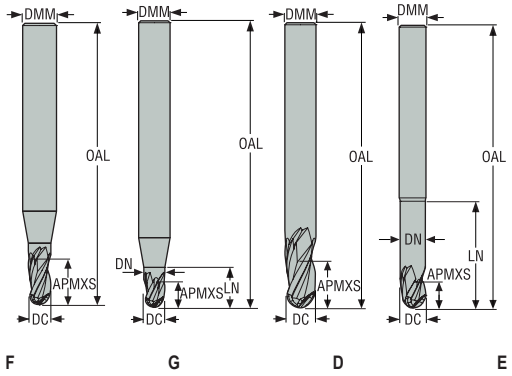
SMG		a_e/DC	a_p/DC	f_z											v_c
				1	2	3	4	5	6	8	10	12	16	20	
N1	E	0.200 *0,200*	0.30 *0,30*	0.0080 *0,00032*	0.016 *0,00065*	0.024 *0,00095*	0.032 *0,0013*	0.038 *0,0015*	0.046 *0,0018*	0.060 *0,0024*	0.080 *0,0032*	0.095 *0,0038*	0.11 *0,0044*	0.13 *0,0050*	610 (520 — 710) *2000 (1800 — 2300)*
N2	E	0.200 *0,200*	0.30 *0,30*	0.0080 *0,00032*	0.016 *0,00065*	0.024 *0,00095*	0.032 *0,0013*	0.038 *0,0015*	0.046 *0,0018*	0.060 *0,0024*	0.080 *0,0032*	0.095 *0,0038*	0.11 *0,0044*	0.13 *0,0050*	395 (330 — 450) *1300 (1100 — 1400)*
N3	E	0.200 *0,200*	0.30 *0,30*	0.0080 *0,00032*	0.016 *0,00065*	0.024 *0,00095*	0.032 *0,0013*	0.038 *0,0015*	0.046 *0,0018*	0.060 *0,0024*	0.080 *0,0032*	0.095 *0,0038*	0.11 *0,0044*	0.13 *0,0050*	260 (220 — 300) *850 (730 — 980)*
N11	E	0.200 *0,200*	0.30 *0,30*	0.0050 *0,00020*	0.010 *0,00040*	0.016 *0,00065*	0.020 *0,00080*	0.026 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.075 *0,0030*	0.090 *0,0036*	415 (370 — 460) *1350 (1300 — 1500)*
S1	E	0.150 *0,150*	0.10 *0,10*	0.0040 *0,00016*	0.0080 *0,00032*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	0.024 *0,00095*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.065 *0,0026*	0.080 *0,0032*	60 (52 — 72) *195 (180 — 230)*
S2	E	0.150 *0,150*	0.10 *0,10*	0.0040 *0,00016*	0.0080 *0,00032*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	0.024 *0,00095*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.065 *0,0026*	0.080 *0,0032*	50 (42 — 58) *165 (140 — 190)*
S3	E	0.100 *0,100*	0.10 *0,10*	0.0036 *0,00014*	0.0070 *0,00028*	0.010 *0,00040*	0.014 *0,00055*	0.018 *0,00070*	0.020 *0,00080*	0.028 *0,0011*	0.036 *0,0014*	0.042 *0,0017*	0.055 *0,0022*	0.060 *0,0024*	32 (22 — 42) *105 (73 — 130)*
S11	E	0.200 *0,200*	0.20 *0,20*	0.0060 *0,00024*	0.012 *0,00048*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	0.090 *0,0036*	0.10 *0,0040*	105 (94 — 110) *345 (310 — 360)*
S12	E	0.200 *0,200*	0.20 *0,20*	0.0060 *0,00024*	0.012 *0,00048*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	0.090 *0,0036*	0.10 *0,0040*	80 (72 — 92) *260 (240 — 300)*
S13	E	0.200 *0,200*	0.20 *0,20*	0.0055 *0,00022*	0.011 *0,00044*	0.016 *0,00065*	0.022 *0,00085*	0.026 *0,0010*	0.032 *0,0013*	0.042 *0,0017*	0.055 *0,0022*	0.060 *0,0024*	0.080 *0,0032*	0.090 *0,0036*	65 (57 — 72) *215 (190 — 230)*
TS1	A	0.200 *0,200*	0.40 *0,40*	0.0075 *0,00030*	0.015 *0,00060*	0.024 *0,00095*	0.030 *0,0012*	0.038 *0,0015*	0.046 *0,0018*	0.065 *0,0026*	0.075 *0,0030*	0.090 *0,0036*	0.12 *0,0048*	0.13 *0,0050*	610 (570 — 660) *2000 (1900 — 2100)*
TP1	A	0.200 *0,200*	0.40 *0,40*	0.0075 *0,00030*	0.015 *0,00060*	0.024 *0,00095*	0.030 *0,0012*	0.038 *0,0015*	0.046 *0,0018*	0.065 *0,0026*	0.075 *0,0030*	0.090 *0,0036*	0.12 *0,0048*	0.13 *0,0050*	610 (570 — 660) *2000 (1900 — 2100)*
GR1	A	0.200 *0,200*	0.40 *0,40*	0.0075 *0,00030*	0.015 *0,00060*	0.024 *0,00095*	0.030 *0,0012*	0.038 *0,0015*	0.046 *0,0018*	0.065 *0,0026*	0.075 *0,0030*	0.090 *0,0036*	0.12 *0,0048*	0.13 *0,0050*	610 (570 — 660) *2000 (1900 — 2100)*

For cutting data recalculations, see pages 573 - 580

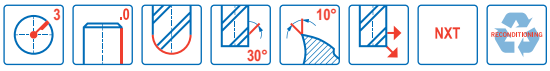
SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

JS533

High performance – Universal – Ball nose – 3 Flutes – Cylindrical







- Tolerances:
- DMM=h5
- DC=e8
- RE= ±0,01 mm
- Regrind possible if DC is ≥Ø6

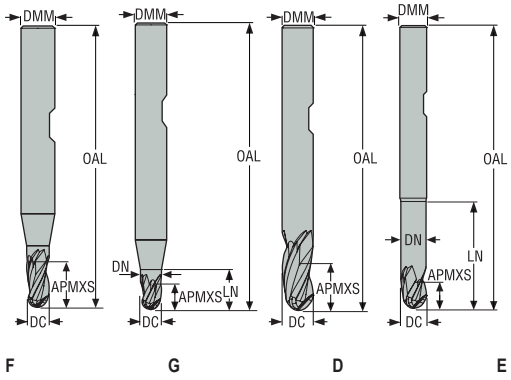
Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Cylindrical
				mm	mm	mm	mm	mm	mm	mm		
JS533010F1B.0Z3-NXT	02928284	1	F	1,0	3,0	2,0	38,0	3,0	1,05	0,5	3	■
JS533015F1B.0Z3-NXT	02928286	1	F	1,5	3,0	3,0	38,0	4,6	1,55	0,75	3	■
JS533020F1B.0Z3-NXT	02928287	1	F	2,0	3,0	4,0	38,0	5,6	2,05	1,0	3	■
JS533030D1B.0Z3-NXT	02928289	1	D	3,0	3,0	6,0	38,0	–	–	1,5	3	■
JS533040F1B.0Z3-NXT	02928291	1	F	4,0	6,0	8,0	57,0	10,75	4,05	2,0	3	■
JS533050F1B.0Z3-NXT	02928293	1	F	5,0	6,0	10,0	57,0	13,75	5,05	2,5	3	■
JS533060D1B.0Z3-NXT	02928295	1	D	6,0	6,0	12,0	57,0	–	–	3,0	3	■
JS533080D1B.0Z3-NXT	02928297	1	D	8,0	8,0	16,0	63,0	–	–	4,0	3	■
JS533100D1B.0Z3-NXT	02928299	1	D	10,0	10,0	20,0	72,0	–	–	5,0	3	■
JS533120D1B.0Z3-NXT	02928301	1	D	12,0	12,0	24,0	83,0	–	–	6,0	3	■
JS533160D1B.0Z3-NXT	02928303	1	D	16,0	16,0	32,0	110,0	–	–	8,0	3	■
JS533200D1B.0Z3-NXT	02928305	1	D	20,0	20,0	40,0	125,0	–	–	10,0	3	■
JS533020G2B.0Z3-NXT	02928288	2	G	2,0	3,0	2,0	38,0	7,0	1,9	1,0	3	■
JS533030E2B.0Z3-NXT	02928290	2	E	3,0	3,0	3,0	38,0	9,0	2,85	1,5	3	■
JS533040G2B.0Z3-NXT	02928292	2	G	4,0	6,0	4,0	57,0	15,0	3,8	2,0	3	■
JS533050G2B.0Z3-NXT	02928294	2	G	5,0	6,0	5,0	57,0	15,0	4,8	2,5	3	■
JS533060E2B.0Z3-NXT	02928296	2	E	6,0	6,0	6,0	63,0	25,0	5,7	3,0	3	■
JS533080E2B.0Z3-NXT	02928298	2	E	8,0	8,0	8,0	80,0	35,0	7,6	4,0	3	■
JS533100E2B.0Z3-NXT	02928300	2	E	10,0	10,0	10,0	89,0	40,0	9,5	5,0	3	■
JS533120E2B.0Z3-NXT	02928302	2	E	12,0	12,0	12,0	100,0	50,0	11,4	6,0	3	■
JS533160E2B.0Z3-NXT	02928304	2	E	16,0	16,0	16,0	125,0	70,0	15,2	8,0	3	■

■ Stocked standard.

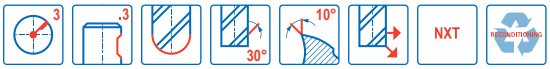
JS533

High performance – Universal – Ball nose – 3 Flutes – Weldon





- Tolerances:
- DMM=h5
- DC=e8
- RE= ±0,01 mm
- Regrind possible if DC is ≥Ø6



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Weldon
				mm	mm	mm	mm	mm	mm	mm		
JS533040F1B.3Z3-NXT	02928323	1	F	4,0	6,0	8,0	57,0	10,75	4,05	2,0	3	☐
JS533050F1B.3Z3-NXT	02928325	1	F	5,0	6,0	10,0	57,0	13,75	5,05	2,5	3	☐
JS533060D1B.3Z3-NXT	02928326	1	D	6,0	6,0	12,0	57,0	–	–	3,0	3	☐
JS533080D1B.3Z3-NXT	02928328	1	D	8,0	8,0	16,0	63,0	–	–	4,0	3	☐
JS533100D1B.3Z3-NXT	02928330	1	D	10,0	10,0	20,0	72,0	–	–	5,0	3	☐
JS533120D1B.3Z3-NXT	02928332	1	D	12,0	12,0	24,0	83,0	–	–	6,0	3	☐
JS533160D1B.3Z3-NXT	02928334	1	D	16,0	16,0	32,0	109,0	–	–	8,0	3	☐
JS533200D1B.3Z3-NXT	02928336	1	D	20,0	20,0	40,0	125,0	–	–	10,0	3	☐
JS533040G2B.3Z3-NXT	02928324	2	G	4,0	6,0	4,0	57,0	15,0	3,8	2,0	3	☐
JS533050G2B.3Z3-NXT	02928341	2	G	5,0	6,0	5,0	57,0	15,0	4,8	2,5	3	☐
JS533060E2B.3Z3-NXT	02928327	2	E	6,0	6,0	6,0	63,0	25,0	5,7	3,0	3	☐
JS533080E2B.3Z3-NXT	02928329	2	E	8,0	8,0	8,0	80,0	35,0	7,6	4,0	3	☐
JS533100E2B.3Z3-NXT	02928331	2	E	10,0	10,0	10,0	89,0	40,0	9,5	5,0	3	☐
JS533120E2B.3Z3-NXT	02928333	2	E	12,0	12,0	12,0	100,0	50,0	11,4	6,0	3	☐
JS533160E2B.3Z3-NXT	02928335	2	E	16,0	16,0	16,0	122,0	70,0	15,2	8,0	3	☐

☐ Weldon available. Delivery time is 3 days.

Cutting data – JS533 Copy milling roughing

SMG		a_e/DC	a_p/DC	f_z											v_c
				1	2	3	4	5	6	8	10	12	16	20	
P1	M/A/D/E	0.0300 *0,0300*	0.80 *0,80*	0.0032 *0,00013*	0.0065 *0,00026*	0.0095 *0,00038*	0.013 *0,00050*	0.016 *0,00065*	0.019 *0,00075*	0.026 *0,0010*	0.032 *0,0013*	0.038 *0,0015*	0.048 *0,0019*	0.055 *0,0022*	200 (180 — 220) *660 (600 — 720)*
P2	M/A/D/E	0.0300 *0,0300*	0.80 *0,80*	0.0034 *0,00013*	0.0065 *0,00026*	0.010 *0,00040*	0.013 *0,00050*	0.017 *0,00065*	0.020 *0,00080*	0.026 *0,0010*	0.034 *0,0013*	0.038 *0,0015*	0.048 *0,0019*	0.055 *0,0022*	195 (170 — 220) *640 (560 — 720)*
P3	M/A/D/E	0.0300 *0,0300*	0.80 *0,80*	0.0032 *0,00013*	0.0060 *0,00024*	0.0095 *0,00038*	0.013 *0,00050*	0.016 *0,00065*	0.019 *0,00075*	0.025 *0,0010*	0.032 *0,0013*	0.036 *0,0014*	0.046 *0,0018*	0.055 *0,0022*	165 (150 — 180) *540 (500 — 590)*
P4	M/A/D/E	0.0300 *0,0300*	0.80 *0,80*	0.0030 *0,00012*	0.0060 *0,00024*	0.0090 *0,00036*	0.012 *0,00048*	0.015 *0,00060*	0.018 *0,00070*	0.025 *0,0010*	0.030 *0,0012*	0.036 *0,0014*	0.044 *0,0017*	0.050 *0,0020*	145 (130 — 160) *475 (430 — 520)*
P5	M/A/D/E	0.0300 *0,0300*	0.80 *0,80*	0.0030 *0,00012*	0.0060 *0,00024*	0.0090 *0,00036*	0.012 *0,00048*	0.015 *0,00060*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.044 *0,0017*	0.050 *0,0020*	140 (130 — 160) *460 (430 — 520)*
P6	M/A/D/E	0.0300 *0,0300*	0.80 *0,80*	0.0030 *0,00012*	0.0060 *0,00024*	0.0090 *0,00036*	0.012 *0,00048*	0.015 *0,00060*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.034 *0,0013*	0.044 *0,0017*	0.050 *0,0020*	155 (140 — 170) *510 (460 — 550)*
P7	M/A/D/E	0.0300 *0,0300*	0.80 *0,80*	0.0030 *0,00012*	0.0060 *0,00024*	0.0090 *0,00036*	0.012 *0,00048*	0.015 *0,00060*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.034 *0,0013*	0.044 *0,0017*	0.050 *0,0020*	150 (130 — 160) *490 (430 — 520)*
P8	M/A/D/E	0.0300 *0,0300*	0.80 *0,80*	0.0032 *0,00013*	0.0060 *0,00024*	0.0095 *0,00038*	0.013 *0,00050*	0.016 *0,00065*	0.019 *0,00075*	0.025 *0,0010*	0.032 *0,0013*	0.036 *0,0014*	0.046 *0,0018*	0.055 *0,0022*	140 (120 — 150) *460 (400 — 490)*
P11	M/A/D/E	0.0300 *0,0300*	0.80 *0,80*	0.0044 *0,00017*	0.0090 *0,00036*	0.013 *0,00050*	0.018 *0,00070*	0.022 *0,00085*	0.026 *0,0010*	0.036 *0,0014*	0.044 *0,0017*	0.050 *0,0020*	0.065 *0,0026*	0.075 *0,0030*	140 (130 — 160) *460 (430 — 520)*
P12	M/A/D/E	0.0300 *0,0300*	0.80 *0,80*	0.0030 *0,00012*	0.0060 *0,00024*	0.0090 *0,00036*	0.012 *0,00048*	0.015 *0,00060*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.044 *0,0017*	0.050 *0,0020*	85 (73 — 97) *280 (240 — 310)*
M1	E	0.0300 *0,0300*	0.80 *0,80*	0.0034 *0,00013*	0.0065 *0,00026*	0.010 *0,00040*	0.013 *0,00050*	0.017 *0,00065*	0.020 *0,00080*	0.026 *0,0010*	0.034 *0,0013*	0.038 *0,0015*	0.048 *0,0019*	0.055 *0,0022*	125 (99 — 140) *410 (330 — 450)*
M2	E	0.0300 *0,0300*	0.80 *0,80*	0.0030 *0,00012*	0.0060 *0,00024*	0.0090 *0,00036*	0.012 *0,00048*	0.015 *0,00060*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.044 *0,0017*	0.050 *0,0020*	100 (80 — 120) *330 (270 — 390)*
M3	E	0.0300 *0,0300*	0.80 *0,80*	0.0030 *0,00012*	0.0060 *0,00024*	0.0090 *0,00036*	0.012 *0,00048*	0.015 *0,00060*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.044 *0,0017*	0.050 *0,0020*	70 (50 — 90) *230 (170 — 290)*
M4	E	0.0300 *0,0300*	0.80 *0,80*	0.0026 *0,00010*	0.0050 *0,00020*	0.0080 *0,00032*	0.011 *0,00044*	0.013 *0,00050*	0.016 *0,00065*	0.022 *0,00085*	0.026 *0,0010*	0.030 *0,0012*	0.038 *0,0015*	0.044 *0,0017*	55 (38 — 67) *180 (130 — 210)*
M5	E	0.0300 *0,0300*	0.80 *0,80*	0.0026 *0,00010*	0.0050 *0,00020*	0.0080 *0,00032*	0.011 *0,00044*	0.013 *0,00050*	0.016 *0,00065*	0.022 *0,00085*	0.026 *0,0010*	0.030 *0,0012*	0.038 *0,0015*	0.044 *0,0017*	44 (32 — 56) *145 (110 — 180)*
K1	E	0.0300 *0,0300*	0.80 *0,80*	0.0040 *0,00016*	0.0080 *0,00032*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	0.024 *0,00095*	0.032 *0,0013*	0.040 *0,0016*	0.046 *0,0018*	0.060 *0,0024*	0.070 *0,0028*	145 (130 — 160) *475 (430 — 520)*
K2	E	0.0300 *0,0300*	0.80 *0,80*	0.0036 *0,00014*	0.0075 *0,00030*	0.011 *0,00044*	0.015 *0,00060*	0.018 *0,00070*	0.022 *0,00085*	0.030 *0,0012*	0.036 *0,0014*	0.042 *0,0017*	0.055 *0,0022*	0.060 *0,0024*	125 (110 — 140) *410 (370 — 450)*
K3	E	0.0300 *0,0300*	0.80 *0,80*	0.0050 *0,00020*	0.010 *0,00040*	0.015 *0,00060*	0.020 *0,00080*	0.025 *0,0010*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.075 *0,0030*	0.085 *0,0034*	105 (91 — 110) *345 (300 — 360)*
K4	E	0.0300 *0,0300*	0.80 *0,80*	0.0050 *0,00020*	0.010 *0,00040*	0.015 *0,00060*	0.020 *0,00080*	0.025 *0,0010*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.075 *0,0030*	0.085 *0,0034*	120 (100 — 140) *395 (330 — 450)*
K5	E	0.0300 *0,0300*	0.80 *0,80*	0.0044 *0,00017*	0.0090 *0,00036*	0.013 *0,00050*	0.018 *0,00070*	0.022 *0,00085*	0.026 *0,0010*	0.036 *0,0014*	0.044 *0,0017*	0.055 *0,0022*	0.065 *0,0026*	0.075 *0,0030*	70 (61 — 84) *230 (210 — 270)*
K6	E	0.0300 *0,0300*	0.80 *0,80*	0.0050 *0,00020*	0.010 *0,00040*	0.015 *0,00060*	0.020 *0,00080*	0.025 *0,0010*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.075 *0,0030*	0.085 *0,0034*	105 (89 — 120) *345 (300 — 390)*
K7	E	0.0300 *0,0300*	0.80 *0,80*	0.0044 *0,00017*	0.0090 *0,00036*	0.013 *0,00050*	0.018 *0,00070*	0.022 *0,00085*	0.026 *0,0010*	0.036 *0,0014*	0.044 *0,0017*	0.055 *0,0022*	0.065 *0,0026*	0.075 *0,0030*	155 (130 — 180) *510 (430 — 590)*

For cutting data recalculations, see pages 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

Cutting data – JS533 Copy milling roughing

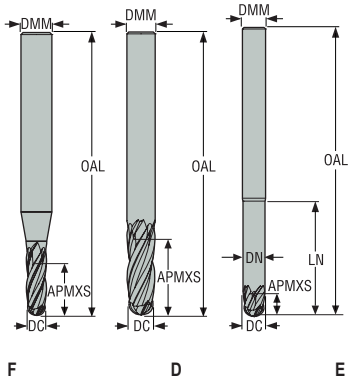
SMG		a_e/DC	a_p/DC	f_z											v_c
				1	2	3	4	5	6	8	10	12	16	20	
N1	E	0.0300 *0,0300*	0.80 *0,80*	0.0050 *0,00020*	0.010 *0,00040*	0.015 *0,00060*	0.020 *0,00080*	0.025 *0,0010*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.075 *0,0030*	0.085 *0,0034*	800 (700 — 900) *2625 (2300 — 2900)*
N2	E	0.0300 *0,0300*	0.80 *0,80*	0.0050 *0,00020*	0.010 *0,00040*	0.015 *0,00060*	0.020 *0,00080*	0.025 *0,0010*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.075 *0,0030*	0.085 *0,0034*	510 (450 — 570) *1675 (1500 — 1800)*
N3	E	0.0300 *0,0300*	0.80 *0,80*	0.0050 *0,00020*	0.010 *0,00040*	0.015 *0,00060*	0.020 *0,00080*	0.025 *0,0010*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.075 *0,0030*	0.085 *0,0034*	345 (300 — 380) *1125 (990 — 1200)*
N11	E	0.0300 *0,0300*	0.80 *0,80*	0.0040 *0,00016*	0.0080 *0,00032*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	0.024 *0,00095*	0.032 *0,0013*	0.040 *0,0016*	0.046 *0,0018*	0.060 *0,0024*	0.070 *0,0028*	400 (350 — 450) *1300 (1200 — 1400)*
S1	E	0.0300 *0,0300*	0.80 *0,80*	0.0030 *0,00012*	0.0060 *0,00024*	0.0090 *0,00036*	0.012 *0,00048*	0.015 *0,00060*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.044 *0,0017*	0.050 *0,0020*	100 (90 — 110) *330 (300 — 360)*
S2	E	0.0300 *0,0300*	0.80 *0,80*	0.0030 *0,00012*	0.0060 *0,00024*	0.0090 *0,00036*	0.012 *0,00048*	0.015 *0,00060*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.044 *0,0017*	0.050 *0,0020*	80 (73 — 88) *260 (240 — 280)*
S11	E	0.0300 *0,0300*	0.80 *0,80*	0.0030 *0,00012*	0.0060 *0,00024*	0.0090 *0,00036*	0.012 *0,00048*	0.015 *0,00060*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.044 *0,0017*	0.050 *0,0020*	130 (120 — 140) *425 (400 — 450)*
S12	E	0.0300 *0,0300*	0.80 *0,80*	0.0030 *0,00012*	0.0060 *0,00024*	0.0090 *0,00036*	0.012 *0,00048*	0.015 *0,00060*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.044 *0,0017*	0.050 *0,0020*	100 (91 — 110) *330 (300 — 360)*
S13	E	0.0300 *0,0300*	0.80 *0,80*	0.0026 *0,00010*	0.0050 *0,00020*	0.0080 *0,00032*	0.011 *0,00044*	0.013 *0,00050*	0.016 *0,00065*	0.022 *0,00085*	0.026 *0,0010*	0.030 *0,0012*	0.038 *0,0015*	0.044 *0,0017*	80 (70 — 85) *260 (230 — 270)*
TS1	A	0.0300 *0,0300*	0.80 *0,80*	0.0040 *0,00016*	0.0080 *0,00032*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	0.024 *0,00095*	0.032 *0,0013*	0.040 *0,0016*	0.046 *0,0018*	0.060 *0,0024*	0.070 *0,0028*	800 (760 — 850) *2625 (2500 — 2700)*
TP1	A	0.0300 *0,0300*	0.80 *0,80*	0.0040 *0,00016*	0.0080 *0,00032*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	0.024 *0,00095*	0.032 *0,0013*	0.040 *0,0016*	0.046 *0,0018*	0.060 *0,0024*	0.070 *0,0028*	800 (760 — 850) *2625 (2500 — 2700)*
GR1	A	0.0300 *0,0300*	0.80 *0,80*	0.0040 *0,00016*	0.0080 *0,00032*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	0.024 *0,00095*	0.032 *0,0013*	0.040 *0,0016*	0.046 *0,0018*	0.060 *0,0024*	0.070 *0,0028*	800 (760 — 850) *2625 (2500 — 2700)*

For cutting data recalculations, see pages 573 - 580

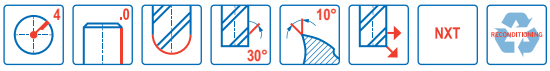
SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

JS534

High performance – Universal – Ball nose – 4 Flutes – Cylindrical







- Tolerances:
- DMM=h5
- DC=e8
- RE= ±0,01 mm
- Regrind possible if DC is ≥Ø6

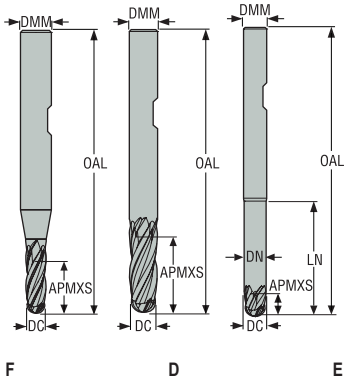
Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Cylindrical
				mm	mm	mm	mm	mm	mm	mm		
JS534020F1B.0Z4-NXT	02928366	1	F	2,0	3,0	6,0	38,0	6,7	2,05	1,0	4	■
JS534030D1B.0Z4-NXT	02928367	1	D	3,0	3,0	9,0	38,0	–	–	1,5	4	■
JS534040F1B.0Z4-NXT	02928368	1	F	4,0	6,0	12,0	57,0	14,0	4,05	2,0	4	■
JS534050F1B.0Z4-NXT	02928370	1	F	5,0	6,0	15,0	57,0	17,0	5,05	2,5	4	■
JS534060D1B.0Z4-NXT	02928372	1	D	6,0	6,0	18,0	57,0	–	–	3,0	4	■
JS534080D1B.0Z4-NXT	02928375	1	D	8,0	8,0	24,0	69,0	–	–	4,0	4	■
JS534100D1B.0Z4-NXT	02928378	1	D	10,0	10,0	30,0	82,0	–	–	5,0	4	■
JS534120D1B.0Z4-NXT	02928381	1	D	12,0	12,0	36,0	100,0	–	–	6,0	4	■
JS534160D1B.0Z4-NXT	02928384	1	D	16,0	16,0	48,0	110,0	–	–	8,0	4	■
JS534200D1B.0Z4-NXT	02928387	1	D	20,0	20,0	60,0	125,0	–	–	10,0	4	■
JS534040F2B.0Z4-NXT	02928369	2	F	4,0	6,0	20,0	63,0	22,0	4,05	2,0	4	■
JS534050F2B.0Z4-NXT	02928371	2	F	5,0	6,0	25,0	75,0	27,0	5,05	2,5	4	■
JS534060D2B.0Z4-NXT	02928373	2	D	6,0	6,0	30,0	75,0	–	–	3,0	4	■
JS534080D2B.0Z4-NXT	02928376	2	D	8,0	8,0	40,0	80,0	–	–	4,0	4	■
JS534100D2B.0Z4-NXT	02928379	2	D	10,0	10,0	50,0	100,0	–	–	5,0	4	■
JS534120D2B.0Z4-NXT	02928382	2	D	12,0	12,0	60,0	125,0	–	–	6,0	4	■
JS534160D2B.0Z4-NXT	02928385	2	D	16,0	16,0	80,0	130,0	–	–	8,0	4	■
JS534060E3B.0Z4-NXT	02928374	3	E	6,0	6,0	6,0	75,0	30,0	5,7	3,0	4	■
JS534080E3B.0Z4-NXT	02928377	3	E	8,0	8,0	8,0	80,0	40,0	7,6	4,0	4	■
JS534100E3B.0Z4-NXT	02928380	3	E	10,0	10,0	10,0	100,0	50,0	9,7	5,0	4	■
JS534120E3B.0Z4-NXT	02928383	3	E	12,0	12,0	12,0	125,0	60,0	11,4	6,0	4	■
JS534160E3B.0Z4-NXT	02928386	3	E	16,0	16,0	16,0	130,0	80,0	15,2	8,0	4	■
JS534200E3B.0Z4-NXT	02928388	3	E	20,0	20,0	20,0	150,0	100,0	19,0	10,0	4	■

■ Stocked standard.

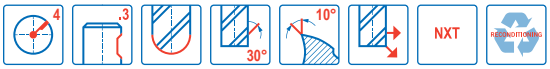
JS534

High performance – Universal – Ball nose – 4 Flutes – Weldon





- Tolerances:
- DMM=h5
- DC=e8
- RE= ±0,01 mm
- Regrind possible if DC is ≥Ø6



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Weldon
				mm	mm	mm	mm	mm	mm	mm		
JS534040F1B.3Z4-NXT	02928390	1	F	4,0	6,0	12,0	57,0	14,0	4,05	2,0	4	☐
JS534050F1B.3Z4-NXT	02928392	1	F	5,0	6,0	15,0	57,0	17,0	5,05	2,5	4	☐
JS534060D1B.3Z4-NXT	02928394	1	D	6,0	6,0	18,0	57,0	–	–	3,0	4	☐
JS534080D1B.3Z4-NXT	02928397	1	D	8,0	8,0	24,0	69,0	–	–	4,0	4	☐
JS534100D1B.3Z4-NXT	02928400	1	D	10,0	10,0	30,0	82,0	–	–	5,0	4	☐
JS534120D1B.3Z4-NXT	02928403	1	D	12,0	12,0	36,0	100,0	–	–	6,0	4	☐
JS534160D1B.3Z4-NXT	02928406	1	D	16,0	16,0	48,0	110,0	–	–	8,0	4	☐
JS534200D1B.3Z4-NXT	02928409	1	D	20,0	20,0	60,0	125,0	–	–	10,0	4	☐
JS534040F2B.3Z4-NXT	02928391	2	F	4,0	6,0	20,0	63,0	22,0	4,05	2,0	4	☐
JS534050F2B.3Z4-NXT	02928393	2	F	5,0	6,0	25,0	75,0	27,0	5,05	2,5	4	☐
JS534060D2B.3Z4-NXT	02928395	2	D	6,0	6,0	30,0	75,0	–	–	3,0	4	☐
JS534080D2B.3Z4-NXT	02928398	2	D	8,0	8,0	40,0	80,0	–	–	4,0	4	☐
JS534100D2B.3Z4-NXT	02928401	2	D	10,0	10,0	50,0	100,0	–	–	5,0	4	☐
JS534120D2B.3Z4-NXT	02928404	2	D	12,0	12,0	60,0	125,0	–	–	6,0	4	☐
JS534160D2B.3Z4-NXT	02928407	2	D	16,0	16,0	80,0	130,0	–	–	8,0	4	☐
JS534060E3B.3Z4-NXT	02928396	3	E	6,0	6,0	6,0	75,0	30,0	5,7	3,0	4	☐
JS534080E3B.3Z4-NXT	02928399	3	E	8,0	8,0	8,0	80,0	40,0	7,6	4,0	4	☐
JS534100E3B.3Z4-NXT	02928402	3	E	10,0	10,0	10,0	100,0	50,0	9,7	5,0	4	☐
JS534120E3B.3Z4-NXT	02928405	3	E	12,0	12,0	12,0	125,0	60,0	11,4	6,0	4	☐
JS534160E3B.3Z4-NXT	02928408	3	E	16,0	16,0	16,0	130,0	80,0	15,2	8,0	4	☐
JS534200E3B.3Z4-NXT	02928410	3	E	20,0	20,0	20,0	150,0	100,0	19,0	10,0	4	☐

☐ Weldon available. Delivery time is 3 days.

Cutting data – JS534 Copy milling roughing

SMG		a_e/DC	a_p/DC	f_z										v_c
				2	3	4	5	6	8	10	12	16	20	
P1	M/A/D/E	0.0300 *0,0300*	4.0 *4,0*	0.0085 *0,00034*	0.013 *0,00050*	0.017 *0,00065*	0.022 *0,00085*	0.026 *0,0010*	0.034 *0,0013*	0.044 *0,0017*	0.050 *0,0020*	0.065 *0,0026*	0.075 *0,0030*	345 (310 — 370) *1125 (1100 — 1200)*
P2	M/A/D/E	0.0300 *0,0300*	4.0 *4,0*	0.0090 *0,00036*	0.013 *0,00050*	0.018 *0,00070*	0.022 *0,00085*	0.026 *0,0010*	0.036 *0,0014*	0.044 *0,0017*	0.050 *0,0020*	0.065 *0,0026*	0.075 *0,0030*	335 (300 — 360) *1100 (990 — 1100)*
P3	M/A/D/E	0.0300 *0,0300*	4.0 *4,0*	0.0085 *0,00034*	0.012 *0,00048*	0.017 *0,00065*	0.020 *0,00080*	0.025 *0,0010*	0.034 *0,0013*	0.042 *0,0017*	0.050 *0,0020*	0.060 *0,0024*	0.070 *0,0028*	290 (260 — 310) *950 (860 — 1000)*
P4	M/A/D/E	0.0300 *0,0300*	4.0 *4,0*	0.0080 *0,00032*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	0.024 *0,00095*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	255 (230 — 280) *840 (760 — 910)*
P5	M/A/D/E	0.0300 *0,0300*	4.0 *4,0*	0.0080 *0,00032*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	0.024 *0,00095*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	245 (220 — 260) *800 (730 — 850)*
P6	M/A/D/E	0.0300 *0,0300*	4.0 *4,0*	0.0080 *0,00032*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	0.024 *0,00095*	0.032 *0,0013*	0.040 *0,0016*	0.046 *0,0018*	0.060 *0,0024*	0.065 *0,0026*	230 (210 — 250) *750 (690 — 820)*
P7	M/A/D/E	0.0300 *0,0300*	4.0 *4,0*	0.0080 *0,00032*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	0.024 *0,00095*	0.032 *0,0013*	0.040 *0,0016*	0.046 *0,0018*	0.060 *0,0024*	0.065 *0,0026*	220 (200 — 240) *720 (660 — 780)*
P8	M/A/D/E	0.0300 *0,0300*	4.0 *4,0*	0.0085 *0,00034*	0.012 *0,00048*	0.017 *0,00065*	0.020 *0,00080*	0.025 *0,0010*	0.034 *0,0013*	0.042 *0,0017*	0.050 *0,0020*	0.060 *0,0024*	0.070 *0,0028*	205 (190 — 220) *670 (630 — 720)*
P11	M/A/D/E	0.0300 *0,0300*	4.0 *4,0*	0.010 *0,00040*	0.015 *0,00060*	0.020 *0,00080*	0.025 *0,0010*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	210 (190 — 230) *690 (630 — 750)*
P12	M/A/D/E	0.0300 *0,0300*	4.0 *4,0*	0.0080 *0,00032*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	0.024 *0,00095*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	125 (120 — 130) *410 (400 — 420)*
M1	E	0.0300 *0,0300*	4.0 *4,0*	0.0090 *0,00036*	0.013 *0,00050*	0.018 *0,00070*	0.022 *0,00085*	0.026 *0,0010*	0.036 *0,0014*	0.044 *0,0017*	0.050 *0,0020*	0.065 *0,0026*	0.075 *0,0030*	180 (160 — 200) *590 (530 — 650)*
M2	E	0.0300 *0,0300*	4.0 *4,0*	0.0080 *0,00032*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	0.024 *0,00095*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	145 (130 — 160) *475 (430 — 520)*
M3	E	0.0300 *0,0300*	4.0 *4,0*	0.0080 *0,00032*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	0.024 *0,00095*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	155 (140 — 180) *510 (460 — 590)*
M4	E	0.0300 *0,0300*	4.0 *4,0*	0.0070 *0,00028*	0.010 *0,00040*	0.014 *0,00055*	0.017 *0,00065*	0.020 *0,00080*	0.028 *0,0011*	0.034 *0,0013*	0.042 *0,0017*	0.050 *0,0020*	0.060 *0,0024*	120 (100 — 130) *395 (330 — 420)*
M5	E	0.0300 *0,0300*	4.0 *4,0*	0.0070 *0,00028*	0.010 *0,00040*	0.014 *0,00055*	0.017 *0,00065*	0.020 *0,00080*	0.028 *0,0011*	0.034 *0,0013*	0.042 *0,0017*	0.050 *0,0020*	0.060 *0,0024*	100 (83 — 110) *330 (280 — 360)*
K1	E	0.0300 *0,0300*	4.0 *4,0*	0.0080 *0,00032*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	0.024 *0,00095*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	245 (220 — 260) *800 (730 — 850)*
K2	E	0.0300 *0,0300*	4.0 *4,0*	0.0075 *0,00030*	0.011 *0,00044*	0.015 *0,00060*	0.018 *0,00070*	0.022 *0,00085*	0.030 *0,0012*	0.036 *0,0014*	0.042 *0,0017*	0.055 *0,0022*	0.060 *0,0024*	215 (200 — 230) *710 (660 — 750)*
K3	E	0.0300 *0,0300*	4.0 *4,0*	0.0080 *0,00032*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	0.024 *0,00095*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	180 (160 — 190) *590 (530 — 620)*
K4	E	0.0300 *0,0300*	4.0 *4,0*	0.0080 *0,00032*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	0.024 *0,00095*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	170 (160 — 180) *560 (530 — 590)*
K5	E	0.0300 *0,0300*	4.0 *4,0*	0.0070 *0,00028*	0.011 *0,00044*	0.014 *0,00055*	0.018 *0,00070*	0.022 *0,00085*	0.028 *0,0011*	0.036 *0,0014*	0.042 *0,0017*	0.055 *0,0022*	0.060 *0,0024*	200 (180 — 220) *660 (600 — 720)*
K6	E	0.0300 *0,0300*	4.0 *4,0*	0.0080 *0,00032*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	0.024 *0,00095*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	295 (260 — 330) *970 (860 — 1000)*
K7	E	0.0300 *0,0300*	4.0 *4,0*	0.0070 *0,00028*	0.011 *0,00044*	0.014 *0,00055*	0.018 *0,00070*	0.022 *0,00085*	0.028 *0,0011*	0.036 *0,0014*	0.042 *0,0017*	0.055 *0,0022*	0.060 *0,0024*	260 (230 — 280) *850 (760 — 910)*

For cutting data recalculations, see pages 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

Cutting data – JS534 Copy milling roughing

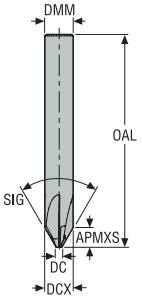
SMG		a_e/DC	a_p/DC	f_z										v_c
				2	3	4	5	6	8	10	12	16	20	
N1	E	0.0300 *0,0300*	4.0 *4,0*	0.0080 *0,00032*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	0.024 *0,00095*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	1025 (910 — 1100) *3375 (3000 — 3600)*
N2	E	0.0300 *0,0300*	4.0 *4,0*	0.0080 *0,00032*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	0.024 *0,00095*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	910 (780 — 1000) *2975 (2600 — 3200)*
N3	E	0.0300 *0,0300*	4.0 *4,0*	0.0080 *0,00032*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	0.024 *0,00095*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	600 (520 — 690) *1975 (1800 — 2200)*
N11	E	0.0300 *0,0300*	4.0 *4,0*	0.0080 *0,00032*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	0.024 *0,00095*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	500 (440 — 560) *1650 (1500 — 1800)*
S1	E	0.0300 *0,0300*	4.0 *4,0*	0.0080 *0,00032*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	0.024 *0,00095*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	110 (88 — 110) *360 (290 — 360)*
S2	E	0.0300 *0,0300*	4.0 *4,0*	0.0080 *0,00032*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	0.024 *0,00095*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	90 (71 — 90) *295 (240 — 290)*
S3	E	0.0300 *0,0300*	4.0 *4,0*	0.0080 *0,00032*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	0.024 *0,00095*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	85 (63 — 87) *280 (210 — 280)*
S11	E	0.0300 *0,0300*	4.0 *4,0*	0.0080 *0,00032*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	0.024 *0,00095*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	185 (150 — 180) *610 (500 — 590)*
S12	E	0.0300 *0,0300*	4.0 *4,0*	0.0080 *0,00032*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	0.024 *0,00095*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	140 (120 — 140) *460 (400 — 450)*
S13	E	0.0300 *0,0300*	4.0 *4,0*	0.0070 *0,00028*	0.010 *0,00040*	0.014 *0,00055*	0.017 *0,00065*	0.020 *0,00080*	0.028 *0,0011*	0.034 *0,0013*	0.042 *0,0017*	0.050 *0,0020*	0.060 *0,0024*	110 (91 — 110) *360 (300 — 360)*
TS1	A	0.0300 *0,0300*	4.0 *4,0*	0.0080 *0,00032*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	0.024 *0,00095*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	900 (840 — 960) *2950 (2800 — 3100)*
TP1	A	0.0300 *0,0300*	4.0 *4,0*	0.0080 *0,00032*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	0.024 *0,00095*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	900 (840 — 960) *2950 (2800 — 3100)*
GR1	A	0.0300 *0,0300*	4.0 *4,0*	0.0080 *0,00032*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	0.024 *0,00095*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	900 (840 — 960) *2950 (2800 — 3100)*

For cutting data recalculations, see pages 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

JS506

General purpose – Universal – Chamfer – 3-4 Flutes – Cylindrical



N





- Tolerances:
- DMM=h5
- SIG= ±0,5°
- Regrind possible if DMM is ≥Ø6

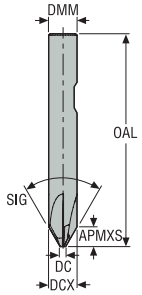
Designation	Item number	Length index	Tool shape	DC	DCX	DMM	APMXS	OAL	SIG°	PCEDC	Cylindrical
				mm	mm	mm	mm	mm			
JS506030N2CZ3.0-SIRA	02881622	2	N	0,6	3,0	3,0	2,0	50,0	60,0	3	■
JS506040N2CZ3.0-SIRA	02881623	2	N	0,8	4,0	4,0	2,7	50,0	60,0	3	■
JS506060N2CZ4.0-SIRA	02881624	2	N	1,2	6,0	6,0	4,1	57,0	60,0	4	■
JS506080N2CZ4.0-SIRA	02881626	2	N	1,6	8,0	8,0	5,5	63,0	60,0	4	■
JS506100N2CZ4.0-SIRA	02881628	2	N	2,0	10,0	10,0	6,9	72,0	60,0	4	■
JS506120N2CZ4.0-SIRA	02881630	2	N	2,4	12,0	12,0	8,3	83,0	60,0	4	■

■ Stocked standard.

JS506

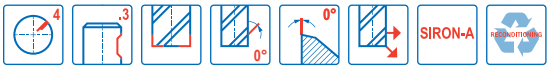
General purpose – Universal – Chamfer – 3-4 Flutes – Weldon





N

- Tolerances:
- DMM=h5
- SIG= ±0,5°
- Regrind possible



Designation	Item number	Length index	Tool shape	DC	DCX	DMM	APMXS	OAL	SIG°	PCEDC	Weldon
				mm	mm	mm	mm	mm			
JS506060N2CZ4.3-SIRA	02881625	2	N	1,2	6,0	6,0	4,1	57,0	60,0	4	■
JS506080N2CZ4.3-SIRA	02881627	2	N	1,6	8,0	8,0	5,5	63,0	60,0	4	■
JS506100N2CZ4.3-SIRA	02881629	2	N	2,0	10,0	10,0	6,9	72,0	60,0	4	■
JS506120N2CZ4.3-SIRA	02881631	2	N	2,4	12,0	12,0	8,3	83,0	60,0	4	■

■ Stocked standard.

Cutting data – JS506 Chamfering

SMG		a_e/DC	a_p/DC	f_z						v_c
				3	4	6	8	10	12	
P1	M/A/D/E	0.100 *0,100*	0.55 *0,55*	0.022 *0,00085*	0.028 *0,0011*	0.042 *0,0017*	0.055 *0,0022*	0.070 *0,0028*	0.080 *0,0032*	200 (180 — 220) *660 (600 — 720)*
P2	M/A/D/E	0.100 *0,100*	0.55 *0,55*	0.022 *0,00085*	0.028 *0,0011*	0.042 *0,0017*	0.055 *0,0022*	0.070 *0,0028*	0.085 *0,0034*	195 (180 — 220) *640 (600 — 720)*
P3	M/A/D/E	0.100 *0,100*	0.55 *0,55*	0.020 *0,00080*	0.026 *0,0010*	0.040 *0,0016*	0.055 *0,0022*	0.065 *0,0026*	0.080 *0,0032*	170 (150 — 190) *560 (500 — 620)*
P4	M/A/D/E	0.100 *0,100*	0.55 *0,55*	0.020 *0,00080*	0.026 *0,0010*	0.040 *0,0016*	0.055 *0,0022*	0.065 *0,0026*	0.080 *0,0032*	150 (130 — 160) *490 (430 — 520)*
P5	M/A/D/E	0.100 *0,100*	0.55 *0,55*	0.019 *0,00075*	0.026 *0,0010*	0.038 *0,0015*	0.050 *0,0020*	0.065 *0,0026*	0.075 *0,0030*	140 (130 — 160) *460 (430 — 520)*
P6	M/A/D/E	0.100 *0,100*	0.55 *0,55*	0.019 *0,00075*	0.025 *0,0010*	0.038 *0,0015*	0.050 *0,0020*	0.065 *0,0026*	0.075 *0,0030*	160 (140 — 180) *520 (460 — 590)*
P7	M/A/D/E	0.100 *0,100*	0.55 *0,55*	0.019 *0,00075*	0.025 *0,0010*	0.038 *0,0015*	0.050 *0,0020*	0.065 *0,0026*	0.075 *0,0030*	150 (140 — 170) *490 (460 — 550)*
P8	M/A/D/E	0.100 *0,100*	0.55 *0,55*	0.020 *0,00080*	0.026 *0,0010*	0.040 *0,0016*	0.055 *0,0022*	0.065 *0,0026*	0.080 *0,0032*	140 (130 — 160) *460 (430 — 520)*
P11	M/A/D/E	0.100 *0,100*	0.55 *0,55*	0.019 *0,00075*	0.025 *0,0010*	0.038 *0,0015*	0.050 *0,0020*	0.065 *0,0026*	0.075 *0,0030*	145 (130 — 160) *475 (430 — 520)*
P12	M/A/D/E	0.100 *0,100*	0.55 *0,55*	0.013 *0,00050*	0.017 *0,00065*	0.026 *0,0010*	0.034 *0,0013*	0.044 *0,0017*	0.050 *0,0020*	85 (75 — 97) *280 (250 — 310)*
M1	E/M/A	0.100 *0,100*	0.55 *0,55*	0.022 *0,00085*	0.028 *0,0011*	0.042 *0,0017*	0.055 *0,0022*	0.070 *0,0028*	0.085 *0,0034*	120 (95 — 140) *395 (320 — 450)*
M2	E/M/A	0.100 *0,100*	0.55 *0,55*	0.019 *0,00075*	0.026 *0,0010*	0.038 *0,0015*	0.050 *0,0020*	0.065 *0,0026*	0.075 *0,0030*	95 (76 — 110) *310 (250 — 360)*
M3	E/M/A	0.100 *0,100*	0.55 *0,55*	0.019 *0,00075*	0.026 *0,0010*	0.038 *0,0015*	0.050 *0,0020*	0.065 *0,0026*	0.075 *0,0030*	60 (43 — 80) *195 (150 — 260)*
M4	E/M/A	0.100 *0,100*	0.55 *0,55*	0.017 *0,00065*	0.022 *0,00085*	0.034 *0,0013*	0.046 *0,0018*	0.055 *0,0022*	0.065 *0,0026*	46 (33 — 60) *150 (110 — 190)*
M5	E/M/A	0.100 *0,100*	0.55 *0,55*	0.017 *0,00065*	0.022 *0,00085*	0.034 *0,0013*	0.046 *0,0018*	0.055 *0,0022*	0.065 *0,0026*	39 (27 — 50) *130 (89 — 160)*
K1	A/D/M/E	0.100 *0,100*	0.55 *0,55*	0.022 *0,00085*	0.028 *0,0011*	0.042 *0,0017*	0.055 *0,0022*	0.070 *0,0028*	0.085 *0,0034*	200 (180 — 220) *660 (600 — 720)*
K2	A/D/M/E	0.100 *0,100*	0.55 *0,55*	0.019 *0,00075*	0.026 *0,0010*	0.038 *0,0015*	0.050 *0,0020*	0.065 *0,0026*	0.075 *0,0030*	170 (150 — 190) *560 (500 — 620)*
K3	A/D/M/E	0.100 *0,100*	0.55 *0,55*	0.019 *0,00075*	0.026 *0,0010*	0.038 *0,0015*	0.050 *0,0020*	0.065 *0,0026*	0.075 *0,0030*	145 (130 — 160) *475 (430 — 520)*
K4	A/D/M/E	0.100 *0,100*	0.55 *0,55*	0.019 *0,00075*	0.026 *0,0010*	0.038 *0,0015*	0.050 *0,0020*	0.065 *0,0026*	0.075 *0,0030*	140 (130 — 150) *460 (430 — 490)*
K5	A/D/M/E	0.100 *0,100*	0.55 *0,55*	0.018 *0,00070*	0.024 *0,00095*	0.034 *0,0013*	0.046 *0,0018*	0.060 *0,0024*	0.070 *0,0028*	85 (72 — 93) *280 (240 — 300)*
K6	A/D/M/E	0.100 *0,100*	0.55 *0,55*	0.019 *0,00075*	0.026 *0,0010*	0.038 *0,0015*	0.050 *0,0020*	0.065 *0,0026*	0.075 *0,0030*	125 (110 — 130) *410 (370 — 420)*
K7	A/D/M/E	0.100 *0,100*	0.55 *0,55*	0.018 *0,00070*	0.024 *0,00095*	0.034 *0,0013*	0.046 *0,0018*	0.060 *0,0024*	0.070 *0,0028*	105 (92 — 120) *345 (310 — 390)*

For cutting data recalculations, see pages 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

Cutting data – JS506 Chamfering

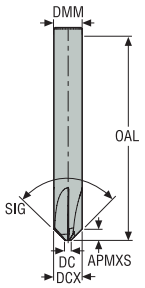
SMG		a_e/DC	a_p/DC	f_z						v_c
				3	4	6	8	10	12	
N1	E/M/A	0.100 *0,100*	0.55 *0,55*	0.019 *0,00075*	0.026 *0,0010*	0.038 *0,0015*	0.050 *0,0020*	0.065 *0,0026*	0.075 *0,0030*	475 (430 — 520) *1550 (1500 — 1700)*
N2	E/M/A	0.100 *0,100*	0.55 *0,55*	0.019 *0,00075*	0.026 *0,0010*	0.038 *0,0015*	0.050 *0,0020*	0.065 *0,0026*	0.075 *0,0030*	305 (280 — 330) *1000 (920 — 1000)*
N3	E/M/A	0.100 *0,100*	0.55 *0,55*	0.019 *0,00075*	0.026 *0,0010*	0.038 *0,0015*	0.050 *0,0020*	0.065 *0,0026*	0.075 *0,0030*	205 (190 — 220) *670 (630 — 720)*
N11	E/M/A	0.100 *0,100*	0.55 *0,55*	0.019 *0,00075*	0.026 *0,0010*	0.038 *0,0015*	0.050 *0,0020*	0.065 *0,0026*	0.075 *0,0030*	270 (250 — 290) *890 (830 — 950)*
S1	E	0.100 *0,100*	0.55 *0,55*	0.020 *0,00080*	0.028 *0,0011*	0.042 *0,0017*	0.055 *0,0022*	0.070 *0,0028*	0.080 *0,0032*	41 (14 — 68) *135 (46 — 220)*
S2	E	0.100 *0,100*	0.55 *0,55*	0.020 *0,00080*	0.028 *0,0011*	0.042 *0,0017*	0.055 *0,0022*	0.070 *0,0028*	0.080 *0,0032*	33 (12 — 55) *110 (40 — 180)*
S3	E	0.100 *0,100*	0.55 *0,55*	0.019 *0,00075*	0.026 *0,0010*	0.038 *0,0015*	0.050 *0,0020*	0.065 *0,0026*	0.075 *0,0030*	28 (9.5 — 47) *90 (32 — 150)*
S11	E	0.100 *0,100*	0.55 *0,55*	0.019 *0,00075*	0.026 *0,0010*	0.038 *0,0015*	0.050 *0,0020*	0.065 *0,0026*	0.075 *0,0030*	95 (68 — 110) *310 (230 — 360)*
S12	E	0.100 *0,100*	0.55 *0,55*	0.019 *0,00075*	0.026 *0,0010*	0.038 *0,0015*	0.050 *0,0020*	0.065 *0,0026*	0.075 *0,0030*	70 (53 — 90) *230 (180 — 290)*
S13	E	0.100 *0,100*	0.55 *0,55*	0.017 *0,00065*	0.022 *0,00085*	0.034 *0,0013*	0.046 *0,0018*	0.055 *0,0022*	0.065 *0,0026*	55 (41 — 69) *180 (140 — 220)*
H5	M/A/D	0.0500 *0,0500*	1.5 *1,5*	0.015 *0,00060*	0.020 *0,00080*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	65 (45 — 83) *215 (150 — 270)*
H8	M/A/D	0.0500 *0,0500*	1.5 *1,5*	0.011 *0,00044*	0.015 *0,00060*	0.022 *0,00085*	0.030 *0,0012*	0.038 *0,0015*	0.044 *0,0017*	60 (44 — 81) *195 (150 — 260)*
H11	M/A/D	0.0500 *0,0500*	1.5 *1,5*	0.015 *0,00060*	0.020 *0,00080*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	80 (57 — 100) *260 (190 — 320)*
H12	M/A/D	0.0500 *0,0500*	1.5 *1,5*	0.011 *0,00044*	0.015 *0,00060*	0.022 *0,00085*	0.030 *0,0012*	0.038 *0,0015*	0.044 *0,0017*	70 (51 — 94) *230 (170 — 300)*
H21	M/A/D	0.0500 *0,0500*	1.5 *1,5*	0.011 *0,00044*	0.015 *0,00060*	0.022 *0,00085*	0.030 *0,0012*	0.038 *0,0015*	0.044 *0,0017*	60 (44 — 81) *195 (150 — 260)*
TS1	A/D	0.100 *0,100*	0.55 *0,55*	0.019 *0,00075*	0.026 *0,0010*	0.038 *0,0015*	0.050 *0,0020*	0.065 *0,0026*	0.075 *0,0030*	475 (430 — 520) *1550 (1500 — 1700)*
TP1	A/D	0.100 *0,100*	0.55 *0,55*	0.019 *0,00075*	0.026 *0,0010*	0.038 *0,0015*	0.050 *0,0020*	0.065 *0,0026*	0.075 *0,0030*	475 (430 — 520) *1550 (1500 — 1700)*
GR1	A/D	0.100 *0,100*	0.55 *0,55*	0.019 *0,00075*	0.026 *0,0010*	0.038 *0,0015*	0.050 *0,0020*	0.065 *0,0026*	0.075 *0,0030*	475 (430 — 520) *1550 (1500 — 1700)*

For cutting data recalculations, see pages 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

JS509

General purpose – Universal – Chamfer – 3-4 Flutes – Cylindrical



N





- Tolerances:
- DMM=h5
- SIG= ±0,5°
- Regrind possible if DMM is ≥Ø6

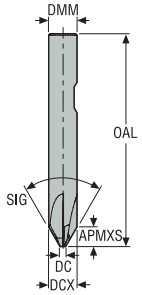
Designation	Item number	Length index	Tool shape	DC	DCX	DMM	APMXS	OAL	SIG°	PCEDC	Cylindrical
				mm	mm	mm	mm	mm			
JS509030N2CZ3.0-SIRA	02881634	2	N	0,6	3,0	3,0	1,2	50,0	90,0	3	■
JS509040N2CZ3.0-SIRA	02881635	2	N	0,8	4,0	4,0	1,6	50,0	90,0	3	■
JS509060N2CZ4.0-SIRA	02881636	2	N	1,2	6,0	6,0	2,4	57,0	90,0	4	■
JS509080N2CZ4.0-SIRA	02881638	2	N	1,6	8,0	8,0	3,2	63,0	90,0	4	■
JS509100N2CZ4.0-SIRA	02881640	2	N	2,0	10,0	10,0	4,0	72,0	90,0	4	■
JS509120N2CZ4.0-SIRA	02881642	2	N	2,4	12,0	12,0	4,8	83,0	90,0	4	■

■ Stocked standard.

JS509

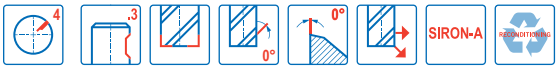
General purpose – Universal – Chamfer – 3-4 Flutes – Weldon





N

- Tolerances:
- DMM=h5
- SIG= ±0,5°
- Regrind possible



Designation	Item number	Length index	Tool shape	DC	DCX	DMM	APMXS	OAL	SIG°	PCEDC	Weldon
				mm	mm	mm	mm	mm			
JS509060N2CZ4.3-SIRA	02881637	2	N	1,2	6,0	6,0	2,4	57,0	90,0	4	■
JS509080N2CZ4.3-SIRA	02881639	2	N	1,6	8,0	8,0	3,2	63,0	90,0	4	■
JS509100N2CZ4.3-SIRA	02881641	2	N	2,0	10,0	10,0	4,0	72,0	90,0	4	■
JS509120N2CZ4.3-SIRA	02881643	2	N	2,4	12,0	12,0	4,8	83,0	90,0	4	■

■ Stocked standard.

Cutting data – JS509 Chamfering

SMG		a_e/DC	a_p/DC	f_z						v_c
				3	4	6	8	10	12	
P1	M/A/D/E	0.100 *0,100*	0.55 *0,55*	0.034 *0,0013*	0.044 *0,0017*	0.065 *0,0026*	0.090 *0,0036*	0.11 *0,0044*	0.13 *0,0050*	380 (340 — 430) *1250 (1200 — 1400)*
P2	M/A/D/E	0.100 *0,100*	0.55 *0,55*	0.034 *0,0013*	0.044 *0,0017*	0.065 *0,0026*	0.090 *0,0036*	0.11 *0,0044*	0.13 *0,0050*	370 (330 — 420) *1225 (1100 — 1300)*
P3	M/A/D/E	0.100 *0,100*	0.55 *0,55*	0.032 *0,0013*	0.042 *0,0017*	0.065 *0,0026*	0.085 *0,0034*	0.11 *0,0044*	0.12 *0,0048*	320 (280 — 360) *1050 (920 — 1100)*
P4	M/A/D/E	0.100 *0,100*	0.55 *0,55*	0.032 *0,0013*	0.042 *0,0017*	0.060 *0,0024*	0.085 *0,0034*	0.10 *0,0040*	0.12 *0,0048*	280 (250 — 310) *920 (830 — 1000)*
P5	M/A/D/E	0.100 *0,100*	0.55 *0,55*	0.030 *0,0012*	0.040 *0,0016*	0.060 *0,0024*	0.085 *0,0034*	0.10 *0,0040*	0.12 *0,0048*	270 (240 — 300) *890 (790 — 980)*
P6	M/A/D/E	0.100 *0,100*	0.55 *0,55*	0.030 *0,0012*	0.040 *0,0016*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	305 (270 — 340) *1000 (890 — 1100)*
P7	M/A/D/E	0.100 *0,100*	0.55 *0,55*	0.030 *0,0012*	0.040 *0,0016*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	285 (250 — 320) *940 (830 — 1000)*
P8	M/A/D/E	0.100 *0,100*	0.55 *0,55*	0.032 *0,0013*	0.042 *0,0017*	0.065 *0,0026*	0.085 *0,0034*	0.11 *0,0044*	0.12 *0,0048*	270 (240 — 300) *890 (790 — 980)*
P11	M/A/D/E	0.100 *0,100*	0.55 *0,55*	0.030 *0,0012*	0.040 *0,0016*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	280 (250 — 310) *920 (830 — 1000)*
P12	M/A/D/E	0.100 *0,100*	0.55 *0,55*	0.020 *0,00080*	0.028 *0,0011*	0.042 *0,0017*	0.055 *0,0022*	0.070 *0,0028*	0.080 *0,0032*	165 (150 — 180) *540 (500 — 590)*
M1	E/M/A	0.100 *0,100*	0.55 *0,55*	0.034 *0,0013*	0.044 *0,0017*	0.065 *0,0026*	0.090 *0,0036*	0.11 *0,0044*	0.13 *0,0050*	220 (180 — 260) *720 (600 — 850)*
M2	E/M/A	0.100 *0,100*	0.55 *0,55*	0.030 *0,0012*	0.040 *0,0016*	0.060 *0,0024*	0.085 *0,0034*	0.10 *0,0040*	0.12 *0,0048*	180 (150 — 210) *590 (500 — 680)*
M3	E/M/A	0.100 *0,100*	0.55 *0,55*	0.030 *0,0012*	0.040 *0,0016*	0.060 *0,0024*	0.085 *0,0034*	0.10 *0,0040*	0.12 *0,0048*	115 (81 — 150) *375 (270 — 490)*
M4	E/M/A	0.100 *0,100*	0.55 *0,55*	0.026 *0,0010*	0.036 *0,0014*	0.055 *0,0022*	0.070 *0,0028*	0.090 *0,0036*	0.10 *0,0040*	90 (61 — 110) *295 (210 — 360)*
M5	E/M/A	0.100 *0,100*	0.55 *0,55*	0.026 *0,0010*	0.036 *0,0014*	0.055 *0,0022*	0.070 *0,0028*	0.090 *0,0036*	0.10 *0,0040*	75 (51 — 95) *245 (170 — 310)*
K1	A/D/M/E	0.100 *0,100*	0.55 *0,55*	0.034 *0,0013*	0.044 *0,0017*	0.065 *0,0026*	0.090 *0,0036*	0.11 *0,0044*	0.13 *0,0050*	375 (330 — 420) *1225 (1100 — 1300)*
K2	A/D/M/E	0.100 *0,100*	0.55 *0,55*	0.030 *0,0012*	0.040 *0,0016*	0.060 *0,0024*	0.085 *0,0034*	0.10 *0,0040*	0.12 *0,0048*	325 (290 — 360) *1075 (960 — 1100)*
K3	A/D/M/E	0.100 *0,100*	0.55 *0,55*	0.030 *0,0012*	0.040 *0,0016*	0.060 *0,0024*	0.085 *0,0034*	0.10 *0,0040*	0.12 *0,0048*	275 (240 — 310) *900 (790 — 1000)*
K4	A/D/M/E	0.100 *0,100*	0.55 *0,55*	0.030 *0,0012*	0.040 *0,0016*	0.060 *0,0024*	0.085 *0,0034*	0.10 *0,0040*	0.12 *0,0048*	265 (230 — 290) *870 (760 — 950)*
K5	A/D/M/E	0.100 *0,100*	0.55 *0,55*	0.028 *0,0011*	0.036 *0,0014*	0.055 *0,0022*	0.075 *0,0030*	0.090 *0,0036*	0.11 *0,0044*	155 (140 — 170) *510 (460 — 550)*
K6	A/D/M/E	0.100 *0,100*	0.55 *0,55*	0.030 *0,0012*	0.040 *0,0016*	0.060 *0,0024*	0.085 *0,0034*	0.10 *0,0040*	0.12 *0,0048*	230 (210 — 260) *750 (690 — 850)*
K7	A/D/M/E	0.100 *0,100*	0.55 *0,55*	0.028 *0,0011*	0.036 *0,0014*	0.055 *0,0022*	0.075 *0,0030*	0.090 *0,0036*	0.11 *0,0044*	200 (180 — 220) *660 (600 — 720)*

For cutting data recalculations, see pages 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

Cutting data – JS509 Chamfering

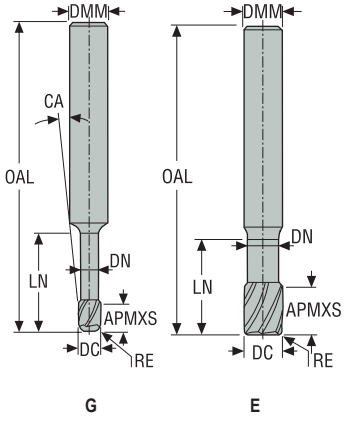
SMG		a_e/DC	a_p/DC	f_z						v_c
				3	4	6	8	10	12	
N1	E/M/A	0.100 *0,100*	0.55 *0,55*	0.030 *0,0012*	0.040 *0,0016*	0.060 *0,0024*	0.085 *0,0034*	0.10 *0,0040*	0.12 *0,0048*	900 (810 — 980) *2950 (2700 — 3200)*
N2	E/M/A	0.100 *0,100*	0.55 *0,55*	0.030 *0,0012*	0.040 *0,0016*	0.060 *0,0024*	0.085 *0,0034*	0.10 *0,0040*	0.12 *0,0048*	580 (530 — 630) *1900 (1800 — 2000)*
N3	E/M/A	0.100 *0,100*	0.55 *0,55*	0.030 *0,0012*	0.040 *0,0016*	0.060 *0,0024*	0.085 *0,0034*	0.10 *0,0040*	0.12 *0,0048*	385 (350 — 420) *1275 (1200 — 1300)*
N11	E/M/A	0.100 *0,100*	0.55 *0,55*	0.030 *0,0012*	0.040 *0,0016*	0.060 *0,0024*	0.085 *0,0034*	0.10 *0,0040*	0.12 *0,0048*	510 (470 — 560) *1675 (1600 — 1800)*
S1	E	0.100 *0,100*	0.55 *0,55*	0.017 *0,00065*	0.022 *0,00085*	0.032 *0,0013*	0.044 *0,0017*	0.055 *0,0022*	0.065 *0,0026*	70 (24 — 110) *230 (79 — 360)*
S2	E	0.100 *0,100*	0.55 *0,55*	0.017 *0,00065*	0.022 *0,00085*	0.032 *0,0013*	0.044 *0,0017*	0.055 *0,0022*	0.065 *0,0026*	55 (19 — 94) *180 (63 — 300)*
S3	E	0.100 *0,100*	0.55 *0,55*	0.015 *0,00060*	0.020 *0,00080*	0.030 *0,0012*	0.042 *0,0017*	0.050 *0,0020*	0.060 *0,0024*	49 (17 — 80) *160 (56 — 260)*
S11	E	0.100 *0,100*	0.55 *0,55*	0.030 *0,0012*	0.040 *0,0016*	0.060 *0,0024*	0.085 *0,0034*	0.10 *0,0040*	0.12 *0,0048*	175 (130 — 220) *570 (430 — 720)*
S12	E	0.100 *0,100*	0.55 *0,55*	0.030 *0,0012*	0.040 *0,0016*	0.060 *0,0024*	0.085 *0,0034*	0.10 *0,0040*	0.12 *0,0048*	135 (99 — 170) *445 (330 — 550)*
S13	E	0.100 *0,100*	0.55 *0,55*	0.026 *0,0010*	0.036 *0,0014*	0.055 *0,0022*	0.070 *0,0028*	0.090 *0,0036*	0.10 *0,0040*	105 (77 — 130) *345 (260 — 420)*
H5	M/A/D	0.0500 *0,0500*	1.2 *1,2*	0.020 *0,00080*	0.026 *0,0010*	0.040 *0,0016*	0.050 *0,0020*	0.065 *0,0026*	0.075 *0,0030*	115 (80 — 140) *375 (270 — 450)*
H8	M/A/D	0.0500 *0,0500*	1.2 *1,2*	0.015 *0,00060*	0.020 *0,00080*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	110 (78 — 140) *360 (260 — 450)*
H11	M/A/D	0.0500 *0,0500*	1.2 *1,2*	0.020 *0,00080*	0.026 *0,0010*	0.040 *0,0016*	0.050 *0,0020*	0.065 *0,0026*	0.075 *0,0030*	145 (110 — 190) *475 (370 — 620)*
H12	M/A/D	0.0500 *0,0500*	1.2 *1,2*	0.015 *0,00060*	0.020 *0,00080*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	130 (91 — 170) *425 (300 — 550)*
H21	M/A/D	0.0500 *0,0500*	1.2 *1,2*	0.015 *0,00060*	0.020 *0,00080*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	110 (78 — 140) *360 (260 — 450)*
TS1	A/D	0.100 *0,100*	0.55 *0,55*	0.030 *0,0012*	0.040 *0,0016*	0.060 *0,0024*	0.085 *0,0034*	0.10 *0,0040*	0.12 *0,0048*	900 (810 — 980) *2950 (2700 — 3200)*
TP1	A/D	0.100 *0,100*	0.55 *0,55*	0.030 *0,0012*	0.040 *0,0016*	0.060 *0,0024*	0.085 *0,0034*	0.10 *0,0040*	0.12 *0,0048*	900 (810 — 980) *2950 (2700 — 3200)*
GR1	A/D	0.100 *0,100*	0.55 *0,55*	0.030 *0,0012*	0.040 *0,0016*	0.060 *0,0024*	0.085 *0,0034*	0.10 *0,0040*	0.12 *0,0048*	900 (810 — 980) *2950 (2700 — 3200)*

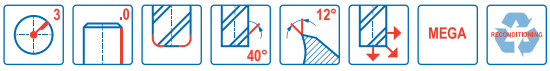
For cutting data recalculations, see pages 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

JH910

High speed – Universal – Square – 3 Flutes – Cylindrical – Corner radius







- Tolerances:
- DMM= h5
- DC= -0,02/-0,03 mm
- RE= ±0,01 mm
- Regrind possible if DC is ≥Ø6

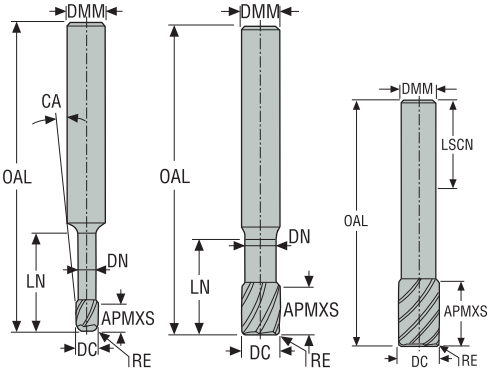
Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	CA°	PCEDC	Cylindrical
				mm	mm	mm	mm	mm	mm	mm			
910020R020-MEGA	00020058	2	G	2,0	3,0	3,0	40,0	6,0	1,9	0,2	3,5	3	■
910025R020-MEGA	00020065	2	G	2,5	3,0	4,0	40,0	6,0	2,4	0,2	2,0	3	■
910030R010-MEGA	00020073	2	E	3,0	3,0	4,0	40,0	7,0	2,8	0,1	–	3	■
910030R020-MEGA	00020142	2	E	3,0	3,0	4,0	40,0	7,0	2,8	0,2	–	3	■
910035R020-MEGA	00020144	2	G	3,5	6,0	5,0	50,0	9,0	3,2	0,2	6,0	3	■
910040R020-MEGA	00020151	2	G	4,0	6,0	5,0	50,0	9,0	3,7	0,2	5,0	3	■
910040R030-MEGA	00020152	2	G	4,0	6,0	5,0	50,0	9,0	3,7	0,3	5,0	3	■
910040R050-MEGA	00020155	2	G	4,0	6,0	5,0	50,0	9,0	3,7	0,5	5,0	3	■
910050R020-MEGA	00020159	2	G	5,0	6,0	6,0	50,0	11,0	4,6	0,2	2,5	3	■
910060R020-MEGA	00020160	2	E	6,0	6,0	7,0	60,0	14,0	5,6	0,2	–	3	■
910060R030-MEGA	00020161	2	E	6,0	6,0	7,0	60,0	14,0	5,6	0,3	–	3	■
910060R050-MEGA	00020162	2	E	6,0	6,0	7,0	60,0	14,0	5,6	0,5	–	3	■
910080R020-MEGA	00020163	2	E	8,0	8,0	9,0	60,0	18,0	7,4	0,2	–	3	■
910080R050-MEGA	00020164	2	E	8,0	8,0	9,0	60,0	18,0	7,4	0,5	–	3	■
910100R020-MEGA	00020165	2	E	10,0	10,0	12,0	70,0	25,0	9,4	0,2	–	3	■
910100R050-MEGA	00020166	2	E	10,0	10,0	12,0	70,0	25,0	9,4	0,5	–	3	■
910100R100-MEGA	00020167	2	E	10,0	10,0	12,0	70,0	25,0	9,4	1,0	–	3	■
910120R050-MEGA	00020168	2	E	12,0	12,0	15,0	80,0	30,0	11,4	0,5	–	3	■
910120R100-MEGA	00020169	2	E	12,0	12,0	15,0	80,0	30,0	11,4	1,0	–	3	■

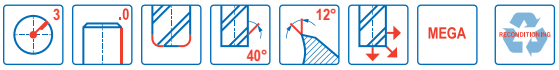
■ Stocked standard.

JH910

High speed – Universal – Square – 3 Flutes – Cylindrical – Corner radius







- Tolerances:
- DMM= h5
- DC= -0,02/-0,03 mm
- RE= ±0,01 mm
- Regrind possible if DC is ≥Ø6

Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	CA°	LSCN	PCEDC	Cylindrical
				mm	mm	mm	mm	mm	mm	mm		mm		
910L020-MEGA	00022002	3	G	2,0	3,0	3,0	60,0	10,0	1,9	0,2	2,5	28,0	3	■
910L030-MEGA	00022003	3	E	3,0	3,0	4,0	60,0	14,0	2,8	0,2	–	28,0	3	■
910L040-MEGA	00022004	3	G	4,0	6,0	5,0	65,0	18,0	3,7	0,2	3,0	36,0	3	■
910L050-MEGA	00022005	3	G	5,0	6,0	6,0	65,0	22,0	4,6	0,2	1,5	36,0	3	■
910L060-MEGA	00022006	3	E	6,0	6,0	7,0	80,0	26,0	5,6	0,3	–	36,0	3	■
910L080-MEGA	00022007	3	E	8,0	8,0	9,0	85,0	36,0	7,4	0,5	–	36,0	3	■
910L100-MEGA	00022009	3	E	10,0	10,0	12,0	100,0	45,0	9,4	0,5	–	40,0	3	■
910L120-MEGA	00022011	3	E	12,0	12,0	15,0	125,0	54,0	11,4	0,5	–	45,0	3	■
910L160-MEGA	00022013	3	E	16,0	16,0	18,0	125,0	65,0	15,4	1,0	–	48,0	3	■
910RS070-MEGA	00021772	4	P	7,0	6,0	8,0	100,0	–	–	0,3	–	36,0	3	■
910RS090-MEGA	00021781	4	P	9,0	8,0	11,0	100,0	–	–	0,5	–	36,0	3	■
910RS110-MEGA	00021782	4	P	11,0	10,0	13,0	125,0	–	–	0,5	–	40,0	3	■
910RS130-MEGA	00021784	4	P	13,0	12,0	16,0	150,0	–	–	0,6	–	45,0	3	■
910RS170-MEGA	00021800	4	P	17,0	16,0	20,0	150,0	–	–	0,6	–	48,0	3	■

■ Stocked standard.

Cutting data – JH910 Side milling roughing

SMG		a_e/DC	a_p/DC	f_z														v_c
				2	3	4	5	6	7	8	9	10	11	12	13	16	17	
P1	M/E/A	0.0400 *0,0400*	1.1 *1,1*	0.020 *0,00080*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.070 *0,0028*	0.080 *0,0032*	0.090 *0,0036*	0.10 *0,0040*	0.11 *0,0044*	0.12 *0,0048*	0.13 *0,0050*	0.16 *0,0065*	0.17 *0,0065*	455 (410 — 500) *1500 (1400 — 1600)*
P2	M/E/A	0.0400 *0,0400*	1.1 *1,1*	0.020 *0,00080*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.070 *0,0028*	0.080 *0,0032*	0.090 *0,0036*	0.10 *0,0040*	0.11 *0,0044*	0.12 *0,0048*	0.13 *0,0050*	0.16 *0,0065*	0.17 *0,0065*	445 (400 — 490) *1450 (1400 — 1600)*
P3	M/E/A	0.0400 *0,0400*	1.1 *1,1*	0.020 *0,00080*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.070 *0,0028*	0.080 *0,0032*	0.090 *0,0036*	0.10 *0,0040*	0.11 *0,0044*	0.12 *0,0048*	0.13 *0,0050*	0.16 *0,0065*	0.17 *0,0065*	385 (350 — 420) *1275 (1200 — 1300)*
P4	M/E/A	0.0400 *0,0400*	1.1 *1,1*	0.020 *0,00080*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.070 *0,0028*	0.080 *0,0032*	0.090 *0,0036*	0.10 *0,0040*	0.11 *0,0044*	0.12 *0,0048*	0.13 *0,0050*	0.16 *0,0065*	0.17 *0,0065*	335 (300 — 370) *1100 (990 — 1200)*
P5	M/E/A	0.0400 *0,0400*	1.1 *1,1*	0.020 *0,00080*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.070 *0,0028*	0.080 *0,0032*	0.090 *0,0036*	0.10 *0,0040*	0.11 *0,0044*	0.12 *0,0048*	0.13 *0,0050*	0.16 *0,0065*	0.17 *0,0065*	320 (290 — 350) *1050 (960 — 1100)*
P6	M/E/A	0.0400 *0,0400*	1.1 *1,1*	0.020 *0,00080*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.070 *0,0028*	0.080 *0,0032*	0.090 *0,0036*	0.10 *0,0040*	0.11 *0,0044*	0.12 *0,0048*	0.13 *0,0050*	0.16 *0,0065*	0.17 *0,0065*	360 (330 — 400) *1175 (1100 — 1300)*
P7	M/E/A	0.0400 *0,0400*	1.1 *1,1*	0.020 *0,00080*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.070 *0,0028*	0.080 *0,0032*	0.090 *0,0036*	0.10 *0,0040*	0.11 *0,0044*	0.12 *0,0048*	0.13 *0,0050*	0.16 *0,0065*	0.17 *0,0065*	340 (310 — 370) *1125 (1100 — 1200)*
P8	M/E/A	0.0400 *0,0400*	1.1 *1,1*	0.020 *0,00080*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.070 *0,0028*	0.080 *0,0032*	0.090 *0,0036*	0.10 *0,0040*	0.11 *0,0044*	0.12 *0,0048*	0.13 *0,0050*	0.16 *0,0065*	0.17 *0,0065*	320 (290 — 350) *1050 (960 — 1100)*
P11	M/E/A	0.0400 *0,0400*	1.0 *1,0*	0.020 *0,00080*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.070 *0,0028*	0.080 *0,0032*	0.090 *0,0036*	0.10 *0,0040*	0.11 *0,0044*	0.12 *0,0048*	0.13 *0,0050*	0.16 *0,0065*	0.17 *0,0065*	330 (300 — 360) *1075 (990 — 1100)*
P12	M/E/A	0.0400 *0,0400*	1.0 *1,0*	0.020 *0,00080*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.070 *0,0028*	0.080 *0,0032*	0.090 *0,0036*	0.10 *0,0040*	0.11 *0,0044*	0.12 *0,0048*	0.13 *0,0050*	0.16 *0,0065*	0.17 *0,0065*	195 (180 — 210) *640 (600 — 680)*
M1	M/E/A	0.0400 *0,0400*	1.0 *1,0*	0.020 *0,00080*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.070 *0,0028*	0.080 *0,0032*	0.090 *0,0036*	0.10 *0,0040*	0.11 *0,0044*	0.12 *0,0048*	0.13 *0,0050*	0.16 *0,0065*	0.17 *0,0065*	200 (180 — 220) *660 (600 — 720)*
M2	M/E/A	0.0400 *0,0400*	1.0 *1,0*	0.020 *0,00080*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.070 *0,0028*	0.080 *0,0032*	0.090 *0,0036*	0.10 *0,0040*	0.11 *0,0044*	0.12 *0,0048*	0.13 *0,0050*	0.16 *0,0065*	0.17 *0,0065*	160 (150 — 170) *520 (500 — 550)*
M3	M/E/A	0.0300 *0,0300*	0.80 *0,80*	0.020 *0,00080*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.070 *0,0028*	0.080 *0,0032*	0.090 *0,0036*	0.10 *0,0040*	0.11 *0,0044*	0.12 *0,0048*	0.13 *0,0050*	0.16 *0,0065*	0.17 *0,0065*	110 (91 — 120) *360 (300 — 390)*
M4	M/E/A	0.0300 *0,0300*	0.80 *0,80*	0.020 *0,00080*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.070 *0,0028*	0.080 *0,0032*	0.090 *0,0036*	0.10 *0,0040*	0.11 *0,0044*	0.12 *0,0048*	0.13 *0,0050*	0.16 *0,0065*	0.17 *0,0065*	80 (68 — 94) *260 (230 — 300)*
M5	M/E/A	0.0300 *0,0300*	0.80 *0,80*	0.020 *0,00080*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.070 *0,0028*	0.080 *0,0032*	0.090 *0,0036*	0.10 *0,0040*	0.11 *0,0044*	0.12 *0,0048*	0.13 *0,0050*	0.16 *0,0065*	0.17 *0,0065*	70 (57 — 78) *230 (190 — 250)*
K1	A/E	0.0400 *0,0400*	1.0 *1,0*	0.020 *0,00080*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.070 *0,0028*	0.080 *0,0032*	0.090 *0,0036*	0.10 *0,0040*	0.11 *0,0044*	0.12 *0,0048*	0.13 *0,0050*	0.16 *0,0065*	0.17 *0,0065*	315 (270 — 350) *1025 (890 — 1100)*
K2	A/E	0.0400 *0,0400*	1.0 *1,0*	0.020 *0,00080*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.070 *0,0028*	0.080 *0,0032*	0.090 *0,0036*	0.10 *0,0040*	0.11 *0,0044*	0.12 *0,0048*	0.13 *0,0050*	0.16 *0,0065*	0.17 *0,0065*	270 (240 — 310) *890 (790 — 1000)*
K3	A/E	0.0400 *0,0400*	1.0 *1,0*	0.020 *0,00080*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.070 *0,0028*	0.080 *0,0032*	0.090 *0,0036*	0.10 *0,0040*	0.11 *0,0044*	0.12 *0,0048*	0.13 *0,0050*	0.16 *0,0065*	0.17 *0,0065*	230 (200 — 260) *750 (660 — 850)*
K4	A/E	0.0400 *0,0400*	1.0 *1,0*	0.020 *0,00080*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.070 *0,0028*	0.080 *0,0032*	0.090 *0,0036*	0.10 *0,0040*	0.11 *0,0044*	0.12 *0,0048*	0.13 *0,0050*	0.16 *0,0065*	0.17 *0,0065*	220 (190 — 250) *720 (630 — 820)*
K5	A/E	0.0300 *0,0300*	0.80 *0,80*	0.020 *0,00080*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.070 *0,0028*	0.080 *0,0032*	0.090 *0,0036*	0.10 *0,0040*	0.11 *0,0044*	0.12 *0,0048*	0.13 *0,0050*	0.16 *0,0065*	0.17 *0,0065*	280 (240 — 320) *920 (790 — 1000)*
K6	A/E	0.0300 *0,0300*	0.80 *0,80*	0.020 *0,00080*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.070 *0,0028*	0.080 *0,0032*	0.090 *0,0036*	0.10 *0,0040*	0.11 *0,0044*	0.12 *0,0048*	0.13 *0,0050*	0.16 *0,0065*	0.17 *0,0065*	415 (350 — 480) *1350 (1200 — 1500)*
K7	A/E	0.0300 *0,0300*	0.80 *0,80*	0.020 *0,00080*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.070 *0,0028*	0.080 *0,0032*	0.090 *0,0036*	0.10 *0,0040*	0.11 *0,0044*	0.12 *0,0048*	0.13 *0,0050*	0.16 *0,0065*	0.17 *0,0065*	355 (300 — 410) *1175 (990 — 1300)*
S1	E/M/A	0.0300 *0,0300*	0.70 *0,70*	0.020 *0,00080*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.070 *0,0028*	0.080 *0,0032*	0.090 *0,0036*	0.10 *0,0040*	0.11 *0,0044*	0.12 *0,0048*	0.13 *0,0050*	0.16 *0,0065*	0.17 *0,0065*	115 (93 — 130) *375 (310 — 420)*
S2	E/M/A	0.0300 *0,0300*	0.70 *0,70*	0.020 *0,00080*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.070 *0,0028*	0.080 *0,0032*	0.090 *0,0036*	0.10 *0,0040*	0.11 *0,0044*	0.12 *0,0048*	0.13 *0,0050*	0.16 *0,0065*	0.17 *0,0065*	95 (75 — 110) *310 (250 — 360)*
S3	E/M/A	0.0200 *0,0200*	0.50 *0,50*	0.016 *0,00065*	0.024 *0,00095*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.055 *0,0022*	0.065 *0,0026*	0.070 *0,0028*	0.080 *0,0032*	0.090 *0,0036*	0.095 *0,0038*	0.10 *0,0040*	0.13 *0,0050*	0.14 *0,0055*	50 (40 — 59) *165 (140 — 190)*
S11	E/M/A	0.0400 *0,0400*	1.0 *1,0*	0.020 *0,00080*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.070 *0,0028*	0.080 *0,0032*	0.090 *0,0036*	0.10 *0,0040*	0.11 *0,0044*	0.12 *0,0048*	0.13 *0,0050*	0.16 *0,0065*	0.17 *0,0065*	175 (160 — 190) *570 (530 — 620)*
S12	E/M/A	0.0400 *0,0400*	1.0 *1,0*	0.020 *0,00080*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.070 *0,0028*	0.080 *0,0032*	0.090 *0,0036*	0.10 *0,0040*	0.11 *0,0044*	0.12 *0,0048*	0.13 *0,0050*	0.16 *0,0065*	0.17 *0,0065*	135 (120 — 150) *445 (400 — 490)*
S13	E/M/A	0.0400 *0,0400*	1.0 *1,0*	0.020 *0,00080*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.070 *0,0028*	0.080 *0,0032*	0.090 *0,0036*	0.10 *0,0040*	0.11 *0,0044*	0.12 *0,0048*	0.13 *0,0050*	0.16 *0,0065*	0.17 *0,0065*	105 (90 — 110) *345 (300 — 360)*
TP1	A	0.150 *0,150*	1.0 *1,0*	0.020 *0,00080*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.070 *0,0028*	0.080 *0,0032*	0.090 *0,0036*	0.10 *0,0040*	0.11 *0,0044*	0.12 *0,0048*	0.13 *0,0050*	0.15 *0,0060*	0.15 *0,0060*	205 (180 — 240) *670 (600 — 780)*
GR1	A	0.500 *0,500*	1.0 *1,0*	0.024 *0,00095*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	0.085 *0,0034*	0.095 *0,0038*	0.11 *0,0044*	0.12 *0,0048*	0.13 *0,0050*	0.14 *0,0055*	0.15 *0,0060*	0.18 *0,0070*	0.18 *0,0070*	610 (510 — 710) *2000 (1700 — 2300)*

For cutting data recalculations, see pages 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

Cutting data – JH910 Slot milling

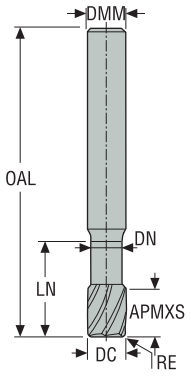
SMG		a_p/DC	f_z														v_c
			2	3	4	5	6	7	8	9	10	11	12	13	16	17	
P1	M/E/A	0.30	0.010	0.015	0.020	0.025	0.030	0.036	0.040	0.046	0.050	0.055	0.060	0.065	0.080	0.085	255 (230 — 280)
		0,30	*0,00040*	*0,00060*	*0,00080*	*0,0010*	*0,0012*	*0,0014*	*0,0016*	*0,0018*	*0,0020*	*0,0022*	*0,0024*	*0,0026*	*0,0032*	*0,0034*	*840 (760 — 910)*
P2	M/E/A	0.30	0.010	0.015	0.020	0.025	0.030	0.036	0.040	0.046	0.050	0.055	0.060	0.065	0.080	0.085	250 (230 — 270)
		0,30	*0,00040*	*0,00060*	*0,00080*	*0,0010*	*0,0012*	*0,0014*	*0,0016*	*0,0018*	*0,0020*	*0,0022*	*0,0024*	*0,0026*	*0,0032*	*0,0034*	*820 (760 — 880)*
P3	M/E/A	0.30	0.010	0.015	0.020	0.025	0.030	0.036	0.040	0.046	0.050	0.055	0.060	0.065	0.080	0.085	215 (200 — 230)
		0,30	*0,00040*	*0,00060*	*0,00080*	*0,0010*	*0,0012*	*0,0014*	*0,0016*	*0,0018*	*0,0020*	*0,0022*	*0,0024*	*0,0026*	*0,0032*	*0,0034*	*710 (660 — 750)*
P4	M/E/A	0.30	0.010	0.015	0.020	0.025	0.030	0.036	0.040	0.046	0.050	0.055	0.060	0.065	0.080	0.085	190 (170 — 200)
		0,30	*0,00040*	*0,00060*	*0,00080*	*0,0010*	*0,0012*	*0,0014*	*0,0016*	*0,0018*	*0,0020*	*0,0022*	*0,0024*	*0,0026*	*0,0032*	*0,0034*	*620 (560 — 650)*
P5	M/E/A	0.30	0.010	0.015	0.020	0.025	0.030	0.036	0.040	0.046	0.050	0.055	0.060	0.065	0.080	0.085	180 (170 — 190)
		0,30	*0,00040*	*0,00060*	*0,00080*	*0,0010*	*0,0012*	*0,0014*	*0,0016*	*0,0018*	*0,0020*	*0,0022*	*0,0024*	*0,0026*	*0,0032*	*0,0034*	*590 (560 — 620)*
P6	M/E/A	0.30	0.010	0.015	0.020	0.025	0.030	0.036	0.040	0.046	0.050	0.055	0.060	0.065	0.080	0.085	200 (180 — 220)
		0,30	*0,00040*	*0,00060*	*0,00080*	*0,0010*	*0,0012*	*0,0014*	*0,0016*	*0,0018*	*0,0020*	*0,0022*	*0,0024*	*0,0026*	*0,0032*	*0,0034*	*660 (600 — 720)*
P7	M/E/A	0.30	0.010	0.015	0.020	0.025	0.030	0.036	0.040	0.046	0.050	0.055	0.060	0.065	0.080	0.085	190 (170 — 210)
		0,30	*0,00040*	*0,00060*	*0,00080*	*0,0010*	*0,0012*	*0,0014*	*0,0016*	*0,0018*	*0,0020*	*0,0022*	*0,0024*	*0,0026*	*0,0032*	*0,0034*	*620 (560 — 680)*
P8	M/E/A	0.30	0.010	0.015	0.020	0.025	0.030	0.036	0.040	0.046	0.050	0.055	0.060	0.065	0.080	0.085	180 (170 — 190)
		0,30	*0,00040*	*0,00060*	*0,00080*	*0,0010*	*0,0012*	*0,0014*	*0,0016*	*0,0018*	*0,0020*	*0,0022*	*0,0024*	*0,0026*	*0,0032*	*0,0034*	*590 (560 — 620)*
P11	M/E/A	0.10	0.010	0.015	0.020	0.025	0.030	0.036	0.040	0.046	0.050	0.055	0.060	0.065	0.080	0.085	195 (180 — 210)
		0,10	*0,00040*	*0,00060*	*0,00080*	*0,0010*	*0,0012*	*0,0014*	*0,0016*	*0,0018*	*0,0020*	*0,0022*	*0,0024*	*0,0026*	*0,0032*	*0,0034*	*640 (600 — 680)*
P12	M/E/A	0.10	0.010	0.015	0.020	0.025	0.030	0.036	0.040	0.046	0.050	0.055	0.060	0.065	0.080	0.085	115 (110 — 120)
		0,10	*0,00040*	*0,00060*	*0,00080*	*0,0010*	*0,0012*	*0,0014*	*0,0016*	*0,0018*	*0,0020*	*0,0022*	*0,0024*	*0,0026*	*0,0032*	*0,0034*	*375 (370 — 390)*
M1	M/E/A	0.10	0.010	0.015	0.020	0.025	0.030	0.036	0.040	0.046	0.050	0.055	0.060	0.065	0.080	0.085	120 (110 — 130)
		0,10	*0,00040*	*0,00060*	*0,00080*	*0,0010*	*0,0012*	*0,0014*	*0,0016*	*0,0018*	*0,0020*	*0,0022*	*0,0024*	*0,0026*	*0,0032*	*0,0034*	*395 (370 — 420)*
M2	M/E/A	0.10	0.010	0.015	0.020	0.025	0.030	0.036	0.040	0.046	0.050	0.055	0.060	0.065	0.080	0.085	95 (86 — 100)
		0,10	*0,00040*	*0,00060*	*0,00080*	*0,0010*	*0,0012*	*0,0014*	*0,0016*	*0,0018*	*0,0020*	*0,0022*	*0,0024*	*0,0026*	*0,0032*	*0,0034*	*310 (290 — 320)*
M3	M/E/A	0.10	0.010	0.015	0.020	0.025	0.030	0.036	0.040	0.046	0.050	0.055	0.060	0.065	0.080	0.085	60 (51 — 70)
		0,10	*0,00040*	*0,00060*	*0,00080*	*0,0010*	*0,0012*	*0,0014*	*0,0016*	*0,0018*	*0,0020*	*0,0022*	*0,0024*	*0,0026*	*0,0032*	*0,0034*	*195 (170 — 220)*
M4	M/E/A	0.10	0.010	0.015	0.020	0.025	0.030	0.036	0.040	0.046	0.050	0.055	0.060	0.065	0.080	0.085	45 (38 — 52)
		0,10	*0,00040*	*0,00060*	*0,00080*	*0,0010*	*0,0012*	*0,0014*	*0,0016*	*0,0018*	*0,0020*	*0,0022*	*0,0024*	*0,0026*	*0,0032*	*0,0034*	*150 (130 — 170)*
M5	M/E/A	0.10	0.010	0.015	0.020	0.025	0.030	0.036	0.040	0.046	0.050	0.055	0.060	0.065	0.080	0.085	38 (32 — 43)
		0,10	*0,00040*	*0,00060*	*0,00080*	*0,0010*	*0,0012*	*0,0014*	*0,0016*	*0,0018*	*0,0020*	*0,0022*	*0,0024*	*0,0026*	*0,0032*	*0,0034*	*125 (110 — 140)*
K1	A/E	0.30	0.010	0.015	0.020	0.025	0.030	0.036	0.040	0.046	0.050	0.055	0.060	0.065	0.080	0.085	175 (160 — 200)
		0,30	*0,00040*	*0,00060*	*0,00080*	*0,0010*	*0,0012*	*0,0014*	*0,0016*	*0,0018*	*0,0020*	*0,0022*	*0,0024*	*0,0026*	*0,0032*	*0,0034*	*570 (530 — 650)*
K2	A/E	0.30	0.010	0.015	0.020	0.025	0.030	0.036	0.040	0.046	0.050	0.055	0.060	0.065	0.080	0.085	150 (140 — 170)
		0,30	*0,00040*	*0,00060*	*0,00080*	*0,0010*	*0,0012*	*0,0014*	*0,0016*	*0,0018*	*0,0020*	*0,0022*	*0,0024*	*0,0026*	*0,0032*	*0,0034*	*490 (460 — 550)*
K3	A/E	0.30	0.010	0.015	0.020	0.025	0.030	0.036	0.040	0.046	0.050	0.055	0.060	0.065	0.080	0.085	130 (120 — 140)
		0,30	*0,00040*	*0,00060*	*0,00080*	*0,0010*	*0,0012*	*0,0014*	*0,0016*	*0,0018*	*0,0020*	*0,0022*	*0,0024*	*0,0026*	*0,0032*	*0,0034*	*425 (400 — 450)*
K4	A/E	0.30	0.010	0.015	0.020	0.025	0.030	0.036	0.040	0.046	0.050	0.055	0.060	0.065	0.080	0.085	125 (110 — 140)
		0,30	*0,00040*	*0,00060*	*0,00080*	*0,0010*	*0,0012*	*0,0014*	*0,0016*	*0,0018*	*0,0020*	*0,0022*	*0,0024*	*0,0026*	*0,0032*	*0,0034*	*410 (370 — 450)*
K5	A/E	0.16	0.010	0.015	0.020	0.025	0.030	0.036	0.040	0.046	0.050	0.055	0.060	0.065	0.080	0.085	150 (130 — 170)
		0,16	*0,00040*	*0,00060*	*0,00080*	*0,0010*	*0,0012*	*0,0014*	*0,0016*	*0,0018*	*0,0020*	*0,0022*	*0,0024*	*0,0026*	*0,0032*	*0,0034*	*490 (430 — 550)*
K6	A/E	0.16	0.010	0.015	0.020	0.025	0.030	0.036	0.040	0.046	0.050	0.055	0.060	0.065	0.080	0.085	220 (190 — 250)
		0,16	*0,00040*	*0,00060*	*0,00080*	*0,0010*	*0,0012*	*0,0014*	*0,0016*	*0,0018*	*0,0020*	*0,0022*	*0,0024*	*0,0026*	*0,0032*	*0,0034*	*720 (630 — 820)*
K7	A/E	0.16	0.010	0.015	0.020	0.025	0.030	0.036	0.040	0.046	0.050	0.055	0.060	0.065	0.080	0.085	190 (170 — 220)
		0,16	*0,00040*	*0,00060*	*0,00080*	*0,0010*	*0,0012*	*0,0014*	*0,0016*	*0,0018*	*0,0020*	*0,0022*	*0,0024*	*0,0026*	*0,0032*	*0,0034*	*620 (560 — 720)*
S1	E/M/A	0.15	0.010	0.015	0.020	0.025	0.030	0.036	0.040	0.046	0.050	0.055	0.060	0.065	0.080	0.085	60 (50 — 74)
		0,15	*0,00040*	*0,00060*	*0,00080*	*0,0010*	*0,0012*	*0,0014*	*0,0016*	*0,0018*	*0,0020*	*0,0022*	*0,0024*	*0,0026*	*0,0032*	*0,0034*	*195 (170 — 240)*
S2	E/M/A	0.15	0.010	0.015	0.020	0.025	0.030	0.036	0.040	0.046	0.050	0.055	0.060	0.065	0.080	0.085	50 (41 — 60)
		0,15	*0,00040*	*0,00060*	*0,00080*	*0,0010*	*0,0012*	*0,0014*	*0,0016*	*0,0018*	*0,0020*	*0,0022*	*0,0024*	*0,0026*	*0,0032*	*0,0034*	*165 (140 — 190)*
S3	E/M/A	0.080	0.010	0.015	0.020	0.025	0.030	0.036	0.040	0.046	0.050	0.055	0.060	0.065	0.080	0.085	25 (21 — 30)
		0,080	*0,00040*	*0,00060*	*0,00080*	*0,0010*	*0,0012*	*0,0014*	*0,0016*	*0,0018*	*0,0020*	*0,0022*	*0,0024*	*0,0026*	*0,0032*	*0,0034*	*80 (69 — 98)*
S11	E/M/A	0.24	0.010	0.015	0.020	0.025	0.030	0.036	0.040	0.046	0.050	0.055	0.060	0.065	0.080	0.085	100 (85 — 110)
		0,24	*0,00040*	*0,00060*	*0,00080*	*0,0010*	*0,0012*	*0,0014*	*0,0016*	*0,0018*	*0,0020*	*0,0022*	*0,0024*	*0,0026*	*0,0032*	*0,0034*	*330 (280 — 360)*
S12	E/M/A	0.24	0.010	0.015	0.020	0.025	0.030	0.036	0.040	0.046	0.050	0.055	0.060	0.065	0.080	0.085	75 (65 — 84)
		0,24	*0,00040*	*0,00060*	*0,00080*	*0,0010*	*0,0012*	*0,0014*	*0,0016*	*0,0018*	*0,0020*	*0,0022*	*0,0024*	*0,0026*	*0,0032*	*0,0034*	*245 (220 — 270)*
S13	E/M/A	0.24	0.010	0.015	0.020	0.025	0.030	0.036	0.040	0.046	0.050	0.055	0.060	0.065	0.080	0.085	60 (51 — 65)
		0,24	*0,00040*	*0,00060*	*0,00080*	*0,0010*	*0,0012*	*0,0014*	*0,0016*	*0,0018*	*0,0020*	*0,0022*	*0,0024*	*0,0026*	*0,0032*	*0,0034*	*195 (170 — 210)*
TP1	A	0.24	0.012	0.018	0.024	0.030	0.036	0.042	0.048	0.055	0.060	0.065	0.070	0.080	0.095	0.10	150 (130 — 170)
		0,24	*0,00048*	*0,00070*	*0,00095*	*0,0012*	*0,0014*	*0,0017*	*0,0019*	*0,0022*	*0,0024*	*0,0026*	*0,0028*	*0,0032*	*0,0038*	*0,0040*	*490 (430 — 550)*
GR1	A	0.36	0.014	0.022	0.028	0.036	0.042	0.050	0.055	0.065	0.070	0.075	0.085	0.090	0.11	0.12	600 (510 — 700)
		0,36	*0,00055*	*0,00085*	*0,0011*	*0,0014*	*0,0017*	*0,0020*	*0,0022*	*0,0026*	*0,0028*	*0,0030*	*0,0034*	*0,0036*	*0,0044*	*0,0048*	*1975 (1700 — 2200)*

For cutting data recalculations, see pages 573 - 580

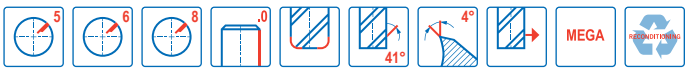
SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (sf/min)
f_z = mm/tooth (*in*/tooth)
a_p = mm/DC (*in*/DC) = factor
a_e = mm/DC (*in*/DC) = factor
All cutting data are target values

JH930

High speed – Universal – Square – 5-8 Flutes – Cylindrical – Corner radius



E





- Tolerances:
- DMM= h5
- DC= -0,02/-0,04 mm
- RE= ±0,05 mm
- Regrind possible

Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Cylindrical
				mm	mm	mm	mm	mm	mm	mm		
930060R020-MEGA	00022026	2	E	6,0	6,0	9,0	55,0	15,0	5,6	0,2	5	■
930060R050-MEGA	00022027	2	E	6,0	6,0	9,0	55,0	15,0	5,6	0,5	5	■
930080R020-MEGA	00022028	2	E	8,0	8,0	12,0	60,0	18,0	7,4	0,2	5	■
930080R050-MEGA	00022029	2	E	8,0	8,0	12,0	60,0	18,0	7,4	0,5	5	■
930100R030-MEGA	00022030	2	E	10,0	10,0	15,0	70,0	25,0	9,4	0,3	6	■
930100R100-MEGA	00022031	2	E	10,0	10,0	15,0	70,0	25,0	9,4	1,0	6	■
930120R050-MEGA	00022033	2	E	12,0	12,0	18,0	80,0	30,0	11,4	0,5	6	■
930120R100-MEGA	00022034	2	E	12,0	12,0	18,0	80,0	30,0	11,4	1,0	6	■
930160R050-MEGA	00022035	2	E	16,0	16,0	24,0	90,0	35,0	15,4	0,5	8	■
930160R100-MEGA	00022040	2	E	16,0	16,0	24,0	90,0	35,0	15,4	1,0	8	■
930200R050-MEGA	00022044	2	E	20,0	20,0	30,0	100,0	38,0	19,2	0,5	8	■

■ Stocked standard.

Cutting data – JH930 Side milling

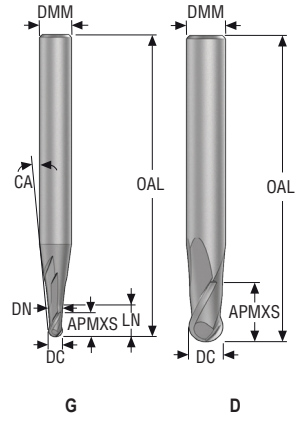
SMG		a_e/DC	a_p/DC	f_z						v_c
				6	8	10	12	16	20	
P1	M/E/A	0.0400 *0,0400*	0.70 *0,70*	0.065 *0,0026*	0.085 *0,0034*	0.11 *0,0044*	0.13 *0,0050*	0.16 *0,0065*	0.18 *0,0070*	440 (370 — 490) *1450 (1300 — 1600)*
P2	M/E/A	0.0400 *0,0400*	0.70 *0,70*	0.065 *0,0026*	0.090 *0,0036*	0.11 *0,0044*	0.13 *0,0050*	0.16 *0,0065*	0.19 *0,0075*	430 (360 — 480) *1400 (1200 — 1500)*
P3	M/E/A	0.0400 *0,0400*	0.70 *0,70*	0.060 *0,0024*	0.085 *0,0034*	0.10 *0,0040*	0.12 *0,0048*	0.15 *0,0060*	0.18 *0,0070*	375 (320 — 420) *1225 (1100 — 1300)*
P4	M/E/A	0.0400 *0,0400*	0.70 *0,70*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.15 *0,0060*	0.17 *0,0065*	330 (280 — 370) *1075 (920 — 1200)*
P5	M/E/A	0.0400 *0,0400*	0.70 *0,70*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.15 *0,0060*	0.17 *0,0065*	315 (270 — 350) *1025 (890 — 1100)*
P6	M/E/A	0.0400 *0,0400*	0.70 *0,70*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.15 *0,0060*	0.17 *0,0065*	355 (300 — 390) *1175 (990 — 1200)*
P7	M/E/A	0.0400 *0,0400*	0.70 *0,70*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.15 *0,0060*	0.17 *0,0065*	335 (280 — 370) *1100 (920 — 1200)*
P8	M/E/A	0.0400 *0,0400*	0.70 *0,70*	0.060 *0,0024*	0.085 *0,0034*	0.10 *0,0040*	0.12 *0,0048*	0.15 *0,0060*	0.18 *0,0070*	315 (270 — 350) *1025 (890 — 1100)*
P11	M/E/A	0.0400 *0,0400*	0.70 *0,70*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.15 *0,0060*	0.17 *0,0065*	325 (280 — 360) *1075 (920 — 1100)*
P12	M/E/A	0.0400 *0,0400*	0.70 *0,70*	0.040 *0,0016*	0.055 *0,0022*	0.070 *0,0028*	0.080 *0,0032*	0.10 *0,0040*	0.11 *0,0044*	200 (170 — 220) *660 (560 — 720)*
K1	E/M/A	0.0400 *0,0400*	0.70 *0,70*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.15 *0,0060*	0.17 *0,0065*	255 (210 — 300) *840 (690 — 980)*
K2	E/M/A	0.0400 *0,0400*	0.70 *0,70*	0.055 *0,0022*	0.075 *0,0030*	0.090 *0,0036*	0.11 *0,0044*	0.13 *0,0050*	0.15 *0,0060*	225 (180 — 260) *740 (600 — 850)*
K3	E/M/A	0.0400 *0,0400*	0.70 *0,70*	0.055 *0,0022*	0.075 *0,0030*	0.090 *0,0036*	0.11 *0,0044*	0.13 *0,0050*	0.15 *0,0060*	190 (160 — 220) *620 (530 — 720)*
K4	E/M/A	0.0400 *0,0400*	0.70 *0,70*	0.055 *0,0022*	0.075 *0,0030*	0.090 *0,0036*	0.11 *0,0044*	0.13 *0,0050*	0.15 *0,0060*	180 (150 — 210) *590 (500 — 680)*
K5	E/M/A	0.0300 *0,0300*	0.50 *0,50*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.15 *0,0060*	0.17 *0,0065*	205 (160 — 250) *670 (530 — 820)*
K6	E/M/A	0.0300 *0,0300*	0.50 *0,50*	0.065 *0,0026*	0.090 *0,0036*	0.11 *0,0044*	0.13 *0,0050*	0.16 *0,0065*	0.19 *0,0075*	300 (230 — 370) *980 (760 — 1200)*
K7	E/M/A	0.0300 *0,0300*	0.50 *0,50*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.15 *0,0060*	0.17 *0,0065*	260 (200 — 320) *850 (660 — 1000)*
S1	E/M/A	0.0300 *0,0300*	0.44 *0,44*	0.055 *0,0022*	0.070 *0,0028*	0.090 *0,0036*	0.11 *0,0044*	0.13 *0,0050*	0.15 *0,0060*	80 (62 — 100) *260 (210 — 320)*
S2	E/M/A	0.0300 *0,0300*	0.44 *0,44*	0.055 *0,0022*	0.070 *0,0028*	0.090 *0,0036*	0.11 *0,0044*	0.13 *0,0050*	0.15 *0,0060*	65 (50 — 82) *215 (170 — 260)*
S3	E/M/A	0.0200 *0,0200*	0.70 *0,70*	0.055 *0,0022*	0.070 *0,0028*	0.090 *0,0036*	0.11 *0,0044*	0.13 *0,0050*	0.15 *0,0060*	41 (31 — 50) *135 (110 — 160)*
S11	E/M/A	0.0400 *0,0400*	0.70 *0,70*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.15 *0,0060*	0.17 *0,0065*	160 (140 — 180) *520 (460 — 590)*
S12	E/M/A	0.0400 *0,0400*	0.70 *0,70*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.15 *0,0060*	0.17 *0,0065*	120 (110 — 140) *395 (370 — 450)*
S13	E/M/A	0.0400 *0,0400*	0.70 *0,70*	0.050 *0,0020*	0.070 *0,0028*	0.085 *0,0034*	0.10 *0,0040*	0.13 *0,0050*	0.15 *0,0060*	95 (81 — 110) *310 (270 — 360)*
H3	M/A	0.0200 *0,0200*	0.50 *0,50*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.044 *0,0017*	0.050 *0,0020*	55 (41 — 71) *180 (140 — 230)*
H5	M/A	0.0300 *0,0300*	0.50 *0,50*	0.024 *0,00095*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	250 (210 — 300) *820 (690 — 980)*
H7	M/A	0.0200 *0,0200*	0.50 *0,50*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.044 *0,0017*	0.050 *0,0020*	55 (41 — 71) *180 (140 — 230)*
H8	M/A	0.0300 *0,0300*	0.50 *0,50*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.044 *0,0017*	0.050 *0,0020*	255 (210 — 300) *840 (690 — 980)*
H11	M/A	0.0300 *0,0300*	0.50 *0,50*	0.024 *0,00095*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	320 (260 — 380) *1050 (860 — 1200)*
H12	M/A	0.0400 *0,0400*	0.70 *0,70*	0.030 *0,0012*	0.042 *0,0017*	0.050 *0,0020*	0.060 *0,0024*	0.075 *0,0030*	0.085 *0,0034*	270 (220 — 320) *890 (730 — 1000)*
H21	M/A	0.0300 *0,0300*	0.50 *0,50*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.044 *0,0017*	0.050 *0,0020*	255 (210 — 300) *840 (690 — 980)*
H31	M/A	0.0300 *0,0300*	0.50 *0,50*	0.024 *0,00095*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	155 (130 — 180) *510 (430 — 590)*

For cutting data recalculations, see pages 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

JHB970

High speed – Universal – Ball nose – 2 Flutes – Cylindrical





- Tolerances:
- DMM= h5
- DC= -0,02/-0,04 mm
- RE= ±0,01 mm
- Regrind possible if DC is ≥Ø6

Designation	Grade	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	CA°	PCEDC	Cylindrical
					mm	mm	mm	mm	mm	mm			
JHB970020G1B.0Z2	SIRA	10072058	1	G	2,0	3,0	3,0	50,0	10,0	1,9	2,5	2	■
JHB970030D1B.0Z2	SIRA	10072059	1	D	3,0	3,0	4,5	50,0	–	–	–	2	■
JHB970040D1B.0Z2	SIRA	10072060	1	D	4,0	4,0	6,0	60,0	–	–	–	2	■
JHB970050D1B.0Z2	SIRA	10072061	1	D	5,0	5,0	7,5	60,0	–	–	–	2	■
JHB970060D1B.0Z2	SIRA	10072062	1	D	6,0	6,0	9,0	75,0	–	–	–	2	■
JHB970020G2B.0Z2	SIRA	10072063	2	G	2,0	6,0	3,0	60,0	4,0	1,9	8,0	2	■
JHB970025G2B.0Z2	SIRA	10072064	2	G	2,5	6,0	4,0	60,0	5,0	2,4	7,5	2	■
JHB970030G2B.0Z2	SIRA	10072065	2	G	3,0	6,0	4,5	60,0	6,0	2,8	5,5	2	■
JHB970035G2B.0Z2	SIRA	10072066	2	G	3,5	6,0	5,0	60,0	7,0	3,2	4,5	2	■
JHB970040G2B.0Z2	SIRA	10072067	2	G	4,0	6,0	6,0	60,0	8,0	3,7	3,0	2	■
JHB970050G2B.0Z2	SIRA	10072068	2	G	5,0	6,0	7,5	60,0	10,0	4,6	2,0	2	■
JHB970060G2B.0Z2	SIRA	10072069	2	G	6,0	8,0	9,0	75,0	12,0	5,6	2,5	2	■
JHB970080D2B.0Z2	SIRA	10072070	2	D	8,0	8,0	12,0	75,0	–	–	–	2	■
JHB970100D2B.0Z2	SIRA	10072071	2	D	10,0	10,0	15,0	80,0	–	–	–	2	■
JHB970120D2B.0Z2	SIRA	10072072	2	D	12,0	12,0	18,0	90,0	–	–	–	2	■
JHB970160D2B.0Z2	SIRA	10072073	2	D	16,0	16,0	24,0	100,0	–	–	–	2	■
JHB970020G3B.0Z2	SIRA	10072074	3	G	2,0	6,0	3,0	80,0	4,0	1,9	8,0	2	■
JHB970030G3B.0Z2	SIRA	10072075	3	G	3,0	6,0	4,5	80,0	6,0	2,8	5,5	2	■
JHB970040G3B.0Z2	SIRA	10072076	3	G	4,0	6,0	6,0	80,0	8,0	3,7	3,0	2	■
JHB970060G3B.0Z2	SIRA	10072077	3	G	6,0	8,0	9,0	100,0	12,0	5,6	2,5	2	■
JHB970080D3B.0Z2	SIRA	10072078	3	D	8,0	8,0	12,0	108,0	–	–	–	2	■
JHB970100D3B.0Z2	SIRA	10072079	3	D	10,0	10,0	15,0	125,0	–	–	–	2	■
JHB970120D3B.0Z2	SIRA	10072080	3	D	12,0	12,0	18,0	125,0	–	–	–	2	■

■ Stocked standard.

Cutting data – JHB970 Copy milling roughing

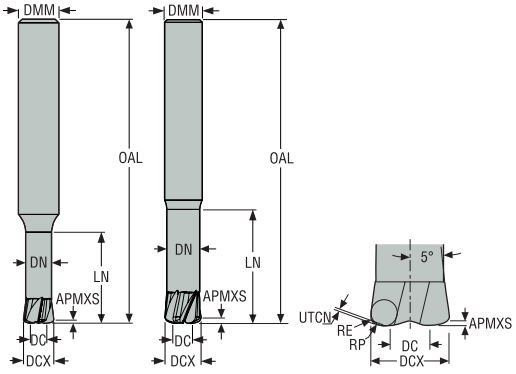
SMG		a_e/DC	a_p/DC	f_z											v_c
				2	2.5	3	3.5	4	5	6	8	10	12	16	
P1	M	0.200	1.0	0.011	0.014	0.016	0.019	0.022	0.028	0.032	0.044	0.055	0.065	0.080	210 (190 — 230)
		0,200	*1,0*	*0,00044*	*0,00055*	*0,00065*	*0,00075*	*0,00085*	*0,0011*	*0,0013*	*0,0017*	*0,0022*	*0,0026*	*0,0032*	*690 (630 — 750)*
P2	M	0.200	1.0	0.011	0.014	0.017	0.019	0.022	0.028	0.034	0.044	0.055	0.065	0.080	205 (180 — 230)
		0,200	*1,0*	*0,00044*	*0,00055*	*0,00065*	*0,00075*	*0,00085*	*0,0011*	*0,0013*	*0,0017*	*0,0022*	*0,0026*	*0,0032*	*670 (600 — 750)*
P3	M	0.200	1.0	0.010	0.013	0.016	0.018	0.020	0.026	0.032	0.042	0.050	0.060	0.075	180 (160 — 200)
		0,200	*1,0*	*0,00040*	*0,00050*	*0,00065*	*0,00070*	*0,00080*	*0,0010*	*0,0013*	*0,0017*	*0,0020*	*0,0024*	*0,0030*	*590 (530 — 650)*
P4	M	0.200	1.0	0.010	0.013	0.015	0.018	0.020	0.026	0.030	0.040	0.050	0.060	0.075	155 (140 — 170)
		0,200	*1,0*	*0,00040*	*0,00050*	*0,00060*	*0,00070*	*0,00080*	*0,0010*	*0,0012*	*0,0016*	*0,0020*	*0,0024*	*0,0030*	*510 (460 — 550)*
P5	M	0.200	1.0	0.010	0.012	0.015	0.018	0.020	0.025	0.030	0.040	0.050	0.060	0.075	150 (140 — 170)
		0,200	*1,0*	*0,00040*	*0,00048*	*0,00060*	*0,00065*	*0,00080*	*0,0010*	*0,0012*	*0,0016*	*0,0020*	*0,0024*	*0,0030*	*490 (460 — 550)*
P6	M	0.200	1.0	0.010	0.012	0.015	0.017	0.020	0.025	0.030	0.040	0.050	0.060	0.075	170 (150 — 190)
		0,200	*1,0*	*0,00040*	*0,00048*	*0,00060*	*0,00065*	*0,00080*	*0,0010*	*0,0012*	*0,0016*	*0,0020*	*0,0024*	*0,0030*	*560 (500 — 620)*
P7	M	0.200	1.0	0.010	0.012	0.015	0.017	0.020	0.025	0.030	0.040	0.050	0.060	0.075	160 (140 — 180)
		0,200	*1,0*	*0,00040*	*0,00048*	*0,00060*	*0,00065*	*0,00080*	*0,0010*	*0,0012*	*0,0016*	*0,0020*	*0,0024*	*0,0030*	*520 (460 — 590)*
P8	M	0.200	1.0	0.010	0.013	0.016	0.018	0.020	0.026	0.032	0.042	0.050	0.060	0.075	150 (140 — 170)
		0,200	*1,0*	*0,00040*	*0,00050*	*0,00065*	*0,00070*	*0,00080*	*0,0010*	*0,0013*	*0,0017*	*0,0020*	*0,0024*	*0,0030*	*490 (460 — 550)*
P11	M	0.200	1.0	0.010	0.012	0.015	0.017	0.020	0.025	0.030	0.040	0.050	0.060	0.075	75 (67 — 86)
		0,200	*1,0*	*0,00040*	*0,00048*	*0,00060*	*0,00065*	*0,00080*	*0,0010*	*0,0012*	*0,0016*	*0,0020*	*0,0024*	*0,0030*	*245 (220 — 280)*
P12	M	0.200	1.0	0.0070	0.0085	0.010	0.012	0.014	0.017	0.020	0.028	0.034	0.040	0.050	48 (42 — 53)
		0,200	*1,0*	*0,00028*	*0,00034*	*0,00040*	*0,00048*	*0,00055*	*0,00065*	*0,00080*	*0,0011*	*0,0013*	*0,0016*	*0,0020*	*155 (140 — 170)*
M1	E	0.200	1.0	0.0090	0.011	0.013	0.015	0.018	0.022	0.026	0.036	0.044	0.050	0.065	90 (80 — 100)
		0,200	*1,0*	*0,00036*	*0,00044*	*0,00050*	*0,00060*	*0,00070*	*0,00085*	*0,0010*	*0,0014*	*0,0017*	*0,0020*	*0,0026*	*295 (270 — 320)*
M2	E	0.200	1.0	0.0080	0.010	0.012	0.014	0.016	0.020	0.024	0.032	0.040	0.048	0.060	75 (65 — 85)
		0,200	*1,0*	*0,00032*	*0,00040*	*0,00048*	*0,00055*	*0,00065*	*0,00080*	*0,00095*	*0,0013*	*0,0016*	*0,0019*	*0,0024*	*245 (220 — 270)*
M3	E	0.150	1.0	0.0060	0.0075	0.0090	0.010	0.012	0.015	0.018	0.024	0.030	0.036	0.044	65 (55 — 75)
		0,150	*1,0*	*0,00024*	*0,00030*	*0,00036*	*0,00040*	*0,00048*	*0,00060*	*0,00070*	*0,00095*	*0,0012*	*0,0014*	*0,0017*	*215 (190 — 240)*
M4	E	0.150	1.0	0.0050	0.0065	0.0080	0.0090	0.010	0.013	0.016	0.020	0.026	0.032	0.038	49 (42 — 56)
		0,150	*1,0*	*0,00020*	*0,00026*	*0,00032*	*0,00036*	*0,00040*	*0,00050*	*0,00065*	*0,00080*	*0,0010*	*0,0013*	*0,0015*	*160 (140 — 180)*
M5	E	0.150	1.0	0.0050	0.0065	0.0080	0.0090	0.010	0.013	0.016	0.020	0.026	0.032	0.038	41 (35 — 47)
		0,150	*1,0*	*0,00020*	*0,00026*	*0,00032*	*0,00036*	*0,00040*	*0,00050*	*0,00065*	*0,00080*	*0,0010*	*0,0013*	*0,0015*	*135 (120 — 150)*
S1	E	0.100	0.80	0.0060	0.0075	0.0090	0.010	0.012	0.015	0.018	0.024	0.030	0.036	0.044	50 (40 — 59)
		0,100	*0,80*	*0,00024*	*0,00030*	*0,00036*	*0,00040*	*0,00048*	*0,00060*	*0,00070*	*0,00095*	*0,0012*	*0,0014*	*0,0017*	*165 (140 — 190)*
S2	E	0.100	0.80	0.0060	0.0075	0.0090	0.010	0.012	0.015	0.018	0.024	0.030	0.036	0.044	40 (33 — 48)
		0,100	*0,80*	*0,00024*	*0,00030*	*0,00036*	*0,00040*	*0,00048*	*0,00060*	*0,00070*	*0,00095*	*0,0012*	*0,0014*	*0,0017*	*130 (110 — 150)*
S3	E	0.100	0.60	0.0040	0.0050	0.0060	0.0070	0.0080	0.010	0.012	0.016	0.020	0.024	0.028	30 (20 — 39)
		0,100	*0,60*	*0,00016*	*0,00020*	*0,00024*	*0,00028*	*0,00032*	*0,00040*	*0,00048*	*0,00065*	*0,00080*	*0,00095*	*0,0011*	*100 (66 — 120)*
S11	E	0.200	1.0	0.010	0.012	0.015	0.018	0.020	0.025	0.030	0.040	0.050	0.060	0.075	90 (79 — 100)
		0,200	*1,0*	*0,00040*	*0,00048*	*0,00060*	*0,00065*	*0,00080*	*0,0010*	*0,0012*	*0,0016*	*0,0020*	*0,0024*	*0,0030*	*295 (260 — 320)*
S12	E	0.200	1.0	0.010	0.012	0.015	0.018	0.020	0.025	0.030	0.040	0.050	0.060	0.075	70 (61 — 80)
		0,200	*1,0*	*0,00040*	*0,00048*	*0,00060*	*0,00065*	*0,00080*	*0,0010*	*0,0012*	*0,0016*	*0,0020*	*0,0024*	*0,0030*	*230 (210 — 260)*
S13	E	0.200	1.0	0.0085	0.011	0.013	0.015	0.017	0.022	0.026	0.034	0.044	0.050	0.065	55 (48 — 63)
		0,200	*1,0*	*0,00034*	*0,00044*	*0,00050*	*0,00060*	*0,00065*	*0,00085*	*0,0010*	*0,0013*	*0,0017*	*0,0020*	*0,0026*	*180 (160 — 200)*

For cutting data recalculations, see pages 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

JHF980

High feed – Universal – 2-5 Flutes – Cylindrical – Corner radius





- Tolerances:
- DMM= h5
- DC= -0,02/-0,05 mm
- RE= ±0,05 mm
- Regrind possible if DC is ≥Ø6

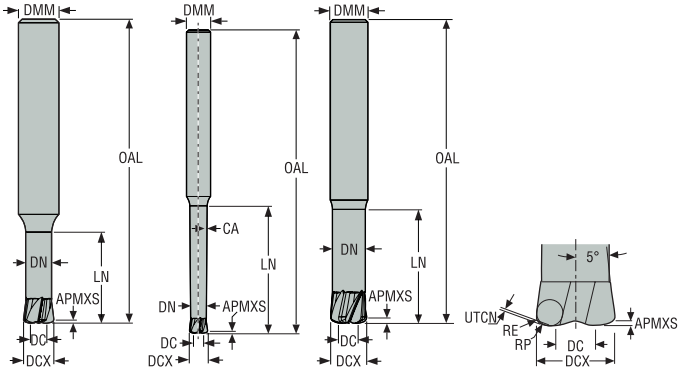
Designation	Item number	Length index	Tool shape	DCX	DC	DMM	APMXS	OAL	LN	DN	RE	RP	UTCN	CA°	PCEDC	Cylindrical
				mm	mm	mm	mm	mm	mm	mm	mm	mm	mm			
980K080Z3-MEGA	02587115	1	E	8,0	4,0	8,0	0,4	70,0	12,0	3,0	0,6	0,935	0,198	–	3	■
JHF980080E1H.0Z5-MEGA	03003384	1	E	8,0	4,0	8,0	0,4	70,0	12,0	7,0	0,6	0,935	0,198	–	5	■
980K100Z3-MEGA	02587117	1	E	10,0	5,0	10,0	0,45	80,0	15,0	3,8	0,8	1,176	0,232	–	3	■
JHF980100E1H.0Z5-MEGA	03003385	1	E	10,0	5,0	10,0	0,45	80,0	15,0	8,8	0,8	1,176	0,232	–	5	■
980K120Z3-MEGA	02587118	1	E	12,0	6,0	12,0	0,5	80,0	18,0	4,6	1,0	1,417	0,265	–	3	■
JHF980120E1H.0Z5-MEGA	03003386	1	E	12,0	6,0	12,0	0,5	80,0	18,0	10,6	1,0	1,417	0,265	–	5	■
980010-MEGA	02587111	2	G	1,0	0,5	6,0	0,07	40,0	3,0	0,7	0,07	0,127	0,028	19,5	2	■
980015-MEGA	02511199	2	G	1,5	0,75	6,0	0,1	40,0	4,5	1,2	0,1	0,183	0,043	14,0	2	■
980020-MEGA	02511221	2	G	2,0	1,0	6,0	0,15	40,0	6,0	1,7	0,15	0,269	0,055	11,0	2	■
980030-MEGA	02511224	2	G	3,0	1,5	6,0	0,2	50,0	9,0	2,6	0,2	0,366	0,085	7,0	2	■
JHF980030G2H.0Z4-MEGA	03003387	2	G	3,0	1,5	6,0	0,2	50,0	9,0	2,6	0,2	0,366	0,085	7,12	4	■
980040-MEGA	02511229	2	G	4,0	2,0	6,0	0,25	60,0	12,0	3,5	0,3	0,503	0,107	4,0	2	■
JHF980040G2H.0Z4-MEGA	03003388	2	G	4,0	2,0	6,0	0,25	60,0	12,0	3,5	0,3	0,503	0,107	4,0	4	■
980050-MEGA	02511233	2	G	5,0	2,5	6,0	0,3	60,0	15,0	4,4	0,4	0,641	0,128	2,0	2	■
JHF980050G2H.0Z4-MEGA	03003389	2	G	5,0	2,5	6,0	0,3	60,0	15,0	4,4	0,4	0,641	0,128	1,77	4	■
980060-MEGA	02511314	2	G	6,0	3,0	8,0	0,35	60,0	18,0	5,2	0,5	0,778	0,15	3,0	2	■
JHF980060G2H.0Z4-MEGA	03003390	2	G	6,0	3,0	8,0	0,35	60,0	18,0	5,2	0,5	0,778	0,15	2,86	4	■
980080-MEGA	02511322	2	E	8,0	4,0	8,0	0,4	70,0	24,0	7,0	0,6	0,935	0,198	–	2	■
JHF980080E2H.0Z5-MEGA	03003391	2	E	8,0	4,0	8,0	0,4	70,0	24,0	7,0	0,6	0,935	0,198	–	5	■
980100-MEGA	02511341	2	E	10,0	5,0	10,0	0,45	80,0	30,0	8,8	0,8	1,176	0,232	–	2	■
980100Z3-MEGA	02511342	2	E	10,0	5,0	10,0	0,45	80,0	30,0	8,8	0,8	1,176	0,232	–	3	■
JHF980100E2H.0Z5-MEGA	03003392	2	E	10,0	5,0	10,0	0,45	80,0	30,0	8,8	0,8	1,176	0,232	–	5	■
980120-MEGA	02511346	2	E	12,0	6,0	12,0	0,5	80,0	36,0	10,6	1,0	1,417	0,265	–	2	■
980120Z3-MEGA	02511347	2	E	12,0	6,0	12,0	0,5	80,0	36,0	10,6	1,0	1,417	0,265	–	3	■
JHF980120E2H.0Z5-MEGA	03003393	2	E	12,0	6,0	12,0	0,5	80,0	36,0	10,6	1,0	1,417	0,265	–	5	■

■ Stocked standard.
*UTCN=uncut-thickness

JHF980

High feed – Universal – 2-5 Flutes – Cylindrical – Corner radius







- Tolerances:
- DMM= h5
- DC= -0,02/-0,05 mm
- RE= ±0,05 mm
- Regrind possible if DC is ≥Ø6

Designation	Item number	Length index	Tool shape	DCX	DC	DMM	APMXS	OAL	LN	DN	RE	RP	UTCN	CA°	NA	PCEDC	Cylindrical
				mm	mm	mm	mm	mm	mm	mm	mm	mm	mm		mm		
980ML010-MEGA	02587113	3	G	1,0	0,5	6,0	0,07	40,0	5,0	0,7	0,07	0,127	0,028	15,5	0,0	2	■
980ML015-MEGA	02511219	3	G	1,5	0,75	6,0	0,1	40,0	7,5	1,2	0,1	0,183	0,043	10,5	0,0	2	■
980ML020-MEGA	02511222	3	G	2,0	1,0	6,0	0,15	40,0	10,0	1,7	0,15	0,269	0,055	8,0	0,0	2	■
JHF980020G3H.0Z4-MEGA	03003394	3	G	2,0	1,0	6,0	0,15	40,0	10,0	1,7	0,15	0,269	0,055	8,46	0,0	4	■
980ML030-MEGA	02511225	3	G	3,0	1,5	6,0	0,2	50,0	15,0	2,6	0,2	0,366	0,085	5,0	0,0	2	■
JHF980030G3H.0Z4-MEGA	03003395	3	G	3,0	1,5	6,0	0,2	50,0	15,0	2,6	0,2	0,366	0,085	4,79	0,0	4	■
980ML040-MEGA	02511231	3	G	4,0	2,0	6,0	0,25	70,0	20,0	3,5	0,3	0,503	0,107	2,5	0,0	2	■
JHF980040G3H.0Z4-MEGA	03003396	3	G	4,0	2,0	6,0	0,25	70,0	20,0	3,5	0,3	0,503	0,107	2,59	0,0	4	■
980ML050-MEGA	02511234	3	G	5,0	2,5	6,0	0,3	80,0	25,0	4,4	0,4	0,641	0,128	1,5	0,0	2	■
JHF980050G3H.0Z4-MEGA	03003397	3	G	5,0	2,5	6,0	0,3	80,0	25,0	4,4	0,4	0,641	0,128	1,12	0,0	4	■
980ML060-MEGA	02511315	3	G	6,0	3,0	8,0	0,35	80,0	30,0	5,2	0,5	0,778	0,15	2,0	0,0	2	■
JHF980060G3H.0Z4-MEGA	03003398	3	G	6,0	3,0	8,0	0,35	80,0	30,0	5,2	0,5	0,778	0,15	1,8	0,0	4	■
980ML080-MEGA	02511338	3	E	8,0	4,0	8,0	0,4	80,0	40,0	7,0	0,6	0,935	0,198	–	0,0	2	■
JHF980080E3H.0Z5-MEGA	03003399	3	E	8,0	4,0	8,0	0,4	80,0	40,0	7,0	0,6	0,935	0,198	–	0,0	5	■
980ML100-MEGA	02511344	3	E	10,0	5,0	10,0	0,45	90,0	50,0	8,8	0,8	1,176	0,232	–	0,0	2	■
JHF980100E3H.0Z5-MEGA	03003400	3	E	10,0	5,0	10,0	0,45	90,0	50,0	8,8	0,8	1,176	0,232	–	0,0	5	■
980ML120-MEGA	02511348	3	E	12,0	6,0	12,0	0,5	110,0	60,0	10,6	1,0	1,417	0,265	–	0,0	2	■
JHF980120E3H.0Z5-MEGA	03003401	3	E	12,0	6,0	12,0	0,5	110,0	60,0	10,6	1,0	1,417	0,265	–	0,0	5	■
980TL010-MEGA	02587114	4	J	1,0	0,5	6,0	0,07	40,0	7,0	0,7	0,07	0,127	0,028	13,0	0,5	2	■
980TL015-MEGA	02511220	4	J	1,5	0,75	6,0	0,1	40,0	10,5	1,2	0,1	0,183	0,043	8,5	0,5	2	■
980TL020-MEGA	02511223	4	J	2,0	1,0	6,0	0,15	50,0	14,0	1,7	0,15	0,269	0,055	6,5	0,5	2	■
980TL030-MEGA	02511226	4	J	3,0	1,5	6,0	0,2	60,0	21,0	2,6	0,2	0,366	0,085	3,5	0,5	2	■
JHF980030J4H.0Z4-MEGA	03003402	4	J	3,0	1,5	6,0	0,2	60,0	21,0	2,6	0,2	0,366	0,085	3,63	0,5	4	■
980TL040-MEGA	02511232	4	J	4,0	2,0	6,0	0,25	80,0	28,0	3,5	0,3	0,503	0,107	2,0	0,5	2	■
JHF980040J4H.0Z4-MEGA	03003403	4	J	4,0	2,0	6,0	0,25	80,0	28,0	3,5	0,3	0,503	0,107	1,93	0,5	4	■
980TL050-MEGA	02511240	4	J	5,0	2,5	6,0	0,3	90,0	35,0	4,4	0,4	0,641	0,128	1,0	0,5	2	■
JHF980050J4H.0Z4-MEGA	03003404	4	J	5,0	2,5	6,0	0,3	90,0	35,0	4,4	0,4	0,641	0,128	0,82	0,5	4	■
980TL060-MEGA	02511321	4	J	6,0	3,0	8,0	0,35	100,0	42,0	5,2	0,5	0,778	0,15	1,5	0,5	2	■
JHF980060J4H.0Z4-MEGA	03003405	4	J	6,0	3,0	8,0	0,35	100,0	42,0	5,2	0,5	0,778	0,15	1,33	0,5	4	■
980TL080-MEGA	02511340	4	E	8,0	4,0	8,0	0,4	100,0	56,0	7,0	0,6	0,935	0,198	–	0,5	2	■
JHF980080E4H.0Z5-MEGA	03003406	4	E	8,0	4,0	8,0	0,4	100,0	56,0	7,0	0,6	0,935	0,198	–	0,0	5	■
980TL100-MEGA	02511345	4	E	10,0	5,0	10,0	0,45	110,0	70,0	8,8	0,8	1,176	0,232	–	0,5	2	■
JHF980100E4H.0Z5-MEGA	03003407	4	E	10,0	5,0	10,0	0,45	110,0	70,0	8,8	0,8	1,176	0,232	–	0,0	5	■
980TL120-MEGA	02511349	4	E	12,0	6,0	12,0	0,5	130,0	84,0	10,6	1,0	1,417	0,265	–	0,5	2	■
JHF980120E4H.0Z5-MEGA	03003408	4	E	12,0	6,0	12,0	0,5	130,0	84,0	10,6	1,0	1,417	0,265	–	0,0	5	■

■ Stocked standard. *UTCN=uncut-thickness

Cutting data – JHF980 Side milling

SMG		a_e/DCX	a_p/DCX	f_z										v_c
				1	1.5	2	3	4	5	6	8	10	12	
P1	E/M/A	0.30 *0.30*	0.040 *0.040*	0.050 *0.0020*	0.075 *0.0030*	0.10 *0.0040*	0.15 *0.0060*	0.20 *0.0080*	0.25 *0.010*	0.30 *0.012*	0.40 *0.016*	0.50 *0.020*	0.60 *0.024*	385 (350 — 430) *1275 (1200 — 1400)*
P2	E/M/A	0.30 *0.30*	0.040 *0.040*	0.050 *0.0020*	0.075 *0.0030*	0.10 *0.0040*	0.15 *0.0060*	0.20 *0.0080*	0.25 *0.010*	0.30 *0.012*	0.40 *0.016*	0.50 *0.020*	0.60 *0.024*	375 (340 — 410) *1225 (1200 — 1300)*
P3	E/M/A	0.30 *0.30*	0.040 *0.040*	0.050 *0.0020*	0.075 *0.0030*	0.10 *0.0040*	0.15 *0.0060*	0.20 *0.0080*	0.25 *0.010*	0.30 *0.012*	0.40 *0.016*	0.50 *0.020*	0.60 *0.024*	325 (290 — 360) *1075 (960 — 1100)*
P4	E/M/A	0.30 *0.30*	0.040 *0.040*	0.050 *0.0020*	0.075 *0.0030*	0.10 *0.0040*	0.15 *0.0060*	0.20 *0.0080*	0.25 *0.010*	0.30 *0.012*	0.40 *0.016*	0.50 *0.020*	0.60 *0.024*	285 (260 — 310) *940 (860 — 1000)*
P5	E/M/A	0.30 *0.30*	0.040 *0.040*	0.050 *0.0020*	0.075 *0.0030*	0.10 *0.0040*	0.15 *0.0060*	0.20 *0.0080*	0.25 *0.010*	0.30 *0.012*	0.40 *0.016*	0.50 *0.020*	0.60 *0.024*	275 (250 — 300) *900 (830 — 980)*
P6	E/M/A	0.30 *0.30*	0.040 *0.040*	0.044 *0.0017*	0.070 *0.0028*	0.090 *0.0036*	0.14 *0.0055*	0.18 *0.0070*	0.22 *0.0085*	0.28 *0.011*	0.36 *0.014*	0.44 *0.017*	0.55 *0.022*	215 (190 — 240) *710 (630 — 780)*
P7	E/M/A	0.30 *0.30*	0.040 *0.040*	0.044 *0.0017*	0.070 *0.0028*	0.090 *0.0036*	0.14 *0.0055*	0.18 *0.0070*	0.22 *0.0085*	0.28 *0.011*	0.36 *0.014*	0.44 *0.017*	0.55 *0.022*	205 (180 — 230) *670 (600 — 750)*
P8	E/M/A	0.30 *0.30*	0.040 *0.040*	0.044 *0.0017*	0.070 *0.0028*	0.090 *0.0036*	0.14 *0.0055*	0.18 *0.0070*	0.22 *0.0085*	0.28 *0.011*	0.36 *0.014*	0.44 *0.017*	0.55 *0.022*	190 (170 — 210) *620 (560 — 680)*
P11	E/M/A	0.30 *0.30*	0.040 *0.040*	0.044 *0.0017*	0.070 *0.0028*	0.090 *0.0036*	0.14 *0.0055*	0.18 *0.0070*	0.22 *0.0085*	0.28 *0.011*	0.36 *0.014*	0.44 *0.017*	0.55 *0.022*	195 (170 — 220) *640 (560 — 720)*
P12	E/M/A	0.30 *0.30*	0.036 *0.036*	0.040 *0.0016*	0.060 *0.0024*	0.080 *0.0032*	0.12 *0.0048*	0.16 *0.0065*	0.20 *0.0080*	0.24 *0.0095*	0.32 *0.013*	0.40 *0.016*	0.48 *0.019*	120 (110 — 130) *395 (370 — 420)*
M1	E/M/A	0.30 *0.30*	0.036 *0.036*	0.040 *0.0016*	0.060 *0.0024*	0.080 *0.0032*	0.12 *0.0048*	0.16 *0.0065*	0.20 *0.0080*	0.24 *0.0095*	0.32 *0.013*	0.40 *0.016*	0.48 *0.019*	190 (170 — 210) *620 (560 — 680)*
M2	E/M/A	0.30 *0.30*	0.036 *0.036*	0.040 *0.0016*	0.060 *0.0024*	0.080 *0.0032*	0.12 *0.0048*	0.16 *0.0065*	0.20 *0.0080*	0.24 *0.0095*	0.32 *0.013*	0.40 *0.016*	0.48 *0.019*	150 (140 — 160) *490 (460 — 520)*
M3	E/M/A	0.30 *0.30*	0.036 *0.036*	0.040 *0.0016*	0.060 *0.0024*	0.080 *0.0032*	0.12 *0.0048*	0.16 *0.0065*	0.20 *0.0080*	0.24 *0.0095*	0.32 *0.013*	0.40 *0.016*	0.48 *0.019*	115 (98 — 130) *375 (330 — 420)*
M4	E/M/A	0.30 *0.30*	0.036 *0.036*	0.040 *0.0016*	0.060 *0.0024*	0.080 *0.0032*	0.12 *0.0048*	0.16 *0.0065*	0.20 *0.0080*	0.24 *0.0095*	0.32 *0.013*	0.40 *0.016*	0.48 *0.019*	85 (73 — 100) *280 (240 — 320)*
M5	E/M/A	0.30 *0.30*	0.036 *0.036*	0.040 *0.0016*	0.060 *0.0024*	0.080 *0.0032*	0.12 *0.0048*	0.16 *0.0065*	0.20 *0.0080*	0.24 *0.0095*	0.32 *0.013*	0.40 *0.016*	0.48 *0.019*	70 (61 — 83) *230 (210 — 270)*
K1	E/M/A	0.30 *0.30*	0.040 *0.040*	0.040 *0.0016*	0.060 *0.0024*	0.080 *0.0032*	0.12 *0.0048*	0.16 *0.0065*	0.20 *0.0080*	0.24 *0.0095*	0.32 *0.013*	0.40 *0.016*	0.48 *0.019*	225 (200 — 250) *740 (660 — 820)*
K2	E/M/A	0.30 *0.30*	0.040 *0.040*	0.040 *0.0016*	0.060 *0.0024*	0.080 *0.0032*	0.12 *0.0048*	0.16 *0.0065*	0.20 *0.0080*	0.24 *0.0095*	0.32 *0.013*	0.40 *0.016*	0.48 *0.019*	195 (170 — 220) *640 (560 — 720)*
K3	E/M/A	0.30 *0.30*	0.040 *0.040*	0.040 *0.0016*	0.060 *0.0024*	0.080 *0.0032*	0.12 *0.0048*	0.16 *0.0065*	0.20 *0.0080*	0.24 *0.0095*	0.32 *0.013*	0.40 *0.016*	0.48 *0.019*	165 (150 — 180) *540 (500 — 590)*
K4	E/M/A	0.30 *0.30*	0.040 *0.040*	0.040 *0.0016*	0.060 *0.0024*	0.080 *0.0032*	0.12 *0.0048*	0.16 *0.0065*	0.20 *0.0080*	0.24 *0.0095*	0.32 *0.013*	0.40 *0.016*	0.48 *0.019*	155 (140 — 170) *510 (460 — 550)*
K5	E/M/A	0.30 *0.30*	0.040 *0.040*	0.032 *0.0013*	0.050 *0.0020*	0.065 *0.0026*	0.10 *0.0040*	0.13 *0.0050*	0.16 *0.0065*	0.20 *0.0080*	0.26 *0.010*	0.32 *0.013*	0.40 *0.016*	165 (140 — 190) *540 (460 — 620)*
K6	E/M/A	0.30 *0.30*	0.040 *0.040*	0.032 *0.0013*	0.050 *0.0020*	0.065 *0.0026*	0.10 *0.0040*	0.13 *0.0050*	0.16 *0.0065*	0.20 *0.0080*	0.26 *0.010*	0.32 *0.013*	0.40 *0.016*	245 (200 — 290) *800 (660 — 950)*
K7	E/M/A	0.30 *0.30*	0.040 *0.040*	0.032 *0.0013*	0.050 *0.0020*	0.065 *0.0026*	0.10 *0.0040*	0.13 *0.0050*	0.16 *0.0065*	0.20 *0.0080*	0.26 *0.010*	0.32 *0.013*	0.40 *0.016*	210 (170 — 250) *690 (560 — 820)*
S1	E	0.30 *0.30*	0.022 *0.022*	0.024 *0.00095*	0.036 *0.0014*	0.048 *0.0019*	0.070 *0.0028*	0.095 *0.0038*	0.12 *0.0048*	0.14 *0.0055*	0.19 *0.0075*	0.24 *0.0095*	0.28 *0.011*	60 (50 — 74) *195 (170 — 240)*
S2	E	0.30 *0.30*	0.022 *0.022*	0.024 *0.00095*	0.036 *0.0014*	0.048 *0.0019*	0.070 *0.0028*	0.095 *0.0038*	0.12 *0.0048*	0.14 *0.0055*	0.19 *0.0075*	0.24 *0.0095*	0.28 *0.011*	50 (41 — 60) *165 (140 — 190)*
S3	E	0.30 *0.30*	0.022 *0.022*	0.024 *0.00095*	0.036 *0.0014*	0.048 *0.0019*	0.070 *0.0028*	0.095 *0.0038*	0.12 *0.0048*	0.14 *0.0055*	0.19 *0.0075*	0.24 *0.0095*	0.28 *0.011*	37 (25 — 49) *120 (83 — 160)*
S11	E	0.30 *0.30*	0.022 *0.022*	0.036 *0.0014*	0.050 *0.0020*	0.070 *0.0028*	0.10 *0.0040*	0.14 *0.0055*	0.18 *0.0070*	0.20 *0.0080*	0.28 *0.011*	0.36 *0.014*	0.42 *0.017*	175 (160 — 190) *570 (530 — 620)*
S12	E	0.30 *0.30*	0.022 *0.022*	0.036 *0.0014*	0.050 *0.0020*	0.070 *0.0028*	0.10 *0.0040*	0.14 *0.0055*	0.18 *0.0070*	0.20 *0.0080*	0.28 *0.011*	0.36 *0.014*	0.42 *0.017*	135 (120 — 150) *445 (400 — 490)*
S13	E	0.30 *0.30*	0.022 *0.022*	0.036 *0.0014*	0.050 *0.0020*	0.070 *0.0028*	0.10 *0.0040*	0.14 *0.0055*	0.18 *0.0070*	0.20 *0.0080*	0.28 *0.011*	0.36 *0.014*	0.42 *0.017*	105 (90 — 110) *345 (300 — 360)*
H5	M/A/D	0.30 *0.30*	0.036 *0.036*	0.040 *0.0016*	0.060 *0.0024*	0.080 *0.0032*	0.12 *0.0048*	0.16 *0.0065*	0.20 *0.0080*	0.24 *0.0095*	0.32 *0.013*	0.40 *0.016*	0.48 *0.019*	115 (98 — 130) *375 (330 — 420)*
H8	M/A/D	0.30 *0.30*	0.036 *0.036*	0.040 *0.0016*	0.060 *0.0024*	0.080 *0.0032*	0.12 *0.0048*	0.16 *0.0065*	0.20 *0.0080*	0.24 *0.0095*	0.32 *0.013*	0.40 *0.016*	0.48 *0.019*	115 (98 — 130) *375 (330 — 420)*
H21	M/A/D	0.30 *0.30*	0.036 *0.036*	0.040 *0.0016*	0.060 *0.0024*	0.080 *0.0032*	0.12 *0.0048*	0.16 *0.0065*	0.20 *0.0080*	0.24 *0.0095*	0.32 *0.013*	0.40 *0.016*	0.48 *0.019*	115 (98 — 130) *375 (330 — 420)*
H31	M/A/D	0.30 *0.30*	0.036 *0.036*	0.040 *0.0016*	0.060 *0.0024*	0.080 *0.0032*	0.12 *0.0048*	0.16 *0.0065*	0.20 *0.0080*	0.24 *0.0095*	0.32 *0.013*	0.40 *0.016*	0.48 *0.019*	90 (74 — 100) *295 (250 — 320)*

For cutting data recalculations, see pages 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

Cutting data – JHF980 Slot milling

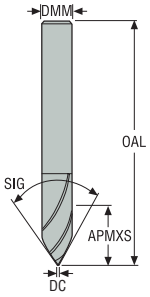
SMG		a_p/DCX	f_z										v_c
			1	1.5	2	3	4	5	6	8	10	12	
P1	E/M/A	0.040 *0,040*	0.030 *0,0012*	0.046 *0,0018*	0.060 *0,0024*	0.090 *0,0036*	0.12 *0,0048*	0.15 *0,0060*	0.18 *0,0070*	0.24 *0,0095*	0.30 *0,012*	0.36 *0,014*	340 (310 — 370) *1125 (1100 — 1200)*
P2	E/M/A	0.040 *0,040*	0.030 *0,0012*	0.046 *0,0018*	0.060 *0,0024*	0.090 *0,0036*	0.12 *0,0048*	0.15 *0,0060*	0.18 *0,0070*	0.24 *0,0095*	0.30 *0,012*	0.36 *0,014*	330 (300 — 360) *1075 (990 — 1100)*
P3	E/M/A	0.040 *0,040*	0.030 *0,0012*	0.046 *0,0018*	0.060 *0,0024*	0.090 *0,0036*	0.12 *0,0048*	0.15 *0,0060*	0.18 *0,0070*	0.24 *0,0095*	0.30 *0,012*	0.36 *0,014*	285 (260 — 310) *940 (860 — 1000)*
P4	E/M/A	0.040 *0,040*	0.030 *0,0012*	0.046 *0,0018*	0.060 *0,0024*	0.090 *0,0036*	0.12 *0,0048*	0.15 *0,0060*	0.18 *0,0070*	0.24 *0,0095*	0.30 *0,012*	0.36 *0,014*	250 (230 — 270) *820 (760 — 880)*
P5	E/M/A	0.040 *0,040*	0.030 *0,0012*	0.046 *0,0018*	0.060 *0,0024*	0.090 *0,0036*	0.12 *0,0048*	0.15 *0,0060*	0.18 *0,0070*	0.24 *0,0095*	0.30 *0,012*	0.36 *0,014*	240 (220 — 260) *790 (730 — 850)*
P6	E/M/A	0.040 *0,040*	0.028 *0,0011*	0.040 *0,0016*	0.055 *0,0022*	0.080 *0,0032*	0.11 *0,0044*	0.14 *0,0055*	0.16 *0,0065*	0.22 *0,0085*	0.28 *0,011*	0.32 *0,013*	185 (160 — 210) *610 (530 — 680)*
P7	E/M/A	0.040 *0,040*	0.028 *0,0011*	0.040 *0,0016*	0.055 *0,0022*	0.080 *0,0032*	0.11 *0,0044*	0.14 *0,0055*	0.16 *0,0065*	0.22 *0,0085*	0.28 *0,011*	0.32 *0,013*	175 (160 — 200) *570 (530 — 650)*
P8	E/M/A	0.040 *0,040*	0.028 *0,0011*	0.040 *0,0016*	0.055 *0,0022*	0.080 *0,0032*	0.11 *0,0044*	0.14 *0,0055*	0.16 *0,0065*	0.22 *0,0085*	0.28 *0,011*	0.32 *0,013*	165 (150 — 180) *540 (500 — 590)*
P11	E/M/A	0.040 *0,040*	0.028 *0,0011*	0.040 *0,0016*	0.055 *0,0022*	0.080 *0,0032*	0.11 *0,0044*	0.14 *0,0055*	0.16 *0,0065*	0.22 *0,0085*	0.28 *0,011*	0.32 *0,013*	170 (150 — 190) *560 (500 — 620)*
P12	E/M/A	0.036 *0,036*	0.024 *0,00095*	0.036 *0,0014*	0.048 *0,0019*	0.070 *0,0028*	0.095 *0,0038*	0.12 *0,0048*	0.14 *0,0055*	0.19 *0,0075*	0.24 *0,0095*	0.28 *0,011*	105 (90 — 110) *345 (300 — 360)*
M1	E/M/A	0.036 *0,036*	0.024 *0,00095*	0.036 *0,0014*	0.048 *0,0019*	0.070 *0,0028*	0.095 *0,0038*	0.12 *0,0048*	0.14 *0,0055*	0.19 *0,0075*	0.24 *0,0095*	0.28 *0,011*	165 (150 — 180) *540 (500 — 590)*
M2	E/M/A	0.036 *0,036*	0.024 *0,00095*	0.036 *0,0014*	0.048 *0,0019*	0.070 *0,0028*	0.095 *0,0038*	0.12 *0,0048*	0.14 *0,0055*	0.19 *0,0075*	0.24 *0,0095*	0.28 *0,011*	130 (120 — 140) *425 (400 — 450)*
M3	E/M/A	0.036 *0,036*	0.024 *0,00095*	0.036 *0,0014*	0.048 *0,0019*	0.070 *0,0028*	0.095 *0,0038*	0.12 *0,0048*	0.14 *0,0055*	0.19 *0,0075*	0.24 *0,0095*	0.28 *0,011*	100 (85 — 110) *330 (280 — 360)*
M4	E/M/A	0.036 *0,036*	0.024 *0,00095*	0.036 *0,0014*	0.048 *0,0019*	0.070 *0,0028*	0.095 *0,0038*	0.12 *0,0048*	0.14 *0,0055*	0.19 *0,0075*	0.24 *0,0095*	0.28 *0,011*	75 (64 — 87) *245 (210 — 280)*
M5	E/M/A	0.036 *0,036*	0.024 *0,00095*	0.036 *0,0014*	0.048 *0,0019*	0.070 *0,0028*	0.095 *0,0038*	0.12 *0,0048*	0.14 *0,0055*	0.19 *0,0075*	0.24 *0,0095*	0.28 *0,011*	65 (53 — 72) *215 (180 — 230)*
K1	E/M/A	0.040 *0,040*	0.030 *0,0012*	0.046 *0,0018*	0.060 *0,0024*	0.090 *0,0036*	0.12 *0,0048*	0.15 *0,0060*	0.18 *0,0070*	0.24 *0,0095*	0.30 *0,012*	0.36 *0,014*	185 (160 — 210) *610 (530 — 680)*
K2	E/M/A	0.040 *0,040*	0.030 *0,0012*	0.046 *0,0018*	0.060 *0,0024*	0.090 *0,0036*	0.12 *0,0048*	0.15 *0,0060*	0.18 *0,0070*	0.24 *0,0095*	0.30 *0,012*	0.36 *0,014*	160 (140 — 180) *520 (460 — 590)*
K3	E/M/A	0.040 *0,040*	0.030 *0,0012*	0.046 *0,0018*	0.060 *0,0024*	0.090 *0,0036*	0.12 *0,0048*	0.15 *0,0060*	0.18 *0,0070*	0.24 *0,0095*	0.30 *0,012*	0.36 *0,014*	135 (120 — 150) *445 (400 — 490)*
K4	E/M/A	0.040 *0,040*	0.030 *0,0012*	0.046 *0,0018*	0.060 *0,0024*	0.090 *0,0036*	0.12 *0,0048*	0.15 *0,0060*	0.18 *0,0070*	0.24 *0,0095*	0.30 *0,012*	0.36 *0,014*	130 (120 — 140) *425 (400 — 450)*
K5	E/M/A	0.040 *0,040*	0.028 *0,0011*	0.040 *0,0016*	0.055 *0,0022*	0.080 *0,0032*	0.11 *0,0044*	0.14 *0,0055*	0.16 *0,0065*	0.22 *0,0085*	0.28 *0,011*	0.32 *0,013*	135 (110 — 150) *445 (370 — 490)*
K6	E/M/A	0.040 *0,040*	0.028 *0,0011*	0.040 *0,0016*	0.055 *0,0022*	0.080 *0,0032*	0.11 *0,0044*	0.14 *0,0055*	0.16 *0,0065*	0.22 *0,0085*	0.28 *0,011*	0.32 *0,013*	195 (160 — 230) *640 (530 — 750)*
K7	E/M/A	0.040 *0,040*	0.028 *0,0011*	0.040 *0,0016*	0.055 *0,0022*	0.080 *0,0032*	0.11 *0,0044*	0.14 *0,0055*	0.16 *0,0065*	0.22 *0,0085*	0.28 *0,011*	0.32 *0,013*	170 (140 — 200) *560 (460 — 650)*
S1	E	0.022 *0,022*	0.018 *0,00070*	0.028 *0,0011*	0.036 *0,0014*	0.055 *0,0022*	0.070 *0,0028*	0.090 *0,0036*	0.11 *0,0044*	0.14 *0,0055*	0.18 *0,0070*	0.22 *0,0085*	50 (42 — 62) *165 (140 — 200)*
S2	E	0.022 *0,022*	0.018 *0,00070*	0.028 *0,0011*	0.036 *0,0014*	0.055 *0,0022*	0.070 *0,0028*	0.090 *0,0036*	0.11 *0,0044*	0.14 *0,0055*	0.18 *0,0070*	0.22 *0,0085*	42 (34 — 50) *140 (120 — 160)*
S3	E	0.022 *0,022*	0.018 *0,00070*	0.028 *0,0011*	0.036 *0,0014*	0.055 *0,0022*	0.070 *0,0028*	0.090 *0,0036*	0.11 *0,0044*	0.14 *0,0055*	0.18 *0,0070*	0.22 *0,0085*	31 (21 — 41) *100 (69 — 130)*
S11	E	0.022 *0,022*	0.018 *0,00070*	0.028 *0,0011*	0.036 *0,0014*	0.055 *0,0022*	0.070 *0,0028*	0.090 *0,0036*	0.11 *0,0044*	0.14 *0,0055*	0.18 *0,0070*	0.22 *0,0085*	155 (140 — 170) *510 (460 — 550)*
S12	E	0.022 *0,022*	0.018 *0,00070*	0.028 *0,0011*	0.036 *0,0014*	0.055 *0,0022*	0.070 *0,0028*	0.090 *0,0036*	0.11 *0,0044*	0.14 *0,0055*	0.18 *0,0070*	0.22 *0,0085*	120 (110 — 130) *395 (370 — 420)*
S13	E	0.022 *0,022*	0.018 *0,00070*	0.028 *0,0011*	0.036 *0,0014*	0.055 *0,0022*	0.070 *0,0028*	0.090 *0,0036*	0.11 *0,0044*	0.14 *0,0055*	0.18 *0,0070*	0.22 *0,0085*	95 (82 — 100) *310 (270 — 320)*
H5	M/A/D	0.036 *0,036*	0.024 *0,00095*	0.036 *0,0014*	0.048 *0,0019*	0.070 *0,0028*	0.095 *0,0038*	0.12 *0,0048*	0.14 *0,0055*	0.19 *0,0075*	0.24 *0,0095*	0.28 *0,011*	100 (86 — 110) *330 (290 — 360)*
H8	M/A/D	0.036 *0,036*	0.024 *0,00095*	0.036 *0,0014*	0.048 *0,0019*	0.070 *0,0028*	0.095 *0,0038*	0.12 *0,0048*	0.14 *0,0055*	0.19 *0,0075*	0.24 *0,0095*	0.28 *0,011*	100 (86 — 110) *330 (290 — 360)*
H21	M/A/D	0.036 *0,036*	0.024 *0,00095*	0.036 *0,0014*	0.048 *0,0019*	0.070 *0,0028*	0.095 *0,0038*	0.12 *0,0048*	0.14 *0,0055*	0.19 *0,0075*	0.24 *0,0095*	0.28 *0,011*	100 (86 — 110) *330 (290 — 360)*
H31	M/A/D	0.036 *0,036*	0.024 *0,00095*	0.036 *0,0014*	0.048 *0,0019*	0.070 *0,0028*	0.095 *0,0038*	0.12 *0,0048*	0.14 *0,0055*	0.19 *0,0075*	0.24 *0,0095*	0.28 *0,011*	75 (65 — 88) *245 (220 — 280)*

For cutting data recalculations, see pages 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (sf/min)
f_z = mm/tooth (*in*/tooth)
a_p = mm/DC (*in*/DC) = factor
a_e = mm/DC (*in*/DC) = factor
All cutting data are target values

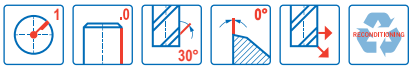
J29

General purpose – Universal – Engraving – 1 Flute – Cylindrical



D





- Tolerances:
- DMM=h5
- Regrind possible if DMM is ≥Ø6

Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	SIG°	PCEDC	Cylindrical
				mm	mm	mm	mm			
29030	00029373	2	D	0,2	3,0	2,6	40,0	60,0	1	■
29040	00029381	2	D	0,2	4,0	3,5	50,0	60,0	1	■
29060	00029396	2	D	0,2	6,0	5,2	50,0	60,0	1	■

■ Stocked standard.

Cutting data – J29 Slot milling

SMG		a_p/DC	f_z			v_c
			3	4	6	
P1	E	0.50 *0,50*	0.24 *0,0095*	0.26 *0,010*	0.28 *0,011*	42 (32 — 63) *140 (110 — 200)*
P2	E	0.50 *0,50*	0.24 *0,0095*	0.26 *0,010*	0.30 *0,012*	41 (32 — 61) *135 (110 — 200)*
P3	E	0.50 *0,50*	0.24 *0,0095*	0.25 *0,010*	0.28 *0,011*	36 (28 — 54) *120 (92 — 170)*
P4	E	0.50 *0,50*	0.22 *0,0085*	0.24 *0,0095*	0.26 *0,010*	31 (24 — 47) *100 (79 — 150)*
P5	E	0.50 *0,50*	0.22 *0,0085*	0.24 *0,0095*	0.26 *0,010*	30 (23 — 45) *100 (76 — 140)*
P6	E	0.50 *0,50*	0.22 *0,0085*	0.24 *0,0095*	0.26 *0,010*	34 (26 — 51) *110 (86 — 160)*
P7	E	0.50 *0,50*	0.22 *0,0085*	0.24 *0,0095*	0.26 *0,010*	32 (25 — 48) *105 (83 — 150)*
P8	E	0.50 *0,50*	0.24 *0,0095*	0.25 *0,010*	0.28 *0,011*	30 (23 — 45) *100 (76 — 140)*
P11	E	0.50 *0,50*	0.22 *0,0085*	0.24 *0,0095*	0.26 *0,010*	31 (24 — 46) *100 (79 — 150)*
P12	E	0.50 *0,50*	0.15 *0,0060*	0.16 *0,0065*	0.18 *0,0070*	19 (15 — 29) *60 (50 — 95)*
M1	E	0.50 *0,50*	0.22 *0,0085*	0.24 *0,0095*	0.26 *0,010*	30 (23 — 45) *100 (76 — 140)*
M2	E	0.50 *0,50*	0.22 *0,0085*	0.24 *0,0095*	0.26 *0,010*	30 (23 — 45) *100 (76 — 140)*
M3	E	0.50 *0,50*	0.18 *0,0070*	0.19 *0,0075*	0.22 *0,0085*	24 (18 — 35) *80 (60 — 110)*
M4	E	0.50 *0,50*	0.16 *0,0065*	0.17 *0,0065*	0.18 *0,0070*	18 (14 — 27) *60 (46 — 88)*
M5	E	0.50 *0,50*	0.16 *0,0065*	0.17 *0,0065*	0.18 *0,0070*	15 (12 — 22) *49 (40 — 72)*
K1	E	0.50 *0,50*	0.22 *0,0085*	0.24 *0,0095*	0.26 *0,010*	30 (23 — 45) *100 (76 — 140)*
K2	E	0.50 *0,50*	0.20 *0,0080*	0.22 *0,0085*	0.24 *0,0095*	26 (21 — 40) *85 (69 — 130)*
K3	E	0.50 *0,50*	0.20 *0,0080*	0.22 *0,0085*	0.24 *0,0095*	22 (17 — 33) *70 (56 — 100)*
K4	E	0.50 *0,50*	0.20 *0,0080*	0.22 *0,0085*	0.24 *0,0095*	21 (17 — 32) *70 (56 — 100)*
K5	E	0.50 *0,50*	0.18 *0,0070*	0.20 *0,0080*	0.22 *0,0085*	13 (9.8 — 19) *43 (33 — 62)*
K6	E	0.50 *0,50*	0.20 *0,0080*	0.22 *0,0085*	0.24 *0,0095*	19 (15 — 28) *60 (50 — 91)*
K7	E	0.50 *0,50*	0.18 *0,0070*	0.20 *0,0080*	0.22 *0,0085*	16 (13 — 25) *50 (43 — 82)*

For cutting data recalculations, see pages 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (sf/min)
f_z = mm/tooth (*in*/tooth)
a_p = mm/DC (*in*/DC) = factor
a_e = mm/DC (*in*/DC) = factor
All cutting data are target values

Cutting data – J29 Slot milling

SMG		a_p/DC	f_z			v_c
			3	4	6	
N1	E	0.50 *0,50*	0.22 *0,0085*	0.24 *0,0095*	0.26 *0,010*	30 (23 — 45) *100 (76 — 140)*
N2	E	0.50 *0,50*	0.22 *0,0085*	0.24 *0,0095*	0.26 *0,010*	19 (15 — 29) *60 (50 — 95)*
N3	E	0.50 *0,50*	0.22 *0,0085*	0.24 *0,0095*	0.26 *0,010*	13 (9.8 — 19) *43 (33 — 62)*
N11	E	0.50 *0,50*	0.22 *0,0085*	0.24 *0,0095*	0.26 *0,010*	17 (14 — 26) *55 (46 — 85)*
S1	E	0.50 *0,50*	0.24 *0,0095*	0.26 *0,010*	0.28 *0,011*	43 (33 — 64) *140 (110 — 200)*
S2	E	0.50 *0,50*	0.24 *0,0095*	0.26 *0,010*	0.28 *0,011*	34 (27 — 51) *110 (89 — 160)*
S3	E	0.50 *0,50*	0.22 *0,0085*	0.24 *0,0095*	0.26 *0,010*	30 (23 — 45) *100 (76 — 140)*
S11	E	0.50 *0,50*	0.22 *0,0085*	0.24 *0,0095*	0.26 *0,010*	39 (30 — 59) *130 (99 — 190)*
S12	E	0.50 *0,50*	0.22 *0,0085*	0.24 *0,0095*	0.26 *0,010*	30 (23 — 45) *100 (76 — 140)*
S13	E	0.50 *0,50*	0.19 *0,0075*	0.20 *0,0080*	0.24 *0,0095*	24 (18 — 35) *80 (60 — 110)*
H5	M/A/D	0.50 *0,50*	0.22 *0,0085*	0.24 *0,0095*	0.26 *0,010*	30 (23 — 45) *100 (76 — 140)*
H8	M/A/D	0.50 *0,50*	0.17 *0,0065*	0.18 *0,0070*	0.20 *0,0080*	32 (24 — 47) *105 (79 — 150)*
H11	M/A/D	0.50 *0,50*	0.22 *0,0085*	0.24 *0,0095*	0.26 *0,010*	39 (30 — 58) *130 (99 — 190)*
H12	M/A/D	0.50 *0,50*	0.12 *0,0048*	0.12 *0,0048*	0.14 *0,0055*	12 (9.1 — 18) *39 (30 — 59)*
H21	M/A/D	0.50 *0,50*	0.17 *0,0065*	0.18 *0,0070*	0.20 *0,0080*	32 (24 — 47) *105 (79 — 150)*
H31	M/A/D	0.50 *0,50*	0.15 *0,0060*	0.16 *0,0065*	0.17 *0,0065*	24 (19 — 36) *80 (63 — 110)*
TS1	E	0.50 *0,50*	0.22 *0,0085*	0.24 *0,0095*	0.26 *0,010*	30 (23 — 45) *100 (76 — 140)*
TP1	E	0.50 *0,50*	0.22 *0,0085*	0.24 *0,0095*	0.26 *0,010*	30 (23 — 45) *100 (76 — 140)*
GR1	D	0.50 *0,50*	0.22 *0,0085*	0.24 *0,0095*	0.26 *0,010*	30 (23 — 45) *100 (76 — 140)*

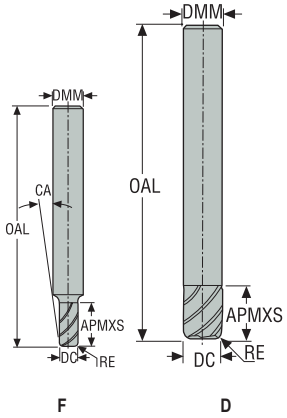
For cutting data recalculations, see pages 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (sf/min)
f_z = mm/tooth (*in*/tooth)
a_p = mm/DC (*in*/DC) = factor
a_e = mm/DC (*in*/DC) = factor
All cutting data are target values

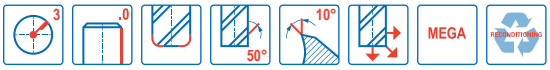
J36

General purpose – Universal – Square – 3 Flutes – Cylindrical – Corner radius





- Tolerances:
- DMM= h5
- DC= Ø2-Ø6= -0,02/-0,034 mm
- DC= Ø8-Ø20= -0,02/-0,044 mm
- RE= Ø2-Ø12= +0,05 mm
- RE= Ø14-Ø20= +0,1 mm
- Regrind possible if DC is ≥Ø6



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	RE	CA°	PCEDC	Cylindrical
				mm	mm	mm	mm	mm	mm		
36020-MEGA	00025621	2	F	2,0	3,0	9,0	40,0	0,1	2,5	3	■
36030-MEGA	00025626	2	D	3,0	3,0	12,0	40,0	0,1	–	3	■
36040-MEGA	00025628	2	D	4,0	4,0	14,0	50,0	0,1	–	3	■
36050-MEGA	00025651	2	D	5,0	5,0	20,0	50,0	0,1	–	3	■
36060-MEGA	00025663	2	D	6,0	6,0	20,0	65,0	0,1	–	3	■
36080-MEGA	00025674	2	D	8,0	8,0	20,0	65,0	0,2	–	3	■
36100-MEGA	00025680	2	D	10,0	10,0	25,0	75,0	0,2	–	3	■
36120-MEGA	00025681	2	D	12,0	12,0	25,0	75,0	0,2	–	3	■
36160-MEGA	00025689	2	D	16,0	16,0	30,0	90,0	0,5	–	3	■
36200-MEGA	00025692	2	D	20,0	20,0	40,0	100,0	0,5	–	3	■

■ Stocked standard.

Cutting data – J36 Side milling

SMG		a_e/DC	a_p/DC	f_z										v_c
				2	3	4	5	6	8	10	12	16	20	
P1	E	0.200 *0,200*	1.0 *1,0*	0.013 *0,00050*	0.019 *0,00075*	0.026 *0,0010*	0.032 *0,0013*	0.038 *0,0015*	0.050 *0,0020*	0.065 *0,0026*	0.075 *0,0030*	0.095 *0,0038*	0.11 *0,0044*	200 (170 — 220) *660 (560 — 720)*
P2	E	0.200 *0,200*	1.0 *1,0*	0.013 *0,00050*	0.020 *0,00080*	0.026 *0,0010*	0.034 *0,0013*	0.040 *0,0016*	0.055 *0,0022*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	0.11 *0,0044*	190 (170 — 210) *620 (560 — 680)*
P3	E	0.200 *0,200*	1.0 *1,0*	0.012 *0,00048*	0.019 *0,00075*	0.025 *0,0010*	0.032 *0,0013*	0.038 *0,0015*	0.050 *0,0020*	0.060 *0,0024*	0.075 *0,0030*	0.090 *0,0036*	0.11 *0,0044*	170 (150 — 190) *560 (500 — 620)*
P4	E	0.200 *0,200*	1.0 *1,0*	0.012 *0,00048*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	0.090 *0,0036*	0.10 *0,0040*	150 (130 — 160) *490 (430 — 520)*
P5	E	0.200 *0,200*	1.0 *1,0*	0.012 *0,00048*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	0.090 *0,0036*	0.10 *0,0040*	140 (130 — 160) *460 (430 — 520)*
P6	E	0.200 *0,200*	1.0 *1,0*	0.012 *0,00048*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	0.085 *0,0034*	0.10 *0,0040*	160 (140 — 180) *520 (460 — 590)*
P7	E	0.200 *0,200*	1.0 *1,0*	0.012 *0,00048*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	0.085 *0,0034*	0.10 *0,0040*	150 (130 — 170) *490 (430 — 550)*
P8	E	0.200 *0,200*	1.0 *1,0*	0.012 *0,00048*	0.019 *0,00075*	0.025 *0,0010*	0.032 *0,0013*	0.038 *0,0015*	0.050 *0,0020*	0.060 *0,0024*	0.075 *0,0030*	0.090 *0,0036*	0.11 *0,0044*	140 (130 — 160) *460 (430 — 520)*
P11	E	0.200 *0,200*	1.0 *1,0*	0.012 *0,00048*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	0.085 *0,0034*	0.10 *0,0040*	145 (130 — 160) *475 (430 — 520)*
P12	E	0.200 *0,200*	1.0 *1,0*	0.0080 *0,00032*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	0.024 *0,00095*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	90 (79 — 100) *295 (260 — 320)*
M1	E	0.200 *0,200*	1.0 *1,0*	0.015 *0,00060*	0.024 *0,00095*	0.030 *0,0012*	0.038 *0,0015*	0.046 *0,0018*	0.060 *0,0024*	0.075 *0,0030*	0.090 *0,0036*	0.11 *0,0044*	0.13 *0,0050*	115 (92 — 140) *375 (310 — 450)*
M2	E	0.200 *0,200*	1.0 *1,0*	0.014 *0,00055*	0.020 *0,00080*	0.028 *0,0011*	0.034 *0,0013*	0.042 *0,0017*	0.055 *0,0022*	0.070 *0,0028*	0.085 *0,0034*	0.10 *0,0040*	0.12 *0,0048*	95 (76 — 110) *310 (250 — 360)*
M3	E	0.100 *0,100*	1.0 *1,0*	0.010 *0,00040*	0.015 *0,00060*	0.020 *0,00080*	0.025 *0,0010*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.075 *0,0030*	0.085 *0,0034*	75 (56 — 95) *245 (190 — 310)*
M4	E	0.100 *0,100*	1.0 *1,0*	0.0085 *0,00034*	0.013 *0,00050*	0.017 *0,00065*	0.022 *0,00085*	0.026 *0,0010*	0.034 *0,0013*	0.044 *0,0017*	0.050 *0,0020*	0.065 *0,0026*	0.075 *0,0030*	60 (43 — 73) *195 (150 — 230)*
M5	E	0.100 *0,100*	1.0 *1,0*	0.0085 *0,00034*	0.013 *0,00050*	0.017 *0,00065*	0.022 *0,00085*	0.026 *0,0010*	0.034 *0,0013*	0.044 *0,0017*	0.050 *0,0020*	0.065 *0,0026*	0.075 *0,0030*	48 (36 — 60) *155 (120 — 190)*
K1	E	0.200 *0,200*	1.0 *1,0*	0.012 *0,00048*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	0.090 *0,0036*	0.10 *0,0040*	140 (130 — 160) *460 (430 — 520)*
K2	E	0.200 *0,200*	1.0 *1,0*	0.011 *0,00044*	0.016 *0,00065*	0.022 *0,00085*	0.028 *0,0011*	0.032 *0,0013*	0.044 *0,0017*	0.055 *0,0022*	0.065 *0,0026*	0.080 *0,0032*	0.090 *0,0036*	125 (110 — 140) *410 (370 — 450)*
K3	E	0.200 *0,200*	1.0 *1,0*	0.011 *0,00044*	0.016 *0,00065*	0.022 *0,00085*	0.028 *0,0011*	0.032 *0,0013*	0.044 *0,0017*	0.055 *0,0022*	0.065 *0,0026*	0.080 *0,0032*	0.090 *0,0036*	105 (91 — 120) *345 (300 — 390)*
K4	E	0.200 *0,200*	1.0 *1,0*	0.011 *0,00044*	0.016 *0,00065*	0.022 *0,00085*	0.028 *0,0011*	0.032 *0,0013*	0.044 *0,0017*	0.055 *0,0022*	0.065 *0,0026*	0.080 *0,0032*	0.090 *0,0036*	100 (87 — 110) *330 (290 — 360)*
K5	E	0.200 *0,200*	1.0 *1,0*	0.010 *0,00040*	0.015 *0,00060*	0.020 *0,00080*	0.025 *0,0010*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.070 *0,0028*	0.085 *0,0034*	60 (53 — 69) *195 (180 — 220)*
K6	E	0.200 *0,200*	1.0 *1,0*	0.011 *0,00044*	0.016 *0,00065*	0.022 *0,00085*	0.028 *0,0011*	0.032 *0,0013*	0.044 *0,0017*	0.055 *0,0022*	0.065 *0,0026*	0.080 *0,0032*	0.090 *0,0036*	90 (76 — 100) *295 (250 — 320)*
K7	E	0.200 *0,200*	1.0 *1,0*	0.010 *0,00040*	0.015 *0,00060*	0.020 *0,00080*	0.025 *0,0010*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.070 *0,0028*	0.085 *0,0034*	80 (67 — 89) *260 (220 — 290)*

For cutting data recalculations, see pages 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

Cutting data – J36 Side milling

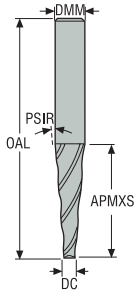
SMG		a_e/DC	a_p/DC	f_z										v_c
				2	3	4	5	6	8	10	12	16	20	
N1	E	0.300 *0,300*	1.2 *1,2*	0.022 *0,00085*	0.032 *0,0013*	0.042 *0,0017*	0.055 *0,0022*	0.065 *0,0026*	0.085 *0,0034*	0.11 *0,0044*	0.13 *0,0050*	0.16 *0,0065*	0.18 *0,0070*	650 (540 — 750) *2125 (1800 — 2400)*
N2	E	0.300 *0,300*	1.2 *1,2*	0.022 *0,00085*	0.032 *0,0013*	0.042 *0,0017*	0.055 *0,0022*	0.065 *0,0026*	0.085 *0,0034*	0.11 *0,0044*	0.13 *0,0050*	0.16 *0,0065*	0.18 *0,0070*	415 (350 — 480) *1350 (1200 — 1500)*
N3	E	0.300 *0,300*	1.2 *1,2*	0.022 *0,00085*	0.032 *0,0013*	0.042 *0,0017*	0.055 *0,0022*	0.065 *0,0026*	0.085 *0,0034*	0.11 *0,0044*	0.13 *0,0050*	0.16 *0,0065*	0.18 *0,0070*	275 (240 — 320) *900 (790 — 1000)*
N11	E	0.300 *0,300*	1.0 *1,0*	0.012 *0,00048*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	0.090 *0,0036*	0.10 *0,0040*	305 (260 — 350) *1000 (860 — 1100)*
S1	E	0.120 *0,120*	0.90 *0,90*	0.0055 *0,00022*	0.0080 *0,00032*	0.011 *0,00044*	0.014 *0,00055*	0.016 *0,00065*	0.022 *0,00085*	0.028 *0,0011*	0.032 *0,0013*	0.040 *0,0016*	0.046 *0,0018*	70 (60 — 83) *230 (200 — 270)*
S2	E	0.120 *0,120*	0.90 *0,90*	0.0055 *0,00022*	0.0080 *0,00032*	0.011 *0,00044*	0.014 *0,00055*	0.016 *0,00065*	0.022 *0,00085*	0.028 *0,0011*	0.032 *0,0013*	0.040 *0,0016*	0.046 *0,0018*	60 (48 — 67) *195 (160 — 210)*
S3	E	0.120 *0,120*	0.90 *0,90*	0.0036 *0,00014*	0.0055 *0,00022*	0.0075 *0,00030*	0.0090 *0,00036*	0.011 *0,00044*	0.015 *0,00060*	0.018 *0,00070*	0.022 *0,00085*	0.028 *0,0011*	0.032 *0,0013*	39 (30 — 48) *130 (99 — 150)*
S11	E	0.300 *0,300*	1.0 *0,90*	0.010 *0,00040*	0.015 *0,00060*	0.020 *0,00080*	0.025 *0,0010*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.075 *0,0030*	0.085 *0,0034*	100 (89 — 110) *330 (300 — 360)*
S12	E	0.300 *0,300*	1.0 *0,90*	0.010 *0,00040*	0.015 *0,00060*	0.020 *0,00080*	0.025 *0,0010*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.075 *0,0030*	0.085 *0,0034*	80 (68 — 87) *260 (230 — 280)*
S13	E	0.300 *0,300*	1.0 *0,90*	0.0085 *0,00036*	0.013 *0,00050*	0.017 *0,00070*	0.022 *0,00085*	0.026 *0,0010*	0.034 *0,0014*	0.044 *0,0017*	0.050 *0,0020*	0.065 *0,0026*	0.075 *0,0030*	60 (54 — 69) *195 (180 — 220)*
TS1	A	0.400 *0,400*	1.0 *1,0*	0.020 *0,00080*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.15 *0,0060*	0.17 *0,0065*	500 (460 — 550) *1650 (1600 — 1800)*
TP1	A	0.400 *0,400*	1.0 *1,0*	0.020 *0,00080*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.15 *0,0060*	0.17 *0,0065*	500 (460 — 550) *1650 (1600 — 1800)*

For cutting data recalculations, see pages 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

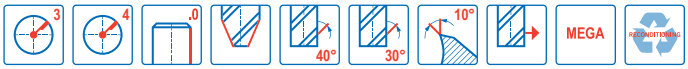
HK

General purpose – Universal – Conical – 3-4 Flutes – Cylindrical – Tapered sharp



N





- Tolerances:
- DMM= h5
- DC= +0,1/0 mm
- PSIR= ±0,1°
- Regrind possible

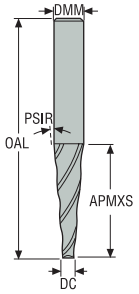
Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	PSIR°	PCEDC	Cylindrical
				mm	mm	mm	mm			
HK020-040-MEGA	00028666	2	N	4,0	6,0	20,0	65,0	2,0	3	■
HK020-050-MEGA	00028669	2	N	5,0	8,0	30,0	75,0	2,0	3	■
HK020-100-MEGA	00028694	2	N	10,0	12,0	28,0	80,0	2,0	4	■

■ Stocked standard.
For cutting data, please see My Pages – Suggest on www.secotools.com

HKM-HK

General purpose – Universal – Conical – 2-4 Flutes – Cylindrical – Tapered sharp





N

- Tolerances:
- DMM= h5
- DC= HKM= +0,07/+0,03 mm
- DC= HK= +0,1/0 mm
- PSIR= ±0,1°
- Regrind possible if DC is ≥Ø6

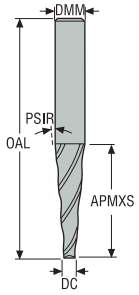


Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	PSIR°	PCEDC	Cylindrical
				mm	mm	mm	mm			
HKM030-015-MEGA	00028738	2	N	1,5	3,0	6,0	40,0	3,0	2	■
HK030-025-MEGA	00028741	2	N	2,5	6,0	20,0	65,0	3,0	3	■
HK030-033-MEGA	00028744	2	N	3,0	8,0	30,0	75,0	3,0	3	■
HK030-065-MEGA	00028759	2	N	6,0	12,0	55,0	110,0	3,0	3	■
HK030-083-MEGA	00028771	2	N	8,0	12,0	30,0	80,0	3,0	4	■

■ Stocked standard.
For cutting data, please see My Pages – Suggest on www.secotools.com

HKM-HK

General purpose – Universal – Conical – 2-4 Flutes – Cylindrical – Tapered sharp



N





- Tolerances:
- DMM= h5
- DC= HKM= +0,07/+0,03 mm
- DC= HK= +0,1/0 mm
- PSIR= ±0,1°
- Regrind possible if DC is ≥Ø6

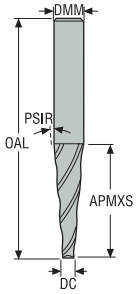
Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	PSIR°	PCEDC	Cylindrical
				mm	mm	mm	mm			
HKM050-010-MEGA	00028947	2	N	1,0	3,0	4,0	40,0	5,0	2	■
HKM050-015-MEGA	00028952	2	N	1,5	3,0	6,0	40,0	5,0	2	■
HKM050-020-MEGA	00028954	2	N	2,0	4,0	10,0	50,0	5,0	2	■
HKM050-025-MEGA	00028958	2	N	2,5	5,0	10,0	50,0	5,0	2	■
HK050-025-MEGA	00028960	2	N	2,5	6,0	20,0	65,0	5,0	3	■
HK050-032-MEGA	00028972	2	N	3,0	8,0	28,0	70,0	5,0	3	■
HK050-0420-MEGA	00028998	2	N	4,0	8,0	22,0	65,0	5,0	3	■
HK050-050-MEGA	00029012	2	N	5,0	12,0	40,0	100,0	5,0	3	■
HK050-063-MEGA	00029014	2	N	6,0	12,0	32,0	90,0	5,0	3	■
HK050-065-MEGA	00029017	2	N	6,0	16,0	55,0	110,0	5,0	3	■
HK050-103-MEGA	00029020	2	N	10,0	16,0	32,0	90,0	5,0	4	■
HK050-105-MEGA	00029025	2	N	10,0	20,0	55,0	115,0	5,0	4	■

■ Stocked standard.
For cutting data, please see My Pages – Suggest on www.secotools.com

HK

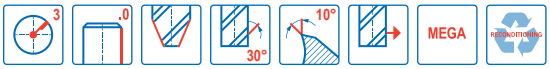
General purpose – Universal – Conical – 3 Flutes – Cylindrical – Tapered sharp





N

- Tolerances:
- DMM= h5
- DC= +0,1/0 mm
- PSIR= ±0,1°
- Regrind possible

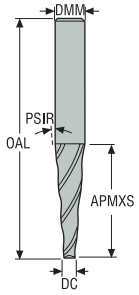


Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	PSIR°	PCEDC	Cylindrical
				mm	mm	mm	mm			
HK070-025-MEGA	00029030	2	N	2,5	8,0	22,0	65,0	7,0	3	■
HK070-050-MEGA	00029034	2	N	5,0	12,0	28,0	80,0	7,0	3	■

■ Stocked standard.
For cutting data, please see My Pages – Suggest on www.secotools.com

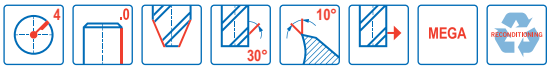
HK

General purpose – Universal – Conical – 4 Flutes – Cylindrical – Tapered sharp



N





- Tolerances:
- DMM= h5
- DC= +0,1/0 mm
- PSIR= ±0,1°
- Regrind possible

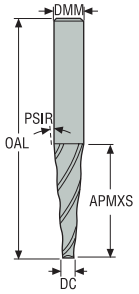
Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	PSIR°	PCEDC	Cylindrical
				mm	mm	mm	mm			
HK080-083-MEGA	00029041	2	N	8,0	18,0	35,0	90,0	8,0	4	■

■ Stocked standard.
For cutting data, please see My Pages – Suggest on www.secotools.com

HK

General purpose – Universal – Conical – 3-4 Flutes – Cylindrical – Tapered sharp





N

- Tolerances:
- DMM= h5
- DC= +0,1/0 mm
- PSIR= ±0,1°
- Regrind possible

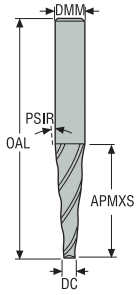


Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	PSIR°	PCEDC	Cylindrical
				mm	mm	mm	mm			
HK100-025-MEGA	00029052	2	N	2,5	10,0	20,0	75,0	10,0	3	■
HK100-030-MEGA	00029066	2	N	3,0	14,0	30,0	90,0	10,0	3	■
HK100-050-MEGA	00029069	2	N	5,0	16,0	30,0	90,0	10,0	3	■
HK100-080-MEGA	00029083	2	N	8,0	20,0	32,0	90,0	10,0	4	■

■ Stocked standard.
For cutting data, please see My Pages – Suggest on www.secotools.com

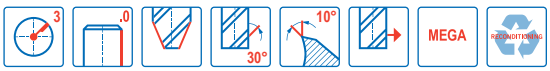
HK

General purpose – Universal – Conical – 3 Flutes – Cylindrical – Tapered sharp



N





- Tolerances:
- DMM= h5
- DC= +0,1/0 mm
- PSIR= ±0,1°
- Regrind possible

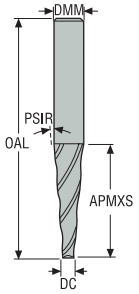
Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	PSIR°	PCEDC	Cylindrical
				mm	mm	mm	mm			
HK110-020-MEGA	00029110	2	N	2,0	10,0	20,0	75,0	11,0	3	■
HK110-050-MEGA	00029117	2	N	5,0	14,0	20,0	80,0	11,0	3	■

■ Stocked standard.
For cutting data, please see My Pages – Suggest on www.secotools.com

HK

General purpose – Universal – Conical – 3-4 Flutes – Cylindrical – Tapered sharp





N

- Tolerances:
- DMM= h5
- DC= +0,1/0 mm
- PSIR= ±0,1°
- Regrind possible

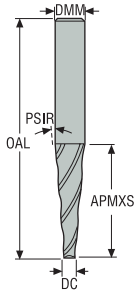


Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	PSIR°	PCEDC	Cylindrical
				mm	mm	mm	mm			
HK150-025	00029119	2	N	2,5	14,0	20,0	80,0	15,0	3	■
HK150-025-MEGA	00029151	2	N	2,5	14,0	20,0	80,0	15,0	3	■
HK150-040	00029124	2	N	4,0	12,0	15,0	65,0	15,0	3	■
HK150-040-MEGA	00029154	2	N	4,0	12,0	15,0	65,0	15,0	3	■
HK150-0651	00029133	2	N	6,5	12,0	10,0	65,0	15,0	3	■
HK150-0651-MEGA	00029160	2	N	6,5	12,0	10,0	65,0	15,0	3	■
HK150-0652	00029138	2	N	6,5	20,0	25,0	90,0	15,0	3	■
HK150-0652-MEGA	00029161	2	N	6,5	20,0	25,0	90,0	15,0	3	■
HK150-080	00029149	2	N	8,0	20,0	20,0	80,0	15,0	4	■
HK150-080-MEGA	00029162	2	N	8,0	20,0	20,0	80,0	15,0	4	■

■ Stocked standard.
For cutting data, please see My Pages – Suggest on www.secotools.com

HK

General purpose – Universal – Conical – 3-4 Flutes – Cylindrical – Tapered sharp



N





- Tolerances:
- DMM= h5
- DC= +0,1/0 mm
- PSIR= ±0,1°
- Regrind possible

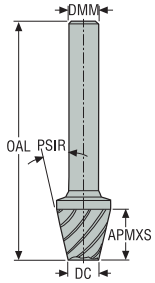
Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	PSIR°	PCEDC	Cylindrical
				mm	mm	mm	mm			
HK200-025	00029165	2	N	2,5	10,0	10,0	75,0	20,0	3	■
HK200-025-MEGA	00029168	2	N	2,5	10,0	10,0	75,0	20,0	3	■
HK200-045	00029166	2	N	4,5	16,0	15,0	90,0	20,0	4	■
HK200-045-MEGA	00029203	2	N	4,5	16,0	15,0	90,0	20,0	4	■

■ Stocked standard.
For cutting data, please see My Pages – Suggest on www.secotools.com

HK

General purpose – Universal – Conical – 3-4 Flutes – Cylindrical – Tapered sharp





N

- Tolerances:
- DMM= h5
- DC= +0,1/0 mm
- PSIR= ±0,1°
- Regrind possible

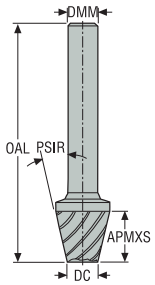


Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	PSIR°	PCEDC	Cylindrical
				mm	mm	mm	mm			
HK300-025	00029208	2	N	2,5	10,0	10,0	75,0	30,0	3	■
HK300-025-MEGA	00029211	2	N	2,5	10,0	10,0	75,0	30,0	3	■
HK300-045	00029210	2	N	4,5	16,0	16,0	90,0	30,0	4	■
HK300-045-MEGA	00029212	2	N	4,5	16,0	16,0	90,0	30,0	4	■

■ Stocked standard.
For cutting data, please see My Pages – Suggest on www.secotools.com

HK

General purpose – Universal – Conical – 3-4 Flutes – Cylindrical – Tapered sharp



N





- Tolerances:
- DMM= h5
- DC= +0,1/0 mm
- PSIR= ±0,1°
- Regrind possible

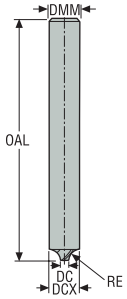
Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	PSIR°	PCEDC	Cylindrical
				mm	mm	mm	mm			
HK450-025	00029215	2	N	2,5	12,0	10,0	75,0	45,0	3	■
HK450-025-MEGA	00029229	2	N	2,5	12,0	10,0	75,0	45,0	3	■
HK450-045	00029217	2	N	4,5	16,0	16,0	90,0	45,0	4	■
HK450-045-MEGA	00029232	2	N	4,5	16,0	16,0	90,0	45,0	4	■

■ Stocked standard.
For cutting data, please see My Pages – Suggest on www.secotools.com

V31

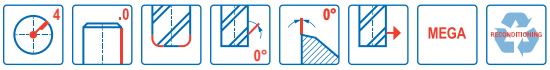
General purpose – Universal – Concave – 4 Flutes – Cylindrical





D

- Tolerances:
- DMM= h5
- DC= ±0,04 mm
- RE= ±0,02 mm
- Regrind possible



Designation	Item number	Length index	Tool shape	DC	DCX	DMM	APMXS	OAL	RE	PCEDC	Cylindrical
				mm	mm	mm	mm	mm	mm		
31100-MEGA	00029307	2	D	4,0	6,0	6,0	1,0	64,0	1,0	4	■
31200-MEGA	00029315	2	D	4,0	8,0	8,0	2,0	75,0	2,0	4	■
31300-MEGA	00029326	2	D	4,0	10,0	10,0	3,0	75,0	3,0	4	■
31400-MEGA	00029328	2	D	4,0	12,0	12,0	4,0	75,0	4,0	4	■
31050-MEGA	00029285	2	D	5,0	6,0	6,0	0,5	64,0	0,5	4	■
31150-MEGA	00029313	2	D	5,0	8,0	8,0	1,5	75,0	1,5	4	■
31250-MEGA	00029324	2	D	5,0	10,0	10,0	2,5	75,0	2,5	4	■
31350-MEGA	00029327	2	D	5,0	12,0	12,0	3,5	75,0	3,5	4	■
31500-MEGA	00029330	2	D	6,0	16,0	16,0	5,0	75,0	5,0	4	■
31600-MEGA	00029331	2	D	8,0	20,0	20,0	6,0	80,0	6,0	4	■
31999-MEGA	00029335	2	D	8,0	28,0	25,0	10,0	80,0	10,0	4	■
31800-MEGA	00029333	2	D	9,0	25,0	25,0	8,0	75,0	8,0	4	■

■ Stocked standard.

Cutting data – V31 Side milling roughing

SMG		a_p/DC	f_z								v_c
			6	8	10	12	16	20	25	28	
P1	E/M/A	0,24 *0,24*	0,024 *0,00095*	0,032 *0,0013*	0,040 *0,0016*	0,048 *0,0019*	0,065 *0,0026*	0,080 *0,0032*	0,095 *0,0038*	0,10 *0,004*	290 (195 — 310) *950 (640 — 1100)*
P2	E/M/A	0,24 *0,24*	0,024 *0,00095*	0,034 *0,0013*	0,042 *0,0017*	0,050 *0,0022*	0,065 *0,0026*	0,080 *0,0032*	0,095 *0,0038*	0,10 *0,004*	280 (190 — 305) *910 (620 — 1000)*
P3	E/M/A	0,24 *0,24*	0,024 *0,00095*	0,032 *0,0013*	0,040 *0,0016*	0,046 *0,0018*	0,060 *0,0024*	0,075 *0,003*	0,090 *0,0036*	0,095 *0,0038*	240 (165 — 260) *790 (540 — 850)*
P4	E/M/A	0,24 *0,24*	0,022 *0,00085*	0,030 *0,0012*	0,038 *0,0015*	0,046 *0,0018*	0,060 *0,0024*	0,075 *0,003*	0,090 *0,0036*	0,095 *0,0038*	210 (145 — 230) *680 (475 — 760)*
P5	E/M/A	0,24 *0,24*	0,022 *0,00085*	0,030 *0,0012*	0,038 *0,0015*	0,046 *0,0018*	0,060 *0,0024*	0,075 *0,003*	0,085 *0,0034*	0,095 *0,0038*	205 (135 — 220) *670 (445 — 730)*
P6	E/M/A	0,24 *0,24*	0,022 *0,00085*	0,030 *0,0012*	0,038 *0,0015*	0,044 *0,0017*	0,060 *0,0024*	0,075 *0,003*	0,085 *0,0050*	0,095 *0,0038*	230 (155 — 245) *760 (510 — 800)*
P7	E/M/A	0,24 *0,24*	0,022 *0,00085*	0,030 *0,0012*	0,038 *0,0015*	0,044 *0,0017*	0,060 *0,0024*	0,075 *0,003*	0,085 *0,0050*	0,095 *0,0038*	215 (145 — 230) *710 (475 — 760)*
P8	E/M/A	0,24 *0,24*	0,024 *0,00095*	0,032 *0,0013*	0,040 *0,0016*	0,046 *0,0018*	0,060 *0,0024*	0,075 *0,003*	0,090 *0,0036*	0,095 *0,0038*	205 (140 — 220) *670 (460 — 730)*
P11	E/M/A	0,24 *0,24*	0,022 *0,00085*	0,030 *0,0012*	0,038 *0,0015*	0,044 *0,0017*	0,060 *0,0024*	0,075 *0,003*	0,085 *0,0050*	0,095 *0,0038*	210 (140 — 225) *680 (460 — 740)*
M1	E/M/A	0,24 *0,24*	0,024 *0,00095*	0,034 *0,0013*	0,042 *0,0017*	0,050 *0,0022*	0,065 *0,0026*	0,080 *0,0032*	0,095 *0,0038*	0,10 *0,004*	255 (170 — 270) *840 (560 — 890)*
M2	E/M/A	0,24 *0,24*	0,022 *0,00085*	0,030 *0,0012*	0,038 *0,0015*	0,046 *0,0018*	0,060 *0,0024*	0,075 *0,003*	0,085 *0,0050*	0,095 *0,0038*	205 (135 — 220) *670 (445 — 730)*
M3	E/M/A	0,24 *0,24*	0,018 *0,0007*	0,024 *0,00095*	0,030 *0,0012*	0,036 *0,0014*	0,048 *0,0019*	0,060 *0,0024*	0,070 *0,0028*	0,075 *0,003*	150 (105 — 165) *490 (345 — 540)*
M4	E/M/A	0,24 *0,24*	0,016 *0,00065*	0,020 *0,0008*	0,026 *0,0010*	0,032 *0,0013*	0,042 *0,0017*	0,050 *0,0022*	0,060 *0,0024*	0,065 *0,0026*	110 (75 — 120) *360 (250 — 400)*
M5	E/M/A	0,24 *0,24*	0,016 *0,00065*	0,020 *0,0008*	0,026 *0,0010*	0,032 *0,0013*	0,042 *0,0017*	0,050 *0,0022*	0,060 *0,0024*	0,065 *0,0026*	95 (65 — 100) *310 (220 — 320)*
K1	E/M/A	0,24 *0,24*	0,022 *0,00085*	0,030 *0,0012*	0,038 *0,0015*	0,046 *0,0018*	0,060 *0,0024*	0,075 *0,003*	0,085 *0,0050*	0,095 *0,0038*	205 (135 — 220) *670 (445 — 730)*
K2	E/M/A	0,24 *0,24*	0,020 *0,0008*	0,028 *0,0011*	0,034 *0,0013*	0,040 *0,0016*	0,055 *0,0022*	0,065 *0,0026*	0,080 *0,0032*	0,085 *0,0050*	175 (120 — 190) *570 (400 — 620)*
K3	E/M/A	0,24 *0,24*	0,020 *0,0008*	0,028 *0,0011*	0,034 *0,0013*	0,040 *0,0016*	0,055 *0,0022*	0,065 *0,0026*	0,080 *0,0032*	0,085 *0,0050*	150 (100 — 160) *490 (320 — 530)*
K4	E/M/A	0,24 *0,24*	0,020 *0,0008*	0,028 *0,0011*	0,034 *0,0013*	0,040 *0,0016*	0,055 *0,0022*	0,065 *0,0026*	0,080 *0,0032*	0,085 *0,0050*	140 (95 — 150) *460 (310 — 490)*
K5	E/M/A	0,24 *0,24*	0,018 *0,0007*	0,024 *0,00095*	0,030 *0,0012*	0,036 *0,0014*	0,050 *0,0022*	0,060 *0,0024*	0,070 *0,0028*	0,075 *0,003*	85 (55 — 90) *280 (180 — 300)*
K6	E/M/A	0,24 *0,24*	0,020 *0,0008*	0,028 *0,0011*	0,034 *0,0013*	0,040 *0,0016*	0,055 *0,0022*	0,065 *0,0026*	0,080 *0,0032*	0,085 *0,0050*	125 (85 — 135) *410 (280 — 445)*
K7	E/M/A	0,24 *0,24*	0,018 *0,0007*	0,024 *0,00095*	0,030 *0,0012*	0,036 *0,0014*	0,050 *0,0022*	0,060 *0,0024*	0,070 *0,0028*	0,075 *0,003*	105 (70 — 115) *345 (220 — 375)*

For cutting data recalculations, see pages 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

Cutting data – V31 Side milling roughing

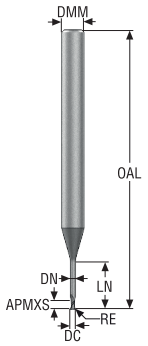
SMG		a_p/DC	f_z								v_c
			6	8	10	12	16	20	25	28	
N1	E/M/A	0,24 *0,24*	0,022 *0,00085*	0,030 *0,0012*	0,038 *0,0015*	0,046 *0,0018*	0,060 *0,0024*	0,075 *0,003*	0,085 *0,0050*	0,095 *0,0038*	315 (215 — 340) *1025 (710 — 1125)*
N2	E/M/A	0,24 *0,24*	0,022 *0,00085*	0,030 *0,0012*	0,038 *0,0015*	0,046 *0,0018*	0,060 *0,0024*	0,075 *0,003*	0,085 *0,0050*	0,095 *0,0038*	205 (135 — 220) *670 (445 — 730)*
N3	E/M/A	0,24 *0,24*	0,022 *0,00085*	0,030 *0,0012*	0,038 *0,0015*	0,046 *0,0018*	0,060 *0,0024*	0,075 *0,003*	0,085 *0,0050*	0,095 *0,0038*	135 (90 — 145) *445 (300 — 475)*
N11	E/M/A	0,24 *0,24*	0,022 *0,00085*	0,030 *0,0012*	0,038 *0,0015*	0,046 *0,0018*	0,060 *0,0024*	0,075 *0,003*	0,085 *0,0050*	0,095 *0,0038*	205 (135 — 220) *670 (445 — 730)*
S1	E/M/A	0,24 *0,24*	0,024 *0,00095*	0,032 *0,0013*	0,040 *0,0016*	0,048 *0,0019*	0,065 *0,0026*	0,080 *0,0032*	0,095 *0,0038*	0,10 *0,004*	205 (140 — 220) *670 (460 — 730)*
S2	E/M/A	0,24 *0,24*	0,024 *0,00095*	0,032 *0,0013*	0,040 *0,0016*	0,048 *0,0019*	0,065 *0,0026*	0,080 *0,0032*	0,095 *0,0038*	0,10 *0,004*	205 (140 — 220) *670 (460 — 730)*
S3	E/M/A	0,24 *0,24*	0,022 *0,00085*	0,030 *0,0012*	0,038 *0,0015*	0,046 *0,0018*	0,060 *0,0024*	0,075 *0,003*	0,085 *0,0050*	0,095 *0,0038*	205 (135 — 220) *670 (445 — 730)*
S11	E/M/A	0,24 *0,24*	0,022 *0,00085*	0,030 *0,0012*	0,038 *0,0015*	0,046 *0,0018*	0,060 *0,0024*	0,075 *0,003*	0,085 *0,0050*	0,095 *0,0038*	265 (180 — 285) *870 (590 — 940)*
S12	E/M/A	0,24 *0,24*	0,022 *0,00085*	0,030 *0,0012*	0,038 *0,0015*	0,046 *0,0018*	0,060 *0,0024*	0,075 *0,003*	0,085 *0,0050*	0,095 *0,0038*	205 (135 — 220) *670 (445 — 730)*
S13	E/M/A	0,24 *0,24*	0,020 *0,0008*	0,026 *0,0010*	0,032 *0,0013*	0,040 *0,0016*	0,050 *0,0022*	0,065 *0,0026*	0,075 *0,003*	0,080 *0,0032*	155 (105 — 165) *510 (345 — 540)*
H5	M/A	0,24 *0,24*	0,034 *0,0013*	0,046 *0,0018*	0,055 *0,0022*	0,070 *0,0028*	0,090 *0,0036*	0,11 *0,0044*	0,13 *0,0050*	0,14 *0,0055*	275 (185 — 295) *900 (610 — 950)*
H8	M/A	0,24 *0,24*	0,026 *0,0010*	0,034 *0,0013*	0,044 *0,0017*	0,050 *0,0022*	0,070 *0,0028*	0,085 *0,0050*	0,10 *0,004*	0,11 *0,0044*	270 (185 — 290) *890 (610 — 950)*
H21	M/A	0,24 *0,24*	0,026 *0,0010*	0,034 *0,0013*	0,044 *0,0017*	0,050 *0,0022*	0,070 *0,0028*	0,085 *0,0050*	0,10 *0,004*	0,11 *0,0044*	270 (185 — 290) *890 (610 — 950)*
H31	M/A	0,24 *0,24*	0,022 *0,00085*	0,030 *0,0012*	0,038 *0,0015*	0,046 *0,0018*	0,060 *0,0024*	0,075 *0,003*	0,085 *0,0050*	0,095 *0,0038*	205 (135 — 220) *670 (445 — 730)*
TS1	A/D	0,24 *0,24*	0,022 *0,00085*	0,030 *0,0012*	0,038 *0,0015*	0,046 *0,0018*	0,060 *0,0024*	0,075 *0,003*	0,085 *0,0050*	0,095 *0,0038*	205 (135 — 220) *670 (445 — 730)*
TP1	A/D	0,24 *0,24*	0,022 *0,00085*	0,030 *0,0012*	0,038 *0,0015*	0,046 *0,0018*	0,060 *0,0024*	0,075 *0,003*	0,085 *0,0050*	0,095 *0,0038*	205 (135 — 220) *670 (445 — 730)*
GR1	A/D	0,24 *0,24*	0,022 *0,00085*	0,030 *0,0012*	0,038 *0,0015*	0,046 *0,0018*	0,060 *0,0024*	0,075 *0,003*	0,085 *0,0050*	0,095 *0,0038*	205 (135 — 220) *670 (445 — 730)*

For cutting data recalculations, see pages 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

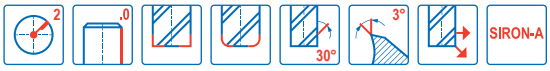
JME542

Miniature – Universal – Square – 2 Flutes – DMM 4 – Cylindrical – Sharp or corner radius



G





- Tolerances:
- Run-out= <0,007 mm
- DMM= h5
- DC= Ø0,2-Ø0,4= 0,-0,01 mm
- DC= Ø0,5-Ø3,0= 0,-0,013 mm
- RE= ±0,005 mm

Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	CA°	PCEDC	Cylindrical
				mm	mm	mm	mm	mm	mm	mm			
JME542002G1S.0Z2-SIRA	03171095	1	G	0,2	4,0	0,3	45,0	0,4	0,18	–	14,41	2	■
JME542003G1S.0Z2-SIRA	03171096	1	G	0,3	4,0	0,45	45,0	0,6	0,28	–	14,0	2	■
JME542004G1S.0Z2-SIRA	03171128	1	G	0,4	4,0	0,6	45,0	0,8	0,37	–	13,5	2	■
JME542005G1R005.0Z2-SIRA	03171097	1	G	0,5	4,0	0,8	45,0	1,0	0,46	0,05	13,17	2	■
JME542006G1R005.0Z2-SIRA	03171098	1	G	0,6	4,0	0,9	45,0	1,2	0,56	0,05	12,76	2	■
JME542008G1R005.0Z2-SIRA	03171129	1	G	0,8	4,0	1,2	45,0	1,6	0,76	0,05	11,96	2	■
JME542010G1R010.0Z2-SIRA	03171099	1	G	1,0	4,0	1,5	50,0	2,0	0,95	0,1	11,22	2	■
JME542012G1R010.0Z2-SIRA	03171100	1	G	1,2	4,0	1,8	50,0	2,4	1,15	0,1	10,43	2	■
JME542015G1R015.0Z2-SIRA	03171130	1	G	1,5	4,0	2,3	50,0	3,0	1,45	0,15	9,2	2	■
JME542005G3R005.0Z2-SIRA	03171102	3	G	0,5	4,0	0,8	45,0	2,5	0,46	0,05	11,03	2	■
JME542006G3R005.0Z2-SIRA	03171103	3	G	0,6	4,0	0,9	45,0	3,0	0,56	0,05	10,36	2	■
JME542008G3R005.0Z2-SIRA	03171131	3	G	0,8	4,0	1,2	45,0	4,0	0,76	0,05	9,14	2	■
JME542010G3R010.0Z2-SIRA	03171104	3	G	1,0	4,0	1,5	50,0	5,0	0,95	0,1	8,09	2	■
JME542012G3R010.0Z2-SIRA	03171105	3	G	1,2	4,0	1,8	50,0	6,0	1,15	0,1	7,13	2	■
JME542015G3R015.0Z2-SIRA	03171132	3	G	1,5	4,0	2,3	50,0	7,5	1,45	0,15	5,89	2	■
JME542020G3R015.0Z2-SIRA	03171106	3	G	2,0	4,0	3,0	50,0	10,0	1,94	0,15	4,14	2	■
JME542025G3R015.0Z2-SIRA	03171108	3	G	2,5	4,0	3,8	50,0	12,5	2,4	0,15	2,79	2	■
JME542030G3R015.0Z2-SIRA	03171134	3	G	3,0	4,0	4,5	60,0	15,0	2,85	0,15	1,67	2	■
JME542005G4R005.0Z2-SIRA	03171109	4	G	0,5	4,0	0,8	45,0	4,0	0,46	0,05	9,49	2	■
JME542006G4R005.0Z2-SIRA	03171110	4	G	0,6	4,0	0,9	45,0	5,0	0,56	0,05	8,56	2	■
JME542008G4R005.0Z2-SIRA	03171135	4	G	0,8	4,0	1,2	45,0	7,0	0,76	0,05	7,05	2	■
JME542010G4R010.0Z2-SIRA	03171111	4	G	1,0	4,0	1,5	50,0	8,5	0,95	0,1	6,1	2	■
JME542012G4R010.0Z2-SIRA	03171112	4	G	1,2	4,0	1,8	50,0	10,0	1,15	0,1	5,27	2	■
JME542015G4R015.0Z2-SIRA	03171136	4	G	1,5	4,0	2,3	50,0	12,0	1,45	0,15	4,29	2	■
JME542020G4R015.0Z2-SIRA	03171113	4	G	2,0	4,0	3,0	60,0	16,0	1,94	0,15	2,9	2	■
JME542030G4R015.0Z2-SIRA	03171137	4	G	3,0	4,0	4,5	70,0	24,0	2,85	0,15	1,1	2	■
JME542015G5R015.0Z2-SIRA	03171115	5	G	1,5	4,0	2,3	60,0	15,0	1,45	0,15	3,64	2	■
JME542020G5R015.0Z2-SIRA	03171116	5	G	2,0	4,0	3,0	60,0	20,0	1,94	0,15	2,41	2	■
JME542030G5R015.0Z2-SIRA	03171117	5	G	3,0	4,0	4,5	70,0	30,0	2,85	0,15	0,9	2	■
JME542015G6R015.0Z2-SIRA	03171118	6	G	1,5	4,0	2,3	70,0	22,5	1,45	0,15	2,64	2	■
JME542020G6R015.0Z2-SIRA	03171139	6	G	2,0	4,0	3,0	70,0	30,0	1,94	0,15	1,7	2	■
JME542030G6R015.0Z2-SIRA	03171120	6	G	3,0	4,0	4,5	90,0	45,0	2,85	0,15	0,61	2	■

■ Stocked standard.

Cutting data – JME542 Side milling roughing

SMG		a_e/DC	a_p/DC	f_z												v_c
				0.2	0.3	0.4	0.5	0.6	0.8	1.0	1.2	1.8	2.0	2.5	3.0	
P1	M/E/A	0.0500	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	415 (370 — 460)
		0,0500	*0,60*	*0,00016*	*0,00024*	*0,00032*	*0,00040*	*0,00048*	*0,00065*	*0,00080*	*0,00095*	*0,0014*	*0,0016*	*0,0020*	*0,0024*	*1350 (1300 — 1500)*
P2	M/E/A	0.0500	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	405 (360 — 440)
		0,0500	*0,60*	*0,00016*	*0,00024*	*0,00032*	*0,00040*	*0,00048*	*0,00065*	*0,00080*	*0,00095*	*0,0014*	*0,0016*	*0,0020*	*0,0024*	*1325 (1200 — 1400)*
P3	M/E/A	0.0500	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	350 (310 — 380)
		0,0500	*0,60*	*0,00016*	*0,00024*	*0,00032*	*0,00040*	*0,00048*	*0,00065*	*0,00080*	*0,00095*	*0,0014*	*0,0016*	*0,0020*	*0,0024*	*1150 (1100 — 1200)*
P4	M/E/A	0.0500	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	305 (280 — 340)
		0,0500	*0,60*	*0,00016*	*0,00024*	*0,00032*	*0,00040*	*0,00048*	*0,00065*	*0,00080*	*0,00095*	*0,0014*	*0,0016*	*0,0020*	*0,0024*	*1000 (920 — 1100)*
P5	M/E/A	0.0500	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	290 (260 — 320)
		0,0500	*0,60*	*0,00016*	*0,00024*	*0,00032*	*0,00040*	*0,00048*	*0,00065*	*0,00080*	*0,00095*	*0,0014*	*0,0016*	*0,0020*	*0,0024*	*950 (860 — 1000)*
P6	M/E/A	0.0500	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	330 (300 — 360)
		0,0500	*0,60*	*0,00016*	*0,00024*	*0,00032*	*0,00040*	*0,00048*	*0,00065*	*0,00080*	*0,00095*	*0,0014*	*0,0016*	*0,0020*	*0,0024*	*1075 (990 — 1100)*
P7	M/E/A	0.0500	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	310 (280 — 340)
		0,0500	*0,60*	*0,00016*	*0,00024*	*0,00032*	*0,00040*	*0,00048*	*0,00065*	*0,00080*	*0,00095*	*0,0014*	*0,0016*	*0,0020*	*0,0024*	*1025 (920 — 1100)*
P8	M/E/A	0.0500	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	290 (260 — 320)
		0,0500	*0,60*	*0,00016*	*0,00024*	*0,00032*	*0,00040*	*0,00048*	*0,00065*	*0,00080*	*0,00095*	*0,0014*	*0,0016*	*0,0020*	*0,0024*	*950 (860 — 1000)*
P11	M/E/A	0.0500	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	300 (270 — 330)
		0,0500	*0,60*	*0,00016*	*0,00024*	*0,00032*	*0,00040*	*0,00048*	*0,00065*	*0,00080*	*0,00095*	*0,0014*	*0,0016*	*0,0020*	*0,0024*	*980 (890 — 1000)*
P12	M/E/A	0.0500	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	175 (160 — 190)
		0,0500	*0,60*	*0,00016*	*0,00024*	*0,00032*	*0,00040*	*0,00048*	*0,00065*	*0,00080*	*0,00095*	*0,0014*	*0,0016*	*0,0020*	*0,0024*	*570 (530 — 620)*
M1	E/M/A	0.0500	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	220 (190 — 260)
		0,0500	*0,60*	*0,00016*	*0,00024*	*0,00032*	*0,00040*	*0,00048*	*0,00065*	*0,00080*	*0,00095*	*0,0014*	*0,0016*	*0,0020*	*0,0024*	*720 (630 — 850)*
M2	E/M/A	0.0500	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	180 (150 — 210)
		0,0500	*0,60*	*0,00016*	*0,00024*	*0,00032*	*0,00040*	*0,00048*	*0,00065*	*0,00080*	*0,00095*	*0,0014*	*0,0016*	*0,0020*	*0,0024*	*590 (500 — 680)*
M3	E/M/A	0.0500	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	180 (150 — 210)
		0,0500	*0,60*	*0,00016*	*0,00024*	*0,00032*	*0,00040*	*0,00048*	*0,00065*	*0,00080*	*0,00095*	*0,0014*	*0,0016*	*0,0020*	*0,0024*	*590 (500 — 680)*
M4	E/M/A	0.0500	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	135 (110 — 150)
		0,0500	*0,60*	*0,00016*	*0,00024*	*0,00032*	*0,00040*	*0,00048*	*0,00065*	*0,00080*	*0,00095*	*0,0014*	*0,0016*	*0,0020*	*0,0024*	*445 (370 — 490)*
M5	E/M/A	0.0500	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	110 (92 — 130)
		0,0500	*0,60*	*0,00016*	*0,00024*	*0,00032*	*0,00040*	*0,00048*	*0,00065*	*0,00080*	*0,00095*	*0,0014*	*0,0016*	*0,0020*	*0,0024*	*360 (310 — 420)*
N1	E/M/A	0.100	0.75	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	570 (500 — 640)
		0,100	*0,75*	*0,00016*	*0,00024*	*0,00032*	*0,00040*	*0,00048*	*0,00065*	*0,00080*	*0,00095*	*0,0014*	*0,0016*	*0,0020*	*0,0024*	*1875 (1700 — 2000)*
N2	E/M/A	0.100	0.75	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	570 (500 — 640)
		0,100	*0,75*	*0,00016*	*0,00024*	*0,00032*	*0,00040*	*0,00048*	*0,00065*	*0,00080*	*0,00095*	*0,0014*	*0,0016*	*0,0020*	*0,0024*	*1875 (1700 — 2000)*
N3	E/M/A	0.100	0.75	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	380 (340 — 420)
		0,100	*0,75*	*0,00016*	*0,00024*	*0,00032*	*0,00040*	*0,00048*	*0,00065*	*0,00080*	*0,00095*	*0,0014*	*0,0016*	*0,0020*	*0,0024*	*1250 (1200 — 1300)*
N11	E/M/A	0.100	0.75	0.0050	0.0075	0.010	0.012	0.015	0.020	0.025	0.030	0.046	0.050	0.060	0.075	510 (440 — 580)
		0,100	*0,75*	*0,00020*	*0,00030*	*0,00040*	*0,00048*	*0,00060*	*0,00080*	*0,0010*	*0,0012*	*0,0018*	*0,0020*	*0,0024*	*0,0030*	*1675 (1500 — 1900)*
S11	E/M/A	0.0500	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	295 (260 — 330)
		0,0500	*0,60*	*0,00016*	*0,00024*	*0,00032*	*0,00040*	*0,00048*	*0,00065*	*0,00080*	*0,00095*	*0,0014*	*0,0016*	*0,0020*	*0,0024*	*970 (860 — 1000)*
S12	E/M/A	0.0500	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	225 (200 — 250)
		0,0500	*0,60*	*0,00016*	*0,00024*	*0,00032*	*0,00040*	*0,00048*	*0,00065*	*0,00080*	*0,00095*	*0,0014*	*0,0016*	*0,0020*	*0,0024*	*740 (660 — 820)*
S13	E/M/A	0.0500	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	175 (160 — 200)
		0,0500	*0,60*	*0,00016*	*0,00024*	*0,00032*	*0,00040*	*0,00048*	*0,00065*	*0,00080*	*0,00095*	*0,0014*	*0,0016*	*0,0020*	*0,0024*	*570 (530 — 650)*
H3	M/A	0.0500	0.30	0.0036	0.0055	0.0070	0.0090	0.011	0.014	0.018	0.022	0.032	0.036	0.044	0.055	120 (90 — 140)
		0,0500	*0,30*	*0,00014*	*0,00022*	*0,00028*	*0,00036*	*0,00044*	*0,00055*	*0,00070*	*0,00085*	*0,0013*	*0,0014*	*0,0017*	*0,0022*	*395 (300 — 450)*
H5	M/A	0.0500	0.44	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	255 (230 — 280)
		0,0500	*0,44*	*0,00016*	*0,00024*	*0,00032*	*0,00040*	*0,00048*	*0,00065*	*0,00080*	*0,00095*	*0,0014*	*0,0016*	*0,0020*	*0,0024*	*840 (760 — 910)*
H7	M/A	0.0500	0.30	0.0036	0.0055	0.0070	0.0090	0.011	0.014	0.018	0.022	0.032	0.036	0.044	0.055	120 (90 — 140)
		0,0500	*0,30*	*0,00014*	*0,00022*	*0,00028*	*0,00036*	*0,00044*	*0,00055*	*0,00070*	*0,00085*	*0,0013*	*0,0014*	*0,0017*	*0,0022*	*395 (300 — 450)*
H8	M/A	0.0500	0.44	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	255 (230 — 280)
		0,0500	*0,44*	*0,00016*	*0,00024*	*0,00032*	*0,00040*	*0,00048*	*0,00065*	*0,00080*	*0,00095*	*0,0014*	*0,0016*	*0,0020*	*0,0024*	*840 (760 — 910)*
H11	M/A	0.0500	0.44	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	325 (290 — 360)
		0,0500	*0,44*	*0,00016*	*0,00024*	*0,00032*	*0,00040*	*0,00048*	*0,00065*	*0,00080*	*0,00095*	*0,0014*	*0,0016*	*0,0020*	*0,0024*	*1075 (960 — 1100)*
H12	M/A	0.0500	0.44	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	295 (270 — 330)
		0,0500	*0,44*	*0,00016*	*0,00024*	*0,00032*	*0,00040*	*0,00048*	*0,00065*	*0,00080*	*0,00095*	*0,0014*	*0,0016*	*0,0020*	*0,0024*	*970 (890 — 1000)*
H21	M/A	0.0500	0.44	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	255 (230 — 280)
		0,0500	*0,44*	*0,00016*	*0,00024*	*0,00032*	*0,00040*	*0,00048*	*0,00065*	*0,00080*	*0,00095*	*0,0014*	*0,0016*	*0,0020*	*0,0024*	*840 (760 — 910)*
H31	M/A	0.0500	0.44	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	195 (170 — 210)
		0,0500	*0,44*	*0,00016*	*0,00024*	*0,00032*	*0,00040*	*0,00048*	*0,00065*	*0,00080*	*0,00095*	*0,0014*	*0,0016*	*0,0020*	*0,0024*	*640 (560 — 680)*
GR1	A	0.500	0.50	0.0030	0.0044	0.0060	0.0075	0.0090	0.012	0.015	0.018	0.024	0.025	0.028	0.032	405 (350 — 460)
		0,500	*0,50*	*0,00012*	*0,00017*	*0,00024*	*0,00030*	*0,00036*	*0,00048*	*0,00060*	*0,00070*	*0,00095*	*0,0010*	*0,0011*	*0,0013*	*1325 (1200 — 1500)*

Table based on LV1, please recalc based on length version chosen. See page(s) 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

Cutting data – JME542 Slot milling

SMG		a_p/DC	f_z												v_c
			0.2	0.3	0.4	0.5	0.6	0.8	1.0	1.2	1.8	2.0	2.5	3.0	
P1	M/E/A	0.32 *0,32*	0.0026 *0,00010*	0.0040 *0,00016*	0.0050 *0,00020*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.024 *0,00095*	0.026 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	255 (230 — 280) *840 (760 — 910)*
P2	M/E/A	0.32 *0,32*	0.0026 *0,00010*	0.0040 *0,00016*	0.0050 *0,00020*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.024 *0,00095*	0.026 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	250 (230 — 270) *820 (760 — 880)*
P3	M/E/A	0.32 *0,32*	0.0026 *0,00010*	0.0040 *0,00016*	0.0050 *0,00020*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.024 *0,00095*	0.026 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	215 (200 — 230) *710 (660 — 750)*
P4	M/E/A	0.32 *0,32*	0.0026 *0,00010*	0.0040 *0,00016*	0.0050 *0,00020*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.024 *0,00095*	0.026 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	190 (170 — 200) *620 (560 — 650)*
P5	M/E/A	0.32 *0,32*	0.0026 *0,00010*	0.0040 *0,00016*	0.0050 *0,00020*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.024 *0,00095*	0.026 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	180 (170 — 200) *590 (560 — 650)*
P6	M/E/A	0.32 *0,32*	0.0026 *0,00010*	0.0040 *0,00016*	0.0050 *0,00020*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.024 *0,00095*	0.026 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	200 (180 — 220) *660 (600 — 720)*
P7	M/E/A	0.32 *0,32*	0.0026 *0,00010*	0.0040 *0,00016*	0.0050 *0,00020*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.024 *0,00095*	0.026 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	190 (170 — 210) *620 (560 — 680)*
P8	M/E/A	0.32 *0,32*	0.0026 *0,00010*	0.0040 *0,00016*	0.0050 *0,00020*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.024 *0,00095*	0.026 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	180 (170 — 200) *590 (560 — 650)*
P11	M/E/A	0.32 *0,32*	0.0026 *0,00010*	0.0040 *0,00016*	0.0050 *0,00020*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.024 *0,00095*	0.026 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	185 (170 — 200) *610 (560 — 650)*
P12	M/E/A	0.32 *0,32*	0.0026 *0,00010*	0.0040 *0,00016*	0.0050 *0,00020*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.022 *0,00085*	0.022 *0,00085*	0.026 *0,0010*	0.028 *0,0011*	110 (98 — 120) *360 (330 — 390)*
M1	E/M/A	0.32 *0,32*	0.0026 *0,00010*	0.0040 *0,00016*	0.0050 *0,00020*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.024 *0,00095*	0.026 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	135 (120 — 160) *445 (400 — 520)*
M2	E/M/A	0.32 *0,32*	0.0026 *0,00010*	0.0040 *0,00016*	0.0050 *0,00020*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.024 *0,00095*	0.026 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	110 (91 — 130) *360 (300 — 420)*
M3	E/M/A	0.32 *0,32*	0.0026 *0,00010*	0.0040 *0,00016*	0.0050 *0,00020*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.024 *0,00095*	0.026 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	110 (91 — 130) *360 (300 — 420)*
M4	E/M/A	0.32 *0,32*	0.0026 *0,00010*	0.0040 *0,00016*	0.0050 *0,00020*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.024 *0,00095*	0.026 *0,0010*	0.032 *0,0013*	0.036 *0,0014*	80 (68 — 97) *260 (230 — 310)*
M5	E/M/A	0.32 *0,32*	0.0026 *0,00010*	0.0040 *0,00016*	0.0050 *0,00020*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.024 *0,00095*	0.026 *0,0010*	0.032 *0,0013*	0.036 *0,0014*	70 (57 — 81) *230 (190 — 260)*
N1	E/M/A	0.24 *0,24*	0.0026 *0,00010*	0.0040 *0,00016*	0.0050 *0,00020*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.024 *0,00095*	0.026 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	400 (350 — 440) *1300 (1200 — 1400)*
N2	E/M/A	0.24 *0,24*	0.0026 *0,00010*	0.0040 *0,00016*	0.0050 *0,00020*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.024 *0,00095*	0.026 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	400 (350 — 440) *1300 (1200 — 1400)*
N3	E/M/A	0.24 *0,24*	0.0026 *0,00010*	0.0040 *0,00016*	0.0050 *0,00020*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.024 *0,00095*	0.026 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	265 (240 — 290) *870 (790 — 950)*
N11	E/M/A	0.24 *0,24*	0.0040 *0,00016*	0.0060 *0,00024*	0.0080 *0,00032*	0.010 *0,00040*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	0.024 *0,00095*	0.036 *0,0014*	0.040 *0,0016*	0.048 *0,0019*	0.050 *0,0020*	350 (300 — 400) *1150 (990 — 1300)*
S11	E/M/A	0.36 *0,36*	0.0026 *0,00010*	0.0040 *0,00016*	0.0050 *0,00020*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.024 *0,00095*	0.026 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	180 (160 — 200) *590 (530 — 650)*
S12	E/M/A	0.36 *0,36*	0.0026 *0,00010*	0.0040 *0,00016*	0.0050 *0,00020*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.024 *0,00095*	0.026 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	140 (120 — 150) *460 (400 — 490)*
S13	E/M/A	0.36 *0,36*	0.0026 *0,00010*	0.0040 *0,00016*	0.0050 *0,00020*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.024 *0,00095*	0.026 *0,0010*	0.032 *0,0013*	0.036 *0,0014*	110 (93 — 120) *360 (310 — 390)*
H3	M/A	0.095 *0,095*	0.0024 *0,000095*	0.0036 *0,00014*	0.0048 *0,00019*	0.0060 *0,00024*	0.0070 *0,00028*	0.0095 *0,00038*	0.012 *0,00048*	0.014 *0,00055*	0.022 *0,00085*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	80 (61 — 100) *260 (210 — 320)*
H5	M/A	0.20 *0,20*	0.0026 *0,00010*	0.0040 *0,00016*	0.0050 *0,00020*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.024 *0,00095*	0.026 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	160 (150 — 180) *520 (500 — 590)*
H7	M/A	0.095 *0,095*	0.0024 *0,000095*	0.0036 *0,00014*	0.0048 *0,00019*	0.0060 *0,00024*	0.0070 *0,00028*	0.0095 *0,00038*	0.012 *0,00048*	0.014 *0,00055*	0.022 *0,00085*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	80 (61 — 100) *260 (210 — 320)*
H8	M/A	0.20 *0,20*	0.0026 *0,00010*	0.0040 *0,00016*	0.0050 *0,00020*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.024 *0,00095*	0.026 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	160 (150 — 180) *520 (500 — 590)*
H11	M/A	0.20 *0,20*	0.0026 *0,00010*	0.0040 *0,00016*	0.0050 *0,00020*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.024 *0,00095*	0.026 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	205 (180 — 230) *670 (600 — 750)*
H12	M/A	0.20 *0,20*	0.0026 *0,00010*	0.0040 *0,00016*	0.0050 *0,00020*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.024 *0,00095*	0.026 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	190 (170 — 210) *620 (560 — 680)*
H21	M/A	0.20 *0,20*	0.0026 *0,00010*	0.0040 *0,00016*	0.0050 *0,00020*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.024 *0,00095*	0.026 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	160 (150 — 180) *520 (500 — 590)*
H31	M/A	0.20 *0,20*	0.0026 *0,00010*	0.0040 *0,00016*	0.0050 *0,00020*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.024 *0,00095*	0.026 *0,0010*	0.032 *0,0013*	0.036 *0,0014*	120 (110 — 130) *395 (370 — 420)*
GR1	A	0.50 *0,50*	0.0020 *0,000080*	0.0030 *0,00012*	0.0040 *0,00016*	0.0050 *0,00020*	0.0060 *0,00024*	0.0080 *0,00032*	0.010 *0,00040*	0.012 *0,00048*	0.018 *0,00070*	0.020 *0,00080*	0.025 *0,0010*	0.030 *0,0012*	350 (300 — 400) *1150 (990 — 1300)*

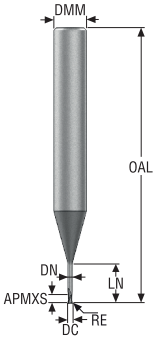
Table based on LV1, please recalc based on length version chosen. See page(s) 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

JME562

Miniature – Universal – Square – 2 Flutes – DMM 6 – Cylindrical – Corner radius





G

- Tolerances:
- Run-out= <0,007 mm
- DMM= h5
- DC= 0,-0,013 mm
- RE= ±0,005 mm

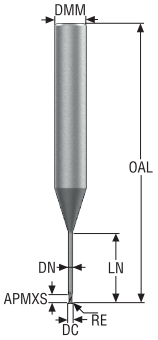


Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	CA°	PCEDC	Cylindrical
				mm	mm	mm	mm	mm	mm	mm			
JME562005G2R005.0Z2-SIRA	03171145	2	G	0,5	6,0	0,8	50,0	1,5	0,46	0,05	13,48	2	■
JME562006G2R005.0Z2-SIRA	03171146	2	G	0,6	6,0	0,9	50,0	2,0	0,56	0,05	12,9	2	■
JME562008G2R005.0Z2-SIRA	03171147	2	G	0,8	6,0	1,2	50,0	2,5	0,76	0,05	12,28	2	■
JME562010G2R010.0Z2-SIRA	03171148	2	G	1,0	6,0	1,5	50,0	4,0	0,95	0,1	10,85	2	■
JME562012G2R010.0Z2-SIRA	03171150	2	G	1,2	6,0	1,8	50,0	4,5	1,15	0,1	10,31	2	■
JME562015G2R015.0Z2-SIRA	03171151	2	G	1,5	6,0	2,3	50,0	5,0	1,45	0,15	9,67	2	■
JME562018G2R015.0Z2-SIRA	03171152	2	G	1,8	6,0	2,7	50,0	5,4	1,75	0,15	9,12	2	■
JME562020G2R015.0Z2-SIRA	03171153	2	G	2,0	6,0	3,0	50,0	6,0	1,94	0,15	8,53	2	■
JME562025G2R015.0Z2-SIRA	03171154	2	G	2,5	6,0	3,8	60,0	7,5	2,4	0,15	7,15	2	■
JME562030G2R015.0Z2-SIRA	03171155	2	G	3,0	6,0	4,5	60,0	9,0	2,85	0,15	5,81	2	■
JME562005G4R005.0Z2-SIRA	03171156	4	G	0,5	6,0	0,8	50,0	3,5	0,46	0,05	11,54	2	■
JME562006G4R005.0Z2-SIRA	03171157	4	G	0,6	6,0	0,9	50,0	4,2	0,56	0,05	10,93	2	■
JME562008G4R005.0Z2-SIRA	03171158	4	G	0,8	6,0	1,2	50,0	5,6	0,76	0,05	9,81	2	■
JME562010G4R010.0Z2-SIRA	03171159	4	G	1,0	6,0	1,5	50,0	7,0	0,95	0,1	8,86	2	■
JME562012G4R010.0Z2-SIRA	03171160	4	G	1,2	6,0	1,8	50,0	8,4	1,15	0,1	8,0	2	■
JME562015G4R015.0Z2-SIRA	03171162	4	G	1,5	6,0	2,3	50,0	10,5	1,45	0,15	6,86	2	■
JME562020G4R015.0Z2-SIRA	03171163	4	G	2,0	6,0	3,0	60,0	14,0	1,94	0,15	5,36	2	■
JME562030G4R015.0Z2-SIRA	03171165	4	G	3,0	6,0	4,5	70,0	21,0	2,85	0,15	3,22	2	■
JME562005G5R005.0Z2-SIRA	03171166	5	G	0,5	6,0	0,8	50,0	5,0	0,46	0,05	10,42	2	■
JME562006G5R005.0Z2-SIRA	03171167	5	G	0,6	6,0	0,9	50,0	6,0	0,56	0,05	9,71	2	■
JME562008G5R005.0Z2-SIRA	03171168	5	G	0,8	6,0	1,2	50,0	8,0	0,76	0,05	8,48	2	■
JME562010G5R010.0Z2-SIRA	03171169	5	G	1,0	6,0	1,5	50,0	10,0	0,95	0,1	7,48	2	■
JME562012G5R010.0Z2-SIRA	03171170	5	G	1,2	6,0	1,8	50,0	12,0	1,15	0,1	6,62	2	■
JME562015G5R015.0Z2-SIRA	03171171	5	G	1,5	6,0	2,3	60,0	15,0	1,45	0,15	5,54	2	■
JME562020G5R015.0Z2-SIRA	03171172	5	G	2,0	6,0	3,0	60,0	20,0	1,94	0,15	4,19	2	■
JME562030G5R015.0Z2-SIRA	03171174	5	G	3,0	6,0	4,5	70,0	30,0	2,85	0,15	2,41	2	■

■ Stocked standard.

JME562

Miniature – Universal – Square – 2 Flutes – DMM 6 – Cylindrical – Corner radius



G





- Tolerances:
- Run-out= <0,007 mm
- DMM= h5
- DC= 0,-0,013 mm
- RE= ±0,005 mm

Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	CA°	PCEDC	Cylindrical
				mm	mm	mm	mm	mm	mm	mm			
JME562010G6R010.0Z2-SIRA	03171175	6	G	1,0	6,0	1,5	60,0	15,0	0,95	0,1	5,94	2	■
JME562012G6R010.0Z2-SIRA	03171176	6	G	1,2	6,0	1,8	60,0	18,0	1,15	0,1	5,14	2	■
JME562015G6R015.0Z2-SIRA	03171177	6	G	1,5	6,0	2,3	70,0	22,5	1,45	0,15	4,2	2	■
JME562020G6R015.0Z2-SIRA	03171178	6	G	2,0	6,0	3,0	80,0	30,0	1,94	0,15	3,07	2	■
JME562030G6R015.0Z2-SIRA	03171180	6	G	3,0	6,0	4,5	90,0	45,0	2,85	0,15	1,7	2	■
JME562010G7R010.0Z2-SIRA	03171181	7	G	1,0	6,0	1,5	60,0	20,0	0,95	0,1	4,93	2	■
JME562012G7R010.0Z2-SIRA	03171182	7	G	1,2	6,0	1,8	80,0	24,0	1,15	0,1	4,2	2	■
JME562015G7R015.0Z2-SIRA	03171183	7	G	1,5	6,0	2,3	80,0	30,0	1,45	0,15	3,38	2	■
JME562020G7R015.0Z2-SIRA	03171184	7	G	2,0	6,0	3,0	80,0	40,0	1,94	0,15	2,42	2	■
JME562030G7R015.0Z2-SIRA	03171186	7	G	3,0	6,0	4,5	100,0	60,0	2,85	0,15	1,31	2	■

■ Stocked standard.

Cutting data – JME562 Side milling roughing

SMG		a_e/DC	a_p/DC	f_z												v_c
				0.2	0.3	0.4	0.5	0.6	0.8	1.0	1.2	1.8	2.0	2.5	3.0	
P1	M/E/A	0.0500	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	415 (370 — 460)
		0,0500	*0,60*	*0,00016*	*0,00024*	*0,00032*	*0,00040*	*0,00048*	*0,00065*	*0,00080*	*0,00095*	*0,0014*	*0,0016*	*0,0020*	*0,0024*	*1350 (1300 — 1500)*
P2	M/E/A	0.0500	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	405 (360 — 440)
		0,0500	*0,60*	*0,00016*	*0,00024*	*0,00032*	*0,00040*	*0,00048*	*0,00065*	*0,00080*	*0,00095*	*0,0014*	*0,0016*	*0,0020*	*0,0024*	*1325 (1200 — 1400)*
P3	M/E/A	0.0500	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	350 (310 — 380)
		0,0500	*0,60*	*0,00016*	*0,00024*	*0,00032*	*0,00040*	*0,00048*	*0,00065*	*0,00080*	*0,00095*	*0,0014*	*0,0016*	*0,0020*	*0,0024*	*1150 (1100 — 1200)*
P4	M/E/A	0.0500	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	305 (280 — 340)
		0,0500	*0,60*	*0,00016*	*0,00024*	*0,00032*	*0,00040*	*0,00048*	*0,00065*	*0,00080*	*0,00095*	*0,0014*	*0,0016*	*0,0020*	*0,0024*	*1000 (920 — 1100)*
P5	M/E/A	0.0500	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	290 (260 — 320)
		0,0500	*0,60*	*0,00016*	*0,00024*	*0,00032*	*0,00040*	*0,00048*	*0,00065*	*0,00080*	*0,00095*	*0,0014*	*0,0016*	*0,0020*	*0,0024*	*950 (860 — 1000)*
P6	M/E/A	0.0500	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	330 (300 — 360)
		0,0500	*0,60*	*0,00016*	*0,00024*	*0,00032*	*0,00040*	*0,00048*	*0,00065*	*0,00080*	*0,00095*	*0,0014*	*0,0016*	*0,0020*	*0,0024*	*1075 (990 — 1100)*
P7	M/E/A	0.0500	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	310 (280 — 340)
		0,0500	*0,60*	*0,00016*	*0,00024*	*0,00032*	*0,00040*	*0,00048*	*0,00065*	*0,00080*	*0,00095*	*0,0014*	*0,0016*	*0,0020*	*0,0024*	*1025 (920 — 1100)*
P8	M/E/A	0.0500	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	290 (260 — 320)
		0,0500	*0,60*	*0,00016*	*0,00024*	*0,00032*	*0,00040*	*0,00048*	*0,00065*	*0,00080*	*0,00095*	*0,0014*	*0,0016*	*0,0020*	*0,0024*	*950 (860 — 1000)*
P11	M/E/A	0.0500	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	300 (270 — 330)
		0,0500	*0,60*	*0,00016*	*0,00024*	*0,00032*	*0,00040*	*0,00048*	*0,00065*	*0,00080*	*0,00095*	*0,0014*	*0,0016*	*0,0020*	*0,0024*	*980 (890 — 1000)*
P12	M/E/A	0.0500	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	175 (160 — 190)
		0,0500	*0,60*	*0,00016*	*0,00024*	*0,00032*	*0,00040*	*0,00048*	*0,00065*	*0,00080*	*0,00095*	*0,0014*	*0,0016*	*0,0020*	*0,0024*	*570 (530 — 620)*
M1	E/M/A	0.0500	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	220 (190 — 260)
		0,0500	*0,60*	*0,00016*	*0,00024*	*0,00032*	*0,00040*	*0,00048*	*0,00065*	*0,00080*	*0,00095*	*0,0014*	*0,0016*	*0,0020*	*0,0024*	*720 (630 — 850)*
M2	E/M/A	0.0500	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	180 (150 — 210)
		0,0500	*0,60*	*0,00016*	*0,00024*	*0,00032*	*0,00040*	*0,00048*	*0,00065*	*0,00080*	*0,00095*	*0,0014*	*0,0016*	*0,0020*	*0,0024*	*590 (500 — 680)*
M3	E/M/A	0.0500	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	180 (150 — 210)
		0,0500	*0,60*	*0,00016*	*0,00024*	*0,00032*	*0,00040*	*0,00048*	*0,00065*	*0,00080*	*0,00095*	*0,0014*	*0,0016*	*0,0020*	*0,0024*	*590 (500 — 680)*
M4	E/M/A	0.0500	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	135 (110 — 150)
		0,0500	*0,60*	*0,00016*	*0,00024*	*0,00032*	*0,00040*	*0,00048*	*0,00065*	*0,00080*	*0,00095*	*0,0014*	*0,0016*	*0,0020*	*0,0024*	*445 (370 — 490)*
M5	E/M/A	0.0500	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	110 (92 — 130)
		0,0500	*0,60*	*0,00016*	*0,00024*	*0,00032*	*0,00040*	*0,00048*	*0,00065*	*0,00080*	*0,00095*	*0,0014*	*0,0016*	*0,0020*	*0,0024*	*360 (310 — 420)*
N1	E/M/A	0.100	0.75	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	570 (500 — 640)
		0,100	*0,75*	*0,00016*	*0,00024*	*0,00032*	*0,00040*	*0,00048*	*0,00065*	*0,00080*	*0,00095*	*0,0014*	*0,0016*	*0,0020*	*0,0024*	*1875 (1700 — 2000)*
N2	E/M/A	0.100	0.75	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	570 (500 — 640)
		0,100	*0,75*	*0,00016*	*0,00024*	*0,00032*	*0,00040*	*0,00048*	*0,00065*	*0,00080*	*0,00095*	*0,0014*	*0,0016*	*0,0020*	*0,0024*	*1875 (1700 — 2000)*
N3	E/M/A	0.100	0.75	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	380 (340 — 420)
		0,100	*0,75*	*0,00016*	*0,00024*	*0,00032*	*0,00040*	*0,00048*	*0,00065*	*0,00080*	*0,00095*	*0,0014*	*0,0016*	*0,0020*	*0,0024*	*1250 (1200 — 1300)*
N11	E/M/A	0.100	0.75	0.0050	0.0075	0.010	0.012	0.015	0.020	0.025	0.030	0.046	0.050	0.060	0.075	510 (440 — 580)
		0,100	*0,75*	*0,00020*	*0,00030*	*0,00040*	*0,00048*	*0,00060*	*0,00080*	*0,0010*	*0,0012*	*0,0018*	*0,0020*	*0,0024*	*0,0030*	*1675 (1500 — 1900)*
S11	E/M/A	0.0500	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	295 (260 — 330)
		0,0500	*0,60*	*0,00016*	*0,00024*	*0,00032*	*0,00040*	*0,00048*	*0,00065*	*0,00080*	*0,00095*	*0,0014*	*0,0016*	*0,0020*	*0,0024*	*970 (860 — 1000)*
S12	E/M/A	0.0500	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	225 (200 — 250)
		0,0500	*0,60*	*0,00016*	*0,00024*	*0,00032*	*0,00040*	*0,00048*	*0,00065*	*0,00080*	*0,00095*	*0,0014*	*0,0016*	*0,0020*	*0,0024*	*740 (660 — 820)*
S13	E/M/A	0.0500	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	175 (160 — 200)
		0,0500	*0,60*	*0,00016*	*0,00024*	*0,00032*	*0,00040*	*0,00048*	*0,00065*	*0,00080*	*0,00095*	*0,0014*	*0,0016*	*0,0020*	*0,0024*	*570 (530 — 650)*
H3	M/A	0.0500	0.30	0.0036	0.0055	0.0070	0.0090	0.011	0.014	0.018	0.022	0.032	0.036	0.044	0.055	120 (90 — 140)
		0,0500	*0,30*	*0,00014*	*0,00022*	*0,00028*	*0,00036*	*0,00044*	*0,00055*	*0,00070*	*0,00085*	*0,0013*	*0,0014*	*0,0017*	*0,0022*	*395 (300 — 450)*
H5	M/A	0.0500	0.44	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	255 (230 — 280)
		0,0500	*0,44*	*0,00016*	*0,00024*	*0,00032*	*0,00040*	*0,00048*	*0,00065*	*0,00080*	*0,00095*	*0,0014*	*0,0016*	*0,0020*	*0,0024*	*840 (760 — 910)*
H7	M/A	0.0500	0.30	0.0036	0.0055	0.0070	0.0090	0.011	0.014	0.018	0.022	0.032	0.036	0.044	0.055	120 (90 — 140)
		0,0500	*0,30*	*0,00014*	*0,00022*	*0,00028*	*0,00036*	*0,00044*	*0,00055*	*0,00070*	*0,00085*	*0,0013*	*0,0014*	*0,0017*	*0,0022*	*395 (300 — 450)*
H8	M/A	0.0500	0.44	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	255 (230 — 280)
		0,0500	*0,44*	*0,00016*	*0,00024*	*0,00032*	*0,00040*	*0,00048*	*0,00065*	*0,00080*	*0,00095*	*0,0014*	*0,0016*	*0,0020*	*0,0024*	*840 (760 — 910)*
H11	M/A	0.0500	0.44	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	325 (290 — 360)
		0,0500	*0,44*	*0,00016*	*0,00024*	*0,00032*	*0,00040*	*0,00048*	*0,00065*	*0,00080*	*0,00095*	*0,0014*	*0,0016*	*0,0020*	*0,0024*	*1075 (960 — 1100)*
H12	M/A	0.0500	0.44	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	295 (270 — 330)
		0,0500	*0,44*	*0,00016*	*0,00024*	*0,00032*	*0,00040*	*0,00048*	*0,00065*	*0,00080*	*0,00095*	*0,0014*	*0,0016*	*0,0020*	*0,0024*	*970 (890 — 1000)*
H21	M/A	0.0500	0.44	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	255 (230 — 280)
		0,0500	*0,44*	*0,00016*	*0,00024*	*0,00032*	*0,00040*	*0,00048*	*0,00065*	*0,00080*	*0,00095*	*0,0014*	*0,0016*	*0,0020*	*0,0024*	*840 (760 — 910)*
H31	M/A	0.0500	0.44	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	195 (170 — 210)
		0,0500	*0,44*	*0,00016*	*0,00024*	*0,00032*	*0,00040*	*0,00048*	*0,00065*	*0,00080*	*0,00095*	*0,0014*	*0,0016*	*0,0020*	*0,0024*	*640 (560 — 680)*
GR1	A	0.500	0.50	0.0030	0.0044	0.0060	0.0075	0.0090	0.012	0.015	0.018	0.024	0.025	0.028	0.032	405 (350 — 460)
		0,500	*0,50*	*0,00012*	*0,00017*	*0,00024*	*0,00030*	*0,00036*	*0,00048*	*0,00060*	*0,00070*	*0,00095*	*0,0010*	*0,0011*	*0,0013*	*1325 (1200 — 1500)*

Table based on LV1, please recalc based on length version chosen. See page(s) 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

Cutting data – JME562 Slot milling

SMG		a_p/DC	f_z												v_c
			0.2	0.3	0.4	0.5	0.6	0.8	1.0	1.2	1.8	2.0	2.5	3.0	
P1	M/E/A	0.32 *0,32*	0.0026 *0,00010*	0.0040 *0,00016*	0.0050 *0,00020*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.024 *0,00095*	0.026 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	255 (230 — 280) *840 (760 — 910)*
P2	M/E/A	0.32 *0,32*	0.0026 *0,00010*	0.0040 *0,00016*	0.0050 *0,00020*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.024 *0,00095*	0.026 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	250 (230 — 270) *820 (760 — 880)*
P3	M/E/A	0.32 *0,32*	0.0026 *0,00010*	0.0040 *0,00016*	0.0050 *0,00020*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.024 *0,00095*	0.026 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	215 (200 — 230) *710 (660 — 750)*
P4	M/E/A	0.32 *0,32*	0.0026 *0,00010*	0.0040 *0,00016*	0.0050 *0,00020*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.024 *0,00095*	0.026 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	190 (170 — 200) *620 (560 — 650)*
P5	M/E/A	0.32 *0,32*	0.0026 *0,00010*	0.0040 *0,00016*	0.0050 *0,00020*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.024 *0,00095*	0.026 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	180 (170 — 200) *590 (560 — 650)*
P6	M/E/A	0.32 *0,32*	0.0026 *0,00010*	0.0040 *0,00016*	0.0050 *0,00020*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.024 *0,00095*	0.026 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	200 (180 — 220) *660 (600 — 720)*
P7	M/E/A	0.32 *0,32*	0.0026 *0,00010*	0.0040 *0,00016*	0.0050 *0,00020*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.024 *0,00095*	0.026 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	190 (170 — 210) *620 (560 — 680)*
P8	M/E/A	0.32 *0,32*	0.0026 *0,00010*	0.0040 *0,00016*	0.0050 *0,00020*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.024 *0,00095*	0.026 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	180 (170 — 200) *590 (560 — 650)*
P11	M/E/A	0.32 *0,32*	0.0026 *0,00010*	0.0040 *0,00016*	0.0050 *0,00020*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.024 *0,00095*	0.026 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	185 (170 — 200) *610 (560 — 650)*
P12	M/E/A	0.32 *0,32*	0.0026 *0,00010*	0.0040 *0,00016*	0.0050 *0,00020*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.022 *0,00085*	0.022 *0,00085*	0.026 *0,0010*	0.028 *0,0011*	110 (98 — 120) *360 (330 — 390)*
M1	E/M/A	0.32 *0,32*	0.0026 *0,00010*	0.0040 *0,00016*	0.0050 *0,00020*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.024 *0,00095*	0.026 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	135 (120 — 160) *445 (400 — 520)*
M2	E/M/A	0.32 *0,32*	0.0026 *0,00010*	0.0040 *0,00016*	0.0050 *0,00020*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.024 *0,00095*	0.026 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	110 (91 — 130) *360 (300 — 420)*
M3	E/M/A	0.32 *0,32*	0.0026 *0,00010*	0.0040 *0,00016*	0.0050 *0,00020*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.024 *0,00095*	0.026 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	110 (91 — 130) *360 (300 — 420)*
M4	E/M/A	0.32 *0,32*	0.0026 *0,00010*	0.0040 *0,00016*	0.0050 *0,00020*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.024 *0,00095*	0.026 *0,0010*	0.032 *0,0013*	0.036 *0,0014*	80 (68 — 97) *260 (230 — 310)*
M5	E/M/A	0.32 *0,32*	0.0026 *0,00010*	0.0040 *0,00016*	0.0050 *0,00020*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.024 *0,00095*	0.026 *0,0010*	0.032 *0,0013*	0.036 *0,0014*	70 (57 — 81) *230 (190 — 260)*
N1	E/M/A	0.24 *0,24*	0.0026 *0,00010*	0.0040 *0,00016*	0.0050 *0,00020*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.024 *0,00095*	0.026 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	400 (350 — 440) *1300 (1200 — 1400)*
N2	E/M/A	0.24 *0,24*	0.0026 *0,00010*	0.0040 *0,00016*	0.0050 *0,00020*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.024 *0,00095*	0.026 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	400 (350 — 440) *1300 (1200 — 1400)*
N3	E/M/A	0.24 *0,24*	0.0026 *0,00010*	0.0040 *0,00016*	0.0050 *0,00020*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.024 *0,00095*	0.026 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	265 (240 — 290) *870 (790 — 950)*
N11	E/M/A	0.24 *0,24*	0.0040 *0,00016*	0.0060 *0,00024*	0.0080 *0,00032*	0.010 *0,00040*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	0.024 *0,00095*	0.036 *0,0014*	0.040 *0,0016*	0.048 *0,0019*	0.050 *0,0020*	350 (300 — 400) *1150 (990 — 1300)*
S11	E/M/A	0.36 *0,36*	0.0026 *0,00010*	0.0040 *0,00016*	0.0050 *0,00020*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.024 *0,00095*	0.026 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	180 (160 — 200) *590 (530 — 650)*
S12	E/M/A	0.36 *0,36*	0.0026 *0,00010*	0.0040 *0,00016*	0.0050 *0,00020*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.024 *0,00095*	0.026 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	140 (120 — 150) *460 (400 — 490)*
S13	E/M/A	0.36 *0,36*	0.0026 *0,00010*	0.0040 *0,00016*	0.0050 *0,00020*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.024 *0,00095*	0.026 *0,0010*	0.032 *0,0013*	0.036 *0,0014*	110 (93 — 120) *360 (310 — 390)*
H3	M/A	0.095 *0,095*	0.0024 *0,000095*	0.0036 *0,00014*	0.0048 *0,00019*	0.0060 *0,00024*	0.0070 *0,00028*	0.0095 *0,00038*	0.012 *0,00048*	0.014 *0,00055*	0.022 *0,00085*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	80 (61 — 100) *260 (210 — 320)*
H5	M/A	0.20 *0,20*	0.0026 *0,00010*	0.0040 *0,00016*	0.0050 *0,00020*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.024 *0,00095*	0.026 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	160 (150 — 180) *520 (500 — 590)*
H7	M/A	0.095 *0,095*	0.0024 *0,000095*	0.0036 *0,00014*	0.0048 *0,00019*	0.0060 *0,00024*	0.0070 *0,00028*	0.0095 *0,00038*	0.012 *0,00048*	0.014 *0,00055*	0.022 *0,00085*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	80 (61 — 100) *260 (210 — 320)*
H8	M/A	0.20 *0,20*	0.0026 *0,00010*	0.0040 *0,00016*	0.0050 *0,00020*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.024 *0,00095*	0.026 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	160 (150 — 180) *520 (500 — 590)*
H11	M/A	0.20 *0,20*	0.0026 *0,00010*	0.0040 *0,00016*	0.0050 *0,00020*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.024 *0,00095*	0.026 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	205 (180 — 230) *670 (600 — 750)*
H12	M/A	0.20 *0,20*	0.0026 *0,00010*	0.0040 *0,00016*	0.0050 *0,00020*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.024 *0,00095*	0.026 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	190 (170 — 210) *620 (560 — 680)*
H21	M/A	0.20 *0,20*	0.0026 *0,00010*	0.0040 *0,00016*	0.0050 *0,00020*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.024 *0,00095*	0.026 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	160 (150 — 180) *520 (500 — 590)*
H31	M/A	0.20 *0,20*	0.0026 *0,00010*	0.0040 *0,00016*	0.0050 *0,00020*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.024 *0,00095*	0.026 *0,0010*	0.032 *0,0013*	0.036 *0,0014*	120 (110 — 130) *395 (370 — 420)*
GR1	A	0.50 *0,50*	0.0020 *0,000080*	0.0030 *0,00012*	0.0040 *0,00016*	0.0050 *0,00020*	0.0060 *0,00024*	0.0080 *0,00032*	0.010 *0,00040*	0.012 *0,00048*	0.018 *0,00070*	0.020 *0,00080*	0.025 *0,0010*	0.030 *0,0012*	350 (300 — 400) *1150 (990 — 1300)*

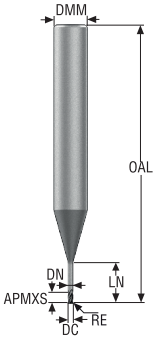
Table based on LV1, please recalc based on length version chosen. See page(s) 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

JME564

Miniature – Universal – Square – 4 Flutes – DMM 6 – Cylindrical – Corner radius





G

- Tolerances:
- Run-out= <0-0,007 mm
- DMM= h5
- DC= 0,-0,013 mm
- RE= ±0,005 mm



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	CA°	PCEDC	Cylindrical
				mm	mm	mm	mm	mm	mm	mm			
JME564005G2R005.0Z4-SIRA	03227166	2	G	0,5	6,0	1,0	50,0	1,5	0,46	0,05	13,48	4	■
JME564006G2R005.0Z4-SIRA	03227271	2	G	0,6	6,0	1,2	50,0	2,0	0,56	0,05	12,9	4	■
JME564008G2R005.0Z4-SIRA	03171194	2	G	0,8	6,0	1,6	50,0	2,5	0,76	0,05	12,28	4	■
JME564010G2R010.0Z4-SIRA	03171195	2	G	1,0	6,0	2,0	50,0	4,0	0,95	0,1	10,85	4	■
JME564012G2R010.0Z4-SIRA	03171196	2	G	1,2	6,0	2,4	50,0	4,5	1,15	0,1	10,31	4	■
JME564015G2R015.0Z4-SIRA	03171197	2	G	1,5	6,0	3,0	50,0	5,0	1,45	0,15	9,67	4	■
JME564020G2R015.0Z4-SIRA	03171198	2	G	2,0	6,0	4,0	50,0	6,0	1,94	0,15	8,53	4	■
JME564025G2R015.0Z4-SIRA	03171199	2	G	2,5	6,0	5,0	60,0	7,5	2,4	0,15	7,15	4	■
JME564030G2R015.0Z4-SIRA	03171200	2	G	3,0	6,0	6,0	60,0	9,0	2,85	0,15	5,81	4	■
JME564005G4R005.0Z4-SIRA	03171201	4	G	0,5	6,0	1,0	50,0	3,5	0,46	0,05	11,54	4	■
JME564006G4R005.0Z4-SIRA	03171202	4	G	0,6	6,0	1,2	50,0	4,2	0,56	0,05	10,93	4	■
JME564008G4R005.0Z4-SIRA	03171203	4	G	0,8	6,0	1,6	50,0	5,6	0,76	0,05	9,81	4	■
JME564010G4R010.0Z4-SIRA	03171204	4	G	1,0	6,0	2,0	50,0	7,0	0,95	0,1	8,86	4	■
JME564012G4R010.0Z4-SIRA	03171205	4	G	1,2	6,0	2,4	50,0	8,4	1,15	0,1	8,0	4	■
JME564015G4R015.0Z4-SIRA	03171206	4	G	1,5	6,0	3,0	50,0	10,5	1,45	0,15	6,86	4	■
JME564020G4R015.0Z4-SIRA	03171207	4	G	2,0	6,0	4,0	60,0	14,0	1,94	0,15	5,36	4	■
JME564030G4R015.0Z4-SIRA	03171209	4	G	3,0	6,0	6,0	70,0	21,0	2,85	0,15	3,22	4	■

■ Stocked standard.

Cutting data – JME564 Side milling roughing

SMG		a_e/DC	a_p/DC	f_z									v_c
				0.5	0.6	0.8	1.0	1.2	1.5	2.0	2.5	3	
P1	M/E/A	0.0500 *0,0500*	0.50 *0,50*	0.010 *0,00040*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	0.024 *0,00095*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	395 (360 — 430) *1300 (1200 — 1400)*
P2	M/E/A	0.0500 *0,0500*	0.50 *0,50*	0.010 *0,00040*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	0.024 *0,00095*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	385 (350 — 420) *1275 (1200 — 1300)*
P3	M/E/A	0.0500 *0,0500*	0.50 *0,50*	0.010 *0,00040*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	0.024 *0,00095*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	330 (300 — 360) *1075 (990 — 1100)*
P4	M/E/A	0.0500 *0,0500*	0.50 *0,50*	0.010 *0,00040*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	0.024 *0,00095*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	290 (260 — 320) *950 (860 — 1000)*
P5	M/E/A	0.0500 *0,0500*	0.50 *0,50*	0.010 *0,00040*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	0.024 *0,00095*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	280 (250 — 300) *920 (830 — 980)*
P6	M/E/A	0.0500 *0,0500*	0.50 *0,50*	0.010 *0,00040*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	0.024 *0,00095*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	310 (280 — 340) *1025 (920 — 1100)*
P7	M/E/A	0.0500 *0,0500*	0.50 *0,50*	0.010 *0,00040*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	0.024 *0,00095*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	295 (270 — 320) *970 (890 — 1000)*
P8	M/E/A	0.0500 *0,0500*	0.50 *0,50*	0.010 *0,00040*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	0.024 *0,00095*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	280 (250 — 300) *920 (830 — 980)*
P11	M/E/A	0.0500 *0,0500*	0.50 *0,50*	0.010 *0,00040*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	0.024 *0,00095*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	285 (260 — 310) *940 (860 — 1000)*
P12	M/E/A	0.0500 *0,0500*	0.50 *0,50*	0.010 *0,00040*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	0.024 *0,00095*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	170 (160 — 180) *560 (530 — 590)*
M1	E/M/A	0.0250 *0,0250*	0.50 *0,50*	0.010 *0,00040*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	0.024 *0,00095*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	235 (200 — 280) *770 (660 — 910)*
M2	E/M/A	0.0250 *0,0250*	0.50 *0,50*	0.010 *0,00040*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	0.024 *0,00095*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	190 (160 — 220) *620 (530 — 720)*
M3	E/M/A	0.0250 *0,0250*	0.50 *0,50*	0.010 *0,00040*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	0.024 *0,00095*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	190 (160 — 220) *620 (530 — 720)*
M4	E/M/A	0.0250 *0,0250*	0.50 *0,50*	0.010 *0,00040*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	0.024 *0,00095*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	145 (120 — 160) *475 (400 — 520)*
M5	E/M/A	0.0250 *0,0250*	0.50 *0,50*	0.010 *0,00040*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	0.024 *0,00095*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	120 (99 — 140) *395 (330 — 450)*
N1	E/M/A	0.100 *0,100*	0.90 *0,90*	0.010 *0,00040*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	0.024 *0,00095*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	550 (490 — 610) *1800 (1700 — 2000)*
N2	E/M/A	0.100 *0,100*	0.90 *0,90*	0.010 *0,00040*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	0.024 *0,00095*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	550 (490 — 610) *1800 (1700 — 2000)*
N3	E/M/A	0.100 *0,100*	0.90 *0,90*	0.010 *0,00040*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	0.024 *0,00095*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	365 (330 — 410) *1200 (1100 — 1300)*
N11	E/M/A	0.100 *0,100*	0.90 *0,90*	0.012 *0,00048*	0.015 *0,00060*	0.020 *0,00080*	0.025 *0,0010*	0.030 *0,0012*	0.038 *0,0015*	0.050 *0,0020*	0.060 *0,0024*	0.075 *0,0030*	490 (430 — 560) *1600 (1500 — 1800)*
S11	E/M/A	0.0500 *0,0500*	0.60 *0,60*	0.010 *0,00040*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	0.024 *0,00095*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	285 (250 — 320) *940 (830 — 1000)*
S12	E/M/A	0.0500 *0,0500*	0.60 *0,60*	0.010 *0,00040*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	0.024 *0,00095*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	220 (190 — 250) *720 (630 — 820)*
S13	E/M/A	0.0500 *0,0500*	0.60 *0,60*	0.010 *0,00040*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	0.024 *0,00095*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	170 (150 — 190) *560 (500 — 620)*
H3	M/A	0.0500 *0,0500*	0.060 *0,060*	0.0090 *0,00036*	0.011 *0,00044*	0.014 *0,00055*	0.018 *0,00070*	0.022 *0,00085*	0.026 *0,0010*	0.036 *0,0014*	0.038 *0,0015*	0.042 *0,0017*	125 (95 — 150) *410 (320 — 490)*
H5	M/A	0.0500 *0,0500*	0.28 *0,28*	0.010 *0,00040*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	0.024 *0,00095*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	240 (210 — 260) *790 (690 — 850)*
H7	M/A	0.0500 *0,0500*	0.060 *0,060*	0.0090 *0,00036*	0.011 *0,00044*	0.014 *0,00055*	0.018 *0,00070*	0.022 *0,00085*	0.026 *0,0010*	0.036 *0,0014*	0.038 *0,0015*	0.042 *0,0017*	125 (95 — 150) *410 (320 — 490)*
H8	M/A	0.0500 *0,0500*	0.28 *0,28*	0.010 *0,00040*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	0.024 *0,00095*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.055 *0,0022*	240 (210 — 260) *790 (690 — 850)*
H11	M/A	0.0500 *0,0500*	0.28 *0,28*	0.010 *0,00040*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	0.024 *0,00095*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	305 (270 — 340) *1000 (890 — 1100)*
H12	M/A	0.0500 *0,0500*	0.28 *0,28*	0.010 *0,00040*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	0.024 *0,00095*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.055 *0,0022*	275 (250 — 310) *900 (830 — 1000)*
H21	M/A	0.0500 *0,0500*	0.28 *0,28*	0.010 *0,00040*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	0.024 *0,00095*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.055 *0,0022*	240 (210 — 260) *790 (690 — 850)*
H31	M/A	0.0500 *0,0500*	0.28 *0,28*	0.010 *0,00040*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	0.024 *0,00095*	0.030 *0,0012*	0.038 *0,0015*	0.044 *0,0017*	0.048 *0,0019*	180 (160 — 200) *590 (530 — 650)*
GR1	A	0.500 *0,500*	0.65 *0,50*	0.0075 *0,00030*	0.0090 *0,00036*	0.012 *0,00048*	0.015 *0,00060*	0.018 *0,00070*	0.020 *0,00085*	0.025 *0,0010*	0.028 *0,0011*	0.032 *0,0013*	390 (340 — 440) *1300 (1200 — 1400)*

Table based on LV1, please recalc based on length version chosen. See page(s) 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

Cutting data – JME564 Slot milling

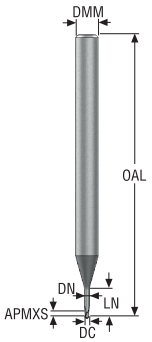
SMG		a_p/DC	f_z									v_c
			0.5	0.6	0.8	1.0	1.2	1.5	2.0	2.5	3	
P1	M/E/A	0.038 *0,038*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.020 *0,00080*	0.026 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	250 (230 — 270) *820 (760 — 880)*
P2	M/E/A	0.038 *0,038*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.020 *0,00080*	0.026 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	245 (220 — 270) *800 (730 — 880)*
P3	M/E/A	0.038 *0,038*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.020 *0,00080*	0.026 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	210 (190 — 230) *690 (630 — 750)*
P4	M/E/A	0.038 *0,038*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.020 *0,00080*	0.026 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	185 (170 — 200) *610 (560 — 650)*
P5	M/E/A	0.038 *0,038*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.020 *0,00080*	0.026 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	175 (160 — 190) *570 (530 — 620)*
P6	M/E/A	0.038 *0,038*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.020 *0,00080*	0.026 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	200 (180 — 220) *660 (600 — 720)*
P7	M/E/A	0.038 *0,038*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.020 *0,00080*	0.026 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	185 (170 — 200) *610 (560 — 650)*
P8	M/E/A	0.038 *0,038*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.020 *0,00080*	0.026 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	175 (160 — 190) *570 (530 — 620)*
P11	M/E/A	0.038 *0,038*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.020 *0,00080*	0.026 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	180 (170 — 200) *590 (560 — 650)*
P12	M/E/A	0.038 *0,038*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.019 *0,00075*	0.024 *0,00095*	0.026 *0,0010*	0.030 *0,0012*	105 (96 — 110) *345 (320 — 360)*
M1	E/M/A	0.038 *0,038*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.020 *0,00080*	0.026 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	135 (110 — 150) *445 (370 — 490)*
M2	E/M/A	0.038 *0,038*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.020 *0,00080*	0.026 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	110 (89 — 120) *360 (300 — 390)*
M3	E/M/A	0.038 *0,038*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.020 *0,00080*	0.026 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	110 (89 — 120) *360 (300 — 390)*
M4	E/M/A	0.038 *0,038*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.020 *0,00080*	0.026 *0,0010*	0.032 *0,0013*	0.038 *0,0015*	80 (67 — 95) *260 (220 — 310)*
M5	E/M/A	0.038 *0,038*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.020 *0,00080*	0.026 *0,0010*	0.032 *0,0013*	0.038 *0,0015*	65 (56 — 79) *215 (190 — 250)*
N1	E/M/A	0.15 *0,15*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.020 *0,00080*	0.026 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	390 (350 — 440) *1275 (1200 — 1400)*
N2	E/M/A	0.15 *0,15*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.020 *0,00080*	0.026 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	390 (350 — 440) *1275 (1200 — 1400)*
N3	E/M/A	0.15 *0,15*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.020 *0,00080*	0.026 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	260 (230 — 290) *850 (760 — 950)*
N11	E/M/A	0.15 *0,15*	0.010 *0,00040*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	0.024 *0,00095*	0.030 *0,0012*	0.040 *0,0016*	0.048 *0,0019*	0.055 *0,0022*	345 (300 — 390) *1125 (990 — 1200)*
S11	E/M/A	0.11 *0,11*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.020 *0,00080*	0.026 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	180 (160 — 200) *590 (530 — 650)*
S12	E/M/A	0.11 *0,11*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.020 *0,00080*	0.026 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	135 (120 — 150) *445 (400 — 490)*
S13	E/M/A	0.11 *0,11*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.020 *0,00080*	0.026 *0,0010*	0.032 *0,0013*	0.036 *0,0014*	105 (92 — 120) *345 (310 — 390)*
H3	M/A	0.0060 *0,0060*	0.0060 *0,00024*	0.0070 *0,00028*	0.0095 *0,00038*	0.012 *0,00048*	0.014 *0,00055*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	80 (59 — 98) *260 (200 — 320)*
H5	M/A	0.020 *0,020*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.020 *0,00080*	0.026 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	160 (140 — 170) *520 (460 — 550)*
H7	M/A	0.0060 *0,0060*	0.0060 *0,00024*	0.0070 *0,00028*	0.0095 *0,00038*	0.012 *0,00048*	0.014 *0,00055*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	80 (59 — 98) *260 (200 — 320)*
H8	M/A	0.020 *0,020*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.020 *0,00080*	0.026 *0,0010*	0.030 *0,0012*	0.032 *0,0013*	160 (140 — 170) *520 (460 — 550)*
H11	M/A	0.020 *0,020*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.020 *0,00080*	0.026 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	200 (180 — 220) *660 (600 — 720)*
H12	M/A	0.020 *0,020*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.020 *0,00080*	0.026 *0,0010*	0.030 *0,0012*	0.032 *0,0013*	185 (170 — 200) *610 (560 — 650)*
H21	M/A	0.020 *0,020*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.020 *0,00080*	0.026 *0,0010*	0.030 *0,0012*	0.032 *0,0013*	160 (140 — 170) *520 (460 — 550)*
H31	M/A	0.020 *0,020*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.019 *0,00075*	0.022 *0,00085*	0.025 *0,0010*	0.028 *0,0011*	120 (110 — 130) *395 (370 — 420)*
GR1	A	0.20 *0,20*	0.0050 *0,00020*	0.0060 *0,00024*	0.0080 *0,00032*	0.010 *0,00040*	0.012 *0,00048*	0.015 *0,00060*	0.020 *0,00080*	0.024 *0,00095*	0.026 *0,0010*	325 (280 — 370) *1075 (920 — 1200)*

Table based on LV1, please recalc based on length version chosen. See page(s) 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

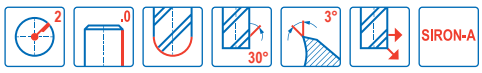
JMB542

Miniature – Universal – Ball nose – 2 Flutes – DMM 4 – Cylindrical



G





- Tolerances:
- Run-out=<0,007 mm
- DMM= h5
- DC= 0,-0,01 mm
- RE= ±0,005 mm

Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	CA°	PCEDC	Cylindrical
				mm	mm	mm	mm	mm	mm	mm			
JMB542002G1B.0Z2-SIRA	03171221	1	G	0,2	4,0	0,2	45,0	0,4	0,18	0,1	14,57	2	■
JMB542003G1B.0Z2-SIRA	03171222	1	G	0,3	4,0	0,3	45,0	0,6	0,28	0,15	14,24	2	■
JMB542004G1B.0Z2-SIRA	03171223	1	G	0,4	4,0	0,4	45,0	0,8	0,37	0,2	13,81	2	■
JMB542005G1B.0Z2-SIRA	03171224	1	G	0,5	4,0	0,5	45,0	1,0	0,46	0,25	13,47	2	■
JMB542006G1B.0Z2-SIRA	03171225	1	G	0,6	4,0	0,6	45,0	1,2	0,56	0,3	13,14	2	■
JMB542008G1B.0Z2-SIRA	03171226	1	G	0,8	4,0	0,8	45,0	1,6	0,76	0,4	12,46	2	■
JMB542010G1B.0Z2-SIRA	03171228	1	G	1,0	4,0	1,0	50,0	2,0	0,95	0,5	11,77	2	■
JMB542012G1B.0Z2-SIRA	03171229	1	G	1,2	4,0	1,2	50,0	2,4	1,15	0,6	11,07	2	■
JMB542015G1B.0Z2-SIRA	03171230	1	G	1,5	4,0	1,5	50,0	3,0	1,45	0,75	9,88	2	■
JMB542005G3B.0Z2-SIRA	03171231	3	G	0,5	4,0	0,5	45,0	2,5	0,46	0,25	11,25	2	■
JMB542006G3B.0Z2-SIRA	03171233	3	G	0,6	4,0	0,6	45,0	3,0	0,56	0,3	10,61	2	■
JMB542008G3B.0Z2-SIRA	03171234	3	G	0,8	4,0	0,8	45,0	4,0	0,76	0,4	9,44	2	■
JMB542010G3B.0Z2-SIRA	03171235	3	G	1,0	4,0	1,0	50,0	5,0	0,95	0,5	8,38	2	■
JMB542012G3B.0Z2-SIRA	03171236	3	G	1,2	4,0	1,2	50,0	6,0	1,15	0,6	7,44	2	■
JMB542015G3B.0Z2-SIRA	03171237	3	G	1,5	4,0	1,5	50,0	7,5	1,45	0,75	6,13	2	■
JMB542020G3B.0Z2-SIRA	03171238	3	G	2,0	4,0	2,0	50,0	10,0	1,94	1,0	4,4	2	■
JMB542030G3B.0Z2-SIRA	03171240	3	G	3,0	4,0	3,0	60,0	15,0	2,85	1,5	1,81	2	■
JMB542005G4B.0Z2-SIRA	03171241	4	G	0,5	4,0	0,5	45,0	4,0	0,46	0,25	9,65	2	■
JMB542006G4B.0Z2-SIRA	03171242	4	G	0,6	4,0	0,6	45,0	5,0	0,56	0,3	8,74	2	■
JMB542008G4B.0Z2-SIRA	03171243	4	G	0,8	4,0	0,8	45,0	7,0	0,76	0,4	7,23	2	■
JMB542010G4B.0Z2-SIRA	03171244	4	G	1,0	4,0	1,0	50,0	8,5	0,95	0,5	6,27	2	■
JMB542012G4B.0Z2-SIRA	03171245	4	G	1,2	4,0	1,2	50,0	10,0	1,15	0,6	5,44	2	■
JMB542015G4B.0Z2-SIRA	03171246	4	G	1,5	4,0	1,5	50,0	12,0	1,45	0,75	4,44	2	■
JMB542020G4B.0Z2-SIRA	03171247	4	G	2,0	4,0	2,0	60,0	16,0	1,94	1,0	3,02	2	■
JMB542030G4B.0Z2-SIRA	03171249	4	G	3,0	4,0	3,0	70,0	24,0	2,85	1,5	1,16	2	■
JMB542015G5B.0Z2-SIRA	03171250	5	G	1,5	4,0	1,5	60,0	15,0	1,45	0,75	3,75	2	■
JMB542020G5B.0Z2-SIRA	03171251	5	G	2,0	4,0	2,0	60,0	20,0	1,94	1,0	2,5	2	■
JMB542030G5B.0Z2-SIRA	03171253	5	G	3,0	4,0	3,0	70,0	30,0	2,85	1,5	0,93	2	■
JMB542015G6B.0Z2-SIRA	03171254	6	G	1,5	4,0	1,5	70,0	22,5	1,45	0,75	2,7	2	■
JMB542020G6B.0Z2-SIRA	03171255	6	G	2,0	4,0	2,0	70,0	30,0	1,94	1,0	1,74	2	■
JMB542030G6B.0Z2-SIRA	03171257	6	G	3,0	4,0	3,0	90,0	45,0	2,85	1,5	0,63	2	■

■ Stocked standard.

Cutting data – JMB542 Copy milling roughing

SMG		a_e/DC	a_p/DC	f_z												v_c
				0.2	0.3	0.4	0.5	0.6	0.8	1.0	1.2	1.8	2.0	2.5	3.0	
P1	M/E/A	0.0500	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	365 (330 — 400)
		0,0500	*0,60*	*0,00016*	*0,00024*	*0,00032*	*0,00040*	*0,00048*	*0,00065*	*0,00080*	*0,00095*	*0,0014*	*0,0016*	*0,0020*	*0,0024*	*1200 (1100 — 1300)*
P2	M/E/A	0.0500	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	355 (320 — 390)
		0,0500	*0,60*	*0,00016*	*0,00024*	*0,00032*	*0,00040*	*0,00048*	*0,00065*	*0,00080*	*0,00095*	*0,0014*	*0,0016*	*0,0020*	*0,0024*	*1175 (1100 — 1200)*
P3	M/E/A	0.0500	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	305 (280 — 330)
		0,0500	*0,60*	*0,00016*	*0,00024*	*0,00032*	*0,00040*	*0,00048*	*0,00065*	*0,00080*	*0,00095*	*0,0014*	*0,0016*	*0,0020*	*0,0024*	*1000 (920 — 1000)*
P4	M/E/A	0.0500	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	270 (240 — 290)
		0,0500	*0,60*	*0,00016*	*0,00024*	*0,00032*	*0,00040*	*0,00048*	*0,00065*	*0,00080*	*0,00095*	*0,0014*	*0,0016*	*0,0020*	*0,0024*	*890 (790 — 950)*
P5	M/E/A	0.0500	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	255 (230 — 280)
		0,0500	*0,60*	*0,00016*	*0,00024*	*0,00032*	*0,00040*	*0,00048*	*0,00065*	*0,00080*	*0,00095*	*0,0014*	*0,0016*	*0,0020*	*0,0024*	*840 (760 — 910)*
P6	M/E/A	0.0500	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	290 (260 — 310)
		0,0500	*0,60*	*0,00016*	*0,00024*	*0,00032*	*0,00040*	*0,00048*	*0,00065*	*0,00080*	*0,00095*	*0,0014*	*0,0016*	*0,0020*	*0,0024*	*950 (860 — 1000)*
P7	M/E/A	0.0500	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	270 (250 — 300)
		0,0500	*0,60*	*0,00016*	*0,00024*	*0,00032*	*0,00040*	*0,00048*	*0,00065*	*0,00080*	*0,00095*	*0,0014*	*0,0016*	*0,0020*	*0,0024*	*890 (830 — 980)*
P8	M/E/A	0.0500	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	255 (230 — 280)
		0,0500	*0,60*	*0,00016*	*0,00024*	*0,00032*	*0,00040*	*0,00048*	*0,00065*	*0,00080*	*0,00095*	*0,0014*	*0,0016*	*0,0020*	*0,0024*	*840 (760 — 910)*
P11	M/E/A	0.0500	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	265 (240 — 290)
		0,0500	*0,60*	*0,00016*	*0,00024*	*0,00032*	*0,00040*	*0,00048*	*0,00065*	*0,00080*	*0,00095*	*0,0014*	*0,0016*	*0,0020*	*0,0024*	*870 (790 — 950)*
P12	M/E/A	0.0500	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	155 (140 — 170)
		0,0500	*0,60*	*0,00016*	*0,00024*	*0,00032*	*0,00040*	*0,00048*	*0,00065*	*0,00080*	*0,00095*	*0,0014*	*0,0016*	*0,0020*	*0,0024*	*510 (460 — 550)*
M1	E/M/A	0.0250	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	215 (180 — 250)
		0,0250	*0,60*	*0,00016*	*0,00024*	*0,00032*	*0,00040*	*0,00048*	*0,00065*	*0,00080*	*0,00095*	*0,0014*	*0,0016*	*0,0020*	*0,0024*	*710 (600 — 820)*
M2	E/M/A	0.0250	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	175 (150 — 200)
		0,0250	*0,60*	*0,00016*	*0,00024*	*0,00032*	*0,00040*	*0,00048*	*0,00065*	*0,00080*	*0,00095*	*0,0014*	*0,0016*	*0,0020*	*0,0024*	*570 (500 — 650)*
M3	E/M/A	0.0250	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	175 (150 — 200)
		0,0250	*0,60*	*0,00016*	*0,00024*	*0,00032*	*0,00040*	*0,00048*	*0,00065*	*0,00080*	*0,00095*	*0,0014*	*0,0016*	*0,0020*	*0,0024*	*570 (500 — 650)*
M4	E/M/A	0.0250	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	130 (110 — 150)
		0,0250	*0,60*	*0,00016*	*0,00024*	*0,00032*	*0,00040*	*0,00048*	*0,00065*	*0,00080*	*0,00095*	*0,0014*	*0,0016*	*0,0020*	*0,0024*	*425 (370 — 490)*
M5	E/M/A	0.0250	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	110 (90 — 120)
		0,0250	*0,60*	*0,00016*	*0,00024*	*0,00032*	*0,00040*	*0,00048*	*0,00065*	*0,00080*	*0,00095*	*0,0014*	*0,0016*	*0,0020*	*0,0024*	*360 (300 — 390)*
N1	E/M/A	0.100	0.75	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	485 (430 — 540)
		0,100	*0,75*	*0,00016*	*0,00024*	*0,00032*	*0,00040*	*0,00048*	*0,00065*	*0,00080*	*0,00095*	*0,0014*	*0,0016*	*0,0020*	*0,0024*	*1600 (1500 — 1700)*
N2	E/M/A	0.100	0.75	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	485 (430 — 540)
		0,100	*0,75*	*0,00016*	*0,00024*	*0,00032*	*0,00040*	*0,00048*	*0,00065*	*0,00080*	*0,00095*	*0,0014*	*0,0016*	*0,0020*	*0,0024*	*1600 (1500 — 1700)*
N3	E/M/A	0.100	0.75	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	325 (290 — 360)
		0,100	*0,75*	*0,00016*	*0,00024*	*0,00032*	*0,00040*	*0,00048*	*0,00065*	*0,00080*	*0,00095*	*0,0014*	*0,0016*	*0,0020*	*0,0024*	*1075 (960 — 1100)*
N11	E/M/A	0.100	0.75	0.0050	0.0075	0.010	0.012	0.015	0.020	0.025	0.030	0.046	0.050	0.060	0.075	430 (370 — 480)
		0,100	*0,75*	*0,00020*	*0,00030*	*0,00040*	*0,00048*	*0,00060*	*0,00080*	*0,0010*	*0,0012*	*0,0018*	*0,0020*	*0,0024*	*0,0030*	*1400 (1300 — 1500)*
S11	E/M/A	0.0250	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	290 (250 — 330)
		0,0250	*0,60*	*0,00016*	*0,00024*	*0,00032*	*0,00040*	*0,00048*	*0,00065*	*0,00080*	*0,00095*	*0,0014*	*0,0016*	*0,0020*	*0,0024*	*950 (830 — 1000)*
S12	E/M/A	0.0250	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	225 (200 — 250)
		0,0250	*0,60*	*0,00016*	*0,00024*	*0,00032*	*0,00040*	*0,00048*	*0,00065*	*0,00080*	*0,00095*	*0,0014*	*0,0016*	*0,0020*	*0,0024*	*740 (660 — 820)*
S13	E/M/A	0.0250	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	175 (150 — 190)
		0,0250	*0,60*	*0,00016*	*0,00024*	*0,00032*	*0,00040*	*0,00048*	*0,00065*	*0,00080*	*0,00095*	*0,0014*	*0,0016*	*0,0020*	*0,0024*	*570 (500 — 620)*
H3	M/A	0.0500	0.30	0.0036	0.0055	0.0070	0.0090	0.011	0.014	0.018	0.022	0.032	0.036	0.044	0.055	120 (90 — 140)
		0,0500	*0,30*	*0,00014*	*0,00022*	*0,00028*	*0,00036*	*0,00044*	*0,00055*	*0,00070*	*0,00085*	*0,0013*	*0,0014*	*0,0017*	*0,0022*	*395 (300 — 450)*
H5	M/A	0.0500	0.44	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	235 (210 — 260)
		0,0500	*0,44*	*0,00016*	*0,00024*	*0,00032*	*0,00040*	*0,00048*	*0,00065*	*0,00080*	*0,00095*	*0,0014*	*0,0016*	*0,0020*	*0,0024*	*770 (690 — 850)*
H7	M/A	0.0500	0.30	0.0036	0.0055	0.0070	0.0090	0.011	0.014	0.018	0.022	0.032	0.036	0.044	0.055	120 (90 — 140)
		0,0500	*0,30*	*0,00014*	*0,00022*	*0,00028*	*0,00036*	*0,00044*	*0,00055*	*0,00070*	*0,00085*	*0,0013*	*0,0014*	*0,0017*	*0,0022*	*395 (300 — 450)*
H8	M/A	0.0500	0.44	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	235 (210 — 260)
		0,0500	*0,44*	*0,00016*	*0,00024*	*0,00032*	*0,00040*	*0,00048*	*0,00065*	*0,00080*	*0,00095*	*0,0014*	*0,0016*	*0,0020*	*0,0024*	*770 (690 — 850)*
H11	M/A	0.0500	0.44	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	300 (270 — 330)
		0,0500	*0,44*	*0,00016*	*0,00024*	*0,00032*	*0,00040*	*0,00048*	*0,00065*	*0,00080*	*0,00095*	*0,0014*	*0,0016*	*0,0020*	*0,0024*	*980 (890 — 1000)*
H12	M/A	0.0500	0.44	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	275 (240 — 300)
		0,0500	*0,44*	*0,00016*	*0,00024*	*0,00032*	*0,00040*	*0,00048*	*0,00065*	*0,00080*	*0,00095*	*0,0014*	*0,0016*	*0,0020*	*0,0024*	*900 (790 — 980)*
H21	M/A	0.0500	0.44	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	235 (210 — 260)
		0,0500	*0,44*	*0,00016*	*0,00024*	*0,00032*	*0,00040*	*0,00048*	*0,00065*	*0,00080*	*0,00095*	*0,0014*	*0,0016*	*0,0020*	*0,0024*	*770 (690 — 850)*
H31	M/A	0.0500	0.44	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	180 (160 — 200)
		0,0500	*0,44*	*0,00016*	*0,00024*	*0,00032*	*0,00040*	*0,00048*	*0,00065*	*0,00080*	*0,00095*	*0,0014*	*0,0016*	*0,0020*	*0,0024*	*590 (530 — 650)*
GR1	A	0.500	0.50	0.0030	0.0044	0.0060	0.0075	0.0090	0.012	0.015	0.018	0.028	0.030	0.038	0.040	405 (350 — 460)
		0,500	*0,50*	*0,00012*	*0,00017*	*0,00024*	*0,00030*	*0,00036*	*0,00048*	*0,00060*	*0,00070*	*0,0011*	*0,0012*	*0,0015*	*0,0016*	*1325 (1200 — 1500)*

Table based on LV1, please recalc based on length version chosen. See page(s) 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

Cutting data – JMB542 Slot milling

SMG		a_p/DC	f_z												v_c
			0.2	0.3	0.4	0.5	0.6	0.8	1.0	1.2	1.8	2.0	2.5	3.0	
P1	M/E/A	0.32 *0,32*	0.0026 *0,00010*	0.0040 *0,00016*	0.0050 *0,00020*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.024 *0,00095*	0.026 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	255 (230 — 280) *840 (760 — 910)*
P2	M/E/A	0.32 *0,32*	0.0026 *0,00010*	0.0040 *0,00016*	0.0050 *0,00020*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.024 *0,00095*	0.026 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	250 (230 — 270) *820 (760 — 880)*
P3	M/E/A	0.32 *0,32*	0.0026 *0,00010*	0.0040 *0,00016*	0.0050 *0,00020*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.024 *0,00095*	0.026 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	215 (200 — 230) *710 (660 — 750)*
P4	M/E/A	0.32 *0,32*	0.0026 *0,00010*	0.0040 *0,00016*	0.0050 *0,00020*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.024 *0,00095*	0.026 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	190 (170 — 200) *620 (560 — 650)*
P5	M/E/A	0.32 *0,32*	0.0026 *0,00010*	0.0040 *0,00016*	0.0050 *0,00020*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.024 *0,00095*	0.026 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	180 (170 — 200) *590 (560 — 650)*
P6	M/E/A	0.32 *0,32*	0.0026 *0,00010*	0.0040 *0,00016*	0.0050 *0,00020*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.024 *0,00095*	0.026 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	200 (180 — 220) *660 (600 — 720)*
P7	M/E/A	0.32 *0,32*	0.0026 *0,00010*	0.0040 *0,00016*	0.0050 *0,00020*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.024 *0,00095*	0.026 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	190 (170 — 210) *620 (560 — 680)*
P8	M/E/A	0.32 *0,32*	0.0026 *0,00010*	0.0040 *0,00016*	0.0050 *0,00020*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.024 *0,00095*	0.026 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	180 (170 — 200) *590 (560 — 650)*
P11	M/E/A	0.32 *0,32*	0.0026 *0,00010*	0.0040 *0,00016*	0.0050 *0,00020*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.024 *0,00095*	0.026 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	185 (170 — 200) *610 (560 — 650)*
P12	M/E/A	0.32 *0,32*	0.0026 *0,00010*	0.0040 *0,00016*	0.0050 *0,00020*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.024 *0,00095*	0.026 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	110 (98 — 120) *360 (330 — 390)*
M1	E/M/A	0.32 *0,32*	0.0026 *0,00010*	0.0040 *0,00016*	0.0050 *0,00020*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.024 *0,00095*	0.026 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	135 (120 — 160) *445 (400 — 520)*
M2	E/M/A	0.32 *0,32*	0.0026 *0,00010*	0.0040 *0,00016*	0.0050 *0,00020*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.024 *0,00095*	0.026 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	110 (90 — 130) *360 (300 — 420)*
M3	E/M/A	0.32 *0,32*	0.0026 *0,00010*	0.0040 *0,00016*	0.0050 *0,00020*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.024 *0,00095*	0.026 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	110 (90 — 130) *360 (300 — 420)*
M4	E/M/A	0.32 *0,32*	0.0026 *0,00010*	0.0040 *0,00016*	0.0050 *0,00020*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.024 *0,00095*	0.026 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	80 (68 — 97) *260 (230 — 310)*
M5	E/M/A	0.32 *0,32*	0.0026 *0,00010*	0.0040 *0,00016*	0.0050 *0,00020*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.024 *0,00095*	0.026 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	70 (57 — 81) *230 (190 — 260)*
N1	E/M/A	0.24 *0,24*	0.0026 *0,00010*	0.0040 *0,00016*	0.0050 *0,00020*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.024 *0,00095*	0.026 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	400 (350 — 440) *1300 (1200 — 1400)*
N2	E/M/A	0.26 *0,26*	0.0026 *0,00010*	0.0040 *0,00016*	0.0050 *0,00020*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.024 *0,00095*	0.026 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	400 (350 — 440) *1300 (1200 — 1400)*
N3	E/M/A	0.26 *0,26*	0.0026 *0,00010*	0.0040 *0,00016*	0.0050 *0,00020*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.024 *0,00095*	0.026 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	265 (240 — 290) *870 (790 — 950)*
N11	E/M/A	0.24 *0,24*	0.0040 *0,00016*	0.0060 *0,00024*	0.0080 *0,00032*	0.010 *0,00040*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	0.024 *0,00095*	0.036 *0,0014*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	350 (300 — 390) *1150 (990 — 1200)*
S11	E/M/A	0.36 *0,36*	0.0026 *0,00010*	0.0040 *0,00016*	0.0050 *0,00020*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.024 *0,00095*	0.026 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	180 (160 — 200) *590 (530 — 650)*
S12	E/M/A	0.36 *0,36*	0.0026 *0,00010*	0.0040 *0,00016*	0.0050 *0,00020*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.024 *0,00095*	0.026 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	140 (120 — 150) *460 (400 — 490)*
S13	E/M/A	0.36 *0,36*	0.0026 *0,00010*	0.0040 *0,00016*	0.0050 *0,00020*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.024 *0,00095*	0.026 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	105 (93 — 120) *345 (310 — 390)*
H3	M/A	0.10 *0,10*	0.0024 *0,000095*	0.0036 *0,00014*	0.0048 *0,00019*	0.0060 *0,00024*	0.0070 *0,00028*	0.0095 *0,00038*	0.012 *0,00048*	0.014 *0,00055*	0.022 *0,00085*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	80 (61 — 100) *260 (210 — 320)*
H5	M/A	0.20 *0,20*	0.0026 *0,00010*	0.0040 *0,00016*	0.0050 *0,00020*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.024 *0,00095*	0.026 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	160 (150 — 180) *520 (500 — 590)*
H7	M/A	0.10 *0,10*	0.0024 *0,000095*	0.0036 *0,00014*	0.0048 *0,00019*	0.0060 *0,00024*	0.0070 *0,00028*	0.0095 *0,00038*	0.012 *0,00048*	0.014 *0,00055*	0.022 *0,00085*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	80 (61 — 100) *260 (210 — 320)*
H8	M/A	0.20 *0,20*	0.0026 *0,00010*	0.0040 *0,00016*	0.0050 *0,00020*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.024 *0,00095*	0.026 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	160 (150 — 180) *520 (500 — 590)*
H11	M/A	0.20 *0,20*	0.0026 *0,00010*	0.0040 *0,00016*	0.0050 *0,00020*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.024 *0,00095*	0.026 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	205 (180 — 230) *670 (600 — 750)*
H12	M/A	0.20 *0,20*	0.0026 *0,00010*	0.0040 *0,00016*	0.0050 *0,00020*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.024 *0,00095*	0.026 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	190 (170 — 210) *620 (560 — 680)*
H21	M/A	0.20 *0,20*	0.0026 *0,00010*	0.0040 *0,00016*	0.0050 *0,00020*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.024 *0,00095*	0.026 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	160 (150 — 180) *520 (500 — 590)*
H31	M/A	0.20 *0,20*	0.0026 *0,00010*	0.0040 *0,00016*	0.0050 *0,00020*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.024 *0,00095*	0.026 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	120 (110 — 130) *395 (370 — 420)*
GR1	A	0.50 *0,50*	0.0020 *0,000080*	0.0030 *0,00012*	0.0040 *0,00016*	0.0050 *0,00020*	0.0060 *0,00024*	0.0080 *0,00032*	0.010 *0,00040*	0.012 *0,00048*	0.018 *0,00070*	0.020 *0,00080*	0.025 *0,0010*	0.030 *0,0012*	350 (300 — 390) *1150 (990 — 1200)*

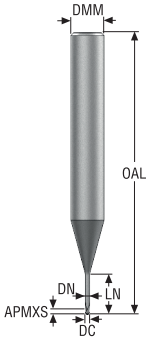
Table based on LV1, please recalc based on length version chosen. See page(s) 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

JMB562

Miniature – Universal – Ball nose – 2 Flutes – DMM 6 – Cylindrical





G

- Tolerances:
- Run-out=<0,007 mm
- DMM= h5
- DC= 0,-0,01 mm
- RE= ±0,005 mm

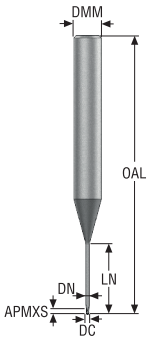


Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	CA°	PCEDC	Cylindrical
				mm	mm	mm	mm	mm	mm	mm			
JMB562005G2B.0Z2-SIRA	03171261	2	G	0,5	6,0	0,5	50,0	1,5	0,46	0,25	13,69	2	■
JMB562006G2B.0Z2-SIRA	03171262	2	G	0,6	6,0	0,6	50,0	2,0	0,56	0,3	13,13	2	■
JMB562008G2B.0Z2-SIRA	03171263	2	G	0,8	6,0	0,8	50,0	2,5	0,76	0,4	12,6	2	■
JMB562010G2B.0Z2-SIRA	03171264	2	G	1,0	6,0	1,0	50,0	4,0	0,95	0,5	11,15	2	■
JMB562012G2B.0Z2-SIRA	03171265	2	G	1,2	6,0	1,2	50,0	4,5	1,15	0,6	10,67	2	■
JMB562015G2B.0Z2-SIRA	03171266	2	G	1,5	6,0	1,5	50,0	5,0	1,45	0,75	10,07	2	■
JMB562018G2B.0Z2-SIRA	03171267	2	G	1,8	6,0	1,8	50,0	5,4	1,75	0,9	9,61	2	■
JMB562020G2B.0Z2-SIRA	03171268	2	G	2,0	6,0	2,0	50,0	6,0	1,94	1,0	9,05	2	■
JMB562025G2B.0Z2-SIRA	03171269	2	G	2,5	6,0	2,5	60,0	7,5	2,4	1,25	7,71	2	■
JMB562030G2B.0Z2-SIRA	03171270	2	G	3,0	6,0	3,0	60,0	9,0	2,85	1,5	6,35	2	■
JMB562005G4B.0Z2-SIRA	03171271	4	G	0,5	6,0	0,5	50,0	3,5	0,46	0,25	11,7	2	■
JMB562006G4B.0Z2-SIRA	03171272	4	G	0,6	6,0	0,6	50,0	4,2	0,56	0,3	11,1	2	■
JMB562008G4B.0Z2-SIRA	03171273	4	G	0,8	6,0	0,8	50,0	5,6	0,76	0,4	10,02	2	■
JMB562010G4B.0Z2-SIRA	03171274	4	G	1,0	6,0	1,0	50,0	7,0	0,95	0,5	9,06	2	■
JMB562012G4B.0Z2-SIRA	03171275	4	G	1,2	6,0	1,2	50,0	8,4	1,15	0,6	8,22	2	■
JMB562015G4B.0Z2-SIRA	03171276	4	G	1,5	6,0	1,5	50,0	10,5	1,45	0,75	7,07	2	■
JMB562020G4B.0Z2-SIRA	03171277	4	G	2,0	6,0	2,0	60,0	14,0	1,94	1,0	5,57	2	■
JMB562030G4B.0Z2-SIRA	03171279	4	G	3,0	6,0	3,0	70,0	21,0	2,85	1,5	3,38	2	■
JMB562005G5B.0Z2-SIRA	03171280	5	G	0,5	6,0	0,5	50,0	5,0	0,46	0,25	10,54	2	■
JMB562006G5B.0Z2-SIRA	03171281	5	G	0,6	6,0	0,6	50,0	6,0	0,56	0,3	9,85	2	■
JMB562008G5B.0Z2-SIRA	03171282	5	G	0,8	6,0	0,8	50,0	8,0	0,76	0,4	8,64	2	■
JMB562010G5B.0Z2-SIRA	03171283	5	G	1,0	6,0	1,0	50,0	10,0	0,95	0,5	7,63	2	■
JMB562012G5B.0Z2-SIRA	03171284	5	G	1,2	6,0	1,2	50,0	12,0	1,15	0,6	6,77	2	■
JMB562015G5B.0Z2-SIRA	03171285	5	G	1,5	6,0	1,5	60,0	15,0	1,45	0,75	5,68	2	■
JMB562020G5B.0Z2-SIRA	03171287	5	G	2,0	6,0	2,0	60,0	20,0	1,94	1,0	4,32	2	■
JMB562030G5B.0Z2-SIRA	03171289	5	G	3,0	6,0	3,0	70,0	30,0	2,85	1,5	2,5	2	■

■ Stocked standard.

JMB562

Miniature – Universal – Ball nose – 2 Flutes – DMM 6 – Cylindrical



G





- Tolerances:
- Run-out=<0,007 mm
- DMM= h5
- DC= 0,-0,01 mm
- RE= ±0,005 mm

Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	CA°	PCEDC	Cylindrical
				mm	mm	mm	mm	mm	mm	mm			
JMB562010G6B.0Z2-SIRA	03171290	6	G	1,0	6,0	1,0	60,0	15,0	0,95	0,5	6,04	2	■
JMB562012G6B.0Z2-SIRA	03171291	6	G	1,2	6,0	1,2	60,0	18,0	1,15	0,6	5,24	2	■
JMB562015G6B.0Z2-SIRA	03171292	6	G	1,5	6,0	1,5	70,0	22,5	1,45	0,75	4,28	2	■
JMB562020G6B.0Z2-SIRA	03171293	6	G	2,0	6,0	2,0	80,0	30,0	1,94	1,0	3,14	2	■
JMB562030G6B.0Z2-SIRA	03171295	6	G	3,0	6,0	3,0	90,0	45,0	2,85	1,5	1,74	2	■
JMB562010G7B.0Z2-SIRA	03171296	7	G	1,0	6,0	1,0	60,0	20,0	0,95	0,5	4,99	2	■
JMB562012G7B.0Z2-SIRA	03171297	7	G	1,2	6,0	1,2	80,0	24,0	1,15	0,6	4,27	2	■
JMB562015G7B.0Z2-SIRA	03171298	7	G	1,5	6,0	1,5	80,0	30,0	1,45	0,75	3,43	2	■
JMB562020G7B.0Z2-SIRA	03171299	7	G	2,0	6,0	2,0	80,0	40,0	1,94	1,0	2,47	2	■
JMB562030G7B.0Z2-SIRA	03171301	7	G	3,0	6,0	3,0	100,0	60,0	2,85	1,5	1,34	2	■

■ Stocked standard.

Cutting data – JMB562 Copy milling roughing

SMG		a_e/DC	a_p/DC	f_z												v_c
				0.2	0.3	0.4	0.5	0.6	0.8	1.0	1.2	1.8	2.0	2.5	3.0	
P1	M/E/A	0.0500	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	365 (330 — 400)
		0,0500	*0,60*	*0,00016*	*0,00024*	*0,00032*	*0,00040*	*0,00048*	*0,00065*	*0,00080*	*0,00095*	*0,0014*	*0,0016*	*0,0020*	*0,0024*	*1200 (1100 — 1300)*
P2	M/E/A	0.0500	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	355 (320 — 390)
		0,0500	*0,60*	*0,00016*	*0,00024*	*0,00032*	*0,00040*	*0,00048*	*0,00065*	*0,00080*	*0,00095*	*0,0014*	*0,0016*	*0,0020*	*0,0024*	*1175 (1100 — 1200)*
P3	M/E/A	0.0500	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	305 (280 — 330)
		0,0500	*0,60*	*0,00016*	*0,00024*	*0,00032*	*0,00040*	*0,00048*	*0,00065*	*0,00080*	*0,00095*	*0,0014*	*0,0016*	*0,0020*	*0,0024*	*1000 (920 — 1100)*
P4	M/E/A	0.0500	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	270 (240 — 290)
		0,0500	*0,60*	*0,00016*	*0,00024*	*0,00032*	*0,00040*	*0,00048*	*0,00065*	*0,00080*	*0,00095*	*0,0014*	*0,0016*	*0,0020*	*0,0024*	*890 (790 — 950)*
P5	M/E/A	0.0500	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	255 (230 — 280)
		0,0500	*0,60*	*0,00016*	*0,00024*	*0,00032*	*0,00040*	*0,00048*	*0,00065*	*0,00080*	*0,00095*	*0,0014*	*0,0016*	*0,0020*	*0,0024*	*840 (760 — 910)*
P6	M/E/A	0.0500	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	290 (260 — 310)
		0,0500	*0,60*	*0,00016*	*0,00024*	*0,00032*	*0,00040*	*0,00048*	*0,00065*	*0,00080*	*0,00095*	*0,0014*	*0,0016*	*0,0020*	*0,0024*	*950 (860 — 1000)*
P7	M/E/A	0.0500	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	270 (250 — 300)
		0,0500	*0,60*	*0,00016*	*0,00024*	*0,00032*	*0,00040*	*0,00048*	*0,00065*	*0,00080*	*0,00095*	*0,0014*	*0,0016*	*0,0020*	*0,0024*	*890 (830 — 980)*
P8	M/E/A	0.0500	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	255 (230 — 280)
		0,0500	*0,60*	*0,00016*	*0,00024*	*0,00032*	*0,00040*	*0,00048*	*0,00065*	*0,00080*	*0,00095*	*0,0014*	*0,0016*	*0,0020*	*0,0024*	*840 (760 — 910)*
P11	M/E/A	0.0500	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	265 (240 — 290)
		0,0500	*0,60*	*0,00016*	*0,00024*	*0,00032*	*0,00040*	*0,00048*	*0,00065*	*0,00080*	*0,00095*	*0,0014*	*0,0016*	*0,0020*	*0,0024*	*870 (790 — 950)*
P12	M/E/A	0.0500	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	155 (140 — 170)
		0,0500	*0,60*	*0,00016*	*0,00024*	*0,00032*	*0,00040*	*0,00048*	*0,00065*	*0,00080*	*0,00095*	*0,0014*	*0,0016*	*0,0020*	*0,0024*	*510 (460 — 550)*
M1	E/M/A	0.0250	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	215 (180 — 250)
		0,0250	*0,60*	*0,00016*	*0,00024*	*0,00032*	*0,00040*	*0,00048*	*0,00065*	*0,00080*	*0,00095*	*0,0014*	*0,0016*	*0,0020*	*0,0024*	*710 (600 — 820)*
M2	E/M/A	0.0250	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	175 (150 — 200)
		0,0250	*0,60*	*0,00016*	*0,00024*	*0,00032*	*0,00040*	*0,00048*	*0,00065*	*0,00080*	*0,00095*	*0,0014*	*0,0016*	*0,0020*	*0,0024*	*570 (500 — 650)*
M3	E/M/A	0.0250	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	175 (150 — 200)
		0,0250	*0,60*	*0,00016*	*0,00024*	*0,00032*	*0,00040*	*0,00048*	*0,00065*	*0,00080*	*0,00095*	*0,0014*	*0,0016*	*0,0020*	*0,0024*	*570 (500 — 650)*
M4	E/M/A	0.0250	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	130 (110 — 150)
		0,0250	*0,60*	*0,00016*	*0,00024*	*0,00032*	*0,00040*	*0,00048*	*0,00065*	*0,00080*	*0,00095*	*0,0014*	*0,0016*	*0,0020*	*0,0024*	*425 (370 — 490)*
M5	E/M/A	0.0250	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	110 (90 — 120)
		0,0250	*0,60*	*0,00016*	*0,00024*	*0,00032*	*0,00040*	*0,00048*	*0,00065*	*0,00080*	*0,00095*	*0,0014*	*0,0016*	*0,0020*	*0,0024*	*360 (300 — 390)*
N1	E/M/A	0.100	0.75	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	485 (430 — 540)
		0,100	*0,75*	*0,00016*	*0,00024*	*0,00032*	*0,00040*	*0,00048*	*0,00065*	*0,00080*	*0,00095*	*0,0014*	*0,0016*	*0,0020*	*0,0024*	*1600 (1500 — 1700)*
N2	E/M/A	0.100	0.75	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	485 (430 — 540)
		0,100	*0,75*	*0,00016*	*0,00024*	*0,00032*	*0,00040*	*0,00048*	*0,00065*	*0,00080*	*0,00095*	*0,0014*	*0,0016*	*0,0020*	*0,0024*	*1600 (1500 — 1700)*
N3	E/M/A	0.100	0.75	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	325 (290 — 360)
		0,100	*0,75*	*0,00016*	*0,00024*	*0,00032*	*0,00040*	*0,00048*	*0,00065*	*0,00080*	*0,00095*	*0,0014*	*0,0016*	*0,0020*	*0,0024*	*1075 (960 — 1100)*
N11	E/M/A	0.100	0.75	0.0050	0.0075	0.010	0.012	0.015	0.020	0.025	0.030	0.046	0.050	0.060	0.075	430 (370 — 480)
		0,100	*0,75*	*0,00020*	*0,00030*	*0,00040*	*0,00048*	*0,00060*	*0,00080*	*0,0010*	*0,0012*	*0,0018*	*0,0020*	*0,0024*	*0,0030*	*1400 (1300 — 1500)*
S11	E/M/A	0.0250	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	290 (250 — 330)
		0,0250	*0,60*	*0,00016*	*0,00024*	*0,00032*	*0,00040*	*0,00048*	*0,00065*	*0,00080*	*0,00095*	*0,0014*	*0,0016*	*0,0020*	*0,0024*	*950 (830 — 1000)*
S12	E/M/A	0.0250	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	225 (200 — 250)
		0,0250	*0,60*	*0,00016*	*0,00024*	*0,00032*	*0,00040*	*0,00048*	*0,00065*	*0,00080*	*0,00095*	*0,0014*	*0,0016*	*0,0020*	*0,0024*	*740 (660 — 820)*
S13	E/M/A	0.0250	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	175 (150 — 190)
		0,0250	*0,60*	*0,00016*	*0,00024*	*0,00032*	*0,00040*	*0,00048*	*0,00065*	*0,00080*	*0,00095*	*0,0014*	*0,0016*	*0,0020*	*0,0024*	*570 (500 — 620)*
H3	M/A	0.0500	0.30	0.0036	0.0055	0.0070	0.0090	0.011	0.014	0.018	0.022	0.032	0.036	0.044	0.055	120 (90 — 140)
		0,0500	*0,30*	*0,00014*	*0,00022*	*0,00028*	*0,00036*	*0,00044*	*0,00055*	*0,00070*	*0,00085*	*0,0013*	*0,0014*	*0,0017*	*0,0022*	*395 (300 — 450)*
H5	M/A	0.0500	0.44	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	235 (210 — 260)
		0,0500	*0,44*	*0,00016*	*0,00024*	*0,00032*	*0,00040*	*0,00048*	*0,00065*	*0,00080*	*0,00095*	*0,0014*	*0,0016*	*0,0020*	*0,0024*	*770 (690 — 850)*
H7	M/A	0.0500	0.30	0.0036	0.0055	0.0070	0.0090	0.011	0.014	0.018	0.022	0.032	0.036	0.044	0.055	120 (90 — 140)
		0,0500	*0,30*	*0,00014*	*0,00022*	*0,00028*	*0,00036*	*0,00044*	*0,00055*	*0,00070*	*0,00085*	*0,0013*	*0,0014*	*0,0017*	*0,0022*	*395 (300 — 450)*
H8	M/A	0.0500	0.44	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	235 (210 — 260)
		0,0500	*0,44*	*0,00016*	*0,00024*	*0,00032*	*0,00040*	*0,00048*	*0,00065*	*0,00080*	*0,00095*	*0,0014*	*0,0016*	*0,0020*	*0,0024*	*770 (690 — 850)*
H11	M/A	0.0500	0.44	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	300 (270 — 330)
		0,0500	*0,44*	*0,00016*	*0,00024*	*0,00032*	*0,00040*	*0,00048*	*0,00065*	*0,00080*	*0,00095*	*0,0014*	*0,0016*	*0,0020*	*0,0024*	*980 (890 — 1000)*
H12	M/A	0.0500	0.44	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	275 (240 — 300)
		0,0500	*0,44*	*0,00016*	*0,00024*	*0,00032*	*0,00040*	*0,00048*	*0,00065*	*0,00080*	*0,00095*	*0,0014*	*0,0016*	*0,0020*	*0,0024*	*900 (790 — 980)*
H21	M/A	0.0500	0.44	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	235 (210 — 260)
		0,0500	*0,44*	*0,00016*	*0,00024*	*0,00032*	*0,00040*	*0,00048*	*0,00065*	*0,00080*	*0,00095*	*0,0014*	*0,0016*	*0,0020*	*0,0024*	*770 (690 — 850)*
H31	M/A	0.0500	0.44	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	180 (160 — 200)
		0,0500	*0,44*	*0,00016*	*0,00024*	*0,00032*	*0,00040*	*0,00048*	*0,00065*	*0,00080*	*0,00095*	*0,0014*	*0,0016*	*0,0020*	*0,0024*	*590 (530 — 650)*
GR1	A	0.500	0.50	0.0030	0.0044	0.0060	0.0075	0.0090	0.012	0.015	0.018	0.028	0.030	0.038	0.040	405 (350 — 460)
		0,500	*0,50*	*0,00012*	*0,00017*	*0,00024*	*0,00030*	*0,00036*	*0,00048*	*0,00060*	*0,00070*	*0,0011*	*0,0012*	*0,0015*	*0,0016*	*1325 (1200 — 1500)*

Table based on LV1, please recalc based on length version chosen. See page(s) 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

Cutting data – JMB562 Slot milling

SMG		a_p/DC	f_z												v_c
			0.2	0.3	0.4	0.5	0.6	0.8	1.0	1.2	1.8	2.0	2.5	3.0	
P1	M/E/A	0.32 *0,32*	0.0026 *0,00010*	0.0040 *0,00016*	0.0050 *0,00020*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.024 *0,00095*	0.026 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	255 (230 — 280) *840 (760 — 910)*
P2	M/E/A	0.32 *0,32*	0.0026 *0,00010*	0.0040 *0,00016*	0.0050 *0,00020*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.024 *0,00095*	0.026 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	250 (230 — 270) *820 (760 — 880)*
P3	M/E/A	0.32 *0,32*	0.0026 *0,00010*	0.0040 *0,00016*	0.0050 *0,00020*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.024 *0,00095*	0.026 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	215 (200 — 230) *710 (660 — 750)*
P4	M/E/A	0.32 *0,32*	0.0026 *0,00010*	0.0040 *0,00016*	0.0050 *0,00020*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.024 *0,00095*	0.026 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	190 (170 — 200) *620 (560 — 650)*
P5	M/E/A	0.32 *0,32*	0.0026 *0,00010*	0.0040 *0,00016*	0.0050 *0,00020*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.024 *0,00095*	0.026 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	180 (170 — 200) *590 (560 — 650)*
P6	M/E/A	0.32 *0,32*	0.0026 *0,00010*	0.0040 *0,00016*	0.0050 *0,00020*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.024 *0,00095*	0.026 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	200 (180 — 220) *660 (600 — 720)*
P7	M/E/A	0.32 *0,32*	0.0026 *0,00010*	0.0040 *0,00016*	0.0050 *0,00020*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.024 *0,00095*	0.026 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	190 (170 — 210) *620 (560 — 680)*
P8	M/E/A	0.32 *0,32*	0.0026 *0,00010*	0.0040 *0,00016*	0.0050 *0,00020*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.024 *0,00095*	0.026 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	180 (170 — 200) *590 (560 — 650)*
P11	M/E/A	0.32 *0,32*	0.0026 *0,00010*	0.0040 *0,00016*	0.0050 *0,00020*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.024 *0,00095*	0.026 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	185 (170 — 200) *610 (560 — 650)*
P12	M/E/A	0.32 *0,32*	0.0026 *0,00010*	0.0040 *0,00016*	0.0050 *0,00020*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.024 *0,00095*	0.026 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	110 (98 — 120) *360 (330 — 390)*
M1	E/M/A	0.32 *0,32*	0.0026 *0,00010*	0.0040 *0,00016*	0.0050 *0,00020*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.024 *0,00095*	0.026 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	135 (120 — 160) *445 (400 — 520)*
M2	E/M/A	0.32 *0,32*	0.0026 *0,00010*	0.0040 *0,00016*	0.0050 *0,00020*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.024 *0,00095*	0.026 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	110 (90 — 130) *360 (300 — 420)*
M3	E/M/A	0.32 *0,32*	0.0026 *0,00010*	0.0040 *0,00016*	0.0050 *0,00020*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.024 *0,00095*	0.026 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	110 (90 — 130) *360 (300 — 420)*
M4	E/M/A	0.32 *0,32*	0.0026 *0,00010*	0.0040 *0,00016*	0.0050 *0,00020*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.024 *0,00095*	0.026 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	80 (68 — 97) *260 (230 — 310)*
M5	E/M/A	0.32 *0,32*	0.0026 *0,00010*	0.0040 *0,00016*	0.0050 *0,00020*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.024 *0,00095*	0.026 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	70 (57 — 81) *230 (190 — 260)*
N1	E/M/A	0.24 *0,24*	0.0026 *0,00010*	0.0040 *0,00016*	0.0050 *0,00020*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.024 *0,00095*	0.026 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	400 (350 — 440) *1300 (1200 — 1400)*
N2	E/M/A	0.26 *0,26*	0.0026 *0,00010*	0.0040 *0,00016*	0.0050 *0,00020*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.024 *0,00095*	0.026 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	400 (350 — 440) *1300 (1200 — 1400)*
N3	E/M/A	0.26 *0,26*	0.0026 *0,00010*	0.0040 *0,00016*	0.0050 *0,00020*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.024 *0,00095*	0.026 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	265 (240 — 290) *870 (790 — 950)*
N11	E/M/A	0.24 *0,24*	0.0040 *0,00016*	0.0060 *0,00024*	0.0080 *0,00032*	0.010 *0,00040*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	0.024 *0,00095*	0.036 *0,0014*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	350 (300 — 390) *1150 (990 — 1200)*
S11	E/M/A	0.36 *0,36*	0.0026 *0,00010*	0.0040 *0,00016*	0.0050 *0,00020*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.024 *0,00095*	0.026 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	180 (160 — 200) *590 (530 — 650)*
S12	E/M/A	0.36 *0,36*	0.0026 *0,00010*	0.0040 *0,00016*	0.0050 *0,00020*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.024 *0,00095*	0.026 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	140 (120 — 150) *460 (400 — 490)*
S13	E/M/A	0.36 *0,36*	0.0026 *0,00010*	0.0040 *0,00016*	0.0050 *0,00020*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.024 *0,00095*	0.026 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	105 (93 — 120) *345 (310 — 390)*
H3	M/A	0.10 *0,10*	0.0024 *0,000095*	0.0036 *0,00014*	0.0048 *0,00019*	0.0060 *0,00024*	0.0070 *0,00028*	0.0095 *0,00038*	0.012 *0,00048*	0.014 *0,00055*	0.022 *0,00085*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	80 (61 — 100) *260 (210 — 320)*
H5	M/A	0.20 *0,20*	0.0026 *0,00010*	0.0040 *0,00016*	0.0050 *0,00020*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.024 *0,00095*	0.026 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	160 (150 — 180) *520 (500 — 590)*
H7	M/A	0.10 *0,10*	0.0024 *0,000095*	0.0036 *0,00014*	0.0048 *0,00019*	0.0060 *0,00024*	0.0070 *0,00028*	0.0095 *0,00038*	0.012 *0,00048*	0.014 *0,00055*	0.022 *0,00085*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	80 (61 — 100) *260 (210 — 320)*
H8	M/A	0.20 *0,20*	0.0026 *0,00010*	0.0040 *0,00016*	0.0050 *0,00020*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.024 *0,00095*	0.026 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	160 (150 — 180) *520 (500 — 590)*
H11	M/A	0.20 *0,20*	0.0026 *0,00010*	0.0040 *0,00016*	0.0050 *0,00020*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.024 *0,00095*	0.026 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	205 (180 — 230) *670 (600 — 750)*
H12	M/A	0.20 *0,20*	0.0026 *0,00010*	0.0040 *0,00016*	0.0050 *0,00020*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.024 *0,00095*	0.026 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	190 (170 — 210) *620 (560 — 680)*
H21	M/A	0.20 *0,20*	0.0026 *0,00010*	0.0040 *0,00016*	0.0050 *0,00020*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.024 *0,00095*	0.026 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	160 (150 — 180) *520 (500 — 590)*
H31	M/A	0.20 *0,20*	0.0026 *0,00010*	0.0040 *0,00016*	0.0050 *0,00020*	0.0065 *0,00026*	0.0080 *0,00032*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.024 *0,00095*	0.026 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	120 (110 — 130) *395 (370 — 420)*
GR1	A	0.50 *0,50*	0.0020 *0,000080*	0.0030 *0,00012*	0.0040 *0,00016*	0.0050 *0,00020*	0.0060 *0,00024*	0.0080 *0,00032*	0.010 *0,00040*	0.012 *0,00048*	0.018 *0,00070*	0.020 *0,00080*	0.025 *0,0010*	0.030 *0,0012*	350 (300 — 390) *1150 (990 — 1200)*

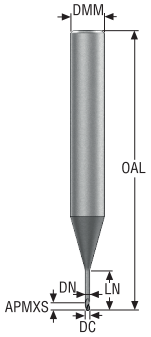
Table based on LV1, please recalc based on length version chosen. See page(s) 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

JMB563

Miniature – Universal – Ball nose – 3 Flutes – DMM 6 – Cylindrical





G

- Tolerances:
- Run-out=<0,007 mm
- DMM= h5
- DC= 0,-0,02 mm
- RE= ±0,01 mm



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	CA°	PCEDC	Cylindrical
				mm	mm	mm	mm	mm	mm	mm			
JMB563010G2B.0Z3-SIRA	03171307	2	G	1,0	6,0	1,0	50,0	4,0	0,95	0,5	11,15	3	■
JMB563012G2B.0Z3-SIRA	03171308	2	G	1,2	6,0	1,2	50,0	4,5	1,15	0,6	10,67	3	■
JMB563015G2B.0Z3-SIRA	03171309	2	G	1,5	6,0	1,5	50,0	5,0	1,45	0,75	10,07	3	■
JMB563020G2B.0Z3-SIRA	03171310	2	G	2,0	6,0	2,0	50,0	6,0	1,94	1,0	9,05	3	■
JMB563025G2B.0Z3-SIRA	03171311	2	G	2,5	6,0	2,5	60,0	7,5	2,4	1,25	7,71	3	■
JMB563030G2B.0Z3-SIRA	03171312	2	G	3,0	6,0	3,0	60,0	9,0	2,85	1,5	6,35	3	■
JMB563010G4B.0Z3-SIRA	03171316	4	G	1,0	6,0	1,0	50,0	7,0	0,95	0,5	9,06	3	■
JMB563012G4B.0Z3-SIRA	03171317	4	G	1,2	6,0	1,2	50,0	8,4	1,15	0,6	8,22	3	■
JMB563015G4B.0Z3-SIRA	03171318	4	G	1,5	6,0	1,5	50,0	10,5	1,45	0,75	7,07	3	■
JMB563020G4B.0Z3-SIRA	03171319	4	G	2,0	6,0	2,0	60,0	14,0	1,94	1,0	5,57	3	■
JMB563030G4B.0Z3-SIRA	03171321	4	G	3,0	6,0	3,0	70,0	21,0	2,85	1,5	3,38	3	■

■ Stocked standard.

Cutting data – JMB563 Copy milling roughing

SMG		a_e/DC	a_p/DC	f_z						v_c
				1	1.2	1.5	2.0	2.5	3.0	
P1	M/E/A	0.0500 *0,0500*	0.38 *0,38*	0.020 *0,00080*	0.024 *0,00095*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	460 (410 — 500) *1500 (1400 — 1600)*
P2	M/E/A	0.0500 *0,0500*	0.38 *0,38*	0.020 *0,00080*	0.024 *0,00095*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	445 (400 — 490) *1450 (1400 — 1600)*
P3	M/E/A	0.0500 *0,0500*	0.38 *0,38*	0.020 *0,00080*	0.024 *0,00095*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	385 (350 — 420) *1275 (1200 — 1300)*
P4	M/E/A	0.0500 *0,0500*	0.38 *0,38*	0.020 *0,00080*	0.024 *0,00095*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	340 (310 — 370) *1125 (1100 — 1200)*
P5	M/E/A	0.0500 *0,0500*	0.38 *0,38*	0.020 *0,00080*	0.024 *0,00095*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	325 (290 — 350) *1075 (960 — 1100)*
P6	M/E/A	0.0500 *0,0500*	0.38 *0,38*	0.020 *0,00080*	0.024 *0,00095*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	365 (330 — 400) *1200 (1100 — 1300)*
P7	M/E/A	0.0500 *0,0500*	0.38 *0,38*	0.020 *0,00080*	0.024 *0,00095*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	340 (310 — 380) *1125 (1100 — 1200)*
P8	M/E/A	0.0500 *0,0500*	0.38 *0,38*	0.020 *0,00080*	0.024 *0,00095*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	325 (290 — 350) *1075 (960 — 1100)*
P11	M/E/A	0.0250 *0,0250*	0.38 *0,38*	0.020 *0,00080*	0.024 *0,00095*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	230 (190 — 270) *750 (630 — 880)*
P12	M/E/A	0.0250 *0,0250*	0.38 *0,38*	0.020 *0,00080*	0.024 *0,00095*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	135 (120 — 160) *445 (400 — 520)*
M1	E/M/A	0.0250 *0,0250*	0.38 *0,38*	0.020 *0,00080*	0.024 *0,00095*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	270 (230 — 320) *890 (760 — 1000)*
M2	E/M/A	0.0250 *0,0250*	0.38 *0,38*	0.020 *0,00080*	0.024 *0,00095*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	220 (180 — 250) *720 (600 — 820)*
M3	E/M/A	0.0250 *0,0250*	0.38 *0,38*	0.020 *0,00080*	0.024 *0,00095*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	220 (180 — 250) *720 (600 — 820)*
M4	E/M/A	0.0250 *0,0250*	0.38 *0,38*	0.020 *0,00080*	0.024 *0,00095*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	165 (140 — 190) *540 (460 — 620)*
M5	E/M/A	0.0250 *0,0250*	0.38 *0,38*	0.020 *0,00080*	0.024 *0,00095*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	135 (120 — 160) *445 (400 — 520)*
N1	E/M/A	0.100 *0,100*	0.65 *0,65*	0.020 *0,00080*	0.024 *0,00095*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	590 (520 — 660) *1925 (1800 — 2100)*
N2	E/M/A	0.100 *0,100*	0.65 *0,65*	0.020 *0,00080*	0.024 *0,00095*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	590 (520 — 660) *1925 (1800 — 2100)*
N3	E/M/A	0.100 *0,100*	0.65 *0,65*	0.020 *0,00080*	0.024 *0,00095*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	395 (350 — 440) *1300 (1200 — 1400)*
N11	E/M/A	0.100 *0,100*	0.65 *0,65*	0.025 *0,0010*	0.030 *0,0012*	0.038 *0,0015*	0.050 *0,0020*	0.060 *0,0024*	0.075 *0,0030*	520 (450 — 590) *1700 (1500 — 1900)*
S11	E/M/A	0.0250 *0,0250*	0.46 *0,46*	0.020 *0,00080*	0.024 *0,00095*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	345 (300 — 390) *1125 (990 — 1200)*
S12	E/M/A	0.0250 *0,0250*	0.46 *0,46*	0.020 *0,00080*	0.024 *0,00095*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	265 (230 — 300) *870 (760 — 980)*
S13	E/M/A	0.0250 *0,0250*	0.46 *0,46*	0.020 *0,00080*	0.024 *0,00095*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	205 (180 — 230) *670 (600 — 750)*
H3	M/A	0.0250 *0,0250*	0.095 *0,095*	0.018 *0,00070*	0.022 *0,00085*	0.026 *0,0010*	0.036 *0,0014*	0.044 *0,0017*	0.055 *0,0022*	155 (120 — 190) *510 (400 — 620)*
H5	M/A	0.0500 *0,0500*	0.22 *0,22*	0.020 *0,00080*	0.024 *0,00095*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	295 (260 — 330) *970 (860 — 1000)*
H7	M/A	0.0250 *0,0250*	0.095 *0,095*	0.018 *0,00070*	0.022 *0,00085*	0.026 *0,0010*	0.036 *0,0014*	0.044 *0,0017*	0.055 *0,0022*	155 (120 — 190) *510 (400 — 620)*
H8	M/A	0.0500 *0,0500*	0.22 *0,22*	0.020 *0,00080*	0.024 *0,00095*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	295 (260 — 330) *970 (860 — 1000)*
H11	M/A	0.0500 *0,0500*	0.22 *0,22*	0.020 *0,00080*	0.024 *0,00095*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	375 (330 — 420) *1225 (1100 — 1300)*
H12	M/A	0.0500 *0,0500*	0.22 *0,22*	0.020 *0,00080*	0.024 *0,00095*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	345 (310 — 380) *1125 (1100 — 1200)*
H21	M/A	0.0500 *0,0500*	0.22 *0,22*	0.020 *0,00080*	0.024 *0,00095*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	295 (260 — 330) *970 (860 — 1000)*
H31	M/A	0.0500 *0,0500*	0.22 *0,22*	0.020 *0,00080*	0.024 *0,00095*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	225 (200 — 250) *740 (660 — 820)*
GR1	A	0.500 *0,500*	0.50 *0,50*	0.015 *0,00060*	0.018 *0,00070*	0.022 *0,00085*	0.030 *0,0012*	0.038 *0,0015*	0.040 *0,0016*	450 (390 — 510) *1475 (1300 — 1600)*

Table based on LV1, please recalc based on length version chosen. See page(s)

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values



STEEL AND CAST IRON

Seco offers a complete range of high performance solid carbide square shoulder end mills, ballnose cutters and finish end mills for high productivity in steel and cast iron.

- JHP993, JHP951 and JH142 for chamfer or radius type.
- JHB970, JH112, JH150, JH160 for ball-nose type.

Tool selection Steel and cast iron

					
Name		JHP993	JHP951	JH142	JHB970
Page(s)		193	199	203, 395	145, 206
Family name		HPM	HPM	HSM/TORNADO	HSM/TORNADO
Type of mill					
Shank	Cylindrical	■	■	■	■
	Weldon	■	■		
Number of Flutes		3,4,5	3,4,5	2-4-5-6	2
ICC					
Diameter range	Metric	4-25	3-20	2-12	2-16
	Inch				
Length availability		2,3	2	2,3,6	1,2,3
Operation					
					
					
SMG					
P1		●	●	●	●
P2		●	●	●	●
P3		●	●	●	●
P4		●	●	●	●
P5		●	●	●	●
P6		●	●	●	●
P7		●	●	●	●
P8		●	●	●	●
P11-12		○	○	●	○
K1		●	●	●	
K2		●	●	●	
K3		●	●	●	
K4		●	●	●	
K5		●	●	●	
K6		●	●	●	
K7		●	●	●	

■ Stock standard ☐ Weldon available, delivery time is 3 days.
● Preferred choice ○ Alternative choice

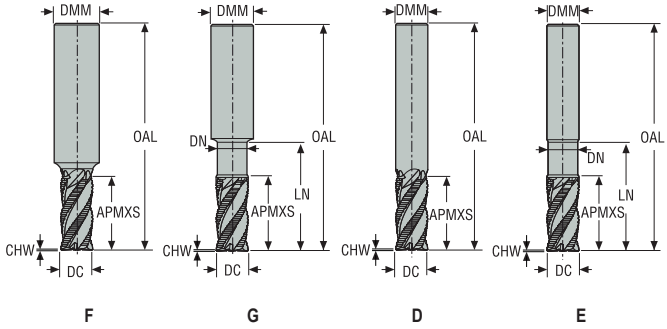
Tool selection Steel and cast iron

				
Name		JH112	JH150	JH160
Page(s)		208, 398	401	403
Family name		HSM/TORNADO	HSM/TORNADO	HSM/TORNADO
Type of mill				
Shank	Cylindrical	■	■	■
	Weldon			
Number of Flutes		2	4	4
ICC				
Diameter range	Metric	2-12	6-12	3-12
	Inch			
Length availability		1,2,3,4,5,6	2	2
Operation				
				
SMG				
P1				●
P2				●
P3				●
P4				●
P5				●
P6				●
P7				●
P8				●
P11-12				○
K1		●	●	
K2		●	●	
K3		●	●	
K4		●	●	
K5		●	●	
K6		●	●	
K7		●	●	

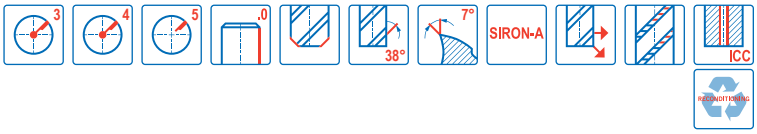
■ Stock standard ☐ Weldon available, delivery time is 3 days.
● Preferred choice ○ Alternative choice

JHP993

High performance – Steel – Square – 3-5 Flutes – Cylindrical – Chamfer







- Tolerances:
- DMM=h5
- DC=-0,02/-0,1 mm
- CHW= ±0,05 mm
- Regrind possible if DC is ≥Ø6

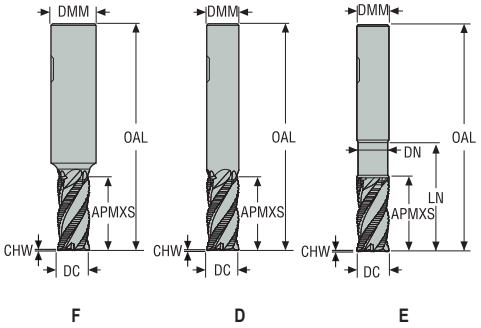
Designation	Item number	Length index	Tool shape	ICC	DC	DMM	APMXS	OAL	LN	DN	CHW	PCEDC	Cylindrical
					mm	mm	mm	mm	mm	mm	mm		
JHP993040F2C.0Z3-SIRA	02826806	2	F	–	4,0	6,0	10,0	50,0	12,56	4,0	0,15	3	■
JHP993050F2C.0Z4-SIRA	02826808	2	F	–	5,0	6,0	12,0	55,0	14,75	5,0	0,15	4	■
JHP993060D2C.0Z4-SIRA	02826809	2	D	–	6,0	6,0	14,0	55,0	–	–	0,2	4	■
JHP993075F2C.0Z4-SIRA	02826811	2	F	–	7,5	8,0	17,0	60,0	20,0	7,5	0,2	4	■
JHP993080D2C.0Z4A-SIRA	02826814	2	D	■	8,0	8,0	18,0	60,0	–	–	0,2	4	■
JHP993080D2C.0Z4-SIRA	02826812	2	D	–	8,0	8,0	18,0	60,0	–	–	0,2	4	■
JHP993095F2C.0Z4-SIRA	02826816	2	F	–	9,5	10,0	20,0	70,0	23,0	9,5	0,2	4	■
JHP993100D2C.0Z4A-SIRA	02826818	2	D	■	10,0	10,0	22,0	70,0	–	–	0,2	4	■
JHP993100D2C.0Z4-SIRA	02826817	2	D	–	10,0	10,0	22,0	70,0	–	–	0,2	4	■
JHP993115F2C.0Z4-SIRA	02826820	2	F	–	11,5	12,0	25,0	80,0	28,0	11,5	0,2	4	■
JHP993120D2C.0Z4A-SIRA	02826822	2	D	■	12,0	12,0	26,0	80,0	–	–	0,2	4	■
JHP993120D2C.0Z4-SIRA	02826821	2	D	–	12,0	12,0	26,0	80,0	–	–	0,2	4	■
JHP993140D2C.0Z4-SIRA	02826824	2	D	–	14,0	14,0	30,0	80,0	–	–	0,3	4	■
JHP993160D2C.0Z4A-SIRA	02856501	2	D	■	16,0	16,0	34,0	90,0	–	–	0,3	4	■
JHP993160D2C.0Z4-SIRA	02856499	2	D	–	16,0	16,0	34,0	90,0	–	–	0,3	4	■
JHP993160D2C.0Z5-SIRA	02826825	2	D	–	16,0	16,0	34,0	90,0	–	–	0,3	5	■
JHP993200D2C.0Z4A-SIRA	02856506	2	D	■	20,0	20,0	42,0	100,0	–	–	0,5	4	■
JHP993200D2C.0Z4-SIRA	02856505	2	D	–	20,0	20,0	42,0	100,0	–	–	0,5	4	■
JHP993200D2C.0Z5-SIRA	02826828	2	D	–	20,0	20,0	42,0	100,0	–	–	0,5	5	■
JHP993250D2C.0Z4A-SIRA	02856510	2	D	■	25,0	25,0	52,0	125,0	–	–	0,5	4	■
JHP993040G3C.0Z3-SIRA	02826807	3	G	–	4,0	6,0	10,0	55,0	15,0	3,7	0,15	3	■
JHP993060E3C.0Z4-SIRA	02826810	3	E	–	6,0	6,0	14,0	65,0	24,0	5,6	0,2	4	■
JHP993080E3C.0Z4-SIRA	02826815	3	E	–	8,0	8,0	18,0	70,0	32,0	7,4	0,2	4	■
JHP993100E3C.0Z4-SIRA	02826819	3	E	–	10,0	10,0	22,0	85,0	40,0	9,4	0,2	4	■
JHP993120E3C.0Z4-SIRA	02826823	3	E	–	12,0	12,0	26,0	100,0	50,0	11,4	0,2	4	■
JHP993160E3C.0Z4-SIRA	02856502	3	E	–	16,0	16,0	34,0	110,0	60,0	15,4	0,3	4	■
JHP993200E3C.0Z4-SIRA	02856507	3	E	–	20,0	20,0	42,0	125,0	70,0	19,2	0,5	4	■

■ Stocked standard.

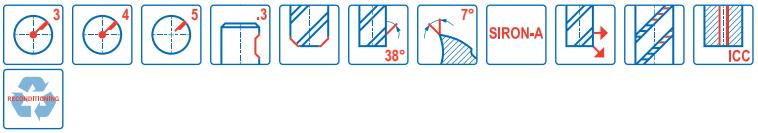
JHP993

High performance – Steel – Square – 3-5 Flutes – Weldon – Chamfer





- Tolerances:
- DMM=h5
- DC=-0,02/-0,1 mm
- CHW= ±0,05 mm
- Regrind possible if DC is ≥Ø6



Designation	Item number	Length index	Tool shape	ICC	DC	DMM	APMXS	OAL	LN	DN	CHW	PCEDC	Weldon
					mm	mm	mm	mm	mm	mm	mm		
JHP993040F2C.3Z3-SIRA	02828150	2	F	–	4,0	6,0	10,0	50,0	12,56	4,0	0,15	3	■
JHP993050F2C.3Z4-SIRA	02828152	2	F	–	5,0	6,0	12,0	55,0	14,75	5,0	0,15	4	■
JHP993060D2C.3Z4-SIRA	02828153	2	D	–	6,0	6,0	14,0	55,0	–	–	0,2	4	■
JHP993075F2C.3Z4-SIRA	02828155	2	F	–	7,5	8,0	17,0	60,0	20,0	7,5	0,2	4	■
JHP993080D2C.3Z4A-SIRA	02828246	2	D	■	8,0	8,0	16,0	60,0	–	–	0,2	4	□
JHP993080D2C.3Z4-SIRA	02828156	2	D	–	8,0	8,0	18,0	60,0	–	–	0,2	4	■
JHP993095F2C.3Z4-SIRA	02828158	2	F	–	9,5	10,0	20,0	70,0	23,0	9,5	0,2	4	■
JHP993100D2C.3Z4A-SIRA	02828247	2	D	■	10,0	10,0	22,0	70,0	–	–	0,2	4	□
JHP993100D2C.3Z4-SIRA	02828159	2	D	–	10,0	10,0	22,0	70,0	–	–	0,2	4	■
JHP993120D2C.3Z4A-SIRA	02828248	2	D	■	12,0	12,0	26,0	80,0	–	–	0,2	4	□
JHP993120D2C.3Z4-SIRA	02828162	2	D	–	12,0	12,0	26,0	80,0	–	–	0,2	4	■
JHP993140D2C.3Z4-SIRA	02828164	2	D	–	14,0	14,0	30,0	80,0	–	–	0,3	4	■
JHP993160D2C.3Z4A-SIRA	02856512	2	D	■	16,0	16,0	34,0	90,0	–	–	0,3	4	□
JHP993160D2C.3Z4-SIRA	02856500	2	D	–	16,0	16,0	34,0	90,0	–	–	0,3	4	■
JHP993160D2C.3Z5-SIRA	02828165	2	D	–	16,0	16,0	34,0	90,0	–	–	0,3	5	■
JHP993200D2C.3Z4A-SIRA	02856513	2	D	■	20,0	20,0	42,0	100,0	–	–	0,5	4	■
JHP993200D2C.3Z4-SIRA	02856504	2	D	–	20,0	20,0	42,0	100,0	–	–	0,5	4	■
JHP993200D2C.3Z5-SIRA	02828167	2	D	–	20,0	20,0	42,0	100,0	–	–	0,5	5	■
JHP993250D2C.3Z4A-SIRA	02856514	2	D	■	25,0	25,0	52,0	125,0	–	–	0,5	4	□
JHP993250D2C.3Z4-SIRA	02856509	2	D	–	25,0	25,0	52,0	125,0	–	–	0,5	4	■
JHP993060E3C.3Z4-SIRA	02828154	3	E	–	6,0	6,0	14,0	65,0	24,0	5,6	0,2	4	■
JHP993080E3C.3Z4-SIRA	02828157	3	E	–	8,0	8,0	18,0	70,0	32,0	7,4	0,2	4	■
JHP993100E3C.3Z4-SIRA	02828160	3	E	–	10,0	10,0	22,0	85,0	40,0	9,4	0,2	4	■
JHP993120E3C.3Z4-SIRA	02828163	3	E	–	12,0	12,0	26,0	100,0	50,0	11,4	0,2	4	■
JHP993160E3C.3Z4-SIRA	02856503	3	E	–	16,0	16,0	34,0	110,0	60,0	15,4	0,3	4	■
JHP993200E3C.3Z4-SIRA	02856508	3	E	–	20,0	20,0	42,0	125,0	70,0	19,2	0,5	4	■
JHP993200E3C.3Z5-SIRA	02828168	3	E	–	20,0	20,0	42,0	125,0	70,0	19,2	0,5	5	■
JHP993250E3C.3Z4-SIRA	02856511	3	E	–	25,0	25,0	52,0	150,0	90,0	24,0	0,5	4	■

■ Stocked standard. □ Weldon available. Delivery time is 3 days.

Cutting data – JHP993 Side milling PCEDC=3 and PCEDC=4

SMG		a_e/DC	a_p/DC	f_z										v_c
				4	5	6	8	10	12	14	16	20	25	
P1	E/M/A	0.400 *0,400*	1.7 *1,7*	0.044 *0,0017*	0.055 *0,0022*	0.065 *0,0026*	0.090 *0,0036*	0.11 *0,0044*	0.13 *0,0050*	0.15 *0,0060*	0.16 *0,0065*	0.19 *0,0075*	0.22 *0,0085*	230 (200 — 260) *750 (660 — 850)*
P2	E/M/A	0.400 *0,400*	1.7 *1,7*	0.044 *0,0017*	0.055 *0,0022*	0.065 *0,0026*	0.090 *0,0036*	0.11 *0,0044*	0.13 *0,0050*	0.15 *0,0060*	0.17 *0,0065*	0.19 *0,0075*	0.22 *0,0085*	225 (200 — 250) *740 (660 — 820)*
P3	E/M/A	0.400 *0,400*	1.7 *1,7*	0.042 *0,0017*	0.055 *0,0022*	0.065 *0,0026*	0.085 *0,0034*	0.11 *0,0044*	0.13 *0,0050*	0.14 *0,0055*	0.16 *0,0065*	0.18 *0,0070*	0.20 *0,0080*	195 (170 — 220) *640 (560 — 720)*
P4	E/M/A	0.400 *0,400*	1.7 *1,7*	0.042 *0,0017*	0.050 *0,0020*	0.060 *0,0024*	0.085 *0,0034*	0.10 *0,0040*	0.12 *0,0048*	0.14 *0,0055*	0.15 *0,0060*	0.18 *0,0070*	0.20 *0,0080*	175 (150 — 190) *570 (500 — 620)*
P5	E/M/A	0.400 *0,400*	1.7 *1,7*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.14 *0,0055*	0.15 *0,0060*	0.17 *0,0065*	0.20 *0,0080*	165 (150 — 190) *540 (500 — 620)*
P6	E/M/A	0.400 *0,400*	1.7 *1,7*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.14 *0,0055*	0.15 *0,0060*	0.17 *0,0065*	0.19 *0,0075*	185 (160 — 210) *610 (530 — 680)*
P7	E/M/A	0.400 *0,400*	1.7 *1,7*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.14 *0,0055*	0.15 *0,0060*	0.17 *0,0065*	0.19 *0,0075*	175 (160 — 200) *570 (530 — 650)*
P8	E/M/A	0.400 *0,400*	1.7 *1,7*	0.042 *0,0017*	0.055 *0,0022*	0.065 *0,0026*	0.085 *0,0034*	0.11 *0,0044*	0.13 *0,0050*	0.14 *0,0055*	0.16 *0,0065*	0.18 *0,0070*	0.20 *0,0080*	160 (140 — 180) *520 (460 — 590)*
P11	E/M/A	0.400 *0,400*	1.7 *1,7*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.14 *0,0055*	0.15 *0,0060*	0.17 *0,0065*	0.19 *0,0075*	170 (150 — 190) *560 (500 — 620)*
P12	E/M/A	0.400 *0,400*	1.7 *1,7*	0.028 *0,0011*	0.034 *0,0013*	0.042 *0,0017*	0.055 *0,0022*	0.070 *0,0028*	0.080 *0,0032*	0.095 *0,0038*	0.10 *0,0040*	0.12 *0,0048*	0.13 *0,0050*	110 (95 — 120) *360 (320 — 390)*
K1	E/M/A	0.400 *0,400*	1.7 *1,7*	0.044 *0,0017*	0.055 *0,0022*	0.065 *0,0026*	0.090 *0,0036*	0.11 *0,0044*	0.13 *0,0050*	0.15 *0,0060*	0.17 *0,0065*	0.19 *0,0075*	0.22 *0,0085*	225 (200 — 250) *740 (660 — 820)*
K2	E/M/A	0.400 *0,400*	1.7 *1,7*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.14 *0,0055*	0.15 *0,0060*	0.17 *0,0065*	0.20 *0,0080*	200 (180 — 220) *660 (600 — 720)*
K3	E/M/A	0.400 *0,400*	1.7 *1,7*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.14 *0,0055*	0.15 *0,0060*	0.17 *0,0065*	0.20 *0,0080*	170 (150 — 190) *560 (500 — 620)*
K4	E/M/A	0.400 *0,400*	1.7 *1,7*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.14 *0,0055*	0.15 *0,0060*	0.17 *0,0065*	0.20 *0,0080*	160 (140 — 180) *520 (460 — 590)*
K5	E/M/A	0.400 *0,400*	1.7 *1,7*	0.036 *0,0014*	0.046 *0,0018*	0.055 *0,0022*	0.075 *0,0030*	0.090 *0,0036*	0.11 *0,0044*	0.12 *0,0048*	0.14 *0,0055*	0.16 *0,0065*	0.18 *0,0070*	100 (86 — 110) *330 (290 — 360)*
K6	E/M/A	0.400 *0,400*	1.7 *1,7*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.14 *0,0055*	0.15 *0,0060*	0.17 *0,0065*	0.20 *0,0080*	145 (130 — 160) *475 (430 — 520)*
K7	E/M/A	0.400 *0,400*	1.7 *1,7*	0.036 *0,0014*	0.046 *0,0018*	0.055 *0,0022*	0.075 *0,0030*	0.090 *0,0036*	0.11 *0,0044*	0.12 *0,0048*	0.14 *0,0055*	0.16 *0,0065*	0.18 *0,0070*	125 (110 — 140) *410 (370 — 450)*

For cutting data recalculations, see pages 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

Cutting data – JHP993 Side milling PCEDC=5

SMG		a_e/DC	a_p/DC	f_z		v_c
				16	20	
P1	E/M/A	0.376 *0,376*	1.0 *1,0*	0.17 *0,0065*	0.22 *0,0085*	205 (180 — 230) *670 (600 — 750)*
P2	E/M/A	0.376 *0,376*	1.0 *1,0*	0.18 *0,0070*	0.22 *0,0085*	195 (170 — 220) *640 (560 — 720)*
P3	E/M/A	0.376 *0,376*	1.0 *1,0*	0.17 *0,0065*	0.20 *0,0080*	170 (150 — 190) *560 (500 — 620)*
P4	E/M/A	0.376 *0,376*	1.0 *1,0*	0.16 *0,0065*	0.20 *0,0080*	155 (140 — 170) *510 (460 — 550)*
P5	E/M/A	0.376 *0,376*	1.0 *1,0*	0.16 *0,0065*	0.20 *0,0080*	145 (130 — 160) *475 (430 — 520)*
P6	E/M/A	0.376 *0,376*	1.0 *1,0*	0.16 *0,0065*	0.20 *0,0080*	165 (150 — 180) *540 (500 — 590)*
P7	E/M/A	0.376 *0,376*	1.0 *1,0*	0.16 *0,0065*	0.20 *0,0080*	155 (140 — 170) *510 (460 — 550)*
P8	E/M/A	0.376 *0,376*	1.0 *1,0*	0.17 *0,0065*	0.20 *0,0080*	145 (130 — 160) *475 (430 — 520)*
P11	E/M/A	0.376 *0,376*	1.0 *1,0*	0.16 *0,0065*	0.20 *0,0080*	150 (130 — 170) *490 (430 — 550)*
P12	E/M/A	0.376 *0,376*	1.0 *1,0*	0.11 *0,0044*	0.13 *0,0050*	100 (85 — 110) *330 (280 — 360)*
K1	E/M/A	0.376 *0,376*	1.0 *1,0*	0.18 *0,0070*	0.22 *0,0085*	195 (170 — 220) *640 (560 — 720)*
K2	E/M/A	0.376 *0,376*	1.0 *1,0*	0.16 *0,0065*	0.20 *0,0080*	175 (160 — 200) *570 (530 — 650)*
K3	E/M/A	0.376 *0,376*	1.0 *1,0*	0.16 *0,0065*	0.20 *0,0080*	150 (130 — 170) *490 (430 — 550)*
K4	E/M/A	0.376 *0,376*	1.0 *1,0*	0.16 *0,0065*	0.20 *0,0080*	145 (130 — 160) *475 (430 — 520)*
K5	E/M/A	0.376 *0,376*	1.0 *1,0*	0.15 *0,0060*	0.18 *0,0070*	85 (75 — 99) *280 (250 — 320)*
K6	E/M/A	0.376 *0,376*	1.0 *1,0*	0.16 *0,0065*	0.20 *0,0080*	125 (110 — 140) *410 (370 — 450)*
K7	E/M/A	0.376 *0,376*	1.0 *1,0*	0.15 *0,0060*	0.18 *0,0070*	110 (96 — 120) *360 (320 — 390)*

For cutting data recalculations, see pages 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

Cutting data – JHP993 Slot milling PCEDC=3 and PCEDC=4

SMG		a_p/DC	f_z										v_c
			4	5	6	8	10	12	14	16	20	25	
P1	E/M/A	1.5 *1,5*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	0.11 *0,0044*	0.13 *0,0050*	0.16 *0,0065*	0.20 *0,0080*	200 (180 — 220) *660 (600 — 720)*
P2	E/M/A	1.5 *1,5*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	0.11 *0,0044*	0.13 *0,0050*	0.16 *0,0065*	0.20 *0,0080*	195 (170 — 220) *640 (560 — 720)*
P3	E/M/A	1.5 *1,5*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	0.11 *0,0044*	0.13 *0,0050*	0.16 *0,0065*	0.20 *0,0080*	165 (150 — 190) *540 (500 — 620)*
P4	E/M/A	1.5 *1,5*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	0.11 *0,0044*	0.13 *0,0050*	0.16 *0,0065*	0.20 *0,0080*	145 (130 — 160) *475 (430 — 520)*
P5	E/M/A	1.5 *1,5*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	0.11 *0,0044*	0.13 *0,0050*	0.16 *0,0065*	0.19 *0,0075*	140 (130 — 160) *460 (430 — 520)*
P6	E/M/A	1.5 *1,5*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	0.11 *0,0044*	0.13 *0,0050*	0.16 *0,0065*	0.19 *0,0075*	155 (140 — 170) *510 (460 — 550)*
P7	E/M/A	1.5 *1,5*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	0.11 *0,0044*	0.13 *0,0050*	0.16 *0,0065*	0.19 *0,0075*	150 (130 — 160) *490 (430 — 520)*
P8	E/M/A	1.5 *1,5*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	0.11 *0,0044*	0.13 *0,0050*	0.16 *0,0065*	0.20 *0,0080*	140 (130 — 160) *460 (430 — 520)*
P11	E/M/A	1.5 *1,5*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	0.11 *0,0044*	0.13 *0,0050*	0.16 *0,0065*	0.19 *0,0075*	145 (130 — 160) *475 (430 — 520)*
P12	E/M/A	1.5 *1,5*	0.028 *0,0011*	0.034 *0,0013*	0.040 *0,0016*	0.055 *0,0022*	0.070 *0,0028*	0.080 *0,0032*	0.090 *0,0036*	0.10 *0,0040*	0.12 *0,0048*	0.13 *0,0050*	90 (76 — 100) *295 (250 — 320)*
K1	E/M/A	1.5 *1,5*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	0.11 *0,0044*	0.13 *0,0050*	0.16 *0,0065*	0.20 *0,0080*	195 (170 — 220) *640 (560 — 720)*
K2	E/M/A	1.5 *1,5*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	0.11 *0,0044*	0.13 *0,0050*	0.16 *0,0065*	0.19 *0,0075*	170 (150 — 190) *560 (500 — 620)*
K3	E/M/A	1.5 *1,5*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	0.11 *0,0044*	0.13 *0,0050*	0.16 *0,0065*	0.19 *0,0075*	145 (130 — 160) *475 (430 — 520)*
K4	E/M/A	1.5 *1,5*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	0.11 *0,0044*	0.13 *0,0050*	0.16 *0,0065*	0.19 *0,0075*	135 (120 — 150) *445 (400 — 490)*
K5	E/M/A	1.5 *1,5*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	0.11 *0,0044*	0.13 *0,0050*	0.15 *0,0060*	0.17 *0,0065*	80 (70 — 93) *260 (230 — 300)*
K6	E/M/A	1.5 *1,5*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	0.11 *0,0044*	0.13 *0,0050*	0.16 *0,0065*	0.19 *0,0075*	120 (110 — 130) *395 (370 — 420)*
K7	E/M/A	1.5 *1,5*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	0.11 *0,0044*	0.13 *0,0050*	0.15 *0,0060*	0.17 *0,0065*	105 (90 — 110) *345 (300 — 360)*

For cutting data recalculations, see pages 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

Cutting data – JHP993 Slot milling PCEDC=5

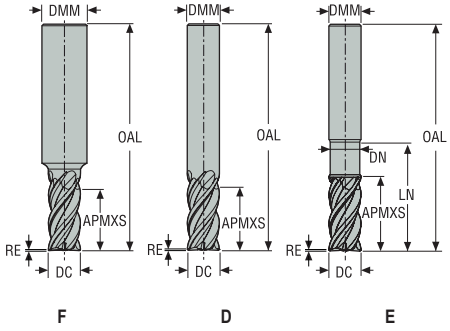
SMG		a_p/DC	f_z		v_c
			16	20	
P1	E/M/A	0.44 *0,44*	0.17 *0,0065*	0.20 *0,0080*	160 (140 — 180) *520 (460 — 590)*
P2	E/M/A	0.44 *0,44*	0.17 *0,0065*	0.22 *0,0085*	155 (140 — 170) *510 (460 — 550)*
P3	E/M/A	0.44 *0,44*	0.16 *0,0065*	0.20 *0,0080*	135 (120 — 150) *445 (400 — 490)*
P4	E/M/A	0.44 *0,44*	0.16 *0,0065*	0.20 *0,0080*	120 (110 — 130) *395 (370 — 420)*
P5	E/M/A	0.44 *0,44*	0.16 *0,0065*	0.19 *0,0075*	115 (99 — 130) *375 (330 — 420)*
P6	E/M/A	0.44 *0,44*	0.16 *0,0065*	0.19 *0,0075*	130 (120 — 140) *425 (400 — 450)*
P7	E/M/A	0.44 *0,44*	0.16 *0,0065*	0.19 *0,0075*	120 (110 — 130) *395 (370 — 420)*
P8	E/M/A	0.44 *0,44*	0.16 *0,0065*	0.20 *0,0080*	115 (99 — 130) *375 (330 — 420)*
P11	E/M/A	0.44 *0,44*	0.16 *0,0065*	0.19 *0,0075*	120 (110 — 130) *395 (370 — 420)*
P12	E/M/A	0.44 *0,44*	0.11 *0,0044*	0.13 *0,0050*	80 (68 — 89) *260 (230 — 290)*
K1	E/M/A	0.44 *0,44*	0.17 *0,0065*	0.22 *0,0085*	160 (140 — 180) *520 (460 — 590)*
K2	E/M/A	0.44 *0,44*	0.16 *0,0065*	0.19 *0,0075*	140 (120 — 150) *460 (400 — 490)*
K3	E/M/A	0.44 *0,44*	0.16 *0,0065*	0.19 *0,0075*	120 (110 — 130) *395 (370 — 420)*
K4	E/M/A	0.44 *0,44*	0.16 *0,0065*	0.19 *0,0075*	115 (97 — 120) *375 (320 — 390)*
K5	E/M/A	0.44 *0,44*	0.14 *0,0055*	0.17 *0,0065*	70 (60 — 79) *230 (200 — 250)*
K6	E/M/A	0.44 *0,44*	0.16 *0,0065*	0.19 *0,0075*	100 (86 — 110) *330 (290 — 360)*
K7	E/M/A	0.44 *0,44*	0.14 *0,0055*	0.17 *0,0065*	90 (77 — 100) *295 (260 — 320)*

For cutting data recalculations, see pages 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

JHP951

High performance – Square – Steel – 3-5 Flutes – Cylindrical – Corner radius or chamfer







- Tolerances:
- DMM=h5
- DC=e7
- RE= ±0,02 mm
- Regrind possible if DC is ≥Ø6

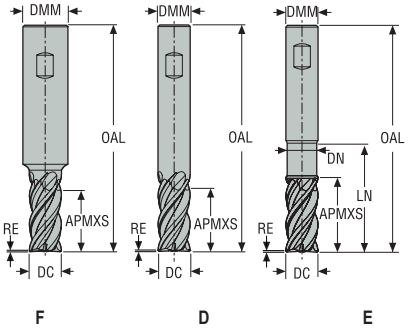
Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	CHW	RE	PCEDC	Cylindrical
				mm	mm	mm	mm	mm	mm	mm	mm		
JHP951030F2C.0Z3-SIRA	02828192	2	F	3,0	6,0	8,0	50,0	10,25	3,0	0,1	–	3	■
JHP951030F2R020.0Z3-SIRA	02828191	2	F	3,0	6,0	8,0	50,0	10,25	3,0	–	0,2	3	■
JHP951030F2R050.0Z3-SIRA	02828190	2	F	3,0	6,0	8,0	50,0	10,25	3,0	–	0,5	3	■
JHP951040F2C.0Z4-SIRA	02828197	2	F	4,0	6,0	10,0	55,0	13,25	4,0	0,15	–	4	■
JHP951040F2R020.0Z4-SIRA	02828194	2	F	4,0	6,0	10,0	55,0	13,25	4,0	–	0,2	4	■
JHP951040F2R050.0Z4-SIRA	02828195	2	F	4,0	6,0	10,0	55,0	13,25	4,0	–	0,5	4	■
JHP951050F2C.0Z4-SIRA	02828201	2	F	5,0	6,0	12,0	55,0	15,25	5,0	0,2	–	4	■
JHP951050F2R020.0Z4-SIRA	02828199	2	F	5,0	6,0	12,0	55,0	15,25	5,0	–	0,2	4	■
JHP951050F2R050.0Z4-SIRA	02828198	2	F	5,0	6,0	12,0	55,0	15,25	5,0	–	0,5	4	■
JHP951060D2C.0Z4-SIRA	02828205	2	D	6,0	6,0	14,0	55,0	–	–	0,2	–	4	■
JHP951060D2R020.0Z4-SIRA	02828203	2	D	6,0	6,0	14,0	55,0	–	–	–	0,2	4	■
JHP951060D2R050.0Z4-SIRA	02828202	2	D	6,0	6,0	14,0	55,0	–	–	–	0,5	4	■
JHP951080D2C.0Z4-SIRA	02828212	2	D	8,0	8,0	18,0	60,0	–	–	0,3	–	4	■
JHP951080D2R020.0Z4-SIRA	02828209	2	D	8,0	8,0	18,0	60,0	–	–	–	0,2	4	■
JHP951080D2R050.0Z4-SIRA	02828207	2	D	8,0	8,0	18,0	60,0	–	–	–	0,5	4	■
JHP951080D2R100.0Z4-SIRA	02828208	2	D	8,0	8,0	18,0	60,0	–	–	–	1,0	4	■
JHP951100E2C.0Z4-SIRA	02828218	2	E	10,0	10,0	22,0	70,0	28,0	9,4	0,3	–	4	■
JHP951100E2R050.0Z4-SIRA	02828216	2	E	10,0	10,0	22,0	70,0	28,0	9,4	–	0,5	4	■
JHP951100E2R100.0Z4-SIRA	02828214	2	E	10,0	10,0	22,0	70,0	28,0	9,4	–	1,0	4	■
JHP951120E2C.0Z4-SIRA	02828226	2	E	12,0	12,0	26,0	80,0	33,0	11,4	0,4	–	4	■
JHP951120E2R050.0Z4-SIRA	02828224	2	E	12,0	12,0	26,0	80,0	33,0	11,4	–	0,5	4	■
JHP951120E2R100.0Z4-SIRA	02828222	2	E	12,0	12,0	26,0	80,0	33,0	11,4	–	1,0	4	■
JHP951160E2C.0Z4-SIRA	02927873	2	E	16,0	16,0	34,0	90,0	40,0	15,0	0,5	–	4	■
JHP951160E2C.0Z5-SIRA	02828232	2	E	16,0	16,0	34,0	90,0	40,0	15,4	0,5	–	5	■
JHP951160E2R050.0Z4-SIRA	02927875	2	E	16,0	16,0	34,0	90,0	40,0	15,0	–	0,5	4	■
JHP951160E2R050.0Z5-SIRA	02828230	2	E	16,0	16,0	34,0	90,0	40,0	15,4	–	0,5	5	■
JHP951160E2R100.0Z4-SIRA	02927876	2	E	16,0	16,0	34,0	90,0	40,0	15,0	–	1,0	4	■
JHP951160E2R100.0Z5-SIRA	02828231	2	E	16,0	16,0	34,0	90,0	40,0	15,4	–	1,0	5	■

■ Stocked standard.

JHP951

High performance – Square – Steel – 3-5 Flutes – Weldon – Corner radius or chamfer





- Tolerances:
- DMM=h5
- DC=e7
- RE= ±0,02 mm
- Regrind possible if DC is ≥Ø6



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	CHW	RE	PCEDC	Weldon
				mm	mm	mm	mm	mm	mm	mm	mm		
JHP951030F2C.3Z3-SIRA	02828193	2	F	3,0	6,0	8,0	50,0	10,25	3,0	0,1	–	3	■
JHP951030F2R020.3Z3-SIRA	02828260	2	F	3,0	6,0	8,0	50,0	10,25	3,0	–	0,2	3	■
JHP951030F2R050.3Z3-SIRA	02828259	2	F	3,0	6,0	8,0	50,0	10,25	3,0	–	0,5	3	□
JHP951040F2C.3Z4-SIRA	02828196	2	F	4,0	6,0	10,0	55,0	13,25	4,0	0,15	–	4	■
JHP951040F2R020.3Z4-SIRA	02828261	2	F	4,0	6,0	10,0	55,0	13,25	4,0	–	0,2	4	□
JHP951040F2R050.3Z4-SIRA	02828262	2	F	4,0	6,0	10,0	55,0	13,25	4,0	–	0,5	4	□
JHP951050F2C.3Z4-SIRA	02828200	2	F	5,0	6,0	12,0	55,0	15,25	5,0	0,2	–	4	■
JHP951050F2R020.3Z4-SIRA	02828264	2	F	5,0	6,0	12,0	55,0	15,25	5,0	–	0,2	4	□
JHP951050F2R050.3Z4-SIRA	02828263	2	F	5,0	6,0	12,0	55,0	15,25	5,0	–	0,5	4	□
JHP951060D2C.3Z4-SIRA	02828206	2	D	6,0	6,0	14,0	55,0	–	–	0,2	–	4	■
JHP951060D2R020.3Z4-SIRA	02828266	2	D	6,0	6,0	14,0	55,0	–	–	–	0,2	4	□
JHP951060D2R050.3Z4-SIRA	02828265	2	D	6,0	6,0	14,0	55,0	–	–	–	0,5	4	□
JHP951080D2C.3Z4-SIRA	02828210	2	D	8,0	8,0	18,0	60,0	–	–	0,3	–	4	■
JHP951080D2R020.3Z4-SIRA	02828269	2	D	8,0	8,0	18,0	60,0	–	–	–	0,2	4	□
JHP951080D2R050.3Z4-SIRA	02828267	2	D	8,0	8,0	18,0	60,0	–	–	–	0,5	4	■
JHP951080D2R100.3Z4-SIRA	02828268	2	D	8,0	8,0	18,0	60,0	–	–	–	1,0	4	□
JHP951100E2C.3Z4-SIRA	02828220	2	E	10,0	10,0	22,0	70,0	28,0	9,4	0,3	–	4	■
JHP951100E2R050.3Z4-SIRA	02828271	2	E	10,0	10,0	22,0	70,0	28,0	9,4	–	0,5	4	□
JHP951100E2R100.3Z4-SIRA	02828270	2	E	10,0	10,0	22,0	70,0	28,0	9,4	–	1,0	4	□
JHP951120E2C.3Z4-SIRA	02828228	2	E	12,0	12,0	26,0	80,0	33,0	11,4	0,4	–	4	■
JHP951120E2R050.3Z4-SIRA	02828273	2	E	12,0	12,0	26,0	80,0	33,0	11,4	–	0,5	4	□
JHP951120E2R100.3Z4-SIRA	02828272	2	E	12,0	12,0	26,0	80,0	33,0	11,4	–	1,0	4	□
JHP951160E2C.3Z4-SIRA	02927874	2	E	16,0	16,0	34,0	90,0	40,0	15,0	0,5	–	4	■
JHP951160E2C.3Z5-SIRA	02828233	2	E	16,0	16,0	34,0	90,0	40,0	15,4	0,5	–	5	■
JHP951160E2R050.3Z4-SIRA	02927879	2	E	16,0	16,0	34,0	90,0	40,0	15,0	–	0,5	4	□
JHP951160E2R050.3Z5-SIRA	02828275	2	E	16,0	16,0	34,0	90,0	40,0	15,4	–	0,5	5	□
JHP951160E2R100.3Z4-SIRA	02927880	2	E	16,0	16,0	34,0	90,0	40,0	15,0	–	1,0	4	□
JHP951160E2R100.3Z5-SIRA	02828276	2	E	16,0	16,0	34,0	90,0	40,0	15,4	–	1,0	5	□
JHP951200E2R050.3Z4-SIRA	02927877	2	E	20,0	20,0	42,0	100,0	48,0	19,0	–	0,5	4	■
JHP951200E2R050.3Z5-SIRA	02828235	2	E	20,0	20,0	42,0	100,0	48,0	19,4	–	0,5	5	■
JHP951200E2R100.3Z4-SIRA	02927878	2	E	20,0	20,0	42,0	100,0	48,0	19,0	–	1,0	4	■
JHP951200E2R100.3Z5-SIRA	02828234	2	E	20,0	20,0	42,0	100,0	48,0	19,4	–	1,0	5	■

■ Stocked standard. □ Weldon available. Delivery time is 3 days.

Cutting data – JHP951 Side milling

SMG		a_e/DC	a_p/DC	f_z									v_c
				3	4	5	6	8	10	12	16	20	
P1	E/M/A	0.400 *0,400*	1.7 *1,7*	0.034 *0,0013*	0.044 *0,0017*	0.055 *0,0022*	0.065 *0,0026*	0.090 *0,0036*	0.11 *0,0044*	0.13 *0,0050*	0.16 *0,0065*	0.19 *0,0075*	230 (200 — 260) *750 (660 — 850)*
P2	E/M/A	0.400 *0,400*	1.7 *1,7*	0.034 *0,0013*	0.044 *0,0017*	0.055 *0,0022*	0.065 *0,0026*	0.090 *0,0036*	0.11 *0,0044*	0.13 *0,0050*	0.17 *0,0065*	0.19 *0,0075*	220 (200 — 250) *720 (660 — 820)*
P3	E/M/A	0.400 *0,400*	1.7 *1,7*	0.032 *0,0013*	0.042 *0,0017*	0.055 *0,0022*	0.065 *0,0026*	0.085 *0,0034*	0.11 *0,0044*	0.13 *0,0050*	0.16 *0,0065*	0.18 *0,0070*	190 (170 — 210) *620 (560 — 680)*
P4	E/M/A	0.400 *0,400*	1.7 *1,7*	0.032 *0,0013*	0.042 *0,0017*	0.050 *0,0020*	0.060 *0,0024*	0.085 *0,0034*	0.10 *0,0040*	0.12 *0,0048*	0.15 *0,0060*	0.18 *0,0070*	170 (150 — 190) *560 (500 — 620)*
P5	E/M/A	0.400 *0,400*	1.7 *1,7*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.15 *0,0060*	0.17 *0,0065*	165 (150 — 180) *540 (500 — 590)*
P6	E/M/A	0.400 *0,400*	1.7 *1,7*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.15 *0,0060*	0.17 *0,0065*	185 (160 — 210) *610 (530 — 680)*
P7	E/M/A	0.400 *0,400*	1.7 *1,7*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.15 *0,0060*	0.17 *0,0065*	175 (150 — 190) *570 (500 — 620)*
P8	E/M/A	0.400 *0,400*	1.7 *1,7*	0.032 *0,0013*	0.042 *0,0017*	0.055 *0,0022*	0.065 *0,0026*	0.085 *0,0034*	0.11 *0,0044*	0.13 *0,0050*	0.16 *0,0065*	0.18 *0,0070*	160 (140 — 180) *520 (460 — 590)*
P11	E/M/A	0.400 *0,400*	1.7 *1,7*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.15 *0,0060*	0.17 *0,0065*	170 (150 — 190) *560 (500 — 620)*
P12	E/M/A	0.400 *0,400*	1.7 *1,7*	0.020 *0,00080*	0.028 *0,0011*	0.034 *0,0013*	0.042 *0,0017*	0.055 *0,0022*	0.070 *0,0028*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	110 (94 — 120) *360 (310 — 390)*
K1	E/M/A	0.400 *0,400*	1.7 *1,7*	0.034 *0,0013*	0.044 *0,0017*	0.055 *0,0022*	0.065 *0,0026*	0.090 *0,0036*	0.11 *0,0044*	0.13 *0,0050*	0.17 *0,0065*	0.19 *0,0075*	225 (200 — 250) *740 (660 — 820)*
K2	E/M/A	0.400 *0,400*	1.7 *1,7*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.15 *0,0060*	0.17 *0,0065*	200 (180 — 220) *660 (600 — 720)*
K3	E/M/A	0.400 *0,400*	1.7 *1,7*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.15 *0,0060*	0.17 *0,0065*	170 (150 — 190) *560 (500 — 620)*
K4	E/M/A	0.400 *0,400*	1.7 *1,7*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.15 *0,0060*	0.17 *0,0065*	160 (140 — 180) *520 (460 — 590)*
K5	E/M/A	0.400 *0,400*	1.7 *1,7*	0.028 *0,0011*	0.036 *0,0014*	0.046 *0,0018*	0.055 *0,0022*	0.075 *0,0030*	0.090 *0,0036*	0.11 *0,0044*	0.14 *0,0055*	0.16 *0,0065*	100 (85 — 110) *330 (280 — 360)*
K6	E/M/A	0.400 *0,400*	1.7 *1,7*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.15 *0,0060*	0.17 *0,0065*	140 (130 — 160) *460 (430 — 520)*
K7	E/M/A	0.400 *0,400*	1.7 *1,7*	0.028 *0,0011*	0.036 *0,0014*	0.046 *0,0018*	0.055 *0,0022*	0.075 *0,0030*	0.090 *0,0036*	0.11 *0,0044*	0.14 *0,0055*	0.16 *0,0065*	125 (110 — 140) *410 (370 — 450)*

For cutting data recalculations, see pages 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

Cutting data – JHP951 Slot milling

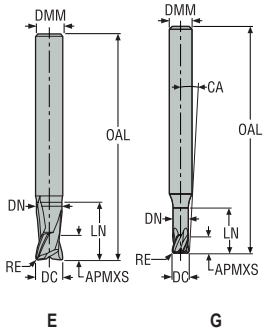
SMG		a_p/DC	f_z									v_c
			3	4	5	6	8	10	12	16	20	
P1	E/M/A	1.5 *1,5*	0.024 *0,00095*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	0.13 *0,0050*	0.16 *0,0065*	195 (170 — 220) *640 (560 — 720)*
P2	E/M/A	1.5 *1,5*	0.024 *0,00095*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	0.13 *0,0050*	0.16 *0,0065*	190 (170 — 210) *620 (560 — 680)*
P3	E/M/A	1.5 *1,5*	0.024 *0,00095*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	0.13 *0,0050*	0.16 *0,0065*	165 (150 — 180) *540 (500 — 590)*
P4	E/M/A	1.5 *1,5*	0.024 *0,00095*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	0.13 *0,0050*	0.16 *0,0065*	145 (130 — 160) *475 (430 — 520)*
P5	E/M/A	1.5 *1,5*	0.024 *0,00095*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	0.13 *0,0050*	0.16 *0,0065*	140 (120 — 150) *460 (400 — 490)*
P6	E/M/A	1.5 *1,5*	0.024 *0,00095*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	0.13 *0,0050*	0.16 *0,0065*	155 (140 — 170) *510 (460 — 550)*
P7	E/M/A	1.5 *1,5*	0.024 *0,00095*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	0.13 *0,0050*	0.16 *0,0065*	145 (130 — 160) *475 (430 — 520)*
P8	E/M/A	1.5 *1,5*	0.024 *0,00095*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	0.13 *0,0050*	0.16 *0,0065*	140 (120 — 150) *460 (400 — 490)*
P11	E/M/A	1.5 *1,5*	0.024 *0,00095*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	0.13 *0,0050*	0.16 *0,0065*	145 (130 — 160) *475 (430 — 520)*
P12	E/M/A	1.5 *1,5*	0.020 *0,00080*	0.028 *0,0011*	0.034 *0,0013*	0.040 *0,0016*	0.055 *0,0022*	0.070 *0,0028*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	85 (75 — 99) *280 (250 — 320)*
K1	E/M/A	1.5 *1,5*	0.024 *0,00095*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	0.13 *0,0050*	0.16 *0,0065*	195 (170 — 220) *640 (560 — 720)*
K2	E/M/A	1.5 *1,5*	0.024 *0,00095*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	0.13 *0,0050*	0.16 *0,0065*	170 (150 — 190) *560 (500 — 620)*
K3	E/M/A	1.5 *1,5*	0.024 *0,00095*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	0.13 *0,0050*	0.16 *0,0065*	140 (130 — 160) *460 (430 — 520)*
K4	E/M/A	1.5 *1,5*	0.024 *0,00095*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	0.13 *0,0050*	0.16 *0,0065*	135 (120 — 150) *445 (400 — 490)*
K5	E/M/A	1.5 *1,5*	0.024 *0,00095*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	0.13 *0,0050*	0.15 *0,0060*	80 (70 — 92) *260 (230 — 300)*
K6	E/M/A	1.5 *1,5*	0.024 *0,00095*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	0.13 *0,0050*	0.16 *0,0065*	120 (110 — 130) *395 (370 — 420)*
K7	E/M/A	1.5 *1,5*	0.024 *0,00095*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	0.13 *0,0050*	0.15 *0,0060*	105 (89 — 110) *345 (300 — 360)*

For cutting data recalculations, see pages 573 - 580

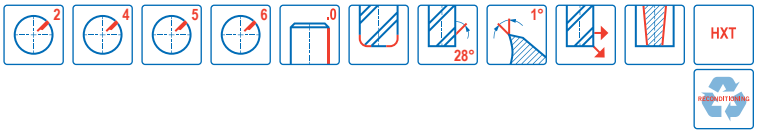
SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

JH142

High speed – High precision – Torical – Hardened steel – 2-6 Flutes – Cylindrical – Corner radius







- Tolerances:
- Run-out= <0,005 mm
- DMM= h5
- DC= 0-0,01 mm
- RE= ±0,005 mm
- Regrind possible if DC is ≥Ø6

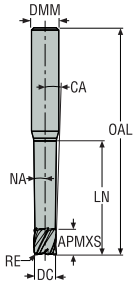
Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	CA°	PCEDC	Cylindrical
				mm	mm	mm	mm	mm	mm	mm			
JH142020G2R030.0Z2-HXT	02968223	2	G	2,0	4,0	2,0	40,0	6,0	1,9	0,3	6,64	2	■
JH142020G2R030.0Z4-HXT	02968224	2	G	2,0	4,0	2,0	40,0	6,0	1,9	0,3	6,64	4	■
JH142020G2R050.0Z2-HXT	02968225	2	G	2,0	4,0	2,0	40,0	6,0	1,9	0,5	6,79	2	■
JH142020G2R050.0Z4-HXT	02968226	2	G	2,0	4,0	2,0	40,0	6,0	1,9	0,5	6,79	4	■
JH142030G2R050.0Z2-HXT	02968227	2	G	3,0	4,0	3,0	40,0	8,0	2,8	0,5	2,95	2	■
JH142030G2R050.0Z4-HXT	02968228	2	G	3,0	4,0	3,0	40,0	8,0	2,8	0,5	2,95	4	■
JH142030G2R100.0Z2-HXT	02968229	2	G	3,0	4,0	3,0	40,0	8,0	2,8	1,0	3,1	2	■
JH142030G2R100.0Z4-HXT	02968230	2	G	3,0	4,0	3,0	40,0	8,0	2,8	1,0	3,1	4	■
JH142040G2R030.0Z2-HXT	02968231	2	G	4,0	6,0	4,0	50,0	8,0	3,7	0,3	5,34	2	■
JH142040G2R030.0Z4-HXT	02970110	2	G	4,0	6,0	4,0	50,0	8,0	3,7	0,3	5,34	4	■
JH142040G2R050.0Z4-HXT	02968232	2	G	4,0	6,0	4,0	50,0	8,0	3,7	0,5	5,44	4	■
JH142040G2R100.0Z4-HXT	02968233	2	G	4,0	6,0	4,0	50,0	8,0	3,7	1,0	5,69	4	■
JH142060E2R050.0Z4-HXT	02968235	2	E	6,0	6,0	6,0	50,0	12,0	5,6	0,5	–	4	■
JH142060E2R100.0Z4-HXT	02968237	2	E	6,0	6,0	6,0	50,0	12,0	5,6	1,0	–	4	■
JH142060E2R100.0Z5-HXT	02968238	2	E	6,0	6,0	6,0	50,0	12,0	5,6	1,0	–	5	■
JH142060E2R150.0Z5-HXT	02968240	2	E	6,0	6,0	6,0	50,0	12,0	5,6	1,5	–	5	■
JH142060E2R200.0Z5-HXT	02968241	2	E	6,0	6,0	6,0	50,0	12,0	5,6	2,0	–	5	■
JH142080E2R050.0Z5-HXT	02968242	2	E	8,0	8,0	8,0	60,0	16,0	7,4	0,5	–	5	■
JH142080E2R100.0Z5-HXT	02968243	2	E	8,0	8,0	8,0	60,0	16,0	7,4	1,0	–	5	■
JH142080E2R150.0Z5-HXT	02968244	2	E	8,0	8,0	8,0	60,0	16,0	7,4	1,5	–	5	■
JH142080E2R200.0Z5-HXT	02968245	2	E	8,0	8,0	8,0	60,0	16,0	7,4	2,0	–	5	■
JH142080E2R300.0Z5-HXT	02968246	2	E	8,0	8,0	8,0	60,0	16,0	7,4	3,0	–	5	■
JH142100E2R050.0Z5-HXT	02968247	2	E	10,0	10,0	10,0	70,0	20,0	9,4	0,5	–	5	■
JH142100E2R100.0Z5-HXT	02968248	2	E	10,0	10,0	10,0	70,0	20,0	9,4	1,0	–	5	■
JH142100E2R200.0Z5-HXT	02968249	2	E	10,0	10,0	10,0	70,0	20,0	9,4	2,0	–	5	■
JH142100E2R250.0Z5-HXT	02968250	2	E	10,0	10,0	10,0	70,0	20,0	9,4	2,5	–	5	■
JH142120E2R100.0Z6-HXT	02968251	2	E	12,0	12,0	12,0	75,0	24,0	11,4	1,0	–	6	■
JH142120E2R200.0Z6-HXT	02968252	2	E	12,0	12,0	12,0	75,0	24,0	11,4	2,0	–	6	■
JH142120E2R300.0Z6-HXT	02968253	2	E	12,0	12,0	12,0	75,0	24,0	11,4	3,0	–	6	■

■ Stocked standard.

JH142

High speed – High precision – Torical – Hardened steel – 2-5 Flutes – Cylindrical – Corner radius





J

- Tolerances:
- Run-out= <0,005 mm
- DMM= h5
- DC= 0-0,01 mm
- RE= ±0,005 mm
- Regrind possible if DC is ≥Ø6



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	CA°	PCEDC	Cylindrical
				mm	mm	mm	mm	mm	mm	mm			
JH142020J3R030.0Z2-HXT	02968255	3	J	2,0	6,0	2,0	60,0	10,0	1,9	0,3	6,72	2	■
JH142020J3R030.0Z4-HXT	02968256	3	J	2,0	6,0	2,0	60,0	10,0	1,9	0,3	6,72	4	■
JH142020J3R050.0Z2-HXT	02968257	3	J	2,0	6,0	2,0	60,0	10,0	1,9	0,5	6,79	2	■
JH142020J3R050.0Z4-HXT	02968258	3	J	2,0	6,0	2,0	60,0	10,0	1,9	0,5	6,79	4	■
JH142030J3R050.0Z2-HXT	02968259	3	J	3,0	6,0	3,0	60,0	15,0	2,8	0,5	4,3	2	■
JH142030J3R050.0Z4-HXT	02968260	3	J	3,0	6,0	3,0	60,0	15,0	2,8	0,5	4,3	4	■
JH142030J3R100.0Z2-HXT	02968261	3	J	3,0	6,0	3,0	60,0	15,0	2,8	1,0	4,4	2	■
JH142030J3R100.0Z4-HXT	02968262	3	J	3,0	6,0	3,0	60,0	15,0	2,8	1,0	4,4	4	■
JH142040J3R030.0Z2-HXT	02968263	3	J	4,0	6,0	4,0	60,0	20,0	3,7	0,3	2,45	2	■
JH142040J3R030.0Z4-HXT	02970111	3	J	4,0	6,0	4,0	60,0	20,0	3,7	0,3	2,45	4	■
JH142040J3R050.0Z2-HXT	02968265	3	J	4,0	6,0	4,0	60,0	20,0	3,7	0,5	2,48	2	■
JH142040J3R050.0Z4-HXT	02968264	3	J	4,0	6,0	4,0	60,0	20,0	3,7	0,5	2,48	4	■
JH142040J3R100.0Z2-HXT	02968266	3	J	4,0	6,0	4,0	60,0	20,0	3,7	1,0	2,53	2	■
JH142040J3R100.0Z4-HXT	02968267	3	J	4,0	6,0	4,0	60,0	20,0	3,7	1,0	2,53	4	■
JH142060J3R050.0Z4-HXT	02968268	3	J	6,0	8,0	6,0	75,0	30,0	5,6	0,5	1,75	4	■
JH142060J3R050.0Z5-HXT	02968269	3	J	6,0	8,0	6,0	75,0	30,0	5,6	0,5	1,75	5	■
JH142060J3R100.0Z4-HXT	02968270	3	J	6,0	8,0	6,0	75,0	30,0	5,6	1,0	1,77	4	■
JH142060J3R100.0Z5-HXT	02968271	3	J	6,0	8,0	6,0	75,0	30,0	5,6	1,0	1,77	5	■
JH142060J3R150.0Z5-HXT	02968272	3	J	6,0	8,0	6,0	75,0	30,0	5,6	1,5	1,8	5	■
JH142060J3R200.0Z5-HXT	02968273	3	J	6,0	8,0	6,0	75,0	30,0	5,6	2,0	1,83	5	■
JH142080J3R050.0Z5-HXT	02968274	3	J	8,0	10,0	8,0	85,0	40,0	7,4	0,5	1,34	5	■
JH142080J3R100.0Z5-HXT	02968275	3	J	8,0	10,0	8,0	85,0	40,0	7,4	1,0	1,36	5	■
JH142080J3R150.0Z5-HXT	02968276	3	J	8,0	10,0	8,0	85,0	40,0	7,4	1,5	1,37	5	■
JH142080J3R200.0Z5-HXT	02968277	3	J	8,0	10,0	8,0	85,0	40,0	7,4	2,0	1,39	5	■
JH142100J3R050.0Z5-HXT	02968278	3	J	10,0	12,0	10,0	100,0	50,0	9,4	0,5	1,1	5	■
JH142100J3R100.0Z5-HXT	02968279	3	J	10,0	12,0	10,0	100,0	50,0	9,4	1,0	1,11	5	■
JH142100J3R200.0Z5-HXT	02968280	3	J	10,0	12,0	10,0	100,0	50,0	9,4	2,0	1,13	5	■
JH142020J6R030.0Z4-HXT	02968282	6	J	2,0	6,0	2,0	75,0	20,0	1,9	0,3	4,33	4	■
JH142020J6R050.0Z4-HXT	02968283	6	J	2,0	6,0	2,0	75,0	20,0	1,9	0,5	4,36	4	■
JH142030J6R050.0Z4-HXT	02968284	6	J	3,0	6,0	3,0	75,0	30,0	2,8	0,5	2,52	4	■
JH142030J6R100.0Z4-HXT	02968285	6	J	3,0	6,0	3,0	75,0	30,0	2,8	1,0	2,56	4	■
JH142040J6R030.0Z4-HXT	02968286	6	J	4,0	6,0	4,0	80,0	40,0	3,7	0,3	1,36	4	■
JH142040J6R050.0Z4-HXT	02968287	6	J	4,0	6,0	4,0	80,0	40,0	3,7	0,5	1,37	4	■
JH142040J6R100.0Z4-HXT	02968288	6	J	4,0	6,0	4,0	80,0	40,0	3,7	1,0	1,38	4	■

■ Stocked standard.

Cutting data – JH142 Copy milling roughing

SMG		a_e/DC	a_p/DC	f_z								v_c
				2	3	4	6	8	10	12	16	
P1	M/E	0.0500 *0,0500*	0.050 *0,050*	0.020 *0,00080*	0.030 *0,0012*	0.040 *0,0016*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.14 *0,0055*	485 (460 — 530) *1600 (1600 — 1700)*
P2	M/E	0.0500 *0,0500*	0.050 *0,050*	0.020 *0,00080*	0.030 *0,0012*	0.040 *0,0016*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.15 *0,0060*	470 (450 — 520) *1550 (1500 — 1700)*
P3	M/E	0.0500 *0,0500*	0.050 *0,050*	0.019 *0,00075*	0.028 *0,0011*	0.038 *0,0015*	0.055 *0,0022*	0.075 *0,0030*	0.095 *0,0038*	0.11 *0,0044*	0.14 *0,0055*	405 (390 — 450) *1325 (1300 — 1400)*
P4	M/E	0.0500 *0,0500*	0.050 *0,050*	0.019 *0,00075*	0.028 *0,0011*	0.038 *0,0015*	0.055 *0,0022*	0.075 *0,0030*	0.095 *0,0038*	0.11 *0,0044*	0.14 *0,0055*	360 (340 — 390) *1175 (1200 — 1200)*
P5	M/E	0.0500 *0,0500*	0.050 *0,050*	0.018 *0,00070*	0.028 *0,0011*	0.036 *0,0014*	0.055 *0,0022*	0.075 *0,0030*	0.090 *0,0036*	0.11 *0,0044*	0.13 *0,0050*	345 (330 — 380) *1125 (1100 — 1200)*
P6	M/E	0.0500 *0,0500*	0.050 *0,050*	0.018 *0,00070*	0.028 *0,0011*	0.036 *0,0014*	0.055 *0,0022*	0.070 *0,0028*	0.090 *0,0036*	0.11 *0,0044*	0.13 *0,0050*	385 (370 — 420) *1275 (1300 — 1300)*
P7	M/E	0.0500 *0,0500*	0.050 *0,050*	0.018 *0,00070*	0.028 *0,0011*	0.036 *0,0014*	0.055 *0,0022*	0.070 *0,0028*	0.090 *0,0036*	0.11 *0,0044*	0.13 *0,0050*	365 (350 — 400) *1200 (1200 — 1300)*
P8	M/E	0.0500 *0,0500*	0.050 *0,050*	0.019 *0,00075*	0.028 *0,0011*	0.038 *0,0015*	0.055 *0,0022*	0.075 *0,0030*	0.095 *0,0038*	0.11 *0,0044*	0.14 *0,0055*	340 (330 — 380) *1125 (1100 — 1200)*
P11	M/E	0.0500 *0,0500*	0.050 *0,050*	0.018 *0,00070*	0.028 *0,0011*	0.036 *0,0014*	0.055 *0,0022*	0.070 *0,0028*	0.090 *0,0036*	0.11 *0,0044*	0.13 *0,0050*	355 (340 — 390) *1175 (1200 — 1200)*
K1	A/E	0.0500 *0,0500*	0.050 *0,050*	0.018 *0,00070*	0.028 *0,0011*	0.036 *0,0014*	0.055 *0,0022*	0.075 *0,0030*	0.090 *0,0036*	0.11 *0,0044*	0.13 *0,0050*	345 (330 — 380) *1125 (1100 — 1200)*
K2	A/E	0.0500 *0,0500*	0.050 *0,050*	0.017 *0,00065*	0.025 *0,0010*	0.034 *0,0013*	0.050 *0,0020*	0.065 *0,0026*	0.085 *0,0034*	0.10 *0,0040*	0.12 *0,0048*	300 (290 — 330) *980 (960 — 1000)*
K3	A/E	0.0500 *0,0500*	0.050 *0,050*	0.017 *0,00065*	0.025 *0,0010*	0.034 *0,0013*	0.050 *0,0020*	0.065 *0,0026*	0.085 *0,0034*	0.10 *0,0040*	0.12 *0,0048*	255 (240 — 280) *840 (790 — 910)*
K4	A/E	0.0500 *0,0500*	0.050 *0,050*	0.017 *0,00065*	0.025 *0,0010*	0.034 *0,0013*	0.050 *0,0020*	0.065 *0,0026*	0.085 *0,0034*	0.10 *0,0040*	0.12 *0,0048*	245 (230 — 260) *800 (760 — 850)*
K5	A/E	0.0500 *0,0500*	0.050 *0,050*	0.018 *0,00070*	0.028 *0,0011*	0.036 *0,0014*	0.055 *0,0022*	0.075 *0,0030*	0.090 *0,0036*	0.11 *0,0044*	0.13 *0,0050*	345 (330 — 380) *1125 (1100 — 1200)*
K6	A/E	0.0500 *0,0500*	0.050 *0,050*	0.020 *0,00080*	0.030 *0,0012*	0.040 *0,0016*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.15 *0,0060*	500 (480 — 550) *1650 (1600 — 1800)*
K7	A/E	0.0500 *0,0500*	0.050 *0,050*	0.018 *0,00070*	0.028 *0,0011*	0.036 *0,0014*	0.055 *0,0022*	0.075 *0,0030*	0.090 *0,0036*	0.11 *0,0044*	0.13 *0,0050*	440 (420 — 490) *1450 (1400 — 1600)*
H3	M/A	0.0200 *0,0200*	0.020 *0,020*	0.014 *0,00055*	0.020 *0,00080*	0.028 *0,0011*	0.042 *0,0017*	0.055 *0,0022*	0.070 *0,0028*	0.080 *0,0032*	0.10 *0,0040*	95 (72 — 110) *310 (240 — 360)*
H5	M/A	0.0400 *0,0400*	0.040 *0,040*	0.014 *0,00055*	0.022 *0,00085*	0.028 *0,0011*	0.042 *0,0017*	0.055 *0,0022*	0.070 *0,0028*	0.085 *0,0034*	0.10 *0,0040*	305 (290 — 330) *1000 (960 — 1000)*
H7	M/A	0.0200 *0,0200*	0.020 *0,020*	0.014 *0,00055*	0.020 *0,00080*	0.028 *0,0011*	0.042 *0,0017*	0.055 *0,0022*	0.070 *0,0028*	0.080 *0,0032*	0.10 *0,0040*	95 (72 — 110) *310 (240 — 360)*
H8	M/A	0.0400 *0,0400*	0.040 *0,040*	0.011 *0,00044*	0.016 *0,00065*	0.022 *0,00085*	0.032 *0,0013*	0.042 *0,0017*	0.055 *0,0022*	0.065 *0,0026*	0.080 *0,0032*	310 (290 — 330) *1025 (960 — 1000)*
H11	M/A	0.0400 *0,0400*	0.040 *0,040*	0.014 *0,00055*	0.022 *0,00085*	0.028 *0,0011*	0.042 *0,0017*	0.055 *0,0022*	0.070 *0,0028*	0.085 *0,0034*	0.10 *0,0040*	390 (360 — 420) *1275 (1200 — 1300)*
H12	M/A	0.0500 *0,0500*	0.050 *0,050*	0.0095 *0,00038*	0.014 *0,00055*	0.019 *0,00075*	0.028 *0,0011*	0.038 *0,0015*	0.046 *0,0018*	0.055 *0,0022*	0.070 *0,0028*	345 (320 — 370) *1125 (1100 — 1200)*
H21	M/A	0.0400 *0,0400*	0.040 *0,040*	0.011 *0,00044*	0.016 *0,00065*	0.022 *0,00085*	0.032 *0,0013*	0.042 *0,0017*	0.055 *0,0022*	0.065 *0,0026*	0.080 *0,0032*	310 (290 — 330) *1025 (960 — 1000)*
H31	M/A	0.0300 *0,0300*	0.030 *0,030*	0.013 *0,00050*	0.019 *0,00075*	0.025 *0,0010*	0.038 *0,0015*	0.050 *0,0020*	0.065 *0,0026*	0.075 *0,0030*	0.090 *0,0036*	140 (120 — 160) *460 (400 — 520)*

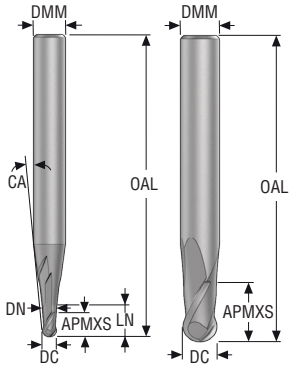
For cutting data recalculations, see pages 573 - 580

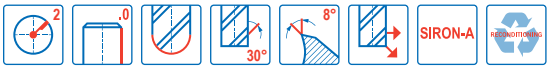
SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

JHB970

High speed – Universal – Ball nose – 2 Flutes – Cylindrical







- Tolerances:
- DMM= h5
- DC= -0,02/-0,04 mm
- RE= ±0,01 mm
- Regrind possible if DC is ≥Ø6

Designation	Grade	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	CA°	PCEDC	Cylindrical
					mm	mm	mm	mm	mm	mm			
JHB970020G1B.0Z2	SIRA	10072058	1	G	2,0	3,0	3,0	50,0	10,0	1,9	2,5	2	■
JHB970030D1B.0Z2	SIRA	10072059	1	D	3,0	3,0	4,5	50,0	–	–	–	2	■
JHB970040D1B.0Z2	SIRA	10072060	1	D	4,0	4,0	6,0	60,0	–	–	–	2	■
JHB970050D1B.0Z2	SIRA	10072061	1	D	5,0	5,0	7,5	60,0	–	–	–	2	■
JHB970060D1B.0Z2	SIRA	10072062	1	D	6,0	6,0	9,0	75,0	–	–	–	2	■
JHB970020G2B.0Z2	SIRA	10072063	2	G	2,0	6,0	3,0	60,0	4,0	1,9	8,0	2	■
JHB970025G2B.0Z2	SIRA	10072064	2	G	2,5	6,0	4,0	60,0	5,0	2,4	7,5	2	■
JHB970030G2B.0Z2	SIRA	10072065	2	G	3,0	6,0	4,5	60,0	6,0	2,8	5,5	2	■
JHB970035G2B.0Z2	SIRA	10072066	2	G	3,5	6,0	5,0	60,0	7,0	3,2	4,5	2	■
JHB970040G2B.0Z2	SIRA	10072067	2	G	4,0	6,0	6,0	60,0	8,0	3,7	3,0	2	■
JHB970050G2B.0Z2	SIRA	10072068	2	G	5,0	6,0	7,5	60,0	10,0	4,6	2,0	2	■
JHB970060G2B.0Z2	SIRA	10072069	2	G	6,0	8,0	9,0	75,0	12,0	5,6	2,5	2	■
JHB970080D2B.0Z2	SIRA	10072070	2	D	8,0	8,0	12,0	75,0	–	–	–	2	■
JHB970100D2B.0Z2	SIRA	10072071	2	D	10,0	10,0	15,0	80,0	–	–	–	2	■
JHB970120D2B.0Z2	SIRA	10072072	2	D	12,0	12,0	18,0	90,0	–	–	–	2	■
JHB970160D2B.0Z2	SIRA	10072073	2	D	16,0	16,0	24,0	100,0	–	–	–	2	■
JHB970020G3B.0Z2	SIRA	10072074	3	G	2,0	6,0	3,0	80,0	4,0	1,9	8,0	2	■
JHB970030G3B.0Z2	SIRA	10072075	3	G	3,0	6,0	4,5	80,0	6,0	2,8	5,5	2	■
JHB970040G3B.0Z2	SIRA	10072076	3	G	4,0	6,0	6,0	80,0	8,0	3,7	3,0	2	■
JHB970060G3B.0Z2	SIRA	10072077	3	G	6,0	8,0	9,0	100,0	12,0	5,6	2,5	2	■
JHB970080D3B.0Z2	SIRA	10072078	3	D	8,0	8,0	12,0	108,0	–	–	–	2	■
JHB970100D3B.0Z2	SIRA	10072079	3	D	10,0	10,0	15,0	125,0	–	–	–	2	■
JHB970120D3B.0Z2	SIRA	10072080	3	D	12,0	12,0	18,0	125,0	–	–	–	2	■

■ Stocked standard.

Cutting data – JHB970 Copy milling roughing

SMG		a_e/DC	a_p/DC	f_z											v_c
				2	2.5	3	3.5	4	5	6	8	10	12	16	
P1	M	0.200 *0,200*	1.0 *1,0*	0.011 *0,00044*	0.014 *0,00055*	0.016 *0,00065*	0.019 *0,00075*	0.022 *0,00085*	0.028 *0,0011*	0.032 *0,0013*	0.044 *0,0017*	0.055 *0,0022*	0.065 *0,0026*	0.080 *0,0032*	210 (190 — 230) *690 (630 — 750)*
P2	M	0.200 *0,200*	1.0 *1,0*	0.011 *0,00044*	0.014 *0,00055*	0.017 *0,00065*	0.019 *0,00075*	0.022 *0,00085*	0.028 *0,0011*	0.034 *0,0013*	0.044 *0,0017*	0.055 *0,0022*	0.065 *0,0026*	0.080 *0,0032*	205 (180 — 230) *670 (600 — 750)*
P3	M	0.200 *0,200*	1.0 *1,0*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.018 *0,00070*	0.020 *0,00080*	0.026 *0,0010*	0.032 *0,0013*	0.042 *0,0017*	0.050 *0,0020*	0.060 *0,0024*	0.075 *0,0030*	180 (160 — 200) *590 (530 — 650)*
P4	M	0.200 *0,200*	1.0 *1,0*	0.010 *0,00040*	0.013 *0,00050*	0.015 *0,00060*	0.018 *0,00070*	0.020 *0,00080*	0.026 *0,0010*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.075 *0,0030*	155 (140 — 170) *510 (460 — 550)*
P5	M	0.200 *0,200*	1.0 *1,0*	0.010 *0,00040*	0.012 *0,00048*	0.015 *0,00060*	0.018 *0,00065*	0.020 *0,00080*	0.025 *0,0010*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.075 *0,0030*	150 (140 — 170) *490 (460 — 550)*
P6	M	0.200 *0,200*	1.0 *1,0*	0.010 *0,00040*	0.012 *0,00048*	0.015 *0,00060*	0.017 *0,00065*	0.020 *0,00080*	0.025 *0,0010*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.075 *0,0030*	170 (150 — 190) *560 (500 — 620)*
P7	M	0.200 *0,200*	1.0 *1,0*	0.010 *0,00040*	0.012 *0,00048*	0.015 *0,00060*	0.017 *0,00065*	0.020 *0,00080*	0.025 *0,0010*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.075 *0,0030*	160 (140 — 180) *520 (460 — 590)*
P8	M	0.200 *0,200*	1.0 *1,0*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.018 *0,00070*	0.020 *0,00080*	0.026 *0,0010*	0.032 *0,0013*	0.042 *0,0017*	0.050 *0,0020*	0.060 *0,0024*	0.075 *0,0030*	150 (140 — 170) *490 (460 — 550)*
P11	M	0.200 *0,200*	1.0 *1,0*	0.010 *0,00040*	0.012 *0,00048*	0.015 *0,00060*	0.017 *0,00065*	0.020 *0,00080*	0.025 *0,0010*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.075 *0,0030*	75 (67 — 86) *245 (220 — 280)*
P12	M	0.200 *0,200*	1.0 *1,0*	0.0070 *0,00028*	0.0085 *0,00034*	0.010 *0,00040*	0.012 *0,00048*	0.014 *0,00055*	0.017 *0,00065*	0.020 *0,00080*	0.028 *0,0011*	0.034 *0,0013*	0.040 *0,0016*	0.050 *0,0020*	48 (42 — 53) *155 (140 — 170)*
M1	E	0.200 *0,200*	1.0 *1,0*	0.0090 *0,00036*	0.011 *0,00044*	0.013 *0,00050*	0.015 *0,00060*	0.018 *0,00070*	0.022 *0,00085*	0.026 *0,0010*	0.036 *0,0014*	0.044 *0,0017*	0.050 *0,0020*	0.065 *0,0026*	90 (80 — 100) *295 (270 — 320)*
M2	E	0.200 *0,200*	1.0 *1,0*	0.0080 *0,00032*	0.010 *0,00040*	0.012 *0,00048*	0.014 *0,00055*	0.016 *0,00065*	0.020 *0,00080*	0.024 *0,00095*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.060 *0,0024*	75 (65 — 85) *245 (220 — 270)*
M3	E	0.150 *0,150*	1.0 *1,0*	0.0060 *0,00024*	0.0075 *0,00030*	0.0090 *0,00036*	0.010 *0,00040*	0.012 *0,00048*	0.015 *0,00060*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.044 *0,0017*	65 (55 — 75) *215 (190 — 240)*
M4	E	0.150 *0,150*	1.0 *1,0*	0.0050 *0,00020*	0.0065 *0,00026*	0.0080 *0,00032*	0.0090 *0,00036*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.020 *0,00080*	0.026 *0,0010*	0.032 *0,0013*	0.038 *0,0015*	49 (42 — 56) *160 (140 — 180)*
M5	E	0.150 *0,150*	1.0 *1,0*	0.0050 *0,00020*	0.0065 *0,00026*	0.0080 *0,00032*	0.0090 *0,00036*	0.010 *0,00040*	0.013 *0,00050*	0.016 *0,00065*	0.020 *0,00080*	0.026 *0,0010*	0.032 *0,0013*	0.038 *0,0015*	41 (35 — 47) *135 (120 — 150)*
S1	E	0.100 *0,100*	0.80 *0,80*	0.0060 *0,00024*	0.0075 *0,00030*	0.0090 *0,00036*	0.010 *0,00040*	0.012 *0,00048*	0.015 *0,00060*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.044 *0,0017*	50 (40 — 59) *165 (140 — 190)*
S2	E	0.100 *0,100*	0.80 *0,80*	0.0060 *0,00024*	0.0075 *0,00030*	0.0090 *0,00036*	0.010 *0,00040*	0.012 *0,00048*	0.015 *0,00060*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.044 *0,0017*	40 (33 — 48) *130 (110 — 150)*
S3	E	0.100 *0,100*	0.60 *0,60*	0.0040 *0,00016*	0.0050 *0,00020*	0.0060 *0,00024*	0.0070 *0,00028*	0.0080 *0,00032*	0.010 *0,00040*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	0.024 *0,00095*	0.028 *0,0011*	30 (20 — 39) *100 (66 — 120)*
S11	E	0.200 *0,200*	1.0 *1,0*	0.010 *0,00040*	0.012 *0,00048*	0.015 *0,00060*	0.018 *0,00065*	0.020 *0,00080*	0.025 *0,0010*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.075 *0,0030*	90 (79 — 100) *295 (260 — 320)*
S12	E	0.200 *0,200*	1.0 *1,0*	0.010 *0,00040*	0.012 *0,00048*	0.015 *0,00060*	0.018 *0,00065*	0.020 *0,00080*	0.025 *0,0010*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.075 *0,0030*	70 (61 — 80) *230 (210 — 260)*
S13	E	0.200 *0,200*	1.0 *1,0*	0.0085 *0,00034*	0.011 *0,00044*	0.013 *0,00050*	0.015 *0,00060*	0.017 *0,00065*	0.022 *0,00085*	0.026 *0,0010*	0.034 *0,0013*	0.044 *0,0017*	0.050 *0,0020*	0.065 *0,0026*	55 (48 — 63) *180 (160 — 200)*

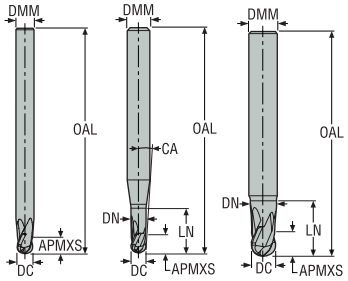
For cutting data recalculations, see pages 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

JH112

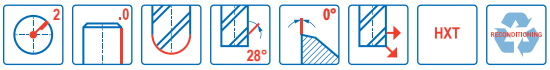
High speed – High precision – Hardened steel – Ball nose – 2 Flutes – Cylindrical





D G E

- Tolerances:
- Run-out= <0,005 mm
- DMM= h5
- DC= 0-0,01 mm
- RE= ±0,005 mm
- Regrind possible if DC is ≥Ø6

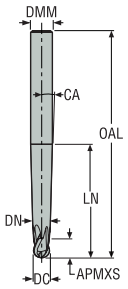


Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	CA°	PCEDC	Cylindrical
				mm	mm	mm	mm	mm	mm			
JH112020G1B.0Z2-HXT	02970112	1	G	2,0	4,0	2,0	40,0	4,0	1,9	6,45	2	■
JH112030G1B.0Z2-HXT	02970113	1	G	3,0	4,0	3,0	40,0	6,0	2,8	3,3	2	■
JH112040D1B.0Z2-HXT	02970114	1	D	4,0	4,0	4,0	40,0	–	–	–	2	■
JH112050G1B.0Z2-HXT	02970115	1	G	5,0	6,0	5,0	50,0	10,0	4,6	2,0	2	■
JH112060D1B.0Z2-HXT	02970116	1	D	6,0	6,0	6,0	50,0	–	–	–	2	■
JH112080D1B.0Z2-HXT	02970117	1	D	8,0	8,0	8,0	65,0	–	–	–	2	■
JH112100D1B.0Z2-HXT	02970118	1	D	10,0	10,0	10,0	65,0	–	–	–	2	■
JH112020G2B.0Z2-HXT	02970119	2	G	2,0	3,0	2,0	50,0	10,0	1,9	2,5	2	■
JH112030D2B.0Z2-HXT	02970120	2	D	3,0	3,0	3,0	50,0	–	–	–	2	■
JH112040D2B.0Z2-HXT	02970121	2	D	4,0	4,0	4,0	60,0	–	–	–	2	■
JH112050D2B.0Z2-HXT	02970122	2	D	5,0	5,0	5,0	60,0	–	–	–	2	■
JH112060D2B.0Z2-HXT	02970123	2	D	6,0	6,0	6,0	75,0	–	–	–	2	■
JH112020G3B.0Z2-HXT	02970124	3	G	2,0	6,0	2,0	60,0	4,0	1,9	8,12	2	■
JH112025G3B.0Z2-HXT	02970125	3	G	2,5	6,0	2,5	60,0	5,0	2,4	7,39	2	■
JH112030G3B.0Z2-HXT	02970126	3	G	3,0	6,0	3,0	60,0	6,0	2,8	5,5	2	■
JH112035G3B.0Z2-HXT	02968289	3	G	3,5	6,0	3,5	65,0	7,0	3,2	3,81	2	■
JH112040G3B.0Z2-HXT	02970127	3	G	4,0	6,0	4,0	65,0	8,0	3,7	3,34	2	■
JH112050G3B.0Z2-HXT	02970128	3	G	5,0	6,0	5,0	65,0	10,0	4,6	2,0	2	■
JH112060G3B.0Z2-HXT	02970129	3	G	6,0	8,0	6,0	75,0	12,0	5,6	2,78	2	■
JH112080E3B.0Z2-HXT	02968290	3	E	8,0	8,0	8,0	75,0	16,0	7,4	–	2	■
JH112100E3B.0Z2-HXT	02968291	3	E	10,0	10,0	10,0	80,0	20,0	9,4	–	2	■
JH112120E3B.0Z2-HXT	02968292	3	E	12,0	12,0	12,0	90,0	24,0	11,4	–	2	■
JH112020G4B.0Z2-HXT	02970130	4	G	2,0	6,0	2,0	80,0	20,0	1,9	3,82	2	■
JH112030G4B.0Z2-HXT	02970131	4	G	3,0	6,0	3,0	80,0	20,0	2,8	2,91	2	■
JH112040G4B.0Z2-HXT	02970132	4	G	4,0	6,0	4,0	80,0	20,0	3,7	1,97	2	■
JH112050G4B.0Z2-HXT	02970133	4	G	5,0	6,0	5,0	100,0	50,0	4,6	0,53	2	■
JH112060D4B.0Z2-HXT	02968293	4	D	6,0	6,0	6,0	100,0	–	–	–	2	■
JH112080D4B.0Z2-HXT	02968294	4	D	8,0	8,0	8,0	110,0	–	–	–	2	■
JH112100D4B.0Z2-HXT	02968295	4	D	10,0	10,0	10,0	125,0	–	–	–	2	■
JH112120D4B.0Z2-HXT	02968296	4	D	12,0	12,0	12,0	125,0	–	–	–	2	■

■ Stocked standard.

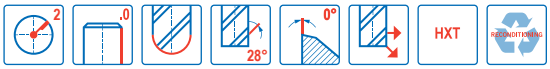
JH112

High speed – High precision – Hardened steel – Ball nose – 2 Flutes – Cylindrical



J





- Tolerances:
- Run-out= <0,005 mm
- DMM= h5
- DC= 0-0,01 mm
- RE= ±0,005 mm
- Regrind possible

Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	CA°	PCEDC	Cylindrical
				mm	mm	mm	mm	mm	mm			
JH112020J5B.0Z2-HXT	02970134	5	J	2,0	6,0	2,0	80,0	35,0	1,9	3,3	2	■
JH112030J5B.0Z2-HXT	02970135	5	J	3,0	6,0	3,0	80,0	40,0	2,8	2,2	2	■
JH112040J5B.0Z2-HXT	02970136	5	J	4,0	6,0	4,0	80,0	52,0	3,7	1,2	2	■
JH112050J5B.0Z2-HXT	02970137	5	J	5,0	8,0	5,0	100,0	56,0	4,6	1,6	2	■
JH112060J5B.0Z2-HXT	02970138	5	J	6,0	8,0	6,0	100,0	56,0	5,6	1,1	2	■
JH112080J5B.0Z2-HXT	02970139	5	J	8,0	10,0	8,0	125,0	62,0	7,4	1,0	2	■
JH112100J5B.0Z2-HXT	02970140	5	J	10,0	12,0	10,0	125,0	61,0	9,4	1,0	2	■
JH112060J6B.0Z2-HXT	02970141	6	J	6,0	10,0	6,0	125,0	62,0	5,6	2,0	2	■
JH112080J6B.0Z2-HXT	02970142	6	J	8,0	12,0	8,0	150,0	67,0	7,4	1,8	2	■
JH112100J6B.0Z2-HXT	02970143	6	J	10,0	12,0	10,0	150,0	79,0	9,4	0,8	2	■

■ Stocked standard.

Cutting data – JH112 Copy milling finishing

SMG		a_p/DC	f_z										v_c
			2	2.5	3	3.5	4	5	6	8	10	12	
K1	E	0.30 *0,30*	0.030 *0,0012*	0.038 *0,0015*	0.044 *0,0017*	0.050 *0,0020*	0.060 *0,0024*	0.075 *0,0030*	0.090 *0,0036*	0.12 *0,0048*	0.15 *0,0060*	0.18 *0,0070*	520 (500 — 730) *1700 (1700 — 2300)*
K2	E	0.30 *0,30*	0.030 *0,0012*	0.038 *0,0015*	0.044 *0,0017*	0.050 *0,0020*	0.060 *0,0024*	0.075 *0,0030*	0.090 *0,0036*	0.12 *0,0048*	0.15 *0,0060*	0.18 *0,0070*	445 (430 — 630) *1450 (1500 — 2000)*
K3	E	0.30 *0,30*	0.030 *0,0012*	0.038 *0,0015*	0.044 *0,0017*	0.050 *0,0020*	0.060 *0,0024*	0.075 *0,0030*	0.090 *0,0036*	0.12 *0,0048*	0.15 *0,0060*	0.18 *0,0070*	380 (360 — 530) *1250 (1200 — 1700)*
K4	E	0.30 *0,30*	0.030 *0,0012*	0.038 *0,0015*	0.044 *0,0017*	0.050 *0,0020*	0.060 *0,0024*	0.075 *0,0030*	0.090 *0,0036*	0.12 *0,0048*	0.15 *0,0060*	0.18 *0,0070*	360 (350 — 510) *1175 (1200 — 1600)*
K5	E	0.30 *0,30*	0.030 *0,0012*	0.038 *0,0015*	0.044 *0,0017*	0.050 *0,0020*	0.060 *0,0024*	0.075 *0,0030*	0.090 *0,0036*	0.12 *0,0048*	0.15 *0,0060*	0.18 *0,0070*	415 (370 — 610) *1350 (1300 — 2000)*
K6	E	0.30 *0,30*	0.030 *0,0012*	0.038 *0,0015*	0.044 *0,0017*	0.050 *0,0020*	0.060 *0,0024*	0.075 *0,0030*	0.090 *0,0036*	0.12 *0,0048*	0.15 *0,0060*	0.18 *0,0070*	610 (550 — 900) *2000 (1900 — 2900)*
K7	E	0.30 *0,30*	0.030 *0,0012*	0.038 *0,0015*	0.044 *0,0017*	0.050 *0,0020*	0.060 *0,0024*	0.075 *0,0030*	0.090 *0,0036*	0.12 *0,0048*	0.15 *0,0060*	0.18 *0,0070*	680 (560 — 790) *2225 (1900 — 2500)*
H3	M	0.16 *0,16*	0.028 *0,0011*	0.036 *0,0014*	0.042 *0,0017*	0.048 *0,0019*	0.055 *0,0022*	0.070 *0,0028*	0.085 *0,0034*	0.11 *0,0044*	0.14 *0,0055*	0.17 *0,0065*	155 (150 — 230) *510 (500 — 750)*
H5	M	0.30 *0,30*	0.030 *0,0012*	0.038 *0,0015*	0.044 *0,0017*	0.050 *0,0020*	0.060 *0,0024*	0.075 *0,0030*	0.090 *0,0036*	0.12 *0,0048*	0.15 *0,0060*	0.18 *0,0070*	285 (240 — 330) *940 (790 — 1000)*
H7	M	0.16 *0,16*	0.028 *0,0011*	0.036 *0,0014*	0.042 *0,0017*	0.048 *0,0019*	0.055 *0,0022*	0.070 *0,0028*	0.085 *0,0034*	0.11 *0,0044*	0.14 *0,0055*	0.17 *0,0065*	155 (150 — 230) *510 (500 — 750)*
H8	M	0.30 *0,30*	0.030 *0,0012*	0.038 *0,0015*	0.044 *0,0017*	0.050 *0,0020*	0.060 *0,0024*	0.075 *0,0030*	0.090 *0,0036*	0.12 *0,0048*	0.15 *0,0060*	0.18 *0,0070*	285 (240 — 330) *940 (790 — 1000)*
H11	M	0.30 *0,30*	0.030 *0,0012*	0.038 *0,0015*	0.044 *0,0017*	0.050 *0,0020*	0.060 *0,0024*	0.075 *0,0030*	0.090 *0,0036*	0.12 *0,0048*	0.15 *0,0060*	0.18 *0,0070*	360 (300 — 420) *1175 (990 — 1300)*
H12	M	0.30 *0,30*	0.030 *0,0012*	0.038 *0,0015*	0.044 *0,0017*	0.050 *0,0020*	0.060 *0,0024*	0.075 *0,0030*	0.090 *0,0036*	0.12 *0,0048*	0.15 *0,0060*	0.18 *0,0070*	330 (280 — 380) *1075 (920 — 1200)*
H21	M	0.30 *0,30*	0.030 *0,0012*	0.038 *0,0015*	0.044 *0,0017*	0.050 *0,0020*	0.060 *0,0024*	0.075 *0,0030*	0.090 *0,0036*	0.12 *0,0048*	0.15 *0,0060*	0.18 *0,0070*	285 (240 — 330) *940 (790 — 1000)*
H31	M	0.30 *0,30*	0.026 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	0.046 *0,0018*	0.050 *0,0020*	0.065 *0,0026*	0.080 *0,0032*	0.10 *0,0040*	0.13 *0,0050*	0.16 *0,0065*	300 (290 — 430) *980 (960 — 1400)*

For cutting data recalculations, see pages 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

Cutting data – JH112 Copy milling roughing

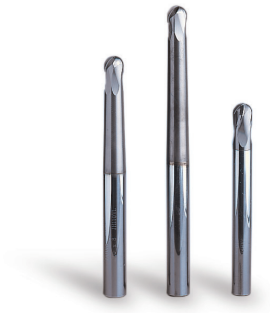
SMG		a_e/DC	a_p/DC	f_z										v_c
				2	2.5	3	3.5	4	5	6	8	10	12	
K1	E	0.250 *0,250*	0.15 *0,15*	0.030 *0,0012*	0.038 *0,0015*	0.044 *0,0017*	0.050 *0,0020*	0.060 *0,0024*	0.075 *0,0030*	0.090 *0,0036*	0.12 *0,0048*	0.15 *0,0060*	0.18 *0,0070*	315 (310 — 450) *1025 (1100 — 1400)*
K2	E	0.250 *0,250*	0.15 *0,15*	0.028 *0,0011*	0.036 *0,0014*	0.044 *0,0017*	0.050 *0,0020*	0.060 *0,0024*	0.070 *0,0028*	0.085 *0,0034*	0.12 *0,0048*	0.14 *0,0055*	0.17 *0,0065*	280 (270 — 390) *920 (890 — 1200)*
K3	E	0.250 *0,250*	0.15 *0,15*	0.028 *0,0011*	0.036 *0,0014*	0.044 *0,0017*	0.050 *0,0020*	0.060 *0,0024*	0.070 *0,0028*	0.085 *0,0034*	0.12 *0,0048*	0.14 *0,0055*	0.17 *0,0065*	235 (230 — 330) *770 (760 — 1000)*
K4	E	0.250 *0,250*	0.15 *0,15*	0.028 *0,0011*	0.036 *0,0014*	0.044 *0,0017*	0.050 *0,0020*	0.060 *0,0024*	0.070 *0,0028*	0.085 *0,0034*	0.12 *0,0048*	0.14 *0,0055*	0.17 *0,0065*	225 (220 — 320) *740 (730 — 1000)*
K5	E	0.160 *0,160*	0.15 *0,15*	0.030 *0,0012*	0.038 *0,0015*	0.044 *0,0017*	0.050 *0,0020*	0.060 *0,0024*	0.075 *0,0030*	0.090 *0,0036*	0.12 *0,0048*	0.15 *0,0060*	0.18 *0,0070*	280 (250 — 410) *920 (830 — 1300)*
K6	E	0.160 *0,160*	0.15 *0,15*	0.030 *0,0012*	0.038 *0,0015*	0.044 *0,0017*	0.050 *0,0020*	0.060 *0,0024*	0.075 *0,0030*	0.090 *0,0036*	0.12 *0,0048*	0.15 *0,0060*	0.18 *0,0070*	415 (370 — 610) *1350 (1300 — 2000)*
K7	E	0.250 *0,250*	0.10 *0,10*	0.030 *0,0012*	0.038 *0,0015*	0.044 *0,0017*	0.050 *0,0020*	0.060 *0,0024*	0.075 *0,0030*	0.090 *0,0036*	0.12 *0,0048*	0.15 *0,0060*	0.18 *0,0070*	420 (350 — 490) *1375 (1200 — 1600)*
H3	M	0.120 *0,120*	0.040 *0,040*	0.028 *0,0011*	0.036 *0,0014*	0.042 *0,0017*	0.048 *0,0019*	0.055 *0,0022*	0.070 *0,0028*	0.085 *0,0034*	0.11 *0,0044*	0.14 *0,0055*	0.17 *0,0065*	110 (100 — 160) *360 (330 — 520)*
H5	M	0.250 *0,250*	0.10 *0,10*	0.030 *0,0012*	0.038 *0,0015*	0.044 *0,0017*	0.050 *0,0020*	0.060 *0,0024*	0.075 *0,0030*	0.090 *0,0036*	0.12 *0,0048*	0.15 *0,0060*	0.18 *0,0070*	175 (150 — 200) *570 (500 — 650)*
H7	M	0.120 *0,120*	0.040 *0,040*	0.028 *0,0011*	0.036 *0,0014*	0.042 *0,0017*	0.048 *0,0019*	0.055 *0,0022*	0.070 *0,0028*	0.085 *0,0034*	0.11 *0,0044*	0.14 *0,0055*	0.17 *0,0065*	110 (100 — 160) *360 (330 — 520)*
H8	M	0.250 *0,250*	0.10 *0,10*	0.030 *0,0012*	0.038 *0,0015*	0.044 *0,0017*	0.050 *0,0020*	0.060 *0,0024*	0.075 *0,0030*	0.090 *0,0036*	0.12 *0,0048*	0.15 *0,0060*	0.18 *0,0070*	175 (150 — 200) *570 (500 — 650)*
H11	M	0.250 *0,250*	0.10 *0,10*	0.030 *0,0012*	0.038 *0,0015*	0.044 *0,0017*	0.050 *0,0020*	0.060 *0,0024*	0.075 *0,0030*	0.090 *0,0036*	0.12 *0,0048*	0.15 *0,0060*	0.18 *0,0070*	225 (190 — 260) *740 (630 — 850)*
H12	M	0.250 *0,250*	0.10 *0,10*	0.030 *0,0012*	0.038 *0,0015*	0.044 *0,0017*	0.050 *0,0020*	0.060 *0,0024*	0.075 *0,0030*	0.090 *0,0036*	0.12 *0,0048*	0.15 *0,0060*	0.18 *0,0070*	205 (170 — 240) *670 (560 — 780)*
H21	M	0.250 *0,250*	0.10 *0,10*	0.030 *0,0012*	0.038 *0,0015*	0.044 *0,0017*	0.050 *0,0020*	0.060 *0,0024*	0.075 *0,0030*	0.090 *0,0036*	0.12 *0,0048*	0.15 *0,0060*	0.18 *0,0070*	175 (150 — 200) *570 (500 — 650)*
H31	M	0.200 *0,200*	0.10 *0,10*	0.026 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	0.046 *0,0018*	0.050 *0,0020*	0.065 *0,0026*	0.080 *0,0032*	0.10 *0,0040*	0.13 *0,0050*	0.16 *0,0065*	200 (200 — 280) *660 (660 — 910)*

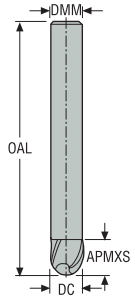
For cutting data recalculations, see pages 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

JH150

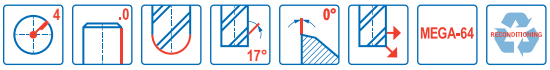
High speed – Hardened steel – Ball nose – 4 Flutes – Cylindrical





D

- Tolerances:
- DMM= h5
- DC= -0,02/-0,04 mm
- RE= ±0,01 mm
- Regrind possible



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	PCEDC	Cylindrical
				mm	mm	mm	mm		
150060-MEGA-64	00019198	2	D	6,0	6,0	6,0	80,0	4	■
150080-MEGA-64	00019208	2	D	8,0	8,0	8,0	85,0	4	■
150100-MEGA-64	00019219	2	D	10,0	10,0	10,0	100,0	4	■
150120-MEGA-64	00019254	2	D	12,0	12,0	12,0	100,0	4	■

■ Stocked standard.

Cutting data – JH150 Copy milling roughing

SMG		a_e/DC	a_p/DC	f_z				v_c
				6	8	10	12	
K1	A	0.300 *0,300*	0.15 *0,15*	0.10 *0,0040*	0.14 *0,0055*	0.17 *0,0065*	0.20 *0,0080*	290 (310 — 370) *950 (1100 — 1200)*
K2	A	0.300 *0,300*	0.15 *0,15*	0.10 *0,0040*	0.14 *0,0055*	0.17 *0,0065*	0.20 *0,0080*	250 (270 — 320) *820 (890 — 1000)*
K3	A	0.300 *0,300*	0.15 *0,15*	0.10 *0,0040*	0.14 *0,0055*	0.17 *0,0065*	0.20 *0,0080*	210 (230 — 270) *690 (760 — 880)*
K5	A	0.200 *0,200*	0.15 *0,15*	0.10 *0,0040*	0.14 *0,0055*	0.17 *0,0065*	0.20 *0,0080*	255 (270 — 330) *840 (890 — 1000)*
K6	A	0.200 *0,200*	0.15 *0,15*	0.10 *0,0040*	0.14 *0,0055*	0.17 *0,0065*	0.20 *0,0080*	375 (390 — 500) *1225 (1300 — 1600)*
K7	A	0.200 *0,200*	0.15 *0,15*	0.10 *0,0040*	0.14 *0,0055*	0.17 *0,0065*	0.20 *0,0080*	325 (340 — 430) *1075 (1200 — 1400)*
H3	M	0.0500 *0,0500*	0.020 *0,020*	0.085 *0,0034*	0.11 *0,0044*	0.14 *0,0055*	0.17 *0,0065*	85 (88 — 120) *280 (290 — 390)*
H5	M	0.200 *0,200*	0.060 *0,060*	0.10 *0,0040*	0.14 *0,0055*	0.17 *0,0065*	0.20 *0,0080*	180 (160 — 200) *590 (530 — 650)*
H7	M	0.0500 *0,0500*	0.020 *0,020*	0.085 *0,0034*	0.11 *0,0044*	0.14 *0,0055*	0.17 *0,0065*	85 (88 — 120) *280 (290 — 390)*
H8	M	0.200 *0,200*	0.060 *0,060*	0.10 *0,0040*	0.14 *0,0055*	0.17 *0,0065*	0.20 *0,0080*	180 (160 — 200) *590 (530 — 650)*
H11	M	0.200 *0,200*	0.060 *0,060*	0.10 *0,0040*	0.14 *0,0055*	0.17 *0,0065*	0.20 *0,0080*	230 (210 — 250) *750 (690 — 820)*
H12	M	0.200 *0,200*	0.060 *0,060*	0.10 *0,0040*	0.14 *0,0055*	0.17 *0,0065*	0.20 *0,0080*	210 (190 — 230) *690 (630 — 750)*
H21	M	0.200 *0,200*	0.060 *0,060*	0.10 *0,0040*	0.14 *0,0055*	0.17 *0,0065*	0.20 *0,0080*	180 (160 — 200) *590 (530 — 650)*
H31	M	0.150 *0,150*	0.060 *0,060*	0.090 *0,0036*	0.12 *0,0048*	0.15 *0,0060*	0.18 *0,0070*	125 (130 — 180) *410 (430 — 590)*

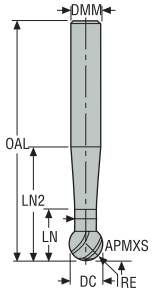
For cutting data recalculations, see pages 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

JH160

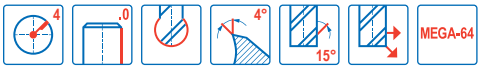
High speed – Hardened steel – Ball nose – 4 Flutes – Cylindrical





E

- Tolerances:
- DMM= h5
- DC= 0,02/-0,06 mm
- SA=250°



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	LN2	DN	RE	PCEDC	Cylindrical
				mm	mm	mm	mm	mm	mm	mm	mm		
160030-MEGA-64	00040365	2	E	3,0	3,0	2,3	60,0	4,5	9,0	1,8	1,5	4	■
160040-MEGA-64	00040366	2	E	4,0	4,0	3,1	60,0	5,6	11,0	2,4	2,0	4	■
160050-MEGA-64	00040367	2	E	5,0	5,0	3,9	70,0	6,4	13,0	3,0	2,5	4	■
160060-MEGA-64	00040368	2	E	6,0	6,0	4,7	80,0	9,7	17,3	3,6	3,0	4	■
160080-MEGA-64	00040369	2	E	8,0	8,0	6,2	85,0	11,2	21,3	4,8	4,0	4	■
160100-MEGA-64	00040370	2	E	10,0	10,0	7,8	100,0	15,6	27,9	6,0	5,0	4	■
160120-MEGA-64	00040371	2	E	12,0	12,0	9,4	125,0	17,2	31,8	7,2	6,0	4	■

■ Stocked standard.

Cutting data – JH160 Copy milling finishing

SMG		a_e/DC	a_p/DC	f_z							v_c
				3	4	5	6	8	10	12	
P1	M/E/A	0.0200 *0,0200*	0.024 *0,024*	0.050 *0,0020*	0.070 *0,0028*	0.085 *0,0034*	0.10 *0,0040*	0.14 *0,0055*	0.17 *0,0065*	0.20 *0,0080*	550 (450 — 700) *1800 (1500 — 2200)*
P2	M/E/A	0.0200 *0,0200*	0.024 *0,024*	0.050 *0,0020*	0.070 *0,0028*	0.085 *0,0034*	0.10 *0,0040*	0.14 *0,0055*	0.17 *0,0065*	0.20 *0,0080*	530 (440 — 680) *1750 (1500 — 2200)*
P3	M/E/A	0.0200 *0,0200*	0.024 *0,024*	0.050 *0,0020*	0.070 *0,0028*	0.085 *0,0034*	0.10 *0,0040*	0.14 *0,0055*	0.17 *0,0065*	0.20 *0,0080*	460 (380 — 590) *1500 (1300 — 1900)*
P4	M/E/A	0.0200 *0,0200*	0.024 *0,024*	0.050 *0,0020*	0.070 *0,0028*	0.085 *0,0034*	0.10 *0,0040*	0.14 *0,0055*	0.17 *0,0065*	0.20 *0,0080*	405 (340 — 520) *1325 (1200 — 1700)*
P5	M/E/A	0.0200 *0,0200*	0.024 *0,024*	0.050 *0,0020*	0.070 *0,0028*	0.085 *0,0034*	0.10 *0,0040*	0.14 *0,0055*	0.17 *0,0065*	0.20 *0,0080*	385 (320 — 490) *1275 (1100 — 1600)*
P6	M/E/A	0.0200 *0,0200*	0.024 *0,024*	0.050 *0,0020*	0.070 *0,0028*	0.085 *0,0034*	0.10 *0,0040*	0.14 *0,0055*	0.17 *0,0065*	0.20 *0,0080*	430 (360 — 560) *1400 (1200 — 1800)*
P7	M/E/A	0.0200 *0,0200*	0.024 *0,024*	0.050 *0,0020*	0.070 *0,0028*	0.085 *0,0034*	0.10 *0,0040*	0.14 *0,0055*	0.17 *0,0065*	0.20 *0,0080*	410 (340 — 520) *1350 (1200 — 1700)*
P8	M/E/A	0.0200 *0,0200*	0.024 *0,024*	0.050 *0,0020*	0.070 *0,0028*	0.085 *0,0034*	0.10 *0,0040*	0.14 *0,0055*	0.17 *0,0065*	0.20 *0,0080*	385 (320 — 490) *1275 (1100 — 1600)*
P11	M/E/A	0.0200 *0,0200*	0.024 *0,024*	0.050 *0,0020*	0.070 *0,0028*	0.085 *0,0034*	0.10 *0,0040*	0.14 *0,0055*	0.17 *0,0065*	0.20 *0,0080*	395 (330 — 510) *1300 (1100 — 1600)*
P12	M/E/A	0.0200 *0,0200*	0.024 *0,024*	0.050 *0,0020*	0.070 *0,0028*	0.085 *0,0034*	0.10 *0,0040*	0.14 *0,0055*	0.17 *0,0065*	0.20 *0,0080*	235 (200 — 300) *770 (660 — 980)*
H3	M/E/A	0.0100 *0,0100*	0.0075 *0,0075*	0.040 *0,0016*	0.050 *0,0020*	0.065 *0,0026*	0.080 *0,0032*	0.10 *0,0040*	0.13 *0,0050*	0.16 *0,0065*	85 (91 — 110) *280 (300 — 360)*
H5	M/E/A	0.0100 *0,0100*	0.016 *0,016*	0.040 *0,0016*	0.050 *0,0020*	0.065 *0,0026*	0.080 *0,0032*	0.10 *0,0040*	0.13 *0,0050*	0.16 *0,0065*	340 (320 — 360) *1125 (1100 — 1100)*
H7	M/E/A	0.0100 *0,0100*	0.0075 *0,0075*	0.040 *0,0016*	0.050 *0,0020*	0.065 *0,0026*	0.080 *0,0032*	0.10 *0,0040*	0.13 *0,0050*	0.16 *0,0065*	85 (91 — 110) *280 (300 — 360)*
H8	M/E/A	0.0100 *0,0100*	0.016 *0,016*	0.040 *0,0016*	0.050 *0,0020*	0.065 *0,0026*	0.080 *0,0032*	0.10 *0,0040*	0.13 *0,0050*	0.16 *0,0065*	340 (320 — 360) *1125 (1100 — 1100)*
H11	M/E/A	0.0100 *0,0100*	0.016 *0,016*	0.040 *0,0016*	0.050 *0,0020*	0.065 *0,0026*	0.080 *0,0032*	0.10 *0,0040*	0.13 *0,0050*	0.16 *0,0065*	430 (400 — 460) *1400 (1400 — 1500)*
H12	M/E/A	0.0200 *0,0200*	0.024 *0,024*	0.050 *0,0020*	0.070 *0,0028*	0.085 *0,0034*	0.10 *0,0040*	0.14 *0,0055*	0.17 *0,0065*	0.20 *0,0080*	355 (340 — 380) *1175 (1200 — 1200)*
H21	M/E/A	0.0100 *0,0100*	0.016 *0,016*	0.040 *0,0016*	0.050 *0,0020*	0.065 *0,0026*	0.080 *0,0032*	0.10 *0,0040*	0.13 *0,0050*	0.16 *0,0065*	340 (320 — 360) *1125 (1100 — 1100)*
H31	M/E/A	0.0100 *0,0100*	0.016 *0,016*	0.040 *0,0016*	0.050 *0,0020*	0.065 *0,0026*	0.080 *0,0032*	0.10 *0,0040*	0.13 *0,0050*	0.16 *0,0065*	165 (180 — 210) *540 (600 — 680)*

For cutting data recalculations, see pages 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values



STAINLESS AND S-MATERIALS

Seco offers a complete range of high performance solid carbide square shoulder end mills, ballnose cutters and finish end mills for high productivity in stainless steel and ISO S-materials.

- JS754, JS755, JS720, JHP751, JHP760, JHP770, JHP780, JHP794, JCG790, JH770, JH740, JH710, JH790, JH730, JHP994, SHF712, SME714, SME716 and JCO710 for chamfer or radius type.
- JS730, JH780, JHB720, JH721, JH722, SMB713, SMB714 and SMB716 for ball-nose type.
- JH724, JH726, JH734, JH736, JH744, JH746 for barrel type.

Tool selection Stainless and S-materials

								
Name		JS754	JS755	JS720	JS730	JHP751	JHP760	JHP770
Page(s)		221	238	249	269	273	276	280
Family name		SOLID²	SOLID²	SOLID²	SOLID²	HPM	HPM	HPM
Type of mill								
Shank	Cylindrical	■	■	■	■	■	■	■
	Weldon	■	■	■	□	■	■	■
	Safelock	□	□	□	□			□
Number of Flutes		4	5	6-9	6	2-4	2,3,4	4-5
ICC		■					■	■
Diameter range	Metric	3-25	6-25	6-25	6-25	2-20	4-25	6-25
	Inch							
Length availability		2,3	2,3	2,3	2,3	1,2	2,3	2
Operation								
								
								
								
SMG								
M1		•	•	•	•		•	
M2		•	•	•	•		•	
M3		•	•	•	•		•	
M4		•	•	•	•		•	
M5		•	•	•	•		•	
S1		•	•	•	•	•		
S2		•	•	•	•	•		
S3		•	•	•	•	•		
S11		•	•	•	•	•		•
S12		•	•	•	•	•		•
S13		•	•	•	•	•		•

■ Stock standard □ Weldon available, delivery time is 3 days. □ Safe-Lock available, delivery time is 6 days
• Preferred choice ○ Alternative choice

Tool selection Stainless and S-materials

										
Name		JHP780	JHP794	JCG790	JH724	JH726	JH734	JH736	JH744	JH746
Page(s)		287	292	294	296	298	300	302	304	306
Family name		HPM	HPM	Ceramic	HSM/ TORNADO	HSM/ TORNADO	HSM/ TORNADO	HSM/ TORNADO	HSM/ TORNADO	HSM/ TORNADO
Type of mill										
Shank	Cylindrical	■		■	■	■	■	■	■	■
	Weldon	■	■							
	Safelock	□								
Number of Flutes		4	4	5-6	6	6	4	6	4	6
ICC		■	■						■	■
Diameter range	Metric	6-25	6-25	6-25	10	10	6-16	10-16	4-16	10-16
	Inch									
Length availability		2	2	2	2	2	2	2	2,4	2
Operation										
										
										
SMG										
M1			●		●	●	●	●	●	●
M2			●		●	●	●	●	●	●
M3			●		●	●	●	●	●	●
M4			●		●	●				
M5			●		●	●				
S1		●		●	●	●				
S2		●		●	●	●				
S3		●		●	●	●				
S11					●	●	●	●	●	●
S12					●	●	●	●	●	●
S13					●	●	●	●	●	●

■ Stock standard □ Weldon available, delivery time is 3 days. □ Safe-Lock available, delivery time is 6 days
● Preferred choice ○ Alternative choice

Tool selection Stainless and S-materials

								
Name		JH770	JH740	JH710	JH790	JH730	JHP994	JH780
Page(s)		308	304	312	314	316	318	320
Family name		HSM/TORNADO	HSM/TORNADO	HSM/TORNADO	HSM/TORNADO	HSM/TORNADO	HPM	HSM/TORNADO
Type of mill								
Shank	Cylindrical	■	■	■	■	■	■	■
	Weldon							
	Safelock							
Number of Flutes		3,4,5,6	4-5	5	6	5,6,7	4	4
ICC								
Diameter range	Metric	3-10	6-10	6-8	9,5	6-10	6-10	1,83-4,89
	Inch							
Length availability		2	2	2	2,3	2	3	2
Operation								
								
								
SMG								
M1								
M2								
M3								
M4								
M5								
S1								
S2		•	•	•	•	•	•	•
S3								
S11		•	•	•	•	•	•	
S12		•	•	•	•	•	•	•
S13								

■ Stock standard ☐ Weldon available, delivery time is 3 days. ☐ Safe-Lock available, delivery time is 6 days

• Preferred choice ○ Alternative choice

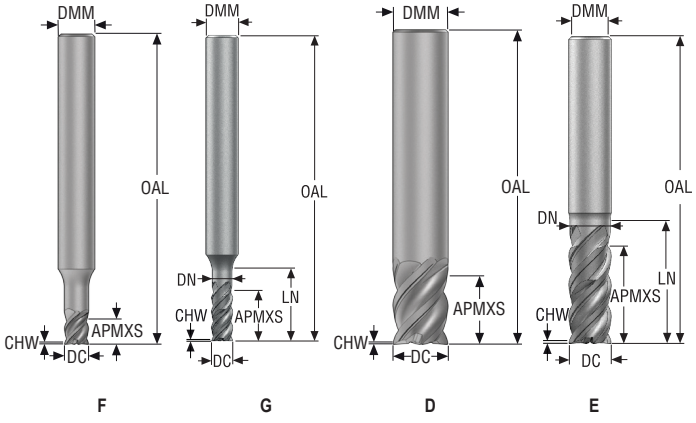
Tool selection Stainless and S-materials

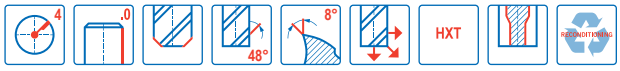
							
Name		JHB720	JH721	JH722	SHF712	SME714/716	SMB713/714/416
Page(s)		322	324	326	328	330	178
Family name		HSM/TORNADO	HSM/TORNADO	HSM/TORNADO	HFM	MINI	MINI
Type of mill							
Shank	Cylindrical	■	■	■	■	■	■
	Weldon						
	Safelock						
Number of Flutes		3	6	6	3-4-5	3-4-5	4
ICC							
Diameter range	Metric	2-16	6-8	10	3-6	0,5-2	0,3-3
	Inch						
Length availability		2	2	2	1,2,3,4	1,2,3,4	2,4
Operation							
							
							
SMG							
M1		●					
M2		●					
M3		●					
M4		●					
M5		●					
S1		○					
S2		○	●	●	●	●	●
S3		○					
S11		●	●	●			
S12		●	●	●	●	●	●
S13		●					

■ Stock standard ☐ Weldon available, delivery time is 3 days.
● Preferred choice ○ Alternative choice

JS754

High performance – Square – ISO– M and ISO– S – 4 Flutes – Cylindrical – Chamfer







- Tolerances:
- DMM= h5
- DC= e7
- Regrind possible if DC is ≥Ø6

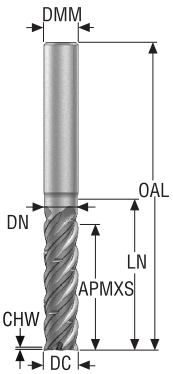
Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	CHW	PCEDC	Cylindrical
				mm	mm	mm	mm	mm	mm	mm		
JS754030F1C.0Z4-HXT	10165556	1	F	3,0	6,0	4,0	50,0	6,0	3,05	0,035	4	■
JS754040F1C.0Z4-HXT	10164855	1	F	4,0	6,0	6,0	50,0	9,0	4,05	0,045	4	■
JS754050F1C.0Z4-HXT	10165557	1	F	5,0	6,0	7,0	50,0	10,0	5,05	0,055	4	■
JS754060D1C.0Z4-HXT	10164856	1	D	6,0	6,0	8,0	50,0	–	–	0,075	4	■
JS754080D1C.0Z4-HXT	10164857	1	D	8,0	8,0	11,0	58,0	–	–	0,1	4	■
JS754100D1C.0Z4-HXT	10164858	1	D	10,0	10,0	13,0	58,0	–	–	0,125	4	■
JS754120D1C.0Z4-HXT	10164859	1	D	12,0	12,0	15,0	67,0	–	–	0,15	4	■
JS754160D1C.0Z4-HXT	10164860	1	D	16,0	16,0	19,0	73,0	–	–	0,2	4	■
JS754030G2C.0Z4-HXT	03186807	2	G	3,0	6,0	6,0	57,0	10,0	2,85	0,035	4	■
JS754040G2C.0Z4-HXT	03186808	2	G	4,0	6,0	8,0	57,0	13,0	3,8	0,045	4	■
JS754050G2C.0Z4-HXT	03186809	2	G	5,0	6,0	10,0	57,0	16,0	4,75	0,055	4	■
JS754060E2C.0Z4-HXT	03186810	2	E	6,0	6,0	12,0	57,0	18,0	5,7	0,075	4	■
JS754080E2C.0Z4-HXT	03186811	2	E	8,0	8,0	16,0	63,0	25,0	7,6	0,1	4	■
JS754100E2C.0Z4-HXT	03186812	2	E	10,0	10,0	20,0	72,0	29,0	9,5	0,125	4	■
JS754120E2C.0Z4-HXT	03186813	2	E	12,0	12,0	24,0	83,0	35,0	11,4	0,15	4	■
JS754160E2C.0Z4-HXT	03186814	2	E	16,0	16,0	32,0	92,0	42,0	15,2	0,2	4	■
JS754200E2C.0Z4-HXT	03186815	2	E	20,0	20,0	40,0	104,0	51,0	19,0	0,25	4	■
JS754250E2C.0Z4-HXT	03186816	2	E	25,0	25,0	50,0	121,0	65,0	23,8	0,3	4	■
JS754060E3C.0Z4-HXT	03186823	3	E	6,0	6,0	21,0	65,0	26,0	5,7	0,075	4	■
JS754080E3C.0Z4-HXT	03186824	3	E	8,0	8,0	32,0	75,0	37,0	7,6	0,1	4	■
JS754100E3C.0Z4-HXT	03186825	3	E	10,0	10,0	40,0	89,0	47,0	9,5	0,125	4	■
JS754120E3C.0Z4-HXT	03186826	3	E	12,0	12,0	45,0	100,0	53,0	11,4	0,15	4	■
JS754160E3C.0Z4-HXT	03186827	3	E	16,0	16,0	55,0	115,0	65,0	15,2	0,2	4	■
JS754200E3C.0Z4-HXT	03186828	3	E	20,0	20,0	61,0	125,0	72,0	19,0	0,25	4	■
JS754250E3C.0Z4-HXT	03186829	3	E	25,0	25,0	85,0	153,0	94,0	23,8	0,3	4	■

■ Stocked standard.

JS754

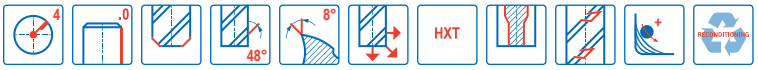
High performance – Square – ISO– M and ISO– S – 4 Flutes – Cylindrical – Chamfer – Chip splitters





E

- Tolerances:
- DMM= h5
- DC= e7
- Chip splitters
- Regrind possible

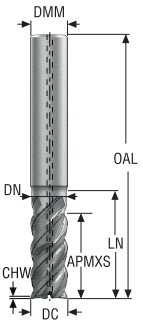


Designation	Item number	Length index	Tool shape	Chip splitters	DC	DMM	APMXS	OAL	LN	DN	CHW	PCEDC	Cylindrical
					mm	mm	mm	mm	mm	mm	mm		
JS754100E2C.0Z4C-HXT	03186817	2	E	■	10,0	10,0	20,0	72,0	29,0	9,5	0,125	4	■
JS754120E2C.0Z4C-HXT	03186818	2	E	■	12,0	12,0	24,0	83,0	35,0	11,4	0,15	4	■
JS754060E3C.0Z4C-HXT	03200550	3	E	■	6,0	6,0	21,0	65,0	26,0	5,7	0,075	4	■
JS754080E3C.0Z4C-HXT	03200551	3	E	■	8,0	8,0	32,0	75,0	37,0	7,6	0,1	4	■
JS754100E3C.0Z4C-HXT	03186830	3	E	■	10,0	10,0	40,0	89,0	47,0	9,5	0,125	4	■
JS754120E3C.0Z4C-HXT	03186831	3	E	■	12,0	12,0	45,0	100,0	53,0	11,4	0,15	4	■
JS754160E3C.0Z4C-HXT	03186832	3	E	■	16,0	16,0	55,0	115,0	65,0	15,2	0,2	4	■
JS754200E3C.0Z4C-HXT	03186833	3	E	■	20,0	20,0	61,0	125,0	72,0	19,0	0,25	4	■

■ Stocked standard.

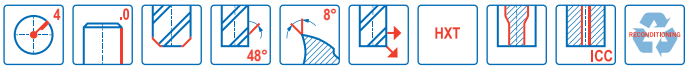
JS754

High performance – Square – ISO– M and ISO– S – 4 Flutes – Cylindrical – Chamfer – ICC



E





- Tolerances:
- DMM= h5
- DC= e7
- Regrind possible

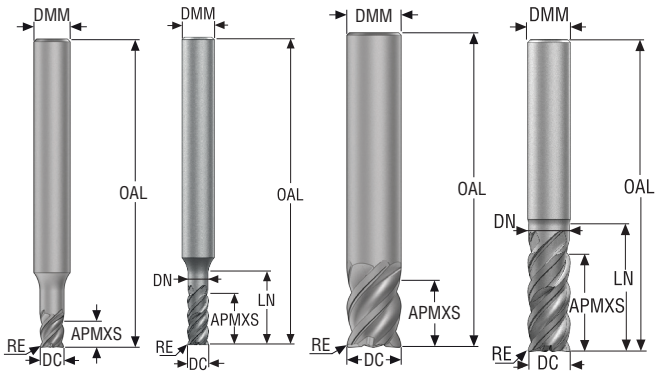
Designation	Item number	Length index	Tool shape	ICC	DC	DMM	APMXS	OAL	LN	DN	CHW	PCEDC	Cylindrical
					mm	mm	mm	mm	mm	mm	mm		
JS754060E2C.0Z4A-HXT	03186834	2	E	■	6,0	6,0	12,0	57,0	18,0	5,7	0,075	4	■
JS754080E2C.0Z4A-HXT	03186835	2	E	■	8,0	8,0	16,0	63,0	25,0	7,6	0,1	4	■
JS754100E2C.0Z4A-HXT	03186836	2	E	■	10,0	10,0	20,0	72,0	29,0	9,5	0,125	4	■
JS754120E2C.0Z4A-HXT	03186837	2	E	■	12,0	12,0	24,0	83,0	35,0	11,4	0,15	4	■
JS754160E2C.0Z4A-HXT	03186838	2	E	■	16,0	16,0	32,0	92,0	42,0	15,2	0,2	4	■
JS754200E2C.0Z4A-HXT	03186839	2	E	■	20,0	20,0	40,0	104,0	51,0	19,0	0,25	4	■

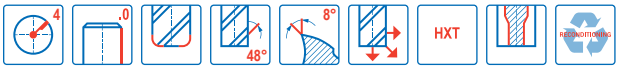
■ Stocked standard.

JS754

High performance – Square – ISO– M and ISO– S – 4 Flutes – Cylindrical – Corner radius







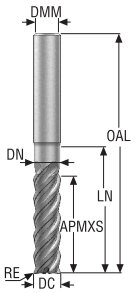
- Tolerances:
- DMM= h5
- DC= e7
- RE= ±0,02 mm
- Regrind possible if DC is ≥Ø6

Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Cylindrical
				mm	mm	mm	mm	mm	mm	mm		
JS754030F1R020.0Z4-HXT	10165558	1	F	3,0	6,0	4,0	50,0	6,0	3,05	0,2	4	■
JS754040F1R020.0Z4-HXT	10164867	1	F	4,0	6,0	6,0	50,0	9,0	4,05	0,2	4	■
JS754050F1R020.0Z4-HXT	10165559	1	F	5,0	6,0	7,0	50,0	10,0	5,05	0,2	4	■
JS754060D1R020.0Z4-HXT	10164868	1	D	6,0	6,0	8,0	50,0	–	–	0,2	4	■
JS754060D1R050.0Z4-HXT	10164869	1	D	6,0	6,0	8,0	50,0	–	–	0,5	4	■
JS754080D1R050.0Z4-HXT	10164871	1	D	8,0	8,0	11,0	58,0	–	–	0,5	4	■
JS754100D1R050.0Z4-HXT	10164873	1	D	10,0	10,0	13,0	58,0	–	–	0,5	4	■
JS754100D1R100.0Z4-HXT	10164874	1	D	10,0	10,0	13,0	58,0	–	–	1,0	4	■
JS754120D1R050.0Z4-HXT	10164875	1	D	12,0	12,0	15,0	67,0	–	–	0,5	4	■
JS754120D1R100.0Z4-HXT	10164876	1	D	12,0	12,0	15,0	67,0	–	–	1,0	4	■
JS754160D1R050.0Z4-HXT	10164877	1	D	16,0	16,0	19,0	73,0	–	–	0,5	4	■
JS754160D1R100.0Z4-HXT	10164878	1	D	16,0	16,0	19,0	73,0	–	–	1,0	4	■
JS754030G2R020.0Z4-HXT	03186840	2	G	3,0	6,0	6,0	57,0	10,0	2,85	0,2	4	■
JS754040G2R020.0Z4-HXT	03186841	2	G	4,0	6,0	8,0	57,0	13,0	3,8	0,2	4	■
JS754050G2R020.0Z4-HXT	03186842	2	G	5,0	6,0	10,0	57,0	16,0	4,75	0,2	4	■
JS754060E2R020.0Z4-HXT	03186843	2	E	6,0	6,0	12,0	57,0	18,0	5,7	0,2	4	■
JS754060E2R050.0Z4-HXT	03186844	2	E	6,0	6,0	12,0	57,0	18,0	5,7	0,5	4	■
JS754060E2R100.0Z4-HXT	03186845	2	E	6,0	6,0	12,0	57,0	18,0	5,7	1,0	4	■
JS754080E2R050.0Z4-HXT	03186846	2	E	8,0	8,0	16,0	63,0	25,0	7,6	0,5	4	■
JS754080E2R100.0Z4-HXT	03186847	2	E	8,0	8,0	16,0	63,0	25,0	7,6	1,0	4	■
JS754100E2R050.0Z4-HXT	03186848	2	E	10,0	10,0	20,0	72,0	29,0	9,5	0,5	4	■
JS754100E2R100.0Z4-HXT	03186849	2	E	10,0	10,0	20,0	72,0	29,0	9,5	1,0	4	■
JS754100E2R150.0Z4-HXT	03200552	2	E	10,0	10,0	20,0	72,0	29,0	9,5	1,5	4	■
JS754100E2R200.0Z4-HXT	03186850	2	E	10,0	10,0	20,0	72,0	29,0	9,5	2,0	4	■
JS754100E2R300.0Z4-HXT	03186851	2	E	10,0	10,0	20,0	72,0	29,0	9,5	3,0	4	■
JS754120E2R050.0Z4-HXT	03186852	2	E	12,0	12,0	24,0	83,0	35,0	11,4	0,5	4	■
JS754120E2R100.0Z4-HXT	03186853	2	E	12,0	12,0	24,0	83,0	35,0	11,4	1,0	4	■
JS754120E2R150.0Z4-HXT	03200553	2	E	12,0	12,0	24,0	83,0	35,0	11,4	1,5	4	■
JS754120E2R200.0Z4-HXT	03186854	2	E	12,0	12,0	24,0	83,0	35,0	11,4	2,0	4	■
JS754120E2R300.0Z4-HXT	03186855	2	E	12,0	12,0	24,0	83,0	35,0	11,4	3,0	4	■
JS754160E2R050.0Z4-HXT	03186856	2	E	16,0	16,0	32,0	92,0	42,0	15,2	0,5	4	■
JS754160E2R100.0Z4-HXT	03186857	2	E	16,0	16,0	32,0	92,0	42,0	15,2	1,0	4	■
JS754160E2R200.0Z4-HXT	03186858	2	E	16,0	16,0	32,0	92,0	42,0	15,2	2,0	4	■

■ Stocked standard.

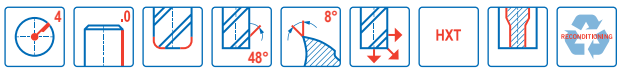
JS754

High performance –Square – ISO– M and ISO– S – 4 Flutes – Cylindrical – Corner radius



E





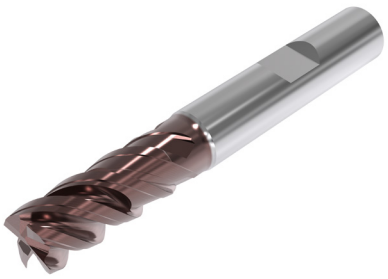
- Tolerances:
- DMM= h5
- DC= e7
- RE= ±0,02 mm
- Regrind possible

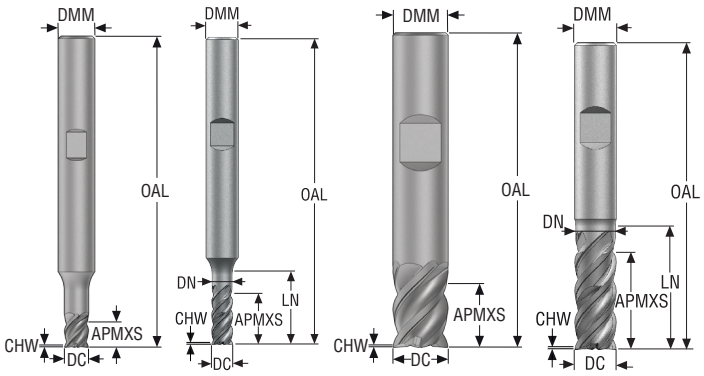
Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Cylindrical
				mm	mm	mm	mm	mm	mm	mm		
JS754160E2R300.0Z4-HXT	03186859	2	E	16,0	16,0	32,0	92,0	42,0	15,2	3,0	4	■
JS754160E2R400.0Z4-HXT	03186860	2	E	16,0	16,0	32,0	92,0	42,0	15,2	4,0	4	■
JS754160E2R600.0Z4-HXT	03186861	2	E	16,0	16,0	32,0	92,0	42,0	15,2	6,0	4	■
JS754200E2R050.0Z4-HXT	03186862	2	E	20,0	20,0	40,0	104,0	51,0	19,0	0,5	4	■
JS754200E2R100.0Z4-HXT	03186863	2	E	20,0	20,0	40,0	104,0	51,0	19,0	1,0	4	■
JS754200E2R200.0Z4-HXT	03186864	2	E	20,0	20,0	40,0	104,0	51,0	19,0	2,0	4	■
JS754200E2R300.0Z4-HXT	03186865	2	E	20,0	20,0	40,0	104,0	51,0	19,0	3,0	4	■
JS754200E2R400.0Z4-HXT	03186866	2	E	20,0	20,0	40,0	104,0	51,0	19,0	4,0	4	■
JS754200E2R600.0Z4-HXT	03186867	2	E	20,0	20,0	40,0	104,0	51,0	19,0	6,0	4	■
JS754060E3R020.0Z4-HXT	03186873	3	E	6,0	6,0	21,0	65,0	26,0	5,7	0,2	4	■
JS754060E3R050.0Z4-HXT	03186874	3	E	6,0	6,0	21,0	65,0	26,0	5,7	0,5	4	■
JS754060E3R100.0Z4-HXT	03186875	3	E	6,0	6,0	21,0	65,0	26,0	5,7	1,0	4	■
JS754080E3R050.0Z4-HXT	03186876	3	E	8,0	8,0	32,0	75,0	37,0	7,6	0,5	4	■
JS754080E3R100.0Z4-HXT	03186877	3	E	8,0	8,0	32,0	75,0	37,0	7,6	1,0	4	■
JS754100E3R050.0Z4-HXT	03186878	3	E	10,0	10,0	40,0	89,0	47,0	9,5	0,5	4	■
JS754100E3R100.0Z4-HXT	03186879	3	E	10,0	10,0	40,0	89,0	47,0	9,5	1,0	4	■
JS754100E3R200.0Z4-HXT	03186880	3	E	10,0	10,0	40,0	89,0	47,0	9,5	2,0	4	■
JS754100E3R300.0Z4-HXT	03186881	3	E	10,0	10,0	40,0	89,0	47,0	9,5	3,0	4	■
JS754120E3R050.0Z4-HXT	03186882	3	E	12,0	12,0	45,0	100,0	53,0	11,4	0,5	4	■
JS754120E3R100.0Z4-HXT	03186883	3	E	12,0	12,0	45,0	100,0	53,0	11,4	1,0	4	■
JS754120E3R200.0Z4-HXT	03186884	3	E	12,0	12,0	45,0	100,0	53,0	11,4	2,0	4	■
JS754120E3R300.0Z4-HXT	03186885	3	E	12,0	12,0	45,0	100,0	53,0	11,4	3,0	4	■
JS754160E3R050.0Z4-HXT	03186886	3	E	16,0	16,0	55,0	115,0	65,0	15,2	0,5	4	■
JS754160E3R100.0Z4-HXT	03186887	3	E	16,0	16,0	55,0	115,0	65,0	15,2	1,0	4	■
JS754160E3R200.0Z4-HXT	03186888	3	E	16,0	16,0	55,0	115,0	65,0	15,2	2,0	4	■
JS754160E3R300.0Z4-HXT	03186889	3	E	16,0	16,0	55,0	115,0	65,0	15,2	3,0	4	■
JS754160E3R400.0Z4-HXT	03186890	3	E	16,0	16,0	55,0	115,0	65,0	15,2	4,0	4	■
JS754160E3R600.0Z4-HXT	03186891	3	E	16,0	16,0	55,0	115,0	65,0	15,2	6,0	4	■
JS754200E3R050.0Z4-HXT	03186892	3	E	20,0	20,0	61,0	125,0	72,0	19,0	0,5	4	■
JS754200E3R100.0Z4-HXT	03186893	3	E	20,0	20,0	61,0	125,0	72,0	19,0	1,0	4	■
JS754200E3R200.0Z4-HXT	03186894	3	E	20,0	20,0	61,0	125,0	72,0	19,0	2,0	4	■
JS754200E3R300.0Z4-HXT	03186895	3	E	20,0	20,0	61,0	125,0	72,0	19,0	3,0	4	■
JS754200E3R400.0Z4-HXT	03186896	3	E	20,0	20,0	61,0	125,0	72,0	19,0	4,0	4	■
JS754200E3R600.0Z4-HXT	03186897	3	E	20,0	20,0	61,0	125,0	72,0	19,0	6,0	4	■

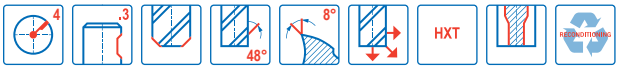
■ Stocked standard.

JS754

High performance – Square – ISO– M and ISO– S – 4 Flutes – Weldon – Chamfer







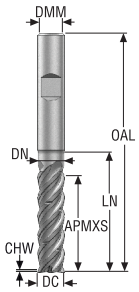
- Tolerances:
- DMM= h5
- DC= e7
- Regrind possible if DC is ≥Ø6

Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	CHW	PCEDC	Weldon
				mm	mm	mm	mm	mm	mm	mm		
JS754030F1C.3Z4-HXT	10165658	1	F	3,0	6,0	4,0	50,0	6,0	3,05	0,035	4	□
JS754040F1C.3Z4-HXT	10164861	1	F	4,0	6,0	6,0	50,0	9,0	4,05	0,045	4	□
JS754050F1C.3Z4-HXT	10165660	1	F	5,0	6,0	7,0	50,0	10,0	5,05	0,055	4	□
JS754060D1C.3Z4-HXT	10164862	1	D	6,0	6,0	8,0	50,0	–	–	0,075	4	□
JS754080D1C.3Z4-HXT	10164863	1	D	8,0	8,0	11,0	58,0	–	–	0,1	4	□
JS754100D1C.3Z4-HXT	10164864	1	D	10,0	10,0	13,0	58,0	–	–	0,125	4	□
JS754120D1C.3Z4-HXT	10164865	1	D	12,0	12,0	15,0	67,0	–	–	0,15	4	□
JS754160D1C.3Z4-HXT	10164866	1	D	16,0	16,0	19,0	73,0	–	–	0,2	4	□
JS754030G2C.3Z4-HXT	03186975	2	G	3,0	6,0	6,0	57,0	10,0	2,85	0,035	4	□
JS754040G2C.3Z4-HXT	03186976	2	G	4,0	6,0	8,0	57,0	13,0	3,8	0,045	4	□
JS754050G2C.3Z4-HXT	03186977	2	G	5,0	6,0	10,0	57,0	16,0	4,75	0,055	4	□
JS754060E2C.3Z4-HXT	03186978	2	E	6,0	6,0	12,0	57,0	18,0	5,7	0,075	4	■
JS754080E2C.3Z4-HXT	03186979	2	E	8,0	8,0	16,0	63,0	25,0	7,6	0,1	4	■
JS754100E2C.3Z4-HXT	03186980	2	E	10,0	10,0	20,0	72,0	29,0	9,5	0,125	4	■
JS754120E2C.3Z4-HXT	03186981	2	E	12,0	12,0	24,0	83,0	35,0	11,4	0,15	4	■
JS754160E2C.3Z4-HXT	03186982	2	E	16,0	16,0	32,0	92,0	42,0	15,2	0,2	4	■
JS754200E2C.3Z4-HXT	03186983	2	E	20,0	20,0	40,0	104,0	51,0	19,0	0,25	4	■
JS754250E2C.3Z4-HXT	03186984	2	E	25,0	25,0	50,0	121,0	65,0	23,8	0,3	4	■
JS754060E3C.3Z4-HXT	03186990	3	E	6,0	6,0	21,0	65,0	26,0	5,7	0,075	4	■
JS754080E3C.3Z4-HXT	03186991	3	E	8,0	8,0	32,0	75,0	37,0	7,6	0,1	4	■
JS754100E3C.3Z4-HXT	03186992	3	E	10,0	10,0	40,0	89,0	47,0	9,5	0,125	4	■
JS754120E3C.3Z4-HXT	03186993	3	E	12,0	12,0	45,0	100,0	53,0	11,4	0,15	4	■
JS754160E3C.3Z4-HXT	03186994	3	E	16,0	16,0	55,0	115,0	65,0	15,2	0,2	4	■
JS754200E3C.3Z4-HXT	03186995	3	E	20,0	20,0	61,0	125,0	72,0	19,0	0,25	4	■
JS754250E3C.3Z4-HXT	03186996	3	E	25,0	25,0	85,0	153,0	94,0	23,8	0,3	4	■

■ Stocked standard. □ Weldon available. Delivery time is 3 days.

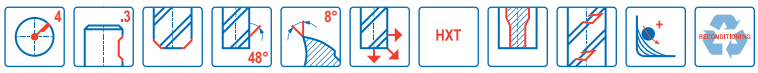
JS754

High performance – Square – ISO– M and ISO– S – 4 Flutes – Weldon – Chamfer – Chip splitters



E





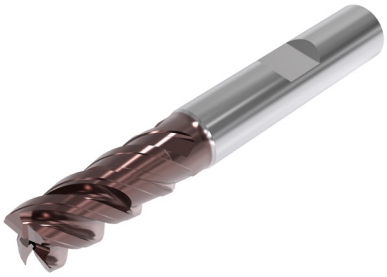
- Tolerances:
- DMM= h5
- DC= e7
- Chip splitters
- Regrind possible

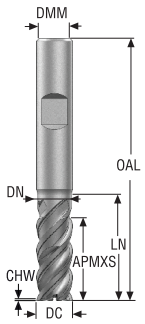
Designation	Item number	Length index	Tool shape	Chip splitters	DC	DMM	APMXS	OAL	LN	DN	CHW	PCEDC	Weldon
					mm	mm	mm	mm	mm	mm	mm		
JS754100E2C.3Z4C-HXT	03186985	2	E	■	10,0	10,0	20,0	72,0	29,0	9,5	0,125	4	■
JS754120E2C.3Z4C-HXT	03186986	2	E	■	12,0	12,0	24,0	83,0	35,0	11,4	0,15	4	■
JS754060E3C.3Z4C-HXT	03200562	3	E	■	6,0	6,0	21,0	65,0	26,0	5,7	0,075	4	■
JS754080E3C.3Z4C-HXT	03200563	3	E	■	8,0	8,0	32,0	75,0	37,0	7,6	0,1	4	■
JS754100E3C.3Z4C-HXT	03186997	3	E	■	10,0	10,0	40,0	89,0	47,0	9,5	0,125	4	■
JS754120E3C.3Z4C-HXT	03186998	3	E	■	12,0	12,0	45,0	100,0	53,0	11,4	0,15	4	■
JS754160E3C.3Z4C-HXT	03186999	3	E	■	16,0	16,0	55,0	115,0	65,0	15,2	0,2	4	■
JS754200E3C.3Z4C-HXT	03187000	3	E	■	20,0	20,0	61,0	125,0	72,0	19,0	0,25	4	■

■ Stocked standard.

JS754

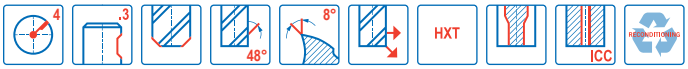
High performance – Square – ISO– M and ISO– S – 4 Flutes – Weldon – Chamfer – ICC





E

- Tolerances:
- DMM= h5
- DC= e7
- Regrind possible

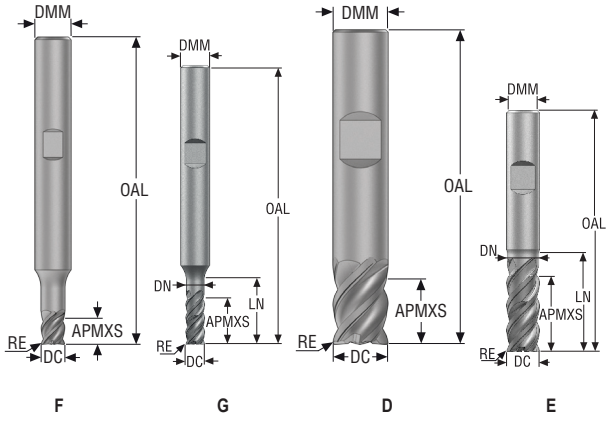


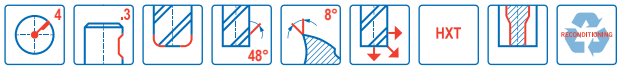
Designation	Item number	Length index	Tool shape	ICC	DC	DMM	APMXS	OAL	LN	DN	CHW	PCEDC	Weldon
					mm	mm	mm	mm	mm	mm	mm		
JS754060E2C.3Z4A-HXT	03187001	2	E	■	6,0	6,0	12,0	57,0	18,0	5,7	0,075	4	■
JS754080E2C.3Z4A-HXT	03187002	2	E	■	8,0	8,0	16,0	63,0	25,0	7,6	0,1	4	■
JS754100E2C.3Z4A-HXT	03187003	2	E	■	10,0	10,0	20,0	72,0	29,0	9,5	0,125	4	■
JS754120E2C.3Z4A-HXT	03187004	2	E	■	12,0	12,0	24,0	83,0	35,0	11,4	0,15	4	■
JS754160E2C.3Z4A-HXT	03187005	2	E	■	16,0	16,0	32,0	92,0	42,0	15,2	0,2	4	■
JS754200E2C.3Z4A-HXT	03187006	2	E	■	20,0	20,0	40,0	104,0	51,0	19,0	0,25	4	■

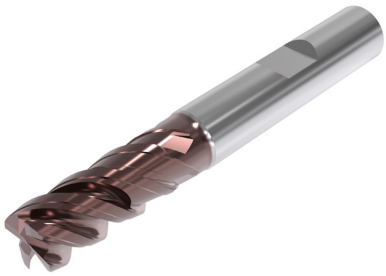
■ Stocked standard.

JS754

High performance – Square – ISO– M and ISO– S – 4 Flutes – Weldon – Corner radius







- Tolerances:
- DMM= h5
- DC= e7
- RE= ±0,02 mm
- Regrind possible if DC is ≥Ø6

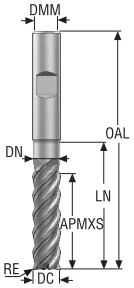
Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Weldon
				mm	mm	mm	mm	mm	mm	mm		
JS754030F1R020.3Z4-HXT	10165560	1	F	3,0	6,0	4,0	50,0	6,0	3,05	0,2	4	□
JS754040F1R020.3Z4-HXT	10164879	1	F	4,0	6,0	6,0	50,0	9,0	4,05	0,2	4	□
JS754050F1R020.3Z4-HXT	10165561	1	F	5,0	6,0	7,0	50,0	10,0	5,05	0,2	4	□
JS754060D1R020.3Z4-HXT	10164880	1	D	6,0	6,0	8,0	50,0	–	–	0,2	4	□
JS754060D1R050.3Z4-HXT	10164881	1	D	6,0	6,0	8,0	50,0	–	–	0,5	4	□
JS754080D1R050.3Z4-HXT	10164883	1	D	8,0	8,0	11,0	58,0	–	–	0,5	4	□
JS754100D1R050.3Z4-HXT	10164885	1	D	10,0	10,0	13,0	58,0	–	–	0,5	4	□
JS754100D1R100.3Z4-HXT	10164886	1	D	10,0	10,0	13,0	58,0	–	–	1,0	4	□
JS754120D1R050.3Z4-HXT	10164887	1	D	12,0	12,0	15,0	67,0	–	–	0,5	4	□
JS754120D1R100.3Z4-HXT	10164888	1	D	12,0	12,0	15,0	67,0	–	–	1,0	4	□
JS754160D1R050.3Z4-HXT	10164889	1	D	16,0	16,0	19,0	73,0	–	–	0,5	4	□
JS754160D1R100.3Z4-HXT	10164890	1	D	16,0	16,0	19,0	73,0	–	–	1,0	4	□
JS754030G2R020.3Z4-HXT	03187007	2	G	3,0	6,0	6,0	57,0	10,0	2,85	0,2	4	□
JS754040G2R020.3Z4-HXT	03187008	2	G	4,0	6,0	8,0	57,0	13,0	3,8	0,2	4	□
JS754050G2R020.3Z4-HXT	03187009	2	G	5,0	6,0	10,0	57,0	16,0	4,75	0,2	4	□
JS754060E2R020.3Z4-HXT	03187010	2	E	6,0	6,0	12,0	57,0	18,0	5,7	0,2	4	■
JS754060E2R050.3Z4-HXT	03187011	2	E	6,0	6,0	12,0	57,0	18,0	5,7	0,5	4	■
JS754060E2R100.3Z4-HXT	03187012	2	E	6,0	6,0	12,0	57,0	18,0	5,7	1,0	4	■
JS754080E2R050.3Z4-HXT	03187013	2	E	8,0	8,0	16,0	63,0	25,0	7,6	0,5	4	■
JS754080E2R100.3Z4-HXT	03187014	2	E	8,0	8,0	16,0	63,0	25,0	7,6	1,0	4	■
JS754100E2R050.3Z4-HXT	03187015	2	E	10,0	10,0	20,0	72,0	29,0	9,5	0,5	4	■
JS754100E2R100.3Z4-HXT	03187016	2	E	10,0	10,0	20,0	72,0	29,0	9,5	1,0	4	■
JS754100E2R150.3Z4-HXT	03200564	2	E	10,0	10,0	20,0	72,0	29,0	9,5	1,5	4	■
JS754100E2R200.3Z4-HXT	03187017	2	E	10,0	10,0	20,0	72,0	29,0	9,5	2,0	4	■
JS754100E2R300.3Z4-HXT	03187018	2	E	10,0	10,0	20,0	72,0	29,0	9,5	3,0	4	■
JS754120E2R050.3Z4-HXT	03187019	2	E	12,0	12,0	24,0	83,0	35,0	11,4	0,5	4	■
JS754120E2R100.3Z4-HXT	03187020	2	E	12,0	12,0	24,0	83,0	35,0	11,4	1,0	4	■
JS754120E2R150.3Z4-HXT	03200565	2	E	12,0	12,0	24,0	83,0	35,0	11,4	1,5	4	■
JS754120E2R200.3Z4-HXT	03187021	2	E	12,0	12,0	24,0	83,0	35,0	11,4	2,0	4	■
JS754120E2R300.3Z4-HXT	03187022	2	E	12,0	12,0	24,0	83,0	35,0	11,4	3,0	4	■
JS754160E2R050.3Z4-HXT	03187023	2	E	16,0	16,0	32,0	92,0	42,0	15,2	0,5	4	■
JS754160E2R100.3Z4-HXT	03187024	2	E	16,0	16,0	32,0	92,0	42,0	15,2	1,0	4	■
JS754160E2R200.3Z4-HXT	03187025	2	E	16,0	16,0	32,0	92,0	42,0	15,2	2,0	4	■
JS754160E2R300.3Z4-HXT	03187026	2	E	16,0	16,0	32,0	92,0	42,0	15,2	3,0	4	■
JS754160E2R400.3Z4-HXT	03187027	2	E	16,0	16,0	32,0	92,0	42,0	15,2	4,0	4	■
JS754160E2R600.3Z4-HXT	03187028	2	E	16,0	16,0	32,0	92,0	42,0	15,2	6,0	4	■

■ Stocked standard. □ Weldon available. Delivery time is 3 days.

JS754

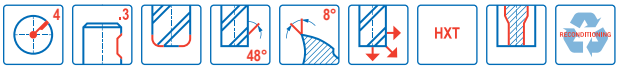
High performance – Square – ISO– M and ISO– S – 4 Flutes – Weldon – Corner radius





E

- Tolerances:
- DMM= h5
- DC= e7
- RE= ±0,02 mm
- Regrind possible

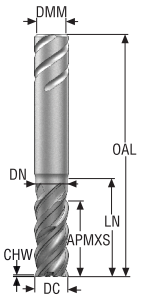


Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Weldon
				mm	mm	mm	mm	mm	mm	mm		
JS754200E2R050.3Z4-HXT	03187029	2	E	20,0	20,0	40,0	104,0	51,0	19,0	0,5	4	■
JS754200E2R100.3Z4-HXT	03187030	2	E	20,0	20,0	40,0	104,0	51,0	19,0	1,0	4	■
JS754200E2R200.3Z4-HXT	03187031	2	E	20,0	20,0	40,0	104,0	51,0	19,0	2,0	4	■
JS754200E2R300.3Z4-HXT	03187032	2	E	20,0	20,0	40,0	104,0	51,0	19,0	3,0	4	■
JS754200E2R400.3Z4-HXT	03187033	2	E	20,0	20,0	40,0	104,0	51,0	19,0	4,0	4	■
JS754200E2R600.3Z4-HXT	03187034	2	E	20,0	20,0	40,0	104,0	51,0	19,0	6,0	4	■
JS754060E3R020.3Z4-HXT	03187040	3	E	6,0	6,0	21,0	65,0	26,0	5,7	0,2	4	□
JS754060E3R050.3Z4-HXT	03187041	3	E	6,0	6,0	21,0	65,0	26,0	5,7	0,5	4	□
JS754060E3R100.3Z4-HXT	03187042	3	E	6,0	6,0	21,0	65,0	26,0	5,7	1,0	4	□
JS754080E3R050.3Z4-HXT	03187043	3	E	8,0	8,0	32,0	75,0	37,0	7,6	0,5	4	□
JS754080E3R100.3Z4-HXT	03187044	3	E	8,0	8,0	32,0	75,0	37,0	7,6	1,0	4	□
JS754100E3R050.3Z4-HXT	03187045	3	E	10,0	10,0	40,0	89,0	47,0	9,5	0,5	4	□
JS754100E3R100.3Z4-HXT	03187046	3	E	10,0	10,0	40,0	89,0	47,0	9,5	1,0	4	□
JS754100E3R200.3Z4-HXT	03187047	3	E	10,0	10,0	40,0	89,0	47,0	9,5	2,0	4	□
JS754100E3R300.3Z4-HXT	03187049	3	E	10,0	10,0	40,0	89,0	47,0	9,5	3,0	4	□
JS754120E3R050.3Z4-HXT	03187050	3	E	12,0	12,0	45,0	100,0	53,0	11,4	0,5	4	□
JS754120E3R100.3Z4-HXT	03187051	3	E	12,0	12,0	45,0	100,0	53,0	11,4	1,0	4	□
JS754120E3R200.3Z4-HXT	03187052	3	E	12,0	12,0	45,0	100,0	53,0	11,4	2,0	4	□
JS754120E3R300.3Z4-HXT	03187053	3	E	12,0	12,0	45,0	100,0	53,0	11,4	3,0	4	□
JS754160E3R050.3Z4-HXT	03187054	3	E	16,0	16,0	55,0	115,0	65,0	15,2	0,5	4	□
JS754160E3R100.3Z4-HXT	03187055	3	E	16,0	16,0	55,0	115,0	65,0	15,2	1,0	4	□
JS754160E3R200.3Z4-HXT	03187056	3	E	16,0	16,0	55,0	115,0	65,0	15,2	2,0	4	□
JS754160E3R300.3Z4-HXT	03187057	3	E	16,0	16,0	55,0	115,0	65,0	15,2	3,0	4	□
JS754160E3R400.3Z4-HXT	03187058	3	E	16,0	16,0	55,0	115,0	65,0	15,2	4,0	4	□
JS754160E3R600.3Z4-HXT	03187059	3	E	16,0	16,0	55,0	115,0	65,0	15,2	6,0	4	□
JS754200E3R050.3Z4-HXT	03187060	3	E	20,0	20,0	61,0	125,0	72,0	19,0	0,5	4	□
JS754200E3R100.3Z4-HXT	03187061	3	E	20,0	20,0	61,0	125,0	72,0	19,0	1,0	4	□
JS754200E3R200.3Z4-HXT	03187062	3	E	20,0	20,0	61,0	125,0	72,0	19,0	2,0	4	□
JS754200E3R300.3Z4-HXT	03187063	3	E	20,0	20,0	61,0	125,0	72,0	19,0	3,0	4	□
JS754200E3R400.3Z4-HXT	03187064	3	E	20,0	20,0	61,0	125,0	72,0	19,0	4,0	4	□
JS754200E3R600.3Z4-HXT	03187065	3	E	20,0	20,0	61,0	125,0	72,0	19,0	6,0	4	□

□ Weldon available. Delivery time is 3 days.

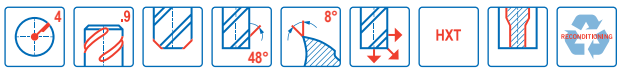
JS754

High performance – Square – ISO– M and ISO– S – 4 Flutes – Safelock – Chamfer



E





- Tolerances:
- DMM= h5
- DC= e7
- Regrind possible

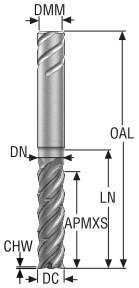
Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	CHW	PCEDC	Safelock
				mm	mm	mm	mm	mm	mm	mm		
JS754060E2C.9Z4-HXT	03187144	2	E	6,0	6,0	12,0	57,0	18,0	5,7	0,075	4	☐
JS754080E2C.9Z4-HXT	03187145	2	E	8,0	8,0	16,0	63,0	25,0	7,6	0,1	4	☐
JS754100E2C.9Z4-HXT	03187146	2	E	10,0	10,0	20,0	72,0	29,0	9,5	0,125	4	☐
JS754120E2C.9Z4-HXT	03187147	2	E	12,0	12,0	24,0	83,0	35,0	11,4	0,15	4	☐
JS754160E2C.9Z4-HXT	03187148	2	E	16,0	16,0	32,0	92,0	42,0	15,2	0,2	4	☐
JS754200E2C.9Z4-HXT	03187149	2	E	20,0	20,0	40,0	104,0	51,0	19,0	0,25	4	☐
JS754250E2C.9Z4-HXT	03187150	2	E	25,0	25,0	50,0	121,0	65,0	23,8	0,3	4	☐
JS754060E3C.9Z4-HXT	03187153	3	E	6,0	6,0	21,0	65,0	26,0	5,7	0,075	4	☐
JS754080E3C.9Z4-HXT	03187154	3	E	8,0	8,0	32,0	75,0	37,0	7,6	0,1	4	☐
JS754100E3C.9Z4-HXT	03187155	3	E	10,0	10,0	40,0	89,0	47,0	9,5	0,125	4	☐
JS754120E3C.9Z4-HXT	03187156	3	E	12,0	12,0	45,0	100,0	53,0	11,4	0,15	4	☐
JS754160E3C.9Z4-HXT	03187157	3	E	16,0	16,0	55,0	115,0	65,0	15,2	0,2	4	☐
JS754200E3C.9Z4-HXT	03187158	3	E	20,0	20,0	61,0	125,0	72,0	19,0	0,25	4	☐
JS754250E3C.9Z4-HXT	03187159	3	E	25,0	25,0	85,0	153,0	94,0	23,8	0,3	4	☐

☐ Safelock available. Delivery time is 6 days.

JS754

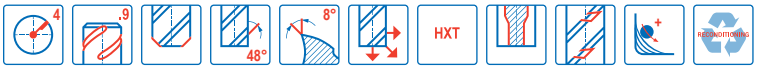
High performance – Square – ISO– M and ISO– S – 4 Flutes – Safelock – Chamfer – Chip splitters





E

- Tolerances:
- DMM= h5
- DC= e7
- Chip splitters
- Regrind possible

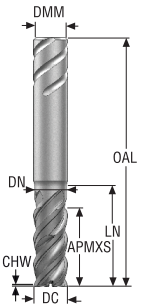


Designation	Item number	Length index	Tool shape	Chip splitters	DC	DMM	APMXS	OAL	LN	DN	CHW	PCEDC	Safelock
					mm	mm	mm	mm	mm	mm	mm		
JS754100E2C.9Z4C-HXT	03187151	2	E	■	10,0	10,0	20,0	72,0	29,0	9,5	0,125	4	☐
JS754120E2C.9Z4C-HXT	03187152	2	E	■	12,0	12,0	24,0	83,0	35,0	11,4	0,15	4	☐
JS754060E3C.9Z4C-HXT	03200571	3	E	■	6,0	6,0	21,0	65,0	26,0	5,7	0,075	4	☐
JS754080E3C.9Z4C-HXT	03200572	3	E	■	8,0	8,0	32,0	75,0	37,0	7,6	0,1	4	☐
JS754100E3C.9Z4C-HXT	03187160	3	E	■	10,0	10,0	40,0	89,0	47,0	9,5	0,125	4	☐
JS754120E3C.9Z4C-HXT	03187161	3	E	■	12,0	12,0	45,0	100,0	53,0	11,4	0,15	4	☐
JS754160E3C.9Z4C-HXT	03187162	3	E	■	16,0	16,0	55,0	115,0	65,0	15,2	0,2	4	☐
JS754200E3C.9Z4C-HXT	03187163	3	E	■	20,0	20,0	61,0	125,0	72,0	19,0	0,25	4	☐

☐ Safelock available. Delivery time is 6 days.

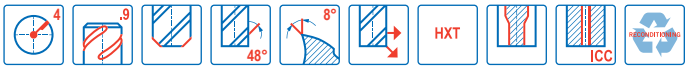
JS754

High performance – Square – ISO– M and ISO– S – 4 Flutes – Safelock – Chamfer – ICC



E





- Tolerances:
- DMM= h5
- DC= e7
- Regrind possible

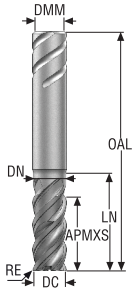
Designation	Item number	Length index	Tool shape	ICC	DC	DMM	APMXS	OAL	LN	DN	CHW	PCEDC	Safelock
					mm	mm	mm	mm	mm	mm	mm		
JS754060E2C.9Z4A-HXT	03187164	2	E	■	6,0	6,0	12,0	57,0	18,0	5,7	0,075	4	☐
JS754080E2C.9Z4A-HXT	03187165	2	E	■	8,0	8,0	16,0	63,0	25,0	7,6	0,1	4	☐
JS754100E2C.9Z4A-HXT	03187166	2	E	■	10,0	10,0	20,0	72,0	29,0	9,5	0,125	4	☐
JS754120E2C.9Z4A-HXT	03187167	2	E	■	12,0	12,0	24,0	83,0	35,0	11,4	0,15	4	☐
JS754160E2C.9Z4A-HXT	03187168	2	E	■	16,0	16,0	32,0	92,0	42,0	15,2	0,2	4	☐
JS754200E2C.9Z4A-HXT	03187169	2	E	■	20,0	20,0	40,0	104,0	51,0	19,0	0,25	4	☐

☐ Safelock available. Delivery time is 6 days.

JS754

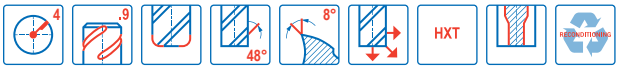
High performance – Square – ISO– M and ISO– S – 4 Flutes – Safelock – Corner radius





E

- Tolerances:
- DMM= h5
- DC= e7
- RE= ±0,02 mm
- Regrind possible

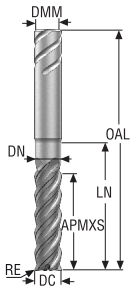


Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Safelock
				mm	mm	mm	mm	mm	mm	mm		
JS754060E2R020.9Z4-HXT	03187170	2	E	6,0	6,0	12,0	57,0	18,0	5,7	0,2	4	☐
JS754060E2R050.9Z4-HXT	03187171	2	E	6,0	6,0	12,0	57,0	18,0	5,7	0,5	4	☐
JS754060E2R100.9Z4-HXT	03187172	2	E	6,0	6,0	12,0	57,0	18,0	5,7	1,0	4	☐
JS754080E2R050.9Z4-HXT	03187173	2	E	8,0	8,0	16,0	63,0	25,0	7,6	0,5	4	☐
JS754080E2R100.9Z4-HXT	03187174	2	E	8,0	8,0	16,0	63,0	25,0	7,6	1,0	4	☐
JS754100E2R050.9Z4-HXT	03187175	2	E	10,0	10,0	20,0	72,0	29,0	9,5	0,5	4	☐
JS754100E2R100.9Z4-HXT	03187176	2	E	10,0	10,0	20,0	72,0	29,0	9,5	1,0	4	☐
JS754100E2R150.9Z4-HXT	03200573	2	E	10,0	10,0	20,0	72,0	29,0	9,5	1,5	4	☐
JS754100E2R200.9Z4-HXT	03187177	2	E	10,0	10,0	20,0	72,0	29,0	9,5	2,0	4	☐
JS754100E2R300.9Z4-HXT	03187178	2	E	10,0	10,0	20,0	72,0	29,0	9,5	3,0	4	☐
JS754120E2R050.9Z4-HXT	03187179	2	E	12,0	12,0	24,0	83,0	35,0	11,4	0,5	4	☐
JS754120E2R100.9Z4-HXT	03187180	2	E	12,0	12,0	24,0	83,0	35,0	11,4	1,0	4	☐
JS754120E2R150.9Z4-HXT	03200832	2	E	12,0	12,0	24,0	83,0	35,0	11,4	1,5	4	☐
JS754120E2R200.9Z4-HXT	03187181	2	E	12,0	12,0	24,0	83,0	35,0	11,4	2,0	4	☐
JS754120E2R300.9Z4-HXT	03187182	2	E	12,0	12,0	24,0	83,0	35,0	11,4	3,0	4	☐
JS754160E2R050.9Z4-HXT	03187183	2	E	16,0	16,0	32,0	92,0	42,0	15,2	0,5	4	☐
JS754160E2R100.9Z4-HXT	03187184	2	E	16,0	16,0	32,0	92,0	42,0	15,2	1,0	4	☐
JS754160E2R200.9Z4-HXT	03187185	2	E	16,0	16,0	32,0	92,0	42,0	15,2	2,0	4	☐
JS754160E2R300.9Z4-HXT	03187186	2	E	16,0	16,0	32,0	92,0	42,0	15,2	3,0	4	☐
JS754160E2R400.9Z4-HXT	03187187	2	E	16,0	16,0	32,0	92,0	42,0	15,2	4,0	4	☐
JS754160E2R600.9Z4-HXT	03187188	2	E	16,0	16,0	32,0	92,0	42,0	15,2	6,0	4	☐
JS754200E2R050.9Z4-HXT	03187189	2	E	20,0	20,0	40,0	104,0	51,0	19,0	0,5	4	☐
JS754200E2R100.9Z4-HXT	03187190	2	E	20,0	20,0	40,0	104,0	51,0	19,0	1,0	4	☐
JS754200E2R200.9Z4-HXT	03187191	2	E	20,0	20,0	40,0	104,0	51,0	19,0	2,0	4	☐
JS754200E2R300.9Z4-HXT	03187192	2	E	20,0	20,0	40,0	104,0	51,0	19,0	3,0	4	☐
JS754200E2R400.9Z4-HXT	03187193	2	E	20,0	20,0	40,0	104,0	51,0	19,0	4,0	4	☐
JS754200E2R600.9Z4-HXT	03187194	2	E	20,0	20,0	40,0	104,0	51,0	19,0	6,0	4	☐

☐ Safelock available. Delivery time is 6 days.

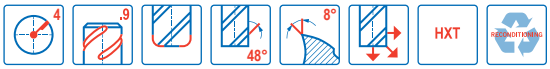
JS754

High performance – Square – ISO– M and ISO– S – 4 Flutes – Safelock – Corner radius



E





- Tolerances:
- DMM= h5
- DC= e7
- RE= ±0,02 mm
- Regrind possible

Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Safelock
				mm	mm	mm	mm	mm	mm	mm		
JS754060E3R020.9Z4-HXT	03187197	3	E	6,0	6,0	21,0	65,0	26,0	5,7	0,2	4	☐
JS754060E3R050.9Z4-HXT	03187198	3	E	6,0	6,0	21,0	65,0	26,0	5,7	0,5	4	☐
JS754060E3R100.9Z4-HXT	03187199	3	E	6,0	6,0	21,0	65,0	26,0	5,7	1,0	4	☐
JS754080E3R050.9Z4-HXT	03187200	3	E	8,0	8,0	32,0	75,0	37,0	7,6	0,5	4	☐
JS754080E3R100.9Z4-HXT	03187201	3	E	8,0	8,0	32,0	75,0	37,0	7,6	1,0	4	☐
JS754100E3R050.9Z4-HXT	03187202	3	E	10,0	10,0	40,0	89,0	47,0	9,5	0,5	4	☐
JS754100E3R100.9Z4-HXT	03187203	3	E	10,0	10,0	40,0	89,0	47,0	9,5	1,0	4	☐
JS754100E3R200.9Z4-HXT	03187204	3	E	10,0	10,0	40,0	89,0	47,0	9,5	2,0	4	☐
JS754100E3R300.9Z4-HXT	03187205	3	E	10,0	10,0	40,0	89,0	47,0	9,5	3,0	4	☐
JS754120E3R050.9Z4-HXT	03187206	3	E	12,0	12,0	45,0	100,0	53,0	11,4	0,5	4	☐
JS754120E3R100.9Z4-HXT	03187207	3	E	12,0	12,0	45,0	100,0	53,0	11,4	1,0	4	☐
JS754120E3R200.9Z4-HXT	03187208	3	E	12,0	12,0	45,0	100,0	53,0	11,4	2,0	4	☐
JS754120E3R300.9Z4-HXT	03187209	3	E	12,0	12,0	45,0	100,0	53,0	11,4	3,0	4	☐
JS754160E3R050.9Z4-HXT	03187210	3	E	16,0	16,0	55,0	115,0	65,0	15,2	0,5	4	☐
JS754160E3R100.9Z4-HXT	03187211	3	E	16,0	16,0	55,0	115,0	65,0	15,2	1,0	4	☐
JS754160E3R200.9Z4-HXT	03187212	3	E	16,0	16,0	55,0	115,0	65,0	15,2	2,0	4	☐
JS754160E3R300.9Z4-HXT	03187213	3	E	16,0	16,0	55,0	115,0	65,0	15,2	3,0	4	☐
JS754160E3R400.9Z4-HXT	03187214	3	E	16,0	16,0	55,0	115,0	65,0	15,2	4,0	4	☐
JS754160E3R600.9Z4-HXT	03187215	3	E	16,0	16,0	55,0	115,0	65,0	15,2	6,0	4	☐
JS754200E3R050.9Z4-HXT	03187216	3	E	20,0	20,0	61,0	125,0	72,0	19,0	0,5	4	☐
JS754200E3R100.9Z4-HXT	03187217	3	E	20,0	20,0	61,0	125,0	72,0	19,0	1,0	4	☐
JS754200E3R200.9Z4-HXT	03187218	3	E	20,0	20,0	61,0	125,0	72,0	19,0	2,0	4	☐
JS754200E3R300.9Z4-HXT	03187219	3	E	20,0	20,0	61,0	125,0	72,0	19,0	3,0	4	☐
JS754200E3R400.9Z4-HXT	03187220	3	E	20,0	20,0	61,0	125,0	72,0	19,0	4,0	4	☐
JS754200E3R600.9Z4-HXT	03187221	3	E	20,0	20,0	61,0	125,0	72,0	19,0	6,0	4	☐

☐ Safelock available. Delivery time is 6 days.

Cutting data – JS754 Side milling roughing

SMG		a_e/DC	a_p/DC	f_z										v_c
				3	4	5	6	8	10	12	16	20	25	
P11	M/A/D/E	0.400 *0,400*	0.80 *0,80*	0.026 *0,0010*	0.036 *0,0014*	0.044 *0,0017*	0.055 *0,0022*	0.070 *0,0028*	0.090 *0,0036*	0.11 *0,0044*	0.13 *0,0050*	0.15 *0,0060*	0.17 *0,0065*	165 (130 — 180) *540 (430 — 590)*
P12	M/A/D/E	0.400 *0,400*	0.80 *0,80*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	0.090 *0,0036*	0.10 *0,0040*	0.12 *0,0048*	105 (83 — 120) *345 (280 — 390)*
M1	E	0.400 *0,400*	1.0 *1,0*	0.020 *0,00080*	0.026 *0,0010*	0.034 *0,0013*	0.040 *0,0016*	0.055 *0,0022*	0.065 *0,0026*	0.080 *0,0032*	0.10 *0,0040*	0.11 *0,0044*	0.13 *0,0050*	110 (96 — 130) *360 (320 — 420)*
M2	E	0.400 *0,400*	1.0 *1,0*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	0.090 *0,0036*	0.10 *0,0040*	0.12 *0,0048*	90 (79 — 110) *295 (260 — 360)*
M3	E	0.400 *0,400*	0.90 *0,90*	0.015 *0,00060*	0.020 *0,00080*	0.025 *0,0010*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.075 *0,0030*	0.085 *0,0034*	0.095 *0,0038*	60 (44 — 76) *195 (150 — 240)*
M4	E	0.400 *0,400*	0.90 *0,90*	0.013 *0,00050*	0.018 *0,00070*	0.022 *0,00085*	0.026 *0,0010*	0.036 *0,0014*	0.044 *0,0017*	0.055 *0,0022*	0.065 *0,0026*	0.075 *0,0030*	0.085 *0,0034*	46 (34 — 59) *150 (120 — 190)*
M5	E	0.400 *0,400*	0.90 *0,90*	0.013 *0,00050*	0.018 *0,00070*	0.022 *0,00085*	0.026 *0,0010*	0.036 *0,0014*	0.044 *0,0017*	0.055 *0,0022*	0.065 *0,0026*	0.075 *0,0030*	0.085 *0,0034*	39 (29 — 49) *130 (96 — 160)*
S1	E	0.150 *0,150*	0.50 *0,50*	0.026 *0,0010*	0.034 *0,0013*	0.044 *0,0017*	0.050 *0,0020*	0.070 *0,0028*	0.085 *0,0034*	0.10 *0,0040*	0.13 *0,0050*	0.15 *0,0060*	0.17 *0,0065*	50 (26 — 68) *165 (86 — 220)*
S2	E	0.150 *0,150*	0.50 *0,50*	0.026 *0,0010*	0.034 *0,0013*	0.044 *0,0017*	0.050 *0,0020*	0.070 *0,0028*	0.085 *0,0034*	0.10 *0,0040*	0.13 *0,0050*	0.15 *0,0060*	0.17 *0,0065*	41 (21 — 55) *135 (69 — 180)*
S3	E	0.150 *0,150*	0.50 *0,50*	0.024 *0,00095*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	0.12 *0,0048*	0.14 *0,0055*	0.15 *0,0060*	36 (19 — 48) *120 (63 — 150)*
S11	E	0.400 *0,400*	0.70 *0,70*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	0.090 *0,0036*	0.10 *0,0040*	0.12 *0,0048*	110 (73 — 140) *360 (240 — 450)*
S12	E	0.400 *0,400*	0.70 *0,70*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	0.090 *0,0036*	0.10 *0,0040*	0.12 *0,0048*	85 (56 — 110) *280 (190 — 360)*
S13	E	0.400 *0,400*	0.70 *0,70*	0.016 *0,00065*	0.022 *0,00085*	0.026 *0,0010*	0.032 *0,0013*	0.042 *0,0017*	0.055 *0,0022*	0.065 *0,0026*	0.080 *0,0032*	0.090 *0,0036*	0.10 *0,0040*	65 (44 — 87) *215 (150 — 280)*

Cutting data – JS754 Slot milling

SMG		a_p/DC	f_z										v_c
			3	4	5	6	8	10	12	16	20	25	
P11	M/A/D/E	0.80 *0,80*	0.015 *0,00060*	0.020 *0,00080*	0.025 *0,0010*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.13 *0,0050*	150 (120 — 170) *490 (400 — 550)*
P12	M/A/D/E	0.80 *0,80*	0.015 *0,00060*	0.020 *0,00080*	0.025 *0,0010*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.11 *0,0044*	90 (69 — 100) *295 (230 — 320)*
M1	E	0.80 *0,80*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	0.024 *0,00095*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.065 *0,0026*	0.080 *0,0032*	0.10 *0,0040*	95 (85 — 120) *310 (280 — 390)*
M2	E	0.80 *0,80*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	0.024 *0,00095*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.065 *0,0026*	0.080 *0,0032*	0.10 *0,0040*	80 (69 — 97) *260 (230 — 310)*
M3	E	0.60 *0,60*	0.0095 *0,00038*	0.012 *0,00048*	0.015 *0,00060*	0.019 *0,00075*	0.025 *0,0010*	0.030 *0,0012*	0.038 *0,0015*	0.050 *0,0020*	0.060 *0,0024*	0.075 *0,0030*	55 (39 — 67) *180 (130 — 210)*
M4	E	0.60 *0,60*	0.0095 *0,00038*	0.012 *0,00048*	0.015 *0,00060*	0.019 *0,00075*	0.025 *0,0010*	0.030 *0,0012*	0.038 *0,0015*	0.050 *0,0020*	0.060 *0,0024*	0.075 *0,0030*	40 (29 — 50) *130 (96 — 160)*
M5	E	0.60 *0,60*	0.0095 *0,00038*	0.012 *0,00048*	0.015 *0,00060*	0.019 *0,00075*	0.025 *0,0010*	0.030 *0,0012*	0.038 *0,0015*	0.050 *0,0020*	0.060 *0,0024*	0.075 *0,0030*	33 (25 — 42) *110 (83 — 130)*
S1	E	0.30 *0,30*	0.0095 *0,00038*	0.012 *0,00048*	0.015 *0,00060*	0.019 *0,00075*	0.025 *0,0010*	0.030 *0,0012*	0.038 *0,0015*	0.050 *0,0020*	0.060 *0,0024*	0.075 *0,0030*	41 (21 — 54) *135 (69 — 170)*
S2	E	0.30 *0,30*	0.0095 *0,00038*	0.012 *0,00048*	0.015 *0,00060*	0.019 *0,00075*	0.025 *0,0010*	0.030 *0,0012*	0.038 *0,0015*	0.050 *0,0020*	0.060 *0,0024*	0.075 *0,0030*	33 (17 — 43) *110 (56 — 140)*
S3	E	0.30 *0,30*	0.0095 *0,00038*	0.012 *0,00048*	0.015 *0,00060*	0.019 *0,00075*	0.025 *0,0010*	0.030 *0,0012*	0.038 *0,0015*	0.050 *0,0020*	0.060 *0,0024*	0.075 *0,0030*	28 (15 — 37) *90 (50 — 120)*
S11	E	0.50 *0,50*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	0.025 *0,0010*	0.032 *0,0013*	0.042 *0,0017*	0.050 *0,0020*	0.065 *0,0026*	0.080 *0,0032*	0.10 *0,0040*	95 (63 — 120) *310 (210 — 390)*
S12	E	0.50 *0,50*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	0.025 *0,0010*	0.032 *0,0013*	0.042 *0,0017*	0.050 *0,0020*	0.065 *0,0026*	0.080 *0,0032*	0.10 *0,0040*	70 (48 — 95) *230 (160 — 310)*
S13	E	0.50 *0,50*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	0.025 *0,0010*	0.032 *0,0013*	0.042 *0,0017*	0.050 *0,0020*	0.065 *0,0026*	0.080 *0,0032*	0.10 *0,0040*	55 (38 — 74) *180 (130 — 240)*

If radius exeeds 15% of value DC please reduce fz with 20%

For cutting data recalculations, see pages 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

Cutting data – JS754-2C Advanced roughing a_e/DC=0,05-0,1

SMG		a_e/DC	a_p/DC	f_z		v_c
				10	12	
P11	M/A/D/E	0.100 *0,100*	2.0 *2,0*	0.15 *0,0060*	0.17 *0,0065*	265 (220 — 290) *870 (730 — 950)*
P12	M/A/D/E	0.100 *0,100*	2.0 *2,0*	0.10 *0,0040*	0.12 *0,0048*	170 (150 — 190) *560 (500 — 620)*
M1	E	0.100 *0,100*	2.0 *2,0*	0.11 *0,0044*	0.13 *0,0050*	205 (180 — 230) *670 (600 — 750)*
M2	E	0.100 *0,100*	2.0 *2,0*	0.10 *0,0040*	0.12 *0,0048*	170 (150 — 190) *560 (500 — 620)*
M3	E	0.100 *0,100*	2.0 *2,0*	0.10 *0,0040*	0.12 *0,0048*	130 (120 — 150) *425 (400 — 490)*
M4	E	0.100 *0,100*	2.0 *2,0*	0.085 *0,0034*	0.10 *0,0040*	100 (86 — 110) *330 (290 — 360)*
M5	E	0.100 *0,100*	2.0 *2,0*	0.085 *0,0034*	0.10 *0,0040*	85 (72 — 96) *280 (240 — 310)*
S1	E	0.0500 *0,0500*	2.0 *2,0*	0.085 *0,0034*	0.10 *0,0040*	70 (43 — 99) *230 (150 — 320)*
S2	E	0.0500 *0,0500*	2.0 *2,0*	0.085 *0,0034*	0.10 *0,0040*	60 (35 — 80) *195 (120 — 260)*
S3	E	0.0500 *0,0500*	2.0 *2,0*	0.080 *0,0032*	0.095 *0,0038*	50 (31 — 70) *165 (110 — 220)*
S11	E	0.0800 *0,0800*	2.0 *2,0*	0.070 *0,0028*	0.085 *0,0034*	165 (140 — 190) *540 (460 — 620)*
S12	E	0.0800 *0,0800*	2.0 *2,0*	0.070 *0,0028*	0.085 *0,0034*	125 (110 — 150) *410 (370 — 490)*
S13	E	0.0800 *0,0800*	2.0 *2,0*	0.060 *0,0024*	0.070 *0,0028*	100 (84 — 110) *330 (280 — 360)*

Cutting data – JS754-3C Advanced roughing a_e/DC=0,05-0,1

SMG		a_e/DC	a_p/DC	f_z						v_c
				6	8	10	12	16	20	
P11	M/A/D/E	0.100 *0,100*	4.0 *4,0*	0.090 *0,0036*	0.12 *0,0048*	0.15 *0,0060*	0.17 *0,0065*	0.22 *0,0085*	0.25 *0,010*	265 (220 — 290) *870 (730 — 950)*
P12	M/A/D/E	0.100 *0,100*	4.0 *4,0*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.15 *0,0060*	0.17 *0,0065*	170 (140 — 180) *560 (460 — 590)*
M1	E	0.100 *0,100*	4.0 *4,0*	0.065 *0,0026*	0.090 *0,0036*	0.11 *0,0044*	0.13 *0,0050*	0.16 *0,0065*	0.19 *0,0075*	205 (170 — 230) *670 (560 — 750)*
M2	E	0.100 *0,100*	4.0 *4,0*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.15 *0,0060*	0.17 *0,0065*	170 (140 — 190) *560 (460 — 620)*
M3	E	0.100 *0,100*	4.0 *4,0*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.15 *0,0060*	0.17 *0,0065*	130 (110 — 150) *425 (370 — 490)*
M4	E	0.100 *0,100*	4.0 *4,0*	0.050 *0,0020*	0.070 *0,0028*	0.085 *0,0034*	0.10 *0,0040*	0.13 *0,0050*	0.15 *0,0060*	100 (86 — 110) *330 (290 — 360)*
M5	E	0.100 *0,100*	4.0 *4,0*	0.050 *0,0020*	0.070 *0,0028*	0.085 *0,0034*	0.10 *0,0040*	0.13 *0,0050*	0.15 *0,0060*	85 (72 — 96) *280 (240 — 310)*
S1	E	0.0500 *0,0500*	4.0 *4,0*	0.050 *0,0020*	0.070 *0,0028*	0.085 *0,0034*	0.10 *0,0040*	0.13 *0,0050*	0.15 *0,0060*	70 (43 — 99) *230 (150 — 320)*
S2	E	0.0500 *0,0500*	4.0 *4,0*	0.050 *0,0020*	0.070 *0,0028*	0.085 *0,0034*	0.10 *0,0040*	0.13 *0,0050*	0.15 *0,0060*	55 (35 — 80) *180 (120 — 260)*
S3	E	0.0500 *0,0500*	4.0 *4,0*	0.048 *0,0019*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	0.12 *0,0048*	0.14 *0,0055*	50 (30 — 70) *165 (99 — 220)*
S11	E	0.0800 *0,0800*	4.0 *4,0*	0.042 *0,0017*	0.055 *0,0022*	0.070 *0,0028*	0.085 *0,0034*	0.10 *0,0040*	0.12 *0,0048*	165 (140 — 190) *540 (460 — 620)*
S12	E	0.0800 *0,0800*	4.0 *4,0*	0.042 *0,0017*	0.055 *0,0022*	0.070 *0,0028*	0.085 *0,0034*	0.10 *0,0040*	0.12 *0,0048*	125 (110 — 150) *410 (370 — 490)*
S13	E	0.0800 *0,0800*	4.0 *4,0*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	0.090 *0,0036*	0.10 *0,0040*	100 (84 — 110) *330 (280 — 360)*

If radius exeeds 15% of value DC please reduce fz with 20%

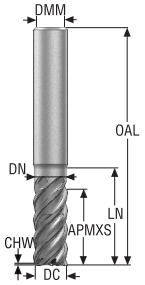
For cutting data recalculations, see pages 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

JS755

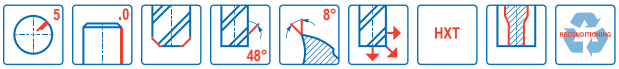
High performance – Square – ISO– M and ISO– S – 5 Flutes – Cylindrical – Chamfer





E

- Tolerances:
- DMM= h5
- DC= e7
- Regrind possible

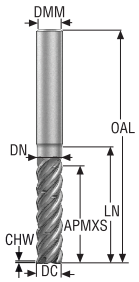


Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	CHW	PCEDC	Cylindrical
				mm	mm	mm	mm	mm	mm	mm		
JS755060E2C.0Z5-HXT	03186907	2	E	6,0	6,0	12,0	57,0	18,0	5,7	0,075	5	■
JS755080E2C.0Z5-HXT	03186908	2	E	8,0	8,0	16,0	63,0	25,0	7,6	0,1	5	■
JS755100E2C.0Z5-HXT	03186909	2	E	10,0	10,0	20,0	72,0	29,0	9,5	0,125	5	■
JS755120E2C.0Z5-HXT	03186910	2	E	12,0	12,0	24,0	83,0	35,0	11,4	0,15	5	■
JS755160E2C.0Z5-HXT	03186911	2	E	16,0	16,0	32,0	92,0	42,0	15,2	0,2	5	■
JS755200E2C.0Z5-HXT	03186912	2	E	20,0	20,0	40,0	104,0	51,0	19,0	0,25	5	■
JS755250E2C.0Z5-HXT	03186913	2	E	25,0	25,0	50,0	121,0	65,0	23,8	0,3	5	■
JS755060E3C.0Z5-HXT	03186914	3	E	6,0	6,0	21,0	65,0	26,0	5,7	0,075	5	■
JS755080E3C.0Z5-HXT	03186915	3	E	8,0	8,0	32,0	75,0	37,0	7,6	0,1	5	■
JS755100E3C.0Z5-HXT	03186916	3	E	10,0	10,0	40,0	89,0	47,0	9,5	0,125	5	■
JS755120E3C.0Z5-HXT	03186917	3	E	12,0	12,0	45,0	100,0	53,0	11,4	0,15	5	■
JS755160E3C.0Z5-HXT	03186918	3	E	16,0	16,0	55,0	115,0	65,0	15,2	0,2	5	■
JS755200E3C.0Z5-HXT	03186919	3	E	20,0	20,0	61,0	125,0	72,0	19,0	0,25	5	■
JS755250E3C.0Z5-HXT	03186920	3	E	25,0	25,0	85,0	153,0	94,0	23,8	0,3	5	■

■ Stocked standard.

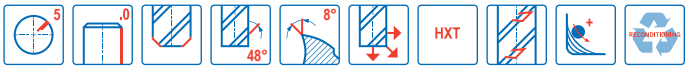
JS755

High performance - Square – ISO– M and ISO– S – 5 Flutes – Cylindrical – Chamfer – Chip splitters



E





- Tolerances:
- DMM= h5
- DC= e7
- Chip splitters
- Regrind possible

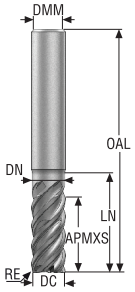
Designation	Item number	Length index	Tool shape	Chip splitters	DC	DMM	APMXS	OAL	LN	DN	CHW	PCEDC	Cylindrical
					mm	mm	mm	mm	mm	mm	mm		
JS755100E3C.0Z5C-HXT	03186921	3	E	■	10,0	10,0	40,0	89,0	47,0	9,5	0,125	5	■
JS755120E3C.0Z5C-HXT	03186922	3	E	■	12,0	12,0	45,0	100,0	53,0	11,4	0,15	5	■
JS755160E3C.0Z5C-HXT	03186923	3	E	■	16,0	16,0	55,0	115,0	65,0	15,2	0,2	5	■
JS755200E3C.0Z5C-HXT	03186924	3	E	■	20,0	20,0	61,0	125,0	72,0	19,0	0,25	5	■

■ Stocked standard.

JS755

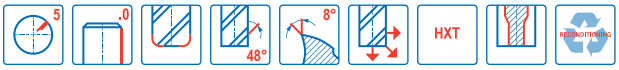
High performance – Square – ISO– M and ISO– S – 5 Flutes – Cylindrical – Corner radius





E

- Tolerances:
- DMM= h5
- DC= e7
- RE= ±0,02 mm
- Regrind possible

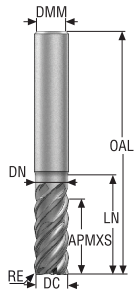


Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Cylindrical
				mm	mm	mm	mm	mm	mm	mm		
JS755060E2R020.0Z5-HXT	03186925	2	E	6,0	6,0	12,0	57,0	18,0	5,7	0,2	5	■
JS755060E2R050.0Z5-HXT	03186926	2	E	6,0	6,0	12,0	57,0	18,0	5,7	0,5	5	■
JS755060E2R100.0Z5-HXT	03186927	2	E	6,0	6,0	12,0	57,0	18,0	5,7	1,0	5	■
JS755080E2R050.0Z5-HXT	03186928	2	E	8,0	8,0	16,0	63,0	25,0	7,6	0,5	5	■
JS755080E2R100.0Z5-HXT	03186929	2	E	8,0	8,0	16,0	63,0	25,0	7,6	1,0	5	■
JS755100E2R050.0Z5-HXT	03186930	2	E	10,0	10,0	20,0	72,0	29,0	9,5	0,5	5	■
JS755100E2R100.0Z5-HXT	03186931	2	E	10,0	10,0	20,0	72,0	29,0	9,5	1,0	5	■
JS755100E2R200.0Z5-HXT	03186932	2	E	10,0	10,0	20,0	72,0	29,0	9,5	2,0	5	■
JS755100E2R300.0Z5-HXT	03186933	2	E	10,0	10,0	20,0	72,0	29,0	9,5	3,0	5	■
JS755120E2R050.0Z5-HXT	03186934	2	E	12,0	12,0	24,0	83,0	35,0	11,4	0,5	5	■
JS755120E2R100.0Z5-HXT	03186935	2	E	12,0	12,0	24,0	83,0	35,0	11,4	1,0	5	■
JS755120E2R200.0Z5-HXT	03186936	2	E	12,0	12,0	24,0	83,0	35,0	11,4	2,0	5	■
JS755120E2R300.0Z5-HXT	03186937	2	E	12,0	12,0	24,0	83,0	35,0	11,4	3,0	5	■
JS755160E2R050.0Z5-HXT	03186938	2	E	16,0	16,0	32,0	92,0	42,0	15,2	0,5	5	■
JS755160E2R100.0Z5-HXT	03186939	2	E	16,0	16,0	32,0	92,0	42,0	15,2	1,0	5	■
JS755160E2R600.0Z5-HXT	03186940	2	E	16,0	16,0	32,0	92,0	42,0	15,2	6,0	5	■
JS755200E2R050.0Z5-HXT	03186941	2	E	20,0	20,0	40,0	104,0	51,0	19,0	0,5	5	■
JS755200E2R100.0Z5-HXT	03186942	2	E	20,0	20,0	40,0	104,0	51,0	19,0	1,0	5	■
JS755200E2R600.0Z5-HXT	03186943	2	E	20,0	20,0	40,0	104,0	51,0	19,0	6,0	5	■

■ Stocked standard.

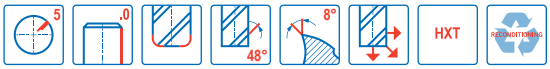
JS755

High performance – Square – ISO– M and ISO– S – 5 Flutes – Cylindrical – Corner radius



E





- Tolerances:
- DMM= h5
- DC= e7
- RE= ±0,02 mm
- Regrind possible

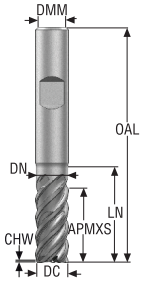
Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Cylindrical
				mm	mm	mm	mm	mm	mm	mm		
JS755060E3R020.0Z5-HXT	03186946	3	E	6,0	6,0	21,0	65,0	26,0	5,7	0,2	5	■
JS755060E3R050.0Z5-HXT	03186947	3	E	6,0	6,0	21,0	65,0	26,0	5,7	0,5	5	■
JS755060E3R100.0Z5-HXT	03186948	3	E	6,0	6,0	21,0	65,0	26,0	5,7	1,0	5	■
JS755080E3R050.0Z5-HXT	03186949	3	E	8,0	8,0	32,0	75,0	37,0	7,6	0,5	5	■
JS755080E3R100.0Z5-HXT	03186950	3	E	8,0	8,0	32,0	75,0	37,0	7,6	1,0	5	■
JS755100E3R050.0Z5-HXT	03186951	3	E	10,0	10,0	40,0	89,0	47,0	9,5	0,5	5	■
JS755100E3R100.0Z5-HXT	03186952	3	E	10,0	10,0	40,0	89,0	47,0	9,5	1,0	5	■
JS755100E3R200.0Z5-HXT	03186953	3	E	10,0	10,0	40,0	89,0	47,0	9,5	2,0	5	■
JS755100E3R300.0Z5-HXT	03186954	3	E	10,0	10,0	40,0	89,0	47,0	9,5	3,0	5	■
JS755120E3R050.0Z5-HXT	03186955	3	E	12,0	12,0	45,0	100,0	53,0	11,4	0,5	5	■
JS755120E3R100.0Z5-HXT	03186956	3	E	12,0	12,0	45,0	100,0	53,0	11,4	1,0	5	■
JS755120E3R200.0Z5-HXT	03186957	3	E	12,0	12,0	45,0	100,0	53,0	11,4	2,0	5	■
JS755120E3R300.0Z5-HXT	03186958	3	E	12,0	12,0	45,0	100,0	53,0	11,4	3,0	5	■
JS755160E3R050.0Z5-HXT	03186959	3	E	16,0	16,0	55,0	115,0	65,0	15,2	0,5	5	■
JS755160E3R600.0Z5-HXT	03186960	3	E	16,0	16,0	55,0	115,0	65,0	15,2	6,0	5	■
JS755200E3R050.0Z5-HXT	03186961	3	E	20,0	20,0	61,0	125,0	72,0	19,0	0,5	5	■
JS755200E3R600.0Z5-HXT	03186962	3	E	20,0	20,0	61,0	125,0	72,0	19,0	6,0	5	■

■ Stocked standard.

JS755

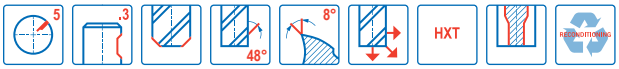
High performance – Square – ISO– M and ISO– S – 5 Flutes – Weldon – Chamfer





E

- Tolerances:
- DMM= h5
- DC= e7
- Regrind possible

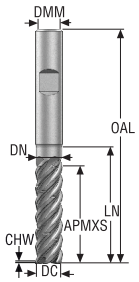


Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	CHW	PCEDC	Weldon
				mm	mm	mm	mm	mm	mm	mm		
JS755060E2C.3Z5-HXT	03187083	2	E	6,0	6,0	12,0	57,0	18,0	5,7	0,075	5	■
JS755080E2C.3Z5-HXT	03187084	2	E	8,0	8,0	16,0	63,0	25,0	7,6	0,1	5	■
JS755100E2C.3Z5-HXT	03187085	2	E	10,0	10,0	20,0	72,0	29,0	9,5	0,125	5	■
JS755120E2C.3Z5-HXT	03187086	2	E	12,0	12,0	24,0	83,0	35,0	11,4	0,15	5	■
JS755160E2C.3Z5-HXT	03187087	2	E	16,0	16,0	32,0	92,0	42,0	15,2	0,2	5	■
JS755200E2C.3Z5-HXT	03187088	2	E	20,0	20,0	40,0	104,0	51,0	19,0	0,25	5	■
JS755250E2C.3Z5-HXT	03187089	2	E	25,0	25,0	50,0	121,0	65,0	23,8	0,3	5	■
JS755060E3C.3Z5-HXT	03187090	3	E	6,0	6,0	21,0	65,0	26,0	5,7	0,075	5	■
JS755080E3C.3Z5-HXT	03187091	3	E	8,0	8,0	32,0	75,0	37,0	7,6	0,1	5	■
JS755100E3C.3Z5-HXT	03187092	3	E	10,0	10,0	40,0	89,0	47,0	9,5	0,125	5	■
JS755120E3C.3Z5-HXT	03187093	3	E	12,0	12,0	45,0	100,0	53,0	11,4	0,15	5	■
JS755160E3C.3Z5-HXT	03187094	3	E	16,0	16,0	55,0	115,0	65,0	15,2	0,2	5	■
JS755200E3C.3Z5-HXT	03187095	3	E	20,0	20,0	61,0	125,0	72,0	19,0	0,25	5	■
JS755250E3C.3Z5-HXT	03187096	3	E	25,0	25,0	85,0	153,0	94,0	23,8	0,3	5	■

■ Stocked standard.

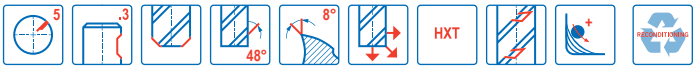
JS755

High performance – Square – ISO– M and ISO– S – 5 Flutes – Weldon – Chamfer – Chip splitters



E





- Tolerances:
- DMM= h5
- DC= e7
- Chip splitters
- Regrind possible

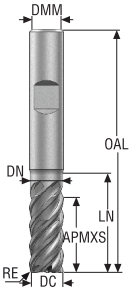
Designation	Item number	Length index	Tool shape	Chip splitters	DC	DMM	APMXS	OAL	LN	DN	CHW	PCEDC	Weldon
					mm	mm	mm	mm	mm	mm	mm		
JS755100E3C.3Z5C-HXT	03187097	3	E	■	10,0	10,0	40,0	89,0	47,0	9,5	0,125	5	■
JS755120E3C.3Z5C-HXT	03187098	3	E	■	12,0	12,0	45,0	100,0	53,0	11,4	0,15	5	■
JS755160E3C.3Z5C-HXT	03187099	3	E	■	16,0	16,0	55,0	115,0	65,0	15,2	0,2	5	■
JS755200E3C.3Z5C-HXT	03187100	3	E	■	20,0	20,0	61,0	125,0	72,0	19,0	0,25	5	■

■ Stocked standard.

JS755

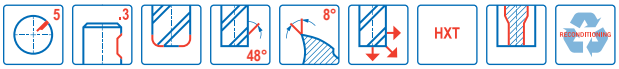
High performance – Square – ISO– M and ISO– S – 5 Flutes – Weldon – Corner radius





E

- Tolerances:
- DMM= h5
- DC= e7
- RE= ±0,02 mm
- Regrind possible

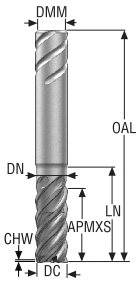


Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Weldon
				mm	mm	mm	mm	mm	mm	mm		
JS755060E2R020.3Z5-HXT	03187101	2	E	6,0	6,0	12,0	57,0	18,0	5,7	0,2	5	■
JS755060E2R050.3Z5-HXT	03187102	2	E	6,0	6,0	12,0	57,0	18,0	5,7	0,5	5	■
JS755060E2R100.3Z5-HXT	03187103	2	E	6,0	6,0	12,0	57,0	18,0	5,7	1,0	5	■
JS755080E2R050.3Z5-HXT	03187104	2	E	8,0	8,0	16,0	63,0	25,0	7,6	0,5	5	■
JS755080E2R100.3Z5-HXT	03187105	2	E	8,0	8,0	16,0	63,0	25,0	7,6	1,0	5	■
JS755100E2R050.3Z5-HXT	03187106	2	E	10,0	10,0	20,0	72,0	29,0	9,5	0,5	5	■
JS755100E2R100.3Z5-HXT	03187107	2	E	10,0	10,0	20,0	72,0	29,0	9,5	1,0	5	■
JS755100E2R200.3Z5-HXT	03187108	2	E	10,0	10,0	20,0	72,0	29,0	9,5	2,0	5	■
JS755100E2R300.3Z5-HXT	03187109	2	E	10,0	10,0	20,0	72,0	29,0	9,5	3,0	5	■
JS755120E2R050.3Z5-HXT	03187110	2	E	12,0	12,0	24,0	83,0	35,0	11,4	0,5	5	■
JS755120E2R100.3Z5-HXT	03187111	2	E	12,0	12,0	24,0	83,0	35,0	11,4	1,0	5	■
JS755120E2R200.3Z5-HXT	03187112	2	E	12,0	12,0	24,0	83,0	35,0	11,4	2,0	5	■
JS755120E2R300.3Z5-HXT	03187113	2	E	12,0	12,0	24,0	83,0	35,0	11,4	3,0	5	■
JS755160E2R050.3Z5-HXT	03187114	2	E	16,0	16,0	32,0	92,0	42,0	15,2	0,5	5	■
JS755160E2R100.3Z5-HXT	03187115	2	E	16,0	16,0	32,0	92,0	42,0	15,2	1,0	5	■
JS755160E2R600.3Z5-HXT	03187116	2	E	16,0	16,0	32,0	92,0	42,0	15,2	6,0	5	■
JS755200E2R050.3Z5-HXT	03187117	2	E	20,0	20,0	40,0	104,0	51,0	19,0	0,5	5	■
JS755200E2R100.3Z5-HXT	03187118	2	E	20,0	20,0	40,0	104,0	51,0	19,0	1,0	5	■
JS755200E2R600.3Z5-HXT	03187119	2	E	20,0	20,0	40,0	104,0	51,0	19,0	6,0	5	■
JS755060E3R020.3Z5-HXT	03187122	3	E	6,0	6,0	21,0	65,0	26,0	5,7	0,2	5	□
JS755060E3R050.3Z5-HXT	03187123	3	E	6,0	6,0	21,0	65,0	26,0	5,7	0,5	5	□
JS755060E3R100.3Z5-HXT	03187124	3	E	6,0	6,0	21,0	65,0	26,0	5,7	1,0	5	□
JS755080E3R050.3Z5-HXT	03187125	3	E	8,0	8,0	32,0	75,0	37,0	7,6	0,5	5	□
JS755080E3R100.3Z5-HXT	03187126	3	E	8,0	8,0	32,0	75,0	37,0	7,6	1,0	5	□
JS755100E3R050.3Z5-HXT	03187127	3	E	10,0	10,0	40,0	89,0	47,0	9,5	0,5	5	□
JS755100E3R100.3Z5-HXT	03187128	3	E	10,0	10,0	40,0	89,0	47,0	9,5	1,0	5	□
JS755100E3R200.3Z5-HXT	03187129	3	E	10,0	10,0	40,0	89,0	47,0	9,5	2,0	5	□
JS755100E3R300.3Z5-HXT	03187130	3	E	10,0	10,0	40,0	89,0	47,0	9,5	3,0	5	□
JS755120E3R050.3Z5-HXT	03187131	3	E	12,0	12,0	45,0	100,0	53,0	11,4	0,5	5	□
JS755120E3R100.3Z5-HXT	03187132	3	E	12,0	12,0	45,0	100,0	53,0	11,4	1,0	5	□
JS755120E3R200.3Z5-HXT	03187133	3	E	12,0	12,0	45,0	100,0	53,0	11,4	2,0	5	□
JS755120E3R300.3Z5-HXT	03187134	3	E	12,0	12,0	45,0	100,0	53,0	11,4	3,0	5	□
JS755160E3R050.3Z5-HXT	03187135	3	E	16,0	16,0	55,0	115,0	65,0	15,2	0,5	5	□
JS755160E3R600.3Z5-HXT	03187136	3	E	16,0	16,0	55,0	115,0	65,0	15,2	6,0	5	□
JS755200E3R050.3Z5-HXT	03187137	3	E	20,0	20,0	61,0	125,0	72,0	19,0	0,5	5	□
JS755200E3R600.3Z5-HXT	03187138	3	E	20,0	20,0	61,0	125,0	72,0	19,0	6,0	5	□

■ Stocked standard. □ Weldon available. Delivery time is 3 days.

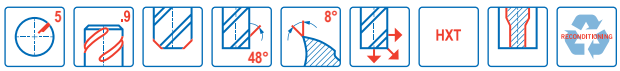
JS755

High performance – Square – ISO– M and ISO– S – 5 Flutes – Safelock – Chamfer



E





- Tolerances:
- DMM= h5
- DC= e7
- Regrind possible

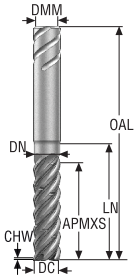
Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	CHW	PCEDC	Safelock
				mm	mm	mm	mm	mm	mm	mm		
JS755060E2C.9Z5-HXT	03187235	2	E	6,0	6,0	12,0	57,0	18,0	5,7	0,075	5	☐
JS755080E2C.9Z5-HXT	03187236	2	E	8,0	8,0	16,0	63,0	25,0	7,6	0,1	5	☐
JS755100E2C.9Z5-HXT	03187237	2	E	10,0	10,0	20,0	72,0	29,0	9,5	0,125	5	☐
JS755120E2C.9Z5-HXT	03187238	2	E	12,0	12,0	24,0	83,0	35,0	11,4	0,15	5	☐
JS755160E2C.9Z5-HXT	03187239	2	E	16,0	16,0	32,0	92,0	42,0	15,2	0,2	5	☐
JS755200E2C.9Z5-HXT	03187240	2	E	20,0	20,0	40,0	104,0	51,0	19,0	0,25	5	☐
JS755250E2C.9Z5-HXT	03187241	2	E	25,0	25,0	50,0	121,0	65,0	23,8	0,3	5	☐
JS755060E3C.9Z5-HXT	03187242	3	E	6,0	6,0	21,0	65,0	26,0	5,7	0,075	5	☐
JS755080E3C.9Z5-HXT	03187243	3	E	8,0	8,0	32,0	75,0	37,0	7,6	0,1	5	☐
JS755100E3C.9Z5-HXT	03187244	3	E	10,0	10,0	40,0	89,0	47,0	9,5	0,125	5	☐
JS755120E3C.9Z5-HXT	03187245	3	E	12,0	12,0	45,0	100,0	53,0	11,4	0,15	5	☐
JS755160E3C.9Z5-HXT	03187246	3	E	16,0	16,0	55,0	115,0	65,0	15,2	0,2	5	☐
JS755200E3C.9Z5-HXT	03187247	3	E	20,0	20,0	61,0	125,0	72,0	19,0	0,25	5	☐
JS755250E3C.9Z5-HXT	03187248	3	E	25,0	25,0	85,0	153,0	94,0	23,8	0,3	5	☐

☐ Safelock available. Delivery time is 6 days.

JS755

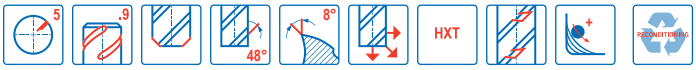
High performance – Square – ISO– M and ISO– S – 5 Flutes – Safelock – Chamfer – Chip splitters





E

- Tolerances:
- DMM= h5
- DC= e7
- Chip splitters
- Regrind possible

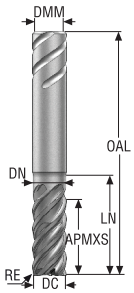


Designation	Item number	Length index	Tool shape	Chip splitters	DC	DMM	APMXS	OAL	LN	DN	CHW	PCEDC	Safelock
					mm	mm	mm	mm	mm	mm	mm		
JS755100E3C.9Z5C-HXT	03187249	3	E	■	10,0	10,0	40,0	89,0	47,0	9,5	0,125	5	☐
JS755120E3C.9Z5C-HXT	03187250	3	E	■	12,0	12,0	45,0	100,0	53,0	11,4	0,15	5	☐
JS755160E3C.9Z5C-HXT	03187252	3	E	■	16,0	16,0	55,0	115,0	65,0	15,2	0,2	5	☐
JS755200E3C.9Z5C-HXT	03187253	3	E	■	20,0	20,0	61,0	125,0	72,0	19,0	0,25	5	☐

☐ Safelock available. Delivery time is 6 days.

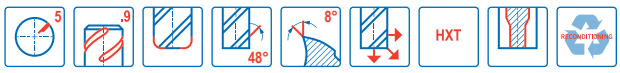
JS755

High performance – Square – ISO– M and ISO– S – 5 Flutes – Safelock – Corner radius



E





- Tolerances:
- DMM= h5
- DC= e7
- RE= ±0,02 mm
- Regrind possible

Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Safelock
				mm	mm	mm	mm	mm	mm	mm		
JS755060E2R020.9Z5-HXT	03187254	2	E	6,0	6,0	12,0	57,0	18,0	5,7	0,2	5	☐
JS755060E2R050.9Z5-HXT	03187255	2	E	6,0	6,0	12,0	57,0	18,0	5,7	0,5	5	☐
JS755060E2R100.9Z5-HXT	03187256	2	E	6,0	6,0	12,0	57,0	18,0	5,7	1,0	5	☐
JS755080E2R050.9Z5-HXT	03187257	2	E	8,0	8,0	16,0	63,0	25,0	7,6	0,5	5	☐
JS755080E2R100.9Z5-HXT	03187258	2	E	8,0	8,0	16,0	63,0	25,0	7,6	1,0	5	☐
JS755100E2R050.9Z5-HXT	03187259	2	E	10,0	10,0	20,0	72,0	29,0	9,5	0,5	5	☐
JS755100E2R100.9Z5-HXT	03187260	2	E	10,0	10,0	20,0	72,0	29,0	9,5	1,0	5	☐
JS755100E2R200.9Z5-HXT	03187261	2	E	10,0	10,0	20,0	72,0	29,0	9,5	2,0	5	☐
JS755100E2R300.9Z5-HXT	03187262	2	E	10,0	10,0	20,0	72,0	29,0	9,5	3,0	5	☐
JS755120E2R050.9Z5-HXT	03187263	2	E	12,0	12,0	24,0	83,0	35,0	11,4	0,5	5	☐
JS755120E2R100.9Z5-HXT	03187264	2	E	12,0	12,0	24,0	83,0	35,0	11,4	1,0	5	☐
JS755120E2R200.9Z5-HXT	03187265	2	E	12,0	12,0	24,0	83,0	35,0	11,4	2,0	5	☐
JS755120E2R300.9Z5-HXT	03187266	2	E	12,0	12,0	24,0	83,0	35,0	11,4	3,0	5	☐
JS755160E2R050.9Z5-HXT	03187267	2	E	16,0	16,0	32,0	92,0	42,0	15,2	0,5	5	☐
JS755160E2R100.9Z5-HXT	03187269	2	E	16,0	16,0	32,0	92,0	42,0	15,2	1,0	5	☐
JS755160E2R600.9Z5-HXT	03187270	2	E	16,0	16,0	32,0	92,0	42,0	15,2	6,0	5	☐
JS755200E2R050.9Z5-HXT	03187271	2	E	20,0	20,0	40,0	104,0	51,0	19,0	0,5	5	☐
JS755200E2R100.9Z5-HXT	03187272	2	E	20,0	20,0	40,0	104,0	51,0	19,0	1,0	5	☐
JS755200E2R600.9Z5-HXT	03187273	2	E	20,0	20,0	40,0	104,0	51,0	19,0	6,0	5	☐
JS755060E3R020.9Z5-HXT	03187276	3	E	6,0	6,0	21,0	65,0	26,0	5,7	0,2	5	☐
JS755060E3R050.9Z5-HXT	03187277	3	E	6,0	6,0	21,0	65,0	26,0	5,7	0,5	5	☐
JS755060E3R100.9Z5-HXT	03187279	3	E	6,0	6,0	21,0	65,0	26,0	5,7	1,0	5	☐
JS755080E3R050.9Z5-HXT	03187280	3	E	8,0	8,0	32,0	75,0	37,0	7,6	0,5	5	☐
JS755080E3R100.9Z5-HXT	03187281	3	E	8,0	8,0	32,0	75,0	37,0	7,6	1,0	5	☐
JS755100E3R050.9Z5-HXT	03187282	3	E	10,0	10,0	40,0	89,0	47,0	9,5	0,5	5	☐
JS755100E3R100.9Z5-HXT	03187283	3	E	10,0	10,0	40,0	89,0	47,0	9,5	1,0	5	☐
JS755100E3R200.9Z5-HXT	03187284	3	E	10,0	10,0	40,0	89,0	47,0	9,5	2,0	5	☐
JS755100E3R300.9Z5-HXT	03187285	3	E	10,0	10,0	40,0	89,0	47,0	9,5	3,0	5	☐
JS755120E3R050.9Z5-HXT	03187286	3	E	12,0	12,0	45,0	100,0	53,0	11,4	0,5	5	☐
JS755120E3R100.9Z5-HXT	03187287	3	E	12,0	12,0	45,0	100,0	53,0	11,4	1,0	5	☐
JS755120E3R200.9Z5-HXT	03187288	3	E	12,0	12,0	45,0	100,0	53,0	11,4	2,0	5	☐
JS755120E3R300.9Z5-HXT	03187289	3	E	12,0	12,0	45,0	100,0	53,0	11,4	3,0	5	☐
JS755160E3R050.9Z5-HXT	03187290	3	E	16,0	16,0	55,0	115,0	65,0	15,2	0,5	5	☐
JS755160E3R600.9Z5-HXT	03187291	3	E	16,0	16,0	55,0	115,0	65,0	15,2	6,0	5	☐
JS755200E3R050.9Z5-HXT	03187292	3	E	20,0	20,0	61,0	125,0	72,0	19,0	0,5	5	☐
JS755200E3R600.9Z5-HXT	03187293	3	E	20,0	20,0	61,0	125,0	72,0	19,0	6,0	5	☐

☐ Safelock available. Delivery time is 6 days.

Cutting data – JS755 Side milling roughing

SMG		a_e/DC	a_p/DC	f_z							v_c
				6	8	10	12	16	20	25	
P11	M/A/D/E	0.400 *0,400*	1.1 *1,1*	0.044 *0,0017*	0.060 *0,0024*	0.075 *0,0030*	0.085 *0,0034*	0.11 *0,0044*	0.12 *0,0048*	0.14 *0,0055*	135 (97 — 150) *445 (320 — 490)*
P12	M/A/D/E	0.400 *0,400*	1.1 *1,1*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.075 *0,0030*	0.085 *0,0034*	0.095 *0,0038*	85 (63 — 99) *280 (210 — 320)*
M1	E	0.400 *0,400*	1.1 *1,1*	0.032 *0,0013*	0.044 *0,0017*	0.055 *0,0022*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	0.11 *0,0044*	170 (150 — 190) *560 (500 — 620)*
M2	E	0.400 *0,400*	1.1 *1,1*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.075 *0,0030*	0.085 *0,0034*	0.095 *0,0038*	140 (120 — 150) *460 (400 — 490)*
M3	E	0.400 *0,400*	1.1 *1,1*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.075 *0,0030*	0.085 *0,0034*	0.095 *0,0038*	110 (92 — 120) *360 (310 — 390)*
M4	E	0.400 *0,400*	1.1 *1,1*	0.026 *0,0010*	0.034 *0,0013*	0.044 *0,0017*	0.050 *0,0020*	0.065 *0,0026*	0.075 *0,0030*	0.085 *0,0034*	85 (71 — 95) *280 (240 — 310)*
M5	E	0.400 *0,400*	1.1 *1,1*	0.026 *0,0010*	0.034 *0,0013*	0.044 *0,0017*	0.050 *0,0020*	0.065 *0,0026*	0.075 *0,0030*	0.085 *0,0034*	70 (59 — 79) *230 (200 — 250)*
S1	E	0.0300 *0,0300*	2.0 *2,0*	0.046 *0,0018*	0.060 *0,0024*	0.075 *0,0030*	0.090 *0,0036*	0.11 *0,0044*	0.13 *0,0050*	0.14 *0,0055*	70 (48 — 110) *230 (160 — 360)*
S2	E	0.0300 *0,0300*	2.0 *2,0*	0.046 *0,0018*	0.060 *0,0024*	0.075 *0,0030*	0.090 *0,0036*	0.11 *0,0044*	0.13 *0,0050*	0.14 *0,0055*	60 (39 — 89) *195 (130 — 290)*
S3	E	0.0300 *0,0300*	2.0 *2,0*	0.042 *0,0017*	0.055 *0,0022*	0.070 *0,0028*	0.085 *0,0034*	0.10 *0,0040*	0.12 *0,0048*	0.13 *0,0050*	50 (34 — 78) *165 (120 — 250)*
S11	E	0.400 *0,400*	1.1 *1,1*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.075 *0,0030*	0.085 *0,0034*	0.095 *0,0038*	140 (120 — 160) *460 (400 — 520)*
S12	E	0.400 *0,400*	1.1 *1,1*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.075 *0,0030*	0.085 *0,0034*	0.095 *0,0038*	110 (91 — 120) *360 (300 — 390)*
S13	E	0.400 *0,400*	1.1 *1,1*	0.026 *0,0010*	0.034 *0,0013*	0.044 *0,0017*	0.050 *0,0020*	0.065 *0,0026*	0.075 *0,0030*	0.085 *0,0034*	85 (73 — 100) *280 (240 — 320)*

Cutting data – JS755_3C Advanced roughing a_e/DC=0,05-0,1

SMG		a_e/DC	a_p/DC	f_z				v_c
				10	12	16	20	
P11	M/A/D/E	0.100 *0,100*	4.0 *4,0*	0.15 *0,0060*	0.17 *0,0065*	0.22 *0,0085*	0.25 *0,010*	265 (220 — 290) *870 (730 — 950)*
P12	M/A/D/E	0.100 *0,100*	4.0 *4,0*	0.10 *0,0040*	0.12 *0,0048*	0.15 *0,0060*	0.17 *0,0065*	170 (140 — 180) *560 (460 — 590)*
M1	E	0.100 *0,100*	4.0 *4,0*	0.11 *0,0044*	0.13 *0,0050*	0.16 *0,0065*	0.19 *0,0075*	205 (170 — 220) *670 (560 — 720)*
M2	E	0.100 *0,100*	4.0 *4,0*	0.10 *0,0040*	0.12 *0,0048*	0.15 *0,0060*	0.17 *0,0065*	170 (140 — 180) *560 (460 — 590)*
M3	E	0.100 *0,100*	4.0 *4,0*	0.10 *0,0040*	0.12 *0,0048*	0.15 *0,0060*	0.17 *0,0065*	130 (110 — 140) *425 (370 — 450)*
M4	E	0.100 *0,100*	4.0 *4,0*	0.085 *0,0034*	0.10 *0,0040*	0.13 *0,0050*	0.15 *0,0060*	100 (85 — 110) *330 (280 — 360)*
M5	E	0.100 *0,100*	4.0 *4,0*	0.085 *0,0034*	0.10 *0,0040*	0.13 *0,0050*	0.15 *0,0060*	85 (71 — 96) *280 (240 — 310)*
S1	E	0.0500 *0,0500*	4.0 *4,0*	0.085 *0,0034*	0.10 *0,0040*	0.13 *0,0050*	0.15 *0,0060*	70 (43 — 99) *230 (150 — 320)*
S2	E	0.0500 *0,0500*	4.0 *4,0*	0.085 *0,0034*	0.10 *0,0040*	0.13 *0,0050*	0.15 *0,0060*	55 (35 — 80) *180 (120 — 260)*
S3	E	0.0500 *0,0500*	4.0 *4,0*	0.080 *0,0032*	0.095 *0,0038*	0.12 *0,0048*	0.14 *0,0055*	50 (31 — 70) *165 (110 — 220)*
S11	E	0.0800 *0,0800*	4.0 *4,0*	0.070 *0,0028*	0.085 *0,0034*	0.10 *0,0040*	0.12 *0,0048*	160 (140 — 190) *520 (460 — 620)*
S12	E	0.0800 *0,0800*	4.0 *4,0*	0.070 *0,0028*	0.085 *0,0034*	0.10 *0,0040*	0.12 *0,0048*	125 (110 — 140) *410 (370 — 450)*
S13	E	0.0800 *0,0800*	4.0 *4,0*	0.060 *0,0024*	0.070 *0,0028*	0.090 *0,0036*	0.10 *0,0040*	100 (83 — 110) *330 (280 — 360)*

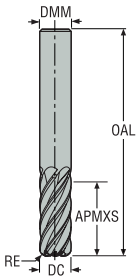
If radius exeeds 15% of value DC please reduce fz with 20%

For cutting data recalculations, see pages 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

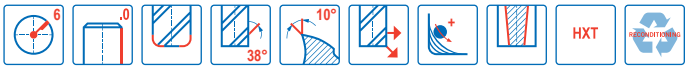
JS720

High performance – Titanium – Square – 6 Flutes – Cylindrical – Corner radius



D





- Tolerances:
- DMM= h5
- DC= e7
- RE= ±0,02 mm
- Regrind possible

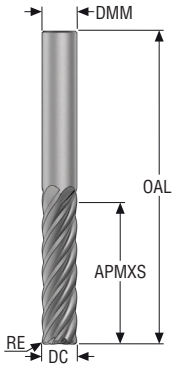
Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	RE	PCEDC	Cylindrical
				mm	mm	mm	mm	mm		
JS720060D2R050.0Z6-HXT	03060293	2	D	6,0	6,0	17,0	57,0	0,5	6	■
JS720060D2R100.0Z6-HXT	03060294	2	D	6,0	6,0	17,0	57,0	1,0	6	■
JS720080D2R050.0Z6-HXT	03060295	2	D	8,0	8,0	23,0	63,0	0,5	6	■
JS720080D2R100.0Z6-HXT	03061294	2	D	8,0	8,0	23,0	63,0	1,0	6	■
JS720100D2R050.0Z6-HXT	03060296	2	D	10,0	10,0	26,0	72,0	0,5	6	■
JS720100D2R100.0Z6-HXT	03060298	2	D	10,0	10,0	26,0	72,0	1,0	6	■
JS720100D2R200.0Z6-HXT	03060299	2	D	10,0	10,0	26,0	72,0	2,0	6	■
JS720100D2R300.0Z6-HXT	03060300	2	D	10,0	10,0	26,0	72,0	3,0	6	■
JS720120D2R050.0Z6-HXT	03060301	2	D	12,0	12,0	30,0	83,0	0,5	6	■
JS720120D2R100.0Z6-HXT	03060304	2	D	12,0	12,0	30,0	83,0	1,0	6	■
JS720120D2R200.0Z6-HXT	03060305	2	D	12,0	12,0	30,0	83,0	2,0	6	■
JS720120D2R300.0Z6-HXT	03060306	2	D	12,0	12,0	30,0	83,0	3,0	6	■
JS720160D2R050.0Z6-HXT	03060307	2	D	16,0	16,0	44,0	99,0	0,5	6	■
JS720160D2R100.0Z6-HXT	03060309	2	D	16,0	16,0	44,0	99,0	1,0	6	■
JS720160D2R200.0Z6-HXT	03060310	2	D	16,0	16,0	44,0	99,0	2,0	6	■
JS720160D2R300.0Z6-HXT	03060311	2	D	16,0	16,0	44,0	99,0	3,0	6	■
JS720160D2R400.0Z6-HXT	03060312	2	D	16,0	16,0	44,0	99,0	4,0	6	■
JS720160D2R600.0Z6-HXT	03060313	2	D	16,0	16,0	44,0	99,0	6,0	6	■
JS720200D2R050.0Z6-HXT	10228426	2	D	20,0	20,0	45,0	105,0	0,5	6	■
JS720200D2R100.0Z6-HXT	10228427	2	D	20,0	20,0	45,0	105,0	1,0	6	■
JS720200D2R200.0Z6-HXT	10228428	2	D	20,0	20,0	45,0	105,0	2,0	6	■
JS720200D2R300.0Z6-HXT	10228429	2	D	20,0	20,0	45,0	105,0	3,0	6	■
JS720250D2R050.0Z6-HXT	10228430	2	D	25,0	25,0	50,0	125,0	0,5	6	■
JS720250D2R100.0Z6-HXT	10228431	2	D	25,0	25,0	50,0	125,0	1,0	6	■
JS720250D2R200.0Z6-HXT	10228432	2	D	25,0	25,0	50,0	125,0	2,0	6	■
JS720250D2R300.0Z6-HXT	03169498	2	D	25,0	25,0	50,0	125,0	3,0	6	■

■ Stocked standard.

JS720

High performance – Titanium – Square – 6 Flutes – Cylindrical – Corner radius





D

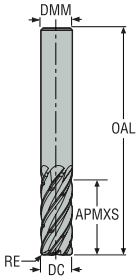
- Tolerances:
- DMM= h5
- DC= e7
- RE= ±0,02 mm
- Regrind possible

Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	RE	PCEDC	Cylindrical
				mm	mm	mm	mm	mm		
JS720080D3R050.0Z6-HXT	10228433	3	D	8,0	8,0	32,0	80,0	0,5	6	■
JS720080D3R100.0Z6-HXT	10228434	3	D	8,0	8,0	32,0	80,0	1,0	6	■
JS720100D3R050.0Z6-HXT	10228435	3	D	10,0	10,0	40,0	89,0	0,5	6	■
JS720100D3R100.0Z6-HXT	10228436	3	D	10,0	10,0	40,0	89,0	1,0	6	■
JS720100D3R200.0Z6-HXT	10228437	3	D	10,0	10,0	40,0	89,0	2,0	6	■
JS720120D3R050.0Z6-HXT	10228438	3	D	12,0	12,0	45,0	100,0	0,5	6	■
JS720120D3R100.0Z6-HXT	10228439	3	D	12,0	12,0	45,0	100,0	1,0	6	■
JS720120D3R200.0Z6-HXT	10228440	3	D	12,0	12,0	45,0	100,0	2,0	6	■
JS720160D3R050.0Z6-HXT	10228441	3	D	16,0	16,0	65,0	130,0	0,5	6	■
JS720160D3R100.0Z6-HXT	10228442	3	D	16,0	16,0	65,0	130,0	1,0	6	■
JS720160D3R200.0Z6-HXT	10228443	3	D	16,0	16,0	65,0	130,0	2,0	6	■
JS720160D3R300.0Z6-HXT	03169497	3	D	16,0	16,0	65,0	130,0	3,0	6	■
JS720200D3R050.0Z6-HXT	03060314	3	D	20,0	20,0	62,0	121,0	0,5	6	■
JS720200D3R100.0Z6-HXT	03060316	3	D	20,0	20,0	62,0	121,0	1,0	6	■
JS720200D3R200.0Z6-HXT	03060317	3	D	20,0	20,0	62,0	121,0	2,0	6	■
JS720200D3R300.0Z6-HXT	03060318	3	D	20,0	20,0	62,0	121,0	3,0	6	■
JS720200D3R400.0Z6-HXT	03060319	3	D	20,0	20,0	62,0	121,0	4,0	6	■
JS720200D3R500.0Z6-HXT	03060320	3	D	20,0	20,0	62,0	121,0	5,0	6	■
JS720200D3R600.0Z6-HXT	03060321	3	D	20,0	20,0	62,0	121,0	6,0	6	■
JS720250D3R050.0Z6-HXT	03060322	3	D	25,0	25,0	78,0	146,0	0,5	6	■
JS720250D3R100.0Z6-HXT	03060323	3	D	25,0	25,0	78,0	146,0	1,0	6	■
JS720250D3R200.0Z6-HXT	03060324	3	D	25,0	25,0	78,0	146,0	2,0	6	■
JS720250D3R300.0Z6-HXT	03060325	3	D	25,0	25,0	78,0	146,0	3,0	6	■
JS720250D3R400.0Z6-HXT	03060326	3	D	25,0	25,0	78,0	146,0	4,0	6	■
JS720250D3R600.0Z6-HXT	03060327	3	D	25,0	25,0	78,0	146,0	6,0	6	■

■ Stocked standard.

JS720

High performance – Titanium – Square – 6 Flutes – Cylindrical – Corner radius – Chip splitters



D





- Tolerances:
- DMM= h5
- DC= e7
- RE= ±0,02 mm
- Chip splitters
- Regrind possible

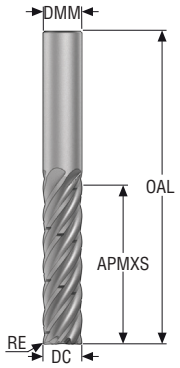
Designation	Item number	Length index	Tool shape	Chip splitters	DC	DMM	APMXS	OAL	RE	PCEDC	Cylindrical
					mm	mm	mm	mm	mm		
JS720080D2R050.0Z6C-HXT	10228513	2	D	■	8,0	8,0	23,0	63,0	0,5	6	■
JS720080D2R100.0Z6C-HXT	10228514	2	D	■	8,0	8,0	23,0	63,0	1,0	6	■
JS720100D2R050.0Z6C-HXT	03060297	2	D	■	10,0	10,0	26,0	72,0	0,5	6	■
JS720100D2R100.0Z6C-HXT	10228515	2	D	■	10,0	10,0	26,0	72,0	1,0	6	■
JS720120D2R050.0Z6C-HXT	03060302	2	D	■	12,0	12,0	30,0	83,0	0,5	6	■
JS720120D2R100.0Z6C-HXT	03298280	2	D	■	12,0	12,0	30,0	83,0	1,0	6	■
JS720120D2R200.0Z6C-HXT	03298281	2	D	■	12,0	12,0	30,0	83,0	2,0	6	■
JS720120D2R250.0Z6C-HXT	03298282	2	D	■	12,0	12,0	30,0	83,0	2,5	6	■
JS720120D2R300.0Z6C-HXT	03298283	2	D	■	12,0	12,0	30,0	83,0	3,0	6	■
JS720120D2R310.0Z6C-HXT	03298284	2	D	■	12,0	12,0	30,0	83,0	3,1	6	■
JS720160D2R050.0Z6C-HXT	03060308	2	D	■	16,0	16,0	44,0	99,0	0,5	6	■
JS720160D2R100.0Z6C-HXT	03298285	2	D	■	16,0	16,0	44,0	99,0	1,0	6	■
JS720160D2R200.0Z6C-HXT	03298286	2	D	■	16,0	16,0	44,0	99,0	2,0	6	■
JS720160D2R250.0Z6C-HXT	03298287	2	D	■	16,0	16,0	44,0	99,0	2,5	6	■
JS720160D2R300.0Z6C-HXT	03298288	2	D	■	16,0	16,0	44,0	99,0	3,0	6	■
JS720160D2R310.0Z6C-HXT	03298289	2	D	■	16,0	16,0	44,0	99,0	3,1	6	■
JS720160D2R400.0Z6C-HXT	03298290	2	D	■	16,0	16,0	44,0	99,0	4,0	6	■
JS720160D2R600.0Z6C-HXT	03298291	2	D	■	16,0	16,0	44,0	99,0	6,0	6	■

■ Stocked standard.

JS720

High performance – Titanium – Square – 6 Flutes – Cylindrical – Corner radius – Chip splitters





D



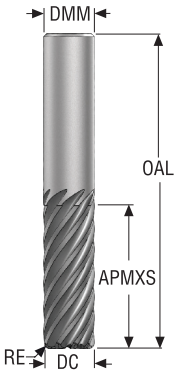
- Tolerances:
- DMM= h5
- DC= e7
- RE= ±0,02 mm
- Chip splitters
- Regrind possible

Designation	Item number	Length index	Tool shape	Chip splitters	DC	DMM	APMXS	OAL	RE	PCEDC	Cylindrical
					mm	mm	mm	mm	mm		
JS720160D3R050.0Z6C-HXT	10228516	3	D	■	16,0	16,0	65,0	130,0	0,5	6	■
JS720160D3R100.0Z6C-HXT	10228517	3	D	■	16,0	16,0	65,0	130,0	1,0	6	■
JS720160D3R200.0Z6C-HXT	10228518	3	D	■	16,0	16,0	65,0	130,0	2,0	6	■
JS720160D3R300.0Z6C-HXT	10228519	3	D	■	16,0	16,0	65,0	130,0	3,0	6	■
JS720200D3R050.0Z6C-HXT	03060315	3	D	■	20,0	20,0	62,0	121,0	0,5	6	■
JS720200D3R100.0Z6C-HXT	03298292	3	D	■	20,0	20,0	62,0	121,0	1,0	6	■
JS720200D3R200.0Z6C-HXT	03298293	3	D	■	20,0	20,0	62,0	121,0	2,0	6	■
JS720200D3R250.0Z6C-HXT	03298294	3	D	■	20,0	20,0	62,0	121,0	2,5	6	■
JS720200D3R300.0Z6C-HXT	03298295	3	D	■	20,0	20,0	62,0	121,0	3,0	6	■
JS720200D3R310.0Z6C-HXT	03298296	3	D	■	20,0	20,0	62,0	121,0	3,1	6	■
JS720200D3R400.0Z6C-HXT	03298297	3	D	■	20,0	20,0	62,0	121,0	4,0	6	■
JS720200D3R500.0Z6C-HXT	03298298	3	D	■	20,0	20,0	62,0	121,0	5,0	6	■
JS720200D3R600.0Z6C-HXT	03298299	3	D	■	20,0	20,0	62,0	121,0	6,0	6	■
JS720250D3R050.0Z6C-HXT	03066270	3	D	■	25,0	25,0	78,0	146,0	0,5	6	■
JS720250D3R100.0Z6C-HXT	03298300	3	D	■	25,0	25,0	78,0	146,0	1,0	6	■
JS720250D3R200.0Z6C-HXT	03298301	3	D	■	25,0	25,0	78,0	146,0	2,0	6	■
JS720250D3R300.0Z6C-HXT	03298302	3	D	■	25,0	25,0	78,0	146,0	3,0	6	■
JS720250D3R400.0Z6C-HXT	03298303	3	D	■	25,0	25,0	78,0	146,0	4,0	6	■
JS720250D3R600.0Z6C-HXT	03298304	3	D	■	25,0	25,0	78,0	146,0	6,0	6	■

■ Stocked standard.

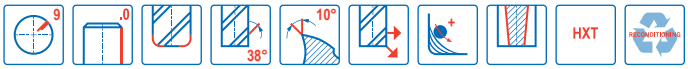
JS720

High performance – Titanium – Square – 9 Flutes – Cylindrical – Corner radius



D





- Tolerances:
- DMM= h5
- DC= e7
- RE= ±0,02 mm
- Regrind possible

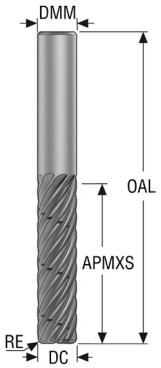
Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	RE	PCEDC	Cylindrical
				mm	mm	mm	mm	mm		
JS720100D2R050.0Z9-HXT	10067510	2	D	10,0	10,0	26,0	72,0	0,5	9	■
JS720100D2R100.0Z9-HXT	10067511	2	D	10,0	10,0	26,0	72,0	1,0	9	■
JS720100D2R200.0Z9-HXT	10067512	2	D	10,0	10,0	26,0	72,0	2,0	9	■
JS720120D2R050.0Z9-HXT	10067513	2	D	12,0	12,0	30,0	83,0	0,5	9	■
JS720120D2R100.0Z9-HXT	10067514	2	D	12,0	12,0	30,0	83,0	1,0	9	■
JS720120D2R200.0Z9-HXT	10067515	2	D	12,0	12,0	30,0	83,0	2,0	9	■
JS720160D2R100.0Z9-HXT	10008152	2	D	16,0	16,0	44,0	99,0	1,0	9	■
JS720160D2R200.0Z9-HXT	10008153	2	D	16,0	16,0	44,0	99,0	2,0	9	■
JS720160D2R300.0Z9-HXT	10008154	2	D	16,0	16,0	44,0	99,0	3,0	9	■
JS720200D2R100.0Z9-HXT	10228393	2	D	20,0	20,0	45,0	105,0	1,0	9	■
JS720200D2R200.0Z9-HXT	10228394	2	D	20,0	20,0	45,0	105,0	2,0	9	■
JS720200D2R300.0Z9-HXT	10228395	2	D	20,0	20,0	45,0	105,0	3,0	9	■
JS720250D2R100.0Z9-HXT	10008155	2	D	25,0	25,0	50,0	125,0	1,0	9	■
JS720250D2R200.0Z9-HXT	10008156	2	D	25,0	25,0	50,0	125,0	2,0	9	■
JS720250D2R300.0Z9-HXT	10008157	2	D	25,0	25,0	50,0	125,0	3,0	9	■
JS720100D3R050.0Z9-HXT	10067516	3	D	10,0	10,0	40,0	89,0	0,5	9	■
JS720100D3R100.0Z9-HXT	10067517	3	D	10,0	10,0	40,0	89,0	1,0	9	■
JS720100D3R200.0Z9-HXT	10067518	3	D	10,0	10,0	40,0	89,0	2,0	9	■
JS720120D3R050.0Z9-HXT	10067519	3	D	12,0	12,0	45,0	100,0	0,5	9	■
JS720120D3R100.0Z9-HXT	10067520	3	D	12,0	12,0	45,0	100,0	1,0	9	■
JS720120D3R200.0Z9-HXT	10067521	3	D	12,0	12,0	45,0	100,0	2,0	9	■
JS720160D3R100.0Z9-HXT	10008158	3	D	16,0	16,0	65,0	130,0	1,0	9	■
JS720160D3R200.0Z9-HXT	10008159	3	D	16,0	16,0	65,0	130,0	2,0	9	■
JS720160D3R300.0Z9-HXT	10008160	3	D	16,0	16,0	65,0	130,0	3,0	9	■
JS720200D3R100.0Z9-HXT	10008161	3	D	20,0	20,0	62,0	121,0	1,0	9	■
JS720200D3R200.0Z9-HXT	10008162	3	D	20,0	20,0	62,0	121,0	2,0	9	■
JS720200D3R300.0Z9-HXT	10008163	3	D	20,0	20,0	62,0	121,0	3,0	9	■
JS720250D3R100.0Z9-HXT	10008164	3	D	25,0	25,0	78,0	146,0	1,0	9	■
JS720250D3R200.0Z9-HXT	10008165	3	D	25,0	25,0	78,0	146,0	2,0	9	■
JS720250D3R300.0Z9-HXT	10008166	3	D	25,0	25,0	78,0	146,0	3,0	9	■

■ Stocked standard.

JS720

High performance – Titanium – Square – 9 Flutes – Cylindrical – Corner radius – Chip splitters





D

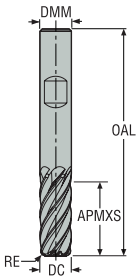
- Tolerances:
- DMM= h5
- DC= e7
- RE= ±0,02 mm
- Regrind possible

Designation	Item number	Length index	Tool shape	Chip splitters	DC	DMM	APMXS	OAL	RE	PCEDC	Cylindrical
					mm	mm	mm	mm	mm		
JS720100D3R050.0Z9C-HXT	10067522	3	D	■	10,0	10,0	40,0	89,0	0,5	9	■
JS720100D3R100.0Z9C-HXT	10067523	3	D	■	10,0	10,0	40,0	89,0	1,0	9	■
JS720100D3R200.0Z9C-HXT	10067524	3	D	■	10,0	10,0	40,0	89,0	2,0	9	■
JS720120D3R050.0Z9C-HXT	10067525	3	D	■	12,0	12,0	45,0	100,0	0,5	9	■
JS720120D3R100.0Z9C-HXT	10067526	3	D	■	12,0	12,0	45,0	100,0	1,0	9	■
JS720120D3R200.0Z9C-HXT	10067527	3	D	■	12,0	12,0	45,0	100,0	2,0	9	■
JS720160D3R100.0Z9C-HXT	10067528	3	D	■	16,0	16,0	65,0	130,0	1,0	9	■
JS720160D3R200.0Z9C-HXT	10067529	3	D	■	16,0	16,0	65,0	130,0	2,0	9	■
JS720160D3R300.0Z9C-HXT	10067530	3	D	■	16,0	16,0	65,0	130,0	3,0	9	■
JS720200D3R100.0Z9C-HXT	10067531	3	D	■	20,0	20,0	62,0	121,0	1,0	9	■
JS720200D3R200.0Z9C-HXT	10067532	3	D	■	20,0	20,0	62,0	121,0	2,0	9	■
JS720200D3R300.0Z9C-HXT	10067533	3	D	■	20,0	20,0	62,0	121,0	3,0	9	■
JS720250D3R100.0Z9C-HXT	10067534	3	D	■	25,0	25,0	78,0	146,0	1,0	9	■
JS720250D3R200.0Z9C-HXT	10067535	3	D	■	25,0	25,0	78,0	146,0	2,0	9	■
JS720250D3R300.0Z9C-HXT	10067536	3	D	■	25,0	25,0	78,0	146,0	3,0	9	■

■ Stocked standard.

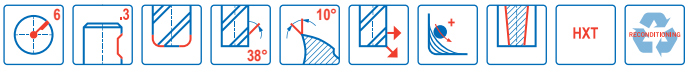
JS720

High performance – Titanium – Square – 6 Flutes – Weldon – Corner radius



D





- Tolerances:
- DMM= h5
- DC= e7
- RE= ±0,02 mm
- Regrind possible

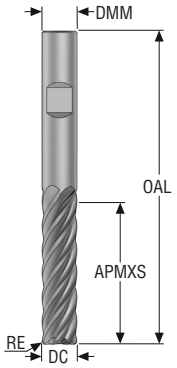
Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	RE	PCEDC	Weldon
				mm	mm	mm	mm	mm		
JS720060D2R050.3Z6-HXT	03060339	2	D	6,0	6,0	17,0	57,0	0,5	6	☐
JS720060D2R100.3Z6-HXT	03060340	2	D	6,0	6,0	17,0	57,0	1,0	6	☐
JS720080D2R050.3Z6-HXT	03060341	2	D	8,0	8,0	23,0	63,0	0,5	6	☐
JS720080D2R100.3Z6-HXT	03061295	2	D	8,0	8,0	23,0	63,0	1,0	6	☐
JS720100D2R050.3Z6-HXT	03060342	2	D	10,0	10,0	26,0	72,0	0,5	6	☐
JS720100D2R100.3Z6-HXT	03060344	2	D	10,0	10,0	26,0	72,0	1,0	6	☐
JS720100D2R200.3Z6-HXT	03060345	2	D	10,0	10,0	26,0	72,0	2,0	6	☐
JS720100D2R300.3Z6-HXT	03060346	2	D	10,0	10,0	26,0	72,0	3,0	6	☐
JS720120D2R050.3Z6-HXT	03060347	2	D	12,0	12,0	30,0	83,0	0,5	6	☐
JS720120D2R100.3Z6-HXT	03060349	2	D	12,0	12,0	30,0	83,0	1,0	6	☐
JS720120D2R200.3Z6-HXT	03060350	2	D	12,0	12,0	30,0	83,0	2,0	6	☐
JS720120D2R300.3Z6-HXT	03060351	2	D	12,0	12,0	30,0	83,0	3,0	6	☐
JS720160D2R050.3Z6-HXT	03060352	2	D	16,0	16,0	44,0	99,0	0,5	6	☐
JS720160D2R100.3Z6-HXT	03060354	2	D	16,0	16,0	44,0	99,0	1,0	6	☐
JS720160D2R200.3Z6-HXT	03060355	2	D	16,0	16,0	44,0	99,0	2,0	6	☐
JS720160D2R300.3Z6-HXT	03060356	2	D	16,0	16,0	44,0	99,0	3,0	6	☐
JS720160D2R400.3Z6-HXT	03060357	2	D	16,0	16,0	44,0	99,0	4,0	6	☐
JS720160D2R600.3Z6-HXT	03060358	2	D	16,0	16,0	44,0	99,0	6,0	6	☐
JS720200D2R050.3Z6-HXT	10228444	2	D	20,0	20,0	45,0	105,0	0,5	6	☐
JS720200D2R100.3Z6-HXT	10228445	2	D	20,0	20,0	45,0	105,0	1,0	6	☐
JS720200D2R200.3Z6-HXT	10228446	2	D	20,0	20,0	45,0	105,0	2,0	6	☐
JS720200D2R300.3Z6-HXT	10228447	2	D	20,0	20,0	45,0	105,0	3,0	6	☐
JS720250D2R050.3Z6-HXT	10228448	2	D	25,0	25,0	50,0	125,0	0,5	6	☐
JS720250D2R100.3Z6-HXT	10228449	2	D	25,0	25,0	50,0	125,0	1,0	6	☐
JS720250D2R200.3Z6-HXT	10228450	2	D	25,0	25,0	50,0	125,0	2,0	6	☐
JS720250D2R300.3Z6-HXT	10228451	2	D	25,0	25,0	50,0	125,0	3,0	6	☐

■ Stocked standard. ☐ Weldon available. Delivery time is 3 days.

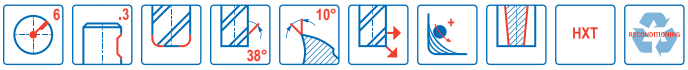
JS720

High performance – Titanium – Square – 6 Flutes – Weldon – Corner radius





D



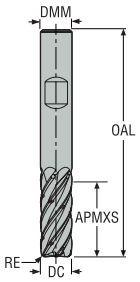
- Tolerances:
- DMM= h5
- DC= e7
- RE= ±0,02 mm
- Regrind possible

Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	RE	PCEDC	Weldon
				mm	mm	mm	mm	mm		
JS720080D3R050.3Z6-HXT	10228452	3	D	8,0	8,0	32,0	80,0	0,5	6	□
JS720080D3R100.3Z6-HXT	10228453	3	D	8,0	8,0	32,0	80,0	1,0	6	□
JS720100D3R050.3Z6-HXT	10228454	3	D	10,0	10,0	40,0	89,0	0,5	6	□
JS720100D3R100.3Z6-HXT	10228455	3	D	10,0	10,0	40,0	89,0	1,0	6	□
JS720100D3R200.3Z6-HXT	10228456	3	D	10,0	10,0	40,0	89,0	2,0	6	□
JS720120D3R050.3Z6-HXT	10228457	3	D	12,0	12,0	45,0	100,0	0,5	6	□
JS720120D3R100.3Z6-HXT	10228458	3	D	12,0	12,0	45,0	100,0	1,0	6	□
JS720120D3R200.3Z6-HXT	10228459	3	D	12,0	12,0	45,0	100,0	2,0	6	□
JS720160D3R050.3Z6-HXT	10228460	3	D	16,0	16,0	65,0	130,0	0,5	6	□
JS720160D3R100.3Z6-HXT	10228461	3	D	16,0	16,0	65,0	130,0	1,0	6	□
JS720160D3R200.3Z6-HXT	10228462	3	D	16,0	16,0	65,0	130,0	2,0	6	□
JS720160D3R300.3Z6-HXT	10228463	3	D	16,0	16,0	6,0	130,0	3,0	6	□
JS720200D3R050.3Z6-HXT	03060359	3	D	20,0	20,0	62,0	121,0	0,5	6	□
JS720200D3R100.3Z6-HXT	03060361	3	D	20,0	20,0	62,0	121,0	1,0	6	□
JS720200D3R200.3Z6-HXT	03060362	3	D	20,0	20,0	62,0	121,0	2,0	6	□
JS720200D3R300.3Z6-HXT	03060363	3	D	20,0	20,0	62,0	121,0	3,0	6	■
JS720200D3R400.3Z6-HXT	03060364	3	D	20,0	20,0	62,0	121,0	4,0	6	□
JS720200D3R500.3Z6-HXT	03060365	3	D	20,0	20,0	62,0	121,0	5,0	6	□
JS720200D3R600.3Z6-HXT	03060366	3	D	20,0	20,0	62,0	121,0	6,0	6	□
JS720250D3R050.3Z6-HXT	03060367	3	D	25,0	25,0	78,0	146,0	0,5	6	□
JS720250D3R100.3Z6-HXT	03060368	3	D	25,0	25,0	78,0	146,0	1,0	6	□
JS720250D3R200.3Z6-HXT	03060369	3	D	25,0	25,0	78,0	146,0	2,0	6	□
JS720250D3R300.3Z6-HXT	03060370	3	D	25,0	25,0	78,0	146,0	3,0	6	□
JS720250D3R400.3Z6-HXT	03060371	3	D	25,0	25,0	78,0	146,0	4,0	6	■
JS720250D3R600.3Z6-HXT	03060372	3	D	25,0	25,0	78,0	146,0	6,0	6	□

■ Stocked standard. □ Weldon available. Delivery time is 3 days.

JS720

High performance – Titanium – Square – 6 Flutes – Weldon – Corner radius – Chip splitters



D



- Tolerances:
- DMM= h5
- DC= e7
- RE= ±0,02 mm
- Chip splitters
- Regrind possible

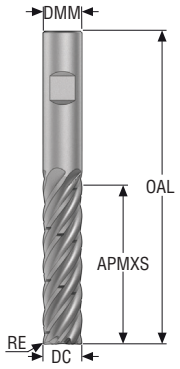
Designation	Item number	Length index	Tool shape	Chip splitters	DC	DMM	APMXS	OAL	RE	PCEDC	Weldon
					mm	mm	mm	mm	mm		
JS720080D2R050.3Z6C-HXT	10228520	2	D	■	8,0	8,0	23,0	63,0	0,5	6	□
JS720080D2R100.3Z6C-HXT	10228521	2	D	■	8,0	8,0	23,0	63,0	1,0	6	□
JS720100D2R050.3Z6C-HXT	03060343	2	D	■	10,0	10,0	26,0	72,0	0,5	6	□
JS720100D2R100.3Z6C-HXT	10228522	2	D	■	10,0	10,0	26,0	72,0	1,0	6	□
JS720120D2R050.3Z6C-HXT	03060348	2	D	■	12,0	12,0	30,0	83,0	0,5	6	□
JS720120D2R100.3Z6C-HXT	03298308	2	D	■	12,0	12,0	30,0	83,0	1,0	6	□
JS720120D2R200.3Z6C-HXT	03298309	2	D	■	12,0	12,0	30,0	83,0	2,0	6	□
JS720120D2R250.3Z6C-HXT	03298310	2	D	■	12,0	12,0	30,0	83,0	2,5	6	□
JS720120D2R300.3Z6C-HXT	03298311	2	D	■	12,0	12,0	30,0	83,0	3,0	6	□
JS720120D2R310.3Z6C-HXT	03298312	2	D	■	12,0	12,0	30,0	83,0	3,1	6	□
JS720160D2R050.3Z6C-HXT	03060353	2	D	■	16,0	16,0	44,0	99,0	0,5	6	■
JS720160D2R100.3Z6C-HXT	03298313	2	D	■	16,0	16,0	44,0	99,0	1,0	6	■
JS720160D2R200.3Z6C-HXT	03298314	2	D	■	16,0	16,0	44,0	99,0	2,0	6	■
JS720160D2R250.3Z6C-HXT	03298315	2	D	■	16,0	16,0	44,0	99,0	2,5	6	■
JS720160D2R300.3Z6C-HXT	03298316	2	D	■	16,0	16,0	44,0	99,0	3,0	6	■
JS720160D2R310.3Z6C-HXT	03298317	2	D	■	16,0	16,0	44,0	99,0	3,1	6	■
JS720160D2R400.3Z6C-HXT	03298318	2	D	■	16,0	16,0	44,0	99,0	4,0	6	■
JS720160D2R600.3Z6C-HXT	03298319	2	D	■	16,0	16,0	44,0	99,0	6,0	6	■

■ Stocked standard. □ Weldon available. Delivery time is 3 days.

JS720

High performance – Titanium – Square – 6 Flutes – Weldon – Corner radius – Chip splitters





D



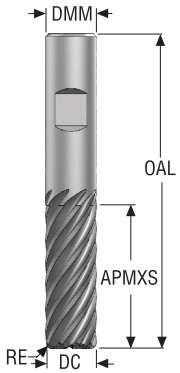
- Tolerances:
- DMM= h5
- DC= e7
- RE= ±0,02 mm
- Chip splitters
- Regrind possible

Designation	Item number	Length index	Tool shape	Chip splitters	DC	DMM	APMXS	OAL	RE	PCEDC	Weldon
					mm	mm	mm	mm	mm		
JS720160D3R050.3Z6C-HXT	10228523	3	D	■	16,0	16,0	65,0	130,0	0,5	6	□
JS720160D3R100.3Z6C-HXT	10228524	3	D	■	16,0	16,0	65,0	130,0	1,0	6	□
JS720160D3R200.3Z6C-HXT	10228525	3	D	■	16,0	16,0	65,0	130,0	2,0	6	□
JS720160D3R300.3Z6C-HXT	10228526	3	D	■	16,0	16,0	65,0	130,0	3,0	6	□
JS720200D3R050.3Z6C-HXT	03060360	3	D	■	20,0	20,0	62,0	121,0	0,5	6	■
JS720200D3R100.3Z6C-HXT	03298320	3	D	■	20,0	20,0	62,0	121,0	1,0	6	■
JS720200D3R200.3Z6C-HXT	03298321	3	D	■	20,0	20,0	62,0	121,0	2,0	6	■
JS720200D3R250.3Z6C-HXT	03298322	3	D	■	20,0	20,0	62,0	121,0	2,5	6	■
JS720200D3R300.3Z6C-HXT	03298323	3	D	■	20,0	20,0	62,0	121,0	3,0	6	■
JS720200D3R310.3Z6C-HXT	03298324	3	D	■	20,0	20,0	62,0	121,0	3,1	6	■
JS720200D3R400.3Z6C-HXT	03298325	3	D	■	20,0	20,0	62,0	121,0	4,0	6	■
JS720200D3R500.3Z6C-HXT	03298326	3	D	■	20,0	20,0	62,0	121,0	5,0	6	■
JS720200D3R600.3Z6C-HXT	03298327	3	D	■	20,0	20,0	62,0	121,0	6,0	6	■
JS720250D3R050.3Z6C-HXT	03066460	3	D	■	25,0	25,0	78,0	146,0	0,5	6	■
JS720250D3R100.3Z6C-HXT	03298328	3	D	■	25,0	25,0	78,0	146,0	1,0	6	■
JS720250D3R200.3Z6C-HXT	03298329	3	D	■	25,0	25,0	78,0	146,0	2,0	6	■
JS720250D3R300.3Z6C-HXT	03298330	3	D	■	25,0	25,0	78,0	146,0	3,0	6	■
JS720250D3R400.3Z6C-HXT	03298331	3	D	■	25,0	25,0	78,0	146,0	4,0	6	■
JS720250D3R600.3Z6C-HXT	03298332	3	D	■	25,0	25,0	78,0	146,0	6,0	6	■

■ Stocked standard. □ Weldon available. Delivery time is 3 days.

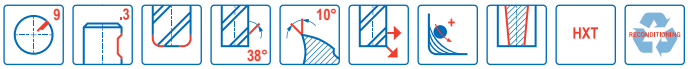
JS720

High performance – Titanium – Square – 9 Flutes – Weldon – Corner radius



D





- Tolerances:
- DMM= h5
- DC= e7
- RE= ±0,02 mm
- Regrind possible

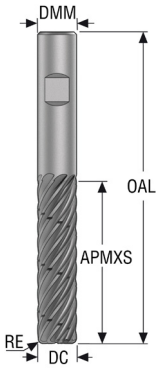
Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	RE	PCEDC	Weldon
				mm	mm	mm	mm	mm		
JS720100D2R050.3Z9-HXT	10067881	2	D	10,0	10,0	26,0	72,0	0,5	9	☐
JS720100D2R100.3Z9-HXT	10067882	2	D	10,0	10,0	26,0	72,0	1,0	9	☐
JS720100D2R200.3Z9-HXT	10067883	2	D	10,0	10,0	26,0	72,0	2,0	9	☐
JS720120D2R050.3Z9-HXT	10067884	2	D	12,0	12,0	30,0	83,0	0,5	9	☐
JS720120D2R100.3Z9-HXT	10067885	2	D	12,0	12,0	30,0	83,0	1,0	9	☐
JS720120D2R200.3Z9-HXT	10067886	2	D	12,0	12,0	30,0	83,0	2,0	9	☐
JS720160D2R100.3Z9-HXT	10008279	2	D	16,0	16,0	44,0	99,0	1,0	9	☐
JS720160D2R200.3Z9-HXT	10008280	2	D	16,0	16,0	44,0	99,0	2,0	9	☐
JS720160D2R300.3Z9-HXT	10008281	2	D	16,0	16,0	44,0	99,0	3,0	9	☐
JS720200D2R100.3Z9-HXT	10228396	2	D	20,0	20,0	45,0	105,0	1,0	9	☐
JS720200D2R200.3Z9-HXT	10228397	2	D	20,0	20,0	45,0	105,0	2,0	9	☐
JS720200D2R300.3Z9-HXT	10228398	2	D	20,0	20,0	45,0	105,0	3,0	9	☐
JS720250D2R100.3Z9-HXT	10008282	2	D	25,0	25,0	50,0	125,0	1,0	9	☐
JS720250D2R200.3Z9-HXT	10008283	2	D	25,0	25,0	50,0	125,0	2,0	9	☐
JS720250D2R300.3Z9-HXT	10008284	2	D	25,0	25,0	50,0	125,0	3,0	9	☐
JS720100D3R050.3Z9-HXT	10067887	3	D	10,0	10,0	40,0	89,0	0,5	9	☐
JS720100D3R100.3Z9-HXT	10067888	3	D	10,0	10,0	40,0	89,0	1,0	9	☐
JS720100D3R200.3Z9-HXT	10067889	3	D	10,0	10,0	40,0	89,0	2,0	9	☐
JS720120D3R050.3Z9-HXT	10067890	3	D	12,0	12,0	45,0	100,0	0,5	9	☐
JS720120D3R100.3Z9-HXT	10067891	3	D	12,0	12,0	45,0	100,0	1,0	9	☐
JS720120D3R200.3Z9-HXT	10067892	3	D	12,0	12,0	45,0	100,0	2,0	9	☐
JS720160D3R100.3Z9-HXT	10008285	3	D	16,0	16,0	65,0	130,0	1,0	9	☐
JS720160D3R200.3Z9-HXT	10008286	3	D	16,0	16,0	65,0	130,0	2,0	9	☐
JS720160D3R300.3Z9-HXT	10008287	3	D	16,0	16,0	65,0	130,0	3,0	9	☐
JS720200D3R100.3Z9-HXT	10008288	3	D	20,0	20,0	62,0	121,0	1,0	9	☐
JS720200D3R200.3Z9-HXT	10008289	3	D	20,0	20,0	62,0	121,0	2,0	9	☐
JS720200D3R300.3Z9-HXT	10008290	3	D	20,0	20,0	62,0	121,0	3,0	9	☐
JS720250D3R100.3Z9-HXT	10008292	3	D	25,0	25,0	78,0	146,0	1,0	9	☐
JS720250D3R200.3Z9-HXT	10008293	3	D	25,0	25,0	78,0	146,0	2,0	9	☐
JS720250D3R300.3Z9-HXT	10008294	3	D	25,0	25,0	78,0	146,0	3,0	9	☐

☐ Weldon available. Delivery time is 3 days.

JS720

High performance – Titanium – Square – 9 Flutes – Weldon – Corner radius – Chip splitters





D



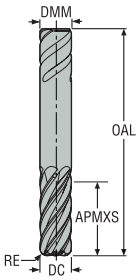
- Tolerances:
- DMM= h5
- DC= e7
- RE= ±0,02 mm
- Regrind possible

Designation	Item number	Length index	Tool shape	Chip splitters	DC	DMM	APMXS	OAL	RE	PCEDC	Weldon
					mm	mm	mm	mm	mm		
JS720100D3R050.3Z9C-HXT	10067893	3	D	■	10,0	10,0	40,0	89,0	0,5	9	□
JS720100D3R100.3Z9C-HXT	10067894	3	D	■	10,0	10,0	40,0	89,0	1,0	9	□
JS720100D3R200.3Z9C-HXT	10067895	3	D	■	10,0	10,0	40,0	89,0	2,0	9	□
JS720120D3R050.3Z9C-HXT	10067897	3	D	■	12,0	12,0	45,0	100,0	0,5	9	□
JS720120D3R100.3Z9C-HXT	10067898	3	D	■	12,0	12,0	45,0	100,0	1,0	9	□
JS720120D3R200.3Z9C-HXT	10067899	3	D	■	12,0	12,0	45,0	100,0	2,0	9	□
JS720160D3R100.3Z9C-HXT	10067900	3	D	■	16,0	16,0	65,0	130,0	1,0	9	□
JS720160D3R200.3Z9C-HXT	10067901	3	D	■	16,0	16,0	65,0	130,0	2,0	9	□
JS720160D3R300.3Z9C-HXT	10067902	3	D	■	16,0	16,0	65,0	130,0	3,0	9	□
JS720200D3R100.3Z9C-HXT	10067903	3	D	■	20,0	20,0	62,0	121,0	1,0	9	□
JS720200D3R200.3Z9C-HXT	10067904	3	D	■	20,0	20,0	62,0	121,0	2,0	9	□
JS720200D3R300.3Z9C-HXT	10067905	3	D	■	20,0	20,0	62,0	121,0	3,0	9	□
JS720250D3R100.3Z9C-HXT	10067906	3	D	■	25,0	25,0	78,0	146,0	1,0	9	□
JS720250D3R200.3Z9C-HXT	10067907	3	D	■	25,0	25,0	78,0	146,0	2,0	9	□
JS720250D3R300.3Z9C-HXT	10067908	3	D	■	25,0	25,0	78,0	146,0	3,0	9	□

■ Stocked standard.

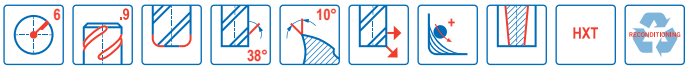
JS720

High performance – Titanium – Square – 6 Flutes – Safelock – Corner radius



D





- Tolerances:
- DMM= h5
- DC= e7
- RE= ±0,02 mm
- Regrind possible

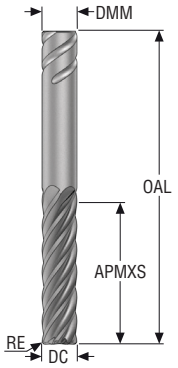
Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	RE	PCEDC	Safelock
				mm	mm	mm	mm	mm		
JS720060D2R050.9Z6-HXT	03060374	2	D	6,0	6,0	17,0	57,0	0,5	6	☐
JS720060D2R100.9Z6-HXT	03060375	2	D	6,0	6,0	17,0	57,0	1,0	6	☐
JS720080D2R050.9Z6-HXT	03060376	2	D	8,0	8,0	23,0	63,0	0,5	6	☐
JS720080D2R100.9Z6-HXT	03061296	2	D	8,0	8,0	23,0	63,0	1,0	6	☐
JS720100D2R050.9Z6-HXT	03060377	2	D	10,0	10,0	26,0	72,0	0,5	6	☐
JS720100D2R100.9Z6-HXT	03060379	2	D	10,0	10,0	26,0	72,0	1,0	6	☐
JS720100D2R200.9Z6-HXT	03060380	2	D	10,0	10,0	26,0	72,0	2,0	6	☐
JS720100D2R300.9Z6-HXT	03060381	2	D	10,0	10,0	26,0	72,0	3,0	6	☐
JS720120D2R050.9Z6-HXT	03060382	2	D	12,0	12,0	30,0	83,0	0,5	6	☐
JS720120D2R100.9Z6-HXT	03060384	2	D	12,0	12,0	30,0	83,0	1,0	6	☐
JS720120D2R200.9Z6-HXT	03060385	2	D	12,0	12,0	30,0	83,0	2,0	6	☐
JS720120D2R300.9Z6-HXT	03060386	2	D	12,0	12,0	30,0	83,0	3,0	6	☐
JS720160D2R050.9Z6-HXT	03060387	2	D	16,0	16,0	44,0	99,0	0,5	6	☐
JS720160D2R100.9Z6-HXT	03060389	2	D	16,0	16,0	44,0	99,0	1,0	6	☐
JS720160D2R200.9Z6-HXT	03060390	2	D	16,0	16,0	44,0	99,0	2,0	6	☐
JS720160D2R300.9Z6-HXT	03060391	2	D	16,0	16,0	44,0	99,0	3,0	6	☐
JS720160D2R400.9Z6-HXT	03060392	2	D	16,0	16,0	44,0	99,0	4,0	6	☐
JS720160D2R600.9Z6-HXT	03060393	2	D	16,0	16,0	44,0	99,0	6,0	6	☐
JS720200D2R050.9Z6-HXT	10228464	2	D	20,0	20,0	45,0	105,0	0,5	6	☐
JS720200D2R100.9Z6-HXT	10228465	2	D	20,0	20,0	45,0	105,0	1,0	6	☐
JS720200D2R200.9Z6-HXT	10228467	2	D	20,0	20,0	45,0	105,0	2,0	6	☐
JS720200D2R300.9Z6-HXT	10228468	2	D	20,0	20,0	45,0	105,0	3,0	6	☐
JS720250D2R050.9Z6-HXT	10228469	2	D	25,0	25,0	50,0	125,0	0,5	6	☐
JS720250D2R100.9Z6-HXT	10228470	2	D	25,0	25,0	50,0	125,0	1,0	6	☐
JS720250D2R200.9Z6-HXT	10228471	2	D	25,0	25,0	50,0	125,0	2,0	6	☐
JS720250D2R300.9Z6-HXT	10228472	2	D	25,0	25,0	50,0	125,0	3,0	6	☐

☐ Safelock available. Delivery time is 6 days.

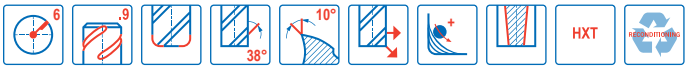
JS720

High performance – Titanium – Square – 6 Flutes – Safelock – Corner radius





D



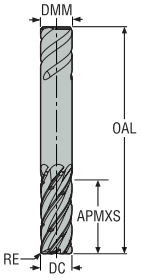
- Tolerances:
- DMM= h5
- DC= e7
- RE= ±0,02 mm
- Regrind possible

Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	RE	PCEDC	Safelock
				mm	mm	mm	mm	mm		
JS720080D3R050.9Z6-HXT	10228473	3	D	8,0	8,0	32,0	80,0	0,5	6	☐
JS720080D3R100.9Z6-HXT	10228474	3	D	8,0	8,0	32,0	80,0	1,0	6	☐
JS720100D3R050.9Z6-HXT	10228475	3	D	10,0	10,0	40,0	89,0	0,5	6	☐
JS720100D3R100.9Z6-HXT	10228476	3	D	10,0	10,0	40,0	89,0	1,0	6	☐
JS720100D3R200.9Z6-HXT	10228477	3	D	10,0	10,0	40,0	89,0	2,0	6	☐
JS720120D3R050.9Z6-HXT	10228478	3	D	12,0	12,0	45,0	100,0	0,5	6	☐
JS720120D3R100.9Z6-HXT	10228479	3	D	12,0	12,0	45,0	100,0	1,0	6	☐
JS720120D3R200.9Z6-HXT	10228480	3	D	12,0	12,0	45,0	100,0	2,0	6	☐
JS720160D3R050.9Z6-HXT	10228481	3	D	16,0	16,0	65,0	130,0	0,5	6	☐
JS720160D3R100.9Z6-HXT	10228482	3	D	16,0	16,0	65,0	130,0	1,0	6	☐
JS720160D3R200.9Z6-HXT	10228483	3	D	16,0	16,0	65,0	130,0	2,0	6	☐
JS720160D3R300.9Z6-HXT	10228484	3	D	16,0	16,0	65,0	130,0	3,0	6	☐
JS720200D3R050.9Z6-HXT	03060394	3	D	20,0	20,0	62,0	121,0	0,5	6	☐
JS720200D3R100.9Z6-HXT	03060396	3	D	20,0	20,0	62,0	121,0	1,0	6	☐
JS720200D3R200.9Z6-HXT	03060397	3	D	20,0	20,0	62,0	121,0	2,0	6	☐
JS720200D3R300.9Z6-HXT	03060398	3	D	20,0	20,0	62,0	121,0	3,0	6	☐
JS720200D3R400.9Z6-HXT	03060399	3	D	20,0	20,0	62,0	121,0	4,0	6	☐
JS720200D3R500.9Z6-HXT	03060400	3	D	20,0	20,0	62,0	121,0	5,0	6	☐
JS720200D3R600.9Z6-HXT	03060401	3	D	20,0	20,0	62,0	121,0	6,0	6	☐
JS720250D3R050.9Z6-HXT	03060402	3	D	25,0	25,0	78,0	146,0	0,5	6	☐
JS720250D3R100.9Z6-HXT	03060403	3	D	25,0	25,0	78,0	146,0	1,0	6	☐
JS720250D3R200.9Z6-HXT	03060404	3	D	25,0	25,0	78,0	146,0	2,0	6	☐
JS720250D3R300.9Z6-HXT	03060405	3	D	25,0	25,0	78,0	146,0	3,0	6	☐
JS720250D3R400.9Z6-HXT	03060406	3	D	25,0	25,0	78,0	146,0	4,0	6	☐
JS720250D3R600.9Z6-HXT	03060407	3	D	25,0	25,0	78,0	146,0	6,0	6	☐

☐ Safelock available. Delivery time is 6 days.

JS720

High performance – Titanium – Square – 6 Flutes – Safelock – Corner radius – Chip splitters



D





- Tolerances:
- DMM= h5
- DC= e7
- RE= ±0,02 mm
- Chip splitters
- Regrind possible

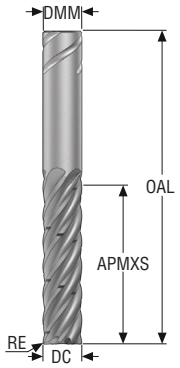
Designation	Item number	Length index	Tool shape	Chip splitters	DC	DMM	APMXS	OAL	RE	PCEDC	Safelock
					mm	mm	mm	mm	mm		
JS720080D2R050.9Z6C-HXT	10228527	2	D	■	8,0	8,0	23,0	63,0	0,5	6	□
JS720080D2R100.9Z6C-HXT	10228528	2	D	■	8,0	8,0	23,0	63,0	1,0	6	□
JS720100D2R050.9Z6C-HXT	03060378	2	D	■	10,0	10,0	26,0	72,0	0,5	6	□
JS720100D2R100.9Z6C-HXT	10228529	2	D	■	10,0	10,0	26,0	72,0	1,0	6	□
JS720120D2R050.9Z6C-HXT	03060383	2	D	■	12,0	12,0	30,0	83,0	0,5	6	□
JS720120D2R100.9Z6C-HXT	03298334	2	D	■	12,0	12,0	30,0	83,0	1,0	6	□
JS720120D2R200.9Z6C-HXT	03298335	2	D	■	12,0	12,0	30,0	83,0	2,0	6	□
JS720120D2R250.9Z6C-HXT	03298336	2	D	■	12,0	12,0	30,0	83,0	2,5	6	□
JS720120D2R300.9Z6C-HXT	03298337	2	D	■	12,0	12,0	30,0	83,0	3,0	6	□
JS720120D2R310.9Z6C-HXT	03298338	2	D	■	12,0	12,0	30,0	83,0	3,1	6	□
JS720160D2R050.9Z6C-HXT	03060388	2	D	■	16,0	16,0	44,0	99,0	0,5	6	□
JS720160D2R100.9Z6C-HXT	03298339	2	D	■	16,0	16,0	44,0	99,0	1,0	6	□
JS720160D2R200.9Z6C-HXT	03298340	2	D	■	16,0	16,0	44,0	99,0	2,0	6	□
JS720160D2R250.9Z6C-HXT	03298341	2	D	■	16,0	16,0	44,0	99,0	2,5	6	□
JS720160D2R300.9Z6C-HXT	03298342	2	D	■	16,0	16,0	44,0	99,0	3,0	6	□
JS720160D2R310.9Z6C-HXT	03298343	2	D	■	16,0	16,0	44,0	99,0	3,1	6	□
JS720160D2R400.9Z6C-HXT	03298344	2	D	■	16,0	16,0	44,0	99,0	4,0	6	□
JS720160D2R600.9Z6C-HXT	03298345	2	D	■	16,0	16,0	44,0	99,0	6,0	6	□

■ Stocked standard.

JS720

High performance – Titanium – Square – 6 Flutes – Safelock – Corner radius – Chip splitters





D



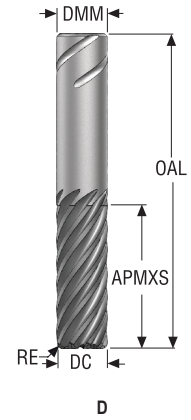
- Tolerances:
- DMM= h5
- DC= e7
- RE= ±0,02 mm
- Chip splitters
- Regrind possible

Designation	Item number	Length index	Tool shape	Chip splitters	DC	DMM	APMXS	OAL	RE	PCEDC	Safelock
					mm	mm	mm	mm	mm		
JS720160D3R050.9Z6C-HXT	10228530	3	D	■	16,0	16,0	65,0	130,0	0,5	6	□
JS720160D3R100.9Z6C-HXT	10228531	3	D	■	16,0	16,0	65,0	130,0	1,0	6	□
JS720160D3R200.9Z6C-HXT	10228532	3	D	■	16,0	16,0	65,0	130,0	2,0	6	□
JS720160D3R300.9Z6C-HXT	10228533	3	D	■	16,0	16,0	65,0	130,0	3,0	6	□
JS720200D3R050.9Z6C-HXT	03060395	3	D	■	20,0	20,0	62,0	121,0	0,5	6	□
JS720200D3R100.9Z6C-HXT	03298346	3	D	■	20,0	20,0	62,0	121,0	1,0	6	□
JS720200D3R200.9Z6C-HXT	03298347	3	D	■	20,0	20,0	62,0	121,0	2,0	6	□
JS720200D3R250.9Z6C-HXT	03298348	3	D	■	20,0	20,0	62,0	121,0	2,5	6	□
JS720200D3R300.9Z6C-HXT	03298349	3	D	■	20,0	20,0	62,0	121,0	3,0	6	□
JS720200D3R310.9Z6C-HXT	03298350	3	D	■	20,0	20,0	62,0	121,0	3,1	6	□
JS720200D3R400.9Z6C-HXT	03298351	3	D	■	20,0	20,0	62,0	121,0	4,0	6	□
JS720200D3R500.9Z6C-HXT	03298352	3	D	■	20,0	20,0	62,0	121,0	5,0	6	□
JS720200D3R600.9Z6C-HXT	03298353	3	D	■	20,0	20,0	62,0	121,0	6,0	6	□
JS720250D3R050.9Z6C-HXT	03066461	3	D	■	25,0	25,0	78,0	146,0	0,5	6	□
JS720250D3R100.9Z6C-HXT	03298354	3	D	■	25,0	25,0	78,0	146,0	1,0	6	□
JS720250D3R200.9Z6C-HXT	03298355	3	D	■	25,0	25,0	78,0	146,0	2,0	6	□
JS720250D3R300.9Z6C-HXT	03298356	3	D	■	25,0	25,0	78,0	146,0	3,0	6	□
JS720250D3R400.9Z6C-HXT	03298357	3	D	■	25,0	25,0	78,0	146,0	4,0	6	□
JS720250D3R600.9Z6C-HXT	03298358	3	D	■	25,0	25,0	78,0	146,0	6,0	6	□

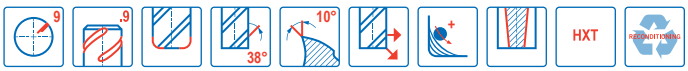
■ Stocked standard.

JS720

High performance – Titanium – Square – 9 Flutes – Safelock – Corner radius



D





- Tolerances:
- DMM= h5
- DC= e7
- RE= ±0,02 mm
- Regrind possible

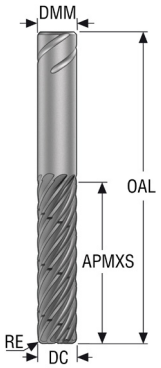
Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	RE	PCEDC	Safelock
				mm	mm	mm	mm	mm		
JS720100D2R050.9Z9-HXT	10067909	2	D	10,0	10,0	26,0	72,0	0,5	9	☐
JS720100D2R100.9Z9-HXT	10067910	2	D	10,0	10,0	26,0	72,0	1,0	9	☐
JS720100D2R200.9Z9-HXT	10067911	2	D	10,0	10,0	26,0	72,0	2,0	9	☐
JS720120D2R050.9Z9-HXT	10067912	2	D	12,0	12,0	30,0	83,0	0,5	9	☐
JS720120D2R100.9Z9-HXT	10067913	2	D	12,0	12,0	30,0	83,0	1,0	9	☐
JS720120D2R200.9Z9-HXT	10067914	2	D	12,0	12,0	30,0	83,0	2,0	9	☐
JS720160D2R100.9Z9-HXT	10008295	2	D	16,0	16,0	44,0	99,0	1,0	9	☐
JS720160D2R200.9Z9-HXT	10008296	2	D	16,0	16,0	44,0	99,0	2,0	9	☐
JS720160D2R300.9Z9-HXT	10008297	2	D	16,0	16,0	44,0	99,0	3,0	9	☐
JS720200D2R100.9Z9-HXT	10228399	2	D	20,0	20,0	45,0	105,0	1,0	9	☐
JS720200D2R200.9Z9-HXT	10228400	2	D	20,0	20,0	45,0	105,0	2,0	9	☐
JS720200D2R300.9Z9-HXT	10228401	2	D	20,0	20,0	45,0	105,0	3,0	9	☐
JS720250D2R100.9Z9-HXT	10008298	2	D	25,0	25,0	50,0	125,0	1,0	9	☐
JS720250D2R200.9Z9-HXT	10008299	2	D	25,0	25,0	50,0	125,0	2,0	9	☐
JS720250D2R300.9Z9-HXT	10008300	2	D	25,0	25,0	50,0	125,0	3,0	9	☐
JS720100D3R050.9Z9-HXT	10067915	3	D	10,0	10,0	40,0	89,0	0,5	9	☐
JS720100D3R100.9Z9-HXT	10067916	3	D	10,0	10,0	40,0	89,0	1,0	9	☐
JS720100D3R200.9Z9-HXT	10067917	3	D	10,0	10,0	40,0	89,0	2,0	9	☐
JS720120D3R050.9Z9-HXT	10067918	3	D	12,0	12,0	45,0	100,0	0,5	9	☐
JS720120D3R100.9Z9-HXT	10067919	3	D	12,0	12,0	45,0	100,0	1,0	9	☐
JS720120D3R200.9Z9-HXT	10067921	3	D	12,0	12,0	45,0	100,0	2,0	9	☐
JS720160D3R100.9Z9-HXT	10008301	3	D	16,0	16,0	65,0	130,0	1,0	9	☐
JS720160D3R200.9Z9-HXT	10008302	3	D	16,0	16,0	65,0	130,0	2,0	9	☐
JS720160D3R300.9Z9-HXT	10008303	3	D	16,0	16,0	65,0	130,0	3,0	9	☐
JS720200D3R100.9Z9-HXT	10008304	3	D	20,0	20,0	62,0	121,0	1,0	9	☐
JS720200D3R200.9Z9-HXT	10008305	3	D	20,0	20,0	62,0	121,0	2,0	9	☐
JS720200D3R300.9Z9-HXT	10008306	3	D	20,0	20,0	62,0	121,0	3,0	9	☐
JS720250D3R100.9Z9-HXT	10008307	3	D	25,0	25,0	78,0	146,0	1,0	9	☐
JS720250D3R200.9Z9-HXT	10008308	3	D	25,0	25,0	78,0	146,0	2,0	9	☐
JS720250D3R300.9Z9-HXT	10008309	3	D	25,0	25,0	78,0	146,0	3,0	9	☐

☐ Safelock available. Delivery time is 6 days.

JS720

High performance – Titanium – Square – 9 Flutes – Safelock – Corner radius – Chip splitters





D

- Tolerances:
- DMM= h5
- DC= e7
- RE= ±0,02 mm
- Chip splitters
- Regrind possible

Designation	Item number	Length index	Tool shape	Chip splitters	DC	DMM	APMXS	OAL	RE	PCEDC	Safelock
					mm	mm	mm	mm	mm		
JS720100D3R050.9Z9C-HXT	10067922	3	D	■	10,0	10,0	40,0	89,0	0,5	9	□
JS720100D3R100.9Z9C-HXT	10067923	3	D	■	10,0	10,0	40,0	89,0	1,0	9	□
JS720100D3R200.9Z9C-HXT	10067924	3	D	■	10,0	10,0	40,0	89,0	2,0	9	□
JS720120D3R050.9Z9C-HXT	10067925	3	D	■	12,0	12,0	45,0	100,0	0,5	9	□
JS720120D3R100.9Z9C-HXT	10067926	3	D	■	12,0	12,0	45,0	100,0	1,0	9	□
JS720120D3R200.9Z9C-HXT	10067927	3	D	■	12,0	12,0	45,0	100,0	2,0	9	□
JS720160D3R100.9Z9C-HXT	10067928	3	D	■	16,0	16,0	65,0	130,0	1,0	9	□
JS720160D3R200.9Z9C-HXT	10067929	3	D	■	16,0	16,0	65,0	130,0	2,0	9	□
JS720160D3R300.9Z9C-HXT	10067930	3	D	■	16,0	16,0	65,0	130,0	3,0	9	□
JS720200D3R100.9Z9C-HXT	10067931	3	D	■	20,0	20,0	62,0	121,0	1,0	9	□
JS720200D3R200.9Z9C-HXT	10067932	3	D	■	20,0	20,0	62,0	121,0	2,0	9	□
JS720200D3R300.9Z9C-HXT	10067933	3	D	■	20,0	20,0	62,0	121,0	3,0	9	□
JS720250D3R100.9Z9C-HXT	10067934	3	D	■	25,0	25,0	78,0	146,0	1,0	9	□
JS720250D3R200.9Z9C-HXT	10067935	3	D	■	25,0	25,0	78,0	146,0	2,0	9	□
JS720250D3R300.9Z9C-HXT	10067936	3	D	■	25,0	25,0	78,0	146,0	3,0	9	□

■ Stocked standard.

Cutting data – JS720 Side milling PCEDC =6

SMG		a_e/DC	a_p/DC	f_z							v_c
				6	8	10	12	16	20	25	
M1	E	0.400 *0,400*	1.1 *1,1*	0.032 *0,0013*	0.044 *0,0017*	0.055 *0,0022*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	0.11 *0,0044*	110 (85 — 140) *360 (280 — 450)*
M2	E	0.400 *0,400*	1.1 *1,1*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.075 *0,0030*	0.085 *0,0034*	0.095 *0,0038*	90 (70 — 110) *295 (230 — 360)*
M3	E	0.400 *0,400*	1.1 *1,1*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.075 *0,0030*	0.085 *0,0034*	0.095 *0,0038*	70 (55 — 99) *230 (190 — 320)*
M4	E	0.400 *0,400*	1.1 *1,1*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.075 *0,0030*	0.085 *0,0034*	0.095 *0,0038*	80 (60 — 99) *260 (200 — 320)*
M5	E	0.400 *0,400*	1.1 *1,1*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.075 *0,0030*	0.085 *0,0034*	0.095 *0,0038*	65 (50 — 83) *215 (170 — 270)*
S1	E	0.0500 *0,0500*	2.6 *2,6*	0.046 *0,0018*	0.060 *0,0024*	0.075 *0,0030*	0.090 *0,0036*	0.11 *0,0044*	0.13 *0,0050*	0.14 *0,0055*	43 (29 — 71) *140 (96 — 230)*
S2	E	0.0500 *0,0500*	2.6 *2,6*	0.046 *0,0018*	0.060 *0,0024*	0.075 *0,0030*	0.090 *0,0036*	0.11 *0,0044*	0.13 *0,0050*	0.14 *0,0055*	34 (23 — 57) *110 (76 — 180)*
S3	E	0.0500 *0,0500*	2.6 *2,6*	0.042 *0,0017*	0.055 *0,0022*	0.070 *0,0028*	0.085 *0,0034*	0.10 *0,0040*	0.12 *0,0048*	0.13 *0,0050*	30 (20 — 49) *100 (66 — 160)*
S11	E	0.400 *0,400*	1.1 *1,1*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.075 *0,0030*	0.085 *0,0034*	0.095 *0,0038*	105 (78 — 120) *345 (260 — 390)*
S12	E	0.400 *0,400*	1.1 *1,1*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.075 *0,0030*	0.085 *0,0034*	0.095 *0,0038*	80 (60 — 99) *260 (200 — 320)*
S13	E	0.400 *0,400*	1.1 *1,1*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.075 *0,0030*	0.085 *0,0034*	0.095 *0,0038*	80 (60 — 99) *260 (200 — 320)*

Cutting data – JS720 Side milling advanced roughing a_e/DC=0,07 PCEDC =6

SMG		a_p/DC	f_z							v_c
			6	8	10	12	16	20	25	
M1	E	1.9 *1,9*	0.065 *0,0026*	0.085 *0,0034*	0.11 *0,0044*	0.13 *0,0050*	0.16 *0,0065*	0.18 *0,0070*	0.20 *0,0080*	140 (110 — 180) *460 (370 — 590)*
M2	E	1.9 *1,9*	0.060 *0,0024*	0.080 *0,0032*	0.095 *0,0038*	0.12 *0,0048*	0.14 *0,0055*	0.16 *0,0065*	0.19 *0,0075*	115 (91 — 150) *375 (300 — 490)*
M3	E	1.9 *1,9*	0.060 *0,0024*	0.080 *0,0032*	0.095 *0,0038*	0.12 *0,0048*	0.14 *0,0055*	0.16 *0,0065*	0.19 *0,0075*	90 (72 — 120) *295 (240 — 390)*
M4	E	1.9 *1,9*	0.060 *0,0024*	0.080 *0,0032*	0.095 *0,0038*	0.12 *0,0048*	0.14 *0,0055*	0.16 *0,0065*	0.19 *0,0075*	105 (78 — 120) *345 (260 — 390)*
M5	E	1.9 *1,9*	0.060 *0,0024*	0.080 *0,0032*	0.095 *0,0038*	0.12 *0,0048*	0.14 *0,0055*	0.16 *0,0065*	0.19 *0,0075*	85 (65 — 100) *280 (220 — 320)*
S1	E	2.6 *2,6*	0.038 *0,0015*	0.050 *0,0020*	0.065 *0,0026*	0.075 *0,0030*	0.095 *0,0038*	0.11 *0,0044*	0.12 *0,0048*	41 (28 — 68) *135 (92 — 220)*
S2	E	2.6 *2,6*	0.038 *0,0015*	0.050 *0,0020*	0.065 *0,0026*	0.075 *0,0030*	0.095 *0,0038*	0.11 *0,0044*	0.12 *0,0048*	33 (22 — 54) *110 (73 — 170)*
S3	E	2.6 *2,6*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	0.085 *0,0034*	0.10 *0,0040*	0.11 *0,0044*	29 (20 — 47) *95 (66 — 150)*
S11	E	1.9 *1,9*	0.060 *0,0024*	0.080 *0,0032*	0.095 *0,0038*	0.12 *0,0048*	0.14 *0,0055*	0.16 *0,0065*	0.19 *0,0075*	135 (110 — 160) *445 (370 — 520)*
S12	E	1.9 *1,9*	0.060 *0,0024*	0.080 *0,0032*	0.095 *0,0038*	0.12 *0,0048*	0.14 *0,0055*	0.16 *0,0065*	0.19 *0,0075*	105 (78 — 120) *345 (260 — 390)*
S13	E	1.9 *1,9*	0.060 *0,0024*	0.080 *0,0032*	0.095 *0,0038*	0.12 *0,0048*	0.14 *0,0055*	0.16 *0,0065*	0.19 *0,0075*	105 (78 — 120) *345 (260 — 390)*

For cutting data recalculations, see pages 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

Cutting data – JS720 Side milling advanced roughing a_e/DC=0,07 PCEDC =9

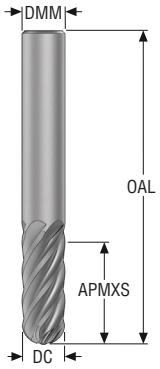
SMG		a_p/DC	f_z					v_c
			10	12	16	20	25	
M1	E	2.0 *2,0*	0.11 *0,0044*	0.13 *0,0050*	0.16 *0,0065*	0.18 *0,0070*	0.20 *0,0080*	125 (98 — 160) *410 (330 — 520)*
M2	E	2.0 *2,0*	0.095 *0,0038*	0.12 *0,0048*	0.14 *0,0055*	0.16 *0,0065*	0.19 *0,0075*	105 (82 — 130) *345 (270 — 420)*
M3	E	2.0 *2,0*	0.095 *0,0038*	0.12 *0,0048*	0.14 *0,0055*	0.16 *0,0065*	0.19 *0,0075*	80 (64 — 110) *260 (210 — 360)*
M4	E	2.0 *2,0*	0.095 *0,0038*	0.12 *0,0048*	0.14 *0,0055*	0.16 *0,0065*	0.19 *0,0075*	95 (70 — 110) *310 (230 — 360)*
M5	E	2.0 *2,0*	0.095 *0,0038*	0.12 *0,0048*	0.14 *0,0055*	0.16 *0,0065*	0.19 *0,0075*	75 (59 — 96) *245 (200 — 310)*
S1	E	2.8 *2,8*	0.065 *0,0026*	0.075 *0,0030*	0.095 *0,0038*	0.11 *0,0044*	0.12 *0,0048*	37 (25 — 61) *120 (83 — 200)*
S2	E	2.8 *2,8*	0.065 *0,0026*	0.075 *0,0030*	0.095 *0,0038*	0.11 *0,0044*	0.12 *0,0048*	30 (20 — 49) *100 (66 — 160)*
S3	E	2.8 *2,8*	0.060 *0,0024*	0.070 *0,0028*	0.085 *0,0034*	0.10 *0,0040*	0.11 *0,0044*	26 (18 — 43) *85 (60 — 140)*
S11	E	2.0 *2,0*	0.095 *0,0038*	0.12 *0,0048*	0.14 *0,0055*	0.16 *0,0065*	0.19 *0,0075*	120 (91 — 150) *395 (300 — 490)*
S12	E	2.0 *2,0*	0.095 *0,0038*	0.12 *0,0048*	0.14 *0,0055*	0.16 *0,0065*	0.19 *0,0075*	95 (70 — 110) *310 (230 — 360)*
S13	E	2.0 *2,0*	0.095 *0,0038*	0.12 *0,0048*	0.14 *0,0055*	0.16 *0,0065*	0.19 *0,0075*	95 (70 — 110) *310 (230 — 360)*

For cutting data recalculations, see pages 573 - 580

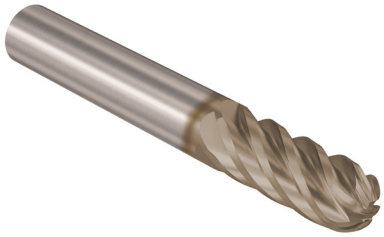
SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

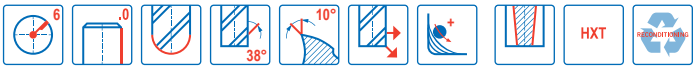
JS730

High performance – Titanium – Ball nose – 6 Flutes – Cylindrical



D





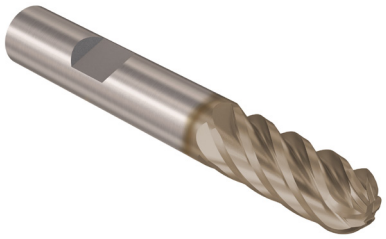
- Tolerances:
- DMM= h5
- DC= e7
- RE= ±0,02 mm
- Two flutes to centre
- Regrind possible

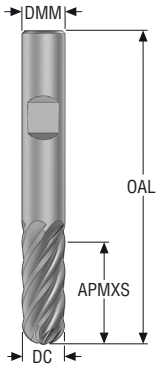
Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	PCEDC	Cylindrical
				mm	mm	mm	mm		
JS730060D2B.0Z6-HXT	03067605	2	D	6,0	6,0	17,0	57,0	6	■
JS730080D2B.0Z6-HXT	03067606	2	D	8,0	8,0	23,0	63,0	6	■
JS730100D2B.0Z6-HXT	03067607	2	D	10,0	10,0	26,0	72,0	6	■
JS730120D2B.0Z6-HXT	03067608	2	D	12,0	12,0	30,0	83,0	6	■
JS730160D2B.0Z6-HXT	03067609	2	D	16,0	16,0	44,0	99,0	6	■
JS730200D3B.0Z6-HXT	03067610	3	D	20,0	20,0	62,0	121,0	6	■
JS730250D3B.0Z6-HXT	03067611	3	D	25,0	25,0	78,0	146,0	6	■

■ Stocked standard.

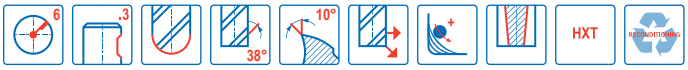
JS730

High performance – Titanium – Ball nose – 6 Flutes – Weldon





D



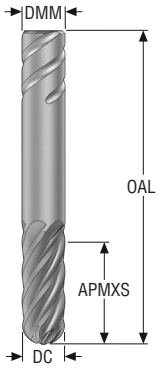
- Tolerances:
- DMM= h5
- DC= e7
- RE= ±0,02 mm
- Two flutes to centre
- Regrind possible

Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	PCEDC	Weldon
				mm	mm	mm	mm		
JS730060D2B.3Z6-HXT	03067778	2	D	6,0	6,0	17,0	57,0	6	☐
JS730080D2B.3Z6-HXT	03067779	2	D	8,0	8,0	23,0	63,0	6	☐
JS730100D2B.3Z6-HXT	03067780	2	D	10,0	10,0	26,0	72,0	6	☐
JS730120D2B.3Z6-HXT	03067781	2	D	12,0	12,0	30,0	83,0	6	☐
JS730160D2B.3Z6-HXT	03067782	2	D	16,0	16,0	44,0	99,0	6	☐
JS730200D3B.3Z6-HXT	03067783	3	D	20,0	20,0	62,0	121,0	6	☐
JS730250D3B.3Z6-HXT	03067784	3	D	25,0	25,0	78,0	146,0	6	☐

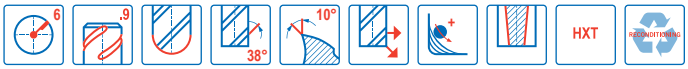
☐ Weldon available. Delivery time is 3 days.

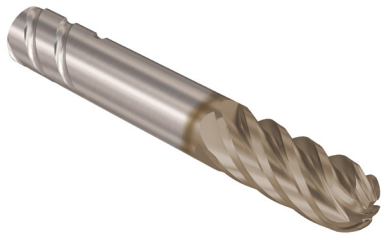
JS730

High performance – Titanium – Ball nose 6 Flutes – Safelock



D





- Tolerances:
- DMM= h5
- DC= e7
- RE= ±0,02 mm
- Two flutes to centre
- Regrind possible

Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	PCEDC	Safelock
				mm	mm	mm	mm		
JS730060D2B.9Z6-HXT	03067785	2	D	6,0	6,0	17,0	57,0	6	☐
JS730080D2B.9Z6-HXT	03067786	2	D	8,0	8,0	23,0	63,0	6	☐
JS730100D2B.9Z6-HXT	03067787	2	D	10,0	10,0	26,0	72,0	6	☐
JS730120D2B.9Z6-HXT	03067788	2	D	12,0	12,0	30,0	83,0	6	☐
JS730160D2B.9Z6-HXT	03067789	2	D	16,0	16,0	44,0	99,0	6	☐
JS730200D3B.9Z6-HXT	03067790	3	D	20,0	20,0	62,0	121,0	6	☐
JS730250D3B.9Z6-HXT	03067791	3	D	25,0	25,0	78,0	146,0	6	☐

☐ Safelock available. Delivery time is 6 days.

Cutting data – JS730 Side milling roughing

SMG		a_e/DC	a_p/DC	f_z							v_c
				6	8	10	12	16	20	25	
M1	E	0.100 *0,100*	1.8 *1,8*	0.048 *0,0019*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	0.12 *0,0048*	0.14 *0,0055*	0.15 *0,0060*	140 (89 — 150) *460 (300 — 490)*
M2	E	0.150 *0,150*	2.2 *2,2*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.075 *0,0030*	0.085 *0,0034*	0.095 *0,0038*	110 (70 — 120) *360 (230 — 390)*
M3	E	0.100 *0,100*	1.8 *1,8*	0.048 *0,0019*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	0.12 *0,0048*	0.14 *0,0055*	0.15 *0,0060*	85 (55 — 99) *280 (190 — 320)*
M4	E	0.100 *0,100*	1.8 *1,8*	0.042 *0,0017*	0.055 *0,0022*	0.070 *0,0028*	0.085 *0,0034*	0.10 *0,0040*	0.12 *0,0048*	0.13 *0,0050*	90 (57 — 100) *295 (190 — 320)*
M5	E	0.100 *0,100*	1.8 *1,8*	0.042 *0,0017*	0.055 *0,0022*	0.070 *0,0028*	0.085 *0,0034*	0.10 *0,0040*	0.12 *0,0048*	0.13 *0,0050*	75 (47 — 85) *245 (160 — 270)*
S1	E	0.150 *0,150*	2.2 *2,2*	0.032 *0,0013*	0.044 *0,0017*	0.055 *0,0022*	0.065 *0,0026*	0.080 *0,0032*	0.090 *0,0036*	0.10 *0,0040*	43 (29 — 70) *140 (96 — 220)*
S2	E	0.150 *0,150*	2.2 *2,2*	0.032 *0,0013*	0.044 *0,0017*	0.055 *0,0022*	0.065 *0,0026*	0.080 *0,0032*	0.090 *0,0036*	0.10 *0,0040*	34 (23 — 57) *110 (76 — 180)*
S3	E	0.150 *0,150*	2.2 *2,2*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.075 *0,0030*	0.085 *0,0034*	0.095 *0,0038*	30 (20 — 49) *100 (66 — 160)*
S11	E	0.300 *0,300*	1.2 *1,2*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.075 *0,0030*	0.085 *0,0034*	0.095 *0,0038*	130 (79 — 130) *425 (260 — 420)*
S12	E	0.300 *0,300*	1.2 *1,2*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.075 *0,0030*	0.085 *0,0034*	0.095 *0,0038*	100 (61 — 100) *330 (210 — 320)*
S13	E	0.300 *0,300*	1.2 *1,2*	0.026 *0,0010*	0.034 *0,0013*	0.044 *0,0017*	0.050 *0,0020*	0.065 *0,0026*	0.075 *0,0030*	0.085 *0,0034*	100 (62 — 100) *330 (210 — 320)*

Cutting data – JS730 Side milling advanced roughing a_e/DC=0,07

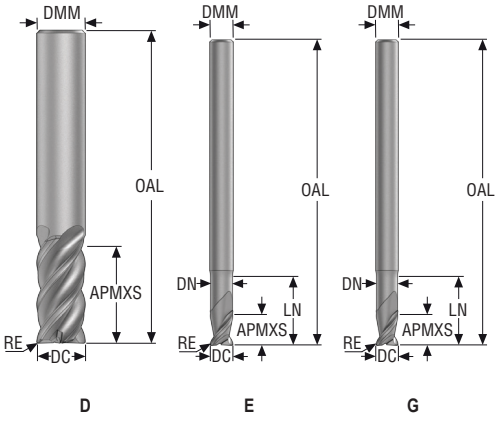
SMG		a_p/DC	f_z							v_c
			6	8	10	12	16	20	25	
M1	E	1.9 *1,9*	0.055 *0,0022*	0.075 *0,0030*	0.095 *0,0038*	0.11 *0,0044*	0.14 *0,0055*	0.16 *0,0065*	0.18 *0,0070*	145 (93 — 150) *475 (310 — 490)*
M2	E	2.2 *2,2*	0.042 *0,0017*	0.055 *0,0022*	0.070 *0,0028*	0.085 *0,0034*	0.10 *0,0040*	0.12 *0,0048*	0.13 *0,0050*	125 (78 — 130) *410 (260 — 420)*
M3	E	1.9 *1,9*	0.055 *0,0022*	0.075 *0,0030*	0.095 *0,0038*	0.11 *0,0044*	0.14 *0,0055*	0.16 *0,0065*	0.18 *0,0070*	90 (58 — 100) *295 (200 — 320)*
M4	E	1.9 *1,9*	0.050 *0,0020*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	0.12 *0,0048*	0.14 *0,0055*	0.16 *0,0065*	95 (59 — 100) *310 (200 — 320)*
M5	E	1.9 *1,9*	0.050 *0,0020*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	0.12 *0,0048*	0.14 *0,0055*	0.16 *0,0065*	80 (50 — 89) *260 (170 — 290)*
S1	E	2.2 *2,2*	0.046 *0,0018*	0.060 *0,0024*	0.075 *0,0030*	0.090 *0,0036*	0.11 *0,0044*	0.13 *0,0050*	0.15 *0,0060*	47 (32 — 79) *155 (110 — 250)*
S2	E	2.2 *2,2*	0.046 *0,0018*	0.060 *0,0024*	0.075 *0,0030*	0.090 *0,0036*	0.11 *0,0044*	0.13 *0,0050*	0.15 *0,0060*	38 (26 — 63) *125 (86 — 200)*
S3	E	2.2 *2,2*	0.042 *0,0017*	0.055 *0,0022*	0.070 *0,0028*	0.085 *0,0034*	0.10 *0,0040*	0.12 *0,0048*	0.13 *0,0050*	33 (23 — 55) *110 (76 — 180)*
S11	E	1.9 *1,9*	0.050 *0,0020*	0.070 *0,0028*	0.085 *0,0034*	0.10 *0,0040*	0.13 *0,0050*	0.15 *0,0060*	0.17 *0,0065*	150 (94 — 150) *490 (310 — 490)*
S12	E	1.9 *1,9*	0.050 *0,0020*	0.070 *0,0028*	0.085 *0,0034*	0.10 *0,0040*	0.13 *0,0050*	0.15 *0,0060*	0.17 *0,0065*	115 (72 — 110) *375 (240 — 360)*
S13	E	1.9 *1,9*	0.046 *0,0018*	0.060 *0,0024*	0.075 *0,0030*	0.090 *0,0036*	0.11 *0,0044*	0.13 *0,0050*	0.15 *0,0060*	120 (74 — 120) *395 (250 — 390)*

For cutting data recalculations, see pages 573 - 580

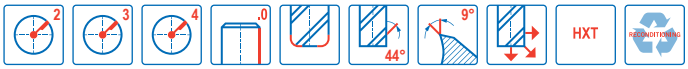
SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

JHP751

High performance – Titanium – Square – 2-4 Flutes – Cylindrical – Corner radius







- Tolerances:
- DMM=h5
- DC=-0,02/-0,04 mm
- RE= ±0,02 mm
- Regrind possible if DC is ≥Ø6

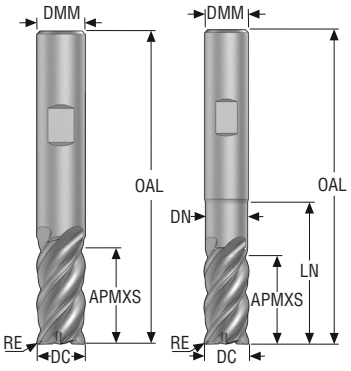
Designation	Grade	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Cylindrical
					mm	mm	mm	mm	mm	mm	mm		
JHP751080D1R040.0Z4	HXT	10105487	1	D	8,0	8,0	16,0	58,0	–	–	0,4	4	■
JHP751100D1R040.0Z4	HXT	10105548	1	D	10,0	10,0	20,0	66,0	–	–	0,4	4	■
JHP751100D1R150.0Z4	HXT	10105549	1	D	10,0	10,0	20,0	66,0	–	–	1,5	4	■
JHP751120D1R040.0Z4	HXT	10105550	1	D	12,0	12,0	24,0	75,0	–	–	0,4	4	■
JHP751120D1R150.0Z4	HXT	10105552	1	D	12,0	12,0	24,0	75,0	–	–	1,5	4	■
JHP751160D1R040.0Z4	HXT	10105581	1	D	16,0	16,0	32,0	92,0	–	–	0,4	4	■
JHP751160D1R150.0Z4	HXT	10105582	1	D	16,0	16,0	32,0	92,0	–	–	1,5	4	■
JHP751200D1R080.0Z4	HXT	10105583	1	D	20,0	20,0	40,0	104,0	–	–	0,8	4	■
JHP751020G2R020.0Z2	HXT	10105584	2	G	2,0	3,0	3,0	38,0	6,0	1,9	0,2	2	■
JHP751030G2R020.0Z2	HXT	10105585	2	E	3,0	3,0	4,5	38,0	9,0	2,8	0,2	2	■
JHP751040G2R020.0Z2	HXT	10105586	2	G	4,0	6,0	6,0	50,0	9,0	3,7	0,2	2	■
JHP751050G2R030.0Z2	HXT	10105587	2	G	5,0	6,0	7,5	50,0	9,0	4,6	0,3	2	■
JHP751060E2R030.0Z3	HXT	10105588	2	E	6,0	6,0	9,0	57,0	19,0	5,6	0,3	3	■
JHP751080E2R040.0Z4	HXT	10105589	2	E	8,0	8,0	16,0	63,0	24,0	7,4	0,4	4	■
JHP751100E2R040.0Z4	HXT	10105590	2	E	10,0	10,0	20,0	72,0	30,0	9,4	0,4	4	■
JHP751100E2R080.0Z4	HXT	10105591	2	E	10,0	10,0	20,0	72,0	30,0	9,4	0,8	4	■
JHP751100E2R200.0Z4	HXT	10105593	2	E	10,0	10,0	20,0	72,0	30,0	9,4	2,0	4	■
JHP751120E2R040.0Z4	HXT	10105594	2	E	12,0	12,0	24,0	83,0	35,0	11,4	0,4	4	■
JHP751120E2R080.0Z4	HXT	10105595	2	E	12,0	12,0	24,0	83,0	35,0	11,4	0,8	4	■
JHP751120E2R310.0Z4	HXT	10105596	2	E	12,0	12,0	24,0	83,0	35,0	11,4	3,1	4	■
JHP751140E2R080.0Z4	HXT	10105597	2	E	14,0	14,0	28,0	92,0	45,0	13,4	0,8	4	■
JHP751160E2R040.0Z4	HXT	10105598	2	E	16,0	16,0	32,0	104,0	52,0	15,4	0,4	4	■
JHP751160E2R080.0Z4	HXT	10105599	2	E	16,0	16,0	32,0	104,0	52,0	15,4	0,8	4	■
JHP751160E2R200.0Z4	HXT	10105600	2	E	16,0	16,0	32,0	104,0	52,0	15,4	2,0	4	■
JHP751200E2R080.0Z4	HXT	10105601	2	E	20,0	20,0	40,0	129,0	75,0	19,4	0,8	4	■

■ Stocked standard.

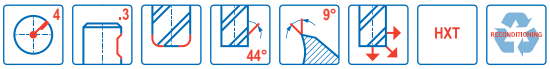
JHP751

High performance – Titanium – Square – 2-4 Flutes – Weldon – Corner radius





- Tolerances:
- DMM=h5
- DC=-0,02/-0,04 mm
- RE= ±0,02 mm
- Regrind possible if DC is ≥Ø6



Designation	Grade	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Weldon
					mm	mm	mm	mm	mm	mm	mm		
JHP751080D1R040.3Z4	HXT	10105739	1	D	8,0	8,0	16,0	58,0	–	–	0,4	4	■
JHP751100D1R040.3Z4	HXT	10105740	1	D	10,0	10,0	20,0	66,0	–	–	0,4	4	■
JHP751100D1R150.3Z4	HXT	10105742	1	D	10,0	10,0	20,0	66,0	–	–	1,5	4	■
JHP751120D1R040.3Z4	HXT	10105743	1	D	12,0	12,0	24,0	75,0	–	–	0,4	4	■
JHP751120D1R150.3Z4	HXT	10105744	1	D	12,0	12,0	24,0	75,0	–	–	1,5	4	■
JHP751160D1R040.3Z4	HXT	10105745	1	D	16,0	16,0	32,0	92,0	–	–	0,4	4	■
JHP751160D1R150.3Z4	HXT	10105746	1	D	16,0	16,0	32,0	92,0	–	–	1,5	4	■
JHP751200D1R080.3Z4	HXT	10105747	1	D	20,0	20,0	40,0	104,0	–	–	0,8	4	■
JHP751080E2R040.3Z4	HXT	10105748	2	E	8,0	8,0	16,0	63,0	24,0	7,4	0,4	4	■
JHP751100E2R040.3Z4	HXT	10105749	2	E	10,0	10,0	20,0	72,0	30,0	9,4	0,4	4	■
JHP751100E2R080.3Z4	HXT	10105750	2	E	10,0	10,0	20,0	72,0	30,0	9,4	0,8	4	■
JHP751100E2R200.3Z4	HXT	10105751	2	E	10,0	10,0	20,0	72,0	30,0	9,4	2,0	4	■
JHP751120E2R040.3Z4	HXT	10105752	2	E	12,0	12,0	24,0	83,0	35,0	11,4	0,4	4	■
JHP751120E2R080.3Z4	HXT	10105753	2	E	12,0	12,0	24,0	83,0	35,0	11,4	0,8	4	■
JHP751120E2R310.3Z4	HXT	10105754	2	E	12,0	12,0	24,0	83,0	35,0	11,4	3,1	4	■
JHP751140E2R080.3Z4	HXT	10105755	2	E	14,0	14,0	28,0	92,0	45,0	13,4	0,8	4	■
JHP751160E2R040.3Z4	HXT	10105756	2	E	16,0	16,0	32,0	104,0	52,0	15,4	0,4	4	■
JHP751160E2R080.3Z4	HXT	10105757	2	E	16,0	16,0	32,0	104,0	52,0	15,4	0,8	4	■
JHP751160E2R200.3Z4	HXT	10105758	2	E	16,0	16,0	32,0	104,0	52,0	15,4	2,0	4	■
JHP751200E2R080.3Z4	HXT	10105759	2	E	20,0	20,0	40,0	129,0	75,0	19,4	0,8	4	■

■ Stocked standard.

Cutting data – JHP751 Side milling

SMG		a_e/DC	a_p/DC	f_z											v_c
				2	3	4	5	6	8	10	12	14	16	20	
S1	E/M/A	0.0600 *0,0600*	1.2 *1,2*	0.016 *0,00065*	0.024 *0,00095*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	0.11 *0,0044*	0.12 *0,0048*	0.14 *0,0055*	48 (33 — 64) *155 (110 — 200)*
S2	E/M/A	0.0600 *0,0600*	1.2 *1,2*	0.016 *0,00065*	0.024 *0,00095*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	0.11 *0,0044*	0.12 *0,0048*	0.14 *0,0055*	39 (26 — 51) *130 (86 — 160)*
S3	E/M/A	0.0400 *0,0400*	1.2 *1,2*	0.012 *0,00048*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	0.080 *0,0032*	0.090 *0,0036*	0.10 *0,0040*	33 (26 — 50) *110 (86 — 160)*
S11	E/M/A	0.0800 *0,0800*	1.2 *1,2*	0.016 *0,00065*	0.024 *0,00095*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	0.11 *0,0044*	0.12 *0,0048*	0.14 *0,0055*	145 (130 — 180) *475 (430 — 590)*
S12	E/M/A	0.0800 *0,0800*	1.2 *1,2*	0.016 *0,00065*	0.024 *0,00095*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	0.11 *0,0044*	0.12 *0,0048*	0.14 *0,0055*	110 (95 — 140) *360 (320 — 450)*
S13	E/M/A	0.0800 *0,0800*	1.2 *1,2*	0.014 *0,00055*	0.020 *0,00080*	0.028 *0,0011*	0.034 *0,0013*	0.042 *0,0017*	0.055 *0,0022*	0.070 *0,0028*	0.085 *0,0034*	0.095 *0,0038*	0.10 *0,0040*	0.12 *0,0048*	90 (76 — 110) *295 (250 — 360)*

Cutting data – JHP751 Slot milling

SMG		a_p/DC	f_z										v_c
			2	3	4	5	6	8	10	12	14	16	20	
S1	E/M/A	0.44 *0,44*	0.0075 *0,00030*	0.011 *0,00044*	0.015 *0,00060*	0.019 *0,00075*	0.022 *0,00085*	0.030 *0,0012*	0.038 *0,0015*	0.044 *0,0017*	0.050 *0,0020*	0.055 *0,0022*	0.065 *0,0026*	30 (20 — 39) *100 (66 — 120)*
S2	E/M/A	0.44 *0,44*	0.0075 *0,00030*	0.011 *0,00044*	0.015 *0,00060*	0.019 *0,00075*	0.022 *0,00085*	0.030 *0,0012*	0.038 *0,0015*	0.044 *0,0017*	0.050 *0,0020*	0.055 *0,0022*	0.065 *0,0026*	24 (17 — 32) *80 (56 — 100)*
S3	E/M/A	0.34 *0,34*	0.0046 *0,00018*	0.0070 *0,00028*	0.0095 *0,00038*	0.012 *0,00048*	0.014 *0,00055*	0.019 *0,00075*	0.024 *0,00095*	0.028 *0,0011*	0.032 *0,0013*	0.034 *0,0013*	0.040 *0,0016*	20 (15 — 29) *65 (50 — 95)*
S11	E/M/A	0.70 *0,70*	0.0085 *0,00034*	0.013 *0,00050*	0.017 *0,00065*	0.022 *0,00085*	0.026 *0,0010*	0.034 *0,0013*	0.044 *0,0017*	0.050 *0,0020*	0.055 *0,0022*	0.065 *0,0026*	0.075 *0,0030*	90 (78 — 110) *295 (260 — 360)*
S12	E/M/A	0.70 *0,70*	0.0085 *0,00034*	0.013 *0,00050*	0.017 *0,00065*	0.022 *0,00085*	0.026 *0,0010*	0.034 *0,0013*	0.044 *0,0017*	0.050 *0,0020*	0.055 *0,0022*	0.065 *0,0026*	0.075 *0,0030*	70 (60 — 89) *230 (200 — 290)*
S13	E/M/A	0.70 *0,70*	0.0075 *0,00030*	0.011 *0,00044*	0.015 *0,00060*	0.019 *0,00075*	0.022 *0,00085*	0.030 *0,0012*	0.038 *0,0015*	0.044 *0,0017*	0.050 *0,0020*	0.055 *0,0022*	0.065 *0,0026*	55 (48 — 71) *180 (160 — 230)*

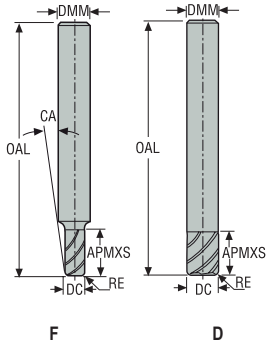
For cutting data recalculations, see pages 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

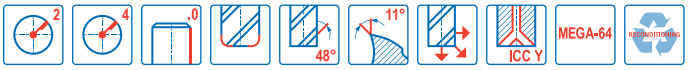
JHP760

High performance – ISO-M – Square – 2-4 Flutes – Cylindrical – Corner radius – ICC





- Tolerances:
- DMM=h5
- DC=-0,02/-0,04 mm
- RE= ±0,03 mm
- Regrind possible if DC is ≥Ø6

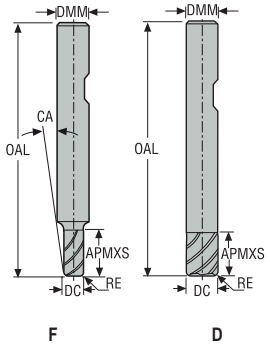


Designation	Item number	Length index	Tool shape	ICC	DC	DMM	APMXS	OAL	RE	CA°	PCEDC	Cylindrical
					mm	mm	mm	mm	mm			
760040R020Z2.0A-MEGA-64	02734051	2	F	■	4,0	6,0	8,0	50,0	0,2	4,0 °	2	■
760040R040Z2.0A-MEGA-64	02623413	2	F	■	4,0	6,0	8,0	50,0	0,4	4,0 °	2	■
760050R020Z2.0A-MEGA-64	02734052	2	F	■	5,0	6,0	10,0	50,0	0,2	2,0 °	2	■
760050R040Z2.0A-MEGA-64	02623435	2	F	■	5,0	6,0	10,0	50,0	0,4	2,0 °	2	■
760060R020Z4.0A-MEGA-64	02734053	2	D	■	6,0	6,0	12,0	50,0	0,2	–	4	■
760060R040Z4.0A-MEGA-64	02623433	2	D	■	6,0	6,0	12,0	50,0	0,4	–	4	■
760080R040Z4.0A-MEGA-64	02623436	2	D	■	8,0	8,0	16,0	55,0	0,4	–	4	■
760080R100Z4.0A-MEGA-64	02623437	2	D	■	8,0	8,0	16,0	55,0	1,0	–	4	■
760100R040Z4.0A-MEGA-64	02623460	2	D	■	10,0	10,0	20,0	65,0	0,4	–	4	■
760100R100Z4.0A-MEGA-64	02623463	2	D	■	10,0	10,0	20,0	65,0	1,0	–	4	■
760100R150Z4.0A-MEGA-64	02623466	2	D	■	10,0	10,0	20,0	65,0	1,5	–	4	■
760120R040Z4.0A-MEGA-64	02623819	2	D	■	12,0	12,0	24,0	75,0	0,4	–	4	■
760120R100Z4.0A-MEGA-64	02623825	2	D	■	12,0	12,0	24,0	75,0	1,0	–	4	■
760120R150Z4.0A-MEGA-64	02623828	2	D	■	12,0	12,0	24,0	75,0	1,5	–	4	■
760120R310Z4.0A-MEGA-64	02623833	2	D	■	12,0	12,0	24,0	75,0	3,1	–	4	■
760200R040Z4.0A-MEGA-64	02734055	2	D	■	20,0	20,0	45,0	100,0	0,4	–	4	■
760200R080Z4.0A-MEGA-64	02623852	2	D	■	20,0	20,0	45,0	100,0	0,8	–	4	■
760L080R040Z4.0A-MEGA-64	02623438	3	D	■	8,0	8,0	28,0	65,0	0,4	–	4	■
760L100R040Z4.0A-MEGA-64	02623461	3	D	■	10,0	10,0	36,0	75,0	0,4	–	4	■
760L100R100Z4.0A-MEGA-64	02623464	3	D	■	10,0	10,0	36,0	75,0	1,0	–	4	■
760L100R150Z4.0A-MEGA-64	02623467	3	D	■	10,0	10,0	36,0	75,0	1,5	–	4	■
760L100R200Z4.0A-MEGA-64	02623472	3	D	■	10,0	10,0	36,0	75,0	2,0	–	4	■
760L100R310Z4.0A-MEGA-64	02623807	3	D	■	10,0	10,0	36,0	75,0	3,1	–	4	■
760L120R040Z4.0A-MEGA-64	02623821	3	D	■	12,0	12,0	42,0	90,0	0,4	–	4	■
760L120R100Z4.0A-MEGA-64	02623826	3	D	■	12,0	12,0	42,0	90,0	1,0	–	4	■
760L120R150Z4.0A-MEGA-64	02623829	3	D	■	12,0	12,0	42,0	90,0	1,5	–	4	■
760L120R400Z4.0A-MEGA-64	02623838	3	D	■	12,0	12,0	42,0	90,0	4,0	–	4	■
760L160R040Z4.0A-MEGA-64	02623840	3	D	■	16,0	16,0	50,0	100,0	0,4	–	4	■
760L160R100Z4.0A-MEGA-64	02623842	3	D	■	16,0	16,0	50,0	100,0	1,0	–	4	■
760L160R150Z4.0A-MEGA-64	02623844	3	D	■	16,0	16,0	50,0	100,0	1,5	–	4	■

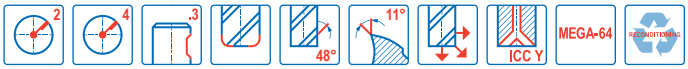
■ Stocked standard.
ICC = Internal Coolant Channel

JHP760

High performance – ISO-M – Square – 2-4 Flutes – Weldon – Corner radius – ICC







- Tolerances:
- DMM=h5
- DC=-0,02/-0,04 mm
- RE= ±0,03 mm
- Regrind possible if DC is ≥Ø6

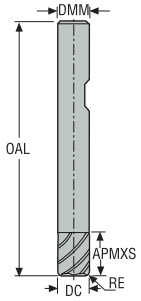
Designation	Item number	Length index	Tool shape	ICC	DC	DMM	APMXS	OAL	RE	CA°	PCEDC	Weldon
					mm	mm	mm	mm	mm			
760040R020Z2.0A-MEGA-64W	02734065	2	F	■	4,0	6,0	8,0	50,0	0,2	4,0 °	2	□
760040R040Z2.0A-MEGA-64W	02669339	2	F	■	4,0	6,0	8,0	50,0	0,4	4,0 °	2	□
760050R020Z2.0A-MEGA-64W	02734068	2	F	■	5,0	6,0	10,0	50,0	0,2	2,0 °	2	□
760050R040Z2.0A-MEGA-64W	02669340	2	F	■	5,0	6,0	10,0	50,0	0,4	2,0 °	2	□
760060R020Z4.0A-MEGA-64W	02734069	2	D	■	6,0	6,0	12,0	50,0	0,2	–	4	□
760060R040Z4.0A-MEGA-64W	02669341	2	D	■	6,0	6,0	12,0	50,0	0,4	–	4	□
760080R040Z4.0A-MEGA-64W	02669343	2	D	■	8,0	8,0	16,0	55,0	0,4	–	4	□
760080R100Z4.0A-MEGA-64W	02669344	2	D	■	8,0	8,0	16,0	55,0	1,0	–	4	□
760100R040Z4A-MEGA-64	02623442	2	D	■	10,0	10,0	20,0	65,0	0,4	–	4	■
760100R100Z4A-MEGA-64	02623462	2	D	■	10,0	10,0	20,0	65,0	1,0	–	4	■
760100R150Z4A-MEGA-64	02623465	2	D	■	10,0	10,0	20,0	65,0	1,5	–	4	■
760120R040Z4A-MEGA-64	02623817	2	D	■	12,0	12,0	24,0	75,0	0,4	–	4	■
760120R100Z4A-MEGA-64	02623824	2	D	■	12,0	12,0	24,0	75,0	1,0	–	4	■
760120R150Z4A-MEGA-64	02623827	2	D	■	12,0	12,0	24,0	75,0	1,5	–	4	■
760120R400Z4A-MEGA-64	02623835	2	D	■	12,0	12,0	24,0	75,0	4,0	–	4	■
760160R040Z4A-MEGA-64	02623839	2	D	■	16,0	16,0	40,0	90,0	0,4	–	4	■
760160R100Z4A-MEGA-64	02623841	2	D	■	16,0	16,0	40,0	90,0	1,0	–	4	■
760160R150Z4A-MEGA-64	02623843	2	D	■	16,0	16,0	40,0	90,0	1,5	–	4	■
760160R200Z4A-MEGA-64	02623845	2	D	■	16,0	16,0	40,0	90,0	2,0	–	4	■
760200R040Z4A-MEGA-64	02734054	2	D	■	20,0	20,0	45,0	100,0	0,4	–	4	■
760200R080Z4A-MEGA-64	02623851	2	D	■	20,0	20,0	45,0	100,0	0,8	–	4	■

■ Stocked standard. □ Weldon available. Delivery time is 3 days.
ICC = Internal Coolant Channel

JHP760

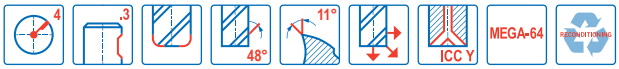
High performance – ISO-M – Square – 2-4 Flutes – Weldon – Corner radius – ICC





D

- Tolerances:
- DMM=h5
- DC=-0,02/-0,04 mm
- RE= ±0,03 mm
- Regrind possible



Designation	Item number	Length index	Tool shape	ICC	DC	DMM	APMXS	OAL	RE	PCEDC	Weldon
					mm	mm	mm	mm	mm		
760L080R040Z4.0A-MEGA-64W	02720459	3	D	■	8,0	8,0	28,0	65,0	0,4	4	☐
760L100R040Z4.0A-MEGA-64W	02669345	3	D	■	10,0	10,0	36,0	75,0	0,4	4	☐
760L100R100Z4.0A-MEGA-64W	02669346	3	D	■	10,0	10,0	36,0	75,0	1,0	4	☐
760L100R150Z4.0A-MEGA-64W	02669347	3	D	■	10,0	10,0	36,0	75,0	1,5	4	☐
760L100R200Z4.0A-MEGA-64W	02669348	3	D	■	10,0	10,0	36,0	75,0	2,0	4	☐
760L120R040Z4.0A-MEGA-64W	02669350	3	D	■	12,0	12,0	42,0	90,0	0,4	4	☐
760L120R100Z4.0A-MEGA-64W	02669351	3	D	■	12,0	12,0	42,0	90,0	1,0	4	☐
760L120R150Z4.0A-MEGA-64W	02669352	3	D	■	12,0	12,0	42,0	90,0	1,5	4	☐
760L160R040Z4.0A-MEGA-64W	02669356	3	D	■	16,0	16,0	50,0	100,0	0,4	4	☐
760L160R100Z4.0A-MEGA-64W	02669357	3	D	■	16,0	16,0	50,0	100,0	1,0	4	☐
760L160R150Z4.0A-MEGA-64W	02669358	3	D	■	16,0	16,0	50,0	100,0	1,5	4	☐

☐ Weldon available. Delivery time is 3 days.
ICC = Internal Coolant Channel

Cutting data – JHP760 Side milling

SMG		a_e/DC	a_p/DC	f_z									v_c
				4	5	6	8	10	12	16	20	25	
M1	E	0.300 *0,300*	1.5 *1,5*	0.036 *0,0014*	0.044 *0,0017*	0.055 *0,0022*	0.070 *0,0028*	0.090 *0,0036*	0.10 *0,0040*	0.13 *0,0050*	0.15 *0,0060*	0.17 *0,0065*	120 (97 — 130) *395 (320 — 420)*
M2	E	0.300 *0,300*	1.5 *1,5*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	0.12 *0,0048*	0.13 *0,0050*	0.15 *0,0060*	100 (81 — 110) *330 (270 — 360)*
M3	E	0.300 *0,300*	1.4 *1,4*	0.026 *0,0010*	0.032 *0,0013*	0.038 *0,0015*	0.050 *0,0020*	0.065 *0,0026*	0.075 *0,0030*	0.095 *0,0038*	0.11 *0,0044*	0.12 *0,0048*	75 (58 — 91) *245 (200 — 290)*
M4	E	0.300 *0,300*	1.4 *1,4*	0.022 *0,00085*	0.028 *0,0011*	0.034 *0,0013*	0.046 *0,0018*	0.055 *0,0022*	0.065 *0,0026*	0.085 *0,0034*	0.095 *0,0038*	0.11 *0,0044*	60 (45 — 70) *195 (150 — 220)*
M5	E	0.300 *0,300*	1.4 *1,4*	0.022 *0,00085*	0.028 *0,0011*	0.034 *0,0013*	0.046 *0,0018*	0.055 *0,0022*	0.065 *0,0026*	0.085 *0,0034*	0.095 *0,0038*	0.11 *0,0044*	48 (37 — 59) *155 (130 — 190)*

Cutting data – JHP760 Slot milling

SMG		a_p/DC	f_z									v_c
			4	5	6	8	10	12	16	20	25	
M1	E	1.0 *1,0*	0.016 *0,00065*	0.020 *0,00080*	0.024 *0,00095*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.065 *0,0026*	0.080 *0,0032*	0.10 *0,0040*	110 (92 — 130) *360 (310 — 420)*
M2	E	1.0 *1,0*	0.016 *0,00065*	0.020 *0,00080*	0.024 *0,00095*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.065 *0,0026*	0.080 *0,0032*	0.10 *0,0040*	90 (74 — 100) *295 (250 — 320)*
M3	E	0.80 *0,80*	0.012 *0,00048*	0.015 *0,00060*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.075 *0,0030*	70 (54 — 85) *230 (180 — 270)*
M4	E	0.80 *0,80*	0.012 *0,00048*	0.015 *0,00060*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.075 *0,0030*	50 (40 — 63) *165 (140 — 200)*
M5	E	0.80 *0,80*	0.012 *0,00048*	0.015 *0,00060*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.075 *0,0030*	43 (34 — 53) *140 (120 — 170)*

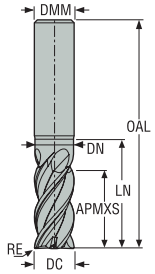
For cutting data recalculations, see pages 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

JHP770

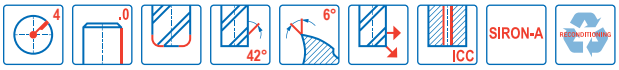
High performance – Titanium – Square – 4-5 Flutes – Cylindrical – Corner radius – ICC





E

- Tolerances:
- DMM= h5
- DC= e7
- RE= ±0,02 mm
- Regrind possible

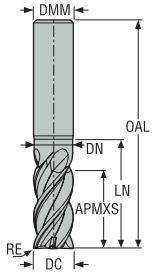


Designation	Item number	Length index	Tool shape	ICC	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Cylindrical
					mm	mm	mm	mm	mm	mm	mm		
JHP770060E2R030.0Z4A-SIRA	02760645	2	E	■	6,0	6,0	12,0	60,0	18,0	5,6	0,3	4	■
JHP770080E2R040.0Z4A-SIRA	02760653	2	E	■	8,0	8,0	16,0	65,0	24,0	7,4	0,4	4	■
JHP770080E2R050.0Z4A-SIRA	02823416	2	E	■	8,0	8,0	16,0	65,0	24,0	7,4	0,5	4	■
JHP770100E2R040.0Z4A-SIRA	02760654	2	E	■	10,0	10,0	20,0	75,0	30,0	9,4	0,4	4	■
JHP770100E2R050.0Z4A-SIRA	02823417	2	E	■	10,0	10,0	20,0	75,0	30,0	9,4	0,5	4	■
JHP770120E2R040.0Z4A-SIRA	02760656	2	E	■	12,0	12,0	24,0	90,0	36,0	11,4	0,4	4	■
JHP770120E2R050.0Z4A-SIRA	02823419	2	E	■	12,0	12,0	24,0	90,0	36,0	11,4	0,5	4	■
JHP770120E2R100.0Z4A-SIRA	02823420	2	E	■	12,0	12,0	24,0	90,0	36,0	11,4	1,0	4	■
JHP770120E2R250.0Z4A-SIRA	02760659	2	E	■	12,0	12,0	24,0	90,0	36,0	11,4	2,5	4	■
JHP770140E2R050.0Z4A-SIRA	02823421	2	E	■	14,0	14,0	28,0	95,0	42,0	13,4	0,5	4	■
JHP770160E2R040.0Z4A-SIRA	02760661	2	E	■	16,0	16,0	32,0	100,0	45,0	15,4	0,4	4	■
JHP770160E2R050.0Z4A-SIRA	02823422	2	E	■	16,0	16,0	32,0	100,0	45,0	15,4	0,5	4	■
JHP770160E2R080.0Z4A-SIRA	02760662	2	E	■	16,0	16,0	32,0	100,0	45,0	15,4	0,8	4	■
JHP770160E2R100.0Z4A-SIRA	02823423	2	E	■	16,0	16,0	32,0	100,0	45,0	15,4	1,0	4	■
JHP770160E2R250.0Z4A-SIRA	02760663	2	E	■	16,0	16,0	32,0	100,0	45,0	15,4	2,5	4	■
JHP770160E2R310.0Z4A-SIRA	02760664	2	E	■	16,0	16,0	32,0	100,0	45,0	15,4	3,1	4	■
JHP770160E2R400.0Z4A-SIRA	02760665	2	E	■	16,0	16,0	32,0	100,0	45,0	15,4	4,0	4	■
JHP770200E2R050.0Z4A-SIRA	02823424	2	E	■	20,0	20,0	40,0	115,0	55,0	19,4	0,5	4	■
JHP770200E2R100.0Z4A-SIRA	02823425	2	E	■	20,0	20,0	40,0	115,0	55,0	19,4	1,0	4	■
JHP770200E2R250.0Z4A-SIRA	02760668	2	E	■	20,0	20,0	40,0	115,0	55,0	19,4	2,5	4	■
JHP770200E2R310.0Z4A-SIRA	02760669	2	E	■	20,0	20,0	40,0	115,0	55,0	19,4	3,1	4	■
JHP770200E2R400.0Z4A-SIRA	02760670	2	E	■	20,0	20,0	40,0	115,0	55,0	19,4	4,0	4	■

■ Stocked standard.
Remark: if cornerradius is >15% of DC → a_p=-30%, f_z=-20%
ICC = Internal Coolant Channel

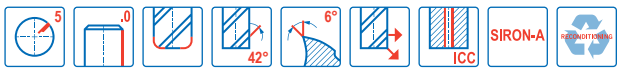
JHP770

High performance – Titanium – Square –4-5 Flutes – Cylindrical – Corner radius – ICC



E





- Tolerances:
- DMM= h5
- DC= e7
- RE= ±0,02 mm
- Regrind possible

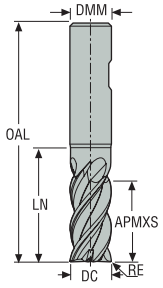
Designation	Item number	Length index	Tool shape	ICC	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Cylindrical
					mm	mm	mm	mm	mm	mm	mm		
JHP770160E2R050.0Z5A-SIRA	02810129	2	E	■	16,0	16,0	32,0	100,0	45,0	15,4	0,5	5	■
JHP770160E2R100.0Z5A-SIRA	02810130	2	E	■	16,0	16,0	32,0	100,0	45,0	15,4	1,0	5	■
JHP770160E2R250.0Z5A-SIRA	02810131	2	E	■	16,0	16,0	32,0	100,0	45,0	15,4	2,5	5	■
JHP770160E2R310.0Z5A-SIRA	02810132	2	E	■	16,0	16,0	32,0	100,0	45,0	15,4	3,1	5	■
JHP770160E2R400.0Z5A-SIRA	02810133	2	E	■	16,0	16,0	32,0	100,0	45,0	15,4	4,0	5	■
JHP770200E2R050.0Z5A-SIRA	02810134	2	E	■	20,0	20,0	40,0	115,0	55,0	19,4	0,5	5	■
JHP770200E2R100.0Z5A-SIRA	02810135	2	E	■	20,0	20,0	40,0	115,0	55,0	19,4	1,0	5	■
JHP770200E2R250.0Z5A-SIRA	02810136	2	E	■	20,0	20,0	40,0	115,0	55,0	19,4	2,5	5	■
JHP770200E2R310.0Z5A-SIRA	02810137	2	E	■	20,0	20,0	40,0	115,0	55,0	19,4	3,1	5	■
JHP770200E2R400.0Z5A-SIRA	02810138	2	E	■	20,0	20,0	40,0	115,0	55,0	19,4	4,0	5	■
JHP770250E2R050.0Z5A-SIRA	02810139	2	E	■	25,0	25,0	50,0	130,0	65,0	24,4	0,5	5	■

■ Stocked standard.
Remark: if cornerradius is >15% of DC → a_p=-30%, f_z=-20%
ICC = Internal Coolant Channel

JHP770

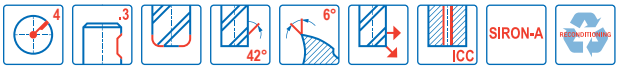
High performance – Titanium – Square – 4-5 Flutes – Weldon – Corner radius – ICC





E

- Tolerances:
- DMM= h5
- DC= e7
- RE= ±0,02 mm
- Regrind possible

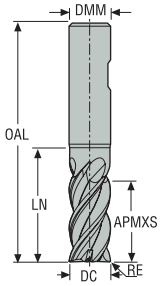


Designation	Item number	Length index	Tool shape	ICC	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Weldon
					mm	mm	mm	mm	mm	mm	mm		
JHP770060E2R030.3Z4A-SIRA	02760796	2	E	■	6,0	6,0	12,0	60,0	18,0	5,6	0,3	4	■
JHP770080E2R040.3Z4A-SIRA	02760799	2	E	■	8,0	8,0	16,0	65,0	24,0	7,4	0,4	4	□
JHP770080E2R050.3Z4A-SIRA	02823428	2	E	■	8,0	8,0	16,0	65,0	24,0	7,4	0,5	4	■
JHP770100E2R040.3Z4A-SIRA	02760801	2	E	■	10,0	10,0	20,0	75,0	30,0	9,4	0,4	4	□
JHP770100E2R050.3Z4A-SIRA	02823429	2	E	■	10,0	10,0	20,0	75,0	30,0	9,4	0,5	4	■
JHP770120E2R040.3Z4A-SIRA	02760803	2	E	■	12,0	12,0	24,0	90,0	36,0	11,4	0,4	4	□
JHP770120E2R050.3Z4A-SIRA	02823431	2	E	■	12,0	12,0	24,0	90,0	36,0	11,4	0,5	4	■
JHP770120E2R100.3Z4A-SIRA	02823432	2	E	■	12,0	12,0	24,0	90,0	36,0	11,4	1,0	4	■
JHP770120E2R250.3Z4A-SIRA	02760805	2	E	■	12,0	12,0	24,0	90,0	36,0	11,4	2,5	4	□
JHP770140E2R050.3Z4A-SIRA	02823433	2	E	■	14,0	14,0	28,0	95,0	42,0	13,4	0,5	4	■
JHP770160E2R040.3Z4A-SIRA	02760807	2	E	■	16,0	16,0	32,0	100,0	45,0	15,4	0,4	4	□
JHP770160E2R050.3Z4A-SIRA	02823434	2	E	■	16,0	16,0	32,0	100,0	45,0	15,4	0,5	4	■
JHP770160E2R080.3Z4A-SIRA	02760809	2	E	■	16,0	16,0	32,0	100,0	45,0	15,4	0,8	4	□
JHP770160E2R100.3Z4A-SIRA	02823435	2	E	■	16,0	16,0	32,0	100,0	45,0	15,4	1,0	4	■
JHP770160E2R250.3Z4A-SIRA	02760810	2	E	■	16,0	16,0	32,0	100,0	45,0	15,4	2,5	4	■
JHP770160E2R310.3Z4A-SIRA	02760811	2	E	■	16,0	16,0	32,0	100,0	45,0	15,4	3,1	4	□
JHP770160E2R400.3Z4A-SIRA	02760817	2	E	■	16,0	16,0	32,0	100,0	45,0	15,4	4,0	4	□
JHP770200E2R050.3Z4A-SIRA	02823436	2	E	■	20,0	20,0	40,0	115,0	55,0	19,4	0,5	4	■
JHP770200E2R100.3Z4A-SIRA	02823437	2	E	■	20,0	20,0	40,0	115,0	55,0	19,4	1,0	4	■
JHP770200E2R250.3Z4A-SIRA	02760823	2	E	■	20,0	20,0	40,0	115,0	55,0	19,4	2,5	4	□
JHP770200E2R310.3Z4A-SIRA	02760824	2	E	■	20,0	20,0	40,0	115,0	55,0	19,4	3,1	4	□
JHP770200E2R400.3Z4A-SIRA	02760825	2	E	■	20,0	20,0	40,0	115,0	55,0	19,4	4,0	4	□

■ Stocked standard. □ Weldon available. Delivery time is 3 days.
Remark: if cornerradius is >15% of DC → a_p=-30%, f_z=-20%

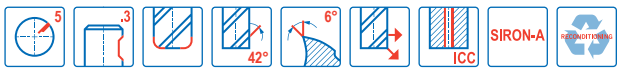
JHP770

High performance – Titanium – Square – 4-5 Flutes – Weldon – Corner radius – ICC



E





- Tolerances:
- DMM= h5
- DC= e7
- RE= ±0,02 mm
- Regrind possible

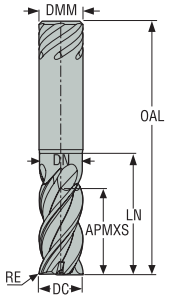
Designation	Item number	Length index	Tool shape	ICC	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Weldon
					mm	mm	mm	mm	mm	mm	mm		
JHP770160E2R050.3Z5A-SIRA	02810143	2	E	■	16,0	16,0	32,0	100,0	45,0	15,4	0,5	5	■
JHP770160E2R100.3Z5A-SIRA	02810144	2	E	■	16,0	16,0	32,0	100,0	45,0	15,4	1,0	5	■
JHP770160E2R250.3Z5A-SIRA	02810145	2	E	■	16,0	16,0	32,0	100,0	45,0	15,4	2,5	5	□
JHP770160E2R310.3Z5A-SIRA	02810146	2	E	■	16,0	16,0	32,0	100,0	45,0	15,4	3,1	5	■
JHP770160E2R400.3Z5A-SIRA	02810147	2	E	■	16,0	16,0	32,0	100,0	45,0	15,4	4,0	5	□
JHP770200E2R050.3Z5A-SIRA	02810148	2	E	■	20,0	20,0	40,0	115,0	55,0	19,4	0,5	5	■
JHP770200E2R100.3Z5A-SIRA	02810149	2	E	■	20,0	20,0	40,0	115,0	55,0	19,4	1,0	5	■
JHP770200E2R250.3Z5A-SIRA	02810150	2	E	■	20,0	20,0	40,0	115,0	55,0	19,4	2,5	5	□
JHP770200E2R310.3Z5A-SIRA	02810151	2	E	■	20,0	20,0	40,0	115,0	55,0	19,4	3,1	5	■
JHP770200E2R400.3Z5A-SIRA	02810152	2	E	■	20,0	20,0	40,0	115,0	55,0	19,4	4,0	5	■
JHP770250E2R050.3Z5A-SIRA	02810153	2	E	■	25,0	25,0	50,0	130,0	65,0	24,4	0,5	5	■
JHP770250E2R100.3Z5A-SIRA	02810154	2	E	■	25,0	25,0	50,0	130,0	65,0	24,4	1,0	5	■

■ Stocked standard. □ Weldon available. Delivery time is 3 days.
Remark: if cornerradius is >15% of DC → a_p=-30%, f_z=-20%

JHP770

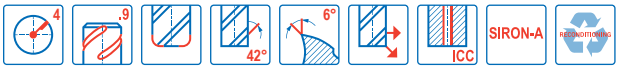
High performance – Titanium – Square – 4-5 Flutes – Safelock – Corner radius – ICC





E

- Tolerances:
- DMM= h5
- DC= e7
- RE= ±0,02 mm
- Regrind possible

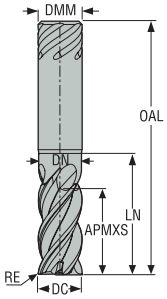


Designation	Item number	Length index	Tool shape	ICC	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Safelock
					mm	mm	mm	mm	mm	mm	mm		
JHP770060E2R030.9Z4A-SIRA	02927936	2	E	■	6,0	6,0	12,0	60,0	18,0	6,0	0,3	4	□
JHP770080E2R040.9Z4A-SIRA	02927937	2	E	■	8,0	8,0	16,0	65,0	24,0	7,0	0,4	4	□
JHP770080E2R050.9Z4A-SIRA	02927938	2	E	■	8,0	8,0	16,0	65,0	24,0	7,0	0,5	4	□
JHP770100E2R040.9Z4A-SIRA	02927939	2	E	■	10,0	10,0	20,0	75,0	30,0	9,0	0,4	4	□
JHP770100E2R050.9Z4A-SIRA	02927940	2	E	■	10,0	10,0	20,0	75,0	30,0	9,0	0,5	4	□
JHP770120E2R040.9Z4A-SIRA	02927943	2	E	■	12,0	12,0	24,0	90,0	36,0	11,0	0,4	4	□
JHP770120E2R050.9Z4A-SIRA	02927944	2	E	■	12,0	12,0	24,0	90,0	36,0	11,0	0,5	4	□
JHP770120E2R100.9Z4A-SIRA	02927946	2	E	■	12,0	12,0	24,0	90,0	36,0	11,0	1,0	4	□
JHP770120E2R250.9Z4A-SIRA	02927947	2	E	■	12,0	12,0	24,0	90,0	36,0	11,0	2,5	4	□
JHP770140E2R050.9Z4A-SIRA	02927950	2	E	■	14,0	14,0	28,0	95,0	42,0	13,0	0,5	4	□
JHP770160E2R040.9Z4A-SIRA	02927948	2	E	■	16,0	16,0	32,0	100,0	45,0	15,0	0,4	4	□
JHP770160E2R050.9Z4A-SIRA	02927978	2	E	■	16,0	16,0	32,0	100,0	45,0	15,0	0,5	4	□
JHP770160E2R080.9Z4A-SIRA	02927951	2	E	■	16,0	16,0	32,0	100,0	45,0	15,0	0,8	4	□
JHP770160E2R100.9Z4A-SIRA	02927952	2	E	■	16,0	16,0	32,0	100,0	45,0	15,0	1,0	4	□
JHP770160E2R250.9Z4A-SIRA	02927954	2	E	■	16,0	16,0	32,0	100,0	45,0	15,0	2,5	4	□
JHP770160E2R310.9Z4A-SIRA	02927956	2	E	■	16,0	16,0	32,0	100,0	45,0	15,0	3,1	4	□
JHP770160E2R400.9Z4A-SIRA	02927958	2	E	■	16,0	16,0	32,0	100,0	45,0	15,0	4,0	4	□
JHP770200E2R050.9Z4A-SIRA	02927960	2	E	■	20,0	20,0	40,0	115,0	55,0	19,0	0,5	4	□
JHP770200E2R100.9Z4A-SIRA	02927962	2	E	■	20,0	20,0	40,0	115,0	55,0	19,0	1,0	4	□
JHP770200E2R250.9Z4A-SIRA	02927964	2	E	■	20,0	20,0	40,0	115,0	55,0	19,0	2,5	4	□
JHP770200E2R310.9Z4A-SIRA	02927966	2	E	■	20,0	20,0	40,0	115,0	55,0	19,0	3,1	4	□
JHP770200E2R400.9Z4A-SIRA	02927968	2	E	■	20,0	20,0	40,0	115,0	55,0	19,0	4,0	4	□

□ Safelock available. Delivery time is 6 days.
Remark: if cornerradius is >15% of DC → a_p=-30%, f_z=-20%

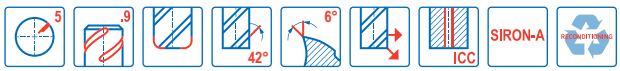
JHP770

High performance – Titanium – Square – 4-5 Flutes – Safelock – Corner radius – ICC



E





- Tolerances:
- DMM= h5
- DC= e7
- RE= ±0,02 mm
- Regrind possible

Designation	Item number	Length index	Tool shape	ICC	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Safelock
					mm	mm	mm	mm	mm	mm	mm		
JHP770160E2R050.9Z5A-SIRA	02927949	2	E	■	16,0	16,0	32,0	100,0	45,0	15,0	0,5	5	☐
JHP770160E2R100.9Z5A-SIRA	02927953	2	E	■	16,0	16,0	32,0	100,0	45,0	15,0	1,0	5	☐
JHP770160E2R250.9Z5A-SIRA	02927955	2	E	■	16,0	16,0	32,0	100,0	45,0	15,0	2,5	5	☐
JHP770160E2R310.9Z5A-SIRA	02927957	2	E	■	16,0	16,0	32,0	100,0	45,0	15,0	3,1	5	☐
JHP770160E2R400.9Z5A-SIRA	02927959	2	E	■	16,0	16,0	32,0	100,0	45,0	15,0	4,0	5	☐
JHP770200E2R050.9Z5A-SIRA	02927961	2	E	■	20,0	20,0	40,0	115,0	55,0	19,0	0,5	5	☐
JHP770200E2R100.9Z5A-SIRA	02927963	2	E	■	20,0	20,0	40,0	115,0	55,0	19,0	1,0	5	☐
JHP770200E2R250.9Z5A-SIRA	02927965	2	E	■	20,0	20,0	40,0	115,0	55,0	19,0	2,5	5	☐
JHP770200E2R310.9Z5A-SIRA	02927967	2	E	■	20,0	20,0	40,0	115,0	55,0	19,0	3,1	5	☐
JHP770200E2R400.9Z5A-SIRA	02927969	2	E	■	20,0	20,0	40,0	115,0	55,0	19,0	4,0	5	☐
JHP770250E2R050.9Z5A-SIRA	02927971	2	E	■	25,0	25,0	50,0	130,0	65,0	24,0	0,5	5	☐

☐ Safelock available. Delivery time is 6 days.
Remark: if cornerradius is >15% of DC → a_p=-30%, f_z=-20%

Cutting data – JHP770 Side milling

SMG		a_e/DC	a_p/DC	f_z								v_c
				6	8	10	12	14	16	20	25	
S11	E	0.400 *0,400*	1.8 *1,6*	0.050 *0,0020*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	0.11 *0,0044*	0.12 *0,0048*	0.14 *0,0055*	0.16 *0,0065*	120 (110 — 130) *395 (370 — 420)*
S12	E	0.400 *0,400*	1.8 *1,6*	0.050 *0,0020*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	0.11 *0,0044*	0.12 *0,0048*	0.14 *0,0055*	0.16 *0,0065*	90 (80 — 100) *295 (270 — 320)*
S13	E	0.400 *0,400*	1.8 *1,6*	0.042 *0,0017*	0.055 *0,0022*	0.070 *0,0028*	0.085 *0,0034*	0.095 *0,0038*	0.11 *0,0044*	0.12 *0,0048*	0.14 *0,0055*	75 (64 — 81) *245 (210 — 260)*

Cutting data – JHP770 Slot milling

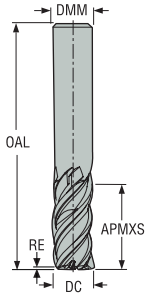
SMG		a_p/DC	f_z								v_c
			6	8	10	12	14	16	20	25	
S11	E	1.6 *1,6*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.070 *0,0028*	0.080 *0,0032*	0.10 *0,0040*	0.13 *0,0050*	105 (94 — 120) *345 (310 — 390)*
S12	E	1.6 *1,6*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.070 *0,0028*	0.080 *0,0032*	0.10 *0,0040*	0.13 *0,0050*	80 (72 — 92) *260 (240 — 300)*
S13	E	1.6 *1,6*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.070 *0,0028*	0.080 *0,0032*	0.10 *0,0040*	0.13 *0,0050*	65 (56 — 71) *215 (190 — 230)*

For cutting data recalculations, see pages 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

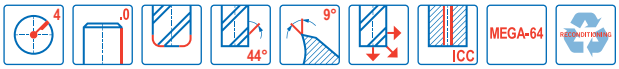
JHP780

High performance – Superalloy – Square – 4-Flutes – Cylindrical – Corner radius – ICC



D





- Tolerances:
- DMM=h5
- DC=e7
- RE= ±0,02 mm
- Regrind possible

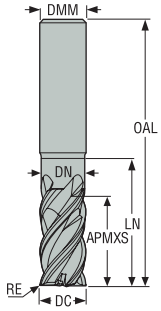
Designation	Item number	Length index	Tool shape	ICC	DC	DMM	APMXS	OAL	RE	PCEDC	Cylindrical
					mm	mm	mm	mm	mm		
JHP780060D1R030.0Z4A-M64	03134984	1	D	■	6,0	6,0	7,5	47,0	0,3	4	■
JHP780060D1R080.0Z4A-M64	03134985	1	D	■	6,0	6,0	7,5	47,0	0,8	4	■
JHP780080D1R040.0Z4A-M64	03134986	1	D	■	8,0	8,0	10,0	50,0	0,4	4	■
JHP780080D1R080.0Z4A-M64	03134987	1	D	■	8,0	8,0	10,0	50,0	0,8	4	■
JHP780100D1R040.0Z4A-M64	03134988	1	D	■	10,0	10,0	12,5	57,0	0,4	4	■
JHP780100D1R080.0Z4A-M64	03134989	1	D	■	10,0	10,0	12,5	57,0	0,8	4	■

■ Stocked standard.

JHP780

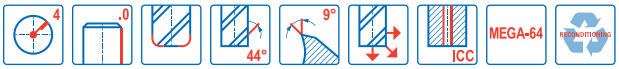
High performance – Superalloy – Square – 4-Flutes – Cylindrical – Corner radius – ICC





E

- Tolerances:
- DMM=h5
- DC=e7
- RE= ±0,02 mm
- Regrind possible

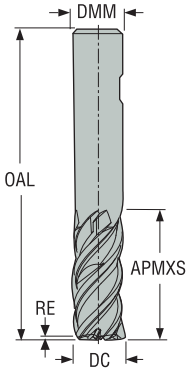


Designation	Item number	Length index	Tool shape	ICC	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Cylindrical
					mm	mm	mm	mm	mm	mm	mm		
JHP780060E2R030.0Z4A-M64	03134992	2	E	■	6,0	6,0	12,0	60,0	18,0	5,6	0,3	4	■
JHP780060E2R030.0Z4-M64	02760834	2	E	–	6,0	6,0	12,0	60,0	18,0	5,6	0,3	4	■
JHP780080E2R040.0Z4A-M64	03134993	2	E	■	8,0	8,0	16,0	65,0	24,0	7,4	0,4	4	■
JHP780080E2R040.0Z4-M64	02760842	2	E	–	8,0	8,0	16,0	65,0	24,0	7,4	0,4	4	■
JHP780100E2R040.0Z4A-M64	03134994	2	E	■	10,0	10,0	20,0	75,0	30,0	9,4	0,4	4	■
JHP780100E2R040.0Z4-M64	02760846	2	E	–	10,0	10,0	20,0	75,0	30,0	9,4	0,4	4	■
JHP780100E2R080.0Z4A-M64	03134995	2	E	■	10,0	10,0	20,0	75,0	30,0	9,4	0,8	4	■
JHP780100E2R080.0Z4-M64	02760847	2	E	–	10,0	10,0	20,0	75,0	30,0	9,4	0,8	4	■
JHP780120E2R040.0Z4A-M64	03134996	2	E	■	12,0	12,0	24,0	90,0	36,0	11,4	0,4	4	■
JHP780120E2R040.0Z4-M64	02760848	2	E	–	12,0	12,0	24,0	90,0	36,0	11,4	0,4	4	■
JHP780120E2R080.0Z4A-M64	03134997	2	E	■	12,0	12,0	24,0	90,0	36,0	11,4	0,8	4	■
JHP780120E2R080.0Z4-M64	02760849	2	E	–	12,0	12,0	24,0	90,0	36,0	11,4	0,8	4	■
JHP780120E2R150.0Z4-M64	02760850	2	E	–	12,0	12,0	24,0	90,0	36,0	11,4	1,5	4	■
JHP780120E2R250.0Z4-M64	02760851	2	E	–	12,0	12,0	24,0	90,0	36,0	11,4	2,5	4	■
JHP780140E2R040.0Z4-M64	02760852	2	E	–	14,0	14,0	28,0	95,0	42,0	13,4	0,4	4	■
JHP780160E2R040.0Z4A-M64	03135000	2	E	■	16,0	16,0	32,0	100,0	45,0	15,4	0,4	4	■
JHP780160E2R040.0Z4-M64	02760853	2	E	–	16,0	16,0	32,0	100,0	45,0	15,4	0,4	4	■
JHP780160E2R080.0Z4A-M64	03135001	2	E	■	16,0	16,0	32,0	100,0	45,0	15,4	0,8	4	■
JHP780160E2R080.0Z4-M64	02760861	2	E	–	16,0	16,0	32,0	100,0	45,0	15,4	0,8	4	■
JHP780160E2R310.0Z4-M64	02760862	2	E	–	16,0	16,0	32,0	100,0	45,0	15,4	3,1	4	■
JHP780160E2R400.0Z4-M64	02760863	2	E	–	16,0	16,0	32,0	100,0	45,0	15,4	4,0	4	■
JHP780200E2R040.0Z4-M64	02760865	2	E	–	20,0	20,0	40,0	115,0	55,0	19,4	0,4	4	■
JHP780200E2R080.0Z4-M64	02760866	2	E	–	20,0	20,0	40,0	115,0	55,0	19,4	0,8	4	■
JHP780200E2R310.0Z4-M64	02760867	2	E	–	20,0	20,0	40,0	115,0	55,0	19,4	3,1	4	■
JHP780200E2R400.0Z4-M64	02760868	2	E	–	20,0	20,0	40,0	115,0	55,0	19,4	4,0	4	■
JHP780250E2R080.0Z4-M64	02760870	2	E	–	25,0	25,0	50,0	130,0	65,0	24,4	0,8	4	■

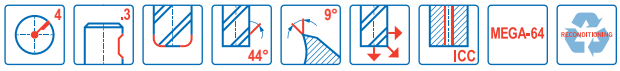
■ Stocked standard.

JHP780

High performance – Superalloy – Square – 4-Flutes – Weldon – Corner radius – ICC



D





- Tolerances:
- DMM=h5
- DC=e7
- RE= ±0,02 mm
- Regrind possible

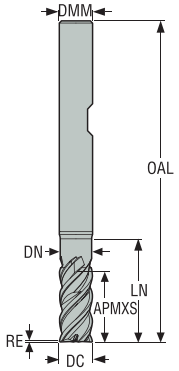
Designation	Item number	Length index	Tool shape	ICC	DC	DMM	APMXS	OAL	RE	PCEDC	Weldon
					mm	mm	mm	mm	mm		
JHP780060D1R030.3Z4A-M64	03135445	1	D	■	6,0	6,0	7,5	47,0	0,3	4	■
JHP780060D1R080.3Z4A-M64	03135446	1	D	■	6,0	6,0	7,5	47,0	0,8	4	■
JHP780080D1R040.3Z4A-M64	03135447	1	D	■	8,0	8,0	10,0	50,0	0,4	4	■
JHP780080D1R080.3Z4A-M64	03135449	1	D	■	8,0	8,0	10,0	50,0	0,8	4	■
JHP780100D1R040.3Z4A-M64	03135450	1	D	■	10,0	10,0	12,5	57,0	0,4	4	■
JHP780100D1R080.3Z4A-M64	03135451	1	D	■	10,0	10,0	12,5	57,0	0,8	4	■

■ Stocked standard.

JHP780

High performance – Superalloy – Square – 4-Flutes – Weldon – Corner radius – ICC





E



- Tolerances:
- DMM=h5
- DC=e7
- RE= ±0,02 mm
- Regrind possible

Designation	Item number	Length index	Tool shape	ICC	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Weldon
					mm	mm	mm	mm	mm	mm	mm		
JHP780060E2R030.3Z4-M64	02760878	2	E	–	6,0	6,0	12,0	60,0	18,0	5,6	0,3	4	■
JHP780060E2R030.3Z4A-M64	03135454	2	E	■	6,0	6,0	12,0	60,0	18,0	5,6	0,3	4	■
JHP780080E2R040.3Z4-M64	02760879	2	E	–	8,0	8,0	16,0	65,0	24,0	7,4	0,4	4	■
JHP780080E2R040.3Z4A-M64	03135455	2	E	■	8,0	8,0	16,0	65,0	24,0	7,4	0,4	4	■
JHP780100E2R040.3Z4-M64	02760880	2	E	–	10,0	10,0	20,0	75,0	30,0	9,4	0,4	4	■
JHP780100E2R040.3Z4A-M64	03135456	2	E	■	10,0	10,0	20,0	75,0	30,0	9,4	0,4	4	■
JHP780100E2R080.3Z4-M64	02760881	2	E	–	10,0	10,0	20,0	75,0	30,0	9,4	0,8	4	■
JHP780100E2R080.3Z4A-M64	03135457	2	E	■	10,0	10,0	20,0	75,0	30,0	9,4	0,8	4	■
JHP780120E2R040.3Z4-M64	02760883	2	E	–	12,0	12,0	24,0	90,0	36,0	11,4	0,4	4	■
JHP780120E2R040.3Z4A-M64	03134998	2	E	■	12,0	12,0	24,0	90,0	36,0	11,4	0,4	4	■
JHP780120E2R080.3Z4-M64	02760885	2	E	–	12,0	12,0	24,0	90,0	36,0	11,4	0,8	4	■
JHP780120E2R080.3Z4A-M64	03134999	2	E	■	12,0	12,0	24,0	90,0	36,0	11,4	0,8	4	■
JHP780120E2R150.3Z4-M64	02760887	2	E	–	12,0	12,0	24,0	90,0	36,0	11,4	1,5	4	■
JHP780120E2R250.3Z4-M64	02766989	2	E	–	12,0	12,0	24,0	90,0	36,0	11,4	2,5	4	■
JHP780140E2R040.3Z4-M64	02760888	2	E	–	14,0	14,0	28,0	95,0	42,0	13,4	0,4	4	■
JHP780160E2R040.3Z4-M64	02760889	2	E	–	16,0	16,0	32,0	100,0	45,0	15,4	0,4	4	■
JHP780160E2R040.3Z4A-M64	03135002	2	E	■	16,0	16,0	32,0	100,0	45,0	15,4	0,4	4	■
JHP780160E2R080.3Z4-M64	02760890	2	E	–	16,0	16,0	32,0	100,0	45,0	15,4	0,8	4	■
JHP780160E2R080.3Z4A-M64	03135003	2	E	■	16,0	16,0	32,0	100,0	45,0	15,4	0,8	4	■
JHP780160E2R400.3Z4-M64	02760893	2	E	–	16,0	16,0	32,0	100,0	45,0	15,4	4,0	4	■
JHP780200E2R040.3Z4-M64	02760894	2	E	–	20,0	20,0	40,0	115,0	55,0	19,4	0,4	4	■
JHP780200E2R080.3Z4-M64	02760896	2	E	–	20,0	20,0	40,0	115,0	55,0	19,4	0,8	4	■
JHP780200E2R310.3Z4-M64	02760897	2	E	–	20,0	20,0	40,0	115,0	55,0	19,4	3,1	4	■
JHP780200E2R400.3Z4-M64	02760898	2	E	–	20,0	20,0	40,0	115,0	55,0	19,4	4,0	4	■
JHP780250E2R080.3Z4-M64	02760901	2	E	–	25,0	25,0	50,0	130,0	65,0	24,4	0,8	4	■

■ Stocked standard.

Cutting data – JHP780 Side milling

SMG		a_e/DC	a_p/DC	f_z								v_c
				6	8	10	12	14	16	20	25	
S1	E	0.300 *0,300*	1.0 *1,0*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	0.080 *0,0032*	0.090 *0,0036*	0.10 *0,0040*	0.12 *0,0048*	50 (45 — 59) *165 (150 — 190)*
S2	E	0.300 *0,300*	1.0 *1,0*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	0.080 *0,0032*	0.090 *0,0036*	0.10 *0,0040*	0.12 *0,0048*	42 (36 — 47) *140 (120 — 150)*
S3	E	0.300 *0,300*	0.80 *0,80*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	0.080 *0,0032*	0.090 *0,0036*	0.10 *0,0040*	0.11 *0,0044*	28 (23 — 33) *90 (76 — 100)*

Cutting data – JHP780 Slot milling

SMG		a_p/DC	f_z								v_c
			6	8	10	12	14	16	20	25	
S1	E	0.80 *0,80*	0.020 *0,00080*	0.028 *0,0011*	0.034 *0,0013*	0.042 *0,0017*	0.048 *0,0019*	0.055 *0,0022*	0.070 *0,0028*	0.085 *0,0034*	43 (38 — 49) *140 (130 — 160)*
S2	E	0.80 *0,80*	0.020 *0,00080*	0.028 *0,0011*	0.034 *0,0013*	0.042 *0,0017*	0.048 *0,0019*	0.055 *0,0022*	0.070 *0,0028*	0.085 *0,0034*	35 (30 — 40) *115 (99 — 130)*
S3	E	0.60 *0,60*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	0.025 *0,0010*	0.028 *0,0011*	0.032 *0,0013*	0.040 *0,0016*	0.050 *0,0020*	26 (21 — 30) *85 (69 — 98)*

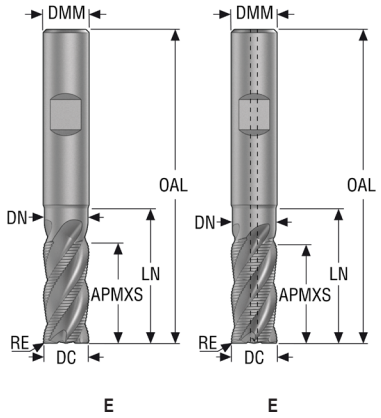
For cutting data recalculations, see pages 573 - 580

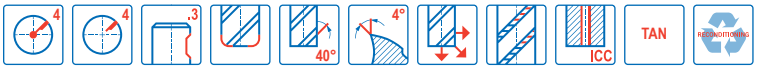
SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

JHP794

High performance – ISO-M – Square – 4 Flutes – Weldon – Corner radius







- Tolerances:
- DMM= h6
- DC= h12
- RE= ±0,05 mm
- Regrind possible if DC is ≥Ø8

Designation	Grade	Item number	Length index	Tool shape	ICC	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Weldon
						mm	mm	mm	mm	mm	mm	mm		
JHP794060E2R020.3Z4	TAN	10072338	2	E	–	6,0	6,0	13,0	57,0	18,5	2,0	0,2	4	■
JHP794060E2R020.3Z4A	TAN	10072339	2	E	■	6,0	6,0	13,0	57,0	18,5	5,5	0,2	4	■
JHP794080E2R020.3Z4	TAN	10072340	2	E	–	8,0	8,0	19,0	63,0	24,5	7,5	0,2	4	■
JHP794080E2R020.3Z4A	TAN	10072341	2	E	■	8,0	8,0	19,0	63,0	24,5	7,5	0,2	4	■
JHP794100E2R035.3Z4	TAN	10072342	2	E	–	10,0	10,0	22,0	72,0	29,5	9,5	0,35	4	■
JHP794100E2R035.3Z4A	TAN	10072343	2	E	■	10,0	10,0	22,0	72,0	29,5	9,5	0,35	4	■
JHP794120E2R035.3Z4	TAN	10072344	2	E	–	12,0	12,0	26,0	83,0	35,5	11,4	0,35	4	■
JHP794120E2R035.3Z4A	TAN	10072345	2	E	■	12,0	12,0	26,0	92,0	35,5	11,4	0,35	4	■
JHP794160E2R040.3Z4	TAN	10072346	2	E	–	16,0	16,0	32,0	92,0	41,5	15,2	0,4	4	■
JHP794160E2R040.3Z4A	TAN	10072347	2	E	■	16,0	16,0	32,0	92,0	41,5	15,2	0,4	4	■
JHP794200E2R040.3Z4	TAN	10072348	2	E	–	20,0	20,0	38,0	104,0	51,5	19,0	0,4	4	■
JHP794200E2R040.3Z4A	TAN	10072349	2	E	■	20,0	20,0	38,0	104,0	51,5	19,0	0,4	4	■
JHP794250E2R040.3Z4	TAN	10072350	2	E	–	25,0	25,0	45,0	121,0	62,5	23,8	0,4	4	■
JHP794250E2R040.3Z4A	TAN	10072351	2	E	■	25,0	25,0	45,0	121,0	62,5	23,8	0,4	4	■

■ Stocked standard.

Cutting data – JHP794 Side milling

SMG		a_p/DC	f_z							v_c
			6	8	10	12	16	20	25	
M1	E	1.3 *1,3*	0.032 *0,0013*	0.044 *0,0017*	0.055 *0,0022*	0.065 *0,0026*	0.080 *0,0032*	0.090 *0,0036*	0.10 *0,0040*	90 (61 — 120) *295 (210 — 390)*
M2	E	1.3 *1,3*	0.030 *0,0012*	0.040 *0,0016*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	0.085 *0,0034*	0.095 *0,0038*	75 (50 — 99) *245 (170 — 320)*
M3	E	1.3 *1,3*	0.024 *0,00095*	0.032 *0,0013*	0.040 *0,0016*	0.046 *0,0018*	0.055 *0,0022*	0.065 *0,0026*	0.075 *0,0030*	60 (40 — 78) *195 (140 — 250)*
M4	E	1.3 *1,3*	0.020 *0,00080*	0.028 *0,0011*	0.034 *0,0013*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.065 *0,0026*	45 (31 — 60) *150 (110 — 190)*
M5	E	1.3 *1,3*	0.020 *0,00080*	0.028 *0,0011*	0.034 *0,0013*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.065 *0,0026*	38 (26 — 50) *125 (86 — 160)*

Cutting data – JHP794 Slot milling

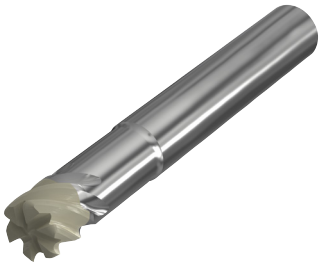
SMG		a_p/DC	f_z							v_c
			6	8	10	12	16	20	25	
M1	E	0.60 *0,60*	0.024 *0,00095*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	75 (50 — 99) *245 (170 — 320)*
M2	E	0.60 *0,60*	0.024 *0,00095*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.065 *0,0026*	0.080 *0,0032*	0.090 *0,0036*	60 (40 — 79) *195 (140 — 250)*
M3	E	0.60 *0,60*	0.022 *0,00085*	0.030 *0,0012*	0.036 *0,0014*	0.044 *0,0017*	0.055 *0,0022*	0.060 *0,0024*	0.070 *0,0028*	47 (32 — 62) *155 (110 — 200)*
M4	E	0.60 *0,60*	0.019 *0,00075*	0.026 *0,0010*	0.032 *0,0013*	0.038 *0,0015*	0.048 *0,0019*	0.055 *0,0022*	0.060 *0,0024*	36 (24 — 47) *120 (79 — 150)*
M5	E	0.60 *0,60*	0.019 *0,00075*	0.026 *0,0010*	0.032 *0,0013*	0.038 *0,0015*	0.048 *0,0019*	0.055 *0,0022*	0.060 *0,0024*	30 (20 — 39) *100 (66 — 120)*

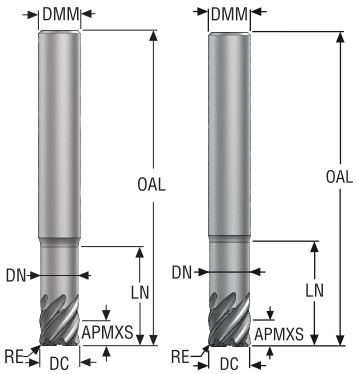
For cutting data recalculations, see pages 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

JCG790

High performance – Square – Superalloy – 5-6 Flutes – Cylindrical – Corner radius





- Tolerances:
- DMM= h5
- DC= -0,02/-0,1 mm
- RE= ±0,05 mm



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	DN	LN	RE	PCEDC	Cylindrical
				mm	mm	mm	mm	mm	mm	mm		
JCG790060E2R050.0Z5	10010512	2	E	6,0	6,0	6,0	59,0	5,7	15,0	0,5	5	■
JCG790080E2R050.0Z5	10010513	2	E	8,0	8,0	6,0	67,0	7,6	20,0	0,5	5	■
JCG790094G2R100.0Z6	10010514	2	G	9,4	10,0	6,0	75,0	9,0	23,5	1,0	6	■
JCG790100E2R100.0Z6	10010515	2	E	10,0	10,0	6,0	75,0	9,5	25,0	1,0	6	■
JCG790114G2R150.0Z6	10010516	2	G	11,4	12,0	6,0	82,0	10,9	28,5	1,5	6	■
JCG790120E2R150.0Z6	10010517	2	E	12,0	12,0	6,0	82,0	11,4	30,0	1,5	6	■
JCG790160E2R200.0Z6	10010518	2	E	16,0	16,0	8,0	93,0	15,2	40,0	2,0	6	■
JCG790200E2R300.0Z6	10010519	2	E	20,0	20,0	8,0	103,0	19,0	50,0	3,0	6	■
JCG790250E2R400.0Z6	10010520	2	E	25,0	25,0	8,0	108,0	23,8	50,0	4,0	6	■

■ Stocked standard.

Cutting data – JCG790 Side milling roughing

SMG		a_e/DC	APMXS	f_z							v_c
				6	8	10	12	16	20	25	
S1	A/D	0.0500 *0,0500*	1 *1*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.075 *0,0030*	830 (420 — 1300) *2725 (1400 — 4200)*
S2	A/D	0.0500 *0,0500*	1 *1*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.075 *0,0030*	670 (340 — 1100) *2200 (1200 — 3600)*
S3	A/D	0.0500 *0,0500*	1 *1*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.075 *0,0030*	570 (290 — 950) *1875 (960 — 3100)*

Cutting data – JCG790 Slot milling

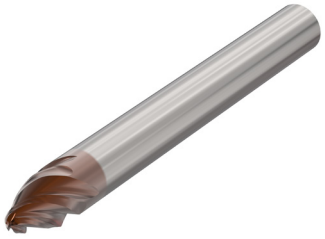
SMG		a_p/DC	f_z							v_c
			6	8	10	12	16	20	25	
S1	A/D	0.05 *0,05*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.075 *0,0030*	830 (420 — 1300) *2725 (1400 — 4200)*
S2	A/D	0.05 *0,05*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.075 *0,0030*	670 (340 — 1100) *2200 (1200 — 3600)*
S3	A/D	0.05 *0,05*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.075 *0,0030*	570 (290 — 950) *1875 (960 — 3100)*

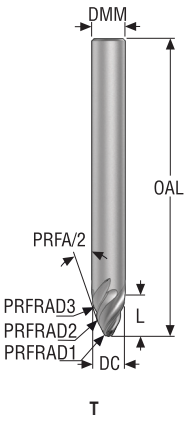
For cutting data recalculations, see pages 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

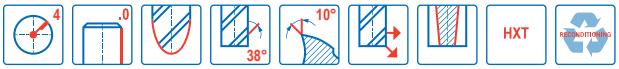
JH724

High speed – ISO– M and ISO– S - Taper Shape – 4 Flutes – Cylindrical





T



- Tolerances:
- DMM=h5
- PRFRAD1= ±0.03 mm
- Form tolerance PRFRAD2= 0.02 mm
- Regrind possible if PRFRAD is ≥1,5

Designation	Grade	Item number	Length index	Tool shape	DC	DMM	L	OAL	PRFRAD1	PRFRAD2	PRFRAD3	PRFA/2°	PCEDC	Cylindrical
					mm	mm	mm	mm	mm	mm	mm			
JH724100T2R2R030.0Z4	HXT	10106106	2	T	10,0	10,0	12,3	89,0	2,0	30,0	5,0	20,0	4	■
JH724100T2R2R050.0Z4	HXT	10106107	2	T	10,0	10,0	12,5	89,0	2,0	50,0	5,0	20,0	4	■
JH724100T2R3R100.0Z4	HXT	10106108	2	T	10,0	10,0	10,7	89,0	3,0	100,0	5,0	20,0	4	■
JH724100T2R3R250.0Z4	HXT	10106109	2	T	10,0	10,0	10,8	89,0	3,0	250,0	5,0	20,0	4	■

■ Stocked standard.

Cutting data – JH724 Copy milling finishing

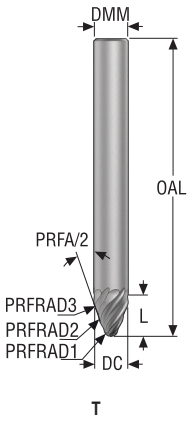
SMG		a_e/DC	f_z	v_c
			10	
P12	E	0,010 *0.010*	0,05 *0.0022*	120 (95 - 135) *400 (310 - 445)*
M1	E	0,010 *0.010*	0,05 *0.0022*	150 (125 - 155) *490 (410 - 510)*
M2	E	0,010 *0.010*	0,05 *0.0022*	145 (120 - 150) *475 (400 - 490)*
M3	E	0,010 *0.010*	0,05 *0.0022*	130 (95 - 140) *425 (310- 460)*
S2	E	0,010 *0.010*	0,05 *0.0022*	65 (55 - 75) *215 (180 - 245)*
S11	E	0,010 *0.010*	0,05 *0.0022*	130 (95 - 140) *425 (310 - 475)*
S12	E	0.010 *0.010*	0,05 *0.0022*	120 (95 - 135) *400 (310 - 445)*
S13	E	0.010 *0.010*	0,05 *0.0022*	95 (80 - 100) *310 (260 - 320)*

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

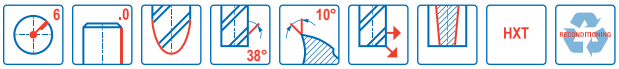
JH726

High speed – ISO– M and ISO– S - Taper Shape – 6 Flutes – Cylindrical





T



- Tolerances:
- DMM=h5
- PRFRAD1= ±0.03 mm
- Form tolerance PRFRAD2= 0.02 mm
- Regrind possible if PRFRAD is ≥1,5

Designation	Grade	Item number	Length index	Tool shape	DC	DMM	L	OAL	PRFRAD1	PRFRAD2	PRFRAD3	PRFA/2°	PCEDC	Cylindrical
					mm	mm	mm	mm	mm	mm	mm			
JH726100T2R2R030.0Z6	HXT	10106110	2	T	10,0	10,0	10,8	89,0	2,0	30,0	5,0	20,0	6	■
JH726100T2R2R050.0Z6	HXT	10106111	2	T	10,0	10,0	10,7	89,0	2,0	50,0	5,0	20,0	6	■
JH726100T2R3R100.0Z6	HXT	10106112	2	T	10,0	10,0	12,3	89,0	3,0	100,0	5,0	20,0	6	■
JH726100T2R3R250.0Z6	HXT	10106113	2	T	10,0	10,0	12,5	89,0	3,0	250,0	5,0	20,0	6	■

■ Stocked standard.

Cutting data – JH726 Copy milling finishing

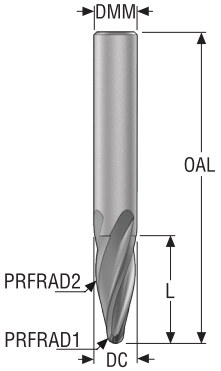
SMG		a_e/DC	f_z	v_c
			10	
P12	E	0,010 *0.010*	0,05 *0.0022*	120 (95 - 135) *400 (310 - 445)*
M1	E	0,010 *0.010*	0,05 *0.0022*	150 (125 - 155) *490 (410 - 510)*
M2	E	0,010 *0.010*	0,05 *0.0022*	145 (120 - 150) *475 (400 - 490)*
M3	E	0,010 *0.010*	0,05 *0.0022*	130 (95 - 140) *425 (310- 460)*
S2	E	0,010 *0.010*	0,05 *0.0022*	65 (55 - 75) *215 (180 - 245)*
S11	E	0,010 *0.010*	0,05 *0.0022*	130 (95 - 140) *425 (310 - 475)*
S12	E	0.010 *0.010*	0,05 *0.0022*	120 (95 - 135) *400 (310 - 445)*
S13	E	0.010 *0.010*	0,05 *0.0022*	95 (80 - 100) *310 (260 - 320)*

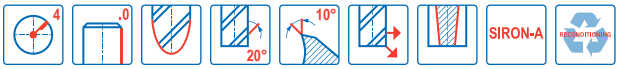
SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

JH734

High speed – ISO– M and ISO– S - Drop Shape – 4 Flutes – Cylindrical







- Tolerances:
- DMM= h5
- PRFRAD1= ±0.03mm
- Form tolerance PRFRAD2= 0.02mm
- Regrind possible if PRFRAD is ≥1,5

Designation	Grade	Item number	Length index	Tool shape	DC	DMM	L	OAL	PRFRAD1	PRFRAD2	PCEDC	Cylindrical
					mm	mm	mm	mm	mm	mm		
JH734060X2R1R95.0Z4	SIRA	10044783	2	X	6,0	6,0	20,8	62,0	1,0	95,0	4	■
JH734080X2R1R90.0Z4	SIRA	10044784	2	X	8,0	8,0	24,5	68,0	1,0	90,0	4	■
JH734100X2R2R85.0Z4	SIRA	10044785	2	X	10,0	10,0	24,7	72,0	2,0	85,0	4	■
JH734120X2R2R80.0Z4	SIRA	10044786	2	X	12,0	12,0	27,3	83,0	2,0	80,0	4	■
JH734160X2R3R75.0Z4	SIRA	10044787	2	X	16,0	16,0	30,1	92,0	3,0	75,0	4	■

■ Stocked standard.

Cutting data – JH734 Copy milling finishing

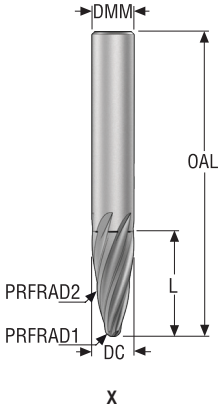
SMG		a_e/DC	f_z					v_c
			6	8	10	12	16	
P8	E	0,010 *0.010*	0,03 *0.0012*	0,04 *0.0016*	0,05 *0.0022*	0,06 *0.0024*	0,08 *0.0032*	170 (150 - 195) *560 (490 - 640)*
P12	E	0,010 *0.010*	0,03 *0.0012*	0,04 *0.0016*	0,05 *0.0022*	0,06 *0.0024*	0,08 *0.0032*	120 (95 - 135) *400 (310 - 445)*
M1	E	0,010 *0.010*	0,03 *0.0012*	0,04 *0.0016*	0,05 *0.0022*	0,06 *0.0024*	0,08 *0.0032*	150 (125 - 155) *490 (410 - 510)*
M2	E	0,010 *0.010*	0,03 *0.0012*	0,04 *0.0016*	0,05 *0.0022*	0,06 *0.0024*	0,08 *0.0032*	145 (120 - 150) *475 (400 - 490)*
M3	E	0,010 *0.010*	0,03 *0.0012*	0,04 *0.0016*	0,05 *0.0022*	0,06 *0.0024*	0,08 *0.0032*	130 (90 - 140) *425 (295 - 460)*
S2	E	0,010 *0.010*	0,03 *0.0012*	0,04 *0.0016*	0,05 *0.0022*	0,06 *0.0024*	0,08 *0.0032*	60 (50 - 70) *195 (165 - 230)*
S11	E	0,010 *0.010*	0,03 *0.0012*	0,04 *0.0016*	0,05 *0.0022*	0,06 *0.0024*	0,08 *0.0032*	100 (85 - 105) *320 (280 - 345)*
S12	E	0,010 *0.010*	0,03 *0.0012*	0,04 *0.0016*	0,05 *0.0022*	0,06 *0.0024*	0,08 *0.0032*	95 (80 - 100) *310 (260 - 320)*
S13	E	0,010 *0.010*	0,03 *0.0012*	0,04 *0.0016*	0,05 *0.0022*	0,06 *0.0024*	0,08 *0.0032*	90 (75 - 95) *295 (245 - 310)*

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

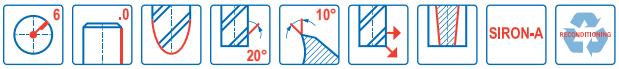
JH736

High speed – ISO– M and ISO– S - Drop Shape – 6 Flutes – Cylindrical





- Tolerances:
- DMM= h5
- PRFRAD1= ±0.03mm
- Form tolerance PRFRAD2= 0.02mm
- Regrind possible



Designation	Grade	Item number	Length index	Tool shape	DC	DMM	L	OAL	PRFRAD1	PRFRAD2	PCEDC	Cylindrical
					mm	mm	mm	mm	mm	mm		
JH736100X2R2R85.0Z6	SIRA	10044834	2	X	10,0	10,0	24,7	72,0	2,0	85,0	6	■
JH736120X2R2R80.0Z6	SIRA	10044835	2	X	12,0	12,0	27,3	83,0	2,0	80,0	6	■
JH736160X2R3R75.0Z6	SIRA	10044836	2	X	16,0	16,0	30,1	92,0	3,0	75,0	6	■

■ Stocked standard.

Cutting data – JH736 Copy milling finishing

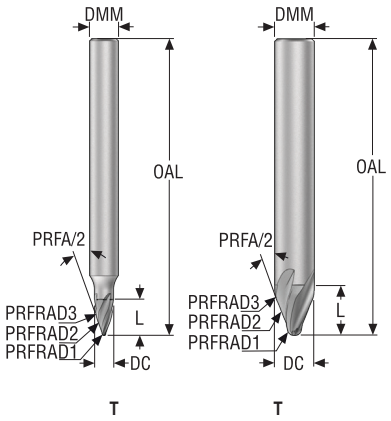
SMG		a_e/DC	f_z			v_c
			10	12	16	
P8	E	0,010 *0.010*	0,05 *0.0022*	0,06 *0.0024*	0,08 *0.0032*	170 (150 - 195) *560 (490 - 640)*
P12	E	0,010 *0.010*	0,05 *0.0022*	0,06 *0.0024*	0,08 *0.0032*	120 (95 - 135) *400 (310 - 445)*
M1	E	0,010 *0.010*	0,05 *0.0022*	0,06 *0.0024*	0,08 *0.0032*	150 (125 - 155) *490 (410 - 510)*
M2	E	0,010 *0.010*	0,05 *0.0022*	0,06 *0.0024*	0,08 *0.0032*	145 (120 - 150) *475 (400 - 490)*
M3	E	0,010 *0.010*	0,05 *0.0022*	0,06 *0.0024*	0,08 *0.0032*	130 (90 - 140) *425 (295 - 460)*
S2	E	0,010 *0.010*	0,05 *0.0022*	0,06 *0.0024*	0,08 *0.0032*	60 (50 - 70) *195 (165 - 230)*
S11	E	0,010 *0.010*	0,05 *0.0022*	0,06 *0.0024*	0,08 *0.0032*	100 (85 - 105) *320 (280 - 345)*
S12	E	0,010 *0.010*	0,05 *0.0022*	0,06 *0.0024*	0,08 *0.0032*	95 (80 - 100) *310 (260 - 320)*
S13	E	0,010 *0.010*	0,05 *0.0022*	0,06 *0.0024*	0,08 *0.0032*	90 (75 - 95) *295 (245 - 310)*

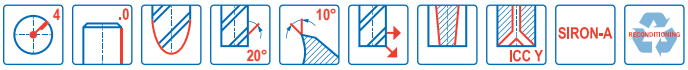
SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

JH744

High speed – ISO– M and ISO– S - Taper Shape – 4 Flutes – Cylindrical







- Tolerances:
- DMM= h5
- PRFRAD1= ±0.03mm
- Form tolerance PRFRAD2= 0.02mm
- Regrind possible if PRFRAD1 is ≥1,5

Designation	Grade	Item number	Length index	Tool shape	ICC	DC	DMM	L	OAL	PRFRAD1	PRFRAD2	PRFRAD3	PRFA/2°	PCEDC	Cylindrical
						mm	mm	mm	mm	mm	mm	mm			
JH744100T1R1.5R250.0Z4	SIRA	10044920	1	T	–	10,0	10,0	5,4	72,0	1,5	250,0	2,0	65,0	4	■
JH744120T1R3R250.0Z4	SIRA	10044921	1	T	–	12,0	12,0	10,5	89,0	3,0	250,0	6,0	32,5	4	■
JH744160T1R4R500.0Z4	SIRA	10044922	1	T	–	16,0	16,0	14,6	108,0	4,0	500,0	8,0	27,5	4	■
JH744040T2R0.5R250.0Z4	SIRA	10044923	2	T	–	4,0	6,0	7,6	62,0	0,5	250,0	3,0	17,5	4	■
JH744060T2R1R250.0Z4	SIRA	10044924	2	T	–	6,0	6,0	9,6	62,0	1,0	250,0	3,0	17,5	4	■
JH744080T2R1.5R250.0Z4	SIRA	10044925	2	T	–	8,0	8,0	10,7	68,0	1,5	250,0	4,0	20,0	4	■
JH744100T2R2R250.0Z4	SIRA	10044926	2	T	–	10,0	10,0	12,7	75,0	2,0	250,0	5,0	20,0	4	■
JH744120T2R3R250.0Z4	SIRA	10044927	2	T	–	12,0	12,0	13,7	89,0	3,0	250,0	6,0	20,0	4	■
JH744160T2R4R500.0Z4	SIRA	10044928	2	T	–	16,0	16,0	17,6	108,0	4,0	500,0	8,0	20,0	4	■
JH744160T2R2R1000.0Z4	SIRA	10044929	2	T	–	16,0	16,0	31,3	108,0	2,0	1000,0	5,0	12,5	4	■
JH744160T2R4R1000.0Z4	SIRA	10044930	2	T	–	16,0	16,0	24,1	108,0	4,0	1000,0	5,0	12,5	4	■
JH744160T4R4R1000.0Z4A	SIRA	10044931	4	T	■	16,0	16,0	24,1	150,0	4,0	1000,0	5,0	12,5	4	■

■ Stocked standard.

Cutting data – JH744 Copy milling finishing

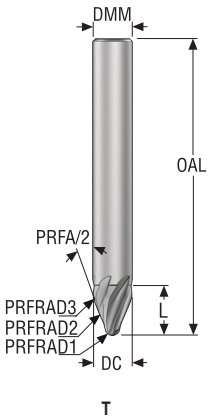
SMG		a_e/DC	f_z						v_c
			4	6	8	10	12	16	
P8	E	0,010 *0.010*	0,02 *0.0008*	0,03 *0.0012*	0,04 *0.0016*	0,05 *0.0022*	0,06 *0.0024*	0,08 *0.0032*	170 (150 - 195) *560 (490 - 640)*
P12	E	0,010 *0.010*	0,02 *0.0008*	0,03 *0.0012*	0,04 *0.0016*	0,05 *0.0022*	0,06 *0.0024*	0,08 *0.0032*	120 (95 - 135) *400 (310 - 445)*
M1	E	0,010 *0.010*	0,02 *0.0008*	0,03 *0.0012*	0,04 *0.0016*	0,05 *0.0022*	0,06 *0.0024*	0,08 *0.0032*	150 (125 - 155) *490 (410 - 510)*
M2	E	0,010 *0.010*	0,02 *0.0008*	0,03 *0.0012*	0,04 *0.0016*	0,05 *0.0022*	0,06 *0.0024*	0,08 *0.0032*	145 (120 - 150) *475 (400 - 490)*
M3	E	0,010 *0.010*	0,02 *0.0008*	0,03 *0.0012*	0,04 *0.0016*	0,05 *0.0022*	0,06 *0.0024*	0,08 *0.0032*	130 (90 - 140) *425 (295 - 460)*
S2	E	0,010 *0.010*	0,02 *0.0008*	0,03 *0.0012*	0,04 *0.0016*	0,05 *0.0022*	0,06 *0.0024*	0,08 *0.0032*	60 (50 - 70) *195 (165 - 230)*
S11	E	0,010 *0.010*	0,02 *0.0008*	0,03 *0.0012*	0,04 *0.0016*	0,05 *0.0022*	0,06 *0.0024*	0,08 *0.0032*	100 (85 - 105) *320 (280 - 345)*
S12	E	0,010 *0.010*	0,02 *0.0008*	0,03 *0.0012*	0,04 *0.0016*	0,05 *0.0022*	0,06 *0.0024*	0,08 *0.0032*	95 (80 - 100) *310 (260 - 320)*
S13	E	0,010 *0.010*	0,02 *0.0008*	0,03 *0.0012*	0,04 *0.0016*	0,05 *0.0022*	0,06 *0.0024*	0,08 *0.0032*	90 (75 - 95) *295 (245 - 310)*

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

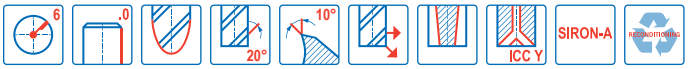
JH746

High speed – ISO– M and ISO– S - Taper Shape – 6 Flutes – Cylindrical





- Tolerances:
- DMM= h5
- PRFRAD1= ±0.03mm
- Form tolerance PRFRAD2= 0.02mm
- Regrind possible



Designation	Grade	Item number	Length index	Tool shape	ICC	DC	DMM	L	OAL	PRFRAD1	PRFRAD2	PRFRAD3	PRFA/2°	PCEDC	Cylindrical
						mm	mm	mm	mm	mm	mm	mm			
JH746100T2R2R250.0Z6	SIRA	10044958	2	T	–	10,0	10,0	12,7	75,0	2,0	250,0	5,0	20,0	6	■
JH746120T2R3R250.0Z6	SIRA	10044959	2	T	–	12,0	12,0	13,7	89,0	3,0	250,0	6,0	20,0	6	■
JH746160T2R4R500.0Z6	SIRA	10044960	2	T	–	16,0	16,0	17,6	108,0	4,0	500,0	8,0	20,0	6	■
JH746160T4R4R500.0Z6A	SIRA	10044961	4	T	■	16,0	16,0	17,6	150,0	4,0	500,0	8,0	20,0	6	■

■ Stocked standard.

Cutting data – JH746 Copy milling finishing

SMG		a_e/DC	f_z			v_c
			10	12	16	
P8	E	0,010 *0.010*	0,05 *0.0022*	0,06 *0.0024*	0,08 *0.0032*	170 (150 - 195) *560 (490 - 640)*
P12	E	0,010 *0.010*	0,05 *0.0022*	0,06 *0.0024*	0,08 *0.0032*	120 (95 - 135) *400 (310 - 445)*
M1	E	0,010 *0.010*	0,05 *0.0022*	0,06 *0.0024*	0,08 *0.0032*	150 (125 - 155) *490 (410 - 510)*
M2	E	0,010 *0.010*	0,05 *0.0022*	0,06 *0.0024*	0,08 *0.0032*	145 (120 - 150) *475 (400 - 490)*
M3	E	0,010 *0.010*	0,05 *0.0022*	0,06 *0.0024*	0,08 *0.0032*	130 (90 - 140) *425 (295 - 460)*
S2	E	0,010 *0.010*	0,05 *0.0022*	0,06 *0.0024*	0,08 *0.0032*	60 (50 - 70) *195 (165 - 230)*
S11	E	0,010 *0.010*	0,05 *0.0022*	0,06 *0.0024*	0,08 *0.0032*	100 (85 - 105) *320 (280 - 345)*
S12	E	0,010 *0.010*	0,05 *0.0022*	0,06 *0.0024*	0,08 *0.0032*	95 (80 - 100) *310 (260 - 320)*
S13	E	0,010 *0.010*	0,05 *0.0022*	0,06 *0.0024*	0,08 *0.0032*	90 (75 - 95) *295 (245 - 310)*

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

Cutting data – JH746 Copy milling roughing

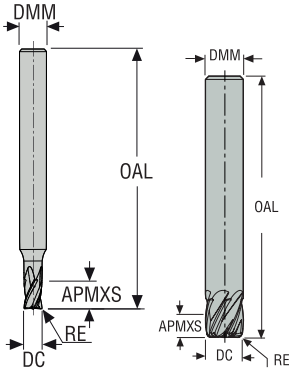
SMG		a_e/DC	f_z			v_c
			10	12	16	
P12	E	0.025 *0,025*	0.03 *0,0012*	0.036 *0,0014*	0.048 *0,0019*	120 (95 - 135) *400 (310 - 445)*
M1	E	0.025 *0,025*	0.03 *0,0012*	0.036 *0,0014*	0.048 *0,0019*	145 (120 - 150) *475 (400 - 490)*
M2	E	0.025 *0,025*	0.03 *0,0012*	0.036 *0,0014*	0.048 *0,0019*	145 (120 - 150) *475 (400 - 490)*
S12	E	0.025 *0,025*	0.03 *0,0012*	0.036 *0,0014*	0.048 *0,0019*	95 (80 - 100) *310 (270 - 320)*

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

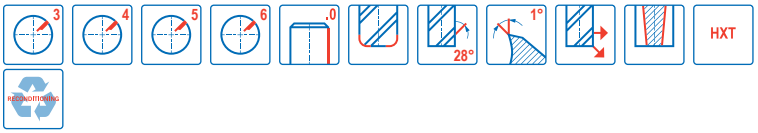
JH770

High speed – CoCr/Titanium – Square – 3-4-5-6 Flutes – Cylindrical – Corner radius





- Tolerances:
- DMM= h5
- DC= e7
- RE= ±0,02 mm
- Regrind possible if DC is ≥Ø6



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	RE	PCEDC	Cylindrical
				mm	mm	mm	mm	mm		
JH770030F2R020.0Z3-HXT	03320783	2	F	3,0	6,0	5,0	58,0	0,2	3	■
JH770040F2R020.0Z4-HXT	03320784	2	F	4,0	6,0	6,0	58,0	0,2	4	■
JH770050F2R020.0Z4-HXT	10000170	2	F	5,0	6,0	7,0	58,0	0,2	4	■
JH770060D2R050.0Z4-HXT	03127351	2	D	6,0	6,0	8,0	50,0	0,5	4	■
JH770080D2R050.0Z4-HXT	03127352	2	D	8,0	8,0	10,0	58,0	0,5	4	■
JH770080D2R050.0Z5-HXT	03127354	2	D	8,0	8,0	10,0	58,0	0,5	5	■
JH770080D2R100.0Z4-HXT	03127353	2	D	8,0	8,0	10,0	58,0	1,0	4	■
JH770080D2R100.0Z5-HXT	03127355	2	D	8,0	8,0	10,0	58,0	1,0	5	■
JH770080D2R100.0Z6-HXT	03127356	2	D	8,0	8,0	10,0	58,0	1,0	6	■
JH770100D2R100.0Z5-HXT	03127357	2	D	10,0	10,0	12,0	66,0	1,0	5	■
JH770100D2R100.0Z6-HXT	03127358	2	D	10,0	10,0	12,0	66,0	1,0	6	■

■ Stocked standard.

Cutting data – JH770 Side milling roughing PCEDC 3 and 4

SMG		a_e/DC	a_p/DC	f_z				v_c
				3	4	6	8	
S2	E	0.750 *0,750*	0.12 *0,12*	0.015 *0,00060*	0.020 *0,00080*	0.030 *0,0012*	0.040 *0,0016*	50 (42 — 62) *165 (140 — 200)*
S11	E	0.250 *0,250*	0.32 *0,32*	0.0075 *0,00030*	0.010 *0,00040*	0.015 *0,00060*	0.020 *0,00080*	65 (53 — 91) *215 (180 — 290)*
S12	E	0.250 *0,250*	0.32 *0,32*	0.0075 *0,00030*	0.010 *0,00040*	0.015 *0,00060*	0.020 *0,00080*	50 (41 — 70) *165 (140 — 220)*

Cutting data – JH770 Side milling roughing PCEDC 6

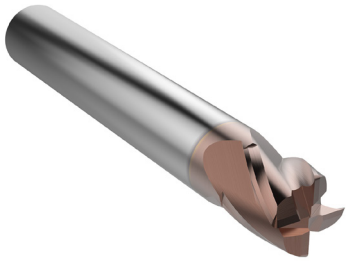
SMG		a_e/DC	a_p/DC	f_z		v_c
				8	10	
S2	E	0.750 *0,750*	0.12 *0,12*	0.050 *0,0020*	0.060 *0,0024*	55 (43 — 64) *180 (150 — 200)*
S11	E	0.250 *0,250*	0.32 *0,32*	0.022 *0,00085*	0.026 *0,0010*	65 (54 — 93) *215 (180 — 300)*
S12	E	0.250 *0,250*	0.32 *0,32*	0.022 *0,00085*	0.026 *0,0010*	50 (42 — 71) *165 (140 — 230)*

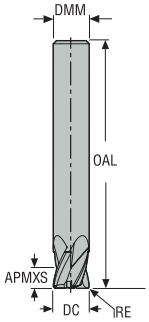
For cutting data recalculations, see pages 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

JH740

High speed – CoCr/Titanium – Bottom finisher – 4-5 Flutes – Cylindrical – Corner radius





D

- Tolerances:
- DMM=h5
- DC=e7
- RE= ±0,02 mm
- Regrind possible



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	RE	PCEDC	Cylindrical
				mm	mm	mm	mm	mm		
JH740060D2R025.0Z4-HXT	03127359	2	D	6,0	6,0	6,0	50,0	0,25	4	■
JH740060D2R050.0Z4-HXT	03127360	2	D	6,0	6,0	6,0	50,0	0,5	4	■
JH740080D2R025.0Z4-HXT	03127361	2	D	8,0	8,0	8,0	58,0	0,25	4	■
JH740080D2R050.0Z4-HXT	03127362	2	D	8,0	8,0	8,0	58,0	0,5	4	■
JH740100D2R025.0Z5-HXT	03127363	2	D	10,0	10,0	10,0	66,0	0,25	5	■
JH740100D2R050.0Z5-HXT	03127364	2	D	10,0	10,0	10,0	66,0	0,5	5	■

■ Stocked standard.

Cutting data – JH740 Face finishing PCEDC 4

SMG		a_e/DC	a_p/DC	f_z		v_c
				6	8	
S2	E	0.500 *0,500*	0.0060 *0,0060*	0.044 *0,0017*	0.060 *0,0024*	50 (40 — 59) *165 (140 — 190)*
S11	E	0.500 *0,500*	0.0060 *0,0060*	0.044 *0,0017*	0.060 *0,0024*	65 (52 — 77) *215 (180 — 250)*
S12	E	0.500 *0,500*	0.0060 *0,0060*	0.044 *0,0017*	0.060 *0,0024*	50 (40 — 59) *165 (140 — 190)*

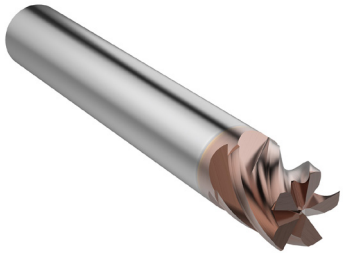
Cutting data – JH740 Face finishing PCEDC 5

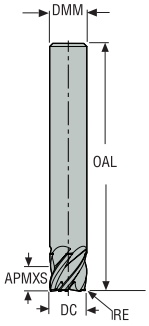
SMG		a_e/DC	a_p/DC	f_z	v_c
				10	
S2	E	0.500 *0,500*	0.0065 *0,0065*	0.046 *0,0018*	48 (39 — 58) *155 (130 — 190)*
S11	E	0.500 *0,500*	0.0065 *0,0065*	0.046 *0,0018*	65 (51 — 75) *215 (170 — 240)*
S12	E	0.500 *0,500*	0.0065 *0,0065*	0.046 *0,0018*	48 (39 — 58) *155 (130 — 190)*

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

JH710

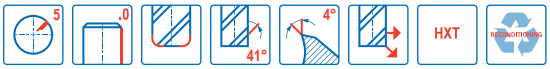
High speed – CoCr/Titanium – Square – 5 Flutes – Cylindrical – Corner radius





D

- Tolerances:
- DMM=h5
- DC=e7
- RE= ±0,02 mm
- Regrind possible



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	RE	PCEDC	Cylindrical
				mm	mm	mm	mm	mm		
JH710060D2R025.0Z5-HXT	03127365	2	D	6,0	6,0	6,0	57,0	0,25	5	■
JH710060D2R050.0Z5-HXT	03127366	2	D	6,0	6,0	6,0	57,0	0,5	5	■
JH710080D2R025.0Z5-HXT	03127367	2	D	8,0	8,0	8,0	63,0	0,25	5	■
JH710080D2R050.0Z5-HXT	03127368	2	D	8,0	8,0	8,0	63,0	0,5	5	■
JH710080D2R100.0Z5-HXT	03127369	2	D	8,0	8,0	8,0	63,0	1,0	5	■

■ Stocked standard.

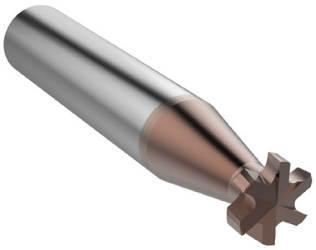
Cutting data – JH710 Side milling finishing

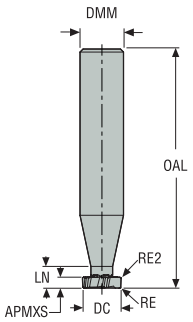
SMG		a_e/DC	a_p/DC	f_z		v_c
				6	8	
S1	E	0.00800 *0,00800*	0.65 *0,65*	0.034 *0,0013*	0.044 *0,0017*	100 (79 — 110) *330 (260 — 360)*
S2	E	0.00800 *0,00800*	0.65 *0,65*	0.034 *0,0013*	0.044 *0,0017*	100 (79 — 110) *330 (260 — 360)*
S3	E	0.00800 *0,00800*	0.65 *0,65*	0.034 *0,0013*	0.044 *0,0017*	100 (79 — 110) *330 (260 — 360)*
S11	E	0.00800 *0,00800*	0.65 *0,65*	0.036 *0,0014*	0.046 *0,0018*	180 (160 — 200) *590 (530 — 650)*
S12	E	0.00800 *0,00800*	0.65 *0,65*	0.036 *0,0014*	0.046 *0,0018*	135 (120 — 150) *445 (400 — 490)*
S13	E	0.00800 *0,00800*	0.65 *0,65*	0.032 *0,0013*	0.040 *0,0016*	105 (92 — 120) *345 (310 — 390)*

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

JH790

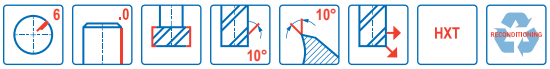
High speed – CoCr/Titanium – T Cutter – 6 Flutes – Cylindrical





G

- Tolerances:
- DMM=h5
- DC= ±0,02 mm
- RE= ±0,02 mm
- Regrind possible



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	RE	RE2	PCEDC	Cylindrical
				mm	mm	mm	mm	mm	mm	mm		
JH790095G2R025.0Z6-HXT	03127370	2	G	9,5	10,0	2,0	66,0	5,0	0,25	0,25	6	■
JH790095G2R050.0Z6-HXT	03127371	2	G	9,5	10,0	2,0	66,0	5,0	0,5	0,5	6	■
JH790095G3R025.0Z6-HXT	03127372	3	G	9,5	10,0	2,54	66,0	5,0	0,25	0,25	6	■
JH790095G3R050.0Z6-HXT	03127373	3	G	9,5	10,0	2,54	66,0	5,0	0,5	0,5	6	■

■ Stocked standard.

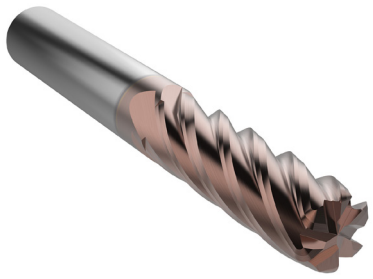
Cutting data – JH790 (T) Side milling roughing

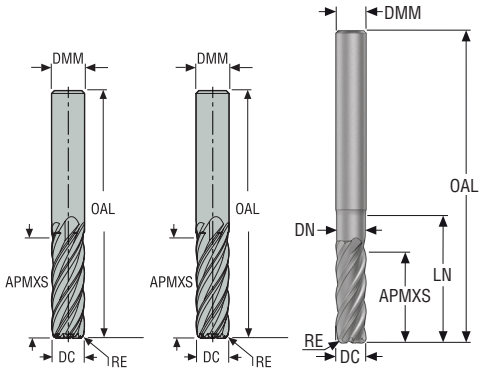
SMG		a_e/DC	a_p/DC	f_z	v_c
				9.5	
S2	E	0.189 *0,189*	0.19 *0,19*	0.030 *0,0012*	39 (31 — 50) *130 (110 — 160)*
S11	E	0.189 *0,189*	0.19 *0,19*	0.022 *0,00085*	85 (66 — 100) *280 (220 — 320)*
S12	E	0.189 *0,189*	0.19 *0,19*	0.022 *0,00085*	65 (51 — 80) *215 (170 — 260)*

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

JH730

High speed – CoCr/Titanium – Square – 5-6-7 Flutes – Cylindrical – Corner radius







- Tolerances:
- DMM=h5
- DC=e7
- RE= ±0,02 mm
- Regrind possible

Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	DN	LN	OAL	RE	PCEDC	Cylindrical
				mm	mm	mm	mm	mm	mm	mm		
JH730060E2R050.0Z5-HXT	10217826	2	E	6,0	6,0	19,0	5,7	25,0	65,0	0,5	5	■
JH730060E2R100.0Z5-HXT	10217827	2	E	6,0	6,0	19,0	5,7	25,0	65,0	1,0	5	■
JH730060E2R150.0Z5-HXT	10217828	2	E	6,0	6,0	19,0	5,7	25,0	65,0	1,5	5	■
JH730075F2R050.0Z6-HXT	10217829	2	F	7,5	8,0	24,0	–	–	63,0	0,5	6	■
JH730075F2R100.0Z6-HXT	10217830	2	F	7,5	8,0	24,0	–	–	63,0	1,0	6	■
JH730075F2R150.0Z6-HXT	10217831	2	F	7,5	8,0	24,0	–	–	63,0	1,5	6	■
JH730080D2R050.0Z6-HXT	03127375	2	D	8,0	8,0	25,0	–	–	63,0	0,5	6	■
JH730080D2R100.0Z6-HXT	03127377	2	D	8,0	8,0	25,0	–	–	63,0	1,0	6	■
JH730080D2R150.0Z6-HXT	03127378	2	D	8,0	8,0	25,0	–	–	63,0	1,5	6	■
JH730080D2R200.0Z6-HXT	03127379	2	D	8,0	8,0	25,0	–	–	63,0	2,0	6	■
JH730100D2R100.0Z7-HXT	03127380	2	D	10,0	10,0	31,0	–	–	72,0	1,0	7	■
JH730100D2R250.0Z7-HXT	03127381	2	D	10,0	10,0	31,0	–	–	72,0	2,5	7	■

■ Stocked standard.

Cutting data – JH730 Side milling finishing

SMG		a_e/DC	a_p/DC	f_z				v_c
				6	7.5	8	10	
S2	E	0,065 *0.065*	1,3 *1.3*	0,015 *0.00060*	0,019 *0.00075*	0,020 *0.00080*	0,025 *0.0010*	80 (63 — 94) *260 (210 — 300)*
S11	E	0,065 *0.065*	1,3 *1.3*	0,012 *0.00048*	0,015 *0.00060*	0,017 *0.00065*	0,020 *0.00080*	135 (110 — 160) *445 (370 — 520)*
S12	E	0,065 *0.065*	1,3 *1.3*	0,012 *0.00048*	0,015 *0.00060*	0,017 *0.00065*	0,020 *0.00080*	105 (84 — 120) *345 (280 — 390)*

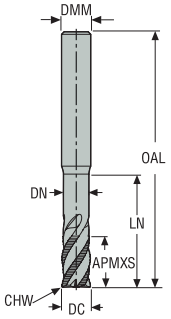
For cutting data recalculations, see pages 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

JHP994

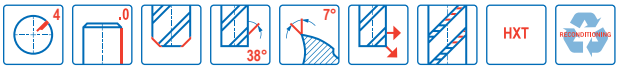
High performance – CoCr/Titanium – Square – 4 Flutes – Cylindrical – Chamfer





E

- Tolerances:
- DMM=h5
- DC=-0,02/-0,1 mm
- CHW=0/-0,1 mm
- Regrind possible



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	CHW	PCEDC	Cylindrical
				mm	mm	mm	mm	mm	mm	mm		
JHP994060E3C.0Z4-HXT	03127382	3	E	6,0	6,0	14,0	63,0	24,0	5,6	0,2	4	■
JHP994080E3C.0Z4-HXT	03127383	3	E	8,0	8,0	18,0	69,0	32,0	7,4	0,2	4	■
JHP994100E3C.0Z4-HXT	03127384	3	E	10,0	10,0	22,0	88,0	40,0	9,4	0,2	4	■

■ Stocked standard.

Cutting data – JHP994 Side milling roughing

SMG		a_e/DC	a_p/DC	f_z			v_c
				6	8	10	
S2	E	0.0480 *0,0480*	2.0 *2,0*	0.025 *0,0010*	0.032 *0,0013*	0.042 *0,0017*	55 (40 — 69) *180 (140 — 220)*
S11	E	0.450 *0,450*	0.60 *0,60*	0.025 *0,0010*	0.034 *0,0013*	0.042 *0,0017*	50 (39 — 77) *165 (130 — 250)*
S12	E	0.450 *0,450*	0.60 *0,60*	0.025 *0,0010*	0.034 *0,0013*	0.042 *0,0017*	40 (30 — 59) *130 (99 — 190)*

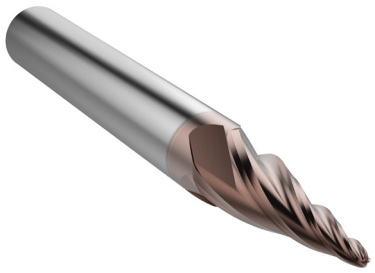
Cutting data – JHP994 Slot milling

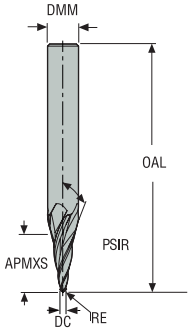
SMG		a_p/DC	f_z			v_c
			6	8	10	
S2	E	2.0 *2,0*	0.011 *0,00044*	0.014 *0,00055*	0.018 *0,00070*	33 (24 — 41) *110 (79 — 130)*
S11	E	0.60 *0,60*	0.025 *0,0010*	0.034 *0,0013*	0.042 *0,0017*	42 (32 — 63) *140 (110 — 200)*
S12	E	0.60 *0,60*	0.025 *0,0010*	0.034 *0,0013*	0.042 *0,0017*	33 (25 — 48) *110 (83 — 150)*

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

JH780

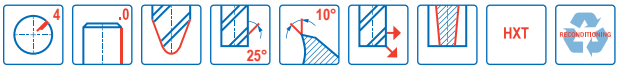
High speed – CoCr/Titanium – Tapered ball nose – 4 Flutes – Cylindrical





N

- Tolerances:
- DMM=h5
- DC= ±0,04 mm
- RE= ±0,01 mm
- Regrind possible



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	RE	PSIR	PCEDC	Cylindrical
				mm	mm	mm	mm	mm	mm		
JH780018N2R100.0Z4-HXT	03127386	2	N	1,827	8,0	23,5	63,0	1,0	5,1838	4	■
JH780028N2R150.0Z4-HXT	03127387	2	N	2,803	8,0	23,5	63,0	1,5	3,8915	4	■
JH780038N2R200.0Z4-HXT	03127388	2	N	3,823	8,0	23,5	63,0	2,0	2,5972	4	■
JH780049N2R250.0Z4-HXT	03127389	2	N	4,888	8,0	23,5	63,0	2,5	1,3003	4	■

■ Stocked standard.

Cutting data – JH780 Copy milling roughing

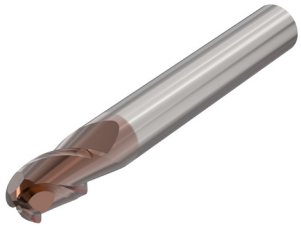
SMG		a_e/DC	a_p/DC	f_z				v_c
				1.8	2.8	3.8	4.9	
S2	E	0.0510 *0,0510*	4.2 *4,2*	0.0080 *0,00032*	0.012 *0,00048*	0.017 *0,00065*	0.022 *0,00085*	70 (54 — 86) *230 (180 — 280)*
S12	E	0.0510 *0,0510*	4.2 *4,2*	0.0060 *0,00024*	0.0090 *0,00036*	0.013 *0,00050*	0.016 *0,00065*	95 (76 — 110) *310 (250 — 360)*

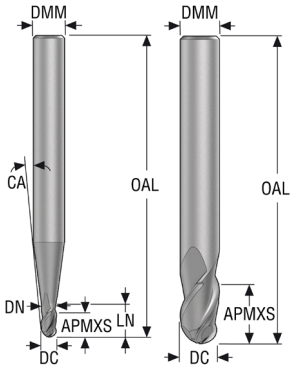
For cutting data recalculations, see pages 573 - 580

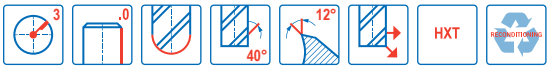
SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

JHB720

High speed – Titanium – Ball nose – 3 Flutes – Cylindrical







- Tolerances:
- DMM=h5
- DC=-0,02/-0,04 mm
- RE= ±0,01 mm
- Regrind possible if DC is ≥Ø6

Designation	Grade	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	CA°	PCEDC	Cylindrical
					mm	mm	mm	mm	mm	mm			
JHB720020G2B.0Z3	HXT	10072323	2	G	2,0	6,0	3,0	60,0	6,0	1,9	7,0	3	■
JHB720030G2B.0Z3	HXT	10072324	2	G	3,0	6,0	4,5	60,0	6,5	2,8	5,0	3	■
JHB720035G2B.0Z3	HXT	10072325	2	G	3,5	6,0	5,0	65,0	7,0	3,2	3,5	3	■
JHB720040G2B.0Z3	HXT	10072326	2	G	4,0	6,0	6,0	65,0	8,0	3,7	3,0	3	■
JHB720060D2B.0Z3	HXT	10072327	2	D	6,0	6,0	9,0	75,0	–	–	–	3	■
JHB720080D2B.0Z3	HXT	10072328	2	D	8,0	8,0	12,0	75,0	–	–	–	3	■
JHB720100D2B.0Z3	HXT	10072329	2	D	10,0	10,0	15,0	80,0	–	–	–	3	■
JHB720120D2B.0Z3	HXT	10072330	2	D	12,0	12,0	18,0	90,0	–	–	–	3	■
JHB720160D2B.0Z3	HXT	10072331	2	D	16,0	16,0	24,0	100,0	–	–	–	3	■

■ Stocked standard.

Cutting data – JHB720 Side milling

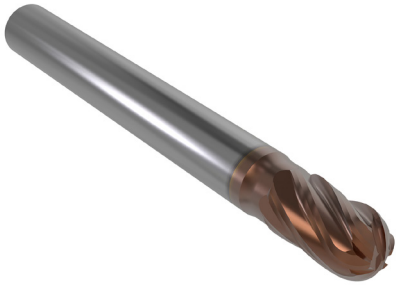
SMG		a_e/DC	a_p/DC	f_z									v_c
				2	3	3.5	4	6	8	10	12	16	
M1	E	0.200 *0,200*	1.2 *1,2*	0.0080 *0,00032*	0.012 *0,00048*	0.014 *0,00055*	0.016 *0,00065*	0.024 *0,00095*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.060 *0,0024*	85 (62 — 110) *280 (210 — 360)*
M2	E	0.200 *0,200*	1.2 *1,2*	0.0080 *0,00032*	0.012 *0,00048*	0.014 *0,00055*	0.016 *0,00065*	0.024 *0,00095*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.060 *0,0024*	70 (51 — 90) *230 (170 — 290)*
M3	E	0.200 *0,200*	1.2 *1,2*	0.0080 *0,00032*	0.012 *0,00048*	0.014 *0,00055*	0.016 *0,00065*	0.024 *0,00095*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.060 *0,0024*	65 (46 — 84) *215 (160 — 270)*
M4	E	0.200 *0,200*	1.2 *1,2*	0.0070 *0,00028*	0.011 *0,00044*	0.012 *0,00048*	0.014 *0,00055*	0.022 *0,00085*	0.028 *0,0011*	0.034 *0,0013*	0.042 *0,0017*	0.050 *0,0020*	50 (35 — 65) *165 (120 — 210)*
M5	E	0.200 *0,200*	1.2 *1,2*	0.0070 *0,00028*	0.011 *0,00044*	0.012 *0,00048*	0.014 *0,00055*	0.022 *0,00085*	0.028 *0,0011*	0.034 *0,0013*	0.042 *0,0017*	0.050 *0,0020*	42 (29 — 54) *140 (96 — 170)*
N1	E/M/A	0.400 *0,400*	1.2 *1,2*	0.020 *0,00080*	0.030 *0,0012*	0.036 *0,0014*	0.040 *0,0016*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.15 *0,0060*	600 (500 — 690) *1975 (1700 — 2200)*
N2	E/M/A	0.400 *0,400*	1.2 *1,2*	0.016 *0,00065*	0.024 *0,00095*	0.028 *0,0011*	0.032 *0,0013*	0.048 *0,0019*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	0.12 *0,0048*	500 (400 — 600) *1650 (1400 — 1900)*
N3	E/M/A	0.400 *0,400*	1.2 *1,2*	0.016 *0,00065*	0.024 *0,00095*	0.028 *0,0011*	0.032 *0,0013*	0.048 *0,0019*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	0.12 *0,0048*	335 (270 — 400) *1100 (890 — 1300)*
N11	E/M/A	0.300 *0,300*	1.2 *1,2*	0.012 *0,00048*	0.018 *0,00070*	0.022 *0,00085*	0.024 *0,00095*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	0.090 *0,0036*	300 (260 — 340) *980 (860 — 1100)*
S1	E	0.100 *0,100*	1.2 *1,2*	0.0065 *0,00026*	0.0095 *0,00038*	0.011 *0,00044*	0.013 *0,00050*	0.019 *0,00075*	0.026 *0,0010*	0.032 *0,0013*	0.038 *0,0015*	0.048 *0,0019*	43 (29 — 57) *140 (96 — 180)*
S2	E	0.100 *0,100*	1.2 *1,2*	0.0065 *0,00026*	0.0095 *0,00038*	0.011 *0,00044*	0.013 *0,00050*	0.019 *0,00075*	0.026 *0,0010*	0.032 *0,0013*	0.038 *0,0015*	0.048 *0,0019*	35 (24 — 46) *115 (79 — 150)*
S3	E	0.100 *0,100*	1.2 *1,2*	0.0060 *0,00024*	0.0090 *0,00036*	0.011 *0,00044*	0.012 *0,00048*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.044 *0,0017*	30 (21 — 39) *100 (69 — 120)*
S11	E	0.300 *0,300*	1.2 *1,2*	0.010 *0,00040*	0.015 *0,00060*	0.018 *0,00070*	0.020 *0,00080*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.075 *0,0030*	90 (79 — 100) *295 (260 — 320)*
S12	E	0.300 *0,300*	1.2 *1,2*	0.010 *0,00040*	0.015 *0,00060*	0.018 *0,00070*	0.020 *0,00080*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.075 *0,0030*	70 (61 — 80) *230 (210 — 260)*
S13	E	0.300 *0,300*	1.2 *1,2*	0.0085 *0,00034*	0.013 *0,00050*	0.015 *0,00060*	0.017 *0,00065*	0.026 *0,0010*	0.034 *0,0013*	0.044 *0,0017*	0.050 *0,0020*	0.065 *0,0026*	55 (48 — 63) *180 (160 — 200)*
TS1	A	0.400 *0,400*	1.2 *1,2*	0.020 *0,00080*	0.030 *0,0012*	0.036 *0,0014*	0.040 *0,0016*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.15 *0,0060*	500 (400 — 600) *1650 (1400 — 1900)*
TP1	M	0.400 *0,400*	1.2 *1,2*	0.020 *0,00080*	0.030 *0,0012*	0.036 *0,0014*	0.040 *0,0016*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.15 *0,0060*	500 (400 — 600) *1650 (1400 — 1900)*

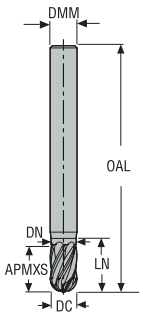
For cutting data recalculations, see pages 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

JH721

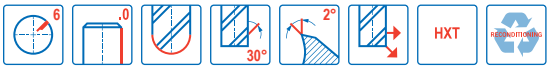
High speed – CoCr/Titanium – Ball nose – 6 Flutes – Cylindrical





E

- Tolerances:
- DMM=h5
- DC=e7
- RE= ±0,02 mm
- Regrind possible



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	PCEDC	Cylindrical
				mm	mm	mm	mm	mm	mm		
JH721060E2B.0Z6-HXT	03127390	2	E	6,0	6,0	10,0	57,0	12,0	5,6	6	■
JH721080E2B.0Z6-HXT	03127391	2	E	8,0	8,0	13,0	58,0	16,0	7,4	6	■

■ Stocked standard.

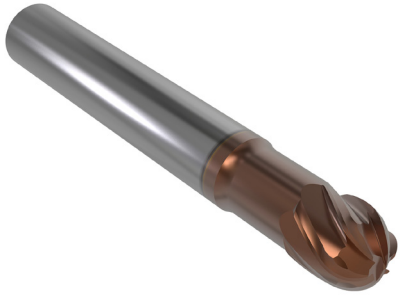
Cutting data – JH721 Copy milling finishing

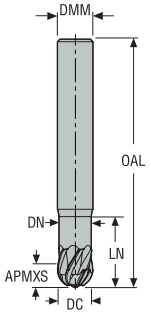
SMG		a_e/DC	a_p/DC	f_z		v_c
				6	8	
S2	E	0.0424 *0,0424*	0.040 *0,040*	0.032 *0,0013*	0.042 *0,0017*	120 (110 — 140) *395 (370 — 450)*
S11	E	0.0424 *0,0424*	0.040 *0,040*	0.032 *0,0013*	0.042 *0,0017*	210 (140 — 230) *690 (460 — 750)*
S12	E	0.0424 *0,0424*	0.040 *0,040*	0.032 *0,0013*	0.042 *0,0017*	160 (110 — 180) *520 (370 — 590)*

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

JH722

High speed – CoCr/Titanium – Ball nose – 6 Flutes – Cylindrical





E

- Tolerances:
- DMM=h5
- DC=e7
- RE= ±0,01 mm
- Regrind possible

Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	PCEDC	Cylindrical
				mm	mm	mm	mm	mm	mm		
JH722100E2B.0Z6-HXT	03127392	2	E	10,0	10,0	10,0	72,0	20,0	9,4	6	■

■ Stocked standard.

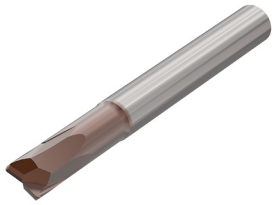
Cutting data – JH722 Copy milling finishing

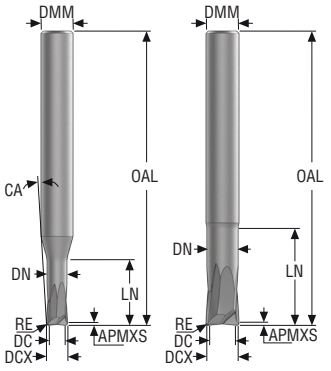
SMG		a_e/DC	a_p/DC	f_z	v_c
				10	
S2	E	0.0500 *0,0500*	0.15 *0,15*	0.065 *0,0026*	125 (110 — 150) *410 (370 — 490)*
S11	E	0.0500 *0,0500*	0.15 *0,15*	0.048 *0,0019*	210 (190 — 230) *690 (630 — 750)*
S12	E	0.0500 *0,0500*	0.15 *0,15*	0.048 *0,0019*	160 (150 — 180) *520 (500 — 590)*

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

SHF712

High feed – ISO– S – 2 Flutes – Cylindrical – Corner radius







- Tolerances:
- Run-out= <0,005 mm
- DMM = h5
- DC G- Shape = 0/-0,01 mm
- DC E- Shape = 0,005/-0,015 mm
- RE = ±0,005 mm

Designation	Grade	Item number	Length index	Tool shape	DC	DCX	DMM	APMXS	OAL	LN	DN	RE	CA°	PCEDC	Cylindrical
					mm	mm	mm	mm	mm	mm	mm	mm			
SHF712040G2R050.0Z2	HXT	10106493	2	G	3,0	4,0	6,0	0,5	55,0	12,0	3,8	0,5	3,9 °	2	■
SHF712060E2R050.0Z2	HXT	10106494	2	E	5,0	6,0	6,0	0,5	55,0	18,0	5,7	0,5	0,0 °	2	■
SHF712030G3R050.0Z2	HXT	10106495	3	G	2,0	3,0	6,0	0,5	55,0	12,0	2,85	0,5	5,65 °	2	■
SHF712040G3R050.0Z2	HXT	10106496	3	G	3,0	4,0	6,0	0,5	55,0	16,0	3,8	0,5	3,07 °	2	■
SHF712060E3R050.0Z2	HXT	10106497	3	E	5,0	6,0	6,0	0,5	55,0	25,0	5,7	0,5	0,0 °	2	■
SHF712030G4R050.0Z2	HXT	10106498	4	G	2,0	3,0	6,0	0,5	55,0	16,0	2,85	0,5	4,47 °	2	■

■ Stocked standard.

Cutting data – SFH712 Side milling

SMG		a_e/DCX	a_p/DCX	f_z			v_c
				3	4	6	
S2	E	0,30 *0.30*	0,050 *0.050*	0,055 *0.0022*	0,075 *0.0030*	0,11 *0.0044*	65 (51 — 76) *215 (170 — 240)*
S12	E	0,30 *0.30*	0,050 *0.050*	0,085 *0.0034*	0,12 *0.0048*	0,17 *0.0065*	170 (150 — 190) *560 (500 — 620)*

Cutting data – SFH712 Slot milling

SMG		a_p/DCX	f_z			v_c
			3	4	6	
S2	E	0,050 *0.050*	0,046 *0.0018*	0,060 *0.0024*	0,090 *0.0036*	50 (41 — 60) *165 (140 — 190)*
S12	E	0,050 *0.050*	0,046 *0.0018*	0,060 *0.0024*	0,090 *0.0036*	145 (130 — 160) *475 (430 — 520)*

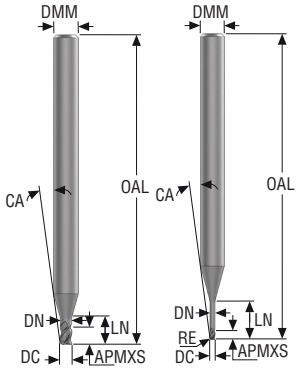
For cutting data recalculations, see pages 573 - 580

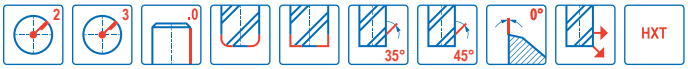
SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

SME714/716

Miniature – ISO– S - Square – 2-3 Flutes – Cylindrical – Sharp or corner radius







- Tolerances:
- Run-out= <0,005 mm
- DMM = h5
- DC = 0/-0,01 mm
- RE = ±0,005 mm

Designation	Grade	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	DN	LN	RE	CA°	PCEDC	Cylindrical
					mm	mm	mm	mm	mm	mm	mm			
SME714020G1S.0Z3	HXT	10107349	1	G	2,0	4	2,0	50	1,9	4,0	–	6,86 °	3	■
SME716020G1S.0Z3	HXT	10107360	1	G	2,0	6	2,0	50	1,9	4,0	–	9,42 °	3	■
SME714020G3R010.0Z3	HXT	10107350	3	G	2,0	4	2,5	50	1,9	8,0	0,1	4,68 °	3	■
SME716020G3R010.0Z3	HXT	10107361	3	G	2,0	6	2,5	50	1,9	8,0	0,1	7,14 °	3	■
SME716010G4R010.0Z3	HXT	10107362	4	G	1,0	6	1,2	50	0,95	6,0	0,1	9,03 °	3	■
SME716015G4R010.0Z3	HXT	10107363	4	G	1,5	6	1,8	50	1,4	10,0	0,1	6,79 °	3	■
SME714010G4R010.0Z3	HXT	10107351	4	G	2,0	4	1,2	50	0,95	6,0	0,1	7,13 °	3	■
SME714015G4R010.0Z3	HXT	10107352	4	G	2,0	4	1,8	50	1,4	10,0	0,1	4,72 °	3	■
SME714020G4R010.0Z3	HXT	10107353	4	G	2,0	4	2,5	50	1,9	12,0	0,1	3,53 °	3	■
SME716020G4R010.0Z3	HXT	10107364	4	G	2,0	6	2,5	50	1,9	12,0	0,1	5,72 °	3	■
SME714015G5R010.0Z3	HXT	10107354	5	G	1,5	4	1,8	50	1,4	12,0	0,1	3,38 °	3	■
SME716015G5R010.0Z3	HXT	10107365	5	G	1,5	6	1,8	50	1,4	12,0	0,1	6,15 °	3	■
SME714020G5R010.0Z3	HXT	10107355	5	G	2,0	4	2,5	50	1,9	16,0	0,1	2,83 °	3	■
SME716020G5R010.0Z3	HXT	10107366	5	G	2,0	6	2,5	50	1,9	16,0	0,1	4,77 °	3	■
SME714005G6R005.0Z2	HXT	10107356	6	G	0,5	4	0,6	50	0,45	5,0	0,05	8,31 °	2	■
SME716005G6R005.0Z2	HXT	10107367	6	G	0,5	6	0,6	50	0,45	5,0	0,05	9,93 °	2	■
SME714010G6R010.0Z3	HXT	10107357	6	G	1,0	4	1,2	50	0,95	12,0	0,1	4,77 °	3	■
SME716010G6R010.0Z3	HXT	10107368	6	G	1,0	6	1,6	50	0,95	12,0	0,1	6,56 °	3	■
SME714015G6R010.0Z3	HXT	10107358	6	G	1,5	4	1,8	50	1,4	16,0	0,1	3,38 °	3	■
SME716015G6R010.0Z3	HXT	10107369	6	G	1,5	6	1,8	50	1,4	16,0	0,1	5,16 °	3	■
SME714010G7R010.0Z3	HXT	10107359	7	G	1,0	4	1,2	50	0,95	16,0	0,1	3,9 °	3	■
SME716010G7R010.0Z3	HXT	10107370	7	G	1,0	6	1,2	50	0,95	16,0	0,1	5,55 °	3	■

■ Stocked standard.

Cutting data – SME714 Side milling roughing

SMG		a_e/DC	a_p/DC	f_z				v_c
				0.5	1	1.5	2	
S2	E	0,0800 *0.0800*	0,070 *0.070*	0,0036 *0.00014*	0,0070 *0.00028*	0,010 *0.00040*	0,014 *0.00055*	60 (31 — 120) *195 (110 — 390)*
S12	E	0,0800 *0.0800*	0,070 *0.070*	0,0036 *0.00014*	0,0070 *0.00028*	0,010 *0.00040*	0,014 *0.00055*	65 (33 — 130) *215 (110 — 420)*

Cutting data – SME714 Slot milling

SMG		a_p/DC	f_z				v_c
			0.5	1	1.5	2	
S2	E	0,070 *0.070*	0,0036 *0.00014*	0,0070 *0.00028*	0,010 *0.00040*	0,014 *0.00055*	41 (21 — 82) *135 (69 — 260)*
S12	E	0,070 *0.070*	0,0036 *0.00014*	0,0070 *0.00028*	0,010 *0.00040*	0,014 *0.00055*	45 (23 — 89) *150 (76 — 290)*

For cutting data recalculations, see pages 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

Cutting data – SME716 Side milling roughing

SMG		a_e/DC	a_p/DC	f_z				v_c
				0.5	1	1.5	2	
S2	E	0,0800 *0.0800*	0,070 *0.070*	0,0036 *0.00014*	0,0070 *0.00028*	0,010 *0.00040*	0,014 *0.00055*	60 (31 — 120) *195 (110 — 390)*
S12	E	0,0800 *0.0800*	0,070 *0.070*	0,0036 *0.00014*	0,0070 *0.00028*	0,010 *0.00040*	0,014 *0.00055*	65 (33 — 130) *215 (110 — 420)*

Cutting data – SME716 Slot milling

SMG		a_p/DC	f_z				v_c
			0.5	1	1.5	2	
S2	E	0,070 *0.070*	0,0036 *0.00014*	0,0070 *0.00028*	0,010 *0.00040*	0,014 *0.00055*	41 (21 — 82) *135 (69 — 260)*
S12	E	0,070 *0.070*	0,0036 *0.00014*	0,0070 *0.00028*	0,010 *0.00040*	0,014 *0.00055*	45 (23 — 89) *150 (76 — 290)*

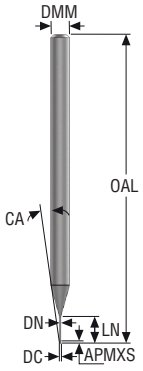
For cutting data recalculations, see pages 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

SMB713/714/716

Miniature – ISO– S – Ball nose – 2 Flutes – Cylindrical





G



- Tolerances:
- Run-out= <0,005 mm
- DMM = h5
- DC = 0/-0,01 mm
- RE = ±0,005 mm

Designation	Grade	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	DN	LN	CA°	PCEDC	Cylindrical
					mm	mm	mm	mm	mm	mm			
SMB714020G2B.0Z2	HXT	10109582	2	G	2,0	4	2,0	50	1,9	6,0	6,13 °	2	■
SMB716020G2B.0Z2	HXT	10109596	2	G	2,0	6	2,0	50	1,9	6,0	8,72 °	2	■
SMB714030G2B.0Z2	HXT	10109583	2	G	3,0	4	3,0	50	2,85	9,0	2,85 °	2	■
SMB716030G2B.0Z2	HXT	10109597	2	G	3,0	6	3,0	50	2,85	9,0	6,22 °	2	■
SMB714030G3B.0Z2	HXT	10109584	3	G	3,0	4	3,0	50	2,85	12,0	2,2 °	2	■
SMB716030G3B.0Z2	HXT	10109598	3	G	3,0	6	3,0	50	2,85	12,0	5,11 °	2	■
SMB714015G4B.0Z2	HXT	10109585	4	G	1,5	4	1,5	50	1,4	9,0	5,29 °	2	■
SMB716015G4B.0Z2	HXT	10109599	4	G	1,5	6	1,5	50	1,4	9,0	7,44 °	2	■
SMB714020G4B.0Z2	HXT	10109586	4	G	2,0	4	2,0	50	1,9	10,0	4,3 °	2	■
SMB716020G4B.0Z2	HXT	10109600	4	G	2,0	6	2,0	50	1,9	10,0	6,69 °	2	■
SMB714005G5B.0Z2	HXT	10109587	5	G	0,5	4	0,5	50	0,45	4,0	9,23 °	2	■
SMB716005G5B.0Z2	HXT	10109601	5	G	0,5	6	0,5	50	0,45	4,0	10,73 °	2	■
SMB714010G5B.0Z2	HXT	10109588	5	G	1,0	4	1,0	50	0,95	10,0	5,5 °	2	■
SMB716010G5B.0Z2	HXT	10109602	5	G	1,0	6	1,0	50	0,95	10,0	7,37 °	2	■
SMB714015G5B.0Z2	HXT	10109589	5	G	1,5	4	1,5	50	1,4	12,0	4,41 °	2	■
SMB716015G5B.0Z2	HXT	10109603	5	G	1,5	6	1,5	50	1,4	12,0	6,35 °	2	■
SMB714020G5B.0Z2	HXT	10109590	5	G	2,0	4	2,0	50	1,9	16,0	2,96 °	2	■
SMB716020G5B.0Z2	HXT	10109604	5	G	2,0	6	2,0	50	1,9	16,0	4,96 °	2	■
SMB713003G6B.0Z2	HXT	10109581	6	G	0,3	3	0,3	50	0,28	4,0	8,24 °	2	■
SMB714005G6B.0Z2	HXT	10109591	6	G	0,5	4	0,5	50	0,45	6,0	7,8 °	2	■
SMB716005G6B.0Z2	HXT	10109605	6	G	0,5	6	0,5	50	0,45	6,0	9,46 °	2	■
SMB714010G6B.0Z2	HXT	10109592	6	G	1,0	4	1,0	50	0,95	12,0	4,97 °	2	■
SMB716010G6B.0Z2	HXT	10109606	6	G	1,0	6	1,0	50	0,95	12,0	6,69 °	2	■
SMB714015G6B.0Z2	HXT	10109593	6	G	1,5	4	1,5	50	1,4	16,0	3,49 °	2	■
SMB716015G6B.0Z2	HXT	10109607	6	G	1,5	6	1,5	55	1,4	16,0	5,31 °	2	■
SMB714005G7B.0Z2	HXT	10109594	7	G	0,5	4	0,5	50	0,45	9,0	6,33 °	2	■
SMB716005G7B.0Z2	HXT	10109608	7	G	0,5	6	0,5	50	0,45	9,0	8,03 °	2	■
SMB714010G7B.0Z2	HXT	10109595	7	G	1,0	4	1,0	50	0,95	16,0	3,98 °	2	■
SMB716010G7B.0Z2	HXT	10109609	7	G	1,0	6	1,0	55	0,95	16,0	5,64 °	2	■

■ Stocked standard.

Cutting data – SMB713 Copy milling roughing

SMG		a_e/DC	a_p/DC	f_z	v_c
				0.3	
S2	E	0,0600 *0.0600*	0,050 *0.050*	0,0020 *0.000080*	47 (26 — 64) *155 (86 — 200)*
S12	E	0,0600 *0.0600*	0,050 *0.050*	0,0020 *0.000080*	47 (26 — 64) *155 (86 — 200)*

Cutting data – SMB714 Copy milling roughing

SMG		a_e/DC	a_p/DC	f_z					v_c
				0.5	1	1.5	2	3	
S2	E	0,0600 *0.0600*	0,050 *0.050*	0,0036 *0.00014*	0,0070 *0.00028*	0,010 *0.00040*	0,014 *0.00055*	0,020 *0.00080*	60 (33 — 81) *195 (110 — 260)*
S12	E	0,0600 *0.0600*	0,050 *0.050*	0,0036 *0.00014*	0,0070 *0.00028*	0,010 *0.00040*	0,014 *0.00055*	0,020 *0.00080*	60 (33 — 81) *195 (110 — 260)*

Cutting data – SMB716 Copy milling roughing

SMG		a_e/DC	a_p/DC	f_z					v_c
				0.5	1	1.5	2	3	
S2	E	0,0600 *0.0600*	0,050 *0.050*	0,0036 *0.00014*	0,0070 *0.00028*	0,010 *0.00040*	0,014 *0.00055*	0,020 *0.00080*	60 (33 — 81) *195 (110 — 260)*
S12	E	0,0600 *0.0600*	0,050 *0.050*	0,0036 *0.00014*	0,0070 *0.00028*	0,010 *0.00040*	0,014 *0.00055*	0,020 *0.00080*	60 (33 — 81) *195 (110 — 260)*

For cutting data recalculations, see pages 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values



NON FERROUS

Seco offers a complete range of high performance solid carbide square shoulder end mills, ballnose cutters and finish end mills for high productivity for non ferrous materials.

- JS412 and JS413 for sharp corner type.
- JS452, JS453, JHP490, JH40, JH421, JM403, JM404, JM406, JH410 and JH440 for radius type.
- JH450, JH460, SMB413, SMB414, SMB416, JM413 and JM416 for ball-nose type.

Tool selection Non ferrous

		 	 	 	 	 
Name		JS412	JS413	JS452	JS453	JHP490
Page(s)		338	341	344	349	354
Family name		SOLID²	SOLID²	SOLID²	SOLID²	HPM
Type of mill						
Shank	Cylindrical	■	■	■	■	■
	Weldon	■	■	□	□	■
	Safelock					□
Number of Flutes		2	3	2	3	2-3
ICC						■
Diameter range	Metric	2-20	2-20	2-20	2-20	10-25
	Inch					
Length availability		2	2,3	2,3	2,3	2,3,4
Operation		 	 	 	 	 
SMG						
N1		●	●	●	●	●
N2		●	●	●	●	●
N3			●	●	●	●
N11						
TS1		●	●	●	●	
TP1		●	●	●	●	

■ Stock standard □ Weldon available, delivery time is 3 days. □ Safe-Lock available, delivery time is 6 days
● Preferred choice ○ Alternative choice

Tool selection Non ferrous

					
Name		JH40	JH421	JH410	JH440
Page(s)		358	361	365	367
Family name		HSM/TORNADO	HSM/TORNADO	HSM/TORNADO	HSM/TORNADO
Type of mill					
Shank	Cylindrical	■	■	■	■
	Weldon				
	Safelock				
Number of Flutes		2	2-3	1	2
ICC			■		
Diameter range	Metric	2-20	2-25	2-17	6-8
	Inch				
Length availability		1,2	2,3	2,3	2
Operation					
					
SMG					
N1		●	●	●	●
N2					●
N3					●
N11		●	●	●	●
TS1		●	●	●	●
TP1			●		●

■ Stock standard ☐ Weldon available, delivery time is 3 days.
● Preferred choice ○ Alternative choice

Tool selection Non ferrous

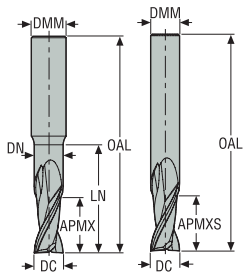
						
Name		JH450	JH460	SMB413/414/416	JM403/404/406	JM413/416
Page(s)		369	371	377	375	377
Family name		HSM/TORNADO	HSM/TORNADO	MINI	MINI	MINI
Type of mill						
Shank	Cylindrical	■	■	■	■	■
	Weldon					
	Safelock					
Number of Flutes		2	2	2	1	2
ICC						
Diameter range	Metric	2-20	3-12	1-3	0,5-2	0,5-2
	Inch					
Length availability		2,3	2	2,3,5	1,2,5	2,3,5
Operation						
						
						
SMG						
N1		●	●	●	●	●
N2		●		●	●	●
N3		●		●	●	●
N11		●	●			●
TS1		●	●	●		●
TP1		●	●	●		●

■ Stock standard ☐ Weldon available, delivery time is 3 days.
● Preferred choice ○ Alternative choice

JS412

General purpose – Aluminium – Square – 2 Flutes – Cylindrical – Sharp





G D

- Tolerances:
- DMM= h5
- DC= e8
- Regrind possible if DC is ≥Ø6

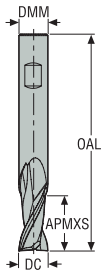


Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	DN	LN	PCEDC	Cylindrical
				mm	mm	mm	mm	mm	mm		
JS412020G2SZ2.0	02881760	2	G	2,0	6,0	4,0	57,0	1,9	7,0	2	■
JS412030G2SZ2.0	02881761	2	G	3,0	6,0	6,0	57,0	2,8	10,0	2	■
JS412040G2SZ2.0	02881762	2	G	4,0	6,0	8,0	57,0	3,8	14,0	2	■
JS412050G2SZ2.0	02881763	2	G	5,0	6,0	10,0	57,0	4,7	17,0	2	■
JS412060D2SZ2.0	02881764	2	D	6,0	6,0	12,0	57,0	–	–	2	■
JS412080D2SZ2.0	02881765	2	D	8,0	8,0	16,0	63,0	–	–	2	■
JS412100D2SZ2.0	02881766	2	D	10,0	10,0	20,0	75,0	–	–	2	■
JS412120D2SZ2.0	02881767	2	D	12,0	12,0	24,0	88,0	–	–	2	■
JS412160D2SZ2.0	02881769	2	D	16,0	16,0	32,0	100,0	–	–	2	■
JS412200D2SZ2.0	02881770	2	D	20,0	20,0	40,0	124,0	–	–	2	■

■ Stocked standard.

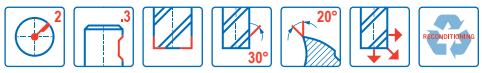
JS412

General purpose – Aluminium – Square – 2 Flutes – Weldon – Sharp



D





- Tolerances:
- DMM= h5
- DC= e8
- Regrind possible

Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	PCEDC	Weldon
				mm	mm	mm	mm		
JS412060D2SZ2.3	02881771	2	D	6,0	6,0	12,0	57,0	2	■
JS412080D2SZ2.3	02881772	2	D	8,0	8,0	16,0	63,0	2	■
JS412100D2SZ2.3	02881773	2	D	10,0	10,0	20,0	75,0	2	■
JS412120D2SZ2.3	02881774	2	D	12,0	12,0	24,0	88,0	2	■
JS412160D2SZ2.3	02881776	2	D	16,0	16,0	32,0	100,0	2	■
JS412200D2SZ2.3	02881777	2	D	20,0	20,0	40,0	124,0	2	■

■ Stocked standard.

Cutting data – JS412 Side milling

SMG		a_e/DC	a_p/DC	f_z										v_c
				2	3	4	5	6	8	10	12	16	20	
N1	E/M/A	0.400 *0,400*	1.5 *1,5*	0.026 *0,0010*	0.038 *0,0015*	0.050 *0,0020*	0.065 *0,0026*	0.080 *0,0032*	0.10 *0,0040*	0.13 *0,0050*	0.15 *0,0060*	0.19 *0,0075*	0.22 *0,0085*	590 (470 — 700) *1925 (1600 — 2200)*
N2	E/M/A	0.300 *0,300*	1.4 *1,4*	0.026 *0,0010*	0.040 *0,0016*	0.050 *0,0020*	0.065 *0,0026*	0.080 *0,0032*	0.10 *0,0040*	0.13 *0,0050*	0.16 *0,0065*	0.19 *0,0075*	0.22 *0,0085*	475 (360 — 590) *1550 (1200 — 1900)*
TS1	A/D	0.400 *0,400*	1.5 *1,5*	0.024 *0,00095*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	0.095 *0,0038*	0.12 *0,0048*	0.14 *0,0055*	0.18 *0,0070*	0.20 *0,0080*	600 (480 — 710) *1975 (1600 — 2300)*
TP1	A/D	0.400 *0,400*	1.5 *1,5*	0.024 *0,00095*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	0.095 *0,0038*	0.12 *0,0048*	0.14 *0,0055*	0.18 *0,0070*	0.20 *0,0080*	500 (380 — 630) *1650 (1300 — 2000)*

Cutting data – JS412 Slot milling

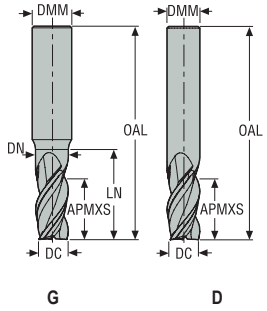
SMG		a_p/DC	f_z										v_c
			2	3	4	5	6	8	10	12	16	20	
N1	E	1.2 *1,2*	0.020 *0,00080*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.16 *0,0065*	0.20 *0,0080*	500 (410 — 590) *1650 (1400 — 1900)*
N2	E	1.0 *1,0*	0.016 *0,00065*	0.024 *0,00095*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	0.13 *0,0050*	0.16 *0,0065*	400 (310 — 500) *1300 (1100 — 1600)*
TS1	A	1.2 *1,2*	0.020 *0,00080*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.16 *0,0065*	0.20 *0,0080*	500 (410 — 590) *1650 (1400 — 1900)*
TP1	A	1.2 *1,2*	0.020 *0,00080*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.16 *0,0065*	0.20 *0,0080*	420 (320 — 520) *1375 (1100 — 1700)*

For cutting data recalculations, see pages 573 - 580

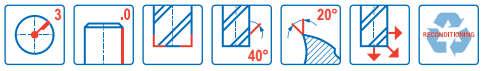
SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

JS413

General purpose – Aluminium – Square – 3 Flutes – Cylindrical – Sharp







- Tolerances:
- DMM= h5
- DC= e8
- Regrind possible if DC is ≥Ø6

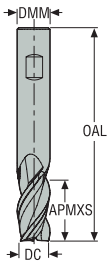
Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	DN	LN	PCEDC	Cylindrical
				mm	mm	mm	mm	mm	mm		
JS413020G2SZ3.0	02881797	2	G	2,0	6,0	4,0	57,0	1,9	7,0	3	■
JS413030G2SZ3.0	02881798	2	G	3,0	6,0	6,0	57,0	2,8	10,0	3	■
JS413040G2SZ3.0	02881799	2	G	4,0	6,0	8,0	57,0	3,8	14,0	3	■
JS413050G2SZ3.0	02881800	2	G	5,0	6,0	10,0	57,0	4,7	17,0	3	■
JS413060D2SZ3.0	02881801	2	D	6,0	6,0	12,0	57,0	–	–	3	■
JS413080D2SZ3.0	02881802	2	D	8,0	8,0	16,0	63,0	–	–	3	■
JS413100D2SZ3.0	02881803	2	D	10,0	10,0	20,0	72,0	–	–	3	■
JS413120D2SZ3.0	02881804	2	D	12,0	12,0	24,0	88,0	–	–	3	■
JS413160D2SZ3.0	02881806	2	D	16,0	16,0	32,0	100,0	–	–	3	■
JS413200D2SZ3.0	02881807	2	D	20,0	20,0	40,0	124,0	–	–	3	■
JS413060D3SZ3.0	02881815	3	D	6,0	6,0	24,0	70,0	–	–	3	■
JS413080D3SZ3.0	02881816	3	D	8,0	8,0	32,0	85,0	–	–	3	■
JS413100D3SZ3.0	02881817	3	D	10,0	10,0	40,0	100,0	–	–	3	■
JS413120D3SZ3.0	02881818	3	D	12,0	12,0	50,0	115,0	–	–	3	■
JS413160D3SZ3.0	02881820	3	D	16,0	16,0	55,0	125,0	–	–	3	■
JS413200D3SZ3.0	02881821	3	D	20,0	20,0	75,0	150,0	–	–	3	■

■ Stocked standard.

JS413

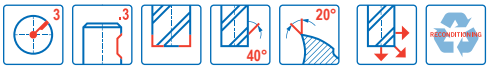
General purpose – Aluminium – Square – 3 Flutes – Weldon – Sharp





D

- Tolerances:
- DMM= h5
- DC= e8
- Regrind possible



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	PCEDC	Weldon
				mm	mm	mm	mm		
JS413060D2SZ3.3	02881808	2	D	6,0	6,0	12,0	57,0	3	■
JS413080D2SZ3.3	02881809	2	D	8,0	8,0	16,0	63,0	3	■
JS413100D2SZ3.3	02881810	2	D	10,0	10,0	20,0	72,0	3	■
JS413120D2SZ3.3	02881811	2	D	12,0	12,0	24,0	88,0	3	■
JS413160D2SZ3.3	02881813	2	D	16,0	16,0	32,0	100,0	3	■
JS413200D2SZ3.3	02881814	2	D	20,0	20,0	40,0	124,0	3	■
JS413060D3SZ3.3	02881955	3	D	6,0	6,0	24,0	70,0	3	□
JS413080D3SZ3.3	02881956	3	D	8,0	8,0	32,0	85,0	3	□
JS413100D3SZ3.3	02881957	3	D	10,0	10,0	40,0	100,0	3	□
JS413120D3SZ3.3	02881958	3	D	12,0	12,0	50,0	115,0	3	□
JS413160D3SZ3.3	02881960	3	D	16,0	16,0	55,0	125,0	3	□
JS413200D3SZ3.3	02881961	3	D	20,0	20,0	75,0	150,0	3	□

■ Stocked standard. □ Weldon available. Delivery time is 3 days.

Cutting data – JS413 Side milling

SMG		a_e/DC	a_p/DC	f_z										v_c
				2	3	4	5	6	8	10	12	16	20	
N1	E/M/A	0.400 *0,400*	1.5 *1,5*	0.024 *0,00095*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	0.095 *0,0038*	0.12 *0,0048*	0.14 *0,0055*	0.18 *0,0070*	0.20 *0,0080*	600 (480 — 710) *1975 (1600 — 2300)*
N2	E/M/A	0.300 *0,300*	1.5 *1,5*	0.024 *0,00095*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	0.095 *0,0038*	0.12 *0,0048*	0.14 *0,0055*	0.18 *0,0070*	0.20 *0,0080*	470 (360 — 580) *1550 (1200 — 1900)*
N3	E/M/A	0.300 *0,300*	1.5 *1,5*	0.024 *0,00095*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	0.095 *0,0038*	0.12 *0,0048*	0.14 *0,0055*	0.18 *0,0070*	0.20 *0,0080*	315 (240 — 390) *1025 (790 — 1200)*
TS1	A/D	0.400 *0,400*	1.5 *1,5*	0.022 *0,00085*	0.034 *0,0013*	0.044 *0,0017*	0.055 *0,0022*	0.065 *0,0026*	0.090 *0,0036*	0.11 *0,0044*	0.13 *0,0050*	0.17 *0,0065*	0.19 *0,0075*	610 (500 — 730) *2000 (1700 — 2300)*
TP1	A/D	0.400 *0,400*	1.5 *1,5*	0.022 *0,00085*	0.034 *0,0013*	0.044 *0,0017*	0.055 *0,0022*	0.065 *0,0026*	0.090 *0,0036*	0.11 *0,0044*	0.13 *0,0050*	0.17 *0,0065*	0.19 *0,0075*	330 (250 — 410) *1075 (830 — 1300)*

Cutting data – JS413 Slot milling

SMG		a_p/DC	f_z										v_c
			2	3	4	5	6	8	10	12	16	20	
N1	E	1.0 *1,0*	0.020 *0,00080*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.16 *0,0065*	0.20 *0,0080*	500 (400 — 600) *1650 (1400 — 1900)*
N2	E	1.0 *1,0*	0.014 *0,00055*	0.022 *0,00085*	0.028 *0,0011*	0.036 *0,0014*	0.042 *0,0017*	0.055 *0,0022*	0.070 *0,0028*	0.085 *0,0034*	0.11 *0,0044*	0.14 *0,0055*	400 (300 — 490) *1300 (990 — 1600)*
N3	E	1.0 *1,0*	0.014 *0,00055*	0.022 *0,00085*	0.028 *0,0011*	0.036 *0,0014*	0.042 *0,0017*	0.055 *0,0022*	0.070 *0,0028*	0.085 *0,0034*	0.11 *0,0044*	0.14 *0,0055*	265 (200 — 330) *870 (660 — 1000)*
TS1	A	1.0 *1,0*	0.020 *0,00080*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.16 *0,0065*	0.19 *0,0075*	500 (400 — 600) *1650 (1400 — 1900)*
TP1	A	1.0 *1,0*	0.020 *0,00080*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.16 *0,0065*	0.19 *0,0075*	270 (210 — 330) *890 (690 — 1000)*

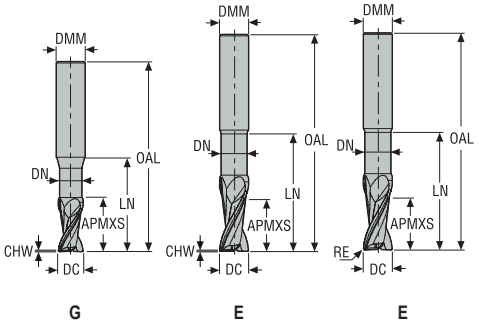
For cutting data recalculations, see pages 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

JS452

High performance – Aluminium – Square – 2 Flutes – Cylindrical – Corner radius or chamfer





- Tolerances:
- DMM= h5
- DC= e7
- RE= ±0,02
- CHW= +0,04 mm
- Regrind possible if DC is ≥Ø6

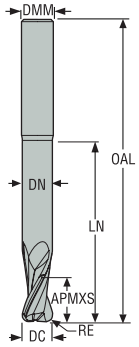


Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	CHW	RE	PCEDC	Cylindrical
				mm	mm	mm	mm	mm	mm	mm	mm		
JS452020G2CZ2.0-HEMI	02881848	2	G	2,0	6,0	4,0	57,0	8,0	1,9	0,1	–	2	■
JS452030G2CZ2.0-HEMI	02881849	2	G	3,0	6,0	6,0	57,0	10,0	2,8	0,1	–	2	■
JS452040G2CZ2.0-HEMI	02881850	2	G	4,0	6,0	8,0	57,0	14,0	3,8	0,1	–	2	■
JS452050G2CZ2.0-HEMI	02881851	2	G	5,0	6,0	8,0	57,0	17,0	4,7	0,1	–	2	■
JS452060E2CZ2.0-HEMI	02881852	2	E	6,0	6,0	12,0	57,0	19,0	5,7	0,1	–	2	■
JS452060E2R050Z2.0-HEMI	02881853	2	E	6,0	6,0	12,0	57,0	19,0	5,7	–	0,5	2	■
JS452060E2R100Z2.0-HEMI	02881854	2	E	6,0	6,0	12,0	57,0	19,0	5,7	–	1,0	2	■
JS452080E2CZ2.0-HEMI	02881778	2	E	8,0	8,0	16,0	63,0	24,0	7,6	0,1	–	2	■
JS452080E2R050Z2.0-HEMI	02881855	2	E	8,0	8,0	16,0	63,0	24,0	7,6	–	0,5	2	■
JS452080E2R100Z2.0-HEMI	02881779	2	E	8,0	8,0	16,0	63,0	24,0	7,6	–	1,0	2	■
JS452100E2CZ2.0-HEMI	02881856	2	E	10,0	10,0	20,0	72,0	29,0	9,5	0,1	–	2	■
JS452100E2R050Z2.0-HEMI	02881857	2	E	10,0	10,0	20,0	72,0	29,0	9,5	–	0,5	2	■
JS452100E2R100Z2.0-HEMI	02881858	2	E	10,0	10,0	20,0	72,0	29,0	9,5	–	1,0	2	■
JS452120E2CZ2.0-HEMI	02881859	2	E	12,0	12,0	24,0	88,0	37,0	11,4	0,1	–	2	■
JS452120E2R050Z2.0-HEMI	02881860	2	E	12,0	12,0	24,0	88,0	37,0	11,4	–	0,5	2	■
JS452120E2R100Z2.0-HEMI	02881861	2	E	12,0	12,0	24,0	88,0	37,0	11,4	–	1,0	2	■
JS452120E2R200Z2.0-HEMI	02881780	2	E	12,0	12,0	24,0	88,0	37,0	11,4	–	2,0	2	■
JS452140E2CZ2.0-HEMI	02881862	2	E	14,0	14,0	28,0	88,0	41,0	13,3	0,1	–	2	■
JS452160E2CZ2.0-HEMI	02881863	2	E	16,0	16,0	32,0	100,0	48,0	15,2	0,1	–	2	■
JS452160E2R050Z2.0-HEMI	02881864	2	E	16,0	16,0	32,0	100,0	48,0	15,2	–	0,5	2	■
JS452160E2R100Z2.0-HEMI	02881782	2	E	16,0	16,0	32,0	100,0	48,0	15,2	–	1,0	2	■
JS452160E2R200Z2.0-HEMI	02881783	2	E	16,0	16,0	32,0	100,0	48,0	15,2	–	2,0	2	■
JS452200E2CZ2.0-HEMI	02881865	2	E	20,0	20,0	36,0	110,0	57,0	19,0	0,1	–	2	■
JS452200E2R050Z2.0-HEMI	02881866	2	E	20,0	20,0	36,0	110,0	57,0	19,0	–	0,5	2	■
JS452200E2R100Z2.0-HEMI	02881768	2	E	20,0	20,0	36,0	110,0	57,0	19,0	–	1,0	2	■

■ Stocked standard.

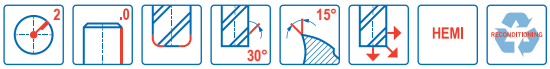
JS452

High performance – Aluminium – Square – 2 Flutes – Cylindrical – Corner radius



E





- Tolerances:
- DMM= h5
- DC= e7
- RE= ±0,02 mm
- Regrind possible

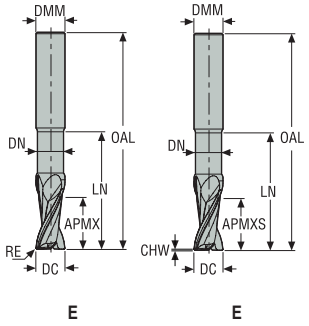
Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Cylindrical
				mm	mm	mm	mm	mm	mm	mm		
JS452080E3R020.0Z2-HEMI	03003413	3	E	8,0	8,0	12,0	79,0	41,0	7,6	0,2	2	■
JS452100E3R050.0Z2-HEMI	03003415	3	E	10,0	10,0	15,0	99,0	57,0	9,5	0,5	2	■
JS452120E3R050.0Z2-HEMI	03003419	3	E	12,0	12,0	18,0	119,0	72,0	11,4	0,5	2	■
JS452160E3R050.0Z2-HEMI	03003426	3	E	16,0	16,0	24,0	129,0	79,0	15,2	0,5	2	■
JS452200E3R050.0Z2-HEMI	03003433	3	E	20,0	20,0	30,0	164,0	111,0	19,0	0,5	2	■

■ Stocked standard.

JS452

High performance – Aluminium – Square – 2 Flutes – Weldon – Corner radius or chamfer





- Tolerances:
- DMM= h5
- DC= e7
- RE= ±0,02
- CHW= +0,04 mm
- Regrind possible

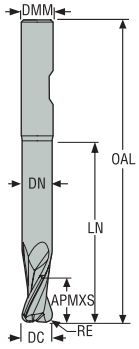


Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	CHW	RE	PCEDC	Weldon
				mm	mm	mm	mm	mm	mm	mm	mm		
JS452060E2CZ2.3-HEMI	02881867	2	E	6,0	6,0	12,0	57,0	19,0	5,7	0,1	–	2	☐
JS452060E2R050Z2.3-HEMI	02881868	2	E	6,0	6,0	12,0	57,0	19,0	5,7	–	0,5	2	☐
JS452060E2R100Z2.3-HEMI	02881869	2	E	6,0	6,0	12,0	57,0	19,0	5,7	–	1,0	2	☐
JS452080E2CZ2.3-HEMI	02881947	2	E	8,0	8,0	16,0	63,0	24,0	7,6	0,1	–	2	☐
JS452080E2R050Z2.3-HEMI	02881870	2	E	8,0	8,0	16,0	63,0	24,0	7,6	–	0,5	2	☐
JS452080E2R100Z2.3-HEMI	02922247	2	E	8,0	8,0	16,0	63,0	24,0	7,6	–	1,0	2	☐
JS452100E2CZ2.3-HEMI	02881871	2	E	10,0	10,0	20,0	72,0	29,0	9,5	0,1	–	2	☐
JS452100E2R050Z2.3-HEMI	02881872	2	E	10,0	10,0	20,0	72,0	29,0	9,5	–	0,5	2	☐
JS452100E2R100Z2.3-HEMI	02881873	2	E	10,0	10,0	20,0	72,0	29,0	9,5	–	1,0	2	☐
JS452120E2CZ2.3-HEMI	02881874	2	E	12,0	12,0	24,0	88,0	37,0	11,4	0,1	–	2	☐
JS452120E2R050Z2.3-HEMI	02881875	2	E	12,0	12,0	24,0	88,0	37,0	11,4	–	0,5	2	☐
JS452120E2R100Z2.3-HEMI	02881876	2	E	12,0	12,0	24,0	88,0	37,0	11,4	–	1,0	2	☐
JS452120E2R200Z2.3-HEMI	02881948	2	E	12,0	12,0	24,0	88,0	37,0	11,4	–	2,0	2	☐
JS452140E2CZ2.3-HEMI	02881877	2	E	14,0	14,0	28,0	88,0	41,0	13,3	0,1	–	2	☐
JS452160E2CZ2.3-HEMI	02881878	2	E	16,0	16,0	32,0	100,0	48,0	15,2	0,1	–	2	☐
JS452160E2R050Z2.3-HEMI	02881879	2	E	16,0	16,0	32,0	100,0	48,0	15,2	–	0,5	2	☐
JS452160E2R100Z2.3-HEMI	02881949	2	E	16,0	16,0	32,0	100,0	48,0	15,2	–	1,0	2	☐
JS452160E2R200Z2.3-HEMI	02881950	2	E	16,0	16,0	32,0	100,0	48,0	15,2	–	2,0	2	☐
JS452200E2CZ2.3-HEMI	02881880	2	E	20,0	20,0	36,0	110,0	57,0	19,0	0,1	–	2	☐
JS452200E2R050Z2.3-HEMI	02881881	2	E	20,0	20,0	36,0	110,0	57,0	19,0	–	0,5	2	☐
JS452200E2R100Z2.3-HEMI	02881953	2	E	20,0	20,0	36,0	110,0	57,0	19,0	–	1,0	2	☐

☐ Weldon available. Delivery time is 3 days.

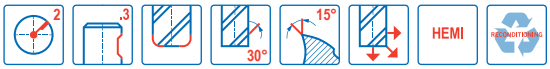
JS452

High performance – Aluminium – Square – 2 Flutes – Weldon – Corner radius



E





- Tolerances:
- DMM= h5
- DC= e7
- RE= ±0,02
- Regrind possible

Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Weldon
				mm	mm	mm	mm	mm	mm	mm		
JS452080E3R020.3Z2-HEMI	03003447	3	E	8,0	8,0	12,0	79,0	41,0	7,6	0,2	2	☐
JS452100E3R050.3Z2-HEMI	03003449	3	E	10,0	10,0	15,0	99,0	57,0	9,5	0,5	2	☐
JS452120E3R050.3Z2-HEMI	03003453	3	E	12,0	12,0	18,0	119,0	72,0	11,4	0,5	2	☐
JS452160E3R050.3Z2-HEMI	03003460	3	E	16,0	16,0	24,0	129,0	79,0	15,2	0,5	2	☐
JS452200E3R050.3Z2-HEMI	03003467	3	E	20,0	20,0	30,0	164,0	111,0	19,0	0,5	2	☐

☐ Weldon available. Delivery time is 3 days.

Cutting data – JS452 Side milling roughing

SMG		a_e/DC	a_p/DC	f_z											v_c
				2	3	4	5	6	8	10	12	14	16	20	
N1	E/M/A	0.400 *0,400*	1.5 *1,5*	0.030 *0,0012*	0.046 *0,0018*	0.060 *0,0024*	0.075 *0,0030*	0.090 *0,0036*	0.12 *0,0048*	0.15 *0,0060*	0.18 *0,0070*	0.20 *0,0080*	0.22 *0,0085*	0.25 *0,010*	560 (450 — 670) *1825 (1500 — 2100)*
N2	E/M/A	0.300 *0,300*	1.5 *1,5*	0.024 *0,00095*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	0.095 *0,0038*	0.12 *0,0048*	0.14 *0,0055*	0.16 *0,0065*	0.18 *0,0070*	0.20 *0,0080*	485 (370 — 600) *1600 (1300 — 1900)*
N3	E/M/A	0.300 *0,300*	1.5 *1,5*	0.024 *0,00095*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	0.095 *0,0038*	0.12 *0,0048*	0.14 *0,0055*	0.16 *0,0065*	0.18 *0,0070*	0.20 *0,0080*	325 (250 — 400) *1075 (830 — 1300)*
TS1	A/D	0.400 *0,400*	1.5 *1,5*	0.030 *0,0012*	0.046 *0,0018*	0.060 *0,0024*	0.075 *0,0030*	0.090 *0,0036*	0.12 *0,0048*	0.15 *0,0060*	0.18 *0,0070*	0.20 *0,0080*	0.22 *0,0085*	0.25 *0,010*	560 (450 — 670) *1825 (1500 — 2100)*
TP1	A/D	0.400 *0,400*	1.5 *1,5*	0.030 *0,0012*	0.046 *0,0018*	0.060 *0,0024*	0.075 *0,0030*	0.090 *0,0036*	0.12 *0,0048*	0.15 *0,0060*	0.18 *0,0070*	0.20 *0,0080*	0.22 *0,0085*	0.25 *0,010*	450 (340 — 560) *1475 (1200 — 1800)*

Cutting data – JS452 Slot milling

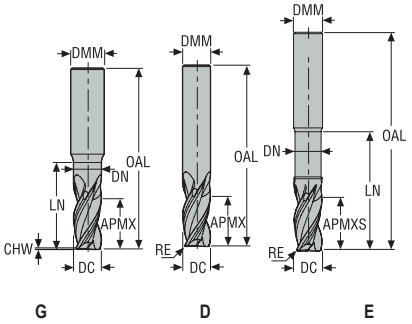
SMG		a_p/DC	f_z											v_c
			2	3	4	5	6	8	10	12	14	16	20	
N1	E	1.5 *1,5*	0.020 *0,00080*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.14 *0,0055*	0.16 *0,0065*	0.20 *0,0080*	500 (410 — 590) *1650 (1400 — 1900)*
N2	E	1.2 *1,2*	0.016 *0,00065*	0.024 *0,00095*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	0.11 *0,0044*	0.13 *0,0050*	0.16 *0,0065*	400 (310 — 500) *1300 (1100 — 1600)*
N3	E	1.2 *1,2*	0.016 *0,00065*	0.024 *0,00095*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	0.11 *0,0044*	0.13 *0,0050*	0.16 *0,0065*	265 (210 — 330) *870 (690 — 1000)*
TS1	A	1.5 *1,5*	0.020 *0,00080*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.14 *0,0055*	0.16 *0,0065*	0.20 *0,0080*	500 (410 — 590) *1650 (1400 — 1900)*
TP1	A	1.5 *1,5*	0.020 *0,00080*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.14 *0,0055*	0.16 *0,0065*	0.20 *0,0080*	400 (310 — 500) *1300 (1100 — 1600)*

Remark: if cornerradius is >15% of DC then a_p= -30%, f_z= -20%
For cutting data recalculations, see pages 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

JS453

High performance – Aluminium – Square – 3 Flutes – Cylindrical – Corner radius or chamfer







- Tolerances:
- DMM=h5
- DC=e7
- RE= ±0,02 mm
- CHW= +0,04 mm
- Regrind possible if DC is ≥Ø6

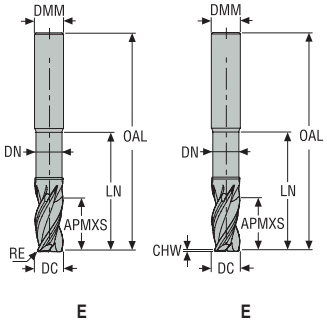
Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	CHW	RE	PCEDC	Cylindrical
				mm	mm	mm	mm	mm	mm	mm	mm		
JS453020G2CZ3.0-HEMI	02881896	2	G	2,0	6,0	4,0	57,0	7,0	1,9	0,1	–	3	■
JS453030G2CZ3.0-HEMI	02881897	2	G	3,0	6,0	6,0	57,0	10,0	2,85	0,1	–	3	■
JS453040G2CZ3.0-HEMI	02881898	2	G	4,0	6,0	8,0	57,0	13,0	3,8	0,1	–	3	■
JS453050G2CZ3.0-HEMI	02881899	2	G	5,0	6,0	10,0	57,0	14,0	4,75	0,1	–	3	■
JS453060D2CZ3.0-HEMI	02881900	2	D	6,0	6,0	12,0	57,0	–	–	0,1	–	3	■
JS453060D2R050Z3.0-HEMI	02881901	2	D	6,0	6,0	12,0	57,0	–	–	–	0,5	3	■
JS453080D2CZ3.0-HEMI	02881812	2	D	8,0	8,0	16,0	63,0	–	–	0,1	–	3	■
JS453080D2R050Z3.0-HEMI	02881902	2	D	8,0	8,0	16,0	63,0	–	–	–	0,5	3	■
JS453100D2CZ3.0-HEMI	02881903	2	D	10,0	10,0	20,0	72,0	–	–	0,1	–	3	■
JS453100D2R050Z3.0-HEMI	02881904	2	D	10,0	10,0	20,0	72,0	–	–	–	0,5	3	■
JS453120D2CZ3.0-HEMI	02881905	2	D	12,0	12,0	24,0	88,0	–	–	0,1	–	3	■
JS453120D2R050Z3.0-HEMI	02881906	2	D	12,0	12,0	24,0	88,0	–	–	–	0,5	3	■
JS453120E2R300.0Z3-HEMI	02905280	2	E	12,0	12,0	24,0	88,0	37,0	11,4	–	3,0	3	■
JS453140D2CZ3.0-HEMI	02881907	2	D	14,0	14,0	28,0	88,0	–	–	0,1	–	3	■
JS453160D2CZ3.0-HEMI	02881908	2	D	16,0	16,0	32,0	100,0	–	–	0,1	–	3	■
JS453160D2R050Z3.0-HEMI	02881909	2	D	16,0	16,0	32,0	100,0	–	–	–	0,5	3	■
JS453160E2R100.0Z3-HEMI	02905281	2	E	16,0	16,0	32,0	100,0	48,0	15,2	–	1,0	3	■
JS453160E2R200.0Z3-HEMI	02905282	2	E	16,0	16,0	32,0	100,0	48,0	15,2	–	2,0	3	■
JS453160E2R250.0Z3-HEMI	02905283	2	E	16,0	16,0	32,0	100,0	48,0	15,2	–	2,5	3	■
JS453160E2R300.0Z3-HEMI	02905284	2	E	16,0	16,0	32,0	100,0	48,0	15,2	–	3,0	3	■
JS453160E2R400.0Z3-HEMI	02905285	2	E	16,0	16,0	32,0	100,0	48,0	15,2	–	4,0	3	■
JS453200E2C.0Z3-HEMI	02905286	2	E	20,0	20,0	36,0	110,0	57,0	19,0	0,1	–	3	■
JS453200E2R050.0Z3-HEMI	02905287	2	E	20,0	20,0	36,0	110,0	57,0	19,0	–	0,5	3	■
JS453200E2R100.0Z3-HEMI	02905288	2	E	20,0	20,0	36,0	110,0	57,0	19,0	–	1,0	3	■
JS453200E2R200.0Z3-HEMI	02905289	2	E	20,0	20,0	36,0	110,0	57,0	19,0	–	2,0	3	■
JS453200E2R300.0Z3-HEMI	02905291	2	E	20,0	20,0	36,0	110,0	57,0	19,0	–	3,0	3	■

■ Stocked standard.

JS453

High performance – Aluminium – Square – 3 Flutes – Cylindrical – Corner radius or chamfer





- Tolerances:
- DMM= h5
- DC = e7
- RE= ±0,02 mm
- CHW= +0,04 mm
- Regrind possible

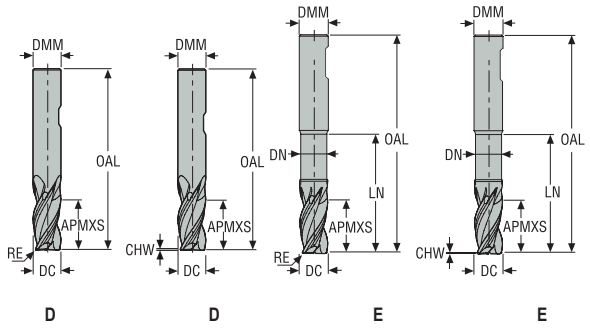


Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	CHW	RE	PCEDC	Cylindrical
				mm	mm	mm	mm	mm	mm	mm	mm		
JS453120E3R300.0Z3-HEMI	02905294	3	E	12,0	12,0	24,0	110,0	54,0	11,4	–	3,0	3	■
JS453160E3R100.0Z3-HEMI	02905295	3	E	16,0	16,0	32,0	125,0	77,0	15,2	–	1,0	3	■
JS453160E3R200.0Z3-HEMI	02905296	3	E	16,0	16,0	32,0	125,0	77,0	15,2	–	2,0	3	■
JS453160E3R300.0Z3-HEMI	02905298	3	E	16,0	16,0	32,0	125,0	77,0	15,2	–	3,0	3	■
JS453160E3R400.0Z3-HEMI	02905299	3	E	16,0	16,0	32,0	125,0	77,0	15,2	–	4,0	3	■
JS453200E3C.0Z3-HEMI	02905300	3	E	20,0	20,0	36,0	150,0	90,0	19,0	0,1	–	3	■
JS453200E3R050.0Z3-HEMI	02905301	3	E	20,0	20,0	36,0	150,0	90,0	19,0	–	0,5	3	■
JS453200E3R100.0Z3-HEMI	02905302	3	E	20,0	20,0	36,0	150,0	90,0	19,0	–	1,0	3	■
JS453200E3R200.0Z3-HEMI	02905303	3	E	20,0	20,0	36,0	150,0	90,0	19,0	–	2,0	3	■
JS453200E3R300.0Z3-HEMI	02905305	3	E	20,0	20,0	36,0	150,0	90,0	19,0	–	3,0	3	■

■ Stocked standard.

JS453

High performance – Aluminium – Square – 3 Flutes – Weldon – Corner radius or chamfer







- Tolerances:
- DMM=h5
- DC=e7
- RE=±0,02 mm
- CHW= ±0,02 mm
- Regrind possible

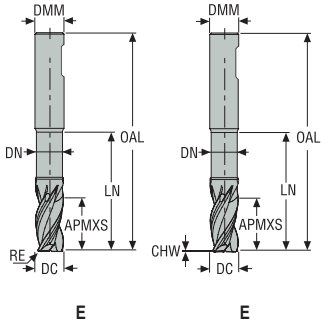
Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	CHW	RE	PCEDC	Weldon
				mm	mm	mm	mm	mm	mm	mm	mm		
JS453060D2CZ3.3-HEMI	02881910	2	D	6,0	6,0	12,0	57,0	–	–	0,1	–	3	☐
JS453060D2R050Z3.3-HEMI	02881911	2	D	6,0	6,0	12,0	57,0	–	–	–	0,5	3	☐
JS453080D2CZ3.3-HEMI	02881964	2	D	8,0	8,0	16,0	63,0	–	–	0,1	–	3	☐
JS453080D2R050Z3.3-HEMI	02881954	2	D	8,0	8,0	16,0	63,0	–	–	–	0,5	3	☐
JS453100D2CZ3.3-HEMI	02881913	2	D	10,0	10,0	20,0	72,0	–	–	0,1	–	3	☐
JS453100D2R050Z3.3-HEMI	02881914	2	D	10,0	10,0	20,0	72,0	–	–	–	0,5	3	☐
JS453120D2CZ3.3-HEMI	02881915	2	D	12,0	12,0	24,0	88,0	–	–	0,1	–	3	☐
JS453120D2R050Z3.3-HEMI	02881916	2	D	12,0	12,0	24,0	88,0	–	–	–	0,5	3	☐
JS453120E2R300.3Z3-HEMI	02905308	2	E	12,0	12,0	24,0	88,0	37,0	11,4	–	3,0	3	☐
JS453140D2CZ3.3-HEMI	02881917	2	D	14,0	14,0	28,0	88,0	–	–	0,1	–	3	☐
JS453160D2CZ3.3-HEMI	02881918	2	D	16,0	16,0	32,0	100,0	–	–	0,1	–	3	☐
JS453160D2R050Z3.3-HEMI	02881919	2	D	16,0	16,0	32,0	100,0	–	–	–	0,5	3	☐
JS453160E2R100.3Z3-HEMI	02905309	2	E	16,0	16,0	32,0	100,0	48,0	15,2	–	1,0	3	☐
JS453160E2R200.3Z3-HEMI	02905310	2	E	16,0	16,0	32,0	100,0	48,0	15,2	–	2,0	3	☐
JS453160E2R250.3Z3-HEMI	02905311	2	E	16,0	16,0	32,0	100,0	48,0	15,2	–	2,5	3	☐
JS453160E2R300.3Z3-HEMI	02905312	2	E	16,0	16,0	32,0	100,0	48,0	15,2	–	3,0	3	☐
JS453160E2R400.3Z3-HEMI	02905313	2	E	16,0	16,0	32,0	100,0	48,0	15,2	–	4,0	3	☐
JS453200E2C.3Z3-HEMI	02905314	2	E	20,0	20,0	36,0	110,0	57,0	19,0	0,1	–	3	☐
JS453200E2R050.3Z3-HEMI	02905315	2	E	20,0	20,0	36,0	110,0	57,0	19,0	–	0,5	3	☐
JS453200E2R100.3Z3-HEMI	02905316	2	E	20,0	20,0	36,0	110,0	57,0	19,0	–	1,0	3	☐
JS453200E2R200.3Z3-HEMI	02905317	2	E	20,0	20,0	36,0	110,0	57,0	19,0	–	2,0	3	☐
JS453200E2R300.3Z3-HEMI	02905319	2	E	20,0	20,0	36,0	110,0	57,0	19,0	–	3,0	3	☐

☐ Weldon available. Delivery time is 3 days.

JS453

High performance – Aluminium – Square – 3 Flutes – Weldon – Corner radius or chamfer





- Tolerances:
- DMM= h5
- DC = e7
- RE= ±0,02 mm
- CHW= +0,04 mm
- Regrind possible



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	CHW	RE	PCEDC	Weldon
				mm	mm	mm	mm	mm	mm	mm	mm		
JS453120E3R300.3Z3-HEMI	02905322	3	E	12,0	12,0	24,0	110,0	54,0	11,4	–	3,0	3	☐
JS453160E3R100.3Z3-HEMI	02905323	3	E	16,0	16,0	32,0	125,0	77,0	15,2	–	1,0	3	☐
JS453160E3R200.3Z3-HEMI	02905324	3	E	16,0	16,0	32,0	125,0	77,0	15,2	–	2,0	3	☐
JS453160E3R300.3Z3-HEMI	02905326	3	E	16,0	16,0	32,0	125,0	77,0	15,2	–	3,0	3	☐
JS453160E3R400.3Z3-HEMI	02905327	3	E	16,0	16,0	32,0	125,0	77,0	15,2	–	4,0	3	☐
JS453200E3C.3Z3-HEMI	02905328	3	E	20,0	20,0	36,0	150,0	90,0	19,0	0,1	–	3	☐
JS453200E3R050.3Z3-HEMI	02905329	3	E	20,0	20,0	36,0	150,0	90,0	19,0	–	0,5	3	☐
JS453200E3R100.3Z3-HEMI	02905330	3	E	20,0	20,0	36,0	150,0	90,0	19,0	–	1,0	3	☐
JS453200E3R200.3Z3-HEMI	02905331	3	E	20,0	20,0	36,0	150,0	90,0	19,0	–	2,0	3	☐
JS453200E3R300.3Z3-HEMI	02905333	3	E	20,0	20,0	36,0	150,0	90,0	19,0	–	3,0	3	☐

☐ Weldon available. Delivery time is 3 days.

Cutting data – JS453 Side milling

SMG		a_e/DC	a_p/DC	f_z											v_c
				2	3	4	5	6	8	10	12	14	16	20	
N1	E/M/A	0.400 *0,400*	1.5 *1,5*	0.030 *0,0012*	0.046 *0,0018*	0.060 *0,0024*	0.075 *0,0030*	0.090 *0,0036*	0.12 *0,0048*	0.15 *0,0060*	0.18 *0,0070*	0.20 *0,0080*	0.22 *0,0085*	0.25 *0,010*	560 (450 — 660) *1825 (1500 — 2100)*
N2	E/M/A	0.300 *0,300*	1.5 *1,5*	0.024 *0,00095*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	0.095 *0,0038*	0.12 *0,0048*	0.14 *0,0055*	0.16 *0,0065*	0.18 *0,0070*	0.20 *0,0080*	480 (370 — 600) *1575 (1300 — 1900)*
N3	E/M/A	0.300 *0,300*	1.5 *1,5*	0.024 *0,00095*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	0.095 *0,0038*	0.12 *0,0048*	0.14 *0,0055*	0.16 *0,0065*	0.18 *0,0070*	0.20 *0,0080*	320 (250 — 400) *1050 (830 — 1300)*
TS1	A/D	0.400 *0,400*	1.5 *1,5*	0.030 *0,0012*	0.046 *0,0018*	0.060 *0,0024*	0.075 *0,0030*	0.090 *0,0036*	0.12 *0,0048*	0.15 *0,0060*	0.18 *0,0070*	0.20 *0,0080*	0.22 *0,0085*	0.25 *0,010*	560 (450 — 660) *1825 (1500 — 2100)*
TP1	A/D	0.400 *0,400*	1.5 *1,5*	0.030 *0,0012*	0.046 *0,0018*	0.060 *0,0024*	0.075 *0,0030*	0.090 *0,0036*	0.12 *0,0048*	0.15 *0,0060*	0.18 *0,0070*	0.20 *0,0080*	0.22 *0,0085*	0.25 *0,010*	445 (340 — 550) *1450 (1200 — 1800)*

Cutting data – JS453 Slot milling

SMG		a_p/DC	f_z											v_c
			2	3	4	5	6	8	10	12	14	16	20	
N1	E	1.5 *1,5*	0.020 *0,00080*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.14 *0,0055*	0.16 *0,0065*	0.20 *0,0080*	500 (410 — 590) *1650 (1400 — 1900)*
N2	E	1.2 *1,2*	0.016 *0,00065*	0.024 *0,00095*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	0.11 *0,0044*	0.13 *0,0050*	0.16 *0,0065*	400 (300 — 490) *1300 (990 — 1600)*
N3	E	1.2 *1,2*	0.016 *0,00065*	0.024 *0,00095*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	0.11 *0,0044*	0.13 *0,0050*	0.16 *0,0065*	265 (200 — 330) *870 (660 — 1000)*
TS1	A	1.5 *1,5*	0.020 *0,00080*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.14 *0,0055*	0.16 *0,0065*	0.20 *0,0080*	500 (410 — 590) *1650 (1400 — 1900)*
TP1	A	1.5 *1,5*	0.020 *0,00080*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.14 *0,0055*	0.16 *0,0065*	0.20 *0,0080*	400 (300 — 500) *1300 (990 — 1600)*

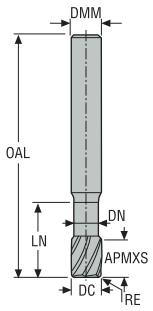
For cutting data recalculations, see pages 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

JHP490

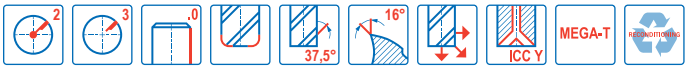
High performance – Aluminium – Square – 2-3 Flutes – Cylindrical – Corner radius – ICC





E

- Tolerances:
- DMM=h5
- DC=-0,02/-0,1 mm
- RE= ±0,05 mm
- Regrind possible

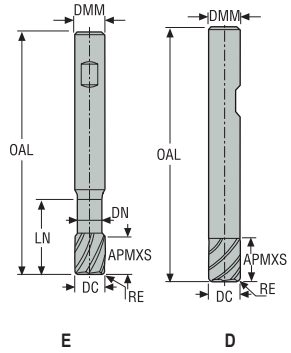


Designation	Item number	Length index	Tool shape	ICC	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Cylindrical
					mm	mm	mm	mm	mm	mm	mm		
490V100R050Z2.0A-MEGA-T	02623870	2	E	■	10,0	10,0	12,0	65,0	20,0	9,0	0,5	2	■
490V120R200Z2.0A-MEGA-T	02623883	2	E	■	12,0	12,0	14,0	75,0	24,0	11,0	2,0	2	■
490V160R050Z3.0A-MEGA-T	02623889	2	E	■	16,0	16,0	18,0	85,0	32,0	14,5	0,5	3	■
490V200R050Z3.0A-MEGA-T	02623908	2	E	■	20,0	20,0	22,0	100,0	40,0	18,0	0,5	3	■
490V250R050Z3.0A-MEGA-T	02623926	2	E	■	25,0	25,0	27,0	125,0	50,0	23,0	0,5	3	■
490VL100R100Z2.0A-MEGA-T	02623876	3	E	■	10,0	10,0	22,0	85,0	42,0	9,0	1,0	2	■
490VL120R050Z3.0A-MEGA-T	02623880	3	E	■	12,0	12,0	14,0	95,0	40,0	11,0	0,5	3	■
490VL120R100Z2.0A-MEGA-T	02623886	3	E	■	12,0	12,0	26,0	95,0	50,0	11,0	1,0	2	■
490VL160R050Z3.0A-MEGA-T	02623891	3	E	■	16,0	16,0	18,0	95,0	45,0	14,5	0,5	3	■
490VL200R200Z3.0A-MEGA-T	02623916	3	E	■	20,0	20,0	42,0	125,0	65,0	18,0	2,0	3	■
490VXL250R050Z3.0A-MEGA-T	02623927	4	E	■	25,0	25,0	50,0	125,0	75,0	23,0	0,5	3	■

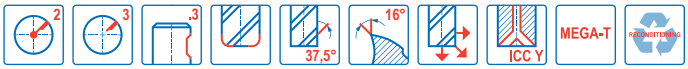
■ Stocked standard.

JHP490

High performance – Aluminium – Square – 2-3 Flutes – Weldon – Corner radius – ICC







- Tolerances:
- DMM=h5
- DC=-0,02/-0,1 mm
- RE= ±0,05 mm
- Regrind possible

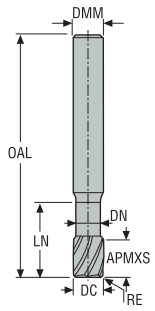
Designation	Item number	Length index	Tool shape	ICC	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Weldon
					mm	mm	mm	mm	mm	mm	mm		
490V120R200Z2.0A-MEGA-TW	02669371	2	E	■	12,0	12,0	14,0	75,0	24,0	11,0	2,0	2	□
490V160R050Z3A-MEGA-T	02623888	2	E	■	16,0	16,0	18,0	85,0	32,0	14,5	0,5	3	■
490160R200Z3A-MEGA-T	02623898	2	D	■	16,0	16,0	34,0	95,0	–	–	2,0	3	■
490V200R050Z3A-MEGA-T	02623907	2	E	■	20,0	20,0	22,0	100,0	40,0	18,0	0,5	3	■
490V250R050Z3A-MEGA-T	02623925	2	E	■	25,0	25,0	27,0	125,0	50,0	23,0	0,5	3	■
490VL100R100Z2.0A-MEGA-TW	02669368	3	E	■	10,0	10,0	22,0	85,0	42,0	9,0	1,0	2	□
490VL120R050Z3.0A-MEGA-TW	02669374	3	E	■	12,0	12,0	14,0	95,0	40,0	11,0	0,5	3	□
490VL120R100Z2.0A-MEGA-TW	02669375	3	E	■	12,0	12,0	26,0	95,0	50,0	11,0	1,0	2	□
490VL160R050Z3.0A-MEGA-TW	02669382	3	E	■	16,0	16,0	18,0	95,0	45,0	14,5	0,5	3	□
490VL200R200Z3.0A-MEGA-TW	02669388	3	E	■	20,0	20,0	42,0	125,0	65,0	18,0	2,0	3	□
490VXL250R050Z3.0A-MEGA-TW	02669397	4	E	■	25,0	25,0	50,0	125,0	75,0	23,0	0,5	3	□

■ Stocked standard. □ Weldon available. Delivery time is 3 days.

JHP490

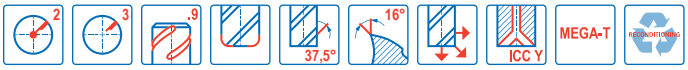
High performance – Aluminium – Square – 2-3 Flutes – Safelock – Corner radius – ICC





E

- Tolerances:
- DMM=h5
- DC=-0,02/-0,1 mm
- RE= ±0,05 mm
- Regrind possible



Designation	Item number	Length index	Tool shape	ICC	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Safelock
					mm	mm	mm	mm	mm	mm	mm		
490V100R050Z2.9A-MEGA-T	02927984	2	E	■	10,0	10,0	12,0	65,0	20,0	9,0	0,5	2	☐
490V120R200Z2.9A-MEGA-T	02927988	2	E	■	12,0	12,0	14,0	75,0	24,0	11,0	2,0	2	☐
490V160R050Z3.9A-MEGA-T	02927990	2	E	■	16,0	16,0	18,0	85,0	32,0	14,0	0,5	3	☐
490V200R050Z3.9A-MEGA-T	02927992	2	E	■	20,0	20,0	22,0	100,0	40,0	18,0	0,5	3	☐
490V250R050Z3.9A-MEGA-T	02927993	2	E	■	25,0	25,0	27,0	125,0	50,0	23,0	0,5	3	☐
490VL100R100Z2.9A-MEGA-T	02927994	3	E	■	10,0	10,0	22,0	85,0	42,0	9,0	1,0	2	☐
490VL120R050Z3.9A-MEGA-T	02927995	3	E	■	12,0	12,0	14,0	95,0	40,0	11,0	0,5	3	☐
490VL120R100Z2.9A-MEGA-T	02927996	3	E	■	12,0	12,0	26,0	95,0	50,0	11,0	1,0	2	☐
490VL160R050Z3.9A-MEGA-T	02927997	3	E	■	16,0	16,0	18,0	95,0	32,0	14,0	0,5	3	☐
490VL200R200Z3.9A-MEGA-T	02927998	3	E	■	20,0	20,0	42,0	125,0	65,0	18,0	2,0	3	☐
490VXL250R050Z3.9A-MEGA-T	02927999	4	E	■	25,0	25,0	50,0	125,0	75,0	23,0	0,5	3	☐

☐ Safelock available. Subject to change, refer to current Price and Stock List.

Cutting data – JHP490 Side milling roughing

SMG		a_e/DC	a_p/DC	f_z					v_c
				10	12	16	20	25	
N1	E/M/A	0.500 *0,500*	1.1 *1,0*	0.20 *0,0080*	0.24 *0,0095*	0.30 *0,012*	0.34 *0,013*	0.38 *0,015*	700 (550 — 860) *2325 (1900 — 2800)*
N2	E/M/A	0.500 *0,500*	1.1 *1,0*	0.20 *0,0080*	0.24 *0,0095*	0.30 *0,012*	0.34 *0,013*	0.38 *0,015*	455 (350 — 550) *1500 (1200 — 1800)*
N3	E/M/A	0.500 *0,500*	1.1 *1,0*	0.20 *0,0080*	0.24 *0,0095*	0.30 *0,012*	0.34 *0,013*	0.38 *0,015*	540 (440 — 650) *1775 (1500 — 2100)*

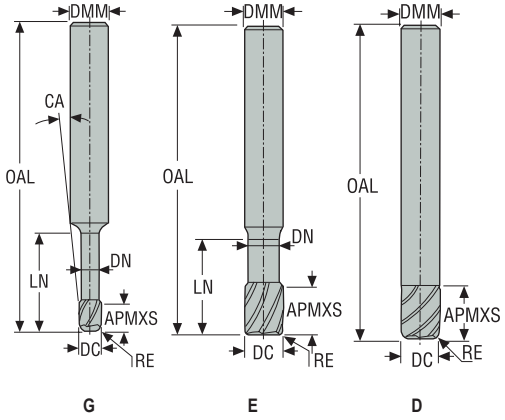
Cutting data – JHP490 Slot milling

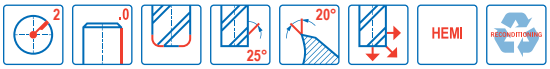
SMG		a_p/DC	f_z					v_c
			10	12	16	20	25	
N1	E/M/A	1.0 *1,0*	0.15 *0,0060*	0.18 *0,0070*	0.24 *0,0095*	0.30 *0,012*	0.38 *0,015*	650 (500 — 790) *2125 (1700 — 2500)*
N2	E/M/A	1.0 *1,0*	0.15 *0,0060*	0.18 *0,0070*	0.24 *0,0095*	0.30 *0,012*	0.38 *0,015*	420 (330 — 510) *1375 (1100 — 1600)*
N3	E/M/A	1.0 *1,0*	0.15 *0,0060*	0.18 *0,0070*	0.24 *0,0095*	0.30 *0,012*	0.38 *0,015*	500 (400 — 590) *1650 (1400 — 1900)*

JH40

High performance – Aluminium – Square – 2 Flutes – Cylindrical – Corner radius







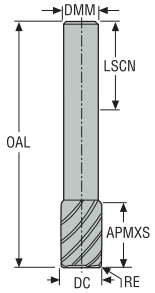
- Tolerances:
- DMM=h5
- DC=-0,02/-0,04 mm
- RE= ±0,1 mm
- Regrind possible if DC is ≥Ø6

Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	CA°	PCEDC	Cylindrical
				mm	mm	mm	mm	mm	mm	mm			
40K060-HEMI	00022089	1	D	6,0	6,0	13,0	50,0	–	–	0,1	–	2	■
40K080-HEMI	00022090	1	D	8,0	8,0	13,0	50,0	–	–	0,1	–	2	■
40K100-HEMI	00022091	1	D	10,0	10,0	16,0	50,0	–	–	0,1	–	2	■
40K120-HEMI	00022092	1	D	12,0	12,0	16,0	65,0	–	–	0,1	–	2	■
40020-HEMI	00022093	2	G	2,0	3,0	3,0	40,0	6,0	1,9	0,1	3,5	2	■
40030-HEMI	00022094	2	E	3,0	3,0	4,0	40,0	8,0	2,9	0,1	–	2	■
40040-HEMI	00022095	2	E	4,0	4,0	5,0	50,0	12,0	3,8	0,1	–	2	■
40050-HEMI	00022120	2	E	5,0	5,0	8,0	50,0	14,0	4,8	0,1	–	2	■
40060-HEMI	00022250	2	E	6,0	6,0	8,0	65,0	18,0	5,7	0,1	–	2	■
40080-HEMI	00022580	2	E	8,0	8,0	10,0	70,0	22,0	7,7	0,1	–	2	■
40100-HEMI	00022663	2	E	10,0	10,0	14,0	80,0	28,0	9,7	0,1	–	2	■
40120-HEMI	00022667	2	E	12,0	12,0	16,0	90,0	35,0	11,5	0,1	–	2	■
40160-HEMI	00022668	2	E	16,0	16,0	20,0	90,0	40,0	15,5	0,1	–	2	■
40200-HEMI	00022701	2	E	20,0	20,0	25,0	100,0	50,0	19,5	0,1	–	2	■

■ Stocked standard.

JH40

High performance – Aluminium – Square – 2 Flutes – Cylindrical – Corner radius



P





- Tolerances:
- DMM= h5
- DC= -0,02/-0,04 mm
- RE= ±0,1 mm
- Regrind possible if DC is ≥Ø6

Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LSCN	RE	PCEDC	Cylindrical
				mm	mm	mm	mm	mm	mm		
40020-RS	02479642	2	P	2,0	1,9	3,0	40,0	28,0	0,1	2	■
40030-RS	02479643	2	P	3,0	2,9	4,0	60,0	28,0	0,1	2	■
40040-RS	02479644	2	P	4,0	3,8	5,0	60,0	28,0	0,1	2	■
40050-RS	02479645	2	P	5,0	4,8	8,0	70,0	28,0	0,1	2	■
40060-RS	02479646	2	P	6,0	5,8	8,0	65,0	36,0	0,1	2	■
40080-RS	02479647	2	P	8,0	7,8	10,0	70,0	36,0	0,1	2	■
40100-RS	02479648	2	P	10,0	9,7	14,0	100,0	40,0	0,1	2	■
40120-RS	02479649	2	P	12,0	11,7	16,0	90,0	45,0	0,1	2	■
40L060-RS	02479650	3	P	6,0	5,8	8,0	100,0	36,0	0,1	2	■
40L080-RS	02479651	3	P	8,0	7,8	10,0	100,0	36,0	0,1	2	■
40L120-RS	02479652	3	P	12,0	11,7	16,0	125,0	45,0	0,1	2	■
40L160-RS	02479653	3	P	16,0	15,7	20,0	125,0	48,0	0,1	2	■
40L200-RS	02479654	3	P	20,0	19,7	25,0	125,0	50,0	0,1	2	■

■ Stocked standard.

Cutting data – JH40 Side milling

SMG		a_e/DC	a_p/DC	f_z										v_c
				2	3	4	5	6	8	10	12	16	20	
N1	E/M/A	0.400 *0,400*	1.2 *1,2*	0.030 *0,0012*	0.046 *0,0018*	0.060 *0,0024*	0.075 *0,0030*	0.090 *0,0036*	0.12 *0,0048*	0.15 *0,0060*	0.18 *0,0070*	0.22 *0,0085*	0.25 *0,010*	730 (610 — 840) *2400 (2100 — 2700)*
N11	E/M/A	0.400 *0,400*	1.0 *1,0*	0.030 *0,0012*	0.046 *0,0018*	0.060 *0,0024*	0.075 *0,0030*	0.090 *0,0036*	0.12 *0,0048*	0.15 *0,0060*	0.18 *0,0070*	0.22 *0,0085*	0.26 *0,010*	425 (320 — 520) *1400 (1100 — 1700)*
TS1	A	0.400 *0,400*	1.2 *1,2*	0.030 *0,0012*	0.046 *0,0018*	0.060 *0,0024*	0.075 *0,0030*	0.090 *0,0036*	0.12 *0,0048*	0.15 *0,0060*	0.18 *0,0070*	0.22 *0,0085*	0.25 *0,010*	730 (610 — 840) *2400 (2100 — 2700)*

Cutting data – JH40 Slot milling

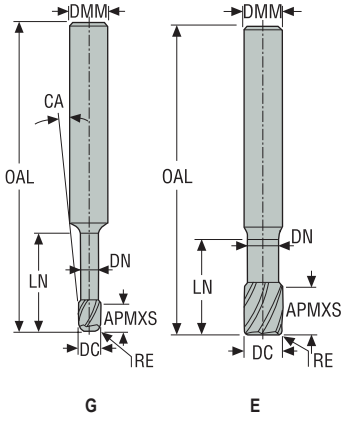
SMG		a_p/DC	f_z										v_c
			2	3	4	5	6	8	10	12	16	20	
N1	E/M/A	0.60 *0,60*	0.026 *0,0010*	0.040 *0,0016*	0.050 *0,0020*	0.065 *0,0026*	0.080 *0,0032*	0.10 *0,0040*	0.13 *0,0050*	0.16 *0,0065*	0.20 *0,0080*	0.25 *0,010*	600 (510 — 700) *1975 (1700 — 2200)*
N11	E/M/A	0.40 *0,40*	0.016 *0,00065*	0.024 *0,00095*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	0.13 *0,0050*	0.16 *0,0065*	400 (310 — 500) *1300 (1100 — 1600)*
TS1	A	1.0 *1,0*	0.026 *0,0010*	0.040 *0,0016*	0.050 *0,0020*	0.065 *0,0026*	0.080 *0,0032*	0.10 *0,0040*	0.13 *0,0050*	0.16 *0,0065*	0.20 *0,0080*	0.25 *0,010*	600 (510 — 700) *1975 (1700 — 2200)*

For cutting data recalculations, see pages 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

JH421

High performance – Aluminium – Square – 2 Flutes – Cylindrical – Corner radius – ICC







- Tolerances:
- DMM=h5
- DC=-0,02/-0,04 mm
- RE= ±0,05 mm
- Regrind possible if DC is ≥Ø6

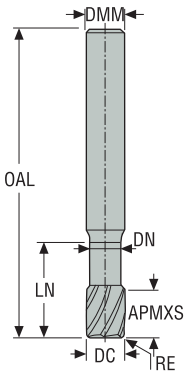
Designation	Item number	Length index	Tool shape	ICC	DC	DMM	APMXS	OAL	LN	DN	RE	CA°	PCEDC	Cylindrical
					mm	mm	mm	mm	mm	mm	mm			
421020R020Z2-MEGA-T	02434927	2	G	–	2,0	3,0	3,0	40,0	8,0	1,8	0,2	3,0	2	■
421030R020Z2-MEGA-T	02434939	2	E	–	3,0	3,0	4,0	40,0	12,0	2,7	0,2	–	2	■
421040R020Z2-MEGA-T	02434940	2	G	–	4,0	6,0	5,0	50,0	16,0	3,6	0,2	3,0	2	■
421040R030Z2-MEGA-T	02434941	2	G	–	4,0	6,0	5,0	50,0	16,0	3,6	0,3	3,0	2	■
421050R100Z2-MEGA-T	02434942	2	G	–	5,0	6,0	6,0	50,0	18,0	4,5	1,0	1,5	2	■
421060R025Z2-MEGA-T	02434946	2	E	–	6,0	6,0	8,0	50,0	20,0	5,4	0,25	–	2	■
421060R050Z2-MEGA-T	02434947	2	E	–	6,0	6,0	8,0	50,0	20,0	5,4	0,5	–	2	■
421060R100Z2-MEGA-T	02434958	2	E	–	6,0	6,0	8,0	50,0	20,0	5,4	1,0	–	2	■
421080R030Z2-MEGA-T	02434960	2	E	–	8,0	8,0	10,0	65,0	30,0	7,2	0,3	–	2	■
421080R060Z2-MEGA-T	02434964	2	E	–	8,0	8,0	10,0	65,0	30,0	7,2	0,6	–	2	■
421080R100Z2-MEGA-T	02434967	2	E	–	8,0	8,0	10,0	65,0	30,0	7,2	1,0	–	2	■
421100R030Z2-MEGA-T	02434968	2	E	–	10,0	10,0	12,0	80,0	36,0	9,0	0,3	–	2	■
421100R080Z2-MEGA-T	02434970	2	E	–	10,0	10,0	12,0	80,0	36,0	9,0	0,8	–	2	■
421100R150Z2-MEGA-T	02434971	2	E	–	10,0	10,0	12,0	80,0	36,0	9,0	1,5	–	2	■
421100R250Z2-MEGA-T	02438614	2	E	–	10,0	10,0	12,0	80,0	36,0	9,0	2,5	–	2	■
421100R310Z2-MEGA-T	02438683	2	E	–	10,0	10,0	12,0	80,0	36,0	9,0	3,1	–	2	■
421120R030Z2-MEGA-T	02434983	2	E	–	12,0	12,0	14,0	90,0	40,0	11,0	0,3	–	2	■
421120R050Z2-MEGA-T	02434986	2	E	–	12,0	12,0	14,0	90,0	40,0	11,0	0,5	–	2	■
421120R100Z2-MEGA-T	02434988	2	E	–	12,0	12,0	14,0	90,0	40,0	11,0	1,0	–	2	■
421120R150Z2-MEGA-T	02434989	2	E	–	12,0	12,0	14,0	90,0	40,0	11,0	1,5	–	2	■
421120R200Z2-MEGA-T	02434990	2	E	–	12,0	12,0	14,0	90,0	40,0	11,0	2,0	–	2	■
421120R250Z2AMEGA-T	02435008	2	E	■	12,0	12,0	14,0	90,0	40,0	11,0	2,5	–	2	■
421120R250Z2-MEGA-T	02435007	2	E	–	12,0	12,0	14,0	90,0	40,0	11,0	2,5	–	2	■
421120R310Z2-MEGA-T	02435009	2	E	–	12,0	12,0	14,0	90,0	40,0	11,0	3,1	–	2	■

■ Stocked standard.

JH421

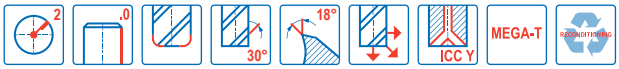
High performance – Aluminium – Square – 2 Flutes – Cylindrical – Corner radius – ICC





E

- Tolerances:
- DMM=h5
- DC=-0,02/-0,04 mm
- RE= ±0,05 mm
- Regrind possible

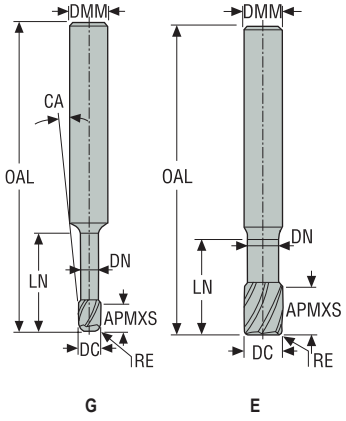


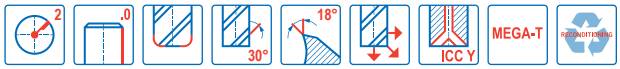
Designation	Item number	Length index	Tool shape	ICC	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Cylindrical
					mm	mm	mm	mm	mm	mm	mm		
421160R050Z2-MEGA-T	02435010	2	E	–	16,0	16,0	18,0	100,0	45,0	14,5	0,5	2	■
421160R200Z2-MEGA-T	02435014	2	E	–	16,0	16,0	18,0	100,0	45,0	14,5	2,0	2	■
421160R250Z2AMEGA-T	02435020	2	E	■	16,0	16,0	18,0	100,0	45,0	14,5	2,5	2	■
421160R250Z2-MEGA-T	02435012	2	E	–	16,0	16,0	18,0	100,0	45,0	14,5	2,5	2	■
421160R310Z2-MEGA-T	02435036	2	E	–	16,0	16,0	18,0	100,0	45,0	14,5	3,1	2	■
421160R400Z2AMEGA-T	02438684	2	E	■	16,0	16,0	18,0	100,0	45,0	14,5	4,0	2	■
421160R400Z2-MEGA-T	02435039	2	E	–	16,0	16,0	18,0	100,0	45,0	14,5	4,0	2	■
421200R160Z2-MEGA-T	02435042	2	E	–	20,0	20,0	24,0	100,0	45,0	18,0	1,6	2	■
421200R200Z2-MEGA-T	02435044	2	E	–	20,0	20,0	24,0	100,0	45,0	18,0	2,0	2	■
421200R250Z2AMEGA-T	02438685	2	E	■	20,0	20,0	24,0	100,0	45,0	18,0	2,5	2	■
421200R250Z2-MEGA-T	02435046	2	E	–	20,0	20,0	24,0	100,0	45,0	18,0	2,5	2	■
421200R310Z2-MEGA-T	02435049	2	E	–	20,0	20,0	24,0	100,0	45,0	18,0	3,1	2	■
421200R400Z2-MEGA-T	02435051	2	E	–	20,0	20,0	24,0	100,0	45,0	18,0	4,0	2	■
421200R500Z2-MEGA-T	02435055	2	E	–	20,0	20,0	24,0	100,0	45,0	18,0	5,0	2	■

■ Stocked standard.

JH421

High performance – Aluminium – Square – 2 Flutes – Cylindrical – Corner radius – ICC







- Tolerances:
- DMM=h5
- DC=-0,02/-0,04 mm
- RE= ±0,05 mm
- Regrind possible

Designation	Item number	Length index	Tool shape	ICC	DC	DMM	APMXS	OAL	LN	DN	RE	CA°	PCEDC	Cylindrical
					mm	mm	mm	mm	mm	mm	mm			
421L080R020Z2-MEGA-T	02435068	3	E	–	8,0	8,0	6,0	75,0	40,0	7,2	0,2	–	2	■
421L100R050Z2-MEGA-T	02435070	3	E	–	10,0	10,0	8,0	90,0	50,0	9,0	0,5	–	2	■
421L100R250Z2-MEGA-T	02435074	3	E	–	10,0	10,0	8,0	90,0	50,0	9,0	2,5	–	2	■
421L100R310Z2-MEGA-T	02438690	3	E	–	10,0	10,0	8,0	90,0	50,0	9,0	3,1	–	2	■
421L120R050Z2-MEGA-T	02435340	3	E	–	12,0	12,0	10,0	110,0	70,0	11,0	0,5	–	2	■
421L120R100Z2-MEGA-T	02435343	3	E	–	12,0	12,0	10,0	110,0	70,0	11,0	1,0	–	2	■
421L120R200Z2-MEGA-T	02435373	3	E	–	12,0	12,0	10,0	110,0	70,0	11,0	2,0	–	2	■
421L120R250Z2-MEGA-T	02435374	3	E	–	12,0	12,0	10,0	110,0	70,0	11,0	2,5	–	2	■
421L120R310Z2-MEGA-T	02438692	3	E	–	12,0	12,0	10,0	110,0	70,0	11,0	3,1	–	2	■
421L160R050Z2-MEGA-T	02435375	3	E	–	16,0	16,0	13,0	125,0	80,0	14,5	0,5	–	2	■
421L160R100Z2-MEGA-T	02435380	3	E	–	16,0	16,0	13,0	125,0	80,0	14,5	1,0	–	2	■
421L160R200Z2-MEGA-T	02435381	3	E	–	16,0	16,0	13,0	125,0	80,0	14,5	2,0	–	2	■
421L160R250Z2AMEGA-T	02435383	3	E	■	16,0	16,0	13,0	125,0	80,0	14,5	2,5	–	2	■
421L160R250Z2-MEGA-T	02435382	3	E	–	16,0	16,0	13,0	125,0	80,0	14,5	2,5	–	2	■
421L160R310Z2-MEGA-T	02435384	3	E	–	16,0	16,0	13,0	125,0	80,0	14,5	3,1	–	2	■
421L160R400Z2AMEGA-T	02435386	3	E	■	16,0	16,0	13,0	125,0	80,0	14,5	4,0	–	2	■
421L200R050Z2-MEGA-T	02435387	3	E	–	20,0	20,0	16,0	150,0	100,0	18,0	0,5	–	2	■
421L200R200Z2-MEGA-T	02435391	3	E	–	20,0	20,0	16,0	150,0	100,0	18,0	2,0	–	2	■
421L200R310Z2-MEGA-T	02435398	3	E	–	20,0	20,0	16,0	150,0	100,0	18,0	3,1	–	2	■
421L200R500Z2-MEGA-T	02435401	3	E	–	20,0	20,0	16,0	150,0	100,0	18,0	5,0	–	2	■

■ Stocked standard.

Cutting data – JH421 Side milling

SMG		a_e/DC	a_p/DC	f_z												v_c
				2	3	4	5	6	8	10	12	14	16	20	25	
N1	E/M/A	0.400	1.0	0.030	0.044	0.060	0.075	0.090	0.12	0.15	0.18	0.20	0.22	0.25	0.28	620 (520 — 720)
		0,400	*1,0*	*0,0012*	*0,0017*	*0,0024*	*0,0030*	*0,0036*	*0,0048*	*0,0060*	*0,0070*	*0,0080*	*0,0085*	*0,010*	*0,011*	*2025 (1800 — 2300)*
N11	E/M/A	0.400	1.0	0.020	0.030	0.040	0.050	0.060	0.080	0.10	0.12	0.13	0.15	0.17	0.19	410 (310 — 510)
		0,400	*1,0*	*0,00080*	*0,0012*	*0,0016*	*0,0020*	*0,0024*	*0,0032*	*0,0040*	*0,0048*	*0,0050*	*0,0060*	*0,0065*	*0,0075*	*1350 (1100 — 1600)*
TS1	A	0.400	1.0	0.030	0.044	0.060	0.075	0.090	0.12	0.15	0.18	0.20	0.22	0.25	0.28	620 (520 — 720)
		0,400	*1,0*	*0,0012*	*0,0017*	*0,0024*	*0,0030*	*0,0036*	*0,0048*	*0,0060*	*0,0070*	*0,0080*	*0,0085*	*0,010*	*0,011*	*2025 (1800 — 2300)*
TP1	M	0.400	1.0	0.024	0.036	0.048	0.060	0.070	0.095	0.12	0.14	0.16	0.18	0.20	0.24	410 (310 — 500)
		0,400	*1,0*	*0,00095*	*0,0014*	*0,0019*	*0,0024*	*0,0028*	*0,0038*	*0,0048*	*0,0055*	*0,0065*	*0,0070*	*0,0080*	*0,0095*	*1350 (1100 — 1600)*

Cutting data – JH421 Slot milling

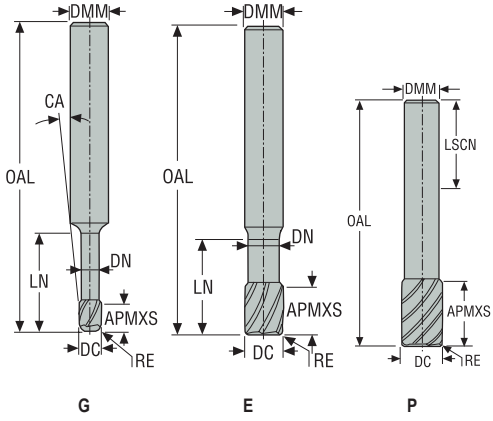
SMG		a_p/DC	f_z											v_c
			2	3	4	5	6	8	10	12	14	16	20	25	
N1	E/M/A	0.50	0.014	0.022	0.028	0.036	0.042	0.055	0.070	0.085	0.10	0.11	0.14	0.18	610 (510 — 700)
		0,50	*0,00055*	*0,00085*	*0,0011*	*0,0014*	*0,0017*	*0,0022*	*0,0028*	*0,0034*	*0,0040*	*0,0044*	*0,0055*	*0,0070*	*2000 (1700 — 2200)*
N11	E/M/A	0.50	0.0080	0.012	0.016	0.020	0.025	0.032	0.040	0.050	0.055	0.065	0.080	0.10	405 (310 — 500)
		0,50	*0,00032*	*0,00048*	*0,00065*	*0,00080*	*0,0010*	*0,0013*	*0,0016*	*0,0020*	*0,0022*	*0,0026*	*0,0032*	*0,0040*	*1325 (1100 — 1600)*
TS1	A	0.50	0.014	0.022	0.028	0.036	0.042	0.055	0.070	0.085	0.10	0.11	0.14	0.18	610 (510 — 700)
		0,50	*0,00055*	*0,00085*	*0,0011*	*0,0014*	*0,0017*	*0,0022*	*0,0028*	*0,0034*	*0,0040*	*0,0044*	*0,0055*	*0,0070*	*2000 (1700 — 2200)*
TP1	M	0.50	0.010	0.015	0.020	0.025	0.030	0.040	0.050	0.060	0.070	0.080	0.10	0.13	405 (310 — 500)
		0,50	*0,00040*	*0,00060*	*0,00080*	*0,0010*	*0,0012*	*0,0016*	*0,0020*	*0,0024*	*0,0028*	*0,0032*	*0,0040*	*0,0050*	*1325 (1100 — 1600)*

For cutting data recalculations, see pages 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

JH410

High performance – Aluminium – Square – 1 Flute – Cylindrical – Corner radius





- Tolerances:
- DMM= h5
- DC= -0,02/-0,04 mm
- RE= ±0,02 mm
- Regrind possible if DC is ≥Ø6

Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	LSCN	DN	RE	CA°	PCEDC	Cylindrical
				mm	mm	mm	mm	mm	mm	mm	mm			
410020R050-MEGA-T	02451548	2	G	2,0	6,0	3,0	50,0	6,0	36,0	1,7	0,5	12,0	1	■
410030R050-MEGA-T	02451578	2	G	3,0	6,0	4,0	50,0	8,0	36,0	2,7	0,5	7,5	1	■
410ML030R050-MEGA-T	02451580	2	G	3,0	6,0	4,0	60,0	15,0	36,0	2,7	0,5	5,0	1	■
410040R050-MEGA-T	02451581	2	G	4,0	6,0	5,0	60,0	8,0	36,0	3,6	0,5	5,5	1	■
410ML040R050-MEGA-T	02451585	2	G	4,0	6,0	5,0	60,0	15,0	36,0	3,6	0,5	3,5	1	■
410050R050-MEGA-T	02451586	2	G	5,0	6,0	7,0	65,0	11,0	36,0	4,5	0,5	2,5	1	■
410ML050R050-MEGA-T	02451589	2	G	5,0	6,0	7,0	65,0	18,0	36,0	4,5	0,5	1,5	1	■
410TL050R050-MEGA-T	02451587	2	G	5,0	6,0	7,0	65,0	26,0	36,0	4,5	0,5	1,5	1	■
410060R050-MEGA-T	02451591	2	E	6,0	6,0	8,0	70,0	11,0	36,0	5,3	0,5	–	1	■
410ML060R050-MEGA-T	02451593	2	E	6,0	6,0	8,0	70,0	18,0	36,0	5,3	0,5	–	1	■
410TL060R050-MEGA-T	02451592	2	E	6,0	6,0	8,0	70,0	31,0	36,0	5,3	0,5	–	1	■
410070RSR050-MEGA-T	02451594	2	P	7,0	6,0	9,0	65,0	–	36,0	–	0,5	–	1	■
410090RSR050-MEGA-T	02451596	2	P	9,0	8,0	11,0	65,0	–	36,0	–	0,5	–	1	■
410110RSR050-MEGA-T	02451598	2	P	11,0	10,0	13,0	70,0	–	40,0	–	0,5	–	1	■
410130RSR100-MEGA-T	02451600	2	P	13,0	12,0	15,0	70,0	–	45,0	–	1,0	–	1	■
410150RSR100-MEGA-T	02451603	2	P	15,0	14,0	17,0	80,0	–	45,0	–	1,0	–	1	■
410170RSR100-MEGA-T	02451605	2	P	17,0	16,0	19,0	80,0	–	48,0	–	1,0	–	1	■
410L070RSR200-MEGA-T	02451595	3	P	7,0	6,0	9,0	85,0	–	36,0	–	2,0	–	1	■
410L090RSR200-MEGA-T	02451597	3	P	9,0	8,0	11,0	85,0	–	36,0	–	2,0	–	1	■
410L110RSR200-MEGA-T	02451599	3	P	11,0	10,0	13,0	90,0	–	40,0	–	2,0	–	1	■
410L130RSR200-MEGA-T	02451601	3	P	13,0	12,0	15,0	90,0	–	45,0	–	2,0	–	1	■
410L150RSR200-MEGA-T	02451604	3	P	15,0	14,0	17,0	110,0	–	45,0	–	2,0	–	1	■
410L170RSR200-MEGA-T	02451606	3	P	17,0	16,0	19,0	110,0	–	48,0	–	2,0	–	1	■

■ Stocked standard.

Cutting data – JH410 Side milling roughing

SMG		a_e/DC	a_p/DC	f_z											v_c
				2	3	4	5	6	7	9	11	13	15	17	
N1	E/M/A	0.410 *0,410*	1.0 *1,0*	0.070 *0,0028*	0.11 *0,0044*	0.14 *0,0055*	0.18 *0,0070*	0.22 *0,0085*	0.25 *0,010*	0.32 *0,013*	0.40 *0,016*	0.46 *0,018*	0.50 *0,020*	0.55 *0,022*	710 (600 — 820) *2325 (2000 — 2600)*
N11	E/M/A	0.318 *0,318*	0.65 *0,65*	0.026 *0,0010*	0.040 *0,0016*	0.055 *0,0022*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	0.12 *0,0048*	0.15 *0,0060*	0.17 *0,0065*	0.19 *0,0075*	0.22 *0,0085*	495 (380 — 610) *1625 (1300 — 2000)*
TS1	A	0.410 *0,410*	1.0 *1,0*	0.070 *0,0028*	0.11 *0,0044*	0.14 *0,0055*	0.18 *0,0070*	0.22 *0,0085*	0.25 *0,010*	0.32 *0,013*	0.40 *0,016*	0.46 *0,018*	0.50 *0,020*	0.55 *0,022*	710 (600 — 820) *2325 (2000 — 2600)*

Cutting data – JH410 Slot milling

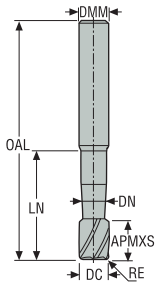
SMG		a_p/DC	f_z											v_c
			2	3	4	5	6	7	9	11	13	15	17	
N1	E/M/A	0.75 *0,75*	0.055 *0,0022*	0.080 *0,0032*	0.11 *0,0044*	0.14 *0,0055*	0.16 *0,0065*	0.19 *0,0075*	0.25 *0,010*	0.30 *0,012*	0.36 *0,014*	0.40 *0,016*	0.46 *0,018*	630 (530 — 730) *2075 (1800 — 2300)*
N11	E/M/A	0.36 *0,36*	0.018 *0,00070*	0.028 *0,0011*	0.036 *0,0014*	0.046 *0,0018*	0.055 *0,0022*	0.065 *0,0026*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.14 *0,0055*	0.15 *0,0060*	420 (320 — 520) *1375 (1100 — 1700)*
TS1	A	1.0 *1,0*	0.055 *0,0022*	0.080 *0,0032*	0.11 *0,0044*	0.14 *0,0055*	0.16 *0,0065*	0.19 *0,0075*	0.25 *0,010*	0.30 *0,012*	0.36 *0,014*	0.40 *0,016*	0.46 *0,018*	630 (530 — 730) *2075 (1800 — 2300)*

For cutting data recalculations, see pages 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

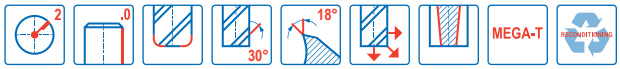
JH440

High speed – Aluminium – Square – 2 Flutes – Cylindrical – Corner radius



E





- Tolerances:
- DMM=h5
- DC=-0,02/-0,04 mm
- RE= ±0,05 mm
- Regrind possible

Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Cylindrical
				mm	mm	mm	mm	mm	mm	mm		
440060-MEGA-T	00022702	2	E	6,0	6,0	8,0	60,0	30,0	5,4	1,5	2	■
440080-MEGA-T	00022865	2	E	8,0	8,0	10,0	60,0	30,0	7,2	2,0	2	■

■ Stocked standard.

Cutting data – JH440 Copy milling roughing

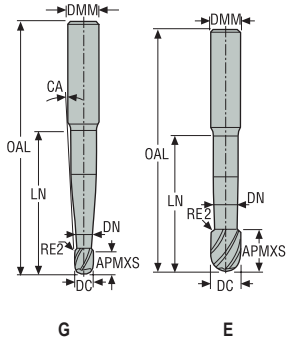
SMG		a_e/DC	a_p/DC	f_z		v_c
				6	8	
N1	E/M/A	0.300 *0,300*	0.50 *0,50*	0.080 *0,0032*	0.10 *0,0040*	780 (650 — 900) *2550 (2200 — 2900)*
N2	E/M/A	0.300 *0,300*	0.50 *0,50*	0.060 *0,0024*	0.080 *0,0032*	510 (390 — 640) *1675 (1300 — 2000)*
N3	E/M/A	0.300 *0,300*	0.50 *0,50*	0.060 *0,0024*	0.080 *0,0032*	340 (260 — 420) *1125 (860 — 1300)*
N11	E/M/A	0.300 *0,300*	0.50 *0,50*	0.060 *0,0024*	0.080 *0,0032*	255 (130 — 370) *840 (430 — 1200)*
TS1	A	0.300 *0,300*	0.50 *0,50*	0.080 *0,0032*	0.10 *0,0040*	780 (650 — 900) *2550 (2200 — 2900)*
TP1	A	0.300 *0,300*	0.60 *0,60*	0.060 *0,0024*	0.080 *0,0032*	510 (380 — 630) *1675 (1300 — 2000)*

For cutting data recalculations, see pages 573 - 580

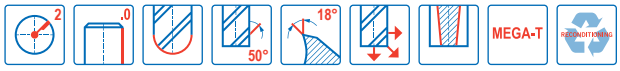
SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

JH450

High speed – Aluminium – Ball nose – 2 Flutes – Cylindrical







- Tolerances:
- DMM= h5
- DC= -0,02/-0,04 mm
- RE= ±0,02 mm
- Regrind possible if DC is ≥Ø6

Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE2	CA°	PCEDC	Cylindrical
				mm	mm	mm	mm	mm	mm	mm			
450020-MEGA-T	00022977	2	G	2,0	3,0	1,75	40,0	10,0	1,8	1,0	3,0	2	■
450030-MEGA-T	00022978	2	E	3,0	3,0	2,5	40,0	12,0	2,7	2,0	–	2	■
450040-MEGA-T	00022979	2	G	4,0	6,0	3,5	50,0	21,0	3,6	2,0	3,0	2	■
450050-MEGA-T	00022980	2	G	5,0	6,0	4,5	50,0	22,5	4,5	2,0	2,0	2	■
450060-MEGA-T	00023020	2	E	6,0	6,0	5,5	55,0	25,0	5,4	2,0	–	2	■
450080-MEGA-T	00023032	2	E	8,0	8,0	7,0	65,0	30,0	7,2	2,0	–	2	■
450100-MEGA-T	00023040	2	E	10,0	10,0	8,5	75,0	35,0	9,0	3,0	–	2	■
450120-MEGA-T	00029842	2	E	12,0	12,0	10,5	75,0	40,0	11,0	3,0	–	2	■
450160-MEGA-T	00023050	2	E	16,0	16,0	14,0	90,0	50,0	14,5	4,0	–	2	■
450200-MEGA-T	00023053	2	E	20,0	20,0	17,0	100,0	50,0	18,0	4,0	–	2	■
450L100-MEGA-T	00023056	3	G	10,0	12,0	8,5	125,0	50,0	9,0	3,0	1,5	2	■
450L120-MEGA-T	00023091	3	E	12,0	12,0	10,5	150,0	60,0	11,0	3,0	–	2	■
450L160-MEGA-T	00023095	3	E	16,0	16,0	14,0	150,0	70,0	14,5	4,0	–	2	■

■ Stocked standard.

Cutting data – JH450 Copy milling roughing

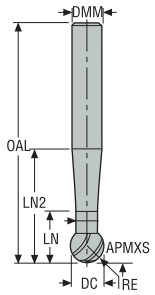
SMG		a_e/DC	a_p/DC	f_z										v_c
				2	3	4	5	6	8	10	12	16	20	
N1	E/M/A	0.400 *0,400*	0.24 *0,24*	0.040 *0,0016*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.16 *0,0065*	0.20 *0,0080*	0.24 *0,0095*	0.32 *0,013*	0.40 *0,016*	690 (670 — 930) *2275 (2200 — 3000)*
N2	E/M/A	0.300 *0,300*	0.24 *0,24*	0.040 *0,0016*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.16 *0,0065*	0.20 *0,0080*	0.24 *0,0095*	0.32 *0,013*	0.40 *0,016*	470 (410 — 680) *1550 (1400 — 2200)*
N3	E/M/A	0.300 *0,300*	0.24 *0,24*	0.040 *0,0016*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.16 *0,0065*	0.20 *0,0080*	0.24 *0,0095*	0.32 *0,013*	0.40 *0,016*	315 (280 — 450) *1025 (920 — 1400)*
N11	E/M/A	0.300 *0,300*	0.24 *0,24*	0.040 *0,0016*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.16 *0,0065*	0.20 *0,0080*	0.24 *0,0095*	0.32 *0,013*	0.38 *0,015*	470 (420 — 680) *1550 (1400 — 2200)*
TS1	A	0.500 *0,500*	0.50 *0,50*	0.040 *0,0016*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.16 *0,0065*	0.20 *0,0080*	0.24 *0,0095*	0.30 *0,012*	0.34 *0,013*	700 (630 — 860) *2300 (2100 — 2800)*
TP1	M	0.300 *0,300*	0.24 *0,24*	0.040 *0,0016*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.16 *0,0065*	0.20 *0,0080*	0.24 *0,0095*	0.32 *0,013*	0.38 *0,015*	470 (410 — 680) *1550 (1400 — 2200)*

For cutting data recalculations, see pages 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

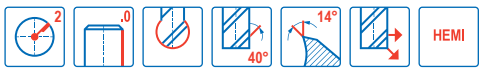
JH460

High speed – Aluminium – Ball nose – 2 Flutes – Cylindrical



E





- Tolerances:
- DMM=h5
- DC=-0,02/-0,06 mm
- RE= ±0.02 mm
- SA=250°

Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	LN2	DN	RE	PCEDC	Cylindrical
				mm	mm	mm	mm	mm	mm	mm	mm		
460030-HEMI	00040372	2	E	3,0	3,0	2,3	60,0	4,8	9,9	1,5	1,5	2	■
460040-HEMI	00040373	2	E	4,0	4,0	3,1	60,0	5,6	12,1	2,0	2,0	2	■
460050-HEMI	00040376	2	E	5,0	5,0	3,9	70,0	6,4	14,4	2,5	2,5	2	■
460060-HEMI	00040377	2	E	6,0	6,0	4,7	80,0	9,7	19,1	3,0	3,0	2	■
460080-HEMI	00040378	2	E	8,0	8,0	6,2	85,0	11,2	23,6	4,0	4,0	2	■
460100-HEMI	00040379	2	E	10,0	10,0	7,8	100,0	15,6	30,8	5,0	5,0	2	■
460120-HEMI	00040380	2	E	12,0	12,0	9,4	125,0	17,2	35,3	6,0	6,0	2	■

■ Stocked standard.

Cutting data – JH460 Copy milling roughing

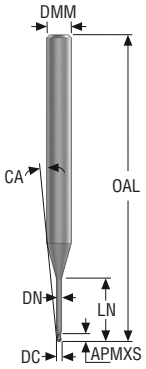
SMG		a_e/DC	a_p/DC	f_z							v_c
				3	4	5	6	8	10	12	
N1	E/M/A	0.500 *0,500*	0.20 *0,20*	0.055 *0,0022*	0.075 *0,0030*	0.095 *0,0038*	0.11 *0,0044*	0.15 *0,0060*	0.19 *0,0075*	0.22 *0,0085*	590 (500 — 680) *1925 (1700 — 2200)*
N11	E/M/A	0.300 *0,300*	0.20 *0,20*	0.046 *0,0018*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	0.13 *0,0050*	0.16 *0,0065*	0.18 *0,0070*	610 (510 — 700) *2000 (1700 — 2200)*
S11	E/M/A	0.300 *0,300*	0.20 *0,20*	0.034 *0,0013*	0.044 *0,0017*	0.055 *0,0022*	0.065 *0,0026*	0.090 *0,0036*	0.11 *0,0044*	0.13 *0,0050*	120 (110 — 130) *395 (370 — 420)*
S12	E/M/A	0.300 *0,300*	0.20 *0,20*	0.034 *0,0013*	0.044 *0,0017*	0.055 *0,0022*	0.065 *0,0026*	0.090 *0,0036*	0.11 *0,0044*	0.13 *0,0050*	90 (82 — 100) *295 (270 — 320)*
S13	E/M/A	0.300 *0,300*	0.20 *0,20*	0.030 *0,0012*	0.038 *0,0015*	0.048 *0,0019*	0.060 *0,0024*	0.075 *0,0030*	0.095 *0,0038*	0.11 *0,0044*	75 (65 — 81) *245 (220 — 260)*
TS1	A	0.500 *0,500*	0.50 *0,50*	0.055 *0,0022*	0.070 *0,0028*	0.13 *0,0050*	0.15 *0,0060*	0.20 *0,0080*	0.25 *0,010*	0.30 *0,012*	620 (520 — 720) *2025 (1800 — 2300)*
TP1	M	0.300 *0,300*	0.20 *0,20*	0.046 *0,0018*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	0.13 *0,0050*	0.16 *0,0065*	0.18 *0,0070*	405 (360 — 450) *1325 (1200 — 1400)*

For cutting data recalculations, see pages 573 - 580

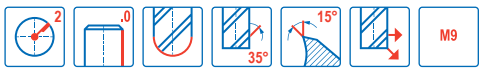
SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

SMB413/414/416

Miniature – Aluminium – Ball nose – 2 Flutes – Cylindrical



G





- Tolerances:
- Run-out= <0,005 mm
- DMM = h5
- DC = 0/-0,01 mm
- RE = ±0,005 mm

Designation	Grade	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	DN	LN	CA°	PCEDC	Cylindrical
					mm	mm	mm	mm	mm	mm			
SMB414020G4B.0Z2	–	10109385	4	G	2,0	4	2,0	50	1,9	12,0	3,75 °	2	■
SMB414020G4B.0Z2	M9	10109139	4	G	2,0	4	2,0	50	1,9	12,0	3,75 °	2	■
SMB414030G4B.0Z2	–	10109386	4	G	3,0	4	3,0	50	2,85	16,0	1,68 °	2	■
SMB414030G4B.0Z2	M9	10109140	4	G	3,0	4	3,0	50	2,85	16,0	1,68 °	2	■
SMB413025G5B.0Z2	–	10109133	5	G	2,5	3	2,5	50	2,4	20,0	0,71 °	2	■
SMB413025G5B.0Z2	M9	10109136	5	G	2,5	3	2,5	50	2,4	20,0	0,71 °	2	■
SMB414025G5B.0Z2	–	10109387	5	G	2,5	4	2,5	50	2,4	20,0	1,94 °	2	■
SMB414025G5B.0Z2	M9	10109141	5	G	2,5	4	2,5	50	2,4	20,0	1,94 °	2	■
SMB416025G5B.0Z2	–	10109390	5	G	2,5	6	2,5	55	2,4	20,0	3,87 °	2	■
SMB416025G5B.0Z2	M9	10109145	5	G	2,5	6	1,0	55	0,95	20,0	3,87 °	2	■
SMB414010G6B.0Z2	–	10109381	6	G	1,0	4	1,0	50	0,95	10,0	5,5 °	2	■
SMB414010G6B.0Z2	M9	10109142	6	G	1,0	4	1,0	50	0,95	10,0	5,5 °	2	■
SMB413015G6B.0Z2	–	10109134	6	G	1,5	3	1,5	50	1,4	20,0	1,9 °	2	■
SMB413015G6B.0Z2	M9	10109137	6	G	1,5	3	1,5	50	1,4	20,0	1,9 °	2	■
SMB414015G6B.0Z2	–	10109388	6	G	1,5	4	2,5	55	2,4	20,0	2,92 °	2	■
SMB414015G6B.0Z2	M9	10109143	6	G	1,5	4	1,5	55	1,4	20,0	2,92 °	2	■
SMB416015G6B.0Z2	–	10109391	6	G	1,5	6	1,5	55	1,4	20,0	4,56 °	2	■
SMB416015G6B.0Z2	M9	10109146	6	G	1,5	6	1,5	55	1,4	20,0	4,56 °	2	■
SMB413010G7B.0Z2	–	10109135	7	G	1,0	3	1,0	50	0,95	18,0	2,63 °	2	■
SMB413010G7B.0Z2	M9	10109138	7	G	1,0	3	1,0	50	0,95	18,0	2,63 °	2	■
SMB414010G7B.0Z2	–	10109389	7	G	1,0	4	1,0	50	0,95	18,0	3,64 °	2	■
SMB414010G7B.0Z2	M9	10109144	7	G	1,0	4	1,0	50	0,95	18,0	3,64 °	2	■
SMB416010G7B.0Z2	–	10109392	7	G	1,0	6	1,0	55	0,95	18,0	5,23 °	2	■
SMB416010G7B.0Z2	M9	10109147	7	G	1,0	6	1,0	55	0,95	18,0	5,23 °	2	■

■ Stocked standard.

Cutting data – SMB413 Copy milling roughing

SMG		a_e/DC	a_p/DC	f_z			v_c
				1	1.5	2.5	
N1	E	0,0500 *0.0500*	0,080 *0.080*	0,013 *0.00050*	0,020 *0.00080*	0,032 *0.0013*	135 (86 — 170) *445 (290 — 550)*
N2	E	0,0500 *0.0500*	0,080 *0.080*	0,013 *0.00050*	0,020 *0.00080*	0,032 *0.0013*	85 (55 — 100) *280 (190 — 320)*
N3	E	0,0500 *0.0500*	0,080 *0.080*	0,013 *0.00050*	0,020 *0.00080*	0,032 *0.0013*	55 (37 — 73) *180 (130 — 230)*
TS1	A	0,0500 *0.0500*	0,080 *0.080*	0,013 *0.00050*	0,020 *0.00080*	0,032 *0.0013*	135 (86 — 170) *445 (290 — 550)*
TP1	A	0,0500 *0.0500*	0,080 *0.080*	0,013 *0.00050*	0,020 *0.00080*	0,032 *0.0013*	135 (86 — 170) *445 (290 — 550)*

Cutting data – SMB414 Copy milling roughing

SMG		a_e/DC	a_p/DC	f_z					v_c
				1	1.5	2	2.5	3	
N1	E	0,0500 *0.0500*	0,080 *0.080*	0,013 *0.00050*	0,020 *0.00080*	0,026 *0.0010*	0,032 *0.0013*	0,040 *0.0016*	135 (86 — 170) *445 (290 — 550)*
N2	E	0,0500 *0.0500*	0,080 *0.080*	0,013 *0.00050*	0,020 *0.00080*	0,026 *0.0010*	0,032 *0.0013*	0,040 *0.0016*	85 (55 — 100) *280 (190 — 320)*
N3	E	0,0500 *0.0500*	0,080 *0.080*	0,013 *0.00050*	0,020 *0.00080*	0,026 *0.0010*	0,032 *0.0013*	0,040 *0.0016*	55 (37 — 73) *180 (130 — 230)*
TS1	A	0,0500 *0.0500*	0,080 *0.080*	0,013 *0.00050*	0,020 *0.00080*	0,026 *0.0010*	0,032 *0.0013*	0,040 *0.0016*	135 (86 — 170) *445 (290 — 550)*
TP1	A	0,0500 *0.0500*	0,080 *0.080*	0,013 *0.00050*	0,020 *0.00080*	0,026 *0.0010*	0,032 *0.0013*	0,040 *0.0016*	135 (86 — 170) *445 (290 — 550)*

Cutting data – SMB416 Copy milling roughing

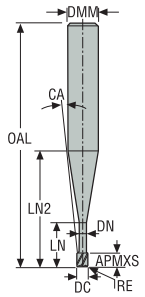
SMG		a_e/DC	a_p/DC	f_z			v_c
				1	1.5	2.5	
N1	E	0,0500 *0.0500*	0,080 *0.080*	0,013 *0.00050*	0,020 *0.00080*	0,032 *0.0013*	135 (86 — 170) *445 (290 — 550)*
N2	E	0,0500 *0.0500*	0,080 *0.080*	0,013 *0.00050*	0,020 *0.00080*	0,032 *0.0013*	85 (55 — 100) *280 (190 — 320)*
N3	E	0,0500 *0.0500*	0,080 *0.080*	0,013 *0.00050*	0,020 *0.00080*	0,032 *0.0013*	55 (37 — 73) *180 (130 — 230)*
TS1	A	0,0500 *0.0500*	0,080 *0.080*	0,013 *0.00050*	0,020 *0.00080*	0,032 *0.0013*	135 (86 — 170) *445 (290 — 550)*
TP1	A	0,0500 *0.0500*	0,080 *0.080*	0,013 *0.00050*	0,020 *0.00080*	0,032 *0.0013*	135 (86 — 170) *445 (290 — 550)*

For cutting data recalculations, see pages 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

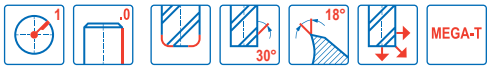
JM403/JM404/JM406

Miniature – Aluminium – Square – 1 Flute – Cylindrical – Corner radius



G





- Tolerances:
- Run-out=<0,005 mm
- DMM= h5
- DC= < Ø0,6= -0,005/-0,013 mm
- DC= ≥ Ø0,6= -0,005/-0,015 mm
- RE= ±0,01 mm

Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	LN2	DN	RE	CA°	PCEDC	Cylindrical
				mm	mm	mm	mm	mm	mm	mm	mm			
403ML005R005-MEGA-T	02568434	2	G	0,5	3,0	0,5	40,0	1,5	6,7	0,45	0,05	11,0	1	■
403ML008R005-MEGA-T	02568450	2	G	0,8	3,0	0,8	40,0	2,5	7,1	0,75	0,05	9,0	1	■
403ML010R010-MEGA-T	02568456	2	G	1,0	3,0	1,0	40,0	4,0	8,3	0,95	0,1	7,5	1	■
406ML015R010-MEGA-T	02568478	5	G	1,5	6,0	1,5	50,0	5,0	14,0	1,4	0,1	9,5	1	■
404ML020R010-MEGA-T	02577246	5	G	2,0	4,0	2,0	40,0	6,0	10,4	1,9	0,1	6,0	1	■

■ Stocked standard.

Cutting data – JM403/JM404/406 Side milling

SMG		a_e/DC	a_p/DC	f_z					v_c
				0.5	0.8	1	1.5	2	
N1	E	0.500 *0,500*	0.70 *0,70*	0.015 *0,00060*	0.024 *0,00095*	0.030 *0,0012*	0.042 *0,0017*	0.050 *0,0020*	365 (310 — 420) *1200 (1100 — 1300)*
N2	E	0.500 *0,500*	0.70 *0,70*	0.015 *0,00060*	0.024 *0,00095*	0.030 *0,0012*	0.042 *0,0017*	0.050 *0,0020*	235 (200 — 270) *770 (660 — 880)*
N3	E	0.500 *0,500*	0.70 *0,70*	0.015 *0,00060*	0.024 *0,00095*	0.030 *0,0012*	0.042 *0,0017*	0.050 *0,0020*	155 (140 — 180) *510 (460 — 590)*

Cutting data – JM403/JM404/406 Slot milling

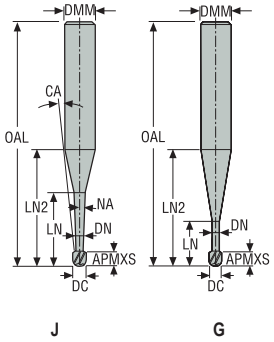
SMG		a_p/DC	f_z					v_c
			0.5	0.8	1	1.5	2	
N1	E	0.40 *0,40*	0.015 *0,00060*	0.025 *0,0010*	0.030 *0,0012*	0.044 *0,0017*	0.050 *0,0020*	315 (270 — 360) *1025 (890 — 1100)*
N2	E	0.40 *0,40*	0.015 *0,00060*	0.025 *0,0010*	0.030 *0,0012*	0.044 *0,0017*	0.050 *0,0020*	200 (170 — 230) *660 (560 — 750)*
N3	E	0.40 *0,40*	0.015 *0,00060*	0.025 *0,0010*	0.030 *0,0012*	0.044 *0,0017*	0.050 *0,0020*	135 (120 — 150) *445 (400 — 490)*

For cutting data recalculations, see pages 573 - 580

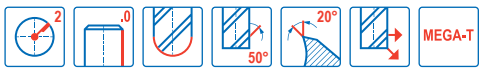
SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

JM413/JM416

Miniature – Aluminium – Ball nose – 2 Flute – Cylindrical







- Tolerances:
- Run-out=<0,005 mm
- DMM=h5
- DC= < Ø 0,6= -0,005/-0,013 mm
- DC= ≥ Ø 0,6= -0,005/-0,015 mm
- RE= ±0,005 mm

Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	LN2	DN	RE	NA°	CA°	PCEDC	Cylindrical
				mm	mm	mm	mm	mm	mm	mm	mm				
413ML005TN-MEGA-T	02568709	2	J	0,5	3,0	0,375	40,0	1,5	6,6	0,45	0,25	0,9	11,5	2	■
413L005-MEGA-T	02568711	3	G	0,5	3,0	0,375	40,0	2,5	7,7	0,45	0,25	0,0	10,0	2	■
413L008-MEGA-T	02568727	3	G	0,8	3,0	0,6	40,0	4,0	8,6	0,75	0,4	0,0	8,0	2	■
413L010-MEGA-T	02568736	3	G	1,0	3,0	0,75	40,0	5,0	9,3	0,95	0,5	0,0	7,0	2	■
416L015-MEGA-T	02568772	3	G	1,5	6,0	1,125	50,0	7,5	16,5	1,4	0,75	0,0	8,5	2	■
416L020-MEGA-T	02568779	3	G	2,0	6,0	1,5	50,0	10,0	18,1	1,9	1,0	0,0	7,0	2	■

■ Stocked standard.

Cutting data – JM413/416 Copy milling roughing

SMG		a_e/DC	a_p/DC	f_z					v_c
				0,5	0.8	1	1.5	2	
N1	E	0.300 *0,300*	0.30 *0,30*	0.030 *0,0012*	0.048 *0,0019*	0.060 *0,0024*	0.085 *0,0034*	0.10 *0,0040*	385 (370 — 510) *1275 (1300 — 1600)*
N2	E	0.300 *0,300*	0.30 *0,30*	0.030 *0,0012*	0.048 *0,0019*	0.060 *0,0024*	0.085 *0,0034*	0.10 *0,0040*	245 (240 — 320) *800 (790 — 1000)*
N3	E	0.300 *0,300*	0.30 *0,30*	0.030 *0,0012*	0.048 *0,0019*	0.060 *0,0024*	0.085 *0,0034*	0.10 *0,0040*	165 (160 — 210) *540 (530 — 680)*
N11	E	0.300 *0,300*	0.30 *0,30*	0.030 *0,0012*	0.048 *0,0019*	0.060 *0,0024*	0.085 *0,0034*	0.10 *0,0040*	320 (300 — 430) *1050 (990 — 1400)*
TS1	A	0.300 *0,300*	0.30 *0,30*	0.030 *0,0012*	0.048 *0,0019*	0.060 *0,0024*	0.085 *0,0034*	0.10 *0,0040*	385 (370 — 510) *1275 (1300 — 1600)*
TP1	A	0.300 *0,300*	0.30 *0,30*	0.030 *0,0012*	0.048 *0,0019*	0.060 *0,0024*	0.085 *0,0034*	0.10 *0,0040*	385 (370 — 510) *1275 (1300 — 1600)*

For cutting data recalculations, see pages 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values



HARD

Seco offers a complete range of high performance solid carbide square shoulder end mills, ballnose cutters and finish end mills for high productivity for hardened steel.

- JHP170, JHF181, JH120, JH130, JH930, JH142, JME142 and JME144 for radius type.
- JH112, JH150, JH160 and JMB112 for ball-nose type.

Tool Selection Hard

							
Name		JHP170	JHF181	JH120	JH130	JH930	JH142
Page(s)		382	385	388	390	143, 392	203, 395
Family name		HPM	HFM	HSM/TORNADO	HSM/TORNADO	HSM/TORNADO	HSM/TORNADO
Type of mill							
Shank	Cylindrical	■	■	■	■	■	■
	Weldon	■					
Number of Flutes		3-4	3-4-5	4	5-6, 8	5-6, 8	2-4-5-6
ICC			■				
Diameter range	Metric	2-20	1-10	2-16	6-20	6-20	2-12
	Inch						
Length availability		2	1,2,3,4	2	2	2	2,3,6
Operation							
							
							
SMG							
H3		●	●	●	●	●	●
H5		●	●	●	●	●	●
H7		●	●	●	●	●	●
H8		●	●	●	●	●	●
H11		●	●	●	●	●	
H12		●	●	●	●	●	
H21		●	●	●	●	●	●
H31		●	●	●	●	●	●

■ Stock standard □ Weldon available, delivery time is 3 days.
● Preferred choice ○ Alternative choice

Tool Selection Hard

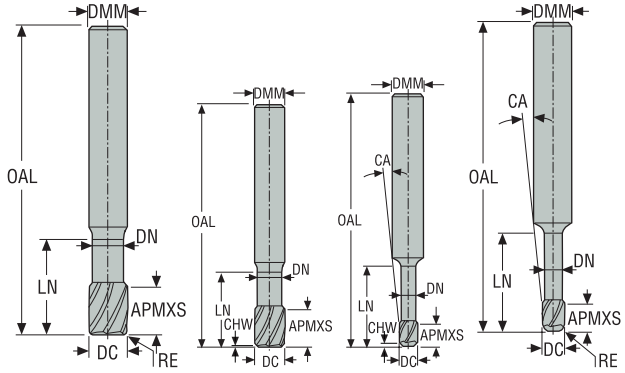
							
Name		JH112	JH150	JH160	JME142	JME144	JMB112
Page(s)		208, 398	401	403	405	410	412
Family name		HSM/TORNADO	HSM/TORNADO	HSM/TORNADO	MINI	MINI	MINI
Type of mill							
Shank	Cylindrical	■	■	■	■	■	■
	Weldon						
Number of Flutes		2	4	4	2	4	2
ICC							
Diameter range	Metric	2-12	6-12	3-12	0,2-3,0	1,0-3,0	0,2-3,0
	Inch						
Length availability		1,2,3,4,5,6	2	2	1,2,3,4,5,6	2,3,4	1,2,3,4,5,6
Operation							
							
							
SMG							
H3		•	•	•	•	•	•
H5		•	•	•	•	•	•
H7		•	•	•	•	•	•
H8		•	•	•	•	•	•
H11			•	•	•	•	•
H12			•	•	•	•	•
H21		•	•	•	•	•	•
H31		•	•	•	•	•	•

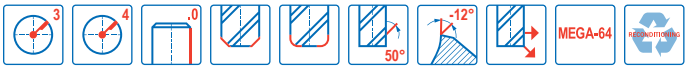
■ Stock standard ☐ Weldon available, delivery time is 3 days.
• Preferred choice ○ Alternative choice

JHP170

High performance – Hardened steel – Square – 3-4 Flutes – Cylindrical – Corner radius or chamfer







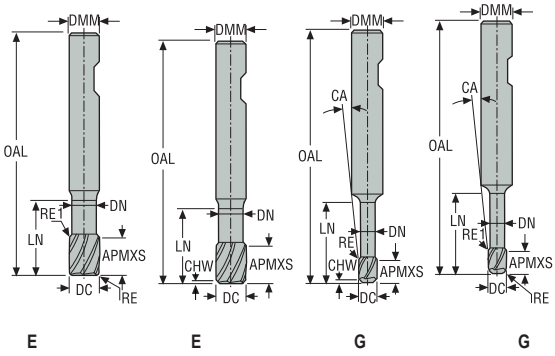
- Tolerances:
- DMM= h5
- DC= -0,02/-0,04 mm
- CHW= Ø2- Ø4=+0,05 mm
- CHW= Ø5-Ø16=+0,1 mm
- RE= ±0,05 mm
- Regrind possible if DC is ≥Ø6

Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	CHW	RE	CA°	PCEDC	Cylindrical
				mm	mm	mm	mm	mm	mm	mm	mm			
170020.0-MEGA-64	02462685	2	G	2,0	6,0	2,0	50,0	4,0	1,9	0,08	–	14,5	3	■
170020R020.0-MEGA-64	02587615	2	G	2,0	6,0	2,0	50,0	4,0	1,9	–	0,2	14,5	3	■
170020R050.0-MEGA-64	02587617	2	G	2,0	6,0	2,0	50,0	4,0	1,9	–	0,5	15,0	3	■
170030.0-MEGA-64	02462686	2	G	3,0	6,0	3,0	50,0	6,0	2,8	0,08	–	9,0	3	■
170030R020.0-MEGA-64	02587618	2	G	3,0	6,0	3,0	50,0	6,0	2,8	–	0,2	9,5	3	■
170030R050.0-MEGA-64	02587619	2	G	3,0	6,0	3,0	50,0	6,0	2,8	–	0,5	9,5	3	■
170040.0-MEGA-64	02462687	2	G	4,0	6,0	4,0	50,0	8,0	3,7	0,1	–	5,5	4	■
170040R020.0-MEGA-64	02587620	2	G	4,0	6,0	4,0	50,0	8,0	3,7	–	0,2	5,5	4	■
170040R050.0-MEGA-64	02587621	2	G	4,0	6,0	4,0	50,0	8,0	3,7	–	0,5	5,5	4	■
170050.0-MEGA-64	02462688	2	G	5,0	6,0	5,0	50,0	10,0	4,6	0,12	–	2,5	4	■
170050R020.0-MEGA-64	02587622	2	G	5,0	6,0	5,0	50,0	10,0	4,6	–	0,2	2,5	4	■
170050R050.0-MEGA-64	02587623	2	G	5,0	6,0	5,0	50,0	10,0	4,6	–	0,5	2,5	4	■
170060.0-MEGA-64	02462689	2	E	6,0	6,0	6,0	50,0	11,5	5,6	0,14	–	–	4	■
170060R020.0-MEGA-64	02587624	2	E	6,0	6,0	6,0	50,0	11,5	5,6	–	0,2	–	4	■
170060R050.0-MEGA-64	02587625	2	E	6,0	6,0	6,0	50,0	11,5	5,6	–	0,5	–	4	■
170080.0-MEGA-64	02462690	2	E	8,0	8,0	8,0	55,0	16,0	7,4	0,16	–	–	4	■
170080R020.0-MEGA-64	02587626	2	E	8,0	8,0	8,0	55,0	16,0	7,4	–	0,2	–	4	■
170080R050.0-MEGA-64	02587627	2	E	8,0	8,0	8,0	55,0	16,0	7,4	–	0,5	–	4	■
170080R100.0-MEGA-64	02587628	2	E	8,0	8,0	8,0	55,0	16,0	7,4	–	1,0	–	4	■
170100.0-MEGA-64	02462691	2	E	10,0	10,0	10,0	65,0	22,0	9,4	0,18	–	–	4	■
170100R050.0-MEGA-64	02587629	2	E	10,0	10,0	10,0	65,0	22,0	9,4	–	0,5	–	4	■
170100R100.0-MEGA-64	02587630	2	E	10,0	10,0	10,0	65,0	22,0	9,4	–	1,0	–	4	■
170120.0-MEGA-64	02462692	2	E	12,0	12,0	12,0	75,0	27,0	11,4	0,2	–	–	4	■
170120R050.0-MEGA-64	02587631	2	E	12,0	12,0	12,0	75,0	27,0	11,4	–	0,5	–	4	■
170120R100.0-MEGA-64	02587632	2	E	12,0	12,0	12,0	75,0	27,0	11,4	–	1,0	–	4	■
170160.0-MEGA-64	02462693	2	E	16,0	16,0	16,0	80,0	29,0	15,4	0,3	–	–	4	■
170160R050.0-MEGA-64	02587633	2	E	16,0	16,0	16,0	80,0	29,0	15,4	–	0,5	–	4	■

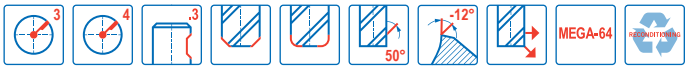
■ Stocked standard.

JHP170

High performance – Hardened steel – Square – 3-4 Flutes – Weldon – Corner radius or chamfer







- Tolerances:
- DMM= h5
- DC= -0,02/-0,04 mm
- CHW= Ø2-Ø4=+0,05 mm
- CHW= Ø5-Ø16= +0,1 mm
- RE= ±0,05 mm
- Regrind possible if DC is ≥Ø6

Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	CHW	RE	CA°	PCEDC	Weldon
				mm	mm	mm	mm	mm	mm	mm	mm			
170020-MEGA-64	02452924	2	G	2,0	6,0	2,0	50,0	4,0	1,9	0,08	–	14,5	3	■
170020R020.0-MEGA-64W	02669319	2	G	2,0	6,0	2,0	50,0	4,0	1,9	–	0,2	–	3	□
170020R050.0-MEGA-64W	02669320	2	G	2,0	6,0	2,0	50,0	4,0	1,9	–	0,5	–	3	□
170030-MEGA-64	02452925	2	G	3,0	6,0	3,0	50,0	6,0	2,8	0,08	–	9,0	3	■
170030R020.0-MEGA-64W	02669321	2	G	3,0	6,0	3,0	50,0	6,0	2,8	–	0,2	–	3	□
170030R050.0-MEGA-64W	02669322	2	G	3,0	6,0	3,0	50,0	6,0	2,8	–	0,5	–	3	□
170040-MEGA-64	02452927	2	G	4,0	6,0	4,0	50,0	8,0	3,7	0,1	–	5,5	4	■
170040R020.0-MEGA-64W	02669323	2	G	4,0	6,0	4,0	50,0	8,0	3,7	–	0,2	–	4	□
170040R050.0-MEGA-64W	02669324	2	G	4,0	6,0	4,0	50,0	8,0	3,7	–	0,5	–	4	□
170050-MEGA-64	02452928	2	G	5,0	6,0	5,0	50,0	10,0	4,6	0,12	–	2,5	4	■
170050R020.0-MEGA-64W	02669325	2	G	5,0	6,0	5,0	50,0	10,0	4,6	–	0,2	–	4	□
170050R050.0-MEGA-64W	02669326	2	G	5,0	6,0	5,0	50,0	10,0	4,6	–	0,5	–	4	□
170060-MEGA-64	02452929	2	E	6,0	6,0	6,0	50,0	11,5	5,6	0,14	–	–	4	■
170060R020.0-MEGA-64W	02669327	2	E	6,0	6,0	6,0	50,0	11,5	5,6	–	0,2	–	4	□
170060R050.0-MEGA-64W	02669328	2	E	6,0	6,0	6,0	50,0	11,5	5,6	–	0,5	–	4	□
170080-MEGA-64	02452930	2	E	8,0	8,0	8,0	55,0	16,0	7,4	0,16	–	–	4	■
170080R020.0-MEGA-64W	02669329	2	E	8,0	8,0	8,0	55,0	16,0	7,4	–	0,2	–	4	□
170080R050.0-MEGA-64W	02669331	2	E	8,0	8,0	8,0	55,0	16,0	7,4	–	0,5	–	4	□
170080R100.0-MEGA-64W	02669332	2	E	8,0	8,0	8,0	55,0	16,0	7,4	–	1,0	–	4	□
170100-MEGA-64	02452931	2	E	10,0	10,0	10,0	65,0	22,0	9,4	0,18	–	–	4	■
170100R050.0-MEGA-64W	02669333	2	E	10,0	10,0	10,0	65,0	22,0	9,4	–	0,5	–	4	□
170100R100.0-MEGA-64W	02669334	2	E	10,0	10,0	10,0	65,0	22,0	9,4	–	1,0	–	4	□
170120-MEGA-64	02452932	2	E	12,0	12,0	12,0	75,0	27,0	11,4	0,2	–	–	4	■
170120R050.0-MEGA-64W	02669335	2	E	12,0	12,0	12,0	75,0	27,0	11,4	–	0,5	–	4	□
170120R100.0-MEGA-64W	02669336	2	E	12,0	12,0	12,0	75,0	27,0	11,4	–	1,0	–	4	□
170160-MEGA-64	02452933	2	E	16,0	16,0	16,0	80,0	29,0	15,4	0,3	–	–	4	■
170160R050.0-MEGA-64W	02669337	2	E	16,0	16,0	16,0	80,0	29,0	15,4	–	0,5	–	4	□
170200R050-MEGA-64	02611637	2	E	20,0	20,0	20,0	100,0	40,0	19,2	–	0,5	–	4	■

■ Stocked standard. □ Weldon available. Delivery time is 3 days.

Cutting data – JHP170 Side milling

SMG		a_e/DC	a_p/DC	f_z										v_c
				2	3	4	5	6	8	10	12	16	20	
H3	M	0.150 *0,150*	0.60 *0,60*	0.0055 *0,00022*	0.0085 *0,00034*	0.011 *0,00044*	0.014 *0,00055*	0.017 *0,00065*	0.022 *0,00085*	0.028 *0,0011*	0.034 *0,0013*	0.042 *0,0017*	0.048 *0,0019*	29 (22 — 35) *95 (73 — 110)*
H5	M	0.300 *0,300*	0.80 *0,80*	0.012 *0,00048*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	0.090 *0,0036*	0.10 *0,0040*	60 (56 — 68) *195 (190 — 220)*
H7	M	0.150 *0,150*	0.60 *0,60*	0.0055 *0,00022*	0.0085 *0,00034*	0.011 *0,00044*	0.014 *0,00055*	0.017 *0,00065*	0.022 *0,00085*	0.028 *0,0011*	0.034 *0,0013*	0.042 *0,0017*	0.048 *0,0019*	29 (22 — 35) *95 (73 — 110)*
H8	M	0.300 *0,300*	0.80 *0,80*	0.0090 *0,00036*	0.014 *0,00055*	0.018 *0,00070*	0.022 *0,00085*	0.028 *0,0011*	0.036 *0,0014*	0.046 *0,0018*	0.055 *0,0022*	0.065 *0,0026*	0.080 *0,0032*	65 (59 — 71) *215 (200 — 230)*
H11	M	0.300 *0,300*	0.80 *0,80*	0.012 *0,00048*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	0.090 *0,0036*	0.10 *0,0040*	80 (71 — 86) *260 (240 — 280)*
H12	M	0.300 *0,300*	0.80 *0,80*	0.0090 *0,00036*	0.014 *0,00055*	0.018 *0,00070*	0.022 *0,00085*	0.028 *0,0011*	0.036 *0,0014*	0.046 *0,0018*	0.055 *0,0022*	0.065 *0,0026*	0.080 *0,0032*	75 (69 — 83) *245 (230 — 270)*
H21	M	0.300 *0,300*	0.80 *0,80*	0.0090 *0,00036*	0.014 *0,00055*	0.018 *0,00070*	0.022 *0,00085*	0.028 *0,0011*	0.036 *0,0014*	0.046 *0,0018*	0.055 *0,0022*	0.065 *0,0026*	0.080 *0,0032*	65 (59 — 71) *215 (200 — 230)*
H31	M	0.300 *0,300*	0.80 *0,80*	0.012 *0,00048*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	0.090 *0,0036*	0.10 *0,0040*	60 (56 — 68) *195 (190 — 220)*

Cutting data – JHP170 Slot milling

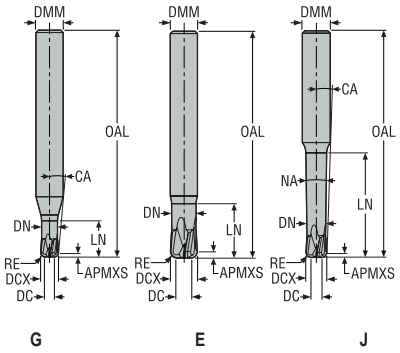
SMG		a_p/DC	f_z										v_c
			2	3	4	5	6	8	10	12	16	20	
H3	M	0.40 *0,40*	0.0040 *0,00016*	0.0060 *0,00024*	0.0080 *0,00032*	0.010 *0,00040*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	0.024 *0,00095*	0.030 *0,0012*	0.034 *0,0013*	20 (16 — 25) *65 (53 — 82)*
H5	M	0.60 *0,60*	0.0080 *0,00032*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	0.025 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	0.050 *0,0020*	0.065 *0,0026*	0.080 *0,0032*	50 (46 — 55) *165 (160 — 180)*
H7	M	0.40 *0,40*	0.0040 *0,00016*	0.0060 *0,00024*	0.0080 *0,00032*	0.010 *0,00040*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	0.024 *0,00095*	0.030 *0,0012*	0.034 *0,0013*	20 (16 — 25) *65 (53 — 82)*
H8	M	0.60 *0,60*	0.0080 *0,00032*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	0.025 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.070 *0,0028*	50 (46 — 55) *165 (160 — 180)*
H11	M	0.60 *0,60*	0.0080 *0,00032*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	0.025 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	0.050 *0,0020*	0.065 *0,0026*	0.080 *0,0032*	65 (58 — 70) *215 (200 — 220)*
H12	M	0.60 *0,60*	0.0080 *0,00032*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	0.025 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.070 *0,0028*	60 (53 — 64) *195 (180 — 200)*
H21	M	0.60 *0,60*	0.0080 *0,00032*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	0.025 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.070 *0,0028*	50 (46 — 55) *165 (160 — 180)*
H31	M	0.60 *0,60*	0.0080 *0,00032*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	0.025 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	0.050 *0,0020*	0.065 *0,0026*	0.080 *0,0032*	50 (46 — 55) *165 (160 — 180)*

For cutting data recalculations, see pages 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

JHF181

High feed – Hardened steel – Square – 3-5 Flutes – Cylindrical – Corner radius – ICC





- Tolerances:
- DMM=h5
- DC=-0,02/-0,04 mm
- RE= ±0,01 mm
- Regrind possible if DC is ≥Ø6

Designation	Item number	Length index	Tool shape	ICC	DCX	DC	DMM	APMXS	OAL	LN	DN	NA	RE	CA°	PCEDC	Cylindrical
					mm	mm	mm	mm	mm	mm	mm	mm	mm			
JHF181020G1R050.0Z4-HXT	03067297	1	G	–	2,0	1,0	6,0	0,5	50,0	4,0	1,8	0,0	0,5	10,0	4	■
JHF181030G1R075.0Z4-HXT	03067298	1	G	–	3,0	1,5	6,0	0,75	50,0	6,0	2,7	0,0	0,75	7,5	4	■
JHF181040G1R100.0Z4-HXT	03067299	1	G	–	4,0	2,0	6,0	1,0	50,0	8,0	3,6	0,0	1,0	5,0	4	■
JHF181060E1R150.0Z4-HXT	03067300	1	E	–	6,0	3,0	6,0	1,5	50,0	12,0	5,4	0,0	1,5	–	4	■
JHF181080E1R200.0Z4-HXT	03067301	1	E	–	8,0	4,0	8,0	2,0	55,0	16,0	7,3	0,0	2,0	–	4	■
JHF181100E1R200.0Z4-HXT	03067302	1	E	–	10,0	6,0	10,0	2,0	65,0	20,0	9,2	0,0	2,0	–	4	■
JHF181100E1R200.0Z5-HXT	03067303	1	E	–	10,0	6,0	10,0	2,0	65,0	20,0	9,2	0,0	2,0	–	5	■
JHF181120E1R300.0Z4-HXT	03067304	1	E	–	12,0	6,0	12,0	3,0	75,0	24,0	11,0	0,0	3,0	–	4	■
JHF181120E1R300.0Z5-HXT	03067305	1	E	–	12,0	6,0	12,0	3,0	75,0	24,0	11,0	0,0	3,0	–	5	■
JHF181160E1R300.0Z4-HXT	03067306	1	E	–	16,0	10,0	16,0	3,0	80,0	32,0	14,8	0,0	3,0	–	4	■
JHF181020G2R050.0Z4-HXT	03067307	2	G	–	2,0	1,0	6,0	0,5	50,0	8,0	1,8	0,0	0,5	7,5	4	■
JHF181030G2R075.0Z4-HXT	03067308	2	G	–	3,0	1,5	6,0	0,75	50,0	12,0	2,7	0,0	0,75	5,0	4	■
JHF181040G2R100.0Z4-HXT	03067309	2	G	–	4,0	2,0	6,0	1,0	50,0	16,0	3,6	0,0	1,0	3,0	4	■
JHF181060E2R150.0Z4A-HXT	03067311	2	E	■	6,0	3,0	6,0	1,5	65,0	24,0	5,4	0,0	1,5	–	4	■
JHF181060E2R150.0Z4-HXT	03067310	2	E	–	6,0	3,0	6,0	1,5	65,0	24,0	5,4	0,0	1,5	–	4	■
JHF181080E2R200.0Z4A-HXT	03067313	2	E	■	8,0	4,0	8,0	2,0	70,0	32,0	7,3	0,0	2,0	–	4	■
JHF181080E2R200.0Z4-HXT	03067312	2	E	–	8,0	4,0	8,0	2,0	70,0	32,0	7,3	0,0	2,0	–	4	■
JHF181100E2R200.0Z4A-HXT	03067315	2	E	■	10,0	6,0	10,0	2,0	85,0	40,0	9,2	0,0	2,0	–	4	■
JHF181100E2R200.0Z4-HXT	03067314	2	E	–	10,0	6,0	10,0	2,0	85,0	40,0	9,2	0,0	2,0	–	4	■
JHF181120E2R300.0Z4A-HXT	03067317	2	E	■	12,0	6,0	12,0	3,0	100,0	48,0	11,0	0,0	3,0	–	4	■
JHF181120E2R300.0Z4-HXT	03067316	2	E	–	12,0	6,0	12,0	3,0	100,0	48,0	11,0	0,0	3,0	–	4	■
JHF181020J3R050.0Z4-HXT	03067318	3	J	–	2,0	1,0	6,0	0,5	50,0	10,0	1,8	0,9	0,5	6,8	4	■
JHF181030J3R075.0Z4-HXT	03067319	3	J	–	3,0	1,5	6,0	0,75	50,0	15,0	2,7	0,9	0,75	4,4	4	■
JHF181040J3R100.0Z4-HXT	03067320	3	J	–	4,0	2,0	6,0	1,0	60,0	20,0	3,6	0,9	1,0	2,6	4	■
JHF181060J3R150.0Z4-HXT	03067321	3	J	–	6,0	3,0	8,0	1,5	65,0	30,0	5,4	0,9	1,5	1,9	4	■
JHF181080J3R200.0Z4-HXT	03067325	3	J	–	8,0	4,0	10,0	2,0	85,0	40,0	7,3	0,9	2,0	1,5	4	■
JHF181100J3R200.0Z4-HXT	03067327	3	J	–	10,0	6,0	12,0	2,0	100,0	50,0	9,2	0,9	2,0	1,2	4	■
JHF181020J4R050.0Z3-HXT	03067329	4	J	–	2,0	1,0	6,0	0,5	50,0	14,0	1,8	0,9	0,5	5,6	3	■
JHF181030J4R075.0Z3-HXT	03067330	4	J	–	3,0	1,5	6,0	0,75	60,0	21,0	2,7	0,9	0,75	3,4	3	■
JHF181040J4R100.0Z3-HXT	03067331	4	J	–	4,0	2,0	6,0	1,0	65,0	28,0	3,6	0,9	1,0	2,0	3	■
JHF181060J4R150.0Z3-HXT	03067332	4	J	–	6,0	3,0	8,0	1,5	80,0	42,0	5,4	0,9	1,5	1,4	3	■
JHF181080J4R200.0Z3-HXT	03067333	4	J	–	8,0	4,0	10,0	2,0	100,0	56,0	7,3	0,9	2,0	1,1	3	■
JHF181100J4R200.0Z3-HXT	03067334	4	J	–	10,0	6,0	12,0	2,0	125,0	70,0	9,2	0,9	2,0	0,9	3	■

■ Stocked standard.

Cutting data – JHF181 Side milling roughing

SMG		a_e/DCX	a_p/DCX	f_z								v_c
				2	3	4	6	8	10	12	16	
P6	E/M/A	0.30 *0,30*	0.040 *0,040*	0.070 *0,0028*	0.10 *0,0040*	0.14 *0,0055*	0.20 *0,0080*	0.28 *0,011*	0.34 *0,013*	0.40 *0,016*	0.55 *0,022*	305 (290 — 320) *1000 (960 — 1000)*
P7	E/M/A	0.30 *0,30*	0.040 *0,040*	0.070 *0,0028*	0.10 *0,0040*	0.14 *0,0055*	0.20 *0,0080*	0.28 *0,011*	0.34 *0,013*	0.40 *0,016*	0.55 *0,022*	290 (270 — 300) *950 (890 — 980)*
P8	E/M/A	0.30 *0,30*	0.040 *0,040*	0.070 *0,0028*	0.10 *0,0040*	0.14 *0,0055*	0.20 *0,0080*	0.28 *0,011*	0.34 *0,013*	0.40 *0,016*	0.55 *0,022*	270 (260 — 290) *890 (860 — 950)*
P11	E/M/A	0.30 *0,30*	0.040 *0,040*	0.070 *0,0028*	0.10 *0,0040*	0.14 *0,0055*	0.20 *0,0080*	0.28 *0,011*	0.34 *0,013*	0.40 *0,016*	0.55 *0,022*	280 (270 — 290) *920 (890 — 950)*
K1	E/M/A	0.30 *0,30*	0.040 *0,040*	0.070 *0,0028*	0.10 *0,0040*	0.14 *0,0055*	0.20 *0,0080*	0.28 *0,011*	0.34 *0,013*	0.40 *0,016*	0.55 *0,022*	210 (190 — 240) *690 (630 — 780)*
K2	E/M/A	0.30 *0,30*	0.040 *0,040*	0.070 *0,0028*	0.10 *0,0040*	0.14 *0,0055*	0.20 *0,0080*	0.28 *0,011*	0.34 *0,013*	0.40 *0,016*	0.55 *0,022*	185 (160 — 200) *610 (530 — 650)*
K3	E/M/A	0.30 *0,30*	0.040 *0,040*	0.070 *0,0028*	0.10 *0,0040*	0.14 *0,0055*	0.20 *0,0080*	0.28 *0,011*	0.34 *0,013*	0.40 *0,016*	0.55 *0,022*	155 (140 — 170) *510 (460 — 550)*
K4	E/M/A	0.30 *0,30*	0.040 *0,040*	0.070 *0,0028*	0.10 *0,0040*	0.14 *0,0055*	0.20 *0,0080*	0.28 *0,011*	0.34 *0,013*	0.40 *0,016*	0.55 *0,022*	150 (130 — 160) *490 (430 — 520)*
K5	E/M/A	0.30 *0,30*	0.040 *0,040*	0.050 *0,0020*	0.080 *0,0032*	0.10 *0,0040*	0.16 *0,0065*	0.20 *0,0080*	0.26 *0,010*	0.32 *0,013*	0.42 *0,017*	150 (120 — 170) *490 (400 — 550)*
K6	E/M/A	0.30 *0,30*	0.040 *0,040*	0.050 *0,0020*	0.080 *0,0032*	0.10 *0,0040*	0.16 *0,0065*	0.20 *0,0080*	0.26 *0,010*	0.32 *0,013*	0.42 *0,017*	220 (180 — 260) *720 (600 — 850)*
K7	E/M/A	0.30 *0,30*	0.040 *0,040*	0.050 *0,0020*	0.080 *0,0032*	0.10 *0,0040*	0.16 *0,0065*	0.20 *0,0080*	0.26 *0,010*	0.32 *0,013*	0.42 *0,017*	190 (160 — 220) *620 (530 — 720)*
S1	E	0.18 *0,18*	0.014 *0,014*	0.025 *0,0010*	0.038 *0,0015*	0.050 *0,0020*	0.075 *0,0030*	0.10 *0,0040*	0.13 *0,0050*	0.15 *0,0060*	0.19 *0,0075*	60 (40 — 79) *195 (140 — 250)*
S2	E	0.18 *0,18*	0.014 *0,014*	0.025 *0,0010*	0.038 *0,0015*	0.050 *0,0020*	0.075 *0,0030*	0.10 *0,0040*	0.13 *0,0050*	0.15 *0,0060*	0.19 *0,0075*	48 (33 — 64) *155 (110 — 200)*
S3	E	0.18 *0,18*	0.014 *0,014*	0.024 *0,00095*	0.036 *0,0014*	0.048 *0,0019*	0.070 *0,0028*	0.095 *0,0038*	0.12 *0,0048*	0.14 *0,0055*	0.17 *0,0065*	42 (28 — 55) *140 (92 — 180)*
S11	E	0.18 *0,18*	0.034 *0,034*	0.036 *0,0014*	0.055 *0,0022*	0.070 *0,0028*	0.11 *0,0044*	0.14 *0,0055*	0.18 *0,0070*	0.22 *0,0085*	0.26 *0,010*	200 (180 — 220) *660 (600 — 720)*
S12	E	0.18 *0,18*	0.034 *0,034*	0.036 *0,0014*	0.055 *0,0022*	0.070 *0,0028*	0.11 *0,0044*	0.14 *0,0055*	0.18 *0,0070*	0.22 *0,0085*	0.26 *0,010*	155 (140 — 170) *510 (460 — 550)*
S13	E	0.18 *0,18*	0.034 *0,034*	0.032 *0,0013*	0.046 *0,0018*	0.065 *0,0026*	0.095 *0,0038*	0.13 *0,0050*	0.16 *0,0065*	0.18 *0,0070*	0.24 *0,0095*	125 (110 — 130) *410 (370 — 420)*
H3	M/A/D	0.30 *0,30*	0.020 *0,020*	0.050 *0,0020*	0.080 *0,0032*	0.10 *0,0040*	0.16 *0,0065*	0.20 *0,0080*	0.26 *0,010*	0.32 *0,013*	0.42 *0,017*	85 (73 — 96) *280 (240 — 310)*
H5	M/A/D	0.30 *0,30*	0.040 *0,040*	0.070 *0,0028*	0.10 *0,0040*	0.14 *0,0055*	0.20 *0,0080*	0.28 *0,011*	0.34 *0,013*	0.40 *0,016*	0.55 *0,022*	165 (150 — 180) *540 (500 — 590)*
H7	M/A/D	0.30 *0,30*	0.020 *0,020*	0.050 *0,0020*	0.080 *0,0032*	0.10 *0,0040*	0.16 *0,0065*	0.20 *0,0080*	0.26 *0,010*	0.32 *0,013*	0.42 *0,017*	85 (73 — 96) *280 (240 — 310)*
H8	M/A/D	0.30 *0,30*	0.040 *0,040*	0.070 *0,0028*	0.10 *0,0040*	0.14 *0,0055*	0.20 *0,0080*	0.28 *0,011*	0.34 *0,013*	0.40 *0,016*	0.55 *0,022*	165 (150 — 180) *540 (500 — 590)*
H11	M/A/D	0.30 *0,30*	0.040 *0,040*	0.070 *0,0028*	0.10 *0,0040*	0.14 *0,0055*	0.20 *0,0080*	0.28 *0,011*	0.34 *0,013*	0.40 *0,016*	0.55 *0,022*	210 (190 — 230) *690 (630 — 750)*
H12	M/A/D	0.30 *0,30*	0.040 *0,040*	0.070 *0,0028*	0.10 *0,0040*	0.14 *0,0055*	0.20 *0,0080*	0.28 *0,011*	0.34 *0,013*	0.40 *0,016*	0.55 *0,022*	190 (180 — 210) *620 (600 — 680)*
H21	M/A/D	0.30 *0,30*	0.040 *0,040*	0.070 *0,0028*	0.10 *0,0040*	0.14 *0,0055*	0.20 *0,0080*	0.28 *0,011*	0.34 *0,013*	0.40 *0,016*	0.55 *0,022*	165 (150 — 180) *540 (500 — 590)*
H31	M/A/D	0.30 *0,30*	0.040 *0,040*	0.070 *0,0028*	0.10 *0,0040*	0.14 *0,0055*	0.20 *0,0080*	0.28 *0,011*	0.34 *0,013*	0.40 *0,016*	0.55 *0,022*	125 (120 — 130) *410 (400 — 420)*

For cutting data recalculations, see pages 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

Cutting data – JHF181 Slot milling

SMG		a_p/DCX	f_z								v_c
			2	3	4	6	8	10	12	16	
P6	E/M/A	0.040 *0,040*	0.042 *0,0017*	0.065 *0,0026*	0.085 *0,0034*	0.13 *0,0050*	0.17 *0,0065*	0.20 *0,0080*	0.25 *0,010*	0.34 *0,013*	270 (260 — 280) *890 (860 — 910)*
P7	E/M/A	0.040 *0,040*	0.042 *0,0017*	0.065 *0,0026*	0.085 *0,0034*	0.13 *0,0050*	0.17 *0,0065*	0.20 *0,0080*	0.25 *0,010*	0.34 *0,013*	255 (240 — 270) *840 (790 — 880)*
P8	E/M/A	0.040 *0,040*	0.042 *0,0017*	0.065 *0,0026*	0.085 *0,0034*	0.13 *0,0050*	0.17 *0,0065*	0.20 *0,0080*	0.25 *0,010*	0.34 *0,013*	240 (230 — 250) *790 (760 — 820)*
P11	E/M/A	0.040 *0,040*	0.042 *0,0017*	0.065 *0,0026*	0.085 *0,0034*	0.13 *0,0050*	0.17 *0,0065*	0.20 *0,0080*	0.25 *0,010*	0.34 *0,013*	250 (240 — 260) *820 (790 — 850)*
K1	E/M/A	0.040 *0,040*	0.042 *0,0017*	0.065 *0,0026*	0.085 *0,0034*	0.13 *0,0050*	0.17 *0,0065*	0.20 *0,0080*	0.25 *0,010*	0.34 *0,013*	185 (170 — 210) *610 (560 — 680)*
K2	E/M/A	0.040 *0,040*	0.042 *0,0017*	0.065 *0,0026*	0.085 *0,0034*	0.13 *0,0050*	0.17 *0,0065*	0.20 *0,0080*	0.25 *0,010*	0.34 *0,013*	160 (140 — 180) *520 (460 — 590)*
K3	E/M/A	0.040 *0,040*	0.042 *0,0017*	0.065 *0,0026*	0.085 *0,0034*	0.13 *0,0050*	0.17 *0,0065*	0.20 *0,0080*	0.25 *0,010*	0.34 *0,013*	135 (120 — 150) *445 (400 — 490)*
K4	E/M/A	0.040 *0,040*	0.042 *0,0017*	0.065 *0,0026*	0.085 *0,0034*	0.13 *0,0050*	0.17 *0,0065*	0.20 *0,0080*	0.25 *0,010*	0.34 *0,013*	130 (120 — 140) *425 (400 — 450)*
K5	E/M/A	0.040 *0,040*	0.030 *0,0012*	0.046 *0,0018*	0.060 *0,0024*	0.090 *0,0036*	0.12 *0,0048*	0.15 *0,0060*	0.18 *0,0070*	0.24 *0,0095*	130 (110 — 150) *425 (370 — 490)*
K6	E/M/A	0.040 *0,040*	0.030 *0,0012*	0.046 *0,0018*	0.060 *0,0024*	0.090 *0,0036*	0.12 *0,0048*	0.15 *0,0060*	0.18 *0,0070*	0.24 *0,0095*	195 (160 — 230) *640 (530 — 750)*
K7	E/M/A	0.040 *0,040*	0.030 *0,0012*	0.046 *0,0018*	0.060 *0,0024*	0.090 *0,0036*	0.12 *0,0048*	0.15 *0,0060*	0.18 *0,0070*	0.24 *0,0095*	170 (140 — 200) *560 (460 — 650)*
S1	E	0.014 *0,014*	0.0090 *0,00036*	0.014 *0,00055*	0.018 *0,00070*	0.028 *0,0011*	0.036 *0,0014*	0.046 *0,0018*	0.055 *0,0022*	0.070 *0,0028*	48 (33 — 64) *155 (110 — 200)*
S2	E	0.014 *0,014*	0.0090 *0,00036*	0.014 *0,00055*	0.018 *0,00070*	0.028 *0,0011*	0.036 *0,0014*	0.046 *0,0018*	0.055 *0,0022*	0.070 *0,0028*	39 (26 — 51) *130 (86 — 160)*
S3	E	0.014 *0,014*	0.0090 *0,00036*	0.014 *0,00055*	0.018 *0,00070*	0.028 *0,0011*	0.036 *0,0014*	0.046 *0,0018*	0.055 *0,0022*	0.070 *0,0028*	33 (23 — 44) *110 (76 — 140)*
S11	E	0.034 *0,034*	0.011 *0,00044*	0.017 *0,00065*	0.022 *0,00085*	0.034 *0,0013*	0.046 *0,0018*	0.055 *0,0022*	0.070 *0,0028*	0.090 *0,0036*	170 (150 — 190) *560 (500 — 620)*
S12	E	0.034 *0,034*	0.011 *0,00044*	0.017 *0,00065*	0.022 *0,00085*	0.034 *0,0013*	0.046 *0,0018*	0.055 *0,0022*	0.070 *0,0028*	0.090 *0,0036*	130 (120 — 140) *425 (400 — 450)*
S13	E	0.034 *0,034*	0.011 *0,00044*	0.017 *0,00065*	0.022 *0,00085*	0.034 *0,0013*	0.046 *0,0018*	0.055 *0,0022*	0.070 *0,0028*	0.090 *0,0036*	100 (89 — 110) *330 (300 — 360)*
H3	M/A/D	0.020 *0,020*	0.034 *0,0013*	0.050 *0,0020*	0.070 *0,0028*	0.10 *0,0040*	0.14 *0,0055*	0.17 *0,0065*	0.20 *0,0080*	0.28 *0,011*	75 (63 — 83) *245 (210 — 270)*
H5	M/A/D	0.040 *0,040*	0.042 *0,0017*	0.065 *0,0026*	0.085 *0,0034*	0.13 *0,0050*	0.17 *0,0065*	0.20 *0,0080*	0.25 *0,010*	0.34 *0,013*	145 (130 — 160) *475 (430 — 520)*
H7	M/A/D	0.020 *0,020*	0.034 *0,0013*	0.050 *0,0020*	0.070 *0,0028*	0.10 *0,0040*	0.14 *0,0055*	0.17 *0,0065*	0.20 *0,0080*	0.28 *0,011*	75 (63 — 83) *245 (210 — 270)*
H8	M/A/D	0.040 *0,040*	0.042 *0,0017*	0.065 *0,0026*	0.085 *0,0034*	0.13 *0,0050*	0.17 *0,0065*	0.20 *0,0080*	0.25 *0,010*	0.34 *0,013*	145 (130 — 160) *475 (430 — 520)*
H11	M/A/D	0.040 *0,040*	0.042 *0,0017*	0.065 *0,0026*	0.085 *0,0034*	0.13 *0,0050*	0.17 *0,0065*	0.20 *0,0080*	0.25 *0,010*	0.34 *0,013*	185 (170 — 200) *610 (560 — 650)*
H12	M/A/D	0.040 *0,040*	0.042 *0,0017*	0.065 *0,0026*	0.085 *0,0034*	0.13 *0,0050*	0.17 *0,0065*	0.20 *0,0080*	0.25 *0,010*	0.34 *0,013*	170 (160 — 180) *560 (530 — 590)*
H21	M/A/D	0.040 *0,040*	0.042 *0,0017*	0.065 *0,0026*	0.085 *0,0034*	0.13 *0,0050*	0.17 *0,0065*	0.20 *0,0080*	0.25 *0,010*	0.34 *0,013*	145 (130 — 160) *475 (430 — 520)*
H31	M/A/D	0.040 *0,040*	0.042 *0,0017*	0.065 *0,0026*	0.085 *0,0034*	0.13 *0,0050*	0.17 *0,0065*	0.20 *0,0080*	0.25 *0,010*	0.34 *0,013*	110 (98 — 120) *360 (330 — 390)*

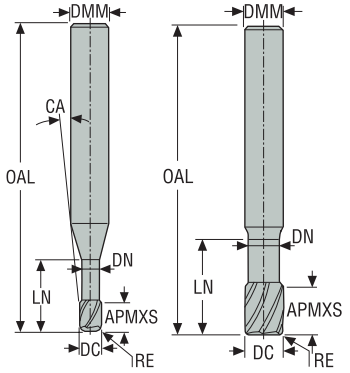
For cutting data recalculations, see pages 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

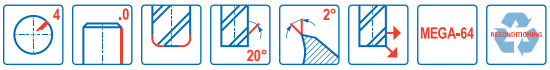
JH120

High speed – Hardened steel – Square – 4 Flutes – Cylindrical – Corner radius





- Tolerances:
- DMM=h5
- DC=-0,02/-0,03 mm
- RE= ±0,01 mm
- Regrind possible if DC is ≥Ø6



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	CA°	PCEDC	Cylindrical
				mm	mm	mm	mm	mm	mm	mm			
120020-MEGA-64	00019437	2	G	2,0	6,0	2,5	50,0	5,0	1,9	0,2	10,5	4	■
120025-MEGA-64	00019448	2	G	2,5	6,0	3,0	50,0	6,0	2,4	0,25	8,5	4	■
120030-MEGA-64	00019450	2	G	3,0	6,0	4,0	50,0	7,0	2,8	0,3	7,0	4	■
120035-MEGA-64	00019460	2	G	3,5	6,0	4,5	50,0	8,0	3,2	0,35	5,5	4	■
120040-MEGA-64	00019462	2	G	4,0	6,0	5,0	50,0	9,0	3,7	0,4	4,5	4	■
120050-MEGA-64	00019476	2	G	5,0	6,0	6,0	50,0	12,0	4,6	0,5	2,5	4	■
120060-MEGA-64	00019479	2	E	6,0	6,0	7,0	55,0	14,0	5,6	0,6	–	4	■
120080-MEGA-64	00019481	2	E	8,0	8,0	10,0	60,0	18,0	7,4	0,8	–	4	■
120100-MEGA-64	00019494	2	E	10,0	10,0	12,0	70,0	25,0	9,4	1,0	–	4	■
120120-MEGA-64	00019501	2	E	12,0	12,0	15,0	80,0	30,0	11,4	1,2	–	4	■
120160-MEGA-64	00019503	2	E	16,0	16,0	18,0	90,0	35,0	15,4	1,6	–	4	■

■ Stocked standard.

Cutting data – JH120 Side milling

SMG		a_e/DC	a_p/DC	f_z											v_c
				2	2.5	3	3.5	4	5	6	8	10	12	16	
H3	M	0.0150 *0,0150*	0.50 *0,50*	0.0095 *0,00038*	0.012 *0,00048*	0.014 *0,00055*	0.016 *0,00065*	0.019 *0,00075*	0.024 *0,00095*	0.028 *0,0011*	0.038 *0,0015*	0.048 *0,0019*	0.055 *0,0022*	0.070 *0,0028*	90 (57 — 130) *295 (190 — 420)*
H5	M	0.0300 *0,0300*	1.0 *1,0*	0.012 *0,00048*	0.015 *0,00060*	0.018 *0,00070*	0.020 *0,00080*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	0.095 *0,0038*	215 (180 — 250) *710 (600 — 820)*
H7	M	0.0150 *0,0150*	0.50 *0,50*	0.0095 *0,00038*	0.012 *0,00048*	0.014 *0,00055*	0.016 *0,00065*	0.019 *0,00075*	0.024 *0,00095*	0.028 *0,0011*	0.038 *0,0015*	0.048 *0,0019*	0.055 *0,0022*	0.070 *0,0028*	90 (57 — 130) *295 (190 — 420)*
H8	M	0.0300 *0,0300*	1.0 *1,0*	0.012 *0,00048*	0.015 *0,00060*	0.018 *0,00070*	0.020 *0,00080*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	0.095 *0,0038*	215 (180 — 250) *710 (600 — 820)*
H11	M	0.0300 *0,0300*	1.0 *1,0*	0.012 *0,00048*	0.015 *0,00060*	0.018 *0,00070*	0.020 *0,00080*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	0.095 *0,0038*	275 (230 — 320) *900 (760 — 1000)*
H12	M	0.0300 *0,0300*	1.0 *1,0*	0.012 *0,00048*	0.015 *0,00060*	0.018 *0,00070*	0.020 *0,00080*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	0.095 *0,0038*	250 (210 — 290) *820 (690 — 950)*
H21	M	0.0300 *0,0300*	1.0 *1,0*	0.012 *0,00048*	0.015 *0,00060*	0.018 *0,00070*	0.020 *0,00080*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	0.095 *0,0038*	215 (180 — 250) *710 (600 — 820)*
H31	M	0.0300 *0,0300*	1.0 *1,0*	0.012 *0,00048*	0.015 *0,00060*	0.018 *0,00070*	0.020 *0,00080*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	0.095 *0,0038*	135 (120 — 150) *445 (400 — 490)*

Cutting data – JH120 Slot milling

SMG		a_p/DC	f_z											v_c
			2	2.5	3	3.5	4	5	6	8	10	12	16	
H3	M	0.050 *0,050*	0.0050 *0,00020*	0.0065 *0,00026*	0.0075 *0,00030*	0.0090 *0,00036*	0.010 *0,00040*	0.013 *0,00050*	0.015 *0,00060*	0.020 *0,00080*	0.025 *0,0010*	0.030 *0,0012*	0.038 *0,0015*	55 (34 — 78) *180 (120 — 250)*
H5	M	0.18 *0,18*	0.0080 *0,00032*	0.010 *0,00040*	0.012 *0,00048*	0.014 *0,00055*	0.016 *0,00065*	0.020 *0,00080*	0.024 *0,00095*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.060 *0,0024*	120 (98 — 140) *395 (330 — 450)*
H7	M	0.050 *0,050*	0.0050 *0,00020*	0.0065 *0,00026*	0.0075 *0,00030*	0.0090 *0,00036*	0.010 *0,00040*	0.013 *0,00050*	0.015 *0,00060*	0.020 *0,00080*	0.025 *0,0010*	0.030 *0,0012*	0.038 *0,0015*	55 (34 — 78) *180 (120 — 250)*
H8	M	0.18 *0,18*	0.0060 *0,00024*	0.0075 *0,00030*	0.0090 *0,00036*	0.011 *0,00044*	0.012 *0,00048*	0.015 *0,00060*	0.018 *0,00070*	0.025 *0,0010*	0.030 *0,0012*	0.036 *0,0014*	0.044 *0,0017*	125 (110 — 140) *410 (370 — 450)*
H11	M	0.18 *0,18*	0.0080 *0,00032*	0.010 *0,00040*	0.012 *0,00048*	0.014 *0,00055*	0.016 *0,00065*	0.020 *0,00080*	0.024 *0,00095*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.060 *0,0024*	150 (130 — 170) *490 (430 — 550)*
H12	M	0.18 *0,18*	0.0060 *0,00024*	0.0075 *0,00030*	0.0090 *0,00036*	0.011 *0,00044*	0.012 *0,00048*	0.015 *0,00060*	0.018 *0,00070*	0.025 *0,0010*	0.030 *0,0012*	0.036 *0,0014*	0.044 *0,0017*	145 (120 — 170) *475 (400 — 550)*
H21	M	0.18 *0,18*	0.0060 *0,00024*	0.0075 *0,00030*	0.0090 *0,00036*	0.011 *0,00044*	0.012 *0,00048*	0.015 *0,00060*	0.018 *0,00070*	0.025 *0,0010*	0.030 *0,0012*	0.036 *0,0014*	0.044 *0,0017*	125 (110 — 140) *410 (370 — 450)*
H31	M	0.18 *0,18*	0.0055 *0,00022*	0.0065 *0,00026*	0.0080 *0,00032*	0.0090 *0,00036*	0.011 *0,00044*	0.013 *0,00050*	0.016 *0,00065*	0.022 *0,00085*	0.026 *0,0010*	0.032 *0,0013*	0.038 *0,0015*	80 (70 — 92) *260 (230 — 300)*

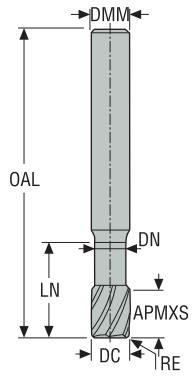
For cutting data recalculations, see pages 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

JH130

High speed – Hardened steel – Square – 5-8 Flutes – Cylindrical – Corner radius





E

- Tolerances:
- DMM=h5
- DC=-0,02/-0,04 mm
- RE= ±0,05 mm
- Regrind possible



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Cylindrical
				mm	mm	mm	mm	mm	mm	mm		
130060-MEGA-64	00019504	2	E	6,0	6,0	6,0	55,0	12,0	5,6	0,2	5	■
130080-MEGA-64	00019507	2	E	8,0	8,0	8,0	60,0	16,0	7,4	0,2	5	■
130100-MEGA-64	00019511	2	E	10,0	10,0	10,0	70,0	20,0	9,4	0,3	6	■
130120-MEGA-64	00019512	2	E	12,0	12,0	12,0	80,0	24,0	11,4	0,5	6	■
130160-MEGA-64	00019514	2	E	16,0	16,0	16,0	90,0	30,0	15,4	0,5	8	■
130200-MEGA-64	00019542	2	E	20,0	20,0	20,0	100,0	35,0	19,2	0,5	8	■

■ Stocked standard.

Cutting data – JH130 Side milling finishing

SMG		a_e/DC	a_p/DC	f_z						v_c
				6	8	10	12	16	20	
H3	M	0.0300 *0,0300*	0.50 *0,50*	0.013 *0,00050*	0.018 *0,00070*	0.022 *0,00085*	0.026 *0,0010*	0.032 *0,0013*	0.038 *0,0015*	85 (73 — 93) *280 (240 — 300)*
H5	M	0.0300 *0,0300*	1.0 *1,0*	0.032 *0,0013*	0.042 *0,0017*	0.050 *0,0020*	0.060 *0,0024*	0.075 *0,0030*	0.090 *0,0036*	255 (240 — 270) *840 (790 — 880)*
H7	M	0.0300 *0,0300*	0.50 *0,50*	0.013 *0,00050*	0.018 *0,00070*	0.022 *0,00085*	0.026 *0,0010*	0.032 *0,0013*	0.038 *0,0015*	85 (73 — 93) *280 (240 — 300)*
H8	M	0.0300 *0,0300*	1.0 *1,0*	0.024 *0,00095*	0.032 *0,0013*	0.040 *0,0016*	0.046 *0,0018*	0.060 *0,0024*	0.065 *0,0026*	260 (240 — 270) *850 (790 — 880)*
H11	M	0.0300 *0,0300*	1.0 *1,0*	0.032 *0,0013*	0.042 *0,0017*	0.050 *0,0020*	0.060 *0,0024*	0.075 *0,0030*	0.090 *0,0036*	320 (300 — 340) *1050 (990 — 1100)*
H12	M	0.0300 *0,0300*	1.0 *1,0*	0.024 *0,00095*	0.032 *0,0013*	0.040 *0,0016*	0.046 *0,0018*	0.060 *0,0024*	0.065 *0,0026*	300 (280 — 320) *980 (920 — 1000)*
H21	M	0.0300 *0,0300*	1.0 *1,0*	0.024 *0,00095*	0.032 *0,0013*	0.040 *0,0016*	0.046 *0,0018*	0.060 *0,0024*	0.065 *0,0026*	260 (240 — 270) *850 (790 — 880)*
H31	M	0.0300 *0,0300*	1.0 *1,0*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.075 *0,0030*	0.085 *0,0034*	155 (140 — 170) *510 (460 — 550)*

Cutting data – JH130 Side milling roughing

SMG		a_e/DC	a_p/DC	f_z						v_c
				6	8	10	12	16	20	
H3	M	0.0300 *0,0300*	0.50 *0,50*	0.013 *0,00050*	0.018 *0,00070*	0.022 *0,00085*	0.026 *0,0010*	0.032 *0,0013*	0.038 *0,0015*	85 (73 — 93) *280 (240 — 300)*
H5	M	0.0300 *0,0300*	1.0 *1,0*	0.032 *0,0013*	0.042 *0,0017*	0.050 *0,0020*	0.060 *0,0024*	0.075 *0,0030*	0.090 *0,0036*	255 (240 — 270) *840 (790 — 880)*
H7	M	0.0300 *0,0300*	0.50 *0,50*	0.013 *0,00050*	0.018 *0,00070*	0.022 *0,00085*	0.026 *0,0010*	0.032 *0,0013*	0.038 *0,0015*	85 (73 — 93) *280 (240 — 300)*
H8	M	0.0300 *0,0300*	1.0 *1,0*	0.024 *0,00095*	0.032 *0,0013*	0.040 *0,0016*	0.046 *0,0018*	0.060 *0,0024*	0.065 *0,0026*	260 (240 — 270) *850 (790 — 880)*
H11	M	0.0300 *0,0300*	1.0 *1,0*	0.032 *0,0013*	0.042 *0,0017*	0.050 *0,0020*	0.060 *0,0024*	0.075 *0,0030*	0.090 *0,0036*	320 (300 — 340) *1050 (990 — 1100)*
H12	M	0.0300 *0,0300*	1.0 *1,0*	0.024 *0,00095*	0.032 *0,0013*	0.040 *0,0016*	0.046 *0,0018*	0.060 *0,0024*	0.065 *0,0026*	300 (280 — 320) *980 (920 — 1000)*
H21	M	0.0300 *0,0300*	1.0 *1,0*	0.024 *0,00095*	0.032 *0,0013*	0.040 *0,0016*	0.046 *0,0018*	0.060 *0,0024*	0.065 *0,0026*	260 (240 — 270) *850 (790 — 880)*
H31	M	0.0300 *0,0300*	1.0 *1,0*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.075 *0,0030*	0.085 *0,0034*	155 (140 — 170) *510 (460 — 550)*

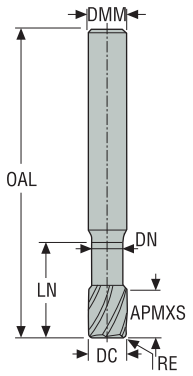
For cutting data recalculations, see pages 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

JH930

High speed – Universal – Square – 5-8 Flutes – Cylindrical – Corner radius





E

- Tolerances:
- DMM=h5
- DC=-0,02/-0,04 mm
- RE= ±0,05 mm
- Regrind possible

Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Cylindrical
				mm	mm	mm	mm	mm	mm	mm		
930060R020-MEGA	00022026	2	E	6,0	6,0	9,0	55,0	15,0	5,6	0,2	5	■
930060R050-MEGA	00022027	2	E	6,0	6,0	9,0	55,0	15,0	5,6	0,5	5	■
930080R020-MEGA	00022028	2	E	8,0	8,0	12,0	60,0	18,0	7,4	0,2	5	■
930080R050-MEGA	00022029	2	E	8,0	8,0	12,0	60,0	18,0	7,4	0,5	5	■
930100R030-MEGA	00022030	2	E	10,0	10,0	15,0	70,0	25,0	9,4	0,3	6	■
930100R100-MEGA	00022031	2	E	10,0	10,0	15,0	70,0	25,0	9,4	1,0	6	■
930120R050-MEGA	00022033	2	E	12,0	12,0	18,0	80,0	30,0	11,4	0,5	6	■
930120R100-MEGA	00022034	2	E	12,0	12,0	18,0	80,0	30,0	11,4	1,0	6	■
930160R050-MEGA	00022035	2	E	16,0	16,0	24,0	90,0	35,0	15,4	0,5	8	■
930160R100-MEGA	00022040	2	E	16,0	16,0	24,0	90,0	35,0	15,4	1,0	8	■
930200R050-MEGA	00022044	2	E	20,0	20,0	30,0	100,0	38,0	19,2	0,5	8	■

■ Stocked standard.

Cutting data – JH930 Side milling

SMG		a_e/DC	a_p/DC	f_z						v_c
				6	8	10	12	16	20	
P1	M/E/A	0.0400 *0,0400*	0.70 *0,70*	0.065 *0,0026*	0.085 *0,0034*	0.11 *0,0044*	0.13 *0,0050*	0.16 *0,0065*	0.18 *0,0070*	440 (370 — 490) *1450 (1300 — 1600)*
P2	M/E/A	0.0400 *0,0400*	0.70 *0,70*	0.065 *0,0026*	0.090 *0,0036*	0.11 *0,0044*	0.13 *0,0050*	0.16 *0,0065*	0.19 *0,0075*	430 (360 — 480) *1400 (1200 — 1500)*
P3	M/E/A	0.0400 *0,0400*	0.70 *0,70*	0.060 *0,0024*	0.085 *0,0034*	0.10 *0,0040*	0.12 *0,0048*	0.15 *0,0060*	0.18 *0,0070*	375 (320 — 420) *1225 (1100 — 1300)*
P4	M/E/A	0.0400 *0,0400*	0.70 *0,70*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.15 *0,0060*	0.17 *0,0065*	330 (280 — 370) *1075 (920 — 1200)*
P5	M/E/A	0.0400 *0,0400*	0.70 *0,70*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.15 *0,0060*	0.17 *0,0065*	315 (270 — 350) *1025 (890 — 1100)*
P6	M/E/A	0.0400 *0,0400*	0.70 *0,70*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.15 *0,0060*	0.17 *0,0065*	355 (300 — 390) *1175 (990 — 1200)*
P7	M/E/A	0.0400 *0,0400*	0.70 *0,70*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.15 *0,0060*	0.17 *0,0065*	335 (280 — 370) *1100 (920 — 1200)*
P8	M/E/A	0.0400 *0,0400*	0.70 *0,70*	0.060 *0,0024*	0.085 *0,0034*	0.10 *0,0040*	0.12 *0,0048*	0.15 *0,0060*	0.18 *0,0070*	315 (270 — 350) *1025 (890 — 1100)*
P11	M/E/A	0.0400 *0,0400*	0.70 *0,70*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.15 *0,0060*	0.17 *0,0065*	325 (280 — 360) *1075 (920 — 1100)*
P12	M/E/A	0.0400 *0,0400*	0.70 *0,70*	0.040 *0,0016*	0.055 *0,0022*	0.070 *0,0028*	0.080 *0,0032*	0.10 *0,0040*	0.11 *0,0044*	200 (170 — 220) *660 (560 — 720)*
K1	E/M/A	0.0400 *0,0400*	0.70 *0,70*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.15 *0,0060*	0.17 *0,0065*	255 (210 — 300) *840 (690 — 980)*
K2	E/M/A	0.0400 *0,0400*	0.70 *0,70*	0.055 *0,0022*	0.075 *0,0030*	0.090 *0,0036*	0.11 *0,0044*	0.13 *0,0050*	0.15 *0,0060*	225 (180 — 260) *740 (600 — 850)*
K3	E/M/A	0.0400 *0,0400*	0.70 *0,70*	0.055 *0,0022*	0.075 *0,0030*	0.090 *0,0036*	0.11 *0,0044*	0.13 *0,0050*	0.15 *0,0060*	190 (160 — 220) *620 (530 — 720)*
K4	E/M/A	0.0400 *0,0400*	0.70 *0,70*	0.055 *0,0022*	0.075 *0,0030*	0.090 *0,0036*	0.11 *0,0044*	0.13 *0,0050*	0.15 *0,0060*	180 (150 — 210) *590 (500 — 680)*
K5	E/M/A	0.0300 *0,0300*	0.50 *0,50*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.15 *0,0060*	0.17 *0,0065*	205 (160 — 250) *670 (530 — 820)*
K6	E/M/A	0.0300 *0,0300*	0.50 *0,50*	0.065 *0,0026*	0.090 *0,0036*	0.11 *0,0044*	0.13 *0,0050*	0.16 *0,0065*	0.19 *0,0075*	300 (230 — 370) *980 (760 — 1200)*
K7	E/M/A	0.0300 *0,0300*	0.50 *0,50*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.15 *0,0060*	0.17 *0,0065*	260 (200 — 320) *850 (660 — 1000)*
S1	E/M/A	0.0300 *0,0300*	0.44 *0,44*	0.055 *0,0022*	0.070 *0,0028*	0.090 *0,0036*	0.11 *0,0044*	0.13 *0,0050*	0.15 *0,0060*	80 (62 — 100) *260 (210 — 320)*
S2	E/M/A	0.0300 *0,0300*	0.44 *0,44*	0.055 *0,0022*	0.070 *0,0028*	0.090 *0,0036*	0.11 *0,0044*	0.13 *0,0050*	0.15 *0,0060*	65 (50 — 82) *215 (170 — 260)*
S3	E/M/A	0.0200 *0,0200*	0.70 *0,70*	0.055 *0,0022*	0.070 *0,0028*	0.090 *0,0036*	0.11 *0,0044*	0.13 *0,0050*	0.15 *0,0060*	41 (31 — 50) *135 (110 — 160)*
S11	E/M/A	0.0400 *0,0400*	0.70 *0,70*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.15 *0,0060*	0.17 *0,0065*	160 (140 — 180) *520 (460 — 590)*
S12	E/M/A	0.0400 *0,0400*	0.70 *0,70*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.15 *0,0060*	0.17 *0,0065*	120 (110 — 140) *395 (370 — 450)*
S13	E/M/A	0.0400 *0,0400*	0.70 *0,70*	0.050 *0,0020*	0.070 *0,0028*	0.085 *0,0034*	0.10 *0,0040*	0.13 *0,0050*	0.15 *0,0060*	95 (81 — 110) *310 (270 — 360)*
H3	M/A	0.0200 *0,0200*	0.50 *0,50*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.044 *0,0017*	0.050 *0,0020*	55 (41 — 71) *180 (140 — 230)*
H5	M/A	0.0300 *0,0300*	0.50 *0,50*	0.024 *0,00095*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	250 (210 — 300) *820 (690 — 980)*
H7	M/A	0.0200 *0,0200*	0.50 *0,50*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.044 *0,0017*	0.050 *0,0020*	55 (41 — 71) *180 (140 — 230)*
H8	M/A	0.0300 *0,0300*	0.50 *0,50*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.044 *0,0017*	0.050 *0,0020*	255 (210 — 300) *840 (690 — 980)*
H11	M/A	0.0300 *0,0300*	0.50 *0,50*	0.024 *0,00095*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	320 (260 — 380) *1050 (860 — 1200)*
H12	M/A	0.0400 *0,0400*	0.70 *0,70*	0.030 *0,0012*	0.042 *0,0017*	0.050 *0,0020*	0.060 *0,0024*	0.075 *0,0030*	0.085 *0,0034*	270 (220 — 320) *890 (730 — 1000)*
H21	M/A	0.0300 *0,0300*	0.50 *0,50*	0.018 *0,00070*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.044 *0,0017*	0.050 *0,0020*	255 (210 — 300) *840 (690 — 980)*
H31	M/A	0.0300 *0,0300*	0.50 *0,50*	0.024 *0,00095*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	155 (130 — 180) *510 (430 — 590)*

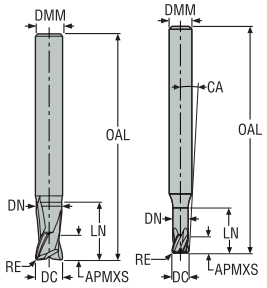
For cutting data recalculations, see pages 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

JH142

High speed – High precision – Torical – Hardened steel – 2-6 Flutes – Cylindrical – Corner radius





- Tolerances:
- Run-out= <0,005 mm
- DMM= h5
- DC= 0-0,01 mm
- RE= ±0,005 mm
- Regrind possible if DC is ≥Ø6

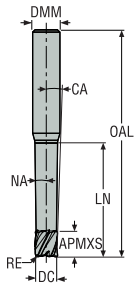


Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	CA°	PCEDC	Cylindrical
				mm	mm	mm	mm	mm	mm	mm			
JH142020G2R030.0Z2-HXT	02968223	2	G	2,0	4,0	2,0	40,0	6,0	1,9	0,3	6,64	2	■
JH142020G2R030.0Z4-HXT	02968224	2	G	2,0	4,0	2,0	40,0	6,0	1,9	0,3	6,64	4	■
JH142020G2R050.0Z2-HXT	02968225	2	G	2,0	4,0	2,0	40,0	6,0	1,9	0,5	6,79	2	■
JH142020G2R050.0Z4-HXT	02968226	2	G	2,0	4,0	2,0	40,0	6,0	1,9	0,5	6,79	4	■
JH142030G2R050.0Z2-HXT	02968227	2	G	3,0	4,0	3,0	40,0	8,0	2,8	0,5	2,95	2	■
JH142030G2R050.0Z4-HXT	02968228	2	G	3,0	4,0	3,0	40,0	8,0	2,8	0,5	2,95	4	■
JH142030G2R100.0Z2-HXT	02968229	2	G	3,0	4,0	3,0	40,0	8,0	2,8	1,0	3,1	2	■
JH142030G2R100.0Z4-HXT	02968230	2	G	3,0	4,0	3,0	40,0	8,0	2,8	1,0	3,1	4	■
JH142040G2R030.0Z2-HXT	02968231	2	G	4,0	6,0	4,0	50,0	8,0	3,7	0,3	5,34	2	■
JH142040G2R030.0Z4-HXT	02970110	2	G	4,0	6,0	4,0	50,0	8,0	3,7	0,3	5,34	4	■
JH142040G2R050.0Z4-HXT	02968232	2	G	4,0	6,0	4,0	50,0	8,0	3,7	0,5	5,44	4	■
JH142040G2R100.0Z4-HXT	02968233	2	G	4,0	6,0	4,0	50,0	8,0	3,7	1,0	5,69	4	■
JH142060E2R050.0Z4-HXT	02968235	2	E	6,0	6,0	6,0	50,0	12,0	5,6	0,5	–	4	■
JH142060E2R100.0Z4-HXT	02968237	2	E	6,0	6,0	6,0	50,0	12,0	5,6	1,0	–	4	■
JH142060E2R100.0Z5-HXT	02968238	2	E	6,0	6,0	6,0	50,0	12,0	5,6	1,0	–	5	■
JH142060E2R150.0Z5-HXT	02968240	2	E	6,0	6,0	6,0	50,0	12,0	5,6	1,5	–	5	■
JH142060E2R200.0Z5-HXT	02968241	2	E	6,0	6,0	6,0	50,0	12,0	5,6	2,0	–	5	■
JH142080E2R050.0Z5-HXT	02968242	2	E	8,0	8,0	8,0	60,0	16,0	7,4	0,5	–	5	■
JH142080E2R100.0Z5-HXT	02968243	2	E	8,0	8,0	8,0	60,0	16,0	7,4	1,0	–	5	■
JH142080E2R150.0Z5-HXT	02968244	2	E	8,0	8,0	8,0	60,0	16,0	7,4	1,5	–	5	■
JH142080E2R200.0Z5-HXT	02968245	2	E	8,0	8,0	8,0	60,0	16,0	7,4	2,0	–	5	■
JH142080E2R300.0Z5-HXT	02968246	2	E	8,0	8,0	8,0	60,0	16,0	7,4	3,0	–	5	■
JH142100E2R050.0Z5-HXT	02968247	2	E	10,0	10,0	10,0	70,0	20,0	9,4	0,5	–	5	■
JH142100E2R100.0Z5-HXT	02968248	2	E	10,0	10,0	10,0	70,0	20,0	9,4	1,0	–	5	■
JH142100E2R200.0Z5-HXT	02968249	2	E	10,0	10,0	10,0	70,0	20,0	9,4	2,0	–	5	■
JH142100E2R250.0Z5-HXT	02968250	2	E	10,0	10,0	10,0	70,0	20,0	9,4	2,5	–	5	■
JH142120E2R100.0Z6-HXT	02968251	2	E	12,0	12,0	12,0	75,0	24,0	11,4	1,0	–	6	■
JH142120E2R200.0Z6-HXT	02968252	2	E	12,0	12,0	12,0	75,0	24,0	11,4	2,0	–	6	■
JH142120E2R300.0Z6-HXT	02968253	2	E	12,0	12,0	12,0	75,0	24,0	11,4	3,0	–	6	■

■ Stocked standard.

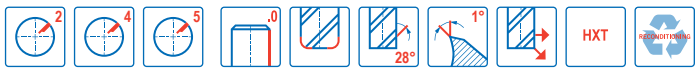
JH142

High speed – High precision – Torical – Hardened steel – 2-5 Flutes – Cylindrical – Corner radius



J





- Tolerances:
- Run-out= <0,005 mm
- DMM= h5
- DC= 0-0,01 mm
- RE= ±0,005 mm
- Regrind possible if DC is ≥Ø6

Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	CA°	PCEDC	Cylindrical
				mm	mm	mm	mm	mm	mm	mm			
JH142020J3R030.0Z2-HXT	02968255	3	J	2,0	6,0	2,0	60,0	10,0	1,9	0,3	6,72	2	■
JH142020J3R030.0Z4-HXT	02968256	3	J	2,0	6,0	2,0	60,0	10,0	1,9	0,3	6,72	4	■
JH142020J3R050.0Z2-HXT	02968257	3	J	2,0	6,0	2,0	60,0	10,0	1,9	0,5	6,79	2	■
JH142020J3R050.0Z4-HXT	02968258	3	J	2,0	6,0	2,0	60,0	10,0	1,9	0,5	6,79	4	■
JH142030J3R050.0Z2-HXT	02968259	3	J	3,0	6,0	3,0	60,0	15,0	2,8	0,5	4,3	2	■
JH142030J3R050.0Z4-HXT	02968260	3	J	3,0	6,0	3,0	60,0	15,0	2,8	0,5	4,3	4	■
JH142030J3R100.0Z2-HXT	02968261	3	J	3,0	6,0	3,0	60,0	15,0	2,8	1,0	4,4	2	■
JH142030J3R100.0Z4-HXT	02968262	3	J	3,0	6,0	3,0	60,0	15,0	2,8	1,0	4,4	4	■
JH142040J3R030.0Z2-HXT	02968263	3	J	4,0	6,0	4,0	60,0	20,0	3,7	0,3	2,45	2	■
JH142040J3R030.0Z4-HXT	02970111	3	J	4,0	6,0	4,0	60,0	20,0	3,7	0,3	2,45	4	■
JH142040J3R050.0Z2-HXT	02968265	3	J	4,0	6,0	4,0	60,0	20,0	3,7	0,5	2,48	2	■
JH142040J3R050.0Z4-HXT	02968264	3	J	4,0	6,0	4,0	60,0	20,0	3,7	0,5	2,48	4	■
JH142040J3R100.0Z2-HXT	02968266	3	J	4,0	6,0	4,0	60,0	20,0	3,7	1,0	2,53	2	■
JH142040J3R100.0Z4-HXT	02968267	3	J	4,0	6,0	4,0	60,0	20,0	3,7	1,0	2,53	4	■
JH142060J3R050.0Z4-HXT	02968268	3	J	6,0	8,0	6,0	75,0	30,0	5,6	0,5	1,75	4	■
JH142060J3R050.0Z5-HXT	02968269	3	J	6,0	8,0	6,0	75,0	30,0	5,6	0,5	1,75	5	■
JH142060J3R100.0Z4-HXT	02968270	3	J	6,0	8,0	6,0	75,0	30,0	5,6	1,0	1,77	4	■
JH142060J3R100.0Z5-HXT	02968271	3	J	6,0	8,0	6,0	75,0	30,0	5,6	1,0	1,77	5	■
JH142060J3R150.0Z5-HXT	02968272	3	J	6,0	8,0	6,0	75,0	30,0	5,6	1,5	1,8	5	■
JH142060J3R200.0Z5-HXT	02968273	3	J	6,0	8,0	6,0	75,0	30,0	5,6	2,0	1,83	5	■
JH142080J3R050.0Z5-HXT	02968274	3	J	8,0	10,0	8,0	85,0	40,0	7,4	0,5	1,34	5	■
JH142080J3R100.0Z5-HXT	02968275	3	J	8,0	10,0	8,0	85,0	40,0	7,4	1,0	1,36	5	■
JH142080J3R150.0Z5-HXT	02968276	3	J	8,0	10,0	8,0	85,0	40,0	7,4	1,5	1,37	5	■
JH142080J3R200.0Z5-HXT	02968277	3	J	8,0	10,0	8,0	85,0	40,0	7,4	2,0	1,39	5	■
JH142100J3R050.0Z5-HXT	02968278	3	J	10,0	12,0	10,0	100,0	50,0	9,4	0,5	1,1	5	■
JH142100J3R100.0Z5-HXT	02968279	3	J	10,0	12,0	10,0	100,0	50,0	9,4	1,0	1,11	5	■
JH142100J3R200.0Z5-HXT	02968280	3	J	10,0	12,0	10,0	100,0	50,0	9,4	2,0	1,13	5	■
JH142020J6R030.0Z4-HXT	02968282	6	J	2,0	6,0	2,0	75,0	20,0	1,9	0,3	4,33	4	■
JH142020J6R050.0Z4-HXT	02968283	6	J	2,0	6,0	2,0	75,0	20,0	1,9	0,5	4,36	4	■
JH142030J6R050.0Z4-HXT	02968284	6	J	3,0	6,0	3,0	75,0	30,0	2,8	0,5	2,52	4	■
JH142030J6R100.0Z4-HXT	02968285	6	J	3,0	6,0	3,0	75,0	30,0	2,8	1,0	2,56	4	■
JH142040J6R030.0Z4-HXT	02968286	6	J	4,0	6,0	4,0	80,0	40,0	3,7	0,3	1,36	4	■
JH142040J6R050.0Z4-HXT	02968287	6	J	4,0	6,0	4,0	80,0	40,0	3,7	0,5	1,37	4	■
JH142040J6R100.0Z4-HXT	02968288	6	J	4,0	6,0	4,0	80,0	40,0	3,7	1,0	1,38	4	■

■ Stocked standard.

Cutting data – JH142 Copy milling roughing

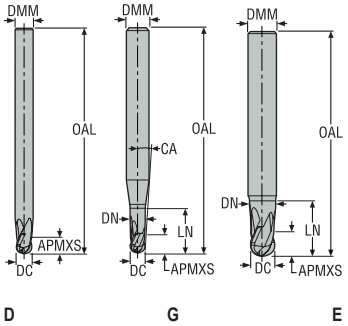
SMG		a_e/DC	a_p/DC	f_z								v_c
				2	3	4	6	8	10	12	16	
P1	M/E	0.0500 *0,0500*	0.050 *0,050*	0.020 *0,00080*	0.030 *0,0012*	0.040 *0,0016*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.14 *0,0055*	485 (460 — 530) *1600 (1600 — 1700)*
P2	M/E	0.0500 *0,0500*	0.050 *0,050*	0.020 *0,00080*	0.030 *0,0012*	0.040 *0,0016*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.15 *0,0060*	470 (450 — 520) *1550 (1500 — 1700)*
P3	M/E	0.0500 *0,0500*	0.050 *0,050*	0.019 *0,00075*	0.028 *0,0011*	0.038 *0,0015*	0.055 *0,0022*	0.075 *0,0030*	0.095 *0,0038*	0.11 *0,0044*	0.14 *0,0055*	405 (390 — 450) *1325 (1300 — 1400)*
P4	M/E	0.0500 *0,0500*	0.050 *0,050*	0.019 *0,00075*	0.028 *0,0011*	0.038 *0,0015*	0.055 *0,0022*	0.075 *0,0030*	0.095 *0,0038*	0.11 *0,0044*	0.14 *0,0055*	360 (340 — 390) *1175 (1200 — 1200)*
P5	M/E	0.0500 *0,0500*	0.050 *0,050*	0.018 *0,00070*	0.028 *0,0011*	0.036 *0,0014*	0.055 *0,0022*	0.075 *0,0030*	0.090 *0,0036*	0.11 *0,0044*	0.13 *0,0050*	345 (330 — 380) *1125 (1100 — 1200)*
P6	M/E	0.0500 *0,0500*	0.050 *0,050*	0.018 *0,00070*	0.028 *0,0011*	0.036 *0,0014*	0.055 *0,0022*	0.070 *0,0028*	0.090 *0,0036*	0.11 *0,0044*	0.13 *0,0050*	385 (370 — 420) *1275 (1300 — 1300)*
P7	M/E	0.0500 *0,0500*	0.050 *0,050*	0.018 *0,00070*	0.028 *0,0011*	0.036 *0,0014*	0.055 *0,0022*	0.070 *0,0028*	0.090 *0,0036*	0.11 *0,0044*	0.13 *0,0050*	365 (350 — 400) *1200 (1200 — 1300)*
P8	M/E	0.0500 *0,0500*	0.050 *0,050*	0.019 *0,00075*	0.028 *0,0011*	0.038 *0,0015*	0.055 *0,0022*	0.075 *0,0030*	0.095 *0,0038*	0.11 *0,0044*	0.14 *0,0055*	340 (330 — 380) *1125 (1100 — 1200)*
P11	M/E	0.0500 *0,0500*	0.050 *0,050*	0.018 *0,00070*	0.028 *0,0011*	0.036 *0,0014*	0.055 *0,0022*	0.070 *0,0028*	0.090 *0,0036*	0.11 *0,0044*	0.13 *0,0050*	355 (340 — 390) *1175 (1200 — 1200)*
K1	A/E	0.0500 *0,0500*	0.050 *0,050*	0.018 *0,00070*	0.028 *0,0011*	0.036 *0,0014*	0.055 *0,0022*	0.075 *0,0030*	0.090 *0,0036*	0.11 *0,0044*	0.13 *0,0050*	345 (330 — 380) *1125 (1100 — 1200)*
K2	A/E	0.0500 *0,0500*	0.050 *0,050*	0.017 *0,00065*	0.025 *0,0010*	0.034 *0,0013*	0.050 *0,0020*	0.065 *0,0026*	0.085 *0,0034*	0.10 *0,0040*	0.12 *0,0048*	300 (290 — 330) *980 (960 — 1000)*
K3	A/E	0.0500 *0,0500*	0.050 *0,050*	0.017 *0,00065*	0.025 *0,0010*	0.034 *0,0013*	0.050 *0,0020*	0.065 *0,0026*	0.085 *0,0034*	0.10 *0,0040*	0.12 *0,0048*	255 (240 — 280) *840 (790 — 910)*
K4	A/E	0.0500 *0,0500*	0.050 *0,050*	0.017 *0,00065*	0.025 *0,0010*	0.034 *0,0013*	0.050 *0,0020*	0.065 *0,0026*	0.085 *0,0034*	0.10 *0,0040*	0.12 *0,0048*	245 (230 — 260) *800 (760 — 850)*
K5	A/E	0.0500 *0,0500*	0.050 *0,050*	0.018 *0,00070*	0.028 *0,0011*	0.036 *0,0014*	0.055 *0,0022*	0.075 *0,0030*	0.090 *0,0036*	0.11 *0,0044*	0.13 *0,0050*	345 (330 — 380) *1125 (1100 — 1200)*
K6	A/E	0.0500 *0,0500*	0.050 *0,050*	0.020 *0,00080*	0.030 *0,0012*	0.040 *0,0016*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.15 *0,0060*	500 (480 — 550) *1650 (1600 — 1800)*
K7	A/E	0.0500 *0,0500*	0.050 *0,050*	0.018 *0,00070*	0.028 *0,0011*	0.036 *0,0014*	0.055 *0,0022*	0.075 *0,0030*	0.090 *0,0036*	0.11 *0,0044*	0.13 *0,0050*	440 (420 — 490) *1450 (1400 — 1600)*
H3	M/A	0.0200 *0,0200*	0.020 *0,020*	0.014 *0,00055*	0.020 *0,00080*	0.028 *0,0011*	0.042 *0,0017*	0.055 *0,0022*	0.070 *0,0028*	0.080 *0,0032*	0.10 *0,0040*	95 (72 — 110) *310 (240 — 360)*
H5	M/A	0.0400 *0,0400*	0.040 *0,040*	0.014 *0,00055*	0.022 *0,00085*	0.028 *0,0011*	0.042 *0,0017*	0.055 *0,0022*	0.070 *0,0028*	0.085 *0,0034*	0.10 *0,0040*	305 (290 — 330) *1000 (960 — 1000)*
H7	M/A	0.0200 *0,0200*	0.020 *0,020*	0.014 *0,00055*	0.020 *0,00080*	0.028 *0,0011*	0.042 *0,0017*	0.055 *0,0022*	0.070 *0,0028*	0.080 *0,0032*	0.10 *0,0040*	95 (72 — 110) *310 (240 — 360)*
H8	M/A	0.0400 *0,0400*	0.040 *0,040*	0.011 *0,00044*	0.016 *0,00065*	0.022 *0,00085*	0.032 *0,0013*	0.042 *0,0017*	0.055 *0,0022*	0.065 *0,0026*	0.080 *0,0032*	310 (290 — 330) *1025 (960 — 1000)*
H11	M/A	0.0400 *0,0400*	0.040 *0,040*	0.014 *0,00055*	0.022 *0,00085*	0.028 *0,0011*	0.042 *0,0017*	0.055 *0,0022*	0.070 *0,0028*	0.085 *0,0034*	0.10 *0,0040*	390 (360 — 420) *1275 (1200 — 1300)*
H12	M/A	0.0500 *0,0500*	0.050 *0,050*	0.0095 *0,00038*	0.014 *0,00055*	0.019 *0,00075*	0.028 *0,0011*	0.038 *0,0015*	0.046 *0,0018*	0.055 *0,0022*	0.070 *0,0028*	345 (320 — 370) *1125 (1100 — 1200)*
H21	M/A	0.0400 *0,0400*	0.040 *0,040*	0.011 *0,00044*	0.016 *0,00065*	0.022 *0,00085*	0.032 *0,0013*	0.042 *0,0017*	0.055 *0,0022*	0.065 *0,0026*	0.080 *0,0032*	310 (290 — 330) *1025 (960 — 1000)*
H31	M/A	0.0300 *0,0300*	0.030 *0,030*	0.013 *0,00050*	0.019 *0,00075*	0.025 *0,0010*	0.038 *0,0015*	0.050 *0,0020*	0.065 *0,0026*	0.075 *0,0030*	0.090 *0,0036*	140 (120 — 160) *460 (400 — 520)*

For cutting data recalculations, see pages 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

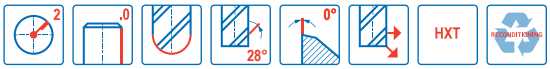
JH112

High speed – High precision – Hardened steel – Ball nose – 2 Flutes – Cylindrical



D G E





- Tolerances:
- Run-out= <0,005 mm
- DMM= h5
- DC= 0-0,01 mm
- RE= ±0,005 mm
- Regrind possible if DC is ≥Ø6

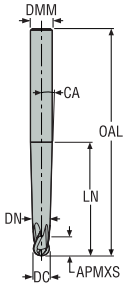
Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	CA°	PCEDC	Cylindrical
				mm	mm	mm	mm	mm	mm			
JH112020G1B.0Z2-HXT	02970112	1	G	2,0	4,0	2,0	40,0	4,0	1,9	6,45	2	■
JH112030G1B.0Z2-HXT	02970113	1	G	3,0	4,0	3,0	40,0	6,0	2,8	3,3	2	■
JH112040D1B.0Z2-HXT	02970114	1	D	4,0	4,0	4,0	40,0	–	–	–	2	■
JH112050G1B.0Z2-HXT	02970115	1	G	5,0	6,0	5,0	50,0	10,0	4,6	2,0	2	■
JH112060D1B.0Z2-HXT	02970116	1	D	6,0	6,0	6,0	50,0	–	–	–	2	■
JH112080D1B.0Z2-HXT	02970117	1	D	8,0	8,0	8,0	65,0	–	–	–	2	■
JH112100D1B.0Z2-HXT	02970118	1	D	10,0	10,0	10,0	65,0	–	–	–	2	■
JH112020G2B.0Z2-HXT	02970119	2	G	2,0	3,0	2,0	50,0	10,0	1,9	2,5	2	■
JH112030D2B.0Z2-HXT	02970120	2	D	3,0	3,0	3,0	50,0	–	–	–	2	■
JH112040D2B.0Z2-HXT	02970121	2	D	4,0	4,0	4,0	60,0	–	–	–	2	■
JH112050D2B.0Z2-HXT	02970122	2	D	5,0	5,0	5,0	60,0	–	–	–	2	■
JH112060D2B.0Z2-HXT	02970123	2	D	6,0	6,0	6,0	75,0	–	–	–	2	■
JH112020G3B.0Z2-HXT	02970124	3	G	2,0	6,0	2,0	60,0	4,0	1,9	8,12	2	■
JH112025G3B.0Z2-HXT	02970125	3	G	2,5	6,0	2,5	60,0	5,0	2,4	7,39	2	■
JH112030G3B.0Z2-HXT	02970126	3	G	3,0	6,0	3,0	60,0	6,0	2,8	5,5	2	■
JH112035G3B.0Z2-HXT	02968289	3	G	3,5	6,0	3,5	65,0	7,0	3,2	3,81	2	■
JH112040G3B.0Z2-HXT	02970127	3	G	4,0	6,0	4,0	65,0	8,0	3,7	3,34	2	■
JH112050G3B.0Z2-HXT	02970128	3	G	5,0	6,0	5,0	65,0	10,0	4,6	2,0	2	■
JH112060G3B.0Z2-HXT	02970129	3	G	6,0	8,0	6,0	75,0	12,0	5,6	2,78	2	■
JH112080E3B.0Z2-HXT	02968290	3	E	8,0	8,0	8,0	75,0	16,0	7,4	–	2	■
JH112100E3B.0Z2-HXT	02968291	3	E	10,0	10,0	10,0	80,0	20,0	9,4	–	2	■
JH112120E3B.0Z2-HXT	02968292	3	E	12,0	12,0	12,0	90,0	24,0	11,4	–	2	■
JH112020G4B.0Z2-HXT	02970130	4	G	2,0	6,0	2,0	80,0	20,0	1,9	3,82	2	■
JH112030G4B.0Z2-HXT	02970131	4	G	3,0	6,0	3,0	80,0	20,0	2,8	2,91	2	■
JH112040G4B.0Z2-HXT	02970132	4	G	4,0	6,0	4,0	80,0	20,0	3,7	1,97	2	■
JH112050G4B.0Z2-HXT	02970133	4	G	5,0	6,0	5,0	100,0	50,0	4,6	0,53	2	■
JH112060D4B.0Z2-HXT	02968293	4	D	6,0	6,0	6,0	100,0	–	–	–	2	■
JH112080D4B.0Z2-HXT	02968294	4	D	8,0	8,0	8,0	110,0	–	–	–	2	■
JH112100D4B.0Z2-HXT	02968295	4	D	10,0	10,0	10,0	125,0	–	–	–	2	■
JH112120D4B.0Z2-HXT	02968296	4	D	12,0	12,0	12,0	125,0	–	–	–	2	■

■ Stocked standard.

JH112

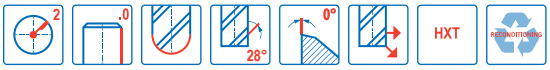
High speed – High precision – Hardened steel – Ball nose – 2 Flutes – Cylindrical





J

- Tolerances:
- Run-out= <0,005 mm
- DMM= h5
- DC= <Ø0,6= 0/-0,008 mm
- DC= ≥Ø0,6= 0/-0,01 mm
- RE= <Ø0,5= ±0,004 mm
- RE= ≥Ø1.5= ±0.005 mm



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	DN	NA°	CA°	PCEDC	Cylindrical
				mm	mm	mm	mm	mm				
JH112020J5B.0Z2-HXT	02970134	5	J	2,0	6,0	2,0	80,0	1,9	3,55	3,3	2	■
JH112030J5B.0Z2-HXT	02970135	5	J	3,0	6,0	3,0	80,0	2,8	2,5	2,2	2	■
JH112040J5B.0Z2-HXT	02970136	5	J	4,0	6,0	4,0	80,0	3,7	1,4	1,2	2	■
JH112050J5B.0Z2-HXT	02970137	5	J	5,0	8,0	5,0	100,0	4,6	1,95	1,6	2	■
JH112060J5B.0Z2-HXT	02970138	5	J	6,0	8,0	6,0	100,0	5,6	1,4	1,1	2	■
JH112080J5B.0Z2-HXT	02970139	5	J	8,0	10,0	8,0	125,0	7,4	1,43	1,0	2	■
JH112100J5B.0Z2-HXT	02970140	5	J	10,0	12,0	10,0	125,0	9,4	1,5	1,0	2	■
JH112060J6B.0Z2-HXT	02970141	6	J	6,0	10,0	6,0	125,0	5,6	2,3	2,0	2	■
JH112080J6B.0Z2-HXT	02970142	6	J	8,0	12,0	8,0	150,0	7,4	2,3	1,8	2	■
JH112100J6B.0Z2-HXT	02970143	6	J	10,0	12,0	10,0	150,0	9,4	1,1	0,8	2	■

■ Stocked standard.

Cutting data – JH112 Copy milling finishing

SMG		a_p/DC	f_z										v_c
			2	2.5	3	3.5	4	5	6	8	10	12	
K1	E	0.30 *0,30*	0.030 *0,0012*	0.038 *0,0015*	0.044 *0,0017*	0.050 *0,0020*	0.060 *0,0024*	0.075 *0,0030*	0.090 *0,0036*	0.12 *0,0048*	0.15 *0,0060*	0.18 *0,0070*	520 (500 — 730) *1700 (1700 — 2300)*
K2	E	0.30 *0,30*	0.030 *0,0012*	0.038 *0,0015*	0.044 *0,0017*	0.050 *0,0020*	0.060 *0,0024*	0.075 *0,0030*	0.090 *0,0036*	0.12 *0,0048*	0.15 *0,0060*	0.18 *0,0070*	445 (430 — 630) *1450 (1500 — 2000)*
K3	E	0.30 *0,30*	0.030 *0,0012*	0.038 *0,0015*	0.044 *0,0017*	0.050 *0,0020*	0.060 *0,0024*	0.075 *0,0030*	0.090 *0,0036*	0.12 *0,0048*	0.15 *0,0060*	0.18 *0,0070*	380 (360 — 530) *1250 (1200 — 1700)*
K4	E	0.30 *0,30*	0.030 *0,0012*	0.038 *0,0015*	0.044 *0,0017*	0.050 *0,0020*	0.060 *0,0024*	0.075 *0,0030*	0.090 *0,0036*	0.12 *0,0048*	0.15 *0,0060*	0.18 *0,0070*	360 (350 — 510) *1175 (1200 — 1600)*
K5	E	0.30 *0,30*	0.030 *0,0012*	0.038 *0,0015*	0.044 *0,0017*	0.050 *0,0020*	0.060 *0,0024*	0.075 *0,0030*	0.090 *0,0036*	0.12 *0,0048*	0.15 *0,0060*	0.18 *0,0070*	415 (370 — 610) *1350 (1300 — 2000)*
K6	E	0.30 *0,30*	0.030 *0,0012*	0.038 *0,0015*	0.044 *0,0017*	0.050 *0,0020*	0.060 *0,0024*	0.075 *0,0030*	0.090 *0,0036*	0.12 *0,0048*	0.15 *0,0060*	0.18 *0,0070*	610 (550 — 900) *2000 (1900 — 2900)*
K7	E	0.30 *0,30*	0.030 *0,0012*	0.038 *0,0015*	0.044 *0,0017*	0.050 *0,0020*	0.060 *0,0024*	0.075 *0,0030*	0.090 *0,0036*	0.12 *0,0048*	0.15 *0,0060*	0.18 *0,0070*	680 (560 — 790) *2225 (1900 — 2500)*
H3	M	0.16 *0,16*	0.028 *0,0011*	0.036 *0,0014*	0.042 *0,0017*	0.048 *0,0019*	0.055 *0,0022*	0.070 *0,0028*	0.085 *0,0034*	0.11 *0,0044*	0.14 *0,0055*	0.17 *0,0065*	155 (150 — 230) *510 (500 — 750)*
H5	M	0.30 *0,30*	0.030 *0,0012*	0.038 *0,0015*	0.044 *0,0017*	0.050 *0,0020*	0.060 *0,0024*	0.075 *0,0030*	0.090 *0,0036*	0.12 *0,0048*	0.15 *0,0060*	0.18 *0,0070*	285 (240 — 330) *940 (790 — 1000)*
H7	M	0.16 *0,16*	0.028 *0,0011*	0.036 *0,0014*	0.042 *0,0017*	0.048 *0,0019*	0.055 *0,0022*	0.070 *0,0028*	0.085 *0,0034*	0.11 *0,0044*	0.14 *0,0055*	0.17 *0,0065*	155 (150 — 230) *510 (500 — 750)*
H8	M	0.30 *0,30*	0.030 *0,0012*	0.038 *0,0015*	0.044 *0,0017*	0.050 *0,0020*	0.060 *0,0024*	0.075 *0,0030*	0.090 *0,0036*	0.12 *0,0048*	0.15 *0,0060*	0.18 *0,0070*	285 (240 — 330) *940 (790 — 1000)*
H11	M	0.30 *0,30*	0.030 *0,0012*	0.038 *0,0015*	0.044 *0,0017*	0.050 *0,0020*	0.060 *0,0024*	0.075 *0,0030*	0.090 *0,0036*	0.12 *0,0048*	0.15 *0,0060*	0.18 *0,0070*	360 (300 — 420) *1175 (990 — 1300)*
H12	M	0.30 *0,30*	0.030 *0,0012*	0.038 *0,0015*	0.044 *0,0017*	0.050 *0,0020*	0.060 *0,0024*	0.075 *0,0030*	0.090 *0,0036*	0.12 *0,0048*	0.15 *0,0060*	0.18 *0,0070*	330 (280 — 380) *1075 (920 — 1200)*
H21	M	0.30 *0,30*	0.030 *0,0012*	0.038 *0,0015*	0.044 *0,0017*	0.050 *0,0020*	0.060 *0,0024*	0.075 *0,0030*	0.090 *0,0036*	0.12 *0,0048*	0.15 *0,0060*	0.18 *0,0070*	285 (240 — 330) *940 (790 — 1000)*
H31	M	0.30 *0,30*	0.026 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	0.046 *0,0018*	0.050 *0,0020*	0.065 *0,0026*	0.080 *0,0032*	0.10 *0,0040*	0.13 *0,0050*	0.16 *0,0065*	300 (290 — 430) *980 (960 — 1400)*

For cutting data recalculations, see pages 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

Cutting data – JH112 Copy milling roughing

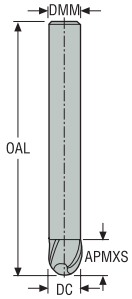
SMG		a_e/DC	a_p/DC	f_z										v_c
				2	2.5	3	3.5	4	5	6	8	10	12	
K1	E	0.250 *0,250*	0.15 *0,15*	0.030 *0,0012*	0.038 *0,0015*	0.044 *0,0017*	0.050 *0,0020*	0.060 *0,0024*	0.075 *0,0030*	0.090 *0,0036*	0.12 *0,0048*	0.15 *0,0060*	0.18 *0,0070*	315 (310 — 450) *1025 (1100 — 1400)*
K2	E	0.250 *0,250*	0.15 *0,15*	0.028 *0,0011*	0.036 *0,0014*	0.044 *0,0017*	0.050 *0,0020*	0.060 *0,0024*	0.070 *0,0028*	0.085 *0,0034*	0.12 *0,0048*	0.14 *0,0055*	0.17 *0,0065*	280 (270 — 390) *920 (890 — 1200)*
K3	E	0.250 *0,250*	0.15 *0,15*	0.028 *0,0011*	0.036 *0,0014*	0.044 *0,0017*	0.050 *0,0020*	0.060 *0,0024*	0.070 *0,0028*	0.085 *0,0034*	0.12 *0,0048*	0.14 *0,0055*	0.17 *0,0065*	235 (230 — 330) *770 (760 — 1000)*
K4	E	0.250 *0,250*	0.15 *0,15*	0.028 *0,0011*	0.036 *0,0014*	0.044 *0,0017*	0.050 *0,0020*	0.060 *0,0024*	0.070 *0,0028*	0.085 *0,0034*	0.12 *0,0048*	0.14 *0,0055*	0.17 *0,0065*	225 (220 — 320) *740 (730 — 1000)*
K5	E	0.160 *0,160*	0.15 *0,15*	0.030 *0,0012*	0.038 *0,0015*	0.044 *0,0017*	0.050 *0,0020*	0.060 *0,0024*	0.075 *0,0030*	0.090 *0,0036*	0.12 *0,0048*	0.15 *0,0060*	0.18 *0,0070*	280 (250 — 410) *920 (830 — 1300)*
K6	E	0.160 *0,160*	0.15 *0,15*	0.030 *0,0012*	0.038 *0,0015*	0.044 *0,0017*	0.050 *0,0020*	0.060 *0,0024*	0.075 *0,0030*	0.090 *0,0036*	0.12 *0,0048*	0.15 *0,0060*	0.18 *0,0070*	415 (370 — 610) *1350 (1300 — 2000)*
K7	E	0.250 *0,250*	0.10 *0,10*	0.030 *0,0012*	0.038 *0,0015*	0.044 *0,0017*	0.050 *0,0020*	0.060 *0,0024*	0.075 *0,0030*	0.090 *0,0036*	0.12 *0,0048*	0.15 *0,0060*	0.18 *0,0070*	420 (350 — 490) *1375 (1200 — 1600)*
H3	M	0.120 *0,120*	0.040 *0,040*	0.028 *0,0011*	0.036 *0,0014*	0.042 *0,0017*	0.048 *0,0019*	0.055 *0,0022*	0.070 *0,0028*	0.085 *0,0034*	0.11 *0,0044*	0.14 *0,0055*	0.17 *0,0065*	110 (100 — 160) *360 (330 — 520)*
H5	M	0.250 *0,250*	0.10 *0,10*	0.030 *0,0012*	0.038 *0,0015*	0.044 *0,0017*	0.050 *0,0020*	0.060 *0,0024*	0.075 *0,0030*	0.090 *0,0036*	0.12 *0,0048*	0.15 *0,0060*	0.18 *0,0070*	175 (150 — 200) *570 (500 — 650)*
H7	M	0.120 *0,120*	0.040 *0,040*	0.028 *0,0011*	0.036 *0,0014*	0.042 *0,0017*	0.048 *0,0019*	0.055 *0,0022*	0.070 *0,0028*	0.085 *0,0034*	0.11 *0,0044*	0.14 *0,0055*	0.17 *0,0065*	110 (100 — 160) *360 (330 — 520)*
H8	M	0.250 *0,250*	0.10 *0,10*	0.030 *0,0012*	0.038 *0,0015*	0.044 *0,0017*	0.050 *0,0020*	0.060 *0,0024*	0.075 *0,0030*	0.090 *0,0036*	0.12 *0,0048*	0.15 *0,0060*	0.18 *0,0070*	175 (150 — 200) *570 (500 — 650)*
H11	M	0.250 *0,250*	0.10 *0,10*	0.030 *0,0012*	0.038 *0,0015*	0.044 *0,0017*	0.050 *0,0020*	0.060 *0,0024*	0.075 *0,0030*	0.090 *0,0036*	0.12 *0,0048*	0.15 *0,0060*	0.18 *0,0070*	225 (190 — 260) *740 (630 — 850)*
H12	M	0.250 *0,250*	0.10 *0,10*	0.030 *0,0012*	0.038 *0,0015*	0.044 *0,0017*	0.050 *0,0020*	0.060 *0,0024*	0.075 *0,0030*	0.090 *0,0036*	0.12 *0,0048*	0.15 *0,0060*	0.18 *0,0070*	205 (170 — 240) *670 (560 — 780)*
H21	M	0.250 *0,250*	0.10 *0,10*	0.030 *0,0012*	0.038 *0,0015*	0.044 *0,0017*	0.050 *0,0020*	0.060 *0,0024*	0.075 *0,0030*	0.090 *0,0036*	0.12 *0,0048*	0.15 *0,0060*	0.18 *0,0070*	175 (150 — 200) *570 (500 — 650)*
H31	M	0.200 *0,200*	0.10 *0,10*	0.026 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	0.046 *0,0018*	0.050 *0,0020*	0.065 *0,0026*	0.080 *0,0032*	0.10 *0,0040*	0.13 *0,0050*	0.16 *0,0065*	200 (200 — 280) *660 (660 — 910)*

For cutting data recalculations, see pages 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

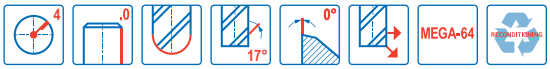
JH150

High speed – Hardened steel – Ball nose – 4 Flutes – Cylindrical



D





- Tolerances:
- DMM= h5
- DC= -0,02/-0,04 mm
- RE= ±0,01 mm
- Regrind possible

Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	PCEDC	Cylindrical
				mm	mm	mm	mm		
150060-MEGA-64	00019198	2	D	6,0	6,0	6,0	80,0	4	■
150080-MEGA-64	00019208	2	D	8,0	8,0	8,0	85,0	4	■
150100-MEGA-64	00019219	2	D	10,0	10,0	10,0	100,0	4	■
150120-MEGA-64	00019254	2	D	12,0	12,0	12,0	100,0	4	■

■ Stocked standard.

Cutting data – JH150 Copy milling roughing

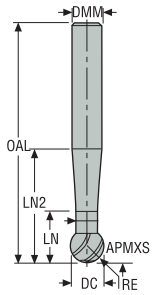
SMG		a_e/DC	a_p/DC	f_z				v_c
				6	8	10	12	
K1	A	0.300 *0,300*	0.15 *0,15*	0.10 *0,0040*	0.14 *0,0055*	0.17 *0,0065*	0.20 *0,0080*	290 (310 — 370) *950 (1100 — 1200)*
K2	A	0.300 *0,300*	0.15 *0,15*	0.10 *0,0040*	0.14 *0,0055*	0.17 *0,0065*	0.20 *0,0080*	250 (270 — 320) *820 (890 — 1000)*
K3	A	0.300 *0,300*	0.15 *0,15*	0.10 *0,0040*	0.14 *0,0055*	0.17 *0,0065*	0.20 *0,0080*	210 (230 — 270) *690 (760 — 880)*
K5	A	0.200 *0,200*	0.15 *0,15*	0.10 *0,0040*	0.14 *0,0055*	0.17 *0,0065*	0.20 *0,0080*	255 (270 — 330) *840 (890 — 1000)*
K6	A	0.200 *0,200*	0.15 *0,15*	0.10 *0,0040*	0.14 *0,0055*	0.17 *0,0065*	0.20 *0,0080*	375 (390 — 500) *1225 (1300 — 1600)*
K7	A	0.200 *0,200*	0.15 *0,15*	0.10 *0,0040*	0.14 *0,0055*	0.17 *0,0065*	0.20 *0,0080*	325 (340 — 430) *1075 (1200 — 1400)*
H3	M	0.0500 *0,0500*	0.020 *0,020*	0.085 *0,0034*	0.11 *0,0044*	0.14 *0,0055*	0.17 *0,0065*	85 (88 — 120) *280 (290 — 390)*
H5	M	0.200 *0,200*	0.060 *0,060*	0.10 *0,0040*	0.14 *0,0055*	0.17 *0,0065*	0.20 *0,0080*	180 (160 — 200) *590 (530 — 650)*
H7	M	0.0500 *0,0500*	0.020 *0,020*	0.085 *0,0034*	0.11 *0,0044*	0.14 *0,0055*	0.17 *0,0065*	85 (88 — 120) *280 (290 — 390)*
H8	M	0.200 *0,200*	0.060 *0,060*	0.10 *0,0040*	0.14 *0,0055*	0.17 *0,0065*	0.20 *0,0080*	180 (160 — 200) *590 (530 — 650)*
H11	M	0.200 *0,200*	0.060 *0,060*	0.10 *0,0040*	0.14 *0,0055*	0.17 *0,0065*	0.20 *0,0080*	230 (210 — 250) *750 (690 — 820)*
H12	M	0.200 *0,200*	0.060 *0,060*	0.10 *0,0040*	0.14 *0,0055*	0.17 *0,0065*	0.20 *0,0080*	210 (190 — 230) *690 (630 — 750)*
H21	M	0.200 *0,200*	0.060 *0,060*	0.10 *0,0040*	0.14 *0,0055*	0.17 *0,0065*	0.20 *0,0080*	180 (160 — 200) *590 (530 — 650)*
H31	M	0.150 *0,150*	0.060 *0,060*	0.090 *0,0036*	0.12 *0,0048*	0.15 *0,0060*	0.18 *0,0070*	125 (130 — 180) *410 (430 — 590)*

For cutting data recalculations, see pages 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

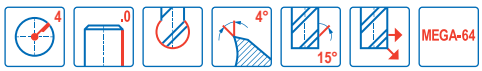
JH160

High speed – Hardened steel – Ball nose – 4 Flutes – Cylindrical



E





- Tolerances:
- DMM= h5
- DC= 0,02/-0,06 mm
- SA=250°

Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	LN2	DN	RE	PCEDC	Cylindrical
				mm	mm	mm	mm	mm	mm	mm	mm		
160030-MEGA-64	00040365	2	E	3,0	3,0	2,3	60,0	4,5	9,0	1,8	1,5	4	■
160040-MEGA-64	00040366	2	E	4,0	4,0	3,1	60,0	5,6	11,0	2,4	2,0	4	■
160050-MEGA-64	00040367	2	E	5,0	5,0	3,9	70,0	6,4	13,0	3,0	2,5	4	■
160060-MEGA-64	00040368	2	E	6,0	6,0	4,7	80,0	9,7	17,3	3,6	3,0	4	■
160080-MEGA-64	00040369	2	E	8,0	8,0	6,2	85,0	11,2	21,3	4,8	4,0	4	■
160100-MEGA-64	00040370	2	E	10,0	10,0	7,8	100,0	15,6	27,9	6,0	5,0	4	■
160120-MEGA-64	00040371	2	E	12,0	12,0	9,4	125,0	17,2	31,8	7,2	6,0	4	■

■ Stocked standard.

Cutting data – JH160 Copy milling finishing

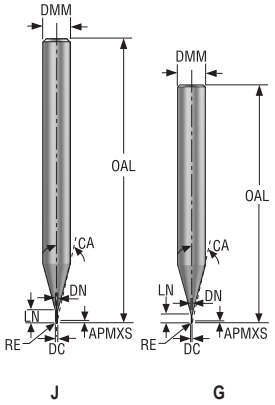
SMG		a_e/DC	a_p/DC	f_z							v_c
				3	4	5	6	8	10	12	
P1	M/E/A	0.0200 *0,0200*	0.024 *0,024*	0.050 *0,0020*	0.070 *0,0028*	0.085 *0,0034*	0.10 *0,0040*	0.14 *0,0055*	0.17 *0,0065*	0.20 *0,0080*	550 (450 — 700) *1800 (1500 — 2200)*
P2	M/E/A	0.0200 *0,0200*	0.024 *0,024*	0.050 *0,0020*	0.070 *0,0028*	0.085 *0,0034*	0.10 *0,0040*	0.14 *0,0055*	0.17 *0,0065*	0.20 *0,0080*	530 (440 — 680) *1750 (1500 — 2200)*
P3	M/E/A	0.0200 *0,0200*	0.024 *0,024*	0.050 *0,0020*	0.070 *0,0028*	0.085 *0,0034*	0.10 *0,0040*	0.14 *0,0055*	0.17 *0,0065*	0.20 *0,0080*	460 (380 — 590) *1500 (1300 — 1900)*
P4	M/E/A	0.0200 *0,0200*	0.024 *0,024*	0.050 *0,0020*	0.070 *0,0028*	0.085 *0,0034*	0.10 *0,0040*	0.14 *0,0055*	0.17 *0,0065*	0.20 *0,0080*	405 (340 — 520) *1325 (1200 — 1700)*
P5	M/E/A	0.0200 *0,0200*	0.024 *0,024*	0.050 *0,0020*	0.070 *0,0028*	0.085 *0,0034*	0.10 *0,0040*	0.14 *0,0055*	0.17 *0,0065*	0.20 *0,0080*	385 (320 — 490) *1275 (1100 — 1600)*
P6	M/E/A	0.0200 *0,0200*	0.024 *0,024*	0.050 *0,0020*	0.070 *0,0028*	0.085 *0,0034*	0.10 *0,0040*	0.14 *0,0055*	0.17 *0,0065*	0.20 *0,0080*	430 (360 — 560) *1400 (1200 — 1800)*
P7	M/E/A	0.0200 *0,0200*	0.024 *0,024*	0.050 *0,0020*	0.070 *0,0028*	0.085 *0,0034*	0.10 *0,0040*	0.14 *0,0055*	0.17 *0,0065*	0.20 *0,0080*	410 (340 — 520) *1350 (1200 — 1700)*
P8	M/E/A	0.0200 *0,0200*	0.024 *0,024*	0.050 *0,0020*	0.070 *0,0028*	0.085 *0,0034*	0.10 *0,0040*	0.14 *0,0055*	0.17 *0,0065*	0.20 *0,0080*	385 (320 — 490) *1275 (1100 — 1600)*
P11	M/E/A	0.0200 *0,0200*	0.024 *0,024*	0.050 *0,0020*	0.070 *0,0028*	0.085 *0,0034*	0.10 *0,0040*	0.14 *0,0055*	0.17 *0,0065*	0.20 *0,0080*	395 (330 — 510) *1300 (1100 — 1600)*
P12	M/E/A	0.0200 *0,0200*	0.024 *0,024*	0.050 *0,0020*	0.070 *0,0028*	0.085 *0,0034*	0.10 *0,0040*	0.14 *0,0055*	0.17 *0,0065*	0.20 *0,0080*	235 (200 — 300) *770 (660 — 980)*
H3	M/E/A	0.0100 *0,0100*	0.0075 *0,0075*	0.040 *0,0016*	0.050 *0,0020*	0.065 *0,0026*	0.080 *0,0032*	0.10 *0,0040*	0.13 *0,0050*	0.16 *0,0065*	85 (91 — 110) *280 (300 — 360)*
H5	M/E/A	0.0100 *0,0100*	0.016 *0,016*	0.040 *0,0016*	0.050 *0,0020*	0.065 *0,0026*	0.080 *0,0032*	0.10 *0,0040*	0.13 *0,0050*	0.16 *0,0065*	340 (320 — 360) *1125 (1100 — 1100)*
H7	M/E/A	0.0100 *0,0100*	0.0075 *0,0075*	0.040 *0,0016*	0.050 *0,0020*	0.065 *0,0026*	0.080 *0,0032*	0.10 *0,0040*	0.13 *0,0050*	0.16 *0,0065*	85 (91 — 110) *280 (300 — 360)*
H8	M/E/A	0.0100 *0,0100*	0.016 *0,016*	0.040 *0,0016*	0.050 *0,0020*	0.065 *0,0026*	0.080 *0,0032*	0.10 *0,0040*	0.13 *0,0050*	0.16 *0,0065*	340 (320 — 360) *1125 (1100 — 1100)*
H11	M/E/A	0.0100 *0,0100*	0.016 *0,016*	0.040 *0,0016*	0.050 *0,0020*	0.065 *0,0026*	0.080 *0,0032*	0.10 *0,0040*	0.13 *0,0050*	0.16 *0,0065*	430 (400 — 460) *1400 (1400 — 1500)*
H12	M/E/A	0.0200 *0,0200*	0.024 *0,024*	0.050 *0,0020*	0.070 *0,0028*	0.085 *0,0034*	0.10 *0,0040*	0.14 *0,0055*	0.17 *0,0065*	0.20 *0,0080*	355 (340 — 380) *1175 (1200 — 1200)*
H21	M/E/A	0.0100 *0,0100*	0.016 *0,016*	0.040 *0,0016*	0.050 *0,0020*	0.065 *0,0026*	0.080 *0,0032*	0.10 *0,0040*	0.13 *0,0050*	0.16 *0,0065*	340 (320 — 360) *1125 (1100 — 1100)*
H31	M/E/A	0.0100 *0,0100*	0.016 *0,016*	0.040 *0,0016*	0.050 *0,0020*	0.065 *0,0026*	0.080 *0,0032*	0.10 *0,0040*	0.13 *0,0050*	0.16 *0,0065*	165 (180 — 210) *540 (600 — 680)*

For cutting data recalculations, see pages 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

JME142

Miniature – Hardened steel – Square – 2 Flutes – Cylindrical – Corner radius







- Tolerances:
- Run-out= <0,005 mm
- DMM = h5
- DC= < Ø0,6= 0/-0,008 mm
- DC= ≥ Ø0,6= 0/-0,01 mm
- RE = ±0,005 mm

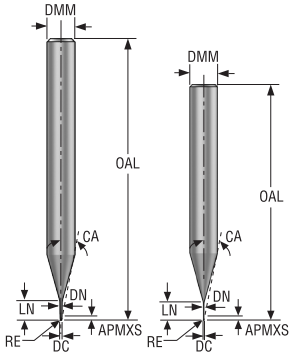
Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	NA°	CA°	PCEDC	Cylindrical
				mm	mm	mm	mm	mm	mm	mm				
JME142002G1R005Z2.0-HXT	03205080	1	G	0,2	4,0	0,15	40,0	0,4	0,18	0,05	0,0	15,12	2	■
JME142003G1R005Z2.0-HXT	03205082	1	G	0,3	4,0	0,225	40,0	0,6	0,28	0,05	0,0	14,77	2	■
JME142004G1R005Z2.0-HXT	03205084	1	G	0,4	4,0	0,3	40,0	0,8	0,37	0,05	0,0	14,39	2	■
JME142005G1R005Z2.0-HXT	03205086	1	G	0,5	4,0	0,375	40,0	0,75	0,46	0,05	0,0	14,01	2	■
JME142006G1R005Z2.0-HXT	03205099	1	G	0,6	4,0	0,45	40,0	0,9	0,56	0,05	0,0	13,67	2	■
JME142008G1R005Z2.0-HXT	03205121	1	G	0,8	6,0	0,6	50,0	1,2	0,76	0,05	0,0	13,98	2	■
JME142010G1R005Z2.0-HXT	03205139	1	G	1,0	6,0	0,75	50,0	1,5	0,95	0,05	0,0	13,49	2	■
JME142012G1R005Z2.0-HXT	03205151	1	G	1,2	6,0	0,9	50,0	1,8	1,15	0,05	0,0	13,02	2	■
JME142015G1R005Z2.0-HXT	03205161	1	G	1,5	6,0	1,125	50,0	2,25	1,45	0,05	0,0	12,3	2	■
JME142002J2R005Z2.0-HXT	03205081	2	J	0,2	4,0	0,15	40,0	0,6	0,18	0,05	0,9	14,23	2	■
JME142003J2R005Z2.0-HXT	03205083	2	J	0,3	4,0	0,225	40,0	0,9	0,28	0,05	0,9	13,67	2	■
JME142004J2R005Z2.0-HXT	03205085	2	J	0,4	4,0	0,3	40,0	1,2	0,37	0,05	0,9	13,1	2	■
JME142005J2R005Z2.0-HXT	03205087	2	J	0,5	4,0	0,375	40,0	1,5	0,46	0,05	0,9	12,54	2	■
JME142005J2R010Z2.0-HXT	03205093	2	J	0,5	4,0	0,375	40,0	1,5	0,46	0,1	0,9	12,61	2	■
JME142005G2R005Z2.0-HXT	03205088	2	G	0,5	6,0	0,375	50,0	1,5	0,46	0,05	0,0	13,5	2	■
JME142005G2R010Z2.0-HXT	03205094	2	G	0,5	6,0	0,375	50,0	1,5	0,46	0,1	0,0	13,55	2	■
JME142006J2R005Z2.0-HXT	03205100	2	J	0,6	4,0	0,45	40,0	2,0	0,56	0,05	0,9	11,76	2	■
JME142006J2R010Z2.0-HXT	03205107	2	J	0,6	4,0	0,45	40,0	2,0	0,56	0,1	0,9	11,83	2	■
JME142006G2R005Z2.0-HXT	03205101	2	G	0,6	6,0	0,45	50,0	2,0	0,56	0,05	0,0	9,48	2	■
JME142006G2R010Z2.0-HXT	03205108	2	G	0,6	6,0	0,45	50,0	2,0	0,56	0,1	0,0	9,51	2	■
JME142008J2R005Z2.0-HXT	03205122	2	J	0,8	4,0	0,6	40,0	2,5	0,76	0,05	0,9	10,92	2	■
JME142008J2R010Z2.0-HXT	03205129	2	J	0,8	4,0	0,6	40,0	2,5	0,76	0,1	0,9	10,98	2	■
JME142008J2R020Z2.0-HXT	03205135	2	J	0,8	4,0	0,6	40,0	2,5	0,76	0,2	0,9	11,1	2	■
JME142008G2R005Z2.0-HXT	03205123	2	G	0,8	6,0	0,6	50,0	2,5	0,76	0,05	0,0	9,15	2	■
JME142008G2R010Z2.0-HXT	03205130	2	G	0,8	6,0	0,6	50,0	2,5	0,76	0,1	0,0	9,17	2	■
JME142008G2R020Z2.0-HXT	03205136	2	G	0,8	6,0	0,6	50,0	2,5	0,76	0,2	0,0	9,22	2	■
JME142010G2R005Z2.0-HXT	03205140	2	G	1,0	6,0	0,75	50,0	4,0	0,95	0,05	0,0	8,29	2	■
JME142010G2R010Z2.0-HXT	03205145	2	G	1,0	6,0	0,75	50,0	4,0	0,95	0,1	0,0	8,31	2	■
JME142010G2R020Z2.0-HXT	03205148	2	G	1,0	6,0	0,75	50,0	4,0	0,95	0,2	0,0	8,36	2	■
JME142012G2R005Z2.0-HXT	03205152	2	G	1,2	6,0	0,9	50,0	4,5	1,15	0,05	0,0	7,97	2	■
JME142012G2R010Z2.0-HXT	03205155	2	G	1,2	6,0	0,9	50,0	4,5	1,15	0,1	0,0	7,99	2	■
JME142012G2R020Z2.0-HXT	03205158	2	G	1,2	6,0	0,9	50,0	4,5	1,15	0,2	0,0	8,04	2	■
JME142015G2R005Z2.0-HXT	03205162	2	G	1,5	6,0	1,125	50,0	5,0	1,45	0,05	0,0	7,6	2	■
JME142015G2R010Z2.0-HXT	03205167	2	G	1,5	6,0	1,125	50,0	5,0	1,45	0,1	0,0	9,7	2	■
JME142015G2R020Z2.0-HXT	03205171	2	G	1,5	6,0	1,125	50,0	5,0	1,45	0,2	0,0	9,76	2	■

■ Stocked standard.

JME142

Miniature – Hardened steel – Square – 2 Flutes – Cylindrical – Corner radius







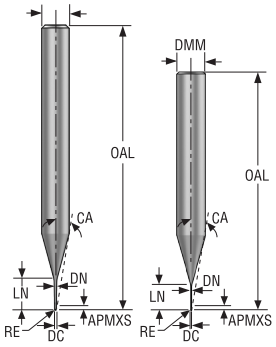
- Tolerances:
- Run-out= <0,005 mm
- DMM = h5
- DC= < Ø0,6= 0/-0,008 mm
- DC= ≥ Ø0,6= 0/-0,01 mm
- RE = ±0,005 mm

Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	NA°	CA°	PCEDC	Cylindrical
				mm	mm	mm	mm	mm	mm	mm				
JME142020G2R005Z2.0-HXT	03205180	2	G	2,0	6,0	1,5	50,0	6,0	1,94	0,05	0,0	8,52	2	■
JME142020G2R010Z2.0-HXT	03205185	2	G	2,0	6,0	1,5	50,0	6,0	1,94	0,1	0,0	8,55	2	■
JME142020G2R020Z2.0-HXT	03205188	2	G	2,0	6,0	1,5	50,0	6,0	1,94	0,2	0,0	8,6	2	■
JME142020G2R030Z2.0-HXT	03205191	2	G	2,0	6,0	1,5	50,0	6,0	1,94	0,3	0,0	8,66	2	■
JME142030G2R005Z2.0-HXT	03205201	2	G	3,0	6,0	2,25	50,0	9,0	2,85	0,05	0,0	5,81	2	■
JME142005J3R005Z2.0-HXT	03205089	3	J	0,5	4,0	0,375	40,0	2,5	0,46	0,05	0,9	11,24	2	■
JME142005J3R010Z2.0-HXT	03205095	3	J	0,5	4,0	0,375	40,0	2,5	0,46	0,1	0,9	11,29	2	■
JME142005G3R005Z2.0-HXT	03205090	3	G	0,5	6,0	0,375	50,0	3,5	0,46	0,05	0,0	11,55	2	■
JME142005G3R010Z2.0-HXT	03205096	3	G	0,5	6,0	0,375	50,0	3,5	0,46	0,1	0,0	11,59	2	■
JME142006J3R005Z2.0-HXT	03205103	3	J	0,6	4,0	0,45	40,0	3,0	0,56	0,05	0,9	10,58	2	■
JME142006J3R010Z2.0-HXT	03205109	3	J	0,6	4,0	0,45	40,0	3,0	0,56	0,1	0,9	10,63	2	■
JME142006G3R005Z2.0-HXT	03205104	3	G	0,6	6,0	0,45	50,0	4,0	0,56	0,05	0,0	8,46	2	■
JME142006G3R010Z2.0-HXT	03205110	3	G	0,6	6,0	0,45	50,0	4,0	0,56	0,1	0,0	8,48	2	■
JME142008J3R005Z2.0-HXT	03205124	3	J	0,8	4,0	0,6	40,0	4,0	0,76	0,05	0,9	9,36	2	■
JME142008G3R005Z2.0-HXT	03205126	3	G	0,8	6,0	0,6	50,0	5,5	0,76	0,05	0,0	9,89	2	■
JME142010G3R005Z2.0-HXT	03205141	3	G	1,0	6,0	0,75	50,0	7,0	0,95	0,05	0,0	8,84	2	■
JME142010G3R010Z2.0-HXT	03205146	3	G	1,0	6,0	0,75	50,0	7,0	0,95	0,1	0,0	8,86	2	■
JME142010G3R020Z2.0-HXT	03205149	3	G	1,0	6,0	0,75	50,0	7,0	0,95	0,2	0,0	8,91	2	■
JME142015G3R005Z2.0-HXT	03205163	3	G	1,5	6,0	1,125	50,0	10,0	1,45	0,05	0,0	7,05	2	■
JME142015G3R010Z2.0-HXT	03205169	3	G	1,5	6,0	1,125	50,0	10,0	1,45	0,1	0,0	7,06	2	■
JME142015G3R020Z2.0-HXT	03205172	3	G	1,5	6,0	1,125	50,0	10,0	1,45	0,2	0,0	7,1	2	■

■ Stocked standard.

JME142

Miniature – Hardened steel – Square – 2 Flutes – Cylindrical – Corner radius







- Tolerances:
- Run-out= <0,005 mm
- DMM = h5
- DC= < Ø0,6= 0/-0,008 mm
- DC= ≥ Ø0,6= 0/-0,01 mm
- RE = ±0,005 mm

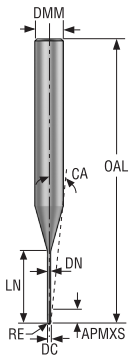
Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	NA°	CA°	PCEDC	Cylindrical
				mm	mm	mm	mm	mm	mm	mm				
JME142020G3R005Z2.0-HXT	03205181	3	G	2,0	6,0	1,5	50,0	12,0	1,94	0,05	0,0	5,9	2	■
JME142020G3R010Z2.0-HXT	03205186	3	G	2,0	6,0	1,5	50,0	12,0	1,94	0,1	0,0	5,92	2	■
JME142020G3R020Z2.0-HXT	03205189	3	G	2,0	6,0	1,5	50,0	12,0	1,94	0,2	0,0	5,95	2	■
JME142030G3R010Z2.0-HXT	03205206	3	G	3,0	6,0	2,25	60,0	15,0	2,85	0,1	0,0	4,15	2	■
JME142005J4R010Z2.0-HXT	03205097	4	J	0,5	4,0	0,375	40,0	4,0	0,46	0,1	0,9	9,76	2	■
JME142005G4R005Z2.0-HXT	03205092	4	G	0,5	6,0	0,375	50,0	5,0	0,46	0,05	0,0	10,42	2	■
JME142005G4R010Z2.0-HXT	03205098	4	G	0,5	6,0	0,375	50,0	5,0	0,46	0,1	0,0	10,45	2	■
JME142006J4R005Z2.0-HXT	03205105	4	J	0,6	4,0	0,45	40,0	5,0	0,56	0,05	0,9	8,79	2	■
JME142008G4R005Z2.0-HXT	03205128	4	G	0,8	6,0	0,6	50,0	8,0	0,76	0,05	0,0	8,49	2	■
JME142010G4R010Z2.0-HXT	03205147	4	G	1,0	6,0	0,75	50,0	10,0	0,95	0,1	0,0	7,48	2	■
JME142010G4R020Z2.0-HXT	03205150	4	G	1,0	6,0	0,75	50,0	10,0	0,95	0,2	0,0	7,52	2	■
JME142012G4R010Z2.0-HXT	03205157	4	G	1,2	6,0	0,9	50,0	12,0	1,15	0,1	0,0	6,62	2	■
JME142012G4R020Z2.0-HXT	03205160	4	G	1,2	6,0	0,9	50,0	12,0	1,15	0,2	0,0	6,65	2	■
JME142015G4R010Z2.0-HXT	03205170	4	G	1,5	6,0	1,125	60,0	15,0	1,45	0,1	0,0	5,55	2	■
JME142015G4R020Z2.0-HXT	03205173	4	G	1,5	6,0	1,125	60,0	15,0	1,45	0,2	0,0	5,58	2	■

■ Stocked standard.

JME142

Miniature – Hardened steel – Square – 2 Flutes – Cylindrical – Corner radius





G

- Tolerances:
- Run-out= <0,005 mm
- DMM = h5
- DC= < Ø0,6= 0/-0,008 mm
- DC= ≥ Ø0,6= 0/-0,01 mm
- RE = ±0,005 mm



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	CA°	PCEDC	Cylindrical
				mm	mm	mm	mm	mm	mm	mm			
JME142020G4R010Z2.0-HXT	03205187	4	G	2,0	6,0	1,5	60,0	20,0	1,94	0,1	4,19	2	■
JME142020G4R020Z2.0-HXT	03205190	4	G	2,0	6,0	1,5	60,0	20,0	1,94	0,2	4,21	2	■

■ Stocked standard.

Cutting data – JME142 Side milling roughing

SMG		a_e/DC	a_p/DC	f_z													v_c
				0.2	0.3	0.4	0.5	0.6	0.8	1	1.2	1,5	1,8	2	2,5	3	
H3	M/A	0.0500 *0,0500*	0.30 *0,30*	0.0036 *0,00014*	0.0055 *0,00022*	0.0070 *0,00028*	0.0090 *0,00036*	0.011 *0,00044*	0.014 *0,00055*	0.018 *0,00070*	0.022 *0,00085*	0.026 *0,0010*	0.032 *0,0013*	0.036 *0,0014*	0.044 *0,0017*	0.055 *0,0022*	90 (59 — 110) *295 (200 — 360)*
H5	M/A	0.0500 *0,0500*	0.46 *0,46*	0.0040 *0,00016*	0.0060 *0,00024*	0.0080 *0,00032*	0.010 *0,00040*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	160 (140 — 190) *520 (460 — 620)*
H7	M/A	0.0500 *0,0500*	0.30 *0,30*	0.0036 *0,00014*	0.0055 *0,00022*	0.0070 *0,00028*	0.0090 *0,00036*	0.011 *0,00044*	0.014 *0,00055*	0.018 *0,00070*	0.022 *0,00085*	0.026 *0,0010*	0.032 *0,0013*	0.036 *0,0014*	0.044 *0,0017*	0.055 *0,0022*	90 (59 — 110) *295 (200 — 360)*
H8	M/A	0.0500 *0,0500*	0.46 *0,46*	0.0040 *0,00016*	0.0060 *0,00024*	0.0080 *0,00032*	0.010 *0,00040*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	160 (140 — 190) *520 (460 — 620)*
H11	M/A	0.0500 *0,0500*	0.46 *0,46*	0.0040 *0,00016*	0.0060 *0,00024*	0.0080 *0,00032*	0.010 *0,00040*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	205 (170 — 240) *670 (560 — 780)*
H12	M/A	0.0500 *0,0500*	0.46 *0,46*	0.0040 *0,00016*	0.0060 *0,00024*	0.0080 *0,00032*	0.010 *0,00040*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	190 (160 — 220) *620 (530 — 720)*
H21	M/A	0.0500 *0,0500*	0.46 *0,46*	0.0040 *0,00016*	0.0060 *0,00024*	0.0080 *0,00032*	0.010 *0,00040*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	160 (140 — 190) *520 (460 — 620)*
H31	M/A	0.0500 *0,0500*	0.46 *0,46*	0.0040 *0,00016*	0.0060 *0,00024*	0.0080 *0,00032*	0.010 *0,00040*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	120 (110 — 140) *395 (370 — 450)*

Cutting data – JME142 Slot milling

SMG		a_p/DC	f_z												v_c
			0.2	0.3	0.4	0.5	0.6	0.8	1	1.2	1.5	1,8	2	2,5	3	
H3	M/A	0.012 *0,012*	0.0024 *0,000095*	0.0036 *0,00014*	0.0048 *0,00019*	0.0060 *0,00024*	0.0070 *0,00028*	0.0095 *0,00038*	0.012 *0,00048*	0.014 *0,00055*	0.018 *0,00070*	0.022 *0,00085*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	65 (43 — 85) *215 (150 — 270)*
H5	M/A	0.020 *0,020*	0.0040 *0,00016*	0.0060 *0,00024*	0.0080 *0,00032*	0.010 *0,00040*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	120 (97 — 130) *395 (320 — 420)*
H7	M/A	0.012 *0,012*	0.0024 *0,000095*	0.0036 *0,00014*	0.0048 *0,00019*	0.0060 *0,00024*	0.0070 *0,00028*	0.0095 *0,00038*	0.012 *0,00048*	0.014 *0,00055*	0.018 *0,00070*	0.022 *0,00085*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	65 (43 — 85) *215 (150 — 270)*
H8	M/A	0.020 *0,020*	0.0040 *0,00016*	0.0060 *0,00024*	0.0080 *0,00032*	0.010 *0,00040*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	120 (97 — 130) *395 (320 — 420)*
H11	M/A	0.020 *0,020*	0.0040 *0,00016*	0.0060 *0,00024*	0.0080 *0,00032*	0.010 *0,00040*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	150 (130 — 170) *490 (430 — 550)*
H12	M/A	0.020 *0,020*	0.0040 *0,00016*	0.0060 *0,00024*	0.0080 *0,00032*	0.010 *0,00040*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	135 (120 — 160) *445 (400 — 520)*
H21	M/A	0.012 *0,012*	0.0024 *0,000095*	0.0036 *0,00014*	0.0048 *0,00019*	0.0060 *0,00024*	0.0070 *0,00028*	0.0095 *0,00038*	0.012 *0,00048*	0.014 *0,00055*	0.018 *0,00070*	0.022 *0,00085*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	120 (98 — 140) *395 (330 — 450)*
H31	M/A	0.020 *0,020*	0.0040 *0,00016*	0.0060 *0,00024*	0.0080 *0,00032*	0.010 *0,00040*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	90 (73 — 100) *295 (240 — 320)*

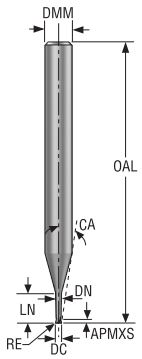
For cutting data recalculations, see pages 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

JME144

Miniature – Hardened steel – Square – 4 Flutes – Cylindrical – Corner radius





J

- Tolerances:
- Run-out= <0,005 mm
- DMM=h5
- DC = 0-0,01 mm
- RE= ±0,005 mm



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	NA°	CA°	PCEDC	Cylindrical
				mm	mm	mm	mm	mm	mm	mm				
JME144010J2R005Z4.0-HXT	03205214	2	J	1,0	4,0	0,75	40,0	4,0	0,95	0,05	0,9	9,08	4	■
JME144010J2R010Z4.0-HXT	03205217	2	J	1,0	4,0	0,75	40,0	4,0	0,95	0,1	0,9	9,13	4	■
JME144010J2R020Z4.0-HXT	03205220	2	J	1,0	4,0	0,75	40,0	4,0	0,95	0,2	0,9	9,22	4	■
JME144015J2R005Z4.0-HXT	03205227	2	J	1,5	4,0	1,125	50,0	5,0	1,45	0,05	0,9	7,52	4	■
JME144015J2R010Z4.0-HXT	03205229	2	J	1,5	4,0	1,125	50,0	5,0	1,45	0,1	0,9	7,56	4	■
JME144015J2R020Z4.0-HXT	03205232	2	J	1,5	4,0	1,125	50,0	5,0	1,45	0,2	0,9	7,63	4	■
JME144020J2R005Z4.0-HXT	03205234	2	J	2,0	4,0	1,5	50,0	6,0	1,94	0,05	0,9	5,97	4	■
JME144020J2R010Z4.0-HXT	03205236	2	J	2,0	4,0	1,5	50,0	6,0	1,94	0,1	0,9	6,0	4	■
JME144020J2R020Z4.0-HXT	03205239	2	J	2,0	4,0	1,5	50,0	6,0	1,94	0,2	0,9	6,06	4	■
JME144020J2R030Z4.0-HXT	03205241	2	J	2,0	4,0	1,5	50,0	6,0	1,94	0,3	0,9	6,12	4	■
JME144030J2R010Z4.0-HXT	03205243	2	J	3,0	4,0	2,25	50,0	9,0	2,85	0,1	0,9	2,66	4	■
JME144030J2R020Z4.0-HXT	03205246	2	J	3,0	4,0	2,25	50,0	9,0	2,85	0,2	0,9	2,69	4	■
JME144010J3R010Z4.0-HXT	03205218	3	J	1,0	4,0	0,75	40,0	5,0	0,95	0,1	0,9	8,3	4	■
JME144015J3R010Z4.0-HXT	03205230	3	J	1,5	4,0	1,125	50,0	7,5	1,45	0,1	0,9	6,06	4	■
JME144020J3R005Z4.0-HXT	03205235	3	J	2,0	4,0	1,5	50,0	10,0	1,94	0,05	0,9	4,29	4	■
JME144020J3R010Z4.0-HXT	03205237	3	J	2,0	4,0	1,5	50,0	10,0	1,94	0,1	0,9	4,31	4	■

■ Stocked standard.

Cutting data – JME144 Side milling roughing

SMG		a_e/DC	a_p/DC	f_z					v_c
				1.0	1.2	1.5	2.0	3	
H3	M/A	0.0500 *0,0500*	0.095 *0,095*	0.013 *0,00050*	0.016 *0,00065*	0.020 *0,00080*	0.026 *0,0010*	0.040 *0,0016*	95 (65 — 120) *310 (220 — 390)*
H5	M/A	0.0500 *0,0500*	0.22 *0,22*	0.014 *0,00055*	0.017 *0,00065*	0.020 *0,00080*	0.028 *0,0011*	0.042 *0,0017*	165 (140 — 190) *540 (460 — 620)*
H7	M/A	0.0500 *0,0500*	0.095 *0,095*	0.013 *0,00050*	0.016 *0,00065*	0.020 *0,00080*	0.026 *0,0010*	0.040 *0,0016*	95 (65 — 120) *310 (220 — 390)*
H8	M/A	0.0500 *0,0500*	0.22 *0,22*	0.014 *0,00055*	0.017 *0,00065*	0.020 *0,00080*	0.028 *0,0011*	0.042 *0,0017*	165 (140 — 190) *540 (460 — 620)*
H11	M/A	0.0500 *0,0500*	0.22 *0,22*	0.014 *0,00055*	0.017 *0,00065*	0.020 *0,00080*	0.028 *0,0011*	0.042 *0,0017*	210 (180 — 240) *690 (600 — 780)*
H12	M/A	0.0500 *0,0500*	0.22 *0,22*	0.014 *0,00055*	0.017 *0,00065*	0.020 *0,00080*	0.028 *0,0011*	0.042 *0,0017*	190 (160 — 220) *620 (530 — 720)*
H21	M/A	0.0500 *0,0500*	0.22 *0,22*	0.014 *0,00055*	0.017 *0,00065*	0.020 *0,00080*	0.028 *0,0011*	0.042 *0,0017*	165 (140 — 190) *540 (460 — 620)*
H31	M/A	0.0500 *0,0500*	0.22 *0,22*	0.014 *0,00055*	0.017 *0,00065*	0.020 *0,00080*	0.028 *0,0011*	0.042 *0,0017*	125 (110 — 140) *410 (370 — 450)*

Cutting data – JME144 Slot milling

SMG		a_p/DC	f_z					v_c
			1.0	1.2	1.5	2.0	3,0	
H3	M/A	0.0090 *0,0090*	0.0065 *0,00026*	0.0075 *0,00030*	0.0095 *0,00038*	0.013 *0,00050*	0.019 *0,00075*	65 (43 — 84) *215 (150 — 270)*
H5	M/A	0.019 *0,019*	0.012 *0,00048*	0.014 *0,00055*	0.018 *0,00070*	0.024 *0,00095*	0.036 *0,0014*	115 (96 — 130) *375 (320 — 420)*
H7	M/A	0.0090 *0,0090*	0.0065 *0,00026*	0.0075 *0,00030*	0.0095 *0,00038*	0.013 *0,00050*	0.019 *0,00075*	65 (43 — 84) *215 (150 — 270)*
H8	M/A	0.019 *0,019*	0.012 *0,00048*	0.014 *0,00055*	0.018 *0,00070*	0.024 *0,00095*	0.036 *0,0014*	115 (96 — 130) *375 (320 — 420)*
H11	M/A	0.019 *0,019*	0.012 *0,00048*	0.014 *0,00055*	0.018 *0,00070*	0.024 *0,00095*	0.036 *0,0014*	150 (130 — 170) *490 (430 — 550)*
H12	M/A	0.019 *0,019*	0.012 *0,00048*	0.014 *0,00055*	0.018 *0,00070*	0.024 *0,00095*	0.036 *0,0014*	135 (120 — 160) *445 (400 — 520)*
H21	M/A	0.019 *0,019*	0.012 *0,00048*	0.014 *0,00055*	0.018 *0,00070*	0.024 *0,00095*	0.036 *0,0014*	115 (96 — 130) *375 (320 — 420)*
H31	M/A	0.019 *0,019*	0.012 *0,00048*	0.014 *0,00055*	0.018 *0,00070*	0.024 *0,00095*	0.036 *0,0014*	90 (73 — 100) *295 (240 — 320)*

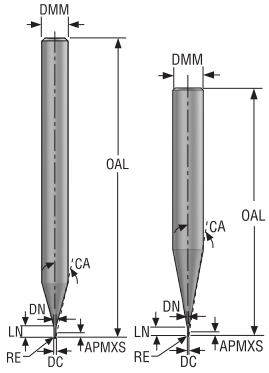
For cutting data recalculations, see pages 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

JMB112

Miniature – Hardened steel – Ball nose – 2 Flutes – Cylindrical







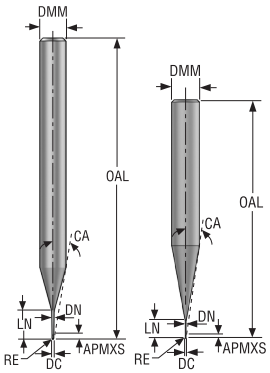
- Tolerances:
- Run-out= <0,005 mm
- DMM= h5
- DC= <Ø0,6= 0/-0,008 mm
- DC= ≥Ø0,6= 0/-0,01 mm
- RE= <Ø0,5= ±0,004 mm
- RE= ≥Ø1,5= ±0,005 mm

Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	NA°	CA°	PCEDC	Cylindrical
				mm	mm	mm	mm	mm	mm	mm				
JMB112002G1BZ2.0-HXT	03204964	1	G	0,2	4,0	0,15	40,0	0,4	0,18	0,1	0,0	15,11	2	■
JMB112003G1BZ2.0-HXT	03204966	1	G	0,3	4,0	0,225	40,0	0,6	0,28	0,15	0,0	14,77	2	■
JMB112004G1BZ2.0-HXT	03204968	1	G	0,4	4,0	0,3	40,0	0,8	0,37	0,2	0,0	14,32	2	■
JMB112005G1BZ2.0-HXT	03204970	1	G	0,5	4,0	0,5	40,0	1,0	0,46	0,25	0,0	13,97	2	■
JMB112006G1BZ2.0-HXT	03204977	1	G	0,6	4,0	0,6	40,0	1,2	0,56	0,3	0,0	13,64	2	■
JMB112008G1BZ2.0-HXT	03204984	1	G	0,8	6,0	0,8	50,0	1,6	0,76	0,4	0,0	13,96	2	■
JMB112010G1BZ2.0-HXT	03204991	1	G	1,0	6,0	1,0	50,0	2,0	0,95	0,5	0,0	13,49	2	■
JMB112012G1BZ2.0-HXT	03205000	1	G	1,2	6,0	1,2	50,0	2,4	1,15	0,6	0,0	13,02	2	■
JMB112015G1BZ2.0-HXT	03205009	1	G	1,5	6,0	1,5	50,0	3,0	1,45	0,75	0,0	12,2	2	■
JMB112002J2BZ2.0-HXT	03204965	2	J	0,2	4,0	0,15	40,0	0,6	0,18	0,1	0,9	14,33	2	■
JMB112003J2BZ2.0-HXT	03204967	2	J	0,3	4,0	0,225	40,0	0,9	0,28	0,15	0,9	13,85	2	■
JMB112004J2BZ2.0-HXT	03204969	2	J	0,4	4,0	0,3	40,0	1,2	0,37	0,2	0,9	13,3	2	■
JMB112005J2BZ2.0-HXT	03204971	2	J	0,5	4,0	0,5	40,0	1,5	0,46	0,25	0,9	12,85	2	■
JMB112005G2BZ2.0-HXT	03204972	2	G	0,5	6,0	0,5	50,0	1,5	0,46	0,25	0,0	9,91	2	■
JMB112006J2BZ2.0-HXT	03204978	2	J	0,6	4,0	0,6	50,0	2,0	0,56	0,3	0,9	12,09	2	■
JMB112006G2BZ2.0-HXT	03204979	2	G	0,6	6,0	0,6	50,0	2,0	0,56	0,3	0,0	9,62	2	■
JMB112008J2BZ2.0-HXT	03204985	2	J	0,8	4,0	0,8	50,0	2,5	0,76	0,4	0,9	11,34	2	■
JMB112008G2BZ2.0-HXT	03204986	2	G	0,8	6,0	0,8	50,0	2,5	0,76	0,4	0,0	9,33	2	■
JMB112010J2BZ2.0-HXT	03204992	2	J	1,0	4,0	1,0	40,0	4,0	0,95	0,5	0,9	9,49	2	■
JMB112010G2BZ2.0-HXT	03204993	2	G	1,0	6,0	1,0	50,0	4,0	0,95	0,5	0,0	8,49	2	■
JMB112012J2BZ2.0-HXT	03205001	2	J	1,2	4,0	1,2	50,0	4,5	1,15	0,6	0,9	8,83	2	■
JMB112012G2BZ2.0-HXT	03205002	2	G	1,2	6,0	1,2	50,0	4,5	1,15	0,6	0,0	8,21	2	■
JMB112015J2BZ2.0-HXT	03205010	2	J	1,5	4,0	1,5	50,0	5,0	1,45	0,75	0,9	8,1	2	■
JMB112015G2BZ2.0-HXT	03205011	2	G	1,5	6,0	1,5	50,0	5,0	1,45	0,75	0,0	10,14	2	■
JMB112020J2BZ2.0-HXT	03205024	2	J	2,0	4,0	2,0	50,0	6,0	1,94	1,0	0,9	6,6	2	■
JMB112020G2BZ2.0-HXT	03205025	2	G	2,0	6,0	2,0	50,0	6,0	1,94	1,0	0,0	9,1	2	■
JMB112030J2BZ2.0-HXT	03205037	2	J	3,0	4,0	3,0	50,0	9,0	2,85	1,5	0,9	3,04	2	■
JMB112030G2BZ2.0-HXT	03205038	2	G	3,0	6,0	3,0	50,0	9,0	2,85	1,5	0,0	6,35	2	■

■ Stocked standard.

JMB112

Miniature – Hardened steel – Ball nose – 2 Flutes – Cylindrical







- Tolerances:
- Run-out= <0,005 mm
- DMM= h5
- DC= <Ø0,6= 0/-0,008 mm
- DC= ≥Ø0,6= 0/-0,01 mm
- RE= <Ø0,5= ±0,004 mm
- RE= ≥Ø1,5= ±0,005 mm

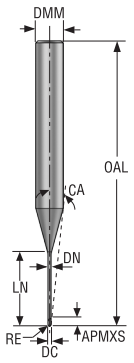
Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	NA°	CA°	PCEDC	Cylindrical
				mm	mm	mm	mm	mm	mm	mm				
JMB112005J3BZ2.0-HXT	03204973	3	J	0,5	4,0	0,5	40,0	2,5	0,46	0,25	0,9	11,49	2	■
JMB112005G3BZ2.0-HXT	03204974	3	G	0,5	6,0	0,5	50,0	3,5	0,46	0,25	0,0	8,81	2	■
JMB112006J3BZ2.0-HXT	03204980	3	J	0,6	4,0	0,6	40,0	3,0	0,56	0,3	0,9	10,83	2	■
JMB112006G3BZ2.0-HXT	03204981	3	G	0,6	6,0	0,6	50,0	4,0	0,56	0,3	0,0	8,56	2	■
JMB112008J3BZ2.0-HXT	03204987	3	J	0,8	4,0	0,8	40,0	4,0	0,76	0,4	0,9	9,67	2	■
JMB112008G3BZ2.0-HXT	03204988	3	G	0,8	6,0	0,8	50,0	5,5	0,76	0,4	0,0	10,1	2	■
JMB112010J3BZ2.0-HXT	03204994	3	J	1,0	4,0	1,0	40,0	5,0	0,95	0,5	0,9	8,6	2	■
JMB112010G3BZ2.0-HXT	03204995	3	G	1,0	6,0	1,0	50,0	7,0	0,95	0,5	0,0	9,06	2	■
JMB112012J3BZ2.0-HXT	03205003	3	J	1,2	4,0	1,2	50,0	6,0	1,15	0,6	0,9	7,65	2	■
JMB112012G3BZ2.0-HXT	03205004	3	G	1,2	6,0	1,2	50,0	8,0	1,15	0,6	0,0	8,42	2	■
JMB112015J3BZ2.0-HXT	03205012	3	J	1,5	4,0	1,5	40,0	7,5	1,45	0,75	0,9	6,4	2	■
JMB112015G3BZ2.0-HXT	03205013	3	G	1,5	6,0	1,5	50,0	10,0	1,45	0,75	0,0	7,31	2	■
JMB112020J3BZ2.0-HXT	03205026	3	J	2,0	4,0	2,0	50,0	10,0	1,94	1,0	0,9	4,61	2	■
JMB112020G3BZ2.0-HXT	03205027	3	G	2,0	6,0	2,0	50,0	12,0	1,94	1,0	0,0	6,19	2	■
JMB112030J3BZ2.0-HXT	03205039	3	J	3,0	4,0	3,0	50,0	15,0	2,85	1,5	0,9	1,91	2	■
JMB112030G3BZ2.0-HXT	03205040	3	G	3,0	6,0	3,0	60,0	15,0	2,85	1,5	0,0	4,41	2	■

■ Stocked standard.

JMB112

Miniature – Hardened steel – Ball nose – 2 Flutes – Cylindrical





G

- Tolerances:
- Run-out= <0,005 mm
- DMM= h5
- DC= <Ø0,6= 0/-0,008 mm
- DC= ≥Ø0,6= 0/-0,01 mm
- RE= <Ø0,5= ±0,004 mm
- RE= ≥Ø1,5= ±0,005 mm



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	NA°	CA°	PCEDC	Cylindrical
				mm	mm	mm	mm	mm	mm	mm				
JMB112006G4BZ2.0-HXT	03204983	4	G	0,6	6,0	0,6	50,0	6,0	0,56	0,3	0,0	9,86	2	■
JMB112008G4BZ2.0-HXT	03204990	4	G	0,8	6,0	0,8	50,0	8,0	0,76	0,4	0,0	8,65	2	■
JMB112010G4BZ2.0-HXT	03204998	4	G	1,0	6,0	1,0	50,0	10,0	0,95	0,5	0,0	7,63	2	■
JMB112015G4BZ2.0-HXT	03205015	4	G	1,5	6,0	1,5	70,0	15,0	1,45	0,75	0,0	5,7	2	■
JMB112020G4BZ2.0-HXT	03205029	4	G	2,0	6,0	2,0	60,0	18,0	1,94	1,0	0,0	4,68	2	■
JMB112030G4BZ2.0-HXT	03205042	4	G	3,0	6,0	3,0	80,0	30,0	2,85	1,5	0,0	2,51	2	■
JMB112010G6BZ2.0-HXT	03205054	6	G	1,0	6,0	1,0	60,0	20,0	0,95	0,5	0,0	4,99	2	■

■ Stocked standard.

Cutting data – JMB112 Copy milling roughing

SMG		a_e/DC	a_p/DC	f_z													v_c
				0.2	0.3	0.4	0.5	0.6	0.8	1	1.2	1.5	1,8	2	2,5	3	
H3	M	0.0500 *0,0500*	0.30 *0,30*	0.0036 *0,00014*	0.0055 *0,00022*	0.0070 *0,00028*	0.0090 *0,00036*	0.011 *0,00044*	0.014 *0,00055*	0.018 *0,00070*	0.022 *0,00085*	0.026 *0,0010*	0.032 *0,0013*	0.036 *0,0014*	0.044 *0,0017*	0.048 *0,0019*	150 (130 — 170) *490 (430 — 550)*
H5	M	0.0500 *0,0500*	0.44 *0,44*	0.0040 *0,00016*	0.0060 *0,00024*	0.0080 *0,00032*	0.010 *0,00040*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	220 (200 — 240) *720 (660 — 780)*
H7	M	0.0500 *0,0500*	0.30 *0,30*	0.0036 *0,00014*	0.0055 *0,00022*	0.0070 *0,00028*	0.0090 *0,00036*	0.011 *0,00044*	0.014 *0,00055*	0.018 *0,00070*	0.022 *0,00085*	0.026 *0,0010*	0.032 *0,0013*	0.036 *0,0014*	0.044 *0,0017*	0.048 *0,0019*	150 (130 — 170) *490 (430 — 550)*
H8	M	0.0500 *0,0500*	0.44 *0,44*	0.0040 *0,00016*	0.0060 *0,00024*	0.0080 *0,00032*	0.010 *0,00040*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.040 *0,0016*	0.048 *0,0019*	0.050 *0,0020*	220 (200 — 240) *720 (660 — 780)*
H11	M	0.0500 *0,0500*	0.44 *0,44*	0.0040 *0,00016*	0.0060 *0,00024*	0.0080 *0,00032*	0.010 *0,00040*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	280 (250 — 310) *920 (830 — 1000)*
H12	M	0.0500 *0,0500*	0.44 *0,44*	0.0040 *0,00016*	0.0060 *0,00024*	0.0080 *0,00032*	0.010 *0,00040*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.040 *0,0016*	0.048 *0,0019*	0.050 *0,0020*	255 (230 — 280) *840 (760 — 910)*
H21	M	0.0500 *0,0500*	0.44 *0,44*	0.0040 *0,00016*	0.0060 *0,00024*	0.0080 *0,00032*	0.010 *0,00040*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.040 *0,0016*	0.048 *0,0019*	0.050 *0,0020*	220 (200 — 240) *720 (660 — 780)*
H31	M	0.0500 *0,0500*	0.44 *0,44*	0.0040 *0,00016*	0.0060 *0,00024*	0.0080 *0,00032*	0.010 *0,00040*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	0.024 *0,00095*	0.030 *0,0012*	0.034 *0,0013*	0.036 *0,0014*	0.042 *0,0017*	0.044 *0,0017*	165 (150 — 180) *540 (500 — 590)*

For cutting data recalculations, see pages 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values



PLASTIC AND CFRP

Seco presents a complete solid carbide end mill product range for the machining of glass and carbon fiber reinforced plastics. It consists of diamond-coated and uncoated solid carbide and PCD end mills incorporating different geometries as well as with PCD-brazed cutting edges. This is a product range offering optimized tools for difficult cutting conditions on challenging workpiece materials.

- JC860, JC870, JC871, JC899, JPD890, J93F and J28 for sharp corner type.
- JC845, JC880, JC885 and JC898 for radius type.
- JC875, JC876, JC877 and JPD880 with 45° chamfer type.
- JC850 and JPD850 for ball-nose type.

Tool Selection Plastic and CFRP

						
Name		JC845	JC850	JC860	JC870	JC871
Page(s)		420	422	424	426	432
Family name		COMPOSITE	COMPOSITE	COMPOSITE	COMPOSITE	COMPOSITE
Type of mill						
Shank	Cylindrical	■	■	■	■	■
	Weldon					
Number of Flutes		3	4	5,6,8,9		
ICC						
Diameter range	Metric	6-8	3-12	6-12	3-12	3-12
	Inch				1/4 -1/2	1/4 -1/2
Length availability		2	2	2	2	2
Operation						
						
						
SMG						
TS1						
TS2		●	●	●	●	●
TS3		●	●	●	●	●
TP1						
TP2		●	●	●	●	●
TP3		●	●	●	●	●
Honeycomb*				●	●	●

■ Stock standard ☐ Weldon available, delivery time is 3 days.
● Preferred choice ○ Alternative choice

Tool Selection Plastic and CFRP

								
Name		JC875	JC876	JC877	JC880	JC885	JC898	JC899
Page(s)		438	442	446	450	452	454	456
Family name		COMPOSITE	COMPOSITE	COMPOSITE	COMPOSITE	COMPOSITE	COMPOSITE	COMPOSITE
Type of mill		45°	45°	45°	r	r	r	90°
Shank	Cylindrical	■	■	■	■	■	■	■
	Weldon							
Number of Flutes		5,6,10	6,8,10,12,14	6,8,10,12,14	4	4	4	4
ICC							■	
Diameter range	Metric	3-10	3-12	3-12	4-20	4-10	8-15	8,5-14,8
	Inch	1/4	1/4-3/8	1/4				3/8
Length availability		2	2	2	2	2	2	2
Operation								
								
SMG								
TS1								
TS2		●	●	●	●	●		
TS3		●	●	●	●	●		
TP1								
TP2		●	●	●	●	●		
TP3		●	●	●	●	●		
Honeycomb*								

■ Stock standard □ Weldon available, delivery time is 3 days.
● Preferred choice ○ Alternative choice

Tool Selection Plastic and CFRP

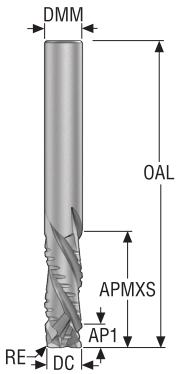
						
Name		JPD850	JPD880	JPD890	J93F	J28
Page(s)		459	461	463	465	467
Family name		PCD	PCD	PCD	VHM	VHM
Type of mill						
Shank	Cylindrical	■	■	■	■	■
	Weldon					
Number of Flutes		2	2	2	2	1
ICC		■	■	■		
Diameter range	Metric	4-10	6-16	6-12	1,5-20	3-12
	Inch					
Length availability		2	2,3	2,3	1,2,3,4	2
Operation						
						
						
SMG						
TS1					●	●
TS2		●	●	●		
TS3		●	●	●		
TP1					●	
TP2		●	●	●		
TP3		●	●	●		
Honeycomb*						

■ Stock standard ☐ Weldon available, delivery time is 3 days.
● Preferred choice ○ Alternative choice

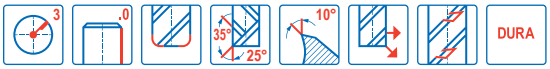
JC845

Composite – Compression – 3 Flutes – Cylindrical – Corner radius





- Tolerances:
- DMM= h5
- DC= -0,02/-0,04 mm
- RE= ±0,01 mm



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	AP1	OAL	RE	PCEDC	Cylindrical
				mm	mm	mm	mm	mm	mm		
JC845060D2R050.0Z3-DURA	02843006	2	D	6,0	6,0	18,0	4,2	65,0	0,5	3	■
JC845080D2R050.0Z3-DURA	02843007	2	D	8,0	8,0	24,0	5,2	75,0	0,5	3	■
JC845100D2R050.0Z3-DURA	02843008	2	D	10,0	10,0	30,0	6,3	85,0	0,5	3	■
JC845120D2R050.0Z5-DURA	02843009	2	D	12,0	12,0	36,0	8,3	100,0	0,5	5	■

■ Stocked standard.

Cutting data – JC845 Side milling roughing

SMG		a_e/DC	a_p/DC	f_z				v_c
				6	8	10	12	
TS2	E/A/D	0.376 *0,376*	1.5 *1,5*	0.038 *0,0015*	0.050 *0,0020*	0.060 *0,0024*	0.075 *0,0030*	185 (130 — 240) *610 (430 — 780)*
TS3	E/A/D	0.376 *0,376*	1.4 *1,4*	0.038 *0,0015*	0.050 *0,0020*	0.060 *0,0024*	0.075 *0,0030*	125 (87 — 160) *410 (290 — 520)*
TP2	E/A/D	0.376 *0,376*	1.5 *1,5*	0.038 *0,0015*	0.050 *0,0020*	0.060 *0,0024*	0.075 *0,0030*	125 (87 — 180) *410 (290 — 590)*
TP3	E/A/D	0.376 *0,376*	1.4 *1,4*	0.038 *0,0015*	0.050 *0,0020*	0.060 *0,0024*	0.075 *0,0030*	85 (62 — 110) *280 (210 — 360)*

Cutting data – JC845 Slot milling

SMG		a_p/DC	f_z				v_c
			6	8	10	12	
TS2	E/A/D	1.0 *1,0*	0.025 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	0.050 *0,0020*	160 (110 — 210) *520 (370 — 680)*
TS3	E/A/D	0.75 *0,75*	0.025 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	0.050 *0,0020*	105 (76 — 130) *345 (250 — 420)*
TP2	E/A/D	1.0 *1,0*	0.025 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	0.050 *0,0020*	105 (75 — 160) *345 (250 — 520)*
TP3	E/A/D	0.75 *0,75*	0.025 *0,0010*	0.032 *0,0013*	0.040 *0,0016*	0.050 *0,0020*	75 (54 — 96) *245 (180 — 310)*

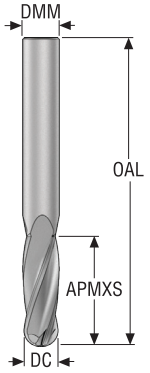
For cutting data recalculations, see pages 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

JC850

Composite – Ball nose – 4 Flutes – Cylindrical





D

- Tolerances:
- DMM=h5
- DC=-0,02/-0,04 mm
- RE= ±0,02 mm



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	PCEDC	Cylindrical
				mm	mm	mm	mm		
850030Z4.0-DURA	02719949	2	D	3,0	3,0	9,0	50,0	4	■
850040Z4.0-DURA	02719952	2	D	4,0	4,0	12,0	50,0	4	■
850060Z4.0-DURA	02719953	2	D	6,0	6,0	18,0	65,0	4	■
850080Z4.0-DURA	02719954	2	D	8,0	8,0	24,0	70,0	4	■
850100Z4.0-DURA	02719955	2	D	10,0	10,0	30,0	85,0	4	■
850120Z4.0-DURA	02719956	2	D	12,0	12,0	36,0	100,0	4	■

■ Stocked standard.

Cutting data – JC850 Copy milling

SMG		a_e/DC	a_p/DC	f_z						v_c
				3	4	6	8	10	12	
TS2	E/A/D	0.200 *0,200*	2.0 *2,0*	0.030 *0,0012*	0.040 *0,0016*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	265 (220 — 320) *870 (730 — 1000)*
TS3	E/A/D	0.200 *0,200*	2.0 *2,0*	0.024 *0,00095*	0.032 *0,0013*	0.048 *0,0019*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	160 (110 — 210) *520 (370 — 680)*
TP2	E/A/D	0.200 *0,200*	2.0 *2,0*	0.030 *0,0012*	0.040 *0,0016*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	215 (110 — 320) *710 (370 — 1000)*
TP3	E/A/D	0.200 *0,200*	2.0 *2,0*	0.024 *0,00095*	0.032 *0,0013*	0.048 *0,0019*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	105 (54 — 150) *345 (180 — 490)*

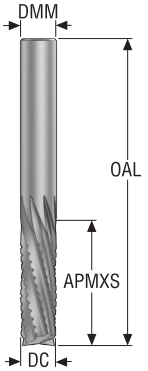
For cutting data recalculations, see pages 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

JC860

Honeycomb – Square – 5-9 Flutes – Cylindrical – Sharp





D



- Tolerances:
- DMM=h5
- DC= -0.02-0.08 mm
- FCEDC=frontal teeth

Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	FCEDC	PCEDC	Cylindrical
				mm	mm	mm	mm			
860060Z5.0-DURA	02720211	2	D	6,0	6,0	18,0	70,0	2	5	■
860080Z6.0-DURA	02720212	2	D	8,0	8,0	24,0	80,0	2	6	■
860100Z8.0-DURA	02720216	2	D	10,0	10,0	30,0	90,0	2	8	■
860120Z9.0-DURA	02720217	2	D	12,0	12,0	36,0	110,0	2	9	■

■ Stocked standard.

Cutting data – JC860 Side milling roughing

SMG		a_e/DC	a_p/DC	f_z				v_c
				6	8	10	12	
TS2	E/A/D	0.100 *0,100*	1.0 *1,0*	0.024 *0,00095*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	235 (200 — 270) *770 (660 — 880)*
TS3	E/A/D	0.100 *0,100*	1.0 *1,0*	0.024 *0,00095*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	160 (130 — 180) *520 (430 — 590)*
TP2	E/A/D	0.100 *0,100*	1.0 *1,0*	0.024 *0,00095*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	165 (130 — 200) *540 (430 — 650)*
TP3	E/A/D	0.100 *0,100*	1.0 *1,0*	0.024 *0,00095*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	65 (50 — 110) *215 (170 — 360)*

Cutting data – JC860 Slot milling

SMG		a_p/DC	f_z				v_c
			6	8	10	12	
TS2	E/A/D	0.50 *0,50*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	0.025 *0,0010*	160 (140 — 180) *520 (460 — 590)*
TS3	E/A/D	0.50 *0,50*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	0.025 *0,0010*	105 (85 — 120) *345 (280 — 390)*
TP2	E/A/D	0.50 *0,50*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	0.025 *0,0010*	110 (84 — 130) *360 (280 — 420)*
TP3	E/A/D	0.50 *0,50*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	0.025 *0,0010*	44 (34 — 78) *145 (120 — 250)*

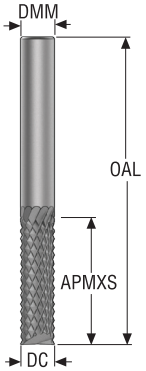
For cutting data recalculations, see pages 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

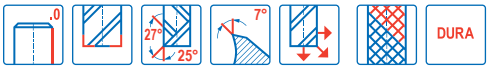
JC870

Composite – Router – Square – Cylindrical – Sharp





D



- Tolerances:
- DMM=h5
- DC=-0,02/-0,08 mm
- Router (downcut)*

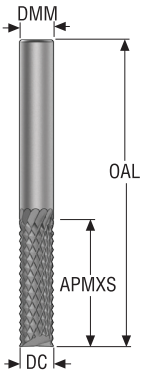
Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	FCEDC	PCEDC	Cylindrical
				mm	mm	mm	mm			
870030.0-DURA	02720219	2	D	3,0	3,0	9,0	50,0	2	8	■
870040.0-DURA	02720226	2	D	4,0	4,0	12,0	50,0	2	8	■
870060.0-DURA	02720228	2	D	6,0	6,0	18,0	65,0	2	10	■
870080.0-DURA	02720229	2	D	8,0	8,0	24,0	75,0	2	12	■
870100.0-DURA	02720231	2	D	10,0	10,0	30,0	85,0	2	12	■
870120.0-DURA	02720232	2	D	12,0	12,0	36,0	100,0	2	14	■

■ Stocked standard.

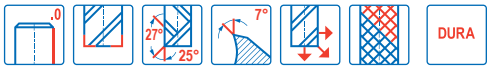
*Downcut indicates flute geometries that are combined to create small down forces that assist with maintaining component clamping, particularly where vacuum clamping is employed.

JC870

Composite – Router – Square – Cylindrical – Sharp – *Inch*



D





- Tolerances:
- DMM= h5
- DC= -.0008/-.0030 *Inch*
- Router (downcut)*

Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	FCEDC	Cylindrical
				inch	inch	inch	inch		
8700250.0-DURA	02720784	2	D	0.250	0.250	0.750	2.250	2	■
8700375.0-DURA	02720785	2	D	0.375	0.375	1.250	3.500	2	■

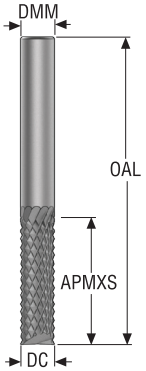
■ Stocked standard.

*Downcut indicates flute geometries that are combined to create small down forces that assist with maintaining component clamping, particularly where vacuum clamping is employed.

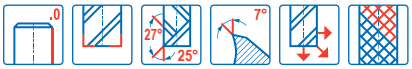
JC870

Composite – Router – Square – Cylindrical – Sharp





D



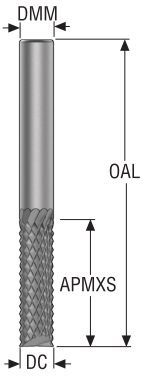
- Tolerances:
- DMM=h5
- DC=-0,02/-0,08 mm
- Router (downcut)*

Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	FCEDC	PCEDC	Cylindrical
				mm	mm	mm	mm			
870030.0	02742789	2	D	3,0	3,0	9,0	50,0	2	8	■
870040.0	02742792	2	D	4,0	4,0	12,0	50,0	2	8	■
870050.0	02742793	2	D	5,0	5,0	15,0	50,0	2	10	■
870060.0	02742794	2	D	6,0	6,0	18,0	65,0	2	10	■
870080.0	02742795	2	D	8,0	8,0	24,0	75,0	2	12	■
870100.0	02742796	2	D	10,0	10,0	30,0	85,0	2	12	■
870120.0	02742797	2	D	12,0	12,0	36,0	100,0	2	14	■

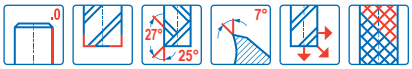
■ Stocked standard.
*Downcut indicates flute geometries that are combined to create small down forces that assist with maintaining component clamping, particularly where vacuum clamping is employed.

JC870

Composite – Router – Square – Cylindrical – Sharp – *Inch*



D





- Tolerances:
- DMM= h5
- DC= -.0008/-.0030 *Inch*
- Router (downcut)*

Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	FCEDC	PCEDC	Cylindrical
				inch	inch	inch	inch			
8700250.0	02742798	2	D	0.250	0.250	0.750	2.250	2	10	■
8700500.0	02742800	2	D	0.500	0.500	1.500	4.250	2	14	■

■ Stocked standard.

*Downcut indicates flute geometries that are combined to create small down forces that assist with maintaining component clamping, particularly where vacuum clamping is employed.

Cutting data – JC870 Side milling roughing

SMG		a_e/DC	a_p/DC	f_z							v_c
				3	4	5	6	8	10	12	
TS2	E/A/D	0.350 *0,350*	2.0 *2,0*	0.0095 *0,00038*	0.013 *0,00050*	0.016 *0,00065*	0.019 *0,00075*	0.025 *0,0010*	0.032 *0,0013*	0.038 *0,0015*	175 (150 — 200) *570 (500 — 650)*
TS3	E/A/D	0.350 *0,350*	2.0 *2,0*	0.0095 *0,00038*	0.013 *0,00050*	0.016 *0,00065*	0.019 *0,00075*	0.025 *0,0010*	0.032 *0,0013*	0.038 *0,0015*	115 (94 — 130) *375 (310 — 420)*
TP2	E/A/D	0.350 *0,350*	2.0 *2,0*	0.0095 *0,00038*	0.013 *0,00050*	0.016 *0,00065*	0.019 *0,00075*	0.025 *0,0010*	0.032 *0,0013*	0.038 *0,0015*	115 (88 — 140) *375 (290 — 450)*
TP3	E/A/D	0.350 *0,350*	2.0 *2,0*	0.0095 *0,00038*	0.013 *0,00050*	0.016 *0,00065*	0.019 *0,00075*	0.025 *0,0010*	0.032 *0,0013*	0.038 *0,0015*	46 (36 — 81) *150 (120 — 260)*

Cutting data – JC870 Slot milling

SMG		a_p/DC	f_z							v_c
			3	4	5	6	8	10	12	
TS2	E/A/D	1.0 *1,0*	0.0060 *0,00024*	0.0080 *0,00032*	0.010 *0,00040*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	0.025 *0,0010*	145 (130 — 170) *475 (430 — 550)*
TS3	E/A/D	1.0 *1,0*	0.0060 *0,00024*	0.0080 *0,00032*	0.010 *0,00040*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	0.025 *0,0010*	100 (79 — 110) *330 (260 — 360)*
TP2	E/A/D	1.0 *1,0*	0.0060 *0,00024*	0.0080 *0,00032*	0.010 *0,00040*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	0.025 *0,0010*	100 (74 — 120) *330 (250 — 390)*
TP3	E/A/D	1.0 *1,0*	0.0060 *0,00024*	0.0080 *0,00032*	0.010 *0,00040*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	0.025 *0,0010*	39 (30 — 68) *130 (99 — 220)*

For cutting data recalculations, see pages 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

Cutting data – JC870 Side milling roughing – *Inch*

SMG		a_e/DC	a_p/DC	f_z			v_c
				1/4	3/8	1/2	
TS2	E/A/D	0.350 *0,350*	2.0 *2,0*	0.020 *0,00080*	0.030 *0,0012*	0.038 *0,0015*	175 (150 — 200) *570 (500 — 650)*
TS3	E/A/D	0.350 *0,350*	2.0 *2,0*	0.020 *0,00080*	0.030 *0,0012*	0.038 *0,0015*	115 (94 — 130) *375 (310 — 420)*
TP2	E/A/D	0.350 *0,350*	2.0 *2,0*	0.020 *0,00080*	0.030 *0,0012*	0.038 *0,0015*	115 (88 — 140) *375 (290 — 450)*
TP3	E/A/D	0.350 *0,350*	2.0 *2,0*	0.020 *0,00080*	0.030 *0,0012*	0.038 *0,0015*	46 (36 — 81) *150 (120 — 260)*

Cutting data – JC870 Slot milling – *Inch*

SMG		a_p/DC	f_z			v_c
			1/4	3/8	1/2	
TS2	E/A/D	1.0 *1,0*	0.013 *0,00050*	0.019 *0,00075*	0.026 *0,0010*	145 (130 — 170) *475 (430 — 550)*
TS3	E/A/D	1.0 *1,0*	0.013 *0,00050*	0.019 *0,00075*	0.026 *0,0010*	100 (79 — 110) *330 (260 — 360)*
TP2	E/A/D	1.0 *1,0*	0.013 *0,00050*	0.019 *0,00075*	0.026 *0,0010*	100 (74 — 120) *330 (250 — 390)*
TP3	E/A/D	1.0 *1,0*	0.013 *0,00050*	0.019 *0,00075*	0.026 *0,0010*	39 (30 — 68) *130 (99 — 220)*

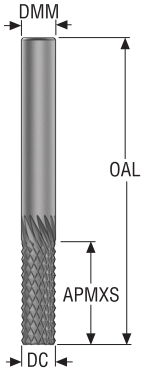
For cutting data recalculations, see pages 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

JC871

Composite – Router – Square – Cylindrical – Sharp





D



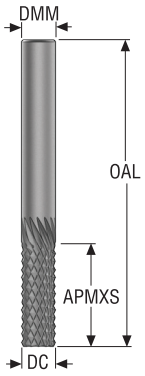
- Tolerances:
- DMM= h5
- DC= -0,02/-0,08 mm
- Router (downcut)*

Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	PCEDC	Cylindrical
				mm	mm	mm	mm		
871030.0-DURA	02720249	2	D	3,0	3,0	9,0	50,0	8	■
871040.0-DURA	02720250	2	D	4,0	4,0	12,0	50,0	8	■
871060.0-DURA	02720252	2	D	6,0	6,0	18,0	65,0	10	■
871080.0-DURA	02720253	2	D	8,0	8,0	24,0	75,0	12	■
871100.0-DURA	02720254	2	D	10,0	10,0	30,0	85,0	12	■
871120.0-DURA	02720257	2	D	12,0	12,0	36,0	100,0	14	■

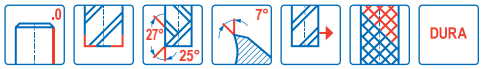
■ Stocked standard.
*Downcut indicates flute geometries that are combined to create small down forces that assist with maintaining component clamping, particularly where vacuum clamping is employed.

JC871

Composite – Router – Square – Cylindrical – Sharp – *Inch*



D





- Tolerances:
- DMM= h5
- DC= -.0008/-.0030 *Inch*
- Router (downcut)*

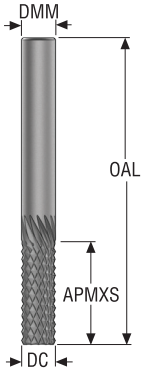
Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	PCEDC	Cylindrical
				inch	inch	inch	inch		
8710250.0-DURA	02720788	2	D	0.250	0.250	0.750	2.250	10	■
8710375.0-DURA	02720789	2	D	0.375	0.375	1.250	3.500	12	■
8710500.0-DURA	02720790	2	D	0.500	0.500	1.500	4.250	14	■

■ Stocked standard.
*Downcut indicates flute geometries that are combined to create small down forces that assist with maintaining component clamping, particularly where vacuum clamping is employed.

JC871

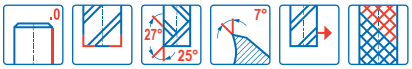
Composite – Router – Square – Cylindrical – Sharp





D

- Tolerances:
- DMM= h5
- DC= -0,02/-0,08 mm
- Router (downcut)*



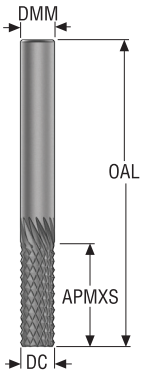
Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	PCEDC	Cylindrical
				mm	mm	mm	mm		
871030.0	02742801	2	D	3,0	3,0	9,0	50,0	8	■
871040.0	02742803	2	D	4,0	4,0	12,0	50,0	8	■
871060.0	02742806	2	D	6,0	6,0	18,0	65,0	10	■
871080.0	02742807	2	D	8,0	8,0	24,0	75,0	12	■
871100.0	02742808	2	D	10,0	10,0	30,0	85,0	12	■
871120.0	02742809	2	D	12,0	12,0	36,0	100,0	14	■

■ Stocked standard.

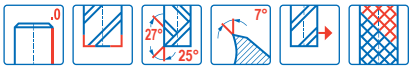
*Downcut indicates flute geometries that are combined to create small down forces that assist with maintaining component clamping, particularly where vacuum clamping is employed.

JC871

Composite – Router – Square – Cylindrical – Sharp – *Inch*



D





- Tolerances:
- DMM=h5
- DC= -.0008/-.0030 *Inch*
- Router (downcut)*

Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	PCEDC	Cylindrical
				inch	inch	inch	inch		
8710500.0	02742814	2	D	0.500	0.500	1.500	4.250	14	■

■ Stocked standard.
*Downcut indicates flute geometries that are combined to create small down forces that assist with maintaining component clamping, particularly where vacuum clamping is employed.

Cutting data – JC871 Side milling roughing

SMG		a_e/DC	a_p/DC	f_z							v_c
				3	4	5	6	8	10	12	
TS2	E/A/D	0.350 *0,350*	2.0 *2,0*	0.0095 *0,00038*	0.013 *0,00050*	0.016 *0,00065*	0.019 *0,00075*	0.025 *0,0010*	0.032 *0,0013*	0.038 *0,0015*	175 (150 — 200) *570 (500 — 650)*
TS3	E/A/D	0.350 *0,350*	2.0 *2,0*	0.0095 *0,00038*	0.013 *0,00050*	0.016 *0,00065*	0.019 *0,00075*	0.025 *0,0010*	0.032 *0,0013*	0.038 *0,0015*	115 (94 — 130) *375 (310 — 420)*
TP2	E/A/D	0.350 *0,350*	2.0 *2,0*	0.0095 *0,00038*	0.013 *0,00050*	0.016 *0,00065*	0.019 *0,00075*	0.025 *0,0010*	0.032 *0,0013*	0.038 *0,0015*	115 (88 — 140) *375 (290 — 450)*
TP3	E/A/D	0.350 *0,350*	2.0 *2,0*	0.0095 *0,00038*	0.013 *0,00050*	0.016 *0,00065*	0.019 *0,00075*	0.025 *0,0010*	0.032 *0,0013*	0.038 *0,0015*	46 (36 — 81) *150 (120 — 260)*

Cutting data – JC871 Slot milling

SMG		a_p/DC	f_z							v_c
			3	4	5	6	8	10	12	
TS2	E/A/D	1.0 *1,0*	0.0060 *0,00024*	0.0080 *0,00032*	0.010 *0,00040*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	0.025 *0,0010*	155 (140 — 180) *510 (460 — 590)*
TS3	E/A/D	1.0 *1,0*	0.0060 *0,00024*	0.0080 *0,00032*	0.010 *0,00040*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	0.025 *0,0010*	105 (84 — 120) *345 (280 — 390)*
TP2	E/A/D	1.0 *1,0*	0.0060 *0,00024*	0.0080 *0,00032*	0.010 *0,00040*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	0.025 *0,0010*	105 (79 — 130) *345 (260 — 420)*
TP3	E/A/D	1.0 *1,0*	0.0060 *0,00024*	0.0080 *0,00032*	0.010 *0,00040*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	0.025 *0,0010*	40 (31 — 70) *130 (110 — 220)*

For cutting data recalculations, see pages 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

Cutting data – JC871 Side milling roughing – *Inch*

SMG		a_e/DC	a_p/DC	f_z			v_c
				1/4	3/8	1/2	
TS2	E/A/D	0.350 *0,350*	2.0 *2,0*	0.020 *0,00080*	0.030 *0,0012*	0.038 *0,0015*	175 (150 — 200) *570 (500 — 650)*
TS3	E/A/D	0.350 *0,350*	2.0 *2,0*	0.020 *0,00080*	0.030 *0,0012*	0.038 *0,0015*	115 (94 — 130) *375 (310 — 420)*
TP2	E/A/D	0.350 *0,350*	2.0 *2,0*	0.020 *0,00080*	0.030 *0,0012*	0.038 *0,0015*	115 (88 — 140) *375 (290 — 450)*
TP3	E/A/D	0.350 *0,350*	2.0 *2,0*	0.020 *0,00080*	0.030 *0,0012*	0.038 *0,0015*	46 (36 — 81) *150 (120 — 260)*

Cutting data – JC871 Slot milling – *Inch*

SMG		a_p/DC	f_z			v_c
			1/4	3/8	1/2	
TS2	E/A/D	1.0 *1,0*	0.013 *0,00050*	0.019 *0,00075*	0.026 *0,0010*	145 (130 — 170) *475 (430 — 550)*
TS3	E/A/D	1.0 *1,0*	0.013 *0,00050*	0.019 *0,00075*	0.026 *0,0010*	100 (79 — 110) *330 (260 — 360)*
TP2	E/A/D	1.0 *1,0*	0.013 *0,00050*	0.019 *0,00075*	0.026 *0,0010*	100 (74 — 120) *330 (250 — 390)*
TP3	E/A/D	1.0 *1,0*	0.013 *0,00050*	0.019 *0,00075*	0.026 *0,0010*	39 (30 — 68) *130 (99 — 220)*

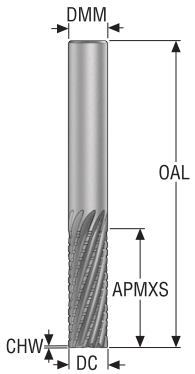
For cutting data recalculations, see pages 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

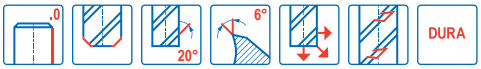
JC875

Composite – Square – 5-10 Flutes – Cylindrical – Chamfer





D



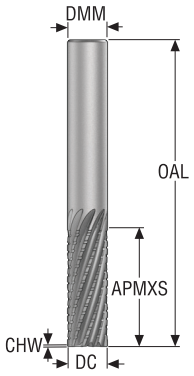
- Tolerances:
- DMM=h5
- DC=-0,02/-0,08 mm

Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	CHW	PCEDC	Cylindrical
				mm	mm	mm	mm	mm		
JC875030D2.0-DURA	02968155	2	D	3,0	3,0	9,0	50,0	0,05	5	■
JC875050D2.0-DURA	02968157	2	D	5,0	5,0	15,0	50,0	0,05	6	■
JC875060D2.0-DURA	02968158	2	D	6,0	6,0	18,0	65,0	0,06	6	■
JC875080D2.0-DURA	02968159	2	D	8,0	8,0	24,0	70,0	0,08	10	■
JC875100D2.0-DURA	02968160	2	D	10,0	10,0	30,0	80,0	0,1	10	■

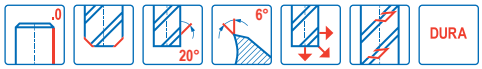
■ Stocked standard.

JC875

Composite – Square – 6-10 Flutes – Cylindrical – Chamfer – *Inch*



D





- Tolerances:
- DMM=h5
- DC= -.0008/-.0030 *Inch*

Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	CHW	PCEDC	Cylindrical
				inch	inch	inch	inch	inch		
JC875.250D2.0-DURA	02968162	2	D	0.250	0.250	0.750	3.000	0.002	6	■

■ Stocked standard.

Cutting data – JC875 Side milling roughing

SMG		a_e/DC	a_p/DC	f_z					v_c
				3	5	6	8	10	
TS2	E/A/D	0.350 *0,350*	2.0 *2,0*	0.0095 *0,00038*	0.016 *0,00065*	0.019 *0,00075*	0.025 *0,0010*	0.032 *0,0013*	190 (160 — 220) *620 (530 — 720)*
TS3	E/A/D	0.350 *0,350*	2.0 *2,0*	0.0095 *0,00038*	0.016 *0,00065*	0.019 *0,00075*	0.025 *0,0010*	0.032 *0,0013*	130 (110 — 150) *425 (370 — 490)*
TP2	E/A/D	0.350 *0,350*	2.0 *2,0*	0.0095 *0,00038*	0.016 *0,00065*	0.019 *0,00075*	0.025 *0,0010*	0.032 *0,0013*	130 (96 — 150) *425 (320 — 490)*
TP3	E/A/D	0.350 *0,350*	2.0 *2,0*	0.0095 *0,00038*	0.016 *0,00065*	0.019 *0,00075*	0.025 *0,0010*	0.032 *0,0013*	50 (39 — 89) *165 (130 — 290)*

Cutting data – JC875 Slot milling

SMG		a_p/DC	f_z					v_c
			3	5	6	8	10	
TS2	E/A/D	1.0 *1,0*	0.0060 *0,00024*	0.010 *0,00040*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	160 (140 — 180) *520 (460 — 590)*
TS3	E/A/D	1.0 *1,0*	0.0060 *0,00024*	0.010 *0,00040*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	105 (86 — 120) *345 (290 — 390)*
TP2	E/A/D	1.0 *1,0*	0.0060 *0,00024*	0.010 *0,00040*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	105 (81 — 130) *345 (270 — 420)*
TP3	E/A/D	1.0 *1,0*	0.0060 *0,00024*	0.010 *0,00040*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	42 (33 — 74) *140 (110 — 240)*

For cutting data recalculations, see pages 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

Cutting data – JC875 Side milling – *Inch*

SMG		a_e/DC	a_p/DC	f_z			v_c
				1/4	3/8	1/2	
TS2	E/A/D	0.350 *0,350*	2.0 *2,0*	0.020 *0,00080*	0.030 *0,0012*	0.038 *0,0015*	190 (160 — 220) *620 (530 — 720)*
TS3	E/A/D	0.350 *0,350*	2.0 *2,0*	0.020 *0,00080*	0.030 *0,0012*	0.038 *0,0015*	130 (110 — 150) *425 (370 — 490)*
TP2	E/A/D	0.350 *0,350*	2.0 *2,0*	0.020 *0,00080*	0.030 *0,0012*	0.038 *0,0015*	130 (96 — 150) *425 (320 — 490)*
TP3	E/A/D	0.350 *0,350*	2.0 *2,0*	0.020 *0,00080*	0.030 *0,0012*	0.038 *0,0015*	50 (39 — 89) *165 (130 — 290)*

Cutting data – JC875 Slot milling – *Inch*

SMG		a_p/DC	f_z			v_c
			1/4	3/8	1/2	
TS2	E/A/D	1.0 *1,0*	0.013 *0,00050*	0.019 *0,00075*	0.026 *0,0010*	160 (140 — 180) *520 (460 — 590)*
TS3	E/A/D	1.0 *1,0*	0.013 *0,00050*	0.019 *0,00075*	0.026 *0,0010*	105 (86 — 120) *345 (290 — 390)*
TP2	E/A/D	1.0 *1,0*	0.013 *0,00050*	0.019 *0,00075*	0.026 *0,0010*	105 (81 — 130) *345 (270 — 420)*
TP3	E/A/D	1.0 *1,0*	0.013 *0,00050*	0.019 *0,00075*	0.026 *0,0010*	42 (33 — 74) *140 (110 — 240)*

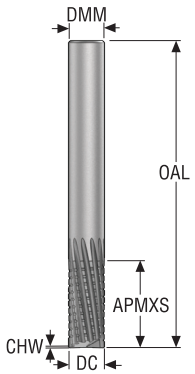
For cutting data recalculations, see pages 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (sf/min)
f_z = mm/tooth (*in*/tooth)
a_p = mm/DC (*in*/DC) = factor
a_e = mm/DC (*in*/DC) = factor
All cutting data are target values

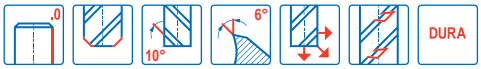
JC876

Composite – Square – 6-14 Flutes – Cylindrical – Chamfer





D



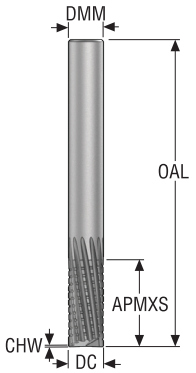
- Tolerances:
- DMM=h5
- DC=-0,02 -0,08 mm
- Left hand helix

Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	CHW	PCEDC	Cylindrical
				mm	mm	mm	mm	mm		
JC876030D2C.0Z6-DURA	03135004	2	D	3,0	3,0	7,5	50,0	0,035	6	■
JC876040D2C.0Z6-DURA	03135005	2	D	4,0	4,0	10,0	54,0	0,045	6	■
JC876060D2C.0Z8-DURA	03135006	2	D	6,0	6,0	15,0	62,0	0,075	8	■
JC876060D2C.0Z10-DURA	03135007	2	D	6,0	6,0	15,0	62,0	0,075	10	■
JC876080D2C.0Z10-DURA	03135009	2	D	8,0	8,0	20,0	70,0	0,1	10	■
JC876100D2C.0Z12-DURA	03135011	2	D	10,0	10,0	25,0	82,0	0,125	12	■
JC876120D2C.0Z14-DURA	03135012	2	D	12,0	12,0	30,0	95,0	0,15	14	■

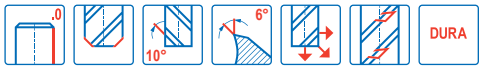
■ Stocked standard.

JC876

Composite – Square – 8-14 Flutes – Cylindrical – Chamfer – *Inch*



D





- Tolerances:
- DMM=h5
- DC= -.0008/-.0030 *Inch*
- Left hand helix

Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	CHW	PCEDC	Cylindrical
				inch	inch	inch	inch	inch		
JC876.250D2C.0Z8-DURA	03135125	2	D	0.250	0.250	0.625	2.500	0.003	8	■
JC876.375D2C.0Z12-DURA	03135127	2	D	0.375	0.375	1.000	3.000	0.005	12	■

■ Stocked standard.

Cutting data – JC876 Side milling roughing

SMG		a_e/DC	a_p/DC	f_z						v_c
				3	4	6	8	10	12	
TS2	E/A/D	0.334 *0,334*	1.7 *1,7*	0.0095 *0,00038*	0.013 *0,00050*	0.019 *0,00075*	0.026 *0,0010*	0.032 *0,0013*	0.038 *0,0015*	220 (190 — 250) *720 (630 — 820)*
TS3	E/A/D	0.334 *0,334*	1.7 *1,7*	0.0095 *0,00038*	0.013 *0,00050*	0.019 *0,00075*	0.026 *0,0010*	0.032 *0,0013*	0.038 *0,0015*	145 (120 — 170) *475 (400 — 550)*
TP2	E/A/D	0.334 *0,334*	1.7 *1,7*	0.0095 *0,00038*	0.013 *0,00050*	0.019 *0,00075*	0.026 *0,0010*	0.032 *0,0013*	0.038 *0,0015*	145 (110 — 180) *475 (370 — 590)*
TP3	E/A/D	0.334 *0,334*	1.7 *1,7*	0.0095 *0,00038*	0.013 *0,00050*	0.019 *0,00075*	0.026 *0,0010*	0.032 *0,0013*	0.038 *0,0015*	75 (44 — 100) *245 (150 — 320)*

Cutting data – JC876 Slot milling

SMG		a_p/DC	f_z						v_c
			3	4	6	8	10	12	
TS2	E/A/D	1.0 *1,0*	0.0060 *0,00024*	0.0080 *0,00032*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	0.025 *0,0010*	175 (150 — 200) *570 (500 — 650)*
TS3	E/A/D	1.0 *1,0*	0.0060 *0,00024*	0.0080 *0,00032*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	0.025 *0,0010*	115 (94 — 140) *375 (310 — 450)*
TP2	E/A/D	1.0 *1,0*	0.0060 *0,00024*	0.0080 *0,00032*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	0.025 *0,0010*	115 (88 — 140) *375 (290 — 450)*
TP3	E/A/D	1.0 *1,0*	0.0060 *0,00024*	0.0080 *0,00032*	0.012 *0,00048*	0.016 *0,00065*	0.020 *0,00080*	0.025 *0,0010*	60 (36 — 81) *195 (120 — 260)*

For cutting data recalculations, see pages 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

Cutting data – JC876 Side milling roughing – *Inch*

SMG		a_e/DC	a_p/DC	f_z			v_c
				1/4	3/8	1/2	
TS2	E/A/D	0.334 *0,334*	1.7 *1,7*	0.020 *0,00080*	0.030 *0,0012*	0.040 *0,0016*	220 (190 — 250) *720 (630 — 820)*
TS3	E/A/D	0.334 *0,334*	1.7 *1,7*	0.020 *0,00080*	0.030 *0,0012*	0.040 *0,0016*	145 (120 — 170) *475 (400 — 550)*
TP2	E/A/D	0.334 *0,334*	1.7 *1,7*	0.020 *0,00080*	0.030 *0,0012*	0.040 *0,0016*	145 (110 — 180) *475 (370 — 590)*
TP3	E/A/D	0.334 *0,334*	1.7 *1,7*	0.020 *0,00080*	0.030 *0,0012*	0.040 *0,0016*	75 (44 — 100) *245 (150 — 320)*

Cutting data – JC876 Slot milling – *Inch*

SMG		a_p/DC	f_z			v_c
			1/4	3/8	1/2	
TS2	E/A/D	1.0 *1,0*	0.013 *0,00050*	0.019 *0,00075*	0.026 *0,0010*	175 (150 — 200) *570 (500 — 650)*
TS3	E/A/D	1.0 *1,0*	0.013 *0,00050*	0.019 *0,00075*	0.026 *0,0010*	115 (94 — 140) *375 (310 — 450)*
TP2	E/A/D	1.0 *1,0*	0.013 *0,00050*	0.019 *0,00075*	0.026 *0,0010*	115 (88 — 140) *375 (290 — 450)*
TP3	E/A/D	1.0 *1,0*	0.013 *0,00050*	0.019 *0,00075*	0.026 *0,0010*	60 (36 — 81) *195 (120 — 260)*

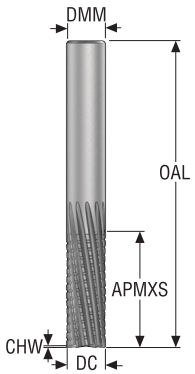
For cutting data recalculations, see pages 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (sf/min)
f_z = mm/tooth (*in*/tooth)
a_p = mm/DC (*in*/DC) = factor
a_e = mm/DC (*in*/DC) = factor
All cutting data are target values

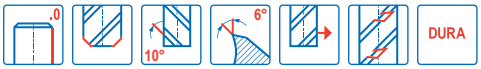
JC877

Composite – Square – 6-14 Flutes – Cylindrical – Chamfer





D



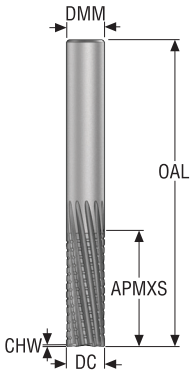
- Tolerances:
- DMM=h5
- DC=-0,02, -0,08 mm
- Left hand helix

Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	CHW	PCEDC	Cylindrical
				mm	mm	mm	mm	mm		
JC877030D2C.0Z6-DURA	03135013	2	D	3,0	3,0	9,0	50,0	0,035	6	■
JC877040D2C.0Z6-DURA	03135014	2	D	4,0	4,0	12,0	54,0	0,045	6	■
JC877060D2C.0Z8-DURA	03135015	2	D	6,0	6,0	18,0	62,0	0,075	8	■
JC877060D2C.0Z10-DURA	03135016	2	D	6,0	6,0	18,0	62,0	0,075	10	■
JC877080D2C.0Z10-DURA	03135018	2	D	8,0	8,0	24,0	70,0	0,1	10	■
JC877100D2C.0Z12-DURA	03135020	2	D	10,0	10,0	30,0	82,0	0,125	12	■
JC877120D2C.0Z14-DURA	03135021	2	D	12,0	12,0	36,0	95,0	0,15	14	■

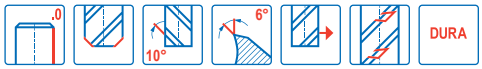
■ Stocked standard.

JC877

Composite – Square – 8-14 Flutes – Cylindrical – Chamfer – *Inch*



D





- Tolerances:
- DMM=h5
- DC= -.0008/-.0030 *Inch*
- Left hand helix

Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	CHW	PCEDC	Cylindrical
				inch	inch	inch	inch	inch		
JC877.250D2C.0Z8-DURA	03135129	2	D	0.250	0.250	0.750	2.500	0.003	8	■

■ Stocked standard.

Cutting data – JC877 Side milling roughing

SMG		a_e/DC	a_p/DC	f_z						v_c
				3	4	6	8	10	12	
TS2	E/A/D	0.334 *0,334*	2.0 *2,0*	0.0095 *0,00038*	0.013 *0,00050*	0.019 *0,00075*	0.026 *0,0010*	0.032 *0,0013*	0.038 *0,0015*	195 (170 — 220) *640 (560 — 720)*
TS3	E/A/D	0.334 *0,334*	2.0 *2,0*	0.0095 *0,00038*	0.013 *0,00050*	0.019 *0,00075*	0.026 *0,0010*	0.032 *0,0013*	0.038 *0,0015*	130 (110 — 150) *425 (370 — 490)*
TP2	E/A/D	0.334 *0,334*	2.0 *2,0*	0.0095 *0,00038*	0.013 *0,00050*	0.019 *0,00075*	0.026 *0,0010*	0.032 *0,0013*	0.038 *0,0015*	130 (98 — 160) *425 (330 — 520)*
TP3	E/A/D	0.334 *0,334*	2.0 *2,0*	0.0095 *0,00038*	0.013 *0,00050*	0.019 *0,00075*	0.026 *0,0010*	0.032 *0,0013*	0.038 *0,0015*	65 (40 — 91) *215 (140 — 290)*

Cutting data – JC877 Slot milling

SMG		a_p/DC	f_z						v_c
			3	4	6	8	10	12	
TS2	E/A/D	1,0 *1,0*	0,0060 *0,0060*	0,0080 *0,0080*	0,012 *0,012*	0,016 *0,016*	0,020 *0,020*	0,025 *0,025*	170 (150 — 200) *115 (92 — 130)*
TP2	E/A/D	1,0 *1,0*	0,0060 *0,0060*	0,0080 *0,0080*	0,012 *0,012*	0,016 *0,016*	0,020 *0,020*	0,025 *0,025*	115 (86 — 140) *55 (35 — 80)*

For cutting data recalculations, see pages 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

Cutting data – JC877 Side milling roughing – *Inch*

SMG		a_e/DC	a_p/DC	f_z			v_c
				1/4	3/8	1/2	
TS2	E/A/D	0.334 *0,334*	2.0 *2,0*	0.020 *0,00080*	0.030 *0,0012*	0.040 *0,0016*	195 (170 — 220) *640 (560 — 720)*
TS3	E/A/D	0.334 *0,334*	2.0 *2,0*	0.020 *0,00080*	0.030 *0,0012*	0.040 *0,0016*	130 (110 — 150) *425 (370 — 490)*
TP2	E/A/D	0.334 *0,334*	2.0 *2,0*	0.020 *0,00080*	0.030 *0,0012*	0.040 *0,0016*	130 (98 — 160) *425 (330 — 520)*
TP3	E/A/D	0.334 *0,334*	2.0 *2,0*	0.020 *0,00080*	0.030 *0,0012*	0.040 *0,0016*	65 (40 — 91) *215 (140 — 290)*

Cutting data – JC877 Slot milling – *Inch*

SMG		a_p/DC	f_z			v_c
			1/4	3/8	1/2	
TS2	E/A/D	1.0 *1,0*	0.013 *0,00050*	0.019 *0,00075*	0.026 *0,0010*	160 (140 — 180) *520 (460 — 590)*
TS3	E/A/D	1.0 *1,0*	0.013 *0,00050*	0.019 *0,00075*	0.026 *0,0010*	105 (85 — 120) *345 (280 — 390)*
TP2	E/A/D	1.0 *1,0*	0.013 *0,00050*	0.019 *0,00075*	0.026 *0,0010*	105 (80 — 130) *345 (270 — 420)*
TP3	E/A/D	1.0 *1,0*	0.013 *0,00050*	0.019 *0,00075*	0.026 *0,0010*	55 (32 — 74) *180 (110 — 240)*

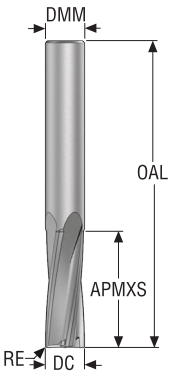
For cutting data recalculations, see pages 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (sf/min)
f_z = mm/tooth (*in*/tooth)
a_p = mm/DC (*in*/DC) = factor
a_e = mm/DC (*in*/DC) = factor
All cutting data are target values

JC880

Composite – Square – 4 Flutes – Cylindrical – Corner radius





D

- Tolerances:
- DMM=h5
- DC=-0,02/-0,04 mm
- RE=±0,01 mm



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	RE	PCEDC	Cylindrical
				mm	mm	mm	mm	mm		
880040R020Z4.0-DURA	02843012	2	D	4,0	4,0	12,0	50,0	0,2	4	■
880050R020Z4.0-DURA	02843013	2	D	5,0	5,0	15,0	50,0	0,2	4	■
880060R020Z4.0-DURA	02720258	2	D	6,0	6,0	18,0	65,0	0,2	4	■
880080R020Z4.0-DURA	02720259	2	D	8,0	8,0	24,0	70,0	0,2	4	■
880100R020Z4.0-DURA	02720260	2	D	10,0	10,0	30,0	80,0	0,2	4	■
880120R020Z4.0-DURA	02720261	2	D	12,0	12,0	36,0	100,0	0,2	4	■
880160R020Z4.0-DURA	02720262	2	D	16,0	16,0	48,0	110,0	0,2	4	■
880200R020Z4.0-DURA	02720263	2	D	20,0	20,0	60,0	130,0	0,2	4	■

■ Stocked standard.

Cutting data – JC880 Side milling roughing

SMG		a_e/DC	a_p/DC	f_z							v_c
				4	6	8	10	12	16	20	
TS2	E/A/D	0.400 *0,400*	1.9 *1,9*	0.024 *0,00095*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	0.090 *0,0036*	0.10 *0,0040*	190 (160 — 210) *620 (530 — 680)*
TS3	E/A/D	0.300 *0,300*	2.0 *2,0*	0.017 *0,00065*	0.025 *0,0010*	0.034 *0,0013*	0.042 *0,0017*	0.050 *0,0020*	0.060 *0,0024*	0.070 *0,0028*	130 (93 — 170) *425 (310 — 550)*
TP2	E/A/D	0.400 *0,400*	1.9 *1,9*	0.024 *0,00095*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	0.090 *0,0036*	0.10 *0,0040*	125 (95 — 150) *410 (320 — 490)*
TP3	E/A/D	0.300 *0,300*	2.0 *2,0*	0.017 *0,00065*	0.025 *0,0010*	0.034 *0,0013*	0.042 *0,0017*	0.050 *0,0020*	0.060 *0,0024*	0.070 *0,0028*	50 (40 — 92) *165 (140 — 300)*

Cutting data – JC880 Slot milling

SMG		a_p/DC	f_z								v_c
			4	5	6	8	10	12	16	20	
TS2	E/A/D	1.0 *1,0*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	0.090 *0,0036*	0.10 *0,0040*	150 (130 — 170) *490 (430 — 550)*
TS3	E/A/D	1.0 *1,0*	0.015 *0,00060*	0.019 *0,00075*	0.022 *0,00085*	0.030 *0,0012*	0.038 *0,0015*	0.044 *0,0017*	0.055 *0,0022*	0.065 *0,0026*	100 (71 — 130) *330 (240 — 420)*
TP2	E/A/D	1.0 *1,0*	0.024 *0,00095*	0.030 *0,0012*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	0.070 *0,0028*	0.090 *0,0036*	0.10 *0,0040*	100 (76 — 120) *330 (250 — 390)*
TP3	E/A/D	1.0 *1,0*	0.015 *0,00060*	0.019 *0,00075*	0.022 *0,00085*	0.030 *0,0012*	0.038 *0,0015*	0.044 *0,0017*	0.055 *0,0022*	0.065 *0,0026*	40 (31 — 70) *130 (110 — 220)*

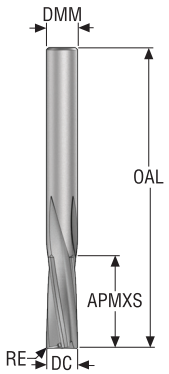
For cutting data recalculations, see pages 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

JC885

Composite – Square – 4 Flutes – Cylindrical – Corner radius





D



- Tolerances:
- DMM=h5
- DC=-0,02/-0,04 mm
- RE=±0,01 mm
- Left hand helix

Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	RE	PCEDC	Cylindrical
				mm	mm	mm	mm	mm		
JC885040D2R020.0Z4-DURA	02843014	2	D	4,0	4,0	12,0	50,0	0,2	4	■
JC885060D2R020.0Z4-DURA	02843016	2	D	6,0	6,0	18,0	70,0	0,2	4	■
JC885080D2R020.0Z4-DURA	02843017	2	D	8,0	8,0	24,0	80,0	0,2	4	■

■ Stocked standard.

Cutting data – JC885 Side milling roughing

SMG		a_e/DC	a_p/DC	f_z				v_c
				4	6	8	10	
TS2	E/A/D	0.400 *0,400*	2.0 *2,0*	0.024 *0,00095*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	190 (160 — 210) *620 (530 — 680)*
TS3	E/A/D	0.300 *0,300*	2.0 *2,0*	0.017 *0,00065*	0.025 *0,0010*	0.034 *0,0013*	0.042 *0,0017*	130 (99 — 170) *425 (330 — 550)*
TP2	E/A/D	0.400 *0,400*	2.0 *2,0*	0.024 *0,00095*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	125 (94 — 150) *410 (310 — 490)*
TP3	E/A/D	0.300 *0,300*	2.0 *2,0*	0.017 *0,00065*	0.025 *0,0010*	0.034 *0,0013*	0.042 *0,0017*	50 (33 — 92) *165 (110 — 300)*

Cutting data – JC885 Slot milling

SMG		a_p/DC	f_z				v_c
			4	6	8	10	
TS2	E/A/D	1.0 *1,0*	0.024 *0,00095*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	150 (130 — 170) *490 (430 — 550)*
TS3	E/A/D	0.70 *0,70*	0.015 *0,00060*	0.022 *0,00085*	0.030 *0,0012*	0.038 *0,0015*	100 (76 — 130) *330 (250 — 420)*
TP2	E/A/D	1.0 *1,0*	0.024 *0,00095*	0.036 *0,0014*	0.048 *0,0019*	0.060 *0,0024*	100 (75 — 120) *330 (250 — 390)*
TP3	E/A/D	0.70 *0,70*	0.015 *0,00060*	0.022 *0,00085*	0.030 *0,0012*	0.038 *0,0015*	40 (26 — 70) *130 (86 — 220)*

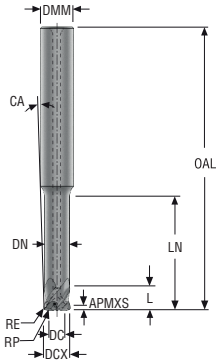
For cutting data recalculations, see pages 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

JC898

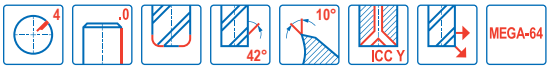
High feed – Stacked materials – Corner radius – 4 Flutes – Cylindrical – Corner radius





G

- Tolerances:
- DMM=h5
- DC= e7
- RE= ±0,1 mm



Designation	Item number	Length index	Tool shape	ICC	DC	DCX	DMM	APMXS	L	OAL	LN	DN	RE	RP	CA°	PCEDC	Cylindrical
					mm	mm	mm	mm	mm	mm	mm	mm	mm	mm			
JC898080G3HZ4A.0-M64	03245308	3	G	■	4,0	8,0	10,0	0,43	6,0	88,0	35,0	7,6	0,5	0,87	1,5 °	4	■
JC898150G3HZ4A.0-M64	03245309	3	G	■	7,5	15,0	16,0	0,796	12,0	125,0	70,0	14,3	0,94	1,63	0,4 °	4	■

■ Stocked standard.

Cutting data – JC898 Side milling

SMG		a_e/DCX	a_p/DCX	f_z		v_c
				8	15	
S12+TS2/TP2	D	0,30 *0,30*	0,020 *0,020*	0,1 *0,0040*	0,15 *0,0060*	90 (80-120) *300 (270-400)*
TP2+TS2/TP2	D	0,30 *0,30*	0,034 *0,034*	0,12 *0,0048*	0,25 *0,0100*	120 (90-150) *400 (300-490)*

Cutting data – JC898 Slot milling

SMG		a_p/DCX	f_z		v_c
			8	15	
S12+TP2/TS2	D	0.020 *0.020*	0.08 *0,0032*	0.10 *0,0040*	90 (80-120) *300 (270-400)*
N1+TP2/TS2	D	0.034 *0.034*	0.1 *0,0040*	0.10 *0,0040*	120 (90-150) *400 (300-490)*

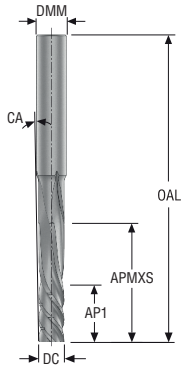
For cutting data recalculations, see pages 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

JC899

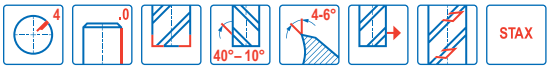
High performance – Stacked materials – Square – 4 Flutes – Cylindrical – Sharp





F

- Tolerances:
- DMM=h5
- DC= ±0,02 mm

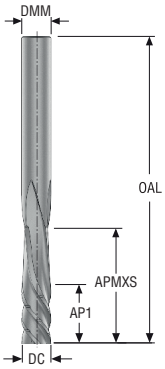


Designation	Item number	Length index	Tool shape	Chip splitters	DC	DMM	APMXS	AP1	OAL	CA°	PCEDC	Cylindrical
					mm	mm	mm	mm	mm			
JC899085F3S.0Z4-STAX	03245482	3	F	■	8,5	10,0	38,0	19,0	100,0	0,8 °	4	■
JC899148F3S.0Z4-STAX	03245480	3	F	■	14,8	16,0	55,0	30,0	150,0	0,53 °	4	■
JC899148F4S.0Z4-STAX	03245481	4	F	■	14,8	16,0	62,0	37,0	150,0	0,48 °	4	■

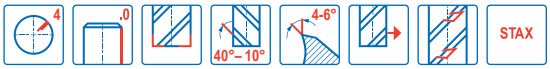
■ Stocked standard.

JC899

High performance – Stacked materials – Square – 4 Flutes – Cylindrical – Sharp – *Inch*



D





- Tolerances:
- DMM=h5
- DC= ±0,0008 *Inch*

Designation	Item number	Length index	Tool shape	Chip splitters	DC	DMM	APMXS	AP1	OAL	PCEDC	Cylindrical
					inch	inch	inch	inch	inch		
JC8990375D4S.0Z4-STAX	03245483	4	D	■	0.373	0.375	1.500	0.625	4.000	4	■

■ Stocked standard.

Cutting data – JC899 Finishing

SMG		a_e/DC	a_p/DC	f_z		v_c
				8.5	14.8	
S12+TP2/TS2	D	0,025 *0,025*	4,0 *4,0*	0,04 *0,0016*	0,075 *0,0030*	40 (30 — 50) *140 (100 — 170)*
N1+TP2/TS2	D	0,025 *0,025*	4,0 *4,0*	0,06 *0,0032*	0,09 *0,0036*	60 (50 — 75) *200 (170 — 250)*

Cutting data – JC899 Finishing – *Inch*

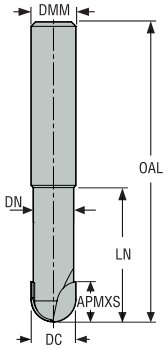
SMG		a_e/DC	a_p/DC	f_z	v_c
				3/8	
S12+TP2/TS2	D	0,025 *0,025*	4,0 *4,0*	0,05 *0,0022*	40 (30 — 50) *140 (100 — 170)*
N1+TP2/TS2	D	0,025 *0,025*	4,0 *4,0*	0,07 *0,0028*	60 (50 — 75) *200 (170 — 250)*

For cutting data recalculations, see pages 573 - 580

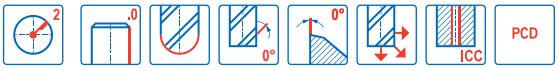
SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

JPD850

Composite – Ball nose – 2 Flutes – Cylindrical – ICC



E





- Tolerances:
- DMM=h5
- DC= h10
- ICC= 2 straight channels

Designation	Item number	Length index	Tool shape	ICC	DC	DMM	APMXS	OAL	LN	DN	PCEDC	Cylindrical
					mm	mm	mm	mm	mm	mm		
JPD850060E2B.0Z2A	02968184	2	E	■	6,0	6,0	7,0	58,0	18,0	5,4	2	■
JPD850080E2B.0Z2A	02968185	2	E	■	8,0	8,0	8,0	64,0	24,0	7,2	2	■
JPD850100E2B.0Z2A	02968186	2	E	■	10,0	10,0	10,0	73,0	30,0	9,0	2	■

■ Stocked standard.

Cutting data – JPD850 Copy milling

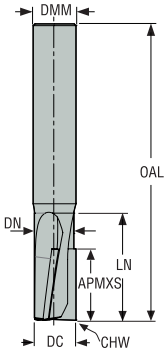
SMG		a_e/DC	a_p/DC	f_z					v_c
				4	5	6	8	10	
TS2	E/A/D	0.200 *0,200*	0.50 *0,50*	0.040 *0,0016*	0.048 *0,0019*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	550 (470 — 820) *1800 (1600 — 2600)*
TS3	E/A/D	0.200 *0,200*	0.50 *0,50*	0.040 *0,0016*	0.048 *0,0019*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	310 (270 — 460) *1025 (890 — 1500)*
TP2	E/A/D	0.200 *0,200*	0.50 *0,50*	0.040 *0,0016*	0.048 *0,0019*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	890 (750 — 1300) *2925 (2500 — 4200)*
TP3	E/A/D	0.200 *0,200*	0.50 *0,50*	0.040 *0,0016*	0.048 *0,0019*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	580 (500 — 870) *1900 (1700 — 2800)*

For cutting data recalculations, see pages 573 - 580

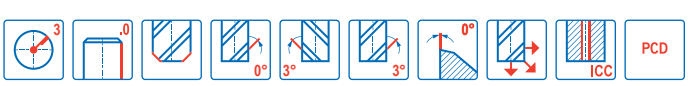
SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

JPD880

Composite – Square – 3 Flutes – Cylindrical – Chamfer – ICC



E





- Tolerances:
- DMM=h5
- DC=h10
- ICC=Y

Designation	Item number	Length index	Tool shape	ICC	DC	DMM	APMXS	OAL	LN	DN	CHW	PCEDC	Cylindrical
					mm	mm	mm	mm	mm	mm	mm		
JPD880060G2C.0Z3A	02968190	2	G	■	6,0	8,0	13,0	64,0	20,0	5,3	0,1	3	■
JPD880080E2C.0Z3A	02968191	2	E	■	8,0	8,0	15,0	64,0	20,0	7,3	0,1	3	■
JPD880100E2C.0Z3A	02968192	2	E	■	10,0	10,0	13,0	73,0	30,0	9,2	0,1	3	■
JPD880120E2C.0Z3A	02968194	2	E	■	12,0	12,0	13,0	83,0	30,0	11,0	0,1	3	■
JPD880160E2C.0Z3A	02968196	2	E	■	16,0	16,0	13,0	90,0	35,0	14,8	0,1	3	■
JPD880100E3C.0Z3A	02968193	3	E	■	10,0	10,0	20,0	73,0	30,0	9,2	0,1	3	■
JPD880160E3C.0Z3A	02968197	3	E	■	16,0	16,0	20,0	90,0	35,0	14,8	0,1	3	■

■ Stocked standard.

Cutting data – JPD880 Side milling

SMG		a_e/DC	a_p/DC	f_z					v_c
				6	8	10	12	16	
TS2	E/A/D	0.300 *0,300*	1.2 *1,2*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.15 *0,0060*	510 (430 — 750) *1675 (1500 — 2400)*
TS3	E/A/D	0.300 *0,300*	1.2 *1,2*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.15 *0,0060*	275 (230 — 410) *900 (760 — 1300)*
TP2	E/A/D	0.300 *0,300*	1.2 *1,2*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.15 *0,0060*	810 (680 — 940) *2650 (2300 — 3000)*
TP3	E/A/D	0.300 *0,300*	1.2 *1,2*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.15 *0,0060*	520 (440 — 780) *1700 (1500 — 2500)*

Cutting data – JPD880 Slot milling

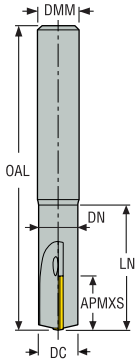
SMG		a_p/DC	f_z					v_c
			6	8	10	12	16	
TS2	E/A/D	1.0 *1,0*	0.055 *0,0022*	0.075 *0,0030*	0.090 *0,0036*	0.11 *0,0044*	0.14 *0,0055*	385 (330 — 570) *1275 (1100 — 1800)*
TS3	E/A/D	1.0 *1,0*	0.055 *0,0022*	0.075 *0,0030*	0.090 *0,0036*	0.11 *0,0044*	0.14 *0,0055*	210 (180 — 310) *690 (600 — 1000)*
TP2	E/A/D	1.0 *1,0*	0.055 *0,0022*	0.075 *0,0030*	0.090 *0,0036*	0.11 *0,0044*	0.14 *0,0055*	620 (520 — 710) *2025 (1800 — 2300)*
TP3	E/A/D	1.0 *1,0*	0.055 *0,0022*	0.075 *0,0030*	0.090 *0,0036*	0.11 *0,0044*	0.14 *0,0055*	395 (340 — 590) *1300 (1200 — 1900)*

For cutting data recalculations, see pages 573 - 580

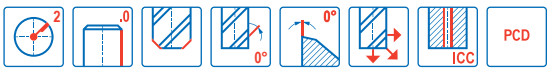
SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

JPD890

Composite – Square – 2 Flutes – Cylindrical – Chamfer – ICC



E





- Tolerances:
- DMM=h5
- DC=h10
- ICC=2 straight channels

Designation	Item number	Length index	Tool shape	ICC	DC	DMM	APMXS	OAL	LN	DN	CHW	PCEDC	Cylindrical
					mm	mm	mm	mm	mm	mm	mm		
JPD890060G2S.0Z2A	02791382	2	G	■	6,0	8,0	13,0	64,0	20,0	5,4	0,1	2	■
JPD890080E2S.0Z2A	02791383	2	E	■	8,0	8,0	15,0	64,0	20,0	7,4	0,1	2	■
JPD890100E2S.0Z2A	02791384	2	E	■	10,0	10,0	13,0	73,0	30,0	9,4	0,1	2	■
JPD890120E2S.0Z2A	02791386	2	E	■	12,0	12,0	13,0	83,0	30,0	11,4	0,1	2	■
JPD890100E3S.0Z2A	02791385	3	E	■	10,0	10,0	20,0	73,0	30,0	9,4	0,1	2	■
JPD890120E3S.0Z2A	02791387	3	E	■	12,0	12,0	20,0	83,0	30,0	11,4	0,1	2	■

■ Stocked standard.

Cutting data – JPD890 Side milling

SMG		a_e/DC	a_p/DC	f_z				v_c
				6	8	10	12	
TS2	E/A/D	0.300 *0,300*	1.2 *1,2*	0.12 *0,0048*	0.16 *0,0065*	0.20 *0,0080*	0.24 *0,0095*	415 (360 — 620) *1350 (1200 — 2000)*
TS3	E/A/D	0.200 *0,200*	1.2 *1,2*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	305 (260 — 450) *1000 (860 — 1400)*
TP2	E/A/D	0.300 *0,300*	1.2 *1,2*	0.12 *0,0048*	0.16 *0,0065*	0.20 *0,0080*	0.24 *0,0095*	670 (560 — 770) *2200 (1900 — 2500)*
TP3	E/A/D	0.200 *0,200*	1.2 *1,2*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	580 (490 — 860) *1900 (1700 — 2800)*

Cutting data – JPD890 Slot milling

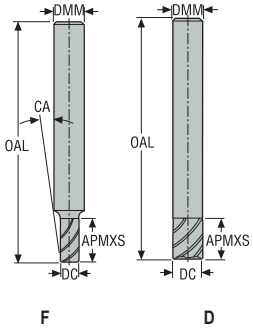
SMG		a_p/DC	f_z				v_c
			6	8	10	12	
TS2	E/A/D	1.0 *1,0*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	375 (320 — 550) *1225 (1100 — 1800)*
TS3	E/A/D	1.0 *1,0*	0.042 *0,0017*	0.055 *0,0022*	0.070 *0,0028*	0.085 *0,0034*	225 (190 — 330) *740 (630 — 1000)*
TP2	E/A/D	1.0 *1,0*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	600 (500 — 690) *1975 (1700 — 2200)*
TP3	E/A/D	1.0 *1,0*	0.042 *0,0017*	0.055 *0,0022*	0.070 *0,0028*	0.085 *0,0034*	420 (360 — 630) *1375 (1200 — 2000)*

For cutting data recalculations, see pages 573 - 580

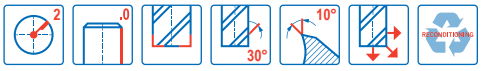
SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

J93F

General purpose – Plastic – Square – 2 Flutes – Cylindrical – Sharp







- Tolerances:
- DMM= h5
- DC= Ø1-Ø6= -0,02/-0,034 mm
- DC= Ø8-Ø20= -0,02/-0,044 mm
- Regrind possible if DC is ≥Ø6

Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	CA°	PCEDC	Cylindrical
				mm	mm	mm	mm	mm		
93015-F	02605874	2	F	1,5	3,0	6,0	40,0	4,0	2	■
93020-F	02605888	2	F	2,0	3,0	9,0	40,0	2,5	2	■
93030-F	02606060	2	D	3,0	3,0	12,0	40,0	–	2	■
93040-F	02606061	2	D	4,0	4,0	14,0	50,0	–	2	■
93060-F	02606063	2	D	6,0	6,0	20,0	65,0	–	2	■
93080-F	02606064	2	D	8,0	8,0	20,0	70,0	–	2	■
93100-F	02606065	2	D	10,0	10,0	25,0	80,0	–	2	■
93120-F	02606066	2	D	12,0	12,0	25,0	90,0	–	2	■
93160-F	02606068	2	D	16,0	16,0	30,0	90,0	–	2	■
93L060-F	02606071	3	D	6,0	6,0	40,0	100,0	–	2	■
93L080-F	02606072	3	D	8,0	8,0	40,0	100,0	–	2	■
93L100-F	02606073	3	D	10,0	10,0	40,0	100,0	–	2	■
93L120-F	02606074	3	D	12,0	12,0	45,0	100,0	–	2	■
93L160-F	02606077	3	D	16,0	16,0	45,0	100,0	–	2	■
93L200-F	02606078	3	D	20,0	20,0	55,0	125,0	–	2	■
93XL120-F	02606079	4	D	12,0	12,0	30,0	150,0	–	2	■
93XL160-F	02606080	4	D	16,0	16,0	65,0	150,0	–	2	■
93XL200-F	02606081	4	D	20,0	20,0	65,0	150,0	–	2	■

■ Stocked standard.

Cutting data – J93F Side milling

SMG		a_e/DC	a_p/DC	f_z										v_c
				1.5	2	3	4	6	8	10	12	16	20	
TS1	A	0.400 *0,400*	1.4 *1,4*	0.015 *0,00060*	0.020 *0,00080*	0.030 *0,0012*	0.040 *0,0016*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.15 *0,0060*	0.17 *0,0065*	590 (480 — 710) *1925 (1600 — 2300)*
TP1	A	0.400 *0,400*	1.4 *1,4*	0.015 *0,00060*	0.020 *0,00080*	0.030 *0,0012*	0.040 *0,0016*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	0.15 *0,0060*	0.17 *0,0065*	570 (460 — 680) *1875 (1600 — 2200)*

Cutting data – J93F Slot milling

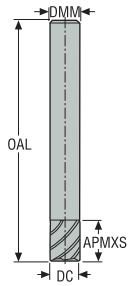
SMG		a_p/DC	f_z										v_c
			1.5	2	3	4	6	8	10	12	16	20	
TS1	A	0.50 *0,50*	0.012 *0,00048*	0.016 *0,00065*	0.024 *0,00095*	0.032 *0,0013*	0.048 *0,0019*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	0.13 *0,0050*	0.16 *0,0065*	500 (400 — 590) *1650 (1400 — 1900)*
TP1	A	0.50 *0,50*	0.012 *0,00048*	0.016 *0,00065*	0.024 *0,00095*	0.032 *0,0013*	0.048 *0,0019*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	0.13 *0,0050*	0.16 *0,0065*	485 (390 — 580) *1600 (1300 — 1900)*

For cutting data recalculations, see pages 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

J28

General purpose – Plastic – Square – 1 Flute – Cylindrical – Sharp



D





- Tolerances:
- DMM= h5
- DC= Ø2-Ø6= -0,02/-0,034 mm
- DC= Ø8-Ø12= -0,02/-0,044 mm
- Regrind possible if DC is ≥Ø6

Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	PCEDC	Cylindrical
				mm	mm	mm	mm		
28030	00029353	2	D	3,0	3,0	10,0	40,0	1	■
28040	00029361	2	D	4,0	4,0	14,0	50,0	1	■
28050	00029363	2	D	5,0	5,0	16,0	60,0	1	■
28060	00029366	2	D	6,0	6,0	20,0	65,0	1	■
28080	00029369	2	D	8,0	8,0	25,0	75,0	1	■
28100	00029370	2	D	10,0	10,0	25,0	75,0	1	■
28120	00029372	2	D	12,0	12,0	25,0	75,0	1	■

■ Stocked standard.

Cutting data – J28 Side milling a_e/DC=0,4

SMG		a_e/DC	a_p/DC	f_z							v_c
				3	4	5	6	8	10	12	
TS1	A/D	0.300 *0,300*	1.5 *1,5*	0.040 *0,0016*	0.050 *0,0020*	0.065 *0,0026*	0.080 *0,0032*	0.10 *0,0040*	0.13 *0,0050*	0.16 *0,0065*	490 (370 — 610) *1600 (1300 — 2000)*

Cutting data – J28 Slot milling

SMG		a_p/DC	f_z							v_c
			3	4	5	6	8	10	12	
TS1	A/D	1.0 *1,0*	0.026 *0,0010*	0.036 *0,0014*	0.044 *0,0017*	0.055 *0,0022*	0.070 *0,0028*	0.090 *0,0036*	0.11 *0,0044*	400 (310 — 490) *1300 (1100 — 1600)*

For cutting data recalculations, see pages 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values



GRAPHITE

Seco diamond-coated solid carbide end mills are designed specifically for machining graphite. They offer up to 10 times more tool life than milling cutters with conventional coatings. Available in a variety of geometries and an extensive diameter range, these tools feature the best possible substrate to ensure the perfect adhesion of the diamond coating across a range of cutting parameters.

- JD620, JD630, JD640 and JME642 for radius type.
- JD660, SMB614, SMB616 and JMB642 for ball-nose type.

Tool Selection Graphite

					
Name		JD620	JD630	JD640	JD660
Page(s)		472	474	476	478
Family name		DIAMOND	DIAMOND	DIAMOND	DIAMOND
Type of mill					
Shank	Cylindrical	■	■	■	■
	Weldon				
Number of Flutes		2	3	4	2
ICC					
Diameter range	Metric	3-12	3-8	6-12	3-6
	Inch				
Length availability		2,3,4	2,3,4	2,3,4	1,2,3,4,5
Operation					
					
					
SMG					
GR		●	●	●	●

■ Stock standard ☐ Weldon available, delivery time is 3 days.
● Preferred choice ○ Alternative choice

Tool Selection Graphite

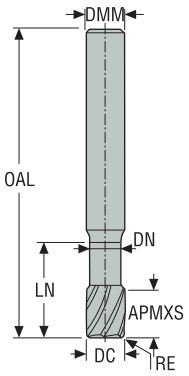
				
Name		SMB614/616	JME642	JMB642/JMB662
Page(s)		480	482	484
Family name		MINI DIAMOND	MINI DIAMOND	MINI DIAMOND
Type of mill				
Shank	Cylindrical	■	■	■
	Weldon			
Number of Flutes		2	2	2
ICC				
Diameter range	Metric	0,6-3	0,2-2,0	0,2-3,0
	Inch			
Length availability		1,3,5,6,7	1,3,5,6,7	1,3,5,6,7
Operation				
				
				
SMG				
GR		●	●	●

■ Stock standard ☐ Weldon available, delivery time is 3 days.
● Preferred choice ○ Alternative choice

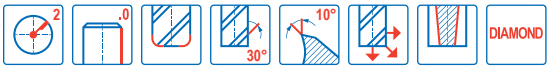
JD620

Diamond – Graphite – Square – 2 Flutes – Cylindrical – Corner radius





E



- Tolerances:
- Run-out= <0,01 mm
- DMM= h5
- DC= -0,02/-0,04 mm
- RE= ±0,05 mm

Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Cylindrical
				mm	mm	mm	mm	mm	mm	mm		
620V030R050-DIAMOND	00023425	2	E	3,0	3,0	5,0	60,0	30,0	2,85	0,5	2	■
620V040R050-DIAMOND	00023427	2	E	4,0	4,0	5,0	60,0	30,0	3,85	0,5	2	■
620V060R050-DIAMOND	00023429	2	E	6,0	6,0	10,0	80,0	40,0	5,8	0,5	2	■
620V080R050-DIAMOND	00023431	2	E	8,0	8,0	10,0	80,0	40,0	7,7	0,5	2	■
620V100R050-DIAMOND	00023435	2	E	10,0	10,0	10,0	80,0	40,0	9,7	0,5	2	■
620V120R050-DIAMOND	00023437	2	E	12,0	12,0	10,0	80,0	40,0	11,7	0,5	2	■
620VL060R050-DIAMOND	00023444	3	E	6,0	6,0	10,0	100,0	70,0	5,8	0,5	2	■
620VL080R050-DIAMOND	00023446	3	E	8,0	8,0	10,0	100,0	70,0	7,8	0,5	2	■
620VL080R100-DIAMOND	00023447	3	E	8,0	8,0	10,0	100,0	70,0	7,8	1,0	2	■
620VL100R050-DIAMOND	00023448	3	E	10,0	10,0	10,0	100,0	70,0	9,8	0,5	2	■
620VL100R100-DIAMOND	00023449	3	E	10,0	10,0	10,0	100,0	70,0	9,8	1,0	2	■
620VL120R050-DIAMOND	00023450	3	E	12,0	12,0	10,0	100,0	70,0	11,8	0,5	2	■
620VL120R100-DIAMOND	00023451	3	E	12,0	12,0	10,0	100,0	70,0	11,7	1,0	2	■
620VSL100R100-DIAMOND	00023452	4	E	10,0	10,0	10,0	150,0	100,0	9,8	1,0	2	■
620VSL120R100-DIAMOND	00023453	4	E	12,0	12,0	10,0	150,0	100,0	11,8	1,0	2	■

■ Stocked standard.

Cutting data – JD620 Side milling

SMG		a_e/DC	a_p/DC	f_z						v_c
				3	4	6	8	10	12	
GR1	D	0.500 *0,500*	0.50 *0,50*	0.030 *0,0012*	0.040 *0,0016*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	690 (580 — 800) *2275 (2000 — 2600)*

Cutting data – JD620 Slot milling

SMG		a_p/DC	f_z						v_c
			3	4	6	8	10	12	
GR1	D	0.50 *0,50*	0.024 *0,00095*	0.032 *0,0013*	0.048 *0,0019*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	610 (520 — 710) *2000 (1800 — 2300)*

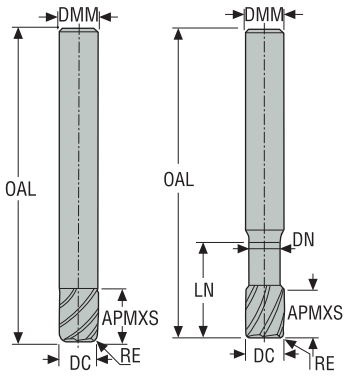
For cutting data recalculations, see pages 573 - 580

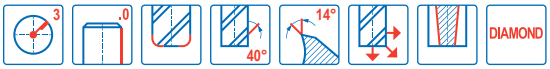
SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

JD630

Diamond – Graphite – Square – 3 Flutes – Cylindrical – Corner radius







- Tolerances:
- Run-out= <0,01 mm
- DMM= h5
- DC= -0,02/-0,04 mm
- RE= ±0,05 mm

Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Cylindrical
				mm	mm	mm	mm	mm	mm	mm		
630030R015-DIAMOND	00023454	2	D	3,0	3,0	12,0	40,0	–	–	0,15	3	■
630040R020-DIAMOND	00023456	2	D	4,0	4,0	14,0	50,0	–	–	0,2	3	■
630050R030-DIAMOND	00023457	2	D	5,0	5,0	16,0	50,0	–	–	0,3	3	■
630060R030-DIAMOND	00023458	2	D	6,0	6,0	20,0	65,0	–	–	0,3	3	■
630080R050-DIAMOND	00023459	2	D	8,0	8,0	20,0	65,0	–	–	0,5	3	■
630V030R030-DIAMOND	00023464	3	E	3,0	3,0	5,0	40,0	15,0	2,9	0,3	3	■
630V040R030-DIAMOND	00023465	3	E	4,0	4,0	5,0	50,0	20,0	3,9	0,3	3	■
630VL030R020-DIAMOND	00023467	4	E	3,0	3,0	5,0	60,0	25,0	2,9	0,2	3	■
630VL040R020-DIAMOND	00023470	4	E	4,0	4,0	5,0	60,0	30,0	3,9	0,2	3	■
630VL050R020-DIAMOND	00023471	4	E	5,0	5,0	6,0	70,0	40,0	4,9	0,2	3	■
630VL060R050-DIAMOND	00023472	4	E	6,0	6,0	10,0	100,0	60,0	5,9	0,5	3	■

■ Stocked standard.

Cutting data – JD630 Side milling

SMG		a_e/DC	a_p/DC	f_z					v_c
				3	4	5	6	8	
GR1	D	0.500 *0,500*	1.0 *1,0*	0.030 *0,0012*	0.040 *0,0016*	0.050 *0,0020*	0.060 *0,0024*	0.080 *0,0032*	680 (580 — 790) *2225 (2000 — 2500)*

Cutting data – JD630 Slot milling

SMG		a_p/DC	f_z					v_c
			3	4	5	6	8	
GR1	D	0.50 *0,50*	0.024 *0,00095*	0.032 *0,0013*	0.040 *0,0016*	0.048 *0,0019*	0.065 *0,0026*	620 (520 — 720) *2025 (1800 — 2300)*

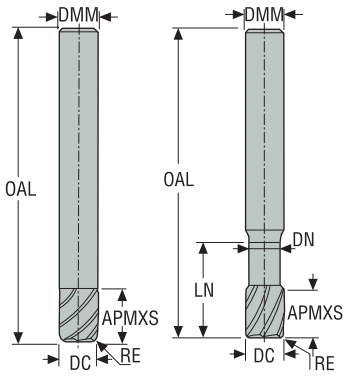
For cutting data recalculations, see pages 573 - 580

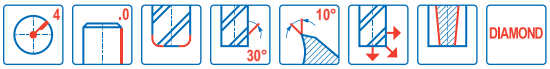
SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

JD640

Diamond – Graphite – Square – 4 Flutes – Cylindrical – Corner radius







- Tolerances:
- Run-out= <0,01 mm
- DMM= h5
- DC= -0,02/-0,04 mm
- RE= ±0,05 mm

Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Cylindrical
				mm	mm	mm	mm	mm	mm	mm		
640100R050-DIAMOND	00023474	2	D	10,0	10,0	25,0	75,0	–	–	0,5	4	■
640120R050-DIAMOND	00023475	2	D	12,0	12,0	25,0	80,0	–	–	0,5	4	■
640V060R050-DIAMOND	00023479	3	E	6,0	6,0	10,0	80,0	40,0	5,9	0,5	4	■
640V080R050-DIAMOND	00023480	3	E	8,0	8,0	10,0	80,0	40,0	7,8	0,5	4	■
640V100R050-DIAMOND	00023481	3	E	10,0	10,0	12,0	80,0	40,0	9,8	0,5	4	■
640V120R050-DIAMOND	00023483	3	E	12,0	12,0	15,0	80,0	40,0	11,8	0,5	4	■
640VL100R050-DIAMOND	00023486	4	E	10,0	10,0	12,0	125,0	80,0	9,8	0,5	4	■
640VL120R050-DIAMOND	02462698	4	E	12,0	12,0	15,0	125,0	80,0	11,7	0,5	4	■

■ Stocked standard.

Cutting data – JD640 Side milling

SMG		a_e/DC	a_p/DC	f_z				v_c
				6	8	10	12	
GR1	D	0.500 *0,500*	1.0 *1,0*	0.060 *0,0024*	0.080 *0,0032*	0.10 *0,0040*	0.12 *0,0048*	680 (570 — 780) *2225 (1900 — 2500)*

Cutting data – JD640 Slot milling

SMG		a_p/DC	f_z				v_c
			6	8	10	12	
GR1	D	0.50 *0,50*	0.048 *0,0019*	0.065 *0,0026*	0.080 *0,0032*	0.095 *0,0038*	610 (520 — 710) *2000 (1800 — 2300)*

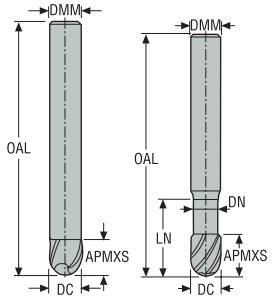
For cutting data recalculations, see pages 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

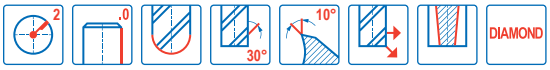
JD660

Diamond – Graphite – Ball nose – 2 Flutes – Cylindrical





- Tolerances:
- Run-out=<0,01 mm
- DMM=h5
- DC= -0,02/-0,04 mm
- RE= ±0,01 mm
- B=0,9°



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Cylindrical
				mm	mm	mm	mm	mm	mm	mm		
660030-DIAMOND	00023488	1	D	3,0	3,0	8,0	40,0	–	–	1,5	2	■
660040-DIAMOND	00023489	1	D	4,0	4,0	14,0	50,0	–	–	2,0	2	■
660060-DIAMOND	00023491	1	D	6,0	6,0	20,0	65,0	–	–	3,0	2	■
660V030-DIAMOND	00023501	2	E	3,0	3,0	6,0	40,0	15,0	2,9	1,5	2	■
660V040-DIAMOND	00023502	2	E	4,0	4,0	6,0	40,0	15,0	3,9	2,0	2	■
660V060-DIAMOND	00023505	2	E	6,0	6,0	10,0	65,0	35,0	5,9	3,0	2	■
660L030-DIAMOND	00023494	3	D	3,0	3,0	20,0	60,0	–	–	1,5	2	■
660L040-DIAMOND	00023496	3	D	4,0	4,0	30,0	60,0	–	–	2,0	2	■
660L060-DIAMOND	00023498	3	D	6,0	6,0	40,0	100,0	–	–	3,0	2	■
660VL030-DIAMOND	00023511	4	E	3,0	3,0	6,0	60,0	30,0	2,9	1,5	2	■
660VL040-DIAMOND	00023512	4	E	4,0	4,0	6,0	60,0	30,0	3,9	2,0	2	■
660VL060-DIAMOND	00023516	4	E	6,0	6,0	10,0	100,0	70,0	5,8	3,0	2	■

■ Stocked standard.

Cutting data – JD660 Copy milling roughing

SMG		a_e/DC	a_p/DC	f_z			v_c
				3	4	6	
GR1	D	0.400 *0,400*	2.4 *2,4*	0.024 *0,00095*	0.032 *0,0013*	0.046 *0,0018*	920 (780 — 1000) *3025 (2600 — 3200)*

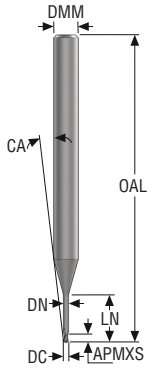
For cutting data recalculations, see pages 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

SMB614/616

Miniature – Graphite – Ball nose – 2 Flutes – Cylindrical





G



- Tolerances:
- Run-out= <0,005 mm
- DMM = h5
- DC Coated = -0,01/-0,025 mm
- DC Coated = 0/-0,015 mm
- RE = ±0,01 mm

Designation	Grade	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	DN	LN	CA°	PCEDC	Cylindrical
					mm	mm	mm	mm	mm	mm			
SMB614010G4B.0Z2	–	10108702	4	G	1,0	4	1,0	50	0,95	7,5	6,54 °	2	■
SMB614010G4B.0Z2	DIA	10108776	4	G	1,0	4	1,0	50	0,95	7,5	6,54 °	2	■
SMB614020G4B.0Z2	–	10108703	4	G	2,0	4	2,0	50	1,9	12,0	3,74 °	2	■
SMB614020G4B.0Z2	DIA	10108777	4	G	2,0	4	2,0	50	1,9	12,0	3,74 °	2	■
SMB616020G4B.0Z2	–	10108768	4	G	2,0	6	2,0	50	1,9	12,0	5,99 °	2	■
SMB614030G4B.0Z2	–	10108704	4	G	3,0	4	3,0	50	2,85	20,0	1,36 °	2	■
SMB614030G4B.0Z2	DIA	10108778	4	G	3,0	4	3,0	50	2,85	20,0	1,36 °	2	■
SMB616030G4B.0Z2	–	10108769	4	G	3,0	6	3,0	55	2,85	20,0	3,47 °	2	■
SMB614020G5B.0Z2	–	10108705	5	G	2,0	4	2,0	50	1,9	16,0	2,96 °	2	■
SMB614020G5B.0Z2	DIA	10108779	5	G	2,0	4	2,0	50	1,9	16,0	3,13 °	2	■
SMB616020G5B.0Z2	–	10108770	5	G	2,0	6	2,0	50	1,9	16,0	4,96 °	2	■
SMB614006G6B.0Z2	–	10108706	6	G	0,6	4	0,6	50	0,55	6,0	7,72 °	2	■
SMB614006G6B.0Z2	DIA	10108780	6	G	0,6	4	0,6	50	0,55	6,0	7,72 °	2	■
SMB616006G6B.0Z2	–	10108771	6	G	0,6	6	0,6	50	0,55	6,0	9,43 °	2	■
SMB614008G6B.0Z2	–	10108707	6	G	0,8	4	0,8	50	0,75	10,0	5,69 °	2	■
SMB614008G6B.0Z2	DIA	10108781	6	G	0,8	4	0,8	50	0,75	10,0	5,69 °	2	■
SMB614010G6B.0Z2	–	10108708	6	G	1,0	4	0,5	50	0,95	12,0	4,88 °	2	■
SMB614010G6B.0Z2	DIA	10108782	6	G	1,0	4	0,5	50	0,95	12,0	4,88 °	2	■
SMB616010G6B.0Z2	–	10108772	6	G	1,0	6	1,0	50	0,95	12,0	6,69 °	2	■
SMB614020G6B.0Z2	–	10108709	6	G	2,0	4	2,0	50	1,9	20,0	2,46 °	2	■
SMB614020G6B.0Z2	DIA	10108783	6	G	2,0	4	2,0	50	1,9	20,0	2,46 °	2	■
SMB616020G6B.0Z2	–	10108773	6	G	2,0	6	2,0	55	1,9	20,0	4,23 °	2	■
SMB614006G7B.0Z2	–	10108710	7	G	0,6	4	0,6	50	0,55	10,0	5,87 °	2	■
SMB614006G7B.0Z2	DIA	10108784	7	G	0,6	4	0,6	50	0,55	10,0	5,87 °	2	■
SMB616006G7B.0Z2	–	10108774	7	G	0,6	6	0,6	50	0,55	10,0	7,59 °	2	■
SMB614010G7B.0Z2	–	10108711	7	G	1,0	4	1,0	50	0,95	18,0	3,64 °	2	■
SMB614010G7B.0Z2	DIA	10108785	7	G	1,0	4	1,0	50	0,95	18,0	3,64 °	2	■
SMB616010G7B.0Z2	–	10108775	7	G	1,0	6	1,0	55	0,95	18,0	5,23 °	2	■

■ Stocked standard.

Cutting data – SMB614 Copy milling roughing

SMG		a_e/DC	a_p/DC	f_z					v_c
				0.6	0.8	1	2	3	
GR1	D	0,0700 *0.0700*	0,10 *0.10*	0,018 *0.00070*	0,024 *0.00095*	0,030 *0.0012*	0,060 *0.0024*	0,090 *0.0036*	95 (54 — 120) *310 (180 — 390)*

For cutting data recalculations, see pages 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

Cutting data – SMB616 Copy milling roughing

SMG		a_e/DC	a_p/DC	f_z				v_c
				0.6	1	2	3	
GR1	D	0,0700 *0.0700*	0,10 *0.10*	0,018 *0.00070*	0,030 *0.0012*	0,060 *0.0024*	0,090 *0.0036*	95 (54 — 120) *310 (180 — 390)*

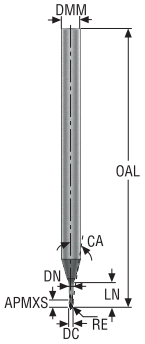
For cutting data recalculations, see pages 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

JME642

Miniature – Graphite – Square – Diamond – 2 Flutes – DMM 4 – Cylindrical – Corner radius





G

- Tolerances:
- Run-out= <0,005 mm
- DMM= h5
- DC= 0/-0,015 mm
- RE= ±0,007 mm



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	CA°	PCEDC	Cylindrical
				mm	mm	mm	mm	mm	mm	mm			
JME642002G1R002.0Z2-DIA	03215524	1	G	0,2	4,0	0,3	40,0	0,4	0,18	0,02	14,32	2	■
JME642003G1R002.0Z2-DIA	03215525	1	G	0,3	4,0	0,5	40,0	0,5	0,28	0,02	14,1	2	■
JME642004G1R004.0Z2-DIA	03215526	1	G	0,4	4,0	0,6	40,0	2,0	0,37	0,04	11,67	2	■
JME642005G3R005.0Z2-DIA	03215527	3	G	0,5	4,0	0,7	40,0	2,5	0,45	0,05	10,97	2	■
JME642006G3R006.0Z2-DIA	03215528	3	G	0,6	4,0	1,0	60,0	3,0	0,55	0,06	10,31	2	■
JME642008G3R008.0Z2-DIA	03215529	3	G	0,8	4,0	1,2	60,0	4,0	0,75	0,08	9,31	2	■
JME642010G3R010.0Z2-DIA	03215530	3	G	1,0	4,0	1,6	60,0	5,0	0,95	0,1	8,04	2	■
JME642012G3R012.0Z2-DIA	03215531	3	G	1,2	4,0	1,6	60,0	6,0	1,15	0,12	7,09	2	■
JME642015G3R015.0Z2-DIA	03215532	3	G	1,5	4,0	2,4	60,0	7,5	1,4	0,15	5,8	2	■
JME642020G3R015.0Z2-DIA	03236441	3	G	2,0	4,0	2,2	60,0	10,0	1,9	0,15	4,11	2	■
JME642020G3R020.0Z2-DIA	03215533	3	G	2,0	4,0	3,0	60,0	10,0	1,9	0,2	4,11	2	■
JME642005G5R005.0Z2-DIA	03215534	5	G	0,5	4,0	0,7	40,0	4,0	0,45	0,05	9,43	2	■
JME642006G5R006.0Z2-DIA	03215535	5	G	0,6	4,0	1,0	60,0	5,0	0,55	0,06	8,5	2	■
JME642008G5R008.0Z2-DIA	03215536	5	G	0,8	4,0	1,2	60,0	7,0	0,75	0,08	7,02	2	■
JME642010G5R010.0Z2-DIA	03215537	5	G	1,0	4,0	1,6	60,0	8,5	0,95	0,1	6,06	2	■
JME642012G5R012.0Z2-DIA	03215538	5	G	1,2	4,0	1,6	60,0	10,0	1,15	0,12	5,23	2	■
JME642015G5R015.0Z2-DIA	03215539	5	G	1,5	4,0	2,4	60,0	12,0	1,4	0,15	4,25	2	■
JME642020G5R015.0Z2-DIA	03236442	5	G	2,0	4,0	2,2	60,0	16,0	1,9	0,15	2,87	2	■
JME642020G5R020.0Z2-DIA	03215540	5	G	2,0	4,0	3,0	60,0	16,0	1,9	0,2	2,87	2	■
JME642010G6R010.0Z2-DIA	03215541	6	G	1,0	4,0	1,6	60,0	12,0	0,95	0,1	4,86	2	■
JME642015G6R015.0Z2-DIA	03215542	6	G	1,5	4,0	2,4	50,0	18,0	1,4	0,15	3,13	2	■
JME642020G6R020.0Z2-DIA	03215543	6	G	2,0	4,0	3,0	60,0	25,0	1,9	0,2	1,97	2	■
JME642020G7R020.0Z2-DIA	03215544	7	G	2,0	4,0	3,0	60,0	30,0	1,9	0,2	1,68	2	■

■ Stocked standard.

Cutting data – JME642 Side milling roughing

SMG		a_e/DC	a_p/DC	f_z										v_c
				0.2	0.3	0.4	0.5	0.6	0.8	1	1.2	1.5	2	
GR1	D	0.300 *0,300*	0.80 *0,80*	0.024 *0,00095*	0.036 *0,0014*	0.044 *0,0017*	0.048 *0,0019*	0.055 *0,0022*	0.060 *0,0024*	0.065 *0,0026*	0.070 *0,0028*	0.075 *0,0030*	0.085 *0,0034*	175 (130 — 370) *570 (430 — 1200)*

Cutting data – JME642 Slot milling

SMG		a_p/DC	f_z										v_c
			0.2	0.3	0.4	0.5	0.6	0.8	1	1.2	1.5	2	
GR1	D	0.30 *0,30*	0.022 *0,00085*	0.032 *0,0013*	0.040 *0,0016*	0.046 *0,0018*	0.050 *0,0020*	0.055 *0,0022*	0.065 *0,0026*	0.065 *0,0026*	0.075 *0,0030*	0.080 *0,0032*	140 (110 — 300) *460 (370 — 980)*

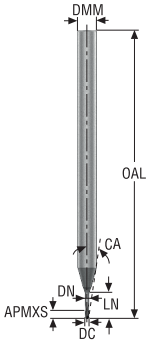
Table based on LV3, please recalc based on length version chosen. See page(s). 573 - 580

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

JMB642/JMB662

Miniature – Graphite – Ball nose – Diamond – 2 Flutes – DMM 4-6 – Cylindrical





G

- Tolerances:
- Run-out= <0,005 mm
- DMM= h5
- DC= 0/-0,015 mm
- RE= ±0,007 mm



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	CA°	PCEDC	Cylindrical
				mm	mm	mm	mm	mm	mm	mm			
JMB642002G1B.0Z2-DIA	03215373	1	G	0,2	4,0	0,3	40,0	0,4	0,18	0,1	14,5	2	■
JMB642003G1B.0Z2-DIA	03215374	1	G	0,3	4,0	0,5	40,0	0,6	0,28	0,15	14,17	2	■
JMB642004G1B.0Z2-DIA	03215375	1	G	0,4	4,0	2,0	40,0	0,8	0,37	0,2	13,8	2	■
JMB642005G3B.0Z2-DIA	03215376	3	G	0,5	4,0	0,7	40,0	2,5	0,45	0,25	11,19	2	■
JMB642006G3B.0Z2-DIA	03215377	3	G	0,6	4,0	1,0	60,0	3,0	0,55	0,3	10,55	2	■
JMB642008G3B.0Z2-DIA	03215378	3	G	0,8	4,0	1,2	60,0	4,0	0,75	0,4	9,38	2	■
JMB642010G3B.0Z2-DIA	03215379	3	G	1,0	4,0	1,6	60,0	5,0	0,95	0,5	8,33	2	■
JMB642012G3B.0Z2-DIA	03215380	3	G	1,2	4,0	1,6	60,0	6,0	1,15	0,6	7,38	2	■
JMB642015G3B.0Z2-DIA	03215381	3	G	1,5	4,0	2,4	60,0	7,5	1,4	0,75	6,08	2	■
JMB642020G3B.0Z2-DIA	03215382	3	G	2,0	4,0	3,0	60,0	10,0	1,9	1,0	4,35	2	■
JMB662030G3B.0Z2-DIA	03215384	3	G	3,0	6,0	3,0	60,0	15,0	2,8	1,5	4,38	2	■
JMB642005G5B.0Z2-DIA	03215387	5	G	0,5	4,0	0,7	40,0	4,0	0,45	0,25	9,6	2	■
JMB642006G5B.0Z2-DIA	03215388	5	G	0,6	4,0	1,0	60,0	5,0	0,55	0,3	8,68	2	■
JMB642008G5B.0Z2-DIA	03215389	5	G	0,8	4,0	1,2	60,0	7,0	0,75	0,4	7,18	2	■
JMB642010G5B.0Z2-DIA	03215390	5	G	1,0	4,0	1,6	60,0	8,5	0,95	0,5	6,22	2	■
JMB642012G5B.0Z2-DIA	03215391	5	G	1,2	4,0	1,6	60,0	10,0	1,15	0,6	5,4	2	■
JMB642015G5B.0Z2-DIA	03215392	5	G	1,5	4,0	2,4	60,0	12,0	1,4	0,75	4,4	2	■
JMB642020G5B.0Z2-DIA	03215393	5	G	2,0	4,0	3,0	60,0	16,0	1,9	1,0	2,99	2	■
JMB662030G5B.0Z2-DIA	03215395	5	G	3,0	6,0	3,0	60,0	24,0	2,8	1,5	3,0	2	■
JMB642010G6B.0Z2-DIA	03215396	6	G	1,0	4,0	1,6	60,0	12,0	0,95	0,5	4,96	2	■
JMB642015G6B.0Z2-DIA	03215397	6	G	1,5	4,0	2,4	60,0	18,0	1,4	0,75	3,21	2	■
JMB642020G6B.0Z2-DIA	03215398	6	G	2,0	4,0	3,0	60,0	25,0	1,9	1,0	2,03	2	■
JMB642020G7B.0Z2-DIA	03215399	7	G	2,0	4,0	3,0	60,0	30,0	1,9	1,0	1,72	2	■

■ Stocked standard.

Cutting data – JMB642/662 Side milling roughing

SMG		a_e/DC	a_p/DC	f_z										v_c
				0.2	0.3	0.4	0.5	0.6	0.8	1	1.2	1.5	2	
GR1	D	0.300 *0,300*	0.50 *0,50*	0.0024 *0,000095*	0.0036 *0,00014*	0.0048 *0,00019*	0.0060 *0,00024*	0.0070 *0,00028*	0.0095 *0,00038*	0.012 *0,00048*	0.014 *0,00055*	0.017 *0,00065*	0.020 *0,00080*	250 (200 — 300) *820 (660 — 980)*

Cutting data – JMB642/662 Copy milling roughing

SMG		a_e/DC	a_p/DC	f_z										v_c
				0.2	0.3	0.4	0.5	0.6	0.8	1	1.2	1.5	2	
GR1	D	0.300 *0,300*	0.50 *0,50*	0.0024 *0,000095*	0.0036 *0,00014*	0.0048 *0,00019*	0.0060 *0,00024*	0.0070 *0,00028*	0.0095 *0,00038*	0.012 *0,00048*	0.014 *0,00055*	0.017 *0,00065*	0.020 *0,00080*	250 (200 — 300) *820 (660 — 980)*

Table based on LV3, please recalc based on length version chosen. See page(s) N/A-N/A

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values



SECO X-HEADS

The new Seco Tools Exchangeable Head range is a comprehensive offering to meet most customer demands. Utilizing our proven solid carbide geometries, we offer various types to machine most materials and complete various machining operations. The connection is a proven exchangeable head design to give high process security and reliability. The shanks offer many types for short reach up to long reach applications. Straight necking and tapered necks to give the best combination of stability depending on the needs for your machining operation.

- XSE550, XSE720, XSE450, XHF580, XHF780 XVE540 and XVE510 for chamfer or radius type.
- XSB540, XSB720 and XVB510 for ball-nose type.
- XSC509, XVC506, XVC509 and XVC512 for conical type.
- XHT740 for barrel type.

Tool selection X-Heads

								
Name		XSE550	XSB540	XSE720	XSB720	XSE450	XSC509	XHT740
Page(s)		497-505	514	516-517	522	528-529	567	304
Family name		X-HEADS SOLID²	X-HEADS SOLID²	X-HEADS SOLID²	X-HEADS SOLID²	X-HEADS SOLID²	X-HEADS SOLID²	X-HEADS HSM/ TORNADO
Type of mill								
Number of Flutes		3,4,5	4	6	6	3	6	4,6
ICC			■					
Diameter range	Metric	10-25	10-16	10-25	10-20	10-20	10-16	10-16
	Inch	3/8-1		3/8-1	3/8-1	3/8-1		
Length availability		1,2	1	3	3	2	1	2,3
Operation								
								
								
								
								
SMG								
P1-8		●	●	○	○		●	○
P11-12		●	○	●	●		●	●
M1-3		●	●	●	●		●	●
M4-5		●	●	●	●		●	
K1-7		●	●				●	
S1-3		●	○	●	●		○	○
S11-13		●	●	●	●		○	●
H3 H5 H7 H8 H11 H12 H21 H31		●	○					
N1		●	●			●	○	
N2-3		●	●			●	○	
N11		●	●			●	○	
TS1		●	●			●	●	
TP1		●	●			●	●	
GR		○	○				○	

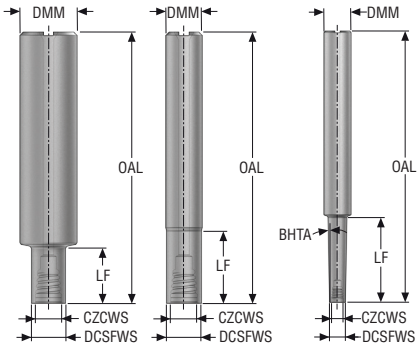
■ Stocked standard.
● Preferred choice, ○ Alternative choice

Tool selection X-Heads

								
Name		XHF580	XHF780	XVE540	XVE510	XVB510	XVC506/509/512	XVK310
Page(s)		537	542	555	560	563-564	567	571
Family name		X-HEADS HFM	X-HEADS HFM	X-HEADS VHM	X-HEADS VHM	X-HEADS VHM	X-HEADS VHM	X-HEADS VHM
Type of mill								
Number of Flutes		4	4	3,4	2	2	2	4
ICC		■		■				
Diameter range	Metric	10-16	10-16	10-20	10-12	10-16	10-16	12-20
	Inch	3/8-5/8	3/8-5/8	3/8-3/4		3/8-5/8		
Length availability		1	1	1	1	1	1	1
Operation								
								
								
								
SMG								
P1-8		●	○	●	●	●	●	●
P11-12		●	○	●	●	●	●	●
M1-3		●	●	●	●	●	●	●
M4-5		●	●	●	●	●	●	●
K1-7		●		●	●	●	●	●
S1-3		○	●	○	○	○	○	○
S11-13		○	●	○	○	○	○	○
H3 H5 H7 H8 H11 H12 H21 H31		○	○	○				○
N1				●	○	○	○	●
N2-3				●	○	○	○	●
N11				●	○	○	○	●
TS1				●	●	●	●	●
TP1				●	●	●	●	●
GR				○	○	○	○	○

■ Stocked standard.
● Preferred choice, ○ Alternative choice

Steel - Metric







- Tolerances:
- DMM= h6
- DCSFWS= ±0,05 mm
- BHTA= ±20'

Designation	Item number	Length index	Tool shape	CZCWS	DCSFWS	DMM	LF	OAL	BHTA°	Cylindrical
					mm	mm	mm	mm		
XE10160G1-065-00.0S	10138083	1	G	E10	9,6	16,0	5,0	65,0	0,0	■
XE10100E2-055-00.0S	10138092	2	E	E10	9,6	10,0	10,0	55,0	0,0	■
XE10100E2-075-00.0S	10138093	2	E	E10	9,6	10,0	20,0	75,0	0,0	■
XE10160G2-075-00.0S	10138088	2	G	E10	9,6	16,0	15,0	75,0	0,0	■
XE10160J3-120-01.0S	10138099	3	J	E10	9,6	16,0	35,0	120,0	1,0	■
XE10160J5-160-01.0S	10138100	5	J	E10	9,6	16,0	50,0	160,0	1,0	■
XE10160J3-140-05.0S	10138106	3	J	E10	9,6	16,0	36,6	140,0	5,0	■
XE10200J5-140-05.0S	10138108	5	J	E10	9,6	20,0	59,4	140,0	5,0	■
XE10320J6-250-10.0S	10138113	6	J	E10	9,6	32,0	63,5	250,0	10,0	■
XE12160G1-065-00.0S	10138084	1	G	E12	11,6	16,0	5,0	65,0	0,0	■
XE12120E2-065-00.0S	10138094	2	E	E12	11,6	12,0	12,0	65,0	0,0	■
XE12120E2-100-00.0S	10138095	2	E	E12	11,6	12,0	22,0	100,0	0,0	■
XE12160G2-080-00.0S	10138089	2	G	E12	11,6	16,0	18,0	80,0	0,0	■
XE12160J3-155-01.0S	10138101	3	J	E12	11,6	16,0	42,0	155,0	1,0	■
XE12160J5-170-01.0S	10138102	5	J	E12	11,6	16,0	60,0	170,0	1,0	■
XE12160J2-140-05.0S	10138107	2	J	E12	11,6	16,0	25,1	140,0	5,0	■
XE12200J4-155-05.0S	10138109	4	J	E12	11,6	20,0	48,0	155,0	5,0	■
XE12320J4-250-10.0S	10138114	4	J	E12	11,6	32,0	57,8	250,0	10,0	■
XE16200G1-070-00.0S	10138085	1	G	E16	15,4	20,0	5,0	70,0	0,0	■
XE16160E2-070-00.0S	10138096	2	E	E16	15,4	16,0	16,0	70,0	0,0	■
XE16200G2-090-00.0S	10138090	2	G	E16	15,4	20,0	24,0	90,0	0,0	■
XE16200G2-110-00.0S	10138091	2	G	E16	15,4	20,0	25,0	110,0	0,0	■
XE16200J3-190-01.0S	10138103	3	J	E16	15,4	20,0	56,0	190,0	1,0	■
XE16200J4-190-01.0S	10138104	4	J	E16	15,4	20,0	75,0	190,0	1,0	■
XE16250J3-170-05.0S	10138110	3	J	E16	15,4	25,0	54,9	170,0	5,0	■
XE20250G1-080-00.0S	10138086	1	G	E20	19,2	25,0	5,0	80,0	0,0	■
XE20200E2-120-00.0S	10138097	2	E	E20	19,2	20,0	30,0	120,0	0,0	■
XE20250J4-200-01.0S	10138105	4	J	E20	19,2	25,0	80,0	200,0	1,0	■
XE20320J3-180-05.0S	10138111	3	J	E20	19,2	32,0	73,2	180,0	5,0	■
XE25320G1-080-00.0S	10138087	1	G	E25	24,1	32,0	5,0	80,0	0,0	■
XE25250E2-140-00.0S	10138098	2	E	E25	24,1	25,0	40,0	140,0	0,0	■
XE25320J2-200-05.0S	10138112	2	J	E25	24,1	32,0	45,1	200,0	5,0	■

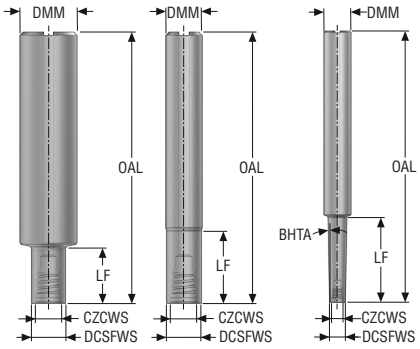
Spare Parts, included in delivery

Accessories

CZCWS	Spanner	Replacement blade	Replacement blade 1	Torque key
				
E10	XW-E10	XTWH-E10.08	XTWH-E10.06	XTW-E10.E12
E12	XW-E12	XTWH-E12.10	XTWH-E12.08	XTW-E10.E12
E16	XW-E16	XTWH-E16.12	XTWH-E16.10	XTW-E16.E25
E20	XW-E20	XTWH-E20.16	–	XTW-E16.E25
E25	XW-E25	XTWH-E25.20	–	XTW-E16.E25

■ Stocked standard.

Steel - Inch



G E J





- Tolerances:
- DMM= h6
- DCSFWS= ±.002 inch
- BHTA= ±20'

Designation	Item number	Length index	Tool shape	CZCWS	DCSFWS	DMM	LF	OAL	BHTA°	Cylindrical
					inch	inch	inch	inch		
XE10.500G1-2.50-00.0S	10138050	1	G	E10	0.360	0.500	0.250	2.500	0,0	■
XE10.375E2-2.50-00.0S	10138053	2	E	E10	0.360	0.375	0.402	2.500	0,0	■
XE10.500G2-3.00-00.0S	10138051	2	G	E10	0.360	0.500	1.000	3.000	0,0	■
XE10.625J3-4.50-01.0S	10138063	3	J	E10	0.360	0.625	1.402	4.500	1,0	■
XE10.625J5-6.50-01.0S	10138064	5	J	E10	0.360	0.625	2.000	6.500	1,0	■
XE10.625J4-4.00-03.0S	10138071	4	J	E10	0.360	0.625	1.799	4.000	3,0	■
XE10.750J9-6.00-03.0S	10138072	9	J	E10	0.360	0.750	3.720	6.000	3,0	■
XE12.500E1-3.00-00.0S	10138054	1	E	E12	0.480	0.500	0.250	3.000	0,0	■
XE12.500E2-2.50-00.0S	10138055	2	E	E12	0.480	0.500	0.500	2.500	0,0	■
XE12.500E2-4.50-00.0S	10138056	2	E	E12	0.480	0.500	1.000	4.500	0,0	■
XE12.625J3-6.00-01.0S	10138065	3	J	E12	0.480	0.625	1.650	6.000	1,0	■
XE12.625J4-7.50-01.0S	10138066	4	J	E12	0.480	0.625	2.400	7.500	1,0	■
XE12.750J5-6.50-01.0S	10138067	5	J	E12	0.480	0.750	2.850	6.500	1,0	■
XE12.750J4-4.50-03.0S	10138073	4	J	E12	0.480	0.750	2.201	4.500	3,0	■
XE12.750J5-6.00-03.0S	10138074	5	J	E12	0.480	0.750	2.575	6.000	3,0	■
XE12.625J2-6.50-05.0S	10138075	2	J	E12	0.480	0.625	0.827	6.500	5,0	■
XE16.625E1-3.00-00.0S	10138057	1	E	E16	0.606	0.625	0.250	3.000	0,0	■
XE16.625E2-3.00-00.0S	10138058	2	E	E16	0.606	0.625	0.650	3.000	0,0	■
XE16.625E2-4.50-00.0S	10138059	2	E	E16	0.606	0.625	1.000	4.500	0,0	■
XE16.750J3-7.50-01.0S	10138068	3	J	E16	0.606	0.750	2.252	7.500	1,0	■
XE16.750J4-7.50-01.0S	10138070	4	J	E16	0.606	0.750	3.000	7.500	1,0	■
XE16.750J6-7.50-01.0S	10138069	6	J	E16	0.606	0.750	3.748	7.500	1,0	■
XE16.750J2-6.50-05.0S	10138076	2	J	E16	0.606	0.750	0.821	6.500	5,0	■
XE161.00J3-7.00-05.0S	10138077	3	J	E16	0.606	1.000	2.250	7.000	5,0	■
XE20.750E1-3.00-00.0S	10138060	1	E	E20	0.724	0.750	0.250	3.000	0,0	■
XE20.750E2-4.50-00.0S	10138061	2	E	E20	0.724	0.750	1.000	4.500	0,0	■
XE251.00E1-3.50-00.0S	10138062	1	E	E25	0.961	1.000	0.250	3.500	0,0	■
XE251.00E2-4.50-00.0S	10218129	2	E	E25	0.961	1.000	1.500	4.500	0,0	■
XE251.25G2-6.50-00.0S	10138052	2	G	E25	0.961	1.250	2.500	6.500	0,0	■
XE251.25J2-7.50-05.0S	10218130	2	J	E25	0.961	1.250	1.654	7.500	5,0	■

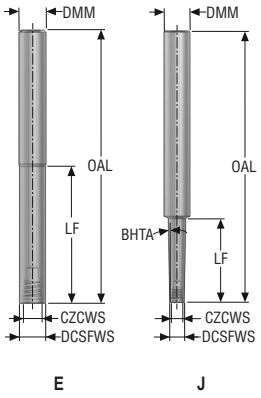
Spare Parts, included in delivery

Accessories

CZCWS	Spanner	Replacement blade	Replacement blade 1	Torque key
				
E10	XW-E10	XTWH-E10.08	XTWH-E10.06	XTW-E10.E12
E12	XW-E12	XTWH-E12.10	XTWH-E12.08	XTW-E10.E12
E16	XW-E16	XTWH-E16.12	XTWH-E16.10	XTW-E16.E25
E20	XW-E20	XTWH-E20.16	–	XTW-E16.E25
E25	XW-E25	XTWH-E25.20	–	XTW-E16.E25

■ Stocked standard.

Solid carbide - Metric







- Tolerances:
- DMM= h6
- DCSFWS= ±0,05 mm
- BHTA= ±20'

Designation	Item number	Length index	Tool shape	CZCWS	DCSFWS	DMM	LF	OAL	BHTA°	Cylindrical
					mm	mm	mm	mm		
XE10100E5-100-00.0E	10138120	5	E	E10	9,6	10,0	50,0	100,0	0,0	■
XE10160J9-155-01.0E	10138126	9	J	E10	9,6	16,0	100,0	155,0	1,0	■
XE12120E4-100-00.0E	10138121	4	E	E12	11,6	12,0	48,0	100,0	0,0	■
XE12160J7-150-01.0E	10138127	7	J	E12	11,6	16,0	90,0	150,0	1,0	■
XE16160E5-135-00.0E	10138122	5	E	E16	15,4	16,0	80,0	135,0	0,0	■
XE16200J7-175-01.0E	10138128	7	J	E16	15,4	20,0	118,0	175,0	1,0	■
XE20200E2-095-00.0E	10138123	2	E	E20	19,2	20,0	38,0	95,0	0,0	■
XE20200E5-180-00.0E	10138124	5	E	E20	19,2	20,0	110,0	180,0	0,0	■
XE20250J4-200-02.0E	10138129	4	J	E20	19,2	25,0	83,0	200,0	2,0	■
XE25250E4-200-00.0E	10138125	4	E	E25	24,1	25,0	120,0	200,0	0,0	■
XE25320J2-190-05.0E	10218127	2	J	E25	24,1	32,0	45,1	190,0	5,0	■
XE25320J2-215-05.0E	10218128	2	J	E25	24,1	32,0	45,1	215,0	5,0	■

Spare Parts, included in delivery

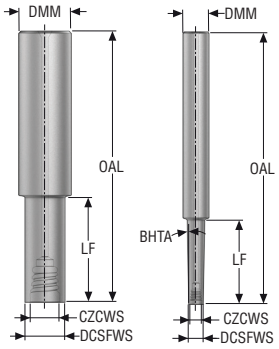
Accessories

CZCWS	Spanner	Replacement blade	Replacement blade 1	Torque key
				
E10	XW-E10	XTWH-E10.08	XTWH-E10.06	XTW-E10.E12
E12	XW-E12	XTWH-E12.10	XTWH-E12.08	XTW-E10.E12
E16	XW-E16	XTWH-E16.12	XTWH-E16.10	XTW-E16.E25
E20	XW-E20	XTWH-E20.16	–	XTW-E16.E25
E25	XW-E25	XTWH-E25.20	–	XTW-E16.E25

■ Stocked standard.

Solid carbide - inch







- Tolerances:
- DMM= h6
- DCSFWS= ±.002 inch
- BHTA= ±20'

Designation	Item number	Length index	Tool shape	CZCWS	DCSFWS	DMM	LF	OAL	BHTA°	Cylindrical
					inch	inch	inch	inch		
XE10.625J5-6.50-01.0E	10138079	5	J	E10	0.360	0.625	2.000	6.500	1,0	■
XE12.625J4-7.50-01.0E	10138080	4	J	E12	0.480	0.625	2.400	7.500	1,0	■
XE16.750J4-7.50-01.0E	10138081	4	J	E16	0.606	0.750	3.000	7.500	1,0	■
XE201.00J4-8.00-01.0E	10138082	4	J	E20	0.724	1.000	3.150	8.000	1,0	■
XE251.25G2-6.50-00.0E	10138078	2	G	E25	0.961	1.250	2.500	6.500	0,0	■
XE251.25J2-8.50-05.0E	10218131	2	J	E25	0.961	1.250	1.654	8.500	5,0	■

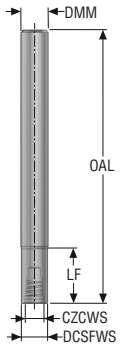
Spare Parts, included in delivery

Accessories

CZCWS	Spanner	Replacement blade	Replacement blade 1	Torque key
				
E10	XW-E10	XTWH-E10.08	XTWH-E10.06	XTW-E10.E12
E12	XW-E12	XTWH-E12.10	XTWH-E12.08	XTW-E10.E12
E16	XW-E16	XTWH-E16.12	XTWH-E16.10	XTW-E16.E25
E20	XW-E20	XTWH-E20.16	–	XTW-E16.E25
E25	XW-E25	XTWH-E25.20	–	XTW-E16.E25

■ Stocked standard.

Densimet - Metric



E





- Tolerances:
- DMM= h6
- DCSFWS= ±0,05 mm
- BHTA= ±20'

Designation	Item number	Length index	Tool shape	CZCWS	DCSFWS	DMM	LF	OAL	BHTA°	Cylindrical
					mm	mm	mm	mm		
XE10100E2-100-00.0DM	10138115	2	E	E10	9,6	10,0	20,0	100,0	0,0	■
XE12120E2-110-00.0DM	10138116	2	E	E12	11,6	12,0	25,0	110,0	0,0	■
XE16160E2-130-00.0DM	10138117	2	E	E16	15,4	16,0	35,0	130,0	0,0	■
XE20200E2-160-00.0DM	10138118	2	E	E20	19,2	20,0	45,0	160,0	0,0	■
XE25250E2-185-00.0DM	10138119	2	E	E25	24,1	25,0	65,0	185,0	0,0	■

Spare Parts, included in delivery

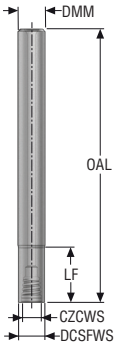
Accessories

CZCWS	Spanner	Replacement blade	Replacement blade 1	Torque key
				
E10	XW-E10	XTWH-E10.08	XTWH-E10.06	XTW-E10.E12
E12	XW-E12	XTWH-E12.10	XTWH-E12.08	XTW-E10.E12
E16	XW-E16	XTWH-E16.12	XTWH-E16.10	XTW-E16.E25
E20	XW-E20	XTWH-E20.16	–	XTW-E16.E25
E25	XW-E25	XTWH-E25.20	–	XTW-E16.E25

■ Stocked standard.

Densimet - Inch





E



- Tolerances:
- DMM= h6
- DCSFWS= ±.002 Inch

Designation	Item number	Length index	Tool shape	CZCWS	DCSFWS	DMM	LF	OAL	BHTA°	Cylindrical
					inch	inch	inch	inch		
XE251.00E2-7.28-00.0DM	10218132	2	E	E25	0.961	1.000	2.559	7.283	0,0	■

Spare Parts, included in delivery

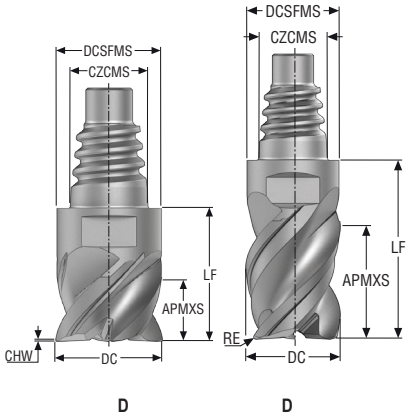
Accessories

CZCWS	Spanner	Replacement blade	Torque key
			
E25	XW-E25	XTWH-E25.20	XTW-E16.E25

■ Stocked standard.

XSE550

High performance – Universal – Square – 3 Flutes – Corner radius or chamfer







- Tolerances:
- DC= e7
- RE= ±0,02 mm
- Regrind possible if DC is ≥Ø12 mm

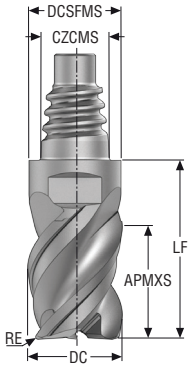
Designation	Item number	Length index	Tool shape	CZCMS	DC	DCSFMS	APMXS	LF	CHW	RE	PCEDC	SW	Grade
					mm	mm	mm	mm	mm	mm			SIRA
XSE550E25250D1CZ3	10219207	1	D	E25	25,0	24,2	13,75	25,5	0,3125	–	3	20	■
XSE550E10100D1R050Z3	10138138	1	D	E10	10,0	9,7	5,5	12,3	–	0,5	3	8	■
XSE550E10100D1R100Z3	10219210	1	D	E10	10,0	9,7	5,5	12,3	–	1,0	3	8	■
XSE550E10100D1R200Z3	10219211	1	D	E10	10,0	9,7	5,5	12,3	–	2,0	3	8	■
XSE550E12120D1R050Z3	10138139	1	D	E12	12,0	11,7	6,6	14,4	–	0,5	3	10	■
XSE550E12120D1R100Z3	10219212	1	D	E12	12,0	11,7	6,6	14,4	–	1,0	3	10	■
XSE550E12120D1R200Z3	10219213	1	D	E12	12,0	11,7	6,6	14,4	–	2,0	3	10	■
XSE550E16160D1R050Z3	10138140	1	D	E16	16,0	15,5	8,8	18,6	–	0,5	3	12	■
XSE550E16160D1R100Z3	10219214	1	D	E16	16,0	15,5	8,8	18,6	–	1,0	3	12	■
XSE550E16160D1R200Z3	10219215	1	D	E16	16,0	15,5	8,8	18,6	–	2,0	3	12	■
XSE550E20200D1R050Z3	10138141	1	D	E20	20,0	19,3	11,0	21,2	–	0,5	3	16	■
XSE550E20200D1R100Z3	10219216	1	D	E20	20,0	19,7	11,0	21,2	–	1,0	3	16	■
XSE550E20200D1R200Z3	10219217	1	D	E20	20,0	19,7	11,0	21,2	–	2,0	3	16	■
XSE550E25250D1R050Z3	10219208	1	D	E25	25,0	24,2	13,75	25,5	–	0,5	3	20	■
XSE550E25250D1R100Z3	10219209	1	D	E25	25,0	24,2	13,75	25,5	–	1,0	3	20	■
XSE550E10100D2R050Z3	10138142	2	D	E10	10,0	9,7	12,0	18,7	–	0,5	3	8	■
XSE550E10100D2R100Z3	10219218	2	D	E10	10,0	9,7	12,0	18,7	–	1,0	3	8	■
XSE550E10100D2R200Z3	10219219	2	D	E10	10,0	9,7	12,0	18,7	–	2,0	3	8	■
XSE550E12120D2R050Z3	10138143	2	D	E12	12,0	11,7	14,4	22,1	–	0,5	3	10	■
XSE550E12120D2R100Z3	10219220	2	D	E12	12,0	11,7	14,4	22,1	–	1,0	3	10	■
XSE550E12120D2R200Z3	10219221	2	D	E12	12,0	11,7	14,4	22,1	–	2,0	3	10	■
XSE550E16160D2R050Z3	10138144	2	D	E16	16,0	15,5	19,2	29,2	–	0,5	3	12	■
XSE550E16160D2R100Z3	10219222	2	D	E16	16,0	15,5	19,2	29,2	–	1,0	3	12	■
XSE550E16160D2R200Z3	10219223	2	D	E16	16,0	15,5	19,2	29,2	–	2,0	3	12	■
XSE550E20200D2R100Z3	10219224	2	D	E20	20,0	19,7	24,0	34,3	–	1,0	3	16	■
XSE550E20200D2R200Z3	10219225	2	D	E20	20,0	19,7	24,0	34,3	–	2,0	3	16	■
XSE550E20200D2R050Z3	10138145	2	D	E20	20,0	19,3	24,0	34,3	–	0,5	3	16	■

■ Stocked standard.

XSE550 – Inch

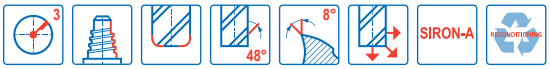
High performance – Universal – Square – 3 Flutes – Corner radius – Inch





D

- Tolerances:
- DC= e7
- RE= ±.0008 Inch
- Regrind possible if DC is ≥Ø.500 Inch



Designation	Item number	Length index	Tool shape	CZCMS	DC	DCSFMS	APMXS	LF	RE	PCEDC	SW	Grade
					Inch	*Inch*	*Inch*	*Inch*	*Inch*			SIRA
XSE550E10.375D1R030Z3	10138146	1	D	E10	0.375	0.364	0.206	0.484	0.030	3	8	■
XSE550E12.500D1R030Z3	10138147	1	D	E12	0.500	0.484	0.275	0.567	0.030	3	10	■
XSE550E20.750D1R030Z3	10138148	1	D	E20	0.750	0.728	0.413	0.835	0.030	3	16	■
XSE550E10.375D2R030Z3	10138149	2	D	E10	0.375	0.364	0.450	0.720	0.030	3	8	■
XSE550E12.500D2R030Z3	10138150	2	D	E12	0.500	0.484	0.600	0.906	0.030	3	10	■
XSE550E20.750D2R030Z3	10138151	2	D	E20	0.750	0.728	0.900	1.295	0.030	3	16	■

■ Stocked standard.

Cutting data – XSE550 – Side milling PCEDC 3

SMG		a_e/DC	a_p/DC	f_z					v_c
				10	12	16	20	25	
P1	E/M/A/D	0,40 *0.40*	1,1 *1.1*	0,095 *0.0038*	0,12 *0.0048*	0,14 *0.0055*	0,16 *0.0065*	0,19 *0.0075*	185 (140 — 220) *610 (460 — 720)*
P2	E/M/A/D	0,40 *0.40*	1,1 *1.1*	0,10 *0.0040*	0,12 *0.0048*	0,15 *0.0060*	0,17 *0.0065*	0,19 *0.0075*	175 (140 — 210) *570 (460 — 680)*
P3	E/M/A/D	0,40 *0.40*	1,1 *1.1*	0,095 *0.0038*	0,11 *0.0044*	0,14 *0.0055*	0,16 *0.0065*	0,18 *0.0070*	155 (120 — 190) *510 (400 — 620)*
P4	E/M/A/D	0,40 *0.40*	1,1 *1.1*	0,090 *0.0036*	0,11 *0.0044*	0,14 *0.0055*	0,16 *0.0065*	0,18 *0.0070*	135 (110 — 170) *445 (370 — 550)*
P5	E/M/A/D	0,40 *0.40*	1,1 *1.1*	0,090 *0.0036*	0,11 *0.0044*	0,13 *0.0050*	0,15 *0.0060*	0,17 *0.0065*	130 (98 — 160) *425 (330 — 520)*
P6	E/M/A/D	0,40 *0.40*	1,1 *1.1*	0,090 *0.0036*	0,11 *0.0044*	0,13 *0.0050*	0,15 *0.0060*	0,17 *0.0065*	145 (110 — 180) *475 (370 — 590)*
P7	E/M/A/D	0,40 *0.40*	1,1 *1.1*	0,090 *0.0036*	0,11 *0.0044*	0,13 *0.0050*	0,15 *0.0060*	0,17 *0.0065*	140 (110 — 170) *460 (370 — 550)*
P8	E/M/A/D	0,40 *0.40*	1,1 *1.1*	0,095 *0.0038*	0,11 *0.0044*	0,14 *0.0055*	0,16 *0.0065*	0,18 *0.0070*	130 (97 — 160) *425 (320 — 520)*
P11	E/M/A/D	0,30 *0.30*	1,1 *1.1*	0,065 *0.0026*	0,075 *0.0030*	0,095 *0.0038*	0,11 *0.0044*	0,12 *0.0048*	95 (80 — 100) *310 (270 — 320)*
P12	E/M/A/D	0,30 *0.30*	1,1 *1.1*	0,044 *0.0017*	0,055 *0.0022*	0,065 *0.0026*	0,075 *0.0030*	0,085 *0.0034*	60 (51 — 67) *195 (170 — 210)*
M1	E/M/A	0,30 *0.30*	1,1 *1.1*	0,070 *0.0028*	0,085 *0.0034*	0,11 *0.0044*	0,12 *0.0048*	0,14 *0.0055*	105 (92 — 120) *345 (310 — 390)*
M2	E/M/A	0,30 *0.30*	1,1 *1.1*	0,065 *0.0026*	0,075 *0.0030*	0,095 *0.0038*	0,11 *0.0044*	0,13 *0.0050*	90 (76 — 100) *295 (250 — 320)*
M3	E/M/A	0,30 *0.30*	0,95 *0.95*	0,055 *0.0022*	0,065 *0.0026*	0,080 *0.0032*	0,090 *0.0036*	0,10 *0.0040*	55 (44 — 68) *180 (150 — 220)*
M4	E/M/A	0,30 *0.30*	0,95 *0.95*	0,048 *0.0019*	0,055 *0.0022*	0,070 *0.0028*	0,080 *0.0032*	0,090 *0.0036*	43 (34 — 52) *140 (120 — 170)*
M5	E/M/A	0,30 *0.30*	0,95 *0.95*	0,048 *0.0019*	0,055 *0.0022*	0,070 *0.0028*	0,080 *0.0032*	0,090 *0.0036*	36 (28 — 43) *120 (92 — 140)*
K1	E/M/A/D	0,40 *0.40*	1,1 *1.1*	0,090 *0.0036*	0,11 *0.0044*	0,14 *0.0055*	0,16 *0.0065*	0,18 *0.0070*	160 (140 — 180) *520 (460 — 590)*
K2	E/M/A/D	0,40 *0.40*	1,1 *1.1*	0,085 *0.0034*	0,10 *0.0040*	0,12 *0.0048*	0,14 *0.0055*	0,16 *0.0065*	140 (130 — 160) *460 (430 — 520)*
K3	E/M/A/D	0,40 *0.40*	1,1 *1.1*	0,085 *0.0034*	0,10 *0.0040*	0,12 *0.0048*	0,14 *0.0055*	0,16 *0.0065*	120 (110 — 130) *395 (370 — 420)*
K4	E/M/A/D	0,40 *0.40*	1,1 *1.1*	0,085 *0.0034*	0,10 *0.0040*	0,12 *0.0048*	0,14 *0.0055*	0,16 *0.0065*	115 (97 — 120) *375 (320 — 390)*
K5	E/M/A/D	0,40 *0.40*	0,95 *0.95*	0,080 *0.0032*	0,095 *0.0038*	0,12 *0.0048*	0,14 *0.0055*	0,16 *0.0065*	140 (120 — 150) *460 (400 — 490)*
K6	E/M/A/D	0,40 *0.40*	0,95 *0.95*	0,090 *0.0036*	0,11 *0.0044*	0,13 *0.0050*	0,15 *0.0060*	0,17 *0.0065*	200 (170 — 220) *660 (560 — 720)*
K7	E/M/A/D	0,40 *0.40*	0,95 *0.95*	0,080 *0.0032*	0,095 *0.0038*	0,12 *0.0048*	0,14 *0.0055*	0,16 *0.0065*	180 (150 — 200) *590 (500 — 650)*
N1	E/M/A	0,40 *0.40*	0,95 *0.95*	0,080 *0.0032*	0,095 *0.0038*	0,12 *0.0048*	0,14 *0.0055*	0,16 *0.0065*	600 (560 — 780) *1975 (1900 — 2500)*
N2	E/M/A	0,40 *0.40*	0,95 *0.95*	0,080 *0.0032*	0,095 *0.0038*	0,12 *0.0048*	0,14 *0.0055*	0,16 *0.0065*	390 (360 — 500) *1275 (1200 — 1600)*
N3	E/M/A	0,40 *0.40*	0,95 *0.95*	0,080 *0.0032*	0,095 *0.0038*	0,12 *0.0048*	0,14 *0.0055*	0,16 *0.0065*	260 (240 — 330) *850 (790 — 1000)*
N11	E/M/A	0,40 *0.40*	0,95 *0.95*	0,080 *0.0032*	0,095 *0.0038*	0,12 *0.0048*	0,14 *0.0055*	0,16 *0.0065*	335 (280 — 380) *1100 (920 — 1200)*
S1	E	0,15 *0.15*	0,95 *0.95*	0,090 *0.0036*	0,11 *0.0044*	0,13 *0.0050*	0,15 *0.0060*	0,17 *0.0065*	32 (26 — 40) *105 (86 — 130)*
S2	E	0,15 *0.15*	0,95 *0.95*	0,090 *0.0036*	0,11 *0.0044*	0,13 *0.0050*	0,15 *0.0060*	0,17 *0.0065*	28 (21 — 34) *90 (69 — 110)*
S3	E	0,15 *0.15*	0,95 *0.95*	0,085 *0.0034*	0,10 *0.0040*	0,12 *0.0048*	0,14 *0.0055*	0,16 *0.0065*	24 (19 — 30) *80 (63 — 98)*
S11	E	0,40 *0.40*	0,95 *0.95*	0,060 *0.0024*	0,070 *0.0028*	0,090 *0.0036*	0,10 *0.0040*	0,12 *0.0048*	105 (77 — 130) *345 (260 — 420)*
S12	E	0,40 *0.40*	0,95 *0.95*	0,060 *0.0024*	0,070 *0.0028*	0,090 *0.0036*	0,10 *0.0040*	0,12 *0.0048*	80 (59 — 100) *260 (200 — 320)*
S13	E	0,40 *0.40*	0,95 *0.95*	0,055 *0.0022*	0,065 *0.0026*	0,080 *0.0032*	0,090 *0.0036*	0,10 *0.0040*	65 (47 — 83) *215 (160 — 270)*
H5	M/A	0,050 *0.050*	0,95 *0.95*	0,090 *0.0036*	0,11 *0.0044*	0,14 *0.0055*	0,16 *0.0065*	0,18 *0.0070*	75 (62 — 92) *245 (210 — 300)*
H8	M/A	0,050 *0.050*	0,95 *0.95*	0,070 *0.0028*	0,085 *0.0034*	0,10 *0.0040*	0,12 *0.0048*	0,13 *0.0050*	80 (64 — 95) *260 (210 — 310)*
H21	M/A	0,050 *0.050*	0,95 *0.95*	0,070 *0.0028*	0,085 *0.0034*	0,10 *0.0040*	0,12 *0.0048*	0,13 *0.0050*	80 (64 — 95) *260 (210 — 310)*
H31	M/A	0,050 *0.050*	0,95 *0.95*	0,060 *0.0024*	0,070 *0.0028*	0,090 *0.0036*	0,10 *0.0040*	0,12 *0.0048*	60 (50 — 74) *195 (170 — 240)*
TS1	A/D	0,40 *0.40*	0,95 *0.95*	0,080 *0.0032*	0,095 *0.0038*	0,12 *0.0048*	0,14 *0.0055*	0,16 *0.0065*	280 (170 — 390) *920 (560 — 1200)*
TP1	A/D	0,40 *0.40*	0,95 *0.95*	0,080 *0.0032*	0,095 *0.0038*	0,12 *0.0048*	0,14 *0.0055*	0,16 *0.0065*	280 (170 — 390) *920 (560 — 1200)*
GR1	A/D	0,40 *0.40*	0,95 *0.95*	0,080 *0.0032*	0,095 *0.0038*	0,12 *0.0048*	0,14 *0.0055*	0,16 *0.0065*	550 (450 — 660) *1800 (1500 — 2100)*

Cutting data – XSE550 – Slot milling PCEDC 3

SMG		a_p/DC	f_z					v_c
			10	12	16	20	25	
P1	E/M/A/D	1,0 *1.0*	0,060 *0.0024*	0,070 *0.0028*	0,095 *0.0038*	0,12 *0.0048*	0,15 *0.0060*	165 (130 — 200) *540 (430 — 650)*
P2	E/M/A/D	1,0 *1.0*	0,060 *0.0024*	0,070 *0.0028*	0,095 *0.0038*	0,12 *0.0048*	0,15 *0.0060*	160 (120 — 190) *520 (400 — 620)*
P3	E/M/A/D	1,0 *1.0*	0,060 *0.0024*	0,070 *0.0028*	0,095 *0.0038*	0,12 *0.0048*	0,15 *0.0060*	135 (110 — 170) *445 (370 — 550)*
P4	E/M/A/D	1,0 *1.0*	0,060 *0.0024*	0,070 *0.0028*	0,095 *0.0038*	0,12 *0.0048*	0,15 *0.0060*	120 (90 — 140) *395 (300 — 450)*
P5	E/M/A/D	1,0 *1.0*	0,060 *0.0024*	0,070 *0.0028*	0,095 *0.0038*	0,12 *0.0048*	0,15 *0.0060*	115 (86 — 140) *375 (290 — 450)*
P6	E/M/A/D	1,0 *1.0*	0,060 *0.0024*	0,070 *0.0028*	0,095 *0.0038*	0,12 *0.0048*	0,15 *0.0060*	130 (97 — 160) *425 (320 — 520)*
P7	E/M/A/D	1,0 *1.0*	0,060 *0.0024*	0,070 *0.0028*	0,095 *0.0038*	0,12 *0.0048*	0,15 *0.0060*	120 (92 — 150) *395 (310 — 490)*
P8	E/M/A/D	1,0 *1.0*	0,060 *0.0024*	0,070 *0.0028*	0,095 *0.0038*	0,12 *0.0048*	0,15 *0.0060*	115 (86 — 140) *375 (290 — 450)*
P11	E/M/A/D	0,80 *0.80*	0,050 *0.0020*	0,060 *0.0024*	0,080 *0.0032*	0,10 *0.0040*	0,11 *0.0044*	75 (64 — 84) *245 (210 — 270)*
P12	E/M/A/D	0,80 *0.80*	0,040 *0.0016*	0,048 *0.0019*	0,060 *0.0024*	0,070 *0.0028*	0,080 *0.0032*	45 (39 — 51) *150 (130 — 160)*
M1	E/M/A	0,80 *0.80*	0,050 *0.0020*	0,060 *0.0024*	0,080 *0.0032*	0,10 *0.0040*	0,13 *0.0050*	85 (75 — 99) *280 (250 — 320)*
M2	E/M/A	0,80 *0.80*	0,050 *0.0020*	0,060 *0.0024*	0,080 *0.0032*	0,10 *0.0040*	0,11 *0.0044*	70 (60 — 79) *230 (200 — 250)*
M3	E/M/A	0,70 *0.70*	0,040 *0.0016*	0,048 *0.0019*	0,065 *0.0026*	0,080 *0.0032*	0,095 *0.0038*	45 (35 — 54) *150 (120 — 170)*
M4	E/M/A	0,70 *0.70*	0,040 *0.0016*	0,048 *0.0019*	0,065 *0.0026*	0,075 *0.0030*	0,085 *0.0034*	34 (27 — 41) *110 (89 — 130)*
M5	E/M/A	0,70 *0.70*	0,040 *0.0016*	0,048 *0.0019*	0,065 *0.0026*	0,075 *0.0030*	0,085 *0.0034*	28 (22 — 34) *90 (73 — 110)*
K1	E/M/A/D	1,0 *1.0*	0,060 *0.0024*	0,070 *0.0028*	0,095 *0.0038*	0,12 *0.0048*	0,15 *0.0060*	140 (120 — 160) *460 (400 — 520)*
K2	E/M/A/D	1,0 *1.0*	0,060 *0.0024*	0,070 *0.0028*	0,095 *0.0038*	0,12 *0.0048*	0,15 *0.0060*	120 (110 — 130) *395 (370 — 420)*
K3	E/M/A/D	1,0 *1.0*	0,060 *0.0024*	0,070 *0.0028*	0,095 *0.0038*	0,12 *0.0048*	0,15 *0.0060*	105 (88 — 110) *345 (290 — 360)*
K4	E/M/A/D	1,0 *1.0*	0,060 *0.0024*	0,070 *0.0028*	0,095 *0.0038*	0,12 *0.0048*	0,15 *0.0060*	100 (84 — 110) *330 (280 — 360)*
K5	E/M/A/D	0,80 *0.80*	0,050 *0.0020*	0,060 *0.0024*	0,080 *0.0032*	0,10 *0.0040*	0,13 *0.0050*	125 (100 — 130) *410 (330 — 420)*
K6	E/M/A/D	0,80 *0.80*	0,050 *0.0020*	0,060 *0.0024*	0,080 *0.0032*	0,10 *0.0040*	0,13 *0.0050*	185 (150 — 200) *610 (500 — 650)*
K7	E/M/A/D	0,80 *0.80*	0,050 *0.0020*	0,060 *0.0024*	0,080 *0.0032*	0,10 *0.0040*	0,13 *0.0050*	160 (130 — 170) *520 (430 — 550)*
N1	E/M/A	0,70 *0.70*	0,050 *0.0020*	0,060 *0.0024*	0,080 *0.0032*	0,10 *0.0040*	0,13 *0.0050*	540 (500 — 690) *1775 (1700 — 2200)*
N2	E/M/A	0,70 *0.70*	0,050 *0.0020*	0,060 *0.0024*	0,080 *0.0032*	0,10 *0.0040*	0,13 *0.0050*	345 (330 — 440) *1125 (1100 — 1400)*
N3	E/M/A	0,70 *0.70*	0,050 *0.0020*	0,060 *0.0024*	0,080 *0.0032*	0,10 *0.0040*	0,13 *0.0050*	230 (220 — 290) *750 (730 — 950)*
N11	E/M/A	0,60 *0.60*	0,050 *0.0020*	0,060 *0.0024*	0,080 *0.0032*	0,10 *0.0040*	0,13 *0.0050*	300 (250 — 340) *980 (830 — 1100)*
S1	E	0,30 *0.30*	0,030 *0.0012*	0,036 *0.0014*	0,048 *0.0019*	0,060 *0.0024*	0,075 *0.0030*	27 (21 — 33) *90 (69 — 100)*
S2	E	0,30 *0.30*	0,030 *0.0012*	0,036 *0.0014*	0,048 *0.0019*	0,060 *0.0024*	0,075 *0.0030*	23 (17 — 28) *75 (56 — 91)*
S3	E	0,30 *0.30*	0,030 *0.0012*	0,036 *0.0014*	0,048 *0.0019*	0,060 *0.0024*	0,075 *0.0030*	20 (15 — 25) *65 (50 — 82)*
S11	E	0,50 *0.50*	0,050 *0.0020*	0,060 *0.0024*	0,080 *0.0032*	0,10 *0.0040*	0,12 *0.0048*	90 (66 — 110) *295 (220 — 360)*
S12	E	0,50 *0.50*	0,050 *0.0020*	0,060 *0.0024*	0,080 *0.0032*	0,10 *0.0040*	0,12 *0.0048*	70 (50 — 89) *230 (170 — 290)*
S13	E	0,50 *0.50*	0,050 *0.0020*	0,060 *0.0024*	0,075 *0.0030*	0,090 *0.0036*	0,10 *0.0040*	55 (39 — 69) *180 (130 — 220)*
H5	M/A	0,30 *0.30*	0,030 *0.0012*	0,036 *0.0014*	0,048 *0.0019*	0,060 *0.0024*	0,075 *0.0030*	50 (41 — 60) *165 (140 — 190)*
H8	M/A	0,30 *0.30*	0,030 *0.0012*	0,036 *0.0014*	0,044 *0.0017*	0,050 *0.0020*	0,060 *0.0024*	50 (41 — 60) *165 (140 — 190)*
H21	M/A	0,30 *0.30*	0,030 *0.0012*	0,036 *0.0014*	0,044 *0.0017*	0,050 *0.0020*	0,060 *0.0024*	50 (41 — 60) *165 (140 — 190)*
H31	M/A	0,30 *0.30*	0,026 *0.0010*	0,032 *0.0013*	0,038 *0.0015*	0,044 *0.0017*	0,050 *0.0020*	39 (32 — 46) *130 (110 — 150)*
TS1	A/D	0,70 *0.70*	0,050 *0.0020*	0,060 *0.0024*	0,080 *0.0032*	0,10 *0.0040*	0,13 *0.0050*	250 (150 — 340) *820 (500 — 1100)*
TP1	A/D	0,70 *0.70*	0,050 *0.0020*	0,060 *0.0024*	0,080 *0.0032*	0,10 *0.0040*	0,13 *0.0050*	250 (150 — 340) *820 (500 — 1100)*
GR1	A/D	0,70 *0.70*	0,050 *0.0020*	0,060 *0.0024*	0,080 *0.0032*	0,10 *0.0040*	0,13 *0.0050*	490 (410 — 600) *1600 (1400 — 1900)*

Cutting data – XSE550 – Side milling PCEDC 3 – inch

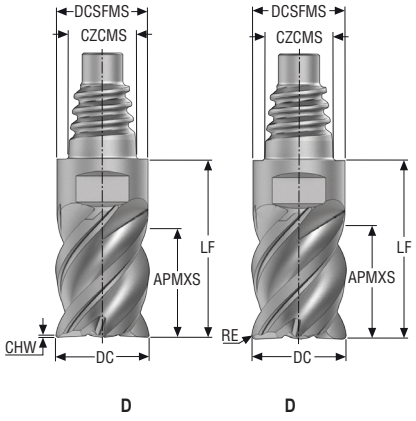
SMG		a_e/DC	a_p/DC	f_z				v_c
				3/8	1/2	5/8	3/4	
P1	E/M/A/D	0,40 *0.40*	1,1 *1.1*	0,095 *0.0038*	0,12 *0.0048*	0,14 *0.0055*	0,16 *0.0065*	215 (190 — 240) *710 (630 — 780)*
P2	E/M/A/D	0,40 *0.40*	1,1 *1.1*	0,10 *0.0040*	0,12 *0.0048*	0,15 *0.0060*	0,17 *0.0065*	205 (180 — 230) *670 (600 — 750)*
P3	E/M/A/D	0,40 *0.40*	1,1 *1.1*	0,095 *0.0038*	0,11 *0.0044*	0,14 *0.0055*	0,16 *0.0065*	180 (160 — 200) *590 (530 — 650)*
P4	E/M/A/D	0,40 *0.40*	1,1 *1.1*	0,090 *0.0036*	0,11 *0.0044*	0,14 *0.0055*	0,16 *0.0065*	160 (140 — 180) *520 (460 — 590)*
P5	E/M/A/D	0,40 *0.40*	1,1 *1.1*	0,090 *0.0036*	0,11 *0.0044*	0,13 *0.0050*	0,15 *0.0060*	150 (140 — 170) *490 (460 — 550)*
P6	E/M/A/D	0,40 *0.40*	1,1 *1.1*	0,090 *0.0036*	0,11 *0.0044*	0,13 *0.0050*	0,15 *0.0060*	170 (150 — 190) *560 (500 — 620)*
P7	E/M/A/D	0,40 *0.40*	1,1 *1.1*	0,090 *0.0036*	0,11 *0.0044*	0,13 *0.0050*	0,15 *0.0060*	160 (140 — 180) *520 (460 — 590)*
P8	E/M/A/D	0,40 *0.40*	1,1 *1.1*	0,095 *0.0038*	0,11 *0.0044*	0,14 *0.0055*	0,16 *0.0065*	150 (130 — 170) *490 (430 — 550)*
P11	E/M/A/D	0,30 *0.30*	1,1 *1.1*	0,065 *0.0026*	0,075 *0.0030*	0,095 *0.0038*	0,11 *0.0044*	105 (93 — 110) *345 (310 — 360)*
P12	E/M/A/D	0,30 *0.30*	1,1 *1.1*	0,044 *0.0017*	0,055 *0.0022*	0,065 *0.0026*	0,075 *0.0030*	65 (60 — 75) *215 (200 — 240)*
M1	E/M/A	0,30 *0.30*	1,1 *1.1*	0,070 *0.0028*	0,085 *0.0034*	0,11 *0.0044*	0,12 *0.0048*	120 (110 — 130) *395 (370 — 420)*
M2	E/M/A	0,30 *0.30*	1,1 *1.1*	0,065 *0.0026*	0,075 *0.0030*	0,095 *0.0038*	0,11 *0.0044*	100 (88 — 110) *330 (290 — 360)*
M3	E/M/A	0,30 *0.30*	0,95 *0.95*	0,055 *0.0022*	0,065 *0.0026*	0,080 *0.0032*	0,090 *0.0036*	60 (50 — 74) *195 (170 — 240)*
M4	E/M/A	0,30 *0.30*	0,95 *0.95*	0,048 *0.0019*	0,055 *0.0022*	0,070 *0.0028*	0,080 *0.0032*	48 (39 — 57) *155 (130 — 180)*
M5	E/M/A	0,30 *0.30*	0,95 *0.95*	0,048 *0.0019*	0,055 *0.0022*	0,070 *0.0028*	0,080 *0.0032*	40 (32 — 47) *130 (110 — 150)*
K1	E/M/A/D	0,40 *0.40*	1,1 *1.1*	0,090 *0.0036*	0,11 *0.0044*	0,14 *0.0055*	0,16 *0.0065*	170 (160 — 200) *560 (530 — 650)*
K2	E/M/A/D	0,40 *0.40*	1,1 *1.1*	0,085 *0.0034*	0,10 *0.0040*	0,12 *0.0048*	0,14 *0.0055*	150 (150 — 180) *490 (500 — 590)*
K3	E/M/A/D	0,40 *0.40*	1,1 *1.1*	0,085 *0.0034*	0,10 *0.0040*	0,12 *0.0048*	0,14 *0.0055*	125 (120 — 150) *410 (400 — 490)*
K4	E/M/A/D	0,40 *0.40*	1,1 *1.1*	0,085 *0.0034*	0,10 *0.0040*	0,12 *0.0048*	0,14 *0.0055*	120 (120 — 140) *395 (400 — 450)*
K5	E/M/A/D	0,40 *0.40*	0,95 *0.95*	0,080 *0.0032*	0,095 *0.0038*	0,12 *0.0048*	0,14 *0.0055*	155 (140 — 170) *510 (460 — 550)*
K6	E/M/A/D	0,40 *0.40*	0,95 *0.95*	0,090 *0.0036*	0,11 *0.0044*	0,13 *0.0050*	0,15 *0.0060*	225 (200 — 250) *740 (660 — 820)*
K7	E/M/A/D	0,40 *0.40*	0,95 *0.95*	0,080 *0.0032*	0,095 *0.0038*	0,12 *0.0048*	0,14 *0.0055*	200 (180 — 220) *660 (600 — 720)*
N1	E/M/A	0,40 *0.40*	0,95 *0.95*	0,080 *0.0032*	0,095 *0.0038*	0,12 *0.0048*	0,14 *0.0055*	670 (560 — 780) *2200 (1900 — 2500)*
N2	E/M/A	0,40 *0.40*	0,95 *0.95*	0,080 *0.0032*	0,095 *0.0038*	0,12 *0.0048*	0,14 *0.0055*	430 (360 — 500) *1400 (1200 — 1600)*
N3	E/M/A	0,40 *0.40*	0,95 *0.95*	0,080 *0.0032*	0,095 *0.0038*	0,12 *0.0048*	0,14 *0.0055*	285 (240 — 330) *940 (790 — 1000)*
N11	E/M/A	0,40 *0.40*	0,95 *0.95*	0,080 *0.0032*	0,095 *0.0038*	0,12 *0.0048*	0,14 *0.0055*	335 (280 — 380) *1100 (920 — 1200)*
S1	E	0,15 *0.15*	0,95 *0.95*	0,090 *0.0036*	0,11 *0.0044*	0,13 *0.0050*	0,15 *0.0060*	43 (26 — 60) *140 (86 — 190)*
S2	E	0,15 *0.15*	0,95 *0.95*	0,090 *0.0036*	0,11 *0.0044*	0,13 *0.0050*	0,15 *0.0060*	35 (21 — 48) *115 (69 — 150)*
S3	E	0,15 *0.15*	0,95 *0.95*	0,085 *0.0034*	0,10 *0.0040*	0,12 *0.0048*	0,14 *0.0055*	30 (19 — 42) *100 (63 — 130)*
S11	E	0,40 *0.40*	0,95 *0.95*	0,060 *0.0024*	0,070 *0.0028*	0,090 *0.0036*	0,10 *0.0040*	105 (77 — 130) *345 (260 — 420)*
S12	E	0,40 *0.40*	0,95 *0.95*	0,060 *0.0024*	0,070 *0.0028*	0,090 *0.0036*	0,10 *0.0040*	80 (59 — 100) *260 (200 — 320)*
S13	E	0,40 *0.40*	0,95 *0.95*	0,055 *0.0022*	0,065 *0.0026*	0,080 *0.0032*	0,090 *0.0036*	65 (47 — 83) *215 (160 — 270)*
H5	M/A	0,050 *0.050*	0,95 *0.95*	0,090 *0.0036*	0,11 *0.0044*	0,14 *0.0055*	0,16 *0.0065*	75 (62 — 92) *245 (210 — 300)*
H8	M/A	0,050 *0.050*	0,95 *0.95*	0,070 *0.0028*	0,085 *0.0034*	0,10 *0.0040*	0,12 *0.0048*	80 (64 — 95) *260 (210 — 310)*
H21	M/A	0,050 *0.050*	0,95 *0.95*	0,070 *0.0028*	0,085 *0.0034*	0,10 *0.0040*	0,12 *0.0048*	80 (64 — 95) *260 (210 — 310)*
H31	M/A	0,050 *0.050*	0,95 *0.95*	0,060 *0.0024*	0,070 *0.0028*	0,090 *0.0036*	0,10 *0.0040*	60 (50 — 74) *195 (170 — 240)*
TS1	A/D	0,40 *0.40*	0,95 *0.95*	0,080 *0.0032*	0,095 *0.0038*	0,12 *0.0048*	0,14 *0.0055*	280 (170 — 390) *920 (560 — 1200)*
TP1	A/D	0,40 *0.40*	0,95 *0.95*	0,080 *0.0032*	0,095 *0.0038*	0,12 *0.0048*	0,14 *0.0055*	280 (170 — 390) *920 (560 — 1200)*
GR1	A/D	0,40 *0.40*	0,95 *0.95*	0,080 *0.0032*	0,095 *0.0038*	0,12 *0.0048*	0,14 *0.0055*	670 (560 — 780) *2200 (1900 — 2500)*

Cutting data – XSE550 – Slot milling PCEDC 3 inch

SMG		a_p/DC	f_z				v_c
			3/8	1/2	5/8	3/4	
P1	E/M/A/D	1,0 *1.0*	0,060 *0.0024*	0,070 *0.0028*	0,095 *0.0038*	0,12 *0.0048*	190 (170 — 210) *620 (560 — 680)*
P2	E/M/A/D	1,0 *1.0*	0,060 *0.0024*	0,070 *0.0028*	0,095 *0.0038*	0,12 *0.0048*	185 (160 — 210) *610 (530 — 680)*
P3	E/M/A/D	1,0 *1.0*	0,060 *0.0024*	0,070 *0.0028*	0,095 *0.0038*	0,12 *0.0048*	160 (140 — 180) *520 (460 — 590)*
P4	E/M/A/D	1,0 *1.0*	0,060 *0.0024*	0,070 *0.0028*	0,095 *0.0038*	0,12 *0.0048*	140 (120 — 150) *460 (400 — 490)*
P5	E/M/A/D	1,0 *1.0*	0,060 *0.0024*	0,070 *0.0028*	0,095 *0.0038*	0,12 *0.0048*	135 (120 — 150) *445 (400 — 490)*
P6	E/M/A/D	1,0 *1.0*	0,060 *0.0024*	0,070 *0.0028*	0,095 *0.0038*	0,12 *0.0048*	150 (130 — 170) *490 (430 — 550)*
P7	E/M/A/D	1,0 *1.0*	0,060 *0.0024*	0,070 *0.0028*	0,095 *0.0038*	0,12 *0.0048*	140 (130 — 160) *460 (430 — 520)*
P8	E/M/A/D	1,0 *1.0*	0,060 *0.0024*	0,070 *0.0028*	0,095 *0.0038*	0,12 *0.0048*	135 (120 — 150) *445 (400 — 490)*
P11	E/M/A/D	0,80 *0.80*	0,050 *0.0020*	0,060 *0.0024*	0,080 *0.0032*	0,10 *0.0040*	85 (74 — 94) *280 (250 — 300)*
P12	E/M/A/D	0,80 *0.80*	0,040 *0.0016*	0,048 *0.0019*	0,060 *0.0024*	0,070 *0.0028*	50 (46 — 58) *165 (160 — 190)*
M1	E/M/A	0,80 *0.80*	0,050 *0.0020*	0,060 *0.0024*	0,080 *0.0032*	0,10 *0.0040*	100 (87 — 110) *330 (290 — 360)*
M2	E/M/A	0,80 *0.80*	0,050 *0.0020*	0,060 *0.0024*	0,080 *0.0032*	0,10 *0.0040*	80 (70 — 89) *260 (230 — 290)*
M3	E/M/A	0,70 *0.70*	0,040 *0.0016*	0,048 *0.0019*	0,065 *0.0026*	0,080 *0.0032*	50 (41 — 60) *165 (140 — 190)*
M4	E/M/A	0,70 *0.70*	0,040 *0.0016*	0,048 *0.0019*	0,065 *0.0026*	0,075 *0.0030*	37 (30 — 45) *120 (99 — 140)*
M5	E/M/A	0,70 *0.70*	0,040 *0.0016*	0,048 *0.0019*	0,065 *0.0026*	0,075 *0.0030*	31 (25 — 37) *100 (83 — 120)*
K1	E/M/A/D	1,0 *1.0*	0,060 *0.0024*	0,070 *0.0028*	0,095 *0.0038*	0,12 *0.0048*	150 (140 — 180) *490 (460 — 590)*
K2	E/M/A/D	1,0 *1.0*	0,060 *0.0024*	0,070 *0.0028*	0,095 *0.0038*	0,12 *0.0048*	130 (130 — 150) *425 (430 — 490)*
K3	E/M/A/D	1,0 *1.0*	0,060 *0.0024*	0,070 *0.0028*	0,095 *0.0038*	0,12 *0.0048*	110 (110 — 130) *360 (370 — 420)*
K4	E/M/A/D	1,0 *1.0*	0,060 *0.0024*	0,070 *0.0028*	0,095 *0.0038*	0,12 *0.0048*	105 (99 — 120) *345 (330 — 390)*
K5	E/M/A/D	0,80 *0.80*	0,050 *0.0020*	0,060 *0.0024*	0,080 *0.0032*	0,10 *0.0040*	140 (120 — 150) *460 (400 — 490)*
K6	E/M/A/D	0,80 *0.80*	0,050 *0.0020*	0,060 *0.0024*	0,080 *0.0032*	0,10 *0.0040*	205 (180 — 230) *670 (600 — 750)*
K7	E/M/A/D	0,80 *0.80*	0,050 *0.0020*	0,060 *0.0024*	0,080 *0.0032*	0,10 *0.0040*	180 (160 — 200) *590 (530 — 650)*
N1	E/M/A	0,70 *0.70*	0,050 *0.0020*	0,060 *0.0024*	0,080 *0.0032*	0,10 *0.0040*	600 (510 — 690) *1975 (1700 — 2200)*
N2	E/M/A	0,70 *0.70*	0,050 *0.0020*	0,060 *0.0024*	0,080 *0.0032*	0,10 *0.0040*	385 (330 — 440) *1275 (1100 — 1400)*
N3	E/M/A	0,70 *0.70*	0,050 *0.0020*	0,060 *0.0024*	0,080 *0.0032*	0,10 *0.0040*	255 (220 — 290) *840 (730 — 950)*
N11	E/M/A	0,60 *0.60*	0,050 *0.0020*	0,060 *0.0024*	0,080 *0.0032*	0,10 *0.0040*	300 (250 — 340) *980 (830 — 1100)*
S1	E	0,30 *0.30*	0,030 *0.0012*	0,036 *0.0014*	0,048 *0.0019*	0,060 *0.0024*	36 (22 — 50) *120 (73 — 160)*
S2	E	0,30 *0.30*	0,030 *0.0012*	0,036 *0.0014*	0,048 *0.0019*	0,060 *0.0024*	29 (18 — 40) *95 (60 — 130)*
S3	E	0,30 *0.30*	0,030 *0.0012*	0,036 *0.0014*	0,048 *0.0019*	0,060 *0.0024*	25 (15 — 34) *80 (50 — 110)*
S11	E	0,50 *0.50*	0,050 *0.0020*	0,060 *0.0024*	0,080 *0.0032*	0,10 *0.0040*	90 (66 — 110) *295 (220 — 360)*
S12	E	0,50 *0.50*	0,050 *0.0020*	0,060 *0.0024*	0,080 *0.0032*	0,10 *0.0040*	70 (50 — 89) *230 (170 — 290)*
S13	E	0,50 *0.50*	0,050 *0.0020*	0,060 *0.0024*	0,075 *0.0030*	0,090 *0.0036*	55 (39 — 69) *180 (130 — 220)*
H5	M/A	0,30 *0.30*	0,030 *0.0012*	0,036 *0.0014*	0,048 *0.0019*	0,060 *0.0024*	50 (41 — 60) *165 (140 — 190)*
H8	M/A	0,30 *0.30*	0,030 *0.0012*	0,036 *0.0014*	0,044 *0.0017*	0,050 *0.0020*	50 (41 — 60) *165 (140 — 190)*
H21	M/A	0,30 *0.30*	0,030 *0.0012*	0,036 *0.0014*	0,044 *0.0017*	0,050 *0.0020*	50 (41 — 60) *165 (140 — 190)*
H31	M/A	0,30 *0.30*	0,026 *0.0010*	0,032 *0.0013*	0,038 *0.0015*	0,044 *0.0017*	39 (32 — 46) *130 (110 — 150)*
TS1	A/D	0,70 *0.70*	0,050 *0.0020*	0,060 *0.0024*	0,080 *0.0032*	0,10 *0.0040*	250 (150 — 340) *820 (500 — 1100)*
TP1	A/D	0,70 *0.70*	0,050 *0.0020*	0,060 *0.0024*	0,080 *0.0032*	0,10 *0.0040*	250 (150 — 340) *820 (500 — 1100)*
GR1	A/D	0,70 *0.70*	0,050 *0.0020*	0,060 *0.0024*	0,080 *0.0032*	0,10 *0.0040*	600 (510 — 690) *1975 (1700 — 2200)*

XSE550

High performance – Universal – Square – 4 Flutes – Corner radius or chamfer







- Tolerances:
- DC= e7
- RE= ±0,02 mm
- Regrind possible if DC is ≥Ø12 mm

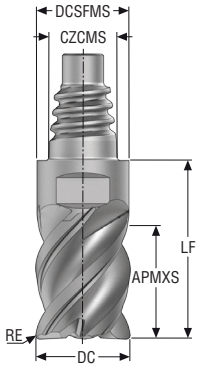
Designation	Item number	Length index	Tool shape	CZCMS	DC	DCSFMS	APMXS	LF	CHW	RE	PCEDC	SW	Grade
					mm	mm	mm	mm	mm	mm			SIRA
XSE550E10100D1CZ4	10219229	1	D	E10	10,0	9,7	5,5	12,3	0,125	–	4	8	■
XSE550E12120D1CZ4	10219230	1	D	E12	12,0	11,7	6,6	14,4	0,15	–	4	10	■
XSE550E16160D1CZ4	10219231	1	D	E16	16,0	15,5	88,0	18,6	0,2	–	4	12	■
XSE550E20200D1CZ4	10219232	1	D	E20	20,0	19,7	11,0	21,2	0,25	–	4	16	■
XSE550E25250D1CZ4	10219226	1	D	E25	25,0	24,2	13,75	25,5	0,3125	–	4	20	■
XSE550E10100D2CZ4	10138152	2	D	E10	10,0	9,7	12,0	18,7	0,125	–	4	8	■
XSE550E12120D2CZ4	10138153	2	D	E12	12,0	11,7	14,4	22,1	0,15	–	4	10	■
XSE550E16160D2CZ4	10138154	2	D	E16	16,0	15,5	19,2	29,2	0,2	–	4	12	■
XSE550E20200D2CZ4	10138155	2	D	E20	20,0	19,3	24,0	34,3	0,25	–	4	16	■
XSE550E10100D1R100Z4	10219233	1	D	E10	10,0	9,7	5,5	12,3	–	1,0	4	8	■
XSE550E10100D1R200Z4	10219234	1	D	E10	10,0	9,7	5,5	12,3	–	2,0	4	8	■
XSE550E12120D1R100Z4	10219235	1	D	E12	12,0	11,7	6,6	14,4	–	1,0	4	10	■
XSE550E12120D1R200Z4	10219236	1	D	E12	12,0	11,7	6,6	14,4	–	2,0	4	10	■
XSE550E16160D1R100Z4	10219237	1	D	E16	16,0	15,5	8,8	18,6	–	1,0	4	12	■
XSE550E16160D1R200Z4	10219238	1	D	E16	16,0	15,5	8,8	18,6	–	2,0	4	12	■
XSE550E20200D1R200Z4	10219239	1	D	E20	20,0	19,7	11,0	21,2	–	2,0	4	16	■
XSE550E25250D1R100Z4	10219227	1	D	E25	25,0	24,2	13,75	25,5	–	1,0	4	20	■
XSE550E25250D1R200Z4	10219228	1	D	E25	25,0	24,2	13,75	25,5	–	2,0	4	20	■
XSE550E10100D1R050Z4	10138156	1	D	E10	10,0	9,7	5,5	12,3	–	0,5	4	8	■
XSE550E12120D1R050Z4	10138157	1	D	E12	12,0	11,7	6,6	14,4	–	0,5	4	10	■
XSE550E16160D1R050Z4	10138158	1	D	E16	16,0	15,5	8,8	18,6	–	0,5	4	12	■
XSE550E20200D1R100Z4	10138159	1	D	E20	20,0	19,3	11,0	21,2	–	1,0	4	16	■
XSE550E10100D2R100Z4	10138161	2	D	E10	10,0	9,7	12,0	18,7	–	1,0	4	8	■
XSE550E12120D2R100Z4	10138165	2	D	E12	12,0	11,7	14,4	22,1	–	1,0	4	10	■
XSE550E16160D2R100Z4	10138169	2	D	E16	16,0	15,5	19,2	29,2	–	1,0	4	12	■
XSE550E20200D2R100Z4	10138172	2	D	E20	20,0	19,3	24,0	34,3	–	1,0	4	16	■
XSE550E10100D2R050Z4	10138160	2	D	E10	10,0	9,7	12,0	18,7	–	0,5	4	8	■
XSE550E10100D2R200Z4	10138162	2	D	E10	10,0	9,7	12,0	18,7	–	2,0	4	8	■
XSE550E10100D2R250Z4	10138163	2	D	E10	10,0	9,7	12,0	18,7	–	2,5	4	8	■

Designation	Item number	Length index	Tool shape	CZCMS	DC	DCSFMS	APMXS	LF	CHW	RE	PCEDC	SW	Grade
					mm	mm	mm	mm	mm	mm			SIRA
XSE550E12120D2R050Z4	10138164	2	D	E12	12,0	11,7	14,4	22,1	–	0,5	4	10	■
XSE550E12120D2R200Z4	10138166	2	D	E12	12,0	11,7	14,4	22,1	–	2,0	4	10	■
XSE550E12120D2R300Z4	10138167	2	D	E12	12,0	11,7	14,4	22,1	–	3,0	4	10	■
XSE550E16160D2R050Z4	10138168	2	D	E16	16,0	15,5	19,2	29,2	–	0,5	4	12	■
XSE550E16160D2R200Z4	10138170	2	D	E16	16,0	15,5	19,2	29,2	–	2,0	4	12	■
XSE550E16160D2R300Z4	10138171	2	D	E16	16,0	15,5	19,2	29,2	–	3,0	4	12	■
XSE550E20200D2R200Z4	10138173	2	D	E20	20,0	19,3	24,0	34,3	–	2,0	4	16	■
XSE550E20200D2R300Z4	10138174	2	D	E20	20,0	19,3	24,0	34,3	–	3,0	4	16	■
XSE550E20200D2R400Z4	10138175	2	D	E20	20,0	19,3	24,0	34,3	–	4,0	4	16	■

■ Stocked standard.

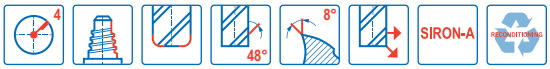
XSE550 – Inch

High performance – Universal – Square – 4 Flutes – Corner radius – *Inch*



D





- Tolerances:
- DC= e7
- RE= ±.0008 Inch
- Regrind possible if DC is ≥Ø.500 Inch

Designation	Item number	Length index	Tool shape	CZCMS	DC	DCSFMS	APMXS	LF	RE	PCEDC	SW	Grade
					Inch	*Inch*	*Inch*	*Inch*	*Inch*			SIRA
XSE550E10.375D1R030Z4	10138176	1	D	E10	0.375	0.364	0.206	0.484	0.030	4	8	■
XSE550E12.500D1R030Z4	10138177	1	D	E12	0.500	0.484	0.275	0.567	0.030	4	10	■
XSE550E20.750D1R030Z4	10138178	1	D	E20	0.750	0.728	0.413	0.835	0.030	4	16	■
XSE550E10.375D2R030Z4	10138179	2	D	E10	0.375	0.364	0.450	0.720	0.030	4	8	■
XSE550E12.500D2R030Z4	10138180	2	D	E12	0.500	0.484	0.600	0.906	0.030	4	10	■
XSE550E20.750D2R030Z4	10138181	2	D	E20	0.750	0.728	0.900	1.295	0.030	4	16	■

■ Stocked standard.

Cutting data – XSE550 – Side milling PCEDC 4

SMG		a_e/DC	a_p/DC	f_z					v_c
				10	12	16	20	25	
P1	E/M/A/D	0,40 *0.40*	0,95 *0.95*	0,085 *0.0034*	0,10 *0.0040*	0,13 *0.0050*	0,15 *0.0060*	0,17 *0.0065*	170 (130 — 210) *560 (430 — 680)*
P2	E/M/A/D	0,40 *0.40*	0,95 *0.95*	0,090 *0.0036*	0,10 *0.0040*	0,13 *0.0050*	0,15 *0.0060*	0,17 *0.0065*	165 (130 — 200) *540 (430 — 650)*
P3	E/M/A/D	0,40 *0.40*	0,95 *0.95*	0,085 *0.0034*	0,10 *0.0040*	0,12 *0.0048*	0,14 *0.0055*	0,16 *0.0065*	145 (110 — 180) *475 (370 — 590)*
P4	E/M/A/D	0,40 *0.40*	0,95 *0.95*	0,080 *0.0032*	0,095 *0.0038*	0,12 *0.0048*	0,14 *0.0055*	0,16 *0.0065*	130 (97 — 160) *425 (320 — 520)*
P5	E/M/A/D	0,40 *0.40*	0,95 *0.95*	0,080 *0.0032*	0,095 *0.0038*	0,12 *0.0048*	0,14 *0.0055*	0,15 *0.0060*	125 (93 — 150) *410 (310 — 490)*
P6	E/M/A/D	0,40 *0.40*	0,95 *0.95*	0,080 *0.0032*	0,095 *0.0038*	0,12 *0.0048*	0,13 *0.0050*	0,15 *0.0060*	140 (110 — 170) *460 (370 — 550)*
P7	E/M/A/D	0,40 *0.40*	0,95 *0.95*	0,080 *0.0032*	0,095 *0.0038*	0,12 *0.0048*	0,13 *0.0050*	0,15 *0.0060*	130 (98 — 160) *425 (330 — 520)*
P8	E/M/A/D	0,40 *0.40*	0,95 *0.95*	0,085 *0.0034*	0,10 *0.0040*	0,12 *0.0048*	0,14 *0.0055*	0,16 *0.0065*	120 (91 — 150) *395 (300 — 490)*
P11	E/M/A/D	0,30 *0.30*	0,95 *0.95*	0,065 *0.0026*	0,075 *0.0030*	0,095 *0.0038*	0,11 *0.0044*	0,12 *0.0048*	85 (72 — 100) *280 (240 — 320)*
P12	E/M/A/D	0,30 *0.30*	0,95 *0.95*	0,044 *0.0017*	0,055 *0.0022*	0,065 *0.0026*	0,075 *0.0030*	0,085 *0.0034*	55 (46 — 68) *180 (160 — 220)*
M1	E/M/A	0,30 *0.30*	0,95 *0.95*	0,070 *0.0028*	0,085 *0.0034*	0,11 *0.0044*	0,12 *0.0048*	0,14 *0.0055*	95 (83 — 120) *310 (280 — 390)*
M2	E/M/A	0,30 *0.30*	0,95 *0.95*	0,065 *0.0026*	0,075 *0.0030*	0,095 *0.0038*	0,11 *0.0044*	0,13 *0.0050*	80 (69 — 100) *260 (230 — 320)*
M3	E/M/A	0,30 *0.30*	0,95 *0.95*	0,055 *0.0022*	0,065 *0.0026*	0,080 *0.0032*	0,090 *0.0036*	0,10 *0.0040*	47 (36 — 58) *155 (120 — 190)*
M4	E/M/A	0,30 *0.30*	0,95 *0.95*	0,048 *0.0019*	0,055 *0.0022*	0,070 *0.0028*	0,080 *0.0032*	0,090 *0.0036*	36 (28 — 45) *120 (92 — 140)*
M5	E/M/A	0,30 *0.30*	0,95 *0.95*	0,048 *0.0019*	0,055 *0.0022*	0,070 *0.0028*	0,080 *0.0032*	0,090 *0.0036*	30 (23 — 37) *100 (76 — 120)*
K1	E/M/A/D	0,40 *0.40*	0,95 *0.95*	0,080 *0.0032*	0,095 *0.0038*	0,12 *0.0048*	0,14 *0.0055*	0,16 *0.0065*	150 (130 — 170) *490 (430 — 550)*
K2	E/M/A/D	0,40 *0.40*	0,95 *0.95*	0,075 *0.0030*	0,090 *0.0036*	0,11 *0.0044*	0,13 *0.0050*	0,14 *0.0055*	130 (120 — 150) *425 (400 — 490)*
K3	E/M/A/D	0,40 *0.40*	0,95 *0.95*	0,075 *0.0030*	0,090 *0.0036*	0,11 *0.0044*	0,13 *0.0050*	0,14 *0.0055*	110 (96 — 120) *360 (320 — 390)*
K4	E/M/A/D	0,40 *0.40*	0,95 *0.95*	0,075 *0.0030*	0,090 *0.0036*	0,11 *0.0044*	0,13 *0.0050*	0,14 *0.0055*	105 (92 — 120) *345 (310 — 390)*
K5	E/M/A/D	0,40 *0.40*	0,95 *0.95*	0,080 *0.0032*	0,095 *0.0038*	0,12 *0.0048*	0,14 *0.0055*	0,16 *0.0065*	150 (130 — 170) *490 (430 — 550)*
K6	E/M/A/D	0,40 *0.40*	0,95 *0.95*	0,090 *0.0036*	0,11 *0.0044*	0,13 *0.0050*	0,15 *0.0060*	0,17 *0.0065*	215 (190 — 240) *710 (630 — 780)*
K7	E/M/A/D	0,40 *0.40*	0,95 *0.95*	0,080 *0.0032*	0,095 *0.0038*	0,12 *0.0048*	0,14 *0.0055*	0,16 *0.0065*	190 (170 — 210) *620 (560 — 680)*
N1	E/M/A	0,40 *0.40*	0,95 *0.95*	0,080 *0.0032*	0,095 *0.0038*	0,12 *0.0048*	0,14 *0.0055*	0,16 *0.0065*	550 (450 — 660) *1800 (1500 — 2100)*
N2	E/M/A	0,40 *0.40*	0,95 *0.95*	0,080 *0.0032*	0,095 *0.0038*	0,12 *0.0048*	0,14 *0.0055*	0,16 *0.0065*	355 (290 — 420) *1175 (960 — 1300)*
N3	E/M/A	0,40 *0.40*	0,95 *0.95*	0,080 *0.0032*	0,095 *0.0038*	0,12 *0.0048*	0,14 *0.0055*	0,16 *0.0065*	240 (200 — 280) *790 (660 — 910)*
N11	E/M/A	0,40 *0.40*	0,95 *0.95*	0,080 *0.0032*	0,095 *0.0038*	0,12 *0.0048*	0,14 *0.0055*	0,16 *0.0065*	310 (280 — 380) *1025 (920 — 1200)*
S1	E	0,15 *0.15*	0,95 *0.95*	0,090 *0.0036*	0,11 *0.0044*	0,13 *0.0050*	0,15 *0.0060*	0,17 *0.0065*	32 (26 — 40) *105 (86 — 130)*
S2	E	0,15 *0.15*	0,95 *0.95*	0,090 *0.0036*	0,11 *0.0044*	0,13 *0.0050*	0,15 *0.0060*	0,17 *0.0065*	28 (21 — 34) *90 (69 — 110)*
S3	E	0,15 *0.15*	0,95 *0.95*	0,085 *0.0034*	0,10 *0.0040*	0,12 *0.0048*	0,14 *0.0055*	0,16 *0.0065*	24 (19 — 30) *80 (63 — 98)*
S11	E	0,40 *0.40*	0,95 *0.95*	0,060 *0.0024*	0,070 *0.0028*	0,090 *0.0036*	0,10 *0.0040*	0,12 *0.0048*	90 (77 — 120) *295 (260 — 390)*
S12	E	0,40 *0.40*	0,95 *0.95*	0,060 *0.0024*	0,070 *0.0028*	0,090 *0.0036*	0,10 *0.0040*	0,12 *0.0048*	70 (59 — 93) *230 (200 — 300)*
S13	E	0,40 *0.40*	0,95 *0.95*	0,055 *0.0022*	0,065 *0.0026*	0,080 *0.0032*	0,090 *0.0036*	0,10 *0.0040*	55 (47 — 74) *180 (160 — 240)*
H5	M/A	0,050 *0.050*	0,95 *0.95*	0,090 *0.0036*	0,11 *0.0044*	0,13 *0.0050*	0,15 *0.0060*	0,17 *0.0065*	75 (59 — 73) *245 (200 — 230)*
H8	M/A	0,050 *0.050*	0,95 *0.95*	0,070 *0.0028*	0,085 *0.0034*	0,10 *0.0040*	0,12 *0.0048*	0,13 *0.0050*	75 (62 — 76) *245 (210 — 240)*
H21	M/A	0,050 *0.050*	0,95 *0.95*	0,070 *0.0028*	0,085 *0.0034*	0,10 *0.0040*	0,12 *0.0048*	0,13 *0.0050*	75 (62 — 76) *245 (210 — 240)*
H31	M/A	0,050 *0.050*	0,95 *0.95*	0,060 *0.0024*	0,070 *0.0028*	0,090 *0.0036*	0,10 *0.0040*	0,12 *0.0048*	60 (48 — 59) *195 (160 — 190)*
TS1	A/D	0,40 *0.40*	0,95 *0.95*	0,080 *0.0032*	0,095 *0.0038*	0,12 *0.0048*	0,14 *0.0055*	0,16 *0.0065*	275 (170 — 380) *900 (560 — 1200)*
TP1	A/D	0,40 *0.40*	0,95 *0.95*	0,080 *0.0032*	0,095 *0.0038*	0,12 *0.0048*	0,14 *0.0055*	0,16 *0.0065*	275 (170 — 380) *900 (560 — 1200)*
GR1	A/D	0,40 *0.40*	0,95 *0.95*	0,080 *0.0032*	0,095 *0.0038*	0,12 *0.0048*	0,14 *0.0055*	0,16 *0.0065*	550 (450 — 660) *1800 (1500 — 2100)*

Cutting data – XSE550 – Slot milling PCEDC 4

SMG		a_p/DC	f_z					v_c
			10	12	16	20	25	
P1	E/M/A/D	0,80 *0.80*	0,040 *0.0016*	0,048 *0.0019*	0,065 *0.0026*	0,080 *0.0032*	0,10 *0.0040*	165 (130 — 200) *540 (430 — 650)*
P2	E/M/A/D	0,80 *0.80*	0,040 *0.0016*	0,048 *0.0019*	0,065 *0.0026*	0,080 *0.0032*	0,10 *0.0040*	160 (120 — 190) *520 (400 — 620)*
P3	E/M/A/D	0,80 *0.80*	0,040 *0.0016*	0,048 *0.0019*	0,065 *0.0026*	0,080 *0.0032*	0,10 *0.0040*	135 (110 — 170) *445 (370 — 550)*
P4	E/M/A/D	0,80 *0.80*	0,040 *0.0016*	0,048 *0.0019*	0,065 *0.0026*	0,080 *0.0032*	0,10 *0.0040*	120 (90 — 140) *395 (300 — 450)*
P5	E/M/A/D	0,80 *0.80*	0,040 *0.0016*	0,048 *0.0019*	0,065 *0.0026*	0,080 *0.0032*	0,10 *0.0040*	115 (86 — 140) *375 (290 — 450)*
P6	E/M/A/D	0,80 *0.80*	0,040 *0.0016*	0,048 *0.0019*	0,065 *0.0026*	0,080 *0.0032*	0,10 *0.0040*	130 (97 — 160) *425 (320 — 520)*
P7	E/M/A/D	0,80 *0.80*	0,040 *0.0016*	0,048 *0.0019*	0,065 *0.0026*	0,080 *0.0032*	0,10 *0.0040*	120 (92 — 150) *395 (310 — 490)*
P8	E/M/A/D	0,80 *0.80*	0,040 *0.0016*	0,048 *0.0019*	0,065 *0.0026*	0,080 *0.0032*	0,10 *0.0040*	115 (86 — 140) *375 (290 — 450)*
P11	E/M/A/D	0,60 *0.60*	0,030 *0.0012*	0,036 *0.0014*	0,048 *0.0019*	0,060 *0.0024*	0,075 *0.0030*	75 (64 — 94) *245 (210 — 300)*
P12	E/M/A/D	0,60 *0.60*	0,030 *0.0012*	0,036 *0.0014*	0,048 *0.0019*	0,060 *0.0024*	0,075 *0.0030*	44 (38 — 55) *145 (130 — 180)*
M1	E/M/A	0,60 *0.60*	0,030 *0.0012*	0,036 *0.0014*	0,048 *0.0019*	0,060 *0.0024*	0,075 *0.0030*	85 (75 — 110) *280 (250 — 360)*
M2	E/M/A	0,60 *0.60*	0,030 *0.0012*	0,036 *0.0014*	0,048 *0.0019*	0,060 *0.0024*	0,075 *0.0030*	70 (60 — 90) *230 (200 — 290)*
M3	E/M/A	0,60 *0.60*	0,030 *0.0012*	0,036 *0.0014*	0,048 *0.0019*	0,060 *0.0024*	0,075 *0.0030*	40 (30 — 50) *130 (99 — 160)*
M4	E/M/A	0,60 *0.60*	0,030 *0.0012*	0,036 *0.0014*	0,048 *0.0019*	0,060 *0.0024*	0,075 *0.0030*	30 (23 — 37) *100 (76 — 120)*
M5	E/M/A	0,60 *0.60*	0,030 *0.0012*	0,036 *0.0014*	0,048 *0.0019*	0,060 *0.0024*	0,075 *0.0030*	25 (19 — 31) *80 (63 — 100)*
K1	E/M/A/D	0,80 *0.80*	0,040 *0.0016*	0,048 *0.0019*	0,065 *0.0026*	0,080 *0.0032*	0,10 *0.0040*	140 (120 — 160) *460 (400 — 520)*
K2	E/M/A/D	0,80 *0.80*	0,040 *0.0016*	0,048 *0.0019*	0,065 *0.0026*	0,080 *0.0032*	0,10 *0.0040*	120 (110 — 130) *395 (370 — 420)*
K3	E/M/A/D	0,80 *0.80*	0,040 *0.0016*	0,048 *0.0019*	0,065 *0.0026*	0,080 *0.0032*	0,10 *0.0040*	105 (88 — 110) *345 (290 — 360)*
K4	E/M/A/D	0,80 *0.80*	0,040 *0.0016*	0,048 *0.0019*	0,065 *0.0026*	0,080 *0.0032*	0,10 *0.0040*	100 (84 — 110) *330 (280 — 360)*
K5	E/M/A/D	0,80 *0.80*	0,040 *0.0016*	0,048 *0.0019*	0,065 *0.0026*	0,080 *0.0032*	0,10 *0.0040*	140 (120 — 160) *460 (400 — 520)*
K6	E/M/A/D	0,80 *0.80*	0,040 *0.0016*	0,048 *0.0019*	0,065 *0.0026*	0,080 *0.0032*	0,10 *0.0040*	205 (180 — 230) *670 (600 — 750)*
K7	E/M/A/D	0,80 *0.80*	0,040 *0.0016*	0,048 *0.0019*	0,065 *0.0026*	0,080 *0.0032*	0,10 *0.0040*	180 (160 — 200) *590 (530 — 650)*
N1	E/M/A	0,60 *0.60*	0,050 *0.0020*	0,060 *0.0024*	0,080 *0.0032*	0,10 *0.0040*	0,13 *0.0050*	500 (410 — 590) *1650 (1400 — 1900)*
N2	E/M/A	0,60 *0.60*	0,050 *0.0020*	0,060 *0.0024*	0,080 *0.0032*	0,10 *0.0040*	0,13 *0.0050*	320 (260 — 380) *1050 (860 — 1200)*
N3	E/M/A	0,60 *0.60*	0,050 *0.0020*	0,060 *0.0024*	0,080 *0.0032*	0,10 *0.0040*	0,13 *0.0050*	215 (180 — 250) *710 (600 — 820)*
N11	E/M/A	0,60 *0.60*	0,050 *0.0020*	0,060 *0.0024*	0,080 *0.0032*	0,10 *0.0040*	0,13 *0.0050*	280 (250 — 340) *920 (830 — 1100)*
S1	E	0,30 *0.30*	0,030 *0.0012*	0,036 *0.0014*	0,048 *0.0019*	0,060 *0.0024*	0,075 *0.0030*	27 (21 — 33) *90 (69 — 100)*
S2	E	0,30 *0.30*	0,030 *0.0012*	0,036 *0.0014*	0,048 *0.0019*	0,060 *0.0024*	0,075 *0.0030*	23 (17 — 28) *75 (56 — 91)*
S3	E	0,30 *0.30*	0,030 *0.0012*	0,036 *0.0014*	0,048 *0.0019*	0,060 *0.0024*	0,075 *0.0030*	20 (15 — 24) *65 (50 — 78)*
S11	E	0,50 *0.50*	0,050 *0.0020*	0,060 *0.0024*	0,080 *0.0032*	0,10 *0.0040*	0,12 *0.0048*	80 (65 — 100) *260 (220 — 320)*
S12	E	0,50 *0.50*	0,050 *0.0020*	0,060 *0.0024*	0,080 *0.0032*	0,10 *0.0040*	0,12 *0.0048*	60 (50 — 79) *195 (170 — 250)*
S13	E	0,50 *0.50*	0,050 *0.0020*	0,060 *0.0024*	0,075 *0.0030*	0,090 *0.0036*	0,10 *0.0040*	46 (39 — 61) *150 (130 — 200)*
H5	M/A	0,26 *0.26*	0,025 *0.0010*	0,030 *0.0012*	0,040 *0.0016*	0,050 *0.0020*	0,065 *0.0026*	50 (41 — 50) *165 (140 — 160)*
H8	M/A	0,26 *0.26*	0,025 *0.0010*	0,030 *0.0012*	0,040 *0.0016*	0,050 *0.0020*	0,060 *0.0024*	50 (41 — 50) *165 (140 — 160)*
H21	M/A	0,26 *0.26*	0,025 *0.0010*	0,030 *0.0012*	0,040 *0.0016*	0,050 *0.0020*	0,060 *0.0024*	50 (41 — 50) *165 (140 — 160)*
H31	M/A	0,26 *0.26*	0,025 *0.0010*	0,030 *0.0012*	0,038 *0.0015*	0,044 *0.0017*	0,050 *0.0020*	38 (31 — 38) *125 (110 — 120)*
TS1	A/D	0,60 *0.60*	0,050 *0.0020*	0,060 *0.0024*	0,080 *0.0032*	0,10 *0.0040*	0,13 *0.0050*	250 (150 — 340) *820 (500 — 1100)*
TP1	A/D	0,60 *0.60*	0,050 *0.0020*	0,060 *0.0024*	0,080 *0.0032*	0,10 *0.0040*	0,13 *0.0050*	250 (150 — 340) *820 (500 — 1100)*
GR1	A/D	0,60 *0.60*	0,050 *0.0020*	0,060 *0.0024*	0,080 *0.0032*	0,10 *0.0040*	0,13 *0.0050*	500 (410 — 590) *1650 (1400 — 1900)*

Cutting data – XSE550 – Side milling PCEDC 4 inch

SMG		a_e/DC	a_p/DC	f_z				v_c
				3/8	1/2	5/8	3/4	
P1	E/M/A/D	0,40 *0.40*	0,95 *0.95*	0,085 *0.0034*	0,10 *0.0040*	0,13 *0.0050*	0,15 *0.0060*	200 (180 — 220) *660 (600 — 720)*
P2	E/M/A/D	0,40 *0.40*	0,95 *0.95*	0,090 *0.0036*	0,10 *0.0040*	0,13 *0.0050*	0,15 *0.0060*	195 (170 — 220) *640 (560 — 720)*
P3	E/M/A/D	0,40 *0.40*	0,95 *0.95*	0,085 *0.0034*	0,10 *0.0040*	0,12 *0.0048*	0,14 *0.0055*	170 (150 — 190) *560 (500 — 620)*
P4	E/M/A/D	0,40 *0.40*	0,95 *0.95*	0,080 *0.0032*	0,095 *0.0038*	0,12 *0.0048*	0,14 *0.0055*	150 (130 — 170) *490 (430 — 550)*
P5	E/M/A/D	0,40 *0.40*	0,95 *0.95*	0,080 *0.0032*	0,095 *0.0038*	0,12 *0.0048*	0,14 *0.0055*	145 (130 — 160) *475 (430 — 520)*
P6	E/M/A/D	0,40 *0.40*	0,95 *0.95*	0,080 *0.0032*	0,095 *0.0038*	0,12 *0.0048*	0,13 *0.0050*	160 (140 — 180) *520 (460 — 590)*
P7	E/M/A/D	0,40 *0.40*	0,95 *0.95*	0,080 *0.0032*	0,095 *0.0038*	0,12 *0.0048*	0,13 *0.0050*	150 (140 — 170) *490 (460 — 550)*
P8	E/M/A/D	0,40 *0.40*	0,95 *0.95*	0,085 *0.0034*	0,10 *0.0040*	0,12 *0.0048*	0,14 *0.0055*	140 (130 — 160) *460 (430 — 520)*
P11	E/M/A/D	0,30 *0.30*	0,95 *0.95*	0,065 *0.0026*	0,075 *0.0030*	0,095 *0.0038*	0,11 *0.0044*	95 (84 — 100) *310 (280 — 320)*
P12	E/M/A/D	0,30 *0.30*	0,95 *0.95*	0,044 *0.0017*	0,055 *0.0022*	0,065 *0.0026*	0,075 *0.0030*	60 (54 — 68) *195 (180 — 220)*
M1	E/M/A	0,30 *0.30*	0,95 *0.95*	0,070 *0.0028*	0,085 *0.0034*	0,11 *0.0044*	0,12 *0.0048*	110 (97 — 120) *360 (320 — 390)*
M2	E/M/A	0,30 *0.30*	0,95 *0.95*	0,065 *0.0026*	0,075 *0.0030*	0,095 *0.0038*	0,11 *0.0044*	90 (80 — 100) *295 (270 — 320)*
M3	E/M/A	0,30 *0.30*	0,95 *0.95*	0,055 *0.0022*	0,065 *0.0026*	0,080 *0.0032*	0,090 *0.0036*	60 (47 — 70) *195 (160 — 220)*
M4	E/M/A	0,30 *0.30*	0,95 *0.95*	0,048 *0.0019*	0,055 *0.0022*	0,070 *0.0028*	0,080 *0.0032*	45 (37 — 54) *150 (130 — 170)*
M5	E/M/A	0,30 *0.30*	0,95 *0.95*	0,048 *0.0019*	0,055 *0.0022*	0,070 *0.0028*	0,080 *0.0032*	38 (31 — 45) *125 (110 — 140)*
K1	E/M/A/D	0,40 *0.40*	0,95 *0.95*	0,080 *0.0032*	0,095 *0.0038*	0,12 *0.0048*	0,14 *0.0055*	160 (160 — 190) *520 (530 — 620)*
K2	E/M/A/D	0,40 *0.40*	0,95 *0.95*	0,075 *0.0030*	0,090 *0.0036*	0,11 *0.0044*	0,13 *0.0050*	140 (140 — 170) *460 (460 — 550)*
K3	E/M/A/D	0,40 *0.40*	0,95 *0.95*	0,075 *0.0030*	0,090 *0.0036*	0,11 *0.0044*	0,13 *0.0050*	120 (120 — 140) *395 (400 — 450)*
K4	E/M/A/D	0,40 *0.40*	0,95 *0.95*	0,075 *0.0030*	0,090 *0.0036*	0,11 *0.0044*	0,13 *0.0050*	115 (110 — 130) *375 (370 — 420)*
K5	E/M/A/D	0,40 *0.40*	0,95 *0.95*	0,080 *0.0032*	0,095 *0.0038*	0,12 *0.0048*	0,14 *0.0055*	150 (130 — 170) *490 (430 — 550)*
K6	E/M/A/D	0,40 *0.40*	0,95 *0.95*	0,090 *0.0036*	0,11 *0.0044*	0,13 *0.0050*	0,15 *0.0060*	215 (190 — 240) *710 (630 — 780)*
K7	E/M/A/D	0,40 *0.40*	0,95 *0.95*	0,080 *0.0032*	0,095 *0.0038*	0,12 *0.0048*	0,14 *0.0055*	190 (170 — 210) *620 (560 — 680)*
N1	E/M/A	0,40 *0.40*	0,95 *0.95*	0,080 *0.0032*	0,095 *0.0038*	0,12 *0.0048*	0,14 *0.0055*	670 (560 — 770) *2200 (1900 — 2500)*
N2	E/M/A	0,40 *0.40*	0,95 *0.95*	0,080 *0.0032*	0,095 *0.0038*	0,12 *0.0048*	0,14 *0.0055*	430 (360 — 490) *1400 (1200 — 1600)*
N3	E/M/A	0,40 *0.40*	0,95 *0.95*	0,080 *0.0032*	0,095 *0.0038*	0,12 *0.0048*	0,14 *0.0055*	285 (240 — 330) *940 (790 — 1000)*
N11	E/M/A	0,40 *0.40*	0,95 *0.95*	0,080 *0.0032*	0,095 *0.0038*	0,12 *0.0048*	0,14 *0.0055*	335 (280 — 380) *1100 (920 — 1200)*
S1	E	0,15 *0.15*	0,95 *0.95*	0,090 *0.0036*	0,11 *0.0044*	0,13 *0.0050*	0,15 *0.0060*	43 (26 — 60) *140 (86 — 190)*
S2	E	0,15 *0.15*	0,95 *0.95*	0,090 *0.0036*	0,11 *0.0044*	0,13 *0.0050*	0,15 *0.0060*	35 (21 — 48) *115 (69 — 150)*
S3	E	0,15 *0.15*	0,95 *0.95*	0,085 *0.0034*	0,10 *0.0040*	0,12 *0.0048*	0,14 *0.0055*	30 (19 — 42) *100 (63 — 130)*
S11	E	0,40 *0.40*	0,95 *0.95*	0,060 *0.0024*	0,070 *0.0028*	0,090 *0.0036*	0,10 *0.0040*	105 (77 — 130) *345 (260 — 420)*
S12	E	0,40 *0.40*	0,95 *0.95*	0,060 *0.0024*	0,070 *0.0028*	0,090 *0.0036*	0,10 *0.0040*	80 (59 — 100) *260 (200 — 320)*
S13	E	0,40 *0.40*	0,95 *0.95*	0,055 *0.0022*	0,065 *0.0026*	0,080 *0.0032*	0,090 *0.0036*	65 (47 — 83) *215 (160 — 270)*
H5	M/A	0,050 *0.050*	0,95 *0.95*	0,090 *0.0036*	0,11 *0.0044*	0,13 *0.0050*	0,15 *0.0060*	75 (59 — 73) *245 (200 — 230)*
H8	M/A	0,050 *0.050*	0,95 *0.95*	0,070 *0.0028*	0,085 *0.0034*	0,10 *0.0040*	0,12 *0.0048*	75 (62 — 76) *245 (210 — 240)*
H21	M/A	0,050 *0.050*	0,95 *0.95*	0,070 *0.0028*	0,085 *0.0034*	0,10 *0.0040*	0,12 *0.0048*	75 (62 — 76) *245 (210 — 240)*
H31	M/A	0,050 *0.050*	0,95 *0.95*	0,060 *0.0024*	0,070 *0.0028*	0,090 *0.0036*	0,10 *0.0040*	60 (48 — 59) *195 (160 — 190)*
TS1	A/D	0,40 *0.40*	0,95 *0.95*	0,080 *0.0032*	0,095 *0.0038*	0,12 *0.0048*	0,14 *0.0055*	275 (170 — 380) *900 (560 — 1200)*
TP1	A/D	0,40 *0.40*	0,95 *0.95*	0,080 *0.0032*	0,095 *0.0038*	0,12 *0.0048*	0,14 *0.0055*	275 (170 — 380) *900 (560 — 1200)*
GR1	A/D	0,40 *0.40*	0,95 *0.95*	0,080 *0.0032*	0,095 *0.0038*	0,12 *0.0048*	0,14 *0.0055*	670 (560 — 770) *2200 (1900 — 2500)*

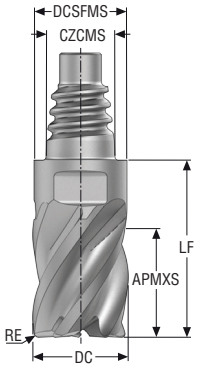
Cutting data – XSE550 – Slot milling PCEDC 4 inch

SMG		a_p/DC	f_z				v_c
			3/8	1/2	5/8	3/4	
P1	E/M/A/D	0,80 *0.80*	0,040 *0.0016*	0,048 *0.0019*	0,065 *0.0026*	0,080 *0.0032*	190 (170 — 210) *620 (560 — 680)*
P2	E/M/A/D	0,80 *0.80*	0,040 *0.0016*	0,048 *0.0019*	0,065 *0.0026*	0,080 *0.0032*	185 (160 — 210) *610 (530 — 680)*
P3	E/M/A/D	0,80 *0.80*	0,040 *0.0016*	0,048 *0.0019*	0,065 *0.0026*	0,080 *0.0032*	160 (140 — 180) *520 (460 — 590)*
P4	E/M/A/D	0,80 *0.80*	0,040 *0.0016*	0,048 *0.0019*	0,065 *0.0026*	0,080 *0.0032*	140 (120 — 150) *460 (400 — 490)*
P5	E/M/A/D	0,80 *0.80*	0,040 *0.0016*	0,048 *0.0019*	0,065 *0.0026*	0,080 *0.0032*	135 (120 — 150) *445 (400 — 490)*
P6	E/M/A/D	0,80 *0.80*	0,040 *0.0016*	0,048 *0.0019*	0,065 *0.0026*	0,080 *0.0032*	150 (130 — 170) *490 (430 — 550)*
P7	E/M/A/D	0,80 *0.80*	0,040 *0.0016*	0,048 *0.0019*	0,065 *0.0026*	0,080 *0.0032*	140 (130 — 160) *460 (430 — 520)*
P8	E/M/A/D	0,80 *0.80*	0,040 *0.0016*	0,048 *0.0019*	0,065 *0.0026*	0,080 *0.0032*	135 (120 — 150) *445 (400 — 490)*
P11	E/M/A/D	0,60 *0.60*	0,030 *0.0012*	0,036 *0.0014*	0,048 *0.0019*	0,060 *0.0024*	85 (74 — 94) *280 (250 — 300)*
P12	E/M/A/D	0,60 *0.60*	0,030 *0.0012*	0,036 *0.0014*	0,048 *0.0019*	0,060 *0.0024*	50 (44 — 55) *165 (150 — 180)*
M1	E/M/A	0,60 *0.60*	0,030 *0.0012*	0,036 *0.0014*	0,048 *0.0019*	0,060 *0.0024*	100 (87 — 110) *330 (290 — 360)*
M2	E/M/A	0,60 *0.60*	0,030 *0.0012*	0,036 *0.0014*	0,048 *0.0019*	0,060 *0.0024*	80 (70 — 90) *260 (230 — 290)*
M3	E/M/A	0,60 *0.60*	0,030 *0.0012*	0,036 *0.0014*	0,048 *0.0019*	0,060 *0.0024*	50 (40 — 60) *165 (140 — 190)*
M4	E/M/A	0,60 *0.60*	0,030 *0.0012*	0,036 *0.0014*	0,048 *0.0019*	0,060 *0.0024*	37 (30 — 45) *120 (99 — 140)*
M5	E/M/A	0,60 *0.60*	0,030 *0.0012*	0,036 *0.0014*	0,048 *0.0019*	0,060 *0.0024*	31 (25 — 37) *100 (83 — 120)*
K1	E/M/A/D	0,80 *0.80*	0,040 *0.0016*	0,048 *0.0019*	0,065 *0.0026*	0,080 *0.0032*	150 (150 — 180) *490 (500 — 590)*
K2	E/M/A/D	0,80 *0.80*	0,040 *0.0016*	0,048 *0.0019*	0,065 *0.0026*	0,080 *0.0032*	130 (130 — 150) *425 (430 — 490)*
K3	E/M/A/D	0,80 *0.80*	0,040 *0.0016*	0,048 *0.0019*	0,065 *0.0026*	0,080 *0.0032*	110 (110 — 130) *360 (370 — 420)*
K4	E/M/A/D	0,80 *0.80*	0,040 *0.0016*	0,048 *0.0019*	0,065 *0.0026*	0,080 *0.0032*	105 (99 — 120) *345 (330 — 390)*
K5	E/M/A/D	0,80 *0.80*	0,040 *0.0016*	0,048 *0.0019*	0,065 *0.0026*	0,080 *0.0032*	140 (120 — 160) *460 (400 — 520)*
K6	E/M/A/D	0,80 *0.80*	0,040 *0.0016*	0,048 *0.0019*	0,065 *0.0026*	0,080 *0.0032*	205 (180 — 230) *670 (600 — 750)*
K7	E/M/A/D	0,80 *0.80*	0,040 *0.0016*	0,048 *0.0019*	0,065 *0.0026*	0,080 *0.0032*	180 (160 — 200) *590 (530 — 650)*
N1	E/M/A	0,60 *0.60*	0,050 *0.0020*	0,060 *0.0024*	0,080 *0.0032*	0,10 *0.0040*	600 (510 — 700) *1975 (1700 — 2200)*
N2	E/M/A	0,60 *0.60*	0,050 *0.0020*	0,060 *0.0024*	0,080 *0.0032*	0,10 *0.0040*	385 (330 — 450) *1275 (1100 — 1400)*
N3	E/M/A	0,60 *0.60*	0,050 *0.0020*	0,060 *0.0024*	0,080 *0.0032*	0,10 *0.0040*	255 (220 — 300) *840 (730 — 980)*
N11	E/M/A	0,60 *0.60*	0,050 *0.0020*	0,060 *0.0024*	0,080 *0.0032*	0,10 *0.0040*	300 (250 — 350) *980 (830 — 1100)*
S1	E	0,30 *0.30*	0,030 *0.0012*	0,036 *0.0014*	0,048 *0.0019*	0,060 *0.0024*	36 (22 — 50) *120 (73 — 160)*
S2	E	0,30 *0.30*	0,030 *0.0012*	0,036 *0.0014*	0,048 *0.0019*	0,060 *0.0024*	29 (18 — 40) *95 (60 — 130)*
S3	E	0,30 *0.30*	0,030 *0.0012*	0,036 *0.0014*	0,048 *0.0019*	0,060 *0.0024*	25 (15 — 34) *80 (50 — 110)*
S11	E	0,50 *0.50*	0,050 *0.0020*	0,060 *0.0024*	0,080 *0.0032*	0,10 *0.0040*	90 (65 — 110) *295 (220 — 360)*
S12	E	0,50 *0.50*	0,050 *0.0020*	0,060 *0.0024*	0,080 *0.0032*	0,10 *0.0040*	70 (50 — 90) *230 (170 — 290)*
S13	E	0,50 *0.50*	0,050 *0.0020*	0,060 *0.0024*	0,075 *0.0030*	0,090 *0.0036*	55 (39 — 69) *180 (130 — 220)*
H5	M/A	0,26 *0.26*	0,025 *0.0010*	0,030 *0.0012*	0,040 *0.0016*	0,050 *0.0020*	50 (41 — 50) *165 (140 — 160)*
H8	M/A	0,26 *0.26*	0,025 *0.0010*	0,030 *0.0012*	0,040 *0.0016*	0,050 *0.0020*	50 (41 — 50) *165 (140 — 160)*
H21	M/A	0,26 *0.26*	0,025 *0.0010*	0,030 *0.0012*	0,040 *0.0016*	0,050 *0.0020*	50 (41 — 50) *165 (140 — 160)*
H31	M/A	0,26 *0.26*	0,025 *0.0010*	0,030 *0.0012*	0,038 *0.0015*	0,044 *0.0017*	38 (31 — 38) *125 (110 — 120)*
TS1	A/D	0,60 *0.60*	0,050 *0.0020*	0,060 *0.0024*	0,080 *0.0032*	0,10 *0.0040*	250 (150 — 340) *820 (500 — 1100)*
TP1	A/D	0,60 *0.60*	0,050 *0.0020*	0,060 *0.0024*	0,080 *0.0032*	0,10 *0.0040*	250 (150 — 340) *820 (500 — 1100)*
GR1	A/D	0,60 *0.60*	0,050 *0.0020*	0,060 *0.0024*	0,080 *0.0032*	0,10 *0.0040*	600 (510 — 700) *1975 (1700 — 2200)*

XSE550

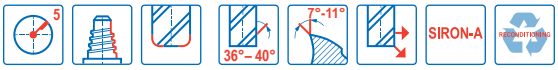
High performance – Universal – Square – 5 Flutes – Corner radius





D

- Tolerances:
- DC= 0/-0,0508 mm
- RE= ±0,0254 mm
- Regrind possible if DC is ≥Ø12 mm

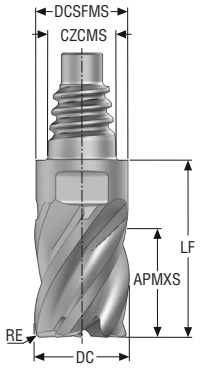


Designation	Item number	Length index	Tool shape	CZCMS	DC	DCSFMS	APMXS	LF	RE	PCEDC	SW	Grade
					mm	mm	mm	mm	mm			SIRA
XSE550E10100D2R050Z5	10138337	2	D	E10	10,0	9,7	12,0	18,7	0,5	5	8	■
XSE550E10100D2R100Z5	10138338	2	D	E10	10,0	9,7	12,0	18,7	1,0	5	8	■
XSE550E12120D2R050Z5	10138339	2	D	E12	12,0	11,7	14,4	22,1	0,5	5	10	■
XSE550E12120D2R100Z5	10138340	2	D	E12	12,0	11,7	14,4	22,1	1,0	5	10	■
XSE550E16160D2R050Z5	10138341	2	D	E16	16,0	15,5	19,2	29,2	0,5	5	12	■
XSE550E16160D2R100Z5	10138342	2	D	E16	16,0	15,5	19,2	29,2	1,0	5	12	■
XSE550E20200D2R050Z5	10138343	2	D	E20	20,0	19,3	24,0	34,3	0,5	5	16	■
XSE550E20200D2R100Z5	10138344	2	D	E20	20,0	19,3	24,0	34,3	1,0	5	16	■

■ Stocked standard.

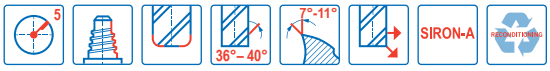
XSE550

High performance – Universal – Square – 5 Flutes – Corner radius – *Inch*



D





- Tolerances:
- DC= 0/-.002 Inch
- RE= ±.001 Inch
- Regrind possible if DC is ≥Ø.500 Inch

Designation	Item number	Length index	Tool shape	CZCMS	DC	DCSFMS	APMXS	LF	RE	PCEDC	SW	Grade
					Inch	*Inch*	*Inch*	*Inch*	*Inch*			SIRA
XSE550E10.375D2R015Z5	10138345	2	D	E10	0.375	0.364	0.450	0.720	0.015	5	8	■
XSE550E10.375D2R030Z5	10138346	2	D	E10	0.375	0.364	0.450	0.720	0.030	5	8	■
XSE550E10.375D2R045Z5	10138347	2	D	E10	0.375	0.364	0.450	0.720	0.044	5	8	■
XSE550E12.500D2R030Z5	10138348	2	D	E12	0.500	0.484	0.600	0.906	0.030	5	10	■
XSE550E12.500D2R060Z5	10138349	2	D	E12	0.500	0.484	0.600	0.906	0.060	5	10	■
XSE550E12.500D2R120Z5	10138350	2	D	E12	0.500	0.484	0.600	0.906	0.120	5	10	■
XSE550E16.625D2R030Z5	10138351	2	D	E16	0.625	0.610	0.750	1.150	0.030	5	12	■
XSE550E16.625D2R060Z5	10138352	2	D	E16	0.625	0.610	0.750	1.150	0.060	5	12	■
XSE550E16.625D2R120Z5	10138353	2	D	E16	0.625	0.610	0.750	1.150	0.120	5	12	■
XSE550E20.750D2R030Z5	10138354	2	D	E20	0.750	0.728	0.900	1.295	0.030	5	16	■
XSE550E20.750D2R060Z5	10138355	2	D	E20	0.750	0.728	0.900	1.295	0.060	5	16	■
XSE550E20.750D2R120Z5	10138356	2	D	E20	0.750	0.728	0.900	1.295	0.120	5	16	■
XSE550E251.00D2R030Z5	10138357	2	D	E25	1.000	0.965	1.200	1.673	0.030	5	20	■
XSE550E251.00D2R060Z5	10138358	2	D	E25	1.000	0.965	1.200	1.673	0.060	5	20	■
XSE550E251.00D2R120Z5	10138359	2	D	E25	1.000	0.965	1.200	1.673	0.120	5	20	■

■ Stocked standard.

Cutting data – XSE550 – Side milling PCEDC 5

SMG		a_e/DC	a_p/DC	f_z					v_c
				10	12	16	20	25	
P1	E/M/A/D	0,30 *0.30*	0,95 *0.95*	0,080 *0.0032*	0,095 *0.0038*	0,12 *0.0048*	0,14 *0.0055*	0,15 *0.0060*	165 (130 — 190) *540 (430 — 620)*
P2	E/M/A/D	0,30 *0.30*	0,95 *0.95*	0,080 *0.0032*	0,095 *0.0038*	0,12 *0.0048*	0,14 *0.0055*	0,16 *0.0065*	160 (130 — 190) *520 (430 — 620)*
P3	E/M/A/D	0,30 *0.30*	0,95 *0.95*	0,075 *0.0030*	0,090 *0.0036*	0,11 *0.0044*	0,13 *0.0050*	0,15 *0.0060*	140 (110 — 160) *460 (370 — 520)*
P4	E/M/A/D	0,30 *0.30*	0,95 *0.95*	0,075 *0.0030*	0,090 *0.0036*	0,11 *0.0044*	0,13 *0.0050*	0,14 *0.0055*	125 (97 — 140) *410 (320 — 450)*
P5	E/M/A/D	0,30 *0.30*	0,95 *0.95*	0,075 *0.0030*	0,090 *0.0036*	0,11 *0.0044*	0,13 *0.0050*	0,14 *0.0055*	110 (97 — 130) *360 (320 — 420)*
P6	E/M/A/D	0,30 *0.30*	0,95 *0.95*	0,075 *0.0030*	0,085 *0.0034*	0,11 *0.0044*	0,12 *0.0048*	0,14 *0.0055*	125 (110 — 150) *410 (370 — 490)*
P7	E/M/A/D	0,30 *0.30*	0,95 *0.95*	0,075 *0.0030*	0,085 *0.0034*	0,11 *0.0044*	0,12 *0.0048*	0,14 *0.0055*	120 (110 — 140) *395 (370 — 450)*
P8	E/M/A/D	0,30 *0.30*	0,95 *0.95*	0,075 *0.0030*	0,090 *0.0036*	0,11 *0.0044*	0,13 *0.0050*	0,15 *0.0060*	110 (97 — 130) *360 (320 — 420)*
P11	E/M/A/D	0,20 *0.20*	0,95 *0.95*	0,060 *0.0024*	0,070 *0.0028*	0,090 *0.0036*	0,10 *0.0040*	0,12 *0.0048*	100 (89 — 110) *330 (300 — 360)*
P12	E/M/A/D	0,20 *0.20*	0,95 *0.95*	0,042 *0.0017*	0,050 *0.0020*	0,060 *0.0024*	0,070 *0.0028*	0,080 *0.0032*	65 (56 — 71) *215 (190 — 230)*
M1	E/M/A	0,20 *0.20*	0,95 *0.95*	0,070 *0.0028*	0,080 *0.0032*	0,10 *0.0040*	0,12 *0.0048*	0,13 *0.0050*	115 (110 — 120) *375 (370 — 390)*
M2	E/M/A	0,20 *0.20*	0,95 *0.95*	0,060 *0.0024*	0,075 *0.0030*	0,090 *0.0036*	0,10 *0.0040*	0,12 *0.0048*	95 (84 — 100) *310 (280 — 320)*
M3	E/M/A	0,20 *0.20*	0,95 *0.95*	0,060 *0.0024*	0,075 *0.0030*	0,090 *0.0036*	0,10 *0.0040*	0,12 *0.0048*	60 (47 — 69) *195 (160 — 220)*
M4	E/M/A	0,20 *0.20*	0,95 *0.95*	0,055 *0.0022*	0,065 *0.0026*	0,080 *0.0032*	0,090 *0.0036*	0,10 *0.0040*	44 (36 — 53) *145 (120 — 170)*
M5	E/M/A	0,20 *0.20*	0,95 *0.95*	0,055 *0.0022*	0,065 *0.0026*	0,080 *0.0032*	0,090 *0.0036*	0,10 *0.0040*	37 (30 — 44) *120 (99 — 140)*
K1	E/M/A/D	0,30 *0.30*	0,95 *0.95*	0,065 *0.0026*	0,075 *0.0030*	0,095 *0.0038*	0,11 *0.0044*	0,12 *0.0048*	130 (120 — 150) *425 (400 — 490)*
K2	E/M/A/D	0,30 *0.30*	0,95 *0.95*	0,060 *0.0024*	0,070 *0.0028*	0,085 *0.0034*	0,10 *0.0040*	0,11 *0.0044*	115 (98 — 130) *375 (330 — 420)*
K3	E/M/A/D	0,30 *0.30*	0,95 *0.95*	0,060 *0.0024*	0,070 *0.0028*	0,085 *0.0034*	0,10 *0.0040*	0,11 *0.0044*	100 (83 — 110) *330 (280 — 360)*
K4	E/M/A/D	0,30 *0.30*	0,95 *0.95*	0,060 *0.0024*	0,070 *0.0028*	0,085 *0.0034*	0,10 *0.0040*	0,11 *0.0044*	95 (79 — 100) *310 (260 — 320)*
K5	E/M/A/D	0,30 *0.30*	0,95 *0.95*	0,065 *0.0026*	0,075 *0.0030*	0,095 *0.0038*	0,11 *0.0044*	0,12 *0.0048*	105 (89 — 130) *345 (300 — 420)*
K6	E/M/A/D	0,30 *0.30*	0,95 *0.95*	0,070 *0.0028*	0,085 *0.0034*	0,11 *0.0044*	0,12 *0.0048*	0,14 *0.0055*	155 (130 — 190) *510 (430 — 620)*
K7	E/M/A/D	0,30 *0.30*	0,95 *0.95*	0,065 *0.0026*	0,075 *0.0030*	0,095 *0.0038*	0,11 *0.0044*	0,12 *0.0048*	135 (120 — 160) *445 (400 — 520)*
N1	E/M/A	0,30 *0.30*	0,95 *0.95*	0,065 *0.0026*	0,075 *0.0030*	0,095 *0.0038*	0,11 *0.0044*	0,12 *0.0048*	690 (580 — 800) *2275 (2000 — 2600)*
N2	E/M/A	0,30 *0.30*	0,95 *0.95*	0,065 *0.0026*	0,075 *0.0030*	0,095 *0.0038*	0,11 *0.0044*	0,12 *0.0048*	445 (380 — 520) *1450 (1300 — 1700)*
N3	E/M/A	0,30 *0.30*	0,95 *0.95*	0,065 *0.0026*	0,075 *0.0030*	0,095 *0.0038*	0,11 *0.0044*	0,12 *0.0048*	300 (250 — 340) *980 (830 — 1100)*
N11	E/M/A	0,30 *0.30*	0,95 *0.95*	0,065 *0.0026*	0,075 *0.0030*	0,095 *0.0038*	0,11 *0.0044*	0,12 *0.0048*	345 (290 — 400) *1125 (960 — 1300)*
S1	E	0,15 *0.15*	0,95 *0.95*	0,075 *0.0030*	0,090 *0.0036*	0,11 *0.0044*	0,13 *0.0050*	0,14 *0.0055*	27 (24 — 41) *90 (79 — 130)*
S2	E	0,15 *0.15*	0,95 *0.95*	0,075 *0.0030*	0,090 *0.0036*	0,11 *0.0044*	0,13 *0.0050*	0,14 *0.0055*	26 (21 — 35) *85 (69 — 110)*
S3	E	0,15 *0.15*	0,95 *0.95*	0,070 *0.0028*	0,080 *0.0032*	0,10 *0.0040*	0,12 *0.0048*	0,13 *0.0050*	25 (19 — 30) *80 (63 — 98)*
S11	E	0,30 *0.30*	0,95 *0.95*	0,055 *0.0022*	0,065 *0.0026*	0,080 *0.0032*	0,090 *0.0036*	0,10 *0.0040*	65 (52 — 88) *215 (180 — 280)*
S12	E	0,30 *0.30*	0,95 *0.95*	0,055 *0.0022*	0,065 *0.0026*	0,080 *0.0032*	0,090 *0.0036*	0,10 *0.0040*	50 (40 — 68) *165 (140 — 220)*
S13	E	0,30 *0.30*	0,95 *0.95*	0,048 *0.0019*	0,055 *0.0022*	0,070 *0.0028*	0,080 *0.0032*	0,090 *0.0036*	41 (32 — 54) *135 (110 — 170)*
H5	M/A	0,050 *0.050*	0,95 *0.95*	0,090 *0.0036*	0,10 *0.0040*	0,13 *0.0050*	0,15 *0.0060*	0,17 *0.0065*	70 (56 — 83) *230 (190 — 270)*
H8	M/A	0,050 *0.050*	0,95 *0.95*	0,070 *0.0028*	0,080 *0.0032*	0,10 *0.0040*	0,11 *0.0044*	0,13 *0.0050*	70 (58 — 86) *230 (200 — 280)*
H21	M/A	0,050 *0.050*	0,95 *0.95*	0,070 *0.0028*	0,080 *0.0032*	0,10 *0.0040*	0,11 *0.0044*	0,13 *0.0050*	70 (58 — 86) *230 (200 — 280)*
H31	M/A	0,050 *0.050*	0,95 *0.95*	0,060 *0.0024*	0,070 *0.0028*	0,085 *0.0034*	0,10 *0.0040*	0,11 *0.0044*	55 (45 — 67) *180 (150 — 210)*
TS1	A/D	0,30 *0.30*	0,95 *0.95*	0,065 *0.0026*	0,075 *0.0030*	0,095 *0.0038*	0,11 *0.0044*	0,12 *0.0048*	290 (180 — 400) *950 (600 — 1300)*
TP1	A/D	0,30 *0.30*	0,95 *0.95*	0,065 *0.0026*	0,075 *0.0030*	0,095 *0.0038*	0,11 *0.0044*	0,12 *0.0048*	290 (180 — 400) *950 (600 — 1300)*
GR1	A/D	0,30 *0.30*	0,95 *0.95*	0,065 *0.0026*	0,075 *0.0030*	0,095 *0.0038*	0,11 *0.0044*	0,12 *0.0048*	520 (470 — 630) *1700 (1600 — 2000)*

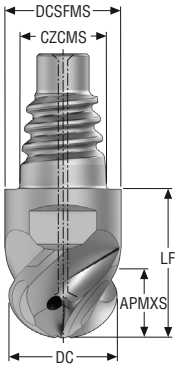
Cutting data – XSE550 – Side milling PCEDC 5 inch

SMG		a_e/DC	a_p/DC	f_z					v_c
				3/8	1/2	5/8	3/4	1	
P1	E/M/A/D	0,30 *0.30*	0,95 *0.95*	0,080 *0.0032*	0,095 *0.0038*	0,12 *0.0048*	0,14 *0.0055*	0,15 *0.0060*	200 (180 — 220) *660 (600 — 720)*
P2	E/M/A/D	0,30 *0.30*	0,95 *0.95*	0,080 *0.0032*	0,095 *0.0038*	0,12 *0.0048*	0,14 *0.0055*	0,16 *0.0065*	195 (170 — 220) *640 (560 — 720)*
P3	E/M/A/D	0,30 *0.30*	0,95 *0.95*	0,075 *0.0030*	0,090 *0.0036*	0,11 *0.0044*	0,13 *0.0050*	0,15 *0.0060*	170 (150 — 190) *560 (500 — 620)*
P4	E/M/A/D	0,30 *0.30*	0,95 *0.95*	0,075 *0.0030*	0,090 *0.0036*	0,11 *0.0044*	0,13 *0.0050*	0,14 *0.0055*	150 (130 — 170) *490 (430 — 550)*
P5	E/M/A/D	0,30 *0.30*	0,95 *0.95*	0,075 *0.0030*	0,090 *0.0036*	0,11 *0.0044*	0,13 *0.0050*	0,14 *0.0055*	145 (130 — 160) *475 (430 — 520)*
P6	E/M/A/D	0,30 *0.30*	0,95 *0.95*	0,075 *0.0030*	0,085 *0.0034*	0,11 *0.0044*	0,12 *0.0048*	0,14 *0.0055*	160 (140 — 180) *520 (460 — 590)*
P7	E/M/A/D	0,30 *0.30*	0,95 *0.95*	0,075 *0.0030*	0,085 *0.0034*	0,11 *0.0044*	0,12 *0.0048*	0,14 *0.0055*	150 (130 — 170) *490 (430 — 550)*
P8	E/M/A/D	0,30 *0.30*	0,95 *0.95*	0,075 *0.0030*	0,090 *0.0036*	0,11 *0.0044*	0,13 *0.0050*	0,15 *0.0060*	145 (130 — 160) *475 (430 — 520)*
P11	E/M/A/D	0,20 *0.20*	0,95 *0.95*	0,060 *0.0024*	0,070 *0.0028*	0,090 *0.0036*	0,10 *0.0040*	0,12 *0.0048*	100 (89 — 110) *330 (300 — 360)*
P12	E/M/A/D	0,20 *0.20*	0,95 *0.95*	0,042 *0.0017*	0,050 *0.0020*	0,060 *0.0024*	0,070 *0.0028*	0,080 *0.0032*	65 (56 — 71) *215 (190 — 230)*
M1	E/M/A	0,20 *0.20*	0,95 *0.95*	0,070 *0.0028*	0,080 *0.0032*	0,10 *0.0040*	0,12 *0.0048*	0,13 *0.0050*	115 (110 — 120) *375 (370 — 390)*
M2	E/M/A	0,20 *0.20*	0,95 *0.95*	0,060 *0.0024*	0,075 *0.0030*	0,090 *0.0036*	0,10 *0.0040*	0,12 *0.0048*	95 (84 — 100) *310 (280 — 320)*
M3	E/M/A	0,20 *0.20*	0,95 *0.95*	0,060 *0.0024*	0,075 *0.0030*	0,090 *0.0036*	0,10 *0.0040*	0,12 *0.0048*	60 (47 — 69) *195 (160 — 220)*
M4	E/M/A	0,20 *0.20*	0,95 *0.95*	0,055 *0.0022*	0,065 *0.0026*	0,080 *0.0032*	0,090 *0.0036*	0,10 *0.0040*	44 (36 — 53) *145 (120 — 170)*
M5	E/M/A	0,20 *0.20*	0,95 *0.95*	0,055 *0.0022*	0,065 *0.0026*	0,080 *0.0032*	0,090 *0.0036*	0,10 *0.0040*	37 (30 — 44) *120 (99 — 140)*
K1	E/M/A/D	0,30 *0.30*	0,95 *0.95*	0,065 *0.0026*	0,075 *0.0030*	0,095 *0.0038*	0,11 *0.0044*	0,12 *0.0048*	165 (160 — 190) *540 (530 — 620)*
K2	E/M/A/D	0,30 *0.30*	0,95 *0.95*	0,060 *0.0024*	0,070 *0.0028*	0,085 *0.0034*	0,10 *0.0040*	0,11 *0.0044*	145 (140 — 170) *475 (460 — 550)*
K3	E/M/A/D	0,30 *0.30*	0,95 *0.95*	0,060 *0.0024*	0,070 *0.0028*	0,085 *0.0034*	0,10 *0.0040*	0,11 *0.0044*	125 (120 — 140) *410 (400 — 450)*
K4	E/M/A/D	0,30 *0.30*	0,95 *0.95*	0,060 *0.0024*	0,070 *0.0028*	0,085 *0.0034*	0,10 *0.0040*	0,11 *0.0044*	120 (110 — 140) *395 (370 — 450)*
K5	E/M/A/D	0,30 *0.30*	0,95 *0.95*	0,065 *0.0026*	0,075 *0.0030*	0,095 *0.0038*	0,11 *0.0044*	0,12 *0.0048*	155 (140 — 170) *510 (460 — 550)*
K6	E/M/A/D	0,30 *0.30*	0,95 *0.95*	0,070 *0.0028*	0,085 *0.0034*	0,11 *0.0044*	0,12 *0.0048*	0,14 *0.0055*	225 (200 — 250) *740 (660 — 820)*
K7	E/M/A/D	0,30 *0.30*	0,95 *0.95*	0,065 *0.0026*	0,075 *0.0030*	0,095 *0.0038*	0,11 *0.0044*	0,12 *0.0048*	200 (170 — 220) *660 (560 — 720)*
N1	E/M/A	0,30 *0.30*	0,95 *0.95*	0,065 *0.0026*	0,075 *0.0030*	0,095 *0.0038*	0,11 *0.0044*	0,12 *0.0048*	690 (580 — 800) *2275 (2000 — 2600)*
N2	E/M/A	0,30 *0.30*	0,95 *0.95*	0,065 *0.0026*	0,075 *0.0030*	0,095 *0.0038*	0,11 *0.0044*	0,12 *0.0048*	445 (380 — 520) *1450 (1300 — 1700)*
N3	E/M/A	0,30 *0.30*	0,95 *0.95*	0,065 *0.0026*	0,075 *0.0030*	0,095 *0.0038*	0,11 *0.0044*	0,12 *0.0048*	300 (250 — 340) *980 (830 — 1100)*
N11	E/M/A	0,30 *0.30*	0,95 *0.95*	0,065 *0.0026*	0,075 *0.0030*	0,095 *0.0038*	0,11 *0.0044*	0,12 *0.0048*	345 (290 — 400) *1125 (960 — 1300)*
S1	E	0,15 *0.15*	0,95 *0.95*	0,075 *0.0030*	0,090 *0.0036*	0,11 *0.0044*	0,13 *0.0050*	0,14 *0.0055*	44 (27 — 61) *145 (89 — 200)*
S2	E	0,15 *0.15*	0,95 *0.95*	0,075 *0.0030*	0,090 *0.0036*	0,11 *0.0044*	0,13 *0.0050*	0,14 *0.0055*	35 (22 — 49) *115 (73 — 160)*
S3	E	0,15 *0.15*	0,95 *0.95*	0,070 *0.0028*	0,080 *0.0032*	0,10 *0.0040*	0,12 *0.0048*	0,13 *0.0050*	31 (19 — 43) *100 (63 — 140)*
S11	E	0,30 *0.30*	0,95 *0.95*	0,055 *0.0022*	0,065 *0.0026*	0,080 *0.0032*	0,090 *0.0036*	0,10 *0.0040*	105 (75 — 130) *345 (250 — 420)*
S12	E	0,30 *0.30*	0,95 *0.95*	0,055 *0.0022*	0,065 *0.0026*	0,080 *0.0032*	0,090 *0.0036*	0,10 *0.0040*	80 (58 — 100) *260 (200 — 320)*
S13	E	0,30 *0.30*	0,95 *0.95*	0,048 *0.0019*	0,055 *0.0022*	0,070 *0.0028*	0,080 *0.0032*	0,090 *0.0036*	65 (46 — 81) *215 (160 — 260)*
H5	M/A	0,050 *0.050*	0,95 *0.95*	0,090 *0.0036*	0,10 *0.0040*	0,13 *0.0050*	0,15 *0.0060*	0,17 *0.0065*	70 (56 — 83) *230 (190 — 270)*
H8	M/A	0,050 *0.050*	0,95 *0.95*	0,070 *0.0028*	0,080 *0.0032*	0,10 *0.0040*	0,11 *0.0044*	0,13 *0.0050*	70 (58 — 86) *230 (200 — 280)*
H21	M/A	0,050 *0.050*	0,95 *0.95*	0,070 *0.0028*	0,080 *0.0032*	0,10 *0.0040*	0,11 *0.0044*	0,13 *0.0050*	70 (58 — 86) *230 (200 — 280)*
H31	M/A	0,050 *0.050*	0,95 *0.95*	0,060 *0.0024*	0,070 *0.0028*	0,085 *0.0034*	0,10 *0.0040*	0,11 *0.0044*	55 (45 — 67) *180 (150 — 210)*
TS1	A/D	0,30 *0.30*	0,95 *0.95*	0,065 *0.0026*	0,075 *0.0030*	0,095 *0.0038*	0,11 *0.0044*	0,12 *0.0048*	290 (180 — 400) *950 (600 — 1300)*
TP1	A/D	0,30 *0.30*	0,95 *0.95*	0,065 *0.0026*	0,075 *0.0030*	0,095 *0.0038*	0,11 *0.0044*	0,12 *0.0048*	290 (180 — 400) *950 (600 — 1300)*
GR1	A/D	0,30 *0.30*	0,95 *0.95*	0,065 *0.0026*	0,075 *0.0030*	0,095 *0.0038*	0,11 *0.0044*	0,12 *0.0048*	690 (580 — 800) *2275 (2000 — 2600)*

XSB540

High performance – Universal – Ball nose – 4 Flutes – ICC





D

- Tolerances:
- DC= e8
- RE= ±0,02 mm
- Regrind possible if DC is ≥Ø12 mm



Designation	Item number	Length index	Tool shape	CSP	CZCMS	DC	DCSFMS	APMXS	LF	PCEDC	SW	Grade
						mm	mm	mm	mm			SIRA
XSB540E10100D1BZ4A	10138334	1	D	✓	E10	10,0	9,7	5,5	12,3	4	8	■
XSB540E12120D1BZ4A	10138335	1	D	✓	E12	12,0	11,7	6,6	14,4	4	10	■
XSB540E16160D1BZ4A	10138336	1	D	✓	E16	16,0	15,5	8,8	18,6	4	12	■

■ Stocked standard.

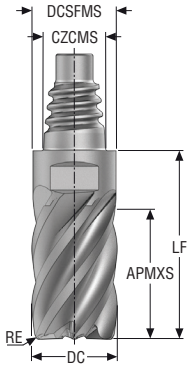
Cutting data – XSB540 Copy milling roughing

SMG		a_e/DC	a_p/DC	f_z			v_c
				10	12	16	
P1	E/M/A/D	0,10 *0.10*	0,50 *0.50*	0,055 *0.0022*	0,065 *0.0026*	0,080 *0.0032*	210 (190 — 240) *690 (630 — 780)*
P2	E/M/A/D	0,10 *0.10*	0,50 *0.50*	0,055 *0.0022*	0,065 *0.0026*	0,080 *0.0032*	205 (180 — 230) *670 (600 — 750)*
P3	E/M/A/D	0,10 *0.10*	0,50 *0.50*	0,050 *0.0020*	0,060 *0.0024*	0,075 *0.0030*	180 (160 — 200) *590 (530 — 650)*
P4	E/M/A/D	0,10 *0.10*	0,50 *0.50*	0,050 *0.0020*	0,060 *0.0024*	0,075 *0.0030*	155 (140 — 170) *510 (460 — 550)*
P5	E/M/A/D	0,10 *0.10*	0,50 *0.50*	0,050 *0.0020*	0,060 *0.0024*	0,075 *0.0030*	150 (130 — 170) *490 (430 — 550)*
P6	E/M/A/D	0,10 *0.10*	0,50 *0.50*	0,050 *0.0020*	0,060 *0.0024*	0,075 *0.0030*	170 (150 — 190) *560 (500 — 620)*
P7	E/M/A/D	0,10 *0.10*	0,50 *0.50*	0,050 *0.0020*	0,060 *0.0024*	0,075 *0.0030*	160 (140 — 180) *520 (460 — 590)*
P8	E/M/A/D	0,10 *0.10*	0,50 *0.50*	0,050 *0.0020*	0,060 *0.0024*	0,075 *0.0030*	150 (130 — 170) *490 (430 — 550)*
P11	E/M/A/D	0,10 *0.10*	0,50 *0.50*	0,070 *0.0028*	0,085 *0.0034*	0,11 *0.0044*	190 (160 — 220) *620 (530 — 720)*
P12	E/M/A/D	0,10 *0.10*	0,50 *0.50*	0,050 *0.0020*	0,060 *0.0024*	0,075 *0.0030*	115 (97 — 130) *375 (320 — 420)*
M1	E/M/A	0,10 *0.10*	0,50 *0.50*	0,055 *0.0022*	0,065 *0.0026*	0,080 *0.0032*	145 (120 — 170) *475 (400 — 550)*
M2	E/M/A	0,10 *0.10*	0,50 *0.50*	0,050 *0.0020*	0,060 *0.0024*	0,075 *0.0030*	115 (97 — 130) *375 (320 — 420)*
M3	E/M/A	0,10 *0.10*	0,50 *0.50*	0,040 *0.0016*	0,048 *0.0019*	0,060 *0.0024*	95 (75 — 110) *310 (250 — 360)*
M4	E/M/A	0,10 *0.10*	0,50 *0.50*	0,036 *0.0014*	0,042 *0.0017*	0,050 *0.0020*	75 (57 — 88) *245 (190 — 280)*
M5	E/M/A	0,10 *0.10*	0,50 *0.50*	0,036 *0.0014*	0,042 *0.0017*	0,050 *0.0020*	60 (48 — 74) *195 (160 — 240)*
K1	E/M/A/D	0,15 *0.15*	0,50 *0.50*	0,040 *0.0016*	0,048 *0.0019*	0,060 *0.0024*	205 (190 — 220) *670 (630 — 720)*
K2	E/M/A/D	0,15 *0.15*	0,50 *0.50*	0,036 *0.0014*	0,044 *0.0017*	0,055 *0.0022*	180 (160 — 190) *590 (530 — 620)*
K3	E/M/A/D	0,15 *0.15*	0,50 *0.50*	0,036 *0.0014*	0,044 *0.0017*	0,055 *0.0022*	150 (140 — 160) *490 (460 — 520)*
K4	E/M/A/D	0,10 *0.10*	0,50 *0.50*	0,040 *0.0016*	0,048 *0.0019*	0,060 *0.0024*	170 (150 — 190) *560 (500 — 620)*
K5	E/M/A/D	0,10 *0.10*	0,50 *0.50*	0,036 *0.0014*	0,042 *0.0017*	0,055 *0.0022*	105 (90 — 110) *345 (300 — 360)*
K6	E/M/A/D	0,10 *0.10*	0,50 *0.50*	0,040 *0.0016*	0,048 *0.0019*	0,060 *0.0024*	150 (140 — 160) *490 (460 — 520)*
K7	E/M/A/D	0,10 *0.10*	0,50 *0.50*	0,036 *0.0014*	0,042 *0.0017*	0,055 *0.0022*	130 (120 — 140) *425 (400 — 450)*
N1	E/M/A	0,20 *0.20*	0,50 *0.50*	0,070 *0.0028*	0,085 *0.0034*	0,10 *0.0040*	640 (540 — 740) *2100 (1800 — 2400)*
N2	E/M/A	0,20 *0.20*	0,50 *0.50*	0,070 *0.0028*	0,085 *0.0034*	0,10 *0.0040*	415 (350 — 480) *1350 (1200 — 1500)*
N3	E/M/A	0,20 *0.20*	0,50 *0.50*	0,070 *0.0028*	0,085 *0.0034*	0,10 *0.0040*	275 (230 — 320) *900 (760 — 1000)*
N11	E/M/A	0,15 *0.15*	0,50 *0.50*	0,070 *0.0028*	0,085 *0.0034*	0,10 *0.0040*	430 (380 — 480) *1400 (1300 — 1500)*
S1	E	0,10 *0.10*	0,50 *0.50*	0,050 *0.0020*	0,060 *0.0024*	0,075 *0.0030*	65 (54 — 74) *215 (180 — 240)*
S2	E	0,10 *0.10*	0,50 *0.50*	0,050 *0.0020*	0,060 *0.0024*	0,075 *0.0030*	65 (59 — 75) *215 (200 — 240)*
S3	E	0,10 *0.10*	0,50 *0.50*	0,020 *0.00080*	0,024 *0.00095*	0,030 *0.0012*	32 (22 — 42) *105 (73 — 130)*
S11	E	0,15 *0.15*	0,50 *0.50*	0,050 *0.0020*	0,060 *0.0024*	0,075 *0.0030*	110 (98 — 120) *360 (330 — 390)*
S12	E	0,15 *0.15*	0,50 *0.50*	0,050 *0.0020*	0,060 *0.0024*	0,075 *0.0030*	85 (75 — 96) *280 (250 — 310)*
S13	E	0,15 *0.15*	0,50 *0.50*	0,044 *0.0017*	0,050 *0.0020*	0,065 *0.0026*	65 (59 — 75) *215 (200 — 240)*
H5	M/A	0,030 *0.030*	0,44 *0.44*	0,050 *0.0020*	0,060 *0.0024*	0,075 *0.0030*	135 (120 — 150) *445 (400 — 490)*
H8	M/A	0,030 *0.030*	0,44 *0.44*	0,038 *0.0015*	0,046 *0.0018*	0,055 *0.0022*	135 (120 — 150) *445 (400 — 490)*
H21	M/A	0,030 *0.030*	0,44 *0.44*	0,038 *0.0015*	0,046 *0.0018*	0,055 *0.0022*	135 (120 — 150) *445 (400 — 490)*
H31	M/A	0,030 *0.030*	0,44 *0.44*	0,034 *0.0013*	0,040 *0.0016*	0,048 *0.0019*	100 (86 — 110) *330 (290 — 360)*
TS1	A/D	0,15 *0.15*	0,50 *0.50*	0,10 *0.0040*	0,12 *0.0048*	0,15 *0.0060*	270 (170 — 370) *890 (560 — 1200)*
TP1	A/D	0,15 *0.15*	0,50 *0.50*	0,10 *0.0040*	0,12 *0.0048*	0,15 *0.0060*	270 (170 — 370) *890 (560 — 1200)*
GR1	A/D	0,15 *0.15*	0,50 *0.50*	0,10 *0.0040*	0,12 *0.0048*	0,15 *0.0060*	640 (540 — 740) *2100 (1800 — 2400)*

XSE720

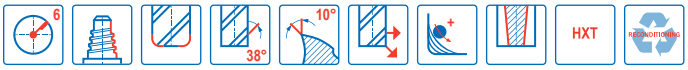
High performance – Superalloy – Square – 6 Flutes – Corner radius





D

- Tolerances:
- DC= e7
- RE= ±0,02 mm
- Regrind possible if DC is ≥Ø12 mm

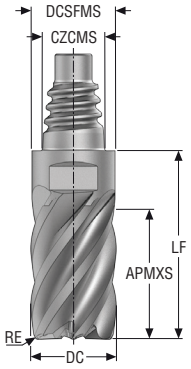


Designation	Item number	Length index	Tool shape	CZCMS	DC	DCSFMS	APMXS	LF	RE	PCEDC	SW	Grade
					mm	mm	mm	mm	mm			HXT
XSE720E10100D3R050Z6	10138187	3	D	E10	10,0	9,7	15,0	21,8	0,5	6	8	■
XSE720E10100D3R100Z6	10138188	3	D	E10	10,0	9,7	15,0	21,8	1,0	6	8	■
XSE720E12120D3R050Z6	10138189	3	D	E12	12,0	11,7	18,0	25,9	0,5	6	10	■
XSE720E12120D3R100Z6	10138190	3	D	E12	12,0	11,7	18,0	25,9	1,0	6	10	■
XSE720E12120D3R200Z6	10138191	3	D	E12	12,0	11,7	18,0	25,9	2,0	6	10	■
XSE720E12120D3R300Z6	10138192	3	D	E12	12,0	11,7	18,0	25,9	3,0	6	10	■
XSE720E16160D3R050Z6	10138193	3	D	E16	16,0	15,5	24,0	34,1	0,5	6	12	■
XSE720E16160D3R100Z6	10138194	3	D	E16	16,0	15,5	24,0	34,1	1,0	6	12	■
XSE720E16160D3R200Z6	10138195	3	D	E16	16,0	15,5	24,0	34,1	2,0	6	12	■
XSE720E16160D3R300Z6	10138196	3	D	E16	16,0	15,5	24,0	34,1	3,0	6	12	■
XSE720E20200D3R050Z6	10138197	3	D	E20	20,0	19,3	30,0	40,2	0,5	6	16	■
XSE720E20200D3R100Z6	10138198	3	D	E20	20,0	19,3	30,0	40,2	1,0	6	16	■
XSE720E20200D3R200Z6	10138199	3	D	E20	20,0	19,3	30,0	40,2	2,0	6	16	■
XSE720E20200D3R300Z6	10138200	3	D	E20	20,0	19,3	30,0	40,2	3,0	6	16	■
XSE720E25250D3R200Z6	10138201	3	D	E25	25,0	24,2	37,5	49,5	2,0	6	20	■
XSE720E25250D3R300Z6	10138202	3	D	E25	25,0	24,2	37,5	49,5	3,0	6	20	■
XSE720E25250D3R400Z6	10138203	3	D	E25	25,0	24,2	37,5	49,5	4,0	6	20	■

■ Stocked standard.

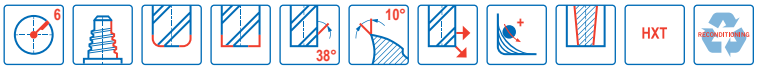
XSE720

High performance – Superalloy – Square – 6 Flutes – Corner radius or sharp – *Inch*



D





- Tolerances:
- DC= e7
- RE= ±.0008 Inch
- Regrind possible if DC is ≥Ø.500 Inch

Designation	Item number	Length index	Tool shape	CZCMS	DC	DCSFMS	APMXS	LF	RE	PCEDC	SW	Grade
					Inch	*Inch*	*Inch*	*Inch*	*Inch*			HXT
XSE720E10.375D3SZ6	10138204	3	D	E10	0.375	0.364	0.563	0.827	–	6	8	■
XSE720E12.500D3SZ6	10138205	3	D	E12	0.500	0.484	0.750	1.055	–	6	10	■
XSE720E16.625D3SZ6	10138206	3	D	E16	0.625	0.610	0.938	1.343	–	6	12	■
XSE720E20.750D3SZ6	10138207	3	D	E20	0.750	0.728	1.125	1.524	–	6	16	■
XSE720E251.00D3SZ6	10138208	3	D	E25	1.000	0.965	1.500	1.980	–	6	20	■
XSE720E10.375D3R030Z6	10138209	3	D	E10	0.375	0.364	0.563	0.827	0.030	6	8	■
XSE720E12.500D3R030Z6	10138210	3	D	E12	0.500	0.484	0.750	1.055	0.030	6	10	■
XSE720E12.500D3R060Z6	10138211	3	D	E12	0.500	0.484	0.750	1.055	0.060	6	10	■
XSE720E12.500D3R120Z6	10138212	3	D	E12	0.500	0.484	0.750	1.055	0.120	6	10	■
XSE720E16.625D3R030Z6	10138213	3	D	E16	0.625	0.610	0.938	1.343	0.030	6	12	■
XSE720E16.625D3R060Z6	10138214	3	D	E16	0.625	0.610	0.938	1.343	0.060	6	12	■
XSE720E16.625D3R120Z6	10138215	3	D	E16	0.625	0.610	0.938	1.343	0.120	6	12	■
XSE720E20.750D3R030Z6	10138216	3	D	E20	0.750	0.728	1.125	1.524	0.030	6	16	■
XSE720E20.750D3R060Z6	10138217	3	D	E20	0.750	0.728	1.125	1.524	0.060	6	16	■
XSE720E20.750D3R120Z6	10138218	3	D	E20	0.750	0.728	1.125	1.524	0.120	6	16	■
XSE720E251.00D3R030Z6	10138219	3	D	E25	1.000	0.965	1.500	1.980	0.030	6	20	■
XSE720E251.00D3R060Z6	10138220	3	D	E25	1.000	0.965	1.500	1.980	0.060	6	20	■
XSE720E251.00D3R120Z6	10138221	3	D	E25	1.000	0.965	1.500	1.980	0.120	6	20	■

■ Stocked standard.

Cutting data – XSE720 Side milling

SMG		a_e/DC	a_p/DC	f_z					v_c
				10	12	16	20	25	
P1	E/M/A/D	0,12 *0.12*	1,4 *1.4*	0,080 *0.0032*	0,095 *0.0038*	0,12 *0.0048*	0,13 *0.0050*	0,15 *0.0060*	230 (180 — 280) *750 (600 — 910)*
P2	E/M/A/D	0,12 *0.12*	1,4 *1.4*	0,080 *0.0032*	0,095 *0.0038*	0,12 *0.0048*	0,14 *0.0055*	0,15 *0.0060*	220 (170 — 270) *720 (560 — 880)*
P3	E/M/A/D	0,12 *0.12*	1,4 *1.4*	0,075 *0.0030*	0,090 *0.0036*	0,11 *0.0044*	0,13 *0.0050*	0,15 *0.0060*	195 (150 — 230) *640 (500 — 750)*
P4	E/M/A/D	0,12 *0.12*	1,4 *1.4*	0,075 *0.0030*	0,090 *0.0036*	0,11 *0.0044*	0,13 *0.0050*	0,14 *0.0055*	170 (130 — 200) *560 (430 — 650)*
P5	E/M/A/D	0,12 *0.12*	1,4 *1.4*	0,060 *0.0024*	0,070 *0.0028*	0,090 *0.0036*	0,10 *0.0040*	0,11 *0.0044*	130 (100 — 160) *425 (330 — 520)*
P6	E/M/A/D	0,12 *0.12*	1,4 *1.4*	0,060 *0.0024*	0,070 *0.0028*	0,085 *0.0034*	0,10 *0.0040*	0,11 *0.0044*	145 (120 — 190) *475 (400 — 620)*
P7	E/M/A/D	0,12 *0.12*	1,4 *1.4*	0,060 *0.0024*	0,070 *0.0028*	0,085 *0.0034*	0,10 *0.0040*	0,11 *0.0044*	140 (110 — 180) *460 (370 — 590)*
P8	E/M/A/D	0,12 *0.12*	1,4 *1.4*	0,060 *0.0024*	0,075 *0.0030*	0,090 *0.0036*	0,11 *0.0044*	0,12 *0.0048*	130 (100 — 160) *425 (330 — 520)*
P11	E/M/A/D	0,12 *0.12*	1,4 *1.4*	0,070 *0.0028*	0,080 *0.0032*	0,10 *0.0040*	0,12 *0.0048*	0,13 *0.0050*	130 (110 — 170) *425 (370 — 550)*
P12	E/M/A/D	0,12 *0.12*	1,4 *1.4*	0,048 *0.0019*	0,055 *0.0022*	0,070 *0.0028*	0,080 *0.0032*	0,090 *0.0036*	95 (80 — 100) *310 (270 — 320)*
M1	E/M/A	0,12 *0.12*	1,4 *1.4*	0,075 *0.0030*	0,090 *0.0036*	0,11 *0.0044*	0,13 *0.0050*	0,15 *0.0060*	170 (150 — 190) *560 (500 — 620)*
M2	E/M/A	0,12 *0.12*	1,4 *1.4*	0,070 *0.0028*	0,085 *0.0034*	0,10 *0.0040*	0,12 *0.0048*	0,13 *0.0050*	140 (120 — 150) *460 (400 — 490)*
M3	E/M/A	0,10 *0.10*	1,4 *1.4*	0,060 *0.0024*	0,075 *0.0030*	0,090 *0.0036*	0,10 *0.0040*	0,12 *0.0048*	120 (100 — 130) *395 (330 — 420)*
M4	E/M/A	0,10 *0.10*	1,4 *1.4*	0,055 *0.0022*	0,065 *0.0026*	0,080 *0.0032*	0,090 *0.0036*	0,10 *0.0040*	90 (77 — 100) *295 (260 — 320)*
M5	E/M/A	0,10 *0.10*	1,4 *1.4*	0,055 *0.0022*	0,065 *0.0026*	0,080 *0.0032*	0,090 *0.0036*	0,10 *0.0040*	75 (64 — 88) *245 (210 — 280)*
S1	E	0,060 *0.060*	1,4 *1.4*	0,046 *0.0018*	0,055 *0.0022*	0,070 *0.0028*	0,080 *0.0032*	0,090 *0.0036*	45 (35 — 54) *150 (120 — 170)*
S2	E	0,060 *0.060*	1,4 *1.4*	0,042 *0.0017*	0,050 *0.0020*	0,065 *0.0026*	0,075 *0.0030*	0,080 *0.0032*	35 (25 — 44) *115 (83 — 140)*
S3	E	0,060 *0.060*	1,4 *1.4*	0,042 *0.0017*	0,050 *0.0020*	0,065 *0.0026*	0,075 *0.0030*	0,080 *0.0032*	30 (20 — 39) *100 (66 — 120)*
S11	E	0,10 *0.10*	1,4 *1.4*	0,060 *0.0024*	0,070 *0.0028*	0,090 *0.0036*	0,10 *0.0040*	0,11 *0.0044*	105 (78 — 120) *345 (260 — 390)*
S12	E	0,10 *0.10*	1,4 *1.4*	0,060 *0.0024*	0,070 *0.0028*	0,090 *0.0036*	0,10 *0.0040*	0,11 *0.0044*	80 (60 — 99) *260 (200 — 320)*
S13	E	0,10 *0.10*	1,4 *1.4*	0,050 *0.0020*	0,060 *0.0024*	0,075 *0.0030*	0,090 *0.0036*	0,10 *0.0040*	65 (48 — 79) *215 (160 — 250)*

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

Cutting data – XSE720 advanced roughing

SMG		a_p/DC	f_z					v_c
			10	12	16	20	25	
P1	E/M/A/D	1,4 *1.4*	0,10 *0.0040*	0,12 *0.0048*	0,15 *0.0060*	0,17 *0.0065*	0,19 *0.0075*	245 (190 — 300) *800 (630 — 980)*
P2	E/M/A/D	1,4 *1.4*	0,10 *0.0040*	0,12 *0.0048*	0,15 *0.0060*	0,18 *0.0070*	0,20 *0.0080*	240 (190 — 290) *790 (630 — 950)*
P3	E/M/A/D	1,4 *1.4*	0,10 *0.0040*	0,12 *0.0048*	0,14 *0.0055*	0,17 *0.0065*	0,19 *0.0075*	205 (160 — 250) *670 (530 — 820)*
P4	E/M/A/D	1,4 *1.4*	0,095 *0.0038*	0,11 *0.0044*	0,14 *0.0055*	0,16 *0.0065*	0,18 *0.0070*	185 (140 — 220) *610 (460 — 720)*
P5	E/M/A/D	1,4 *1.4*	0,075 *0.0030*	0,090 *0.0036*	0,11 *0.0044*	0,13 *0.0050*	0,15 *0.0060*	140 (110 — 180) *460 (370 — 590)*
P6	E/M/A/D	1,4 *1.4*	0,075 *0.0030*	0,090 *0.0036*	0,11 *0.0044*	0,13 *0.0050*	0,15 *0.0060*	155 (130 — 200) *510 (430 — 650)*
P7	E/M/A/D	1,4 *1.4*	0,075 *0.0030*	0,090 *0.0036*	0,11 *0.0044*	0,13 *0.0050*	0,15 *0.0060*	150 (120 — 190) *490 (400 — 620)*
P8	E/M/A/D	1,4 *1.4*	0,080 *0.0032*	0,095 *0.0038*	0,12 *0.0048*	0,14 *0.0055*	0,15 *0.0060*	140 (110 — 180) *460 (370 — 590)*
P11	E/M/A/D	1,4 *1.4*	0,090 *0.0036*	0,11 *0.0044*	0,13 *0.0050*	0,15 *0.0060*	0,17 *0.0065*	140 (110 — 180) *460 (370 — 590)*
P12	E/M/A/D	1,4 *1.4*	0,060 *0.0024*	0,070 *0.0028*	0,090 *0.0036*	0,10 *0.0040*	0,12 *0.0048*	100 (86 — 110) *330 (290 — 360)*
M1	E/M/A	1,4 *1.4*	0,10 *0.0040*	0,12 *0.0048*	0,15 *0.0060*	0,17 *0.0065*	0,19 *0.0075*	180 (160 — 200) *590 (530 — 650)*
M2	E/M/A	1,4 *1.4*	0,090 *0.0036*	0,11 *0.0044*	0,13 *0.0050*	0,15 *0.0060*	0,17 *0.0065*	150 (130 — 170) *490 (430 — 550)*
M3	E/M/A	1,4 *1.4*	0,075 *0.0030*	0,085 *0.0034*	0,11 *0.0044*	0,12 *0.0048*	0,14 *0.0055*	125 (110 — 140) *410 (370 — 450)*
M4	E/M/A	1,4 *1.4*	0,065 *0.0026*	0,075 *0.0030*	0,095 *0.0038*	0,11 *0.0044*	0,12 *0.0048*	95 (80 — 110) *310 (270 — 360)*
M5	E/M/A	1,4 *1.4*	0,065 *0.0026*	0,075 *0.0030*	0,095 *0.0038*	0,11 *0.0044*	0,12 *0.0048*	80 (67 — 92) *260 (220 — 300)*
S1	E	1,4 *1.4*	0,044 *0.0017*	0,050 *0.0020*	0,065 *0.0026*	0,075 *0.0030*	0,085 *0.0034*	44 (35 — 53) *145 (120 — 170)*
S2	E	1,4 *1.4*	0,040 *0.0016*	0,048 *0.0019*	0,060 *0.0024*	0,070 *0.0028*	0,075 *0.0030*	34 (25 — 43) *110 (83 — 140)*
S3	E	1,4 *1.4*	0,040 *0.0016*	0,048 *0.0019*	0,060 *0.0024*	0,070 *0.0028*	0,075 *0.0030*	29 (20 — 39) *95 (66 — 120)*
S11	E	1,4 *1.4*	0,070 *0.0028*	0,085 *0.0034*	0,10 *0.0040*	0,12 *0.0048*	0,14 *0.0055*	110 (82 — 130) *360 (270 — 420)*
S12	E	1,4 *1.4*	0,070 *0.0028*	0,085 *0.0034*	0,10 *0.0040*	0,12 *0.0048*	0,14 *0.0055*	85 (63 — 100) *280 (210 — 320)*
S13	E	1,4 *1.4*	0,060 *0.0024*	0,075 *0.0030*	0,090 *0.0036*	0,10 *0.0040*	0,12 *0.0048*	65 (50 — 83) *215 (170 — 270)*

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

Cutting data – XSE720 Side milling inch

SMG		a_e/DC	a_p/DC	f_z					v_c
				3/8	1/2	5/8	3/4	1	
P1	E/M/A/D	0,12 *0.12*	1,4 *1.4*	0,080 *0.0032*	0,095 *0.0038*	0,12 *0.0048*	0,13 *0.0050*	0,15 *0.0060*	265 (200 — 320) *870 (660 — 1000)*
P2	E/M/A/D	0,12 *0.12*	1,4 *1.4*	0,080 *0.0032*	0,095 *0.0038*	0,12 *0.0048*	0,14 *0.0055*	0,15 *0.0060*	255 (200 — 320) *840 (660 — 1000)*
P3	E/M/A/D	0,12 *0.12*	1,4 *1.4*	0,075 *0.0030*	0,090 *0.0036*	0,11 *0.0044*	0,13 *0.0050*	0,15 *0.0060*	225 (170 — 270) *740 (560 — 880)*
P4	E/M/A/D	0,12 *0.12*	1,4 *1.4*	0,075 *0.0030*	0,090 *0.0036*	0,11 *0.0044*	0,13 *0.0050*	0,14 *0.0055*	195 (150 — 240) *640 (500 — 780)*
P5	E/M/A/D	0,12 *0.12*	1,4 *1.4*	0,060 *0.0024*	0,070 *0.0028*	0,090 *0.0036*	0,10 *0.0040*	0,11 *0.0044*	160 (120 — 190) *520 (400 — 620)*
P6	E/M/A/D	0,12 *0.12*	1,4 *1.4*	0,060 *0.0024*	0,070 *0.0028*	0,085 *0.0034*	0,10 *0.0040*	0,11 *0.0044*	180 (140 — 220) *590 (460 — 720)*
P7	E/M/A/D	0,12 *0.12*	1,4 *1.4*	0,060 *0.0024*	0,070 *0.0028*	0,085 *0.0034*	0,10 *0.0040*	0,11 *0.0044*	170 (130 — 210) *560 (430 — 680)*
P8	E/M/A/D	0,12 *0.12*	1,4 *1.4*	0,060 *0.0024*	0,075 *0.0030*	0,090 *0.0036*	0,11 *0.0044*	0,12 *0.0048*	160 (120 — 190) *520 (400 — 620)*
P11	E/M/A/D	0,12 *0.12*	1,4 *1.4*	0,070 *0.0028*	0,080 *0.0032*	0,10 *0.0040*	0,12 *0.0048*	0,13 *0.0050*	160 (130 — 200) *520 (430 — 650)*
P12	E/M/A/D	0,12 *0.12*	1,4 *1.4*	0,048 *0.0019*	0,055 *0.0022*	0,070 *0.0028*	0,080 *0.0032*	0,090 *0.0036*	95 (80 — 100) *310 (270 — 320)*
M1	E/M/A	0,12 *0.12*	1,4 *1.4*	0,075 *0.0030*	0,090 *0.0036*	0,11 *0.0044*	0,13 *0.0050*	0,15 *0.0060*	170 (150 — 190) *560 (500 — 620)*
M2	E/M/A	0,12 *0.12*	1,4 *1.4*	0,070 *0.0028*	0,085 *0.0034*	0,10 *0.0040*	0,12 *0.0048*	0,13 *0.0050*	140 (120 — 150) *460 (400 — 490)*
M3	E/M/A	0,10 *0.10*	1,4 *1.4*	0,060 *0.0024*	0,075 *0.0030*	0,090 *0.0036*	0,10 *0.0040*	0,12 *0.0048*	120 (100 — 110) *395 (330 — 360)*
M4	E/M/A	0,10 *0.10*	1,4 *1.4*	0,055 *0.0022*	0,065 *0.0026*	0,080 *0.0032*	0,090 *0.0036*	0,10 *0.0040*	90 (77 — 91) *295 (260 — 290)*
M5	E/M/A	0,10 *0.10*	1,4 *1.4*	0,055 *0.0022*	0,065 *0.0026*	0,080 *0.0032*	0,090 *0.0036*	0,10 *0.0040*	75 (64 — 76) *245 (210 — 240)*
S1	E	0,060 *0.060*	1,4 *1.4*	0,046 *0.0018*	0,055 *0.0022*	0,070 *0.0028*	0,080 *0.0032*	0,090 *0.0036*	45 (35 — 54) *150 (120 — 170)*
S2	E	0,060 *0.060*	1,4 *1.4*	0,042 *0.0017*	0,050 *0.0020*	0,065 *0.0026*	0,075 *0.0030*	0,080 *0.0032*	35 (25 — 44) *115 (83 — 140)*
S3	E	0,060 *0.060*	1,4 *1.4*	0,042 *0.0017*	0,050 *0.0020*	0,065 *0.0026*	0,075 *0.0030*	0,080 *0.0032*	30 (20 — 39) *100 (66 — 120)*
S11	E	0,10 *0.10*	1,4 *1.4*	0,060 *0.0024*	0,070 *0.0028*	0,090 *0.0036*	0,10 *0.0040*	0,11 *0.0044*	105 (78 — 120) *345 (260 — 390)*
S12	E	0,10 *0.10*	1,4 *1.4*	0,060 *0.0024*	0,070 *0.0028*	0,090 *0.0036*	0,10 *0.0040*	0,11 *0.0044*	80 (60 — 99) *260 (200 — 320)*
S13	E	0,10 *0.10*	1,4 *1.4*	0,050 *0.0020*	0,060 *0.0024*	0,075 *0.0030*	0,090 *0.0036*	0,10 *0.0040*	65 (48 — 79) *215 (160 — 250)*

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

Cutting data – XSE720 advanced roughing inch

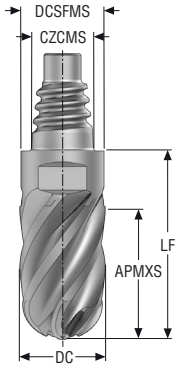
SMG		a_p/DC	f_z					v_c
			3/8	1/2	5/8	3/4	1	
P1	E/M/A/D	1,4 *1.4*	0,10 *0.0040*	0,12 *0.0048*	0,15 *0.0060*	0,17 *0.0065*	0,19 *0.0075*	285 (220 — 350) *940 (730 — 1100)*
P2	E/M/A/D	1,4 *1.4*	0,10 *0.0040*	0,12 *0.0048*	0,15 *0.0060*	0,18 *0.0070*	0,20 *0.0080*	275 (210 — 340) *900 (690 — 1100)*
P3	E/M/A/D	1,4 *1.4*	0,10 *0.0040*	0,12 *0.0048*	0,14 *0.0055*	0,17 *0.0065*	0,19 *0.0075*	240 (180 — 290) *790 (600 — 950)*
P4	E/M/A/D	1,4 *1.4*	0,095 *0.0038*	0,11 *0.0044*	0,14 *0.0055*	0,16 *0.0065*	0,18 *0.0070*	210 (160 — 260) *690 (530 — 850)*
P5	E/M/A/D	1,4 *1.4*	0,075 *0.0030*	0,090 *0.0036*	0,11 *0.0044*	0,13 *0.0050*	0,15 *0.0060*	175 (130 — 210) *570 (430 — 680)*
P6	E/M/A/D	1,4 *1.4*	0,075 *0.0030*	0,090 *0.0036*	0,11 *0.0044*	0,13 *0.0050*	0,15 *0.0060*	195 (150 — 240) *640 (500 — 780)*
P7	E/M/A/D	1,4 *1.4*	0,075 *0.0030*	0,090 *0.0036*	0,11 *0.0044*	0,13 *0.0050*	0,15 *0.0060*	185 (140 — 220) *610 (460 — 720)*
P8	E/M/A/D	1,4 *1.4*	0,080 *0.0032*	0,095 *0.0038*	0,12 *0.0048*	0,14 *0.0055*	0,15 *0.0060*	170 (130 — 210) *560 (430 — 680)*
P11	E/M/A/D	1,4 *1.4*	0,090 *0.0036*	0,11 *0.0044*	0,13 *0.0050*	0,15 *0.0060*	0,17 *0.0065*	170 (130 — 210) *560 (430 — 680)*
P12	E/M/A/D	1,4 *1.4*	0,060 *0.0024*	0,070 *0.0028*	0,090 *0.0036*	0,10 *0.0040*	0,12 *0.0048*	100 (86 — 110) *330 (290 — 360)*
M1	E/M/A	1,4 *1.4*	0,10 *0.0040*	0,12 *0.0048*	0,15 *0.0060*	0,17 *0.0065*	0,19 *0.0075*	180 (160 — 200) *590 (530 — 650)*
M2	E/M/A	1,4 *1.4*	0,090 *0.0036*	0,11 *0.0044*	0,13 *0.0050*	0,15 *0.0060*	0,17 *0.0065*	150 (130 — 170) *490 (430 — 550)*
M3	E/M/A	1,4 *1.4*	0,075 *0.0030*	0,085 *0.0034*	0,11 *0.0044*	0,12 *0.0048*	0,14 *0.0055*	125 (110 — 120) *410 (370 — 390)*
M4	E/M/A	1,4 *1.4*	0,065 *0.0026*	0,075 *0.0030*	0,095 *0.0038*	0,11 *0.0044*	0,12 *0.0048*	95 (80 — 95) *310 (270 — 310)*
M5	E/M/A	1,4 *1.4*	0,065 *0.0026*	0,075 *0.0030*	0,095 *0.0038*	0,11 *0.0044*	0,12 *0.0048*	80 (67 — 79) *260 (220 — 250)*
S1	E	1,4 *1.4*	0,044 *0.0017*	0,050 *0.0020*	0,065 *0.0026*	0,075 *0.0030*	0,085 *0.0034*	44 (35 — 53) *145 (120 — 170)*
S2	E	1,4 *1.4*	0,040 *0.0016*	0,048 *0.0019*	0,060 *0.0024*	0,070 *0.0028*	0,075 *0.0030*	34 (25 — 43) *110 (83 — 140)*
S3	E	1,4 *1.4*	0,040 *0.0016*	0,048 *0.0019*	0,060 *0.0024*	0,070 *0.0028*	0,075 *0.0030*	29 (20 — 39) *95 (66 — 120)*
S11	E	1,4 *1.4*	0,070 *0.0028*	0,085 *0.0034*	0,10 *0.0040*	0,12 *0.0048*	0,14 *0.0055*	110 (82 — 130) *360 (270 — 420)*
S12	E	1,4 *1.4*	0,070 *0.0028*	0,085 *0.0034*	0,10 *0.0040*	0,12 *0.0048*	0,14 *0.0055*	85 (63 — 100) *280 (210 — 320)*
S13	E	1,4 *1.4*	0,060 *0.0024*	0,075 *0.0030*	0,090 *0.0036*	0,10 *0.0040*	0,12 *0.0048*	65 (50 — 83) *215 (170 — 270)*

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

XSB720

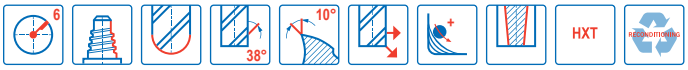
High performance – Superalloy – Ball nose – 6 Flutes





D

- Tolerances:
- DC= e7
- RE= ±0,02 mm
- Regrind possible if DC is ≥Ø12 mm

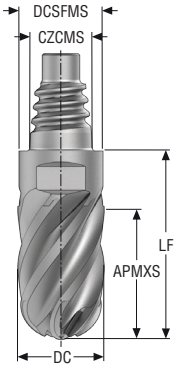


Designation	Item number	Length index	Tool shape	CZCMS	DC	DCSFMS	APMXS	LF	PCEDC	SW	Grade
					mm	mm	mm	mm			HXT
XSB720E10100D3BZ6	10138222	3	D	E10	10,0	9,7	15,0	21,8	6	8	■
XSB720E12120D3BZ6	10138223	3	D	E12	12,0	11,7	18,0	25,9	6	10	■
XSB720E16160D3BZ6	10138224	3	D	E16	16,0	15,5	24,0	34,1	6	12	■
XSB720E20200D3BZ6	10138225	3	D	E20	20,0	19,3	30,0	40,2	6	16	■

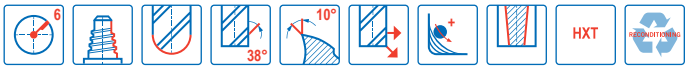
■ Stocked standard.

XSB720

High performance – Superalloy – Ball nose – 6 Flutes – *Inch*



D





- Tolerances:
- DC= e7
- RE= ±.0008 Inch
- Regrind possible if DC is ≥Ø.500 Inch

Designation	Item number	Length index	Tool shape	CZCMS	DC	DCSFMS	APMXS	LF	PCEDC	SW	Grade
					Inch	*Inch*	*Inch*	*Inch*			HXT
XSB720E10.375D3BZ6	10138226	3	D	E10	0.375	0.364	0.563	0.827	6	8	■
XSB720E12.500D3BZ6	10138227	3	D	E12	0.500	0.484	0.750	1.055	6	10	■
XSB720E16.625D3BZ6	10138228	3	D	E16	0.625	0.610	0.938	1.343	6	12	■
XSB720E20.750D3BZ6	10138229	3	D	E20	0.750	0.728	1.125	1.524	6	16	■
XSB720E251.00D3BZ6	10138230	3	D	E25	1.000	0.965	1.500	1.980	6	20	■

■ Stocked standard.

Cutting data – XSB720 Side milling

SMG		a_e/DC	a_p/DC	f_z				v_c
				10	12	16	20	
P1	E/M/A/D	0,12 *0.12*	1,2 *1.2*	0,095 *0.0038*	0,11 *0.0044*	0,14 *0.0055*	0,16 *0.0065*	185 (150 — 140) *610 (500 — 450)*
P2	E/M/A/D	0,12 *0.12*	1,2 *1.2*	0,10 *0.0040*	0,12 *0.0048*	0,15 *0.0060*	0,17 *0.0065*	175 (140 — 130) *570 (460 — 420)*
P3	E/M/A/D	0,12 *0.12*	1,2 *1.2*	0,095 *0.0038*	0,11 *0.0044*	0,14 *0.0055*	0,16 *0.0065*	155 (120 — 110) *510 (400 — 360)*
P4	E/M/A/D	0,12 *0.12*	1,2 *1.2*	0,090 *0.0036*	0,11 *0.0044*	0,13 *0.0050*	0,16 *0.0065*	135 (110 — 100) *445 (370 — 320)*
P5	E/M/A/D	0,12 *0.12*	1,2 *1.2*	0,090 *0.0036*	0,11 *0.0044*	0,13 *0.0050*	0,15 *0.0060*	130 (110 — 100) *425 (370 — 320)*
P6	E/M/A/D	0,12 *0.12*	1,2 *1.2*	0,090 *0.0036*	0,11 *0.0044*	0,13 *0.0050*	0,15 *0.0060*	145 (120 — 110) *475 (400 — 360)*
P7	E/M/A/D	0,12 *0.12*	1,2 *1.2*	0,090 *0.0036*	0,11 *0.0044*	0,13 *0.0050*	0,15 *0.0060*	140 (110 — 100) *460 (370 — 320)*
P8	E/M/A/D	0,12 *0.12*	1,2 *1.2*	0,095 *0.0038*	0,11 *0.0044*	0,14 *0.0055*	0,16 *0.0065*	130 (99 — 98) *425 (330 — 320)*
P11	E/M/A/D	0,12 *0.12*	1,2 *1.2*	0,070 *0.0028*	0,080 *0.0032*	0,10 *0.0040*	0,12 *0.0048*	140 (110 — 100) *460 (370 — 320)*
P12	E/M/A/D	0,12 *0.12*	1,2 *1.2*	0,048 *0.0019*	0,055 *0.0022*	0,070 *0.0028*	0,080 *0.0032*	85 (68 — 67) *280 (230 — 210)*
M1	E/M/A	0,12 *0.12*	1,2 *1.2*	0,075 *0.0030*	0,090 *0.0036*	0,11 *0.0044*	0,13 *0.0050*	170 (150 — 190) *560 (500 — 620)*
M2	E/M/A	0,12 *0.12*	1,2 *1.2*	0,070 *0.0028*	0,085 *0.0034*	0,10 *0.0040*	0,12 *0.0048*	140 (120 — 160) *460 (400 — 520)*
M3	E/M/A	0,10 *0.10*	1,2 *1.2*	0,060 *0.0024*	0,070 *0.0028*	0,090 *0.0036*	0,10 *0.0040*	120 (110 — 140) *395 (370 — 450)*
M4	E/M/A	0,10 *0.10*	1,2 *1.2*	0,050 *0.0020*	0,060 *0.0024*	0,075 *0.0030*	0,090 *0.0036*	90 (77 — 100) *295 (260 — 320)*
M5	E/M/A	0,10 *0.10*	1,2 *1.2*	0,050 *0.0020*	0,060 *0.0024*	0,075 *0.0030*	0,090 *0.0036*	75 (65 — 89) *245 (220 — 290)*
S1	E	0,070 *0.070*	1,2 *1.2*	0,048 *0.0019*	0,055 *0.0022*	0,070 *0.0028*	0,080 *0.0032*	45 (35 — 54) *150 (120 — 170)*
S2	E	0,070 *0.070*	1,2 *1.2*	0,048 *0.0019*	0,055 *0.0022*	0,070 *0.0028*	0,080 *0.0032*	35 (5 — 45) *115 (17 — 140)*
S3	E	0,070 *0.070*	1,2 *1.2*	0,048 *0.0019*	0,055 *0.0022*	0,070 *0.0028*	0,080 *0.0032*	30 (20 — 40) *100 (66 — 130)*
S11	E	0,10 *0.10*	1,2 *1.2*	0,060 *0.0024*	0,070 *0.0028*	0,090 *0.0036*	0,10 *0.0040*	105 (79 — 130) *345 (260 — 420)*
S12	E	0,10 *0.10*	1,2 *1.2*	0,060 *0.0024*	0,070 *0.0028*	0,090 *0.0036*	0,10 *0.0040*	80 (61 — 100) *260 (210 — 320)*
S13	E	0,10 *0.10*	1,2 *1.2*	0,060 *0.0024*	0,070 *0.0028*	0,090 *0.0036*	0,10 *0.0040*	60 (47 — 77) *195 (160 — 250)*

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

Cutting data – XSB720 Side milling advanced roughing a_e/DC=0,07

SMG		a_p/DC	f_z				v_c
			10	12	16	20	
P1	E/M/A/D	1,2 *1.2*	0,12 *0.0048*	0,14 *0.0055*	0,18 *0.0070*	0,22 *0.0085*	195 (160 — 150) *640 (530 — 490)*
P2	E/M/A/D	1,2 *1.2*	0,12 *0.0048*	0,14 *0.0055*	0,19 *0.0075*	0,22 *0.0085*	190 (150 — 140) *620 (500 — 450)*
P3	E/M/A/D	1,2 *1.2*	0,12 *0.0048*	0,14 *0.0055*	0,18 *0.0070*	0,20 *0.0080*	165 (130 — 120) *540 (430 — 390)*
P4	E/M/A/D	1,2 *1.2*	0,12 *0.0048*	0,14 *0.0055*	0,17 *0.0065*	0,20 *0.0080*	145 (120 — 110) *475 (400 — 360)*
P5	E/M/A/D	1,2 *1.2*	0,12 *0.0048*	0,14 *0.0055*	0,17 *0.0065*	0,20 *0.0080*	140 (110 — 100) *460 (370 — 320)*
P6	E/M/A/D	1,2 *1.2*	0,11 *0.0044*	0,14 *0.0055*	0,17 *0.0065*	0,19 *0.0075*	160 (130 — 120) *520 (430 — 390)*
P7	E/M/A/D	1,2 *1.2*	0,11 *0.0044*	0,14 *0.0055*	0,17 *0.0065*	0,19 *0.0075*	150 (120 — 110) *490 (400 — 360)*
P8	E/M/A/D	1,2 *1.2*	0,12 *0.0048*	0,14 *0.0055*	0,18 *0.0070*	0,20 *0.0080*	140 (110 — 100) *460 (370 — 320)*
P11	E/M/A/D	1,2 *1.2*	0,090 *0.0036*	0,11 *0.0044*	0,13 *0.0050*	0,15 *0.0060*	150 (120 — 110) *490 (400 — 360)*
P12	E/M/A/D	1,2 *1.2*	0,060 *0.0024*	0,070 *0.0028*	0,090 *0.0036*	0,10 *0.0040*	95 (73 — 72) *310 (240 — 230)*
M1	E/M/A	1,2 *1.2*	0,10 *0.0040*	0,12 *0.0048*	0,15 *0.0060*	0,17 *0.0065*	185 (160 — 200) *610 (530 — 650)*
M2	E/M/A	1,2 *1.2*	0,090 *0.0036*	0,11 *0.0044*	0,13 *0.0050*	0,15 *0.0060*	150 (130 — 170) *490 (430 — 550)*
M3	E/M/A	1,2 *1.2*	0,070 *0.0028*	0,085 *0.0034*	0,10 *0.0040*	0,12 *0.0048*	125 (110 — 140) *410 (370 — 450)*
M4	E/M/A	1,2 *1.2*	0,060 *0.0024*	0,075 *0.0030*	0,090 *0.0036*	0,10 *0.0040*	95 (81 — 110) *310 (270 — 360)*
M5	E/M/A	1,2 *1.2*	0,060 *0.0024*	0,075 *0.0030*	0,090 *0.0036*	0,10 *0.0040*	80 (68 — 93) *260 (230 — 300)*
S1	E	1,2 *1.2*	0,048 *0.0019*	0,055 *0.0022*	0,070 *0.0028*	0,080 *0.0032*	45 (35 — 54) *150 (120 — 170)*
S2	E	1,2 *1.2*	0,048 *0.0019*	0,055 *0.0022*	0,070 *0.0028*	0,080 *0.0032*	35 (5 — 45) *115 (17 — 140)*
S3	E	1,2 *1.2*	0,048 *0.0019*	0,055 *0.0022*	0,070 *0.0028*	0,080 *0.0032*	30 (20 — 40) *100 (66 — 130)*
S11	E	1,2 *1.2*	0,070 *0.0028*	0,085 *0.0034*	0,10 *0.0040*	0,12 *0.0048*	110 (82 — 130) *360 (270 — 420)*
S12	E	1,2 *1.2*	0,070 *0.0028*	0,085 *0.0034*	0,10 *0.0040*	0,12 *0.0048*	85 (63 — 100) *280 (210 — 320)*
S13	E	1,2 *1.2*	0,070 *0.0028*	0,085 *0.0034*	0,10 *0.0040*	0,12 *0.0048*	65 (49 — 81) *215 (170 — 260)*

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

Cutting data – XSB720 Side milling inch

SMG		a_e/DC	a_p/DC	f_z				v_c
				3/8	1/2	5/8	3/4	
P1	E/M/A/D	0,12 *0.12*	1,2 *1.2*	0,095 *0.0038*	0,11 *0.0044*	0,14 *0.0055*	0,16 *0.0065*	195 (170 — 220) *640 (560 — 720)*
P2	E/M/A/D	0,12 *0.12*	1,2 *1.2*	0,10 *0.0040*	0,12 *0.0048*	0,15 *0.0060*	0,17 *0.0065*	190 (170 — 210) *620 (560 — 680)*
P3	E/M/A/D	0,12 *0.12*	1,2 *1.2*	0,095 *0.0038*	0,11 *0.0044*	0,14 *0.0055*	0,16 *0.0065*	165 (150 — 180) *540 (500 — 590)*
P4	E/M/A/D	0,12 *0.12*	1,2 *1.2*	0,090 *0.0036*	0,11 *0.0044*	0,13 *0.0050*	0,16 *0.0065*	145 (130 — 160) *475 (430 — 520)*
P5	E/M/A/D	0,12 *0.12*	1,2 *1.2*	0,090 *0.0036*	0,11 *0.0044*	0,13 *0.0050*	0,15 *0.0060*	140 (130 — 160) *460 (430 — 520)*
P6	E/M/A/D	0,12 *0.12*	1,2 *1.2*	0,090 *0.0036*	0,11 *0.0044*	0,13 *0.0050*	0,15 *0.0060*	155 (140 — 170) *510 (460 — 550)*
P7	E/M/A/D	0,12 *0.12*	1,2 *1.2*	0,090 *0.0036*	0,11 *0.0044*	0,13 *0.0050*	0,15 *0.0060*	150 (130 — 160) *490 (430 — 520)*
P8	E/M/A/D	0,12 *0.12*	1,2 *1.2*	0,095 *0.0038*	0,11 *0.0044*	0,14 *0.0055*	0,16 *0.0065*	140 (120 — 150) *460 (400 — 490)*
P11	E/M/A/D	0,12 *0.12*	1,2 *1.2*	0,070 *0.0028*	0,080 *0.0032*	0,10 *0.0040*	0,12 *0.0048*	150 (130 — 170) *490 (430 — 550)*
P12	E/M/A/D	0,12 *0.12*	1,2 *1.2*	0,048 *0.0019*	0,055 *0.0022*	0,070 *0.0028*	0,080 *0.0032*	95 (81 — 100) *310 (270 — 320)*
M1	E/M/A	0,12 *0.12*	1,2 *1.2*	0,075 *0.0030*	0,090 *0.0036*	0,11 *0.0044*	0,13 *0.0050*	220 (180 — 260) *720 (600 — 850)*
M2	E/M/A	0,12 *0.12*	1,2 *1.2*	0,070 *0.0028*	0,085 *0.0034*	0,10 *0.0040*	0,12 *0.0048*	180 (140 — 220) *590 (460 — 720)*
M3	E/M/A	0,10 *0.10*	1,2 *1.2*	0,060 *0.0024*	0,070 *0.0028*	0,090 *0.0036*	0,10 *0.0040*	160 (120 — 200) *520 (400 — 650)*
M4	E/M/A	0,10 *0.10*	1,2 *1.2*	0,050 *0.0020*	0,060 *0.0024*	0,075 *0.0030*	0,090 *0.0036*	125 (93 — 150) *410 (310 — 490)*
M5	E/M/A	0,10 *0.10*	1,2 *1.2*	0,050 *0.0020*	0,060 *0.0024*	0,075 *0.0030*	0,090 *0.0036*	105 (77 — 120) *345 (260 — 390)*
S1	E	0,070 *0.070*	1,2 *1.2*	0,048 *0.0019*	0,055 *0.0022*	0,070 *0.0028*	0,080 *0.0032*	45 (35 — 54) *150 (120 — 170)*
S2	E	0,070 *0.070*	1,2 *1.2*	0,048 *0.0019*	0,055 *0.0022*	0,070 *0.0028*	0,080 *0.0032*	37 (27 — 47) *120 (89 — 150)*
S3	E	0,070 *0.070*	1,2 *1.2*	0,048 *0.0019*	0,055 *0.0022*	0,070 *0.0028*	0,080 *0.0032*	30 (20 — 40) *100 (66 — 130)*
S11	E	0,10 *0.10*	1,2 *1.2*	0,060 *0.0024*	0,070 *0.0028*	0,090 *0.0036*	0,10 *0.0040*	80 (61 — 100) *260 (210 — 320)*
S12	E	0,10 *0.10*	1,2 *1.2*	0,060 *0.0024*	0,070 *0.0028*	0,090 *0.0036*	0,10 *0.0040*	80 (61 — 100) *260 (210 — 320)*
S13	E	0,10 *0.10*	1,2 *1.2*	0,060 *0.0024*	0,070 *0.0028*	0,090 *0.0036*	0,10 *0.0040*	80 (61 — 100) *260 (210 — 320)*

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

Cutting data – XSB720 Side milling advanced roughing a_e/DC=0,07 inch

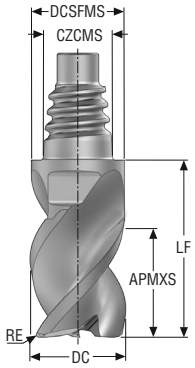
SMG		a_p/DC	f_z				v_c
			3/8	1/2	5/8	3/4	
P1	E/M/A/D	1,2 *1.2*	0,12 *0.0048*	0,14 *0.0055*	0,18 *0.0070*	0,22 *0.0085*	210 (190 — 240) *690 (630 — 780)*
P2	E/M/A/D	1,2 *1.2*	0,12 *0.0048*	0,14 *0.0055*	0,19 *0.0075*	0,22 *0.0085*	205 (180 — 230) *670 (600 — 750)*
P3	E/M/A/D	1,2 *1.2*	0,12 *0.0048*	0,14 *0.0055*	0,18 *0.0070*	0,20 *0.0080*	180 (160 — 200) *590 (530 — 650)*
P4	E/M/A/D	1,2 *1.2*	0,12 *0.0048*	0,14 *0.0055*	0,17 *0.0065*	0,20 *0.0080*	155 (140 — 170) *510 (460 — 550)*
P5	E/M/A/D	1,2 *1.2*	0,12 *0.0048*	0,14 *0.0055*	0,17 *0.0065*	0,20 *0.0080*	150 (130 — 170) *490 (430 — 550)*
P6	E/M/A/D	1,2 *1.2*	0,11 *0.0044*	0,14 *0.0055*	0,17 *0.0065*	0,19 *0.0075*	170 (150 — 190) *560 (500 — 620)*
P7	E/M/A/D	1,2 *1.2*	0,11 *0.0044*	0,14 *0.0055*	0,17 *0.0065*	0,19 *0.0075*	160 (140 — 180) *520 (460 — 590)*
P8	E/M/A/D	1,2 *1.2*	0,12 *0.0048*	0,14 *0.0055*	0,18 *0.0070*	0,20 *0.0080*	150 (130 — 170) *490 (430 — 550)*
P11	E/M/A/D	1,2 *1.2*	0,090 *0.0036*	0,11 *0.0044*	0,13 *0.0050*	0,15 *0.0060*	160 (140 — 180) *520 (460 — 590)*
P12	E/M/A/D	1,2 *1.2*	0,060 *0.0024*	0,070 *0.0028*	0,090 *0.0036*	0,10 *0.0040*	100 (87 — 110) *330 (290 — 360)*
M1	E/M/A	1,2 *1.2*	0,10 *0.0040*	0,12 *0.0048*	0,15 *0.0060*	0,17 *0.0065*	235 (190 — 280) *770 (630 — 910)*
M2	E/M/A	1,2 *1.2*	0,090 *0.0036*	0,11 *0.0044*	0,13 *0.0050*	0,15 *0.0060*	195 (160 — 230) *640 (530 — 750)*
M3	E/M/A	1,2 *1.2*	0,070 *0.0028*	0,085 *0.0034*	0,10 *0.0040*	0,12 *0.0048*	170 (130 — 200) *560 (430 — 650)*
M4	E/M/A	1,2 *1.2*	0,060 *0.0024*	0,075 *0.0030*	0,090 *0.0036*	0,10 *0.0040*	130 (97 — 160) *425 (320 — 520)*
M5	E/M/A	1,2 *1.2*	0,060 *0.0024*	0,075 *0.0030*	0,090 *0.0036*	0,10 *0.0040*	105 (81 — 130) *345 (270 — 420)*
S1	E	1,2 *1.2*	0,048 *0.0019*	0,055 *0.0022*	0,070 *0.0028*	0,080 *0.0032*	45 (35 — 54) *150 (120 — 170)*
S2	E	1,2 *1.2*	0,048 *0.0019*	0,055 *0.0022*	0,070 *0.0028*	0,080 *0.0032*	37 (27 — 47) *120 (89 — 150)*
S3	E	1,2 *1.2*	0,048 *0.0019*	0,055 *0.0022*	0,070 *0.0028*	0,080 *0.0032*	30 (20 — 40) *100 (66 — 130)*
S11	E	1,2 *1.2*	0,070 *0.0028*	0,085 *0.0034*	0,10 *0.0040*	0,12 *0.0048*	85 (63 — 100) *280 (210 — 320)*
S12	E	1,2 *1.2*	0,070 *0.0028*	0,085 *0.0034*	0,10 *0.0040*	0,12 *0.0048*	85 (63 — 100) *280 (210 — 320)*
S13	E	1,2 *1.2*	0,070 *0.0028*	0,085 *0.0034*	0,10 *0.0040*	0,12 *0.0048*	85 (63 — 100) *280 (210 — 320)*

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

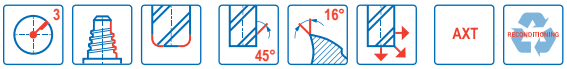
XSE450

High performance – Aluminium – Square – 3 Flutes – Corner radius





D



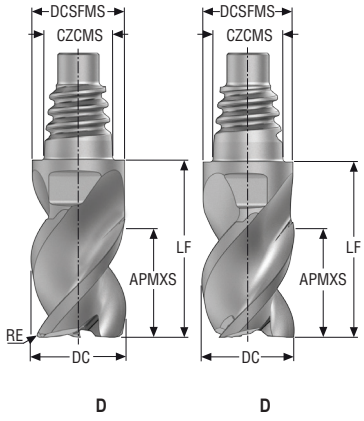
- Tolerances:
- DC= 0/-0,0508 mm
- RE= ±0,0254 mm
- Regrind possible if DC is ≥Ø12 mm

Designation	Item number	Length index	Tool shape	CZCMS	DC	DCSFMS	APMXS	LF	RE	PCEDC	SW	Grade
					mm	mm	mm	mm	mm			AXT
XSE450E10100D2R050Z3	10138362	2	D	E10	10,0	9,7	12,0	18,7	0,5	3	8	■
XSE450E12120D2R050Z3	10138363	2	D	E12	12,0	11,7	14,4	22,1	0,5	3	10	■
XSE450E12120D2R100Z3	10138364	2	D	E12	12,0	11,7	14,4	22,1	1,0	3	10	■
XSE450E16160D2R050Z3	10138365	2	D	E16	16,0	15,5	19,2	29,2	0,5	3	12	■
XSE450E16160D2R100Z3	10138366	2	D	E16	16,0	15,5	19,2	29,2	1,0	3	12	■
XSE450E20200D2R050Z3	10138367	2	D	E20	20,0	19,3	24,0	34,3	0,5	3	16	■
XSE450E20200D2R100Z3	10138369	2	D	E20	20,0	19,3	24,0	34,3	1,0	3	16	■

■ Stocked standard.

XSE450

High performance – Aluminium – Square – 3 Flutes – Corner radius – *Inch*







- Tolerances:
- DC= 0/-.002 Inch
- RE= ±.001 Inch
- Regrind possible if DC is ≥Ø.500 Inch

Designation	Item number	Length index	Tool shape	CZCMS	DC	DCSFMS	APMXS	LF	RE	PCEDC	SW	Grade
					Inch	*Inch*	*Inch*	*Inch*	*Inch*			AXT
XSE450E10.375D2SZ3	10138370	2	D	E10	0.375	0.364	0.450	0.720	–	3	8	■
XSE450E12.500D2SZ3	10138371	2	D	E12	0.500	0.484	0.600	0.906	–	3	10	■
XSE450E16.625D2SZ3	10138372	2	D	E16	0.625	0.610	0.750	1.150	–	3	12	■
XSE450E20.750D2SZ3	10138373	2	D	E20	0.750	0.728	0.900	1.295	–	3	16	■
XSE450E251.00D2SZ3	10138374	2	D	E25	1.000	0.965	1.200	1.673	–	3	20	■
XSE450E10.375D2R030Z3	10138375	2	D	E10	0.375	0.364	0.450	0.720	0.030	3	8	■
XSE450E12.500D2R030Z3	10138376	2	D	E12	0.500	0.484	0.600	0.906	0.030	3	10	■
XSE450E12.500D2R060Z3	10138377	2	D	E12	0.500	0.484	0.600	0.906	0.060	3	10	■
XSE450E16.625D2R030Z3	10138378	2	D	E16	0.625	0.610	0.750	1.150	0.030	3	12	■
XSE450E16.625D2R060Z3	10138379	2	D	E16	0.625	0.610	0.750	1.150	0.060	3	12	■
XSE450E16.625D2R120Z3	10138380	2	D	E16	0.625	0.610	0.750	1.150	0.120	3	12	■
XSE450E20.750D2R030Z3	10138381	2	D	E20	0.750	0.728	0.900	1.295	0.030	3	16	■
XSE450E20.750D2R060Z3	10138382	2	D	E20	0.750	0.728	0.900	1.295	0.060	3	16	■
XSE450E20.750D2R120Z3	10138383	2	D	E20	0.750	0.728	0.900	1.295	0.120	3	16	■
XSE450E251.00D2R030Z3	10138384	2	D	E25	1.000	0.965	1.200	1.673	0.030	3	20	■
XSE450E251.00D2R060Z3	10138385	2	D	E25	1.000	0.965	1.200	1.673	0.060	3	20	■
XSE450E251.00D2R120Z3	10138386	2	D	E25	1.000	0.965	1.200	1.673	0.120	3	20	■

■ Stocked standard.

Cutting data – XSE450 Side milling

SMG		a_e/DC	a_p/DC	f_z					v_c
				10	12	16	20		
N1	E/M/A	0,40 *0.40*	1,1 *1.1*	0,15 *0.0060*	0,18 *0.0070*	0,22 *0.0085*	0,26 *0.010*	0,30 *0.012*	405 (340 — 450) *1325 (1200 — 1400)*
N2	E/M/A	0,40 *0.40*	1,1 *1.1*	0,13 *0.0050*	0,16 *0.0065*	0,20 *0.0080*	0,22 *0.0085*	0,25 *0.010*	275 (230 — 330) *900 (760 — 1000)*
N3	E/M/A	0,40 *0.40*	1,1 *1.1*	0,13 *0.0050*	0,16 *0.0065*	0,20 *0.0080*	0,22 *0.0085*	0,25 *0.010*	185 (150 — 220) *610 (500 — 720)*
N11	E/M/A	0,40 *0.40*	1,1 *1.1*	0,13 *0.0050*	0,16 *0.0065*	0,20 *0.0080*	0,22 *0.0085*	0,25 *0.010*	245 (200 — 290) *800 (660 — 950)*
TS1	A/D	0,40 *0.40*	1,1 *1.1*	0,15 *0.0060*	0,18 *0.0070*	0,22 *0.0085*	0,26 *0.010*	0,30 *0.012*	280 (170 — 390) *920 (560 — 1200)*
TP1	A/D	0,40 *0.40*	1,1 *1.1*	0,15 *0.0060*	0,18 *0.0070*	0,22 *0.0085*	0,26 *0.010*	0,30 *0.012*	280 (170 — 390) *920 (560 — 1200)*

Cutting data – XSE450 Slot milling

SMG		a_p/DC	f_z					v_c
			10	12	16	20		
N1	E/M/A	0,90 *0.90*	0,10 *0.0040*	0,12 *0.0048*	0,16 *0.0065*	0,20 *0.0080*	0,25 *0.010*	360 (310 — 410) *1175 (1100 — 1300)*
N2	E/M/A	0,90 *0.90*	0,080 *0.0032*	0,095 *0.0038*	0,13 *0.0050*	0,16 *0.0065*	0,20 *0.0080*	250 (200 — 300) *820 (660 — 980)*
N3	E/M/A	0,90 *0.90*	0,080 *0.0032*	0,095 *0.0038*	0,13 *0.0050*	0,16 *0.0065*	0,20 *0.0080*	165 (140 — 200) *540 (460 — 650)*
N11	E/M/A	0,90 *0.90*	0,080 *0.0032*	0,095 *0.0038*	0,13 *0.0050*	0,16 *0.0065*	0,20 *0.0080*	220 (180 — 260) *720 (600 — 850)*
TS1	A/D	0,90 *0.90*	0,10 *0.0040*	0,12 *0.0048*	0,16 *0.0065*	0,20 *0.0080*	0,25 *0.010*	250 (150 — 340) *820 (500 — 1100)*
TP1	A/D	0,90 *0.90*	0,10 *0.0040*	0,12 *0.0048*	0,16 *0.0065*	0,20 *0.0080*	0,25 *0.010*	250 (150 — 340) *820 (500 — 1100)*

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

Cutting data – XSE450 Side milling inch

SMG		a_e/DC	a_p/DC	f_z					v_c
				3/8	1/2	5/8	3/4	1	
N1	E/M/A	0,40 *0.40*	1,1 *1.1*	0,15 *0.0060*	0,18 *0.0070*	0,22 *0.0085*	0,26 *0.010*	0,30 *0.012*	560 (450 — 670) *1825 (1500 — 2100)*
N2	E/M/A	0,40 *0.40*	1,1 *1.1*	0,13 *0.0050*	0,16 *0.0065*	0,20 *0.0080*	0,22 *0.0085*	0,25 *0.010*	445 (340 — 550) *1450 (1200 — 1800)*
N3	E/M/A	0,40 *0.40*	1,1 *1.1*	0,13 *0.0050*	0,16 *0.0065*	0,20 *0.0080*	0,22 *0.0085*	0,25 *0.010*	295 (230 — 360) *970 (760 — 1100)*
N11	E/M/A	0,40 *0.40*	1,1 *1.1*	0,13 *0.0050*	0,16 *0.0065*	0,20 *0.0080*	0,22 *0.0085*	0,25 *0.010*	395 (300 — 490) *1300 (990 — 1600)*
TS1	A/D	0,40 *0.40*	1,1 *1.1*	0,15 *0.0060*	0,18 *0.0070*	0,22 *0.0085*	0,26 *0.010*	0,30 *0.012*	280 (170 — 390) *920 (560 — 1200)*
TP1	A/D	0,40 *0.40*	1,1 *1.1*	0,15 *0.0060*	0,18 *0.0070*	0,22 *0.0085*	0,26 *0.010*	0,30 *0.012*	280 (170 — 390) *920 (560 — 1200)*

Cutting data – XSE450 Slot milling inch

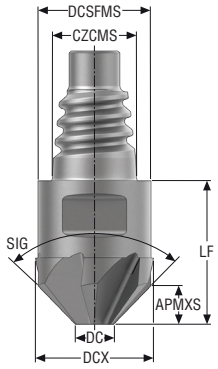
SMG		a_p/DC	f_z					v_c
			3/8	1/2	5/8	3/4	1	
N1	E/M/A	1,1 *1.1*	0,10 *0.0040*	0,12 *0.0048*	0,16 *0.0065*	0,20 *0.0080*	0,25 *0.010*	500 (400 — 590) *1650 (1400 — 1900)*
N2	E/M/A	1,1 *1.1*	0,080 *0.0032*	0,095 *0.0038*	0,13 *0.0050*	0,16 *0.0065*	0,20 *0.0080*	400 (300 — 490) *1300 (990 — 1600)*
N3	E/M/A	1,1 *1.1*	0,080 *0.0032*	0,095 *0.0038*	0,13 *0.0050*	0,16 *0.0065*	0,20 *0.0080*	265 (200 — 330) *870 (660 — 1000)*
N11	E/M/A	1,1 *1.1*	0,080 *0.0032*	0,095 *0.0038*	0,13 *0.0050*	0,16 *0.0065*	0,20 *0.0080*	355 (270 — 440) *1175 (890 — 1400)*
TS1	A/D	1,1 *1.1*	0,10 *0.0040*	0,12 *0.0048*	0,16 *0.0065*	0,20 *0.0080*	0,25 *0.010*	250 (150 — 340) *820 (500 — 1100)*
TP1	A/D	1,1 *1.1*	0,10 *0.0040*	0,12 *0.0048*	0,16 *0.0065*	0,20 *0.0080*	0,25 *0.010*	250 (150 — 340) *820 (500 — 1100)*

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

XSC509

High performance – Universal – Chamfer – 6 Flutes





N

- Tolerances:
- SIG= ±1°



Designation	Item number	Length index	Tool shape	CZCMS	DCX	DC	DCSFMS	APMXS	LF	SIG°	PCEDC	SW	Grade
					mm	mm	mm	mm	mm				SIRA
XSC509E10100N1SZ6	10219277	1	N	E10	10,1	1,95	9,7	4,0	12,3	90,0	6	8	■
XSC509E12120N1SZ6	10219278	1	N	E12	12,1	2,95	11,7	4,5	14,4	90,0	6	10	■
XSC509E16160N1SZ6	10219279	1	N	E16	16,1	3,95	15,5	6,0	18,6	90,0	6	12	■

■ Stocked standard.

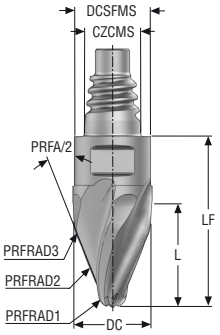
Cutting data – XSC509 Chamfering

SMG		a_e/DCX	a_p/DCX	f_z			v_c
				10	12	16	
P1	E/M/A/D	0,20 *0.20*	0,30 *0.30*	0,06 *0.0024*	0,09 *0.0035*	0,11 *0.0043*	275 (135 — 310) *900 (440 — 1010)*
P2	E/M/A/D	0,20 *0.20*	0,30 *0.30*	0,06 *0.0024*	0,09 *0.0035*	0,11 *0.0043*	270 (130 — 300) *890 (425 — 975)*
P3	E/M/A/D	0,20 *0.20*	0,30 *0.30*	0,06 *0.0024*	0,09 *0.0035*	0,11 *0.0043*	235 (110 — 260) *770 (370 — 850)*
P4	E/M/A/D	0,20 *0.20*	0,30 *0.30*	0,06 *0.0024*	0,085 *0.0035*	0,1 *0.0039*	220 (105 — 250) *720 (350 — 810)*
P5	E/M/A/D	0,20 *0.20*	0,30 *0.30*	0,06 *0.0024*	0,085 *0.0035*	0,1 *0.0039*	200 (95 — 220) *660 (310 — 715)*
P6	E/M/A/D	0,20 *0.20*	0,30 *0.30*	0,055 *0.0022*	0,08 *0.0031*	0,1 *0.0039*	200 (95 — 220) *660 (310 — 715)*
P7	E/M/A/D	0,20 *0.20*	0,30 *0.30*	0,055 *0.0022*	0,08 *0.0031*	0,1 *0.0039*	200 (95 — 220) *660 (310 — 715)*
P8	E/M/A/D	0,20 *0.20*	0,30 *0.30*	0,055 *0.0022*	0,08 *0.0031*	0,1 *0.0039*	200 (95 — 220) *660 (310 — 715)*
P11	E/M/A/D	0,20 *0.20*	0,30 *0.30*	0,055 *0.0022*	0,08 *0.0031*	0,1 *0.0039*	180 (80 — 200) *590 (270 — 650)*
P12	E/M/A/D	0,20 *0.20*	0,30 *0.30*	0,04 *0.0016*	0,08 *0.0022*	0,07 *0.0028*	130 (60 — 140) *425 (200 — 460)*
M1	E/M/A	0,20 *0.20*	0,30 *0.30*	0,065 *0.0026*	0,09 *0.0035*	0,11 *0.0043*	220 (100 — 240) *720 (330 — 790)*
M2	E/M/A	0,20 *0.20*	0,30 *0.30*	0,06 *0.0024*	0,08 *0.00314*	0,1 *0.0039*	180 (80 — 200) *590 (270 — 650)*
M3	E/M/A	0,20 *0.20*	0,30 *0.30*	0,05 *0.0018*	0,07 *0.0026*	0,08 *0.0032*	145 (65 — 155) *475 (210 — 510)*
M4	E/M/A	0,20 *0.20*	0,30 *0.30*	0,04 *0.0016*	0,06 *0.0022*	0,07 *0.0028*	110 (50 — 120) *360 (160 — 390)*
M5	E/M/A	0,20 *0.20*	0,30 *0.30*	0,04 *0.0016*	0,06 *0.0022*	0,07 *0.0028*	90 (40 — 100) *295 (140 — 330)*
K1	E/M/A/D	0,20 *0.20*	0,30 *0.30*	0,06 *0.0024*	0,08 *0.0032*	0,1 *0.0039*	215 (100 — 235) *710 (340 — 770)*
K2	E/M/A/D	0,20 *0.20*	0,30 *0.30*	0,06 *0.0024*	0,08 *0.0032*	0,1 *0.0039*	190 (90 — 205) *620 (300 — 675)*
K3	E/M/A/D	0,20 *0.20*	0,30 *0.30*	0,06 *0.0024*	0,08 *0.0032*	0,1 *0.0039*	160 (75 — 175) *520 (250 — 570)*
K4	E/M/A/D	0,20 *0.20*	0,30 *0.30*	0,06 *0.0024*	0,08 *0.0032*	0,1 *0.0039*	150 (70 — 165) *490 (240 — 540)*
K5	E/M/A/D	0,20 *0.20*	0,30 *0.30*	0,05 *0.002*	0,075 *0.00295*	0,09 *0.00354*	80 (45 — 100) *260 (145 — 330)*
K6	E/M/A/D	0,20 *0.20*	0,30 *0.30*	0,06 *0.0024*	0,08 *0.00314*	0,1 *0.0039*	115 (65 — 145) *375 (210 —480)*
K7	E/M/A/D	0,20 *0.20*	0,30 *0.30*	0,05 *0.002*	0,075 *0.003*	0,09 *0.0036*	100 (60 — 130) *330 (190 — 425)*
N1	E/M/A	0,20 *0.20*	0,30 *0.30*	0,08 *0.003*	0,11 *0.0044*	0,14 *0.0055*	1250 (775— 1800) *4100 (2540 — 5900)*
N2	E/M/A	0,20 *0.20*	0,30 *0.30*	0,08 *0.003*	0,11 *0.0044*	0,14 *0.0055*	570 (310 — 720) *1870 (1020 — 2370)*
N3	E/M/A	0,20 *0.20*	0,30 *0.30*	0,08 *0.003*	0,11 *0.0044*	0,14 *0.0055*	380 (210 — 480) *1240 (680 — 1580)*
N11	E/M/A	0,20 *0.20*	0,30 *0.30*	0,08 *0.003*	0,11 *0.0044*	0,14 *0.0055*	610 (240 — 555) *2000 (780 — 1820)*
S1	E	0,20 *0.20*	0,30 *0.30*	0,04 *0.0016*	0,055 *0.0022*	0,07 *0.0028*	30 (17 — 40) *100 (55 — 125)*
S2	E	0,20 *0.20*	0,30 *0.30*	0,04 *0.0016*	0,055 *0.0022*	0,07 *0.0028*	24 (15 — 31) *80 (44 — 102)*
S3	E	0,20 *0.20*	0,30 *0.30*	0,04 *0.0016*	0,055 *0.0022*	0,07 *0.0028*	21 (12 — 27) *70 (38 — 88)*
S11	E	0,20 *0.20*	0,30 *0.30*	0,05 *0.0018*	0,065 *0.0026*	0,08 *0.0032*	43 (25 — 55) *140 (80 — 180)*
S12	E	0,20 *0.20*	0,30 *0.30*	0,05 *0.0018*	0,065 *0.0026*	0,08 *0.0032*	33 (20 — 42) *108 (60 — 138)*
S13	E	0,20 *0.20*	0,30 *0.30*	0,04 *0.0016*	0,055 *0.0022*	0,07 *0.0028*	26 (15 — 33) *85 (50 — 110)*
H5	M/A	0,20 *0.20*	0,30 *0.30*	0,04 *0.0016*	0,055 *0.0022*	0,07 *0.0028*	60 (30 — 70) *195 (105— 240)*
H8	M/A	0,20 *0.20*	0,30 *0.30*	0,03 *0.0012*	0,04 *0.0017*	0,06 *0.0022*	60 (30 — 70) *195 (105— 240)*
H21	M/A	0,20 *0.20*	0,30 *0.30*	0,03 *0.0012*	0,04 *0.0017*	0,06 *0.0022*	60 (30 — 70) *195 (105— 240)*
H31	M/A	0,20 *0.20*	0,30 *0.30*	0,03 *0.0012*	0,04 *0.0017*	0,06 *0.0022*	45 (25 — 55) *145 (80 — 185)*

XHT740

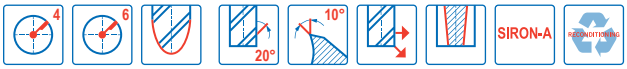
High speed – ISO– M and ISO– S - Taper Shape – 4-6 Flutes





T

- Tolerances:
- PRFRAD1= ±0,03 mm
- Form tolerance PRFRAD2= 0,02 mm
- Regrind possible if DC is ≥Ø12 mm and PRFRAD1 is ≥1,5 mm



Designation	Item number	Length index	Tool shape	CZCMS	DC	DCSFMS	L	LF	PRFRAD1	PRFRAD2	PRFRAD3	PRFA/2°	PCEDC	SW	Grade
					mm	mm	mm	mm	mm	mm	mm				SIRA
XHT740E10100T2R1.5R250Z4	10138388	2	T	E10	10,0	9,7	5,4	18,7	1,5	250,0	2,0	65,0	4	8	■
XHT740E12120T2R3R250Z4	10138389	2	T	E12	12,0	11,7	10,5	22,1	3,0	250,0	6,0	32,5	4	10	■
XHT740E16160T2R4R500Z4	10138390	2	T	E16	16,0	15,5	14,6	29,2	4,0	500,0	8,0	27,5	4	12	■
XHT740E10100T3R2R250Z4	10138391	3	T	E10	10,0	9,7	12,7	21,8	2,0	250,0	5,0	20,0	4	8	■
XHT740E12120T3R3R250Z4	10138392	3	T	E12	12,0	11,7	13,7	25,9	3,0	250,0	6,0	20,0	4	10	■
XHT740E16160T3R4R1000Z4	10138394	3	T	E16	16,0	15,5	24,0	34,1	4,0	1000,0	5,0	20,0	4	12	■
XHT740E16160T3R4R500Z4	10138393	3	T	E16	16,0	15,5	17,6	34,1	4,0	500,0	8,0	20,0	4	12	■
XHT740E10100T3R2R250Z6	10138395	3	T	E10	10,0	9,7	12,7	21,8	2,0	250,0	5,0	20,0	6	8	■
XHT740E12120T3R3R250Z6	10138396	3	T	E12	12,0	11,7	13,7	25,9	3,0	250,0	6,0	20,0	6	10	■
XHT740E16160T3R4R500Z6	10138397	3	T	E16	16,0	15,5	17,6	34,1	4,0	500,0	8,0	20,0	6	12	■

■ Stocked standard.

Cutting data – XHT740 – Copy milling PCEDC 4

SMG		a_e/DC	f_z			v_c
			10	12	16	
P8	E/M/A/D	0,010 *0.010*	0,05 *0.0022*	0,06 *0.0024*	0,08 *0.0032*	170 (150 - 195) *560 (490 - 640)*
P12	E/M/A/D	0,010 *0.010*	0,05 *0.0022*	0,06 *0.0024*	0,08 *0.0032*	120 (95 - 135) *400 (310 - 445)*
M1	E/M/A	0,010 *0.010*	0,05 *0.0022*	0,06 *0.0024*	0,08 *0.0032*	150 (125 - 155) *490 (410 - 510)*
M2	E/M/A	0,010 *0.010*	0,05 *0.0022*	0,06 *0.0024*	0,08 *0.0032*	145 (120 - 150) *475 (400 - 490)*
M3	E/M/A	0,010 *0.010*	0,05 *0.0022*	0,06 *0.0024*	0,08 *0.0032*	130 (90 - 140) *425 (295 - 460)*
S2	E	0,010 *0.010*	0,05 *0.0022*	0,06 *0.0024*	0,08 *0.0032*	60 (50 - 70) *195 (165 - 230)*
S11	E	0,010 *0.010*	0,05 *0.0022*	0,06 *0.0024*	0,08 *0.0032*	100 (85 - 105) *320 (280 - 345)*
S12	E	0,010 *0.010*	0,05 *0.0022*	0,06 *0.0024*	0,08 *0.0032*	95 (80 - 100) *310 (260 - 320)*
S13	E	0,010 *0.010*	0,05 *0.0022*	0,06 *0.0024*	0,08 *0.0032*	90 (75 - 95) *295 (245 - 310)*

Cutting data – XHT740 – Copy milling PCEDC 6

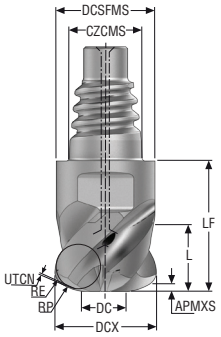
SMG		a_e/DC	f_z			v_c
			10	12	16	
P8	E/M/A/D	0,010 *0.010*	0,05 *0.0022*	0,06 *0.0024*	0,08 *0.0032*	170 (150 - 195) *560 (490 - 640)*
P12	E/M/A/D	0,010 *0.010*	0,05 *0.0022*	0,06 *0.0024*	0,08 *0.0032*	120 (95 - 135) *400 (310 - 445)*
M1	E/M/A	0,010 *0.010*	0,05 *0.0022*	0,06 *0.0024*	0,08 *0.0032*	150 (125 - 155) *490 (410 - 510)*
M2	E/M/A	0,010 *0.010*	0,05 *0.0022*	0,06 *0.0024*	0,08 *0.0032*	145 (120 - 150) *475 (400 - 490)*
M3	E/M/A	0,010 *0.010*	0,05 *0.0022*	0,06 *0.0024*	0,08 *0.0032*	130 (90 - 140) *425 (295 - 460)*
S2	E	0,010 *0.010*	0,05 *0.0022*	0,06 *0.0024*	0,08 *0.0032*	60 (50 - 70) *195 (165 - 230)*
S11	E	0,010 *0.010*	0,05 *0.0022*	0,06 *0.0024*	0,08 *0.0032*	100 (85 - 105) *320 (280 - 345)*
S12	E	0,010 *0.010*	0,05 *0.0022*	0,06 *0.0024*	0,08 *0.0032*	95 (80 - 100) *310 (260 - 320)*
S13	E	0,010 *0.010*	0,05 *0.0022*	0,06 *0.0024*	0,08 *0.0032*	90 (75 - 95) *295 (245 - 310)*

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

XHF580

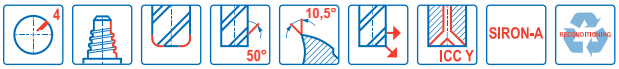
High feed – Universal – 4 Flutes – Corner radius – ICC





D

- Tolerances:
- DCX= h9
- RE= ±0,03 mm
- Regrind possible if DCX is ≥Ø12 mm

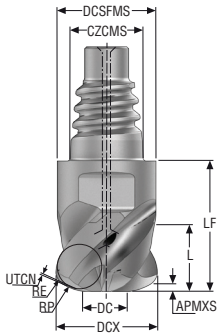


Designation	Item number	Length index	Tool shape	CSP	CZCMS	DCX	DC	DCSFMS	APMXS	L	LF	RE	RP	UTCN	PCEDC	SW	Grades
						mm	mm	mm	mm	mm	mm	mm	mm	mm			SIRA
XHF580E10100D1HZ4A	10137971	1	D	✓	E10	10,0	3,4	9,7	0,7	6,0	12,4	1,5	1,99	0,27	4	8	■
XHF580E12120D1HZ4A	10137972	1	D	✓	E12	12,0	4,5	11,7	0,8	7,5	14,5	1,5	2,1	0,323	4	10	■
XHF580E16160D1HZ4A	10137973	1	D	✓	E16	16,0	6,2	15,5	1,0	10,0	18,7	2,0	2,747	0,426	4	12	■

■ Stocked standard.

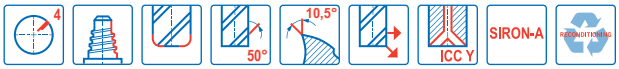
XHF580

High feed – Universal – 4 Flutes – Corner radius – ICC – *Inch*



D





- Tolerances:
- DCX= h9
- RE= ±.0012 Inch
- Regrind possible if DCX is ≥Ø.500 Inch

Designation	Item number	Length index	Tool shape	CSP	CZCMS	DCX	DC	DCSFMS	APMXS	L	LF	RE	RP	UTCN	PCEDC	SW	Grades
						Inch	*Inch*	*Inch*	*Inch*	*Inch*	*Inch*	*Inch*	*Inch*	*Inch*			SIRA
XHF580E10.375D1HZ4A	10137974	1	D	✓	E10	0.375	0.134	0.364	0.024	0.236	0.488	0.060	0.076	0.008	4	8	■
XHF580E12.500D1HZ4A	10137975	1	D	✓	E12	0.500	0.197	0.484	0.033	0.315	0.571	0.060	0.086	0.014	4	10	■
XHF580E16.625D1HZ4A	10137976	1	D	✓	E16	0.614	0.236	0.610	0.039	0.394	0.736	0.080	0.110	0.016	4	12	■

■ Stocked standard.

Cutting data – XHF580 Side milling

SMG		a_e/DCX	a_p/DCX	f_z			v_c
				10	12	16	
P1	E/M/A/D	0,30 *0.30*	0,060 *0.060*	0,50 *0.020*	0,60 *0.024*	0,80 *0.032*	350 (330 — 400) *1150 (1100 — 1300)*
P2	E/M/A/D	0,30 *0.30*	0,060 *0.060*	0,50 *0.020*	0,60 *0.024*	0,80 *0.032*	340 (320 — 390) *1125 (1100 — 1200)*
P3	E/M/A/D	0,30 *0.30*	0,060 *0.060*	0,50 *0.020*	0,60 *0.024*	0,80 *0.032*	295 (280 — 340) *970 (920 — 1100)*
P4	E/M/A/D	0,30 *0.30*	0,060 *0.060*	0,50 *0.020*	0,60 *0.024*	0,80 *0.032*	260 (250 — 300) *850 (830 — 980)*
P5	E/M/A/D	0,30 *0.30*	0,060 *0.060*	0,50 *0.020*	0,60 *0.024*	0,80 *0.032*	260 (250 — 300) *850 (830 — 980)*
P6	E/M/A/D	0,30 *0.30*	0,060 *0.060*	0,50 *0.020*	0,60 *0.024*	0,80 *0.032*	190 (180 — 230) *620 (600 — 750)*
P7	E/M/A/D	0,30 *0.30*	0,060 *0.060*	0,50 *0.020*	0,60 *0.024*	0,80 *0.032*	180 (170 — 220) *590 (560 — 720)*
P8	E/M/A/D	0,30 *0.30*	0,060 *0.060*	0,50 *0.020*	0,60 *0.024*	0,80 *0.032*	170 (160 — 200) *560 (530 — 650)*
P11	E/M/A/D	0,30 *0.30*	0,060 *0.060*	0,40 *0.016*	0,48 *0.019*	0,65 *0.026*	145 (150 — 170) *475 (500 — 550)*
P12	E/M/A/D	0,30 *0.30*	0,060 *0.060*	0,40 *0.016*	0,48 *0.019*	0,65 *0.026*	85 (83 — 100) *280 (280 — 320)*
M1	E/M/A	0,30 *0.30*	0,060 *0.060*	0,40 *0.016*	0,48 *0.019*	0,65 *0.026*	170 (170 — 200) *560 (560 — 650)*
M2	E/M/A	0,30 *0.30*	0,060 *0.060*	0,40 *0.016*	0,48 *0.019*	0,65 *0.026*	140 (140 — 160) *460 (460 — 520)*
M3	E/M/A	0,30 *0.30*	0,060 *0.060*	0,40 *0.016*	0,48 *0.019*	0,65 *0.026*	105 (97 — 130) *345 (320 — 420)*
M4	E/M/A	0,30 *0.30*	0,060 *0.060*	0,40 *0.016*	0,48 *0.019*	0,65 *0.026*	75 (73 — 99) *245 (240 — 320)*
M5	E/M/A	0,30 *0.30*	0,060 *0.060*	0,40 *0.016*	0,48 *0.019*	0,65 *0.026*	65 (61 — 83) *215 (210 — 270)*
K1	E/M/A/D	0,30 *0.30*	0,060 *0.060*	0,50 *0.020*	0,60 *0.024*	0,80 *0.032*	345 (330 — 400) *1125 (1100 — 1300)*
K2	E/M/A/D	0,30 *0.30*	0,060 *0.060*	0,50 *0.020*	0,60 *0.024*	0,80 *0.032*	300 (280 — 340) *980 (920 — 1100)*
K3	E/M/A/D	0,30 *0.30*	0,060 *0.060*	0,50 *0.020*	0,60 *0.024*	0,80 *0.032*	250 (240 — 290) *820 (790 — 950)*
K4	E/M/A/D	0,30 *0.30*	0,060 *0.060*	0,50 *0.020*	0,60 *0.024*	0,80 *0.032*	240 (230 — 280) *790 (760 — 910)*
K5	E/M/A/D	0,30 *0.30*	0,060 *0.060*	0,50 *0.020*	0,60 *0.024*	0,80 *0.032*	145 (140 — 160) *475 (460 — 520)*
K6	E/M/A/D	0,30 *0.30*	0,060 *0.060*	0,50 *0.020*	0,60 *0.024*	0,80 *0.032*	210 (200 — 240) *690 (660 — 780)*
K7	E/M/A/D	0,30 *0.30*	0,060 *0.060*	0,50 *0.020*	0,60 *0.024*	0,80 *0.032*	185 (180 — 210) *610 (600 — 680)*
S1	E	0,30 *0.30*	0,034 *0.034*	0,24 *0.0095*	0,28 *0.011*	0,38 *0.015*	45 (36 — 71) *150 (120 — 230)*
S2	E	0,30 *0.30*	0,034 *0.034*	0,24 *0.0095*	0,28 *0.011*	0,38 *0.015*	36 (29 — 57) *120 (96 — 180)*
S3	E	0,30 *0.30*	0,034 *0.034*	0,24 *0.0095*	0,28 *0.011*	0,38 *0.015*	31 (25 — 49) *100 (83 — 160)*
S11	E	0,30 *0.30*	0,060 *0.060*	0,36 *0.014*	0,42 *0.017*	0,55 *0.022*	160 (160 — 190) *520 (530 — 620)*
S12	E	0,30 *0.30*	0,060 *0.060*	0,36 *0.014*	0,42 *0.017*	0,55 *0.022*	125 (120 — 150) *410 (400 — 490)*
S13	E	0,30 *0.30*	0,060 *0.060*	0,36 *0.014*	0,42 *0.017*	0,55 *0.022*	95 (91 — 110) *310 (300 — 360)*
H5	M/A	0,30 *0.30*	0,060 *0.060*	0,40 *0.016*	0,48 *0.019*	0,65 *0.026*	105 (98 — 130) *345 (330 — 420)*
H8	M/A	0,30 *0.30*	0,060 *0.060*	0,40 *0.016*	0,48 *0.019*	0,65 *0.026*	105 (98 — 130) *345 (330 — 420)*
H21	M/A	0,30 *0.30*	0,060 *0.060*	0,40 *0.016*	0,48 *0.019*	0,65 *0.026*	105 (98 — 130) *345 (330 — 420)*
H31	M/A	0,30 *0.30*	0,060 *0.060*	0,40 *0.016*	0,48 *0.019*	0,65 *0.026*	80 (74 — 100) *260 (250 — 320)*

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

Cutting data – XHF580 Slot milling

SMG		a_p/DCX	f_z			v_c
			10	12	16	
P1	E/M/A/D	0,060 *0.060*	0,30 *0.012*	0,36 *0.014*	0,48 *0.019*	320 (300 — 360) *1050 (990 — 1100)*
P2	E/M/A/D	0,060 *0.060*	0,30 *0.012*	0,36 *0.014*	0,48 *0.019*	310 (290 — 350) *1025 (960 — 1100)*
P3	E/M/A/D	0,060 *0.060*	0,30 *0.012*	0,36 *0.014*	0,48 *0.019*	265 (250 — 300) *870 (830 — 980)*
P4	E/M/A/D	0,060 *0.060*	0,30 *0.012*	0,36 *0.014*	0,48 *0.019*	235 (220 — 270) *770 (730 — 880)*
P5	E/M/A/D	0,060 *0.060*	0,30 *0.012*	0,36 *0.014*	0,48 *0.019*	235 (220 — 270) *770 (730 — 880)*
P6	E/M/A/D	0,060 *0.060*	0,30 *0.012*	0,36 *0.014*	0,48 *0.019*	175 (160 — 210) *570 (530 — 680)*
P7	E/M/A/D	0,060 *0.060*	0,30 *0.012*	0,36 *0.014*	0,48 *0.019*	165 (150 — 200) *540 (500 — 650)*
P8	E/M/A/D	0,060 *0.060*	0,30 *0.012*	0,36 *0.014*	0,48 *0.019*	155 (150 — 180) *510 (500 — 590)*
P11	E/M/A/D	0,060 *0.060*	0,24 *0.0095*	0,28 *0.011*	0,38 *0.015*	130 (130 — 160) *425 (430 — 520)*
P12	E/M/A/D	0,060 *0.060*	0,24 *0.0095*	0,28 *0.011*	0,38 *0.015*	80 (75 — 94) *260 (250 — 300)*
M1	E/M/A	0,060 *0.060*	0,24 *0.0095*	0,28 *0.011*	0,38 *0.015*	155 (150 — 180) *510 (500 — 590)*
M2	E/M/A	0,060 *0.060*	0,24 *0.0095*	0,28 *0.011*	0,38 *0.015*	125 (120 — 150) *410 (400 — 490)*
M3	E/M/A	0,060 *0.060*	0,24 *0.0095*	0,28 *0.011*	0,38 *0.015*	95 (88 — 110) *310 (290 — 360)*
M4	E/M/A	0,060 *0.060*	0,24 *0.0095*	0,28 *0.011*	0,38 *0.015*	70 (66 — 89) *230 (220 — 290)*
M5	E/M/A	0,060 *0.060*	0,24 *0.0095*	0,28 *0.011*	0,38 *0.015*	60 (55 — 74) *195 (190 — 240)*
K1	E/M/A/D	0,060 *0.060*	0,30 *0.012*	0,36 *0.014*	0,48 *0.019*	310 (300 — 360) *1025 (990 — 1100)*
K2	E/M/A/D	0,060 *0.060*	0,30 *0.012*	0,36 *0.014*	0,48 *0.019*	270 (260 — 310) *890 (860 — 1000)*
K3	E/M/A/D	0,060 *0.060*	0,30 *0.012*	0,36 *0.014*	0,48 *0.019*	230 (220 — 260) *750 (730 — 850)*
K4	E/M/A/D	0,060 *0.060*	0,30 *0.012*	0,36 *0.014*	0,48 *0.019*	220 (210 — 250) *720 (690 — 820)*
K5	E/M/A/D	0,060 *0.060*	0,30 *0.012*	0,36 *0.014*	0,48 *0.019*	130 (130 — 150) *425 (430 — 490)*
K6	E/M/A/D	0,060 *0.060*	0,30 *0.012*	0,36 *0.014*	0,48 *0.019*	190 (180 — 220) *620 (600 — 720)*
K7	E/M/A/D	0,060 *0.060*	0,30 *0.012*	0,36 *0.014*	0,48 *0.019*	165 (160 — 190) *540 (530 — 620)*
S1	E	0,034 *0.034*	0,18 *0.0070*	0,22 *0.0085*	0,28 *0.011*	39 (32 — 62) *130 (110 — 200)*
S2	E	0,034 *0.034*	0,18 *0.0070*	0,22 *0.0085*	0,28 *0.011*	31 (26 — 50) *100 (86 — 160)*
S3	E	0,034 *0.034*	0,18 *0.0070*	0,22 *0.0085*	0,28 *0.011*	27 (22 — 43) *90 (73 — 140)*
S11	E	0,060 *0.060*	0,18 *0.0070*	0,22 *0.0085*	0,28 *0.011*	150 (150 — 180) *490 (500 — 590)*
S12	E	0,060 *0.060*	0,18 *0.0070*	0,22 *0.0085*	0,28 *0.011*	115 (110 — 140) *375 (370 — 450)*
S13	E	0,060 *0.060*	0,18 *0.0070*	0,22 *0.0085*	0,28 *0.011*	90 (85 — 100) *295 (280 — 320)*
H5	M/A	0,060 *0.060*	0,24 *0.0095*	0,28 *0.011*	0,38 *0.015*	95 (88 — 120) *310 (290 — 390)*
H8	M/A	0,060 *0.060*	0,24 *0.0095*	0,28 *0.011*	0,38 *0.015*	95 (88 — 120) *310 (290 — 390)*
H21	M/A	0,060 *0.060*	0,24 *0.0095*	0,28 *0.011*	0,38 *0.015*	95 (88 — 120) *310 (290 — 390)*
H31	M/A	0,060 *0.060*	0,24 *0.0095*	0,28 *0.011*	0,38 *0.015*	70 (67 — 91) *230 (220 — 290)*

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

Cutting data – XHF580 Side milling inch

SMG		a_e/DCX	a_p/DCX	f_z			v_c
				3/8	1/2	5/8	
P1	E/M/A/D	0,30 *0.30*	0,060 *0.060*	0,50 *0.020*	0,60 *0.024*	0,80 *0.032*	485 (440 — 530) *1600 (1500 — 1700)*
P2	E/M/A/D	0,30 *0.30*	0,060 *0.060*	0,50 *0.020*	0,60 *0.024*	0,80 *0.032*	475 (430 — 520) *1550 (1500 — 1700)*
P3	E/M/A/D	0,30 *0.30*	0,060 *0.060*	0,50 *0.020*	0,60 *0.024*	0,80 *0.032*	405 (370 — 450) *1325 (1300 — 1400)*
P4	E/M/A/D	0,30 *0.30*	0,060 *0.060*	0,50 *0.020*	0,60 *0.024*	0,80 *0.032*	360 (320 — 390) *1175 (1100 — 1200)*
P5	E/M/A/D	0,34 *0.34*	0,060 *0.060*	0,50 *0.020*	0,60 *0.024*	0,80 *0.032*	260 (240 — 290) *850 (790 — 950)*
P6	E/M/A/D	0,34 *0.34*	0,060 *0.060*	0,50 *0.020*	0,60 *0.024*	0,80 *0.032*	295 (270 — 320) *970 (890 — 1000)*
P7	E/M/A/D	0,34 *0.34*	0,060 *0.060*	0,50 *0.020*	0,60 *0.024*	0,80 *0.032*	280 (250 — 300) *920 (830 — 980)*
P8	E/M/A/D	0,34 *0.34*	0,060 *0.060*	0,50 *0.020*	0,60 *0.024*	0,80 *0.032*	260 (240 — 290) *850 (790 — 950)*
P11	E/M/A/D	0,30 *0.30*	0,055 *0.055*	0,40 *0.016*	0,48 *0.019*	0,65 *0.026*	160 (140 — 170) *520 (460 — 550)*
P12	E/M/A/D	0,30 *0.30*	0,055 *0.055*	0,40 *0.016*	0,48 *0.019*	0,65 *0.026*	95 (83 — 100) *310 (280 — 320)*
M1	E/M/A	0,30 *0.30*	0,055 *0.055*	0,40 *0.016*	0,48 *0.019*	0,65 *0.026*	185 (170 — 200) *610 (560 — 650)*
M2	E/M/A	0,30 *0.30*	0,055 *0.055*	0,40 *0.016*	0,48 *0.019*	0,65 *0.026*	150 (140 — 160) *490 (460 — 520)*
M3	E/M/A	0,30 *0.30*	0,055 *0.055*	0,40 *0.016*	0,48 *0.019*	0,65 *0.026*	115 (97 — 130) *375 (320 — 420)*
M4	E/M/A	0,30 *0.30*	0,055 *0.055*	0,40 *0.016*	0,48 *0.019*	0,65 *0.026*	85 (73 — 99) *280 (240 — 320)*
M5	E/M/A	0,30 *0.30*	0,055 *0.055*	0,40 *0.016*	0,48 *0.019*	0,65 *0.026*	70 (61 — 82) *230 (210 — 260)*
K1	E/M/A/D	0,30 *0.30*	0,060 *0.060*	0,50 *0.020*	0,60 *0.024*	0,80 *0.032*	475 (430 — 520) *1550 (1500 — 1700)*
K2	E/M/A/D	0,30 *0.30*	0,060 *0.060*	0,50 *0.020*	0,60 *0.024*	0,80 *0.032*	415 (370 — 450) *1350 (1300 — 1400)*
K3	E/M/A/D	0,30 *0.30*	0,060 *0.060*	0,50 *0.020*	0,60 *0.024*	0,80 *0.032*	350 (320 — 380) *1150 (1100 — 1200)*
K4	E/M/A/D	0,30 *0.30*	0,060 *0.060*	0,50 *0.020*	0,60 *0.024*	0,80 *0.032*	335 (300 — 370) *1100 (990 — 1200)*
K5	E/M/A/D	0,30 *0.30*	0,060 *0.060*	0,50 *0.020*	0,60 *0.024*	0,80 *0.032*	200 (180 — 220) *660 (600 — 720)*
K6	E/M/A/D	0,30 *0.30*	0,060 *0.060*	0,50 *0.020*	0,60 *0.024*	0,80 *0.032*	295 (270 — 320) *970 (890 — 1000)*
K7	E/M/A/D	0,30 *0.30*	0,060 *0.060*	0,50 *0.020*	0,60 *0.024*	0,80 *0.032*	255 (230 — 280) *840 (760 — 910)*
S1	E	0,30 *0.30*	0,034 *0.034*	0,24 *0.0095*	0,28 *0.011*	0,38 *0.015*	55 (36 — 71) *180 (120 — 230)*
S2	E	0,30 *0.30*	0,034 *0.034*	0,24 *0.0095*	0,28 *0.011*	0,38 *0.015*	43 (29 — 57) *140 (96 — 180)*
S3	E	0,30 *0.30*	0,034 *0.034*	0,24 *0.0095*	0,28 *0.011*	0,38 *0.015*	37 (25 — 49) *120 (83 — 160)*
S11	E	0,30 *0.30*	0,034 *0.034*	0,36 *0.014*	0,42 *0.017*	0,55 *0.022*	170 (150 — 190) *560 (500 — 620)*
S12	E	0,30 *0.30*	0,034 *0.034*	0,36 *0.014*	0,42 *0.017*	0,55 *0.022*	130 (120 — 140) *425 (400 — 450)*
S13	E	0,30 *0.30*	0,034 *0.034*	0,36 *0.014*	0,42 *0.017*	0,55 *0.022*	100 (89 — 110) *330 (300 — 360)*
H5	M/A	0,30 *0.30*	0,060 *0.060*	0,40 *0.016*	0,48 *0.019*	0,65 *0.026*	115 (98 — 130) *375 (330 — 420)*
H8	M/A	0,30 *0.30*	0,060 *0.060*	0,40 *0.016*	0,48 *0.019*	0,65 *0.026*	115 (98 — 130) *375 (330 — 420)*
H21	M/A	0,30 *0.30*	0,060 *0.060*	0,40 *0.016*	0,48 *0.019*	0,65 *0.026*	115 (98 — 130) *375 (330 — 420)*
H31	M/A	0,30 *0.30*	0,060 *0.060*	0,40 *0.016*	0,48 *0.019*	0,65 *0.026*	90 (74 — 100) *295 (250 — 320)*

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

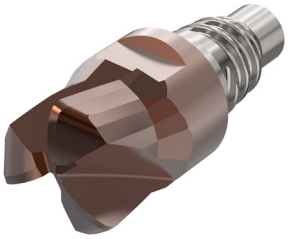
Cutting data – XHF580 Slot milling inch

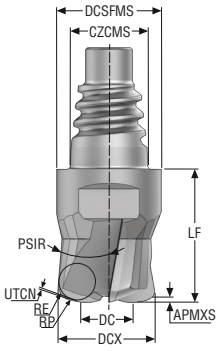
SMG		a_p/DCX	f_z			v_c
			3/8	1/2	5/8	
P1	E/M/A/D	0,060 *0.060*	0,30 *0.012*	0,36 *0.014*	0,48 *0.019*	440 (400 — 480) *1450 (1400 — 1500)*
P2	E/M/A/D	0,060 *0.060*	0,30 *0.012*	0,36 *0.014*	0,48 *0.019*	430 (390 — 470) *1400 (1300 — 1500)*
P3	E/M/A/D	0,060 *0.060*	0,30 *0.012*	0,36 *0.014*	0,48 *0.019*	370 (330 — 400) *1225 (1100 — 1300)*
P4	E/M/A/D	0,060 *0.060*	0,30 *0.012*	0,36 *0.014*	0,48 *0.019*	325 (290 — 360) *1075 (960 — 1100)*
P5	E/M/A/D	0,060 *0.060*	0,30 *0.012*	0,36 *0.014*	0,48 *0.019*	245 (220 — 270) *800 (730 — 880)*
P6	E/M/A/D	0,060 *0.060*	0,30 *0.012*	0,36 *0.014*	0,48 *0.019*	275 (250 — 300) *900 (830 — 980)*
P7	E/M/A/D	0,060 *0.060*	0,30 *0.012*	0,36 *0.014*	0,48 *0.019*	260 (240 — 280) *850 (790 — 910)*
P8	E/M/A/D	0,060 *0.060*	0,30 *0.012*	0,36 *0.014*	0,48 *0.019*	245 (220 — 270) *800 (730 — 880)*
P11	E/M/A/D	0,055 *0.055*	0,24 *0.0095*	0,28 *0.011*	0,38 *0.015*	145 (130 — 160) *475 (430 — 520)*
P12	E/M/A/D	0,055 *0.055*	0,24 *0.0095*	0,28 *0.011*	0,38 *0.015*	85 (75 — 94) *280 (250 — 300)*
M1	E/M/A	0,055 *0.055*	0,24 *0.0095*	0,28 *0.011*	0,38 *0.015*	170 (150 — 180) *560 (500 — 590)*
M2	E/M/A	0,055 *0.055*	0,24 *0.0095*	0,28 *0.011*	0,38 *0.015*	135 (120 — 150) *445 (400 — 490)*
M3	E/M/A	0,055 *0.055*	0,24 *0.0095*	0,28 *0.011*	0,38 *0.015*	105 (88 — 110) *345 (290 — 360)*
M4	E/M/A	0,055 *0.055*	0,24 *0.0095*	0,28 *0.011*	0,38 *0.015*	80 (66 — 89) *260 (220 — 290)*
M5	E/M/A	0,055 *0.055*	0,24 *0.0095*	0,28 *0.011*	0,38 *0.015*	65 (55 — 74) *215 (190 — 240)*
K1	E/M/A/D	0,060 *0.060*	0,30 *0.012*	0,36 *0.014*	0,48 *0.019*	430 (390 — 480) *1400 (1300 — 1500)*
K2	E/M/A/D	0,060 *0.060*	0,30 *0.012*	0,36 *0.014*	0,48 *0.019*	375 (340 — 410) *1225 (1200 — 1300)*
K3	E/M/A/D	0,060 *0.060*	0,30 *0.012*	0,36 *0.014*	0,48 *0.019*	315 (290 — 350) *1025 (960 — 1100)*
K4	E/M/A/D	0,060 *0.060*	0,30 *0.012*	0,36 *0.014*	0,48 *0.019*	305 (270 — 330) *1000 (890 — 1000)*
K5	E/M/A/D	0,060 *0.060*	0,30 *0.012*	0,36 *0.014*	0,48 *0.019*	180 (170 — 200) *590 (560 — 650)*
K6	E/M/A/D	0,060 *0.060*	0,30 *0.012*	0,36 *0.014*	0,48 *0.019*	265 (240 — 290) *870 (790 — 950)*
K7	E/M/A/D	0,060 *0.060*	0,30 *0.012*	0,36 *0.014*	0,48 *0.019*	230 (210 — 250) *750 (690 — 820)*
S1	E	0,034 *0.034*	0,18 *0.0070*	0,22 *0.0085*	0,28 *0.011*	47 (32 — 62) *155 (110 — 200)*
S2	E	0,034 *0.034*	0,18 *0.0070*	0,22 *0.0085*	0,28 *0.011*	38 (26 — 50) *125 (86 — 160)*
S3	E	0,034 *0.034*	0,18 *0.0070*	0,22 *0.0085*	0,28 *0.011*	32 (22 — 43) *105 (73 — 140)*
S11	E	0,034 *0.034*	0,18 *0.0070*	0,22 *0.0085*	0,28 *0.011*	160 (150 — 180) *520 (500 — 590)*
S12	E	0,034 *0.034*	0,18 *0.0070*	0,22 *0.0085*	0,28 *0.011*	125 (110 — 140) *410 (370 — 450)*
S13	E	0,034 *0.034*	0,18 *0.0070*	0,22 *0.0085*	0,28 *0.011*	95 (84 — 100) *310 (280 — 320)*
H5	M/A	0,060 *0.060*	0,24 *0.0095*	0,28 *0.011*	0,38 *0.015*	105 (88 — 120) *345 (290 — 390)*
H8	M/A	0,060 *0.060*	0,24 *0.0095*	0,28 *0.011*	0,38 *0.015*	105 (88 — 120) *345 (290 — 390)*
H21	M/A	0,060 *0.060*	0,24 *0.0095*	0,28 *0.011*	0,38 *0.015*	105 (88 — 120) *345 (290 — 390)*
H31	M/A	0,060 *0.060*	0,24 *0.0095*	0,28 *0.011*	0,38 *0.015*	80 (67 — 91) *260 (220 — 290)*

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

XHF780

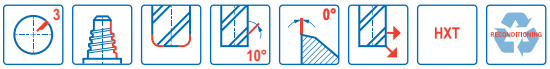
High feed – ISO– M and ISO– S – 3 Flutes – Corner radius





D

- Tolerances:
- DCX= -0,02/-0,04 mm
- RE= ±0,05 mm
- Regrind possible if DCX is ≥Ø12 mm

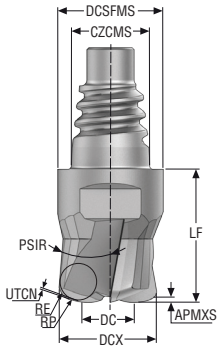


Designation	Item number	Length index	Tool shape	CZCMS	DCX	DC	DCSFMS	APMXS	LF	RE	RP	UTCN	PSIR°	PCEDC	SW	Grades
					mm	mm	mm	mm	mm	mm	mm	mm				HXT
XHF780E10100D1HZ3	10137957	1	D	E10	10,0	5,0	9,7	0,45	12,3	0,8	1,175	0,232	-5,0	3	8	■
XHF780E12120D1HZ3	10137958	1	D	E12	12,0	6,0	11,7	0,5	14,4	1,0	1,416	0,262	-5,0	3	10	■
XHF780E16160D1HZ3	10137959	1	D	E16	16,0	8,0	15,5	0,6	18,6	1,5	1,989	0,32	-5,0	3	12	■

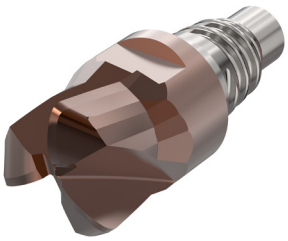
■ Stocked standard.

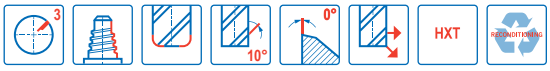
XHF780

High feed – ISO– M and ISO– S – 3 Flutes – Corner radius – *Inch*



D





- Tolerances:
- DCX= -.0008/-0.0016 Inch
- RE= ±.002 Inch
- Regrind possible if DCX is ≥Ø.500 Inch

Designation	Item number	Length index	Tool shape	CZCMS	DCX	DC	DCSFMS	APMXS	LF	RE	RP	UTCN	PSIR°	PCEDC	SW	Grades
					Inch	*Inch*	*Inch*	*Inch*	*Inch*	*Inch*	*Inch*	*Inch*				HXT
XHF780E10.375D1HZ3	10137960	1	D	E10	0.375	0.188	0.364	0.018	0.484	0.028	0.043	0.009	-5,0	3	8	■
XHF780E12.500D1HZ3	10137961	1	D	E12	0.461	0.250	0.484	0.020	0.567	0.045	0.061	0.010	-5,0	3	10	■
XHF780E16.625D1HZ3	10137962	1	D	E16	0.625	0.313	0.610	0.024	0.732	0.061	0.080	0.012	-5,0	3	12	■

■ Stocked standard.

Cutting data – XHF780 Side milling

SMG		a_e/DCX	a_p/DCX	f_z			v_c
				10	12	16	
P1	E/M/A/D	0,30 *0.30*	0,040 *0.040*	0,50 *0.020*	0,60 *0.024*	0,80 *0.032*	355 (330 — 410) *1175 (1100 — 1300)*
P2	E/M/A/D	0,30 *0.30*	0,040 *0.040*	0,50 *0.020*	0,60 *0.024*	0,80 *0.032*	345 (320 — 390) *1125 (1100 — 1200)*
P3	E/M/A/D	0,30 *0.30*	0,040 *0.040*	0,50 *0.020*	0,60 *0.024*	0,80 *0.032*	295 (280 — 340) *970 (920 — 1100)*
P4	E/M/A/D	0,30 *0.30*	0,040 *0.040*	0,50 *0.020*	0,60 *0.024*	0,80 *0.032*	260 (250 — 300) *850 (830 — 980)*
P5	E/M/A/D	0,30 *0.30*	0,040 *0.040*	0,50 *0.020*	0,60 *0.024*	0,80 *0.032*	260 (250 — 300) *850 (830 — 980)*
P6	E/M/A/D	0,30 *0.30*	0,040 *0.040*	0,50 *0.020*	0,60 *0.024*	0,80 *0.032*	195 (180 — 230) *640 (600 — 750)*
P7	E/M/A/D	0,30 *0.30*	0,040 *0.040*	0,50 *0.020*	0,60 *0.024*	0,80 *0.032*	185 (170 — 220) *610 (560 — 720)*
P8	E/M/A/D	0,30 *0.30*	0,040 *0.040*	0,50 *0.020*	0,60 *0.024*	0,80 *0.032*	175 (160 — 210) *570 (530 — 680)*
P11	E/M/A/D	0,30 *0.30*	0,040 *0.040*	0,50 *0.020*	0,60 *0.024*	0,80 *0.032*	180 (170 — 210) *590 (560 — 680)*
P12	E/M/A/D	0,30 *0.30*	0,036 *0.036*	0,40 *0.016*	0,48 *0.019*	0,65 *0.026*	85 (83 — 100) *280 (280 — 320)*
M1	E/M/A	0,30 *0.30*	0,036 *0.036*	0,40 *0.016*	0,48 *0.019*	0,65 *0.026*	175 (170 — 210) *570 (560 — 680)*
M2	E/M/A	0,30 *0.30*	0,036 *0.036*	0,40 *0.016*	0,48 *0.019*	0,65 *0.026*	140 (140 — 160) *460 (460 — 520)*
M3	E/M/A	0,30 *0.30*	0,036 *0.036*	0,40 *0.016*	0,48 *0.019*	0,65 *0.026*	105 (97 — 130) *345 (320 — 420)*
M4	E/M/A	0,30 *0.30*	0,036 *0.036*	0,40 *0.016*	0,48 *0.019*	0,65 *0.026*	75 (73 — 100) *245 (240 — 320)*
M5	E/M/A	0,30 *0.30*	0,036 *0.036*	0,40 *0.016*	0,48 *0.019*	0,65 *0.026*	65 (61 — 83) *215 (210 — 270)*
S1	E	0,30 *0.30*	0,022 *0.022*	0,24 *0.0095*	0,28 *0.011*	0,38 *0.015*	45 (36 — 71) *150 (120 — 230)*
S2	E	0,30 *0.30*	0,022 *0.022*	0,24 *0.0095*	0,28 *0.011*	0,38 *0.015*	36 (29 — 57) *120 (96 — 180)*
S3	E	0,30 *0.30*	0,022 *0.022*	0,24 *0.0095*	0,28 *0.011*	0,38 *0.015*	31 (25 — 49) *100 (83 — 160)*
S11	E	0,30 *0.30*	0,022 *0.022*	0,36 *0.014*	0,42 *0.017*	0,55 *0.022*	160 (160 — 190) *520 (530 — 620)*
S12	E	0,30 *0.30*	0,022 *0.022*	0,36 *0.014*	0,42 *0.017*	0,55 *0.022*	120 (120 — 150) *395 (400 — 490)*
S13	E	0,30 *0.30*	0,022 *0.022*	0,36 *0.014*	0,42 *0.017*	0,55 *0.022*	95 (90 — 110) *310 (300 — 360)*
H5	M/A	0,30 *0.30*	0,040 *0.040*	0,40 *0.016*	0,48 *0.019*	0,65 *0.026*	105 (99 — 130) *345 (330 — 420)*
H8	M/A	0,30 *0.30*	0,040 *0.040*	0,40 *0.016*	0,48 *0.019*	0,65 *0.026*	105 (99 — 130) *345 (330 — 420)*
H11	M/A	0,30 *0.30*	0,040 *0.040*	0,40 *0.016*	0,48 *0.019*	0,65 *0.026*	135 (130 — 170) *445 (430 — 550)*
H21	M/A	0,30 *0.30*	0,040 *0.040*	0,40 *0.016*	0,48 *0.019*	0,65 *0.026*	105 (99 — 130) *345 (330 — 420)*
H31	M/A	0,30 *0.30*	0,040 *0.040*	0,40 *0.016*	0,48 *0.019*	0,65 *0.026*	80 (75 — 100) *260 (250 — 320)*

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

Cutting data – XHF780 Slot milling

SMG		a_p/DCX	f_z			v_c
			10	12	16	
P1	E/M/A/D	0,040 *0.040*	0,30 *0.012*	0,36 *0.014*	0,48 *0.019*	310 (290 — 350) *1025 (960 — 1100)*
P2	E/M/A/D	0,040 *0.040*	0,30 *0.012*	0,36 *0.014*	0,48 *0.019*	300 (290 — 350) *980 (960 — 1100)*
P3	E/M/A/D	0,040 *0.040*	0,30 *0.012*	0,36 *0.014*	0,48 *0.019*	260 (250 — 300) *850 (830 — 980)*
P4	E/M/A/D	0,040 *0.040*	0,30 *0.012*	0,36 *0.014*	0,48 *0.019*	230 (220 — 260) *750 (730 — 850)*
P5	E/M/A/D	0,040 *0.040*	0,30 *0.012*	0,36 *0.014*	0,48 *0.019*	230 (220 — 260) *750 (730 — 850)*
P6	E/M/A/D	0,040 *0.040*	0,30 *0.012*	0,36 *0.014*	0,48 *0.019*	170 (160 — 200) *560 (530 — 650)*
P7	E/M/A/D	0,040 *0.040*	0,30 *0.012*	0,36 *0.014*	0,48 *0.019*	160 (150 — 190) *520 (500 — 620)*
P8	E/M/A/D	0,040 *0.040*	0,30 *0.012*	0,36 *0.014*	0,48 *0.019*	150 (140 — 180) *490 (460 — 590)*
P11	E/M/A/D	0,040 *0.040*	0,30 *0.012*	0,36 *0.014*	0,48 *0.019*	155 (150 — 180) *510 (500 — 590)*
P12	E/M/A/D	0,036 *0.036*	0,24 *0.0095*	0,28 *0.011*	0,38 *0.015*	75 (73 — 92) *245 (240 — 300)*
M1	E/M/A	0,036 *0.036*	0,24 *0.0095*	0,28 *0.011*	0,38 *0.015*	150 (150 — 180) *490 (500 — 590)*
M2	E/M/A	0,036 *0.036*	0,24 *0.0095*	0,28 *0.011*	0,38 *0.015*	120 (120 — 140) *395 (400 — 450)*
M3	E/M/A	0,036 *0.036*	0,24 *0.0095*	0,28 *0.011*	0,38 *0.015*	90 (85 — 110) *295 (280 — 360)*
M4	E/M/A	0,036 *0.036*	0,24 *0.0095*	0,28 *0.011*	0,38 *0.015*	65 (64 — 87) *215 (210 — 280)*
M5	E/M/A	0,036 *0.036*	0,24 *0.0095*	0,28 *0.011*	0,38 *0.015*	55 (53 — 72) *180 (180 — 230)*
S1	E	0,022 *0.022*	0,18 *0.0070*	0,22 *0.0085*	0,28 *0.011*	38 (31 — 60) *125 (110 — 190)*
S2	E	0,022 *0.022*	0,18 *0.0070*	0,22 *0.0085*	0,28 *0.011*	30 (25 — 48) *100 (83 — 150)*
S3	E	0,022 *0.022*	0,18 *0.0070*	0,22 *0.0085*	0,28 *0.011*	26 (21 — 41) *85 (69 — 130)*
S11	E	0,022 *0.022*	0,18 *0.0070*	0,22 *0.0085*	0,28 *0.011*	145 (140 — 170) *475 (460 — 550)*
S12	E	0,022 *0.022*	0,18 *0.0070*	0,22 *0.0085*	0,28 *0.011*	110 (110 — 130) *360 (370 — 420)*
S13	E	0,022 *0.022*	0,18 *0.0070*	0,22 *0.0085*	0,28 *0.011*	85 (82 — 100) *280 (270 — 320)*
H5	M/A	0,040 *0.040*	0,24 *0.0095*	0,28 *0.011*	0,38 *0.015*	90 (86 — 110) *295 (290 — 360)*
H8	M/A	0,040 *0.040*	0,24 *0.0095*	0,28 *0.011*	0,38 *0.015*	90 (86 — 110) *295 (290 — 360)*
H11	M/A	0,040 *0.040*	0,24 *0.0095*	0,28 *0.011*	0,38 *0.015*	115 (110 — 140) *375 (370 — 450)*
H21	M/A	0,040 *0.040*	0,24 *0.0095*	0,28 *0.011*	0,38 *0.015*	90 (86 — 110) *295 (290 — 360)*
H31	M/A	0,040 *0.040*	0,24 *0.0095*	0,28 *0.011*	0,38 *0.015*	70 (65 — 88) *230 (220 — 280)*

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

Cutting data – XHF780 Side milling inch

SMG		a_e/DCX	a_p/DCX	f_z			v_c
				3/8	1/2	5/8	
P1	E/M/A/D	0,30 *0.30*	0,040 *0.040*	0,50 *0.020*	0,60 *0.024*	0,80 *0.032*	370 (330 — 410) *1225 (1100 — 1300)*
P2	E/M/A/D	0,30 *0.30*	0,040 *0.040*	0,50 *0.020*	0,60 *0.024*	0,80 *0.032*	360 (320 — 390) *1175 (1100 — 1200)*
P3	E/M/A/D	0,30 *0.30*	0,040 *0.040*	0,50 *0.020*	0,60 *0.024*	0,80 *0.032*	310 (280 — 340) *1025 (920 — 1100)*
P4	E/M/A/D	0,30 *0.30*	0,040 *0.040*	0,50 *0.020*	0,60 *0.024*	0,80 *0.032*	270 (250 — 300) *890 (830 — 980)*
P5	E/M/A/D	0,30 *0.30*	0,040 *0.040*	0,50 *0.020*	0,60 *0.024*	0,80 *0.032*	270 (250 — 300) *890 (830 — 980)*
P6	E/M/A/D	0,30 *0.30*	0,040 *0.040*	0,50 *0.020*	0,60 *0.024*	0,80 *0.032*	305 (280 — 330) *1000 (920 — 1000)*
P7	E/M/A/D	0,30 *0.30*	0,040 *0.040*	0,50 *0.020*	0,60 *0.024*	0,80 *0.032*	290 (260 — 320) *950 (860 — 1000)*
P8	E/M/A/D	0,30 *0.30*	0,040 *0.040*	0,50 *0.020*	0,60 *0.024*	0,80 *0.032*	270 (250 — 300) *890 (830 — 980)*
P11	E/M/A/D	0,30 *0.30*	0,036 *0.036*	0,40 *0.016*	0,48 *0.019*	0,65 *0.026*	160 (150 — 170) *520 (500 — 550)*
P12	E/M/A/D	0,30 *0.30*	0,036 *0.036*	0,40 *0.016*	0,48 *0.019*	0,65 *0.026*	95 (83 — 100) *310 (280 — 320)*
M1	E/M/A	0,30 *0.30*	0,036 *0.036*	0,40 *0.016*	0,48 *0.019*	0,65 *0.026*	190 (170 — 210) *620 (560 — 680)*
M2	E/M/A	0,30 *0.30*	0,036 *0.036*	0,40 *0.016*	0,48 *0.019*	0,65 *0.026*	150 (140 — 160) *490 (460 — 520)*
M3	E/M/A	0,30 *0.30*	0,036 *0.036*	0,40 *0.016*	0,48 *0.019*	0,65 *0.026*	115 (97 — 130) *375 (320 — 420)*
M4	E/M/A	0,30 *0.30*	0,036 *0.036*	0,40 *0.016*	0,48 *0.019*	0,65 *0.026*	85 (73 — 100) *280 (240 — 320)*
M5	E/M/A	0,30 *0.30*	0,036 *0.036*	0,40 *0.016*	0,48 *0.019*	0,65 *0.026*	70 (61 — 83) *230 (210 — 270)*
S1	E	0,30 *0.30*	0,022 *0.022*	0,24 *0.0095*	0,28 *0.011*	0,38 *0.015*	55 (36 — 71) *180 (120 — 230)*
S2	E	0,30 *0.30*	0,022 *0.022*	0,24 *0.0095*	0,28 *0.011*	0,38 *0.015*	43 (29 — 57) *140 (96 — 180)*
S3	E	0,30 *0.30*	0,022 *0.022*	0,24 *0.0095*	0,28 *0.011*	0,38 *0.015*	37 (25 — 49) *120 (83 — 160)*
S11	E	0,30 *0.30*	0,022 *0.022*	0,36 *0.014*	0,42 *0.017*	0,55 *0.022*	175 (160 — 190) *570 (530 — 620)*
S12	E	0,30 *0.30*	0,022 *0.022*	0,36 *0.014*	0,42 *0.017*	0,55 *0.022*	135 (120 — 150) *445 (400 — 490)*
S13	E	0,30 *0.30*	0,022 *0.022*	0,36 *0.014*	0,42 *0.017*	0,55 *0.022*	105 (90 — 110) *345 (300 — 360)*
H5	M/A	0,30 *0.30*	0,040 *0.040*	0,40 *0.016*	0,48 *0.019*	0,65 *0.026*	115 (99 — 130) *375 (330 — 420)*
H8	M/A	0,30 *0.30*	0,040 *0.040*	0,40 *0.016*	0,48 *0.019*	0,65 *0.026*	115 (99 — 130) *375 (330 — 420)*
H11	M/A	0,30 *0.30*	0,040 *0.040*	0,40 *0.016*	0,48 *0.019*	0,65 *0.026*	150 (130 — 170) *490 (430 — 550)*
H21	M/A	0,30 *0.30*	0,040 *0.040*	0,40 *0.016*	0,48 *0.019*	0,65 *0.026*	115 (99 — 130) *375 (330 — 420)*
H31	M/A	0,30 *0.30*	0,040 *0.040*	0,40 *0.016*	0,48 *0.019*	0,65 *0.026*	90 (75 — 100) *295 (250 — 320)*

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

Cutting data – XHF780 Slot milling inch

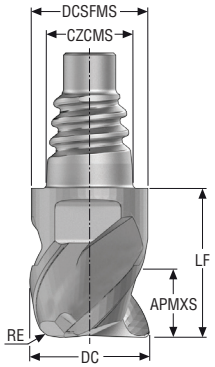
SMG		a_p/DCX	f_z			v_c
			3/8	1/2	5/8	
P1	E/M/A/D	0,040 *0.040*	0,30 *0.012*	0,36 *0.014*	0,48 *0.019*	325 (290 — 350) *1075 (960 — 1100)*
P2	E/M/A/D	0,040 *0.040*	0,30 *0.012*	0,36 *0.014*	0,48 *0.019*	315 (290 — 350) *1025 (960 — 1100)*
P3	E/M/A/D	0,040 *0.040*	0,30 *0.012*	0,36 *0.014*	0,48 *0.019*	270 (250 — 300) *890 (830 — 980)*
P4	E/M/A/D	0,040 *0.040*	0,30 *0.012*	0,36 *0.014*	0,48 *0.019*	240 (220 — 260) *790 (730 — 850)*
P5	E/M/A/D	0,040 *0.040*	0,30 *0.012*	0,36 *0.014*	0,48 *0.019*	240 (220 — 260) *790 (730 — 850)*
P6	E/M/A/D	0,040 *0.040*	0,30 *0.012*	0,36 *0.014*	0,48 *0.019*	270 (240 — 290) *890 (790 — 950)*
P7	E/M/A/D	0,040 *0.040*	0,30 *0.012*	0,36 *0.014*	0,48 *0.019*	255 (230 — 280) *840 (760 — 910)*
P8	E/M/A/D	0,040 *0.040*	0,30 *0.012*	0,36 *0.014*	0,48 *0.019*	240 (220 — 260) *790 (730 — 850)*
P11	E/M/A/D	0,036 *0.036*	0,24 *0.0095*	0,28 *0.011*	0,38 *0.015*	140 (130 — 150) *460 (430 — 490)*
P12	E/M/A/D	0,036 *0.036*	0,24 *0.0095*	0,28 *0.011*	0,38 *0.015*	80 (73 — 92) *260 (240 — 300)*
M1	E/M/A	0,036 *0.036*	0,24 *0.0095*	0,28 *0.011*	0,38 *0.015*	165 (150 — 180) *540 (500 — 590)*
M2	E/M/A	0,036 *0.036*	0,24 *0.0095*	0,28 *0.011*	0,38 *0.015*	130 (120 — 140) *425 (400 — 450)*
M3	E/M/A	0,036 *0.036*	0,24 *0.0095*	0,28 *0.011*	0,38 *0.015*	100 (85 — 110) *330 (280 — 360)*
M4	E/M/A	0,036 *0.036*	0,24 *0.0095*	0,28 *0.011*	0,38 *0.015*	75 (64 — 87) *245 (210 — 280)*
M5	E/M/A	0,036 *0.036*	0,24 *0.0095*	0,28 *0.011*	0,38 *0.015*	65 (53 — 72) *215 (180 — 230)*
S1	E	0,022 *0.022*	0,18 *0.0070*	0,22 *0.0085*	0,28 *0.011*	45 (31 — 60) *150 (110 — 190)*
S2	E	0,022 *0.022*	0,18 *0.0070*	0,22 *0.0085*	0,28 *0.011*	36 (25 — 48) *120 (83 — 150)*
S3	E	0,022 *0.022*	0,18 *0.0070*	0,22 *0.0085*	0,28 *0.011*	31 (21 — 41) *100 (69 — 130)*
S11	E	0,022 *0.022*	0,18 *0.0070*	0,22 *0.0085*	0,28 *0.011*	155 (140 — 170) *510 (460 — 550)*
S12	E	0,022 *0.022*	0,18 *0.0070*	0,22 *0.0085*	0,28 *0.011*	120 (110 — 130) *395 (370 — 420)*
S13	E	0,022 *0.022*	0,18 *0.0070*	0,22 *0.0085*	0,28 *0.011*	95 (82 — 100) *310 (270 — 320)*
H5	M/A	0,040 *0.040*	0,24 *0.0095*	0,28 *0.011*	0,38 *0.015*	100 (86 — 110) *330 (290 — 360)*
H8	M/A	0,040 *0.040*	0,24 *0.0095*	0,28 *0.011*	0,38 *0.015*	100 (86 — 110) *330 (290 — 360)*
H11	M/A	0,040 *0.040*	0,24 *0.0095*	0,28 *0.011*	0,38 *0.015*	130 (110 — 140) *425 (370 — 450)*
H21	M/A	0,040 *0.040*	0,24 *0.0095*	0,28 *0.011*	0,38 *0.015*	100 (86 — 110) *330 (290 — 360)*
H31	M/A	0,040 *0.040*	0,24 *0.0095*	0,28 *0.011*	0,38 *0.015*	75 (65 — 88) *245 (220 — 280)*

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c= m/min (*sf/min*)
f_z = mm (*in/tooth*)
a_p = mm/DC (*in/DC*) = factor
a_e = mm/DC (*in/DC*) = factor
All cutting data are target values

XVE540

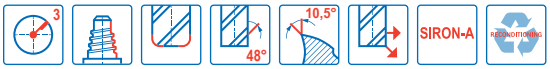
General purpose – Universal – Square – 3 Flutes – Corner radius





D

- Tolerances:
- DC= h9
- RE= ±0,015 mm
- Regrind possible if DC is ≥Ø12 mm

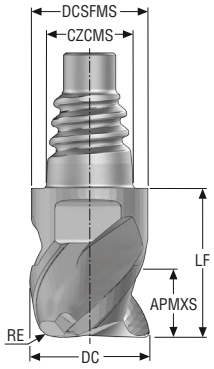


Designation	Item number	Length index	Tool shape	CZCMS	DC	DCSFMS	APMXS	LF	RE	PCEDC	SW	Grade
					mm	mm	mm	mm	mm			SIRA
XVE540E10100D1R050Z3	10137981	1	D	E10	10,0	9,7	5,5	12,4	0,5	3	8	■
XVE540E12120D1R050Z3	10137982	1	D	E12	12,0	11,7	6,5	14,5	0,5	3	10	■
XVE540E16160D1R050Z3	10137983	1	D	E16	16,0	15,5	8,5	18,7	0,5	3	12	■
XVE540E20200D1R050Z3	10137984	1	D	E20	20,0	19,3	11,0	21,3	0,5	3	16	■

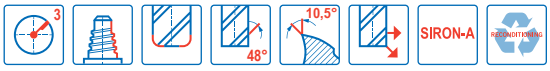
■ Stocked standard.

XVE540

General purpose – Universal – Square – 3 Flutes – Corner radius



D





- Tolerances:
- DC= h9
- RE= .015 Inch= ±.0006 Inch
- RE= .031 Inch= ±.0012 Inch
- Regrind possible if DC is ≥Ø.500 Inch

Designation	Item number	Length index	Tool shape	CZCMS	DC	DCSFMS	APMXS	LF	RE	PCEDC	SW	Grade
					Inch	*Inch*	*Inch*	*Inch*	*Inch*			SIRA
XVE540E10.375D1R015Z3	10137985	1	D	E10	0.375	0.364	0.209	0.488	0.015	3	8	■
XVE540E12.500D1R015Z3	10137986	1	D	E12	0.500	0.484	0.276	0.575	0.015	3	10	■
XVE540E16.625D1R015Z3	10137987	1	D	E16	0.625	0.610	0.335	0.736	0.015	3	12	■
XVE540E20.750D1R031Z3	10137988	1	D	E20	0.750	0.728	0.413	0.839	0.031	3	16	■

■ Stocked standard.

Cutting data – XVE540 – Side milling PCEDC 3

SMG		a_e/DC	a_p/DC	f_z				v_c
				10	12	16	20	
P1	E/M/A/D	0,50 *0.50*	0,50 *0.50*	0,055 *0.0022*	0,065 *0.0026*	0,080 *0.0032*	0,090 *0.0036*	175 (140 — 220) *570 (460 — 720)*
P2	E/M/A/D	0,50 *0.50*	0,50 *0.50*	0,055 *0.0022*	0,065 *0.0026*	0,080 *0.0032*	0,090 *0.0036*	170 (130 — 210) *560 (430 — 680)*
P3	E/M/A/D	0,50 *0.50*	0,50 *0.50*	0,050 *0.0020*	0,060 *0.0024*	0,075 *0.0030*	0,085 *0.0034*	150 (120 — 180) *490 (400 — 590)*
P4	E/M/A/D	0,50 *0.50*	0,50 *0.50*	0,050 *0.0020*	0,060 *0.0024*	0,075 *0.0030*	0,085 *0.0034*	135 (100 — 160) *445 (330 — 520)*
P5	E/M/A/D	0,50 *0.50*	0,50 *0.50*	0,050 *0.0020*	0,060 *0.0024*	0,070 *0.0028*	0,085 *0.0034*	125 (96 — 150) *410 (320 — 490)*
P6	E/M/A/D	0,50 *0.50*	0,50 *0.50*	0,048 *0.0019*	0,055 *0.0022*	0,070 *0.0028*	0,080 *0.0032*	145 (110 — 170) *475 (370 — 550)*
P7	E/M/A/D	0,50 *0.50*	0,50 *0.50*	0,048 *0.0019*	0,055 *0.0022*	0,070 *0.0028*	0,080 *0.0032*	135 (110 — 160) *445 (370 — 520)*
P8	E/M/A/D	0,50 *0.50*	0,50 *0.50*	0,050 *0.0020*	0,060 *0.0024*	0,075 *0.0030*	0,085 *0.0034*	125 (96 — 150) *410 (320 — 490)*
P11	E/M/A/D	0,50 *0.50*	0,50 *0.50*	0,050 *0.0020*	0,060 *0.0024*	0,075 *0.0030*	0,085 *0.0034*	80 (70 — 93) *260 (230 — 300)*
P12	E/M/A/D	0,50 *0.50*	0,50 *0.50*	0,034 *0.0013*	0,040 *0.0016*	0,050 *0.0020*	0,060 *0.0024*	50 (45 — 59) *165 (150 — 190)*
M1	E/M/A	0,50 *0.50*	0,50 *0.50*	0,055 *0.0022*	0,065 *0.0026*	0,080 *0.0032*	0,095 *0.0038*	95 (81 — 100) *310 (270 — 320)*
M2	E/M/A	0,50 *0.50*	0,50 *0.50*	0,050 *0.0020*	0,060 *0.0024*	0,075 *0.0030*	0,085 *0.0034*	75 (67 — 88) *245 (220 — 280)*
M3	E/M/A	0,50 *0.50*	0,50 *0.50*	0,050 *0.0020*	0,060 *0.0024*	0,075 *0.0030*	0,085 *0.0034*	50 (39 — 60) *165 (130 — 190)*
M4	E/M/A	0,50 *0.50*	0,50 *0.50*	0,044 *0.0017*	0,050 *0.0020*	0,065 *0.0026*	0,075 *0.0030*	38 (30 — 46) *125 (99 — 150)*
M5	E/M/A	0,50 *0.50*	0,50 *0.50*	0,044 *0.0017*	0,050 *0.0020*	0,065 *0.0026*	0,075 *0.0030*	32 (25 — 39) *105 (83 — 120)*
K1	E/M/A/D	0,50 *0.50*	0,50 *0.50*	0,050 *0.0020*	0,060 *0.0024*	0,075 *0.0030*	0,085 *0.0034*	155 (140 — 170) *510 (460 — 550)*
K2	E/M/A/D	0,50 *0.50*	0,50 *0.50*	0,046 *0.0018*	0,055 *0.0022*	0,065 *0.0026*	0,075 *0.0030*	135 (120 — 150) *445 (400 — 490)*
K3	E/M/A/D	0,50 *0.50*	0,50 *0.50*	0,046 *0.0018*	0,055 *0.0022*	0,065 *0.0026*	0,075 *0.0030*	115 (99 — 130) *375 (330 — 420)*
K4	E/M/A/D	0,50 *0.50*	0,50 *0.50*	0,046 *0.0018*	0,055 *0.0022*	0,065 *0.0026*	0,075 *0.0030*	110 (95 — 120) *360 (320 — 390)*
K5	E/M/A/D	0,50 *0.50*	0,50 *0.50*	0,050 *0.0020*	0,060 *0.0024*	0,075 *0.0030*	0,085 *0.0034*	140 (120 — 150) *460 (400 — 490)*
K6	E/M/A/D	0,50 *0.50*	0,50 *0.50*	0,055 *0.0022*	0,065 *0.0026*	0,080 *0.0032*	0,095 *0.0038*	200 (170 — 220) *660 (560 — 720)*
K7	E/M/A/D	0,50 *0.50*	0,50 *0.50*	0,050 *0.0020*	0,060 *0.0024*	0,075 *0.0030*	0,085 *0.0034*	175 (150 — 190) *570 (500 — 620)*
N1	E/M/A	0,40 *0.40*	0,50 *0.50*	0,080 *0.0032*	0,095 *0.0038*	0,12 *0.0048*	0,14 *0.0055*	550 (510 — 710) *1800 (1700 — 2300)*
N2	E/M/A	0,40 *0.40*	0,50 *0.50*	0,080 *0.0032*	0,095 *0.0038*	0,12 *0.0048*	0,14 *0.0055*	355 (330 — 450) *1175 (1100 — 1400)*
N3	E/M/A	0,40 *0.40*	0,50 *0.50*	0,080 *0.0032*	0,095 *0.0038*	0,12 *0.0048*	0,14 *0.0055*	235 (220 — 300) *770 (730 — 980)*
N11	E/M/A	0,50 *0.50*	0,50 *0.50*	0,070 *0.0028*	0,080 *0.0032*	0,11 *0.0044*	0,13 *0.0050*	300 (250 — 340) *980 (830 — 1100)*
S1	E	0,50 *0.50*	0,50 *0.50*	0,050 *0.0020*	0,060 *0.0024*	0,075 *0.0030*	0,085 *0.0034*	30 (24 — 37) *100 (79 — 120)*
S2	E	0,50 *0.50*	0,50 *0.50*	0,050 *0.0020*	0,060 *0.0024*	0,075 *0.0030*	0,085 *0.0034*	25 (19 — 32) *80 (63 — 100)*
S3	E	0,50 *0.50*	0,50 *0.50*	0,050 *0.0020*	0,060 *0.0024*	0,075 *0.0030*	0,085 *0.0034*	22 (17 — 27) *70 (56 — 88)*
S11	E	0,50 *0.50*	0,50 *0.50*	0,050 *0.0020*	0,060 *0.0024*	0,075 *0.0030*	0,085 *0.0034*	100 (72 — 120) *330 (240 — 390)*
S12	E	0,50 *0.50*	0,50 *0.50*	0,050 *0.0020*	0,060 *0.0024*	0,075 *0.0030*	0,085 *0.0034*	75 (56 — 99) *245 (190 — 320)*
S13	E	0,50 *0.50*	0,50 *0.50*	0,044 *0.0017*	0,050 *0.0020*	0,065 *0.0026*	0,075 *0.0030*	60 (44 — 79) *195 (150 — 250)*
TS1	A/D	0,40 *0.40*	0,50 *0.50*	0,080 *0.0032*	0,095 *0.0038*	0,12 *0.0048*	0,14 *0.0055*	255 (160 — 350) *840 (530 — 1100)*
TP1	A/D	0,40 *0.40*	0,50 *0.50*	0,080 *0.0032*	0,095 *0.0038*	0,12 *0.0048*	0,14 *0.0055*	255 (160 — 350) *840 (530 — 1100)*
GR1	A/D	0,40 *0.40*	0,50 *0.50*	0,080 *0.0032*	0,095 *0.0038*	0,12 *0.0048*	0,14 *0.0055*	610 (510 — 710) *2000 (1700 — 2300)*

Cutting data – XVE540 – Slot milling PCEDC 3

SMG		a_p/DC	f_z				v_c
			10	12	16	20	
P1	E/M/A/D	0,50 *0.50*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	165 (130 — 200) *540 (430 — 650)*
P2	E/M/A/D	0,50 *0.50*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	160 (120 — 190) *520 (400 — 620)*
P3	E/M/A/D	0,50 *0.50*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	135 (110 — 170) *445 (370 — 550)*
P4	E/M/A/D	0,50 *0.50*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	120 (90 — 140) *395 (300 — 450)*
P5	E/M/A/D	0,50 *0.50*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	115 (86 — 140) *375 (290 — 450)*
P6	E/M/A/D	0,50 *0.50*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	130 (97 — 160) *425 (320 — 520)*
P7	E/M/A/D	0,50 *0.50*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	120 (92 — 150) *395 (310 — 490)*
P8	E/M/A/D	0,50 *0.50*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	115 (86 — 140) *375 (290 — 450)*
P11	E/M/A/D	0,50 *0.50*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	75 (64 — 84) *245 (210 — 270)*
P12	E/M/A/D	0,50 *0.50*	0,034 *0.0013*	0,040 *0.0016*	0,050 *0.0020*	0,060 *0.0024*	44 (38 — 49) *145 (130 — 160)*
M1	E/M/A	0,50 *0.50*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	85 (75 — 99) *280 (250 — 320)*
M2	E/M/A	0,50 *0.50*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	70 (60 — 79) *230 (200 — 250)*
M3	E/M/A	0,50 *0.50*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	45 (35 — 55) *150 (120 — 180)*
M4	E/M/A	0,50 *0.50*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	34 (27 — 41) *110 (89 — 130)*
M5	E/M/A	0,50 *0.50*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	28 (22 — 34) *90 (73 — 110)*
K1	E/M/A/D	0,50 *0.50*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	140 (120 — 150) *460 (400 — 490)*
K2	E/M/A/D	0,50 *0.50*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	120 (110 — 130) *395 (370 — 420)*
K3	E/M/A/D	0,50 *0.50*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	105 (89 — 110) *345 (300 — 360)*
K4	E/M/A/D	0,50 *0.50*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	100 (85 — 110) *330 (280 — 360)*
K5	E/M/A/D	0,50 *0.50*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	125 (110 — 140) *410 (370 — 450)*
K6	E/M/A/D	0,50 *0.50*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	185 (150 — 200) *610 (500 — 650)*
K7	E/M/A/D	0,50 *0.50*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	160 (130 — 170) *520 (430 — 550)*
N1	E/M/A	0,30 *0.30*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	540 (510 — 700) *1775 (1700 — 2200)*
N2	E/M/A	0,30 *0.30*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	345 (330 — 450) *1125 (1100 — 1400)*
N3	E/M/A	0,30 *0.30*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	230 (220 — 300) *750 (730 — 980)*
N11	E/M/A	0,30 *0.30*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	300 (260 — 350) *980 (860 — 1100)*
S1	E	0,50 *0.50*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	27 (22 — 34) *90 (73 — 110)*
S2	E	0,50 *0.50*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	23 (18 — 29) *75 (60 — 95)*
S3	E	0,50 *0.50*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	20 (15 — 24) *65 (50 — 78)*
S11	E	0,50 *0.50*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	90 (66 — 110) *295 (220 — 360)*
S12	E	0,50 *0.50*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	70 (51 — 90) *230 (170 — 290)*
S13	E	0,50 *0.50*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	55 (39 — 69) *180 (130 — 220)*
TS1	A/D	0,30 *0.30*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	250 (150 — 350) *820 (500 — 1100)*
TP1	A/D	0,30 *0.30*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	250 (150 — 350) *820 (500 — 1100)*
GR1	A/D	0,30 *0.30*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	600 (500 — 700) *1975 (1700 — 2200)*

Cutting data – XVE540 – Side milling PCEDC 3 inch

SMG		a_e/DC	a_p/DC	f_z				v_c
				3/8	1/2	5/8	3/4	
P1	E/M/A/D	0,50 *0.50*	0,50 *0.50*	0,055 *0.0022*	0,065 *0.0026*	0,080 *0.0032*	0,090 *0.0036*	185 (150 — 210) *610 (500 — 680)*
P2	E/M/A/D	0,50 *0.50*	0,50 *0.50*	0,055 *0.0022*	0,065 *0.0026*	0,080 *0.0032*	0,090 *0.0036*	180 (150 — 200) *590 (500 — 650)*
P3	E/M/A/D	0,50 *0.50*	0,50 *0.50*	0,050 *0.0020*	0,060 *0.0024*	0,075 *0.0030*	0,085 *0.0034*	155 (130 — 180) *510 (430 — 590)*
P4	E/M/A/D	0,50 *0.50*	0,50 *0.50*	0,050 *0.0020*	0,060 *0.0024*	0,075 *0.0030*	0,085 *0.0034*	140 (120 — 160) *460 (400 — 520)*
P5	E/M/A/D	0,50 *0.50*	0,50 *0.50*	0,050 *0.0020*	0,060 *0.0024*	0,075 *0.0030*	0,085 *0.0034*	110 (89 — 130) *360 (300 — 420)*
P6	E/M/A/D	0,50 *0.50*	0,50 *0.50*	0,050 *0.0020*	0,060 *0.0024*	0,075 *0.0030*	0,085 *0.0034*	125 (100 — 140) *410 (330 — 450)*
P7	E/M/A/D	0,50 *0.50*	0,50 *0.50*	0,050 *0.0020*	0,060 *0.0024*	0,075 *0.0030*	0,085 *0.0034*	115 (94 — 140) *375 (310 — 450)*
P8	E/M/A/D	0,50 *0.50*	0,50 *0.50*	0,050 *0.0020*	0,060 *0.0024*	0,075 *0.0030*	0,090 *0.0036*	110 (89 — 130) *360 (300 — 420)*
P11	E/M/A/D	0,50 *0.50*	0,50 *0.50*	0,050 *0.0020*	0,060 *0.0024*	0,075 *0.0030*	0,085 *0.0034*	95 (70 — 110) *310 (230 — 360)*
P12	E/M/A/D	0,50 *0.50*	0,50 *0.50*	0,034 *0.0013*	0,040 *0.0016*	0,050 *0.0020*	0,060 *0.0024*	60 (45 — 73) *195 (150 — 230)*
M1	E/M/A	0,50 *0.50*	0,50 *0.50*	0,055 *0.0022*	0,065 *0.0026*	0,080 *0.0032*	0,095 *0.0038*	105 (81 — 130) *345 (270 — 420)*
M2	E/M/A	0,50 *0.50*	0,50 *0.50*	0,050 *0.0020*	0,060 *0.0024*	0,075 *0.0030*	0,085 *0.0034*	90 (67 — 110) *295 (220 — 360)*
M3	E/M/A	0,50 *0.50*	0,50 *0.50*	0,050 *0.0020*	0,060 *0.0024*	0,075 *0.0030*	0,085 *0.0034*	75 (56 — 99) *245 (190 — 320)*
M4	E/M/A	0,50 *0.50*	0,50 *0.50*	0,044 *0.0017*	0,050 *0.0020*	0,065 *0.0026*	0,075 *0.0030*	60 (43 — 76) *195 (150 — 240)*
M5	E/M/A	0,50 *0.50*	0,50 *0.50*	0,044 *0.0017*	0,050 *0.0020*	0,065 *0.0026*	0,075 *0.0030*	50 (36 — 63) *165 (120 — 200)*
K1	E/M/A/D	0,50 *0.50*	0,50 *0.50*	0,050 *0.0020*	0,060 *0.0024*	0,075 *0.0030*	0,085 *0.0034*	140 (120 — 160) *460 (400 — 520)*
K2	E/M/A/D	0,50 *0.50*	0,50 *0.50*	0,046 *0.0018*	0,055 *0.0022*	0,065 *0.0026*	0,075 *0.0030*	120 (110 — 140) *395 (370 — 450)*
K3	E/M/A/D	0,50 *0.50*	0,50 *0.50*	0,046 *0.0018*	0,055 *0.0022*	0,065 *0.0026*	0,075 *0.0030*	105 (87 — 110) *345 (290 — 360)*
K4	E/M/A/D	0,50 *0.50*	0,50 *0.50*	0,050 *0.0020*	0,060 *0.0024*	0,075 *0.0030*	0,085 *0.0034*	110 (89 — 130) *360 (300 — 420)*
K5	E/M/A/D	0,50 *0.50*	0,50 *0.50*	0,046 *0.0018*	0,055 *0.0022*	0,065 *0.0026*	0,075 *0.0030*	65 (54 — 80) *215 (180 — 260)*
K6	E/M/A/D	0,50 *0.50*	0,50 *0.50*	0,050 *0.0020*	0,060 *0.0024*	0,075 *0.0030*	0,085 *0.0034*	95 (78 — 110) *310 (260 — 360)*
K7	E/M/A/D	0,50 *0.50*	0,50 *0.50*	0,046 *0.0018*	0,055 *0.0022*	0,065 *0.0026*	0,075 *0.0030*	85 (69 — 100) *280 (230 — 320)*
N1	E/M/A	0,40 *0.40*	0,50 *0.50*	0,080 *0.0032*	0,095 *0.0038*	0,12 *0.0048*	0,14 *0.0055*	610 (510 — 710) *2000 (1700 — 2300)*
N2	E/M/A	0,40 *0.40*	0,50 *0.50*	0,080 *0.0032*	0,095 *0.0038*	0,12 *0.0048*	0,14 *0.0055*	395 (330 — 450) *1300 (1100 — 1400)*
N3	E/M/A	0,40 *0.40*	0,50 *0.50*	0,080 *0.0032*	0,095 *0.0038*	0,12 *0.0048*	0,14 *0.0055*	260 (220 — 300) *850 (730 — 980)*
N11	E/M/A	0,50 *0.50*	0,50 *0.30*	0,070 *0.0028*	0,080 *0.0032*	0,11 *0.0044*	0,13 *0.0055*	300 (250 — 340) *1025 (860 — 1100)*
S1	E	0,50 *0.50*	0,50 *0.50*	0,055 *0.0022*	0,065 *0.0026*	0,080 *0.0032*	0,090 *0.0036*	39 (32 — 46) *130 (110 — 150)*
S2	E	0,50 *0.50*	0,50 *0.50*	0,055 *0.0022*	0,065 *0.0026*	0,080 *0.0032*	0,090 *0.0036*	31 (26 — 37) *100 (86 — 120)*
S3	E	0,50 *0.50*	0,50 *0.50*	0,050 *0.0020*	0,060 *0.0024*	0,075 *0.0030*	0,085 *0.0034*	28 (23 — 33) *90 (76 — 100)*
S11	E	0,50 *0.50*	0,50 *0.50*	0,050 *0.0020*	0,060 *0.0024*	0,075 *0.0030*	0,085 *0.0034*	115 (87 — 140) *375 (290 — 450)*
S12	E	0,50 *0.50*	0,50 *0.50*	0,050 *0.0020*	0,060 *0.0024*	0,075 *0.0030*	0,085 *0.0034*	90 (67 — 110) *295 (220 — 360)*
S13	E	0,50 *0.50*	0,50 *0.50*	0,044 *0.0017*	0,050 *0.0020*	0,065 *0.0026*	0,075 *0.0030*	70 (53 — 87) *230 (180 — 280)*
TS1	A/D	0,40 *0.40*	0,50 *0.50*	0,080 *0.0032*	0,095 *0.0038*	0,12 *0.0048*	0,14 *0.0055*	255 (160 — 350) *840 (530 — 1100)*
TP1	A/D	0,40 *0.40*	0,50 *0.50*	0,080 *0.0032*	0,095 *0.0038*	0,12 *0.0048*	0,14 *0.0055*	255 (160 — 350) *840 (530 — 1100)*
GR1	A/D	0,40 *0.40*	0,50 *0.50*	0,080 *0.0032*	0,095 *0.0038*	0,12 *0.0048*	0,14 *0.0055*	610 (510 — 710) *2000 (1700 — 2300)*

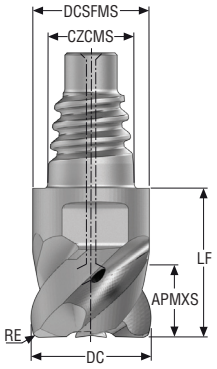
Cutting data – XVE540 – Slot milling PCEDC 3 inch

SMG		a_p/DC	f_z				v_c
			3/8	1/2	5/8	3/4	
P1	E/M/A/D	0,50 *0.50*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	170 (140 — 190) *560 (460 — 620)*
P2	E/M/A/D	0,50 *0.50*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	165 (140 — 190) *540 (460 — 620)*
P3	E/M/A/D	0,50 *0.50*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	140 (120 — 160) *460 (400 — 520)*
P4	E/M/A/D	0,50 *0.50*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	125 (100 — 140) *410 (330 — 450)*
P5	E/M/A/D	0,50 *0.50*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	100 (81 — 120) *330 (270 — 390)*
P6	E/M/A/D	0,50 *0.50*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	110 (90 — 130) *360 (300 — 420)*
P7	E/M/A/D	0,50 *0.50*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	105 (85 — 120) *345 (280 — 390)*
P8	E/M/A/D	0,50 *0.50*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	100 (81 — 120) *330 (270 — 390)*
P11	E/M/A/D	0,50 *0.50*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	85 (64 — 100) *280 (210 — 320)*
P12	E/M/A/D	0,50 *0.50*	0,034 *0.0013*	0,040 *0.0016*	0,050 *0.0020*	0,060 *0.0024*	50 (38 — 62) *165 (130 — 200)*
M1	E/M/A	0,50 *0.50*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	100 (75 — 120) *330 (250 — 390)*
M2	E/M/A	0,50 *0.50*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	80 (61 — 100) *260 (210 — 320)*
M3	E/M/A	0,50 *0.50*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	70 (50 — 89) *230 (170 — 290)*
M4	E/M/A	0,50 *0.50*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	50 (38 — 67) *165 (130 — 210)*
M5	E/M/A	0,50 *0.50*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	44 (32 — 56) *145 (110 — 180)*
K1	E/M/A/D	0,50 *0.50*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	125 (110 — 140) *410 (370 — 450)*
K2	E/M/A/D	0,50 *0.50*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	110 (92 — 120) *360 (310 — 390)*
K3	E/M/A/D	0,50 *0.50*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	90 (78 — 100) *295 (260 — 320)*
K4	E/M/A/D	0,50 *0.50*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	100 (81 — 120) *330 (270 — 390)*
K5	E/M/A/D	0,50 *0.50*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	60 (48 — 71) *195 (160 — 230)*
K6	E/M/A/D	0,50 *0.50*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	90 (71 — 100) *295 (240 — 320)*
K7	E/M/A/D	0,50 *0.50*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	75 (61 — 91) *245 (210 — 290)*
N1	E/M/A	0,30 *0.30*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	600 (500 — 700) *1975 (1700 — 2200)*
N2	E/M/A	0,30 *0.30*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	385 (330 — 450) *1275 (1100 — 1400)*
N3	E/M/A	0,30 *0.30*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	255 (220 — 300) *840 (730 — 980)*
N11	E/M/A	0,30 *0.30*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	300 (260 — 340) *980 (860 — 1100)*
S1	E	0,50 *0.50*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	36 (29 — 43) *120 (96 — 140)*
S2	E	0,50 *0.50*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	29 (24 — 34) *95 (79 — 110)*
S3	E	0,50 *0.50*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	25 (20 — 30) *80 (66 — 98)*
S11	E	0,50 *0.50*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	105 (79 — 130) *345 (260 — 420)*
S12	E	0,50 *0.50*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	80 (61 — 100) *260 (210 — 320)*
S13	E	0,50 *0.50*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	60 (47 — 77) *195 (160 — 250)*
TS1	A/D	0,30 *0.30*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	250 (150 — 350) *820 (500 — 1100)*
TP1	A/D	0,30 *0.30*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	250 (150 — 350) *820 (500 — 1100)*
GR1	A/D	0,30 *0.30*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	600 (500 — 700) *1975 (1700 — 2200)*

XVE540

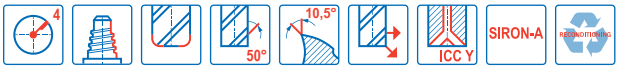
General purpose – Universal – Square – 4 Flutes – Corner radius – ICC





D

- Tolerances:
- DC= h9
- RE= ±0,015 mm
- Regrind possible if DC is ≥Ø12 mm

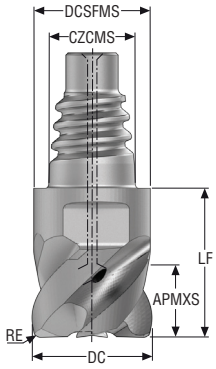


Designation	Item number	Length index	Tool shape	CSP	CZCMS	DC	DCSFMS	APMXS	LF	RE	PCEDC	SW	Grade
						mm	mm	mm	mm	mm			SIRA
XVE540E10100D1R050Z4A	10137989	1	D	✓	E10	10,0	9,7	6,0	12,4	0,5	4	8	■
XVE540E12120D1R050Z4A	10137990	1	D	✓	E12	12,0	11,7	7,5	14,5	0,5	4	10	■
XVE540E16160D1R050Z4A	10137991	1	D	✓	E16	16,0	15,5	10,0	18,7	0,5	4	12	■
XVE540E20200D1R050Z4A	10137992	1	D	✓	E20	20,0	19,3	12,0	21,3	0,5	4	16	■

■ Stocked standard.

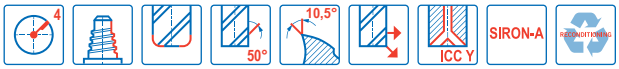
XVE540

General purpose – Universal – Square – 4 Flutes – Corner radius – ICC – *Inch*



D





- Tolerances:
- DC= h9
- RE= .015 Inch= ±.0006 Inch
- RE= .031 Inch= ±.0012 Inch
- Regrind possible if DC is ≥Ø.500 Inch

Designation	Item number	Length index	Tool shape	CSP	CZCMS	DC	DCSFMS	APMXS	LF	RE	PCEDC	SW	Grade
						Inch	*Inch*	*Inch*	*Inch*	*Inch*			SIRA
XVE540E10.375D1R015Z4A	10137993	1	D	✓	E10	0.375	0.364	0.236	0.488	0.015	4	8	■
XVE540E12.500D1R031Z4A	10137994	1	D	✓	E12	0.500	0.484	0.315	0.571	0.031	4	12	■
XVE540E16.625D1R031Z4A	10137995	1	D	✓	E16	0.625	0.610	0.394	0.736	0.031	4	16	■
XVE540E20.750D1R031Z4A	10137996	1	D	✓	E20	0.750	0.728	0.453	0.839	0.031	4	18	■

■ Stocked standard.

Cutting data – XVE540 – Side milling PCEDC 4

SMG		a_e/DC	a_p/DC	f_z				v_c
				10	12	16	20	
P1	E/M/A/D	0,50 *0.50*	0,55 *0.55*	0,055 *0.0022*	0,065 *0.0026*	0,080 *0.0032*	0,090 *0.0036*	175 (140 — 210) *570 (460 — 680)*
P2	E/M/A/D	0,50 *0.50*	0,55 *0.55*	0,055 *0.0022*	0,065 *0.0026*	0,080 *0.0032*	0,090 *0.0036*	170 (130 — 210) *560 (430 — 680)*
P3	E/M/A/D	0,50 *0.50*	0,55 *0.55*	0,050 *0.0020*	0,060 *0.0024*	0,075 *0.0030*	0,085 *0.0034*	150 (120 — 180) *490 (400 — 590)*
P4	E/M/A/D	0,50 *0.50*	0,55 *0.55*	0,050 *0.0020*	0,060 *0.0024*	0,075 *0.0030*	0,085 *0.0034*	130 (99 — 160) *425 (330 — 520)*
P5	E/M/A/D	0,50 *0.50*	0,55 *0.55*	0,050 *0.0020*	0,060 *0.0024*	0,070 *0.0028*	0,085 *0.0034*	125 (95 — 150) *410 (320 — 490)*
P6	E/M/A/D	0,50 *0.50*	0,55 *0.55*	0,048 *0.0019*	0,055 *0.0022*	0,070 *0.0028*	0,080 *0.0032*	140 (110 — 170) *460 (370 — 550)*
P7	E/M/A/D	0,50 *0.50*	0,55 *0.55*	0,048 *0.0019*	0,055 *0.0022*	0,070 *0.0028*	0,080 *0.0032*	135 (110 — 160) *445 (370 — 520)*
P8	E/M/A/D	0,50 *0.50*	0,55 *0.55*	0,050 *0.0020*	0,060 *0.0024*	0,075 *0.0030*	0,085 *0.0034*	125 (95 — 150) *410 (320 — 490)*
P11	E/M/A/D	0,50 *0.50*	0,55 *0.55*	0,050 *0.0020*	0,060 *0.0024*	0,075 *0.0030*	0,085 *0.0034*	80 (70 — 92) *260 (230 — 300)*
P12	E/M/A/D	0,50 *0.50*	0,55 *0.55*	0,034 *0.0013*	0,040 *0.0016*	0,050 *0.0020*	0,060 *0.0024*	50 (44 — 58) *165 (150 — 190)*
M1	E/M/A	0,50 *0.50*	0,55 *0.55*	0,055 *0.0022*	0,065 *0.0026*	0,080 *0.0032*	0,095 *0.0038*	95 (80 — 100) *310 (270 — 320)*
M2	E/M/A	0,50 *0.50*	0,55 *0.55*	0,050 *0.0020*	0,060 *0.0024*	0,075 *0.0030*	0,085 *0.0034*	75 (66 — 87) *245 (220 — 280)*
M3	E/M/A	0,50 *0.50*	0,55 *0.55*	0,050 *0.0020*	0,060 *0.0024*	0,075 *0.0030*	0,085 *0.0034*	49 (39 — 60) *160 (130 — 190)*
M4	E/M/A	0,50 *0.50*	0,55 *0.55*	0,044 *0.0017*	0,050 *0.0020*	0,065 *0.0026*	0,075 *0.0030*	38 (30 — 46) *125 (99 — 150)*
M5	E/M/A	0,50 *0.50*	0,55 *0.55*	0,044 *0.0017*	0,050 *0.0020*	0,065 *0.0026*	0,075 *0.0030*	32 (25 — 38) *105 (83 — 120)*
K1	E/M/A/D	0,50 *0.50*	0,55 *0.55*	0,050 *0.0020*	0,060 *0.0024*	0,075 *0.0030*	0,085 *0.0034*	155 (140 — 170) *510 (460 — 550)*
K2	E/M/A/D	0,50 *0.50*	0,55 *0.55*	0,046 *0.0018*	0,055 *0.0022*	0,065 *0.0026*	0,075 *0.0030*	135 (120 — 150) *445 (400 — 490)*
K3	E/M/A/D	0,50 *0.50*	0,55 *0.55*	0,046 *0.0018*	0,055 *0.0022*	0,065 *0.0026*	0,075 *0.0030*	115 (99 — 130) *375 (330 — 420)*
K4	E/M/A/D	0,50 *0.50*	0,55 *0.55*	0,046 *0.0018*	0,055 *0.0022*	0,065 *0.0026*	0,075 *0.0030*	110 (94 — 120) *360 (310 — 390)*
K5	E/M/A/D	0,50 *0.50*	0,55 *0.55*	0,050 *0.0020*	0,060 *0.0024*	0,075 *0.0030*	0,085 *0.0034*	135 (110 — 150) *445 (370 — 490)*
K6	E/M/A/D	0,50 *0.50*	0,55 *0.55*	0,055 *0.0022*	0,065 *0.0026*	0,080 *0.0032*	0,095 *0.0038*	200 (160 — 220) *660 (530 — 720)*
K7	E/M/A/D	0,50 *0.50*	0,55 *0.55*	0,050 *0.0020*	0,060 *0.0024*	0,075 *0.0030*	0,085 *0.0034*	175 (150 — 190) *570 (500 — 620)*
N1	E/M/A	0,40 *0.40*	0,55 *0.55*	0,080 *0.0032*	0,095 *0.0038*	0,12 *0.0048*	0,14 *0.0055*	540 (510 — 700) *1775 (1700 — 2200)*
N2	E/M/A	0,40 *0.40*	0,55 *0.55*	0,080 *0.0032*	0,095 *0.0038*	0,12 *0.0048*	0,14 *0.0055*	350 (330 — 450) *1150 (1100 — 1400)*
N3	E/M/A	0,40 *0.40*	0,55 *0.55*	0,080 *0.0032*	0,095 *0.0038*	0,12 *0.0048*	0,14 *0.0055*	235 (220 — 300) *770 (730 — 980)*
N11	E/M/A	0,50 *0.50*	0,55 *0.55*	0,070 *0.0028*	0,080 *0.0032*	0,11 *0.0044*	0,13 *0.0050*	295 (250 — 340) *970 (830 — 1100)*
S1	E	0,50 *0.50*	0,55 *0.55*	0,050 *0.0020*	0,060 *0.0024*	0,075 *0.0030*	0,085 *0.0034*	30 (24 — 37) *100 (79 — 120)*
S2	E	0,50 *0.50*	0,55 *0.55*	0,050 *0.0020*	0,060 *0.0024*	0,075 *0.0030*	0,085 *0.0034*	25 (19 — 31) *80 (63 — 100)*
S3	E	0,50 *0.50*	0,55 *0.55*	0,050 *0.0020*	0,060 *0.0024*	0,075 *0.0030*	0,085 *0.0034*	22 (17 — 27) *70 (56 — 88)*
S11	E	0,50 *0.50*	0,55 *0.55*	0,050 *0.0020*	0,060 *0.0024*	0,075 *0.0030*	0,085 *0.0034*	100 (72 — 120) *330 (240 — 390)*
S12	E	0,50 *0.50*	0,55 *0.55*	0,050 *0.0020*	0,060 *0.0024*	0,075 *0.0030*	0,085 *0.0034*	75 (55 — 98) *245 (190 — 320)*
S13	E	0,50 *0.50*	0,55 *0.55*	0,044 *0.0017*	0,050 *0.0020*	0,065 *0.0026*	0,075 *0.0030*	60 (44 — 78) *195 (150 — 250)*
TS1	A/D	0,40 *0.40*	0,55 *0.55*	0,080 *0.0032*	0,095 *0.0038*	0,12 *0.0048*	0,14 *0.0055*	250 (160 — 350) *820 (530 — 1100)*
TP1	A/D	0,40 *0.40*	0,55 *0.55*	0,080 *0.0032*	0,095 *0.0038*	0,12 *0.0048*	0,14 *0.0055*	250 (160 — 350) *820 (530 — 1100)*
GR1	A/D	0,40 *0.40*	0,55 *0.55*	0,080 *0.0032*	0,095 *0.0038*	0,12 *0.0048*	0,14 *0.0055*	610 (510 — 700) *2000 (1700 — 2200)*

Cutting data – XVE540 – Slot milling PCEDC 4

SMG		a_p/DC	f_z				v_c
			10	12	16	20	
P1	E/M/A/D	0,55 *0.55*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	160 (130 — 200) *520 (430 — 650)*
P2	E/M/A/D	0,55 *0.55*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	155 (120 — 190) *510 (400 — 620)*
P3	E/M/A/D	0,55 *0.55*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	135 (110 — 160) *445 (370 — 520)*
P4	E/M/A/D	0,55 *0.55*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	120 (90 — 140) *395 (300 — 450)*
P5	E/M/A/D	0,55 *0.55*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	115 (86 — 140) *375 (290 — 450)*
P6	E/M/A/D	0,55 *0.55*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	125 (96 — 150) *410 (320 — 490)*
P7	E/M/A/D	0,55 *0.55*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	120 (91 — 150) *395 (300 — 490)*
P8	E/M/A/D	0,55 *0.55*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	115 (86 — 140) *375 (290 — 450)*
P11	E/M/A/D	0,55 *0.55*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	75 (63 — 83) *245 (210 — 270)*
P12	E/M/A/D	0,55 *0.55*	0,034 *0.0013*	0,040 *0.0016*	0,050 *0.0020*	0,060 *0.0024*	43 (37 — 49) *140 (130 — 160)*
M1	E/M/A	0,55 *0.55*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	85 (74 — 98) *280 (250 — 320)*
M2	E/M/A	0,55 *0.55*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	70 (60 — 79) *230 (200 — 250)*
M3	E/M/A	0,55 *0.55*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	45 (35 — 54) *150 (120 — 170)*
M4	E/M/A	0,55 *0.55*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	33 (26 — 40) *110 (86 — 130)*
M5	E/M/A	0,55 *0.55*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	28 (22 — 34) *90 (73 — 110)*
K1	E/M/A/D	0,55 *0.55*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	140 (120 — 150) *460 (400 — 490)*
K2	E/M/A/D	0,55 *0.55*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	120 (110 — 130) *395 (370 — 420)*
K3	E/M/A/D	0,55 *0.55*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	100 (88 — 110) *330 (290 — 360)*
K4	E/M/A/D	0,55 *0.55*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	95 (84 — 110) *310 (280 — 360)*
K5	E/M/A/D	0,55 *0.55*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	125 (100 — 130) *410 (330 — 420)*
K6	E/M/A/D	0,55 *0.55*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	185 (150 — 200) *610 (500 — 650)*
K7	E/M/A/D	0,55 *0.55*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	160 (130 — 170) *520 (430 — 550)*
N1	E/M/A	0,30 *0.30*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	530 (500 — 690) *1750 (1700 — 2200)*
N2	E/M/A	0,30 *0.30*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	345 (320 — 440) *1125 (1100 — 1400)*
N3	E/M/A	0,30 *0.30*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	230 (220 — 290) *750 (730 — 950)*
N11	E/M/A	0,30 *0.30*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	295 (250 — 340) *970 (830 — 1100)*
S1	E	0,55 *0.55*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	27 (21 — 33) *90 (69 — 100)*
S2	E	0,55 *0.55*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	23 (17 — 28) *75 (56 — 91)*
S3	E	0,55 *0.55*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	20 (15 — 24) *65 (50 — 78)*
S11	E	0,55 *0.55*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	90 (65 — 110) *295 (220 — 360)*
S12	E	0,55 *0.55*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	70 (50 — 89) *230 (170 — 290)*
S13	E	0,55 *0.55*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	55 (39 — 69) *180 (130 — 220)*
TS1	A/D	0,30 *0.30*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	250 (150 — 340) *820 (500 — 1100)*
TP1	A/D	0,30 *0.30*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	250 (150 — 340) *820 (500 — 1100)*
GR1	A/D	0,30 *0.30*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	590 (500 — 690) *1925 (1700 — 2200)*

Cutting data – XVE540 – Side milling PCEDC 4 inch

SMG		a_e/DC	a_p/DC	f_z				v_c
				3/8	1/2	5/8	3/4	
P1	E/M/A/D	0,50 *0.50*	0,55 *0.55*	0,055 *0.0022*	0,065 *0.0026*	0,080 *0.0032*	0,090 *0.0036*	180 (150 — 210) *590 (500 — 680)*
P2	E/M/A/D	0,50 *0.50*	0,55 *0.55*	0,055 *0.0022*	0,065 *0.0026*	0,080 *0.0032*	0,090 *0.0036*	175 (150 — 200) *570 (500 — 650)*
P3	E/M/A/D	0,50 *0.50*	0,55 *0.55*	0,050 *0.0020*	0,060 *0.0024*	0,075 *0.0030*	0,085 *0.0034*	155 (130 — 180) *510 (430 — 590)*
P4	E/M/A/D	0,50 *0.50*	0,55 *0.55*	0,050 *0.0020*	0,060 *0.0024*	0,075 *0.0030*	0,085 *0.0034*	135 (110 — 150) *445 (370 — 490)*
P5	E/M/A/D	0,50 *0.50*	0,55 *0.55*	0,050 *0.0020*	0,060 *0.0024*	0,075 *0.0030*	0,085 *0.0034*	110 (88 — 130) *360 (290 — 420)*
P6	E/M/A/D	0,50 *0.50*	0,55 *0.55*	0,050 *0.0020*	0,060 *0.0024*	0,075 *0.0030*	0,085 *0.0034*	125 (99 — 140) *410 (330 — 450)*
P7	E/M/A/D	0,50 *0.50*	0,55 *0.55*	0,050 *0.0020*	0,060 *0.0024*	0,075 *0.0030*	0,085 *0.0034*	115 (93 — 130) *375 (310 — 420)*
P8	E/M/A/D	0,50 *0.50*	0,55 *0.55*	0,050 *0.0020*	0,060 *0.0024*	0,075 *0.0030*	0,090 *0.0036*	110 (88 — 130) *360 (290 — 420)*
P11	E/M/A/D	0,50 *0.50*	0,55 *0.55*	0,050 *0.0020*	0,060 *0.0024*	0,075 *0.0030*	0,085 *0.0034*	90 (70 — 110) *295 (230 — 360)*
P12	E/M/A/D	0,50 *0.50*	0,55 *0.55*	0,034 *0.0013*	0,040 *0.0016*	0,050 *0.0020*	0,060 *0.0024*	60 (44 — 73) *195 (150 — 230)*
M1	E/M/A	0,50 *0.50*	0,55 *0.55*	0,055 *0.0022*	0,065 *0.0026*	0,080 *0.0032*	0,095 *0.0038*	105 (80 — 130) *345 (270 — 420)*
M2	E/M/A	0,50 *0.50*	0,55 *0.55*	0,050 *0.0020*	0,060 *0.0024*	0,075 *0.0030*	0,085 *0.0034*	90 (66 — 100) *295 (220 — 320)*
M3	E/M/A	0,50 *0.50*	0,55 *0.55*	0,050 *0.0020*	0,060 *0.0024*	0,075 *0.0030*	0,085 *0.0034*	75 (55 — 98) *245 (190 — 320)*
M4	E/M/A	0,50 *0.50*	0,55 *0.55*	0,044 *0.0017*	0,050 *0.0020*	0,065 *0.0026*	0,075 *0.0030*	60 (43 — 75) *195 (150 — 240)*
M5	E/M/A	0,50 *0.50*	0,55 *0.55*	0,044 *0.0017*	0,050 *0.0020*	0,065 *0.0026*	0,075 *0.0030*	49 (36 — 63) *160 (120 — 200)*
K1	E/M/A/D	0,50 *0.50*	0,55 *0.55*	0,050 *0.0020*	0,060 *0.0024*	0,075 *0.0030*	0,085 *0.0034*	135 (120 — 150) *445 (400 — 490)*
K2	E/M/A/D	0,50 *0.50*	0,55 *0.55*	0,046 *0.0018*	0,055 *0.0022*	0,065 *0.0026*	0,075 *0.0030*	120 (110 — 130) *395 (370 — 420)*
K3	E/M/A/D	0,50 *0.50*	0,55 *0.55*	0,046 *0.0018*	0,055 *0.0022*	0,065 *0.0026*	0,075 *0.0030*	100 (86 — 110) *330 (290 — 360)*
K4	E/M/A/D	0,50 *0.50*	0,55 *0.55*	0,050 *0.0020*	0,060 *0.0024*	0,075 *0.0030*	0,085 *0.0034*	110 (88 — 130) *360 (290 — 420)*
K5	E/M/A/D	0,50 *0.50*	0,55 *0.55*	0,046 *0.0018*	0,055 *0.0022*	0,065 *0.0026*	0,075 *0.0030*	65 (54 — 79) *215 (180 — 250)*
K6	E/M/A/D	0,50 *0.50*	0,55 *0.55*	0,050 *0.0020*	0,060 *0.0024*	0,075 *0.0030*	0,085 *0.0034*	95 (78 — 110) *310 (260 — 360)*
K7	E/M/A/D	0,50 *0.50*	0,55 *0.55*	0,046 *0.0018*	0,055 *0.0022*	0,065 *0.0026*	0,075 *0.0030*	85 (68 — 100) *280 (230 — 320)*
N1	E/M/A	0,40 *0.40*	0,55 *0.55*	0,080 *0.0032*	0,095 *0.0038*	0,12 *0.0048*	0,14 *0.0055*	610 (510 — 700) *2000 (1700 — 2200)*
N2	E/M/A	0,40 *0.40*	0,55 *0.55*	0,080 *0.0032*	0,095 *0.0038*	0,12 *0.0048*	0,14 *0.0055*	390 (330 — 450) *1275 (1100 — 1400)*
N3	E/M/A	0,40 *0.40*	0,55 *0.55*	0,080 *0.0032*	0,095 *0.0038*	0,12 *0.0048*	0,14 *0.0055*	260 (220 — 300) *850 (730 — 980)*
N11	E/M/A	0,50 *0.50*	0,55 *0.30*	0,070 *0.0028*	0,080 *0.0032*	0,11 *0.0044*	0,13 *0.0055*	295 (250 — 340) *1000 (860 — 1100)*
S1	E	0,50 *0.50*	0,55 *0.55*	0,055 *0.0022*	0,065 *0.0026*	0,080 *0.0032*	0,090 *0.0036*	39 (31 — 46) *130 (110 — 150)*
S2	E	0,50 *0.50*	0,55 *0.55*	0,055 *0.0022*	0,065 *0.0026*	0,080 *0.0032*	0,090 *0.0036*	31 (25 — 37) *100 (83 — 120)*
S3	E	0,50 *0.50*	0,55 *0.55*	0,050 *0.0020*	0,060 *0.0024*	0,075 *0.0030*	0,085 *0.0034*	27 (22 — 32) *90 (73 — 100)*
S11	E	0,50 *0.50*	0,55 *0.55*	0,050 *0.0020*	0,060 *0.0024*	0,075 *0.0030*	0,085 *0.0034*	115 (86 — 140) *375 (290 — 450)*
S12	E	0,50 *0.50*	0,55 *0.55*	0,050 *0.0020*	0,060 *0.0024*	0,075 *0.0030*	0,085 *0.0034*	90 (66 — 100) *295 (220 — 320)*
S13	E	0,50 *0.50*	0,55 *0.55*	0,044 *0.0017*	0,050 *0.0020*	0,065 *0.0026*	0,075 *0.0030*	70 (53 — 87) *230 (180 — 280)*
TS1	A/D	0,40 *0.40*	0,55 *0.55*	0,080 *0.0032*	0,095 *0.0038*	0,12 *0.0048*	0,14 *0.0055*	250 (160 — 350) *820 (530 — 1100)*
TP1	A/D	0,40 *0.40*	0,55 *0.55*	0,080 *0.0032*	0,095 *0.0038*	0,12 *0.0048*	0,14 *0.0055*	250 (160 — 350) *820 (530 — 1100)*
GR1	A/D	0,40 *0.40*	0,55 *0.55*	0,080 *0.0032*	0,095 *0.0038*	0,12 *0.0048*	0,14 *0.0055*	610 (510 — 700) *2000 (1700 — 2200)*

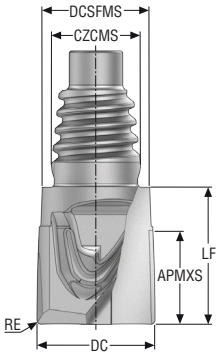
Cutting data – XVE540 – Slot milling PCEDC 4 inch

SMG		a_p/DC	f_z				v_c
			3/8	1/2	5/8	3/4	
P1	E/M/A/D	0,55 *0.55*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	170 (140 — 190) *560 (460 — 620)*
P2	E/M/A/D	0,55 *0.55*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	165 (140 — 180) *540 (460 — 590)*
P3	E/M/A/D	0,55 *0.55*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	140 (120 — 160) *460 (400 — 520)*
P4	E/M/A/D	0,55 *0.55*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	125 (100 — 140) *410 (330 — 450)*
P5	E/M/A/D	0,55 *0.55*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	100 (80 — 110) *330 (270 — 360)*
P6	E/M/A/D	0,55 *0.55*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	110 (89 — 130) *360 (300 — 420)*
P7	E/M/A/D	0,55 *0.55*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	105 (84 — 120) *345 (280 — 390)*
P8	E/M/A/D	0,55 *0.55*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	100 (80 — 110) *330 (270 — 360)*
P11	E/M/A/D	0,55 *0.55*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	85 (63 — 100) *280 (210 — 320)*
P12	E/M/A/D	0,55 *0.55*	0,034 *0.0013*	0,040 *0.0016*	0,050 *0.0020*	0,060 *0.0024*	49 (37 — 61) *160 (130 — 200)*
M1	E/M/A	0,55 *0.55*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	100 (74 — 120) *330 (250 — 390)*
M2	E/M/A	0,55 *0.55*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	80 (60 — 99) *260 (200 — 320)*
M3	E/M/A	0,55 *0.55*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	70 (50 — 89) *230 (170 — 290)*
M4	E/M/A	0,55 *0.55*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	50 (38 — 66) *165 (130 — 210)*
M5	E/M/A	0,55 *0.55*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	43 (31 — 55) *140 (110 — 180)*
K1	E/M/A/D	0,55 *0.55*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	125 (110 — 140) *410 (370 — 450)*
K2	E/M/A/D	0,55 *0.55*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	105 (91 — 120) *345 (300 — 390)*
K3	E/M/A/D	0,55 *0.55*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	90 (77 — 100) *295 (260 — 320)*
K4	E/M/A/D	0,55 *0.55*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	100 (80 — 110) *330 (270 — 360)*
K5	E/M/A/D	0,55 *0.55*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	60 (48 — 70) *195 (160 — 220)*
K6	E/M/A/D	0,55 *0.55*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	85 (70 — 100) *280 (230 — 320)*
K7	E/M/A/D	0,55 *0.55*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	75 (61 — 90) *245 (210 — 290)*
N1	E/M/A	0,30 *0.30*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	590 (500 — 690) *1925 (1700 — 2200)*
N2	E/M/A	0,30 *0.30*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	380 (320 — 440) *1250 (1100 — 1400)*
N3	E/M/A	0,30 *0.30*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	255 (220 — 290) *840 (730 — 950)*
N11	E/M/A	0,30 *0.30*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	295 (250 — 340) *970 (830 — 1100)*
S1	E	0,55 *0.55*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	36 (29 — 42) *120 (96 — 130)*
S2	E	0,55 *0.55*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	29 (23 — 34) *95 (76 — 110)*
S3	E	0,55 *0.55*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	25 (20 — 29) *80 (66 — 95)*
S11	E	0,55 *0.55*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	105 (78 — 120) *345 (260 — 390)*
S12	E	0,55 *0.55*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	80 (60 — 99) *260 (200 — 320)*
S13	E	0,55 *0.55*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	60 (47 — 76) *195 (160 — 240)*
TS1	A/D	0,30 *0.30*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	250 (150 — 340) *820 (500 — 1100)*
TP1	A/D	0,30 *0.30*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	250 (150 — 340) *820 (500 — 1100)*
GR1	A/D	0,30 *0.30*	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*	590 (500 — 690) *1925 (1700 — 2200)*

XVE510

General purpose – Universal – Square – 2 Flutes – Corner radius





D

- Tolerances:
- DC= h10
- RE= ±0,015 mm



Designation	Item number	Length index	Tool shape	CZCMS	DC	DCSFMS	APMXS	LF	RE	PCEDC	SW	Grade
					mm	mm	mm	mm	mm			SIRA
XVE510E10100D1R050Z2	10138003	1	D	E10	10,0	9,7	8,0	11,8	0,5	2	6	■
XVE510E12120D1R050Z2	10138004	1	D	E12	12,0	11,7	10,0	14,0	0,5	2	8	■

■ Stocked standard.

Cutting data – XVE510 Side milling

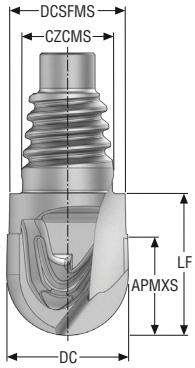
SMG		a_e/DC	a_p/DC	f_z		v_c
				10	12	
P1	E/M/A/D	0,10 *0.10*	0,65 *0.65*	0,080 *0.0032*	0,095 *0.0038*	210 (170 — 250) *690 (560 — 820)*
P2	E/M/A/D	0,10 *0.10*	0,65 *0.65*	0,080 *0.0032*	0,095 *0.0038*	205 (170 — 240) *670 (560 — 780)*
P3	E/M/A/D	0,10 *0.10*	0,65 *0.65*	0,080 *0.0032*	0,095 *0.0038*	175 (150 — 210) *570 (500 — 680)*
P4	E/M/A/D	0,10 *0.10*	0,65 *0.65*	0,080 *0.0032*	0,095 *0.0038*	155 (130 — 180) *510 (430 — 590)*
P5	E/M/A/D	0,10 *0.10*	0,65 *0.65*	0,080 *0.0032*	0,095 *0.0038*	155 (130 — 180) *510 (430 — 590)*
P6	E/M/A/D	0,10 *0.10*	0,65 *0.65*	0,080 *0.0032*	0,095 *0.0038*	175 (140 — 200) *570 (460 — 650)*
P7	E/M/A/D	0,10 *0.10*	0,65 *0.65*	0,080 *0.0032*	0,095 *0.0038*	165 (140 — 190) *540 (460 — 620)*
P8	E/M/A/D	0,10 *0.10*	0,65 *0.65*	0,080 *0.0032*	0,095 *0.0038*	155 (130 — 180) *510 (430 — 590)*
P11	E/M/A/D	0,10 *0.10*	0,65 *0.65*	0,080 *0.0032*	0,095 *0.0038*	115 (82 — 140) *375 (270 — 450)*
P12	E/M/A/D	0,10 *0.10*	0,65 *0.65*	0,070 *0.0028*	0,080 *0.0032*	70 (50 — 89) *230 (170 — 290)*
M1	E/M/A	0,10 *0.10*	0,65 *0.65*	0,080 *0.0032*	0,095 *0.0038*	135 (97 — 170) *445 (320 — 550)*
M2	E/M/A	0,10 *0.10*	0,65 *0.65*	0,080 *0.0032*	0,095 *0.0038*	110 (78 — 130) *360 (260 — 420)*
M3	E/M/A	0,10 *0.10*	0,65 *0.65*	0,080 *0.0032*	0,095 *0.0038*	70 (55 — 85) *230 (190 — 270)*
M4	E/M/A	0,10 *0.10*	0,65 *0.65*	0,080 *0.0032*	0,095 *0.0038*	50 (41 — 64) *165 (140 — 200)*
M5	E/M/A	0,10 *0.10*	0,65 *0.65*	0,080 *0.0032*	0,095 *0.0038*	44 (35 — 53) *145 (120 — 170)*
K1	E/M/A/D	0,10 *0.10*	0,65 *0.65*	0,080 *0.0032*	0,095 *0.0038*	185 (160 — 210) *610 (530 — 680)*
K2	E/M/A/D	0,10 *0.10*	0,65 *0.65*	0,080 *0.0032*	0,095 *0.0038*	160 (140 — 180) *520 (460 — 590)*
K3	E/M/A/D	0,10 *0.10*	0,65 *0.65*	0,080 *0.0032*	0,095 *0.0038*	135 (120 — 150) *445 (400 — 490)*
K4	E/M/A/D	0,10 *0.10*	0,65 *0.65*	0,080 *0.0032*	0,095 *0.0038*	130 (110 — 150) *425 (370 — 490)*
K5	E/M/A/D	0,10 *0.10*	0,65 *0.65*	0,080 *0.0032*	0,095 *0.0038*	155 (130 — 180) *510 (430 — 590)*
K6	E/M/A/D	0,10 *0.10*	0,65 *0.65*	0,080 *0.0032*	0,095 *0.0038*	230 (190 — 270) *750 (630 — 880)*
K7	E/M/A/D	0,10 *0.10*	0,65 *0.65*	0,080 *0.0032*	0,095 *0.0038*	100 (83 — 110) *330 (280 — 360)*
N1	E/M/A	0,20 *0.20*	0,65 *0.65*	0,075 *0.0030*	0,090 *0.0036*	470 (410 — 530) *1550 (1400 — 1700)*
N2	E/M/A	0,20 *0.20*	0,65 *0.65*	0,075 *0.0030*	0,090 *0.0036*	305 (270 — 340) *1000 (890 — 1100)*
N3	E/M/A	0,20 *0.20*	0,65 *0.65*	0,075 *0.0030*	0,090 *0.0036*	200 (180 — 230) *660 (600 — 750)*
N11	E/M/A	0,10 *0.10*	0,65 *0.65*	0,10 *0.0040*	0,12 *0.0048*	370 (300 — 440) *1225 (990 — 1400)*
S1	E	0,10 *0.10*	0,65 *0.65*	0,080 *0.0032*	0,095 *0.0038*	60 (39 — 85) *195 (130 — 270)*
S2	E	0,10 *0.10*	0,65 *0.65*	0,080 *0.0032*	0,095 *0.0038*	55 (32 — 77) *180 (110 — 250)*
S3	E	0,10 *0.10*	0,65 *0.65*	0,080 *0.0032*	0,095 *0.0038*	39 (24 — 54) *130 (79 — 170)*
S11	E	0,10 *0.10*	0,65 *0.65*	0,080 *0.0032*	0,095 *0.0038*	120 (110 — 140) *395 (370 — 450)*
S12	E	0,10 *0.10*	0,65 *0.65*	0,080 *0.0032*	0,095 *0.0038*	95 (78 — 100) *310 (260 — 320)*
S13	E	0,10 *0.10*	0,65 *0.65*	0,080 *0.0032*	0,095 *0.0038*	70 (61 — 84) *230 (210 — 270)*
TS1	A/D	0,10 *0.10*	0,65 *0.65*	0,080 *0.0032*	0,095 *0.0038*	540 (470 — 620) *1775 (1600 — 2000)*
TP1	A/D	0,10 *0.10*	0,65 *0.65*	0,080 *0.0032*	0,095 *0.0038*	540 (470 — 620) *1775 (1600 — 2000)*
GR1	A/D	0,20 *0.20*	0,65 *0.65*	0,10 *0.0040*	0,12 *0.0048*	570 (510 — 630) *1875 (1700 — 2000)*

Cutting data – XVE510 Slot milling

SMG		a_p/DC	f_z		v_c
			10	12	
P1	E/M/A/D	0,50 *0.50*	0,050 *0.0020*	0,060 *0.0024*	135 (110 — 160) *445 (370 — 520)*
P2	E/M/A/D	0,50 *0.50*	0,050 *0.0020*	0,060 *0.0024*	130 (110 — 150) *425 (370 — 490)*
P3	E/M/A/D	0,50 *0.50*	0,050 *0.0020*	0,060 *0.0024*	115 (91 — 130) *375 (300 — 420)*
P4	E/M/A/D	0,50 *0.50*	0,050 *0.0020*	0,060 *0.0024*	100 (80 — 110) *330 (270 — 360)*
P5	E/M/A/D	0,50 *0.50*	0,050 *0.0020*	0,060 *0.0024*	100 (81 — 120) *330 (270 — 390)*
P6	E/M/A/D	0,50 *0.50*	0,050 *0.0020*	0,060 *0.0024*	110 (90 — 130) *360 (300 — 420)*
P7	E/M/A/D	0,50 *0.50*	0,050 *0.0020*	0,060 *0.0024*	105 (85 — 120) *345 (280 — 390)*
P8	E/M/A/D	0,50 *0.50*	0,050 *0.0020*	0,060 *0.0024*	100 (81 — 120) *330 (270 — 390)*
P11	E/M/A/D	0,50 *0.50*	0,050 *0.0020*	0,060 *0.0024*	75 (53 — 94) *245 (180 — 300)*
P12	E/M/A/D	0,40 *0.40*	0,040 *0.0016*	0,048 *0.0019*	46 (33 — 58) *150 (110 — 190)*
M1	E/M/A	0,50 *0.50*	0,050 *0.0020*	0,060 *0.0024*	85 (62 — 110) *280 (210 — 360)*
M2	E/M/A	0,50 *0.50*	0,050 *0.0020*	0,060 *0.0024*	70 (50 — 89) *230 (170 — 290)*
M3	E/M/A	0,50 *0.50*	0,050 *0.0020*	0,060 *0.0024*	45 (35 — 54) *150 (120 — 170)*
M4	E/M/A	0,38 *0.38*	0,050 *0.0020*	0,060 *0.0024*	34 (27 — 41) *110 (89 — 130)*
M5	E/M/A	0,38 *0.38*	0,050 *0.0020*	0,060 *0.0024*	28 (23 — 34) *90 (76 — 110)*
K1	E/M/A/D	0,50 *0.50*	0,050 *0.0020*	0,060 *0.0024*	120 (100 — 130) *395 (330 — 420)*
K2	E/M/A/D	0,50 *0.50*	0,050 *0.0020*	0,060 *0.0024*	105 (87 — 120) *345 (290 — 390)*
K3	E/M/A/D	0,50 *0.50*	0,050 *0.0020*	0,060 *0.0024*	90 (74 — 100) *295 (250 — 320)*
K4	E/M/A/D	0,50 *0.50*	0,050 *0.0020*	0,060 *0.0024*	85 (70 — 97) *280 (230 — 310)*
K5	E/M/A/D	0,50 *0.50*	0,050 *0.0020*	0,060 *0.0024*	100 (80 — 120) *330 (270 — 390)*
K6	E/M/A/D	0,50 *0.50*	0,050 *0.0020*	0,060 *0.0024*	150 (120 — 170) *490 (400 — 550)*
K7	E/M/A/D	0,50 *0.50*	0,050 *0.0020*	0,060 *0.0024*	65 (54 — 74) *215 (180 — 240)*
N1	E/M/A	0,50 *0.50*	0,050 *0.0020*	0,060 *0.0024*	350 (300 — 390) *1150 (990 — 1200)*
N2	E/M/A	0,50 *0.50*	0,050 *0.0020*	0,060 *0.0024*	225 (200 — 250) *740 (660 — 820)*
N3	E/M/A	0,50 *0.50*	0,050 *0.0020*	0,060 *0.0024*	150 (130 — 170) *490 (430 — 550)*
N11	E/M/A	0,50 *0.50*	0,050 *0.0020*	0,060 *0.0024*	250 (200 — 290) *820 (660 — 950)*
S1	E	0,50 *0.50*	0,050 *0.0020*	0,060 *0.0024*	40 (25 — 54) *130 (83 — 170)*
S2	E	0,50 *0.50*	0,050 *0.0020*	0,060 *0.0024*	35 (20 — 49) *115 (66 — 160)*
S3	E	0,50 *0.50*	0,050 *0.0020*	0,060 *0.0024*	25 (15 — 34) *80 (50 — 110)*
S11	E	0,50 *0.50*	0,050 *0.0020*	0,060 *0.0024*	80 (65 — 90) *260 (220 — 290)*
S12	E	0,50 *0.50*	0,050 *0.0020*	0,060 *0.0024*	60 (50 — 69) *195 (170 — 220)*
S13	E	0,42 *0.42*	0,050 *0.0020*	0,060 *0.0024*	47 (39 — 54) *155 (130 — 170)*
TS1	A/D	0,50 *0.50*	0,050 *0.0020*	0,060 *0.0024*	350 (300 — 390) *1150 (990 — 1200)*
TP1	A/D	0,50 *0.50*	0,050 *0.0020*	0,060 *0.0024*	350 (300 — 390) *1150 (990 — 1200)*
GR1	A/D	0,50 *0.50*	0,050 *0.0020*	0,060 *0.0024*	450 (400 — 490) *1475 (1400 — 1600)*

XVB510

General purpose – Universal – Ball nose – 2 Flutes



D





- Tolerances:
- DC= h9
- RE= ±0,01 mm

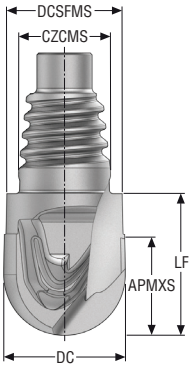
Designation	Item number	Length index	Tool shape	CZCMS	DC	DCSFMS	APMXS	LF	PCEDC	SW	Grade
					mm	mm	mm	mm			SIRA
XVB510E10100D1BZ2	10138005	1	D	E10	10,0	9,7	8,0	11,8	2	6	■
XVB510E12120D1BZ2	10138006	1	D	E12	12,0	11,7	10,0	14,0	2	8	■
XVB510E16160D1BZ2	10138007	1	D	E16	16,0	15,5	13,0	18,1	2	10	■

■ Stocked standard.

XVB510

General purpose – Universal – Ball nose – 2 Flutes – *Inch*





D

- Tolerances:
- DC= h9
- RE= ±.0004 Inch



Designation	Item number	Length index	Tool shape	CZCMS	DC	DCSFMS	APMXS	LF	PCEDC	SW	Grade
					Inch	*Inch*	*Inch*	*Inch*			SIRA
XVB510E10.375D1BZ2	10138008	1	D	E10	0.375	0.364	0.315	0.465	2	6	■
XVB510E12.500D1BZ2	10138009	1	D	E12	0.500	0.484	0.413	0.551	2	8	■
XVB510E16.625D1BZ2	10138010	1	D	E16	0.624	0.610	0.512	0.713	2	10	■

■ Stocked standard.

Cutting data – XVB510 Copy milling roughing

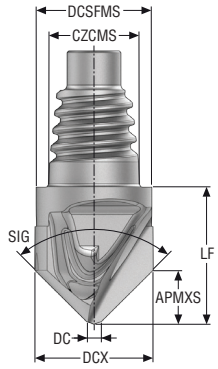
SMG		a_e/DC	a_p/DC	f_z			v_c
				10	12	16	
P1	E/M/A/D	0,10 *0.10*	0,65 *0.65*	0,070 *0.0028*	0,085 *0.0034*	0,11 *0.0044*	185 (150 — 210) *610 (500 — 680)*
P2	E/M/A/D	0,10 *0.10*	0,65 *0.65*	0,070 *0.0028*	0,085 *0.0034*	0,11 *0.0044*	180 (150 — 210) *590 (500 — 680)*
P3	E/M/A/D	0,10 *0.10*	0,65 *0.65*	0,070 *0.0028*	0,085 *0.0034*	0,11 *0.0044*	155 (130 — 180) *510 (430 — 590)*
P4	E/M/A/D	0,10 *0.10*	0,65 *0.65*	0,070 *0.0028*	0,085 *0.0034*	0,11 *0.0044*	135 (110 — 160) *445 (370 — 520)*
P5	E/M/A/D	0,10 *0.10*	0,65 *0.65*	0,070 *0.0028*	0,085 *0.0034*	0,11 *0.0044*	135 (110 — 160) *445 (370 — 520)*
P6	E/M/A/D	0,10 *0.10*	0,65 *0.65*	0,070 *0.0028*	0,085 *0.0034*	0,11 *0.0044*	150 (130 — 180) *490 (430 — 590)*
P7	E/M/A/D	0,10 *0.10*	0,65 *0.65*	0,070 *0.0028*	0,085 *0.0034*	0,11 *0.0044*	145 (120 — 170) *475 (400 — 550)*
P8	E/M/A/D	0,10 *0.10*	0,65 *0.65*	0,070 *0.0028*	0,085 *0.0034*	0,11 *0.0044*	135 (110 — 160) *445 (370 — 520)*
P11	E/M/A/D	0,10 *0.10*	0,65 *0.65*	0,070 *0.0028*	0,085 *0.0034*	0,11 *0.0044*	65 (50 — 78) *215 (170 — 250)*
P12	E/M/A/D	0,10 *0.10*	0,65 *0.65*	0,060 *0.0024*	0,075 *0.0030*	0,090 *0.0036*	39 (30 — 47) *130 (99 — 150)*
M1	E/M/A	0,10 *0.10*	0,65 *0.65*	0,070 *0.0028*	0,085 *0.0034*	0,11 *0.0044*	75 (59 — 91) *245 (200 — 290)*
M2	E/M/A	0,10 *0.10*	0,65 *0.65*	0,070 *0.0028*	0,085 *0.0034*	0,11 *0.0044*	60 (48 — 74) *195 (160 — 240)*
M3	E/M/A	0,10 *0.10*	0,65 *0.65*	0,070 *0.0028*	0,085 *0.0034*	0,11 *0.0044*	60 (48 — 74) *195 (160 — 240)*
M4	E/M/A	0,10 *0.10*	0,65 *0.65*	0,070 *0.0028*	0,085 *0.0034*	0,11 *0.0044*	46 (36 — 55) *150 (120 — 180)*
M5	E/M/A	0,10 *0.10*	0,65 *0.65*	0,070 *0.0028*	0,085 *0.0034*	0,11 *0.0044*	38 (30 — 46) *125 (99 — 150)*
K1	E/M/A/D	0,10 *0.10*	0,65 *0.65*	0,070 *0.0028*	0,085 *0.0034*	0,11 *0.0044*	180 (150 — 210) *590 (500 — 680)*
K2	E/M/A/D	0,10 *0.10*	0,65 *0.65*	0,070 *0.0028*	0,085 *0.0034*	0,11 *0.0044*	155 (130 — 180) *510 (430 — 590)*
K3	E/M/A/D	0,10 *0.10*	0,65 *0.65*	0,070 *0.0028*	0,085 *0.0034*	0,11 *0.0044*	130 (110 — 150) *425 (370 — 490)*
K4	E/M/A/D	0,10 *0.10*	0,65 *0.65*	0,070 *0.0028*	0,085 *0.0034*	0,11 *0.0044*	125 (110 — 150) *410 (370 — 490)*
K5	E/M/A/D	0,10 *0.10*	0,65 *0.65*	0,070 *0.0028*	0,085 *0.0034*	0,11 *0.0044*	80 (63 — 94) *260 (210 — 300)*
K6	E/M/A/D	0,10 *0.10*	0,65 *0.65*	0,070 *0.0028*	0,085 *0.0034*	0,11 *0.0044*	115 (93 — 130) *375 (310 — 420)*
K7	E/M/A/D	0,10 *0.10*	0,65 *0.65*	0,070 *0.0028*	0,085 *0.0034*	0,11 *0.0044*	100 (81 — 120) *330 (270 — 390)*
N1	E/M/A	0,10 *0.10*	0,65 *0.65*	0,10 *0.0040*	0,12 *0.0048*	0,15 *0.0060*	445 (390 — 500) *1450 (1300 — 1600)*
N2	E/M/A	0,10 *0.10*	0,65 *0.65*	0,10 *0.0040*	0,12 *0.0048*	0,15 *0.0060*	285 (250 — 320) *940 (830 — 1000)*
N3	E/M/A	0,10 *0.10*	0,65 *0.65*	0,10 *0.0040*	0,12 *0.0048*	0,15 *0.0060*	190 (170 — 210) *620 (560 — 680)*
N11	E/M/A	0,10 *0.10*	0,65 *0.65*	0,070 *0.0028*	0,085 *0.0034*	0,11 *0.0044*	335 (270 — 400) *1100 (890 — 1300)*
S1	E	0,050 *0.050*	0,65 *0.65*	0,060 *0.0024*	0,070 *0.0028*	0,095 *0.0038*	55 (33 — 76) *180 (110 — 240)*
S2	E	0,050 *0.050*	0,65 *0.65*	0,060 *0.0024*	0,070 *0.0028*	0,095 *0.0038*	44 (27 — 61) *145 (89 — 200)*
S3	E	0,050 *0.050*	0,65 *0.65*	0,060 *0.0024*	0,070 *0.0028*	0,095 *0.0038*	38 (23 — 52) *125 (76 — 170)*
S11	E	0,10 *0.10*	0,65 *0.65*	0,070 *0.0028*	0,085 *0.0034*	0,11 *0.0044*	105 (88 — 120) *345 (290 — 390)*
S12	E	0,10 *0.10*	0,65 *0.65*	0,070 *0.0028*	0,085 *0.0034*	0,11 *0.0044*	80 (68 — 94) *260 (230 — 300)*
S13	E	0,10 *0.10*	0,65 *0.65*	0,070 *0.0028*	0,085 *0.0034*	0,11 *0.0044*	65 (53 — 73) *215 (180 — 230)*
TS1	A/D	0,10 *0.10*	0,65 *0.65*	0,10 *0.0040*	0,12 *0.0048*	0,15 *0.0060*	445 (390 — 500) *1450 (1300 — 1600)*
TP1	A/D	0,10 *0.10*	0,65 *0.65*	0,10 *0.0040*	0,12 *0.0048*	0,15 *0.0060*	445 (390 — 500) *1450 (1300 — 1600)*
GR1	A/D	0,10 *0.10*	0,65 *0.65*	0,070 *0.0028*	0,085 *0.0034*	0,11 *0.0044*	630 (570 — 700) *2075 (1900 — 2200)*

Cutting data – XVB510 Copy milling roughing inch

SMG		a_e/DC	a_p/DC	f_z			v_c
				3/8	1/2	5/8	
P1	E/M/A/D	0,10 *0.10*	0,65 *0.65*	0,070 *0.0028*	0,085 *0.0034*	0,11 *0.0044*	365 (320 — 420) *1200 (1100 — 1300)*
P2	E/M/A/D	0,10 *0.10*	0,65 *0.65*	0,070 *0.0028*	0,085 *0.0034*	0,11 *0.0044*	355 (310 — 400) *1175 (1100 — 1300)*
P3	E/M/A/D	0,10 *0.10*	0,65 *0.65*	0,070 *0.0028*	0,085 *0.0034*	0,11 *0.0044*	305 (270 — 350) *1000 (890 — 1100)*
P4	E/M/A/D	0,10 *0.10*	0,65 *0.65*	0,070 *0.0028*	0,085 *0.0034*	0,11 *0.0044*	270 (230 — 310) *890 (760 — 1000)*
P5	E/M/A/D	0,10 *0.10*	0,65 *0.65*	0,070 *0.0028*	0,085 *0.0034*	0,11 *0.0044*	175 (140 — 210) *570 (460 — 680)*
P6	E/M/A/D	0,10 *0.10*	0,65 *0.65*	0,070 *0.0028*	0,085 *0.0034*	0,11 *0.0044*	195 (160 — 240) *640 (530 — 780)*
P7	E/M/A/D	0,10 *0.10*	0,65 *0.65*	0,070 *0.0028*	0,085 *0.0034*	0,11 *0.0044*	185 (150 — 220) *610 (500 — 720)*
P8	E/M/A/D	0,10 *0.10*	0,65 *0.65*	0,070 *0.0028*	0,085 *0.0034*	0,11 *0.0044*	175 (140 — 210) *570 (460 — 680)*
P11	E/M/A/D	0,10 *0.10*	0,65 *0.65*	0,070 *0.0028*	0,085 *0.0034*	0,11 *0.0044*	155 (130 — 180) *510 (430 — 590)*
P12	E/M/A/D	0,10 *0.10*	0,65 *0.65*	0,060 *0.0024*	0,075 *0.0030*	0,090 *0.0036*	95 (78 — 110) *310 (260 — 360)*
M1	E/M/A	0,10 *0.10*	0,65 *0.65*	0,070 *0.0028*	0,085 *0.0034*	0,11 *0.0044*	185 (160 — 210) *610 (530 — 680)*
M2	E/M/A	0,10 *0.10*	0,65 *0.65*	0,070 *0.0028*	0,085 *0.0034*	0,11 *0.0044*	150 (130 — 170) *490 (430 — 550)*
M3	E/M/A	0,10 *0.10*	0,65 *0.65*	0,070 *0.0028*	0,085 *0.0034*	0,11 *0.0044*	120 (95 — 140) *395 (320 — 450)*
M4	E/M/A	0,10 *0.10*	0,65 *0.65*	0,070 *0.0028*	0,085 *0.0034*	0,11 *0.0044*	90 (71 — 110) *295 (240 — 360)*
M5	E/M/A	0,10 *0.10*	0,65 *0.65*	0,070 *0.0028*	0,085 *0.0034*	0,11 *0.0044*	75 (59 — 92) *245 (200 — 300)*
K1	E/M/A/D	0,10 *0.10*	0,65 *0.65*	0,070 *0.0028*	0,085 *0.0034*	0,11 *0.0044*	360 (310 — 410) *1175 (1100 — 1300)*
K2	E/M/A/D	0,10 *0.10*	0,65 *0.65*	0,070 *0.0028*	0,085 *0.0034*	0,11 *0.0044*	310 (270 — 350) *1025 (890 — 1100)*
K3	E/M/A/D	0,10 *0.10*	0,65 *0.65*	0,070 *0.0028*	0,085 *0.0034*	0,11 *0.0044*	265 (230 — 300) *870 (760 — 980)*
K4	E/M/A/D	0,10 *0.10*	0,65 *0.65*	0,070 *0.0028*	0,085 *0.0034*	0,11 *0.0044*	250 (220 — 280) *820 (730 — 910)*
K5	E/M/A/D	0,10 *0.10*	0,65 *0.65*	0,070 *0.0028*	0,085 *0.0034*	0,11 *0.0044*	100 (79 — 120) *330 (260 — 390)*
K6	E/M/A/D	0,10 *0.10*	0,65 *0.65*	0,070 *0.0028*	0,085 *0.0034*	0,11 *0.0044*	150 (120 — 180) *490 (400 — 590)*
K7	E/M/A/D	0,10 *0.10*	0,65 *0.65*	0,070 *0.0028*	0,085 *0.0034*	0,11 *0.0044*	130 (110 — 160) *425 (370 — 520)*
N1	E/M/A	0,10 *0.10*	0,65 *0.65*	0,10 *0.0040*	0,12 *0.0048*	0,15 *0.0060*	510 (390 — 630) *1675 (1300 — 2000)*
N2	E/M/A	0,10 *0.10*	0,65 *0.65*	0,10 *0.0040*	0,12 *0.0048*	0,15 *0.0060*	330 (250 — 400) *1075 (830 — 1300)*
N3	E/M/A	0,10 *0.10*	0,65 *0.65*	0,10 *0.0040*	0,12 *0.0048*	0,15 *0.0060*	220 (170 — 270) *720 (560 — 880)*
N11	E/M/A	0,10 *0.10*	0,65 *0.65*	0,070 *0.0028*	0,085 *0.0034*	0,11 *0.0044*	405 (270 — 530) *1325 (890 — 1700)*
S1	E	0,050 *0.050*	0,65 *0.65*	0,060 *0.0024*	0,070 *0.0028*	0,095 *0.0038*	110 (66 — 150) *360 (220 — 490)*
S2	E	0,050 *0.050*	0,65 *0.65*	0,060 *0.0024*	0,070 *0.0028*	0,095 *0.0038*	90 (53 — 120) *295 (180 — 390)*
S3	E	0,050 *0.050*	0,65 *0.65*	0,060 *0.0024*	0,070 *0.0028*	0,095 *0.0038*	75 (46 — 100) *245 (160 — 320)*
S11	E	0,10 *0.10*	0,65 *0.65*	0,070 *0.0028*	0,085 *0.0034*	0,11 *0.0044*	175 (130 — 220) *570 (430 — 720)*
S12	E	0,10 *0.10*	0,65 *0.65*	0,070 *0.0028*	0,085 *0.0034*	0,11 *0.0044*	135 (95 — 170) *445 (320 — 550)*
S13	E	0,10 *0.10*	0,65 *0.65*	0,070 *0.0028*	0,085 *0.0034*	0,11 *0.0044*	105 (74 — 130) *345 (250 — 420)*
TS1	A/D	0,10 *0.10*	0,65 *0.65*	0,10 *0.0040*	0,12 *0.0048*	0,15 *0.0060*	320 (200 — 440) *1050 (660 — 1400)*
TP1	A/D	0,10 *0.10*	0,65 *0.65*	0,10 *0.0040*	0,12 *0.0048*	0,15 *0.0060*	320 (200 — 440) *1050 (660 — 1400)*
GR1	A/D	0,10 *0.10*	0,65 *0.65*	0,070 *0.0028*	0,085 *0.0034*	0,11 *0.0044*	850 (710 — 980) *2800 (2400 — 3200)*

XVC506/509/512

General purpose – Universal – Chamfer – 2 Flutes



N





- Tolerances:
- SIG= ±1°

Designation	Item number	Length index	Tool shape	CZCMS	DCX	DC	DCSFMS	APMXS	LF	SIG°	PCEDC	SW	Grade
					mm	mm	mm	mm	mm				SIRA
XVC506E10100N1SZ2	10138012	1	N	E10	10,0	1,5	9,7	7,23	11,8	60,0	2	6	■
XVC506E12120N1SZ2	10138013	1	N	E12	12,0	1,5	11,7	7,73	14,0	60,0	2	8	■
XVC509E10100N1SZ2	10138014	1	N	E10	10,0	1,5	9,7	4,23	11,8	90,0	2	6	■
XVC509E12120N1SZ2	10138015	1	N	E12	12,0	1,5	11,7	5,23	14,0	90,0	2	8	■
XVC509E16160N1SZ2	10138016	1	N	E16	16,0	1,5	15,5	7,23	18,1	90,0	2	10	■
XVC512E12120N1SZ2	10138017	1	N	E12	12,0	1,5	11,7	3,03	14,0	120,0	2	8	■

■ Stocked standard.

Cutting data – XVC506 Chamfering

SMG		a_e/DC	a_p/DC	f_z		v_c
				10	12	
P1	E/M/A/D	0,10 *0.10*	2,0 *2.0*	0,25 *0.010*	0,26 *0.010*	200 (180 — 220) *660 (600 — 720)*
P2	E/M/A/D	0,10 *0.10*	2,0 *2.0*	0,25 *0.010*	0,26 *0.010*	195 (180 — 220) *640 (600 — 720)*
P3	E/M/A/D	0,10 *0.10*	2,0 *2.0*	0,24 *0.0095*	0,25 *0.010*	170 (150 — 190) *560 (500 — 620)*
P4	E/M/A/D	0,10 *0.10*	2,0 *2.0*	0,24 *0.0095*	0,25 *0.010*	150 (130 — 160) *490 (430 — 520)*
P5	E/M/A/D	0,10 *0.10*	2,0 *2.0*	0,24 *0.0095*	0,25 *0.010*	150 (140 — 170) *490 (460 — 550)*
P6	E/M/A/D	0,10 *0.10*	2,0 *2.0*	0,24 *0.0095*	0,24 *0.0095*	170 (150 — 190) *560 (500 — 620)*
P7	E/M/A/D	0,10 *0.10*	2,0 *2.0*	0,24 *0.0095*	0,24 *0.0095*	160 (140 — 180) *520 (460 — 590)*
P8	E/M/A/D	0,10 *0.10*	2,0 *2.0*	0,24 *0.0095*	0,26 *0.010*	150 (140 — 170) *490 (460 — 550)*
P11	E/M/A/D	0,10 *0.10*	2,0 *2.0*	0,24 *0.0095*	0,24 *0.0095*	105 (86 — 120) *345 (290 — 390)*
P12	E/M/A/D	0,10 *0.10*	1,6 *1.6*	0,15 *0.0060*	0,16 *0.0065*	65 (52 — 76) *215 (180 — 240)*
M1	E/M/A	0,10 *0.10*	2,0 *2.0*	0,26 *0.010*	0,28 *0.011*	125 (99 — 140) *410 (330 — 450)*
M2	E/M/A	0,10 *0.10*	2,0 *2.0*	0,24 *0.0095*	0,25 *0.010*	100 (80 — 120) *330 (270 — 390)*
M3	E/M/A	0,10 *0.10*	2,0 *2.0*	0,24 *0.0095*	0,25 *0.010*	65 (45 — 84) *215 (150 — 270)*
M4	E/M/A	0,10 *0.10*	1,5 *1.5*	0,19 *0.0075*	0,20 *0.0080*	47 (33 — 60) *155 (110 — 190)*
M5	E/M/A	0,10 *0.10*	1,5 *1.5*	0,19 *0.0075*	0,20 *0.0080*	39 (27 — 50) *130 (89 — 160)*
K1	E/M/A/D	0,10 *0.10*	2,0 *2.0*	0,25 *0.010*	0,26 *0.010*	200 (180 — 220) *660 (600 — 720)*
K2	E/M/A/D	0,10 *0.10*	2,0 *2.0*	0,22 *0.0085*	0,24 *0.0095*	175 (160 — 190) *570 (530 — 620)*
K3	E/M/A/D	0,10 *0.10*	2,0 *2.0*	0,22 *0.0085*	0,24 *0.0095*	150 (130 — 160) *490 (430 — 520)*
K4	E/M/A/D	0,10 *0.10*	2,0 *2.0*	0,22 *0.0085*	0,24 *0.0095*	140 (130 — 150) *460 (430 — 490)*
K5	E/M/A/D	0,10 *0.10*	2,0 *2.0*	0,20 *0.0080*	0,22 *0.0085*	85 (74 — 95) *280 (250 — 310)*
K6	E/M/A/D	0,10 *0.10*	2,0 *2.0*	0,22 *0.0085*	0,24 *0.0095*	125 (110 — 140) *410 (370 — 450)*
K7	E/M/A/D	0,10 *0.10*	2,0 *2.0*	0,20 *0.0080*	0,22 *0.0085*	110 (94 — 120) *360 (310 — 390)*
N1	E/M/A	0,10 *0.10*	2,0 *2.0*	0,24 *0.0095*	0,25 *0.010*	600 (500 — 690) *1975 (1700 — 2200)*
N2	E/M/A	0,10 *0.10*	2,0 *2.0*	0,24 *0.0095*	0,25 *0.010*	385 (330 — 440) *1275 (1100 — 1400)*
N3	E/M/A	0,10 *0.10*	2,0 *2.0*	0,24 *0.0095*	0,25 *0.010*	255 (220 — 290) *840 (730 — 950)*
N11	E/M/A	0,10 *0.10*	2,0 *2.0*	0,24 *0.0095*	0,25 *0.010*	400 (350 — 450) *1300 (1200 — 1400)*
S1	E	0,10 *0.10*	2,0 *2.0*	0,12 *0.0048*	0,13 *0.0050*	43 (15 — 71) *140 (50 — 230)*
S2	E	0,10 *0.10*	2,0 *2.0*	0,12 *0.0048*	0,13 *0.0050*	35 (12 — 57) *115 (40 — 180)*
S3	E	0,10 *0.10*	2,0 *2.0*	0,12 *0.0048*	0,12 *0.0048*	30 (10 — 49) *100 (33 — 160)*
S11	E	0,10 *0.10*	2,0 *2.0*	0,24 *0.0095*	0,25 *0.010*	95 (72 — 120) *310 (240 — 390)*
S12	E	0,10 *0.10*	2,0 *2.0*	0,24 *0.0095*	0,25 *0.010*	75 (55 — 94) *245 (190 — 300)*
S13	E	0,10 *0.10*	1,7 *1.7*	0,19 *0.0075*	0,20 *0.0080*	55 (43 — 72) *180 (150 — 230)*
H5	M/A	0,050 *0.050*	2,0 *2.0*	0,11 *0.0044*	0,12 *0.0048*	120 (110 — 140) *395 (370 — 450)*
H8	M/A	0,050 *0.050*	1,8 *1.8*	0,080 *0.0032*	0,085 *0.0034*	120 (99 — 130) *395 (330 — 420)*
H21	M/A	0,050 *0.050*	1,8 *1.8*	0,080 *0.0032*	0,085 *0.0034*	120 (99 — 130) *395 (330 — 420)*
H31	M/A	0,050 *0.050*	1,8 *1.8*	0,070 *0.0028*	0,075 *0.0030*	90 (75 — 100) *295 (250 — 320)*
TS1	A/D	0,10 *0.10*	2,0 *2.0*	0,17 *0.0065*	0,18 *0.0070*	260 (160 — 360) *850 (530 — 1100)*
TP1	A/D	0,10 *0.10*	2,0 *2.0*	0,17 *0.0065*	0,18 *0.0070*	260 (160 — 360) *850 (530 — 1100)*
GR1	A/D	0,10 *0.10*	2,0 *2.0*	0,24 *0.0095*	0,25 *0.010*	600 (500 — 690) *1975 (1700 — 2200)*

Cutting data – XVC509 Chamfering

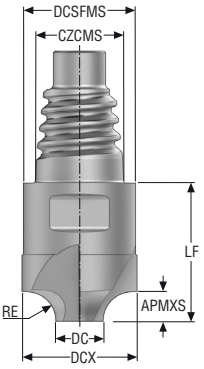
SMG		a_e/DC	a_p/DC	f_z			v_c
				10	12	16	
P1	E/M/A/D	0,10 *0.10*	2,0 *2.0*	0,24 *0.0095*	0,25 *0.010*	0,28 *0.011*	200 (180 — 220) *660 (600 — 720)*
P2	E/M/A/D	0,10 *0.10*	2,0 *2.0*	0,24 *0.0095*	0,26 *0.010*	0,28 *0.011*	195 (180 — 220) *640 (600 — 720)*
P3	E/M/A/D	0,10 *0.10*	2,0 *2.0*	0,24 *0.0095*	0,24 *0.0095*	0,26 *0.010*	170 (150 — 190) *560 (500 — 620)*
P4	E/M/A/D	0,10 *0.10*	2,0 *2.0*	0,22 *0.0085*	0,24 *0.0095*	0,26 *0.010*	150 (130 — 160) *490 (430 — 520)*
P5	E/M/A/D	0,10 *0.10*	2,0 *2.0*	0,22 *0.0085*	0,24 *0.0095*	0,26 *0.010*	150 (140 — 170) *490 (460 — 550)*
P6	E/M/A/D	0,10 *0.10*	2,0 *2.0*	0,22 *0.0085*	0,24 *0.0095*	0,26 *0.010*	170 (150 — 190) *560 (500 — 620)*
P7	E/M/A/D	0,10 *0.10*	2,0 *2.0*	0,22 *0.0085*	0,24 *0.0095*	0,26 *0.010*	160 (140 — 180) *520 (460 — 590)*
P8	E/M/A/D	0,10 *0.10*	2,0 *2.0*	0,24 *0.0095*	0,25 *0.010*	0,28 *0.011*	150 (130 — 160) *490 (430 — 520)*
P11	E/M/A/D	0,10 *0.10*	2,0 *2.0*	0,22 *0.0085*	0,24 *0.0095*	0,26 *0.010*	105 (85 — 120) *345 (280 — 390)*
P12	E/M/A/D	0,10 *0.10*	1,6 *1.6*	0,14 *0.0055*	0,15 *0.0060*	0,17 *0.0065*	60 (50 — 74) *195 (170 — 240)*
M1	E/M/A	0,10 *0.10*	2,0 *2.0*	0,25 *0.010*	0,26 *0.010*	0,28 *0.011*	120 (98 — 140) *395 (330 — 450)*
M2	E/M/A	0,10 *0.10*	2,0 *2.0*	0,22 *0.0085*	0,24 *0.0095*	0,26 *0.010*	100 (80 — 120) *330 (270 — 390)*
M3	E/M/A	0,10 *0.10*	2,0 *2.0*	0,22 *0.0085*	0,24 *0.0095*	0,26 *0.010*	65 (45 — 84) *215 (150 — 270)*
M4	E/M/A	0,10 *0.10*	1,5 *1.5*	0,18 *0.0070*	0,19 *0.0075*	0,20 *0.0080*	46 (33 — 60) *150 (110 — 190)*
M5	E/M/A	0,10 *0.10*	1,5 *1.5*	0,18 *0.0070*	0,19 *0.0075*	0,20 *0.0080*	39 (27 — 50) *130 (89 — 160)*
K1	E/M/A/D	0,10 *0.10*	2,0 *2.0*	0,24 *0.0095*	0,26 *0.010*	0,28 *0.011*	200 (180 — 220) *660 (600 — 720)*
K2	E/M/A/D	0,10 *0.10*	2,0 *2.0*	0,22 *0.0085*	0,24 *0.0095*	0,26 *0.010*	175 (160 — 190) *570 (530 — 620)*
K3	E/M/A/D	0,10 *0.10*	2,0 *2.0*	0,22 *0.0085*	0,24 *0.0095*	0,26 *0.010*	145 (130 — 160) *475 (430 — 520)*
K4	E/M/A/D	0,10 *0.10*	2,0 *2.0*	0,22 *0.0085*	0,24 *0.0095*	0,26 *0.010*	140 (130 — 150) *460 (430 — 490)*
K5	E/M/A/D	0,10 *0.10*	2,0 *2.0*	0,20 *0.0080*	0,22 *0.0085*	0,24 *0.0095*	85 (74 — 95) *280 (250 — 310)*
K6	E/M/A/D	0,10 *0.10*	2,0 *2.0*	0,22 *0.0085*	0,24 *0.0095*	0,26 *0.010*	125 (110 — 130) *410 (370 — 420)*
K7	E/M/A/D	0,10 *0.10*	2,0 *2.0*	0,20 *0.0080*	0,22 *0.0085*	0,24 *0.0095*	110 (94 — 120) *360 (310 — 390)*
N1	E/M/A	0,10 *0.10*	2,0 *2.0*	0,22 *0.0085*	0,24 *0.0095*	0,26 *0.010*	600 (500 — 700) *1975 (1700 — 2200)*
N2	E/M/A	0,10 *0.10*	2,0 *2.0*	0,22 *0.0085*	0,24 *0.0095*	0,26 *0.010*	385 (330 — 450) *1275 (1100 — 1400)*
N3	E/M/A	0,10 *0.10*	2,0 *2.0*	0,22 *0.0085*	0,24 *0.0095*	0,26 *0.010*	255 (220 — 300) *840 (730 — 980)*
N11	E/M/A	0,10 *0.10*	2,0 *2.0*	0,22 *0.0085*	0,24 *0.0095*	0,26 *0.010*	400 (350 — 450) *1300 (1200 — 1400)*
S1	E	0,10 *0.10*	2,0 *2.0*	0,13 *0.0050*	0,13 *0.0050*	0,15 *0.0060*	43 (15 — 71) *140 (50 — 230)*
S2	E	0,10 *0.10*	2,0 *2.0*	0,13 *0.0050*	0,13 *0.0050*	0,15 *0.0060*	35 (12 — 57) *115 (40 — 180)*
S3	E	0,10 *0.10*	2,0 *2.0*	0,12 *0.0048*	0,12 *0.0048*	0,14 *0.0055*	30 (10 — 50) *100 (33 — 160)*
S11	E	0,10 *0.10*	2,0 *2.0*	0,22 *0.0085*	0,24 *0.0095*	0,26 *0.010*	100 (72 — 120) *330 (240 — 390)*
S12	E	0,10 *0.10*	2,0 *2.0*	0,22 *0.0085*	0,24 *0.0095*	0,26 *0.010*	75 (55 — 94) *245 (190 — 300)*
S13	E	0,10 *0.10*	1,7 *1.7*	0,19 *0.0075*	0,20 *0.0080*	0,22 *0.0085*	55 (42 — 72) *180 (140 — 230)*
H5	M/A	0,10 *0.10*	2,0 *2.0*	0,12 *0.0048*	0,12 *0.0048*	0,14 *0.0055*	120 (110 — 140) *395 (370 — 450)*
H8	M/A	0,10 *0.10*	1,8 *1.8*	0,085 *0.0034*	0,090 *0.0036*	0,10 *0.0040*	120 (99 — 130) *395 (330 — 420)*
H21	M/A	0,10 *0.10*	1,8 *1.8*	0,085 *0.0034*	0,090 *0.0036*	0,10 *0.0040*	120 (99 — 130) *395 (330 — 420)*
H31	M/A	0,10 *0.10*	1,8 *1.8*	0,075 *0.0030*	0,080 *0.0032*	0,085 *0.0034*	90 (75 — 100) *295 (250 — 320)*
TS1	A/D	0,10 *0.10*	2,0 *2.0*	0,22 *0.0085*	0,24 *0.0095*	0,26 *0.010*	250 (150 — 350) *820 (500 — 1100)*
TP1	A/D	0,10 *0.10*	2,0 *2.0*	0,22 *0.0085*	0,24 *0.0095*	0,26 *0.010*	250 (150 — 350) *820 (500 — 1100)*
GR1	A/D	0,10 *0.10*	2,0 *2.0*	0,22 *0.0085*	0,24 *0.0095*	0,26 *0.010*	600 (500 — 700) *1975 (1700 — 2200)*

Cutting data – XVC512 Chamfering

SMG		a_e/DC	a_p/DC	f_z	v_c
				12	
P1	E/M/A/D	0,10 *0.10*	1,3 *1.3*	0,36 *0.014*	165 (150 — 180) *540 (500 — 590)*
P2	E/M/A/D	0,10 *0.10*	1,3 *1.3*	0,36 *0.014*	160 (140 — 170) *520 (460 — 550)*
P3	E/M/A/D	0,10 *0.10*	1,3 *1.3*	0,34 *0.013*	135 (120 — 150) *445 (400 — 490)*
P4	E/M/A/D	0,10 *0.10*	1,3 *1.3*	0,34 *0.013*	120 (110 — 130) *395 (370 — 420)*
P5	E/M/A/D	0,10 *0.10*	1,3 *1.3*	0,34 *0.013*	120 (110 — 130) *395 (370 — 420)*
P6	E/M/A/D	0,10 *0.10*	1,3 *1.3*	0,32 *0.013*	135 (120 — 150) *445 (400 — 490)*
P7	E/M/A/D	0,10 *0.10*	1,3 *1.3*	0,32 *0.013*	125 (120 — 140) *410 (400 — 450)*
P8	E/M/A/D	0,10 *0.10*	1,3 *1.3*	0,34 *0.013*	120 (110 — 130) *395 (370 — 420)*
P11	E/M/A/D	0,10 *0.10*	1,3 *1.3*	0,32 *0.013*	85 (68 — 100) *280 (230 — 320)*
P12	E/M/A/D	0,10 *0.10*	1,3 *1.3*	0,22 *0.0085*	50 (41 — 61) *165 (140 — 200)*
M1	E/M/A	0,10 *0.10*	1,3 *1.3*	0,36 *0.014*	100 (80 — 110) *330 (270 — 360)*
M2	E/M/A	0,10 *0.10*	1,3 *1.3*	0,34 *0.013*	80 (65 — 96) *260 (220 — 310)*
M3	E/M/A	0,10 *0.10*	1,3 *1.3*	0,34 *0.013*	50 (37 — 68) *165 (130 — 220)*
M4	E/M/A	0,10 *0.10*	1,3 *1.3*	0,30 *0.012*	39 (28 — 51) *130 (92 — 160)*
M5	E/M/A	0,10 *0.10*	1,3 *1.3*	0,30 *0.012*	33 (23 — 42) *110 (76 — 130)*
K1	E/M/A/D	0,10 *0.10*	1,3 *1.3*	0,36 *0.014*	160 (140 — 180) *520 (460 — 590)*
K2	E/M/A/D	0,10 *0.10*	1,3 *1.3*	0,32 *0.013*	140 (130 — 150) *460 (430 — 490)*
K3	E/M/A/D	0,10 *0.10*	1,3 *1.3*	0,32 *0.013*	115 (110 — 130) *375 (370 — 420)*
K4	E/M/A/D	0,10 *0.10*	1,3 *1.3*	0,32 *0.013*	110 (98 — 120) *360 (330 — 390)*
K5	E/M/A/D	0,10 *0.10*	1,3 *1.3*	0,30 *0.012*	65 (58 — 75) *215 (200 — 240)*
K6	E/M/A/D	0,10 *0.10*	1,3 *1.3*	0,32 *0.013*	100 (86 — 110) *330 (290 — 360)*
K7	E/M/A/D	0,10 *0.10*	1,3 *1.3*	0,30 *0.012*	85 (74 — 96) *280 (250 — 310)*
N1	E/M/A	0,10 *0.10*	1,3 *1.3*	0,34 *0.013*	480 (410 — 560) *1575 (1400 — 1800)*
N2	E/M/A	0,10 *0.10*	1,3 *1.3*	0,34 *0.013*	310 (260 — 360) *1025 (860 — 1100)*
N3	E/M/A	0,10 *0.10*	1,3 *1.3*	0,34 *0.013*	205 (180 — 240) *670 (600 — 780)*
N11	E/M/A	0,10 *0.10*	1,3 *1.3*	0,34 *0.013*	320 (290 — 360) *1050 (960 — 1100)*
S1	E	0,10 *0.10*	1,3 *1.3*	0,19 *0.0075*	35 (12 — 58) *115 (40 — 190)*
S2	E	0,10 *0.10*	1,3 *1.3*	0,19 *0.0075*	29 (9,6 — 47) *95 (32 — 150)*
S3	E	0,10 *0.10*	1,3 *1.3*	0,17 *0.0065*	25 (8,3 — 41) *80 (28 — 130)*
S11	E	0,10 *0.10*	1,3 *1.3*	0,34 *0.013*	80 (58 — 98) *260 (200 — 320)*
S12	E	0,10 *0.10*	1,3 *1.3*	0,34 *0.013*	60 (45 — 76) *195 (150 — 240)*
S13	E	0,10 *0.10*	1,3 *1.3*	0,30 *0.012*	47 (35 — 59) *155 (120 — 190)*
H5	M/A	0,10 *0.10*	1,3 *1.3*	0,17 *0.0065*	100 (83 — 110) *330 (280 — 360)*
H8	M/A	0,10 *0.10*	1,3 *1.3*	0,13 *0.0050*	100 (84 — 110) *330 (280 — 360)*
H21	M/A	0,10 *0.10*	1,3 *1.3*	0,13 *0.0050*	100 (84 — 110) *330 (280 — 360)*
H31	M/A	0,10 *0.10*	1,3 *1.3*	0,11 *0.0044*	75 (64 — 88) *245 (210 — 280)*
TS1	A/D	0,10 *0.10*	1,3 *1.3*	0,34 *0.013*	200 (130 — 280) *660 (430 — 910)*
TP1	A/D	0,10 *0.10*	1,3 *1.3*	0,34 *0.013*	200 (130 — 280) *660 (430 — 910)*
GR1	A/D	0,10 *0.10*	1,3 *1.3*	0,34 *0.013*	480 (410 — 560) *1575 (1400 — 1800)*

XVK310

General purpose – Universal – Concave – 4 Flutes







- Tolerances:
- RE= ≤5= ±0,05 mm
- RE= >5= ±0,1 mm

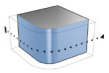
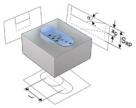
Designation	Item number	Length index	Tool shape	CZCMS	DCX	DC	DCSFMS	APMXS	LF	RE	PCEDC	SW	Grade
					mm	mm	mm	mm	mm	mm			SIRA
XVK310E12120D1K300Z4	10137998	1	D	E12	12,0	5,0	11,7	3,0	14,5	3,0	4	10	■
XVK310E12120D1K400Z4	10137999	1	D	E12	12,0	4,0	11,7	4,0	14,5	4,0	4	10	■
XVK310E16160D1K500Z4	10138000	1	D	E16	16,0	6,0	15,5	5,0	18,7	5,0	4	12	■
XVK310E20200D1K600Z4	10138001	1	D	E20	20,0	8,0	19,3	6,0	21,3	6,0	4	16	■

■ Stocked standard.

Cutting data – XVK310 Side milling roughing

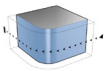
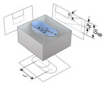
SMG		a_p/D_c	f_z			v_c
			12	16	20	
P1	E/M/A/D	0,24 *0,24*	0,048 *0,0019*	0,065 *0,0026*	0,080 *0,0032*	290 (195 — 310) *950 (640 — 1100)*
P2	E/M/A/D	0,24 *0,24*	0,050 *0,0022*	0,065 *0,0026*	0,080 *0,0032*	280 (190 — 305) *910 (620 — 1000)*
P3	E/M/A/D	0,24 *0,24*	0,046 *0,0018*	0,060 *0,0024*	0,075 *0,003*	240 (165 — 260) *790 (540 — 850)*
P4	E/M/A/D	0,24 *0,24*	0,046 *0,0018*	0,060 *0,0024*	0,075 *0,003*	210 (145 — 230) *680 (475 — 760)*
P5	E/M/A/D	0,24 *0,24*	0,046 *0,0018*	0,060 *0,0024*	0,075 *0,003*	205 (135 — 220) *670 (445 — 730)*
P6	E/M/A/D	0,24 *0,24*	0,044 *0,0017*	0,060 *0,0024*	0,075 *0,003*	230 (155 — 245) *760 (510 — 800)*
P7	E/M/A/D	0,24 *0,24*	0,044 *0,0017*	0,060 *0,0024*	0,075 *0,003*	215 (145 — 230) *710 (475 — 760)*
P8	E/M/A/D	0,24 *0,24*	0,046 *0,0018*	0,060 *0,0024*	0,075 *0,003*	205 (140 — 220) *670 (460 — 730)*
P11	E/M/A/D	0,24 *0,24*	0,044 *0,0017*	0,060 *0,0024*	0,075 *0,003*	210 (140 — 225) *680 (460 — 740)*
M1	E/M/A	0,24 *0,24*	0,050 *0,0022*	0,065 *0,0026*	0,080 *0,0032*	255 (170 — 270) *840 (560 — 890)*
M2	E/M/A	0,24 *0,24*	0,046 *0,0018*	0,060 *0,0024*	0,075 *0,003*	205 (135 — 220) *670 (445 — 730)*
M3	E/M/A	0,24 *0,24*	0,036 *0,0014*	0,048 *0,0019*	0,060 *0,0024*	150 (105 — 165) *490 (345 — 540)*
M4	E/M/A	0,24 *0,24*	0,032 *0,0013*	0,042 *0,0017*	0,050 *0,0022*	110 (75 — 120) *360 (250 — 400)*
M5	E/M/A	0,24 *0,24*	0,032 *0,0013*	0,042 *0,0017*	0,050 *0,0022*	95 (65 — 100) *310 (220 — 320)*
K1	E/M/A/D	0,24 *0,24*	0,046 *0,0018*	0,060 *0,0024*	0,075 *0,003*	205 (135 — 220) *670 (445 — 730)*
K2	E/M/A/D	0,24 *0,24*	0,040 *0,0016*	0,055 *0,0022*	0,065 *0,0026*	175 (120 — 190) *570 (400 — 620)*
K3	E/M/A/D	0,24 *0,24*	0,040 *0,0016*	0,055 *0,0022*	0,065 *0,0026*	150 (100 — 160) *490 (320 — 530)*
K4	E/M/A/D	0,24 *0,24*	0,040 *0,0016*	0,055 *0,0022*	0,065 *0,0026*	140 (95 — 150) *460 (310 — 490)*
K5	E/M/A/D	0,24 *0,24*	0,036 *0,0014*	0,050 *0,0022*	0,060 *0,0024*	85 (55 — 90) *280 (180 — 300)*
K6	E/M/A/D	0,24 *0,24*	0,040 *0,0016*	0,055 *0,0022*	0,065 *0,0026*	125 (85 — 135) *410 (280 — 445)*
K7	E/M/A/D	0,24 *0,24*	0,036 *0,0014*	0,050 *0,0022*	0,060 *0,0024*	105 (70 — 115) *345 (220 — 375)*
N1	E/M/A	0,24 *0,24*	0,046 *0,0018*	0,060 *0,0024*	0,075 *0,003*	315 (215 — 340) *1025 (710 — 1125)*
N2	E/M/A	0,24 *0,24*	0,046 *0,0018*	0,060 *0,0024*	0,075 *0,003*	205 (135 — 220) *670 (445 — 730)*
N3	E/M/A	0,24 *0,24*	0,046 *0,0018*	0,060 *0,0024*	0,075 *0,003*	135 (90 — 145) *445 (300 — 475)*
N11	E/M/A	0,24 *0,24*	0,046 *0,0018*	0,060 *0,0024*	0,075 *0,003*	205 (135 — 220) *670 (445 — 730)*
S1	E	0,24 *0,24*	0,048 *0,0019*	0,065 *0,0026*	0,080 *0,0032*	205 (140 — 220) *670 (460 — 730)*
S2	E	0,24 *0,24*	0,048 *0,0019*	0,065 *0,0026*	0,080 *0,0032*	205 (140 — 220) *670 (460 — 730)*
S3	E	0,24 *0,24*	0,046 *0,0018*	0,060 *0,0024*	0,075 *0,003*	205 (135 — 220) *670 (445 — 730)*
S11	E	0,24 *0,24*	0,046 *0,0018*	0,060 *0,0024*	0,075 *0,003*	265 (180 — 285) *870 (590 — 940)*
S12	E	0,24 *0,24*	0,046 *0,0018*	0,060 *0,0024*	0,075 *0,003*	205 (135 — 220) *670 (445 — 730)*
S13	E	0,24 *0,24*	0,040 *0,0016*	0,050 *0,0022*	0,065 *0,0026*	155 (105 — 165) *510 (345 — 540)*
TS1	A/D	0,24 *0,24*	0,046 *0,0018*	0,060 *0,0024*	0,075 *0,003*	205 (135 — 220) *670 (445 — 730)*
TP1	A/D	0,24 *0,24*	0,046 *0,0018*	0,060 *0,0024*	0,075 *0,003*	205 (135 — 220) *670 (445 — 730)*
GR1	A/D	0,24 *0,24*	0,046 *0,0018*	0,060 *0,0024*	0,075 *0,003*	205 (135 — 220) *670 (445 — 730)*

Recalculation

Use original standard version side rough cutting data then recalculate parameters!										Use original standard version slotting cutting data then recalculate parameters!						
	Slotting		Side rough			Side finish				Ramping		Helical			Drilling	
Straight																
	a_p	f_z	a_e	f_z	a_p	v_c	a_e (% of DC)	f_z	a_p	a_p	f_z	f_z	a_p/360° (% of DC)	hole Ø (≥ % of DC)	f_z	a_p (% of DC)
										≤ 30° *						
JS412																
LV2	100	100	100	100	100	140	3	40	120	80	100	50	10	130	50	100
										≤ 10° *						
JS413																
LV2	100	100	100	100	100	150	3	40	120	70	50	50	10	130	X	X
LV3	X	X	25	60	240	120	3	40	230	70	50	50	10	130	X	X
										≤ 30° *						
JS452																
LV2	100	100	100	100	100	140	3	35	120	70	100	50	10	130	50	100
LV3	50	60	75	60	50	120	3	40	100	70	70	50	10	130	20	10
										≤ 10° *						
JS453																
LV2	100	100	100	100	100	140	3	35	120	70	50	50	10	130	20	10
LV3	X	X	25	60	240	120	3	40	230	70	70	50	10	130	20	10
										≤ 30° *						
JSE512																
LV2	100	100	100	100	100	110	3	65	125	40	40	100	5	130	40	40
										≤ 5° *						
JSE513																
LV2	100	100	100	100	100	110	3	85	150	100	100	100	5	130	50	40
LV3	30	100	30	50	200	110	3	85	250	X	X	X	X	X	X	X
LV4	X	X	X	X	X	60	3	80	350	X	X	X	X	X	X	X
										≤ 5° *						
JSE514																
LV1	100	100	100	100	100	110	3	60	150	100	100	100	5	130	X	X
LV2	100	100	100	100	100	110	3	60	150	100	100	100	5	130	X	X
LV3	X	X	25	50	200	110	3	60	250	X	X	X	X	X	X	X
LV4	X	X	X	X	X	60	3	80	350	X	X	X	X	X	X	X
										≤ 45° *						
JS553																
LV1	100	100	100	100	100	110	3	55	150	50	55	35	3	130	35	50
LV2	100	100	100	100	100	110	3	55	150	50	55	35	3	130	35	50
LV3	40	60	40	105	200	110	3	55	250	50	15	35	3	130	35	50
										≤ 5° *						
JS554																
LV1	100	100	100	100	100	110	3	53	150	100	100	100	3	130	X	X
LV2	100	100	100	100	100	110	3	53	150	100	100	100	3	130	X	X
LV3	40	60	38	105	200	110	3	53	250	50	50	60	3	130	X	X
JS564																
LV2	X	X	100	100	100	110	3	55	100	X	X	100	2	130	X	X
LV3	X	X	38	105	140	110	3	55	140	X	X	60	1,5	130	X	X
JS565																
LV2	X	X	100	100	100	110	3	55	100	X	X	100	2	130	X	X
LV3	X	X	38	105	140	110	3	55	140	X	X	60	1,5	130	X	X

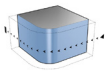
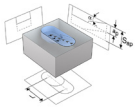
*Max ramping angle
All values are percentages of original (100%) cutting data.

Recalculation

Use original standard version side rough cutting data then recalculate parameters!										Use original standard version slotting cutting data then recalculate parameters!						
	Slotting		Side rough			Side finish				Ramping		Helical			Drilling	
Straight																
	a_p	f_z	a_e	f_z	a_p	v_c	a_e (% of DC)	f_z	a_p	a_p	f_z	f_z	a_p/360° (% of DC)	hole Ø (≥ % of DC)	f_z	a_p (% of DC)
										≤ 45° *						
J28																
LV2	100	100	100	100	100	140	3	100	135	40	25	100	10	130	25	60
										≤ X° *						
J36																
LV2	X	X	100	100	100	120	3	85	150	X	X	X	X	X	X	X
										≤ 20° *						
J93F																
LV2	100	100	100	100	100	133	3	40	100	100	100	100	3	130	25	30
										≤ 1°						
JH120																
LV2	100	100	100	100	100	120	3	120	80	17	100	100	2	130	X	X
										≤ X° *						
JH130																
LV2	X	X	100	100	100	120	3	120	80	X	X	X	X	X	X	X
										≤ X° *						
JH142																
LV2	X	X	100	100	100	110	3	80	70	X	X	30	2	130	X	X
LV3	X	X	100	100	100	110	3	80	70	X	X	20	1	130	X	X
LV6	X	X	100	100	100	110	3	80	70	X	X	10	1	130	X	X
										≤ 45° *						
JH830																
LV2	100	100	100	100	100	110	3	110	80	9	135	135	3	130	X	X
										≤ X° *						
JH910																
LV2	100	100	100	100	100	125	4	100	80	15	140	140	3	130	X	X
LV3	80	80	100	80	80	125	4	80	65	10	110	110	3	130	X	X
										≤ X° *						
JH930																
LV2	X	X	100	100	100	125	2	30	100	X	X	X	X	X	X	X

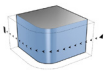
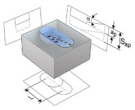
*Max ramping angle
All values are percentages of original (100%) cutting data.

Recalculation

Use original standard version side rough cutting data then recalculate parameters!										Use original standard version slotting cutting data then recalculate parameters!						
	Slotting		Side rough			Side finish				Ramping		Helical			Drilling	
Straight																
	a_p	f_z	a_e	f_z	a_p	v_c	a_e (% of DC)	f_z	a_p	a_p	f_z	f_z	a_p/360° (% of DC)	hole Ø (≥ % of DC)	f_z	a_p (% of DC)
										≤ 5° *						
JH40																
LV2	100	100	100	100	100	100	3	35	100	83	55	55	25	130	55	80
LV3	100	100	100	100	100	100	3	35	100	83	55	55	25	130	55	80
										≤ 45° *						
JH410																
LV2	100	100	100	100	100	125	2	25	100	100	67	67	40	130	67	80
LV2 (ML)	75	60	80	60	100	125	2	25	100	60	40	40	40	130	40	50
LV2 (TL)	125	100	100	100	100	100	2	100	100	100	50	100	40	130	150	80
LV2 (RS)	125	100	100	100	100	100	2	100	100	100	50	100	40	130	150	80
LV3 (RS)	95	95	80	100	100	100	2	100	100	50	50	50	40	130	75	40
										≤ 45° *						
JH421																
LV2	100	100	100	100	100	100	4	35	100	100	100	100	25	130	45	80
										≤ 30° *						
JH440																
LV2	100	100	100	100	100	125	3	40	100	100	100	100	5	130	X	X
										≤ 5° *						
JHP750																
LV1	115	120	115	115	100	100	2	145	100	100	120	120	3	130	10	70
LV2	100	100	100	100	100	100	2	145	100	100	100	100	3	130	10	60
										≤ 5° *						
JHP951																
LV2	100	100	100	100	100	158	2	50	113	20	100	125	3	130	6	20
										≤ 10° *						
JHP993																
LV2	100	100	100	100	100	X	X	X	X	30	100	100	3	130	4	40
LV3	80	80	80	80	80	X	X	X	X	20	80	80	3	130	3	30
										≤ X° *						
JS520																
LV2	X	X	100	100	100	133	2	65	100	X	X	X	X	X	X	X
LV3	X	X	X	X	X	133	2	65	175	X	X	X	X	X	X	X
										≤ X° *						
JS522																
LV4	X	X	100	100	100	129	2	140	100	X	X	X	X	X	X	X
JS720																
LV2	X	X	100	100	100	110	2	65	100	X	X	100	2	130	X	X
LV3	X	X	100	100	100	110	2	65	100	X	X	100	2	130	X	X
JS754																
LV1	100	100	100	100	100	110	3	55	150	100	100	100	3	130		
LV2	100	100	100	100	100	110	3	55	150	100	100	100	3	130	X	X
LV3	40	60	38	105	200	110	3	55	250	50	50	60	3	130		
JS755																
LV2	100	100	100	100	100	110	3	55	150	100	100	100	3	130	X	X
LV3	40	60	38	105	100	110	3	55	250	50	50	60	3	130		

*Max ramping angle
All values are percentages of original (100%) cutting data.

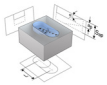
Recalculation

Use original standard version side rough cutting data then recalculate parameters!										Use original standard version side milling cutting data then recalculate parameters!						
	Slotting		Side rough			Side finish				Ramping		Helical			Drilling	
Straight																
	a_p	f_z	a_e	f_z	a_p	v_c	a_e (% of DC)	f_z	a_p	a_p	f_z	f_z	a_p/360° (% of DC)	hole Ø (≥ % of DC)	f_z	a_p (% of DC)
										≤ X°						
JME542-JME562-JME564																
LV1	100	100	100	100	100	125	2	150	5	X	X	X	X	X	X	X
LV2	63	100	100	100	65	125	2	150	3	X	X	X	X	X	X	X
LV3	25	100	100	100	25	125	2	150	1	X	X	X	X	X	X	X
LV4 (TL)	18	100	100	100	20	125	2	150	1	X	X	X	X	X	X	X
LV4 (XL)	12	100	100	100	10	125	2	150	1	X	X	X	X	X	X	X
LV5	10	100	100	100	10	125	2	150	1	X	X	X	X	X	X	X
LV6	4	100	100	100	5	125	2	150	1	X	X	X	X	X	X	X
LV7	2	100	100	100	2	125	2	150	1	X	X	X	X	X	X	X
										≤ X°						
JME142-JME144																
LV1	100	100	100	100	100	100	2	150	5	X	X	X	X	X	X	X
LV2	85	85	100	100	63	100	2	150	3	X	X	X	X	X	X	X
LV3	75	75	100	100	25	100	2	150	1	X	X	X	X	X	X	X
LV4	60	60	100	100	20	100	2	150	1	X	X	X	X	X	X	X
LV5	50	50	100	100	10	100	2	150	1	X	X	X	X	X	X	X
LV6	40	40	100	100	5	100	2	150	1	X	X	X	X	X	X	X
										≤ X° *						
JM403-JM404-JM406																
LV1	100	100	100	100	100	X	X	X	X	X	X	X	X	X	X	X
LV2	100	75	100	75	100	X	X	X	X	X	X	X	X	X	X	X
LV3 (L)	100	75	100	75	90	X	X	X	X	X	X	X	X	X	X	X
LV3 (TL)	90	75	100	75	70	X	X	X	X	X	X	X	X	X	X	X
LV4 (XL)	75	75	100	75	70	X	X	X	X	X	X	X	X	X	X	X
LV4 (SL)	75	75	100	75	45	X	X	X	X	X	X	X	X	X	X	X
LV5	50	50	100	50	30	X	X	X	X	X	X	X	X	X	X	X
JME642																
LV1	100	100	100	100	100	100	2	85	200	X	X	X	X	X	X	X
LV3	100	100	100	100	100	100	2	85	200	X	X	X	X	X	X	X
LV5	30	100	60	100	100	100	2	85	200	X	X	X	X	X	X	X
LV6	30	100	60	100	100	100	2	85	200	X	X	X	X	X	X	X
LV7	30	100	60	100	100	100	2	85	200	X	X	X	X	X	X	X
										≤2						
JC898																
LV3	X	X	100	100	100	X	X	X	X	X	50	80	3	130-160	X	X
										≤5°						
JC899																
LV3	X	X	100	100	100	100	3	50	100	X	X	X	X	X	X	X

*Max ramping angle

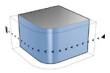
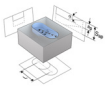
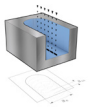
All values are percentages of original (100%) cutting data.

Recalculation

Use original standard version side rough cutting data then recalculate parameters!										Use original standard version slotting cutting data then recalculate parameters!						
	Slotting		Side rough			Side finish				Ramping		Helical			Drilling	
Straight																
	a_p	f_z	a_e	f_z	a_p	v_c	a_e (% of DC)	f_z	a_p	a_p	f_z	f_z	a_p/360° (% of DC)	hole Ø (≥ % of DC)	f_z	a_p (% of DC)
										≤ 1°						
JHP170																
LV2	100	100	100	100	100	130	3	175	80	100	100	100	2	130	X	X
										≤ 30°						
JHP490																
LV2	100	100	100	100	100	X	X	X	X	50	50	35	5	130	30	50
LV2 (E-Shape)	100	75	100	100	100	X	X	X	X	50	50	35	5	130	30	50
LV3	100	75	80	100	100	X	X	X	X	50	50	35	5	130	30	50
LV4	150	75	80	100	100	X	X	X	X	50	50	35	5	130	30	50
										≤ 5°						
JHP760																
LV2	100	100	100	100	100	140	2	125	15	30	100	100	3	130	10	50
LV3	50	50	100	50	50	140	2	125	15	15	50	50	3	130	5	25
										≤ 15°						
JHP770																
LV2	100	100	100	100	100	170	3	125	100	100	40	40	3	130	X	X
										≤ 5°						
JHP780																
LV1	100	100	100	100	100	160	2	135	140	100	100	35	3	130	35	50
LV2	100	100	100	100	100	160	2	135	140	100	100	35	3	130	35	50
JD620																
LV2	100	100	100	100	100	100	2	110	4	X	X	X	X	X	X	X
LV3	100	100	100	100	100	100	2	110	4	X	X	X	X	X	X	X
LV4	20	100	60	100	60	100	2	110	4	X	X	X	X	X	X	X
										≤ X°						
JD630																
LV2	100	100	100	100	100	100	2	110	4	X	X	X	X	X	X	X
LV3	100	100	100	100	100	100	2	110	4	X	X	X	X	X	X	X
LV4	100	100	100	100	100	100	2	110	4	X	X	X	X	X	X	X
										≤ X°						
JD640																
LV2	100	100	100	100	100	100	2	110	4	X	X	X	X	X	X	X
LV3	100	100	100	100	100	100	2	110	4	X	X	X	X	X	X	X
LV4	100	100	100	100	100	100	2	110	4	X	X	X	X	X	X	X

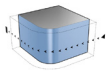
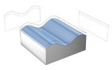
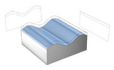
*Max ramping angle
All values are percentages of original (100%) cutting data.

Recalculation

Use original standard version side rough cutting data then recalculate parameters!										Use original standard version slotting cutting data then recalculate parameters!								
	Slotting		Side rough			Side finish				Ramping		Helical			Plunging			
Straight																		
	a_p	f_z	a_e	f_z	a_p	v_c	a_e (% of DC)	f_z	a_p	a_p	f_z	f_z	a_p/360° (% of DC)	hole Ø (≥ % of DC)	v_c	a_e (% of DC)	f_z	a_e-sd (% of DC)
JHF181																		
LV1	100	100	100	100	100	X	X	X	X	X	X	100	3,4	130	X	X	X	X
LV2	80	85	100	85	80	X	X	X	X	X	X	85	3,0	130	X	X	X	X
LV3	60	70	100	70	60	X	X	X	X	X	X	70	2,5	130	X	X	X	X
										≤ 1,5° *								
JHF980																		
LV1	100	100	100	100	100	X	X	X	X	100	100	100	3	130	70	30	33	200
LV2	100	100	100	100	100	X	X	X	X	100	100	100	3	130	70	30	33	200
LV3	80	85	80	85	80	X	X	X	X	80	85	85	3	130	70	30	33	200
LV4	50	70	50	70	60	X	X	X	X	60	70	70	3	130	70	30	33	200

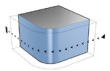
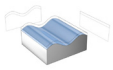
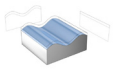
*Max ramping angle
All values are percentages of original (100%) cutting data.

Recalculation

Use original standard version cutting data then recalculate parameters!										Use original standard version slotting cutting data then recalculate parameters!									
	Slotting		Side rough			Side finish				Copy milling roughing			Copy milling finishing				Helical		
BALL																			
	a_p	f_z	a_e	f_z	a_p	v_c	a_e (% of DC)	f_z	a_p	a_e	f_z	a_p	v_c	a_e (% of DC)	f_z	a_p	f_z	a_p/360° (% of DC)	hole Ø (≥ % of DC)
JSB512																			
LV2	X	X	100	100	100	125	3	125	10	X	X	X	X	X	X	X	100	5	130
JS532																			
LV1	X	X	100	100	100	125	3	125	10	X	X	X	X	X	X	X	75	5	130
LV2	X	X	70	100	70	125	3	125	10	X	X	X	X	X	X	X	75	5	130
LV3	X	X	X	X	X	125	3	125	10	X	X	X	X	X	X	X	X	X	X
JS533																			
LV1	X	X	100	100	100	125	3	125	15	X	X	X	X	X	X	X	75	5	130
LV2	X	X	75	75	75	125	3	125	15	X	X	X	X	X	X	X	75	5	130
JS534																			
LV1	X	X	100	100	100	125	3	170	20	X	X	X	X	X	X	X	100	3	130
LV2	X	X	70	100	70	125	3	170	20	X	X	X	X	X	X	X	100	3	130
LV3	X	X	70	100	70	125	3	170	20	X	X	X	X	X	X	X	100	3	130
JHB970																			
LV1	X	X	100	100	100	155	2	30	15	X	X	X	X	X	X	X	40	3	130
LV2	X	X	100	100	100	155	2	30	15	X	X	X	X	X	X	X	40	3	130
LV3	X	X	100	100	100	155	2	30	15	X	X	X	X	X	X	X	40	3	130
JHB720																			
LV2	X	X	100	100	100	125	2	90	75	X	X	X	X	X	X	X	40	3	130
JH112																			
LV1	X	X	100	100	100	110	2	70	100	X	X	X	X	X	X	X	20	2	130
LV2	X	X	100	100	100	110	2	70	100	X	X	X	X	X	X	X	20	2	130
LV3	X	X	100	100	100	110	1,6	55	100	X	X	X	X	X	X	X	X	X	X
LV4	X	X	100	100	100	130	1,4	55	100	X	X	X	X	X	X	X	X	X	X
LV5	X	X	100	100	100	130	1,4	50	100	X	X	X	X	X	X	X	X	X	X
LV6	X	X	100	100	100	130	1	35	100	X	X	X	X	X	X	X	X	X	X
JH150																			
LV2	X	X	100	100	100	165	1	90	35	X	X	X	X	X	X	X	30	2	130

*Max ramping angle
All values are percentages of original (100%) cutting data.

Recalculation

Use original standard version side rough cutting data then recalculate parameters!										Use original standard version slotting cutting data then recalculate parameters!									
	Slotting		Side rough			Side finish				Copy milling roughing			Copy milling finishing				Helical		
BALL																			
	a_p	f_z	a_e	f_z	a_p	v_c	a_e (% of DC)	f_z	a_p	a_e	f_z	a_p	v_c	a_e (% of DC)	f_z	a_p	f_z	a_p/360° (% of DC)	hole Ø (≥ % of DC)
JH160																			
Standard (2)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
JH450																			
Standard (2)	X	X	100	100	100	120	5	90	25	X	X	X	X	X	X	X	45	5	130
JH460																			
Standard (2)	X	X	100	100	100	120	5	90	25	X	X	X	X	X	X	X	X	X	X
JMB542-JMB562-JMB563																			
LV1	100	100	X	X	X	X	X	X	X	100	100	100	125	2	150	5	X	X	X
LV2	65	100	X	X	X	X	X	X	X	100	100	63	125	2	150	3	X	X	X
LV3	26	100	X	X	X	X	X	X	X	100	100	25	125	2	150	1	X	X	X
LV4 (TL)	20	100	X	X	X	X	X	X	X	100	100	19	125	2	150	1	X	X	X
LV4 (XL)	12	100	X	X	X	X	X	X	X	100	100	12	125	2	150	1	X	X	X
LV5	10	100	X	X	X	X	X	X	X	100	100	10	125	2	150	1	X	X	X
LV6	4	100	X	X	X	X	X	X	X	100	100	4	125	2	150	1	X	X	X
LV7	2	100	X	X	X	X	X	X	X	100	100	2	125	2	150	1	X	X	X
JMB112																			
LV1	100	100	X	X	X	X	X	X	X	100	100	100	118	2	120	5	X	X	X
LV2	65	100	X	X	X	X	X	X	X	64	85	85	118	2	120	3	X	X	X
LV3	26	100	X	X	X	X	X	X	X	56	75	75	118	2	120	1	X	X	X
LV4	20	100	X	X	X	X	X	X	X	45	60	60	118	2	120	1	X	X	X
LV5	10	100	X	X	X	X	X	X	X	38	50	50	118	2	120	1	X	X	X
LV6	4	100	X	X	X	X	X	X	X	30	40	40	118	2	120	1	X	X	X
JM413-JM416																			
LV1	X	X	100	100	100	100	5	40	35	X	X	X	X	X	X	X	X	X	X
LV2	X	X	100	60	100	100	5	40	15	X	X	X	X	X	X	X	X	X	X
LV3	X	X	100	80	100	100	5	40	15	X	X	X	X	X	X	X	X	X	X
LV4	X	X	100	60	75	100	5	40	10	X	X	X	X	X	X	X	X	X	X
JMB642																			
LV1	100	100	100	100	100	100	2	85	200	X	X	X	X	X	X	X	X	X	X
LV3	100	100	100	100	100	100	2	85	200	X	X	X	X	X	X	X	X	X	X
LV5	30	100	60	100	100	100	2	85	200	X	X	X	X	X	X	X	X	X	X
LV6	30	100	60	100	100	100	2	85	200	X	X	X	X	X	X	X	X	X	X
LV7	30	100	60	100	100	100	2	85	200	X	X	X	X	X	X	X	X	X	X
										≤2									
JD660																			
LV1	X	X	100	100	100	100	2	100	100	X	X	X	X	X	X	X	X	X	X
LV2	X	X	100	100	100	100	2	100	100	X	X	X	X	X	X	X	X	X	X
LV3	X	X	100	100	100	100	2	100	100	X	X	X	X	X	X	X	X	X	X
LV4	X	X	100	100	100	100	2	100	100	X	X	X	X	X	X	X	X	X	X
LV5	X	X	100	100	100	100	2	100	100	X	X	X	X	X	X	X	X	X	X

*Max ramping angle
All values are percentages of original (100%) cutting data.

Nomenclature and formulae

RPM

$$n = \frac{v_c \cdot 1000}{\pi \cdot D_c} \quad \text{(rev/min)}$$

Cutting speed

$$v_c = \frac{n \cdot \pi \cdot D_c}{1000} \quad \text{(m/min)}$$

Feed speed

$$v_f = n \cdot z_n \cdot f_z \quad \text{(mm/min)}$$

Feed per revolution

$$f = z_n \cdot f_z \quad \text{(mm/rev)}$$

Metal removal rate

$$Q = \frac{a_e \cdot a_p \cdot v_f}{1000} \quad \text{(cm}^3\text{/min)}$$

Cutting speed and RPM for copying

$$v_c = \frac{n \cdot \pi \cdot D_w}{1000} \quad \text{(m/min)}$$

$$n = \frac{v_c \cdot 1000}{\pi \cdot D_w} \quad \text{(RPM)}$$

$$D_w = 2 \cdot \sqrt{a_p (D_c - a_p)} \quad \text{(mm)}$$

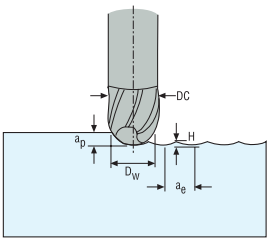
Calculation of a_p vs. overhang length:
If the overhang length (XS) is longer than 4 x DC and Cylindrical shanks are used it is important to adopt another depth of cut (a_p) value than that indicated in the table.
Use the following formula to calculate the new a_p value

$$a_p new = a_p \times (4 \times DC/XS)^2$$

Profile heigth

$$H = \frac{D_c}{2} - \frac{\sqrt{D_c^2 - a_e^2}}{2}$$

$$D_w = 2 \cdot \sqrt{a_p (D_c - a_p)} \quad \text{(mm)}$$



Profile heigth H (um)

DC	Pitch a_e (µm)						
	0,06	0,08	0,11	0,15	0,20	0,3	0,45
1	0,90	1,60	3,00	5,70	10,0	23,0	53,0
2	0,45	0,80	1,50	2,80	5,0	11,0	26,0
4	0,23	0,40	0,76	1,40	2,5	5,60	13,0
6	0,15	0,27	0,50	0,94	1,7	3,80	8,40
8	0,11	0,20	0,38	0,70	1,3	2,80	6,30
10	0,09	0,16	0,30	0,56	1,0	2,30	5,10
12	0,08	0,13	0,25	0,47	0,83	1,90	4,20

a_p = Depth of cut mm/axial depth of cut (mm)
a_e = Width of cut mm/radial depth of cut (mm)
DC = Cutter diameter
f = Feed per revolution (mm/rev)
f_z = Feed per tooth (mm/tooth)
z_n = No. of teeth
n = RPM (rev/min)
Q = Material removal rate (cm³/min)
v_c = Cutting speed (m/min)
v_f = Feed speed (mm/min)
D_w = Working diameter

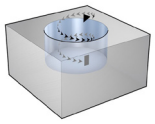
Operation recommendations

Ramping method

The table below shows the feed rate percentage to use at certain ramping angles

Recommended diameter of hole for helical interpolation ramping

Diameter of end mill DC	Diameter of hole
1-2,5	1,4 x DC
3-6	1,3 x DC
8-12	1,2 x DC
16-32	1,15 x DC

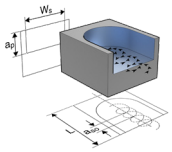


Trochoidal method

The figure below shows a method often called the trochoidal method for milling slots

Recommendation of width of slot

Diameter of end mill DC	Slot width
1-2,5	1,8 x DC
3-6	1,6 x DC
8-12	1,4 x DC
16-32	1,2 x DC





MINIMASTER™

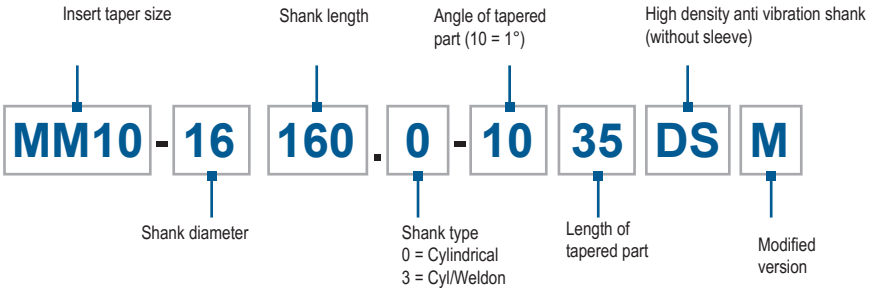
Minimaster™ is a unique, versatile end milling system that can combine different solutions for optimum accessibility and maximum stability and security.

The flexible two-piece design combines shanks and inserts to save time, money and create a versatile tool that enables users to find a solution for almost every application – whether they need to minimize the overhang, attain maximum stability, or more.

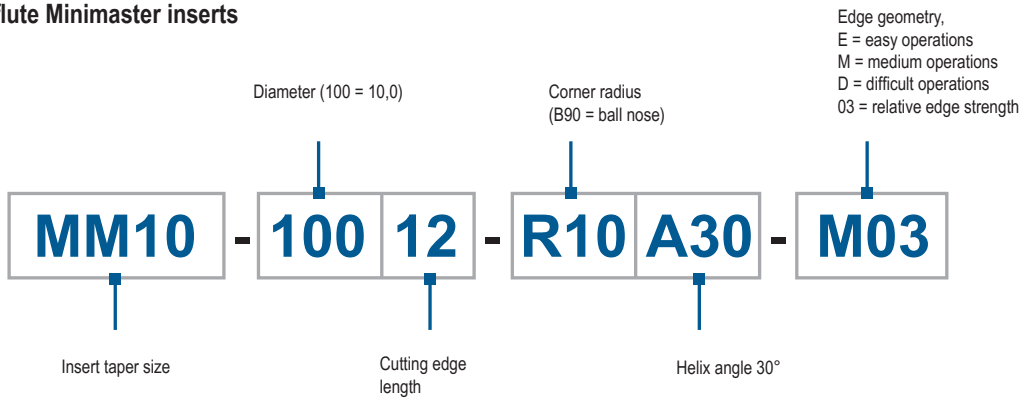
- Square Shoulder range: 6-20 mm (.25 - .75 inch)
- Ballnose range: 6-20 mm (.25 - .75 inch)
- Center Drilling/Chamfering range: 6-19,05mm (.25 - .750 inch)
- High Feed range: 8-12 mm (.375 - .625 inch)
- Plunging range: 6-16 mm (.25 - .625 inch)
- Concave Radius range: 12 mm (.472 inch)

Code keys

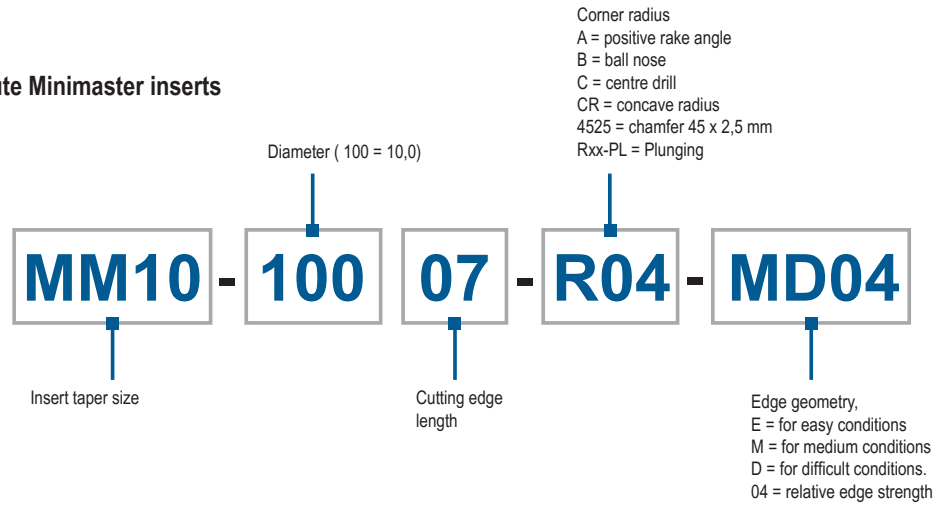
Shanks



3-flute Minimaster inserts



2-flute Minimaster inserts

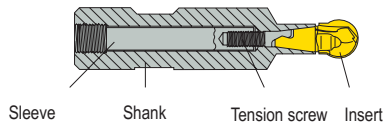
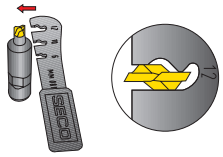
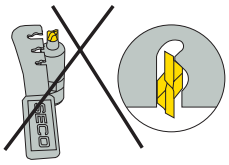
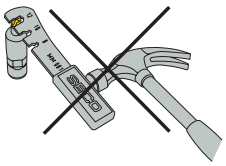
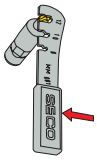


Note that parts of the code can vary for different types of insert or shanks

Internal through coolant



Mounting instructions for 2-flute Minimaster

Torque wrench	
	The sleeve must be securely tightened in the shank before the tension screw and insert are fitted. If the wrench cannot be used for changing the insert (If the insert has broken off or jammed in the shank) , the sleeve can be released, which will also release the insert. Use Allen key (turn it anti-clockwise) to back off the sleeve until the insert is free. Re-tighten the sleeve in the shank before fitting the tension screw and the new insert. For 3-flute Minimaster another key (MM0416) must be used (Key grip on hexagonal part of the insert.)
	Make sure that the wrench is used correctly
	If the wrench is used on the wrong side, it will cause damage
	Do not use excessve force
	Normal hand-power is quite sufficient

Selection guide

1. Select taper size
The design of the workpiece and the machining operations determines suitable taper size. Select the largest possible taper size for best strength and stability.

2. Select insert
a. Use the tables beginning on page 676 to classify the workpiece material into a Seco material group.
b. Look up the pages for the selected taper size and choose a suitable insert in the insert selection table.

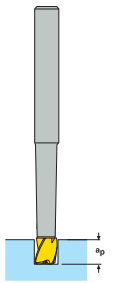
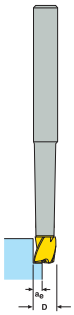
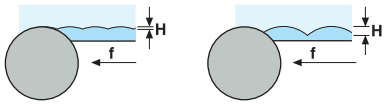
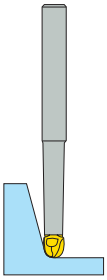
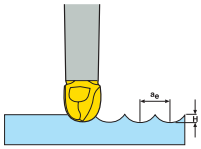
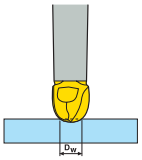
3. Select shank
a. Look up the pages for the selected taper size and choose a suitable shank in the tool data table.
b. Always choose the shortest shank possible to achieve the best possible stability.

4. Select cutting data
a. Cutting speed recommendations are found in the cutting data tables for each selected taper size. Cutting data recommendations are based on stable conditions and might therefore need to be adjusted depending on the stability in the application (tooling, machine & workpiece fixturing). General rule for max ap in slotting is DC*0.3= Max APMXS. (See figure 1)
b. Feed and cutting speed recommendations are found in the cutting data conversion table.
c. Maximum RPM that for safety reasons should never be exceeded, are shown on page N/A.
d. If the cutter is not fully engaged the feed per tooth and the cutting speed should be increased compared to the recommendations for a fully engaged cutter. The reason for that is to keep the average chip thickness and the working temperature in the cutting zone.
e. Divide the radial depth of cut with the cutter diameter to get the actual cutter engagement percentage(a_e/DC%), for ball nose cutters use the effective working diameter D_w instead of DC (See figure 2 & 6)
f. Use the percentage to get a correct feed per tooth and cutting speed recommendation for the actual cutter engagement.

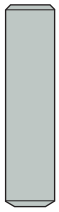
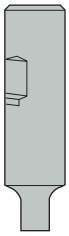
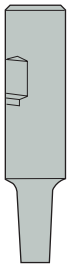
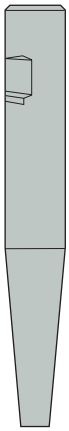
5. General
- When milling in corners and bottoms of cavities the feed rate should be reduced due to the increase of the average chip thickness. Use the feed per tooth recommendations for a fully engaged cutter.
- When steep down copying with an angle bigger than 40° or steep up copying with an angle bigger than 30° in combination with small depths of cut, use the diameter (DC) as working diameter instead of Dw.
- When calculating feed per revolution and feed speed, always use the ZEFP-value. That is the effective number of teeth to use for cutting data calculations. The ZEFP-value can be found in the insert selection table.

Note! There will be a deterioration in the surface finish on the workpiece when the feed rate is increased. (See figure 3 & 5)

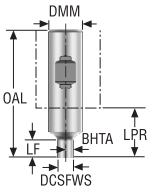
Minimaster figures

Figure 1	Figure 2
	
Figure 3	**Figure 4**
	
Figure 5	**Figure 6**
	

Shank design

Design 1, Keyway shank	Design 2, Cylindrical/Weldon back end and 90º front
	
Design 3, Cylindrical/Weldon back end tapered front 87º/89º	**Design 4, Cylindrical/Weldon back end tapered front 80º/85º/87º**
	
Design 5, Cylindrical back end double tapered front end 89º/85º	
	

MM06 Shank – Metric

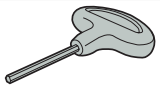




Designation	Item number	Type of mounting	DCSFWS	DMM	OAL	LF	LPR	BHTA°	Design		RPMX	Weight	Spare part no.
			mm	mm	mm	mm	mm					kg	
MM06-12070.3-0005	75080695	Weldon	5,75	12,0	70,0	5,0	25,0	0,0	2	✓	80000	0,1	1
MM06-16075.3-3009	75080696	Weldon	5,75	16,0	75,0	9,0	27,0	3,0	3	✓	80000	0,1	1
MM06-16110.3-5058	75080697	Weldon	5,75	16,0	110,0	58,6	62,0	5,0	4	✓	80000	0,1	4
MM06-10040.0-0007	00094747	Cylindrical	5,75	10,0	40,0	7,0	7,0	0,0	2	✓	80000	0,1	2
MM06-12065.0-0000	75080694	Cylindrical	5,7	12,0	65,0	0,0	15,0	60,0	1	✓	80000	0,1	1
MM06-16140.0-1020M	00027102	Cylindrical	5,75	16,0	140,0	20,0	92,0	1,0	3	✓	80000	0,2	5
MM06-16140.0-1035M	00027103	Cylindrical	5,75	16,0	140,0	35,0	92,0	1,0	3	✓	80000	0,2	6
MM06-16140.0-1050M	00094748	Cylindrical	5,75	16,0	140,0	50,0	92,0	1,0	3	✓	80000	0,2	6
MM06-10050.0-0007DS	02580666	Cylindrical	5,75	10,0	50,0	7,0	7,0	0,0	2	✓	80000	0,1	3
MM06-10075.0-3041DS	02580701	Cylindrical	5,75	10,0	75,0	40,5	35,0	3,0	4	✓	80000	0,1	3
MM06-10100.0-1035DS	02580713	Cylindrical	5,75	10,0	100,0	35,0	60,0	1,0	3	✓	80000	0,1	3
MM06-12120.0-1050DS	02580714	Cylindrical	5,75	12,0	120,0	50,0	75,0	1,0	3	✓	80000	0,2	3
MM06-16090.0-0012DS	02580670	Cylindrical	5,75	16,0	90,0	12,0	42,0	0,0	2	✓	80000	0,3	3
MM06-16095.0-0024DS	02580673	Cylindrical	5,75	16,0	95,0	24,0	47,0	0,0	2	✓	80000	0,3	3
MM06-16140.0-1050DS	02580717	Cylindrical	5,75	16,0	140,0	50,0	92,0	1,0	3	✓	80000	0,3	3
MM06-16140.0-1035DS	02580716	Cylindrical	5,75	16,0	140,0	35,0	92,0	1,0	3	✓	80000	0,4	3
MM06-20250.0-1035DS	02580718	Cylindrical	5,75	20,0	250,0	35,0	190,0	1,0	5	✓	80000	0,9	3

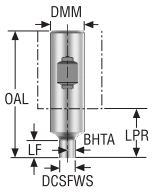
Spare Parts, included in delivery

Accessories

For cutter	Sleeve	Tension screw	Sleeve key
			
1	MM-035046	MM06-03518	H05-4
4	MM-035091	MM06-03518	H05-4
2	MM-035023	MM06-03518	H05-4
5	MM-035046	MM06-03544	H05-4
6	MM-035046	MM06-03564	H05-4
3	–	MM06-03518	–

MM06 Shank – *Inch*

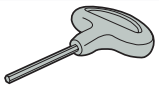




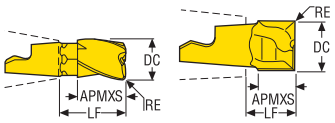
Designation	Item number	Type of mounting	DCSFWS	DMM	OAL	LF	LPR	BHTA°	Design		RPMX	Weight	Spare part no.
			inch	inch	inch	inch	inch					lbs	
MM06-0.50-2.8-3-0002	00096108	Weldon	0.224	0.500	2.756	0.197	0.984	0,0	2	✓	80000	0.220	1
MM06-0.62-3.0-3-3003	00096116	Weldon	0.224	0.625	2.953	0.354	1.063	3,0	1	✓	80000	0.220	1
MM06-0.62-4.3-3-5022	00096117	Weldon	0.224	0.625	4.331	2.291	2.441	5,0	2	✓	80000	0.440	4
MM06-0.38-1.6-0-0002	00096107	Cylindrical	0.224	0.375	1.575	0.276	0.276	0,0	2	✓	80000	0.220	2
MM06-0.50-2.6-0-0000	00096106	Cylindrical	0.224	0.500	2.559	0	0.787	60,0	1	✓	80000	0.220	1
MM06-0.62-5.5-0-1007	00096111	Cylindrical	0.224	0.625	5.512	0.787	3.622	1,0	3	✓	80000	0.440	5
MM06-0.62-5.5-0-1013	00096112	Cylindrical	0.224	0.625	5.512	1.378	3.622	1,0	3	✓	80000	0.440	6
MM06-0.62-5.5-0-1019	00096114	Cylindrical	0.224	0.625	5.512	1.969	3.622	1,0	3	✓	80000	0.440	6
MM06-0.62-3.5-0-0004DS	02593394	Cylindrical	0.224	0.625	3.543	0.472	1.654	0,0	2	✓	80000	0.660	3
MM06-0.62-3.7-0-0009DS	02593395	Cylindrical	0.224	0.625	3.740	0.945	1.850	0,0	2	✓	80000	0.660	3
MM06-0.62-5.5-0-1013DS	02593396	Cylindrical	0.224	0.625	5.512	1.378	3.622	1,0	3	✓	80000	0.880	3
MM06-0.62-5.5-0-1019DS	02593397	Cylindrical	0.224	0.625	5.512	1.969	3.622	1,0	3	✓	80000	0.660	3
MM06-0.75-10.0-0-1013DS	02593399	Cylindrical	0.224	0.750	9.843	1.378	7.874	1,0	5	✓	80000	1.980	3

Spare Parts, included in delivery

Accessories

For cutter	Sleeve	Tension screw	Sleeve key
			
1	MM-035046	MM06-03518	H05-4
4	MM-035091	MM06-03518	H05-4
2	MM-035023	MM06-03518	H05-4
5	MM-035046	MM06-03544	H05-4
6	MM-035046	MM06-03564	H05-4
3	–	MM06-03518	–

Slot milling/square shoulder milling



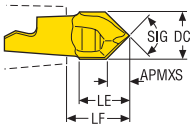


• For Torque keys and torque values, see page 673

Designation	DC	APMXS	RE	LF	RMPX°	C min	C max	FHA°	ZEFP	Wrench		Grades Coated			
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*								T60M	F15M	F30M	F40M
MM06-05804T-R02-D02	5,8 *0.228*	4,1 *0.161*	0,2 *0.008*	5,1 *0.201*	15,0	7,2	11,0	0	2	MM0612		■			
MM06-05807-R02A30-M02	5,8 *0.228*	7,5 *0.295*	0,2 *0.008*	9,9 *0.390*	15,0	7,2	11,0	30	3	MM0416	✓				■
MM06-06004-M02	6,0 *0.236*	4,1 *0.161*	0,0 –	5,1 *0.201*	15,0	7,4	11,8	0	2	MM0612		■			
MM06-06004-R04-MD02	6,0 *0.236*	4,1 *0.161*	0,4 *0.016*	5,1 *0.201*	15,0	7,4	11,0	0	2	MM0612		■		■	
MM06-06004-R10-MD02	6,0 *0.236*	4,1 *0.161*	1,0 *0.039*	5,1 *0.201*	15,0	7,4	9,8	0	2	MM0612				■	
MM06-06007-A30-E02	6,0 *0.236*	7,5 *0.295*	0,0 –	9,9 *0.390*	15,0	7,4	11,8	30	3	MM0416	✓			■	
MM06-06007-R05A30-M02	6,0 *0.236*	7,5 *0.295*	0,5 *0.020*	9,9 *0.390*	15,0	7,4	10,8	30	3	MM0416	✓				■
MM06-06007-R10A30-D02	6,0 *0.236*	7,5 *0.295*	1,0 *0.039*	9,9 *0.390*	15,0	7,4	9,8	30	3	MM0416	✓			■	
MM06-06007-R10A30-E02	6,0 *0.236*	7,5 *0.295*	1,0 *0.039*	9,9 *0.390*	15,0	7,4	9,8	30	3	MM0416	✓			■	
MM06-06007-R10A30-M02	6,0 *0.236*	7,5 *0.295*	1,0 *0.039*	9,9 *0.390*	15,0	7,4	9,8	30	3	MM0416	✓				■
MM06-06007-R20A30-M02	6,0 *0.236*	7,5 *0.295*	2,0 *0.079*	9,9 *0.390*	15,0	7,4	7,8	30	3	MM0416	✓				■
MM06-06407-A30-E02	6,35 *0.250*	7,5 *0.295*	0,0 –	9,9 *0.390*	15,0	7,8	12,5	30	3	MM0416	✓			■	
MM06-06407-R04A30-M02	6,35 *0.250*	7,5 *0.295*	0,4 *0.016*	9,9 *0.390*	15,0	7,8	11,7	30	3	MM0416	✓				■
MM06-06407-R08A30-M02	6,35 *0.250*	7,5 *0.295*	0,8 *0.031*	9,9 *0.390*	15,0	7,8	10,9	30	3	MM0416	✓				■

Centre drilling



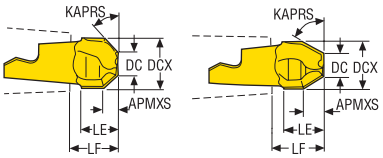


• For Torque keys and torque values, see page 673

Designation	DC	APMXS	LE	LF	SIG°	ZEFP	Wrench	Grades Coated			
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*				T60M	F15M	F30M	F40M
MM06-06003-C120-M02	6,0 *0.236*	1,6 *0.063*	6,27 *0.247*	7,19 *0.283*	120,0	2	MM0612	■			
MM06-06003-C90-M02	6,0 *0.236*	2,86 *0.113*	6,0 *0.236*	7,12 *0.280*	90,0	2	MM0612	■			

Chamfering

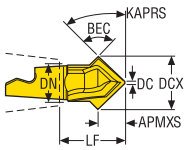




• For Torque keys and torque values, see page 673

Designation	DCX	DC	APMXS	LE	LF	KAPRS°	ZEFP	Wrench	Grades Coated			
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*				T60M	F15M	F30M	F40M
MM06-06004-4515-E02	6,0 *0.236*	1,8 *0.071*	2,1 *0.083*	4,0 *0.157*	5,1 *0.201*	45,0	2	MM0612	■			
MM06-06004-6015-E02	6,0 *0.236*	3,14 *0.124*	2,4 *0.094*	4,6 *0.181*	5,75 *0.226*	60,0	2	MM0612	■			

Double chamfering

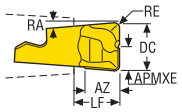




• For Torque keys and torque values, see page 673

Designation	DCX	DC	APMXS	LF	DN	BEC°	KAPRS°	ZEFP	Wrench	Grades Coated			
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*					T60M	F15M	F30M	F40M
MM06-08008-D4510P-M02	8,0 *0.315*	0,6 *0.024*	3,7 *0.146*	8,5 *0.335*	6,0 *0.236*	90,0	45,0	2	MM0612		■		

Plunge milling

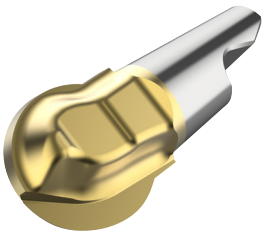


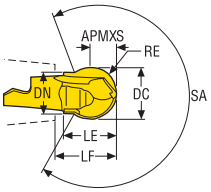


• For Torque keys and torque values, see page 673

Designation	DC	APMXE	RE	AZ	LF	RA°	ZEFP	Wrench	Grades Coated			
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*				T60M	F15M	F30M	F40M
MM06-06004-R10-PL-MD02	6,0 *0.236*	3,0 *0.118*	1,0 *0.039*	4,3 *0.169*	5,08 *0.200*	5,0	2	MM0612			■	

Precision inserts for semi-finishing in all materials



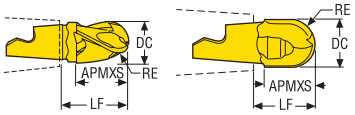


- For Torque keys and torque values, see page 673

Designation	DC	APMXS	RE	LE	LF	DN	SA°	ZEFP	Wrench	Grades Coated			
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*				T60M	F15M	F30M	F40M
MM06-08008-B120PF-M01	8,0 *0.315*	4,0 *0.157*	4,0 *0.157*	8,0 *0.315*	8,73 *0.344*	6,0 *0.236*	263,0	2	MM0612		■		
MM06-08008-B120P-M03	8,0 *0.315*	4,0 *0.157*	4,0 *0.157*	8,0 *0.315*	8,73 *0.344*	6,0 *0.236*	263,0	2	MM0612			■	

Copy milling





- For Torque keys and torque values, see page 673

Designation	DC	APMXS	RE	LF	FHA°	ZEFP	Wrench		Grades Coated			
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*					T60M	F15M	F30M	F40M
MM06-06006-B90-MD02	6,0 *0.236*	6,1 *0.240*	3,0 *0.118*	7,06 *0.278*	0,0	2	MM0612		■		■	
MM06-06006-B90PF-M01	6,0 *0.236*	5,2 *0.205*	3,0 *0.118*	7,04 *0.277*	0,0	2	MM0612			■		
MM06-06006-B90P-M02	6,0 *0.236*	5,2 *0.205*	3,0 *0.118*	7,04 *0.277*	0,0	2	MM0612				■	
MM06-06006-B90S-E02	6,0 *0.236*	6,1 *0.240*	3,0 *0.118*	7,06 *0.278*	0,0	2	MM0612				■	
MM06-06007-B90A30-E02	6,0 *0.236*	7,4 *0.291*	3,0 *0.118*	9,85 *0.388*	30,0	3	MM0416	✓			■	
MM06-06007-B90A30-M02	6,0 *0.236*	7,4 *0.291*	3,0 *0.118*	9,85 *0.388*	30,0	3	MM0416	✓				■
MM06-06406-B90P-M02	6,35 *0.250*	5,4 *0.213*	3,175 *0.125*	7,22 *0.284*	0,0	2	MM0612				■	
MM06-06406-B90S-E02	6,35 *0.250*	6,3 *0.248*	3,175 *0.125*	7,24 *0.285*	0,0	2	MM0612				■	

MM06 - Slot and Side milling – Insert selection – Metric / *Inch*

SMG		a_p	f_z			
			100%	40%	20%	10%
P1	MM06-06007-R05A30-M02 F40M	1,3 *0.050*	0,030 *0.0012*	0,030 *0.0012*	0,036 *0.0014*	0,048 *0.0019*
P2	MM06-06007-R05A30-M02 F40M	1,3 *0.050*	0,030 *0.0012*	0,030 *0.0012*	0,036 *0.0014*	0,048 *0.0019*
P3	MM06-06007-R05A30-M02 F40M	1,3 *0.050*	0,028 *0.0011*	0,028 *0.0011*	0,034 *0.0013*	0,046 *0.0018*
P4	MM06-06007-R05A30-M02 F40M	1,3 *0.050*	0,028 *0.0011*	0,028 *0.0011*	0,034 *0.0013*	0,044 *0.0017*
P5	MM06-06007-R05A30-M02 F40M	1,3 *0.050*	0,028 *0.0011*	0,028 *0.0011*	0,032 *0.0013*	0,044 *0.0017*
P6	MM06-06007-R05A30-M02 F40M	1,3 *0.050*	0,028 *0.0011*	0,028 *0.0011*	0,032 *0.0013*	0,044 *0.0017*
P7	MM06-06007-R05A30-M02 F40M	1,3 *0.050*	0,028 *0.0011*	0,028 *0.0011*	0,032 *0.0013*	0,044 *0.0017*
P8	MM06-06007-R05A30-M02 F40M	1,3 *0.050*	0,028 *0.0011*	0,028 *0.0011*	0,034 *0.0013*	0,046 *0.0018*
P11	MM06-06007-R05A30-M02 F40M	1,3 *0.050*	0,028 *0.0011*	0,028 *0.0011*	0,032 *0.0013*	0,044 *0.0017*
P12	MM06-06007-R05A30-M02 F40M	1,0 *0.040*	0,020 *0.00080*	0,020 *0.00080*	0,022 *0.00085*	0,030 *0.0012*
M1	MM06-06007-R05A30-M02 F40M	1,3 *0.050*	0,030 *0.0012*	0,030 *0.0012*	0,036 *0.0014*	0,048 *0.0019*
M2	MM06-06007-R05A30-M02 F40M	1,3 *0.050*	0,028 *0.0011*	0,028 *0.0011*	0,032 *0.0013*	0,044 *0.0017*
M3	MM06-06007-R05A30-M02 F40M	1,0 *0.040*	0,024 *0.00095*	0,024 *0.00095*	0,026 *0.0010*	0,036 *0.0014*
M4	MM06-06007-R05A30-M02 F40M	0,80 *0.032*	0,022 *0.00085*	0,020 *0.00080*	0,024 *0.00095*	0,030 *0.0012*
M5	MM06-06007-R05A30-M02 F40M	0,80 *0.032*	0,022 *0.00085*	0,020 *0.00080*	0,024 *0.00095*	0,030 *0.0012*
K1	MM06-06007-R10A30-D02 F30M	1,3 *0.050*	0,036 *0.0014*	0,034 *0.0013*	0,038 *0.0015*	0,050 *0.0020*
K2	MM06-06007-R10A30-D02 F30M	1,3 *0.050*	0,032 *0.0013*	0,032 *0.0013*	0,034 *0.0013*	0,044 *0.0017*
K3	MM06-06007-R10A30-D02 F30M	1,3 *0.050*	0,032 *0.0013*	0,032 *0.0013*	0,034 *0.0013*	0,044 *0.0017*
K4	MM06-06007-R10A30-D02 F30M	1,3 *0.050*	0,032 *0.0013*	0,032 *0.0013*	0,034 *0.0013*	0,044 *0.0017*
K5	MM06-06007-R10A30-D02 F30M	1,3 *0.050*	0,030 *0.0012*	0,028 *0.0011*	0,030 *0.0012*	0,040 *0.0016*
K6	MM06-06007-R10A30-D02 F30M	1,3 *0.050*	0,032 *0.0013*	0,032 *0.0013*	0,034 *0.0013*	0,044 *0.0017*
K7	MM06-06007-R10A30-D02 F30M	1,3 *0.050*	0,030 *0.0012*	0,028 *0.0011*	0,030 *0.0012*	0,040 *0.0016*
N1	MM06-06007-R10A30-E02 F30M	1,3 *0.050*	0,046 *0.0018*	0,044 *0.0017*	0,048 *0.0019*	0,065 *0.0026*
N2	MM06-06007-R10A30-E02 F30M	1,3 *0.050*	0,046 *0.0018*	0,044 *0.0017*	0,048 *0.0019*	0,065 *0.0026*
N3	MM06-06007-R10A30-E02 F30M	1,3 *0.050*	0,046 *0.0018*	0,044 *0.0017*	0,048 *0.0019*	0,065 *0.0026*
N11	MM06-06007-R10A30-E02 F30M	1,3 *0.050*	0,046 *0.0018*	0,044 *0.0017*	0,048 *0.0019*	0,065 *0.0026*
S1	MM06-06007-R10A30-D02 F30M	0,80 *0.032*	0,028 *0.0011*	0,026 *0.0010*	0,025 *0.0010*	0,032 *0.0013*
S2	MM06-06007-R10A30-D02 F30M	0,80 *0.032*	0,028 *0.0011*	0,026 *0.0010*	0,025 *0.0010*	0,032 *0.0013*
S3	MM06-06007-R10A30-D02 F30M	0,80 *0.032*	0,026 *0.0010*	0,025 *0.0010*	0,024 *0.00095*	0,028 *0.0012*
S11	MM06-06007-R05A30-M02 F40M	0,90 *0.036*	0,024 *0.00095*	0,024 *0.00095*	0,026 *0.0010*	0,036 *0.0014*
S12	MM06-06007-R05A30-M02 F40M	0,90 *0.036*	0,024 *0.00095*	0,024 *0.00095*	0,026 *0.0010*	0,036 *0.0014*
S13	MM06-06007-R05A30-M02 F40M	0,80 *0.032*	0,022 *0.00085*	0,020 *0.00080*	0,024 *0.00095*	0,030 *0.0012*
H5	MM06-06007-R10A30-D02 F30M	1,0 *0.040*	0,025 *0.0010*	0,024 *0.00095*	0,024 *0.00095*	0,030 *0.0012*
H8	MM06-06007-R10A30-D02 F30M	0,90 *0.036*	0,020 *0.00080*	0,019 *0.00075*	0,018 *0.00070*	0,024 *0.00095*
H11	MM06-06007-R10A30-D02 F30M	1,0 *0.040*	0,025 *0.0010*	0,024 *0.00095*	0,024 *0.00095*	0,030 *0.0012*
H12	MM06-06007-R10A30-D02 F30M	0,90 *0.036*	0,020 *0.00080*	0,019 *0.00075*	0,018 *0.00070*	0,024 *0.00095*
H21	MM06-06007-R10A30-D02 F30M	0,90 *0.036*	0,020 *0.00080*	0,019 *0.00075*	0,018 *0.00070*	0,024 *0.00095*

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

MM06 - Slot and Side milling – Cutting data v_c = (m/min)/*(sf/min)*

SMG	F30M				F40M				T60M			
	100%	40%	20%	10%	100%	40%	20%	10%	100%	40%	20%	10%
P1	280 *920*	350 *1150*	395 *1300*	435 *1425*	270 *890*	335 *1100*	375 *1225*	415 *1350*	220 *720*	270 *890*	300 *980*	330 *1075*
P2	275 *900*	340 *1125*	380 *1250*	420 *1375*	260 *850*	325 *1075*	365 *1200*	400 *1300*	210 *690*	260 *850*	295 *970*	320 *1050*
P3	240 *790*	295 *970*	330 *1075*	365 *1200*	225 *740*	285 *940*	315 *1025*	350 *1150*	185 *610*	230 *750*	255 *840*	280 *920*
P4	210 *690*	260 *850*	295 *970*	320 *1050*	200 *660*	250 *820*	280 *920*	305 *1000*	160 *520*	200 *660*	225 *740*	245 *800*
P5	200 *660*	250 *820*	280 *920*	310 *1025*	190 *620*	240 *790*	265 *870*	295 *970*	155 *510*	190 *620*	215 *710*	235 *770*
P6	225 *740*	285 *940*	315 *1025*	345 *1125*	215 *710*	270 *890*	300 *980*	330 *1075*	175 *570*	215 *710*	240 *790*	265 *870*
P7	215 *710*	265 *870*	295 *970*	325 *1075*	205 *670*	255 *840*	285 *940*	310 *1025*	165 *540*	205 *670*	230 *750*	250 *820*
P8	200 *660*	250 *820*	280 *920*	305 *1000*	190 *620*	240 *790*	265 *870*	290 *950*	155 *510*	190 *620*	215 *710*	235 *770*
P11	210 *690*	260 *850*	290 *950*	320 *1050*	200 *660*	245 *800*	275 *900*	305 *1000*	160 *520*	200 *660*	220 *720*	245 *800*
P12	130 *425*	160 *520*	175 *570*	195 *640*	125 *410*	150 *490*	170 *560*	185 *610*	100 *330*	125 *410*	135 *445*	150 *490*
M1	— —	— —	— —	— —	210 *690*	265 *870*	295 *970*	320 *1050*	170 *560*	210 *690*	235 *770*	260 *850*
M2	— —	— —	— —	— —	175 *570*	215 *710*	240 *790*	265 *870*	140 *460*	170 *560*	195 *640*	210 *690*
M3	— —	— —	— —	— —	135 *445*	165 *540*	190 *620*	205 *670*	110 *360*	135 *445*	150 *490*	165 *540*
M4	— —	— —	— —	— —	105 *345*	130 *425*	145 *475*	155 *510*	85 *280*	105 *345*	115 *375*	125 *410*
M5	— —	— —	— —	— —	85 *280*	105 *345*	120 *395*	130 *425*	70 *230*	85 *280*	95 *310*	105 *345*
K1	215 *710*	270 *890*	305 *1000*	335 *1100*	205 *670*	260 *850*	290 *950*	315 *1025*	165 *540*	210 *690*	230 *750*	255 *840*
K2	190 *620*	235 *770*	265 *870*	295 *970*	180 *590*	225 *740*	255 *840*	280 *920*	150 *490*	180 *590*	205 *670*	225 *740*
K3	160 *520*	200 *660*	225 *740*	250 *820*	155 *510*	190 *620*	215 *710*	235 *770*	125 *410*	155 *510*	175 *570*	190 *620*
K4	155 *510*	190 *620*	215 *710*	235 *770*	145 *475*	180 *590*	205 *670*	225 *740*	120 *395*	145 *475*	165 *540*	180 *590*
K5	95 *310*	115 *375*	130 *425*	145 *475*	90 *295*	110 *360*	125 *410*	135 *445*	70 *230*	90 *295*	100 *330*	110 *360*
K6	135 *445*	170 *560*	190 *620*	210 *690*	130 *425*	160 *520*	180 *590*	200 *660*	105 *345*	130 *425*	145 *475*	160 *520*
K7	120 *395*	150 *490*	165 *540*	180 *590*	115 *375*	140 *460*	160 *520*	175 *570*	90 *295*	115 *375*	125 *410*	140 *460*
N1	1650 *5425*	2050 *6725*	2325 *7625*	2525 *8275*	1575 *5175*	1975 *6475*	2200 *7225*	2400 *7875*	1275 *4175*	1575 *5175*	1775 *5825*	1950 *6400*
N2	670 *2200*	830 *2725*	930 *3050*	1025 *3375*	640 *2100*	790 *2600*	890 *2925*	970 *3175*	510 *1675*	640 *2100*	710 *2325*	790 *2600*
N3	445 *1450*	560 *1825*	620 *2025*	680 *2225*	425 *1400*	530 *1750*	590 *1925*	650 *2125*	340 *1125*	425 *1400*	475 *1550*	530 *1750*
N11	510 *1675*	630 *2075*	710 *2325*	780 *2550*	485 *1600*	600 *1975*	680 *2225*	740 *2425*	390 *1275*	485 *1600*	540 *1775*	600 *1975*
S1	50 *165*	65 *215*	70 *230*	75 *245*	49 *160*	60 *195*	65 *215*	75 *245*	39 *130*	49 *160*	55 *180*	60 *195*
S2	41 *135*	50 *165*	55 *180*	60 *195*	39 *130*	48 *155*	55 *180*	60 *195*	32 *105*	39 *130*	44 *145*	48 *155*
S3	36 *120*	44 *145*	49 *160*	55 *180*	34 *110*	42 *140*	47 *155*	50 *165*	27 *90*	34 *110*	38 *125*	41 *135*
S11	— —	— —	— —	— —	70 *230*	85 *280*	95 *310*	105 *345*	55 *180*	70 *230*	75 *245*	85 *280*
S12	— —	— —	— —	— —	48 *155*	60 *195*	65 *215*	70 *245*	38 *125*	48 *155*	55 *180*	60 *195*
S13	— —	— —	— —	— —	27 *90*	34 *110*	38 *125*	41 *135*	22 *70*	27 *90*	30 *100*	33 *110*
H5	43 *140*	55 *180*	60 *195*	65 *215*	41 *135*	50 *165*	55 *180*	60 *195*	33 *110*	41 *135*	45 *150*	50 *165*
H8	44 *145*	55 *180*	60 *195*	65 *215*	42 *140*	50 *165*	60 *195*	65 *215*	34 *110*	42 *140*	47 *155*	50 *165*
H11	55 *180*	65 *215*	75 *245*	85 *280*	50 *165*	65 *215*	70 *230*	80 *260*	42 *140*	50 *165*	60 *195*	65 *215*
H12	80 *260*	95 *310*	110 *360*	120 *395*	75 *245*	90 *295*	105 *345*	115 *375*	60 *195*	75 *245*	85 *280*	90 *295*
H21	44 *145*	55 *180*	60 *195*	65 *215*	42 *140*	50 *165*	60 *195*	65 *215*	34 *110*	42 *140*	47 *155*	50 *165*

MM06 Z3-Copy milling – Insert selection – Roughing – mm/*Inch*

SMG		a_p	f_z			
			100%	40%	20%	10%
P1	MM06-06007-B90A30-M02 F40M	1,3 *0.050*	0,036 *0.0014*	0,034 *0.0013*	0,036 *0.0014*	0,048 *0.0019*
P2	MM06-06007-B90A30-M02 F40M	1,3 *0.050*	0,036 *0.0014*	0,034 *0.0013*	0,036 *0.0014*	0,048 *0.0019*
P3	MM06-06007-B90A30-M02 F40M	1,3 *0.050*	0,034 *0.0013*	0,034 *0.0013*	0,034 *0.0013*	0,046 *0.0018*
P4	MM06-06007-B90A30-M02 F40M	1,3 *0.050*	0,034 *0.0013*	0,032 *0.0013*	0,034 *0.0013*	0,044 *0.0017*
P5	MM06-06007-B90A30-M02 F40M	1,3 *0.050*	0,032 *0.0013*	0,032 *0.0013*	0,034 *0.0013*	0,044 *0.0017*
P6	MM06-06007-B90A30-M02 F40M	1,3 *0.050*	0,032 *0.0013*	0,032 *0.0013*	0,034 *0.0013*	0,044 *0.0017*
P7	MM06-06007-B90A30-M02 F40M	1,3 *0.050*	0,032 *0.0013*	0,032 *0.0013*	0,034 *0.0013*	0,044 *0.0017*
P8	MM06-06007-B90A30-M02 F40M	1,3 *0.050*	0,034 *0.0013*	0,034 *0.0013*	0,034 *0.0013*	0,046 *0.0018*
P11	MM06-06007-B90A30-M02 F40M	1,3 *0.050*	0,032 *0.0013*	0,032 *0.0013*	0,034 *0.0013*	0,044 *0.0017*
P12	MM06-06007-B90A30-M02 F40M	1,0 *0.040*	0,024 *0.00095*	0,022 *0.00085*	0,024 *0.00095*	0,030 *0.0012*
M1	MM06-06007-B90A30-M02 F40M	1,3 *0.050*	0,036 *0.0014*	0,034 *0.0013*	0,036 *0.0014*	0,048 *0.0019*
M2	MM06-06007-B90A30-M02 F40M	1,3 *0.050*	0,032 *0.0013*	0,032 *0.0013*	0,034 *0.0013*	0,044 *0.0017*
M3	MM06-06007-B90A30-M02 F40M	1,0 *0.040*	0,028 *0.0011*	0,026 *0.0010*	0,028 *0.0011*	0,036 *0.0014*
M4	MM06-06007-B90A30-M02 F40M	0,80 *0.032*	0,025 *0.0010*	0,025 *0.0010*	0,025 *0.0010*	0,030 *0.0013*
M5	MM06-06007-B90A30-M02 F40M	0,80 *0.032*	0,025 *0.0010*	0,025 *0.0010*	0,025 *0.0010*	0,030 *0.0013*
K1	MM06-06007-B90A30-E02 F30M	1,3 *0.050*	0,036 *0.0014*	0,034 *0.0013*	0,036 *0.0014*	0,048 *0.0019*
K2	MM06-06007-B90A30-E02 F30M	1,3 *0.050*	0,032 *0.0013*	0,032 *0.0013*	0,034 *0.0013*	0,044 *0.0017*
K3	MM06-06007-B90A30-E02 F30M	1,3 *0.050*	0,032 *0.0013*	0,032 *0.0013*	0,034 *0.0013*	0,044 *0.0017*
K4	MM06-06007-B90A30-E02 F30M	1,3 *0.050*	0,032 *0.0013*	0,032 *0.0013*	0,034 *0.0013*	0,044 *0.0017*
K5	MM06-06007-B90A30-M02 F40M	1,3 *0.050*	0,030 *0.0012*	0,028 *0.0011*	0,030 *0.0012*	0,040 *0.0016*
K6	MM06-06007-B90A30-M02 F40M	1,3 *0.050*	0,032 *0.0013*	0,032 *0.0013*	0,034 *0.0013*	0,044 *0.0017*
K7	MM06-06007-B90A30-M02 F40M	1,3 *0.050*	0,030 *0.0012*	0,028 *0.0011*	0,030 *0.0012*	0,040 *0.0016*
N1	MM06-06007-B90A30-E02 F30M	1,3 *0.050*	0,046 *0.0018*	0,044 *0.0017*	0,046 *0.0018*	0,060 *0.0024*
N2	MM06-06007-B90A30-E02 F30M	1,3 *0.050*	0,046 *0.0018*	0,044 *0.0017*	0,046 *0.0018*	0,060 *0.0024*
N3	MM06-06007-B90A30-E02 F30M	1,3 *0.050*	0,046 *0.0018*	0,044 *0.0017*	0,046 *0.0018*	0,060 *0.0024*
N11	MM06-06007-B90A30-E02 F30M	1,3 *0.050*	0,046 *0.0018*	0,044 *0.0017*	0,046 *0.0018*	0,060 *0.0024*
S1	MM06-06007-B90A30-M02 F40M	0,80 *0.032*	0,025 *0.0010*	0,025 *0.0010*	0,025 *0.0010*	0,030 *0.0013*
S2	MM06-06007-B90A30-M02 F40M	0,80 *0.032*	0,025 *0.0010*	0,025 *0.0010*	0,025 *0.0010*	0,030 *0.0013*
S3	MM06-06007-B90A30-M02 F40M	0,80 *0.032*	0,024 *0.00095*	0,022 *0.00085*	0,022 *0.00085*	0,028 *0.0012*
S11	MM06-06007-B90A30-M02 F40M	0,90 *0.036*	0,028 *0.0011*	0,028 *0.0011*	0,028 *0.0011*	0,036 *0.0014*
S12	MM06-06007-B90A30-M02 F40M	0,90 *0.036*	0,028 *0.0011*	0,028 *0.0011*	0,028 *0.0011*	0,036 *0.0014*
S13	MM06-06007-B90A30-M02 F40M	0,80 *0.032*	0,025 *0.0010*	0,025 *0.0010*	0,025 *0.0010*	0,030 *0.0013*
H5	MM06-06007-B90A30-E02 F30M	1,0 *0.040*	0,024 *0.00095*	0,022 *0.00085*	0,024 *0.00095*	0,030 *0.0012*
H8	MM06-06007-B90A30-E02 F30M	0,90 *0.036*	0,018 *0.00070*	0,018 *0.00070*	0,018 *0.00070*	0,022 *0.00095*
H11	MM06-06007-B90A30-E02 F30M	1,0 *0.040*	0,024 *0.00095*	0,022 *0.00085*	0,024 *0.00095*	0,030 *0.0012*
H12	MM06-06007-B90A30-E02 F30M	0,90 *0.036*	0,018 *0.00070*	0,018 *0.00070*	0,018 *0.00070*	0,022 *0.00095*
H21	MM06-06007-B90A30-E02 F30M	0,90 *0.036*	0,018 *0.00070*	0,018 *0.00070*	0,018 *0.00070*	0,022 *0.00095*

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

MM06 Z3-Copy milling – Insert selection – Finishing – mm/*Inch*

SMG		a_p	f_z			
			15%	10%	5%	2%
P1	MM06-06007-B90A30-E02 F30M	1,3 *0.050*	0,040 *0.0016*	0,048 *0.0019*	0,065 *0.0026*	0,11 *0.0044*
P2	MM06-06007-B90A30-E02 F30M	1,3 *0.050*	0,040 *0.0016*	0,048 *0.0019*	0,065 *0.0026*	0,11 *0.0044*
P3	MM06-06007-B90A30-E02 F30M	1,3 *0.050*	0,038 *0.0015*	0,046 *0.0018*	0,065 *0.0026*	0,10 *0.0040*
P4	MM06-06007-B90A30-E02 F30M	1,3 *0.050*	0,038 *0.0015*	0,044 *0.0017*	0,060 *0.0024*	0,10 *0.0040*
P5	MM06-06007-B90A30-E02 F30M	1,3 *0.050*	0,036 *0.0014*	0,044 *0.0017*	0,060 *0.0024*	0,10 *0.0040*
P6	MM06-06007-B90A30-E02 F30M	1,3 *0.050*	0,036 *0.0014*	0,044 *0.0017*	0,060 *0.0024*	0,10 *0.0040*
P7	MM06-06007-B90A30-E02 F30M	1,3 *0.050*	0,036 *0.0014*	0,044 *0.0017*	0,060 *0.0024*	0,10 *0.0040*
P8	MM06-06007-B90A30-E02 F30M	1,3 *0.050*	0,038 *0.0015*	0,046 *0.0018*	0,065 *0.0026*	0,10 *0.0040*
P11	MM06-06007-B90A30-E02 F30M	1,3 *0.050*	0,036 *0.0014*	0,044 *0.0017*	0,060 *0.0024*	0,10 *0.0040*
P12	MM06-06007-B90A30-E02 F30M	1,0 *0.040*	0,026 *0.0010*	0,030 *0.0012*	0,042 *0.0017*	0,065 *0.0026*
M1	MM06-06007-B90A30-E02 F30M	1,3 *0.050*	0,040 *0.0016*	0,048 *0.0019*	0,065 *0.0026*	0,11 *0.0044*
M2	MM06-06007-B90A30-E02 F30M	1,3 *0.050*	0,036 *0.0014*	0,044 *0.0017*	0,060 *0.0024*	0,10 *0.0040*
M3	MM06-06007-B90A30-E02 F30M	1,0 *0.040*	0,030 *0.0012*	0,036 *0.0014*	0,048 *0.0019*	0,080 *0.0032*
M4	MM06-06007-B90A30-E02 F30M	0,80 *0.032*	0,026 *0.0010*	0,030 *0.0013*	0,042 *0.0017*	0,070 *0.0028*
M5	MM06-06007-B90A30-E02 F30M	0,80 *0.032*	0,026 *0.0010*	0,030 *0.0013*	0,042 *0.0017*	0,070 *0.0028*
K1	MM06-06007-B90A30-E02 F30M	1,3 *0.050*	0,040 *0.0016*	0,048 *0.0019*	0,065 *0.0026*	0,11 *0.0044*
K2	MM06-06007-B90A30-E02 F30M	1,3 *0.050*	0,036 *0.0014*	0,044 *0.0017*	0,060 *0.0024*	0,10 *0.0040*
K3	MM06-06007-B90A30-E02 F30M	1,3 *0.050*	0,036 *0.0014*	0,044 *0.0017*	0,060 *0.0024*	0,10 *0.0040*
K4	MM06-06007-B90A30-E02 F30M	1,3 *0.050*	0,036 *0.0014*	0,044 *0.0017*	0,060 *0.0024*	0,10 *0.0040*
K5	MM06-06007-B90A30-E02 F30M	1,3 *0.050*	0,034 *0.0013*	0,040 *0.0016*	0,055 *0.0022*	0,090 *0.0036*
K6	MM06-06007-B90A30-E02 F30M	1,3 *0.050*	0,036 *0.0014*	0,044 *0.0017*	0,060 *0.0024*	0,10 *0.0040*
K7	MM06-06007-B90A30-E02 F30M	1,3 *0.050*	0,034 *0.0013*	0,040 *0.0016*	0,055 *0.0022*	0,090 *0.0036*
N1	MM06-06007-B90A30-E02 F30M	1,3 *0.050*	0,050 *0.0020*	0,060 *0.0024*	0,085 *0.0034*	0,14 *0.0055*
N2	MM06-06007-B90A30-E02 F30M	1,3 *0.050*	0,050 *0.0020*	0,060 *0.0024*	0,085 *0.0034*	0,14 *0.0055*
N3	MM06-06007-B90A30-E02 F30M	1,3 *0.050*	0,050 *0.0020*	0,060 *0.0024*	0,085 *0.0034*	0,14 *0.0055*
N11	MM06-06007-B90A30-E02 F30M	1,3 *0.050*	0,050 *0.0020*	0,060 *0.0024*	0,085 *0.0034*	0,14 *0.0055*
S1	MM06-06007-B90A30-E02 F30M	0,80 *0.032*	0,026 *0.0010*	0,030 *0.0013*	0,042 *0.0017*	0,070 *0.0028*
S2	MM06-06007-B90A30-E02 F30M	0,80 *0.032*	0,026 *0.0010*	0,030 *0.0013*	0,042 *0.0017*	0,070 *0.0028*
S3	MM06-06007-B90A30-E02 F30M	0,80 *0.032*	0,025 *0.0010*	0,028 *0.0012*	0,040 *0.0016*	0,065 *0.0026*
S11	MM06-06007-B90A30-E02 F30M	0,90 *0.036*	0,030 *0.0012*	0,036 *0.0014*	0,048 *0.0019*	0,080 *0.0032*
S12	MM06-06007-B90A30-E02 F30M	0,90 *0.036*	0,030 *0.0012*	0,036 *0.0014*	0,048 *0.0019*	0,080 *0.0032*
S13	MM06-06007-B90A30-E02 F30M	0,80 *0.032*	0,026 *0.0010*	0,030 *0.0013*	0,042 *0.0017*	0,070 *0.0028*
H5	MM06-06007-B90A30-E02 F30M	1,0 *0.040*	0,026 *0.0010*	0,030 *0.0012*	0,042 *0.0017*	0,065 *0.0026*
H8	MM06-06007-B90A30-E02 F30M	0,90 *0.036*	0,020 *0.00080*	0,022 *0.00095*	0,032 *0.0013*	0,050 *0.0020*
H11	MM06-06007-B90A30-E02 F30M	1,0 *0.040*	0,026 *0.0010*	0,030 *0.0012*	0,042 *0.0017*	0,065 *0.0026*
H12	MM06-06007-B90A30-E02 F30M	0,90 *0.036*	0,020 *0.00080*	0,022 *0.00095*	0,032 *0.0013*	0,050 *0.0020*
H21	MM06-06007-B90A30-E02 F30M	0,90 *0.036*	0,020 *0.00080*	0,022 *0.00095*	0,032 *0.0013*	0,050 *0.0020*

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

MM06 Z3-Copy milling – Cutting data v_c = (m/min)/*(sf/min)*

SMG	F30M					F40M				
	100%	20%	10%	5%	2%	100%	20%	10%	5%	2%
P1	295 *970*	350 *1150*	370 *1225*	405 *1325*	400 *1300*	280 *920*	330 *1075*	355 *1175*	385 *1275*	380 *1250*
P2	285 *940*	340 *1125*	360 *1175*	395 *1300*	390 *1275*	275 *900*	325 *1075*	345 *1125*	375 *1225*	370 *1225*
P3	250 *820*	295 *970*	315 *1025*	340 *1125*	340 *1125*	235 *770*	280 *920*	300 *980*	320 *1050*	325 *1075*
P4	220 *720*	260 *850*	275 *900*	300 *980*	300 *980*	210 *690*	245 *800*	265 *870*	285 *940*	285 *940*
P5	210 *690*	245 *800*	265 *870*	285 *940*	285 *940*	200 *660*	235 *770*	250 *820*	275 *900*	270 *890*
P6	235 *770*	275 *900*	295 *970*	320 *1050*	320 *1050*	225 *740*	265 *870*	285 *940*	305 *1000*	305 *1000*
P7	225 *740*	260 *850*	280 *920*	305 *1000*	300 *980*	210 *690*	250 *820*	265 *870*	290 *950*	285 *940*
P8	210 *690*	245 *800*	265 *870*	285 *940*	285 *940*	200 *660*	235 *770*	250 *820*	270 *890*	270 *890*
P11	215 *710*	255 *840*	270 *890*	295 *970*	295 *970*	205 *670*	240 *790*	260 *850*	280 *920*	280 *920*
P12	135 *445*	160 *520*	165 *560*	180 *590*	180 *590*	125 *410*	150 *490*	160 *520*	170 *560*	170 *560*
M1	230 *750*	275 *900*	290 *950*	315 *1025*	315 *1025*	220 *720*	260 *850*	280 *920*	300 *980*	300 *980*
M2	190 *620*	220 *720*	240 *790*	260 *850*	255 *840*	180 *590*	210 *690*	225 *740*	245 *800*	245 *800*
M3	150 *490*	180 *590*	185 *610*	200 *660*	200 *660*	140 *460*	170 *560*	175 *590*	190 *620*	190 *620*
M4	105 *345*	145 *475*	140 *490*	150 *490*	150 *490*	100 *330*	135 *445*	135 *460*	145 *475*	145 *475*
M5	85 *280*	120 *395*	115 *410*	125 *410*	125 *410*	85 *280*	115 *375*	110 *395*	120 *395*	120 *395*
K1	230 *750*	270 *890*	285 *940*	310 *1025*	310 *1025*	215 *710*	255 *840*	275 *900*	295 *970*	295 *970*
K2	200 *660*	235 *770*	250 *820*	270 *890*	270 *890*	190 *620*	225 *740*	240 *790*	260 *850*	255 *840*
K3	170 *560*	200 *660*	210 *690*	230 *750*	230 *750*	160 *520*	190 *620*	200 *660*	220 *720*	220 *720*
K4	160 *520*	190 *620*	205 *670*	220 *720*	220 *720*	155 *510*	180 *590*	195 *640*	210 *690*	210 *690*
K5	95 *310*	115 *375*	120 *395*	130 *425*	130 *425*	90 *295*	110 *360*	115 *375*	125 *410*	125 *410*
K6	140 *460*	165 *540*	180 *590*	195 *640*	190 *620*	135 *445*	160 *520*	170 *560*	185 *610*	185 *610*
K7	125 *410*	145 *475*	155 *510*	170 *560*	170 *560*	120 *395*	140 *460*	150 *490*	160 *520*	160 *520*
N1	1750 *5750*	2075 *6800*	2200 *7225*	2375 *7800*	2375 *7800*	1675 *5500*	1975 *6475*	2100 *6900*	2275 *7475*	2250 *7375*
N2	710 *2325*	830 *2725*	890 *2925*	960 *3150*	950 *3125*	670 *2200*	790 *2600*	850 *2800*	920 *3025*	910 *2975*
N3	470 *1550*	560 *1825*	590 *1925*	640 *2100*	640 *2100*	450 *1475*	530 *1750*	570 *1875*	610 *2000*	610 *2000*
N11	540 *1775*	630 *2075*	680 *2225*	730 *2400*	730 *2400*	510 *1675*	600 *1975*	650 *2125*	700 *2300*	690 *2275*
S1	49 *160*	65 *215*	65 *230*	70 *230*	70 *230*	46 *150*	65 *215*	65 *215*	70 *230*	65 *215*
S2	39 *130*	55 *180*	55 *180*	55 *180*	55 *180*	37 *120*	50 *165*	50 *180*	55 *180*	55 *180*
S3	34 *110*	47 *155*	46 *155*	50 *165*	49 *160*	32 *105*	44 *145*	44 *150*	47 *155*	47 *155*
S11	75 *245*	95 *310*	95 *310*	100 *330*	100 *330*	70 *230*	90 *295*	90 *295*	95 *310*	95 *310*
S12	50 *165*	65 *215*	65 *215*	70 *230*	70 *230*	48 *155*	60 *195*	60 *215*	65 *215*	65 *215*
S13	27 *90*	38 *125*	37 *130*	40 *130*	40 *130*	26 *85*	36 *120*	35 *120*	38 *125*	38 *125*
H5	44 *145*	55 *180*	55 *180*	60 *195*	60 *195*	42 *140*	50 *165*	55 *180*	55 *180*	55 *180*
H8	44 *145*	55 *180*	55 *195*	60 *195*	60 *195*	42 *140*	55 *180*	55 *180*	60 *195*	60 *195*
H11	55 *180*	70 *230*	70 *230*	75 *245*	75 *245*	55 *180*	65 *215*	65 *230*	70 *230*	75 *245*
H12	80 *260*	100 *330*	100 *345*	110 *360*	110 *360*	75 *245*	95 *310*	95 *330*	105 *345*	105 *345*
H21	44 *145*	55 *180*	55 *195*	60 *195*	60 *195*	42 *140*	55 *180*	55 *180*	60 *195*	60 *195*

MM06 Z2-Copy milling – Insert selection – Roughing – mm/*Inch*

SMG		a_p	f_z			
			100%	40%	20%	10%
P1	MM06-06006-B90S-E02 F30M	2,5 *0.10*	0,030 *0.0012*	0,032 *0.0013*	0,036 *0.0014*	0,048 *0.0019*
P2	MM06-06006-B90S-E02 F30M	2,5 *0.10*	0,032 *0.0013*	0,032 *0.0013*	0,036 *0.0014*	0,048 *0.0019*
P3	MM06-06006-B90S-E02 F30M	2,5 *0.10*	0,030 *0.0012*	0,030 *0.0012*	0,034 *0.0013*	0,046 *0.0018*
P4	MM06-06006-B90-MD02 F30M	2,5 *0.10*	0,030 *0.0012*	0,030 *0.0012*	0,034 *0.0013*	0,044 *0.0017*
P5	MM06-06006-B90-MD02 F30M	2,5 *0.10*	0,028 *0.0011*	0,028 *0.0011*	0,034 *0.0013*	0,044 *0.0017*
P6	MM06-06006-B90-MD02 F30M	2,5 *0.10*	0,028 *0.0011*	0,028 *0.0011*	0,032 *0.0013*	0,044 *0.0017*
P7	MM06-06006-B90-MD02 F30M	2,5 *0.10*	0,028 *0.0011*	0,028 *0.0011*	0,032 *0.0013*	0,044 *0.0017*
P8	MM06-06006-B90-MD02 F30M	2,5 *0.10*	0,030 *0.0012*	0,030 *0.0012*	0,034 *0.0013*	0,046 *0.0018*
P11	MM06-06006-B90-MD02 F30M	2,5 *0.10*	0,028 *0.0011*	0,028 *0.0011*	0,032 *0.0013*	0,044 *0.0017*
P12	MM06-06006-B90-MD02 F30M	2,0 *0.080*	0,020 *0.00080*	0,020 *0.00080*	0,024 *0.00095*	0,030 *0.0012*
M1	MM06-06006-B90S-E02 F30M	2,5 *0.10*	0,032 *0.0013*	0,032 *0.0013*	0,036 *0.0014*	0,048 *0.0019*
M2	MM06-06006-B90S-E02 F30M	2,5 *0.10*	0,028 *0.0011*	0,028 *0.0011*	0,034 *0.0013*	0,044 *0.0017*
M3	MM06-06006-B90S-E02 F30M	2,0 *0.080*	0,024 *0.00095*	0,024 *0.00095*	0,028 *0.0011*	0,036 *0.0014*
M4	MM06-06006-B90-MD02 F30M	1,5 *0.060*	0,022 *0.00085*	0,022 *0.00085*	0,024 *0.00095*	0,030 *0.0013*
M5	MM06-06006-B90-MD02 F30M	1,5 *0.060*	0,022 *0.00085*	0,022 *0.00085*	0,024 *0.00095*	0,030 *0.0013*
K1	MM06-06006-B90S-E02 F30M	2,5 *0.10*	0,032 *0.0013*	0,032 *0.0013*	0,036 *0.0014*	0,048 *0.0019*
K2	MM06-06006-B90S-E02 F30M	2,5 *0.10*	0,028 *0.0011*	0,028 *0.0011*	0,034 *0.0013*	0,044 *0.0017*
K3	MM06-06006-B90S-E02 F30M	2,5 *0.10*	0,028 *0.0011*	0,028 *0.0011*	0,034 *0.0013*	0,044 *0.0017*
K4	MM06-06006-B90S-E02 F30M	2,5 *0.10*	0,028 *0.0011*	0,028 *0.0011*	0,034 *0.0013*	0,044 *0.0017*
K5	MM06-06006-B90S-E02 F30M	2,5 *0.10*	0,026 *0.0010*	0,026 *0.0010*	0,030 *0.0012*	0,040 *0.0016*
K6	MM06-06006-B90-MD02 F30M	2,5 *0.10*	0,028 *0.0011*	0,028 *0.0011*	0,034 *0.0013*	0,044 *0.0017*
K7	MM06-06006-B90-MD02 F30M	2,5 *0.10*	0,026 *0.0010*	0,026 *0.0010*	0,030 *0.0012*	0,040 *0.0016*
N1	MM06-06006-B90S-E02 F30M	2,5 *0.10*	0,040 *0.0016*	0,040 *0.0016*	0,046 *0.0018*	0,060 *0.0024*
N2	MM06-06006-B90S-E02 F30M	2,5 *0.10*	0,040 *0.0016*	0,040 *0.0016*	0,046 *0.0018*	0,060 *0.0024*
N3	MM06-06006-B90S-E02 F30M	2,5 *0.10*	0,040 *0.0016*	0,040 *0.0016*	0,046 *0.0018*	0,060 *0.0024*
N11	MM06-06006-B90S-E02 F30M	2,5 *0.10*	0,040 *0.0016*	0,040 *0.0016*	0,046 *0.0018*	0,060 *0.0024*
S1	MM06-06006-B90-MD02 F30M	1,5 *0.060*	0,022 *0.00085*	0,022 *0.00085*	0,024 *0.00095*	0,030 *0.0013*
S2	MM06-06006-B90-MD02 F30M	1,5 *0.060*	0,022 *0.00085*	0,022 *0.00085*	0,024 *0.00095*	0,030 *0.0013*
S3	MM06-06006-B90-MD02 F30M	1,5 *0.060*	0,020 *0.00080*	0,020 *0.00080*	0,022 *0.00085*	0,028 *0.0012*
S11	MM06-06006-B90-MD02 F30M	1,7 *0.065*	0,025 *0.0010*	0,024 *0.00095*	0,028 *0.0011*	0,036 *0.0014*
S12	MM06-06006-B90-MD02 F30M	1,7 *0.065*	0,025 *0.0010*	0,024 *0.00095*	0,028 *0.0011*	0,036 *0.0014*
S13	MM06-06006-B90-MD02 F30M	1,5 *0.060*	0,022 *0.00085*	0,022 *0.00085*	0,024 *0.00095*	0,030 *0.0013*
H5	MM06-06006-B90-MD02 F30M	2,0 *0.080*	0,020 *0.00080*	0,020 *0.00080*	0,024 *0.00095*	0,030 *0.0012*
H8	MM06-06006-B90-MD02 F30M	1,7 *0.065*	0,016 *0.00065*	0,016 *0.00065*	0,018 *0.00070*	0,022 *0.00095*
H11	MM06-06006-B90-MD02 F30M	2,0 *0.080*	0,020 *0.00080*	0,020 *0.00080*	0,024 *0.00095*	0,030 *0.0012*
H12	MM06-06006-B90-MD02 F30M	1,7 *0.065*	0,016 *0.00065*	0,016 *0.00065*	0,018 *0.00070*	0,022 *0.00095*
H21	MM06-06006-B90-MD02 F30M	1,7 *0.065*	0,016 *0.00065*	0,016 *0.00065*	0,018 *0.00070*	0,022 *0.00095*

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

MM06 Z2-Copy milling – Insert selection – Finishing – mm/*Inch*

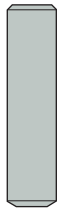
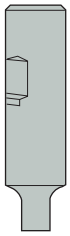
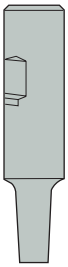
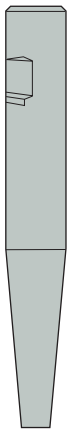
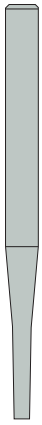
SMG		a_p	f_z			
			15%	10%	5%	2%
P1	MM06-06006-B90PF-M01 F15M	2,0 *0.080*	0,020 *0.00080*	0,024 *0.00095*	0,034 *0.0013*	0,055 *0.0022*
P2	MM06-06006-B90PF-M01 F15M	2,0 *0.080*	0,020 *0.00080*	0,024 *0.00095*	0,034 *0.0013*	0,055 *0.0022*
P3	MM06-06006-B90PF-M01 F15M	2,0 *0.080*	0,020 *0.00080*	0,024 *0.00095*	0,032 *0.0013*	0,050 *0.0020*
P4	MM06-06006-B90PF-M01 F15M	2,0 *0.080*	0,019 *0.00075*	0,022 *0.00085*	0,032 *0.0013*	0,050 *0.0020*
P5	MM06-06006-B90PF-M01 F15M	2,0 *0.080*	0,019 *0.00075*	0,022 *0.00085*	0,030 *0.0012*	0,048 *0.0019*
P6	MM06-06006-B90PF-M01 F15M	2,0 *0.080*	0,019 *0.00075*	0,022 *0.00085*	0,030 *0.0012*	0,048 *0.0019*
P7	MM06-06006-B90PF-M01 F15M	2,0 *0.080*	0,019 *0.00075*	0,022 *0.00085*	0,030 *0.0012*	0,048 *0.0019*
P8	MM06-06006-B90PF-M01 F15M	2,0 *0.080*	0,020 *0.00080*	0,024 *0.00095*	0,032 *0.0013*	0,050 *0.0020*
P11	MM06-06006-B90PF-M01 F15M	2,0 *0.080*	0,019 *0.00075*	0,022 *0.00085*	0,030 *0.0012*	0,048 *0.0019*
P12	MM06-06006-B90PF-M01 F15M	1,7 *0.065*	0,013 *0.00050*	0,015 *0.00060*	0,020 *0.00080*	0,032 *0.0013*
M1	MM06-06006-B90PF-M01 F15M	2,0 *0.080*	0,020 *0.00080*	0,024 *0.00095*	0,034 *0.0013*	0,055 *0.0022*
M2	MM06-06006-B90PF-M01 F15M	2,0 *0.080*	0,019 *0.00075*	0,022 *0.00085*	0,030 *0.0012*	0,048 *0.0019*
M3	MM06-06006-B90PF-M01 F15M	1,7 *0.065*	0,015 *0.00060*	0,018 *0.00070*	0,025 *0.0010*	0,038 *0.0015*
M4	MM06-06006-B90PF-M01 F15M	1,2 *0.048*	0,014 *0.00055*	0,016 *0.00065*	0,022 *0.00085*	0,034 *0.0013*
M5	MM06-06006-B90PF-M01 F15M	1,2 *0.048*	0,014 *0.00055*	0,016 *0.00065*	0,022 *0.00085*	0,034 *0.0013*
K1	MM06-06006-B90PF-M01 F15M	2,0 *0.080*	0,020 *0.00080*	0,024 *0.00095*	0,034 *0.0013*	0,055 *0.0022*
K2	MM06-06006-B90PF-M01 F15M	2,0 *0.080*	0,019 *0.00075*	0,022 *0.00085*	0,030 *0.0012*	0,048 *0.0019*
K3	MM06-06006-B90PF-M01 F15M	2,0 *0.080*	0,019 *0.00075*	0,022 *0.00085*	0,030 *0.0012*	0,048 *0.0019*
K4	MM06-06006-B90PF-M01 F15M	2,0 *0.080*	0,019 *0.00075*	0,022 *0.00085*	0,030 *0.0012*	0,048 *0.0019*
K5	MM06-06006-B90PF-M01 F15M	2,0 *0.080*	0,017 *0.00065*	0,020 *0.00080*	0,028 *0.0011*	0,044 *0.0017*
K6	MM06-06006-B90PF-M01 F15M	2,0 *0.080*	0,019 *0.00075*	0,022 *0.00085*	0,030 *0.0012*	0,048 *0.0019*
K7	MM06-06006-B90PF-M01 F15M	2,0 *0.080*	0,017 *0.00065*	0,020 *0.00080*	0,028 *0.0011*	0,044 *0.0017*
N1	MM06-06006-B90PF-M01 F15M	2,0 *0.080*	0,026 *0.0010*	0,032 *0.0013*	0,044 *0.0017*	0,070 *0.0028*
N2	MM06-06006-B90PF-M01 F15M	2,0 *0.080*	0,026 *0.0010*	0,032 *0.0013*	0,044 *0.0017*	0,070 *0.0028*
N3	MM06-06006-B90PF-M01 F15M	2,0 *0.080*	0,026 *0.0010*	0,032 *0.0013*	0,044 *0.0017*	0,070 *0.0028*
N11	MM06-06006-B90PF-M01 F15M	2,0 *0.080*	0,026 *0.0010*	0,032 *0.0013*	0,044 *0.0017*	0,070 *0.0028*
S1	MM06-06006-B90PF-M01 F15M	1,2 *0.048*	0,014 *0.00055*	0,016 *0.00065*	0,022 *0.00085*	0,034 *0.0013*
S2	MM06-06006-B90PF-M01 F15M	1,2 *0.048*	0,014 *0.00055*	0,016 *0.00065*	0,022 *0.00085*	0,034 *0.0013*
S3	MM06-06006-B90PF-M01 F15M	1,2 *0.048*	0,013 *0.00050*	0,014 *0.00060*	0,020 *0.00080*	0,032 *0.0013*
S11	MM06-06006-B90PF-M01 F15M	1,5 *0.060*	0,015 *0.00060*	0,018 *0.00070*	0,025 *0.0010*	0,038 *0.0015*
S12	MM06-06006-B90PF-M01 F15M	1,5 *0.060*	0,015 *0.00060*	0,018 *0.00070*	0,025 *0.0010*	0,038 *0.0015*
S13	MM06-06006-B90PF-M01 F15M	1,2 *0.048*	0,014 *0.00055*	0,016 *0.00065*	0,022 *0.00085*	0,034 *0.0013*
H5	MM06-06006-B90PF-M01 F15M	1,7 *0.065*	0,013 *0.00050*	0,015 *0.00060*	0,020 *0.00080*	0,032 *0.0013*
H8	MM06-06006-B90PF-M01 F15M	1,5 *0.060*	0,010 *0.00040*	0,012 *0.00048*	0,016 *0.00065*	0,025 *0.0010*
H11	MM06-06006-B90PF-M01 F15M	1,7 *0.065*	0,013 *0.00050*	0,015 *0.00060*	0,020 *0.00080*	0,032 *0.0013*
H12	MM06-06006-B90PF-M01 F15M	1,5 *0.060*	0,010 *0.00040*	0,012 *0.00048*	0,016 *0.00065*	0,025 *0.0010*
H21	MM06-06006-B90PF-M01 F15M	1,5 *0.060*	0,010 *0.00040*	0,012 *0.00048*	0,016 *0.00065*	0,025 *0.0010*

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

MM06 Z2-Copy milling – Cutting data v_c = (m/min)/*(sf/min)*

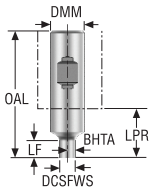
SMG	F15M					F30M					T60M				
	100%	20%	10%	5%	2%	100%	20%	10%	5%	2%	100%	20%	10%	5%	2%
P1	325 *1075*	415 *1350*	430 *1400*	470 *1550*	465 *1525*	275 *900*	345 *1125*	375 *1225*	405 *1325*	405 *1325*	225 *740*	280 *920*	305 *1000*	330 *1075*	325 *1075*
P2	320 *1050*	400 *1300*	420 *1375*	455 *1500*	455 *1500*	265 *870*	335 *1100*	365 *1200*	395 *1300*	395 *1300*	215 *710*	270 *890*	295 *970*	320 *1050*	320 *1050*
P3	275 *900*	345 *1125*	360 *1175*	395 *1300*	395 *1300*	230 *750*	290 *950*	315 *1025*	340 *1125*	340 *1125*	190 *620*	235 *770*	255 *840*	275 *900*	275 *900*
P4	240 *790*	305 *1000*	320 *1050*	345 *1125*	345 *1125*	205 *670*	255 *840*	280 *920*	305 *1000*	300 *980*	165 *540*	205 *670*	225 *740*	245 *800*	245 *800*
P5	230 *750*	290 *950*	305 *1000*	330 *1075*	330 *1075*	195 *640*	245 *800*	265 *870*	290 *950*	290 *950*	160 *520*	200 *660*	215 *710*	235 *770*	235 *770*
P6	260 *850*	330 *1075*	345 *1125*	370 *1225*	370 *1225*	220 *720*	275 *900*	300 *980*	325 *1075*	325 *1075*	180 *590*	225 *740*	245 *800*	265 *870*	260 *850*
P7	245 *800*	310 *1025*	325 *1075*	350 *1150*	350 *1150*	210 *690*	260 *850*	285 *940*	305 *1000*	305 *1000*	170 *560*	210 *690*	230 *750*	250 *820*	245 *800*
P8	230 *750*	290 *950*	305 *1000*	330 *1075*	330 *1075*	195 *640*	245 *800*	265 *870*	285 *940*	290 *950*	160 *520*	200 *660*	215 *710*	230 *750*	235 *770*
P11	240 *790*	300 *980*	315 *1025*	340 *1125*	340 *1125*	200 *660*	255 *840*	275 *900*	300 *980*	295 *970*	165 *540*	205 *670*	220 *720*	240 *790*	240 *790*
P12	145 *475*	185 *610*	190 *620*	205 *670*	205 *670*	130 *425*	160 *520*	170 *560*	180 *590*	180 *590*	105 *345*	130 *425*	135 *445*	145 *475*	145 *475*
M1	255 *840*	325 *1075*	340 *1125*	365 *1200*	365 *1200*	215 *710*	270 *890*	295 *970*	320 *1050*	315 *1025*	175 *570*	220 *720*	240 *790*	260 *850*	255 *840*
M2	210 *690*	265 *870*	275 *900*	300 *980*	300 *980*	175 *570*	220 *720*	240 *790*	260 *850*	260 *850*	145 *475*	180 *590*	195 *640*	210 *690*	210 *690*
M3	165 *540*	210 *690*	210 *710*	230 *750*	230 *750*	140 *460*	180 *590*	185 *620*	205 *670*	200 *660*	115 *375*	145 *475*	150 *510*	165 *540*	165 *540*
M4	125 *410*	160 *520*	160 *560*	170 *560*	170 *560*	110 *360*	140 *460*	140 *490*	155 *510*	155 *510*	90 *295*	115 *375*	115 *395*	125 *410*	125 *410*
M5	105 *345*	135 *445*	130 *475*	145 *475*	145 *475*	95 *310*	120 *395*	120 *410*	130 *425*	130 *425*	75 *245*	95 *310*	95 *330*	105 *345*	105 *345*
K1	250 *820*	320 *1050*	335 *1100*	360 *1175*	360 *1175*	210 *690*	265 *870*	290 *950*	315 *1025*	310 *1025*	170 *560*	215 *710*	235 *770*	255 *840*	250 *820*
K2	220 *720*	275 *900*	290 *950*	315 *1025*	315 *1025*	185 *610*	230 *750*	255 *840*	275 *900*	275 *900*	150 *490*	190 *620*	205 *670*	220 *720*	220 *720*
K3	185 *610*	235 *770*	245 *800*	265 *870*	265 *870*	160 *520*	195 *640*	215 *710*	230 *750*	230 *750*	130 *425*	160 *520*	175 *570*	190 *620*	185 *610*
K4	175 *570*	225 *740*	235 *770*	255 *840*	255 *840*	150 *490*	185 *610*	205 *670*	220 *720*	220 *720*	120 *395*	150 *490*	165 *540*	180 *590*	180 *590*
K5	105 *345*	135 *445*	140 *460*	150 *490*	150 *490*	90 *295*	115 *375*	125 *410*	135 *445*	135 *445*	75 *245*	90 *295*	100 *330*	110 *360*	105 *345*
K6	155 *510*	195 *640*	205 *670*	225 *740*	225 *740*	135 *445*	165 *540*	180 *590*	195 *640*	195 *640*	105 *345*	135 *445*	145 *475*	160 *520*	155 *510*
K7	135 *445*	170 *560*	180 *590*	195 *640*	195 *640*	115 *375*	145 *475*	155 *510*	170 *560*	170 *560*	95 *310*	115 *375*	125 *410*	140 *460*	140 *460*
N1	1975 *6475*	2475 *8125*	2600 *8525*	2800 *9175*	2800 *9175*	1625 *5325*	2050 *6725*	2225 *7300*	2400 *7875*	2375 *7800*	1325 *4350*	1650 *5425*	1800 *5900*	1950 *6400*	1925 *6325*
N2	790 *2600*	1000 *3275*	1050 *3450*	1125 *3700*	1125 *3700*	660 *2175*	820 *2700*	900 *2950*	970 *3175*	960 *3150*	530 *1750*	670 *2200*	730 *2400*	790 *2600*	780 *2550*
N3	530 *1750*	670 *2200*	700 *2300*	760 *2500*	750 *2450*	440 *1450*	550 *1800*	600 *1975*	650 *2125*	640 *2100*	355 *1175*	445 *1450*	485 *1600*	520 *1700*	520 *1700*
N11	600 *1975*	760 *2500*	800 *2625*	860 *2825*	860 *2825*	500 *1650*	630 *2075*	680 *2225*	740 *2425*	730 *2400*	405 *1325*	510 *1675*	550 *1800*	600 *1975*	590 *1925*
S1	60 *195*	75 *245*	75 *260*	80 *260*	80 *260*	50 *165*	65 *215*	65 *230*	70 *230*	70 *230*	42 *140*	55 *180*	55 *180*	60 *195*	60 *195*
S2	47 *155*	60 *195*	60 *215*	65 *215*	65 *215*	42 *140*	55 *180*	55 *180*	60 *195*	60 *195*	34 *110*	43 *140*	43 *150*	47 *155*	47 *155*
S3	41 *135*	50 *165*	50 *180*	55 *180*	55 *180*	36 *120*	46 *150*	46 *160*	50 *165*	50 *165*	29 *95*	37 *120*	38 *130*	40 *130*	40 *130*
S11	85 *280*	105 *345*	105 *360*	115 *375*	115 *375*	75 *245*	95 *310*	95 *310*	105 *345*	100 *330*	60 *195*	75 *245*	75 *260*	85 *280*	85 *280*
S12	55 *180*	75 *245*	75 *245*	80 *260*	80 *260*	50 *165*	65 *215*	65 *215*	70 *230*	70 *230*	41 *135*	55 *180*	55 *180*	55 *180*	55 *180*
S13	33 *110*	42 *140*	42 *150*	45 *150*	45 *150*	29 *95*	37 *120*	37 *130*	40 *130*	40 *130*	24 *80*	30 *100*	30 *105*	33 *110*	33 *110*
H5	48 *155*	60 *195*	60 *215*	65 *215*	65 *215*	42 *140*	55 *180*	55 *180*	60 *195*	60 *195*	34 *110*	43 *140*	45 *150*	49 *160*	49 *160*
H8	48 *155*	60 *195*	60 *215*	65 *215*	65 *215*	44 *145*	55 *180*	55 *195*	60 *195*	60 *195*	36 *120*	46 *150*	46 *155*	50 *165*	50 *165*
H11	60 *195*	80 *260*	80 *260*	85 *280*	85 *280*	55 *180*	70 *230*	70 *230*	75 *245*	75 *245*	44 *145*	55 *180*	55 *195*	60 *195*	60 *195*
H12	85 *280*	110 *360*	110 *375*	120 *395*	120 *395*	80 *260*	100 *330*	100 *345*	110 *360*	110 *360*	65 *215*	80 *260*	85 *280*	90 *295*	90 *295*
H21	48 *155*	60 *195*	60 *215*	65 *215*	65 *215*	44 *145*	55 *180*	55 *195*	60 *195*	60 *195*	36 *120*	46 *150*	46 *155*	50 *165*	50 *165*

Shank design

Design 1, Keyway shank	Design 2, Cylindrical/Weldon back end and 90º front
	
Design 3, Cylindrical/Weldon back end tapered front 87º/89º	**Design 4, Cylindrical/Weldon back end tapered front 80º/85º/87º**
	
Design 5, Cylindrical back end double tapered front end 89º/85º	
	

MM08 Shank – Metric

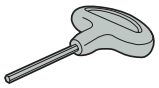




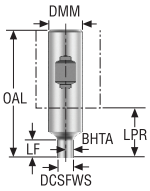
Designation	Item number	Type of mounting	DCSFWS	DMM	OAL	LF	LPR	BHTA°	Design		RPMX	Weight	Spare part no.
			mm	mm	mm	mm	mm					kg	
MM08-16070.3-0007	75034241	Weldon	7,6	16,0	70,0	7,6	22,0	0,0	2	✓	80000	0,1	1
MM08-16075.3-3012	75034242	Weldon	7,6	16,0	75,0	12,0	27,0	3,0	3	✓	80000	0,1	1
MM08-16120.3-5048M	00042863	Weldon	7,6	16,0	120,0	48,0	72,0	5,0	4	✓	80000	0,2	5
MM08-10040.0-0007	00083980	Cylindrical	7,6	10,0	40,0	7,0	7,0	0,0	2	✓	80000	0,1	2
MM08-12065.0-0000	75034240	Cylindrical	7,6	12,0	65,0	0,0	20,0	60,0	1	✓	80000	0,1	1
MM08-16150.0-1030M	00094751	Cylindrical	7,6	16,0	150,0	30,0	102,0	1,0	3	✓	80000	0,2	5
MM08-16150.0-1050M	00094752	Cylindrical	7,6	16,0	150,0	50,0	102,0	1,0	3	✓	80000	0,2	4
MM08-16150.0-1070M	00094754	Cylindrical	7,6	16,0	150,0	70,0	102,0	1,0	3	✓	80000	0,2	4
MM08-10050.0-0007DS	02580665	Cylindrical	7,6	10,0	50,0	7,0	10,0	0,0	2	✓	80000	0,1	3
MM08-10080.0-3023DS	02580702	Cylindrical	7,6	10,0	80,0	22,9	40,0	3,0	4	✓	80000	0,1	3
MM08-12100.0-1035DS	02580719	Cylindrical	7,6	12,0	100,0	35,0	55,0	1,0	3	✓	80000	0,2	3
MM08-12120.0-1050DS	02580720	Cylindrical	7,6	12,0	120,0	50,0	75,0	1,0	3	✓	80000	0,2	3
MM08-16085.0-0016DS	02580675	Cylindrical	7,6	16,0	85,0	16,0	37,0	0,0	2	✓	80000	0,3	3
MM08-16100.0-0032DS	02580687	Cylindrical	7,6	16,0	100,0	32,0	52,0	0,0	2	✓	80000	0,3	3
MM08-16150.0-1050DS	02580722	Cylindrical	7,6	16,0	150,0	50,0	102,0	1,0	3	✓	80000	0,4	3
MM08-16150.0-1070DS	02580727	Cylindrical	7,6	16,0	150,0	70,0	102,0	1,0	3	✓	80000	0,3	3

Spare Parts, included in delivery

Accessories

For cutter	Sleeve	Tension screw	Sleeve key
			
1	MM-05044	MM08-0524	H05-4
5	MM-05044	MM08-0543	H05-4
2	MM-05019	MM08-0524	H05-4
4	MM-05044	MM08-0582	H05-4
3	–	MM08-0524	–

MM08 Shank – *Inch*





Designation	Item number	Type of mounting	DCSFWS	DMM	OAL	LF	LPR	BHTA°	Design		RPMX	Weight	Spare part no.
			inch	inch	inch	inch	inch					lbs	
MM08-0.62-2.8-3-0003	75054600	Weldon	0.299	0.625	2.756	0.299	0.866	0,0	2	✓	80000	0.220	1
MM08-0.62-3.0-3-3004	75054601	Weldon	0.299	0.625	2.953	0.472	1.063	3,0	3	✓	80000	0.220	1
MM08-0.62-4.7-3-5018	75054602	Weldon	0.299	0.625	4.724	1.850	2.835	5,0	4	✓	80000	0.440	2
MM08-0.38-1.6-0-0002	00096119	Cylindrical	0.299	0.375	1.575	0.276	0.276	0,0	2	✓	80000	0.220	3
MM08-0.50-2.6-0-0000	75054599	Cylindrical	0.299	0.500	2.559	0	0.787	60,0	1	✓	80000	0.220	1
MM08-0.62-5.9-0-1011	75054604	Cylindrical	0.299	0.625	5.906	1.181	4.016	1,0	3	✓	80000	0.440	2
MM08-0.62-3.3-0-0006DS	02593402	Cylindrical	0.299	0.625	3.346	0.630	1.457	0,0	2	✓	80000	0.660	4
MM08-0.62-4.0-0-0012DS	02593403	Cylindrical	0.299	0.625	3.937	1.260	2.047	0,0	2	✓	80000	0.660	4
MM08-0.62-5.9-0-1019DS	02593407	Cylindrical	0.299	0.625	5.906	1.969	4.016	1,0	3	✓	80000	0.880	4
MM08-0.62-5.9-0-1027DS	02593410	Cylindrical	0.299	0.625	5.906	2.756	4.016	1,0	3	✓	80000	0.660	4
MM08-0.75-10.0-0-1019DS	02593413	Cylindrical	0.299	0.750	9.843	1.969	7.874	1,0	5	✓	80000	1.980	4

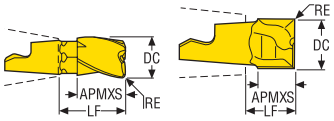
Spare Parts, included in delivery

Accessories

For cutter	Sleeve	Tension screw	Sleeve key
			
1	MM-05044	MM08-0524	H05-4
2	MM-05044	MM08-0543	H05-4
3	MM-05019	MM08-0524	H05-4
4	–	MM08-0524	–

Slot milling/square shoulder milling

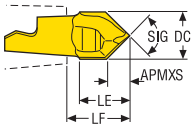




• For Torque keys and torque values, see page 673

Designation	DC	APMXS	RE	LF	RMPX°	C min	C max	FHA°	ZEFP	Wrench		Grades Coated			
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*								T60M	F15M	F30M	F40M
MM08-07805T-R02-D03	7,8 *0.307*	5,4 *0.213*	0,2 *0.008*	6,8 *0.268*	15,0	9,6	15,0	0	2	MM0612		■			
MM08-07809-R02A30-M03	7,8 *0.307*	10,0 *0.394*	0,2 *0.008*	13,0 *0.512*	15,0	9,6	15,0	30	3	MM0416	✓				■
MM08-08005-M03	8,0 *0.315*	5,5 *0.217*	0,0 –	6,8 *0.268*	15,0	9,8	15,8	0	2	MM0612		■			
MM08-08005-R04A8-E03	8,0 *0.315*	5,4 *0.213*	0,4 *0.016*	6,7 *0.264*	15,0	9,8	15,0	8	2	MM0612		■		■	
MM08-08005-R04-MD03	8,0 *0.315*	5,5 *0.217*	0,4 *0.016*	6,8 *0.268*	15,0	9,8	15,0	0	2	MM0612		■		■	
MM08-08005-R04P-M02	8,0 *0.315*	5,4 *0.213*	0,4 *0.016*	6,7 *0.264*	15,0	9,8	15,0	0	2	MM0612				■	
MM08-08005-R10-MD03	8,0 *0.315*	5,4 *0.213*	1,0 *0.039*	6,8 *0.268*	15,0	9,8	13,8	0	2	MM0612				■	
MM08-08009-A30-E03	8,0 *0.315*	10,0 *0.394*	0,0 –	13,0 *0.512*	15,0	9,8	15,0	30	3	MM0416	✓			■	
MM08-08009-R05A30-M03	8,0 *0.315*	10,0 *0.394*	0,5 *0.020*	13,0 *0.512*	15,0	9,8	14,8	30	3	MM0416	✓				■
MM08-08009-R10A30-D03	8,0 *0.315*	10,0 *0.394*	1,0 *0.039*	13,0 *0.512*	15,0	9,8	13,8	30	3	MM0416	✓			■	
MM08-08009-R10A30-E03	8,0 *0.315*	10,0 *0.394*	1,0 *0.039*	13,0 *0.512*	15,0	9,8	13,8	30	3	MM0416	✓			■	
MM08-08009-R10A30-M03	8,0 *0.315*	10,0 *0.394*	1,0 *0.039*	13,0 *0.512*	15,0	9,8	13,8	30	3	MM0416	✓				■
MM08-08009-R20A30-M03	8,0 *0.315*	10,0 *0.394*	2,0 *0.079*	13,0 *0.512*	15,0	9,8	11,8	30	3	MM0416	✓				■
MM08-08009-R30A30-M03	8,0 *0.315*	10,0 *0.394*	3,0 *0.118*	13,0 *0.512*	15,0	9,8	9,8	30	3	MM0416	✓				■

Centre drilling

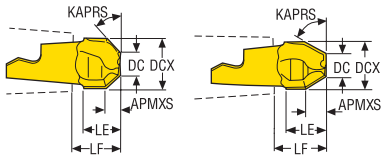




• For Torque keys and torque values, see page 673

Designation	DC	APMXS	LE	LF	SIG°	ZEFP	Wrench	Grades Coated			
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*				T60M	F15M	F30M	F40M
MM08-08004-C90-M03	8,0 *0.315*	3,79 *0.149*	8,0 *0.315*	9,5 *0.374*	90,0	2	MM0612	■			
MM08-08006-C120-M03	8,0 *0.315*	2,15 *0.085*	8,32 *0.328*	9,46 *0.372*	120,0	2	MM0612	■			

Chamfering



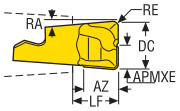


• For Torque keys and torque values, see page 673

Designation	DCX	DC	APMXS	LE	LF	KAPRS°	ZEFP	Wrench	Grades Coated			
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*				T60M	F15M	F30M	F40M
MM08-08005-4520-E03	8,0 *0.315*	3,87 *0.152*	2,1 *0.083*	5,5 *0.217*	6,7 *0.264*	45,0	2	MM0612	■			
MM08-08006-6030-E03	8,0 *0.315*	4,19 *0.165*	3,3 *0.130*	6,45 *0.254*	7,66 *0.302*	60,0	2	MM0612	■			

Plunge milling

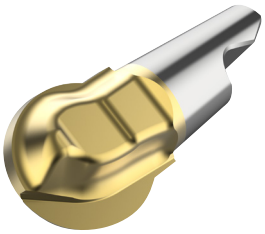


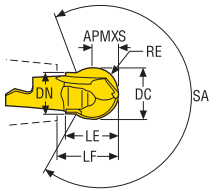


• For Torque keys and torque values, see page 673

Designation	DC	APMXE	RE	AZ	LF	RA°	ZEFP	Wrench	Grades Coated			
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*				T60M	F15M	F30M	F40M
MM08-08005-R10-PL-MD03	8,0 *0.315*	4,0 *0.157*	1,0 *0.039*	5,7 *0.224*	6,78 *0.267*	5,0	2	MM0612			■	

Precision inserts for semi-finishing in all materials

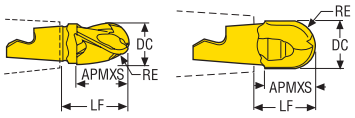




• For Torque keys and torque values, see page 673

Designation	DC	APMXS	RE	LE	LF	DN	SA°	ZEFP	Wrench	Grades Coated			
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*				T60M	F15M	F30M	F40M
MM08-10010-B120PF-M02	10,0 *0.394*	5,0 *0.197*	5,0 *0.197*	10,0 *0.394*	10,97 *0.432*	8,0 *0.315*	254,0	2	MM0612		■		
MM08-10010-B120P-M04	10,0 *0.394*	5,0 *0.197*	5,0 *0.197*	10,0 *0.394*	10,97 *0.432*	8,0 *0.315*	254,0	2	MM0612			■	

Copy milling

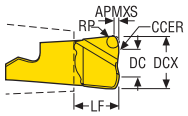


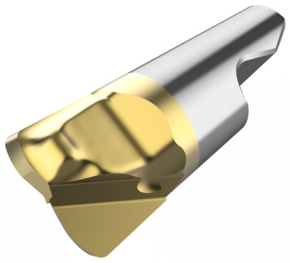


• For Torque keys and torque values, see page 673

Designation	DC	APMXS	RE	LF	FHA°	ZEFP	Wrench		Grades Coated			
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*					T60M	F15M	F30M	F40M
MM08-08008-B90-MD03	8,0 *0.315*	8,1 *0.319*	4,0 *0.157*	9,42 *0.371*	0,0	2	MM0612		■		■	
MM08-08008-B90PF-M01	8,0 *0.315*	6,9 *0.272*	4,0 *0.157*	9,39 *0.370*	0,0	2	MM0612			■		
MM08-08008-B90P-M03	8,0 *0.315*	6,9 *0.272*	4,0 *0.157*	9,39 *0.370*	0,0	2	MM0612				■	
MM08-08008-B90S-E03	8,0 *0.315*	8,1 *0.319*	4,0 *0.157*	9,42 *0.371*	0,0	2	MM0612				■	
MM08-08009-B90A30-E03	8,0 *0.315*	10,0 *0.394*	4,0 *0.157*	13,0 *0.512*	30,0	3	MM0416	✓			■	
MM08-08009-B90A30-M03	8,0 *0.315*	10,0 *0.394*	4,0 *0.157*	13,0 *0.512*	30,0	3	MM0416	✓				■

High feed





• For Torque keys and torque values, see page 673

Designation	DCX	DC	APMXS	RP	CCER	LF	RMPX°	C min	C max	ZEFP	Wrench		Grades Coated			
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*							T60M	F15M	F30M	F40M
MM08-08.40-HF-MD06	8,0 *0.315*	4,0 *0.157*	0,37 *0.015*	0,88 *0.035*	4,0 *0.157*	6,84 *0.269*	5,0	9,8	14,6	2	MM0612				■	

MM08 - Slot and Side milling – Insert selection – mm/*Inch*

SMG		a_p	f_z			
			100%	40%	20%	10%
P1	MM08-08009-R05A30-M03 F40M	1,8 *0.070*	0,044 *0.0017*	0,044 *0.0017*	0,055 *0.0022*	0,070 *0.0028*
P2	MM08-08009-R05A30-M03 F40M	1,8 *0.070*	0,044 *0.0017*	0,046 *0.0018*	0,055 *0.0022*	0,070 *0.0028*
P3	MM08-08009-R05A30-M03 F40M	1,8 *0.070*	0,042 *0.0017*	0,042 *0.0017*	0,050 *0.0020*	0,070 *0.0028*
P4	MM08-08009-R05A30-M03 F40M	1,8 *0.070*	0,042 *0.0017*	0,042 *0.0017*	0,050 *0.0020*	0,065 *0.0026*
P5	MM08-08009-R05A30-M03 F40M	1,8 *0.070*	0,040 *0.0016*	0,042 *0.0017*	0,050 *0.0020*	0,065 *0.0026*
P6	MM08-08009-R05A30-M03 F40M	1,8 *0.070*	0,040 *0.0016*	0,040 *0.0016*	0,048 *0.0019*	0,065 *0.0026*
P7	MM08-08009-R05A30-M03 F40M	1,8 *0.070*	0,040 *0.0016*	0,040 *0.0016*	0,048 *0.0019*	0,065 *0.0026*
P8	MM08-08009-R05A30-M03 F40M	1,8 *0.070*	0,042 *0.0017*	0,042 *0.0017*	0,050 *0.0020*	0,070 *0.0028*
P11	MM08-08009-R05A30-M03 F40M	1,8 *0.070*	0,040 *0.0016*	0,040 *0.0016*	0,048 *0.0019*	0,065 *0.0026*
P12	MM08-08009-R05A30-M03 F40M	1,4 *0.055*	0,028 *0.0011*	0,028 *0.0011*	0,034 *0.0013*	0,044 *0.0017*
M1	MM08-08009-R05A30-M03 F40M	1,8 *0.070*	0,044 *0.0017*	0,046 *0.0018*	0,055 *0.0022*	0,070 *0.0028*
M2	MM08-08009-R05A30-M03 F40M	1,8 *0.070*	0,040 *0.0016*	0,042 *0.0017*	0,050 *0.0020*	0,065 *0.0026*
M3	MM08-08009-R05A30-M03 F40M	1,4 *0.055*	0,034 *0.0013*	0,034 *0.0013*	0,040 *0.0016*	0,055 *0.0022*
M4	MM08-08009-R05A30-M03 F40M	1,0 *0.040*	0,030 *0.0012*	0,030 *0.0012*	0,034 *0.0013*	0,046 *0.0018*
M5	MM08-08009-R05A30-M03 F40M	1,0 *0.040*	0,030 *0.0012*	0,030 *0.0012*	0,034 *0.0013*	0,046 *0.0018*
K1	MM08-08009-R10A30-E03 F30M	1,8 *0.070*	0,050 *0.0020*	0,048 *0.0019*	0,055 *0.0022*	0,075 *0.0030*
K2	MM08-08009-R10A30-E03 F30M	1,8 *0.070*	0,044 *0.0017*	0,044 *0.0017*	0,050 *0.0020*	0,065 *0.0026*
K3	MM08-08009-R10A30-E03 F30M	1,8 *0.070*	0,044 *0.0017*	0,044 *0.0017*	0,050 *0.0020*	0,065 *0.0026*
K4	MM08-08009-R10A30-E03 F30M	1,8 *0.070*	0,044 *0.0017*	0,044 *0.0017*	0,050 *0.0020*	0,065 *0.0026*
K5	MM08-08009-R10A30-D03 F30M	1,8 *0.070*	0,040 *0.0016*	0,040 *0.0016*	0,046 *0.0018*	0,060 *0.0024*
K6	MM08-08009-R10A30-D03 F30M	1,8 *0.070*	0,044 *0.0017*	0,044 *0.0017*	0,050 *0.0020*	0,065 *0.0026*
K7	MM08-08009-R10A30-D03 F30M	1,8 *0.070*	0,040 *0.0016*	0,040 *0.0016*	0,046 *0.0018*	0,060 *0.0024*
N1	MM08-08009-R10A30-E03 F30M	1,8 *0.070*	0,060 *0.0024*	0,060 *0.0024*	0,070 *0.0028*	0,095 *0.0038*
N2	MM08-08009-R10A30-E03 F30M	1,8 *0.070*	0,060 *0.0024*	0,060 *0.0024*	0,070 *0.0028*	0,095 *0.0038*
N3	MM08-08009-R10A30-E03 F30M	1,8 *0.070*	0,060 *0.0024*	0,060 *0.0024*	0,070 *0.0028*	0,095 *0.0038*
N11	MM08-08009-R10A30-E03 F30M	1,8 *0.070*	0,060 *0.0024*	0,060 *0.0024*	0,070 *0.0028*	0,095 *0.0038*
S1	MM08-08009-R10A30-D03 F30M	1,0 *0.040*	0,038 *0.0015*	0,036 *0.0014*	0,036 *0.0014*	0,046 *0.0019*
S2	MM08-08009-R10A30-D03 F30M	1,0 *0.040*	0,038 *0.0015*	0,036 *0.0014*	0,036 *0.0014*	0,046 *0.0019*
S3	MM08-08009-R10A30-D03 F30M	1,0 *0.040*	0,036 *0.0014*	0,034 *0.0013*	0,034 *0.0013*	0,042 *0.0017*
S11	MM08-08009-R05A30-M03 F40M	1,2 *0.048*	0,034 *0.0013*	0,034 *0.0013*	0,040 *0.0016*	0,055 *0.0022*
S12	MM08-08009-R05A30-M03 F40M	1,2 *0.048*	0,034 *0.0013*	0,034 *0.0013*	0,040 *0.0016*	0,055 *0.0022*
S13	MM08-08009-R05A30-M03 F40M	1,0 *0.040*	0,030 *0.0012*	0,030 *0.0012*	0,034 *0.0013*	0,046 *0.0018*
H5	MM08-08009-R10A30-E03 F30M	1,4 *0.055*	0,032 *0.0013*	0,032 *0.0013*	0,034 *0.0013*	0,044 *0.0018*
H8	MM08-08009-R10A30-E03 F30M	1,2 *0.048*	0,026 *0.0010*	0,025 *0.0010*	0,026 *0.0010*	0,034 *0.0013*
H11	MM08-08009-R10A30-E03 F30M	1,4 *0.055*	0,032 *0.0013*	0,032 *0.0013*	0,034 *0.0013*	0,044 *0.0018*
H12	MM08-08009-R10A30-E03 F30M	1,2 *0.048*	0,026 *0.0010*	0,025 *0.0010*	0,026 *0.0010*	0,034 *0.0013*
H21	MM08-08009-R10A30-E03 F30M	1,2 *0.048*	0,026 *0.0010*	0,025 *0.0010*	0,026 *0.0010*	0,034 *0.0013*

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

MM08 - Slot and Side milling – Cutting data v_c = (m/min)/*(sf/min)*

SMG	F30M				F40M				T60M			
	100%	40%	20%	10%	100%	40%	20%	10%	100%	40%	20%	10%
P1	265 *870*	330 *1075*	370 *1225*	410 *1350*	255 *840*	315 *1025*	350 *1150*	385 *1275*	205 *670*	250 *820*	280 *920*	310 *1025*
P2	255 *840*	320 *1050*	360 *1175*	390 *1275*	245 *800*	305 *1000*	340 *1125*	375 *1225*	195 *640*	245 *800*	275 *900*	300 *980*
P3	225 *740*	280 *920*	315 *1025*	340 *1125*	215 *710*	265 *870*	295 *970*	325 *1075*	170 *560*	210 *690*	240 *790*	260 *850*
P4	195 *640*	245 *800*	275 *900*	300 *980*	190 *620*	235 *770*	260 *850*	290 *950*	150 *490*	185 *610*	210 *690*	230 *750*
P5	190 *620*	235 *770*	265 *870*	290 *950*	180 *590*	225 *740*	250 *820*	275 *900*	145 *475*	180 *590*	200 *660*	220 *720*
P6	215 *710*	265 *870*	295 *970*	325 *1075*	205 *670*	255 *840*	280 *920*	310 *1025*	160 *520*	200 *660*	225 *740*	250 *820*
P7	200 *660*	250 *820*	280 *920*	310 *1025*	190 *620*	240 *790*	265 *870*	290 *950*	155 *510*	190 *620*	215 *710*	235 *770*
P8	190 *620*	235 *770*	265 *870*	285 *940*	180 *590*	225 *740*	250 *820*	270 *890*	145 *475*	180 *590*	200 *660*	220 *720*
P11	195 *640*	245 *800*	270 *890*	300 *980*	185 *610*	230 *750*	260 *850*	285 *940*	150 *490*	185 *610*	210 *690*	230 *750*
P12	120 *395*	150 *490*	170 *560*	185 *610*	115 *375*	145 *475*	160 *520*	175 *570*	95 *310*	115 *375*	130 *425*	145 *475*
M1	— —	— —	— —	— —	200 *660*	245 *800*	275 *900*	305 *1000*	160 *520*	195 *640*	220 *720*	240 *790*
M2	— —	— —	— —	— —	165 *540*	200 *660*	225 *740*	250 *820*	130 *425*	160 *520*	180 *590*	200 *660*
M3	— —	— —	— —	— —	130 *425*	160 *520*	175 *570*	195 *640*	105 *345*	130 *425*	145 *475*	155 *510*
M4	— —	— —	— —	— —	100 *330*	120 *395*	135 *445*	150 *490*	80 *260*	100 *330*	110 *360*	120 *395*
M5	— —	— —	— —	— —	80 *260*	100 *330*	115 *375*	125 *410*	65 *215*	85 *280*	90 *295*	100 *330*
K1	205 *670*	255 *840*	285 *940*	310 *1025*	195 *640*	240 *790*	270 *890*	300 *980*	155 *510*	195 *640*	215 *710*	235 *770*
K2	180 *590*	225 *740*	250 *820*	275 *900*	170 *560*	210 *690*	235 *770*	260 *850*	135 *445*	170 *560*	190 *620*	210 *690*
K3	155 *510*	190 *620*	210 *690*	235 *770*	145 *475*	180 *590*	200 *660*	220 *720*	115 *375*	145 *475*	160 *520*	180 *590*
K4	145 *475*	180 *590*	200 *660*	225 *740*	140 *460*	170 *560*	190 *620*	210 *690*	110 *360*	140 *460*	155 *510*	170 *560*
K5	90 *295*	110 *360*	120 *395*	135 *445*	85 *280*	105 *345*	115 *375*	125 *410*	65 *215*	85 *280*	95 *310*	100 *330*
K6	130 *425*	160 *520*	180 *590*	195 *640*	120 *395*	150 *490*	170 *560*	185 *610*	95 *310*	120 *395*	135 *445*	150 *490*
K7	115 *375*	140 *460*	155 *510*	170 *560*	110 *360*	135 *445*	150 *490*	165 *540*	85 *280*	105 *345*	120 *395*	130 *425*
N1	1550 *5075*	1950 *6400*	2150 *7050*	2350 *7700*	1475 *4850*	1850 *6075*	2025 *6650*	2250 *7375*	1175 *3850*	1475 *4850*	1625 *5325*	1800 *5900*
N2	630 *2075*	780 *2550*	870 *2850*	950 *3125*	600 *1975*	750 *2450*	820 *2700*	910 *2975*	475 *1550*	590 *1925*	660 *2175*	720 *2350*
N3	420 *1375*	520 *1700*	580 *1900*	630 *2075*	400 *1300*	495 *1625*	550 *1800*	610 *2000*	315 *1025*	395 *1300*	440 *1450*	485 *1600*
N11	480 *1575*	600 *1975*	660 *2175*	720 *2350*	455 *1500*	570 *1875*	630 *2075*	690 *2275*	360 *1175*	455 *1500*	500 *1650*	550 *1800*
S1	48 *155*	60 *195*	65 *215*	75 *245*	46 *150*	55 *180*	65 *215*	70 *230*	37 *120*	46 *150*	50 *165*	55 *180*
S2	39 *130*	48 *155*	55 *180*	60 *195*	37 *120*	46 *150*	50 *165*	55 *180*	30 *100*	37 *120*	41 *135*	45 *150*
S3	34 *110*	42 *140*	47 *155*	50 *165*	32 *105*	40 *130*	45 *150*	49 *160*	26 *85*	32 *105*	36 *120*	39 *130*
S11	— —	— —	— —	— —	65 *215*	80 *260*	90 *295*	100 *330*	50 *165*	65 *215*	75 *245*	80 *260*
S12	— —	— —	— —	— —	45 *150*	55 *180*	60 *195*	70 *230*	36 *120*	45 *150*	50 *165*	55 *180*
S13	— —	— —	— —	— —	26 *85*	32 *105*	36 *120*	39 *130*	21 *70*	26 *85*	29 *95*	31 *100*
H5	41 *135*	50 *165*	55 *180*	60 *195*	39 *130*	48 *155*	55 *180*	60 *195*	31 *100*	39 *130*	43 *140*	47 *155*
H8	42 *140*	50 *165*	60 *195*	65 *215*	40 *130*	50 *165*	55 *180*	60 *195*	33 *110*	40 *130*	45 *150*	49 *160*
H11	50 *165*	65 *215*	70 *230*	80 *260*	49 *160*	60 *195*	70 *230*	75 *245*	39 *130*	49 *160*	55 *180*	60 *195*
H12	75 *245*	95 *310*	105 *345*	115 *375*	70 *230*	90 *295*	100 *330*	110 *360*	60 *195*	70 *230*	80 *260*	90 *295*
H21	42 *140*	50 *165*	60 *195*	65 *215*	40 *130*	50 *165*	55 *180*	60 *195*	33 *110*	40 *130*	45 *150*	49 *160*

MM08 Z3 – Copy milling – Insert selection – Roughing – mm/*Inch*

SMG		a_p	f_z			
			100%	40%	20%	10%
P1	MM08-08009-B90A30-M03 F40M	1,8 *0.070*	0,055 *0.0022*	0,050 *0.0020*	0,055 *0.0022*	0,070 *0.0028*
P2	MM08-08009-B90A30-M03 F40M	1,8 *0.070*	0,055 *0.0022*	0,050 *0.0020*	0,055 *0.0022*	0,070 *0.0028*
P3	MM08-08009-B90A30-M03 F40M	1,8 *0.070*	0,050 *0.0020*	0,050 *0.0020*	0,050 *0.0020*	0,070 *0.0028*
P4	MM08-08009-B90A30-M03 F40M	1,8 *0.070*	0,050 *0.0020*	0,048 *0.0019*	0,050 *0.0020*	0,065 *0.0026*
P5	MM08-08009-B90A30-M03 F40M	1,8 *0.070*	0,048 *0.0019*	0,048 *0.0019*	0,050 *0.0020*	0,065 *0.0026*
P6	MM08-08009-B90A30-M03 F40M	1,8 *0.070*	0,048 *0.0019*	0,048 *0.0019*	0,050 *0.0020*	0,065 *0.0026*
P7	MM08-08009-B90A30-M03 F40M	1,8 *0.070*	0,048 *0.0019*	0,048 *0.0019*	0,050 *0.0020*	0,065 *0.0026*
P8	MM08-08009-B90A30-M03 F40M	1,8 *0.070*	0,050 *0.0020*	0,050 *0.0020*	0,050 *0.0020*	0,070 *0.0028*
P11	MM08-08009-B90A30-M03 F40M	1,8 *0.070*	0,048 *0.0019*	0,048 *0.0019*	0,050 *0.0020*	0,065 *0.0026*
P12	MM08-08009-B90A30-M03 F40M	1,4 *0.055*	0,034 *0.0013*	0,034 *0.0013*	0,034 *0.0013*	0,044 *0.0017*
M1	MM08-08009-B90A30-M03 F40M	1,8 *0.070*	0,055 *0.0022*	0,050 *0.0020*	0,055 *0.0022*	0,070 *0.0028*
M2	MM08-08009-B90A30-M03 F40M	1,8 *0.070*	0,048 *0.0019*	0,048 *0.0019*	0,050 *0.0020*	0,065 *0.0026*
M3	MM08-08009-B90A30-M03 F40M	1,4 *0.055*	0,040 *0.0016*	0,040 *0.0016*	0,040 *0.0016*	0,055 *0.0022*
M4	MM08-08009-B90A30-M03 F40M	1,0 *0.040*	0,038 *0.0015*	0,036 *0.0014*	0,036 *0.0014*	0,046 *0.0019*
M5	MM08-08009-B90A30-M03 F40M	1,0 *0.040*	0,038 *0.0015*	0,036 *0.0014*	0,036 *0.0014*	0,046 *0.0019*
K1	MM08-08009-B90A30-E03 F30M	1,8 *0.070*	0,055 *0.0022*	0,050 *0.0020*	0,055 *0.0022*	0,070 *0.0028*
K2	MM08-08009-B90A30-E03 F30M	1,8 *0.070*	0,048 *0.0019*	0,048 *0.0019*	0,050 *0.0020*	0,065 *0.0026*
K3	MM08-08009-B90A30-E03 F30M	1,8 *0.070*	0,048 *0.0019*	0,048 *0.0019*	0,050 *0.0020*	0,065 *0.0026*
K4	MM08-08009-B90A30-E03 F30M	1,8 *0.070*	0,048 *0.0019*	0,048 *0.0019*	0,050 *0.0020*	0,065 *0.0026*
K5	MM08-08009-B90A30-M03 F40M	1,8 *0.070*	0,044 *0.0017*	0,042 *0.0017*	0,046 *0.0018*	0,060 *0.0024*
K6	MM08-08009-B90A30-M03 F40M	1,8 *0.070*	0,048 *0.0019*	0,048 *0.0019*	0,050 *0.0020*	0,065 *0.0026*
K7	MM08-08009-B90A30-M03 F40M	1,8 *0.070*	0,044 *0.0017*	0,042 *0.0017*	0,046 *0.0018*	0,060 *0.0024*
N1	MM08-08009-B90A30-E03 F30M	1,8 *0.070*	0,070 *0.0028*	0,065 *0.0026*	0,070 *0.0028*	0,090 *0.0036*
N2	MM08-08009-B90A30-E03 F30M	1,8 *0.070*	0,070 *0.0028*	0,065 *0.0026*	0,070 *0.0028*	0,090 *0.0036*
N3	MM08-08009-B90A30-E03 F30M	1,8 *0.070*	0,070 *0.0028*	0,065 *0.0026*	0,070 *0.0028*	0,090 *0.0036*
N11	MM08-08009-B90A30-E03 F30M	1,8 *0.070*	0,070 *0.0028*	0,065 *0.0026*	0,070 *0.0028*	0,090 *0.0036*
S1	MM08-08009-B90A30-M03 F40M	1,0 *0.040*	0,038 *0.0015*	0,036 *0.0014*	0,036 *0.0014*	0,046 *0.0019*
S2	MM08-08009-B90A30-M03 F40M	1,0 *0.040*	0,038 *0.0015*	0,036 *0.0014*	0,036 *0.0014*	0,046 *0.0019*
S3	MM08-08009-B90A30-M03 F40M	1,0 *0.040*	0,036 *0.0014*	0,034 *0.0013*	0,034 *0.0013*	0,042 *0.0017*
S11	MM08-08009-B90A30-M03 F40M	1,2 *0.048*	0,042 *0.0017*	0,040 *0.0016*	0,042 *0.0017*	0,055 *0.0022*
S12	MM08-08009-B90A30-M03 F40M	1,2 *0.048*	0,042 *0.0017*	0,040 *0.0016*	0,042 *0.0017*	0,055 *0.0022*
S13	MM08-08009-B90A30-M03 F40M	1,0 *0.040*	0,038 *0.0015*	0,036 *0.0014*	0,036 *0.0014*	0,046 *0.0019*
H5	MM08-08009-B90A30-E03 F30M	1,4 *0.055*	0,034 *0.0013*	0,034 *0.0013*	0,034 *0.0013*	0,044 *0.0017*
H8	MM08-08009-B90A30-E03 F30M	1,2 *0.048*	0,028 *0.0011*	0,026 *0.0010*	0,026 *0.0010*	0,034 *0.0013*
H11	MM08-08009-B90A30-E03 F30M	1,4 *0.055*	0,034 *0.0013*	0,034 *0.0013*	0,034 *0.0013*	0,044 *0.0017*
H12	MM08-08009-B90A30-E03 F30M	1,2 *0.048*	0,028 *0.0011*	0,026 *0.0010*	0,026 *0.0010*	0,034 *0.0013*
H21	MM08-08009-B90A30-E03 F30M	1,2 *0.048*	0,028 *0.0011*	0,026 *0.0010*	0,026 *0.0010*	0,034 *0.0013*

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

MM08 Z3 – Copy milling – Insert selection – Finishing – mm/*Inch*

SMG		a_p	f_z			
			15%	10%	5%	2%
P1	MM08-08009-B90A30-E03 F30M	1,8 *0.070*	0,060 *0.0024*	0,070 *0.0028*	0,10 *0.0040*	0,16 *0.0065*
P2	MM08-08009-B90A30-E03 F30M	1,8 *0.070*	0,060 *0.0024*	0,070 *0.0028*	0,10 *0.0040*	0,17 *0.0065*
P3	MM08-08009-B90A30-E03 F30M	1,8 *0.070*	0,060 *0.0024*	0,070 *0.0028*	0,095 *0.0038*	0,16 *0.0065*
P4	MM08-08009-B90A30-E03 F30M	1,8 *0.070*	0,055 *0.0022*	0,065 *0.0026*	0,095 *0.0038*	0,15 *0.0060*
P5	MM08-08009-B90A30-E03 F30M	1,8 *0.070*	0,055 *0.0022*	0,065 *0.0026*	0,090 *0.0036*	0,15 *0.0060*
P6	MM08-08009-B90A30-E03 F30M	1,8 *0.070*	0,055 *0.0022*	0,065 *0.0026*	0,090 *0.0036*	0,15 *0.0060*
P7	MM08-08009-B90A30-E03 F30M	1,8 *0.070*	0,055 *0.0022*	0,065 *0.0026*	0,090 *0.0036*	0,15 *0.0060*
P8	MM08-08009-B90A30-E03 F30M	1,8 *0.070*	0,060 *0.0024*	0,070 *0.0028*	0,095 *0.0038*	0,16 *0.0065*
P11	MM08-08009-B90A30-E03 F30M	1,8 *0.070*	0,055 *0.0022*	0,065 *0.0026*	0,090 *0.0036*	0,15 *0.0060*
P12	MM08-08009-B90A30-E03 F30M	1,4 *0.055*	0,038 *0.0015*	0,044 *0.0017*	0,060 *0.0024*	0,10 *0.0040*
M1	MM08-08009-B90A30-E03 F30M	1,8 *0.070*	0,060 *0.0024*	0,070 *0.0028*	0,10 *0.0040*	0,17 *0.0065*
M2	MM08-08009-B90A30-E03 F30M	1,8 *0.070*	0,055 *0.0022*	0,065 *0.0026*	0,090 *0.0036*	0,15 *0.0060*
M3	MM08-08009-B90A30-E03 F30M	1,4 *0.055*	0,046 *0.0018*	0,055 *0.0022*	0,075 *0.0030*	0,12 *0.0048*
M4	MM08-08009-B90A30-E03 F30M	1,0 *0.040*	0,040 *0.0016*	0,046 *0.0019*	0,065 *0.0026*	0,10 *0.0040*
M5	MM08-08009-B90A30-E03 F30M	1,0 *0.040*	0,040 *0.0016*	0,046 *0.0019*	0,065 *0.0026*	0,10 *0.0040*
K1	MM08-08009-B90A30-E03 F30M	1,8 *0.070*	0,060 *0.0024*	0,070 *0.0028*	0,10 *0.0040*	0,17 *0.0065*
K2	MM08-08009-B90A30-E03 F30M	1,8 *0.070*	0,055 *0.0022*	0,065 *0.0026*	0,090 *0.0036*	0,15 *0.0060*
K3	MM08-08009-B90A30-E03 F30M	1,8 *0.070*	0,055 *0.0022*	0,065 *0.0026*	0,090 *0.0036*	0,15 *0.0060*
K4	MM08-08009-B90A30-E03 F30M	1,8 *0.070*	0,055 *0.0022*	0,065 *0.0026*	0,090 *0.0036*	0,15 *0.0060*
K5	MM08-08009-B90A30-E03 F30M	1,8 *0.070*	0,050 *0.0020*	0,060 *0.0024*	0,080 *0.0032*	0,13 *0.0050*
K6	MM08-08009-B90A30-E03 F30M	1,8 *0.070*	0,055 *0.0022*	0,065 *0.0026*	0,090 *0.0036*	0,15 *0.0060*
K7	MM08-08009-B90A30-E03 F30M	1,8 *0.070*	0,050 *0.0020*	0,060 *0.0024*	0,080 *0.0032*	0,13 *0.0050*
N1	MM08-08009-B90A30-E03 F30M	1,8 *0.070*	0,080 *0.0032*	0,090 *0.0036*	0,13 *0.0050*	0,22 *0.0085*
N2	MM08-08009-B90A30-E03 F30M	1,8 *0.070*	0,080 *0.0032*	0,090 *0.0036*	0,13 *0.0050*	0,22 *0.0085*
N3	MM08-08009-B90A30-E03 F30M	1,8 *0.070*	0,080 *0.0032*	0,090 *0.0036*	0,13 *0.0050*	0,22 *0.0085*
N11	MM08-08009-B90A30-E03 F30M	1,8 *0.070*	0,080 *0.0032*	0,090 *0.0036*	0,13 *0.0050*	0,22 *0.0085*
S1	MM08-08009-B90A30-E03 F30M	1,0 *0.040*	0,040 *0.0016*	0,046 *0.0019*	0,065 *0.0026*	0,10 *0.0040*
S2	MM08-08009-B90A30-E03 F30M	1,0 *0.040*	0,040 *0.0016*	0,046 *0.0019*	0,065 *0.0026*	0,10 *0.0040*
S3	MM08-08009-B90A30-E03 F30M	1,0 *0.040*	0,038 *0.0015*	0,042 *0.0017*	0,060 *0.0024*	0,095 *0.0038*
S11	MM08-08009-B90A30-E03 F30M	1,2 *0.048*	0,046 *0.0018*	0,055 *0.0022*	0,075 *0.0030*	0,12 *0.0048*
S12	MM08-08009-B90A30-E03 F30M	1,2 *0.048*	0,046 *0.0018*	0,055 *0.0022*	0,075 *0.0030*	0,12 *0.0048*
S13	MM08-08009-B90A30-E03 F30M	1,0 *0.040*	0,040 *0.0016*	0,046 *0.0019*	0,065 *0.0026*	0,10 *0.0040*
H5	MM08-08009-B90A30-E03 F30M	1,4 *0.055*	0,038 *0.0015*	0,044 *0.0017*	0,060 *0.0024*	0,10 *0.0040*
H8	MM08-08009-B90A30-E03 F30M	1,2 *0.048*	0,030 *0.0012*	0,034 *0.0013*	0,048 *0.0019*	0,075 *0.0030*
H11	MM08-08009-B90A30-E03 F30M	1,4 *0.055*	0,038 *0.0015*	0,044 *0.0017*	0,060 *0.0024*	0,10 *0.0040*
H12	MM08-08009-B90A30-E03 F30M	1,2 *0.048*	0,030 *0.0012*	0,034 *0.0013*	0,048 *0.0019*	0,075 *0.0030*
H21	MM08-08009-B90A30-E03 F30M	1,2 *0.048*	0,030 *0.0012*	0,034 *0.0013*	0,048 *0.0019*	0,075 *0.0030*

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

MM08 Z3 – Copy milling – Cutting data v_c = (m/min)/*(sf/min)*

SMG	F30M					F40M				
	100%	20%	10%	5%	2%	100%	20%	10%	5%	2%
P1	280 *920*	330 *1075*	355 *1175*	380 *1250*	380 *1250*	265 *870*	315 *1025*	335 *1100*	360 *1175*	360 *1175*
P2	270 *890*	325 *1075*	345 *1125*	370 *1225*	365 *1200*	260 *850*	310 *1025*	325 *1075*	350 *1150*	350 *1150*
P3	235 *770*	280 *920*	295 *970*	320 *1050*	320 *1050*	225 *740*	270 *890*	280 *920*	305 *1000*	300 *980*
P4	210 *690*	250 *820*	265 *870*	280 *920*	280 *920*	200 *660*	235 *770*	250 *820*	270 *890*	270 *890*
P5	200 *660*	235 *770*	250 *820*	270 *890*	270 *890*	190 *620*	225 *740*	240 *790*	260 *850*	255 *840*
P6	225 *740*	265 *870*	280 *920*	305 *1000*	305 *1000*	215 *710*	255 *840*	270 *890*	290 *950*	290 *950*
P7	210 *690*	250 *820*	265 *870*	290 *950*	285 *940*	200 *660*	240 *790*	255 *840*	275 *900*	270 *890*
P8	200 *660*	235 *770*	250 *820*	270 *890*	265 *870*	190 *620*	225 *740*	235 *770*	255 *840*	255 *840*
P11	205 *670*	245 *800*	260 *850*	280 *920*	275 *900*	195 *640*	230 *750*	245 *800*	265 *870*	265 *870*
P12	130 *425*	155 *510*	160 *520*	175 *570*	175 *570*	125 *410*	150 *490*	155 *510*	165 *540*	165 *540*
M1	220 *720*	260 *850*	275 *900*	300 *980*	295 *970*	210 *690*	250 *820*	265 *870*	285 *940*	280 *920*
M2	180 *590*	215 *710*	225 *740*	245 *800*	245 *800*	170 *560*	205 *670*	215 *710*	235 *770*	230 *750*
M3	145 *475*	170 *560*	175 *570*	190 *620*	190 *620*	135 *445*	165 *540*	170 *560*	180 *590*	180 *590*
M4	100 *330*	135 *445*	135 *475*	145 *475*	145 *475*	95 *310*	130 *425*	130 *445*	140 *460*	140 *460*
M5	80 *260*	115 *375*	115 *395*	120 *395*	120 *395*	80 *260*	110 *360*	105 *375*	115 *375*	115 *375*
K1	215 *710*	255 *840*	270 *890*	295 *970*	290 *950*	205 *670*	245 *800*	260 *850*	280 *920*	275 *900*
K2	190 *620*	225 *740*	240 *790*	260 *850*	255 *840*	180 *590*	215 *710*	225 *740*	245 *800*	245 *800*
K3	160 *520*	190 *620*	200 *660*	220 *720*	215 *710*	155 *510*	180 *590*	190 *620*	210 *690*	205 *670*
K4	155 *510*	180 *590*	190 *620*	210 *690*	205 *670*	145 *475*	175 *570*	185 *610*	200 *660*	195 *640*
K5	90 *295*	110 *360*	115 *375*	125 *410*	125 *410*	90 *295*	105 *345*	110 *360*	120 *395*	120 *395*
K6	135 *445*	160 *520*	170 *560*	185 *610*	180 *590*	130 *425*	150 *490*	160 *520*	175 *570*	175 *570*
K7	120 *395*	140 *460*	150 *490*	160 *520*	160 *520*	110 *360*	135 *445*	140 *460*	155 *510*	155 *510*
N1	1625 *5325*	1950 *6400*	2075 *6800*	2225 *7300*	2200 *7225*	1550 *5075*	1850 *6075*	1975 *6475*	2125 *6975*	2100 *6900*
N2	660 *2175*	790 *2600*	830 *2725*	900 *2950*	890 *2925*	630 *2075*	750 *2450*	790 *2600*	850 *2800*	840 *2750*
N3	440 *1450*	520 *1700*	560 *1825*	600 *1975*	590 *1925*	420 *1375*	500 *1650*	530 *1750*	570 *1875*	560 *1825*
N11	500 *1650*	600 *1975*	640 *2100*	680 *2225*	670 *2200*	480 *1575*	570 *1875*	610 *2000*	650 *2125*	640 *2100*
S1	46 *150*	65 *215*	65 *215*	70 *230*	70 *230*	44 *145*	60 *195*	60 *215*	65 *215*	65 *215*
S2	37 *120*	50 *165*	50 *180*	55 *180*	55 *180*	35 *115*	49 *160*	48 *165*	50 *165*	50 *165*
S3	32 *105*	45 *150*	44 *155*	48 *155*	48 *155*	31 *100*	43 *140*	42 *150*	45 *150*	45 *150*
S11	70 *230*	90 *295*	90 *295*	95 *310*	95 *310*	65 *215*	85 *280*	85 *280*	90 *295*	90 *295*
S12	49 *160*	60 *195*	60 *215*	65 *215*	65 *215*	47 *155*	60 *195*	60 *195*	65 *215*	65 *215*
S13	26 *85*	36 *120*	35 *125*	38 *125*	38 *125*	25 *80*	34 *110*	34 *120*	36 *120*	37 *120*
H5	43 *140*	50 *165*	55 *180*	60 *195*	55 *180*	41 *135*	49 *160*	50 *165*	55 *180*	55 *180*
H8	43 *140*	55 *180*	55 *180*	60 *195*	60 *195*	41 *135*	50 *165*	50 *180*	55 *180*	55 *180*
H11	55 *180*	65 *215*	70 *230*	75 *245*	75 *245*	50 *165*	60 *195*	65 *215*	70 *230*	70 *230*
H12	75 *245*	95 *310*	100 *330*	105 *345*	105 *345*	75 *245*	95 *310*	95 *310*	100 *330*	100 *330*
H21	43 *140*	55 *180*	55 *180*	60 *195*	60 *195*	41 *135*	50 *165*	50 *180*	55 *180*	55 *180*

MM08 Z2 – Copy milling – Insert selection – Roughing – mm/*Inch*

SMG		a_p	f_z			
			100%	40%	20%	10%
P1	MM08-08008-B90S-E03 F30M	3,0 *0.12*	0,048 *0.0019*	0,046 *0.0018*	0,055 *0.0022*	0,070 *0.0028*
P2	MM08-08008-B90S-E03 F30M	3,0 *0.12*	0,048 *0.0019*	0,048 *0.0019*	0,055 *0.0022*	0,075 *0.0030*
P3	MM08-08008-B90S-E03 F30M	3,0 *0.12*	0,046 *0.0018*	0,044 *0.0017*	0,050 *0.0020*	0,070 *0.0028*
P4	MM08-08008-B90-MD03 F30M	3,0 *0.12*	0,044 *0.0017*	0,044 *0.0017*	0,050 *0.0020*	0,070 *0.0028*
P5	MM08-08008-B90-MD03 F30M	3,0 *0.12*	0,044 *0.0017*	0,042 *0.0017*	0,050 *0.0020*	0,065 *0.0026*
P6	MM08-08008-B90-MD03 F30M	3,0 *0.12*	0,044 *0.0017*	0,042 *0.0017*	0,050 *0.0020*	0,065 *0.0026*
P7	MM08-08008-B90-MD03 F30M	3,0 *0.12*	0,044 *0.0017*	0,042 *0.0017*	0,050 *0.0020*	0,065 *0.0026*
P8	MM08-08008-B90-MD03 F30M	3,0 *0.12*	0,046 *0.0018*	0,044 *0.0017*	0,050 *0.0020*	0,070 *0.0028*
P11	MM08-08008-B90-MD03 F30M	3,0 *0.12*	0,044 *0.0017*	0,042 *0.0017*	0,050 *0.0020*	0,065 *0.0026*
P12	MM08-08008-B90-MD03 F30M	2,5 *0.10*	0,030 *0.0012*	0,030 *0.0012*	0,034 *0.0013*	0,044 *0.0018*
M1	MM08-08008-B90S-E03 F30M	3,0 *0.12*	0,048 *0.0019*	0,048 *0.0019*	0,055 *0.0022*	0,075 *0.0030*
M2	MM08-08008-B90S-E03 F30M	3,0 *0.12*	0,044 *0.0017*	0,042 *0.0017*	0,050 *0.0020*	0,065 *0.0026*
M3	MM08-08008-B90S-E03 F30M	2,5 *0.10*	0,036 *0.0014*	0,036 *0.0014*	0,040 *0.0016*	0,055 *0.0022*
M4	MM08-08008-B90-MD03 F30M	1,9 *0.075*	0,034 *0.0013*	0,034 *0.0013*	0,036 *0.0014*	0,046 *0.0019*
M5	MM08-08008-B90-MD03 F30M	1,9 *0.075*	0,034 *0.0013*	0,034 *0.0013*	0,036 *0.0014*	0,046 *0.0019*
K1	MM08-08008-B90S-E03 F30M	3,0 *0.12*	0,048 *0.0019*	0,048 *0.0019*	0,055 *0.0022*	0,075 *0.0030*
K2	MM08-08008-B90S-E03 F30M	3,0 *0.12*	0,044 *0.0017*	0,042 *0.0017*	0,050 *0.0020*	0,065 *0.0026*
K3	MM08-08008-B90S-E03 F30M	3,0 *0.12*	0,044 *0.0017*	0,042 *0.0017*	0,050 *0.0020*	0,065 *0.0026*
K4	MM08-08008-B90S-E03 F30M	3,0 *0.12*	0,044 *0.0017*	0,042 *0.0017*	0,050 *0.0020*	0,065 *0.0026*
K5	MM08-08008-B90-MD03 F30M	3,0 *0.12*	0,040 *0.0016*	0,038 *0.0015*	0,046 *0.0018*	0,060 *0.0024*
K6	MM08-08008-B90-MD03 F30M	3,0 *0.12*	0,044 *0.0017*	0,042 *0.0017*	0,050 *0.0020*	0,065 *0.0026*
K7	MM08-08008-B90-MD03 F30M	3,0 *0.12*	0,040 *0.0016*	0,038 *0.0015*	0,046 *0.0018*	0,060 *0.0024*
N1	MM08-08008-B90S-E03 F30M	3,0 *0.12*	0,060 *0.0024*	0,060 *0.0024*	0,070 *0.0028*	0,095 *0.0038*
N2	MM08-08008-B90S-E03 F30M	3,0 *0.12*	0,060 *0.0024*	0,060 *0.0024*	0,070 *0.0028*	0,095 *0.0038*
N3	MM08-08008-B90S-E03 F30M	3,0 *0.12*	0,060 *0.0024*	0,060 *0.0024*	0,070 *0.0028*	0,095 *0.0038*
N11	MM08-08008-B90S-E03 F30M	3,0 *0.12*	0,060 *0.0024*	0,060 *0.0024*	0,070 *0.0028*	0,095 *0.0038*
S1	MM08-08008-B90-MD03 F30M	1,9 *0.075*	0,034 *0.0013*	0,034 *0.0013*	0,036 *0.0014*	0,046 *0.0019*
S2	MM08-08008-B90-MD03 F30M	1,9 *0.075*	0,034 *0.0013*	0,034 *0.0013*	0,036 *0.0014*	0,046 *0.0019*
S3	MM08-08008-B90-MD03 F30M	1,9 *0.075*	0,032 *0.0013*	0,030 *0.0012*	0,034 *0.0013*	0,042 *0.0017*
S11	MM08-08008-B90-MD03 F30M	2,5 *0.10*	0,036 *0.0014*	0,036 *0.0014*	0,042 *0.0017*	0,055 *0.0022*
S12	MM08-08008-B90-MD03 F30M	2,5 *0.10*	0,036 *0.0014*	0,036 *0.0014*	0,042 *0.0017*	0,055 *0.0022*
S13	MM08-08008-B90-MD03 F30M	1,9 *0.075*	0,034 *0.0013*	0,034 *0.0013*	0,036 *0.0014*	0,046 *0.0019*
H5	MM08-08008-B90-MD03 F30M	2,5 *0.10*	0,030 *0.0012*	0,030 *0.0012*	0,034 *0.0013*	0,044 *0.0018*
H8	MM08-08008-B90-MD03 F30M	2,5 *0.10*	0,024 *0.00095*	0,024 *0.00095*	0,026 *0.0010*	0,034 *0.0013*
H11	MM08-08008-B90-MD03 F30M	2,5 *0.10*	0,030 *0.0012*	0,030 *0.0012*	0,034 *0.0013*	0,044 *0.0018*
H12	MM08-08008-B90-MD03 F30M	2,5 *0.10*	0,024 *0.00095*	0,024 *0.00095*	0,026 *0.0010*	0,034 *0.0013*
H21	MM08-08008-B90-MD03 F30M	2,5 *0.10*	0,024 *0.00095*	0,024 *0.00095*	0,026 *0.0010*	0,034 *0.0013*

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

MM08 Z2 – Copy milling – Insert selection – Finishing – mm/*Inch*

SMG		a_p	f_z			
			15%	10%	5%	2%
P1	MM08-08008-B90PF-M01 F15M	3,0 *0.12*	0,020 *0.00080*	0,024 *0.00095*	0,032 *0.0013*	0,050 *0.0020*
P2	MM08-08008-B90PF-M01 F15M	3,0 *0.12*	0,020 *0.00080*	0,024 *0.00095*	0,034 *0.0013*	0,055 *0.0022*
P3	MM08-08008-B90PF-M01 F15M	3,0 *0.12*	0,019 *0.00075*	0,022 *0.00085*	0,032 *0.0013*	0,050 *0.0020*
P4	MM08-08008-B90PF-M01 F15M	3,0 *0.12*	0,019 *0.00075*	0,022 *0.00085*	0,030 *0.0012*	0,048 *0.0019*
P5	MM08-08008-B90PF-M01 F15M	3,0 *0.12*	0,019 *0.00075*	0,022 *0.00085*	0,030 *0.0012*	0,048 *0.0019*
P6	MM08-08008-B90PF-M01 F15M	3,0 *0.12*	0,018 *0.00070*	0,022 *0.00085*	0,030 *0.0012*	0,048 *0.0019*
P7	MM08-08008-B90PF-M01 F15M	3,0 *0.12*	0,018 *0.00070*	0,022 *0.00085*	0,030 *0.0012*	0,048 *0.0019*
P8	MM08-08008-B90PF-M01 F15M	3,0 *0.12*	0,019 *0.00075*	0,022 *0.00085*	0,032 *0.0013*	0,050 *0.0020*
P11	MM08-08008-B90PF-M01 F15M	3,0 *0.12*	0,018 *0.00070*	0,022 *0.00085*	0,030 *0.0012*	0,048 *0.0019*
P12	MM08-08008-B90PF-M01 F15M	2,0 *0.080*	0,013 *0.00050*	0,015 *0.00060*	0,020 *0.00080*	0,032 *0.0013*
M1	MM08-08008-B90PF-M01 F15M	3,0 *0.12*	0,020 *0.00080*	0,024 *0.00095*	0,034 *0.0013*	0,055 *0.0022*
M2	MM08-08008-B90PF-M01 F15M	3,0 *0.12*	0,019 *0.00075*	0,022 *0.00085*	0,030 *0.0012*	0,048 *0.0019*
M3	MM08-08008-B90PF-M01 F15M	2,0 *0.080*	0,015 *0.00060*	0,018 *0.00070*	0,024 *0.00095*	0,038 *0.0015*
M4	MM08-08008-B90PF-M01 F15M	1,7 *0.065*	0,014 *0.00055*	0,015 *0.00065*	0,022 *0.00085*	0,034 *0.0013*
M5	MM08-08008-B90PF-M01 F15M	1,7 *0.065*	0,014 *0.00055*	0,015 *0.00065*	0,022 *0.00085*	0,034 *0.0013*
K1	MM08-08008-B90PF-M01 F15M	3,0 *0.12*	0,020 *0.00080*	0,024 *0.00095*	0,034 *0.0013*	0,055 *0.0022*
K2	MM08-08008-B90PF-M01 F15M	3,0 *0.12*	0,019 *0.00075*	0,022 *0.00085*	0,030 *0.0012*	0,048 *0.0019*
K3	MM08-08008-B90PF-M01 F15M	3,0 *0.12*	0,019 *0.00075*	0,022 *0.00085*	0,030 *0.0012*	0,048 *0.0019*
K4	MM08-08008-B90PF-M01 F15M	3,0 *0.12*	0,019 *0.00075*	0,022 *0.00085*	0,030 *0.0012*	0,048 *0.0019*
K5	MM08-08008-B90PF-M01 F15M	3,0 *0.12*	0,017 *0.00065*	0,020 *0.00080*	0,028 *0.0011*	0,044 *0.0017*
K6	MM08-08008-B90PF-M01 F15M	3,0 *0.12*	0,019 *0.00075*	0,022 *0.00085*	0,030 *0.0012*	0,048 *0.0019*
K7	MM08-08008-B90PF-M01 F15M	3,0 *0.12*	0,017 *0.00065*	0,020 *0.00080*	0,028 *0.0011*	0,044 *0.0017*
N1	MM08-08008-B90PF-M01 F15M	3,0 *0.12*	0,026 *0.0010*	0,030 *0.0012*	0,042 *0.0017*	0,070 *0.0028*
N2	MM08-08008-B90PF-M01 F15M	3,0 *0.12*	0,026 *0.0010*	0,030 *0.0012*	0,042 *0.0017*	0,070 *0.0028*
N3	MM08-08008-B90PF-M01 F15M	3,0 *0.12*	0,026 *0.0010*	0,030 *0.0012*	0,042 *0.0017*	0,070 *0.0028*
N11	MM08-08008-B90PF-M01 F15M	3,0 *0.12*	0,026 *0.0010*	0,030 *0.0012*	0,042 *0.0017*	0,070 *0.0028*
S1	MM08-08008-B90PF-M01 F15M	1,7 *0.065*	0,014 *0.00055*	0,015 *0.00065*	0,022 *0.00085*	0,034 *0.0013*
S2	MM08-08008-B90PF-M01 F15M	1,7 *0.065*	0,014 *0.00055*	0,015 *0.00065*	0,022 *0.00085*	0,034 *0.0013*
S3	MM08-08008-B90PF-M01 F15M	1,7 *0.065*	0,013 *0.00050*	0,014 *0.00060*	0,020 *0.00080*	0,030 *0.0012*
S11	MM08-08008-B90PF-M01 F15M	1,9 *0.075*	0,015 *0.00060*	0,018 *0.00070*	0,024 *0.00095*	0,038 *0.0015*
S12	MM08-08008-B90PF-M01 F15M	1,9 *0.075*	0,015 *0.00060*	0,018 *0.00070*	0,024 *0.00095*	0,038 *0.0015*
S13	MM08-08008-B90PF-M01 F15M	1,7 *0.065*	0,014 *0.00055*	0,015 *0.00065*	0,022 *0.00085*	0,034 *0.0013*
H5	MM08-08008-B90PF-M01 F15M	2,0 *0.080*	0,013 *0.00050*	0,015 *0.00060*	0,020 *0.00080*	0,032 *0.0013*
H8	MM08-08008-B90PF-M01 F15M	1,9 *0.075*	0,010 *0.00040*	0,011 *0.00048*	0,016 *0.00065*	0,025 *0.0010*
H11	MM08-08008-B90PF-M01 F15M	2,0 *0.080*	0,013 *0.00050*	0,015 *0.00060*	0,020 *0.00080*	0,032 *0.0013*
H12	MM08-08008-B90PF-M01 F15M	1,9 *0.075*	0,010 *0.00040*	0,011 *0.00048*	0,016 *0.00065*	0,025 *0.0010*
H21	MM08-08008-B90PF-M01 F15M	1,9 *0.075*	0,010 *0.00040*	0,011 *0.00048*	0,016 *0.00065*	0,025 *0.0010*

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

MM08 Z2 – Copy milling – Cutting data v_c = (m/min)/*(sf/min)*

SMG	F15M					F30M					T60M				
	100%	20%	10%	5%	2%	100%	20%	10%	5%	2%	100%	20%	10%	5%	2%
P1	320 *1050*	405 *1325*	430 *1400*	465 *1525*	465 *1525*	265 *870*	330 *1075*	360 *1175*	385 *1275*	385 *1275*	215 *710*	265 *870*	290 *950*	315 *1025*	310 *1025*
P2	315 *1025*	395 *1300*	420 *1375*	450 *1475*	450 *1475*	260 *850*	320 *1050*	345 *1125*	375 *1225*	370 *1225*	210 *690*	260 *850*	280 *920*	305 *1000*	300 *980*
P3	270 *890*	340 *1125*	360 *1175*	390 *1275*	390 *1275*	225 *740*	280 *920*	300 *980*	325 *1075*	325 *1075*	180 *590*	225 *740*	245 *800*	265 *870*	260 *850*
P4	240 *790*	300 *980*	320 *1050*	345 *1125*	345 *1125*	200 *660*	245 *800*	265 *870*	285 *940*	285 *940*	160 *520*	200 *660*	215 *710*	230 *750*	230 *750*
P5	225 *740*	285 *940*	305 *1000*	330 *1075*	330 *1075*	190 *620*	235 *770*	255 *840*	275 *900*	275 *900*	155 *510*	190 *620*	205 *670*	220 *720*	220 *720*
P6	255 *840*	320 *1050*	340 *1125*	370 *1225*	370 *1225*	210 *690*	265 *870*	285 *940*	310 *1025*	305 *1000*	170 *560*	215 *710*	230 *750*	250 *820*	250 *820*
P7	240 *790*	300 *980*	320 *1050*	350 *1150*	350 *1150*	200 *660*	250 *820*	270 *890*	295 *970*	290 *950*	160 *520*	200 *660*	220 *720*	235 *770*	235 *770*
P8	225 *740*	285 *940*	305 *1000*	330 *1075*	330 *1075*	190 *620*	235 *770*	250 *820*	275 *900*	270 *890*	150 *490*	190 *620*	205 *670*	220 *720*	220 *720*
P11	235 *770*	295 *970*	315 *1025*	340 *1125*	340 *1125*	195 *640*	240 *790*	260 *850*	285 *940*	280 *920*	160 *520*	195 *640*	210 *690*	230 *750*	230 *750*
P12	145 *475*	185 *610*	185 *620*	200 *660*	200 *660*	125 *410*	155 *510*	165 *540*	175 *570*	175 *570*	100 *330*	125 *410*	130 *445*	145 *475*	140 *460*
M1	250 *820*	315 *1025*	335 *1100*	365 *1200*	365 *1200*	210 *690*	260 *850*	280 *920*	305 *1000*	300 *980*	170 *560*	210 *690*	225 *740*	245 *800*	240 *790*
M2	205 *670*	255 *840*	275 *900*	295 *970*	295 *970*	170 *560*	210 *690*	230 *750*	245 *800*	245 *800*	140 *460*	170 *560*	185 *610*	200 *660*	200 *660*
M3	165 *540*	205 *670*	210 *710*	225 *740*	225 *740*	135 *445*	175 *570*	180 *590*	195 *640*	195 *640*	110 *360*	140 *460*	145 *475*	155 *510*	155 *510*
M4	125 *410*	160 *520*	160 *560*	170 *560*	170 *560*	110 *360*	140 *460*	135 *475*	150 *490*	150 *490*	85 *280*	110 *360*	110 *375*	120 *395*	120 *395*
M5	105 *345*	135 *445*	130 *460*	140 *460*	140 *460*	90 *295*	115 *375*	115 *395*	125 *410*	125 *410*	75 *245*	95 *310*	90 *330*	100 *330*	100 *330*
K1	250 *820*	310 *1025*	330 *1075*	360 *1175*	355 *1175*	205 *670*	255 *840*	275 *900*	300 *980*	295 *970*	165 *540*	205 *670*	220 *720*	240 *790*	240 *790*
K2	215 *710*	270 *890*	290 *950*	310 *1025*	310 *1025*	180 *590*	225 *740*	240 *790*	260 *850*	260 *850*	145 *475*	180 *590*	195 *640*	210 *690*	210 *690*
K3	180 *590*	230 *750*	245 *800*	265 *870*	265 *870*	150 *490*	190 *620*	205 *670*	220 *720*	220 *720*	125 *410*	155 *510*	165 *540*	180 *590*	180 *590*
K4	175 *570*	220 *720*	235 *770*	250 *820*	250 *820*	145 *475*	180 *590*	195 *640*	210 *690*	210 *690*	115 *375*	145 *475*	160 *520*	170 *560*	170 *560*
K5	105 *345*	130 *425*	140 *460*	150 *490*	150 *490*	90 *295*	110 *360*	120 *395*	125 *410*	125 *410*	70 *230*	90 *295*	95 *310*	105 *345*	105 *345*
K6	155 *510*	190 *620*	205 *670*	220 *720*	220 *720*	130 *425*	160 *520*	170 *560*	185 *610*	185 *610*	105 *345*	130 *425*	140 *460*	150 *490*	150 *490*
K7	135 *445*	165 *540*	180 *590*	195 *640*	195 *640*	110 *360*	140 *460*	150 *490*	165 *540*	165 *540*	90 *295*	110 *360*	120 *395*	130 *425*	130 *425*
N1	1925 *6325*	2425 *7950*	2575 *8450*	2800 *9175*	2775 *9100*	1550 *5075*	1925 *6325*	2075 *6800*	2250 *7375*	2225 *7300*	1250 *4100*	1550 *5075*	1675 *5500*	1825 *6000*	1800 *5900*
N2	780 *2550*	980 *3225*	1050 *3450*	1125 *3700*	1125 *3700*	630 *2075*	780 *2550*	840 *2750*	910 *2975*	900 *2950*	510 *1675*	630 *2075*	680 *2225*	740 *2425*	730 *2400*
N3	520 *1700*	650 *2125*	700 *2300*	750 *2450*	750 *2450*	420 *1375*	520 *1700*	560 *1825*	610 *2000*	600 *1975*	340 *1125*	420 *1375*	455 *1500*	490 *1600*	485 *1600*
N11	590 *1925*	740 *2425*	800 *2625*	860 *2825*	860 *2825*	480 *1575*	590 *1925*	640 *2100*	700 *2300*	690 *2275*	390 *1275*	480 *1575*	520 *1700*	560 *1825*	560 *1825*
S1	60 *195*	75 *245*	75 *260*	80 *260*	80 *260*	50 *165*	65 *215*	65 *230*	70 *230*	70 *230*	41 *135*	50 *165*	50 *180*	55 *180*	55 *180*
S2	47 *155*	60 *195*	60 *215*	65 *215*	65 *215*	40 *130*	50 *165*	50 *180*	55 *180*	55 *180*	33 *110*	42 *140*	42 *145*	45 *150*	45 *150*
S3	40 *130*	50 *165*	50 *180*	55 *180*	55 *180*	35 *115*	45 *150*	45 *155*	48 *155*	48 *155*	28 *90*	36 *120*	36 *125*	39 *130*	39 *130*
S11	85 *280*	105 *345*	105 *360*	115 *375*	115 *375*	70 *230*	90 *295*	90 *310*	100 *330*	100 *330*	55 *180*	75 *245*	75 *245*	80 *260*	80 *260*
S12	60 *195*	75 *245*	75 *245*	80 *260*	80 *260*	48 *155*	60 *195*	65 *215*	70 *230*	70 *230*	39 *130*	50 *165*	50 *180*	55 *180*	55 *180*
S13	33 *110*	42 *140*	42 *150*	45 *150*	45 *150*	28 *90*	36 *120*	36 *125*	39 *130*	39 *130*	23 *75*	29 *95*	29 *100*	31 *100*	32 *105*
H5	48 *155*	60 *195*	60 *215*	65 *215*	65 *215*	41 *135*	50 *165*	55 *180*	60 *195*	60 *195*	33 *110*	42 *140*	44 *145*	47 *155*	47 *155*
H8	49 *160*	60 *195*	60 *215*	65 *215*	65 *215*	42 *140*	55 *180*	55 *180*	60 *195*	60 *195*	34 *110*	44 *145*	45 *150*	48 *155*	48 *155*
H11	60 *195*	80 *260*	80 *260*	85 *280*	85 *280*	55 *180*	65 *215*	70 *230*	75 *245*	75 *245*	43 *140*	55 *180*	55 *180*	60 *195*	60 *195*
H12	85 *280*	110 *360*	110 *375*	120 *395*	120 *395*	75 *245*	100 *330*	100 *345*	105 *345*	105 *345*	60 *195*	80 *260*	80 *280*	85 *280*	85 *280*
H21	49 *160*	60 *195*	60 *215*	65 *215*	65 *215*	42 *140*	55 *180*	55 *180*	60 *195*	60 *195*	34 *110*	44 *145*	45 *150*	48 *155*	48 *155*

MM08 High-Feed – Insert selection – mm/*Inch*

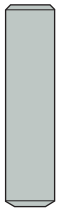
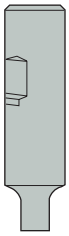
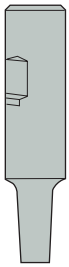
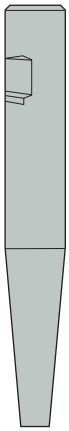
SMG		a_p	f_z			
			100%	70%	30%	20%
P1	MM08-08.40-HF-MD06 F30M	0,26 *0.010*	0,32 *0.013*	0,32 *0.013*	0,42 *0.017*	0,50 *0.020*
P2	MM08-08.40-HF-MD06 F30M	0,26 *0.010*	0,32 *0.013*	0,32 *0.013*	0,42 *0.017*	0,50 *0.020*
P3	MM08-08.40-HF-MD06 F30M	0,26 *0.010*	0,30 *0.012*	0,30 *0.012*	0,40 *0.016*	0,48 *0.019*
P4	MM08-08.40-HF-MD06 F30M	0,26 *0.010*	0,30 *0.012*	0,30 *0.012*	0,38 *0.015*	0,48 *0.019*
P5	MM08-08.40-HF-MD06 F30M	0,26 *0.010*	0,28 *0.011*	0,30 *0.012*	0,38 *0.015*	0,46 *0.018*
P6	MM08-08.40-HF-MD06 F30M	0,26 *0.010*	0,28 *0.011*	0,28 *0.011*	0,38 *0.015*	0,46 *0.018*
P7	MM08-08.40-HF-MD06 F30M	0,26 *0.010*	0,28 *0.011*	0,28 *0.011*	0,38 *0.015*	0,46 *0.018*
P8	MM08-08.40-HF-MD06 F30M	0,26 *0.010*	0,30 *0.012*	0,30 *0.012*	0,40 *0.016*	0,48 *0.019*
P11	MM08-08.40-HF-MD06 F30M	0,26 *0.010*	0,28 *0.011*	0,28 *0.011*	0,38 *0.015*	0,46 *0.018*
P12	MM08-08.40-HF-MD06 F30M	0,20 *0.0080*	0,20 *0.0080*	0,20 *0.0080*	0,25 *0.010*	0,30 *0.012*
M1	MM08-08.40-HF-MD06 F30M	0,26 *0.010*	0,32 *0.013*	0,32 *0.013*	0,42 *0.017*	0,50 *0.020*
M2	MM08-08.40-HF-MD06 F30M	0,26 *0.010*	0,28 *0.011*	0,30 *0.012*	0,38 *0.015*	0,46 *0.018*
M3	MM08-08.40-HF-MD06 F30M	0,20 *0.0080*	0,24 *0.0095*	0,24 *0.0095*	0,30 *0.012*	0,36 *0.014*
M4	MM08-08.40-HF-MD06 F30M	0,16 *0.0065*	0,20 *0.0080*	0,20 *0.0080*	0,26 *0.010*	0,32 *0.013*
M5	MM08-08.40-HF-MD06 F30M	0,16 *0.0065*	0,20 *0.0080*	0,20 *0.0080*	0,26 *0.010*	0,32 *0.013*
K1	MM08-08.40-HF-MD06 F30M	0,26 *0.010*	0,32 *0.013*	0,32 *0.013*	0,42 *0.017*	0,50 *0.020*
K2	MM08-08.40-HF-MD06 F30M	0,26 *0.010*	0,28 *0.011*	0,30 *0.012*	0,38 *0.015*	0,46 *0.018*
K3	MM08-08.40-HF-MD06 F30M	0,26 *0.010*	0,28 *0.011*	0,30 *0.012*	0,38 *0.015*	0,46 *0.018*
K4	MM08-08.40-HF-MD06 F30M	0,26 *0.010*	0,28 *0.011*	0,30 *0.012*	0,38 *0.015*	0,46 *0.018*
K5	MM08-08.40-HF-MD06 F30M	0,26 *0.010*	0,26 *0.010*	0,26 *0.010*	0,34 *0.013*	0,42 *0.017*
K6	MM08-08.40-HF-MD06 F30M	0,26 *0.010*	0,28 *0.011*	0,30 *0.012*	0,38 *0.015*	0,46 *0.018*
K7	MM08-08.40-HF-MD06 F30M	0,26 *0.010*	0,26 *0.010*	0,26 *0.010*	0,34 *0.013*	0,42 *0.017*
N1	MM08-08.40-HF-MD06 F30M	0,26 *0.010*	0,40 *0.016*	0,40 *0.016*	0,55 *0.022*	0,70 *0.028*
N2	MM08-08.40-HF-MD06 F30M	0,26 *0.010*	0,40 *0.016*	0,40 *0.016*	0,55 *0.022*	0,70 *0.028*
N3	MM08-08.40-HF-MD06 F30M	0,26 *0.010*	0,40 *0.016*	0,40 *0.016*	0,55 *0.022*	0,70 *0.028*
N11	MM08-08.40-HF-MD06 F30M	0,26 *0.010*	0,40 *0.016*	0,40 *0.016*	0,55 *0.022*	0,70 *0.028*
S1	MM08-08.40-HF-MD06 F30M	0,16 *0.0065*	0,20 *0.0080*	0,20 *0.0080*	0,26 *0.010*	0,32 *0.013*
S2	MM08-08.40-HF-MD06 F30M	0,16 *0.0065*	0,20 *0.0080*	0,20 *0.0080*	0,26 *0.010*	0,32 *0.013*
S3	MM08-08.40-HF-MD06 F30M	0,16 *0.0065*	0,19 *0.0075*	0,19 *0.0075*	0,24 *0.0095*	0,30 *0.012*
S11	MM08-08.40-HF-MD06 F30M	0,18 *0.0070*	0,24 *0.0095*	0,24 *0.0095*	0,30 *0.012*	0,36 *0.014*
S12	MM08-08.40-HF-MD06 F30M	0,18 *0.0070*	0,24 *0.0095*	0,24 *0.0095*	0,30 *0.012*	0,36 *0.014*
S13	MM08-08.40-HF-MD06 F30M	0,16 *0.0065*	0,20 *0.0080*	0,20 *0.0080*	0,26 *0.010*	0,32 *0.013*
H5	MM08-08.40-HF-MD06 F30M	0,20 *0.0080*	0,20 *0.0080*	0,20 *0.0080*	0,25 *0.010*	0,30 *0.012*
H8	MM08-08.40-HF-MD06 F30M	0,18 *0.0070*	0,16 *0.0065*	0,15 *0.0060*	0,19 *0.0075*	0,24 *0.0095*
H11	MM08-08.40-HF-MD06 F30M	0,20 *0.0080*	0,20 *0.0080*	0,20 *0.0080*	0,25 *0.010*	0,30 *0.012*
H12	MM08-08.40-HF-MD06 F30M	0,18 *0.0070*	0,16 *0.0065*	0,15 *0.0060*	0,19 *0.0075*	0,24 *0.0095*
H21	MM08-08.40-HF-MD06 F30M	0,18 *0.0070*	0,16 *0.0065*	0,15 *0.0060*	0,19 *0.0075*	0,24 *0.0095*

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

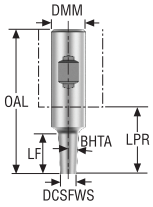
MM08 High-Feed – Cutting data v_c = (m/min)/*(sf/min)*

SMG	F30M			
	100%	70%	30%	20%
P1	250 *820*	305 *1000*	350 *1150*	375 *1225*
P2	245 *800*	300 *980*	345 *1125*	365 *1200*
P3	215 *710*	260 *850*	300 *980*	315 *1025*
P4	190 *620*	230 *750*	265 *870*	275 *900*
P5	180 *590*	220 *720*	255 *840*	265 *870*
P6	205 *670*	250 *820*	285 *940*	300 *980*
P7	190 *620*	235 *770*	270 *890*	285 *940*
P8	180 *590*	220 *720*	250 *820*	265 *870*
P11	185 *610*	230 *750*	260 *850*	275 *900*
P12	120 *395*	145 *475*	165 *540*	175 *570*
M1	195 *640*	240 *790*	275 *900*	295 *970*
M2	165 *540*	195 *640*	230 *750*	240 *790*
M3	130 *425*	155 *510*	180 *590*	190 *620*
M4	100 *330*	120 *395*	140 *460*	145 *475*
M5	85 *280*	100 *330*	115 *375*	120 *395*
K1	195 *640*	235 *770*	270 *890*	290 *950*
K2	170 *560*	210 *690*	240 *790*	255 *840*
K3	145 *475*	175 *570*	205 *670*	215 *710*
K4	140 *460*	170 *560*	195 *640*	205 *670*
K5	85 *280*	105 *345*	120 *395*	125 *410*
K6	125 *410*	150 *490*	170 *560*	180 *590*
K7	110 *360*	130 *425*	150 *490*	160 *520*
N1	1475 *4850*	1800 *5900*	2050 *6725*	2125 *6975*
N2	590 *1925*	720 *2350*	820 *2700*	860 *2825*
N3	395 *1300*	480 *1575*	550 *1800*	570 *1875*
N11	450 *1475*	550 *1800*	630 *2075*	650 *2125*
S1	48 *155*	55 *180*	65 *215*	70 *230*
S2	39 *130*	46 *150*	50 *165*	55 *180*
S3	33 *110*	40 *130*	46 *150*	48 *155*
S11	65 *215*	80 *260*	90 *295*	95 *310*
S12	46 *150*	55 *180*	65 *215*	65 *215*
S13	27 *90*	32 *105*	36 *120*	38 *125*
H5	40 *130*	47 *155*	55 *180*	60 *195*
H8	41 *135*	50 *165*	55 *180*	60 *195*
H11	50 *165*	60 *195*	70 *230*	75 *245*
H12	75 *245*	90 *295*	100 *330*	105 *345*
H21	41 *135*	50 *165*	55 *180*	60 *195*

Shank design

Design 1, Keyway shank	Design 2, Cylindrical/Weldon back end and 90º front
	
Design 3, Cylindrical/Weldon back end tapered front 87º/89º	**Design 4, Cylindrical/Weldon back end tapered front 80º/85º/87º**
	
Design 5, Cylindrical back end double tapered front end 89º/85º	
	

MM10 Shank – Metric





Designation	Item number	Type of mounting	DCSFWS	DMM	OAL	LF	LPR	BHTA°	Design		RPMX	Weight	Spare part no.
			mm	mm	mm	mm	mm					kg	
MM10-20075.3-0010	75012787	Weldon	9,5	20,0	75,0	10,0	25,0	0,0	2	✓	80000	0,2	4
MM10-20085.3-3023	75012788	Weldon	9,5	20,0	85,0	23,0	35,0	3,0	3	✓	80000	0,2	4
MM10-20140.3-5060	75012789	Weldon	9,5	20,0	140,0	60,0	90,0	5,0	4	✓	80000	0,3	5
MM10-10045.0-0007	00083979	Cylindrical	9,6	10,0	45,0	7,0	7,0	0,0	2	✓	80000	0,1	2
MM10-16065.0-0000	75004925	Cylindrical	9,5	16,0	65,0	0,0	17,0	60,0	1	✓	80000	0,1	1
MM10-16160.0-1035M	00094757	Cylindrical	9,5	16,0	160,0	35,0	112,0	1,0	3	✓	80000	0,2	6
MM10-16160.0-1055M	00094758	Cylindrical	9,5	16,0	160,0	55,0	112,0	1,0	3	✓	80000	0,2	7
MM10-16160.0-1075M	00094760	Cylindrical	9,5	16,0	160,0	75,0	112,0	1,0	3	✓	80000	0,2	7
MM10-32250.0-10063	75069366	Cylindrical	9,5	32,0	250,0	63,8	190,0	10,0	4	✓	80000	1,3	5
MM10-12060.0-0007DS	02580667	Cylindrical	9,6	12,0	60,0	7,0	15,0	0,0	2	✓	76300	0,1	3
MM10-12085.0-3024DS	02580704	Cylindrical	9,5	12,0	85,0	23,8	40,0	3,0	4	✓	76300	0,2	3
MM10-12100.0-1035DS	02580733	Cylindrical	9,5	12,0	100,0	35,0	55,0	1,0	3	✓	76300	0,2	3
MM10-14120.0-1050DS	02580736	Cylindrical	9,5	14,0	120,0	50,0	75,0	1,0	3	✓	76300	0,3	3
MM10-16085.0-0020DS	02580688	Cylindrical	9,5	16,0	85,0	20,0	37,0	0,0	2	✓	76300	0,3	3
MM10-16105.0-0040DS	02580689	Cylindrical	9,5	16,0	105,0	40,0	57,0	0,0	2	✓	76300	0,3	3
MM10-16160.0-1055DS	02580748	Cylindrical	9,5	16,0	160,0	55,0	112,0	1,0	3	✓	76300	0,4	3
MM10-16160.0-1075DS	02580749	Cylindrical	9,5	16,0	160,0	75,0	112,0	1,0	3	✓	76300	0,4	3
MM10-20250.0-1055DS	02580750	Cylindrical	9,5	20,0	250,0	55,0	200,0	1,0	5	✓	76300	1,0	3

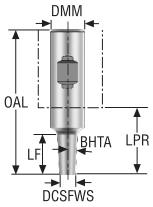
Spare Parts, included in delivery

Accessories

For cutter	Sleeve	Tension screw	Sleeve key
			
4	MM-06048	MM10-0627	–
5	MM-06116	MM10-0627	–
2	MM-06020	MM10-0627	H05-4
1	MM-06032	MM10-0627	–
6	MM-06048	MM10-0651	–
7	MM-06032	MM10-0688	–
3	–	MM10-061027	–

MM10 Shank – *Inch*

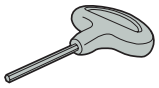




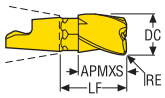
Designation	Item number	Type of mounting	DCSFWS	DMM	OAL	LF	LPR	BHTA°	Design		RPMX	Weight	Spare part no.
			inch	inch	inch	inch	inch					lbs	
MM10-0.75-3.0-3-0004	75015052	Weldon	0.360	0.750	2.953	0.394	0.984	0,0	2	✓	80000	0.440	3
MM10-0.75-3.3-3-3009	75015053	Weldon	0.374	0.750	3.346	0.906	1.378	3,0	3	✓	80000	0.440	3
MM10-0.75-5.5-3-5021	75015054	Weldon	0.374	0.750	5.512	2.150	3.543	5,0	4	✓	80000	0.660	5
MM10-0.38-1.8-0-0002	00096126	Cylindrical	0.360	0.375	1.772	0.276	0.276	0,0	2	✓	80000	0.220	2
MM10-0.62-2.6-0-0000	75005069	Cylindrical	0.374	0.625	2.559	0	0.669	60,0	1	✓	80000	0.220	1
MM10-0.62-6.3-0-1021	75054608	Cylindrical	0.360	0.625	6.299	2.165	4.409	1,0	3	✓	80000	0.440	7
MM10-1.25-10.0-0-10024	00096132	Cylindrical	0.374	1.250	9.843	2.484	7.480	10,0	4	✓	80000	2.870	5
MM10-0.75-10.0-0-1021DS	02593420	Cylindrical	0.360	0.750	9.843	2.165	7.874	1,0	5	✓	76300	1.980	4
MM10-0.75-4.1-0-0015DS	02593422	Cylindrical	0.360	0.750	4.134	1.575	2.165	0,0	2	✓	76300	0.660	4

Spare Parts, included in delivery

Accessories

For cutter	Sleeve	Tension screw	Sleeve key
			
3	MM-06048	MM10-0627	–
5	MM-06116	MM10-0627	–
2	MM-06020	MM10-0627	H05-4
1	MM-06032	MM10-0627	–
7	MM-06032	MM10-0688	–
4	–	MM10-061027	–

Slot milling/square shoulder milling



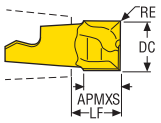


• For Torque keys and torque values, see page 673

Designation	DC	APMXS	RE	LF	RMPX°	C min	C max	FHA°	ZEFP	Wrench		Grades			
												Coated			
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*								T60M	F15M	F30M	F40M
MM10-09512-A30-E03	9,525 *0.375*	11,8 *0.465*	0,0 –	15,72 *0.619*	15,0	11,6	18,8	30	3	MM0416	✓			■	
MM10-09512-R03A30-M03	9,525 *0.375*	11,8 *0.465*	0,3 *0.012*	15,72 *0.619*	15,0	11,6	18,2	30	3	MM0416	✓				■
MM10-09512-R04A30-M03	9,525 *0.375*	11,8 *0.465*	0,4 *0.016*	15,72 *0.619*	15,0	11,6	18,0	30	3	MM0416	✓				■
MM10-09512-R08A30-M03	9,525 *0.375*	11,8 *0.465*	0,8 *0.031*	15,72 *0.619*	15,0	11,6	17,2	30	3	MM0416	✓				■
MM10-09512-R16A30-M03	9,525 *0.375*	11,8 *0.465*	1,6 *0.063*	15,72 *0.619*	15,0	11,6	15,6	30	3	MM0416	✓				■
MM10-10012-A30-E03	10,0 *0.394*	11,8 *0.465*	0,0 –	15,72 *0.619*	15,0	12,2	19,8	30	3	MM0416	✓			■	
MM10-10012-R05A30-M03	10,0 *0.394*	11,8 *0.465*	0,5 *0.020*	15,72 *0.619*	15,0	12,2	18,8	30	3	MM0416	✓				■
MM10-10012-R10A30-D03	10,0 *0.394*	11,8 *0.465*	1,0 *0.039*	15,72 *0.619*	15,0	12,2	17,8	30	3	MM0416	✓			■	
MM10-10012-R10A30-E03	10,0 *0.394*	11,8 *0.465*	1,0 *0.039*	15,72 *0.619*	15,0	12,2	17,8	30	3	MM0416	✓			■	
MM10-10012-R10A30-M03	10,0 *0.394*	11,8 *0.465*	1,0 *0.039*	15,72 *0.619*	15,0	12,2	17,8	30	3	MM0416	✓				■
MM10-10012-R20A30-M03	10,0 *0.394*	11,8 *0.465*	2,0 *0.079*	15,72 *0.619*	15,0	12,2	15,8	30	3	MM0416	✓				■
MM10-10012-R30A30-M03	10,0 *0.394*	11,8 *0.465*	3,0 *0.118*	15,72 *0.619*	15,0	12,2	13,8	30	3	MM0416	✓				■

Slot milling/square shoulder milling

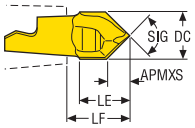




• For Torque keys and torque values, see page 673

Designation	DC	APMXS	RE	LF	RMPX°	C min	C max	FHA°	ZEFP	Wrench	Grades Coated			
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*							T60M	F15M	F30M	F40M
MM10-09510-M03	9,525 *0.375*	6,8 *0.268*	0,0 –	8,5 *0.335*	15,0	11,6	18,8	0	2	MM0612	■			
MM10-09510-R04-MD04	9,525 *0.375*	6,8 *0.268*	0,4 *0.016*	8,49 *0.334*	15,0	11,6	18,0	0	2	MM0612	■			
MM10-09510-R08A8-E03	9,525 *0.375*	6,6 *0.260*	0,8 *0.031*	8,37 *0.330*	15,0	11,6	17,2	8	2	MM0612			■	
MM10-09807T-R03-D04	9,8 *0.386*	6,8 *0.268*	0,3 *0.012*	8,49 *0.334*	15,0	11,9	18,8	0	2	MM0612	■			
MM10-10007-M03	10,0 *0.394*	6,9 *0.272*	0,0 –	8,5 *0.335*	15,0	12,2	19,8	0	2	MM0612	■			
MM10-10007-R04A8-E03	10,0 *0.394*	6,6 *0.260*	0,4 *0.016*	8,44 *0.332*	15,0	12,2	19,0	8	2	MM0612	■		■	
MM10-10007-R04-MD04	10,0 *0.394*	6,8 *0.268*	0,4 *0.016*	8,49 *0.334*	15,0	12,2	19,0	0	2	MM0612	■		■	
MM10-10007-R04P-M03	10,0 *0.394*	6,7 *0.264*	0,4 *0.016*	8,38 *0.330*	15,0	12,2	19,0	0	2	MM0612			■	
MM10-10007-R10-MD04	10,0 *0.394*	6,8 *0.268*	1,0 *0.039*	8,48 *0.334*	15,0	12,2	17,8	0	2	MM0612	■		■	
MM10-10007-R20-MD04	10,0 *0.394*	6,8 *0.268*	2,0 *0.079*	8,46 *0.333*	15,0	12,2	15,8	0	2	MM0612			■	
MM10-10007-R30-MD04	10,0 *0.394*	6,8 *0.268*	3,0 *0.118*	8,44 *0.332*	15,0	12,2	13,8	0	2	MM0612			■	

Centre drilling

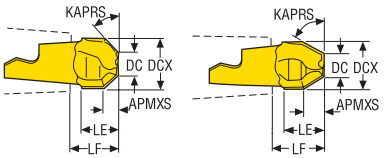




• For Torque keys and torque values, see page 673

Designation	DC	APMXS	LE	LF	SIG°	ZEFP	Wrench	Grades Coated			
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*				T60M	F15M	F30M	F40M
MM10-10005-C90-M03	10,0 *0.394*	4,69 *0.185*	10,0 *0.394*	11,8 *0.465*	90,0	2	MM0612	■			
MM10-10007-C120-M03	10,0 *0.394*	2,7 *0.106*	10,4 *0.409*	11,8 *0.465*	120,0	2	MM0612	■			

Chamfering



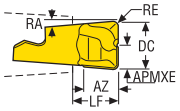


• For Torque keys and torque values, see page 673

Designation	DCX	DC	APMXS	LE	LF	KAPRS°	ZEFP	Wrench	Grades Coated			
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*				T60M	F15M	F30M	F40M
MM10-10007-4525-E03	10,0 *0.394*	4,82 *0.190*	2,6 *0.102*	6,94 *0.273*	8,48 *0.334*	45,0	2	MM0612	■			
MM10-10008-6040-E03	10,0 *0.394*	5,24 *0.206*	4,0 *0.157*	8,05 *0.317*	9,6 *0.378*	60,0	2	MM0612	■			

Plunge milling

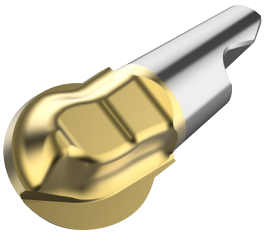


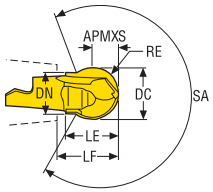


• For Torque keys and torque values, see page 673

Designation	DC	APMXE	RE	AZ	LF	RA°	ZEFP	Wrench	Grades Coated			
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*				T60M	F15M	F30M	F40M
MM10-10007-R10-PL-MD04	10,0 *0.394*	5,0 *0.197*	1,0 *0.039*	7,1 *0.280*	8,48 *0.334*	5,0	2	MM0612			■	

Precision inserts for semi-finishing in all materials

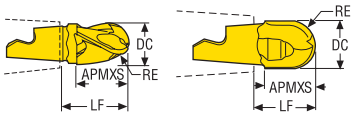




• For Torque keys and torque values, see page 673

Designation	DC	APMXS	RE	LE	LF	DN	SA°	ZEFP	Wrench	Grades Coated			
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*				T60M	F15M	F30M	F40M
MM10-12012-B120P-M05	12,0 *0.472*	6,0 *0.236*	6,0 *0.236*	12,0 *0.472*	13,2 *0.520*	10,0 *0.394*	247,0	2	MM0612			■	
MM10-12712-B120PF-M03	12,7 *0.500*	6,35 *0.250*	6,35 *0.250*	12,4 *0.488*	13,56 *0.534*	10,0 *0.394*	256,0	2	MM0612		■		
MM10-12712-B120P-M05	12,7 *0.500*	6,35 *0.250*	6,35 *0.250*	12,4 *0.488*	13,56 *0.534*	10,0 *0.394*	256,0	2	MM0612			■	

Copy milling

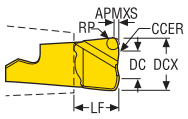


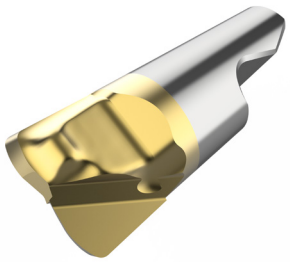


• For Torque keys and torque values, see page 673

Designation	DC	APMXS	RE	LF	FHA°	ZEFP	Wrench		Grades Coated			
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*					T60M	F15M	F30M	F40M
MM10-09510-B90P-M04	9,525 *0.375*	8,7 *0.343*	4,763 *0.188*	11,74 *0.462*	0,0	2	MM0612		■		■	
MM10-10010-B90-MD04	10,0 *0.394*	10,2 *0.402*	5,0 *0.197*	11,77 *0.463*	0,0	2	MM0612		■		■	
MM10-10010-B90PF-M02	10,0 *0.394*	8,73 *0.344*	5,0 *0.197*	11,74 *0.462*	0,0	2	MM0612			■		
MM10-10010-B90P-M04	10,0 *0.394*	8,73 *0.344*	5,0 *0.197*	11,74 *0.462*	0,0	2	MM0612				■	
MM10-10010-B90S-E04	10,0 *0.394*	10,2 *0.402*	5,0 *0.197*	11,77 *0.463*	0,0	2	MM0612				■	
MM10-10012-B90A30-D03	10,0 *0.394*	11,8 *0.465*	5,0 *0.197*	15,72 *0.619*	30,0	3	MM0416	✓			■	
MM10-10012-B90A30-E03	10,0 *0.394*	11,8 *0.465*	5,0 *0.197*	15,72 *0.619*	30,0	3	MM0416	✓			■	
MM10-10012-B90A30-M03	10,0 *0.394*	11,8 *0.465*	5,0 *0.197*	15,72 *0.619*	30,0	3	MM0416	✓				■

High feed





• For Torque keys and torque values, see page 673

Designation	DCX	DC	APMXS	RP	CCER	LF	RMPX°	C min	C max	ZEFP	Wrench		Grades Coated			
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*							T60M	F15M	F30M	F40M
MM10-10.50-HF-MD08	10,0 *0.394*	5,0 *0.197*	0,44 *0.017*	1,13 *0.044*	5,0 *0.197*	8,5 *0.335*	5,0	12,2	18,2	2	MM0612			■	■	

MM10 - Slot and Side milling – Insert selection – mm/*Inch*

SMG		a_p	f_z			
			100%	40%	20%	10%
P1	MM10-10012-R05A30-M03 F40M	2,0 *0.080*	0,044 *0.0017*	0,044 *0.0017*	0,055 *0.0022*	0,070 *0.0028*
P2	MM10-10012-R05A30-M03 F40M	2,0 *0.080*	0,044 *0.0017*	0,044 *0.0017*	0,055 *0.0022*	0,070 *0.0028*
P3	MM10-10012-R05A30-M03 F40M	2,0 *0.080*	0,042 *0.0017*	0,042 *0.0017*	0,050 *0.0020*	0,070 *0.0028*
P4	MM10-10012-R05A30-M03 F40M	2,0 *0.080*	0,042 *0.0017*	0,042 *0.0017*	0,050 *0.0020*	0,065 *0.0026*
P5	MM10-10012-R05A30-M03 F40M	2,0 *0.080*	0,040 *0.0016*	0,040 *0.0016*	0,050 *0.0020*	0,065 *0.0026*
P6	MM10-10012-R05A30-M03 F40M	2,0 *0.080*	0,040 *0.0016*	0,040 *0.0016*	0,048 *0.0019*	0,065 *0.0026*
P7	MM10-10012-R05A30-M03 F40M	2,0 *0.080*	0,040 *0.0016*	0,040 *0.0016*	0,048 *0.0019*	0,065 *0.0026*
P8	MM10-10012-R05A30-M03 F40M	2,0 *0.080*	0,042 *0.0017*	0,042 *0.0017*	0,050 *0.0020*	0,070 *0.0028*
P11	MM10-10012-R05A30-M03 F40M	2,0 *0.080*	0,040 *0.0016*	0,040 *0.0016*	0,048 *0.0019*	0,065 *0.0026*
P12	MM10-10012-R05A30-M03 F40M	1,7 *0.065*	0,028 *0.0011*	0,028 *0.0011*	0,034 *0.0013*	0,044 *0.0017*
M1	MM10-10012-R05A30-M03 F40M	2,0 *0.080*	0,044 *0.0017*	0,044 *0.0017*	0,055 *0.0022*	0,070 *0.0028*
M2	MM10-10012-R05A30-M03 F40M	2,0 *0.080*	0,040 *0.0016*	0,040 *0.0016*	0,050 *0.0020*	0,065 *0.0026*
M3	MM10-10012-R05A30-M03 F40M	1,7 *0.065*	0,032 *0.0013*	0,032 *0.0013*	0,040 *0.0016*	0,050 *0.0020*
M4	MM10-10012-R05A30-M03 F40M	1,2 *0.048*	0,030 *0.0012*	0,030 *0.0012*	0,034 *0.0013*	0,046 *0.0018*
M5	MM10-10012-R05A30-M03 F40M	1,2 *0.048*	0,030 *0.0012*	0,030 *0.0012*	0,034 *0.0013*	0,046 *0.0018*
K1	MM10-10012-R10A30-E03 F30M	2,0 *0.080*	0,048 *0.0019*	0,048 *0.0019*	0,055 *0.0022*	0,075 *0.0030*
K2	MM10-10012-R10A30-E03 F30M	2,0 *0.080*	0,044 *0.0017*	0,042 *0.0017*	0,050 *0.0020*	0,065 *0.0026*
K3	MM10-10012-R10A30-E03 F30M	2,0 *0.080*	0,044 *0.0017*	0,042 *0.0017*	0,050 *0.0020*	0,065 *0.0026*
K4	MM10-10012-R10A30-E03 F30M	2,0 *0.080*	0,044 *0.0017*	0,042 *0.0017*	0,050 *0.0020*	0,065 *0.0026*
K5	MM10-10012-R10A30-D03 F30M	2,0 *0.080*	0,040 *0.0016*	0,038 *0.0015*	0,044 *0.0017*	0,060 *0.0024*
K6	MM10-10012-R10A30-D03 F30M	2,0 *0.080*	0,044 *0.0017*	0,042 *0.0017*	0,050 *0.0020*	0,065 *0.0026*
K7	MM10-10012-R10A30-D03 F30M	2,0 *0.080*	0,040 *0.0016*	0,038 *0.0015*	0,044 *0.0017*	0,060 *0.0024*
N1	MM10-10012-R10A30-E03 F30M	2,0 *0.080*	0,060 *0.0024*	0,060 *0.0024*	0,070 *0.0028*	0,095 *0.0038*
N2	MM10-10012-R10A30-E03 F30M	2,0 *0.080*	0,060 *0.0024*	0,060 *0.0024*	0,070 *0.0028*	0,095 *0.0038*
N3	MM10-10012-R10A30-E03 F30M	2,0 *0.080*	0,060 *0.0024*	0,060 *0.0024*	0,070 *0.0028*	0,095 *0.0038*
N11	MM10-10012-R10A30-E03 F30M	2,0 *0.080*	0,060 *0.0024*	0,060 *0.0024*	0,070 *0.0028*	0,095 *0.0038*
S1	MM10-10012-R10A30-D03 F30M	1,2 *0.048*	0,036 *0.0014*	0,034 *0.0013*	0,036 *0.0014*	0,046 *0.0018*
S2	MM10-10012-R10A30-D03 F30M	1,2 *0.048*	0,036 *0.0014*	0,034 *0.0013*	0,036 *0.0014*	0,046 *0.0018*
S3	MM10-10012-R10A30-D03 F30M	1,2 *0.048*	0,032 *0.0013*	0,032 *0.0013*	0,034 *0.0013*	0,042 *0.0017*
S11	MM10-10012-R05A30-M03 F40M	1,4 *0.055*	0,034 *0.0013*	0,034 *0.0013*	0,040 *0.0016*	0,050 *0.0020*
S12	MM10-10012-R05A30-M03 F40M	1,4 *0.055*	0,034 *0.0013*	0,034 *0.0013*	0,040 *0.0016*	0,050 *0.0020*
S13	MM10-10012-R05A30-M03 F40M	1,2 *0.048*	0,030 *0.0012*	0,030 *0.0012*	0,034 *0.0013*	0,046 *0.0018*
H5	MM10-10012-R10A30-D03 F30M	1,7 *0.065*	0,030 *0.0012*	0,030 *0.0012*	0,034 *0.0013*	0,044 *0.0017*
H8	MM10-10012-R10A30-D03 F30M	1,4 *0.055*	0,025 *0.0010*	0,024 *0.00095*	0,026 *0.0010*	0,034 *0.0013*
H11	MM10-10012-R10A30-D03 F30M	1,7 *0.065*	0,030 *0.0012*	0,030 *0.0012*	0,034 *0.0013*	0,044 *0.0017*
H12	MM10-10012-R10A30-D03 F30M	1,4 *0.055*	0,025 *0.0010*	0,024 *0.00095*	0,026 *0.0010*	0,034 *0.0013*
H21	MM10-10012-R10A30-D03 F30M	1,4 *0.055*	0,025 *0.0010*	0,024 *0.00095*	0,026 *0.0010*	0,034 *0.0013*

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

MM10 - Slot and Side milling – Cutting data v_c = (m/min)/*(sf/min)*

SMG	F30M				F40M				T60M			
	100%	40%	20%	10%	100%	40%	20%	10%	100%	40%	20%	10%
P1	265 *870*	330 *1075*	365 *1200*	405 *1325*	250 *820*	315 *1025*	345 *1125*	385 *1275*	190 *620*	240 *790*	270 *890*	295 *970*
P2	260 *850*	320 *1050*	360 *1175*	390 *1275*	245 *800*	305 *1000*	340 *1125*	375 *1225*	185 *610*	235 *770*	260 *850*	290 *950*
P3	225 *740*	280 *920*	315 *1025*	340 *1125*	215 *710*	265 *870*	295 *970*	325 *1075*	165 *540*	205 *670*	230 *750*	250 *820*
P4	200 *660*	245 *800*	275 *900*	305 *1000*	190 *620*	235 *770*	260 *850*	290 *950*	145 *475*	180 *590*	200 *660*	225 *740*
P5	190 *620*	235 *770*	265 *870*	290 *950*	180 *590*	225 *740*	250 *820*	275 *900*	140 *460*	175 *570*	195 *640*	215 *710*
P6	215 *710*	265 *870*	295 *970*	325 *1075*	205 *670*	250 *820*	280 *920*	310 *1025*	155 *510*	195 *640*	220 *720*	240 *790*
P7	200 *660*	250 *820*	280 *920*	310 *1025*	190 *620*	240 *790*	265 *870*	290 *950*	145 *475*	185 *610*	205 *670*	225 *740*
P8	190 *620*	235 *770*	265 *870*	285 *940*	180 *590*	225 *740*	250 *820*	270 *890*	140 *460*	175 *570*	190 *620*	210 *690*
P11	195 *640*	245 *800*	270 *890*	300 *980*	185 *610*	230 *750*	260 *850*	285 *940*	140 *460*	180 *590*	200 *660*	220 *720*
P12	125 *410*	150 *490*	170 *560*	185 *610*	115 *375*	145 *475*	160 *520*	175 *570*	90 *295*	115 *375*	125 *410*	140 *460*
M1	— —	— —	— —	— —	200 *660*	245 *800*	275 *900*	305 *1000*	150 *490*	190 *620*	210 *690*	235 *770*
M2	— —	— —	— —	— —	165 *540*	200 *660*	225 *740*	250 *820*	125 *410*	155 *510*	175 *570*	190 *620*
M3	— —	— —	— —	— —	130 *425*	160 *520*	175 *570*	195 *640*	100 *330*	125 *410*	140 *460*	155 *510*
M4	— —	— —	— —	— —	100 *330*	120 *395*	135 *445*	150 *490*	75 *245*	95 *310*	105 *345*	115 *375*
M5	— —	— —	— —	— —	80 *260*	100 *330*	115 *375*	125 *410*	65 *215*	80 *260*	90 *295*	95 *310*
K1	205 *670*	255 *840*	285 *940*	310 *1025*	195 *640*	240 *790*	270 *890*	300 *980*	150 *490*	185 *610*	205 *670*	230 *750*
K2	180 *590*	225 *740*	250 *820*	275 *900*	170 *560*	215 *710*	235 *770*	260 *850*	130 *425*	165 *540*	185 *610*	200 *660*
K3	150 *490*	190 *620*	210 *690*	235 *770*	145 *475*	180 *590*	200 *660*	220 *720*	110 *360*	140 *460*	155 *510*	170 *560*
K4	145 *475*	180 *590*	200 *660*	225 *740*	140 *460*	170 *560*	190 *620*	210 *690*	105 *345*	130 *425*	150 *490*	165 *540*
K5	90 *295*	110 *360*	125 *410*	135 *445*	85 *280*	105 *345*	115 *375*	125 *410*	65 *215*	80 *260*	90 *295*	100 *330*
K6	130 *425*	160 *520*	180 *590*	195 *640*	120 *395*	150 *490*	170 *560*	185 *610*	95 *310*	115 *375*	130 *425*	145 *475*
K7	110 *360*	140 *460*	155 *510*	170 *560*	105 *345*	135 *445*	150 *490*	165 *540*	85 *280*	105 *345*	115 *375*	125 *410*
N1	1550 *5075*	1925 *6325*	2150 *7050*	2350 *7700*	1475 *4850*	1825 *6000*	2025 *6650*	2250 *7375*	1125 *3700*	1400 *4600*	1550 *5075*	1725 *5650*
N2	630 *2075*	780 *2550*	870 *2850*	950 *3125*	600 *1975*	740 *2425*	820 *2700*	910 *2975*	450 *1475*	570 *1875*	630 *2075*	690 *2275*
N3	415 *1350*	520 *1700*	580 *1900*	630 *2075*	395 *1300*	495 *1625*	550 *1800*	610 *2000*	300 *980*	380 *1250*	420 *1375*	460 *1500*
N11	475 *1550*	590 *1925*	660 *2175*	720 *2350*	455 *1500*	570 *1875*	620 *2025*	690 *2275*	345 *1125*	430 *1400*	480 *1575*	530 *1750*
S1	48 *155*	60 *195*	65 *215*	75 *245*	46 *150*	55 *180*	65 *215*	70 *230*	36 *120*	45 *150*	50 *165*	55 *180*
S2	38 *125*	48 *155*	55 *180*	60 *195*	37 *120*	46 *150*	50 *165*	55 *180*	29 *95*	36 *120*	40 *130*	44 *145*
S3	34 *110*	42 *140*	47 *155*	50 *165*	32 *105*	40 *130*	45 *150*	49 *160*	25 *80*	32 *105*	35 *115*	38 *125*
S11	— —	— —	— —	— —	65 *215*	80 *260*	90 *295*	100 *330*	50 *165*	65 *215*	70 *230*	75 *245*
S12	— —	— —	— —	— —	45 *150*	55 *180*	60 *195*	70 *230*	35 *115*	43 *140*	49 *160*	55 *180*
S13	— —	— —	— —	— —	26 *85*	32 *105*	36 *120*	39 *130*	20 *65*	25 *80*	28 *90*	30 *100*
H5	41 *135*	50 *165*	55 *180*	60 *195*	39 *130*	48 *155*	55 *180*	60 *195*	30 *100*	38 *125*	42 *140*	46 *150*
H8	42 *140*	50 *165*	60 *195*	65 *215*	40 *130*	50 *165*	55 *180*	60 *195*	31 *100*	39 *130*	44 *145*	48 *155*
H11	50 *165*	65 *215*	70 *230*	80 *260*	49 *160*	60 *195*	70 *230*	75 *245*	38 *125*	48 *155*	55 *180*	60 *195*
H12	75 *245*	95 *310*	105 *345*	115 *375*	70 *230*	90 *295*	100 *330*	110 *360*	55 *180*	70 *230*	80 *260*	85 *280*
H21	42 *140*	50 *165*	60 *195*	65 *215*	40 *130*	50 *165*	55 *180*	60 *195*	31 *100*	39 *130*	44 *145*	48 *155*

MM10 Z3 – Copy milling – Insert selection – Roughing – mm/*Inch*

SMG		a_p	f_z			
			100%	40%	20%	10%
P1	MM10-10012-B90A30-M03 F40M	2,0 *0.080*	0,055 *0.0022*	0,050 *0.0020*	0,055 *0.0022*	0,070 *0.0028*
P2	MM10-10012-B90A30-M03 F40M	2,0 *0.080*	0,055 *0.0022*	0,050 *0.0020*	0,055 *0.0022*	0,075 *0.0030*
P3	MM10-10012-B90A30-M03 F40M	2,0 *0.080*	0,050 *0.0020*	0,050 *0.0020*	0,050 *0.0020*	0,070 *0.0028*
P4	MM10-10012-B90A30-M03 F40M	2,0 *0.080*	0,050 *0.0020*	0,048 *0.0019*	0,050 *0.0020*	0,065 *0.0026*
P5	MM10-10012-B90A30-M03 F40M	2,0 *0.080*	0,050 *0.0020*	0,048 *0.0019*	0,050 *0.0020*	0,065 *0.0026*
P6	MM10-10012-B90A30-M03 F40M	2,0 *0.080*	0,050 *0.0020*	0,048 *0.0019*	0,050 *0.0020*	0,065 *0.0026*
P7	MM10-10012-B90A30-M03 F40M	2,0 *0.080*	0,050 *0.0020*	0,048 *0.0019*	0,050 *0.0020*	0,065 *0.0026*
P8	MM10-10012-B90A30-M03 F40M	2,0 *0.080*	0,050 *0.0020*	0,050 *0.0020*	0,050 *0.0020*	0,070 *0.0028*
P11	MM10-10012-B90A30-M03 F40M	2,0 *0.080*	0,050 *0.0020*	0,048 *0.0019*	0,050 *0.0020*	0,065 *0.0026*
P12	MM10-10012-B90A30-M03 F40M	1,7 *0.065*	0,034 *0.0013*	0,034 *0.0013*	0,034 *0.0013*	0,044 *0.0018*
M1	MM10-10012-B90A30-M03 F40M	2,0 *0.080*	0,055 *0.0022*	0,050 *0.0020*	0,055 *0.0022*	0,075 *0.0030*
M2	MM10-10012-B90A30-M03 F40M	2,0 *0.080*	0,050 *0.0020*	0,048 *0.0019*	0,050 *0.0020*	0,065 *0.0026*
M3	MM10-10012-B90A30-M03 F40M	1,7 *0.065*	0,042 *0.0017*	0,040 *0.0016*	0,042 *0.0017*	0,055 *0.0022*
M4	MM10-10012-B90A30-M03 F40M	1,2 *0.048*	0,038 *0.0015*	0,036 *0.0014*	0,036 *0.0014*	0,046 *0.0019*
M5	MM10-10012-B90A30-M03 F40M	1,2 *0.048*	0,038 *0.0015*	0,036 *0.0014*	0,036 *0.0014*	0,046 *0.0019*
K1	MM10-10012-B90A30-E03 F30M	2,0 *0.080*	0,055 *0.0022*	0,050 *0.0020*	0,055 *0.0022*	0,075 *0.0030*
K2	MM10-10012-B90A30-E03 F30M	2,0 *0.080*	0,050 *0.0020*	0,048 *0.0019*	0,050 *0.0020*	0,065 *0.0026*
K3	MM10-10012-B90A30-E03 F30M	2,0 *0.080*	0,050 *0.0020*	0,048 *0.0019*	0,050 *0.0020*	0,065 *0.0026*
K4	MM10-10012-B90A30-E03 F30M	2,0 *0.080*	0,050 *0.0020*	0,048 *0.0019*	0,050 *0.0020*	0,065 *0.0026*
K5	MM10-10012-B90A30-D03 F30M	2,0 *0.080*	0,044 *0.0017*	0,042 *0.0017*	0,046 *0.0018*	0,060 *0.0024*
K6	MM10-10012-B90A30-D03 F30M	2,0 *0.080*	0,050 *0.0020*	0,048 *0.0019*	0,050 *0.0020*	0,065 *0.0026*
K7	MM10-10012-B90A30-D03 F30M	2,0 *0.080*	0,044 *0.0017*	0,042 *0.0017*	0,046 *0.0018*	0,060 *0.0024*
N1	MM10-10012-B90A30-E03 F30M	2,0 *0.080*	0,070 *0.0028*	0,065 *0.0026*	0,070 *0.0028*	0,095 *0.0038*
N2	MM10-10012-B90A30-E03 F30M	2,0 *0.080*	0,070 *0.0028*	0,065 *0.0026*	0,070 *0.0028*	0,095 *0.0038*
N3	MM10-10012-B90A30-E03 F30M	2,0 *0.080*	0,070 *0.0028*	0,065 *0.0026*	0,070 *0.0028*	0,095 *0.0038*
N11	MM10-10012-B90A30-E03 F30M	2,0 *0.080*	0,070 *0.0028*	0,065 *0.0026*	0,070 *0.0028*	0,095 *0.0038*
S1	MM10-10012-B90A30-D03 F30M	1,2 *0.048*	0,038 *0.0015*	0,036 *0.0014*	0,036 *0.0014*	0,046 *0.0019*
S2	MM10-10012-B90A30-D03 F30M	1,2 *0.048*	0,038 *0.0015*	0,036 *0.0014*	0,036 *0.0014*	0,046 *0.0019*
S3	MM10-10012-B90A30-D03 F30M	1,2 *0.048*	0,036 *0.0014*	0,034 *0.0013*	0,034 *0.0013*	0,042 *0.0017*
S11	MM10-10012-B90A30-M03 F40M	1,4 *0.055*	0,042 *0.0017*	0,042 *0.0017*	0,042 *0.0017*	0,055 *0.0022*
S12	MM10-10012-B90A30-M03 F40M	1,4 *0.055*	0,042 *0.0017*	0,042 *0.0017*	0,042 *0.0017*	0,055 *0.0022*
S13	MM10-10012-B90A30-M03 F40M	1,2 *0.048*	0,038 *0.0015*	0,036 *0.0014*	0,036 *0.0014*	0,046 *0.0019*
H5	MM10-10012-B90A30-D03 F30M	1,7 *0.065*	0,034 *0.0013*	0,034 *0.0013*	0,034 *0.0013*	0,044 *0.0018*
H8	MM10-10012-B90A30-D03 F30M	1,4 *0.055*	0,028 *0.0011*	0,026 *0.0010*	0,026 *0.0010*	0,034 *0.0013*
H11	MM10-10012-B90A30-D03 F30M	1,7 *0.065*	0,034 *0.0013*	0,034 *0.0013*	0,034 *0.0013*	0,044 *0.0018*
H12	MM10-10012-B90A30-D03 F30M	1,4 *0.055*	0,028 *0.0011*	0,026 *0.0010*	0,026 *0.0010*	0,034 *0.0013*
H21	MM10-10012-B90A30-D03 F30M	1,4 *0.055*	0,028 *0.0011*	0,026 *0.0010*	0,026 *0.0010*	0,034 *0.0013*

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

MM10 Z3 – Copy milling – Insert selection – Finishing – mm/*Inch*

SMG		a_p	f_z			
			15%	10%	5%	2%
P1	MM10-10012-B90A30-E03 F30M	2,0 *0.080*	0,060 *0.0024*	0,070 *0.0028*	0,10 *0.0040*	0,16 *0.0065*
P2	MM10-10012-B90A30-E03 F30M	2,0 *0.080*	0,060 *0.0024*	0,075 *0.0030*	0,10 *0.0040*	0,16 *0.0065*
P3	MM10-10012-B90A30-E03 F30M	2,0 *0.080*	0,060 *0.0024*	0,070 *0.0028*	0,095 *0.0038*	0,15 *0.0060*
P4	MM10-10012-B90A30-E03 F30M	2,0 *0.080*	0,055 *0.0022*	0,065 *0.0026*	0,095 *0.0038*	0,15 *0.0060*
P5	MM10-10012-B90A30-E03 F30M	2,0 *0.080*	0,055 *0.0022*	0,065 *0.0026*	0,090 *0.0036*	0,15 *0.0060*
P6	MM10-10012-B90A30-E03 F30M	2,0 *0.080*	0,055 *0.0022*	0,065 *0.0026*	0,090 *0.0036*	0,15 *0.0060*
P7	MM10-10012-B90A30-E03 F30M	2,0 *0.080*	0,055 *0.0022*	0,065 *0.0026*	0,090 *0.0036*	0,15 *0.0060*
P8	MM10-10012-B90A30-E03 F30M	2,0 *0.080*	0,060 *0.0024*	0,070 *0.0028*	0,095 *0.0038*	0,15 *0.0060*
P11	MM10-10012-B90A30-E03 F30M	2,0 *0.080*	0,055 *0.0022*	0,065 *0.0026*	0,090 *0.0036*	0,15 *0.0060*
P12	MM10-10012-B90A30-E03 F30M	1,7 *0.065*	0,038 *0.0015*	0,044 *0.0018*	0,060 *0.0024*	0,10 *0.0040*
M1	MM10-10012-B90A30-E03 F30M	2,0 *0.080*	0,060 *0.0024*	0,075 *0.0030*	0,10 *0.0040*	0,16 *0.0065*
M2	MM10-10012-B90A30-E03 F30M	2,0 *0.080*	0,055 *0.0022*	0,065 *0.0026*	0,090 *0.0036*	0,15 *0.0060*
M3	MM10-10012-B90A30-E03 F30M	1,7 *0.065*	0,046 *0.0018*	0,055 *0.0022*	0,075 *0.0030*	0,12 *0.0048*
M4	MM10-10012-B90A30-E03 F30M	1,2 *0.048*	0,040 *0.0016*	0,046 *0.0019*	0,065 *0.0026*	0,10 *0.0040*
M5	MM10-10012-B90A30-E03 F30M	1,2 *0.048*	0,040 *0.0016*	0,046 *0.0019*	0,065 *0.0026*	0,10 *0.0040*
K1	MM10-10012-B90A30-E03 F30M	2,0 *0.080*	0,060 *0.0024*	0,075 *0.0030*	0,10 *0.0040*	0,16 *0.0065*
K2	MM10-10012-B90A30-E03 F30M	2,0 *0.080*	0,055 *0.0022*	0,065 *0.0026*	0,090 *0.0036*	0,15 *0.0060*
K3	MM10-10012-B90A30-E03 F30M	2,0 *0.080*	0,055 *0.0022*	0,065 *0.0026*	0,090 *0.0036*	0,15 *0.0060*
K4	MM10-10012-B90A30-E03 F30M	2,0 *0.080*	0,055 *0.0022*	0,065 *0.0026*	0,090 *0.0036*	0,15 *0.0060*
K5	MM10-10012-B90A30-E03 F30M	2,0 *0.080*	0,050 *0.0020*	0,060 *0.0024*	0,080 *0.0032*	0,13 *0.0050*
K6	MM10-10012-B90A30-E03 F30M	2,0 *0.080*	0,055 *0.0022*	0,065 *0.0026*	0,090 *0.0036*	0,15 *0.0060*
K7	MM10-10012-B90A30-E03 F30M	2,0 *0.080*	0,050 *0.0020*	0,060 *0.0024*	0,080 *0.0032*	0,13 *0.0050*
N1	MM10-10012-B90A30-E03 F30M	2,0 *0.080*	0,080 *0.0032*	0,095 *0.0038*	0,13 *0.0050*	0,22 *0.0085*
N2	MM10-10012-B90A30-E03 F30M	2,0 *0.080*	0,080 *0.0032*	0,095 *0.0038*	0,13 *0.0050*	0,22 *0.0085*
N3	MM10-10012-B90A30-E03 F30M	2,0 *0.080*	0,080 *0.0032*	0,095 *0.0038*	0,13 *0.0050*	0,22 *0.0085*
N11	MM10-10012-B90A30-E03 F30M	2,0 *0.080*	0,080 *0.0032*	0,095 *0.0038*	0,13 *0.0050*	0,22 *0.0085*
S1	MM10-10012-B90A30-E03 F30M	1,2 *0.048*	0,040 *0.0016*	0,046 *0.0019*	0,065 *0.0026*	0,10 *0.0040*
S2	MM10-10012-B90A30-E03 F30M	1,2 *0.048*	0,040 *0.0016*	0,046 *0.0019*	0,065 *0.0026*	0,10 *0.0040*
S3	MM10-10012-B90A30-E03 F30M	1,2 *0.048*	0,038 *0.0015*	0,042 *0.0017*	0,060 *0.0024*	0,095 *0.0038*
S11	MM10-10012-B90A30-E03 F30M	1,4 *0.055*	0,046 *0.0018*	0,055 *0.0022*	0,075 *0.0030*	0,12 *0.0048*
S12	MM10-10012-B90A30-E03 F30M	1,4 *0.055*	0,046 *0.0018*	0,055 *0.0022*	0,075 *0.0030*	0,12 *0.0048*
S13	MM10-10012-B90A30-E03 F30M	1,2 *0.048*	0,040 *0.0016*	0,046 *0.0019*	0,065 *0.0026*	0,10 *0.0040*
H5	MM10-10012-B90A30-E03 F30M	1,7 *0.065*	0,038 *0.0015*	0,044 *0.0018*	0,060 *0.0024*	0,10 *0.0040*
H8	MM10-10012-B90A30-E03 F30M	1,4 *0.055*	0,030 *0.0012*	0,034 *0.0013*	0,048 *0.0019*	0,075 *0.0030*
H11	MM10-10012-B90A30-E03 F30M	1,7 *0.065*	0,038 *0.0015*	0,044 *0.0018*	0,060 *0.0024*	0,10 *0.0040*
H12	MM10-10012-B90A30-E03 F30M	1,4 *0.055*	0,030 *0.0012*	0,034 *0.0013*	0,048 *0.0019*	0,075 *0.0030*
H21	MM10-10012-B90A30-E03 F30M	1,4 *0.055*	0,030 *0.0012*	0,034 *0.0013*	0,048 *0.0019*	0,075 *0.0030*

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

MM10 Z3 – Copy milling – Cutting data v_c = (m/min)/*(sf/min)*

SMG	F30M					F40M				
	100%	20%	10%	5%	2%	100%	20%	10%	5%	2%
P1	280 *920*	330 *1075*	355 *1175*	380 *1250*	380 *1250*	270 *890*	310 *1025*	335 *1100*	365 *1200*	360 *1175*
P2	275 *900*	320 *1050*	340 *1125*	370 *1225*	370 *1225*	260 *850*	305 *1000*	325 *1075*	355 *1175*	355 *1175*
P3	240 *790*	280 *920*	295 *970*	320 *1050*	320 *1050*	230 *750*	265 *870*	280 *920*	305 *1000*	305 *1000*
P4	210 *690*	245 *800*	265 *870*	285 *940*	285 *940*	200 *660*	235 *770*	250 *820*	270 *890*	270 *890*
P5	200 *660*	235 *770*	250 *820*	275 *900*	270 *890*	190 *620*	225 *740*	240 *790*	260 *850*	260 *850*
P6	225 *740*	265 *870*	285 *940*	305 *1000*	305 *1000*	215 *710*	250 *820*	270 *890*	290 *950*	290 *950*
P7	215 *710*	250 *820*	265 *870*	290 *950*	285 *940*	205 *670*	235 *770*	255 *840*	275 *900*	275 *900*
P8	200 *660*	235 *770*	250 *820*	270 *890*	270 *890*	190 *620*	225 *740*	235 *770*	260 *850*	260 *850*
P11	205 *670*	240 *790*	260 *850*	280 *920*	280 *920*	195 *640*	230 *750*	245 *800*	265 *870*	265 *870*
P12	130 *425*	160 *520*	160 *520*	175 *570*	175 *570*	125 *410*	150 *490*	155 *510*	165 *540*	165 *540*
M1	220 *720*	255 *840*	275 *900*	300 *980*	300 *980*	210 *690*	245 *800*	260 *850*	285 *940*	285 *940*
M2	180 *590*	210 *690*	225 *740*	245 *800*	245 *800*	175 *570*	200 *660*	215 *710*	235 *770*	230 *750*
M3	145 *475*	175 *570*	175 *590*	190 *620*	190 *620*	135 *445*	165 *540*	170 *560*	185 *610*	180 *590*
M4	95 *310*	140 *460*	135 *475*	145 *475*	145 *475*	95 *310*	130 *425*	130 *445*	140 *460*	140 *460*
M5	80 *260*	115 *375*	115 *395*	120 *395*	120 *395*	75 *245*	110 *360*	105 *375*	115 *375*	115 *375*
K1	220 *720*	255 *840*	270 *890*	295 *970*	295 *970*	205 *670*	240 *790*	255 *840*	280 *920*	280 *920*
K2	190 *620*	220 *720*	240 *790*	260 *850*	255 *840*	180 *590*	210 *690*	230 *750*	245 *800*	245 *800*
K3	160 *520*	190 *620*	200 *660*	220 *720*	215 *710*	155 *510*	180 *590*	195 *640*	210 *690*	205 *670*
K4	155 *510*	180 *590*	195 *640*	210 *690*	205 *670*	145 *475*	170 *560*	185 *610*	200 *660*	195 *640*
K5	95 *310*	110 *360*	115 *375*	125 *410*	125 *410*	90 *295*	105 *345*	110 *360*	120 *395*	120 *395*
K6	135 *445*	160 *520*	170 *560*	185 *610*	185 *610*	130 *425*	150 *490*	160 *520*	175 *570*	175 *570*
K7	120 *395*	140 *460*	150 *490*	160 *520*	160 *520*	115 *375*	130 *425*	140 *460*	155 *510*	155 *510*
N1	1650 *5425*	1925 *6325*	2050 *6725*	2225 *7300*	2200 *7225*	1575 *5175*	1825 *6000*	1950 *6400*	2125 *6975*	2100 *6900*
N2	670 *2200*	780 *2550*	830 *2725*	900 *2950*	890 *2925*	640 *2100*	740 *2425*	790 *2600*	860 *2825*	850 *2800*
N3	445 *1450*	520 *1700*	550 *1800*	600 *1975*	590 *1925*	425 *1400*	495 *1625*	530 *1750*	570 *1875*	560 *1825*
N11	510 *1675*	590 *1925*	630 *2075*	690 *2275*	680 *2225*	485 *1600*	560 *1825*	600 *1975*	650 *2125*	650 *2125*
S1	45 *150*	65 *215*	65 *215*	70 *230*	70 *230*	43 *140*	60 *195*	60 *215*	65 *215*	65 *215*
S2	37 *120*	50 *165*	50 *180*	55 *180*	55 *180*	35 *115*	49 *160*	48 *165*	50 *165*	50 *165*
S3	32 *105*	45 *150*	44 *155*	48 *155*	48 *155*	30 *100*	43 *140*	42 *150*	46 *150*	45 *150*
S11	70 *230*	90 *295*	90 *295*	95 *310*	95 *310*	65 *215*	85 *280*	85 *280*	90 *295*	90 *295*
S12	48 *155*	60 *195*	60 *215*	65 *215*	65 *215*	45 *150*	60 *195*	60 *195*	65 *215*	65 *215*
S13	26 *85*	36 *120*	36 *125*	38 *125*	38 *125*	24 *80*	34 *110*	34 *120*	37 *120*	37 *120*
H5	43 *140*	55 *180*	55 *180*	60 *195*	55 *180*	41 *135*	50 *165*	50 *165*	55 *180*	55 *180*
H8	41 *135*	55 *180*	55 *180*	60 *195*	60 *195*	39 *130*	50 *165*	50 *180*	55 *180*	55 *180*
H11	55 *180*	65 *215*	70 *230*	75 *245*	75 *245*	50 *165*	65 *215*	65 *215*	70 *230*	70 *230*
H12	75 *245*	100 *330*	100 *330*	105 *345*	105 *345*	70 *230*	95 *310*	95 *310*	100 *330*	100 *330*
H21	41 *135*	55 *180*	55 *180*	60 *195*	60 *195*	39 *130*	50 *165*	50 *180*	55 *180*	55 *180*

MM10 Z2 – Copy milling – Insert selection – Roughing – mm/*Inch*

SMG		a_p	f_z			
			100%	40%	20%	10%
P1	MM10-10010-B90S-E04 F30M	4,0 *0.16*	0,060 *0.0024*	0,060 *0.0024*	0,070 *0.0028*	0,095 *0.0038*
P2	MM10-10010-B90S-E04 F30M	4,0 *0.16*	0,065 *0.0026*	0,065 *0.0026*	0,075 *0.0030*	0,095 *0.0038*
P3	MM10-10010-B90S-E04 F30M	4,0 *0.16*	0,060 *0.0024*	0,060 *0.0024*	0,070 *0.0028*	0,090 *0.0036*
P4	MM10-10010-B90-MD04 F30M	4,0 *0.16*	0,060 *0.0024*	0,060 *0.0024*	0,070 *0.0028*	0,090 *0.0036*
P5	MM10-10010-B90-MD04 F30M	4,0 *0.16*	0,060 *0.0024*	0,055 *0.0022*	0,065 *0.0026*	0,090 *0.0036*
P6	MM10-10010-B90-MD04 F30M	4,0 *0.16*	0,055 *0.0022*	0,055 *0.0022*	0,065 *0.0026*	0,085 *0.0034*
P7	MM10-10010-B90-MD04 F30M	4,0 *0.16*	0,055 *0.0022*	0,055 *0.0022*	0,065 *0.0026*	0,085 *0.0034*
P8	MM10-10010-B90-MD04 F30M	4,0 *0.16*	0,060 *0.0024*	0,060 *0.0024*	0,070 *0.0028*	0,090 *0.0036*
P11	MM10-10010-B90-MD04 F30M	4,0 *0.16*	0,055 *0.0022*	0,055 *0.0022*	0,065 *0.0026*	0,085 *0.0034*
P12	MM10-10010-B90-MD04 F30M	3,5 *0.14*	0,040 *0.0016*	0,040 *0.0016*	0,046 *0.0018*	0,060 *0.0024*
M1	MM10-10010-B90S-E04 F30M	4,0 *0.16*	0,065 *0.0026*	0,065 *0.0026*	0,075 *0.0030*	0,095 *0.0038*
M2	MM10-10010-B90S-E04 F30M	4,0 *0.16*	0,060 *0.0024*	0,055 *0.0022*	0,065 *0.0026*	0,090 *0.0036*
M3	MM10-10010-B90S-E04 F30M	3,5 *0.14*	0,048 *0.0019*	0,048 *0.0019*	0,055 *0.0022*	0,070 *0.0028*
M4	MM10-10010-B90-MD04 F30M	2,5 *0.10*	0,044 *0.0017*	0,044 *0.0017*	0,048 *0.0019*	0,060 *0.0026*
M5	MM10-10010-B90-MD04 F30M	2,5 *0.10*	0,044 *0.0017*	0,044 *0.0017*	0,048 *0.0019*	0,060 *0.0026*
K1	MM10-10010-B90S-E04 F30M	4,0 *0.16*	0,065 *0.0026*	0,065 *0.0026*	0,075 *0.0030*	0,095 *0.0038*
K2	MM10-10010-B90S-E04 F30M	4,0 *0.16*	0,060 *0.0024*	0,055 *0.0022*	0,065 *0.0026*	0,090 *0.0036*
K3	MM10-10010-B90S-E04 F30M	4,0 *0.16*	0,060 *0.0024*	0,055 *0.0022*	0,065 *0.0026*	0,090 *0.0036*
K4	MM10-10010-B90S-E04 F30M	4,0 *0.16*	0,060 *0.0024*	0,055 *0.0022*	0,065 *0.0026*	0,090 *0.0036*
K5	MM10-10010-B90-MD04 F30M	4,0 *0.16*	0,050 *0.0020*	0,050 *0.0020*	0,060 *0.0024*	0,080 *0.0032*
K6	MM10-10010-B90-MD04 F30M	4,0 *0.16*	0,060 *0.0024*	0,055 *0.0022*	0,065 *0.0026*	0,090 *0.0036*
K7	MM10-10010-B90-MD04 F30M	4,0 *0.16*	0,050 *0.0020*	0,050 *0.0020*	0,060 *0.0024*	0,080 *0.0032*
N1	MM10-10010-B90S-E04 F30M	4,0 *0.16*	0,080 *0.0032*	0,080 *0.0032*	0,095 *0.0038*	0,12 *0.0048*
N2	MM10-10010-B90S-E04 F30M	4,0 *0.16*	0,080 *0.0032*	0,080 *0.0032*	0,095 *0.0038*	0,12 *0.0048*
N3	MM10-10010-B90S-E04 F30M	4,0 *0.16*	0,080 *0.0032*	0,080 *0.0032*	0,095 *0.0038*	0,12 *0.0048*
N11	MM10-10010-B90S-E04 F30M	4,0 *0.16*	0,080 *0.0032*	0,080 *0.0032*	0,095 *0.0038*	0,12 *0.0048*
S1	MM10-10010-B90S-E04 F30M	2,5 *0.10*	0,044 *0.0017*	0,044 *0.0017*	0,048 *0.0019*	0,060 *0.0026*
S2	MM10-10010-B90S-E04 F30M	2,5 *0.10*	0,044 *0.0017*	0,044 *0.0017*	0,048 *0.0019*	0,060 *0.0026*
S3	MM10-10010-B90S-E04 F30M	2,5 *0.10*	0,042 *0.0017*	0,042 *0.0017*	0,044 *0.0017*	0,055 *0.0024*
S11	MM10-10010-B90S-E04 F30M	3,0 *0.12*	0,048 *0.0019*	0,048 *0.0019*	0,055 *0.0022*	0,070 *0.0028*
S12	MM10-10010-B90S-E04 F30M	3,0 *0.12*	0,048 *0.0019*	0,048 *0.0019*	0,055 *0.0022*	0,070 *0.0028*
S13	MM10-10010-B90S-E04 F30M	2,5 *0.10*	0,044 *0.0017*	0,044 *0.0017*	0,048 *0.0019*	0,060 *0.0026*
H5	MM10-10010-B90-MD04 F30M	3,5 *0.14*	0,040 *0.0016*	0,040 *0.0016*	0,046 *0.0018*	0,060 *0.0024*
H8	MM10-10010-B90-MD04 F30M	3,0 *0.12*	0,032 *0.0013*	0,032 *0.0013*	0,036 *0.0014*	0,046 *0.0018*
H11	MM10-10010-B90-MD04 F30M	3,5 *0.14*	0,040 *0.0016*	0,040 *0.0016*	0,046 *0.0018*	0,060 *0.0024*
H12	MM10-10010-B90-MD04 F30M	3,0 *0.12*	0,032 *0.0013*	0,032 *0.0013*	0,036 *0.0014*	0,046 *0.0018*
H21	MM10-10010-B90-MD04 F30M	3,0 *0.12*	0,032 *0.0013*	0,032 *0.0013*	0,036 *0.0014*	0,046 *0.0018*

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

MM10 Z2 – Copy milling – Insert selection – Finishing – mm/*Inch*

SMG		a_p	f_z			
			15%	10%	5%	2%
P1	MM10-10010-B90PF-M02 F15M	3,5 *0.14*	0,040 *0.0016*	0,048 *0.0019*	0,065 *0.0026*	0,11 *0.0044*
P2	MM10-10010-B90PF-M02 F15M	3,5 *0.14*	0,042 *0.0017*	0,048 *0.0019*	0,070 *0.0028*	0,11 *0.0044*
P3	MM10-10010-B90PF-M02 F15M	3,5 *0.14*	0,038 *0.0015*	0,046 *0.0018*	0,065 *0.0026*	0,10 *0.0040*
P4	MM10-10010-B90PF-M02 F15M	3,5 *0.14*	0,038 *0.0015*	0,046 *0.0018*	0,065 *0.0026*	0,10 *0.0040*
P5	MM10-10010-B90PF-M02 F15M	3,5 *0.14*	0,038 *0.0015*	0,044 *0.0017*	0,060 *0.0024*	0,10 *0.0040*
P6	MM10-10010-B90PF-M02 F15M	3,5 *0.14*	0,038 *0.0015*	0,044 *0.0017*	0,060 *0.0024*	0,095 *0.0038*
P7	MM10-10010-B90PF-M02 F15M	3,5 *0.14*	0,038 *0.0015*	0,044 *0.0017*	0,060 *0.0024*	0,095 *0.0038*
P8	MM10-10010-B90PF-M02 F15M	3,5 *0.14*	0,038 *0.0015*	0,046 *0.0018*	0,065 *0.0026*	0,10 *0.0040*
P11	MM10-10010-B90PF-M02 F15M	3,5 *0.14*	0,038 *0.0015*	0,044 *0.0017*	0,060 *0.0024*	0,095 *0.0038*
P12	MM10-10010-B90PF-M02 F15M	3,0 *0.12*	0,026 *0.0010*	0,030 *0.0012*	0,042 *0.0017*	0,065 *0.0026*
M1	MM10-10010-B90PF-M02 F15M	3,5 *0.14*	0,042 *0.0017*	0,048 *0.0019*	0,070 *0.0028*	0,11 *0.0044*
M2	MM10-10010-B90PF-M02 F15M	3,5 *0.14*	0,038 *0.0015*	0,044 *0.0017*	0,060 *0.0024*	0,10 *0.0040*
M3	MM10-10010-B90PF-M02 F15M	3,0 *0.12*	0,030 *0.0012*	0,036 *0.0014*	0,048 *0.0019*	0,075 *0.0030*
M4	MM10-10010-B90PF-M02 F15M	2,0 *0.080*	0,028 *0.0011*	0,030 *0.0013*	0,042 *0.0017*	0,070 *0.0028*
M5	MM10-10010-B90PF-M02 F15M	2,0 *0.080*	0,028 *0.0011*	0,030 *0.0013*	0,042 *0.0017*	0,070 *0.0028*
K1	MM10-10010-B90PF-M02 F15M	3,5 *0.14*	0,042 *0.0017*	0,048 *0.0019*	0,070 *0.0028*	0,11 *0.0044*
K2	MM10-10010-B90PF-M02 F15M	3,5 *0.14*	0,038 *0.0015*	0,044 *0.0017*	0,060 *0.0024*	0,10 *0.0040*
K3	MM10-10010-B90PF-M02 F15M	3,5 *0.14*	0,038 *0.0015*	0,044 *0.0017*	0,060 *0.0024*	0,10 *0.0040*
K4	MM10-10010-B90PF-M02 F15M	3,5 *0.14*	0,038 *0.0015*	0,044 *0.0017*	0,060 *0.0024*	0,10 *0.0040*
K5	MM10-10010-B90PF-M02 F15M	3,5 *0.14*	0,034 *0.0013*	0,040 *0.0016*	0,055 *0.0022*	0,085 *0.0034*
K6	MM10-10010-B90PF-M02 F15M	3,5 *0.14*	0,038 *0.0015*	0,044 *0.0017*	0,060 *0.0024*	0,10 *0.0040*
K7	MM10-10010-B90PF-M02 F15M	3,5 *0.14*	0,034 *0.0013*	0,040 *0.0016*	0,055 *0.0022*	0,085 *0.0034*
N1	MM10-10010-B90PF-M02 F15M	3,5 *0.14*	0,050 *0.0020*	0,060 *0.0024*	0,085 *0.0034*	0,14 *0.0055*
N2	MM10-10010-B90PF-M02 F15M	3,5 *0.14*	0,050 *0.0020*	0,060 *0.0024*	0,085 *0.0034*	0,14 *0.0055*
N3	MM10-10010-B90PF-M02 F15M	3,5 *0.14*	0,050 *0.0020*	0,060 *0.0024*	0,085 *0.0034*	0,14 *0.0055*
N11	MM10-10010-B90PF-M02 F15M	3,5 *0.14*	0,050 *0.0020*	0,060 *0.0024*	0,085 *0.0034*	0,14 *0.0055*
S1	MM10-10010-B90PF-M02 F15M	2,0 *0.080*	0,028 *0.0011*	0,030 *0.0013*	0,042 *0.0017*	0,070 *0.0028*
S2	MM10-10010-B90PF-M02 F15M	2,0 *0.080*	0,028 *0.0011*	0,030 *0.0013*	0,042 *0.0017*	0,070 *0.0028*
S3	MM10-10010-B90PF-M02 F15M	2,0 *0.080*	0,025 *0.0010*	0,028 *0.0012*	0,040 *0.0016*	0,065 *0.0026*
S11	MM10-10010-B90PF-M02 F15M	2,5 *0.10*	0,030 *0.0012*	0,036 *0.0014*	0,048 *0.0019*	0,075 *0.0030*
S12	MM10-10010-B90PF-M02 F15M	2,5 *0.10*	0,030 *0.0012*	0,036 *0.0014*	0,048 *0.0019*	0,075 *0.0030*
S13	MM10-10010-B90PF-M02 F15M	2,0 *0.080*	0,028 *0.0011*	0,030 *0.0013*	0,042 *0.0017*	0,070 *0.0028*
H5	MM10-10010-B90PF-M02 F15M	3,0 *0.12*	0,026 *0.0010*	0,030 *0.0012*	0,042 *0.0017*	0,065 *0.0026*
H8	MM10-10010-B90PF-M02 F15M	2,5 *0.10*	0,020 *0.00080*	0,022 *0.00095*	0,032 *0.0013*	0,050 *0.0020*
H11	MM10-10010-B90PF-M02 F15M	3,0 *0.12*	0,026 *0.0010*	0,030 *0.0012*	0,042 *0.0017*	0,065 *0.0026*
H12	MM10-10010-B90PF-M02 F15M	2,5 *0.10*	0,020 *0.00080*	0,022 *0.00095*	0,032 *0.0013*	0,050 *0.0020*
H21	MM10-10010-B90PF-M02 F15M	2,5 *0.10*	0,020 *0.00080*	0,022 *0.00095*	0,032 *0.0013*	0,050 *0.0020*

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

MM10 Z2 – Copy milling – Cutting data v_c = (m/min)/(sf/min)

SMG	F15M					F30M					T60M				
	100%	20%	10%	5%	2%	100%	20%	10%	5%	2%	100%	20%	10%	5%	2%
P1	305 1000	390 1275	405 1325	440 1450	440 1450	250 820	320 1050	340 1125	370 1225	365 1200	205 670	260 850	275 900	300 980	295 970
P2	295 970	380 1250	395 1300	425 1400	425 1400	240 790	305 1000	330 1075	355 1175	355 1175	195 640	250 820	270 890	285 940	285 940
P3	260 850	330 1075	340 1125	370 1225	370 1225	210 690	265 870	285 940	310 1025	310 1025	170 560	215 710	235 770	250 820	250 820
P4	225 740	290 950	300 980	325 1075	325 1075	185 610	235 770	255 840	270 890	275 900	150 490	190 620	205 670	220 720	220 720
P5	215 710	275 900	290 950	315 1025	310 1025	175 570	225 740	240 790	265 870	260 850	145 475	185 610	195 640	215 710	210 690
P6	245 800	310 1025	325 1075	350 1150	350 1150	200 660	255 840	275 900	295 970	295 970	165 540	205 670	220 720	240 790	235 770
P7	230 750	295 970	305 1000	330 1075	330 1075	190 620	240 790	260 850	280 920	275 900	155 510	195 640	210 690	225 740	225 740
P8	215 710	275 900	290 950	310 1025	310 1025	175 570	225 740	240 790	260 850	260 850	145 475	180 590	195 640	210 690	210 690
P11	225 740	285 940	295 970	325 1075	320 1050	185 610	235 770	250 820	270 890	270 890	150 490	190 620	205 670	220 720	215 710
P12	140 460	175 570	180 610	195 640	195 640	120 395	150 490	155 510	170 560	170 560	95 310	120 395	125 410	135 445	135 445
M1	240 790	305 1000	320 1050	345 1125	345 1125	195 640	245 800	265 870	285 940	285 940	160 520	200 660	215 710	230 750	230 750
M2	195 640	250 820	260 850	280 920	280 920	160 520	205 670	215 710	235 770	235 770	130 425	165 540	175 570	190 620	190 620
M3	155 510	200 660	200 670	220 720	220 720	130 425	165 540	175 570	185 610	185 610	105 345	135 445	140 460	150 490	150 490
M4	120 395	155 510	155 560	165 540	165 540	105 345	135 445	130 460	145 475	140 460	85 280	105 345	105 375	115 375	115 375
M5	100 330	130 425	130 460	140 460	140 460	85 280	110 360	110 375	120 395	120 395	70 230	90 295	90 310	95 310	95 310
K1	235 770	300 980	315 1025	335 1100	335 1100	190 620	245 800	260 850	280 920	280 920	155 510	195 640	210 690	225 740	225 740
K2	205 670	265 870	275 900	295 970	295 970	170 560	215 710	230 750	250 820	250 820	135 445	175 570	185 610	200 660	200 660
K3	175 570	225 740	230 750	250 820	250 820	140 460	180 590	195 640	210 690	210 690	115 375	150 490	155 510	170 560	170 560
K4	165 540	215 710	220 720	240 790	240 790	135 445	175 570	185 610	200 660	200 660	110 360	140 460	150 490	165 540	160 520
K5	100 330	130 425	135 445	145 475	145 475	85 280	105 345	110 360	120 395	120 395	70 230	85 280	90 295	100 330	100 330
K6	145 475	185 610	195 640	210 690	210 690	120 395	155 510	165 540	180 590	175 570	95 310	125 410	130 425	145 475	145 475
K7	130 425	165 540	170 560	185 610	185 610	105 345	135 445	145 475	155 510	155 510	85 280	110 360	115 375	125 410	125 410
N1	1800 5900	2300 7550	2425 7950	2600 8525	2600 8525	1450 4750	1825 6000	1975 6475	2150 7050	2100 6900	1175 3850	1475 4850	1600 5250	1725 5650	1700 5575
N2	730 2400	930 3050	970 3175	1050 3450	1050 3450	590 1925	740 2425	800 2625	870 2850	850 2800	475 1550	600 1975	650 2125	700 2300	680 2225
N3	485 1600	620 2025	650 2125	700 2300	700 2300	390 1275	495 1625	530 1750	580 1900	560 1825	315 1025	400 1300	435 1425	465 1525	455 1500
N11	550 1800	710 2325	740 2425	800 2625	800 2625	450 1475	570 1875	610 2000	660 2175	640 2100	360 1175	460 1500	495 1625	530 1750	520 1700
S1	55 180	70 230	70 260	80 260	75 245	48 155	60 195	60 215	65 215	65 215	39 130	50 165	50 180	55 180	55 180
S2	46 150	60 195	60 215	65 215	60 195	39 130	50 165	50 180	55 180	55 180	32 105	40 130	40 140	43 140	43 140
S3	40 130	50 165	50 180	55 180	55 180	34 110	43 140	43 150	47 155	46 150	27 90	35 115	35 120	38 125	38 125
S11	80 260	100 330	100 360	110 360	110 360	65 215	85 280	85 295	95 310	95 310	55 180	70 230	70 245	75 245	75 245
S12	55 180	70 230	70 245	75 245	75 245	47 155	60 195	60 195	65 215	65 215	38 125	48 155	49 165	55 180	55 180
S13	32 105	41 135	40 145	44 145	43 140	27 90	35 115	35 120	37 120	37 120	22 70	28 90	28 100	30 100	30 100
H5	46 150	60 195	60 195	65 215	65 215	39 130	50 165	50 165	55 180	55 180	32 105	41 135	42 140	45 150	45 150
H8	48 155	60 195	60 215	65 215	65 215	41 135	55 180	55 180	60 195	60 195	33 110	43 140	43 150	47 155	47 155
H11	60 195	75 245	75 260	85 280	85 280	50 165	65 215	65 215	70 230	70 230	40 130	50 165	55 180	60 195	60 195
H12	85 280	110 360	110 375	120 395	120 395	75 245	95 310	95 330	105 345	105 345	60 195	75 245	80 260	85 280	85 280
H21	48 155	60 195	60 215	65 215	65 215	41 135	55 180	55 180	60 195	60 195	33 110	43 140	43 150	47 155	47 155

MM10 High-Feed – Insert selection – mm/*Inch*

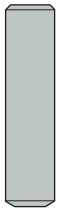
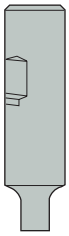
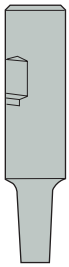
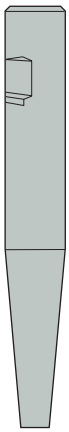
SMG		a_p	f_z			
			100%	70%	30%	20%
P1	MM10-10.50-HF-MD08 F30M	0,30 *0.012*	0,48 *0.019*	0,48 *0.019*	0,65 *0.026*	0,80 *0.032*
P2	MM10-10.50-HF-MD08 F30M	0,30 *0.012*	0,50 *0.020*	0,50 *0.020*	0,65 *0.026*	0,80 *0.032*
P3	MM10-10.50-HF-MD08 F30M	0,30 *0.012*	0,46 *0.018*	0,46 *0.018*	0,60 *0.024*	0,75 *0.030*
P4	MM10-10.50-HF-MD08 F30M	0,30 *0.012*	0,46 *0.018*	0,46 *0.018*	0,60 *0.024*	0,75 *0.030*
P5	MM10-10.50-HF-MD08 F30M	0,30 *0.012*	0,44 *0.017*	0,46 *0.018*	0,60 *0.024*	0,75 *0.030*
P6	MM10-10.50-HF-MD08 F30M	0,30 *0.012*	0,44 *0.017*	0,44 *0.017*	0,60 *0.024*	0,75 *0.030*
P7	MM10-10.50-HF-MD08 F30M	0,30 *0.012*	0,44 *0.017*	0,44 *0.017*	0,60 *0.024*	0,75 *0.030*
P8	MM10-10.50-HF-MD08 F30M	0,30 *0.012*	0,46 *0.018*	0,46 *0.018*	0,60 *0.024*	0,75 *0.030*
P11	MM10-10.50-HF-MD08 F30M	0,30 *0.012*	0,44 *0.017*	0,44 *0.017*	0,60 *0.024*	0,75 *0.030*
P12	MM10-10.50-HF-MD08 F30M	0,25 *0.010*	0,30 *0.012*	0,30 *0.012*	0,40 *0.016*	0,48 *0.019*
M1	MM10-10.50-HF-MD08 F30M	0,30 *0.012*	0,50 *0.020*	0,50 *0.020*	0,65 *0.026*	0,80 *0.032*
M2	MM10-10.50-HF-MD08 F30M	0,30 *0.012*	0,44 *0.017*	0,46 *0.018*	0,60 *0.024*	0,75 *0.030*
M3	MM10-10.50-HF-MD08 F30M	0,25 *0.010*	0,36 *0.014*	0,36 *0.014*	0,46 *0.018*	0,55 *0.022*
M4	MM10-10.50-HF-MD08 F30M	0,18 *0.0070*	0,32 *0.013*	0,32 *0.013*	0,40 *0.016*	0,50 *0.020*
M5	MM10-10.50-HF-MD08 F30M	0,18 *0.0070*	0,32 *0.013*	0,32 *0.013*	0,40 *0.016*	0,50 *0.020*
K1	MM10-10.50-HF-MD08 F30M	0,30 *0.012*	0,50 *0.020*	0,50 *0.020*	0,65 *0.026*	0,80 *0.032*
K2	MM10-10.50-HF-MD08 F30M	0,30 *0.012*	0,44 *0.017*	0,46 *0.018*	0,60 *0.024*	0,75 *0.030*
K3	MM10-10.50-HF-MD08 F30M	0,30 *0.012*	0,44 *0.017*	0,46 *0.018*	0,60 *0.024*	0,75 *0.030*
K4	MM10-10.50-HF-MD08 F30M	0,30 *0.012*	0,44 *0.017*	0,46 *0.018*	0,60 *0.024*	0,75 *0.030*
K5	MM10-10.50-HF-MD08 F30M	0,30 *0.012*	0,40 *0.016*	0,40 *0.016*	0,55 *0.022*	0,65 *0.026*
K6	MM10-10.50-HF-MD08 F30M	0,30 *0.012*	0,44 *0.017*	0,46 *0.018*	0,60 *0.024*	0,75 *0.030*
K7	MM10-10.50-HF-MD08 F30M	0,30 *0.012*	0,40 *0.016*	0,40 *0.016*	0,55 *0.022*	0,65 *0.026*
N1	MM10-10.50-HF-MD08 F30M	0,30 *0.012*	0,65 *0.026*	0,65 *0.026*	0,85 *0.034*	1,1 *0.044*
N2	MM10-10.50-HF-MD08 F30M	0,30 *0.012*	0,65 *0.026*	0,65 *0.026*	0,85 *0.034*	1,1 *0.044*
N3	MM10-10.50-HF-MD08 F30M	0,30 *0.012*	0,65 *0.026*	0,65 *0.026*	0,85 *0.034*	1,1 *0.044*
N11	MM10-10.50-HF-MD08 F30M	0,30 *0.012*	0,65 *0.026*	0,65 *0.026*	0,85 *0.034*	1,1 *0.044*
S1	MM10-10.50-HF-MD08 F30M	0,18 *0.0070*	0,32 *0.013*	0,32 *0.013*	0,40 *0.016*	0,50 *0.020*
S2	MM10-10.50-HF-MD08 F30M	0,18 *0.0070*	0,32 *0.013*	0,32 *0.013*	0,40 *0.016*	0,50 *0.020*
S3	MM10-10.50-HF-MD08 F30M	0,18 *0.0070*	0,30 *0.012*	0,30 *0.012*	0,38 *0.015*	0,46 *0.018*
S11	MM10-10.50-HF-MD08 F30M	0,22 *0.0085*	0,36 *0.014*	0,36 *0.014*	0,46 *0.018*	0,55 *0.022*
S12	MM10-10.50-HF-MD08 F30M	0,22 *0.0085*	0,36 *0.014*	0,36 *0.014*	0,46 *0.018*	0,55 *0.022*
S13	MM10-10.50-HF-MD08 F30M	0,18 *0.0070*	0,32 *0.013*	0,32 *0.013*	0,40 *0.016*	0,50 *0.020*
H5	MM10-10.50-HF-MD08 F15M	0,25 *0.010*	0,30 *0.012*	0,30 *0.012*	0,40 *0.016*	0,48 *0.019*
H8	MM10-10.50-HF-MD08 F15M	0,22 *0.0085*	0,24 *0.0095*	0,24 *0.0095*	0,30 *0.012*	0,36 *0.014*
H11	MM10-10.50-HF-MD08 F15M	0,25 *0.010*	0,30 *0.012*	0,30 *0.012*	0,40 *0.016*	0,48 *0.019*
H12	MM10-10.50-HF-MD08 F15M	0,22 *0.0085*	0,24 *0.0095*	0,24 *0.0095*	0,30 *0.012*	0,36 *0.014*
H21	MM10-10.50-HF-MD08 F15M	0,22 *0.0085*	0,24 *0.0095*	0,24 *0.0095*	0,30 *0.012*	0,36 *0.014*

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

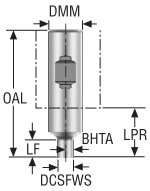
MM10 High-Feed – Cutting data v_c = (m/min)/*(sf/min)*

SMG	F15M				F30M			
	100%	70%	30%	20%	100%	70%	30%	20%
P1	—	—	—	—	230	280	325	340
	—	—	—	—	*750*	*920*	*1075*	*1125*
P2	—	—	—	—	225	270	315	330
	—	—	—	—	*740*	*890*	*1025*	*1075*
P3	—	—	—	—	195	240	275	290
	—	—	—	—	*640*	*790*	*900*	*950*
P4	—	—	—	—	170	210	240	255
	—	—	—	—	*560*	*690*	*790*	*840*
P5	—	—	—	—	165	200	230	240
	—	—	—	—	*540*	*660*	*750*	*790*
P6	—	—	—	—	185	225	260	270
	—	—	—	—	*610*	*740*	*850*	*890*
P7	—	—	—	—	175	215	245	255
	—	—	—	—	*570*	*710*	*800*	*840*
P8	—	—	—	—	165	200	230	240
	—	—	—	—	*540*	*660*	*750*	*790*
P11	—	—	—	—	170	210	240	250
	—	—	—	—	*560*	*690*	*790*	*820*
P12	—	—	—	—	110	135	150	160
	—	—	—	—	*360*	*445*	*490*	*520*
M1	—	—	—	—	180	220	255	265
	—	—	—	—	*590*	*720*	*840*	*870*
M2	—	—	—	—	150	180	210	220
	—	—	—	—	*490*	*590*	*690*	*720*
M3	—	—	—	—	120	145	165	175
	—	—	—	—	*395*	*475*	*540*	*570*
M4	—	—	—	—	95	110	130	135
	—	—	—	—	*310*	*360*	*425*	*445*
M5	—	—	—	—	80	95	110	115
	—	—	—	—	*260*	*310*	*360*	*375*
K1	190	230	270	280	175	215	250	260
	620	*750*	*890*	*920*	*570*	*710*	*820*	*850*
K2	170	205	235	245	160	190	220	230
	560	*670*	*770*	*800*	*520*	*620*	*720*	*750*
K3	145	175	200	210	135	160	185	195
	475	*570*	*660*	*690*	*445*	*520*	*610*	*640*
K4	135	165	190	200	125	155	175	185
	445	*540*	*620*	*660*	*410*	*510*	*570*	*610*
K5	85	100	115	125	75	95	105	115
	280	*330*	*375*	*410*	*245*	*310*	*345*	*375*
K6	120	145	170	175	110	135	155	165
	395	*475*	*560*	*570*	*360*	*445*	*510*	*540*
K7	105	130	150	155	100	120	140	145
	345	*425*	*490*	*510*	*330*	*395*	*460*	*475*
N1	—	—	—	—	1325	1600	1850	1925
	—	—	—	—	*4350*	*5250*	*6075*	*6325*
N2	—	—	—	—	530	650	750	780
	—	—	—	—	*1750*	*2125*	*2450*	*2550*
N3	—	—	—	—	355	430	500	520
	—	—	—	—	*1175*	*1400*	*1650*	*1700*
N11	—	—	—	—	405	495	570	590
	—	—	—	—	*1325*	*1625*	*1875*	*1925*
S1	—	—	—	—	45	50	60	65
	—	—	—	—	*150*	*165*	*195*	*215*
S2	—	—	—	—	36	42	49	50
	—	—	—	—	*120*	*140*	*160*	*165*
S3	—	—	—	—	31	37	42	45
	—	—	—	—	*100*	*120*	*140*	*150*
S11	—	—	—	—	60	75	85	90
	—	—	—	—	*195*	*245*	*280*	*295*
S12	—	—	—	—	43	50	60	60
	—	—	—	—	*140*	*165*	*195*	*195*
S13	—	—	—	—	25	29	34	36
	—	—	—	—	*80*	*95*	*110*	*120*
H5	40	48	55	60	37	44	50	55
	130	*155*	*180*	*195*	*120*	*145*	*165*	*180*
H8	42	50	55	60	39	46	55	55
	140	*165*	*180*	*195*	*130*	*150*	*180*	*180*
H11	50	60	70	75	47	55	65	70
	165	*195*	*230*	*245*	*155*	*180*	*215*	*230*
H12	75	90	105	110	70	85	95	100
	245	*295*	*345*	*360*	*230*	*280*	*310*	*330*
H21	42	50	55	60	39	46	55	55
	140	*165*	*180*	*195*	*130*	*150*	*180*	*180*

Shank design

Design 1, Keyway shank	Design 2, Cylindrical/Weldon back end and 90º front
	
Design 3, Cylindrical/Weldon back end tapered front 87º/89º	**Design 4, Cylindrical/Weldon back end tapered front 80º/85º/87º**
	
Design 5, Cylindrical back end double tapered front end 89º/85º	
	

MM12 Shank – Metric

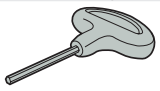




Designation	Item number	Type of mounting	DCSFWS	DMM	OAL	LF	LPR	BHTA°	Design		RPMX	Weight	Spare part no.
			mm	mm	mm	mm	mm					kg	
MM12-20080.3-0012	75012864	Weldon	11,4	20,0	80,0	12,0	30,0	0,0	2	✓	80000	0,2	4
MM12-20095.3-3027	75012865	Weldon	11,4	20,0	95,0	27,0	45,0	3,0	3	✓	80000	0,2	4
MM12-20150.3-5049	75012866	Weldon	11,4	20,0	150,0	49,1	100,0	5,0	4	✓	80000	0,3	5
MM12-12055.0-0008	00083978	Cylindrical	11,5	12,0	55,0	8,5	10,0	0,0	2	✓	80000	0,1	2
MM12-16065.0-0000	75004926	Cylindrical	11,4	16,0	65,0	0,0	17,0	60,0	1	✓	80000	0,1	1
MM12-16170.0-1040	75034505	Cylindrical	11,4	16,0	170,0	40,0	122,0	1,0	3	✓	80000	0,2	5
MM12-16170.0-1060	75034506	Cylindrical	11,4	16,0	170,0	60,0	122,0	1,0	3	✓	80000	0,2	5
MM12-16170.0-1080	75034507	Cylindrical	11,4	16,0	170,0	80,0	122,0	1,0	3	✓	80000	0,2	5
MM12-12070.0-0008DS	02580668	Cylindrical	11,5	12,0	70,0	8,5	25,0	0,0	2	✓	63600	0,1	3
MM12-16095.0-0024DS	02580690	Cylindrical	11,4	16,0	95,0	24,0	47,0	0,0	2	✓	63600	0,3	3
MM12-16090.0-3044DS	02580705	Cylindrical	11,4	16,0	90,0	43,9	42,0	3,0	4	✓	63600	0,3	3
MM12-16120.0-1045DS	02580752	Cylindrical	11,4	16,0	120,0	45,0	72,0	1,0	3	✓	63600	0,3	3
MM12-16115.0-0048DS	02580691	Cylindrical	11,4	16,0	115,0	48,0	67,0	0,0	2	✓	63600	0,3	3
MM12-16170.0-1060DS	02580753	Cylindrical	11,4	16,0	170,0	60,0	122,0	1,0	3	✓	63600	0,5	3
MM12-16170.0-1080DS	02580755	Cylindrical	11,4	16,0	170,0	80,0	122,0	1,0	3	✓	63600	0,5	3
MM12-20250.0-1060DS	02580756	Cylindrical	11,4	20,0	250,0	60,0	200,0	1,0	5	✓	63600	1,0	3

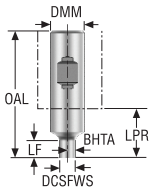
Spare Parts, included in delivery

Accessories

For cutter	Sleeve	Tension screw	Sleeve key
			
4	MM-06048	MM12-0637	–
5	MM-06116	MM12-0637	–
2	MM-06020	MM12-0637	H05-4
1	MM-06032	MM12-0637	–
3	–	MM12-061037	–

MM12 Shank – *Inch*



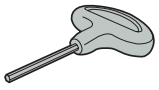


• For ISO attribute explanation, see page 25

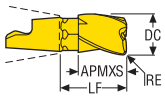
Designation	Item number	Type of mounting	DCSFWS	DMM	OAL	LF	LPR	BHTA°	Design		RPMX	Weight	Spare part no.
			inch	inch	inch	inch	inch					lbs	
MM12-0.75-3.1-3-0004	75015055	Weldon	0.449	0.750	3.150	0.472	1.181	0,0	2	✓	80000	0.440	3
MM12-0.75-3.7-3-3010	75015056	Weldon	0.449	0.750	3.740	1.063	1.772	3,0	3	✓	80000	0.440	3
MM12-0.75-5.9-3-5017	75015057	Weldon	0.449	0.750	5.906	1.720	3.937	5,0	4	✓	80000	0.660	5
MM12-0.50-2.2-0-0003	00096133	Cylindrical	0.453	0.500	2.165	0.335	0.394	0,0	2	✓	80000	0.220	2
MM12-0.62-2.6-0-0000	75005070	Cylindrical	0.449	0.625	2.559	0	0.669	60,0	1	✓	80000	0.220	1
MM12-0.62-6.7-0-1015	75054728	Cylindrical	0.449	0.625	6.693	1.575	4.803	1,0	3	✓	80000	0.440	5
MM12-0.62-6.7-0-1023	75054729	Cylindrical	0.449	0.625	6.693	2.362	4.803	1,0	3	✓	80000	0.440	5
MM12-0.62-6.7-0-1023DS	02593423	Cylindrical	0.449	0.625	6.693	2.362	4.803	1,0	3	✓	63600	1.100	4
MM12-0.62-6.7-0-1031DS	02593426	Cylindrical	0.449	0.625	6.693	3.150	4.803	1,0	3	✓	63600	0.880	4
MM12-0.75-10.0-0-1023DS	02593427	Cylindrical	0.449	0.750	9.843	2.362	7.874	1,0	5	✓	63600	1.980	4
MM12-0.75-3.8-0-0009DS	02593428	Cylindrical	0.449	0.750	3.740	0.945	1.772	0,0	2	✓	63600	0.880	4
MM12-0.75-4.5-0-0018DS	02593430	Cylindrical	0.449	0.750	4.528	1.890	2.559	0,0	2	✓	63600	0.880	4

Spare Parts, included in delivery

Accessories

For cutter	Sleeve	Tension screw	Sleeve key
			
3	MM-06048	MM12-0637	–
5	MM-06116	MM12-0637	–
2	MM-06020	MM12-0637	H05-4
1	MM-06032	MM12-0637	–
4	–	MM12-061037	–

Slot milling/square shoulder milling



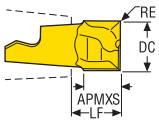


• For Torque keys and torque values, see page 673

Designation	DC	APMXS	RE	LF	RMPX°	C min	C max	FHA°	ZEFP	Wrench		Grades Coated			
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*								T60M	F15M	F30M	F40M
MM12-11715-R03A30-M04	11,7 *0.461*	15,35 *0.604*	0,3 *0.012*	19,9 *0.783*	15,0	14,2	22,6	30	3	MM0416	✓				■
MM12-12015-A30-E04	12,0 *0.472*	15,35 *0.604*	0,0 –	19,9 *0.783*	15,0	14,6	23,8	30	3	MM0416	✓			■	
MM12-12015-R05A30-M04	12,0 *0.472*	15,35 *0.604*	0,5 *0.020*	19,9 *0.783*	15,0	14,6	22,8	30	3	MM0416	✓				■
MM12-12015-R10A30-E04	12,0 *0.472*	15,35 *0.604*	1,0 *0.039*	19,9 *0.783*	15,0	14,6	21,8	30	3	MM0416	✓			■	
MM12-12015-R10A30-M04	12,0 *0.472*	15,35 *0.604*	1,0 *0.039*	19,9 *0.783*	15,0	14,6	21,8	30	3	MM0416	✓				■
MM12-12015-R15A30-D04	12,0 *0.472*	15,35 *0.604*	1,5 *0.059*	19,9 *0.783*	15,0	14,6	20,8	30	3	MM0416	✓			■	
MM12-12015-R20A30-M04	12,0 *0.472*	15,35 *0.604*	2,0 *0.079*	19,9 *0.783*	15,0	14,6	19,8	30	3	MM0416	✓				■
MM12-12015-R30A30-E04	12,0 *0.472*	15,3 *0.602*	3,0 *0.118*	19,9 *0.783*	15,0	14,6	17,8	30	3	MM0416	✓			■	
MM12-12015-R30A30-M04	12,0 *0.472*	15,35 *0.604*	3,0 *0.118*	19,9 *0.783*	15,0	14,6	17,8	30	3	MM0416	✓				■
MM12-12015-R40A30-M04	12,0 *0.472*	15,35 *0.604*	4,0 *0.157*	19,9 *0.783*	15,0	14,6	15,8	30	3	MM0416	✓				■
MM12-12715-A30-E04	12,7 *0.500*	15,35 *0.604*	0,0 –	19,9 *0.783*	15,0	15,4	25,2	30	3	MM0416	✓			■	
MM12-12715-R08A30-M04	12,7 *0.500*	15,35 *0.604*	0,8 *0.031*	19,9 *0.783*	15,0	15,4	23,6	30	3	MM0416	✓				■
MM12-12715-R16A30-M04	12,7 *0.500*	15,35 *0.604*	1,6 *0.063*	19,9 *0.783*	15,0	15,4	22,0	30	3	MM0416	✓				■

Slot milling/square shoulder milling

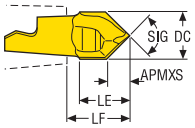




• For Torque keys and torque values, see page 673

Designation	DC	APMXS	RE	LF	RMPX°	C min	C max	FHA°	ZEFP	Wrench	Grades Coated			
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*							T60M	F15M	F30M	F40M
MM12-11708T-R03-D05	11,7 *0.461*	8,2 *0.323*	0,3 *0.012*	10,18 *0.401*	15,0	14,2	22,6	0	2	MM0612	■			
MM12-12008-M04	12,0 *0.472*	8,2 *0.323*	0,0 –	10,2 *0.402*	15,0	14,6	23,8	0	2	MM0612	■			
MM12-12008-R08A8-E04	12,0 *0.472*	8,1 *0.319*	0,8 *0.031*	10,15 *0.400*	15,0	14,6	22,2	8	2	MM0612	■			
MM12-12008-R08-MD05	12,0 *0.472*	8,2 *0.323*	0,8 *0.031*	10,18 *0.401*	15,0	14,6	22,2	0	2	MM0612	■		■	
MM12-12008-R08P-M04	12,0 *0.472*	8,1 *0.319*	0,8 *0.031*	10,05 *0.396*	15,0	14,6	22,2	0	2	MM0612			■	
MM12-12008-R20-MD05	12,0 *0.472*	8,2 *0.323*	2,0 *0.079*	10,16 *0.400*	15,0	14,6	19,8	0	2	MM0612			■	
MM12-12008-R30-MD05	12,0 *0.472*	8,2 *0.323*	3,0 *0.118*	10,14 *0.399*	15,0	14,6	17,8	0	2	MM0612			■	
MM12-12708-M04	12,7 *0.500*	9,3 *0.366*	0,0 –	11,25 *0.443*	15,0	15,4	25,2	0	2	MM1420	■			
MM12-12708-R08-MD05	12,7 *0.500*	9,3 *0.366*	0,8 *0.031*	11,23 *0.442*	15,0	15,4	23,6	0	2	MM1420	■			
MM12-12708-R08P-M04	12,7 *0.500*	9,3 *0.366*	0,8 *0.031*	11,23 *0.442*	15,0	15,4	23,6	0	2	MM1420			■	
MM12-13709T-R03-D05	13,7 *0.539*	9,3 *0.366*	0,3 *0.012*	11,25 *0.443*	15,0	16,6	26,6	0	2	MM1420	■			
MM12-14009-M04	14,0 *0.551*	9,3 *0.366*	0,0 –	11,26 *0.443*	15,0	17,0	27,8	0	2	MM1420	■			
MM12-14009-R08A8-E04	14,0 *0.551*	9,2 *0.362*	0,8 *0.031*	11,06 *0.435*	15,0	17,0	26,2	8	2	MM1420	■		■	
MM12-14009-R08-MD05	14,0 *0.551*	9,3 *0.366*	0,8 *0.031*	11,26 *0.443*	15,0	17,0	26,2	0	2	MM1420	■		■	

Centre drilling

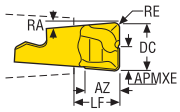




• For Torque keys and torque values, see page 673

Designation	DC	APMXS	LE	LF	SIG°	ZEFP	Wrench	Grades Coated			
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*				T60M	F15M	F30M	F40M
MM12-12006-C90-M04	12,0 *0.472*	5,65 *0.222*	12,65 *0.498*	14,64 *0.576*	90,0	2	MM0612	■			

Plunge milling



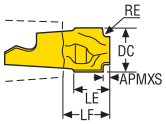


• For Torque keys and torque values, see page 673

Designation	DC	APMXE	RE	AZ	LF	RA°	ZEFP	Wrench	Grades Coated			
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*				T60M	F15M	F30M	F40M
MM12-12008-R10-PL-MD05	12,0 *0.472*	6,0 *0.236*	1,0 *0.039*	8,5 *0.335*	10,2 *0.402*	5,0	2	MM0612			■	

Concave radius



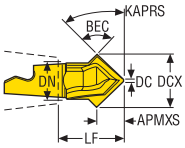


• For Torque keys and torque values, see page 673

Designation	DC	APMXS	RE	LF	ZEFP	Wrench	Grades Coated			
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			T60M	F15M	F30M	F40M
MM12-12010-CR10-MD05	12,0 *0.472*	2,2 *0.087*	1,0 *0.039*	12,14 *0.478*	2	MM0612	■			
MM12-12010-CR20-MD05	12,0 *0.472*	2,4 *0.094*	2,0 *0.079*	12,25 *0.482*	2	MM0612	■			
MM12-12010-CR30-MD05	12,0 *0.472*	3,3 *0.130*	3,0 *0.118*	12,2 *0.480*	2	MM0612	■			

Double chamfering

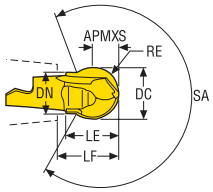


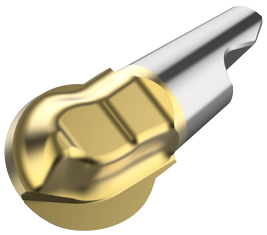


• For Torque keys and torque values, see page 673

Designation	DCX	DC	APMXS	LF	DN	BEC°	KAPRS°	ZEFP	Wrench	Grades Coated			
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*					T60M	F15M	F30M	F40M
MM12-16016-D3020P-M02	16,0 *0.630*	1,0 *0.039*	4,3 *0.169*	15,2 *0.598*	11,5 *0.453*	60,0	30,0	2	MM1420		■		
MM12-16016-D4520P-M02	16,0 *0.630*	1,0 *0.039*	7,5 *0.295*	17,2 *0.677*	11,5 *0.453*	90,0	45,0	2	MM1420		■		

Precision inserts for semi-finishing in all materials



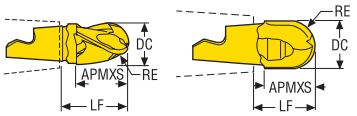


• For Torque keys and torque values, see page 673

Designation	DC	APMXS	RE	LE	LF	DN	SA°	ZEFP	Wrench	Grades Coated			
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*				T60M	F15M	F30M	F40M
MM12-14014-B120P-M05	14,0 *0.551*	7,0 *0.276*	7,0 *0.276*	14,0 *0.551*	15,45 *0.608*	12,0 *0.472*	242,0	2	MM1420			■	
MM12-16016-B120PF-M03	16,0 *0.630*	8,0 *0.315*	8,0 *0.315*	16,0 *0.630*	17,46 *0.687*	12,0 *0.472*	263,0	2	MM1420		■		
MM12-16016-B120P-M07	16,0 *0.630*	8,0 *0.315*	8,0 *0.315*	16,0 *0.630*	17,46 *0.687*	12,0 *0.472*	263,0	2	MM1420			■	

Copy milling

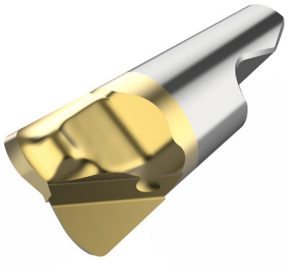


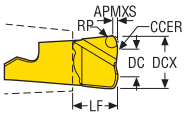


• For Torque keys and torque values, see page 673

Designation	DC	APMXS	RE	LF	FHA°	ZEFP	Wrench		Grades Coated			
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*					T60M	F15M	F30M	F40M
MM12-12012-B90-MD05	12,0 *0.472*	12,2 *0.480*	6,0 *0.236*	14,12 *0.556*	0,0	2	MM0612		■		■	
MM12-12012-B90PF-M02	12,0 *0.472*	10,4 *0.409*	6,0 *0.236*	14,09 *0.555*	0,0	2	MM0612			■		
MM12-12012-B90P-M05	12,0 *0.472*	10,4 *0.409*	6,0 *0.236*	14,09 *0.555*	0,0	2	MM0612				■	
MM12-12012-B90S-E05	12,0 *0.472*	12,3 *0.484*	6,0 *0.236*	14,12 *0.556*	0,0	2	MM0612				■	
MM12-12015-B90A30-E04	12,0 *0.472*	15,3 *0.602*	6,0 *0.236*	19,9 *0.783*	30,0	3	MM0416	✓			■	
MM12-12015-B90A30-M04	12,0 *0.472*	15,3 *0.602*	6,0 *0.236*	19,9 *0.783*	30,0	3	MM0416	✓				■
MM12-12713-B90P-M05	12,7 *0.500*	12,2 *0.480*	6,35 *0.250*	15,92 *0.627*	0,0	2	MM1420		■		■	
MM12-12715-B90A30-M04	12,7 *0.500*	15,3 *0.602*	6,35 *0.250*	19,75 *0.778*	30,0	3	MM0416	✓				■
MM12-14014-B90S-E05	14,0 *0.551*	14,1 *0.555*	7,0 *0.276*	15,92 *0.627*	0,0	2	MM1420				■	

High feed





• For Torque keys and torque values, see page 673

Designation	DCX	DC	APMXS	RP	CCER	LF	RMPX°	C min	C max	ZEFP	Wrench		Grades Coated			
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*							T60M	F15M	F30M	F40M
MM12-12.60-HF-MD10	12,0 *0.472*	6,0 *0.236*	0,51 *0.020*	1,21 *0.048*	6,5 *0.256*	10,25 *0.404*	5,0	14,6	22,2	2	MM0612			■	■	

MM12 - Slot and Side milling – Insert selection – mm/*Inch*

SMG		a_p	f_z			
			100%	40%	20%	10%
P1	MM12-12015-R05A30-M04 F40M	2,5 *0.10*	0,055 *0.0022*	0,060 *0.0024*	0,070 *0.0028*	0,095 *0.0038*
P2	MM12-12015-R05A30-M04 F40M	2,5 *0.10*	0,060 *0.0024*	0,060 *0.0024*	0,070 *0.0028*	0,095 *0.0038*
P3	MM12-12015-R05A30-M04 F40M	2,5 *0.10*	0,055 *0.0022*	0,055 *0.0022*	0,070 *0.0028*	0,090 *0.0036*
P4	MM12-12015-R05A30-M04 F40M	2,5 *0.10*	0,055 *0.0022*	0,055 *0.0022*	0,065 *0.0026*	0,090 *0.0036*
P5	MM12-12015-R05A30-M04 F40M	2,5 *0.10*	0,055 *0.0022*	0,055 *0.0022*	0,065 *0.0026*	0,085 *0.0034*
P6	MM12-12015-R05A30-M04 F40M	2,5 *0.10*	0,050 *0.0020*	0,055 *0.0022*	0,065 *0.0026*	0,085 *0.0034*
P7	MM12-12015-R05A30-M04 F40M	2,5 *0.10*	0,050 *0.0020*	0,055 *0.0022*	0,065 *0.0026*	0,085 *0.0034*
P8	MM12-12015-R05A30-M04 F40M	2,5 *0.10*	0,055 *0.0022*	0,055 *0.0022*	0,070 *0.0028*	0,090 *0.0036*
P11	MM12-12015-R05A30-M04 F40M	2,5 *0.10*	0,050 *0.0020*	0,055 *0.0022*	0,065 *0.0026*	0,085 *0.0034*
P12	MM12-12015-R05A30-M04 F40M	2,0 *0.080*	0,036 *0.0014*	0,036 *0.0014*	0,044 *0.0017*	0,060 *0.0024*
M1	MM12-12015-R05A30-M04 F40M	2,5 *0.10*	0,060 *0.0024*	0,060 *0.0024*	0,070 *0.0028*	0,095 *0.0038*
M2	MM12-12015-R05A30-M04 F40M	2,5 *0.10*	0,055 *0.0022*	0,055 *0.0022*	0,065 *0.0026*	0,085 *0.0034*
M3	MM12-12015-R05A30-M04 F40M	2,0 *0.080*	0,042 *0.0017*	0,044 *0.0017*	0,050 *0.0020*	0,070 *0.0028*
M4	MM12-12015-R05A30-M04 F40M	1,6 *0.065*	0,038 *0.0015*	0,038 *0.0015*	0,046 *0.0018*	0,060 *0.0024*
M5	MM12-12015-R05A30-M04 F40M	1,6 *0.065*	0,038 *0.0015*	0,038 *0.0015*	0,046 *0.0018*	0,060 *0.0024*
K1	MM12-12015-R10A30-E04 F30M	2,5 *0.10*	0,060 *0.0024*	0,060 *0.0024*	0,070 *0.0028*	0,095 *0.0038*
K2	MM12-12015-R10A30-E04 F30M	2,5 *0.10*	0,055 *0.0022*	0,055 *0.0022*	0,065 *0.0026*	0,090 *0.0036*
K3	MM12-12015-R10A30-E04 F30M	2,5 *0.10*	0,055 *0.0022*	0,055 *0.0022*	0,065 *0.0026*	0,090 *0.0036*
K4	MM12-12015-R10A30-E04 F30M	2,5 *0.10*	0,055 *0.0022*	0,055 *0.0022*	0,065 *0.0026*	0,090 *0.0036*
K5	MM12-12015-R15A30-D04 F30M	2,5 *0.10*	0,055 *0.0022*	0,055 *0.0022*	0,060 *0.0024*	0,080 *0.0032*
K6	MM12-12015-R15A30-D04 F30M	2,5 *0.10*	0,060 *0.0024*	0,060 *0.0024*	0,065 *0.0026*	0,090 *0.0036*
K7	MM12-12015-R15A30-D04 F30M	2,5 *0.10*	0,055 *0.0022*	0,055 *0.0022*	0,060 *0.0024*	0,080 *0.0032*
N1	MM12-12015-R10A30-E04 F30M	2,5 *0.10*	0,080 *0.0032*	0,080 *0.0032*	0,090 *0.0036*	0,12 *0.0048*
N2	MM12-12015-R10A30-E04 F30M	2,5 *0.10*	0,080 *0.0032*	0,080 *0.0032*	0,090 *0.0036*	0,12 *0.0048*
N3	MM12-12015-R10A30-E04 F30M	2,5 *0.10*	0,080 *0.0032*	0,080 *0.0032*	0,090 *0.0036*	0,12 *0.0048*
N11	MM12-12015-R10A30-E04 F30M	2,5 *0.10*	0,080 *0.0032*	0,080 *0.0032*	0,090 *0.0036*	0,12 *0.0048*
S1	MM12-12015-R15A30-D04 F30M	1,6 *0.065*	0,050 *0.0020*	0,048 *0.0019*	0,048 *0.0019*	0,060 *0.0026*
S2	MM12-12015-R15A30-D04 F30M	1,6 *0.065*	0,050 *0.0020*	0,048 *0.0019*	0,048 *0.0019*	0,060 *0.0026*
S3	MM12-12015-R15A30-D04 F30M	1,6 *0.065*	0,046 *0.0018*	0,044 *0.0017*	0,044 *0.0017*	0,055 *0.0024*
S11	MM12-12015-R05A30-M04 F40M	1,9 *0.075*	0,044 *0.0017*	0,044 *0.0017*	0,050 *0.0020*	0,070 *0.0028*
S12	MM12-12015-R05A30-M04 F40M	1,9 *0.075*	0,044 *0.0017*	0,044 *0.0017*	0,050 *0.0020*	0,070 *0.0028*
S13	MM12-12015-R05A30-M04 F40M	1,6 *0.065*	0,038 *0.0015*	0,038 *0.0015*	0,046 *0.0018*	0,060 *0.0024*
H5	MM12-12015-R15A30-D04 F30M	2,0 *0.080*	0,044 *0.0017*	0,042 *0.0017*	0,046 *0.0018*	0,060 *0.0024*
H8	MM12-12015-R15A30-D04 F30M	1,9 *0.075*	0,034 *0.0013*	0,034 *0.0013*	0,036 *0.0014*	0,046 *0.0018*
H11	MM12-12015-R15A30-D04 F30M	2,0 *0.080*	0,044 *0.0017*	0,042 *0.0017*	0,046 *0.0018*	0,060 *0.0024*
H12	MM12-12015-R15A30-D04 F30M	1,9 *0.075*	0,034 *0.0013*	0,034 *0.0013*	0,036 *0.0014*	0,046 *0.0018*
H21	MM12-12015-R15A30-D04 F30M	1,9 *0.075*	0,034 *0.0013*	0,034 *0.0013*	0,036 *0.0014*	0,046 *0.0018*

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

MM12 - Slot and Side milling – Cutting data v_c = (m/min)/*(sf/min)*

SMG	F30M				F40M				T60M			
	100%	40%	20%	10%	100%	40%	20%	10%	100%	40%	20%	10%
P1	250 *820*	315 *1025*	350 *1150*	385 *1275*	240 *790*	300 *980*	335 *1100*	365 *1200*	185 *610*	225 *740*	255 *840*	280 *920*
P2	245 *800*	305 *1000*	340 *1125*	375 *1225*	235 *770*	290 *950*	325 *1075*	355 *1175*	175 *570*	220 *720*	250 *820*	275 *900*
P3	210 *690*	265 *870*	295 *970*	325 *1075*	200 *660*	250 *820*	280 *920*	310 *1025*	155 *510*	195 *640*	215 *710*	235 *770*
P4	190 *620*	235 *770*	260 *850*	285 *940*	180 *590*	225 *740*	250 *820*	270 *890*	135 *445*	170 *560*	190 *620*	210 *690*
P5	180 *590*	225 *740*	250 *820*	275 *900*	170 *560*	215 *710*	240 *790*	260 *850*	130 *425*	160 *520*	180 *590*	200 *660*
P6	205 *670*	250 *820*	280 *920*	310 *1025*	195 *640*	240 *790*	270 *890*	295 *970*	150 *490*	185 *610*	205 *670*	225 *740*
P7	190 *620*	240 *790*	265 *870*	295 *970*	180 *590*	225 *740*	255 *840*	280 *920*	140 *460*	175 *570*	195 *640*	215 *710*
P8	175 *570*	220 *720*	245 *800*	275 *900*	170 *560*	210 *690*	235 *770*	260 *850*	130 *425*	160 *520*	180 *590*	200 *660*
P11	185 *610*	230 *750*	260 *850*	285 *940*	175 *570*	220 *720*	245 *800*	270 *890*	135 *445*	170 *560*	190 *620*	210 *690*
P12	115 *375*	145 *475*	165 *540*	180 *590*	110 *360*	140 *460*	155 *510*	170 *560*	85 *280*	110 *360*	120 *395*	130 *425*
M1	200 *660*	245 *800*	275 *900*	300 *980*	190 *620*	235 *770*	260 *850*	285 *940*	140 *460*	180 *590*	200 *660*	220 *720*
M2	160 *520*	200 *660*	225 *740*	245 *800*	155 *510*	195 *640*	215 *710*	235 *770*	120 *395*	145 *475*	165 *540*	180 *590*
M3	130 *425*	160 *520*	175 *570*	195 *640*	125 *410*	150 *490*	170 *560*	185 *610*	95 *310*	120 *395*	135 *445*	145 *475*
M4	100 *330*	125 *410*	140 *460*	150 *490*	95 *310*	115 *375*	130 *425*	145 *475*	75 *245*	90 *295*	100 *330*	110 *360*
M5	80 *260*	100 *330*	115 *375*	125 *410*	80 *260*	95 *310*	110 *360*	120 *395*	60 *195*	75 *245*	85 *280*	95 *310*
K1	195 *640*	240 *790*	270 *890*	295 *970*	185 *610*	230 *750*	255 *840*	280 *920*	140 *460*	175 *570*	195 *640*	220 *720*
K2	170 *560*	215 *710*	240 *790*	260 *850*	165 *540*	205 *670*	225 *740*	245 *800*	125 *410*	155 *510*	175 *570*	190 *620*
K3	145 *475*	180 *590*	200 *660*	220 *720*	140 *460*	170 *560*	190 *620*	210 *690*	105 *345*	130 *425*	145 *475*	160 *520*
K4	140 *460*	170 *560*	190 *620*	210 *690*	130 *425*	165 *540*	185 *610*	200 *660*	100 *330*	125 *410*	140 *460*	155 *510*
K5	85 *280*	105 *345*	115 *375*	125 *410*	80 *260*	100 *330*	110 *360*	120 *395*	60 *195*	75 *245*	85 *280*	95 *310*
K6	120 *395*	150 *490*	170 *560*	185 *610*	115 *375*	145 *475*	160 *520*	175 *570*	90 *295*	110 *360*	125 *410*	135 *445*
K7	105 *345*	135 *445*	150 *490*	165 *540*	100 *330*	125 *410*	140 *460*	155 *510*	80 *260*	100 *330*	110 *360*	120 *395*
N1	1450 *4750*	1800 *5900*	2025 *6650*	2225 *7300*	1375 *4500*	1725 *5650*	1925 *6325*	2125 *6975*	1050 *3450*	1300 *4275*	1450 *4750*	1600 *5250*
N2	580 *1900*	730 *2400*	820 *2700*	900 *2950*	560 *1825*	690 *2275*	780 *2550*	860 *2825*	420 *1375*	530 *1750*	590 *1925*	650 *2125*
N3	390 *1275*	485 *1600*	550 *1800*	600 *1975*	370 *1225*	460 *1500*	520 *1700*	570 *1875*	280 *920*	350 *1150*	395 *1300*	435 *1425*
N11	445 *1450*	550 *1800*	620 *2025*	690 *2275*	425 *1400*	530 *1750*	590 *1925*	650 *2125*	320 *1050*	405 *1325*	450 *1475*	495 *1625*
S1	46 *150*	55 *180*	65 *215*	70 *230*	44 *145*	55 *180*	60 *195*	65 *215*	34 *110*	43 *140*	47 *155*	50 *165*
S2	37 *120*	46 *150*	50 *165*	55 *180*	35 *115*	44 *145*	49 *160*	55 *180*	28 *90*	34 *110*	38 *125*	42 *140*
S3	32 *105*	40 *130*	45 *150*	50 *165*	31 *100*	38 *125*	43 *140*	47 *155*	24 *80*	30 *100*	33 *110*	37 *120*
S11	65 *215*	80 *260*	90 *295*	100 *330*	60 *195*	75 *245*	85 *280*	95 *310*	48 *155*	60 *195*	65 *215*	75 *245*
S12	45 *150*	55 *180*	60 *195*	70 *230*	43 *140*	55 *180*	60 *195*	65 *215*	33 *110*	41 *135*	47 *155*	50 *165*
S13	26 *85*	32 *105*	36 *120*	40 *130*	25 *80*	31 *100*	34 *110*	38 *125*	19 *60*	24 *80*	27 *90*	29 *95*
H5	39 *130*	49 *160*	55 *180*	60 *195*	37 *120*	46 *150*	50 *165*	55 *180*	29 *95*	36 *120*	40 *130*	44 *145*
H8	41 *135*	50 *165*	55 *180*	60 *195*	39 *130*	48 *155*	55 *180*	60 *195*	30 *100*	37 *120*	42 *140*	46 *150*
H11	49 *160*	60 *195*	70 *230*	75 *245*	47 *155*	60 *195*	65 *215*	70 *230*	37 *120*	46 *150*	50 *165*	55 *180*
H12	75 *245*	90 *295*	100 *330*	110 *360*	70 *230*	85 *280*	95 *310*	105 *345*	55 *180*	65 *215*	75 *245*	85 *280*
H21	41 *135*	50 *165*	55 *180*	60 *195*	39 *130*	48 *155*	55 *180*	60 *195*	30 *100*	37 *120*	42 *140*	46 *150*

MM12 Z3 – Copy milling – Insert selection – Roughing – mm/*Inch*

SMG		a_p	f_z			
			100%	40%	20%	10%
P1	MM12-12015-B90A30-M04 F40M	2,5 *0.10*	0,070 *0.0028*	0,070 *0.0028*	0,070 *0.0028*	0,095 *0.0038*
P2	MM12-12015-B90A30-M04 F40M	2,5 *0.10*	0,070 *0.0028*	0,070 *0.0028*	0,075 *0.0030*	0,095 *0.0038*
P3	MM12-12015-B90A30-M04 F40M	2,5 *0.10*	0,070 *0.0028*	0,065 *0.0026*	0,070 *0.0028*	0,090 *0.0036*
P4	MM12-12015-B90A30-M04 F40M	2,5 *0.10*	0,065 *0.0026*	0,065 *0.0026*	0,070 *0.0028*	0,090 *0.0036*
P5	MM12-12015-B90A30-M04 F40M	2,5 *0.10*	0,065 *0.0026*	0,065 *0.0026*	0,065 *0.0026*	0,090 *0.0036*
P6	MM12-12015-B90A30-M04 F40M	2,5 *0.10*	0,065 *0.0026*	0,065 *0.0026*	0,065 *0.0026*	0,085 *0.0034*
P7	MM12-12015-B90A30-M04 F40M	2,5 *0.10*	0,065 *0.0026*	0,065 *0.0026*	0,065 *0.0026*	0,085 *0.0034*
P8	MM12-12015-B90A30-M04 F40M	2,5 *0.10*	0,070 *0.0028*	0,065 *0.0026*	0,070 *0.0028*	0,090 *0.0036*
P11	MM12-12015-B90A30-M04 F40M	2,5 *0.10*	0,065 *0.0026*	0,065 *0.0026*	0,065 *0.0026*	0,085 *0.0034*
P12	MM12-12015-B90A30-M04 F40M	2,0 *0.080*	0,046 *0.0018*	0,044 *0.0017*	0,046 *0.0018*	0,060 *0.0024*
M1	MM12-12015-B90A30-M04 F40M	2,5 *0.10*	0,070 *0.0028*	0,070 *0.0028*	0,075 *0.0030*	0,095 *0.0038*
M2	MM12-12015-B90A30-M04 F40M	2,5 *0.10*	0,065 *0.0026*	0,065 *0.0026*	0,065 *0.0026*	0,090 *0.0036*
M3	MM12-12015-B90A30-M04 F40M	2,0 *0.080*	0,055 *0.0022*	0,055 *0.0022*	0,055 *0.0022*	0,070 *0.0028*
M4	MM12-12015-B90A30-M04 F40M	1,6 *0.065*	0,050 *0.0020*	0,048 *0.0019*	0,048 *0.0019*	0,060 *0.0026*
M5	MM12-12015-B90A30-M04 F40M	1,6 *0.065*	0,050 *0.0020*	0,048 *0.0019*	0,048 *0.0019*	0,060 *0.0026*
K1	MM12-12015-B90A30-E04 F30M	2,5 *0.10*	0,070 *0.0028*	0,070 *0.0028*	0,075 *0.0030*	0,095 *0.0038*
K2	MM12-12015-B90A30-E04 F30M	2,5 *0.10*	0,065 *0.0026*	0,065 *0.0026*	0,065 *0.0026*	0,090 *0.0036*
K3	MM12-12015-B90A30-E04 F30M	2,5 *0.10*	0,065 *0.0026*	0,065 *0.0026*	0,065 *0.0026*	0,090 *0.0036*
K4	MM12-12015-B90A30-E04 F30M	2,5 *0.10*	0,065 *0.0026*	0,065 *0.0026*	0,065 *0.0026*	0,090 *0.0036*
K5	MM12-12015-B90A30-M04 F40M	2,5 *0.10*	0,060 *0.0024*	0,055 *0.0022*	0,060 *0.0024*	0,080 *0.0032*
K6	MM12-12015-B90A30-M04 F40M	2,5 *0.10*	0,065 *0.0026*	0,065 *0.0026*	0,065 *0.0026*	0,090 *0.0036*
K7	MM12-12015-B90A30-M04 F40M	2,5 *0.10*	0,060 *0.0024*	0,055 *0.0022*	0,060 *0.0024*	0,080 *0.0032*
N1	MM12-12015-B90A30-E04 F30M	2,5 *0.10*	0,090 *0.0036*	0,090 *0.0036*	0,095 *0.0038*	0,12 *0.0048*
N2	MM12-12015-B90A30-E04 F30M	2,5 *0.10*	0,090 *0.0036*	0,090 *0.0036*	0,095 *0.0038*	0,12 *0.0048*
N3	MM12-12015-B90A30-E04 F30M	2,5 *0.10*	0,090 *0.0036*	0,090 *0.0036*	0,095 *0.0038*	0,12 *0.0048*
N11	MM12-12015-B90A30-E04 F30M	2,5 *0.10*	0,090 *0.0036*	0,090 *0.0036*	0,095 *0.0038*	0,12 *0.0048*
S1	MM12-12015-B90A30-M04 F40M	1,6 *0.065*	0,050 *0.0020*	0,048 *0.0019*	0,048 *0.0019*	0,060 *0.0026*
S2	MM12-12015-B90A30-M04 F40M	1,6 *0.065*	0,050 *0.0020*	0,048 *0.0019*	0,048 *0.0019*	0,060 *0.0026*
S3	MM12-12015-B90A30-M04 F40M	1,6 *0.065*	0,046 *0.0018*	0,046 *0.0018*	0,046 *0.0018*	0,055 *0.0024*
S11	MM12-12015-B90A30-M04 F40M	1,9 *0.075*	0,055 *0.0022*	0,055 *0.0022*	0,055 *0.0022*	0,070 *0.0028*
S12	MM12-12015-B90A30-M04 F40M	1,9 *0.075*	0,055 *0.0022*	0,055 *0.0022*	0,055 *0.0022*	0,070 *0.0028*
S13	MM12-12015-B90A30-M04 F40M	1,6 *0.065*	0,050 *0.0020*	0,048 *0.0019*	0,048 *0.0019*	0,060 *0.0026*
H5	MM12-12015-B90A30-E04 F30M	2,0 *0.080*	0,046 *0.0018*	0,044 *0.0017*	0,046 *0.0018*	0,060 *0.0024*
H8	MM12-12015-B90A30-E04 F30M	1,9 *0.075*	0,036 *0.0014*	0,036 *0.0014*	0,036 *0.0014*	0,046 *0.0018*
H11	MM12-12015-B90A30-E04 F30M	2,0 *0.080*	0,046 *0.0018*	0,044 *0.0017*	0,046 *0.0018*	0,060 *0.0024*
H12	MM12-12015-B90A30-E04 F30M	1,9 *0.075*	0,036 *0.0014*	0,036 *0.0014*	0,036 *0.0014*	0,046 *0.0018*
H21	MM12-12015-B90A30-E04 F30M	1,9 *0.075*	0,036 *0.0014*	0,036 *0.0014*	0,036 *0.0014*	0,046 *0.0018*

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

MM12 Z3 – Copy milling – Insert selection – Finishing – mm/*Inch*

SMG		a_p	f_z			
			15%	10%	5%	2%
P1	MM12-12015-B90A30-E04 F30M	2,5 *0.10*	0,080 *0.0032*	0,095 *0.0038*	0,13 *0.0050*	0,22 *0.0085*
P2	MM12-12015-B90A30-E04 F30M	2,5 *0.10*	0,080 *0.0032*	0,095 *0.0038*	0,13 *0.0050*	0,22 *0.0085*
P3	MM12-12015-B90A30-E04 F30M	2,5 *0.10*	0,075 *0.0030*	0,090 *0.0036*	0,13 *0.0050*	0,20 *0.0080*
P4	MM12-12015-B90A30-E04 F30M	2,5 *0.10*	0,075 *0.0030*	0,090 *0.0036*	0,12 *0.0048*	0,20 *0.0080*
P5	MM12-12015-B90A30-E04 F30M	2,5 *0.10*	0,075 *0.0030*	0,090 *0.0036*	0,12 *0.0048*	0,20 *0.0080*
P6	MM12-12015-B90A30-E04 F30M	2,5 *0.10*	0,075 *0.0030*	0,085 *0.0034*	0,12 *0.0048*	0,19 *0.0075*
P7	MM12-12015-B90A30-E04 F30M	2,5 *0.10*	0,075 *0.0030*	0,085 *0.0034*	0,12 *0.0048*	0,19 *0.0075*
P8	MM12-12015-B90A30-E04 F30M	2,5 *0.10*	0,075 *0.0030*	0,090 *0.0036*	0,13 *0.0050*	0,20 *0.0080*
P11	MM12-12015-B90A30-E04 F30M	2,5 *0.10*	0,075 *0.0030*	0,085 *0.0034*	0,12 *0.0048*	0,19 *0.0075*
P12	MM12-12015-B90A30-E04 F30M	2,0 *0.080*	0,050 *0.0020*	0,060 *0.0024*	0,080 *0.0032*	0,13 *0.0050*
M1	MM12-12015-B90A30-E04 F30M	2,5 *0.10*	0,080 *0.0032*	0,095 *0.0038*	0,13 *0.0050*	0,22 *0.0085*
M2	MM12-12015-B90A30-E04 F30M	2,5 *0.10*	0,075 *0.0030*	0,090 *0.0036*	0,12 *0.0048*	0,20 *0.0080*
M3	MM12-12015-B90A30-E04 F30M	2,0 *0.080*	0,060 *0.0024*	0,070 *0.0028*	0,095 *0.0038*	0,16 *0.0065*
M4	MM12-12015-B90A30-E04 F30M	1,6 *0.065*	0,055 *0.0022*	0,060 *0.0026*	0,085 *0.0034*	0,14 *0.0055*
M5	MM12-12015-B90A30-E04 F30M	1,6 *0.065*	0,055 *0.0022*	0,060 *0.0026*	0,085 *0.0034*	0,14 *0.0055*
K1	MM12-12015-B90A30-E04 F30M	2,5 *0.10*	0,080 *0.0032*	0,095 *0.0038*	0,13 *0.0050*	0,22 *0.0085*
K2	MM12-12015-B90A30-E04 F30M	2,5 *0.10*	0,075 *0.0030*	0,090 *0.0036*	0,12 *0.0048*	0,20 *0.0080*
K3	MM12-12015-B90A30-E04 F30M	2,5 *0.10*	0,075 *0.0030*	0,090 *0.0036*	0,12 *0.0048*	0,20 *0.0080*
K4	MM12-12015-B90A30-E04 F30M	2,5 *0.10*	0,075 *0.0030*	0,090 *0.0036*	0,12 *0.0048*	0,20 *0.0080*
K5	MM12-12015-B90A30-E04 F30M	2,5 *0.10*	0,065 *0.0026*	0,080 *0.0032*	0,11 *0.0044*	0,18 *0.0070*
K6	MM12-12015-B90A30-E04 F30M	2,5 *0.10*	0,075 *0.0030*	0,090 *0.0036*	0,12 *0.0048*	0,20 *0.0080*
K7	MM12-12015-B90A30-E04 F30M	2,5 *0.10*	0,065 *0.0026*	0,080 *0.0032*	0,11 *0.0044*	0,18 *0.0070*
N1	MM12-12015-B90A30-E04 F30M	2,5 *0.10*	0,10 *0.0040*	0,12 *0.0048*	0,17 *0.0065*	0,28 *0.011*
N2	MM12-12015-B90A30-E04 F30M	2,5 *0.10*	0,10 *0.0040*	0,12 *0.0048*	0,17 *0.0065*	0,28 *0.011*
N3	MM12-12015-B90A30-E04 F30M	2,5 *0.10*	0,10 *0.0040*	0,12 *0.0048*	0,17 *0.0065*	0,28 *0.011*
N11	MM12-12015-B90A30-E04 F30M	2,5 *0.10*	0,10 *0.0040*	0,12 *0.0048*	0,17 *0.0065*	0,28 *0.011*
S1	MM12-12015-B90A30-E04 F30M	1,6 *0.065*	0,055 *0.0022*	0,060 *0.0026*	0,085 *0.0034*	0,14 *0.0055*
S2	MM12-12015-B90A30-E04 F30M	1,6 *0.065*	0,055 *0.0022*	0,060 *0.0026*	0,085 *0.0034*	0,14 *0.0055*
S3	MM12-12015-B90A30-E04 F30M	1,6 *0.065*	0,050 *0.0020*	0,055 *0.0024*	0,080 *0.0032*	0,13 *0.0050*
S11	MM12-12015-B90A30-E04 F30M	1,9 *0.075*	0,060 *0.0024*	0,070 *0.0028*	0,095 *0.0038*	0,16 *0.0065*
S12	MM12-12015-B90A30-E04 F30M	1,9 *0.075*	0,060 *0.0024*	0,070 *0.0028*	0,095 *0.0038*	0,16 *0.0065*
S13	MM12-12015-B90A30-E04 F30M	1,6 *0.065*	0,055 *0.0022*	0,060 *0.0026*	0,085 *0.0034*	0,14 *0.0055*
H5	MM12-12015-B90A30-E04 F30M	2,0 *0.080*	0,050 *0.0020*	0,060 *0.0024*	0,080 *0.0032*	0,13 *0.0050*
H8	MM12-12015-B90A30-E04 F30M	1,9 *0.075*	0,040 *0.0016*	0,046 *0.0018*	0,065 *0.0026*	0,10 *0.0040*
H11	MM12-12015-B90A30-E04 F30M	2,0 *0.080*	0,050 *0.0020*	0,060 *0.0024*	0,080 *0.0032*	0,13 *0.0050*
H12	MM12-12015-B90A30-E04 F30M	1,9 *0.075*	0,040 *0.0016*	0,046 *0.0018*	0,065 *0.0026*	0,10 *0.0040*
H21	MM12-12015-B90A30-E04 F30M	1,9 *0.075*	0,040 *0.0016*	0,046 *0.0018*	0,065 *0.0026*	0,10 *0.0040*

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

MM12 Z3 – Copy milling – Cutting data v_c = (m/min)/*(sf/min)*

SMG	F30M					F40M				
	100%	20%	10%	5%	2%	100%	20%	10%	5%	2%
P1	270 *890*	315 *1025*	335 *1100*	365 *1200*	360 *1175*	255 *840*	300 *980*	320 *1050*	345 *1125*	340 *1125*
P2	265 *870*	305 *1000*	325 *1075*	355 *1175*	350 *1150*	250 *820*	290 *950*	310 *1025*	335 *1100*	330 *1075*
P3	225 *740*	265 *870*	285 *940*	305 *1000*	305 *1000*	215 *710*	255 *840*	270 *890*	290 *950*	290 *950*
P4	200 *660*	235 *770*	250 *820*	270 *890*	270 *890*	190 *620*	225 *740*	235 *770*	260 *850*	255 *840*
P5	195 *640*	225 *740*	240 *790*	260 *850*	255 *840*	185 *610*	215 *710*	225 *740*	245 *800*	245 *800*
P6	215 *710*	255 *840*	270 *890*	290 *950*	290 *950*	205 *670*	240 *790*	255 *840*	275 *900*	275 *900*
P7	205 *670*	240 *790*	255 *840*	275 *900*	275 *900*	195 *640*	230 *750*	240 *790*	260 *850*	260 *850*
P8	190 *620*	225 *740*	240 *790*	255 *840*	255 *840*	180 *590*	215 *710*	225 *740*	245 *800*	245 *800*
P11	200 *660*	235 *770*	245 *800*	265 *870*	265 *870*	190 *620*	220 *720*	235 *770*	255 *840*	255 *840*
P12	125 *410*	150 *490*	155 *510*	170 *560*	165 *540*	120 *395*	140 *460*	145 *490*	160 *520*	160 *520*
M1	210 *690*	245 *800*	265 *870*	285 *940*	280 *920*	200 *660*	235 *770*	250 *820*	270 *890*	270 *890*
M2	175 *570*	205 *670*	215 *710*	235 *770*	230 *750*	165 *540*	195 *640*	205 *670*	220 *720*	220 *720*
M3	140 *460*	165 *540*	170 *560*	185 *610*	185 *610*	130 *425*	155 *510*	160 *540*	175 *570*	175 *570*
M4	100 *330*	130 *425*	130 *460*	140 *460*	140 *460*	95 *310*	125 *410*	125 *425*	135 *445*	135 *445*
M5	80 *260*	110 *360*	110 *375*	115 *375*	115 *375*	80 *260*	105 *345*	105 *360*	110 *360*	110 *360*
K1	210 *690*	240 *790*	260 *850*	280 *920*	275 *900*	200 *660*	230 *750*	245 *800*	265 *870*	265 *870*
K2	185 *610*	215 *710*	225 *740*	245 *800*	245 *800*	175 *570*	205 *670*	215 *710*	235 *770*	230 *750*
K3	155 *510*	180 *590*	190 *620*	210 *690*	205 *670*	145 *475*	175 *570*	180 *590*	200 *660*	195 *640*
K4	150 *490*	175 *570*	180 *590*	200 *660*	195 *640*	140 *460*	165 *540*	175 *570*	190 *620*	185 *610*
K5	90 *295*	105 *345*	110 *360*	120 *395*	120 *395*	85 *280*	100 *330*	105 *345*	115 *375*	115 *375*
K6	130 *425*	155 *510*	160 *520*	175 *570*	175 *570*	125 *410*	145 *475*	155 *510*	165 *540*	165 *540*
K7	115 *375*	135 *445*	140 *460*	155 *510*	155 *510*	110 *360*	125 *410*	135 *445*	145 *475*	145 *475*
N1	1575 *5175*	1825 *6000*	1950 *6400*	2100 *6900*	2100 *6900*	1500 *4925*	1750 *5750*	1850 *6075*	2000 *6550*	2000 *6550*
N2	640 *2100*	740 *2425*	790 *2600*	850 *2800*	840 *2750*	610 *2000*	700 *2300*	750 *2450*	810 *2650*	800 *2625*
N3	425 *1400*	495 *1625*	530 *1750*	570 *1875*	560 *1825*	405 *1325*	470 *1550*	500 *1650*	540 *1775*	540 *1775*
N11	485 *1600*	560 *1825*	600 *1975*	650 *2125*	640 *2100*	460 *1500*	540 *1775*	570 *1875*	620 *2025*	610 *2000*
S1	46 *150*	60 *195*	60 *215*	65 *215*	65 *215*	44 *145*	60 *195*	60 *195*	65 *215*	60 *195*
S2	37 *120*	50 *165*	49 *165*	55 *180*	55 *180*	35 *115*	47 *155*	47 *165*	50 *165*	50 *165*
S3	32 *105*	43 *140*	43 *150*	46 *150*	46 *150*	31 *100*	41 *135*	41 *140*	44 *145*	44 *145*
S11	70 *230*	85 *280*	85 *295*	95 *310*	90 *295*	65 *215*	80 *260*	80 *280*	90 *295*	90 *295*
S12	48 *155*	60 *195*	60 *195*	65 *215*	65 *215*	46 *150*	55 *180*	55 *195*	60 *195*	60 *195*
S13	26 *85*	35 *115*	34 *120*	37 *120*	37 *120*	25 *80*	33 *110*	33 *115*	35 *115*	35 *115*
H5	42 *140*	50 *165*	50 *165*	55 *180*	55 *180*	40 *130*	47 *155*	49 *160*	55 *180*	55 *180*
H8	42 *140*	55 *180*	55 *180*	55 *180*	55 *180*	40 *130*	50 *165*	50 *165*	55 *180*	55 *180*
H11	55 *180*	65 *215*	65 *215*	70 *230*	70 *230*	50 *165*	60 *195*	60 *195*	65 *215*	65 *215*
H12	75 *245*	95 *310*	95 *330*	105 *345*	105 *345*	75 *245*	90 *295*	90 *310*	100 *330*	100 *330*
H21	42 *140*	55 *180*	55 *180*	55 *180*	55 *180*	40 *130*	50 *165*	50 *165*	55 *180*	55 *180*

MM12 Z2 – Copy milling – Insert selection – Roughing – mm/*Inch*

SMG		a_p	f_z			
			100%	40%	20%	10%
P1	MM12-12012-B90S-E05 F30M	5,0 *0.20*	0,075 *0.0030*	0,080 *0.0032*	0,090 *0.0036*	0,12 *0.0048*
P2	MM12-12012-B90S-E05 F30M	5,0 *0.20*	0,080 *0.0032*	0,080 *0.0032*	0,090 *0.0036*	0,12 *0.0048*
P3	MM12-12012-B90S-E05 F30M	5,0 *0.20*	0,075 *0.0030*	0,075 *0.0030*	0,085 *0.0034*	0,11 *0.0044*
P4	MM12-12012-B90-MD05 F30M	5,0 *0.20*	0,075 *0.0030*	0,075 *0.0030*	0,085 *0.0034*	0,11 *0.0044*
P5	MM12-12012-B90-MD05 F30M	5,0 *0.20*	0,070 *0.0028*	0,070 *0.0028*	0,085 *0.0034*	0,11 *0.0044*
P6	MM12-12012-B90-MD05 F30M	5,0 *0.20*	0,070 *0.0028*	0,070 *0.0028*	0,080 *0.0032*	0,11 *0.0044*
P7	MM12-12012-B90-MD05 F30M	5,0 *0.20*	0,070 *0.0028*	0,070 *0.0028*	0,080 *0.0032*	0,11 *0.0044*
P8	MM12-12012-B90-MD05 F30M	5,0 *0.20*	0,075 *0.0030*	0,075 *0.0030*	0,085 *0.0034*	0,11 *0.0044*
P11	MM12-12012-B90-MD05 F30M	5,0 *0.20*	0,070 *0.0028*	0,070 *0.0028*	0,080 *0.0032*	0,11 *0.0044*
P12	MM12-12012-B90-MD05 F30M	4,0 *0.16*	0,050 *0.0020*	0,050 *0.0020*	0,060 *0.0024*	0,075 *0.0030*
M1	MM12-12012-B90S-E05 F30M	5,0 *0.20*	0,080 *0.0032*	0,080 *0.0032*	0,090 *0.0036*	0,12 *0.0048*
M2	MM12-12012-B90S-E05 F30M	5,0 *0.20*	0,070 *0.0028*	0,070 *0.0028*	0,085 *0.0034*	0,11 *0.0044*
M3	MM12-12012-B90S-E05 F30M	4,0 *0.16*	0,060 *0.0024*	0,060 *0.0024*	0,070 *0.0028*	0,090 *0.0036*
M4	MM12-12012-B90-MD05 F30M	3,0 *0.12*	0,055 *0.0022*	0,055 *0.0022*	0,060 *0.0024*	0,075 *0.0032*
M5	MM12-12012-B90-MD05 F30M	3,0 *0.12*	0,055 *0.0022*	0,055 *0.0022*	0,060 *0.0024*	0,075 *0.0032*
K1	MM12-12012-B90S-E05 F30M	5,0 *0.20*	0,080 *0.0032*	0,080 *0.0032*	0,090 *0.0036*	0,12 *0.0048*
K2	MM12-12012-B90S-E05 F30M	5,0 *0.20*	0,070 *0.0028*	0,070 *0.0028*	0,085 *0.0034*	0,11 *0.0044*
K3	MM12-12012-B90S-E05 F30M	5,0 *0.20*	0,070 *0.0028*	0,070 *0.0028*	0,085 *0.0034*	0,11 *0.0044*
K4	MM12-12012-B90S-E05 F30M	5,0 *0.20*	0,070 *0.0028*	0,070 *0.0028*	0,085 *0.0034*	0,11 *0.0044*
K5	MM12-12012-B90-MD05 F30M	5,0 *0.20*	0,065 *0.0026*	0,065 *0.0026*	0,075 *0.0030*	0,10 *0.0040*
K6	MM12-12012-B90-MD05 F30M	5,0 *0.20*	0,070 *0.0028*	0,070 *0.0028*	0,085 *0.0034*	0,11 *0.0044*
K7	MM12-12012-B90-MD05 F30M	5,0 *0.20*	0,065 *0.0026*	0,065 *0.0026*	0,075 *0.0030*	0,10 *0.0040*
N1	MM12-12012-B90S-E05 F30M	5,0 *0.20*	0,10 *0.0040*	0,10 *0.0040*	0,12 *0.0048*	0,15 *0.0060*
N2	MM12-12012-B90S-E05 F30M	5,0 *0.20*	0,10 *0.0040*	0,10 *0.0040*	0,12 *0.0048*	0,15 *0.0060*
N3	MM12-12012-B90S-E05 F30M	5,0 *0.20*	0,10 *0.0040*	0,10 *0.0040*	0,12 *0.0048*	0,15 *0.0060*
N11	MM12-12012-B90S-E05 F30M	5,0 *0.20*	0,10 *0.0040*	0,10 *0.0040*	0,12 *0.0048*	0,15 *0.0060*
S1	MM12-12012-B90-MD05 F30M	3,0 *0.12*	0,055 *0.0022*	0,055 *0.0022*	0,060 *0.0024*	0,075 *0.0032*
S2	MM12-12012-B90-MD05 F30M	3,0 *0.12*	0,055 *0.0022*	0,055 *0.0022*	0,060 *0.0024*	0,075 *0.0032*
S3	MM12-12012-B90-MD05 F30M	3,0 *0.12*	0,050 *0.0020*	0,050 *0.0020*	0,055 *0.0022*	0,070 *0.0030*
S11	MM12-12012-B90-MD05 F30M	3,5 *0.14*	0,060 *0.0024*	0,060 *0.0024*	0,070 *0.0028*	0,090 *0.0036*
S12	MM12-12012-B90-MD05 F30M	3,5 *0.14*	0,060 *0.0024*	0,060 *0.0024*	0,070 *0.0028*	0,090 *0.0036*
S13	MM12-12012-B90-MD05 F30M	3,0 *0.12*	0,055 *0.0022*	0,055 *0.0022*	0,060 *0.0024*	0,075 *0.0032*
H5	MM12-12012-B90-MD05 F30M	4,0 *0.16*	0,050 *0.0020*	0,050 *0.0020*	0,060 *0.0024*	0,075 *0.0030*
H8	MM12-12012-B90-MD05 F30M	3,5 *0.14*	0,040 *0.0016*	0,040 *0.0016*	0,044 *0.0017*	0,055 *0.0024*
H11	MM12-12012-B90-MD05 F30M	4,0 *0.16*	0,050 *0.0020*	0,050 *0.0020*	0,060 *0.0024*	0,075 *0.0030*
H12	MM12-12012-B90-MD05 F30M	3,5 *0.14*	0,040 *0.0016*	0,040 *0.0016*	0,044 *0.0017*	0,055 *0.0024*
H21	MM12-12012-B90-MD05 F30M	3,5 *0.14*	0,040 *0.0016*	0,040 *0.0016*	0,044 *0.0017*	0,055 *0.0024*

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

MM12 Z2 – Copy milling – Insert selection – Finishing – mm/*Inch*

SMG		a_p	f_z			
			15%	10%	5%	2%
P1	MM12-12012-B90PF-M02 F15M	4,0 *0.16*	0,040 *0.0016*	0,048 *0.0019*	0,065 *0.0026*	0,11 *0.0044*
P2	MM12-12012-B90PF-M02 F15M	4,0 *0.16*	0,042 *0.0017*	0,048 *0.0019*	0,070 *0.0028*	0,11 *0.0044*
P3	MM12-12012-B90PF-M02 F15M	4,0 *0.16*	0,040 *0.0016*	0,046 *0.0018*	0,065 *0.0026*	0,10 *0.0040*
P4	MM12-12012-B90PF-M02 F15M	4,0 *0.16*	0,038 *0.0015*	0,046 *0.0018*	0,065 *0.0026*	0,10 *0.0040*
P5	MM12-12012-B90PF-M02 F15M	4,0 *0.16*	0,038 *0.0015*	0,044 *0.0017*	0,060 *0.0024*	0,095 *0.0038*
P6	MM12-12012-B90PF-M02 F15M	4,0 *0.16*	0,038 *0.0015*	0,044 *0.0017*	0,060 *0.0024*	0,095 *0.0038*
P7	MM12-12012-B90PF-M02 F15M	4,0 *0.16*	0,038 *0.0015*	0,044 *0.0017*	0,060 *0.0024*	0,095 *0.0038*
P8	MM12-12012-B90PF-M02 F15M	4,0 *0.16*	0,040 *0.0016*	0,046 *0.0018*	0,065 *0.0026*	0,10 *0.0040*
P11	MM12-12012-B90PF-M02 F15M	4,0 *0.16*	0,038 *0.0015*	0,044 *0.0017*	0,060 *0.0024*	0,095 *0.0038*
P12	MM12-12012-B90PF-M02 F15M	3,5 *0.14*	0,026 *0.0010*	0,030 *0.0012*	0,042 *0.0017*	0,065 *0.0026*
M1	MM12-12012-B90PF-M02 F15M	4,0 *0.16*	0,042 *0.0017*	0,048 *0.0019*	0,070 *0.0028*	0,11 *0.0044*
M2	MM12-12012-B90PF-M02 F15M	4,0 *0.16*	0,038 *0.0015*	0,044 *0.0017*	0,060 *0.0024*	0,095 *0.0038*
M3	MM12-12012-B90PF-M02 F15M	3,5 *0.14*	0,030 *0.0012*	0,036 *0.0014*	0,050 *0.0020*	0,075 *0.0030*
M4	MM12-12012-B90PF-M02 F15M	2,5 *0.10*	0,028 *0.0011*	0,032 *0.0013*	0,042 *0.0017*	0,065 *0.0026*
M5	MM12-12012-B90PF-M02 F15M	2,5 *0.10*	0,028 *0.0011*	0,032 *0.0013*	0,042 *0.0017*	0,065 *0.0026*
K1	MM12-12012-B90PF-M02 F15M	4,0 *0.16*	0,042 *0.0017*	0,048 *0.0019*	0,070 *0.0028*	0,11 *0.0044*
K2	MM12-12012-B90PF-M02 F15M	4,0 *0.16*	0,038 *0.0015*	0,044 *0.0017*	0,060 *0.0024*	0,095 *0.0038*
K3	MM12-12012-B90PF-M02 F15M	4,0 *0.16*	0,038 *0.0015*	0,044 *0.0017*	0,060 *0.0024*	0,095 *0.0038*
K4	MM12-12012-B90PF-M02 F15M	4,0 *0.16*	0,038 *0.0015*	0,044 *0.0017*	0,060 *0.0024*	0,095 *0.0038*
K5	MM12-12012-B90PF-M02 F15M	4,0 *0.16*	0,034 *0.0013*	0,040 *0.0016*	0,055 *0.0022*	0,085 *0.0034*
K6	MM12-12012-B90PF-M02 F15M	4,0 *0.16*	0,038 *0.0015*	0,044 *0.0017*	0,060 *0.0024*	0,095 *0.0038*
K7	MM12-12012-B90PF-M02 F15M	4,0 *0.16*	0,034 *0.0013*	0,040 *0.0016*	0,055 *0.0022*	0,085 *0.0034*
N1	MM12-12012-B90PF-M02 F15M	4,0 *0.16*	0,055 *0.0022*	0,060 *0.0024*	0,085 *0.0034*	0,14 *0.0055*
N2	MM12-12012-B90PF-M02 F15M	4,0 *0.16*	0,055 *0.0022*	0,060 *0.0024*	0,085 *0.0034*	0,14 *0.0055*
N3	MM12-12012-B90PF-M02 F15M	4,0 *0.16*	0,055 *0.0022*	0,060 *0.0024*	0,085 *0.0034*	0,14 *0.0055*
N11	MM12-12012-B90PF-M02 F15M	4,0 *0.16*	0,055 *0.0022*	0,060 *0.0024*	0,085 *0.0034*	0,14 *0.0055*
S1	MM12-12012-B90PF-M02 F15M	2,5 *0.10*	0,028 *0.0011*	0,032 *0.0013*	0,042 *0.0017*	0,065 *0.0026*
S2	MM12-12012-B90PF-M02 F15M	2,5 *0.10*	0,028 *0.0011*	0,032 *0.0013*	0,042 *0.0017*	0,065 *0.0026*
S3	MM12-12012-B90PF-M02 F15M	2,5 *0.10*	0,025 *0.0010*	0,028 *0.0012*	0,040 *0.0016*	0,065 *0.0026*
S11	MM12-12012-B90PF-M02 F15M	3,0 *0.12*	0,030 *0.0012*	0,036 *0.0014*	0,050 *0.0020*	0,075 *0.0030*
S12	MM12-12012-B90PF-M02 F15M	3,0 *0.12*	0,030 *0.0012*	0,036 *0.0014*	0,050 *0.0020*	0,075 *0.0030*
S13	MM12-12012-B90PF-M02 F15M	2,5 *0.10*	0,028 *0.0011*	0,032 *0.0013*	0,042 *0.0017*	0,065 *0.0026*
H5	MM12-12012-B90PF-M02 F15M	3,5 *0.14*	0,026 *0.0010*	0,030 *0.0012*	0,042 *0.0017*	0,065 *0.0026*
H8	MM12-12012-B90PF-M02 F15M	3,0 *0.12*	0,020 *0.00080*	0,024 *0.00095*	0,032 *0.0013*	0,050 *0.0020*
H11	MM12-12012-B90PF-M02 F15M	3,5 *0.14*	0,026 *0.0010*	0,030 *0.0012*	0,042 *0.0017*	0,065 *0.0026*
H12	MM12-12012-B90PF-M02 F15M	3,0 *0.12*	0,020 *0.00080*	0,024 *0.00095*	0,032 *0.0013*	0,050 *0.0020*
H21	MM12-12012-B90PF-M02 F15M	3,0 *0.12*	0,020 *0.00080*	0,024 *0.00095*	0,032 *0.0013*	0,050 *0.0020*

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

MM12 Z2 – Copy milling – Cutting data v_c = (m/min)/*(sf/min)*

SMG	F15M					F30M					T60M				
	100%	20%	10%	5%	2%	100%	20%	10%	5%	2%	100%	20%	10%	5%	2%
P1	310 *1025*	390 *1275*	410 *1350*	445 *1450*	440 *1450*	240 *790*	300 *980*	325 *1075*	350 *1150*	345 *1125*	195 *640*	240 *790*	265 *870*	285 *940*	280 *920*
P2	300 *980*	380 *1250*	400 *1300*	430 *1400*	430 *1400*	230 *750*	290 *950*	315 *1025*	340 *1125*	340 *1125*	185 *610*	235 *770*	255 *840*	275 *900*	275 *900*
P3	260 *850*	330 *1075*	345 *1125*	370 *1225*	370 *1225*	200 *660*	255 *840*	275 *900*	295 *970*	295 *970*	160 *520*	205 *670*	225 *740*	240 *790*	240 *790*
P4	230 *750*	290 *950*	305 *1000*	325 *1075*	330 *1075*	175 *570*	225 *740*	245 *800*	260 *850*	260 *850*	145 *475*	180 *590*	195 *640*	210 *690*	210 *690*
P5	220 *720*	275 *900*	290 *950*	315 *1025*	315 *1025*	170 *560*	215 *710*	235 *770*	255 *840*	250 *820*	140 *460*	170 *560*	190 *620*	205 *670*	200 *660*
P6	245 *800*	310 *1025*	325 *1075*	355 *1175*	355 *1175*	190 *620*	240 *790*	260 *850*	285 *940*	280 *920*	155 *510*	195 *640*	210 *690*	230 *750*	225 *740*
P7	230 *750*	295 *970*	310 *1025*	335 *1100*	335 *1100*	180 *590*	230 *750*	245 *800*	270 *890*	265 *870*	145 *475*	185 *610*	200 *660*	215 *710*	215 *710*
P8	215 *710*	275 *900*	290 *950*	310 *1025*	315 *1025*	170 *560*	215 *710*	235 *770*	250 *820*	250 *820*	135 *445*	170 *560*	190 *620*	200 *660*	200 *660*
P11	225 *740*	285 *940*	300 *980*	325 *1075*	325 *1075*	175 *570*	220 *720*	240 *790*	260 *850*	255 *840*	140 *460*	180 *590*	195 *640*	210 *690*	210 *690*
P12	140 *460*	180 *590*	180 *610*	195 *640*	200 *660*	115 *375*	145 *475*	150 *510*	165 *540*	160 *520*	95 *310*	120 *395*	120 *410*	135 *445*	130 *425*
M1	240 *790*	305 *1000*	320 *1050*	345 *1125*	345 *1125*	185 *610*	235 *770*	255 *840*	275 *900*	270 *890*	150 *490*	190 *620*	205 *670*	225 *740*	220 *720*
M2	195 *640*	250 *820*	260 *850*	285 *940*	285 *940*	155 *510*	190 *620*	210 *690*	225 *740*	225 *740*	125 *410*	155 *510*	170 *560*	185 *610*	180 *590*
M3	155 *510*	200 *660*	205 *670*	220 *720*	220 *720*	125 *410*	160 *520*	165 *560*	180 *590*	180 *590*	100 *330*	130 *425*	135 *445*	145 *475*	145 *475*
M4	120 *395*	155 *510*	155 *540*	165 *540*	165 *540*	100 *330*	130 *425*	130 *445*	135 *445*	140 *460*	80 *260*	105 *345*	105 *360*	110 *360*	110 *360*
M5	100 *330*	130 *425*	130 *460*	140 *460*	140 *460*	85 *280*	110 *360*	105 *375*	115 *375*	115 *375*	70 *230*	85 *280*	85 *295*	95 *310*	95 *310*
K1	235 *770*	300 *980*	315 *1025*	340 *1125*	340 *1125*	180 *590*	230 *750*	250 *820*	270 *890*	270 *890*	145 *475*	185 *610*	205 *670*	220 *720*	215 *710*
K2	205 *670*	265 *870*	275 *900*	300 *980*	300 *980*	160 *520*	200 *660*	220 *720*	240 *790*	235 *770*	130 *425*	165 *540*	180 *590*	195 *640*	190 *620*
K3	175 *570*	225 *740*	235 *770*	255 *840*	255 *840*	135 *445*	170 *560*	185 *610*	205 *670*	200 *660*	110 *360*	140 *460*	150 *490*	165 *540*	165 *540*
K4	165 *540*	215 *710*	225 *740*	240 *790*	240 *790*	130 *425*	165 *540*	180 *590*	195 *640*	190 *620*	105 *345*	130 *425*	145 *475*	155 *510*	155 *510*
K5	100 *330*	130 *425*	135 *445*	145 *475*	145 *475*	80 *260*	100 *330*	110 *360*	115 *375*	115 *375*	65 *215*	80 *260*	85 *280*	95 *310*	95 *310*
K6	145 *475*	185 *610*	195 *640*	215 *710*	215 *710*	115 *375*	145 *475*	155 *510*	170 *560*	170 *560*	95 *310*	115 *375*	125 *410*	140 *460*	135 *445*
K7	130 *425*	165 *540*	170 *560*	185 *610*	185 *610*	100 *330*	125 *410*	140 *460*	150 *490*	150 *490*	80 *260*	105 *345*	110 *360*	120 *395*	120 *395*
N1	1825 *6000*	2300 *7550*	2425 *7950*	2625 *8600*	2600 *8525*	1375 *4500*	1725 *5650*	1900 *6225*	2025 *6650*	2000 *6550*	1100 *3600*	1400 *4600*	1525 *5000*	1650 *5425*	1625 *5325*
N2	730 *2400*	930 *3050*	980 *3225*	1050 *3450*	1050 *3450*	550 *1800*	690 *2275*	760 *2500*	820 *2700*	810 *2650*	450 *1475*	560 *1825*	620 *2025*	660 *2175*	660 *2175*
N3	490 *1600*	620 *2025*	650 *2125*	710 *2325*	700 *2300*	370 *1225*	465 *1525*	510 *1675*	550 *1800*	540 *1775*	300 *980*	375 *1225*	410 *1350*	440 *1450*	440 *1450*
N11	560 *1825*	710 *2325*	750 *2450*	810 *2650*	800 *2625*	425 *1400*	530 *1750*	580 *1900*	620 *2025*	620 *2025*	340 *1125*	430 *1400*	470 *1550*	500 *1650*	500 *1650*
S1	55 *180*	70 *230*	70 *260*	80 *260*	80 *260*	47 *155*	60 *195*	60 *215*	65 *215*	65 *215*	38 *125*	49 *160*	48 *165*	50 *165*	50 *165*
S2	45 *150*	60 *195*	60 *215*	65 *215*	65 *215*	38 *125*	49 *160*	48 *165*	50 *165*	50 *165*	31 *100*	39 *130*	39 *135*	42 *140*	42 *140*
S3	39 *130*	50 *165*	50 *180*	55 *180*	55 *180*	33 *110*	43 *140*	42 *145*	45 *150*	45 *150*	27 *90*	34 *110*	34 *120*	37 *120*	36 *120*
S11	80 *260*	105 *345*	105 *360*	110 *360*	110 *360*	65 *215*	85 *280*	85 *280*	90 *295*	90 *295*	55 *180*	70 *230*	70 *230*	75 *245*	75 *245*
S12	55 *180*	70 *230*	70 *245*	75 *245*	75 *245*	45 *150*	60 *195*	60 *195*	65 *215*	60 *195*	37 *120*	47 *155*	47 *160*	50 *165*	50 *165*
S13	32 *105*	41 *135*	40 *145*	44 *145*	44 *145*	26 *85*	34 *110*	34 *120*	36 *120*	36 *120*	21 *70*	28 *90*	27 *95*	29 *95*	29 *95*
H5	46 *150*	60 *195*	60 *195*	65 *215*	65 *215*	38 *125*	48 *155*	50 *165*	55 *180*	55 *180*	31 *100*	39 *130*	41 *135*	44 *145*	44 *145*
H8	48 *155*	60 *195*	60 *215*	65 *215*	65 *215*	40 *130*	50 *165*	50 *180*	55 *180*	55 *180*	33 *110*	42 *140*	42 *140*	46 *150*	45 *150*
H11	60 *195*	75 *245*	75 *260*	85 *280*	85 *280*	49 *160*	60 *195*	65 *215*	70 *230*	70 *230*	39 *130*	50 *165*	50 *165*	55 *180*	55 *180*
H12	85 *280*	110 *360*	110 *375*	120 *395*	120 *395*	70 *230*	95 *310*	95 *310*	100 *330*	100 *330*	60 *195*	75 *245*	75 *260*	80 *260*	80 *260*
H21	48 *155*	60 *195*	60 *215*	65 *215*	65 *215*	40 *130*	50 *165*	50 *180*	55 *180*	55 *180*	33 *110*	42 *140*	42 *140*	46 *150*	45 *150*

MM12 High-Feed – Insert selection – mm/*Inch*

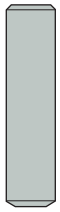
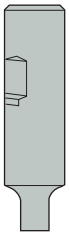
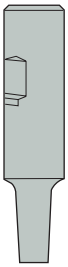
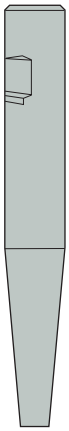
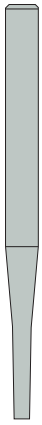
SMG		a_p	f_z			
			100%	70%	30%	20%
P1	MM12-12.60-HF-MD10 F30M	0,36 *0.014*	0,55 *0.022*	0,55 *0.022*	0,75 *0.030*	0,95 *0.038*
P2	MM12-12.60-HF-MD10 F30M	0,36 *0.014*	0,55 *0.022*	0,60 *0.024*	0,75 *0.030*	0,95 *0.038*
P3	MM12-12.60-HF-MD10 F30M	0,36 *0.014*	0,55 *0.022*	0,55 *0.022*	0,70 *0.028*	0,90 *0.036*
P4	MM12-12.60-HF-MD10 F30M	0,36 *0.014*	0,55 *0.022*	0,55 *0.022*	0,70 *0.028*	0,90 *0.036*
P5	MM12-12.60-HF-MD10 F30M	0,36 *0.014*	0,50 *0.020*	0,55 *0.022*	0,70 *0.028*	0,85 *0.034*
P6	MM12-12.60-HF-MD10 F30M	0,36 *0.014*	0,50 *0.020*	0,50 *0.020*	0,70 *0.028*	0,85 *0.034*
P7	MM12-12.60-HF-MD10 F30M	0,36 *0.014*	0,50 *0.020*	0,50 *0.020*	0,70 *0.028*	0,85 *0.034*
P8	MM12-12.60-HF-MD10 F30M	0,36 *0.014*	0,55 *0.022*	0,55 *0.022*	0,70 *0.028*	0,90 *0.036*
P11	MM12-12.60-HF-MD10 F30M	0,36 *0.014*	0,50 *0.020*	0,50 *0.020*	0,70 *0.028*	0,85 *0.034*
P12	MM12-12.60-HF-MD10 F30M	0,28 *0.011*	0,36 *0.014*	0,36 *0.014*	0,46 *0.018*	0,55 *0.022*
M1	MM12-12.60-HF-MD10 F30M	0,36 *0.014*	0,55 *0.022*	0,60 *0.024*	0,75 *0.030*	0,95 *0.038*
M2	MM12-12.60-HF-MD10 F30M	0,36 *0.014*	0,50 *0.020*	0,55 *0.022*	0,70 *0.028*	0,85 *0.034*
M3	MM12-12.60-HF-MD10 F30M	0,28 *0.011*	0,42 *0.017*	0,42 *0.017*	0,55 *0.022*	0,65 *0.026*
M4	MM12-12.60-HF-MD10 F30M	0,22 *0.0085*	0,36 *0.014*	0,36 *0.014*	0,48 *0.019*	0,60 *0.024*
M5	MM12-12.60-HF-MD10 F30M	0,22 *0.0085*	0,36 *0.014*	0,36 *0.014*	0,48 *0.019*	0,60 *0.024*
K1	MM12-12.60-HF-MD10 F30M	0,36 *0.014*	0,55 *0.022*	0,60 *0.024*	0,75 *0.030*	0,95 *0.038*
K2	MM12-12.60-HF-MD10 F30M	0,36 *0.014*	0,50 *0.020*	0,55 *0.022*	0,70 *0.028*	0,85 *0.034*
K3	MM12-12.60-HF-MD10 F30M	0,36 *0.014*	0,50 *0.020*	0,55 *0.022*	0,70 *0.028*	0,85 *0.034*
K4	MM12-12.60-HF-MD10 F30M	0,36 *0.014*	0,50 *0.020*	0,55 *0.022*	0,70 *0.028*	0,85 *0.034*
K5	MM12-12.60-HF-MD10 F30M	0,36 *0.014*	0,48 *0.019*	0,48 *0.019*	0,60 *0.024*	0,75 *0.030*
K6	MM12-12.60-HF-MD10 F30M	0,36 *0.014*	0,50 *0.020*	0,55 *0.022*	0,70 *0.028*	0,85 *0.034*
K7	MM12-12.60-HF-MD10 F30M	0,36 *0.014*	0,48 *0.019*	0,48 *0.019*	0,60 *0.024*	0,75 *0.030*
N1	MM12-12.60-HF-MD10 F30M	0,36 *0.014*	0,75 *0.030*	0,75 *0.030*	1,0 *0.040*	1,3 *0.050*
N2	MM12-12.60-HF-MD10 F30M	0,36 *0.014*	0,75 *0.030*	0,75 *0.030*	1,0 *0.040*	1,3 *0.050*
N3	MM12-12.60-HF-MD10 F30M	0,36 *0.014*	0,75 *0.030*	0,75 *0.030*	1,0 *0.040*	1,3 *0.050*
N11	MM12-12.60-HF-MD10 F30M	0,36 *0.014*	0,75 *0.030*	0,75 *0.030*	1,0 *0.040*	1,3 *0.050*
S1	MM12-12.60-HF-MD10 F30M	0,22 *0.0085*	0,36 *0.014*	0,36 *0.014*	0,48 *0.019*	0,60 *0.024*
S2	MM12-12.60-HF-MD10 F30M	0,22 *0.0085*	0,36 *0.014*	0,36 *0.014*	0,48 *0.019*	0,60 *0.024*
S3	MM12-12.60-HF-MD10 F30M	0,22 *0.0085*	0,34 *0.013*	0,34 *0.013*	0,44 *0.017*	0,55 *0.022*
S11	MM12-12.60-HF-MD10 F30M	0,25 *0.010*	0,42 *0.017*	0,42 *0.017*	0,55 *0.022*	0,65 *0.026*
S12	MM12-12.60-HF-MD10 F30M	0,25 *0.010*	0,42 *0.017*	0,42 *0.017*	0,55 *0.022*	0,65 *0.026*
S13	MM12-12.60-HF-MD10 F30M	0,22 *0.0085*	0,36 *0.014*	0,36 *0.014*	0,48 *0.019*	0,60 *0.024*
H5	MM12-12.60-HF-MD10 F15M	0,28 *0.011*	0,36 *0.014*	0,36 *0.014*	0,46 *0.018*	0,55 *0.022*
H8	MM12-12.60-HF-MD10 F15M	0,25 *0.010*	0,28 *0.011*	0,28 *0.011*	0,36 *0.014*	0,42 *0.017*
H11	MM12-12.60-HF-MD10 F15M	0,28 *0.011*	0,36 *0.014*	0,36 *0.014*	0,46 *0.018*	0,55 *0.022*
H12	MM12-12.60-HF-MD10 F15M	0,25 *0.010*	0,28 *0.011*	0,28 *0.011*	0,36 *0.014*	0,42 *0.017*
H21	MM12-12.60-HF-MD10 F15M	0,25 *0.010*	0,28 *0.011*	0,28 *0.011*	0,36 *0.014*	0,42 *0.017*

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

MM12 High-Feed – Cutting data v_c = (m/min)/*(sf/min)*

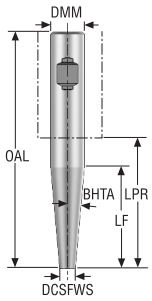
SMG	F15M				F30M			
	100%	70%	30%	20%	100%	70%	30%	20%
P1	—	—	—	—	225	275	315	330
	—	—	—	—	*740*	*900*	*1025*	*1075*
P2	—	—	—	—	220	265	310	320
	—	—	—	—	*720*	*870*	*1025*	*1050*
P3	—	—	—	—	190	230	270	280
	—	—	—	—	*620*	*750*	*890*	*920*
P4	—	—	—	—	165	205	235	245
	—	—	—	—	*540*	*670*	*770*	*800*
P5	—	—	—	—	165	195	225	240
	—	—	—	—	*540*	*640*	*740*	*790*
P6	—	—	—	—	185	225	255	270
	—	—	—	—	*610*	*740*	*840*	*890*
P7	—	—	—	—	170	210	240	255
	—	—	—	—	*560*	*690*	*790*	*840*
P8	—	—	—	—	160	195	225	235
	—	—	—	—	*520*	*640*	*740*	*770*
P11	—	—	—	—	165	205	235	245
	—	—	—	—	*540*	*670*	*770*	*800*
P12	—	—	—	—	110	130	150	160
	—	—	—	—	*360*	*425*	*490*	*520*
M1	—	—	—	—	175	215	250	260
	—	—	—	—	*570*	*710*	*820*	*850*
M2	—	—	—	—	145	175	205	215
	—	—	—	—	*475*	*570*	*670*	*710*
M3	—	—	—	—	120	140	165	175
	—	—	—	—	*395*	*460*	*540*	*570*
M4	—	—	—	—	95	110	125	130
	—	—	—	—	*310*	*360*	*410*	*425*
M5	—	—	—	—	80	90	105	110
	—	—	—	—	*260*	*295*	*345*	*360*
K1	185	225	260	275	175	210	245	255
	610	*740*	*850*	*900*	*570*	*690*	*800*	*840*
K2	165	200	230	245	155	185	215	225
	540	*660*	*750*	*800*	*510*	*610*	*710*	*740*
K3	140	170	195	205	130	155	180	190
	460	*560*	*640*	*670*	*425*	*510*	*590*	*620*
K4	135	160	185	195	125	150	175	185
	445	*520*	*610*	*640*	*410*	*490*	*570*	*610*
K5	80	100	115	120	75	90	105	110
	260	*330*	*375*	*395*	*245*	*295*	*345*	*360*
K6	120	140	165	175	110	130	155	160
	395	*460*	*540*	*570*	*360*	*425*	*510*	*520*
K7	105	125	145	155	95	115	135	145
	345	*410*	*475*	*510*	*310*	*375*	*445*	*475*
N1	—	—	—	—	1275	1575	1800	1875
	—	—	—	—	*4175*	*5175*	*5900*	*6150*
N2	—	—	—	—	520	630	730	750
	—	—	—	—	*1700*	*2075*	*2400*	*2450*
N3	—	—	—	—	345	420	485	500
	—	—	—	—	*1125*	*1375*	*1600*	*1650*
N11	—	—	—	—	395	480	550	570
	—	—	—	—	*1300*	*1575*	*1800*	*1875*
S1	—	—	—	—	44	50	60	60
	—	—	—	—	*145*	*165*	*195*	*195*
S2	—	—	—	—	35	41	47	50
	—	—	—	—	*115*	*135*	*155*	*165*
S3	—	—	—	—	31	36	42	44
	—	—	—	—	*100*	*120*	*140*	*145*
S11	—	—	—	—	60	70	85	90
	—	—	—	—	*195*	*230*	*280*	*295*
S12	—	—	—	—	42	50	55	60
	—	—	—	—	*140*	*165*	*180*	*195*
S13	—	—	—	—	25	29	33	35
	—	—	—	—	*80*	*95*	*110*	*115*
H5	39	46	55	55	36	43	50	55
	130	*150*	*180*	*180*	*120*	*140*	*165*	*180*
H8	41	49	55	60	38	45	50	55
	135	*160*	*180*	*195*	*125*	*150*	*165*	*180*
H11	49	60	70	70	46	55	65	65
	160	*195*	*230*	*230*	*150*	*180*	*215*	*215*
H12	75	90	100	105	70	80	95	100
	245	*295*	*330*	*345*	*230*	*260*	*310*	*330*
H21	41	49	55	60	38	45	50	55
	135	*160*	*180*	*195*	*125*	*150*	*165*	*180*

Shank design

Design 1, Keyway shank	Design 2, Cylindrical/Weldon back end and 90º front
	
Design 3, Cylindrical/Weldon back end tapered front 87º/89º	**Design 4, Cylindrical/Weldon back end tapered front 80º/85º/87º**
	
Design 5, Cylindrical back end double tapered front end 89º/85º	
	

MM16 Shank – Metric



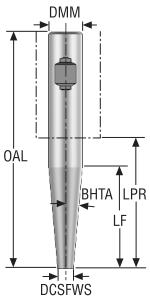


Designation	Item number	Type of mounting	DCSFWS	DMM	OAL	LF	LPR	BHTA°	Design		RPMX	Weight	Spare part no.
			mm	mm	mm	mm	mm					kg	
MM16-20115.3-3045	75014109	Weldon	15,2	20,0	115,0	45,8	65,0	3,0	4	✓	63600	0,2	3
MM16-25100.3-0019	75012790	Weldon	15,2	25,0	100,0	19,0	40,0	0,0	2	✓	63600	0,3	3
MM16-25115.3-3035	75012791	Weldon	15,2	25,0	115,0	35,0	59,0	3,0	3	✓	63600	0,3	3
MM16-25170.3-5056	75012792	Weldon	15,2	25,0	170,0	56,0	114,0	5,0	4	✓	63600	0,6	4
MM16-16070.0-0011M	00023547	Cylindrical	15,2	16,0	70,0	11,3	22,0	0,0	2	✓	63600	0,1	1
MM16-20070.0-0000	00023548	Cylindrical	15,2	20,0	70,0	0,0	20,0	60,0	1	✓	63600	0,2	1
MM16-20190.0-1055M	00094766	Cylindrical	15,2	20,0	190,0	55,0	140,0	1,0	3	✓	63600	0,4	5
MM16-20190.0-1075M	00094768	Cylindrical	15,2	20,0	190,0	75,0	140,0	1,0	3	✓	63600	0,4	5
MM16-20190.0-1095M	00094770	Cylindrical	15,2	20,0	190,0	95,0	140,0	1,0	3	✓	63600	0,4	6
MM16-25170.0-1060	00094767	Cylindrical	19,0	25,0	170,0	60,0	114,0	1,0	3	✓	63600	0,5	5
MM16-32250.0-10047	75069368	Cylindrical	15,2	32,0	250,0	47,6	190,0	10,0	4	✓	63600	1,3	4
MM16-16150.0-0080DS	02580692	Cylindrical	15,2	16,0	150,0	80,0	102,0	0,0	2	✓	47600	0,4	2
MM16-20080.0-0011DS	02580669	Cylindrical	15,2	20,0	80,0	11,3	30,0	0,0	2	✓	47600	0,3	2
MM16-20150.0-0038DS	02580695	Cylindrical	15,2	20,0	150,0	38,0	100,0	0,0	2	✓	47600	0,6	2
MM16-20160.0-0076DS	02580699	Cylindrical	15,2	20,0	160,0	76,0	110,0	0,0	2	✓	47600	0,6	2
MM16-20130.0-1045DS	02580757	Cylindrical	15,2	20,0	130,0	45,0	80,0	1,0	3	✓	47600	0,5	2
MM16-20190.0-1075DS	02580758	Cylindrical	15,2	20,0	190,0	75,0	140,0	1,0	3	✓	47600	0,8	2
MM16-20190.0-1095DS	02580760	Cylindrical	15,2	20,0	190,0	95,0	140,0	1,0	3	✓	47600	0,8	2
MM16-25250.0-1075DS	02580761	Cylindrical	15,2	25,0	250,0	75,0	194,0	1,0	5	✓	47600	1,5	2

Spare Parts, included in delivery

For cutter	Sleeve	Tension screw
		
3	MM-10062	MM16-1045
4	MM-10132	MM16-1045
1	MM-10030	MM16-1045
5	MM-10062	MM16-1093
6	MM-10062	MM16-10113
2	–	MM16-1045

MM16 Shank – *Inch*





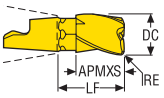
Designation	Item number	Type of mounting	DCSFWS	DMM	OAL	LF	LPR	BHTA°	Design		RPMX	Weight	Spare part no.
			inch	inch	inch	inch	inch					lbs	
MM16-0.75-4.5-3-3018	75054603	Weldon	0.598	0.750	4.528	1.445	2.559	3,0	3	✓	63600	0.440	4
MM16-1.00-3.9-3-0007	75015058	Weldon	0.598	1.000	3.937	0.748	1.732	0,0	2	✓	63600	0.660	4
MM16-1.00-4.5-3-3013	75015059	Weldon	0.598	1.000	4.528	1.378	2.323	3,0	3	✓	63600	0.660	4
MM16-1.00-6.7-3-5022	75015060	Weldon	0.598	1.000	6.693	2.295	4.488	5,0	4	✓	63600	1.320	5
MM16-0.62-2.8-0M-0004	00037209	Cylindrical	0.598	0.625	2.756	0.445	0.866	0,0	2	✓	63600	0.220	1
MM16-0.75-2.8-0-0000	00037175	Cylindrical	0.598	0.750	2.756	0	0.787	60,0	1	✓	63600	0.440	1
MM16-0.75-7.5-0-1021	75054731	Cylindrical	0.598	0.750	7.480	2.165	5.512	1,0	3	✓	63600	0.660	6
MM16-0.75-7.5-0-1037	75054733	Cylindrical	0.598	0.750	7.480	3.740	5.512	1,0	3	✓	63600	0.880	7
MM16-0.75-7.5-0-1029DS	02567719	Cylindrical	0.598	0.750	7.480	2.953	5.512	1,0	3	✓	47600	1.760	3
MM16-0.75-7.5-0-1037DS	02593431	Cylindrical	0.598	0.750	7.480	3.740	5.512	1,0	3	✓	47600	1.540	3
MM16-1.00-5.9-0-0015DS	02593433	Cylindrical	0.598	1.000	5.906	1.496	3.701	0,0	2	✓	47600	2.200	3
MM16-1.00-6.3-0-0030DS	02593434	Cylindrical	0.598	1.000	6.299	2.992	4.094	0,0	2	✓	47600	1.980	3

Spare Parts, included in delivery

For cutter	Sleeve	Tension screw
		
4	MM-10062	MM16-1045
5	MM-10132	MM16-1045
1	MM-10030	MM16-1045
6	MM-10062	MM16-1093
7	MM-10062	MM16-10113
3	–	MM16-1045

Slot milling/square shoulder milling

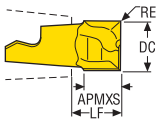




• For Torque keys and torque values, see page 673

Designation	DC	APMXS	RE	LF	RMPX°	C min	C max	FHA°	ZEFP	Wrench		Grades Coated			
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*								T60M	F15M	F30M	F40M
MM16-15719-R03A30-M06	15,7 *0.618*	19,05 *0.750*	0,3 *0.012*	24,5 *0.965*	15,0	19,0	30,6	30	3	MM0416	✓				■
MM16-15919-R08A30-M06	15,875 *0.625*	19,05 *0.750*	0,8 *0.031*	24,5 *0.965*	15,0	19,2	29,9	30	3	MM0416	✓				■
MM16-16019-A30-E06	16,0 *0.630*	19,05 *0.750*	0,0 –	24,5 *0.965*	15,0	19,4	31,8	30	3	MM0416	✓			■	
MM16-16019-R05A30-M06	16,0 *0.630*	19,05 *0.750*	0,5 *0.020*	24,5 *0.965*	15,0	19,4	30,8	30	3	MM0416	✓				■
MM16-16019-R10A30-E06	16,0 *0.630*	19,05 *0.750*	1,0 *0.039*	24,5 *0.965*	15,0	19,4	29,8	30	3	MM0416	✓			■	
MM16-16019-R10A30-M06	16,0 *0.630*	19,05 *0.750*	1,0 *0.039*	24,5 *0.965*	15,0	19,4	29,8	30	3	MM0416	✓				■
MM16-16019-R20A30-M06	16,0 *0.630*	19,05 *0.750*	2,0 *0.079*	24,5 *0.965*	15,0	19,4	27,8	30	3	MM0416	✓				■
MM16-16019-R30A30-E06	16,0 *0.630*	19,05 *0.750*	3,0 *0.118*	24,5 *0.965*	15,0	19,4	25,8	30	3	MM0416	✓			■	
MM16-16019-R30A30-M06	16,0 *0.630*	19,05 *0.750*	3,0 *0.118*	24,5 *0.965*	15,0	19,4	25,8	30	3	MM0416	✓				■
MM16-16019-R40A30-M06	16,0 *0.630*	19,05 *0.750*	4,0 *0.157*	24,5 *0.965*	15,0	19,4	23,8	30	3	MM0416	✓				■
MM16-16019-R50A30-M06	16,0 *0.630*	19,05 *0.750*	5,0 *0.197*	24,5 *0.965*	15,0	19,4	21,8	30	3	MM0416	✓				■
MM16-16019-R60A30-M06	16,0 *0.630*	19,05 *0.750*	6,0 *0.236*	24,5 *0.965*	15,0	19,4	19,8	30	3	MM0416	✓				■
MM16-20015-A30-E06	20,0 *0.787*	15,0 *0.591*	0,0 –	20,15 *0.793*	15,0	24,2	39,8	30	3	MM0416	✓			■	
MM16-20015-R05A30-M06	20,0 *0.787*	15,0 *0.591*	0,5 *0.020*	20,15 *0.793*	15,0	24,2	38,8	30	3	MM0416	✓				■
MM16-20015-R10A30-M06	20,0 *0.787*	15,0 *0.591*	1,0 *0.039*	20,15 *0.793*	15,0	24,2	37,8	30	3	MM0416	✓				■
MM16-20015-R20A30-D06	20,0 *0.787*	15,0 *0.591*	2,0 *0.079*	20,15 *0.793*	15,0	24,2	35,8	30	3	MM0416	✓			■	
MM16-20015-R30A30-M06	20,0 *0.787*	15,0 *0.591*	3,0 *0.118*	20,15 *0.793*	15,0	24,2	33,8	30	3	MM0416	✓				■
MM16-20015-R50A30-M06	20,0 *0.787*	15,0 *0.591*	5,0 *0.197*	20,15 *0.793*	15,0	24,2	29,8	30	3	MM0416	✓				■

Slot milling/square shoulder milling



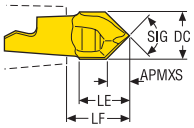


• For Torque keys and torque values, see page 673

Designation	DC	APMXS	RE	LF	RMPX°	C min	C max	FHA°	ZEFP	Wrench	Grades Coated			
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*							T60M	F15M	F30M	F40M
MM16-15711T-R03-D07	15,7 *0.618*	11,0 *0.433*	0,3 *0.012*	13,6 *0.535*	15,0	19,0	30,6	0	2	MM1420	■			
MM16-16011-M06	16,0 *0.630*	11,0 *0.433*	0,0 –	13,6 *0.535*	15,0	19,4	31,8	0	2	MM1420	■			
MM16-16011-R08A8-E06	16,0 *0.630*	10,5 *0.413*	0,8 *0.031*	13,62 *0.536*	15,0	19,4	30,2	8	2	MM1420	■		■	
MM16-16011-R08-MD07	16,0 *0.630*	11,0 *0.433*	0,8 *0.031*	13,58 *0.535*	15,0	19,4	30,2	0	2	MM1420	■		■	
MM16-16011-R08P-M05	16,0 *0.630*	10,8 *0.425*	0,8 *0.031*	13,41 *0.528*	15,0	19,4	30,2	0	2	MM1420			■	
MM16-16011-R20-MD07	16,0 *0.630*	10,9 *0.429*	2,0 *0.079*	13,55 *0.533*	15,0	19,4	27,8	0	2	MM1420			■	
MM16-16011-R30-MD07	16,0 *0.630*	10,9 *0.429*	3,0 *0.118*	13,54 *0.533*	15,0	19,4	25,8	0	2	MM1420			■	
MM16-16011-R40-MD07	16,0 *0.630*	10,9 *0.429*	4,0 *0.157*	13,52 *0.532*	15,0	19,4	23,8	0	2	MM1420	■			
MM16-16011-R50-MD07	16,0 *0.630*	10,9 *0.429*	5,0 *0.197*	13,5 *0.531*	15,0	19,4	21,8	0	2	MM1420	■			
MM16-19013-R08A8-E06	19,05 *0.750*	12,7 *0.500*	0,8 *0.031*	15,39 *0.606*	15,0	23,1	36,3	8	2	MM1420			■	
MM16-20013-R08A8-E06	20,0 *0.787*	12,7 *0.500*	0,8 *0.031*	15,42 *0.607*	15,0	24,2	38,2	8	2	MM1420	■		■	

Centre drilling



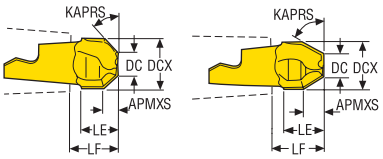


• For Torque keys and torque values, see page 673

Designation	DC	APMXS	LE	LF	SIG°	ZEFP	Wrench	Grades Coated			
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*				T60M	F15M	F30M	F40M
MM16-16008-C90-M06	16,0 *0.630*	7,53 *0.296*	16,7 *0.657*	19,2 *0.756*	90,0	2	MM1420	■			
MM16-16011-C120-M06	16,0 *0.630*	4,3 *0.169*	16,64 *0.655*	18,9 *0.744*	120,0	2	MM1420	■			
MM16-19019-C90	19,05 *0.750*	9,6 *0.378*	20,3 *0.799*	22,15 *0.872*	90,0	2	MM1420	■			

Chamfering

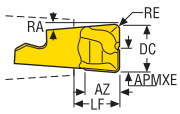




• For Torque keys and torque values, see page 673

Designation	DCX	DC	APMXS	LE	LF	KAPRS°	ZEFP	Wrench	Grades Coated			
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*				T60M	F15M	F30M	F40M
MM16-16011-4540-E06	16,0 *0.630*	7,69 *0.303*	3,9 *0.154*	10,9 *0.429*	13,25 *0.522*	45,0	2	MM1420	■			
MM16-16012-6060-E06	16,0 *0.630*	8,38 *0.330*	6,7 *0.264*	12,9 *0.508*	15,3 *0.602*	60,0	2	MM1420	■			

Plunge milling

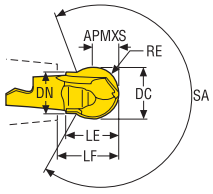


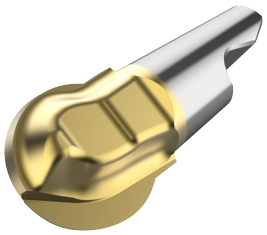


• For Torque keys and torque values, see page 673

Designation	DC	APMXE	RE	AZ	LF	RA°	ZEFP	Wrench	Grades Coated			
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*				T60M	F15M	F30M	F40M
MM16-16011-R10-PL-MD07	16,0 *0.630*	8,0 *0.315*	1,0 *0.039*	11,3 *0.445*	11,3 *0.445*	5,0	2	MM1420			■	
MM16-16011-R20-PL-MD07	16,0 *0.630*	8,0 *0.315*	2,0 *0.079*	11,3 *0.445*	11,3 *0.445*	5,0	2	MM1420			■	

Precision inserts for semi-finishing in all materials



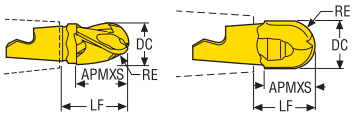


• For Torque keys and torque values, see page 673

Designation	DC	APMXS	RE	LE	LF	DN	SA°	ZEFP	Wrench	Grades Coated			
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*				T60M	F15M	F30M	F40M
MM16-20020-B120PF-M04	20,0 *0.787*	10,0 *0.394*	10,0 *0.394*	20,0 *0.787*	21,94 *0.864*	15,9 *0.626*	254,0	2	MM1420		■		
MM16-20020-B120P-M07	20,0 *0.787*	10,0 *0.394*	10,0 *0.394*	20,0 *0.787*	21,94 *0.864*	15,9 *0.626*	254,0	2	MM1420			■	

Copy milling





• For Torque keys and torque values, see page 673

Designation	DC	APMXS	RE	LF	FHA°	ZEFP	Wrench		Grades Coated			
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*					T60M	F15M	F30M	F40M
MM16-15916-B90P-M07	15,875 *0.625*	13,8 *0.543*	7,938 *0.313*	18,4 *0.724*	0,0	2	MM1420				■	
MM16-16016-B90-MD07	16,0 *0.630*	16,2 *0.638*	8,0 *0.315*	18,4 *0.724*	0,0	2	MM1420		■		■	
MM16-16016-B90PF-M03	16,0 *0.630*	13,8 *0.543*	8,0 *0.315*	18,4 *0.724*	0,0	2	MM1420			■		
MM16-16016-B90P-M07	16,0 *0.630*	13,8 *0.543*	8,0 *0.315*	18,4 *0.724*	0,0	2	MM1420				■	
MM16-16019-B90A30-E06	16,0 *0.630*	19,0 *0.748*	8,0 *0.315*	24,5 *0.965*	30,0	3	MM0416	✓			■	
MM16-16019-B90A30-M06	16,0 *0.630*	19,0 *0.748*	8,0 *0.315*	24,5 *0.965*	30,0	3	MM0416	✓				■
MM16-19020-B90P-M07	19,05 *0.750*	7,4 *0.291*	9,525 *0.375*	22,12 *0.871*	0,0	2	MM1420		■			
MM16-20015-B90A30-E06	20,0 *0.787*	15,0 *0.591*	10,0 *0.394*	20,15 *0.793*	30,0	3	MM0416	✓			■	
MM16-20015-B90A30-M06	20,0 *0.787*	15,0 *0.591*	10,0 *0.394*	20,15 *0.793*	30,0	3	MM0416	✓				■
MM16-20020-B90-MD07	20,0 *0.787*	20,3 *0.799*	10,0 *0.394*	22,15 *0.872*	0,0	2	MM1420		■		■	
MM16-20020-B90P-M07	20,0 *0.787*	17,4 *0.685*	10,0 *0.394*	22,12 *0.871*	0,0	2	MM1420				■	

MM16 - Slot and Side milling – Insert selection – mm/*Inch*

SMG		a_p	f_z			
			100%	40%	20%	10%
P1	MM16-16019-R05A30-M06 F40M	3,5 *0.14*	0,085 *0.0034*	0,085 *0.0034*	0,11 *0.0044*	0,14 *0.0055*
P2	MM16-16019-R05A30-M06 F40M	3,5 *0.14*	0,085 *0.0034*	0,090 *0.0036*	0,11 *0.0044*	0,14 *0.0055*
P3	MM16-16019-R05A30-M06 F40M	3,5 *0.14*	0,080 *0.0032*	0,085 *0.0034*	0,10 *0.0040*	0,14 *0.0055*
P4	MM16-16019-R05A30-M06 F40M	3,5 *0.14*	0,080 *0.0032*	0,080 *0.0032*	0,10 *0.0040*	0,13 *0.0050*
P5	MM16-16019-R05A30-M06 F40M	3,5 *0.14*	0,080 *0.0032*	0,080 *0.0032*	0,10 *0.0040*	0,13 *0.0050*
P6	MM16-16019-R05A30-M06 F40M	3,5 *0.14*	0,080 *0.0032*	0,080 *0.0032*	0,095 *0.0038*	0,13 *0.0050*
P7	MM16-16019-R05A30-M06 F40M	3,5 *0.14*	0,080 *0.0032*	0,080 *0.0032*	0,095 *0.0038*	0,13 *0.0050*
P8	MM16-16019-R05A30-M06 F40M	3,5 *0.14*	0,080 *0.0032*	0,085 *0.0034*	0,10 *0.0040*	0,14 *0.0055*
P11	MM16-16019-R05A30-M06 F40M	3,5 *0.14*	0,080 *0.0032*	0,080 *0.0032*	0,095 *0.0038*	0,13 *0.0050*
P12	MM16-16019-R05A30-M06 F40M	2,5 *0.10*	0,055 *0.0022*	0,055 *0.0022*	0,065 *0.0026*	0,090 *0.0036*
M1	MM16-16019-R05A30-M06 F40M	3,5 *0.14*	0,085 *0.0034*	0,090 *0.0036*	0,11 *0.0044*	0,14 *0.0055*
M2	MM16-16019-R05A30-M06 F40M	3,5 *0.14*	0,080 *0.0032*	0,080 *0.0032*	0,10 *0.0040*	0,13 *0.0050*
M3	MM16-16019-R05A30-M06 F40M	2,5 *0.10*	0,065 *0.0026*	0,065 *0.0026*	0,080 *0.0032*	0,10 *0.0040*
M4	MM16-16019-R05A30-M06 F40M	2,0 *0.080*	0,055 *0.0022*	0,055 *0.0022*	0,070 *0.0028*	0,090 *0.0036*
M5	MM16-16019-R05A30-M06 F40M	2,0 *0.080*	0,055 *0.0022*	0,055 *0.0022*	0,070 *0.0028*	0,090 *0.0036*
K1	MM16-16019-R10A30-E06 F30M	3,5 *0.14*	0,090 *0.0036*	0,090 *0.0036*	0,11 *0.0044*	0,14 *0.0055*
K2	MM16-16019-R10A30-E06 F30M	3,5 *0.14*	0,080 *0.0032*	0,080 *0.0032*	0,10 *0.0040*	0,13 *0.0050*
K3	MM16-16019-R10A30-E06 F30M	3,5 *0.14*	0,080 *0.0032*	0,080 *0.0032*	0,10 *0.0040*	0,13 *0.0050*
K4	MM16-16019-R10A30-E06 F30M	3,5 *0.14*	0,080 *0.0032*	0,080 *0.0032*	0,10 *0.0040*	0,13 *0.0050*
K5	MM16-16019-R10A30-M06 F40M	3,5 *0.14*	0,075 *0.0030*	0,075 *0.0030*	0,090 *0.0036*	0,12 *0.0048*
K6	MM16-16019-R10A30-M06 F40M	3,5 *0.14*	0,080 *0.0032*	0,080 *0.0032*	0,10 *0.0040*	0,13 *0.0050*
K7	MM16-16019-R10A30-M06 F40M	3,5 *0.14*	0,075 *0.0030*	0,075 *0.0030*	0,090 *0.0036*	0,12 *0.0048*
N1	MM16-16019-R10A30-E06 F30M	3,5 *0.14*	0,11 *0.0044*	0,11 *0.0044*	0,14 *0.0055*	0,18 *0.0070*
N2	MM16-16019-R10A30-E06 F30M	3,5 *0.14*	0,11 *0.0044*	0,11 *0.0044*	0,14 *0.0055*	0,18 *0.0070*
N3	MM16-16019-R10A30-E06 F30M	3,5 *0.14*	0,11 *0.0044*	0,11 *0.0044*	0,14 *0.0055*	0,18 *0.0070*
N11	MM16-16019-R10A30-E06 F30M	3,5 *0.14*	0,11 *0.0044*	0,11 *0.0044*	0,14 *0.0055*	0,18 *0.0070*
S1	MM16-16019-R05A30-M06 F40M	2,0 *0.080*	0,055 *0.0022*	0,055 *0.0022*	0,070 *0.0028*	0,090 *0.0036*
S2	MM16-16019-R05A30-M06 F40M	2,0 *0.080*	0,055 *0.0022*	0,055 *0.0022*	0,070 *0.0028*	0,090 *0.0036*
S3	MM16-16019-R05A30-M06 F40M	2,0 *0.080*	0,050 *0.0020*	0,055 *0.0022*	0,065 *0.0026*	0,085 *0.0034*
S11	MM16-16019-R05A30-M06 F40M	2,5 *0.10*	0,065 *0.0026*	0,065 *0.0026*	0,080 *0.0032*	0,10 *0.0040*
S12	MM16-16019-R05A30-M06 F40M	2,5 *0.10*	0,065 *0.0026*	0,065 *0.0026*	0,080 *0.0032*	0,10 *0.0040*
S13	MM16-16019-R05A30-M06 F40M	2,0 *0.080*	0,055 *0.0022*	0,055 *0.0022*	0,070 *0.0028*	0,090 *0.0036*
H5	MM16-16019-R10A30-E06 F30M	2,5 *0.10*	0,055 *0.0022*	0,055 *0.0022*	0,065 *0.0026*	0,090 *0.0036*
H8	MM16-16019-R10A30-E06 F30M	2,5 *0.10*	0,044 *0.0017*	0,044 *0.0017*	0,050 *0.0020*	0,070 *0.0028*
H11	MM16-16019-R10A30-E06 F30M	2,5 *0.10*	0,055 *0.0022*	0,055 *0.0022*	0,065 *0.0026*	0,090 *0.0036*
H12	MM16-16019-R10A30-E06 F30M	2,5 *0.10*	0,044 *0.0017*	0,044 *0.0017*	0,050 *0.0020*	0,070 *0.0028*
H21	MM16-16019-R10A30-E06 F30M	2,5 *0.10*	0,044 *0.0017*	0,044 *0.0017*	0,050 *0.0020*	0,070 *0.0028*

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

MM16 - Slot and Side milling – Cutting data v_c = (m/min)/*(sf/min)*

SMG	F30M				F40M				T60M			
	100%	40%	20%	10%	100%	40%	20%	10%	100%	40%	20%	10%
P1	230 *750*	285 *940*	315 *1025*	350 *1150*	215 *710*	270 *890*	300 *980*	335 *1100*	200 *660*	250 *820*	275 *900*	310 *1025*
P2	220 *720*	275 *900*	310 *1025*	345 *1125*	210 *690*	260 *850*	290 *950*	325 *1075*	195 *640*	240 *790*	270 *890*	295 *970*
P3	195 *640*	240 *790*	270 *890*	295 *970*	185 *610*	225 *740*	255 *840*	280 *920*	170 *560*	210 *690*	235 *770*	260 *850*
P4	170 *560*	215 *710*	240 *790*	265 *870*	160 *520*	205 *670*	225 *740*	250 *820*	150 *490*	185 *610*	205 *670*	225 *740*
P5	165 *540*	205 *670*	230 *750*	250 *820*	155 *510*	195 *640*	215 *710*	240 *790*	140 *460*	175 *570*	200 *660*	220 *720*
P6	185 *610*	230 *750*	260 *850*	285 *940*	175 *570*	215 *710*	245 *800*	270 *890*	160 *520*	200 *660*	220 *720*	245 *800*
P7	175 *570*	220 *720*	245 *800*	265 *870*	165 *540*	205 *670*	230 *750*	255 *840*	150 *490*	190 *620*	210 *690*	235 *770*
P8	160 *520*	205 *670*	230 *750*	250 *820*	155 *510*	190 *620*	215 *710*	235 *770*	140 *460*	175 *570*	200 *660*	215 *710*
P11	170 *560*	210 *690*	235 *770*	260 *850*	160 *520*	200 *660*	225 *740*	245 *800*	145 *475*	185 *610*	205 *670*	225 *740*
P12	110 *360*	135 *445*	150 *490*	165 *540*	105 *345*	130 *425*	145 *475*	155 *510*	95 *310*	120 *395*	130 *425*	145 *475*
M1	180 *590*	225 *740*	250 *820*	275 *900*	170 *560*	210 *690*	235 *770*	260 *850*	155 *510*	190 *620*	215 *710*	240 *790*
M2	150 *490*	185 *610*	205 *670*	225 *740*	140 *460*	175 *570*	195 *640*	215 *710*	125 *410*	160 *520*	180 *590*	200 *660*
M3	120 *395*	150 *490*	165 *540*	180 *590*	110 *360*	140 *460*	155 *510*	175 *570*	105 *345*	130 *425*	145 *475*	155 *510*
M4	90 *295*	115 *375*	130 *425*	140 *460*	85 *280*	110 *360*	120 *395*	135 *445*	80 *260*	100 *330*	110 *360*	120 *395*
M5	75 *245*	95 *310*	105 *345*	115 *375*	75 *245*	90 *295*	100 *330*	110 *360*	65 *215*	85 *280*	95 *310*	100 *330*
K1	175 *570*	220 *720*	245 *800*	270 *890*	165 *540*	205 *670*	230 *750*	260 *850*	150 *490*	190 *620*	210 *690*	235 *770*
K2	155 *510*	195 *640*	215 *710*	240 *790*	145 *475*	185 *610*	205 *670*	225 *740*	135 *445*	170 *560*	190 *620*	210 *690*
K3	130 *425*	165 *540*	185 *610*	205 *670*	125 *410*	155 *510*	175 *570*	190 *620*	115 *375*	145 *475*	160 *520*	175 *570*
K4	125 *410*	160 *520*	175 *570*	195 *640*	120 *395*	150 *490*	165 *540*	185 *610*	110 *360*	135 *445*	150 *490*	170 *560*
K5	75 *245*	95 *310*	105 *345*	115 *375*	75 *245*	90 *295*	100 *330*	110 *360*	65 *215*	80 *260*	95 *310*	100 *330*
K6	110 *360*	140 *460*	155 *510*	170 *560*	105 *345*	130 *425*	145 *475*	160 *520*	95 *310*	120 *395*	135 *445*	150 *490*
K7	100 *330*	120 *395*	135 *445*	150 *490*	95 *310*	115 *375*	130 *425*	140 *460*	85 *280*	105 *345*	120 *395*	130 *425*
N1	1325 *4350*	1650 *5425*	1825 *6000*	2025 *6650*	1225 *4025*	1550 *5075*	1725 *5650*	1925 *6325*	1125 *3700*	1425 *4675*	1575 *5175*	1750 *5750*
N2	530 *1750*	670 *2200*	730 *2400*	820 *2700*	500 *1650*	630 *2075*	690 *2275*	770 *2525*	455 *1500*	570 *1875*	640 *2100*	700 *2300*
N3	355 *1175*	445 *1450*	490 *1600*	540 *1775*	335 *1100*	420 *1375*	465 *1525*	520 *1700*	305 *1000*	385 *1275*	425 *1400*	470 *1550*
N11	405 *1325*	510 *1675*	560 *1825*	620 *2025*	380 *1250*	475 *1550*	530 *1750*	590 *1925*	345 *1125*	435 *1425*	485 *1600*	540 *1775*
S1	43 *140*	55 *180*	60 *195*	65 *215*	41 *135*	50 *165*	55 *180*	60 *195*	38 *125*	46 *150*	50 *165*	55 *180*
S2	35 *115*	43 *140*	48 *155*	55 *180*	33 *110*	41 *135*	45 *150*	50 *165*	30 *100*	37 *120*	42 *140*	46 *150*
S3	30 *100*	38 *125*	42 *140*	46 *150*	29 *95*	35 *115*	40 *130*	44 *145*	27 *90*	33 *110*	37 *120*	40 *130*
S11	60 *195*	75 *245*	85 *280*	90 *295*	55 *180*	70 *230*	80 *260*	90 *295*	50 *165*	65 *215*	75 *245*	80 *260*
S12	42 *140*	50 *165*	60 *195*	65 *215*	39 *130*	49 *160*	55 *180*	60 *195*	36 *120*	45 *150*	50 *165*	55 *180*
S13	24 *80*	30 *100*	34 *110*	37 *120*	23 *75*	29 *95*	32 *105*	35 *115*	21 *70*	26 *85*	29 *95*	32 *105*
H5	36 *120*	45 *150*	50 *165*	55 *180*	34 *110*	43 *140*	48 *155*	50 *165*	31 *100*	39 *130*	44 *145*	48 *155*
H8	38 *125*	47 *155*	55 *180*	60 *195*	36 *120*	45 *150*	50 *165*	55 *180*	33 *110*	41 *135*	46 *150*	50 *165*
H11	46 *150*	60 *195*	65 *215*	70 *230*	43 *140*	55 *180*	60 *195*	65 *215*	40 *130*	50 *165*	55 *180*	60 *195*
H12	70 *230*	85 *280*	95 *310*	105 *345*	65 *215*	80 *260*	90 *295*	100 *330*	60 *195*	75 *245*	85 *280*	90 *295*
H21	38 *125*	47 *155*	55 *180*	60 *195*	36 *120*	45 *150*	50 *165*	55 *180*	33 *110*	41 *135*	46 *150*	50 *165*

MM16 Z3 – Copy milling – Insert selection – Roughing – mm/*Inch*

SMG		a_p	f_z			
			100%	40%	20%	10%
P1	MM16-16019-B90A30-M06 F40M	3,5 *0.14*	0,11 *0.0044*	0,10 *0.0040*	0,11 *0.0044*	0,14 *0.0055*
P2	MM16-16019-B90A30-M06 F40M	3,5 *0.14*	0,11 *0.0044*	0,10 *0.0040*	0,11 *0.0044*	0,15 *0.0060*
P3	MM16-16019-B90A30-M06 F40M	3,5 *0.14*	0,10 *0.0040*	0,10 *0.0040*	0,10 *0.0040*	0,14 *0.0055*
P4	MM16-16019-B90A30-M06 F40M	3,5 *0.14*	0,10 *0.0040*	0,095 *0.0038*	0,10 *0.0040*	0,13 *0.0050*
P5	MM16-16019-B90A30-M06 F40M	3,5 *0.14*	0,10 *0.0040*	0,095 *0.0038*	0,10 *0.0040*	0,13 *0.0050*
P6	MM16-16019-B90A30-M06 F40M	3,5 *0.14*	0,095 *0.0038*	0,095 *0.0038*	0,10 *0.0040*	0,13 *0.0050*
P7	MM16-16019-B90A30-M06 F40M	3,5 *0.14*	0,095 *0.0038*	0,095 *0.0038*	0,10 *0.0040*	0,13 *0.0050*
P8	MM16-16019-B90A30-M06 F40M	3,5 *0.14*	0,10 *0.0040*	0,10 *0.0040*	0,10 *0.0040*	0,14 *0.0055*
P11	MM16-16019-B90A30-M06 F40M	3,5 *0.14*	0,095 *0.0038*	0,095 *0.0038*	0,10 *0.0040*	0,13 *0.0050*
P12	MM16-16019-B90A30-M06 F40M	2,5 *0.10*	0,070 *0.0028*	0,070 *0.0028*	0,070 *0.0028*	0,090 *0.0036*
M1	MM16-16019-B90A30-M06 F40M	3,5 *0.14*	0,11 *0.0044*	0,10 *0.0040*	0,11 *0.0044*	0,15 *0.0060*
M2	MM16-16019-B90A30-M06 F40M	3,5 *0.14*	0,10 *0.0040*	0,095 *0.0038*	0,10 *0.0040*	0,13 *0.0050*
M3	MM16-16019-B90A30-M06 F40M	2,5 *0.10*	0,085 *0.0034*	0,080 *0.0032*	0,080 *0.0032*	0,11 *0.0044*
M4	MM16-16019-B90A30-M06 F40M	2,0 *0.080*	0,075 *0.0030*	0,075 *0.0030*	0,075 *0.0030*	0,090 *0.0038*
M5	MM16-16019-B90A30-M06 F40M	2,0 *0.080*	0,075 *0.0030*	0,075 *0.0030*	0,075 *0.0030*	0,090 *0.0038*
K1	MM16-16019-B90A30-E06 F30M	3,5 *0.14*	0,11 *0.0044*	0,10 *0.0040*	0,11 *0.0044*	0,15 *0.0060*
K2	MM16-16019-B90A30-E06 F30M	3,5 *0.14*	0,10 *0.0040*	0,095 *0.0038*	0,10 *0.0040*	0,13 *0.0050*
K3	MM16-16019-B90A30-E06 F30M	3,5 *0.14*	0,10 *0.0040*	0,095 *0.0038*	0,10 *0.0040*	0,13 *0.0050*
K4	MM16-16019-B90A30-E06 F30M	3,5 *0.14*	0,10 *0.0040*	0,095 *0.0038*	0,10 *0.0040*	0,13 *0.0050*
K5	MM16-16019-B90A30-E06 F30M	3,5 *0.14*	0,090 *0.0036*	0,085 *0.0034*	0,090 *0.0036*	0,12 *0.0048*
K6	MM16-16019-B90A30-E06 F30M	3,5 *0.14*	0,10 *0.0040*	0,095 *0.0038*	0,10 *0.0040*	0,13 *0.0050*
K7	MM16-16019-B90A30-E06 F30M	3,5 *0.14*	0,090 *0.0036*	0,085 *0.0034*	0,090 *0.0036*	0,12 *0.0048*
N1	MM16-16019-B90A30-E06 F30M	3,5 *0.14*	0,14 *0.0055*	0,13 *0.0050*	0,14 *0.0055*	0,19 *0.0075*
N2	MM16-16019-B90A30-E06 F30M	3,5 *0.14*	0,14 *0.0055*	0,13 *0.0050*	0,14 *0.0055*	0,19 *0.0075*
N3	MM16-16019-B90A30-E06 F30M	3,5 *0.14*	0,14 *0.0055*	0,13 *0.0050*	0,14 *0.0055*	0,19 *0.0075*
N11	MM16-16019-B90A30-E06 F30M	3,5 *0.14*	0,14 *0.0055*	0,13 *0.0050*	0,14 *0.0055*	0,19 *0.0075*
S1	MM16-16019-B90A30-M06 F40M	2,0 *0.080*	0,075 *0.0030*	0,075 *0.0030*	0,075 *0.0030*	0,090 *0.0038*
S2	MM16-16019-B90A30-M06 F40M	2,0 *0.080*	0,075 *0.0030*	0,075 *0.0030*	0,075 *0.0030*	0,090 *0.0038*
S3	MM16-16019-B90A30-M06 F40M	2,0 *0.080*	0,070 *0.0028*	0,070 *0.0028*	0,070 *0.0028*	0,085 *0.0036*
S11	MM16-16019-B90A30-M06 F40M	2,5 *0.10*	0,085 *0.0034*	0,080 *0.0032*	0,085 *0.0034*	0,11 *0.0044*
S12	MM16-16019-B90A30-M06 F40M	2,5 *0.10*	0,085 *0.0034*	0,080 *0.0032*	0,085 *0.0034*	0,11 *0.0044*
S13	MM16-16019-B90A30-M06 F40M	2,0 *0.080*	0,075 *0.0030*	0,075 *0.0030*	0,075 *0.0030*	0,090 *0.0038*
H5	MM16-16019-B90A30-E06 F30M	2,5 *0.10*	0,070 *0.0028*	0,070 *0.0028*	0,070 *0.0028*	0,090 *0.0036*
H8	MM16-16019-B90A30-E06 F30M	2,5 *0.10*	0,055 *0.0022*	0,050 *0.0020*	0,055 *0.0022*	0,070 *0.0028*
H11	MM16-16019-B90A30-E06 F30M	2,5 *0.10*	0,070 *0.0028*	0,070 *0.0028*	0,070 *0.0028*	0,090 *0.0036*
H12	MM16-16019-B90A30-E06 F30M	2,5 *0.10*	0,055 *0.0022*	0,050 *0.0020*	0,055 *0.0022*	0,070 *0.0028*
H21	MM16-16019-B90A30-E06 F30M	2,5 *0.10*	0,055 *0.0022*	0,050 *0.0020*	0,055 *0.0022*	0,070 *0.0028*

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

MM16 Z3 – Copy milling – Insert selection – Finishing – mm/*Inch*

SMG		a_p	f_z			
			15%	10%	5%	2%
P1	MM16-16019-B90A30-E06 F30M	3,5 *0.14*	0,12 *0.0048*	0,14 *0.0055*	0,20 *0.0080*	0,32 *0.013*
P2	MM16-16019-B90A30-E06 F30M	3,5 *0.14*	0,12 *0.0048*	0,15 *0.0060*	0,20 *0.0080*	0,34 *0.013*
P3	MM16-16019-B90A30-E06 F30M	3,5 *0.14*	0,12 *0.0048*	0,14 *0.0055*	0,19 *0.0075*	0,32 *0.013*
P4	MM16-16019-B90A30-E06 F30M	3,5 *0.14*	0,11 *0.0044*	0,13 *0.0050*	0,19 *0.0075*	0,30 *0.012*
P5	MM16-16019-B90A30-E06 F30M	3,5 *0.14*	0,11 *0.0044*	0,13 *0.0050*	0,18 *0.0070*	0,30 *0.012*
P6	MM16-16019-B90A30-E06 F30M	3,5 *0.14*	0,11 *0.0044*	0,13 *0.0050*	0,18 *0.0070*	0,30 *0.012*
P7	MM16-16019-B90A30-E06 F30M	3,5 *0.14*	0,11 *0.0044*	0,13 *0.0050*	0,18 *0.0070*	0,30 *0.012*
P8	MM16-16019-B90A30-E06 F30M	3,5 *0.14*	0,12 *0.0048*	0,14 *0.0055*	0,19 *0.0075*	0,32 *0.013*
P11	MM16-16019-B90A30-E06 F30M	3,5 *0.14*	0,11 *0.0044*	0,13 *0.0050*	0,18 *0.0070*	0,30 *0.012*
P12	MM16-16019-B90A30-E06 F30M	2,5 *0.10*	0,075 *0.0030*	0,090 *0.0036*	0,12 *0.0048*	0,20 *0.0080*
M1	MM16-16019-B90A30-E06 F30M	3,5 *0.14*	0,12 *0.0048*	0,15 *0.0060*	0,20 *0.0080*	0,34 *0.013*
M2	MM16-16019-B90A30-E06 F30M	3,5 *0.14*	0,11 *0.0044*	0,13 *0.0050*	0,18 *0.0070*	0,30 *0.012*
M3	MM16-16019-B90A30-E06 F30M	2,5 *0.10*	0,090 *0.0036*	0,11 *0.0044*	0,15 *0.0060*	0,24 *0.0095*
M4	MM16-16019-B90A30-E06 F30M	2,0 *0.080*	0,080 *0.0032*	0,090 *0.0038*	0,13 *0.0050*	0,20 *0.0080*
M5	MM16-16019-B90A30-E06 F30M	2,0 *0.080*	0,080 *0.0032*	0,090 *0.0038*	0,13 *0.0050*	0,20 *0.0080*
K1	MM16-16019-B90A30-E06 F30M	3,5 *0.14*	0,12 *0.0048*	0,15 *0.0060*	0,20 *0.0080*	0,34 *0.013*
K2	MM16-16019-B90A30-E06 F30M	3,5 *0.14*	0,11 *0.0044*	0,13 *0.0050*	0,18 *0.0070*	0,30 *0.012*
K3	MM16-16019-B90A30-E06 F30M	3,5 *0.14*	0,11 *0.0044*	0,13 *0.0050*	0,18 *0.0070*	0,30 *0.012*
K4	MM16-16019-B90A30-E06 F30M	3,5 *0.14*	0,11 *0.0044*	0,13 *0.0050*	0,18 *0.0070*	0,30 *0.012*
K5	MM16-16019-B90A30-E06 F30M	3,5 *0.14*	0,10 *0.0040*	0,12 *0.0048*	0,17 *0.0065*	0,26 *0.010*
K6	MM16-16019-B90A30-E06 F30M	3,5 *0.14*	0,11 *0.0044*	0,13 *0.0050*	0,18 *0.0070*	0,30 *0.012*
K7	MM16-16019-B90A30-E06 F30M	3,5 *0.14*	0,10 *0.0040*	0,12 *0.0048*	0,17 *0.0065*	0,26 *0.010*
N1	MM16-16019-B90A30-E06 F30M	3,5 *0.14*	0,16 *0.0065*	0,19 *0.0075*	0,26 *0.010*	0,44 *0.017*
N2	MM16-16019-B90A30-E06 F30M	3,5 *0.14*	0,16 *0.0065*	0,19 *0.0075*	0,26 *0.010*	0,44 *0.017*
N3	MM16-16019-B90A30-E06 F30M	3,5 *0.14*	0,16 *0.0065*	0,19 *0.0075*	0,26 *0.010*	0,44 *0.017*
N11	MM16-16019-B90A30-E06 F30M	3,5 *0.14*	0,16 *0.0065*	0,19 *0.0075*	0,26 *0.010*	0,44 *0.017*
S1	MM16-16019-B90A30-E06 F30M	2,0 *0.080*	0,080 *0.0032*	0,090 *0.0038*	0,13 *0.0050*	0,20 *0.0080*
S2	MM16-16019-B90A30-E06 F30M	2,0 *0.080*	0,080 *0.0032*	0,090 *0.0038*	0,13 *0.0050*	0,20 *0.0080*
S3	MM16-16019-B90A30-E06 F30M	2,0 *0.080*	0,075 *0.0030*	0,085 *0.0036*	0,12 *0.0048*	0,19 *0.0075*
S11	MM16-16019-B90A30-E06 F30M	2,5 *0.10*	0,090 *0.0036*	0,11 *0.0044*	0,15 *0.0060*	0,24 *0.0095*
S12	MM16-16019-B90A30-E06 F30M	2,5 *0.10*	0,090 *0.0036*	0,11 *0.0044*	0,15 *0.0060*	0,24 *0.0095*
S13	MM16-16019-B90A30-E06 F30M	2,0 *0.080*	0,080 *0.0032*	0,090 *0.0038*	0,13 *0.0050*	0,20 *0.0080*
H5	MM16-16019-B90A30-E06 F30M	2,5 *0.10*	0,075 *0.0030*	0,090 *0.0036*	0,12 *0.0048*	0,20 *0.0080*
H8	MM16-16019-B90A30-E06 F30M	2,5 *0.10*	0,060 *0.0024*	0,070 *0.0028*	0,095 *0.0038*	0,15 *0.0060*
H11	MM16-16019-B90A30-E06 F30M	2,5 *0.10*	0,075 *0.0030*	0,090 *0.0036*	0,12 *0.0048*	0,20 *0.0080*
H12	MM16-16019-B90A30-E06 F30M	2,5 *0.10*	0,060 *0.0024*	0,070 *0.0028*	0,095 *0.0038*	0,15 *0.0060*
H21	MM16-16019-B90A30-E06 F30M	2,5 *0.10*	0,060 *0.0024*	0,070 *0.0028*	0,095 *0.0038*	0,15 *0.0060*

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

MM16 Z3 – Copy milling – Cutting data v_c = (m/min)/*(sf/min)*

SMG	F30M					F40M				
	100%	20%	10%	5%	2%	100%	20%	10%	5%	2%
P1	245 *800*	295 *970*	310 *1025*	335 *1100*	335 *1100*	235 *770*	280 *920*	295 *970*	320 *1050*	320 *1050*
P2	240 *790*	285 *940*	300 *980*	325 *1075*	320 *1050*	230 *750*	270 *890*	285 *940*	310 *1025*	305 *1000*
P3	210 *690*	250 *820*	260 *850*	285 *940*	280 *920*	200 *660*	240 *790*	250 *820*	270 *890*	265 *870*
P4	185 *610*	220 *720*	235 *770*	250 *820*	250 *820*	175 *570*	210 *690*	225 *740*	240 *790*	240 *790*
P5	175 *570*	210 *690*	225 *740*	240 *790*	240 *790*	170 *560*	200 *660*	215 *710*	230 *750*	230 *750*
P6	200 *660*	235 *770*	250 *820*	270 *890*	270 *890*	190 *620*	225 *740*	240 *790*	260 *850*	255 *840*
P7	190 *620*	225 *740*	235 *770*	255 *840*	255 *840*	180 *590*	210 *690*	225 *740*	245 *800*	240 *790*
P8	175 *570*	210 *690*	220 *720*	240 *790*	235 *770*	170 *560*	200 *660*	210 *690*	230 *750*	225 *740*
P11	185 *610*	215 *710*	230 *750*	250 *820*	245 *800*	175 *570*	205 *670*	220 *720*	235 *770*	235 *770*
P12	115 *375*	145 *475*	145 *475*	160 *520*	155 *510*	110 *360*	140 *460*	140 *460*	150 *490*	150 *490*
M1	195 *640*	230 *750*	240 *790*	265 *870*	260 *850*	185 *610*	220 *720*	230 *750*	250 *820*	245 *800*
M2	160 *520*	190 *620*	200 *660*	220 *720*	215 *710*	150 *490*	180 *590*	190 *620*	205 *670*	205 *670*
M3	130 *425*	160 *520*	160 *520*	170 *560*	170 *560*	120 *395*	150 *490*	150 *490*	165 *540*	165 *540*
M4	90 *295*	125 *410*	125 *425*	130 *425*	135 *445*	85 *280*	120 *395*	115 *410*	125 *410*	125 *410*
M5	75 *245*	105 *345*	100 *360*	110 *360*	110 *360*	70 *230*	100 *330*	100 *345*	105 *345*	105 *345*
K1	190 *620*	225 *740*	235 *770*	260 *850*	255 *840*	180 *590*	215 *710*	225 *740*	245 *800*	245 *800*
K2	170 *560*	200 *660*	210 *690*	230 *750*	225 *740*	160 *520*	190 *620*	200 *660*	220 *720*	215 *710*
K3	140 *460*	170 *560*	180 *590*	195 *640*	190 *620*	135 *445*	160 *520*	170 *560*	185 *610*	185 *610*
K4	135 *445*	160 *520*	170 *560*	185 *610*	185 *610*	130 *425*	155 *510*	165 *540*	175 *570*	175 *570*
K5	85 *280*	100 *330*	105 *345*	110 *360*	110 *360*	80 *260*	95 *310*	100 *330*	105 *345*	105 *345*
K6	120 *395*	140 *460*	150 *490*	165 *540*	160 *520*	115 *375*	135 *445*	145 *475*	155 *510*	155 *510*
K7	105 *345*	125 *410*	130 *425*	145 *475*	145 *475*	100 *330*	120 *395*	125 *410*	135 *445*	135 *445*
N1	1425 *4675*	1700 *5575*	1775 *5825*	1925 *6325*	1900 *6225*	1350 *4425*	1625 *5325*	1700 *5575*	1850 *6075*	1800 *5900*
N2	580 *1900*	690 *2275*	720 *2350*	780 *2550*	770 *2525*	550 *1800*	650 *2125*	680 *2225*	740 *2425*	730 *2400*
N3	385 *1275*	455 *1500*	480 *1575*	520 *1700*	510 *1675*	365 *1200*	435 *1425*	455 *1500*	495 *1625*	485 *1600*
N11	440 *1450*	520 *1700*	550 *1800*	600 *1975*	580 *1900*	420 *1375*	495 *1625*	520 *1700*	570 *1875*	560 *1825*
S1	42 *140*	60 *195*	55 *195*	60 *195*	60 *195*	40 *130*	55 *180*	55 *195*	60 *195*	60 *195*
S2	34 *110*	48 *155*	46 *160*	50 *165*	50 *165*	33 *110*	45 *150*	44 *155*	47 *155*	48 *155*
S3	30 *100*	41 *135*	40 *140*	43 *140*	43 *140*	28 *90*	39 *130*	38 *135*	41 *135*	41 *135*
S11	65 *215*	80 *260*	80 *280*	85 *280*	85 *280*	60 *195*	80 *260*	75 *260*	85 *280*	80 *260*
S12	45 *150*	55 *180*	55 *195*	60 *195*	60 *195*	43 *140*	55 *180*	55 *180*	55 *180*	55 *180*
S13	24 *80*	33 *110*	32 *110*	35 *115*	35 *115*	23 *75*	32 *105*	31 *110*	33 *110*	33 *110*
H5	39 *130*	48 *155*	48 *160*	55 *180*	50 *165*	37 *120*	46 *150*	46 *150*	50 *165*	50 *165*
H8	40 *130*	50 *165*	50 *165*	55 *180*	55 *180*	38 *125*	49 *160*	48 *165*	50 *165*	50 *165*
H11	50 *165*	60 *195*	60 *195*	65 *215*	65 *215*	47 *155*	60 *195*	60 *195*	65 *215*	65 *215*
H12	70 *230*	90 *295*	90 *310*	100 *330*	100 *330*	70 *230*	85 *280*	85 *295*	95 *310*	95 *310*
H21	40 *130*	50 *165*	50 *165*	55 *180*	55 *180*	38 *125*	49 *160*	48 *165*	50 *165*	50 *165*

MM16 Z2 – Copy milling – Insert selection – Roughing – mm/*Inch*

SMG		a_p	f_z			
			100%	40%	20%	10%
P1	MM16-16016-B90-MD07 F30M	6,0 *0.24*	0,11 *0.0044*	0,11 *0.0044*	0,13 *0.0050*	0,17 *0.0065*
P2	MM16-16016-B90-MD07 F30M	6,0 *0.24*	0,11 *0.0044*	0,11 *0.0044*	0,13 *0.0050*	0,17 *0.0065*
P3	MM16-16016-B90-MD07 F30M	6,0 *0.24*	0,11 *0.0044*	0,10 *0.0040*	0,12 *0.0048*	0,16 *0.0065*
P4	MM16-16016-B90-MD07 F30M	6,0 *0.24*	0,10 *0.0040*	0,10 *0.0040*	0,12 *0.0048*	0,16 *0.0065*
P5	MM16-16016-B90-MD07 F30M	6,0 *0.24*	0,10 *0.0040*	0,10 *0.0040*	0,12 *0.0048*	0,15 *0.0060*
P6	MM16-16016-B90-MD07 F30M	6,0 *0.24*	0,10 *0.0040*	0,10 *0.0040*	0,12 *0.0048*	0,15 *0.0060*
P7	MM16-16016-B90-MD07 F30M	6,0 *0.24*	0,10 *0.0040*	0,10 *0.0040*	0,12 *0.0048*	0,15 *0.0060*
P8	MM16-16016-B90-MD07 F30M	6,0 *0.24*	0,11 *0.0044*	0,10 *0.0040*	0,12 *0.0048*	0,16 *0.0065*
P11	MM16-16016-B90-MD07 F30M	6,0 *0.24*	0,10 *0.0040*	0,10 *0.0040*	0,12 *0.0048*	0,15 *0.0060*
P12	MM16-16016-B90-MD07 F30M	5,0 *0.20*	0,070 *0.0028*	0,070 *0.0028*	0,080 *0.0032*	0,10 *0.0044*
M1	MM16-16016-B90-MD07 F30M	6,0 *0.24*	0,11 *0.0044*	0,11 *0.0044*	0,13 *0.0050*	0,17 *0.0065*
M2	MM16-16016-B90-MD07 F30M	6,0 *0.24*	0,10 *0.0040*	0,10 *0.0040*	0,12 *0.0048*	0,15 *0.0060*
M3	MM16-16016-B90-MD07 F30M	5,0 *0.20*	0,085 *0.0034*	0,080 *0.0032*	0,095 *0.0038*	0,12 *0.0050*
M4	MM16-16016-B90-MD07 F30M	4,0 *0.16*	0,080 *0.0032*	0,080 *0.0032*	0,085 *0.0034*	0,11 *0.0044*
M5	MM16-16016-B90-MD07 F30M	4,0 *0.16*	0,080 *0.0032*	0,080 *0.0032*	0,085 *0.0034*	0,11 *0.0044*
K1	MM16-16016-B90-MD07 F30M	6,0 *0.24*	0,11 *0.0044*	0,11 *0.0044*	0,13 *0.0050*	0,17 *0.0065*
K2	MM16-16016-B90-MD07 F30M	6,0 *0.24*	0,10 *0.0040*	0,10 *0.0040*	0,12 *0.0048*	0,15 *0.0060*
K3	MM16-16016-B90-MD07 F30M	6,0 *0.24*	0,10 *0.0040*	0,10 *0.0040*	0,12 *0.0048*	0,15 *0.0060*
K4	MM16-16016-B90-MD07 F30M	6,0 *0.24*	0,10 *0.0040*	0,10 *0.0040*	0,12 *0.0048*	0,15 *0.0060*
K5	MM16-16016-B90-MD07 F30M	6,0 *0.24*	0,090 *0.0036*	0,090 *0.0036*	0,11 *0.0044*	0,14 *0.0055*
K6	MM16-16016-B90-MD07 F30M	6,0 *0.24*	0,10 *0.0040*	0,10 *0.0040*	0,12 *0.0048*	0,15 *0.0060*
K7	MM16-16016-B90-MD07 F30M	6,0 *0.24*	0,090 *0.0036*	0,090 *0.0036*	0,11 *0.0044*	0,14 *0.0055*
N1	MM16-16016-B90PF-M03 F15M	6,0 *0.24*	0,060 *0.0024*	0,060 *0.0024*	0,070 *0.0028*	0,095 *0.0038*
N2	MM16-16016-B90PF-M03 F15M	6,0 *0.24*	0,060 *0.0024*	0,060 *0.0024*	0,070 *0.0028*	0,095 *0.0038*
N3	MM16-16016-B90PF-M03 F15M	6,0 *0.24*	0,060 *0.0024*	0,060 *0.0024*	0,070 *0.0028*	0,095 *0.0038*
N11	MM16-16016-B90PF-M03 F15M	6,0 *0.24*	0,060 *0.0024*	0,060 *0.0024*	0,070 *0.0028*	0,095 *0.0038*
S1	MM16-16016-B90-MD07 F30M	4,0 *0.16*	0,080 *0.0032*	0,080 *0.0032*	0,085 *0.0034*	0,11 *0.0044*
S2	MM16-16016-B90-MD07 F30M	4,0 *0.16*	0,080 *0.0032*	0,080 *0.0032*	0,085 *0.0034*	0,11 *0.0044*
S3	MM16-16016-B90-MD07 F30M	4,0 *0.16*	0,070 *0.0028*	0,070 *0.0028*	0,080 *0.0032*	0,10 *0.0040*
S11	MM16-16016-B90-MD07 F30M	4,5 *0.18*	0,085 *0.0034*	0,085 *0.0034*	0,095 *0.0038*	0,12 *0.0050*
S12	MM16-16016-B90-MD07 F30M	4,5 *0.18*	0,085 *0.0034*	0,085 *0.0034*	0,095 *0.0038*	0,12 *0.0050*
S13	MM16-16016-B90-MD07 F30M	4,0 *0.16*	0,080 *0.0032*	0,080 *0.0032*	0,085 *0.0034*	0,11 *0.0044*
H5	MM16-16016-B90-MD07 F30M	5,0 *0.20*	0,070 *0.0028*	0,070 *0.0028*	0,080 *0.0032*	0,10 *0.0044*
H8	MM16-16016-B90-MD07 F30M	4,5 *0.18*	0,055 *0.0022*	0,055 *0.0022*	0,060 *0.0024*	0,080 *0.0032*
H11	MM16-16016-B90-MD07 F30M	5,0 *0.20*	0,070 *0.0028*	0,070 *0.0028*	0,080 *0.0032*	0,10 *0.0044*
H12	MM16-16016-B90-MD07 F30M	4,5 *0.18*	0,055 *0.0022*	0,055 *0.0022*	0,060 *0.0024*	0,080 *0.0032*
H21	MM16-16016-B90-MD07 F30M	4,5 *0.18*	0,055 *0.0022*	0,055 *0.0022*	0,060 *0.0024*	0,080 *0.0032*

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

MM16 Z2 – Copy milling – Insert selection – Finishing – mm/*Inch*

SMG		a_p	f_z			
			15%	10%	5%	2%
P1	MM16-16016-B90PF-M03 F15M	6,0 *0.24*	0,060 *0.0024*	0,070 *0.0028*	0,10 *0.0040*	0,16 *0.0065*
P2	MM16-16016-B90PF-M03 F15M	6,0 *0.24*	0,060 *0.0024*	0,075 *0.0030*	0,10 *0.0040*	0,16 *0.0065*
P3	MM16-16016-B90PF-M03 F15M	6,0 *0.24*	0,060 *0.0024*	0,070 *0.0028*	0,095 *0.0038*	0,15 *0.0060*
P4	MM16-16016-B90PF-M03 F15M	6,0 *0.24*	0,055 *0.0022*	0,070 *0.0028*	0,095 *0.0038*	0,15 *0.0060*
P5	MM16-16016-B90PF-M03 F15M	6,0 *0.24*	0,055 *0.0022*	0,065 *0.0026*	0,090 *0.0036*	0,15 *0.0060*
P6	MM16-16016-B90PF-M03 F15M	6,0 *0.24*	0,055 *0.0022*	0,065 *0.0026*	0,090 *0.0036*	0,14 *0.0055*
P7	MM16-16016-B90PF-M03 F15M	6,0 *0.24*	0,055 *0.0022*	0,065 *0.0026*	0,090 *0.0036*	0,14 *0.0055*
P8	MM16-16016-B90PF-M03 F15M	6,0 *0.24*	0,060 *0.0024*	0,070 *0.0028*	0,095 *0.0038*	0,15 *0.0060*
P11	MM16-16016-B90PF-M03 F15M	6,0 *0.24*	0,055 *0.0022*	0,065 *0.0026*	0,090 *0.0036*	0,14 *0.0055*
P12	MM16-16016-B90PF-M03 F15M	4,5 *0.18*	0,038 *0.0015*	0,046 *0.0018*	0,060 *0.0024*	0,10 *0.0040*
M1	MM16-16016-B90PF-M03 F15M	6,0 *0.24*	0,060 *0.0024*	0,075 *0.0030*	0,10 *0.0040*	0,16 *0.0065*
M2	MM16-16016-B90PF-M03 F15M	6,0 *0.24*	0,055 *0.0022*	0,065 *0.0026*	0,090 *0.0036*	0,15 *0.0060*
M3	MM16-16016-B90PF-M03 F15M	4,5 *0.18*	0,046 *0.0018*	0,055 *0.0022*	0,075 *0.0030*	0,12 *0.0048*
M4	MM16-16016-B90PF-M03 F15M	3,5 *0.14*	0,040 *0.0016*	0,046 *0.0019*	0,065 *0.0026*	0,10 *0.0040*
M5	MM16-16016-B90PF-M03 F15M	3,5 *0.14*	0,040 *0.0016*	0,046 *0.0019*	0,065 *0.0026*	0,10 *0.0040*
K1	MM16-16016-B90PF-M03 F15M	6,0 *0.24*	0,060 *0.0024*	0,075 *0.0030*	0,10 *0.0040*	0,16 *0.0065*
K2	MM16-16016-B90PF-M03 F15M	6,0 *0.24*	0,055 *0.0022*	0,065 *0.0026*	0,090 *0.0036*	0,15 *0.0060*
K3	MM16-16016-B90PF-M03 F15M	6,0 *0.24*	0,055 *0.0022*	0,065 *0.0026*	0,090 *0.0036*	0,15 *0.0060*
K4	MM16-16016-B90PF-M03 F15M	6,0 *0.24*	0,055 *0.0022*	0,065 *0.0026*	0,090 *0.0036*	0,15 *0.0060*
K5	MM16-16016-B90PF-M03 F15M	6,0 *0.24*	0,050 *0.0020*	0,060 *0.0024*	0,085 *0.0034*	0,13 *0.0050*
K6	MM16-16016-B90PF-M03 F15M	6,0 *0.24*	0,055 *0.0022*	0,065 *0.0026*	0,090 *0.0036*	0,15 *0.0060*
K7	MM16-16016-B90PF-M03 F15M	6,0 *0.24*	0,050 *0.0020*	0,060 *0.0024*	0,085 *0.0034*	0,13 *0.0050*
N1	MM16-16016-B90PF-M03 F15M	6,0 *0.24*	0,080 *0.0032*	0,095 *0.0038*	0,13 *0.0050*	0,20 *0.0080*
N2	MM16-16016-B90PF-M03 F15M	6,0 *0.24*	0,080 *0.0032*	0,095 *0.0038*	0,13 *0.0050*	0,20 *0.0080*
N3	MM16-16016-B90PF-M03 F15M	6,0 *0.24*	0,080 *0.0032*	0,095 *0.0038*	0,13 *0.0050*	0,20 *0.0080*
N11	MM16-16016-B90PF-M03 F15M	6,0 *0.24*	0,080 *0.0032*	0,095 *0.0038*	0,13 *0.0050*	0,20 *0.0080*
S1	MM16-16016-B90PF-M03 F15M	3,5 *0.14*	0,040 *0.0016*	0,046 *0.0019*	0,065 *0.0026*	0,10 *0.0040*
S2	MM16-16016-B90PF-M03 F15M	3,5 *0.14*	0,040 *0.0016*	0,046 *0.0019*	0,065 *0.0026*	0,10 *0.0040*
S3	MM16-16016-B90PF-M03 F15M	3,5 *0.14*	0,038 *0.0015*	0,044 *0.0017*	0,060 *0.0024*	0,095 *0.0038*
S11	MM16-16016-B90PF-M03 F15M	4,0 *0.16*	0,046 *0.0018*	0,055 *0.0022*	0,075 *0.0030*	0,12 *0.0048*
S12	MM16-16016-B90PF-M03 F15M	4,0 *0.16*	0,046 *0.0018*	0,055 *0.0022*	0,075 *0.0030*	0,12 *0.0048*
S13	MM16-16016-B90PF-M03 F15M	3,5 *0.14*	0,040 *0.0016*	0,046 *0.0019*	0,065 *0.0026*	0,10 *0.0040*
H5	MM16-16016-B90PF-M03 F15M	4,5 *0.18*	0,038 *0.0015*	0,046 *0.0018*	0,060 *0.0024*	0,10 *0.0040*
H8	MM16-16016-B90PF-M03 F15M	4,0 *0.16*	0,030 *0.0012*	0,034 *0.0014*	0,048 *0.0019*	0,075 *0.0030*
H11	MM16-16016-B90PF-M03 F15M	4,5 *0.18*	0,038 *0.0015*	0,046 *0.0018*	0,060 *0.0024*	0,10 *0.0040*
H12	MM16-16016-B90PF-M03 F15M	4,0 *0.16*	0,030 *0.0012*	0,034 *0.0014*	0,048 *0.0019*	0,075 *0.0030*
H21	MM16-16016-B90PF-M03 F15M	4,0 *0.16*	0,030 *0.0012*	0,034 *0.0014*	0,048 *0.0019*	0,075 *0.0030*

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

MM16 Z2 – Copy milling – Cutting data v_c = (m/min)/*(sf/min)*

SMG	F15M					F30M					T60M				
	100%	20%	10%	5%	2%	100%	20%	10%	5%	2%	100%	20%	10%	5%	2%
P1	285 *940*	360 *1175*	390 *1275*	420 *1375*	415 *1350*	225 *740*	280 *920*	300 *980*	325 *1075*	325 *1075*	185 *610*	225 *740*	245 *800*	265 *870*	265 *870*
P2	275 *900*	350 *1150*	375 *1225*	405 *1325*	405 *1325*	220 *720*	270 *890*	295 *970*	315 *1025*	315 *1025*	180 *590*	220 *720*	240 *790*	255 *840*	255 *840*
P3	240 *790*	305 *1000*	325 *1075*	355 *1175*	355 *1175*	190 *620*	240 *790*	255 *840*	280 *920*	275 *900*	155 *510*	195 *640*	210 *690*	225 *740*	225 *740*
P4	215 *710*	270 *890*	285 *940*	310 *1025*	310 *1025*	170 *560*	210 *690*	225 *740*	245 *800*	245 *800*	140 *460*	170 *560*	185 *610*	200 *660*	195 *640*
P5	205 *670*	255 *840*	275 *900*	300 *980*	295 *970*	165 *540*	200 *660*	220 *720*	235 *770*	230 *750*	130 *425*	160 *520*	175 *570*	190 *620*	190 *620*
P6	230 *750*	290 *950*	310 *1025*	335 *1100*	335 *1100*	180 *590*	225 *740*	245 *800*	265 *870*	265 *870*	150 *490*	180 *590*	200 *660*	215 *710*	215 *710*
P7	215 *710*	275 *900*	290 *950*	315 *1025*	315 *1025*	170 *560*	210 *690*	230 *750*	250 *820*	250 *820*	140 *460*	170 *560*	190 *620*	200 *660*	200 *660*
P8	200 *660*	255 *840*	275 *900*	295 *970*	295 *970*	160 *520*	200 *660*	215 *710*	235 *770*	230 *750*	130 *425*	160 *520*	175 *570*	190 *620*	190 *620*
P11	210 *690*	265 *870*	285 *940*	310 *1025*	310 *1025*	165 *540*	205 *670*	225 *740*	240 *790*	240 *790*	135 *445*	165 *540*	180 *590*	195 *640*	195 *640*
P12	135 *445*	175 *570*	175 *590*	190 *620*	190 *620*	110 *360*	140 *460*	145 *475*	155 *510*	155 *510*	90 *295*	110 *360*	115 *375*	125 *410*	125 *410*
M1	225 *740*	285 *940*	300 *980*	330 *1075*	325 *1075*	175 *570*	220 *720*	235 *770*	255 *840*	250 *820*	145 *475*	180 *590*	190 *620*	205 *670*	205 *670*
M2	185 *610*	230 *750*	250 *820*	270 *890*	265 *870*	145 *475*	180 *590*	195 *640*	210 *690*	210 *690*	120 *395*	145 *475*	160 *520*	170 *560*	170 *560*
M3	150 *490*	190 *620*	195 *660*	210 *690*	210 *690*	120 *395*	150 *490*	155 *520*	170 *560*	170 *560*	95 *310*	125 *410*	125 *425*	135 *445*	135 *445*
M4	115 *375*	150 *490*	150 *520*	160 *520*	160 *520*	95 *310*	125 *410*	120 *425*	130 *425*	130 *425*	75 *245*	100 *330*	95 *345*	105 *345*	105 *345*
M5	95 *310*	125 *410*	125 *445*	135 *445*	135 *445*	80 *260*	100 *330*	100 *345*	110 *360*	110 *360*	65 *215*	85 *280*	80 *280*	90 *295*	85 *280*
K1	220 *720*	280 *920*	295 *970*	320 *1050*	320 *1050*	175 *570*	215 *710*	235 *770*	250 *820*	250 *820*	140 *460*	175 *570*	190 *620*	205 *670*	200 *660*
K2	195 *640*	245 *800*	260 *850*	285 *940*	280 *920*	155 *510*	190 *620*	210 *690*	220 *720*	220 *720*	125 *410*	155 *510*	170 *560*	180 *590*	180 *590*
K3	165 *540*	205 *670*	220 *720*	240 *790*	240 *790*	130 *425*	160 *520*	175 *570*	190 *620*	185 *610*	105 *345*	130 *425*	140 *460*	150 *490*	150 *490*
K4	155 *510*	195 *640*	210 *690*	230 *750*	225 *740*	125 *410*	155 *510*	170 *560*	180 *590*	180 *590*	100 *330*	125 *410*	135 *445*	145 *475*	145 *475*
K5	95 *310*	120 *395*	125 *410*	135 *445*	140 *460*	75 *245*	95 *310*	100 *330*	110 *360*	110 *360*	60 *195*	75 *245*	80 *260*	90 *295*	90 *295*
K6	135 *445*	175 *570*	185 *610*	200 *660*	200 *660*	110 *360*	135 *445*	150 *490*	160 *520*	155 *510*	90 *295*	110 *360*	120 *395*	130 *425*	125 *410*
K7	120 *395*	150 *490*	165 *540*	175 *570*	175 *570*	95 *310*	120 *395*	130 *425*	140 *460*	140 *460*	80 *260*	95 *310*	105 *345*	115 *375*	115 *375*
N1	1675 *5500*	2125 *6975*	2250 *7375*	2450 *8050*	2450 *8050*	1300 *4275*	1625 *5325*	1725 *5650*	1875 *6150*	1850 *6075*	1050 *3450*	1325 *4350*	1400 *4600*	1525 *5000*	1500 *4925*
N2	680 *2225*	860 *2825*	910 *2975*	990 *3250*	990 *3250*	530 *1750*	660 *2175*	700 *2300*	760 *2500*	750 *2450*	425 *1400*	530 *1750*	570 *1875*	620 *2025*	610 *2000*
N3	450 *1475*	570 *1875*	610 *2000*	660 *2175*	660 *2175*	350 *1150*	435 *1425*	465 *1525*	510 *1675*	500 *1650*	285 *940*	355 *1175*	380 *1250*	410 *1350*	405 *1325*
N11	520 *1700*	650 *2125*	690 *2275*	750 *2450*	760 *2500*	400 *1300*	500 *1650*	530 *1750*	580 *1900*	570 *1875*	325 *1075*	405 *1325*	430 *1400*	470 *1550*	465 *1525*
S1	55 *180*	70 *230*	70 *245*	75 *245*	75 *245*	44 *145*	55 *180*	55 *195*	60 *195*	60 *195*	36 *120*	46 *150*	45 *160*	49 *160*	49 *160*
S2	44 *145*	55 *180*	55 *195*	60 *195*	60 *195*	35 *115*	46 *150*	45 *155*	49 *160*	49 *160*	29 *95*	37 *120*	36 *130*	40 *130*	39 *130*
S3	38 *125*	49 *160*	48 *165*	50 *165*	50 *165*	31 *100*	40 *130*	39 *140*	43 *140*	43 *140*	25 *80*	32 *105*	32 *110*	35 *115*	35 *115*
S11	75 *245*	100 *330*	100 *345*	105 *345*	105 *345*	60 *195*	80 *260*	80 *260*	85 *280*	85 *280*	50 *165*	65 *215*	65 *215*	70 *230*	70 *230*
S12	55 *180*	70 *230*	70 *230*	75 *245*	75 *245*	43 *140*	55 *180*	55 *180*	60 *195*	60 *195*	35 *115*	44 *145*	44 *150*	48 *155*	48 *155*
S13	31 *100*	39 *130*	39 *140*	42 *140*	42 *140*	25 *80*	32 *105*	31 *110*	34 *110*	34 *110*	20 *65*	26 *85*	25 *90*	28 *90*	28 *90*
H5	45 *150*	55 *180*	60 *195*	65 *215*	65 *215*	36 *120*	46 *150*	48 *155*	50 *165*	50 *165*	30 *100*	37 *120*	39 *130*	41 *135*	41 *135*
H8	46 *150*	60 *195*	60 *215*	65 *215*	65 *215*	39 *130*	50 *165*	50 *165*	55 *180*	55 *180*	31 *100*	40 *130*	40 *140*	44 *145*	43 *140*
H11	55 *180*	75 *245*	75 *245*	80 *260*	80 *260*	46 *150*	60 *195*	60 *195*	65 *215*	65 *215*	38 *125*	47 *155*	49 *165*	55 *180*	50 *165*
H12	85 *280*	105 *345*	105 *375*	115 *375*	115 *375*	70 *230*	90 *295*	90 *310*	95 *310*	95 *310*	55 *180*	70 *230*	70 *245*	80 *260*	80 *260*
H21	46 *150*	60 *195*	60 *215*	65 *215*	65 *215*	39 *130*	50 *165*	50 *165*	55 *180*	55 *180*	31 *100*	40 *130*	40 *140*	44 *145*	43 *140*

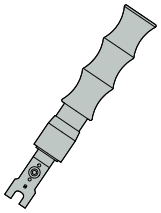
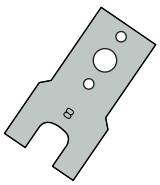
Torque wrench and Max RPM information

Torque wrench	
Recommended RPM for all Seco cutters are shown on each catalogue page. Normally there is no need for balancing tools for RPM up to 10 000. However in some cases balancing is necessary, for instance when using heavy tools and tool holders in small machines	
Torque wrench with fixed torque values to ensure the correct tightening force when mounting the Minimaster insert into its holder. Dynamomentic keys are calibrated according to ISO 6789. Code key: MM02-4006 MM02 = 2-flute (MM03 = 3-flute) 40 = Torque value 4 Nm 06 = Insert size	Over 10 000 RPM: We recommend balancing of tool and tool holders at least separately. Over 20 000 RPM: Both tool and tool holders must be balanced at least separately. Over 30 000 RPM: Tool and tool holders must be balanced as a unit. The max RPM in the tables should never be exceeded.)

2 flute inserts

Insert size	Torque wrench (including key end)	Replaceable key end	Torque value
			
MM06	MM02-4006	MM02-06	4 Nm
MM08	MM02-8008	MM02-08	8 Nm
MM10	MM02-1201012	MM02-1012	12 Nm
MM12	MM02-1201012	MM02-1012	12 Nm
MM12 DC= Ø 14,0	MM02-16014	MM02-14	16 Nm
MM12 DCX= Ø 16,0	MM02-1601620	MM02-1620	16 Nm
MM16	MM02-1601620	MM02-1620	16 Nm

3 flute inserts

Insert size	Torque wrench (including key end)	Replaceable key end	Torque value
			
MM06	MM03-4006	MM03-06	4 Nm
MM08	MM03-8008	MM03-08	8 Nm
MM10	MM03-1201012	MM03-1012	12 Nm
MM12	MM03-1201012	MM03-1012	12 Nm
MM16	MM03-16016	MM03-16	16 Nm



SMG – Introduction

The foundation for SMG is a classification of workpiece materials based on their type rather than their relative machinability and consequently it contains workpiece materials like composites. It is comprehensive enough, but still easy to identify which SMG a particular material belongs.
Each SMG has a specific material standard in a specific condition assigned as reference to allow easy adjustment of cutting data for any actual material compared to any Seco reference material see page(s) 676-679.
As example the reference materials EN C45E for SMG P4 and EN 42 CrMo 4 for both SMG P5 and SMG H5 see further details in the following tables.

SMG	Description	Properties	Reference
P4	Low-alloy general structural steels, 0.25% < C < 0.67%wt Low-alloy Quench & Temper steels	520 < R_m < 1200	C 45E R_m = 660 N/mm^2
P5	Structural steels, 0.25% < C < 0.67%wt Quench & Temper steels	550 < R_m < 1200	42 CrMo 4 R_m = 700 N/mm^2

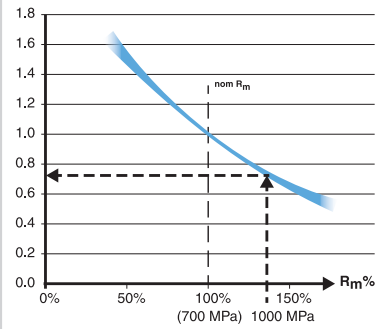
SMG	Description	Properties	Reference
H5	Quenched & Tempered steels	38 < HRC < 56	42 CrMo 4 50 HRC

Focusing specifically on EN 42 CrMo 4 in annealed condition, the ultimate tensile strength R_m may typically vary between Rm = 630 N/mm^2 and R_m = 780 N/mm^2, which provide a reference level for SMG P5. In Quenched & Tempered condition, the ultimate tensile strength R_m may typically be between R_m = 900 N/mm^2 and R_m = 1100 N/mm^2 thus still belongs to SMG P5. However, if hardened above R_m = 1200 N/mm^2 it instead belongs to SMG H5.

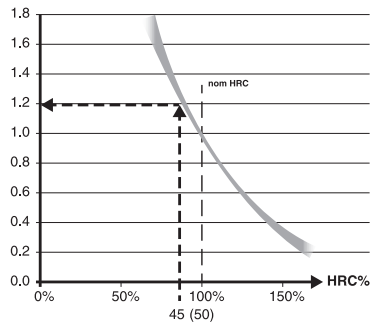
SMG	EN	W.-Nr	AFNOR	BS	UNI	JIS	AISI / ASTM	GOST	Condition	R_{m_nom}	HRC_{nom}
P5	42 CrMo 4	1.1201	42 CD 4	708 M 40	42 CrMo 4	SCM 440 (H)	4142, 4140	38HM	Annealed	700	
	42 CrMo 4	1.1201	42 CD 4	708 M 40	42 CrMo 4	SCM 440 (H)	4142, 4140	38HM	Quenched & Tempered	1000	
H5	42 CrMo 4	1.1201	42 CD 4	708 M 40	42 CrMo 4	SCM 440 (H)	4142, 4140	38HM	Quenched & Tempered		45
	42 CrMo 4	1.1201	42 CD 4	708 M 40	42 CrMo 4	SCM 440 (H)	4142, 4140	38HM	Quenched & Tempered		50

The EN 42CrMo4 quench & tempered steel could be used to illustrate the machinability dependence of materials' condition.
The graphs below indicate how speed recommendations for a nominal material conditions may be adjusted for relative R_m (left diagram valid for ISO-P) and for relative HRC (valid for ISO-H).

Speed recommendation based in material machining properties, steel



Speed recommendation based in material machining properties, hardened steel



To further illustrate how the SMG P5 nominal v_c can be adjusted to a more accurate recommended v_c we need ultimate tensile strength R_m data and in this case we use the EN 42 CrMo 4 quenched & tempered to R_m = 1000 N/mm^2 according to above table (bold blue arrows).
Assume that we find that the SMG P5 nominal v_c = 280 m/min / *918.64 sfm* for a certain product and machining.
Then, actual recommended v_c = 280 m/min x 0,75 = 210 m/min / v_c = *918.64 sfm x 0.75 = 688.98 sfm.*
Consequently in the SMG H5 the nominal v_c can be adjusted using the hardened EN 42 CrMo 4 at HRC 45 (smaller grey arrows).
Assume that the SMG H5 nominal v_c = 50 m/min / *164.04 sfm* for a certain product and machining using a coated cemented carbide tools then, actual recommended v_c = 50 m/min x 1,2 = 60 m/min / v_c = *164.04 sfm x 1.2 = 196.85 sfm.*
For further workpiece material details please see page(s) 680 - 687 and suggested cutting data at applicable pages.
For more convenient cutting data handling we recommend applicable tools in My Pages – on www.secotools.com
These cutting data compensations for steels are fully implemented at www.secotools.com in MyPages (see QR-code in the upper right corner).

Steels, ferritic and martensitic stainless steels

SMG	Description	Properties	Reference	$k_{c1.1}$	m_c
P1	Free-cutting steels	360 < R_m < 880	11 SMn30 R_m = 385 N/mm^2	1500	0,14
P2	Low-alloy ferritic steels, C < 0.25%wt Low-alloy weldable general structural steels	320 < R_m < 600	S235JRG2 R_m = 420 N/mm^2	1600	0,23
P3	Ferritic & ferritic/pearlitic steels, C < 0.25%wt Weldable general structural steels Case-hardening steels	430 < R_m < 610	16 MnCr 5 R_m = 550 N/mm^2	1800	0,14
P4	Low-alloy general structural steels, 0.25% < C < 0.67%wt Low-alloy Quench & Temper steels	520 < R_m < 1200	C 45E R_m = 660 N/mm^2	2000	0,15
P5	Structural steels, 0.25% < C < 0.67%wt Quench & Temper steels	550 < R_m < 1200	42 CrMo 4 R_m = 700 N/mm^2	2020	0,18
P6	Low-alloy through-hardening steels, C > 0.67%wt Low-alloy spring and bearing steels	520 < R_m < 1200	C 100S R_m = 600 N/mm^2	2100	0,17
P7	Through-hardening steels, C > 0.67%wt Spring and bearing steels	600 < R_m < 1200	100 Cr 6 R_m = 650 N/mm^2	2160	0,17
P8	Tool steels High Speed Steels (HSS)	600 < R_m < 1200	X 40 CrMoV 5 1 R_m = 700 N/mm^2	2400	0,20
P11	Ferritic & martensitic stainless steels	415 < R_m < 1200	X 20 Cr 13 R_m = 675 N/mm^2	2000	0,15
P12	Maraging and precipitation-hardening stainless steels	500 < R_m < 1200	X 5 CrNiCuNb 16 4 R_m = 1100 N/mm^2	2100	0,17

Free-cutting, austenitic and duplex stainless steels

SMG	Description	Properties	Reference	$k_{c1.1}$	m_c
M1	Free-cutting austenitic stainless steels		X 10 CrNiS 18 9	1700	0,14
M2	Low-alloy austenitic stainless steels		X 5 CrNi 18 10	1920	0,18
M3	Medium-alloy austenitic stainless steels		X 2 CrNiMo 18 14 3	2070	0,17
M4	High-alloy austenitic and duplex stainless steels		X 2 CrNiMoN 22 5 3	2230	0,16
M5	Difficult high-alloy austenitic and duplex stainless steels		X 2 CrNiMoN 25 7 4	2510	0,13

Cast irons

SMG	Description	Properties	Reference	$k_{c1.1}$	m_c
K1	Grey cast irons (GCI)		EN-GJL-250	930	0,32
K2	Compacted graphite irons (CGI)		EN-GJV-400	1000	0,35
K3	Malleable cast irons (MCI)		EN-GJMB-550-4	1050	0,37
K4	Nodular cast irons (SGI)		EN-GJS-500-7	1160	0,37
K5	Austempered ductile irons (ADI)		EN-GJS-1000-5		
K6	Austenitic lamellar cast irons		EN-GJLA-XNiCuCr15-6-2		
K7	Austenitic nodular cast irons		EN-GJSA-XNiMn23-4		

Non-ferrous metals

SMG	Description	Properties	Reference	$k_{c1.1}$	m_c
N1	Aluminium alloys, Si < 9%		AW-7075		
N2	Aluminium alloys, 9% < Si < 16%		AC-44200 Si = 12%		
N3	Aluminium alloys, Si >16%		AlSi17Cu5		
N11	Copper alloys		CW614N	740	0,26

Superalloys and titanium

SMG	Description	Properties	Reference	$k_{c1.1}$	m_c
S1	Iron-based superalloys		Discalloy		
S2	Cobalt-based superalloys		Stellite 21		
S3	Nickel-based superalloys		Inconel 718	2530	0,21
S11	Titanium, low alloyed, (α)		Ti		
S12	Titanium, medium alloyed, (α+β)		TiAl6V4	1500	0,24
S13	Titanium, high alloyed, (near β and β)		Ti10V2Fe3Al		

Hard materials

SMG	Description	Properties	Reference	$k_{c1.1}$	m_c
H3	Case-hardened steels	58 < HRC < 62	16 MnCr 5 60 HRC	2070	0,14
H5	Quenched & Tempered steels	38 < HRC < 56	42 CrMo 4 50 HRC	2320	0,18
H7	Quenched & Tempered steels Bearing steels	56 < HRC < 64	100 Cr 6 60 HRC	2480	0,17
H8	Tool steels High Speed Steels (HSS)	38 < HRC < 64	X 40 CrMoV 5 1 50 HRC	2750	0,20
H11	Martensitic stainless steels	38 < HRC < 50	X 20 Cr 13 45 HRC	2300	0,15
H12	Maraged and precipitation-hardened stainless steels	1200 < R_m < 1650	X 5 CrNiCuNb 16 4 R_m = 1450 N/mm^2	2410	0,17
H21	Manganese steels	23 < HRC < 64	X 120 Mn 12 50 HRC		
H31	White cast irons	50 < HRC < 64	EN-GJN-HV600(XCr11) 55 HRC		

Other difficult materials

SMG	Description	Properties	Reference	$k_{c1.1}$	m_c
PM1	Low-alloy PM-materials		F-0008 Fe-0.7C		
PM2	Medium-alloy PM-materials		FLC-4608 Fe2Cu1.8Ni 0.5Mo0.2Mn0.8C		
PM3	High-alloy PM-materials Exhaust valve seat materials, etc.				
HF1	Hardfacing alloys Welded or plasma-deposited iron-based alloys				
HF2	Hardfacing alloys Welded or plasma-deposited cobalt- and nickel-based alloys				
CC1	Sintered tungsten carbide		G50		

Plastics and Composites

SMG	Description	Properties	Reference	$k_{c1.1}$	m_c
TS1	Thermosetting polymers		Urea formaldehyde (UF)		
TS2	Thermosetting carbon-fibre composites		T300 T700 T800 HTA-S IMA - Epoxy (M21)...		
TS3	Thermosetting glass-fibre composites		Epoxy - HX..(42..)/E glass (7781...)...		
TS4	Thermosetting aramide-fibre composites		Kevlar 49		
TP1	Thermoplastic polymers		Polycarbonate (PC)		
TP2	Thermoplastic carbon-fibre composites		PPS/PEEK - T300..		
TP3	Thermoplastic glass-fibre composites		PPS/PEEK - E-glass or A-glass...		
TP4	Thermoplastic aramide-fibre composites				

Graphite

SMG	Description	Properties	Reference	$k_{c1.1}$	m_c
GR1	Graphite		R 8500		

SMG

SMG	EN	EN-Nr	W.-Nr	DIN	AFNOR	BS	UNI	JIS	SS	UNS
	11 SMn 30	1.0715	1.0715	9 SMn 28	S 250	230 M 07	CF 9 SMn 28	SUM 22	1912	G12130
	11 SMnPb 30	1.0718	1.0718	9 SMnPb 28	S 250 Pb		CF 9 SMnPb 28	SUM 22 L	1914	G12134
	10 S 20	1.0721	1.0721	10 S 20	10 F 1	210 M 15	CF 10 S 20			
			1.0722	10 SPb 20	10 PbF 2		CF 10 SPb 20			
P1	15 SMn 13	1.0725	1.0723	15 S 20		210 A 15		SUM 32	1922	
	35 S20	1.0726	1.0726	35 S 20	35 MF 4	212 M 36			1957	G11400
	46 S20	1.0727	1.0727	46 S 20	45 MF 4	212 M 44			1973	G11460
	11 SMn 37	1.0736	1.0736	9 SMn 36	S 300	240 M 07	CF 9 SMn 36			G12150
	11 SMn 37	1.0736	1.0736	9 SMn 36	S 300	240 M 07	CF 9 SMn 36			G12150
	S235JR	1.0037	1.0037	St 37-2	E 24-2		Fe 360 B	STKM 12 C	1311	
	S235JRG2	1.0038	1.0116	St 37-3	E 24-3, E 24-4	4360-40 C	Fe 360 D FF		1312, 1313	
	S275J2G3	1.0144	1.0144	St 44-3 N	E 28-3, E 28-4	4360-43 C	Fe 430 D FF	SM 41 C	1412, 1414	
	C 10	1.0301	1.0301	C 10	34 C 10, XC 10	045 M 10	C 10	S 10 C		G10100
P2			1.0401	C 15	37 C 12, XC 18	080 M 15	C 15, C 16		1350	G10170
	C22	1.0402	1.0402	C 22	C 20	050 A 20	C 20, C 21		1450	G10200
	S355JR	1.0570	1.0570	St 52-3	E 36-3, E 36-4	4360-50 C	Fe 510 B	SM 50 YA	2172, 2132	
	C 15R	1.1141	1.1141	Ck 15	XC 15, XC 18	080 M 15	C 15, C 16	S 15 C, S 15 CK	1370	G10170
			1.1158	Ck 25	XC 25	060 A 25	C 25	S 25 C		G10250
			1.2162	21 MnCr 5	20 NC 5			SCR 420 H		
	16 Mo 3	1.5415	1.5415	15 Mo 3	15 D 3	1501-240	16 Mo 3		2912	
			1.5423	16 Mo 5		1503-245-420	16 Mo 5	SB 450 M		G45200
	14 NiCr 14	1.5752	1.5752	14 NiCr 14	12 NC 15	655 M 13		SNC 815 (H)		G33106
			1.5919	15 CrNi 6	16 NC 6	S 107	16 CrNi 4			
	18 NiCrMo 7 6	1.6587	1.6587	18 CrNiMo 7 6	18 NCD 6	820 A 16	18 NiCrMo 7			
P3	16 MnCr 5	1.7131	1.7131	16 MnCr 5	16 MC 5	527 M 17	16 MnCr 5	SCR 415	2511	G51170
	16 MnCrS 5	1.7139	1.7139	16 MnCrS 5						
	20 MnCr 5	1.7147	1.7147	20 MnCr 5	20 MC 5		20 MnCr 5	SMnC 420 (H)		G51200
	20 MnCrS 5	1.7149	1.7149	20 MnCrS 5	20 MnCrS 5			SMnC 21 H		
	13 CrMo 4 5	1.7335	1.7335	13 CrMo 4 4	15 CD 3.5	1501-620 Gr. 27	14 CrMo 4 5		2216	
			1.7337	16 CrMo 4 4	15 CD 4.5	1501-620 Gr. 27	14 CrMo 4 5		2216	
	10 CrMo 9 10	1.7380	1.7380	10 CrMo 9 10	10 CD 9.10	1501-622 Gr. 31	12 CrMo 9 10		2218	J21890
	C35		1.0501	C 35	55 C 35	060 A 35	C 35		1550	G10350
	E 335	1.0503	1.0503	C 45	65 C 45	80 M 46	C 45	S 45 C	1650	G10430
	C40		1.0511	C 40	60 C 40	080 M 40	C 40	S 40 C		
	E 360	1.0070	1.0535	St 70-2	A 70-2		Fe 690		1655	
	C60	1.0601	1.0601	C 60	CC 55	080 A 62	C 60			G10600
P4			1.1157	40 Mn 4	35 M 5	150 M 36				G10390
	G 28 Mn6	1.1165	1.1165	30 Mn 5		120 M 36		SMn 1 H, SCMn 2		G13300
	C 35E	1.1181	1.1181	Ck 35	XC 38 H1	080 M 36	C 35	S 35 C	1572	G10340
	C 45E	1.1191	1.1191	Ck 45	XC 42	080 M 46	C 45	S 45 C	1672	G10420
	C 60E	1.1221	1.1221	Ck 60	XC 60	080 A 62	C 60	S 58 C	1665, 1678	G10640
			1.1740	C 60 W	Y3 55			SK 7		
	55 SiCr7	1.7100	1.0904	55 Si 7	55 S 7	250 A 53	55 Si 8		2085, 2090	
			1.2330	35 CrMo 4	34 CD 4	708 A 37	35 CrMo 4		2234	T51620
			1.2542	45 WCrV 7		BS 1	45 WCrV 8 KU		2710	T41901
		1.2714	1.2714	56 NiCrMoV 7		BH 224-5	56 NiCrMoV7-KU	SKT 4		T61206
			1.5121	46 MnSi 4						
			1.5710	36 NiCr 6	35 NC 6	640 A 35		SNC 236		
			1.5736	36 NiCr 10	35 NC 11		35 NiCr 9	SNC 631 (H)		
	36 CrNiMo 4		1.6511	36 CrNiMo 4	40 NCD 3	816 M 40	38 NiCrMo 4 (KB)			G98400
P5	34 CrNiMo 6	1.6582	1.6582	34 CrNiMo 6	35 NCD 6	817 M 40	35 NiCrMo 6 (KW)	SNCM 447	2541	G43400
	34 Cr 4	1.7033	1.7033	34 Cr 4	32 C 4	530 A 32	34 Cr 4 (KB)	SCR 430 (H)		G51320
	41 Cr 4	1.7035	1.7035	41 Cr 4	42 C 4	530 M 40	41 Cr 4	SCR 440 (H)		G51400
	25 CrMo 4	1.7218	1.7218	25 CrMo 4	25 CD 4 S	708 M 25	25 CrMo 4 (KB)	SCM 425	2225	G41300
	42 CrMo 4	1.7225	1.7225	42 CrMo 4	42 CD 4	708 M 40	42 CrMo 4	SCM 440 (H)	2244	G41400
	42 CrMo 4	1.7225	1.7225	42 CrMo 4	42 CD 4	708 M 40	42 CrMo 4	SCM 440 (H)	2244	G41400
			1.7361	32 CrMo 12	30 CD 12	722 M 24	32 CrMo 12		2240	
	50 CrV 4	1.8159	1.8159	50 CrV 4	50 CV 4	735 A 50	51 CrV 4	SUP 10	2230	H61500
	41 CrAlMo 7 10	1.8509	1.8509	41 CrAlMo 7	40 CAD 6.12	905 M 39	41 CrAlMo 7	SACM 645	2940	K24065
	C 67S	1.1231	1.1231	Ck 67	XC 68	060 A 67	C 70		1770	G10700
	C 100S	1.1274	1.1274	Ck 101		060 A 96		SUP 4	1870	G10950
P6	C 105U	1.1545	1.1545	C 105 W1	Y1 105		C 100 KU		1880	
			1.1645	C 105 W2	Y1 105		C 100 KU	SK 3		
			1.1663	C 125 W	Y2 120		C 120 KU	SK 2		

SMG

U.N.E./ I.H.A.	AISI / ASTM	GOST	ČSN	Misc. Brands	Condition	Structure
	1213				Annealed	
	12 L 13				Annealed	
	1108				Annealed	
	11 L 08				Annealed	
					Annealed	
	1140	40			Annealed	
	1146				Annealed	
	1215				Annealed	
	12 L 14				Annealed	
		16D			Annealed	
	A573 Grade 58	18kp	11 378		Annealed	
	A573 Grade 70	St14kP	11 448		Annealed	
	1010	10			Annealed	
F.1110	1015	15			Annealed	
	1020, 1023	20	12 024		Annealed	
		17G1S	11 523		Annealed	
F.1511	1015	15			Annealed	
F.1120	1025	25			Annealed	
					Annealed	
	A204 Grade A		15 020		Annealed	
	4520				Annealed	
	3310, 9314	20X2H4A	16 420		Annealed	
	4320		16 220		Annealed	
					Annealed	
F.1516	5115	12KHN2	14 220		Annealed	
		18HG			Annealed	
	5120	20KH	14 221		Annealed	
	5120 H	20KH			Annealed	
	A182-F11, A182-F12	12KHM	15 121		Annealed	
	A387 Grade 12 Cl. 2				Annealed	
F.155	A182-F22	12KH8	15 313		Annealed	
F.1130	1035	35	12 040		Annealed	
F.5110	1045	45	12 050		Annealed	
	1040	40	12 041		Annealed	
F.1150	1055	55			Annealed	
	1060	60	12 061		Annealed	
	1039	40G			Annealed	
	1330	30G2			Annealed	
F.1135	1035	35			Annealed	
F.1140	1045	45	12 050		Annealed	
F.1150	1064	60			Annealed	
	1060	60			Annealed	
F.144	9255	55S2			Annealed	
F.1250	4135	35KHM			Annealed	
F.5241	S1	5KHV2S			Annealed	
	L6	5KHNV			Annealed	
	5045				Annealed	
	3135				Quenched & Tempered	
	3435				Annealed	
	9840				Quenched & Tempered	
F.1280	4340	38H2N2MA	16 343		Annealed	
	5132	35KH			Quenched & Tempered	
	5140	40H	14 140		Quenched & Tempered	
F.1251	4130	20KHM	15 130		Quenched & Tempered	
F.1252	4142, 4140	38HM	15 142		Annealed	
F.1252	4142, 4140	38HM	15 142		Quenched & Tempered	
					Quenched & Tempered	
F.143	6150	50KHFA	15 260		Quenched & Tempered	
F.1740	A355 Cl. A				Annealed	
F.5103	1070	70			Annealed	
F.5117	1095				Annealed	
F.5118	W1	U10A			Annealed	
		U10			Annealed	
	W1	U13			Annealed	

SMG

SMG	EN	EN-Nr	W.-Nr	DIN	AFNOR	BS	UNI	JIS	SS	UNS
P7	107 CrV 3	1.2210	1.2210	115 CrV 3	100 C 3		107 CrV 3 KU			T61202
			1.2510	100 MnCrW 4	90 MWCV 5	BO 1	95 MnWCr 5 KU	SKS 3	2140	T31501
	90 MnCrV 8	1.2842	1.2842	90 MnCrV 8	90 MV 8	BO 2	90 MnVCr 8 KU			T31502
	100 Cr 6	1.3505	1.3505	100 Cr 6	100 C 6	534 A 99	100 Cr 6	SUJ 2	2258	G51986
P8	X 210 Cr 12	1.2080	1.2080	X 210 Cr 12	Z 200 C 12	BD 3	X 210 Cr 13 KU	SKD 1		T30403
			1.2343	X 38 CrMoV 5 1	Z 38 CDV 5	BH 11	X 37 CrMoV 5 1 KU	SKD 6		T20811
	X 40 CrMoV 5 1	1.2344	1.2344	X 40 CrMoV 5 1	Z 40 CDV 5	BH 13	X 40 CrMo 5 1 1 KU	SKD 61	2242	T20813
	X 100 CrMoV 5	1.2363	1.2363	X 100 CrMoV 5 1	Z 100 CDV 5	BA 2	X 100 CrMoV 5 1 KU	SKD 12	2260	T30102
			1.2365	X 32 CrMoV 3 3	32 DCV 28	BH 10	30 CrMoV 12 27 KU	SKD 7		T20810
			1.2436	X 210 CrW 12			X 215 CrW 12 1 KU	SKD 2	2312	
			1.2601	X 165 CrMoV 12			X 165 CrMoW 12 KU		2310	
			1.2713	55 NiCrMoV 6	55 NCDV 7			SKT 4		T61206
	HS 6-5-2-5	1.3243	1.3243	S 6-5-2-5	Z 85 WDKCV 06-05-05-04-02		HS 6-5-2-5	SKH 55	2723	
	HS 2-10-1-8	1.3247	1.3247	S 2-10-1-8	Z 110 DKCWV 09-08-04	BM 42	HS 2-9-1-8	SKH 51		T11342
	HS 18-1-2-5	1.3255	1.3255	S 18-1-2-5	Z 80 WKCV 18-05-04-01	BT 4	HS 18-1-1-5	SKH 3		T12004
	HS 6-5-2	1.3343	1.3343	S 6-5-2	Z 85 WDCV 06-05-04-02	BM 2	HS 6-5-2	SKH 9, SKH 51	2722	T11302
	HS 2-9-2	1.3348	1.3348	S 2-9-2	Z 100 DCWV 09-04-02-02		HS 2-9-2	SKH 58	2782	T11307
	HS 18-0-1	1.3355	1.3355	S 18-0-1	Z 80 WCV 18-04-01	BT 1	HS 18-0-1	SKH 2		T12001
P11	X 6 Cr 13	1.4000	1.4000	X 6 Cr 13	Z 6 C 12	403 S 17	X 6 Cr 13	SUS 403	2301	S41008
	X 12 Cr 13	1.4006	1.4006	X 10 Cr 13	Z 10 C 13	410 S 21	X 12 Cr 13	SUS 410	2302	S41000
	X 6 Cr 17	1.4016	1.4016	X 6 Cr 17	Z 8 C 17	430 S 15	X 8 Cr 17	SUS 430	2320	S43000
	X 20 Cr 13	1.4021	1.4021	X 20 Cr 13	Z 20 C 13	420 S 37	X 20 Cr 13	SUS 420 J 1	2303	S42000
	X 39 Cr 13	1.4031	1.4031	X 40 Cr 13	Z 40 C 14	420 S 45	X 40 Cr 14	SUS 420	2304	S40280
	X 70 CrMo 15	1.4109	1.4109	X 65 CrMo 14	Z 70 D 14			SUS 440 A		S44002
	X 90 CrMoV 18	1.4112	1.4112	X 90 CrMoV 18	Z 2 CND 18 05	409 S 19	X CrTi 12	SUS 440 B	2327	S44003
	X 105 CrMo 17	1.4125	1.4125	X 105 CrMo 17	Z 100 CD 17		X 105 CrMo 17	SUS 440 C		S44004
	X 3 CrNIMo 13 3	1.4313	1.4313	X 5 CrNi 13 4	Z 5 CN 13.4	425 C 11	X 6 CrNi 13 04	SCS 5	2385	S41500
	X 18 CrN 28	1.4749	1.4749	X 18 CrN 28	Z 18 C 25				2322	S44600
P12	X 6 NiCrTiMoV 25 15	1.4534	1.4534	X 3 CrNiMoAl 13 8 2						S13800
	X 4 CrNiCuNb 16 4	1.4540	1.4540	X 4 CrNiCuNb 16 4						S15500
		1.4540	1.4540	X 4 CrNiCuNb 16 4	Z 4 CNUNb 16.4 M					S15500
	X 4 CrNiCuNb 16 4	1.4540	1.4540	X 4 CrNiCuNb 16 4						S15500
	X 5 CrNiCuNb 16 4	1.4542	1.4542	X 5 CrNiCuNb 16 4				SUS 630		S17400
	X 5 CrNiCuNb 17 4	1.4548	1.4542	X 5 CrNiCuNb 17 4	Z 6 CNU 17.4			SCS 24, SUS 630		S17400
	X 7 CrNiAl 17 7	1.4564	1.4564	X 7 CrNiAl 17 7	Z 9 CAN 17.7	301 S 81	X 7 CrNiAl 17 7	SUS 631	2388	S17700
	X 2 NiCoMoTi 18 12 4	1.6356	1.6356	X 2 NiCoMoTi 18 12 4						K93160
	X 2 NiCoMoTi 18 9 5	1.6358	1.6358	X 2 NiCoMoTi 18 9 5	Z 2 NKD 19-09					K93120
	X 2 NiCoMo 18 9 5	1.6358	1.6358	X 2 NiCoMoTi 18 9 5	Z 2 NKD 19-09					K93120
	X 2 NiCoMo 18 8 5	1.6359	1.6359	X 2 NiCoMo 18 8 5		S 162				K92890
	X 2 NiCoMo 18 8 5	1.6359	1.6359	X 2 NiCoMo 18 8 5		S 162				K92890
M1	X 10 CrNiS 18 9	1.4305	1.4305	X 10 CrNiS 18 9	Z 10 CNF 18.09	303 S 31	X 10 CrNi 18 09	SUS 303	2346	S30300
M2	X 2 CrNi 19 11	1.4306	1.4306	X 2 CrNi 19 11	Z 2 CN 18.10	304 S 12	X 3 Cr Ni 18 11	SUS 304 L	2352	S30403
	X 5 CrNi 18 10	1.4301	1.4301	X 5 CrNi 18 10	Z 6 CN 18.09	304 S 31	X 5 CrNi 18 11	SUS 304	2333	S30400
	X 5 CrNiMo 17 12 2	1.4401	1.4401	X 5 CrNiMo 17 12 2	Z 3 CND 17.11.1	316 S 31	X 5 CrNiMo 17 12	SUS 316	2347	S31600
	X 6 CrNiNb 18 10	1.4550	1.4550	X 6 CrNiNb 18 10	Z 6 CNNb 18.10	347 S 31	X 6 CrNiNb 18 11	SUS 347	2338	S34700
	X 9 CrNi 18 8	1.4310	1.4310	X 12 CrNi 17 7	Z 12 CN 17.07	301 S 21	X 12 CrNi 17 07	SUS 301	(2331)	S30100
	X 12 CrNi 18 8	1.4300	1.4300	X 12 CrNi 18 8	Z 12 CN 18	302 S 25		SUS 302	2331	S30200
M3	X 2 CrNiMo 18 14 3	1.4435	1.4435	X 2 CrNiMo 18 14 3	Z 2 CND 17.13	316 S 12	X 2 CrNiMo 17 13 2	SCS 16, SUS 316 L	2353	S31603
	X 2 CrNiMoN 17 13 3	1.4429	1.4429	X 2 CrNiMoN 17 13 3	Z 2 CND 17.13 Az	316 S 62	X 2 CrNiMoN 17 13 3	SUS 316 LN	2375	S31653
	X 2 CrNiN 18 10	1.4311	1.4311	X 2 CrNiN 19 11	Z 2 CN 18 .10 Az	304 S 62	X 2 CrNiN 18 11	SUS 304 LN	2371	S30453
	X 3 CrNiMo 18 12 3	1.4466	1.4466	X 5 CrNi 18 15		317 S 16	X 5 CrNi 18 15	SUS 317	2366	S31700
	X 9 CrNiSiNCe 21 11 2	1.4835	1.4893	X 9 CrNiSiNCe 21 11 2		310 S 31			2368	S30815
	X 12 CrNi 25 21	1.4335	1.4335	X 12 CrNi 25 21	Z 12 CN 25.20	310 S 24	X 6 CrNi 26 20	SUH 310, SUS 310 S	2361	S31008
M4	X 2 CrNiMoN 22 5 3	1.4462	1.4462	X 2 CrNiMoN 22 5	Z 2 CND 22.05 Az	332 S 15	X 2 CrNiMoN 22 5		2377	S31803
	X 2 CrNiMoSi 19 5	1.4424	1.4417	X 2 CrNiMoSi 19 5	Z 2 CND 18.05.03				2376	S31500
	X 2 NiCrMoCu 25 20 5	1.4539	1.4539	X 2 NiCrMoCu 25 20 5	Z 2 NCDU 25 20	904 S 13			2562	N08904
	X 3 CrNiMo 27 5 2	1.4460	1.4460	X 4 CrNiMo 27 5 2	Z 3 CND 25.7 Az		X 3 CrNiMo 27 5 2	SUS 329 J 1	2324	S32900
	X 5 CrNiCuNb 16 4	1.4980	1.4943	X 4 NiCrTi 25 15	Z 6 NCTDV 25.15	HR 51		SUH 660	2570	S66286
M5	X 1 CrNiMoN 20 18 7	1.4547	1.4529	X 1 CrNiMoN 20 18 7	Z 1 CNDU 20.18.05 Az		X 1 CrNiMoN 20 18 7		2778	S31254
	X 1 CrNiMoN 25 22 8	1.4652	1.4652	X 2 CrNiMoN 25 22 7						S32654
	X 10 NiCrAlTi 32 20	1.4876	1.4876	X 10 NiCrAlTi 32 20	Z 10 NC 32.21			NCF 800		N08800
	X 2 CrNiMoN 25 7 4	1.4410	1.4410	X 2 CrNiMoN 25 7 4	Z 3 CND 25.07 Az		X 2 CrNiMoN 25 7 4		2328	S32750

SMG

U.N.E./ I.H.A.	AISI / ASTM	GOST	ČSN	Misc. Brands	Condition	Structure
F.520L	L2	11KHF			Annealed	
F.5220	O1	9KHVG			Annealed	
	O2	9G2F			Annealed	
F.5230	52100	SHKH15	14 109		Annealed	
F.5212	D3	KH12			Annealed	
	H11	4KH5MFS			Annealed	
F.5318	H13	4KH5MF1S			Annealed	
F.5227	A2	9KH5VF			Annealed	
	H10	3KH3M3F			Annealed	
F.5213		KH12			Annealed	
		KH12MF			Annealed	
F.520.S	L6	5KHNM			Annealed	
F.5613	M35	R6M5K5			Annealed	
	M42	R2AM9K5			Annealed	
	T4	R18K5F2			Annealed	
F.5603	M2	R6M5			Annealed	
	M7				Annealed	
	T1	R18			Annealed	
	403	08KH13			Annealed	Ferritic
F.3401	410, CA-15	12KH13, 08KH13			Annealed	Martensitic
F.3113	430	12KH17			Annealed	Ferritic
F.5261	420	20KH13	17 022		Annealed	Martensitic
F.3404	420	40KH13			Annealed	Martensitic
	440 A				Annealed	Martensitic
	440 B	95KH18			Annealed	Martensitic
	440 C	95KH18			Annealed	Martensitic
	A182 F6NM			F6NM	Annealed	Martensitic
	446	15KH28			Annealed	Ferritic
	XM-13			PH 13-8 Mo	Solution annealed	Austenitic
	XM-12			15-5 PH	H1150	Martensitic
	XM-12			15-5 PH	Solution annealed	Martensitic
	XM-12			15-5 PH	H1025	Martensitic
	SAE 630			17-4 PH	H1150	Martensitic
	630			17-4 PH	Solution annealed	Martensitic
	631	09KH17N7YU1		17-7 PH	Solution annealed	Austenitic/Ferritic
	AMS 6515			Marage 350	Solution annealed	Martensitic
	AMS 6521			Marage 300	Solution annealed	Martensitic
	AMS 6514			Marage 300, Vascomax C300	Solution annealed	Martensitic
	AMS 6512			Marage 250	Solution annealed	Martensitic
	AMS 6512			Marage 250, Vascomax C250	Solution annealed	Martensitic
F.3508	303	12KH19N9			Annealed	Austenitic
F.3504	304 L	03KH18N11			Annealed	Austenitic
F.3504	304	08KH18N10	17 240		Annealed	Austenitic
F.3534	316	08KH17H13M2T	17 346		Annealed	Austenitic
F.3524	347	08KH18N12B			Annealed	Austenitic
F.3517	301	07KH16N6			Annealed	Austenitic
	302	12KH18N9			Annealed	Austenitic
F.3533	(316 L)	03KH17N14M3	17 349		Annealed	Austenitic
	316 LN	03KH16N15M3			Annealed	Austenitic
F.3541	304 LN	03KH18N11			Annealed	Austenitic
	317	08KH17H15M3T			Annealed	Austenitic
				253 MA	Annealed	Austenitic
	310 S	12KH25N20			Annealed	Austenitic
	329 LN			SAF 2205	Annealed	Duplex
				3RE60	Annealed	Duplex
	904L				Annealed	Super austenitic
	329				Annealed	Duplex
	660			A286	Solution annealed	Austenitic
				254 SMO	Annealed	Super austenitic
				654 SMO	Annealed	Super austenitic
				Alloy 800	Annealed	Austenitic
	F 53			SAF 2507	Annealed	Super duplex

SMG

SMG	EN	EN-Nr	W.-Nr	DIN	AFNOR	BS	UNI	JIS	SS	UNS
	EN-GJL-150	0.6150	0.6150	GG-15	Ft 15 D	Grade 150	G15	FC 150	01 15-00	F11601
	EN-GJL-200	0.6200	0.6200	GG-20	Ft 20 D	Grade 220	G20	FC 200	01 20-00	F12101
K1	EN-GJL-250	0.6250	0.6250	GG-25	Ft 25 D	Grade 260	G25	FC 250	01 25-00	F12401
	EN-GJL-350	0.6350	0.6350	GG-35	Ft 35 D	Grade 350	G35	FC 350	01 35-00	F13502
	EN-GJL-215			GG-220 HB					02 19	
	EN-GJV-300			GJV-300						
	EN-GJV-350			GJV-350						
K2	EN-GJV-400			GJV-400						
	EN-GJV-450			GJV-450						
	EN-GJV-500			GJV-500						
K3	EN-GJMB-550-4	0.8155		GTS-55-04	P 540/5	P 540/5	P 55-04	PCMP55-04	08 54-00	F24130
	EN-GJS-350-22	0.7033	0.7033	GGG-35.3	FGS 370-17	Grade 350/22		FCD 350-22L	07 17-15	
	EN-GJS-400-15	0.7040	0.7040	GGG-40	FGS 400-12	Grade 420/12	GS 400-12	FCD 400-18L	07 17-02	F32800
K4	EN-GJS-400-18	0.7043	0.7043	GGG-40.3	FGS 370-17	Grade 370/17	GSO 42/17		07 17-12	F32800
	EN-GJS-500-7	0.7050	0.7050	GGG-50	FGS 500-7	Grade 500/7	GS 500-7	FCD 500-7	07 27-02	F33800
	EN-GJS-600-3	0.7060	0.7060	GGG-60	FGS 600-3	Grade 600/3	GS 600-3	FCD 600-3	07 32-03	F34100
	EN-GJS-700-2	0.7070	0.7070	GGG-70	FGS 700-2	Grade 700/2	GS 700-2	FCD 700-2	07 37-01	F34800
										ADI grade 5
	EN-GJS-1000-5			GJS-1000-5						ADI grade 2
K5	EN-GJS-1200-2			GJS-1200-2						ADI grade 3
	EN-GJS-1400-1			GJS-1400-1						ADI grade 4
	EN-GJS-800-8			GJS-800-8						ADI grade 1
	EN-GJLA-XNiCr 20-2	0.6660	0.6660	GGL-NiCr 20 2	FGL Ni20 Cr2	Grade F2			05 23-00	F41002
K6	EN-GJLA-XNiCr 30-3	0.6676	0.6676	GGL-NiCr 30 3	FGL Ni30 Cr3	Grade F3				F41004
	EN-GJLA-XNiCuCr 15-6-2	0.6655	0.6655	GGL-NiCuCr 15 6 2	FGL Ni15 Cu6 Cr2	Grade F1				F41000
	EN-GJSA-XNiMn 13-7	0.7652	0.7652	GGG-NiMn 13 7	FGS Ni13 Mn7	Grade S6			07 72-00	
	EN-GJSA-XNiCr 20-2	0.7660	0.7660	GGG-NiCr 20 2	FGS Ni20 Cr2	Grade S2				F43000
K7	EN-GJSA-XNiMn 23-4	0.7673	0.7673	GGG-NiMn 23 4	FGS Ni23 Mn4	Grade S2M				F43010
	EN-GJSA-XNiCr 30-3	0.7676	0.7676	GGG-NiCr 30 3	FGS Ni30 Cr3	Grade S3				F43003
	EN-GJSA-XNi 35	0.7683	0.7683	GGG-Ni 35	FGS Ni35					F43006
	AW-1050A	Al99.5	3.0255	Al99.5	A-5/1050A	1B		(A1050)	4007	AA1050A
	AW-2011	AlCuBiPb	3.1655	AlCuBiPb	A-U5PbBi/2011	FC1		A2011	4355	AA2011
	AW-2014	AlCuSiMn	3.1255	AlCuSiMn	A-U4SG/2014	H15			4338	AA2014
	AW-5005	AlMg1	3.3315	AlMg1	A-G0.6	N41			4106	AA5005
	AW-6060	AlMgSi0.5	3.3206	AlMgSi0.5	A-GS/6060	(H9)			4103	AA6060
	AW-6063	AlMgSi0.7	3.3210	AlMgSi0.7	A-GSUC/6061	(H10)		(A6063)	4104, 4107	AA6005
	AW-3103	AlMn1	3.0515	AlMn1		N3			4054	AA3103
N1	AW-3003	AlMn1Cu	3.0517	AlMn1Cu	A-M1/3003			A3003		AA3003
	AW-7020	AlZn4.5Mg1	3.4335	AlZn4.5Mg1	A-Z5G/7020	H17			4425	AA7020
	AW-7075		3.4365	AlZnMgCu1.5	A-Z5GU/7075	2L95/2L96		A7075		AA7075
	AC-42000		3.2341	G-AlSi5Mg	A-S7G	LM25	3599	AC 4C	4244	
	AC-46200	AlSi8Cu3(Si)	3.2161	G-AlSi8Cu3					4251	A13800
	MG-P-63	MgAl6Zn	3.5612	G-MgAl6Zn	G-A6-Z1	MAG-E-121				M11600
	MG-P-61	MgAl8Zn	3.5812	G-MgAl8Zn	(G-A7-Z1)					
	MN65120	MgSe3Zn2Zr1	3.5103	G-MgSe3Zn2Zr1	ZRE1	MAG6-TE				M12330
	AC-43400	AlSi10Mg(Fe)	3.2381	G-AlSi10Mg	A-S10G	LM9			4253	A13600
N2	AC-44200	AlSi12	3.2382	GD-AlSi12						
	AW-6082	AlMgSi1	3.2315	AlMgSi1	A-SGM0.7/6082	H30			4212	AA6082
N3		AlSi17Cu5						ADC14		
	CC331G		2.0940.01	CuAl10Fe	CuAl10Fe	AB1			5710	C95200
	CC333G		2.0975.01	CuAl10Ni	CuAl10Ni5Fe5	AB2			5716	C95500
		CuNi10Fe1Mn	2.0872	CuNi10Fe1Mn	CuNi10Fe1Mn	CN102			5667	C70600
				CuNi10Zn45						
		CW408J	2.0790	CuNi18Zn19Pb	CuNi18Zn19Pb1					C76300
	CW352H		2.1176	CuPb10Sn	CuSn10Pb10	LB2			5640	C93700
	CC480K		2.1050.01	CuSn10	CuSn10	CT1			5443	C90700
N11			2.1087	CuSn10Zn					5458	C90500
	CW452K	CuSn6	2.1020	CuSn6	CuSn6	PB103		C5191	5428	C51900
	CW502L	CuZn15	2.0240	CuZn15	CuZn15	CZ102		C2300	5112	C23000
	CW706R	CuZn28Sn1	2.0470	CuZn28Sn1	CuZn29Sn1				5220	C44300
	CW508L	CuZn37	2.0321	CuZn37	CuZn37	CZ108			5150	C27200
	CW717R	CuZn38Sn1	2.0530	CuZn38Sn1						C46400
	CW614N	CuZn39Pb3	2.0401	CuZn39Pb3	CuZn39Pb3	CZ121			5170	C38500
	CW612N	CuZn40Pb2	2.0402	CuZn40Pb2	CuZn39Pb2	CZ120			5168	C37800
	CW622N	CuZn44Pb2	2.0410	CuZn44Pb2		CZ104			5272	C68700

SMG

U.N.E./ I.H.A.	AISI / ASTM	GOST	ČSN	Misc. Brands	Condition	Structure
	A48 25 B	Sc 15	422 415			Grey cast iron (GCI)
	A48 30 B	Sc 20	422 420			Grey cast iron (GCI)
	A48 35 B	Sc 25	422 425			Grey cast iron (GCI)
	A48 50 B	Sc 35				Grey cast iron (GCI)
	G 3500					Grey cast iron (GCI)
	Grade 350					Compacted graphite iron (CGI)
	Grade 400					Compacted graphite iron (CGI)
	Grade 400-15					Compacted graphite iron (CGI)
	Grade 450					Compacted graphite iron (CGI)
	Grade 500					Compacted graphite iron (CGI)
	A220 60004				Tempered	Malleable cast iron (MCI)
						Nodular cast iron (SGI)
FGE 38-17	60-40-18	Vc 42-12	422 304			Nodular cast iron (SGI)
	60-40-18	Vc 42-12				Nodular cast iron (SGI)
FGE 50-7	A536, 80-55-06	Vc 50-2	422 305			Nodular cast iron (SGI)
FGE 60-2	A476, 80-60-03	Vc 60-2	422 306			Nodular cast iron (SGI)
FGE 70-2	A536, 100-70-03	Vc 70-2				Nodular cast iron (SGI)
	1600/1300/-					Austempered ductile iron (ADI)
	1050/700/7					Austempered ductile iron (ADI)
	1200/850/4					Austempered ductile iron (ADI)
	1400/1100/1					Austempered ductile iron (ADI)
	850/550/10					Austempered ductile iron (ADI)
	A436 Type 2			Ni-Resist 2		Austenitic lamellar cast iron
	A436 Type 3			Ni-Resist 3		Austenitic lamellar cast iron
	A436 Type 1			Ni-Resist 1		Austenitic lamellar cast iron
				Nodumag		Austenitic nodular cast iron
	A436 Type D-2			Ni-Resist D-2		Austenitic nodular cast iron
	A439 Type D-2M			Ni-Resist D-2M		Austenitic nodular cast iron
	A436 Type D-3			Ni-Resist D-3		Austenitic nodular cast iron
	A439 Type D-5			Ni-Resist D-5		Austenitic nodular cast iron
	B26					
	A380					
	AZ61A					
	AZ80A					
	AMS 4442					
	B85					
	A413.2					
	B390.0					
	CA952	BrA9ZH3L				
	CA955	BrA10ZH4N4L				
	CA937					
		BrOF6.5-0.15				
		L90				
		LOMsh70-1-0.05				
		LO60-1				
		LAMsh77-2-0.05				

SMG

SMG	EN	EN-Nr	W.-Nr	DIN	AFNOR	BS	UNI	JIS	SS	UNS
S1										
S2										
S3	NiMo30		2.4810							N10002
	NiMo16Cr15W		2.4819							N10276
	NiCr19Fe19Nb5Mo3		2.4668							N07718
			2.4669							N07750
	NiCr20TiAl		2.4631							N07080
	NiCr19Co18Mo4Ti3Al3									N07500
	NiCr20Co13Mo4Ti3Al		2.4654							N07001
S11			3.7024							
										R54620
S12										R56320
	TiAl6V4		3.7164							R56400
S13				TiV10Fe2Al3						
H3	16 MnCr 5	1.7131	1.7131	16 MnCr 5	16 MC 5	527 M 17	16 MnCr 5	SCR 415	2511	G51170
H5	C 67S	1.1231	1.1231	Ck 67	XC 68	060 A 67	C 70		1770	G10700
	C 75S	1.1248	1.1248	Ck 75	XC 75	060 A 78	C 75		1774, 1778	G10780
	C 100S	1.1274	1.1274	Ck 101		060 A 96		SUP 4	1870	G10950
	C 105U	1.1545	1.1545	C 105 W1	Y1 105		C 100 KU		1880	
			1.2550	60 WCrV 7	55 WC 20		55 WCrV 8 KU			
	55 Cr 3	1.7176	1.7176	55 Cr 3	55 C 3	527 A 60	55 Cr 3	SUP 9 (A)	2253	G51550
	42 CrMo 4	1.7225	1.7225	42 CrMo 4	42 CD 4	708 M 40	42 CrMo 4	SCM 440 (H)	2244	G41400
H7	107 CrV 3	1.2210	1.2210	115 CrV 3	100 C 3		107 CrV 3 KU			T61202
			1.2510	100 MnCrW 4	90 MWCV 5	BO 1	95 MnWCr 5 KU	SKS 3	2140	T31501
	90 MnCrV 8	1.2842	1.2842	90 MnCrV 8	90 MV 8	BO 2	90 MnVCr 8 KU			T31502
	100 Cr 6	1.3505	1.3505	100 Cr 6	100 C 6	534 A 99	100 Cr 6	SUJ 2	2258	G51986
H8	X 40 CrMoV 5 1	1.2344	1.2344	X 40 CrMoV 5 1	Z 40 CDV 5	BH 13	X 40 CrMo 5 1 1 KU	SKD 61	2242	T20813
	X 100 CrMoV 5	1.2363	1.2363	X 100 CrMoV 5 1	Z 100 CDV 5	BA 2	X 100 CrMoV 5 1 KU	SKD 12	2260	T30102
	X 155 CrVMo 12 1		1.2379	X 155 CrVMo 12 1	Z 160 CDV 12	BD 2	X 155 CrVMo 12 1 KU	SKD 11		T30402
			1.2436	X 210 CrW 12			X 215 CrW 12 1 KU	SKD 2	2312	
			1.2601	X 165 CrMoV 12			X 165 CrMoW 12 KU		2310	
			1.2713	55 NiCrMoV 6	55 NCDV 7			SKT 4		T61206
	HS 6-5-2-5	1.3243	1.3243	S 6-5-2-5	Z 85 WDKCV 06-05-05-04-02		HS 6-5-2-5	SKH 55	2723	
	HS 2-10-1-8	1.3247	1.3247	S 2-10-1-8	Z 110 DKCWV 09-08-	BM 42	HS 2-9-1-8	SKH 51		T11342
	HS 18-0-1	1.3355	1.3355	S 18-0-1	Z 80 WCV 18-04-01	BT 1	HS 18-0-1	SKH 2		T12001
H11	X 20 Cr 13	1.4021	1.4021	X 20 Cr 13	Z 20 C 13	420 S 37	X 20 Cr 13	SUS 420 J 1	2303	S42000
	X 70 CrMo 15	1.4109	1.4109	X 65 CrMo 14	Z 70 D 14			SUS 440 A		S44002
	X 90 CrMoV 18	1.4112	1.4112	X 90 CrMoV 18	Z 2 CND 18 05	409 S 19	X CrTi 12	SUS 440 B	2327	S44003
	X 105 CrMo 17	1.4125	1.4125	X 105 CrMo 17	Z 100 CD 17		X 105 CrMo 17	SUS 440 C		S44004
H12	X 4 CrNiCuNb 16 4	1.4540	1.4540	X 4 CrNiCuNb 16 4						S15500
	X 5 CrNiCuNb 16 4	1.4542	1.4542	X 5 CrNiCuNb 16 4				SUS 630		S17400
	X 5 CrNiCuNb 16 4	1.4542	1.4542	X 5 CrNiCuNb 16 4				SUS 630		S17400
	X 7 CrNiAl 17 7	1.4568	1.4568	X 7 CrNiAl 17 7	Z 9 CAN 17.7	301 S 81	X 7 CrNiAl 17 7	SUS 631	2388	S17700
	X 8 CrNiMoAl 15 7 5	1.4574	1.4574	X 8 CrNiMoAl 15 7 5						S15700
	X 6 NiCrTiMoV 25 15	1.4980	1.4943	X 4 NiCrTi 25 15	Z 6 NCTDV 25.15	HR 51		SUH 660	2570	S66286
	X 2 NiCoMo 18 8 5	1.6359	1.6359	X 2 NiCoMo 18 8 5		S 162				K92890
	X 2 NiCoMoTi 18 9 5	1.6358	1.6358	X 2 NiCoMoTi 18 9 5	Z 2 NKD 19-09					K93120
	X 2 NiCoMoTi 18 9 5	1.6358	1.6358	X 2 NiCoMoTi 18 9 5	Z 2 NKD 19-09					K93120
	X 2 NiCoMoTi 18 12 4	1.6356	1.6356	X 2 NiCoMoTi 18 12 4						K93160
H21	X 120 Mn 12	1.3401	1.3401	X 120 Mn 12	Z 120 M 12	BW 10		SC MnH 1	2183	
H31	EN-GJN-HV520	0.9620	0.9620	G-X330 NiCr 4 2	FB Ni4 Cr2 BC	Grade 2 A			05 12-00	F45001
	EN-GJN-HV550	0.9625	0.9625	G-X260 NiCr 4 2	FB Ni4 Cr2 HC	Grade 2 B			05 13-00	F45000
	EN-GJN-HV600(XCr11)	0.9630	0.9630	G-X300 CrNiSi 9 5 2	FB Cr9 Ni5	Grade 2 C, D, E			04 57-00	F45003

SMG

U.N.E./ I.H.A.	AISI / ASTM	GOST	ČSN	Misc. Brands	Condition	Structure
				Discalloy	Precipitation hardened	
				Haynes 25		
				Stellite 21		
				Hastelloy C		
		KHN65MV		Hastelloy C-276		
				IN 100		
				Inconel 718		
				Inconel X-750	Solution annealed	
				Nimonic 80A		
				René 41		
				Udimet 500		
				Waspalloy		
				Ti	Commercially pure	Ti (α)
	AMS 4919			Ti 6-2-4-2	Annealed	Ti (α)
	AMS 4943			Ti 3Al-2.5V (grd 9)	Annealed	Ti (α+β)
	AMS 4920, Grade 5	VT6		Ti 6Al-4V	Annealed	Ti (α+β)
	AMS 4986			Ti 10V-2Fe-3Al	Annealed	Ti (β)
F.1516	5115	12KHN2	14 220		Case hardened	
F.5103	1070	70			Quenched & Tempered	
F.5107	1078, 1080	75			Quenched & Tempered	
F.5117	1095				Quenched & Tempered	
F.5118	W1	U10A			Quenched & Tempered	
	S1	5KHV2SF			Quenched & Tempered	
	5155				Quenched & Tempered	
F.1252	4142, 4140	38HM	15 142		Quenched & Tempered	
F.520L	L2	11KHF			Quenched & Tempered	
F.5220	O1	9KHVG			Quenched & Tempered	
	O2	9G2F			Quenched & Tempered	
F.5230	52100	SHKH15	14 109		Quenched & Tempered	
F.5318	H13	4KH5MF1S			Quenched & Tempered	
F.5227	A2	9KH5VF			Quenched & Tempered	
F.5211	D2	KH12MF			Quenched & Tempered	
F.5213		KH12			Quenched & Tempered	
		KH12MF			Quenched & Tempered	
F.520.S	L6	5KHNM			Quenched & Tempered	
F.5613	M35	R6M5K5			Quenched & Tempered	
	M42	R2AM9K5			Quenched & Tempered	
	T1	R18			Quenched & Tempered	
F.5261	420	20KH13	17 022		Quenched & Tempered	Martensitic
	440 A				Quenched & Tempered	Martensitic
	440 B	95KH18			Quenched & Tempered	Martensitic
	440 C	95KH18			Quenched & Tempered	Martensitic
	XM-12			15-5 PH	H900	Martensitic
	SAE 630			17-4 PH	H1025	Martensitic
	SAE 630			17-4 PH	H900	Martensitic
	AMS 5528	09KH17N7YU1		17-7 PH	TH1050	Martensitic
	632			PH 15-7 Mo	TH1050	Martensitic
	660			A286	Precipitation hardened	Austenitic
	AMS 6512			Marage 250	Precipitation hardened	Martensitic
	AMS 6521			Marage 300	Precipitation hardened	Martensitic
	AMS 6521			Marage 300	Precipitation hardened	Martensitic
	AMS 6515			Marage 350	Precipitation hardened	Martensitic
	A128 Grade A			Hadfield		
	A532 IB (NiCr-LC			Ni-Hard 2		White cast iron
	A532 IA (NiCr-HC)			Ni-Hard 1		White cast iron
	A532 ID (Ni-HiCr)			Ni-Hard 4		White cast iron

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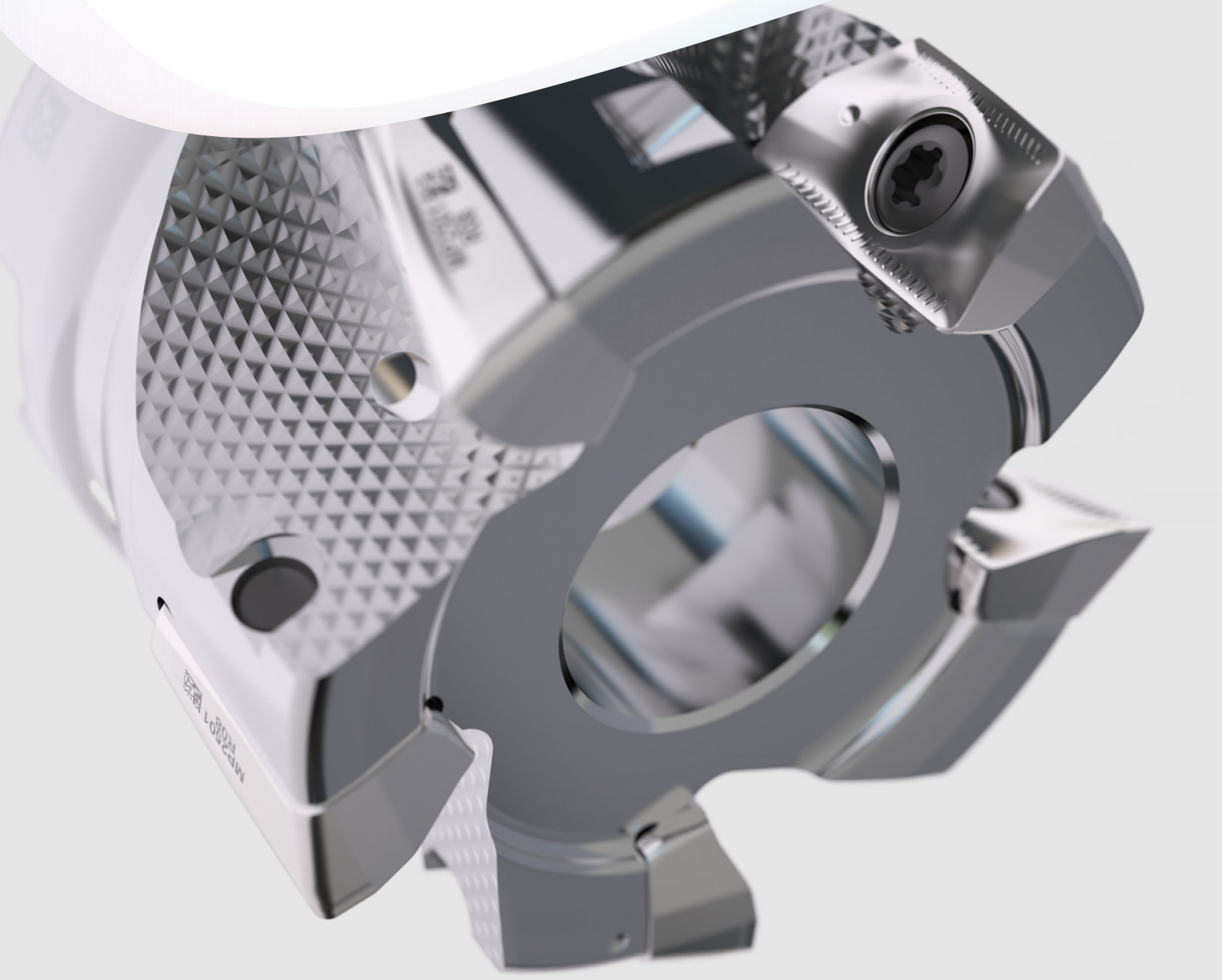
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Seco

Catalog & technical guide 2024.1

Milling



Seco

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Combining cutting-edge, precision tools with lasting, personal partnerships, we're a true people company helping our partners discover the future of the manufacturing industry.

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We're proud to put sustainability at the heart of everything we do, challenging perceptions of our industry, changing the process of manufacturing, and playing our own small part in shaping a brighter looking future.

Made for Makers



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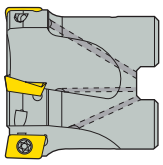
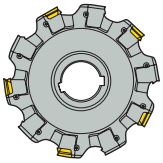
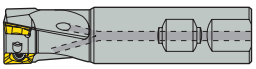
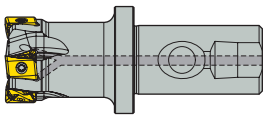
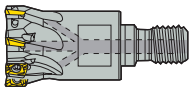
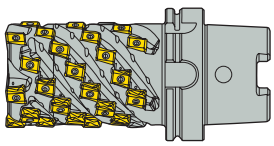
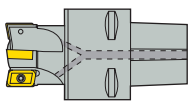
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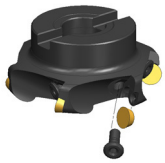
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Mounting type

Type – Arbor (Shell end)	Type – Arbor hole
 Ex.: R220.69-0050-12-5AN	 Ex.: 335.25-160.15.40-7N
Type 0 – Cylindrical	**Type 3 – Weldon Tool chucks acc. to ISO 5414 DIN 1835**
 Ex.: R217.69-1616.**0**-10-2A	 Ex.: R217.69-2525.**3**-12-3AN
Type 3S – Seco/Weldon® Tool chucks acc. to ISO 5414 DIN 1835	**Type RE – Combimaster**
 Ex.: R217.69-2532.**3S**-12-4AN	 Ex.: R217.69-1225.**RE**-12-3AN
Type HSK	**Type Cx – Seco-Capto™**
 Ex.: R217.94-**HSK**100A-080-104-12.5SA	 Ex.: **C5**-R217.69-054-10-5A

Insert clamping system

Clamping by umbrella screw-S



The inserts are clamped by an inclined screw which holds the insert in position in its seat.

Clamping by wedge -W or -M



The inserts are held in position by a wedge and a screw which clamps the insert onto the seat. (Example shows milling cutter with cassettes).

Clamoing by center lock screw -S



The inserts are secured through a centre hole by means of a screw which clamps the insert firmly against the bottom and side of its seat.

Clamping by spring action



The inserts are retained by a clamping/spring action into a fixed insert seat

Square T4

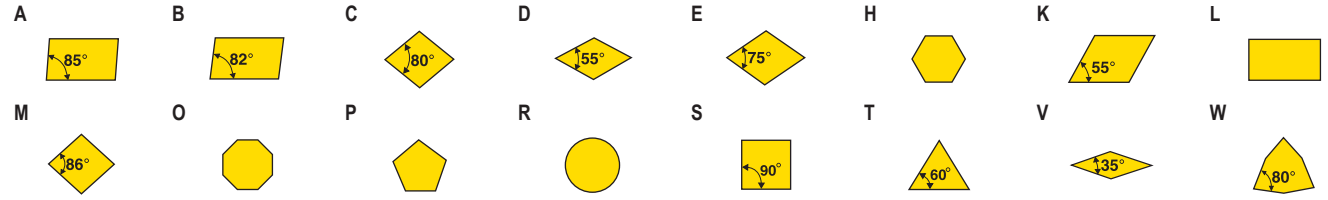


The inserts are secured through a centre hole by means of a screw which clamps the insert firmly against the bottom and side of its seat.

Code key inserts

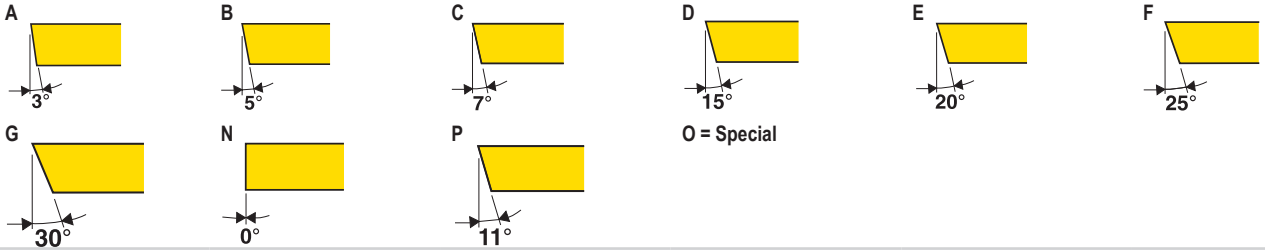
S	E	M	X	12	04	AF	T	N	-	ME12
1	2	3	4	5	6	7	8	9		10

1. Insert shape



X=Special shapes Z=Special shapes

2. Insert side clearance angle



Code key inserts

3. Tolerances

Tolerance class	Tolerances: +/- mm/*In*				For IC, dimension in mm/In											
	S mm	IC mm	S inch	IC inch	3,175*	3,969	4,064	4,760	6,350	9,525	12,700	15,875	19,050	20,000	25,400	31,750	38,100
					0.125			0.187	0.250	0.375	0.500	0.625	0.750		1.000	1.250	1.500
A	0,025	0,025	0.0010	0.0010	•			•	•	•	•	•	•	•	•	•	•
C	0,025	0,025	0.0010	0.0010	•	•	•	•	•	•	•	•	•	•	•	•	•
E	0,025	0,025	0.0010	0.0010	•			•	•	•	•	•	•	•	•	•	•
F	0,025	0,013	0.0010	0.0005	•			•	•	•	•	•	•	•	•	•	•
G	0,050*	0,025	0.0020	0.0010	•			•	•								
	0,130	0,025	0.0051	0.0010						•	•	•	•	•	•	•	•
H	0,025	0,013	0.0010	0.0005	•			•	•	•	•	•	•	•	•	•	•
J	0,025	0,050	0.0010	0.0020	•			•	•	•							
	0,025	0,080	0.0010	0.0031							•						
	0,025	0,100	0.0010	0.0039								•	•	•			
	0,025	0,130	0.0010	0.0051											•		
	0,025	0,150	0.0010	0.0059												•	•
K	0,025	0,050	0.0010	0.0020	•			•	•	•							
	0,025	0,080	0.0010	0.0031							•						
	0,025	0,100	0.0010	0.0039								•	•	•			
	0,025	0,130	0.0010	0.0051											•		
	0,025	0,150	0.0010	0.0059												•	•
M	0,050*	0,050	0.0020	0.0020	•			•	•								
	0,130	0,050	0.0051	0.0020						•							
	0,130	0,080	0.0051	0.0031							•						
	0,130	0,100	0.0051	0.0039								•	•	•			
	0,130	0,130	0.0051	0.0051											•		
	0,130	0,150	0.0051	0.0059												•	•
U	0,050*	0,080	0.0020	0.0031	•			•	•								
	0,130	0,080	0.0051	0.0031						•							
	0,130	0,130	0.0051	0.0051							•						
	0,130	0,180	0.0051	0.0071								•	•	•			
	0,130	0,250	0.0051	0.0098											•	•	•

* Not ISO

4. Type

A



B



G



M



N



R



T



U



W



X=Special shapes

Z=Special shapes

5. Cutting edge length

A, B, K



C, D, E, M, V



H, O, P



L



R



S



T

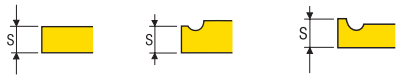


W



Code key inserts

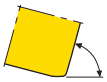
6. Thickness



01 = 1,59 mm	01 = 0.0626 Inch	T3 = 3,97 mm	T3 = 0.1563 Inch	07 = 7,94 mm	07 = 0.3126 Inch
T1 = 1,98 mm	T1 = 0.0780 Inch	04 = 4,76 mm	04 = 0.1874 Inch	08 = 8,00 mm	08 = 0.3150 Inch
02 = 2,38 mm	02 = 0.0937 Inch	05 = 5,56 mm	05 = 0.2189 Inch	09 = 9,52 mm	09 = 0.3748 Inch
03 = 3,18 mm	03 = 0.1252 Inch	06 = 6,35 mm	06 = 0.2500 Inch		

7. Corner configuration

1st letter



A = 45°
D = 60°
E = 75°
F = 85°
P = 90°
Z = Special

2nd letter



A = 45°
B = 5°
C = 7°
D = 15°
E = 20°
F = 25°
G = 30°
N = 0°
P = 11°
Z = Special

nose radius



M0 = round inserts
005 = 0,05 mm
01 = 0,1 mm
02 = 0,2 mm
04 = 0,4 mm
08 = 0,8 mm
12 = 1,2 mm
etc.

M0 = round inserts
005 = 0.0020 Inch
01 = 0.0039 Inch
02 = 0.0079 Inch
04 = 0.0157 Inch
08 = 0.0315 Inch
12 = 0.0472 Inch
etc.

8. Cutting edge condition

F



E



T

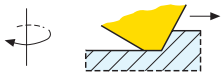


S

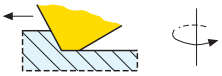


9. Direction of cutting

R



L



N

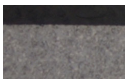
Neutral (R- and L- rotated)

10. Internal designations

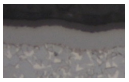
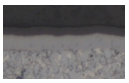
Machining conditions
E=Easy
ME=Medium Easy
M=Medium
MD=Medium Difficult
D=Difficult

Insert grades

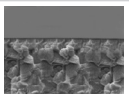
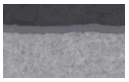
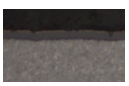
Uncoated Grades

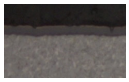
	**H15**	Hard, wear resistant grade for milling in aluminium.
	**H25**	Tough micro-grain carbide grade for milling in superalloys and aluminium.

CVD Coated Grades

	**MP2501**	CVD-coated grade based on Duratomic™ coating, First choice in steel for maximizing manufacturing output under most varying productivity. Alternative choice stainless steel applications under stable condition. Ti(C, N)-Al_2O_3
	**MK1500**	CVD-coated grade based on Duratomic™ coating. Basic grade for milling cast iron and nodular cast iron, with or without coolant. Ti (C, N) – Al_2O_3
	**MP1501**	CVD-coated grade based on Duratomic™ coating. Grade for high performance and productivity in steel material under stable conditions and for milliing hardened steel. Excellent grade for grey and nodular cast iron. Ti (C, N) – Al_2O_3
	**MS2500**	Optimization grade for superalloy materials, also suitable for rough milling in tool steel. Ti (C, N) – Al_2O_3
	**MM4500**	Extremly tough grade for duplex stainless steel. Can also be used for a wide range of materials when cutting conditions are unstable. Ti(C, N)-Al_2O_3
	**MP3501**	CVD-coated grade based on DuratomicTM coating. Basic choice for unstable conditions in steel and cast iron material, alternative choice when machining stainless steels. Ti (C, N) – Al_2O_3

PVD Coated Grades

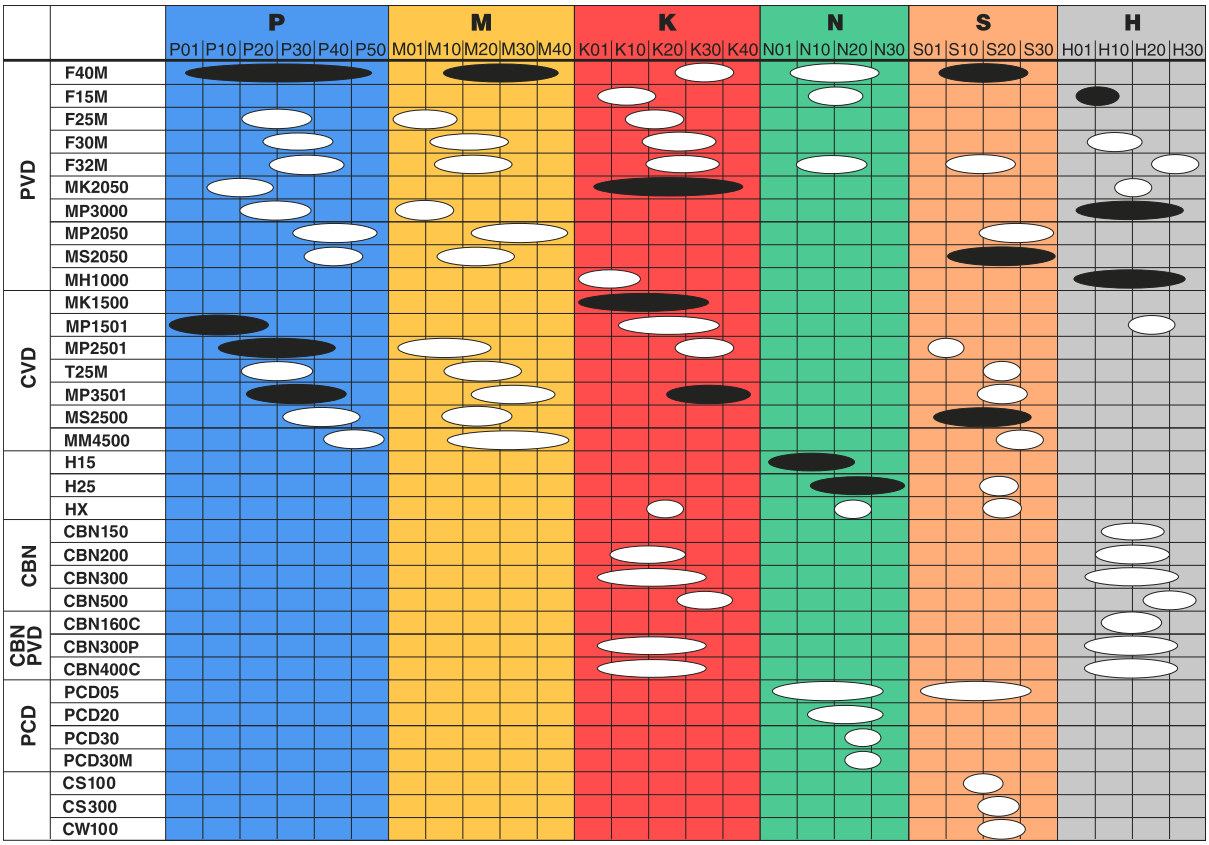
	**F40M**	PVD-coated grade for fine to medium rough milling. First choice for milling with small feeds and/or low cutting speeds. Excellent for milling when there is a risk of vibrations and when coolant is used. Recommended for machining superalloys. (Ti, Al) N – TiN
	**MK2050**	PVD-coated grade for cast iron, Improved edge integrity. First choice in all cast iron materials. Excellent for milling with and without coolant. (Ti,Si)N/(Ti,Al)N
	**MH1000**	Extremely hard grade for milling hard steel but also favourable in finishing operations in cast iron. (Ti;Al)N
	**MS2050**	PVD-coated grade first choice for machining titanium alloys. Can also be used as a complementary grade for milling stainless steels when increased toughness is needed. (Ti;Al) N – NbN
	**MP3000**	Highly wear resistant optimized grade for milling in steel. (Ti;Al)N
	**F15M**	Hard and wear resistant grade for milling in aluminium and non-ferrous alloys. Excellent grade, in combination with protected cutting edges, for high speed machining in hardened steel. (Ti, Al) N – TiN
	**F30M**	Basic grade for Minimaster inserts and thread milling inserts. Also suitable for milling stainless steel, hardened steel and superalloys. (Ti, Al) N – TiN

PVD Coated Grades		
	**MP2050**	PVD-coated grade for tough machining conditions and high temperatures in martensitic and austenitic stainless steels, dry and wet machining possible. Alternative in super alloys in unstable conditions. (Ti,Si)N/(Ti,Al)N
	**F32M**	Universal grade for R335.14 replaceable head offering an excellent combination of strength and toughness. The F32M shows an exceptionally broad application range and is applicable in all type of material with this type of tool. (Ti, Al) N – TiN

Insert grades

Cemented carbide is an alloy of tungsten carbide (WC) and cobalt (Co). Cubic carbides like tantalum carbide (TaC), titanium carbide (TiC) and niobium carbide (NbC) can also be added. Tungsten carbide is the main component and gives the hardness. Cobalt is the binder phase and gives the toughness. Cubic carbides are added in order to affect properties like hot hardness, deformation resistance and chemical wear resistance.

Most modern grades are coated with either CVD (Chemical Vapour Deposition) or PVD (Physical Vapour Deposition) technique.
The coating improves the wear resistance of the grade.
CVD-coated grades are suitable for wear resistance in demanding applications with high feed rates and intermediate to high cutting speed.
PVD-coated grades are recommended for applications with low feed rate where high edge toughness is required. PVD-coated grades are suitable for applications with low to intermediate cutting speed.

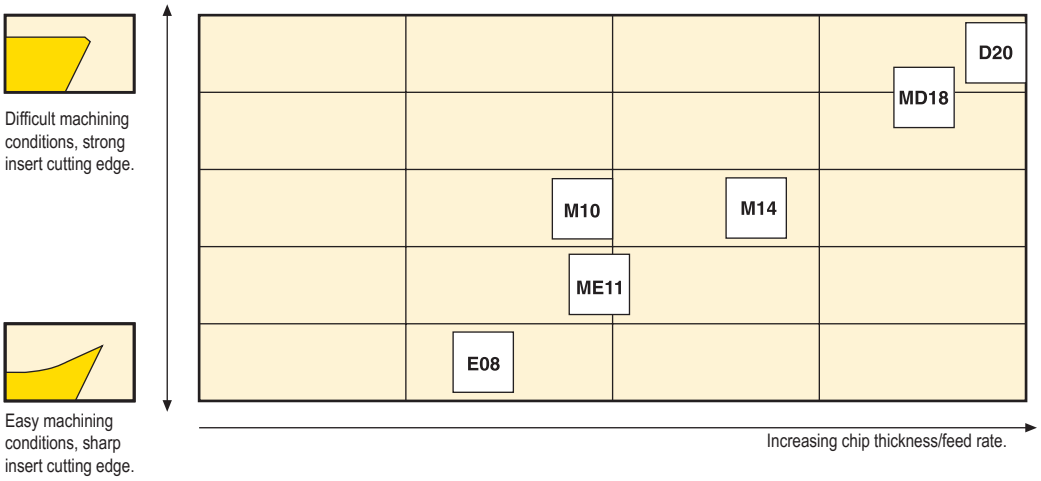


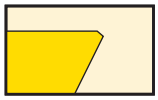
HX, H15 and H25 = uncoated
CBN300P = PVD coating
CS100/CS300/CW100 = ceramic

The black oval circle areas in the chart indicate an inserts main ISO application groups.
The white oval circle area in the chart indicate an inserts other complementary ISO application groups.

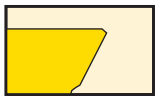
For TGP45 use ISO application area for MP2501
For CP500 and CP600 use ISO application area respectively for F30M and F40M

Insert geometries - Designation system

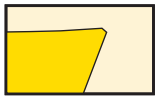




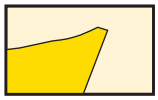
..AFTN-D20 Negative and very protected cutting edge



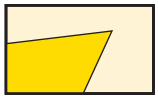
..AFTN-MD18 Negative and protected cutting edge



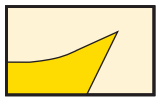
..AFTN-M14 Positive and protected cutting edge



..AFTN-ME11 Very positive and protected cutting edge



..AFN-M10 Positive and sharp cutting edge



..AFN-E08 Very positive and very sharp cutting edge

ISO attribute

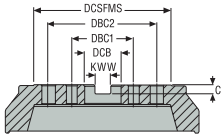
ISO attribute	Explanation
APMXE	Depth of cut maximum in feed direction end
APMXS	Depth of cut maximum in feed direction side
AZ	Plunge depth maximum
BD	Body diameter
BHTA	Body half taper angle
BS	Wiper edge length
C	Keyway depth
CBTHN	Connection body thickness
CCER	Curved cutting edge radius
CDX	Cutting depth maximum
CF	Spot chamfer
CHW	Corner chamfer width
Cmax	Helical interpolation hole diameter maximum
Cmin	Helical interpolation hole diameter minimum
CPNDIA	Connection pin diameter
CTMS	Connection text machine side
CW	Cutting width
CWN	Cutting width minimum
CWX	Cutting width maximum
DC	Cutting diameter
DCB	Connection bore diameter
DCB1	Connection bore diameter 1
DCSFMS	Contact surface diameter machine side
DCSFWS	Contact surface diameter work piece side
DCX	Cutting diameter maximum
DMM	Shank diameter
FDESU	Feed direction suitability end
FDP	Feed direction primary
FDSSU	Feed direction suitability side
GAMF	Rake angle radial
GAMO	Rake angle orthogonal
GAMP	Rake angle axial
HC	Thread height actual
IC	Inscribed circle diameter
INSD	Insert diameter
INSL	Insert length
KAPRE	Tool cutting edge angle in feed direction end
KAPRS	Tool cutting edge angle in feed direction side
KCH	Corner chamfer angle
KWW	Keyway width
L	Cutting edge length
LB	Body length
LE	Cutting edge effective length
LF	Functional length
LS	Shank length
LUX	Usable length maximum
OAL	Overall length
PDX	Profile distance ex
PNA	Profile included angle
RE	Corner radius
RP	Programming radius
RMPX	Ramping angle maximum
RPMX	Rotational speed maximum
S	Insert thickness
S1	Insert thickness alt 1
UTCN	Uncut thickness
TDZ	Thread diameter size
THUB	Hub thickness
TTL	True tip length
W1	Insert width
ZEFP	Peripheral effective cutting edge count
ZNP	Peripheral mounted insert count
SA	sphere angle
TACH	Cutting half taper angle
DC1	Cutting diameter 1
LPR	Protruding length
FHA	Flute helix angle
PL	Point length
SIG	Point angle
BEC	Back end chamfer angle
DN	Neck diameter
RA	Relief angle

Code keys metric and inch

R	217	.	69	-	25	32	.	3S	-	12	-	4	AN
1	2		3		4	5		6		7		8	9

R	217	.	69	-	01.25	.	3S	-	12	-	4	AN
1	2		3		5		6		7		8	9

1.	2.	3
Right hand rotation Cx = For Seco-Capto	217 = With shank 220 = For arbor	Cutter system
4. (Not applicable for inch designation)	**5.**	**6.**
Shank diameter	Cutter diameter	Shank type 0 = Cylindrical 3 = Weldon 3S = Seco Weldon RE = Combimaster
7.	**8.**	**9.**
Insert size	Effective No. of teeth (ZEFP)	A = With through coolant supply AD = Anti vibration material with through coolant supply T = Close pitch version for contouring operations C = With adjustable cassettes N = Coated



Dimensions in mm					
DCB	DCSFMS	DBC1	DBC2	KWW	C
16	30-35	–	–	8,4	5,6
22	42-47	–	–	10,4	6,3
27	48-62	–	–	12,4	7
32	60-90	–	–	14,4	8
40	90-130	66,7	–	16,4	9
60	130-270	101,6	177,8	25,7	14

Dimensions in inch					
DCB	DCSFMS	DBC1	DBC2	KWW	C
0.500	*1.181 - 1.378*			*0.258*	*0.165*
0.750	*1.378 - 1.850*	–	–	*0.321*	*0.193*
1.000	*1.803 - 2.441*	–	–	*0.382*	*0.224*
1.250	*2.250 - 3.031*	–	–	*0.508*	*0.287*
1.500	*2.750 - 3.543*	–	–	*0.630*	*0.382*
2.000	*4.331*	–	–	*0.756*	*0.445*
2.500	*5.118 - 6.299 (8.858)*	*4.000*	*(7.000)*	*1.000*	*0.551*

For a more exact DCSFMS and DCB measurement, see each product table.

Selection – Metric

Cutter	Insert	Recommended a_p		Material suitability					Corner radius (mm)					
				P	M	K	N	S						
Double Turbo	ZOMX16	6	15	■	◩	■	□	◩	0,8/1,6	□	■	–	–	◩
Turbo	XO..06	3	5	■	■	■	■	■	0,2/0,4/0,8/1,6	■	□	■	■	◩
	XO..10	5	9	■	■	■	■	■	0,2/0,4/0,8/1,2/ 1,6/2,0/2,4/3,1	■	◩	■	■	◩
	XO..12	6	11	■	■	■	■	■	0,2/0,4/0,8/1,2/1,6/ 2,0/2,4/3,1/4,0/ 5,0/6,3	◩	■	■	■	◩
	XOMX16	8	15	■	■	■	■	■	0,2/0,4/0,8/1,2/ 1,6/2,0/2,4/3,1 4,0/5,0/6,3	□	■	■	■	◩
	XO..18	9	17	■	◩	■	■	◩	0,4/0,8/1,2/1,6/2,0/ 2,4/3,1/4,0/5,0/6,3	□	■	■	■	◩
ABEX26	ABEX26	13	20	■	◩	■	-	-	1,6	□	■	■	□	□
Square T4	LO..08	3	7	■	◩	■	□	□	0,4/0,8/1,2/1,6	■	◩	◩	-	□
	LO..12	6	10	■	■	■	■	■	0,4/0,8/1,2/1,6/2,0/ 2,4/3,1/4,0/5,0/6,3	■	◩	◩	-	□
Square 6	XN..04..R	2	3	■	◩	■	-	□	0,4/0,8	■	□	◩	-	◩
	XN..08..R	4	7	■	◩	■	-	□	0,4/0,8/1,2/1,6	□	■	□	-	◩

1st choice ■
Alternative choice ◩
Possible choice □

High speed machine with low power/torque
Strong stable machine with rigid connecion
Not recommended -

Unstable condition suitability
Ramping ability
Plunging ability

Selection – Metric

Cutter	No. of cutting edges	Applica-tion	Cutter diameter (mm) available with effective number of teeth																								See page
			10	12	14	16	18	20	22	25	32	40	44	50	52 54	63	66	80	84	100	125	160	200	250	315		
Double Turbo	4										2	3		4		5		6		8	10	12	14				23
											3	4		5		6		8		10	12	14	16				
Turbo 06	2		2	2	3	3	4	4																			31, 32
				3		4		5		7	8	10															
Turbo 10	2					2	2	2		3	3	4	4	5	5	5	5	8									38
								3		4	5	6		7		8		10		12							
Turbo 12	2							2		2	3	4	4	5	5	6	6	7	7	8	8	10	10	12	16		46
										3	4	5		7		8		10		12	14						
Turbo 16	2									2	2	3		4	5	5	6	6		8	8	10	10	11	12	16	56
											3	4		5/6		6/7		8/9	8	10	12	13				
Turbo 18	2										2	3		4	4	4/5	5	5/6	6	7	8	7/8	7/9	10	12	16	66
											3	4		5		6		8		9	11	12					
ABEX	2															5		5			7	8	10	12	14		82
																6											
Square T4 08	4					2	2	2	3	3	3	4		5	5	6											89
								3		4	5	6		7		9											
Square T4 12	4									2	3	3/4	4	5	5	6	6	7		9	12						98
												5		6		8		10		12							
Square 6 04	6									4	5	5		6		7											98-104
								3		5	6	7		8/9		9											
Square 6 08	6											3	3	4	4	6	7	5/7	7	6/8	7/11	12	8	10			105-114
												4	4	5	5	7		9		11	14	16	12	10			

x — Fixed pocket (x indicates number of teeth)

x — With cassette (x indicates number of teeth)

Slotting and contouring

Optimized for contouring

Selection – Inch

Cutter	Insert	Recommended a_p		Material suitability					Corner radius (inch)					
				P	M	K	N	S						
Double Turbo	ZOMX16	0.236	0.590	■	◩	■	□	◩	.031/.063	□	■	–	–	◩
Turbo	XO..06	0.118	0.197	■	■	■	■	■	.008/.016 .031/.063	■	□	■	■	◩
	XO..10	0.197	0.354	■	■	■	■	■	016/.031 .047/.063 .079/.094 .122	■	◩	■	■	◩
	XO..12	0.236	0.433	■	■	■	■	■	.016/.031 .047/.063 .079/.094 .122/.157 .197/.248	◩	■	■	■	◩
	XOMX16	0.315	0.590	■	■	■	■	■	.016/.031 .047/.063 .079/.095 .122/.157 .197/.248	◩	■	■	■	◩
	XO..18	0.354	0.669	■	◩	■	■	◩	.016/.031 .047/.063 .079/.094 .122/.157 .197/.248	□	■	■	■	◩
Square T4	LO..08	0.118	0.276	■	◩	■	□	□	.016/.031 .047/.063	■	◩	◩	-	□
	LO..12	0.276	0.393	■	■	■	■	■	.079/.031/.047 .063/.094	■	◩	◩	-	□
Square 6	XN..04..R	0.079	0.118	■	◩	■	-	□	.016/.031	■	□	◩	-	◩
	XN..08..R	0.157	0.276	■	◩	■	-	□	.016/.031 .047/.063	□	■	□	-	◩

■ 1st choice
◩ Alternative choice
□ Possible choice

High speed machine with low power/torque
Strong stable machine with rigid connecion
Not recommended -

Unstable condition suitability
Ramping ability
Plunging ability

Selection – Inch

Cutter	No. of cutting edges	Applica-tion	Cutter diameter available (inch)/number of teeth															See page
			0.375	0.50	0.625	0.75	0.875	1.00	1.25	1.50	2.00	2.50	3.00	4.00	5.00	6.00	8.00	10.00	
Double Turbo	4								2	3	4	5	6	8	10				23
									3	4	5	6	8	10	12				
Turbo 06	2		2	2	3	4	5	6											31, 32
				3	4	5		7	8	10									
Turbo 10	2			1	2	2	3	3		4	5								38
						3		4	5	6	7		10						
Turbo 12	2					2	2	2	3/4	4	4/5	4	4/7	5/8					48, 49
								3	4	5	7	6	10	12					
Turbo 16	2							2	2	3	4	5	6	8	9	12			48, 49
									3	4	5/6	6	8	10					
Turbo 18	2							2	2	3	3/4	5	4/6	5	8	9			66
									3	4	5	6	8	7/9	11	12			
Square T4 08	4				2			3	4	4	5								82
						3		4											
Square T4 12	4							2	3	4	5	6	8	10	12	14			89
												8							
Square 6 04	6								5	6									98
						3		5			9								
Square 6 08	6									3	4/5	4	5	6	7	12			98
											5	6/7	7/9	8/11	11				

x — Fixed pocket (x indicates number of teeth)

x — With cassette (x indicates number of teeth)

Slotting and contouring

Optimized for contouring

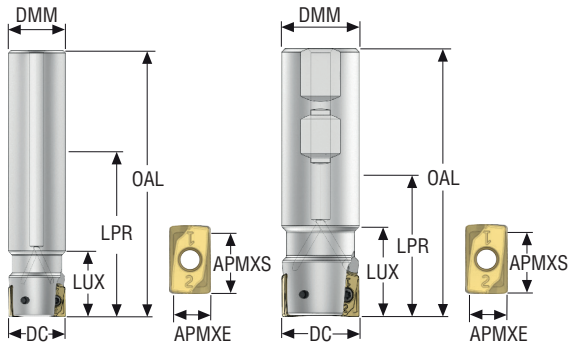


DOUBLE TURBO 16

Using the most positive helix cutting angle geometry on the market today means less power consumption, smoother cutting and longer tool life. Together with the impressive 90-degree angle accuracy and the double-sided inserts, this generates a good surface finish and reduces costs.

- Reduced downtime boosts your material removal rate with a depth of cut capability up to 15 mm (0.59”)
- Cutter range metric, Ø 32-200 mm (Imperial Ø 1.250-5.000 inch)
- Reduced cost because of double-sided inserts with 4 cutting edges
- Insert type ZOMX16

Double Turbo 16 – R217.64-ZO16 – Metric

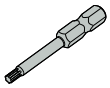




- For insert selection and cutting data recommendations, see page(s) 28-29
- For complete insert programme, see page(s) 853
- For ISO attribute explanation, see page 16
- KAPRS 90°

Designation	Item number	Type of mounting	DC	ZEFP	APMXS	APMXE	DMM	LUX	LPR	OAL	RMPX°	Cmin	Cmax	RPMX	Weight	Insert
			mm		mm	mm	mm	mm	mm	mm		mm	mm		kg	
R217.64-3232.0-ZO16-2A	03290227	Cylindrical	32,0	2	15,0	5,0	32,0	37,0	94,0	150,0	0,35	49,0	62,0	11400	0,9	ZOMX16..
R217.64-3232.0-ZO16-3A	10107618	Cylindrical	32,0	3	15,0	5,0	32,0	37,0	94,0	150,0	0,35	49,0	62,0	11400	0,8	ZOMX16..
R217.64-3240.0-ZO16-3A	03290228	Cylindrical	40,0	3	15,0	5,0	32,0	94,0	94,0	150,0	0,25	65,0	78,0	11400	0,9	ZOMX16..
R217.64-3240.0-ZO16-4A	03290229	Cylindrical	40,0	4	15,0	5,0	32,0	94,0	94,0	150,0	0,25	65,0	78,0	11400	0,8	ZOMX16..
R217.64-3232.3-ZO16-2A	03290222	Weldon	32,0	2	15,0	5,0	32,0	37,0	50,0	110,0	0,35	49,0	62,0	11400	0,6	ZOMX16..
R217.64-3232.3-ZO16-3A	10107617	Weldon	32,0	3	15,0	5,0	32,0	37,0	50,0	110,0	0,35	49,0	62,0	11400	0,6	ZOMX16..
R217.64-3240.3-ZO16-3A	03290223	Weldon	40,0	3	15,0	5,0	32,0	50,0	50,0	110,0	0,25	65,0	78,0	10000	0,7	ZOMX16..
R217.64-3240.3-ZO16-4A	03290224	Weldon	40,0	4	15,0	5,0	32,0	50,0	50,0	110,0	0,25	65,0	78,0	10000	0,7	ZOMX16..

Spare Parts, included in delivery

For cutter	Insert key	Insert screw
		
R217.64-3232-3240	1/4HEX-T15PX50	C04011B-T15P

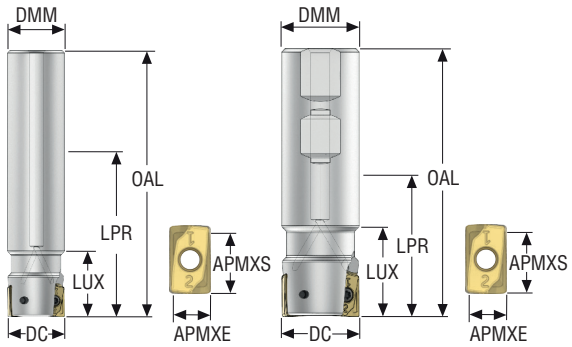
Accessories

For cutter	Adjustable Torque key	Insert clamping torque	Torque key
			
R217.64-..	1/4HEX-S-HANDLE-0.8-5.0NM	3.5NM	T00-15P35

Torque and fixed keys, see page 872

Double Turbo 16 – R217.64-ZO16 – Inch

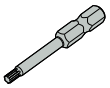




- For insert selection and cutting data recommendations, see page(s) 28-29
- For complete insert programme, see page(s) 853
- For ISO attribute explanation, see page 16
- KAPRS 90°

Designation	Item number	Type of mounting	DC	ZEFP	APMXS	APMXE	DMM	LUX	LPR	OAL	RMPX°	C min	C max	RPMX	Weight	Insert
			inch		inch	inch	inch	inch	inch	inch		inch	inch		lbs	
R217.64-01.25-0-ZO16-2A	03290230	Cylindrical	1.250	2	0.591	0.197	1.250	1.378	3.701	7.677	0,35	1.890	2.402	11400	2.430	ZOMX16..
R217.64-01.50-0-ZO16-3A	03290231	Cylindrical	1.500	3	0.591	0.197	1.250	3.701	3.701	7.677	0,25	2.402	2.913	10000	2.650	ZOMX16..
R217.64-01.25-3-ZO16-2A	03290225	Weldon	1.250	2	0.591	0.197	1.250	1.457	1.969	4.331	0,25	1.890	2.402	11400	1.320	ZOMX16..
R217.64-01.25-3-ZO16-3A	10107620	Weldon	1.250	3	0.591	0.197	1.250	1.457	1.969	4.331	0,25	1.890	2.402	11400	1.320	ZOMX16..
R217.64-01.50-3-ZO16-3A	03290226	Weldon	1.500	3	0.591	0.197	1.250	1.969	1.969	4.331	0,25	2.402	2.913	10000	1.320	ZOMX16..
R217.64-01.50-3-ZO16-4A	10107621	Weldon	1.500	4	0.591	0.197	1.250	1.969	1.969	4.331	0,25	2.402	2.913	10000	1.320	ZOMX16..

Spare Parts, included in delivery

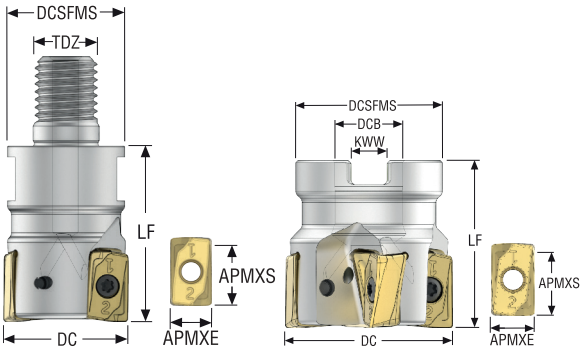
For cutter	Insert key	Insert screw
		
R217.64-..	1/4HEX-T15PX50	C04011B-T15P

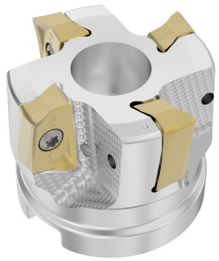
Accessories

For cutter	Adjustable Torque key	Insert clamping torque	Torque key
			
R217.64-..	1/4HEX-S-HANDLE-0.8-5.0NM	31.0IN.LBS	T00-15P35

Torque and fixed keys, see page 872

Double Turbo 16 – R217/220.64-ZO16 – Metric



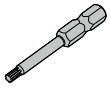
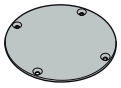


- For insert selection and cutting data recommendations, see page(s) 28-29
- For complete insert programme, see page(s) 853
- For ISO attribute explanation, see page 16
- KAPRS 90°

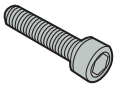
Designation	Item number	Type of mounting	DC	ZEFP	APMXS	APMXE	DCB	TDZ	DCSFMS	LF	RMPX°	Cmin	Cmax	RPMX	Weight	Insert
			mm		mm	mm	mm		mm	mm		mm	mm		kg	
R217.64-1632.RE-ZO16-3A	10107619	Combimaster	32,0	3	15,0	5,0	–	M16	30,0	45,0	0,35	49,0	62,0	11400	0,2	ZOMX16..
R217.64-2040.RE-ZO16-3A	03290233	Combimaster	40,0	3	15,0	5,0	–	M20	36,5	45,0	0,25	65,0	78,0	10000	0,3	ZOMX16..
R217.64-2040.RE-ZO16-4A	03290234	Combimaster	40,0	4	15,0	5,0	–	M20	36,5	45,0	0,25	65,0	78,0	10000	0,3	ZOMX16..
R220.64-0040-ZO16-3A	03290237	Arbor	40,0	3	15,0	5,0	16,0	–	35,0	40,0	0,25	0,0	0,0	9800	0,3	ZOMX16..
R220.64-0040-ZO16-4A	03290238	Arbor	40,0	4	15,0	5,0	16,0	–	35,0	40,0	0,25	65,0	78,0	10000	0,3	ZOMX16..
R220.64-0050-ZO16-4A	03290239	Arbor	50,0	4	15,0	5,0	22,0	–	47,0	40,0	0,2	85,0	98,0	9000	0,4	ZOMX16..
R220.64-0050-ZO16-5A	03290240	Arbor	50,0	5	15,0	5,0	22,0	–	47,0	40,0	0,2	85,0	98,0	9000	0,3	ZOMX16..
R220.64-0063-ZO16-5A	03290241	Arbor	63,0	5	15,0	5,0	22,0	–	47,0	40,0	0,2	111,0	124,0	8200	0,6	ZOMX16..
R220.64-0063-ZO16-5A-27	10000039	Arbor	63,0	5	15,0	5,0	27,0	–	56,0	40,0	0,15	111,0	124,0	8200	0,5	ZOMX16..
R220.64-0063-ZO16-6A	03290242	Arbor	63,0	6	15,0	5,0	22,0	–	47,0	40,0	0,2	111,0	124,0	8200	0,5	ZOMX16..
R220.64-0063-ZO16-6A-27	10000040	Arbor	63,0	6	15,0	5,0	27,0	–	56,0	40,0	0,15	111,0	124,0	8200	0,6	ZOMX16..
R220.64-0080-ZO16-6A	03290243	Arbor	80,0	6	15,0	5,0	27,0	–	62,0	50,0	0,1	145,0	158,0	7200	0,9	ZOMX16..
R220.64-0080-ZO16-8A	03290244	Arbor	80,0	8	15,0	5,0	27,0	–	62,0	50,0	0,1	145,0	158,0	7200	1,0	ZOMX16..
R220.64-0100-ZO16-8A	03290245	Arbor	100,0	8	15,0	5,0	32,0	–	77,0	50,0	0,0	–	–	6500	1,6	ZOMX16..
R220.64-0100-ZO16-10A	03290246	Arbor	100,0	10	15,0	5,0	32,0	–	77,0	50,0	0,0	–	–	6500	1,5	ZOMX16..
R220.64-0125-ZO16-10A	03290247	Arbor	125,0	10	15,0	5,0	40,0	–	90,0	63,0	0,0	–	–	5800	3,0	ZOMX16..
R220.64-0125-ZO16-12A	03290248	Arbor	125,0	12	15,0	5,0	40,0	–	90,0	63,0	0,0	–	–	5800	2,9	ZOMX16..
R220.64-8160-ZO16-12A	03307754	Arbor	160,0	12	15,0	5,0	40,0	–	90,0	63,0	0,0	–	–	5100	5,1	ZOMX16..
R220.64-8160-ZO16-14A	03307755	Arbor	160,0	14	15,0	5,0	40,0	–	90,0	63,0	0,0	–	–	5100	9,6	ZOMX16..
R220.64-8200-ZO16-14A	03307756	Arbor	200,0	14	15,0	5,0	60,0	–	130,0	63,0	0,0	–	–	4500	6,7	ZOMX16..
R220.64-8200-ZO16-16A	03307757	Arbor	200,0	16	15,0	5,0	60,0	–	130,0	63,0	0,0	–	–	4500	6,8	ZOMX16..

For Combimaster Shanks, see Machining Navigator Tooling System

Spare Parts, included in delivery

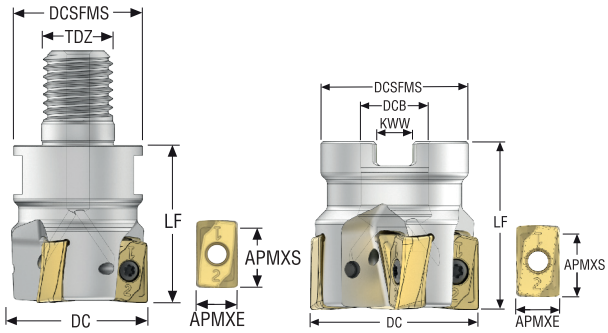
For cutter	Arbor screw	Insert key	Insert screw	Lid	Lid screw
					
R217.64-1632-2040	–	1/4HEX-T15PX50	C04011B-T15P	–	–
R220.64-0040	220.17-690	1/4HEX-T15PX50	C04011B-T15P	–	–
R220.64-0050-0063	220.17-692	1/4HEX-T15PX50	C04011B-T15P	–	–
R220.64-0063-27	MLC6S12X30	1/4HEX-T15PX50	C04011B-T15P	–	–
R220.64-0080-0125	–	1/4HEX-T15PX50	C04011B-T15P	–	–
R220.64-8160	–	1/4HEX-T15PX90	C04011B-T15P	SC-160-90	MF6S4X8
R220.64-8200	–	1/4HEX-T15PX90	C04011B-T15P	SC-200-90	MF6S4X8

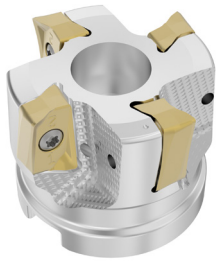
Accessories

For cutter	Adjustable Torque key	Arbor screw	Insert clamping torque	Torque key
				
R217/220.64-1632-0125	1/4HEX-S-HANDLE-0.8-5.0NM	–	3.5NM	T00-15P35
R220.64-8160	1/4HEX-S-HANDLE-0.8-5.0NM	MC6S12X40	3.5NM	T00-15P35
R220.64-8200	1/4HEX-S-HANDLE-0.8-5.0NM	MC6S16X50	3.5NM	T00-15P35

Torque and fixed keys, see page 872

Double Turbo 16 – R217/220.64-ZO16 – inch



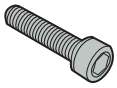
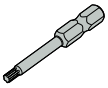


- For insert selection and cutting data recommendations, see page(s) 28-29
- For complete insert programme, see page(s) 853
- For ISO attribute explanation, see page 16
- KAPRS 90°

Designation	Item number	Type of mounting	DC	ZEFP	APMXS	APMXE	DCB	TDZ	DCSFMS	LF	RMPX°	C min	C max	RPMX	Weight	Insert
			inch		inch	inch	inch		inch	inch		inch	inch		lbs	
R217.64-01.25-16RE-ZO16-2A	03290235	Combimaster	1.250	2	0.591	0.197	–	M16	1.181	1.772	0.35	1.890	2.402	11400	0.660	ZOMX16..
R217.64-01.50-20RE-ZO16-3A	03290236	Combimaster	1.500	3	0.591	0.197	–	M20	1.437	1.772	0.25	2.402	2.913	10000	0.660	ZOMX16..
R220.64-02.00-ZO16-4A	03290250	Arbor	2.000	4	0.591	0.197	0.750	–	1.850	1.575	0.2	3.386	3.898	9000	0.880	ZOMX16..
R220.64-02.00-ZO16-5A	03290251	Arbor	2.000	5	0.591	0.197	0.750	–	1.850	1.575	0.2	3.386	3.898	9000	0.880	ZOMX16..
R220.64-02.50-ZO16-5A	03290252	Arbor	2.500	5	0.591	0.197	0.750	–	1.850	1.575	0.15	4.409	4.921	8200	1.320	ZOMX16..
R220.64-02.50-ZO16-6A	03290253	Arbor	2.500	6	0.591	0.197	0.750	–	1.850	1.575	0.15	4.409	4.921	8200	1.100	ZOMX16..
R220.64-03.00-ZO16-6A	03290254	Arbor	3.000	6	0.591	0.197	1.000	–	2.441	1.969	0.1	5.394	5.906	7200	2.200	ZOMX16..
R220.64-03.00-ZO16-8A	03290255	Arbor	3.000	8	0.591	0.197	1.000	–	2.441	1.969	0.1	5.394	5.906	7200	1.980	ZOMX16..
R220.64-04.00-ZO16-8A	03290256	Arbor	4.000	8	0.591	0.197	1.500	–	3.031	1.969	0.0	–	–	6500	3.530	ZOMX16..
R220.64-04.00-ZO16-10A	03290257	Arbor	4.000	10	0.591	0.197	1.500	–	3.031	1.969	0.0	–	–	6500	3.530	ZOMX16..
R220.64-05.00-ZO16-10A	03290258	Arbor	5.000	10	0.591	0.197	1.500	–	3.543	2.480	0.0	–	–	5800	5.730	ZOMX16..
R220.64-05.00-ZO16-12A	03290259	Arbor	5.000	12	0.591	0.197	1.500	–	3.543	2.480	0.0	–	–	5800	7.500	ZOMX16..

For Combimaster Shanks, see Machining Navigator Tooling System

Spare Parts, included in delivery

For cutter	Arbor screw	Insert key	Insert screw
			
R217.64-..	–	1/4HEX-T15PX50	C04011B-T15P
R220.64-02.00-02.50	UC6S3/8UNFX1	1/4HEX-T15PX50	C04011B-T15P
R220.64-03.00	UC6S1/2UNFX1-1/4	1/4HEX-T15PX50	C04011B-T15P
R220.64-04.00-05.00	UC6S3/4UNFX1-1/4	1/4HEX-T15PX50	C04011B-T15P

Accessories

For cutter	Adjustable Torque key	Insert clamping torque	Torque key
			
R217/220.64-..	1/4HEX-S-HANDLE-0.8-5.0NM	31.0IN.LBS	T00-15P35

Torque and fixed keys, see page 872

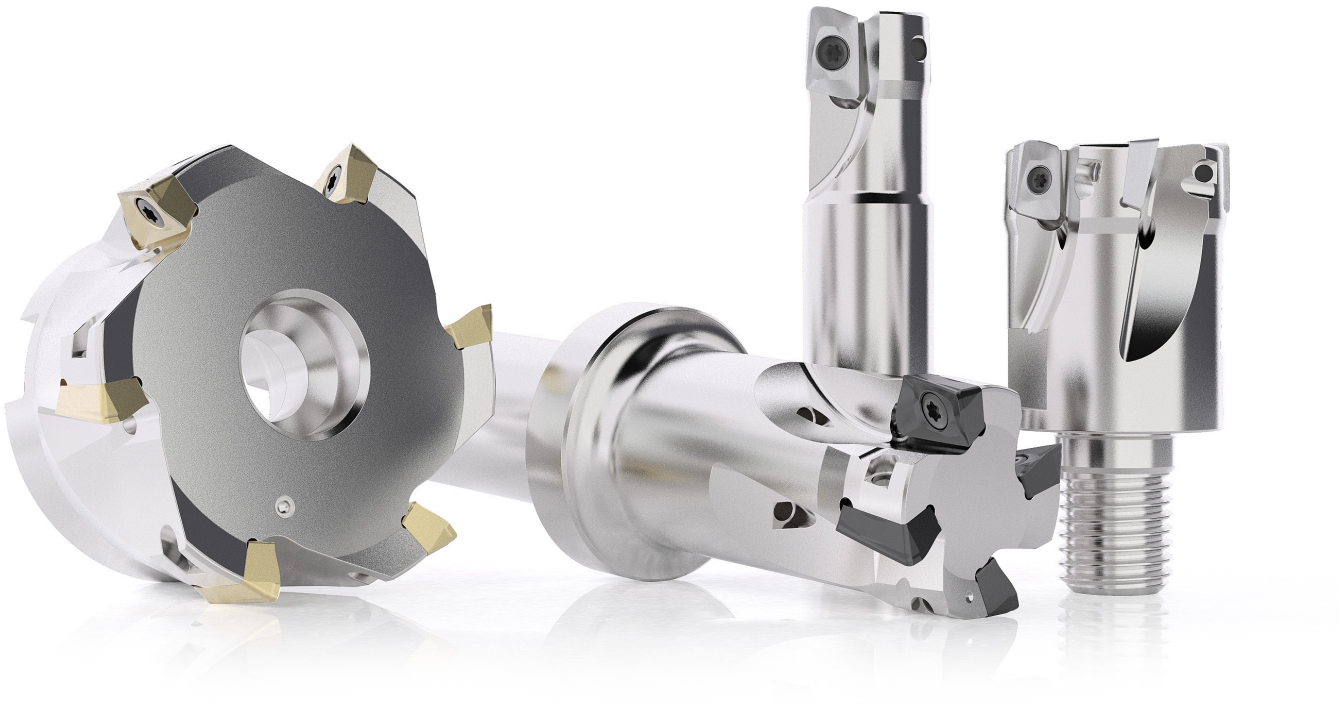
R217/220.64-16 – Insert selection – Metric / *Inch*

SMG		a_p	f_z		
			100%	30%	10%
P1	ZOMX160708TR-ME10 F40M	7,0 *0.28*	0,14 *0.0055*	0,15 *0.0060*	0,24 *0.0095*
P2	ZOMX160708TR-ME10 F40M	7,0 *0.28*	0,14 *0.0055*	0,16 *0.0065*	0,24 *0.0095*
P3	ZOMX160708TR-M12 MP2501	7,0 *0.28*	0,16 *0.0065*	0,18 *0.0070*	0,28 *0.011*
P4	ZOMX160708TR-M12 MP2501	7,0 *0.28*	0,16 *0.0065*	0,17 *0.0065*	0,26 *0.010*
P5	ZOMX160708TR-M12 MP2501	7,0 *0.28*	0,16 *0.0065*	0,17 *0.0065*	0,26 *0.010*
P6	ZOMX160708TR-M12 MP2501	7,0 *0.28*	0,16 *0.0065*	0,17 *0.0065*	0,26 *0.010*
P7	ZOMX160708TR-M12 MP2501	7,0 *0.28*	0,16 *0.0065*	0,17 *0.0065*	0,26 *0.010*
P8	ZOMX160708TR-M12 MP2501	7,0 *0.28*	0,16 *0.0065*	0,18 *0.0070*	0,28 *0.011*
P11	ZOMX160708TR-M12 MS2500	7,0 *0.28*	0,16 *0.0065*	0,17 *0.0065*	0,26 *0.010*
P12	ZOMX160708TR-M12 MS2500	6,0 *0.24*	0,11 *0.0044*	0,12 *0.0048*	0,18 *0.0070*
M1	ZOMX160708TR-ME10 F40M	7,0 *0.28*	0,14 *0.0055*	0,16 *0.0065*	0,24 *0.0095*
M2	ZOMX160708TR-ME10 F40M	7,0 *0.28*	0,13 *0.0050*	0,14 *0.0055*	0,22 *0.0085*
M3	ZOMX160708TR-ME10 F40M	6,0 *0.24*	0,10 *0.0040*	0,11 *0.0044*	0,18 *0.0070*
M4	ZOMX160708TR-ME10 MS2050	4,5 *0.18*	0,095 *0.0038*	0,10 *0.0040*	0,15 *0.0060*
M5	ZOMX160708TR-ME10 MS2050	4,5 *0.18*	0,095 *0.0038*	0,10 *0.0040*	0,15 *0.0060*
K1	ZOMX160708TR-M12 MK2050	7,0 *0.28*	0,17 *0.0065*	0,19 *0.0075*	0,28 *0.011*
K2	ZOMX160708TR-M12 MK2050	7,0 *0.28*	0,16 *0.0065*	0,17 *0.0065*	0,26 *0.010*
K3	ZOMX160708TR-M12 MK2050	7,0 *0.28*	0,16 *0.0065*	0,17 *0.0065*	0,26 *0.010*
K4	ZOMX160708TR-M12 MK2050	7,0 *0.28*	0,16 *0.0065*	0,17 *0.0065*	0,26 *0.010*
K5	ZOMX160708TR-M12 MK2050	7,0 *0.28*	0,14 *0.0055*	0,15 *0.0060*	0,24 *0.0095*
K6	ZOMX160708TR-M12 MK2050	7,0 *0.28*	0,16 *0.0065*	0,17 *0.0065*	0,26 *0.010*
K7	ZOMX160708TR-M12 MP3000	7,0 *0.28*	0,14 *0.0055*	0,15 *0.0060*	0,24 *0.0095*
S1	ZOMX160708TR-ME10 MS2050	4,5 *0.18*	0,095 *0.0038*	0,10 *0.0040*	0,15 *0.0060*
S2	ZOMX160708TR-ME10 MS2050	4,5 *0.18*	0,095 *0.0038*	0,10 *0.0040*	0,15 *0.0060*
S3	ZOMX160708TR-ME10 MS2050	4,5 *0.18*	0,085 *0.0034*	0,095 *0.0038*	0,14 *0.0055*
S11	ZOMX160708TR-ME10 MS2050	5,0 *0.20*	0,11 *0.0044*	0,12 *0.0048*	0,18 *0.0070*
S12	ZOMX160708TR-ME10 MS2050	5,0 *0.20*	0,11 *0.0044*	0,12 *0.0048*	0,18 *0.0070*
S13	ZOMX160708TR-ME10 MS2050	4,5 *0.18*	0,095 *0.0038*	0,10 *0.0040*	0,15 *0.0060*
H5	ZOMX160708TR-M12 MP3000	6,0 *0.24*	0,11 *0.0044*	0,12 *0.0048*	0,18 *0.0070*
H8	ZOMX160708TR-M12 MP3000	5,0 *0.20*	0,080 *0.0032*	0,090 *0.0036*	0,14 *0.0055*
H11	ZOMX160708TR-M12 MP1501	6,0 *0.24*	0,11 *0.0044*	0,12 *0.0048*	0,18 *0.0070*
H12	ZOMX160708TR-M12 MP1501	5,0 *0.20*	0,080 *0.0032*	0,090 *0.0036*	0,14 *0.0055*

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

R217/220.64-16 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	MK2050			MP3000			F40M			MP1501			MP2501			MS2500			MP3501		
	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%
P1	265 *870*	355 *1175*	420 *1375*	255 *840*	345 *1125*	405 *1325*	205 *670*	275 *900*	325 *1075*	390 *1275*	490 *1600*	550 *1800*	380 *1250*	480 *1575*	540 *1775*	295 *970*	395 *1300*	465 *1525*	340 *1125*	430 *1400*	485 *1600*
P2	260 *850*	340 *1125*	410 *1350*	250 *820*	330 *1075*	395 *1300*	200 *660*	265 *870*	315 *1025*	380 *1250*	470 *1550*	540 *1775*	370 *1225*	460 *1500*	530 *1750*	290 *950*	380 *1250*	455 *1500*	330 *1075*	410 *1350*	475 *1550*
P3	230 *750*	300 *980*	355 *1175*	220 *720*	290 *950*	340 *1125*	175 *570*	230 *750*	270 *890*	335 *1100*	410 *1350*	465 *1525*	325 *1075*	400 *1300*	455 *1500*	250 *820*	330 *1075*	390 *1275*	290 *950*	360 *1175*	410 *1350*
P4	200 *660*	270 *890*	315 *1025*	195 *640*	260 *850*	305 *1000*	155 *510*	205 *670*	245 *800*	295 *970*	365 *1200*	415 *1350*	285 *940*	360 *1175*	410 *1350*	220 *720*	295 *970*	350 *1150*	255 *840*	325 *1075*	365 *1200*
P5	190 *620*	255 *840*	305 *1000*	185 *610*	245 *800*	290 *950*	145 *475*	195 *640*	235 *770*	280 *920*	350 *1150*	395 *1300*	275 *900*	345 *1125*	390 *1275*	210 *690*	285 *940*	335 *1100*	245 *800*	310 *1025*	350 *1150*
P6	215 *710*	285 *940*	340 *1125*	205 *670*	275 *900*	325 *1075*	165 *540*	220 *720*	260 *850*	315 *1025*	395 *1300*	445 *1450*	310 *1025*	385 *1275*	440 *1450*	240 *790*	320 *1050*	375 *1225*	275 *900*	345 *1125*	395 *1300*
P7	205 *670*	270 *890*	320 *1050*	195 *640*	260 *850*	310 *1025*	155 *510*	210 *690*	245 *800*	295 *970*	370 *1225*	420 *1375*	290 *950*	365 *1200*	415 *1350*	225 *740*	300 *980*	355 *1175*	260 *850*	325 *1075*	370 *1225*
P8	190 *620*	250 *820*	295 *970*	185 *610*	240 *790*	285 *940*	145 *475*	195 *640*	230 *750*	280 *920*	345 *1125*	390 *1275*	275 *900*	340 *1125*	385 *1275*	210 *690*	280 *920*	330 *1075*	245 *800*	305 *1000*	345 *1125*
P11	195 *640*	265 *870*	310 *1025*	190 *620*	255 *840*	300 *980*	150 *490*	205 *670*	240 *790*	290 *950*	360 *1175*	410 *1350*	285 *940*	355 *1175*	400 *1300*	220 *720*	290 *950*	345 *1125*	250 *820*	315 *1025*	360 *1175*
P12	130 *425*	170 *560*	205 *670*	125 *410*	165 *540*	195 *640*	100 *330*	130 *425*	155 *510*	190 *620*	230 *750*	260 *850*	185 *610*	230 *750*	255 *840*	145 *475*	190 *620*	225 *740*	170 *560*	205 *670*	230 *750*
M1	— —	— —	— —	185 *610*	245 *800*	295 *970*	160 *520*	210 *690*	255 *840*	— —	— —	— —	190 *620*	250 *820*	300 *980*	205 *670*	270 *890*	325 *1075*	175 *570*	235 *770*	280 *920*
M2	— —	— —	— —	155 *510*	205 *670*	245 *800*	135 *445*	175 *570*	210 *690*	— —	— —	— —	155 *510*	210 *690*	245 *800*	170 *560*	225 *740*	270 *890*	145 *475*	195 *640*	230 *750*
M3	— —	— —	— —	125 *410*	165 *540*	200 *660*	110 *360*	145 *475*	170 *560*	— —	— —	— —	125 *410*	170 *560*	205 *670*	140 *460*	185 *610*	220 *720*	120 *395*	155 *510*	190 *620*
M4	— —	— —	— —	100 *330*	130 *425*	155 *510*	85 *280*	110 *360*	130 *425*	— —	— —	— —	100 *330*	130 *425*	155 *510*	110 *360*	145 *475*	170 *560*	95 *310*	125 *410*	145 *475*
M5	— —	— —	— —	80 *260*	110 *360*	130 *425*	70 *230*	95 *310*	110 *360*	— —	— —	— —	85 *280*	110 *360*	130 *425*	90 *295*	120 *395*	140 *460*	80 *260*	105 *345*	120 *395*
K1	280 *920*	370 *1225*	440 *1450*	200 *660*	260 *850*	310 *1025*	160 *520*	210 *690*	250 *820*	385 *1275*	475 *1550*	540 *1775*	375 *1225*	465 *1525*	530 *1750*	230 *750*	300 *980*	360 *1175*	335 *1100*	415 *1350*	480 *1575*
K2	250 *820*	330 *1075*	390 *1275*	175 *570*	235 *770*	275 *900*	140 *460*	185 *610*	220 *720*	340 *1125*	425 *1400*	480 *1575*	330 *1075*	415 *1350*	470 *1550*	200 *660*	270 *890*	320 *1050*	295 *970*	370 *1225*	425 *1400*
K3	210 *690*	280 *920*	330 *1075*	150 *490*	200 *660*	235 *770*	120 *395*	160 *520*	185 *610*	285 *940*	360 *1175*	405 *1325*	280 *920*	350 *1150*	400 *1300*	170 *560*	230 *750*	270 *890*	250 *820*	315 *1025*	360 *1175*
K4	200 *660*	265 *870*	315 *1025*	140 *460*	190 *620*	225 *740*	115 *375*	150 *490*	180 *590*	275 *900*	340 *1125*	390 *1275*	270 *890*	335 *1100*	380 *1250*	165 *540*	215 *710*	255 *840*	240 *790*	300 *980*	340 *1125*
K5	125 *410*	165 *540*	190 *620*	85 *280*	115 *375*	135 *445*	70 *230*	95 *310*	110 *360*	170 *560*	210 *690*	235 *770*	165 *540*	205 *670*	230 *750*	100 *330*	135 *445*	155 *510*	150 *490*	185 *610*	210 *690*
K6	175 *570*	235 *770*	280 *920*	125 *410*	165 *540*	195 *640*	100 *330*	135 *445*	155 *510*	240 *790*	300 *980*	340 *1125*	235 *770*	295 *970*	335 *1100*	145 *475*	190 *620*	225 *740*	210 *690*	265 *870*	300 *980*
K7	160 *520*	210 *690*	245 *800*	110 *360*	150 *490*	175 *570*	90 *295*	120 *395*	140 *460*	215 *710*	270 *890*	300 *980*	215 *710*	265 *870*	295 *970*	130 *425*	170 *560*	200 *660*	190 *620*	240 *790*	265 *870*
S1	— —	— —	— —	46 *150*	60 *195*	70 *230*	40 *130*	50 *165*	60 *195*	— —	— —	— —	— —	— —	— —	55 *180*	70 *230*	85 *280*	44 *145*	60 *195*	70 *230*
S2	— —	— —	— —	37 *120*	49 *160*	60 *195*	32 *105*	42 *140*	50 *165*	— —	— —	— —	— —	— —	— —	43 *140*	55 *180*	65 *215*	35 *115*	46 *150*	55 *180*
S3	— —	— —	— —	33 *110*	43 *140*	50 *165*	28 *90*	37 *120*	43 *140*	— —	— —	— —	— —	— —	— —	38 *125*	50 *165*	60 *195*	31 *100*	41 *135*	48 *155*
S11	— —	— —	— —	— —	— —	— —	55 *180*	70 *230*	85 *280*	— —	— —	— —	— —	— —	— —	75 *245*	95 *310*	115 *375*	60 *195*	80 *260*	95 *310*
S12	— —	— —	— —	— —	— —	— —	38 *125*	50 *165*	60 *195*	— —	— —	— —	— —	— —	— —	50 *165*	65 *215*	80 *260*	42 *140*	55 *180*	65 *215*
S13	— —	— —	— —	— —	— —	— —	22 *70*	29 *95*	35 *115*	— —	— —	— —	— —	— —	— —	30 *100*	39 *130*	47 *155*	25 *80*	32 *105*	38 *125*
H5	— —	— —	— —	39 *130*	50 *165*	60 *195*	33 *110*	44 *145*	50 *165*	49 *160*	65 *215*	75 *245*	— —	— —	— —	43 *140*	55 *180*	65 *215*	38 *125*	50 *165*	60 *195*
H8	— —	— —	— —	42 *140*	55 *180*	65 *215*	36 *120*	47 *155*	55 *180*	55 *180*	70 *230*	80 *260*	— —	— —	— —	47 *155*	60 *195*	70 *230*	42 *140*	55 *180*	65 *215*
H11	— —	— —	— —	49 *160*	65 *215*	75 *245*	42 *140*	55 *180*	65 *215*	65 *215*	85 *280*	100 *330*	— —	— —	— —	55 *180*	75 *245*	85 *280*	49 *160*	65 *215*	75 *245*
H12	— —	— —	— —	80 *260*	105 *345*	125 *410*	65 *215*	85 *280*	100 *330*	95 *310*	125 *410*	145 *475*	— —	— —	— —	95 *310*	120 *395*	145 *475*	75 *245*	95 *310*	115 *375*

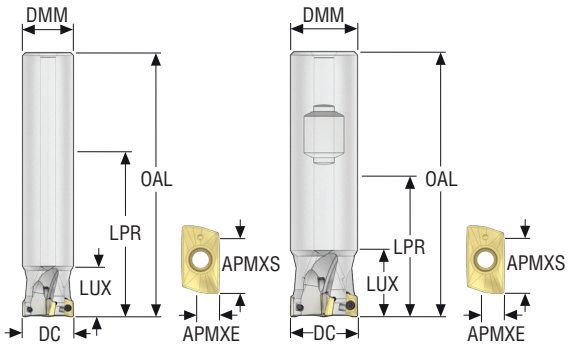


TURBO CUTTERS

The Turbo family takes square shoulder milling to the max. Suitable for most roughing, semi-finishing and finishing operations, these highly versatile cutters offer long tool life and high precision via optimized properties that reduce heat generation and cutting forces.

- Turbo 06 Insert size 06, cutter range metric, Ø 10-40 mm (Imperial Ø 0.375-1.500 inch)
- Turbo 10 Insert size 10, cutter range metric, Ø 16-100mm (Imperial Ø 0.500-3.000 inch)
- Turbo 12 Insert size 12, cutter range metric, Ø 20-250 mm (Imperial Ø 0.750-4.000 inch)
- Turbo 16 Insert size 16, cutter range metric, Ø 25-250 mm (Imperial Ø 1.000-6.000 inch)
- Turbo 18 Insert size 18, cutter range metric, Ø 32-250 mm (Imperial Ø 1.000-6.000 inch)

Turbo 06 – R217.69-06 – Metric



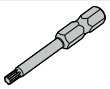


- For insert selection and cutting data recommendations, see page(s) 36-37
- For complete insert programme, see page(s) 843
- For ISO attribute explanation, see page 16
- KAPRS 90°

Designation	Item number	Type of mounting	DC	ZEFP	APMXS	APMXE	DMM	LUX	LPR	OAL	RMPX°	Cmin	Cmax	RPMX	Weight	Insert
			mm		mm	mm	mm	mm	mm	mm		mm	mm		kg	
R217.69-0810.0-06-2AN	02690707	Cylindrical	10,0	2	5,0	3,0	8,0	64,0	64,0	100,0	10,0	14,5	19,0	60000	0,1	XO.X06..
R217.69-0810.0-06-2N	02690736	Cylindrical	10,0	2	5,0	3,0	8,0	64,0	64,0	100,0	10,0	14,5	19,0	60000	0,1	XO.X06..
R217.69-1010.0-06-2AD	00035456	Cylindrical	10,0	2	5,0	3,0	10,0	17,0	17,0	55,0	10,0	14,5	19,0	60000	0,1	XO.X06..
R217.69-1010.0-06-2AN	02690714	Cylindrical	10,0	2	5,0	3,0	10,0	17,0	17,0	55,0	10,0	14,5	19,0	60000	0,1	XO.X06..
R217.69-1010.0-06-2N	02690737	Cylindrical	10,0	2	5,0	3,0	10,0	18,0	62,0	100,0	10,0	14,5	19,0	60000	0,1	XO.X06..
R217.69-1012.0-06-2AN	02690712	Cylindrical	12,0	2	5,0	3,0	10,0	80,0	80,0	120,0	6,5	18,5	23,0	54400	0,1	XO.X06..
R217.69-1012.0-06-2N	02690738	Cylindrical	12,0	2	5,0	3,0	10,0	80,0	80,0	120,0	6,5	18,5	23,0	54400	0,1	XO.X06..
R217.69-1212.0-06-2AN	02690715	Cylindrical	12,0	2	5,0	3,0	12,0	18,0	35,0	80,0	6,5	18,5	23,0	54400	0,1	XO.X06..
R217.69-1212.0-06-2N	02690739	Cylindrical	12,0	2	5,0	3,0	12,0	18,0	75,0	120,0	6,5	18,5	23,0	54400	0,2	XO.X06..
R217.69-1212.0-06-3AD	00035457	Cylindrical	12,0	3	5,0	3,0	12,0	18,0	35,0	80,0	6,5	18,5	23,0	54400	0,2	XO.X06..
R217.69-1212.0-06-3AN	02690724	Cylindrical	12,0	3	5,0	3,0	12,0	18,0	18,0	60,0	6,5	18,5	23,0	54400	0,1	XO.X06..
R217.69-1214.0-06-3AN	02690708	Cylindrical	14,0	3	5,0	3,0	12,0	95,0	95,0	140,0	5,0	22,5	27,0	51200	0,2	XO.X06..
R217.69-1416.0-06-3AN	02690713	Cylindrical	16,0	3	5,0	3,0	14,0	115,0	115,0	160,0	4,0	26,5	31,0	48000	0,2	XO.X06..
R217.69-1616.0-06-3AN	02690717	Cylindrical	16,0	3	5,0	3,0	16,0	20,0	42,0	90,0	4,0	26,5	31,0	48000	0,2	XO.X06..
R217.69-1616.0-06-4AD	00035458	Cylindrical	16,0	4	5,0	3,0	16,0	20,0	42,0	90,0	4,0	26,5	31,0	48000	0,3	XO.X06..
R217.69-1616.0-06-4AN	02690718	Cylindrical	16,0	4	5,0	3,0	16,0	20,0	42,0	90,0	4,0	26,5	31,0	48000	0,2	XO.X06..
R217.69-1618.0-06-4AN	02690710	Cylindrical	18,0	4	5,0	3,0	16,0	132,0	132,0	180,0	3,0	30,5	35,0	45600	0,3	XO.X06..
R217.69-1820.0-06-4AN	02690711	Cylindrical	20,0	4	5,0	3,0	18,0	150,0	150,0	200,0	2,5	34,5	39,0	44000	0,4	XO.X06..
R217.69-2020.0-06-4AN	02690703	Cylindrical	20,0	4	5,0	3,0	20,0	20,0	55,0	105,0	2,5	34,5	39,0	44000	0,3	XO.X06..
R217.69-2020.0-06-5AD	00035459	Cylindrical	20,0	5	5,0	3,0	20,0	20,0	55,0	105,0	2,5	34,5	39,0	44000	0,6	XO.X06..
R217.69-2020.0-06-5AN	02690720	Cylindrical	20,0	5	5,0	3,0	20,0	20,0	55,0	105,0	2,5	34,5	39,0	44000	0,3	XO.X06..
R217.69-2025.0-06-7AN	02690721	Cylindrical	25,0	7	5,0	3,0	20,0	65,0	65,0	115,0	2,5	44,5	49,0	37600	0,3	XO.X06..
R217.69-2532.0-06-8AN	02690723	Cylindrical	32,0	8	5,0	3,0	25,0	74,0	74,0	130,0	1,5	58,5	63,0	33600	0,5	XO.X06..
R217.69-3240.0-06-10AN	02690725	Cylindrical	40,0	10	5,0	3,0	32,0	80,0	80,0	140,0	1,0	74,5	79,0	28000	0,9	XO.X06..
R217.69-1616.3-06-3AN	02690646	Weldon	16,0	3	5,0	3,0	16,0	20,0	22,0	70,0	4,0	26,5	31,0	48000	0,2	XO.X06..
R217.69-1616.3-06-4AN	02690647	Weldon	16,0	4	5,0	3,0	16,0	20,0	42,0	70,0	4,0	26,5	31,0	48000	0,2	XO.X06..
R217.69-2020.3-06-4AN	02690648	Weldon	20,0	4	5,0	3,0	20,0	20,0	30,0	80,0	2,5	34,5	39,0	44000	0,2	XO.X06..
R217.69-2020.3-06-5AN	02690649	Weldon	20,0	5	5,0	3,0	20,0	20,0	35,0	85,0	2,5	34,5	39,0	44000	0,3	XO.X06..
R217.69-2025.3-06-7AN	02690650	Weldon	25,0	7	5,0	3,0	20,0	40,0	40,0	90,0	2,5	44,5	49,0	37600	0,3	XO.X06..

Modification of the cutter body needed for radii > 0,8 mm

Spare Parts, included in delivery

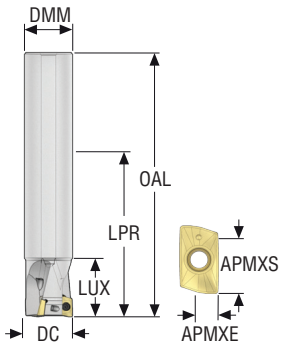
For cutter	Insert key	Insert screw
		
R217.69-..	1/4HEX-T06PX50	C01804-T06P

Accessories

For cutter	Adjustable Torque key	Insert clamping torque	Torque key
			
R217.69-..	1/4HEX-S-HANDLE-0.8-5.0NM	0.5NM	T00-06P05

Torque and fixed keys, see page 872

Turbo 06 – R217.69-06 – Inch





- For insert selection and cutting data recommendations, see page(s) 36-37
- For complete insert programme, see page(s) 843
- For ISO attribute explanation, see page 16
- KAPRS 90°

Designation	Item number	Type of mounting	DC	ZEFP	APMXS	APMXE	DMM	LUX	LPR	OAL	RMPX°	C min	C max	RPMX	Weight	Insert
			inch		inch	inch	inch	inch	inch	inch		inch	inch		lbs	
R217.69-00.375-0-06-2AN	02694880	Cylindrical	0.375	2	0.197	0.118	0.375	0.669	0.669	2.165	10,0	0.531	0.709	60000	0.220	XO.X06..
R217.69-00.375-0-06-2LAN	02694883	Cylindrical	0.375	2	0.197	0.118	0.313	2.362	2.362	3.937	10,0	0.531	0.709	60000	0.220	XO.X06..
R217.69-00.50-0-06-2AN	02694884	Cylindrical	0.500	2	0.197	0.118	0.500	0.709	1.378	3.150	6,5	0.768	0.945	54000	0.220	XO.X06..
R217.69-00.50-0-06-2LAN	02694886	Cylindrical	0.500	2	0.197	0.118	0.375	2.362	2.362	3.937	6,5	0.768	0.945	54000	0.220	XO.X06..
R217.69-00.50-0-06-3AN	02694887	Cylindrical	0.500	3	0.197	0.118	0.500	0.709	0.709	2.362	6,0	0.768	0.945	54000	0.220	XO.X06..
R217.69-00.625-0-06-3AN	02694889	Cylindrical	0.625	3	0.197	0.118	0.625	0.787	1.654	3.543	4,0	1.024	1.201	48000	0.440	XO.X06..
R217.69-00.625-0-06-3LAN	02694890	Cylindrical	0.625	3	0.197	0.118	0.500	3.150	3.150	4.921	4,0	1.024	1.201	48000	0.440	XO.X06..
R217.69-00.625-0-06-4AN	02694891	Cylindrical	0.625	4	0.197	0.118	0.625	0.787	1.654	3.543	4,0	1.024	1.201	48000	0.440	XO.X06..
R217.69-00.75-0-06-4AN	02694892	Cylindrical	0.750	4	0.197	0.118	0.750	0.787	1.969	3.937	2,0	1.280	1.457	44000	0.660	XO.X06..
R217.69-00.75-0-06-4LAN	02694898	Cylindrical	0.750	4	0.197	0.118	0.625	4.016	4.016	5.906	2,0	1.280	1.457	44000	0.660	XO.X06..
R217.69-00.75-0-06-5AN	02694896	Cylindrical	0.750	5	0.197	0.118	0.750	0.787	1.969	3.937	2,5	1.280	1.457	44000	0.660	XO.X06..
R217.69-00.875-0-06-5LAN	02694899	Cylindrical	0.875	5	0.197	0.118	0.750	3.937	3.937	5.906	2,0	1.535	1.713	44000	0.880	XO.X06..
R217.69-01.00-0-06-6LAN	02694903	Cylindrical	1.000	6	0.197	0.118	0.750	5.906	5.906	7.874	1,0	1.772	1.949	37600	0.880	XO.X06..
R217.69-01.00-0-06-7AN	02694904	Cylindrical	1.000	7	0.197	0.118	1.000	0.787	2.559	4.528	1,5	1.772	1.949	37600	0.880	XO.X06..
R217.69-01.25-0-06-8AN	02694907	Cylindrical	1.250	8	0.197	0.118	1.000	2.913	2.913	5.118	1,0	2.283	2.461	33600	1.100	XO.X06..

Modification of the cutter body needed for radii > 0.031 in

Spare Parts, included in delivery

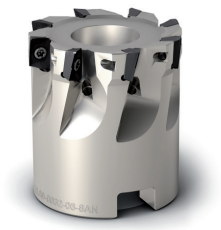
For cutter	Insert key	Insert screw
		
R217.69-..	1/4HEX-T06PX50	C01804-T06P

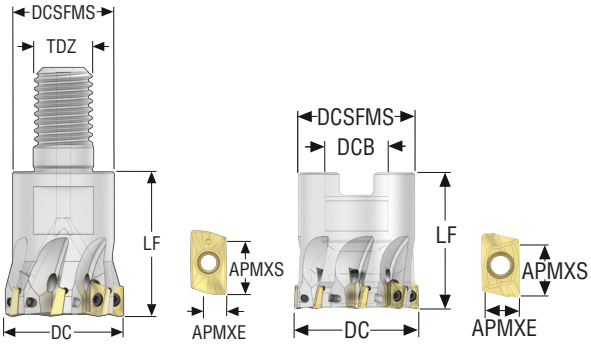
Accessories

For cutter	Adjustable Torque key	Insert clamping torque	Torque key
			
R217.69-..	1/4HEX-S-HANDLE-0.8-5.0NM	4.4IN.LBS	T00-06P05

Torque and fixed keys, see page 872

Turbo 06 – R217/220.69-06 – Metric



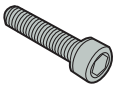
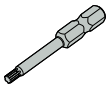


- For insert selection and cutting data recommendations, see page(s) 36-37
- For complete insert programme, see page(s) 843
- For ISO attribute explanation, see page 16
- KAPRS 90°

Designation	Item number	Type of mounting	DC	ZEFP	APMXS	APMXE	DCB	TDZ	DCSFMS	LF	RMPX°	Cmin	Cmax	RPMX	Weight	Insert
			mm		mm	mm	mm		mm	mm		mm	mm		kg	
R217.69-0816.RE-06-4AN	02690643	Combimaster	16,0	4	5,0	3,0	–	M8	13,5	23,0	7,5	26,5	31,0	48000	0,1	XO.X06..
R217.69-1020.RE-06-5AN	02690641	Combimaster	20,0	5	5,0	3,0	–	M10	18,0	28,0	4,5	34,5	39,0	44000	0,1	XO.X06..
R217.69-1225.RE-06-7AN	02690642	Combimaster	25,0	7	5,0	3,0	–	M12	21,0	30,0	2,5	44,5	49,0	37600	0,2	XO.X06..
R217.69-1632.RE-06-8AN	02690638	Combimaster	32,0	8	5,0	3,0	–	M16	28,0	35,0	1,5	58,5	63,0	33600	0,3	XO.X06..
R217.69-1640.RE-06-10AN	02690639	Combimaster	40,0	10	5,0	3,0	–	M16	28,0	40,0	1,0	74,5	79,0	28000	0,3	XO.X06..
R220.69-0032-06-8AN	02690741	Arbor	32,0	8	5,0	3,0	16,0	–	30,0	35,0	1,5	58,5	63,0	33600	0,2	XO.X06..
R220.69-0040-06-10AN	02690742	Arbor	40,0	10	5,0	3,0	16,0	–	35,0	35,0	1,0	74,5	79,0	18600	0,3	XO.X06..

Modification of the cutter body needed for radii > 0,8 mm
For Combimaster Shanks, see Machining Navigator Tooling System

Spare Parts, included in delivery

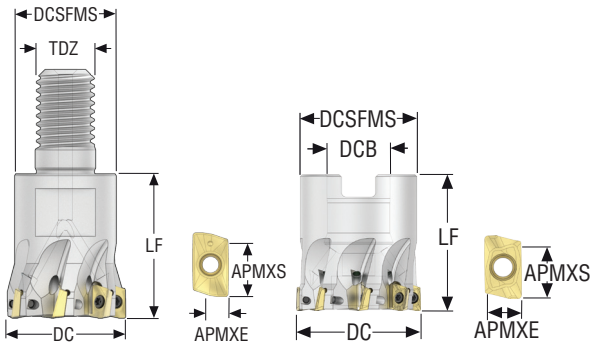
For cutter	Arbor screw	Insert key	Insert screw
			
R217.69-..	–	1/4HEX-T06PX50	C01804-T06P
R220.69-..	TCEI0825	1/4HEX-T06PX50	C01804-T06P

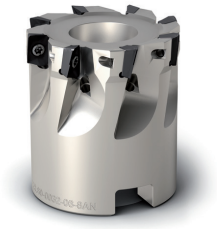
Accessories

For cutter	Adjustable Torque key	Insert clamping torque	Torque key
			
R217/220.69-..	1/4HEX-S-HANDLE-0.8-5.0NM	0.5NM	T00-06P05

Torque and fixed keys, see page 872

Turbo 06 – R217/220.69-06 – Inch



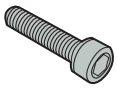
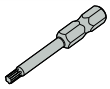


- For insert selection and cutting data recommendations, see page(s) 36-37
- For complete insert programme, see page(s) 843
- For ISO attribute explanation, see page 16
- KAPRS 90°

Designation	Item number	Type of mounting	DC	ZEFP	APMXS	APMXE	DCB	TDZ	DCSFMS	LF	RMPX°	C min	C max	RPMX	Weight	Insert
			inch		inch	inch	inch		inch	inch		inch	inch		lbs	
R217.69-01.00-12RE-06-7AN	02695013	Combimaster	1.000	7	0.197	0.118	–	M12	0.906	1.378	1.5	1.772	1.949	37600	0.440	XO.X06..
R220.69-01.50-06-10AN	02694915	Arbor	1.500	10	0.197	0.118	0.500	–	1.378	1.378	1.0	2.776	2.953	28000	0.660	XO.X06..

Modification of the cutter body needed for radii > 0.031 in
For Combimaster Shanks, see Machining Navigator Tooling System

Spare Parts, included in delivery

For cutter	Arbor screw	Insert key	Insert screw
			
R217.69-..	–	1/4HEX-T06PX50	C01804-T06P
R220.69-..	UC6S1/4UNFX1	1/4HEX-T06PX50	C01804-T06P

Accessories

For cutter	Adjustable Torque key	Insert clamping torque	Torque key
			
R217/220.69-..	1/4HEX-S-HANDLE-0.8-5.0NM	4.4IN.LBS	T00-06P05

Torque and fixed keys, see page 872

R217/220.69-06 – Insert selection – mm/*Inch*

SMG		a_p	f_z		
			100%	30%	10%
P1	XOMX060204R-M05 F40M	2,5 *0.10*	0,070 *0.0028*	0,080 *0.0032*	0,12 *0.0048*
P2	XOMX060204R-M05 F40M	2,5 *0.10*	0,070 *0.0028*	0,080 *0.0032*	0,12 *0.0048*
P3	XOMX060204R-M05 F40M	2,5 *0.10*	0,070 *0.0028*	0,075 *0.0030*	0,12 *0.0048*
P4	XOMX060204R-M05 F40M	2,5 *0.10*	0,065 *0.0026*	0,075 *0.0030*	0,11 *0.0044*
P5	XOMX060204R-M05 F40M	2,5 *0.10*	0,065 *0.0026*	0,070 *0.0028*	0,11 *0.0044*
P6	XOMX060204R-M05 F40M	2,5 *0.10*	0,065 *0.0026*	0,070 *0.0028*	0,11 *0.0044*
P7	XOMX060204R-M05 F40M	2,5 *0.10*	0,065 *0.0026*	0,070 *0.0028*	0,11 *0.0044*
P8	XOMX060204R-M05 F40M	2,5 *0.10*	0,070 *0.0028*	0,075 *0.0030*	0,12 *0.0048*
P11	XOMX060204R-M05 MP3000	2,5 *0.10*	0,065 *0.0026*	0,070 *0.0028*	0,11 *0.0044*
P12	XOMX060204R-M05 MP3000	2,0 *0.080*	0,046 *0.0018*	0,050 *0.0020*	0,075 *0.0030*
M1	XOMX060204R-M05 F40M	2,5 *0.10*	0,070 *0.0028*	0,080 *0.0032*	0,12 *0.0048*
M2	XOMX060204R-M05 F40M	2,5 *0.10*	0,065 *0.0026*	0,070 *0.0028*	0,11 *0.0044*
M3	XOMX060204R-M05 F40M	2,0 *0.080*	0,055 *0.0022*	0,060 *0.0024*	0,090 *0.0036*
M4	XOMX060204R-M05 MS2050	1,5 *0.060*	0,048 *0.0019*	0,050 *0.0020*	0,080 *0.0032*
M5	XOMX060204R-M05 MS2050	1,5 *0.060*	0,048 *0.0019*	0,050 *0.0020*	0,080 *0.0032*
K1	XOMX060204R-M05 MP3000	2,5 *0.10*	0,070 *0.0028*	0,080 *0.0032*	0,12 *0.0048*
K2	XOMX060204R-M05 MP3000	2,5 *0.10*	0,065 *0.0026*	0,070 *0.0028*	0,11 *0.0044*
K3	XOMX060204R-M05 MP3000	2,5 *0.10*	0,065 *0.0026*	0,070 *0.0028*	0,11 *0.0044*
K4	XOMX060204R-M05 MP3000	2,5 *0.10*	0,065 *0.0026*	0,070 *0.0028*	0,11 *0.0044*
K5	XOMX060204R-M05 MP3000	2,5 *0.10*	0,060 *0.0024*	0,065 *0.0026*	0,10 *0.0040*
K6	XOMX060204R-M05 MP3000	2,5 *0.10*	0,065 *0.0026*	0,070 *0.0028*	0,11 *0.0044*
K7	XOMX060204R-M05 MP3000	2,5 *0.10*	0,060 *0.0024*	0,065 *0.0026*	0,10 *0.0040*
N1	XOEX060204FR-E03 H15	2,5 *0.10*	0,075 *0.0030*	0,080 *0.0032*	0,12 *0.0048*
N2	XOEX060204FR-E03 H15	2,5 *0.10*	0,075 *0.0030*	0,080 *0.0032*	0,12 *0.0048*
N3	XOEX060204FR-E03 H15	2,5 *0.10*	0,075 *0.0030*	0,080 *0.0032*	0,12 *0.0048*
N11	XOEX060204FR-E03 H15	2,5 *0.10*	0,075 *0.0030*	0,080 *0.0032*	0,12 *0.0048*
S1	XOMX060204R-M05 F40M	1,5 *0.060*	0,048 *0.0019*	0,050 *0.0020*	0,080 *0.0032*
S2	XOMX060204R-M05 F40M	1,5 *0.060*	0,048 *0.0019*	0,050 *0.0020*	0,080 *0.0032*
S3	XOMX060204R-M05 F40M	1,5 *0.060*	0,044 *0.0017*	0,048 *0.0019*	0,075 *0.0030*
S11	XOMX060204R-M05 MS2050	1,7 *0.065*	0,055 *0.0022*	0,060 *0.0024*	0,090 *0.0036*
S12	XOMX060204R-M05 MS2050	1,7 *0.065*	0,055 *0.0022*	0,060 *0.0024*	0,090 *0.0036*
S13	XOMX060208R-M05 MS2050	1,5 *0.060*	0,050 *0.0020*	0,055 *0.0022*	0,085 *0.0034*
H5	XOMX060204R-M05 MP3000	2,0 *0.080*	0,046 *0.0018*	0,050 *0.0020*	0,075 *0.0030*
H8	XOMX060204R-M05 MP3000	1,7 *0.065*	0,034 *0.0013*	0,038 *0.0015*	0,060 *0.0024*
H11	XOMX060204R-M05 MP3000	2,0 *0.080*	0,046 *0.0018*	0,050 *0.0020*	0,075 *0.0030*
H12	XOMX060204R-M05 MP3000	1,7 *0.065*	0,034 *0.0013*	0,038 *0.0015*	0,060 *0.0024*

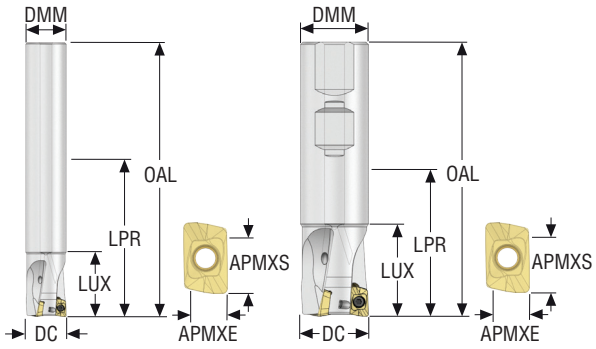
SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

R217/220.69-06 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	F30M			MP3000			MS2050			F40M			MM4500			H15		
	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%
P1	285 *940*	375 *1225*	440 *1450*	340 *1125*	450 *1475*	520 *1700*	300 *980*	395 *1300*	460 *1500*	275 *900*	360 *1175*	420 *1375*	220 *720*	290 *950*	340 *1125*	— —	— —	— —
P2	280 *920*	360 *1175*	425 *1400*	330 *1075*	430 *1400*	510 *1675*	290 *950*	380 *1250*	450 *1475*	265 *870*	345 *1125*	405 *1325*	215 *710*	280 *920*	330 *1075*	— —	— —	— —
P3	240 *790*	315 *1025*	375 *1225*	285 *940*	375 *1225*	445 *1450*	250 *820*	330 *1075*	390 *1275*	230 *750*	300 *980*	355 *1175*	185 *610*	245 *800*	290 *950*	— —	— —	— —
P4	215 *710*	280 *920*	330 *1075*	255 *840*	330 *1075*	395 *1300*	225 *740*	290 *950*	345 *1125*	205 *670*	265 *870*	315 *1025*	165 *540*	215 *710*	255 *840*	— —	— —	— —
P5	205 *670*	270 *890*	315 *1025*	245 *800*	320 *1050*	375 *1225*	215 *710*	280 *920*	330 *1075*	195 *640*	255 *840*	300 *980*	160 *520*	210 *690*	245 *800*	— —	— —	— —
P6	230 *750*	305 *1000*	355 *1175*	275 *900*	360 *1175*	420 *1375*	240 *790*	315 *1025*	370 *1225*	220 *720*	290 *950*	335 *1100*	180 *590*	235 *770*	275 *900*	— —	— —	— —
P7	215 *710*	285 *940*	335 *1100*	260 *850*	340 *1125*	395 *1300*	230 *750*	300 *980*	350 *1150*	205 *670*	270 *890*	320 *1050*	170 *560*	220 *720*	260 *850*	— —	— —	— —
P8	200 *660*	265 *870*	315 *1025*	240 *790*	315 *1025*	375 *1225*	210 *690*	280 *920*	330 *1075*	190 *620*	255 *840*	300 *980*	155 *510*	205 *670*	245 *800*	— —	— —	— —
P11	210 *690*	275 *900*	325 *1075*	250 *820*	330 *1075*	385 *1275*	220 *720*	290 *950*	340 *1125*	200 *660*	265 *870*	310 *1025*	165 *540*	215 *710*	250 *820*	— —	— —	— —
P12	135 *445*	175 *570*	205 *670*	160 *520*	210 *690*	245 *800*	140 *460*	185 *610*	215 *710*	130 *425*	170 *560*	195 *640*	105 *345*	135 *445*	160 *520*	— —	— —	— —
M1	225 *740*	290 *950*	345 *1125*	250 *820*	320 *1050*	380 *1250*	235 *770*	305 *1000*	360 *1175*	215 *710*	280 *920*	330 *1075*	185 *610*	240 *790*	285 *940*	— —	— —	— —
M2	185 *610*	245 *800*	285 *940*	205 *670*	270 *890*	315 *1025*	195 *640*	255 *840*	295 *970*	175 *570*	230 *750*	270 *890*	150 *490*	200 *660*	235 *770*	— —	— —	— —
M3	145 *475*	195 *640*	225 *740*	160 *520*	215 *710*	250 *820*	155 *510*	205 *670*	235 *770*	140 *460*	185 *610*	215 *710*	120 *395*	160 *520*	185 *610*	— —	— —	— —
M4	115 *375*	150 *490*	175 *570*	125 *410*	165 *540*	195 *640*	120 *395*	155 *510*	185 *610*	110 *360*	145 *475*	165 *540*	95 *310*	125 *410*	145 *475*	— —	— —	— —
M5	95 *310*	125 *410*	145 *475*	105 *345*	140 *460*	160 *520*	100 *330*	130 *425*	150 *490*	90 *295*	120 *395*	140 *460*	80 *260*	105 *345*	120 *395*	— —	— —	— —
K1	220 *720*	285 *940*	340 *1125*	265 *870*	340 *1125*	405 *1325*	— —	— —	— —	210 *690*	275 *900*	325 *1075*	— —	— —	— —	— —	— —	— —
K2	195 *640*	255 *840*	300 *980*	230 *750*	305 *1000*	355 *1175*	— —	— —	— —	185 *610*	245 *800*	285 *940*	— —	— —	— —	— —	— —	— —
K3	165 *540*	215 *710*	255 *840*	195 *640*	260 *850*	300 *980*	— —	— —	— —	155 *510*	205 *670*	240 *790*	— —	— —	— —	— —	— —	— —
K4	155 *510*	205 *670*	240 *790*	185 *610*	245 *800*	285 *940*	— —	— —	— —	150 *490*	195 *640*	230 *750*	— —	— —	— —	— —	— —	— —
K5	95 *310*	125 *410*	145 *475*	115 *375*	150 *490*	175 *570*	— —	— —	— —	90 *295*	120 *395*	140 *460*	— —	— —	— —	— —	— —	— —
K6	140 *460*	180 *590*	215 *710*	165 *540*	215 *710*	255 *840*	— —	— —	— —	130 *425*	175 *570*	205 *670*	— —	— —	— —	— —	— —	— —
K7	120 *395*	160 *520*	190 *620*	145 *475*	190 *620*	225 *740*	— —	— —	— —	115 *375*	150 *490*	180 *590*	— —	— —	— —	— —	— —	— —
N1	1650 *5425*	2150 *7050*	2550 *8375*	— —	— —	— —	— —	— —	— —	1575 *5175*	2050 *6725*	2425 *7950*	— —	— —	— —	1650 *5425*	2175 *7125*	2575 *8450*
N2	660 *2175*	870 *2850*	1025 *3375*	— —	— —	— —	— —	— —	— —	630 *2075*	830 *2725*	980 *3225*	— —	— —	— —	670 *2200*	880 *2875*	1050 *3450*
N3	445 *1450*	580 *1900*	690 *2275*	— —	— —	— —	— —	— —	— —	420 *1375*	550 *1800*	650 *2125*	— —	— —	— —	445 *1450*	590 *1925*	690 *2275*
N11	510 *1675*	660 *2175*	780 *2550*	— —	— —	— —	— —	— —	— —	480 *1575*	630 *2075*	750 *2450*	— —	— —	— —	510 *1675*	670 *2200*	790 *2600*
S1	— —	— —	— —	— —	— —	— —	55 *180*	75 *245*	85 *280*	50 *165*	65 *215*	80 *260*	29 *95*	38 *125*	44 *145*	— —	— —	— —
S2	— —	— —	— —	— —	— —	— —	45 *150*	60 *195*	70 *230*	41 *135*	55 *180*	60 *195*	23 *75*	30 *100*	35 *115*	— —	— —	— —
S3	— —	— —	— —	— —	— —	— —	39 *130*	50 *165*	60 *195*	36 *120*	47 *155*	55 *180*	20 *65*	26 *85*	31 *100*	— —	— —	— —
S11	— —	— —	— —	— —	— —	— —	80 *260*	100 *330*	120 *395*	70 *230*	95 *310*	110 *360*	40 *130*	55 *180*	60 *195*	— —	— —	— —
S12	— —	— —	— —	— —	— —	— —	55 *180*	70 *230*	80 *260*	49 *160*	65 *215*	75 *245*	37 *120*	48 *155*	55 *180*	— —	— —	— —
S13	— —	— —	— —	— —	— —	— —	31 *100*	41 *135*	48 *155*	29 *95*	37 *120*	44 *145*	22 *70*	28 *90*	33 *110*	— —	— —	— —
H5	45 *150*	60 *195*	70 *230*	50 *165*	65 *215*	75 *245*	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —
H8	47 *155*	60 *195*	70 *230*	55 *180*	70 *230*	80 *260*	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —
H11	55 *180*	75 *245*	85 *280*	65 *215*	85 *280*	95 *310*	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —
H12	85 *280*	110 *360*	130 *425*	100 *330*	130 *425*	155 *510*	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —

Turbo 10 – R217.69-10 – Metric



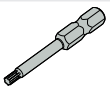


- For insert selection and cutting data recommendations, see page(s) 43-45
- For complete insert programme, see page(s) 844, 845
- For ISO attribute explanation, see page 16
- KAPRS 90°

Designation	Item number	Type of mounting	DC	ZEFP	APMXS	APMXE	DMM	LUX	LPR	OAL	RMPX°	Cmin	Cmax	RPMX	Weight	Insert
			mm		mm	mm	mm	mm	mm	mm		mm	mm		kg	
R217.69-1416.0-10-2A	02772250	Cylindrical	16,0	2	9,0	6,0	14,0	112,0	112,0	160,0	7,5	21,0	30,5	29400	0,2	XO.X10..
R217.69-1616.0-10-2A	02769179	Cylindrical	16,0	2	9,0	6,0	16,0	30,0	87,0	135,0	7,5	21,0	30,5	29400	0,2	XO.X10..
R217.69-1618.0-10-2A	02772252	Cylindrical	18,0	2	9,0	6,0	16,0	112,0	112,0	160,0	6,0	25,0	34,5	27800	0,3	XO.X10..
R217.69-1820.0-10-2A	02769205	Cylindrical	20,0	2	9,0	6,0	18,0	150,0	150,0	200,0	4,5	29,0	38,5	26300	0,4	XO.X10..
R217.69-2020.0-10-2A	02769206	Cylindrical	20,0	2	9,0	6,0	20,0	35,0	100,0	150,0	4,5	29,0	38,5	26300	0,4	XO.X10..
R217.69-2020.0-10-3A	02769209	Cylindrical	20,0	3	9,0	6,0	20,0	35,0	100,0	150,0	4,5	29,0	38,5	26300	0,4	XO.X10..
R217.69-2225.0-10-3A	02772253	Cylindrical	25,0	3	9,0	6,0	22,0	150,0	150,0	200,0	3,0	39,0	48,5	23500	0,6	XO.X10..
R217.69-2525.0-10-3A	02769218	Cylindrical	25,0	3	9,0	6,0	25,0	40,0	114,0	170,0	3,0	39,0	48,5	23500	0,6	XO.X10..
R217.69-2525.0-10-4A	02769224	Cylindrical	25,0	4	9,0	6,0	25,0	40,0	114,0	170,0	3,0	39,0	48,5	23500	0,6	XO.X10..
R217.69-3232.0-10-3A	02769230	Cylindrical	32,0	3	9,0	6,0	32,0	40,0	135,0	195,0	2,0	53,0	62,5	20800	1,2	XO.X10..
R217.69-3232.0-10-5A	02769231	Cylindrical	32,0	5	9,0	6,0	32,0	40,0	135,0	195,0	2,0	53,0	62,5	20800	1,2	XO.X10..
R217.69-1616.3-10-2A	02769180	Weldon	16,0	2	9,0	6,0	16,0	24,0	30,0	78,0	7,5	21,0	30,5	29400	0,2	XO.X10..
R217.69-2018.3-10-2A	02772254	Weldon	18,0	2	9,0	6,0	20,0	29,0	30,0	85,0	6,0	25,0	34,5	27800	0,2	XO.X10..
R217.69-2020.3-10-2A	02769210	Weldon	20,0	2	9,0	6,0	20,0	29,0	40,0	90,0	4,5	29,0	38,5	26300	0,2	XO.X10..
R217.69-2020.3-10-3A	02769212	Weldon	20,0	3	9,0	6,0	20,0	29,0	40,0	90,0	4,5	29,0	38,5	26300	0,2	XO.X10..
R217.69-2525.3-10-3A	02769225	Weldon	25,0	3	9,0	6,0	25,0	34,0	45,0	101,0	3,0	39,0	48,5	23500	0,4	XO.X10..
R217.69-2525.3-10-4A	02769227	Weldon	25,0	4	9,0	6,0	25,0	34,0	45,0	101,0	3,0	39,0	48,5	23500	0,3	XO.X10..
R217.69-3232.3-10-3A	02769232	Weldon	32,0	3	9,0	6,0	32,0	35,0	45,0	110,0	2,0	53,0	62,5	20800	0,7	XO.X10..
R217.69-3232.3-10-5A	02769233	Weldon	32,0	5	9,0	6,0	32,0	35,0	45,0	110,0	2,0	53,0	62,5	20800	0,6	XO.X10..

Modification of the cutter body needed for radii > 2,4 mm

Spare Parts, included in delivery

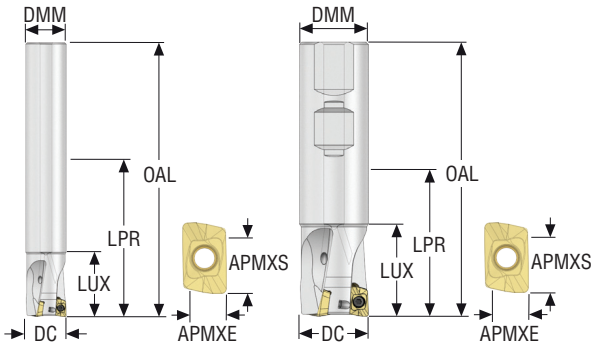
For cutter	Insert key	Insert screw
		
R217.69-..	1/4HEX-T07PX50	C02506-T07P

Accessories

For cutter	Adjustable Torque key	Insert clamping torque	Torque key
			
R217.69-..	1/4HEX-S-HANDLE-0.8-5.0NM	0.9NM	T00-07P09

Torque and fixed keys, see page 872

Turbo 10 – R217.69-10 – inch



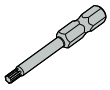


- For insert selection and cutting data recommendations, see page(s) 43-45
- For complete insert programme, see page(s) 844, 845
- For ISO attribute explanation, see page 16
- KAPRS 90°

Designation	Item number	Type of mounting	DC	ZEFP	APMXS	APMXE	DMM	LUX	LPR	OAL	RMPX°	C min	C max	RPMX	Weight	Insert
			inch		inch	inch	inch	inch	inch	inch		inch	inch		lbs	
R217.69-00.62-0-10-2A	02772633	Cylindrical	0.625	2	0.354	0.236	0.625	1.083	3.425	5.315	7,5	0.807	1.181	29400	0.660	XO.X10..
R217.69-00.75-0-10-2A	02772636	Cylindrical	0.750	2	0.354	0.236	0.750	1.181	3.937	5.906	5,0	1.063	1.437	26300	0.880	XO.X10..
R217.69-00.87-0-10-3A	02772719	Cylindrical	0.875	3	0.354	0.236	0.750	3.937	3.937	5.906	5,0	1.299	1.673	26300	0.880	XO.X10..
R217.69-01.00-0-10-3A	02772707	Cylindrical	1.000	3	0.354	0.236	1.000	1.280	4.488	6.693	3,0	1.555	1.929	23500	1.540	XO.X10..
R217.69-01.00-0-10-4A	02772710	Cylindrical	1.000	4	0.354	0.236	1.000	1.280	4.488	6.693	3,0	1.555	1.929	23500	1.320	XO.X10..
R217.69-01.25-0-10-5A	02772728	Cylindrical	1.250	5	0.354	0.236	1.250	1.240	5.315	7.677	2,0	2.067	2.441	20800	2.650	XO.X10..
R217.69-01.50-0-10-4A	02773425	Cylindrical	1.500	4	0.354	0.236	1.250	5.315	5.315	7.677	1,5	2.559	2.933	18600	2.650	XO.X10..
R217.69-00.50-3-10-1A	03058730	Weldon	0.500	1	0.354	0.236	0.625	1.083	1.378	3.252	3,0	1.516	1.890	33100	0.440	XO.X10..
R217.69-00.62-3-10-2A	02772634	Weldon	0.625	2	0.354	0.236	0.625	1.083	1.362	3.252	7,5	0.827	1.201	29400	0.440	XO.X10..
R217.69-00.75-3-10-2A	02772637	Weldon	0.750	2	0.354	0.236	0.750	1.189	1.374	3.390	5,0	1.063	1.437	26300	0.440	XO.X10..
R217.69-00.750-3-10-3A	02903111	Weldon	0.750	3	0.354	0.236	0.750	1.189	1.575	3.390	4,5	1.083	1.457	26300	0.440	XO.X10..
R217.69-00.87-3-10-3A	02772720	Weldon	0.875	3	0.354	0.236	0.750	1.421	1.421	3.390	5,0	1.319	1.693	25000	0.440	XO.X10..
R217.69-01.00-3-10-3A	02772711	Weldon	1.000	3	0.354	0.236	1.000	1.280	1.575	3.780	3,0	1.575	1.949	23500	0.660	XO.X10..
R217.69-01.00-3-10-4A	02772713	Weldon	1.000	4	0.354	0.236	1.000	1.280	1.575	3.780	3,0	1.575	1.949	23500	0.880	XO.X10..
R217.69-01.25-3-10-5A	02772731	Weldon	1.250	5	0.354	0.236	1.250	1.240	1.736	4.000	2,0	2.067	2.441	20800	1.320	XO.X10..
R217.69-01.50-3-10-4A	02773428	Weldon	1.500	4	0.354	0.236	1.250	1.736	1.736	4.000	1,5	2.579	2.953	18600	1.320	XO.X10..

Modification of the cutter body needed for radii > 0.094 in

Spare Parts, included in delivery

For cutter	Insert key	Insert screw
		
R217.69-..	1/4HEX-T07PX50	C02506-T07P

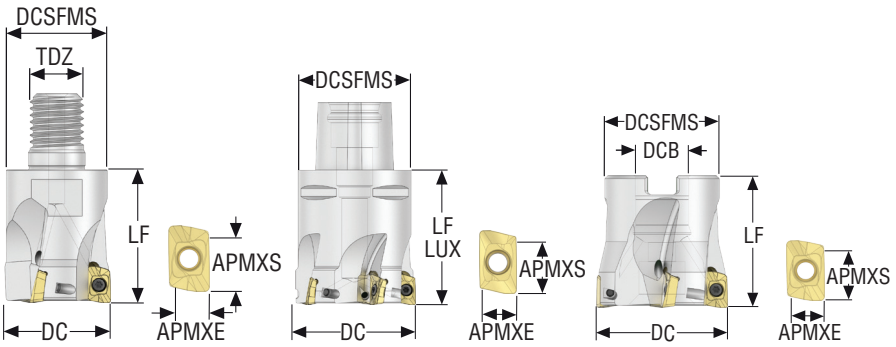
Accessories

For cutter	Adjustable Torque key	Insert clamping torque	Torque key
			
R217.69-..	1/4HEX-S-HANDLE-0.8-5.0NM	8.0IN.LBS	T00-07P09

Torque and fixed keys, see page 872

Turbo 10 – R217/220.69-10 – Metric



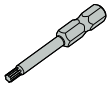


- For insert selection and cutting data recommendations, see page(s) 43-45
- For complete insert programme, see page(s) 844, 845
- For ISO attribute explanation, see page 16
- KAPRS 90°

Designation	Item number	Type of mounting	DC	ZEFP	APMXS	APMXE	DCB	TDZ	DCSFMS	LUX	LF	RMPX°	Cmin	Cmax	RPMX	Weight	Insert
			mm		mm	mm	mm		mm	mm	mm		mm	mm		kg	
R217.69-0816.RE-10-2A	02769181	Combimaster	16,0	2	9,0	6,0	–	M8	14,0	–	23,0	7,5	21,0	30,5	29400	0,1	XO.X10..
R217.69-1020.RE-10-2A	02769213	Combimaster	20,0	2	9,0	6,0	–	M10	19,0	–	28,0	4,5	29,0	38,5	26300	0,1	XO.X10..
R217.69-1020.RE-10-3A	02769214	Combimaster	20,0	3	9,0	6,0	–	M10	19,0	–	28,0	4,5	29,0	38,5	26300	0,1	XO.X10..
R217.69-1225.RE-10-3A	02769228	Combimaster	25,0	3	9,0	6,0	–	M12	23,0	–	30,0	3,0	39,0	48,5	23500	0,2	XO.X10..
R217.69-1225.RE-10-4A	02769229	Combimaster	25,0	4	9,0	6,0	–	M12	23,0	–	30,0	3,0	39,0	48,5	23500	0,1	XO.X10..
R217.69-1632.RE-10-3A	02769234	Combimaster	32,0	3	9,0	6,0	–	M16	30,0	–	40,0	2,0	53,0	62,5	20800	0,3	XO.X10..
R217.69-1632.RE-10-5A	02769235	Combimaster	32,0	5	9,0	6,0	–	M16	30,0	–	40,0	2,0	53,0	62,5	20800	0,3	XO.X10..
R217.69-2040.RE-10-4A	02769295	Combimaster	40,0	4	9,0	6,0	–	M20	36,5	–	40,0	1,5	69,0	78,5	18600	0,4	XO.X10..
R217.69-2040.RE-10-6A	02769296	Combimaster	40,0	6	9,0	6,0	–	M20	36,5	–	40,0	1,5	69,0	78,5	18600	0,4	XO.X10..
C4-R217.69-044-10-4A	02824179	Seco-Capto	44,0	4	9,0	6,0	–	–	40,0	60,0	60,0	1,3	77,0	86,5	28000	0,6	XO.X10..
C5-R217.69-054-10-5A	02824181	Seco-Capto	54,0	5	9,0	6,0	–	–	50,0	60,0	60,0	1,2	97,0	106,5	14200	1,0	XO.X10..
R220.69-0032-10-4A	02840940	Arbor	32,0	4	9,0	6,0	16,0	–	30,0	–	35,0	2,0	53,0	62,5	20800	0,2	XO.X10..
R220.69-0032-10-5A	02841295	Arbor	32,0	5	9,0	6,0	16,0	–	30,0	–	35,0	2,0	53,0	62,5	20800	0,3	XO.X10..
R220.69-0040-10-4A	02769302	Arbor	40,0	4	9,0	6,0	16,0	–	35,0	–	40,0	1,5	69,0	78,5	18600	0,3	XO.X10..
R220.69-0040-10-6A	02769304	Arbor	40,0	6	9,0	6,0	16,0	–	35,0	–	40,0	1,5	69,0	78,5	18600	0,3	XO.X10..
R220.69-0044-10-4A	02969079	Arbor	44,0	4	9,0	6,0	16,0	–	35,0	–	40,0	1,3	77,0	86,5	18600	0,3	XO.X10..
R220.69-0050-10-5A	02769710	Arbor	50,0	5	9,0	6,0	22,0	–	47,0	–	40,0	1,2	89,0	98,5	16600	0,4	XO.X10..
R220.69-0050-10-7A	02769713	Arbor	50,0	7	9,0	6,0	22,0	–	47,0	–	40,0	1,2	89,0	98,5	16600	0,5	XO.X10..
R220.69-0052-10-5A	02969080	Arbor	52,0	5	9,0	6,0	22,0	–	47,0	–	40,0	1,2	93,0	102,5	16400	0,5	XO.X10..
R220.69-0063-10-5A	02770205	Arbor	63,0	5	9,0	6,0	27,0	–	52,0	–	40,0	0,9	115,0	124,5	14800	0,7	XO.X10..
R220.69-0063-10-8A	02770206	Arbor	63,0	8	9,0	6,0	27,0	–	52,0	–	40,0	0,9	115,0	124,5	14800	0,6	XO.X10..
R220.69-0066-10-5A	02969081	Arbor	66,0	5	9,0	6,0	27,0	–	52,0	–	40,0	0,9	121,0	130,5	14800	0,7	XO.X10..
R220.69-0080-10-8A	02770207	Arbor	80,0	8	9,0	6,0	27,0	–	62,0	–	50,0	0,5	149,0	158,5	13200	1,1	XO.X10..
R220.69-0080-10-10A	02770208	Arbor	80,0	10	9,0	6,0	27,0	–	62,0	–	50,0	0,5	149,0	158,5	13200	1,0	XO.X10..
R220.69-0100-10-12A	02770209	Arbor	100,0	12	9,0	6,0	32,0	–	77,0	–	50,0	0,5	189,0	198,5	11800	1,8	XO.X10..

Modification of the cutter body needed for radii > 2,4 mm
For Combimaster Shanks, see Machining Navigator Tooling System

Spare Parts, included in delivery

For cutter	Arbor screw	Insert key	Insert screw
			
Cx/R217.69/R220.69-0080-0100	–	1/4HEX-T07PX50	C02506-T07P
R220.69-0032	220.17-690	1/4HEX-T07PX50	C02506-T07P
R220.69-0040-0044	MC6S8X30	1/4HEX-T07PX50	C02506-T07P
R220.69-0050-0052	220.17-692	1/4HEX-T07PX50	C02506-T07P
R220.69-0063-0066	220.17-693	1/4HEX-T07PX50	C02506-T07P

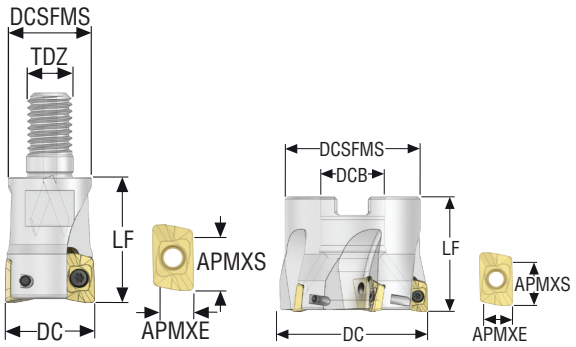
Accessories

For cutter	Adjustable Torque key	Insert clamping torque	Torque key
			
Cx-R217/220.69-..	1/4HEX-S-HANDLE-0.8-5.0NM	0.9NM	T00-07P09

Torque and fixed keys, see page 872

Turbo 10 – R217/220.69-10 – Inch



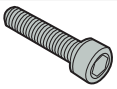
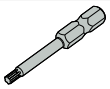


- For insert selection and cutting data recommendations, see page(s) 43-45
- For complete insert programme, see page(s) 844, 845
- For ISO attribute explanation, see page 16
- KAPRS 90°

Designation	Item number	Type of mounting	DC	ZEFP	APMXS	APMXE	DCB	TDZ	DCSFMS	LF	RMPX°	C min	C max	RPMX	Weight	Insert
			inch		inch	inch	inch		inch	inch		inch	inch		lbs	
R217.69-00.62-08RE-10-2A	02772627	Combimaster	0.625	2	0.354	0.236	–	M8	0.531	0.906	7.5	0.807	1.181	29400	0.220	XO.X10
R217.69-00.75-10RE-10-2A	02772635	Combimaster	0.750	2	0.354	0.236	–	M10	0.728	1.378	5.0	1.063	1.437	26300	0.440	XO.X10
R217.69-01.00-12RE-10-3A	02772703	Combimaster	1.000	3	0.354	0.236	–	M12	0.906	1.575	2.5	1.555	1.929	23500	0.440	XO.X10
R217.69-01.00-12RE-10-4A	02772705	Combimaster	1.000	4	0.354	0.236	–	M12	0.906	1.575	2.5	1.555	1.929	23500	0.440	XO.X10
R217.69-01.25-16RE-10-5A	02772725	Combimaster	1.250	5	0.354	0.236	–	M16	1.181	1.575	1.5	2.067	2.441	20800	0.440	XO.X10
R217.69-01.50-20RE-10-6A	03170244	Combimaster	1.500	6	0.354	0.236	–	M20	1.457	1.575	1.5	2.559	2.933	18600	0.880	XO.X10
R220.69-01.50-10-4A	02773432	Arbor	1.500	4	0.354	0.236	0.750	–	1.378	1.575	1.5	2.559	2.933	18600	0.440	XO.X10
R220.69-01.50-10-6A	02773433	Arbor	1.500	6	0.354	0.236	0.750	–	1.378	1.575	1.5	2.559	2.933	18600	0.660	XO.X10
R220.69-02.00-10-5A	02773434	Arbor	2.000	5	0.354	0.236	0.750	–	1.850	1.575	1.0	3.563	3.937	16600	1.100	XO.X10
R220.69-02.00-10-7A	02773435	Arbor	2.000	7	0.354	0.236	0.750	–	1.850	1.575	1.0	3.563	3.937	16600	1.100	XO.X10
R220.69-03.00-10-10A	02773438	Arbor	3.000	10	0.354	0.236	1.000	–	2.441	1.969	0.5	5.551	5.925	13200	2.430	XO.X10

Modification of the cutter body needed for radii > 0.094 in
For Combimaster Shanks, see Machining Navigator Tooling System

Spare Parts, included in delivery

For cutter	Arbor screw	Insert key	Insert screw
			
R217.69-..	–	1/4HEX-T07PX50	C02506-T07P
R220.69-01.50 - 02.00	UC6S3/8UNFX1	1/4HEX-T07PX50	C02506-T07P
R220.69-03.00	UC6S1/2UNFX1-1/4	1/4HEX-T07PX50	C02506-T07P

Accessories

For cutter	Adjustable Torque key	Insert clamping torque	Torque key
			
R217/220.69-..	1/4HEX-S-HANDLE-0.8-5.0NM	8.0IN.LBS	T00-07P09

Torque and fixed keys, see page 872

R217/220.69-10 – Insert selection – mm/*Inch*

SMG		a_p	f_z		
			100%	30%	10%
P1	XOMX10T308TR-ME07 F40M	4,5 *0.18*	0,10 *0.0040*	0,11 *0.0044*	0,17 *0.0065*
P2	XOMX10T308TR-ME07 F40M	4,5 *0.18*	0,10 *0.0040*	0,11 *0.0044*	0,17 *0.0065*
P3	XOMX10T308TR-ME07 MP2501	4,5 *0.18*	0,095 *0.0038*	0,11 *0.0044*	0,16 *0.0065*
P4	XOMX10T308TR-ME07 MP2501	4,5 *0.18*	0,095 *0.0038*	0,10 *0.0040*	0,16 *0.0065*
P5	XOMX10T308TR-M09 MP2501	4,5 *0.18*	0,12 *0.0048*	0,13 *0.0050*	0,20 *0.0080*
P6	XOMX10T308TR-M09 MP2501	4,5 *0.18*	0,12 *0.0048*	0,13 *0.0050*	0,20 *0.0080*
P7	XOMX10T308TR-M09 MP2501	4,5 *0.18*	0,12 *0.0048*	0,13 *0.0050*	0,20 *0.0080*
P8	XOMX10T308TR-M09 MP2501	4,5 *0.18*	0,12 *0.0048*	0,14 *0.0055*	0,20 *0.0080*
P11	XOMX10T308TR-M09 MP3501	4,5 *0.18*	0,12 *0.0048*	0,13 *0.0050*	0,20 *0.0080*
P12	XOMX10T308TR-M09 MS2500	3,5 *0.14*	0,080 *0.0032*	0,090 *0.0036*	0,14 *0.0055*
M1	XOEX10T308R-M06 F40M	4,5 *0.18*	0,085 *0.0034*	0,095 *0.0038*	0,15 *0.0060*
M2	XOEX10T308R-M06 F40M	4,5 *0.18*	0,080 *0.0032*	0,085 *0.0034*	0,13 *0.0050*
M3	XOEX10T308R-M06 F40M	3,5 *0.14*	0,065 *0.0026*	0,070 *0.0028*	0,11 *0.0044*
M4	XOEX10T308R-M06 MS2050	2,5 *0.10*	0,055 *0.0022*	0,065 *0.0026*	0,095 *0.0038*
M5	XOEX10T304R-M06 MS2050	2,5 *0.10*	0,055 *0.0022*	0,060 *0.0024*	0,090 *0.0036*
K1	XOMX10T308TR-M09 MK1500	4,5 *0.18*	0,13 *0.0050*	0,14 *0.0055*	0,22 *0.0085*
K2	XOMX10T308TR-M09 MK1500	4,5 *0.18*	0,12 *0.0048*	0,13 *0.0050*	0,20 *0.0080*
K3	XOMX10T308TR-M09 MK2050	4,5 *0.18*	0,12 *0.0048*	0,13 *0.0050*	0,20 *0.0080*
K4	XOMX10T308TR-M09 MK2050	4,5 *0.18*	0,12 *0.0048*	0,13 *0.0050*	0,20 *0.0080*
K5	XOMX10T308TR-M09 MK2050	4,5 *0.18*	0,11 *0.0044*	0,12 *0.0048*	0,18 *0.0070*
K6	XOMX10T308TR-M09 MK2050	4,5 *0.18*	0,12 *0.0048*	0,13 *0.0050*	0,20 *0.0080*
K7	XOMX10T308TR-M09 MK2050	4,5 *0.18*	0,11 *0.0044*	0,12 *0.0048*	0,18 *0.0070*
N1	XOEX10T308FR-E05 H15	4,5 *0.18*	0,095 *0.0038*	0,10 *0.0040*	0,15 *0.0060*
N2	XOEX10T308FR-E05 H15	4,5 *0.18*	0,095 *0.0038*	0,10 *0.0040*	0,15 *0.0060*
N3	XOEX10T308FR-E05 H15	4,5 *0.18*	0,095 *0.0038*	0,10 *0.0040*	0,15 *0.0060*
N11	XOEX10T308FR-E05 H15	4,5 *0.18*	0,095 *0.0038*	0,10 *0.0040*	0,15 *0.0060*
S1	XOEX10T308R-M06 F40M	2,5 *0.10*	0,055 *0.0022*	0,065 *0.0026*	0,095 *0.0038*
S2	XOEX10T308R-M06 F40M	2,5 *0.10*	0,055 *0.0022*	0,065 *0.0026*	0,095 *0.0038*
S3	XOEX10T308R-M06 F40M	2,5 *0.10*	0,055 *0.0022*	0,060 *0.0024*	0,090 *0.0036*
S11	XOEX10T308R-M06 MS2050	3,0 *0.12*	0,065 *0.0026*	0,070 *0.0028*	0,11 *0.0044*
S12	XOEX10T308R-M06 MS2050	3,0 *0.12*	0,065 *0.0026*	0,070 *0.0028*	0,11 *0.0044*
S13	XOEX10T308R-M06 MS2050	2,5 *0.10*	0,055 *0.0022*	0,065 *0.0026*	0,095 *0.0038*
H5	XOMX10T308TR-M09 MP3000	3,5 *0.14*	0,080 *0.0032*	0,090 *0.0036*	0,14 *0.0055*
H8	XOMX10T308TR-M09 MP3000	3,0 *0.12*	0,065 *0.0026*	0,070 *0.0028*	0,11 *0.0044*
H11	XOMX10T308TR-M09 MP1501	3,5 *0.14*	0,080 *0.0032*	0,090 *0.0036*	0,14 *0.0055*
H12	XOMX10T308TR-M09 MP1501	3,0 *0.12*	0,065 *0.0026*	0,070 *0.0028*	0,11 *0.0044*

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

R217/220.69-10 – Cutting data v_c = (m/min)/*(sf/min)*

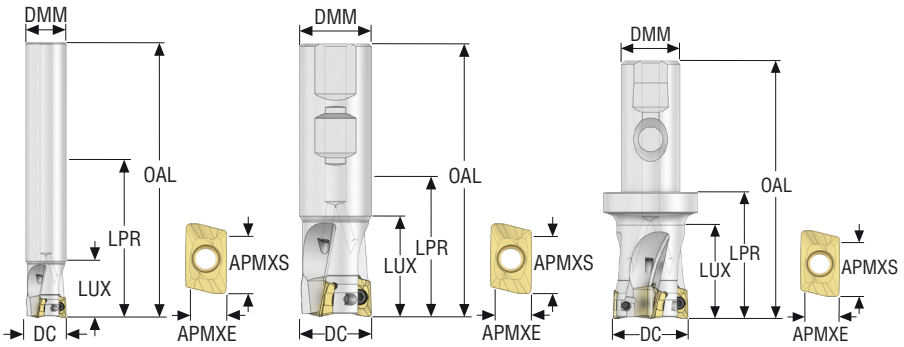
SMG	MK2050			MP3000			MS2050			F40M			MP2050			H15		
	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%
P1	285 *940*	380 *1250*	445 *1450*	275 *900*	365 *1200*	425 *1400*	280 *920*	365 *1200*	435 *1425*	255 *840*	335 *1100*	395 *1300*	330 *1075*	430 *1400*	510 *1675*	— —	— —	— —
P2	280 *920*	370 *1225*	435 *1425*	270 *890*	355 *1175*	415 *1350*	270 *890*	355 *1175*	425 *1400*	250 *820*	325 *1075*	385 *1275*	320 *1050*	420 *1375*	500 *1650*	— —	— —	— —
P3	245 *800*	325 *1075*	380 *1250*	235 *770*	310 *1025*	365 *1200*	240 *790*	310 *1025*	365 *1200*	215 *710*	280 *920*	330 *1075*	280 *920*	365 *1200*	430 *1400*	— —	— —	— —
P4	215 *710*	285 *940*	335 *1100*	210 *690*	275 *900*	325 *1075*	210 *690*	275 *900*	325 *1075*	190 *620*	250 *820*	295 *970*	245 *800*	320 *1050*	385 *1275*	— —	— —	— —
P5	205 *670*	275 *900*	320 *1050*	200 *660*	260 *850*	310 *1025*	200 *660*	265 *870*	310 *1025*	180 *590*	240 *790*	285 *940*	235 *770*	310 *1025*	365 *1200*	— —	— —	— —
P6	230 *750*	305 *1000*	360 *1175*	225 *740*	295 *970*	345 *1125*	225 *740*	295 *970*	350 *1150*	205 *670*	270 *890*	315 *1025*	265 *870*	350 *1150*	410 *1350*	— —	— —	— —
P7	220 *720*	290 *950*	340 *1125*	210 *690*	280 *920*	325 *1075*	210 *690*	280 *920*	330 *1075*	195 *640*	255 *840*	300 *980*	250 *820*	330 *1075*	390 *1275*	— —	— —	— —
P8	205 *670*	275 *900*	320 *1050*	200 *660*	260 *850*	310 *1025*	200 *660*	260 *850*	305 *1000*	180 *590*	235 *770*	280 *920*	235 *770*	310 *1025*	360 *1175*	— —	— —	— —
P11	210 *690*	280 *920*	330 *1075*	205 *670*	270 *890*	315 *1025*	205 *670*	270 *890*	320 *1050*	185 *610*	250 *820*	290 *950*	240 *790*	320 *1050*	375 *1225*	— —	— —	— —
P12	140 *460*	180 *590*	215 *710*	135 *445*	175 *570*	210 *690*	135 *445*	175 *570*	205 *670*	120 *395*	160 *520*	185 *610*	155 *510*	205 *670*	240 *790*	— —	— —	— —
M1	— —	— —	— —	200 *660*	265 *870*	310 *1025*	220 *720*	285 *940*	340 *1125*	200 *660*	260 *850*	310 *1025*	230 *750*	300 *980*	355 *1175*	— —	— —	— —
M2	— —	— —	— —	165 *540*	220 *720*	260 *850*	180 *590*	240 *790*	280 *920*	165 *540*	215 *710*	255 *840*	190 *620*	250 *820*	295 *970*	— —	— —	— —
M3	— —	— —	— —	135 *445*	180 *590*	210 *690*	145 *475*	190 *620*	220 *720*	130 *425*	175 *570*	200 *660*	150 *490*	200 *660*	230 *750*	— —	— —	— —
M4	— —	— —	— —	105 *345*	140 *460*	160 *520*	115 *375*	150 *490*	175 *570*	105 *345*	135 *445*	155 *510*	120 *395*	155 *510*	180 *590*	— —	— —	— —
M5	— —	— —	— —	90 *295*	115 *375*	135 *445*	95 *310*	125 *410*	145 *475*	85 *280*	110 *360*	130 *425*	100 *330*	130 *425*	150 *490*	— —	— —	— —
K1	300 *980*	400 *1300*	465 *1525*	210 *690*	280 *920*	330 *1075*	— —	— —	— —	195 *640*	255 *840*	305 *1000*	— —	— —	— —	— —	— —	— —
K2	265 *870*	355 *1175*	415 *1350*	190 *620*	250 *820*	295 *970*	— —	— —	— —	175 *570*	230 *750*	270 *890*	— —	— —	— —	— —	— —	— —
K3	225 *740*	300 *980*	350 *1150*	160 *520*	210 *690*	250 *820*	— —	— —	— —	145 *475*	195 *640*	225 *740*	— —	— —	— —	— —	— —	— —
K4	215 *710*	285 *940*	335 *1100*	150 *490*	200 *660*	235 *770*	— —	— —	— —	140 *460*	185 *610*	215 *710*	— —	— —	— —	— —	— —	— —
K5	130 *425*	175 *570*	205 *670*	95 *310*	120 *395*	145 *475*	— —	— —	— —	85 *280*	110 *360*	130 *425*	— —	— —	— —	— —	— —	— —
K6	190 *620*	250 *820*	295 *970*	135 *445*	175 *570*	210 *690*	— —	— —	— —	125 *410*	160 *520*	190 *620*	— —	— —	— —	— —	— —	— —
K7	170 *560*	220 *720*	260 *850*	120 *395*	155 *510*	185 *610*	— —	— —	— —	110 *360*	140 *460*	170 *560*	— —	— —	— —	— —	— —	— —
N1	— —	— —	— —	— —	— —	— —	— —	— —	— —	1450 *4750*	1925 *6325*	2275 *7475*	— —	— —	— —	1525 *5000*	2000 *6550*	2350 *7700*
N2	— —	— —	— —	— —	— —	— —	— —	— —	— —	590 *1925*	770 *2525*	920 *3025*	— —	— —	— —	610 *2000*	800 *2625*	950 *3125*
N3	— —	— —	— —	— —	— —	— —	— —	— —	— —	390 *1275*	520 *1700*	610 *2000*	— —	— —	— —	410 *1350*	540 *1775*	630 *2075*
N11	— —	— —	— —	— —	— —	— —	— —	— —	— —	445 *1450*	590 *1925*	700 *2300*	— —	— —	— —	470 *1550*	610 *2000*	720 *2350*
S1	— —	— —	— —	50 *165*	65 *215*	75 *245*	55 *180*	70 *230*	80 *260*	49 *160*	65 *215*	75 *245*	60 *195*	75 *245*	90 *295*	— —	— —	— —
S2	— —	— —	— —	40 *130*	50 *165*	60 *195*	43 *140*	55 *180*	65 *215*	39 *130*	50 *165*	60 *195*	47 *155*	60 *195*	70 *230*	— —	— —	— —
S3	— —	— —	— —	35 *115*	46 *150*	55 *180*	37 *120*	49 *160*	55 *180*	34 *110*	44 *145*	50 *165*	41 *135*	55 *180*	60 *195*	— —	— —	— —
S11	— —	— —	— —	— —	— —	— —	75 *245*	95 *310*	110 *360*	65 *215*	90 *295*	100 *330*	80 *260*	105 *345*	125 *410*	— —	— —	— —
S12	— —	— —	— —	— —	— —	— —	50 *165*	65 *215*	75 *245*	46 *150*	60 *195*	70 *230*	55 *180*	75 *245*	85 *280*	— —	— —	— —
S13	— —	— —	— —	— —	— —	— —	30 *100*	39 *130*	45 *150*	27 *90*	35 *115*	41 *135*	33 *110*	43 *140*	50 *165*	— —	— —	— —
H5	— —	— —	— —	42 *140*	55 *180*	65 *215*	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —
H8	— —	— —	— —	44 *145*	60 *195*	70 *230*	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —
H11	— —	— —	— —	55 *180*	70 *230*	80 *260*	— —	— —	— —	— —	— —	— —	60 *195*	80 *260*	90 *295*	— —	— —	— —
H12	— —	— —	— —	85 *280*	110 *360*	130 *425*	— —	— —	— —	— —	— —	— —	100 *330*	130 *425*	150 *490*	— —	— —	— —

R217/220.69-10 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	MK1500			MP1501			MP2501			MS2500			MP3501			MM4500		
	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%
P1	—	—	—	420	510	580	410	510	570	315	420	490	370	455	510	180	235	275
	—	—	—	*1375*	*1675*	*1900*	*1350*	*1675*	*1875*	*1025*	*1375*	*1600*	*1225*	*1500*	*1675*	*590*	*770*	*900*
P2	—	—	—	410	500	560	400	495	550	310	410	480	360	445	495	175	230	270
	—	—	—	*1350*	*1650*	*1825*	*1300*	*1625*	*1800*	*1025*	*1350*	*1575*	*1175*	*1450*	*1625*	*570*	*750*	*890*
P3	—	—	—	360	440	490	355	430	485	270	360	425	315	390	435	155	200	240
	—	—	—	*1175*	*1450*	*1600*	*1175*	*1400*	*1600*	*890*	*1175*	*1400*	*1025*	*1275*	*1425*	*510*	*660*	*790*
P4	—	—	—	315	385	430	310	380	425	240	315	370	280	340	385	135	180	210
	—	—	—	*1025*	*1275*	*1400*	*1025*	*1250*	*1400*	*790*	*1025*	*1225*	*920*	*1125*	*1275*	*445*	*590*	*690*
P5	—	—	—	300	370	415	295	365	410	230	300	355	265	325	365	130	170	200
	—	—	—	*980*	*1225*	*1350*	*970*	*1200*	*1350*	*750*	*980*	*1175*	*870*	*1075*	*1200*	*425*	*560*	*660*
P6	—	—	—	340	415	465	335	410	460	255	340	400	300	365	410	145	190	225
	—	—	—	*1125*	*1350*	*1525*	*1100*	*1350*	*1500*	*840*	*1125*	*1300*	*980*	*1200*	*1350*	*475*	*620*	*740*
P7	—	—	—	320	390	435	315	385	430	240	320	375	280	345	390	135	180	210
	—	—	—	*1050*	*1275*	*1425*	*1025*	*1275*	*1400*	*790*	*1050*	*1225*	*920*	*1125*	*1275*	*445*	*590*	*690*
P8	—	—	—	300	370	415	295	365	410	230	300	355	265	325	365	130	170	200
	—	—	—	*980*	*1225*	*1350*	*970*	*1200*	*1350*	*750*	*980*	*1175*	*870*	*1075*	*1200*	*425*	*560*	*660*
P11	—	—	—	310	380	425	305	375	420	235	310	365	275	335	380	130	175	205
	—	—	—	*1025*	*1250*	*1400*	*1000*	*1225*	*1375*	*770*	*1025*	*1200*	*900*	*1100*	*1250*	*425*	*570*	*670*
P12	—	—	—	200	240	265	195	235	260	155	200	240	180	210	235	85	115	135
	—	—	—	*660*	*790*	*870*	*640*	*770*	*850*	*510*	*660*	*790*	*590*	*690*	*770*	*280*	*375*	*445*
M1	—	—	—	—	—	—	205	270	315	220	295	345	190	250	295	150	200	230
	—	—	—	—	—	—	*670*	*890*	*1025*	*720*	*970*	*1125*	*620*	*820*	*970*	*490*	*660*	*750*
M2	—	—	—	—	—	—	170	225	260	185	240	285	155	210	245	125	165	190
	—	—	—	—	—	—	*560*	*740*	*850*	*610*	*790*	*940*	*510*	*690*	*800*	*410*	*540*	*620*
M3	—	—	—	—	—	—	140	180	210	150	195	230	130	170	195	100	135	155
	—	—	—	—	—	—	*460*	*590*	*690*	*490*	*640*	*750*	*425*	*560*	*640*	*330*	*445*	*510*
M4	—	—	—	—	—	—	110	140	165	115	155	175	100	130	150	80	105	120
	—	—	—	—	—	—	*360*	*460*	*540*	*375*	*510*	*570*	*330*	*425*	*490*	*260*	*345*	*395*
M5	—	—	—	—	—	—	90	120	135	100	130	150	85	110	125	65	85	100
	—	—	—	—	—	—	*295*	*395*	*445*	*330*	*425*	*490*	*280*	*360*	*410*	*215*	*280*	*330*
K1	320	420	495	410	510	570	405	500	560	245	325	380	365	450	500	—	—	—
	1050	*1375*	*1625*	*1350*	*1675*	*1875*	*1325*	*1650*	*1825*	*800*	*1075*	*1250*	*1200*	*1475*	*1650*	—	—	—
K2	280	370	440	365	445	500	360	440	495	215	285	335	320	395	445	—	—	—
	920	*1225*	*1450*	*1200*	*1450*	*1650*	*1175*	*1450*	*1625*	*710*	*940*	*1100*	*1050*	*1300*	*1450*	—	—	—
K3	240	315	370	310	375	420	305	370	415	185	245	285	270	335	375	—	—	—
	790	*1025*	*1225*	*1025*	*1225*	*1375*	*1000*	*1225*	*1350*	*610*	*800*	*940*	*890*	*1100*	*1225*	—	—	—
K4	225	300	355	295	360	405	290	355	400	175	230	270	260	320	360	—	—	—
	740	*980*	*1175*	*970*	*1175*	*1325*	*950*	*1175*	*1300*	*570*	*750*	*890*	*850*	*1050*	*1175*	—	—	—
K5	140	185	215	180	215	245	175	215	240	105	140	165	160	195	220	—	—	—
	460	*610*	*710*	*590*	*710*	*800*	*570*	*710*	*790*	*345*	*460*	*540*	*520*	*640*	*720*	—	—	—
K6	200	265	310	260	315	355	255	315	350	155	205	240	230	280	315	—	—	—
	660	*870*	*1025*	*850*	*1025*	*1175*	*840*	*1025*	*1150*	*510*	*670*	*790*	*750*	*920*	*1025*	—	—	—
K7	175	235	275	230	280	310	225	275	310	135	180	215	205	245	280	—	—	—
	570	*770*	*900*	*750*	*920*	*1025*	*740*	*900*	*1025*	*445*	*590*	*710*	*670*	*800*	*920*	—	—	—
N1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
N2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
N3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
N11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S1	—	—	—	—	—	—	—	—	—	55	75	85	47	60	70	24	32	37
	—	—	—	—	—	—	—	—	—	*180*	*245*	*280*	*155*	*195*	*230*	*80*	*105*	*120*
S2	—	—	—	—	—	—	—	—	—	46	60	70	38	50	55	19	25	29
	—	—	—	—	—	—	—	—	—	*150*	*195*	*230*	*125*	*165*	*180*	*60*	*80*	*95*
S3	—	—	—	—	—	—	—	—	—	40	55	60	33	43	50	17	22	26
	—	—	—	—	—	—	—	—	—	*130*	*180*	*195*	*110*	*140*	*165*	*55*	*70*	*85*
S11	—	—	—	—	—	—	—	—	—	80	105	120	65	85	100	34	44	50
	—	—	—	—	—	—	—	—	—	*260*	*345*	*395*	*215*	*280*	*330*	*110*	*145*	*165*
S12	—	—	—	—	—	—	—	—	—	55	75	85	45	60	70	31	41	47
	—	—	—	—	—	—	—	—	—	*180*	*245*	*280*	*150*	*195*	*230*	*100*	*135*	*155*
S13	—	—	—	—	—	—	—	—	—	32	42	49	26	35	40	18	24	27
	—	—	—	—	—	—	—	—	—	*105*	*140*	*160*	*85*	*115*	*130*	*60*	*80*	*90*
H5	—	—	—	55	70	80	—	—	—	47	60	70	41	55	65	—	—	—
	—	—	—	*180*	*230*	*260*	—	—	—	*155*	*195*	*230*	*135*	*180*	*215*	—	—	—
H8	—	—	—	55	75	85	—	—	—	49	65	75	44	55	65	—	—	—
	—	—	—	*180*	*245*	*280*	—	—	—	*160*	*215*	*245*	*145*	*180*	*215*	—	—	—
H11	—	—	—	70	90	105	—	—	—	60	75	90	50	70	80	—	—	—
	—	—	—	*230*	*295*	*345*	—	—	—	*195*	*245*	*295*	*165*	*230*	*260*	—	—	—
H12	—	—	—	100	130	155	—	—	—	100	130	150	80	100	120	—	—	—
	—	—	—	*330*	*425*	*510*	—	—	—	*330*	*425*	*490*	*260*	*330*	*395*	—	—	—

Turbo 12 – R217.69-12 – Metric



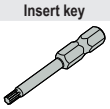


- For insert selection and cutting data recommendations, see page(s) 53-55
- For complete insert programme, see page(s) 846, 847
- For ISO attribute explanation, see page 16
- KAPRS 90°

Designation	Item number	Type of mounting	DC	ZEFP	APMXS	APMXE	DMM	LUX	LPR	OAL	RMPX°	Cmin	Cmax	RPMX	Weight	Insert
			mm		mm	mm	mm	mm	mm	mm		mm	mm		kg	
R217.69-1820.0-12-2AN	02676791	Cylindrical	20,0	2	11,0	7,0	18,0	100,0	100,0	150,0	8,0	27,5	38,0	23200	0,3	XO.X12..
R217.69-2020.0-12-2AN	02676793	Cylindrical	20,0	2	11,0	7,0	20,0	30,0	100,0	150,0	8,0	27,5	38,0	23200	0,4	XO.X12..
R217.69-2225.0-12-2AN	02676794	Cylindrical	25,0	2	11,0	7,0	22,0	114,0	114,0	170,0	5,0	37,5	48,0	20800	0,5	XO.X12..
R217.69-2525.0-12-2AN	02676795	Cylindrical	25,0	2	11,0	7,0	25,0	35,0	114,0	170,0	5,0	37,5	48,0	20800	0,6	XO.X12..
R217.69-2525.0-12-3AN	02676800	Cylindrical	25,0	3	11,0	7,0	25,0	35,0	114,0	170,0	5,0	37,5	48,0	20800	0,6	XO.X12..
R217.69-3032.0-12-3AN	02676801	Cylindrical	32,0	3	11,0	7,0	30,0	135,0	135,0	195,0	3,0	51,5	62,0	18400	1,0	XO.X12..
R217.69-3232.0-12-3AN	02676802	Cylindrical	32,0	3	11,0	7,0	32,0	40,0	135,0	195,0	3,0	51,5	62,0	18400	1,1	XO.X12..
R217.69-3232.0-12-4AN	02676803	Cylindrical	32,0	4	11,0	7,0	32,0	40,0	135,0	195,0	3,0	51,5	62,0	18400	1,1	XO.X12..
R217.69-2020.3-12-2AN	02676817	Weldon	20,0	2	11,0	7,0	20,0	30,0	35,0	85,0	8,0	27,5	38,0	23200	0,2	XO.X12..
R217.69-2525.3-12-3AN	02676819	Weldon	25,0	3	11,0	7,0	25,0	32,0	39,0	95,0	5,0	37,5	48,0	20800	0,3	XO.X12..
R217.69-3232.3-12-3AN	02676820	Weldon	32,0	3	11,0	7,0	32,0	37,0	45,0	105,0	3,0	51,5	62,0	18400	0,6	XO.X12..
R217.69-3232.3-12-4AN	02676823	Weldon	32,0	4	11,0	7,0	32,0	37,0	45,0	105,0	3,0	51,5	62,0	18400	0,6	XO.X12..
R217.69-2025.3S-12-3AN	02676812	Seco-Weldon	25,0	3	11,0	7,0	20,0	36,0	50,0	100,0	5,0	37,5	48,0	20800	0,3	XO.X12..
R217.69-2532.3S-12-4AN	02676814	Seco-Weldon	32,0	4	11,0	7,0	25,0	40,0	54,0	110,0	3,0	51,5	62,0	18400	0,5	XO.X12..
R217.69-3240.3S-12-5AN	02676815	Seco-Weldon	40,0	5	11,0	7,0	32,0	46,0	60,0	120,0	2,5	67,5	78,0	16400	0,9	XO.X12..

Modification of the cutter body needed for radii > 2,4 mm

Spare Parts, included in delivery

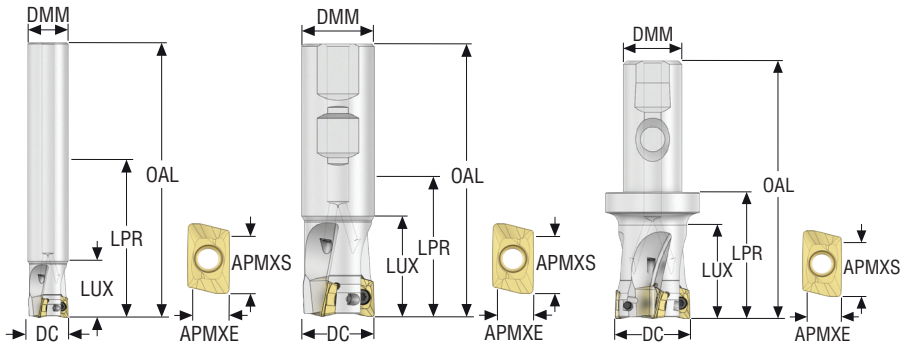
For cutter	Insert key	Insert screw
		
R217.69-.. Ø20-25	1/4HEX-T10PX50	C03507-T10P
R217.69-.. Ø32	1/4HEX-T10PX50	C03508-T10P
R217.69-.. Ø40	1/4HEX-T10PX50	C03509-T10P

Accessories

For cutter	Adjustable Torque key	Insert clamping torque	Torque key
			
R217.69-..	1/4HEX-S-HANDLE-0.8-5.0NM	3.0NM	T00-10P30

Torque and fixed keys, see page 872

Turbo 12 – R217.69-12 – inch



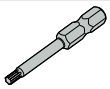


- For insert selection and cutting data recommendations, see page(s) 53-55
- For complete insert programme, see page(s) 846, 847
- For ISO attribute explanation, see page 16
- KAPRS 90°

Designation	Item number	Type of mounting	DC	ZEFP	APMXS	APMXE	DMM	LUX	LPR	OAL	RMPX°	C min	C max	RPMX	Weight	Insert
			inch		inch	inch	inch	inch	inch	inch		inch	inch		lbs	
R217.69-00.75-0-12-2AN	02688842	Cylindrical	0.750	2	0.433	0.276	0.750	1.181	3.937	5.906	8,0	1.004	1.417	23200	0.880	XO.X12
R217.69-00.87-0-12-2AN	02688849	Cylindrical	0.875	2	0.433	0.276	0.750	3.937	3.937	5.906	6,0	1.240	1.654	22000	0.880	XO.X12
R217.69-01.00-0-12-2AN	02688853	Cylindrical	1.000	2	0.433	0.276	1.000	1.378	4.488	6.693	5,0	1.476	1.890	20800	1.540	XO.X12
R217.69-01.00-0-12-3AN	02688854	Cylindrical	1.000	3	0.433	0.276	1.000	1.378	4.488	6.693	5,0	1.476	1.890	20800	1.320	XO.X12
R217.69-01.25-0-12-3AN	02688855	Cylindrical	1.250	3	0.433	0.276	1.250	1.575	5.315	7.677	3,0	1.988	2.421	18400	2.430	XO.X12
R217.69-00.75-3-12-2AN	02688950	Weldon	0.750	2	0.433	0.276	0.750	1.170	1.417	3.378	8,0	1.004	1.417	23200	0.440	XO.X12
R217.69-00.87-3-12-2AN	02688951	Weldon	0.875	2	0.433	0.276	0.750	1.409	1.409	3.378	6,0	1.240	1.654	22000	0.440	XO.X12
R217.69-01.00-3-12-3AN	02688954	Weldon	1.000	3	0.433	0.276	1.000	1.575	1.795	4.000	5,0	1.496	1.909	20800	0.880	XO.X12
R217.69-01.25-3-12-3AN	02688957	Weldon	1.250	3	0.433	0.276	1.250	1.339	1.890	4.252	3,0	2.008	2.421	18400	1.320	XO.X12
R217.69-01.25-3-12-4AN	02688960	Weldon	1.250	4	0.433	0.276	1.250	1.339	1.890	4.252	3,0	2.008	2.421	18400	1.320	XO.X12
R217.69-01.00-3S-12-3AN	02688974	Seco-Weldon	1.000	3	0.433	0.276	0.750	1.480	2.031	4.000	5,0	1.496	1.909	20800	0.660	XO.X12
R217.69-01.25-3S-12-4AN	02688976	Seco-Weldon	1.250	4	0.433	0.276	1.000	1.260	1.811	4.252	3,0	2.008	2.421	18400	1.100	XO.X12
R217.69-01.50-3S-12-5AN	02688996	Seco-Weldon	1.500	5	0.433	0.276	1.250	1.787	2.339	4.780	2,5	2.500	2.913	16400	1.760	XO.X12

Modification of the cutter body needed for radii > 0.094 in

Spare Parts, included in delivery

For cutter	Insert key	Insert screw
		
R217.69-..	1/4HEX-T10PX50	C03507-T10P

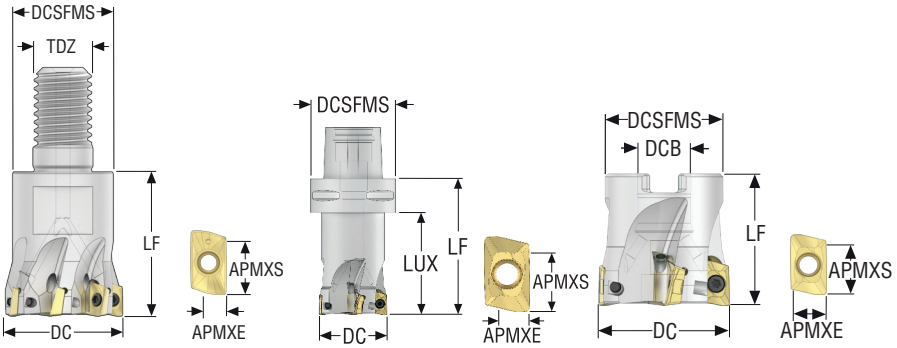
Accessories

For cutter	Adjustable Torque key	Insert clamping torque	Torque key
			
R217.69-..	1/4HEX-S-HANDLE-0.8-5.0NM	26.6IN.LBS	T00-10P30

Torque and fixed keys, see page 872

Turbo 12 – R217/220.69-12 – Metric



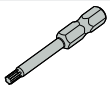


- For insert selection and cutting data recommendations, see page(s) 53-55
- For complete insert programme, see page(s) 846, 847
- For ISO attribute explanation, see page 16
- KAPRS 90°

Designation	Item number	Type of mounting	DC	ZEFP	APMXS	APMXE	DCB	TDZ	DCSFMS	LUX	LF	RMPX°	Cmin	Cmax	RPMX	Weight	Insert
			mm		mm	mm	mm		mm	mm	mm		mm	mm		kg	
R217.69-1020.RE-12-2AN	02676828	Combimaster	20,0	2	11,0	7,0	–	M10	18,0	–	28,0	8,0	27,5	38,0	23200	0,1	XO.X12..
R217.69-1225.RE-12-3AN	02676833	Combimaster	25,0	3	11,0	7,0	–	M12	23,0	–	30,0	5,0	37,5	48,0	20800	0,1	XO.X12..
R217.69-1632.RE-12-3AN	02676838	Combimaster	32,0	3	11,0	7,0	–	M16	30,0	–	40,0	3,0	51,5	62,0	18400	0,2	XO.X12..
R217.69-1632.RE-12-4AN	02676839	Combimaster	32,0	4	11,0	7,0	–	M16	30,0	–	40,0	3,0	51,5	62,0	18400	0,2	XO.X12..
R217.69-1640.RE-12-4AN	02676840	Combimaster	40,0	4	11,0	7,0	–	M16	30,0	–	40,0	2,5	67,5	78,0	16400	0,3	XO.X12..
R217.69-1640.RE-12-5AN	02676845	Combimaster	40,0	5	11,0	7,0	–	M16	30,0	–	40,0	2,5	67,5	78,0	16400	0,3	XO.X12..
R217.69-2040.RE-12-4AN	02972700	Combimaster	40,0	4	11,0	7,0	–	M20	36,5	–	40,0	2,5	67,5	78,0	16400	0,4	XO.X12..
R217.69-2040.RE-12-5AN	02972704	Combimaster	40,0	5	11,0	7,0	–	M20	36,5	–	40,0	2,5	67,5	78,0	16400	0,4	XO.X12..
C5-R217.69-040-12-4AN	02677616	Seco-Capto	40,0	4	11,0	7,0	–	–	50,0	57,0	80,0	2,5	67,5	78,0	16400	0,9	XO.X12..
C5-R217.69-054-12-5AN	02677619	Seco-Capto	54,0	5	11,0	7,0	–	–	50,0	60,0	60,0	1,7	95,5	106,0	14200	1,0	XO.X12..
R220.69-0032-12-3AN	02841296	Arbor	32,0	3	11,0	7,0	16,0	–	30,0	–	35,0	3,0	51,5	62,0	18400	0,2	XO.X12..
R220.69-0032-12-4AN	02841297	Arbor	32,0	4	11,0	7,0	16,0	–	30,0	–	35,0	3,0	51,5	62,0	18400	0,2	XO.X12..
R220.69-0040-12-4AN	02677566	Arbor	40,0	4	11,0	7,0	16,0	–	35,0	–	40,0	2,5	67,5	78,0	16400	0,3	XO.X12..
R220.69-0040-12-5AN	02677570	Arbor	40,0	5	11,0	7,0	16,0	–	35,0	–	40,0	2,5	67,5	78,0	16400	0,3	XO.X12..
R220.69-0044-12-4AN	02969083	Arbor	44,0	4	11,0	7,0	16,0	–	36,0	–	40,0	2,2	75,5	86,0	15600	0,3	XO.X12..
R220.69-0050-12-5AN	02677572	Arbor	50,0	5	11,0	7,0	22,0	–	47,0	–	40,0	2,0	87,5	98,0	14800	0,4	XO.X12..
R220.69-0050-12-7AN	02677573	Arbor	50,0	7	11,0	7,0	22,0	–	47,0	–	40,0	2,0	87,5	98,0	14800	0,4	XO.X12..
R220.69-0052-12-5AN	02497527	Arbor	52,0	5	11,0	7,0	22,0	–	47,0	–	40,0	1,7	91,5	102,0	14200	0,5	XO.X12..
R220.69-0063-12-6AN	02677576	Arbor	63,0	6	11,0	7,0	27,0	–	52,0	–	40,0	1,5	113,5	124,0	13200	0,6	XO.X12..
R220.69-0063-12-8AN	02677578	Arbor	63,0	8	11,0	7,0	27,0	–	52,0	–	40,0	1,5	113,5	124,0	13200	0,6	XO.X12..
R220.69-0066-12-6AN	02969085	Arbor	66,0	6	11,0	7,0	27,0	–	52,0	–	40,0	1,5	119,5	130,0	13200	0,6	XO.X12..
R220.69-0080-12-7AN	02677608	Arbor	80,0	7	11,0	7,0	27,0	–	62,0	–	50,0	1,0	147,5	158,0	11600	1,1	XO.X12..
R220.69-0080-12-10AN	02677581	Arbor	80,0	10	11,0	7,0	27,0	–	62,0	–	50,0	1,0	147,5	158,0	11600	1,1	XO.X12..
R220.69-0084-12-7AN	02969086	Arbor	84,0	7	11,0	7,0	27,0	–	62,0	–	50,0	1,0	155,5	166,0	11300	1,3	XO.X12..
R220.69-0100-12-8AN	02677610	Arbor	100,0	8	11,0	7,0	32,0	–	77,0	–	50,0	0,5	187,5	198,0	10400	1,8	XO.X12..
R220.69-0100-12-12AN	02677609	Arbor	100,0	12	11,0	7,0	32,0	–	77,0	–	50,0	0,5	187,5	198,0	10400	1,7	XO.X12..
R220.69-0125-12-10AN	02677611	Arbor	125,0	10	11,0	7,0	40,0	–	90,0	–	63,0	0,5	237,5	248,0	9200	3,2	XO.X12..
R220.69-0125-12-14AN	02677613	Arbor	125,0	14	11,0	7,0	40,0	–	90,0	–	63,0	0,5	237,5	248,0	9200	3,0	XO.X12..

Modification of the cutter body needed for radii > 2,4 mm
For Combimaster Shanks, see Machining Navigator Tooling System

Spare Parts, included in delivery

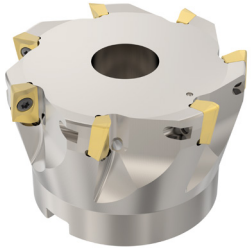
For cutter	Arbor screw	Insert key	Insert screw
			
R217.69-.. Ø20-25	–	1/4HEX-T10PX50	C03507-T10P
R217.69- Ø32	–	1/4HEX-T10PX50	C03508-T10P
R217.69- Ø40	–	1/4HEX-T10PX50	C03509-T10P
C5-R217.69-..	–	1/4HEX-T10PX50	C03509-T10P
R220.69-0032	220.17-690	1/4HEX-T10PX50	C03507-T10P
R220.69-0040-0044	MC6S8X30	1/4HEX-T10PX50	C03509-T10P
R220.69-0050-0052	220.17-692	1/4HEX-T10PX50	C03509-T10P
R220.69-0063-0066	220.17-693	1/4HEX-T10PX50	C03509-T10P
R220.69-0080-0084	–	1/4HEX-T10PX50	C03509-T10P
R220.69-0100-0125	–	1/4HEX-T10PX90	C03509-T10P

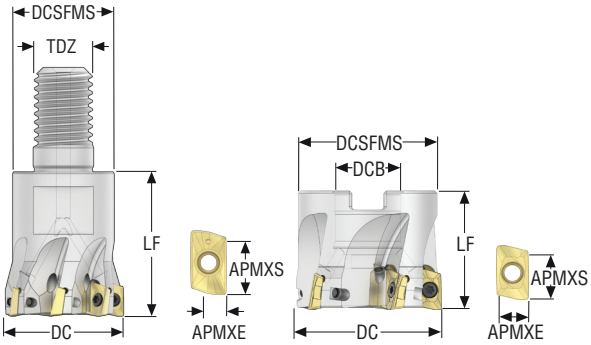
Accessories

For cutter	Adjustable Torque key	Insert clamping torque	Torque key
			
R217/220.69-..	1/4HEX-S-HANDLE-0.8-5.0NM	3.0NM	T00-10P30

Torque and fixed keys, see page 872

Turbo 12 – R217/220.69-12 – inch



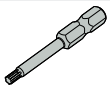


- For insert selection and cutting data recommendations, see page(s) 53-55
- For complete insert programme, see page(s) 846, 847
- For ISO attribute explanation, see page 16
- KAPRS 90°

Designation	Item number	Type of mounting	DC	ZEFP	APMXS	APMXE	DCB	TDZ	DCSFMS	LF	RMPX°	C min	C max	RPMX	Weight	Insert
			inch		inch	inch	inch		inch	inch		inch	inch		lbs	
R217.69-00.75-10RE-12-2AN	02689794	Combimaster	0.750	2	0.433	0.276	–	M10	0.709	1.378	8.0	1.004	1.417	23200	0.440	XO.X12
R217.69-01.00-12RE-12-3AN	02689797	Combimaster	1.000	3	0.433	0.276	–	M12	0.906	1.575	5.0	1.496	1.909	20800	0.440	XO.X12
R217.69-01.25-16RE-12-3AN	02689799	Combimaster	1.250	3	0.433	0.276	–	M16	1.181	1.575	3.0	2.008	2.421	18400	0.660	XO.X12
R217.69-01.25-16RE-12-4AN	02689801	Combimaster	1.250	4	0.433	0.276	–	M16	1.181	1.575	3.0	2.008	2.421	18400	0.660	XO.X12
R217.69-01.50-16RE-12-4AN	02689802	Combimaster	1.500	4	0.433	0.276	–	M16	1.181	1.575	2.5	2.500	2.913	16400	0.880	XO.X12
R217.69-01.50-16RE-12-5AN	02689805	Combimaster	1.500	5	0.433	0.276	–	M16	1.181	1.575	2.5	2.500	2.913	16400	0.660	XO.X12
R220.69-01.50-12-4AN	02689808	Arbor	1.500	4	0.433	0.276	0.750	–	1.378	1.575	2.5	2.500	2.913	16400	0.660	XO.X12
R220.69-01.50-12-5AN	02689809	Arbor	1.500	5	0.433	0.276	0.750	–	1.378	1.575	2.5	2.500	2.913	16400	0.660	XO.X12
R220.69-02.00-12-4AN	02689812	Arbor	2.000	4	0.433	0.276	0.750	–	1.850	1.575	2.0	3.504	3.917	14800	1.100	XO.X12
R220.69-02.00-12-5AN	02689813	Arbor	2.000	5	0.433	0.276	0.750	–	1.850	1.575	2.0	3.504	3.917	14800	1.100	XO.X12
R220.69-02.00-12-7AN	02689815	Arbor	2.000	7	0.433	0.276	0.750	–	1.850	1.575	2.0	3.504	3.917	14800	1.100	XO.X12
R220.69-02.50-12-4AN	02689816	Arbor	2.500	4	0.433	0.276	0.750	–	1.850	1.575	1.5	4.508	4.921	13200	1.320	XO.X12
R220.69-02.50-12-6AN	02689817	Arbor	2.500	6	0.433	0.276	0.750	–	1.850	1.575	1.5	4.508	4.921	13200	1.320	XO.X12
R220.69-03.00-12-4AN	02689820	Arbor	3.000	4	0.433	0.276	1.000	–	2.441	2.000	1.0	5.492	5.906	11600	2.200	XO.X12
R220.69-03.00-12-7AN	02689822	Arbor	3.000	7	0.433	0.276	1.000	–	2.441	2.000	1.0	5.492	5.906	11600	2.650	XO.X12
R220.69-03.00-12-10AN	02689821	Arbor	3.000	10	0.433	0.276	1.000	–	2.441	2.000	1.0	5.492	5.906	11600	2.650	XO.X12
R220.69-04.00-12-5AN	02689824	Arbor	4.000	5	0.433	0.276	1.500	–	3.543	2.000	0.5	7.500	7.913	10400	4.850	XO.X12
R220.69-04.00-12-8AN	02689826	Arbor	4.000	8	0.433	0.276	1.500	–	3.543	2.000	0.5	7.500	7.913	10400	5.070	XO.X12
R220.69-04.00-12-12AN	02689825	Arbor	4.000	12	0.433	0.276	1.500	–	3.543	2.000	0.5	7.500	7.913	10400	5.070	XO.X12

Modification of the cutter body needed for radii > 0.094 in
For Combimaster Shanks, see Machining Navigator Tooling System

Spare Parts, included in delivery

For cutter	Arbor screw	Insert key	Insert screw
			
R217.69-00.75 - 01.25	–	1/4HEX-T10PX50	C03507-T10P
R217.69- 01.50	–	1/4HEX-T10PX50	C03509-T10P
R220.69-01.50	220.17-698	1/4HEX-T10PX50	C03509-T10P
R220.69-02.00-02.50	UC6S3/8UNFX1	1/4HEX-T10PX50	C03509-T10P
R220.69-03.00	UC6S1/2UNFX1-1/4	1/4HEX-T10PX50	C03509-T10P
R220.69-04.00	UC6S3/4UNFX1-1/4	1/4HEX-T10PX90	C03509-T10P

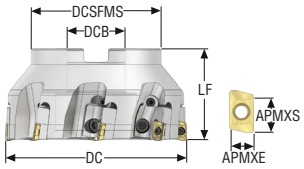
Accessories

For cutter	Adjustable Torque key	Insert clamping torque	Torque key
			
R217/220.69-..	1/4HEX-S-HANDLE-0.8-5.0NM	26.6IN.LBS	T00-10P30

Torque and fixed keys, see page 872

Turbo 12 – R217/220.69-12 – Metric



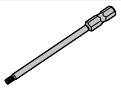


- For insert selection and cutting data recommendations, see page(s) 53-55
- For complete insert programme, see page(s) 846, 847
- For ISO attribute explanation, see page 16
- KAPRS 90°

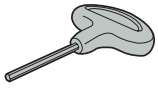
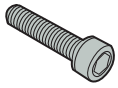
Designation	Item number	Type of mounting	DC	ZEFP	APMXS	APMXE	DCB	DCSFMS	LF	RMPX°	Cmin	Cmax	RPMX	Weight	Insert
			mm		mm	mm	mm	mm	mm		mm	mm		kg	
R220.69-0125-12-8CN	02706936	Arbor	125,0	8	11,0	7,0	40,0	90,0	63,0	0,5	237,5	248,0	9200	3,1	XO.X12..
R220.69-8160-12-10CN	02706940	Arbor	160,0	10	11,0	7,0	40,0	90,0	63,0	0,3	307,5	318,0	8200	5,3	XO.X12..
R220.69-8200-12-12CN	02706943	Arbor	200,0	12	11,0	7,0	60,0	130,0	63,0	0,3	387,5	398,0	7300	7,4	XO.X12..
R220.69-8250-12-16CN	02706945	Arbor	250,0	16	11,0	7,0	60,0	130,0	63,0	0,2	487,5	498,0	6500	14,8	XO.X12..

Modification of the cutter body needed for radii > 2,4 mm

Spare Parts, included in delivery

For cutter	Adjustment unit	Cassette	Cassette screw	Insert key	Insert screw
					
R220.69-0125-8250	AU1114T-T15P	XO12PRN	FS96018	1/4HEX-T10PX90	C03509-T10P

Accessories

For cutter	Adjustable Torque key	Allen key	Arbor screw	Insert clamping torque	Torque key
					
R220.69-0125	1/4HEX-S-HANDLE-0.8-5.0NM	H05-4	–	3.0NM	T00-10P30
R220.69-8160	1/4HEX-S-HANDLE-0.8-5.0NM	H05-4	MC6S12X40	3.0NM	T00-10P30
R220.69-8200-8250	1/4HEX-S-HANDLE-0.8-5.0NM	H05-4	MC6S16X50	3.0NM	T00-10P30

Torque and fixed keys, see page 872

R217/220.69-12 – Insert selection – mm/*Inch*

SMG		a_p	f_z		
			100%	30%	10%
P1	XOMX120408TR-ME08 F40M	5,0 *0.20*	0,11 *0.0044*	0,12 *0.0048*	0,19 *0.0075*
P2	XOMX120408TR-ME08 F40M	5,0 *0.20*	0,12 *0.0048*	0,13 *0.0050*	0,19 *0.0075*
P3	XOMX120408TR-M12 MP2501	5,0 *0.20*	0,16 *0.0065*	0,18 *0.0070*	0,28 *0.011*
P4	XOMX120408TR-M12 MP2501	5,0 *0.20*	0,16 *0.0065*	0,18 *0.0070*	0,26 *0.010*
P5	XOMX120408TR-M12 MP2501	5,0 *0.20*	0,16 *0.0065*	0,17 *0.0065*	0,26 *0.010*
P6	XOMX120408TR-M12 MP2501	5,0 *0.20*	0,16 *0.0065*	0,17 *0.0065*	0,26 *0.010*
P7	XOMX120408TR-M12 MP2501	5,0 *0.20*	0,16 *0.0065*	0,17 *0.0065*	0,26 *0.010*
P8	XOMX120408TR-M12 MP2501	5,0 *0.20*	0,16 *0.0065*	0,18 *0.0070*	0,28 *0.011*
P11	XOMX120408TR-M12 MP3501	5,0 *0.20*	0,16 *0.0065*	0,17 *0.0065*	0,26 *0.010*
P12	XOMX120408TR-M12 MP3000	4,5 *0.18*	0,11 *0.0044*	0,12 *0.0048*	0,18 *0.0070*
M1	XOEX120408R-M07 F40M	5,0 *0.20*	0,13 *0.0050*	0,14 *0.0055*	0,22 *0.0085*
M2	XOEX120408R-M07 F40M	5,0 *0.20*	0,12 *0.0048*	0,13 *0.0050*	0,20 *0.0080*
M3	XOEX120408R-M07 F40M	4,5 *0.18*	0,095 *0.0038*	0,10 *0.0040*	0,16 *0.0065*
M4	XOEX120408R-M07 MS2050	3,0 *0.12*	0,085 *0.0034*	0,095 *0.0038*	0,14 *0.0055*
M5	XOEX120408R-M07 MS2050	3,0 *0.12*	0,085 *0.0034*	0,095 *0.0038*	0,14 *0.0055*
K1	XOMX120408TR-M12 MK1500	5,0 *0.20*	0,17 *0.0065*	0,19 *0.0075*	0,30 *0.012*
K2	XOMX120408TR-M12 MK1500	5,0 *0.20*	0,16 *0.0065*	0,17 *0.0065*	0,26 *0.010*
K3	XOMX120408TR-M12 MK2050	5,0 *0.20*	0,16 *0.0065*	0,17 *0.0065*	0,26 *0.010*
K4	XOMX120408TR-M12 MK2050	5,0 *0.20*	0,16 *0.0065*	0,17 *0.0065*	0,26 *0.010*
K5	XOMX120408TR-M12 MK2050	5,0 *0.20*	0,14 *0.0055*	0,16 *0.0065*	0,24 *0.0095*
K6	XOMX120408TR-M12 MK2050	5,0 *0.20*	0,16 *0.0065*	0,17 *0.0065*	0,26 *0.010*
K7	XOMX120408TR-M12 MK2050	5,0 *0.20*	0,14 *0.0055*	0,16 *0.0065*	0,24 *0.0095*
N1	XOEX120408FR-E06 H15	5,0 *0.20*	0,13 *0.0050*	0,14 *0.0055*	0,22 *0.0085*
N2	XOEX120408FR-E06 H15	5,0 *0.20*	0,13 *0.0050*	0,14 *0.0055*	0,22 *0.0085*
N3	XOEX120408FR-E06 H15	5,0 *0.20*	0,13 *0.0050*	0,14 *0.0055*	0,22 *0.0085*
N11	XOEX120408FR-E06 H15	5,0 *0.20*	0,13 *0.0050*	0,14 *0.0055*	0,22 *0.0085*
S1	XOEX120408R-M07 F40M	3,0 *0.12*	0,085 *0.0034*	0,095 *0.0038*	0,14 *0.0055*
S2	XOEX120408R-M07 F40M	3,0 *0.12*	0,085 *0.0034*	0,095 *0.0038*	0,14 *0.0055*
S3	XOEX120408R-M07 F40M	3,0 *0.12*	0,080 *0.0032*	0,085 *0.0034*	0,13 *0.0050*
S11	XOEX120408R-M07 MS2050	4,0 *0.16*	0,095 *0.0038*	0,10 *0.0040*	0,16 *0.0065*
S12	XOEX120408R-M07 MS2050	4,0 *0.16*	0,095 *0.0038*	0,10 *0.0040*	0,16 *0.0065*
S13	XOEX120408R-M07 MS2050	3,0 *0.12*	0,085 *0.0034*	0,095 *0.0038*	0,14 *0.0055*
H5	XOMX120408TR-M12 MP3000	4,5 *0.18*	0,11 *0.0044*	0,12 *0.0048*	0,18 *0.0070*
H8	XOMX120408TR-M12 MP3000	4,0 *0.16*	0,085 *0.0034*	0,090 *0.0036*	0,14 *0.0055*
H11	XOMX120408TR-MD13 MP1501	4,5 *0.18*	0,12 *0.0048*	0,13 *0.0050*	0,20 *0.0080*
H12	XOMX120408TR-MD13 MP1501	4,0 *0.16*	0,090 *0.0036*	0,10 *0.0040*	0,15 *0.0060*

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

R217/220.69-12 – Cutting data v_c = (m/min)/*(sf/min)*

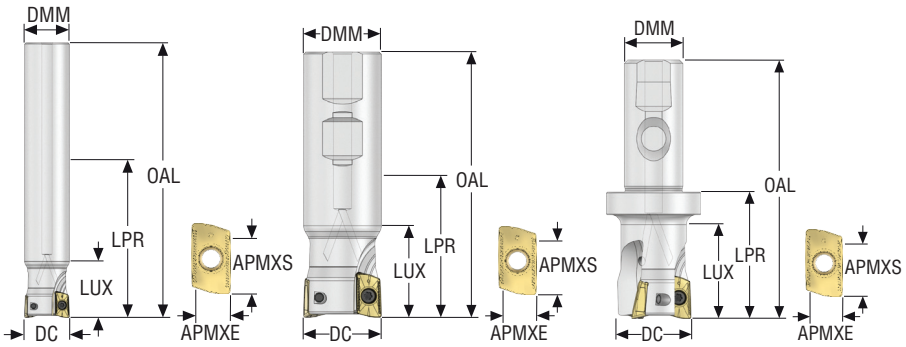
SMG	MK2050			MP3000			MS2050			F40M			MP2050			H15		
	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%
P1	260 *850*	340 *1125*	405 *1325*	250 *820*	325 *1075*	390 *1275*	255 *840*	335 *1100*	395 *1300*	230 *750*	305 *1000*	355 *1175*	300 *980*	395 *1300*	465 *1525*	— —	— —	— —
P2	255 *840*	330 *1075*	395 *1300*	245 *800*	320 *1050*	380 *1250*	245 *800*	325 *1075*	380 *1250*	225 *740*	300 *980*	350 *1150*	290 *950*	385 *1275*	450 *1475*	— —	— —	— —
P3	220 *720*	290 *950*	340 *1125*	215 *710*	280 *920*	325 *1075*	220 *720*	285 *940*	335 *1100*	200 *660*	260 *850*	305 *1000*	255 *840*	340 *1125*	400 *1300*	— —	— —	— —
P4	195 *640*	255 *840*	305 *1000*	185 *610*	245 *800*	295 *970*	190 *620*	255 *840*	295 *970*	175 *570*	230 *750*	270 *890*	225 *740*	300 *980*	350 *1150*	— —	— —	— —
P5	185 *610*	250 *820*	290 *950*	180 *590*	240 *790*	280 *920*	185 *610*	240 *790*	285 *940*	165 *540*	220 *720*	260 *850*	215 *710*	285 *940*	335 *1100*	— —	— —	— —
P6	210 *690*	280 *920*	325 *1075*	200 *660*	265 *870*	315 *1025*	205 *670*	270 *890*	325 *1075*	185 *610*	245 *800*	295 *970*	240 *790*	320 *1050*	380 *1250*	— —	— —	— —
P7	195 *640*	260 *850*	310 *1025*	190 *620*	250 *820*	295 *970*	195 *640*	255 *840*	305 *1000*	175 *570*	235 *770*	275 *900*	230 *750*	300 *980*	360 *1175*	— —	— —	— —
P8	185 *610*	245 *800*	285 *940*	180 *590*	235 *770*	275 *900*	185 *610*	240 *790*	285 *940*	165 *540*	220 *720*	260 *850*	215 *710*	285 *940*	335 *1100*	— —	— —	— —
P11	190 *620*	255 *840*	300 *980*	185 *610*	245 *800*	290 *950*	190 *620*	250 *820*	295 *970*	170 *560*	225 *740*	270 *890*	220 *720*	295 *970*	350 *1150*	— —	— —	— —
P12	125 *410*	165 *540*	195 *640*	120 *395*	160 *520*	190 *620*	125 *410*	160 *520*	190 *620*	115 *375*	145 *475*	175 *570*	145 *475*	190 *620*	225 *740*	— —	— —	— —
M1	— —	— —	— —	180 *590*	240 *790*	285 *940*	200 *660*	265 *870*	310 *1025*	180 *590*	240 *790*	280 *920*	210 *690*	275 *900*	325 *1075*	— —	— —	— —
M2	— —	— —	— —	150 *490*	200 *660*	235 *770*	165 *540*	215 *710*	255 *840*	150 *490*	200 *660*	230 *750*	170 *560*	230 *750*	265 *870*	— —	— —	— —
M3	— —	— —	— —	120 *395*	160 *520*	190 *620*	135 *445*	180 *590*	205 *670*	120 *395*	160 *520*	185 *610*	140 *460*	185 *610*	215 *710*	— —	— —	— —
M4	— —	— —	— —	95 *310*	125 *410*	150 *490*	105 *345*	135 *445*	160 *520*	95 *310*	125 *410*	145 *475*	110 *360*	145 *475*	165 *540*	— —	— —	— —
M5	— —	— —	— —	80 *260*	105 *345*	125 *410*	90 *295*	115 *375*	135 *445*	80 *260*	105 *345*	120 *395*	90 *295*	120 *395*	140 *460*	— —	— —	— —
K1	270 *890*	355 *1175*	425 *1400*	190 *620*	250 *820*	300 *980*	— —	— —	— —	180 *590*	235 *770*	275 *900*	— —	— —	— —	— —	— —	— —
K2	240 *790*	320 *1050*	375 *1225*	170 *560*	225 *740*	265 *870*	— —	— —	— —	160 *520*	210 *690*	245 *800*	— —	— —	— —	— —	— —	— —
K3	205 *670*	270 *890*	320 *1050*	145 *475*	190 *620*	225 *740*	— —	— —	— —	135 *445*	175 *570*	205 *670*	— —	— —	— —	— —	— —	— —
K4	195 *640*	260 *850*	305 *1000*	135 *445*	185 *610*	215 *710*	— —	— —	— —	130 *425*	170 *560*	200 *660*	— —	— —	— —	— —	— —	— —
K5	120 *395*	160 *520*	185 *610*	85 *280*	115 *375*	130 *425*	— —	— —	— —	80 *260*	100 *330*	120 *395*	— —	— —	— —	— —	— —	— —
K6	170 *560*	230 *750*	270 *890*	120 *395*	160 *520*	190 *620*	— —	— —	— —	110 *360*	150 *490*	175 *570*	— —	— —	— —	— —	— —	— —
K7	155 *510*	205 *670*	235 *770*	110 *360*	145 *475*	170 *560*	— —	— —	— —	100 *330*	130 *425*	155 *510*	— —	— —	— —	— —	— —	— —
N1	— —	— —	— —	— —	— —	— —	— —	— —	— —	1300 *4275*	1725 *5650*	2025 *6650*	— —	— —	— —	1400 *4600*	1850 *6075*	2175 *7125*
N2	— —	— —	— —	— —	— —	— —	— —	— —	— —	530 *1750*	700 *2300*	820 *2700*	— —	— —	— —	570 *1875*	750 *2450*	880 *2875*
N3	— —	— —	— —	— —	— —	— —	— —	— —	— —	350 *1150*	470 *1550*	550 *1800*	— —	— —	— —	380 *1250*	500 *1650*	580 *1900*
N11	— —	— —	— —	— —	— —	— —	— —	— —	— —	400 *1300*	530 *1750*	630 *2075*	— —	— —	— —	430 *1400*	570 *1875*	670 *2200*
S1	— —	— —	— —	45 *150*	60 *195*	70 *230*	49 *160*	65 *215*	75 *245*	45 *150*	60 *195*	70 *230*	55 *180*	70 *230*	80 *260*	— —	— —	— —
S2	— —	— —	— —	37 *120*	47 *155*	55 *180*	40 *130*	50 *165*	60 *195*	36 *120*	47 *155*	55 *180*	43 *140*	55 *180*	65 *215*	— —	— —	— —
S3	— —	— —	— —	32 *105*	42 *140*	49 *160*	35 *115*	45 *150*	55 *180*	31 *100*	41 *135*	48 *155*	38 *125*	49 *160*	60 *195*	— —	— —	— —
S11	— —	— —	— —	— —	— —	— —	70 *230*	90 *295*	105 *345*	60 *195*	80 *260*	95 *310*	75 *245*	100 *330*	115 *375*	— —	— —	— —
S12	— —	— —	— —	— —	— —	— —	47 *155*	60 *195*	70 *230*	43 *140*	55 *180*	65 *215*	50 *165*	70 *230*	80 *260*	— —	— —	— —
S13	— —	— —	— —	— —	— —	— —	28 *90*	36 *120*	42 *140*	25 *80*	33 *110*	38 *125*	30 *100*	40 *130*	46 *150*	— —	— —	— —
H5	— —	— —	— —	38 *125*	50 *165*	60 *195*	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —
H8	— —	— —	— —	40 *130*	55 *180*	60 *195*	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —
H11	— —	— —	— —	48 *155*	65 *215*	75 *245*	— —	— —	— —	— —	— —	— —	55 *180*	75 *245*	85 *280*	— —	— —	— —
H12	— —	— —	— —	80 *260*	100 *330*	120 *395*	— —	— —	— —	— —	— —	— —	95 *310*	120 *395*	140 *460*	— —	— —	— —

R217/220.69-12 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	MK1500			MP1501			MP2501			MS2500			MP3501			MM4500		
	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%
P1	—	—	—	380	465	530	370	455	520	335	440	510	330	410	470	185	250	290
	—	—	—	*1250*	*1525*	*1750*	*1225*	*1500*	*1700*	*1100*	*1450*	*1675*	*1075*	*1350*	*1550*	*610*	*820*	*950*
P2	—	—	—	370	455	520	360	445	510	325	430	500	325	400	455	180	240	280
	—	—	—	*1225*	*1500*	*1700*	*1175*	*1450*	*1675*	*1075*	*1400*	*1650*	*1075*	*1300*	*1500*	*590*	*790*	*920*
P3	—	—	—	325	395	445	320	390	440	285	375	440	285	350	395	160	210	250
	—	—	—	*1075*	*1300*	*1450*	*1050*	*1275*	*1450*	*940*	*1225*	*1450*	*940*	*1150*	*1300*	*520*	*690*	*820*
P4	—	—	—	285	350	400	280	345	395	250	330	390	250	305	355	140	185	220
	—	—	—	*940*	*1150*	*1300*	*920*	*1125*	*1300*	*820*	*1075*	*1275*	*820*	*1000*	*1175*	*460*	*610*	*720*
P5	—	—	—	270	340	380	265	335	375	240	315	370	240	300	335	135	180	210
	—	—	—	*890*	*1125*	*1250*	*870*	*1100*	*1225*	*790*	*1025*	*1225*	*790*	*980*	*1100*	*445*	*590*	*690*
P6	—	—	—	305	380	430	300	375	420	270	355	425	270	335	380	150	200	240
	—	—	—	*1000*	*1250*	*1400*	*980*	*1225*	*1375*	*890*	*1175*	*1400*	*890*	*1100*	*1250*	*490*	*660*	*790*
P7	—	—	—	290	360	405	285	355	400	255	335	400	255	315	355	145	190	225
	—	—	—	*950*	*1175*	*1325*	*940*	*1175*	*1300*	*840*	*1100*	*1300*	*840*	*1025*	*1175*	*475*	*620*	*740*
P8	—	—	—	270	335	375	265	325	370	240	315	370	240	295	330	135	180	210
	—	—	—	*890*	*1100*	*1225*	*870*	*1075*	*1225*	*790*	*1025*	*1225*	*790*	*970*	*1075*	*445*	*590*	*690*
P11	—	—	—	280	350	395	275	340	385	245	325	385	245	305	345	140	185	220
	—	—	—	*920*	*1150*	*1300*	*900*	*1125*	*1275*	*800*	*1075*	*1275*	*800*	*1000*	*1125*	*460*	*610*	*720*
P12	—	—	—	185	225	250	180	220	245	160	210	250	165	200	220	90	120	140
	—	—	—	*610*	*740*	*820*	*590*	*720*	*800*	*520*	*690*	*820*	*540*	*660*	*720*	*295*	*395*	*460*
M1	—	—	—	—	—	—	185	240	290	230	305	360	170	225	270	155	205	240
	—	—	—	—	—	—	*610*	*790*	*950*	*750*	*1000*	*1175*	*560*	*740*	*890*	*510*	*670*	*790*
M2	—	—	—	—	—	—	150	200	240	190	255	295	140	190	220	130	170	200
	—	—	—	—	—	—	*490*	*660*	*790*	*620*	*840*	*970*	*460*	*620*	*720*	*425*	*560*	*660*
M3	—	—	—	—	—	—	125	165	195	155	205	240	115	155	180	105	140	160
	—	—	—	—	—	—	*410*	*540*	*640*	*510*	*670*	*790*	*375*	*510*	*590*	*345*	*460*	*520*
M4	—	—	—	—	—	—	100	130	150	120	160	185	90	120	140	80	110	125
	—	—	—	—	—	—	*330*	*425*	*490*	*395*	*520*	*610*	*295*	*395*	*460*	*260*	*360*	*410*
M5	—	—	—	—	—	—	80	105	125	100	135	155	75	100	115	70	90	105
	—	—	—	—	—	—	*260*	*345*	*410*	*330*	*445*	*510*	*245*	*330*	*375*	*230*	*295*	*345*
K1	290	380	450	375	460	520	365	450	510	255	340	395	325	400	460	—	—	—
	950	*1250*	*1475*	*1225*	*1500*	*1700*	*1200*	*1475*	*1675*	*840*	*1125*	*1300*	*1075*	*1300*	*1500*	—	—	—
K2	255	340	400	330	410	460	325	400	455	225	300	355	290	360	410	—	—	—
	840	*1125*	*1300*	*1075*	*1350*	*1500*	*1075*	*1300*	*1500*	*740*	*980*	*1175*	*950*	*1175*	*1350*	—	—	—
K3	215	285	335	280	345	390	275	340	385	190	255	300	245	305	345	—	—	—
	710	*940*	*1100*	*920*	*1125*	*1275*	*900*	*1125*	*1275*	*620*	*840*	*980*	*800*	*1000*	*1125*	—	—	—
K4	205	275	320	265	330	375	260	325	365	185	240	285	235	290	330	—	—	—
	670	*900*	*1050*	*870*	*1075*	*1225*	*850*	*1075*	*1200*	*610*	*790*	*940*	*770*	*950*	*1075*	—	—	—
K5	125	170	195	165	205	225	160	200	225	110	145	175	145	180	200	—	—	—
	410	*560*	*640*	*540*	*670*	*740*	*520*	*660*	*740*	*360*	*475*	*570*	*475*	*590*	*660*	—	—	—
K6	180	240	285	235	290	330	230	285	325	160	215	250	205	255	290	—	—	—
	590	*790*	*940*	*770*	*950*	*1075*	*750*	*940*	*1075*	*520*	*710*	*820*	*670*	*840*	*950*	—	—	—
K7	165	215	250	210	260	290	205	255	285	145	190	225	185	230	255	—	—	—
	540	*710*	*820*	*690*	*850*	*950*	*670*	*840*	*940*	*475*	*620*	*740*	*610*	*750*	*840*	—	—	—
N1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
N2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
N3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
N11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S1	—	—	—	—	—	—	—	—	—	60	80	90	43	55	65	25	33	38
	—	—	—	—	—	—	—	—	—	*195*	*260*	*295*	*140*	*180*	*215*	*80*	*110*	*125*
S2	—	—	—	—	—	—	—	—	—	48	65	75	35	45	55	20	27	31
	—	—	—	—	—	—	—	—	—	*155*	*215*	*245*	*115*	*150*	*180*	*65*	*90*	*100*
S3	—	—	—	—	—	—	—	—	—	42	55	65	31	40	46	18	23	27
	—	—	—	—	—	—	—	—	—	*140*	*180*	*215*	*100*	*130*	*150*	*60*	*75*	*90*
S11	—	—	—	—	—	—	—	—	—	85	110	125	60	75	90	35	46	55
	—	—	—	—	—	—	—	—	—	*280*	*360*	*410*	*195*	*245*	*295*	*115*	*150*	*180*
S12	—	—	—	—	—	—	—	—	—	55	75	90	41	55	65	32	43	49
	—	—	—	—	—	—	—	—	—	*180*	*245*	*295*	*135*	*180*	*215*	*105*	*140*	*160*
S13	—	—	—	—	—	—	—	—	—	34	44	50	24	31	37	19	25	29
	—	—	—	—	—	—	—	—	—	*110*	*145*	*165*	*80*	*100*	*120*	*60*	*80*	*95*
H5	—	—	—	48	65	75	—	—	—	—	—	—	37	49	55	—	—	—
	—	—	—	*155*	*215*	*245*	—	—	—	—	—	—	*120*	*160*	*180*	—	—	—
H8	—	—	—	50	70	80	—	—	—	—	—	—	40	50	60	—	—	—
	—	—	—	*165*	*230*	*260*	—	—	—	—	—	—	*130*	*165*	*195*	—	—	—
H11	—	—	—	60	80	95	—	—	—	—	—	—	47	60	75	—	—	—
	—	—	—	*195*	*260*	*310*	—	—	—	—	—	—	*155*	*195*	*245*	—	—	—
H12	—	—	—	95	120	140	—	—	—	—	—	—	70	95	110	—	—	—
	—	—	—	*310*	*395*	*460*	—	—	—	—	—	—	*230*	*310*	*360*	—	—	—

Turbo 16 – R217.69-XO16 – Metric



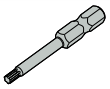


- For insert selection and cutting data recommendations, see page(s) 63-65
- For complete insert programme, see page(s) 848, 849
- For ISO attribute explanation, see page 16
- KAPRS 90°

Designation	Item number	Type of mounting	DC	ZEFP	APMXS	APMXE	DMM	LUX	LPR	OAL	RMPX°	Cmin	Cmax	RPMX	Weight	Insert
			mm		mm	mm	mm	mm	mm	mm		mm	mm		kg	
R217.69-2525.0-XO16-2A	03336100	Cylindrical	25,0	2	15,0	9,0	25,0	35,0	114,0	170,0	11,0	33,5	47,7	16700	0,6	XO.X16
R217.69-3232.0-XO16-2A	03336101	Cylindrical	32,0	2	15,0	9,0	32,0	40,0	135,0	195,0	6,0	47,5	61,7	14800	1,1	XO.X16
R217.69-3232.0-XO16-3A	03336102	Cylindrical	32,0	3	15,0	9,0	32,0	40,0	135,0	195,0	6,0	47,5	61,7	14800	1,1	XO.X16
R217.69-2525.3-XO16-2A	03336092	Weldon	25,0	2	15,0	9,0	25,0	38,0	44,0	100,0	11,0	33,5	47,7	16700	0,4	XO.X16
R217.69-3232.3-XO16-2A	03336093	Weldon	32,0	2	15,0	9,0	32,0	38,0	50,0	110,0	6,0	47,5	61,7	14800	0,6	XO.X16
R217.69-3232.3-XO16-3A	03336094	Weldon	32,0	3	15,0	9,0	32,0	38,0	50,0	110,0	6,0	47,5	61,7	14800	0,6	XO.X16
R217.69-2025.3S-XO16-2A	03336095	Seco-Weldon	25,0	2	15,0	9,0	20,0	40,0	50,0	100,0	11,0	33,5	47,7	16700	0,3	XO.X16
R217.69-2532.3S-XO16-2A	03336096	Seco-Weldon	32,0	2	15,0	9,0	25,0	40,0	54,0	110,0	6,0	47,5	61,7	14800	0,5	XO.X16
R217.69-2532.3S-XO16-3A	03336097	Seco-Weldon	32,0	3	15,0	9,0	25,0	40,0	54,0	110,0	6,0	47,5	61,7	14800	0,5	XO.X16
R217.69-3240.3S-XO16-3A	03336098	Seco-Weldon	40,0	3	15,0	9,0	32,0	46,0	60,0	120,0	3,5	63,5	77,7	13200	0,8	XO.X16
R217.69-3240.3S-XO16-4A	03336099	Seco-Weldon	40,0	4	15,0	9,0	32,0	46,0	60,0	120,0	3,5	63,5	77,7	13200	0,8	XO.X16

Modification of the cutter body needed for radii > 4,0 mm

Spare Parts, included in delivery

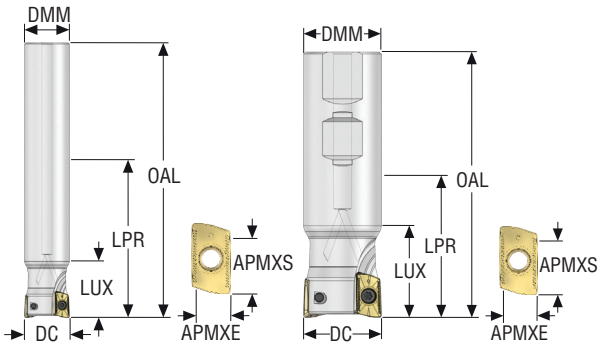
For cutter	Insert key	Insert screw
		
R217.69-2525-2532	1/4HEX-T15PX50	C04008-T15P
R217.69-3240	1/4HEX-T15PX50	C04009-T15P

Accessories

For cutter	Adjustable Torque key	Insert clamping torque	Torque key
			
R217.69-..	1/4HEX-S-HANDLE-0.8-5.0NM	3.5NM	T00-15P35

Torque and fixed keys, see page 872

Turbo 16 – R217.69-XO16 – inch



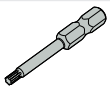


- For insert selection and cutting data recommendations, see page(s) 63-65
- For complete insert programme, see page(s) 848, 849
- For ISO attribute explanation, see page 16
- KAPRS 90°

Designation	Item number	Type of mounting	DC	ZEFP	APMXS	APMXE	DMM	LUX	LPR	OAL	RMPX°	C min	C max	RPMX	Weight	Insert
			inch		inch	inch	inch	inch	inch	inch		inch	inch		lbs	
R217.69-01.00-0-XO16-2A	03336134	Cylindrical	1.000	2	0.591	0.354	1.000	1.378	4.488	6.693	9,0	1.350	1.909	16600	1.320	XO.X16
R217.69-01.25-0-XO16-2A	03336135	Cylindrical	1.250	2	0.591	0.354	1.250	1.575	5.472	7.677	5,5	1.850	2.409	14800	2.430	XO.X16
R217.69-01.50-0-XO16-3A	03336136	Cylindrical	1.500	3	0.591	0.354	1.250	5.906	5.906	8.268	4,0	2.350	2.909	13500	2.650	XO.X16
R217.69-01.50-0-XO16-4A	03336137	Cylindrical	1.500	4	0.591	0.354	1.250	5.906	5.906	8.268	4,0	2.350	2.906	13500	2.650	XO.X16
R217.69-01.00-3-XO16-2A	03336130	Weldon	1.000	2	0.591	0.354	1.000	1.575	1.732	3.937	10,0	1.350	1.909	16600	0.660	XO.X16
R217.69-01.25-3-XO16-3A	03336131	Weldon	1.250	3	0.591	0.354	1.250	1.575	1.969	4.331	6,0	1.850	2.409	14800	1.320	XO.X16
R217.69-01.50-3-XO16-3A	03336132	Weldon	1.500	3	0.591	0.354	1.250	2.362	2.362	4.724	4,0	2.350	2.909	13500	1.540	XO.X16
R217.69-01.50-3-XO16-4A	03336133	Weldon	1.500	4	0.591	0.354	1.250	2.362	2.362	4.724	4,0	2.350	2.909	13500	1.540	XO.X16

Modification of the cutter body needed for radii > 0.158 in

Spare Parts, included in delivery

For cutter	Insert key	Insert screw
		
R217.69-01.00-01.25	1/4HEX-T15PX50	C04008-T15P
R217.69-01.50	1/4HEX-T15PX50	C04009-T15P

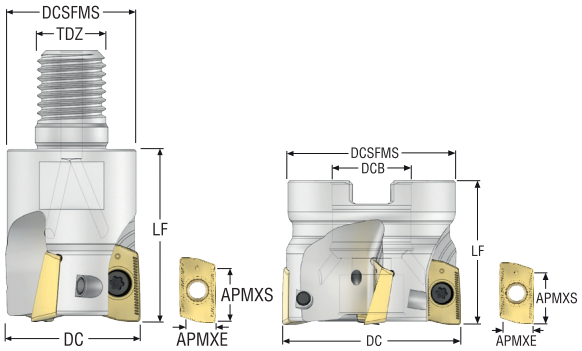
Accessories

For cutter	Adjustable Torque key	Insert clamping torque	Torque key
			
R217.69-..	1/4HEX-S-HANDLE-0.8-5.0NM	31.0IN.LBS	T00-15P35

Torque and fixed keys, see page 872

Turbo 16 – R217/220.69-XO16 – Metric



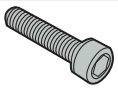
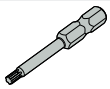
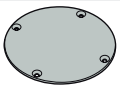


- For insert selection and cutting data recommendations, see page(s) 63-65
- For complete insert programme, see page(s) 848, 849
- For ISO attribute explanation, see page 16
- KAPRS 90°

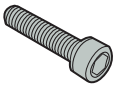
Designation	Item number	Type of mounting	DC	ZEFP	APMXS	APMXE	DCB	TDZ	DCSFMS	LF	RMPX°	Cmin	Cmax	RPMX	Weight	Insert
			mm		mm	mm	mm		mm	mm		mm	mm		kg	
R217.69-1225.RE-XO16-2A	03336103	Combimaster	25,0	2	15,0	9,0	–	M12	23,0	40,0	11,0	33,5	47,7	16700	0,2	XO.X16
R217.69-1632.RE-XO16-2A	03336104	Combimaster	32,0	2	15,0	9,0	–	M16	30,0	40,0	6,0	47,5	61,7	14800	0,2	XO.X16
R217.69-1632.RE-XO16-3A	03336105	Combimaster	32,0	3	15,0	9,0	–	M16	30,0	40,0	6,0	47,5	61,7	14800	0,2	XO.X16
R217.69-2040.RE-XO16-3A	03336106	Combimaster	40,0	3	15,0	9,0	–	M20	36,5	45,0	3,5	63,5	77,7	13200	0,4	XO.X16
R217.69-2040.RE-XO16-4A	03336107	Combimaster	40,0	4	15,0	9,0	–	M20	36,5	45,0	3,5	63,5	77,7	13200	0,4	XO.X16
R220.69-0040-XO16-3A	03336108	Arbor	40,0	3	15,0	9,0	16,0	–	35,0	40,0	3,5	63,5	77,7	13200	0,2	XO.X16
R220.69-0040-XO16-4A	03336109	Arbor	40,0	4	15,0	9,0	16,0	–	35,0	40,0	3,5	63,5	77,7	13200	0,3	XO.X16
R220.69-0050-XO16-4A	03336110	Arbor	50,0	4	15,0	9,0	22,0	–	47,0	40,0	2,6	83,5	97,7	11800	0,4	XO.X16
R220.69-0050-XO16-5A	03336111	Arbor	50,0	5	15,0	9,0	22,0	–	47,0	40,0	2,6	83,5	97,7	11800	0,4	XO.X16
R220.69-0050-XO16-6A	10010246	Arbor	50,0	6	15,0	9,0	22,0	–	47,0	40,0	2,6	83,5	97,7	11800	0,4	XO.X16
R220.69-0052-XO16-5A	03336112	Arbor	52,0	5	15,0	9,0	22,0	–	47,0	40,0	2,5	87,5	101,7	11600	0,4	XO.X16
R220.69-0063-XO16-5A	03336113	Arbor	63,0	5	15,0	9,0	27,0	–	56,0	40,0	2,0	109,5	123,7	10500	0,6	XO.X16
R220.69-0063-XO16-6A	03336115	Arbor	63,0	6	15,0	9,0	27,0	–	56,0	40,0	2,0	109,5	123,7	10500	0,6	XO.X16
R220.69-0063-XO16-7A	10010247	Arbor	63,0	7	15,0	9,0	27,0	–	56,0	40,0	2,0	109,5	123,7	10549	0,6	XO.X16
R220.69-0066-XO16-6A	03336117	Arbor	66,0	6	15,0	9,0	27,0	–	56,0	40,0	1,8	115,5	129,7	10300	0,6	XO.X16
R220.69-0080-XO16-6A	03336118	Arbor	80,0	6	15,0	9,0	27,0	–	62,0	50,0	1,5	143,5	157,7	9300	1,0	XO.X16
R220.69-0080-XO16-8A	03336119	Arbor	80,0	8	15,0	9,0	27,0	–	62,0	50,0	1,5	143,5	157,7	9300	1,0	XO.X16
R220.69-0080-XO16-9A	10010248	Arbor	80,0	9	15,0	9,0	27,0	–	62,0	50,0	1,5	143,5	157,7	9300	1,0	XO.X16
R220.69-0084-XO16-8A	03336120	Arbor	84,0	8	15,0	9,0	27,0	–	62,0	50,0	1,3	151,5	165,7	9100	1,1	XO.X16
R220.69-0100-XO16-8A	03336121	Arbor	100,0	8	15,0	9,0	32,0	–	77,0	50,0	1,1	183,5	197,7	8300	1,6	XO.X16
R220.69-0100-XO16-10A	03336122	Arbor	100,0	10	15,0	9,0	32,0	–	77,0	50,0	1,1	183,5	197,7	8300	1,6	XO.X16
R220.69-0125-XO16-10A	03336123	Arbor	125,0	10	15,0	9,0	40,0	–	90,0	63,0	0,85	233,5	247,7	7400	3,0	XO.X16
R220.69-0125-XO16-12A	03336124	Arbor	125,0	12	15,0	9,0	40,0	–	90,0	63,0	0,85	234,0	247,0	7400	3,0	XO.X16
R220.69-8160-XO16-11A	03336125	Arbor	160,0	11	15,0	9,0	40,0	–	90,0	63,0	0,65	303,5	317,7	6600	5,0	XO.X16
R220.69-8160-XO16-13A	03336126	Arbor	160,0	13	15,0	9,0	40,0	–	90,0	63,0	0,65	303,5	317,7	6600	5,0	XO.X16

Modification of the cutter body needed for radii > 4,0 mm
For Combimaster Shanks, see Machining Navigator Tooling System

Spare Parts, included in delivery

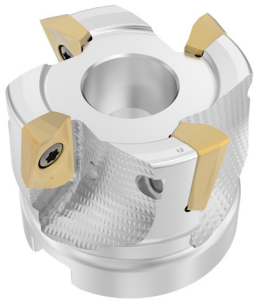
For cutter	Arbor screw	Insert key	Insert screw	Lid	Lid screw
					
R217.69-1225-1632	–	1/4HEX-T15PX50	C04008-T15P	–	–
R217.69-2040	–	1/4HEX-T15PX50	C04009-T15P	–	–
R220.69-0040	TCEI0825	1/4HEX-T15PX50	C04009-T15P	–	–
R220.69-0050-0052	220.17-692	1/4HEX-T15PX50	C04009-T15P	–	–
R220.69-0063-0066	MLC6S12X30	1/4HEX-T15PX50	C04009-T15P	–	–
R220.69-0080-0084	–	1/4HEX-T15PX50	C04009-T15P	–	–
R220.69-0100-0125	–	1/4HEX-T15PX90	C04009-T15P	–	–
R220.69-8160	–	1/4HEX-T15PX90	C04009-T15P	SC-160-90	MF6S4X10

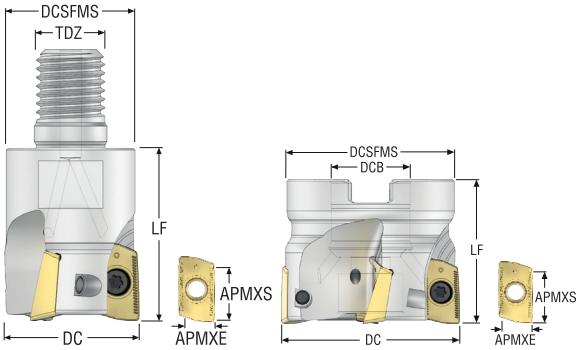
Accessories

For cutter	Adjustable Torque key	Arbor screw	Insert clamping torque	Torque key
				
R217/220.69-1225-0125	1/4HEX-S-HANDLE-0.8-5.0NM	–	3.5NM	T00-15P35
R220.69-8160	1/4HEX-S-HANDLE-0.8-5.0NM	MC6S12X40	3.5NM	T00-15P35

Torque and fixed keys, see page 872

Turbo 16 – R217/220.69-XO16 – inch



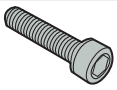
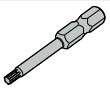
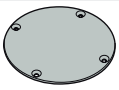


- For insert selection and cutting data recommendations, see page(s) 63-65
- For complete insert programme, see page(s) 848, 849
- For ISO attribute explanation, see page 16
- KAPRS 90°

Designation	Item number	Type of mounting	DC	ZEFP	APMXS	APMXE	DCB	TDZ	DCSFMS	LF	RMPX°	C min	C max	RPMX	Weight	Insert
			inch		inch	inch	inch		inch	inch		inch	inch		lbs	
R217.69-01.00-12RE-XO16-2A	03336138	Combimaster	1.000	2	0.591	0.354	–	M12	0.906	1.575	11.0	1.350	1.909	16600	0.440	XO.X16
R217.69-01.25-16RE-XO16-3A	03336139	Combimaster	1.250	3	0.591	0.354	–	M16	1.181	1.575	6.0	1.850	2.409	14800	0.440	XO.X16
R217.69-01.50-20RE-XO16-4A	03336140	Combimaster	1.500	4	0.591	0.354	–	M20	1.437	1.772	4.0	2.350	2.909	13500	0.880	XO.X16
R220.69-01.50-XO16-4A	03336141	Arbor	1.500	4	0.591	0.354	0.500	–	1.378	1.575	4.0	2.350	2.909	13500	0.660	XO.X16
R220.69-02.00-XO16-4A	03336142	Arbor	2.000	4	0.591	0.354	0.750	–	1.850	1.575	2.5	3.350	3.909	11700	0.880	XO.X16
R220.69-02.00-XO16-5A	03336143	Arbor	2.000	5	0.591	0.354	0.750	–	1.850	1.575	2.5	3.350	3.909	11700	0.880	XO.X16
R220.69-02.00-XO16-6A	03336144	Arbor	2.000	6	0.591	0.354	0.750	–	1.850	1.575	2.5	3.350	3.909	11700	0.660	XO.X16
R220.69-02.50-XO16-5A	03336145	Arbor	2.500	5	0.591	0.354	0.750	–	1.850	1.575	2.0	4.350	4.909	10500	1.320	XO.X16
R220.69-02.50-XO16-6A	03336146	Arbor	2.500	6	0.591	0.354	0.750	–	1.850	1.575	2.0	4.370	4.882	10500	1.320	XO.X16
R220.69-03.00-XO16-6A	03336147	Arbor	3.000	6	0.591	0.354	1.000	–	2.441	1.969	1.5	5.354	5.906	9500	2.650	XO.X16
R220.69-03.00-XO16-8A	03336148	Arbor	3.000	8	0.591	0.354	1.000	–	2.441	1.969	1.5	5.354	5.906	9500	2.430	XO.X16
R220.69-04.00-XO16-8A	03336149	Arbor	4.000	8	0.591	0.354	1.500	–	3.543	1.969	1.1	7.362	7.874	8300	4.410	XO.X16
R220.69-04.00-XO16-10A	03336150	Arbor	4.000	10	0.591	0.354	1.500	–	3.543	1.969	1.1	7.362	7.874	8300	4.410	XO.X16
R220.69-05.00-XO16-9A	03336151	Arbor	5.000	9	0.591	0.354	1.500	–	3.543	2.480	0.85	9.370	9.882	7400	7.940	XO.X16
R220.69-06.00-XO16-12A	10000967	Arbor	6.000	12	0.591	0.354	2.000	–	4.331	2.480	0.7	11.378	11.890	6700	10.360	XO.X16

Modification of the cutter body needed for radii > 0.158 in
For Combimaster Shanks, see Machining Navigator Tooling System

Spare Parts, included in delivery

For cutter	Arbor screw	Insert key	Insert screw	Lid	Lid screw
					
R217.69-01.00-01.25	–	1/4HEX-T15PX50	C04008-T15P	–	–
R217.69-01.50	–	1/4HEX-T15PX50	C04009-T15P	–	–
R220.69-01.50	UC6S1/4UNFX1	1/4HEX-T15PX50	C04009-T15P	–	–
R220.69-02.00-02.50	UC6S3/8UNFX1	1/4HEX-T15PX50	C04009-T15P	–	–
R220.69-03.00	UC6S1/2UNFX1-1/4	1/4HEX-T15PX50	C04009-T15P	–	–
R220.69-04.00	UF6S3/4UNFX2	1/4HEX-T15PX90	C04009-T15P	–	–
R220.69-05.00	UC6S3/4UNFX1-1/4	1/4HEX-T15PX90	C04009-T15P	–	–
R220.69-06.00	–	1/4HEX-T15PX90	C04009-T15P	SC-160-90	MF6S4X10

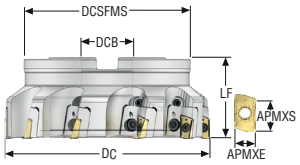
Accessories

For cutter	Adjustable Torque key	Arbor screw	Insert clamping torque	Torque key
				
R217/220.69-01.00-05.00	1/4HEX-S-HANDLE-0.8-5.0NM	–	31.0IN.LBS	T00-15P35
R220.69-06.00	1/4HEX-S-HANDLE-0.8-5.0NM	58215080	31.0IN.LBS	T00-15P35

Torque and fixed keys, see page 872

Turbo 16 – R220.69-XO16 – Metric



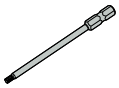
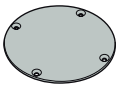


- For insert selection and cutting data recommendations, see page(s) 63-65
- For complete insert programme, see page(s) 848, 849
- For ISO attribute explanation, see page 16
- KAPRS 90°

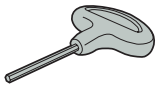
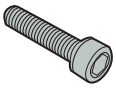
Designation	Item number	Type of mounting	DC	ZEFP	APMXS	APMXE	DCB	DCSFMS	LF	RMPX°	Cmin	Cmax	RPMX	Weight	Insert
			mm		mm	mm	mm	mm	mm		mm	mm		kg	
R220.69-0125-XO16-8CA	03336127	Arbor	125,0	8	15,0	9,0	40,0	90,0	63,0	0,85	233,5	247,7	7400	2,8	XO.X16
R220.69-8160-XO16-10CA	10000966	Arbor	160,0	10	15,0	9,0	40,0	90,0	63,0	0,65	303,5	317,7	6600	4,7	XO.X16
R220.69-8200-XO16-12CA	03336128	Arbor	200,0	12	15,0	9,0	60,0	130,0	63,0	0,5	383,5	397,7	5900	6,6	XO.X16
R220.69-8250-XO16-16CA	03336129	Arbor	250,0	16	15,0	9,0	60,0	130,0	63,0	0,4	483,5	497,7	5200	13,3	XO.X16

Modification of the cutter body needed for radii > 4,0 mm

Spare Parts, included in delivery

For cutter	Adjustment unit	Cassette	Cassette screw	Insert key	Insert screw	Lid	Lid screw
							
R220.69-0125	AU1114T-T15P	XO16PRA	FS96018	1/4HEX-T15PX90	C04009-T15P	–	–
R220.69-8160	AU1114T-T15P	XO16PRA	FS96018	1/4HEX-T15PX90	C04009-T15P	SC-160-90	MF6S4X10
R220.69-8200	AU1114T-T15P	XO16PRA	FS96018	1/4HEX-T15PX90	C04009-T15P	SC-200-90	MF6S4X8
R220.69-8250	AU1114T-T15P	XO16PRA	FS96018	1/4HEX-T15PX90	C04009-T15P	SC-250-90	MF6S4X10

Accessories

For cutter	Adjustable Torque key	Allen key	Arbor screw	Insert clamping torque	Torque key
					
R220.69-0125	1/4HEX-S-HANDLE-0.8-5.0NM	H05-4	–	3.5NM	T00-15P35
R220.69-8160-8200	1/4HEX-S-HANDLE-0.8-5.0NM	H05-4	MC6S12X40	3.5NM	T00-15P35
R220.69-8200-8250	1/4HEX-S-HANDLE-0.8-5.0NM	H05-4	MC6S16X50	3.5NM	T00-15P35

Torque and fixed keys, see page 872

R217/220.69-16 – Insert selection – mm/*Inch*

SMG		a_p	f_z		
			100%	30%	10%
P1	XOMX160508TR-ME11 F40M	7,0 *0.28*	0,16 *0.0065*	0,17 *0.0065*	0,26 *0.010*
P2	XOMX160508TR-ME11 F40M	7,0 *0.28*	0,16 *0.0065*	0,17 *0.0065*	0,26 *0.010*
P3	XOMX160508TR-M13 MP2501	7,0 *0.28*	0,18 *0.0070*	0,19 *0.0075*	0,30 *0.012*
P4	XOMX160508TR-M13 MP2501	7,0 *0.28*	0,17 *0.0065*	0,19 *0.0075*	0,30 *0.012*
P5	XOMX160508TR-M13 MP2501	7,0 *0.28*	0,17 *0.0065*	0,19 *0.0075*	0,28 *0.011*
P6	XOMX160508TR-M13 MP2501	7,0 *0.28*	0,17 *0.0065*	0,18 *0.0070*	0,28 *0.011*
P7	XOMX160508TR-M13 MP2501	7,0 *0.28*	0,17 *0.0065*	0,18 *0.0070*	0,28 *0.011*
P8	XOMX160508TR-M13 MP2501	7,0 *0.28*	0,18 *0.0070*	0,19 *0.0075*	0,30 *0.012*
P11	XOMX160508TR-M13 MP3501	7,0 *0.28*	0,17 *0.0065*	0,18 *0.0070*	0,28 *0.011*
P12	XOMX160508TR-M13 MP3000	6,0 *0.24*	0,12 *0.0048*	0,13 *0.0050*	0,19 *0.0075*
M1	XOEX160508R-M09 F40M	7,0 *0.28*	0,13 *0.0050*	0,14 *0.0055*	0,22 *0.0085*
M2	XOEX160508R-M09 F40M	7,0 *0.28*	0,12 *0.0048*	0,13 *0.0050*	0,20 *0.0080*
M3	XOEX160508R-M09 F40M	6,0 *0.24*	0,095 *0.0038*	0,10 *0.0040*	0,16 *0.0065*
M4	XOEX160516R-M09 MS2050	4,5 *0.18*	0,085 *0.0034*	0,095 *0.0038*	0,15 *0.0060*
M5	XOEX160516R-M09 MS2050	4,5 *0.18*	0,085 *0.0034*	0,095 *0.0038*	0,15 *0.0060*
K1	XOMX160508TR-M13 MK1500	7,0 *0.28*	0,19 *0.0075*	0,20 *0.0080*	0,32 *0.013*
K2	XOMX160508TR-M13 MK1500	7,0 *0.28*	0,17 *0.0065*	0,19 *0.0075*	0,28 *0.011*
K3	XOMX160508TR-M13 MK2050	7,0 *0.28*	0,17 *0.0065*	0,19 *0.0075*	0,28 *0.011*
K4	XOMX160508TR-M13 MK2050	7,0 *0.28*	0,17 *0.0065*	0,19 *0.0075*	0,28 *0.011*
K5	XOMX160508TR-M13 MK2050	7,0 *0.28*	0,15 *0.0060*	0,17 *0.0065*	0,26 *0.010*
K6	XOMX160508TR-M13 MK2050	7,0 *0.28*	0,17 *0.0065*	0,19 *0.0075*	0,28 *0.011*
K7	XOMX160508TR-M13 MK2050	7,0 *0.28*	0,15 *0.0060*	0,17 *0.0065*	0,26 *0.010*
N1	XOEX160508FR-E07 H25	7,0 *0.28*	0,13 *0.0050*	0,14 *0.0055*	0,22 *0.0085*
N2	XOEX160508FR-E07 H25	7,0 *0.28*	0,13 *0.0050*	0,14 *0.0055*	0,22 *0.0085*
N3	XOEX160508FR-E07 H25	7,0 *0.28*	0,13 *0.0050*	0,14 *0.0055*	0,22 *0.0085*
N11	XOEX160508FR-E07 H25	7,0 *0.28*	0,13 *0.0050*	0,14 *0.0055*	0,22 *0.0085*
S1	XOEX160516R-M09 F40M	4,5 *0.18*	0,085 *0.0034*	0,095 *0.0038*	0,15 *0.0060*
S2	XOEX160516R-M09 F40M	4,5 *0.18*	0,085 *0.0034*	0,095 *0.0038*	0,15 *0.0060*
S3	XOEX160516R-M09 F40M	4,5 *0.18*	0,080 *0.0032*	0,090 *0.0036*	0,13 *0.0050*
S11	XOEX160508R-M09 MS2050	5,0 *0.20*	0,095 *0.0038*	0,10 *0.0040*	0,16 *0.0065*
S12	XOEX160508R-M09 MS2050	5,0 *0.20*	0,095 *0.0038*	0,10 *0.0040*	0,16 *0.0065*
S13	XOEX160508R-M09 MS2050	4,5 *0.18*	0,085 *0.0034*	0,090 *0.0036*	0,14 *0.0055*
H5	XOMX160508TR-M13 MP3000	6,0 *0.24*	0,12 *0.0048*	0,13 *0.0050*	0,19 *0.0075*
H8	XOMX160508TR-M13 MP3000	5,0 *0.20*	0,090 *0.0036*	0,095 *0.0038*	0,15 *0.0060*
H11	XOMX160508TR-MD14 MP1501	6,0 *0.24*	0,12 *0.0048*	0,14 *0.0055*	0,20 *0.0080*
H12	XOMX160508TR-MD14 MP1501	5,0 *0.20*	0,095 *0.0038*	0,10 *0.0040*	0,16 *0.0065*

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

R217/220.69-16 – Cutting data v_c = (m/min)/*(sf/min)*

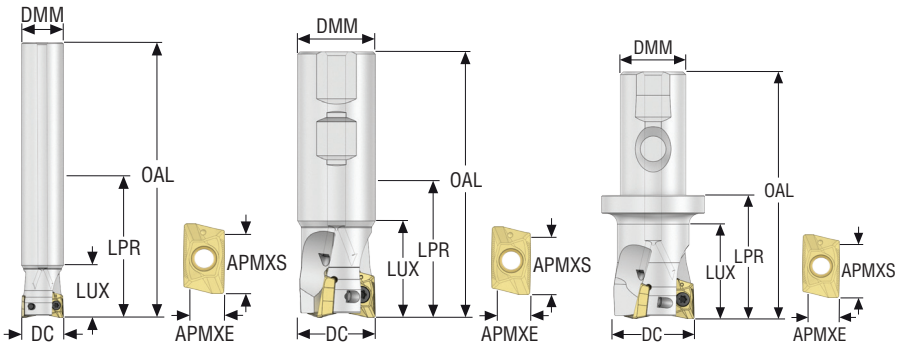
SMG	MK2050			MP3000			MS2050			F40M			MP2050			H25		
	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%
P1	250 *820*	330 *1075*	390 *1275*	240 *790*	315 *1025*	375 *1225*	245 *800*	320 *1050*	375 *1225*	220 *720*	295 *970*	345 *1125*	285 *940*	380 *1250*	445 *1450*	— —	— —	— —
P2	240 *790*	320 *1050*	375 *1225*	230 *750*	310 *1025*	360 *1175*	235 *770*	315 *1025*	365 *1200*	215 *710*	285 *940*	335 *1100*	280 *920*	370 *1225*	435 *1425*	— —	— —	— —
P3	210 *690*	280 *920*	330 *1075*	200 *660*	270 *890*	315 *1025*	210 *690*	275 *900*	325 *1075*	190 *620*	250 *820*	295 *970*	245 *800*	325 *1075*	380 *1250*	— —	— —	— —
P4	185 *610*	245 *800*	295 *970*	180 *590*	235 *770*	285 *940*	185 *610*	240 *790*	285 *940*	165 *540*	220 *720*	260 *850*	215 *710*	285 *940*	335 *1100*	— —	— —	— —
P5	180 *590*	235 *770*	280 *920*	170 *560*	225 *740*	270 *890*	175 *570*	230 *750*	275 *900*	160 *520*	210 *690*	250 *820*	205 *670*	275 *900*	320 *1050*	— —	— —	— —
P6	200 *660*	270 *890*	315 *1025*	195 *640*	260 *850*	305 *1000*	195 *640*	260 *850*	310 *1025*	180 *590*	235 *770*	280 *920*	230 *750*	305 *1000*	365 *1200*	— —	— —	— —
P7	190 *620*	255 *840*	300 *980*	180 *590*	245 *800*	285 *940*	185 *610*	245 *800*	295 *970*	170 *560*	225 *740*	265 *870*	220 *720*	290 *950*	345 *1125*	— —	— —	— —
P8	175 *570*	235 *770*	275 *900*	170 *560*	225 *740*	265 *870*	175 *570*	230 *750*	275 *900*	160 *520*	210 *690*	250 *820*	205 *670*	275 *900*	320 *1050*	— —	— —	— —
P11	185 *610*	245 *800*	290 *950*	175 *570*	235 *770*	280 *920*	180 *590*	240 *790*	285 *940*	165 *540*	215 *710*	260 *850*	210 *690*	280 *920*	335 *1100*	— —	— —	— —
P12	120 *395*	160 *520*	190 *620*	115 *375*	155 *510*	185 *610*	120 *395*	155 *510*	185 *610*	110 *360*	140 *460*	165 *540*	140 *460*	185 *610*	215 *710*	— —	— —	— —
M1	— —	— —	— —	170 *560*	230 *750*	270 *890*	190 *620*	255 *840*	295 *970*	175 *570*	230 *750*	270 *890*	200 *660*	265 *870*	310 *1025*	— —	— —	— —
M2	— —	— —	— —	145 *475*	190 *620*	225 *740*	155 *510*	210 *690*	245 *800*	145 *475*	190 *620*	225 *740*	165 *540*	220 *720*	255 *840*	— —	— —	— —
M3	— —	— —	— —	115 *375*	155 *510*	185 *610*	130 *425*	170 *560*	200 *660*	115 *375*	155 *510*	180 *590*	135 *445*	180 *590*	205 *670*	— —	— —	— —
M4	— —	— —	— —	90 *295*	120 *395*	140 *460*	100 *330*	130 *425*	155 *510*	90 *295*	120 *395*	140 *460*	105 *345*	140 *460*	160 *520*	— —	— —	— —
M5	— —	— —	— —	75 *245*	100 *330*	120 *395*	85 *280*	110 *360*	130 *425*	75 *245*	100 *330*	115 *375*	85 *280*	115 *375*	135 *445*	— —	— —	— —
K1	255 *840*	345 *1125*	405 *1325*	180 *590*	245 *800*	285 *940*	— —	— —	— —	170 *560*	225 *740*	265 *870*	— —	— —	— —	— —	— —	— —
K2	230 *750*	305 *1000*	365 *1200*	165 *540*	215 *710*	255 *840*	— —	— —	— —	150 *490*	200 *660*	235 *770*	— —	— —	— —	— —	— —	— —
K3	195 *640*	255 *840*	305 *1000*	140 *460*	180 *590*	215 *710*	— —	— —	— —	130 *425*	170 *560*	200 *660*	— —	— —	— —	— —	— —	— —
K4	185 *610*	245 *800*	295 *970*	130 *425*	175 *570*	205 *670*	— —	— —	— —	120 *395*	160 *520*	190 *620*	— —	— —	— —	— —	— —	— —
K5	115 *375*	150 *490*	180 *590*	80 *260*	105 *345*	125 *410*	— —	— —	— —	75 *245*	100 *330*	115 *375*	— —	— —	— —	— —	— —	— —
K6	165 *540*	215 *710*	260 *850*	115 *375*	155 *510*	180 *590*	— —	— —	— —	105 *345*	140 *460*	165 *540*	— —	— —	— —	— —	— —	— —
K7	150 *490*	195 *640*	230 *750*	105 *345*	135 *445*	160 *520*	— —	— —	— —	95 *310*	125 *410*	150 *490*	— —	— —	— —	— —	— —	— —
N1	— —	— —	— —	— —	— —	— —	— —	— —	— —	1275 *4175*	1675 *5500*	1950 *6400*	— —	— —	— —	1350 *4425*	1800 *5900*	2125 *6975*
N2	— —	— —	— —	— —	— —	— —	— —	— —	— —	510 *1675*	670 *2200*	790 *2600*	— —	— —	— —	550 *1800*	730 *2400*	850 *2800*
N3	— —	— —	— —	— —	— —	— —	— —	— —	— —	340 *1125*	450 *1475*	530 *1750*	— —	— —	— —	365 *1200*	485 *1600*	570 *1875*
N11	— —	— —	— —	— —	— —	— —	— —	— —	— —	390 *1275*	510 *1675*	600 *1975*	— —	— —	— —	420 *1375*	560 *1825*	650 *2125*
S1	— —	— —	— —	43 *140*	55 *180*	65 *215*	47 *155*	60 *195*	70 *230*	42 *140*	55 *180*	65 *215*	50 *165*	65 *215*	80 *260*	— —	— —	— —
S2	— —	— —	— —	35 *115*	46 *150*	55 *180*	37 *120*	49 *160*	60 *195*	34 *110*	45 *150*	50 *165*	41 *135*	55 *180*	65 *215*	— —	— —	— —
S3	— —	— —	— —	31 *100*	40 *130*	47 *155*	33 *110*	43 *140*	50 *165*	30 *100*	39 *130*	46 *150*	37 *120*	47 *155*	55 *180*	— —	— —	— —
S11	— —	— —	— —	— —	— —	— —	65 *215*	85 *280*	100 *330*	60 *195*	80 *260*	90 *295*	70 *230*	95 *310*	110 *360*	— —	— —	— —
S12	— —	— —	— —	— —	— —	— —	45 *150*	60 *195*	70 *230*	41 *135*	55 *180*	65 *215*	49 *160*	65 *215*	75 *245*	— —	— —	— —
S13	— —	— —	— —	— —	— —	— —	26 *85*	35 *115*	40 *130*	24 *80*	31 *100*	37 *120*	29 *95*	38 *125*	44 *145*	— —	— —	— —
H5	— —	— —	— —	36 *120*	48 *155*	55 *180*	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —
H8	— —	— —	— —	39 *130*	50 *165*	60 *195*	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —
H11	— —	— —	— —	46 *150*	60 *195*	70 *230*	— —	— —	— —	— —	— —	— —	55 *180*	70 *230*	85 *280*	— —	— —	— —
H12	— —	— —	— —	75 *245*	100 *330*	115 *375*	— —	— —	— —	— —	— —	— —	90 *295*	115 *375*	135 *445*	— —	— —	— —

R217/220.69-16 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	MK1500			MP1501			MP2501			MP3501		
	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%
P1	—	—	—	365	450	510	355	440	510	315	395	450
	—	—	—	*1200*	*1475*	*1675*	*1175*	*1450*	*1675*	*1025*	*1300*	*1475*
P2	—	—	—	350	440	490	340	430	480	300	385	430
	—	—	—	*1150*	*1450*	*1600*	*1125*	*1400*	*1575*	*980*	*1275*	*1400*
P3	—	—	—	305	385	430	300	375	425	265	335	380
	—	—	—	*1000*	*1275*	*1400*	*980*	*1225*	*1400*	*870*	*1100*	*1250*
P4	—	—	—	275	335	385	270	330	380	240	295	340
	—	—	—	*900*	*1100*	*1275*	*890*	*1075*	*1250*	*790*	*970*	*1125*
P5	—	—	—	260	320	370	255	315	365	230	280	325
	—	—	—	*850*	*1050*	*1225*	*840*	*1025*	*1200*	*750*	*920*	*1075*
P6	—	—	—	295	365	415	285	360	405	255	320	365
	—	—	—	*970*	*1200*	*1350*	*940*	*1175*	*1325*	*840*	*1050*	*1200*
P7	—	—	—	275	345	390	270	340	385	240	305	345
	—	—	—	*900*	*1125*	*1275*	*890*	*1125*	*1275*	*790*	*1000*	*1125*
P8	—	—	—	255	320	365	250	315	355	225	280	320
	—	—	—	*840*	*1050*	*1200*	*820*	*1025*	*1175*	*740*	*920*	*1050*
P11	—	—	—	270	335	380	265	330	375	235	295	335
	—	—	—	*890*	*1100*	*1250*	*870*	*1075*	*1225*	*770*	*970*	*1100*
P12	—	—	—	175	215	245	175	215	240	155	190	215
	—	—	—	*570*	*710*	*800*	*570*	*710*	*790*	*510*	*620*	*710*
M1	—	—	—	—	—	—	175	235	275	165	220	255
	—	—	—	—	—	—	*570*	*770*	*900*	*540*	*720*	*840*
M2	—	—	—	—	—	—	145	190	230	135	180	215
	—	—	—	—	—	—	*475*	*620*	*750*	*445*	*590*	*710*
M3	—	—	—	—	—	—	120	155	185	110	145	175
	—	—	—	—	—	—	*395*	*510*	*610*	*360*	*475*	*570*
M4	—	—	—	—	—	—	95	125	145	85	115	135
	—	—	—	—	—	—	*310*	*410*	*475*	*280*	*375*	*445*
M5	—	—	—	—	—	—	80	105	120	75	95	110
	—	—	—	—	—	—	*260*	*345*	*395*	*245*	*310*	*360*
K1	270	365	425	350	445	495	340	435	485	305	385	435
	890	*1200*	*1400*	*1150*	*1450*	*1625*	*1125*	*1425*	*1600*	*1000*	*1275*	*1425*
K2	245	320	385	315	390	445	310	380	440	275	340	395
	800	*1050*	*1275*	*1025*	*1275*	*1450*	*1025*	*1250*	*1450*	*900*	*1125*	*1300*
K3	205	270	325	265	330	380	260	325	370	235	290	330
	670	*890*	*1075*	*870*	*1075*	*1250*	*850*	*1075*	*1225*	*770*	*950*	*1075*
K4	195	260	310	255	315	360	250	310	355	225	275	315
	640	*850*	*1025*	*840*	*1025*	*1175*	*820*	*1025*	*1175*	*740*	*900*	*1025*
K5	120	160	190	160	195	220	155	190	215	140	170	195
	395	*520*	*620*	*520*	*640*	*720*	*510*	*620*	*710*	*460*	*560*	*640*
K6	175	230	275	225	275	320	220	270	310	195	245	280
	570	*750*	*900*	*740*	*900*	*1050*	*720*	*890*	*1025*	*640*	*800*	*920*
K7	155	205	240	200	245	280	200	245	275	175	220	245
	510	*670*	*790*	*660*	*800*	*920*	*660*	*800*	*900*	*570*	*720*	*800*
N1	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—
N2	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—
N3	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—
N11	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—
S1	—	—	—	—	—	—	—	—	—	41	55	65
	—	—	—	—	—	—	—	—	—	*135*	*180*	*215*
S2	—	—	—	—	—	—	—	—	—	33	43	50
	—	—	—	—	—	—	—	—	—	*110*	*140*	*165*
S3	—	—	—	—	—	—	—	—	—	29	38	45
	—	—	—	—	—	—	—	—	—	*95*	*125*	*150*
S11	—	—	—	—	—	—	—	—	—	55	75	90
	—	—	—	—	—	—	—	—	—	*180*	*245*	*295*
S12	—	—	—	—	—	—	—	—	—	39	50	60
	—	—	—	—	—	—	—	—	—	*130*	*165*	*195*
S13	—	—	—	—	—	—	—	—	—	23	30	35
	—	—	—	—	—	—	—	—	—	*75*	*100*	*115*
H5	—	—	—	46	60	70	—	—	—	35	47	55
	—	—	—	*150*	*195*	*230*	—	—	—	*115*	*155*	*180*
H8	—	—	—	50	65	75	—	—	—	38	50	60
	—	—	—	*165*	*215*	*245*	—	—	—	*125*	*165*	*195*
H11	—	—	—	60	75	90	—	—	—	45	60	70
	—	—	—	*195*	*245*	*295*	—	—	—	*150*	*195*	*230*
H12	—	—	—	90	120	140	—	—	—	70	90	105
	—	—	—	*295*	*395*	*460*	—	—	—	*230*	*295*	*345*

Turbo 18 – R217.69-18 – Metric



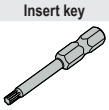


- For insert selection and cutting data recommendations, see page(s) 73-75
- For complete insert programme, see page(s) 850, 851
- For ISO attribute explanation, see page 16
- KAPRS 90°

Designation	Item number	Type of mounting	DC	ZEFP	APMXS	APMXE	DMM	LUX	LPR	OAL	RMPX°	Cmin	Cmax	RPMX	Weight	Insert
			mm		mm	mm	mm	mm	mm	mm		mm	mm		kg	
R217.69-3032.0-18-2AN	02691799	Cylindrical	32,0	2	17,0	10,0	30,0	150,0	150,0	210,0	7,0	46,0	61,5	11100	1,1	XO.X18..
R217.69-3232.0-18-2AN	02691795	Cylindrical	32,0	2	17,0	10,0	32,0	40,0	150,0	210,0	7,0	46,0	61,5	11100	1,3	XO.X18..
R217.69-3232.0-18-3AN	02691796	Cylindrical	32,0	3	17,0	10,0	32,0	40,0	150,0	210,0	7,0	46,0	61,5	11100	1,2	XO.X18..
R217.69-3240.0-18-3AN	02691797	Cylindrical	40,0	3	17,0	10,0	32,0	150,0	150,0	210,0	4,5	62,0	77,5	9900	1,3	XO.X18..
R217.69-3240.0-18-4AN	02691798	Cylindrical	40,0	4	17,0	10,0	32,0	150,0	150,0	210,0	4,5	62,0	77,5	9900	1,3	XO.X18..
R217.69-3232.3-18-2AN	02691792	Weldon	32,0	2	17,0	10,0	32,0	38,0	50,0	110,0	7,0	46,0	61,5	11100	0,6	XO.X18..
R217.69-3232.3-18-3AN	02691793	Weldon	32,0	3	17,0	10,0	32,0	38,0	50,0	110,0	7,0	46,0	61,5	11100	0,6	XO.X18..
R217.69-2532.3S-18-2AN	02691790	Seco-Weldon	32,0	2	17,0	10,0	25,0	40,0	54,0	109,5	7,0	46,0	61,5	11100	0,5	XO.X18..
R217.69-3240.3S-18-3AN	02691791	Seco-Weldon	40,0	3	17,0	10,0	32,0	46,0	60,0	119,5	4,5	62,0	77,5	9900	0,9	XO.X18..

Modification of the cutter body needed for radii > 4,0 mm

Spare Parts, included in delivery

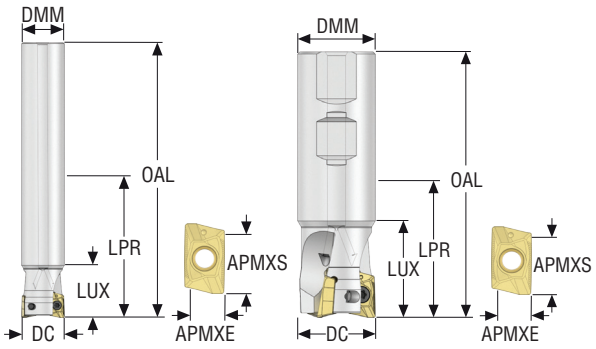
For cutter	Insert key	Insert screw
		
R217.69-..	1/4HEX-T20PX50	C04510-T20P

Accessories

For cutter	Adjustable Torque key	Insert clamping torque	Torque key
			
R217.69-..	1/4HEX-T-HANDLE-5.0-14.0NM	5.0NM	T00-20P50

Torque and fixed keys, see page 872

Turbo 18 – R217.69-18 – inch



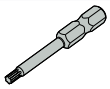


- For insert selection and cutting data recommendations, see page(s) 73-75
- For complete insert programme, see page(s) 850, 851
- For ISO attribute explanation, see page 16
- KAPRS 90°

Designation	Item number	Type of mounting	DC	ZEFP	APMXS	APMXE	DMM	LUX	LPR	OAL	RMPX°	C min	C max	RPMX	Weight	Insert
			inch		inch	inch	inch	inch	inch	inch		inch	inch		lbs	
R217.69-01.00-0-18-2LAN	02699117	Cylindrical	1.000	2	0.669	0.394	1.000	1.575	4.488	6.693	5,0	1.280	1.890	13800	1.320	XO.X18
R217.69-01.25-0-18-2LAN	02694932	Cylindrical	1.250	2	0.669	0.394	1.000	5.315	5.315	7.677	2,0	1.791	2.402	11100	1.540	XO.X18
R217.69-01.25-0-18-3LAN	02694936	Cylindrical	1.250	3	0.669	0.394	1.000	5.472	5.472	7.677	7,0	1.791	2.402	11100	1.980	XO.X18
R217.69-01.50-0-18-3LAN	02694937	Cylindrical	1.500	3	0.669	0.394	1.250	5.906	5.906	8.268	4,5	2.283	2.894	9900	2.650	XO.X18
R217.69-01.50-0-18-4LAN	02694938	Cylindrical	1.500	4	0.669	0.394	1.250	5.906	5.906	8.268	4,5	2.283	2.894	9900	2.650	XO.X18
R217.69-01.00-3-18-2AN	02699130	Weldon	1.000	2	0.669	0.394	1.000	1.575	1.732	3.937	6,0	1.280	1.890	13800	0.660	XO.X18
R217.69-01.25-3-18-3AN	02694949	Weldon	1.250	3	0.669	0.394	1.250	1.575	1.969	4.331	7,0	1.791	2.402	11100	1.320	XO.X18
R217.69-01.50-3-18-3AN	02694951	Weldon	1.500	3	0.669	0.394	1.250	2.362	2.362	4.724	4,5	2.283	2.894	9900	1.540	XO.X18
R217.69-01.50-3-18-4AN	02694954	Weldon	1.500	4	0.669	0.394	1.250	2.362	2.362	4.724	4,5	2.283	2.894	9900	1.540	XO.X18

Modification of the cutter body needed for radii > 0.158 in

Spare Parts, included in delivery

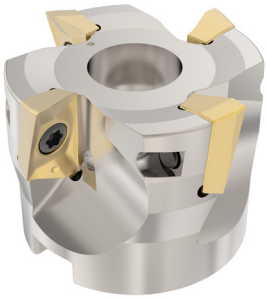
For cutter	Insert key	Insert screw
		
R217.69-..	1/4HEX-T20PX50	C04510-T20P

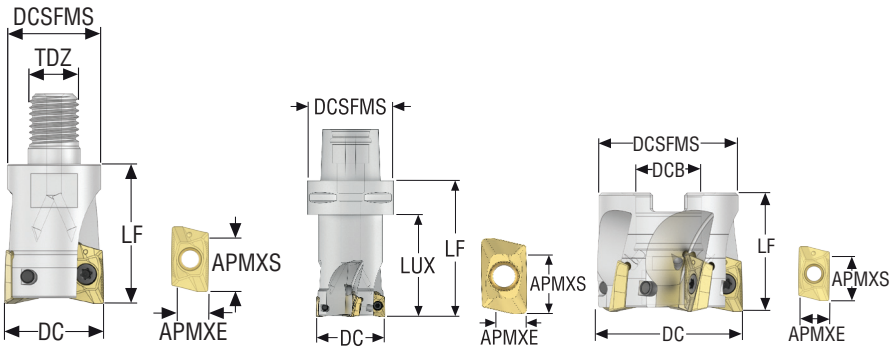
Accessories

For cutter	Adjustable Torque key	Insert clamping torque	Torque key
			
R217.69-..	1/4HEX-T-HANDLE-5.0-14.0NM	44.3IN.LBS	T00-20P50

Torque and fixed keys, see page 872

Turbo 18 – R217/220.69-18 – Metric



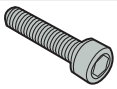
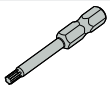


- For insert selection and cutting data recommendations, see page(s) 73-75
- For complete insert programme, see page(s) 850, 851
- For ISO attribute explanation, see page 16
- KAPRS 90°

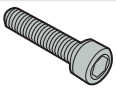
Designation	Item number	Type of mounting	DC	ZEFP	APMXS	APMXE	DCB	TDZ	DCSFMS	LUX	LF	RMPX°	Cmin	Cmax	RPMX	Weight	Insert
			mm		mm	mm	mm		mm	mm	mm		mm	mm		kg	
R217.69-1632.RE-18-2AN	02691807	Combimaster	32,0	2	17,0	10,0	–	M16	30,0	–	45,0	7,0	46,0	61,5	11100	0,3	XO.X18..
R217.69-1632.RE-18-3AN	02691805	Combimaster	32,0	3	17,0	10,0	–	M16	30,0	–	45,0	7,0	46,0	61,5	11100	0,3	XO.X18..
R217.69-1640.RE-18-3AN	02691808	Combimaster	40,0	3	17,0	10,0	–	M16	30,0	–	45,0	4,5	62,0	77,5	9900	0,3	XO.X18..
R217.69-1640.RE-18-4AN	02691806	Combimaster	40,0	4	17,0	10,0	–	M16	30,0	–	45,0	4,5	62,0	77,5	9900	0,3	XO.X18..
R217.69-2040.RE-18-3AN	02972711	Combimaster	40,0	3	17,0	10,0	–	M20	36,5	–	45,0	4,5	62,0	77,5	9900	0,4	XO.X18..
R217.69-2040.RE-18-4AN	02753402	Combimaster	40,0	4	17,0	10,0	–	M20	36,5	–	45,0	4,5	62,0	77,5	9900	0,4	XO.X18..
C6-R217.69-040-18-3AN	02707507	Seco-Capto	40,0	3	17,0	10,0	–	–	63,0	55,0	80,0	4,5	62,0	77,5	9900	1,1	XO.X18..
C6-R217.69-066-18-5AN	02707509	Seco-Capto	66,0	5	17,0	10,0	–	–	63,0	60,0	60,0	2,0	114,0	129,5	7700	1,4	XO.X18..
C6-R217.69-080-18-6AN	02707511	Seco-Capto	80,0	6	17,0	10,0	–	–	63,0	60,0	60,0	1,5	142,0	157,5	7000	1,7	XO.X18..
R220.69-0040-18-4AN	03004031	Arbor	40,0	4	17,0	10,0	16,0	–	35,0	–	40,0	4,5	62,0	77,5	9900	0,3	XO.X18..
R220.69-0050-18-4AN	02701130	Arbor	50,0	4	17,0	10,0	22,0	–	47,0	–	40,0	3,0	82,0	97,5	8900	0,4	XO.X18..
R220.69-0050-18-5AN	02691824	Arbor	50,0	5	17,0	10,0	22,0	–	47,0	–	40,0	3,0	82,0	97,5	8900	0,4	XO.X18..
R220.69-0052-18-4AN	02969087	Arbor	52,0	4	17,0	10,0	22,0	–	47,0	–	40,0	3,15	86,0	101,5	8900	0,4	XO.X18..
R220.69-0063-18-4AN	02691810	Arbor	63,0	4	17,0	10,0	27,0	–	52,0	–	40,0	2,4	108,0	123,5	7900	0,6	XO.X18..
R220.69-0063-18-5AN	02691825	Arbor	63,0	5	17,0	10,0	27,0	–	52,0	–	40,0	2,4	108,0	123,5	7900	0,6	XO.X18..
R220.69-0063-18-6AN	02691826	Arbor	63,0	6	17,0	10,0	27,0	–	52,0	–	40,0	2,4	108,0	123,5	7900	0,6	XO.X18..
R220.69-0066-18-5AN	02969088	Arbor	66,0	5	17,0	10,0	27,0	–	52,0	–	40,0	2,0	114,0	129,5	7900	0,6	XO.X18..
R220.69-0080-18-5AN	02691811	Arbor	80,0	5	17,0	10,0	27,0	–	62,0	–	50,0	1,5	142,0	157,5	7000	1,0	XO.X18..
R220.69-0080-18-6AN	02691827	Arbor	80,0	6	17,0	10,0	27,0	–	62,0	–	50,0	1,5	142,0	157,5	7000	1,0	XO.X18..
R220.69-0080-18-8AN	02691828	Arbor	80,0	8	17,0	10,0	27,0	–	62,0	–	50,0	1,5	142,0	157,5	7000	1,0	XO.X18..
R220.69-0084-18-6AN	02440816	Arbor	84,0	6	17,0	10,0	27,0	–	62,0	–	50,0	1,5	150,0	165,5	7000	0,9	XO.X18..
R220.69-0100-18-6AN	02691817	Arbor	100,0	6	17,0	10,0	32,0	–	77,0	–	50,0	1,0	182,0	197,5	6300	1,7	XO.X18..
R220.69-0100-18-7AN	02691820	Arbor	100,0	7	17,0	10,0	32,0	–	77,0	–	50,0	1,0	182,0	197,5	6300	1,7	XO.X18..
R220.69-0100-18-9AN	02691822	Arbor	100,0	9	17,0	10,0	32,0	–	77,0	–	50,0	1,0	182,0	197,5	6300	1,6	XO.X18..
R220.69-0125-18-7AN	02691818	Arbor	125,0	7	17,0	10,0	40,0	–	90,0	–	63,0	1,0	232,0	247,5	5600	2,9	XO.X18..
R220.69-0125-18-8AN	02691823	Arbor	125,0	8	17,0	10,0	40,0	–	90,0	–	63,0	1,0	232,0	247,5	5600	3,1	XO.X18..
R220.69-0125-18-11AN	02691815	Arbor	125,0	11	17,0	10,0	40,0	–	90,0	–	63,0	1,0	232,0	247,5	5600	3,0	XO.X18..
R220.69-8160-18-7N	02691814	Arbor	160,0	7	17,0	10,0	40,0	–	90,0	–	63,0	0,5	302,0	317,5	5000	4,4	XO.X18..
R220.69-8160-18-9N	02691813	Arbor	160,0	9	17,0	10,0	40,0	–	90,0	–	63,0	0,5	302,0	317,5	5000	4,5	XO.X18..
R220.69-8160-18-12N	02691809	Arbor	160,0	12	17,0	10,0	40,0	–	90,0	–	63,0	0,5	302,0	317,5	5000	4,4	XO.X18..

Modification of the cutter body needed for radii > 4,0 mm
For Combimaster Shanks, see Machining Navigator Tooling System

Spare Parts, included in delivery

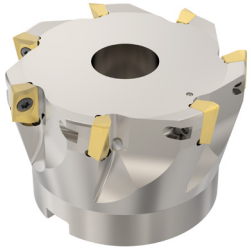
For cutter	Arbor screw	Insert key	Insert screw
			
Cx-R217.69-..	–	1/4HEX-T20PX50	C04510-T20P
R220.69-0040	TCEI0825	1/4HEX-T20PX50	C04510-T20P
R220.69-0050-0052	220.17-692	1/4HEX-T20PX50	C04510-T20P
R220.69-0063-0066	220.17-693	1/4HEX-T20PX50	C04510-T20P
R220.69-0080-0084	–	1/4HEX-T20PX50	C04510-T20P
R220.69-0100-8160	–	1/4HEX-T20PX90	C04510-T20P

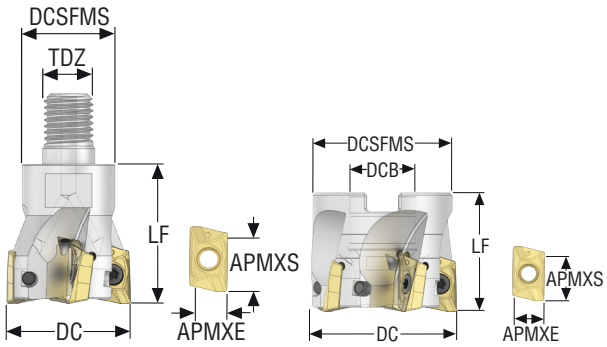
Accessories

For cutter	Adjustable Torque key	Arbor screw	Insert clamping torque	Torque key
				
Cx-R217/220.69-1632-0125	1/4HEX-T-HANDLE-5.0-14.0NM	–	5.0NM	T00-20P50
R220.69-8160	1/4HEX-T-HANDLE-5.0-14.0NM	MC6S12X40	5.0NM	T00-20P50

Torque and fixed keys, see page 872

Turbo 18 – R217/220.69-18 – inch



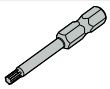


- For insert selection and cutting data recommendations, see page(s) 73-75
- For complete insert programme, see page(s) 850, 851
- For ISO attribute explanation, see page 16
- KAPRS 90°

Designation	Item number	Type of mounting	DC	ZEFP	APMXS	APMXE	DCB	TDZ	DCSFMS	LF	RMPX°	C min	C max	RPMX	Weight	Insert
			inch		inch	inch	inch		inch	inch		inch	inch		lbs	
R217.69-01.00-12RE-18-2AN	02699134	Combimaster	1.000	2	0.669	0.394	–	M12	0.906	1.575	6.0	1.280	1.890	13800	0.440	XO.X18
R217.69-01.25-16RE-18-3AN	02699137	Combimaster	1.250	3	0.669	0.394	–	M16	1.181	1.772	7.0	1.791	2.402	11100	0.660	XO.X18
R217.69-01.50-16RE-18-3AN	02699141	Combimaster	1.500	3	0.669	0.394	–	M16	1.181	1.772	4.5	2.283	2.894	9900	0.660	XO.X18
R217.69-01.50-16RE-18-4AN	02699143	Combimaster	1.500	4	0.669	0.394	–	M16	1.181	1.772	4.5	2.283	2.894	9900	0.660	XO.X18
R220.69-02.00-18-3AN	02694974	Arbor	2.000	3	0.669	0.394	0.750	–	1.850	1.575	3.0	3.287	3.898	8900	0.880	XO.X18
R220.69-02.00-18-4AN	02694975	Arbor	2.000	4	0.669	0.394	0.750	–	1.850	1.575	3.0	3.287	3.898	8900	0.880	XO.X18
R220.69-02.00-18-5AN	02694976	Arbor	2.000	5	0.669	0.394	0.750	–	1.850	1.575	3.0	3.287	3.898	8900	0.880	XO.X18
R220.69-02.50-18-5AN	02694979	Arbor	2.500	5	0.669	0.394	0.750	–	1.850	1.575	2.0	4.291	4.902	7900	1.320	XO.X18
R220.69-02.50-18-6AN	02694981	Arbor	2.500	6	0.669	0.394	0.750	–	1.850	1.575	2.0	4.291	4.902	7900	1.100	XO.X18
R220.69-03.00-18-6AN	02694985	Arbor	3.000	6	0.669	0.394	1.000	–	2.441	1.969	1.5	5.276	5.886	7000	2.430	XO.X18
R220.69-03.00-18-8AN	02694987	Arbor	3.000	8	0.669	0.394	1.000	–	2.441	1.969	1.5	5.276	5.886	7000	2.430	XO.X18
R220.69-04.00-18-5AN	02694990	Arbor	4.000	5	0.669	0.394	1.500	–	3.543	1.969	1.0	7.283	7.894	6300	4.850	XO.X18
R220.69-04.00-18-7AN	02694992	Arbor	4.000	7	0.669	0.394	1.500	–	3.543	1.969	1.0	7.283	7.894	6300	4.630	XO.X18
R220.69-04.00-18-9AN	02694993	Arbor	4.000	9	0.669	0.394	1.500	–	3.543	1.969	1.0	7.283	7.894	6300	4.630	XO.X18
R220.69-05.00-18-8AN	02694995	Arbor	5.000	8	0.669	0.394	1.500	–	3.543	2.480	1.0	9.291	9.902	5600	8.160	XO.X18
R220.69-05.00-18-11AN	02694994	Arbor	5.000	11	0.669	0.394	1.500	–	3.543	2.480	1.0	9.291	9.902	5600	8.160	XO.X18
R220.69-06.00-18-9N	02694997	Arbor	6.000	9	0.669	0.394	2.000	–	4.331	2.480	0.5	11.280	11.890	5000	9.040	XO.X18
R220.69-06.00-18-12N	02694996	Arbor	6.000	12	0.669	0.394	2.000	–	4.331	2.480	0.5	11.280	11.890	5000	9.040	XO.X18

Modification of the cutter body needed for radii > 0.158 in
For Combimaster Shanks, see Machining Navigator Tooling System

Spare Parts, included in delivery

For cutter	Arbor screw	Insert key	Insert screw
			
R217.69-..	–	1/4HEX-T20PX50	C04510-T20P
R220.69-02.00-02.50	220.17-695	1/4HEX-T20PX50	C04510-T20P
R220.69-03.00	UC6S1/2UNFX1-1/4	1/4HEX-T20PX50	C04510-T20P
R220.69-04.00	UF6S3/4UNFX2	1/4HEX-T20PX90	C04510-T20P
R220.69-05.00	UC6S3/4UNFX1-1/4	1/4HEX-T20PX90	C04510-T20P
R220.69-06.00	–	1/4HEX-T20PX90	C04510-T20P

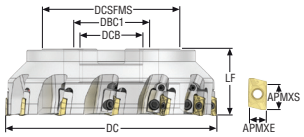
Accessories

For cutter	Adjustable Torque key	Arbor screw	Insert clamping torque	Torque key
				
R217/220.69-01.00-05.00	1/4HEX-T-HANDLE-5.0-14.0NM	–	44.3IN.LBS	T00-20P50
R220.69-06.00	1/4HEX-T-HANDLE-5.0-14.0NM	58215080	44.3IN.LBS	T00-20P50

Torque and fixed keys, see page 872

Turbo 18 – R220.69-18 – Metric



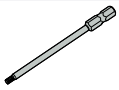


- For insert selection and cutting data recommendations, see page(s) 73-75
- For complete insert programme, see page(s) 850, 851
- For ISO attribute explanation, see page 16
- KAPRS 90°

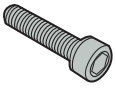
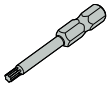
Designation	Item number	Type of mounting	DC	ZEFP	APMXS	APMXE	DCB	DCSFMS	LF	RMPX°	Cmin	Cmax	RPMX	Weight	Insert
			mm		mm	mm	mm	mm	mm		mm	mm		kg	
R220.69-0125-18-8CN	02706947	Arbor	125,0	8	17,0	10,0	40,0	90,0	63,0	1,0	232,0	247,5	5600	3,3	XO.X18..
R220.69-8160-18-10CN	02706948	Arbor	160,0	10	17,0	10,0	40,0	90,0	63,0	0,7	302,0	317,5	5000	5,2	XO.X18..
R220.69-8200-18-12CN	02706950	Arbor	200,0	12	17,0	10,0	60,0	130,0	63,0	0,5	382,0	397,5	4400	7,4	XO.X18..
R220.69-8250-18-16CN	02706951	Arbor	250,0	16	17,0	10,0	60,0	130,0	63,0	0,4	482,0	497,5	3900	14,7	XO.X18..

Modification of the cutter body needed for radii > 4,0 mm

Spare Parts, included in delivery

For cutter	Adjustment unit	Cassette	Cassette screw	Insert key	Insert screw
					
R220.69-0125-8250	AU1114T-T15P	XO18PRN	FS96018	1/4HEX-T20PX90	C04510-T20P

Accessories

For cutter	Adjustable Torque key	Arbor screw	Insert clamping torque	Nest key	Setting key	Torque key
						
R220.69-0125-8250	1/4HEX-T-HANDLE-5.0-14.0NM	–	5.0NM	1/4HEX-H5.0X50	1/4HEX-T15PX50	T00-20P50
R220.69-8160	1/4HEX-T-HANDLE-5.0-14.0NM	MC6S12X40	5.0NM	1/4HEX-H5.0X50	1/4HEX-T15PX50	T00-20P50
R220.69-8200-8250	1/4HEX-T-HANDLE-5.0-14.0NM	MC6S16X50	5.0NM	1/4HEX-H5.0X50	1/4HEX-T15PX50	T00-20P50

Torque and fixed keys, see page 872

R217/220.69-18 – Insert selection – mm/*Inch*

SMG		a_p	f_z		
			100%	30%	10%
P1	XOMX180608TR-ME13 F40M	8,0 *0.32*	0,18 *0.0070*	0,20 *0.0080*	0,30 *0.012*
P2	XOMX180608TR-ME13 F40M	8,0 *0.32*	0,19 *0.0075*	0,20 *0.0080*	0,32 *0.013*
P3	XOMX180608TR-M14 MP2501	8,0 *0.32*	0,19 *0.0075*	0,20 *0.0080*	0,32 *0.013*
P4	XOMX180608TR-M14 MP2501	8,0 *0.32*	0,19 *0.0075*	0,20 *0.0080*	0,32 *0.013*
P5	XOMX180608TR-M14 MP2501	8,0 *0.32*	0,18 *0.0070*	0,20 *0.0080*	0,30 *0.012*
P6	XOMX180608TR-M14 MP2501	8,0 *0.32*	0,18 *0.0070*	0,20 *0.0080*	0,30 *0.012*
P7	XOMX180608TR-M14 MP2501	8,0 *0.32*	0,18 *0.0070*	0,20 *0.0080*	0,30 *0.012*
P11	XOMX180608TR-M14 MP3501	8,0 *0.32*	0,18 *0.0070*	0,20 *0.0080*	0,30 *0.012*
P12	XOMX180608TR-M14 MP3000	7,0 *0.28*	0,12 *0.0048*	0,14 *0.0055*	0,20 *0.0080*
M1	XOMX180608R-M10 F40M	8,0 *0.32*	0,14 *0.0055*	0,16 *0.0065*	0,24 *0.0095*
M2	XOMX180608R-M10 F40M	8,0 *0.32*	0,13 *0.0050*	0,14 *0.0055*	0,22 *0.0085*
M3	XOMX180608R-M10 F40M	7,0 *0.28*	0,10 *0.0040*	0,11 *0.0044*	0,17 *0.0065*
M4	XOMX180608R-M10 MS2050	5,0 *0.20*	0,090 *0.0036*	0,10 *0.0040*	0,15 *0.0060*
M5	XOMX180608R-M10 MS2050	5,0 *0.20*	0,090 *0.0036*	0,10 *0.0040*	0,15 *0.0060*
K1	XOMX180608TR-M14 MK1500	8,0 *0.32*	0,20 *0.0080*	0,22 *0.0085*	0,34 *0.013*
K2	XOMX180608TR-M14 MK1500	8,0 *0.32*	0,18 *0.0070*	0,20 *0.0080*	0,30 *0.012*
K3	XOMX180608TR-M14 MK2050	8,0 *0.32*	0,18 *0.0070*	0,20 *0.0080*	0,30 *0.012*
K4	XOMX180608TR-M14 MK2050	8,0 *0.32*	0,18 *0.0070*	0,20 *0.0080*	0,30 *0.012*
K5	XOMX180608TR-M14 MK2050	8,0 *0.32*	0,16 *0.0065*	0,18 *0.0070*	0,28 *0.011*
K6	XOMX180608TR-M14 MK2050	8,0 *0.32*	0,18 *0.0070*	0,20 *0.0080*	0,30 *0.012*
K7	XOMX180608TR-M14 MK2050	8,0 *0.32*	0,16 *0.0065*	0,18 *0.0070*	0,28 *0.011*
N1	XOEX180608FR-E10 H25	8,0 *0.32*	0,18 *0.0070*	0,20 *0.0080*	0,30 *0.012*
N2	XOEX180608FR-E10 H25	8,0 *0.32*	0,18 *0.0070*	0,20 *0.0080*	0,30 *0.012*
N3	XOEX180608FR-E10 H25	8,0 *0.32*	0,18 *0.0070*	0,20 *0.0080*	0,30 *0.012*
N11	XOEX180608FR-E10 H25	8,0 *0.32*	0,18 *0.0070*	0,20 *0.0080*	0,30 *0.012*
S1	XOMX180608R-M10 F40M	5,0 *0.20*	0,090 *0.0036*	0,10 *0.0040*	0,15 *0.0060*
S2	XOMX180608R-M10 F40M	5,0 *0.20*	0,090 *0.0036*	0,10 *0.0040*	0,15 *0.0060*
S3	XOMX180608R-M10 F40M	5,0 *0.20*	0,085 *0.0034*	0,095 *0.0038*	0,14 *0.0055*
S11	XOMX180608R-M10 MS2050	6,0 *0.24*	0,10 *0.0040*	0,11 *0.0044*	0,18 *0.0070*
S12	XOMX180608R-M10 MS2050	6,0 *0.24*	0,10 *0.0040*	0,11 *0.0044*	0,18 *0.0070*
S13	XOMX180608R-M10 MS2050	5,0 *0.20*	0,090 *0.0036*	0,10 *0.0040*	0,15 *0.0060*
H5	XOMX180608TR-M14 MP3000	7,0 *0.28*	0,12 *0.0048*	0,14 *0.0055*	0,20 *0.0080*
H8	XOMX180608TR-M14 MP3000	6,0 *0.24*	0,095 *0.0038*	0,10 *0.0040*	0,16 *0.0065*
H11	XOMX180608TR-MD15 MP1501	7,0 *0.28*	0,13 *0.0050*	0,15 *0.0060*	0,22 *0.0085*
H12	XOMX180608TR-MD15 MP1501	6,0 *0.24*	0,10 *0.0040*	0,11 *0.0044*	0,17 *0.0065*

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

R217/220.69-18 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	MK2050			MP3000			MS2050			F40M			MP2050			H25		
	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%
P1	255 *840*	335 *1100*	400 *1300*	245 *800*	320 *1050*	385 *1275*	245 *800*	330 *1075*	380 *1250*	225 *740*	300 *980*	345 *1125*	290 *950*	385 *1275*	450 *1475*	— —	— —	— —
P2	245 *800*	325 *1075*	385 *1275*	235 *770*	315 *1025*	370 *1225*	240 *790*	315 *1025*	370 *1225*	220 *720*	285 *940*	340 *1125*	280 *920*	370 *1225*	440 *1450*	— —	— —	— —
P3	215 *710*	290 *950*	335 *1100*	205 *670*	280 *920*	325 *1075*	205 *670*	275 *900*	330 *1075*	185 *610*	250 *820*	300 *980*	245 *800*	325 *1075*	385 *1275*	— —	— —	— —
P4	190 *620*	255 *840*	295 *970*	180 *590*	245 *800*	285 *940*	185 *610*	240 *790*	290 *950*	170 *560*	220 *720*	260 *850*	220 *720*	285 *940*	340 *1125*	— —	— —	— —
P5	185 *610*	245 *800*	290 *950*	175 *570*	235 *770*	280 *920*	175 *570*	235 *770*	275 *900*	160 *520*	215 *710*	250 *820*	210 *690*	275 *900*	325 *1075*	— —	— —	— —
P6	205 *670*	275 *900*	325 *1075*	200 *660*	260 *850*	310 *1025*	200 *660*	265 *870*	310 *1025*	180 *590*	240 *790*	280 *920*	235 *770*	310 *1025*	365 *1200*	— —	— —	— —
P7	195 *640*	255 *840*	305 *1000*	185 *610*	250 *820*	295 *970*	190 *620*	250 *820*	290 *950*	170 *560*	225 *740*	265 *870*	220 *720*	295 *970*	345 *1125*	— —	— —	— —
P8	180 *590*	245 *800*	285 *940*	175 *570*	235 *770*	270 *890*	175 *570*	230 *750*	275 *900*	160 *520*	210 *690*	250 *820*	205 *670*	270 *890*	325 *1075*	— —	— —	— —
P11	190 *620*	250 *820*	295 *970*	180 *590*	240 *790*	285 *940*	180 *590*	240 *790*	285 *940*	165 *540*	220 *720*	260 *850*	215 *710*	285 *940*	335 *1100*	— —	— —	— —
P12	125 *410*	165 *540*	195 *640*	120 *395*	160 *520*	190 *620*	120 *395*	160 *520*	185 *610*	110 *360*	145 *475*	170 *560*	140 *460*	185 *610*	215 *710*	— —	— —	— —
M1	— —	— —	— —	175 *570*	235 *770*	275 *900*	195 *640*	250 *820*	300 *980*	175 *570*	230 *750*	275 *900*	200 *660*	265 *870*	315 *1025*	— —	— —	— —
M2	— —	— —	— —	150 *490*	195 *640*	230 *750*	160 *520*	210 *690*	250 *820*	145 *475*	190 *620*	225 *740*	165 *540*	220 *720*	260 *850*	— —	— —	— —
M3	— —	— —	— —	120 *395*	160 *520*	190 *620*	130 *425*	170 *560*	200 *660*	120 *395*	155 *510*	185 *610*	135 *445*	180 *590*	210 *690*	— —	— —	— —
M4	— —	— —	— —	95 *310*	125 *410*	145 *475*	100 *330*	135 *445*	155 *510*	95 *310*	120 *395*	140 *460*	105 *345*	140 *460*	165 *540*	— —	— —	— —
M5	— —	— —	— —	80 *260*	105 *345*	120 *395*	85 *280*	110 *360*	130 *425*	75 *245*	100 *330*	120 *395*	90 *295*	115 *375*	135 *445*	— —	— —	— —
K1	265 *870*	350 *1150*	415 *1350*	185 *610*	250 *820*	295 *970*	— —	— —	— —	175 *570*	225 *740*	270 *890*	— —	— —	— —	— —	— —	— —
K2	240 *790*	315 *1025*	375 *1225*	170 *560*	220 *720*	265 *870*	— —	— —	— —	155 *510*	205 *670*	240 *790*	— —	— —	— —	— —	— —	— —
K3	200 *660*	265 *870*	315 *1025*	140 *460*	190 *620*	225 *740*	— —	— —	— —	130 *425*	170 *560*	200 *660*	— —	— —	— —	— —	— —	— —
K4	190 *620*	255 *840*	300 *980*	135 *445*	180 *590*	215 *710*	— —	— —	— —	125 *410*	165 *540*	190 *620*	— —	— —	— —	— —	— —	— —
K5	120 *395*	155 *510*	185 *610*	85 *280*	110 *360*	130 *425*	— —	— —	— —	75 *245*	100 *330*	115 *375*	— —	— —	— —	— —	— —	— —
K6	170 *560*	225 *740*	265 *870*	120 *395*	160 *520*	190 *620*	— —	— —	— —	110 *360*	145 *475*	170 *560*	— —	— —	— —	— —	— —	— —
K7	150 *490*	200 *660*	235 *770*	105 *345*	140 *460*	165 *540*	— —	— —	— —	95 *310*	125 *410*	150 *490*	— —	— —	— —	— —	— —	— —
N1	— —	— —	— —	— —	— —	— —	— —	— —	— —	1275 *4175*	1675 *5500*	1975 *6475*	— —	— —	— —	1275 *4175*	1675 *5500*	2000 *6550*
N2	— —	— —	— —	— —	— —	— —	— —	— —	— —	510 *1675*	670 *2200*	800 *2625*	— —	— —	— —	520 *1700*	680 *2225*	810 *2650*
N3	— —	— —	— —	— —	— —	— —	— —	— —	— —	340 *1125*	450 *1475*	540 *1775*	— —	— —	— —	345 *1125*	455 *1500*	540 *1775*
N11	— —	— —	— —	— —	— —	— —	— —	— —	— —	390 *1275*	510 *1675*	610 *2000*	— —	— —	— —	395 *1300*	520 *1700*	620 *2025*
S1	— —	— —	— —	44 *145*	60 *195*	70 *230*	48 *155*	60 *195*	75 *245*	43 *140*	55 *180*	65 *215*	50 *165*	70 *230*	80 *260*	— —	— —	— —
S2	— —	— —	— —	35 *115*	47 *155*	55 *180*	38 *125*	50 *165*	60 *195*	35 *115*	45 *150*	55 *180*	42 *140*	55 *180*	65 *215*	— —	— —	— —
S3	— —	— —	— —	31 *100*	41 *135*	48 *155*	33 *110*	44 *145*	50 *165*	30 *100*	40 *130*	47 *155*	37 *120*	48 *155*	55 *180*	— —	— —	— —
S11	— —	— —	— —	— —	— —	— —	65 *215*	85 *280*	100 *330*	60 *195*	80 *260*	95 *310*	75 *245*	95 *310*	110 *360*	— —	— —	— —
S12	— —	— —	— —	— —	— —	— —	46 *150*	60 *195*	70 *230*	42 *140*	55 *180*	65 *215*	50 *165*	65 *215*	80 *260*	— —	— —	— —
S13	— —	— —	— —	— —	— —	— —	27 *90*	35 *115*	41 *135*	24 *80*	32 *105*	37 *120*	29 *95*	38 *125*	45 *150*	— —	— —	— —
H5	— —	— —	— —	38 *125*	49 *160*	60 *195*	— —	— —	— —	36 *120*	48 *155*	55 *180*	— —	— —	— —	— —	— —	— —
H8	— —	— —	— —	40 *130*	55 *180*	60 *195*	— —	— —	— —	38 *125*	50 *165*	60 *195*	— —	— —	— —	— —	— —	— —
H11	— —	— —	— —	48 *155*	60 *195*	75 *245*	— —	— —	— —	46 *150*	60 *195*	70 *230*	55 *180*	70 *230*	85 *280*	— —	— —	— —
H12	— —	— —	— —	75 *245*	105 *345*	120 *395*	— —	— —	— —	70 *230*	90 *295*	105 *345*	90 *295*	120 *395*	140 *460*	— —	— —	— —

R217/220.69-18 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	MK1500			MP1501			MP2501			MP3501			MM4500		
	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%
P1	—	—	—	365	460	530	360	450	520	325	405	460	175	230	275
	—	—	—	*1200*	*1500*	*1750*	*1175*	*1475*	*1700*	*1075*	*1325*	*1500*	*570*	*750*	*900*
P2	—	—	—	360	445	510	350	435	495	315	395	445	165	225	260
	—	—	—	*1175*	*1450*	*1675*	*1150*	*1425*	*1625*	*1025*	*1300*	*1450*	*540*	*740*	*850*
P3	—	—	—	315	395	445	305	390	435	275	350	390	145	195	230
	—	—	—	*1025*	*1300*	*1450*	*1000*	*1275*	*1425*	*900*	*1150*	*1275*	*475*	*640*	*750*
P4	—	—	—	275	350	390	270	340	385	245	310	345	130	170	205
	—	—	—	*900*	*1150*	*1275*	*890*	*1125*	*1275*	*800*	*1025*	*1125*	*425*	*560*	*670*
P5	—	—	—	270	335	380	260	325	375	235	295	335	125	165	195
	—	—	—	*890*	*1100*	*1250*	*850*	*1075*	*1225*	*770*	*970*	*1100*	*410*	*540*	*640*
P6	—	—	—	300	375	425	295	365	420	265	330	380	140	185	220
	—	—	—	*980*	*1225*	*1400*	*970*	*1200*	*1375*	*870*	*1075*	*1250*	*460*	*610*	*720*
P7	—	—	—	285	355	405	280	345	395	250	310	355	130	175	210
	—	—	—	*940*	*1175*	*1325*	*920*	*1125*	*1300*	*820*	*1025*	*1175*	*425*	*570*	*690*
P8	—	—	—	265	335	375	255	325	365	230	295	330	120	165	190
	—	—	—	*870*	*1100*	*1225*	*840*	*1075*	*1200*	*750*	*970*	*1075*	*395*	*540*	*620*
P11	—	—	—	275	345	390	270	335	385	245	305	345	130	170	200
	—	—	—	*900*	*1125*	*1275*	*890*	*1100*	*1275*	*800*	*1000*	*1125*	*425*	*560*	*660*
P12	—	—	—	185	225	255	180	220	250	160	200	225	85	110	135
	—	—	—	*610*	*740*	*840*	*590*	*720*	*820*	*520*	*660*	*740*	*280*	*360*	*445*
M1	—	—	—	—	—	—	180	240	280	170	225	265	145	190	225
	—	—	—	—	—	—	*590*	*790*	*920*	*560*	*740*	*870*	*475*	*620*	*740*
M2	—	—	—	—	—	—	150	200	235	140	185	220	120	155	190
	—	—	—	—	—	—	*490*	*660*	*770*	*460*	*610*	*720*	*395*	*510*	*620*
M3	—	—	—	—	—	—	120	160	190	115	155	180	95	130	155
	—	—	—	—	—	—	*395*	*520*	*620*	*375*	*510*	*590*	*310*	*425*	*510*
M4	—	—	—	—	—	—	95	125	145	90	120	140	75	100	120
	—	—	—	—	—	—	*310*	*410*	*475*	*295*	*395*	*460*	*245*	*330*	*395*
M5	—	—	—	—	—	—	80	105	125	75	100	115	65	85	100
	—	—	—	—	—	—	*260*	*345*	*410*	*245*	*330*	*375*	*215*	*280*	*330*
K1	280	370	440	360	450	510	350	440	500	315	395	450	—	—	—
	920	*1225*	*1450*	*1175*	*1475*	*1675*	*1150*	*1450*	*1650*	*1025*	*1300*	*1475*	—	—	—
K2	250	330	395	325	405	460	315	395	450	285	355	405	—	—	—
	820	*1075*	*1300*	*1075*	*1325*	*1500*	*1025*	*1300*	*1475*	*940*	*1175*	*1325*	—	—	—
K3	215	280	335	275	340	390	270	335	380	240	300	345	—	—	—
	710	*920*	*1100*	*900*	*1125*	*1275*	*890*	*1100*	*1250*	*790*	*980*	*1125*	—	—	—
K4	205	270	320	260	325	370	255	320	365	230	285	330	—	—	—
	670	*890*	*1050*	*850*	*1075*	*1225*	*840*	*1050*	*1200*	*750*	*940*	*1075*	—	—	—
K5	125	165	195	160	200	225	160	195	220	140	175	200	—	—	—
	410	*540*	*640*	*520*	*660*	*740*	*520*	*640*	*720*	*460*	*570*	*660*	—	—	—
K6	180	235	280	230	285	330	225	280	320	205	255	290	—	—	—
	590	*770*	*920*	*750*	*940*	*1075*	*740*	*920*	*1050*	*670*	*840*	*950*	—	—	—
K7	160	210	250	210	255	290	205	250	285	180	225	255	—	—	—
	520	*690*	*820*	*690*	*840*	*950*	*670*	*820*	*940*	*590*	*740*	*840*	—	—	—
N1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
N2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
N3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
N11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S1	—	—	—	—	—	—	—	—	—	42	55	65	23	31	36
	—	—	—	—	—	—	—	—	—	*140*	*180*	*215*	*75*	*100*	*120*
S2	—	—	—	—	—	—	—	—	—	34	45	50	19	25	29
	—	—	—	—	—	—	—	—	—	*110*	*150*	*165*	*60*	*80*	*95*
S3	—	—	—	—	—	—	—	—	—	30	39	46	17	22	26
	—	—	—	—	—	—	—	—	—	*100*	*130*	*150*	*55*	*70*	*85*
S11	—	—	—	—	—	—	—	—	—	60	80	90	32	43	50
	—	—	—	—	—	—	—	—	—	*195*	*260*	*295*	*105*	*140*	*165*
S12	—	—	—	—	—	—	—	—	—	40	55	65	30	39	47
	—	—	—	—	—	—	—	—	—	*130*	*180*	*215*	*100*	*130*	*155*
S13	—	—	—	—	—	—	—	—	—	24	31	36	18	23	27
	—	—	—	—	—	—	—	—	—	*80*	*100*	*120*	*60*	*75*	*90*
H5	—	—	—	48	60	75	—	—	—	37	49	60	—	—	—
	—	—	—	*155*	*195*	*245*	—	—	—	*120*	*160*	*195*	—	—	—
H8	—	—	—	50	70	80	—	—	—	40	55	60	—	—	—
	—	—	—	*165*	*230*	*260*	—	—	—	*130*	*180*	*195*	—	—	—
H11	—	—	—	60	80	95	—	—	—	47	60	75	—	—	—
	—	—	—	*195*	*260*	*310*	—	—	—	*155*	*195*	*245*	—	—	—
H12	—	—	—	90	125	140	—	—	—	70	95	110	—	—	—
	—	—	—	*295*	*410*	*460*	—	—	—	*230*	*310*	*360*	—	—	—

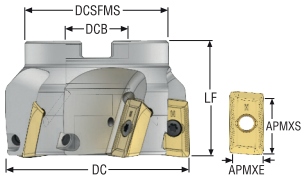


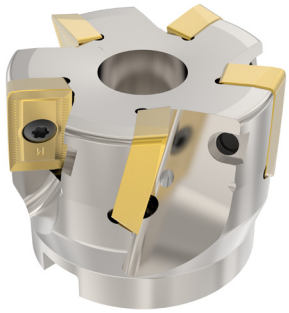
R220.90 ABEX

These multipurpose 90° square-shoulder milling cutters are for heavy roughing applications, delivering large depth-of-cut capability and high feed rates for consistent performance and excellent metal-removal rates.

- Cutter range 63-315 mm (2.5-12 inch)
- Max depth of cut 24 mm (0.94 inch)
- Recommended slotting depth of cut 13 mm (0.51 inch)
- Insert corner radii range 1.6 mm (0.063 inch)

R220.90-26 ABEX – Metric

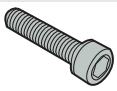
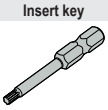




- For insert selection and cutting data recommendations, see page(s) 79-80
- For complete insert programme, see page(s) 806
- For ISO attribute explanation, see page 16
- KAPRS 90°

Designation	Item number	Type of mounting	DC	ZEFP	APMXS	APMXE	DCB	DCSFMS	LF	RMPX°	Cmin	Cmax	RPMX	Weight	Insert
			mm		mm	mm	mm	mm	mm		mm	mm		kg	
R220.90-0063-26-5AM	02789823	Arbor	63,0	5	20,0	10,0	27,0	55,0	50,0	1,5	107,6	123,5	6700	0,6	ABEX26..
R220.90-0063-26-6AM	02789825	Arbor	63,0	6	20,0	10,0	27,0	55,0	50,0	1,5	107,6	123,5	6700	0,8	ABEX26..
R220.90-0080-26-5AM	02789826	Arbor	80,0	5	20,0	10,0	27,0	62,0	50,0	1,0	141,6	157,5	5900	1,1	ABEX26..
R220.90-0125-26-7AM	02789831	Arbor	125,0	7	20,0	10,0	40,0	90,0	63,0	0,5	231,6	247,5	4700	3,1	ABEX26..

Spare Parts, included in delivery

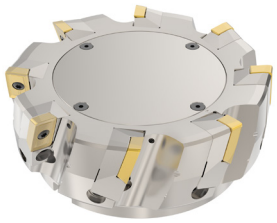
For cutter	Arbor screw	Insert key	Insert screw
			
R220.90-0063-0080	MC6S12X35	1/4HEX-T20PX50	C05013-T20P
R220.90-0100-0125	–	1/4HEX-T20PX90	C05013-T20P

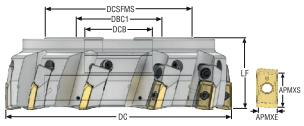
Accessories

For cutter	Adjustable Torque key	Insert clamping torque	Torque key
			
R220.90-0063-0125	1/4HEX-T-HANDLE-5.0-14.0NM	5.0NM	T00-20P50

Torque and fixed keys, see page 872

R220.90 ABEX – Metric

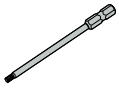
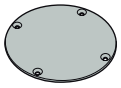




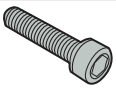
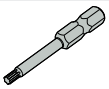
- For insert selection and cutting data recommendations, see page(s) 79-80
- For complete insert programme, see page(s) 806
- For ISO attribute explanation, see page 16
- KAPRS 90°

Designation	Item number	Type of mounting	DC	ZEFP	APMXS	APMXE	DCB	DCSFMS	DBC1	LF	RMPX°	Cmin	Cmax	RPMX	Weight	Insert
			mm		mm	mm	mm	mm	mm	mm		mm	mm		kg	
R220.90-8160-26-8CAN	02830886	Arbor	160,0	8	20,0	10,0	40,0	90,0	66,7	63,0	0,4	296,5	316,8	4200	5,3	ABEX26..
R220.90-8200-26-10CAN	02830887	Arbor	200,0	10	20,0	10,0	60,0	130,0	101,6	63,0	0,35	376,5	396,8	3800	8,1	ABEX26..
R220.90-8250-26-12CAN	02830888	Arbor	250,0	12	20,0	10,0	60,0	130,0	101,6	63,0	0,3	476,5	496,8	3400	13,4	ABEX26..
R220.90-8315-26-14CAN	02830889	Arbor	315,0	14	20,0	10,0	60,0	225,0	101,6	80,0	0,3	606,5	626,8	3000	28,1	ABEX26..

Spare Parts, included in delivery

For cutter	Adjustment unit	Cassette	Cassette screw	Cassette screw 2	Insert key	Insert screw	Lid	Lid screw
								
R220.90-8160	AU1114T-T15P	AB26PRN	FS96018	C05018-T20P	1/4HEX-T20PX90	C05013-T20P	SC-160-90	MF6S4X10
R220.90-8200	AU1114T-T15P	AB26PRN	FS96018	C05018-T20P	1/4HEX-T20PX90	C05013-T20P	SC-200-90	MF6S4X10
R220.90-8250	AU1114T-T15P	AB26PRN	FS96018	C05018-T20P	1/4HEX-T20PX90	C05013-T20P	SC-250-90	MF6S4X10
R220.90-8315	AU1114T-T15P	AB26PRN	FS96018	C05018-T20P	1/4HEX-T20PX90	C05013-T20P	SC-315-90	MF6S4X10

Accessories

For cutter	Adjustable Torque key	Arbor screw	Insert clamping torque	Nest key	Setting key	Torque key
						
R220.90-8160	1/4HEX-T-HANDLE-5.0-14.0NM	MC6S12X40	5.0NM	1/4HEX-H5.0X50	1/4HEX-T15PX50	T00-20P50
R220.90-8200-8250	1/4HEX-T-HANDLE-5.0-14.0NM	MC6S16X50	5.0NM	1/4HEX-H5.0X50	1/4HEX-T15PX50	T00-20P50
R220.90-8315	1/4HEX-T-HANDLE-5.0-14.0NM	–	5.0NM	1/4HEX-H5.0X50	1/4HEX-T15PX50	T00-20P50

Torque and fixed keys, see page 872

R220.90-26 – Insert selection – mm/*Inch*

SMG		a_p	f_z		
			100%	30%	10%
P1	ABEX2606ZFFR-M15 F40M	10,0 *0.40*	0,22 *0.0085*	0,24 *0.0095*	0,36 *0.014*
P2	ABEX2606ZFFR-M15 F40M	10,0 *0.40*	0,22 *0.0085*	0,24 *0.0095*	0,36 *0.014*
P3	ABEX2606ZFFR-M15 MP2501	10,0 *0.40*	0,20 *0.0080*	0,22 *0.0085*	0,34 *0.013*
P4	ABEX2606ZFFR-M15 MP2501	10,0 *0.40*	0,20 *0.0080*	0,22 *0.0085*	0,34 *0.013*
P5	ABEX2606ZFFR-M15 MP2501	10,0 *0.40*	0,20 *0.0080*	0,22 *0.0085*	0,34 *0.013*
P6	ABEX2606ZFFR-M15 MP2501	10,0 *0.40*	0,20 *0.0080*	0,22 *0.0085*	0,32 *0.013*
P7	ABEX2606ZFFR-M15 MP2501	10,0 *0.40*	0,20 *0.0080*	0,22 *0.0085*	0,32 *0.013*
P8	ABEX2606ZFFR-M15 MP2501	10,0 *0.40*	0,20 *0.0080*	0,22 *0.0085*	0,34 *0.013*
P11	ABEX2606ZZFR-M15 MP3501	10,0 *0.40*	0,20 *0.0080*	0,22 *0.0085*	0,32 *0.013*
P12	ABEX2606ZZFR-M15 MP3501	8,0 *0.32*	0,14 *0.0055*	0,15 *0.0060*	0,22 *0.0085*
M1	ABEX2606ZFFR-M15 F40M	10,0 *0.40*	0,22 *0.0085*	0,24 *0.0095*	0,36 *0.014*
M2	ABEX2606ZFFR-M15 F40M	10,0 *0.40*	0,20 *0.0080*	0,22 *0.0085*	0,34 *0.013*
M3	ABEX2606ZFFR-M15 F40M	8,0 *0.32*	0,16 *0.0065*	0,17 *0.0065*	0,26 *0.010*
M4	ABEX2606ZFFR-M15 F40M	6,0 *0.24*	0,14 *0.0055*	0,15 *0.0060*	0,24 *0.0095*
M5	ABEX2606ZFFR-M15 F40M	6,0 *0.24*	0,14 *0.0055*	0,15 *0.0060*	0,24 *0.0095*
K1	ABEX2606ZFFR-M15 MK1500	10,0 *0.40*	0,22 *0.0085*	0,24 *0.0095*	0,36 *0.014*
K2	ABEX2606ZFFR-M15 MK1500	10,0 *0.40*	0,20 *0.0080*	0,22 *0.0085*	0,34 *0.013*
K3	ABEX2606ZFFR-M15 MK1500	10,0 *0.40*	0,20 *0.0080*	0,22 *0.0085*	0,34 *0.013*
K4	ABEX2606ZFFR-M15 MK1500	10,0 *0.40*	0,20 *0.0080*	0,22 *0.0085*	0,34 *0.013*
K5	ABEX2606ZZFR-M15 MP3501	10,0 *0.40*	0,18 *0.0070*	0,19 *0.0075*	0,30 *0.012*
K6	ABEX2606ZZFR-M15 MP3501	10,0 *0.40*	0,20 *0.0080*	0,22 *0.0085*	0,34 *0.013*
K7	ABEX2606ZZFR-M15 MP3501	10,0 *0.40*	0,18 *0.0070*	0,19 *0.0075*	0,30 *0.012*

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

R220.90-26 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	F40M			MK1500			MP1501			MP2501			MP3501		
	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%
P1	185 *610*	250 *820*	295 *970*	— —	— —	— —	355 *1175*	440 *1450*	510 *1675*	345 *1125*	430 *1400*	495 *1625*	305 *1000*	385 *1275*	440 *1450*
P2	180 *590*	240 *790*	285 *940*	— —	— —	— —	345 *1125*	430 *1400*	490 *1600*	335 *1100*	420 *1375*	480 *1575*	295 *970*	375 *1225*	430 *1400*
P3	160 *520*	215 *710*	250 *820*	— —	— —	— —	305 *1000*	380 *1250*	430 *1400*	300 *980*	375 *1225*	420 *1375*	265 *870*	330 *1075*	375 *1225*
P4	145 *475*	190 *620*	220 *720*	— —	— —	— —	270 *890*	335 *1100*	380 *1250*	265 *870*	330 *1075*	370 *1225*	235 *770*	295 *970*	330 *1075*
P5	135 *445*	180 *590*	215 *710*	— —	— —	— —	255 *840*	320 *1050*	370 *1225*	250 *820*	315 *1025*	360 *1175*	225 *740*	280 *920*	325 *1075*
P6	155 *510*	200 *660*	240 *790*	— —	— —	— —	290 *950*	360 *1175*	415 *1350*	280 *920*	350 *1150*	405 *1325*	250 *820*	315 *1025*	365 *1200*
P7	145 *475*	190 *620*	230 *750*	— —	— —	— —	275 *900*	340 *1125*	390 *1275*	265 *870*	330 *1075*	385 *1275*	235 *770*	295 *970*	340 *1125*
P8	135 *445*	180 *590*	210 *690*	— —	— —	— —	255 *840*	320 *1050*	360 *1175*	250 *820*	315 *1025*	355 *1175*	225 *740*	280 *920*	315 *1025*
P11	140 *460*	185 *610*	220 *720*	— —	— —	— —	265 *870*	330 *1075*	380 *1250*	260 *850*	325 *1075*	370 *1225*	230 *750*	290 *950*	335 *1100*
P12	95 *310*	125 *410*	145 *475*	— —	— —	— —	175 *570*	220 *720*	245 *800*	175 *570*	215 *710*	240 *790*	155 *510*	190 *620*	220 *720*
M1	145 *475*	195 *640*	230 *750*	— —	— —	— —	— —	— —	— —	175 *570*	230 *750*	275 *900*	160 *520*	215 *710*	255 *840*
M2	120 *395*	160 *520*	195 *640*	— —	— —	— —	— —	— —	— —	145 *475*	190 *620*	230 *750*	135 *445*	180 *590*	215 *710*
M3	100 *330*	135 *445*	155 *510*	— —	— —	— —	— —	— —	— —	120 *395*	160 *520*	185 *610*	110 *360*	145 *475*	175 *570*
M4	80 *260*	105 *345*	125 *410*	— —	— —	— —	— —	— —	— —	95 *310*	125 *410*	145 *475*	90 *295*	115 *375*	135 *445*
M5	65 *215*	90 *295*	105 *345*	— —	— —	— —	— —	— —	— —	80 *260*	105 *345*	120 *395*	75 *245*	95 *310*	115 *375*
K1	145 *475*	190 *620*	225 *740*	270 *890*	360 *1175*	425 *1400*	345 *1125*	435 *1425*	495 *1625*	335 *1100*	425 *1400*	485 *1600*	300 *980*	375 *1225*	435 *1425*
K2	130 *425*	170 *560*	205 *670*	240 *790*	320 *1050*	380 *1250*	310 *1025*	390 *1275*	445 *1450*	305 *1000*	380 *1250*	435 *1425*	270 *890*	340 *1125*	390 *1275*
K3	110 *360*	145 *475*	175 *570*	205 *670*	270 *890*	325 *1075*	265 *870*	330 *1075*	380 *1250*	255 *840*	320 *1050*	370 *1225*	230 *750*	285 *940*	330 *1075*
K4	105 *345*	140 *460*	165 *540*	195 *640*	260 *850*	310 *1025*	250 *820*	315 *1025*	360 *1175*	245 *800*	305 *1000*	355 *1175*	220 *720*	275 *900*	315 *1025*
K5	65 *215*	85 *280*	100 *330*	120 *395*	160 *520*	185 *610*	155 *510*	195 *640*	220 *720*	150 *490*	190 *620*	215 *710*	135 *445*	170 *560*	190 *620*
K6	90 *295*	120 *395*	145 *475*	170 *560*	225 *740*	270 *890*	220 *720*	275 *900*	315 *1025*	215 *710*	270 *890*	310 *1025*	190 *620*	240 *790*	280 *920*
K7	80 *260*	110 *360*	130 *425*	155 *510*	205 *670*	240 *790*	200 *660*	250 *820*	280 *920*	195 *640*	245 *800*	275 *900*	175 *570*	220 *720*	245 *800*



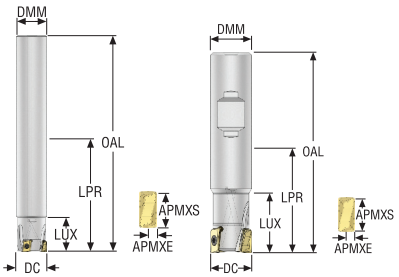
SQUARE T4

Made for roughing and semi-finishing operations, the Square T4 features four cutting edges and an innovative tangential cutter design that increases the surface area of contact between the insert and the cutter body resulting in good surface finish during slotting, contouring and plunging applications.

- Multi-edge inserts optimize cutting stability
- Available in two inserts size, 08 and 12
- Allow for clean 90-degree walls

Square T4 – R217.94-08 – Metric

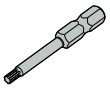




- For insert selection and cutting data recommendations, see page(s) 86-88
- For complete insert programme, see page(s) 809, 810
- For ISO attribute explanation, see page 16
- KAPRS 90°

Designation	Item number	Type of mounting	DC	ZEFP	APMXS	APMXE	DMM	LUX	LPR	OAL	RPMX	Weight	Insert
			mm		mm	mm	mm	mm	mm	mm		kg	
R217.94-1616.0-08-2A	02827519	Cylindrical	16,0	2	8,0	2,0	16,0	29,0	42,0	90,0	20600	0,2	LOEX08..
R217.94-1820.0-08-2A	02827520	Cylindrical	20,0	2	8,0	2,0	18,0	110,0	110,0	160,0	18400	0,4	LOEX08..
R217.94-2020.0-08-2A	02827522	Cylindrical	20,0	2	8,0	2,0	20,0	29,0	110,0	160,0	18400	0,4	LOEX08..
R217.94-2020.0-08-3A	02827523	Cylindrical	20,0	3	8,0	2,0	20,0	29,0	60,0	110,0	18400	0,3	LOEX08..
R217.94-2225.0-08-3A	02827524	Cylindrical	25,0	3	8,0	2,0	22,0	124,0	124,0	180,0	17600	0,5	LOEX08..
R217.94-2525.0-08-3A	02827525	Cylindrical	25,0	3	8,0	2,0	25,0	29,0	124,0	180,0	16500	0,7	LOEX08..
R217.94-2525.0-08-4A	02827526	Cylindrical	25,0	4	8,0	2,0	25,0	29,0	64,0	120,0	16500	0,4	LOEX08..
R217.94-3232.0-08-3A	02827528	Cylindrical	32,0	3	8,0	2,0	32,0	29,0	140,0	200,0	14600	1,2	LOEX08..
R217.94-3232.0-08-5A	02827529	Cylindrical	32,0	5	8,0	2,0	32,0	29,0	70,0	130,0	14600	0,8	LOEX08..
R217.94-1616.3-08-2A	02827530	Weldon	16,0	2	8,0	2,0	16,0	23,4	30,0	78,0	20600	0,2	LOEX08..
R217.94-2018.3-08-2A	02829812	Weldon	18,0	2	8,0	2,0	20,0	26,7	40,0	90,0	19400	0,2	LOEX08..
R217.94-2020.3-08-2A	02827531	Weldon	20,0	2	8,0	2,0	20,0	28,8	40,0	90,0	18400	0,3	LOEX08..
R217.94-2020.3-08-3A	02827533	Weldon	20,0	3	8,0	2,0	20,0	28,9	40,0	90,0	18400	0,3	LOEX08..
R217.94-2522.3-08-3A	02829813	Weldon	22,0	3	8,0	2,0	25,0	26,5	45,0	101,0	17600	0,3	LOEX08..
R217.94-2525.3-08-3A	02827534	Weldon	25,0	3	8,0	2,0	25,0	28,9	45,0	101,0	16500	0,4	LOEX08..
R217.94-2525.3-08-4A	02827535	Weldon	25,0	4	8,0	2,0	25,0	28,9	45,0	101,0	16500	0,4	LOEX08..
R217.94-3232.3-08-5A	02827537	Weldon	32,0	5	8,0	2,0	32,0	28,2	45,0	105,0	14600	0,6	LOEX08..

Spare Parts, included in delivery

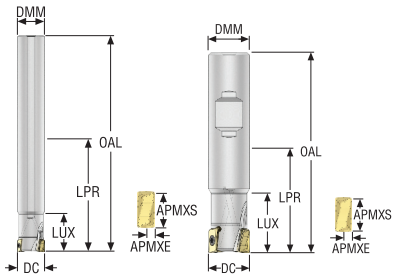
For cutter	Insert key	Insert screw
		
R217.94-.. Ø16-18	1/4HEX-T08PX50	C02707B-T08P
R217.94-.. Ø20-32	1/4HEX-T08PX50	C02708B-T08P

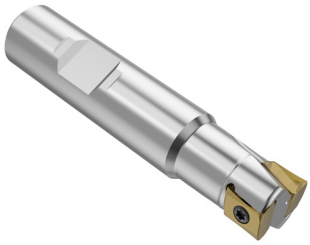
Accessories

For cutter	Adjustable Torque key	Insert clamping torque	Torque key
			
R217.94-..	1/4HEX-S-HANDLE-0.8-5.0NM	1.2NM	T00-08P12

Torque and fixed keys, see page 872

Square T4 – R217.94-08 – inch

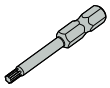




- For insert selection and cutting data recommendations, see page(s) 86-88
- For complete insert programme, see page(s) 809, 810
- For ISO attribute explanation, see page 16
- KAPRS 90°

Designation	Item number	Type of mounting	DC	ZEFP	APMXS	APMXE	DMM	LUX	LPR	OAL	RPMX	Weight	Insert
			inch		inch	inch	inch	inch	inch	inch		lbs	
R217.94-00.62-0-08-2A	02887518	Cylindrical	0.625	2	0.315	0.079	0.625	1.122	3.630	5.520	20600	0.440	LOEX08..
R217.94-01.00-0-08-3A	02887523	Cylindrical	1.000	3	0.315	0.079	1.000	1.138	5.665	7.870	16500	1.540	LOEX08..
R217.94-00.75-3-08-3A	02887522	Weldon	0.750	3	0.315	0.079	0.750	1.138	1.531	3.500	18400	0.440	LOEX08..
R217.94-01.00-3-08-3A	02887524	Weldon	1.000	3	0.315	0.079	1.000	1.138	2.031	4.000	16500	0.880	LOEX08..
R217.94-01.00-3-08-4A	02887525	Weldon	1.000	4	0.315	0.079	1.000	1.138	2.031	4.000	16500	0.880	LOEX08..
R217.94-01.25-3-08-4A	02887527	Weldon	1.250	4	0.315	0.079	1.250	1.110	2.138	4.500	14600	1.540	LOEX08..

Spare Parts, included in delivery

For cutter	Insert key	Insert screw
		
R217.94-00.62-00.75	1/4HEX-T08PX50	C02707B-T08P
R217.94-01.00-01.25	1/4HEX-T08PX50	C02708B-T08P

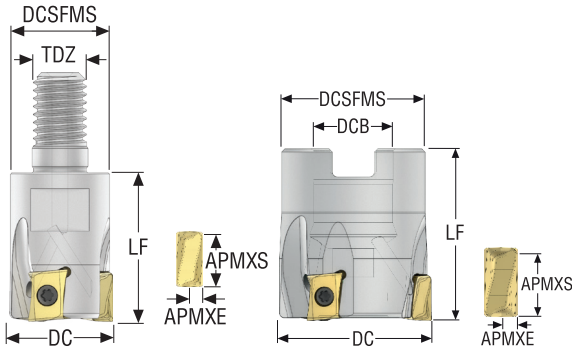
Accessories

For cutter	Adjustable Torque key	Insert clamping torque	Torque key
			
R217.94-..	1/4HEX-S-HANDLE-0.8-5.0NM	10.6IN.LBS	T00-08P12

Torque and fixed keys, see page 872

Square T4 – R217/220.94-08 – Metric



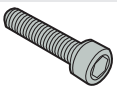
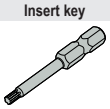


- For insert selection and cutting data recommendations, see page(s) 86-88
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- For ISO attribute explanation, see page 16
- KAPRS 90°

Designation	Item number	Type of mounting	DC	ZEFP	APMXS	APMXE	DCB	TDZ	DCSFMS	LF	RPMX	Weight	Insert
			mm		mm	mm	mm		mm	mm		kg	
R217.94-0816.RE-08-2A	02827538	Combimaster	16,0	2	8,0	2,0	–	M8	13,5	23,0	20600	0,1	LOEX08..
R217.94-1020.RE-08-3A	02827540	Combimaster	20,0	3	8,0	2,0	–	M10	18,5	28,0	18400	0,1	LOEX08..
R217.94-1225.RE-08-3A	02827541	Combimaster	25,0	3	8,0	2,0	–	M12	23,0	30,0	16500	0,2	LOEX08..
R217.94-1225.RE-08-4A	02827542	Combimaster	25,0	4	8,0	2,0	–	M12	23,0	30,0	16500	0,1	LOEX08..
R217.94-1632.RE-08-3A	02827543	Combimaster	32,0	3	8,0	2,0	–	M16	30,0	35,0	14600	0,3	LOEX08..
R217.94-1632.RE-08-5A	02827544	Combimaster	32,0	5	8,0	2,0	–	M16	30,0	35,0	14600	0,2	LOEX08..
R217.94-2040.RE-08-6A	02972755	Combimaster	40,0	6	8,0	2,0	–	M20	36,5	40,0	13000	0,4	LOEX08..
R220.94-0032-08-5A	02845461	Arbor	32,0	5	8,0	2,0	16,0	–	29,3	35,0	13000	0,2	LOEX08..
R220.94-0040-08-4A	02827545	Arbor	40,0	4	8,0	2,0	16,0	–	35,0	40,0	13000	0,3	LOEX08..
R220.94-0040-08-6A	02827546	Arbor	40,0	6	8,0	2,0	16,0	–	35,0	40,0	13000	0,3	LOEX08..
R220.94-0050-08-5A	02827547	Arbor	50,0	5	8,0	2,0	22,0	–	45,0	40,0	11700	0,5	LOEX08..
R220.94-0050-08-7A	02827548	Arbor	50,0	7	8,0	2,0	22,0	–	45,0	40,0	11700	0,5	LOEX08..
R220.94-0063-08-6A	02827549	Arbor	63,0	6	8,0	2,0	27,0	–	56,0	40,0	10400	0,7	LOEX08..
R220.94-0063-08-9A	02827550	Arbor	63,0	9	8,0	2,0	27,0	–	56,0	40,0	10400	0,7	LOEX08..

For Combimaster Shanks, see Machining Navigator Tooling System

Spare Parts, included in delivery

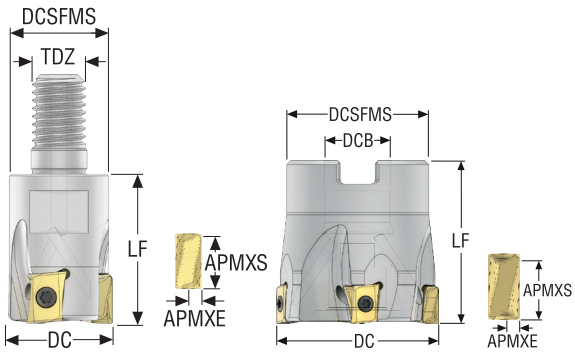
For cutter	Arbor screw	Insert key	Insert screw
			
R217.94-.. Ø16	–	1/4HEX-T08PX50	C02707B-T08P
R217.94-.. Ø20-40	–	1/4HEX-T08PX50	C02708B-T08P
R220.94-0032	TCEI0825	1/4HEX-T08PX50	C02707B-T08P
R220.94-0040	TCEI0825	1/4HEX-T08PX50	C02708B-T08P
R220.94-0050	220.17-692	1/4HEX-T08PX50	C02708B-T08P
R220.94-0063	MLC6S12X30	1/4HEX-T08PX50	C02708B-T08P

Accessories

For cutter	Adjustable Torque key	Insert clamping torque	Torque key
			
R217/220.94-..	1/4HEX-S-HANDLE-0.8-5.0NM	1.2NM	T00-08P12

Torque and fixed keys, see page 872

Square T4 – R217/220.94-08 – inch



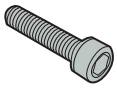
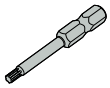


- For insert selection and cutting data recommendations, see page(s) 86-88
- For complete insert programme, see page(s) 809, 810
- For ISO attribute explanation, see page 16
- KAPRS 90°

Designation	Item number	Type of mounting	DC	ZEFP	APMXS	APMXE	DCB	TDZ	DCSFMS	LF	RPMX	Weight	Insert
			inch		inch	inch	inch		inch	inch		lbs	
R217.94-00.75-10RE-08-3A	10225143	Combimaster	0.750	3	0.315	0.079	–	M10	0.728	1.102	18400	0.220	LOEX0804
R217.94-01.00-12RE-08-3A	02890010	Combimaster	1.000	3	0.315	0.079	–	M12	0.906	1.181	16500	0.220	LOEX0804
R217.94-01.25-16RE-08-4A	10225144	Combimaster	1.250	4	0.315	0.079	–	M16	1.181	1.378	14600	0.440	LOEX0804
R220.94-01.50-08-4A	02887529	Arbor	1.500	4	0.315	0.079	0.750	–	1.378	1.575	13000	0.660	LOEX0804
R220.94-02.00-08-5A	02887530	Arbor	2.000	5	0.315	0.079	0.750	–	1.772	1.575	11700	1.100	LOEX0804

For Combimaster Shanks, see Machining Navigator Tooling System

Spare Parts, included in delivery

For cutter	Arbor screw	Insert key	Insert screw
			
R217.94-00.75	–	1/4HEX-T08PX50	C02707B-T08P
R217.94-01.00-01.25	–	1/4HEX-T08PX50	C02708B-T08P
R220.94-..	UC6S3/8UNFX1	1/4HEX-T08PX50	C02708B-T08P

Accessories

For cutter	Adjustable Torque key	Insert clamping torque	Torque key
			
R217/220.94-..	1/4HEX-S-HANDLE-0.8-5.0NM	10.6IN.LBS	T00-08P12

Torque and fixed keys, see page 872

R217/220.94-08 – Insert selection – mm/*Inch*

SMG		a_p	f_z		
			100%	30%	10%
P1	LOEX080408TR-M08 F40M	4,0 *0.16*	0,11 *0.0044*	0,13 *0.0050*	0,19 *0.0075*
P2	LOEX080408TR-M08 F40M	4,0 *0.16*	0,12 *0.0048*	0,13 *0.0050*	0,20 *0.0080*
P3	LOEX080408TR-M08 MP2501	4,0 *0.16*	0,11 *0.0044*	0,12 *0.0048*	0,19 *0.0075*
P4	LOEX080408TR-M08 MP2501	4,0 *0.16*	0,11 *0.0044*	0,12 *0.0048*	0,18 *0.0070*
P5	LOEX080408TR-M08 MP2501	4,0 *0.16*	0,11 *0.0044*	0,12 *0.0048*	0,18 *0.0070*
P6	LOEX080408TR-M08 MP2501	4,0 *0.16*	0,11 *0.0044*	0,11 *0.0044*	0,18 *0.0070*
P7	LOEX080408TR-M08 MP2501	4,0 *0.16*	0,11 *0.0044*	0,11 *0.0044*	0,18 *0.0070*
P8	LOEX080408TR-M08 MP2501	4,0 *0.16*	0,11 *0.0044*	0,12 *0.0048*	0,19 *0.0075*
P11	LOEX080408TR-M08 MP3501	4,0 *0.16*	0,11 *0.0044*	0,11 *0.0044*	0,18 *0.0070*
P12	LOEX080408TR-M08 MP3000	3,0 *0.12*	0,075 *0.0030*	0,080 *0.0032*	0,12 *0.0048*
M1	LOEX080408TR-M08 F40M	4,0 *0.16*	0,12 *0.0048*	0,13 *0.0050*	0,20 *0.0080*
M2	LOEX080408TR-M08 F40M	4,0 *0.16*	0,11 *0.0044*	0,12 *0.0048*	0,18 *0.0070*
M3	LOEX080408TR-M08 F40M	3,0 *0.12*	0,085 *0.0034*	0,095 *0.0038*	0,14 *0.0055*
M4	LOEX080408TR-M08 MS2050	2,5 *0.10*	0,075 *0.0030*	0,085 *0.0034*	0,13 *0.0050*
M5	LOEX080408TR-M08 MS2050	2,5 *0.10*	0,075 *0.0030*	0,085 *0.0034*	0,13 *0.0050*
K1	LOEX080408TR-M08 MK1500	4,0 *0.16*	0,12 *0.0048*	0,13 *0.0050*	0,20 *0.0080*
K2	LOEX080408TR-M08 MK1500	4,0 *0.16*	0,11 *0.0044*	0,12 *0.0048*	0,18 *0.0070*
K3	LOEX080408TR-M08 MK2050	4,0 *0.16*	0,11 *0.0044*	0,12 *0.0048*	0,18 *0.0070*
K4	LOEX080408TR-M08 MK2050	4,0 *0.16*	0,11 *0.0044*	0,12 *0.0048*	0,18 *0.0070*
K5	LOEX080408TR-M08 MK2050	4,0 *0.16*	0,095 *0.0038*	0,10 *0.0040*	0,16 *0.0065*
K6	LOEX080408TR-M08 MK2050	4,0 *0.16*	0,11 *0.0044*	0,12 *0.0048*	0,18 *0.0070*
K7	LOEX080408TR-M08 MK2050	4,0 *0.16*	0,095 *0.0038*	0,10 *0.0040*	0,16 *0.0065*
N1	LOEX080408TR-M08 F40M	4,0 *0.16*	0,15 *0.0060*	0,16 *0.0065*	0,25 *0.010*
N2	LOEX080408TR-M08 F40M	4,0 *0.16*	0,15 *0.0060*	0,16 *0.0065*	0,25 *0.010*
N3	LOEX080408TR-M08 F40M	4,0 *0.16*	0,15 *0.0060*	0,16 *0.0065*	0,25 *0.010*
N11	LOEX080408TR-M08 F40M	4,0 *0.16*	0,15 *0.0060*	0,16 *0.0065*	0,25 *0.010*
S1	LOEX080408TR-M08 F40M	2,5 *0.10*	0,075 *0.0030*	0,085 *0.0034*	0,13 *0.0050*
S2	LOEX080408TR-M08 F40M	2,5 *0.10*	0,075 *0.0030*	0,085 *0.0034*	0,13 *0.0050*
S3	LOEX080408TR-M08 F40M	2,5 *0.10*	0,070 *0.0028*	0,080 *0.0032*	0,12 *0.0048*
S11	LOEX080408TR-M08 MS2050	2,5 *0.10*	0,085 *0.0034*	0,095 *0.0038*	0,15 *0.0060*
S12	LOEX080408TR-M08 MS2050	2,5 *0.10*	0,085 *0.0034*	0,095 *0.0038*	0,15 *0.0060*
S13	LOEX080408TR-M08 MS2050	2,5 *0.10*	0,075 *0.0030*	0,085 *0.0034*	0,13 *0.0050*
H5	LOEX080408TR-M08 MP3000	3,0 *0.12*	0,075 *0.0030*	0,080 *0.0032*	0,12 *0.0048*
H8	LOEX080408TR-M08 MP3000	2,5 *0.10*	0,055 *0.0022*	0,060 *0.0024*	0,095 *0.0038*
H11	LOEX080408TR-MD08 MP1501	3,0 *0.12*	0,075 *0.0030*	0,080 *0.0032*	0,12 *0.0048*
H12	LOEX080408TR-MD08 MP1501	2,5 *0.10*	0,055 *0.0022*	0,060 *0.0024*	0,095 *0.0038*

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

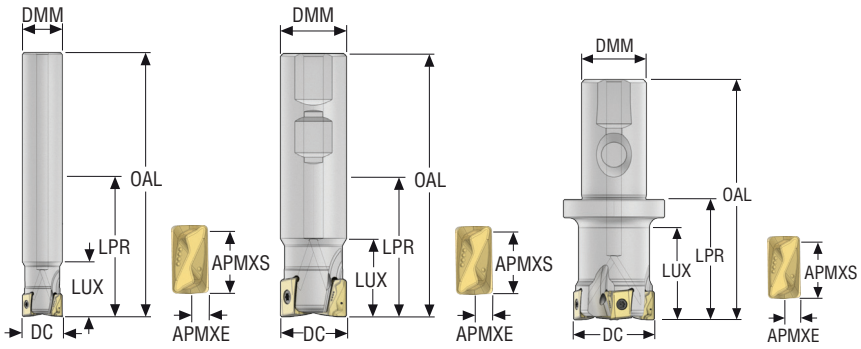
R217/220.94-08 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	MK2050			MP3000			MS2050			F40M			MP2050		
	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%
P1	310 *1025*	410 *1350*	475 *1550*	300 *980*	395 *1300*	460 *1500*	260 *850*	345 *1125*	405 *1325*	240 *790*	315 *1025*	365 *1200*	295 *970*	390 *1275*	460 *1500*
P2	295 *970*	390 *1275*	465 *1525*	285 *940*	375 *1225*	445 *1450*	250 *820*	330 *1075*	395 *1300*	225 *740*	300 *980*	355 *1175*	290 *950*	380 *1250*	445 *1450*
P3	260 *850*	345 *1125*	405 *1325*	250 *820*	330 *1075*	390 *1275*	220 *720*	290 *950*	345 *1125*	200 *660*	265 *870*	310 *1025*	255 *840*	330 *1075*	395 *1300*
P4	230 *750*	300 *980*	355 *1175*	220 *720*	290 *950*	345 *1125*	195 *640*	255 *840*	300 *980*	175 *570*	230 *750*	275 *900*	225 *740*	295 *970*	345 *1125*
P5	220 *720*	290 *950*	340 *1125*	210 *690*	275 *900*	330 *1075*	185 *610*	245 *800*	290 *950*	170 *560*	220 *720*	260 *850*	215 *710*	280 *920*	330 *1075*
P6	250 *820*	330 *1075*	390 *1275*	240 *790*	320 *1050*	375 *1225*	215 *710*	280 *920*	330 *1075*	195 *640*	255 *840*	300 *980*	240 *790*	315 *1025*	370 *1225*
P7	235 *770*	310 *1025*	365 *1200*	230 *750*	300 *980*	350 *1150*	200 *660*	265 *870*	310 *1025*	180 *590*	240 *790*	280 *920*	225 *740*	300 *980*	350 *1150*
P8	220 *720*	290 *950*	340 *1125*	210 *690*	275 *900*	330 *1075*	185 *610*	245 *800*	290 *950*	170 *560*	220 *720*	260 *850*	215 *710*	275 *900*	330 *1075*
P11	230 *750*	305 *1000*	355 *1175*	220 *720*	290 *950*	340 *1125*	195 *640*	255 *840*	300 *980*	175 *570*	235 *770*	275 *900*	220 *720*	290 *950*	340 *1125*
P12	145 *475*	195 *640*	230 *750*	140 *460*	185 *610*	220 *720*	125 *410*	165 *540*	190 *620*	115 *375*	150 *490*	175 *570*	145 *475*	190 *620*	225 *740*
M1	— —	— —	— —	210 *690*	280 *920*	335 *1100*	200 *660*	265 *870*	315 *1025*	185 *610*	240 *790*	290 *950*	205 *670*	275 *900*	320 *1050*
M2	— —	— —	— —	175 *570*	230 *750*	275 *900*	165 *540*	220 *720*	260 *850*	150 *490*	200 *660*	235 *770*	170 *560*	225 *740*	265 *870*
M3	— —	— —	— —	145 *475*	185 *610*	220 *720*	135 *445*	180 *590*	210 *690*	125 *410*	160 *520*	190 *620*	140 *460*	185 *610*	215 *710*
M4	— —	— —	— —	110 *360*	145 *475*	170 *560*	105 *345*	140 *460*	165 *540*	95 *310*	125 *410*	150 *490*	110 *360*	140 *460*	165 *540*
M5	— —	— —	— —	95 *310*	125 *410*	145 *475*	90 *295*	115 *375*	135 *445*	80 *260*	105 *345*	125 *410*	90 *295*	115 *375*	140 *460*
K1	320 *1050*	420 *1375*	500 *1650*	225 *740*	295 *970*	355 *1175*	— —	— —	— —	180 *590*	240 *790*	285 *940*	— —	— —	— —
K2	280 *920*	370 *1225*	440 *1450*	200 *660*	265 *870*	310 *1025*	— —	— —	— —	160 *520*	210 *690*	250 *820*	— —	— —	— —
K3	240 *790*	315 *1025*	375 *1225*	170 *560*	225 *740*	265 *870*	— —	— —	— —	135 *445*	180 *590*	210 *690*	— —	— —	— —
K4	230 *750*	300 *980*	355 *1175*	160 *520*	210 *690*	250 *820*	— —	— —	— —	130 *425*	170 *560*	200 *660*	— —	— —	— —
K5	140 *460*	185 *610*	220 *720*	100 *330*	130 *425*	155 *510*	— —	— —	— —	80 *260*	105 *345*	125 *410*	— —	— —	— —
K6	200 *660*	265 *870*	315 *1025*	140 *460*	185 *610*	220 *720*	— —	— —	— —	115 *375*	150 *490*	175 *570*	— —	— —	— —
K7	180 *590*	240 *790*	280 *920*	125 *410*	170 *560*	195 *640*	— —	— —	— —	100 *330*	135 *445*	160 *520*	— —	— —	— —
N1	— —	— —	— —	— —	— —	— —	— —	— —	— —	1325 *4350*	1775 *5825*	2075 *6800*	— —	— —	— —
N2	— —	— —	— —	— —	— —	— —	— —	— —	— —	540 *1775*	720 *2350*	840 *2750*	— —	— —	— —
N3	— —	— —	— —	— —	— —	— —	— —	— —	— —	360 *1175*	480 *1575*	560 *1825*	— —	— —	— —
N11	— —	— —	— —	— —	— —	— —	— —	— —	— —	410 *1350*	550 *1800*	640 *2100*	— —	— —	— —
S1	— —	— —	— —	50 *165*	70 *230*	80 *260*	50 *165*	65 *215*	75 *245*	45 *150*	60 *195*	70 *230*	55 *180*	70 *230*	80 *260*
S2	— —	— —	— —	42 *140*	55 *180*	65 *215*	40 *130*	55 *180*	60 *195*	36 *120*	48 *155*	55 *180*	43 *140*	55 *180*	65 *215*
S3	— —	— —	— —	37 *120*	48 *155*	55 *180*	35 *115*	46 *150*	55 *180*	32 *105*	42 *140*	49 *160*	37 *120*	49 *160*	55 *180*
S11	— —	— —	— —	— —	— —	— —	70 *230*	90 *295*	105 *345*	65 *215*	80 *260*	95 *310*	75 *245*	100 *330*	115 *375*
S12	— —	— —	— —	— —	— —	— —	48 *155*	60 *195*	75 *245*	44 *145*	55 *180*	65 *215*	50 *165*	70 *230*	80 *260*
S13	— —	— —	— —	— —	— —	— —	28 *90*	37 *120*	43 *140*	25 *80*	33 *110*	39 *130*	30 *100*	39 *130*	45 *150*
H5	— —	— —	— —	44 *145*	60 *195*	70 *230*	— —	— —	— —	38 *125*	49 *160*	60 *195*	— —	— —	— —
H8	— —	— —	— —	47 *155*	60 *195*	70 *230*	— —	— —	— —	40 *130*	55 *180*	60 *195*	— —	— —	— —
H11	— —	— —	— —	55 *180*	75 *245*	85 *280*	— —	— —	— —	48 *155*	65 *215*	75 *245*	55 *180*	70 *230*	85 *280*
H12	— —	— —	— —	90 *295*	120 *395*	140 *460*	— —	— —	— —	75 *245*	95 *310*	110 *360*	90 *295*	120 *395*	140 *460*

R217/220.94-08 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	MK1500			MP1501			MP2501			MP3501			MM4500		
	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%
P1	—	—	—	450	550	610	445	540	600	400	490	540	195	255	300
	—	—	—	*1475*	*1800*	*2000*	*1450*	*1775*	*1975*	*1300*	*1600*	*1775*	*640*	*840*	*980*
P2	—	—	—	430	530	600	425	520	590	380	470	530	185	245	290
	—	—	—	*1400*	*1750*	*1975*	*1400*	*1700*	*1925*	*1250*	*1550*	*1750*	*610*	*800*	*950*
P3	—	—	—	380	460	520	375	455	510	335	410	460	160	215	255
	—	—	—	*1250*	*1500*	*1700*	*1225*	*1500*	*1675*	*1100*	*1350*	*1500*	*520*	*710*	*840*
P4	—	—	—	330	405	455	330	400	450	295	360	405	145	190	225
	—	—	—	*1075*	*1325*	*1500*	*1075*	*1300*	*1475*	*970*	*1175*	*1325*	*475*	*620*	*740*
P5	—	—	—	315	385	435	315	380	430	280	345	385	135	180	210
	—	—	—	*1025*	*1275*	*1425*	*1025*	*1250*	*1400*	*920*	*1125*	*1275*	*445*	*590*	*690*
P6	—	—	—	365	440	490	360	435	485	325	395	440	155	205	240
	—	—	—	*1200*	*1450*	*1600*	*1175*	*1425*	*1600*	*1075*	*1300*	*1450*	*510*	*670*	*790*
P7	—	—	—	345	415	465	340	410	460	305	370	415	150	195	230
	—	—	—	*1125*	*1350*	*1525*	*1125*	*1350*	*1500*	*1000*	*1225*	*1350*	*490*	*640*	*750*
P8	—	—	—	315	385	435	315	380	430	280	345	385	135	180	210
	—	—	—	*1025*	*1275*	*1425*	*1025*	*1250*	*1400*	*920*	*1125*	*1275*	*445*	*590*	*690*
P11	—	—	—	335	405	450	330	400	445	295	360	400	145	190	220
	—	—	—	*1100*	*1325*	*1475*	*1075*	*1300*	*1450*	*970*	*1175*	*1300*	*475*	*620*	*720*
P12	—	—	—	205	250	275	205	245	275	185	220	245	90	120	140
	—	—	—	*670*	*820*	*900*	*670*	*800*	*900*	*610*	*720*	*800*	*295*	*395*	*460*
M1	—	—	—	—	—	—	215	285	340	200	265	315	160	210	250
	—	—	—	—	—	—	*710*	*940*	*1125*	*660*	*870*	*1025*	*520*	*690*	*820*
M2	—	—	—	—	—	—	180	235	280	165	220	260	130	170	205
	—	—	—	—	—	—	*590*	*770*	*920*	*540*	*720*	*850*	*425*	*560*	*670*
M3	—	—	—	—	—	—	145	190	225	135	180	210	105	140	165
	—	—	—	—	—	—	*475*	*620*	*740*	*445*	*590*	*690*	*345*	*460*	*540*
M4	—	—	—	—	—	—	115	150	175	105	140	165	85	110	130
	—	—	—	—	—	—	*375*	*490*	*570*	*345*	*460*	*540*	*280*	*360*	*425*
M5	—	—	—	—	—	—	95	125	145	90	115	135	70	90	105
	—	—	—	—	—	—	*310*	*410*	*475*	*295*	*375*	*445*	*230*	*295*	*345*
K1	335	445	530	435	530	600	430	520	590	385	470	530	—	—	—
	1100	*1450*	*1750*	*1425*	*1750*	*1975*	*1400*	*1700*	*1925*	*1275*	*1550*	*1750*	—	—	—
K2	300	395	465	385	470	530	380	460	520	340	415	470	—	—	—
	980	*1300*	*1525*	*1275*	*1550*	*1750*	*1250*	*1500*	*1700*	*1125*	*1350*	*1550*	—	—	—
K3	250	335	395	325	395	445	320	390	440	290	350	395	—	—	—
	820	*1100*	*1300*	*1075*	*1300*	*1450*	*1050*	*1275*	*1450*	*950*	*1150*	*1300*	—	—	—
K4	240	320	375	310	380	425	305	375	420	275	335	380	—	—	—
	790	*1050*	*1225*	*1025*	*1250*	*1400*	*1000*	*1225*	*1375*	*900*	*1100*	*1250*	—	—	—
K5	150	200	230	190	230	255	190	230	255	170	205	230	—	—	—
	490	*660*	*750*	*620*	*750*	*840*	*620*	*750*	*840*	*560*	*670*	*750*	—	—	—
K6	210	280	330	275	335	375	270	330	370	240	295	335	—	—	—
	690	*920*	*1075*	*900*	*1100*	*1225*	*890*	*1075*	*1225*	*790*	*970*	*1100*	—	—	—
K7	190	255	295	245	295	330	240	295	325	215	265	295	—	—	—
	620	*840*	*970*	*800*	*970*	*1075*	*790*	*970*	*1075*	*710*	*870*	*970*	—	—	—
N1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
N2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
N3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
N11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S1	—	—	—	—	—	—	—	—	—	50	65	75	25	34	39
	—	—	—	—	—	—	—	—	—	*165*	*215*	*245*	*80*	*110*	*130*
S2	—	—	—	—	—	—	—	—	—	40	55	60	21	27	32
	—	—	—	—	—	—	—	—	—	*130*	*180*	*195*	*70*	*90*	*105*
S3	—	—	—	—	—	—	—	—	—	35	46	55	18	24	28
	—	—	—	—	—	—	—	—	—	*115*	*150*	*180*	*60*	*80*	*90*
S11	—	—	—	—	—	—	—	—	—	70	90	105	36	46	55
	—	—	—	—	—	—	—	—	—	*230*	*295*	*345*	*120*	*150*	*180*
S12	—	—	—	—	—	—	—	—	—	48	60	75	33	43	50
	—	—	—	—	—	—	—	—	—	*155*	*195*	*245*	*110*	*140*	*165*
S13	—	—	—	—	—	—	—	—	—	28	37	43	19	25	29
	—	—	—	—	—	—	—	—	—	*90*	*120*	*140*	*60*	*80*	*95*
H5	—	—	—	55	75	85	—	—	—	43	55	65	—	—	—
	—	—	—	*180*	*245*	*280*	—	—	—	*140*	*180*	*215*	—	—	—
H8	—	—	—	60	80	90	—	—	—	47	60	70	—	—	—
	—	—	—	*195*	*260*	*295*	—	—	—	*155*	*195*	*230*	—	—	—
H11	—	—	—	70	95	110	—	—	—	55	70	85	—	—	—
	—	—	—	*230*	*310*	*360*	—	—	—	*180*	*230*	*280*	—	—	—
H12	—	—	—	110	140	165	—	—	—	85	110	125	—	—	—
	—	—	—	*360*	*460*	*540*	—	—	—	*280*	*360*	*410*	—	—	—

Square T4 – R217.94-12 – Metric

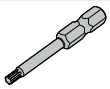




- For insert selection and cutting data recommendations, see page(s) 94-96
- For complete insert programme, see page(s) 809, 810
- For ISO attribute explanation, see page 16
- KAPRS 90°

Designation	Item number	Type of mounting	DC	ZEFP	APMXS	APMXE	DMM	LUX	LPR	OAL	RPMX	Weight	Insert
			mm		mm	mm	mm	mm	mm	mm		kg	
R217.94-2525.0-LO12-2A	10207966	Cylindrical	25,0	2	12,0	3,5	25,0	35,0	114,0	170,0	14000	0,6	LOEX1207
R217.94-3232.0-LO12-3A	10207967	Cylindrical	32,0	3	12,0	3,5	32,0	30,0	135,0	195,0	12400	1,2	LOEX1207
R217.94-3240.0-LO12-4A	10207968	Cylindrical	40,0	4	12,0	3,5	32,0	150,0	150,0	210,0	11100	1,3	LOEX1207
R217.94-2525.3-LO12-2A	10207962	Weldon	25,0	2	12,0	3,5	25,0	30,0	45,0	101,0	14000	0,4	LOEX1207
R217.94-3232.3-LO12-3A	10207963	Weldon	32,0	3	12,0	3,5	32,0	30,0	50,0	110,0	12400	0,6	LOEX1207
R217.94-2532.3S-LO12-3A	10207964	Seco-Weldon	32,0	3	12,0	3,5	25,0	40,0	54,0	110,0	12400	0,5	LOEX1207
R217.94-3240.3S-LO12-4A	10207965	Seco-Weldon	40,0	4	12,0	3,5	32,0	46,0	60,0	120,0	11100	0,9	LOEX1207

Spare Parts, included in delivery

For cutter	Insert key	Insert screw
		
R217.94-2525	1/4HEX-T15PX50	C040105B-T15P
R217.94-3232-3240	1/4HEX-T15PX50	C04012B-T15P

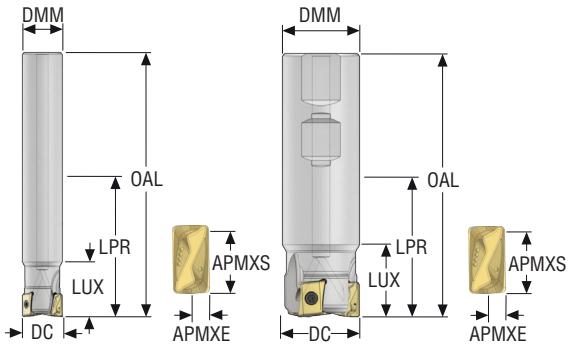
Accessories

For cutter	Adjustable Torque key	Insert clamping torque	Torque key
			
R217.94-..	1/4HEX-S-HANDLE-0.8-5.0NM	3.5NM	T00-15P35

Torque and fixed keys, see page 872

Square T4 – R217.94-12 – inch

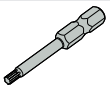




- For insert selection and cutting data recommendations, see page(s) 94-96
- For complete insert programme, see page(s) 809, 810
- For ISO attribute explanation, see page 16
- KAPRS 90°

Designation	Item number	Type of mounting	DC	ZEFP	APMXS	APMXE	DMM	LUX	LPR	OAL	RPMX	Weight	Insert
			inch		inch	inch	inch	inch	inch	inch		lbs	
R217.94-01.00-0-LO12-2A	10207988	Cylindrical	1.000	2	0.472	0.138	1.000	1.181	3.740	6.693	13900	1.320	LOEX1207
R217.94-01.50-0-LO12-4A	10207989	Cylindrical	1.500	4	0.472	0.138	1.500	1.181	5.906	8.268	11300	3.970	LOEX1207
R217.94-01.00-3-LO12-2A	10207985	Weldon	1.000	2	0.472	0.138	1.000	1.181	1.795	4.000	14000	0	LOEX1207
R217.94-01.25-3-LO12-3A	10207986	Weldon	1.250	3	0.472	0.138	1.250	1.181	1.890	4.252	12400	1.320	LOEX1207
R217.94-01.50-3-LO12-4A	10207987	Weldon	1.500	4	0.472	0.138	1.500	1.181	1.969	4.724	11300	2.200	LOEX1207

Spare Parts, included in delivery

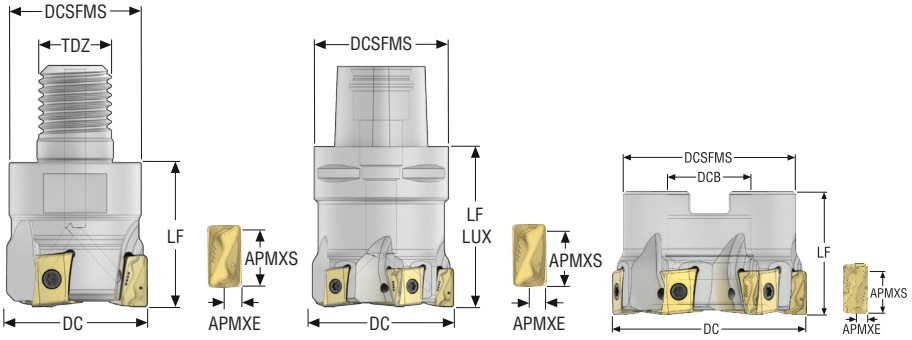
For cutter	Insert key	Insert screw
		
R217.94-01.00	1/4HEX-T15PX50	C040105B-T15P
R217.94-01.25-01.50	1/4HEX-T15PX50	C04012B-T15P

Accessories

For cutter	Adjustable Torque key	Insert clamping torque	Torque key
			
R217/220.94-..	1/4HEX-S-HANDLE-0.8-5.0NM	31.0IN.LBS	T00-15P35

Torque and fixed keys, see page 872

Square T4 – R217/220.94-12 – Metric



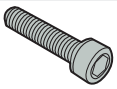
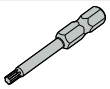


- For insert selection and cutting data recommendations, see page(s) 94-96
- For complete insert programme, see page(s) 809, 810
- For ISO attribute explanation, see page 16
- KAPRS 90°

Designation	Item number	Type of mounting	DC	ZEFP	APMXS	APMXE	DCB	TDZ	DCSFMS	LUX	LF	RMPX°	RPMX	Weight	Insert
			mm		mm	mm	mm		mm	mm	mm			kg	
R217.94-1632.RE-LO12-3A	10207969	Combimaster	32,0	3	12,0	3,5	–	M16	30,0	–	40,0	0,0	12400	0,2	LOEX1207
R217.94-2040.RE-LO12-3A	10207970	Combimaster	40,0	3	12,0	3,5	–	M20	36,5	–	40,0	0,0	11100	0,4	LOEX1207
R217.94-2040.RE-LO12-5A	10207971	Combimaster	40,0	5	12,0	3,5	–	M20	36,5	–	40,0	0,0	11100	0,4	LOEX1207
C4-R217.94-044-LO12-4A	10207972	Seco-Capto	44,0	4	12,0	3,5	–	–	40,0	38,5	60,0	0,0	10600	0,6	LOEX1207
C5-R217.94-054-LO12-5A	10207973	Seco-Capto	54,0	5	12,0	3,5	–	–	50,0	38,5	60,0	0,0	9500	0,9	LOEX1207
C6-R217.94-066-LO12-6A	10207974	Seco-Capto	66,0	6	12,0	3,5	–	–	63,0	36,5	60,0	0,0	8600	1,5	LOEX1207
R220.94-0040-LO12-4A	10207999	Arbor	40,0	4	12,0	3,5	16,0	–	35,0	–	40,0	0,0	11100	0,3	LOEX1207
R220.94-0040-LO12-5A	10207975	Arbor	40,0	5	12,0	3,5	16,0	–	35,0	–	40,0	0,0	11100	0,2	LOEX1207
R220.94-0050-LO12-5A	10207976	Arbor	50,0	5	12,0	3,5	22,0	–	45,0	–	40,0	0,0	9900	0,4	LOEX1207
R220.94-0050-LO12-6A	10207977	Arbor	50,0	6	12,0	3,5	22,0	–	45,0	–	40,0	0,0	9900	0,4	LOEX1207
R220.94-0063-LO12-6A	10207978	Arbor	63,0	6	12,0	3,5	27,0	–	56,0	–	40,0	0,0	8800	0,6	LOEX1207
R220.94-0063-LO12-8A	10207979	Arbor	63,0	8	12,0	3,5	27,0	–	56,0	–	40,0	0,0	8800	0,6	LOEX1207
R220.94-0080-LO12-7A	10207980	Arbor	80,0	7	12,0	3,5	27,0	–	62,0	–	50,0	0,0	7800	1,1	LOEX1207
R220.94-0080-LO12-10A	10207981	Arbor	80,0	10	12,0	3,5	27,0	–	62,0	–	50,0	0,0	7800	1,1	LOEX1207
R220.94-0100-LO12-9A	10207982	Arbor	100,0	9	12,0	3,5	32,0	–	77,0	–	50,0	0,0	7000	1,8	LOEX1207
R220.94-0100-LO12-12A	10207983	Arbor	100,0	12	12,0	3,5	32,0	–	77,0	–	50,0	0,0	7000	1,8	LOEX1207
R220.94-0125-LO12-12A	10207984	Arbor	125,0	12	12,0	3,5	40,0	–	90,0	–	63,0	0,0	6300	3,3	LOEX1207

For Combimaster Shanks, see Machining Navigator Tooling System

Spare Parts, included in delivery

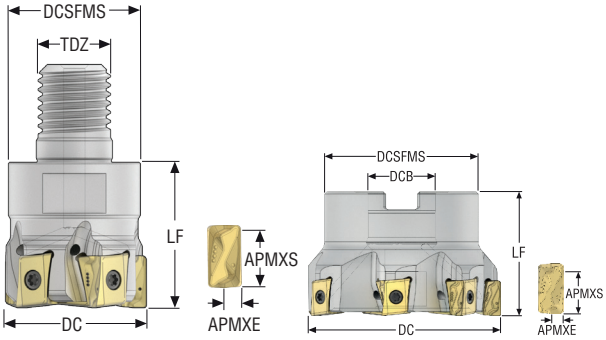
For cutter	Arbor screw	Insert key	Insert screw
			
Cx-R217.94-..	–	1/4HEX-T15PX50	C04012B-T15P
R220.94-0040	220.17-689	1/4HEX-T15PX50	C04012B-T15P
R220.94-0050	220.17-692	1/4HEX-T15PX50	C04012B-T15P
R220.94-0063	MLC6S12X30	1/4HEX-T15PX50	C04012B-T15P
R220.94-0080	MC6S12X35	1/4HEX-T15PX50	C04012B-T15P
R220.94-0100	MC6S16X35	1/4HEX-T15PX50	C04012B-T15P
R220.94-0125	MC6S20X40	1/4HEX-T15PX50	C04012B-T15P

Accessories

For cutter	Adjustable Torque key	Insert clamping torque	Torque key
			
Cx-R217/220.94-..	1/4HEX-S-HANDLE-0.8-5.0NM	3.5NM	T00-15P35

Torque and fixed keys, see page 872

Square T4 – R217/220.94-12 – inch



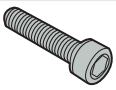
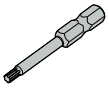
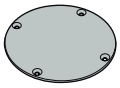


- For insert selection and cutting data recommendations, see page(s) 94-96
- For complete insert programme, see page(s) 809, 810
- For ISO attribute explanation, see page 16
- KAPRS 90°

Designation	Item number	Type of mounting	DC	ZEFP	APMXS	APMXE	DCB	TDZ	DCSFMS	LF	RPMX	Weight	Insert
			inch		inch	inch	inch		inch	inch		lbs	
R217.94-01.25-16RE-LO12-3A	10207990	Combimaster	1.250	3	0.472	0.138	–	M16	1.181	1.575	12400	0.440	LOEX1207
R220.94-01.50-LO12-4A	10207991	Arbor	1.500	4	0.472	0.138	0.500	–	1.378	1.575	11300	0.660	LOEX1207
R220.94-02.00-LO12-5A	10207992	Arbor	2.000	5	0.472	0.138	0.750	–	1.850	1.575	9800	0.880	LOEX1207
R220.94-02.00-LO12-6A	10207993	Arbor	2.000	6	0.472	0.138	0.750	–	1.850	1.575	9800	0.880	LOEX1207
R220.94-02.50-LO12-6A	10207994	Arbor	2.500	6	0.472	0.138	0.750	–	1.850	1.575	8800	1.100	LOEX1207
R220.94-02.50-LO12-8A	10207995	Arbor	2.500	8	0.472	0.138	0.750	–	1.850	1.575	8800	1.100	LOEX1207
R220.94-03.00-LO12-8A	10207996	Arbor	3.000	8	0.472	0.138	1.000	–	2.441	1.969	8000	2.430	LOEX1207
R220.94-04.00-LO12-10A	10207997	Arbor	4.000	10	0.472	0.138	1.500	–	3.543	1.969	7000	4.410	LOEX1207
R220.94-05.00-LO12-12A	10207998	Arbor	5.000	12	0.472	0.138	1.500	–	3.543	2.480	6200	7.280	LOEX1207
R220.94-06.00-LO12-14A	10208000	Arbor	6.000	14	0.472	0.138	2.000	–	4.331	2.480	6200	9.260	LOEX1207

For Combimaster Shanks, see Machining Navigator Tooling System

Spare Parts, included in delivery

For cutter	Arbor screw	Insert key	Insert screw	Lid	Lid screw
					
R217.94-..	–	1/4HEX-T15PX50	C04012B-T15P	–	–
R220.94-01.50	UC6S1/4UNFX1	1/4HEX-T15PX50	C04012B-T15P	–	–
R220.94-02.00-02.50	UC6S3/8UNFX1	1/4HEX-T15PX50	C04012B-T15P	–	–
R220.94-03.00	UC6S1/2UNFX1-1/4	1/4HEX-T15PX50	C04012B-T15P	–	–
R220.94-04.00	ULC6S3/4UNFX11/2	1/4HEX-T15PX50	C04012B-T15P	–	–
R220.94-05.00	UC6S3/4UNFX1-1/4	1/4HEX-T15PX50	C04012B-T15P	–	–
R220.94-06.00	–	1/4HEX-T15PX50	C04012B-T15P	SC-160-90	MF6S4X10

Accessories

For cutter	Adjustable Torque key	Insert clamping torque	Torque key
			
R217/220.94-..	1/4HEX-S-HANDLE-0.8-5.0NM	31.0IN.LBS	T00-15P35

Torque and fixed keys, see page 872

R217/220.94-LO12 – Insert selection – Metric / *Inch*

SMG		a_p	f_z		
			100%	30%	10%
P1	LOEX120708TR-T4-M12 F40M	6,0 *0.24*	0,18 *0.0070*	0,20 *0.0080*	0,30 *0.012*
P2	LOEX120708TR-T4-M12 F40M	6,0 *0.24*	0,19 *0.0075*	0,20 *0.0080*	0,32 *0.013*
P3	LOEX120708TR-T4-M12 MP2501	6,0 *0.24*	0,16 *0.0065*	0,18 *0.0070*	0,28 *0.011*
P4	LOEX120708TR-T4-M12 MP2501	6,0 *0.24*	0,16 *0.0065*	0,18 *0.0070*	0,26 *0.010*
P5	LOEX120708TR-T4-M12 MP2501	6,0 *0.24*	0,16 *0.0065*	0,17 *0.0065*	0,26 *0.010*
P6	LOEX120708TR-T4-M12 MP2501	6,0 *0.24*	0,16 *0.0065*	0,17 *0.0065*	0,26 *0.010*
P7	LOEX120708TR-T4-M12 MP2501	6,0 *0.24*	0,16 *0.0065*	0,17 *0.0065*	0,26 *0.010*
P8	LOEX120708TR-T4-M12 MP2501	6,0 *0.24*	0,16 *0.0065*	0,18 *0.0070*	0,28 *0.011*
P11	LOEX120708TR-T4-M12 MP3501	6,0 *0.24*	0,17 *0.0065*	0,18 *0.0070*	0,28 *0.011*
P12	LOEX120708TR-T4-M12 MS2500	4,5 *0.18*	0,11 *0.0044*	0,12 *0.0048*	0,18 *0.0070*
M1	LOEX120708R-T4-M09 F40M	6,0 *0.24*	0,14 *0.0055*	0,16 *0.0065*	0,24 *0.0095*
M2	LOEX120708R-T4-M09 F40M	6,0 *0.24*	0,13 *0.0050*	0,14 *0.0055*	0,22 *0.0085*
M3	LOEX120708R-T4-M09 F40M	4,5 *0.18*	0,11 *0.0044*	0,12 *0.0048*	0,18 *0.0070*
M4	LOEX120708R-T4-M09 MS2050	3,5 *0.14*	0,095 *0.0038*	0,10 *0.0040*	0,16 *0.0065*
M5	LOEX120708R-T4-M09 MS2050	3,5 *0.14*	0,095 *0.0038*	0,10 *0.0040*	0,16 *0.0065*
K1	LOEX120708TR-T4-MD13 MK1500	6,0 *0.24*	0,20 *0.0080*	0,22 *0.0085*	0,34 *0.013*
K2	LOEX120708TR-T4-MD13 MK1500	6,0 *0.24*	0,18 *0.0070*	0,20 *0.0080*	0,30 *0.012*
K3	LOEX120708TR-T4-M12 MK2050	6,0 *0.24*	0,17 *0.0065*	0,19 *0.0075*	0,28 *0.011*
K4	LOEX120708TR-T4-M12 MK2050	6,0 *0.24*	0,17 *0.0065*	0,19 *0.0075*	0,28 *0.011*
K5	LOEX120708TR-T4-M12 MK2050	6,0 *0.24*	0,15 *0.0060*	0,17 *0.0065*	0,26 *0.010*
K6	LOEX120708TR-T4-M12 MK2050	6,0 *0.24*	0,17 *0.0065*	0,19 *0.0075*	0,28 *0.011*
K7	LOEX120708TR-T4-M12 MK2050	6,0 *0.24*	0,15 *0.0060*	0,17 *0.0065*	0,26 *0.010*
N1	LOEX120708R-T4-M09 F40M	6,0 *0.24*	0,18 *0.0070*	0,20 *0.0080*	0,30 *0.012*
N2	LOEX120708R-T4-M09 F40M	6,0 *0.24*	0,18 *0.0070*	0,20 *0.0080*	0,30 *0.012*
N3	LOEX120708R-T4-M09 F40M	6,0 *0.24*	0,18 *0.0070*	0,20 *0.0080*	0,30 *0.012*
N11	LOEX120708R-T4-M09 F40M	6,0 *0.24*	0,18 *0.0070*	0,20 *0.0080*	0,30 *0.012*
S1	LOEX120708R-T4-M09 F40M	3,5 *0.14*	0,095 *0.0038*	0,10 *0.0040*	0,16 *0.0065*
S2	LOEX120708R-T4-M09 F40M	3,5 *0.14*	0,095 *0.0038*	0,10 *0.0040*	0,16 *0.0065*
S3	LOEX120708R-T4-M09 F40M	3,5 *0.14*	0,085 *0.0034*	0,095 *0.0038*	0,14 *0.0055*
S11	LOEX120708R-T4-M09 MS2050	4,0 *0.16*	0,11 *0.0044*	0,12 *0.0048*	0,18 *0.0070*
S12	LOEX120708R-T4-M09 MS2050	4,0 *0.16*	0,11 *0.0044*	0,12 *0.0048*	0,18 *0.0070*
S13	LOEX120708R-T4-M09 MS2050	3,5 *0.14*	0,095 *0.0038*	0,10 *0.0040*	0,16 *0.0065*
H5	LOEX120708TR-T4-M12 MP3000	4,5 *0.18*	0,12 *0.0048*	0,13 *0.0050*	0,20 *0.0080*
H8	LOEX120708TR-T4-M12 MP3000	4,0 *0.16*	0,090 *0.0036*	0,10 *0.0040*	0,15 *0.0060*
H11	LOEX120708TR-T4-MD13 MP1501	4,5 *0.18*	0,12 *0.0048*	0,13 *0.0050*	0,20 *0.0080*
H12	LOEX120708TR-T4-MD13 MP1501	4,0 *0.16*	0,090 *0.0036*	0,10 *0.0040*	0,15 *0.0060*

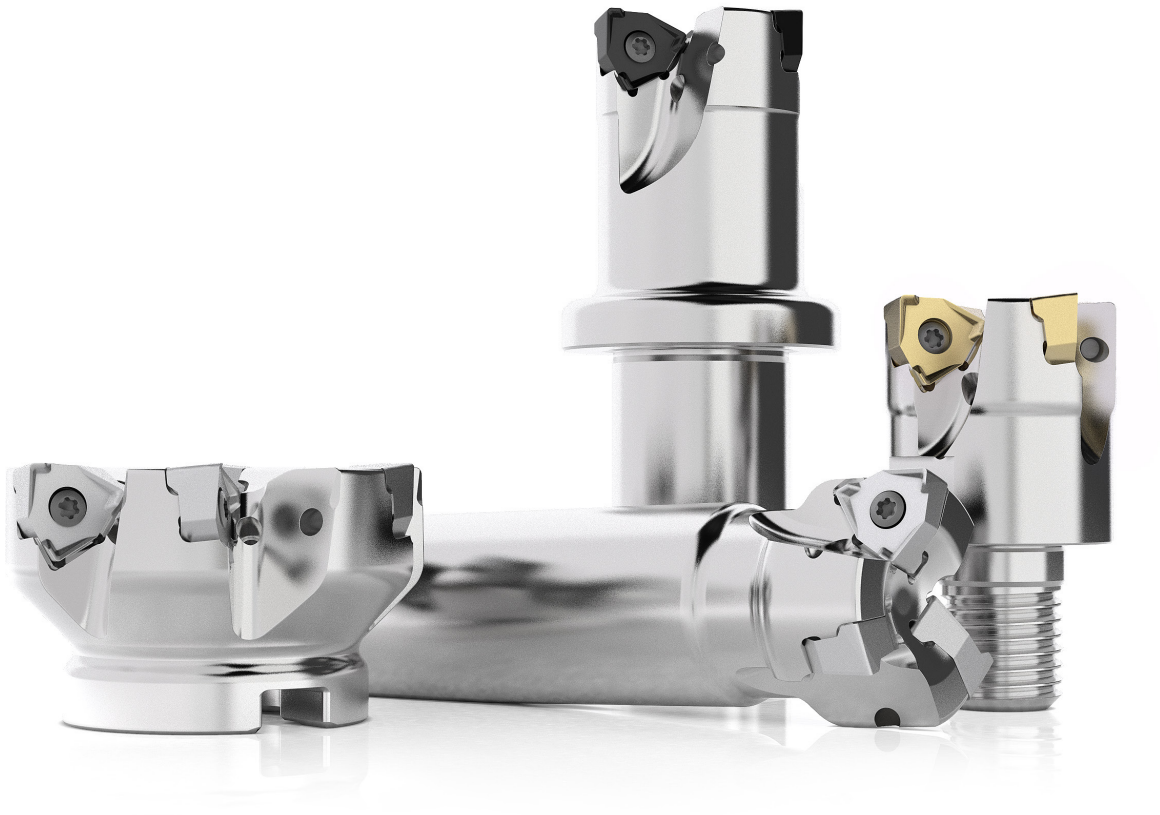
SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

R217/220.94-LO12 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	MK2050			MP3000			MS2050			F40M			MP2050		
	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%
P1	265 *870*	355 *1175*	420 *1375*	255 *840*	340 *1125*	405 *1325*	225 *740*	300 *980*	355 *1175*	205 *670*	270 *890*	325 *1075*	265 *870*	350 *1150*	420 *1375*
P2	255 *840*	345 *1125*	400 *1300*	245 *800*	330 *1075*	385 *1275*	215 *710*	290 *950*	340 *1125*	195 *640*	265 *870*	310 *1025*	255 *840*	340 *1125*	400 *1300*
P3	225 *740*	300 *980*	350 *1150*	215 *710*	290 *950*	340 *1125*	190 *620*	255 *840*	300 *980*	170 *560*	230 *750*	270 *890*	225 *740*	300 *980*	350 *1150*
P4	200 *660*	265 *870*	310 *1025*	195 *640*	255 *840*	300 *980*	170 *560*	225 *740*	260 *850*	155 *510*	205 *670*	240 *790*	200 *660*	265 *870*	310 *1025*
P5	190 *620*	250 *820*	300 *980*	185 *610*	240 *790*	290 *950*	160 *520*	215 *710*	255 *840*	145 *475*	195 *640*	230 *750*	190 *620*	250 *820*	300 *980*
P6	215 *710*	290 *950*	340 *1125*	205 *670*	275 *900*	325 *1075*	180 *590*	245 *800*	285 *940*	165 *540*	220 *720*	260 *850*	215 *710*	285 *940*	340 *1125*
P7	205 *670*	270 *890*	320 *1050*	195 *640*	260 *850*	310 *1025*	170 *560*	230 *750*	270 *890*	155 *510*	210 *690*	245 *800*	200 *660*	270 *890*	320 *1050*
P8	190 *620*	250 *820*	295 *970*	180 *590*	240 *790*	285 *940*	160 *520*	215 *710*	250 *820*	145 *475*	195 *640*	230 *750*	190 *620*	250 *820*	295 *970*
P11	195 *640*	265 *870*	310 *1025*	190 *620*	255 *840*	300 *980*	165 *540*	225 *740*	265 *870*	150 *490*	205 *670*	240 *790*	195 *640*	265 *870*	310 *1025*
P12	130 *425*	170 *560*	205 *670*	125 *410*	165 *540*	195 *640*	110 *360*	145 *475*	175 *570*	100 *330*	130 *425*	155 *510*	130 *425*	170 *560*	205 *670*
M1	— —	— —	— —	185 *610*	245 *800*	290 *950*	175 *570*	235 *770*	275 *900*	160 *520*	215 *710*	250 *820*	185 *610*	245 *800*	285 *940*
M2	— —	— —	— —	155 *510*	205 *670*	245 *800*	145 *475*	190 *620*	230 *750*	135 *445*	175 *570*	210 *690*	155 *510*	200 *660*	240 *790*
M3	— —	— —	— —	125 *410*	165 *540*	200 *660*	120 *395*	155 *510*	190 *620*	110 *360*	145 *475*	170 *560*	125 *410*	165 *540*	195 *640*
M4	— —	— —	— —	100 *330*	130 *425*	150 *490*	95 *310*	125 *410*	145 *475*	85 *280*	110 *360*	130 *425*	100 *330*	130 *425*	150 *490*
M5	— —	— —	— —	80 *260*	110 *360*	125 *410*	80 *260*	105 *345*	120 *395*	70 *230*	95 *310*	110 *360*	80 *260*	110 *360*	125 *410*
K1	275 *900*	370 *1225*	435 *1425*	195 *640*	260 *850*	305 *1000*	— —	— —	— —	155 *510*	210 *690*	245 *800*	— —	— —	— —
K2	250 *820*	325 *1075*	390 *1275*	175 *570*	230 *750*	275 *900*	— —	— —	— —	140 *460*	185 *610*	220 *720*	— —	— —	— —
K3	210 *690*	275 *900*	330 *1075*	150 *490*	195 *640*	235 *770*	— —	— —	— —	120 *395*	155 *510*	185 *610*	— —	— —	— —
K4	200 *660*	265 *870*	315 *1025*	140 *460*	185 *610*	225 *740*	— —	— —	— —	115 *375*	150 *490*	180 *590*	— —	— —	— —
K5	125 *410*	160 *520*	190 *620*	85 *280*	115 *375*	135 *445*	— —	— —	— —	70 *230*	90 *295*	110 *360*	— —	— —	— —
K6	175 *570*	230 *750*	280 *920*	125 *410*	165 *540*	195 *640*	— —	— —	— —	100 *330*	130 *425*	155 *510*	— —	— —	— —
K7	160 *520*	205 *670*	245 *800*	110 *360*	145 *475*	175 *570*	— —	— —	— —	90 *295*	115 *375*	140 *460*	— —	— —	— —
N1	— —	— —	— —	— —	— —	— —	— —	— —	— —	1150 *3775*	1525 *5000*	1800 *5900*	— —	— —	— —
N2	— —	— —	— —	— —	— —	— —	— —	— —	— —	460 *1500*	620 *2025*	730 *2400*	— —	— —	— —
N3	— —	— —	— —	— —	— —	— —	— —	— —	— —	310 *1025*	410 *1350*	485 *1600*	— —	— —	— —
N11	— —	— —	— —	— —	— —	— —	— —	— —	— —	350 *1150*	470 *1550*	560 *1825*	— —	— —	— —
S1	— —	— —	— —	46 *150*	60 *195*	70 *230*	44 *145*	60 *195*	65 *215*	40 *130*	50 *165*	60 *195*	48 *155*	65 *215*	75 *245*
S2	— —	— —	— —	37 *120*	49 *160*	55 *180*	35 *115*	46 *150*	55 *180*	32 *105*	42 *140*	49 *160*	39 *130*	50 *165*	60 *195*
S3	— —	— —	— —	33 *110*	43 *140*	50 *165*	31 *100*	41 *135*	48 *155*	28 *90*	37 *120*	44 *145*	34 *110*	45 *150*	55 *180*
S11	— —	— —	— —	— —	— —	— —	60 *195*	80 *260*	95 *310*	55 *180*	70 *230*	85 *280*	65 *215*	85 *280*	105 *345*
S12	— —	— —	— —	— —	— —	— —	42 *140*	55 *180*	65 *215*	38 *125*	50 *165*	60 *195*	46 *150*	60 *195*	70 *230*
S13	— —	— —	— —	— —	— —	— —	25 *80*	32 *105*	38 *125*	22 *70*	29 *95*	34 *110*	27 *90*	35 *115*	42 *140*
H5	— —	— —	— —	39 *130*	50 *165*	60 *195*	— —	— —	— —	33 *110*	44 *145*	50 *165*	— —	— —	— —
H8	— —	— —	— —	42 *140*	55 *180*	65 *215*	— —	— —	— —	36 *120*	47 *155*	55 *180*	— —	— —	— —
H11	— —	— —	— —	49 *160*	65 *215*	80 *260*	— —	— —	— —	42 *140*	55 *180*	65 *215*	49 *160*	65 *215*	80 *260*
H12	— —	— —	— —	80 *260*	105 *345*	125 *410*	— —	— —	— —	65 *215*	85 *280*	100 *330*	85 *280*	110 *360*	130 *425*

R217/220.94-LO12 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	MK1500			MP1501			MP2501			MS2500			MP3501			MM4500		
	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%
P1	—	—	—	375	465	530	390	480	550	300	395	475	340	425	485	165	220	260
	—	—	—	*1225*	*1525*	*1750*	*1275*	*1575*	*1800*	*980*	*1300*	*1550*	*1125*	*1400*	*1600*	*540*	*720*	*850*
P2	—	—	—	360	455	510	380	470	540	295	385	465	325	410	465	160	215	250
	—	—	—	*1175*	*1500*	*1675*	*1250*	*1550*	*1775*	*970*	*1275*	*1525*	*1075*	*1350*	*1525*	*520*	*710*	*820*
P3	—	—	—	315	395	450	335	410	465	255	340	400	285	360	405	140	185	220
	—	—	—	*1025*	*1300*	*1475*	*1100*	*1350*	*1525*	*840*	*1125*	*1300*	*940*	*1175*	*1325*	*460*	*610*	*720*
P4	—	—	—	285	350	395	295	365	415	225	300	360	255	315	360	125	165	195
	—	—	—	*940*	*1150*	*1300*	*970*	*1200*	*1350*	*740*	*980*	*1175*	*840*	*1025*	*1175*	*410*	*540*	*640*
P5	—	—	—	270	335	385	280	350	400	215	290	340	245	305	350	120	155	190
	—	—	—	*890*	*1100*	*1275*	*920*	*1150*	*1300*	*710*	*950*	*1125*	*800*	*1000*	*1150*	*395*	*510*	*620*
P6	—	—	—	305	380	430	315	395	445	245	325	385	275	345	390	135	180	210
	—	—	—	*1000*	*1250*	*1400*	*1025*	*1300*	*1450*	*800*	*1075*	*1275*	*900*	*1125*	*1275*	*445*	*590*	*690*
P7	—	—	—	285	360	405	295	370	420	230	305	360	260	325	370	125	170	200
	—	—	—	*940*	*1175*	*1325*	*970*	*1225*	*1375*	*750*	*1000*	*1175*	*850*	*1075*	*1225*	*410*	*560*	*660*
P8	—	—	—	265	335	375	280	345	390	215	285	335	240	305	340	115	155	185
	—	—	—	*870*	*1100*	*1225*	*920*	*1125*	*1275*	*710*	*940*	*1100*	*790*	*1000*	*1125*	*375*	*510*	*610*
P11	—	—	—	280	350	395	290	360	410	220	295	350	250	315	360	125	165	195
	—	—	—	*920*	*1150*	*1300*	*950*	*1175*	*1350*	*720*	*970*	*1150*	*820*	*1025*	*1175*	*410*	*540*	*640*
P12	—	—	—	185	225	255	190	230	260	145	195	230	165	205	235	80	105	125
	—	—	—	*610*	*740*	*840*	*620*	*750*	*850*	*475*	*640*	*750*	*540*	*670*	*770*	*260*	*345*	*410*
M1	—	—	—	—	—	—	195	255	305	210	275	330	175	235	275	135	185	215
	—	—	—	—	—	—	*640*	*840*	*1000*	*690*	*900*	*1075*	*570*	*770*	*900*	*445*	*610*	*710*
M2	—	—	—	—	—	—	160	215	250	175	230	275	145	190	230	115	150	180
	—	—	—	—	—	—	*520*	*710*	*820*	*570*	*750*	*900*	*475*	*620*	*750*	*375*	*490*	*590*
M3	—	—	—	—	—	—	130	170	205	140	185	225	120	155	190	95	125	145
	—	—	—	—	—	—	*425*	*560*	*670*	*460*	*610*	*740*	*395*	*510*	*620*	*310*	*410*	*475*
M4	—	—	—	—	—	—	105	135	160	110	145	175	95	125	145	75	95	115
	—	—	—	—	—	—	*345*	*445*	*520*	*360*	*475*	*570*	*310*	*410*	*475*	*245*	*310*	*375*
M5	—	—	—	—	—	—	85	115	135	95	120	145	80	105	120	60	80	95
	—	—	—	—	—	—	*280*	*375*	*445*	*310*	*395*	*475*	*260*	*345*	*395*	*195*	*260*	*310*
K1	275	365	435	365	460	520	380	475	540	230	305	365	325	415	470	—	—	—
	900	*1200*	*1425*	*1200*	*1500*	*1700*	*1250*	*1550*	*1775*	*750*	*1000*	*1200*	*1075*	*1350*	*1550*	—	—	—
K2	250	325	390	325	405	465	340	425	480	205	275	325	295	365	425	—	—	—
	820	*1075*	*1275*	*1075*	*1325*	*1525*	*1125*	*1400*	*1575*	*670*	*900*	*1075*	*970*	*1200*	*1400*	—	—	—
K3	210	275	330	275	340	390	285	360	405	175	230	275	250	310	360	—	—	—
	690	*900*	*1075*	*900*	*1125*	*1275*	*940*	*1175*	*1325*	*570*	*750*	*900*	*820*	*1025*	*1175*	—	—	—
K4	200	265	315	265	325	375	275	340	390	165	220	260	240	295	340	—	—	—
	660	*870*	*1025*	*870*	*1075*	*1225*	*900*	*1125*	*1275*	*540*	*720*	*850*	*790*	*970*	*1125*	—	—	—
K5	120	160	190	165	200	225	170	210	235	105	135	160	150	180	205	—	—	—
	395	*520*	*620*	*540*	*660*	*740*	*560*	*690*	*770*	*345*	*445*	*520*	*490*	*590*	*670*	—	—	—
K6	175	235	280	235	285	330	240	300	340	145	195	230	210	260	300	—	—	—
	570	*770*	*920*	*770*	*940*	*1075*	*790*	*980*	*1125*	*475*	*640*	*750*	*690*	*850*	*980*	—	—	—
K7	155	210	245	210	255	290	215	270	300	130	175	205	190	235	265	—	—	—
	510	*690*	*800*	*690*	*840*	*950*	*710*	*890*	*980*	*425*	*570*	*670*	*620*	*770*	*870*	—	—	—
N1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
N2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
N3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
N11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S1	—	—	—	—	—	—	—	—	—	55	70	85	44	60	65	22	30	35
	—	—	—	—	—	—	—	—	—	*180*	*230*	*280*	*145*	*195*	*215*	*70*	*100*	*115*
S2	—	—	—	—	—	—	—	—	—	44	60	70	35	46	55	18	24	28
	—	—	—	—	—	—	—	—	—	*145*	*195*	*230*	*115*	*150*	*180*	*60*	*80*	*90*
S3	—	—	—	—	—	—	—	—	—	39	50	60	31	41	48	16	21	25
	—	—	—	—	—	—	—	—	—	*130*	*165*	*195*	*100*	*135*	*155*	*50*	*70*	*80*
S11	—	—	—	—	—	—	—	—	—	75	100	120	60	80	95	31	41	49
	—	—	—	—	—	—	—	—	—	*245*	*330*	*395*	*195*	*260*	*310*	*100*	*135*	*160*
S12	—	—	—	—	—	—	—	—	—	50	70	80	42	55	65	29	38	45
	—	—	—	—	—	—	—	—	—	*165*	*230*	*260*	*140*	*180*	*215*	*95*	*125*	*150*
S13	—	—	—	—	—	—	—	—	—	31	40	47	25	32	38	17	22	26
	—	—	—	—	—	—	—	—	—	*100*	*130*	*155*	*80*	*105*	*125*	*55*	*70*	*85*
H5	—	—	—	48	65	75	—	—	—	44	60	70	38	50	60	—	—	—
	—	—	—	*155*	*215*	*245*	—	—	—	*145*	*195*	*230*	*125*	*165*	*195*	—	—	—
H8	—	—	—	50	70	80	—	—	—	47	60	75	41	55	65	—	—	—
	—	—	—	*165*	*230*	*260*	—	—	—	*155*	*195*	*245*	*135*	*180*	*215*	—	—	—
H11	—	—	—	60	80	95	—	—	—	55	75	85	48	65	75	—	—	—
	—	—	—	*195*	*260*	*310*	—	—	—	*180*	*245*	*280*	*155*	*215*	*245*	—	—	—
H12	—	—	—	90	120	145	—	—	—	95	125	145	75	100	115	—	—	—
	—	—	—	*295*	*395*	*475*	—	—	—	*310*	*410*	*475*	*245*	*330*	*375*	—	—	—

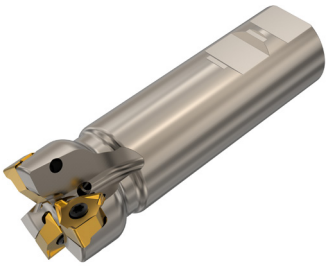


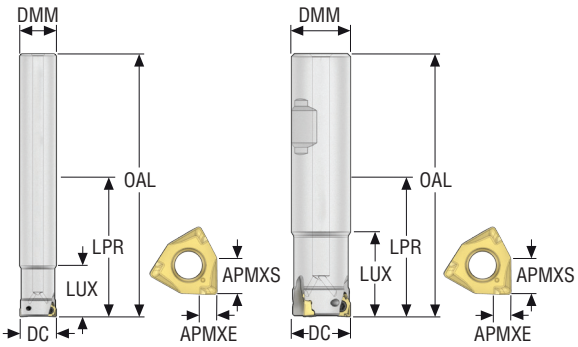
SQUARE 6

Seco's line of Square 6 shoulder milling cutters answers the need for added economy in square shoulder milling. This unique square shoulder milling cutter uses trigonal inserts with three cutting edges on each side – six total cutting edges – to lower the cost per cutting edge.

- With two different cutter family sizes - Insert size 04 and 08
- Wiper flats optimize surface finishes
- Multiple grades and geometries are available

Square 6™ – R217.96-04 – Metric

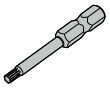




- For insert selection and cutting data recommendations, see page(s) 102-104
- For complete insert programme, see page(s) 840
- For ISO attribute explanation, see page 16
- KAPRS 90°

Designation	Item number	Type of mounting	DC	ZEFP	APMXS	APMXE	DMM	LUX	LPR	OAL	RPMX	Weight	Insert
			mm		mm	mm	mm	mm	mm	mm		kg	
R217.96-1820.0-04-3A	02833459	Cylindrical	20,0	3	4,0	2,0	18,0	100,0	100,0	150,0	29400	0,3	XNEX04..
R217.96-2020.0-04-3A	02768343	Cylindrical	20,0	3	4,0	2,0	20,0	29,0	100,0	150,0	29400	0,4	XNEX04..
R217.96-2525.0-04-4A	02768359	Cylindrical	25,0	4	4,0	2,0	25,0	29,0	114,0	170,0	26300	0,6	XNEX04..
R217.96-2525.0-04-5A	02768361	Cylindrical	25,0	5	4,0	2,0	25,0	29,0	114,0	170,0	26300	0,7	XNEX04..
R217.96-3232.0-04-5A	02768370	Cylindrical	32,0	5	4,0	2,0	32,0	31,0	135,0	195,0	23200	1,2	XNEX04..
R217.96-3232.0-04-6A	02768371	Cylindrical	32,0	6	4,0	2,0	32,0	31,0	135,0	195,0	23200	1,2	XNEX04..
R217.96-2020.3-04-3A	02768349	Weldon	20,0	3	4,0	2,0	20,0	29,0	40,0	90,0	29400	0,3	XNEX04..
R217.96-2525.3-04-4A	02768362	Weldon	25,0	4	4,0	2,0	25,0	34,0	45,0	101,0	26300	0,4	XNEX04..
R217.96-2525.3-04-5A	02768364	Weldon	25,0	5	4,0	2,0	25,0	34,0	45,0	101,0	26300	0,4	XNEX04..
R217.96-3232.3-04-5A	02768372	Weldon	32,0	5	4,0	2,0	32,0	37,0	45,0	105,0	23200	0,6	XNEX04..

Spare Parts, included in delivery

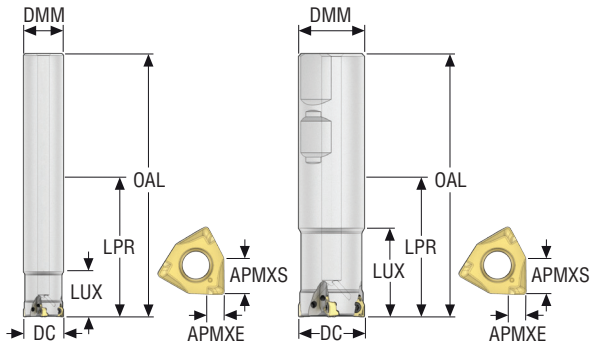
For cutter	Insert key	Insert screw
		
R217.96-..	1/4HEX-T08PX50	C02506-T08P

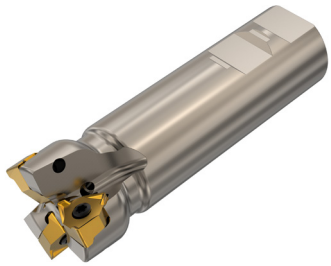
Accessories

For cutter	Adjustable Torque key	Insert clamping torque	Torque key
			
R217.96-..	1/4HEX-S-HANDLE-0.8-5.0NM	1.2NM	T00-08P12

Torque and fixed keys, see page 872

Square 6™ – R217.96-04 – inch





- For insert selection and cutting data recommendations, see page(s) 102-104
- For complete insert programme, see page(s) 840
- For ISO attribute explanation, see page 16
- KAPRS 90°

Designation	Item number	Type of mounting	DC	ZEFP	APMXS	APMXE	DMM	LUX	LPR	OAL	RPMX	Weight	Insert
			inch		inch	inch	inch	inch	inch	inch		lbs	
R217.96-00.75-0-04-3A	02770505	Cylindrical	0.750	3	0.157	0.079	0.750	1.394	3.941	5.910	29400	0.880	XNEX04..
R217.96-00.75-3-04-3A	02770536	Weldon	0.750	3	0.157	0.079	0.750	1.193	1.422	3.390	29400	0.440	XNEX04..
R217.96-01.00-3-04-5A	02770596	Weldon	1.000	5	0.157	0.079	1.000	1.178	1.575	3.780	26300	0.880	XNEX04..
R217.96-01.25-3-04-5A	02770602	Weldon	1.250	5	0.157	0.079	1.250	1.240	1.638	4.000	23200	1.320	XNEX04..

Spare Parts, included in delivery

For cutter	Insert key	Insert screw
		
R217.96..	1/4HEX-T08PX50	C02506-T08P

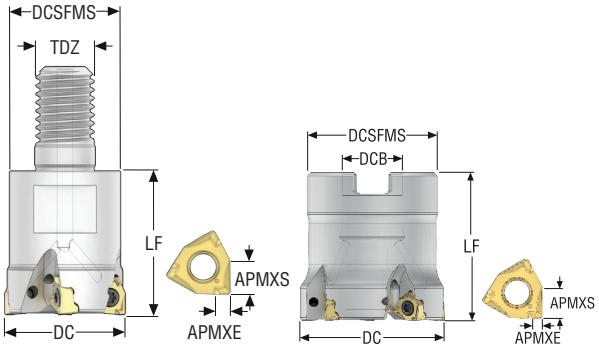
Accessories

For cutter	Adjustable Torque key	Insert clamping torque	Torque key
			
R217.96-..	1/4HEX-S-HANDLE-0.8-5.0NM	10.6IN.LBS	T00-08P12

Torque and fixed keys, see page 872

Square 6™ – R217/220.96-04 – Metric



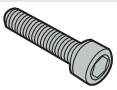
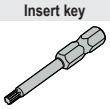


- For insert selection and cutting data recommendations, see page(s) 102-104
- For complete insert programme, see page(s) 840
- For ISO attribute explanation, see page 16
- KAPRS 90°

Designation	Item number	Type of mounting	DC	ZEFP	APMXS	APMXE	DCB	TDZ	DCSFMS	LF	Weight	RPMX	Insert
			mm		mm	mm	mm		mm	mm	kg		
R217.96-1020.RE-04-3A	02768351	Combimaster	20,0	3	4,0	2,0	–	M10	18,3	28,0	0,1	29400	XNEX04..
R217.96-1225.RE-04-4A	02768365	Combimaster	25,0	4	4,0	2,0	–	M12	23,0	30,0	0,2	26300	XNEX04..
R217.96-1225.RE-04-5A	02768367	Combimaster	25,0	5	4,0	2,0	–	M12	23,0	30,0	0,2	26300	XNEX04..
R217.96-1632.RE-04-5A	02768375	Combimaster	32,0	5	4,0	2,0	–	M16	30,0	40,0	0,3	23200	XNEX04..
R217.96-1632.RE-04-6A	02768376	Combimaster	32,0	6	4,0	2,0	–	M16	30,0	40,0	0,3	23200	XNEX04..
R220.96-0032-04-4A	02841298	Arbor	32,0	4	4,0	2,0	16,0	–	35,0	40,0	0,2	23200	XNEX04..
R220.96-0032-04-6A	02841306	Arbor	32,0	6	4,0	2,0	16,0	–	35,0	40,0	0,2	23200	XNEX04..
R220.96-0040-04-5A	02841154	Arbor	40,0	5	4,0	2,0	16,0	–	35,0	40,0	0,3	20700	XNEX04..
R220.96-0040-04-7A	02768377	Arbor	40,0	7	4,0	2,0	16,0	–	35,0	40,0	0,3	20700	XNEX04..
R220.96-0050-04-6A	02841155	Arbor	50,0	6	4,0	2,0	22,0	–	47,0	40,0	0,5	18600	XNEX04..
R220.96-0050-04-8A	02768413	Arbor	50,0	8	4,0	2,0	22,0	–	47,0	40,0	0,5	18600	XNEX04..
R220.96-0050-04-9A	02768412	Arbor	50,0	9	4,0	2,0	22,0	–	47,0	40,0	0,5	18600	XNEX04..
R220.96-0063-04-7A	02841156	Arbor	63,0	7	4,0	2,0	27,0	–	62,0	40,0	0,7	16500	XNEX04..
R220.96-0063-04-9A	02768433	Arbor	63,0	9	4,0	2,0	27,0	–	62,0	40,0	0,7	16500	XNEX04..

For Combimaster Shanks, see Machining Navigator Tooling System

Spare Parts, included in delivery

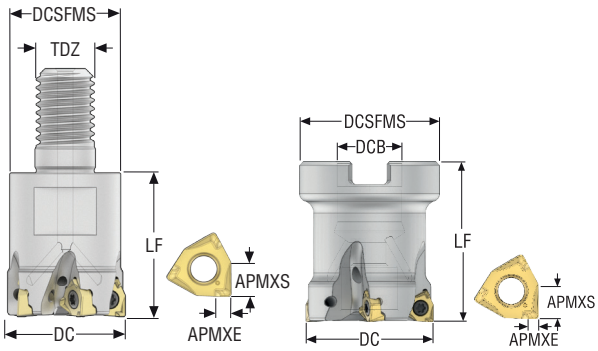
For cutter	Arbor screw	Insert key	Insert screw
			
R217.96-..	–	1/4HEX-T08PX50	C02506-T08P
R220.96-0032-0040	TCEI0825	1/4HEX-T08PX50	C02506-T08P
R220.96-0050	220.17-692	1/4HEX-T08PX50	C02506-T08P
R220.96-0063	–	1/4HEX-T08PX50	C02506-T08P

Accessories

For cutter	Adjustable Torque key	Insert clamping torque	Torque key
			
R217/220.96-..	1/4HEX-S-HANDLE-0.8-5.0NM	1.2NM	T00-08P12

Torque and fixed keys, see page 872

Square 6™ – R217/220.96-04 – inch



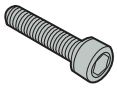
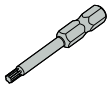


- For insert selection and cutting data recommendations, see page(s) 102-104
- For complete insert programme, see page(s) 840
- For ISO attribute explanation, see page 16
- KAPRS 90°

Designation	Item number	Type of mounting	DC	ZEFP	APMXS	APMXE	DCB	TDZ	DCSFMS	LF	Weight	RPMX	Insert
			inch		inch	inch	inch		inch	inch	lbs		
R217.96-00.75-10RE-04-3A	02770501	Combimaster	0.750	3	0.157	0.079	–	M10	0.689	1.070	0.220	29400	XNEX04..
R217.96-01.00-12RE-04-5A	02770543	Combimaster	1.000	5	0.157	0.079	–	M12	0.906	1.570	0.440	26300	XNEX04..
R217.96-01.25-16RE-04-5A	02770599	Combimaster	1.250	5	0.157	0.079	–	M16	1.181	1.570	0.660	23200	XNEX04..
R220.96-01.50-04-6A	02770608	Arbor	1.500	6	0.157	0.079	0.750	–	1.378	1.570	0.440	20700	XNEX04..
R220.96-02.00-04-9A	02770613	Arbor	2.000	9	0.157	0.079	0.750	–	1.850	1.567	0.880	18600	XNEX04..

For Combimaster Shanks, see Machining Navigator Tooling System

Spare Parts, included in delivery

For cutter	Arbor screw	Insert key	Insert screw
			
R217.96-..	–	1/4HEX-T08PX50	C02506-T08P
R220.96-..	UC6S3/8UNFX1	1/4HEX-T08PX50	C02506-T08P

Accessories

For cutter	Adjustable Torque key	Insert clamping torque	Torque key
			
R217/220.96-..	1/4HEX-S-HANDLE-0.8-5.0NM	10.6IN.LBS	T00-08P12

Torque and fixed keys, see page 872

R217/220.96-04 – Insert selection – mm/*Inch*

SMG		a_p	f_z		
			100%	30%	10%
P1	XNEX040304TR-M08 F40M	2,0 *0.080*	0,11 *0.0044*	0,13 *0.0050*	0,19 *0.0075*
P2	XNEX040304TR-M08 F40M	2,0 *0.080*	0,12 *0.0048*	0,13 *0.0050*	0,20 *0.0080*
P3	XNEX040304TR-M08 MP2501	2,0 *0.080*	0,11 *0.0044*	0,12 *0.0048*	0,19 *0.0075*
P4	XNEX040304TR-M08 MP2501	2,0 *0.080*	0,11 *0.0044*	0,12 *0.0048*	0,18 *0.0070*
P5	XNEX040304TR-M08 MP2501	2,0 *0.080*	0,11 *0.0044*	0,12 *0.0048*	0,18 *0.0070*
P6	XNEX040304TR-M08 MP2501	2,0 *0.080*	0,11 *0.0044*	0,11 *0.0044*	0,18 *0.0070*
P7	XNEX040304TR-M08 MP2501	2,0 *0.080*	0,11 *0.0044*	0,11 *0.0044*	0,18 *0.0070*
P8	XNEX040304TR-M08 MP2501	2,0 *0.080*	0,11 *0.0044*	0,12 *0.0048*	0,19 *0.0075*
P11	XNEX040304TR-M08 MP3000	2,0 *0.080*	0,11 *0.0044*	0,11 *0.0044*	0,18 *0.0070*
P12	XNEX040304TR-M08 MP3000	1,6 *0.065*	0,075 *0.0030*	0,080 *0.0032*	0,12 *0.0048*
M1	XNEX040304R-M06 F40M	2,0 *0.080*	0,090 *0.0036*	0,095 *0.0038*	0,15 *0.0060*
M2	XNEX040304R-M06 F40M	2,0 *0.080*	0,080 *0.0032*	0,085 *0.0034*	0,13 *0.0050*
M3	XNEX040304R-M06 F40M	1,6 *0.065*	0,065 *0.0026*	0,070 *0.0028*	0,11 *0.0044*
M4	XNEX040304R-M06 MS2050	1,2 *0.048*	0,060 *0.0024*	0,065 *0.0026*	0,095 *0.0038*
M5	XNEX040304R-M06 MS2050	1,2 *0.048*	0,060 *0.0024*	0,065 *0.0026*	0,095 *0.0038*
K1	XNEX040304TR-M08 MK2050	2,0 *0.080*	0,12 *0.0048*	0,13 *0.0050*	0,20 *0.0080*
K2	XNEX040304TR-M08 MK2050	2,0 *0.080*	0,11 *0.0044*	0,12 *0.0048*	0,18 *0.0070*
K3	XNEX040304TR-M08 MK2050	2,0 *0.080*	0,11 *0.0044*	0,12 *0.0048*	0,18 *0.0070*
K4	XNEX040304TR-M08 MK2050	2,0 *0.080*	0,11 *0.0044*	0,12 *0.0048*	0,18 *0.0070*
K5	XNEX040304TR-M08 MK2050	2,0 *0.080*	0,095 *0.0038*	0,10 *0.0040*	0,16 *0.0065*
K6	XNEX040304TR-M08 MK2050	2,0 *0.080*	0,11 *0.0044*	0,12 *0.0048*	0,18 *0.0070*
K7	XNEX040304TR-M08 MK2050	2,0 *0.080*	0,095 *0.0038*	0,10 *0.0040*	0,16 *0.0065*
N1	XNEX040304R-M06 F40M	2,0 *0.080*	0,11 *0.0044*	0,12 *0.0048*	0,19 *0.0075*
N2	XNEX040304R-M06 F40M	2,0 *0.080*	0,11 *0.0044*	0,12 *0.0048*	0,19 *0.0075*
N3	XNEX040304R-M06 F40M	2,0 *0.080*	0,11 *0.0044*	0,12 *0.0048*	0,19 *0.0075*
N11	XNEX040304R-M06 F40M	2,0 *0.080*	0,11 *0.0044*	0,12 *0.0048*	0,19 *0.0075*
S1	XNEX040304R-M06 F40M	1,2 *0.048*	0,060 *0.0024*	0,065 *0.0026*	0,095 *0.0038*
S2	XNEX040304R-M06 F40M	1,2 *0.048*	0,060 *0.0024*	0,065 *0.0026*	0,095 *0.0038*
S3	XNEX040304R-M06 F40M	1,2 *0.048*	0,055 *0.0022*	0,060 *0.0024*	0,090 *0.0036*
S11	XNEX040304R-M06 MS2050	1,4 *0.055*	0,065 *0.0026*	0,070 *0.0028*	0,11 *0.0044*
S12	XNEX040304R-M06 MS2050	1,4 *0.055*	0,065 *0.0026*	0,070 *0.0028*	0,11 *0.0044*
S13	XNEX040304R-M06 MS2050	1,2 *0.048*	0,060 *0.0024*	0,065 *0.0026*	0,095 *0.0038*
H5	XNEX040304TR-M08 MP3000	1,6 *0.065*	0,075 *0.0030*	0,080 *0.0032*	0,12 *0.0048*
H8	XNEX040304TR-M08 MP3000	1,4 *0.055*	0,055 *0.0022*	0,060 *0.0024*	0,095 *0.0038*
H11	XNEX040308TR-M08 MP1501	1,6 *0.065*	0,080 *0.0032*	0,085 *0.0034*	0,13 *0.0050*
H12	XNEX040304TR-M08 MP1501	1,4 *0.055*	0,055 *0.0022*	0,060 *0.0024*	0,095 *0.0038*

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

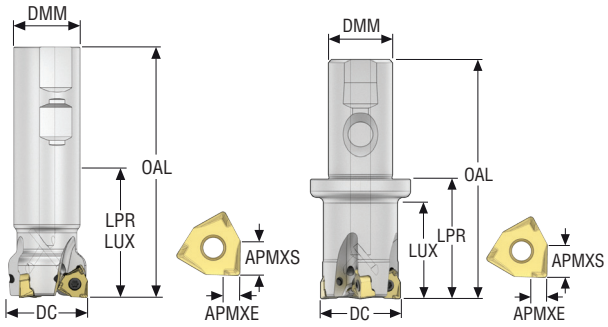
R217/220.96-04 – Cutting data v_c = (m/min)/*(sf/min)*

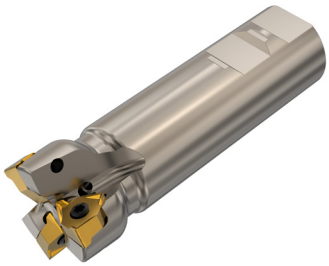
SMG	MK2050			MP3000			MS2050			F40M		
	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%
P1	305 *1000*	395 *1300*	470 *1550*	325 *1075*	425 *1400*	510 *1675*	285 *940*	375 *1225*	445 *1450*	235 *770*	305 *1000*	360 *1175*
P2	290 *950*	385 *1275*	455 *1500*	315 *1025*	415 *1350*	485 *1600*	280 *920*	365 *1200*	425 *1400*	225 *740*	295 *970*	350 *1150*
P3	255 *840*	340 *1125*	400 *1300*	275 *900*	360 *1175*	425 *1400*	240 *790*	320 *1050*	370 *1225*	195 *640*	260 *850*	305 *1000*
P4	225 *740*	295 *970*	350 *1150*	245 *800*	320 *1050*	380 *1250*	215 *710*	280 *920*	330 *1075*	175 *570*	230 *750*	270 *890*
P5	215 *710*	285 *940*	335 *1100*	235 *770*	310 *1025*	360 *1175*	205 *670*	270 *890*	315 *1025*	165 *540*	220 *720*	260 *850*
P6	245 *800*	325 *1075*	380 *1250*	260 *850*	345 *1125*	405 *1325*	230 *750*	305 *1000*	355 *1175*	190 *620*	250 *820*	295 *970*
P7	235 *770*	310 *1025*	360 *1175*	245 *800*	325 *1075*	385 *1275*	215 *710*	285 *940*	335 *1100*	180 *590*	235 *770*	275 *900*
P8	215 *710*	285 *940*	335 *1100*	230 *750*	305 *1000*	355 *1175*	200 *660*	265 *870*	310 *1025*	165 *540*	220 *720*	260 *850*
P11	225 *740*	300 *980*	350 *1150*	240 *790*	320 *1050*	370 *1225*	210 *690*	280 *920*	325 *1075*	175 *570*	230 *750*	270 *890*
P12	145 *475*	190 *620*	225 *740*	155 *510*	200 *660*	235 *770*	135 *445*	175 *570*	210 *690*	110 *360*	145 *475*	170 *560*
M1	— —	— —	— —	235 *770*	310 *1025*	360 *1175*	225 *740*	295 *970*	340 *1125*	180 *590*	240 *790*	285 *940*
M2	— —	— —	— —	195 *640*	260 *850*	300 *980*	185 *610*	245 *800*	285 *940*	150 *490*	195 *640*	230 *750*
M3	— —	— —	— —	155 *510*	205 *670*	240 *790*	145 *475*	195 *640*	225 *740*	120 *395*	160 *520*	190 *620*
M4	— —	— —	— —	120 *395*	160 *520*	185 *610*	115 *375*	150 *490*	175 *570*	95 *310*	125 *410*	145 *475*
M5	— —	— —	— —	100 *330*	135 *445*	155 *510*	95 *310*	125 *410*	145 *475*	80 *260*	105 *345*	120 *395*
K1	315 *1025*	415 *1350*	495 *1625*	250 *820*	330 *1075*	385 *1275*	— —	— —	— —	175 *570*	235 *770*	280 *920*
K2	275 *900*	365 *1200*	435 *1425*	220 *720*	295 *970*	345 *1125*	— —	— —	— —	155 *510*	205 *670*	245 *800*
K3	235 *770*	310 *1025*	365 *1200*	185 *610*	250 *820*	290 *950*	— —	— —	— —	135 *445*	175 *570*	205 *670*
K4	225 *740*	295 *970*	350 *1150*	180 *590*	235 *770*	275 *900*	— —	— —	— —	125 *410*	170 *560*	200 *660*
K5	140 *460*	185 *610*	215 *710*	110 *360*	145 *475*	170 *560*	— —	— —	— —	80 *260*	105 *345*	120 *395*
K6	195 *640*	260 *850*	310 *1025*	155 *510*	210 *690*	245 *800*	— —	— —	— —	110 *360*	150 *490*	175 *570*
K7	175 *570*	235 *770*	275 *900*	140 *460*	185 *610*	215 *710*	— —	— —	— —	100 *330*	135 *445*	155 *510*
N1	— —	— —	— —	— —	— —	— —	— —	— —	— —	1325 *4350*	1750 *5750*	2050 *6725*
N2	— —	— —	— —	— —	— —	— —	— —	— —	— —	530 *1750*	710 *2325*	830 *2725*
N3	— —	— —	— —	— —	— —	— —	— —	— —	— —	355 *1175*	470 *1550*	550 *1800*
N11	— —	— —	— —	— —	— —	— —	— —	— —	— —	405 *1325*	540 *1775*	630 *2075*
S1	— —	— —	— —	— —	— —	— —	55 *180*	70 *230*	80 *260*	44 *145*	60 *195*	70 *230*
S2	— —	— —	— —	— —	— —	— —	43 *140*	55 *180*	65 *215*	36 *120*	47 *155*	55 *180*
S3	— —	— —	— —	— —	— —	— —	37 *120*	50 *165*	60 *195*	31 *100*	41 *135*	48 *155*
S11	— —	— —	— —	— —	— —	— —	75 *245*	100 *330*	115 *375*	60 *195*	80 *260*	95 *310*
S12	— —	— —	— —	— —	— —	— —	50 *165*	70 *230*	80 *260*	43 *140*	55 *180*	65 *215*
S13	— —	— —	— —	— —	— —	— —	30 *100*	39 *130*	46 *150*	25 *80*	33 *110*	38 *125*
H5	— —	— —	— —	48 *155*	65 *215*	75 *245*	— —	— —	— —	37 *120*	49 *160*	55 *180*
H8	— —	— —	— —	50 *165*	65 *215*	75 *245*	— —	— —	— —	40 *130*	50 *165*	60 *195*
H11	— —	— —	— —	60 *195*	80 *260*	95 *310*	— —	— —	— —	47 *155*	60 *195*	75 *245*
H12	— —	— —	— —	95 *310*	125 *410*	150 *490*	— —	— —	— —	70 *230*	95 *310*	110 *360*

R217/220.96-04 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	MK1500			MP1501			MP2501			MM4500		
	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%
P1	—	—	—	445	540	600	480	580	640	215	280	325
	—	—	—	*1450*	*1775*	*1975*	*1575*	*1900*	*2100*	*710*	*920*	*1075*
P2	—	—	—	430	530	590	470	560	630	205	270	320
	—	—	—	*1400*	*1750*	*1925*	*1550*	*1825*	*2075*	*670*	*890*	*1050*
P3	—	—	—	370	455	510	405	490	540	180	235	280
	—	—	—	*1225*	*1500*	*1675*	*1325*	*1600*	*1775*	*590*	*770*	*920*
P4	—	—	—	335	405	450	360	430	475	160	210	245
	—	—	—	*1100*	*1325*	*1475*	*1175*	*1400*	*1550*	*520*	*690*	*800*
P5	—	—	—	320	385	430	340	410	455	150	200	235
	—	—	—	*1050*	*1275*	*1400*	*1125*	*1350*	*1500*	*490*	*660*	*770*
P6	—	—	—	355	435	485	385	465	510	170	225	265
	—	—	—	*1175*	*1425*	*1600*	*1275*	*1525*	*1675*	*560*	*740*	*870*
P7	—	—	—	335	410	455	365	435	485	160	215	250
	—	—	—	*1100*	*1350*	*1500*	*1200*	*1425*	*1600*	*520*	*710*	*820*
P8	—	—	—	310	380	425	340	410	455	150	200	235
	—	—	—	*1025*	*1250*	*1400*	*1125*	*1350*	*1500*	*490*	*660*	*770*
P11	—	—	—	325	400	445	350	425	470	155	210	245
	—	—	—	*1075*	*1300*	*1450*	*1150*	*1400*	*1550*	*510*	*690*	*800*
P12	—	—	—	205	245	270	215	255	280	100	130	155
	—	—	—	*670*	*800*	*890*	*710*	*840*	*920*	*330*	*425*	*510*
M1	—	—	—	—	—	—	245	320	375	180	235	275
	—	—	—	—	—	—	*800*	*1050*	*1225*	*590*	*770*	*900*
M2	—	—	—	—	—	—	200	265	305	145	195	225
	—	—	—	—	—	—	*660*	*870*	*1000*	*475*	*640*	*740*
M3	—	—	—	—	—	—	160	210	245	115	155	180
	—	—	—	—	—	—	*520*	*690*	*800*	*375*	*510*	*590*
M4	—	—	—	—	—	—	125	165	190	90	120	140
	—	—	—	—	—	—	*410*	*540*	*620*	*295*	*395*	*460*
M5	—	—	—	—	—	—	105	135	160	75	100	115
	—	—	—	—	—	—	*345*	*445*	*520*	*245*	*330*	*375*
K1	340	450	520	435	530	590	475	570	630	—	—	—
	1125	*1475*	*1700*	*1425*	*1750*	*1925*	*1550*	*1875*	*2075*	—	—	—
K2	300	395	465	385	465	520	415	500	550	—	—	—
	980	*1300*	*1525*	*1275*	*1525*	*1700*	*1350*	*1650*	*1800*	—	—	—
K3	255	335	395	325	395	440	350	420	465	—	—	—
	840	*1100*	*1300*	*1075*	*1300*	*1450*	*1150*	*1375*	*1525*	—	—	—
K4	245	320	375	310	375	420	335	405	445	—	—	—
	800	*1050*	*1225*	*1025*	*1225*	*1375*	*1100*	*1325*	*1450*	—	—	—
K5	150	195	230	190	225	255	200	240	265	—	—	—
	490	*640*	*750*	*620*	*740*	*840*	*660*	*790*	*870*	—	—	—
K6	215	285	330	275	330	370	295	355	390	—	—	—
	710	*940*	*1075*	*900*	*1075*	*1225*	*970*	*1175*	*1275*	—	—	—
K7	190	250	295	240	290	325	260	310	340	—	—	—
	620	*820*	*970*	*790*	*950*	*1075*	*850*	*1025*	*1125*	—	—	—
N1	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—
N2	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—
N3	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—
N11	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—
S1	—	—	—	—	—	—	—	—	—	28	37	43
	—	—	—	—	—	—	—	—	—	*90*	*120*	*140*
S2	—	—	—	—	—	—	—	—	—	22	29	34
	—	—	—	—	—	—	—	—	—	*70*	*95*	*110*
S3	—	—	—	—	—	—	—	—	—	20	26	30
	—	—	—	—	—	—	—	—	—	*65*	*85*	*100*
S11	—	—	—	—	—	—	—	—	—	39	50	60
	—	—	—	—	—	—	—	—	—	*130*	*165*	*195*
S12	—	—	—	—	—	—	—	—	—	36	47	55
	—	—	—	—	—	—	—	—	—	*120*	*155*	*180*
S13	—	—	—	—	—	—	—	—	—	21	27	32
	—	—	—	—	—	—	—	—	—	*70*	*90*	*105*
H5	—	—	—	55	75	85	—	—	—	—	—	—
	—	—	—	*180*	*245*	*280*	—	—	—	—	—	—
H8	—	—	—	60	75	90	—	—	—	—	—	—
	—	—	—	*195*	*245*	*295*	—	—	—	—	—	—
H11	—	—	—	70	95	110	—	—	—	—	—	—
	—	—	—	*230*	*310*	*360*	—	—	—	—	—	—
H12	—	—	—	105	140	160	—	—	—	—	—	—
	—	—	—	*345*	*460*	*520*	—	—	—	—	—	—

Square 6™ – R217.96-08 – Metric





- For insert selection and cutting data recommendations, see page(s) 112-114
- For complete insert programme, see page(s) 840
- For ISO attribute explanation, see page 16
- KAPRS 90°

Designation	Item number	Type of mounting	DC	ZEFP	APMXS	APMXE	DMM	LUX	LPR	OAL	RPMX	Weight	Insert
			mm		mm	mm	mm	mm	mm	mm		kg	
R217.96-3240.3-08-3A	02622987	Weldon	40,0	3	7,5	3,0	32,0	60,0	60,0	120,0	11800	0,7	XNEX08..
R217.96-3240.3-08-4A	02622989	Weldon	40,0	4	7,5	3,0	32,0	60,0	60,0	120,0	11800	0,7	XNEX08..
R217.96-3240.3S-08-3A	02622914	Seco-Weldon	40,0	3	7,5	3,0	32,0	50,0	60,0	120,0	11800	0,8	XNEX08..
R217.96-3240.3S-08-4A	02622915	Seco-Weldon	40,0	4	7,5	3,0	32,0	50,0	60,0	120,0	11800	0,8	XNEX08..

Spare Parts, included in delivery

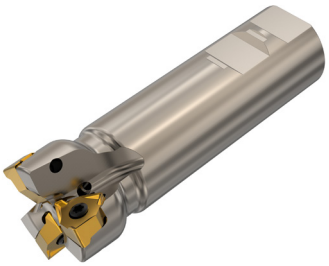
For cutter	Insert key	Insert screw
		
R217.96-..	1/4HEX-T15PX50	C04011-T15P

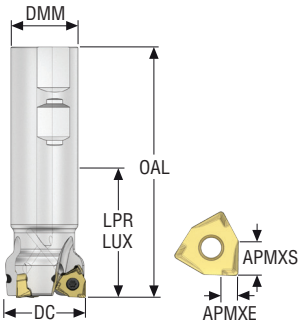
Accessories

For cutter	Adjustable Torque key	Insert clamping torque	Torque key
			
R217.96-..	1/4HEX-S-HANDLE-0.8-5.0NM	3.5NM	T00-15P35

Torque and fixed keys, see page 872

Square 6™ – R217.96-08 – inch

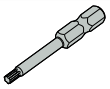




- For insert selection and cutting data recommendations, see page(s) 112-114
- For complete insert programme, see page(s) 840
- For ISO attribute explanation, see page 16
- KAPRS 90°

Designation	Item number	Type of mounting	DC	ZEFP	APMXS	APMXE	DMM	LUX	LPR	OAL	RPMX	Weight	Insert
			inch		inch	inch	inch	inch	inch	inch		lbs	
R217.96-01.50-3-08-3A	02642818	Weldon	1.500	3	0.295	0.118	1.250	2.138	2.138	4.500	20700	1.540	XNEX08..

Spare Parts, included in delivery

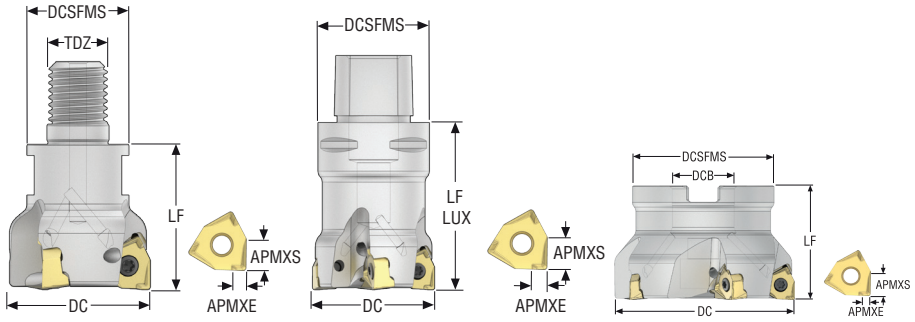
For cutter	Insert key	Insert screw
		
R217.96-..	1/4HEX-T15PX50	C04011-T15P

Accessories

For cutter	Adjustable Torque key	Insert clamping torque	Torque key
			
R217.96-..	1/4HEX-S-HANDLE-0.8-5.0NM	31.0IN.LBS	T00-15P35

Torque and fixed keys, see page 872

Square 6™ – R217/220.96-08 – Metric



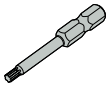


- For insert selection and cutting data recommendations, see page(s) 112-114
- For complete insert programme, see page(s) 840
- For ISO attribute explanation, see page 16
- KAPRS 90°

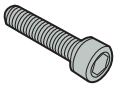
Designation	Item number	Type of mounting	DC	ZEFP	APMXS	APMXE	DCB	TDZ	DCSFMS	LUX	LF	RPMX	Weight	Insert
			mm		mm	mm	mm		mm	mm	mm		kg	
R217.96-1640.RE-08-3A	02678953	Combimaster	40,0	3	7,5	3,0	–	M16	28,0	–	40,0	11800	0,3	XNEX08..
R217.96-1640.RE-08-4A	02678957	Combimaster	40,0	4	7,5	3,0	–	M16	28,0	–	40,0	11800	0,3	XNEX08..
R217.96-2040.RE-08-4A	02972745	Combimaster	40,0	4	7,5	3,0	–	M20	36,5	–	40,0	11800	0,3	XNEX08..
C4-R217.96-044-08-3A	02690109	Seco-Capto	44,0	3	7,5	3,0	–	–	40,0	60,0	60,0	11300	0,6	XNEX08..
C4-R217.96-044-08-4A	02690177	Seco-Capto	44,0	4	7,5	3,0	–	–	40,0	60,0	60,0	11300	0,6	XNEX08..
C5-R217.96-054-08-4A	02690178	Seco-Capto	54,0	4	7,5	3,0	–	–	50,0	60,0	60,0	10200	0,9	XNEX08..
C5-R217.96-054-08-5A	02690179	Seco-Capto	54,0	5	7,5	3,0	–	–	50,0	60,0	60,0	10200	0,9	XNEX08..
C5-R217.96-063-08-6A	02690180	Seco-Capto	63,0	6	7,5	3,0	–	–	50,0	60,0	60,0	9400	1,0	XNEX08..
C6-R217.96-066-08-7A	02780514	Seco-Capto	66,0	7	7,5	3,0	–	–	63,0	60,0	60,0	9400	1,4	XNEX08..
C6-R217.96-080-08-7A	02690182	Seco-Capto	80,0	7	7,5	3,0	–	–	63,0	60,0	60,0	8400	1,7	XNEX08..
C6-R217.96-080-08-9A	02690183	Seco-Capto	80,0	9	7,5	3,0	–	–	63,0	60,0	60,0	8400	1,2	XNEX08..
R220.96-0050-08-4A	02623180	Arbor	50,0	4	7,5	3,0	22,0	–	47,0	–	40,0	10600	0,4	XNEX08..
R220.96-0050-08-5A	02623182	Arbor	50,0	5	7,5	3,0	22,0	–	47,0	–	40,0	10600	0,3	XNEX08..
R220.96-0052-08-5A	02969090	Arbor	52,0	5	7,5	3,0	22,0	–	47,0	–	40,0	10600	0,4	XNEX08..
R220.96-0063-08-4A	02623183	Arbor	63,0	4	7,5	3,0	22,0	–	47,0	–	40,0	9400	0,6	XNEX08..
R220.96-0063-08-5A-27	02768079	Arbor	63,0	5	7,5	3,0	27,0	–	62,0	–	40,0	9400	0,7	XNEX08..
R220.96-0063-08-6A	02623194	Arbor	63,0	6	7,5	3,0	22,0	–	47,0	–	40,0	9400	0,5	XNEX08..
R220.96-0063-08-6A-27	02679623	Arbor	63,0	6	7,5	3,0	27,0	–	62,0	–	40,0	9400	0,7	XNEX08..
R220.96-0063-08-7A	02623196	Arbor	63,0	7	7,5	3,0	22,0	–	47,0	–	40,0	9400	0,5	XNEX08..
R220.96-0063-08-7A-27	02679624	Arbor	63,0	7	7,5	3,0	27,0	–	62,0	–	40,0	9400	0,6	XNEX08..
R220.96-0066-08-6A	02711515	Arbor	66,0	6	7,5	3,0	22,0	–	47,0	–	40,0	9400	0,5	XNEX08..
R220.96-0080-08-5A	02623197	Arbor	80,0	5	7,5	3,0	27,0	–	62,0	–	50,0	8400	1,1	XNEX08..
R220.96-0080-08-7A	02623198	Arbor	80,0	7	7,5	3,0	27,0	–	62,0	–	50,0	8400	1,1	XNEX08..
R220.96-0080-08-9A	02623200	Arbor	80,0	9	7,5	3,0	27,0	–	62,0	–	50,0	8400	1,1	XNEX08..
R220.96-0084-08-7A	02969094	Arbor	84,0	7	7,5	3,0	27,0	–	62,0	–	50,0	8400	1,2	XNEX08..
R220.96-0100-08-6A	02623201	Arbor	100,0	6	7,5	3,0	32,0	–	77,0	–	50,0	7500	1,6	XNEX08..
R220.96-0100-08-8A	02623203	Arbor	100,0	8	7,5	3,0	32,0	–	77,0	–	50,0	7500	1,6	XNEX08..
R220.96-0100-08-11A	02623204	Arbor	100,0	11	7,5	3,0	32,0	–	77,0	–	50,0	7500	1,6	XNEX08..
R220.96-0125-08-7A	02640708	Arbor	125,0	7	7,5	3,0	40,0	–	90,0	–	63,0	6700	3,0	XNEX08..
R220.96-0125-08-11A	02640709	Arbor	125,0	11	7,5	3,0	40,0	–	90,0	–	63,0	6700	2,8	XNEX08..
R220.96-0125-08-14A	02640710	Arbor	125,0	14	7,5	3,0	40,0	–	90,0	–	63,0	6700	2,8	XNEX08..
R220.96-8160-08-12	02640711	Arbor	160,0	12	7,5	3,0	40,0	–	90,0	–	63,0	5900	4,9	XNEX08..
R220.96-8160-08-16	02640712	Arbor	160,0	16	7,5	3,0	40,0	–	90,0	–	63,0	5900	4,8	XNEX08..

For Combimaster Shanks, see Machining Navigator Tooling System

Spare Parts, included in delivery

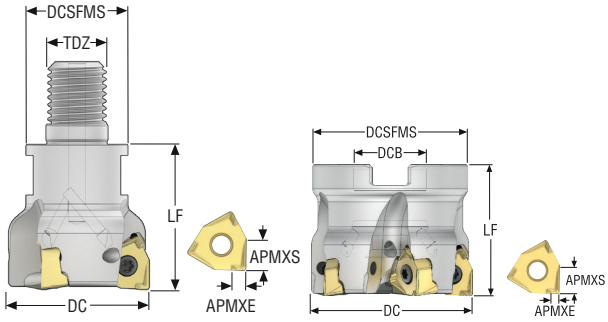
For cutter	Arbor screw	Insert key	Insert screw
			
Cx/R217.96-..	–	1/4HEX-T15PX50	C04011-T15P
R220.96-0050-0052	220.17-696	1/4HEX-T15PX50	C04011-T15P
R220.96-0063-0066	220.17-692	1/4HEX-T15PX50	C04011-T15P
R220.96-0063-27	220.17-693	1/4HEX-T15PX50	C04011-T15P
R220.96-0080-0084	MC6S12X35	1/4HEX-T15PX50	C04011-T15P
R220.96-0100-0125	–	1/4HEX-T15PX50	C04011-T15P
R220.96-8160	–	1/4HEX-T15PX90	C04011-T15P

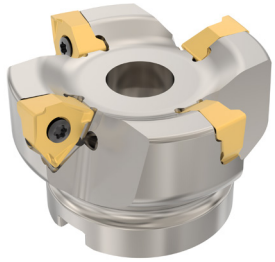
Accessories

For cutter	Adjustable Torque key	Arbor screw	Insert clamping torque	Torque key
				
Cx-R217/220.96-1640-0125	1/4HEX-S-HANDLE-0.8-5.0NM	–	3.5NM	T00-15P35
R220.96-8160	1/4HEX-S-HANDLE-0.8-5.0NM	MC6S12X40	3.5NM	T00-15P35

Torque and fixed keys, see page 872

Square 6™ – R217/220.96-08 – inch



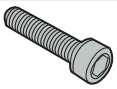
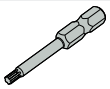


- For insert selection and cutting data recommendations, see page(s) 112-114
- For complete insert programme, see page(s) 840
- For ISO attribute explanation, see page 16
- KAPRS 90°

Designation	Item number	Type of mounting	DC	ZEFP	APMXS	APMXE	DCB	TDZ	DCSFMS	LF	RPMX	Weight	Insert
			inch		inch	inch	inch		inch	inch		lbs	
R217.96-01.50-20RE-08-3A	03212088	Combimaster	1.500	3	0.295	0.118	–	M20	1.398	1.575	20700	0.880	XNEX08..
R220.96-02.00-08-4A	02642870	Arbor	2.000	4	0.295	0.118	0.750	–	1.850	1.575	10600	0.880	XNEX08..
R220.96-02.00-08-5A	02642872	Arbor	2.000	5	0.295	0.118	0.750	–	1.850	1.575	10600	0.880	XNEX08..
R220.96-02.50-08-4A	02642873	Arbor	2.500	4	0.295	0.118	0.750	–	1.850	1.575	9400	1.540	XNEX08..
R220.96-02.50-08-6A	02642874	Arbor	2.500	6	0.295	0.118	0.750	–	1.850	1.575	9400	1.100	XNEX08..
R220.96-02.50-08-7A	02642878	Arbor	2.500	7	0.295	0.118	0.750	–	1.850	1.575	9400	1.320	XNEX08..
R220.96-03.00-08-5A	02642879	Arbor	3.000	5	0.295	0.118	1.000	–	2.441	1.969	8400	2.430	XNEX08..
R220.96-03.00-08-7A	02642881	Arbor	3.000	7	0.295	0.118	1.000	–	2.441	1.969	8400	2.200	XNEX08..
R220.96-03.00-08-9A	02642882	Arbor	3.000	9	0.295	0.118	1.000	–	2.441	1.969	8400	2.200	XNEX08..
R220.96-04.00-08-6A	02642884	Arbor	4.000	6	0.295	0.118	1.500	–	3.031	1.969	7500	3.970	XNEX08..
R220.96-04.00-08-8A	02642886	Arbor	4.000	8	0.295	0.118	1.500	–	3.031	1.969	7500	3.750	XNEX08..
R220.96-04.00-08-11A	02642887	Arbor	4.000	11	0.295	0.118	1.500	–	3.031	1.969	7500	3.750	XNEX08..
R220.96-05.00-08-7A	02642888	Arbor	5.000	7	0.295	0.118	1.500	–	3.543	2.480	6700	7.720	XNEX08..
R220.96-05.00-08-11A	02642889	Arbor	5.000	11	0.295	0.118	1.500	–	3.543	2.480	6700	7.280	XNEX08..
R220.96-06.00-08-12	02642891	Arbor	6.000	12	0.295	0.118	2.000	–	4.331	2.480	5900	9.480	XNEX08..

For Combimaster Shanks, see Machining Navigator Tooling System

Spare Parts, included in delivery

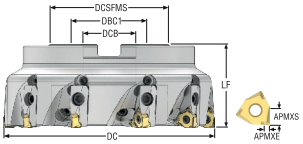
For cutter	Arbor screw	Insert key	Insert screw
			
R217.96-..	–	1/4HEX-T15PX50	C04011-T15P
R220.96-02.00-02.50	UC6S3/8UNFX1	1/4HEX-T15PX50	C04011-T15P
R220.96-03.00	UC6S1/2UNFX1-1/4	1/4HEX-T15PX50	C04011-T15P
R220.96-04.00	UF6S3/4UNFX1-3/4	1/4HEX-T15PX50	C04011-T15P
R220.96-05.00	UC6S3/4UNFX1-1/4	1/4HEX-T15PX50	C04011-T15P
R220.96-06.00	–	1/4HEX-T15PX90	C04011-T15P

Accessories

For cutter	Adjustable Torque key	Arbor screw	Insert clamping torque	Torque key
				
R217/220.96-01.50-05.00	1/4HEX-S-HANDLE-0.8-5.0NM	–	31.0IN.LBS	T00-15P35
R220.96-06.00	1/4HEX-S-HANDLE-0.8-5.0NM	58215080	31.0IN.LBS	T00-15P35

Torque and fixed keys, see page 872

Square 6™ – R220.96-08 – Metric

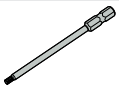




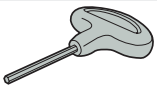
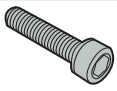
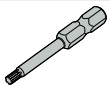
- For insert selection and cutting data recommendations, see page(s) 112-114
- For complete insert programme, see page(s) 840
- For ISO attribute explanation, see page 16
- KAPRS 90°

Designation	Item number	Type of mounting	DC	ZEFP	APMXS	APMXE	DCB	DCSFMS	LF	RPMX	Weight	Insert
			mm		mm	mm	mm	mm	mm		kg	
R220.96-8160-08-7C	02827066	Arbor	160,0	7	7,5	3,0	40,0	90,0	63,0	5900	5,5	XNEX08..
R220.96-8160-08-10C	02827062	Arbor	160,0	10	7,5	3,0	40,0	90,0	63,0	5900	5,5	XNEX08..
R220.96-8200-08-8C	02827067	Arbor	200,0	8	7,5	3,0	60,0	130,0	63,0	5300	8,0	XNEX08..
R220.96-8200-08-12C	02827063	Arbor	200,0	8	7,5	3,0	60,0	130,0	63,0	5300	7,7	XNEX08..
R220.96-8250-08-10C	02827068	Arbor	250,0	10	7,5	3,0	60,0	130,0	63,0	4200	15,2	XNEX08..

Spare Parts, included in delivery

For cutter	Adjustment unit	Cassette	Cassette screw	Insert key	Insert screw	Wedge clamp radial adj.	Wedge screw
							
R220.96-8160-8250	AU1114T-T15P	XN08PRN	FS96018	1/4HEX-T15PX90	C04011-T15P	CW0810	LD8020-T25P

Accessories

For cutter	Adjustable Torque key	Allen key	Arbor screw	Insert clamping torque	Torque key	Wedge key
						
R220.96-8160	1/4HEX-S-HANDLE-0.8-5.0NM	H05-4	MC6S12X40	3.5NM	T00-15P35	1/4HEX-T25PX50
R220.96-8200-8250	1/4HEX-S-HANDLE-0.8-5.0NM	H05-4	MC6S16X50	3.5NM	T00-15P35	1/4HEX-T25PX50

Torque and fixed keys, see page 872

R217/220.96-08 – Insert selection – mm/*Inch*

SMG		a_p	f_z		
			100%	30%	10%
P1	XNEX080608TR-ME09 F40M	3,5 *0.14*	0,13 *0.0050*	0,14 *0.0055*	0,22 *0.0085*
P2	XNEX080608TR-ME09 F40M	3,5 *0.14*	0,13 *0.0050*	0,14 *0.0055*	0,22 *0.0085*
P3	XNEX080608TR-M13 MP2501	3,5 *0.14*	0,18 *0.0070*	0,20 *0.0080*	0,30 *0.012*
P4	XNEX080608TR-M13 MP2501	3,5 *0.14*	0,18 *0.0070*	0,19 *0.0075*	0,30 *0.012*
P5	XNEX080608TR-M13 MP2501	3,5 *0.14*	0,17 *0.0065*	0,19 *0.0075*	0,30 *0.012*
P6	XNEX080608TR-M13 MP2501	3,5 *0.14*	0,17 *0.0065*	0,19 *0.0075*	0,28 *0.011*
P7	XNEX080608TR-M13 MP2501	3,5 *0.14*	0,17 *0.0065*	0,19 *0.0075*	0,28 *0.011*
P8	XNEX080608TR-M13 MP2501	3,5 *0.14*	0,18 *0.0070*	0,20 *0.0080*	0,30 *0.012*
P11	XNEX080608TR-M13 MP3501	3,5 *0.14*	0,17 *0.0065*	0,19 *0.0075*	0,28 *0.011*
P12	XNEX080608R-M08 MS2500	3,0 *0.12*	0,075 *0.0030*	0,080 *0.0032*	0,12 *0.0048*
M1	XNEX080608R-M08 F40M	3,5 *0.14*	0,12 *0.0048*	0,13 *0.0050*	0,20 *0.0080*
M2	XNEX080608R-M08 F40M	3,5 *0.14*	0,11 *0.0044*	0,12 *0.0048*	0,18 *0.0070*
M3	XNEX080608R-M08 F40M	3,0 *0.12*	0,085 *0.0034*	0,095 *0.0038*	0,14 *0.0055*
M4	XNEX080608R-M08 MS2050	2,0 *0.080*	0,080 *0.0032*	0,085 *0.0034*	0,13 *0.0050*
M5	XNEX080608R-M08 MS2050	2,0 *0.080*	0,080 *0.0032*	0,085 *0.0034*	0,13 *0.0050*
K1	XNEX080608TR-M13 MK1500	3,5 *0.14*	0,19 *0.0075*	0,20 *0.0080*	0,32 *0.013*
K2	XNEX080608TR-M13 MK1500	3,5 *0.14*	0,17 *0.0065*	0,19 *0.0075*	0,30 *0.012*
K3	XNEX080608TR-M13 MK2050	3,5 *0.14*	0,17 *0.0065*	0,19 *0.0075*	0,30 *0.012*
K4	XNEX080608TR-M13 MK2050	3,5 *0.14*	0,17 *0.0065*	0,19 *0.0075*	0,30 *0.012*
K5	XNEX080608TR-M13 MK2050	3,5 *0.14*	0,16 *0.0065*	0,17 *0.0065*	0,26 *0.010*
K6	XNEX080608TR-M13 MK2050	3,5 *0.14*	0,17 *0.0065*	0,19 *0.0075*	0,30 *0.012*
K7	XNEX080608TR-M13 MK2050	3,5 *0.14*	0,16 *0.0065*	0,17 *0.0065*	0,26 *0.010*
N1	XNEX080608R-M08 H25	3,5 *0.14*	0,15 *0.0060*	0,16 *0.0065*	0,25 *0.010*
N2	XNEX080608R-M08 H25	3,5 *0.14*	0,15 *0.0060*	0,16 *0.0065*	0,25 *0.010*
N3	XNEX080608R-M08 H25	3,5 *0.14*	0,15 *0.0060*	0,16 *0.0065*	0,25 *0.010*
N11	XNEX080608R-M08 H25	3,5 *0.14*	0,15 *0.0060*	0,16 *0.0065*	0,25 *0.010*
S1	XNEX080608R-M08 F40M	2,0 *0.080*	0,080 *0.0032*	0,085 *0.0034*	0,13 *0.0050*
S2	XNEX080608R-M08 F40M	2,0 *0.080*	0,080 *0.0032*	0,085 *0.0034*	0,13 *0.0050*
S3	XNEX080608R-M08 F40M	2,0 *0.080*	0,075 *0.0030*	0,080 *0.0032*	0,12 *0.0048*
S11	XNEX080608R-M08 MS2050	2,5 *0.10*	0,085 *0.0034*	0,095 *0.0038*	0,15 *0.0060*
S12	XNEX080608R-M08 MS2050	2,5 *0.10*	0,085 *0.0034*	0,095 *0.0038*	0,15 *0.0060*
S13	XNEX080608R-M08 MS2050	2,0 *0.080*	0,080 *0.0032*	0,085 *0.0034*	0,13 *0.0050*
H5	XNEX080608TR-M13 MP3000	3,0 *0.12*	0,12 *0.0048*	0,13 *0.0050*	0,20 *0.0080*
H8	XNEX080608TR-M13 MP3000	2,5 *0.10*	0,090 *0.0036*	0,10 *0.0040*	0,15 *0.0060*
H11	XNEX080608TR-MD15 MP1501	3,0 *0.12*	0,14 *0.0055*	0,15 *0.0060*	0,22 *0.0085*
H12	XNEX080608TR-MD15 MP1501	2,5 *0.10*	0,11 *0.0044*	0,12 *0.0048*	0,18 *0.0070*

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

R217/220.96-08 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	MK2050			MP3000			MS2050			F40M			MP2050			H25		
	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%
P1	260 *850*	350 *1150*	415 *1350*	250 *820*	335 *1100*	395 *1300*	255 *840*	335 *1100*	400 *1300*	200 *660*	265 *870*	320 *1050*	300 *980*	395 *1300*	475 *1550*	— —	— —	— —
P2	255 *840*	340 *1125*	395 *1300*	245 *800*	325 *1075*	380 *1250*	250 *820*	330 *1075*	390 *1275*	195 *640*	260 *850*	305 *1000*	290 *950*	385 *1275*	460 *1500*	— —	— —	— —
P3	220 *720*	290 *950*	345 *1125*	215 *710*	280 *920*	335 *1100*	220 *720*	290 *950*	340 *1125*	170 *560*	225 *740*	265 *870*	255 *840*	340 *1125*	400 *1300*	— —	— —	— —
P4	195 *640*	260 *850*	305 *1000*	185 *610*	250 *820*	295 *970*	190 *620*	255 *840*	300 *980*	150 *490*	200 *660*	235 *770*	225 *740*	300 *980*	355 *1175*	— —	— —	— —
P5	190 *620*	250 *820*	295 *970*	180 *590*	240 *790*	285 *940*	185 *610*	240 *790*	285 *940*	145 *475*	190 *620*	230 *750*	215 *710*	285 *940*	340 *1125*	— —	— —	— —
P6	210 *690*	280 *920*	335 *1100*	205 *670*	270 *890*	320 *1050*	205 *670*	280 *920*	325 *1075*	165 *540*	215 *710*	255 *840*	245 *800*	325 *1075*	385 *1275*	— —	— —	— —
P7	200 *660*	265 *870*	315 *1025*	195 *640*	255 *840*	300 *980*	195 *640*	260 *850*	310 *1025*	155 *510*	205 *670*	240 *790*	230 *750*	310 *1025*	365 *1200*	— —	— —	— —
P8	185 *610*	245 *800*	290 *950*	180 *590*	235 *770*	280 *920*	185 *610*	240 *790*	285 *940*	145 *475*	190 *620*	225 *740*	215 *710*	285 *940*	340 *1125*	— —	— —	— —
P11	195 *640*	255 *840*	305 *1000*	185 *610*	245 *800*	295 *970*	190 *620*	255 *840*	300 *980*	150 *490*	195 *640*	235 *770*	220 *720*	300 *980*	355 *1175*	— —	— —	— —
P12	125 *410*	170 *560*	200 *660*	125 *410*	160 *520*	190 *620*	125 *410*	160 *520*	190 *620*	100 *330*	130 *425*	155 *510*	145 *475*	190 *620*	225 *740*	— —	— —	— —
M1	— —	— —	— —	180 *590*	245 *800*	285 *940*	200 *660*	265 *870*	315 *1025*	155 *510*	210 *690*	245 *800*	210 *690*	275 *900*	330 *1075*	— —	— —	— —
M2	— —	— —	— —	150 *490*	200 *660*	240 *790*	165 *540*	220 *720*	260 *850*	130 *425*	170 *560*	205 *670*	175 *570*	230 *750*	270 *890*	— —	— —	— —
M3	— —	— —	— —	125 *410*	165 *540*	195 *640*	135 *445*	175 *570*	210 *690*	105 *345*	140 *460*	165 *540*	140 *460*	185 *610*	220 *720*	— —	— —	— —
M4	— —	— —	— —	95 *310*	130 *425*	150 *490*	105 *345*	140 *460*	160 *520*	85 *280*	110 *360*	130 *425*	110 *360*	145 *475*	170 *560*	— —	— —	— —
M5	— —	— —	— —	80 *260*	105 *345*	125 *410*	85 *280*	115 *375*	135 *445*	70 *230*	90 *295*	105 *345*	90 *295*	120 *395*	140 *460*	— —	— —	— —
K1	275 *900*	365 *1200*	425 *1400*	190 *620*	260 *850*	300 *980*	— —	— —	— —	155 *510*	205 *670*	240 *790*	— —	— —	— —	170 *560*	225 *740*	265 *870*
K2	245 *800*	320 *1050*	385 *1275*	175 *570*	225 *740*	270 *890*	— —	— —	— —	140 *460*	180 *590*	215 *710*	— —	— —	— —	150 *490*	200 *660*	235 *770*
K3	205 *670*	270 *890*	325 *1075*	145 *475*	190 *620*	230 *750*	— —	— —	— —	115 *375*	155 *510*	185 *610*	— —	— —	— —	— —	— —	— —
K4	195 *640*	260 *850*	310 *1025*	140 *460*	185 *610*	220 *720*	— —	— —	— —	110 *360*	145 *475*	175 *570*	— —	— —	— —	— —	— —	— —
K5	120 *395*	160 *520*	190 *620*	85 *280*	115 *375*	135 *445*	— —	— —	— —	70 *230*	90 *295*	105 *345*	— —	— —	— —	— —	— —	— —
K6	175 *570*	230 *750*	275 *900*	125 *410*	160 *520*	195 *640*	— —	— —	— —	100 *330*	130 *425*	155 *510*	— —	— —	— —	— —	— —	— —
K7	155 *510*	205 *670*	240 *790*	110 *360*	145 *475*	170 *560*	— —	— —	— —	85 *280*	115 *375*	135 *445*	— —	— —	— —	— —	— —	— —
N1	— —	— —	— —	— —	— —	— —	— —	— —	— —	1125 *3700*	1500 *4925*	1775 *5825*	— —	— —	— —	1250 *4100*	1675 *5500*	1975 *6475*
N2	— —	— —	— —	— —	— —	— —	— —	— —	— —	455 *1500*	610 *2000*	720 *2350*	— —	— —	— —	510 *1675*	680 *2225*	790 *2600*
N3	— —	— —	— —	— —	— —	— —	— —	— —	— —	305 *1000*	405 *1325*	480 *1575*	— —	— —	— —	340 *1125*	450 *1475*	530 *1750*
N11	— —	— —	— —	— —	— —	— —	— —	— —	— —	350 *1150*	465 *1525*	550 *1800*	— —	— —	— —	390 *1275*	520 *1700*	610 *2000*
S1	— —	— —	— —	45 *150*	60 *195*	70 *230*	49 *160*	65 *215*	75 *245*	39 *130*	50 *165*	60 *195*	55 *180*	70 *230*	85 *280*	— —	— —	— —
S2	— —	— —	— —	36 *120*	48 *155*	55 *180*	39 *130*	50 *165*	60 *195*	31 *100*	41 *135*	48 *155*	43 *140*	55 *180*	65 *215*	— —	— —	— —
S3	— —	— —	— —	32 *105*	42 *140*	49 *160*	34 *110*	45 *150*	55 *180*	27 *90*	36 *120*	42 *140*	38 *125*	50 *165*	60 *195*	— —	— —	— —
S11	— —	— —	— —	— —	— —	— —	70 *230*	90 *295*	105 *345*	55 *180*	70 *230*	85 *280*	75 *245*	100 *330*	115 *375*	38 *125*	49 *160*	60 *195*
S12	— —	— —	— —	— —	— —	— —	47 *155*	60 *195*	75 *245*	37 *120*	49 *160*	60 *195*	50 *165*	70 *230*	80 *260*	— —	— —	— —
S13	— —	— —	— —	— —	— —	— —	27 *90*	36 *120*	43 *140*	22 *70*	29 *95*	34 *110*	30 *100*	40 *130*	47 *155*	— —	— —	— —
H5	— —	— —	— —	38 *125*	50 *165*	60 *195*	— —	— —	— —	33 *110*	43 *140*	50 *165*	— —	— —	— —	— —	— —	— —
H8	— —	— —	— —	41 *135*	55 *180*	65 *215*	— —	— —	— —	35 *115*	46 *150*	55 *180*	— —	— —	— —	— —	— —	— —
H11	— —	— —	— —	48 *155*	65 *215*	75 *245*	— —	— —	— —	41 *135*	55 *180*	65 *215*	55 *180*	75 *245*	85 *280*	— —	— —	— —
H12	— —	— —	— —	80 *260*	105 *345*	120 *395*	— —	— —	— —	65 *215*	80 *260*	95 *310*	95 *310*	120 *395*	140 *460*	— —	— —	— —

R217/220.96-08 – Cutting data v_c = (m/min)/*(sf/min)*

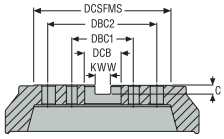
SMG	MK1500			MP1501			MP2501			MS2500			MP3501			MM4500		
	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%
P1	—	—	—	380	475	540	370	465	530	335	440	530	390	475	540	190	250	295
	—	—	—	*1250*	*1550*	*1775*	*1225*	*1525*	*1750*	*1100*	*1450*	*1750*	*1275*	*1550*	*1775*	*620*	*820*	*970*
P2	—	—	—	370	465	520	360	455	510	325	430	510	380	465	530	185	240	290
	—	—	—	*1225*	*1525*	*1700*	*1175*	*1500*	*1675*	*1075*	*1400*	*1675*	*1250*	*1525*	*1750*	*610*	*790*	*950*
P3	—	—	—	325	400	455	315	390	445	285	375	445	335	405	455	160	210	250
	—	—	—	*1075*	*1300*	*1500*	*1025*	*1275*	*1450*	*940*	*1225*	*1450*	*1100*	*1325*	*1500*	*520*	*690*	*820*
P4	—	—	—	285	355	400	280	350	395	250	330	395	295	355	400	140	185	220
	—	—	—	*940*	*1175*	*1300*	*920*	*1150*	*1300*	*820*	*1075*	*1300*	*970*	*1175*	*1300*	*460*	*610*	*720*
P5	—	—	—	275	340	390	270	335	385	240	315	375	280	340	385	135	180	210
	—	—	—	*900*	*1125*	*1275*	*890*	*1100*	*1275*	*790*	*1025*	*1225*	*920*	*1125*	*1275*	*445*	*590*	*690*
P6	—	—	—	310	380	435	305	375	430	270	365	425	315	390	435	150	205	240
	—	—	—	*1025*	*1250*	*1425*	*1000*	*1225*	*1400*	*890*	*1200*	*1400*	*1025*	*1275*	*1425*	*490*	*670*	*790*
P7	—	—	—	295	360	415	285	355	405	255	345	405	295	365	410	145	195	225
	—	—	—	*970*	*1175*	*1350*	*940*	*1175*	*1325*	*840*	*1125*	*1325*	*970*	*1200*	*1350*	*475*	*640*	*740*
P8	—	—	—	270	335	385	265	330	375	240	315	375	280	340	385	135	180	210
	—	—	—	*890*	*1100*	*1275*	*870*	*1075*	*1225*	*790*	*1025*	*1225*	*920*	*1125*	*1275*	*445*	*590*	*690*
P11	—	—	—	285	350	400	280	345	395	245	335	390	290	355	400	140	190	220
	—	—	—	*940*	*1150*	*1300*	*920*	*1125*	*1300*	*800*	*1100*	*1275*	*950*	*1175*	*1300*	*460*	*620*	*720*
P12	—	—	—	185	225	255	185	225	255	160	215	250	185	220	245	90	120	140
	—	—	—	*610*	*740*	*840*	*610*	*740*	*840*	*520*	*710*	*820*	*610*	*720*	*800*	*295*	*395*	*460*
M1	—	—	—	—	—	—	185	250	290	230	305	365	200	265	315	155	205	245
	—	—	—	—	—	—	*610*	*820*	*950*	*750*	*1000*	*1200*	*660*	*870*	*1025*	*510*	*670*	*800*
M2	—	—	—	—	—	—	155	205	240	190	255	300	165	220	260	130	170	200
	—	—	—	—	—	—	*510*	*670*	*790*	*620*	*840*	*980*	*540*	*720*	*850*	*425*	*560*	*660*
M3	—	—	—	—	—	—	125	165	195	155	205	245	135	175	210	105	140	165
	—	—	—	—	—	—	*410*	*540*	*640*	*510*	*670*	*800*	*445*	*570*	*690*	*345*	*460*	*540*
M4	—	—	—	—	—	—	100	130	150	120	160	190	105	140	160	80	110	125
	—	—	—	—	—	—	*330*	*425*	*490*	*395*	*520*	*620*	*345*	*460*	*520*	*260*	*360*	*410*
M5	—	—	—	—	—	—	80	110	125	100	135	155	85	115	135	70	90	105
	—	—	—	—	—	—	*260*	*360*	*410*	*330*	*445*	*510*	*280*	*375*	*445*	*230*	*295*	*345*
K1	290	385	450	375	470	520	365	460	510	255	340	405	380	470	530	—	—	—
	950	*1275*	*1475*	*1225*	*1550*	*1700*	*1200*	*1500*	*1675*	*840*	*1125*	*1325*	*1250*	*1550*	*1750*	—	—	—
K2	260	340	405	335	410	470	330	405	465	230	300	355	340	415	465	—	—	—
	850	*1125*	*1325*	*1100*	*1350*	*1550*	*1075*	*1325*	*1525*	*750*	*980*	*1175*	*1125*	*1350*	*1525*	—	—	—
K3	220	285	345	285	350	400	275	340	390	195	255	300	285	350	395	—	—	—
	720	*940*	*1125*	*940*	*1150*	*1300*	*900*	*1125*	*1275*	*640*	*840*	*980*	*940*	*1150*	*1300*	—	—	—
K4	210	275	325	270	335	380	265	325	375	185	245	290	275	335	375	—	—	—
	690	*900*	*1075*	*890*	*1100*	*1250*	*870*	*1075*	*1225*	*610*	*800*	*950*	*900*	*1100*	*1225*	—	—	—
K5	125	170	200	165	205	230	160	200	225	115	150	175	170	205	225	—	—	—
	410	*560*	*660*	*540*	*670*	*750*	*520*	*660*	*740*	*375*	*490*	*570*	*560*	*670*	*740*	—	—	—
K6	185	240	290	240	295	335	235	285	330	160	215	255	240	295	330	—	—	—
	610	*790*	*950*	*790*	*970*	*1100*	*770*	*940*	*1075*	*520*	*710*	*840*	*790*	*970*	*1075*	—	—	—
K7	160	215	255	210	260	295	205	255	290	145	195	225	215	260	290	—	—	—
	520	*710*	*840*	*690*	*850*	*970*	*670*	*840*	*950*	*475*	*640*	*740*	*710*	*850*	*950*	—	—	—
N1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
N2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
N3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
N11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S1	—	—	—	—	—	—	—	—	—	60	80	90	49	65	75	25	33	39
	—	—	—	—	—	—	—	—	—	*195*	*260*	*295*	*160*	*215*	*245*	*80*	*110*	*130*
S2	—	—	—	—	—	—	—	—	—	48	65	75	39	50	60	20	27	31
	—	—	—	—	—	—	—	—	—	*155*	*215*	*245*	*130*	*165*	*195*	*65*	*90*	*100*
S3	—	—	—	—	—	—	—	—	—	42	55	65	34	45	55	18	23	27
	—	—	—	—	—	—	—	—	—	*140*	*180*	*215*	*110*	*150*	*180*	*60*	*75*	*90*
S11	—	—	—	—	—	—	—	—	—	85	110	130	70	90	105	35	46	55
	—	—	—	—	—	—	—	—	—	*280*	*360*	*425*	*230*	*295*	*345*	*115*	*150*	*180*
S12	—	—	—	—	—	—	—	—	—	60	75	90	47	60	75	33	42	50
	—	—	—	—	—	—	—	—	—	*195*	*245*	*295*	*155*	*195*	*245*	*110*	*140*	*165*
S13	—	—	—	—	—	—	—	—	—	33	44	50	27	36	43	19	25	29
	—	—	—	—	—	—	—	—	—	*110*	*145*	*165*	*90*	*120*	*140*	*60*	*80*	*95*
H5	—	—	—	49	65	75	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	*160*	*215*	*245*	—	—	—	—	—	—	—	—	—	—	—	—
H8	—	—	—	55	70	80	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	*180*	*230*	*260*	—	—	—	—	—	—	—	—	—	—	—	—
H11	—	—	—	60	80	95	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	*195*	*260*	*310*	—	—	—	—	—	—	—	—	—	—	—	—
H12	—	—	—	95	125	145	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	*310*	*410*	*475*	—	—	—	—	—	—	—	—	—	—	—	—

Code keys metric and inch

R	217	.	69	-	25	32	.	3S	-	042	-	10	.	4	A
1	2		3		4	5		6		7		8		9	10

R	217	.	69	-	01.50	-	3	-	01.34	-	10	-	4	A
1	2		3		5		6		7		8		9	10

1.	2.	3.
Right hand rotation Cx = For Seco-Capto	215/217=With shank 220 = For Arbor 235 = Finishing	69 = Rectangular positive 2 cutting edges 94 = Tangential 4 cutting edges 59 = Square positive 4 cutting edges 15 = Finishing
4. (Not applicable for inch designation)	**5.**	**6.**
Shank diameter (except for Arbor type)	Cutter diameter	Shank type (except for Arbor type) 0 = Cylindrical 3 = Weldon 3S = Seco Weldon RE = Combimaster
7.	**8.**	**9.**
Max. axial cutting depht	Insert size xxS = short edge xxM = Medium edge xxL = Long edge xxH = Heavy duty	Effective No. of flutes (ZEFP)
10.		
A = With through coolant supply N = Coated S = Set H = Heavy Duty K = Full effective (for .59 only) R6 = Compatible with radius 6.3 mm (for .59 only)		



Dimensions in mm					
DCB	DCSFMS	DBC1	DBC2	KWW	C
16	30-35	–	–	8,4	5,6
22	42-47	–	–	10,4	6,3
27	48-62	–	–	12,4	7
32	60-90	–	–	14,4	8
40	90-130	66,7	–	16,4	9
60	130-270	101,6	177,8	25,7	14

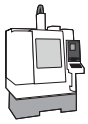
Dimensions in inch					
DCB	DCSFMS	DBC1	DBC2	KWW	C
0.500	*1.181 - 1.378*			*0.258*	*0.165*
0.750	*1.378 - 1.850*	–	–	*0.321*	*0.193*
1.000	*1.803 - 2.441*	–	–	*0.382*	*0.224*
1.250	*2.250 - 3.031*	–	–	*0.508*	*0.287*
1.500	*2.750 - 3.543*	–	–	*0.630*	*0.382*
2.000	*4.331*	–	–	*0.756*	*0.445*
2.500	*5.118 - 6.299 (8.858)*	*4.000*	*(7.000)*	*1.000*	*0.551*

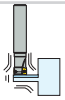
For a more exact DCSFMS and DCB measurement, see each product table.

Selection – Metric

Cutter	Insert	Material suitability					Corner radius (mm)					
		P	M	K	N	S						
Turbo	XO..06	■	■	■	■	■	0,2/0,4/0,8/1,6	■	□	■	■	◩
	XO..10	■	■	■	■	■	0,2/0,4/0,8/1,2/ 1,6/2,0/2,4/3,1	■	◩	■	■	◩
	XO..12	■	■	■	■	■	0,2/0,4/0,8/1,2/ 1,6/2,0/2,4/3,1/ 4,0/5,0/6,3	◩	■	■	■	◩
	XO..16	■	■	■	■	■	0,4/0,8/1,2/ 1,6/2,0/2,4/3,1/ 4,0/5,0/6,3	◩	■	■	■	◩
	XO..18	■	■	■	■	■	0,4/0,8/1,2/1,6/2,0/ 2,4/3,1/4,0/5,0/6,3	□	■	■	■	◩
Helical T4	LO..08	■	□	■	–	◩	0,4/0,8/1,2/1,6	◩	◩	◩	–	□
	LO..12	■	◩	■	◩	◩	0,4/0,8/1,2/1,6/2,0/ 2,4/3,1/4,0/5,0/6,3	◩	◩	◩	–	□
R215/220.59 / R215/220.59K	AC15 SC12	◩	◩	◩	□	□	1,2/3,0/3,1/6,0	_	■	□	_	□
220.69-15	AC15	◩	◩	◩	□	□	1,2/3,0/3,1/6,0	_	■	□	_	□
Helical solution for side-finishing operation (small radial engagement)												
235.15		■	■	■	-	■	Chamfer	■	■	◩	-	-

1st choice	■
Alternative choice	◩
Possible choice	□

High speed machine with low power/torque	
Strong stable machine with rigid connecion	
Not recommended	-

Unstable condition suitability	
Ramping ability	
Plunging ability	

Selection – Metric

Cutter	No. of cutting edges	Applica-tion	Cutter diameter (mm)/available depth of cut and number of teeth															See page
			12	14	16	20	25	32	40	44	50	54	63	66	80	100	125	
Turbo 06	2		10 (2)	15 (2)	20 (2)	20 (3) / 25 (3)												124
					15 (3)													
Turbo 10	2					25 (1)	25 (2)	25 (3)	34 (4)		42 (5)							129
						17 (2)	17 (3) / 25 (3) / 34 (3) / 42 (2)	34 (4) / 42 (4) / 50 (3)	34 (5) / 58 (4)	58 (5)	42 (6)							
Turbo 12	2						22 (2) / 33 (2)	33 (2)	33 (3) / 55 (3)	33 (3)	33 (4) / 44 (4) / 55 (4) / 66 (4)	44 (4)	33 (5) / 55 (5)	44 (5)				135
								22 (3) / 33 (3) / 44 (3) / 55 (3)	44 (4) / 65.5 (3)		44 (5) / 86 (5) / 106 (5)		77 (4) / 107 (5)		64 (6)			
Turbo 16	2							29 (2)	29 (3) 43 (3)		57 (3)		43 (4)		71 (5)	71 (6)		145
									71 (3)		43 (4) 57 (4) 85 (4) 98 (4)		57 (5) 85 (5)		71 (6)			
Turbo 18	2								47 (2)		47 (3) / 62 (3)	47 (3)	47 (4) / 62 (3)	47 (4)	47 (5) / 62 (5)	62 (6)		152
													62 (4) / 77 (4)		77 (4) / 93 (5)	77 (5)		
T4 08	4						29 (2) / 36 (2)	36 (3)	36 (3)		43 (4)							174
							43 (2)	43 (3) / 50 (3)	43 (4) / 50 (4)	57 (4)	57 (5)	64 (5)						
T4 12	4								35 (2)	35 (3)	35 (3) / 46 (3)		46 (4)					N/A
										58 (3)	46 (4) / 58 (4) / 81 (4)	69 (4)	58 (5) / 81 (4) / 92 (4)	81 (5)	69 (5) / 104 (5)	81 (6)		
215/220.59	2 & 4 half effective										50 (2) / 59 (2)		59 (2)		68 (2/3)	77 (3/4)		186
											77 (2) / 120 (2)		86 (2) / 120 (2) / 160 (2)		95 (2/3)			186
215/220.59K	2 & 4 full effective										63 (3) / 72 (3)		72 (4) / 110 (3)		72 (5)			186
220.69-15	2												38 (4)		38 (5) / 50 (5)	50 (6)	50 (7)	193
235.15	1							40 (2)			50 (3)				90 (3)			197

x(y) — Slotting and contouring operations : x indicates the maximum depth of cut (y indicates the number of teeth)

x(y) — For contouring operations only : x indicates the maximum depth of cut (y indicates the number of teeth)

Slotting and contouring

Contouring only

Selection – Inch

Cutter	Insert	Material suitability					Corner radius (inch)					
		P	M	K	N	S						
Turbo	XO..06	■	■	■	■	■	.007/.016 .031/.063	■	□	■	■	◩
	XO..10	■	■	■	■	■	.007/.016/.031 .047/.063 .079/.094 .122	■	◩	■	■	◩
	XO..12	■	■	■	■	■	.007/.016/.031 .047/.063 .079/.094 .122/.157 .197/.248	◩	■	■	■	◩
	XO..16	■	■	■	■	■	.007/.016/.031 .047/.063 .079/.094 .122/.157 .197/.248	◩	■	■	■	◩
	XO..18	■	■	■	■	■	.016/.031 .047/.063 .079/.094 .122/.157 .197/.248	□	■	■	■	◩
Helical T4	LO..08	■	□	■	–	◩	.016/.031 .047/.063	◩	◩	◩	–	□
	LO..12	■	◩	■	◩	◩	.016/.031 .047/.063 .079/.094 .122/.157 .197/.248	◩	◩	◩	–	□
R215/220.59 / R215/220.59K	AC15 SC12	◩	◩	◩	□	□	.047/.122 .118/.236	–	■	□	–	□
220.69-15	AC15	◩	◩	◩	□	□	.047/.122 .118/.236	–	■	□	–	□
Helical solution for side-finishing operation (small radial engagement)												
235.15		■	■	■	-	■	Chamfer	■	■	◩	-	-

1st choice	■
Alternative choice	◩
Possible choice	□

High speed machine with low power/torque	
Strong stable machine with rigid connecion	
Not recommended	-

Unstable condition suitability	
Ramping ability	
Plunging ability	

Selection – Inch

Cutter	No. of cutting edges	Applica-tion	Cutter diameter (inch)/available depth of cut and number of teeth								See page
			0.750	1.00	1.25	1.50	2.00	2.50	3.00	4.00	
Turbo 06	2		1.024 (3)								124
											
Turbo 10	2			1.024 (2)		1.378 (4)					129
				1.378 (3) / 1.693 (2)		1.339 (5)					
Turbo 12	2			0.870 (2) / 0.902 (2)	1.299 (2)	1.732 (3)	1.740 (4) / 2.591 (4)	2.953 (4)			135
					1.732 (3)	1.732 (4) / 2.165 (4) / 2.559 (3)	2.146 (5)				
Turbo 16	2					1.69 (3)	1.69 (3)	1.69 (4)	2.79 (5)		135
							1.69 (4) 2.24 (4) 3.89 (4)	2.24 (5) / 3.34 (5)			
Turbo 18	2					1.862 (2)	1.850 (3)	1.866 (4) / 2.409 (4) / 2.441 (4)	2.480 (5) / 3.024 (4)	3.024 (5)	152
							2.441 (3)	3.024 (4)			
Helical T4 08	4			1.417 (2)	1.417 (2)		1.693 (4)				174
				1.693 (2)		1.969 (4)					
Helical T4 12	4						1.406 (3) / 1.850 (3)				N/A
							2.283 (4) / 2.310 (4)	3.189 (4) / 3.211 (4)	3.189 (5) / 3.211 (5)		
215/220.59	2 & 4 half effective										186
							3.031 (2)				
215/220.59K	2 & 4 full effective										186
220.69-15	2						1.567 (3)				193
235.15	1						1.969 (3)		3.500 (3)		197

x(y) Slotting and contouring operations : x indicates the maximum depth of cut (y indicates the number of teeth)

x(y) For contouring operations only : x indicates the maximum depth of cut (y indicates the number of teeth)

 Slotting and contouring

 Contouring only

Selection – Metric

Cutter	Insert	Material suitability					Corner radius (mm)					
		P	M	K	N	S						
Right Helix R217/220.82-SNXO16	XO.X16	■	■	■	□	■	0,4/0,8/1,2/ 1,6/2,0/2,4/3,1/ 4,0/5,0/6,3	–	■	–	■	◩
	SN.U13											
Right Helix R217/220.82-SNAC15-H Left Helix R217/220.81-SNAC15 R217/220.81-SNAC15-K	AC.T15	■	◩	■	□	□	1,2/3,0/3,1/6,0	–	■	◩	–	–
	SN.U13											

1st choice	■
Alternative choice	◩
Possible choice	□

High speed machine with low power/torque	
Strong stable machine with rigid connecion	
Not recommended	-

Unstable condition suitability	
Ramping ability	
Plunging ability	

Selection – Metric

Cutter	No. of cutting edges	Applica-tion	Cutter diameter (mm)/available depth of cut and number of teeth							See page
			50	63	80	100	125	160	200	
Right Helix R2177220.82-SNXO16	2/8		47 (3)	47 (4)	68 (5)					161
				69 (5) / 79 (4)	79 (6)					
Right Helix R217/220.82-SNAC15-H	2/8			46 (4)	57 (5)	57 (6)				170
										
Left Helix R217/220.81-SNAC15	2/8		68 (2)	68 (2)	68 (3)	68 (4)				169
										
Left Helix R217/220.81-SNAC15-K	2/8									168
				68 (4)	79 (5)					

x(y) — Slotting and contouring operations : x indicates the maximum depth of cut (y indicates the number of teeth)

x(y) — For contouring operations only : x indicates the maximum depth of cut (y indicates the number of teeth)

 Slotting and contouring

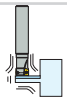
 Contouring only

Selection – Inch

Cutter	Insert	Material suitability					Corner radius (inch)					
		P	M	K	N	S						
Right Helix R2177220.82-SNXO16	XO.X16 	■	■	■	□	■	.007/.016/.031 .047/.063 .079/.094 .122/.157 .197/.248	–	■	–	■	◩
	SN.U13 											

1st choice	■
Alternative choice	◩
Possible choice	□

High speed machine with low power/torque	
Strong stable machine with rigid connecion	
Not recommended	-

Unstable condition suitability	
Ramping ability	
Plunging ability	

Selection – Inch

Cutter	No. of cutting edges	Applica-tion	Cutter diameter (inch)/available depth of cut and number of teeth						See page
			1.25	1.50	2.00	2.50	3.00	4.00	
Right Helix R2177220.82-SNXO16	2/8				1.85 (3)	1.85 (4)	2.68 (5)		162
						2.75 (5) / 3.11 (4)	3.11 (6)		

x(y)	Slotting and contouring operations : x indicates the maximum depth of cut (y indicates the number of teeth)
x(y)	For contouring operations only : x indicates the maximum depth of cut (y indicates the number of teeth)

	Slotting and contouring
	Contouring only

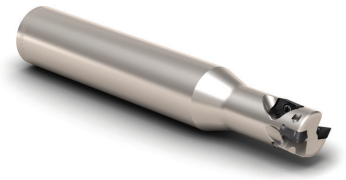


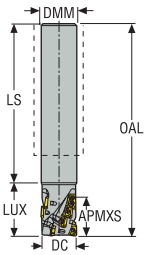
TURBO HELICAL

Seco's range of high-performance Turbo helical cutters offers high feeds, large depths of cut and high metal removal rates in contouring and profiling applications. These cutters provide a first choice for mixed production in all workpiece materials

- Insert size 06, cutter range 12-20 mm (0.75 inch)
- Insert size 10, cutter range 20-50 mm (1 inch)
- Insert size 12, cutter range 25-66 mm (1 - 2.5 inch)
- Insert size 16, cutter range 32-100 mm (1.5 - 3 inch)
- Insert size 18, cutter range 40-100 mm (1.5 - 4 inch)

Turbo 06 – R217.69-06 – Metric





- For insert selection and cutting data recommendations, see page(s) 127-128
- For complete insert programme, see page(s) 843
- For ISO attribute explanation, see page 16
- KAPRS 90°

Designation	Item number	Type of mounting	DC	ZEFP	ZNP	APMXS	DMM	LUX	LS	OAL	RPMX	Weight	Insert
			mm			mm	mm	mm	mm	mm		kg	
R217.69-1612.0-10-06.2N	02709311	Cylindrical	12,0	2	4	10,0	16,0	23,0	66,0	98,0	54400	0,2	XO.X06..
R217.69-1616.0-15-06.3N	02709314	Cylindrical	16,0	3	9	15,0	16,0	30,0	80,0	110,0	48000	0,2	XO.X06..
R217.69-1616.0-20-06.2N	02709316	Cylindrical	16,0	2	8	20,0	16,0	30,0	80,0	110,0	48000	0,2	XO.X06..
R217.69-2020.0-25-06.3N	02709317	Cylindrical	20,0	3	15	25,0	20,0	35,0	85,0	120,0	44000	0,4	XO.X06..

Modification of the cutter body needed for radii > 0,8 mm

Spare Parts, included in delivery

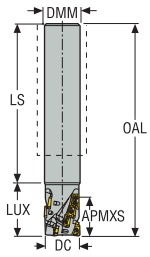
For cutter	Insert key	Insert screw
		
R217.69-..	H4B-T06P	C01804-T06P

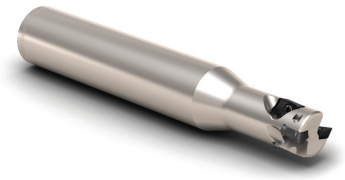
Accessories

For cutter	Insert clamping torque	Torque key
		
	0.5NM	T00-06P05

Torque and fixed keys, see page 872

Turbo 06 – R217.69-06 – Inch





- For insert selection and cutting data recommendations, see page(s) 127-128
- For complete insert programme, see page(s) 843
- For ISO attribute explanation, see page 16
- KAPRS 90°

Designation	Item number	Type of mounting	DC	ZEFP	ZNP	APMXS	DMM	LUX	LS	OAL	RPMX	Weight	Insert
			inch			inch	inch	inch	inch	inch		lbs	
R217.69-00.75-0-06M3N	02710568	Cylindrical	0.750	3	15	1.024	0.750	1.378	3.622	5.000	44000	0.660	XO.X06..

Modification of the cutter body needed for radii > 0.031 in

Spare Parts, included in delivery

For cutter	Insert key	Insert screw
		
R217.69-..	H4B-T06P	C01804-T06P

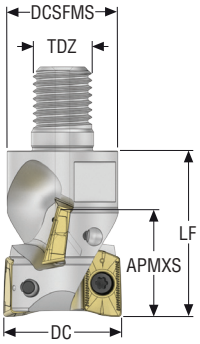
Accessories

For cutter	Insert clamping torque	Torque key
		
R217.69-..	0.5NM	T00-06P05

Torque and fixed keys, see page 872

Turbo 06 – R217.69-06– Metric





- For insert selection and cutting data recommendations, see page(s) 127-128
- For complete insert programme, see page(s) 843
- For ISO attribute explanation, see page 16
- KAPRS 90°

Designation	Item number	Type of mounting	DC	ZEFP	ZNP	APMXS	TDZ	DCSFMS	LF	RPMX	Weight	Insert
			mm			mm		mm	mm		kg	
R217.69-0814.RE-15-06.2N	02709297	Combimaster	14,0	2	6	15,0	M8	13,2	25,0	51200	0,1	XO.X06..
R217.69-1020.RE-20-06.3AN	02709306	Combimaster	20,0	3	12	20,0	M10	18,5	35,0	44800	0,1	XO.X06..

Modification of the cutter body needed for radii > 0,8 mm

Spare Parts, included in delivery

For cutter	Insert key	Insert screw
		
R217.69-..	H4B-T06P	C01804-T06P

Accessories

For cutter	Insert clamping torque	Torque key
		
R217.69-..	0.5NM	T00-06P05

Torque and fixed keys, see page 872

R217/220.69-06 – Insert selection – mm/*Inch*

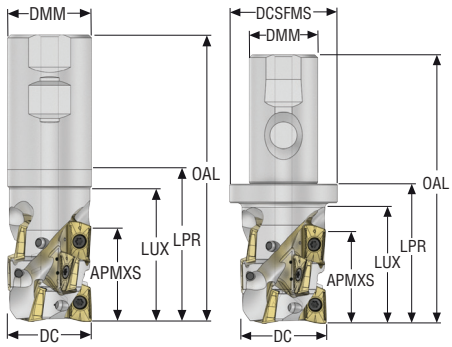
SMG		f_z		
		100%	30%	10%
P1	XOMX060208R-M05 F40M	0,055 *0.0022*	0,060 *0.0024*	0,095 *0.0038*
P2	XOMX060208R-M05 F40M	0,060 *0.0024*	0,065 *0.0026*	0,095 *0.0038*
P3	XOMX060208R-M05 F40M	0,055 *0.0022*	0,060 *0.0024*	0,090 *0.0036*
P4	XOMX060208R-M05 F40M	0,055 *0.0022*	0,060 *0.0024*	0,090 *0.0036*
P5	XOMX060208R-M05 F40M	0,050 *0.0020*	0,055 *0.0022*	0,090 *0.0036*
P6	XOMX060208R-M05 F40M	0,050 *0.0020*	0,055 *0.0022*	0,085 *0.0034*
P7	XOMX060208R-M05 F40M	0,050 *0.0020*	0,055 *0.0022*	0,085 *0.0034*
P8	XOMX060208R-M05 F40M	0,055 *0.0022*	0,060 *0.0024*	0,090 *0.0036*
P11	XOMX060208R-M05 MP3000	0,050 *0.0020*	0,055 *0.0022*	0,085 *0.0034*
P12	XOMX060208R-M05 MP3000	0,036 *0.0014*	0,040 *0.0016*	0,060 *0.0024*
M1	XOMX060208R-M05 MS2050	0,060 *0.0024*	0,065 *0.0026*	0,095 *0.0038*
M2	XOMX060208R-M05 MS2050	0,050 *0.0020*	0,055 *0.0022*	0,090 *0.0036*
M3	XOMX060208R-M05 MS2050	0,042 *0.0017*	0,046 *0.0018*	0,070 *0.0028*
M4	XOMX060208R-M05 MS2050	0,038 *0.0015*	0,040 *0.0016*	0,060 *0.0024*
M5	XOMX060208R-M05 MS2050	0,038 *0.0015*	0,040 *0.0016*	0,060 *0.0024*
K1	XOMX060208R-M05 F40M	0,060 *0.0024*	0,065 *0.0026*	0,095 *0.0038*
K2	XOMX060208R-M05 F40M	0,050 *0.0020*	0,055 *0.0022*	0,090 *0.0036*
K3	XOMX060208R-M05 F40M	0,050 *0.0020*	0,055 *0.0022*	0,090 *0.0036*
K4	XOMX060208R-M05 F40M	0,050 *0.0020*	0,055 *0.0022*	0,090 *0.0036*
K5	XOMX060208R-M05 F40M	0,048 *0.0019*	0,050 *0.0020*	0,080 *0.0032*
K6	XOMX060208R-M05 F40M	0,050 *0.0020*	0,055 *0.0022*	0,090 *0.0036*
K7	XOMX060208R-M05 F40M	0,048 *0.0019*	0,050 *0.0020*	0,080 *0.0032*
N1	XOEX060204FR-E03 H15	0,060 *0.0024*	0,065 *0.0026*	0,10 *0.0040*
N2	XOEX060204FR-E03 H15	0,060 *0.0024*	0,065 *0.0026*	0,10 *0.0040*
N3	XOEX060204FR-E03 H15	0,060 *0.0024*	0,065 *0.0026*	0,10 *0.0040*
N11	XOEX060204FR-E03 H15	0,060 *0.0024*	0,065 *0.0026*	0,10 *0.0040*
S1	XOMX060208R-M05 F40M	0,038 *0.0015*	0,040 *0.0016*	0,060 *0.0024*
S2	XOMX060208R-M05 F40M	0,038 *0.0015*	0,040 *0.0016*	0,060 *0.0024*
S3	XOMX060208R-M05 F40M	0,034 *0.0013*	0,038 *0.0015*	0,060 *0.0024*
S11	XOMX060208R-M05 MS2050	0,042 *0.0017*	0,046 *0.0018*	0,070 *0.0028*
S12	XOMX060208R-M05 MS2050	0,042 *0.0017*	0,046 *0.0018*	0,070 *0.0028*
S13	XOMX060208R-M05 MS2050	0,038 *0.0015*	0,040 *0.0016*	0,060 *0.0024*
H5	XOMX060208R-M05 MP3000	0,036 *0.0014*	0,040 *0.0016*	0,060 *0.0024*
H8	XOMX060208R-M05 MP3000	0,028 *0.0011*	0,030 *0.0012*	0,046 *0.0018*
H11	XOMX060208R-M05 MP3000	0,036 *0.0014*	0,040 *0.0016*	0,060 *0.0024*
H12	XOMX060208R-M05 MP3000	0,028 *0.0011*	0,030 *0.0012*	0,046 *0.0018*

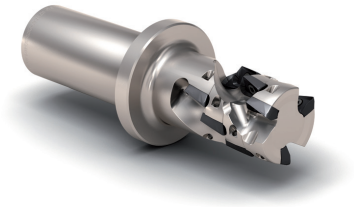
SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

R217/220.69-06 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	F15M			F30M			MP3000			MS2050			F40M			H15			MM4500		
	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%
P1	—	—	—	165	180	190	175	195	205	165	185	195	160	180	190	—	—	—	145	165	175
	—	—	—	*540*	*590*	*620*	*570*	*640*	*670*	*540*	*610*	*640*	*520*	*590*	*620*	—	—	—	*475*	*540*	*570*
P2	—	—	—	160	180	190	175	190	200	165	180	195	160	175	185	—	—	—	145	160	175
	—	—	—	*520*	*590*	*620*	*570*	*620*	*660*	*540*	*590*	*640*	*520*	*570*	*610*	—	—	—	*475*	*520*	*570*
P3	—	—	—	150	170	180	165	180	195	155	175	185	150	165	180	—	—	—	135	155	165
	—	—	—	*490*	*560*	*590*	*540*	*590*	*640*	*510*	*570*	*610*	*490*	*540*	*590*	—	—	—	*445*	*510*	*540*
P4	—	—	—	145	160	170	155	175	185	—	—	—	140	160	170	—	—	—	125	145	155
	—	—	—	*475*	*520*	*560*	*510*	*570*	*610*	—	—	—	*460*	*520*	*560*	—	—	—	*410*	*475*	*510*
P5	—	—	—	140	160	170	155	170	180	—	—	—	140	155	165	—	—	—	125	140	155
	—	—	—	*460*	*520*	*560*	*510*	*560*	*590*	—	—	—	*460*	*510*	*540*	—	—	—	*410*	*460*	*510*
P6	—	—	—	150	165	180	160	180	190	—	—	—	145	165	175	—	—	—	130	150	160
	—	—	—	*490*	*540*	*590*	*520*	*590*	*620*	—	—	—	*475*	*540*	*570*	—	—	—	*425*	*490*	*520*
P7	—	—	—	145	165	175	155	175	185	—	—	—	145	160	170	—	—	—	130	145	155
	—	—	—	*475*	*540*	*570*	*510*	*570*	*610*	—	—	—	*475*	*520*	*560*	—	—	—	*425*	*475*	*510*
P8	—	—	—	140	160	170	150	170	180	—	—	—	135	155	165	—	—	—	125	140	150
	—	—	—	*460*	*520*	*560*	*490*	*560*	*590*	—	—	—	*445*	*510*	*540*	—	—	—	*410*	*460*	*490*
P11	—	—	—	145	160	170	155	175	185	—	—	—	140	160	170	—	—	—	125	145	155
	—	—	—	*475*	*520*	*560*	*510*	*570*	*610*	—	—	—	*460*	*520*	*560*	—	—	—	*410*	*475*	*510*
P12	—	—	—	115	130	140	125	145	155	—	—	—	110	130	140	—	—	—	95	115	125
	—	—	—	*375*	*425*	*460*	*410*	*475*	*510*	—	—	—	*360*	*425*	*460*	—	—	—	*310*	*375*	*410*
M1	—	—	—	145	165	175	155	170	185	150	170	180	145	160	175	—	—	—	135	150	165
	—	—	—	*475*	*540*	*570*	*510*	*560*	*610*	*490*	*560*	*590*	*475*	*520*	*570*	—	—	—	*445*	*490*	*540*
M2	—	—	—	135	155	165	140	160	170	140	155	165	130	150	160	—	—	—	120	140	150
	—	—	—	*445*	*510*	*540*	*460*	*520*	*560*	*460*	*510*	*540*	*425*	*490*	*520*	—	—	—	*395*	*460*	*490*
M3	—	—	—	120	135	145	125	145	155	125	140	150	115	135	145	—	—	—	105	125	135
	—	—	—	*395*	*445*	*475*	*410*	*475*	*510*	*410*	*460*	*490*	*375*	*445*	*475*	—	—	—	*345*	*410*	*445*
M4	—	—	—	100	120	130	110	125	135	105	125	135	100	115	125	—	—	—	90	105	115
	—	—	—	*330*	*395*	*425*	*360*	*410*	*445*	*345*	*410*	*445*	*330*	*375*	*410*	—	—	—	*295*	*345*	*375*
M5	—	—	—	90	110	120	95	115	125	95	110	120	85	105	115	—	—	—	75	95	105
	—	—	—	*295*	*360*	*395*	*310*	*375*	*410*	*310*	*360*	*395*	*280*	*345*	*375*	—	—	—	*245*	*310*	*345*
K1	155	170	185	145	165	175	155	175	185	—	—	—	140	160	170	—	—	—	—	—	—
	510	*560*	*610*	*475*	*540*	*570*	*510*	*570*	*610*	—	—	—	*460*	*520*	*560*	—	—	—	—	—	—
K2	145	165	175	140	155	165	150	170	180	—	—	—	135	155	165	—	—	—	—	—	—
	475	*540*	*570*	*460*	*510*	*540*	*490*	*560*	*590*	—	—	—	*445*	*510*	*540*	—	—	—	—	—	—
K3	135	155	165	125	145	155	140	155	165	—	—	—	125	140	150	—	—	—	—	—	—
	445	*510*	*540*	*410*	*475*	*510*	*460*	*510*	*540*	—	—	—	*410*	*460*	*490*	—	—	—	—	—	—
K4	135	150	160	125	140	150	135	155	165	—	—	—	120	140	150	—	—	—	—	—	—
	445	*490*	*520*	*410*	*460*	*490*	*445*	*510*	*540*	—	—	—	*395*	*460*	*490*	—	—	—	—	—	—
K5	100	120	130	90	110	120	100	120	130	—	—	—	85	105	115	—	—	—	—	—	—
	330	*395*	*425*	*295*	*360*	*395*	*330*	*395*	*425*	—	—	—	*280*	*345*	*375*	—	—	—	—	—	—
K6	125	140	155	115	135	145	125	145	155	—	—	—	115	130	140	—	—	—	—	—	—
	410	*460*	*510*	*375*	*445*	*475*	*410*	*475*	*510*	—	—	—	*375*	*425*	*460*	—	—	—	—	—	—
K7	115	135	145	105	125	135	120	135	145	—	—	—	105	120	130	—	—	—	—	—	—
	375	*445*	*475*	*345*	*410*	*445*	*395*	*445*	*475*	—	—	—	*345*	*395*	*425*	—	—	—	—	—	—
N1	290	305	320	280	300	310	—	—	—	—	—	—	275	295	305	280	300	310	—	—	—
	950	*1000*	*1050*	*920*	*980*	*1025*	—	—	—	—	—	—	*900*	*970*	*1000*	*920*	*980*	*1025*	—	—	—
N2	230	245	260	220	240	250	—	—	—	—	—	—	215	235	245	220	240	250	—	—	—
	750	*800*	*850*	*720*	*790*	*820*	—	—	—	—	—	—	*710*	*770*	*800*	*720*	*790*	*820*	—	—	—
N3	200	220	230	190	210	220	—	—	—	—	—	—	190	210	220	190	210	220	—	—	—
	660	*720*	*750*	*620*	*690*	*720*	—	—	—	—	—	—	*620*	*690*	*720*	*620*	*690*	*720*	—	—	—
N11	210	230	240	200	220	230	—	—	—	—	—	—	200	215	225	200	220	230	—	—	—
	690	*750*	*790*	*660*	*720*	*750*	—	—	—	—	—	—	*660*	*710*	*740*	*660*	*720*	*750*	—	—	—
S1	—	—	—	—	—	—	—	—	—	55	70	80	50	65	75	—	—	—	28	37	43
	—	—	—	—	—	—	—	—	—	*180*	*230*	*260*	*165*	*215*	*245*	—	—	—	*90*	*120*	*140*
S2	—	—	—	—	—	—	—	—	—	45	60	70	41	55	60	—	—	—	23	30	35
	—	—	—	—	—	—	—	—	—	*150*	*195*	*230*	*135*	*180*	*195*	—	—	—	*75*	*100*	*115*
S3	—	—	—	—	—	—	—	—	—	39	50	60	36	46	55	—	—	—	20	26	30
	—	—	—	—	—	—	—	—	—	*130*	*165*	*195*	*120*	*150*	*180*	—	—	—	*65*	*85*	*100*
S11	—	—	—	—	—	—	—	—	—	75	95	105	70	90	100	—	—	—	40	50	60
	—	—	—	—	—	—	—	—	—	*245*	*310*	*345*	*230*	*295*	*330*	—	—	—	*130*	*165*	*195*
S12	—	—	—	—	—	—	—	—	—	55	70	80	49	65	75	—	—	—	37	48	55
	—	—	—	—	—	—	—	—	—	*180*	*230*	*260*	*160*	*215*	*245*	—	—	—	*120*	*155*	*180*
S13	—	—	—	—	—	—	—	—	—	31	41	47	28	37	43	—	—	—	21	28	32
	—	—	—	—	—	—	—	—	—	*100*	*135*	*155*	*90*	*120*	*140*	—	—	—	*70*	*90*	*105*
H5	—	—	—	45	60	70	50	65	75	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	*150*	*195*	*230*	*165*	*215*	*245*	—	—	—	—	—	—	—	—	—	—	—	—
H8	—	—	—	46	60	70	50	65	75	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	*150*	*195*	*230*	*165*	*215*	*245*	—	—	—	—	—	—	—	—	—	—	—	—
H11	—	—	—	55	75	85	65	80	90	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	*180*	*245*	*280*	*215*	*260*	*295*	—	—	—	—	—	—	—	—	—	—	—	—
H12	—	—	—	80	100	110	95	110	120	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	*260*	*330*	*360*	*310*	*360*	*395*	—	—	—	—	—	—	—	—	—	—	—	—

Turbo 10 – R217.69-10 – Metric





- For insert selection and cutting data recommendations, see page(s) 132-134
- For complete insert programme, see page(s) 844, 845
- For ISO attribute explanation, see page 16
- KAPRS 90°

Designation	Item number	Type of mounting	DC	ZEFP	ZNP	APMXS	DMM	LUX	LS	OAL	RPMX	Weight	Insert
			mm			mm	mm	mm	mm	mm		kg	
R217.69-2020.3-017-10.2A	02827022	Weldon	20,0	2	4	17,0	20,0	35,0	50,0	85,0	26300	0,2	XO.X10..
R217.69-2020.3-025-10.1A	02827023	Weldon	20,0	1	3	25,0	20,0	45,0	50,0	95,0	26300	0,3	XO.X10..
R217.69-2525.3-025-10.2A	02827024	Weldon	25,0	2	6	25,0	25,0	44,0	50,0	100,0	23500	0,4	XO.X10..
R217.69-2025.3S-025-10.3A	02827025	Seco-Weldon	25,0	3	9	25,0	20,0	43,0	50,0	100,0	23500	0,4	XO.X10..*
R217.69-2025.3S-034-10.3A	02827026	Seco-Weldon	25,0	3	12	34,0	20,0	43,0	50,0	100,0	23500	0,3	XO.X10..*
R217.69-2525.3S-034-10.3A	02827027	Seco-Weldon	25,0	3	12	34,0	25,0	43,0	56,0	110,0	23500	0,4	XO.X10..*
R217.69-2525.3S-042-10.2A	02827028	Seco-Weldon	25,0	2	10	42,0	25,0	53,0	56,0	120,0	23500	0,5	XO.X10..
R217.69-2532.3S-034-10.4A	02827029	Seco-Weldon	32,0	4	16	34,0	25,0	43,0	56,0	110,0	20800	0,5	XO.X10..*
R217.69-2532.3S-042-10.4A	02827030	Seco-Weldon	32,0	4	20	42,0	25,0	53,0	56,0	120,0	20800	0,6	XO.X10..*
R217.69-2532.3S-050-10.3A	02827031	Seco-Weldon	32,0	3	18	50,0	25,0	63,0	56,0	130,0	20800	0,6	XO.X10..
R217.69-3240.3S-058-10.4A	02827032	Seco-Weldon	40,0	4	28	58,0	32,0	72,0	60,0	144,0	18600	1,0	XO.X10..

Modification of the cutter body needed for radii > 2,0 mm
* No axial support in the front row for radii > 1,6 mm

Spare Parts, included in delivery

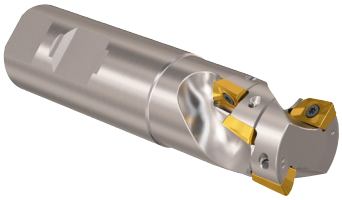
For cutter	Insert key	Insert screw
		
R217.69-..	H4B-T07P	C02506-T07P

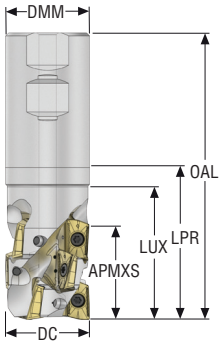
Accessories

For cutter	Insert clamping torque	Torque key
		
R217.69-..	0.9NM	T00-07P09

Torque and fixed keys, see page 872

Turbo 10 – R217.69-10 – Inch





- For insert selection and cutting data recommendations, see page(s) 132-134
- For complete insert programme, see page(s) 844, 845
- For ISO attribute explanation, see page 16
- KAPRS 90°

Designation	Item number	Type of mounting	DC	ZEFP	ZNP	APMXS	DMM	LUX	LS	OAL	RPMX	Weight	Insert
			inch			inch	inch	inch	inch	inch		lbs	
R217.69-01.00-3-01.00-10-2A	02829883	Weldon	1.000	2	6	1.024	1.000	1.874	2.282	4.000	23500	0.880	XO.X10..
R217.69-01.00-3-01.34-10-3A	02865301	Weldon	1.000	3	12	1.378	1.000	1.969	2.282	4.250	23500	0.880	XO.X10..*
R217.69-01.00-3-01.65-10-2A	02865304	Weldon	1.000	2	10	1.693	1.000	2.078	2.422	4.500	23500	0.880	XO.X10..

Modification of the cutter body needed for radii > 0.079 in
* No axial support in the front row for radii > 0.063

Spare Parts, included in delivery

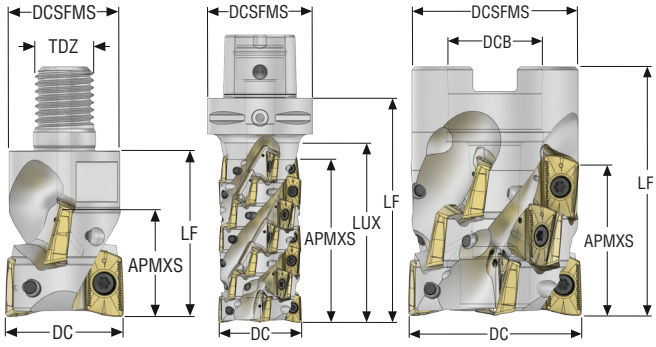
For cutter	Insert key	Insert screw
		
R217.69-..	H4B-T07P	C02506-T07P

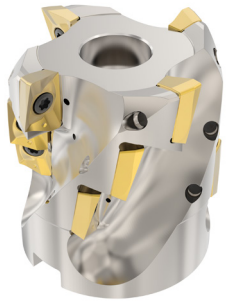
Accessories

For cutter	Insert clamping torque	Torque key
		
R217.69-..	8.0IN.LBS	T00-07P09

Torque and fixed keys, see page 872

Turbo 10 – R217/220.69-10 – Metric





- For insert selection and cutting data recommendations, see page(s) 132-134
- For complete insert programme, see page(s) 844, 845
- For ISO attribute explanation, see page 16
- KAPRS 90°

Designation	Item number	Type of mounting	DC	ZEFP	ZNP	APMXS	DCB	TDZ	DCSFMS	LF	LUX	RPMX	Weight	Insert
			mm			mm	mm		mm	mm	mm		kg	
R217.69-1020.RE-017-10.2A	02827017	Combimaster	20,0	2	4	17,0	–	M10	18,5	28,0	–	26300	0,1	XO.X10..
R217.69-1225.RE-017-10.3A	02827018	Combimaster	25,0	3	6	17,0	–	M12	23,0	35,0	–	23500	0,2	XO.X10..*
R217.69-1225.RE-025-10.2A	02827019	Combimaster	25,0	2	6	25,0	–	M12	23,0	40,0	–	23500	0,2	XO.X10..
R217.69-1632.RE-025-10.3A	02827020	Combimaster	32,0	3	9	25,0	–	M16	30,0	45,0	–	20800	0,3	XO.X10..
R217.69-1632.RE-034-10.4A	02827021	Combimaster	32,0	4	16	34,0	–	M16	30,0	50,0	–	20800	0,3	XO.X10..*
C4-R217.69-044-058-10.5A	02827033	Seco-Capto	44,0	5	35	58,0	–	–	40,0	90,0	90,0	16600	0,8	XO.X10..*
R220.69-00040-034-10.4A	02865893	Arbor	40,0	4	16	34,0	16,0	–	35,0	55,0	–	18600	0,4	XO.X10..
R220.69-00040-034-10.5A	02827038	Arbor	40,0	5	20	34,0	16,0	–	38,0	55,0	–	18600	0,4	XO.X10..*
R220.69-00050-042-10.5A	02865895	Arbor	50,0	5	25	42,0	27,0	–	48,0	65,0	–	16600	0,5	XO.X10..
R220.69-00050-042-10.6A	02827039	Arbor	50,0	6	30	42,0	27,0	–	48,0	65,0	–	16600	0,5	XO.X10..*

For Combimaster Shanks, see Machining Navigator Tooling System

Modification of the cutter body needed for radii > 2,0 mm
* No axial support in the front row for radii > 1,6 mm

Spare Parts, included in delivery

For cutter	Arbor screw	Insert key	Insert screw
			
R217.69-../Cx-R217.69-..	–	H4B-T07P	C02506-T07P
R220.69-00040	950D0850	H4B-T07P	C02506-T07P
R220.69-00050	MC6S12X60	H4B-T07P	C02506-T07P

Accessories

For cutter	Insert clamping torque	Torque key
		
R217/220.69-..	0.9NM	T00-07P09

Torque and fixed keys, see page 872

R217/220.69-10 – Insert selection – mm/*Inch*

SMG		f_z		
		100%	30%	10%
P1	XOMX10T308TR-ME07 MP2501	0,080 *0.0032*	0,085 *0.0034*	0,13 *0.0050*
P2	XOMX10T308TR-ME07 MP2501	0,080 *0.0032*	0,090 *0.0036*	0,13 *0.0050*
P3	XOMX10T308TR-ME07 MP2501	0,075 *0.0030*	0,085 *0.0034*	0,13 *0.0050*
P4	XOMX10T308TR-M09 MP2501	0,095 *0.0038*	0,10 *0.0040*	0,16 *0.0065*
P5	XOMX10T308TR-M09 MP2501	0,095 *0.0038*	0,10 *0.0040*	0,16 *0.0065*
P6	XOMX10T308TR-M09 MP2501	0,095 *0.0038*	0,10 *0.0040*	0,16 *0.0065*
P7	XOMX10T308TR-M09 MP2501	0,095 *0.0038*	0,10 *0.0040*	0,16 *0.0065*
P8	XOMX10T308TR-M09 MP2501	0,10 *0.0040*	0,11 *0.0044*	0,16 *0.0065*
P11	XOMX10T308TR-M09 MP3501	0,095 *0.0038*	0,10 *0.0040*	0,16 *0.0065*
P12	XOMX10T308TR-M09 MS2500	0,065 *0.0026*	0,070 *0.0028*	0,11 *0.0044*
M1	XOEX10T308R-M06 MS2050	0,070 *0.0028*	0,075 *0.0030*	0,12 *0.0048*
M2	XOEX10T308R-M06 MS2050	0,065 *0.0026*	0,070 *0.0028*	0,10 *0.0040*
M3	XOEX10T308R-M06 MS2050	0,050 *0.0020*	0,055 *0.0022*	0,085 *0.0034*
M4	XOMX10T308TR-ME07 MS2050	0,050 *0.0020*	0,055 *0.0022*	0,085 *0.0034*
M5	XOMX10T304TR-ME07 MS2050	0,050 *0.0020*	0,055 *0.0022*	0,085 *0.0034*
K1	XOMX10T308TR-M09 MK2050	0,10 *0.0040*	0,11 *0.0044*	0,17 *0.0065*
K2	XOMX10T308TR-M09 MK2050	0,095 *0.0038*	0,10 *0.0040*	0,16 *0.0065*
K3	XOMX10T308TR-M09 MK2050	0,095 *0.0038*	0,10 *0.0040*	0,16 *0.0065*
K4	XOMX10T308TR-M09 MK2050	0,095 *0.0038*	0,10 *0.0040*	0,16 *0.0065*
K5	XOMX10T308TR-M09 MK2050	0,085 *0.0034*	0,090 *0.0036*	0,14 *0.0055*
K6	XOMX10T308TR-M09 MK2050	0,095 *0.0038*	0,10 *0.0040*	0,16 *0.0065*
K7	XOMX10T308TR-M09 MK2050	0,085 *0.0034*	0,090 *0.0036*	0,14 *0.0055*
N1	XOEX10T308FR-E05 H15	0,075 *0.0030*	0,080 *0.0032*	0,12 *0.0048*
N2	XOEX10T308FR-E05 H15	0,075 *0.0030*	0,080 *0.0032*	0,12 *0.0048*
N3	XOEX10T308FR-E05 H15	0,075 *0.0030*	0,080 *0.0032*	0,12 *0.0048*
N11	XOEX10T308FR-E05 H15	0,075 *0.0030*	0,080 *0.0032*	0,12 *0.0048*
S1	XOMX10T308TR-ME07 F40M	0,050 *0.0020*	0,055 *0.0022*	0,085 *0.0034*
S2	XOMX10T308TR-ME07 F40M	0,050 *0.0020*	0,055 *0.0022*	0,085 *0.0034*
S3	XOMX10T308TR-ME07 F40M	0,048 *0.0019*	0,050 *0.0020*	0,080 *0.0032*
S11	XOEX10T308R-M06 MS2050	0,050 *0.0020*	0,055 *0.0022*	0,085 *0.0034*
S12	XOEX10T308R-M06 MS2050	0,050 *0.0020*	0,055 *0.0022*	0,085 *0.0034*
S13	XOEX10T308R-M06 MS2050	0,044 *0.0017*	0,048 *0.0019*	0,075 *0.0030*
H5	XOMX10T308TR-M09 MP3000	0,065 *0.0026*	0,070 *0.0028*	0,11 *0.0044*
H8	XOMX10T308TR-M09 MP3000	0,048 *0.0019*	0,055 *0.0022*	0,080 *0.0032*
H11	XOMX10T308TR-M09 MP3000	0,065 *0.0026*	0,070 *0.0028*	0,11 *0.0044*
H12	XOMX10T308TR-M09 MS2500	0,048 *0.0019*	0,055 *0.0022*	0,080 *0.0032*

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

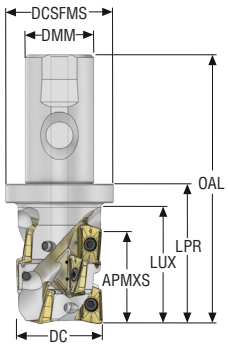
R217/220.69-10 – Cutting data v_c = (m/min)/*(sf/min)*

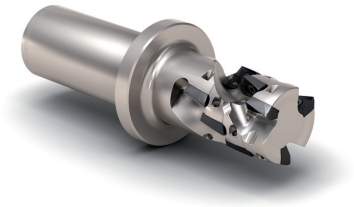
SMG	MK2050			MP3000			MS2050			F40M			H15		
	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%
P1	145 *475*	160 *520*	170 *560*	145 *475*	160 *520*	170 *560*	145 *475*	160 *520*	170 *560*	140 *460*	155 *510*	165 *540*	— —	— —	— —
P2	145 *475*	160 *520*	170 *560*	140 *460*	160 *520*	170 *560*	145 *475*	160 *520*	170 *560*	135 *445*	150 *490*	165 *540*	— —	— —	— —
P3	135 *445*	150 *490*	160 *520*	135 *445*	150 *490*	160 *520*	135 *445*	150 *490*	160 *520*	130 *425*	145 *475*	155 *510*	— —	— —	— —
P4	130 *425*	145 *475*	155 *510*	125 *410*	145 *475*	150 *490*	130 *425*	145 *475*	155 *510*	120 *395*	135 *445*	145 *475*	— —	— —	— —
P5	125 *410*	145 *475*	150 *490*	125 *410*	140 *460*	150 *490*	125 *410*	140 *460*	150 *490*	115 *375*	135 *445*	145 *475*	— —	— —	— —
P6	130 *425*	150 *490*	160 *520*	130 *425*	145 *475*	155 *510*	135 *445*	150 *490*	160 *520*	125 *410*	140 *460*	150 *490*	— —	— —	— —
P7	130 *425*	145 *475*	155 *510*	125 *410*	145 *475*	155 *510*	130 *425*	145 *475*	155 *510*	120 *395*	140 *460*	150 *490*	— —	— —	— —
P8	125 *410*	140 *460*	150 *490*	120 *395*	140 *460*	150 *490*	125 *410*	140 *460*	150 *490*	115 *375*	135 *445*	145 *475*	— —	— —	— —
P11	125 *410*	145 *475*	155 *510*	125 *410*	140 *460*	150 *490*	125 *410*	145 *475*	155 *510*	120 *395*	135 *445*	145 *475*	— —	— —	— —
P12	100 *330*	120 *395*	125 *410*	100 *330*	115 *375*	125 *410*	100 *330*	115 *375*	125 *410*	95 *310*	110 *360*	120 *395*	— —	— —	— —
M1	— —	— —	— —	125 *410*	140 *460*	150 *490*	130 *425*	145 *475*	155 *510*	125 *410*	140 *460*	150 *490*	— —	— —	— —
M2	— —	— —	— —	110 *360*	130 *425*	140 *460*	120 *395*	135 *445*	145 *475*	110 *360*	130 *425*	140 *460*	— —	— —	— —
M3	— —	— —	— —	100 *330*	115 *375*	125 *410*	105 *345*	120 *395*	130 *425*	100 *330*	115 *375*	125 *410*	— —	— —	— —
M4	— —	— —	— —	85 *280*	100 *330*	110 *360*	90 *295*	105 *345*	115 *375*	85 *280*	100 *330*	110 *360*	— —	— —	— —
M5	— —	— —	— —	75 *245*	90 *295*	100 *330*	80 *260*	95 *310*	105 *345*	70 *230*	90 *295*	100 *330*	— —	— —	— —
K1	150 *490*	165 *540*	175 *570*	130 *425*	145 *475*	155 *510*	— —	— —	— —	120 *395*	140 *460*	150 *490*	— —	— —	— —
K2	140 *460*	160 *520*	165 *540*	120 *395*	135 *445*	145 *475*	— —	— —	— —	115 *375*	130 *425*	140 *460*	— —	— —	— —
K3	130 *425*	150 *490*	155 *510*	110 *360*	125 *410*	135 *445*	— —	— —	— —	105 *345*	120 *395*	130 *425*	— —	— —	— —
K4	130 *425*	145 *475*	155 *510*	105 *345*	125 *410*	135 *445*	— —	— —	— —	100 *330*	120 *395*	130 *425*	— —	— —	— —
K5	100 *330*	115 *375*	125 *410*	80 *260*	95 *310*	105 *345*	— —	— —	— —	70 *230*	90 *295*	100 *330*	— —	— —	— —
K6	120 *395*	140 *460*	145 *475*	100 *330*	115 *375*	125 *410*	— —	— —	— —	95 *310*	110 *360*	120 *395*	— —	— —	— —
K7	115 *375*	130 *425*	140 *460*	95 *310*	110 *360*	120 *395*	— —	— —	— —	85 *280*	105 *345*	115 *375*	— —	— —	— —
N1	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	245 *800*	260 *850*	270 *890*
N2	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	190 *620*	210 *690*	220 *720*
N3	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	165 *540*	185 *610*	195 *640*
N11	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	175 *570*	190 *620*	200 *660*
S1	— —	— —	— —	42 *140*	55 *180*	65 *215*	47 *155*	60 *195*	70 *230*	41 *135*	55 *180*	65 *215*	— —	— —	— —
S2	— —	— —	— —	34 *110*	45 *150*	50 *165*	38 *125*	49 *160*	55 *180*	33 *110*	43 *140*	50 *165*	— —	— —	— —
S3	— —	— —	— —	30 *100*	39 *130*	46 *150*	33 *110*	43 *140*	49 *160*	29 *95*	38 *125*	44 *145*	— —	— —	— —
S11	— —	— —	— —	— —	— —	— —	65 *215*	80 *260*	90 *295*	55 *180*	75 *245*	85 *280*	— —	— —	— —
S12	— —	— —	— —	— —	— —	— —	46 *150*	60 *195*	70 *230*	40 *130*	50 *165*	60 *195*	— —	— —	— —
S13	— —	— —	— —	— —	— —	— —	26 *85*	34 *110*	40 *130*	23 *75*	30 *100*	35 *115*	— —	— —	— —
H5	— —	— —	— —	36 *120*	47 *155*	55 *180*	— —	— —	— —	35 *115*	45 *150*	55 *180*	— —	— —	— —
H8	— —	— —	— —	38 *125*	49 *160*	60 *195*	— —	— —	— —	36 *120*	48 *155*	55 *180*	— —	— —	— —
H11	— —	— —	— —	45 *150*	60 *195*	70 *230*	— —	— —	— —	44 *145*	60 *195*	65 *215*	— —	— —	— —
H12	— —	— —	— —	70 *230*	85 *280*	100 *330*	— —	— —	— —	65 *215*	80 *260*	90 *295*	— —	— —	— —

R217/220.69-10 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	MK1500			MP1501			MP2501			MS2500			MP3501			MM4500		
	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%
P1	—	—	—	170	180	185	165	180	185	160	175	185	160	175	180	125	140	150
	—	—	—	*560*	*590*	*610*	*540*	*590*	*610*	*520*	*570*	*610*	*520*	*570*	*590*	*410*	*460*	*490*
P2	—	—	—	165	180	185	165	175	185	160	175	185	160	170	180	125	140	150
	—	—	—	*540*	*590*	*610*	*540*	*570*	*610*	*520*	*570*	*610*	*520*	*560*	*590*	*410*	*460*	*490*
P3	—	—	—	160	170	175	155	170	175	150	165	175	150	160	170	115	130	140
	—	—	—	*520*	*560*	*570*	*510*	*560*	*570*	*490*	*540*	*570*	*490*	*520*	*560*	*375*	*425*	*460*
P4	—	—	—	150	165	170	150	160	170	140	160	170	145	155	160	110	125	135
	—	—	—	*490*	*540*	*560*	*490*	*520*	*560*	*460*	*520*	*560*	*475*	*510*	*520*	*360*	*410*	*445*
P5	—	—	—	150	160	165	145	160	165	140	155	165	140	155	160	105	120	130
	—	—	—	*490*	*520*	*540*	*475*	*520*	*540*	*460*	*510*	*540*	*460*	*510*	*520*	*345*	*395*	*425*
P6	—	—	—	155	165	175	155	165	170	145	165	175	145	160	165	115	130	140
	—	—	—	*510*	*540*	*570*	*510*	*540*	*560*	*475*	*540*	*570*	*475*	*520*	*540*	*375*	*425*	*460*
P7	—	—	—	150	165	170	150	160	170	145	160	170	145	155	165	110	125	135
	—	—	—	*490*	*540*	*560*	*490*	*520*	*560*	*475*	*520*	*560*	*475*	*510*	*540*	*360*	*410*	*445*
P8	—	—	—	145	160	165	145	160	165	140	155	165	140	150	160	105	120	130
	—	—	—	*475*	*520*	*540*	*475*	*520*	*540*	*460*	*510*	*540*	*460*	*490*	*520*	*345*	*395*	*425*
P11	—	—	—	150	160	170	150	160	165	140	160	170	140	155	160	110	125	135
	—	—	—	*490*	*520*	*560*	*490*	*520*	*540*	*460*	*520*	*560*	*460*	*510*	*520*	*360*	*410*	*445*
P12	—	—	—	120	130	140	120	130	140	115	130	140	115	125	130	80	95	105
	—	—	—	*395*	*425*	*460*	*395*	*425*	*460*	*375*	*425*	*460*	*375*	*410*	*425*	*260*	*310*	*345*
M1	—	—	—	—	—	—	125	140	150	140	155	165	120	135	145	115	130	140
	—	—	—	—	—	—	*410*	*460*	*490*	*460*	*510*	*540*	*395*	*445*	*475*	*375*	*425*	*460*
M2	—	—	—	—	—	—	115	130	140	125	145	155	110	125	135	100	120	130
	—	—	—	—	—	—	*375*	*425*	*460*	*410*	*475*	*510*	*360*	*410*	*445*	*330*	*395*	*425*
M3	—	—	—	—	—	—	100	115	125	115	130	140	95	115	120	90	105	115
	—	—	—	—	—	—	*330*	*375*	*410*	*375*	*425*	*460*	*310*	*375*	*395*	*295*	*345*	*375*
M4	—	—	—	—	—	—	85	100	110	100	115	125	80	100	105	75	90	100
	—	—	—	—	—	—	*280*	*330*	*360*	*330*	*375*	*410*	*260*	*330*	*345*	*245*	*295*	*330*
M5	—	—	—	—	—	—	75	90	100	85	105	115	70	85	95	65	80	90
	—	—	—	—	—	—	*245*	*295*	*330*	*280*	*345*	*375*	*230*	*280*	*310*	*215*	*260*	*295*
K1	150	170	180	165	180	185	165	180	185	145	160	170	160	170	180	—	—	—
	490	*560*	*590*	*540*	*590*	*610*	*540*	*590*	*610*	*475*	*520*	*560*	*520*	*560*	*590*	—	—	—
K2	145	160	170	160	170	180	160	170	175	135	155	165	150	165	170	—	—	—
	475	*520*	*560*	*520*	*560*	*590*	*520*	*560*	*570*	*445*	*510*	*540*	*490*	*540*	*560*	—	—	—
K3	135	150	160	150	160	170	150	160	165	125	145	155	140	155	160	—	—	—
	445	*490*	*520*	*490*	*520*	*560*	*490*	*520*	*540*	*410*	*475*	*510*	*460*	*510*	*520*	—	—	—
K4	130	150	160	145	160	165	145	160	165	125	140	150	140	150	160	—	—	—
	425	*490*	*520*	*475*	*520*	*540*	*475*	*520*	*540*	*410*	*460*	*490*	*460*	*490*	*520*	—	—	—
K5	100	120	130	115	130	135	115	125	135	95	110	120	110	120	130	—	—	—
	330	*395*	*425*	*375*	*425*	*445*	*375*	*410*	*445*	*310*	*360*	*395*	*360*	*395*	*425*	—	—	—
K6	125	140	150	140	150	155	140	150	155	115	135	145	130	145	150	—	—	—
	410	*460*	*490*	*460*	*490*	*510*	*460*	*490*	*510*	*375*	*445*	*475*	*425*	*475*	*490*	—	—	—
K7	115	135	145	130	145	150	130	140	150	110	125	135	125	135	145	—	—	—
	375	*445*	*475*	*425*	*475*	*490*	*425*	*460*	*490*	*360*	*410*	*445*	*410*	*445*	*475*	—	—	—
N1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
N2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
N3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
N11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S1	—	—	—	—	—	—	—	—	—	55	70	80	40	50	60	23	30	36
	—	—	—	—	—	—	—	—	—	*180*	*230*	*260*	*130*	*165*	*195*	*75*	*100*	*120*
S2	—	—	—	—	—	—	—	—	—	45	60	70	32	42	49	19	25	29
	—	—	—	—	—	—	—	—	—	*150*	*195*	*230*	*105*	*140*	*160*	*60*	*80*	*95*
S3	—	—	—	—	—	—	—	—	—	39	50	60	28	37	43	16	22	25
	—	—	—	—	—	—	—	—	—	*130*	*165*	*195*	*90*	*120*	*140*	*50*	*70*	*80*
S11	—	—	—	—	—	—	—	—	—	75	90	100	55	70	80	32	42	50
	—	—	—	—	—	—	—	—	—	*245*	*295*	*330*	*180*	*230*	*260*	*105*	*140*	*165*
S12	—	—	—	—	—	—	—	—	—	55	70	80	38	50	60	30	39	46
	—	—	—	—	—	—	—	—	—	*180*	*230*	*260*	*125*	*165*	*195*	*100*	*130*	*150*
S13	—	—	—	—	—	—	—	—	—	31	41	48	22	29	34	17	23	27
	—	—	—	—	—	—	—	—	—	*100*	*135*	*155*	*70*	*95*	*110*	*55*	*75*	*90*
H5	—	—	—	45	60	70	—	—	—	45	60	70	35	46	55	—	—	—
	—	—	—	*150*	*195*	*230*	—	—	—	*150*	*195*	*230*	*115*	*150*	*180*	—	—	—
H8	—	—	—	48	65	75	—	—	—	47	60	70	37	48	55	—	—	—
	—	—	—	*155*	*215*	*245*	—	—	—	*155*	*195*	*230*	*120*	*155*	*180*	—	—	—
H11	—	—	—	60	75	85	—	—	—	55	75	85	44	60	70	—	—	—
	—	—	—	*195*	*245*	*280*	—	—	—	*180*	*245*	*280*	*145*	*195*	*230*	—	—	—
H12	—	—	—	80	100	110	—	—	—	85	105	110	65	80	90	—	—	—
	—	—	—	*260*	*330*	*360*	—	—	—	*280*	*345*	*360*	*215*	*260*	*295*	—	—	—

Turbo 12 – R217.69-12 – Metric





- For insert selection and cutting data recommendations, see page(s) 142-144
- For complete insert programme, see page(s) 846, 847
- For ISO attribute explanation, see page 16
- KAPRS 90°

Designation	Item number	Type of mounting	DC	ZEFP	ZNP	APMXS	DMM	LUX	LS	OAL	RPMX	Weight	Insert
			mm			mm	mm	mm	mm	mm		kg	
R217.69-2025.3S-022-12.2AN	02709523	Seco-Weldon	25,0	2	4	22,0	20,0	38,0	50,0	99,5	20800	0,4	XO.X12..*
R217.69-2525.3S-033-12.2AN	02709526	Seco-Weldon	25,0	2	6	33,0	25,0	43,0	56,0	115,5	20800	0,4	XO.X12..*
R217.69-2532.3S-033-12.2AN	02709528	Seco-Weldon	32,0	2	6	33,0	25,0	47,0	56,0	115,5	18400	0,6	XO.X12..
R217.69-2532.3S-033-12.3AN	02709530	Seco-Weldon	32,0	3	9	33,0	25,0	48,0	56,0	115,5	18400	0,5	XO.X12..*
R217.69-2532.3S-044-12.3AN	02629796	Seco-Weldon	32,0	3	12	44,0	25,0	58,0	56,0	125,5	18400	0,6	XO.X12..*
R217.69-3240.3S-033-12.3AN	02709540	Seco-Weldon	40,0	3	9	33,0	32,0	49,0	60,0	119,5	16400	0,8	XO.X12..
R217.69-3240.3S-044-12.4AN	02709541	Seco-Weldon	40,0	4	16	44,0	32,0	57,0	60,0	129,5	16400	0,8	XO.X12..*
R217.69-3240.3S-055-12.3AN	02709543	Seco-Weldon	40,0	3	15	55,0	32,0	69,0	60,0	139,5	16400	1,0	XO.X12..
R217.69-3250.3S-055-12.4AN	02709546	Seco-Weldon	50,0	4	20	55,0	32,0	67,0	60,0	139,5	14800	1,2	XO.X12..

Modification of the cutter body needed for radii > 3,1 mm
* No axial support in the front row for radii > 1,6 mm

Spare Parts, included in delivery

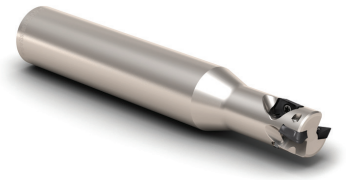
For cutter	Insert key	Insert screw
		
R217.69-..Ø25/R217.69-HSK	H4B-T10P	C03507-T10P
R217.69-..Ø32	H4B-T10P	C03508-T10P
R217.69-..Ø40-50	H4B-T10P	C03509-T10P

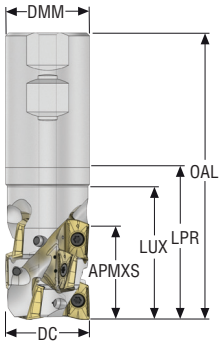
Accessories

For cutter	Insert clamping torque	Torque key
		
R217.69-..	3.0NM	T00-10P30

Torque and fixed keys, see page 872

Turbo 12 – R217.69-12 – Inch





- For insert selection and cutting data recommendations, see page(s) 142-144
- For complete insert programme, see page(s) 846, 847
- For ISO attribute explanation, see page 16
- KAPRS 90°

Designation	Item number	Type of mounting	DC	ZEFP	ZNP	APMXS	DMM	LUX	LPR	OAL	RPMX	Weight	Insert
			inch			inch	inch	inch	inch	inch		lbs	
R217.69-01.25-3-12M3AN	02710789	Weldon	1.250	3	12	1.732	1.250	2.695	2.638	5.000	18400	1.540	XO.X12..*
R217.69-01.50-3-12M4AN	02710799	Weldon	1.500	4	20	2.165	1.500	3.010	3.061	5.750	16400	2.430	XO.X12..*
R217.69-01.50-3-12L3AN	02710795	Weldon	1.500	3	18	2.559	1.500	3.262	3.636	5.998	16400	2.430	XO.X12..

Modification of the cutter body needed for radii > 0.122 in
* No axial support in the front row for radii > 0.063

Spare Parts, included in delivery

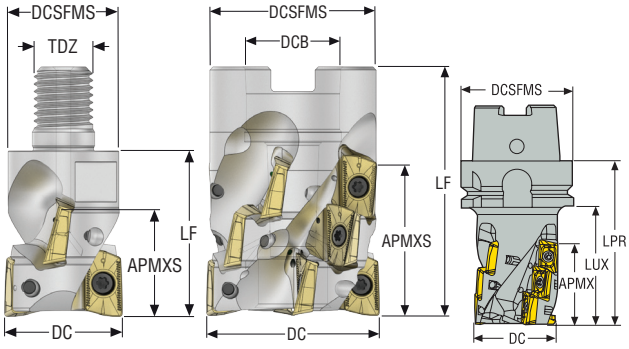
For cutter	Insert key	Insert screw
		
R217.69-01.00-01.25	H4B-T10P	C03507-T10P
R217.69-01.50-02.00	H4B-T10P	C03509-T10P

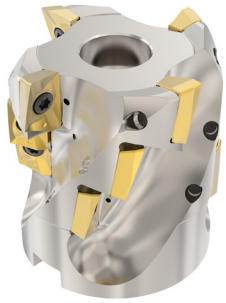
Accessories

For cutter	Insert clamping torque	Torque key
		
R217.69-..	3.0NM	T00-10P30

Torque and fixed keys, see page 872

Turbo 12 – R217/220.69-12 – Metric





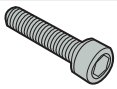
- For insert selection and cutting data recommendations, see page(s) 142-144
- For complete insert programme, see page(s) 846, 847
- For ISO attribute explanation, see page 16
- KAPRS 90°

Designation	Item number	Type of mounting	DC	ZEFP	ZNP	APMXS	DCB	TDZ	DCSFMS	LF	LUX	RPMX	Weight	Insert
			mm			mm	mm		mm	mm	mm		kg	
R217.69-1225.RE-022-12.2AN	02709506	Combimaster	25,0	2	4	22,8	–	M12	23,0	35,0	–	20800	0,2	XO.X12..*
R217.69-1632.RE-022-12.3AN	02709508	Combimaster	32,0	3	6	22,5	–	M16	30,0	40,0	–	18400	0,3	XO.X12..*
R217.69-2040.RE-033-12.3AN	02972763	Combimaster	40,0	3	9	33,0	–	M20	36,5	50,0	–	16400	0,4	XO.X12..
R217.69-2040.RE-044-12.4AN	02972764	Combimaster	40,0	4	16	44,0	–	M20	36,5	61,0	–	16400	0,5	XO.X12..*
R220.69-00050-033-12.4AN	02709941	Arbor	50,0	4	12	33,0	27,0	–	48,0	55,0	–	14800	0,5	XO.X12..
R220.69-00050-044-12.4AN	02709947	Arbor	50,0	4	16	44,0	27,0	–	48,0	65,0	–	14800	0,6	XO.X12..
R220.69-00050-044-12.5AN	02709951	Arbor	50,0	5	20	44,0	27,0	–	48,0	65,0	–	14800	0,6	XO.X12..*
R220.69-00063-033-12.5AN	02709956	Arbor	63,0	5	15	33,0	27,0	–	62,0	63,0	–	13200	1,1	XO.X12..
R220.69-00063-055-12.5AN	02709965	Arbor	63,0	5	25	55,0	27,0	–	60,0	75,0	–	13200	1,1	XO.X12..
R220.69-00063-077-12.4SAN	02717797	Arbor	63,0	4	28	77,0	27,0	–	60,0	100,0	–	13200	1,5	XO.X12..
R217.69-HSK63A.32-044-12.3AN	02717942	HSK	32,0	3	12	44,0	–	–	63,0	90,0	52,0	18400	1,0	XO.X12..*

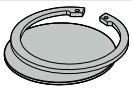
For Combimaster Shanks, see Machining Navigator Tooling System

Modification of the cutter body needed for radii > 3,1 mm
* No axial support in the front row for radii > 1,6 mm

Spare Parts, included in delivery

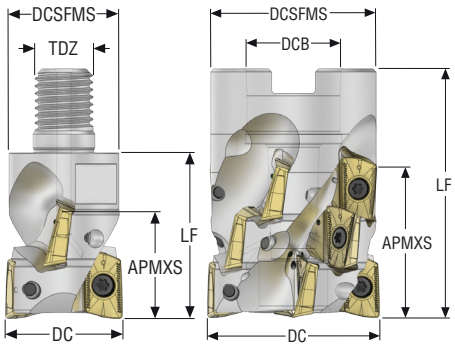
For cutter	Arbor screw	Basic body	Insert key	Insert screw	Replaceable end
					
R217.69-..Ø25	–	–	H4B-T10P	C03507-T10P	–
R217.69-../C5-R217.69-Ø32	–	–	H4B-T10P	C03508-T10P	–
R217.69-../Cx-R217.69-Ø40-66	–	–	H4B-T10P	C03509-T10P	–
R220.69-Ø50-033	MC6S12X40	–	H4B-T10P	C03509-T10P	–
R220.69-Ø50/Ø63-033-044	MC6S12X50	–	H4B-T10P	C03509-T10P	–
R220.69-Ø50/Ø63-044-055	MC6S12X60	–	H4B-T10P	C03509-T10P	–
R220.69-00063	MP6S12X80	R220.69-00063044-12.4BAN	H4B-T10P	C03509-T10P	R220.69-RE063033-12.4AN
R217.69-..Ø25/R217.69-HSK	–	–	H4B-T10P	C03507-T10P	–

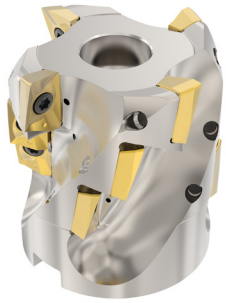
Accessories

For cutter	Coolant kit	Insert clamping torque	Torque key
			
R217/220.69-..	–	3.0NM	T00-10P30
R220.69-..SAN	LUBRICATION_SET_29	3.0NM	T00-10P30

Torque and fixed keys, see page 872

Turbo 12 – R217/220.69-12 – Inch





- For insert selection and cutting data recommendations, see page(s) 142-144
- For complete insert programme, see page(s) 846, 847
- For ISO attribute explanation, see page 16
- KAPRS 90°

Designation	Item number	Type of mounting	DC	ZEFP	ZNP	APMXS	DCB	TDZ	DCSFMS	LF	RPMX	Weight	Insert
			inch			inch	inch		inch	inch		lbs	
R217.69-01.50-20RE-01.73-12-4A	03003976	Combimaster	1.500	4	16	1.732	–	M20	1.437	2.402	16400	0.880	XO.X12..*
R220.69-02.00-12S4AN	02710915	Arbor	2.000	4	16	1.740	1.000	–	2.047	2.750	14800	1.540	XO.X12..
R220.69-02.00-12M5AN	02710895	Arbor	2.000	5	25	2.146	1.000	–	2.047	3.250	14800	1.760	XO.X12..*
R220.69-02.50-12L4SAN	02722266	Arbor	2.500	4	28	2.953	1.000	–	2.441	4.020	13200	4.630	XO.X12..

For Combimaster Shanks, see Machining Navigator Tooling System

Modification of the cutter body needed for radii > 0.122 in
* No axial support in the front row for radii > 0.063

Spare Parts, included in delivery

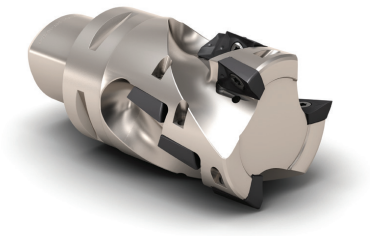
For cutter	Arbor screw	Basic body	Insert key	Insert screw	Replaceable end
					
R217.69-01.50	–	–	H4B-T10P	C03509-T10P	–
R220.69-..M5	UC6S1/2UNFX2-1/2	–	H4B-T10P	C03509-T10P	–
R220.69-..S4	UC6S1/2UNFX3	–	H4B-T10P	C03509-T10P	–
R220.69-..L4	UP6S1/2UNFX3-1/4	R220.69-02.50-12L4BAN	H4B-T10P	C03509-T10P	R220.69-02.50-RE-12.4AN

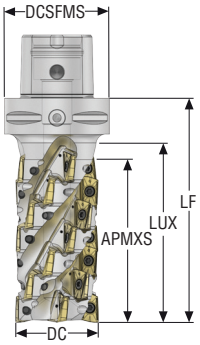
Accessories

For cutter	Coolant kit	Insert clamping torque	Torque key
			
R220.69-..	–	26.6IN.LBS	T00-10P30
R220.69-..L4	LUBRICATIONSET29	26.6IN.LBS	T00-10P30

Torque and fixed keys, see page 872

Turbo 12 – R217/220.69-12 – Metric



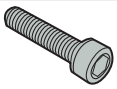


- For insert selection and cutting data recommendations, see page(s) 142-144
- For complete insert programme, see page(s) 846, 847
- For ISO attribute explanation, see page 16
- KAPRS 90°

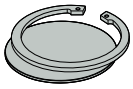
Designation	Item number	Type of mounting	DC	ZEFP	ZNP	APMXS	DCSFMS	LF	LUX	RPMX	Weight	Insert
			mm			mm	mm	mm	mm		kg	
C5-R217.69-032-044-12.3AN	02717844	Seco-Capto	32,0	3	12	44,0	50,0	79,0	56,0	18400	0,7	XO.X12..*
C5-R217.69-032-055-12.3AN	02829929	Seco-Capto	32,0	3	15	55,0	50,0	90,0	67,0	18400	0,7	XO.X12..*
C6-R217.69-040-055-12.3AN	02717917	Seco-Capto	40,0	3	15	55,0	63,0	92,0	67,0	16400	1,1	XO.X12..
C6-R217.69-040-066-12.3AN	02829930	Seco-Capto	40,0	3	18	65,5	63,0	103,0	79,9	16400	1,3	XO.X12..
C4-R217.69-044-033-12.3AN	02717838	Seco-Capto	44,0	3	9	33,0	40,0	68,0	48,0	15500	0,7	XO.X12..
C6-R217.69-050-055-12.4AN	02717918	Seco-Capto	50,0	4	20	55,0	63,0	92,0	67,0	14800	1,4	XO.X12..
C5-R217.69-054-044-12.4AN	02717852	Seco-Capto	54,0	4	16	44,0	50,0	79,0	59,0	13900	1,2	XO.X12..
C6-R217.69-066-044-12.5AN	02717924	Seco-Capto	66,0	5	20	44,0	63,0	81,0	59,0	12000	1,9	XO.X12..
C6-R217.69-050-066-12.4SAN	02717991	Seco-Capto	50,0	4	24	66,0	63,0	101,0	76,0	14800	1,4	XO.X12..
C6-R217.69-050-086-12.5SAN	02829935	Seco-Capto	50,0	5	40	86,0	63,0	119,0	97,0	14800	1,7	XO.X12..
C6-R217.69-050-106-12.5SAN	02829936	Seco-Capto	50,0	5	50	106,0	63,0	140,0	118,0	12000	1,7	XO.X12..
C6-R217.69-063-107-12.5SAN	02829940	Seco-Capto	63,0	5	50	107,0	63,0	140,0	118,0	12000	2,4	XO.X12..

Modification of the cutter body needed for radii > 3,1 mm
* No axial support in the front row for radii > 1,6 mm

Spare Parts, included in delivery

For cutter	Assembly screw	Basic body	Insert key	Insert screw	Replaceable end
					
Cx-R217.69-Ø32	–	–	H4B-T10P	C03508-T10P	–
Cx-R217.69-Ø40-66	–	–	H4B-T10P	C03509-T10P	–
C6-R217.69-050-066-4SAN	MC6S10X40	C6-R217.69-050-044-12.4BAN	H4B-T10P	C03509-T10P	R220.69-RE050022-12.4AN
C6-R217.69-050-086-5SAN	MC6S10X40	C6-R217.69-050-064-12.5BAN	H4B-T10P	C03509-T10P	R220.69-RE050022-12.5AN
C6-R217.69-050-106-5SAN	MC6S10X40	C6-R217.69-050-084-12.5BAN	H4B-T10P	C03509-T10P	R220.69-RE050022-12.5AN
C6-R217.69-063-5SAN	MC6S10X40	C6-R217.69-063-074-12.5BAN	H4B-T10P	C03509-T10P	R220.69-RE063033-12.5AN

Accessories

For cutter	Coolant kit	Insert clamping torque	Torque key
			
Cx-R217.69-032-066	–	3.0NM	T00-10P30
C6-R217.69-050-SAN	LUBRICATION_SET_19	3.0NM	T00-10P30
C6-R217.69-063-SAN	–	3.0NM	T00-10P30

Torque and fixed keys, see page 872

R217/220.69-12 – Insert selection – mm/*Inch*

SMG		f_z		
		100%	30%	10%
P1	XOMX120408TR-ME08 MP2501	0,095 *0.0038*	0,11 *0.0044*	0,16 *0.0065*
P2	XOMX120408TR-ME08 MP2501	0,10 *0.0040*	0,11 *0.0044*	0,17 *0.0065*
P3	XOMX120408TR-ME08 MP2501	0,095 *0.0038*	0,10 *0.0040*	0,16 *0.0065*
P4	XOMX120408TR-M12 MP2501	0,14 *0.0055*	0,15 *0.0060*	0,22 *0.0095*
P5	XOMX120408TR-M12 MP2501	0,13 *0.0050*	0,15 *0.0060*	0,22 *0.0085*
P6	XOMX120408TR-M12 MP2501	0,13 *0.0050*	0,15 *0.0060*	0,22 *0.0085*
P7	XOMX120408TR-M12 MP2501	0,13 *0.0050*	0,15 *0.0060*	0,22 *0.0085*
P8	XOMX120408TR-M12 MP2501	0,14 *0.0055*	0,15 *0.0060*	0,24 *0.0095*
P11	XOMX120408TR-M12 MP3501	0,13 *0.0050*	0,15 *0.0060*	0,22 *0.0085*
P12	XOMX120408TR-M12 MP3501	0,090 *0.0036*	0,10 *0.0040*	0,15 *0.0060*
M1	XOEX120408R-M07 MS2050	0,11 *0.0044*	0,12 *0.0048*	0,19 *0.0075*
M2	XOEX120408R-M07 MS2050	0,10 *0.0040*	0,11 *0.0044*	0,17 *0.0065*
M3	XOEX120408R-M07 MS2050	0,080 *0.0032*	0,090 *0.0036*	0,14 *0.0055*
M4	XOMX120408TR-ME08 MS2050	0,065 *0.0026*	0,070 *0.0028*	0,11 *0.0044*
M5	XOMX120408TR-ME08 MS2050	0,065 *0.0026*	0,070 *0.0028*	0,11 *0.0044*
K1	XOMX120408TR-MD13 MK2050	0,16 *0.0065*	0,18 *0.0070*	0,26 *0.010*
K2	XOMX120408TR-MD13 MK2050	0,15 *0.0060*	0,16 *0.0065*	0,24 *0.0095*
K3	XOMX120408TR-MD13 MK2050	0,15 *0.0060*	0,16 *0.0065*	0,24 *0.0095*
K4	XOMX120408TR-MD13 MK2050	0,15 *0.0060*	0,16 *0.0065*	0,24 *0.0095*
K5	XOMX120408TR-MD13 MK2050	0,13 *0.0050*	0,14 *0.0055*	0,22 *0.0085*
K6	XOMX120408TR-MD13 MK2050	0,15 *0.0060*	0,16 *0.0065*	0,24 *0.0095*
K7	XOMX120408TR-MD13 MK2050	0,13 *0.0050*	0,14 *0.0055*	0,22 *0.0085*
N1	XOEX120408FR-E06 H15	0,11 *0.0044*	0,12 *0.0048*	0,18 *0.0070*
N2	XOEX120408FR-E06 H15	0,11 *0.0044*	0,12 *0.0048*	0,18 *0.0070*
N3	XOEX120408FR-E06 H15	0,11 *0.0044*	0,12 *0.0048*	0,18 *0.0070*
N11	XOEX120408FR-E06 H15	0,11 *0.0044*	0,12 *0.0048*	0,18 *0.0070*
S1	XOEX120408R-M07 F40M	0,070 *0.0028*	0,075 *0.0030*	0,12 *0.0048*
S2	XOEX120408R-M07 F40M	0,070 *0.0028*	0,075 *0.0030*	0,12 *0.0048*
S3	XOEX120408R-M07 F40M	0,065 *0.0026*	0,070 *0.0028*	0,11 *0.0044*
S11	XOEX120408R-M07 MS2050	0,080 *0.0032*	0,090 *0.0036*	0,14 *0.0055*
S12	XOEX120408R-M07 MS2050	0,080 *0.0032*	0,090 *0.0036*	0,14 *0.0055*
S13	XOEX120408R-M07 MS2050	0,070 *0.0028*	0,075 *0.0030*	0,12 *0.0048*
H5	XOMX120408TR-MD13 MP3000	0,10 *0.0040*	0,11 *0.0044*	0,17 *0.0065*
H8	XOMX120408TR-MD13 MP3000	0,075 *0.0030*	0,085 *0.0034*	0,13 *0.0050*
H11	XOMX120412TR-MD13 MP3000	0,10 *0.0040*	0,11 *0.0044*	0,17 *0.0065*
H12	XOMX120408TR-MD13 MP3000	0,075 *0.0030*	0,085 *0.0034*	0,13 *0.0050*

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

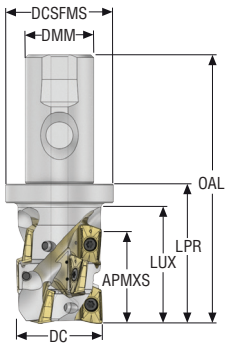
R217/220.69-12 – Cutting data v_c = (m/min)/*(sf/min)*

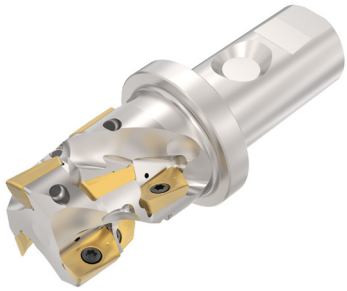
SMG	MK2050			MP3000			MS2050			F40M			MP2050			H15		
	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%
P1	150 *490*	170 *560*	180 *590*	140 *460*	155 *510*	165 *540*	140 *460*	160 *520*	170 *560*	125 *410*	140 *460*	150 *490*	150 *490*	165 *540*	175 *570*	— —	— —	— —
P2	150 *490*	165 *540*	175 *570*	135 *445*	155 *510*	165 *540*	140 *460*	155 *510*	165 *540*	125 *410*	140 *460*	150 *490*	150 *490*	165 *540*	175 *570*	— —	— —	— —
P3	140 *460*	160 *520*	170 *560*	130 *425*	145 *475*	155 *510*	130 *425*	150 *490*	160 *520*	115 *375*	130 *425*	140 *460*	140 *460*	155 *510*	165 *540*	— —	— —	— —
P4	135 *445*	150 *490*	160 *520*	120 *395*	140 *460*	150 *490*	125 *410*	140 *460*	150 *490*	105 *345*	125 *410*	135 *445*	130 *425*	150 *490*	160 *520*	— —	— —	— —
P5	130 *425*	150 *490*	160 *520*	120 *395*	135 *445*	145 *475*	120 *395*	140 *460*	145 *475*	105 *345*	120 *395*	135 *445*	130 *425*	145 *475*	155 *510*	— —	— —	— —
P6	140 *460*	155 *510*	165 *540*	125 *410*	145 *475*	155 *510*	130 *425*	145 *475*	155 *510*	115 *375*	130 *425*	140 *460*	135 *445*	155 *510*	165 *540*	— —	— —	— —
P7	135 *445*	150 *490*	160 *520*	125 *410*	140 *460*	150 *490*	125 *410*	140 *460*	150 *490*	110 *360*	125 *410*	135 *445*	135 *445*	150 *490*	160 *520*	— —	— —	— —
P8	130 *425*	150 *490*	160 *520*	120 *395*	135 *445*	145 *475*	120 *395*	135 *445*	145 *475*	105 *345*	120 *395*	130 *425*	130 *425*	145 *475*	155 *510*	— —	— —	— —
P11	135 *445*	150 *490*	160 *520*	120 *395*	135 *445*	150 *490*	125 *410*	140 *460*	150 *490*	110 *360*	125 *410*	135 *445*	130 *425*	150 *490*	160 *520*	— —	— —	— —
P12	110 *360*	125 *410*	135 *445*	95 *310*	110 *360*	125 *410*	100 *330*	115 *375*	125 *410*	80 *260*	100 *330*	110 *360*	105 *345*	120 *395*	130 *425*	— —	— —	— —
M1	— —	— —	— —	120 *395*	135 *445*	145 *475*	125 *410*	145 *475*	155 *510*	110 *360*	125 *410*	140 *460*	130 *425*	145 *475*	155 *510*	— —	— —	— —
M2	— —	— —	— —	110 *360*	125 *410*	135 *445*	115 *375*	130 *425*	140 *460*	100 *330*	115 *375*	125 *410*	115 *375*	135 *445*	145 *475*	— —	— —	— —
M3	— —	— —	— —	95 *310*	110 *360*	125 *410*	105 *345*	120 *395*	130 *425*	85 *280*	105 *345*	115 *375*	105 *345*	120 *395*	130 *425*	— —	— —	— —
M4	— —	— —	— —	80 *260*	100 *330*	105 *345*	90 *295*	105 *345*	115 *375*	70 *230*	90 *295*	95 *310*	90 *295*	105 *345*	115 *375*	— —	— —	— —
M5	— —	— —	— —	70 *230*	85 *280*	95 *310*	80 *260*	95 *310*	100 *330*	60 *195*	75 *245*	85 *280*	75 *245*	95 *310*	105 *345*	— —	— —	— —
K1	155 *510*	170 *560*	180 *590*	125 *410*	140 *460*	150 *490*	— —	— —	— —	110 *360*	125 *410*	135 *445*	— —	— —	— —	— —	— —	— —
K2	145 *475*	165 *540*	175 *570*	115 *375*	135 *445*	145 *475*	— —	— —	— —	105 *345*	120 *395*	130 *425*	— —	— —	— —	— —	— —	— —
K3	135 *445*	155 *510*	165 *540*	105 *345*	125 *410*	135 *445*	— —	— —	— —	95 *310*	110 *360*	120 *395*	— —	— —	— —	— —	— —	— —
K4	135 *445*	150 *490*	160 *520*	100 *330*	120 *395*	130 *425*	— —	— —	— —	90 *295*	105 *345*	115 *375*	— —	— —	— —	— —	— —	— —
K5	105 *345*	120 *395*	130 *425*	75 *245*	90 *295*	100 *330*	— —	— —	— —	60 *195*	75 *245*	85 *280*	— —	— —	— —	— —	— —	— —
K6	125 *410*	145 *475*	155 *510*	95 *310*	110 *360*	125 *410*	— —	— —	— —	80 *260*	100 *330*	110 *360*	— —	— —	— —	— —	— —	— —
K7	120 *395*	135 *445*	145 *475*	90 *295*	105 *345*	115 *375*	— —	— —	— —	75 *245*	90 *295*	100 *330*	— —	— —	— —	— —	— —	— —
N1	— —	— —	— —	245 *800*	260 *850*	270 *890*	— —	— —	— —	230 *750*	245 *800*	255 *840*	— —	— —	— —	245 *800*	260 *850*	270 *890*
N2	— —	— —	— —	190 *620*	205 *670*	215 *710*	— —	— —	— —	175 *570*	190 *620*	200 *660*	— —	— —	— —	190 *620*	205 *670*	215 *710*
N3	— —	— —	— —	165 *540*	180 *590*	190 *620*	— —	— —	— —	150 *490*	165 *540*	175 *570*	— —	— —	— —	165 *540*	180 *590*	190 *620*
N11	— —	— —	— —	170 *560*	190 *620*	200 *660*	— —	— —	— —	160 *520*	175 *570*	185 *610*	— —	— —	— —	170 *560*	190 *620*	200 *660*
S1	— —	— —	— —	40 *130*	55 *180*	60 *195*	45 *150*	60 *195*	65 *215*	34 *110*	45 *150*	50 *165*	47 *155*	60 *195*	70 *230*	— —	— —	— —
S2	— —	— —	— —	32 *105*	42 *140*	49 *160*	36 *120*	47 *155*	55 *180*	27 *90*	36 *120*	42 *140*	38 *125*	50 *165*	60 *195*	— —	— —	— —
S3	— —	— —	— —	28 *90*	37 *120*	43 *140*	32 *105*	41 *135*	48 *155*	24 *80*	31 *100*	37 *120*	33 *110*	44 *145*	50 *165*	— —	— —	— —
S11	— —	— —	— —	55 *180*	70 *230*	80 *260*	60 *195*	80 *260*	85 *280*	47 *155*	60 *195*	70 *230*	65 *215*	80 *260*	90 *295*	— —	— —	— —
S12	— —	— —	— —	38 *125*	50 *165*	60 *195*	43 *140*	55 *180*	65 *215*	33 *110*	43 *140*	50 *165*	45 *150*	60 *195*	70 *230*	— —	— —	— —
S13	— —	— —	— —	22 *70*	30 *100*	34 *110*	25 *80*	33 *110*	38 *125*	19 *60*	25 *80*	29 *95*	26 *85*	35 *115*	41 *135*	— —	— —	— —
H5	— —	— —	— —	34 *110*	45 *150*	55 *180*	— —	— —	— —	29 *95*	37 *120*	44 *145*	— —	— —	— —	— —	— —	— —
H8	— —	— —	— —	36 *120*	48 *155*	55 *180*	— —	— —	— —	31 *100*	40 *130*	47 *155*	— —	— —	— —	— —	— —	— —
H11	— —	— —	— —	43 *140*	55 *180*	65 *215*	— —	— —	— —	36 *120*	48 *155*	55 *180*	49 *160*	65 *215*	75 *245*	— —	— —	— —
H12	— —	— —	— —	70 *230*	85 *280*	95 *310*	— —	— —	— —	55 *180*	70 *230*	80 *260*	80 *260*	95 *310*	105 *345*	— —	— —	— —

R217/220.69-12 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	MK1500			MP1501			MP2501			MS2500			MP3501		
	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%
P1	—	—	—	175	190	195	175	185	195	165	185	195	165	180	190
	—	—	—	*570*	*620*	*640*	*570*	*610*	*640*	*540*	*610*	*640*	*540*	*590*	*620*
P2	—	—	—	170	185	195	170	185	195	165	185	195	165	180	185
	—	—	—	*560*	*610*	*640*	*560*	*610*	*640*	*540*	*610*	*640*	*540*	*590*	*610*
P3	—	—	—	165	180	185	160	175	185	155	175	185	155	170	175
	—	—	—	*540*	*590*	*610*	*520*	*570*	*610*	*510*	*570*	*610*	*510*	*560*	*570*
P4	—	—	—	155	170	175	155	170	175	145	165	175	145	160	170
	—	—	—	*510*	*560*	*570*	*510*	*560*	*570*	*475*	*540*	*570*	*475*	*520*	*560*
P5	—	—	—	155	165	175	150	165	175	145	165	175	145	160	165
	—	—	—	*510*	*540*	*570*	*490*	*540*	*570*	*475*	*540*	*570*	*475*	*520*	*540*
P6	—	—	—	160	175	185	160	175	180	150	170	180	155	165	175
	—	—	—	*520*	*570*	*610*	*520*	*570*	*590*	*490*	*560*	*590*	*510*	*540*	*570*
P7	—	—	—	155	170	180	155	170	180	150	165	175	150	165	170
	—	—	—	*510*	*560*	*590*	*510*	*560*	*590*	*490*	*540*	*570*	*490*	*540*	*560*
P8	—	—	—	150	165	175	150	165	175	145	160	175	145	160	165
	—	—	—	*490*	*540*	*570*	*490*	*540*	*570*	*475*	*520*	*570*	*475*	*520*	*540*
P11	—	—	—	155	170	175	155	170	175	145	165	175	145	160	170
	—	—	—	*510*	*560*	*570*	*510*	*560*	*570*	*475*	*540*	*570*	*475*	*520*	*560*
P12	—	—	—	125	140	145	125	135	145	115	135	145	120	130	140
	—	—	—	*410*	*460*	*475*	*410*	*445*	*475*	*375*	*445*	*475*	*395*	*425*	*460*
M1	—	—	—	—	—	—	125	145	155	140	160	170	120	140	150
	—	—	—	—	—	—	*410*	*475*	*510*	*460*	*520*	*560*	*395*	*460*	*490*
M2	—	—	—	—	—	—	115	130	145	130	150	160	110	125	140
	—	—	—	—	—	—	*375*	*425*	*475*	*425*	*490*	*520*	*360*	*410*	*460*
M3	—	—	—	—	—	—	100	120	130	115	135	145	95	115	125
	—	—	—	—	—	—	*330*	*395*	*425*	*375*	*445*	*475*	*310*	*375*	*410*
M4	—	—	—	—	—	—	85	100	110	100	115	125	80	95	105
	—	—	—	—	—	—	*280*	*330*	*360*	*330*	*375*	*410*	*260*	*310*	*345*
M5	—	—	—	—	—	—	70	90	100	85	105	115	65	85	95
	—	—	—	—	—	—	*230*	*295*	*330*	*280*	*345*	*375*	*215*	*280*	*310*
K1	155	175	185	175	185	195	170	185	195	150	165	180	165	180	185
	510	*570*	*610*	*570*	*610*	*640*	*560*	*610*	*640*	*490*	*540*	*590*	*540*	*590*	*610*
K2	150	165	180	165	180	190	165	180	185	140	160	170	160	170	180
	490	*540*	*590*	*540*	*590*	*620*	*540*	*590*	*610*	*460*	*520*	*560*	*520*	*560*	*590*
K3	135	155	170	155	170	175	155	165	175	130	150	160	145	160	170
	445	*510*	*560*	*510*	*560*	*570*	*510*	*540*	*570*	*425*	*490*	*520*	*475*	*520*	*560*
K4	135	155	165	150	165	175	150	165	175	125	145	155	145	155	165
	445	*510*	*540*	*490*	*540*	*570*	*490*	*540*	*570*	*410*	*475*	*510*	*475*	*510*	*540*
K5	100	120	130	120	130	140	120	130	140	95	110	125	110	125	130
	330	*395*	*425*	*395*	*425*	*460*	*395*	*425*	*460*	*310*	*360*	*410*	*360*	*410*	*425*
K6	125	145	155	145	155	165	140	155	165	120	135	145	135	150	155
	410	*475*	*510*	*475*	*510*	*540*	*460*	*510*	*540*	*395*	*445*	*475*	*445*	*490*	*510*
K7	120	135	150	135	150	155	135	150	155	110	130	140	125	140	150
	395	*445*	*490*	*445*	*490*	*510*	*445*	*490*	*510*	*360*	*425*	*460*	*410*	*460*	*490*
N1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
N2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
N3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
N11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S1	—	—	—	—	—	—	—	—	—	50	70	80	37	49	55
	—	—	—	—	—	—	—	—	—	*165*	*230*	*260*	*120*	*160*	*180*
S2	—	—	—	—	—	—	—	—	—	42	55	65	30	40	46
	—	—	—	—	—	—	—	—	—	*140*	*180*	*215*	*100*	*130*	*150*
S3	—	—	—	—	—	—	—	—	—	37	49	55	27	35	40
	—	—	—	—	—	—	—	—	—	*120*	*160*	*180*	*90*	*115*	*130*
S11	—	—	—	—	—	—	—	—	—	75	90	100	50	70	80
	—	—	—	—	—	—	—	—	—	*245*	*295*	*330*	*165*	*230*	*260*
S12	—	—	—	—	—	—	—	—	—	50	65	75	36	47	55
	—	—	—	—	—	—	—	—	—	*165*	*215*	*245*	*120*	*155*	*180*
S13	—	—	—	—	—	—	—	—	—	29	39	45	21	28	32
	—	—	—	—	—	—	—	—	—	*95*	*130*	*150*	*70*	*90*	*105*
H5	—	—	—	43	55	65	—	—	—	—	—	—	33	43	50
	—	—	—	*140*	*180*	*215*	—	—	—	—	—	—	*110*	*140*	*165*
H8	—	—	—	46	60	70	—	—	—	—	—	—	35	46	55
	—	—	—	*150*	*195*	*230*	—	—	—	—	—	—	*115*	*150*	*180*
H11	—	—	—	55	70	80	—	—	—	—	—	—	42	55	65
	—	—	—	*180*	*230*	*260*	—	—	—	—	—	—	*140*	*180*	*215*
H12	—	—	—	80	100	110	—	—	—	—	—	—	65	80	90
	—	—	—	*260*	*330*	*360*	—	—	—	—	—	—	*215*	*260*	*295*

Turbo 16 – R217.69-16 – Metric





- For insert selection and cutting data recommendations, see page(s) 149-151
- For complete insert programme, see page(s) 848, 849
- For ISO attribute explanation, see page 16
- KAPRS 90°

Designation	Item number	Type of mounting	DC	ZEFP	ZNP	APMXS	DMM	DCSFMS	LUX	LPR	OAL	RPMX	Weight	Insert
			mm			mm	mm	mm	mm	mm	mm		kg	
R217.69-3240.3S-043-XO16.3A	10067004	Seco-Weldon	40,0	3	9	43,0	32,0	50,0	54,9	65,0	125,0	13200	0,8	XO.X16
R217.69-3240.3S-071-XO16.3A	10067005	Seco-Weldon	40,0	3	15	71,0	32,0	50,0	85,4	95,0	155,0	13200	1,0	XO.X16
R217.69-3250.3S-057-XO16.3A	10067006	Seco-Weldon	50,0	3	12	57,0	32,0	50,0	70,8	80,0	140,0	11800	1,1	XO.X16
R217.69-3250.3S-057-XO16.4A	10067007	Seco-Weldon	50,0	4	16	57,0	32,0	50,0	70,8	80,0	140,0	11800	1,1	XO.X16
R217.69-3250.3S-085-XO16.4A	10067008	Seco-Weldon	50,0	4	24	85,0	32,0	50,0	95,8	105,0	165,0	11800	1,3	XO.X16

Modification of the cutter body needed for radii > 3,1 mm

Spare Parts, included in delivery

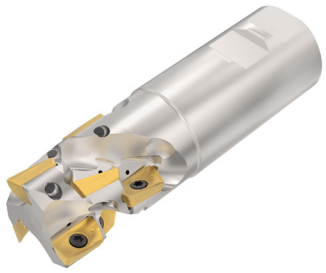
For cutter	Insert key	Insert screw
		
R217.69-3240	H4B-T15P	C04009-T15P
R217.69-3250	H4B-T15P	C04011-T15P

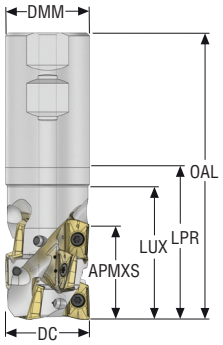
Accessories

For cutter	Insert clamping torque	Key	Screw	Torque key
				
R217.69-..	3.5NM	T05P-2	SX2035-T05P	T00-15P35

Torque and fixed keys, see page 872

Turbo 16 – R217.69-16 – Inch





- For insert selection and cutting data recommendations, see page(s) 149-151
- For complete insert programme, see page(s) 848, 849
- For ISO attribute explanation, see page 16
- KAPRS 90°

Designation	Item number	Type of mounting	DC	ZEFP	ZNP	APMXS	DMM	LUX	LPR	OAL	RPMX	Weight	Insert
			inch			inch	inch	inch	inch	inch		lbs	
R217.69-01.50-3-1.69-XO16-3A	10067015	Weldon	1.500	3	9	1.693	1.500	2.417	2.441	5.169	13200	2.200	XO.X16
R217.69-02.00-3-1.69-XO16-3A	10067016	Weldon	2.000	3	9	1.693	2.000	2.512	2.535	5.823	13200	4.190	XO.X16
R217.69-02.00-3-2.24-XO16-4A	10067017	Weldon	2.000	4	16	2.244	2.000	3.130	3.035	6.323	11800	4.410	XO.X16

Modification of the cutter body needed for radii > 0.122 in

Spare Parts, included in delivery

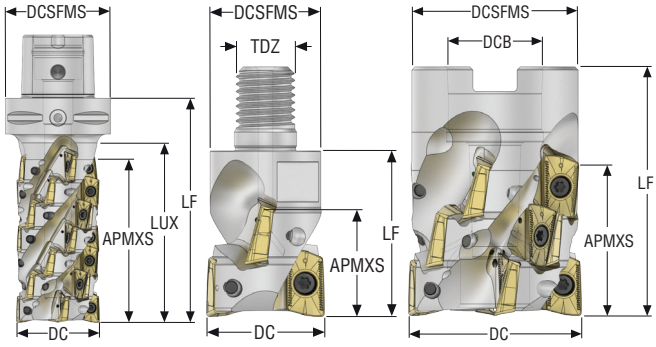
For cutter	Insert key	Insert screw
		
R217.69-01.50	H4B-T15P	C04009-T15P
R217.69-02.00.3A	H4B-T15P	C04009-T15P
R217.69-02.00.4A	H4B-T15P	C04011-T15P

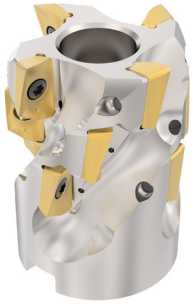
Accessories

For cutter	Insert clamping torque	Key	Screw	Torque key
				
R217.69-..	31.0IN.LBS	T05P-2	SX2035-T05P	T00-15P35

Torque and fixed keys, see page 872

Turbo 16 – R217/220.69-16 – Metric



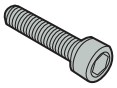
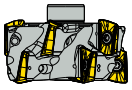


- For insert selection and cutting data recommendations, see page(s) 149-151
- For complete insert programme, see page(s) 848, 849
- For ISO attribute explanation, see page 16
- KAPRS 90°

Designation	Item number	Type of mounting	DC	ZEFP	ZNP	APMXS	DCB	DCSFMS	LF	LUX	RPMX	Weight	Insert
			mm			mm	mm	mm	mm	mm		kg	
C6-R217.69-050-098-XO16.4A	10067022	Seco-Capto	50,0	4	28	98,0	–	63,0	135,0	110,4	11800	1,6	XO.X16
R217.69-1632.RE-029-XO16.2A	10067002	Combimaster	32,0	2	4	29,0	–	30,0	45,0	–	14800	0,2	XO.X16
R217.69-2040.RE-029-XO16.3A	10067003	Combimaster	40,0	3	6	29,0	–	36,5	55,0	–	13200	0,4	XO.X16
R220.69-0050-043-XO16.4A	10067009	Arbor	50,0	4	12	43,0	27,0	46,0	72,0	–	11800	0,7	XO.X16
R220.69-0063-043-XO16.4A	10067010	Arbor	63,0	4	12	43,0	27,0	58,0	70,0	–	10500	1,0	XO.X16
R220.69-0063-057-XO16.5A	10067011	Arbor	63,0	5	20	57,0	27,0	58,0	80,0	–	10500	1,2	XO.X16
R220.69-0063-085-XO16.5SA	10067024	Arbor	63,0	5	30	85,0	27,0	58,0	108,9	–	10500	1,6	XO.X16
R220.69-0080-071-XO16.5A	10067012	Arbor	80,0	5	25	71,0	32,0	75,0	95,0	–	9300	2,5	XO.X16
R220.69-0080-071-XO16.6A	10067013	Arbor	80,0	6	30	71,0	32,0	75,0	95,0	–	9300	2,3	XO.X16
R220.69-0100-071-XO16.6A	10067014	Arbor	100,0	6	30	71,0	40,0	88,0	95,0	–	8300	3,7	XO.X16

Modification of the cutter body needed for radii > 3,1 mm

Spare Parts, included in delivery

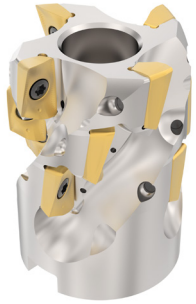
For cutter	Arbor screw	Assembly screw	Basic body	Insert key	Insert screw	Replaceable end
						
Cx-R217.69-..	–	–	–	H4B-T15P	C04011-T15P	–
R217.69-1632-2040	–	–	–	H4B-T15P	C04009-T15P	–
R220.69-0050	MC6S12X60	–	–	H4B-T15P	C04009-T15P	–
R220.69-0063.4A	MC6S12X60	–	–	H4B-T15P	C04011-T15P	–
R220.69-0063.5A	MC6S12X70	–	–	H4B-T15P	C04011-T15P	–
R220.69-0063SA	MC6S12X40	MC6S5X35	R220.69-0063-057-XO16.5BA	H4B-T15P	C04011-T15P	R220.69-RE063-029-XO16.5A
R220.69-0080	MP6S16X80	–	–	H4B-T15PL	C04011-T15P	–
R220.69-0100	MP6S20X80	–	–	H4B-T15PL	C04011-T15P	–

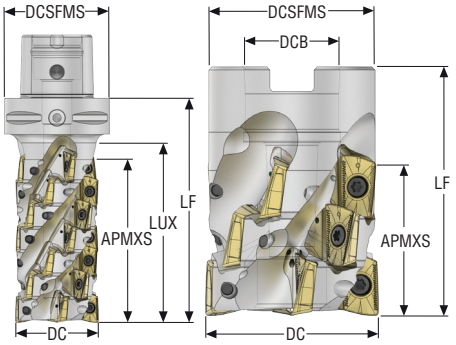
Accessories

For cutter	Insert clamping torque	Key	Screw	Torque key
				
R217/220.69-..	3.5NM	T05P-2	SX2035-T05P	T00-15P35

Torque and fixed keys, see page 872

Turbo 16 – 220.69-16 – Inch



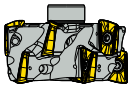


- For insert selection and cutting data recommendations, see page(s) 149-151
- For complete insert programme, see page(s) 848, 849
- For ISO attribute explanation, see page 16
- KAPRS 90°

Designation	Item number	Type of mounting	DC	ZEFP	ZNP	APMXS	DCB	DCSFMS	LF	LUX	RPMX	Weight	Insert
			inch			inch	inch	inch	inch	inch		lbs	
C6-R217.69-02.00-3.89-XO16-4A	10067023	Seco-Capto	2.000	4	28	3.858	–	2.480	5.350	4.382	11800	3.530	XO.X16
R220.69-02.00-1.69-XO16-4A	10067018	Arbor	2.000	4	12	1.693	1.000	1.850	2.750	–	11800	1.320	XO.X16
R220.69-02.50-1.69-XO16-4A	10067019	Arbor	2.500	4	12	1.693	1.000	2.283	2.750	–	10500	1.100	XO.X16
R220.69-02.50-2.24-XO16-5A	10067020	Arbor	2.500	5	20	2.244	1.000	2.283	3.250	–	10500	2.650	XO.X16
R220.69-02.50-3.34-XO16-5SA	10155391	Arbor	2.500	5	30	3.346	1.000	2.283	4.280	–	10500	3.090	XO.X16
R220.69-03.00-2.79-XO16-5A	10067021	Arbor	3.000	5	25	2.795	1.250	2.795	3.750	–	9300	2.200	XO.X16

Modification of the cutter body needed for radii > 3,1 mm

Spare Parts, included in delivery

For cutter	Arbor screw	Assembly screw	Basic body	Insert key	Insert screw	Replaceable end
						
C6-R217.69-..	–	–	–	H4B-T15P	C04011-T15P	–
R220.69-02.00	UC6S1/2UNFX2-1/2	–	–	H4B-T15P	C04009-T15P	–
R220.69-02.50.4A	UC6S1/2UNFX2-1/2	–	–	H4B-T15P	C04011-T15P	–
R220.69-02.50.5A	UC6S1/2UNFX3	–	–	H4B-T15P	C04011-T15P	–
R220.69-02.50-3.34	UC6S1/2UNFX1-1/2M	UC6S10UNFX1-1/2	R220.69-02.50-2.24-XO16-5BA	1/4HEX-T15PX50	C04011-T15P	R220.69-RE02.50-1.14-XO16-5A
R220.69-03.00	UP6S5/8UNFX3-1/4	–	–	H4B-T15PL	C04011-T15P	–

Accessories

For cutter	Adjustable Torque key	Insert clamping torque	Key	Screw	Torque key
					
C6-R217/220.69-02.00-03.00	–	31.0IN.LBS	T05P-2	SX2035-T05P	T00-15P35
C6-R217/220.69-02.50-SA	1/4HEX-S-HANDLE-0.8-5.0NM	31.0IN.LBS	T05P-2	SX2035-T05P	–

Torque and fixed keys, see page 872

R217/220.69-16 – Insert selection – Metric / *Inch*

SMG		f_z		
		100%	30%	10%
P1	XOMX160508TR-ME11 MP2501	0,13 *0.0050*	0,15 *0.0060*	0,22 *0.0085*
P2	XOMX160508TR-ME11 MP2501	0,14 *0.0055*	0,15 *0.0060*	0,22 *0.0085*
P3	XOMX160508TR-M13 MP2501	0,15 *0.0060*	0,17 *0.0065*	0,25 *0.010*
P4	XOMX160508TR-M13 MP2501	0,15 *0.0060*	0,16 *0.0065*	0,25 *0.010*
P5	XOMX160508TR-MD14 MP1501	0,16 *0.0065*	0,17 *0.0065*	0,26 *0.010*
P6	XOMX160508TR-MD14 MP1501	0,16 *0.0065*	0,17 *0.0065*	0,26 *0.010*
P7	XOMX160508TR-MD14 MP1501	0,16 *0.0065*	0,17 *0.0065*	0,26 *0.010*
P8	XOMX160508TR-MD14 MP1501	0,16 *0.0065*	0,18 *0.0070*	0,28 *0.011*
P11	XOMX160508TR-ME11 MP2050	0,12 *0.0048*	0,13 *0.0050*	0,20 *0.0080*
P12	XOMX160508TR-ME11 MS2050	0,085 *0.0034*	0,090 *0.0036*	0,14 *0.0055*
M1	XOMX160508R-M09 MS2050	0,11 *0.0044*	0,12 *0.0048*	0,19 *0.0075*
M2	XOMX160508R-M09 MS2050	0,10 *0.0040*	0,11 *0.0044*	0,17 *0.0065*
M3	XOMX160508R-M09 MS2050	0,080 *0.0032*	0,090 *0.0036*	0,13 *0.0050*
M4	XOMX160508TR-ME11 MP2050	0,085 *0.0034*	0,095 *0.0038*	0,14 *0.0055*
M5	XOMX160508TR-ME11 MP2050	0,085 *0.0034*	0,095 *0.0038*	0,14 *0.0055*
K1	XOMX160508TR-M13 MK2050	0,16 *0.0065*	0,17 *0.0065*	0,26 *0.010*
K2	XOMX160508TR-M13 MK2050	0,15 *0.0060*	0,16 *0.0065*	0,24 *0.0095*
K3	XOMX160508TR-MD14 MK2050	0,16 *0.0065*	0,17 *0.0065*	0,26 *0.010*
K4	XOMX160508TR-MD14 MK2050	0,16 *0.0065*	0,17 *0.0065*	0,26 *0.010*
K5	XOMX160508TR-MD14 MK2050	0,14 *0.0055*	0,15 *0.0060*	0,24 *0.0095*
K6	XOMX160508TR-MD14 MK2050	0,16 *0.0065*	0,17 *0.0065*	0,26 *0.010*
K7	XOMX160508TR-MD14 MK2050	0,14 *0.0055*	0,15 *0.0060*	0,24 *0.0095*
N1	XOEX160508FR-E07 H25	0,11 *0.0044*	0,12 *0.0048*	0,18 *0.0070*
N2	XOEX160508FR-E07 H25	0,11 *0.0044*	0,12 *0.0048*	0,18 *0.0070*
N3	XOEX160508FR-E07 H25	0,11 *0.0044*	0,12 *0.0048*	0,18 *0.0070*
N11	XOEX160508FR-E07 H25	0,11 *0.0044*	0,12 *0.0048*	0,18 *0.0070*
S1	XOMX160508TR-ME11 MP2050	0,085 *0.0034*	0,095 *0.0038*	0,14 *0.0055*
S2	XOMX160508TR-ME11 MP2050	0,085 *0.0034*	0,095 *0.0038*	0,14 *0.0055*
S3	XOMX160508TR-ME11 MP2050	0,080 *0.0032*	0,090 *0.0036*	0,13 *0.0050*
S11	XOMX160508TR-ME11 MS2050	0,10 *0.0040*	0,11 *0.0044*	0,17 *0.0065*
S12	XOMX160508TR-ME11 MS2050	0,10 *0.0040*	0,11 *0.0044*	0,17 *0.0065*
S13	XOMX160508TR-ME11 MS2050	0,085 *0.0034*	0,095 *0.0038*	0,14 *0.0055*
H5	XOMX160508TR-MD14 MP3000	0,11 *0.0044*	0,12 *0.0048*	0,18 *0.0070*
H11	XOMX160508TR-MD14 MP3000	0,11 *0.0044*	0,12 *0.0048*	0,18 *0.0070*
H12	XOMX160508TR-ME11 MP2050	0,065 *0.0026*	0,070 *0.0028*	0,11 *0.0044*

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

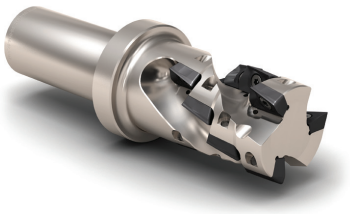
R217/220.69-16 – Cutting data v_c = (m/min)/*(sf/min)*

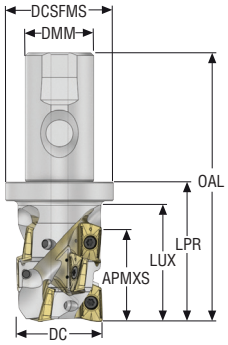
SMG	MK2050			MP3000			MS2050			F40M			MP2050			H25		
	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%
P1	155 *510*	180 *590*	190 *620*	155 *510*	180 *590*	190 *620*	160 *520*	180 *590*	190 *620*	140 *460*	160 *520*	175 *570*	170 *560*	190 *620*	205 *670*	— —	— —	— —
P2	155 *510*	175 *570*	190 *620*	155 *510*	175 *570*	190 *620*	155 *510*	175 *570*	190 *620*	140 *460*	160 *520*	175 *570*	165 *540*	190 *620*	200 *660*	— —	— —	— —
P3	145 *475*	165 *540*	180 *590*	145 *475*	165 *540*	180 *590*	145 *475*	165 *540*	180 *590*	130 *425*	150 *490*	165 *540*	160 *520*	180 *590*	190 *620*	— —	— —	— —
P4	135 *445*	155 *510*	170 *560*	135 *445*	160 *520*	170 *560*	135 *445*	155 *510*	170 *560*	120 *395*	140 *460*	155 *510*	150 *490*	170 *560*	180 *590*	— —	— —	— —
P5	130 *425*	155 *510*	165 *540*	135 *445*	155 *510*	165 *540*	135 *445*	155 *510*	165 *540*	115 *375*	140 *460*	150 *490*	145 *475*	165 *540*	180 *590*	— —	— —	— —
P6	140 *460*	160 *520*	175 *570*	145 *475*	165 *540*	175 *570*	145 *475*	165 *540*	175 *570*	125 *410*	145 *475*	160 *520*	155 *510*	175 *570*	190 *620*	— —	— —	— —
P7	135 *445*	160 *520*	170 *560*	140 *460*	160 *520*	170 *560*	140 *460*	160 *520*	170 *560*	120 *395*	140 *460*	155 *510*	150 *490*	170 *560*	185 *610*	— —	— —	— —
P8	130 *425*	150 *490*	165 *540*	135 *445*	155 *510*	165 *540*	130 *425*	155 *510*	165 *540*	115 *375*	135 *445*	150 *490*	145 *475*	165 *540*	180 *590*	— —	— —	— —
P11	135 *445*	155 *510*	170 *560*	135 *445*	155 *510*	170 *560*	135 *445*	155 *510*	170 *560*	120 *395*	140 *460*	155 *510*	150 *490*	170 *560*	180 *590*	— —	— —	— —
P12	105 *345*	125 *410*	135 *445*	105 *345*	125 *410*	135 *445*	105 *345*	125 *410*	135 *445*	85 *280*	110 *360*	120 *395*	115 *375*	135 *445*	150 *490*	— —	— —	— —
M1	— —	— —	— —	135 *445*	155 *510*	170 *560*	140 *460*	160 *520*	175 *570*	125 *410*	145 *475*	155 *510*	140 *460*	165 *540*	175 *570*	— —	— —	— —
M2	— —	— —	— —	120 *395*	140 *460*	155 *510*	125 *410*	145 *475*	160 *520*	110 *360*	130 *425*	145 *475*	130 *425*	150 *490*	165 *540*	— —	— —	— —
M3	— —	— —	— —	105 *345*	125 *410*	140 *460*	110 *360*	130 *425*	145 *475*	95 *310*	115 *375*	125 *410*	115 *375*	135 *445*	145 *475*	— —	— —	— —
M4	— —	— —	— —	85 *280*	105 *345*	120 *395*	90 *295*	110 *360*	125 *410*	75 *245*	95 *310*	110 *360*	95 *310*	115 *375*	130 *425*	— —	— —	— —
M5	— —	— —	— —	75 *245*	95 *310*	105 *345*	80 *260*	100 *330*	110 *360*	65 *215*	80 *260*	95 *310*	80 *260*	100 *330*	115 *375*	— —	— —	— —
K1	160 *520*	180 *590*	195 *640*	140 *460*	160 *520*	170 *560*	— —	— —	— —	120 *395*	145 *475*	155 *510*	— —	— —	— —	— —	— —	— —
K2	150 *490*	175 *570*	185 *610*	130 *425*	150 *490*	165 *540*	— —	— —	— —	110 *360*	135 *445*	145 *475*	— —	— —	— —	— —	— —	— —
K3	140 *460*	160 *520*	175 *570*	115 *375*	140 *460*	150 *490*	— —	— —	— —	100 *330*	120 *395*	135 *445*	— —	— —	— —	— —	— —	— —
K4	135 *445*	155 *510*	170 *560*	115 *375*	135 *445*	145 *475*	— —	— —	— —	95 *310*	120 *395*	130 *425*	— —	— —	— —	— —	— —	— —
K5	100 *330*	120 *395*	130 *425*	75 *245*	100 *330*	110 *360*	— —	— —	— —	60 *195*	80 *260*	95 *310*	— —	— —	— —	— —	— —	— —
K6	125 *410*	145 *475*	160 *520*	105 *345*	125 *410*	140 *460*	— —	— —	— —	85 *280*	110 *360*	120 *395*	— —	— —	— —	— —	— —	— —
K7	120 *395*	140 *460*	150 *490*	95 *310*	115 *375*	130 *425*	— —	— —	— —	80 *260*	100 *330*	110 *360*	— —	— —	— —	— —	— —	— —
N1	— —	— —	— —	— —	— —	— —	— —	— —	— —	270 *890*	290 *950*	305 *1000*	— —	— —	— —	290 *950*	310 *1025*	320 *1050*
N2	— —	— —	— —	— —	— —	— —	— —	— —	— —	205 *670*	225 *740*	235 *770*	— —	— —	— —	220 *720*	240 *790*	255 *840*
N3	— —	— —	— —	— —	— —	— —	— —	— —	— —	175 *570*	195 *640*	205 *670*	— —	— —	— —	190 *620*	210 *690*	225 *740*
N11	— —	— —	— —	— —	— —	— —	— —	— —	— —	185 *610*	205 *670*	215 *710*	— —	— —	— —	200 *660*	220 *720*	235 *770*
S1	— —	— —	— —	41 *135*	55 *180*	65 *215*	44 *145*	55 *180*	70 *230*	35 *115*	46 *150*	55 *180*	48 *155*	60 *195*	75 *245*	— —	— —	— —
S2	— —	— —	— —	33 *110*	43 *140*	50 *165*	35 *115*	46 *150*	55 *180*	28 *90*	37 *120*	44 *145*	39 *130*	50 *165*	60 *195*	— —	— —	— —
S3	— —	— —	— —	29 *95*	38 *125*	44 *145*	31 *100*	41 *135*	48 *155*	25 *80*	33 *110*	38 *125*	34 *110*	45 *150*	50 *165*	— —	— —	— —
S11	— —	— —	— —	— —	— —	— —	60 *195*	80 *260*	90 *295*	48 *155*	65 *215*	75 *245*	65 *215*	85 *280*	100 *330*	— —	— —	— —
S12	— —	— —	— —	— —	— —	— —	42 *140*	55 *180*	65 *215*	33 *110*	44 *145*	55 *180*	46 *150*	60 *195*	70 *230*	— —	— —	— —
S13	— —	— —	— —	— —	— —	— —	25 *80*	32 *105*	38 *125*	20 *65*	26 *85*	30 *100*	27 *90*	35 *115*	42 *140*	— —	— —	— —
H5	— —	— —	— —	34 *110*	45 *150*	55 *180*	— —	— —	— —	29 *95*	39 *130*	45 *150*	— —	— —	— —	— —	— —	— —
H11	— —	— —	— —	44 *145*	60 *195*	70 *230*	— —	— —	— —	37 *120*	49 *160*	60 *195*	49 *160*	65 *215*	75 *245*	— —	— —	— —
H12	— —	— —	— —	70 *230*	90 *295*	105 *345*	— —	— —	— —	55 *180*	75 *245*	85 *280*	80 *260*	105 *345*	115 *375*	— —	— —	— —

R217/220.69-16 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	MK1500			MP1501			MP2501			MS2500			MP3501		
	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%
P1	—	—	—	190	205	215	185	205	215	180	200	215	180	195	205
	—	—	—	*620*	*670*	*710*	*610*	*670*	*710*	*590*	*660*	*710*	*590*	*640*	*670*
P2	—	—	—	185	205	215	185	200	210	180	200	210	175	195	205
	—	—	—	*610*	*670*	*710*	*610*	*660*	*690*	*590*	*660*	*690*	*570*	*640*	*670*
P3	—	—	—	175	190	205	175	190	200	170	190	200	165	185	195
	—	—	—	*570*	*620*	*670*	*570*	*620*	*660*	*560*	*620*	*660*	*540*	*610*	*640*
P4	—	—	—	170	185	195	165	185	190	160	180	190	160	175	185
	—	—	—	*560*	*610*	*640*	*540*	*610*	*620*	*520*	*590*	*620*	*520*	*570*	*610*
P5	—	—	—	165	180	190	165	180	190	155	175	190	155	170	180
	—	—	—	*540*	*590*	*620*	*540*	*590*	*620*	*510*	*570*	*620*	*510*	*560*	*590*
P6	—	—	—	175	190	200	175	190	200	165	185	195	165	180	190
	—	—	—	*570*	*620*	*660*	*570*	*620*	*660*	*540*	*610*	*640*	*540*	*590*	*620*
P7	—	—	—	170	185	195	170	185	195	160	180	190	160	175	185
	—	—	—	*560*	*610*	*640*	*560*	*610*	*640*	*520*	*590*	*620*	*520*	*570*	*610*
P8	—	—	—	165	180	190	165	180	190	155	175	185	155	170	180
	—	—	—	*540*	*590*	*620*	*540*	*590*	*620*	*510*	*570*	*610*	*510*	*560*	*590*
P11	—	—	—	170	185	190	165	180	190	155	180	190	160	175	185
	—	—	—	*560*	*610*	*620*	*540*	*590*	*620*	*510*	*590*	*620*	*520*	*570*	*610*
P12	—	—	—	135	150	160	135	150	155	125	145	160	125	140	150
	—	—	—	*445*	*490*	*520*	*445*	*490*	*510*	*410*	*475*	*520*	*410*	*460*	*490*
M1	—	—	—	—	—	—	135	155	170	155	175	185	130	150	165
	—	—	—	—	—	—	*445*	*510*	*560*	*510*	*570*	*610*	*425*	*490*	*540*
M2	—	—	—	—	—	—	120	140	155	140	160	170	115	135	150
	—	—	—	—	—	—	*395*	*460*	*510*	*460*	*520*	*560*	*375*	*445*	*490*
M3	—	—	—	—	—	—	105	125	140	125	145	155	100	120	135
	—	—	—	—	—	—	*345*	*410*	*460*	*410*	*475*	*510*	*330*	*395*	*445*
M4	—	—	—	—	—	—	90	110	120	105	125	135	80	105	115
	—	—	—	—	—	—	*295*	*360*	*395*	*345*	*410*	*445*	*260*	*345*	*375*
M5	—	—	—	—	—	—	75	95	105	90	110	120	70	90	100
	—	—	—	—	—	—	*245*	*310*	*345*	*295*	*360*	*395*	*230*	*295*	*330*
K1	170	190	205	190	205	215	185	205	215	160	180	195	175	195	205
	560	*620*	*670*	*620*	*670*	*710*	*610*	*670*	*710*	*520*	*590*	*640*	*570*	*640*	*670*
K2	160	180	195	180	195	205	175	195	205	150	170	185	170	185	195
	520	*590*	*640*	*590*	*640*	*670*	*570*	*640*	*670*	*490*	*560*	*610*	*560*	*610*	*640*
K3	145	170	180	165	180	190	165	180	190	140	160	170	155	175	185
	475	*560*	*590*	*540*	*590*	*620*	*540*	*590*	*620*	*460*	*520*	*560*	*510*	*570*	*610*
K4	145	165	180	160	180	190	160	180	185	135	155	170	150	170	180
	475	*540*	*590*	*520*	*590*	*620*	*520*	*590*	*610*	*445*	*510*	*560*	*490*	*560*	*590*
K5	105	130	140	125	140	150	125	140	150	100	120	130	115	135	140
	345	*425*	*460*	*410*	*460*	*490*	*410*	*460*	*490*	*330*	*395*	*425*	*375*	*445*	*460*
K6	135	155	170	155	170	180	150	170	180	125	145	160	145	160	170
	445	*510*	*560*	*510*	*560*	*590*	*490*	*560*	*590*	*410*	*475*	*520*	*475*	*520*	*560*
K7	125	145	160	145	160	170	145	160	170	115	135	150	135	150	160
	410	*475*	*520*	*475*	*520*	*560*	*475*	*520*	*560*	*375*	*445*	*490*	*445*	*490*	*520*
N1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
N2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
N3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
N11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S1	—	—	—	—	—	—	—	—	—	55	70	80	39	50	60
	—	—	—	—	—	—	—	—	—	*180*	*230*	*260*	*130*	*165*	*195*
S2	—	—	—	—	—	—	—	—	—	43	55	65	31	41	48
	—	—	—	—	—	—	—	—	—	*140*	*180*	*215*	*100*	*135*	*155*
S3	—	—	—	—	—	—	—	—	—	38	50	60	27	36	42
	—	—	—	—	—	—	—	—	—	*125*	*165*	*195*	*90*	*120*	*140*
S11	—	—	—	—	—	—	—	—	—	75	95	110	55	70	85
	—	—	—	—	—	—	—	—	—	*245*	*310*	*360*	*180*	*230*	*280*
S12	—	—	—	—	—	—	—	—	—	50	70	80	37	48	60
	—	—	—	—	—	—	—	—	—	*165*	*230*	*260*	*120*	*155*	*195*
S13	—	—	—	—	—	—	—	—	—	30	40	46	22	29	33
	—	—	—	—	—	—	—	—	—	*100*	*130*	*150*	*70*	*95*	*110*
H5	—	—	—	44	60	70	—	—	—	—	—	—	34	44	50
	—	—	—	*145*	*195*	*230*	—	—	—	—	—	—	*110*	*145*	*165*
H11	—	—	—	55	75	85	—	—	—	—	—	—	43	55	65
	—	—	—	*180*	*245*	*280*	—	—	—	—	—	—	*140*	*180*	*215*
H12	—	—	—	85	105	115	—	—	—	—	—	—	65	85	95
	—	—	—	*280*	*345*	*375*	—	—	—	—	—	—	*215*	*280*	*310*

Turbo 18 – R217.69-18 – Metric



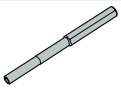


- For insert selection and cutting data recommendations, see page(s) 157-159
- For complete insert programme, see page(s) 850, 851
- For ISO attribute explanation, see page 16
- KAPRS 90°

Designation	Item number	Type of mounting	DC	ZEFP	ZNP	APMXS	DMM	LUX	LS	OAL	RPMX	Weight	Insert
			mm			mm	mm	mm	mm	mm		kg	
R217.69-3240.3S-047-18.2AN	02710003	Seco-Weldon	40,0	2	6	47,0	32,0	57,0	60,0	130,0	9900	0,8	XO.X18..
R217.69-3250.3S-047-18.3AN	02710010	Seco-Weldon	50,0	3	9	47,0	32,0	65,0	60,0	134,5	8900	1,2	XO.X18..

Modification of the cutter body needed for radii > 3,1 mm

Spare Parts, included in delivery

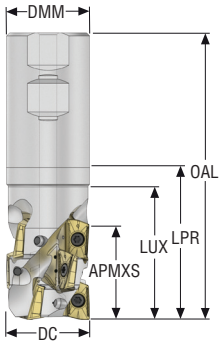
For cutter	Insert key	Insert screw
		
R217.69-..	H6B-T20P	C04510-T20P

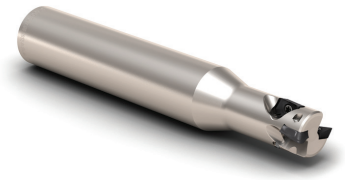
Accessories

For cutter	Insert clamping torque	Torque key
		
R217.69-..	5.0NM	T00-20P50

Torque and fixed keys, see page 872

Turbo 18 – R217.69-18 – Inch



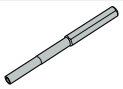


- For insert selection and cutting data recommendations, see page(s) 157-159
- For complete insert programme, see page(s) 850, 851
- For ISO attribute explanation, see page 16
- KAPRS 90°

Designation	Item number	Type of mounting	DC	ZEFP	ZNP	APMXS	DMM	LUX	LPR	OAL	RPMX	Weight	Insert
			inch			inch	inch	inch	inch	inch		lbs	
R217.69-01.50-3-18S2AN	02710923	Weldon	1.500	2	6	1.862	1.500	2.618	2.750	5.439	9900	2.200	XO.X18
R217.69-02.00-3-18S3AN	02710934	Weldon	2.000	3	9	1.850	1.500	2.802	2.802	5.491	8900	2.870	XO.X18

Modification of the cutter body needed for radii > 0.122 in

Spare Parts, included in delivery

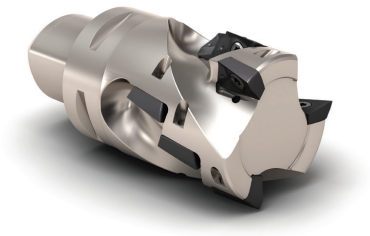
For cutter	Insert key	Insert screw
		
R217.69-..	H6B-T20P	C04510-T20P

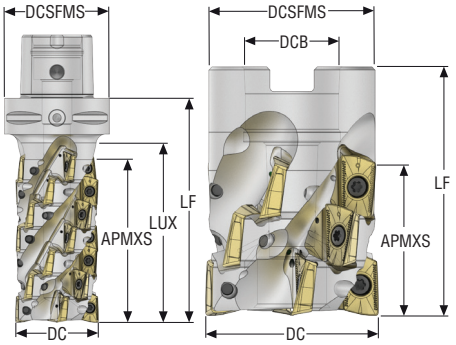
Accessories

For cutter	Insert clamping torque	Torque key
		
R217.69-..	44.3IN.LBS	T00-20P50

Torque and fixed keys, see page 872

Turbo 18 – R217/220.69-18 – Metric



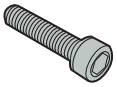
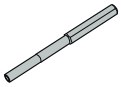


- For insert selection and cutting data recommendations, see page(s) 157-159
- For complete insert programme, see page(s) 850, 851
- For ISO attribute explanation, see page 16
- KAPRS 90°

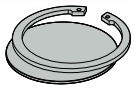
Designation	Item number	Type of mounting	DC	ZEFP	ZNP	APMXS	DCB	DCSFMS	LF	LUX	RPMX	Weight	Insert
			mm			mm	mm	mm	mm	mm		kg	
C5-R217.69-040-047-18.2AN	02717849	Seco-Capto	40,0	2	6	47,0	–	50,0	82,0	58,0	9900	0,8	XO.X18..
C6-R217.69-050-062-18.3AN	02717919	Seco-Capto	50,0	3	12	62,0	–	63,0	99,0	73,0	8900	1,5	XO.X18..
C5-R217.69-054-047-18.3AN	02717916	Seco-Capto	54,0	3	9	47,0	–	50,0	82,0	62,0	8600	1,1	XO.X18..
C6-R217.69-066-047-18.4AN	02717933	Seco-Capto	66,0	4	12	47,0	–	63,0	84,0	62,0	7700	1,7	XO.X18..
C8-R217.69-080-093-18.5SAN	02829948	Seco-Capto	80,0	5	30	93,0	–	80,0	140,0	110,0	7000	4,2	XO.X18..
R220.69-00063-047-18.4AN	02710017	Arbor	63,0	4	12	47,0	27,0	60,0	70,0	–	7900	0,9	XO.X18..
R220.69-00063-047-18.5AN	10178497	Arbor	63,0	5	15	47,0	27,0	59,0	70,0	–	7900	1,0	XO.X18..
R220.69-00063-062-18.3AN	02710032	Arbor	63,0	3	12	62,0	27,0	60,0	85,0	–	7900	1,2	XO.X18..
R220.69-00063-062-18.4AN	02710034	Arbor	63,0	4	16	62,0	27,0	60,0	85,0	–	7900	1,1	XO.X18..
R220.69-00063-077-18.4SAN	02717825	Arbor	63,0	4	20	77,0	27,0	60,0	100,0	–	7900	1,3	XO.X18..
R220.69-00080-047-18.5AN	02710037	Arbor	80,0	5	15	47,0	32,0	77,0	70,0	–	7000	1,7	XO.X18..
R220.69-00080-062-18.5AN	02710039	Arbor	80,0	5	20	62,0	32,0	77,0	85,0	–	7000	2,1	XO.X18..
R220.69-00080-077-18.4SAN	02717831	Arbor	80,0	4	20	77,0	32,0	77,0	100,0	–	7000	2,4	XO.X18..
R220.69-00100-062-18.6AN	02710042	Arbor	100,0	6	24	62,0	40,0	90,0	85,0	–	6300	3,4	XO.X18..
R220.69-00100-077-18.5SAN	02717833	Arbor	100,0	5	25	77,0	40,0	90,0	100,0	–	6300	4,0	XO.X18..

Modification of the cutter body needed for radii > 3,1 mm

Spare Parts, included in delivery

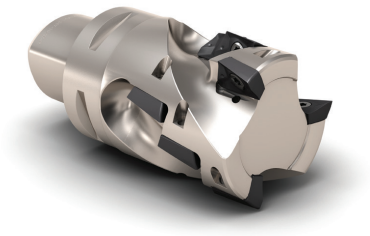
For cutter	Arbor screw	Assembly screw	Basic body	Insert key	Insert screw	Replaceable end
						
Cx-R217.69-..	–	–	–	H6B-T20P	C04510-T20P	–
C8-R217.69-080	–	MC6S16X40	C8-R217.69-080-062-18.5BAN	H6B-T20PL	C04510-T20P	R220.69-RE080031-18.5AN
R220.69-00063	MC6S12X60	–	–	H6B-T20P	C04510-T20P	–
R220.69-00063	MC6S12X60	–	–	1/4HEX-T20PX50	C04510-T20P	–
R220.69-00063-SAN	MP6S12X80	–	R220.69-00063046-18.4BAN	H6B-T20P	C04510-T20P	R220.69-RE063031-18.4AN
R220.69-00080	MC6S16X70	–	–	H6B-T20P	C04510-T20P	–
R220.69-00080-SAN	MP6S16X80	–	R220.69-00080046-18.4BAN	H6B-T20PL	C04510-T20P	R220.69-RE080031-18.4AN
R220.69-00100	MC6S20X70	–	–	H6B-T20PL	C04510-T20P	–
R220.69-00100-SAN	MP6S20X80	–	R220.69-00100046-18.5BAN	H6B-T20PL	C04510-T20P	R220.69-RE100031-18.5AN

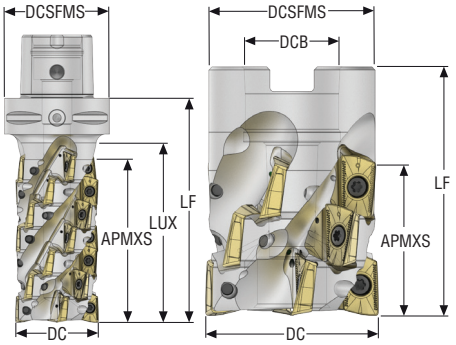
Accessories

For cutter	Adjustable Torque key	Coolant kit	Insert clamping torque	Torque key
				
Cx-R217/220.69-..	–	–	5.0NM	T00-20P50
Cx-R217/220.69-..	1/4HEX-S-HANDLE-0.8-5.0NM	–	5.0NM	T00-20P50
R220.69-00063-SAN	–	LUBRICATION_SET_29	5.0NM	T00-20P50
R220.69-00080-SAN	–	LUBRICATION_SET_36	5.0NM	T00-20P50
R220.69-00100-SAN	–	LUBRICATION_SET_44	5.0NM	T00-20P50

Torque and fixed keys, see page 872

Turbo 18 – R217/220.69-18 – Inch



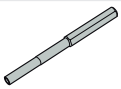


- For insert selection and cutting data recommendations, see page(s) 157-159
- For complete insert programme, see page(s) 850, 851
- For ISO attribute explanation, see page 16
- KAPRS 90°

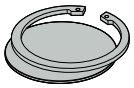
Designation	Item number	Type of mounting	DC	ZEFP	ZNP	APMXS	DCB	DCSFMS	LF	LUX	RPMX	Weight	Insert
			inch			inch	inch	inch	inch	inch		lbs	
C6-R217.69-02.00-18M3AN	02721715	Seco-Capto	2.000	3	12	2.441	–	2.480	3.898	3.031	8900	2.430	XO.X18
C6-R217.69-02.50-18M4AN	02721716	Seco-Capto	2.500	4	16	2.409	–	2.480	3.898	3.898	7900	4.190	XO.X18
R220.69-02.50-18S4AN	02710940	Arbor	2.500	4	12	1.866	1.000	2.441	2.750	–	7900	2.200	XO.X18
R220.69-02.50-18M4AN	02710937	Arbor	2.500	4	16	2.441	1.000	2.441	3.346	–	7900	2.200	XO.X18
R220.69-02.50-18L4SAN	02722279	Arbor	2.500	4	20	3.024	1.000	2.441	3.937	–	7900	3.090	XO.X18
R220.69-03.00-18M5AN	02710942	Arbor	3.000	5	20	2.480	1.250	2.890	3.500	–	7000	4.410	XO.X18
R220.69-03.00-18L4SAN	02722281	Arbor	3.000	4	20	3.024	1.250	2.890	3.937	–	7000	4.630	XO.X18
R220.69-04.00-18L5SAN	02722282	Arbor	4.000	5	25	3.024	1.500	3.543	3.937	–	6300	8.820	XO.X18

Modification of the cutter body needed for radii > 0.122 in

Spare Parts, included in delivery

For cutter	Arbor screw	Basic body	Insert key	Insert screw	Replaceable end
					
Cx-R217.69-..	–	–	H6B-T20P	C04510-T20P	–
R220.69-02.50S	UC6S1/2UNFX2-1/2	–	H6B-T20P	C04510-T20P	–
R220.69-02.50M	UC6S1/2UNFX3	–	H6B-T20P	C04510-T20P	–
R220.69-02.50L	UP6S1/2UNFX3-1/4	R220.69-02.50-18L4BAN	H6B-T20P	C04510-T20P	R220.69-02.50-RE-18.4AN
R220.69-03.00M	UC6S5/8UNFX3	–	H6B-T20P	C04510-T20P	–
R220.69-03.00S	UP6S5/8UNFX3-1/4	R220.69-03.00-18L4BAN	H6B-T20PL	C04510-T20P	R220.69-03.00-RE-18.4AN
R220.69-04.00S	UP6S3/4UNFX3-1/4	R220.69-04.00-18L5BAN	H6B-T20PL	C04510-T20P	R220.69-04.00-RE-18.5AN

Accessories

For cutter	Coolant kit	Insert clamping torque	Torque key
			
Cx-R217/220.69-..	–	44.3IN.LBS	T00-20P50
R220.69-02.50-SAN	LUBRICATIONSET29	44.3IN.LBS	T00-20P50
R220.69-03.00-SAN	LUBRICATIONSET36	44.3IN.LBS	T00-20P50
R220.69-04.00-SAN	LUBRICATIONSET44	44.3IN.LBS	T00-20P50

Torque and fixed keys, see page 872

R217/220.69-18 – Insert selection – mm/*Inch*

SMG		f_z		
		100%	30%	10%
P1	XOMX180608TR-ME13 MP2501	0,15 *0.0060*	0,16 *0.0065*	0,24 *0.0095*
P2	XOMX180608TR-ME13 MP2501	0,15 *0.0060*	0,16 *0.0065*	0,25 *0.010*
P3	XOMX180608TR-ME13 MP2501	0,14 *0.0055*	0,15 *0.0060*	0,24 *0.0095*
P4	XOMX180608TR-M14 MP2501	0,15 *0.0060*	0,16 *0.0065*	0,25 *0.010*
P5	XOMX180608TR-M14 MP2501	0,15 *0.0060*	0,16 *0.0065*	0,24 *0.0095*
P6	XOMX180608TR-M14 MP2501	0,14 *0.0055*	0,16 *0.0065*	0,24 *0.0095*
P7	XOMX180608TR-M14 MP2501	0,14 *0.0055*	0,16 *0.0065*	0,24 *0.0095*
P8	XOMX180608TR-M14 MP2501	0,15 *0.0060*	0,17 *0.0065*	0,25 *0.010*
P11	XOMX180608TR-M14 MP3501	0,14 *0.0055*	0,16 *0.0065*	0,24 *0.0095*
P12	XOMX180608TR-M14 MP3000	0,10 *0.0040*	0,11 *0.0044*	0,17 *0.0065*
M1	XOMX180608R-M10 MS2050	0,11 *0.0044*	0,12 *0.0048*	0,19 *0.0075*
M2	XOMX180608R-M10 MS2050	0,10 *0.0040*	0,11 *0.0044*	0,17 *0.0065*
M3	XOMX180608R-M10 MS2050	0,085 *0.0034*	0,090 *0.0036*	0,14 *0.0055*
M4	XOMX180608TR-M14 MP3501	0,10 *0.0040*	0,11 *0.0044*	0,17 *0.0065*
M5	XOMX180608TR-M14 MP3501	0,10 *0.0040*	0,11 *0.0044*	0,17 *0.0065*
K1	XOMX180608TR-MD15 MK2050	0,17 *0.0065*	0,19 *0.0075*	0,28 *0.011*
K2	XOMX180608TR-MD15 MK2050	0,16 *0.0065*	0,17 *0.0065*	0,26 *0.010*
K3	XOMX180608TR-MD15 MK2050	0,16 *0.0065*	0,17 *0.0065*	0,26 *0.010*
K4	XOMX180608TR-MD15 MK2050	0,16 *0.0065*	0,17 *0.0065*	0,26 *0.010*
K5	XOMX180608TR-MD15 MK2050	0,14 *0.0055*	0,15 *0.0060*	0,24 *0.0095*
K6	XOMX180608TR-MD15 MK2050	0,16 *0.0065*	0,17 *0.0065*	0,26 *0.010*
K7	XOMX180608TR-MD15 MK2050	0,14 *0.0055*	0,15 *0.0060*	0,24 *0.0095*
N1	XOEX180608FR-E10 H25	0,15 *0.0060*	0,16 *0.0065*	0,24 *0.0095*
N2	XOEX180608FR-E10 H25	0,15 *0.0060*	0,16 *0.0065*	0,24 *0.0095*
N3	XOEX180608FR-E10 H25	0,15 *0.0060*	0,16 *0.0065*	0,24 *0.0095*
N11	XOEX180608FR-E10 H25	0,15 *0.0060*	0,16 *0.0065*	0,24 *0.0095*
S1	XOMX180608R-M10 F40M	0,075 *0.0030*	0,080 *0.0032*	0,12 *0.0048*
S2	XOMX180608R-M10 F40M	0,075 *0.0030*	0,080 *0.0032*	0,12 *0.0048*
S3	XOMX180608R-M10 F40M	0,070 *0.0028*	0,075 *0.0030*	0,11 *0.0044*
S11	XOMX180608R-M10 MS2050	0,085 *0.0034*	0,090 *0.0036*	0,14 *0.0055*
S12	XOMX180608R-M10 MS2050	0,085 *0.0034*	0,090 *0.0036*	0,14 *0.0055*
S13	XOMX180608R-M10 MS2050	0,075 *0.0030*	0,080 *0.0032*	0,12 *0.0048*
H5	XOMX180608TR-MD15 MP3000	0,11 *0.0044*	0,12 *0.0048*	0,18 *0.0070*
H8	XOMX180608TR-MD15 MP3000	0,080 *0.0032*	0,090 *0.0036*	0,14 *0.0055*
H11	XOMX180608TR-MD15 MP3000	0,11 *0.0044*	0,12 *0.0048*	0,18 *0.0070*
H12	XOMX180608TR-M14 MP3000	0,075 *0.0030*	0,085 *0.0034*	0,13 *0.0050*

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

R217/220.69-18 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	MK2050			F30M			MP3000			MS2050			F40M			H25		
	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%
P1	140 *460*	155 *510*	165 *540*	130 *425*	145 *475*	155 *510*	140 *460*	155 *510*	165 *540*	140 *460*	155 *510*	165 *540*	125 *410*	140 *460*	155 *510*	— —	— —	— —
P2	140 *460*	155 *510*	165 *540*	125 *410*	145 *475*	155 *510*	135 *445*	155 *510*	165 *540*	140 *460*	155 *510*	165 *540*	125 *410*	140 *460*	150 *490*	— —	— —	— —
P3	130 *425*	145 *475*	155 *510*	120 *395*	135 *445*	145 *475*	130 *425*	145 *475*	155 *510*	130 *425*	145 *475*	155 *510*	115 *375*	130 *425*	145 *475*	— —	— —	— —
P4	120 *395*	140 *460*	150 *490*	110 *360*	130 *425*	140 *460*	120 *395*	140 *460*	150 *490*	120 *395*	140 *460*	150 *490*	110 *360*	125 *410*	135 *445*	— —	— —	— —
P5	120 *395*	135 *445*	145 *475*	110 *360*	125 *410*	135 *445*	120 *395*	135 *445*	145 *475*	120 *395*	135 *445*	145 *475*	105 *345*	120 *395*	135 *445*	— —	— —	— —
P6	130 *425*	145 *475*	155 *510*	115 *375*	130 *425*	145 *475*	125 *410*	145 *475*	155 *510*	125 *410*	145 *475*	155 *510*	115 *375*	130 *425*	140 *460*	— —	— —	— —
P7	125 *410*	140 *460*	150 *490*	115 *375*	130 *425*	140 *460*	125 *410*	140 *460*	150 *490*	125 *410*	140 *460*	150 *490*	110 *360*	125 *410*	135 *445*	— —	— —	— —
P8	120 *395*	135 *445*	145 *475*	110 *360*	125 *410*	135 *445*	120 *395*	135 *445*	145 *475*	120 *395*	135 *445*	145 *475*	105 *345*	120 *395*	130 *425*	— —	— —	— —
P11	120 *395*	140 *460*	150 *490*	110 *360*	125 *410*	140 *460*	120 *395*	140 *460*	150 *490*	120 *395*	140 *460*	150 *490*	110 *360*	125 *410*	135 *445*	— —	— —	— —
P12	95 *310*	115 *375*	125 *410*	85 *280*	100 *330*	110 *360*	95 *310*	110 *360*	120 *395*	95 *310*	110 *360*	120 *395*	80 *260*	100 *330*	110 *360*	— —	— —	— —
M1	— —	— —	— —	115 *375*	130 *425*	140 *460*	120 *395*	135 *445*	145 *475*	125 *410*	140 *460*	150 *490*	110 *360*	130 *425*	140 *460*	— —	— —	— —
M2	— —	— —	— —	100 *330*	120 *395*	130 *425*	110 *360*	125 *410*	135 *445*	115 *375*	130 *425*	140 *460*	100 *330*	115 *375*	125 *410*	— —	— —	— —
M3	— —	— —	— —	90 *295*	105 *345*	115 *375*	95 *310*	110 *360*	125 *410*	100 *330*	115 *375*	125 *410*	85 *280*	105 *345*	115 *375*	— —	— —	— —
M4	— —	— —	— —	75 *245*	90 *295*	100 *330*	80 *260*	100 *330*	110 *360*	85 *280*	100 *330*	110 *360*	70 *230*	90 *295*	100 *330*	— —	— —	— —
M5	— —	— —	— —	65 *215*	80 *260*	90 *295*	70 *230*	85 *280*	95 *310*	75 *245*	90 *295*	100 *330*	60 *195*	80 *260*	90 *295*	— —	— —	— —
K1	140 *460*	160 *520*	170 *560*	110 *360*	130 *425*	140 *460*	125 *410*	140 *460*	150 *490*	— —	— —	— —	110 *360*	125 *410*	135 *445*	— —	— —	— —
K2	135 *445*	150 *490*	165 *540*	105 *345*	120 *395*	135 *445*	115 *375*	135 *445*	145 *475*	— —	— —	— —	100 *330*	120 *395*	130 *425*	— —	— —	— —
K3	125 *410*	140 *460*	155 *510*	95 *310*	110 *360*	125 *410*	105 *345*	125 *410*	135 *445*	— —	— —	— —	90 *295*	110 *360*	120 *395*	— —	— —	— —
K4	120 *395*	140 *460*	150 *490*	90 *295*	110 *360*	120 *395*	100 *330*	120 *395*	130 *425*	— —	— —	— —	90 *295*	105 *345*	115 *375*	— —	— —	— —
K5	95 *310*	110 *360*	120 *395*	65 *215*	80 *260*	90 *295*	75 *245*	90 *295*	100 *330*	— —	— —	— —	60 *195*	80 *260*	85 *280*	— —	— —	— —
K6	115 *375*	130 *425*	140 *460*	85 *280*	100 *330*	110 *360*	95 *310*	110 *360*	125 *410*	— —	— —	— —	80 *260*	100 *330*	110 *360*	— —	— —	— —
K7	110 *360*	125 *410*	135 *445*	80 *260*	95 *310*	105 *345*	90 *295*	105 *345*	115 *375*	— —	— —	— —	75 *245*	90 *295*	100 *330*	— —	— —	— —
N1	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	230 *750*	245 *800*	255 *840*	235 *770*	255 *840*	265 *870*
N2	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	175 *570*	190 *620*	200 *660*	185 *610*	200 *660*	210 *690*
N3	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	150 *490*	170 *560*	180 *590*	160 *520*	175 *570*	185 *610*
N11	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	160 *520*	175 *570*	185 *610*	165 *540*	185 *610*	195 *640*
S1	— —	— —	— —	36 *120*	47 *155*	55 *180*	40 *130*	50 *165*	60 *195*	42 *140*	55 *180*	65 *215*	34 *110*	45 *150*	55 *180*	— —	— —	— —
S2	— —	— —	— —	29 *95*	38 *125*	45 *150*	32 *105*	42 *140*	50 *165*	34 *110*	45 *150*	55 *180*	28 *90*	36 *120*	43 *140*	— —	— —	— —
S3	— —	— —	— —	25 *80*	34 *110*	39 *130*	28 *90*	37 *120*	44 *145*	30 *100*	39 *130*	46 *150*	24 *80*	32 *105*	38 *125*	— —	— —	— —
S11	— —	— —	— —	— —	— —	— —	— —	— —	— —	60 *195*	75 *245*	85 *280*	47 *155*	60 *195*	75 *245*	— —	— —	— —
S12	— —	— —	— —	— —	— —	— —	— —	— —	— —	41 *135*	55 *180*	65 *215*	33 *110*	43 *140*	50 *165*	— —	— —	— —
S13	— —	— —	— —	— —	— —	— —	— —	— —	— —	24 *80*	31 *100*	37 *120*	19 *60*	25 *80*	30 *100*	— —	— —	— —
H5	— —	— —	— —	30 *100*	40 *130*	47 *155*	34 *110*	44 *145*	50 *165*	— —	— —	— —	29 *95*	38 *125*	45 *150*	— —	— —	— —
H8	— —	— —	— —	33 *110*	42 *140*	50 *165*	36 *120*	47 *155*	55 *180*	— —	— —	— —	31 *100*	40 *130*	48 *155*	— —	— —	— —
H11	— —	— —	— —	38 *125*	50 *165*	60 *195*	43 *140*	55 *180*	65 *215*	— —	— —	— —	37 *120*	48 *155*	55 *180*	— —	— —	— —
H12	— —	— —	— —	60 *195*	75 *245*	85 *280*	70 *230*	85 *280*	95 *310*	— —	— —	— —	55 *180*	70 *230*	80 *260*	— —	— —	— —

R217/220.69-18 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	MK1500			MP1501			MP2501			MP3501		
	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%
P1	—	—	—	165	175	185	160	175	185	155	170	175
	—	—	—	*540*	*570*	*610*	*520*	*570*	*610*	*510*	*560*	*570*
P2	—	—	—	160	175	185	160	175	180	155	170	175
	—	—	—	*520*	*570*	*610*	*520*	*570*	*590*	*510*	*560*	*570*
P3	—	—	—	155	165	175	155	165	175	145	160	165
	—	—	—	*510*	*540*	*570*	*510*	*540*	*570*	*475*	*520*	*540*
P4	—	—	—	145	160	165	145	160	165	140	150	160
	—	—	—	*475*	*520*	*540*	*475*	*520*	*540*	*460*	*490*	*520*
P5	—	—	—	145	155	165	140	155	165	135	150	155
	—	—	—	*475*	*510*	*540*	*460*	*510*	*540*	*445*	*490*	*510*
P6	—	—	—	150	165	170	150	165	170	145	155	165
	—	—	—	*490*	*540*	*560*	*490*	*540*	*560*	*475*	*510*	*540*
P7	—	—	—	150	160	170	145	160	165	140	155	160
	—	—	—	*490*	*520*	*560*	*475*	*520*	*540*	*460*	*510*	*520*
P8	—	—	—	145	155	165	140	155	165	135	150	155
	—	—	—	*475*	*510*	*540*	*460*	*510*	*540*	*445*	*490*	*510*
P11	—	—	—	145	160	165	145	160	165	140	150	160
	—	—	—	*475*	*520*	*540*	*475*	*520*	*540*	*460*	*490*	*520*
P12	—	—	—	120	130	140	120	130	140	115	125	130
	—	—	—	*395*	*425*	*460*	*395*	*425*	*460*	*375*	*410*	*425*
M1	—	—	—	—	—	—	120	140	150	115	135	145
	—	—	—	—	—	—	*395*	*460*	*490*	*375*	*445*	*475*
M2	—	—	—	—	—	—	110	125	135	105	120	130
	—	—	—	—	—	—	*360*	*410*	*445*	*345*	*395*	*425*
M3	—	—	—	—	—	—	95	115	125	90	110	120
	—	—	—	—	—	—	*310*	*375*	*410*	*295*	*360*	*395*
M4	—	—	—	—	—	—	80	100	110	80	95	105
	—	—	—	—	—	—	*260*	*330*	*360*	*260*	*310*	*345*
M5	—	—	—	—	—	—	70	90	100	65	85	95
	—	—	—	—	—	—	*230*	*295*	*330*	*215*	*280*	*310*
K1	145	160	175	160	175	185	160	175	185	155	170	175
	475	*520*	*570*	*520*	*570*	*610*	*520*	*570*	*610*	*510*	*560*	*570*
K2	140	155	165	155	170	175	155	165	175	145	160	170
	460	*510*	*540*	*510*	*560*	*570*	*510*	*540*	*570*	*475*	*520*	*560*
K3	130	145	155	145	160	165	145	155	165	135	150	160
	425	*475*	*510*	*475*	*520*	*540*	*475*	*510*	*540*	*445*	*490*	*520*
K4	125	145	155	140	155	165	140	155	165	135	150	155
	410	*475*	*510*	*460*	*510*	*540*	*460*	*510*	*540*	*445*	*490*	*510*
K5	95	115	125	115	125	135	115	125	135	105	120	125
	310	*375*	*410*	*375*	*410*	*445*	*375*	*410*	*445*	*345*	*395*	*410*
K6	120	135	145	135	150	155	135	145	155	125	140	150
	395	*445*	*475*	*445*	*490*	*510*	*445*	*475*	*510*	*410*	*460*	*490*
K7	110	130	140	130	140	150	125	140	145	120	135	140
	360	*425*	*460*	*425*	*460*	*490*	*410*	*460*	*475*	*395*	*445*	*460*
N1	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—
N2	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—
N3	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—
N11	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—
S1	—	—	—	—	—	—	—	—	—	38	50	60
	—	—	—	—	—	—	—	—	—	*125*	*165*	*195*
S2	—	—	—	—	—	—	—	—	—	30	40	47
	—	—	—	—	—	—	—	—	—	*100*	*130*	*155*
S3	—	—	—	—	—	—	—	—	—	27	35	41
	—	—	—	—	—	—	—	—	—	*90*	*115*	*135*
S11	—	—	—	—	—	—	—	—	—	50	70	80
	—	—	—	—	—	—	—	—	—	*165*	*230*	*260*
S12	—	—	—	—	—	—	—	—	—	36	48	55
	—	—	—	—	—	—	—	—	—	*120*	*155*	*180*
S13	—	—	—	—	—	—	—	—	—	21	28	33
	—	—	—	—	—	—	—	—	—	*70*	*90*	*110*
H5	—	—	—	43	55	65	—	—	—	33	44	50
	—	—	—	*140*	*180*	*215*	—	—	—	*110*	*145*	*165*
H8	—	—	—	46	60	70	—	—	—	36	47	55
	—	—	—	*150*	*195*	*230*	—	—	—	*120*	*155*	*180*
H11	—	—	—	55	70	80	—	—	—	42	55	65
	—	—	—	*180*	*230*	*260*	—	—	—	*140*	*180*	*215*
H12	—	—	—	80	95	105	—	—	—	65	80	90
	—	—	—	*260*	*310*	*345*	—	—	—	*215*	*260*	*295*

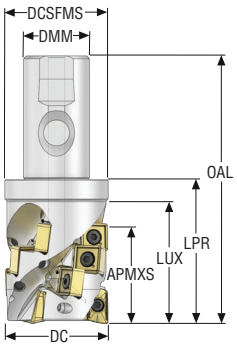


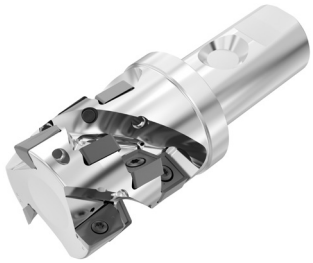
HELICAL SN8-13

Keep up with customer demand for lower part prices. The Seco Helical SN8-13 features double-sided helix inserts with eight cutting edges that significantly lower cost per edge to boost slotting, side milling and circular rough milling efficiency. Built for difficult applications involving ISO P, M, K and S materials, the cutters offer application-specific sub-family designs featuring left or right-hand helixes, half or full effective teeth options, two front insert and many radii choices for long tool life and maximum chip evacuation. Reliable and user-friendly, the Helical SN8-13 also eliminates incorrect indexing of front and helix inserts, reducing operator error.

- Range is built with 4 sub families built with SN13 helix insert:
- SN.U13 insert offering 8 cutting edges in 3 geometries and several grades
- R217/220.82: XO16 lead insert = First choice
- R217/220.82-H: AC15 lead insert = Heavy Duty, R220.69-15H replacement
- R217/220.81: AC15 lead insert = Low Power, R215/220.59 replacement
- R217/220.81-K: AC15 lead insert = Long reach, R215/220.59 replacement

R217.82-SNXO16 – Metric

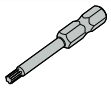




- For insert selection and cutting data recommendations, see page(s) 165-166
- For complete insert programme, see page(s) 825, 848, 849
- For ISO attribute explanation, see page 16
- KAPRS 90°

Designation	Item number	Type of mounting	DC	ZEFP	ZNP	APMXS	DMM	DCSFMS	LUX	LPR	OAL	RPMX	Weight	Insert
			mm			mm	mm	mm	mm	mm	mm		kg	
R217.82-3250.3S-047-SNXO16.3A	10127480	Seco-Weldon	50,0	3	12	47,0	32,0	50,0	60,0	70,0	130,0	11800	1,0	XO.X1605 / SN.U1306

Spare Parts, included in delivery

For cutter	Insert key	Insert screw	Insert screw 2
			
R217.82-..	1/4HEX-T15PX50	C55011-T15P	C04011-T15P

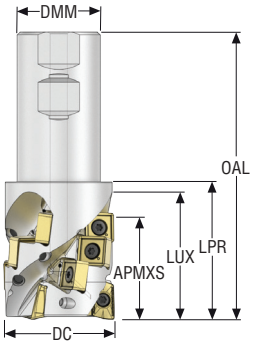
Accessories

For cutter	Adjustable Torque key	Insert clamping torque	Insert clamping torque 2	Torque key	Torque key 2
					
R217.82-..	1/4HEX-S-HANDLE-0.8-5.0NM	5.0NM	3.5NM	T00-15P50	T00-15P35

Torque and fixed keys, see page 872

R217.82-SNXO16 – inch

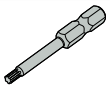




- For insert selection and cutting data recommendations, see page(s) 165-166
- For complete insert programme, see page(s) 825, 848, 849
- For ISO attribute explanation, see page 16
- KAPRS 90°

Designation	Item number	Type of mounting	DC	ZEFP	ZNP	APMXS	DMM	LUX	LPR	OAL	RPMX	Weight	Insert
			inch			inch	inch	inch	inch	inch		lbs	
R217.82-02.00-3-1.85-SNXO16.3A	10127485	Weldon	2.000	3	12	1.850	1.500	2.362	2.441	5.169	11800	2.650	XO.X1605 / SN.U1306

Spare Parts, included in delivery

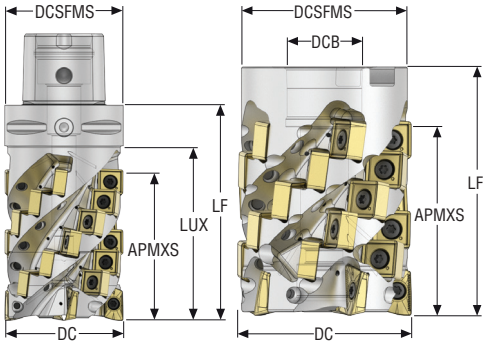
For cutter	Insert key	Insert screw	Insert screw 2
			
R217.82-..	1/4HEX-T15PX50	C55011-T15P	C04011-T15P

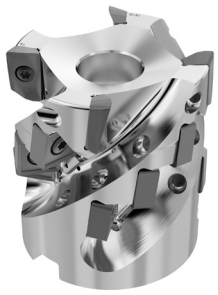
Accessories

For cutter	Adjustable Torque key	Insert clamping torque	Insert clamping torque 2	Torque key	Torque key 2
					
R217.82-..	1/4HEX-S-HANDLE-0.8-5.0NM	44.3IN.LBS	31.0IN.LBS	T00-15P50	T00-15P35

Torque and fixed keys, see page 872

R220.82-SNXO16 – Metric





- For insert selection and cutting data recommendations, see page(s) 165-166
- For complete insert programme, see page(s) 825, 848, 849
- For ISO attribute explanation, see page 16
- KAPRS 90°

Designation	Item number	Type of mounting	DC	ZEFP	ZNP	APMXS	DCB	DCSFMS	LF	LUX	RPMX	Weight	Insert
			mm			mm	mm	mm	mm	mm		kg	
C6-R217.82-063-079-SNXO16.4SA	10127467	Seco-Capto	63,0	4	28	79,0	–	63,0	115,0	92,2	7400	2,0	XO.X1605 / SN.U1306
R220.82-0063-047-SNXO16.4A	10127481	Arbor	63,0	4	16	47,0	27,0	59,0	70,0	–	10500	0,9	XO.X1605 / SN.U1306
R220.82-0063-069-SNXO16.5A	10127482	Arbor	63,0	5	30	69,0	27,0	59,0	90,0	–	10500	1,2	XO.X1605 / SN.U1306
R220.82-0080-068-SNXO16.5A	10127483	Arbor	80,0	5	30	68,0	32,0	75,0	90,0	–	6500	1,9	XO.X1605 / SN.U1306
R220.82-0080-079-SNXO16.6A	10127484	Arbor	80,0	6	42	79,0	32,0	75,0	100,0	–	6500	2,2	XO.X1605 / SN.U1306

Spare Parts, included in delivery

For cutter	Arbor screw	Assembly screw	Basic body	Insert key	Insert screw	Insert screw 2	Replaceable end
							
Cx-R217.82	–	MC6S5X35	C6-R217.82-063-043-SN.4BA	1/4HEX-T15PX50	C55011-T15P	C04011-T15P	R220.82-RE063-036-SNXO16.4A
R220.82-0063-047	MC6S12X60	–	–	1/4HEX-T15PX50	C55011-T15P	C04011-T15P	–
R220.82-0063-069	MC6S12X80	–	–	1/4HEX-T15PX50	C55011-T15P	C04011-T15P	–
R220.82-0080	MP6S16X80	–	–	1/4HEX-T15PX90	C55011-T15P	C04011-T15P	–

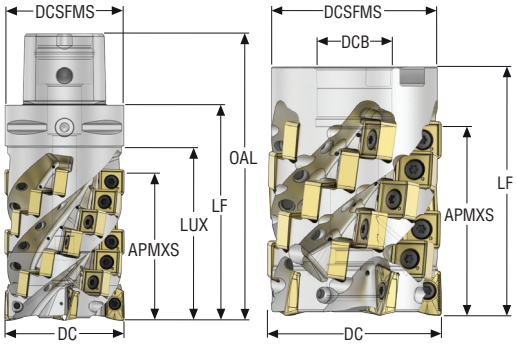
Accessories

For cutter	Adjustable Torque key	Insert clamping torque	Insert clamping torque 2	Torque key	Torque key 2
					
Cx-R217/220.82	1/4HEX-S-HANDLE-0.8-5.0NM	5.0NM	3.5NM	T00-15P50	T00-15P35

Torque and fixed keys, see page 872

R220.82-SNXO16 – inch

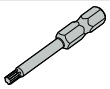
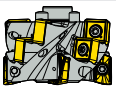




- For insert selection and cutting data recommendations, see page(s) 165-166
- For complete insert programme, see page(s) 825, 848, 849
- For ISO attribute explanation, see page 16
- KAPRS 90°

Designation	Item number	Type of mounting	DC	ZEFP	ZNP	APMXS	DCB	DCSFMS	LF	RPMX	Weight	Insert
			inch			inch	inch	inch	inch		lbs	
C6-R217.82-2.5-3.11-SNXO16.4SA	10128065	Seco-Capto	2.500	4	28	3.110	–	2.480	4.528	7400	3.970	XO.X1605 / SN.U1306
R220.82-02.50-1.85-SNXO16.4A	10127486	Arbor	2.500	4	16	1.850	1.000	2.323	2.750	10500	1.980	XO.X1605 / SN.U1306
R220.82-02.50-2.75-SNXO16.5A	10127487	Arbor	2.500	5	30	2.717	1.000	2.323	3.500	10500	2.650	XO.X1605 / SN.U1306
R220.82-03.00-2.68-SNXO16.5A	10127488	Arbor	3.000	5	30	2.677	1.250	2.795	3.500	6500	3.750	XO.X1605 / SN.U1306
R220.82-03.00-3.11-SNXO16.6A	10127489	Arbor	3.000	6	42	3.110	1.250	2.795	3.938	6500	4.190	XO.X1605 / SN.U1306

Spare Parts, included in delivery

For cutter	Arbor screw	Assembly screw	Basic body	Insert key	Insert screw	Insert screw 2	Replaceable end
							
Cx-R217.82	–	UC6S10UNFX1-1/2	C6-R217.82-2.5-1.69-SN.4BA	1/4HEX-T15PX50	C55011-T15P	C04011-T15P	R220.82-RE02.50-1.42-SNXO16.4A
R220.82-02.50.4A	UC6S1/2UNFX2-1/4	–	–	1/4HEX-T15PX50	C55011-T15P	C04011-T15P	–
R220.82-02.50.5A	UC6S1/2UNFX3	–	–	1/4HEX-T15PX50	C55011-T15P	C04011-T15P	–
R220.82-03.00	UP6S5/8UNFX3-1/4	–	–	1/4HEX-T15PX90	C55011-T15P	C04011-T15P	–

Accessories

For cutter	Adjustable Torque key	Insert clamping torque	Insert clamping torque 2	Torque key	Torque key 2
					
Cx-R217/220.82-..	1/4HEX-S-HANDLE-0.8-5.0NM	44.3IN.LBS	31.0IN.LBS	T00-15P50	T00-15P35

Torque and fixed keys, see page 872

R217/220.82-SNXO16 – Insert selection – mm/*Inch*

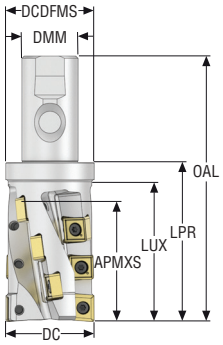
SMG			f_z		
			100%	30%	10%
P1	XOMX160508TR-M13 MP2501	SNXU130612TN-M12 MP2501	0,15 *0.0060*	0,16 *0.0065*	0,24 *0.0095*
P2	XOMX160508TR-M13 MP2501	SNXU130612TN-M12 MP2501	0,15 *0.0060*	0,16 *0.0065*	0,25 *0.010*
P3	XOMX160508TR-M13 MP2501	SNXU130612TN-M12 MP2501	0,14 *0.0055*	0,15 *0.0060*	0,24 *0.0095*
P4	XOMX160508TR-M13 MP2501	SNXU130612TN-M12 MP2501	0,14 *0.0055*	0,15 *0.0060*	0,24 *0.0095*
P5	XOMX160508TR-MD14 MP1501	SNGU130612TN-M14 MP1501	0,15 *0.0060*	0,16 *0.0065*	0,24 *0.0095*
P6	XOMX160508TR-MD14 MP1501	SNGU130612TN-M14 MP1501	0,14 *0.0055*	0,16 *0.0065*	0,24 *0.0095*
P7	XOMX160508TR-MD14 MP1501	SNGU130612TN-M14 MP1501	0,14 *0.0055*	0,16 *0.0065*	0,24 *0.0095*
P8	XOMX160508TR-MD14 MP1501	SNGU130612TN-M14 MP1501	0,15 *0.0060*	0,17 *0.0065*	0,25 *0.010*
P11	XOMX160508TR-ME11 MP3501	SNXU130612TN-M12 MP3501	0,11 *0.0044*	0,12 *0.0048*	0,19 *0.0075*
P12	XOMX160508TR-ME11 MP3501	SNXU130612TN-M12 MP3501	0,080 *0.0032*	0,085 *0.0034*	0,13 *0.0050*
M1	XOMX160508R-M09 MS2050	SNGU130612EN-ME10 MS2050	0,10 *0.0040*	0,11 *0.0044*	0,17 *0.0065*
M2	XOMX160508R-M09 MS2050	SNGU130612EN-ME10 MS2050	0,095 *0.0038*	0,10 *0.0040*	0,16 *0.0065*
M3	XOMX160508R-M09 MS2050	SNGU130612EN-ME10 MS2050	0,075 *0.0030*	0,080 *0.0032*	0,13 *0.0050*
M4	XOMX160508TR-ME11 MS2050	SNGU130612EN-ME10 MS2050	0,080 *0.0032*	0,090 *0.0036*	0,13 *0.0050*
M5	XOMX160508TR-ME11 MS2050	SNGU130612EN-ME10 MS2050	0,080 *0.0032*	0,090 *0.0036*	0,13 *0.0050*
K1	XOMX160508TR-M13 MK2050	SNGU130612TN-M14 MK2050	0,15 *0.0060*	0,16 *0.0065*	0,25 *0.010*
K2	XOMX160508TR-M13 MK2050	SNGU130612TN-M14 MK2050	0,14 *0.0055*	0,15 *0.0060*	0,22 *0.0085*
K3	XOMX160508TR-M13 MK2050	SNGU130612TN-M14 MK2050	0,14 *0.0055*	0,15 *0.0060*	0,22 *0.0085*
K4	XOMX160508TR-M13 MK2050	SNGU130612TN-M14 MK2050	0,14 *0.0055*	0,15 *0.0060*	0,22 *0.0085*
K5	XOMX160508TR-M13 MK2050	SNGU130612TN-M14 MK2050	0,12 *0.0048*	0,13 *0.0050*	0,20 *0.0080*
K6	XOMX160508TR-M13 MK2050	SNGU130612TN-M14 MK2050	0,14 *0.0055*	0,15 *0.0060*	0,22 *0.0085*
K7	XOMX160508TR-M13 MK2050	SNGU130612TN-M14 MK2050	0,12 *0.0048*	0,13 *0.0050*	0,20 *0.0080*
S1	XOMX160508TR-ME11 F40M	SNGU130612EN-ME10 MS2050	0,080 *0.0032*	0,090 *0.0036*	0,13 *0.0050*
S2	XOMX160508TR-ME11 F40M	SNGU130612EN-ME10 MS2050	0,080 *0.0032*	0,090 *0.0036*	0,13 *0.0050*
S3	XOMX160508TR-ME11 F40M	SNGU130612EN-ME10 MS2050	0,075 *0.0030*	0,080 *0.0032*	0,12 *0.0048*
S11	XOMX160508TR-ME11 MS2050	SNGU130612EN-ME10 MS2050	0,090 *0.0036*	0,10 *0.0040*	0,15 *0.0060*
S12	XOMX160508TR-ME11 MS2050	SNGU130612EN-ME10 MS2050	0,090 *0.0036*	0,10 *0.0040*	0,15 *0.0060*
S13	XOMX160508TR-ME11 MS2050	SNGU130612EN-ME10 MS2050	0,080 *0.0032*	0,090 *0.0036*	0,13 *0.0050*
H5	XOMX160508TR-MD14 MP1501	SNGU130612TN-M14 MP1501	0,10 *0.0040*	0,11 *0.0044*	0,17 *0.0065*
H11	XOMX160508TR-MD14 MP1501	SNGU130612TN-M14 MP1501	0,10 *0.0040*	0,11 *0.0044*	0,17 *0.0065*
H12	XOMX160508TR-ME11 MP2050	SNGU130612EN-ME10 MP2050	0,060 *0.0024*	0,065 *0.0026*	0,10 *0.0040*

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

R217/220.82-SNXO16 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	MK2050			MS2050			F40M			MS2500			MP1501			MP2501			MS2500			MP3501		
	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%
P1	135 *445*	150 *490*	160 *520*	125 *410*	140 *460*	150 *490*	120 *395*	135 *445*	145 *475*	140 *460*	155 *510*	165 *540*	155 *510*	165 *540*	175 *570*	155 *510*	165 *540*	170 *560*	140 *460*	155 *510*	165 *540*	150 *490*	160 *520*	170 *560*
P2	135 *445*	150 *490*	160 *520*	125 *410*	140 *460*	150 *490*	120 *395*	135 *445*	145 *475*	140 *460*	155 *510*	165 *540*	150 *490*	165 *540*	170 *560*	150 *490*	165 *540*	170 *560*	140 *460*	155 *510*	165 *540*	145 *475*	160 *520*	165 *540*
P3	125 *410*	140 *460*	150 *490*	115 *375*	130 *425*	140 *460*	110 *360*	125 *410*	135 *445*	130 *425*	145 *475*	155 *510*	145 *475*	155 *510*	165 *540*	145 *475*	155 *510*	165 *540*	130 *425*	145 *475*	155 *510*	140 *460*	150 *490*	160 *520*
P4	120 *395*	135 *445*	145 *475*	110 *360*	125 *410*	135 *445*	105 *345*	120 *395*	130 *425*	125 *410*	140 *460*	150 *490*	140 *460*	150 *490*	155 *510*	135 *445*	150 *490*	155 *510*	125 *410*	140 *460*	150 *490*	135 *445*	145 *475*	150 *490*
P5	120 *395*	130 *425*	140 *460*	110 *360*	125 *410*	135 *445*	105 *345*	120 *395*	130 *425*	125 *410*	140 *460*	150 *490*	135 *445*	150 *490*	155 *510*	135 *445*	145 *475*	155 *510*	125 *410*	140 *460*	150 *490*	130 *425*	140 *460*	150 *490*
P6	125 *410*	140 *460*	150 *490*	115 *375*	130 *425*	140 *460*	110 *360*	125 *410*	135 *445*	130 *425*	145 *475*	155 *510*	145 *475*	155 *510*	160 *520*	140 *460*	155 *510*	160 *520*	130 *425*	145 *475*	155 *510*	140 *460*	150 *490*	155 *510*
P7	120 *395*	135 *445*	145 *475*	110 *360*	125 *410*	135 *445*	105 *345*	120 *395*	130 *425*	125 *410*	140 *460*	150 *490*	140 *460*	150 *490*	160 *520*	140 *460*	150 *490*	155 *510*	125 *410*	140 *460*	150 *490*	135 *445*	145 *475*	155 *510*
P8	115 *375*	130 *425*	140 *460*	105 *345*	125 *410*	130 *425*	100 *330*	120 *395*	125 *410*	120 *395*	140 *460*	145 *475*	135 *445*	145 *475*	155 *510*	135 *445*	145 *475*	155 *510*	120 *395*	140 *460*	145 *475*	130 *425*	140 *460*	150 *490*
P11	120 *395*	135 *445*	145 *475*	110 *360*	125 *410*	135 *445*	105 *345*	120 *395*	130 *425*	125 *410*	140 *460*	150 *490*	140 *460*	150 *490*	155 *510*	135 *445*	150 *490*	155 *510*	125 *410*	140 *460*	150 *490*	135 *445*	145 *475*	150 *490*
P12	95 *310*	110 *360*	120 *395*	85 *280*	100 *330*	110 *360*	80 *260*	95 *310*	105 *345*	100 *330*	115 *375*	125 *410*	115 *375*	125 *410*	130 *425*	115 *375*	125 *410*	130 *425*	100 *330*	115 *375*	125 *410*	110 *360*	120 *395*	125 *410*
M1	— —	— —	— —	110 *360*	130 *425*	140 *460*	105 *345*	120 *395*	130 *425*	120 *395*	135 *445*	145 *475*	— —	— —	— —	115 *375*	130 *425*	140 *460*	120 *395*	135 *445*	145 *475*	110 *360*	130 *425*	140 *460*
M2	— —	— —	— —	105 *345*	115 *375*	125 *410*	100 *330*	110 *360*	120 *395*	110 *360*	125 *410*	135 *445*	— —	— —	— —	105 *345*	120 *395*	130 *425*	110 *360*	125 *410*	135 *445*	105 *345*	115 *375*	125 *410*
M3	— —	— —	— —	90 *295*	105 *345*	115 *375*	85 *280*	100 *330*	110 *360*	100 *330*	115 *375*	125 *410*	— —	— —	— —	95 *310*	110 *360*	115 *375*	100 *330*	115 *375*	125 *410*	90 *295*	105 *345*	115 *375*
M4	— —	— —	— —	75 *245*	90 *295*	100 *330*	70 *230*	85 *280*	95 *310*	85 *280*	100 *330*	110 *360*	— —	— —	— —	80 *260*	95 *310*	105 *345*	85 *280*	100 *330*	110 *360*	75 *245*	90 *295*	100 *330*
M5	— —	— —	— —	65 *215*	80 *260*	90 *295*	60 *195*	75 *245*	85 *280*	75 *245*	90 *295*	100 *330*	— —	— —	— —	70 *230*	85 *280*	95 *310*	75 *245*	90 *295*	100 *330*	65 *215*	80 *260*	90 *295*
K1	135 *445*	155 *510*	165 *540*	— —	— —	— —	105 *345*	120 *395*	130 *425*	125 *410*	140 *460*	150 *490*	155 *510*	165 *540*	170 *560*	150 *490*	165 *540*	170 *560*	125 *410*	140 *460*	150 *490*	145 *475*	160 *520*	165 *540*
K2	130 *425*	145 *475*	155 *510*	— —	— —	— —	100 *330*	115 *375*	125 *410*	120 *395*	135 *445*	145 *475*	145 *475*	160 *520*	165 *540*	145 *475*	155 *510*	165 *540*	120 *395*	135 *445*	145 *475*	140 *460*	155 *510*	160 *520*
K3	125 *410*	135 *445*	145 *475*	— —	— —	— —	90 *295*	105 *345*	115 *375*	110 *360*	125 *410*	135 *445*	135 *445*	150 *490*	155 *510*	135 *445*	150 *490*	155 *510*	110 *360*	125 *410*	135 *445*	135 *445*	145 *475*	150 *490*
K4	120 *395*	135 *445*	145 *475*	— —	— —	— —	90 *295*	105 *345*	115 *375*	110 *360*	125 *410*	135 *445*	135 *445*	145 *475*	155 *510*	135 *445*	145 *475*	155 *510*	110 *360*	125 *410*	135 *445*	130 *425*	140 *460*	150 *490*
K5	95 *310*	110 *360*	115 *375*	— —	— —	— —	60 *195*	75 *245*	85 *280*	80 *260*	95 *310*	105 *345*	110 *360*	120 *395*	125 *410*	105 *345*	120 *395*	125 *410*	80 *260*	95 *310*	105 *345*	105 *345*	115 *375*	120 *395*
K6	115 *375*	125 *410*	140 *460*	— —	— —	— —	80 *260*	95 *310*	105 *345*	100 *330*	115 *375*	125 *410*	130 *425*	140 *460*	145 *475*	125 *410*	140 *460*	145 *475*	100 *330*	115 *375*	125 *410*	125 *410*	135 *445*	140 *460*
K7	105 *345*	120 *395*	130 *425*	— —	— —	— —	75 *245*	90 *295*	100 *330*	95 *310*	110 *360*	120 *395*	120 *395*	135 *445*	140 *460*	120 *395*	135 *445*	140 *460*	95 *310*	110 *360*	120 *395*	115 *375*	130 *425*	135 *445*
S1	— —	— —	— —	38 *125*	50 *165*	60 *195*	35 *115*	46 *150*	55 *180*	47 *155*	60 *195*	70 *230*	— —	— —	— —	— —	— —	— —	47 *155*	60 *195*	70 *230*	38 *125*	50 *165*	60 *195*
S2	— —	— —	— —	31 *100*	41 *135*	48 *155*	28 *90*	37 *120*	43 *140*	37 *120*	50 *165*	60 *195*	— —	— —	— —	— —	— —	— —	37 *120*	50 *165*	60 *195*	31 *100*	41 *135*	48 *155*
S3	— —	— —	— —	27 *90*	36 *120*	42 *140*	25 *80*	32 *105*	38 *125*	33 *110*	43 *140*	50 *165*	— —	— —	— —	— —	— —	— —	33 *110*	43 *140*	50 *165*	27 *90*	36 *120*	42 *140*
S11	— —	— —	— —	55 *180*	70 *230*	75 *245*	49 *160*	65 *215*	70 *230*	65 *215*	80 *260*	90 *295*	— —	— —	— —	— —	— —	— —	65 *215*	80 *260*	90 *295*	55 *180*	70 *230*	75 *245*
S12	— —	— —	— —	37 *120*	49 *160*	55 *180*	34 *110*	44 *145*	50 *165*	45 *150*	60 *195*	70 *230*	— —	— —	— —	— —	— —	— —	45 *150*	60 *195*	70 *230*	37 *120*	49 *160*	55 *180*
S13	— —	— —	— —	21 *70*	28 *90*	33 *110*	20 *65*	26 *85*	30 *100*	26 *85*	35 *115*	40 *130*	— —	— —	— —	— —	— —	— —	26 *85*	35 *115*	40 *130*	21 *70*	28 *90*	33 *110*
H5	— —	— —	— —	— —	— —	— —	29 *95*	39 *130*	46 *150*	38 *125*	50 *165*	60 *195*	43 *140*	55 *180*	65 *215*	— —	— —	— —	38 *125*	50 *165*	60 *195*	34 *110*	44 *145*	55 *180*
H8	— —	— —	— —	— —	— —	— —	31 *100*	41 *135*	48 *155*	41 *135*	55 *180*	60 *195*	46 *150*	60 *195*	70 *230*	— —	— —	— —	41 *135*	55 *180*	60 *195*	36 *120*	48 *155*	55 *180*
H11	— —	— —	— —	— —	— —	— —	37 *120*	49 *160*	60 *195*	49 *160*	65 *215*	75 *245*	55 *180*	70 *230*	80 *260*	— —	— —	— —	49 *160*	65 *215*	75 *245*	43 *140*	55 *180*	65 *215*
H12	— —	— —	— —	— —	— —	— —	55 *180*	70 *230*	80 *260*	75 *245*	90 *295*	100 *330*	75 *245*	90 *295*	100 *330*	— —	— —	— —	75 *245*	90 *295*	100 *330*	65 *215*	80 *260*	90 *295*

R217.81-SNAC15 Left Helix Troubleshooter – Metric

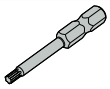




- For insert selection and cutting data recommendations, see page(s) 171-172
- For complete insert programme, see page(s) 807, 825
- For ISO attribute explanation, see page 16
- KAPRS 90°

Designation	Item number	Type of mounting	DC	ZEFP	ZNP	APMXS	DMM	DCSFMS	LUX	LPR	OAL	RPMX	Weight	Insert
			mm			mm	mm	mm	mm	mm	mm		kg	
R217.81-3250.3S-068-SNAC15.2	10127496	Seco-Weldon	50,0	2	12	68,0	32,0	50,0	79,0	90,0	150,0	8300	1,1	AC.T1506 / SN.U1306

Spare Parts, included in delivery

For cutter	Insert key	Insert screw
		
R217.81-..	1/4HEX-T15PX50	C55011-T15P

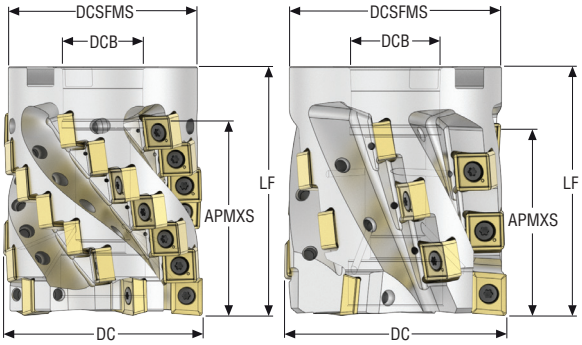
Accessories

For cutter	Adjustable Torque key	Insert clamping torque	Torque key
			
R217.81-..	1/4HEX-T-HANDLE-5.0-14.0NM	5.0NM	T00-15P50

Torque and fixed keys, see page 872

R220.81-SNAC15 – Left Helix Troubleshooter - Metric

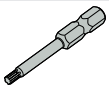




- For insert selection and cutting data recommendations, see page(s) 171-172
- For complete insert programme, see page(s) 807, 825
- For ISO attribute explanation, see page 16
- KAPRS 90°

Designation	Item number	Type of mounting	DC	ZEFP	ZNP	APMXS	DCB	DCSFMS	LF	RPMX	Weight	Insert
			mm			mm	mm	mm	mm		kg	
R220.81-0063-068-SNAC15.2A	10127497	Arbor	63,0	2	12	68,0	27,0	59,0	90,0	7400	1,2	AC.T1506 / SN.U1306
R220.81-0063-068-SNAC15.4KA	10127494	Arbor	63,0	4	24	68,0	27,0	59,0	90,0	7400	1,2	AC.T1506 / SN.U1306
R220.81-0080-068-SNAC15.3A	10127498	Arbor	80,0	3	18	68,0	32,0	75,5	90,0	6500	2,1	AC.T1506 / SN.U1306
R220.81-0080-079-SNAC15.5KA	10127495	Arbor	80,0	5	35	79,0	32,0	75,0	100,0	6500	2,2	AC.T1506 / SN.U1306
R220.81-0100-068-SNAC15.4A	10127499	Arbor	100,0	4	24	68,0	40,0	91,0	90,0	5800	3,5	AC.T1506 / SN.U1306

Spare Parts, included in delivery

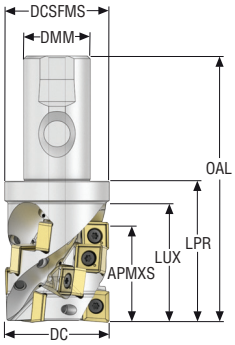
For cutter	Arbor screw	Insert key	Insert screw
			
R220.81-0063	MP6S12X80	1/4HEX-T15PX50	C55011-T15P
R220.81-0080	MP6S16X80	1/4HEX-T15PX90	C55011-T15P
R220.81-0100	MP6S20X80	1/4HEX-T15PX90	C55011-T15P

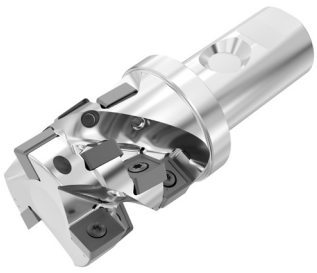
Accessories

For cutter	Adjustable Torque key	Insert clamping torque	Torque key
			
R217.81-..	1/4HEX-T-HANDLE-5.0-14.0NM	5.0NM	T00-15P50

Torque and fixed keys, see page 872

R217.82-SNAC15 – Right Helix for Heavy Duty – Metric

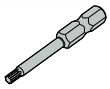




- For insert selection and cutting data recommendations, see page(s) 157-159
- For complete insert programme, see page(s) 807, 825
- For ISO attribute explanation, see page 16
- KAPRS 90°

Designation	Item number	Type of mounting	DC	ZEFP	ZNP	APMXS	DMM	DCSFMS	LUX	LPR	OAL	RPMX	Weight	Insert
			mm			mm	mm	mm	mm	mm	mm		kg	
R217.82-3250.3S-046-SNAC15.3HA	10127490	Seco-Weldon	50,0	3	12	47,0	32,0	50,0	57,0	68,0	128,0	8300	1,0	AC.T1506 / SN.U1306

Spare Parts, included in delivery

For cutter	Insert key	Insert screw
		
R217.82-..	1/4HEX-T15PX50	C55011-T15P

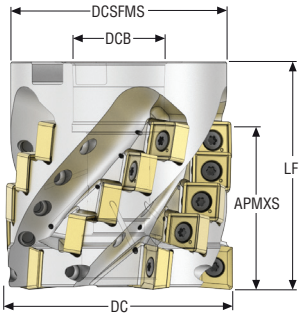
Accessories

For cutter	Adjustable Torque key	Insert clamping torque	Torque key
			
R217.82-..	1/4HEX-T-HANDLE-5.0-14.0NM	5.0NM	T00-15P50

Torque and fixed keys, see page 872

R220-82-SNAC15 Right Helix for Heavy Duty – Metric

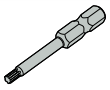




- For insert selection and cutting data recommendations, see page(s) 171-172
- For complete insert programme, see page(s) 807, 825
- For ISO attribute explanation, see page 16
- KAPRS 90°

Designation	Item number	Type of mounting	DC	ZEFP	ZNP	APMXS	DCB	DCSFMS	LF	RPMX	Weight	Insert
			mm			mm	mm	mm	mm		kg	
R220.82-0063-046-SNAC15.4HA	10127491	Arbor	63,0	4	16	46,0	27,0	59,0	70,0	7400	0,9	AC.T1506 / SN.U1306
R220.82-0080-057-SNAC15.5HA	10127492	Arbor	80,0	5	25	57,0	32,0	75,0	80,0	6500	1,7	AC.T1506 / SN.U1306
R220.82-0100-057-SNAC15.6HA	10127493	Arbor	100,0	6	30	57,0	40,0	90,0	75,0	5800	2,6	AC.T1506 / SN.U1306

Spare Parts, included in delivery

For cutter	Arbor screw	Insert key	Insert screw
			
R220.82-0063	MC6S12X60	1/4HEX-T15PX50	C55011-T15P
R220.82-0080	MC6S16X70	1/4HEX-T15PX90	C55011-T15P
R220.82-0100	MC6S20X50	1/4HEX-T15PX90	C55011-T15P

Accessories

For cutter	Adjustable Torque key	Insert clamping torque	Torque key
			
R220.82-0063-0080	1/4HEX-T-HANDLE-5.0-14.0NM	5.0NM	T00-15P50
R220.82-0100	1/4HEX-T-HANDLE-5.0-14.0NM	5.0NM	T00-15P50

Torque and fixed keys, see page 872

R217/220.82-SNAC15 – Insert selection – mm/*Inch*

SMG			f_z		
			100%	30%	10%
P1	ACET150612TR-M11 MP2501	SNXU130612TN-M12 MP2501	0,12 *0.0048*	0,14 *0.0055*	0,20 *0.0080*
P2	ACET150612TR-M11 MP2501	SNXU130612TN-M12 MP2501	0,13 *0.0050*	0,14 *0.0055*	0,22 *0.0085*
P3	ACET150612TR-M11 MP2501	SNXU130612TN-M12 MP2501	0,12 *0.0048*	0,13 *0.0050*	0,20 *0.0080*
P4	ACET150612TR-M11 MP2501	SNXU130612TN-M12 MP2501	0,12 *0.0048*	0,13 *0.0050*	0,20 *0.0080*
P5	ACET150612TR-M11 MP2501	SNGU130612TN-M14 MP2501	0,11 *0.0044*	0,13 *0.0050*	0,19 *0.0075*
P6	ACET150612TR-M11 MP2501	SNGU130612TN-M14 MP2501	0,11 *0.0044*	0,12 *0.0048*	0,19 *0.0075*
P7	ACET150612TR-M11 MP2501	SNGU130612TN-M14 MP2501	0,11 *0.0044*	0,12 *0.0048*	0,19 *0.0075*
P8	ACET150612TR-M11 MP2501	SNGU130612TN-M14 MP2501	0,12 *0.0048*	0,13 *0.0050*	0,20 *0.0080*
P11	ACET150612TR-M11 MP3501	SNXU130612TN-M12 MP3501	0,11 *0.0044*	0,12 *0.0048*	0,19 *0.0075*
P12	ACET150612TR-M11 MP3501	SNXU130612TN-M12 MP3501	0,080 *0.0032*	0,085 *0.0034*	0,13 *0.0050*
M1	ACET150612TR-ME10 MS2050	SNGU130612EN-ME10 MS2050	0,11 *0.0044*	0,13 *0.0050*	0,19 *0.0075*
M2	ACET150612TR-ME10 MS2050	SNGU130612EN-ME10 MS2050	0,10 *0.0040*	0,11 *0.0044*	0,17 *0.0065*
M3	ACET150612TR-ME10 MS2050	SNGU130612EN-ME10 MS2050	0,085 *0.0034*	0,090 *0.0036*	0,14 *0.0055*
M4	ACET150612TR-M11 MP3501	SNXU130612TN-M12 MP3501	0,080 *0.0032*	0,090 *0.0036*	0,13 *0.0050*
M5	ACET150612TR-M11 MP3501	SNXU130612TN-M12 MP3501	0,080 *0.0032*	0,090 *0.0036*	0,13 *0.0050*
K1	ACET150612TR-M14 MK1500	SNGU130612TN-M14 MK2050	0,16 *0.0065*	0,18 *0.0070*	0,26 *0.010*
K2	ACET150612TR-M14 MK1500	SNGU130612TN-M14 MK2050	0,15 *0.0060*	0,16 *0.0065*	0,24 *0.0095*
K3	ACET150612TR-M14 MK1500	SNGU130612TN-M14 MK2050	0,15 *0.0060*	0,16 *0.0065*	0,24 *0.0095*
K4	ACET150612TR-M14 MK1500	SNGU130612TN-M14 MK2050	0,15 *0.0060*	0,16 *0.0065*	0,24 *0.0095*
K5	ACET150612TR-M14 MK1500	SNGU130612TN-M14 MK2050	0,13 *0.0050*	0,14 *0.0055*	0,22 *0.0085*
K6	ACET150612TR-M14 MK1500	SNGU130612TN-M14 MK2050	0,15 *0.0060*	0,16 *0.0065*	0,24 *0.0095*
K7	ACET150612TR-M14 MK1500	SNGU130612TN-M14 MK2050	0,13 *0.0050*	0,14 *0.0055*	0,22 *0.0085*
S1	ACET150612TR-M11 F40M	SNXU130612TN-M12 F40M	0,080 *0.0032*	0,090 *0.0036*	0,13 *0.0050*
S2	ACET150612TR-M11 F40M	SNXU130612TN-M12 F40M	0,080 *0.0032*	0,090 *0.0036*	0,13 *0.0050*
S3	ACET150612TR-M11 F40M	SNXU130612TN-M12 F40M	0,075 *0.0030*	0,080 *0.0032*	0,12 *0.0048*
S11	ACET150612TR-ME10 MS2050	SNGU130612EN-ME10 MS2050	0,085 *0.0034*	0,090 *0.0036*	0,14 *0.0055*
S12	ACET150612TR-ME10 MS2050	SNGU130612EN-ME10 MS2050	0,085 *0.0034*	0,090 *0.0036*	0,14 *0.0055*
S13	ACET150612TR-ME10 MS2050	SNGU130612EN-ME10 MS2050	0,075 *0.0030*	0,080 *0.0032*	0,12 *0.0048*
H5	ACET150612TR-M11 MP3501	SNXU130612TN-M12 MP3501	0,080 *0.0032*	0,085 *0.0034*	0,13 *0.0050*
H8	ACET150612TR-M11 MP3501	SNXU130612TN-M12 MP3501	0,060 *0.0024*	0,065 *0.0026*	0,10 *0.0040*
H11	ACET150612TR-M11 MP3501	SNXU130612TN-M12 MP3501	0,080 *0.0032*	0,085 *0.0034*	0,13 *0.0050*
H12	ACET150612TR-M11 MP3501	SNXU130612TN-M12 MP3501	0,060 *0.0024*	0,065 *0.0026*	0,10 *0.0040*

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

R217/220.82-SNAC15 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	MK2050			MS2050			F40M			MS2500			MP1501			MP2501			MS2500			MP3501		
	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%
P1	140 *460*	150 *490*	160 *520*	130 *425*	145 *475*	155 *510*	125 *410*	140 *460*	150 *490*	145 *475*	160 *520*	170 *560*	155 *510*	170 *560*	175 *570*	155 *510*	165 *540*	175 *570*	145 *475*	160 *520*	170 *560*	150 *490*	165 *540*	170 *560*
P2	135 *445*	150 *490*	160 *520*	125 *410*	140 *460*	150 *490*	120 *395*	135 *445*	145 *475*	140 *460*	155 *510*	165 *540*	155 *510*	165 *540*	175 *570*	155 *510*	165 *540*	175 *570*	140 *460*	155 *510*	165 *540*	150 *490*	160 *520*	170 *560*
P3	130 *425*	145 *475*	155 *510*	120 *395*	135 *445*	145 *475*	115 *375*	130 *425*	140 *460*	135 *445*	150 *490*	160 *520*	145 *475*	160 *520*	165 *540*	145 *475*	160 *520*	165 *540*	135 *445*	150 *490*	160 *520*	140 *460*	155 *510*	160 *520*
P4	120 *395*	135 *445*	145 *475*	110 *360*	130 *425*	135 *445*	105 *345*	120 *395*	130 *425*	125 *410*	140 *460*	150 *490*	140 *460*	155 *510*	160 *520*	140 *460*	150 *490*	160 *520*	125 *410*	140 *460*	150 *490*	135 *445*	145 *475*	155 *510*
P5	120 *395*	135 *445*	145 *475*	110 *360*	125 *410*	135 *445*	105 *345*	120 *395*	130 *425*	125 *410*	140 *460*	150 *490*	140 *460*	150 *490*	155 *510*	135 *445*	150 *490*	155 *510*	125 *410*	140 *460*	150 *490*	135 *445*	145 *475*	150 *490*
P6	125 *410*	140 *460*	150 *490*	115 *375*	135 *445*	140 *460*	110 *360*	125 *410*	135 *445*	130 *425*	145 *475*	155 *510*	145 *475*	155 *510*	165 *540*	145 *475*	155 *510*	165 *540*	130 *425*	145 *475*	155 *510*	140 *460*	150 *490*	160 *520*
P7	125 *410*	140 *460*	150 *490*	115 *375*	130 *425*	140 *460*	110 *360*	125 *410*	135 *445*	130 *425*	145 *475*	155 *510*	140 *460*	155 *510*	160 *520*	140 *460*	150 *490*	160 *520*	130 *425*	145 *475*	155 *510*	135 *445*	150 *490*	155 *510*
P8	120 *395*	135 *445*	145 *475*	110 *360*	125 *410*	135 *445*	105 *345*	120 *395*	130 *425*	125 *410*	140 *460*	150 *490*	140 *460*	150 *490*	155 *510*	135 *445*	150 *490*	155 *510*	125 *410*	140 *460*	150 *490*	130 *425*	145 *475*	150 *490*
P11	120 *395*	135 *445*	145 *475*	110 *360*	130 *425*	135 *445*	105 *345*	125 *410*	130 *425*	125 *410*	145 *475*	150 *490*	140 *460*	150 *490*	160 *520*	140 *460*	150 *490*	160 *520*	125 *410*	145 *475*	150 *490*	135 *445*	145 *475*	155 *510*
P12	100 *330*	110 *360*	120 *395*	90 *295*	105 *345*	115 *375*	85 *280*	100 *330*	110 *360*	105 *345*	120 *395*	130 *425*	115 *375*	125 *410*	135 *445*	115 *375*	125 *410*	135 *445*	105 *345*	120 *395*	130 *425*	110 *360*	120 *395*	130 *425*
M1	— —	— —	— —	115 *375*	130 *425*	140 *460*	110 *360*	125 *410*	135 *445*	120 *395*	140 *460*	150 *490*	— —	— —	— —	115 *375*	135 *445*	140 *460*	120 *395*	140 *460*	150 *490*	115 *375*	130 *425*	140 *460*
M2	— —	— —	— —	105 *345*	120 *395*	130 *425*	100 *330*	115 *375*	125 *410*	115 *375*	130 *425*	140 *460*	— —	— —	— —	105 *345*	120 *395*	130 *425*	115 *375*	130 *425*	140 *460*	105 *345*	120 *395*	130 *425*
M3	— —	— —	— —	95 *310*	110 *360*	115 *375*	90 *295*	105 *345*	110 *360*	100 *330*	115 *375*	125 *410*	— —	— —	— —	95 *310*	110 *360*	120 *395*	100 *330*	115 *375*	125 *410*	95 *310*	110 *360*	115 *375*
M4	— —	— —	— —	80 *260*	95 *310*	105 *345*	75 *245*	90 *295*	100 *330*	85 *280*	105 *345*	110 *360*	— —	— —	— —	80 *260*	95 *310*	105 *345*	85 *280*	105 *345*	110 *360*	80 *260*	95 *310*	105 *345*
M5	— —	— —	— —	70 *230*	85 *280*	95 *310*	65 *215*	80 *260*	90 *295*	75 *245*	95 *310*	100 *330*	— —	— —	— —	70 *230*	85 *280*	95 *310*	75 *245*	95 *310*	100 *330*	70 *230*	85 *280*	95 *310*
K1	140 *460*	155 *510*	165 *540*	— —	— —	— —	110 *360*	125 *410*	135 *445*	130 *425*	145 *475*	155 *510*	155 *510*	165 *540*	175 *570*	155 *510*	165 *540*	175 *570*	130 *425*	145 *475*	155 *510*	150 *490*	160 *520*	170 *560*
K2	135 *445*	150 *490*	160 *520*	— —	— —	— —	105 *345*	115 *375*	125 *410*	125 *410*	135 *445*	145 *475*	150 *490*	160 *520*	170 *560*	145 *475*	160 *520*	165 *540*	125 *410*	135 *445*	145 *475*	145 *475*	155 *510*	160 *520*
K3	125 *410*	140 *460*	150 *490*	— —	— —	— —	95 *310*	110 *360*	120 *395*	115 *375*	130 *425*	140 *460*	140 *460*	150 *490*	160 *520*	140 *460*	150 *490*	160 *520*	115 *375*	130 *425*	140 *460*	135 *445*	145 *475*	155 *510*
K4	120 *395*	135 *445*	145 *475*	— —	— —	— —	90 *295*	105 *345*	115 *375*	110 *360*	125 *410*	135 *445*	135 *445*	150 *490*	155 *510*	135 *445*	150 *490*	155 *510*	110 *360*	125 *410*	135 *445*	135 *445*	145 *475*	150 *490*
K5	95 *310*	110 *360*	120 *395*	— —	— —	— —	65 *215*	80 *260*	90 *295*	85 *280*	100 *330*	110 *360*	110 *360*	120 *395*	130 *425*	110 *360*	120 *395*	130 *425*	85 *280*	100 *330*	110 *360*	105 *345*	115 *375*	125 *410*
K6	115 *375*	130 *425*	140 *460*	— —	— —	— —	85 *280*	100 *330*	110 *360*	105 *345*	120 *395*	130 *425*	130 *425*	140 *460*	150 *490*	130 *425*	140 *460*	150 *490*	105 *345*	120 *395*	130 *425*	125 *410*	135 *445*	145 *475*
K7	110 *360*	125 *410*	135 *445*	— —	— —	— —	75 *245*	95 *310*	100 *330*	95 *310*	115 *375*	120 *395*	125 *410*	135 *445*	140 *460*	125 *410*	135 *445*	140 *460*	95 *310*	115 *375*	120 *395*	120 *395*	130 *425*	135 *445*
S1	— —	— —	— —	39 *130*	55 *180*	60 *195*	36 *120*	48 *155*	55 *180*	48 *155*	65 *215*	70 *230*	— —	— —	— —	— —	— —	— —	48 *155*	65 *215*	70 *230*	39 *130*	55 *180*	60 *195*
S2	— —	— —	— —	32 *105*	42 *140*	50 *165*	29 *95*	38 *125*	45 *150*	39 *130*	50 *165*	60 *195*	— —	— —	— —	— —	— —	— —	39 *130*	50 *165*	60 *195*	32 *105*	42 *140*	50 *165*
S3	— —	— —	— —	28 *90*	37 *120*	43 *140*	26 *85*	34 *110*	39 *130*	34 *110*	45 *150*	55 *180*	— —	— —	— —	— —	— —	— —	34 *110*	45 *150*	55 *180*	28 *90*	37 *120*	43 *140*
S11	— —	— —	— —	55 *180*	70 *230*	80 *260*	50 *165*	65 *215*	75 *245*	65 *215*	80 *260*	90 *295*	— —	— —	— —	— —	— —	— —	65 *215*	80 *260*	90 *295*	55 *180*	70 *230*	80 *260*
S12	— —	— —	— —	38 *125*	50 *165*	60 *195*	35 *115*	46 *150*	55 *180*	47 *155*	60 *195*	70 *230*	— —	— —	— —	— —	— —	— —	47 *155*	60 *195*	70 *230*	38 *125*	50 *165*	60 *195*
S13	— —	— —	— —	22 *70*	30 *100*	35 *115*	20 *65*	27 *90*	31 *100*	27 *90*	36 *120*	42 *140*	— —	— —	— —	— —	— —	— —	27 *90*	36 *120*	42 *140*	22 *70*	30 *100*	35 *115*
H5	— —	— —	— —	— —	— —	— —	31 *100*	40 *130*	48 *155*	40 *130*	50 *165*	60 *195*	44 *145*	60 *195*	65 *215*	— —	— —	— —	40 *130*	50 *165*	60 *195*	35 *115*	46 *150*	55 *180*
H8	— —	— —	— —	— —	— —	— —	33 *110*	43 *140*	50 *165*	42 *140*	55 *180*	65 *215*	48 *155*	60 *195*	70 *230*	— —	— —	— —	42 *140*	55 *180*	65 *215*	38 *125*	49 *160*	60 *195*
H11	— —	— —	— —	— —	— —	— —	39 *130*	50 *165*	60 *195*	50 *165*	65 *215*	75 *245*	55 *180*	70 *230*	80 *260*	— —	— —	— —	50 *165*	65 *215*	75 *245*	45 *150*	60 *195*	70 *230*
H12	— —	— —	— —	— —	— —	— —	60 *195*	75 *245*	80 *260*	80 *260*	95 *310*	100 *330*	80 *260*	95 *310*	105 *345*	— —	— —	— —	80 *260*	95 *310*	100 *330*	65 *215*	80 *260*	90 *295*

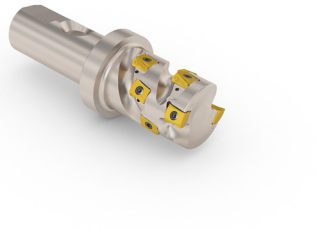


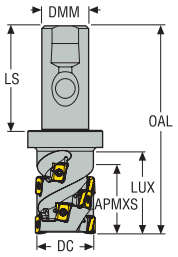
SQUARE T4 HELICAL

The Square T4 Helical cutter range takes our diverse milling portfolio to the next level with tools that features tangentially mounted inserts, each having 4 cutting edges.

- T4 Helical Insert size 08, cutter range 25-54mm (1 inch)
- T4 Helical Insert size 12, cutter range 40-100mm (2 - 3 inch)

T4 – R217.94-08 – Metric





- For insert selection and cutting data recommendations, see page(s) 177-178
- For complete insert programme, see page(s) 809, 810
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	ZEFP	ZNP	APMXS	DMM	LUX	LS	OAL	RPMX	Weight	Insert
			mm			mm	mm	mm	mm	mm		kg	
R217.94-2025.3S-029-08.2A	02926806	Seco-Weldon	25,0	2	8	29,0	20,0	44,0	50,0	100,0	20800	0,3	LOEX08..
R217.94-2025.3S-036-08.2A	02926807	Seco-Weldon	25,0	2	10	36,0	20,0	44,0	50,0	100,0	20800	0,3	LOEX08..
R217.94-2532.3S-043-08.3A	02926813	Seco-Weldon	32,0	3	18	43,0	25,0	55,0	56,0	121,0	18400	0,6	LOEX08..
R217.94-2532.3S-050-08.3A	02926814	Seco-Weldon	32,0	3	21	50,0	25,0	59,0	56,0	125,0	18400	0,5	LOEX08..
R217.94-3240.3S-050-08.4A	02926816	Seco-Weldon	40,0	4	28	50,0	32,0	60,0	60,0	130,0	16400	0,9	LOEX08..

Spare Parts, included in delivery

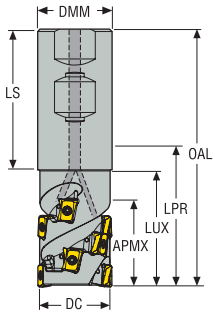
For cutter	Insert key	Insert screw
		
R217.94-..	H4B-T08P	C02708B-T08P

Accessories

For cutter	Insert clamping torque	Torque key
		
R217.94-..	1.2NM	T00-08P12

Torque and fixed keys, see page 872

T4 – R217.94-08 – Inch





- For insert selection and cutting data recommendations, see page(s) 177-178
- For complete insert programme, see page(s) 809, 810
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	ZEFP	ZNP	APMXS	DMM	LUX	LPR	OAL	RPMX	Weight	Insert
			inch			inch	inch	inch	inch	inch		lbs	
R217.94-01.00-3-01.40-08-2A	02941522	Weldon	0.996	2	10	1.417	1.000	1.870	1.772	4.252	20800	0.880	LOEX08..
R217.94-01.00-3-01.70-08-2A	02941527	Weldon	0.996	2	12	1.693	1.000	2.106	1.772	4.488	20800	0.880	LOEX08..

Spare Parts, included in delivery

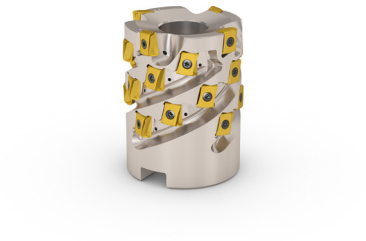
For cutter	Insert key	Insert screw
		
R127.94-..	H4B-T08P	C02708B-T08P

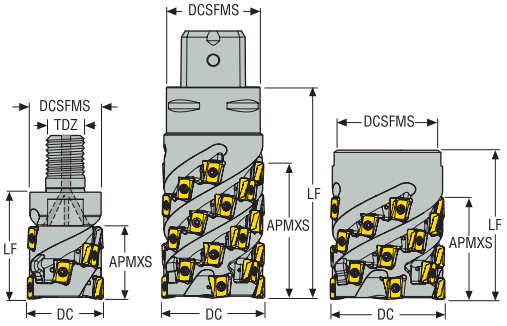
Accessories

For size	Insert clamping torque	Torque key
		
R127.94-..	10.6IN.LBS	T00-08P12

Torque and fixed keys, see page 872

T4 – R217/220.94-08 – Metric





- For insert selection and cutting data recommendations, see page(s) 177-178
- For complete insert programme, see page(s) 809, 810
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	ZEFP	ZNP	APMXS	DCB	TDZ	DCSFMS	LF	LUX	RPMX	Weight	Insert
			mm			mm	mm		mm	mm	mm		kg	
R217.94-1632.RE-036-08.3A	02926805	Combimaster	32,0	3	15	36,0	–	M16	30,0	55,0	–	18400	0,3	LOEX08..
R217.94-2040.RE-043-08.4A	02972768	Combimaster	40,0	4	24	43,0	–	M20	36,5	60,0	–	16400	0,45	LOEX08..
C4-R217.94-044-057-08.4A	02926819	Seco-Capto	44,0	4	32	57,0	–	–	40,0	90,0	70,0	15500	0,9	LOEX08..
R220.94-00050-043-08.4A	02926817	Arbor	50,0	4	24	43,0	27,0	–	48,0	65,0	–	14800	0,7	LOEX08..
R220.94-00050-057-08.5A	02926818	Arbor	50,0	5	40	57,0	27,0	–	48,0	70,0	–	14800	0,7	LOEX08..

For Combimaster Shanks, see Machining Navigator Tooling System

Spare Parts, included in delivery

For cutter	Arbor screw	Insert key	Insert screw
			
R217.94-../Cx-217.94-..	–	H4B-T08P	C02708B-T08P
R220.94-..	MC6S12X60	H4B-T08P	C02708B-T08P

Accessories

For cutter	Insert clamping torque	Torque key
		
Cx-R217/220.69-..	1.2NM	T00-08P12

Torque and fixed keys, see page 872

R217/220.94-08 – Insert selection – mm/*Inch*

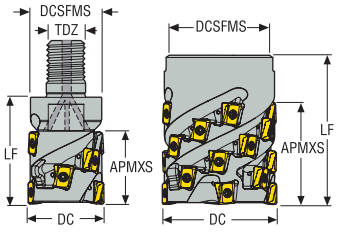
SMG		f_z		
		100%	30%	10%
P1	LOEX080408TR-M08 F40M	0,090 *0.0036*	0,10 *0.0040*	0,15 *0.0060*
P2	LOEX080408TR-M08 F40M	0,090 *0.0036*	0,10 *0.0040*	0,15 *0.0060*
P3	LOEX080408TR-M08 F40M	0,085 *0.0034*	0,095 *0.0038*	0,15 *0.0055*
P4	LOEX080408TR-M08 F40M	0,085 *0.0034*	0,095 *0.0038*	0,14 *0.0055*
P5	LOEX080408TR-M08 F40M	0,085 *0.0034*	0,090 *0.0036*	0,14 *0.0055*
P6	LOEX080408TR-M08 F40M	0,080 *0.0032*	0,090 *0.0036*	0,14 *0.0055*
P7	LOEX080408TR-M08 F40M	0,080 *0.0032*	0,090 *0.0036*	0,14 *0.0055*
P8	LOEX080408TR-M08 F40M	0,085 *0.0034*	0,095 *0.0038*	0,15 *0.0055*
P11	LOEX080408TR-M08 MP2050	0,095 *0.0038*	0,10 *0.0040*	0,16 *0.0065*
P12	LOEX080408TR-M08 MP2050	0,065 *0.0026*	0,070 *0.0028*	0,11 *0.0044*
M1	LOEX080408TR-M08 MS2050	0,090 *0.0036*	0,10 *0.0040*	0,15 *0.0060*
M2	LOEX080408TR-M08 MS2050	0,085 *0.0034*	0,090 *0.0036*	0,14 *0.0055*
M3	LOEX080408TR-M08 MS2050	0,065 *0.0026*	0,075 *0.0030*	0,11 *0.0044*
M4	LOEX080408TR-M08 MS2050	0,060 *0.0024*	0,065 *0.0026*	0,10 *0.0040*
M5	LOEX080408TR-M08 MS2050	0,060 *0.0024*	0,065 *0.0026*	0,10 *0.0040*
K1	LOEX080408TR-MD08 MK2050	0,090 *0.0036*	0,10 *0.0040*	0,15 *0.0060*
K2	LOEX080408TR-MD08 MK2050	0,085 *0.0034*	0,090 *0.0036*	0,14 *0.0055*
K3	LOEX080408TR-MD08 MK2050	0,085 *0.0034*	0,090 *0.0036*	0,14 *0.0055*
K4	LOEX080408TR-MD08 MK2050	0,085 *0.0034*	0,090 *0.0036*	0,14 *0.0055*
K5	LOEX080408TR-MD08 MK2050	0,075 *0.0030*	0,080 *0.0032*	0,13 *0.0050*
K6	LOEX080408TR-MD08 MK2050	0,085 *0.0034*	0,090 *0.0036*	0,14 *0.0055*
K7	LOEX080408TR-MD08 MK2050	0,075 *0.0030*	0,080 *0.0032*	0,13 *0.0050*
N1	LOEX080408TR-M08 F40M	0,12 *0.0048*	0,13 *0.0050*	0,20 *0.0080*
N2	LOEX080408TR-M08 F40M	0,12 *0.0048*	0,13 *0.0050*	0,20 *0.0080*
N3	LOEX080408TR-M08 F40M	0,12 *0.0048*	0,13 *0.0050*	0,20 *0.0080*
N11	LOEX080408TR-M08 F40M	0,12 *0.0048*	0,13 *0.0050*	0,20 *0.0080*
S1	LOEX080408TR-M08 F40M	0,060 *0.0024*	0,065 *0.0026*	0,10 *0.0040*
S2	LOEX080408TR-M08 F40M	0,060 *0.0024*	0,065 *0.0026*	0,10 *0.0040*
S3	LOEX080408TR-M08 F40M	0,055 *0.0022*	0,060 *0.0024*	0,090 *0.0036*
S11	LOEX080408TR-M08 MS2050	0,065 *0.0026*	0,075 *0.0030*	0,11 *0.0044*
S12	LOEX080408TR-M08 MS2050	0,065 *0.0026*	0,075 *0.0030*	0,11 *0.0044*
S13	LOEX080408TR-M08 MS2050	0,060 *0.0024*	0,065 *0.0026*	0,10 *0.0040*
H5	LOEX080408TR-M08 MP3000	0,055 *0.0022*	0,060 *0.0024*	0,095 *0.0038*
H8	LOEX080408TR-M08 MP3000	0,044 *0.0017*	0,048 *0.0019*	0,075 *0.0028*
H11	LOEX080408TR-M08 MP3000	0,055 *0.0022*	0,060 *0.0024*	0,095 *0.0038*
H12	LOEX080408TR-M08 MP2050	0,048 *0.0019*	0,055 *0.0022*	0,080 *0.0032*

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

R217/220.94-08 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	MK2050			MP3000			MS2050			F40M			MP2050		
	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%
P1	140 *460*	155 *510*	165 *540*	140 *460*	155 *510*	165 *540*	135 *445*	150 *490*	155 *510*	130 *425*	140 *460*	150 *490*	140 *460*	155 *510*	165 *540*
P2	140 *460*	155 *510*	165 *540*	140 *460*	155 *510*	165 *540*	130 *425*	145 *475*	155 *510*	125 *410*	140 *460*	150 *490*	140 *460*	155 *510*	165 *540*
P3	130 *425*	145 *475*	155 *510*	130 *425*	145 *475*	155 *510*	125 *410*	140 *460*	150 *490*	120 *395*	135 *445*	145 *475*	130 *425*	145 *475*	155 *510*
P4	125 *410*	140 *460*	150 *490*	125 *410*	140 *460*	150 *490*	115 *375*	130 *425*	140 *460*	110 *360*	125 *410*	135 *445*	125 *410*	140 *460*	150 *490*
P5	120 *395*	135 *445*	145 *475*	120 *395*	135 *445*	145 *475*	115 *375*	130 *425*	140 *460*	110 *360*	125 *410*	135 *445*	120 *395*	135 *445*	145 *475*
P6	130 *425*	145 *475*	150 *490*	130 *425*	145 *475*	150 *490*	120 *395*	135 *445*	145 *475*	115 *375*	130 *425*	140 *460*	130 *425*	145 *475*	150 *490*
P7	125 *410*	140 *460*	150 *490*	125 *410*	140 *460*	150 *490*	120 *395*	135 *445*	140 *460*	115 *375*	130 *425*	135 *445*	125 *410*	140 *460*	150 *490*
P8	120 *395*	135 *445*	145 *475*	120 *395*	135 *445*	145 *475*	115 *375*	130 *425*	140 *460*	110 *360*	125 *410*	135 *445*	120 *395*	135 *445*	145 *475*
P11	125 *410*	140 *460*	150 *490*	125 *410*	140 *460*	145 *475*	115 *375*	130 *425*	140 *460*	110 *360*	125 *410*	135 *445*	125 *410*	140 *460*	150 *490*
P12	100 *330*	115 *375*	125 *410*	100 *330*	115 *375*	125 *410*	95 *310*	110 *360*	115 *375*	85 *280*	100 *330*	110 *360*	100 *330*	115 *375*	125 *410*
M1	— —	— —	— —	120 *395*	135 *445*	145 *475*	120 *395*	135 *445*	145 *475*	115 *375*	130 *425*	140 *460*	120 *395*	135 *445*	145 *475*
M2	— —	— —	— —	110 *360*	125 *410*	135 *445*	110 *360*	125 *410*	135 *445*	105 *345*	120 *395*	130 *425*	110 *360*	125 *410*	135 *445*
M3	— —	— —	— —	100 *330*	115 *375*	125 *410*	95 *310*	110 *360*	120 *395*	90 *295*	105 *345*	115 *375*	100 *330*	115 *375*	120 *395*
M4	— —	— —	— —	85 *280*	100 *330*	110 *360*	85 *280*	100 *330*	105 *345*	80 *260*	90 *295*	100 *330*	85 *280*	100 *330*	110 *360*
M5	— —	— —	— —	75 *245*	90 *295*	100 *330*	75 *245*	90 *295*	95 *310*	70 *230*	80 *260*	90 *295*	75 *245*	90 *295*	100 *330*
K1	145 *475*	160 *520*	165 *540*	125 *410*	140 *460*	150 *490*	— —	— —	— —	115 *375*	130 *425*	140 *460*	— —	— —	— —
K2	135 *445*	150 *490*	160 *520*	120 *395*	135 *445*	145 *475*	— —	— —	— —	105 *345*	120 *395*	130 *425*	— —	— —	— —
K3	125 *410*	140 *460*	150 *490*	110 *360*	125 *410*	135 *445*	— —	— —	— —	95 *310*	115 *375*	120 *395*	— —	— —	— —
K4	125 *410*	140 *460*	150 *490*	105 *345*	120 *395*	130 *425*	— —	— —	— —	95 *310*	110 *360*	120 *395*	— —	— —	— —
K5	95 *310*	115 *375*	120 *395*	80 *260*	95 *310*	105 *345*	— —	— —	— —	70 *230*	85 *280*	90 *295*	— —	— —	— —
K6	115 *375*	135 *445*	140 *460*	100 *330*	115 *375*	125 *410*	— —	— —	— —	90 *295*	105 *345*	110 *360*	— —	— —	— —
K7	110 *360*	125 *410*	135 *445*	95 *310*	110 *360*	115 *375*	— —	— —	— —	80 *260*	95 *310*	105 *345*	— —	— —	— —
N1	— —	— —	— —	— —	— —	— —	— —	— —	— —	220 *720*	240 *790*	245 *800*	— —	— —	— —
N2	— —	— —	— —	— —	— —	— —	— —	— —	— —	175 *570*	190 *620*	195 *640*	— —	— —	— —
N3	— —	— —	— —	— —	— —	— —	— —	— —	— —	150 *490*	165 *540*	175 *570*	— —	— —	— —
N11	— —	— —	— —	— —	— —	— —	— —	— —	— —	160 *520*	175 *570*	180 *590*	— —	— —	— —
S1	— —	— —	— —	45 *150*	60 *195*	70 *230*	43 *140*	55 *180*	65 *215*	39 *130*	50 *165*	60 *195*	46 *150*	60 *195*	70 *230*
S2	— —	— —	— —	36 *120*	47 *155*	55 *180*	34 *110*	45 *150*	55 *180*	31 *100*	41 *135*	48 *155*	37 *120*	49 *160*	55 *180*
S3	— —	— —	— —	32 *105*	42 *140*	49 *160*	30 *100*	39 *130*	46 *150*	27 *90*	36 *120*	42 *140*	32 *105*	43 *140*	50 *165*
S11	— —	— —	— —	— —	— —	— —	60 *195*	75 *245*	85 *280*	55 *180*	70 *230*	80 *260*	65 *215*	80 *260*	85 *280*
S12	— —	— —	— —	— —	— —	— —	42 *140*	55 *180*	65 *215*	38 *125*	49 *160*	60 *195*	44 *145*	60 *195*	65 *215*
S13	— —	— —	— —	— —	— —	— —	24 *80*	31 *100*	37 *120*	22 *70*	29 *95*	34 *110*	26 *85*	34 *110*	40 *130*
H5	— —	— —	— —	39 *130*	50 *165*	60 *195*	— —	— —	— —	33 *110*	43 *140*	50 *165*	— —	— —	— —
H8	— —	— —	— —	41 *135*	55 *180*	60 *195*	— —	— —	— —	35 *115*	45 *150*	55 *180*	— —	— —	— —
H11	— —	— —	— —	49 *160*	65 *215*	70 *230*	— —	— —	— —	42 *140*	55 *180*	65 *215*	47 *155*	60 *195*	70 *230*
H12	— —	— —	— —	75 *245*	90 *295*	100 *330*	— —	— —	— —	60 *195*	75 *245*	85 *280*	75 *245*	90 *295*	100 *330*

T4 – R217/220.94-12 – Metric



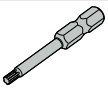


- For insert selection and cutting data recommendations, see page(s) 182-184
- For complete insert programme, see page(s) 809, 810
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	ZEFP	ZNP	APMXS	DCB	TDZ	DCSFMS	LF	RPMX	Weight	Insert
			mm			mm	mm		mm	mm		kg	
R217.94-2040.RE-035-LO12.2A	10215197	Combimaster	40,0	2	6	35,0	–	M20	36,5	50,0	11000	0,4	LOEX1207
R220.94-0050-046-LO12.3A	10215181	Arbor	50,0	3	12	46,0	27,0	–	46,4	70,0	9900	0,5	LOEX1207
R220.94-0050-046-LO12.4A	10215182	Arbor	50,0	4	16	46,0	27,0	–	46,4	65,0	9900	0,2	LOEX1207
R220.94-0050-058-LO12.4A	10215183	Arbor	50,0	4	20	58,0	27,0	–	46,4	80,0	9900	0,6	LOEX1207
R220.94-0063-046-LO12.4A	10215184	Arbor	63,0	4	16	46,0	27,0	–	59,6	65,0	8800	0,9	LOEX1207
R220.94-0063-058-LO12.5A	10215185	Arbor	63,0	5	25	58,0	27,0	–	59,6	75,0	8800	1,1	LOEX1207
R220.94-0063-081-LO12.4A	10215186	Arbor	63,0	4	28	81,0	27,0	–	59,6	93,0	8800	1,2	LOEX1207
R220.94-0080-069-LO12.5A	10215187	Arbor	80,0	5	30	69,0	32,0	–	76,6	90,0	7800	2,2	LOEX1207

For Combimaster Shanks, see Machining Navigator Tooling System

Spare Parts, included in delivery

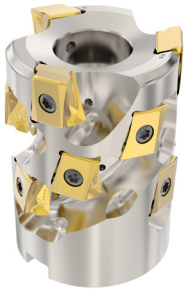
For cutter	Arbor screw	Insert key	Insert screw
			
R217.94-2040	–	1/4HEX-T15PX50	C04012B-T15P
R220.94-0050/0063-046	MC6S12X60	1/4HEX-T15PX50	C04012B-T15P
R220.94-0050/0063-058	MC6S12X70	1/4HEX-T15PX50	C04012B-T15P
R220.94-0063-081	MP6S12X80	1/4HEX-T15PX50	C04012B-T15P
R220.94-0080-069	MP6S16X80	1/4HEX-T15PX50	C04012B-T15P

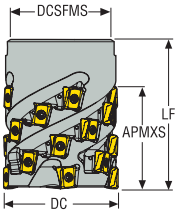
Accessories

For cutter	Adjustable Torque key	Insert clamping torque	Torque key
			
R217/220.94-..	1/4HEX-S-HANDLE-0.8-5.0NM	3.5NM	T00-15P35

Torque and fixed keys, see page 872

T4 – R217/220.94-12 – Inch

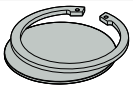
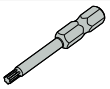




- For insert selection and cutting data recommendations, see page(s) 182-184
- For complete insert programme, see page(s) 809, 810
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	ZEFP	ZNP	APMXS	DCB	DCSFMS	LF	RPMX	Weight	Insert
			inch			inch	inch	inch	inch		lbs	
R220.94-02.00-1.81-LO12-3A	10215190	Arbor	2.000	3	12	1.850	1.000	1.862	2.756	9900	1.320	LOEX1207
R220.94-02.00-2.28-LO12-4A	10215191	Arbor	2.000	4	20	2.283	1.000	1.862	3.150	9900	1.320	LOEX1207
R220.94-02.50-3.18-LO12-4A	10215192	Arbor	2.500	4	28	3.189	1.000	2.366	3.661	8800	2.870	LOEX1207
R220.94-02.50-3.18-LO12-4SA	10226053	Arbor	2.500	4	28	3.189	1.000	2.366	3.937	8800	3.090	LOEX1207
R220.94-03.00-3.18-LO12-5A	10215193	Arbor	3.000	5	35	3.189	1.250	2.870	3.740	8000	4.410	LOEX1207

Spare Parts, included in delivery

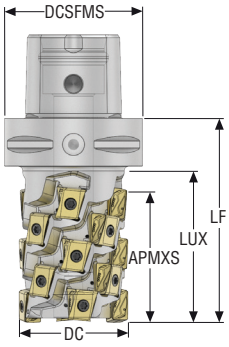
For cutter	Arbor screw	Basic body	Coolant kit	Insert key	Insert screw	Replaceable End
						
R220.94-02.00-3A	UC6S1/2UNFX2-1/4	–	–	1/4HEX-T15PX50	C04012B-T15P	–
R220.94-02.00-4A	UC6S1/2UNFX2-1/2	–	–	1/4HEX-T15PX50	C04012B-T15P	–
R220.94-02.50-4A	UP6S1/2UNFX3-1/4	–	–	1/4HEX-T15PX50	C04012B-T15P	–
R220.94-02.50-4SA	UP6S1/2UNFX3-1/4	R220.94-02.50-1.76-LO12.4BA	LUBRICATION_SET_19	1/4HEX-T15PX50	C04012B-T15P	R220.94-RE2.50-1.42-LO12.4A
R220.94-03.00	UP6S5/8UNFX3-1/4	–	–	1/4HEX-T15PX50	C04012B-T15P	–

Accessories

For cutter	Adjustable Torque key	Insert clamping torque	Torque key
			
R220.94-..	1/4HEX-S-HANDLE-0.8-5.0NM	3.5NM	T00-15P35

Torque and fixed keys, see page 872

T4 – R217/220.94-12 – Metric

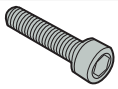
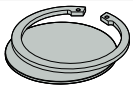
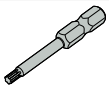




- For insert selection and cutting data recommendations, see page(s) 182-184
- For complete insert programme, see page(s) 809, 810
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	ZEFP	ZNP	APMXS	DCSFMS	LF	LUX	RPMX	Weight	Insert
			mm			mm	mm	mm	mm		kg	
C5-R217.94-044-058-LO12.3A	10215194	Seco-Capto	44,0	3	15	58,0	50,0	95,0	73,0	10600	0,9	LOEX1207
C6-R217.94-050-081-LO12.4SA	10226054	Seco-Capto	50,0	4	28	81,0	63,0	115,0	91,0	10000	1,6	LOEX1207
C5-R217.94-054-069-LO12.4A	10215195	Seco-Capto	54,0	4	24	69,0	50,0	69,0	84,1	9700	1,3	LOEX1207
C6-R217.94-063-092-LO12.4SA	10226052	Seco-Capto	63,0	4	32	92,0	63,0	125,0	101,5	9000	2,2	LOEX1207
C6-R217.94-066-081-LO12.5A	10215196	Seco-Capto	66,0	5	35	81,0	63,0	115,0	101,5	8700	2,2	LOEX1207

Spare Parts, included in delivery

For cutter	Assembly screw	Basic body	Coolant kit	Insert key	Insert screw	Replaceable end
						
C5-R217.94-044/055	–	–	–	1/4HEX-T15PX50	C04012B-T15P	–
C6-R217.94-050	220.17-692M	C6-R217.94-050-058-LO12.4BA	LUBRICATION_SET_19	1/4HEX-T15PX50	C04012B-T15P	R220.94-RE050023-LO12.4A
C6-R217.94-063	MC6S12X35	C6-R217.94-063-056-LO12.4BA	LUBRICATION_SET_29	1/4HEX-T15PX50	C04012B-T15P	R220.94-RE063036-LO12.4A
C6-R217.94-066	–	–	–	1/4HEX-T15PX50	C04012B-T15P	–

Accessories

For cutter	Adjustable Torque key	Insert clamping torque	Torque key
			
Cx-R217.94-..	1/4HEX-S-HANDLE-0.8-5.0NM	3.5NM	T00-15P35

Torque and fixed keys, see page 872

R217/220.94-12 – Insert selection – mm/*Inch*

SMG		f_z		
		100%	30%	10%
P1	LOEX120708R-T4-M09 MP2501	0,10 *0.0040*	0,11 *0.0044*	0,17 *0.0065*
P2	LOEX120708R-T4-M09 MP2501	0,10 *0.0040*	0,11 *0.0044*	0,17 *0.0065*
P3	LOEX120708R-T4-M09 MP2501	0,095 *0.0038*	0,11 *0.0044*	0,16 *0.0065*
P4	LOEX120708TR-T4-M12 MP2501	0,13 *0.0050*	0,14 *0.0055*	0,22 *0.0085*
P5	LOEX120708TR-T4-M12 MP2501	0,12 *0.0048*	0,14 *0.0055*	0,20 *0.0080*
P6	LOEX120708TR-T4-M12 MP2501	0,12 *0.0048*	0,14 *0.0055*	0,20 *0.0080*
P7	LOEX120708TR-T4-M12 MP2501	0,12 *0.0048*	0,14 *0.0055*	0,20 *0.0080*
P8	LOEX120708TR-T4-M12 MP2501	0,13 *0.0050*	0,14 *0.0055*	0,22 *0.0085*
P11	LOEX120708TR-T4-M12 MP2501	0,12 *0.0048*	0,14 *0.0055*	0,20 *0.0080*
P12	LOEX120708TR-T4-M12 MP2501	0,085 *0.0034*	0,095 *0.0038*	0,14 *0.0055*
M1	LOEX120708R-T4-M09 MS2050	0,11 *0.0044*	0,13 *0.0050*	0,19 *0.0075*
M2	LOEX120708R-T4-M09 MS2050	0,10 *0.0040*	0,11 *0.0044*	0,17 *0.0065*
M3	LOEX120708R-T4-M09 MS2050	0,085 *0.0034*	0,090 *0.0036*	0,14 *0.0055*
M4	LOEX120708TR-T4-M12 MS2050	0,095 *0.0038*	0,10 *0.0040*	0,16 *0.0065*
M5	LOEX120708TR-T4-M12 MS2050	0,095 *0.0038*	0,10 *0.0040*	0,16 *0.0065*
K1	LOEX120708TR-T4-MD13 MK2050	0,16 *0.0065*	0,18 *0.0070*	0,26 *0.010*
K2	LOEX120708TR-T4-MD13 MK2050	0,15 *0.0060*	0,16 *0.0065*	0,24 *0.0095*
K3	LOEX120708TR-T4-MD13 MK2050	0,15 *0.0060*	0,16 *0.0065*	0,24 *0.0095*
K4	LOEX120708TR-T4-MD13 MK2050	0,15 *0.0060*	0,16 *0.0065*	0,24 *0.0095*
K5	LOEX120708TR-T4-MD13 MK2050	0,13 *0.0050*	0,14 *0.0055*	0,22 *0.0085*
K6	LOEX120708TR-T4-MD13 MK2050	0,15 *0.0060*	0,16 *0.0065*	0,24 *0.0095*
K7	LOEX120708TR-T4-MD13 MK2050	0,13 *0.0050*	0,14 *0.0055*	0,22 *0.0085*
N1	LOEX120708R-T4-M09 F40M	0,15 *0.0060*	0,16 *0.0065*	0,24 *0.0095*
N2	LOEX120708R-T4-M09 F40M	0,15 *0.0060*	0,16 *0.0065*	0,24 *0.0095*
N3	LOEX120708R-T4-M09 F40M	0,15 *0.0060*	0,16 *0.0065*	0,24 *0.0095*
N11	LOEX120708R-T4-M09 F40M	0,15 *0.0060*	0,16 *0.0065*	0,24 *0.0095*
S1	LOEX120708TR-T4-M12 F40M	0,095 *0.0038*	0,10 *0.0040*	0,16 *0.0065*
S2	LOEX120708TR-T4-M12 F40M	0,095 *0.0038*	0,10 *0.0040*	0,16 *0.0065*
S3	LOEX120708TR-T4-M12 F40M	0,090 *0.0036*	0,095 *0.0038*	0,15 *0.0060*
S11	LOEX120708R-T4-M09 F40M	0,085 *0.0034*	0,090 *0.0036*	0,14 *0.0055*
S12	LOEX120708R-T4-M09 F40M	0,085 *0.0034*	0,090 *0.0036*	0,14 *0.0055*
S13	LOEX120708R-T4-M09 F40M	0,075 *0.0030*	0,080 *0.0032*	0,12 *0.0048*
H5	LOEX120708TR-T4-MD13 MP1501	0,090 *0.0036*	0,10 *0.0040*	0,15 *0.0060*
H8	LOEX120708TR-T4-MD13 MP1501	0,070 *0.0028*	0,075 *0.0030*	0,12 *0.0048*
H11	LOEX120708TR-T4-MD13 MP1501	0,090 *0.0036*	0,10 *0.0040*	0,15 *0.0060*
H12	LOEX120708TR-T4-M12 MS2500	0,065 *0.0026*	0,070 *0.0028*	0,11 *0.0044*

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

R217/220.94-12 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	MK2050			MP3000			MS2050			F40M			MP2050		
	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%
P1	155 *510*	170 *560*	185 *610*	155 *510*	175 *570*	185 *610*	150 *490*	170 *560*	180 *590*	140 *460*	160 *520*	170 *560*	155 *510*	175 *570*	185 *610*
P2	150 *490*	170 *560*	180 *590*	150 *490*	170 *560*	180 *590*	150 *490*	170 *560*	180 *590*	135 *445*	155 *510*	165 *540*	155 *510*	175 *570*	185 *610*
P3	140 *460*	160 *520*	170 *560*	145 *475*	165 *540*	175 *570*	140 *460*	160 *520*	170 *560*	130 *425*	150 *490*	160 *520*	145 *475*	165 *540*	175 *570*
P4	135 *445*	155 *510*	165 *540*	135 *445*	155 *510*	165 *540*	130 *425*	150 *490*	160 *520*	120 *395*	140 *460*	150 *490*	135 *445*	155 *510*	165 *540*
P5	130 *425*	150 *490*	160 *520*	130 *425*	150 *490*	165 *540*	130 *425*	150 *490*	160 *520*	115 *375*	135 *445*	150 *490*	135 *445*	155 *510*	165 *540*
P6	140 *460*	160 *520*	170 *560*	140 *460*	160 *520*	170 *560*	140 *460*	155 *510*	165 *540*	125 *410*	145 *475*	155 *510*	145 *475*	160 *520*	175 *570*
P7	135 *445*	155 *510*	165 *540*	135 *445*	155 *510*	165 *540*	135 *445*	150 *490*	165 *540*	120 *395*	140 *460*	150 *490*	140 *460*	155 *510*	170 *560*
P8	130 *425*	150 *490*	160 *520*	130 *425*	150 *490*	160 *520*	130 *425*	145 *475*	160 *520*	115 *375*	135 *445*	145 *475*	135 *445*	155 *510*	165 *540*
P11	135 *445*	150 *490*	165 *540*	135 *445*	155 *510*	165 *540*	130 *425*	150 *490*	160 *520*	120 *395*	140 *460*	150 *490*	140 *460*	155 *510*	165 *540*
P12	105 *345*	125 *410*	135 *445*	105 *345*	125 *410*	135 *445*	105 *345*	120 *395*	130 *425*	90 *295*	110 *360*	120 *395*	110 *360*	125 *410*	140 *460*
M1	— —	— —	— —	135 *445*	150 *490*	165 *540*	135 *445*	155 *510*	165 *540*	125 *410*	140 *460*	155 *510*	130 *425*	150 *490*	160 *520*
M2	— —	— —	— —	120 *395*	140 *460*	150 *490*	125 *410*	140 *460*	150 *490*	110 *360*	130 *425*	140 *460*	120 *395*	140 *460*	150 *490*
M3	— —	— —	— —	105 *345*	125 *410*	135 *445*	110 *360*	125 *410*	135 *445*	95 *310*	115 *375*	125 *410*	105 *345*	125 *410*	135 *445*
M4	— —	— —	— —	90 *295*	110 *360*	120 *395*	90 *295*	110 *360*	120 *395*	80 *260*	100 *330*	110 *360*	90 *295*	110 *360*	120 *395*
M5	— —	— —	— —	80 *260*	95 *310*	105 *345*	80 *260*	95 *310*	110 *360*	70 *230*	85 *280*	95 *310*	80 *260*	95 *310*	105 *345*
K1	155 *510*	175 *570*	185 *610*	135 *445*	155 *510*	165 *540*	— —	— —	— —	120 *395*	140 *460*	150 *490*	— —	— —	— —
K2	150 *490*	165 *540*	180 *590*	130 *425*	145 *475*	160 *520*	— —	— —	— —	115 *375*	135 *445*	145 *475*	— —	— —	— —
K3	135 *445*	155 *510*	170 *560*	115 *375*	135 *445*	150 *490*	— —	— —	— —	100 *330*	120 *395*	135 *445*	— —	— —	— —
K4	135 *445*	155 *510*	165 *540*	115 *375*	135 *445*	145 *475*	— —	— —	— —	100 *330*	120 *395*	130 *425*	— —	— —	— —
K5	100 *330*	120 *395*	130 *425*	85 *280*	100 *330*	110 *360*	— —	— —	— —	70 *230*	85 *280*	100 *330*	— —	— —	— —
K6	125 *410*	145 *475*	155 *510*	105 *345*	125 *410*	135 *445*	— —	— —	— —	90 *295*	110 *360*	120 *395*	— —	— —	— —
K7	120 *395*	135 *445*	150 *490*	100 *330*	120 *395*	130 *425*	— —	— —	— —	85 *280*	105 *345*	115 *375*	— —	— —	— —
N1	— —	— —	— —	— —	— —	— —	— —	— —	— —	255 *840*	275 *900*	285 *940*	— —	— —	— —
N2	— —	— —	— —	— —	— —	— —	— —	— —	— —	195 *640*	215 *710*	225 *740*	— —	— —	— —
N3	— —	— —	— —	— —	— —	— —	— —	— —	— —	165 *540*	185 *610*	195 *640*	— —	— —	— —
N11	— —	— —	— —	— —	— —	— —	— —	— —	— —	175 *570*	195 *640*	205 *670*	— —	— —	— —
S1	— —	— —	— —	44 *145*	60 *195*	70 *230*	45 *150*	60 *195*	70 *230*	38 *125*	50 *165*	60 *195*	46 *150*	60 *195*	70 *230*
S2	— —	— —	— —	36 *120*	47 *155*	55 *180*	36 *120*	48 *155*	55 *180*	31 *100*	41 *135*	48 *155*	37 *120*	49 *160*	55 *180*
S3	— —	— —	— —	31 *100*	41 *135*	48 *155*	32 *105*	42 *140*	50 *165*	27 *90*	36 *120*	42 *140*	32 *105*	43 *140*	50 *165*
S11	— —	— —	— —	— —	— —	— —	65 *215*	80 *260*	90 *295*	55 *180*	70 *230*	80 *260*	65 *215*	80 *260*	95 *310*
S12	— —	— —	— —	— —	— —	— —	43 *140*	60 *195*	70 *230*	37 *120*	48 *155*	55 *180*	44 *145*	60 *195*	70 *230*
S13	— —	— —	— —	— —	— —	— —	25 *80*	33 *110*	39 *130*	21 *70*	29 *95*	33 *110*	26 *85*	34 *110*	40 *130*
H5	— —	— —	— —	38 *125*	50 *165*	60 *195*	— —	— —	— —	32 *105*	43 *140*	50 *165*	— —	— —	— —
H8	— —	— —	— —	40 *130*	55 *180*	60 *195*	— —	— —	— —	34 *110*	46 *150*	55 *180*	— —	— —	— —
H11	— —	— —	— —	48 *155*	65 *215*	75 *245*	— —	— —	— —	41 *135*	55 *180*	65 *215*	48 *155*	65 *215*	75 *245*
H12	— —	— —	— —	75 *245*	95 *310*	105 *345*	— —	— —	— —	60 *195*	80 *260*	90 *295*	80 *260*	100 *330*	110 *360*

R217/220.94-12 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	MK1500			MP1501			MP2501			MP3000			MP3501		
	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%
P1	—	—	—	180	195	200	185	195	205	155	175	185	175	190	195
	—	—	—	*590*	*640*	*660*	*610*	*640*	*670*	*510*	*570*	*610*	*570*	*620*	*640*
P2	—	—	—	180	190	200	180	195	200	150	170	180	170	185	195
	—	—	—	*590*	*620*	*660*	*590*	*640*	*660*	*490*	*560*	*590*	*560*	*610*	*640*
P3	—	—	—	170	185	190	170	185	195	145	165	175	165	175	185
	—	—	—	*560*	*610*	*620*	*560*	*610*	*640*	*475*	*540*	*570*	*540*	*570*	*610*
P4	—	—	—	160	175	185	165	175	185	135	155	165	155	170	175
	—	—	—	*520*	*570*	*610*	*540*	*570*	*610*	*445*	*510*	*540*	*510*	*560*	*570*
P5	—	—	—	155	170	180	160	175	185	130	150	165	150	165	175
	—	—	—	*510*	*560*	*590*	*520*	*570*	*610*	*425*	*490*	*540*	*490*	*540*	*570*
P6	—	—	—	165	180	190	170	185	190	140	160	170	160	175	185
	—	—	—	*540*	*590*	*620*	*560*	*610*	*620*	*460*	*520*	*560*	*520*	*570*	*610*
P7	—	—	—	165	175	185	165	180	185	135	155	165	155	170	180
	—	—	—	*540*	*570*	*610*	*540*	*590*	*610*	*445*	*510*	*540*	*510*	*560*	*590*
P8	—	—	—	155	170	180	160	175	180	130	150	160	150	165	175
	—	—	—	*510*	*560*	*590*	*520*	*570*	*590*	*425*	*490*	*520*	*490*	*540*	*570*
P11	—	—	—	160	175	185	165	175	185	135	155	165	155	170	175
	—	—	—	*520*	*570*	*610*	*540*	*570*	*610*	*445*	*510*	*540*	*510*	*560*	*570*
P12	—	—	—	130	145	150	135	145	155	105	125	135	125	140	145
	—	—	—	*425*	*475*	*490*	*445*	*475*	*510*	*345*	*410*	*445*	*410*	*460*	*475*
M1	—	—	—	—	—	—	135	155	165	135	150	165	130	150	160
	—	—	—	—	—	—	*445*	*510*	*540*	*445*	*490*	*540*	*425*	*490*	*520*
M2	—	—	—	—	—	—	125	140	155	120	140	150	115	135	145
	—	—	—	—	—	—	*410*	*460*	*510*	*395*	*460*	*490*	*375*	*445*	*475*
M3	—	—	—	—	—	—	110	130	140	105	125	135	105	120	135
	—	—	—	—	—	—	*360*	*425*	*460*	*345*	*410*	*445*	*345*	*395*	*445*
M4	—	—	—	—	—	—	90	110	120	90	110	120	85	105	115
	—	—	—	—	—	—	*295*	*360*	*395*	*295*	*360*	*395*	*280*	*345*	*375*
M5	—	—	—	—	—	—	80	100	110	80	95	105	75	95	105
	—	—	—	—	—	—	*260*	*330*	*360*	*260*	*310*	*345*	*245*	*310*	*345*
K1	160	180	190	180	195	200	180	195	205	135	155	165	170	185	195
	520	*590*	*620*	*590*	*640*	*660*	*590*	*640*	*670*	*445*	*510*	*540*	*560*	*610*	*640*
K2	150	170	180	170	185	195	175	185	195	130	145	160	165	180	190
	490	*560*	*590*	*560*	*610*	*640*	*570*	*610*	*640*	*425*	*475*	*520*	*540*	*590*	*620*
K3	140	160	170	160	175	180	165	175	185	115	135	150	155	165	175
	460	*520*	*560*	*520*	*570*	*590*	*540*	*570*	*610*	*375*	*445*	*490*	*510*	*540*	*570*
K4	135	155	170	155	170	180	160	175	180	115	135	145	150	165	175
	445	*510*	*560*	*510*	*560*	*590*	*520*	*570*	*590*	*375*	*445*	*475*	*490*	*540*	*570*
K5	105	125	135	125	140	145	125	140	150	85	100	110	120	130	140
	345	*410*	*445*	*410*	*460*	*475*	*410*	*460*	*490*	*280*	*330*	*360*	*395*	*425*	*460*
K6	130	150	160	145	160	170	150	165	175	105	125	135	140	155	165
	425	*490*	*520*	*475*	*520*	*560*	*490*	*540*	*570*	*345*	*410*	*445*	*460*	*510*	*540*
K7	120	140	150	140	155	160	145	155	165	100	120	130	135	150	155
	395	*460*	*490*	*460*	*510*	*520*	*475*	*510*	*540*	*330*	*395*	*425*	*445*	*490*	*510*
N1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
N2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
N3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
N11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S1	—	—	—	—	—	—	—	—	—	44	60	70	42	55	65
	—	—	—	—	—	—	—	—	—	*145*	*195*	*230*	*140*	*180*	*215*
S2	—	—	—	—	—	—	—	—	—	36	47	55	34	45	50
	—	—	—	—	—	—	—	—	—	*120*	*155*	*180*	*110*	*150*	*165*
S3	—	—	—	—	—	—	—	—	—	31	41	48	30	39	46
	—	—	—	—	—	—	—	—	—	*100*	*135*	*155*	*100*	*130*	*150*
S11	—	—	—	—	—	—	—	—	—	—	—	—	60	75	90
	—	—	—	—	—	—	—	—	—	—	—	—	*195*	*245*	*295*
S12	—	—	—	—	—	—	—	—	—	—	—	—	40	55	65
	—	—	—	—	—	—	—	—	—	—	—	—	*130*	*180*	*215*
S13	—	—	—	—	—	—	—	—	—	—	—	—	24	31	37
	—	—	—	—	—	—	—	—	—	—	—	—	*80*	*100*	*120*
H5	—	—	—	47	60	70	—	—	—	38	50	60	37	49	60
	—	—	—	*155*	*195*	*230*	—	—	—	*125*	*165*	*195*	*120*	*160*	*195*
H8	—	—	—	50	65	75	—	—	—	40	55	60	40	50	60
	—	—	—	*165*	*215*	*245*	—	—	—	*130*	*180*	*195*	*130*	*165*	*195*
H11	—	—	—	60	75	90	—	—	—	48	65	75	47	60	75
	—	—	—	*195*	*245*	*295*	—	—	—	*155*	*215*	*245*	*155*	*195*	*245*
H12	—	—	—	85	105	115	—	—	—	75	95	105	70	90	100
	—	—	—	*280*	*345*	*375*	—	—	—	*245*	*310*	*345*	*230*	*295*	*330*

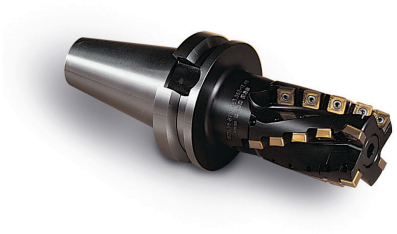


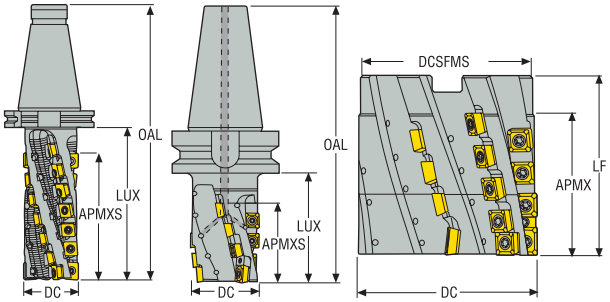
R215/220.59 HELICAL

Our comprehensive selection of high-performance helical milling cutters incorporate the latest geometries and grades to achieve high feed rates, large depths of cut and aggressive metal removal in contouring and profiling operations. The helix angle allows the cutter to absorb most of the end load so it smoothly enter and exit the workpiece.

- Cutter range 50-100 mm (2 inch)
- Many options for different types of mounting

R215.59-12.4 – Half effective – Metric



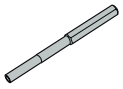
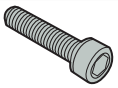


- For insert selection and cutting data recommendations, see page(s) 190-191
- For complete insert programme, see page(s) 807,821
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	ZEFP	ZNP	APMXS	DCB	DCSFMS	LF	LUX	RPMX	Weight	SC.T	AC.T
			mm			mm	mm	mm	mm	mm		kg		
R215.59-BT50.050.077-12.4A	75066231	BT50	50,0	2	18	77,0	–	100,0	148,0	110,0	8300	4,5	18	2
R215.59-BT50.063.086-12.4S	75034445	BT50	63,0	2	18	86,0	–	100,0	162,9	125,0	7400	6,8	18	2
R215.59-BT50.080.095-12.4S	75034446	BT50	80,0	2	22	96,0	–	100,0	173,0	135,0	6500	6,6	20	2
R215.59-50063120-12.4S	00026979	DIN2080	63,0	2	28	122,8	–	97,45	200,0	165,0	7400	5,6	26	2
R220.59-00080.068-12.6	75000109	Arbor	80,0	3	24	68,0	32,0	77,0	85,0	–	6500	1,9	21	3
R220.59-00100077-12.6S	75000112	Arbor	100,0	3	27	77,0	40,0	90,0	100,0	–	5800	3,7	24	3
R220.59-00100077-12.6SR6	75000247	Arbor	100,0	3	24	77,0	40,0	90,0	100,0	–	5800	4,4	21*	3*
R220.59-00100077-12.8S	75000113	Arbor	100,0	4	36	77,0	40,0	90,0	100,0	–	5800	3,9	32	3
R220.59-00100077-12.8SR6	75000248	Arbor	100,0	4	32	77,0	40,0	90,0	100,0	–	5800	4,5	28	4

Modification of the cutter body needed for radii > 3,0 mm
*Compatible with radii 6.0 mm only

Spare Parts, included in delivery

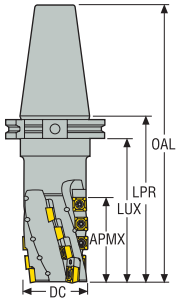
For cutter	Arbor screw	Assembly screw	Basic body	Insert key	Insert screw	Replaceable end	Tenon	Tenon screw
								
R215.59-050	–	–	–	H6B-T20P	C45011-T20P	–	–	–
R215.59-060	–	215.59-691	R215.59-BT50.063.062-12.4B	H6B-T20P	C45011-T20P	R220.59-RE063024-12.4	–	–
R220.59-080	–	215.59-692S	R215.59-BT50.080.061-12.4B	H6B-T20PL	C45011-T20P	R220.59-RE080034-12.4	DK1010	TCEI0412
R215.59-50-4S	–	215.59-691	R215.59-CV50/50063096-12.4B	H6B-T20P	C45011-T20P	R220.59-RE063024-12.4	–	–
R220.59-00080	MC6S16X70	–	–	H6B-T20P	C45011-T20P	–	–	–
R220.59-00100..6S	215.59-693S	–	R220.59-00100043-12.6B	H6B-T20PL	C45011-T20P	R220.59-RE100034-12.6	DK1210	TCEI0412
R220.59-00100..6SR	215.59-693S	–	R220.59-00100043-12.6B	H6B-T20PL	C45011-T20P	R220.59-RE100034-12.6R6	DK1210	TCEI0412
R220.59-00100..8S	215.59-693S	–	R220.59-00100043-12.8B	H6B-T20PL	C45011-T20P	R220.59-RE100034-12.8	DK1210	TCEI0412
R220.59-00100..8SR	215.59-693S	–	R220.59-00100043-12.8B	H6B-T20PL	C45011-T20P	R220.59-RE100034-12.8R6	DK1210	TCEI0412

Accessories

For cutter	Insert clamping torque	Torque key
		
R215.59-..	5.0NM	T00-20P50

Torque and fixed keys, see page 872

R215.59-12.4 – Half effective – Metric



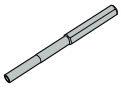
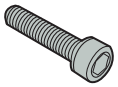


- For insert selection and cutting data recommendations, see page(s) 190-191
- For complete insert programme, see page(s) 807,821
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	ZEFP	ZNP	APMXS	LF	LUX	RPMX	Weight	SC.T	AC.T
			mm			mm	mm	mm		kg		
R215.59-CV50050120-12.4	00026978	CV50	50,0	2	28	122,9	180,0	145,0	8300	4,5	26	2
R215.59-CV50063086-12.4S	75003346	CV50	63,0	2	20	86,0	160,0	120,0	7400	5,0	18	2
R215.59-CV50063086-12.4SR6	75000244	CV50	63,0	2	20	86,0	160,0	120,0	7400	5,1	16*	2*
R215.59-CV50063120-12.4S	00026980	CV50	63,0	2	28	122,8	200,0	165,0	7400	5,6	26	2
R215.59-CV50063120-12.4SR6	00027074	CV50	63,0	2	28	122,8	199,9	165,0	7400	5,8	24	2
R215.59-CV50063160-12.4S	00095805	CV50	63,0	2	36	158,7	234,9	200,0	7400	6,2	34	2
R215.59-CV50063160-12.4SR6	00095807	CV50	63,0	2	36	158,7	234,9	200,0	7400	6,2	32	2
R215.59-CV50080095-12.4S	75007713	CV50	80,0	2	22	96,0	150,0	131,0	6500	5,5	20	2
R215.59-CV50080095-12.6S	75003347	CV50	80,0	3	33	96,0	150,0	131,0	6500	5,9	30	3

Modification of the cutter body needed for radii > 3,0 mm
*Compatible with radii 6.0 mm only

Spare Parts, included in delivery

For cutter	Assembly screw	Basic body	Insert key	Insert screw	Replaceable end	Tenon	Tenon screw
							
R215.59-CV50-12.4	–	–	H6B-T20P	C45011-T20P	–	–	–
R215.59-CV5006-12.4S	215.59-691	R215.59-CV50063062-12.4B	H6B-T20P	C45011-T20P	R220.59-RE063024-12.4	–	–
R215.59-CV50-12.4SR	215.59-691	R215.59-CV50063062-12.4B	H6B-T20P	C45011-T20P	R220.59-RE063024-12.4R6	–	–
R215.59-63-120-12.4S	215.59-691	R215.59-CV50/50063096-12.4B	H6B-T20P	C45011-T20P	R220.59-RE063024-12.4	–	–
R215.59-63-120-12.4SR	215.59-691	R215.59-CV50/50063096-12.4B	H6B-T20P	C45011-T20P	R220.59-RE063024-12.4R6	–	–
R215.59-63-160-12.4S	215.59-691	R215.59-CV50/50063134-12.4B	H6B-T20P	C45011-T20P	R220.59-RE063024-12.4	–	–
R215.59-63-160-12.4SR	215.59-691	R215.59-CV50/50063134-12.4B	H6B-T20P	C45011-T20P	R220.59-RE063024-12.4R6	–	–
R215.59-CV5008-12.4S	215.59-692S	R215.59-CV50080061-12.4B	H6B-T20PL	C45011-T20P	R220.59-RE080034-12.4	DK1010	TCEI0412
R220.59-080-12.6S	215.59-692S	R215.59-CV50080061-12.6B	H6B-T20PL	C45011-T20P	R220.59-RE080034-12.6	DK1010	TCEI0412

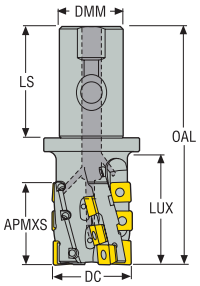
Accessories

For cutter	Insert clamping torque	Torque key
		
R215.59-..	5.0NM	T00-20P50

Torque and fixed keys, see page 872

R215.59-12.4..K – Full effective – Metric



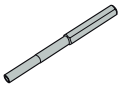


- For insert selection and cutting data recommendations, see page(s) 190-191
- For complete insert programme, see page(s) 807,821
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	ZEFP	ZNP	APMXS	DMM	LS	LUX	OAL	RPMX	Weight	SC.T	AC.T
			mm			mm	mm	mm	mm	mm		kg		
R215.59-4050.3S-063-12.3K	00092248	Seco-Weldon	50,0	3	18	63,0	40,0	70,0	78,0	160,0	8300	1,5	15	3

Modification of the cutter body needed for radii > 3,0 mm

Spare Parts, included in delivery

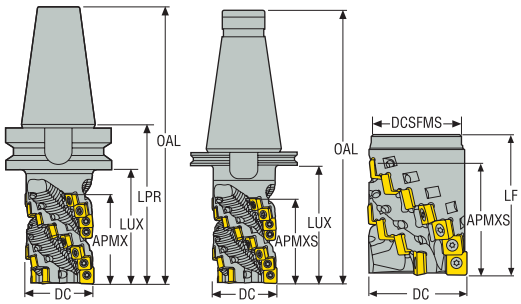
For cutter	Insert key	Insert screw
		
R215.59-..	H6B-T20P	C45011-T20P

Accessories

For cutter	Insert clamping torque	Torque key
		
R215.59-..	5.0NM	T00-20P50

Torque and fixed keys, see page 872

R215/220.59-12.4 – Full effective – Metric



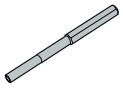


- For insert selection and cutting data recommendations, see page(s) 190-191
- For complete insert programme, see page(s) 807,821
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	ZEFP	ZNP	APMXS	DCB	DCSFMS	LF	LUX	RPMX	Weight	SC.T	AC.T
			mm			mm	mm	mm	mm	mm		kg		
R215.59-BT50050072-12.3K	00008459	BT50	50,0	3	21	73,0	–	100,0	145,0	103,0	8300	4,9	18	3
R215.59-BT50063110-12.3K	00008466	BT50	63,0	3	33	111,8	–	100,0	180,0	137,0	7400	5,7	30	3
R220.59-00080.072-12.5K	00008462	Arbor	80,0	5	35	72,0	32,0	74,7	100,0	–	6500	2,3	30	5

Modification of the cutter body needed for radii > 3,0 mm

Spare Parts, included in delivery

For cutter	Arbor screw	Insert key	Insert screw
			
R215.59-..	–	H6B-T20P	C45011-T20P
R220.59-00080	MC6S16X80	H6B-T20P	C45011-T20P

Accessories

For cutter	Insert clamping torque	Torque key
		
R215.59-..	5.0NM	T00-20P50

Torque and fixed keys, see page 872

R215/220.59-12 – Insert selection – mm/*Inch*

SMG			f_z		
			100%	30%	10%
P1	ACET150612TR-M11 MP2501	SCET120612T-M11 MP2501	0,12 *0.0048*	0,14 *0.0055*	0,20 *0.0080*
P2	ACET150612TR-M11 MP2501	SCET120612T-M11 MP2501	0,13 *0.0050*	0,14 *0.0055*	0,22 *0.0085*
P3	ACET150612TR-M11 MP2501	SCET120612T-M11 MP2501	0,12 *0.0048*	0,13 *0.0050*	0,20 *0.0080*
P4	ACET150612TR-M11 MP2501	SCET120612T-M11 MP2501	0,12 *0.0048*	0,13 *0.0050*	0,20 *0.0080*
P5	ACET150612TR-M11 MP2501	SCET120612T-M11 MP2501	0,11 *0.0044*	0,13 *0.0050*	0,19 *0.0075*
P6	ACET150612TR-M11 MP2501	SCET120612T-M11 MP2501	0,11 *0.0044*	0,12 *0.0048*	0,19 *0.0075*
P7	ACET150612TR-M11 MP2501	SCET120612T-M11 MP2501	0,11 *0.0044*	0,12 *0.0048*	0,19 *0.0075*
P8	ACET150612TR-M11 MP2501	SCET120612T-M11 MP2501	0,12 *0.0048*	0,13 *0.0050*	0,20 *0.0080*
P11	ACET150612TR-M11 MP3501	SCET120612T-M11 MP3501	0,11 *0.0044*	0,12 *0.0048*	0,19 *0.0075*
P12	ACET150612TR-M11 MP3501	SCET120612T-M11 MP3501	0,080 *0.0032*	0,085 *0.0034*	0,13 *0.0050*
M1	ACET150612TR-ME10 MS2050	SCET120612R-M10 MS2050	0,11 *0.0044*	0,13 *0.0050*	0,19 *0.0075*
M2	ACET150612TR-ME10 MS2050	SCET120612R-M10 MS2050	0,10 *0.0040*	0,11 *0.0044*	0,17 *0.0065*
M3	ACET150612TR-ME10 MS2050	SCET120612R-M10 MS2050	0,085 *0.0034*	0,090 *0.0036*	0,14 *0.0055*
M4	ACET150612TR-M11 MP3501	SCET120612T-M11 MP3501	0,080 *0.0032*	0,090 *0.0036*	0,13 *0.0050*
M5	ACET150612TR-M11 MP3501	SCET120612T-M11 MP3501	0,080 *0.0032*	0,090 *0.0036*	0,13 *0.0050*
K1	ACET150612TR-M14 MK1500	SCET120612T-M14 MK1500	0,16 *0.0065*	0,18 *0.0070*	0,26 *0.010*
K2	ACET150612TR-M14 MK1500	SCET120612T-M14 MK1500	0,15 *0.0060*	0,16 *0.0065*	0,24 *0.0095*
K3	ACET150612TR-M14 MK1500	SCET120612T-M14 MK1500	0,15 *0.0060*	0,16 *0.0065*	0,24 *0.0095*
K4	ACET150612TR-M14 MK1500	SCET120612T-M14 MK1500	0,15 *0.0060*	0,16 *0.0065*	0,24 *0.0095*
K5	ACET150612TR-M14 MK1500	SCET120612T-M14 MK1500	0,13 *0.0050*	0,14 *0.0055*	0,22 *0.0085*
K6	ACET150612TR-M14 MK1500	SCET120612T-M14 MK1500	0,15 *0.0060*	0,16 *0.0065*	0,24 *0.0095*
K7	ACET150612TR-M14 MK1500	SCET120612T-M14 MK1500	0,13 *0.0050*	0,14 *0.0055*	0,22 *0.0085*
S1	ACET150612TR-M11 F40M	SCET120612T-M11 F40M	0,080 *0.0032*	0,090 *0.0036*	0,13 *0.0050*
S2	ACET150612TR-M11 F40M	SCET120612T-M11 F40M	0,080 *0.0032*	0,090 *0.0036*	0,13 *0.0050*
S3	ACET150612TR-M11 F40M	SCET120612T-M11 F40M	0,075 *0.0030*	0,080 *0.0032*	0,12 *0.0048*
S11	ACET150612TR-ME10 MS2050	SCET120612R-M10 MS2050	0,085 *0.0034*	0,090 *0.0036*	0,14 *0.0055*
S12	ACET150612TR-ME10 MS2050	SCET120612R-M10 MS2050	0,085 *0.0034*	0,090 *0.0036*	0,14 *0.0055*
S13	ACET150612TR-ME10 MS2050	SCET120612R-M10 MS2050	0,075 *0.0030*	0,080 *0.0032*	0,12 *0.0048*
H5	ACET150612TR-M11 MP3501	SCET120612T-M11 MP3501	0,080 *0.0032*	0,085 *0.0034*	0,13 *0.0050*
H8	ACET150612TR-M11 MP3501	SCET120612T-M11 MP3501	0,060 *0.0024*	0,065 *0.0026*	0,10 *0.0040*
H11	ACET150612TR-M11 MP3501	SCET120612T-M11 MP3501	0,080 *0.0032*	0,085 *0.0034*	0,13 *0.0050*
H12	ACET150612TR-M11 MP3501	SCET120612T-M11 MP3501	0,060 *0.0024*	0,065 *0.0026*	0,10 *0.0040*

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

R215/220.59-12 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	MP3000			MS2050			F40M			MK1500			MP1501			MP2501			MP3501		
	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%
P1	120 *395*	130 *425*	140 *460*	120 *395*	130 *425*	140 *460*	110 *360*	125 *410*	135 *445*	— —	— —	— —	140 *460*	150 *490*	155 *510*	140 *460*	150 *490*	155 *510*	135 *445*	145 *475*	150 *490*
P2	115 *375*	130 *425*	140 *460*	120 *395*	130 *425*	140 *460*	110 *360*	125 *410*	130 *425*	— —	— —	— —	140 *460*	150 *490*	155 *510*	140 *460*	150 *490*	155 *510*	135 *445*	145 *475*	150 *490*
P3	110 *360*	125 *410*	130 *425*	110 *360*	125 *410*	130 *425*	105 *345*	115 *375*	125 *410*	— —	— —	— —	135 *445*	145 *475*	150 *490*	135 *445*	145 *475*	150 *490*	130 *425*	140 *460*	145 *475*
P4	105 *345*	120 *395*	125 *410*	105 *345*	120 *395*	125 *410*	100 *330*	110 *360*	120 *395*	— —	— —	— —	130 *425*	135 *445*	145 *475*	125 *410*	135 *445*	140 *460*	120 *395*	130 *425*	135 *445*
P5	100 *330*	115 *375*	125 *410*	105 *345*	115 *375*	125 *410*	95 *310*	110 *360*	115 *375*	— —	— —	— —	125 *410*	135 *445*	140 *460*	125 *410*	135 *445*	140 *460*	120 *395*	130 *425*	135 *445*
P6	110 *360*	120 *395*	130 *425*	110 *360*	125 *410*	130 *425*	100 *330*	115 *375*	125 *410*	— —	— —	— —	130 *425*	140 *460*	145 *475*	130 *425*	140 *460*	145 *475*	125 *410*	135 *445*	140 *460*
P7	105 *345*	120 *395*	125 *410*	105 *345*	120 *395*	130 *425*	100 *330*	110 *360*	120 *395*	— —	— —	— —	130 *425*	140 *460*	145 *475*	130 *425*	140 *460*	145 *475*	125 *410*	135 *445*	140 *460*
P8	100 *330*	115 *375*	125 *410*	105 *345*	115 *375*	125 *410*	95 *310*	110 *360*	115 *375*	— —	— —	— —	125 *410*	135 *445*	140 *460*	125 *410*	135 *445*	140 *460*	120 *395*	130 *425*	135 *445*
P11	105 *345*	115 *375*	125 *410*	105 *345*	120 *395*	125 *410*	100 *330*	110 *360*	120 *395*	— —	— —	— —	130 *425*	135 *445*	140 *460*	125 *410*	135 *445*	140 *460*	120 *395*	130 *425*	135 *445*
P12	85 *280*	95 *310*	105 *345*	85 *280*	100 *330*	105 *345*	80 *260*	90 *295*	100 *330*	— —	— —	— —	105 *345*	115 *375*	120 *395*	105 *345*	115 *375*	120 *395*	100 *330*	110 *360*	115 *375*
M1	105 *345*	115 *375*	125 *410*	110 *360*	120 *395*	130 *425*	100 *330*	115 *375*	120 *395*	— —	— —	— —	— —	— —	— —	105 *345*	120 *395*	130 *425*	105 *345*	115 *375*	125 *410*
M2	95 *310*	110 *360*	115 *375*	100 *330*	110 *360*	120 *395*	90 *295*	105 *345*	110 *360*	— —	— —	— —	— —	— —	— —	100 *330*	115 *375*	120 *395*	95 *310*	110 *360*	115 *375*
M3	85 *280*	100 *330*	105 *345*	90 *295*	100 *330*	110 *360*	80 *260*	95 *310*	100 *330*	— —	— —	— —	— —	— —	— —	90 *295*	100 *330*	110 *360*	85 *280*	100 *330*	105 *345*
M4	75 *245*	85 *280*	95 *310*	75 *245*	90 *295*	100 *330*	70 *230*	80 *260*	90 *295*	— —	— —	— —	— —	— —	— —	80 *260*	90 *295*	100 *330*	75 *245*	85 *280*	95 *310*
M5	65 *215*	80 *260*	85 *280*	70 *230*	80 *260*	90 *295*	60 *195*	75 *245*	80 *260*	— —	— —	— —	— —	— —	— —	70 *230*	80 *260*	90 *295*	65 *215*	80 *260*	85 *280*
K1	105 *345*	120 *395*	125 *410*	— —	— —	— —	100 *330*	110 *360*	120 *395*	125 *410*	140 *460*	145 *475*	140 *460*	150 *490*	155 *510*	140 *460*	150 *490*	155 *510*	135 *445*	145 *475*	150 *490*
K2	100 *330*	115 *375*	120 *395*	— —	— —	— —	95 *310*	105 *345*	115 *375*	120 *395*	135 *445*	140 *460*	135 *445*	145 *475*	150 *490*	135 *445*	145 *475*	150 *490*	130 *425*	140 *460*	145 *475*
K3	90 *295*	105 *345*	115 *375*	— —	— —	— —	85 *280*	100 *330*	105 *345*	110 *360*	125 *410*	135 *445*	130 *425*	135 *445*	140 *460*	125 *410*	135 *445*	140 *460*	120 *395*	130 *425*	135 *445*
K4	90 *295*	105 *345*	110 *360*	— —	— —	— —	85 *280*	95 *310*	105 *345*	110 *360*	125 *410*	130 *425*	125 *410*	135 *445*	140 *460*	125 *410*	135 *445*	140 *460*	120 *395*	130 *425*	135 *445*
K5	70 *230*	80 *260*	90 *295*	— —	— —	— —	60 *195*	75 *245*	80 *260*	90 *295*	100 *330*	110 *360*	100 *330*	110 *360*	115 *375*	100 *330*	110 *360*	115 *375*	95 *310*	105 *345*	110 *360*
K6	85 *280*	100 *330*	105 *345*	— —	— —	— —	80 *260*	90 *295*	100 *330*	105 *345*	115 *375*	125 *410*	120 *395*	130 *425*	135 *445*	120 *395*	130 *425*	135 *445*	115 *375*	125 *410*	130 *425*
K7	80 *260*	95 *310*	100 *330*	— —	— —	— —	75 *245*	85 *280*	95 *310*	100 *330*	110 *360*	120 *395*	115 *375*	125 *410*	130 *425*	115 *375*	120 *395*	130 *425*	110 *360*	120 *395*	125 *410*
S1	39 *130*	50 *165*	60 *195*	42 *140*	55 *180*	60 *195*	36 *120*	47 *155*	55 *180*	— —	— —	— —	— —	— —	— —	— —	— —	— —	40 *130*	50 *165*	60 *195*
S2	31 *100*	41 *135*	49 *160*	34 *110*	45 *150*	50 *165*	29 *95*	38 *125*	45 *150*	— —	— —	— —	— —	— —	— —	— —	— —	— —	32 *105*	42 *140*	50 *165*
S3	28 *90*	36 *120*	43 *140*	30 *100*	39 *130*	46 *150*	25 *80*	34 *110*	40 *130*	— —	— —	— —	— —	— —	— —	— —	— —	— —	28 *90*	37 *120*	44 *145*
S11	55 *180*	65 *215*	75 *245*	55 *180*	70 *230*	80 *260*	50 *165*	65 *215*	70 *230*	— —	— —	— —	— —	— —	— —	— —	— —	— —	55 *180*	65 *215*	75 *245*
S12	37 *120*	49 *160*	60 *195*	41 *135*	55 *180*	60 *195*	35 *115*	46 *150*	55 *180*	— —	— —	— —	— —	— —	— —	— —	— —	— —	38 *125*	50 *165*	60 *195*
S13	22 *70*	29 *95*	34 *110*	24 *80*	31 *100*	37 *120*	20 *65*	26 *85*	32 *105*	— —	— —	— —	— —	— —	— —	— —	— —	— —	22 *70*	29 *95*	35 *115*
H5	33 *110*	43 *140*	50 *165*	— —	— —	— —	30 *100*	40 *130*	47 *155*	— —	— —	— —	45 *150*	60 *195*	65 *215*	— —	— —	— —	35 *115*	46 *150*	55 *180*
H8	36 *120*	46 *150*	55 *180*	— —	— —	— —	32 *105*	42 *140*	50 *165*	— —	— —	— —	48 *155*	60 *195*	70 *230*	— —	— —	— —	37 *120*	49 *160*	55 *180*
H11	42 *140*	55 *180*	60 *195*	— —	— —	— —	38 *125*	50 *165*	60 *195*	— —	— —	— —	55 *180*	70 *230*	75 *245*	— —	— —	— —	44 *145*	55 *180*	65 *215*
H12	65 *215*	75 *245*	85 *280*	— —	— —	— —	55 *180*	70 *230*	75 *245*	— —	— —	— —	75 *245*	90 *295*	95 *310*	— —	— —	— —	65 *215*	75 *245*	85 *280*

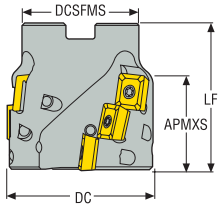


R220.69-15XH HELICAL

Helical mills for heavy duty, inserts with 4-cutting edges, single-sided inserts.

- Cutter range 100-125 mm (2 - 4 inch)
- Depth of cut <=160 mm (6.3 inch), max 30% ae
- Slotting depth max 50% DC
- Insert corner radii range 1.2-6.3 mm (.047 - .248 inch)

R220.69-15H – High feed rates – Metric



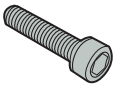
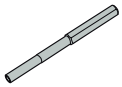


- For insert selection and cutting data recommendations, see page(s) 194-195
- For complete insert programme, see page(s) 807
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	ZEFP	ZNP	APMXS	DCB	DCSFMS	LF	RPMX	Weight	Insert
			mm			mm	mm	mm	mm		kg	
R220.69-0100050-15.6H	75068040	Arbor	100,0	6	24	50,0	40,0	90,0	75,0	5800	2,8	AC.T15..
R220.69-00125050-15.7H	00094725	Arbor	125,0	7	28	50,0	40,0	90,0	75,0	5200	3,5	AC.T15..

Modification of the cutter body needed for radii > 3,0 mm

Spare Parts, included in delivery

For cutter	Arbor screw	Axial support	Insert key	Insert screw	Setting key
					
R220.69-0100	MC6S20X50	CH9411-T09P	H6B-T20PL	C45011-T20P	H4B-T09P
R220.69-00125	–	CH9411-T09P	H6B-T20P	C45011-T20P	H4B-T09P

Accessories

For cutter	Insert clamping torque	Torque key
		
R220.69-..	5.0NM	T00-20P50

Torque and fixed keys, see page 872

R220.69-15 – Insert selection – mm/*Inch*

SMG		f_z		
		100%	30%	10%
P1	ACET150612TR-M11 MP2501	0,12 *0.0048*	0,14 *0.0055*	0,20 *0.0080*
P2	ACET150612TR-M11 MP2501	0,13 *0.0050*	0,14 *0.0055*	0,22 *0.0085*
P3	ACET150612TR-M11 MP2501	0,12 *0.0048*	0,13 *0.0050*	0,20 *0.0080*
P4	ACET150612TR-M11 MP2501	0,12 *0.0048*	0,13 *0.0050*	0,20 *0.0080*
P5	ACET150612TR-M11 MP2501	0,11 *0.0044*	0,13 *0.0050*	0,19 *0.0075*
P6	ACET150612TR-M11 MP2501	0,11 *0.0044*	0,12 *0.0048*	0,19 *0.0075*
P7	ACET150612TR-M11 MP2501	0,11 *0.0044*	0,12 *0.0048*	0,19 *0.0075*
P8	ACET150612TR-M11 MP2501	0,12 *0.0048*	0,13 *0.0050*	0,20 *0.0080*
P11	ACET150612TR-M11 MP3501	0,11 *0.0044*	0,12 *0.0048*	0,19 *0.0075*
P12	ACET150612TR-M11 MP3501	0,080 *0.0032*	0,085 *0.0034*	0,13 *0.0050*
M1	ACET150612TR-ME10 MS2050	0,11 *0.0044*	0,13 *0.0050*	0,19 *0.0075*
M2	ACET150612TR-ME10 MS2050	0,10 *0.0040*	0,11 *0.0044*	0,17 *0.0065*
M3	ACET150612TR-ME10 MS2050	0,085 *0.0034*	0,090 *0.0036*	0,14 *0.0055*
M4	ACET150612TR-M11 MP3501	0,080 *0.0032*	0,090 *0.0036*	0,13 *0.0050*
M5	ACET150612TR-M11 MP3501	0,080 *0.0032*	0,090 *0.0036*	0,13 *0.0050*
K1	ACET150612TR-M14 MK1500	0,16 *0.0065*	0,18 *0.0070*	0,26 *0.010*
K2	ACET150612TR-M14 MK1500	0,15 *0.0060*	0,16 *0.0065*	0,24 *0.0095*
K3	ACET150612TR-M14 MK1500	0,15 *0.0060*	0,16 *0.0065*	0,24 *0.0095*
K4	ACET150612TR-M14 MK1500	0,15 *0.0060*	0,16 *0.0065*	0,24 *0.0095*
K5	ACET150612TR-M14 MK1500	0,13 *0.0050*	0,14 *0.0055*	0,22 *0.0085*
K6	ACET150612TR-M14 MK1500	0,15 *0.0060*	0,16 *0.0065*	0,24 *0.0095*
K7	ACET150612TR-M14 MK1500	0,13 *0.0050*	0,14 *0.0055*	0,22 *0.0085*
S1	ACET150612TR-M11 F40M	0,080 *0.0032*	0,090 *0.0036*	0,13 *0.0050*
S2	ACET150612TR-M11 F40M	0,080 *0.0032*	0,090 *0.0036*	0,13 *0.0050*
S3	ACET150612TR-M11 F40M	0,075 *0.0030*	0,080 *0.0032*	0,13 *0.0048*
S11	ACET150612TR-ME10 MS2050	0,085 *0.0034*	0,090 *0.0036*	0,14 *0.0055*
S12	ACET150612TR-ME10 MS2050	0,085 *0.0034*	0,090 *0.0036*	0,14 *0.0055*
S13	ACET150612TR-ME10 MS2050	0,075 *0.0030*	0,080 *0.0032*	0,12 *0.0048*
H5	ACET150612TR-M11 MP3501	0,080 *0.0032*	0,085 *0.0034*	0,13 *0.0050*
H8	ACET150612TR-M11 MP3501	0,060 *0.0024*	0,065 *0.0026*	0,10 *0.0040*
H11	ACET150612TR-M11 MP3501	0,080 *0.0032*	0,085 *0.0034*	0,13 *0.0050*
H12	ACET150612TR-M14 MP3501	0,075 *0.0030*	0,085 *0.0034*	0,13 *0.0050*

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

R220.69-15 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	F40M			MP3000			MS2050			MK1500			MP1501			MP2501			MP3501		
	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%
P1	135 *445*	150 *490*	165 *540*	145 *475*	165 *540*	175 *570*	145 *475*	165 *540*	175 *570*	— —	— —	— —	180 *590*	190 *620*	200 *660*	175 *570*	190 *620*	200 *660*	170 *560*	180 *590*	190 *620*
P2	130 *425*	150 *490*	160 *520*	140 *460*	160 *520*	170 *560*	145 *475*	160 *520*	175 *570*	— —	— —	— —	175 *570*	190 *620*	195 *640*	175 *570*	185 *610*	195 *640*	165 *540*	180 *590*	190 *620*
P3	125 *410*	140 *460*	155 *510*	135 *445*	150 *490*	160 *520*	135 *445*	155 *510*	165 *540*	— —	— —	— —	165 *540*	180 *590*	185 *610*	165 *540*	180 *590*	185 *610*	160 *520*	170 *560*	180 *590*
P4	115 *375*	135 *445*	145 *475*	125 *410*	145 *475*	155 *510*	125 *410*	145 *475*	155 *510*	— —	— —	— —	155 *510*	170 *560*	180 *590*	155 *510*	170 *560*	180 *590*	150 *490*	165 *540*	170 *560*
P5	115 *375*	130 *425*	140 *460*	120 *395*	140 *460*	150 *490*	125 *410*	145 *475*	155 *510*	— —	— —	— —	155 *510*	170 *560*	175 *570*	155 *510*	165 *540*	175 *570*	150 *490*	160 *520*	170 *560*
P6	120 *395*	140 *460*	150 *490*	130 *425*	150 *490*	160 *520*	135 *445*	150 *490*	160 *520*	— —	— —	— —	165 *540*	175 *570*	185 *610*	165 *540*	175 *570*	185 *610*	155 *510*	170 *560*	175 *570*
P7	115 *375*	135 *445*	145 *475*	125 *410*	145 *475*	155 *510*	130 *425*	145 *475*	160 *520*	— —	— —	— —	160 *520*	175 *570*	180 *590*	160 *520*	170 *560*	180 *590*	150 *490*	165 *540*	170 *560*
P8	110 *360*	130 *425*	140 *460*	120 *395*	140 *460*	150 *490*	125 *410*	140 *460*	155 *510*	— —	— —	— —	155 *510*	170 *560*	175 *570*	155 *510*	165 *540*	175 *570*	145 *475*	160 *520*	170 *560*
P11	115 *375*	135 *445*	145 *475*	125 *410*	145 *475*	155 *510*	125 *410*	145 *475*	155 *510*	— —	— —	— —	160 *520*	170 *560*	180 *590*	155 *510*	170 *560*	180 *590*	150 *490*	165 *540*	170 *560*
P12	85 *280*	105 *345*	115 *375*	95 *310*	115 *375*	125 *410*	100 *330*	115 *375*	125 *410*	— —	— —	— —	125 *410*	140 *460*	145 *475*	125 *410*	140 *460*	145 *475*	120 *395*	130 *425*	140 *460*
M1	115 *375*	135 *445*	145 *475*	120 *395*	140 *460*	155 *510*	130 *425*	150 *490*	160 *520*	— —	— —	— —	— —	— —	— —	130 *425*	145 *475*	160 *520*	125 *410*	140 *460*	155 *510*
M2	105 *345*	125 *410*	135 *445*	110 *360*	130 *425*	140 *460*	120 *395*	135 *445*	145 *475*	— —	— —	— —	— —	— —	— —	115 *375*	135 *445*	145 *475*	115 *375*	130 *425*	140 *460*
M3	90 *295*	110 *360*	120 *395*	95 *310*	115 *375*	125 *410*	105 *345*	120 *395*	130 *425*	— —	— —	— —	— —	— —	— —	105 *345*	120 *395*	130 *425*	100 *330*	115 *375*	125 *410*
M4	75 *245*	95 *310*	105 *345*	80 *260*	100 *330*	110 *360*	85 *280*	105 *345*	115 *375*	— —	— —	— —	— —	— —	— —	85 *280*	105 *345*	115 *375*	80 *260*	100 *330*	110 *360*
M5	65 *215*	80 *260*	90 *295*	70 *230*	85 *280*	95 *310*	75 *245*	90 *295*	105 *345*	— —	— —	— —	— —	— —	— —	75 *245*	90 *295*	105 *345*	70 *230*	85 *280*	100 *330*
K1	115 *375*	135 *445*	145 *475*	125 *410*	145 *475*	155 *510*	— —	— —	— —	155 *510*	170 *560*	185 *610*	175 *570*	190 *620*	195 *640*	175 *570*	190 *620*	195 *640*	165 *540*	180 *590*	190 *620*
K2	110 *360*	125 *410*	140 *460*	120 *395*	135 *445*	150 *490*	— —	— —	— —	145 *475*	165 *540*	175 *570*	170 *560*	180 *590*	190 *620*	170 *560*	180 *590*	190 *620*	160 *520*	175 *570*	180 *590*
K3	100 *330*	115 *375*	130 *425*	105 *345*	125 *410*	135 *445*	— —	— —	— —	135 *445*	155 *510*	165 *540*	155 *510*	170 *560*	180 *590*	155 *510*	170 *560*	175 *570*	150 *490*	160 *520*	170 *560*
K4	95 *310*	115 *375*	125 *410*	105 *345*	125 *410*	135 *445*	— —	— —	— —	130 *425*	150 *490*	160 *520*	155 *510*	165 *540*	175 *570*	155 *510*	165 *540*	175 *570*	145 *475*	160 *520*	165 *540*
K5	65 *215*	80 *260*	90 *295*	70 *230*	90 *295*	100 *330*	— —	— —	— —	100 *330*	120 *395*	130 *425*	120 *395*	135 *445*	140 *460*	120 *395*	135 *445*	140 *460*	115 *375*	125 *410*	135 *445*
K6	85 *280*	105 *345*	115 *375*	95 *310*	115 *375*	125 *410*	— —	— —	— —	125 *410*	140 *460*	155 *510*	145 *475*	160 *520*	165 *540*	145 *475*	155 *510*	165 *540*	140 *460*	150 *490*	160 *520*
K7	80 *260*	95 *310*	110 *360*	90 *295*	105 *345*	115 *375*	— —	— —	— —	115 *375*	135 *445*	145 *475*	140 *460*	150 *490*	160 *520*	135 *445*	150 *490*	155 *510*	130 *425*	145 *475*	150 *490*
S1	35 *115*	46 *150*	55 *180*	38 *125*	50 *165*	60 *195*	42 *140*	55 *180*	65 *215*	— —	— —	— —	— —	— —	— —	— —	— —	— —	39 *130*	50 *165*	60 *195*
S2	28 *90*	37 *120*	44 *145*	31 *100*	40 *130*	47 *155*	34 *110*	44 *145*	50 *165*	— —	— —	— —	— —	— —	— —	— —	— —	— —	31 *100*	41 *135*	48 *155*
S3	25 *80*	33 *110*	39 *130*	27 *90*	35 *115*	42 *140*	29 *95*	39 *130*	46 *150*	— —	— —	— —	— —	— —	— —	— —	— —	— —	27 *90*	36 *120*	42 *140*
S11	49 *160*	65 *215*	75 *245*	50 *165*	70 *230*	80 *260*	60 *195*	75 *245*	85 *280*	— —	— —	— —	— —	— —	— —	— —	— —	— —	55 *180*	70 *230*	80 *260*
S12	34 *110*	45 *150*	55 *180*	36 *120*	48 *155*	55 *180*	40 *130*	55 *180*	60 *195*	— —	— —	— —	— —	— —	— —	— —	— —	— —	38 *125*	49 *160*	60 *195*
S13	20 *65*	26 *85*	31 *100*	21 *70*	28 *90*	33 *110*	23 *75*	31 *100*	36 *120*	— —	— —	— —	— —	— —	— —	— —	— —	— —	22 *70*	28 *90*	34 *110*
H5	29 *95*	39 *130*	46 *150*	32 *105*	42 *140*	50 *165*	— —	— —	— —	— —	— —	— —	44 *145*	60 *195*	70 *230*	— —	— —	— —	34 *110*	45 *150*	55 *180*
H8	32 *105*	41 *135*	49 *160*	35 *115*	45 *150*	55 *180*	— —	— —	— —	— —	— —	— —	47 *155*	60 *195*	70 *230*	— —	— —	— —	36 *120*	48 *155*	55 *180*
H11	38 *125*	50 *165*	60 *195*	41 *135*	55 *180*	65 *215*	— —	— —	— —	— —	— —	— —	55 *180*	75 *245*	85 *280*	— —	— —	— —	43 *140*	55 *180*	65 *215*
H12	55 *180*	75 *245*	85 *280*	65 *215*	85 *280*	95 *310*	— —	— —	— —	— —	— —	— —	80 *260*	100 *330*	110 *360*	— —	— —	— —	65 *215*	85 *280*	95 *310*

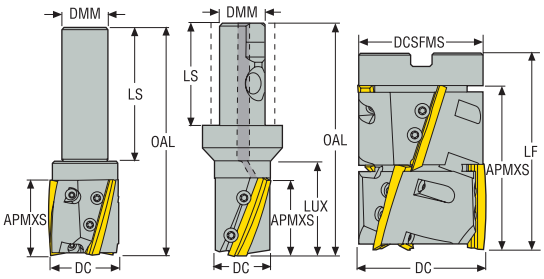


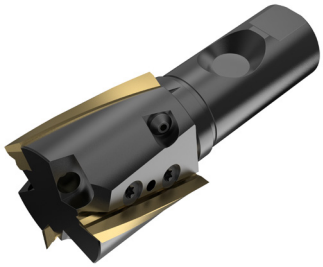
R235.15 HELICAL

Helical mills for high surface finish in square shoulder and contouring operations. Suitable for finishing operations.

- Cutter range 32-80mm, (1.25 - 3 inch)
- Depth of cut <=90 mm (3.5 inch)
- Max a_e = 1 mm

R235.15 – Finishing operations – Metric

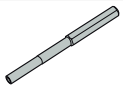




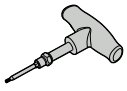
- For insert selection and cutting data recommendations, see page(s) 199-200
- For complete insert programme, see page(s) 857
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	ZEFP	ZNP	APMXS	DCB	DMM	DCSFMS	LS	LF	OAL	LUX	RPMX	Weight	Insert
			mm			mm	mm	mm	mm	mm	mm	mm	mm		kg	
R235.15-2532.0-40	75036949	Cylindrical	32,0	2	2	40,0	–	25,0	–	71,0	–	140,0	40,0	8000	0,7	R235.15-032
R235.15A-3250.0-50	75036947	Cylindrical	50,0	3	3	50,0	–	32,0	–	95,0	–	155,0	50,0	5500	1,2	R235.15-050
R235.15-2532.3S-40A	75036948	Seco-Weldon	32,0	2	2	40,0	–	25,0	40,0	56,0	–	125,0	50,0	8000	0,7	R235.15-032
R235.15A-3250.3S-50A	75036946	Seco-Weldon	50,0	3	3	50,0	–	32,0	50,0	70,0	–	120,0	61,4	5500	1,0	R235.15-050
R235.15A-0080-90	75037122	Arbor	80,0	3	6	90,0	32,0	–	75,0	–	120,0	–	–	4400	3,5	R235.15-080

Spare Parts, included in delivery

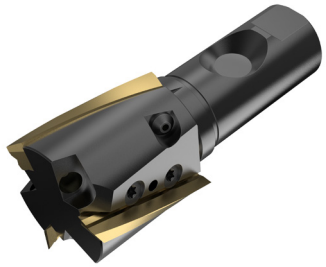
For cutter	Arbor screw	Insert key	Insert screw	Setting gauge	Setting key
					
R235.15-2532	–	H6B-T25P	CL85012-T25P	–	–
R235.15-3250	–	H6B-T25P	CL85012-T25P	AU8019-T15P	H4B-T15P
R235.15A-0080	MC6S16X100	H6B-T25P	CL85012-T25P	AU8019-T15P	H4B-T15P

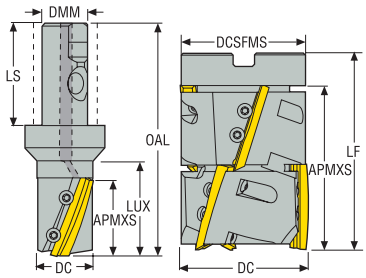
Accessories

For cutter	Insert clamping torque	Torque key
		
R235.15-..	6.0NM	T00T-25P60

Torque and fixed keys, see page 872

R235.15 – Finishing operations – inch

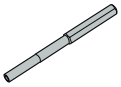




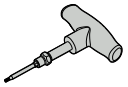
- For insert selection and cutting data recommendations, see page(s) 199-200
- For complete insert programme, see page(s) 857
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	ZEFP	ZNP	APMXS	DCB	DMM	DCSFMS	LS	LF	OAL	LUX	RPMX	Weight	Insert
			inch			inch	inch	inch	inch	inch	inch	inch	inch		lbs	
R235.15A-02.00-3S-50A	75056423	Seco-Weldon	2.000	3	3	1.969	–	1.250	1.772	2.441	–	4.724	1.969	5500	2.200	R235.15-050
R235.15A-03.00-90	75056424	Arbor	3.000	3	6	3.500	1.000	–	2.866	–	4.724	–	–	4400	7.050	R235.15-080

Spare Parts, included in delivery

For cutter	Arbor screw	Insert key	Insert screw	Setting gauge	Setting key
					
R235.15A-02.00	–	H6B-T25P	CL85012-T25P	AU8019-T15P	H4B-T15P
R235.15A-03.00	UC6S1/2UNFX4	H6B-T25P	CL85012-T25P	AU8019-T15P	H4B-T15P

Accessories

For cutter	Insert clamping torque	Torque key
		
R235.15-..	53.1IN.LBS	T00T-25P60

Torque and fixed keys, see page 872

R235.15 – Insert selection – mm/*Inch*

SMG		f_z
		3%
P1	R235.15-xxx-E05 F30M	0,20 *0.0080*
P2	R235.15-xxx-E05 F30M	0,22 *0.0085*
P3	R235.15-xxx-E05 F30M	0,20 *0.0080*
P4	R235.15-xxx-E05 F30M	0,20 *0.0080*
P5	R235.15-xxx-E05 F30M	0,19 *0.0075*
P6	R235.15-xxx-E05 F30M	0,19 *0.0075*
P7	R235.15-xxx-E05 F30M	0,19 *0.0075*
P8	R235.15-xxx-E05 F30M	0,20 *0.0080*
P11	R235.15-xxx-E05 F30M	0,19 *0.0075*
P12	R235.15-xxx-E05 F30M	0,13 *0.0050*
M1	R235.15-xxx-E05 F30M	0,22 *0.0085*
M2	R235.15-xxx-E05 F30M	0,19 *0.0075*
M3	R235.15-xxx-E05 F30M	0,15 *0.0060*
M4	R235.15-xxx-E05 F30M	0,13 *0.0050*
M5	R235.15-xxx-E05 F30M	0,13 *0.0050*
K1	R235.15-xxx-E05 F30M	0,22 *0.0085*
K2	R235.15-xxx-E05 F30M	0,19 *0.0075*
K3	R235.15-xxx-E05 F30M	0,19 *0.0075*
K4	R235.15-xxx-E05 F30M	0,19 *0.0075*
K5	R235.15-xxx-E05 F30M	0,17 *0.0065*
K6	R235.15-xxx-E05 F30M	0,19 *0.0075*
K7	R235.15-xxx-E05 F30M	0,17 *0.0065*
N1	R235.15-xxx-E05 F30M	0,28 *0.011*
N2	R235.15-xxx-E05 F30M	0,28 *0.011*
N3	R235.15-xxx-E05 F30M	0,28 *0.011*
N11	R235.15-xxx-E05 F30M	0,28 *0.011*
S1	R235.15-xxx-E05 F30M	0,13 *0.0050*
S2	R235.15-xxx-E05 F30M	0,13 *0.0050*
S3	R235.15-xxx-E05 F30M	0,13 *0.0050*
S11	R235.15-xxx-E05 F30M	0,15 *0.0060*
S12	R235.15-xxx-E05 F30M	0,15 *0.0060*
S13	R235.15-xxx-E05 F30M	0,13 *0.0050*

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

R235.15 – Cutting data v_c = (m/min)/*(sf/min)*

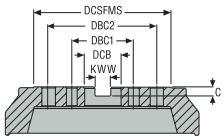
SMG	F30M
	3%
P1	310 *1025*
P2	295 *970*
P3	260 *850*
P4	230 *750*
P5	220 *720*
P6	245 *800*
P7	235 *770*
P8	215 *710*
P11	225 *740*
P12	145 *475*
M1	200 *660*
M2	165 *540*
M3	130 *425*
M4	100 *330*
M5	85 *280*
K1	235 *770*
K2	210 *690*
K3	175 *570*
K4	170 *560*
K5	105 *345*
K6	150 *490*
K7	130 *425*
N1	1450 *4750*
N2	590 *1925*
N3	390 *1275*
N11	445 *1450*
S1	70 *230*
S2	55 *180*
S3	49 *160*
S11	100 *330*
S12	70 *230*
S13	40 *130*

Code keys metric and inch

R	220	. 53	- 0100	- 12	- 7	A
1	2	3	4	5	6	7

R	220	. 53	- 04.00	- 12	- 7	A
1	2	3	4	5	6	7

1.	2.	3.
R = Right hand rotation L = Left hand rotation Cx = For Seco-Capto	217 = With shank 220 = For arbor	Cutter system
4.	**5.**	**6.**
Mounting type & Cutter diameter 0xxx = shell mill mounting 8xxx = Flange mounting 9xxx = CAP mounting	Insert size	Effective No. of teeth (ZEFP)
7.		
A = With through coolant supply W = Insert locking with wedge G = Coarse pitch version for low power machines T = Close pitch version for high feed rates in powerful machines C = Cassettes S = Insert locking with screw M = Modified or insert locking with wedge		

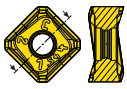
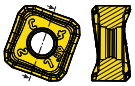
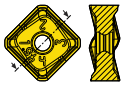
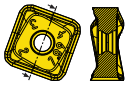
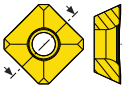
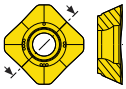
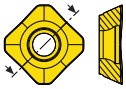


Dimensions in mm					
DCB	DCSFMS	DBC1	DBC2	KWW	C
16	30-35	–	–	8,4	5,6
22	42-47	–	–	10,4	6,3
27	48-62	–	–	12,4	7
32	60-90	–	–	14,4	8
40	90-130	66,7	–	16,4	9
60	130-270	101,6	177,8	25,7	14

Dimensions in inch					
DCB	DCSFMS	DBC1	DBC2	KWW	C
0.500	*1.181 - 1.378*			*0.258*	*0.165*
0.750	*1.378 - 1.850*	–	–	*0.321*	*0.193*
1.000	*1.803 - 2.441*	–	–	*0.382*	*0.224*
1.250	*2.250 - 3.031*	–	–	*0.508*	*0.287*
1.500	*2.750 - 3.543*	–	–	*0.630*	*0.382*
2.000	*4.331*	–	–	*0.756*	*0.445*
2.500	*5.118 - 6.299 (8.858)*	*4.000*	*(7.000)*	*1.000*	*0.551*

For a more exact DCSFMS and DCB measurement, see each product table.

Selection – Metric

Cutter family	Insert	a_p max	a_p rec.	Material suitability								KAPRS°
				P	M	K	N	S				
Double Quattromill R220.54-14	SN.X14..AN 	6,0	4,0	■	■	■	◩	■	◩	■	◩	48°
Double Quattromill R220.56-14	SN.X14..ZN 	8,0	6,0	■	◩	■	□	◩	◩	■	◩	71°
Double Quattromill R220.54-22	SNMX22..AN 	9,0	6,0	■	■	■	□	■	□	■	◩	48°
Double Quattromill R220.56-22	SNMX22..ZN 	13	9,0	■	◩	■	□	◩	□	■	◩	71°
Quattromill R220.53-09	SE.X09T3 	4,5	3,0	■	■	◩	■	■	■	◩	■	45°
Quattromill R220.53-12	SE.X1204 	6,0	4,5	■	■	◩	■	■	■	■	■	45°
Quattromill R220.53-15	SE.X1505 	7,5	6,0	■	■	■	■	■	◩	■	■	45°

1st choice ■

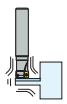
Alternative choice ◩

Possible choice □

High speed machine with low power/ torque 

Strong stable machine with rigid connecion 

Not recommended -

Unstable condition suitability 

a_p max = Maximum depth of cut possible
a_p rec. = Recommended depth of cut for optimal result

Selection – Metric

Insert	No. of cutting edges	Applica-tion	Cutter diameter (mm) available with effective number of teeth													See page
			20	24*/25	32	40	50	63	80	100	125	160	200	250	315	
SNMX14..AN	8						4	5	6	7	8	10	12			211, 212
							5	7	8	10	12	15	17			
												9	11	14	16	
SNMX14..ZN	8						4	5	6	7	8	10	12			211, 212
							5	7	8	10	12	15	17			
												9	11	14	16	
SNMX22..AN	8								5	5	6	8				227
									6	7	8	11				
													9	11	14	
SNMX22..ZN	8									5	6	8				227
									5	7	8	10				
													9	11	14	
SE.X09T3	4		2	3	4	4	5	6	6	7						259
						5	6	7	8	10						
													8	10	12	
									5	6	8	10		16		
									6	8	10	14				
SE.X1204	4									5	6	7				267, 268
						3	4	5	6	7	8	10				
						4	5	6	8	10	12					
								9	11	12	14	17	20			
												7	8	10	12	
									5	6	8	10	12	16		
									6	8	10	14				
SE.X1505	4							5	6	7	8	10	12			276
									7	9	10					
												7	8	10	12	
									5	6	8	10	12	16	18	

x — Fixed pocket (x indicates number of teeth)

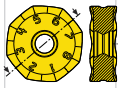
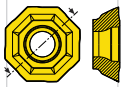
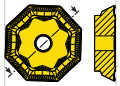
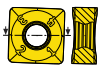
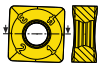
x — With cassette (x indicates number of teeth)

Troubleshooter for unstable fixturing and/or unstable conditions

Basic choice

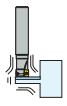
Productivity

Selection – Metric

Cutter family	Insert	a_p max	a_p rec.	Material suitability								KAPRS°
				P	M	K	N	S				
Double Octomill R220.48-05	ON..05 	3,0	2,0	■	■	■	□	◩	■	◩	□	40°
Double Octomill R220.48-09	ON..09 	6,0	4,0	■	■	■	□	◩	□	■	□	40°
Octomill R220.43-05	OF..05 	3,5	2,5	◩	◩	◩	◩	◩	■	◩	◩	43°
Octomill R220.43-07	OF..07 	5,0	4,0	◩	◩	◩	◩	◩	◩	■	◩	43°
R220.88-12	SNMU12.. 	9,0	5,0	■	◩	■	-	-	■	■	■	88°
R220.88-16	SNMU16.. 	13,0	8,0	■	◩	■	-	-	□	■	■	88°

1st choice	■
Alternative choice	◩
Possible choice	□

High speed machine with low power/ torque	
Strong stable machine with rigid connecion	
Not recommended	-

Unstable condition suitability 

a_p max = Maximum depth of cut possible
a_p rec. = Recommended depth of cut for optimal result

Selection – Metric

Insert	No. of cutting edges	Applica-tion	Cutter diameter (mm) available with effective number of teeth															See page
			20	24*/25	32	40	50	63	80	100	125	160	200	250	315	400	500	
ON..05	16						4	5	6	7	8							240
				3	4	4	5	6										
						5	6	8	10	12	14							
										8	10	14	18					
ON..09	16							5	6	7	8	10	12	16	20			248, 249
								6	7	8	10	12						
									9	12	15	20	24	30	40	50	60	
													28					
											8	10	12	16	20			
OF..05	8				3	3	4	5	6	7	8	10						296, 297
						4	5	6	8									
												7						
										6	8	10	12	16	20			
											10	14	18	22	28			
OF..07	8						4	4	5	6	8	10						303
								6	9	12	15							
												7						
										6	8	10	12	16				
											10	14	18	22	28			
SNMU12..	8						4	6	7	8	10	12						283, 284
						4	5	7	9	11	13	16						
SNMU16..	8								6	8	10	12						290
								5	7	9	11	13						

x — Fixed pocket (x indicates number of teeth)

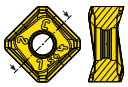
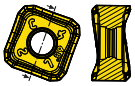
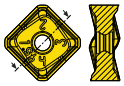
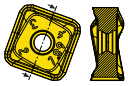
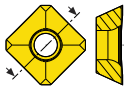
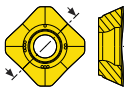
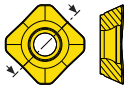
x — With cassette (x indicates number of teeth)

Troubleshooter for unstable fixturing and/or unstable conditions

Basic choice

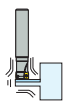
Productivity

Selection – inch

Cutter family	Insert	a_p max	a_p rec.	Material suitability								KAPRS°
				P	M	K	N	S				
Double Quattromill R220.54-14	SN.X14..AN 	0.236	0.157	■	■	■	◩	■	◩	■	◩	48°
Double Quattromill R220.56-14	SN.X14..ZN 	0.315	0.236	■	◩	■	◩	■	◩	■	◩	71°
Double Quattromill R220.54-22	SNMX22..AN 	0.354	0.236	■	■	■	□	■	□	■	◩	48°
Double Quattromill R220.56-22	SNMX22..ZN 	0.512	0.354	■	◩	■	□	■	□	■	◩	71°
Quattromill R220.53-09	SE.X09T3 	0.177	0.118	■	■	◩	■	■	■	◩	■	45°
Quattromill R220.53-12	SE.X1204 	0.236	0.177	■	■	◩	■	■	◩	■	■	45°
Quattromill R220.53-15	SE.X1505 	0.295	0.236	■	■	■	■	■	◩	■	■	45°

1st choice	■
Alternative choice	◩
Possible choice	□

High speed machine with low power/ torque	
Strong stable machine with rigid connecion	
Not recommended	-

Unstable condition suitability	

a_p max = Maximum depth of cut possible
a_p rec. = Recommended depth of cut for optimal result

Selection – inch

Insert	No. of cutting edges	Applica-tion	Cutter diameter (inch) available with effective number of teeth													See page
			0.75	1	1.25	1.5	2	2.5	3	4	5	6	8	10	12.5	
SNMX14..AN	8						4	5	6	7	8	10	12			211, 212
							5	7	8	10	12	15	17			
												9	11	14	16	
SNMX14..ZN	8						4	5	6	7	8	10	12			211, 212
							5	7	8	10	12	15	17			
												9	11	14	16	
SNMX22..AN	8								5	5	6	8				227
									6	7	8	11				
													9	11	14	
SNMX22..ZN	8								5	5	6	8				227
										7	8	10				
													9	11	14	
SE.X09T3	4		2	3	4	4	5	6	8							259
SE.X1204	4					4	4	5	6	7	6	7				267, 268
							5	6	8	10	8	10	12			
										12		12				
												17				
SE.X1505	4								6	7	10					276

x — Fixed pocket (x indicates number of teeth)

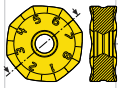
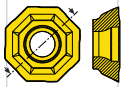
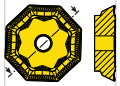
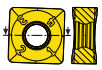
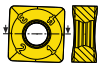
x — With cassette (x indicates number of teeth)

Troubleshooter for unstable fixturing and/or unstable conditions

Basic choice

Productivity

Selection – inch

Cutter family	Insert	a_p max	a_p rec.	Material suitability								KAPRS°
				P	M	K	N	S				
Double Octomill R220.48-05	ON..05 	0.118	0.079	■	■	■	□	◩	◩	◩	□	40°
Double Octomill R220.48-09	ON..09 	0.236	0.157	■	■	■	□	◩	□	■	□	40°
Octomill R220.43-05	OF..05 	0.138	0.098	◩	◩	◩	◩	◩	■	◩	◩	43°
Octomill R220.43-07	OF..07 	0.197	0.157	◩	◩	◩	◩	◩	◩	■	◩	43°
R220.88-12	SNMU12.. 	0.354	0.197	■	◩	■	-	-	■	■	■	88°
R220.88-16	SNMU16.. 	0.512	0.354	■	◩	■	-	-	□	■	◩	88°

1st choice ■

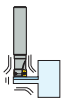
Alternative choice ◩

Possible choice □

High speed machine with low power/ torque 

Strong stable machine with rigid connecion 

Not recommended -

Unstable condition suitability 

a_p max = Maximum depth of cut possible
a_p rec. = Recommended depth of cut for optimal result

Selection – Inch

Insert	No. of cutting edges	Applica-tion	Cutter diameter (inch) available with effective number of teeth												See page
			0.75	1	1.25	1.5	2	2.5	3	4	5	6	8	10	12.5	
ON..05	16				4	4	4	5	6	7						240
							5		10							
										8		14	18			
ON..09	16							5	6	7	8	10	12	16	20	248, 249
									9	12	15					
												10	12	16		
OF..05	8					3	4	5	6	7	8					296, 297
OF..07	8							4	5	6		10				303
SNMU12..	8					4	4	6	7	8	10	12				283, 284
							5	7	9	11	13	16				
SNMU16..	8								6	8	10	12				290
									7	9	11	13				

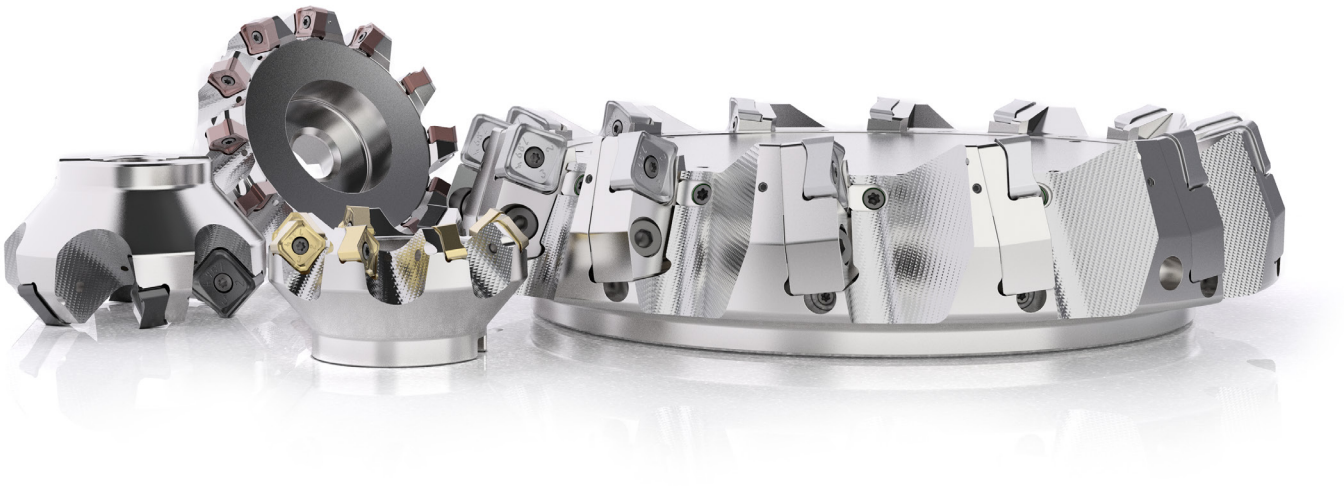
x — Fixed pocket (x indicates number of teeth)

x — With cassette (x indicates number of teeth)

Troubleshooter for unstable fixturing and/or unstable conditions

Basic choice

Productivity

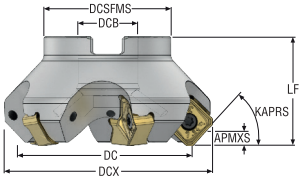


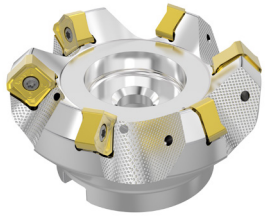
DOUBLE QUATTROMILL 14/22

Take full advantage of your machine tool's milling power for increased productivity with Seco's Double Quattromill™ face mill cutter for roughing and semi finishing. The 48-degree Double Quattromill provides a combination of lower cutting forces, less power consumption, higher feed rates and exceptional chip thinning. While on the other hand, the 71 degree is best when having to mill close to a wall or part fixture. The cutter is the perfect balance between the 48-degree version and a typical square shoulder mill in terms of cutting forces and depth of cut.

- Insert size 14, cutter range 50-315mm (2 - 12.50 inches)
- Insert size 22, cutter range 80-315mm (3 - 12.50 inches)
- 8 cutting edges, double-sided inserts

R220.54-14 metric

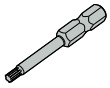
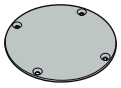




- For insert selection and cutting data recommendations, see page(s) 221-226
- For complete insert programme, see page(s) 835
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	ZEFP	APMXS	KAPRS°	DCX	DCB	DCSFMS	LF	RPMX	Weight	Insert
			mm		mm		mm	mm	mm	mm		kg	
R220.54-0050-14-4A	03213622	Arbor	50,0	4	6,0	48,0	65,0	22,0	47,0	40,0	8500	0,5	SN.X1407AN
R220.54-0050-14-5A	03213629	Arbor	50,0	5	6,0	48,0	65,0	22,0	47,0	40,0	8500	0,5	SN.X1407AN
R220.54-0063-14-5A	03213623	Arbor	63,0	5	6,0	48,0	78,0	22,0	47,0	40,0	7600	0,6	SN.X1407AN
R220.54-0063-14-7A	03213630	Arbor	63,0	7	6,0	48,0	78,0	22,0	47,0	40,0	7600	0,6	SN.X1407AN
R220.54-0080-14-6A	03213624	Arbor	80,0	6	6,0	48,0	95,0	27,0	62,0	50,0	6700	1,2	SN.X1407AN
R220.54-0080-14-8A	03213631	Arbor	80,0	8	6,0	48,0	95,0	27,0	62,0	50,0	6700	1,2	SN.X1407AN
R220.54-0100-14-7A	03213625	Arbor	100,0	7	6,0	48,0	115,0	32,0	77,0	50,0	6000	1,9	SN.X1407AN
R220.54-0100-14-10A	03213632	Arbor	100,0	10	6,0	48,0	115,0	32,0	77,0	50,0	6000	1,8	SN.X1407AN
R220.54-0125-14-8A	03213626	Arbor	125,0	8	6,0	48,0	140,0	40,0	90,0	63,0	5400	3,5	SN.X1407AN
R220.54-0125-14-12A	03213633	Arbor	125,0	12	6,0	48,0	140,0	40,0	90,0	63,0	5400	3,4	SN.X1407AN
R220.54-8160-14-10A	03213627	Arbor	160,0	10	6,0	48,0	175,0	40,0	90,0	63,0	4700	6,2	SN.X1407AN
R220.54-8160-14-15A	03213634	Arbor	160,0	15	6,0	48,0	175,0	40,0	90,0	63,0	4700	5,8	SN.X1407AN
R220.54-8200-14-12A	03213628	Arbor	200,0	12	6,0	48,0	215,0	60,0	130,0	63,0	4200	8,2	SN.X1407AN
R220.54-8200-14-17A	03213635	Arbor	200,0	17	6,0	48,0	215,0	60,0	130,0	63,0	4200	8,2	SN.X1407AN

Spare Parts, included in delivery

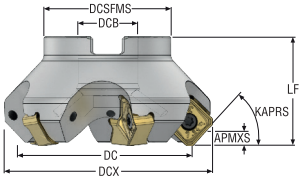
For cutter	Arbor screw	Insert key	Insert screw	Lid	Lid screw
					
R220.54-0050-0063	220.17-691	1/4HEX-T15PX50	C04011-T15P	–	–
R220-54-0080	–	1/4HEX-T15PX50	C04011-T15P	–	–
R220-54-0100-0125	–	1/4HEX-T15PX90	C04011-T15P	–	–
R220-54-8160	–	1/4HEX-T15PX90	C04011-T15P	SC-160-90	MF6S4X10
R220-54-8200	–	1/4HEX-T15PX90	C04011-T15P	SC-200-90	MF6S4X10

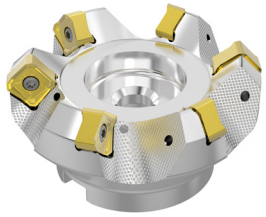
Accessories

For cutter	Adjustable Torque key	Arbor screw	Insert clamping torque	Torque key
				
R220.54-0050-0063	1/4HEX-S-HANDLE-0.8-5.0NM	–	3.5NM	T00-15P35
R220.54-0080	1/4HEX-S-HANDLE-0.8-5.0NM	5802712	3.5NM	T00-15P35
R220.54-0100	1/4HEX-S-HANDLE-0.8-5.0NM	5803216	3.5NM	T00-15P35
R220.54-0125	1/4HEX-S-HANDLE-0.8-5.0NM	5804020	3.5NM	T00-15P35
R220.54-8160	1/4HEX-S-HANDLE-0.8-5.0NM	MC6S12X40	3.5NM	T00-15P35
R220-54-8200	1/4HEX-S-HANDLE-0.8-5.0NM	MC6S16X50	3.5NM	T00-15P35

Torque and fixed keys, see page 872

Double Quattro R220.54-14 – inch

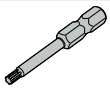
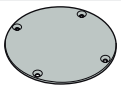




- For insert selection and cutting data recommendations, see page(s) 221-226
- For complete insert programme, see page(s) 835
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	ZEFP	APMXS	KAPRS°	DCX	DCB	DCSFMS	LF	RPMX	Weight	Insert
			inch		inch		inch	inch	inch	inch		lbs	
R220.54-02.00-14-4A	03213636	Arbor	1.969	4	0.236	48.0	2.559	0.750	1.850	1.575	8500	1.100	SN.X1407AN
R220.54-02.00-14-5A	03213643	Arbor	1.969	5	0.236	48.0	2.559	0.750	1.850	1.575	8500	1.100	SN.X1407AN
R220.54-02.50-14-5A	03213637	Arbor	2.480	5	0.236	48.0	3.071	0.750	1.850	1.575	7600	1.320	SN.X1407AN
R220.54-02.50-14-7A	03213644	Arbor	2.480	7	0.236	48.0	3.071	0.750	1.850	1.575	7600	1.320	SN.X1407AN
R220.54-03.00-14-6A	03213638	Arbor	3.150	6	0.236	48.0	3.740	1.000	2.441	1.969	6700	3.090	SN.X1407AN
R220.54-03.00-14-8A	03213645	Arbor	3.150	8	0.236	48.0	3.740	1.000	2.441	1.969	6700	3.090	SN.X1407AN
R220.54-04.00-14-7A	03213639	Arbor	3.937	7	0.236	48.0	4.528	1.500	3.031	1.969	6000	3.970	SN.X1407AN
R220.54-04.00-14-10A	03213646	Arbor	3.937	10	0.236	48.0	4.528	1.500	3.031	1.969	6000	4.190	SN.X1407AN
R220.54-05.00-14-8A	03213640	Arbor	4.921	8	0.236	48.0	5.512	1.500	3.543	2.480	5400	8.380	SN.X1407AN
R220.54-05.00-14-12A	03213647	Arbor	4.921	12	0.236	48.0	5.512	1.500	3.543	2.480	5400	8.600	SN.X1407AN
R220.54-06.00-14-10A	03213641	Arbor	6.299	10	0.236	48.0	6.890	2.000	4.331	2.480	4700	14.330	SN.X1407AN
R220.54-06.00-14-15A	03213648	Arbor	6.299	15	0.236	48.0	6.890	2.000	4.331	2.480	4700	14.110	SN.X1407AN
R220.54-808.00-14-12A	03213642	Arbor	7.874	12	0.236	48.0	8.465	2.500	5.118	2.480	4200	18.080	SN.X1407AN
R220.54-808.00-14-17A	03213649	Arbor	7.874	17	0.236	48.0	8.465	2.500	5.118	2.480	4200	17.860	SN.X1407AN

Spare Parts, included in delivery

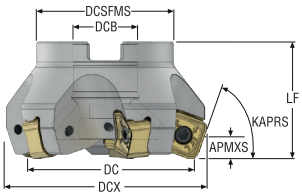
For cutter	Arbor screw	Insert key	Insert screw	Lid	Lid screw
					
R220.54-02.00-02.50	220.17-698	1/4HEX-T15PX50	C04011-T15P	–	–
R220.54-03.00	UC6S1/2UNFX1-1/4	1/4HEX-T15PX50	C04011-T15P	–	–
R220.54-04.00	UF6S3/4UNFX1-3/4	1/4HEX-T15PX90	C04011-T15P	–	–
R220.54-05.00	UC6S3/4UNFX1-1/4	1/4HEX-T15PX90	C04011-T15P	–	–
R220.54-06.00	–	1/4HEX-T15PX90	C04011-T15P	SC-160-90	MF6S4X10
R220.54-808.00	–	1/4HEX-T15PX90	C04011-T15P	SC-200-90	MF6S4X10

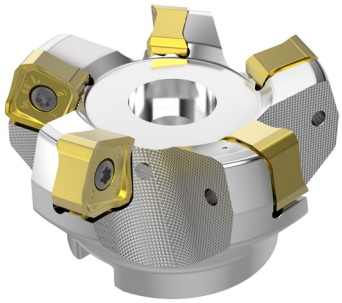
Accessories

For cutter	Adjustable Torque key	Arbor screw	Insert clamping torque	Torque key
				
R220.54-02.00-05.00	1/4HEX-S-HANDLE-0.8-5.0NM	–	31.0IN.LBS	T00-15P35
R220.54-06.00	1/4HEX-S-HANDLE-0.8-5.0NM	58215080	31.0IN.LBS	T00-15P35
R220.54-808.00	1/4HEX-S-HANDLE-0.8-5.0NM	950DNC062225	31.0IN.LBS	T00-15P35

Torque and fixed keys, see page 872

Double Quattro R220.56-14 – Metric

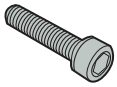
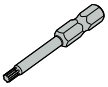
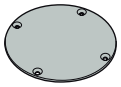




- For insert selection and cutting data recommendations, see page(s) 221-226
- For complete insert programme, see page(s) 835
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	ZEFP	APMXS	KAPRS°	DCX	DCB	DCSFMS	LF	RPMX	Weight	Insert
			mm		mm		mm	mm	mm	mm		kg	
R220.56-0050-14-4A	03241895	Arbor	50,0	4	8,0	71,0	57,0	22,0	47,0	40,0	8500	0,5	SN.X1407ZN
R220.56-0050-14-5A	03241902	Arbor	50,0	5	8,0	71,0	57,0	22,0	47,0	40,0	8500	0,4	SN.X1407ZN
R220.56-0063-14-5A	03241896	Arbor	63,0	5	8,0	71,0	70,0	22,0	47,0	40,0	7600	0,6	SN.X1407ZN
R220.56-0063-14-6A	03241903	Arbor	63,0	6	8,0	71,0	70,0	22,0	47,0	40,0	7600	0,6	SN.X1407ZN
R220.56-0080-14-6A	03241897	Arbor	80,0	6	8,0	71,0	87,0	27,0	62,0	50,0	6700	1,1	SN.X1407ZN
R220.56-0080-14-8A	03241904	Arbor	80,0	8	8,0	71,0	87,0	27,0	62,0	50,0	6700	1,1	SN.X1407ZN
R220.56-0100-14-7A	03241898	Arbor	100,0	7	8,0	71,0	107,0	32,0	77,0	50,0	6000	1,7	SN.X1407ZN
R220.56-0100-14-10A	03241905	Arbor	100,0	10	8,0	71,0	107,0	32,0	77,0	50,0	6000	1,7	SN.X1407ZN
R220.56-0125-14-8A	03241899	Arbor	125,0	8	8,0	71,0	132,0	40,0	90,0	63,0	5400	3,2	SN.X1407ZN
R220.56-0125-14-12A	03241906	Arbor	125,0	12	8,0	71,0	132,0	40,0	90,0	63,0	5400	3,1	SN.X1407ZN
R220.56-8160-14-10A	03241900	Arbor	160,0	10	8,0	71,0	167,0	40,0	90,0	63,0	4700	5,5	SN.X1407ZN
R220.56-8160-14-15A	03241907	Arbor	160,0	15	8,0	71,0	167,0	40,0	90,0	63,0	4700	5,4	SN.X1407ZN
R220.56-8200-14-12A	03241901	Arbor	200,0	12	8,0	71,0	207,0	60,0	130,0	63,0	4200	6,6	SN.X1407ZN
R220.56-8200-14-17A	03241908	Arbor	200,0	17	8,0	71,0	207,0	60,0	130,0	63,0	4200	6,9	SN.X1407ZN

Spare Parts, included in delivery

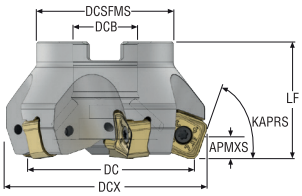
For cutter	Arbor screw	Insert key	Insert screw	Lid	Lid screw
					
R220.56-0050-0063	220.17-692	1/4HEX-T15PX50	C04011-T15P	–	–
R220.56-0080	–	1/4HEX-T15PX50	C04011-T15P	–	–
R220.56-0100-0125	–	1/4HEX-T15PX90	C04011-T15P	–	–
R220.56-8160	–	1/4HEX-T15PX90	C04011-T15P	SC-160-90	MF6S4X10
R220.56-8200	–	1/4HEX-T15PX90	C04011-T15P	SC-200-90	MF6S4X10

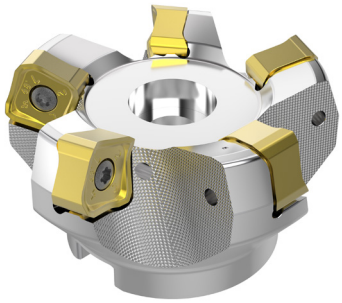
Accessories

For cutter	Adjustable Torque key	Arbor screw	Insert clamping torque	Torque key
				
R220.56-0050-0063	1/4HEX-S-HANDLE-0.8-5.0NM	–	3.5NM	T00-15P35
R220.56-0080-6A	1/4HEX-S-HANDLE-0.8-5.0NM	5802712	3.5NM	T00-15P35
R220.56-0080-8A	1/4HEX-S-HANDLE-0.8-5.0NM	–	3.5NM	T00-15P35
R220.56-0100	1/4HEX-S-HANDLE-0.8-5.0NM	5803216	3.5NM	T00-15P35
R220.56-0125	1/4HEX-S-HANDLE-0.8-5.0NM	5804020	3.5NM	T00-15P35
R220.56-8160	1/4HEX-S-HANDLE-0.8-5.0NM	MC6S12X40	3.5NM	T00-15P35
R220.56-8200	1/4HEX-S-HANDLE-0.8-5.0NM	MC6S16X50	3.5NM	T00-15P35

Torque and fixed keys, see page 872

Double Quattro R220.56-14 – inch

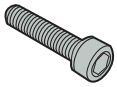
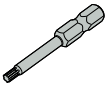
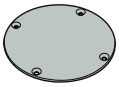




- For insert selection and cutting data recommendations, see page(s) 221-226
- For complete insert programme, see page(s) 835
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	ZEFP	APMXS	KAPRS°	DCX	DCB	DCSFMS	LF	RPMX	Weight	Insert
			inch		inch		inch	inch	inch	inch		lbs	
R220.56-02.00-14-4A	03241909	Arbor	1.969	4	0.315	71.0	2.244	0.750	1.850	1.575	8500	0.880	SN.X1407ZN
R220.56-02.00-14-5A	03241916	Arbor	1.969	5	0.315	71.0	2.244	0.750	1.850	1.575	8500	1.100	SN.X1407ZN
R220.56-02.50-14-5A	03241910	Arbor	2.480	5	0.315	71.0	2.756	0.750	1.850	1.575	7600	1.100	SN.X1407ZN
R220.56-02.50-14-6A	03241917	Arbor	2.480	6	0.315	71.0	2.756	0.750	1.850	1.575	7600	1.320	SN.X1407ZN
R220.56-03.00-14-6A	03241911	Arbor	3.150	6	0.315	71.0	3.425	1.000	2.441	1.969	6700	2.650	SN.X1407ZN
R220.56-03.00-14-8A	03241918	Arbor	3.150	8	0.315	71.0	3.425	1.000	2.441	1.969	6700	2.870	SN.X1407ZN
R220.56-04.00-14-7A	03241912	Arbor	3.937	7	0.315	71.0	4.213	1.500	3.031	1.969	6000	3.310	SN.X1407ZN
R220.56-04.00-14-10A	03241919	Arbor	3.937	10	0.315	71.0	4.213	1.500	3.031	1.969	6000	3.530	SN.X1407ZN
R220.56-05.00-14-8A	03241913	Arbor	4.921	8	0.315	71.0	5.197	1.500	3.543	2.480	5400	8.160	SN.X1407ZN
R220.56-05.00-14-12A	03241920	Arbor	4.921	12	0.315	71.0	5.197	1.500	3.543	2.480	5400	7.940	SN.X1407ZN
R220.56-06.00-14-10A	03241914	Arbor	6.299	10	0.315	71.0	6.575	2.000	4.331	2.480	4700	13.450	SN.X1407ZN
R220.56-06.00-14-15A	03241921	Arbor	6.299	15	0.315	71.0	6.575	2.000	4.331	2.480	4700	13.230	SN.X1407ZN
R220.56-808.00-14-12A	03241915	Arbor	7.874	12	0.315	71.0	8.150	2.500	5.118	2.480	4200	16.310	SN.X1407ZN
R220.56-808.00-14-17A	03241922	Arbor	7.874	17	0.315	71.0	8.150	2.500	5.118	2.480	4200	14.990	SN.X1407ZN

Spare Parts, included in delivery

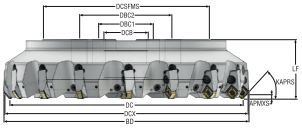
For cutter	Arbor screw	Insert key	Insert screw	Lid	Lid screw
					
R220.56-02.00-02.50	UC6S3/8UNFX1	1/4HEX-T15PX50	C04011-T15P	–	–
R220.56-03.00	UC6S1/2UNFX1-1/4	1/4HEX-T15PX50	C04011-T15P	–	–
R220.56-04.00	UF6S3/4UNFX1-3/4	1/4HEX-T15PX90	C04011-T15P	–	–
R220.56-05.00	UC6S3/4UNFX1-1/4	1/4HEX-T15PX90	C04011-T15P	–	–
R220.56-06.00	–	1/4HEX-T15PX90	C04011-T15P	SC-160-90	MF6S4X10
R220.56-808.00	–	1/4HEX-T15PX90	C04011-T15P	SC-200-90	MF6S4X10

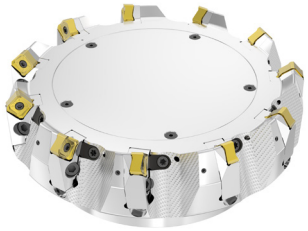
Accessories

For cutter	Adjustable Torque key	Arbor screw	Insert clamping torque	Torque key
				
R220.56-02.00-05.00	1/4HEX-S-HANDLE-0.8-5.0NM	–	31.0IN.LBS	T00-15P35
R220.56-06.00	1/4HEX-S-HANDLE-0.8-5.0NM	58215080	31.0IN.LBS	T00-15P35
R220.56-808.00	1/4HEX-S-HANDLE-0.8-5.0NM	950DNC062225	31.0IN.LBS	T00-15P35

Torque and fixed keys, see page 872

Double Quattro R220.54/56-14CA – Metric

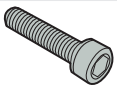
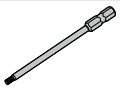
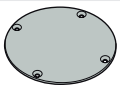
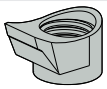




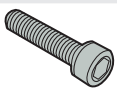
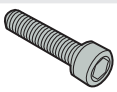
- For insert selection and cutting data recommendations, see page(s) 221-226
- For complete insert programme, see page(s) 835
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	ZEFP	APMXS	KAPRS°	DCX	BD	DCB	DCSFMS	LF	RPMX	Weight	Insert
			mm		mm		mm	mm	mm	mm	mm		kg	
R220.54-8160-14-9CA	03213787	Arbor	160,0	9	6,0	48,0	175,0	176,5	40,0	90,0	80,0	4700	7,7	SN.X1407AN
R220.54-8200-14-11CA	03213788	Arbor	200,0	11	6,0	48,0	215,0	216,5	60,0	130,0	80,0	4200	9,8	SN.X1407AN
R220.54-8250-14-14CA	03213789	Arbor	250,0	14	6,0	48,0	265,0	266,5	60,0	130,0	80,0	3800	18,7	SN.X1407AN
R220.54-8315-14-16CA	03213790	Arbor	315,0	16	6,0	48,0	330,0	331,5	60,0	225,0	80,0	3400	32,0	SN.X1407AN
R220.56-8160-14-9CA	03245958	Arbor	160,0	9	8,0	71,0	167,0	175,5	40,0	90,0	80,0	4700	7,7	SN.X1407ZN
R220.56-8200-14-11CA	03245959	Arbor	200,0	11	8,0	71,0	207,0	215,5	60,0	130,0	80,0	4200	18,6	SN.X1407ZN
R220.56-8250-14-14CA	03245960	Arbor	250,0	14	8,0	71,0	257,0	265,5	60,0	130,0	80,0	3800	18,5	SN.X1407ZN
R220.56-8315-14-16CA	03245961	Arbor	315,0	16	8,0	71,0	322,0	330,5	60,0	225,0	80,0	3400	29,8	SN.X1407ZN

Spare Parts, included in delivery

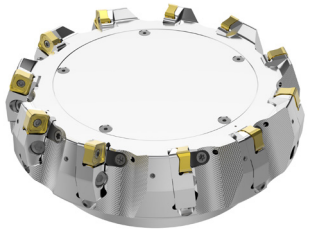
For cutter	Adjustment unit	Cassette	Cassette screw	Insert key	Insert screw	Lid	Lid screw	Wedge clamp	Wedge screw
									
R220.54-8160	AU1114T-T15P	SN14AR	MC6S6X20	1/4HEX-T15PX90	C04011-T15P	SC-160-90	MF6S4X10	CW0810	LD8020-T25P
R220.54-8200	AU1114T-T15P	SN14AR	MC6S6X20	1/4HEX-T15PX90	C04011-T15P	SC-200-90	MF6S4X10	CW0810	LD8020-T25P
R220.54-8250	AU1114T-T15P	SN14AR	MC6S6X20	1/4HEX-T15PX90	C04011-T15P	SC-250-90	MF6S4X10	CW0810	LD8020-T25P
R220.54-8315	AU1114T-T15P	SN14AR	MC6S6X20	1/4HEX-T15PX90	C04011-T15P	SC-315-90	MF6S4X10	CW0810	LD8020-T25P
R220.56-8160	AU1114T-T15P	SN14ZR	MC6S6X20	1/4HEX-T15PX90	C04011-T15P	SC-160-90	MF6S4X10	CW0810	LD8020-T25P
R220.56-8200	AU1114T-T15P	SN14ZR	MC6S6X20	1/4HEX-T15PX90	C04011-T15P	SC-200-90	MF6S4X8	CW0810	LD8020-T25P
R220.56-8250	AU1114T-T15P	SN14ZR	MC6S6X20	1/4HEX-T15PX90	C04011-T15P	SC-250-90	MF6S4X10	CW0810	LD8020-T25P
R220.56-8315	AU1114T-T15P	SN14ZR	MC6S6X20	1/4HEX-T15PX90	C04011-T15P	SC-315-90	MF6S4X10	CW0810	LD8020-T25P

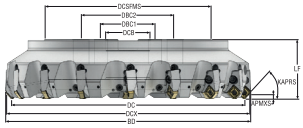
Accessories

For cutter	Adjustable Torque key	Arbor screw	Arbor screw 2	Insert clamping torque	Torque key
					
R220.54/56-8160	1/4HEX-S-HANDLE-0.8-5.0NM	MC6S12X40	–	3.5NM	T00-15P35
R220.54/56-8200	1/4HEX-S-HANDLE-0.8-5.0NM	MC6S16X50	–	3.5NM	T00-15P35
R220.54/56-8250	1/4HEX-S-HANDLE-0.8-5.0NM	MC6S16X50	–	3.5NM	T00-15P35
R220.54/56-8315	1/4HEX-S-HANDLE-0.8-5.0NM	MC6S16X50	MC6S20X50	3.5NM	T00-15P35

Torque and fixed keys, see page 872

Double Quattro R220.54/56-14CA – inch





- For insert selection and cutting data recommendations, see page(s) 221-226
- For complete insert programme, see page(s) 835
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	ZEFP	APMXS	KAPRS°	DCX	BD	DCB	DCSFMS	LF	RPMX	Weight	Insert
			inch		inch		inch	inch	inch	inch	inch		lbs	
R220.54-06.00-14-9CA	03213791	Arbor	6.299	9	0.236	48,0	6.890	6.949	2.000	4.331	3.150	4700	16.090	SN.X1407AN
R220.54-808.00-14-11CA	03213792	Arbor	7.874	11	0.236	48,0	8.465	8.524	2.500	5.118	3.150	4200	32.850	SN.X1407AN
R220.54-810.00-14-14CA	03213793	Arbor	9.843	14	0.236	48,0	10.433	10.492	2.500	5.118	3.150	3800	41.890	SN.X1407AN
R220.54-812.50-14-16CA	03213794	Arbor	12.402	16	0.236	48,0	12.992	13.051	2.500	8.858	3.150	3400	82.230	SN.X1407AN
R220.56-06.00-14-9CA	03245962	Arbor	6.299	9	0.315	71,0	6.575	6.909	2.000	4.331	3.150	4700	17.420	SN.X1407ZN
R220.56-808.00-14-11CA	03245963	Arbor	7.874	11	0.315	71,0	8.150	8.484	2.500	5.118	3.150	4200	22.490	SN.X1407ZN
R220.56-810.00-14-14CA	03245964	Arbor	9.843	14	0.315	71,0	10.118	10.453	2.500	5.118	3.150	3800	43.650	SN.X1407ZN
R220.56-812.50-14-16CA	03245965	Arbor	12.402	16	0.315	71,0	12.677	13.012	2.500	8.858	3.150	3400	65.920	SN.X1407ZN

Spare Parts, included in delivery

For cutter	Adjustment unit	Cassette	Cassette screw	Insert key	Insert screw	Lid	Lid screw	Wedge clamp	Wedge screw
									
R220.54-06.00	AU1114T-T15P	SN14AR	MC6S6X20	1/4HEX-T15PX90	C04011-T15P	SC-160-90	MF6S4X10	CW0810	LD8020-T25P
R220.54-808.00	AU1114T-T15P	SN14AR	MC6S6X20	1/4HEX-T15PX90	C04011-T15P	SC-200-90	MF6S4X10	CW0810	LD8020-T25P
R220.54-810.00	AU1114T-T15P	SN14AR	MC6S6X20	1/4HEX-T15PX90	C04011-T15P	SC-250-90	MF6S4X10	CW0810	LD8020-T25P
R220.54-812.50	AU1114T-T15P	SN14AR	MC6S6X20	1/4HEX-T15PX90	C04011-T15P	SC-315-90	MF6S4X10	CW0810	LD8020-T25P
R220.56-06.00	AU1114T-T15P	SN14ZR	MC6S6X20	1/4HEX-T15PX90	C04011-T15P	SC-160-90	MF6S4X10	CW0810	LD8020-T25P
R220.56-808.00	AU1114T-T15P	SN14ZR	MC6S6X20	1/4HEX-T15PX90	C04011-T15P	SC-200-90	MF6S4X10	CW0810	LD8020-T25P
R220.56-810.00	AU1114T-T15P	SN14ZR	MC6S6X20	1/4HEX-T15PX90	C04011-T15P	SC-250-90	MF6S4X10	CW0810	LD8020-T25P
R220.56-812.50	AU1114T-T15P	SN14ZR	MC6S6X20	1/4HEX-T15PX90	C04011-T15P	SC-315-90	MF6S4X10	CW0810	LD8020-T25P

Accessories

For cutter	Adjustable Torque key	Arbor screw	Insert clamping torque	Torque key
				
R220.54/56-06.00	1/4HEX-S-HANDLE-0.8-5.0NM	58215080	31.0IN.LBS	T00-15P35
R220.54/56-808.00-812.50	1/4HEX-S-HANDLE-0.8-5.0NM	950DNC062225	31.0IN.LBS	T00-15P35

Torque and fixed keys, see page 872

R220.54-14 – Insert selection – mm/*Inch*

SMG		a_p	f_z			
			80%	60%	40%	20%
P1	SNMX1407ANTR-M10 MS2050	5,0 *0.20*	0,24 *0.0095*	0,24 *0.0095*	0,25 *0.010*	0,32 *0.013*
P2	SNMX1407ANTR-M10 MS2050	5,0 *0.20*	0,25 *0.010*	0,25 *0.010*	0,26 *0.010*	0,32 *0.013*
P3	SNMX1407ANTR-M16 MP2501	5,0 *0.20*	0,38 *0.015*	0,38 *0.015*	0,38 *0.015*	0,48 *0.019*
P4	SNMX1407ANTR-M16 MP2501	5,0 *0.20*	0,36 *0.014*	0,36 *0.014*	0,38 *0.015*	0,48 *0.019*
P5	SNMX1407ANTR-M16 MP2501	5,0 *0.20*	0,36 *0.014*	0,36 *0.014*	0,38 *0.015*	0,46 *0.018*
P6	SNMX1407ANTR-M16 MP2501	5,0 *0.20*	0,36 *0.014*	0,36 *0.014*	0,36 *0.014*	0,46 *0.018*
P7	SNMX1407ANTR-M10 MP3501	5,0 *0.20*	0,22 *0.0085*	0,22 *0.0085*	0,24 *0.0095*	0,28 *0.011*
P8	SNMX1407ANTR-M10 MP3501	5,0 *0.20*	0,24 *0.0095*	0,24 *0.0095*	0,24 *0.0095*	0,30 *0.012*
P11	SNMX1407ANTR-M10 MP2050	5,0 *0.20*	0,22 *0.0085*	0,22 *0.0085*	0,24 *0.0095*	0,28 *0.011*
P12	SNMX1407ANTR-M10 MP2050	4,0 *0.16*	0,16 *0.0065*	0,16 *0.0065*	0,16 *0.0065*	0,20 *0.0080*
M1	SNHX1407ANR-ME10 F40M	5,0 *0.20*	0,20 *0.0080*	0,20 *0.0080*	0,22 *0.0085*	0,26 *0.010*
M2	SNHX1407ANR-ME10 MS2050	5,0 *0.20*	0,19 *0.0075*	0,19 *0.0075*	0,20 *0.0080*	0,24 *0.0095*
M3	SNHX1407ANR-ME10 MS2050	4,0 *0.16*	0,15 *0.0060*	0,15 *0.0060*	0,16 *0.0065*	0,20 *0.0080*
M4	SNMX1407ANTR-M10 MP2050	3,0 *0.12*	0,17 *0.0065*	0,17 *0.0065*	0,17 *0.0065*	0,22 *0.0085*
M5	SNMX1407ANTR-M10 MP2050	3,0 *0.12*	0,17 *0.0065*	0,17 *0.0065*	0,17 *0.0065*	0,22 *0.0085*
K1	SNMX1407ANTR-M16 MK1500	5,0 *0.20*	0,40 *0.016*	0,40 *0.016*	0,40 *0.016*	0,50 *0.020*
K2	SNMX1407ANTR-M16 MK1500	5,0 *0.20*	0,36 *0.014*	0,36 *0.014*	0,38 *0.015*	0,46 *0.018*
K3	SNMX1407ANTR-M16 MP1501	5,0 *0.20*	0,36 *0.014*	0,36 *0.014*	0,38 *0.015*	0,46 *0.018*
K4	SNMX1407ANTR-M16 MP1501	5,0 *0.20*	0,36 *0.014*	0,36 *0.014*	0,38 *0.015*	0,46 *0.018*
K5	SNMX1407ANTR-M16 MP1501	5,0 *0.20*	0,32 *0.013*	0,32 *0.013*	0,34 *0.013*	0,42 *0.017*
K6	SNMX1407ANTR-M16 MK2050	5,0 *0.20*	0,36 *0.014*	0,36 *0.014*	0,38 *0.015*	0,46 *0.018*
K7	SNMX1407ANTR-M16 MK2050	5,0 *0.20*	0,32 *0.013*	0,32 *0.013*	0,34 *0.013*	0,42 *0.017*
N1	SNHX1407ANR-ME10 H25	5,0 *0.20*	0,26 *0.010*	0,26 *0.010*	0,28 *0.011*	0,34 *0.013*
N2	SNHX1407ANR-ME10 H25	5,0 *0.20*	0,26 *0.010*	0,26 *0.010*	0,28 *0.011*	0,34 *0.013*
N3	SNHX1407ANR-ME10 H25	5,0 *0.20*	0,26 *0.010*	0,26 *0.010*	0,28 *0.011*	0,34 *0.013*
N11	SNHX1407ANR-ME10 H25	5,0 *0.20*	0,26 *0.010*	0,26 *0.010*	0,28 *0.011*	0,34 *0.013*
S1	SNMX1407ANTR-M10 MS2500	3,0 *0.12*	0,17 *0.0065*	0,17 *0.0065*	0,17 *0.0065*	0,22 *0.0085*
S2	SNMX1407ANTR-M10 MS2500	3,0 *0.12*	0,17 *0.0065*	0,17 *0.0065*	0,17 *0.0065*	0,22 *0.0085*
S3	SNMX1407ANTR-M10 MS2500	3,0 *0.12*	0,15 *0.0060*	0,15 *0.0060*	0,16 *0.0065*	0,20 *0.0080*
S11	SNHX1407ANR-ME10 MS2050	3,5 *0.14*	0,16 *0.0065*	0,16 *0.0065*	0,16 *0.0065*	0,20 *0.0080*
S12	SNHX1407ANR-ME10 MS2050	3,5 *0.14*	0,16 *0.0065*	0,16 *0.0065*	0,16 *0.0065*	0,20 *0.0080*
S13	SNHX1407ANR-ME10 MS2050	3,0 *0.12*	0,14 *0.0055*	0,14 *0.0055*	0,14 *0.0055*	0,18 *0.0070*
H5	SNMX1407ANTR-M16 MP3000	4,0 *0.16*	0,25 *0.010*	0,25 *0.010*	0,26 *0.010*	0,32 *0.013*
H8	SNMX1407ANTR-M16 MP3000	3,5 *0.14*	0,19 *0.0075*	0,19 *0.0075*	0,20 *0.0080*	0,25 *0.010*
H11	SNMX1407ANTR-M16 MP1501	4,0 *0.16*	0,25 *0.010*	0,25 *0.010*	0,26 *0.010*	0,32 *0.013*
H12	SNMX1407ANTR-M16 MP1501	3,5 *0.14*	0,19 *0.0075*	0,19 *0.0075*	0,20 *0.0080*	0,25 *0.010*
H21	SNMX1407ANTR-M16 MP1501	3,5 *0.14*	0,19 *0.0075*	0,19 *0.0075*	0,20 *0.0080*	0,25 *0.010*

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

R220.54-14 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	MK2050				MP3000				MS2050				F40M				MP2050				H25			
	100%	80%	60%	40%	100%	80%	60%	40%	100%	80%	60%	40%	100%	80%	60%	40%	100%	80%	60%	40%	100%	80%	60%	40%
P1	230 *750*	245 *800*	270 *890*	295 *970*	220 *720*	240 *790*	260 *850*	285 *940*	230 *750*	245 *800*	265 *870*	290 *950*	205 *670*	220 *720*	240 *790*	265 *870*	270 *890*	290 *950*	310 *1025*	345 *1125*	— —	— —	— —	— —
P2	220 *720*	235 *770*	255 *840*	290 *950*	215 *710*	225 *740*	245 *800*	275 *900*	220 *720*	235 *770*	255 *840*	280 *920*	200 *660*	215 *710*	230 *750*	255 *840*	260 *850*	275 *900*	300 *980*	330 *1075*	— —	— —	— —	— —
P3	195 *640*	205 *670*	225 *740*	250 *820*	185 *610*	200 *660*	215 *710*	245 *800*	190 *620*	205 *670*	220 *720*	245 *800*	175 *570*	185 *610*	200 *660*	225 *740*	225 *740*	240 *790*	260 *850*	290 *950*	— —	— —	— —	— —
P4	175 *570*	185 *610*	200 *660*	220 *720*	165 *540*	180 *590*	195 *640*	215 *710*	170 *560*	180 *590*	195 *640*	220 *720*	155 *510*	165 *540*	175 *570*	200 *660*	200 *660*	215 *710*	230 *750*	255 *840*	— —	— —	— —	— —
P5	165 *540*	180 *590*	190 *620*	210 *690*	160 *520*	170 *560*	185 *610*	205 *670*	165 *540*	175 *570*	190 *620*	210 *690*	150 *490*	160 *520*	175 *570*	190 *620*	195 *640*	210 *690*	225 *740*	245 *800*	— —	— —	— —	— —
P6	185 *610*	200 *660*	215 *710*	240 *790*	180 *590*	190 *620*	210 *690*	235 *770*	185 *610*	200 *660*	215 *710*	235 *770*	170 *560*	180 *590*	195 *640*	210 *690*	220 *720*	235 *770*	255 *840*	275 *900*	— —	— —	— —	— —
P7	175 *570*	190 *620*	205 *670*	230 *750*	170 *560*	180 *590*	195 *640*	220 *720*	175 *570*	190 *620*	205 *670*	220 *720*	160 *520*	170 *560*	185 *610*	200 *660*	205 *670*	220 *720*	240 *790*	260 *850*	— —	— —	— —	— —
P8	165 *540*	175 *570*	190 *620*	210 *690*	155 *510*	170 *560*	180 *590*	205 *670*	160 *520*	170 *560*	185 *610*	210 *690*	145 *475*	155 *510*	170 *560*	190 *620*	190 *620*	205 *670*	220 *720*	245 *800*	— —	— —	— —	— —
P11	170 *560*	185 *610*	200 *660*	220 *720*	165 *540*	175 *570*	190 *620*	215 *710*	170 *560*	180 *590*	195 *640*	215 *710*	155 *510*	165 *540*	180 *590*	195 *640*	200 *660*	215 *710*	230 *750*	250 *820*	— —	— —	— —	— —
P12	115 *375*	120 *395*	130 *425*	145 *475*	110 *360*	115 *375*	125 *410*	140 *460*	110 *360*	115 *375*	125 *410*	140 *460*	100 *330*	105 *345*	115 *375*	130 *425*	130 *425*	140 *460*	150 *490*	165 *540*	— —	— —	— —	— —
M1	— —	— —	— —	— —	160 *520*	170 *560*	185 *610*	205 *670*	175 *570*	190 *620*	205 *670*	225 *740*	160 *520*	170 *560*	185 *610*	205 *670*	185 *610*	200 *660*	215 *710*	235 *770*	— —	— —	— —	— —
M2	— —	— —	— —	— —	135 *445*	145 *475*	155 *510*	170 *560*	150 *490*	160 *520*	170 *560*	185 *610*	135 *445*	145 *475*	155 *510*	170 *560*	155 *510*	165 *540*	180 *590*	195 *640*	— —	— —	— —	— —
M3	— —	— —	— —	— —	110 *360*	115 *375*	125 *410*	140 *460*	120 *395*	130 *425*	140 *460*	150 *490*	110 *360*	115 *375*	125 *410*	140 *460*	125 *410*	135 *445*	145 *475*	160 *520*	— —	— —	— —	— —
M4	— —	— —	— —	— —	85 *280*	90 *295*	95 *310*	110 *360*	90 *295*	95 *310*	105 *345*	115 *375*	85 *280*	90 *295*	95 *310*	105 *345*	95 *310*	100 *330*	110 *360*	120 *395*	— —	— —	— —	— —
M5	— —	— —	— —	— —	70 *230*	75 *245*	80 *260*	90 *295*	75 *245*	80 *260*	85 *280*	95 *310*	70 *230*	75 *245*	80 *260*	90 *295*	80 *260*	85 *280*	90 *295*	100 *330*	— —	— —	— —	— —
K1	240 *790*	255 *840*	275 *900*	310 *1025*	170 *560*	180 *590*	195 *640*	220 *720*	— —	— —	— —	— —	160 *520*	170 *560*	185 *610*	200 *660*	— —	— —	— —	— —	165 *540*	175 *570*	190 *620*	205 *670*
K2	215 *710*	230 *750*	250 *820*	275 *900*	150 *490*	160 *520*	175 *570*	195 *640*	— —	— —	— —	— —	140 *460*	155 *510*	165 *540*	180 *590*	— —	— —	— —	— —	145 *475*	155 *510*	165 *540*	185 *610*
K3	180 *590*	195 *640*	210 *690*	230 *750*	130 *425*	135 *445*	150 *490*	165 *540*	— —	— —	— —	— —	120 *395*	130 *425*	140 *460*	150 *490*	— —	— —	— —	— —	— —	— —	— —	— —
K4	175 *570*	185 *610*	200 *660*	220 *720*	120 *395*	130 *425*	140 *460*	155 *510*	— —	— —	— —	— —	115 *375*	125 *410*	135 *445*	145 *475*	— —	— —	— —	— —	— —	— —	— —	— —
K5	105 *345*	115 *375*	125 *410*	135 *445*	75 *245*	80 *260*	90 *295*	95 *310*	— —	— —	— —	— —	70 *230*	75 *245*	80 *260*	90 *295*	— —	— —	— —	— —	— —	— —	— —	— —
K6	155 *510*	165 *540*	175 *570*	195 *640*	110 *360*	115 *375*	125 *410*	140 *460*	— —	— —	— —	— —	100 *330*	110 *360*	115 *375*	130 *425*	— —	— —	— —	— —	— —	— —	— —	— —
K7	135 *445*	145 *475*	160 *520*	175 *570*	95 *310*	105 *345*	115 *375*	125 *410*	— —	— —	— —	— —	90 *295*	95 *310*	105 *345*	115 *375*	— —	— —	— —	— —	— —	— —	— —	— —
N1	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	1150 *3775*	1225 *4025*	1325 *4350*	1500 *4925*	— —	— —	— —	— —	1200 *3925*	1275 *4175*	1400 *4600*	1525 *5000*
N2	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	465 *1525*	500 *1650*	540 *1775*	600 *1975*	— —	— —	— —	— —	485 *1600*	520 *1700*	560 *1825*	610 *2000*
N3	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	310 *1025*	330 *1075*	360 *1175*	405 *1325*	— —	— —	— —	— —	320 *1050*	345 *1125*	375 *1225*	410 *1350*
N11	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	355 *1175*	380 *1250*	410 *1350*	460 *1500*	— —	— —	— —	— —	370 *1225*	395 *1300*	425 *1400*	465 *1525*
S1	— —	— —	— —	— —	40 *130*	42 *140*	45 *150*	50 *165*	42 *140*	45 *150*	49 *160*	55 *180*	39 *130*	41 *135*	44 *145*	49 *160*	47 *155*	50 *165*	55 *180*	60 *195*	— —	— —	— —	— —
S2	— —	— —	— —	— —	32 *105*	34 *110*	37 *120*	41 *135*	34 *110*	37 *120*	39 *130*	44 *145*	31 *100*	33 *110*	36 *120*	40 *130*	38 *125*	40 *130*	43 *140*	48 *155*	— —	— —	— —	— —
S3	— —	— —	— —	— —	28 *90*	30 *100*	32 *105*	36 *120*	31 *100*	33 *110*	35 *115*	38 *125*	28 *90*	30 *100*	32 *105*	35 *115*	33 *110*	36 *120*	39 *130*	42 *140*	— —	— —	— —	— —
S11	— —	— —	— —	— —	— —	— —	— —	— —	60 *195*	65 *215*	70 *230*	75 *245*	55 *180*	60 *195*	60 *195*	70 *230*	65 *215*	70 *230*	75 *245*	85 *280*	35 *115*	38 *125*	40 *130*	45 *150*
S12	— —	— —	— —	— —	— —	— —	— —	— —	41 *135*	44 *145*	47 *155*	55 *180*	37 *120*	40 *130*	43 *140*	48 *155*	45 *150*	48 *155*	50 *165*	60 *195*	— —	— —	— —	— —
S13	— —	— —	— —	— —	— —	— —	— —	— —	24 *80*	26 *85*	28 *90*	31 *100*	22 *70*	23 *75*	25 *80*	28 *90*	26 *85*	28 *90*	30 *100*	34 *110*	— —	— —	— —	— —
H5	— —	— —	— —	— —	34 *110*	36 *120*	39 *130*	43 *140*	— —	— —	— —	— —	33 *110*	35 *115*	38 *125*	42 *140*	— —	— —	— —	— —	— —	— —	— —	— —
H8	— —	— —	— —	— —	37 *120*	39 *130*	42 *140*	47 *155*	— —	— —	— —	— —	36 *120*	38 *125*	41 *135*	46 *150*	— —	— —	— —	— —	— —	— —	— —	— —
H11	— —	— —	— —	— —	43 *140*	46 *150*	50 *165*	55 *180*	— —	— —	— —	— —	42 *140*	45 *150*	49 *160*	55 *180*	49 *160*	55 *180*	55 *180*	65 *215*	— —	— —	— —	— —
H12	— —	— —	— —	— —	70 *230*	75 *245*	80 *260*	90 *295*	— —	— —	— —	— —	65 *215*	70 *230*	75 *245*	80 *260*	85 *280*	90 *295*	95 *310*	105 *345*	— —	— —	— —	— —
H21	— —	— —	— —	— —	37 *120*	39 *130*	42 *140*	47 *155*	— —	— —	— —	— —	36 *120*	38 *125*	41 *135*	46 *150*	42 *140*	45 *150*	48 *155*	55 *180*	— —	— —	— —	— —

R220.54-14 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	MK1500				MP1501				MP2501				MP3501				MS2500			
	100%	80%	60%	40%	100%	80%	60%	40%	100%	80%	60%	40%	100%	80%	60%	40%	100%	80%	60%	40%
P1	—	—	—	—	395	410	440	475	385	400	425	465	340	355	380	415	300	320	345	380
	—	—	—	—	*1300*	*1350*	*1450*	*1550*	*1275*	*1300*	*1400*	*1525*	*1125*	*1175*	*1250*	*1350*	*980*	*1050*	*1125*	*1250*
P2	—	—	—	—	375	395	420	460	370	380	410	445	330	340	365	400	285	310	335	365
	—	—	—	—	*1225*	*1300*	*1375*	*1500*	*1225*	*1250*	*1350*	*1450*	*1075*	*1125*	*1200*	*1300*	*940*	*1025*	*1100*	*1200*
P3	—	—	—	—	330	345	365	405	320	335	360	395	285	295	320	355	250	270	290	325
	—	—	—	—	*1075*	*1125*	*1200*	*1325*	*1050*	*1100*	*1175*	*1300*	*940*	*970*	*1050*	*1175*	*820*	*890*	*950*	*1075*
P4	—	—	—	—	290	300	325	355	285	295	315	350	255	260	280	310	220	235	255	285
	—	—	—	—	*950*	*980*	*1075*	*1175*	*940*	*970*	*1025*	*1150*	*840*	*850*	*920*	*1025*	*720*	*770*	*840*	*940*
P5	—	—	—	—	285	295	315	340	280	290	310	330	250	260	275	295	215	230	250	270
	—	—	—	—	*940*	*970*	*1025*	*1125*	*920*	*950*	*1025*	*1075*	*820*	*850*	*900*	*970*	*710*	*750*	*820*	*890*
P6	—	—	—	—	320	335	355	380	315	325	350	375	280	290	310	335	240	260	280	305
	—	—	—	—	*1050*	*1100*	*1175*	*1250*	*1025*	*1075*	*1150*	*1225*	*920*	*950*	*1025*	*1100*	*790*	*850*	*920*	*1000*
P7	—	—	—	—	300	315	335	360	295	305	330	350	265	275	295	315	230	245	265	290
	—	—	—	—	*980*	*1025*	*1100*	*1175*	*970*	*1000*	*1075*	*1150*	*870*	*900*	*970*	*1025*	*750*	*800*	*870*	*950*
P8	—	—	—	—	275	290	310	340	270	280	300	330	240	250	270	295	210	225	245	270
	—	—	—	—	*900*	*950*	*1025*	*1125*	*890*	*920*	*980*	*1075*	*790*	*820*	*890*	*970*	*690*	*740*	*800*	*890*
P11	—	—	—	—	295	305	325	350	285	300	320	340	255	265	285	305	220	240	260	280
	—	—	—	—	*970*	*1000*	*1075*	*1150*	*940*	*980*	*1050*	*1125*	*840*	*870*	*940*	*1000*	*720*	*790*	*850*	*920*
P12	—	—	—	—	190	195	210	225	185	195	205	225	165	175	185	200	145	155	165	185
	—	—	—	—	*620*	*640*	*690*	*740*	*610*	*640*	*670*	*740*	*540*	*570*	*610*	*660*	*475*	*510*	*540*	*610*
M1	—	—	—	—	—	—	—	—	190	205	220	240	175	190	205	225	205	220	240	265
	—	—	—	—	—	—	—	—	*620*	*670*	*720*	*790*	*570*	*620*	*670*	*740*	*670*	*720*	*790*	*870*
M2	—	—	—	—	—	—	—	—	160	170	185	200	150	160	170	185	175	185	200	220
	—	—	—	—	—	—	—	—	*520*	*560*	*610*	*660*	*490*	*520*	*560*	*610*	*570*	*610*	*660*	*720*
M3	—	—	—	—	—	—	—	—	130	135	150	160	120	130	140	150	140	150	160	175
	—	—	—	—	—	—	—	—	*425*	*445*	*490*	*520*	*395*	*425*	*460*	*490*	*460*	*490*	*520*	*570*
M4	—	—	—	—	—	—	—	—	100	105	110	125	90	95	105	115	105	115	120	135
	—	—	—	—	—	—	—	—	*330*	*345*	*360*	*410*	*295*	*310*	*345*	*375*	*345*	*375*	*395*	*445*
M5	—	—	—	—	—	—	—	—	80	85	95	105	75	80	85	95	90	95	100	115
	—	—	—	—	—	—	—	—	*260*	*280*	*310*	*345*	*245*	*260*	*280*	*310*	*295*	*310*	*330*	*375*
K1	250	270	290	330	380	395	425	460	370	385	415	450	330	345	370	405	225	245	265	290
	820	*890*	*950*	*1075*	*1250*	*1300*	*1400*	*1500*	*1225*	*1275*	*1350*	*1475*	*1075*	*1125*	*1225*	*1325*	*740*	*800*	*870*	*950*
K2	225	245	265	290	345	360	385	410	335	350	375	400	300	315	335	360	205	220	240	260
	740	*800*	*870*	*950*	*1125*	*1175*	*1275*	*1350*	*1100*	*1150*	*1225*	*1300*	*980*	*1025*	*1100*	*1175*	*670*	*720*	*790*	*850*
K3	190	205	220	245	290	305	325	345	285	295	315	340	255	265	285	305	175	185	200	220
	620	*670*	*720*	*800*	*950*	*1000*	*1075*	*1125*	*940*	*970*	*1025*	*1125*	*840*	*870*	*940*	*1000*	*570*	*610*	*660*	*720*
K4	185	195	210	235	280	290	310	330	270	285	305	325	245	250	270	290	165	180	190	210
	610	*640*	*690*	*770*	*920*	*950*	*1025*	*1075*	*890*	*940*	*1000*	*1075*	*800*	*820*	*890*	*950*	*540*	*590*	*620*	*690*
K5	115	120	130	145	170	180	190	200	165	175	185	200	150	155	165	180	100	110	120	125
	375	*395*	*425*	*475*	*560*	*590*	*620*	*660*	*540*	*570*	*610*	*660*	*490*	*510*	*540*	*590*	*330*	*360*	*395*	*410*
K6	160	175	185	205	245	255	275	290	240	250	265	285	215	220	240	255	145	155	170	185
	520	*570*	*610*	*670*	*800*	*840*	*900*	*950*	*790*	*820*	*870*	*940*	*710*	*720*	*790*	*840*	*475*	*510*	*560*	*610*
K7	145	155	170	185	220	230	245	260	215	225	240	255	190	200	215	225	130	140	150	165
	475	*510*	*560*	*610*	*720*	*750*	*800*	*850*	*710*	*740*	*790*	*840*	*620*	*660*	*710*	*740*	*425*	*460*	*490*	*540*
N1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
N2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
N3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
N11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S1	—	—	—	—	—	—	—	—	—	—	—	—	42	45	49	55	50	55	60	65
	—	—	—	—	—	—	—	—	—	—	—	—	*140*	*150*	*160*	*180*	*165*	*180*	*195*	*215*
S2	—	—	—	—	—	—	—	—	—	—	—	—	34	37	39	44	42	45	48	55
	—	—	—	—	—	—	—	—	—	—	—	—	*110*	*120*	*130*	*145*	*140*	*150*	*155*	*180*
S3	—	—	—	—	—	—	—	—	—	—	—	—	31	33	35	38	37	40	43	47
	—	—	—	—	—	—	—	—	—	—	—	—	*100*	*110*	*115*	*125*	*120*	*130*	*140*	*155*
S11	—	—	—	—	—	—	—	—	—	—	—	—	60	65	70	75	70	75	85	95
	—	—	—	—	—	—	—	—	—	—	—	—	*195*	*215*	*230*	*245*	*230*	*245*	*280*	*310*
S12	—	—	—	—	—	—	—	—	—	—	—	—	41	44	47	55	50	55	60	65
	—	—	—	—	—	—	—	—	—	—	—	—	*135*	*145*	*155*	*180*	*165*	*180*	*195*	*215*
S13	—	—	—	—	—	—	—	—	—	—	—	—	24	26	28	31	29	31	34	37
	—	—	—	—	—	—	—	—	—	—	—	—	*80*	*85*	*90*	*100*	*95*	*100*	*110*	*120*
H5	—	—	—	—	49	55	55	65	—	—	—	—	38	41	44	49	43	46	50	55
	—	—	—	—	*160*	*180*	*180*	*215*	—	—	—	—	*125*	*135*	*145*	*160*	*140*	*150*	*165*	*180*
H8	—	—	—	—	55	55	60	70	—	—	—	—	41	44	47	50	46	50	55	60
	—	—	—	—	*180*	*180*	*195*	*230*	—	—	—	—	*135*	*145*	*155*	*165*	*150*	*165*	*180*	*195*
H11	—	—	—	—	65	65	70	80	—	—	—	—	48	50	55	60	55	60	65	70
	—	—	—	—	*215*	*215*	*230*	*260*	—	—	—	—	*155*	*165*	*180*	*195*	*180*	*195*	*215*	*230*
H12	—	—	—	—	95	100	110	120	—	—	—	—	75	80	85	95	90	100	105	120
	—	—	—	—	*310*	*330*	*360*	*395*	—	—	—	—	*245*	*260*	*280*	*310*	*295*	*330*	*345*	*395*
H21	—	—	—	—	55	55	60	70	—	—	—	—	41	44	47	50	46	50	55	60
	—	—	—	—	*180*	*180*	*195*	*230*	—	—	—	—	*135*	*145*	*155*	*165*	*150*	*165*	*180*	*195*

R220.56-14 – Insert selection – mm/*Inch*

SMG		a_p	f_z			
			80%	60%	40%	20%
P1	SNMX1407ZNTR-M10 MS2050	6,0 *0.24*	0,19 *0.0075*	0,19 *0.0075*	0,19 *0.0075*	0,24 *0.0095*
P2	SNMX1407ZNTR-M10 MS2050	6,0 *0.24*	0,19 *0.0075*	0,19 *0.0075*	0,20 *0.0080*	0,24 *0.0095*
P3	SNMX1407ZNTR-M16 MP2501	6,0 *0.24*	0,28 *0.011*	0,28 *0.011*	0,30 *0.012*	0,36 *0.014*
P4	SNMX1407ZNTR-M16 MP2501	6,0 *0.24*	0,28 *0.011*	0,28 *0.011*	0,28 *0.011*	0,36 *0.014*
P5	SNMX1407ZNTR-M16 MP2501	6,0 *0.24*	0,28 *0.011*	0,28 *0.011*	0,28 *0.011*	0,34 *0.013*
P6	SNMX1407ZNTR-M16 MP2501	6,0 *0.24*	0,28 *0.011*	0,28 *0.011*	0,28 *0.011*	0,34 *0.013*
P7	SNMX1407ZNTR-M16 MP2501	6,0 *0.24*	0,28 *0.011*	0,28 *0.011*	0,28 *0.011*	0,34 *0.013*
P8	SNMX1407ZNTR-M16 MP2501	6,0 *0.24*	0,28 *0.011*	0,28 *0.011*	0,30 *0.012*	0,36 *0.014*
P11	SNMX1407ZNTR-M10 MP2050	6,0 *0.24*	0,17 *0.0065*	0,17 *0.0065*	0,18 *0.0070*	0,22 *0.0085*
P12	SNMX1407ZNTR-M10 MP2050	5,0 *0.20*	0,12 *0.0048*	0,12 *0.0048*	0,12 *0.0048*	0,15 *0.0060*
M1	SNHX1407ZNR-ME10 MS2050	6,0 *0.24*	0,16 *0.0065*	0,16 *0.0065*	0,16 *0.0065*	0,20 *0.0080*
M2	SNHX1407ZNR-ME10 MS2050	6,0 *0.24*	0,15 *0.0060*	0,15 *0.0060*	0,15 *0.0060*	0,18 *0.0070*
M3	SNHX1407ZNR-ME10 MS2050	5,0 *0.20*	0,12 *0.0048*	0,12 *0.0048*	0,12 *0.0048*	0,15 *0.0060*
M4	SNMX1407ZNTR-M10 MP2050	4,0 *0.16*	0,13 *0.0050*	0,13 *0.0050*	0,13 *0.0050*	0,16 *0.0065*
M5	SNMX1407ZNTR-M10 MP2050	4,0 *0.16*	0,13 *0.0050*	0,13 *0.0050*	0,13 *0.0050*	0,16 *0.0065*
K1	SNMX1407ZNTR-M16 MK1500	6,0 *0.24*	0,30 *0.012*	0,30 *0.012*	0,32 *0.013*	0,38 *0.015*
K2	SNMX1407ZNTR-M16 MK1500	6,0 *0.24*	0,28 *0.011*	0,28 *0.011*	0,28 *0.011*	0,34 *0.013*
K3	SNMX1407ZNTR-M16 MP1501	6,0 *0.24*	0,28 *0.011*	0,28 *0.011*	0,28 *0.011*	0,34 *0.013*
K4	SNMX1407ZNTR-M16 MP1501	6,0 *0.24*	0,28 *0.011*	0,28 *0.011*	0,28 *0.011*	0,34 *0.013*
K5	SNMX1407ZNTR-M16 MP1501	6,0 *0.24*	0,25 *0.010*	0,25 *0.010*	0,25 *0.010*	0,32 *0.013*
K6	SNMX1407ZNTR-M16 MK2050	6,0 *0.24*	0,28 *0.011*	0,28 *0.011*	0,28 *0.011*	0,34 *0.013*
K7	SNMX1407ZNTR-M16 MK2050	6,0 *0.24*	0,25 *0.010*	0,25 *0.010*	0,25 *0.010*	0,32 *0.013*
S1	SNMX1407ZNTR-M10 MS2500	4,0 *0.16*	0,13 *0.0050*	0,13 *0.0050*	0,13 *0.0050*	0,16 *0.0065*
S2	SNMX1407ZNTR-M10 MS2500	4,0 *0.16*	0,13 *0.0050*	0,13 *0.0050*	0,13 *0.0050*	0,16 *0.0065*
S3	SNMX1407ZNTR-M10 MS2500	4,0 *0.16*	0,12 *0.0048*	0,12 *0.0048*	0,12 *0.0048*	0,15 *0.0060*
S11	SNHX1407ZNR-ME10 MS2050	4,5 *0.18*	0,12 *0.0048*	0,12 *0.0048*	0,12 *0.0048*	0,15 *0.0060*
S12	SNHX1407ZNR-ME10 MS2050	4,5 *0.18*	0,12 *0.0048*	0,12 *0.0048*	0,12 *0.0048*	0,15 *0.0060*
S13	SNHX1407ZNR-ME10 MS2050	4,0 *0.16*	0,11 *0.0044*	0,11 *0.0044*	0,11 *0.0044*	0,13 *0.0050*
H5	SNMX1407ZNTR-M16 MP1501	5,0 *0.20*	0,19 *0.0075*	0,19 *0.0075*	0,20 *0.0080*	0,24 *0.0095*
H8	SNMX1407ZNTR-M16 MP1501	4,5 *0.18*	0,15 *0.0060*	0,15 *0.0060*	0,15 *0.0060*	0,19 *0.0075*
H11	SNMX1407ZNTR-M16 MP1501	5,0 *0.20*	0,19 *0.0075*	0,19 *0.0075*	0,20 *0.0080*	0,24 *0.0095*
H12	SNMX1407ZNTR-M16 MP1501	4,5 *0.18*	0,15 *0.0060*	0,15 *0.0060*	0,15 *0.0060*	0,19 *0.0075*
H21	SNMX1407ZNTR-M16 MP1501	4,5 *0.18*	0,15 *0.0060*	0,15 *0.0060*	0,15 *0.0060*	0,19 *0.0075*
H31	SNMX1407ZNTR-M16 MP1501	— —	— —	— —	— —	— —

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

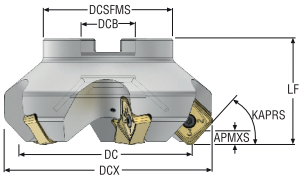
R220.56-14 – Cutting data v_c = (m/min)/*(sf/min)*

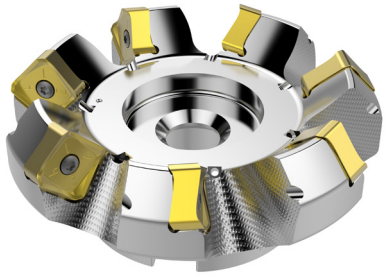
SMG	MK2050				MP3000				MS2050				F40M				MP2050			
	100%	80%	60%	40%	100%	80%	60%	40%	100%	80%	60%	40%	100%	80%	60%	40%	100%	80%	60%	40%
P1	225 *740*	235 *770*	255 *840*	290 *950*	260 *850*	275 *900*	300 *980*	335 *1100*	230 *750*	245 *800*	260 *850*	295 *970*	210 *690*	220 *720*	240 *790*	265 *870*	270 *890*	285 *940*	310 *1025*	345 *1125*
P2	220 *720*	230 *750*	250 *820*	275 *900*	255 *840*	270 *890*	290 *950*	320 *1050*	225 *740*	235 *770*	255 *840*	280 *920*	205 *670*	215 *710*	230 *750*	255 *840*	265 *870*	280 *920*	300 *980*	330 *1075*
P3	195 *640*	205 *670*	220 *720*	240 *790*	220 *720*	235 *770*	255 *840*	280 *920*	195 *640*	205 *670*	225 *740*	245 *800*	175 *570*	190 *620*	205 *670*	225 *740*	230 *750*	245 *800*	265 *870*	290 *950*
P4	170 *560*	180 *590*	195 *640*	220 *720*	195 *640*	205 *670*	225 *740*	250 *820*	170 *560*	180 *590*	195 *640*	220 *720*	155 *510*	165 *540*	180 *590*	200 *660*	200 *660*	215 *710*	230 *750*	260 *850*
P5	160 *520*	170 *560*	185 *610*	210 *690*	190 *620*	200 *660*	215 *710*	240 *790*	165 *540*	175 *570*	190 *620*	210 *690*	150 *490*	160 *520*	175 *570*	190 *620*	195 *640*	210 *690*	225 *740*	245 *800*
P6	180 *590*	190 *620*	210 *690*	235 *770*	215 *710*	225 *740*	245 *800*	265 *870*	185 *610*	200 *660*	215 *710*	235 *770*	170 *560*	180 *590*	195 *640*	215 *710*	220 *720*	235 *770*	255 *840*	275 *900*
P7	170 *560*	180 *590*	195 *640*	220 *720*	200 *660*	215 *710*	230 *750*	250 *820*	175 *570*	190 *620*	205 *670*	220 *720*	160 *520*	170 *560*	185 *610*	200 *660*	210 *690*	220 *720*	240 *790*	260 *850*
P8	160 *520*	170 *560*	185 *610*	205 *670*	185 *610*	200 *660*	215 *710*	235 *770*	165 *540*	175 *570*	190 *620*	205 *670*	150 *490*	160 *520*	170 *560*	190 *620*	195 *640*	205 *670*	220 *720*	245 *800*
P11	165 *540*	175 *570*	190 *620*	215 *710*	195 *640*	205 *670*	225 *740*	245 *800*	170 *560*	180 *590*	195 *640*	215 *710*	155 *510*	165 *540*	180 *590*	195 *640*	200 *660*	215 *710*	230 *750*	255 *840*
P12	110 *360*	120 *395*	130 *425*	145 *475*	125 *410*	135 *445*	145 *475*	160 *520*	110 *360*	120 *395*	130 *425*	145 *475*	100 *330*	110 *360*	115 *375*	130 *425*	130 *425*	140 *460*	150 *490*	170 *560*
M1	— —	— —	— —	— —	190 *620*	200 *660*	215 *710*	240 *790*	180 *590*	190 *620*	205 *670*	225 *740*	165 *540*	175 *570*	185 *610*	205 *670*	190 *620*	200 *660*	215 *710*	235 *770*
M2	— —	— —	— —	— —	160 *520*	170 *560*	180 *590*	200 *660*	150 *490*	160 *520*	170 *560*	190 *620*	135 *445*	145 *475*	155 *510*	170 *560*	155 *510*	165 *540*	180 *590*	200 *660*
M3	— —	— —	— —	— —	130 *425*	135 *445*	145 *475*	165 *540*	120 *395*	130 *425*	140 *460*	155 *510*	110 *360*	115 *375*	125 *410*	140 *460*	125 *410*	135 *445*	145 *475*	160 *520*
M4	— —	— —	— —	— —	100 *330*	105 *345*	110 *360*	125 *410*	95 *310*	100 *330*	105 *345*	120 *395*	85 *280*	90 *295*	95 *310*	105 *345*	100 *330*	105 *345*	110 *360*	125 *410*
M5	— —	— —	— —	— —	80 *260*	85 *280*	95 *310*	105 *345*	80 *260*	80 *260*	90 *295*	100 *330*	70 *230*	75 *245*	80 *260*	90 *295*	80 *260*	85 *280*	95 *310*	105 *345*
K1	235 *770*	250 *820*	270 *890*	295 *970*	200 *660*	215 *710*	230 *750*	255 *840*	— —	— —	— —	— —	160 *520*	170 *560*	185 *610*	200 *660*	— —	— —	— —	— —
K2	210 *690*	220 *720*	240 *790*	270 *890*	180 *590*	190 *620*	205 *670*	225 *740*	— —	— —	— —	— —	145 *475*	155 *510*	165 *540*	180 *590*	— —	— —	— —	— —
K3	175 *570*	185 *610*	205 *670*	225 *740*	150 *490*	160 *520*	175 *570*	190 *620*	— —	— —	— —	— —	120 *395*	130 *425*	140 *460*	155 *510*	— —	— —	— —	— —
K4	170 *560*	180 *590*	195 *640*	215 *710*	145 *475*	155 *510*	165 *540*	185 *610*	— —	— —	— —	— —	115 *375*	125 *410*	135 *445*	145 *475*	— —	— —	— —	— —
K5	105 *345*	110 *360*	120 *395*	130 *425*	90 *295*	95 *310*	100 *330*	115 *375*	— —	— —	— —	— —	70 *230*	75 *245*	80 *260*	90 *295*	— —	— —	— —	— —
K6	150 *490*	155 *510*	170 *560*	190 *620*	130 *425*	135 *445*	145 *475*	160 *520*	— —	— —	— —	— —	100 *330*	110 *360*	115 *375*	130 *425*	— —	— —	— —	— —
K7	135 *445*	140 *460*	155 *510*	170 *560*	115 *375*	120 *395*	130 *425*	145 *475*	— —	— —	— —	— —	90 *295*	95 *310*	105 *345*	115 *375*	— —	— —	— —	— —
S1	— —	— —	— —	— —	46 *150*	49 *160*	50 *165*	60 *195*	43 *140*	46 *150*	50 *165*	55 *180*	40 *130*	42 *140*	45 *150*	50 *165*	48 *155*	50 *165*	55 *180*	60 *195*
S2	— —	— —	— —	— —	37 *120*	39 *130*	42 *140*	47 *155*	35 *115*	37 *120*	40 *130*	44 *145*	32 *105*	34 *110*	36 *120*	40 *130*	38 *125*	41 *135*	44 *145*	49 *160*
S3	— —	— —	— —	— —	33 *110*	35 *115*	37 *120*	41 *135*	31 *100*	33 *110*	35 *115*	39 *130*	28 *90*	30 *100*	32 *105*	36 *120*	34 *110*	36 *120*	39 *130*	43 *140*
S11	— —	— —	— —	— —	— —	— —	— —	— —	60 *195*	65 *215*	70 *230*	75 *245*	55 *180*	60 *195*	65 *215*	70 *230*	65 *215*	70 *230*	75 *245*	85 *280*
S12	— —	— —	— —	— —	— —	— —	— —	— —	43 *140*	45 *150*	49 *160*	55 *180*	39 *130*	41 *135*	44 *145*	48 *155*	47 *155*	49 *160*	55 *180*	60 *195*
S13	— —	— —	— —	— —	— —	— —	— —	— —	24 *80*	26 *85*	28 *90*	31 *100*	22 *70*	24 *80*	25 *80*	28 *90*	27 *90*	28 *90*	31 *100*	34 *110*
H5	— —	— —	— —	— —	40 *130*	42 *140*	45 *150*	50 *165*	— —	— —	— —	— —	34 *110*	36 *120*	39 *130*	43 *140*	— —	— —	— —	— —
H8	— —	— —	— —	— —	42 *140*	45 *150*	49 *160*	55 *180*	— —	— —	— —	— —	36 *120*	38 *125*	42 *140*	46 *150*	— —	— —	— —	— —
H11	— —	— —	— —	— —	50 *165*	55 *180*	60 *195*	65 *215*	— —	— —	— —	— —	43 *140*	46 *150*	49 *160*	55 *180*	50 *165*	55 *180*	60 *195*	65 *215*
H12	— —	— —	— —	— —	80 *260*	85 *280*	95 *310*	100 *330*	— —	— —	— —	— —	65 *215*	70 *230*	75 *245*	80 *260*	85 *280*	90 *295*	95 *310*	105 *345*
H21	— —	— —	— —	— —	42 *140*	45 *150*	49 *160*	55 *180*	— —	— —	— —	— —	36 *120*	38 *125*	42 *140*	46 *150*	42 *140*	45 *150*	49 *160*	55 *180*

R220.56-14 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	MK1500				MP1501				MP2501				MS2500			
	100%	80%	60%	40%	100%	80%	60%	40%	100%	80%	60%	40%	100%	80%	60%	40%
P1	—	—	—	—	320	325	350	395	310	315	340	380	300	320	345	385
	—	—	—	—	*1050*	*1075*	*1150*	*1300*	*1025*	*1025*	*1125*	*1250*	*980*	*1050*	*1125*	*1275*
P2	—	—	—	—	310	320	340	375	300	305	330	360	290	310	335	370
	—	—	—	—	*1025*	*1050*	*1125*	*1225*	*980*	*1000*	*1075*	*1175*	*950*	*1025*	*1100*	*1225*
P3	—	—	—	—	275	280	305	330	265	270	295	320	255	270	295	320
	—	—	—	—	*900*	*920*	*1000*	*1075*	*870*	*890*	*970*	*1050*	*840*	*890*	*970*	*1050*
P4	—	—	—	—	245	250	265	300	235	240	260	290	225	240	260	285
	—	—	—	—	*800*	*820*	*870*	*980*	*770*	*790*	*850*	*950*	*740*	*790*	*850*	*940*
P5	—	—	—	—	230	235	255	285	225	230	245	275	220	230	250	275
	—	—	—	—	*750*	*770*	*840*	*940*	*740*	*750*	*800*	*900*	*720*	*750*	*820*	*900*
P6	—	—	—	—	260	265	285	320	250	255	275	310	245	260	280	310
	—	—	—	—	*850*	*870*	*940*	*1050*	*820*	*840*	*900*	*1025*	*800*	*850*	*920*	*1025*
P7	—	—	—	—	245	250	270	300	240	240	260	295	230	245	265	290
	—	—	—	—	*800*	*820*	*890*	*980*	*790*	*790*	*850*	*970*	*750*	*800*	*870*	*950*
P8	—	—	—	—	230	235	255	275	225	230	245	270	215	230	245	270
	—	—	—	—	*750*	*770*	*840*	*900*	*740*	*750*	*800*	*890*	*710*	*750*	*800*	*890*
P11	—	—	—	—	240	245	265	295	230	235	255	285	225	240	260	280
	—	—	—	—	*790*	*800*	*870*	*970*	*750*	*770*	*840*	*940*	*740*	*790*	*850*	*920*
P12	—	—	—	—	165	170	180	200	160	165	175	195	145	155	170	185
	—	—	—	—	*540*	*560*	*590*	*660*	*520*	*540*	*570*	*640*	*475*	*510*	*560*	*610*
M1	—	—	—	—	—	—	—	—	160	170	185	200	210	220	240	265
	—	—	—	—	—	—	—	—	*520*	*560*	*610*	*660*	*690*	*720*	*790*	*870*
M2	—	—	—	—	—	—	—	—	130	140	150	170	175	185	200	220
	—	—	—	—	—	—	—	—	*425*	*460*	*490*	*560*	*570*	*610*	*660*	*720*
M3	—	—	—	—	—	—	—	—	110	115	125	140	140	150	160	180
	—	—	—	—	—	—	—	—	*360*	*375*	*410*	*460*	*460*	*490*	*520*	*590*
M4	—	—	—	—	—	—	—	—	85	90	95	110	110	115	125	135
	—	—	—	—	—	—	—	—	*280*	*295*	*310*	*360*	*360*	*375*	*410*	*445*
M5	—	—	—	—	—	—	—	—	70	75	80	90	90	95	105	115
	—	—	—	—	—	—	—	—	*230*	*245*	*260*	*295*	*295*	*310*	*345*	*375*
K1	250	265	285	315	315	320	345	375	305	310	335	365	230	245	265	290
	820	*870*	*940*	*1025*	*1025*	*1050*	*1125*	*1225*	*1000*	*1025*	*1100*	*1200*	*750*	*800*	*870*	*950*
K2	220	235	255	285	280	285	310	345	270	275	300	335	205	220	240	260
	720	*770*	*840*	*940*	*920*	*940*	*1025*	*1125*	*890*	*900*	*980*	*1100*	*670*	*720*	*790*	*850*
K3	185	200	215	240	235	245	260	290	230	235	250	285	175	185	200	220
	610	*660*	*710*	*790*	*770*	*800*	*850*	*950*	*750*	*770*	*820*	*940*	*570*	*610*	*660*	*720*
K4	180	190	205	230	225	230	250	280	220	225	240	270	170	180	190	210
	590	*620*	*670*	*750*	*740*	*750*	*820*	*920*	*720*	*740*	*790*	*890*	*560*	*590*	*620*	*690*
K5	110	115	125	140	140	145	155	170	135	140	150	165	100	110	115	130
	360	*375*	*410*	*460*	*460*	*475*	*510*	*560*	*445*	*460*	*490*	*540*	*330*	*360*	*375*	*425*
K6	155	165	180	200	200	205	220	245	195	195	210	240	150	155	170	185
	510	*540*	*590*	*660*	*660*	*670*	*720*	*800*	*640*	*640*	*690*	*790*	*490*	*510*	*560*	*610*
K7	140	150	160	180	180	185	200	220	175	180	195	210	130	140	150	165
	460	*490*	*520*	*590*	*590*	*610*	*660*	*720*	*570*	*590*	*640*	*690*	*425*	*460*	*490*	*540*
S1	—	—	—	—	—	—	—	—	—	—	—	—	55	55	60	65
	—	—	—	—	—	—	—	—	—	—	—	—	*180*	*180*	*195*	*215*
S2	—	—	—	—	—	—	—	—	—	—	—	—	43	45	49	55
	—	—	—	—	—	—	—	—	—	—	—	—	*140*	*150*	*160*	*180*
S3	—	—	—	—	—	—	—	—	—	—	—	—	38	40	43	48
	—	—	—	—	—	—	—	—	—	—	—	—	*125*	*130*	*140*	*155*
S11	—	—	—	—	—	—	—	—	—	—	—	—	75	80	85	95
	—	—	—	—	—	—	—	—	—	—	—	—	*245*	*260*	*280*	*310*
S12	—	—	—	—	—	—	—	—	—	—	—	—	50	55	60	65
	—	—	—	—	—	—	—	—	—	—	—	—	*165*	*180*	*195*	*215*
S13	—	—	—	—	—	—	—	—	—	—	—	—	30	32	34	38
	—	—	—	—	—	—	—	—	—	—	—	—	*100*	*105*	*110*	*125*
H5	—	—	—	—	43	45	49	55	—	—	—	—	44	47	50	55
	—	—	—	—	*140*	*150*	*160*	*180*	—	—	—	—	*145*	*155*	*165*	*180*
H8	—	—	—	—	46	49	50	60	—	—	—	—	47	50	55	60
	—	—	—	—	*150*	*160*	*165*	*195*	—	—	—	—	*155*	*165*	*180*	*195*
H11	—	—	—	—	55	55	60	70	—	—	—	—	55	60	65	70
	—	—	—	—	*180*	*180*	*195*	*230*	—	—	—	—	*180*	*195*	*215*	*230*
H12	—	—	—	—	80	85	95	105	—	—	—	—	95	100	110	120
	—	—	—	—	*260*	*280*	*310*	*345*	—	—	—	—	*310*	*330*	*360*	*395*
H21	—	—	—	—	46	49	50	60	—	—	—	—	47	50	55	60
	—	—	—	—	*150*	*160*	*165*	*195*	—	—	—	—	*155*	*165*	*180*	*195*

Double Quattro R220.54-22 – Metric

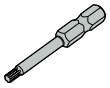
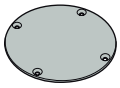




- For insert selection and cutting data recommendations, see page(s) 233-238
- For complete insert programme, see page(s) 835
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	ZEFP	APMXS	KAPRS°	DCX	DCB	DCSFMS	LF	RPMX	Weight	Insert
			mm		mm		mm	mm	mm	mm		kg	
R220.54-0080-22-5A	03156810	Arbor	80,0	5	9,0	48,0	104,0	27,0	62,0	63,0	4600	1,6	SNMX2209AN
R220.54-0080-22-6A	03157469	Arbor	80,0	6	9,0	48,0	104,0	27,0	62,0	63,0	4600	1,5	SNMX2209AN
R220.54-0100-22-5A	03156811	Arbor	100,0	5	9,0	48,0	124,0	32,0	77,0	63,0	4000	2,4	SNMX2209AN
R220.54-0100-22-7A	03157470	Arbor	100,0	7	9,0	48,0	124,0	32,0	77,0	63,0	4000	2,2	SNMX2209AN
R220.54-0125-22-6A	03156812	Arbor	125,0	6	9,0	48,0	149,0	40,0	90,0	63,0	3700	3,3	SNMX2209AN
R220.54-0125-22-8A	03157471	Arbor	125,0	8	9,0	48,0	149,0	40,0	90,0	63,0	3700	3,3	SNMX2209AN
R220.54-8160-22-8A	03156813	Arbor	160,0	8	9,0	48,0	184,0	40,0	90,0	63,0	3300	5,7	SNMX2209AN
R220.54-8160-22-11A	03157472	Arbor	160,0	11	9,0	48,0	184,0	40,0	90,0	63,0	3300	5,7	SNMX2209AN

Spare Parts, included in delivery

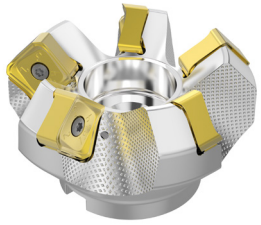
For cutter	Insert key	Insert screw	Lid	Lid screw
				
R220.54-0080	1/4HEX-T20PX50	C05013-T20P	–	–
R220.54-0100-0125	1/4HEX-T20PX90	C05013-T20P	–	–
R220.54-8160	1/4HEX-T20PX90	C05013-T20P	SC-160-90	MF6S4X10

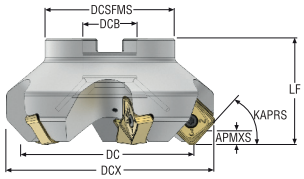
Accessories

For cutter	Adjustable Torque key	Arbor screw	Insert clamping torque	Torque key
				
R220.54-0080	1/4HEX-T-HANDLE-5.0-14.0NM	5802712	5.0NM	T00-20P50
R220.54-0100	1/4HEX-T-HANDLE-5.0-14.0NM	5803216	5.0NM	T00-20P50
R220.54-0125	1/4HEX-T-HANDLE-5.0-14.0NM	5804020	5.0NM	T00-20P50
R220.54-8160	1/4HEX-T-HANDLE-5.0-14.0NM	MC6S12X40	5.0NM	T00-20P50

Torque and fixed keys, see page 872

Double Quattro R220.54-22 – inch

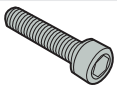
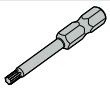
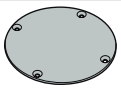




- For insert selection and cutting data recommendations, see page(s) 233-238
- For complete insert programme, see page(s) 835
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	ZEFP	APMXS	KAPRS°	DCX	DCB	DCSFMS	LF	RPMX	Weight	Insert
			inch		inch		inch	inch	inch	inch		lbs	
R220.54-03.00-22-5A	03157473	Arbor	3.150	5	0.354	48.0	4.094	1.000	2.441	2.480	4600	3.970	SNMX2209AN
R220.54-03.00-22-6A	03157477	Arbor	3.150	6	0.354	48.0	4.094	1.000	2.441	2.480	4600	3.750	SNMX2209AN
R220.54-04.00-22-5A	03157474	Arbor	3.937	5	0.354	48.0	4.882	1.500	3.543	2.480	4000	5.730	SNMX2209AN
R220.54-04.00-22-7A	03157479	Arbor	3.937	7	0.354	48.0	4.882	1.500	3.543	2.480	4000	5.510	SNMX2209AN
R220.54-05.00-22-6A	03157475	Arbor	4.921	6	0.354	48.0	5.866	1.500	3.543	2.480	3700	7.940	SNMX2209AN
R220.54-05.00-22-8A	03157480	Arbor	4.921	8	0.354	48.0	5.866	1.500	3.543	2.480	3700	7.940	SNMX2209AN
R220.54-06.00-22-8A	03157476	Arbor	6.299	8	0.354	48.0	7.244	2.000	4.331	2.480	3300	13.010	SNMX2209AN
R220.54-06.00-22-11A	03157481	Arbor	6.299	11	0.354	48.0	7.244	2.000	4.331	2.480	3300	13.010	SNMX2209AN

Spare Parts, included in delivery

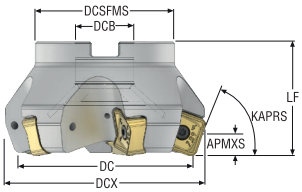
For cutter	Arbor screw	Insert key	Insert screw	Lid	Lid screw
					
R220.54-03.00	UC6S1/2UNFX1-1/4	1/4HEX-T20PX50	C05013-T20P	–	–
R220.54-04.00	UC6S3/4UNFX1-1/4	1/4HEX-T20PX90	C05013-T20P	–	–
R220.54-05.00	UC6S3/4UNFX1-1/4	1/4HEX-T20PX90	C05013-T20P	–	–
R220.54-06.00	–	1/4HEX-T20PX90	C05013-T20P	SC-160-90	MF6S4X10

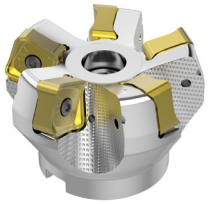
Accessories

For cutter	Adjustable Torque key	Arbor screw	Insert clamping torque	Torque key
				
R220.54-03.00-05.00	1/4HEX-T-HANDLE-5.0-14.0NM	–	44.3IN.LBS	T00-20P50
R220.54-06.00	1/4HEX-T-HANDLE-5.0-14.0NM	58215080	44.3IN.LBS	T00-20P50

Torque and fixed keys, see page 872

Double Quattro R220.56-22 – Metric

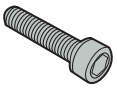
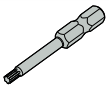
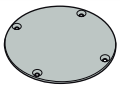




- For insert selection and cutting data recommendations, see page(s) 233-238
- For complete insert programme, see page(s) 835
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	ZEFP	APMXS	KAPRS°	DCX	DCB	DCSFMS	LF	RPMX	Weight	Insert
			mm		mm		mm	mm	mm	mm		kg	
R220.56-0080-22-5A	03157447	Arbor	80,0	5	13,0	71,0	91,5	27,0	62,0	63,0	4600	1,4	SN.X2209ZN
R220.56-0100-22-5A	03156816	Arbor	100,0	5	13,0	71,0	111,5	32,0	77,0	63,0	4000	2,1	SN.X2209ZN
R220.56-0100-22-7A	03157448	Arbor	100,0	7	13,0	71,0	111,5	32,0	77,0	63,0	4000	1,9	SN.X2209ZN
R220.56-0125-22-6A	03156817	Arbor	125,0	6	13,0	71,0	136,5	40,0	90,0	63,0	3700	2,9	SN.X2209ZN
R220.56-0125-22-8A	03157449	Arbor	125,0	8	13,0	71,0	136,5	40,0	90,0	63,0	3700	2,9	SN.X2209ZN
R220.56-8160-22-8A	03156818	Arbor	160,0	8	13,0	71,0	171,5	40,0	90,0	63,0	3300	5,0	SN.X2209ZN
R220.56-8160-22-10A	03157450	Arbor	160,0	10	13,0	71,0	171,5	40,0	90,0	63,0	3300	4,9	SN.X2209ZN

Spare Parts, included in delivery

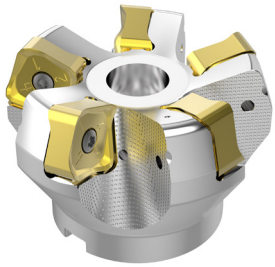
For cutter	Arbor screw	Insert key	Insert screw	Lid	Lid screw
					
R220.56-0080	MC6S12X35	1/4HEX-T20PX50	C05013-T20P	–	–
R220.56-0100-0125	–	1/4HEX-T20PX90	C05013-T20P	–	–
R220.56-8160	–	1/4HEX-T20PX90	C05013-T20P	SC-160-90	MF6S4X10

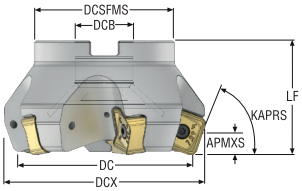
Accessories

For cutter	Adjustable Torque key	Arbor screw	Insert clamping torque	Torque key
				
R220.56-0080	1/4HEX-T-HANDLE-5.0-14.0NM	5802712	5.0NM	T00-20P50
R220.56-0100	1/4HEX-T-HANDLE-5.0-14.0NM	5803216	5.0NM	T00-20P50
R220.56-0125	1/4HEX-T-HANDLE-5.0-14.0NM	5804020	5.0NM	T00-20P50
R220.56-8160	1/4HEX-T-HANDLE-5.0-14.0NM	MC6S12X40	5.0NM	T00-20P50

Torque and fixed keys, see page 872

Double Quattro R220.56-22 – inch

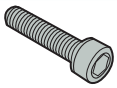
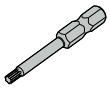
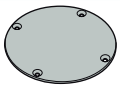




- For insert selection and cutting data recommendations, see page(s) 233-238
- For complete insert programme, see page(s) 835
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	ZEFP	APMXS	KAPRS°	DCX	DCB	DCSFMS	LF	RPMX	Weight	Insert
			inch		inch		inch	inch	inch	inch		lbs	
R220.56-03.00-22-5A	03157454	Arbor	3.150	5	0.512	71.0	3.602	1.000	2.441	2.480	4600	3.090	SN.X2209ZN
R220.56-04.00-22-5A	03157451	Arbor	3.937	5	0.512	71.0	4.390	1.500	3.031	2.480	4000	4.630	SN.X2209ZN
R220.56-04.00-22-7A	03157455	Arbor	3.937	7	0.512	71.0	4.390	1.500	3.031	2.480	4000	4.410	SN.X2209ZN
R220.56-05.00-22-6A	03157452	Arbor	4.921	6	0.512	71.0	5.374	1.500	3.543	2.480	3700	7.940	SN.X2209ZN
R220.56-05.00-22-8A	03157456	Arbor	4.921	8	0.512	71.0	5.374	1.500	3.543	2.480	3700	7.500	SN.X2209ZN
R220.56-06.00-22-8A	03157453	Arbor	6.299	8	0.512	71.0	6.752	2.000	3.937	2.480	3300	10.800	SN.X2209ZN
R220.56-06.00-22-10A	03157457	Arbor	6.299	10	0.512	71.0	6.752	2.000	4.331	2.480	3300	10.580	SN.X2209ZN

Spare Parts, included in delivery

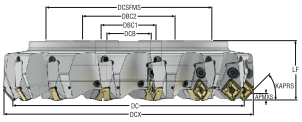
For cutter	Arbor screw	Insert key	Insert screw	Lid	Lid screw
					
R220.56-03.00	UC6S1/2UNFX1-1/4	1/4HEX-T20PX50	C05013-T20P	–	–
R220.56-04.00-05.00	UC6S3/4UNFX1-1/4	1/4HEX-T20PX90	C05013-T20P	–	–
R220.56-06.00	–	1/4HEX-T20PX90	C05013-T20P	SC-160-90	MF6S4X10

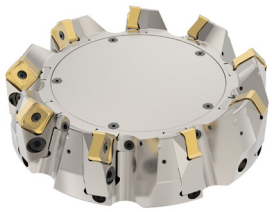
Accessories

For cutter	Adjustable Torque key	Arbor screw	Insert clamping torque	Torque key
				
R220.56-03.00-05.00	1/4HEX-T-HANDLE-5.0-14.0NM	–	44.3IN.LBS	T00-20P50
R220.56-06.00	1/4HEX-T-HANDLE-5.0-14.0NM	58215080	44.3IN.LBS	T00-20P50

Torque and fixed keys, see page 872

Double Quattro R220.54/56-22CS – Metric

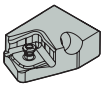
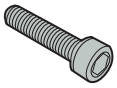
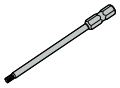
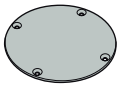
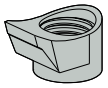




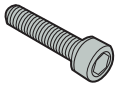
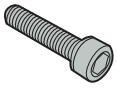
- For insert selection and cutting data recommendations, see page(s) 233-238
- For complete insert programme, see page(s) 835
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	ZEFP	APMXS	KAPRS°	DCX	BD	DCB	DCSFMS	LF	RPMX	Weight	Insert
			mm		mm		mm	mm	mm	mm	mm		kg	
R220.54-8200-22-9CS	03167768	Arbor	200,0	9	9,0	48,0	224,0	–	60,0	130,0	80,0	2700	9,9	SN.X2209AN
R220.54-8250-22-11CS	03167769	Arbor	250,0	11	9,0	48,0	274,0	–	60,0	130,0	80,0	2500	17,9	SN.X2209AN
R220.54-8315-22-14CS	03167770	Arbor	315,0	14	9,0	48,0	339,0	–	60,0	225,0	80,0	2200	33,5	SN.X2209AN
R220.56-8200-22-9CS	03167771	Arbor	200,0	9	13,0	71,0	211,5	222,5	60,0	130,0	80,0	2700	9,9	SN.X2209ZN
R220.56-8250-22-11CS	03167772	Arbor	250,0	11	13,0	71,0	261,5	272,5	60,0	130,0	80,0	2500	18,0	SN.X2209ZN
R220.56-8315-22-14CS	03167773	Arbor	315,0	14	13,0	71,0	326,5	337,5	60,0	225,0	80,0	2200	29,2	SN.X2209ZN

Spare Parts, included in delivery

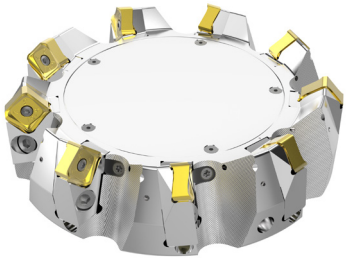
For cutter	Adjustment unit	Cassette	Cassette screw	Insert key	Insert screw	Lid	Lid screw	Wedge clamp	Wedge screw
									
R220.54-8200	AU1114T-T15P	SN22AR	MC6S8X30	1/4HEX-T20PX90	C05013-T20P	SC-200-90	MF6S4X10	CW0810	LD8018-T25P
R220.54-8250	AU1114T-T15P	SN22AR	MC6S8X30	1/4HEX-T20PX90	C05013-T20P	SC-250-90	MF6S4X10	CW0810	LD8020-T25P
R220.54-8315	AU1114T-T15P	SN22AR	MC6S8X30	1/4HEX-T20PX90	C05013-T20P	SC-315-90	MF6S4X10	CW0810	LD8020-T25P
R220.56-8200	AU1114T-T15P	SN22ZR	MC6S8X30	1/4HEX-T20PX90	C05013-T20P	SC-200-90	MF6S4X10	CW0810	LD8018-T25P
R220.56-8250	AU1114T-T15P	SN22ZR	MC6S8X30	1/4HEX-T20PX90	C05013-T20P	SC-250-90	MF6S4X10	CW0810	LD8020-T25P
R220.56-8315	AU1114T-T15P	SN22ZR	MC6S8X30	1/4HEX-T20PX90	C05013-T20P	SC-315-90	MF6S4X10	CW0810	LD8020-T25P

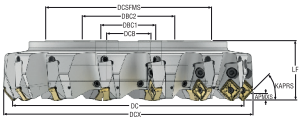
Accessories

For cutter	Adjustable Torque key	Arbor screw	Arbor screw 2	Insert clamping torque	Torque key
					
R220.54/56-8200-8250	1/4HEX-T-HANDLE-5.0-14.0NM	MC6S16X50	–	5.0NM	T00-20P50
R220.54/56-8315	1/4HEX-T-HANDLE-5.0-14.0NM	MC6S16X50	MC6S20X50	5.0NM	T00-20P50

Torque and fixed keys, see page 872

Double Quattro R220.54/56-22C – inch





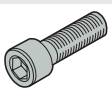
- For insert selection and cutting data recommendations, see page(s) 233-238
- For complete insert programme, see page(s) 835
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	ZEFP	APMXS	KAPRS°	DCX	BD	DCB	DCSFMS	LF	RPMX	Weight	Insert
			inch		inch		inch	inch	inch	inch	inch		lbs	
R220.54-808.00-22-9C	03167774	Arbor	7.874	9	0.354	48,0	8.819	–	2.500	5.118	3.150	2700	23.150	SN.X2209AN
R220.54-810.00-22-11C	03167775	Arbor	9.843	11	0.354	48,0	10.787	–	2.500	5.118	3.150	2500	50.040	SN.X2209AN
R220.54-812.50-22-14C	03167776	Arbor	12.402	14	0.354	48,0	13.346	–	2.500	8.858	3.150	2200	80.250	SN.X2209AN
R220.56-808.00-22-9C	03167777	Arbor	7.874	9	0.512	71,0	8.335	8.760	2.500	5.118	3.150	2700	23.150	SN.X2209ZN
R220.56-810.00-22-11C	03167778	Arbor	9.843	11	0.512	71,0	10.307	10.728	2.500	5.118	3.150	2500	49.600	SN.X2209ZN
R220.56-812.50-22-14C	03167779	Arbor	12.402	14	0.512	71,0	12.866	13.287	2.500	8.858	3.150	2200	75.620	SN.X2209ZN

Spare Parts, included in delivery

For cutter	Adjustment unit	Cassette	Cassette screw	Insert screw	Lid	Lid screw	Wedge clamp	Wedge screw
								
R220.54-808.00	AU1114T-T15P	SN22AR	MC6S8X30	C05013-T20P	SC-200-90	MF6S4X10	CW0810	LD8018-T25P
R220.54-810.00	AU1114T-T15P	SN22AR	MC6S8X30	C05013-T20P	SC-250-90	MF6S4X10	CW0810	LD8020-T25P
R220.54-812.50	AU1114T-T15P	SN22AR	MC6S8X30	C05013-T20P	SC-315-90	MF6S4X10	CW0810	LD8020-T25P
R220.56-808.00	AU1114T-T15P	SN22ZR	MC6S8X30	C05013-T20P	SC-200-90	MF6S4X10	CW0810	LD8018-T25P
R220.56-810.00	AU1114T-T15P	SN22ZR	MC6S8X30	C05013-T20P	SC-250-90	MF6S4X10	CW0810	LD8020-T25P
R220.56-812.50	AU1114T-T15P	SN22ZR	MC6S8X30	C05013-T20P	SC-315-90	MF6S4X10	CW0810	LD8020-T25P

Accessories

For cutter	Adjustable Torque key	Arbor screw	Insert clamping torque	Torque key
				
R220.54/56-808.00-810.00	1/4HEX-T-HANDLE-5.0-14.0NM	–	44.3IN.LBS	T00-20P50
R220.54/56-812.50	1/4HEX-T-HANDLE-5.0-14.0NM	950DNC062225	44.3IN.LBS	T00-20P50

Torque and fixed keys, see page 872

R220.54-22 – Insert selection – mm/*Inch*

SMG		a_p	f_z			
			80%	60%	40%	20%
P1	SNMX2209ANTR-M12 MS2050	7,0 *0.28*	0,30 *0.012*	0,30 *0.012*	0,30 *0.012*	0,38 *0.015*
P2	SNMX2209ANTR-M12 MS2050	7,0 *0.28*	0,30 *0.012*	0,30 *0.012*	0,32 *0.013*	0,38 *0.015*
P3	SNMX2209ANTR-M18 MP2501	7,0 *0.28*	0,42 *0.017*	0,42 *0.017*	0,44 *0.017*	0,55 *0.022*
P4	SNMX2209ANTR-M18 MP2501	7,0 *0.28*	0,42 *0.017*	0,42 *0.017*	0,44 *0.017*	0,55 *0.022*
P5	SNMX2209ANTR-M18 MP2501	7,0 *0.28*	0,40 *0.016*	0,40 *0.016*	0,42 *0.017*	0,55 *0.022*
P6	SNMX2209ANTR-M18 MP2501	7,0 *0.28*	0,40 *0.016*	0,40 *0.016*	0,42 *0.017*	0,50 *0.020*
P7	SNMX2209ANTR-M12 MP2501	7,0 *0.28*	0,28 *0.011*	0,28 *0.011*	0,28 *0.011*	0,34 *0.013*
P8	SNMX2209ANTR-M12 MP2501	7,0 *0.28*	0,28 *0.011*	0,28 *0.011*	0,30 *0.012*	0,36 *0.014*
P11	SNMX2209ANTR-M12 MP2050	7,0 *0.28*	0,28 *0.011*	0,28 *0.011*	0,28 *0.011*	0,34 *0.013*
P12	SNMX2209ANTR-M12 MP2050	6,0 *0.24*	0,19 *0.0075*	0,19 *0.0075*	0,19 *0.0075*	0,24 *0.0095*
M1	SNMX2209ANR-ME12 F40M	7,0 *0.28*	0,28 *0.011*	0,28 *0.011*	0,28 *0.011*	0,36 *0.014*
M2	SNMX2209ANR-ME12 F40M	7,0 *0.28*	0,25 *0.010*	0,25 *0.010*	0,26 *0.010*	0,32 *0.013*
M3	SNMX2209ANTR-M12 MS2050	6,0 *0.24*	0,22 *0.0085*	0,22 *0.0085*	0,22 *0.0085*	0,28 *0.011*
M4	SNMX2209ANTR-M12 MP2050	4,5 *0.18*	0,20 *0.0080*	0,20 *0.0080*	0,20 *0.0080*	0,26 *0.010*
M5	SNMX2209ANTR-M12 MP2050	4,5 *0.18*	0,20 *0.0080*	0,20 *0.0080*	0,20 *0.0080*	0,26 *0.010*
K1	SNMX2209ANTR-M18 MK1500	7,0 *0.28*	0,46 *0.018*	0,46 *0.018*	0,46 *0.018*	0,60 *0.024*
K2	SNMX2209ANTR-M18 MK1500	7,0 *0.28*	0,40 *0.016*	0,40 *0.016*	0,42 *0.017*	0,55 *0.022*
K3	SNMX2209ANTR-M18 MP1501	7,0 *0.28*	0,40 *0.016*	0,40 *0.016*	0,42 *0.017*	0,55 *0.022*
K4	SNMX2209ANTR-M18 MP1501	7,0 *0.28*	0,40 *0.016*	0,40 *0.016*	0,42 *0.017*	0,55 *0.022*
K5	SNMX2209ANTR-M18 MP1501	7,0 *0.28*	0,36 *0.014*	0,36 *0.014*	0,38 *0.015*	0,48 *0.019*
K6	SNMX2209ANTR-M18 MK2050	7,0 *0.28*	0,40 *0.016*	0,40 *0.016*	0,42 *0.017*	0,55 *0.022*
K7	SNMX2209ANTR-M18 MK2050	7,0 *0.28*	0,36 *0.014*	0,36 *0.014*	0,38 *0.015*	0,48 *0.019*
S1	SNMX2209ANTR-M12 MS2050	4,5 *0.18*	0,20 *0.0080*	0,20 *0.0080*	0,20 *0.0080*	0,26 *0.010*
S2	SNMX2209ANTR-M12 MS2050	4,5 *0.18*	0,20 *0.0080*	0,20 *0.0080*	0,20 *0.0080*	0,26 *0.010*
S3	SNMX2209ANTR-M12 MS2050	4,5 *0.18*	0,19 *0.0075*	0,19 *0.0075*	0,19 *0.0075*	0,24 *0.0095*
S11	SNMX2209ANTR-M12 MS2050	5,0 *0.20*	0,22 *0.0085*	0,22 *0.0085*	0,24 *0.0095*	0,28 *0.011*
S12	SNMX2209ANTR-M12 MS2050	5,0 *0.20*	0,22 *0.0085*	0,22 *0.0085*	0,24 *0.0095*	0,28 *0.011*
S13	SNMX2209ANTR-M12 MS2050	4,5 *0.18*	0,20 *0.0080*	0,20 *0.0080*	0,20 *0.0080*	0,26 *0.010*
H5	SNMX2209ANTR-M18 MP1501	6,0 *0.24*	0,28 *0.011*	0,28 *0.011*	0,30 *0.012*	0,36 *0.014*
H8	SNMX2209ANTR-M18 MP1501	5,0 *0.20*	0,22 *0.0085*	0,22 *0.0085*	0,22 *0.0085*	0,28 *0.011*
H11	SNMX2209ANTR-M18 MP1501	6,0 *0.24*	0,28 *0.011*	0,28 *0.011*	0,30 *0.012*	0,36 *0.014*
H12	SNMX2209ANTR-M18 MP1501	5,0 *0.20*	0,22 *0.0085*	0,22 *0.0085*	0,22 *0.0085*	0,28 *0.011*
H21	SNMX2209ANTR-M18 MP1501	5,0 *0.20*	0,22 *0.0085*	0,22 *0.0085*	0,22 *0.0085*	0,28 *0.011*

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

R220.54-22 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	MK2050				MS2050				F40M				MP2050			
	100%	80%	60%	40%	100%	80%	60%	40%	100%	80%	60%	40%	100%	80%	60%	40%
P1	215 *710*	230 *750*	245 *800*	275 *900*	200 *660*	215 *710*	230 *750*	260 *850*	185 *610*	200 *660*	215 *710*	240 *790*	235 *770*	250 *820*	270 *890*	305 *1000*
P2	210 *690*	220 *720*	240 *790*	265 *870*	195 *640*	210 *690*	225 *740*	250 *820*	180 *590*	195 *640*	210 *690*	235 *770*	230 *750*	245 *800*	265 *870*	295 *970*
P3	185 *610*	195 *640*	210 *690*	235 *770*	175 *570*	185 *610*	200 *660*	215 *710*	160 *520*	170 *560*	185 *610*	200 *660*	205 *670*	215 *710*	235 *770*	255 *840*
P4	160 *520*	170 *560*	185 *610*	210 *690*	150 *490*	160 *520*	175 *570*	195 *640*	140 *460*	150 *490*	160 *520*	180 *590*	180 *590*	190 *620*	205 *670*	230 *750*
P5	155 *510*	165 *540*	180 *590*	200 *660*	145 *475*	155 *510*	165 *540*	185 *610*	135 *445*	145 *475*	155 *510*	175 *570*	170 *560*	180 *590*	195 *640*	220 *720*
P6	175 *570*	185 *610*	200 *660*	225 *740*	165 *540*	175 *570*	190 *620*	210 *690*	155 *510*	165 *540*	175 *570*	195 *640*	195 *640*	210 *690*	225 *740*	245 *800*
P7	165 *540*	175 *570*	190 *620*	210 *690*	155 *510*	165 *540*	180 *590*	195 *640*	145 *475*	155 *510*	165 *540*	185 *610*	185 *610*	195 *640*	215 *710*	230 *750*
P8	155 *510*	165 *540*	175 *570*	195 *640*	145 *475*	155 *510*	165 *540*	180 *590*	135 *445*	145 *475*	155 *510*	170 *560*	170 *560*	180 *590*	195 *640*	215 *710*
P11	160 *520*	170 *560*	185 *610*	205 *670*	155 *510*	160 *520*	175 *570*	190 *620*	140 *460*	150 *490*	160 *520*	180 *590*	180 *590*	190 *620*	205 *670*	225 *740*
P12	110 *360*	115 *375*	125 *410*	135 *445*	100 *330*	105 *345*	115 *375*	125 *410*	95 *310*	100 *330*	105 *345*	115 *375*	115 *375*	125 *410*	135 *445*	150 *490*
M1	— —	— —	— —	— —	160 *520*	170 *560*	180 *590*	205 *670*	145 *475*	155 *510*	170 *560*	190 *620*	165 *540*	175 *570*	190 *620*	215 *710*
M2	— —	— —	— —	— —	130 *425*	140 *460*	150 *490*	170 *560*	125 *410*	130 *425*	140 *460*	155 *510*	135 *445*	145 *475*	155 *510*	175 *570*
M3	— —	— —	— —	— —	105 *345*	115 *375*	125 *410*	135 *445*	100 *330*	105 *345*	115 *375*	125 *410*	110 *360*	120 *395*	130 *425*	145 *475*
M4	— —	— —	— —	— —	85 *280*	90 *295*	95 *310*	105 *345*	75 *245*	80 *260*	90 *295*	100 *330*	85 *280*	90 *295*	100 *330*	110 *360*
M5	— —	— —	— —	— —	70 *230*	75 *245*	80 *260*	90 *295*	65 *215*	70 *230*	75 *245*	80 *260*	75 *245*	75 *245*	85 *280*	90 *295*
K1	225 *740*	240 *790*	260 *850*	290 *950*	— —	— —	— —	— —	145 *475*	155 *510*	165 *540*	185 *610*	— —	— —	— —	— —
K2	205 *670*	215 *710*	235 *770*	255 *840*	— —	— —	— —	— —	130 *425*	140 *460*	150 *490*	165 *540*	— —	— —	— —	— —
K3	170 *560*	180 *590*	195 *640*	220 *720*	— —	— —	— —	— —	110 *360*	115 *375*	125 *410*	140 *460*	— —	— —	— —	— —
K4	165 *540*	175 *570*	190 *620*	210 *690*	— —	— —	— —	— —	105 *345*	110 *360*	120 *395*	135 *445*	— —	— —	— —	— —
K5	100 *330*	105 *345*	115 *375*	130 *425*	— —	— —	— —	— —	65 *215*	70 *230*	75 *245*	80 *260*	— —	— —	— —	— —
K6	145 *475*	155 *510*	165 *540*	185 *610*	— —	— —	— —	— —	90 *295*	100 *330*	105 *345*	115 *375*	— —	— —	— —	— —
K7	130 *425*	135 *445*	150 *490*	165 *540*	— —	— —	— —	— —	85 *280*	90 *295*	95 *310*	105 *345*	— —	— —	— —	— —
S1	— —	— —	— —	— —	39 *130*	41 *135*	44 *145*	49 *160*	36 *120*	38 *125*	42 *140*	46 *150*	43 *140*	45 *150*	49 *160*	55 *180*
S2	— —	— —	— —	— —	31 *100*	33 *110*	36 *120*	40 *130*	29 *95*	31 *100*	33 *110*	37 *120*	34 *110*	36 *120*	39 *130*	44 *145*
S3	— —	— —	— —	— —	27 *90*	29 *95*	32 *105*	35 *115*	26 *85*	27 *90*	29 *95*	32 *105*	30 *100*	32 *105*	35 *115*	38 *125*
S11	— —	— —	— —	— —	55 *180*	60 *195*	60 *195*	70 *230*	49 *160*	50 *165*	55 *180*	65 *215*	60 *195*	65 *215*	70 *230*	75 *245*
S12	— —	— —	— —	— —	38 *125*	40 *130*	43 *140*	48 *155*	34 *110*	36 *120*	39 *130*	44 *145*	41 *135*	44 *145*	47 *155*	55 *180*
S13	— —	— —	— —	— —	22 *70*	23 *75*	25 *80*	28 *90*	20 *65*	21 *70*	23 *75*	26 *85*	24 *80*	25 *80*	27 *90*	30 *100*
H5	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —
H8	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —
H11	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	45 *150*	47 *155*	50 *165*	55 *180*
H12	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	75 *245*	80 *260*	85 *280*	95 *310*
H21	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	38 *125*	40 *130*	43 *140*	48 *155*

R220.54-22 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	MK1500				MP1501				MP2501				MP3501			
	100%	80%	60%	40%	100%	80%	60%	40%	100%	80%	60%	40%	100%	80%	60%	40%
P1	—	—	—	—	305	310	335	370	290	295	320	355	255	260	280	310
	—	—	—	—	*1000*	*1025*	*1100*	*1225*	*950*	*970*	*1050*	*1175*	*840*	*850*	*920*	*1025*
P2	—	—	—	—	295	300	325	360	285	290	310	345	250	250	275	305
	—	—	—	—	*970*	*980*	*1075*	*1175*	*940*	*950*	*1025*	*1125*	*820*	*820*	*900*	*1000*
P3	—	—	—	—	260	265	285	315	250	255	275	305	220	220	240	265
	—	—	—	—	*850*	*870*	*940*	*1025*	*820*	*840*	*900*	*1000*	*720*	*720*	*790*	*870*
P4	—	—	—	—	230	235	250	285	220	225	240	275	195	195	210	240
	—	—	—	—	*750*	*770*	*820*	*940*	*720*	*740*	*790*	*900*	*640*	*640*	*690*	*790*
P5	—	—	—	—	225	230	245	270	215	220	235	260	190	190	210	230
	—	—	—	—	*740*	*750*	*800*	*890*	*710*	*720*	*770*	*850*	*620*	*620*	*690*	*750*
P6	—	—	—	—	250	255	275	305	240	245	265	295	210	215	235	260
	—	—	—	—	*820*	*840*	*900*	*1000*	*790*	*800*	*870*	*970*	*690*	*710*	*770*	*850*
P7	—	—	—	—	235	240	260	285	225	230	250	275	200	205	220	245
	—	—	—	—	*770*	*790*	*850*	*940*	*740*	*750*	*820*	*900*	*660*	*670*	*720*	*800*
P8	—	—	—	—	220	225	240	265	210	215	230	255	185	185	205	225
	—	—	—	—	*720*	*740*	*790*	*870*	*690*	*710*	*750*	*840*	*610*	*610*	*670*	*740*
P11	—	—	—	—	230	235	255	280	220	225	245	270	195	195	215	235
	—	—	—	—	*750*	*770*	*840*	*920*	*720*	*740*	*800*	*890*	*640*	*640*	*710*	*770*
P12	—	—	—	—	155	160	175	185	155	155	170	180	135	140	150	160
	—	—	—	—	*510*	*520*	*570*	*610*	*510*	*510*	*560*	*590*	*445*	*460*	*490*	*520*
M1	—	—	—	—	—	—	—	—	155	165	175	195	145	150	165	180
	—	—	—	—	—	—	—	—	*510*	*540*	*570*	*640*	*475*	*490*	*540*	*590*
M2	—	—	—	—	—	—	—	—	130	135	145	165	120	125	135	150
	—	—	—	—	—	—	—	—	*425*	*445*	*475*	*540*	*395*	*410*	*445*	*490*
M3	—	—	—	—	—	—	—	—	105	110	120	135	95	100	110	125
	—	—	—	—	—	—	—	—	*345*	*360*	*395*	*445*	*310*	*330*	*360*	*410*
M4	—	—	—	—	—	—	—	—	80	85	95	105	75	80	85	95
	—	—	—	—	—	—	—	—	*260*	*280*	*310*	*345*	*245*	*260*	*280*	*310*
M5	—	—	—	—	—	—	—	—	70	70	80	85	65	65	70	80
	—	—	—	—	—	—	—	—	*230*	*230*	*260*	*280*	*215*	*215*	*230*	*260*
K1	240	255	275	305	300	305	330	360	285	290	315	350	250	255	275	305
	790	*840*	*900*	*1000*	*980*	*1000*	*1075*	*1175*	*940*	*950*	*1025*	*1150*	*820*	*840*	*900*	*1000*
K2	215	225	245	270	270	275	295	325	260	265	285	315	230	230	250	280
	710	*740*	*800*	*890*	*890*	*900*	*970*	*1075*	*850*	*870*	*940*	*1025*	*750*	*750*	*820*	*920*
K3	180	190	210	230	230	235	250	275	220	225	240	265	195	195	215	235
	590	*620*	*690*	*750*	*750*	*770*	*820*	*900*	*720*	*740*	*790*	*870*	*640*	*640*	*710*	*770*
K4	175	185	200	220	220	220	240	265	210	215	230	255	185	185	205	225
	570	*610*	*660*	*720*	*720*	*720*	*790*	*870*	*690*	*710*	*750*	*840*	*610*	*610*	*670*	*740*
K5	105	115	125	135	135	140	150	165	130	135	145	160	115	120	125	140
	345	*375*	*410*	*445*	*445*	*460*	*490*	*540*	*425*	*445*	*475*	*520*	*375*	*395*	*410*	*460*
K6	155	160	175	195	190	195	210	230	185	190	205	225	165	165	180	200
	510	*520*	*570*	*640*	*620*	*640*	*690*	*750*	*610*	*620*	*670*	*740*	*540*	*540*	*590*	*660*
K7	135	145	155	175	175	180	190	210	170	170	185	205	150	150	165	180
	445	*475*	*510*	*570*	*570*	*590*	*620*	*690*	*560*	*560*	*610*	*670*	*490*	*490*	*540*	*590*
S1	—	—	—	—	—	—	—	—	—	—	—	—	36	38	40	45
	—	—	—	—	—	—	—	—	—	—	—	—	*120*	*125*	*130*	*150*
S2	—	—	—	—	—	—	—	—	—	—	—	—	29	30	33	36
	—	—	—	—	—	—	—	—	—	—	—	—	*95*	*100*	*110*	*120*
S3	—	—	—	—	—	—	—	—	—	—	—	—	25	27	29	32
	—	—	—	—	—	—	—	—	—	—	—	—	*80*	*90*	*95*	*105*
S11	—	—	—	—	—	—	—	—	—	—	—	—	49	50	55	65
	—	—	—	—	—	—	—	—	—	—	—	—	*160*	*165*	*180*	*215*
S12	—	—	—	—	—	—	—	—	—	—	—	—	34	36	39	43
	—	—	—	—	—	—	—	—	—	—	—	—	*110*	*120*	*130*	*140*
S13	—	—	—	—	—	—	—	—	—	—	—	—	20	21	23	25
	—	—	—	—	—	—	—	—	—	—	—	—	*65*	*70*	*75*	*80*
H5	—	—	—	—	41	44	47	50	—	—	—	—	32	34	36	40
	—	—	—	—	*135*	*145*	*155*	*165*	—	—	—	—	*105*	*110*	*120*	*130*
H8	—	—	—	—	44	47	50	55	—	—	—	—	34	36	39	44
	—	—	—	—	*145*	*155*	*165*	*180*	—	—	—	—	*110*	*120*	*130*	*145*
H11	—	—	—	—	50	55	60	65	—	—	—	—	40	43	46	50
	—	—	—	—	*165*	*180*	*195*	*215*	—	—	—	—	*130*	*140*	*150*	*165*
H12	—	—	—	—	80	85	90	100	—	—	—	—	60	65	70	80
	—	—	—	—	*260*	*280*	*295*	*330*	—	—	—	—	*195*	*215*	*230*	*260*
H21	—	—	—	—	44	47	50	55	—	—	—	—	34	36	39	44
	—	—	—	—	*145*	*155*	*165*	*180*	—	—	—	—	*110*	*120*	*130*	*145*

R220.56-22 – Insert selection – mm/*Inch*

SMG		a_p	f_z			
			80%	60%	40%	20%
P1	SNMX2209ZNTR-M12 MS2050	10,0 *0.40*	0,22 *0.0085*	0,22 *0.0085*	0,22 *0.0085*	0,28 *0.011*
P2	SNMX2209ZNTR-M12 MS2050	10,0 *0.40*	0,22 *0.0085*	0,22 *0.0085*	0,24 *0.0095*	0,28 *0.011*
P3	SNMX2209ZNTR-M18 MP2501	10,0 *0.40*	0,32 *0.013*	0,32 *0.013*	0,34 *0.013*	0,40 *0.016*
P4	SNMX2209ZNTR-M18 MP2501	10,0 *0.40*	0,32 *0.013*	0,32 *0.013*	0,32 *0.013*	0,40 *0.016*
P5	SNMX2209ZNTR-M18 MP2501	10,0 *0.40*	0,30 *0.012*	0,30 *0.012*	0,32 *0.013*	0,40 *0.016*
P6	SNMX2209ZNTR-M18 MP2501	10,0 *0.40*	0,30 *0.012*	0,30 *0.012*	0,32 *0.013*	0,38 *0.015*
P7	SNMX2209ZNTR-M12 MP2501	10,0 *0.40*	0,20 *0.0080*	0,20 *0.0080*	0,20 *0.0080*	0,26 *0.010*
P8	SNMX2209ZNTR-M12 MP2501	10,0 *0.40*	0,22 *0.0085*	0,22 *0.0085*	0,22 *0.0085*	0,28 *0.011*
P11	SNMX2209ZNTR-M12 MS2050	10,0 *0.40*	0,20 *0.0080*	0,20 *0.0080*	0,20 *0.0080*	0,26 *0.010*
P12	SNMX2209ZNTR-M12 MS2050	8,0 *0.32*	0,14 *0.0055*	0,14 *0.0055*	0,15 *0.0060*	0,18 *0.0070*
M1	SNMX2209ZNTR-M12 MS2050	10,0 *0.40*	0,22 *0.0085*	0,22 *0.0085*	0,24 *0.0095*	0,28 *0.011*
M2	SNMX2209ZNTR-M12 MS2050	10,0 *0.40*	0,20 *0.0080*	0,20 *0.0080*	0,22 *0.0085*	0,26 *0.010*
M3	SNMX2209ZNTR-M12 MS2050	8,0 *0.32*	0,17 *0.0065*	0,17 *0.0065*	0,17 *0.0065*	0,22 *0.0085*
M4	SNMX2209ZNTR-M12 MS2050	6,0 *0.24*	0,15 *0.0060*	0,15 *0.0060*	0,16 *0.0065*	0,19 *0.0075*
M5	SNMX2209ZNTR-M12 MS2050	6,0 *0.24*	0,15 *0.0060*	0,15 *0.0060*	0,16 *0.0065*	0,19 *0.0075*
K1	SNMX2209ZNTR-M18 MK1500	10,0 *0.40*	0,34 *0.013*	0,34 *0.013*	0,34 *0.013*	0,44 *0.017*
K2	SNMX2209ZNTR-M18 MK1500	10,0 *0.40*	0,30 *0.012*	0,30 *0.012*	0,32 *0.013*	0,40 *0.016*
K3	SNMX2209ZNTR-M18 MP1501	10,0 *0.40*	0,30 *0.012*	0,30 *0.012*	0,32 *0.013*	0,40 *0.016*
K4	SNMX2209ZNTR-M18 MP1501	10,0 *0.40*	0,30 *0.012*	0,30 *0.012*	0,32 *0.013*	0,40 *0.016*
K5	SNMX2209ZNTR-M18 MP1501	10,0 *0.40*	0,28 *0.011*	0,28 *0.011*	0,28 *0.011*	0,36 *0.014*
K6	SNMX2209ZNTR-M18 MK2050	10,0 *0.40*	0,30 *0.012*	0,30 *0.012*	0,32 *0.013*	0,40 *0.016*
K7	SNMX2209ZNTR-M18 MK2050	10,0 *0.40*	0,28 *0.011*	0,28 *0.011*	0,28 *0.011*	0,36 *0.014*
S1	SNMX2209ZNTR-M12 MS2050	6,0 *0.24*	0,15 *0.0060*	0,15 *0.0060*	0,16 *0.0065*	0,19 *0.0075*
S2	SNMX2209ZNTR-M12 MS2050	6,0 *0.24*	0,15 *0.0060*	0,15 *0.0060*	0,16 *0.0065*	0,19 *0.0075*
S3	SNMX2209ZNTR-M12 MS2050	6,0 *0.24*	0,14 *0.0055*	0,14 *0.0055*	0,14 *0.0055*	0,18 *0.0070*
S11	SNMX2209ZNTR-M12 MS2050	7,0 *0.28*	0,17 *0.0065*	0,17 *0.0065*	0,18 *0.0065*	0,22 *0.0085*
S12	SNMX2209ZNTR-M12 MS2050	7,0 *0.28*	0,17 *0.0065*	0,17 *0.0065*	0,18 *0.0065*	0,22 *0.0085*
S13	SNMX2209ZNTR-M12 MS2050	6,0 *0.24*	0,15 *0.0060*	0,15 *0.0060*	0,16 *0.0065*	0,19 *0.0075*
H5	SNMX2209ZNTR-M18 MP1501	8,0 *0.32*	0,22 *0.0085*	0,22 *0.0085*	0,22 *0.0085*	0,28 *0.011*
H8	SNMX2209ZNTR-M18 MP1501	7,0 *0.28*	0,17 *0.0065*	0,17 *0.0065*	0,17 *0.0065*	0,22 *0.0080*
H11	SNMX2209ZNTR-M18 MP1501	8,0 *0.32*	0,22 *0.0085*	0,22 *0.0085*	0,22 *0.0085*	0,28 *0.011*
H12	SNMX2209ZNTR-M18 MP1501	7,0 *0.28*	0,17 *0.0065*	0,17 *0.0065*	0,17 *0.0065*	0,22 *0.0080*
H21	SNMX2209ZNTR-M18 MP1501	7,0 *0.28*	0,17 *0.0065*	0,17 *0.0065*	0,17 *0.0065*	0,22 *0.0080*

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

R220.56-22 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	MK2050				MS2050				F40M			
	100%	80%	60%	40%	100%	80%	60%	40%	100%	80%	60%	40%
P1	220 *720*	230 *750*	250 *820*	280 *920*	205 *670*	220 *720*	235 *770*	265 *870*	190 *620*	200 *660*	215 *710*	240 *790*
P2	215 *710*	225 *740*	240 *790*	270 *890*	200 *660*	215 *710*	230 *750*	250 *820*	185 *610*	195 *640*	210 *690*	225 *740*
P3	185 *610*	195 *640*	215 *710*	235 *770*	175 *570*	185 *610*	200 *660*	220 *720*	160 *520*	165 *540*	180 *590*	200 *660*
P4	165 *540*	175 *570*	185 *610*	210 *690*	155 *510*	160 *520*	175 *570*	195 *640*	140 *460*	145 *475*	160 *520*	175 *570*
P5	160 *520*	170 *560*	185 *610*	200 *660*	150 *490*	160 *520*	170 *560*	185 *610*	135 *445*	145 *475*	155 *510*	170 *560*
P6	180 *590*	190 *620*	205 *670*	225 *740*	170 *560*	180 *590*	190 *620*	215 *710*	155 *510*	160 *520*	175 *570*	195 *640*
P7	170 *560*	180 *590*	195 *640*	215 *710*	160 *520*	170 *560*	180 *590*	205 *670*	145 *475*	155 *510*	165 *540*	185 *610*
P8	155 *510*	165 *540*	180 *590*	195 *640*	145 *475*	155 *510*	165 *540*	185 *610*	135 *445*	140 *460*	150 *490*	170 *560*
P11	165 *540*	175 *570*	190 *620*	205 *670*	155 *510*	165 *540*	175 *570*	195 *640*	140 *460*	150 *490*	160 *520*	180 *590*
P12	110 *360*	115 *375*	125 *410*	140 *460*	100 *330*	110 *360*	115 *375*	125 *410*	95 *310*	100 *330*	105 *345*	115 *375*
M1	— —	— —	— —	— —	160 *520*	170 *560*	185 *610*	200 *660*	150 *490*	155 *510*	170 *560*	185 *610*
M2	— —	— —	— —	— —	135 *445*	145 *475*	155 *510*	165 *540*	125 *410*	130 *425*	140 *460*	150 *490*
M3	— —	— —	— —	— —	110 *360*	115 *375*	125 *410*	140 *460*	100 *330*	105 *345*	110 *360*	125 *410*
M4	— —	— —	— —	— —	85 *280*	90 *295*	95 *310*	105 *345*	80 *260*	80 *260*	90 *295*	100 *330*
M5	— —	— —	— —	— —	70 *230*	75 *245*	80 *260*	90 *295*	65 *215*	70 *230*	75 *245*	80 *260*
K1	230 *750*	240 *790*	260 *850*	295 *970*	— —	— —	— —	— —	145 *475*	155 *510*	165 *540*	180 *590*
K2	210 *690*	220 *720*	235 *770*	260 *850*	— —	— —	— —	— —	130 *425*	135 *445*	150 *490*	160 *520*
K3	175 *570*	185 *610*	200 *660*	220 *720*	— —	— —	— —	— —	110 *360*	115 *375*	125 *410*	135 *445*
K4	170 *560*	175 *570*	190 *620*	210 *690*	— —	— —	— —	— —	105 *345*	110 *360*	120 *395*	130 *425*
K5	100 *330*	110 *360*	115 *375*	130 *425*	— —	— —	— —	— —	65 *215*	65 *215*	70 *230*	80 *260*
K6	150 *490*	155 *510*	170 *560*	185 *610*	— —	— —	— —	— —	90 *295*	95 *310*	105 *345*	115 *375*
K7	130 *425*	140 *460*	150 *490*	165 *540*	— —	— —	— —	— —	80 *260*	85 *280*	95 *310*	105 *345*
S1	— —	— —	— —	— —	40 *130*	42 *140*	45 *150*	50 *165*	36 *120*	38 *125*	41 *135*	46 *150*
S2	— —	— —	— —	— —	32 *105*	34 *110*	36 *120*	40 *130*	29 *95*	31 *100*	33 *110*	37 *120*
S3	— —	— —	— —	— —	28 *90*	30 *100*	32 *105*	35 *115*	26 *85*	27 *90*	29 *95*	32 *105*
S11	— —	— —	— —	— —	55 *180*	60 *195*	65 *215*	70 *230*	50 *165*	55 *180*	55 *180*	65 *215*
S12	— —	— —	— —	— —	38 *125*	40 *130*	43 *140*	48 *155*	35 *115*	37 *120*	39 *130*	44 *145*
S13	— —	— —	— —	— —	22 *70*	24 *80*	25 *80*	28 *90*	20 *65*	22 *70*	23 *75*	26 *85*
H5	— —	— —	— —	— —	— —	— —	— —	— —	31 *100*	33 *110*	35 *115*	38 *125*
H8	— —	— —	— —	— —	— —	— —	— —	— —	33 *110*	35 *115*	38 *125*	42 *140*
H11	— —	— —	— —	— —	— —	— —	— —	— —	39 *130*	41 *135*	45 *150*	49 *160*
H12	— —	— —	— —	— —	— —	— —	— —	— —	60 *195*	65 *215*	65 *215*	75 *245*
H21	— —	— —	— —	— —	— —	— —	— —	— —	33 *110*	35 *115*	38 *125*	42 *140*

R220.56-22 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	MK1500				MP1501				MP2501				MP3501			
	100%	80%	60%	40%	100%	80%	60%	40%	100%	80%	60%	40%	100%	80%	60%	40%
P1	—	—	—	—	305	310	335	380	295	300	325	365	260	260	285	320
	—	—	—	—	*1000*	*1025*	*1100*	*1250*	*970*	*980*	*1075*	*1200*	*850*	*850*	*940*	*1050*
P2	—	—	—	—	300	305	325	370	285	290	315	355	255	255	275	315
	—	—	—	—	*980*	*1000*	*1075*	*1225*	*940*	*950*	*1025*	*1175*	*840*	*840*	*900*	*1025*
P3	—	—	—	—	265	270	290	315	255	260	280	305	225	225	245	270
	—	—	—	—	*870*	*890*	*950*	*1025*	*840*	*850*	*920*	*1000*	*740*	*740*	*800*	*890*
P4	—	—	—	—	235	235	255	285	225	225	245	275	195	200	215	245
	—	—	—	—	*770*	*770*	*840*	*940*	*740*	*740*	*800*	*900*	*640*	*660*	*710*	*800*
P5	—	—	—	—	230	235	250	275	220	225	240	265	195	195	215	235
	—	—	—	—	*750*	*770*	*820*	*900*	*720*	*740*	*790*	*870*	*640*	*640*	*710*	*770*
P6	—	—	—	—	255	260	280	305	250	250	270	295	220	220	240	260
	—	—	—	—	*840*	*850*	*920*	*1000*	*820*	*820*	*890*	*970*	*720*	*720*	*790*	*850*
P7	—	—	—	—	240	245	265	290	235	235	255	280	205	210	225	245
	—	—	—	—	*790*	*800*	*870*	*950*	*770*	*770*	*840*	*920*	*670*	*690*	*740*	*800*
P8	—	—	—	—	220	225	245	265	215	215	235	255	190	190	205	225
	—	—	—	—	*720*	*740*	*800*	*870*	*710*	*710*	*770*	*840*	*620*	*620*	*670*	*740*
P11	—	—	—	—	235	240	260	280	225	230	250	270	200	205	220	240
	—	—	—	—	*770*	*790*	*850*	*920*	*740*	*750*	*820*	*890*	*660*	*670*	*720*	*790*
P12	—	—	—	—	160	160	175	190	155	155	170	185	135	140	150	165
	—	—	—	—	*520*	*520*	*570*	*620*	*510*	*510*	*560*	*610*	*445*	*460*	*490*	*540*
M1	—	—	—	—	—	—	—	—	155	165	175	200	145	150	165	185
	—	—	—	—	—	—	—	—	*510*	*540*	*570*	*660*	*475*	*490*	*540*	*610*
M2	—	—	—	—	—	—	—	—	130	140	150	165	120	130	140	155
	—	—	—	—	—	—	—	—	*425*	*460*	*490*	*540*	*395*	*425*	*460*	*510*
M3	—	—	—	—	—	—	—	—	105	115	120	135	100	105	115	125
	—	—	—	—	—	—	—	—	*345*	*375*	*395*	*445*	*330*	*345*	*375*	*410*
M4	—	—	—	—	—	—	—	—	85	90	95	105	80	85	90	100
	—	—	—	—	—	—	—	—	*280*	*295*	*310*	*345*	*260*	*280*	*295*	*330*
M5	—	—	—	—	—	—	—	—	70	75	80	90	65	70	75	85
	—	—	—	—	—	—	—	—	*230*	*245*	*260*	*295*	*215*	*230*	*245*	*280*
K1	240	255	275	310	300	305	330	370	290	295	315	360	255	255	280	315
	790	*840*	*900*	*1025*	*980*	*1000*	*1075*	*1225*	*950*	*970*	*1025*	*1175*	*840*	*840*	*920*	*1025*
K2	220	230	250	275	275	280	305	330	265	270	290	320	235	240	255	280
	720	*750*	*820*	*900*	*900*	*920*	*1000*	*1075*	*870*	*890*	*950*	*1050*	*770*	*790*	*840*	*920*
K3	185	195	210	230	235	240	255	280	225	230	245	270	200	200	220	240
	610	*640*	*690*	*750*	*770*	*790*	*840*	*920*	*740*	*750*	*800*	*890*	*660*	*660*	*720*	*790*
K4	175	185	200	220	225	225	245	265	215	220	235	260	190	190	210	230
	570	*610*	*660*	*720*	*740*	*740*	*800*	*870*	*710*	*720*	*770*	*850*	*620*	*620*	*690*	*750*
K5	110	115	125	140	135	140	150	170	135	135	145	165	115	120	130	145
	360	*375*	*410*	*460*	*445*	*460*	*490*	*560*	*445*	*445*	*475*	*540*	*375*	*395*	*425*	*475*
K6	155	165	180	195	195	200	215	235	190	195	210	225	170	170	185	200
	510	*540*	*590*	*640*	*640*	*660*	*710*	*770*	*620*	*640*	*690*	*740*	*560*	*560*	*610*	*660*
K7	140	145	155	175	175	180	190	215	170	170	185	210	150	150	165	185
	460	*475*	*510*	*570*	*570*	*590*	*620*	*710*	*560*	*560*	*610*	*690*	*490*	*490*	*540*	*610*
S1	—	—	—	—	—	—	—	—	—	—	—	—	37	39	42	46
	—	—	—	—	—	—	—	—	—	—	—	—	*120*	*130*	*140*	*150*
S2	—	—	—	—	—	—	—	—	—	—	—	—	30	31	33	37
	—	—	—	—	—	—	—	—	—	—	—	—	*100*	*100*	*110*	*120*
S3	—	—	—	—	—	—	—	—	—	—	—	—	26	27	30	32
	—	—	—	—	—	—	—	—	—	—	—	—	*85*	*90*	*100*	*105*
S11	—	—	—	—	—	—	—	—	—	—	—	—	50	55	55	65
	—	—	—	—	—	—	—	—	—	—	—	—	*165*	*180*	*180*	*215*
S12	—	—	—	—	—	—	—	—	—	—	—	—	35	36	40	44
	—	—	—	—	—	—	—	—	—	—	—	—	*115*	*120*	*130*	*145*
S13	—	—	—	—	—	—	—	—	—	—	—	—	21	22	23	26
	—	—	—	—	—	—	—	—	—	—	—	—	*70*	*70*	*75*	*85*
H5	—	—	—	—	41	44	47	55	—	—	—	—	32	34	36	41
	—	—	—	—	*135*	*145*	*155*	*180*	—	—	—	—	*105*	*110*	*120*	*135*
H8	—	—	—	—	45	48	50	55	—	—	—	—	35	37	40	44
	—	—	—	—	*150*	*155*	*165*	*180*	—	—	—	—	*115*	*120*	*130*	*145*
H11	—	—	—	—	55	55	60	65	—	—	—	—	41	43	46	50
	—	—	—	—	*180*	*180*	*195*	*215*	—	—	—	—	*135*	*140*	*150*	*165*
H12	—	—	—	—	80	85	95	100	—	—	—	—	60	65	70	80
	—	—	—	—	*260*	*280*	*310*	*330*	—	—	—	—	*195*	*215*	*230*	*260*
H21	—	—	—	—	45	48	50	55	—	—	—	—	35	37	40	44
	—	—	—	—	*150*	*155*	*165*	*180*	—	—	—	—	*115*	*120*	*130*	*145*



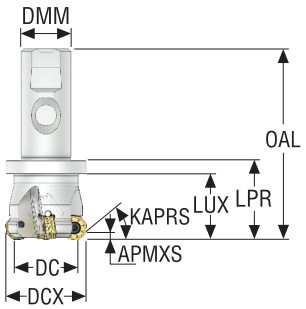
DOUBLE OCTOMILL 05/09

The Double Octomill face milling cutter is a highly versatile, economic and productive tool that can be used for both roughing and finishing. With double-sided inserts featuring a total of 16 cutting edges, the cutter represents a combination of high performance with cost-effective operation. Double Octomill also has a coated, pre-hardened body to ensure long tool life by protecting the tool from wear and preventing chips from welding to it.

- Insert size 05, cutter range 25-200mm (1.25-8 inch)
- Insert size 09, cutter range 63-500mm (2.5-12.5 inch)
- Double-sided inserts with 16 cutting edges

Double Octomill™ R217.48-05 – Metric

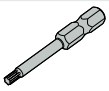




- For insert selection and cutting data recommendations, see page(s) 245 - 247
- For complete insert programme, see page(s) 816
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	ZEFP	APMXS	KAPRS°	DCX	DMM	LUX	LPR	OAL	Weight	RPMX	Insert
			mm		mm		mm	mm	mm	mm	mm	kg		
R217.48-2025.3S-05-3SA	02810001	Seco-Weldon	25,0	3	3,0	40,0	33,0	20,0	33,0	40,0	90,0	0,3	20400	ON.U0504
R217.48-2532.3S-05-4SA	02810002	Seco-Weldon	32,0	4	3,0	40,0	40,0	25,0	33,0	40,0	90,0	0,5	18000	ON.U0504

Spare Parts, included in delivery

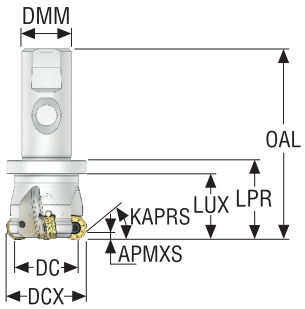
For cutter	Insert key	Insert screw
		
R217.48-..	1/4HEX-T15PX50	C04009-T15P

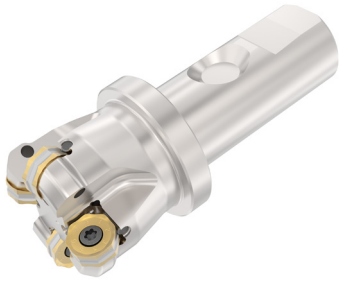
Accessories

For cutter	Adjustable Torque key	Insert clamping torque	Torque key
			
R217.48-..	1/4HEX-S-HANDLE-0.8-5.0NM	3.5NM	T00-15P35

Torque and fixed keys, see page 872

Double Octomill™ R217.48-05 – inch

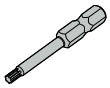




- For insert selection and cutting data recommendations, see page(s) 245 - 247
- For complete insert programme, see page(s) 816
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	ZEFP	APMXS	KAPRS°	DCX	DMM	LUX	LPR	OAL	Weight	RPMX	Insert
			inch		inch		inch	inch	inch	inch	inch	lbs		
R217.48-01.25.3S-05-4SA	02810007	Seco-Weldon	1.250	4	0.118	40,0	1.575	0.750	1.299	1.575	3.543	1.100	20400	ON.U0504

Spare Parts, included in delivery

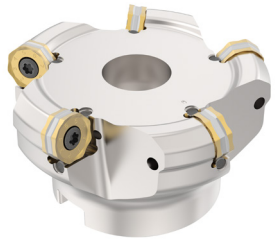
For cutter	Insert key	Insert screw
		
R217.48-..	1/4HEX-T15PX50	C04009-T15P

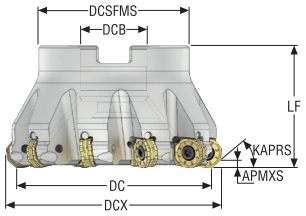
Accessories

For cutter	Adjustable Torque key	Insert clamping torque	Torque key
			
R217.48-..	1/4HEX-S-HANDLE-0.8-5.0NM	31.0IN.LBS	T00-15P35

Torque and fixed keys, see page 872

Double Octomill™ R220.48-05 – Metric

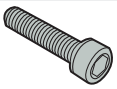
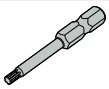




- For insert selection and cutting data recommendations, see page(s) 245 - 247
- For complete insert programme, see page(s) 816
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	ZEFP	APMXS	KAPRS°	DCX	DCB	DCSFMS	LF	RPMX	Weight	Insert
			mm		mm		mm	mm	mm	mm		kg	
R220.48-0040-05-05SA	02810083	Arbor	40,0	5	3,0	40,0	48,35	16,0	35,0	40,0	16100	0,3	ON.U0504
R220.48-0050-05-04SA	02810003	Arbor	50,0	4	3,0	40,0	58,35	22,0	47,0	40,0	14400	0,5	ON.U0504
R220.48-0050-05-05SA	02810084	Arbor	50,0	5	3,0	40,0	58,35	22,0	47,0	40,0	14400	0,5	ON.U0504
R220.48-0050-05-06SA	02810085	Arbor	50,0	6	3,0	40,0	58,35	22,0	47,0	40,0	14400	0,5	ON.U0504
R220.48-0063-05-05SA	02810004	Arbor	63,0	5	3,0	40,0	71,35	22,0	47,0	40,0	12800	0,7	ON.U0504
R220.48-0063-05-06SA	02810086	Arbor	63,0	6	3,0	40,0	71,35	22,0	47,0	40,0	12800	0,6	ON.U0504
R220.48-0063-05-08SA	02810087	Arbor	63,0	8	3,0	40,0	71,35	22,0	47,0	40,0	12800	0,6	ON.U0504
R220.48-0080-05-06SA	02810005	Arbor	80,0	6	3,0	40,0	88,35	27,0	62,0	50,0	11400	1,2	ON.U0504
R220.48-0080-05-10SA	02810088	Arbor	80,0	10	3,0	40,0	88,35	27,0	62,0	50,0	11400	1,2	ON.U0504
R220.48-0100-05-07SA	02810089	Arbor	100,0	7	3,0	40,0	108,35	32,0	77,0	50,0	10200	1,9	ON.U0504
R220.48-0100-05-12SA	02810090	Arbor	100,0	12	3,0	40,0	108,35	32,0	77,0	50,0	10200	1,8	ON.U0504
R220.48-0125-05-08SA	02810091	Arbor	125,0	8	3,0	40,0	133,35	40,0	90,0	63,0	9100	3,4	ON.U0504
R220.48-0125-05-14SA	02810092	Arbor	125,0	14	3,0	40,0	133,35	40,0	90,0	63,0	9100	3,4	ON.U0504

Spare Parts, included in delivery

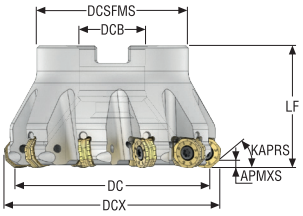
For cutter	Arbor screw	Insert key	Insert screw
			
R220.48-0040	TCEI0825	1/4HEX-T15PX50	C04009-T15P
R220.48-0050-0063	220.17-692	1/4HEX-T15PX50	C04009-T15P
R220.48-0080-0125	–	1/4HEX-T15PX90	C04009-T15P

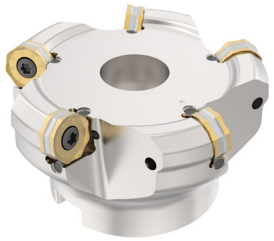
Accessories

For cutter	Adjustable Torque key	Arbor screw	Insert clamping torque	Torque key
				
R220.48-0040-0063	1/4HEX-S-HANDLE-0.8-5.0NM	–	3.5NM	T00-15P35
R220.48-0080	1/4HEX-S-HANDLE-0.8-5.0NM	5802712	3.5NM	T00-15P35
R220.48-0100	1/4HEX-S-HANDLE-0.8-5.0NM	5803216	3.5NM	T00-15P35
R220.48-0125	1/4HEX-S-HANDLE-0.8-5.0NM	5804020	3.5NM	T00-15P35

Torque and fixed keys, see page 872

Double Octomill™ R220.48-05 – inch

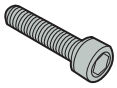
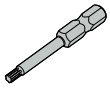




- For insert selection and cutting data recommendations, see page(s) 245 - 247
- For complete insert programme, see page(s) 816
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	ZEFP	APMXS	KAPRS°	DCX	DCB	DCSFMS	LF	RPMX	Weight	Insert
			inch		inch		inch	inch	inch	inch		lbs	
R220.48-01.50-05-04SA	02810093	Arbor	1.575	4	0.118	40.0	1.904	0.500	1.378	1.575	16100	0.880	ON.U0504
R220.48-02.00-05-05SA	02810096	Arbor	1.969	5	0.118	40.0	2.297	0.750	1.850	1.575	14400	1.100	ON.U0504
R220.48-02.50-05-05SA	02810098	Arbor	2.480	5	0.118	40.0	2.809	0.750	1.850	1.575	12800	1.540	ON.U0504
R220.48-03.00-05-06SA	02810101	Arbor	3.150	6	0.118	40.0	3.478	1.000	2.441	1.969	11400	3.090	ON.U0504
R220.48-03.00-05-10SA	02810102	Arbor	3.150	10	0.118	40.0	3.478	1.000	2.441	1.969	11400	2.650	ON.U0504
R220.48-04.00-05-07SA	02810103	Arbor	3.937	7	0.118	40.0	4.266	1.500	3.031	1.969	10200	4.190	ON.U0504

Spare Parts, included in delivery

For cutter	Arbor screw	Insert key	Insert screw
			
R220.48-01.50	UC6S1/4UNFX1	1/4HEX-T15PX50	C04009-T15P
R220.48-02.00-02.50	UC6S3/8UNFX1	1/4HEX-T15PX50	C04009-T15P
R220.48-03.00	UC6S1/2UNFX1-1/4	1/4HEX-T15PX90	C04009-T15P
R220.48-04.00	UF6S3/4UNFX1-3/4	1/4HEX-T15PX90	C04009-T15P

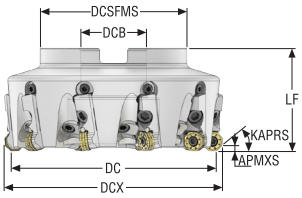
Accessories

For cutter	Adjustable Torque key	Insert clamping torque	Torque key
			
R220.48-..	1/4HEX-S-HANDLE-0.8-5.0NM	31.0IN.LBS	T00-15P35

Torque and fixed keys, see page 872

Double Octomill™ R220.48-05CS – Metric

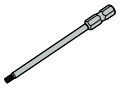
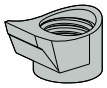




- For insert selection and cutting data recommendations, see page(s) 245 - 247
- For complete insert programme, see page(s) 816
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	ZEFP	APMXS	KAPRS°	DCX	DCB	DCSFMS	LF	RPMX	Weight	Insert
			mm		mm		mm	mm	mm	mm		kg	
R220.48-0125-05-10CS	03000630	Arbor	125,0	10	3,0	40,0	133,0	40,0	90,0	63,0	9100	4,0	ON.U0504
R220.48-8160-05-14CS	03000631	Arbor	160,0	14	3,0	40,0	168,0	40,0	90,0	63,0	8000	6,5	ON.U0504
R220.48-8200-05-18CS	03000632	Arbor	200,0	18	3,0	40,0	208,0	60,0	130,0	63,0	7200	9,0	ON.U0504

Spare Parts, included in delivery

For cutter	Adjustment unit	Cassette	Cassette screw	Insert key	Insert screw	Wedge clamp	Wedge screw
							
R220.48-0125-8200	AU1114T-T15P	ON05AR	FS96018	1/4HEX-T15PX90	C04009-T15P	CW0810	LD8020-T25P

Accessories

For cutter	Adjustable Torque key	Arbor screw	Insert clamping torque	Torque key
				
R220.48-0125	1/4HEX-S-HANDLE-0.8-5.0NM	5804020	3.5NM	T00-15P35
R220.48-8160	1/4HEX-S-HANDLE-0.8-5.0NM	MC6S12X40	3.5NM	T00-15P35
R220.48-8200	1/4HEX-S-HANDLE-0.8-5.0NM	MC6S16X50	3.5NM	T00-15P35

Torque and fixed keys, see page 872

R220.48-05 – Insert selection – mm/*Inch*

SMG		a_p	f_z		
			80%	40%	20%
P1	ONMU050410ANTN-M11 MP3000	1,8 *0.070*	0,26 *0.010*	0,26 *0.010*	0,34 *0.013*
P2	ONMU050410ANTN-M11 MP3000	1,8 *0.070*	0,26 *0.010*	0,28 *0.011*	0,34 *0.013*
P3	ONMU050406ANTN-ME14 MP2501	1,8 *0.070*	0,28 *0.011*	0,28 *0.011*	0,36 *0.014*
P4	ONMU050406ANTN-ME14 MP2501	1,8 *0.070*	0,28 *0.011*	0,28 *0.011*	0,34 *0.013*
P5	ONMU050406ANTN-ME14 MP2501	1,8 *0.070*	0,26 *0.010*	0,28 *0.011*	0,34 *0.013*
P6	ONMU050406ANTN-ME14 MP2501	1,8 *0.070*	0,26 *0.010*	0,28 *0.011*	0,34 *0.013*
P7	ONMU050406ANTN-ME14 MP3501	1,8 *0.070*	0,26 *0.010*	0,28 *0.011*	0,34 *0.013*
P8	ONMU050406ANTN-ME14 MP3501	1,8 *0.070*	0,28 *0.011*	0,28 *0.011*	0,36 *0.014*
P11	ONMU050410ANTN-M10 MP2050	1,8 *0.070*	0,24 *0.0095*	0,25 *0.010*	0,30 *0.012*
P12	ONMU050410ANTN-M10 MP2050	1,4 *0.055*	0,17 *0.0065*	0,18 *0.0070*	0,22 *0.0085*
M1	ONMU050410ANTN-ME11 F40M	1,8 *0.070*	0,24 *0.0095*	0,25 *0.010*	0,30 *0.012*
M2	ONMU050410ANTN-ME11 MS2050	1,8 *0.070*	0,22 *0.0085*	0,22 *0.0085*	0,28 *0.011*
M3	ONMU050410ANTN-ME11 MS2050	1,4 *0.055*	0,18 *0.0070*	0,19 *0.0075*	0,24 *0.0095*
M4	ONMU050410ANTN-M10 MP2050	1,1 *0.044*	0,19 *0.0075*	0,19 *0.0075*	0,24 *0.0095*
M5	ONMU050410ANTN-M10 MP2050	1,1 *0.044*	0,19 *0.0075*	0,19 *0.0075*	0,24 *0.0095*
K1	ONMU050406ANTN-ME14 MP1501	1,8 *0.070*	0,30 *0.012*	0,30 *0.012*	0,38 *0.015*
K2	ONMU050406ANTN-ME14 MP1501	1,8 *0.070*	0,26 *0.010*	0,28 *0.011*	0,34 *0.013*
K3	ONMU050406ANTN-ME14 MK2050	1,8 *0.070*	0,26 *0.010*	0,28 *0.011*	0,34 *0.013*
K4	ONMU050406ANTN-ME14 MK2050	1,8 *0.070*	0,26 *0.010*	0,28 *0.011*	0,34 *0.013*
K5	ONMU050406ANTN-ME14 MK2050	1,8 *0.070*	0,24 *0.0095*	0,25 *0.010*	0,30 *0.012*
K6	ONMU050406ANTN-ME14 MK2050	1,8 *0.070*	0,26 *0.010*	0,28 *0.011*	0,34 *0.013*
K7	ONMU050406ANTN-ME14 MK2050	1,8 *0.070*	0,24 *0.0095*	0,25 *0.010*	0,30 *0.012*
N1	ONMU050410ANTN-ME11 F40M	1,8 *0.070*	0,30 *0.012*	0,32 *0.013*	0,38 *0.015*
N2	ONMU050410ANTN-ME11 F40M	1,8 *0.070*	0,30 *0.012*	0,32 *0.013*	0,38 *0.015*
N3	ONMU050410ANTN-ME11 F40M	1,8 *0.070*	0,30 *0.012*	0,32 *0.013*	0,38 *0.015*
N11	ONMU050410ANTN-ME11 F40M	1,8 *0.070*	0,30 *0.012*	0,32 *0.013*	0,38 *0.015*
S1	ONMU050406ANTN-ME14 MS2050	1,1 *0.044*	0,20 *0.0080*	0,20 *0.0080*	0,25 *0.010*
S2	ONMU050406ANTN-ME14 MS2050	1,1 *0.044*	0,20 *0.0080*	0,20 *0.0080*	0,25 *0.010*
S3	ONMU050406ANTN-ME14 MS2050	1,1 *0.044*	0,19 *0.0075*	0,19 *0.0075*	0,24 *0.0095*
S11	ONMU050410ANTN-ME11 MS2050	1,3 *0.050*	0,18 *0.0070*	0,19 *0.0075*	0,24 *0.0095*
S12	ONMU050410ANTN-ME11 MS2050	1,3 *0.050*	0,18 *0.0070*	0,19 *0.0075*	0,24 *0.0095*
S13	ONMU050410ANTN-ME11 MS2050	1,1 *0.044*	0,17 *0.0065*	0,17 *0.0065*	0,22 *0.0085*
H5	ONMU050410ANTN-M11 MP3000	1,4 *0.055*	0,17 *0.0065*	0,18 *0.0070*	0,22 *0.0085*
H8	ONMU050410ANTN-M11 MP3000	1,3 *0.050*	0,13 *0.0050*	0,13 *0.0050*	0,17 *0.0065*
H11	ONMU050410ANTN-M11 MP3000	1,4 *0.055*	0,17 *0.0065*	0,18 *0.0070*	0,22 *0.0085*
H12	ONMU050410ANTN-M11 MP3000	1,3 *0.050*	0,13 *0.0050*	0,13 *0.0050*	0,17 *0.0065*
H21	ONMU050410ANTN-M11 MP3000	1,3 *0.050*	0,13 *0.0050*	0,13 *0.0050*	0,17 *0.0065*

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

R217/220.48-05 – Cutting data v_c = (m/min)/*(sf/min)*

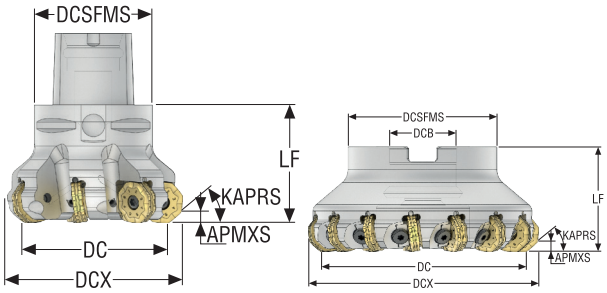
SMG	MK2050				MP3000				MS2050				F40M				MP2050			
	100%	80%	60%	40%	100%	80%	60%	40%	100%	80%	60%	40%	100%	80%	60%	40%	100%	80%	60%	40%
P1	270 *890*	285 *940*	310 *1025*	345 *1125*	260 *850*	275 *900*	295 *970*	330 *1075*	225 *740*	240 *790*	260 *850*	290 *950*	205 *670*	220 *720*	235 *770*	265 *870*	275 *900*	290 *950*	315 *1025*	350 *1150*
P2	260 *850*	275 *900*	300 *980*	335 *1100*	250 *820*	265 *870*	290 *950*	320 *1050*	220 *720*	235 *770*	255 *840*	285 *940*	200 *660*	215 *710*	230 *750*	255 *840*	265 *870*	285 *940*	305 *1000*	335 *1100*
P3	230 *750*	245 *800*	265 *870*	295 *970*	220 *720*	235 *770*	255 *840*	280 *920*	195 *640*	205 *670*	225 *740*	250 *820*	175 *570*	190 *620*	205 *670*	225 *740*	230 *750*	245 *800*	265 *870*	295 *970*
P4	200 *660*	215 *710*	230 *750*	260 *850*	195 *640*	205 *670*	225 *740*	250 *820*	170 *560*	180 *590*	195 *640*	220 *720*	155 *510*	165 *540*	180 *590*	200 *660*	205 *670*	220 *720*	235 *770*	260 *850*
P5	200 *660*	210 *690*	225 *740*	245 *800*	190 *620*	200 *660*	220 *720*	235 *770*	165 *540*	180 *590*	190 *620*	210 *690*	150 *490*	160 *520*	175 *570*	190 *620*	195 *640*	210 *690*	225 *740*	250 *820*
P6	220 *720*	235 *770*	255 *840*	275 *900*	215 *710*	225 *740*	245 *800*	265 *870*	190 *620*	200 *660*	215 *710*	235 *770*	170 *560*	180 *590*	195 *640*	215 *710*	220 *720*	235 *770*	255 *840*	285 *940*
P7	210 *690*	220 *720*	240 *790*	260 *850*	200 *660*	215 *710*	230 *750*	250 *820*	175 *570*	190 *620*	205 *670*	220 *720*	160 *520*	170 *560*	185 *610*	200 *660*	210 *690*	220 *720*	240 *790*	265 *870*
P8	195 *640*	205 *670*	220 *720*	245 *800*	185 *610*	195 *640*	215 *710*	235 *770*	165 *540*	175 *570*	185 *610*	210 *690*	150 *490*	160 *520*	170 *560*	190 *620*	195 *640*	205 *670*	225 *740*	245 *800*
P11	205 *670*	215 *710*	235 *770*	255 *840*	195 *640*	210 *690*	225 *740*	245 *800*	170 *560*	185 *610*	195 *640*	215 *710*	155 *510*	165 *540*	180 *590*	195 *640*	205 *670*	215 *710*	235 *770*	260 *850*
P12	130 *425*	140 *460*	150 *490*	165 *540*	125 *410*	135 *445*	145 *475*	160 *520*	110 *360*	120 *395*	125 *410*	140 *460*	100 *330*	110 *360*	115 *375*	130 *425*	130 *425*	140 *460*	150 *490*	170 *560*
M1	— —	— —	— —	— —	190 *620*	200 *660*	215 *710*	240 *790*	180 *590*	190 *620*	205 *670*	230 *750*	160 *520*	170 *560*	185 *610*	205 *670*	190 *620*	205 *670*	220 *720*	240 *790*
M2	— —	— —	— —	— —	160 *520*	170 *560*	180 *590*	200 *660*	150 *490*	160 *520*	170 *560*	190 *620*	135 *445*	145 *475*	155 *510*	170 *560*	160 *520*	170 *560*	180 *590*	200 *660*
M3	— —	— —	— —	— —	125 *410*	135 *445*	145 *475*	160 *520*	120 *395*	130 *425*	140 *460*	155 *510*	110 *360*	115 *375*	125 *410*	140 *460*	125 *410*	135 *445*	145 *475*	160 *520*
M4	— —	— —	— —	— —	100 *330*	105 *345*	110 *360*	125 *410*	95 *310*	100 *330*	105 *345*	120 *395*	85 *280*	90 *295*	95 *310*	105 *345*	100 *330*	105 *345*	115 *375*	125 *410*
M5	— —	— —	— —	— —	80 *260*	85 *280*	95 *310*	105 *345*	80 *260*	85 *280*	90 *295*	100 *330*	70 *230*	75 *245*	80 *260*	90 *295*	80 *260*	85 *280*	95 *310*	105 *345*
K1	280 *920*	300 *980*	325 *1075*	360 *1175*	200 *660*	210 *690*	230 *750*	255 *840*	— —	— —	— —	— —	160 *520*	170 *560*	185 *610*	205 *670*	— —	— —	— —	— —
K2	255 *840*	270 *890*	295 *970*	320 *1050*	180 *590*	190 *620*	205 *670*	225 *740*	— —	— —	— —	— —	145 *475*	155 *510*	165 *540*	180 *590*	— —	— —	— —	— —
K3	215 *710*	230 *750*	250 *820*	270 *890*	155 *510*	160 *520*	175 *570*	190 *620*	— —	— —	— —	— —	120 *395*	130 *425*	140 *460*	155 *510*	— —	— —	— —	— —
K4	205 *670*	220 *720*	235 *770*	260 *850*	145 *475*	155 *510*	165 *540*	180 *590*	— —	— —	— —	— —	115 *375*	125 *410*	135 *445*	145 *475*	— —	— —	— —	— —
K5	125 *410*	135 *445*	145 *475*	160 *520*	90 *295*	95 *310*	100 *330*	110 *360*	— —	— —	— —	— —	70 *230*	75 *245*	80 *260*	90 *295*	— —	— —	— —	— —
K6	180 *590*	195 *640*	210 *690*	225 *740*	130 *425*	135 *445*	145 *475*	160 *520*	— —	— —	— —	— —	105 *345*	110 *360*	120 *395*	130 *425*	— —	— —	— —	— —
K7	160 *520*	170 *560*	185 *610*	205 *670*	115 *375*	120 *395*	130 *425*	145 *475*	— —	— —	— —	— —	90 *295*	95 *310*	105 *345*	115 *375*	— —	— —	— —	— —
N1	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —
N2	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —
N3	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —
N11	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —
S1	— —	— —	— —	— —	46 *150*	49 *160*	50 *165*	60 *195*	44 *145*	46 *150*	50 *165*	55 *180*	40 *130*	42 *140*	45 *150*	50 *165*	48 *155*	50 *165*	55 *180*	60 *195*
S2	— —	— —	— —	— —	37 *120*	39 *130*	42 *140*	47 *155*	35 *115*	37 *120*	40 *130*	44 *145*	32 *105*	34 *110*	36 *120*	40 *130*	38 *125*	41 *135*	44 *145*	49 *160*
S3	— —	— —	— —	— —	32 *105*	34 *110*	37 *120*	42 *140*	31 *100*	33 *110*	36 *120*	39 *130*	28 *90*	30 *100*	32 *105*	36 *120*	34 *110*	36 *120*	39 *130*	43 *140*
S11	— —	— —	— —	— —	— —	— —	— —	— —	60 *195*	65 *215*	70 *230*	80 *260*	55 *180*	60 *195*	65 *215*	70 *230*	70 *230*	70 *230*	75 *245*	85 *280*
S12	— —	— —	— —	— —	— —	— —	— —	— —	42 *140*	45 *150*	48 *155*	55 *180*	38 *125*	41 *135*	44 *145*	49 *160*	47 *155*	50 *165*	55 *180*	60 *195*
S13	— —	— —	— —	— —	— —	— —	— —	— —	25 *80*	26 *85*	28 *90*	31 *100*	22 *70*	24 *80*	25 *80*	28 *90*	27 *90*	28 *90*	31 *100*	34 *110*
H5	— —	— —	— —	— —	39 *130*	42 *140*	45 *150*	50 *165*	— —	— —	— —	— —	34 *110*	36 *120*	38 *125*	43 *140*	— —	— —	— —	— —
H8	— —	— —	— —	— —	42 *140*	45 *150*	49 *160*	55 *180*	— —	— —	— —	— —	36 *120*	38 *125*	42 *140*	45 *150*	— —	— —	— —	— —
H11	— —	— —	— —	— —	50 *165*	55 *180*	55 *180*	65 *215*	— —	— —	— —	— —	43 *140*	45 *150*	49 *160*	55 *180*	50 *165*	55 *180*	60 *195*	65 *215*
H12	— —	— —	— —	— —	80 *260*	85 *280*	95 *310*	100 *330*	— —	— —	— —	— —	65 *215*	70 *230*	75 *245*	80 *260*	85 *280*	90 *295*	95 *310*	105 *345*
H21	— —	— —	— —	— —	42 *140*	45 *150*	49 *160*	55 *180*	— —	— —	— —	— —	36 *120*	38 *125*	42 *140*	45 *150*	42 *140*	45 *150*	49 *160*	55 *180*

R217/220.48-05 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	MK1500				MP1501				MP2501				MP3501				MM4500			
	100%	80%	60%	40%	100%	80%	60%	40%	100%	80%	60%	40%	100%	80%	60%	40%	100%	80%	60%	40%
P1	—	—	—	—	390	405	430	475	380	395	420	465	340	350	375	415	175	185	200	225
	—	—	—	—	*1275*	*1325*	*1400*	*1550*	*1250*	*1300*	*1375*	*1525*	*1125*	*1150*	*1225*	*1350*	*570*	*610*	*660*	*740*
P2	—	—	—	—	380	395	420	465	370	380	410	450	330	340	365	405	170	180	195	220
	—	—	—	—	*1250*	*1300*	*1375*	*1525*	*1225*	*1250*	*1350*	*1475*	*1075*	*1125*	*1200*	*1325*	*560*	*590*	*640*	*720*
P3	—	—	—	—	335	345	370	405	330	340	360	400	295	300	320	355	150	160	175	185
	—	—	—	—	*1100*	*1125*	*1225*	*1325*	*1075*	*1125*	*1175*	*1300*	*970*	*980*	*1050*	*1175*	*490*	*520*	*570*	*610*
P4	—	—	—	—	295	305	325	360	290	295	320	350	260	265	285	315	130	140	150	170
	—	—	—	—	*970*	*1000*	*1075*	*1175*	*950*	*970*	*1050*	*1150*	*850*	*870*	*940*	*1025*	*425*	*460*	*490*	*560*
P5	—	—	—	—	290	300	320	340	285	290	310	335	255	260	280	300	125	135	145	160
	—	—	—	—	*950*	*980*	*1050*	*1125*	*940*	*950*	*1025*	*1100*	*840*	*850*	*920*	*980*	*410*	*445*	*475*	*520*
P6	—	—	—	—	325	335	355	385	320	325	350	375	285	290	310	335	140	150	165	180
	—	—	—	—	*1075*	*1100*	*1175*	*1275*	*1050*	*1075*	*1150*	*1225*	*940*	*950*	*1025*	*1100*	*460*	*490*	*540*	*590*
P7	—	—	—	—	305	315	335	360	300	310	330	355	270	275	295	315	135	145	155	170
	—	—	—	—	*1000*	*1025*	*1100*	*1175*	*980*	*1025*	*1075*	*1175*	*890*	*900*	*970*	*1025*	*445*	*475*	*510*	*560*
P8	—	—	—	—	280	290	310	340	275	285	305	335	245	255	270	300	125	135	145	155
	—	—	—	—	*920*	*950*	*1025*	*1125*	*900*	*940*	*1000*	*1100*	*800*	*840*	*890*	*980*	*410*	*445*	*475*	*510*
P11	—	—	—	—	300	310	330	350	290	300	320	345	260	265	285	310	130	140	150	165
	—	—	—	—	*980*	*1025*	*1075*	*1150*	*950*	*980*	*1050*	*1125*	*850*	*870*	*940*	*1025*	*425*	*460*	*490*	*540*
P12	—	—	—	—	190	200	210	230	190	195	210	225	170	175	185	205	85	90	100	110
	—	—	—	—	*620*	*660*	*690*	*750*	*620*	*640*	*690*	*740*	*560*	*570*	*610*	*670*	*280*	*295*	*330*	*360*
M1	—	—	—	—	—	—	—	—	190	205	220	245	180	190	205	230	145	155	170	185
	—	—	—	—	—	—	—	—	*620*	*670*	*720*	*800*	*590*	*620*	*670*	*750*	*475*	*510*	*560*	*610*
M2	—	—	—	—	—	—	—	—	160	170	185	200	150	160	170	190	120	130	140	155
	—	—	—	—	—	—	—	—	*520*	*560*	*610*	*660*	*490*	*520*	*560*	*620*	*395*	*425*	*460*	*510*
M3	—	—	—	—	—	—	—	—	130	135	150	165	120	130	140	155	100	105	110	125
	—	—	—	—	—	—	—	—	*425*	*445*	*490*	*540*	*395*	*425*	*460*	*510*	*330*	*345*	*360*	*410*
M4	—	—	—	—	—	—	—	—	100	105	115	125	95	100	105	120	75	80	85	95
	—	—	—	—	—	—	—	—	*330*	*345*	*375*	*410*	*310*	*330*	*345*	*395*	*245*	*260*	*280*	*310*
M5	—	—	—	—	—	—	—	—	85	90	95	105	80	85	90	100	65	65	75	80
	—	—	—	—	—	—	—	—	*280*	*295*	*310*	*345*	*260*	*280*	*295*	*330*	*215*	*215*	*245*	*260*
K1	305	325	350	380	385	395	425	465	375	385	415	455	335	345	365	405	—	—	—	—
	1000	*1075*	*1150*	*1250*	*1275*	*1300*	*1400*	*1525*	*1225*	*1275*	*1350*	*1500*	*1100*	*1125*	*1200*	*1325*	—	—	—	—
K2	270	285	310	340	350	360	385	415	340	355	375	405	305	315	335	360	—	—	—	—
	890	*940*	*1025*	*1125*	*1150*	*1175*	*1275*	*1350*	*1125*	*1175*	*1225*	*1325*	*1000*	*1025*	*1100*	*1175*	—	—	—	—
K3	230	245	260	290	295	305	325	350	290	300	320	340	260	265	285	305	—	—	—	—
	750	*800*	*850*	*950*	*970*	*1000*	*1075*	*1150*	*950*	*980*	*1050*	*1125*	*850*	*870*	*940*	*1000*	—	—	—	—
K4	220	230	250	275	280	290	310	335	275	285	305	325	245	255	270	290	—	—	—	—
	720	*750*	*820*	*900*	*920*	*950*	*1025*	*1100*	*900*	*940*	*1000*	*1075*	*800*	*840*	*890*	*950*	—	—	—	—
K5	135	140	155	170	170	180	190	205	170	175	185	200	150	155	165	180	—	—	—	—
	445	*460*	*510*	*560*	*560*	*590*	*620*	*670*	*560*	*570*	*610*	*660*	*490*	*510*	*540*	*590*	—	—	—	—
K6	190	205	220	240	250	255	275	295	245	250	270	290	215	225	240	255	—	—	—	—
	620	*670*	*720*	*790*	*820*	*840*	*900*	*970*	*800*	*820*	*890*	*950*	*710*	*740*	*790*	*840*	—	—	—	—
K7	170	180	195	215	220	230	245	260	215	225	240	260	195	200	215	230	—	—	—	—
	560	*590*	*640*	*710*	*720*	*750*	*800*	*850*	*710*	*740*	*790*	*850*	*640*	*660*	*710*	*750*	—	—	—	—
N1	—	—	—	—	—	—	—	—	—	—	—	—	1350	1425	1550	1725	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	*4425*	*4675*	*5075*	*5650*	—	—	—	—
N2	—	—	—	—	—	—	—	—	—	—	—	—	540	580	620	700	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	*1775*	*1900*	*2025*	*2300*	—	—	—	—
N3	—	—	—	—	—	—	—	—	—	—	—	—	360	385	415	465	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	*1175*	*1275*	*1350*	*1525*	—	—	—	—
N11	—	—	—	—	—	—	—	—	—	—	—	—	415	440	475	530	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	*1350*	*1450*	*1550*	*1750*	—	—	—	—
S1	—	—	—	—	—	—	—	—	—	—	—	—	44	46	50	55	23	24	27	29
	—	—	—	—	—	—	—	—	—	—	—	—	*145*	*150*	*165*	*180*	*75*	*80*	*90*	*95*
S2	—	—	—	—	—	—	—	—	—	—	—	—	35	37	40	44	19	20	21	24
	—	—	—	—	—	—	—	—	—	—	—	—	*115*	*120*	*130*	*145*	*60*	*65*	*70*	*80*
S3	—	—	—	—	—	—	—	—	—	—	—	—	31	33	36	39	16	17	19	21
	—	—	—	—	—	—	—	—	—	—	—	—	*100*	*110*	*120*	*130*	*50*	*55*	*60*	*70*
S11	—	—	—	—	—	—	—	—	—	—	—	—	60	65	70	80	33	35	37	41
	—	—	—	—	—	—	—	—	—	—	—	—	*195*	*215*	*230*	*260*	*110*	*115*	*120*	*135*
S12	—	—	—	—	—	—	—	—	—	—	—	—	42	45	48	55	30	32	34	38
	—	—	—	—	—	—	—	—	—	—	—	—	*140*	*150*	*155*	*180*	*100*	*105*	*110*	*125*
S13	—	—	—	—	—	—	—	—	—	—	—	—	25	26	28	31	17	18	20	22
	—	—	—	—	—	—	—	—	—	—	—	—	*80*	*85*	*90*	*100*	*55*	*60*	*65*	*70*
H5	—	—	—	—	50	55	55	65	—	—	—	—	39	41	44	49	—	—	—	—
	—	—	—	—	*165*	*180*	*180*	*215*	—	—	—	—	*130*	*135*	*145*	*160*	—	—	—	—
H8	—	—	—	—	55	55	60	70	—	—	—	—	41	44	48	50	—	—	—	—
	—	—	—	—	*180*	*180*	*195*	*230*	—	—	—	—	*135*	*145*	*155*	*165*	—	—	—	—
H11	—	—	—	—	65	70	75	80	—	—	—	—	49	50	55	60	—	—	—	—
	—	—	—	—	*215*	*230*	*245*	*260*	—	—	—	—	*160*	*165*	*180*	*195*	—	—	—	—
H12	—	—	—	—	95	100	110	120	—	—	—	—	75	80	85	95	—	—	—	—
	—	—	—	—	*310*	*330*	*360*	*395*	—	—	—	—	*245*	*260*	*280*	*310*	—	—	—	—
H21	—	—	—	—	55	55	60	70	—	—	—	—	41	44	48	50	—	—	—	—
	—	—	—	—	*180*	*180*	*195*	*230*	—	—	—	—	*135*	*145*	*155*	*165*	—	—	—	—

Double Octomill™ R217/220.48-09 – Metric

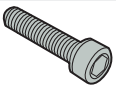
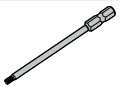
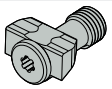




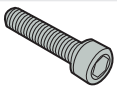
- For insert selection and cutting data recommendations, see page(s) 255 - 257
- For complete insert programme, see page(s) 816
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	ZEFP	APMXS	KAPRS°	DCX	DCB	DCSFMS	LF	RPMX	Weight	Insert
			mm		mm		mm	mm	mm	mm		kg	
C6-R217.48-080-09-06SA	02731338	Seco-Capto	80,0	6	6,0	40,0	95,0	–	63,0	63,0	4400	1,7	ON.U0905
C6-R217.48-080-09-07SA	02731340	Seco-Capto	80,0	7	6,0	40,0	95,0	–	63,0	63,0	4400	1,8	ON.U0905
C6-R217.48-100-09-07SA	02731347	Seco-Capto	100,0	7	6,0	40,0	115,0	–	63,0	80,0	3900	3,0	ON.U0905
C8-R217.48-100-09-08SA	02731342	Seco-Capto	100,0	8	6,0	40,0	115,0	–	80,0	80,0	3900	3,7	ON.U0905
R220.48-0063-09-05SA	02670226	Arbor	63,0	5	6,0	40,0	78,0	22,0	47,0	40,0	4900	0,6	ON.U0905
R220.48-0063-09-06SA	02685780	Arbor	63,0	6	6,0	40,0	78,0	22,0	47,0	40,0	4900	0,6	ON.U0905
R220.48-0080-09-06SA	02670228	Arbor	80,0	6	6,0	40,0	95,0	27,0	62,0	50,0	4400	1,0	ON.U0905
R220.48-0080-09-07SA	02685781	Arbor	80,0	7	6,0	40,0	95,0	27,0	62,0	50,0	4400	1,0	ON.U0905
R220.48-0080-09-09M	02670210	Arbor	80,0	9	6,0	40,0	95,0	27,0	62,0	50,0	4400	1,3	ON.U0905
R220.48-0100-09-07SA	02670229	Arbor	100,0	7	6,0	40,0	115,0	32,0	77,0	50,0	3900	1,7	ON.U0905
R220.48-0100-09-08SA	02685782	Arbor	100,0	8	6,0	40,0	115,0	32,0	77,0	50,0	3900	1,6	ON.U0905
R220.48-0100-09-12M	02670213	Arbor	100,0	12	6,0	40,0	115,0	32,0	77,0	50,0	3900	1,8	ON.U0905
R220.48-0125-09-08SA	02670231	Arbor	125,0	8	6,0	40,0	140,0	40,0	90,0	63,0	3500	2,9	ON.U0905
R220.48-0125-09-10SA	02685847	Arbor	125,0	10	6,0	40,0	140,0	40,0	90,0	63,0	3500	3,0	ON.U0905
R220.48-0125-09-15M	02670214	Arbor	125,0	15	6,0	40,0	140,0	40,0	90,0	63,0	3500	3,4	ON.U0905
R220.48-8160-09-12S	02685849	Arbor	160,0	12	6,0	40,0	175,0	40,0	90,0	63,0	3100	4,5	ON.U0905
R220.48-8160-09-10S	02685776	Arbor	160,0	10	6,0	40,0	175,0	40,0	90,0	63,0	3100	4,3	ON.U0905
R220.48-8160-09-20M	02670215	Arbor	160,0	20	6,0	40,0	175,0	40,0	90,0	63,0	3100	4,8	ON.U0905
R220.48-8200-09-12S	02685845	Arbor	200,0	12	6,0	40,0	215,0	60,0	130,0	63,0	2700	5,5	ON.U0905
R220.48-8200-09-24M	02685773	Arbor	200,0	24	6,0	40,0	215,0	60,0	130,0	63,0	2700	6,0	ON.U0905
R220.48-8250-09-16S	02685777	Arbor	250,0	16	6,0	40,0	265,0	60,0	130,0	63,0	2500	13,0	ON.U0905
R220.48-8250-09-30M	02685774	Arbor	250,0	30	6,0	40,0	265,0	60,0	130,0	63,0	2500	14,1	ON.U0905
R220.48-8315-09-20S	02685846	Arbor	315,0	20	6,0	40,0	330,0	60,0	225,0	80,0	2200	27,0	ON.U0905
R220.48-8315-09-40M	02685775	Arbor	315,0	40	6,0	40,0	330,0	60,0	225,0	80,0	2200	28,6	ON.U0905

Spare Parts, included in delivery

For cutter	Arbor screw	Insert key	Insert screw	Wedge kit
				
Cx-R217.48-063-0100	–	1/4HEX-T20PX90	C05013-T20P	–
R220.48-0063SA	220.17-692	1/4HEX-T20PX50	C05013-T20P	–
R220.48-0080-0125SA	–	1/4HEX-T20PX90	C05013-T20P	–
R220.48-0080-0125M	–	1/4HEX-T20PX50	–	CW0816-RHA
R220.48-0100-8315SA	–	1/4HEX-T20PX90	C05013-T20P	–
R220.48-8160-8315M	–	1/4HEX-T20PX50	–	CW0816-RHA

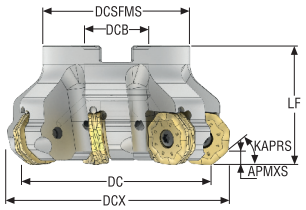
Accessories

For cutter	Adjustable Torque key	Arbor screw	Arbor screw 2	Insert clamping torque	Torque key
					
Cx-R217.48-063-0100	1/4HEX-T-HANDLE-5.0-14.0NM	–	–	5.0NM	T00-20P50
R220.48-063SA	1/4HEX-T-HANDLE-5.0-14.0NM	–	–	5.0NM	T00-20P50
R220.48-0080SA	1/4HEX-T-HANDLE-5.0-14.0NM	5802712	–	5.0NM	T00-20P50
R220.48-080-100M	1/4HEX-T-HANDLE-5.0-14.0NM	5802712	–	–	–
R220.48-0100SA	1/4HEX-T-HANDLE-5.0-14.0NM	5803216	–	5.0NM	T00-20P50
R220.48-080-100M	1/4HEX-T-HANDLE-5.0-14.0NM	5803216	–	–	–
R220.48-0125SA	1/4HEX-T-HANDLE-5.0-14.0NM	5804020	–	5.0NM	T00-20P50
R220.48-080-100M	1/4HEX-T-HANDLE-5.0-14.0NM	5804020	–	–	–
R220.48-8160S	1/4HEX-T-HANDLE-5.0-14.0NM	MC6S12X40	–	5.0NM	T00-20P50
R220.48-8160M	1/4HEX-T-HANDLE-5.0-14.0NM	MC6S12X40	–	–	–
R220.48-8200-8250S	1/4HEX-T-HANDLE-5.0-14.0NM	MC6S16X50	–	5.0NM	T00-20P50
R220.48-8200-8250M	1/4HEX-T-HANDLE-5.0-14.0NM	MC6S16X50	–	–	–
R220.48-8315S	1/4HEX-T-HANDLE-5.0-14.0NM	MC6S16X50	MC6S20X50	5.0NM	T00-20P50
R220.48-8315M	1/4HEX-T-HANDLE-5.0-14.0NM	MC6S16X50	MC6S20X50	–	–

Torque and fixed keys, see page 872

Double Octomill™ R220.48-09 – inch

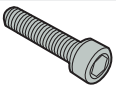
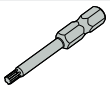
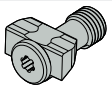




- For insert selection and cutting data recommendations, see page(s) 255 - 257
- For complete insert programme, see page(s) 816
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	ZEFP	APMXS	KAPRS°	DCX	DCB	DCSFMS	LF	RPMX	Weight	Insert
			inch		inch		inch	inch	inch	inch		lbs	
R220.48-02.50-09-05SA	02685793	Arbor	2.480	5	0.236	40.0	3.071	0.750	1.850	1.575	4900	1.320	ON.U0905
R220.48-03.00-09-06SA	02685794	Arbor	3.150	6	0.236	40.0	3.740	1.000	2.441	1.969	4400	2.650	ON.U0905
R220.48-03.00-09-09M	02685806	Arbor	3.150	9	0.236	40.0	3.740	1.000	2.441	1.969	4400	3.090	ON.U0905
R220.48-04.00-09-07SA	02685795	Arbor	3.937	7	0.236	40.0	4.528	1.500	3.543	1.969	3900	3.970	ON.U0905
R220.48-04.00-09-12M	02685807	Arbor	3.937	12	0.236	40.0	4.528	1.500	3.543	1.969	3900	4.410	ON.U0905
R220.48-05.00-09-08SA	02685797	Arbor	4.921	8	0.236	40.0	5.512	1.500	3.543	2.480	3500	7.280	ON.U0905
R220.48-05.00-09-15M	02685808	Arbor	4.921	15	0.236	40.0	5.512	1.500	3.543	2.480	3500	8.380	ON.U0905
R220.48-06.00-09-10S	02685799	Arbor	6.299	10	0.236	40.0	6.890	2.000	4.331	2.480	3100	8.820	ON.U0905
R220.48-808.00-09-12S	02685801	Arbor	7.874	12	0.236	40.0	8.465	2.500	5.118	2.480	2700	11.900	ON.U0905
R220.48-810.00-09-16S	02685802	Arbor	9.843	16	0.236	40.0	10.433	2.500	5.118	2.480	2500	28.660	ON.U0905
R220.48-812.50-09-20S	02685803	Arbor	12.402	20	0.236	40.0	12.992	2.500	8.858	3.150	2200	59.520	ON.U0905

Spare Parts, included in delivery

For cutter	Arbor screw	Insert key	Insert screw	Wedge kit
				
R220.48-02.50	UC6S3/8UNFX1	1/4HEX-T20PX50	C05013-T20P	–
R220.48-03.00	UC6S1/2UNFX1-1/4	1/4HEX-T20PX90	C05013-T20P	–
R220.48-03.00M	UC6S1/2UNFX1-1/4	1/4HEX-T20PX50	–	CW0816-RHA
R220.48-04.00	UF6S3/4UNFX1-3/4	1/4HEX-T20PX90	C05013-T20P	–
R220.48-04.00M	UC6S3/4UNFX1-1/4	1/4HEX-T20PX50	–	CW0816-RHA
R220.48-05.00	UC6S3/4UNFX1-1/4	1/4HEX-T20PX90	C05013-T20P	–
R220.48-05.00M	UC6S3/4UNFX1-1/4	1/4HEX-T20PX50	–	CW0816-RHA
R220.48-06.00 - 812.00	–	1/4HEX-T20PX90	C05013-T20P	–

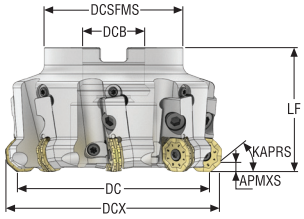
Accessories

For cutter	Adjustable Torque key	Arbor screw	Insert clamping torque	Torque key
				
R220.48-02.50-05.00-SA	1/4HEX-T-HANDLE-5.0-14.0NM	–	44.3IN.LBS	T00-20P50
R220.48-03.00-05.00-M	1/4HEX-T-HANDLE-5.0-14.0NM	–	–	–
R220.48-06.00-S	1/4HEX-T-HANDLE-5.0-14.0NM	58215080	44.3IN.LBS	T00-20P50
R220.48-08.00 - 810.00-S	1/4HEX-T-HANDLE-5.0-14.0NM	–	44.3IN.LBS	T00-20P50
R220.48-812.50-S	1/4HEX-T-HANDLE-5.0-14.0NM	950DNC062225	44.3IN.LBS	T00-20P50

Torque and fixed keys, see page 872

Double Octomill™ R/L220.48-09CS – Metric

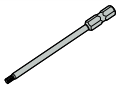
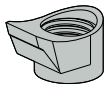




- For insert selection and cutting data recommendations, see page(s) 255 - 257
- For complete insert programme, see page(s) 816
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	ZEFP	APMXS	KAPRS°	DCX	DCB	DCSFMS	LF	RPMX	Weight	Insert
			mm		mm		mm	mm	mm	mm		kg	
R220.48-0125-09-08CS	02883045	Arbor	125,0	8	6,0	40,0	140,0	40,0	90,0	80,0	3500	4,9	ON.U0905
R220.48-8160-09-10CS	02883046	Arbor	160,0	10	6,0	40,0	175,0	40,0	130,0	80,0	3100	7,6	ON.U0905
R220.48-8200-09-12CS	02883047	Arbor	200,0	12	6,0	40,0	215,0	60,0	160,0	80,0	2700	10,5	ON.U0905
R220.48-8250-09-16CS	02883048	Arbor	250,0	16	6,0	40,0	265,0	60,0	200,0	80,0	2500	19,6	ON.U0905
R220.48-8315-09-20CS	02883049	Arbor	315,0	20	6,0	40,0	330,0	60,0	225,0	80,0	2200	35,5	ON.U0905
L220.48-0125-09-08CS	02883050	Arbor	125,0	8	6,0	40,0	140,0	40,0	90,0	80,0	3500	4,9	ON.U0905
L220.48-8160-09-10CS	02883051	Arbor	160,0	10	6,0	40,0	175,0	40,0	130,0	80,0	3100	7,6	ON.U0905
L220.48-8200-09-12CS	02883052	Arbor	200,0	12	6,0	40,0	215,0	60,0	160,0	80,0	2700	10,1	ON.U0905
L220.48-8250-09-16CS	02883053	Arbor	250,0	16	6,0	40,0	265,0	60,0	200,0	80,0	2500	19,6	ON.U0905

Spare Parts, included in delivery

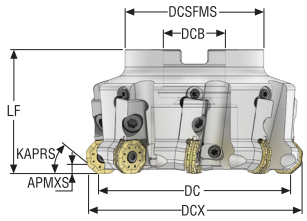
For cutter	Adjustment unit	Cassette (L)	Cassette (R)	Cassette screw	Insert key	Insert screw	Wedge clamp	Wedge screw
								
R220.48-0125-8315	AU1114T-T15P	–	ON09AR	FS98030	1/4HEX-T20PX90	C05013-T20P	CW0810	LD8020-T25P
L220.48-0125-8250	AU1114T-T15P	ON09AL	–	FS98030	1/4HEX-T20PX90	C05013-T20P	CW0810	LD8020-T25P

Accessories

For cutter	Adjustable Torque key	Arbor screw	Arbor screw 2	Insert clamping torque	Setting key	Torque key	Wedge key
							
R/L220.48-0125	1/4HEX-T-HANDLE-5.0-14.0NM	5804020	–	5.0NM	1/4HEX-T15PX50	T00-20P50	1/4HEX-T25PX50
R/L220.48-8160	1/4HEX-T-HANDLE-5.0-14.0NM	MC6S12X40	–	5.0NM	1/4HEX-T15PX50	T00-20P50	1/4HEX-T25PX50
R/L220.48-8200-8250	1/4HEX-T-HANDLE-5.0-14.0NM	MC6S16X50	–	5.0NM	1/4HEX-T15PX50	T00-20P50	1/4HEX-T25PX50
R220.48-8315	1/4HEX-T-HANDLE-5.0-14.0NM	MC6S16X50	MC6S20X50	5.0NM	1/4HEX-T15PX50	T00-20P50	1/4HEX-T25PX50

Torque and fixed keys, see page 872

Double Octomill™ R/L220.48-09CS – inch

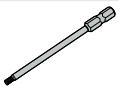




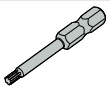
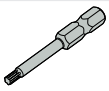
- For insert selection and cutting data recommendations, see page(s) 255 - 257
- For complete insert programme, see page(s) 816
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	ZEFP	APMXS	KAPRS°	DCX	DCB	DCSFMS	LF	RPMX	Weight	Insert
			inch		inch		inch	inch	inch	inch		lbs	
R220.48-06.00-09-10CS	02882758	Arbor	6.299	10	0.236	40.0	6.890	2.000	4.331	3.150	3100	16.760	ON.U0905
R220.48-808.00-09-12CS	02883055	Arbor	7.874	12	0.236	40.0	8.465	2.500	5.118	3.150	2700	23.150	ON.U0905
R220.48-810.00-09-16CS	02883056	Arbor	9.843	16	0.236	40.0	10.433	2.500	5.118	3.150	2500	43.210	ON.U0905
R220.48-812.50-09-20CS	02883057	Arbor	12.402	20	0.236	40.0	12.992	2.500	8.858	3.150	2200	78.260	ON.U0905

Spare Parts, included in delivery

For cutter	Adjustment unit	Cassette (R)	Cassette screw	Insert key	Insert screw	Wedge clamp	Wedge screw
							
R220.48- 06.00-812.50	AU1114T-T15P	ON09AR	FS98030	1/4HEX-T20PX90	C05013-T20P	CW0810	LD8020-T25P

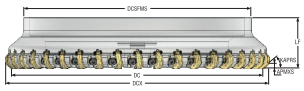
Accessories

For cutter	Adjustable Torque key	Arbor screw	Insert clamping torque	Setting key	Torque key	Wedge key
						
R220.48- 06.00	1/4HEX-T-HANDLE-5.0-14.0NM	58215080	44.3IN.LBS	1/4HEX-T15PX50	T00-20P50	1/4HEX-T25PX50
R220.48- 808.00-810.00	1/4HEX-T-HANDLE-5.0-14.0NM	–	44.3IN.LBS	1/4HEX-T15PX50	T00-20P50	1/4HEX-T25PX50
R220.48-812.50	1/4HEX-T-HANDLE-5.0-14.0NM	950DNC062225	44.3IN.LBS	1/4HEX-T15PX50	T00-20P50	1/4HEX-T25PX50

Torque and fixed keys, see page 872

Double Octomill™ R220.48-09 CAP – Metric

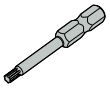
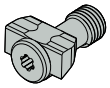




- For insert selection and cutting data recommendations, see page(s) 255 - 257
- For complete insert programme, see page(s) 816
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	ZEFP	APMXS	KAPRS°	DCX	DCSFMS	LF	RPMX	Weight	Insert
			mm		mm		mm	mm	mm		kg	
R220.48-9355-09-50M	02671031	CAP	355,0	50	6,0	40,0	370,0	285,0	63,0	2000	15,1	ON.U0905
R220.48-9400-09-50M	02720555	CAP	400,0	50	6,0	40,0	415,0	370,0	63,0	1900	18,6	ON.U0905
R220.48-9500-09-60M	02720556	CAP	500,0	60	6,0	40,0	515,0	470,0	63,0	1700	27,0	ON.U0905

Spare Parts, included in delivery

For cutter	Insert key	Wedge kit
		
R220.48-9355-9500	1/4HEX-T20PX50	CW0816-RHA

Accessories

For cutter	Adjustable Torque key
	
R220.48-9355-9500	1/4HEX-T-HANDLE-5.0-14.0NM

Torque and fixed keys, see page 872

R220.48-09 – Insert selection – mm/*Inch*

SMG		a_p	f_z		
			80%	40%	20%
P1	ONMU090510ANTN-ME16 MS2050	3,5 *0.14*	0,34 *0.013*	0,34 *0.013*	0,42 *0.017*
P2	ONMU090510ANTN-ME16 MS2050	3,5 *0.14*	0,34 *0.013*	0,36 *0.014*	0,44 *0.017*
P3	ONMU090510ANTN-ME16 MP2501	3,5 *0.14*	0,32 *0.013*	0,34 *0.013*	0,42 *0.017*
P4	ONMU090510ANTN-ME16 MP2501	3,5 *0.14*	0,32 *0.013*	0,32 *0.013*	0,40 *0.016*
P5	ONMU090510ANTN-ME16 MP2501	3,5 *0.14*	0,30 *0.012*	0,32 *0.013*	0,40 *0.016*
P6	ONMU090510ANTN-ME16 MP2501	3,5 *0.14*	0,30 *0.012*	0,32 *0.013*	0,40 *0.016*
P7	ONMU090510ANTN-ME16 MP3501	3,5 *0.14*	0,30 *0.012*	0,32 *0.013*	0,40 *0.016*
P8	ONMU090510ANTN-ME16 MP3501	3,5 *0.14*	0,32 *0.013*	0,34 *0.013*	0,42 *0.017*
P11	ONMU090520ANTN-M12 MP2050	3,5 *0.14*	0,26 *0.010*	0,28 *0.011*	0,34 *0.013*
P12	ONMU090520ANTN-M12 MP2050	3,0 *0.12*	0,19 *0.0075*	0,19 *0.0075*	0,24 *0.0095*
M1	ONMU090520ANTN-ME13 F40M	3,5 *0.14*	0,26 *0.010*	0,28 *0.011*	0,34 *0.013*
M2	ONMU090520ANTN-ME13 MS2050	3,5 *0.14*	0,24 *0.0095*	0,25 *0.010*	0,30 *0.012*
M3	ONMU090520ANTN-ME13 MS2050	3,0 *0.12*	0,20 *0.0080*	0,20 *0.0080*	0,25 *0.010*
M4	ONMU090512TN-ME16 MP2050	2,0 *0.080*	0,24 *0.0095*	0,24 *0.0095*	0,30 *0.012*
M5	ONMU090512TN-ME16 MP2050	2,0 *0.080*	0,24 *0.0095*	0,24 *0.0095*	0,30 *0.012*
K1	ONMU090520ANTN-M15 MK1500	3,5 *0.14*	0,38 *0.015*	0,38 *0.015*	0,48 *0.019*
K2	ONMU090520ANTN-M15 MK1500	3,5 *0.14*	0,34 *0.013*	0,34 *0.013*	0,44 *0.017*
K3	ONMU090520ANTN-M15 MP1501	3,5 *0.14*	0,34 *0.013*	0,34 *0.013*	0,44 *0.017*
K4	ONMU090520ANTN-M15 MP1501	3,5 *0.14*	0,34 *0.013*	0,34 *0.013*	0,44 *0.017*
K5	ONMU090520ANTN-M15 MK2050	3,5 *0.14*	0,30 *0.012*	0,32 *0.013*	0,40 *0.016*
K6	ONMU090520ANTN-M15 MK2050	3,5 *0.14*	0,34 *0.013*	0,34 *0.013*	0,44 *0.017*
K7	ONMU090520ANTN-M15 MK2050	3,5 *0.14*	0,30 *0.012*	0,32 *0.013*	0,40 *0.016*
N1	ONMU090520ANTN-ME12 F40M	3,5 *0.14*	0,34 *0.013*	0,34 *0.013*	0,44 *0.017*
N2	ONMU090520ANTN-ME12 F40M	3,5 *0.14*	0,34 *0.013*	0,34 *0.013*	0,44 *0.017*
N3	ONMU090520ANTN-ME12 F40M	3,5 *0.14*	0,34 *0.013*	0,34 *0.013*	0,44 *0.017*
N11	ONMU090520ANTN-ME12 F40M	3,5 *0.14*	0,34 *0.013*	0,34 *0.013*	0,44 *0.017*
S1	ONMU090520ANTN-M12 MS2500	2,0 *0.080*	0,20 *0.0080*	0,22 *0.0085*	0,26 *0.010*
S2	ONMU090520ANTN-M12 MS2500	2,0 *0.080*	0,20 *0.0080*	0,22 *0.0085*	0,26 *0.010*
S3	ONMU090520ANTN-M12 MS2500	2,0 *0.080*	0,19 *0.0075*	0,20 *0.0080*	0,25 *0.010*
S11	ONMU090520ANTN-ME13 MS2050	2,5 *0.10*	0,20 *0.0080*	0,22 *0.0085*	0,26 *0.010*
S12	ONMU090520ANTN-ME13 MS2050	2,5 *0.10*	0,20 *0.0080*	0,22 *0.0085*	0,26 *0.010*
S13	ONMU090520ANTN-ME13 MS2050	2,0 *0.080*	0,19 *0.0075*	0,20 *0.0080*	0,24 *0.0095*
H5	ONMU090520ANTN-M15 MP3000	3,0 *0.12*	0,24 *0.0095*	0,24 *0.0095*	0,30 *0.012*
H8	ONMU090520ANTN-M15 MP3000	2,5 *0.10*	0,19 *0.0075*	0,19 *0.0075*	0,24 *0.0095*
H11	ONMU090520ANTN-MD16 MP1501	3,0 *0.12*	0,28 *0.011*	0,28 *0.011*	0,34 *0.013*
H12	ONMU090520ANTN-MD16 MP1501	2,5 *0.10*	0,22 *0.0085*	0,22 *0.0085*	0,28 *0.011*
H21	ONMU090520ANTN-MD16 MP1501	2,5 *0.10*	0,22 *0.0085*	0,22 *0.0085*	0,28 *0.011*

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

R217/220.48-09 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	MK2050				MP3000				MS2050				F40M				MP2050			
	100%	80%	60%	40%	100%	80%	60%	40%	100%	80%	60%	40%	100%	80%	60%	40%	100%	80%	60%	40%
P1	240 *790*	255 *840*	280 *920*	305 *1000*	230 *750*	245 *800*	265 *870*	295 *970*	220 *720*	235 *770*	255 *840*	280 *920*	200 *660*	210 *690*	230 *750*	255 *840*	270 *890*	290 *950*	310 *1025*	340 *1125*
P2	230 *750*	245 *800*	265 *870*	295 *970*	220 *720*	235 *770*	255 *840*	285 *940*	215 *710*	230 *750*	245 *800*	270 *890*	195 *640*	205 *670*	225 *740*	245 *800*	255 *840*	275 *900*	295 *970*	330 *1075*
P3	200 *660*	215 *710*	230 *750*	260 *850*	195 *640*	205 *670*	225 *740*	250 *820*	190 *620*	200 *660*	215 *710*	235 *770*	170 *560*	180 *590*	195 *640*	215 *710*	225 *740*	240 *790*	260 *850*	290 *950*
P4	180 *590*	195 *640*	210 *690*	230 *750*	175 *570*	185 *610*	200 *660*	220 *720*	165 *540*	175 *570*	190 *620*	210 *690*	150 *490*	160 *520*	170 *560*	195 *640*	200 *660*	210 *690*	230 *750*	255 *840*
P5	175 *570*	185 *610*	200 *660*	225 *740*	165 *540*	175 *570*	190 *620*	215 *710*	160 *520*	170 *560*	180 *590*	205 *670*	145 *475*	155 *510*	170 *560*	185 *610*	195 *640*	205 *670*	225 *740*	245 *800*
P6	195 *640*	205 *670*	225 *740*	250 *820*	185 *610*	200 *660*	215 *710*	240 *790*	175 *570*	190 *620*	205 *670*	230 *750*	165 *540*	175 *570*	190 *620*	205 *670*	220 *720*	235 *770*	250 *820*	275 *900*
P7	185 *610*	195 *640*	210 *690*	235 *770*	175 *570*	190 *620*	205 *670*	225 *740*	165 *540*	180 *590*	195 *640*	215 *710*	155 *510*	165 *540*	180 *590*	195 *640*	205 *670*	220 *720*	235 *770*	260 *850*
P8	170 *560*	180 *590*	195 *640*	220 *720*	165 *540*	175 *570*	190 *620*	210 *690*	160 *520*	170 *560*	180 *590*	200 *660*	145 *475*	150 *490*	165 *540*	180 *590*	190 *620*	205 *670*	220 *720*	245 *800*
P11	180 *590*	190 *620*	205 *670*	230 *750*	170 *560*	180 *590*	195 *640*	220 *720*	160 *520*	175 *570*	185 *610*	210 *690*	150 *490*	160 *520*	175 *570*	190 *620*	200 *660*	215 *710*	230 *750*	250 *820*
P12	115 *375*	125 *410*	135 *445*	150 *490*	115 *375*	120 *395*	130 *425*	145 *475*	105 *345*	115 *375*	125 *410*	135 *445*	95 *310*	105 *345*	110 *360*	125 *410*	130 *425*	140 *460*	150 *490*	165 *540*
M1	— —	— —	— —	— —	165 *540*	175 *570*	190 *620*	215 *710*	170 *560*	185 *610*	200 *660*	220 *720*	155 *510*	165 *540*	180 *590*	200 *660*	185 *610*	195 *640*	210 *690*	235 *770*
M2	— —	— —	— —	— —	140 *460*	150 *490*	160 *520*	180 *590*	140 *460*	150 *490*	165 *540*	185 *610*	130 *425*	140 *460*	150 *490*	165 *540*	155 *510*	165 *540*	180 *590*	195 *640*
M3	— —	— —	— —	— —	115 *375*	120 *395*	130 *425*	145 *475*	115 *375*	125 *410*	135 *445*	150 *490*	105 *345*	115 *375*	120 *395*	135 *445*	125 *410*	135 *445*	145 *475*	160 *520*
M4	— —	— —	— —	— —	85 *280*	95 *310*	100 *330*	110 *360*	90 *295*	95 *310*	105 *345*	115 *375*	80 *260*	85 *280*	95 *310*	105 *345*	95 *310*	105 *345*	110 *360*	125 *410*
M5	— —	— —	— —	— —	75 *245*	75 *245*	85 *280*	95 *310*	75 *245*	80 *260*	85 *280*	95 *310*	65 *215*	70 *230*	80 *260*	90 *295*	80 *260*	85 *280*	90 *295*	100 *330*
K1	250 *820*	265 *870*	285 *940*	320 *1050*	175 *570*	185 *610*	200 *660*	225 *740*	— —	— —	— —	— —	155 *510*	165 *540*	175 *570*	195 *640*	— —	— —	— —	— —
K2	225 *740*	240 *790*	255 *840*	290 *950*	160 *520*	170 *560*	180 *590*	205 *670*	— —	— —	— —	— —	140 *460*	150 *490*	160 *520*	175 *570*	— —	— —	— —	— —
K3	190 *620*	200 *660*	220 *720*	245 *800*	135 *445*	140 *460*	155 *510*	170 *560*	— —	— —	— —	— —	115 *375*	125 *410*	135 *445*	150 *490*	— —	— —	— —	— —
K4	180 *590*	190 *620*	210 *690*	230 *750*	125 *410*	135 *445*	145 *475*	165 *540*	— —	— —	— —	— —	110 *360*	120 *395*	130 *425*	140 *460*	— —	— —	— —	— —
K5	110 *360*	120 *395*	130 *425*	140 *460*	80 *260*	85 *280*	90 *295*	100 *330*	— —	— —	— —	— —	70 *230*	75 *245*	80 *260*	90 *295*	— —	— —	— —	— —
K6	160 *520*	170 *560*	185 *610*	205 *670*	110 *360*	120 *395*	130 *425*	145 *475*	— —	— —	— —	— —	100 *330*	105 *345*	115 *375*	125 *410*	— —	— —	— —	— —
K7	145 *475*	155 *510*	165 *540*	180 *590*	100 *330*	110 *360*	115 *375*	125 *410*	— —	— —	— —	— —	85 *280*	95 *310*	100 *330*	110 *360*	— —	— —	— —	— —
S1	— —	— —	— —	— —	41 *135*	43 *140*	47 *155*	50 *165*	42 *140*	44 *145*	49 *160*	55 *180*	38 *125*	40 *130*	44 *145*	49 *160*	47 *155*	50 *165*	55 *180*	60 *195*
S2	— —	— —	— —	— —	33 *110*	35 *115*	38 *125*	42 *140*	34 *110*	36 *120*	39 *130*	43 *140*	30 *100*	32 *105*	36 *120*	40 *130*	38 *125*	41 *135*	44 *145*	48 *155*
S3	— —	— —	— —	— —	29 *95*	30 *100*	33 *110*	37 *120*	30 *100*	31 *100*	34 *110*	38 *125*	27 *90*	28 *90*	31 *100*	34 *110*	33 *110*	36 *120*	39 *130*	43 *140*
S11	— —	— —	— —	— —	— —	— —	— —	— —	60 *195*	60 *195*	65 *215*	75 *245*	55 *180*	55 *180*	60 *195*	70 *230*	65 *215*	70 *230*	75 *245*	85 *280*
S12	— —	— —	— —	— —	— —	— —	— —	— —	40 *130*	43 *140*	46 *150*	50 *165*	37 *120*	39 *130*	43 *140*	47 *155*	46 *150*	49 *160*	55 *180*	60 *195*
S13	— —	— —	— —	— —	— —	— —	— —	— —	23 *75*	25 *80*	27 *90*	30 *100*	21 *70*	22 *70*	25 *80*	28 *90*	27 *90*	28 *90*	30 *100*	34 *110*
H5	— —	— —	— —	— —	35 *115*	37 *120*	40 *130*	45 *150*	— —	— —	— —	— —	32 *105*	34 *110*	37 *120*	41 *135*	— —	— —	— —	— —
H8	— —	— —	— —	— —	37 *120*	40 *130*	44 *145*	48 *155*	— —	— —	— —	— —	35 *115*	37 *120*	41 *135*	44 *145*	— —	— —	— —	— —
H11	— —	— —	— —	— —	45 *150*	48 *155*	50 *165*	55 *180*	— —	— —	— —	— —	41 *135*	44 *145*	47 *155*	55 *180*	49 *160*	55 *180*	55 *180*	65 *215*
H12	— —	— —	— —	— —	70 *230*	75 *245*	85 *280*	90 *295*	— —	— —	— —	— —	60 *195*	65 *215*	75 *245*	80 *260*	80 *260*	90 *295*	95 *310*	105 *345*
H21	— —	— —	— —	— —	37 *120*	40 *130*	44 *145*	48 *155*	— —	— —	— —	— —	35 *115*	37 *120*	41 *135*	44 *145*	41 *135*	44 *145*	48 *155*	55 *180*

R217/220.48-09 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	MK1500				MP1501				MP2501				MS2500				MP3501				MM4500			
	100%	80%	60%	40%	100%	80%	60%	40%	100%	80%	60%	40%	100%	80%	60%	40%	100%	80%	60%	40%	100%	80%	60%	40%
P1	—	—	—	—	395	410	440	470	385	400	430	460	300	320	345	375	345	355	380	410	170	180	195	210
	—	—	—	—	*1300*	*1350*	*1450*	*1550*	*1275*	*1300*	*1400*	*1500*	*980*	*1050*	*1125*	*1225*	*1125*	*1175*	*1250*	*1350*	*560*	*590*	*640*	*690*
P2	—	—	—	—	375	390	415	460	365	380	405	450	285	305	330	365	325	335	360	400	160	170	185	205
	—	—	—	—	*1225*	*1275*	*1350*	*1500*	*1200*	*1250*	*1325*	*1475*	*940*	*1000*	*1075*	*1200*	*1075*	*1100*	*1175*	*1300*	*520*	*560*	*610*	*670*
P3	—	—	—	—	330	345	365	405	325	335	360	395	250	270	290	325	290	300	320	355	140	150	165	180
	—	—	—	—	*1075*	*1125*	*1200*	*1325*	*1075*	*1100*	*1175*	*1300*	*820*	*890*	*950*	*1075*	*950*	*980*	*1050*	*1175*	*460*	*490*	*540*	*590*
P4	—	—	—	—	290	305	325	355	285	295	315	350	220	235	255	285	255	265	280	310	125	135	145	160
	—	—	—	—	*950*	*1000*	*1075*	*1175*	*940*	*970*	*1025*	*1150*	*720*	*770*	*840*	*940*	*840*	*870*	*920*	*1025*	*410*	*445*	*475*	*520*
P5	—	—	—	—	285	295	315	340	280	290	310	330	215	230	250	270	250	260	275	295	120	130	140	155
	—	—	—	—	*940*	*970*	*1025*	*1125*	*920*	*950*	*1025*	*1075*	*710*	*750*	*820*	*890*	*820*	*850*	*900*	*970*	*395*	*425*	*460*	*510*
P6	—	—	—	—	320	335	355	380	315	325	345	375	240	260	280	305	280	290	310	335	135	145	155	170
	—	—	—	—	*1050*	*1100*	*1175*	*1250*	*1025*	*1075*	*1125*	*1225*	*790*	*850*	*920*	*1000*	*920*	*950*	*1025*	*1100*	*445*	*475*	*510*	*560*
P7	—	—	—	—	300	315	335	360	295	305	325	350	230	245	265	285	265	275	290	315	130	135	150	160
	—	—	—	—	*980*	*1025*	*1100*	*1175*	*970*	*1000*	*1075*	*1150*	*750*	*800*	*870*	*940*	*870*	*900*	*950*	*1025*	*425*	*445*	*490*	*520*
P8	—	—	—	—	280	290	310	340	270	280	300	330	210	225	245	270	245	250	270	295	120	125	135	155
	—	—	—	—	*920*	*950*	*1025*	*1125*	*890*	*920*	*980*	*1075*	*690*	*740*	*800*	*890*	*800*	*820*	*890*	*970*	*395*	*410*	*445*	*510*
P11	—	—	—	—	295	305	325	350	290	300	320	340	220	235	255	280	255	265	285	305	125	135	145	155
	—	—	—	—	*970*	*1000*	*1075*	*1150*	*950*	*980*	*1050*	*1125*	*720*	*770*	*840*	*920*	*840*	*870*	*940*	*1000*	*410*	*445*	*475*	*510*
P12	—	—	—	—	190	195	210	225	185	195	205	225	145	155	165	185	165	175	185	200	80	85	95	105
	—	—	—	—	*620*	*640*	*690*	*740*	*610*	*640*	*670*	*740*	*475*	*510*	*540*	*610*	*540*	*570*	*610*	*660*	*260*	*280*	*310*	*345*
M1	—	—	—	—	—	—	—	—	190	200	215	245	205	220	235	265	175	190	205	225	140	145	160	175
	—	—	—	—	—	—	—	—	*620*	*660*	*710*	*800*	*670*	*720*	*770*	*870*	*570*	*620*	*670*	*740*	*460*	*475*	*520*	*570*
M2	—	—	—	—	—	—	—	—	160	170	185	200	175	185	200	215	150	160	170	185	115	125	135	145
	—	—	—	—	—	—	—	—	*520*	*560*	*610*	*660*	*570*	*610*	*660*	*710*	*490*	*520*	*560*	*610*	*375*	*410*	*445*	*475*
M3	—	—	—	—	—	—	—	—	130	135	145	165	140	150	160	175	120	125	135	150	95	100	105	120
	—	—	—	—	—	—	—	—	*425*	*445*	*475*	*540*	*460*	*490*	*520*	*570*	*395*	*410*	*445*	*490*	*310*	*330*	*345*	*395*
M4	—	—	—	—	—	—	—	—	100	105	115	125	110	115	125	135	95	100	105	115	75	75	85	90
	—	—	—	—	—	—	—	—	*330*	*345*	*375*	*410*	*360*	*375*	*410*	*445*	*310*	*330*	*345*	*375*	*245*	*245*	*280*	*295*
M5	—	—	—	—	—	—	—	—	85	90	95	105	90	95	100	115	75	80	90	100	60	65	70	75
	—	—	—	—	—	—	—	—	*280*	*295*	*310*	*345*	*295*	*310*	*330*	*375*	*245*	*260*	*295*	*330*	*195*	*215*	*230*	*245*
K1	295	315	340	380	380	395	420	465	370	385	410	455	225	240	260	290	330	340	365	405	—	—	—	—
	970	*1025*	*1125*	*1250*	*1250*	*1300*	*1375*	*1525*	*1225*	*1275*	*1350*	*1500*	*740*	*790*	*850*	*950*	*1075*	*1125*	*1200*	*1325*	—	—	—	—
K2	265	285	305	335	345	360	380	410	340	350	375	400	205	220	235	260	300	310	335	360	—	—	—	—
	870	*940*	*1000*	*1100*	*1125*	*1175*	*1250*	*1350*	*1125*	*1150*	*1225*	*1300*	*670*	*720*	*770*	*850*	*980*	*1025*	*1100*	*1175*	—	—	—	—
K3	225	240	260	285	290	305	325	345	285	295	315	340	175	185	200	220	255	265	280	305	—	—	—	—
	740	*790*	*850*	*940*	*950*	*1000*	*1075*	*1125*	*940*	*970*	*1025*	*1125*	*570*	*610*	*660*	*720*	*840*	*870*	*920*	*1000*	—	—	—	—
K4	215	230	250	270	280	290	310	330	275	285	300	325	165	175	190	210	245	250	270	290	—	—	—	—
	710	*750*	*820*	*890*	*920*	*950*	*1025*	*1075*	*900*	*940*	*980*	*1075*	*540*	*570*	*620*	*690*	*800*	*820*	*890*	*950*	—	—	—	—
K5	130	140	150	165	170	175	190	205	165	175	185	200	100	110	115	130	150	155	165	180	—	—	—	—
	425	*460*	*490*	*540*	*560*	*570*	*620*	*670*	*540*	*570*	*610*	*660*	*330*	*360*	*375*	*425*	*490*	*510*	*540*	*590*	—	—	—	—
K6	190	200	220	240	245	255	270	290	240	250	265	285	145	155	170	185	215	220	235	255	—	—	—	—
	620	*660*	*720*	*790*	*800*	*840*	*890*	*950*	*790*	*820*	*870*	*940*	*475*	*510*	*560*	*610*	*710*	*720*	*770*	*840*	—	—	—	—
K7	170	180	195	215	215	225	240	260	215	220	235	255	130	140	150	165	190	200	210	230	—	—	—	—
	560	*590*	*640*	*710*	*710*	*740*	*790*	*850*	*710*	*720*	*770*	*840*	*425*	*460*	*490*	*540*	*620*	*660*	*690*	*750*	—	—	—	—
N1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
N2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
N3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
N11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S1	—	—	—	—	—	—	—	—	—	—	—	—	55	55	60	65	43	46	49	55	22	24	25	28
	—	—	—	—	—	—	—	—	—	—	—	—	*180*	*180*	*195*	*215*	*140*	*150*	*160*	*180*	*70*	*80*	*80*	*90*
S2	—	—	—	—	—	—	—	—	—	—	—	—	42	45	48	55	35	37	40	44	18	19	20	23
	—	—	—	—	—	—	—	—	—	—	—	—	*140*	*150*	*155*	*180*	*115*	*120*	*130*	*145*	*60*	*60*	*65*	*75*
S3	—	—	—	—	—	—	—	—	—	—	—	—	37	39	43	48	30	32	35	39	16	17	18	20
	—	—	—	—	—	—	—	—	—	—	—	—	*120*	*130*	*140*	*155*	*100*	*105*	*115*	*130*	*50*	*55*	*60*	*65*
S11	—	—	—	—	—	—	—	—	—	—	—	—	75	80	85	95	60	65	70	75	31	33	36	40
	—	—	—	—	—	—	—	—	—	—	—	—	*245*	*260*	*280*	*310*	*195*	*215*	*230*	*245*	*100*	*110*	*120*	*130*
S12	—	—	—	—	—	—	—	—	—	—	—	—	50	55	60	65	42	45	48	55	29	31	33	36
	—	—	—	—	—	—	—	—	—	—	—	—	*165*	*180*	*195*	*215*	*140*	*150*	*155*	*180*	*95*	*100*	*110*	*120*
S13	—	—	—	—	—	—	—	—	—	—	—	—	30	32	34	37	24	26	28	31	17	18	19	21
	—	—	—	—	—	—	—	—	—	—	—	—	*100*	*105*	*110*	*120*	*80*	*85*	*90*	*100*	*55*	*60*	*60*	*70*
H5	—	—	—	—	49	55	55	65	—	—	—	—	43	46	50	55	38	41	44	49	—	—	—	—
	—	—	—	—	*160*	*180*	*180*	*215*	—	—	—	—	*140*	*150*	*165*	*180*	*125*	*135*	*145*	*160*	—	—	—	—
H8	—	—	—	—	55	55	60	65	—	—	—	—	46	49	55	60	41	43	47	50	—	—	—	—
	—	—	—	—	*180*	*180*	*195*	*215*	—	—	—	—	*150*	*160*	*180*	*195*	*135*	*140*	*155*	*165*	—	—	—	—
H11	—	—	—	—	65	65	70	80	—	—	—	—	55	60	65	70	48	50	55	60	—	—	—	—
	—	—	—	—	*215*	*215*	*230*	*260*	—	—	—	—	*180*	*195*	*215*	*230*	*155*	*165*	*180*	*195*	—	—	—	—
H12	—	—	—	—	95	100	110	120	—	—	—	—	90	100	105	115	75	80	85	95	—	—	—	—
	—	—	—	—	*310*	*330*	*360*	*395*	—	—	—	—	*295*	*330*	*345*	*375*	*245*	*260*	*280*	*310*	—	—	—	—
H21	—	—	—	—	55	55	60	65	—	—	—	—	46	49	55	60	41	43	47	50	—	—	—	—
	—	—	—	—	*180*	*180*	*195*	*215*	—	—	—	—	*150*	*160*	*180*	*195*	*135*	*140*	*155*	*165*	—	—	—	—

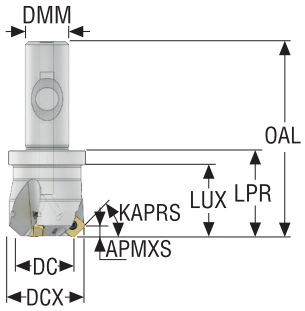


QUATTROMILL 09/12/15

QuattroMill™ is more than a general-purpose face mill. It is a simple solution with more teeth per cutter that increases productivity, ease of use, reliability and precision for the full range of face milling applications and materials. QuattroMill features strong, square inserts that meet the needs of most challenging applications, and a strong center locking screw with quick insert location make it easy to replace inserts. The cutter body is coated and pre-hardened and features a large chip space for steel and stainless steel machining. Positive cutting rakes/negative radial rakes maximize a machine tool's capability and enables increased productivity in both stable and unstable conditions.

- Insert size 09, cutter range 20-315mm (0.75-3 inch)
- Insert size 12, cutter range 40-315mm (1.5-8 inch)
- Insert size 15, cutter range 63-315mm (3-6 inch)

Quattromill R217.53-09 – Metric

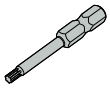




- For insert selection and cutting data recommendations, see page(s) 264-266
- For complete insert programme, see page(s) 822
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	ZEFP	APMXS	KAPRS°	DCX	DMM	LUX	LPR	OAL	Weight	RPMX	Insert
			mm		mm		mm	mm	mm	mm	mm	kg		
R217.53-2020.3S-09-2A	02422248	Seco-Weldon	20,0	2	4,5	45,0	30,0	20,0	33,0	40,0	90,0	0,3	25100	SE.X09T3
R217.53-2025.3S-09-3A	02422250	Seco-Weldon	25,0	3	4,5	45,0	35,0	20,0	33,0	40,0	90,0	0,4	22400	SE.X09T3
R217.53-2032.3S-09-4A	02422251	Seco-Weldon	32,0	4	4,5	45,0	42,0	20,0	33,0	40,0	90,0	0,4	19800	SE.X09T3

Spare Parts, included in delivery

For cutter	Insert key	Insert screw
		
R217.53..	1/4HEX-T09PX50	C03008-T09P

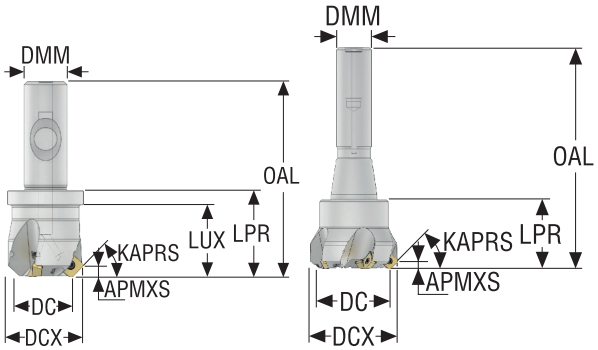
Accessories

For cutter	Adjustable Torque key	Insert clamping torque	Torque key
			
R217.53..	1/4HEX-S-HANDLE-0.8-5.0NM	2.0NM	T00-09P20

Torque and fixed keys, see page 872

Quattromill R217.53-09 – inch

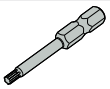




- For insert selection and cutting data recommendations, see page(s) 264-266
- For complete insert programme, see page(s) 822
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	ZEFP	APMXS	KAPRS°	DCX	DMM	LUX	LPR	OAL	Weight	RPMX	Insert
			inch		inch		inch	inch	inch	inch	inch	lbs		
R217.53-00.75.3S-09-2A	02422259	Seco-Weldon	0.787	2	0.177	45,0	1.181	0.750	1.299	1.575	3.543	0.660	25100	SE.X09T3
R217.53-01.00.3S-09-3A	02422260	Seco-Weldon	0.984	3	0.177	45,0	1.378	0.750	1.299	1.575	3.543	0.880	22400	SE.X09T3
R217.53-01.25.3S-09-4A	02422261	Seco-Weldon	1.260	4	0.177	45,0	1.654	0.750	1.299	1.575	3.543	0.880	19800	SE.X09T3
R217.53-02.00.R8-09-5	02422262	Bridgeport R8	1.575	5	0.180	45,0	1.969	0.949	–	1.890	6.024	2.430	15800	SE.X09T3

Spare Parts, included in delivery

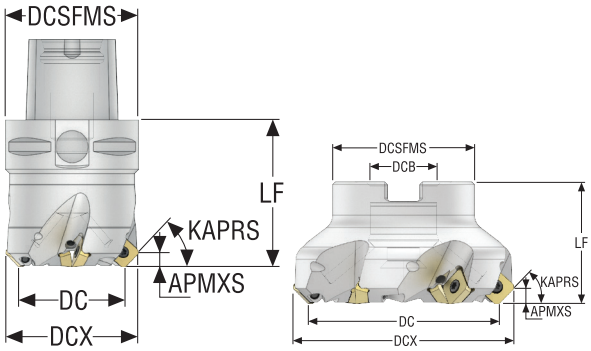
For cutter	Insert key	Insert screw
		
R217.53-..	1/4HEX-T09PX50	C03008-T09P

Accessories

For cutter	Adjustable Torque key	Insert clamping torque	Torque key
			
R217.53-..	1/4HEX-S-HANDLE-0.8-5.0NM	2.0NM	T00-09P20

Torque and fixed keys, see page 872

Quattromill R220.53-09 – Metric

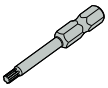




- For insert selection and cutting data recommendations, see page(s) 264-266
- For complete insert programme, see page(s) 822
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	ZEFP	APMXS	KAPRS°	DCX	DCB	DCSFMS	LF	RPMX	Weight	Insert
			mm		mm		mm	mm	mm	mm		kg	
C5-R217.53-040-09-4A	02745046	Seco-Capto	40,0	4	4,5	45,0	50,0	–	50,0	55,0	17700	0,9	SE.X09T3
R220.53-0032-09-4A	02422230	Arbor	32,0	4	4,5	45,0	42,0	16,0	35,0	40,0	19800	0,3	SE.X09T3
R220.53-0040-09-4A	02422231	Arbor	40,0	4	4,5	45,0	50,0	22,0	47,0	40,0	17700	0,5	SE.X09T3
R220.53-0040-09-5A	02422161	Arbor	40,0	5	4,5	45,0	50,0	22,0	47,0	40,0	17700	0,4	SE.X09T3
R220.53-0050-09-5A	02422232	Arbor	50,0	5	4,5	45,0	60,0	22,0	47,0	40,0	15800	0,5	SE.X09T3
R220.53-0050-09-6A	02422162	Arbor	50,0	6	4,5	45,0	60,0	22,0	47,0	40,0	15800	0,5	SE.X09T3
R220.53-0063-09-6A	02422233	Arbor	63,0	6	4,5	45,0	73,0	22,0	47,0	40,0	14100	0,7	SE.X09T3
R220.53-0063-09-7A	02422163	Arbor	63,0	7	4,5	45,0	73,0	22,0	47,0	40,0	14100	0,7	SE.X09T3
R220.53-0080-09-6A	02422234	Arbor	80,0	6	4,5	45,0	90,0	27,0	62,0	50,0	12500	1,3	SE.X09T3
R220.53-0080-09-8A	02422164	Arbor	80,0	8	4,5	45,0	90,0	27,0	62,0	50,0	12500	1,2	SE.X09T3
R220.53-0100-09-7A	02422235	Arbor	100,0	7	4,5	45,0	110,0	32,0	77,0	50,0	11200	1,9	SE.X09T3
R220.53-0100-09-10A	02422165	Arbor	100,0	10	4,5	45,0	110,0	32,0	77,0	50,0	11200	1,8	SE.X09T3

Spare Parts, included in delivery

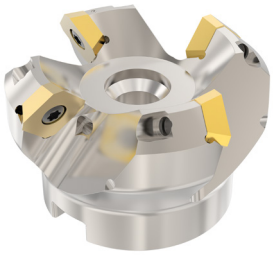
For cutter	Arbor screw	Insert key	Insert screw
			
C5-R217.53-..	–	1/4HEX-T09PX50	C03008-T09P
R220.53-0032	220.17-690	1/4HEX-T09PX50	C03008-T09P
R220.53-0040-0063	220.17-696	1/4HEX-T09PX50	C03008-T09P
R220.53-0080	–	1/4HEX-T09PX50	C03008-T09P
R220.53-0100	–	1/4HEX-T09PX90	C03008-T09P

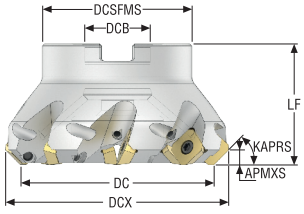
Accessories

For cutter	Adjustable Torque key	Arbor screw	Insert clamping torque	Torque key
				
C5-R217/220.53-0032-0063	1/4HEX-S-HANDLE-0.8-5.0NM	–	2.0NM	T00-09P20
R220.53-0080	1/4HEX-S-HANDLE-0.8-5.0NM	5802712	2.0NM	T00-09P20
R220.53-0100	1/4HEX-S-HANDLE-0.8-5.0NM	5803216	2.0NM	T00-09P20

Torque and fixed keys, see page 872

Quattromill R220.53-09 – inch

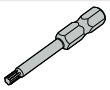




- For insert selection and cutting data recommendations, see page(s) 264-266
- For complete insert programme, see page(s) 822
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	ZEFP	APMXS	KAPRS°	DCX	DCB	DCSFMS	LF	RPMX	Weight	Insert
			inch		inch		inch	inch	inch	inch		lbs	
R220.53-01.50-09-4A	02422254	Arbor	1.575	4	0.180	45,0	1.969	0.750	1.850	1.575	17700	1.100	SE.X09T3
R220.53-02.00-09-5A	02422255	Arbor	1.969	5	0.180	45,0	2.362	0.750	1.850	1.575	15800	1.320	SE.X09T3
R220.53-02.50-09-6A	02422256	Arbor	2.480	6	0.180	45,0	2.874	0.750	1.850	1.575	14100	1.540	SE.X09T3
R220.53-03.00-09-6A	02422257	Arbor	3.150	6	0.180	45,0	3.543	1.000	2.441	1.969	12500	3.090	SE.X09T3

Spare Parts, included in delivery

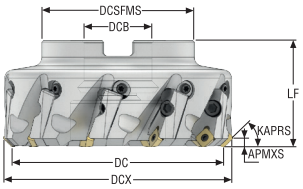
For cutter	Arbor screw	Insert key	Insert screw
			
R220.53-01.50-02.50	220.17-698	1/4HEX-T09PX50	C03008-T09P
R220.53-03.00	UC6S1/2UNFX1-1/4	1/4HEX-T09PX50	C03008-T09P

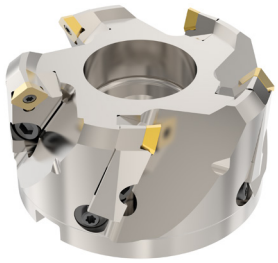
Accessories

For cutter	Adjustable Torque key	Insert clamping torque	Torque key
			
R220.53-01.50-03.00	1/4HEX-S-HANDLE-0.8-5.0NM	17.7IN.LBS	T00-09P20

Torque and fixed keys, see page 872

Quattromill R220.53-09C – Metric

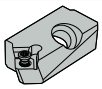
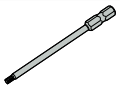




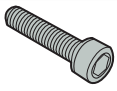
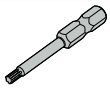
- For insert selection and cutting data recommendations, see page(s) 264-266
- For complete insert programme, see page(s) 822
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	ZEFP	APMXS	KAPRS°	DCX	DCB	DCSFMS	LF	RPMX	Weight	Insert
			mm		mm		mm	mm	mm	mm		kg	
R220.53-0100-09-6C	02510181	Arbor	100,0	6	4,5	45,0	110,0	32,0	77,0	50,0	6600	2,5	SE.X09T3
R220.53-0125-09-8C	02510182	Arbor	125,0	8	4,5	45,0	135,0	40,0	90,0	63,0	5900	4,2	SE.X09T3
R220.53-0125-09-10C	02510190	Arbor	125,0	10	4,5	45,0	135,0	40,0	90,0	63,0	5900	4,2	SE.X09T3
R220.53-8160-09-10C	02510158	Arbor	160,0	10	4,5	45,0	170,0	40,0	90,0	63,0	5200	6,6	SE.X09T3
R220.53-8315-09-12C	02510230	Arbor	315,0	12	4,5	45,0	325,0	60,0	225,0	80,0	3700	32,6	SE.X09T3

Spare Parts, included in delivery

For cutter	Adjustment unit	Cassette	Cassette screw	Insert key	Insert screw
					
R220.53-0080-8315	AU1114T-T15P	SE09AR-53	FS96018	1/4HEX-T09PX90	C03008-T09P

Accessories

For cutter	Adjustable Torque key	Arbor screw	Arbor screw 2	Insert clamping torque	Setting key	Torque key
						
R220.53-0080	1/4HEX-S-HANDLE-0.8-5.0NM	5803216	–	2.0NM	1/4HEX-T15PX50	T00-09P20
R220.53-0125	1/4HEX-S-HANDLE-0.8-5.0NM	5804020	–	2.0NM	1/4HEX-T15PX50	T00-09P20
R220.53-8160	1/4HEX-S-HANDLE-0.8-5.0NM	MC6S12X40	–	2.0NM	1/4HEX-T15PX50	T00-09P20
R220.53-8315	1/4HEX-S-HANDLE-0.8-5.0NM	MC6S16X50	MC6S20X50	2.0NM	1/4HEX-T15PX50	T00-09P20

Torque and fixed keys, see page 872

R217/220.53-09 – Insert selection – mm/*Inch*

SMG		a_p	f_z			
			80%	60%	40%	20%
P1	SEEX09T3AFTN-ME07 F40M	2,5 *0.10*	0,17 *0.0065*	0,17 *0.0065*	0,17 *0.0065*	0,22 *0.0085*
P2	SEEX09T3AFTN-ME07 F40M	2,5 *0.10*	0,17 *0.0065*	0,17 *0.0065*	0,17 *0.0065*	0,22 *0.0085*
P3	SEMX09T3AFTN-M08 MP2501	2,5 *0.10*	0,18 *0.0070*	0,18 *0.0070*	0,19 *0.0075*	0,24 *0.0095*
P4	SEMX09T3AFTN-M08 MP2501	2,5 *0.10*	0,18 *0.0070*	0,18 *0.0070*	0,18 *0.0070*	0,22 *0.0085*
P5	SEMX09T3AFTN-M08 MP2501	2,5 *0.10*	0,17 *0.0065*	0,17 *0.0065*	0,18 *0.0070*	0,22 *0.0085*
P6	SEMX09T3AFTN-M08 MP2501	2,5 *0.10*	0,17 *0.0065*	0,17 *0.0065*	0,18 *0.0070*	0,22 *0.0085*
P7	SEEX09T3AFTN-M08 MP3501	2,5 *0.10*	0,17 *0.0065*	0,17 *0.0065*	0,18 *0.0070*	0,22 *0.0085*
P8	SEEX09T3AFTN-M08 MP3501	2,5 *0.10*	0,18 *0.0070*	0,18 *0.0070*	0,19 *0.0075*	0,24 *0.0095*
P11	SEEX09T3AFTN-M08 MP3501	2,5 *0.10*	0,17 *0.0065*	0,17 *0.0065*	0,18 *0.0070*	0,22 *0.0085*
P12	SEEX09T3AFTN-M08 MP3501	2,0 *0.080*	0,12 *0.0048*	0,12 *0.0048*	0,12 *0.0048*	0,15 *0.0060*
M1	SEEX09T3AFN-M05 F40M	2,5 *0.10*	0,13 *0.0050*	0,13 *0.0050*	0,13 *0.0050*	0,16 *0.0065*
M2	SEEX09T3AFN-M05 MS2050	2,5 *0.10*	0,12 *0.0048*	0,12 *0.0048*	0,12 *0.0048*	0,15 *0.0060*
M3	SEEX09T3AFN-M05 MS2050	2,0 *0.080*	0,095 *0.0038*	0,095 *0.0038*	0,095 *0.0038*	0,12 *0.0048*
M4	SEEX09T3AFN-M05 MS2050	1,6 *0.065*	0,085 *0.0034*	0,085 *0.0034*	0,085 *0.0034*	0,10 *0.0040*
M5	SEEX09T3AFN-M05 MS2050	1,6 *0.065*	0,085 *0.0034*	0,085 *0.0034*	0,085 *0.0034*	0,10 *0.0040*
K1	SEEX09T3AFTN-D09 MP1501	2,5 *0.10*	0,24 *0.0095*	0,24 *0.0095*	0,24 *0.0095*	0,30 *0.012*
K2	SEEX09T3AFTN-D09 MP1501	2,5 *0.10*	0,22 *0.0085*	0,22 *0.0085*	0,22 *0.0085*	0,28 *0.011*
K3	SEEX09T3AFTN-M08 MK2050	2,5 *0.10*	0,17 *0.0065*	0,17 *0.0065*	0,18 *0.0070*	0,22 *0.0085*
K4	SEEX09T3AFTN-M08 MK2050	2,5 *0.10*	0,17 *0.0065*	0,17 *0.0065*	0,18 *0.0070*	0,22 *0.0085*
K5	SEEX09T3AFTN-M08 MK2050	2,5 *0.10*	0,16 *0.0065*	0,16 *0.0065*	0,16 *0.0065*	0,20 *0.0080*
K6	SEEX09T3AFTN-M08 MK2050	2,5 *0.10*	0,17 *0.0065*	0,17 *0.0065*	0,18 *0.0070*	0,22 *0.0085*
K7	SEEX09T3AFTN-M08 MK2050	2,5 *0.10*	0,16 *0.0065*	0,16 *0.0065*	0,16 *0.0065*	0,20 *0.0080*
N1	SEEX09T3AFN-E04 H15	2,5 *0.10*	0,16 *0.0065*	0,16 *0.0065*	0,17 *0.0065*	0,20 *0.0080*
N2	SEEX09T3AFN-E04 H15	2,5 *0.10*	0,16 *0.0065*	0,16 *0.0065*	0,17 *0.0065*	0,20 *0.0080*
N3	SEEX09T3AFN-E04 H15	2,5 *0.10*	0,16 *0.0065*	0,16 *0.0065*	0,17 *0.0065*	0,20 *0.0080*
N11	SEEX09T3AFN-E04 H15	2,5 *0.10*	0,16 *0.0065*	0,16 *0.0065*	0,17 *0.0065*	0,20 *0.0080*
S1	SEEX09T3AFTN-ME07 F40M	1,6 *0.065*	0,11 *0.0044*	0,11 *0.0044*	0,11 *0.0044*	0,14 *0.0055*
S2	SEEX09T3AFTN-ME07 F40M	1,6 *0.065*	0,11 *0.0044*	0,11 *0.0044*	0,11 *0.0044*	0,14 *0.0055*
S3	SEEX09T3AFTN-ME07 F40M	1,6 *0.065*	0,10 *0.0040*	0,10 *0.0040*	0,11 *0.0044*	0,13 *0.0050*
S11	SEEX09T3AFN-M05 MS2050	1,9 *0.075*	0,095 *0.0038*	0,095 *0.0038*	0,095 *0.0038*	0,12 *0.0048*
S12	SEEX09T3AFN-M05 MS2050	1,9 *0.075*	0,095 *0.0038*	0,095 *0.0038*	0,095 *0.0038*	0,12 *0.0048*
S13	SEEX09T3AFN-M05 MS2050	1,6 *0.065*	0,085 *0.0034*	0,085 *0.0034*	0,085 *0.0034*	0,10 *0.0040*
H5	SEEX09T3AFTN-D09 MP1501	2,0 *0.080*	0,14 *0.0055*	0,14 *0.0055*	0,15 *0.0060*	0,18 *0.0070*
H8	SEEX09T3AFTN-D09 MP1501	1,9 *0.075*	0,11 *0.0044*	0,11 *0.0044*	0,11 *0.0044*	0,14 *0.0055*
H11	SEEX09T3AFTN-D09 MP1501	2,0 *0.080*	0,14 *0.0055*	0,14 *0.0055*	0,15 *0.0060*	0,18 *0.0070*
H12	SEEX09T3AFTN-D09 MP1501	1,9 *0.075*	0,11 *0.0044*	0,11 *0.0044*	0,11 *0.0044*	0,14 *0.0055*
H21	SEEX09T3AFTN-D09 MP1501	1,9 *0.075*	0,11 *0.0044*	0,11 *0.0044*	0,11 *0.0044*	0,14 *0.0055*

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

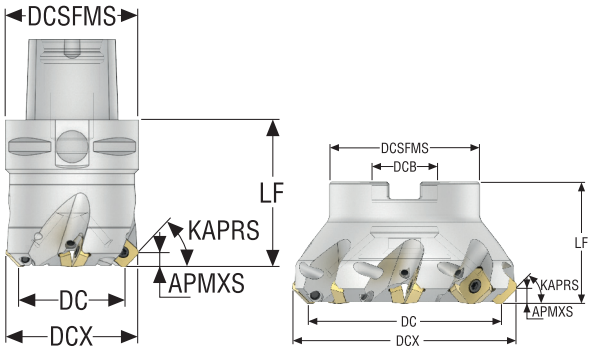
R217/220.53-09 – Cutting data v_c = (m/min)/*(sf/min)*

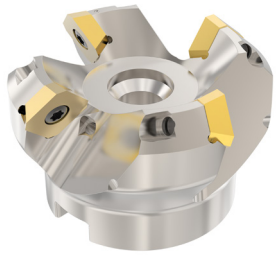
SMG	F15M				MK2050				MP3000				MS2050				F40M				H15			
	100%	80%	60%	40%	100%	80%	60%	40%	100%	80%	60%	40%	100%	80%	60%	40%	100%	80%	60%	40%	100%	80%	60%	40%
P1	—	—	—	—	290	310	335	375	315	340	365	395	280	300	320	350	225	240	260	285	—	—	—	—
	—	—	—	—	*950*	*1025*	*1100*	*1225*	*1025*	*1125*	*1200*	*1300*	*920*	*980*	*1050*	*1150*	*740*	*790*	*850*	*940*	—	—	—	—
P2	—	—	—	—	285	305	325	360	305	325	350	385	265	285	305	340	220	235	250	275	—	—	—	—
	—	—	—	—	*940*	*1000*	*1075*	*1175*	*1000*	*1075*	*1150*	*1275*	*870*	*940*	*1000*	*1125*	*720*	*770*	*820*	*900*	—	—	—	—
P3	—	—	—	—	250	265	285	315	265	285	305	340	235	250	270	300	190	205	220	245	—	—	—	—
	—	—	—	—	*820*	*870*	*940*	*1025*	*870*	*940*	*1000*	*1125*	*770*	*820*	*890*	*980*	*620*	*670*	*720*	*800*	—	—	—	—
P4	—	—	—	—	220	235	250	280	235	250	270	300	205	220	235	260	170	180	195	215	—	—	—	—
	—	—	—	—	*720*	*770*	*820*	*920*	*770*	*820*	*890*	*980*	*670*	*720*	*770*	*850*	*560*	*590*	*640*	*710*	—	—	—	—
P5	—	—	—	—	210	225	245	265	225	240	255	285	195	210	225	250	165	175	185	205	—	—	—	—
	—	—	—	—	*690*	*740*	*800*	*870*	*740*	*790*	*840*	*940*	*640*	*690*	*740*	*820*	*540*	*570*	*610*	*670*	—	—	—	—
P6	—	—	—	—	240	255	275	300	255	275	295	320	225	240	260	280	185	195	210	230	—	—	—	—
	—	—	—	—	*790*	*840*	*900*	*980*	*840*	*900*	*970*	*1050*	*740*	*790*	*850*	*920*	*610*	*640*	*690*	*750*	—	—	—	—
P7	—	—	—	—	225	240	260	280	240	260	280	300	215	230	245	265	175	185	200	215	—	—	—	—
	—	—	—	—	*740*	*790*	*850*	*920*	*790*	*850*	*920*	*980*	*710*	*750*	*800*	*870*	*570*	*610*	*660*	*710*	—	—	—	—
P8	—	—	—	—	210	220	240	265	225	240	255	285	195	210	225	250	160	170	185	205	—	—	—	—
	—	—	—	—	*690*	*720*	*790*	*870*	*740*	*790*	*840*	*940*	*640*	*690*	*740*	*820*	*520*	*560*	*610*	*670*	—	—	—	—
P11	—	—	—	—	220	235	250	275	235	250	270	295	205	220	240	260	170	180	195	210	—	—	—	—
	—	—	—	—	*720*	*770*	*820*	*900*	*770*	*820*	*890*	*970*	*670*	*720*	*790*	*850*	*560*	*590*	*640*	*690*	—	—	—	—
P12	—	—	—	—	140	150	160	180	150	160	170	190	130	140	150	165	110	115	125	140	—	—	—	—
	—	—	—	—	*460*	*490*	*520*	*590*	*490*	*520*	*560*	*620*	*425*	*460*	*490*	*540*	*360*	*375*	*410*	*460*	—	—	—	—
M1	—	—	—	—	—	—	—	—	225	240	260	290	215	230	245	275	175	190	200	220	—	—	—	—
	—	—	—	—	—	—	—	—	*740*	*790*	*850*	*950*	*710*	*750*	*800*	*900*	*570*	*620*	*660*	*720*	—	—	—	—
M2	—	—	—	—	—	—	—	—	185	200	215	240	175	190	205	225	145	155	170	185	—	—	—	—
	—	—	—	—	—	—	—	—	*610*	*660*	*710*	*790*	*570*	*620*	*670*	*740*	*475*	*510*	*560*	*610*	—	—	—	—
M3	—	—	—	—	—	—	—	—	150	160	175	190	140	150	165	180	120	125	135	150	—	—	—	—
	—	—	—	—	—	—	—	—	*490*	*520*	*570*	*620*	*460*	*490*	*540*	*590*	*395*	*410*	*445*	*490*	—	—	—	—
M4	—	—	—	—	—	—	—	—	115	125	135	145	110	120	125	140	90	100	105	115	—	—	—	—
	—	—	—	—	—	—	—	—	*375*	*410*	*445*	*475*	*360*	*395*	*410*	*460*	*295*	*330*	*345*	*375*	—	—	—	—
M5	—	—	—	—	—	—	—	—	95	105	110	120	90	100	105	115	75	80	90	95	—	—	—	—
	—	—	—	—	—	—	—	—	*310*	*345*	*360*	*395*	*295*	*330*	*345*	*375*	*245*	*260*	*295*	*310*	—	—	—	—
K1	270	290	310	345	305	325	350	385	240	255	275	305	—	—	—	—	175	185	200	220	—	—	—	—
	890	*950*	*1025*	*1125*	*1000*	*1075*	*1150*	*1275*	*790*	*840*	*900*	*1000*	—	—	—	—	*570*	*610*	*660*	*720*	—	—	—	—
K2	240	255	275	305	275	290	315	345	210	225	245	270	—	—	—	—	155	165	180	195	—	—	—	—
	790	*840*	*900*	*1000*	*900*	*950*	*1025*	*1125*	*690*	*740*	*800*	*890*	—	—	—	—	*510*	*540*	*590*	*640*	—	—	—	—
K3	200	215	235	260	230	245	265	290	180	190	205	230	—	—	—	—	130	140	150	165	—	—	—	—
	660	*710*	*770*	*850*	*750*	*800*	*870*	*950*	*590*	*620*	*670*	*750*	—	—	—	—	*425*	*460*	*490*	*540*	—	—	—	—
K4	195	205	220	245	220	235	255	280	170	185	195	220	—	—	—	—	125	135	145	155	—	—	—	—
	640	*670*	*720*	*800*	*720*	*770*	*840*	*920*	*560*	*610*	*640*	*720*	—	—	—	—	*410*	*445*	*475*	*510*	—	—	—	—
K5	120	130	140	150	135	145	155	170	105	115	125	130	—	—	—	—	75	80	85	95	—	—	—	—
	395	*425*	*460*	*490*	*445*	*475*	*510*	*560*	*345*	*375*	*410*	*425*	—	—	—	—	*245*	*260*	*280*	*310*	—	—	—	—
K6	170	180	195	215	195	210	225	245	150	160	175	190	—	—	—	—	110	115	125	140	—	—	—	—
	560	*590*	*640*	*710*	*640*	*690*	*740*	*800*	*490*	*520*	*570*	*620*	—	—	—	—	*360*	*375*	*410*	*460*	—	—	—	—
K7	155	165	175	190	170	185	195	220	135	145	155	170	—	—	—	—	95	105	110	125	—	—	—	—
	510	*540*	*570*	*620*	*560*	*610*	*640*	*720*	*445*	*475*	*510*	*560*	—	—	—	—	*310*	*345*	*360*	*410*	—	—	—	—
N1	2025	2175	2325	2550	—	—	—	—	—	—	—	—	—	—	—	—	1275	1350	1475	1625	1600	1700	1850	2025
	6650	*7125*	*7625*	*8375*	—	—	—	—	—	—	—	—	—	—	—	—	*4175*	*4425*	*4850*	*5325*	*5250*	*5575*	*6075*	*6650*
N2	820	870	940	1025	—	—	—	—	—	—	—	—	—	—	—	—	520	550	590	650	650	690	740	810
	2700	*2850*	*3075*	*3375*	—	—	—	—	—	—	—	—	—	—	—	—	*1700*	*1800*	*1925*	*2125*	*2125*	*2275*	*2425*	*2650*
N3	550	580	630	690	—	—	—	—	—	—	—	—	—	—	—	—	345	365	395	435	430	460	495	540
	1800	*1900*	*2075*	*2275*	—	—	—	—	—	—	—	—	—	—	—	—	*1125*	*1200*	*1300*	*1425*	*1400*	*1500*	*1625*	*1775*
N11	620	670	720	780	—	—	—	—	—	—	—	—	—	—	—	—	395	420	450	495	495	530	570	620
	2025	*2200*	*2350*	*2550*	—	—	—	—	—	—	—	—	—	—	—	—	*1300*	*1375*	*1475*	*1625*	*1625*	*1750*	*1875*	*2025*
S1	—	—	—	—	—	—	—	—	—	—	—	—	50	55	60	65	43	46	49	55	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	*165*	*180*	*195*	*215*	*140*	*150*	*160*	*180*	—	—	—	—
S2	—	—	—	—	—	—	—	—	—	—	—	—	42	45	48	50	35	37	40	43	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	*140*	*150*	*155*	*165*	*115*	*120*	*130*	*140*	—	—	—	—
S3	—	—	—	—	—	—	—	—	—	—	—	—	36	39	42	45	30	32	35	38	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	*120*	*130*	*140*	*150*	*100*	*105*	*115*	*125*	—	—	—	—
S11	—	—	—	—	—	—	—	—	—	—	—	—	70	75	85	90	60	65	70	75	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	*230*	*245*	*280*	*295*	*195*	*215*	*230*	*245*	—	—	—	—
S12	—	—	—	—	—	—	—	—	—	—	—	—	50	55	55	65	41	44	47	55	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	*165*	*180*	*180*	*215*	*135*	*145*	*155*	*180*	—	—	—	—
S13	—	—	—	—	—	—	—	—	—	—	—	—	29	31	33	36	24	26	28	30	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	*95*	*100*	*110*	*120*	*80*	*85*	*90*	*100*	—	—	—	—
H5	—	—	—	—	—	—	—	—	46	50	55	60	—	—	—	—	36	38	41	46	—	—	—	—
	—	—	—	—	—	—	—	—	*150*	*165*	*180*	*195*	—	—	—	—	*120*	*125*	*135*	*150*	—	—	—	—
H8	—	—	—	—	—	—	—	—	49	55	55	60	—	—	—	—	39	41	44	49	—	—	—	—
	—	—	—	—	—	—	—	—	*160*	*180*	*180*	*195*	—	—	—	—	*130*	*135*	*145*	*160*	—	—	—	—
H11	—	—	—	—	—	—	—	—	60	65	70	75	—	—	—	—	46	49	55	60	—	—	—	—
	—	—	—	—	—	—	—	—	*195*	*215*	*230*	*245*	—	—	—	—	*150*	*160*	*180*	*195*	—	—	—	—
H12	—	—	—	—	—	—	—	—	95	100	110	120	—	—	—	—	70	75	80	90	—	—	—	—
	—	—	—	—	—	—	—	—	*310*	*330*	*360*	*395*	—	—	—	—	*230*	*245*	*260*	*295*	—	—	—	—
H21	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	39	41	44	49	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	*130*	*135*	*145*	*160*	—	—	—	—

R217/220.53-09 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	MK1500				MP1501				MP2501				MP3501			
	100%	80%	60%	40%	100%	80%	60%	40%	100%	80%	60%	40%	100%	80%	60%	40%
P1	—	—	—	—	410	425	450	480	420	435	460	500	375	390	415	455
	—	—	—	—	*1350*	*1400*	*1475*	*1575*	*1375*	*1425*	*1500*	*1650*	*1225*	*1275*	*1350*	*1500*
P2	—	—	—	—	385	400	425	470	410	425	450	485	365	380	405	435
	—	—	—	—	*1275*	*1300*	*1400*	*1550*	*1350*	*1400*	*1475*	*1600*	*1200*	*1250*	*1325*	*1425*
P3	—	—	—	—	345	355	380	415	355	370	395	430	320	330	355	385
	—	—	—	—	*1125*	*1175*	*1250*	*1350*	*1175*	*1225*	*1300*	*1400*	*1050*	*1075*	*1175*	*1275*
P4	—	—	—	—	300	310	335	365	315	325	345	380	280	290	310	340
	—	—	—	—	*980*	*1025*	*1100*	*1200*	*1025*	*1075*	*1125*	*1250*	*920*	*950*	*1025*	*1125*
P5	—	—	—	—	290	300	320	350	305	315	335	360	275	285	300	325
	—	—	—	—	*950*	*980*	*1050*	*1150*	*1000*	*1025*	*1100*	*1175*	*900*	*940*	*980*	*1075*
P6	—	—	—	—	335	345	365	390	340	355	375	405	305	320	340	365
	—	—	—	—	*1100*	*1125*	*1200*	*1275*	*1125*	*1175*	*1225*	*1325*	*1000*	*1050*	*1125*	*1200*
P7	—	—	—	—	315	325	345	370	325	335	355	380	290	300	320	345
	—	—	—	—	*1025*	*1075*	*1125*	*1225*	*1075*	*1100*	*1175*	*1250*	*950*	*980*	*1050*	*1125*
P8	—	—	—	—	290	300	320	350	300	310	330	360	270	280	295	325
	—	—	—	—	*950*	*980*	*1050*	*1150*	*980*	*1025*	*1075*	*1175*	*890*	*920*	*970*	*1075*
P11	—	—	—	—	305	315	335	360	315	325	345	370	280	290	310	335
	—	—	—	—	*1000*	*1025*	*1100*	*1175*	*1025*	*1075*	*1125*	*1225*	*920*	*950*	*1025*	*1100*
P12	—	—	—	—	195	205	215	230	200	210	220	235	180	190	200	215
	—	—	—	—	*640*	*670*	*710*	*750*	*660*	*690*	*720*	*770*	*590*	*620*	*660*	*710*
M1	—	—	—	—	—	—	—	—	210	220	240	260	195	205	225	245
	—	—	—	—	—	—	—	—	*690*	*720*	*790*	*850*	*640*	*670*	*740*	*800*
M2	—	—	—	—	—	—	—	—	175	185	200	220	160	170	185	205
	—	—	—	—	—	—	—	—	*570*	*610*	*660*	*720*	*520*	*560*	*610*	*670*
M3	—	—	—	—	—	—	—	—	140	150	160	175	130	140	150	165
	—	—	—	—	—	—	—	—	*460*	*490*	*520*	*570*	*425*	*460*	*490*	*540*
M4	—	—	—	—	—	—	—	—	110	115	125	135	100	110	115	125
	—	—	—	—	—	—	—	—	*360*	*375*	*410*	*445*	*330*	*360*	*375*	*410*
M5	—	—	—	—	—	—	—	—	90	95	105	110	85	90	95	105
	—	—	—	—	—	—	—	—	*295*	*310*	*345*	*360*	*280*	*295*	*310*	*345*
K1	325	345	370	410	390	405	430	475	410	425	455	490	370	380	405	440
	1075	*1125*	*1225*	*1350*	*1275*	*1325*	*1400*	*1550*	*1350*	*1400*	*1500*	*1600*	*1225*	*1250*	*1325*	*1450*
K2	290	310	335	365	350	360	385	420	370	385	405	435	330	345	365	390
	950	*1025*	*1100*	*1200*	*1150*	*1175*	*1275*	*1375*	*1225*	*1275*	*1325*	*1425*	*1075*	*1125*	*1200*	*1275*
K3	245	260	280	310	295	305	325	355	310	325	345	370	280	290	310	330
	800	*850*	*920*	*1025*	*970*	*1000*	*1075*	*1175*	*1025*	*1075*	*1125*	*1225*	*920*	*950*	*1025*	*1075*
K4	235	250	270	295	280	290	310	340	300	310	330	350	265	275	295	315
	770	*820*	*890*	*970*	*920*	*950*	*1025*	*1125*	*980*	*1025*	*1075*	*1150*	*870*	*900*	*970*	*1025*
K5	140	150	165	180	175	180	195	205	180	185	200	215	160	170	180	195
	460	*490*	*540*	*590*	*570*	*590*	*640*	*670*	*590*	*610*	*660*	*710*	*520*	*560*	*590*	*640*
K6	205	220	235	260	250	255	275	300	260	270	290	310	235	245	260	280
	670	*720*	*770*	*850*	*820*	*840*	*900*	*980*	*850*	*890*	*950*	*1025*	*770*	*800*	*850*	*920*
K7	180	195	210	230	225	230	245	265	230	240	255	275	205	215	230	250
	590	*640*	*690*	*750*	*740*	*750*	*800*	*870*	*750*	*790*	*840*	*900*	*670*	*710*	*750*	*820*
N1	—	—	—	—	—	—	—	—	—	—	—	—	1475	1550	1675	1850
	—	—	—	—	—	—	—	—	—	—	—	—	*4850*	*5075*	*5500*	*6075*
N2	—	—	—	—	—	—	—	—	—	—	—	—	590	630	680	750
	—	—	—	—	—	—	—	—	—	—	—	—	*1925*	*2075*	*2225*	*2450*
N3	—	—	—	—	—	—	—	—	—	—	—	—	395	420	455	500
	—	—	—	—	—	—	—	—	—	—	—	—	*1300*	*1375*	*1500*	*1650*
N11	—	—	—	—	—	—	—	—	—	—	—	—	450	480	520	570
	—	—	—	—	—	—	—	—	—	—	—	—	*1475*	*1575*	*1700*	*1875*
S1	—	—	—	—	—	—	—	—	—	—	—	—	47	50	55	60
	—	—	—	—	—	—	—	—	—	—	—	—	*155*	*165*	*180*	*195*
S2	—	—	—	—	—	—	—	—	—	—	—	—	38	41	44	47
	—	—	—	—	—	—	—	—	—	—	—	—	*125*	*135*	*145*	*155*
S3	—	—	—	—	—	—	—	—	—	—	—	—	33	36	38	42
	—	—	—	—	—	—	—	—	—	—	—	—	*110*	*120*	*125*	*140*
S11	—	—	—	—	—	—	—	—	—	—	—	—	65	70	75	85
	—	—	—	—	—	—	—	—	—	—	—	—	*215*	*230*	*245*	*280*
S12	—	—	—	—	—	—	—	—	—	—	—	—	45	48	50	60
	—	—	—	—	—	—	—	—	—	—	—	—	*150*	*155*	*165*	*195*
S13	—	—	—	—	—	—	—	—	—	—	—	—	27	28	30	33
	—	—	—	—	—	—	—	—	—	—	—	—	*90*	*90*	*100*	*110*
H5	—	—	—	—	50	55	60	65	—	—	—	—	41	44	48	55
	—	—	—	—	*165*	*180*	*195*	*215*	—	—	—	—	*135*	*145*	*155*	*180*
H8	—	—	—	—	55	60	65	70	—	—	—	—	44	47	50	55
	—	—	—	—	*180*	*195*	*215*	*230*	—	—	—	—	*145*	*155*	*165*	*180*
H11	—	—	—	—	65	70	75	80	—	—	—	—	55	55	60	65
	—	—	—	—	*215*	*230*	*245*	*260*	—	—	—	—	*180*	*180*	*195*	*215*
H12	—	—	—	—	100	105	115	125	—	—	—	—	80	85	90	100
	—	—	—	—	*330*	*345*	*375*	*410*	—	—	—	—	*260*	*280*	*295*	*330*
H21	—	—	—	—	55	60	65	70	—	—	—	—	44	47	50	55
	—	—	—	—	*180*	*195*	*215*	*230*	—	—	—	—	*145*	*155*	*165*	*180*

Quattromill R217/220.53-12 – Metric

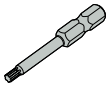




- For insert selection and cutting data recommendations, see page(s) 273-275
- For complete insert programme, see page(s) 823
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	ZEFP	APMXS	KAPRS°	DCX	DCB	DCSFMS	LF	RPMX	Weight	Insert
			mm		mm		mm	mm	mm	mm		kg	
C5-R217.53-040-12-3A	02745057	Seco-Capto	40,0	3	6,0	45,0	52,0	–	50,0	55,0	16500	0,8	SE.X1204
C6-R217.53-040-12-3A	02745061	Seco-Capto	40,0	3	6,0	45,0	52,0	–	63,0	63,0	16500	1,2	SE.X1204
C5-R217.53-050-12-4A	02745058	Seco-Capto	50,0	4	6,0	45,0	62,0	–	50,0	55,0	14800	0,9	SE.X1204
C6-R217.53-050-12-4A	02745062	Seco-Capto	50,0	4	6,0	45,0	62,0	–	63,0	63,0	14800	1,3	SE.X1204
C5-R217.53-063-12-5A	02745059	Seco-Capto	63,0	5	6,0	45,0	75,0	–	50,0	55,0	13200	1,1	SE.X1204
C6-R217.53-063-12-5A	02745063	Seco-Capto	63,0	5	6,0	45,0	75,0	–	63,0	63,0	13200	1,6	SE.X1204
C5-R217.53-080-12-6A	02745060	Seco-Capto	80,0	6	6,0	45,0	92,0	–	50,0	55,0	11700	1,2	SE.X1204
C6-R217.53-080-12-6A	02745064	Seco-Capto	80,0	6	6,0	45,0	92,0	–	63,0	63,0	11700	1,9	SE.X1204
R220.53-0040-12-4A	02410704	Arbor	40,0	4	6,0	45,0	52,0	22,0	47,0	40,0	16500	0,4	SE.X1204
R220.53-0050-12-4A	00040081	Arbor	50,0	4	6,0	45,0	62,0	22,0	47,0	40,0	14800	0,5	SE.X1204
R220.53-0050-12-5A	00040082	Arbor	50,0	5	6,0	45,0	62,0	22,0	47,0	40,0	14800	0,5	SE.X1204
R220.53-0063-12-5A	00040083	Arbor	63,0	5	6,0	45,0	75,0	22,0	47,0	40,0	13200	0,6	SE.X1204
R220.53-0063-12-6A	00040084	Arbor	63,0	6	6,0	45,0	75,0	22,0	47,0	40,0	13200	0,6	SE.X1204
R220.53-0080-12-6A	00040085	Arbor	80,0	6	6,0	45,0	92,0	27,0	62,0	50,0	11700	1,1	SE.X1204
R220.53-0080-12-8A	00040086	Arbor	80,0	8	6,0	45,0	92,0	27,0	62,0	50,0	11700	1,2	SE.X1204
R220.53-0100-12-5A	02448963	Arbor	100,0	5	6,0	45,0	112,0	32,0	77,0	50,0	10500	1,8	SE.X1204
R220.53-0100-12-7A	00040087	Arbor	100,0	7	6,0	45,0	112,0	32,0	77,0	50,0	10500	1,7	SE.X1204
R220.53-0100-12-10A	00040088	Arbor	100,0	10	6,0	45,0	112,0	32,0	77,0	50,0	10500	1,8	SE.X1204
R220.53-0125-12-6A	02448964	Arbor	125,0	6	6,0	45,0	137,0	40,0	90,0	63,0	9400	3,1	SE.X1204
R220.53-0125-12-8A	00040089	Arbor	125,0	8	6,0	45,0	137,0	40,0	90,0	63,0	9400	2,9	SE.X1204
R220.53-0125-12-12A	00040090	Arbor	125,0	12	6,0	45,0	137,0	40,0	90,0	63,0	9400	2,9	SE.X1204
R220.53-8160-12-7	02448965	Arbor	160,0	7	6,0	45,0	172,0	40,0	90,0	63,0	8300	4,6	SE.X1204
R220.53-8160-12-10	00040091	Arbor	160,0	10	6,0	45,0	172,0	40,0	90,0	63,0	8300	4,6	SE.X1204

Spare Parts, included in delivery

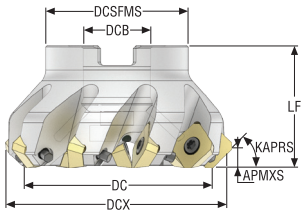
For cutter	Arbor screw	Insert key	Insert screw
			
Cx-R217.53-12	–	1/4HEX-T15PX50	C04011-T15P
R220.53-0040-0063	220.17-696	1/4HEX-T15PX50	C04011-T15P
R220.53-0080	–	1/4HEX-T15PX50	C04011-T15P
R220.53-0100-8160	–	1/4HEX-T15PX90	C04011-T15P

Accessories

For cutter	Adjustable Torque key	Arbor screw	Insert clamping torque	Torque key
				
Cx-R217.53-12	1/4HEX-S-HANDLE-0.8-5.0NM	–	3.5NM	T00-15P35
R220.53-0040-0063	1/4HEX-S-HANDLE-0.8-5.0NM	–	3.5NM	T00-15P35
R220.53-0080	1/4HEX-S-HANDLE-0.8-5.0NM	5802712	3.5NM	T00-15P35
R220.53-0100	1/4HEX-S-HANDLE-0.8-5.0NM	5803216	3.5NM	T00-15P35
R220.53-0125	1/4HEX-S-HANDLE-0.8-5.0NM	5804020	3.5NM	T00-15P35
R220.53-8160	1/4HEX-S-HANDLE-0.8-5.0NM	MC6S12X40	3.5NM	T00-15P35

Torque and fixed keys, see page 872

Quattromill R217/220.53-12 – Metric

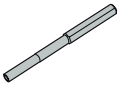




- For insert selection and cutting data recommendations, see page(s) 273-275
- For complete insert programme, see page(s) 823
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	ZEFP	APMXS	KAPRS°	DCX	DCB	DCSFMS	LF	RPMX	Weight	Insert
			mm		mm		mm	mm	mm	mm		kg	
R220.53-0063-12-9A	02997159	Arbor	63,0	9	6,0	43,87	75,0	22,0	47,0	40,0	13200	0,5	SE.X1204
R220.53-0080-12-11A	02997160	Arbor	80,0	11	6,0	45,0	92,0	27,0	62,0	50,0	11700	1,1	SE.X1204

Spare Parts, included in delivery

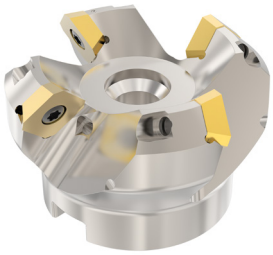
For cutter	Back insert key	Front insert key	Insert screw
			
R220.53-0063-0080	H6B-H3.0	T15P-E8	C04008-H3

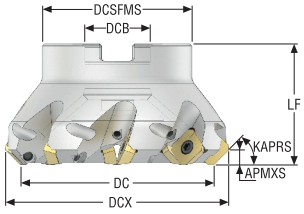
Accessories

For cutter	Adjustable Torque key	Arbor screw	Insert clamping torque
			
R220.53-0063-0080	1/4HEX-S-HANDLE-0.8-5.0NM	–	3.5NM
R220.53-0063-0080	1/4HEX-S-HANDLE-0.8-5.0NM	5802712	3.5NM

Torque and fixed keys, see page 872

Quattromill R217/220.53-12 – inch

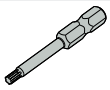




- For insert selection and cutting data recommendations, see page(s) 273-275
- For complete insert programme, see page(s) 823
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	ZEFP	APMXS	KAPRS°	DCX	DCB	DCSFMS	LF	RPMX	Weight	Insert
			inch		inch		inch	inch	inch	inch		lbs	
R220.53-01.50-12-4A	02422139	Arbor	1.575	4	0.236	45.0	2.047	0.750	1.850	1.575	16500	1.100	SE.X1204
R220.53-02.00-12-4A	02422140	Arbor	1.969	4	0.236	45.0	2.441	0.750	1.850	1.575	14800	1.100	SE.X1204
R220.53-02.00-12-5A	02422141	Arbor	1.969	5	0.236	45.0	2.441	0.750	1.850	1.575	14800	1.320	SE.X1204
R220.53-02.50-12-5A	02422142	Arbor	2.480	5	0.236	45.0	2.953	0.750	1.850	1.575	13200	1.540	SE.X1204
R220.53-02.50-12-6A	02422143	Arbor	2.480	6	0.236	45.0	2.953	0.750	1.850	1.575	13200	1.320	SE.X1204
R220.53-03.00-12-6A	02422144	Arbor	3.150	6	0.236	45.0	3.622	1.000	2.441	1.969	11700	2.870	SE.X1204
R220.53-03.00-12-8A	02422145	Arbor	3.150	8	0.236	45.0	3.622	1.000	2.441	1.969	11700	2.870	SE.X1204
R220.53-04.00-12-7A	02422146	Arbor	3.937	7	0.236	45.0	4.409	1.500	3.543	1.969	10500	4.850	SE.X1204
R220.53-04.00-12-10A	02422147	Arbor	3.937	10	0.236	45.0	4.409	1.500	3.543	1.969	10500	4.850	SE.X1204
R220.53-05.00-12-6A	02449819	Arbor	4.921	6	0.236	45.0	5.394	1.500	3.543	2.480	9400	8.160	SE.X1204
R220.53-05.00-12-8A	02422148	Arbor	4.921	8	0.236	45.0	5.394	1.500	3.543	2.480	9400	8.380	SE.X1204
R220.53-06.00-12-10	02422150	Arbor	6.299	10	0.236	45.0	6.772	2.000	3.543	2.480	8300	9.920	SE.X1204
R220.53-06.00-12-7	02449820	Arbor	6.299	7	0.236	45.0	6.772	2.000	3.543	2.480	8300	9.920	SE.X1204
R220.53-06.00-12-16	02449821	Arbor	6.299	16	0.236	45.0	6.772	2.000	3.543	2.480	8300	10.580	SE.X1204
R220.53-808.00-12-12	02422151	Arbor	7.874	12	0.236	45.0	8.346	2.500	5.118	2.480	7400	16.530	SE.X1204

Spare Parts, included in delivery

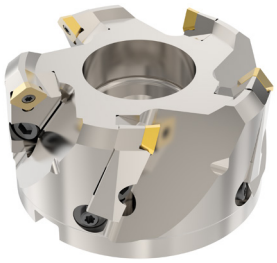
For cutter	Arbor screw	Insert key	Insert screw
			
R220.53-01.50-02.50	220.17-698	1/4HEX-T15PX50	C04011-T15P
R220.53-03.00	UC6S1/2UNFX1-1/4	1/4HEX-T15PX50	C04011-T15P
R220.53-04.00	UF6S3/4UNFX1-3/4	1/4HEX-T15PX90	C04011-T15P
R220.53-05.00	UF6S3/4UNFX2	1/4HEX-T15PX90	C04011-T15P
R220.53-06.00-808.00	–	1/4HEX-T15PX90	C04011-T15P

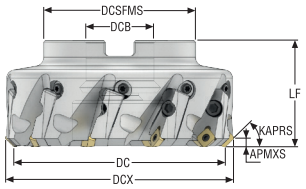
Accessories

For cutter	Adjustable Torque key	Arbor screw	Insert clamping torque	Torque key
				
R220.53-01.50 - 05.00	1/4HEX-S-HANDLE-0.8-5.0NM	–	31.0IN.LBS	T00-15P35
R220.53-06.00	1/4HEX-S-HANDLE-0.8-5.0NM	58215080	31.0IN.LBS	T00-15P35
R220.53-808.00	1/4HEX-S-HANDLE-0.8-5.0NM	–	31.0IN.LBS	T00-15P35

Torque and fixed keys, see page 872

Quattromill R220.53-12C – Metric

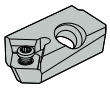
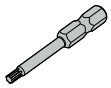




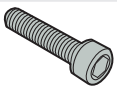
- For insert selection and cutting data recommendations, see page(s) 273-275
- For complete insert programme, see page(s) 823
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	ZEFP	APMXS	KAPRS°	DCX	DCB	DCSFMS	LF	RPMX	Weight	Insert
			mm		mm		mm	mm	mm	mm		kg	
R220.53-0080-12-6C	02448867	Arbor	80,0	6	6,0	45,0	92,0	27,0	62,0	50,0	7400	1,7	SE.X1204
R220.53-0100-12-6C	02448839	Arbor	100,0	6	6,0	45,0	112,0	32,0	77,0	50,0	6600	2,6	SE.X1204
R220.53-0100-12-8C	02448888	Arbor	100,0	8	6,0	45,0	112,0	32,0	77,0	50,0	6600	2,6	SE.X1204
R220.53-0125-12-8C	02448846	Arbor	125,0	8	6,0	45,0	137,0	40,0	90,0	63,0	5900	4,2	SE.X1204
R220.53-0125-12-10C	02448890	Arbor	125,0	10	6,0	45,0	137,0	40,0	90,0	63,0	5900	4,2	SE.X1204
R220.53-8160-12-7C	02510195	Arbor	160,0	7	6,0	45,0	172,0	40,0	90,0	63,0	5200	6,5	SE.X1204
R220.53-8160-12-10C	02448847	Arbor	160,0	10	6,0	45,0	172,0	40,0	90,0	63,0	5200	6,6	SE.X1204
R220.53-8200-12-8C	02448894	Arbor	200,0	8	6,0	45,0	212,0	60,0	130,0	63,0	4700	9,4	SE.X1204
R220.53-8200-12-12C	02448849	Arbor	200,0	12	6,0	45,0	212,0	60,0	130,0	63,0	4700	9,3	SE.X1204
R220.53-8250-12-10C	02448896	Arbor	250,0	10	6,0	45,0	262,0	60,0	130,0	63,0	4200	17,0	SE.X1204
R220.53-8250-12-16C	02448853	Arbor	250,0	16	6,0	45,0	262,0	60,0	130,0	63,0	4200	16,0	SE.X1204
R220.53-8315-12-12C	02448900	Arbor	315,0	12	6,0	45,0	327,0	60,0	225,0	80,0	3700	32,9	SE.X1204

Spare Parts, included in delivery

For cutter	Adjustment unit	Cassette	Cassette screw	Insert key	Insert screw
					
R220.53-0080	AU1114T-T15P	SE12AR-53	FS96018	1/4HEX-T15PX50	C04009-T15P
R220.53-0100-8315	AU1114T-T15P	SE12AR-53	FS96018	1/4HEX-T15PX90	C04009-T15P

Accessories

For cutter	Adjustable Torque key	Arbor screw	Arbor screw 2	Insert clamping torque	Setting key	Torque key
						
R220.53-0080	1/4HEX-S-HANDLE-0.8-5.0NM	5802712	–	3.5NM	1/4HEX-T15PX50	T00-15P35
R220.53-0100	1/4HEX-S-HANDLE-0.8-5.0NM	5803216	–	3.5NM	1/4HEX-T15PX50	T00-15P35
R220.53-0125	1/4HEX-S-HANDLE-0.8-5.0NM	5804020	–	3.5NM	1/4HEX-T15PX50	T00-15P35
R220.53-8160	1/4HEX-S-HANDLE-0.8-5.0NM	MC6S12X40	–	3.5NM	1/4HEX-T15PX50	T00-15P35
R220.53-8200-8250	1/4HEX-S-HANDLE-0.8-5.0NM	MC6S16X50	–	3.5NM	1/4HEX-T15PX50	T00-15P35
R220.53-8315	1/4HEX-S-HANDLE-0.8-5.0NM	MC6S16X50	MC6S20X50	3.5NM	1/4HEX-T15PX50	T00-15P35

Torque and fixed keys, see page 872

R217/220.53-12 – Insert selection – mm/*Inch*

SMG		a_p	f_z			
			80%	60%	40%	20%
P1	SEMX1204AFTN-ME12 F40M	3,5 *0.14*	0,25 *0.010*	0,25 *0.010*	0,25 *0.010*	0,32 *0.013*
P2	SEMX1204AFTN-ME12 F40M	3,5 *0.14*	0,25 *0.010*	0,25 *0.010*	0,26 *0.010*	0,32 *0.013*
P3	SEMX1204AFTN-M15 MP2501	3,5 *0.14*	0,30 *0.012*	0,30 *0.012*	0,32 *0.013*	0,38 *0.015*
P4	SEMX1204AFTN-M15 MP2501	3,5 *0.14*	0,30 *0.012*	0,30 *0.012*	0,30 *0.012*	0,38 *0.015*
P5	SEMX1204AFTN-M15 MP2501	3,5 *0.14*	0,28 *0.011*	0,28 *0.011*	0,30 *0.012*	0,38 *0.015*
P6	SEMX1204AFTN-M15 MP2501	3,5 *0.14*	0,28 *0.011*	0,28 *0.011*	0,30 *0.012*	0,36 *0.014*
P7	SEMX1204AFTN-M15 MP3501	3,5 *0.14*	0,28 *0.011*	0,28 *0.011*	0,30 *0.012*	0,36 *0.014*
P8	SEMX1204AFTN-M15 MP3501	3,5 *0.14*	0,30 *0.012*	0,30 *0.012*	0,32 *0.013*	0,38 *0.015*
P11	SEEX1204AFN-M10 MM4500	3,5 *0.14*	0,20 *0.0080*	0,20 *0.0080*	0,22 *0.0085*	0,26 *0.010*
P12	SEEX1204AFN-M10 MM4500	3,0 *0.12*	0,14 *0.0055*	0,14 *0.0055*	0,15 *0.0060*	0,18 *0.0070*
M1	SEEX1204AFN-M10 F40M	3,5 *0.14*	0,22 *0.0085*	0,22 *0.0085*	0,24 *0.0095*	0,30 *0.012*
M2	SEEX1204AFN-M10 MS2050	3,5 *0.14*	0,20 *0.0080*	0,20 *0.0080*	0,22 *0.0085*	0,26 *0.010*
M3	SEEX1204AFN-M10 MS2050	3,0 *0.12*	0,17 *0.0065*	0,17 *0.0065*	0,17 *0.0065*	0,22 *0.0085*
M4	SEEX1204AFN-M10 MM4500	2,0 *0.080*	0,16 *0.0065*	0,16 *0.0065*	0,16 *0.0065*	0,20 *0.0080*
M5	SEEX1204AFN-M10 MM4500	2,0 *0.080*	0,16 *0.0065*	0,16 *0.0065*	0,16 *0.0065*	0,20 *0.0080*
K1	SEMX1204AFTN-M15 MK1500	3,5 *0.14*	0,32 *0.013*	0,32 *0.013*	0,32 *0.013*	0,40 *0.016*
K2	SEMX1204AFTN-M15 MK1500	3,5 *0.14*	0,28 *0.011*	0,28 *0.011*	0,30 *0.012*	0,38 *0.015*
K3	SEMX1204AFTN-M15 MP1501	3,5 *0.14*	0,28 *0.011*	0,28 *0.011*	0,30 *0.012*	0,38 *0.015*
K4	SEMX1204AFTN-M15 MP1501	3,5 *0.14*	0,28 *0.011*	0,28 *0.011*	0,30 *0.012*	0,38 *0.015*
K5	SEMX1204AFTN-M15 MP1501	3,5 *0.14*	0,26 *0.010*	0,26 *0.010*	0,26 *0.010*	0,34 *0.013*
K6	SEMX1204AFTN-M15 MK2050	3,5 *0.14*	0,28 *0.011*	0,28 *0.011*	0,30 *0.012*	0,38 *0.015*
K7	SEMX1204AFTN-M15 MK2050	3,5 *0.14*	0,26 *0.010*	0,26 *0.010*	0,26 *0.010*	0,34 *0.013*
N1	SEEX1204AFN-E08 H25	3,5 *0.14*	0,24 *0.0095*	0,24 *0.0095*	0,24 *0.0095*	0,30 *0.012*
N2	SEEX1204AFN-E08 H25	3,5 *0.14*	0,24 *0.0095*	0,24 *0.0095*	0,24 *0.0095*	0,30 *0.012*
N3	SEEX1204AFN-E08 H25	3,5 *0.14*	0,24 *0.0095*	0,24 *0.0095*	0,24 *0.0095*	0,30 *0.012*
N11	SEEX1204AFN-E08 H25	3,5 *0.14*	0,24 *0.0095*	0,24 *0.0095*	0,24 *0.0095*	0,30 *0.012*
S1	SEEX1204AFTN-ME11 MP3501	2,0 *0.080*	0,17 *0.0065*	0,17 *0.0065*	0,18 *0.0070*	0,22 *0.0085*
S2	SEEX1204AFTN-ME11 MP3501	2,0 *0.080*	0,17 *0.0065*	0,17 *0.0065*	0,18 *0.0070*	0,22 *0.0085*
S3	SEEX1204AFTN-ME11 MP3501	2,0 *0.080*	0,16 *0.0065*	0,16 *0.0065*	0,16 *0.0065*	0,20 *0.0080*
S11	SEEX1204AFN-M10 MS2050	2,5 *0.10*	0,17 *0.0065*	0,17 *0.0065*	0,18 *0.0070*	0,22 *0.0085*
S12	SEEX1204AFN-M10 MS2050	2,5 *0.10*	0,17 *0.0065*	0,17 *0.0065*	0,18 *0.0070*	0,22 *0.0085*
S13	SEEX1204AFN-M10 MS2050	2,0 *0.080*	0,16 *0.0065*	0,16 *0.0065*	0,16 *0.0065*	0,20 *0.0080*
H5	SEMX1204AFTN-MD19 MP3000	3,0 *0.12*	0,24 *0.0095*	0,24 *0.0095*	0,25 *0.010*	0,30 *0.012*
H8	SEMX1204AFTN-MD19 MP3000	2,5 *0.10*	0,19 *0.0075*	0,19 *0.0075*	0,20 *0.0080*	0,24 *0.0095*
H11	SEMX1204AFTN-MD19 MP1501	3,0 *0.12*	0,24 *0.0095*	0,24 *0.0095*	0,25 *0.010*	0,30 *0.012*
H12	SEMX1204AFTN-MD19 MP1501	2,5 *0.10*	0,19 *0.0075*	0,19 *0.0075*	0,20 *0.0080*	0,24 *0.0095*
H21	SEMX1204AFTN-MD19 MP1501	2,5 *0.10*	0,19 *0.0075*	0,19 *0.0075*	0,20 *0.0080*	0,24 *0.0095*

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

R217/220.53-12 – Cutting data v_c = (m/min)/*(sf/min)*

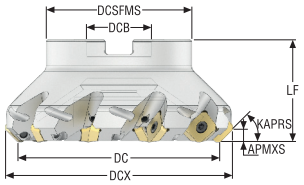
SMG	MK2050				MP3000				MS2050				F40M				H25			
	80%	60%	40%	20%	80%	60%	40%	20%	80%	60%	40%	20%	80%	60%	40%	20%	80%	60%	40%	20%
P1	285 *940*	305 *1000*	345 *1125*	390 *1275*	305 *1000*	330 *1075*	370 *1225*	415 *1350*	270 *890*	290 *950*	325 *1075*	365 *1200*	220 *720*	235 *770*	265 *870*	300 *980*	— —	— —	— —	— —
P2	275 *900*	300 *980*	335 *1100*	375 *1225*	300 *980*	325 *1075*	350 *1150*	405 *1325*	265 *870*	285 *940*	310 *1025*	355 *1175*	210 *690*	230 *750*	255 *840*	290 *950*	— —	— —	— —	— —
P3	240 *790*	260 *850*	295 *970*	330 *1075*	255 *840*	280 *920*	310 *1025*	345 *1125*	225 *740*	245 *800*	270 *890*	305 *1000*	185 *610*	200 *660*	225 *740*	255 *840*	— —	— —	— —	— —
P4	215 *710*	230 *750*	260 *850*	290 *950*	235 *770*	250 *820*	270 *890*	310 *1025*	205 *670*	220 *720*	240 *790*	275 *900*	165 *540*	180 *590*	200 *660*	225 *740*	— —	— —	— —	— —
P5	210 *690*	225 *740*	245 *800*	280 *920*	225 *740*	240 *790*	260 *850*	300 *980*	195 *640*	210 *690*	230 *750*	260 *850*	160 *520*	175 *570*	190 *620*	215 *710*	— —	— —	— —	— —
P6	235 *770*	255 *840*	275 *900*	315 *1025*	250 *820*	270 *890*	290 *950*	335 *1100*	220 *720*	235 *770*	255 *840*	295 *970*	180 *590*	195 *640*	215 *710*	245 *800*	— —	— —	— —	— —
P7	220 *720*	240 *790*	260 *850*	300 *980*	235 *770*	255 *840*	275 *900*	315 *1025*	210 *690*	225 *740*	240 *790*	280 *920*	170 *560*	185 *610*	200 *660*	230 *750*	— —	— —	— —	— —
P8	205 *670*	220 *720*	245 *800*	275 *900*	215 *710*	235 *770*	260 *850*	290 *950*	190 *620*	205 *670*	230 *750*	255 *840*	155 *510*	170 *560*	190 *620*	215 *710*	— —	— —	— —	— —
P11	215 *710*	230 *750*	255 *840*	290 *950*	230 *750*	245 *800*	270 *890*	305 *1000*	200 *660*	215 *710*	235 *770*	270 *890*	165 *540*	180 *590*	195 *640*	225 *740*	— —	— —	— —	— —
P12	140 *460*	150 *490*	170 *560*	190 *620*	150 *490*	160 *520*	175 *570*	200 *660*	130 *425*	140 *460*	155 *510*	175 *570*	110 *360*	115 *375*	130 *425*	145 *475*	— —	— —	— —	— —
M1	— —	— —	— —	— —	225 *740*	240 *790*	260 *850*	300 *980*	210 *690*	230 *750*	250 *820*	285 *940*	170 *560*	185 *610*	205 *670*	235 *770*	— —	— —	— —	— —
M2	— —	— —	— —	— —	185 *610*	200 *660*	215 *710*	250 *820*	175 *570*	190 *620*	205 *670*	235 *770*	145 *475*	155 *510*	170 *560*	195 *640*	— —	— —	— —	— —
M3	— —	— —	— —	— —	150 *490*	160 *520*	180 *590*	200 *660*	140 *460*	150 *490*	170 *560*	190 *620*	115 *375*	125 *410*	140 *460*	155 *510*	— —	— —	— —	— —
M4	— —	— —	— —	— —	115 *375*	125 *410*	140 *460*	155 *510*	110 *360*	120 *395*	130 *425*	150 *490*	90 *295*	95 *310*	105 *345*	125 *410*	— —	— —	— —	— —
M5	— —	— —	— —	— —	95 *310*	105 *345*	115 *375*	130 *425*	90 *295*	100 *330*	110 *360*	125 *410*	75 *245*	80 *260*	90 *295*	100 *330*	— —	— —	— —	— —
K1	300 *980*	320 *1050*	360 *1175*	405 *1325*	235 *770*	255 *840*	280 *920*	320 *1050*	— —	— —	— —	— —	170 *560*	180 *590*	205 *670*	230 *750*	— —	— —	— —	— —
K2	270 *890*	290 *950*	320 *1050*	365 *1200*	210 *690*	230 *750*	245 *800*	285 *940*	— —	— —	— —	— —	150 *490*	165 *540*	180 *590*	205 *670*	— —	— —	— —	— —
K3	230 *750*	245 *800*	270 *890*	310 *1025*	180 *590*	195 *640*	210 *690*	240 *790*	— —	— —	— —	— —	130 *425*	140 *460*	150 *490*	175 *570*	— —	— —	— —	— —
K4	220 *720*	235 *770*	255 *840*	295 *970*	170 *560*	185 *610*	200 *660*	230 *750*	— —	— —	— —	— —	125 *410*	135 *445*	145 *475*	165 *540*	— —	— —	— —	— —
K5	135 *445*	145 *475*	160 *520*	180 *590*	105 *345*	110 *360*	125 *410*	140 *460*	— —	— —	— —	— —	75 *245*	80 *260*	90 *295*	100 *330*	— —	— —	— —	— —
K6	190 *620*	205 *670*	225 *740*	260 *850*	150 *490*	160 *520*	175 *570*	200 *660*	— —	— —	— —	— —	110 *360*	115 *375*	130 *425*	145 *475*	— —	— —	— —	— —
K7	170 *560*	185 *610*	205 *670*	230 *750*	130 *425*	140 *460*	160 *520*	180 *590*	— —	— —	— —	— —	95 *310*	105 *345*	115 *375*	130 *425*	— —	— —	— —	— —
N1	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	1225 *4025*	1325 *4350*	1475 *4850*	1700 *5575*	1550 *5075*	1675 *5500*	1875 *6150*	2100 *6900*
N2	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	500 *1650*	540 *1775*	590 *1925*	680 *2225*	630 *2075*	680 *2225*	750 *2450*	850 *2800*
N3	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	330 *1075*	360 *1175*	395 *1300*	455 *1500*	420 *1375*	450 *1475*	500 *1650*	570 *1875*
N11	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	380 *1250*	410 *1350*	455 *1500*	520 *1700*	480 *1575*	520 *1700*	580 *1900*	650 *2125*
S1	— —	— —	— —	— —	— —	— —	— —	— —	50 *165*	55 *180*	60 *195*	70 *230*	42 *140*	45 *150*	50 *165*	55 *180*	— —	— —	— —	— —
S2	— —	— —	— —	— —	— —	— —	— —	— —	41 *135*	44 *145*	49 *160*	55 *180*	34 *110*	36 *120*	40 *130*	46 *150*	— —	— —	— —	— —
S3	— —	— —	— —	— —	— —	— —	— —	— —	36 *120*	39 *130*	43 *140*	49 *160*	30 *100*	32 *105*	36 *120*	41 *135*	— —	— —	— —	— —
S11	— —	— —	— —	— —	— —	— —	— —	— —	70 *230*	75 *245*	85 *280*	95 *310*	60 *195*	65 *215*	70 *230*	80 *260*	— —	— —	— —	— —
S12	— —	— —	— —	— —	— —	— —	— —	— —	49 *160*	55 *180*	60 *195*	65 *215*	41 *135*	44 *145*	49 *160*	55 *180*	— —	— —	— —	— —
S13	— —	— —	— —	— —	— —	— —	— —	— —	28 *90*	31 *100*	34 *110*	39 *130*	24 *80*	25 *80*	28 *90*	32 *105*	— —	— —	— —	— —
H5	— —	— —	— —	— —	46 *150*	50 *165*	55 *180*	60 *195*	— —	— —	— —	— —	36 *120*	39 *130*	43 *140*	49 *160*	— —	— —	— —	— —
H8	— —	— —	— —	— —	50 *165*	55 *180*	60 *195*	65 *215*	— —	— —	— —	— —	38 *125*	42 *140*	46 *150*	50 *165*	— —	— —	— —	— —
H11	— —	— —	— —	— —	60 *195*	65 *215*	70 *230*	80 *260*	— —	— —	— —	— —	46 *150*	49 *160*	55 *180*	60 *195*	— —	— —	— —	— —
H12	— —	— —	— —	— —	95 *310*	100 *330*	115 *375*	125 *410*	— —	— —	— —	— —	70 *230*	75 *245*	80 *260*	95 *310*	— —	— —	— —	— —
H21	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	38 *125*	42 *140*	46 *150*	50 *165*	— —	— —	— —	— —

R217/220.53-12 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	MK1500				MP1501				MP2501				MP3501				MM4500			
	100%	80%	60%	40%	100%	80%	60%	40%	100%	80%	60%	40%	100%	80%	60%	40%	100%	80%	60%	40%
P1	—	—	—	—	385	395	425	475	375	385	415	460	315	325	350	390	195	210	225	245
	—	—	—	—	*1275*	*1300*	*1400*	*1550*	*1225*	*1275*	*1350*	*1500*	*1025*	*1075*	*1150*	*1275*	*640*	*690*	*740*	*800*
P2	—	—	—	—	375	385	415	460	365	375	405	450	310	315	340	380	190	200	215	240
	—	—	—	—	*1225*	*1275*	*1350*	*1500*	*1200*	*1225*	*1325*	*1475*	*1025*	*1025*	*1125*	*1250*	*620*	*660*	*710*	*790*
P3	—	—	—	—	330	340	365	405	320	330	355	395	275	280	300	335	165	175	190	210
	—	—	—	—	*1075*	*1125*	*1200*	*1325*	*1050*	*1075*	*1175*	*1300*	*900*	*920*	*980*	*1100*	*540*	*570*	*620*	*690*
P4	—	—	—	—	290	300	320	355	285	290	315	350	240	245	265	295	145	155	165	185
	—	—	—	—	*950*	*980*	*1050*	*1175*	*940*	*950*	*1025*	*1150*	*790*	*800*	*870*	*970*	*475*	*510*	*540*	*610*
P5	—	—	—	—	285	295	315	340	280	285	305	330	235	240	260	280	140	150	160	175
	—	—	—	—	*940*	*970*	*1025*	*1125*	*920*	*940*	*1000*	*1075*	*770*	*790*	*850*	*920*	*460*	*490*	*520*	*570*
P6	—	—	—	—	320	330	355	380	315	320	345	375	265	270	290	315	160	170	180	200
	—	—	—	—	*1050*	*1075*	*1175*	*1250*	*1025*	*1050*	*1125*	*1225*	*870*	*890*	*950*	*1025*	*520*	*560*	*590*	*660*
P7	—	—	—	—	305	310	335	360	295	305	325	350	250	255	275	300	150	160	170	185
	—	—	—	—	*1000*	*1025*	*1100*	*1175*	*970*	*1000*	*1075*	*1150*	*820*	*840*	*900*	*980*	*490*	*520*	*560*	*610*
P8	—	—	—	—	280	285	310	340	270	280	300	330	230	235	255	280	140	145	160	175
	—	—	—	—	*920*	*940*	*1025*	*1125*	*890*	*920*	*980*	*1075*	*750*	*770*	*840*	*920*	*460*	*475*	*520*	*570*
P11	—	—	—	—	295	305	325	350	285	295	315	340	245	250	270	290	145	155	165	180
	—	—	—	—	*970*	*1000*	*1075*	*1150*	*940*	*970*	*1025*	*1125*	*800*	*820*	*890*	*950*	*475*	*510*	*540*	*590*
P12	—	—	—	—	195	200	215	230	190	195	210	230	160	170	180	195	95	100	110	120
	—	—	—	—	*640*	*660*	*710*	*750*	*620*	*640*	*690*	*750*	*520*	*560*	*590*	*640*	*310*	*330*	*360*	*395*
M1	—	—	—	—	—	—	—	—	190	200	220	245	170	180	195	215	160	170	185	205
	—	—	—	—	—	—	—	—	*620*	*660*	*720*	*800*	*560*	*590*	*640*	*710*	*520*	*560*	*610*	*670*
M2	—	—	—	—	—	—	—	—	160	170	185	200	140	150	165	180	135	145	155	170
	—	—	—	—	—	—	—	—	*520*	*560*	*610*	*660*	*460*	*490*	*540*	*590*	*445*	*475*	*510*	*560*
M3	—	—	—	—	—	—	—	—	130	135	145	165	115	120	130	145	110	115	125	140
	—	—	—	—	—	—	—	—	*425*	*445*	*475*	*540*	*375*	*395*	*425*	*475*	*360*	*375*	*410*	*460*
M4	—	—	—	—	—	—	—	—	100	105	115	125	90	95	100	110	85	90	95	105
	—	—	—	—	—	—	—	—	*330*	*345*	*375*	*410*	*295*	*310*	*330*	*360*	*280*	*295*	*310*	*345*
M5	—	—	—	—	—	—	—	—	85	90	95	105	75	80	85	95	70	75	80	90
	—	—	—	—	—	—	—	—	*280*	*295*	*310*	*345*	*245*	*260*	*280*	*310*	*230*	*245*	*260*	*295*
K1	295	315	340	380	380	390	420	465	370	380	405	455	310	320	345	385	—	—	—	—
	970	*1025*	*1125*	*1250*	*1250*	*1275*	*1375*	*1525*	*1225*	*1250*	*1325*	*1500*	*1025*	*1050*	*1125*	*1275*	—	—	—	—
K2	270	285	310	335	345	355	380	410	335	345	370	400	285	295	315	340	—	—	—	—
	890	*940*	*1025*	*1100*	*1125*	*1175*	*1250*	*1350*	*1100*	*1125*	*1225*	*1300*	*940*	*970*	*1025*	*1125*	—	—	—	—
K3	225	240	260	285	290	300	325	350	285	295	315	340	240	250	265	290	—	—	—	—
	740	*790*	*850*	*940*	*950*	*980*	*1075*	*1150*	*940*	*970*	*1025*	*1125*	*790*	*820*	*870*	*950*	—	—	—	—
K4	215	230	250	270	280	290	310	330	270	280	300	325	230	235	255	275	—	—	—	—
	710	*750*	*820*	*890*	*920*	*950*	*1025*	*1075*	*890*	*920*	*980*	*1075*	*750*	*770*	*840*	*900*	—	—	—	—
K5	130	140	150	170	170	175	190	205	165	170	185	205	140	145	155	175	—	—	—	—
	425	*460*	*490*	*560*	*560*	*570*	*620*	*670*	*540*	*560*	*610*	*670*	*460*	*475*	*510*	*570*	—	—	—	—
K6	190	205	220	240	245	255	270	295	240	245	265	285	205	210	225	245	—	—	—	—
	620	*670*	*720*	*790*	*800*	*840*	*890*	*970*	*790*	*800*	*870*	*940*	*670*	*690*	*740*	*800*	—	—	—	—
K7	170	180	195	215	220	225	240	265	215	220	235	260	180	185	200	220	—	—	—	—
	560	*590*	*640*	*710*	*720*	*740*	*790*	*870*	*710*	*720*	*770*	*850*	*590*	*610*	*660*	*720*	—	—	—	—
N1	—	—	—	—	—	—	—	—	—	—	—	—	1275	1350	1450	1625	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	*4175*	*4425*	*4750*	*5325*	—	—	—	—
N2	—	—	—	—	—	—	—	—	—	—	—	—	510	550	590	650	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	*1675*	*1800*	*1925*	*2125*	—	—	—	—
N3	—	—	—	—	—	—	—	—	—	—	—	—	345	365	395	435	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	*1125*	*1200*	*1300*	*1425*	—	—	—	—
N11	—	—	—	—	—	—	—	—	—	—	—	—	390	415	450	495	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	*1275*	*1350*	*1475*	*1625*	—	—	—	—
S1	—	—	—	—	—	—	—	—	—	—	—	—	41	44	47	50	26	27	29	33
	—	—	—	—	—	—	—	—	—	—	—	—	*135*	*145*	*155*	*165*	*85*	*90*	*95*	*110*
S2	—	—	—	—	—	—	—	—	—	—	—	—	33	35	38	42	21	22	24	26
	—	—	—	—	—	—	—	—	—	—	—	—	*110*	*115*	*125*	*140*	*70*	*70*	*80*	*85*
S3	—	—	—	—	—	—	—	—	—	—	—	—	30	31	34	37	18	19	21	23
	—	—	—	—	—	—	—	—	—	—	—	—	*100*	*100*	*110*	*120*	*60*	*60*	*70*	*75*
S11	—	—	—	—	—	—	—	—	—	—	—	—	60	60	65	75	36	38	42	46
	—	—	—	—	—	—	—	—	—	—	—	—	*195*	*195*	*215*	*245*	*120*	*125*	*140*	*150*
S12	—	—	—	—	—	—	—	—	—	—	—	—	40	43	46	50	33	35	38	42
	—	—	—	—	—	—	—	—	—	—	—	—	*130*	*140*	*150*	*165*	*110*	*115*	*125*	*140*
S13	—	—	—	—	—	—	—	—	—	—	—	—	23	25	27	29	19	21	22	24
	—	—	—	—	—	—	—	—	—	—	—	—	*75*	*80*	*90*	*95*	*60*	*70*	*70*	*80*
H5	—	—	—	—	50	55	60	65	—	—	—	—	37	39	42	47	—	—	—	—
	—	—	—	—	*165*	*180*	*195*	*215*	—	—	—	—	*120*	*130*	*140*	*155*	—	—	—	—
H8	—	—	—	—	55	55	65	70	—	—	—	—	40	42	46	50	—	—	—	—
	—	—	—	—	*180*	*180*	*215*	*230*	—	—	—	—	*130*	*140*	*150*	*165*	—	—	—	—
H11	—	—	—	—	65	70	75	80	—	—	—	—	47	50	55	60	—	—	—	—
	—	—	—	—	*215*	*230*	*245*	*260*	—	—	—	—	*155*	*165*	*180*	*195*	—	—	—	—
H12	—	—	—	—	95	105	110	120	—	—	—	—	70	75	85	90	—	—	—	—
	—	—	—	—	*310*	*345*	*360*	*395*	—	—	—	—	*230*	*245*	*280*	*295*	—	—	—	—
H21	—	—	—	—	55	55	65	70	—	—	—	—	40	42	46	50	—	—	—	—
	—	—	—	—	*180*	*180*	*215*	*230*	—	—	—	—	*130*	*140*	*150*	*165*	—	—	—	—

Quattromill R220.53-15 – Metric

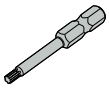




- For insert selection and cutting data recommendations, see page(s) 279-281
- For complete insert programme, see page(s) 823
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	ZEFP	APMXS	KAPRS°	DCX	DCB	DCSFMS	LF	RPMX	Weight	Insert
			mm		mm		mm	mm	mm	mm		kg	
R220.53-0063-15-5A	02486622	Arbor	63,0	5	7,5	45,0	78,0	22,0	47,0	40,0	8300	0,7	SE.X1505
R220.53-0080-15-6A	02486624	Arbor	80,0	6	7,5	45,0	96,0	27,0	62,0	50,0	7400	1,2	SE.X1505
R220.53-0080-15-7A	02486625	Arbor	80,0	7	7,5	45,0	96,0	27,0	62,0	50,0	7400	1,2	SE.X1505
R220.53-0100-15-7A	02486627	Arbor	100,0	7	7,5	45,0	116,0	32,0	77,0	50,0	6600	1,8	SE.X1505
R220.53-0100-15-9A	02486628	Arbor	100,0	9	7,5	45,0	116,0	32,0	77,0	50,0	6600	1,8	SE.X1505
R220.53-0125-15-8A	02486630	Arbor	125,0	8	7,5	45,0	141,0	40,0	90,0	63,0	5900	3,3	SE.X1505
R220.53-0125-15-10A	02486631	Arbor	125,0	10	7,5	45,0	141,0	40,0	90,0	63,0	5900	3,2	SE.X1505
R220.53-8160-15-10	02486633	Arbor	160,0	10	7,5	45,0	176,0	40,0	90,0	63,0	5200	4,7	SE.X1505
R220.53-8200-15-12	02486636	Arbor	200,0	12	7,5	45,0	216,0	60,0	130,0	63,0	4700	7,8	SE.X1505

Spare Parts, included in delivery

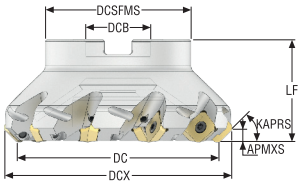
For cutter	Arbor screw	Insert key	Insert screw
			
R220.53-0063	220.17-696	1/4HEX-T20PX50	C05013-T20P
R220.53-0080	–	1/4HEX-T20PX50	C05013-T20P
R220.53-0100-8200	–	1/4HEX-T20PX90	C05013-T20P

Accessories

For cutter	Adjustable Torque key	Arbor screw	Insert clamping torque	Torque key
				
R220.53-0063	1/4HEX-T-HANDLE-5.0-14.0NM	–	5.0NM	T00-20P50
R220.53-0080	1/4HEX-T-HANDLE-5.0-14.0NM	5802712	5.0NM	T00-20P50
R220.53-0100	1/4HEX-T-HANDLE-5.0-14.0NM	5803216	5.0NM	T00-20P50
R220.53-0125	1/4HEX-T-HANDLE-5.0-14.0NM	5804020	5.0NM	T00-20P50
R220.53-8160	1/4HEX-T-HANDLE-5.0-14.0NM	MC6S12X40	5.0NM	T00-20P50
R220.53-8200	1/4HEX-T-HANDLE-5.0-14.0NM	MC6S16X50	5.0NM	T00-20P50

Torque and fixed keys, see page 872

Quattromill R220.53-15 – inch

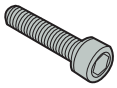
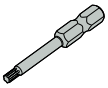




- For insert selection and cutting data recommendations, see page(s) 279-281
- For complete insert programme, see page(s) 823
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	ZEFP	APMXS	KAPRS°	DCX	DCB	DCSFMS	LF	RPMX	Weight	Insert
			inch		inch		inch	inch	inch	inch		lbs	
R220.53-03.00-15-6A	02486638	Arbor	3.150	6	0.295	45.0	3.740	1.000	2.441	1.969	7400	2.870	SE.X1505
R220.53-04.00-15-7A	02486644	Arbor	3.937	7	0.295	45.0	4.528	1.500	3.543	1.969	6600	4.850	SE.X1505
R220.53-06.00-15-10	02486653	Arbor	6.299	10	0.295	45.0	6.890	2.000	3.543	2.480	5200	10.800	SE.X1505

Spare Parts, included in delivery

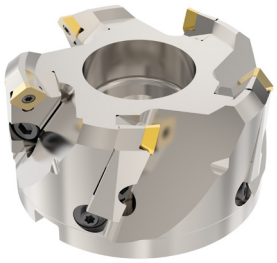
For cutter	Arbor screw	Insert key	Insert screw
			
R220.53-03.00	UC6S1/2UNFX1-1/4	1/4HEX-T20PX50	C05013-T20P
R220.53-04.00	UF6S3/4UNFX1-3/4	1/4HEX-T20PX90	C05013-T20P
R220.53-06.00	–	1/4HEX-T20PX90	C05013-T20P

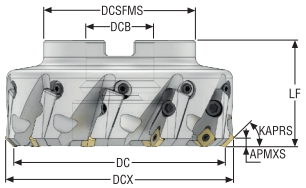
Accessories

For cutter	Adjustable Torque key	Arbor screw	Insert clamping torque	Torque key
				
R220.53-03.00-04.00	1/4HEX-T-HANDLE-5.0-14.0NM	–	44.3IN.LBS	T00-20P50
R220.53-06.00	1/4HEX-T-HANDLE-5.0-14.0NM	58215080	44.3IN.LBS	T00-20P50

Torque and fixed keys, see page 872

Quattromill R220.53-15C – Metric

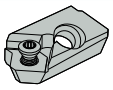
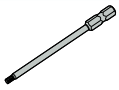




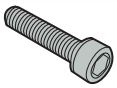
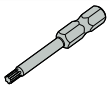
- For insert selection and cutting data recommendations, see page(s) 279-281
- For complete insert programme, see page(s) 823
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	ZEFP	APMXS	KAPRS°	DCX	DCB	DCSFMS	LF	RPMX	Weight	Insert
			mm		mm		mm	mm	mm	mm		kg	
R220.53-0125-15-8C	02510199	Arbor	125,0	8	7,5	45,0	141,0	40,0	90,0	63,0	5900	4,2	SE.X1505
R220.53-8160-15-7C	02510219	Arbor	160,0	7	7,5	45,0	176,0	40,0	90,0	63,0	5200	6,5	SE.X1505
R220.53-8160-15-10C	02510202	Arbor	160,0	10	7,5	45,0	176,0	40,0	90,0	63,0	5200	6,6	SE.X1505
R220.53-8200-15-12C	02510204	Arbor	200,0	12	7,5	45,0	216,0	60,0	130,0	63,0	4700	9,8	SE.X1505
R220.53-8250-15-10C	02510234	Arbor	250,0	10	7,5	45,0	266,0	60,0	130,0	63,0	4200	17,0	SE.X1505
R220.53-8250-15-16C	02510231	Arbor	250,0	16	7,5	45,0	260,0	60,0	130,0	63,0	4200	17,1	SE.X1505
R220.53-8315-15-12C	02510235	Arbor	315,0	12	7,5	45,0	331,0	60,0	225,0	80,0	3700	32,6	SE.X1505

Spare Parts, included in delivery

For cutter	Adjustment unit	Cassette	Cassette screw	Insert key	Insert screw
					
R220.53-0080-8315	AU1114T-T15P	SE15AR-53	FS96018	1/4HEX-T20PX90	C05010-T20P

Accessories

For cutter	Adjustable Torque key	Arbor screw	Arbor screw 2	Insert clamping torque	Setting key	Torque key
						
R220.53-0080-0125	1/4HEX-T-HANDLE-5.0-14.0NM	5804020	–	5.0NM	1/4HEX-T15PX50	T00-20P50
R220.53-8160	1/4HEX-T-HANDLE-5.0-14.0NM	MC6S12X40	–	5.0NM	1/4HEX-T15PX50	T00-20P50
R220.53-8200-8250	1/4HEX-T-HANDLE-5.0-14.0NM	MC6S16X50	–	5.0NM	1/4HEX-T15PX50	T00-20P50
R220.53-8315	1/4HEX-T-HANDLE-5.0-14.0NM	MC6S16X50	MC6S20X50	5.0NM	1/4HEX-T15PX50	T00-20P50

Torque and fixed keys, see page 872

R220.53-15 – Insert selection – mm/*Inch*

SMG		a_p	f_z			
			80%	60%	40%	20%
P1	SEMX1505AFTN-ME15 MP3501	4,5 *0.18*	0,30 *0.012*	0,30 *0.012*	0,30 *0.012*	0,38 *0.015*
P2	SEMX1505AFTN-ME15 MP3501	4,5 *0.18*	0,30 *0.012*	0,30 *0.012*	0,30 *0.012*	0,38 *0.015*
P3	SEMX1505AFTN-M18 MP2501	4,5 *0.18*	0,36 *0.014*	0,36 *0.014*	0,38 *0.015*	0,46 *0.018*
P4	SEMX1505AFTN-M18 MP2501	4,5 *0.18*	0,36 *0.014*	0,36 *0.014*	0,36 *0.014*	0,46 *0.018*
P5	SEMX1505AFTN-M18 MP2501	4,5 *0.18*	0,36 *0.014*	0,36 *0.014*	0,36 *0.014*	0,46 *0.017*
P6	SEMX1505AFTN-M18 MP2501	4,5 *0.18*	0,34 *0.013*	0,34 *0.013*	0,36 *0.014*	0,44 *0.017*
P7	SEMX1505AFTN-M18 MP3501	4,5 *0.18*	0,34 *0.013*	0,34 *0.013*	0,36 *0.014*	0,44 *0.017*
P8	SEMX1505AFTN-M18 MP3501	4,5 *0.18*	0,36 *0.014*	0,36 *0.014*	0,38 *0.015*	0,46 *0.018*
P11	SEEX1505AFN-M12 MP2050	4,5 *0.18*	0,26 *0.010*	0,26 *0.010*	0,28 *0.011*	0,34 *0.013*
P12	SEEX1505AFN-M12 MP2050	3,5 *0.14*	0,19 *0.0075*	0,19 *0.0075*	0,20 *0.0080*	0,24 *0.0095*
M1	SEEX1505AFN-M12 F40M	4,5 *0.18*	0,28 *0.011*	0,28 *0.011*	0,28 *0.011*	0,34 *0.013*
M2	SEEX1505AFN-M12 MS2050	4,5 *0.18*	0,25 *0.010*	0,25 *0.010*	0,26 *0.010*	0,32 *0.013*
M3	SEEX1505AFN-M12 MS2050	3,5 *0.14*	0,20 *0.0080*	0,20 *0.0080*	0,22 *0.0085*	0,26 *0.010*
M4	SEEX1505AFN-M12 MP2050	2,5 *0.10*	0,20 *0.0080*	0,20 *0.0080*	0,22 *0.0085*	0,26 *0.010*
M5	SEEX1505AFN-M12 MP2050	2,5 *0.10*	0,20 *0.0080*	0,20 *0.0080*	0,22 *0.0085*	0,26 *0.010*
K1	SEMX1505AFTN-M18 MK1500	4,5 *0.18*	0,38 *0.015*	0,38 *0.015*	0,40 *0.016*	0,50 *0.020*
K2	SEMX1505AFTN-M18 MK1500	4,5 *0.18*	0,36 *0.014*	0,36 *0.014*	0,36 *0.014*	0,46 *0.017*
K3	SEMX1505AFTN-M18 MP1501	4,5 *0.18*	0,36 *0.014*	0,36 *0.014*	0,36 *0.014*	0,46 *0.017*
K4	SEMX1505AFTN-M18 MP1501	4,5 *0.18*	0,36 *0.014*	0,36 *0.014*	0,36 *0.014*	0,46 *0.017*
K5	SEMX1505AFTN-M18 MP1501	4,5 *0.18*	0,32 *0.013*	0,32 *0.013*	0,32 *0.013*	0,40 *0.016*
K6	SEMX1505AFTN-M18 MK2050	4,5 *0.18*	0,36 *0.014*	0,36 *0.014*	0,36 *0.014*	0,46 *0.017*
K7	SEMX1505AFTN-M18 MK2050	4,5 *0.18*	0,32 *0.013*	0,32 *0.013*	0,32 *0.013*	0,40 *0.016*
N1	SEEX1505AFN-E10 H25	4,5 *0.18*	0,28 *0.011*	0,28 *0.011*	0,30 *0.012*	0,38 *0.015*
N2	SEEX1505AFN-E10 H25	4,5 *0.18*	0,28 *0.011*	0,28 *0.011*	0,30 *0.012*	0,38 *0.015*
N3	SEEX1505AFN-E10 H25	4,5 *0.18*	0,28 *0.011*	0,28 *0.011*	0,30 *0.012*	0,38 *0.015*
N11	SEEX1505AFN-E10 H25	4,5 *0.18*	0,28 *0.011*	0,28 *0.011*	0,30 *0.012*	0,38 *0.015*
S1	SEEX1505AFN-M12 MP2050	2,5 *0.10*	0,20 *0.0080*	0,20 *0.0080*	0,22 *0.0085*	0,26 *0.010*
S2	SEEX1505AFN-M12 MP2050	2,5 *0.10*	0,20 *0.0080*	0,20 *0.0080*	0,22 *0.0085*	0,26 *0.010*
S3	SEEX1505AFN-M12 MP2050	2,5 *0.10*	0,19 *0.0075*	0,19 *0.0075*	0,20 *0.0080*	0,24 *0.0095*
S11	SEEX1505AFN-M12 MS2050	3,0 *0.12*	0,20 *0.0080*	0,20 *0.0080*	0,22 *0.0085*	0,26 *0.010*
S12	SEEX1505AFN-M12 MS2050	3,0 *0.12*	0,20 *0.0080*	0,20 *0.0080*	0,22 *0.0085*	0,26 *0.010*
S13	SEEX1505AFN-M12 MS2050	2,5 *0.10*	0,19 *0.0075*	0,19 *0.0075*	0,20 *0.0080*	0,24 *0.0095*
H5	SEMX1505AFTN-MD20 MP3000	3,5 *0.14*	0,28 *0.011*	0,28 *0.011*	0,28 *0.011*	0,36 *0.014*
H8	SEMX1505AFTN-MD20 MP3000	3,0 *0.12*	0,22 *0.0085*	0,22 *0.0085*	0,22 *0.0085*	0,28 *0.011*
H11	SEMX1505AFTN-MD20 MP1501	3,5 *0.14*	0,28 *0.011*	0,28 *0.011*	0,28 *0.011*	0,36 *0.014*
H12	SEMX1505AFTN-MD20 MP1501	3,0 *0.12*	0,22 *0.0085*	0,22 *0.0085*	0,22 *0.0085*	0,28 *0.011*
H21	SEMX1505AFTN-MD20 MP1501	3,0 *0.12*	0,22 *0.0085*	0,22 *0.0085*	0,22 *0.0085*	0,28 *0.011*

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

R220.53-15 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	MK2050				MP3000				MS2050				F40M				MP2050				H25			
	80%	60%	40%	20%	80%	60%	40%	20%	80%	60%	40%	20%	80%	60%	40%	20%	80%	60%	40%	20%	80%	60%	40%	20%
P1	255	275	305	350	230	250	275	310	245	265	290	330	195	215	235	270	275	300	335	385	—	—	—	—
	840	*900*	*1000*	*1150*	*750*	*820*	*900*	*1025*	*800*	*870*	*950*	*1075*	*640*	*710*	*770*	*890*	*900*	*980*	*1100*	*1275*	—	—	—	—
P2	250	270	300	335	220	240	270	305	235	255	285	320	190	210	230	260	270	290	325	365	—	—	—	—
	820	*890*	*980*	*1100*	*720*	*790*	*890*	*1000*	*770*	*840*	*940*	*1050*	*620*	*690*	*750*	*850*	*890*	*950*	*1075*	*1200*	—	—	—	—
P3	220	235	260	300	195	210	235	270	205	225	250	280	170	180	200	230	235	255	285	320	—	—	—	—
	720	*770*	*850*	*980*	*640*	*690*	*770*	*890*	*670*	*740*	*820*	*920*	*560*	*590*	*660*	*750*	*770*	*840*	*940*	*1050*	—	—	—	—
P4	195	210	235	265	175	185	205	235	185	200	220	250	150	160	180	200	210	225	250	290	—	—	—	—
	640	*690*	*770*	*870*	*570*	*610*	*670*	*770*	*610*	*660*	*720*	*820*	*490*	*520*	*590*	*660*	*690*	*740*	*820*	*950*	—	—	—	—
P5	185	200	225	255	165	180	200	225	175	190	210	235	140	155	170	195	205	220	240	275	—	—	—	—
	610	*660*	*740*	*840*	*540*	*590*	*660*	*740*	*570*	*620*	*690*	*770*	*460*	*510*	*560*	*640*	*670*	*720*	*790*	*900*	—	—	—	—
P6	210	230	250	285	190	205	225	255	195	215	240	265	160	175	195	220	230	250	270	310	—	—	—	—
	690	*750*	*820*	*940*	*620*	*670*	*740*	*840*	*640*	*710*	*790*	*870*	*520*	*570*	*640*	*720*	*750*	*820*	*890*	*1025*	—	—	—	—
P7	200	215	235	270	180	190	210	240	185	200	225	250	155	165	180	205	215	235	255	290	—	—	—	—
	660	*710*	*770*	*890*	*590*	*620*	*690*	*790*	*610*	*660*	*740*	*820*	*510*	*540*	*590*	*670*	*710*	*770*	*840*	*950*	—	—	—	—
P8	185	200	220	250	165	180	195	225	175	185	210	235	140	155	170	195	200	215	240	270	—	—	—	—
	610	*660*	*720*	*820*	*540*	*590*	*640*	*740*	*570*	*610*	*690*	*770*	*460*	*510*	*560*	*640*	*660*	*710*	*790*	*890*	—	—	—	—
P11	195	210	230	260	175	185	205	235	180	195	220	245	150	160	175	200	210	225	250	285	—	—	—	—
	640	*690*	*750*	*850*	*570*	*610*	*670*	*770*	*590*	*640*	*720*	*800*	*490*	*520*	*570*	*660*	*690*	*740*	*820*	*940*	—	—	—	—
P12	125	135	150	175	115	125	135	155	120	130	140	160	95	105	115	135	135	145	165	185	—	—	—	—
	410	*445*	*490*	*570*	*375*	*410*	*445*	*510*	*395*	*425*	*460*	*520*	*310*	*345*	*375*	*445*	*445*	*475*	*540*	*610*	—	—	—	—
M1	—	—	—	—	165	180	200	225	190	205	230	260	155	165	185	210	195	210	235	265	—	—	—	—
	—	—	—	—	*540*	*590*	*660*	*740*	*620*	*670*	*750*	*850*	*510*	*540*	*610*	*690*	*640*	*690*	*770*	*870*	—	—	—	—
M2	—	—	—	—	140	150	165	190	160	170	190	215	125	140	155	175	165	175	195	220	—	—	—	—
	—	—	—	—	*460*	*490*	*540*	*620*	*520*	*560*	*620*	*710*	*410*	*460*	*510*	*570*	*540*	*570*	*640*	*720*	—	—	—	—
M3	—	—	—	—	115	125	135	155	130	140	155	175	105	110	125	145	130	140	160	175	—	—	—	—
	—	—	—	—	*375*	*410*	*445*	*510*	*425*	*460*	*510*	*570*	*345*	*360*	*410*	*475*	*425*	*460*	*520*	*570*	—	—	—	—
M4	—	—	—	—	90	95	105	120	100	110	120	135	80	90	100	110	100	110	120	140	—	—	—	—
	—	—	—	—	*295*	*310*	*345*	*395*	*330*	*360*	*395*	*445*	*260*	*295*	*330*	*360*	*330*	*360*	*395*	*460*	—	—	—	—
M5	—	—	—	—	75	80	90	100	85	90	100	115	70	75	80	95	85	90	100	115	—	—	—	—
	—	—	—	—	*245*	*260*	*295*	*330*	*280*	*295*	*330*	*375*	*230*	*245*	*260*	*310*	*280*	*295*	*330*	*375*	—	—	—	—
K1	270	290	320	365	175	190	210	240	—	—	—	—	150	165	180	205	—	—	—	—	—	—	—	—
	890	*950*	*1050*	*1200*	*570*	*620*	*690*	*790*	—	—	—	—	*490*	*540*	*590*	*670*	—	—	—	—	—	—	—	—
K2	240	255	290	330	155	170	190	215	—	—	—	—	135	145	165	185	—	—	—	—	—	—	—	—
	790	*840*	*950*	*1075*	*510*	*560*	*620*	*710*	—	—	—	—	*445*	*475*	*540*	*610*	—	—	—	—	—	—	—	—
K3	200	220	245	280	130	145	160	180	—	—	—	—	115	125	140	155	—	—	—	—	—	—	—	—
	660	*720*	*800*	*920*	*425*	*475*	*520*	*590*	—	—	—	—	*375*	*410*	*460*	*510*	—	—	—	—	—	—	—	—
K4	190	210	235	265	125	135	155	175	—	—	—	—	110	115	130	150	—	—	—	—	—	—	—	—
	620	*690*	*770*	*870*	*410*	*445*	*510*	*570*	—	—	—	—	*360*	*375*	*425*	*490*	—	—	—	—	—	—	—	—
K5	120	130	145	165	80	85	95	105	—	—	—	—	65	75	80	90	—	—	—	—	—	—	—	—
	395	*425*	*475*	*540*	*260*	*280*	*310*	*345*	—	—	—	—	*215*	*245*	*260*	*295*	—	—	—	—	—	—	—	—
K6	170	185	205	235	110	120	135	155	—	—	—	—	95	105	115	130	—	—	—	—	—	—	—	—
	560	*610*	*670*	*770*	*360*	*395*	*445*	*510*	—	—	—	—	*310*	*345*	*375*	*425*	—	—	—	—	—	—	—	—
K7	150	165	185	210	100	110	120	135	—	—	—	—	85	95	105	120	—	—	—	—	—	—	—	—
	490	*540*	*610*	*690*	*330*	*360*	*395*	*445*	—	—	—	—	*280*	*310*	*345*	*395*	—	—	—	—	—	—	—	—
N1	—	—	—	—	1275	1375	1550	1750	—	—	—	—	1100	1175	1325	1475	—	—	—	—	1450	1550	1700	1950
	—	—	—	—	*4175*	*4500*	*5075*	*5750*	—	—	—	—	*3600*	*3850*	*4350*	*4850*	—	—	—	—	*4750*	*5075*	*5575*	*6400*
N2	—	—	—	—	510	560	630	710	—	—	—	—	440	475	540	600	—	—	—	—	580	630	690	790
	—	—	—	—	*1675*	*1825*	*2075*	*2325*	—	—	—	—	*1450*	*1550*	*1775*	*1975*	—	—	—	—	*1900*	*2075*	*2275*	*2600*
N3	—	—	—	—	340	370	420	470	—	—	—	—	295	320	360	400	—	—	—	—	385	420	460	520
	—	—	—	—	*1125*	*1225*	*1375*	*1550*	—	—	—	—	*970*	*1050*	*1175*	*1300*	—	—	—	—	*1275*	*1375*	*1500*	*1700*
N11	—	—	—	—	390	425	480	540	—	—	—	—	335	365	410	460	—	—	—	—	445	480	520	600
	—	—	—	—	*1275*	*1400*	*1575*	*1775*	—	—	—	—	*1100*	*1200*	*1350*	*1500*	—	—	—	—	*1450*	*1575*	*1700*	*1975*
S1	—	—	—	—	41	44	49	55	47	50	55	65	38	41	46	50	50	55	60	70	—	—	—	—
	—	—	—	—	*135*	*145*	*160*	*180*	*155*	*165*	*180*	*215*	*125*	*135*	*150*	*165*	*165*	*180*	*195*	*230*	—	—	—	—
S2	—	—	—	—	33	36	40	45	38	41	45	50	31	33	37	42	40	43	48	55	—	—	—	—
	—	—	—	—	*110*	*120*	*130*	*150*	*125*	*135*	*150*	*165*	*100*	*110*	*120*	*140*	*130*	*140*	*155*	*180*	—	—	—	—
S3	—	—	—	—	29	31	35	40	33	36	39	45	27	29	33	37	36	38	42	48	—	—	—	—
	—	—	—	—	*95*	*100*	*115*	*130*	*110*	*120*	*130*	*150*	*90*	*95*	*110*	*120*	*120*	*125*	*140*	*155*	—	—	—	—
S11	—	—	—	—	55	60	70	80	65	70	80	90	55	55	65	70	70	75	85	95	—	—	—	—
	—	—	—	—	*180*	*195*	*230*	*260*	*215*	*230*	*260*	*295*	*180*	*180*	*215*	*230*	*230*	*245*	*280*	*310*	—	—	—	—
S12	—	—	—	—	39	43	47	55	44	49	55	60	36	39	44	50	48	50	60	65	—	—	—	—
	—	—	—	—	*130*	*140*	*155*	*180*	*145*	*160*	*180*	*195*	*120*	*130*	*145*	*165*	*155*	*165*	*195*	*215*	—	—	—	—
S13	—	—	—	—	23	25	28	32	26	28	31	36	21	23	26	29	28	30	33	38	—	—	—	—
	—	—	—	—	*75*	*80*	*90*	*105*	*85*	*90*	*100*	*120*	*70*	*75*	*85*	*95*	*90*	*100*	*110*	*125*	—	—	—	—
H5	—	—	—	—	35	38	42	48	—	—	—	—	32	35	39	44	—	—	—	—	—	—	—	—
	—	—	—	—	*115*	*125*	*140*	*155*	—	—	—	—	*105*	*115*	*130*	*145*	—	—	—	—	—	—	—	—
H8	—	—	—	—	38	41	46	50	—	—	—	—	35	38	42	47	—	—	—	—	—	—	—	—
	—	—	—	—	*125*	*135*	*150*	*165*	—	—	—	—	*115*	*125*	*140*	*155*	—	—	—	—	—	—	—	—
H11	—	—	—	—	45	48	55	60	—	—	—	—	41	44	49	55	50	55	65	70	—	—	—	—
	—	—	—	—	*150*	*155*	*180*	*195*	—	—	—	—	*135*	*145*	*160*	*180*	*165*	*180*	*215*	*230*	—	—	—	—
H12	—	—	—	—	75	80	90	100	—	—	—	—	65	70	75	85	90	95	105	120	—	—	—	—
	—	—	—	—	*245*	*260*	*295*	*330*	—	—	—	—	*215*	*230*	*245*	*280*	*295*	*310*	*345*	*395*	—	—	—	—
H21	—	—	—	—	38	41	46	50	—	—	—	—	35	38	42	47	44	48	50	60	—	—	—	—
	—	—	—	—	*125*	*135*	*150*	*165*	—	—	—	—	*115*	*125*	*140*	*155*	*145*	*155*	*165*	*195*	—	—	—	—

R220.53-15 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	MK1500				MP1501				MP2501				MP3501			
	80%	60%	40%	20%	80%	60%	40%	20%	80%	60%	40%	20%	80%	60%	40%	20%
P1	—	—	—	—	345	375	410	460	335	360	395	450	295	320	350	400
	—	—	—	—	*1125*	*1225*	*1350*	*1500*	*1100*	*1175*	*1300*	*1475*	*970*	*1050*	*1150*	*1300*
P2	—	—	—	—	340	365	400	445	325	350	385	430	285	310	340	380
	—	—	—	—	*1125*	*1200*	*1300*	*1450*	*1075*	*1150*	*1275*	*1400*	*940*	*1025*	*1125*	*1250*
P3	—	—	—	—	300	320	350	395	290	310	340	380	255	275	300	340
	—	—	—	—	*980*	*1050*	*1150*	*1300*	*950*	*1025*	*1125*	*1250*	*840*	*900*	*980*	*1125*
P4	—	—	—	—	260	280	315	345	255	275	305	335	225	240	270	300
	—	—	—	—	*850*	*920*	*1025*	*1125*	*840*	*900*	*1000*	*1100*	*740*	*790*	*890*	*980*
P5	—	—	—	—	250	270	300	335	240	260	290	325	215	230	260	290
	—	—	—	—	*820*	*890*	*980*	*1100*	*790*	*850*	*950*	*1075*	*710*	*750*	*850*	*950*
P6	—	—	—	—	290	310	335	375	280	300	325	365	245	265	290	325
	—	—	—	—	*950*	*1025*	*1100*	*1225*	*920*	*980*	*1075*	*1200*	*800*	*870*	*950*	*1075*
P7	—	—	—	—	270	290	320	355	265	285	310	345	230	250	275	310
	—	—	—	—	*890*	*950*	*1050*	*1175*	*870*	*940*	*1025*	*1125*	*750*	*820*	*900*	*1025*
P8	—	—	—	—	250	270	295	330	240	260	285	320	215	230	255	285
	—	—	—	—	*820*	*890*	*970*	*1075*	*790*	*850*	*940*	*1050*	*710*	*750*	*840*	*940*
P11	—	—	—	—	265	285	310	345	255	275	300	335	225	245	265	300
	—	—	—	—	*870*	*940*	*1025*	*1125*	*840*	*900*	*980*	*1100*	*740*	*800*	*870*	*980*
P12	—	—	—	—	175	190	205	230	170	185	200	225	155	165	180	200
	—	—	—	—	*570*	*620*	*670*	*750*	*560*	*610*	*660*	*740*	*510*	*540*	*590*	*660*
M1	—	—	—	—	—	—	—	—	180	195	215	240	165	180	200	225
	—	—	—	—	—	—	—	—	*590*	*640*	*710*	*790*	*540*	*590*	*660*	*740*
M2	—	—	—	—	—	—	—	—	145	160	180	205	135	150	165	190
	—	—	—	—	—	—	—	—	*475*	*520*	*590*	*670*	*445*	*490*	*540*	*620*
M3	—	—	—	—	—	—	—	—	120	130	145	165	110	120	135	155
	—	—	—	—	—	—	—	—	*395*	*425*	*475*	*540*	*360*	*395*	*445*	*510*
M4	—	—	—	—	—	—	—	—	95	100	115	130	90	95	105	120
	—	—	—	—	—	—	—	—	*310*	*330*	*375*	*425*	*295*	*310*	*345*	*395*
M5	—	—	—	—	—	—	—	—	80	85	95	105	75	80	90	100
	—	—	—	—	—	—	—	—	*260*	*280*	*310*	*345*	*245*	*260*	*295*	*330*
K1	280	300	330	375	340	365	400	445	330	355	390	435	290	315	345	385
	920	*980*	*1075*	*1225*	*1125*	*1200*	*1300*	*1450*	*1075*	*1175*	*1275*	*1425*	*950*	*1025*	*1125*	*1275*
K2	245	265	300	340	305	325	365	405	290	315	350	395	260	280	315	350
	800	*870*	*980*	*1125*	*1000*	*1075*	*1200*	*1325*	*950*	*1025*	*1150*	*1300*	*850*	*920*	*1025*	*1150*
K3	210	225	250	290	255	275	305	345	245	265	300	335	220	235	265	295
	690	*740*	*820*	*950*	*840*	*900*	*1000*	*1125*	*800*	*870*	*980*	*1100*	*720*	*770*	*870*	*970*
K4	200	215	240	275	245	265	295	325	235	255	285	320	210	225	250	285
	660	*710*	*790*	*900*	*800*	*870*	*970*	*1075*	*770*	*840*	*940*	*1050*	*690*	*740*	*820*	*940*
K5	125	135	150	170	155	165	180	200	150	160	175	195	130	140	160	175
	410	*445*	*490*	*560*	*510*	*540*	*590*	*660*	*490*	*520*	*570*	*640*	*425*	*460*	*520*	*570*
K6	175	190	210	240	215	230	260	290	210	225	250	280	185	200	220	250
	570	*620*	*690*	*790*	*710*	*750*	*850*	*950*	*690*	*740*	*820*	*920*	*610*	*660*	*720*	*820*
K7	160	170	190	215	195	210	235	260	190	205	225	250	170	180	200	225
	520	*560*	*620*	*710*	*640*	*690*	*770*	*850*	*620*	*670*	*740*	*820*	*560*	*590*	*660*	*740*
N1	—	—	—	—	—	—	—	—	—	—	—	—	1225	1325	1500	1675
	—	—	—	—	—	—	—	—	—	—	—	—	*4025*	*4350*	*4925*	*5500*
N2	—	—	—	—	—	—	—	—	—	—	—	—	495	540	600	680
	—	—	—	—	—	—	—	—	—	—	—	—	*1625*	*1775*	*1975*	*2225*
N3	—	—	—	—	—	—	—	—	—	—	—	—	330	360	405	450
	—	—	—	—	—	—	—	—	—	—	—	—	*1075*	*1175*	*1325*	*1475*
N11	—	—	—	—	—	—	—	—	—	—	—	—	380	410	460	520
	—	—	—	—	—	—	—	—	—	—	—	—	*1250*	*1350*	*1500*	*1700*
S1	—	—	—	—	—	—	—	—	—	—	—	—	41	44	49	55
	—	—	—	—	—	—	—	—	—	—	—	—	*135*	*145*	*160*	*180*
S2	—	—	—	—	—	—	—	—	—	—	—	—	33	36	40	45
	—	—	—	—	—	—	—	—	—	—	—	—	*110*	*120*	*130*	*150*
S3	—	—	—	—	—	—	—	—	—	—	—	—	29	32	35	40
	—	—	—	—	—	—	—	—	—	—	—	—	*95*	*105*	*115*	*130*
S11	—	—	—	—	—	—	—	—	—	—	—	—	55	60	70	80
	—	—	—	—	—	—	—	—	—	—	—	—	*180*	*195*	*230*	*260*
S12	—	—	—	—	—	—	—	—	—	—	—	—	39	42	47	55
	—	—	—	—	—	—	—	—	—	—	—	—	*130*	*140*	*155*	*180*
S13	—	—	—	—	—	—	—	—	—	—	—	—	23	25	28	31
	—	—	—	—	—	—	—	—	—	—	—	—	*75*	*80*	*90*	*100*
H5	—	—	—	—	47	50	55	65	—	—	—	—	36	39	44	50
	—	—	—	—	*155*	*165*	*180*	*215*	—	—	—	—	*120*	*130*	*145*	*165*
H8	—	—	—	—	50	55	60	70	—	—	—	—	40	43	47	55
	—	—	—	—	*165*	*180*	*195*	*230*	—	—	—	—	*130*	*140*	*155*	*180*
H11	—	—	—	—	60	65	70	80	—	—	—	—	46	50	55	65
	—	—	—	—	*195*	*215*	*230*	*260*	—	—	—	—	*150*	*165*	*180*	*215*
H12	—	—	—	—	90	100	110	125	—	—	—	—	70	75	85	95
	—	—	—	—	*295*	*330*	*360*	*410*	—	—	—	—	*230*	*245*	*280*	*310*
H21	—	—	—	—	50	55	60	70	—	—	—	—	40	43	47	55
	—	—	—	—	*165*	*180*	*195*	*230*	—	—	—	—	*130*	*140*	*155*	*180*

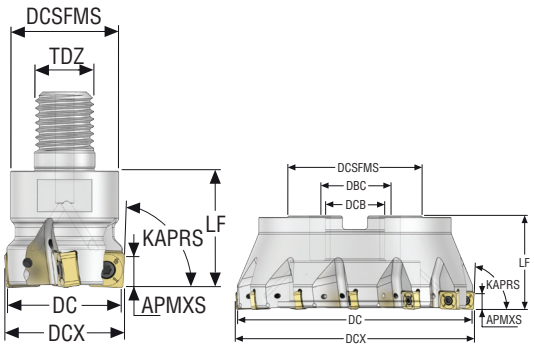


R220.88 (SNMU)

The R220.88 cutters with SNMU12/16 inserts provide high depth-of-cut capabilities, along with an economical eight cutting edges per insert. These cutters provide strong performance in machining steels and cast iron and are available in two insert sizes, 12 and 16. This tool is ideal for roughing and semi-finishing operations.

- Insert size 12, cutter range 40-160mm (1.5-6.0 inch)
- Insert size 16, cutter range 63-160mm (2.5-6.0 inch)

R220.88-12 – Metric

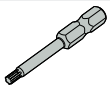
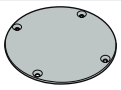




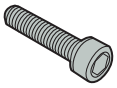
- For insert selection and cutting data recommendations, see page(s) 287-288
- For complete insert programme, see page(s) 834
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	ZEFP	APMXS	KAPRS°	DCX	DCB	DCSFMS	LF	RPMX	Weight	Insert
			mm		mm		mm	mm	mm	mm		kg	
R217.88-2040.RE-12-4SAP	10130009	Combimaster	40,0	4	9,0	88.0	41,4	–	37,0	40,0	12600	0,3	SN.U1204
R220.88-0040-12-4SAP	10130008	Arbor	40,0	4	9,0	88.0	41,4	16,0	35,0	40,0	12600	0,3	SN.U1204
R220.88-0050-12-4SAP	10134775	Arbor	50,0	4	9,0	88.0	51,2	22,0	47,0	40,0	12600	0,4	SN.U1204
R220.88-0050-12-5SAP	10134776	Arbor	50,0	5	9,0	88.0	51,2	22,0	47,0	40,0	12600	0,4	SN.U1204
R220.88-0063-12-6SAP	10134777	Arbor	63,0	6	9,0	88.0	64,5	22,0	47,0	40,0	11200	0,5	SN.U1204
R220.88-0063-12-7SAP	10134778	Arbor	63,0	7	9,0	88.0	64,5	22,0	47,0	40,0	11200	0,5	SN.U1204
R220.88-0080-12-7SAP	10134779	Arbor	80,0	7	9,0	88.0	81,16	27,0	62,0	50,0	9900	1,2	SN.U1204
R220.88-0080-12-9SAP	10134780	Arbor	80,0	9	9,0	88.0	81,16	27,0	62,0	50,0	9900	1,1	SN.U1204
R220.88-0100-12-8SAP	10134782	Arbor	100,0	8	9,0	88.0	101,15	32,0	77,0	50,0	8900	1,9	SN.U1204
R220.88-0100-12-11SAP	10134781	Arbor	100,0	11	9,0	88.0	101,15	32,0	77,0	50,0	8900	1,9	SN.U1204
R220.88-0125-12-10SAP	10134783	Arbor	125,0	10	9,0	88.0	126,15	40,0	90,0	63,0	7900	3,7	SN.U1204
R220.88-0125-12-13SAP	10134784	Arbor	125,0	13	9,0	88.0	126,15	40,0	90,0	63,0	7900	3,7	SN.U1204
R220.88-8160-12-12SAP	10134785	Arbor	160,0	12	9,0	88.0	161,14	40,0	90,0	63,0	7000	5,6	SN.U1204
R220.88-8160-12-16SAP	10134786	Arbor	160,0	16	9,0	88.0	161,14	40,0	90,0	63,0	7000	5,6	SN.U1204

Spare Parts, included in delivery

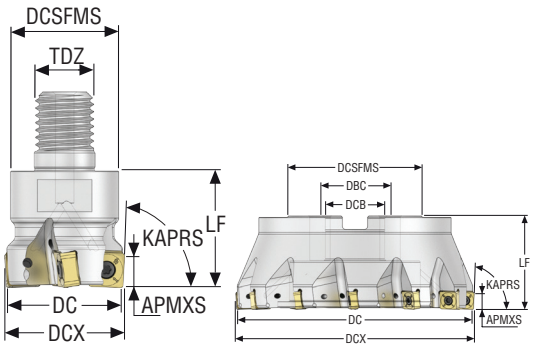
For cutter	Arbor screw	Insert key	Insert screw	Lid	Lid screw
					
R217.88-..	–	1/4HEX-T15PX50	C04011-T15P	–	–
R220.88-0040	220.17-690	1/4HEX-T15PX50	C04011-T15P	–	–
R220.88-0050-0063	220.17-692	1/4HEX-T15PX50	C04011-T15P	–	–
R220.88-0080	MC6S12X35	1/4HEX-T15PX50	C04011-T15P	–	–
R220.88-0100	MC6S16X35	1/4HEX-T15PX90	C04011-T15P	–	–
R220.88-0125	MC6S20X40	1/4HEX-T15PX90	C04011-T15P	–	–
R220.88-8160	–	1/4HEX-T15PX90	C04011-T15P	SC-160-90	MF6S4X10

Accessories

For cutter	Adjustable Torque key	Arbor screw	Insert clamping torque	Torque key
				
R217/220.88-0040-0125	1/4HEX-S-HANDLE-0.8-5.0NM	–	3.5NM	T00-15P35
R220.88-8160	1/4HEX-S-HANDLE-0.8-5.0NM	MC6S12X40	3.5NM	T00-15P35

Torque and fixed keys, see page 872

R220.88-12 – inch

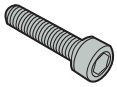
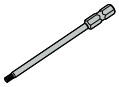
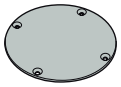




- For insert selection and cutting data recommendations, see page(s) 287-288
- For complete insert programme, see page(s) 834
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	ZEFP	APMXS	KAPRS°	DCX	DCB	DCSFMS	LF	RPMX	Weight	Insert
			inch		inch		inch	inch	inch	inch		lbs	
R217.88-01.50-20RE-12-4SAP	10134800	Combimaster	1.500	4	0.354	88.0	1.563	–	1.457	1.575	12600	0.660	SN.U1204
R220.88-01.50-12-4SAP	10134787	Arbor	1.500	4	0.354	88.0	1.558	0.500	1.378	1.575	12600	0.660	SN.U1204
R220.88-02.00-12-4SAP	10134788	Arbor	2.000	4	0.354	88.0	2.051	0.750	1.850	1.575	12600	0.880	SN.U1204
R220.88-02.00-12-5SAP	10134789	Arbor	2.000	5	0.354	88.0	2.051	0.750	1.850	1.575	12600	0.880	SN.U1204
R220.88-02.50-12-6SAP	10134790	Arbor	2.500	6	0.354	88.0	2.549	0.750	1.850	1.575	11200	1.540	SN.U1204
R220.88-02.50-12-7SAP	10134791	Arbor	2.500	7	0.354	88.0	2.549	0.750	1.850	1.575	11200	1.320	SN.U1204
R220.88-03.00-12-7SAP	10134792	Arbor	3.000	7	0.354	88.0	3.046	1.000	2.441	1.969	9900	2.650	SN.U1204
R220.88-03.00-12-9SAP	10134793	Arbor	3.000	9	0.354	88.0	3.046	1.000	2.441	1.969	9900	2.430	SN.U1204
R220.88-04.00-12-8SAP	10134795	Arbor	4.000	8	0.354	88.0	4.039	1.500	3.031	1.969	8900	4.190	SN.U1204
R220.88-04.00-12-11SAP	10134794	Arbor	4.000	11	0.354	88.0	4.039	1.500	3.031	1.969	8900	4.190	SN.U1204
R220.88-05.00-12-10SAP	10134796	Arbor	5.000	10	0.354	88.0	5.039	1.500	3.543	2.480	7900	8.380	SN.U1204
R220.88-05.00-12-13SAP	10134797	Arbor	5.000	13	0.354	88.0	5.039	1.500	3.543	2.480	7900	8.380	SN.U1204
R220.88-06.00-12-12SAP	10134798	Arbor	6.000	12	0.354	88.0	6.039	2.000	4.331	2.480	7000	10.800	SN.U1204
R220.88-06.00-12-16SAP	10134799	Arbor	6.000	16	0.354	88.0	6.039	2.000	4.331	2.480	7000	10.800	SN.U1204

Spare Parts, included in delivery

For cutter	Arbor screw	Insert key	Insert screw	Lid	Lid screw
					
R217.88-..	–	1/4HEX-T15PX90	C04011-T15P	–	–
R220.88-01.50	UC6S1/4UNFX1	1/4HEX-T15PX50	C04011-T15P	–	–
R220.88-02.00-02.50	UC6S3/8UNFX1	1/4HEX-T15PX50	C04011-T15P	–	–
R220.88-03.00	UC6S1/2UNFX1-1/4	1/4HEX-T15PX90	C04011-T15P	–	–
R220.88-04.00-05.00	UC6S3/4UNFX1-1/4	1/4HEX-T15PX90	C04011-T15P	–	–
R220.88-06.00	–	1/4HEX-T15PX90	C04011-T15P	SC-160-90	MF6S4X10

Accessories

For cutter	Adjustable Torque key	Arbor screw	Insert clamping torque	Torque key
				
R217/220-01.50-05.00	1/4HEX-S-HANDLE-0.8-5.0NM	–	31.0IN.LBS	T00-15P35
R217/220-06.00	1/4HEX-S-HANDLE-0.8-5.0NM	58215080	31.0IN.LBS	T00-15P35

Torque and fixed keys, see page 872

R220.88-12 – Insert selection – mm/*Inch*

SMG		a_p	f_z			
			80%	60%	40%	20%
P1	SNMU120410TN-M10 MS2050	5,0 *0.20*	0,14 *0.0055*	0,14 *0.0055*	0,15 *0.0060*	0,18 *0.0070*
P2	SNMU120410TN-M10 MS2050	5,0 *0.20*	0,15 *0.0060*	0,15 *0.0060*	0,15 *0.0060*	0,18 *0.0070*
P3	SNMU120410TN-M10 MP2501	5,0 *0.20*	0,14 *0.0055*	0,14 *0.0055*	0,14 *0.0055*	0,17 *0.0065*
P4	SNMU120412TN-M16 MP2501	5,0 *0.20*	0,24 *0.0095*	0,24 *0.0095*	0,24 *0.0095*	0,30 *0.012*
P5	SNMU120412TN-M16 MP2501	5,0 *0.20*	0,22 *0.0085*	0,22 *0.0085*	0,24 *0.0095*	0,28 *0.011*
P6	SNMU120412TN-M16 MP2501	5,0 *0.20*	0,22 *0.0085*	0,22 *0.0085*	0,24 *0.0095*	0,28 *0.011*
P7	SNMU120410TN-M10 MP3501	5,0 *0.20*	0,13 *0.0050*	0,13 *0.0050*	0,13 *0.0055*	0,17 *0.0065*
P8	SNMU120410TN-M10 MP3501	5,0 *0.20*	0,14 *0.0055*	0,14 *0.0055*	0,14 *0.0055*	0,17 *0.0065*
P11	SNMU120410TN-M10 MS2500	5,0 *0.20*	0,13 *0.0050*	0,13 *0.0050*	0,13 *0.0055*	0,17 *0.0065*
P12	SNMU120410TN-M10 MS2500	4,5 *0.18*	0,090 *0.0036*	0,090 *0.0036*	0,095 *0.0038*	0,11 *0.0044*
M1	SNMU120410TN-M10 F40M	5,0 *0.20*	0,15 *0.0060*	0,15 *0.0060*	0,15 *0.0060*	0,18 *0.0070*
M2	SNMU120410TN-M10 MS2050	5,0 *0.20*	0,13 *0.0050*	0,13 *0.0050*	0,14 *0.0055*	0,17 *0.0065*
M3	SNMU120410TN-M10 MS2050	4,5 *0.18*	0,11 *0.0044*	0,11 *0.0044*	0,11 *0.0044*	0,13 *0.0050*
M4	SNMU120410TN-M10 MS2050	3,0 *0.12*	0,095 *0.0038*	0,095 *0.0038*	0,10 *0.0040*	0,12 *0.0048*
M5	SNMU120410TN-M10 MS2050	3,0 *0.12*	0,095 *0.0038*	0,095 *0.0038*	0,10 *0.0040*	0,12 *0.0048*
K1	SNMU120412TN-M16 MK1500	5,0 *0.20*	0,25 *0.010*	0,25 *0.010*	0,26 *0.010*	0,32 *0.013*
K2	SNMU120412TN-M16 MK1500	5,0 *0.20*	0,22 *0.0085*	0,22 *0.0085*	0,24 *0.0095*	0,28 *0.011*
K3	SNMU120412TN-M16 MP1501	5,0 *0.20*	0,22 *0.0085*	0,22 *0.0085*	0,24 *0.0095*	0,28 *0.011*
K4	SNMU120412TN-M16 MP1501	5,0 *0.20*	0,22 *0.0085*	0,22 *0.0085*	0,24 *0.0095*	0,28 *0.011*
K5	SNMU120412TN-M16 MK2050	5,0 *0.20*	0,20 *0.0080*	0,20 *0.0080*	0,22 *0.0085*	0,26 *0.010*
K6	SNMU120412TN-M16 MK2050	5,0 *0.20*	0,22 *0.0085*	0,22 *0.0085*	0,24 *0.0095*	0,28 *0.011*
K7	SNMU120412TN-M16 MK2050	5,0 *0.20*	0,20 *0.0080*	0,20 *0.0080*	0,22 *0.0085*	0,26 *0.010*
H5	SNMU120410TN-MD13 MP1501	4,5 *0.18*	0,16 *0.0065*	0,16 *0.0065*	0,16 *0.0065*	0,19 *0.0075*
H8	SNMU120410TN-MD13 MP1501	4,0 *0.16*	0,12 *0.0048*	0,12 *0.0048*	0,12 *0.0048*	0,15 *0.0060*
H11	SNMU120410TN-MD13 MP1501	4,5 *0.18*	0,16 *0.0065*	0,16 *0.0065*	0,16 *0.0065*	0,19 *0.0075*
H12	SNMU120410TN-MD13 MP1501	4,0 *0.16*	0,12 *0.0048*	0,12 *0.0048*	0,12 *0.0048*	0,15 *0.0060*
H21	SNMU120410TN-MD13 MP1501	4,0 *0.16*	0,12 *0.0048*	0,12 *0.0048*	0,12 *0.0048*	0,15 *0.0060*

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

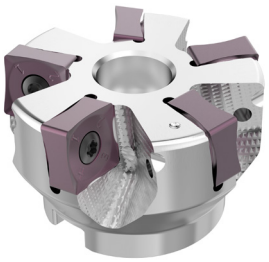
R217/220.88-12 – Cutting data v_c = (m/min)/*(sf/min)*

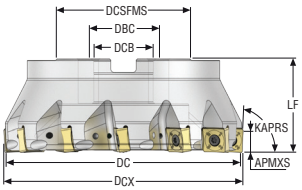
SMG	MK2050				MP3000				MS2050				F40M			
	80%	60%	40%	20%	80%	60%	40%	20%	80%	60%	40%	20%	80%	60%	40%	20%
P1	295 *970*	315 *1025*	345 *1125*	395 *1300*	280 *920*	305 *1000*	330 *1075*	380 *1250*	240 *790*	260 *850*	280 *920*	320 *1050*	225 *740*	245 *800*	265 *870*	305 *1000*
P2	280 *920*	300 *980*	335 *1100*	385 *1275*	270 *890*	290 *950*	325 *1075*	370 *1225*	230 *750*	245 *800*	275 *900*	315 *1025*	215 *710*	230 *750*	260 *850*	295 *970*
P3	245 *800*	265 *870*	295 *970*	335 *1100*	235 *770*	255 *840*	285 *940*	320 *1050*	200 *660*	215 *710*	240 *790*	275 *900*	190 *620*	205 *670*	225 *740*	260 *850*
P4	215 *710*	235 *770*	260 *850*	295 *970*	210 *690*	225 *740*	250 *820*	285 *940*	175 *570*	190 *620*	210 *690*	240 *790*	165 *540*	180 *590*	200 *660*	225 *740*
P5	210 *690*	230 *750*	250 *820*	280 *920*	205 *670*	220 *720*	240 *790*	270 *890*	170 *560*	185 *610*	200 *660*	230 *750*	165 *540*	175 *570*	190 *620*	215 *710*
P6	235 *770*	255 *840*	280 *920*	315 *1025*	230 *750*	245 *800*	270 *890*	305 *1000*	195 *640*	210 *690*	225 *740*	260 *850*	180 *590*	195 *640*	215 *710*	245 *800*
P7	225 *740*	240 *790*	265 *870*	300 *980*	215 *710*	230 *750*	255 *840*	285 *940*	185 *610*	195 *640*	215 *710*	245 *800*	170 *560*	185 *610*	200 *660*	230 *750*
P8	205 *670*	225 *740*	250 *820*	280 *920*	200 *660*	215 *710*	240 *790*	270 *890*	170 *560*	180 *590*	200 *660*	230 *750*	160 *520*	170 *560*	190 *620*	215 *710*
P11	220 *720*	235 *770*	255 *840*	290 *950*	210 *690*	225 *740*	245 *800*	280 *920*	175 *570*	190 *620*	210 *690*	235 *770*	165 *540*	180 *590*	195 *640*	225 *740*
P12	140 *460*	155 *510*	165 *540*	190 *620*	135 *445*	145 *475*	160 *520*	185 *610*	115 *375*	125 *410*	135 *445*	155 *510*	110 *360*	120 *395*	130 *425*	145 *475*
M1	— —	— —	— —	— —	200 *660*	215 *710*	240 *790*	275 *900*	185 *610*	200 *660*	220 *720*	250 *820*	175 *570*	185 *610*	210 *690*	240 *790*
M2	— —	— —	— —	— —	170 *560*	185 *610*	200 *660*	225 *740*	155 *510*	165 *540*	180 *590*	205 *670*	145 *475*	160 *520*	170 *560*	195 *640*
M3	— —	— —	— —	— —	135 *445*	145 *475*	160 *520*	185 *610*	125 *410*	135 *445*	150 *490*	170 *560*	115 *375*	125 *410*	140 *460*	160 *520*
M4	— —	— —	— —	— —	105 *345*	115 *375*	125 *410*	140 *460*	100 *330*	105 *345*	115 *375*	130 *425*	90 *295*	100 *330*	110 *360*	120 *395*
M5	— —	— —	— —	— —	90 *295*	95 *310*	105 *345*	120 *395*	80 *260*	85 *280*	95 *310*	110 *360*	75 *245*	80 *260*	90 *295*	100 *330*
K1	300 *980*	325 *1075*	365 *1200*	415 *1350*	215 *710*	230 *750*	255 *840*	290 *950*	— —	— —	— —	— —	170 *560*	185 *610*	205 *670*	235 *770*
K2	275 *900*	295 *970*	320 *1050*	365 *1200*	195 *640*	210 *690*	225 *740*	255 *840*	— —	— —	— —	— —	155 *510*	165 *540*	180 *590*	205 *670*
K3	230 *750*	250 *820*	270 *890*	310 *1025*	165 *540*	175 *570*	190 *620*	215 *710*	— —	— —	— —	— —	130 *425*	140 *460*	155 *510*	175 *570*
K4	220 *720*	240 *790*	260 *850*	295 *970*	155 *510*	170 *560*	185 *610*	210 *690*	— —	— —	— —	— —	125 *410*	135 *445*	145 *475*	165 *540*
K5	135 *445*	145 *475*	160 *520*	180 *590*	95 *310*	100 *330*	115 *375*	130 *425*	— —	— —	— —	— —	75 *245*	80 *260*	90 *295*	100 *330*
K6	195 *640*	210 *690*	230 *750*	260 *850*	135 *445*	150 *490*	160 *520*	185 *610*	— —	— —	— —	— —	110 *360*	120 *395*	130 *425*	145 *475*
K7	170 *560*	185 *610*	205 *670*	230 *750*	120 *395*	130 *425*	145 *475*	165 *540*	— —	— —	— —	— —	95 *310*	105 *345*	115 *375*	130 *425*
H5	— —	— —	— —	— —	43 *140*	46 *150*	50 *165*	55 *180*	— —	— —	— —	— —	36 *120*	39 *130*	43 *140*	49 *160*
H8	— —	— —	— —	— —	45 *150*	49 *160*	55 *180*	60 *195*	— —	— —	— —	— —	39 *130*	42 *140*	46 *150*	50 *165*
H11	— —	— —	— —	— —	55 *180*	60 *195*	65 *215*	75 *245*	— —	— —	— —	— —	46 *150*	50 *165*	55 *180*	60 *195*
H12	— —	— —	— —	— —	85 *280*	95 *310*	105 *345*	115 *375*	— —	— —	— —	— —	70 *230*	75 *245*	80 *260*	95 *310*

R217/220.88-12 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	MK1500				MP1501				MP2501				MP3501				MS2500			
	80%	60%	40%	20%	80%	60%	40%	20%	80%	60%	40%	20%	80%	60%	40%	20%	80%	60%	40%	20%
P1	—	—	—	—	330	355	395	435	320	345	385	420	355	380	405	450	325	350	380	435
	—	—	—	—	*1075*	*1175*	*1300*	*1425*	*1050*	*1125*	*1275*	*1375*	*1175*	*1250*	*1325*	*1475*	*1075*	*1150*	*1250*	*1425*
P2	—	—	—	—	320	345	380	420	310	335	370	410	340	360	395	440	310	335	370	425
	—	—	—	—	*1050*	*1125*	*1250*	*1375*	*1025*	*1100*	*1225*	*1350*	*1125*	*1175*	*1300*	*1450*	*1025*	*1100*	*1225*	*1400*
P3	—	—	—	—	280	300	335	370	275	295	325	360	295	315	345	380	270	295	325	370
	—	—	—	—	*920*	*980*	*1100*	*1225*	*900*	*970*	*1075*	*1175*	*970*	*1025*	*1125*	*1250*	*890*	*970*	*1075*	*1225*
P4	—	—	—	—	250	265	295	325	240	260	285	320	260	280	305	335	240	260	290	325
	—	—	—	—	*820*	*870*	*970*	*1075*	*790*	*850*	*940*	*1050*	*850*	*920*	*1000*	*1100*	*790*	*850*	*950*	*1075*
P5	—	—	—	—	245	260	280	320	240	255	275	310	255	270	290	320	235	250	275	310
	—	—	—	—	*800*	*850*	*920*	*1050*	*790*	*840*	*900*	*1025*	*840*	*890*	*950*	*1050*	*770*	*820*	*900*	*1025*
P6	—	—	—	—	275	295	315	360	265	285	310	350	290	305	325	360	265	285	310	350
	—	—	—	—	*900*	*970*	*1025*	*1175*	*870*	*940*	*1025*	*1150*	*950*	*1000*	*1075*	*1175*	*870*	*940*	*1025*	*1150*
P7	—	—	—	—	260	280	300	340	250	270	290	330	270	290	310	340	250	265	290	330
	—	—	—	—	*850*	*920*	*980*	*1125*	*820*	*890*	*950*	*1075*	*890*	*950*	*1025*	*1125*	*820*	*870*	*950*	*1075*
P8	—	—	—	—	235	255	280	310	230	245	275	305	250	265	290	320	230	245	275	310
	—	—	—	—	*770*	*840*	*920*	*1025*	*750*	*800*	*900*	*1000*	*820*	*870*	*950*	*1050*	*750*	*800*	*900*	*1025*
P11	—	—	—	—	255	270	290	330	245	265	280	320	265	280	300	330	240	260	285	320
	—	—	—	—	*840*	*890*	*950*	*1075*	*800*	*870*	*920*	*1050*	*870*	*920*	*980*	*1075*	*790*	*850*	*940*	*1050*
P12	—	—	—	—	170	180	195	215	165	175	190	210	170	180	195	210	160	170	185	210
	—	—	—	—	*560*	*590*	*640*	*710*	*540*	*570*	*620*	*690*	*560*	*590*	*640*	*690*	*520*	*560*	*610*	*690*
M1	—	—	—	—	—	—	—	—	170	180	200	230	185	200	220	250	220	240	265	305
	—	—	—	—	—	—	—	—	*560*	*590*	*660*	*750*	*610*	*660*	*720*	*820*	*720*	*790*	*870*	*1000*
M2	—	—	—	—	—	—	—	—	140	155	165	195	155	165	180	205	185	200	220	250
	—	—	—	—	—	—	—	—	*460*	*510*	*540*	*640*	*510*	*540*	*590*	*670*	*610*	*660*	*720*	*820*
M3	—	—	—	—	—	—	—	—	115	125	135	160	125	135	150	170	150	160	180	205
	—	—	—	—	—	—	—	—	*375*	*410*	*445*	*520*	*410*	*445*	*490*	*560*	*490*	*520*	*590*	*670*
M4	—	—	—	—	—	—	—	—	90	95	105	120	100	105	115	130	120	125	140	155
	—	—	—	—	—	—	—	—	*295*	*310*	*345*	*395*	*330*	*345*	*375*	*425*	*395*	*410*	*460*	*510*
M5	—	—	—	—	—	—	—	—	75	80	90	100	80	85	95	110	100	105	115	130
	—	—	—	—	—	—	—	—	*245*	*260*	*295*	*330*	*260*	*280*	*310*	*360*	*330*	*345*	*375*	*425*
K1	260	285	315	355	325	350	380	425	315	340	370	415	340	365	400	440	245	265	295	335
	850	*940*	*1025*	*1175*	*1075*	*1150*	*1250*	*1400*	*1025*	*1125*	*1225*	*1350*	*1125*	*1200*	*1300*	*1450*	*800*	*870*	*970*	*1100*
K2	235	255	280	320	295	315	340	385	290	310	330	375	310	330	350	390	220	240	260	295
	770	*840*	*920*	*1050*	*970*	*1025*	*1125*	*1275*	*950*	*1025*	*1075*	*1225*	*1025*	*1075*	*1150*	*1275*	*720*	*790*	*850*	*970*
K3	200	215	235	275	250	270	290	325	245	260	280	320	260	280	300	330	190	205	220	250
	660	*710*	*770*	*900*	*820*	*890*	*950*	*1075*	*800*	*850*	*920*	*1050*	*850*	*920*	*980*	*1075*	*620*	*670*	*720*	*820*
K4	190	205	225	260	240	255	275	310	235	250	270	305	250	265	285	315	180	195	210	240
	620	*670*	*740*	*850*	*790*	*840*	*900*	*1025*	*770*	*820*	*890*	*1000*	*820*	*870*	*940*	*1025*	*590*	*640*	*690*	*790*
K5	120	125	140	160	150	160	170	190	145	155	165	185	155	160	175	190	110	120	130	145
	395	*410*	*460*	*520*	*490*	*520*	*560*	*620*	*475*	*510*	*540*	*610*	*510*	*520*	*570*	*620*	*360*	*395*	*425*	*475*
K6	170	180	200	230	210	225	240	275	205	220	235	270	220	235	250	275	160	170	185	210
	560	*590*	*660*	*750*	*690*	*740*	*790*	*900*	*670*	*720*	*770*	*890*	*720*	*770*	*820*	*900*	*520*	*560*	*610*	*690*
K7	150	165	175	205	190	200	215	245	185	195	210	240	195	205	225	245	140	150	165	190
	490	*540*	*570*	*670*	*620*	*660*	*710*	*800*	*610*	*640*	*690*	*790*	*640*	*670*	*740*	*800*	*460*	*490*	*540*	*620*
H5	—	—	—	—	45	48	55	60	—	—	—	—	40	43	47	55	47	50	55	65
	—	—	—	—	*150*	*155*	*180*	*195*	—	—	—	—	*130*	*140*	*155*	*180*	*155*	*165*	*180*	*215*
H8	—	—	—	—	49	50	60	65	—	—	—	—	43	46	50	55	50	55	60	65
	—	—	—	—	*160*	*165*	*195*	*215*	—	—	—	—	*140*	*150*	*165*	*180*	*165*	*180*	*195*	*215*
H11	—	—	—	—	55	60	70	75	—	—	—	—	50	55	60	70	60	65	70	80
	—	—	—	—	*180*	*195*	*230*	*245*	—	—	—	—	*165*	*180*	*195*	*230*	*195*	*215*	*230*	*260*
H12	—	—	—	—	85	95	105	115	—	—	—	—	75	85	90	105	100	110	120	135
	—	—	—	—	*280*	*310*	*345*	*375*	—	—	—	—	*245*	*280*	*295*	*345*	*330*	*360*	*395*	*445*

R220.88-16 – Metric

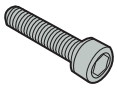
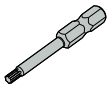
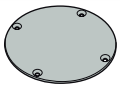




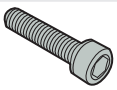
- For insert selection and cutting data recommendations, see page(s) 292-293
- For complete insert programme, see page(s) 834
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	ZEFP	APMXS	KAPRS°	DCX	DCB	DCSFMS	LF	RPMX	Weight	Insert
			mm		mm		mm	mm	mm	mm		kg	
R220.88-0063-16-5SAP	10134810	Arbor	63,0	5	13,0	88,0	64,75	22,0	47,0	40,0	7100	0,5	SN.U1606
R220.88-0080-16-6SAP	10134811	Arbor	80,0	6	13,0	88,0	81,62	27,0	62,0	50,0	6300	1,2	SN.U1606
R220.88-0080-16-7SAP	10134812	Arbor	80,0	7	13,0	88,0	81,62	27,0	62,0	50,0	6300	1,2	SN.U1606
R220.88-0100-16-8SAP	10134813	Arbor	100,0	8	13,0	88,0	101,6	32,0	77,0	50,0	5600	1,9	SN.U1606
R220.88-0100-16-9SAP	10134814	Arbor	100,0	9	13,0	88,0	101,6	32,0	77,0	50,0	5600	1,9	SN.U1606
R220.88-0125-16-10SAP	10134815	Arbor	125,0	10	13,0	88,0	126,6	40,0	90,0	63,0	5000	3,7	SN.U1606
R220.88-0125-16-11SAP	10134816	Arbor	125,0	11	13,0	88,0	126,6	40,0	90,0	63,0	5000	3,6	SN.U1606
R220.88-8160-16-12SAP	10134817	Arbor	160,0	12	13,0	88,0	161,58	40,0	90,0	63,0	4400	5,4	SN.U1204
R220.88-8160-16-13SAP	10134818	Arbor	160,0	13	13,0	88,0	161,58	40,0	90,0	63,0	4400	5,4	SN.U1204

Spare Parts, included in delivery

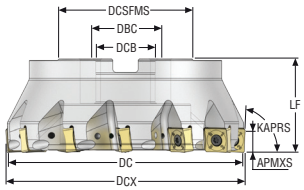
For cutter	Arbor screw	Insert key	Insert screw	Lid	Lid screw
					
R220.88-0063	220.17-692	1/4HEX-T20PX50	C05013-T20P	–	–
R220.88-0080	MC6S12X35	1/4HEX-T20PX50	C05013-T20P	–	–
R220.88-0100	MC6S16X35	1/4HEX-T20PX90	C05013-T20P	–	–
R220.88-0125	MC6S20X40	1/4HEX-T20PX90	C05013-T20P	–	–
R220.88-8160	–	1/4HEX-T20PX90	C05013-T20P	SC-160-90	MF6S4X10

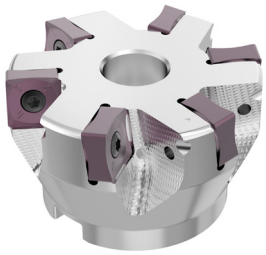
Accessories

For cutter	Adjustable Torque key	Arbor screw	Insert clamping torque	Torque key
				
R220.88-0063-0125	1/4HEX-T-HANDLE-5.0-14.0NM	–	5.0NM	T00-20P50
R220.88-8160	1/4HEX-T-HANDLE-5.0-14.0NM	MC6S12X40	5.0NM	T00-20P50

Torque and fixed keys, see page 872

R220.88-16 – inch

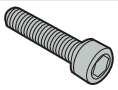
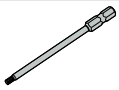
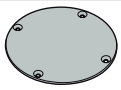




- For insert selection and cutting data recommendations, see page(s) 292-293
- For complete insert programme, see page(s) 834
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	ZEFP	APMXS	KAPRS°	DCX	DCB	DCSFMS	LF	RPMX	Weight	Insert
			inch		inch		inch	inch	inch	inch		lbs	
R220.88-03.00-16-6SAP	10134819	Arbor	3.000	6	0.512	88.0	3.064	1.000	2.441	1.969	6300	2.650	SN.U1606
R220.88-03.00-16-7SAP	10134820	Arbor	3.000	7	0.512	88.0	3.064	1.000	2.441	1.969	6300	2.430	SN.U1606
R220.88-04.00-16-8SAP	10134821	Arbor	4.000	8	0.512	88.0	4.063	1.500	3.031	1.969	5600	3.970	SN.U1606
R220.88-04.00-16-9SAP	10134822	Arbor	4.000	9	0.512	88.0	4.063	1.500	3.031	1.969	5600	3.970	SN.U1606
R220.88-05.00-16-10SAP	10134823	Arbor	5.000	10	0.512	88.0	5.063	1.500	3.543	2.480	5000	8.160	SN.U1606
R220.88-05.00-16-11SAP	10134824	Arbor	5.000	11	0.512	88.0	5.063	1.500	3.543	2.480	5000	7.940	SN.U1606
R220.88-06.00-16-12SAP	10134825	Arbor	6.000	12	0.512	88.0	6.062	2.000	4.331	2.480	4400	10.580	SN.U1204
R220.88-06.00-16-13SAP	10134826	Arbor	6.000	13	0.512	88.0	6.062	2.000	4.331	2.480	4400	10.580	SN.U1204

Spare Parts, included in delivery

For cutter	Arbor screw	Insert key	Insert screw	Lid	Lid screw
					
R220.88-03.00	UC6S1/2UNFX1-1/4	1/4HEX-T20PX90	C05013-T20P	–	–
R220.88-04.00-05.00	UC6S3/4UNFX1-1/4	1/4HEX-T20PX90	C05013-T20P	–	–
R220.88-06.00	–	1/4HEX-T20PX90	C05013-T20P	SC-160-90	MF6S4X10

Accessories

For cutter	Adjustable Torque key	Arbor screw	Insert clamping torque	Torque key
				
R220.88-03.00-05.00	1/4HEX-T-HANDLE-5.0-14.0NM	–	44.3IN.LBS	T00-20P50
R220.88-06.00	1/4HEX-T-HANDLE-5.0-14.0NM	58215080	44.3IN.LBS	T00-20P50

Torque and fixed keys, see page 872

R220.88-16 – Insert selection – mm/*Inch*

SMG		a_p	f_z			
			80%	60%	40%	20%
P1	SNMU160612TN-M10 MP3000	8,0 *0.32*	0,16 *0.0065*	0,16 *0.0065*	0,16 *0.0065*	0,20 *0.0080*
P2	SNMU160612TN-M10 MP3000	8,0 *0.32*	0,16 *0.0065*	0,16 *0.0065*	0,16 *0.0065*	0,20 *0.0080*
P3	SNMU160612TN-M18 MP2501	8,0 *0.32*	0,26 *0.010*	0,26 *0.010*	0,26 *0.010*	0,32 *0.013*
P4	SNMU160612TN-M18 MP2501	8,0 *0.32*	0,26 *0.010*	0,26 *0.010*	0,26 *0.010*	0,32 *0.013*
P5	SNMU160612TN-M18 MP2501	8,0 *0.32*	0,25 *0.010*	0,25 *0.010*	0,26 *0.010*	0,32 *0.013*
P6	SNMU160612TN-M18 MP2501	8,0 *0.32*	0,25 *0.010*	0,25 *0.010*	0,25 *0.010*	0,32 *0.013*
P7	SNMU160612TN-M18 MP3501	8,0 *0.32*	0,25 *0.010*	0,25 *0.010*	0,25 *0.010*	0,32 *0.013*
P8	SNMU160612TN-M18 MP3501	8,0 *0.32*	0,26 *0.010*	0,26 *0.010*	0,26 *0.010*	0,32 *0.013*
P11	SNMU160612TN-M18 MP3501	8,0 *0.32*	0,25 *0.010*	0,25 *0.010*	0,25 *0.010*	0,32 *0.013*
P12	SNMU160612TN-M18 MP3501	6,0 *0.24*	0,17 *0.0065*	0,17 *0.0065*	0,18 *0.0070*	0,22 *0.0085*
K1	SNMU160612TN-M18 MK1500	8,0 *0.32*	0,28 *0.011*	0,28 *0.011*	0,28 *0.011*	0,34 *0.013*
K2	SNMU160612TN-M18 MK1500	8,0 *0.32*	0,25 *0.010*	0,25 *0.010*	0,26 *0.010*	0,32 *0.013*
K3	SNMU160612TN-M18 MP1501	8,0 *0.32*	0,25 *0.010*	0,25 *0.010*	0,26 *0.010*	0,32 *0.013*
K4	SNMU160612TN-M18 MP1501	8,0 *0.32*	0,25 *0.010*	0,25 *0.010*	0,26 *0.010*	0,32 *0.013*
K5	SNMU160612TN-M18 MK2050	8,0 *0.32*	0,22 *0.0085*	0,22 *0.0085*	0,24 *0.0095*	0,28 *0.011*
K6	SNMU160612TN-M18 MK2050	8,0 *0.32*	0,25 *0.010*	0,25 *0.010*	0,26 *0.010*	0,32 *0.013*
K7	SNMU160612TN-M18 MK2050	8,0 *0.32*	0,22 *0.0085*	0,22 *0.0085*	0,24 *0.0095*	0,28 *0.011*
H5	SNMU160612TN-MD16 MP1501	6,0 *0.24*	0,18 *0.0070*	0,18 *0.0070*	0,19 *0.0075*	0,22 *0.0085*
H8	SNMU160612TN-MD16 MP1501	5,0 *0.20*	0,14 *0.0055*	0,14 *0.0055*	0,14 *0.0055*	0,18 *0.0070*
H11	SNMU160612TN-MD16 MP1501	6,0 *0.24*	0,18 *0.0070*	0,18 *0.0070*	0,19 *0.0075*	0,22 *0.0085*
H12	SNMU160612TN-MD16 MP1501	5,0 *0.20*	0,14 *0.0055*	0,14 *0.0055*	0,14 *0.0055*	0,18 *0.0070*
H21	SNMU160612TN-MD16 MP1501	5,0 *0.20*	0,14 *0.0055*	0,14 *0.0055*	0,14 *0.0055*	0,18 *0.0070*

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

R217/220.88-16 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	MK2050				MP3000				F40M			
	80%	60%	40%	20%	80%	60%	40%	20%	80%	60%	40%	20%
P1	225 *740*	245 *800*	275 *900*	315 *1025*	265 *870*	285 *940*	315 *1025*	355 *1175*	175 *570*	190 *620*	210 *690*	240 *790*
P2	220 *720*	240 *790*	270 *890*	305 *1000*	255 *840*	275 *900*	305 *1000*	345 *1125*	170 *560*	185 *610*	205 *670*	235 *770*
P3	195 *640*	210 *690*	235 *770*	270 *890*	225 *740*	240 *790*	270 *890*	305 *1000*	150 *490*	160 *520*	180 *590*	205 *670*
P4	170 *560*	185 *610*	210 *690*	235 *770*	200 *660*	215 *710*	235 *770*	265 *870*	130 *425*	145 *475*	160 *520*	180 *590*
P5	165 *540*	180 *590*	200 *660*	225 *740*	190 *620*	205 *670*	225 *740*	260 *850*	130 *425*	140 *460*	155 *510*	175 *570*
P6	185 *610*	200 *660*	225 *740*	255 *840*	215 *710*	235 *770*	255 *840*	290 *950*	145 *475*	155 *510*	175 *570*	195 *640*
P7	175 *570*	190 *620*	215 *710*	240 *790*	205 *670*	220 *720*	240 *790*	275 *900*	135 *445*	145 *475*	165 *540*	185 *610*
P8	165 *540*	175 *570*	200 *660*	225 *740*	190 *620*	205 *670*	225 *740*	255 *840*	125 *410*	135 *445*	155 *510*	175 *570*
P11	170 *560*	185 *610*	205 *670*	235 *770*	200 *660*	215 *710*	235 *770*	265 *870*	130 *425*	140 *460*	160 *520*	180 *590*
P12	115 *375*	125 *410*	135 *445*	155 *510*	130 *425*	140 *460*	155 *510*	175 *570*	90 *295*	95 *310*	105 *345*	120 *395*
M1	— —	— —	— —	— —	190 *620*	205 *670*	230 *750*	260 *850*	135 *445*	150 *490*	165 *540*	190 *620*
M2	— —	— —	— —	— —	160 *520*	170 *560*	190 *620*	215 *710*	115 *375*	125 *410*	135 *445*	155 *510*
M3	— —	— —	— —	— —	130 *425*	140 *460*	155 *510*	175 *570*	95 *310*	105 *345*	115 *375*	130 *425*
M4	— —	— —	— —	— —	100 *330*	110 *360*	120 *395*	135 *445*	75 *245*	80 *260*	90 *295*	100 *330*
M5	— —	— —	— —	— —	85 *280*	90 *295*	100 *330*	110 *360*	60 *195*	65 *215*	75 *245*	85 *280*
K1	240 *790*	255 *840*	290 *950*	330 *1075*	200 *660*	220 *720*	245 *800*	275 *900*	135 *445*	145 *475*	165 *540*	185 *610*
K2	215 *710*	230 *750*	255 *840*	290 *950*	180 *590*	195 *640*	215 *710*	245 *800*	120 *395*	130 *425*	145 *475*	165 *540*
K3	180 *590*	195 *640*	215 *710*	245 *800*	150 *490*	165 *540*	180 *590*	210 *690*	105 *345*	110 *360*	125 *410*	140 *460*
K4	175 *570*	185 *610*	205 *670*	235 *770*	145 *475*	155 *510*	175 *570*	200 *660*	100 *330*	105 *345*	115 *375*	135 *445*
K5	110 *360*	115 *375*	125 *410*	145 *475*	90 *295*	95 *310*	110 *360*	120 *395*	60 *195*	65 *215*	70 *230*	85 *280*
K6	155 *510*	165 *540*	185 *610*	210 *690*	125 *410*	135 *445*	155 *510*	175 *570*	85 *280*	95 *310*	105 *345*	115 *375*
K7	140 *460*	150 *490*	160 *520*	190 *620*	115 *375*	125 *410*	140 *460*	155 *510*	80 *260*	85 *280*	90 *295*	105 *345*
H5	— —	— —	— —	— —	40 *130*	43 *140*	48 *155*	55 *180*	29 *95*	32 *105*	35 *115*	39 *130*
H8	— —	— —	— —	— —	43 *140*	47 *155*	50 *165*	55 *180*	32 *105*	34 *110*	38 *125*	43 *140*
H11	— —	— —	— —	— —	50 *165*	55 *180*	60 *195*	70 *230*	37 *120*	40 *130*	44 *145*	50 *165*
H12	— —	— —	— —	— —	85 *280*	90 *295*	95 *310*	110 *360*	55 *180*	60 *195*	70 *230*	75 *245*

R217/220.88-16 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	MK1500				MP1501				MP2501				MP3501			
	80%	60%	40%	20%	80%	60%	40%	20%	80%	60%	40%	20%	80%	60%	40%	20%
P1	—	—	—	—	310	335	375	420	300	325	365	410	265	285	320	365
	—	—	—	—	*1025*	*1100*	*1225*	*1375*	*980*	*1075*	*1200*	*1350*	*870*	*940*	*1050*	*1200*
P2	—	—	—	—	305	325	365	410	290	315	355	400	255	275	315	355
	—	—	—	—	*1000*	*1075*	*1200*	*1350*	*950*	*1025*	*1175*	*1300*	*840*	*900*	*1025*	*1175*
P3	—	—	—	—	270	290	325	360	260	280	315	350	230	250	280	310
	—	—	—	—	*890*	*950*	*1075*	*1175*	*850*	*920*	*1025*	*1150*	*750*	*820*	*920*	*1025*
P4	—	—	—	—	240	255	285	320	230	245	275	310	200	220	245	275
	—	—	—	—	*790*	*840*	*940*	*1050*	*750*	*800*	*900*	*1025*	*660*	*720*	*800*	*900*
P5	—	—	—	—	230	250	270	305	225	240	265	295	195	210	235	265
	—	—	—	—	*750*	*820*	*890*	*1000*	*740*	*790*	*870*	*970*	*640*	*690*	*770*	*870*
P6	—	—	—	—	260	280	310	340	250	270	300	330	220	240	265	295
	—	—	—	—	*850*	*920*	*1025*	*1125*	*820*	*890*	*980*	*1075*	*720*	*790*	*870*	*970*
P7	—	—	—	—	245	265	295	320	235	255	285	315	210	225	250	280
	—	—	—	—	*800*	*870*	*970*	*1050*	*770*	*840*	*940*	*1025*	*690*	*740*	*820*	*920*
P8	—	—	—	—	225	245	270	305	220	235	265	295	195	210	235	265
	—	—	—	—	*740*	*800*	*890*	*1000*	*720*	*770*	*870*	*970*	*640*	*690*	*770*	*870*
P11	—	—	—	—	240	255	285	315	230	245	275	305	205	220	245	270
	—	—	—	—	*790*	*840*	*940*	*1025*	*750*	*800*	*900*	*1000*	*670*	*720*	*800*	*890*
P12	—	—	—	—	165	175	190	210	160	170	185	205	145	155	165	185
	—	—	—	—	*540*	*570*	*620*	*690*	*520*	*560*	*610*	*670*	*475*	*510*	*540*	*610*
K1	250	270	305	350	305	330	370	415	295	320	355	405	260	280	315	355
	820	*890*	*1000*	*1150*	*1000*	*1075*	*1225*	*1350*	*970*	*1050*	*1175*	*1325*	*850*	*920*	*1025*	*1175*
K2	225	245	270	310	280	300	330	370	270	290	320	360	240	255	285	320
	740	*800*	*890*	*1025*	*920*	*980*	*1075*	*1225*	*890*	*950*	*1050*	*1175*	*790*	*840*	*940*	*1050*
K3	190	205	230	260	235	255	280	310	230	245	270	305	200	215	240	270
	620	*670*	*750*	*850*	*770*	*840*	*920*	*1025*	*750*	*800*	*890*	*1000*	*660*	*710*	*790*	*890*
K4	185	200	220	250	225	240	265	295	220	235	260	290	190	205	230	255
	610	*660*	*720*	*820*	*740*	*790*	*870*	*970*	*720*	*770*	*850*	*950*	*620*	*670*	*750*	*840*
K5	115	125	135	155	140	150	165	185	135	145	160	180	120	130	140	160
	375	*410*	*445*	*510*	*460*	*490*	*540*	*610*	*445*	*475*	*520*	*590*	*395*	*425*	*460*	*520*
K6	160	175	195	220	200	215	235	260	190	205	225	255	170	180	200	225
	520	*570*	*640*	*720*	*660*	*710*	*770*	*850*	*620*	*670*	*740*	*840*	*560*	*590*	*660*	*740*
K7	145	155	170	200	180	195	210	235	175	190	205	230	155	165	180	205
	475	*510*	*560*	*660*	*590*	*640*	*690*	*770*	*570*	*620*	*670*	*750*	*510*	*540*	*590*	*670*
H5	—	—	—	—	44	47	50	60	—	—	—	—	34	37	40	45
	—	—	—	—	*145*	*155*	*165*	*195*	—	—	—	—	*110*	*120*	*130*	*150*
H11	—	—	—	—	55	60	65	75	—	—	—	—	43	47	50	60
	—	—	—	—	*180*	*195*	*215*	*245*	—	—	—	—	*140*	*155*	*165*	*195*
H12	—	—	—	—	85	90	100	115	—	—	—	—	65	70	80	90
	—	—	—	—	*280*	*295*	*330*	*375*	—	—	—	—	*215*	*230*	*260*	*295*



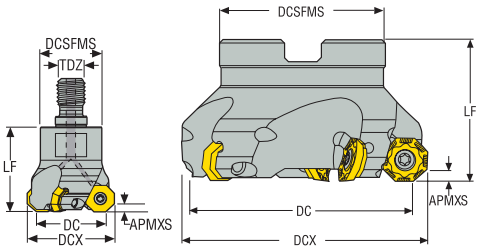
OCTOMILL 05/07

Octomill™ 05 and 07 provide one of the most comprehensive ranges of face milling cutters on the market. Designed to handle many applications, Octomill 05 and 07 offer high performance and process security. These cutters excel in medium to rough machining in steel and stainless steel. With eight edges, the cutters are more economical than traditional cutters due to a lower cost per cutting edge.

- Insert size 05, cutter range 32-315mm (1.5-4 inch)
- Insert size 07, cutter range 50-315mm (2.5-6 inch)
- Octomill 05 is for small machines and Octomill 07 is for medium sized machines

Octomill R217/R220.43-05 – Metric

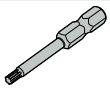




- For insert selection and cutting data recommendations, see page(s) 300 - 302
- For complete insert programme, see page(s) 815
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	ZEFP	APMXS	KAPRS°	DCX	DCB	TDZ	DCSFMS	LF	RPMX	Weight	Insert
			mm		mm		mm	mm		mm	mm		kg	
R217.43-1632.RE-05.3A	00005768	Combimaster	32,0	3	3,5	43,0	40,0	–	M16	30,0	40,0	14800	0,3	OFEX/OFMT05
R217.43-1642.RE-05.3A	00005769	Combimaster	42,0	3	3,5	43,0	50,0	–	M16	30,0	40,0	13000	0,3	OFEX/OFMT05
R220.43-0032-05	75069157	Arbor	32,0	3	3,5	43,0	41,0	16,0	–	35,0	40,0	14800	0,3	OFEX/OFMT05
R220.43-0040-05	75069158	Arbor	40,0	3	3,5	43,0	49,0	16,0	–	35,0	40,0	13200	0,3	OFEX/OFMT05
R220.43-0040-05-4A	00026516	Arbor	40,0	4	3,5	43,0	49,0	16,0	–	35,0	40,0	13200	0,3	OFEX/OFMT05
R220.43-0050-05	75069159	Arbor	50,0	4	3,5	43,0	59,0	22,0	–	47,0	40,0	11900	0,5	OFEX/OFMT05
R220.43-0050-05-5A	00026517	Arbor	50,0	5	3,5	43,0	59,0	22,0	–	47,0	40,0	11900	0,5	OFEX/OFMT05
R220.43-0063-05	75069160	Arbor	63,0	5	3,5	43,0	72,0	22,0	–	47,0	40,0	10600	0,6	OFEX/OFMT05
R220.43-0063-05-6A	00026518	Arbor	63,0	6	3,5	43,0	72,0	22,0	–	47,0	40,0	10600	0,6	OFEX/OFMT05
R220.43-0080-05	75069161	Arbor	80,0	6	3,5	43,0	89,0	27,0	–	62,0	50,0	9400	1,2	OFEX/OFMT05
R220.43-0080-05-8A	00026519	Arbor	80,0	8	3,5	43,0	89,0	27,0	–	62,0	50,0	9400	0,9	OFEX/OFMT05
R220.43-0100-05	75069162	Arbor	100,0	7	3,5	43,0	109,0	32,0	–	77,0	50,0	8400	1,9	OFEX/OFMT05
R220.43-0125-05	75079618	Arbor	125,0	8	3,5	43,0	134,0	40,0	–	90,0	63,0	7500	3,3	OFEX/OFMT05
R220.43-8160-05	75080766	Arbor	160,0	10	3,5	43,0	169,0	40,0	–	90,0	63,0	6600	5,5	OFEX/OFMT05

Spare Parts, included in delivery

For cutter	Arbor screw	Insert key	Insert screw
			
R217.43-..	–	1/4HEX-T15PX50	C04008-T15P
R220.43-0032	220.17-690	1/4HEX-T15PX50	C04008-T15P
R220.43-0040	TCEI0825	1/4HEX-T15PX50	C04008-T15P
R220.43-0050-0063	220.17-692	1/4HEX-T15PX50	C04008-T15P
R220.43-0080	–	1/4HEX-T15PX50	C04008-T15P
R220.43-0100-8160	–	1/4HEX-T15PX90	C04008-T15P

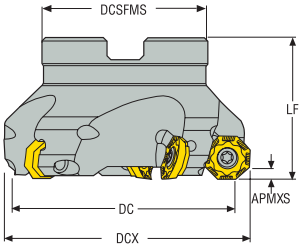
Accessories

For cutter	Adjustable Torque key	Arbor screw	Insert clamping torque	Torque key
				
R217/220.43-0032-0080	1/4HEX-S-HANDLE-0.8-5.0NM	–	3.5NM	T00-15P35
R220.43-0100	1/4HEX-S-HANDLE-0.8-5.0NM	5803216	3.5NM	T00-15P35
R220.43-0125	1/4HEX-S-HANDLE-0.8-5.0NM	5804020	3.5NM	T00-15P35
R220.43-8160	1/4HEX-S-HANDLE-0.8-5.0NM	MC6S12X40	3.5NM	T00-15P35

Torque and fixed keys, see page 872

Octomill R220.43-05 – inch

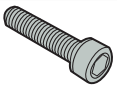
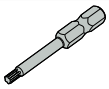




- For insert selection and cutting data recommendations, see page(s) 300 - 302
- For complete insert programme, see page(s) 815
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	ZEFP	APMXS	KAPRS°	DCX	DCB	DCSFMS	LF	RPMX	Weight	Insert
			inch		inch		inch	inch	inch	inch		lbs	
R220.43-01.50-05	00086837	Arbor	1.575	3	0.138	43.0	2.047	0.500	1.378	1.575	13200	0.660	OFEX/OFMT05
R220.43-02.00-05	00086838	Arbor	1.969	4	0.138	43.0	2.441	0.750	1.850	1.575	11900	1.100	OFEX/OFMT05
R220.43-02.50-05	00086839	Arbor	2.480	5	0.138	43.0	2.953	0.750	1.850	1.575	10600	1.320	OFEX/OFMT05
R220.43-03.00-05	00086840	Arbor	3.150	6	0.138	43.0	3.622	1.000	2.441	1.969	9400	2.430	OFEX/OFMT05
R220.43-04.00-05	00086841	Arbor	3.937	7	0.138	43.0	4.291	1.500	3.543	1.969	8400	3.970	OFEX/OFMT05

Spare Parts, included in delivery

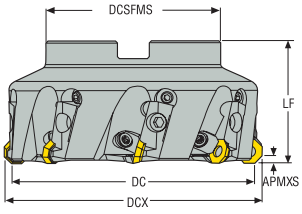
For cutter	Arbor screw	Insert key	Insert screw
			
R220.43-1.50	–	1/4HEX-T15PX50	C04008-T15P
R220.43-02.00	UC6S3/8UNFX1	1/4HEX-T15PX50	C04008-T15P
R220.43-02.50-03.00	–	1/4HEX-T15PX50	C04008-T15P
R220.43-04.00	–	1/4HEX-T15PX90	C04008-T15P

Accessories

For cutter	Adjustable Torque key	Arbor screw	Insert clamping torque	Torque key
				
R220.43-1.50	1/4HEX-S-HANDLE-0.8-5.0NM	5802712	31.0IN.LBS	T00-15P35
R220.43-02.00-04.00	1/4HEX-S-HANDLE-0.8-5.0NM	–	31.0IN.LBS	T00-15P35

Torque and fixed keys, see page 872

Octomill R220.43-05C/CT/CG – Metric





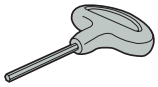
- For insert selection and cutting data recommendations, see page(s) 300 - 302
- For complete insert programme, see page(s) 815
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	ZEFP	APMXS	KAPRS°	DCX	DCB	DCSFMS	LF	RPMX	Weight	Insert
			mm		mm		mm	mm	mm	mm		kg	
R220.43-0100-05C	00090985	Arbor	100,0	6	3,5	43,0	109,0	32,0	77,0	50,0	4300	2,5	OFEX05T305
R220.43-0125-05C	00090988	Arbor	125,0	8	3,5	43,0	134,0	40,0	90,0	63,0	3800	3,7	OFEX05T305
R220.43-0125-05CT	00090989	Arbor	125,0	10	3,5	43,0	134,0	40,0	90,0	63,0	3800	4,0	OFEX05T305
R220.43-8160-05C	00090991	Arbor	160,0	10	3,5	43,0	169,0	40,0	90,0	63,0	3300	5,8	OFEX05T305
R220.43-8160-05CT	00090992	Arbor	160,0	14	3,5	43,0	169,0	40,0	90,0	63,0	3300	5,8	OFEX05T305
R220.43-8200-05C	00090994	Arbor	200,0	12	3,5	43,0	209,0	60,0	130,0	63,0	3000	8,4	OFEX05T305
R220.43-8250-05C	00090997	Arbor	250,0	16	3,5	43,0	259,0	60,0	130,0	63,0	2700	14,3	OFEX05T305

Spare Parts, included in delivery

For cutter	Adjustment unit	Arbor screw	Cassette	Cassette screw	Insert key	Insert wedge	Wedge screw
							
R220.43-0100	AU1114T-T15P	MC6S16X35	OF05AR	FS96018	1/4HEX-T25PX50	CW0810	LD8020-T25P
R220.43-0125C	AU1114T-T15P	–	OF05AR	FS96018	1/4HEX-T25PX50	CW0810	LD8020-T25P
R220.43-0125	AU1114T-T15P	–	OF05AR	FS96018	1/4HEX-T25PX50	334.5-640	LD8020-T25P
R220.43-8160C/CG	AU1114T-T15P	–	OF05AR	FS96018	1/4HEX-T25PX50	CW0810	LD8020-T25P
R220.43-8160CT	AU1114T-T15P	–	OF05AR	FS96018	1/4HEX-T25PX50	334.5-640	LD8020-T25P
R220.43-8200-8250C/CG	AU1114T-T15P	–	OF05AR	FS96018	1/4HEX-T25PX50	CW0810	LD8020-T25P

Accessories

For cutter	Adjustable Torque key	Arbor screw	Nest key	Setting key
				
R220.43-0100	1/4HEX-S-HANDLE-0.8-5.0NM	–	H05-4	T15P-4
R220.43-0125C	1/4HEX-S-HANDLE-0.8-5.0NM	5804020	H05-4	T15P-4
R220.43-0125CT	1/4HEX-S-HANDLE-0.8-5.0NM	5804020	–	T15P-4
R220.43-8160C/CG	1/4HEX-S-HANDLE-0.8-5.0NM	MC6S12X40	H05-4	T15P-4
R220.43-8160CT	1/4HEX-S-HANDLE-0.8-5.0NM	MC6S12X40	–	T15P-4
R220.43-8200-8250C/CG	1/4HEX-S-HANDLE-0.8-5.0NM	MC6S16X50	H05-4	T15P-4

Torque and fixed keys, see page 872

R220.43-05 – Insert selection – mm/*Inch*

SMG		a_p	f_z			
			80%	60%	40%	20%
P1	OFEX05T305TN-M08 MP3501	2,0 *0.080*	0,18 *0.0070*	0,18 *0.0070*	0,18 *0.0070*	0,22 *0.0085*
P2	OFEX05T305TN-M08 MP3501	2,0 *0.080*	0,18 *0.0070*	0,18 *0.0070*	0,19 *0.0075*	0,24 *0.0095*
P3	OFEX05T305TN-M08 MP3501	2,0 *0.080*	0,17 *0.0065*	0,17 *0.0065*	0,18 *0.0070*	0,22 *0.0085*
P4	OFEX05T305TN-M08 MP2501	2,0 *0.080*	0,17 *0.0065*	0,17 *0.0065*	0,17 *0.0065*	0,22 *0.0085*
P5	OFEX05T305TN-M08 MP2501	2,0 *0.080*	0,17 *0.0065*	0,17 *0.0065*	0,17 *0.0065*	0,20 *0.0080*
P6	OFEX05T305TN-M08 MP2501	2,0 *0.080*	0,16 *0.0065*	0,16 *0.0065*	0,17 *0.0065*	0,20 *0.0080*
P7	OFEX05T305TN-M08 MP2501	2,0 *0.080*	0,16 *0.0065*	0,16 *0.0065*	0,17 *0.0065*	0,20 *0.0080*
P8	OFEX05T305TN-M08 MP3501	2,0 *0.080*	0,17 *0.0065*	0,17 *0.0065*	0,18 *0.0070*	0,22 *0.0085*
P11	OFEX05T305TN-M08 MP3501	2,0 *0.080*	0,16 *0.0065*	0,16 *0.0065*	0,17 *0.0065*	0,20 *0.0080*
P12	OFEX05T305TN-M08 MP3501	1,7 *0.065*	0,11 *0.0044*	0,11 *0.0044*	0,12 *0.0048*	0,14 *0.0055*
M1	OFEX05T305TN-ME07 F40M	2,0 *0.080*	0,16 *0.0065*	0,16 *0.0065*	0,16 *0.0065*	0,20 *0.0080*
M2	OFEX05T305TN-ME07 F40M	2,0 *0.080*	0,14 *0.0055*	0,14 *0.0055*	0,15 *0.0060*	0,18 *0.0070*
M3	OFEX05T305TN-ME07 F40M	1,7 *0.065*	0,12 *0.0048*	0,12 *0.0048*	0,12 *0.0048*	0,15 *0.0060*
M4	OFEX05T305TN-ME07 F40M	1,3 *0.050*	0,11 *0.0044*	0,11 *0.0044*	0,11 *0.0044*	0,13 *0.0050*
M5	OFEX05T305TN-ME07 F40M	1,3 *0.050*	0,11 *0.0044*	0,11 *0.0044*	0,11 *0.0044*	0,13 *0.0050*
K1	OFEX05T305TN-M08 MK1500	2,0 *0.080*	0,18 *0.0070*	0,18 *0.0070*	0,19 *0.0075*	0,24 *0.0095*
K2	OFEX05T305TN-M08 MK1500	2,0 *0.080*	0,17 *0.0065*	0,17 *0.0065*	0,17 *0.0065*	0,20 *0.0080*
K3	OFEX05T305TN-D09 MP1501	2,0 *0.080*	0,19 *0.0075*	0,19 *0.0075*	0,19 *0.0075*	0,24 *0.0095*
K4	OFEX05T305TN-D09 MP1501	2,0 *0.080*	0,19 *0.0075*	0,19 *0.0075*	0,19 *0.0075*	0,24 *0.0095*
K5	OFEX05T305TN-D09 MP1501	2,0 *0.080*	0,17 *0.0065*	0,17 *0.0065*	0,17 *0.0065*	0,22 *0.0085*
K6	OFEX05T305TN-D09 MP1501	2,0 *0.080*	0,19 *0.0075*	0,19 *0.0075*	0,19 *0.0075*	0,24 *0.0095*
K7	OFEX05T305TN-D09 MP1501	2,0 *0.080*	0,17 *0.0065*	0,17 *0.0065*	0,17 *0.0065*	0,22 *0.0085*
N1	OFEX05T305N-E04 H15	2,0 *0.080*	0,12 *0.0048*	0,12 *0.0048*	0,12 *0.0048*	0,15 *0.0060*
N2	OFEX05T305N-E04 H15	2,0 *0.080*	0,12 *0.0048*	0,12 *0.0048*	0,12 *0.0048*	0,15 *0.0060*
N3	OFEX05T305N-E04 H15	2,0 *0.080*	0,12 *0.0048*	0,12 *0.0048*	0,12 *0.0048*	0,15 *0.0060*
N11	OFEX05T305N-E04 H15	2,0 *0.080*	0,12 *0.0048*	0,12 *0.0048*	0,12 *0.0048*	0,15 *0.0060*
S1	OFEX05T305TN-ME07 F40M	1,3 *0.050*	0,11 *0.0044*	0,11 *0.0044*	0,11 *0.0044*	0,13 *0.0050*
S2	OFEX05T305TN-ME07 F40M	1,3 *0.050*	0,11 *0.0044*	0,11 *0.0044*	0,11 *0.0044*	0,13 *0.0050*
S3	OFEX05T305TN-ME07 F40M	1,3 *0.050*	0,10 *0.0040*	0,10 *0.0040*	0,10 *0.0040*	0,12 *0.0048*
S11	OFEX05T305TN-ME07 F40M	1,5 *0.060*	0,12 *0.0048*	0,12 *0.0048*	0,12 *0.0048*	0,15 *0.0060*
S12	OFEX05T305TN-ME07 F40M	1,5 *0.060*	0,12 *0.0048*	0,12 *0.0048*	0,12 *0.0048*	0,15 *0.0060*
S13	OFEX05T305TN-ME07 F40M	1,3 *0.050*	0,11 *0.0044*	0,11 *0.0044*	0,11 *0.0044*	0,13 *0.0050*
H5	OFEX05T305TN-D09 MP1501	1,7 *0.065*	0,13 *0.0050*	0,13 *0.0050*	0,13 *0.0050*	0,16 *0.0065*
H8	OFEX05T305TN-D09 MP1501	1,5 *0.060*	0,10 *0.0040*	0,10 *0.0040*	0,10 *0.0040*	0,13 *0.0050*
H11	OFEX05T305TN-D09 MP1501	1,7 *0.065*	0,13 *0.0050*	0,13 *0.0050*	0,13 *0.0050*	0,16 *0.0065*
H12	OFEX05T305TN-D09 MP1501	1,5 *0.060*	0,10 *0.0040*	0,10 *0.0040*	0,10 *0.0040*	0,13 *0.0050*
H21	OFEX05T305TN-D09 MP1501	1,5 *0.060*	0,10 *0.0040*	0,10 *0.0040*	0,10 *0.0040*	0,13 *0.0050*

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

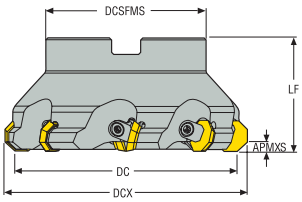
R217/220.43-05 – Cutting data v_c = (m/min)/*(sf/min)*

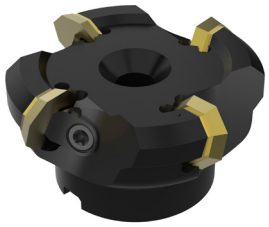
SMG	F15M				F30M				F40M				H15				PCD20			
	80%	60%	40%	20%	80%	60%	40%	20%	80%	60%	40%	20%	80%	60%	40%	20%	80%	60%	40%	20%
P1	—	—	—	—	285	305	335	375	235	255	285	320	—	—	—	—	—	—	—	—
	—	—	—	—	*940*	*1000*	*1100*	*1225*	*770*	*840*	*940*	*1050*	—	—	—	—	—	—	—	—
P2	—	—	—	—	275	295	320	365	230	250	270	310	—	—	—	—	—	—	—	—
	—	—	—	—	*900*	*970*	*1050*	*1200*	*750*	*820*	*890*	*1025*	—	—	—	—	—	—	—	—
P3	—	—	—	—	240	255	280	315	200	215	235	270	—	—	—	—	—	—	—	—
	—	—	—	—	*790*	*840*	*920*	*1025*	*660*	*710*	*770*	*890*	—	—	—	—	—	—	—	—
P4	—	—	—	—	210	225	250	280	180	190	210	235	—	—	—	—	—	—	—	—
	—	—	—	—	*690*	*740*	*820*	*920*	*590*	*620*	*690*	*770*	—	—	—	—	—	—	—	—
P5	—	—	—	—	205	220	235	270	170	185	205	230	—	—	—	—	—	—	—	—
	—	—	—	—	*670*	*720*	*770*	*890*	*560*	*610*	*670*	*750*	—	—	—	—	—	—	—	—
P6	—	—	—	—	230	245	265	300	195	210	225	260	—	—	—	—	—	—	—	—
	—	—	—	—	*750*	*800*	*870*	*980*	*640*	*690*	*740*	*850*	—	—	—	—	—	—	—	—
P7	—	—	—	—	215	230	250	285	185	195	215	245	—	—	—	—	—	—	—	—
	—	—	—	—	*710*	*750*	*820*	*940*	*610*	*640*	*710*	*800*	—	—	—	—	—	—	—	—
P8	—	—	—	—	200	215	235	265	170	185	200	225	—	—	—	—	—	—	—	—
	—	—	—	—	*660*	*710*	*770*	*870*	*560*	*610*	*660*	*740*	—	—	—	—	—	—	—	—
P11	—	—	—	—	210	225	245	275	175	190	210	240	—	—	—	—	—	—	—	—
	—	—	—	—	*690*	*740*	*800*	*900*	*570*	*620*	*690*	*790*	—	—	—	—	—	—	—	—
P12	—	—	—	—	135	145	160	175	115	125	135	155	—	—	—	—	—	—	—	—
	—	—	—	—	*445*	*475*	*520*	*570*	*375*	*410*	*445*	*510*	—	—	—	—	—	—	—	—
M1	—	—	—	—	220	240	260	295	185	200	220	250	—	—	—	—	—	—	—	—
	—	—	—	—	*720*	*790*	*850*	*970*	*610*	*660*	*720*	*820*	—	—	—	—	—	—	—	—
M2	—	—	—	—	185	195	215	240	155	165	180	210	—	—	—	—	—	—	—	—
	—	—	—	—	*610*	*640*	*710*	*790*	*510*	*540*	*590*	*690*	—	—	—	—	—	—	—	—
M3	—	—	—	—	145	155	170	195	125	135	145	165	—	—	—	—	—	—	—	—
	—	—	—	—	*475*	*510*	*560*	*640*	*410*	*445*	*475*	*540*	—	—	—	—	—	—	—	—
M4	—	—	—	—	115	120	130	150	95	105	115	130	—	—	—	—	—	—	—	—
	—	—	—	—	*375*	*395*	*425*	*490*	*310*	*345*	*375*	*425*	—	—	—	—	—	—	—	—
M5	—	—	—	—	95	100	110	125	80	85	95	105	—	—	—	—	—	—	—	—
	—	—	—	—	*310*	*330*	*360*	*410*	*260*	*280*	*310*	*345*	—	—	—	—	—	—	—	—
K1	300	320	350	395	220	235	255	290	185	195	215	250	—	—	—	—	—	—	—	—
	980	*1050*	*1150*	*1300*	*720*	*770*	*840*	*950*	*610*	*640*	*710*	*820*	—	—	—	—	—	—	—	—
K2	260	280	310	350	195	210	225	255	160	175	190	220	—	—	—	—	—	—	—	—
	850	*920*	*1025*	*1150*	*640*	*690*	*740*	*840*	*520*	*570*	*620*	*720*	—	—	—	—	—	—	—	—
K3	220	240	260	295	165	175	190	215	135	145	165	185	—	—	—	—	—	—	—	—
	720	*790*	*850*	*970*	*540*	*570*	*620*	*710*	*445*	*475*	*540*	*610*	—	—	—	—	—	—	—	—
K4	210	225	250	285	155	170	180	205	130	140	155	180	—	—	—	—	—	—	—	—
	690	*740*	*820*	*940*	*510*	*560*	*590*	*670*	*425*	*460*	*510*	*590*	—	—	—	—	—	—	—	—
K5	130	140	150	170	95	100	110	125	80	85	95	105	—	—	—	—	—	—	—	—
	425	*460*	*490*	*560*	*310*	*330*	*360*	*410*	*260*	*280*	*310*	*345*	—	—	—	—	—	—	—	—
K6	185	200	220	250	140	150	160	180	115	125	135	155	—	—	—	—	—	—	—	—
	610	*660*	*720*	*820*	*460*	*490*	*520*	*590*	*375*	*410*	*445*	*510*	—	—	—	—	—	—	—	—
K7	165	175	195	220	120	130	145	160	105	110	120	135	—	—	—	—	—	—	—	—
	540	*570*	*640*	*720*	*395*	*425*	*475*	*520*	*345*	*360*	*395*	*445*	—	—	—	—	—	—	—	—
N1	2200	2375	2625	2925	1600	1725	1900	2175	1325	1425	1600	1800	1750	1875	2075	2325	2050	2050	2050	2050
	7225	*7800*	*8600*	*9600*	*5250*	*5650*	*6225*	*7125*	*4350*	*4675*	*5250*	*5900*	*5750*	*6150*	*6800*	*7625*	*6725*	*6725*	*6725*	*6725*
N2	890	960	1050	1175	640	690	770	870	540	580	640	730	700	760	840	940	1450	1450	1450	1450
	2925	*3150*	*3450*	*3850*	*2100*	*2275*	*2525*	*2850*	*1775*	*1900*	*2100*	*2400*	*2300*	*2500*	*2750*	*3075*	*4750*	*4750*	*4750*	*4750*
N3	590	640	700	790	430	465	510	580	355	385	430	485	470	500	560	630	—	—	—	—
	1925	*2100*	*2300*	*2600*	*1400*	*1525*	*1675*	*1900*	*1175*	*1275*	*1400*	*1600*	*1550*	*1650*	*1825*	*2075*	—	—	—	—
N11	680	730	800	900	490	530	590	670	410	440	490	550	540	580	640	720	900	900	900	900
	2225	*2400*	*2625*	*2950*	*1600*	*1750*	*1925*	*2200*	*1350*	*1450*	*1600*	*1800*	*1775*	*1900*	*2100*	*2350*	*2950*	*2950*	*2950*	*2950*
S1	—	—	—	—	—	—	—	—	45	48	55	60	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	*150*	*155*	*180*	*195*	—	—	—	—	—	—	—	—
S2	—	—	—	—	—	—	—	—	36	39	43	48	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	*120*	*130*	*140*	*155*	—	—	—	—	—	—	—	—
S3	—	—	—	—	—	—	—	—	32	34	38	42	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	*105*	*110*	*125*	*140*	—	—	—	—	—	—	—	—
S11	—	—	—	—	—	—	—	—	60	65	75	85	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	*195*	*215*	*245*	*280*	—	—	—	—	—	—	—	—
S12	—	—	—	—	—	—	—	—	43	46	50	60	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	*140*	*150*	*165*	*195*	—	—	—	—	—	—	—	—
S13	—	—	—	—	—	—	—	—	25	27	30	34	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	*80*	*90*	*100*	*110*	—	—	—	—	—	—	—	—
H5	—	—	—	—	45	48	55	60	38	41	45	50	—	—	—	—	—	—	—	—
	—	—	—	—	*150*	*155*	*180*	*195*	*125*	*135*	*150*	*165*	—	—	—	—	—	—	—	—
H8	—	—	—	—	47	50	55	60	40	43	48	55	—	—	—	—	—	—	—	—
	—	—	—	—	*155*	*165*	*180*	*195*	*130*	*140*	*155*	*180*	—	—	—	—	—	—	—	—
H11	—	—	—	—	55	60	65	75	49	50	55	65	—	—	—	—	—	—	—	—
	—	—	—	—	*180*	*195*	*215*	*245*	*160*	*165*	*180*	*215*	—	—	—	—	—	—	—	—
H12	—	—	—	—	85	90	100	110	70	80	85	95	—	—	—	—	—	—	—	—
	—	—	—	—	*280*	*295*	*330*	*360*	*230*	*260*	*280*	*310*	—	—	—	—	—	—	—	—
H21	—	—	—	—	47	50	55	60	40	43	48	55	—	—	—	—	—	—	—	—
	—	—	—	—	*155*	*165*	*180*	*195*	*130*	*140*	*155*	*180*	—	—	—	—	—	—	—	—

R217/220.43-05 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	MK1500				MP1501				MP2501				MP3501				T25M			
	100%	80%	60%	40%	100%	80%	60%	40%	100%	80%	60%	40%	100%	80%	60%	40%	100%	80%	60%	40%
P1	—	—	—	—	415	425	455	495	420	430	460	500	375	385	410	450	285	305	325	360
	—	—	—	—	*1350*	*1400*	*1500*	*1625*	*1375*	*1400*	*1500*	*1650*	*1225*	*1275*	*1350*	*1475*	*940*	*1000*	*1075*	*1175*
P2	—	—	—	—	405	415	440	470	410	420	445	480	365	375	400	430	280	295	315	350
	—	—	—	—	*1325*	*1350*	*1450*	*1550*	*1350*	*1375*	*1450*	*1575*	*1200*	*1225*	*1300*	*1400*	*920*	*970*	*1025*	*1150*
P3	—	—	—	—	350	365	385	415	355	370	390	415	320	330	350	375	245	260	280	310
	—	—	—	—	*1150*	*1200*	*1275*	*1350*	*1175*	*1225*	*1275*	*1350*	*1050*	*1075*	*1150*	*1225*	*800*	*850*	*920*	*1025*
P4	—	—	—	—	310	320	340	370	315	325	345	370	280	290	310	335	215	225	245	270
	—	—	—	—	*1025*	*1050*	*1125*	*1225*	*1025*	*1075*	*1125*	*1225*	*920*	*950*	*1025*	*1100*	*710*	*740*	*800*	*890*
P5	—	—	—	—	295	305	325	350	300	310	330	355	270	275	295	320	205	215	235	260
	—	—	—	—	*970*	*1000*	*1075*	*1150*	*980*	*1025*	*1075*	*1175*	*890*	*900*	*970*	*1050*	*670*	*710*	*770*	*850*
P6	—	—	—	—	335	350	370	395	340	355	375	400	305	315	335	360	235	250	265	290
	—	—	—	—	*1100*	*1150*	*1225*	*1300*	*1125*	*1175*	*1225*	*1300*	*1000*	*1025*	*1100*	*1175*	*770*	*820*	*870*	*950*
P7	—	—	—	—	315	330	350	375	320	335	350	375	290	300	315	340	220	235	250	275
	—	—	—	—	*1025*	*1075*	*1150*	*1225*	*1050*	*1100*	*1150*	*1225*	*950*	*980*	*1025*	*1125*	*720*	*770*	*820*	*900*
P8	—	—	—	—	295	305	325	345	300	310	330	350	270	275	295	315	205	215	235	260
	—	—	—	—	*970*	*1000*	*1075*	*1125*	*980*	*1025*	*1075*	*1150*	*890*	*900*	*970*	*1025*	*670*	*710*	*770*	*850*
P11	—	—	—	—	310	320	340	360	315	325	340	365	280	290	310	330	215	225	245	265
	—	—	—	—	*1025*	*1050*	*1125*	*1175*	*1025*	*1075*	*1125*	*1200*	*920*	*950*	*1025*	*1075*	*710*	*740*	*800*	*870*
P12	—	—	—	—	195	205	215	230	200	205	220	230	180	185	195	205	140	145	155	175
	—	—	—	—	*640*	*670*	*710*	*750*	*660*	*670*	*720*	*750*	*590*	*610*	*640*	*670*	*460*	*475*	*510*	*570*
M1	—	—	—	—	—	—	—	—	205	220	235	260	195	205	220	240	225	235	255	285
	—	—	—	—	—	—	—	—	*670*	*720*	*770*	*850*	*640*	*670*	*720*	*790*	*740*	*770*	*840*	*940*
M2	—	—	—	—	—	—	—	—	170	180	195	215	160	170	180	200	185	195	210	235
	—	—	—	—	—	—	—	—	*560*	*590*	*640*	*710*	*520*	*560*	*590*	*660*	*610*	*640*	*690*	*770*
M3	—	—	—	—	—	—	—	—	140	150	160	170	130	140	150	160	150	160	170	185
	—	—	—	—	—	—	—	—	*460*	*490*	*520*	*560*	*425*	*460*	*490*	*520*	*490*	*520*	*560*	*610*
M4	—	—	—	—	—	—	—	—	105	115	120	135	100	105	115	125	115	120	130	145
	—	—	—	—	—	—	—	—	*345*	*375*	*395*	*445*	*330*	*345*	*375*	*410*	*375*	*395*	*425*	*475*
M5	—	—	—	—	—	—	—	—	90	95	100	110	85	90	95	105	95	100	110	120
	—	—	—	—	—	—	—	—	*295*	*310*	*330*	*360*	*280*	*295*	*310*	*345*	*310*	*330*	*360*	*395*
K1	325	340	370	405	405	420	445	475	410	425	450	485	370	380	405	435	220	235	250	280
	1075	*1125*	*1225*	*1325*	*1325*	*1375*	*1450*	*1550*	*1350*	*1400*	*1475*	*1600*	*1225*	*1250*	*1325*	*1425*	*720*	*770*	*820*	*920*
K2	285	300	325	360	355	370	390	425	360	375	395	430	325	335	355	385	195	205	220	245
	940	*980*	*1075*	*1175*	*1175*	*1225*	*1275*	*1400*	*1175*	*1225*	*1300*	*1400*	*1075*	*1100*	*1175*	*1275*	*640*	*670*	*720*	*800*
K3	240	255	275	305	300	310	330	360	305	315	335	365	275	285	300	325	165	175	185	210
	790	*840*	*900*	*1000*	*980*	*1025*	*1075*	*1175*	*1000*	*1025*	*1100*	*1200*	*900*	*940*	*980*	*1075*	*540*	*570*	*610*	*690*
K4	230	245	260	290	290	300	315	345	290	300	320	345	265	270	285	310	155	165	180	200
	750	*800*	*850*	*950*	*950*	*980*	*1025*	*1125*	*950*	*980*	*1050*	*1125*	*870*	*890*	*940*	*1025*	*510*	*540*	*590*	*660*
K5	140	150	160	180	175	185	195	210	180	185	195	210	160	165	175	190	95	105	110	120
	460	*490*	*520*	*590*	*570*	*610*	*640*	*690*	*590*	*610*	*640*	*690*	*520*	*540*	*570*	*620*	*310*	*345*	*360*	*395*
K6	200	215	230	255	255	265	280	305	260	265	280	305	230	240	255	275	140	145	160	175
	660	*710*	*750*	*840*	*840*	*870*	*920*	*1000*	*850*	*870*	*920*	*1000*	*750*	*790*	*840*	*900*	*460*	*475*	*520*	*570*
K7	180	190	205	230	225	235	250	270	230	240	250	270	205	215	225	245	125	130	140	155
	590	*620*	*670*	*750*	*740*	*770*	*820*	*890*	*750*	*790*	*820*	*890*	*670*	*710*	*740*	*800*	*410*	*425*	*460*	*510*
N1	—	—	—	—	—	—	—	—	—	—	—	—	1450	1525	1650	1825	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	*4750*	*5000*	*5425*	*6000*	—	—	—	—
N2	—	—	—	—	—	—	—	—	—	—	—	—	580	620	660	740	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	*1900*	*2025*	*2175*	*2425*	—	—	—	—
N3	—	—	—	—	—	—	—	—	—	—	—	—	390	410	445	495	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	*1275*	*1350*	*1450*	*1625*	—	—	—	—
N11	—	—	—	—	—	—	—	—	—	—	—	—	445	470	510	560	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	*1450*	*1550*	*1675*	*1825*	—	—	—	—
S1	—	—	—	—	—	—	—	—	—	—	—	—	47	49	55	60	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	*155*	*160*	*180*	*195*	—	—	—	—
S2	—	—	—	—	—	—	—	—	—	—	—	—	38	40	43	47	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	*125*	*130*	*140*	*155*	—	—	—	—
S3	—	—	—	—	—	—	—	—	—	—	—	—	33	35	38	41	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	*110*	*115*	*125*	*135*	—	—	—	—
S11	—	—	—	—	—	—	—	—	—	—	—	—	65	70	75	80	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	*215*	*230*	*245*	*260*	—	—	—	—
S12	—	—	—	—	—	—	—	—	—	—	—	—	45	47	50	55	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	*150*	*155*	*165*	*180*	—	—	—	—
S13	—	—	—	—	—	—	—	—	—	—	—	—	26	28	30	33	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	*85*	*90*	*100*	*110*	—	—	—	—
H5	—	—	—	—	50	55	60	65	—	—	—	—	42	44	47	50	—	—	—	—
	—	—	—	—	*165*	*180*	*195*	*215*	—	—	—	—	*140*	*145*	*155*	*165*	—	—	—	—
H8	—	—	—	—	55	60	65	70	—	—	—	—	44	46	50	55	—	—	—	—
	—	—	—	—	*180*	*195*	*215*	*230*	—	—	—	—	*145*	*150*	*165*	*180*	—	—	—	—
H11	—	—	—	—	65	70	75	85	—	—	—	—	55	55	60	65	—	—	—	—
	—	—	—	—	*215*	*230*	*245*	*280*	—	—	—	—	*180*	*180*	*195*	*215*	—	—	—	—
H12	—	—	—	—	100	105	115	125	—	—	—	—	80	85	90	100	—	—	—	—
	—	—	—	—	*330*	*345*	*375*	*410*	—	—	—	—	*260*	*280*	*295*	*330*	—	—	—	—
H21	—	—	—	—	55	60	65	70	—	—	—	—	44	46	50	55	—	—	—	—
	—	—	—	—	*180*	*195*	*215*	*230*	—	—	—	—	*145*	*150*	*165*	*180*	—	—	—	—

Octomill R220.43-07W – Metric

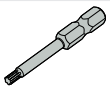




- For insert selection and cutting data recommendations, see page(s) 307-309
- For complete insert programme, see page(s) 814
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	ZEFP	APMXS	KAPRS°	DCX	DCB	DCSFMS	LF	RPMX	Weight	Insert
			mm		mm		mm	mm	mm	mm		kg	
R220.43-0050-07W	00034758	Arbor	50,0	4	5,0	43,0	62,0	22,0	47,0	60,0	6300	0,7	OF..0704
R220.43-0063-07W	00005691	Arbor	63,0	4	5,0	43,0	75,0	22,0	47,0	40,0	5600	0,6	OF..0704
R220.43-0080-07W	00005692	Arbor	80,0	5	5,0	43,0	92,0	27,0	62,0	50,0	5000	1,3	OF..0704
R220.43-0100-07W	00005693	Arbor	100,0	6	5,0	43,0	112,0	32,0	77,0	50,0	4400	1,8	OF..0704
R220.43-0125-07W	00005694	Arbor	125,0	8	5,0	43,0	137,0	40,0	90,0	63,0	4000	2,8	OF..0704
R220.43-8160-07W	00005695	Arbor	160,0	10	5,0	43,0	172,0	40,0	90,0	63,0	3500	5,1	OF..0704

Spare Parts, included in delivery

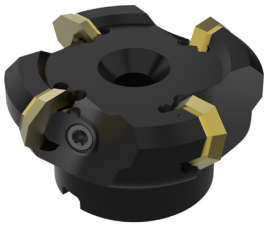
For cutter	Arbor screw	Insert key	Insert wedge	Wedge screw
				
R220.43-0050	220.17-696	1/4HEX-T25PX50	334.5-640	LD8018-T25P
R220.43-0063	MF6S10X40	1/4HEX-T25PX50	CW0810	LD8018-T25P
R220.43-0080	MC6S12X35	1/4HEX-T25PX50	CW0810	LD8018-T25P
R220.43-0100-8160	–	1/4HEX-T25PX50	CW0810	LD8018-T25P

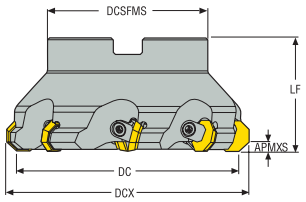
Accessories

For cutter	Adjustable Torque key	Arbor screw
		
R220.43-0050-0080	1/4HEX-S-HANDLE-0.8-5.0NM	–
R220.43-0100	1/4HEX-S-HANDLE-0.8-5.0NM	5803216
R220.43-0125	1/4HEX-S-HANDLE-0.8-5.0NM	5804020
R220.43-8160	1/4HEX-S-HANDLE-0.8-5.0NM	MC6S12X40

Torque and fixed keys, see page 872

Octomill R220.43-07W – inch

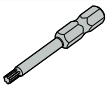
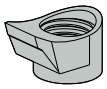




- For insert selection and cutting data recommendations, see page(s) 307-309
- For complete insert programme, see page(s) 814
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	ZEFP	APMXS	KAPRS°	DCX	DCB	DCSFMS	LF	RPMX	Weight	Insert
			inch		inch		inch	inch	inch	inch		lbs	
R220.43-02.50-07W	00003262	Arbor	2.480	4	0.197	43.0	2.953	0.750	1.850	1.575	6000	1.540	OF..0704
R220.43-03.00-07W	00003266	Arbor	3.150	5	0.197	43.0	3.622	1.000	2.441	1.969	5000	2.870	OF..0704
R220.43-04.00-07W	00003268	Arbor	3.937	6	0.197	43.0	4.409	1.500	3.543	1.969	4400	4.630	OF..0704
R220.43-05.00-07W	00003273	Arbor	4.921	8	0.197	43.0	5.394	1.500	3.543	2.480	4000	7.720	OF..0704
R220.43-06.00-07W	00003278	Arbor	6.299	10	0.197	43.0	6.772	2.000	4.331	2.480	3500	10.360	OF..0704

Spare Parts, included in delivery

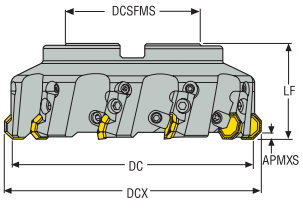
For cutter	Arbor screw	Insert key	Insert wedge	Wedge screw
				
R220.43-02.50	UF6S3/8UNFX11/2	1/4HEX-T25PX50	CW0810	LD8018-T25P
R220.43-03.00	UF6S1/2UNFX1-1/2	1/4HEX-T25PX50	CW0810	LD8018-T25P
R220.43-04.00	UF6S3/4UNFX2	1/4HEX-T25PX50	CW0810	LD8020-T25P
R220.43-05.00-06.00	–	1/4HEX-T25PX50	CW0810	LD8018-T25P

Accessories

For cutter	Adjustable Torque key	Arbor screw
		
R220.43-02.50-05.00	1/4HEX-S-HANDLE-0.8-5.0NM	–
R220.43-06.00	1/4HEX-S-HANDLE-0.8-5.0NM	58215080

Torque and fixed keys, see page 872

Octomill R220.43-07C/CG/CT – Metric

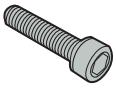
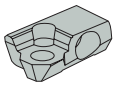
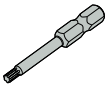
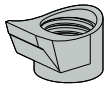




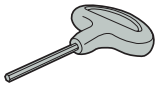
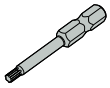
- For insert selection and cutting data recommendations, see page(s) 307-309
- For complete insert programme, see page(s) 814
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	ZEFP	APMXS	KAPRS°	DCX	DCB	DCSFMS	LF	RPMX	Weight	Insert
			mm		mm		mm	mm	mm	mm		kg	
R220.43-0100-07C	75077234	Arbor	100,0	6	5,0	43,0	112,0	32,0	77,0	50,0	4300	2,4	OF..0704
R220.43-0125-07C	75077237	Arbor	125,0	8	5,0	43,0	137,0	40,0	90,0	63,0	3800	3,7	OF..0704
R220.43-8160-07C	75077240	Arbor	160,0	10	5,0	43,0	172,0	40,0	90,0	63,0	3300	5,7	OF..0704
R220.43-8160-07CT	75077241	Arbor	160,0	14	5,0	43,0	172,0	40,0	90,0	63,0	3300	5,6	OF..0704
R220.43-8200-07C	75077243	Arbor	200,0	12	5,0	43,0	212,0	60,0	130,0	63,0	3000	8,3	OF..0704
R220.43-8250-07C	75077246	Arbor	250,0	16	5,0	43,0	262,0	60,0	130,0	63,0	2700	14,3	OF..0704

Spare Parts, included in delivery

For cutter	Adjustment unit	Arbor screw	Cassette	Cassette screw	Insert key	Insert wedge	Wedge screw
							
R220.43-0100-C	AU1114T-T15P	MC6S16X35	OF07AR	FS96018	1/4HEX-T25PX50	CW0810	LD8020-T25P
R220.43-0125-8200-C	AU1114T-T15P	–	OF07AR	FS96018	1/4HEX-T25PX50	CW0810	LD8020-T25P
R220.43-8160-CT	AU1114T-T15P	–	OF07AR	FS96018	1/4HEX-T25PX50	334.5-640	LD8020-T25P

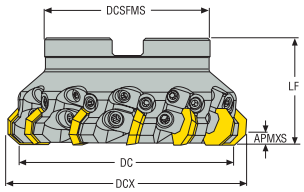
Accessories

For cutter	Adjustable Torque key	Arbor screw	Nest key	Setting key
				
R220.43-0100	1/4HEX-S-HANDLE-0.8-5.0NM	–	H05-4	1/4HEX-T15PX50
R220.43-0125	1/4HEX-S-HANDLE-0.8-5.0NM	5804020	H05-4	1/4HEX-T15PX50
R220.43-8160	1/4HEX-S-HANDLE-0.8-5.0NM	MC6S12X40	H05-4	1/4HEX-T15PX50
R220.43-8200-8250	1/4HEX-S-HANDLE-0.8-5.0NM	MC6S16X50	H05-4	1/4HEX-T15PX50

Torque and fixed keys, see page 872

Octomill R220.43-07T – Metric

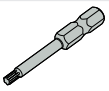
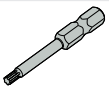




- For insert selection and cutting data recommendations, see page(s) 307-309
- For complete insert programme, see page(s) 814
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	ZEFP	APMXS	KAPRS°	DCX	DCB	DCSFMS	LF	RPMX	Weight	Insert
			mm		mm		mm	mm	mm	mm		kg	
R220.43-0063-07-6T	00004368	Arbor	63,0	6	5,0	43,0	75,0	22,0	47,0	50,0	5600	0,9	OF..0704
R220.43-0080-07-9T	00004369	Arbor	80,0	9	5,0	43,0	92,0	27,0	62,0	50,0	5000	1,2	OF..0704
R220.43-0100-07-12T	00004371	Arbor	100,0	12	5,0	43,0	112,0	32,0	77,0	50,0	4400	1,6	OF..0704
R220.43-0125-07-15T	00004372	Arbor	125,0	15	5,0	43,0	137,0	40,0	90,0	63,0	4000	3,1	OF..0704

Spare Parts, included in delivery

For cutter	Arbor screw	Axial setting unit	Insert key	Insert wedge	Setting key	Setting screw (axial)	Wedge clamp axial adj.	Wedge screw
								
R220.43-0063	MF6S10X40	AS6011	1/4HEX-T25PX50	334.5-640	1/4HEX-T15PX50	LD6019-T15P	CW0608	LD8020-T25P
R220.43-0080	MC6S12X35	AS6011	1/4HEX-T25PX50	334.5-640	1/4HEX-T15PX50	LD6019-T15P	CW0608	LD8020-T25P
R220.43-0100-0125	–	AS6011	1/4HEX-T25PX50	334.5-640	1/4HEX-T15PX50	LD6019-T15P	CW0608	LD8020-T25P

Accessories

For cutter	Adjustable Torque key	Arbor screw
		
R220.43-0063-0080	1/4HEX-S-HANDLE-0.8-5.0NM	–
R220.43-0100	1/4HEX-S-HANDLE-0.8-5.0NM	5803216
R220.43-0125	1/4HEX-S-HANDLE-0.8-5.0NM	5804020

Torque and fixed keys, see page 872

R220.43-07 – Insert selection – mm/*Inch*

SMG		a_p	f_z			
			80%	60%	40%	20%
P1	OFER070405TN-ME15 MP3501	3,0 *0.12*	0,32 *0.013*	0,32 *0.013*	0,34 *0.013*	0,42 *0.017*
P2	OFER070405TN-ME15 MP3501	3,0 *0.12*	0,34 *0.013*	0,34 *0.013*	0,34 *0.013*	0,42 *0.017*
P3	OFER070405TN-M16 MP2501	3,0 *0.12*	0,34 *0.013*	0,34 *0.013*	0,34 *0.013*	0,42 *0.017*
P4	OFER070405TN-M16 MP2501	3,0 *0.12*	0,32 *0.013*	0,32 *0.013*	0,34 *0.013*	0,42 *0.017*
P5	OFER070405TN-M16 MP2501	3,0 *0.12*	0,32 *0.013*	0,32 *0.013*	0,34 *0.013*	0,42 *0.017*
P6	OFER070405TN-M16 MP2501	3,0 *0.12*	0,32 *0.013*	0,32 *0.013*	0,32 *0.013*	0,40 *0.016*
P7	OFER070405TN-M16 MP3501	3,0 *0.12*	0,32 *0.013*	0,32 *0.013*	0,32 *0.013*	0,40 *0.016*
P8	OFER070405TN-M16 MP3501	3,0 *0.12*	0,34 *0.013*	0,34 *0.013*	0,34 *0.013*	0,42 *0.017*
P11	OFER070405TN-ME15 MP3501	3,0 *0.12*	0,30 *0.012*	0,30 *0.012*	0,30 *0.012*	0,38 *0.015*
P12	OFER070405TN-ME15 MP3501	2,5 *0.10*	0,20 *0.0080*	0,20 *0.0080*	0,22 *0.0085*	0,26 *0.010*
M1	OFER070405TN-ME10 F40M	3,0 *0.12*	0,22 *0.0085*	0,22 *0.0085*	0,22 *0.0085*	0,28 *0.011*
M2	OFER070405TN-ME10 F40M	3,0 *0.12*	0,20 *0.0080*	0,20 *0.0080*	0,20 *0.0080*	0,26 *0.010*
M3	OFER070405TN-ME15 MP3501	2,5 *0.10*	0,25 *0.010*	0,25 *0.010*	0,25 *0.010*	0,32 *0.013*
M4	OFER070405TN-ME15 MP3501	1,8 *0.070*	0,22 *0.0085*	0,22 *0.0085*	0,22 *0.0085*	0,28 *0.011*
M5	OFER070405TN-ME15 MP3501	1,8 *0.070*	0,22 *0.0085*	0,22 *0.0085*	0,22 *0.0085*	0,28 *0.011*
K1	OFER070405TN-M16 MK1500	3,0 *0.12*	0,36 *0.014*	0,36 *0.014*	0,36 *0.014*	0,46 *0.018*
K2	OFER070405TN-M16 MK1500	3,0 *0.12*	0,32 *0.013*	0,32 *0.013*	0,34 *0.013*	0,42 *0.017*
K3	OFER070405TN-M16 MP1501	3,0 *0.12*	0,32 *0.013*	0,32 *0.013*	0,34 *0.013*	0,42 *0.017*
K4	OFER070405TN-M16 MP1501	3,0 *0.12*	0,32 *0.013*	0,32 *0.013*	0,34 *0.013*	0,42 *0.017*
K5	OFER070405TN-M16 MP1501	3,0 *0.12*	0,30 *0.012*	0,30 *0.012*	0,30 *0.012*	0,36 *0.014*
K6	OFER070405TN-M16 MK2050	3,0 *0.12*	0,32 *0.013*	0,32 *0.013*	0,34 *0.013*	0,42 *0.017*
K7	OFER070405TN-M16 MK2050	3,0 *0.12*	0,30 *0.012*	0,30 *0.012*	0,30 *0.012*	0,36 *0.014*
N1	OFER070405N-E07 H15	3,0 *0.12*	0,20 *0.0080*	0,20 *0.0080*	0,20 *0.0080*	0,25 *0.010*
N2	OFER070405N-E07 H15	3,0 *0.12*	0,20 *0.0080*	0,20 *0.0080*	0,20 *0.0080*	0,25 *0.010*
N3	OFER070405N-E07 H15	3,0 *0.12*	0,20 *0.0080*	0,20 *0.0080*	0,20 *0.0080*	0,25 *0.010*
N11	OFER070405N-E07 H15	3,0 *0.12*	0,20 *0.0080*	0,20 *0.0080*	0,20 *0.0080*	0,25 *0.010*
S1	OFER070405TN-ME15 T350M	1,8 *0.070*	0,22 *0.0085*	0,22 *0.0085*	0,22 *0.0085*	0,28 *0.011*
S2	OFER070405TN-ME15 T350M	1,8 *0.070*	0,22 *0.0085*	0,22 *0.0085*	0,22 *0.0085*	0,28 *0.011*
S3	OFER070405TN-ME15 T350M	1,8 *0.070*	0,20 *0.0080*	0,20 *0.0080*	0,20 *0.0080*	0,26 *0.010*
S11	OFER070405TN-ME10 F40M	2,0 *0.080*	0,17 *0.0065*	0,17 *0.0065*	0,17 *0.0065*	0,20 *0.0080*
S12	OFER070405TN-ME10 F40M	2,0 *0.080*	0,17 *0.0065*	0,17 *0.0065*	0,17 *0.0065*	0,20 *0.0080*
S13	OFER070405TN-ME10 F40M	1,8 *0.070*	0,15 *0.0060*	0,15 *0.0060*	0,15 *0.0060*	0,19 *0.0075*
H5	OFEN070405TN-D18 MP3000	2,5 *0.10*	0,25 *0.010*	0,25 *0.010*	0,26 *0.010*	0,32 *0.013*
H8	OFEN070405TN-D18 MP3000	2,0 *0.080*	0,19 *0.0075*	0,19 *0.0075*	0,20 *0.0080*	0,24 *0.0095*
H11	OFEN070405TN-D18 MP1501	2,5 *0.10*	0,25 *0.010*	0,25 *0.010*	0,26 *0.010*	0,32 *0.013*
H12	OFEN070405TN-D18 MP1501	2,0 *0.080*	0,19 *0.0075*	0,19 *0.0075*	0,20 *0.0080*	0,24 *0.0095*
H21	OFEN070405TN-D18 MP1501	2,0 *0.080*	0,19 *0.0075*	0,19 *0.0075*	0,20 *0.0080*	0,24 *0.0095*

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

R220.43-07 – Cutting data v_c = (m/min)/*(sf/min)*

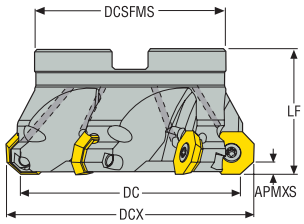
SMG	F15M				MK2050				F30M				F40M				H15			
	80%	60%	40%	20%	80%	60%	40%	20%	80%	60%	40%	20%	80%	60%	40%	20%	80%	60%	40%	20%
P1	—	—	—	—	265	285	315	360	245	265	295	330	210	225	245	280	—	—	—	—
	—	—	—	—	*870*	*940*	*1025*	*1175*	*800*	*870*	*970*	*1075*	*690*	*740*	*800*	*920*	—	—	—	—
P2	—	—	—	—	255	275	305	345	240	260	290	325	200	215	240	275	—	—	—	—
	—	—	—	—	*840*	*900*	*1000*	*1125*	*790*	*850*	*950*	*1075*	*660*	*710*	*790*	*900*	—	—	—	—
P3	—	—	—	—	220	240	270	305	210	230	250	285	175	190	210	240	—	—	—	—
	—	—	—	—	*720*	*790*	*890*	*1000*	*690*	*750*	*820*	*940*	*570*	*620*	*690*	*790*	—	—	—	—
P4	—	—	—	—	200	215	235	270	185	200	220	250	155	170	185	210	—	—	—	—
	—	—	—	—	*660*	*710*	*770*	*890*	*610*	*660*	*720*	*820*	*510*	*560*	*610*	*690*	—	—	—	—
P5	—	—	—	—	190	205	225	255	180	195	215	240	150	160	175	205	—	—	—	—
	—	—	—	—	*620*	*670*	*740*	*840*	*590*	*640*	*710*	*790*	*490*	*520*	*570*	*670*	—	—	—	—
P6	—	—	—	—	215	230	260	295	200	215	240	270	170	180	205	230	—	—	—	—
	—	—	—	—	*710*	*750*	*850*	*970*	*660*	*710*	*790*	*890*	*560*	*590*	*670*	*750*	—	—	—	—
P7	—	—	—	—	200	220	245	275	190	205	225	255	160	170	190	215	—	—	—	—
	—	—	—	—	*660*	*720*	*800*	*900*	*620*	*670*	*740*	*840*	*520*	*560*	*620*	*710*	—	—	—	—
P8	—	—	—	—	185	200	225	255	180	195	210	240	145	160	175	200	—	—	—	—
	—	—	—	—	*610*	*660*	*740*	*840*	*590*	*640*	*690*	*790*	*475*	*520*	*570*	*660*	—	—	—	—
P11	—	—	—	—	195	210	235	270	185	200	220	250	155	165	185	210	—	—	—	—
	—	—	—	—	*640*	*690*	*770*	*890*	*610*	*660*	*720*	*820*	*510*	*540*	*610*	*690*	—	—	—	—
P12	—	—	—	—	130	140	155	175	120	130	145	160	105	110	120	140	—	—	—	—
	—	—	—	—	*425*	*460*	*510*	*570*	*395*	*425*	*475*	*520*	*345*	*360*	*395*	*460*	—	—	—	—
M1	—	—	—	—	—	—	—	—	195	210	230	260	160	175	195	220	—	—	—	—
	—	—	—	—	—	—	—	—	*640*	*690*	*750*	*850*	*520*	*570*	*640*	*720*	—	—	—	—
M2	—	—	—	—	—	—	—	—	160	175	195	215	135	145	160	185	—	—	—	—
	—	—	—	—	—	—	—	—	*520*	*570*	*640*	*710*	*445*	*475*	*520*	*610*	—	—	—	—
M3	—	—	—	—	—	—	—	—	130	140	155	175	110	120	130	150	—	—	—	—
	—	—	—	—	—	—	—	—	*425*	*460*	*510*	*570*	*360*	*395*	*425*	*490*	—	—	—	—
M4	—	—	—	—	—	—	—	—	100	105	120	135	85	90	100	115	—	—	—	—
	—	—	—	—	—	—	—	—	*330*	*345*	*395*	*445*	*280*	*295*	*330*	*375*	—	—	—	—
M5	—	—	—	—	—	—	—	—	85	90	100	115	70	75	85	100	—	—	—	—
	—	—	—	—	—	—	—	—	*280*	*295*	*330*	*375*	*230*	*245*	*280*	*330*	—	—	—	—
K1	270	290	325	365	275	295	330	370	190	205	230	255	155	170	190	215	—	—	—	—
	890	*950*	*1075*	*1200*	*900*	*970*	*1075*	*1225*	*620*	*670*	*750*	*840*	*510*	*560*	*620*	*710*	—	—	—	—
K2	245	260	285	325	245	265	290	330	170	185	205	225	140	155	170	195	—	—	—	—
	800	*850*	*940*	*1075*	*800*	*870*	*950*	*1075*	*560*	*610*	*670*	*740*	*460*	*510*	*560*	*640*	—	—	—	—
K3	205	220	240	275	210	225	245	280	145	155	170	190	120	130	140	165	—	—	—	—
	670	*720*	*790*	*900*	*690*	*740*	*800*	*920*	*475*	*510*	*560*	*620*	*395*	*425*	*460*	*540*	—	—	—	—
K4	195	210	230	260	200	215	235	270	135	150	165	185	115	125	135	155	—	—	—	—
	640	*690*	*750*	*850*	*660*	*710*	*770*	*890*	*445*	*490*	*540*	*610*	*375*	*410*	*445*	*510*	—	—	—	—
K5	120	130	140	160	120	130	145	165	85	90	100	110	70	75	85	95	—	—	—	—
	395	*425*	*460*	*520*	*395*	*425*	*475*	*540*	*280*	*295*	*330*	*360*	*230*	*245*	*280*	*310*	—	—	—	—
K6	175	185	205	230	175	190	210	235	120	130	145	160	100	110	120	140	—	—	—	—
	570	*610*	*670*	*750*	*570*	*620*	*690*	*770*	*395*	*425*	*475*	*520*	*330*	*360*	*395*	*460*	—	—	—	—
K7	155	165	180	205	155	165	185	215	110	115	125	145	90	95	110	125	—	—	—	—
	510	*540*	*590*	*670*	*510*	*540*	*610*	*710*	*360*	*375*	*410*	*475*	*295*	*310*	*360*	*410*	—	—	—	—
N1	2000	2175	2425	2725	—	—	—	—	1400	1500	1650	1875	1150	1250	1375	1575	1600	1725	1900	2150
	6550	*7125*	*7950*	*8950*	—	—	—	—	*4600*	*4925*	*5425*	*6150*	*3775*	*4100*	*4500*	*5175*	*5250*	*5650*	*6225*	*7050*
N2	810	880	970	1100	—	—	—	—	560	610	670	760	465	510	560	630	640	690	770	870
	2650	*2875*	*3175*	*3600*	—	—	—	—	*1825*	*2000*	*2200*	*2500*	*1525*	*1675*	*1825*	*2075*	*2100*	*2275*	*2525*	*2850*
N3	540	580	650	730	—	—	—	—	375	405	445	510	310	335	375	420	430	460	510	580
	1775	*1900*	*2125*	*2400*	—	—	—	—	*1225*	*1325*	*1450*	*1675*	*1025*	*1100*	*1225*	*1375*	*1400*	*1500*	*1675*	*1900*
N11	620	670	740	840	—	—	—	—	430	465	510	580	355	385	425	480	490	530	590	660
	2025	*2200*	*2425*	*2750*	—	—	—	—	*1400*	*1525*	*1675*	*1900*	*1175*	*1275*	*1400*	*1575*	*1600*	*1750*	*1925*	*2175*
S1	—	—	—	—	—	—	—	—	—	—	—	—	40	43	48	55	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	*130*	*140*	*155*	*180*	—	—	—	—
S2	—	—	—	—	—	—	—	—	—	—	—	—	32	34	38	44	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	*105*	*110*	*125*	*145*	—	—	—	—
S3	—	—	—	—	—	—	—	—	—	—	—	—	28	31	34	38	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	*90*	*100*	*110*	*125*	—	—	—	—
S11	—	—	—	—	—	—	—	—	—	—	—	—	55	60	65	75	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	*180*	*195*	*215*	*245*	—	—	—	—
S12	—	—	—	—	—	—	—	—	—	—	—	—	38	42	46	50	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	*125*	*140*	*150*	*165*	—	—	—	—
S13	—	—	—	—	—	—	—	—	—	—	—	—	22	24	27	31	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	*70*	*80*	*90*	*100*	—	—	—	—
H5	—	—	—	—	—	—	—	—	40	43	47	55	34	37	40	46	—	—	—	—
	—	—	—	—	—	—	—	—	*130*	*140*	*155*	*180*	*110*	*120*	*130*	*150*	—	—	—	—
H8	—	—	—	—	—	—	—	—	42	45	50	55	37	39	44	49	—	—	—	—
	—	—	—	—	—	—	—	—	*140*	*150*	*165*	*180*	*120*	*130*	*145*	*160*	—	—	—	—
H11	—	—	—	—	—	—	—	—	50	55	60	70	44	47	50	60	—	—	—	—
	—	—	—	—	—	—	—	—	*165*	*180*	*195*	*230*	*145*	*155*	*165*	*195*	—	—	—	—
H12	—	—	—	—	—	—	—	—	75	80	90	105	65	70	80	90	—	—	—	—
	—	—	—	—	—	—	—	—	*245*	*260*	*295*	*345*	*215*	*230*	*260*	*295*	—	—	—	—
H21	—	—	—	—	—	—	—	—	42	45	50	55	37	39	44	49	—	—	—	—
	—	—	—	—	—	—	—	—	*140*	*150*	*165*	*180*	*120*	*130*	*145*	*160*	—	—	—	—

R220.43-07 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	MK1500				MP1501				MP2501				MP3501				T25M			
	100%	80%	60%	40%	100%	80%	60%	40%	100%	80%	60%	40%	100%	80%	60%	40%	100%	80%	60%	40%
P1	—	—	—	—	360	370	400	435	350	360	385	420	360	365	395	430	210	225	245	265
	—	—	—	—	*1175*	*1225*	*1300*	*1425*	*1150*	*1175*	*1275*	*1375*	*1175*	*1200*	*1300*	*1400*	*690*	*740*	*800*	*870*
P2	—	—	—	—	345	350	380	420	335	340	365	410	340	345	375	420	205	215	230	260
	—	—	—	—	*1125*	*1150*	*1250*	*1375*	*1100*	*1125*	*1200*	*1350*	*1125*	*1125*	*1225*	*1375*	*670*	*710*	*750*	*850*
P3	—	—	—	—	305	310	335	370	295	300	325	360	300	305	330	370	180	190	205	230
	—	—	—	—	*1000*	*1025*	*1100*	*1225*	*970*	*980*	*1075*	*1175*	*980*	*1000*	*1075*	*1225*	*590*	*620*	*670*	*750*
P4	—	—	—	—	275	280	300	325	265	270	290	315	270	280	300	325	160	170	185	200
	—	—	—	—	*900*	*920*	*980*	*1075*	*870*	*890*	*950*	*1025*	*890*	*920*	*980*	*1075*	*520*	*560*	*610*	*660*
P5	—	—	—	—	260	265	285	310	255	260	280	305	260	265	285	310	150	160	175	190
	—	—	—	—	*850*	*870*	*940*	*1025*	*840*	*850*	*920*	*1000*	*850*	*870*	*940*	*1025*	*490*	*520*	*570*	*620*
P6	—	—	—	—	295	300	320	355	285	290	310	350	290	300	320	355	170	180	195	220
	—	—	—	—	*970*	*980*	*1050*	*1175*	*940*	*950*	*1025*	*1150*	*950*	*980*	*1050*	*1175*	*560*	*590*	*640*	*720*
P7	—	—	—	—	275	285	305	335	270	275	295	330	275	280	300	335	160	170	185	205
	—	—	—	—	*900*	*940*	*1000*	*1100*	*890*	*900*	*970*	*1075*	*900*	*920*	*980*	*1100*	*520*	*560*	*610*	*670*
P8	—	—	—	—	255	260	280	310	245	250	270	305	250	255	275	310	150	160	170	190
	—	—	—	—	*840*	*850*	*920*	*1025*	*800*	*820*	*890*	*1000*	*820*	*840*	*900*	*1025*	*490*	*520*	*560*	*620*
P11	—	—	—	—	270	275	295	325	260	265	285	320	265	275	295	325	155	165	180	200
	—	—	—	—	*890*	*900*	*970*	*1075*	*850*	*870*	*940*	*1050*	*870*	*900*	*970*	*1075*	*510*	*540*	*590*	*660*
P12	—	—	—	—	180	185	200	215	175	180	195	210	185	190	200	215	105	110	120	130
	—	—	—	—	*590*	*610*	*660*	*710*	*570*	*590*	*640*	*690*	*610*	*620*	*660*	*710*	*345*	*360*	*395*	*425*
M1	—	—	—	—	—	—	—	—	175	185	200	225	185	200	215	240	165	175	185	210
	—	—	—	—	—	—	—	—	*570*	*610*	*660*	*740*	*610*	*660*	*710*	*790*	*540*	*570*	*610*	*690*
M2	—	—	—	—	—	—	—	—	145	155	170	185	155	165	180	195	135	145	155	170
	—	—	—	—	—	—	—	—	*475*	*510*	*560*	*610*	*510*	*540*	*590*	*640*	*445*	*475*	*510*	*560*
M3	—	—	—	—	—	—	—	—	120	125	135	155	130	135	145	160	110	120	130	140
	—	—	—	—	—	—	—	—	*395*	*410*	*445*	*510*	*425*	*445*	*475*	*520*	*360*	*395*	*425*	*460*
M4	—	—	—	—	—	—	—	—	90	100	105	115	100	105	115	125	85	90	100	110
	—	—	—	—	—	—	—	—	*295*	*330*	*345*	*375*	*330*	*345*	*375*	*410*	*280*	*295*	*330*	*360*
M5	—	—	—	—	—	—	—	—	75	80	90	100	85	90	95	105	70	75	80	90
	—	—	—	—	—	—	—	—	*245*	*260*	*295*	*330*	*280*	*295*	*310*	*345*	*230*	*245*	*260*	*295*
K1	280	295	320	355	345	355	380	425	335	345	370	415	345	350	375	420	160	170	185	205
	920	*970*	*1050*	*1175*	*1125*	*1175*	*1250*	*1400*	*1100*	*1125*	*1225*	*1350*	*1125*	*1150*	*1225*	*1375*	*520*	*560*	*610*	*670*
K2	250	265	285	315	315	325	345	375	305	315	335	365	315	320	345	375	145	155	165	180
	820	*870*	*940*	*1025*	*1025*	*1075*	*1125*	*1225*	*1000*	*1025*	*1100*	*1200*	*1025*	*1050*	*1125*	*1225*	*475*	*510*	*540*	*590*
K3	210	225	245	265	265	275	295	320	260	265	285	310	265	270	290	315	120	130	140	155
	690	*740*	*800*	*870*	*870*	*900*	*970*	*1050*	*850*	*870*	*940*	*1025*	*870*	*890*	*950*	*1025*	*395*	*425*	*460*	*510*
K4	205	215	230	255	255	260	280	305	245	255	270	295	255	260	280	300	115	125	135	145
	670	*710*	*750*	*840*	*840*	*850*	*920*	*1000*	*800*	*840*	*890*	*970*	*840*	*850*	*920*	*980*	*375*	*410*	*445*	*475*
K5	125	130	140	160	155	160	170	190	150	155	165	185	155	160	170	190	70	75	80	90
	410	*425*	*460*	*520*	*510*	*520*	*560*	*620*	*490*	*510*	*540*	*610*	*510*	*520*	*560*	*620*	*230*	*245*	*260*	*295*
K6	180	190	205	225	225	230	245	270	220	225	240	260	225	230	245	265	105	110	120	130
	590	*620*	*670*	*740*	*740*	*750*	*800*	*890*	*720*	*740*	*790*	*850*	*740*	*750*	*800*	*870*	*345*	*360*	*395*	*425*
K7	160	165	180	200	200	205	220	240	195	200	215	235	200	205	220	240	90	95	105	115
	520	*540*	*590*	*660*	*660*	*670*	*720*	*790*	*640*	*660*	*710*	*770*	*660*	*670*	*720*	*790*	*295*	*310*	*345*	*375*
N1	—	—	—	—	—	—	—	—	—	—	—	—	1425	1500	1625	1775	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	*4675*	*4925*	*5325*	*5825*	—	—	—	—
N2	—	—	—	—	—	—	—	—	—	—	—	—	570	600	650	720	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	*1875*	*1975*	*2125*	*2350*	—	—	—	—
N3	—	—	—	—	—	—	—	—	—	—	—	—	380	405	435	480	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	*1250*	*1325*	*1425*	*1575*	—	—	—	—
N11	—	—	—	—	—	—	—	—	—	—	—	—	435	460	500	550	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	*1425*	*1500*	*1650*	*1800*	—	—	—	—
S1	—	—	—	—	—	—	—	—	—	—	—	—	46	49	55	60	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	*150*	*160*	*180*	*195*	—	—	—	—
S2	—	—	—	—	—	—	—	—	—	—	—	—	37	39	43	47	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	*120*	*130*	*140*	*155*	—	—	—	—
S3	—	—	—	—	—	—	—	—	—	—	—	—	33	35	38	42	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	*110*	*115*	*125*	*140*	—	—	—	—
S11	—	—	—	—	—	—	—	—	—	—	—	—	65	70	75	80	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	*215*	*230*	*245*	*260*	—	—	—	—
S12	—	—	—	—	—	—	—	—	—	—	—	—	45	47	50	55	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	*150*	*155*	*165*	*180*	—	—	—	—
S13	—	—	—	—	—	—	—	—	—	—	—	—	26	28	30	33	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	*85*	*90*	*100*	*110*	—	—	—	—
H5	—	—	—	—	47	50	55	60	—	—	—	—	42	44	48	50	—	—	—	—
	—	—	—	—	*155*	*165*	*180*	*195*	—	—	—	—	*140*	*145*	*155*	*165*	—	—	—	—
H8	—	—	—	—	50	55	60	65	—	—	—	—	44	47	50	55	—	—	—	—
	—	—	—	—	*165*	*180*	*195*	*215*	—	—	—	—	*145*	*155*	*165*	*180*	—	—	—	—
H11	—	—	—	—	60	65	70	75	—	—	—	—	55	55	60	65	—	—	—	—
	—	—	—	—	*195*	*215*	*230*	*245*	—	—	—	—	*180*	*180*	*195*	*215*	—	—	—	—
H12	—	—	—	—	90	95	105	115	—	—	—	—	80	85	90	100	—	—	—	—
	—	—	—	—	*295*	*310*	*345*	*375*	—	—	—	—	*260*	*280*	*295*	*330*	—	—	—	—
H21	—	—	—	—	50	55	60	65	—	—	—	—	44	47	50	55	—	—	—	—
	—	—	—	—	*165*	*180*	*195*	*215*	—	—	—	—	*145*	*155*	*165*	*180*	—	—	—	—

Octomill R220.43-07S/SA – Metric

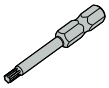




- For insert selection and cutting data recommendations, see page(s) 311 - 312
- For complete insert programme, see page(s) 815
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	ZEFP	APMXS	KAPRS°	DCX	DCB	DCSFMS	LF	RPMX	Weight	Insert
			mm		mm		mm	mm	mm	mm		kg	
R220.43-0080-07SA	00090771	Arbor	80,0	5	5,0	43,0	92,0	27,0	62,0	50,0	6200	1,1	OF..0704
R220.43-0100-07SA	00090773	Arbor	100,0	6	5,0	43,0	112,0	32,0	77,0	50,0	5600	1,8	OF..0704
R220.43-0125-07S	00045811	Arbor	125,0	8	5,0	43,0	137,0	40,0	90,0	63,0	5100	3,1	OF..0704

Spare Parts, included in delivery

For cutter	Insert key	Insert screw
		
R220.43-0080	1/4HEX-T20PX50	C05013-T20P
R220.43-0100-0125	1/4HEX-T20PX90	C05013-T20P

Accessories

For cutter	Adjustable Torque key	Arbor screw	Insert clamping torque	Torque key
				
R220.43-0080	1/4HEX-S-HANDLE-0.8-5.0NM	5802712	5.0NM	T00-20P50
R220.43-0100	1/4HEX-S-HANDLE-0.8-5.0NM	5803216	5.0NM	T00-20P50
R220.43-0125	1/4HEX-S-HANDLE-0.8-5.0NM	5804020	5.0NM	T00-20P50

Torque and fixed keys, see page 872

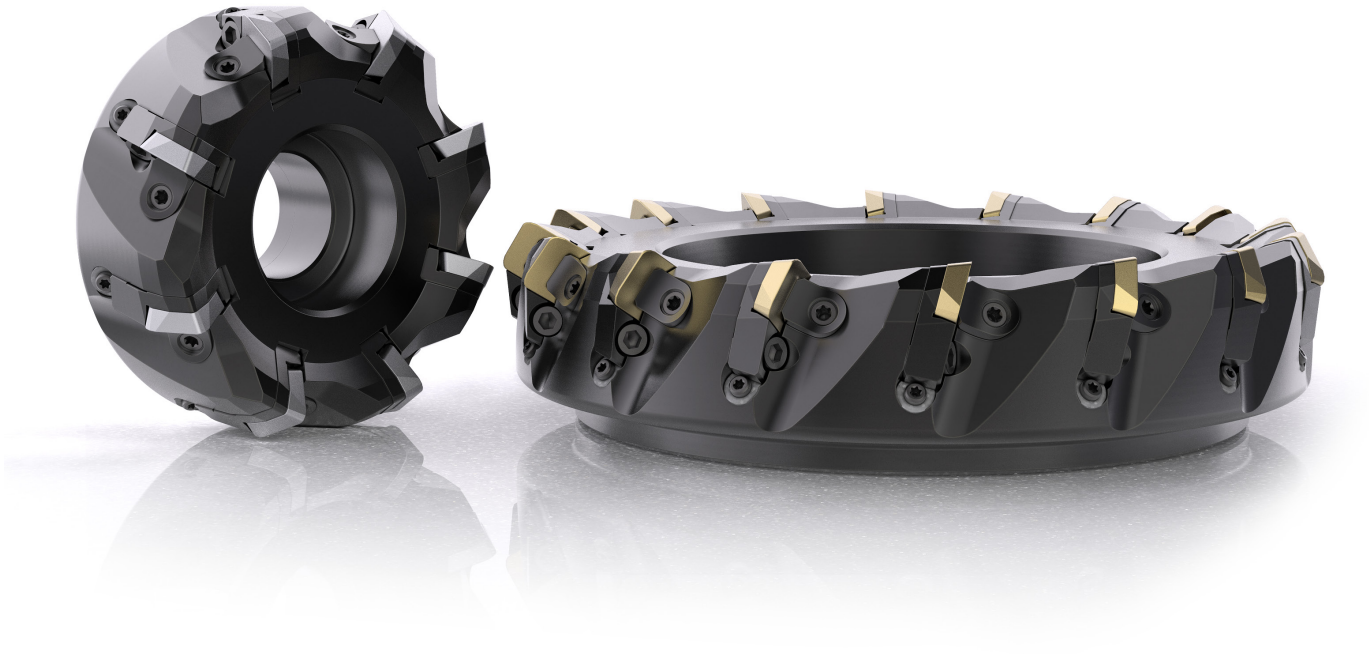
R220.43-7S – Insert selection – mm/*Inch*

SMG		a_p	f_z			
			80%	60%	40%	20%
P1	OFMT070405TN-ME13 MP2501	3,0 *0.12*	0,28 *0.011*	0,28 *0.011*	0,30 *0.012*	0,36 *0.014*
P2	OFMT070405TN-ME13 MP2501	3,0 *0.12*	0,28 *0.011*	0,28 *0.011*	0,30 *0.012*	0,36 *0.014*
P3	OFMT070405TN-ME13 MP2501	3,0 *0.12*	0,28 *0.011*	0,28 *0.011*	0,28 *0.011*	0,34 *0.013*
P4	OFMT070405TN-M15 MP2501	3,0 *0.12*	0,30 *0.012*	0,30 *0.012*	0,32 *0.013*	0,40 *0.016*
P5	OFMT070405TN-M15 MP2501	3,0 *0.12*	0,30 *0.012*	0,30 *0.012*	0,32 *0.013*	0,38 *0.015*
P6	OFMT070405TN-M15 MP2501	3,0 *0.12*	0,30 *0.012*	0,30 *0.012*	0,30 *0.012*	0,38 *0.015*
P7	OFMT070405TN-M15 MP2501	3,0 *0.12*	0,30 *0.012*	0,30 *0.012*	0,30 *0.012*	0,38 *0.015*
P8	OFMT070405TN-ME13 MP2501	3,0 *0.12*	0,28 *0.011*	0,28 *0.011*	0,28 *0.011*	0,34 *0.013*
P11	OFMT070405TN-ME13 MP2501	3,0 *0.12*	0,26 *0.010*	0,26 *0.010*	0,26 *0.010*	0,34 *0.013*
P12	OFMT070405TN-ME13 MP2501	2,5 *0.10*	0,18 *0.0070*	0,18 *0.0070*	0,19 *0.0075*	0,22 *0.0085*
M1	OFET070405TN-ME10 F40M	3,0 *0.12*	0,22 *0.0085*	0,22 *0.0085*	0,22 *0.0085*	0,28 *0.011*
M2	OFET070405TN-ME10 F40M	3,0 *0.12*	0,20 *0.0080*	0,20 *0.0080*	0,20 *0.0080*	0,26 *0.010*
M3	OFET070405TN-ME10 F40M	2,5 *0.10*	0,16 *0.0065*	0,16 *0.0065*	0,17 *0.0065*	0,20 *0.0080*
M4	OFET070405TN-ME10 F40M	1,8 *0.070*	0,15 *0.0060*	0,15 *0.0060*	0,15 *0.0060*	0,19 *0.0075*
M5	OFET070405TN-ME10 F40M	1,8 *0.070*	0,15 *0.0060*	0,15 *0.0060*	0,15 *0.0060*	0,19 *0.0075*
K1	OFMT070405TN-M15 MP2501	3,0 *0.12*	0,34 *0.013*	0,34 *0.013*	0,34 *0.013*	0,42 *0.017*
K2	OFMT070405TN-M15 MP2501	3,0 *0.12*	0,30 *0.012*	0,30 *0.012*	0,32 *0.013*	0,38 *0.015*
K3	OFMT070405TN-M15 MP2501	3,0 *0.12*	0,30 *0.012*	0,30 *0.012*	0,32 *0.013*	0,38 *0.015*
K4	OFMT070405TN-M15 MP2501	3,0 *0.12*	0,30 *0.012*	0,30 *0.012*	0,32 *0.013*	0,38 *0.015*
K5	OFMT070405TN-M15 MP2501	3,0 *0.12*	0,28 *0.011*	0,28 *0.011*	0,28 *0.011*	0,34 *0.013*
K6	OFMT070405TN-M15 MP2501	3,0 *0.12*	0,30 *0.012*	0,30 *0.012*	0,32 *0.013*	0,38 *0.015*
K7	OFMT070405TN-M15 MP2501	3,0 *0.12*	0,28 *0.011*	0,28 *0.011*	0,28 *0.011*	0,34 *0.013*
S1	OFET070405TN-ME15 F40M	1,8 *0.070*	0,22 *0.0085*	0,22 *0.0085*	0,22 *0.0085*	0,28 *0.011*
S2	OFET070405TN-ME15 F40M	1,8 *0.070*	0,22 *0.0085*	0,22 *0.0085*	0,22 *0.0085*	0,28 *0.011*
S3	OFET070405TN-ME15 F40M	1,8 *0.070*	0,20 *0.0080*	0,20 *0.0080*	0,20 *0.0080*	0,26 *0.010*
S11	OFET070405TN-ME10 F40M	2,0 *0.080*	0,17 *0.0065*	0,17 *0.0065*	0,17 *0.0065*	0,20 *0.0080*
S12	OFET070405TN-ME10 F40M	2,0 *0.080*	0,17 *0.0065*	0,17 *0.0065*	0,17 *0.0065*	0,20 *0.0080*
S13	OFET070405TN-ME10 F40M	1,8 *0.070*	0,15 *0.0060*	0,15 *0.0060*	0,15 *0.0060*	0,19 *0.0075*

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

R220.43-07S – Cutting data v_c = (m/min)/*(sf/min)*

SMG	F40M				MP2501				F30M			
	80%	60%	40%	20%	80%	60%	40%	20%	80%	60%	40%	20%
P1	235 *770*	255 *840*	280 *920*	315 *1025*	285 *940*	310 *1025*	340 *1125*	390 *1275*	275 *900*	300 *980*	335 *1100*	375 *1225*
P2	225 *740*	240 *790*	270 *890*	305 *1000*	280 *920*	300 *980*	330 *1075*	380 *1250*	270 *890*	290 *950*	325 *1075*	365 *1200*
P3	195 *640*	210 *690*	235 *770*	270 *890*	240 *790*	260 *850*	290 *950*	330 *1075*	240 *790*	255 *840*	280 *920*	320 *1050*
P4	175 *570*	190 *620*	210 *690*	235 *770*	215 *710*	235 *770*	255 *840*	290 *950*	210 *690*	225 *740*	245 *800*	280 *920*
P5	170 *560*	180 *590*	200 *660*	230 *750*	205 *670*	225 *740*	250 *820*	280 *920*	200 *660*	215 *710*	240 *790*	270 *890*
P6	190 *620*	205 *670*	230 *750*	255 *840*	230 *750*	250 *820*	280 *920*	310 *1025*	225 *740*	245 *800*	270 *890*	305 *1000*
P7	180 *590*	195 *640*	215 *710*	245 *800*	220 *720*	235 *770*	265 *870*	295 *970*	215 *710*	230 *750*	255 *840*	290 *950*
P8	165 *540*	180 *590*	200 *660*	225 *740*	200 *660*	220 *720*	245 *800*	280 *920*	200 *660*	215 *710*	235 *770*	270 *890*
P11	175 *570*	185 *610*	210 *690*	235 *770*	215 *710*	230 *750*	255 *840*	285 *940*	205 *670*	225 *740*	250 *820*	280 *920*
P12	115 *375*	125 *410*	135 *445*	155 *510*	140 *460*	150 *490*	165 *540*	190 *620*	135 *445*	145 *475*	160 *520*	180 *590*
M1	180 *590*	195 *640*	220 *720*	245 *800*	200 *660*	220 *720*	240 *790*	270 *890*	215 *710*	235 *770*	260 *850*	295 *970*
M2	150 *490*	165 *540*	180 *590*	205 *670*	165 *540*	180 *590*	200 *660*	225 *740*	180 *590*	195 *640*	215 *710*	240 *790*
M3	125 *410*	135 *445*	145 *475*	170 *560*	135 *445*	145 *475*	160 *520*	185 *610*	145 *475*	160 *520*	170 *560*	195 *640*
M4	95 *310*	105 *345*	115 *375*	130 *425*	105 *345*	115 *375*	125 *410*	140 *460*	110 *360*	120 *395*	135 *445*	150 *490*
M5	80 *260*	85 *280*	95 *310*	110 *360*	85 *280*	95 *310*	105 *345*	120 *395*	95 *310*	100 *330*	110 *360*	125 *410*
K1	175 *570*	190 *620*	215 *710*	245 *800*	220 *720*	240 *790*	260 *850*	300 *980*	— —	— —	— —	— —
K2	160 *520*	175 *570*	190 *620*	215 *710*	195 *640*	210 *690*	235 *770*	265 *870*	— —	— —	— —	— —
K3	135 *445*	145 *475*	160 *520*	185 *610*	165 *540*	180 *590*	200 *660*	225 *740*	— —	— —	— —	— —
K4	130 *425*	140 *460*	155 *510*	175 *570*	160 *520*	170 *560*	190 *620*	215 *710*	— —	— —	— —	— —
K5	80 *260*	85 *280*	95 *310*	110 *360*	95 *310*	105 *345*	115 *375*	130 *425*	— —	— —	— —	— —
K6	115 *375*	125 *410*	135 *445*	155 *510*	140 *460*	150 *490*	170 *560*	190 *620*	— —	— —	— —	— —
K7	100 *330*	110 *360*	120 *395*	140 *460*	125 *410*	135 *445*	150 *490*	170 *560*	— —	— —	— —	— —
N1	1300 *4275*	1400 *4600*	1550 *5075*	1750 *5750*	— —	— —	— —	— —	1575 *5175*	1700 *5575*	1850 *6075*	2125 *6975*
N2	530 *1750*	570 *1875*	630 *2075*	710 *2325*	— —	— —	— —	— —	630 *2075*	680 *2225*	750 *2450*	860 *2825*
N3	350 *1150*	380 *1250*	420 *1375*	475 *1550*	— —	— —	— —	— —	420 *1375*	455 *1500*	500 *1650*	570 *1875*
N11	400 *1300*	435 *1425*	480 *1575*	540 *1775*	— —	— —	— —	— —	480 *1575*	520 *1700*	570 *1875*	650 *2125*
S1	45 *150*	48 *155*	55 *180*	60 *195*	— —	— —	— —	— —	50 *165*	55 *180*	60 *195*	70 *230*
S2	36 *120*	39 *130*	43 *140*	49 *160*	— —	— —	— —	— —	42 *140*	45 *150*	50 *165*	55 *180*
S3	32 *105*	34 *110*	38 *125*	43 *140*	— —	— —	— —	— —	37 *120*	40 *130*	44 *145*	50 *165*
S11	60 *195*	70 *230*	75 *245*	85 *280*	— —	— —	— —	— —	75 *245*	80 *260*	85 *280*	100 *330*
S12	43 *140*	47 *155*	50 *165*	60 *195*	— —	— —	— —	— —	42 *140*	46 *150*	50 *165*	60 *195*
S13	25 *80*	27 *90*	30 *100*	35 *115*	— —	— —	— —	— —	24 *80*	26 *85*	29 *95*	33 *110*
H5	38 *125*	41 *135*	45 *150*	50 *165*	— —	— —	— —	— —	— —	— —	— —	— —
H8	41 *135*	44 *145*	49 *160*	55 *180*	— —	— —	— —	— —	— —	— —	— —	— —
H11	49 *160*	55 *180*	55 *180*	65 *215*	— —	— —	— —	— —	— —	— —	— —	— —
H12	75 *245*	80 *260*	90 *295*	100 *330*	— —	— —	— —	— —	— —	— —	— —	— —
H21	41 *135*	44 *145*	49 *160*	55 *180*	— —	— —	— —	— —	— —	— —	— —	— —



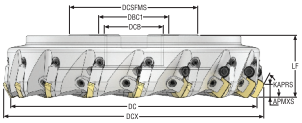
R220.60

Face mills for heavy duty. Strong inserts and the cutter is equipt with cassettes for handling high metal removal.

- Cutter range 63-250 mm
- Inserts SPEN/SPER/SPMR19
- Available in many different grades for most common workpiece materials

R220.60-19CM – Metric

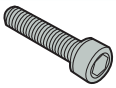
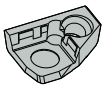
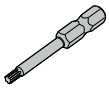
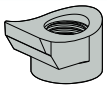




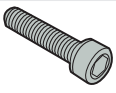
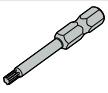
- For insert selection and cutting data recommendations, see page(s) 315 - 316
- For complete insert programme, see page(s) 836
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	ZEFP	APMXS	KAPRS°	DCX	DCB	DCSFMS	LF	RPMX	Weight	Insert
			mm		mm		mm	mm	mm	mm		kg	
R220.60-0063-19-4CM	00073305	Arbor	63,0	4	12,0	60,0	77,6	22,0	47,0	50,0	3700	1,2	SP..1906ZETR
R220.60-0080-19-5CM	00073306	Arbor	80,0	5	12,0	60,0	94,5	27,0	62,0	50,0	3300	1,7	SP..1906ZETR
R220.60-0100-19-6CM	00073307	Arbor	100,0	6	12,0	60,0	114,4	32,0	77,0	50,0	2900	2,4	SP..1906ZETR
R220.60-0125-19-8CM	00073309	Arbor	125,0	8	12,0	60,0	139,3	40,0	90,0	63,0	2600	4,0	SP..1906ZETR
R220.60-8160-19-10CM	00073311	Arbor	160,0	10	12,0	60,0	174,3	40,0	90,0	63,0	2300	6,3	SP..1906ZETR
R220.60-8200-19-12CM	00073313	Arbor	200,0	12	12,0	60,0	214,2	60,0	168,0	63,0	2000	9,0	SP..1906ZETR
R220.60-8250-19-16CM	00073318	Arbor	250,0	16	12,0	60,0	264,2	60,0	218,0	63,0	1800	20,0	SP..1906ZETR

Spare Parts, included in delivery

For cutter	Adjustment unit	Arbor screw	Cassette	Cassette screw	Insert key	Insert wedge	Wedge screw
							
R220.66-0063	AU1114T-T15P	220.17-692	SP19DRM	FS96018	1/4HEX-T25PX50	CW0813	LD8020-T25P
R220.66-0080	AU1114T-T15P	MC6S12X35	SP19DRM	FS96018	1/4HEX-T25PX50	CW0813	LD8020-T25P
R220.66-0100-8250	AU1114T-T15P	–	SP19DRM	FS96018	1/4HEX-T25PX50	CW0813	LD8020-T25P

Accessories

For cutter	Adjustable Torque key	Arbor screw	Arbor screw 2	Key	Setting key
					
R220.66-0063	1/4HEX-S-HANDLE-0.8-5.0NM	–	–	1/4HEX-H5.0X50	1/4HEX-T15PX50
R220.66-0080	1/4HEX-S-HANDLE-0.8-5.0NM	5802712	–	1/4HEX-H5.0X50	1/4HEX-T15PX50
R220.66-0100	1/4HEX-S-HANDLE-0.8-5.0NM	5803216	–	1/4HEX-H5.0X50	1/4HEX-T15PX50
R220.66-0125	1/4HEX-S-HANDLE-0.8-5.0NM	5804020	–	1/4HEX-H5.0X50	1/4HEX-T15PX50
R220.66-8160	1/4HEX-S-HANDLE-0.8-5.0NM	MC6S12X40	MC6S12X50	1/4HEX-H5.0X50	1/4HEX-T15PX50
R220.66-8200-8250	1/4HEX-S-HANDLE-0.8-5.0NM	MC6S16X50	–	1/4HEX-H5.0X50	1/4HEX-T15PX50

Torque and fixed keys, see page 872

R220.60-19 – Insert selection – mm/*Inch*

SMG		a_p	f_z			
			80%	60%	40%	20%
P1	SPER1906ZETR-M17 MP3501	7,0 *0.28*	0,30 *0.012*	0,30 *0.012*	0,30 *0.012*	0,36 *0.014*
P2	SPER1906ZETR-M17 MP3501	7,0 *0.28*	0,30 *0.012*	0,30 *0.012*	0,30 *0.012*	0,38 *0.015*
P3	SPEN1906ZETR-MD20 MP2501	7,0 *0.28*	0,32 *0.013*	0,32 *0.013*	0,32 *0.013*	0,40 *0.016*
P4	SPEN1906ZETR-MD20 MP2501	7,0 *0.28*	0,30 *0.012*	0,30 *0.012*	0,32 *0.013*	0,38 *0.015*
P5	SPEN1906ZETR-MD20 MP2501	7,0 *0.28*	0,30 *0.012*	0,30 *0.012*	0,30 *0.012*	0,38 *0.015*
P6	SPEN1906ZETR-MD20 MP2501	7,0 *0.28*	0,30 *0.012*	0,30 *0.012*	0,30 *0.012*	0,38 *0.015*
P7	SPER1906ZETR-M17 MP3501	7,0 *0.28*	0,26 *0.010*	0,26 *0.010*	0,28 *0.011*	0,34 *0.013*
P8	SPER1906ZETR-M17 MP3501	7,0 *0.28*	0,28 *0.011*	0,28 *0.011*	0,28 *0.011*	0,36 *0.014*
P11	SPMR1906ZETR-M17 MP2050	7,0 *0.28*	0,26 *0.010*	0,26 *0.010*	0,28 *0.011*	0,34 *0.013*
P12	SPMR1906ZETR-M17 MP2050	6,0 *0.24*	0,18 *0.0070*	0,18 *0.0070*	0,19 *0.0075*	0,24 *0.0095*
M1	SPER1906ZETR-M17 MP3501	7,0 *0.28*	0,30 *0.012*	0,30 *0.012*	0,30 *0.012*	0,38 *0.015*
M2	SPER1906ZETR-M17 MP3501	7,0 *0.28*	0,26 *0.010*	0,26 *0.010*	0,28 *0.011*	0,34 *0.013*
M3	SPMR1906ZETR-M17 MP2050	6,0 *0.24*	0,22 *0.0085*	0,22 *0.0085*	0,22 *0.0085*	0,28 *0.011*
M4	SPMR1906ZETR-M17 MP2050	4,5 *0.18*	0,19 *0.0075*	0,19 *0.0075*	0,19 *0.0075*	0,24 *0.0095*
M5	SPMR1906ZETR-M17 MP2050	4,5 *0.18*	0,19 *0.0075*	0,19 *0.0075*	0,19 *0.0075*	0,24 *0.0095*
K1	SPEN1906ZETR-D25 MP1501	7,0 *0.28*	0,42 *0.017*	0,42 *0.017*	0,42 *0.017*	0,50 *0.020*
K2	SPEN1906ZETR-D25 MP1501	7,0 *0.28*	0,38 *0.015*	0,38 *0.015*	0,38 *0.015*	0,48 *0.019*
K3	SPEN1906ZETR-D25 MP1501	7,0 *0.28*	0,38 *0.015*	0,38 *0.015*	0,38 *0.015*	0,48 *0.019*
K4	SPEN1906ZETR-D25 MP1501	7,0 *0.28*	0,38 *0.015*	0,38 *0.015*	0,38 *0.015*	0,48 *0.019*
K5	SPEN1906ZETR-D25 MP1501	7,0 *0.28*	0,34 *0.013*	0,34 *0.013*	0,34 *0.013*	0,42 *0.017*
K6	SPEN1906ZETR-D25 MP1501	7,0 *0.28*	0,38 *0.015*	0,38 *0.015*	0,38 *0.015*	0,48 *0.019*
K7	SPEN1906ZETR-D25 MP1501	7,0 *0.28*	0,34 *0.013*	0,34 *0.013*	0,34 *0.013*	0,42 *0.017*

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

R220.60-19 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	MP2050				MP1501				MP2501				MP3501				T25M			
	100%	80%	60%	40%	100%	80%	60%	40%	100%	80%	60%	40%	100%	80%	60%	40%	100%	80%	60%	40%
P1	220 *720*	230 *750*	250 *820*	280 *920*	240 *790*	245 *800*	265 *870*	295 *970*	260 *850*	265 *870*	285 *940*	310 *1025*	230 *750*	230 *750*	250 *820*	275 *900*	160 *520*	170 *560*	185 *610*	200 *660*
P2	215 *710*	225 *740*	245 *800*	275 *900*	230 *750*	235 *770*	250 *820*	285 *940*	245 *800*	250 *820*	270 *890*	305 *1000*	215 *710*	215 *710*	235 *770*	265 *870*	155 *510*	160 *520*	175 *570*	195 *640*
P3	190 *620*	200 *660*	215 *710*	240 *790*	205 *670*	205 *670*	220 *720*	250 *820*	215 *710*	220 *720*	240 *790*	270 *890*	190 *620*	195 *640*	210 *690*	235 *770*	135 *445*	140 *460*	155 *510*	175 *570*
P4	165 *540*	175 *570*	190 *620*	210 *690*	185 *610*	185 *610*	200 *660*	220 *720*	195 *640*	200 *660*	215 *710*	235 *770*	175 *570*	175 *570*	190 *620*	210 *690*	120 *395*	130 *425*	140 *460*	150 *490*
P5	160 *520*	165 *540*	180 *590*	205 *670*	175 *570*	175 *570*	190 *620*	215 *710*	190 *620*	190 *620*	205 *670*	230 *750*	165 *540*	170 *560*	180 *590*	205 *670*	115 *375*	120 *395*	130 *425*	150 *490*
P6	185 *610*	190 *620*	210 *690*	225 *740*	195 *640*	200 *660*	215 *710*	245 *800*	210 *690*	215 *710*	230 *750*	260 *850*	185 *610*	190 *620*	205 *670*	230 *750*	130 *425*	135 *445*	150 *490*	165 *540*
P7	170 *560*	180 *590*	195 *640*	215 *710*	185 *610*	190 *620*	205 *670*	230 *750*	200 *660*	200 *660*	220 *720*	245 *800*	175 *570*	180 *590*	190 *620*	215 *710*	125 *410*	130 *425*	140 *460*	155 *510*
P8	160 *520*	165 *540*	180 *590*	205 *670*	170 *560*	175 *570*	185 *610*	210 *690*	185 *610*	185 *610*	200 *660*	225 *740*	160 *520*	160 *520*	175 *570*	200 *660*	115 *375*	120 *395*	130 *425*	145 *475*
P11	165 *540*	175 *570*	190 *620*	210 *690*	180 *590*	180 *590*	195 *640*	225 *740*	195 *640*	195 *640*	210 *690*	240 *790*	170 *560*	175 *570*	185 *610*	210 *690*	120 *395*	125 *410*	135 *445*	155 *510*
P12	110 *360*	115 *375*	125 *410*	140 *460*	125 *410*	130 *425*	140 *460*	155 *510*	135 *445*	140 *460*	150 *490*	165 *540*	120 *395*	125 *410*	130 *425*	145 *475*	80 *260*	85 *280*	90 *295*	100 *330*
M1	155 *510*	160 *520*	175 *570*	195 *640*	— —	— —	— —	— —	135 *445*	140 *460*	150 *490*	170 *560*	125 *410*	130 *425*	140 *460*	160 *520*	125 *410*	130 *425*	140 *460*	160 *520*
M2	125 *410*	135 *445*	145 *475*	160 *520*	— —	— —	— —	— —	110 *360*	120 *395*	130 *425*	145 *475*	105 *345*	110 *360*	120 *395*	135 *445*	105 *345*	110 *360*	120 *395*	135 *445*
M3	105 *345*	110 *360*	120 *395*	135 *445*	— —	— —	— —	— —	90 *295*	95 *310*	105 *345*	115 *375*	85 *280*	90 *295*	100 *330*	110 *360*	85 *280*	90 *295*	100 *330*	110 *360*
M4	80 *260*	85 *280*	95 *310*	105 *345*	— —	— —	— —	— —	70 *230*	75 *245*	80 *260*	90 *295*	65 *215*	70 *230*	75 *245*	85 *280*	65 *215*	70 *230*	75 *245*	85 *280*
M5	70 *230*	70 *230*	80 *260*	85 *280*	— —	— —	— —	— —	60 *195*	60 *195*	65 *215*	75 *245*	55 *180*	60 *195*	65 *215*	70 *230*	55 *180*	60 *195*	65 *215*	70 *230*
K1	— —	— —	— —	— —	230 *750*	235 *770*	255 *840*	290 *950*	250 *820*	250 *820*	270 *890*	305 *1000*	220 *720*	220 *720*	235 *770*	270 *890*	120 *395*	130 *425*	140 *460*	155 *510*
K2	— —	— —	— —	— —	210 *690*	215 *710*	230 *750*	260 *850*	230 *750*	230 *750*	250 *820*	280 *920*	200 *660*	205 *670*	220 *720*	250 *820*	110 *360*	115 *375*	125 *410*	140 *460*
K3	— —	— —	— —	— —	180 *590*	180 *590*	195 *640*	220 *720*	195 *640*	195 *640*	210 *690*	235 *770*	170 *560*	170 *560*	185 *610*	210 *690*	95 *310*	100 *330*	105 *345*	120 *395*
K4	— —	— —	— —	— —	170 *560*	175 *570*	185 *610*	210 *690*	185 *610*	185 *610*	200 *660*	225 *740*	160 *520*	165 *540*	175 *570*	200 *660*	90 *295*	95 *310*	100 *330*	115 *375*
K5	— —	— —	— —	— —	105 *345*	110 *360*	115 *375*	130 *425*	115 *375*	115 *375*	125 *410*	140 *460*	100 *330*	100 *330*	110 *360*	125 *410*	55 *180*	55 *180*	60 *195*	70 *230*
K6	— —	— —	— —	— —	150 *490*	150 *490*	165 *540*	185 *610*	160 *520*	165 *540*	175 *570*	200 *660*	145 *475*	145 *475*	155 *510*	175 *570*	80 *260*	80 *260*	90 *295*	100 *330*
K7	— —	— —	— —	— —	135 *445*	140 *460*	150 *490*	170 *560*	145 *475*	145 *475*	160 *520*	180 *590*	130 *425*	130 *425*	140 *460*	155 *510*	70 *230*	75 *245*	80 *260*	90 *295*

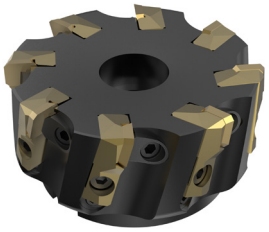


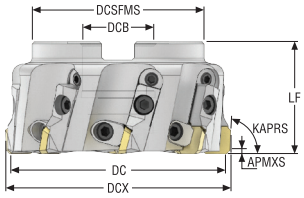
R220.30 -12

This cutter family can meet the highest surface finish requirements in a variety of materials. The strength is in cast iron materials due to a comprehensive offer in geometry and grade combinations. The adjustable pocket ensures a high run out accuracy and the precise inserts reduces the efforts to set the cutter. The single sided inserts are light cutting and include a long wiper flat to meet the requirements of bigger diameter cutters. The included crown design on the SEEX1203 inserts compensates a misalignment between spindle head and the workpiece to ensure a superb surface finish and appearance. The inserts offer is ideal for special cutters like hybrid cutters for rough-finishing with dedicated roughing inserts as well as pure finishing cutters with customized pitches and handling units.

- DC = 80 – 355 mm
- Available in both course and close pitch versions
- Available in both cassette version and fix pocket and also for mounting as CAP

R220.30-12CT – Metric

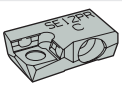




- For insert selection and cutting data recommendations, see page(s) 321 - 322
- For complete insert programme, see page(s) 823
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	ZEFP	APMXS	KAPRS°	DCX	DCB	DCSFMS	LF	RPMX	Weight	Insert
			mm		mm		mm	mm	mm	mm		kg	
R220.30-0080-12CT	75068850	Arbor	80,0	6	1,0	88,0	80,75	27,0	56,0	50,0	4800	1,4	SE..1203
R220.30-0100-12CT	75068851	Arbor	100,0	8	1,0	88,0	100,72	32,0	77,0	50,0	4300	1,8	SE..1203
R220.30-0125-12CT	75068852	Arbor	125,0	10	1,0	88,0	126,02	40,0	90,0	63,0	3800	3,3	SE..1203
R220.30-8250-12CT	75068855	Arbor	250,0	22	1,0	88,0	250,91	60,0	130,0	63,0	2700	16,5	SE..1203

Spare Parts, included in delivery

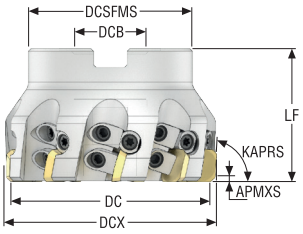
For cutter	Adjustment unit	Arbor screw	Cassette	Cassette screw	Insert key	Insert wedge	Wedge screw
							
R220.30-0080	AU1114T-T15P	MF6S12X45	SE12PRC	FS95018	1/4HEX-H4.0X50	334.5-640	268-650
R220.30-0100	AU1114T-T15P	MC6S16X35	SE12PRC	FS95018	1/4HEX-H4.0X50	334.5-640	268-650
R220.30-0125-8250	AU1114T-T15P	–	SE12PRC	FS95018	1/4HEX-H4.0X50	334.5-640	268-650

Accessories

For cutter	Adjustable Torque key	Arbor screw
		
R220.30-0080	1/4HEX-S-HANDLE-0.8-5.0NM	5802712
R220.30-0100	1/4HEX-S-HANDLE-0.8-5.0NM	5803216
R220.30-0125	1/4HEX-S-HANDLE-0.8-5.0NM	5804020
R220.30-8250	1/4HEX-S-HANDLE-0.8-5.0NM	MC6S16X50

Torque and fixed keys, see page 872

R220.30-12ST – Metric

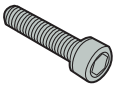
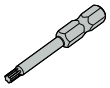
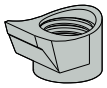
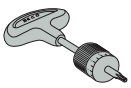




- For insert selection and cutting data recommendations, see page(s) 321 - 322
- For complete insert programme, see page(s) 823
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	ZEFP	APMXS	KAPRS°	DCX	DCB	DCSFMS	LF	RPMX	Weight	Insert
			mm		mm		mm	mm	mm	mm		kg	
R220.30-0080-12ST	75038551	Arbor	80,0	9	1,0	88,0	80,75	27,0	56,0	50,0	5300	1,4	SE..1203
R220.30-8160-12ST	75036394	Arbor	160,0	20	1,0	88,0	160,97	40,0	90,0	63,0	3800	5,0	SE..1203
R220.30-8200-12ST	75066297	Arbor	200,0	25	1,0	88,0	200,94	60,0	130,0	63,0	3300	7,8	SE..1203

Spare Parts, included in delivery

For cutter	Arbor screw	Insert key	Insert wedge	Key	Setting gauge	Setting screw	Wedge screw
							
R220.30-0080	MC6S12X40	1/4HEX-T15PX50	CW0608	T15P-4ST	AS6011	LD6019-T15P	LD6018T-T15P
R220.30-8160-8200	–	1/4HEX-T15PX50	CW0608	T15P-4ST	AS6011	LD6019-T15P	LD6018T-T15P

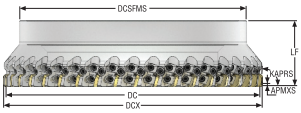
Accessories

For cutter	Adjustable Torque key	Arbor screw
		
R220.30-0080	1/4HEX-S-HANDLE-0.8-5.0NM	5802712
R220.30-8160	1/4HEX-S-HANDLE-0.8-5.0NM	MC6S12X40
R220.30-8200	1/4HEX-S-HANDLE-0.8-5.0NM	MC6S16X50

Torque and fixed keys, see page 872

R220.30-12ST CAP – Metric

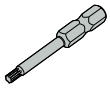
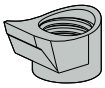




- For insert selection and cutting data recommendations, see page(s) 321 - 322
- For complete insert programme, see page(s) 823
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	ZEFP	APMXS	KAPRS°	DCX	DCB	DCSFMS	LF	RPMX	Weight	Insert
			mm		mm		mm	mm	mm	mm		kg	
R220.30-9250-12ST	75077274	Arbor	250,0	32	1,0	88,0	250,97	–	220,0	63,0	3000	9,2	SE..1203
R220.30-9355-12ST	75077276	Arbor	355,0	44	1,0	88,0	355,94	–	285,0	63,0	2500	15,9	SE..1203

Spare Parts, included in delivery

For cutter	Insert key	Insert wedge	Key	Setting gauge	Setting screw	Wedge screw
						
R220.30-9250-9355	1/4HEX-T15PX50	CW0608	T15P-4ST	AS6011	LD6019-T15P	LD6018T-T15P

Accessories

For cutter	Adjustable Torque key
	
R220.30-..	1/4HEX-S-HANDLE-0.8-5.0NM

Torque and fixed keys, see page 872

R220.30-12 – Insert selection – mm/*Inch*

SMG		a_p	f_z			
			80%	60%	40%	20%
P1	SEEX1203AFTN-M13 MP3501	0,60 *0.024*	0,18 *0.0070*	0,18 *0.0070*	0,19 *0.0075*	0,22 *0.0085*
P2	SEEX1203AFTN-M13 MP3501	0,60 *0.024*	0,19 *0.0075*	0,19 *0.0075*	0,19 *0.0075*	0,24 *0.0095*
P3	SEEX1203AFTN-M13 MP3501	0,60 *0.024*	0,18 *0.0070*	0,18 *0.0070*	0,18 *0.0070*	0,22 *0.0085*
P4	SEEX1203AFTN-M13 MP3501	0,60 *0.024*	0,17 *0.0065*	0,17 *0.0065*	0,18 *0.0070*	0,22 *0.0085*
P5	SEEX1203AFTN-M13 MP3501	0,60 *0.024*	0,17 *0.0065*	0,17 *0.0065*	0,17 *0.0065*	0,22 *0.0085*
P6	SEEX1203AFTN-M13 MP3501	0,60 *0.024*	0,17 *0.0065*	0,17 *0.0065*	0,17 *0.0065*	0,20 *0.0080*
P7	SEEX1203AFTN-M13 MP3501	0,60 *0.024*	0,17 *0.0065*	0,17 *0.0065*	0,17 *0.0065*	0,20 *0.0080*
P8	SEEX1203AFTN-M13 MP3501	0,60 *0.024*	0,18 *0.0070*	0,18 *0.0070*	0,18 *0.0070*	0,22 *0.0085*
P11	SEEX1203AFTN-M13 MP3501	0,60 *0.024*	0,17 *0.0065*	0,17 *0.0065*	0,17 *0.0065*	0,20 *0.0080*
P12	SEEX1203AFTN-M13 MP3501	0,48 *0.019*	0,11 *0.0044*	0,11 *0.0044*	0,12 *0.0048*	0,14 *0.0055*
M1	SEEX1203AFTN-M13 MP3501	0,60 *0.024*	0,19 *0.0075*	0,19 *0.0075*	0,19 *0.0075*	0,24 *0.0095*
M2	SEEX1203AFTN-M13 MP3501	0,60 *0.024*	0,17 *0.0065*	0,17 *0.0065*	0,17 *0.0065*	0,22 *0.0085*
M3	SEEX1203AFTN-M13 MP3501	0,48 *0.019*	0,14 *0.0055*	0,14 *0.0055*	0,14 *0.0055*	0,17 *0.0065*
M4	SEEX1203AFTN-M13 MP3501	0,36 *0.014*	0,12 *0.0048*	0,12 *0.0048*	0,12 *0.0048*	0,15 *0.0060*
M5	SEEX1203AFTN-M13 MP3501	0,36 *0.014*	0,12 *0.0048*	0,12 *0.0048*	0,12 *0.0048*	0,15 *0.0060*
K1	SEEX1203AFTN-MD14 MH1000	0,60 *0.024*	0,20 *0.0080*	0,20 *0.0080*	0,20 *0.0080*	0,25 *0.010*
K2	SEEX1203AFTN-MD14 MH1000	0,60 *0.024*	0,18 *0.0070*	0,18 *0.0070*	0,19 *0.0075*	0,22 *0.0085*
K3	SEEX1203AFTN-MD14 MH1000	0,60 *0.024*	0,18 *0.0070*	0,18 *0.0070*	0,19 *0.0075*	0,22 *0.0085*
K4	SEEX1203AFTN-MD14 MH1000	0,60 *0.024*	0,18 *0.0070*	0,18 *0.0070*	0,19 *0.0075*	0,22 *0.0085*
K5	SEEX1203AFTN-MD14 MH1000	0,60 *0.024*	0,16 *0.0065*	0,16 *0.0065*	0,17 *0.0065*	0,20 *0.0080*
K6	SEEX1203AFTN-MD14 MH1000	0,60 *0.024*	0,18 *0.0070*	0,18 *0.0070*	0,19 *0.0075*	0,22 *0.0085*
K7	SEEX1203AFTN-MD14 MH1000	0,60 *0.024*	0,16 *0.0065*	0,16 *0.0065*	0,17 *0.0065*	0,20 *0.0080*
H5	SEEX1203AFTN-MD14 MH1000	0,48 *0.019*	0,12 *0.0048*	0,12 *0.0048*	0,13 *0.0050*	0,15 *0.0065*
H8	SEEX1203AFTN-MD14 MH1000	0,42 *0.017*	0,095 *0.0038*	0,095 *0.0038*	0,095 *0.0038*	0,12 *0.0048*
H11	SEEX1203AFTN-MD14 MH1000	0,48 *0.019*	0,12 *0.0048*	0,12 *0.0048*	0,13 *0.0050*	0,15 *0.0065*
H12	SEEX1203AFTN-MD14 MH1000	0,42 *0.017*	0,095 *0.0038*	0,095 *0.0038*	0,095 *0.0038*	0,12 *0.0048*
H21	SEEX1203AFTN-MD14 MH1000	0,42 *0.017*	0,095 *0.0038*	0,095 *0.0038*	0,095 *0.0038*	0,12 *0.0048*

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

R220.30-12 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	MH1000				F15M				H15				MK1500				MP3501			
	100%	80%	60%	40%	100%	80%	60%	40%	100%	80%	60%	40%	100%	80%	60%	40%	100%	80%	60%	40%
P1	—	—	—	—	225	240	255	285	—	—	—	—	—	—	—	—	320	330	350	380
	—	—	—	—	*740*	*790*	*840*	*940*	—	—	—	—	—	—	—	—	*1050*	*1075*	*1150*	*1250*
P2	—	—	—	—	220	230	250	280	—	—	—	—	—	—	—	—	305	315	335	370
	—	—	—	—	*720*	*750*	*820*	*920*	—	—	—	—	—	—	—	—	*1000*	*1025*	*1100*	*1225*
P3	—	—	—	—	190	200	220	240	—	—	—	—	—	—	—	—	270	275	295	325
	—	—	—	—	*620*	*660*	*720*	*790*	—	—	—	—	—	—	—	—	*890*	*900*	*970*	*1075*
P4	—	—	—	—	170	180	190	215	—	—	—	—	—	—	—	—	240	245	265	285
	—	—	—	—	*560*	*590*	*620*	*710*	—	—	—	—	—	—	—	—	*790*	*800*	*870*	*940*
P5	200	210	225	245	165	175	185	205	—	—	—	—	—	—	—	—	230	235	250	275
	660	*690*	*740*	*800*	*540*	*570*	*610*	*670*	—	—	—	—	—	—	—	—	*750*	*770*	*820*	*900*
P6	225	235	250	280	185	195	210	230	—	—	—	—	—	—	—	—	260	265	280	310
	740	*770*	*820*	*920*	*610*	*640*	*690*	*750*	—	—	—	—	—	—	—	—	*850*	*870*	*920*	*1025*
P7	210	220	240	265	175	185	195	220	—	—	—	—	—	—	—	—	245	250	265	295
	690	*720*	*790*	*870*	*570*	*610*	*640*	*720*	—	—	—	—	—	—	—	—	*800*	*820*	*870*	*970*
P8	195	205	220	245	160	170	185	205	—	—	—	—	—	—	—	—	225	230	245	270
	640	*670*	*720*	*800*	*520*	*560*	*610*	*670*	—	—	—	—	—	—	—	—	*740*	*750*	*800*	*890*
P11	205	215	230	255	170	180	190	215	—	—	—	—	—	—	—	—	240	245	260	285
	670	*710*	*750*	*840*	*560*	*590*	*620*	*710*	—	—	—	—	—	—	—	—	*790*	*800*	*850*	*940*
P12	135	145	155	165	—	—	—	—	—	—	—	—	—	—	—	—	160	165	175	185
	445	*475*	*510*	*540*	—	—	—	—	—	—	—	—	—	—	—	—	*520*	*540*	*570*	*610*
M1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	165	175	185	210
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	*540*	*570*	*610*	*690*
M2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	140	145	155	175
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	*460*	*475*	*510*	*570*
M3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	110	115	125	140
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	*360*	*375*	*410*	*460*
M4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	85	90	100	110
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	*280*	*295*	*330*	*360*
M5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	75	75	85	90
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	*245*	*245*	*280*	*295*
K1	210	220	240	265	175	185	200	220	140	145	155	175	270	285	310	345	310	315	335	370
	690	*720*	*790*	*870*	*570*	*610*	*660*	*720*	*460*	*475*	*510*	*570*	*890*	*940*	*1025*	*1125*	*1025*	*1025*	*1100*	*1225*
K2	190	200	215	235	155	165	175	195	125	130	140	155	245	255	275	300	280	285	305	335
	620	*660*	*710*	*770*	*510*	*540*	*570*	*640*	*410*	*425*	*460*	*510*	*800*	*840*	*900*	*980*	*920*	*940*	*1000*	*1100*
K3	160	170	180	200	130	140	150	165	105	110	120	130	205	215	235	255	235	240	255	285
	520	*560*	*590*	*660*	*425*	*460*	*490*	*540*	*345*	*360*	*395*	*425*	*670*	*710*	*770*	*840*	*770*	*790*	*840*	*940*
K4	150	160	170	190	125	130	145	155	100	105	115	125	195	205	220	245	225	230	245	270
	490	*520*	*560*	*620*	*410*	*425*	*475*	*510*	*330*	*345*	*375*	*410*	*640*	*670*	*720*	*800*	*740*	*750*	*800*	*890*
K5	95	100	105	115	75	80	90	95	60	65	70	75	120	125	135	150	140	145	150	165
	310	*330*	*345*	*375*	*245*	*260*	*295*	*310*	*195*	*215*	*230*	*245*	*395*	*410*	*445*	*490*	*460*	*475*	*490*	*540*
K6	135	140	150	165	110	115	125	140	90	90	100	110	175	180	195	215	200	205	215	240
	445	*460*	*490*	*540*	*360*	*375*	*410*	*460*	*295*	*295*	*330*	*360*	*570*	*590*	*640*	*710*	*660*	*670*	*710*	*790*
K7	120	125	135	150	100	105	110	125	80	85	90	95	155	165	175	190	180	185	195	210
	395	*410*	*445*	*490*	*330*	*345*	*360*	*410*	*260*	*280*	*295*	*310*	*510*	*540*	*570*	*620*	*590*	*610*	*640*	*690*
H5	45	47	50	55	37	39	42	46	—	—	—	—	—	—	—	—	36	38	41	45
	150	*155*	*165*	*180*	*120*	*130*	*140*	*150*	—	—	—	—	—	—	—	—	*120*	*125*	*135*	*150*
H8	48	50	55	60	39	42	45	49	—	—	—	—	—	—	—	—	38	41	44	48
	155	*165*	*180*	*195*	*130*	*140*	*150*	*160*	—	—	—	—	—	—	—	—	*125*	*135*	*145*	*155*
H11	55	60	65	70	47	50	55	60	—	—	—	—	—	—	—	—	46	49	55	55
	180	*195*	*215*	*230*	*155*	*165*	*180*	*195*	—	—	—	—	—	—	—	—	*150*	*160*	*180*	*180*
H12	85	90	95	105	70	75	80	90	—	—	—	—	—	—	—	—	70	75	80	85
	280	*295*	*310*	*345*	*230*	*245*	*260*	*295*	—	—	—	—	—	—	—	—	*230*	*245*	*260*	*280*
H21	48	50	55	60	39	42	45	49	—	—	—	—	—	—	—	—	38	41	44	48
	155	*165*	*180*	*195*	*130*	*140*	*150*	*160*	—	—	—	—	—	—	—	—	*125*	*135*	*145*	*155*



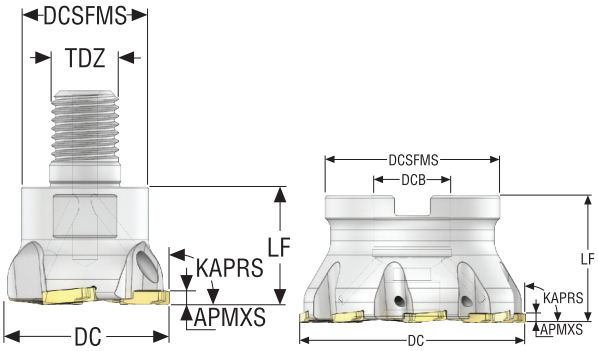
R230.19

This finishing cutter subsist on an exceptional run out even though it is a fixed pocket solution. The axial mounted inserts have a high accuracy and are light cutting at the same time thanks to the positive rake face design. The small wiper flat length created furthermore low axial tool pressure and the high run out accuracy enables you to run above the wiper flat and still achieve an excellent surface finish. This family is ideal for weak machines and smaller diameter in steel and stainless-steel materials.

- DC = 30 – 100 mm
- R230.19 Face mills for finishing
- Inserts with 4 cutting edges
- Single sided inserts

R230.19 - Metric – Metric

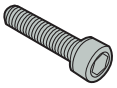
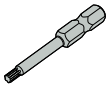




- For insert selection and cutting data recommendations, see page(s) 325 - 326
- For complete insert programme, see page(s) N/A
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	ZEFP	APMXS	KAPRS°	DCSFMS	DCB	TDZ	LF	Weight	RPMX	Insert
			mm		mm		mm	mm		mm	kg		
R230.19-1030.RE-SN1103-3A	02735709	Combimaster	30,0	3	2,6	90,0	18,5	–	M10	20,0	0,1	18900	SNHQ1103xxR
R230.19-1640.RE-SN1203-3A	02735718	Combimaster	40,0	3	3,1	90,0	30,0	–	M16	28,0	0,2	16700	SNHQ1203xxR
R230.19-0050-SN1203-5A	02735719	Arbor	50,0	5	3,1	90,0	42,0	22,0	–	40,0	0,4	12300	SNHQ1203xxR
R230.19-0063-SN1203-6A	02735734	Arbor	63,0	6	3,1	90,0	50,0	27,0	–	45,0	0,6	10900	SNHQ1203xxR
R230.19-0080-SN1203-8A	02735736	Arbor	80,0	8	3,1	90,0	62,0	27,0	–	45,0	1,1	9700	SNHQ1203xxR
R230.19-0100-SN1203-10A	02735737	Arbor	100,0	10	3,1	90,0	77,0	32,0	–	50,0	1,8	8700	SNHQ1203xxR

Spare Parts, included in delivery

For cutter	Arbor screw	Insert key	Insert screw
			
R230.19-1103	–	1/4HEX-T09PX50	C93505-T09P
R230.19-1203	–	1/4HEX-T15PX50	C94006-T15P
R230.19-1203 ø50	220.17-692M	1/4HEX-T15PX50	C94006-T15P
R230.19-1203 ø63-80	MC6S12X35	1/4HEX-T15PX50	C94006-T15P
R230.19-1203 ø100	MC6S16X40	1/4HEX-T15PX50	C94006-T15P

Accessories

For cutter	Adjustable Torque key	Insert clamping torque	Torque key
			
R230.19-1103	1/4HEX-S-HANDLE-0.8-5.0NM	2.0NM	T00-09P20
R230.19-1203	1/4HEX-S-HANDLE-0.8-5.0NM	3.5NM	T00-15P35

Torque and fixed keys, see page 872

R230.19 – Insert selection – mm/*Inch*

SMG		a_p	f_z			
			80%	60%	40%	20%
P1	SNHQ120308TR4-M07 F40M	1,9 *0.075*	0,12 *0.0048*	0,12 *0.0048*	0,12 *0.0048*	0,15 *0.0060*
P2	SNHQ120308TR4-M07 F40M	1,9 *0.075*	0,12 *0.0048*	0,12 *0.0048*	0,13 *0.0050*	0,15 *0.0060*
P3	SNHQ120308TR4-M07 F40M	1,9 *0.075*	0,12 *0.0048*	0,12 *0.0048*	0,12 *0.0048*	0,14 *0.0055*
P4	SNHQ120308TR4-M07 F40M	1,9 *0.075*	0,11 *0.0044*	0,11 *0.0044*	0,12 *0.0048*	0,14 *0.0055*
P5	SNHQ120308TR4-M07 F40M	1,9 *0.075*	0,11 *0.0044*	0,11 *0.0044*	0,11 *0.0044*	0,14 *0.0055*
P6	SNHQ120308TR4-M07 F40M	1,9 *0.075*	0,11 *0.0044*	0,11 *0.0044*	0,11 *0.0044*	0,14 *0.0055*
P7	SNHQ120308TR4-M07 F40M	1,9 *0.075*	0,11 *0.0044*	0,11 *0.0044*	0,11 *0.0044*	0,14 *0.0055*
P8	SNHQ120308TR4-M07 F40M	1,9 *0.075*	0,12 *0.0048*	0,12 *0.0048*	0,12 *0.0048*	0,14 *0.0055*
P11	SNHQ120308TR4-M07 F40M	1,9 *0.075*	0,11 *0.0044*	0,11 *0.0044*	0,11 *0.0044*	0,14 *0.0055*
P12	SNHQ120308TR4-M07 F40M	1,5 *0.060*	0,080 *0.0032*	0,080 *0.0032*	0,080 *0.0032*	0,10 *0.0040*
M1	SNHQ120308TR4-M07 F40M	1,9 *0.075*	0,12 *0.0048*	0,12 *0.0048*	0,13 *0.0050*	0,15 *0.0060*
M2	SNHQ120308TR4-M07 F40M	1,9 *0.075*	0,11 *0.0044*	0,11 *0.0044*	0,11 *0.0044*	0,14 *0.0055*
M3	SNHQ120308TR4-M07 F40M	1,5 *0.060*	0,095 *0.0038*	0,095 *0.0038*	0,095 *0.0038*	0,12 *0.0048*
M4	SNHQ120308TR4-M07 F40M	1,1 *0.044*	0,090 *0.0036*	0,090 *0.0036*	0,090 *0.0036*	0,11 *0.0044*
M5	SNHQ120308TR4-M07 F40M	1,1 *0.044*	0,090 *0.0036*	0,090 *0.0036*	0,090 *0.0036*	0,11 *0.0044*
K1	SNHQ120308TR4-M07 MP2501	1,9 *0.075*	0,12 *0.0048*	0,12 *0.0048*	0,13 *0.0050*	0,15 *0.0060*
K2	SNHQ120308TR4-M07 MP2501	1,9 *0.075*	0,11 *0.0044*	0,11 *0.0044*	0,11 *0.0044*	0,14 *0.0055*
K3	SNHQ120308TR4-M07 MP2501	1,9 *0.075*	0,11 *0.0044*	0,11 *0.0044*	0,11 *0.0044*	0,14 *0.0055*
K4	SNHQ120308TR4-M07 MP2501	1,9 *0.075*	0,11 *0.0044*	0,11 *0.0044*	0,11 *0.0044*	0,14 *0.0055*
K5	SNHQ120308TR4-M07 MP2501	1,9 *0.075*	0,10 *0.0040*	0,10 *0.0040*	0,10 *0.0040*	0,13 *0.0050*
K6	SNHQ120308TR4-M07 MP2501	1,9 *0.075*	0,11 *0.0044*	0,11 *0.0044*	0,11 *0.0044*	0,14 *0.0055*
K7	SNHQ120308TR4-M07 MP2501	1,9 *0.075*	0,10 *0.0040*	0,10 *0.0040*	0,10 *0.0040*	0,13 *0.0050*
S1	SNHQ120308TR4-M07 F40M	1,1 *0.044*	0,090 *0.0036*	0,090 *0.0036*	0,090 *0.0036*	0,11 *0.0044*
S2	SNHQ120308TR4-M07 F40M	1,1 *0.044*	0,090 *0.0036*	0,090 *0.0036*	0,090 *0.0036*	0,11 *0.0044*
S3	SNHQ120308TR4-M07 F40M	1,1 *0.044*	0,085 *0.0034*	0,085 *0.0034*	0,085 *0.0034*	0,10 *0.0040*
S11	SNHQ120308TR4-M07 F40M	1,3 *0.050*	0,095 *0.0038*	0,095 *0.0038*	0,10 *0.0040*	0,12 *0.0048*
S12	SNHQ120308TR4-M07 F40M	1,3 *0.050*	0,095 *0.0038*	0,095 *0.0038*	0,10 *0.0040*	0,12 *0.0048*
S13	SNHQ120308TR4-M07 F40M	1,1 *0.044*	0,090 *0.0036*	0,090 *0.0036*	0,090 *0.0036*	0,11 *0.0044*

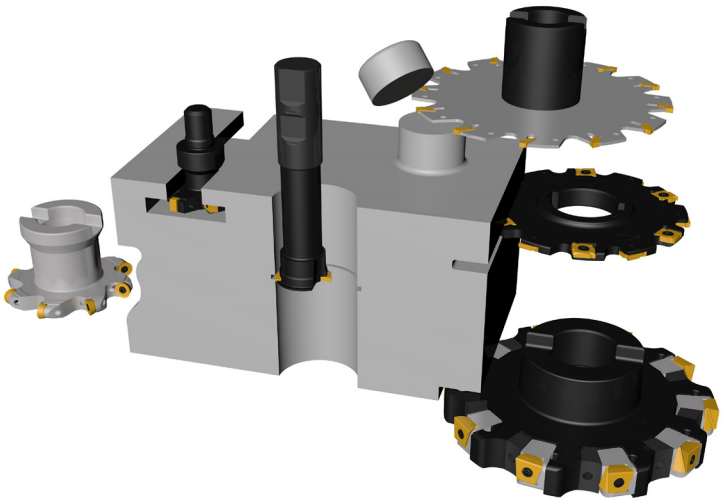
SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

R230.19 – Cutting data v_c = (m/min)/*(sf/min)*

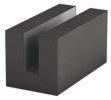
SMG	F30M				F40M				MP2501				H25			
	100%	80%	60%	40%	100%	80%	60%	40%	100%	80%	60%	40%	100%	80%	60%	40%
P1	240 *790*	250 *820*	270 *890*	290 *950*	225 *740*	240 *790*	255 *840*	280 *920*	425 *1400*	440 *1450*	460 *1500*	500 *1650*	— —	— —	— —	— —
P2	225 *740*	240 *790*	255 *840*	285 *940*	215 *710*	225 *740*	245 *800*	270 *890*	415 *1350*	425 *1400*	450 *1475*	480 *1575*	— —	— —	— —	— —
P3	200 *660*	210 *690*	225 *740*	250 *820*	190 *620*	200 *660*	215 *710*	240 *790*	355 *1175*	365 *1200*	385 *1275*	420 *1375*	— —	— —	— —	— —
P4	175 *570*	185 *610*	200 *660*	220 *720*	165 *540*	175 *570*	190 *620*	210 *690*	315 *1025*	325 *1075*	340 *1125*	370 *1225*	— —	— —	— —	— —
P5	165 *540*	175 *570*	190 *620*	210 *690*	160 *520*	170 *560*	180 *590*	200 *660*	305 *1000*	315 *1025*	330 *1075*	350 *1150*	— —	— —	— —	— —
P6	190 *620*	200 *660*	215 *710*	235 *770*	180 *590*	190 *620*	205 *670*	225 *740*	340 *1125*	355 *1175*	375 *1225*	400 *1300*	— —	— —	— —	— —
P7	175 *570*	185 *610*	200 *660*	225 *740*	170 *560*	180 *590*	190 *620*	215 *710*	320 *1050*	335 *1100*	350 *1150*	380 *1250*	— —	— —	— —	— —
P8	165 *540*	175 *570*	190 *620*	210 *690*	160 *520*	170 *560*	180 *590*	200 *660*	300 *980*	310 *1025*	325 *1075*	350 *1150*	— —	— —	— —	— —
P11	170 *560*	180 *590*	195 *640*	215 *710*	165 *540*	175 *570*	185 *610*	205 *670*	315 *1025*	325 *1075*	340 *1125*	370 *1225*	— —	— —	— —	— —
P12	110 *360*	120 *395*	130 *425*	140 *460*	105 *345*	115 *375*	120 *395*	135 *445*	195 *640*	205 *670*	215 *710*	225 *740*	— —	— —	— —	— —
M1	180 *590*	190 *620*	205 *670*	230 *750*	175 *570*	185 *610*	195 *640*	220 *720*	210 *690*	220 *720*	240 *790*	260 *850*	— —	— —	— —	— —
M2	150 *490*	160 *520*	170 *560*	190 *620*	145 *475*	150 *490*	165 *540*	180 *590*	175 *570*	185 *610*	200 *660*	215 *710*	— —	— —	— —	— —
M3	125 *410*	130 *425*	140 *460*	155 *510*	115 *375*	125 *410*	135 *445*	145 *475*	140 *460*	150 *490*	160 *520*	175 *570*	— —	— —	— —	— —
M4	95 *310*	100 *330*	110 *360*	120 *395*	90 *295*	95 *310*	105 *345*	115 *375*	110 *360*	115 *375*	125 *410*	135 *445*	— —	— —	— —	— —
M5	80 *260*	85 *280*	90 *295*	100 *330*	75 *245*	80 *260*	85 *280*	95 *310*	90 *295*	95 *310*	105 *345*	110 *360*	— —	— —	— —	— —
K1	180 *590*	190 *620*	205 *670*	225 *740*	170 *560*	180 *590*	195 *640*	215 *710*	415 *1350*	430 *1400*	455 *1500*	485 *1600*	— —	— —	— —	— —
K2	160 *520*	170 *560*	180 *590*	200 *660*	150 *490*	160 *520*	170 *560*	190 *620*	370 *1225*	380 *1250*	400 *1300*	425 *1400*	— —	— —	— —	— —
K3	135 *445*	140 *460*	155 *510*	170 *560*	130 *425*	135 *445*	145 *475*	160 *520*	310 *1025*	320 *1050*	340 *1125*	360 *1175*	— —	— —	— —	— —
K4	130 *425*	135 *445*	145 *475*	160 *520*	120 *395*	130 *425*	140 *460*	155 *510*	295 *970*	305 *1000*	325 *1075*	345 *1125*	— —	— —	— —	— —
K5	80 *260*	85 *280*	90 *295*	100 *330*	75 *245*	80 *260*	85 *280*	95 *310*	180 *590*	185 *610*	195 *640*	210 *690*	— —	— —	— —	— —
K6	115 *375*	120 *395*	130 *425*	140 *460*	110 *360*	115 *375*	120 *395*	135 *445*	260 *850*	270 *890*	285 *940*	300 *980*	— —	— —	— —	— —
K7	100 *330*	105 *345*	115 *375*	125 *410*	95 *310*	100 *330*	110 *360*	120 *395*	230 *750*	240 *790*	250 *820*	270 *890*	— —	— —	— —	— —
S1	45 *150*	48 *155*	50 *165*	55 *180*	43 *140*	45 *150*	48 *155*	55 *180*	— —	— —	— —	— —	— —	— —	— —	— —
S2	36 *120*	38 *125*	41 *135*	45 *150*	35 *115*	36 *120*	39 *130*	43 *140*	— —	— —	— —	— —	— —	— —	— —	— —
S3	32 *105*	34 *110*	36 *120*	39 *130*	30 *100*	32 *105*	34 *110*	37 *120*	— —	— —	— —	— —	— —	— —	— —	— —
S11	65 *215*	65 *215*	70 *230*	75 *245*	60 *195*	65 *215*	70 *230*	75 *245*	— —	— —	— —	— —	— —	— —	— —	— —
S12	36 *120*	38 *125*	41 *135*	44 *145*	41 *135*	44 *145*	47 *155*	50 *165*	— —	— —	— —	— —	— —	— —	— —	— —
S13	21 *70*	22 *70*	24 *80*	26 *85*	24 *80*	25 *80*	27 *90*	30 *100*	— —	— —	— —	— —	— —	— —	— —	— —

A full range of cutters for all kinds of disc Milling operations

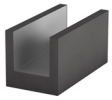
Seco's disc mills, available from 0,7 to 32 mm (0.029 to 1.25") in width, offer a wide range of cutter diameters and connection types suitable for all relevant machine tools and disc milling applications.



The core of the range consists of 4 main cutter families



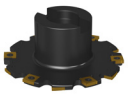
Min



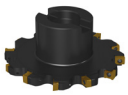
Max



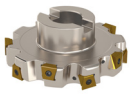
335.10 for narrow slotting and sawing
Width 2,25-4,1mm, .089"-.122"



335.19 for small width of cut and sawing
Fixed pockets
Width 4-12mm, .156"-.500"

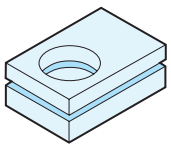


335.18 for medium width of cut
Fixed and adjustable width
Width 8-20mm, .312"-.750"



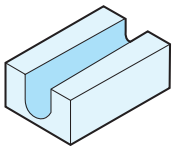
335.25 for large width of cut
Fixed and adjustable width
Width 13,5 -32mm, .53"-1.26"

And 4 other families dedicated to specific disc milling operation



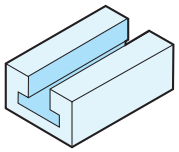


335.14 and 335.15 for circlips groove and narrow slotting
Width 0,7-5,15mm, .029"-.203"





335.29, 335.18 and 335.25 equipped with round insert - full radius profile and copy milling. Fixed and adjustable width
Width 5 - 20 mm, .197"-.787"





335.16 for T-slots
Width 11 - 22 mm, 0.387" - 0.823"



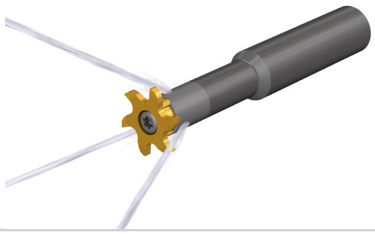
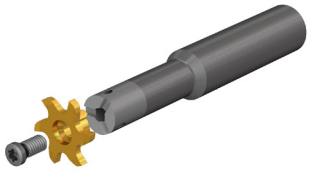
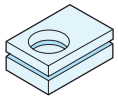
335.14

Small diameter disc milling cutter system dedicated for shallow grooving, circlips grooving, top and bottom chamfering, full radius profile and threading

- Exchangeable carbide head systems to help controlling machining costs
- Width of cut range 0.7-6.0 mm (0.043-0.236 inch)
- Diameter insert range 9.7-34.7 mm (.381 - 1.36 inch)
- A comprehensive range of cylindrical carbide and steel shanks, complemented with integrated ER collet chuck holder
- High precision width of cut +/-0.02mm - +/-0.0008”

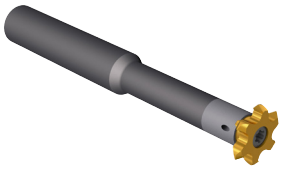
Disc Milling cutter 335.14

Disc milling cutter with exchangeable carbide head

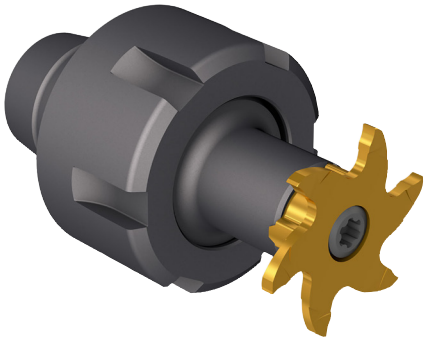




A broad range of heads and shanks available for all your disc milling operation by circular interpolation or linear slotting.
- Strong, Reliable and precise connection between the head and the cutter body
- Cover all type of material with universal M geometry and F32M grade
- Heads from diameter 9.7 mm

Cylindrical



ER collet chuck

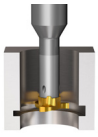


2 types of shanks available: cylindrical available both in steel and carbide, or ER collet chuck system

Grooving

Head from dia 9.7 to 34.7 mm (0.382" to 1.366") for bore with minimum dia 10mm (0.393")
Width from 1 to 6 mm (0.039 to 0.236")





Disc Milling cutter 335.14

Circlip groove

Head from dia 9.7 to 21.7 mm (0.382 to 0.854") and width from 0.7 to 5.15 mm (.029" to.203")





Full radius profile

Head from dia 11.7 to 21.7 (0.460 to 0.854") and width from 1 to 5 mm (0.039 to 0.197")





Top & bottom Chamfering profile

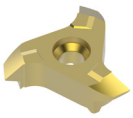
Head from dia 11.7 to 21.7 (0.460 to 0.854")and width from 1 to 4 mm (0.039 to 0.157")





Threading

Head from dia 11,7 to 27,7 mm (0.460 to 0.854") for partial metric threads with pitch 1-6 mm and full profile whitworth threads with pitch 19 to 11 tpi and UN threads with pitch 24 to 6 tpi.





Code key – Heads

R	335	.	14	-	217	150	.	12	Z3	-	M03	F32M
1	2		3		4	5		6	7		8	9

1.	2.	3.
Right hand rotation	Disc Milling code	System
4.	**5.**	**6.**
Head diameter example: 21.7mm	Width of cut : example 1.5mm Alternative: R20: Corner radius for full radius - example R=2mm C45: Top/ bottom chamfering - example 45° Threading code key: see page 332	Connection size (insert / shank) in mm Example: 12mm
7.	**8.**	**9.**
Number of teeth Example Zc=3	Edge geometry	Grade

Code key – Heads Threading

R	335	.	14	-	217	M	N	P	250500	-	12	Z3
1	2		3		4	5	6	7	8		9	10

1.	2.	3.
Right hand	Disc milling code	System
4.	**5.**	**6.**
Head diameter example: 21.7 mm	Thread type (W and UN)	Internal thread (E = external, X = internal/external)
7.	**8.**	**9.**
Partial profile (F = full profile)	Pitch size (2,50-5,00 mm or ex. only a fixed pitch 2,5 mm, 16 tpi...)	Connection size
10		
No. of teeth		

Code key – Shank

Cylindrical shank

335	.	14	-	16	9	.	0	-	45	-	110	-	E
1		2		3	4		5		6		7		8

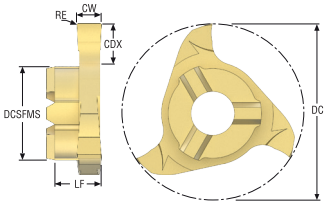
1.	2.	3.
Disc Milling code	System	Shank diameter DMM = 16mm Alternative inch, example 0625 for DMM=0.625”
4.	**5.**	**6.**
Connection size (insert/shank) in mm Example: 9mm	.0 cylindrical connection type	Access length including insert 45 mm Alternative Inch, example 177 for 1.77”
7.	**8.**	
Overall length including insert 110 mm Alternative Inch, example 433 for 4.33”	-E for carbide shank otherwise steel shank	

Collet chuck

335	.	14	-	ER25	-	12	-	30
1		2		3		4		5

1.	2.	3.
Disc Milling code	System	ER Collet chuck size
4.	**5.**	
Connection size (insert / shank) in mm Example: 12mm	Access length in mm including insert Example 30mm	

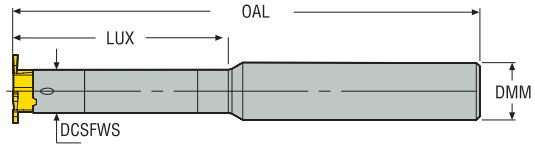
Selection – heads

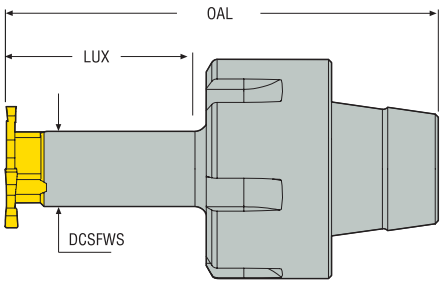


		mm	inch	Cutter diameter in mm (min bore diameter in mm)													See page
				9.7 (10)		11.7 (12)	13.7 (14)		15,7	17.7 (20)		21.7 (22)		27.7 (28)		34.7 (35)	
				Cutter Diameter DC in inch (min bore diameter in inch)													
				0,382 (0,394)		0,461 (0,472)	0,539 (0,551)			0,697 (0,709)		0,854 (0,866)		1,091 (1,102)		1,366 (1,378)	
				Connection size DCSFMS in mm													
				6		6	8	8	8	9		12		14		14	
				Number of teeth ZEFP													
				ZEFP=3	ZEFP=6	ZEFP=3	ZEFP=3	ZEFP=6	ZEFP=3	ZEFP=3	ZEFP=6	ZEFP=3	ZEFP=6	ZEFP=3	ZEFP=6	ZEFP=6	
Grooving	Width of cut	1	0,039	x			x										336, 337
		1,5	0,059	x			x			x		x	x	x	x	x	
		2	0,079	x			x			x		x	x	x	x	x	
		2,5	0,098	x			x			x		x	x	x	x	x	
		3	0,118							x		x	x	x	x	x	
		3,5	0,138											x			
		4	0,157							x		x		x	x		
		5	0,197									x		x	x		
		6	0,236											x	x		
	*CDX (mm)=			1,5			2,5			3,5		4,5		6,5		10	
	*CDX (inch)=			0,059			0,098			0,138		0,177		0,256		0,394	
Circlips groove	Nominal width of cut	0.7	0,028	x													339
		0,8	0,031	x													
		0,9	0,035	x													
		1,1	0,043	x						x							
		1,3	0,051	x						x							
		1,6	0,063							x		x					
		1,85	0,073									x					
		2,15	0,085									x					
		2,65	0,104									x					
		3,15	0,124									x					
		4,15	0,163									x					
		5,15	0,203									x					
	*CDX (mm)=			1,5						3,5		4,5					
	*CDX (inch)=			0,059						0,138		0,177					
Full radius	Width of cut and (Radius)	1 (R0,5)	0,039 (0,020)									x					340
		2 (R1)	0,079 (0,039)									x					
		2.2 (R1,1)	0,087 (0,043)			x				x							
		3 (R1,5)	0,118 (0,059)									x					
		4 (R2)	0,157 (0,079)									x					
		5 (R2,5)	0,197 (0,098)									x					
	*CDX (mm)=					2,5				3,5		4,5					
	*CDX (inch)=					0,098				0,138		0,177					
Chamfering	Width of cut x angle°	1.2 x45°	0,047x45°		x												341
		1.5x45°	0,059x45°					X			X						
		2,0x45°	0,079x45°								X						
		2,2x45°	0,087x45°										X				
Threading	Type of thread	Metric				x			x	x		x					342
		Whitworth				x			x	x							
		UN								x							

X **Solution available - grade F32M**

Selection – shanks



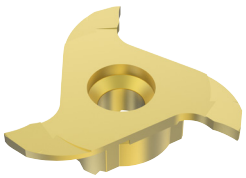


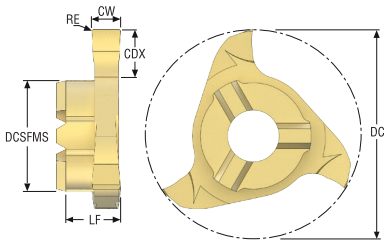
Connection size (DCSFWS)		Shank diameter mm								Shank diameter inch				ER collect chuck size			
		DMM = 10		DMM = 12		DMM = 16		DMM = 20		DMM=0.5		DMM=0.625		ER11	ER16	ER25	ER32
		OAL	LUX	OAL	LUX	OAL	LUX	OAL	LUX	OAL	LUX	OAL	LUX	LUX mm (inch)			
	6	60	15	80	21					3.15	0.83			16 (0.63)			
				90	30					3.54	1.18						
				100	42					3.94	1.65						
	8	60	17	95	29					3.74	1.14			16 (0.63)	22 (0.866)		
				110	42					4.33	1.65						
				120	56					4.72	2.2						
	9					80	18					3.15	0.71	22 (0.866)	22 (0.866)	22 (0.866)	
						100	32					3.94	1.26				
						110	45					4.33	1.77				
						130	64					5.12	2.52				
	12					80	24					3.15	0.94	30 (1.181)	30 (1.181)	30 (1.181)	
						100	42					3.94	1.65				
						130	60					5.12	2.36				
						160	85					6.3	3.35				
	14					100	42					3.94	1.65			19 (0.748)	19 (0.748)
						130	60					5.12	2.36			35 (1.378)	35 (1.378)
						160	85					6.3	3.35				
								100	35								
See page		345-346												347			

The dimensions OAL and LUX are indicated for a tool with 3 teeth.

	Shank in steel
	Shank in carbide

335.14 insert: general grooving





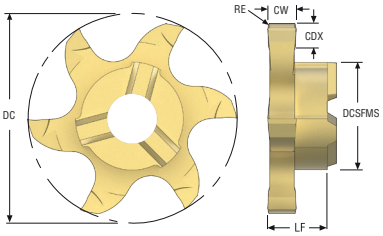
- Suitable shank, see page 345-347
- Cutting data, see page(s) 348 - 351
- Technical information, see page 353
- For ISO attribute explanation, see page 16

Designation	DC	CW	CDX	DCSFMS	LF	RE	ZEFP	Grades Coated			
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		F32M			
R335.14-097100.06Z3-M01	9,7 *0.382*	1,0 *0.039*	1,5 *0.059*	6,0 *0.236*	3,35 *0.132*	0,1 *0.004*	3	■			
R335.14-097150.06Z3-M01	9,7 *0.382*	1,5 *0.059*	1,5 *0.059*	6,0 *0.236*	3,5 *0.138*	0,2 *0.008*	3	■			
R335.14-097200.06Z3-M01	9,7 *0.382*	2,0 *0.079*	1,5 *0.059*	6,0 *0.236*	3,5 *0.138*	0,2 *0.008*	3	■			
R335.14-097250.06Z3-M01	9,7 *0.382*	2,5 *0.098*	1,5 *0.059*	6,0 *0.236*	3,5 *0.138*	0,2 *0.008*	3	■			
R335.14-137100.08Z3-M01	13,7 *0.539*	1,0 *0.039*	2,5 *0.098*	8,0 *0.315*	4,35 *0.171*	0,1 *0.004*	3	■			
R335.14-137150.08Z3-M01	13,7 *0.539*	1,5 *0.059*	2,5 *0.098*	8,0 *0.315*	4,5 *0.177*	0,2 *0.008*	3	■			
R335.14-137200.08Z3-M01	13,7 *0.539*	2,0 *0.079*	2,5 *0.098*	8,0 *0.315*	4,5 *0.177*	0,2 *0.008*	3	■			
R335.14-137250.08Z3-M01	13,7 *0.539*	2,5 *0.098*	2,5 *0.098*	8,0 *0.315*	4,5 *0.177*	0,2 *0.008*	3	■			
R335.14-177150.09Z3-M02	17,7 *0.697*	1,5 *0.059*	3,5 *0.138*	9,0 *0.354*	5,75 *0.226*	0,2 *0.008*	3	■			
R335.14-177200.09Z3-M02	17,7 *0.697*	2,0 *0.079*	3,5 *0.138*	9,0 *0.354*	5,75 *0.226*	0,2 *0.008*	3	■			
R335.14-177250.09Z3-M02	17,7 *0.697*	2,5 *0.098*	3,5 *0.138*	9,0 *0.354*	5,75 *0.226*	0,2 *0.008*	3	■			
R335.14-177300.09Z3-M02	17,7 *0.697*	3,0 *0.118*	3,5 *0.138*	9,0 *0.354*	5,75 *0.226*	0,2 *0.008*	3	■			
R335.14-177400.09Z3-M02	17,7 *0.697*	4,0 *0.157*	3,5 *0.138*	9,0 *0.354*	5,75 *0.226*	0,2 *0.008*	3	■			
R335.14-217150.12Z3-M03	21,7 *0.854*	1,5 *0.059*	4,5 *0.177*	12,0 *0.472*	5,7 *0.224*	0,2 *0.008*	3	■			
R335.14-217200.12Z3-M03	21,7 *0.854*	2,0 *0.079*	4,5 *0.177*	12,0 *0.472*	5,7 *0.224*	0,2 *0.008*	3	■			
R335.14-217250.12Z3-M03	21,7 *0.854*	2,5 *0.098*	4,5 *0.177*	12,0 *0.472*	5,7 *0.224*	0,2 *0.008*	3	■			
R335.14-217300.12Z3-M03	21,7 *0.854*	3,0 *0.118*	4,5 *0.177*	12,0 *0.472*	5,7 *0.224*	0,2 *0.008*	3	■			
R335.14-217400.12Z3-M03	21,7 *0.854*	4,0 *0.157*	4,5 *0.177*	12,0 *0.472*	5,7 *0.224*	0,2 *0.008*	3	■			
R335.14-217500.12Z3-M03	21,7 *0.854*	5,0 *0.197*	4,5 *0.177*	12,0 *0.472*	5,7 *0.224*	0,2 *0.008*	3	■			
R335.14-277150.14Z3-M03	27,7 *1.091*	1,5 *0.059*	6,5 *0.256*	14,0 *0.551*	6,5 *0.256*	0,2 *0.008*	3	■			
R335.14-277200.14Z3-M03	27,7 *1.091*	2,0 *0.079*	6,5 *0.256*	14,0 *0.551*	6,5 *0.256*	0,2 *0.008*	3	■			
R335.14-277250.14Z3-M03	27,7 *1.091*	2,5 *0.098*	6,5 *0.256*	14,0 *0.551*	6,5 *0.256*	0,2 *0.008*	3	■			

Designation	DC	CW	CDX	DCSFMS	LF	RE	ZEFP	Grades Coated		
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		F32M		
R335.14-277300.14Z3-M03	27,7 *1.091*	3,0 *0.118*	6,5 *0.256*	14,0 *0.551*	6,5 *0.256*	0,2 *0.008*	3	■		
R335.14-277350.14Z3-M03	27,7 *1.091*	3,5 *0.138*	6,5 *0.256*	14,0 *0.551*	6,5 *0.256*	0,2 *0.008*	3	■		
R335.14-277400.14Z3-M03	27,7 *1.091*	4,0 *0.157*	6,5 *0.256*	14,0 *0.551*	6,5 *0.256*	0,2 *0.008*	3	■		
R335.14-277500.14Z3-M03	27,7 *1.091*	5,0 *0.197*	6,5 *0.256*	14,0 *0.551*	6,6 *0.260*	0,2 *0.008*	3	■		
R335.14-277600.14Z3-M03	27,7 *1.091*	6,0 *0.236*	6,5 *0.256*	14,0 *0.551*	6,6 *0.260*	0,2 *0.008*	3	■		

335.14 insert: general grooving

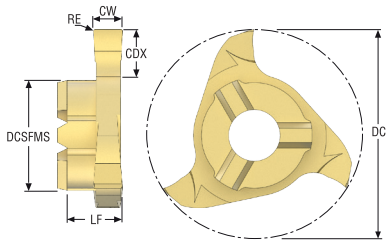


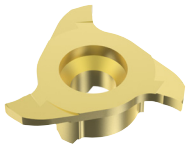


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Designation	DC	CW	CDX	DCSFMS	LF	RE	ZEFP	Grades Coated		
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		F32M		
R335.14-217150.12Z6-M03	21,7 *0.854*	1,5 *0.059*	4,5 *0.177*	12,0 *0.472*	6,25 *0.246*	0,1 *0.004*	6	■		
R335.14-217200.12Z6-M03	21,7 *0.854*	2,0 *0.079*	4,5 *0.177*	12,0 *0.472*	6,25 *0.246*	0,2 *0.008*	6	■		
R335.14-217250.12Z6-M03	21,7 *0.854*	2,5 *0.098*	4,5 *0.177*	12,0 *0.472*	6,25 *0.246*	0,2 *0.008*	6	■		
R335.14-217300.12Z6-M03	21,7 *0.854*	3,0 *0.118*	4,5 *0.177*	12,0 *0.472*	6,25 *0.246*	0,2 *0.008*	6	■		
R335.14-217400.12Z6-M03	21,7 *0.854*	4,0 *0.157*	4,5 *0.177*	12,0 *0.472*	6,25 *0.246*	0,2 *0.008*	6	■		
R335.14-277150.14Z6-M03	27,7 *1.091*	1,5 *0.059*	6,5 *0.256*	14,0 *0.551*	6,45 *0.254*	0,1 *0.004*	6	■		
R335.14-277200.14Z6-M03	27,7 *1.091*	2,0 *0.079*	6,5 *0.256*	14,0 *0.551*	6,4 *0.252*	0,2 *0.008*	6	■		
R335.14-277250.14Z6-M03	27,7 *1.091*	2,5 *0.098*	6,5 *0.256*	14,0 *0.551*	6,4 *0.252*	0,2 *0.008*	6	■		
R335.14-277300.14Z6-M03	27,7 *1.091*	3,0 *0.118*	6,5 *0.256*	14,0 *0.551*	6,4 *0.252*	0,2 *0.008*	6	■		
R335.14-277400.14Z6-M03	27,7 *1.091*	4,0 *0.157*	6,5 *0.256*	14,0 *0.551*	6,4 *0.252*	0,2 *0.008*	6	■		
R335.14-277500.14Z6-M03	27,7 *1.091*	5,0 *0.197*	6,5 *0.256*	14,0 *0.551*	6,35 *0.250*	0,2 *0.008*	6	■		
R335.14-277600.14Z6-M03	27,7 *1.091*	6,0 *0.236*	6,5 *0.256*	14,0 *0.551*	6,35 *0.250*	0,2 *0.008*	6	■		
R335.14-347150.14Z6-M03	34,7 *1.366*	1,5 *0.059*	10,0 *0.394*	14,0 *0.551*	6,25 *0.246*	0,1 *0.004*	6	■		
R335.14-347200.14Z6-M03	34,7 *1.366*	2,0 *0.079*	10,0 *0.394*	14,0 *0.551*	6,25 *0.246*	0,2 *0.008*	6	■		
R335.14-347250.14Z6-M03	34,7 *1.366*	2,5 *0.098*	10,0 *0.394*	14,0 *0.551*	6,25 *0.246*	0,2 *0.008*	6	■		
R335.14-347300.14Z6-M03	34,7 *1.366*	3,0 *0.118*	10,0 *0.394*	14,0 *0.551*	6,25 *0.246*	0,2 *0.008*	6	■		

335.14 insert: For circlips groove

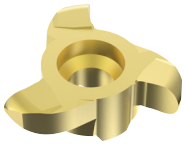


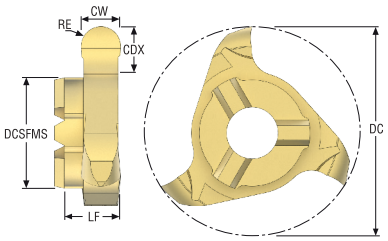


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Designation	DC	CW	CDX	DCSFMS	LF	RE	ZEFP	Grades Coated			
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		F32M			
R335.14-097070.06Z3-M01	9,7 *0.382*	0,74 *0.029*	1,5 *0.059*	6,0 *0.236*	3,35 *0.132*	0,0 –	3	■			
R335.14-097080.06Z3-M01	9,7 *0.382*	0,84 *0.033*	1,5 *0.059*	6,0 *0.236*	3,35 *0.132*	0,0 –	3	■			
R335.14-097090.06Z3-M01	9,7 *0.382*	0,94 *0.037*	1,5 *0.059*	6,0 *0.236*	3,35 *0.132*	0,0 –	3	■			
R335.14-097110.06Z3-M01	9,7 *0.382*	1,21 *0.048*	1,5 *0.059*	6,0 *0.236*	3,5 *0.138*	0,0 –	3	■			
R335.14-097130.06Z3-M01	9,7 *0.382*	1,41 *0.056*	1,5 *0.059*	6,0 *0.236*	3,5 *0.138*	0,1 *0.004*	3	■			
R335.14-177110.09Z3-M02	17,7 *0.697*	1,21 *0.048*	3,5 *0.138*	9,0 *0.354*	5,75 *0.226*	0,0 –	3	■			
R335.14-177130.09Z3-M02	17,7 *0.697*	1,41 *0.056*	3,5 *0.138*	9,0 *0.354*	5,75 *0.226*	0,1 *0.004*	3	■			
R335.14-177160.09Z3-M02	17,7 *0.697*	1,71 *0.067*	3,5 *0.138*	9,0 *0.354*	5,75 *0.226*	0,1 *0.004*	3	■			
R335.14-217160.12Z3-M03	21,7 *0.854*	1,71 *0.067*	4,5 *0.177*	12,0 *0.472*	5,7 *0.224*	0,1 *0.004*	3	■			
R335.14-217185.12Z3-M03	21,7 *0.854*	1,96 *0.077*	4,5 *0.177*	12,0 *0.472*	5,7 *0.224*	0,15 *0.006*	3	■			
R335.14-217215.12Z3-M03	21,7 *0.854*	2,26 *0.089*	4,5 *0.177*	12,0 *0.472*	5,7 *0.224*	0,15 *0.006*	3	■			
R335.14-217265.12Z3-M03	21,7 *0.854*	2,76 *0.109*	4,5 *0.177*	12,0 *0.472*	5,7 *0.224*	0,15 *0.006*	3	■			
R335.14-217315.12Z3-M03	21,7 *0.854*	3,26 *0.128*	4,5 *0.177*	12,0 *0.472*	5,7 *0.224*	0,15 *0.006*	3	■			
R335.14-217415.12Z3-M03	21,7 *0.854*	4,26 *0.168*	4,5 *0.177*	12,0 *0.472*	5,7 *0.224*	0,15 *0.006*	3	■			
R335.14-217515.12Z3-M03	21,7 *0.854*	5,26 *0.207*	4,5 *0.177*	12,0 *0.472*	5,7 *0.224*	0,15 *0.006*	3	■			

335.14 insert: Full radius profile

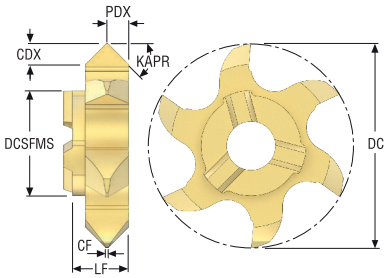


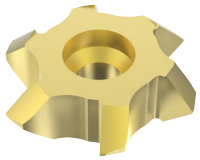


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Designation	DC	CW	CDX	DCSFMS	LF	RE	ZEFP	Grades Coated			
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		F32M			
R335.14-117R11.06Z3-M01	11,7 *0.461*	2,2 *0.087*	2,5 *0.098*	6,0 *0.236*	3,5 *0.138*	1,1 *0.043*	3	■			
R335.14-177R11.09Z3-M02	17,7 *0.697*	2,2 *0.087*	3,5 *0.138*	9,0 *0.354*	5,75 *0.226*	1,1 *0.043*	3	■			
R335.14-217R05.12Z3-M03	21,7 *0.854*	1,0 *0.039*	4,5 *0.177*	12,0 *0.472*	5,6 *0.220*	0,5 *0.020*	3	■			
R335.14-217R10.12Z3-M03	21,7 *0.854*	2,0 *0.079*	4,5 *0.177*	12,0 *0.472*	5,75 *0.226*	1,0 *0.039*	3	■			
R335.14-217R15.12Z3-M03	21,7 *0.854*	3,0 *0.118*	4,5 *0.177*	12,0 *0.472*	5,75 *0.226*	1,5 *0.059*	3	■			
R335.14-217R20.12Z3-M03	21,7 *0.854*	4,0 *0.157*	4,5 *0.177*	12,0 *0.472*	5,75 *0.226*	2,0 *0.079*	3	■			
R335.14-217R25.12Z3-M03	21,7 *0.854*	5,0 *0.197*	4,5 *0.177*	12,0 *0.472*	5,75 *0.226*	2,5 *0.098*	3	■			

335.14 insert: Top and Bottom chamfering

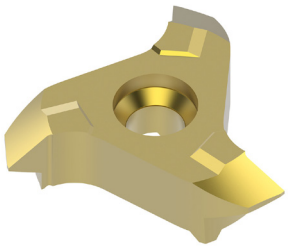


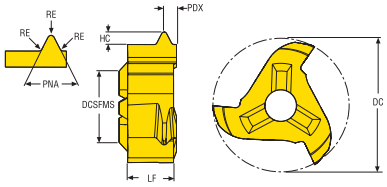


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Designation	DC	CF	CDX	PDX	DCSFMS	LF	KAPR	ZEFP	Grades Coated			
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			F32M			
R335.14-097C45.06Z6-M01	9,7 *0.382*	0,2 *0.008*	1,2 *0.047*	1,5 *0.059*	6,0 *0.236*	3,4 *0.134*	45,0	6	■			
R335.14-137C45.08Z6-M01	13,7 *0.539*	0,2 *0.008*	1,8 *0.071*	2,2 *0.087*	8,0 *0.315*	4,6 *0.181*	45,0	6	■			
R335.14-177C45.09Z6-M02	17,7 *0.697*	0,2 *0.008*	2,2 *0.087*	2,8 *0.110*	9,0 *0.354*	5,8 *0.228*	45,0	6	■			
R335.14-217C45.12Z6-M03	21,7 *0.854*	0,2 *0.008*	2,0 *0.079*	2,3 *0.091*	12,0 *0.472*	6,05 *0.238*	45,0	6	■			

335.14 Insert: Threading profile Whitworth

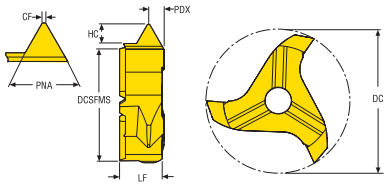


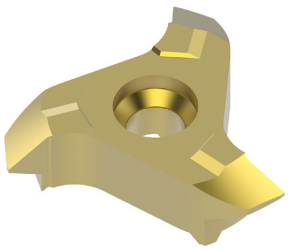


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Designation	DC	HC	PNA	PDX	DCSFMS	LF	RE	ZEFP	Grades Coated			
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		F32M			
R335.14-117WXF11.06Z3	11,7 *0.461*	1,48 *0.058*	55,0 *2.165*	1,6 *0.063*	6,0 *0.236*	3,6 *0.142*	0,31 *0.012*	3	■			
R335.14-117WXF14.06Z3	11,7 *0.461*	1,16 *0.046*	55,0 *2.165*	1,3 *0.051*	6,0 *0.236*	3,6 *0.142*	0,24 *0.009*	3	■			
R335.14-117WXF19.06Z3	11,7 *0.461*	0,86 *0.034*	55,0 *2.165*	1,1 *0.043*	6,0 *0.236*	3,6 *0.142*	0,18 *0.007*	3	■			
R335.14-157WXF14.08Z3	15,7 *0.618*	1,17 *0.046*	55,0 *2.165*	1,5 *0.059*	8,0 *0.315*	4,6 *0.181*	0,24 *0.009*	3	■			
R335.14-177WXF11.09Z3	17,7 *0.697*	1,48 *0.058*	55,0 *2.165*	1,45 *0.057*	9,0 *0.354*	5,85 *0.230*	0,31 *0.012*	3	■			
R335.14-177WXF14.09Z3	17,7 *0.697*	1,16 *0.046*	55,0 *2.165*	1,25 *0.049*	9,0 *0.354*	5,85 *0.230*	0,24 *0.009*	3	■			
R335.14-177WXF19.09Z3	17,7 *0.697*	0,856 *0.034*	55,0 *2.165*	0,95 *0.037*	9,0 *0.354*	5,85 *0.230*	0,18 *0.007*	3	■			

335.14 Insert: Threading Partial profile

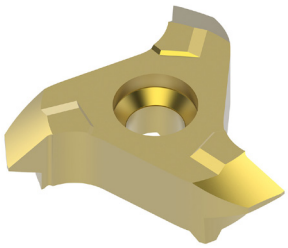


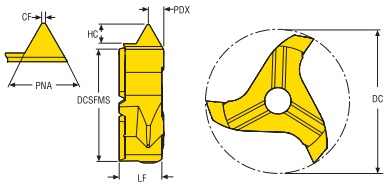


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Designation	DC	HC	CF	PNA	PDX	DCSFMS	LF	ZEFP	Grades Coated			
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		F32M			
R335.14-117MNP100200.06Z3	11,7 *0.461*	1,25 *0.049*	0,13 *0.005*	60,0 *2.362*	0,8 *0.031*	6,0 *0.236*	3,6 *0.142*	3	■			
R335.14-117MNP200300.06Z3	11,7 *0.461*	1,78 *0.070*	0,25 *0.010*	60,0 *2.362*	1,2 *0.047*	6,0 *0.236*	3,6 *0.142*	3	■			
R335.14-157MNP150275.08Z3	15,7 *0.618*	1,67 *0.066*	0,19 *0.007*	60,0 *2.362*	1,1 *0.043*	8,0 *0.315*	4,6 *0.181*	3	■			
R335.14-157MNP250300.08Z3	15,7 *0.618*	1,78 *0.070*	0,31 *0.012*	60,0 *2.362*	1,2 *0.047*	8,0 *0.315*	4,6 *0.181*	3	■			
R335.14-177MNP100200.09Z3	17,7 *0.697*	1,19 *0.047*	0,12 *0.005*	60,0 *2.362*	1,15 *0.045*	9,0 *0.354*	5,85 *0.230*	3	■			
R335.14-177MNP150275.09Z3	17,7 *0.697*	1,62 *0.064*	0,19 *0.007*	60,0 *2.362*	1,25 *0.049*	9,0 *0.354*	5,85 *0.230*	3	■			
R335.14-177MNP200375.09Z3	17,7 *0.697*	2,22 *0.087*	0,25 *0.010*	60,0 *2.362*	1,65 *0.065*	9,0 *0.354*	5,85 *0.230*	3	■			
R335.14-177MNP300550.09Z3	17,7 *0.697*	3,25 *0.128*	0,38 *0.015*	60,0 *2.362*	2,25 *0.089*	9,0 *0.354*	5,85 *0.230*	3	■			
R335.14-217MNP100200.12Z3	21,7 *0.854*	1,19 *0.047*	0,12 *0.005*	60,0 *2.362*	1,25 *0.049*	12,0 *0.472*	5,85 *0.230*	3	■			
R335.14-217MNP200375.12Z3	21,7 *0.854*	2,22 *0.087*	0,25 *0.010*	60,0 *2.362*	1,65 *0.065*	12,0 *0.472*	5,85 *0.230*	3	■			
R335.14-217MNP250450.12Z3	21,7 *0.854*	2,7 *0.106*	0,25 *0.010*	60,0 *2.362*	2,15 *0.085*	12,0 *0.472*	5,85 *0.230*	3	■			
R335.14-217MNP350600.12Z3	21,7 *0.854*	3,84 *0.151*	0,44 *0.017*	60,0 *2.362*	2,65 *0.104*	12,0 *0.472*	5,85 *0.230*	3	■			
R335.14-277MNP250500.14Z3	27,7 *1.091*	2,93 *0.115*	0,37 *0.015*	60,0 *2.362*	2,6 *0.102*	14,0 *0.551*	6,6 *0.260*	3	■			
R335.14-277MNP400600.14Z3	27,7 *1.091*	4,6 *0.181*	0,5 *0.020*	60,0 *2.362*	3,0 *0.118*	14,0 *0.551*	6,6 *0.260*	3	■			

335.14 Insert: Threading profile UN

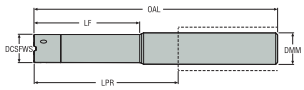


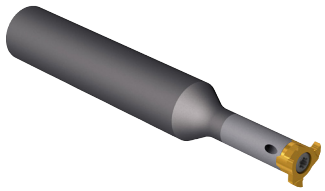


- Suitable shank, see page 345-347
- Cutting data, see page(s) 352
- Technical information, see page 353
- For ISO attribute explanation, see page 16

Designation	DC	HC	CF	PNA	PDX	DCSFMS	LF	ZEFP	Grades Coated			
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		F32M			
R335.14-177UNNF10.09Z3	17,7 *0.697*	1,375 *0.054*	0,32 *0.013*	60,0 *2.362*	1,25 *0.049*	9,0 *0.354*	5,85 *0.230*	3	■			
R335.14-177UNNF11.09Z3	17,7 *0.697*	1,249 *0.049*	0,29 *0.011*	60,0 *2.362*	1,05 *0.041*	9,0 *0.354*	5,85 *0.230*	3	■			
R335.14-177UNNF12.09Z3	17,7 *0.697*	1,146 *0.045*	0,27 *0.011*	60,0 *2.362*	1,05 *0.041*	9,0 *0.354*	5,85 *0.230*	3	■			
R335.14-177UNNF14.09Z3	17,7 *0.697*	0,982 *0.039*	0,23 *0.009*	60,0 *2.362*	0,85 *0.033*	9,0 *0.354*	5,85 *0.230*	3	■			
R335.14-177UNNF16.09Z3	17,7 *0.697*	0,859 *0.034*	0,2 *0.008*	60,0 *2.362*	0,85 *0.033*	9,0 *0.354*	5,85 *0.230*	3	■			
R335.14-177UNNF18.09Z3	17,7 *0.697*	0,763 *0.030*	0,18 *0.007*	60,0 *2.362*	0,85 *0.033*	9,0 *0.354*	5,85 *0.230*	3	■			
R335.14-177UNNF20.09Z3	17,7 *0.697*	0,687 *0.027*	0,16 *0.006*	60,0 *2.362*	0,65 *0.026*	9,0 *0.354*	5,85 *0.230*	3	■			
R335.14-177UNNF24.09Z3	17,7 *0.697*	0,572 *0.023*	0,13 *0.005*	60,0 *2.362*	0,65 *0.026*	9,0 *0.354*	5,85 *0.230*	3	■			
R335.14-177UNNF6.09Z3	17,7 *0.697*	2,291 *0.090*	0,53 *0.021*	60,0 *2.362*	1,65 *0.065*	9,0 *0.354*	5,85 *0.230*	3	■			
R335.14-177UNNF8.09Z3	17,7 *0.697*	1,718 *0.068*	0,4 *0.016*	60,0 *2.362*	1,45 *0.057*	9,0 *0.354*	5,85 *0.230*	3	■			

335.14 shank - Cylindrical version – Metric





- Cutting data, see page(s) 348 - 352
- Technical information, see page 353
- For ISO attribute explanation, see page 16

Designation	Item number	DCSFWS	DMM	OAL	LF	LPR	Through coolant	RPMX	Weight	Insert
		mm	mm	mm	mm	mm			kg	
335.14-1006.0-015-060	03042024	6,0	10,0	56,5	11,5	16,5	–	30000	0,1	R335.14...06Z..
335.14-1206.0-021-080-E	03042025	6,0	12,0	76,5	17,5	31,5	✓	30000	0,2	R335.14...06Z..
335.14-1206.0-030-090-E	03042026	6,0	12,0	86,5	26,5	41,5	✓	30000	0,2	R335.14...06Z..
335.14-1206.0-042-100-E	03042027	6,0	12,0	96,5	38,5	51,5	✓	30000	0,2	R335.14...06Z..
335.14-1008.0-017-060	03042040	8,0	10,0	55,5	12,5	15,5	–	30000	0,1	R335.14...08Z..
335.14-1208.0-029-095-E	03042041	8,0	12,0	90,5	24,5	45,5	✓	30000	0,2	R335.14...08Z..
335.14-1208.0-042-110-E	03042042	8,0	12,0	105,5	37,5	60,5	✓	30000	0,2	R335.14...08Z..
335.14-1208.0-056-120-E	03042043	8,0	12,0	115,5	51,5	70,5	✓	30000	0,2	R335.14...08Z..
335.14-1609.0-018-080	03042028	9,0	16,0	74,2	12,2	26,2	✓	30000	0,2	R335.14...09Z..
335.14-1609.0-032-100-E	03042029	9,0	16,0	94,2	26,2	46,2	✓	30000	0,3	R335.14...09Z..
335.14-1609.0-045-110-E	03042030	9,0	16,0	104,2	39,2	56,2	✓	30000	0,3	R335.14...09Z..
335.14-1609.0-064-130-E	03042031	9,0	16,0	124,2	58,2	76,2	✓	30000	0,3	R335.14...09Z..
335.14-1612.0-024-080	03042032	12,0	16,0	74,3	18,3	26,3	✓	30000	0,2	R335.14...12Z..
335.14-1612.0-042-100-E	03042033	12,0	16,0	94,3	36,3	46,3	✓	30000	0,2	R335.14...12Z..
335.14-1612.0-060-130-E	03042034	12,0	16,0	124,3	54,3	76,3	✓	30000	0,3	R335.14...12Z..
335.14-1612.0-085-160-E	03042035	12,0	16,0	154,3	76,3	106,3	✓	30000	0,4	R335.14...12Z..
335.14-1614.0-042-100-E	03042036	14,3	16,0	93,5	35,5	45,5	✓	30000	0,3	R335.14...14Z..
335.14-1614.0-060-130-E	03042037	14,3	16,0	123,5	53,5	75,5	✓	30000	0,3	R335.14...14Z..
335.14-1614.0-085-160-E	03042038	14,3	16,0	153,5	78,5	105,5	✓	30000	0,4	R335.14...14Z..
335.14-2014.0-036-100	03042039	14,0	20,0	93,5	29,2	43,5	✓	30000	0,2	R335.14...14Z..

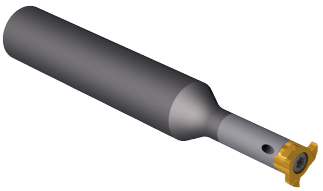
Spare Parts, included in delivery

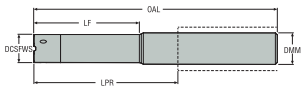
Accessories

For cutter	Insert key	Insert screw	Insert clamping torque	Torque key
				
335.14-..06	H4B-T08P	C92608-T08P	2.0NM	T00-08P20
335.14-..08	H4B-T10P	C93510-T10P	3.5NM	T00-10P35
335.14-..09	H4B-T15P	C94012-T15P	5.0NM	T00-15P50
335.14-..12/14	H6B-T20P	C95012-T20P	7.0NM	–

-E = Carbide shank with DMM tolerance = h6
Steel shank: DMM tolerance = g6

335.14 shank - Cylindrical version – inch





- Cutting data, see page(s) 348 - 352
- Technical information, see page 353
- For ISO attribute explanation, see page 16

Designation	Item number	DCSFWS	DMM	OAL	LF	LPR	Through coolant	RPMX	Weight	Insert
		inch	inch	inch	inch	inch			lbs	
335.14-050006.0-083-315-E	03042121	0.236	0.500	3.012	0.689	1.240	✓	30000	0.220	R334.14...06Z..
335.14-050006.0-118-354-E	03042122	0.236	0.500	3.406	1.043	1.634	✓	30000	0.440	R334.14...06Z..
335.14-050006.0-165-394-E	03042107	0.236	0.500	3.799	1.516	2.028	✓	30000	0.440	R334.14...06Z..
335.14-050008.0-114-374-E	03042123	0.315	0.500	3.563	0.965	1.791	✓	30000	0.440	R334.14...08Z..
335.14-050008.0-165-433-E	03042124	0.315	0.500	4.154	1.476	2.382	✓	30000	0.440	R334.14...08Z..
335.14-050008.0-220-472-E	03042119	0.315	0.500	4.547	2.028	2.776	✓	30000	0.440	R334.14...08Z..
335.14-062509.0-071-315	03042108	0.354	0.625	2.921	0.480	1.031	✓	30000	0.440	R334.14...09Z..
335.14-062509.0-126-394-E	03042109	0.354	0.625	3.709	1.031	1.819	✓	30000	0.440	R334.14...09Z..
335.14-062509.0-177-433-E	03042110	0.354	0.625	4.102	1.543	2.213	✓	30000	0.440	R334.14...09Z..
335.14-062509.0-252-512-E	03042111	0.354	0.625	4.890	2.291	3.000	✓	30000	0.660	R334.14...09Z..
335.14-062512.0-094-315	03042112	0.472	0.625	2.925	0.720	1.035	✓	30000	0.440	R334.14...12Z..
335.14-062512.0-165-394-E	03042113	0.472	0.625	3.713	1.429	1.823	✓	30000	0.440	R334.14...12Z..
335.14-062512.0-236-512-E	03042114	0.472	0.625	4.894	2.138	3.004	✓	30000	0.660	R334.14...12Z..
335.14-062512.0-335-630-E	03042115	0.472	0.625	6.075	3.122	4.185	✓	30000	0.880	R334.14...12Z..
335.14-062514.0-165-394-E	03042116	0.551	0.625	3.681	1.398	1.791	✓	30000	0.660	R334.14...14Z..
335.14-062514.0-236-512-E	03042117	0.551	0.625	4.862	2.106	2.972	✓	30000	0.880	R334.14...14Z..
335.14-062514.0-335-630-E	03042118	0.551	0.625	6.043	3.091	4.154	✓	30000	0.880	R334.14...14Z..

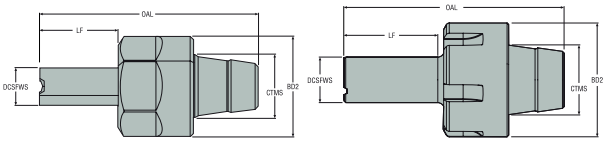
Spare Parts, included in delivery

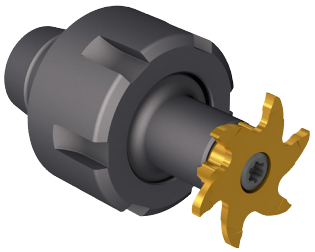
Accessories

For cutter	Insert key	Insert screw	Insert clamping torque	Torque key
				
335.14-..06	H4B-T08P	C92608-T08P	17.7IN.LBS	T00-08P20
335.14-..08	H4B-T10P	C93510-T10P	31.0IN.LBS	T00-10P35
335.14-..09	H4B-T15P	C94012-T15P	44.3IN.LBS	T00-15P50
335.14-..12/14	H6B-T20P	C95012-T20P	62.0IN.LBS	–

-E = Carbide shank with DMM tolerance = h6
Steel shank: DMM tolerance = g6

335.14 Shank with ER collet





- Cutting data, see page(s) 348 - 352
- Technical information, see page 353
- For ISO attribute explanation, see page 16

Designation	Item number	DCSFWS	CTMS	OAL	LF	BD2	RPMX	Design	Weight	Insert
		mm	mm	mm	mm	mm			kg	
335.14-ER11-06-016	03042072	6,0	ER 11	34,9	12,5	16,0	20000	1	0,1	R335.14...06Z..
335.14-ER11-08-016	03042085	8,0	ER 11	33,8	11,5	16,0	20000	1	0,1	R335.14...08Z..
335.14-ER16-08-022	03042086	8,0	ER 16	49,6	17,5	32,0	20000	2	0,2	R335.14...08Z..
335.14-ER11-09-022	03042073	9,0	ER 11	38,5	16,2	16,0	20000	1	0,1	R335.14...09Z..
335.14-ER16-09-022	03042074	9,0	ER 16	48,3	16,2	32,0	20000	2	0,2	R335.14...09Z..
335.14-ER25-09-022	03042075	9,0	ER 25	55,3	16,2	35,0	20000	2	0,2	R335.14...09Z..
335.14-ER16-12-030	03042076	12,0	ER 16	56,4	24,3	32,0	20000	2	0,2	R335.14...12Z..
335.14-ER25-12-030	03042078	12,0	ER 25	63,4	24,3	35,0	20000	2	0,2	R335.14...12Z..
335.14-ER32-12-030	03042079	12,0	ER 32	69,4	24,3	50,0	20000	2	0,4	R335.14...12Z..
335.14-ER25-14-019	03042080	14,0	ER 25	52,3	12,5	35,0	20000	2	0,2	R335.14...14Z..
335.14-ER25-14-035	03042081	14,0	ER 25	67,6	28,5	35,0	20000	2	0,2	R335.14...14Z..
335.14-ER32-14-019	03042082	14,0	ER 32	58,3	12,5	50,0	20000	2	0,5	R335.14...14Z..
335.14-ER32-14-035	03042083	14,0	ER 32	73,6	28,5	50,0	20000	2	0,4	R335.14...14Z..

Spare Parts, included in delivery

Accessories

For cutter	Insert key	Insert screw	Insert clamping torque	Torque key
				
335.14-ER..-06	H4B-T08P	C92608-T08P	2.0NM	T00-08P20
335.14-ER..-08	H4B-T10P	C93510-T10P	3.5NM	T00-10P35
335.14-ER..-09	H4B-T15P	C94012-T15P	5.0NM	T00-15P50
335.14-ER..-12/14	H6B-T20P	C95012-T20P	7.0NM	–

R335.14 – Grooving and Chamfering – Insert selection – mm/*Inch*

SMG		f_z		
		15%	10%	5%
P1	R335.14...-M01 F32M	0,036 *0.0014*	0,042 *0.0017*	0,060 *0.0024*
P2	R335.14...-M01 F32M	0,036 *0.0014*	0,042 *0.0017*	0,060 *0.0024*
P3	R335.14...-M01 F32M	0,034 *0.0013*	0,040 *0.0016*	0,055 *0.0022*
P4	R335.14...-M01 F32M	0,034 *0.0013*	0,040 *0.0016*	0,055 *0.0022*
P5	R335.14...-M01 F32M	0,032 *0.0013*	0,038 *0.0015*	0,055 *0.0022*
P6	R335.14...-M01 F32M	0,032 *0.0013*	0,038 *0.0015*	0,055 *0.0022*
P7	R335.14...-M01 F32M	0,032 *0.0013*	0,038 *0.0015*	0,055 *0.0022*
P8	R335.14...-M01 F32M	0,034 *0.0013*	0,040 *0.0016*	0,055 *0.0022*
P11	R335.14...-M01 F32M	0,032 *0.0013*	0,038 *0.0015*	0,055 *0.0022*
P12	R335.14...-M01 F32M	0,020 *0.00075*	0,024 *0.00090*	0,032 *0.0013*
M1	R335.14...-M01 F32M	0,036 *0.0014*	0,042 *0.0017*	0,060 *0.0024*
M2	R335.14...-M01 F32M	0,032 *0.0013*	0,038 *0.0015*	0,055 *0.0022*
M3	R335.14...-M01 F32M	0,026 *0.0010*	0,030 *0.0012*	0,042 *0.0017*
M4	R335.14...-M01 F32M	0,020 *0.00080*	0,025 *0.00095*	0,034 *0.0013*
M5	R335.14...-M01 F32M	0,020 *0.00080*	0,025 *0.00095*	0,034 *0.0013*
K1	R335.14...-M01 F32M	0,036 *0.0014*	0,042 *0.0017*	0,060 *0.0024*
K2	R335.14...-M01 F32M	0,032 *0.0013*	0,038 *0.0015*	0,055 *0.0022*
K3	R335.14...-M01 F32M	0,032 *0.0013*	0,038 *0.0015*	0,055 *0.0022*
K4	R335.14...-M01 F32M	0,032 *0.0013*	0,038 *0.0015*	0,055 *0.0022*
K5	R335.14...-M01 F32M	0,030 *0.0012*	0,034 *0.0013*	0,048 *0.0019*
K6	R335.14...-M01 F32M	0,032 *0.0013*	0,038 *0.0015*	0,055 *0.0022*
K7	R335.14...-M01 F32M	0,030 *0.0012*	0,034 *0.0013*	0,048 *0.0019*
N1	R335.14...-M01 F32M	0,046 *0.0018*	0,055 *0.0022*	0,075 *0.0030*
N2	R335.14...-M01 F32M	0,046 *0.0018*	0,055 *0.0022*	0,075 *0.0030*
N3	R335.14...-M01 F32M	0,046 *0.0018*	0,055 *0.0022*	0,075 *0.0030*
N11	R335.14...-M01 F32M	0,046 *0.0018*	0,055 *0.0022*	0,075 *0.0030*
S1	R335.14...-M01 F32M	0,020 *0.00080*	0,025 *0.00095*	0,034 *0.0013*
S2	R335.14...-M01 F32M	0,020 *0.00080*	0,025 *0.00095*	0,034 *0.0013*
S3	R335.14...-M01 F32M	0,018 *0.00070*	0,022 *0.00085*	0,030 *0.0012*
S11	R335.14...-M01 F32M	0,026 *0.0010*	0,030 *0.0012*	0,042 *0.0017*
S12	R335.14...-M01 F32M	0,026 *0.0010*	0,030 *0.0012*	0,042 *0.0017*
S13	R335.14...-M01 F32M	0,020 *0.00080*	0,025 *0.00095*	0,034 *0.0013*
H5	R335.14...-M01 F32M	0,020 *0.00075*	0,024 *0.00090*	0,032 *0.0013*
H8	R335.14...-M01 F32M	0,011 *0.00044*	0,014 *0.00055*	0,019 *0.00075*
H11	R335.14...-M01 F32M	0,020 *0.00075*	0,024 *0.00090*	0,032 *0.0013*
H12	R335.14...-M01 F32M	0,011 *0.00044*	0,014 *0.00055*	0,019 *0.00075*
H21	R335.14...-M01 F32M	0,011 *0.00044*	0,014 *0.00055*	0,019 *0.00075*

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

R335.14 – Grooving and Chamfering – Insert selection – mm/*Inch*

SMG		f_z		
		15%	10%	5%
P1	R335.14...-M02 F32M	0,060 *0.0024*	0,070 *0.0028*	0,095 *0.0038*
P2	R335.14...-M02 F32M	0,060 *0.0024*	0,070 *0.0028*	0,10 *0.0040*
P3	R335.14...-M02 F32M	0,055 *0.0022*	0,065 *0.0026*	0,095 *0.0038*
P4	R335.14...-M02 F32M	0,055 *0.0022*	0,065 *0.0026*	0,090 *0.0036*
P5	R335.14...-M02 F32M	0,055 *0.0022*	0,065 *0.0026*	0,090 *0.0036*
P6	R335.14...-M02 F32M	0,055 *0.0022*	0,065 *0.0026*	0,090 *0.0036*
P7	R335.14...-M02 F32M	0,055 *0.0022*	0,065 *0.0026*	0,090 *0.0036*
P8	R335.14...-M02 F32M	0,055 *0.0022*	0,065 *0.0026*	0,095 *0.0038*
P11	R335.14...-M02 F32M	0,055 *0.0022*	0,065 *0.0026*	0,090 *0.0036*
P12	R335.14...-M02 F32M	0,032 *0.0013*	0,038 *0.0015*	0,055 *0.0022*
M1	R335.14...-M02 F32M	0,060 *0.0024*	0,070 *0.0028*	0,10 *0.0040*
M2	R335.14...-M02 F32M	0,055 *0.0022*	0,065 *0.0026*	0,090 *0.0036*
M3	R335.14...-M02 F32M	0,044 *0.0017*	0,050 *0.0020*	0,070 *0.0028*
M4	R335.14...-M02 F32M	0,034 *0.0014*	0,042 *0.0016*	0,055 *0.0022*
M5	R335.14...-M02 F32M	0,034 *0.0014*	0,042 *0.0016*	0,055 *0.0022*
K1	R335.14...-M02 F32M	0,060 *0.0024*	0,070 *0.0028*	0,10 *0.0040*
K2	R335.14...-M02 F32M	0,055 *0.0022*	0,065 *0.0026*	0,090 *0.0036*
K3	R335.14...-M02 F32M	0,055 *0.0022*	0,065 *0.0026*	0,090 *0.0036*
K4	R335.14...-M02 F32M	0,055 *0.0022*	0,065 *0.0026*	0,090 *0.0036*
K5	R335.14...-M02 F32M	0,048 *0.0019*	0,060 *0.0024*	0,080 *0.0032*
K6	R335.14...-M02 F32M	0,055 *0.0022*	0,065 *0.0026*	0,090 *0.0036*
K7	R335.14...-M02 F32M	0,048 *0.0019*	0,060 *0.0024*	0,080 *0.0032*
N1	R335.14...-M02 F32M	0,075 *0.0030*	0,090 *0.0036*	0,13 *0.0050*
N2	R335.14...-M02 F32M	0,075 *0.0030*	0,090 *0.0036*	0,13 *0.0050*
N3	R335.14...-M02 F32M	0,075 *0.0030*	0,090 *0.0036*	0,13 *0.0050*
N11	R335.14...-M02 F32M	0,075 *0.0030*	0,090 *0.0036*	0,13 *0.0050*
S1	R335.14...-M02 F32M	0,034 *0.0014*	0,042 *0.0016*	0,055 *0.0022*
S2	R335.14...-M02 F32M	0,034 *0.0014*	0,042 *0.0016*	0,055 *0.0022*
S3	R335.14...-M02 F32M	0,030 *0.0012*	0,036 *0.0014*	0,048 *0.0019*
S11	R335.14...-M02 F32M	0,044 *0.0017*	0,050 *0.0020*	0,070 *0.0028*
S12	R335.14...-M02 F32M	0,044 *0.0017*	0,050 *0.0020*	0,070 *0.0028*
S13	R335.14...-M02 F32M	0,034 *0.0014*	0,042 *0.0016*	0,055 *0.0022*
H5	R335.14...-M02 F32M	0,032 *0.0013*	0,038 *0.0015*	0,055 *0.0022*
H8	R335.14...-M02 F32M	0,019 *0.00075*	0,022 *0.00090*	0,032 *0.0012*
H11	R335.14...-M02 F32M	0,032 *0.0013*	0,038 *0.0015*	0,055 *0.0022*
H12	R335.14...-M02 F32M	0,019 *0.00075*	0,022 *0.00090*	0,032 *0.0012*
H21	R335.14...-M02 F32M	0,019 *0.00075*	0,022 *0.00090*	0,032 *0.0012*

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

R335.14 – Grooving and Chamfering – Insert selection – mm/*Inch*

SMG		f_z			
		20%	15%	10%	5%
P1	R335.14...-M03 F32M	0,065 *0.0026*	0,070 *0.0028*	0,085 *0.0034*	0,12 *0.0048*
P2	R335.14...-M03 F32M	0,065 *0.0026*	0,070 *0.0028*	0,085 *0.0034*	0,12 *0.0048*
P3	R335.14...-M03 F32M	0,060 *0.0024*	0,070 *0.0028*	0,080 *0.0032*	0,11 *0.0044*
P4	R335.14...-M03 F32M	0,060 *0.0024*	0,065 *0.0026*	0,080 *0.0032*	0,11 *0.0044*
P5	R335.14...-M03 F32M	0,060 *0.0024*	0,065 *0.0026*	0,080 *0.0032*	0,11 *0.0044*
P6	R335.14...-M03 F32M	0,060 *0.0024*	0,065 *0.0026*	0,075 *0.0030*	0,11 *0.0044*
P7	R335.14...-M03 F32M	0,060 *0.0024*	0,065 *0.0026*	0,075 *0.0030*	0,11 *0.0044*
P8	R335.14...-M03 F32M	0,060 *0.0024*	0,070 *0.0028*	0,080 *0.0032*	0,11 *0.0044*
P11	R335.14...-M03 F32M	0,060 *0.0024*	0,065 *0.0026*	0,075 *0.0030*	0,11 *0.0044*
P12	R335.14...-M03 F32M	0,036 *0.0014*	0,040 *0.0016*	0,046 *0.0018*	0,065 *0.0026*
M1	R335.14...-M03 F32M	0,065 *0.0026*	0,070 *0.0028*	0,085 *0.0034*	0,12 *0.0048*
M2	R335.14...-M03 F32M	0,060 *0.0024*	0,065 *0.0026*	0,080 *0.0032*	0,11 *0.0044*
M3	R335.14...-M03 F32M	0,046 *0.0018*	0,050 *0.0020*	0,065 *0.0026*	0,085 *0.0034*
M4	R335.14...-M03 F32M	0,038 *0.0015*	0,042 *0.0016*	0,050 *0.0020*	0,070 *0.0028*
M5	R335.14...-M03 F32M	0,038 *0.0015*	0,042 *0.0016*	0,050 *0.0020*	0,070 *0.0028*
K1	R335.14...-M03 F32M	0,065 *0.0026*	0,070 *0.0028*	0,085 *0.0034*	0,12 *0.0048*
K2	R335.14...-M03 F32M	0,060 *0.0024*	0,065 *0.0026*	0,080 *0.0032*	0,11 *0.0044*
K3	R335.14...-M03 F32M	0,060 *0.0024*	0,065 *0.0026*	0,080 *0.0032*	0,11 *0.0044*
K4	R335.14...-M03 F32M	0,060 *0.0024*	0,065 *0.0026*	0,080 *0.0032*	0,11 *0.0044*
K5	R335.14...-M03 F32M	0,055 *0.0022*	0,060 *0.0024*	0,070 *0.0028*	0,095 *0.0038*
K6	R335.14...-M03 F32M	0,060 *0.0024*	0,065 *0.0026*	0,080 *0.0032*	0,11 *0.0044*
K7	R335.14...-M03 F32M	0,055 *0.0022*	0,060 *0.0024*	0,070 *0.0028*	0,095 *0.0038*
N1	R335.14...-M03 F32M	0,080 *0.0032*	0,090 *0.0036*	0,11 *0.0044*	0,15 *0.0060*
N2	R335.14...-M03 F32M	0,080 *0.0032*	0,090 *0.0036*	0,11 *0.0044*	0,15 *0.0060*
N3	R335.14...-M03 F32M	0,080 *0.0032*	0,090 *0.0036*	0,11 *0.0044*	0,15 *0.0060*
N11	R335.14...-M03 F32M	0,080 *0.0032*	0,090 *0.0036*	0,11 *0.0044*	0,15 *0.0060*
S1	R335.14...-M03 F32M	0,038 *0.0015*	0,042 *0.0016*	0,050 *0.0020*	0,070 *0.0028*
S2	R335.14...-M03 F32M	0,038 *0.0015*	0,042 *0.0016*	0,050 *0.0020*	0,070 *0.0028*
S3	R335.14...-M03 F32M	0,032 *0.0013*	0,036 *0.0014*	0,042 *0.0017*	0,060 *0.0024*
S11	R335.14...-M03 F32M	0,046 *0.0018*	0,050 *0.0020*	0,065 *0.0026*	0,085 *0.0034*
S12	R335.14...-M03 F32M	0,046 *0.0018*	0,050 *0.0020*	0,065 *0.0026*	0,085 *0.0034*
S13	R335.14...-M03 F32M	0,038 *0.0015*	0,042 *0.0016*	0,050 *0.0020*	0,070 *0.0028*
H5	R335.14...-M03 F32M	0,036 *0.0014*	0,040 *0.0016*	0,046 *0.0018*	0,065 *0.0026*
H8	R335.14...-M03 F32M	0,020 *0.00080*	0,024 *0.00090*	0,028 *0.0011*	0,038 *0.0015*
H11	R335.14...-M03 F32M	0,036 *0.0014*	0,040 *0.0016*	0,046 *0.0018*	0,065 *0.0026*
H12	R335.14...-M03 F32M	0,020 *0.00080*	0,024 *0.00090*	0,028 *0.0011*	0,038 *0.0015*
H21	R335.14...-M03 F32M	0,020 *0.00080*	0,024 *0.00090*	0,028 *0.0011*	0,038 *0.0015*

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

R335.14 – Grooving and Chamfering – Cutting data v_c = (m/min)/*(sf/min)*

SMG	335.14			
	20%	15%	10%	5%
P1	230 *750*	240 *790*	255 *840*	275 *900*
P2	225 *740*	235 *770*	245 *800*	265 *870*
P3	195 *640*	200 *660*	215 *710*	230 *750*
P4	170 *560*	180 *590*	190 *620*	205 *670*
P5	165 *540*	170 *560*	180 *590*	195 *640*
P6	185 *610*	190 *620*	205 *670*	220 *720*
P7	175 *570*	180 *590*	195 *640*	205 *670*
P8	165 *540*	170 *560*	180 *590*	195 *640*
P11	170 *560*	175 *570*	190 *620*	200 *660*
P12	105 *345*	110 *360*	120 *395*	130 *425*
M1	195 *640*	205 *670*	215 *710*	235 *770*
M2	160 *520*	165 *540*	175 *570*	190 *620*
M3	125 *410*	135 *445*	140 *460*	150 *490*
M4	100 *330*	100 *330*	110 *360*	115 *375*
M5	80 *260*	85 *280*	90 *295*	95 *310*
K1	225 *740*	235 *770*	250 *820*	270 *890*
K2	200 *660*	205 *670*	220 *720*	235 *770*
K3	165 *540*	175 *570*	185 *610*	200 *660*
K4	160 *520*	165 *540*	175 *570*	190 *620*
K5	95 *310*	100 *330*	105 *345*	115 *375*
K6	140 *460*	145 *475*	155 *510*	170 *560*
K7	125 *410*	130 *425*	135 *445*	150 *490*
N1	1000 *3275*	1050 *3450*	1100 *3600*	1200 *3925*
N2	325 *1075*	340 *1125*	355 *1175*	385 *1275*
N3	215 *710*	225 *740*	235 *770*	260 *850*
N11	290 *950*	300 *980*	315 *1025*	345 *1125*
S1	29 *95*	31 *100*	32 *105*	35 *115*
S2	24 *80*	25 *80*	26 *85*	28 *90*
S3	21 *70*	22 *70*	23 *75*	25 *80*
S11	41 *135*	43 *140*	45 *150*	49 *160*
S12	38 *125*	40 *130*	42 *140*	45 *150*
S13	22 *70*	23 *75*	24 *80*	26 *85*
H5	55 *180*	55 *180*	60 *195*	65 *215*
H8	60 *195*	60 *195*	65 *215*	70 *230*
H11	70 *230*	75 *245*	80 *260*	85 *280*
H12	70 *230*	70 *230*	75 *245*	80 *260*
H21	60 *195*	60 *195*	65 *215*	70 *230*

335.14 – Threading – Cutting data v_c = (m/min)/*(sf/min)*

SMG	R335.14	
	f_z	v_c
P1	0,070 *0.0028*	275 *900*
P2	0,070 *0.0028*	270 *890*
P3	0,070 *0.0028*	230 *750*
P4	0,065 *0.0026*	205 *670*
P5	0,065 *0.0026*	195 *640*
P6	0,065 *0.0026*	215 *710*
P7	0,065 *0.0026*	205 *670*
P8	0,070 *0.0028*	195 *640*
P11	0,065 *0.0026*	200 *660*
P12	0,044 *0.0017*	120 *395*
M1	0,070 *0.0028*	215 *710*
M2	0,065 *0.0026*	175 *570*
M3	0,050 *0.0020*	130 *425*
M4	0,046 *0.0018*	100 *330*
M5	0,046 *0.0018*	80 *260*
K1	0,070 *0.0028*	210 *690*
K2	0,065 *0.0026*	185 *610*
K3	0,065 *0.0026*	180 *590*
K4	0,065 *0.0026*	150 *490*
K5	0,060 *0.0024*	90 *295*
K6	0,065 *0.0026*	130 *425*
K7	0,060 *0.0024*	115 *375*
N1	0,090 *0.0036*	970 *3175*
N2	0,090 *0.0036*	620 *2025*
N3	0,090 *0.0036*	415 *1350*
N11	0,090 *0.0036*	475 *1550*
S1	0,046 *0.0018*	50 *165*
S2	0,046 *0.0018*	41 *135*
S3	0,042 *0.0017*	35 *115*
S11	0,050 *0.0020*	65 *215*
S12	0,050 *0.0020*	50 *165*
S13	0,046 *0.0018*	39 *130*
H5	0,044 *0.0017*	43 *140*
H8	0,034 *0.0013*	45 *150*
H11	0,044 *0.0017*	60 *195*
H12	0,034 *0.0013*	55 *180*
H21	0,034 *0.0013*	45 *150*

Technical information – Threading

Recommendation for circular interpolation

To avoid vibration and insert damage when working with internal circular interpolation, we recommend a progressive entrance into the material. The circular arc angle for the progressive immersion should be between 45° and 180°



When calculating cutting datas for circular interpolation please be aware of the real radial depth of cut and the feed speed related to the centre of the cutter- See page 863 for more info

Milling insert with 6 cutting edges





If vibrations appear when working with milling insert with 6 cutting edges please reduce the radial depth of cut to reduce the number of teeth into contact with the material , an alternative is to choose an insert with 3 cutting edges instead.

Holder recommendation

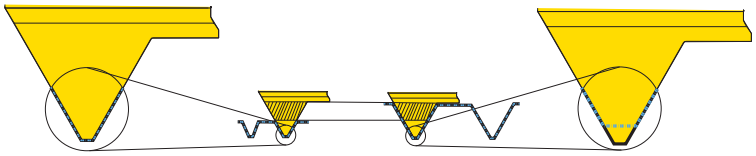
For best result in terms of stability, precision and reliability, it is recommended to use the following SECO-Tooling holders
-High precision collet chucks ERHP 5672
-Shrink fit Holder SFD 5603, SFR 5600 and SFS 5801
-ER Collet chuck ER 5675
-Power Milling Chuck, PMC

Please see SECO Tooling System catalogue for more information.



Technical information – Threading

Pitch (as of/up to)



Actual Thread

Standard thread form

Thread milling by circular interpolation can cause thread profi le violation when using insert for partial thread. Keep this in mind during the process of selecting tool. The tool diameter need to be small enough compare to the hole diameter. The pitch also needs to be considered.

Insert with partial profile for Metric ISO-Threads are multi tools. That means that each insert could machine different pitches. The insert is designed to meet the minimum pitch size (TPN); Machining this pitch will result in a standard conform thread form.

The given maximum pitch size (TPX) can be machined also with this insert at the expense of standard conformity: The result will be a slightly deeper thread than the standard. The deeper thread is normally accepted, but the application and use needs to be evaluated.

Following table is a recommendation over maximum tool diameter in relation to the thread size and pitch:

ISO-Thread, partial profile											
Pitch	M12	M16	M20	M24	M27	M30	M36	M42	M48	M56	M60
1	10	14	18	22	25	28	34	40	45	53	57
1,5	8	12	16	20	24	26	32	37	43	51	55
2	7	10	14	18	22	24	30	35	40	48	52
2,5	6	8	12	16	20	22	28	32	37	45	48
3		6	10	14	18	20	26	30	36	43	47
3,5				12	16	18	24	29	35	42	46
4							22	27	32	39	43
4,5								24	30	37	40
5								22	27	34	37
5,5								20	25	31	35
6								19	23	29	32

Code key - Fixed pocket cutters - Metric

Arbor or arbor hole type

R	335	.	25	-	080	.	15	.	22	-	4	-	NA
1	2		3		4		5		6		7		8

1.	2.	3.
For stub arbor mounting /right hand rotation	Disc milling cutters	System
4.	**5.**	**6.**
Cutter diameter	Cutter width	Dimension of arbor bore
7.	**8.**	
4 = ZEFP value	N=Three side cutting A = Through coolant supply	

Cylindrical or Combimaster type

R	335	.	18	-	16	50	.	RE	-	10	.	3	-	NA
1	2		3		4	5		6		7		8		9

1.	2.	3.
Right hand rotation	Disc milling cutter	System
4.	**5.**	**6.**
-DMM value for Cyl. version -M value (thread) for Combimaster version	Cutter diameter	-RE for Combimaster -.0 for Cyl. shanks
7.	**8.**	
3=ZEFP Value	N=Three side cutting A = Through coolant supply	

Code key - Adjustable cutters - Metric

For adjustable disc milling cutters

R	335	.	18	-	200	.	12	15	XL	.	40	-	8N	-	R6
1	2		3		4		5	6	7		8		9		10

1.	2.	3.
For stub arbor mounting/ right hand rotation	Disc milling cutters	System
4.	**5.**	**6.**
Cutter diameter	Minimum cutter width (adjustable cassettes)	Maximum cutter width (adjustable cassettes)
7.	**8.**	**9.**
Enlarged chip space	Dimension of arbor bore	8=ZEFP value N=Three side cutting R=Right hand version for two side cutting L=Left hand version for two side cutting
10.		
Insert radius if round inserts used		

Code key - Fixed pocket cutters - Inch

Arbor or arbor hole type

R	335	.	18	-	03.00	-	0.37F	-	4N
1	2		3		4		5		6

1.	2.	3.
For stub arbor mounting /right hand rotation	Disc milling cutters	System
4.	**5.**	**6.**
Cutter diameter	Cutter width (0.37 = 0.375 inch) F = fixed width, manufacturer's option	4 = ZEFP value N = Three side cutting A = Through coolant supply

Cylindrical or Combimaster type

R	335	.	18	-	02.00	-	RE	-	3NA
1	2		3		4		5		6

1.	2.	3.
Right hand rotation	Disc milling cutter	System
4.	**5.**	**6.**
Cutter diameter	.RE = Combimaster, connection size .0 = for Cylindrical shanks	3 = ZEFP value N=Three side cutting A = Through coolant supply

Code key - Adjustable cutters - inch

For adjustable disc milling cutters

R	335	.	18	-	08.00	-	XL0809N	-	R6
1	2		3		4		5		6

1.	2.	3.
For stub arbor mounting/ right hand rotation	Disc milling cutters	System
4.	**5.**	**6.**
Cutter diameter	08 Cutter body width min (16ths of an inch) 09 Cutter body width max (16ths of an inch) XL: For enlarged chip space, manufacturer's option N = Three side cutting R = Right-hand version, two side cutting L = Left-hand version, two side cutting	R6 Insert radius in mm if round inserts used

Selection – Metric

Full side and face - fixed pocket design

System	Insert	a_p	Application	Diameters (mm) available and max depth of cut (mm)												Max no. of cutting edges	Radii available (mm)	See page
				24	32	40	50	63	80	100	125	160	200	250	315			
335.15	335.15	1,1 - 2,65	Circlip grooves	3	3			3								2	-	362, 363
		3,15 - 5,15						5										
335.10	150.10	2,25/2,5				12	15	15	24	30	34	39				1	R0,15/R0,3	368
		3,1				12	15	15	24	30	43	39	59	84	117			
		4,1						16	22	29	34	39	59	84	117			
335.19	SNHQ / 335.19	4				11	14	17	26	32	45	42				4	R0,2/R0,4/R0,8/R1,2/ R1,6/R2,0/R2,4/R3,0/ R3,1/R3,5/ R4,0/ R5,0/R6,0	380
		5				11	14	17	26	32	45	43						
		6					14	17	26	32	31	43	61	86				
		7/ 8						17	26	26	32	44	62	87				
		10								27	33	46	63	88				
		12								27	29	45	64	89				
335.18 LNK	LNKT	8			9	12	15	15	23	27	34					4	R0,4/R0,8/R1,6/R2,0/ R2,4/R3,1/R4,0	396
		10			9	12	15	15	24	28	34							
		12					15	15	24	28	34							
		14						15	23	26	34	51						
		17							24	26	33	50						
		20							24	26	34	51						
335.25	XNHQ	15							22	25	32	52	64			4	R0,4,/R0,8/R1,2/ R1,6/R2,0/R2,4/R3,1/ R4,0/R5,0/R6,0	421
		20								25	32	51	64	88				
		25									33	50	62	87				

Full radius profile – fixed pocket design

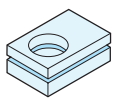
System	Insert	a_p	Application	Diameters (mm) available and max depth of cut (mm)												Max no. of cutting edges	Radii available (mm)	See page
				25	32	40	50	63	80	100	125	160	200	250	315			
335.19	SNHQ / 335.19	4				11	14	17	26	32	45	42				4	R2,0/R3,0/R3,5/ R4,0/R5,0/R6,0	380
		6					14	17	26	32	31	43	61	86				
		7/8						17	26	32	32	44	62	87				
		10								27	33	46	63	88				
		12								27	29	45	64	89				
335.29	Round insert	5		6	8	10	12									4	R2,5/R3,0/R3,5/ R4,0/R5,0/R6,0	443
		6		6	8	10	12	15										
		7			8	10	12	15										
		8			8	10	12	15	20									
		10					12	15	20									
		12	Full radius				12	15	20									

Basic choice (X indicates the maximum radial depth of cut "CDX" in slotting in mm)

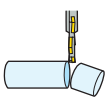
X

Alternative choice (X indicates the maximum radial depth of cut "CDX" in slotting in mm)

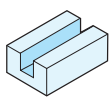
X



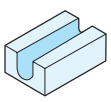
Circlip groove and shallow slotting



Sawing



Full side and face



Full radius profile

Selection – Metric

Full side and and face - adjustable in width

System	Insert	a_p	Application	Diameters (mm) available and max depth of cut (mm)							Max no. of cutting edges	Radii available (mm)	See page
				80	100	125	160	200	250	315			
335.18 LNK	LNK	8 - 10		14	27	32	50	63	88	121	4	R0,4/R0,8/R1,6/R2,0/R2,4/R3,1/R4,0	396
		10 - 12		14	27	32	50	63	88	121			
		12 - 15		14	27	32	50	63	88	121			
335.25	XNHQ	13,5 - 17			24	32	50	63	88	121	4	R0,4/R0,8/R1,2/R1,6/R2,0/R2,4/R3,1/R4,0/R5,0/R6,0	421
		17 - 21			24	32	50	63	88	121			
		21 - 26				32	50	63	88	113			
		26 - 32					50	63	88	113			
335.18/335.25	Round insert	8 - 10	Full radius	15	28	33	51	63	88	121	4	R4,0	396-421
		10 - 12		15	28	33	51	63	88	121		R5,0	
		12 - 15		15	28	33	51	63	88	121		R6,0	
		16 - 17			28	36	54	67	92	124		R8,0	
		20 - 21							92	124		R10,0	

Half side and face

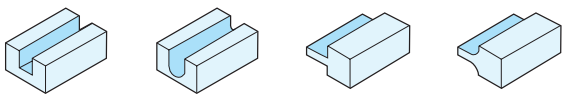
System	Insert	a_p	Application	Diameters (mm) available and max depth of cut (mm)							Max no. of cutting edges	Radii available (mm)	See page
				80	100	125	160	200	250	315			
335.18 LNK	LNK	≤5		14	27	32	50	63	88	121	2+2	R0,4/R0,8/R1,6/R2,0/R2,4/R3,1/R4,0	396
		≤6		14	27	32	50	63	88	121			
		≤7,5		14	27	32	50	63	88	121			
335.25	XNHQ	≤8,5			24	32	50	63	88	121	2+2	R0,4/R0,8/R1,2/R1,6/R2,0/R2,4/R3,1/R4,0/R5,0/R6,0	421
		≤11			24	32	50	63	88	121			
		≤13				32	50	63	88	113			
		≤16					50	63	88	113			
335.18/335.25	Round insert	≤4	Full radius	15	28	33	51	63	88	121	4	R4,0	396-421
		≤5		15	28	33	51	63	88	121		R5,0	
		≤6		15	28	33	51	63	88	121		R6,0	
		≤8			28	36	54	67	92	124		R8,0	
		≤10							92	124		R10,0	

Basic choice (X indicates the maximum radial depth of cut "CDX" in slotting in mm)

X

Alternative choice (X indicates the maximum radial depth of cut "CDX" in slotting in mm)

X



Full side and face | Full radius profile | Half side and face | Half radius profile

Selection – Inch

Full side and face - fixed pocket design

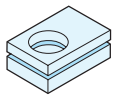
System	Insert	a_p	Application	Diameters (inch) available and max depth of cut (inch)											Max no. of cutting edges	Radii available (inch)	See page
				1.00	1.25	1.50	2.00	2.50	3.00	4.00	5.00	6.00	8.00	10.00			
335.15	335.15	.124-.203	Circlip grooves					0.22							2	–	362, 363
335.10	150.10	.089-.098					0.62	0.63	0.73	1.06	1.36	1.41			1	.006 .012	368
		0.122					0.62	0.63	0.73	1.06	1.36	1.41					
335.19	SNHQ / 335.19	0.156				0.45	0.6	0.7	0.95	1.32					4	.008 / .016 .031 / .047 .063 / .079 .094 / .118 .122 / .138 .157 / .197 .236	380
		0.187				0.45	0.6	0.7	0.95	1.32	1.41	1.91					
		0.250					0.6	0.7	0.95	1.32	1.45	1.95	2.51				
		0.313						0.56	0.81	1.07	1.45	1.95					
		0.375						0.56	0.81	1.11	1.49	2.02					
		0.500								1.13	1.52	2.00					
335.18 LNK	LNKT	0.312			0.35	0.41	0.59	0.63	0.71	1.06	1.38				4	.016 / .031 .063 / .079 .094 / .122 .157	396
		0.375			0.35	0.41	0.59	0.63	0.71	1.06	1.38						
		0.500					0.59	0.62	0.87	1.14	1.38	1.81					
		0.625							0.71	1.06							
		0.750							0.71	1.06	1.38						
335.25	XNHQ	0.750									1.33	1.83	2.48		4	.031 / .047 .063 / .079 .094 / .122 .157 / .197 .236	421
		1.00									1.35	1.85	2.43	3.43			

Full radius profile – fixed pocket design

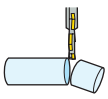
System	Insert	a_p	Application	Diameters (inch) available and max depth of cut (inch)											Max no. of cutting edges	Radii available (inch)	See page
				1.00	1.25	1.50	2.00	2.50	3.00	4.00	5.00	6.00	8.00	10.00			
335.29	Round insert	0.236	Full radius			0.30	0.41								4	0.118 0.157 0.197	443
		0.315					0.41	0.60									
		0.394						0.59	0.70								

Basic choice (X indicates the maximum radial depth of cut "CDX" in slotting in inch) X

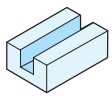
Alternative choice (X indicates the maximum radial depth of cut "CDX" in slotting in inch) X



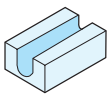
Circlip groove and shallow slotting



Sawing



Full side and face



Full radius profile

Selection – Inch

Full side and and face - adjustable in width

System	Insert	ap	Application	Diameters (inch) available and max depth of cut (inch)						Max no. of cutting edges	Radii available (inch)	See page
				4.00	5.00	6.00	8.00	10.00	12.00			
335.18 LNK	LNK	.315 - .394		1.1	1.34	1.77	2.42	3.39	4.39	4	.0157 / .031 .063 / .079 .094 / .122 .157	396
		.394 - .472		1.01	1.33	1.77	2.42	3.39	4.39			
		.472 - .591		1.01	1.33	1.77	2.42	3.39	4.39			
335.25	XNHQ	.53 - .67		1.01	1.33	1.80	2.42	3.42	4.46	4	.016 / .031 .063 / .079 .094 / .122 .157 / .197 .236	421
		.67 - .83		1.01	1.33	1.80	2.42	3.42	4.46			
		.83 - 1.02			1.33	1.79	2.41	3.41	4.41			
		1.02 - 1.26				1.79	2.41	3.41	4.41			
335.18	Round insert	.315 - .394	Full radius	1.14	1.38	1.77	2.42	3.39	4.39	4	.157 /.197 .236 /.315 .393	396
		.394 - .472		1.06	1.38	1.81	2.42	3.39	4.39			
		.472 - .591		1.05	1.37	1.83	2.42	3.39	4.39			
		.630 - .669			1.41	1.91	2.54	3.54	4.58			
		.789 - .827						3.54	4.54			

Half side and face

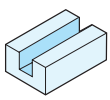
System	Insert	ap	Application	Diameters (inch) available and max depth of cut (inch)						Max no. of cutting edges	Radii available (inch)	See page
				4.00	5.00	6.00	8.00	10.00	12.00			
335.18 LNK	LNK	≤0.197		1.10	1.34	1.77	2.42	3.39	4.39	2+2	.016 / .031 .063 / .079 .094 / .122 .157	396
		≤0.236		1.01	1.33	1.77	2.42	3.39	4.39			
		≤0.295		1.01	1.33	1.79	2.42	3.39	4.39			
335.25	XNHQ	≤0.354		1.01	1.33	1.80	2.42	3.42	4.46	2+2	.016 / .031 .063 / .079 .094 / .122 .157 / .197 .236	421
		≤0.437		1.01	1.33	1.80	2.42	3.42	4.46			
		≤0.512			1.33	1.79	2.41	3.41	4.41			
		≤0.630				1.79	2.41	3.41	4.41			
335.18	Round insert	≤0.157	Full radius	1.14	1.38	1.77	2.42	3.39	4.39	4	.157	396
		≤0.197		1.06	1.38	1.81	2.42	3.39	4.39		.157	
		≤0.236		1.05	1.37	1.83	2.42	3.39	4.39		.197	
		≤0.315			1.41	1.91	2.54	3.54	4.58		.315	
		≤0.393						3.54	4.54		.315	

Basic choice (X indicates the maximum radial depth of cut “CDX” in slotting in inch)

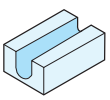
X

Alternative choice (X indicates the maximum radial depth of cut “CDX” in slotting in inch)

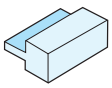
X



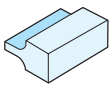
Full side and face



Full radius profile



Half side and face



Half radius profile



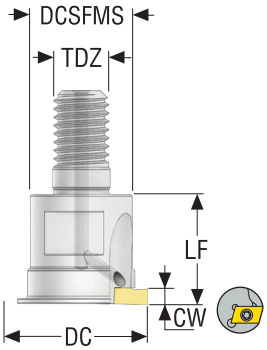
335.15

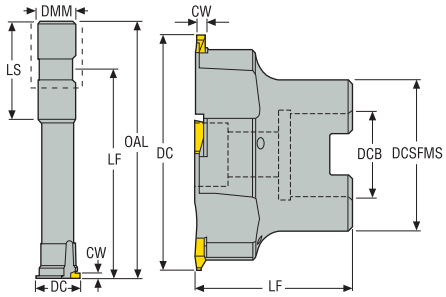
Disc Milling cutter system designed to generate circle snap-ring grooves and shallow slotting grooves

- Width of cut 1.1-5.15 mm (.043 - .202 inch)
- Cutter range diameter 24-63 mm (1 - 2.5 inch)
- Available with Weldon, Arbor and Combimaster with through coolant connection
- Economical light cutting insert with 2 cutting edges design
- Insert width precision +0/+0.05mm - +0/+0.002”

R335.15 – Metric







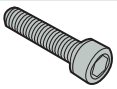
- For insert selection and cutting data recommendations, see page(s) 366 - 367
- For complete insert programme, see page(s) 860
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	CWN	CWX	ZEFP	DCB	DCSFMS	DMM	LS	LF	OAL	TDZ	RPMX	Weight	Insert
			mm	mm	mm		mm	mm	mm	mm	mm	mm			kg	
R335.15-20024.3-03-1	75002642	Weldon	24,0	1,1	2,65	1	–	–	20,0	50,0	105,05	130,0	–	28200	0,4	R335.15-13..
R335.15-1024.RE-03.1A	03329402	Combimaster	24,0	1,1	2,65	1	–	18,5	–	–	20,0	–	M10	28200	0,5	R335.15-13..
R335.15-25034.3-03-2	75002643	Weldon	34,0	1,1	2,65	2	–	–	25,0	56,0	98,05	130,0	–	23600	0,5	R335.15-13..
R335.15-1234.RE-03.2A	03329403	Combimaster	34,0	1,1	2,65	2	–	23,0	–	–	30,0	–	M12	23600	0,2	R335.15-13..
R335.15-063-03.22-5	75011752	Arbor	63,0	1,1	2,65	5	22,0	40,0	–	–	40,0	–	–	17300	0,5	R335.15-13..
R335.15-063-05.22-5	75011753	Arbor	63,0	3,15	5,15	5	22,0	40,0	–	–	40,0	–	–	17300	0,5	R335.15-18..

CW depends on the insert width

For groove depth (CDX), please see insert pages 860

Spare Parts, included in delivery

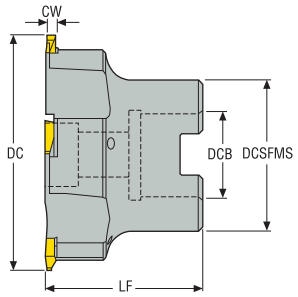
For cutter	Arbor screw	Insert key	Insert screw
			
R335.15 DC = 24/34	–	H4B-T15P	C03509-T15P
R335.15 DC = 63	220.17-692	H4B-T15P	C03509-T15P

Accessories

For size	Insert clamping torque	Torque key
		
R335.15 DC = 24/34	3.0NM	T00-15P30
R335.15 DC = 63	3.0NM	T00-15P30

Torque and fixed keys, see page 872

R335.15 – inch





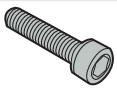
- For insert selection and cutting data recommendations, see page(s) 366 - 367
- For complete insert programme, see page(s) 860
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	CWN	CWX	ZEFP	DCB	DCSFMS	LF	RPMX	Weight	Insert
			inch	inch	inch		inch	inch	inch		lbs	
R335.15-02.50-18	75072222	Arbor	2.500	0.124	0.203	5	0.750	1.571	1.571	17300	1.100	R335.15-18...

CW depends on the insert width

For groove depth (CDX), please see insert pages 860

Spare Parts, included in delivery

For cutter	Arbor screw	Insert key	Insert screw
			
R335.15-02.50-..	UC6S3/8UNFX1-1/4	H4B-T15P	C03509-T15P

Accessories

For size	Insert clamping torque	Torque key
		
R335.15-02.50-..	3.0NM	T00-15P30

Torque and fixed keys, see page 872

R335.15– Insert selection – mm/*Inch*

SMG			f_z		
			10%	5%	2%
P1	R335.15-13..FG-E08 F40M	R335.15-18..FG-M12 F40M	0,19 *0.0075*	0,26 *0.010*	0,42 *0.017*
P2	R335.15-13..FG-E08 F40M	R335.15-18..FG-M12 F40M	0,19 *0.0075*	0,26 *0.010*	0,42 *0.017*
P3	R335.15-13..FG-E08 F40M	R335.15-18..FG-M12 F40M	0,18 *0.0070*	0,25 *0.010*	0,40 *0.016*
P4	R335.15-13..FG-E08 F40M	R335.15-18..FG-M12 F40M	0,18 *0.0070*	0,25 *0.010*	0,40 *0.016*
P5	R335.15-13..FG-E08 F40M	R335.15-18..FG-M12 F40M	0,17 *0.0065*	0,24 *0.0095*	0,38 *0.015*
P6	R335.15-13..FG-E08 F40M	R335.15-18..FG-M12 F40M	0,17 *0.0065*	0,24 *0.0095*	0,38 *0.015*
P7	R335.15-13..FG-E08 F40M	R335.15-18..FG-M12 F40M	0,17 *0.0065*	0,24 *0.0095*	0,38 *0.015*
P8	R335.15-13..FG-E08 F40M	R335.15-18..FG-M12 F40M	0,18 *0.0070*	0,25 *0.010*	0,40 *0.016*
P11	R335.15-13..FG-E08 F40M	R335.15-18..FG-M12 F40M	0,17 *0.0065*	0,24 *0.0095*	0,38 *0.015*
P12	R335.15-13..FG-E08 F40M	R335.15-18..FG-M12 F40M	0,12 *0.0048*	0,16 *0.0065*	0,26 *0.010*
M1	R335.15-13..FG-E08 F40M	R335.15-18..FG-M12 F40M	0,19 *0.0075*	0,26 *0.010*	0,42 *0.017*
M2	R335.15-13..FG-E08 F40M	R335.15-18..FG-M12 F40M	0,17 *0.0065*	0,24 *0.0095*	0,38 *0.015*
M3	R335.15-13..FG-E08 F40M	R335.15-18..FG-M12 F40M	0,14 *0.0055*	0,19 *0.0075*	0,30 *0.012*
M4	R335.15-13..FG-E08 F40M	R335.15-18..FG-M12 F40M	0,12 *0.0048*	0,17 *0.0065*	0,26 *0.010*
M5	R335.15-13..FG-E08 F40M	R335.15-18..FG-M12 F40M	0,12 *0.0048*	0,17 *0.0065*	0,26 *0.010*
K1	R335.15-13..FG-E08 F40M	R335.15-18..FG-M12 F40M	0,19 *0.0075*	0,26 *0.010*	0,42 *0.017*
K2	R335.15-13..FG-E08 F40M	R335.15-18..FG-M12 F40M	0,17 *0.0065*	0,24 *0.0095*	0,38 *0.015*
K3	R335.15-13..FG-E08 F40M	R335.15-18..FG-M12 F40M	0,17 *0.0065*	0,24 *0.0095*	0,38 *0.015*
K4	R335.15-13..FG-E08 F40M	R335.15-18..FG-M12 F40M	0,17 *0.0065*	0,24 *0.0095*	0,38 *0.015*
K5	R335.15-13..FG-E08 F40M	R335.15-18..FG-M12 F40M	0,16 *0.0065*	0,22 *0.0085*	0,34 *0.013*
K6	R335.15-13..FG-E08 F40M	R335.15-18..FG-M12 F40M	0,17 *0.0065*	0,24 *0.0095*	0,38 *0.015*
K7	R335.15-13..FG-E08 F40M	R335.15-18..FG-M12 F40M	0,16 *0.0065*	0,22 *0.0085*	0,34 *0.013*
N1	R335.15-13..FG-E08 F40M	R335.15-18..FG-M12 F40M	0,24 *0.0095*	0,34 *0.013*	0,55 *0.022*
N2	R335.15-13..FG-E08 F40M	R335.15-18..FG-M12 F40M	0,24 *0.0095*	0,34 *0.013*	0,55 *0.022*
N3	R335.15-13..FG-E08 F40M	R335.15-18..FG-M12 F40M	0,24 *0.0095*	0,34 *0.013*	0,55 *0.022*
N11	R335.15-13..FG-E08 F40M	R335.15-18..FG-M12 F40M	0,24 *0.0095*	0,34 *0.013*	0,55 *0.022*
S1	R335.15-13..FG-E08 F40M	R335.15-18..FG-M12 F40M	0,12 *0.0048*	0,17 *0.0065*	0,26 *0.010*
S2	R335.15-13..FG-E08 F40M	R335.15-18..FG-M12 F40M	0,12 *0.0048*	0,17 *0.0065*	0,26 *0.010*
S3	R335.15-13..FG-E08 F40M	R335.15-18..FG-M12 F40M	0,11 *0.0044*	0,16 *0.0065*	0,25 *0.010*
S11	R335.15-13..FG-E08 F40M	R335.15-18..FG-M12 F40M	0,14 *0.0055*	0,19 *0.0075*	0,30 *0.012*
S12	R335.15-13..FG-E08 F40M	R335.15-18..FG-M12 F40M	0,14 *0.0055*	0,19 *0.0075*	0,30 *0.012*
S13	R335.15-13..FG-E08 F40M	R335.15-18..FG-M12 F40M	0,12 *0.0048*	0,17 *0.0065*	0,26 *0.010*
H5	R335.15-13..FG-E08 F40M	R335.15-18..FG-M12 F40M	0,12 *0.0048*	0,16 *0.0065*	0,26 *0.010*
H8	R335.15-13..FG-E08 F40M	R335.15-18..FG-M12 F40M	0,090 *0.0036*	0,12 *0.0048*	0,20 *0.0080*
H11	R335.15-13..FG-E08 F40M	R335.15-18..FG-M12 F40M	0,12 *0.0048*	0,16 *0.0065*	0,26 *0.010*
H12	R335.15-13..FG-E08 F40M	R335.15-18..FG-M12 F40M	0,090 *0.0036*	0,12 *0.0048*	0,20 *0.0080*
H21	R335.15-13..FG-E08 F40M	R335.15-18..FG-M12 F40M	0,090 *0.0036*	0,12 *0.0048*	0,20 *0.0080*

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

R335.15 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	F40M		
	10%	5%	2%
P1	260 *850*	285 *940*	280 *920*
P2	255 *840*	275 *900*	275 *900*
P3	220 *720*	240 *790*	240 *790*
P4	195 *640*	210 *690*	210 *690*
P5	190 *620*	205 *670*	205 *670*
P6	210 *690*	230 *750*	230 *750*
P7	200 *660*	215 *710*	215 *710*
P8	185 *610*	200 *660*	200 *660*
P11	195 *640*	210 *690*	210 *690*
P12	125 *410*	135 *445*	135 *445*
M1	205 *670*	225 *740*	220 *720*
M2	170 *560*	185 *610*	185 *610*
M3	135 *445*	150 *490*	150 *490*
M4	105 *345*	115 *375*	115 *375*
M5	90 *295*	95 *310*	95 *310*
K1	200 *660*	220 *720*	220 *720*
K2	180 *590*	195 *640*	195 *640*
K3	150 *490*	165 *540*	165 *540*
K4	145 *475*	155 *510*	155 *510*
K5	90 *295*	95 *310*	95 *310*
K6	130 *425*	140 *460*	140 *460*
K7	110 *360*	120 *395*	120 *395*
N1	1500 *4925*	1625 *5325*	1600 *5250*
N2	600 *1975*	650 *2125*	650 *2125*
N3	405 *1325*	435 *1425*	430 *1400*
N11	460 *1500*	495 *1625*	495 *1625*
S1	49 *160*	55 *180*	55 *180*
S2	40 *130*	43 *140*	43 *140*
S3	35 *115*	37 *120*	37 *120*
S11	70 *230*	75 *245*	75 *245*
S12	60 *195*	65 *215*	65 *215*
S13	34 *110*	36 *120*	36 *120*
H5	41 *135*	45 *150*	45 *150*
H8	44 *145*	48 *155*	47 *155*
H11	55 *180*	60 *195*	55 *180*
H12	50 *165*	55 *180*	55 *180*
H21	44 *145*	48 *155*	47 *155*



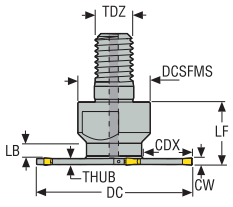
335.10

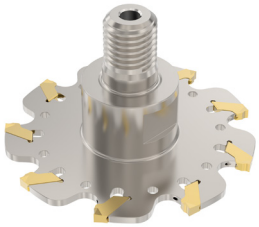
Easy to use and reliable disc milling cutter system dedicated for slim slotting and cut-off operations.

- Self-clamping carbide insert design, the insert is retained by the spring action of the steel part of the cutter
- Width of cut 2.25-4.1 mm (.088 - .161 inch)
- Cutter range diameter 40-315 mm (1.5 - 6.0 inch)
- Available with Weldon, Combimaster, Arbor and Arbor hole connection
- Large cutter diameter with HSS cutter body material for high rigidity and reliability
- Small cutter diameter with internal coolant and close pitch design for high productivity
- Insert width precision from +/- 0.05 to 0.08mm - +/-0.002 to 0.003”

Width 2,25/2,5/3,1 mm – full side – close pitch design with internal coolant

Cutter 335.10 - Insert 150.10 – Metric

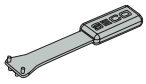




- For insert selection and cutting data recommendations, see page(s) 378-379
- For complete insert programme, see page(s) 854
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	CWN	CWX	CDX	ZEFP	TDZ	DCSFMS	THUB	LF	LB	Through coolant	RPMX	Weight	Insert 150.10
			mm	mm	mm	mm			mm	mm	mm	mm			kg	
R335.10-1040.RE-02-4A	02926773	Combimaster	40,0	2,25	2,5	12,7	4	M10	18,5	1,9	20,0	5,3	✓	3970	0,2	-2.25N/2.5N
R335.10-1250.RE-02-5A	02926774	Combimaster	50,0	2,25	2,5	15,4	5	M12	23,0	1,9	20,0	–	✓	3180	0,2	-2.25N/2.5N
R335.10-1663.RE-02-7A	03054405	Combimaster	63,0	2,25	2,5	15,7	7	M16	30,0	1,9	23,0	–	✓	2520	0,3	-2.25N/2.5N
R335.10-1680.RE-02-9A	03054406	Combimaster	80,0	2,25	2,5	24,1	9	M16	30,0	1,9	23,0	–	✓	1980	0,4	-2.25N/2.5N
R335.10-20100.RE-02-11A	03054407	Combimaster	100,0	2,25	2,5	30,4	11	M20	36,5	1,9	25,0	–	✓	1580	0,5	-2.25N/2.5N
R335.10-1040.RE-03-4A	02926776	Combimaster	40,0	3,1	3,1	12,9	4	M10	18,5	2,4	20,0	4,3	✓	3970	0,2	-3N
R335.10-1250.RE-03-5A	02926777	Combimaster	50,0	3,1	3,1	15,6	5	M12	23,0	2,4	20,0	4,3	✓	3180	0,2	-3N
R335.10-1663.RE-03-7A	03054398	Combimaster	63,0	3,1	3,1	15,9	7	M16	30,0	2,4	23,0	0,0	✓	2520	0,3	-3N
R335.10-1680.RE-03-9A	03054399	Combimaster	80,0	3,1	3,1	24,3	9	M16	30,0	2,4	23,0	0,0	✓	1980	0,3	-3N
R335.10-20100.RE-03-11A	03054400	Combimaster	100,0	3,1	3,1	30,6	11	M20	36,5	2,4	25,0	0,0	✓	1580	0,5	-3N
R335.10-20125.RE-03-13A	03279546	Combimaster	125,0	3,1	3,1	43,1	13	M20	36,5	2,4	25,0	0,0	✓	1270	0,6	-3N

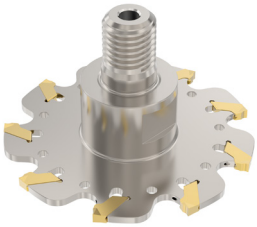
Spare Parts, included in delivery

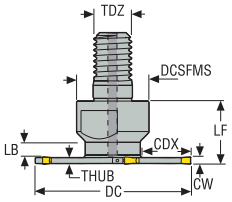
For cutter	Insert key
	
R335.10 DC=40-100	335.10-155
R335.10 DC=125	150.10-150

Torque and fixed keys, see page 872

Cutter 335.10 - Insert 150.10 – Inch

Width 0.089/0.098/0.122 inch – full side – close pitch design with internal coolant

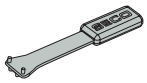




- For insert selection and cutting data recommendations, see page(s) 378-379
- For complete insert programme, see page(s) 854
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	CWN	CWX	CDX	ZEFP	TDZ	DCSFMS	THUB	LF	LB	Through coolant	RPMX	Weight	Insert 150.10
			inch	inch	inch	inch			inch	inch	inch	inch			lbs	
R335.10-02.00-12RE-02-5A	03054409	Combimaster	2.000	0.089	0.098	0.622	5	M12	0.906	0.075	0.787	–	✓	3180	0.660	-2.25N/2.5N
R335.10-02.50-16RE-02-7A	03054410	Combimaster	2.500	0.089	0.098	0.626	7	M16	1.181	0.075	0.906	–	✓	2520	0.660	-2.25N/2.5N
R335.10-02.00-12RE-03-5A	03054402	Combimaster	2.000	0.122	0.122	0.630	5	M12	0.906	0.094	0.787	0.169	✓	3180	0.220	-3N

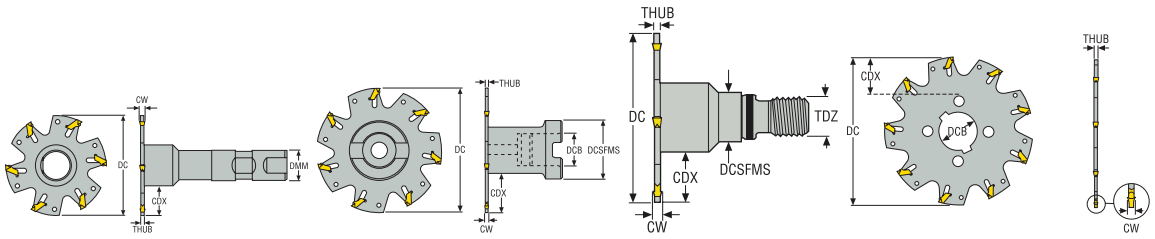
Spare Parts, included in delivery

For cutter	Insert key
	
	335.10-155

Torque and fixed keys, see page 872

Width 2,25/2,5/3,1 mm – full side – HSS body

Cutter 335.10 - Insert 150.10 – Metric



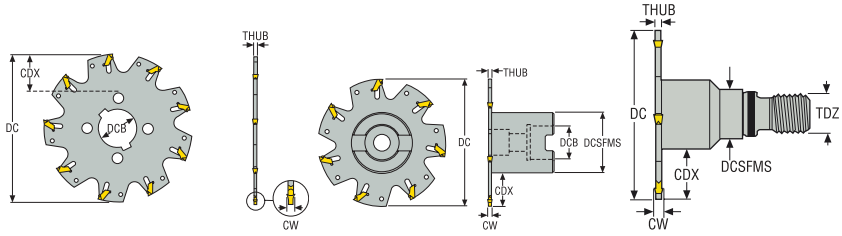
- For insert selection and cutting data recommendations, see page(s) 378-379
- For complete insert programme, see page(s) 854
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	CWN	CWX	CDX	ZEFP	DMM	TDZ	DCB	DCSFMS	THUB	RPMX	Weight	Insert 150.10
			mm	mm	mm	mm		mm		mm	mm	mm		kg	
R335.10-25063.3-02-5	75034462	Weldon	63,0	2,25	2,5	15,0	5	25,0	–	–	–	1,9	4000	0,6	-2.25N/2.5N
R335.10-063-02.22-5	75034464	Arbor	63,0	2,25	2,5	15,0	5	–	–	22,0	32,0	1,9	4000	0,5	-2.25N/2.5N
R335.10-1663.RE-02-5	02731371	Combimaster	63,0	2,25	2,5	16,0	5	–	M16	–	30,0	1,9	4000	0,3	-2.25N/2.5N
R335.10-32080.3-02-6	75034463	Weldon	80,0	2,25	2,5	19,5	6	32,0	–	–	–	1,9	3500	1,1	-2.25N/2.5N
R335.10-080-02.22-6	75034465	Arbor	80,0	2,25	2,5	19,5	6	–	–	22,0	40,0	1,9	3500	0,6	-2.25N/2.5N
335.10-080-02.22-6	75034458	Arbor hole	80,0	2,25	2,5	22,5	6	–	–	22,0	–	1,9	3500	0,2	-2.25N/2.5N
R335.10-1680.RE-02-6	02731373	Combimaster	80,0	2,25	2,5	19,5	6	–	M16	–	30,0	1,9	3500	0,6	-2.25N/2.5N
R335.10-100-02.27-7	75034466	Arbor	100,0	2,25	2,5	25,5	7	–	–	27,0	48,0	1,9	3200	0,8	-2.25N/2.5N
335.10-100-02.27-7	75034459	Arbor hole	100,0	2,25	2,5	29,0	7	–	–	27,0	–	1,9	3200	0,2	-2.25N/2.5N
R335.10-125-02.32-9	75034467	Arbor	125,0	2,25	2,5	33,0	9	–	–	32,0	58,0	1,9	2800	1,3	-2.25N/2.5N
335.10-125-02.32-9	75028096	Arbor hole	125,0	2,25	2,5	34,5	9	–	–	32,0	–	1,9	2800	0,2	-2.25N/2.5N
R335.10-160-02.40-12	75034468	Arbor	160,0	2,25	2,5	39,5	12	–	–	40,0	80,0	1,9	2400	2,4	-2.25N/2.5N
335.10-160-02.40-12	75034460	Arbor hole	160,0	2,25	2,5	39,5	12	–	–	40,0	–	1,9	2400	0,4	-2.25N/2.5N
R335.10-25063.3-03-5	75027293	Weldon	63,0	3,1	3,1	15,0	5	25,0	–	–	–	2,4	4000	0,6	-3N
R335.10-063-03.22-5	75027298	Arbor	63,0	3,1	3,1	15,0	5	–	–	22,0	32,0	2,4	4000	0,5	-3N
R335.10-1663.RE-03-5	02731375	Combimaster	63,0	3,1	3,1	16,0	5	–	M16	–	30,0	2,4	4000	0,4	-3N
R335.10-32080.3-03-6	75027296	Weldon	80,0	3,1	3,1	19,5	6	32,0	–	–	–	2,4	3500	1,2	-3N
R335.10-080-03.22-6	75027301	Arbor	80,0	3,1	3,1	19,5	6	–	–	22,0	40,0	2,4	3500	0,6	-3N
335.10-080-03.22-6	75012752	Arbor hole	80,0	3,1	3,1	22,5	6	–	–	22,0	–	2,4	3500	0,2	-3N
R335.10-1680.RE-03-6	02731378	Combimaster	80,0	3,1	3,1	19,5	6	–	M16	–	30,0	2,4	3500	0,6	-3N
R335.10-100-03.27-7	75027303	Arbor	100,0	3,1	3,1	25,5	7	–	–	27,0	48,0	2,4	3200	0,9	-3N
335.10-100-03.27-7	75012754	Arbor hole	100,0	3,1	3,1	29,0	7	–	–	27,0	–	2,4	3200	0,3	-3N
R335.10-125-03.32-9	75027307	Arbor	125,0	3,1	3,1	33,0	9	–	–	32,0	58,0	2,4	2800	1,4	-3N
335.10-125-03.32-9	75012756	Arbor hole	125,0	3,1	3,1	34,5	9	–	–	32,0	–	2,4	2800	0,3	-3N
R335.10-160-03.40-12	75027311	Arbor	160,0	3,1	3,1	39,5	12	–	–	40,0	80,0	2,4	2400	2,4	-3N
335.10-160-03.40-12	75012758	Arbor hole	160,0	3,1	3,1	39,5	12	–	–	40,0	–	2,4	2400	0,4	-3N
335.10-200-03.40-14	75027697	Arbor hole	200,0	3,1	3,1	59,5	14	–	–	40,0	–	2,4	2200	1,3	-3N
335.10-250-03.40-18	75028688	Arbor hole	250,0	3,1	3,1	84,5	18	–	–	40,0	–	2,4	2000	1,0	-3N
335.10-315-03.40-24	75005264	Arbor hole	315,0	3,1	3,1	117,0	24	–	–	40,0	–	2,4	1700	1,3	-3N

For Arbor hole type cutters 335.10-..., no drive holes for cutter dia 80-100 mm. For cutter dia > 100 mm, please use Seco drive rings,see page 374
Note: For R335.10-... cutter types, the blade is assembled on the holder in the delivery

Cutter 335.10 - Insert 150.10 – Metric

Width 4,1 mm – full side – HSS body



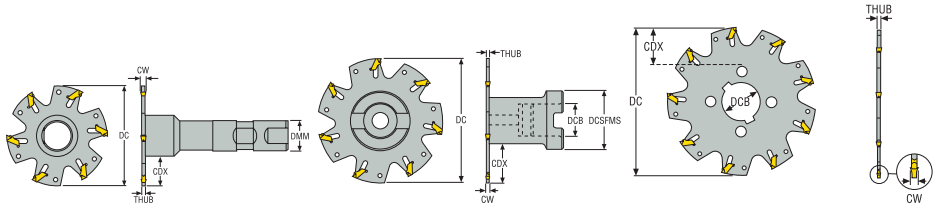
- For insert selection and cutting data recommendations, see page(s) 378-379
- For complete insert programme, see page(s) 854
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	CWN	CWX	CDX	ZEFP	ZNP	DMM	TDZ	DCB	DCSFMS	THUB	RPMX	Weight	Insert 150.10
			mm	mm	mm	mm			mm		mm	mm	mm		kg	
R335.10-25063.3-04-5	75027294	Weldon	63,0	4,1	4,1	15,0	5	5	25,0	–	–	–	3,4	4000	0,5	-4N
R335.10-063-04.22-5	75027299	Arbor	63,0	4,1	4,1	15,0	5	5	–	–	22,0	32,0	3,4	4000	0,4	-4N
R335.10-1663.RE-04-5	02731380	Combimaster	63,0	4,1	4,1	16,0	5	5	–	M16	–	30,0	3,4	4000	0,5	-4N
R335.10-32080.3-04-6	75027297	Weldon	80,0	4,1	4,1	19,5	6	6	32,0	–	–	–	3,4	3500	1,1	-4N
R335.10-080-04.22-6	75027302	Arbor	80,0	4,1	4,1	19,5	6	6	–	–	22,0	40,0	3,4	3500	0,7	-4N
335.10-080-04.22-6	75012753	Arbor hole	80,0	4,1	4,1	22,5	6	6	–	–	22,0	–	3,4	3500	0,2	-4N
R335.10-1680.RE-04-6	02731382	Combimaster	80,0	4,1	4,1	19,5	6	6	–	M16	–	30,0	3,4	3500	0,5	-4N
R335.10-100-04.27-7	75027304	Arbor	100,0	4,1	4,1	25,5	7	7	–	–	27,0	48,0	3,4	3200	0,9	-4N
335.10-100-04.27-7	75012755	Arbor hole	100,0	4,1	4,1	29,0	7	7	–	–	27,0	–	3,4	3200	0,2	-4N
R335.10-125-04.32-9	75027309	Arbor	125,0	4,1	4,1	33,0	9	9	–	–	32,0	58,0	3,4	2800	1,5	-4N
335.10-125-04.32-9	75012757	Arbor hole	125,0	4,1	4,1	34,5	9	9	–	–	32,0	–	3,4	2800	0,4	-4N
R335.10-160-04.40-12	75027312	Arbor	160,0	4,1	4,1	39,5	12	12	–	–	40,0	80,0	3,4	2400	2,5	-4N
335.10-160-04.40-12	75012759	Arbor hole	160,0	4,1	4,1	39,5	12	12	–	–	40,0	–	3,4	2400	0,6	-4N
335.10-200-04.40-14	75027826	Arbor hole	200,0	4,1	4,1	59,5	14	14	–	–	40,0	–	3,4	2200	0,9	-4N
335.10-250-04.40-18	75028689	Arbor hole	250,0	4,1	4,1	84,5	18	18	–	–	40,0	–	3,4	2000	1,2	-4N
335.10-315-04.40-24	75034461	Arbor hole	315,0	4,1	4,1	117,0	24	24	–	–	40,0	–	3,4	1700	1,9	-4N

For Arbor hole type cutters 335.10-..., no drive holes for cutter dia 80-100 mm. For cutter dia > 100 mm, please use Seco drive rings,see page 374
Note: For R335.10-... cutter types, the blade is assembled on the holder in the delivery

Width 0.089/0.098/0.122 inch – full side – HSS body

Cutter 335.10 - Insert 150.10 – inch



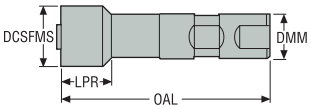
- For insert selection and cutting data recommendations, see page(s) 378-379
- For complete insert programme, see page(s) 854
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	CWN	CWX	CDX	ZEFP	DMM	TDZ	DCB	DCSFMS	THUB	RPMX	Weight	Insert 150.10
			inch	inch	inch	inch		inch		inch	inch	inch		lbs	
R335.10-02.50-3-2	75054664	Weldon	2.500	0.089	0.098	0.602	5	1.000	–	–	–	0.075	4000	0.440	2.25N/2.5N
R335.10-02.50-2B	75054670	Arbor	2.500	0.089	0.098	0.600	5	–	–	0.750	1.575	0.075	4000	1.100	2.25N/2.5N
R335.10-03.00-3-2	75054665	Weldon	3.000	0.089	0.098	0.728	6	1.250	–	–	–	0.075	3500	2.430	2.25N/2.5N
R335.10-03.00-2B	75054671	Arbor	3.000	0.089	0.098	0.693	6	–	–	0.750	1.575	0.075	3500	1.760	2.25N/2.5N
335.10-03.00-2	75054743	Arbor hole	3.000	0.089	0.098	0.669	6	–	–	1.000	–	0.075	3500	0.440	2.25N/2.5N
R335.10-04.00-2B	75054680	Arbor	4.000	0.089	0.098	1.035	7	–	–	1.000	1.890	0.075	3200	1.540	2.25N/2.5N
335.10-04.00-2	75054744	Arbor hole	4.000	0.089	0.098	1.161	7	–	–	1.000	–	0.075	3200	0.440	2.25N/2.5N
R335.10-05.00-2B	75054681	Arbor	5.000	0.089	0.098	1.339	9	–	–	1.250	2.283	0.075	2800	3.750	2.25N/2.5N
335.10-05.00-2	75054745	Arbor hole	5.000	0.089	0.098	1.398	9	–	–	1.250	–	0.075	2800	0.660	2.25N/2.5N
R335.10-06.00-2B	75054682	Arbor	6.000	0.089	0.098	1.406	12	–	–	1.500	3.150	0.075	2400	6.170	2.25N/2.5N
335.10-06.00-2	75054746	Arbor hole	6.000	0.089	0.098	1.555	12	–	–	1.250	–	0.075	2400	0.880	2.25N/2.5N
R335.10-02.50-3-3	75054666	Weldon	2.500	0.122	0.122	0.602	5	1.000	–	–	–	0.094	4000	1.540	3N
R335.10-02.50-3B	75054672	Arbor	2.500	0.122	0.122	0.600	5	–	–	0.750	1.575	0.094	4000	1.320	3N
R335.10-03.00-3-3	75054667	Weldon	3.000	0.122	0.122	0.728	6	1.250	–	–	–	0.094	3500	3.090	3N
R335.10-03.00-3B	75054673	Arbor	3.000	0.122	0.122	0.693	6	–	–	0.750	1.575	0.094	3500	1.980	3N
335.10-03.00-3	75070139	Arbor hole	3.000	0.122	0.122	0.669	6	–	–	1.000	–	0.094	3500	0.440	3N
R335.10-04.00-3B	75054683	Arbor	4.000	0.122	0.122	1.035	7	–	–	1.000	1.890	0.094	3200	2.650	3N
335.10-04.00-3	75014456	Arbor hole	4.000	0.122	0.122	1.161	7	–	–	1.000	–	0.094	3200	0.660	3N
R335.10-05.00-3B	75054684	Arbor	5.000	0.122	0.122	1.339	9	–	–	1.250	2.283	0.094	2800	3.750	3N
335.10-05.00-3	75014458	Arbor hole	5.000	0.122	0.122	1.398	9	–	–	1.250	–	0.094	2800	0.660	3N
R335.10-06.00-3B	75054685	Arbor	6.000	0.122	0.122	1.406	12	–	–	1.500	3.150	0.094	2400	5.510	3N
335.10-06.00-3	75014460	Arbor hole	6.000	0.122	0.122	1.555	12	–	–	1.250	–	0.094	2400	0.880	3N

For Arbor hole type cutters 335.10-..., no drive holes for cutter dia 3.00 -4.00". For cutter dia > 4.00", please use Seco drive rings,see page 376
Note: For R335.10-... cutter types, the blade is assembled on the holder in the delivery

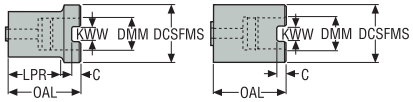
Spare Parts – Metric

Holder for Weldon type



Designation	DMM	DCSFMS	OAL	LPR
335.10-25.3	25	32	106	25
335.10-32.3	32	40	150	30

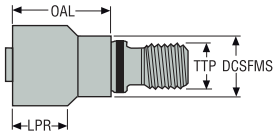
Holder for Arbor type



Designation	DMM	DCSFMS	OAL	LPR	KWW	C
335.10-2232	22	40	50	36	10,4	6,3
335.10-2240M	22	40	50	–	10,4	6,3
335.10-2748	27	48	50	–	12,4	7
335.10-3258	32	58	63	–	14,4	8
335.10-4080	40	80	63	–	16,4	9

Note: Assembly screws delivered Weldon, Arbor and Combimaster holders

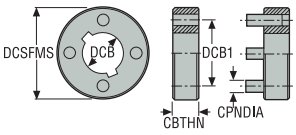
Combimaster type



Designation	LPR	TDZ	DCSFMS	OAL
335.10-16RE-10	28	M16	30	30
335.10-16RE-18	28	M16	30	40

Note: Assembly screws delivered Weldon, Arbor and Combimaster holders

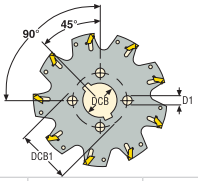
Drive rings for Arbor hole type



Designation	DCB	DCSFMS	CBTHN	DCB1	CPNDIA
335.10-14532	32	55	10	45	5,7
335.10-16340	40	80	12	63	10,7

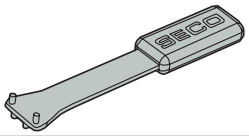
Drive ring to be ordered separately

Arbor hole type



Designation	DCB	DCB1	D1		
335.10-080	22	–	–		
335.10-100	27	–	–		
335.10-125	32	45	6		
335.10-160-315	40	63	11		

Spare parts (key included in delivery)



For cutter	Insert removal key
R335.10-..	150.10-150

Assembly components/Standard parts – metric

Weldon type cutters

Designation	Cutter body Part No.	Holder Part No.	Assembly screw	Clamp key	Torque Nm
					
R335.10-25063.3-02-5	B-R335.10-063.10-02	335.10-25.3	3 x 335.10-0516-T15P	1/4HEX-T15PX50	6.5Nm
R335.10-32080.3-02-6	B-R335.10-080.18-02	335.10-32.3	3 x 335.10-0516-T15P	1/4HEX-T15PX50	6.5Nm
R335.10-25063.3-03-5	B-R335.10-063.10-03	335.10-25.3	3 x 335.10-0516-T15P	1/4HEX-T15PX50	6.5Nm
R335.10-32080.3-03-6	B-R335.10-080.18-03	335.10-32.3	3 x 335.10-0516-T15P	1/4HEX-T15PX50	6.5Nm
R335.10-25063.3-04-5	B-R335.10-063.10-04	335.10-25.3	3 x 335.10-0516-T15P	1/4HEX-T15PX50	6.5Nm
R335.10-32080.3-04-6	B-R335.10-080.18-04	335.10-32.3	3 x 335.10-0516-T15P	1/4HEX-T15PX50	6.5Nm

Arbor type cutters

Designation	Cutter body Part No.	Holder Part No.	Assembly screw	Clamp key	Torque Nm	Arbor screw
						
R335.10-063-02.22-5	B-R335.10-063.10-02	335.10-2232	3 x 335.10-0516-T15P	1/4HEX-T15PX50	6.5Nm	220.17-696
R335.10-080-02.22-6	B-R335.10-080.18-02	335.10-2240M	3 x 335.10-0516-T15P	1/4HEX-T15PX50	6.5Nm	220.17-696
R335.10-063-03.22-5	B-R335.10-063.10-03	335.10-2232	3 x 335.10-0516-T15P	1/4HEX-T15PX50	6.5Nm	220.17-696
R335.10-080-03.22-6	B-R335.10-080.18-03	335.10-2240M	3 x 335.10-0516-T15P	1/4HEX-T15PX50	6.5Nm	220.17-696
R335.10-063-04.22-5	B-R335.10-063.10-04	335.10-2232	3 x 335.10-0516-T15P	1/4HEX-T15PX50	6.5Nm	220.17-696
R335.10-080-04.22-6	B-R335.10-080.18-04	335.10-2240M	3 x 335.10-0516-T15P	1/4HEX-T15PX50	6.5Nm	220.17-696

Arbor type cutters

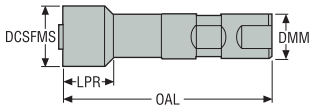
Designation	Cutter body Part No.	Holder Part No.	Assembly screw	Clamp key	Torque Nm	Arbor screw
						
R335.10-100-02.27-7	B-R335.10-100.27-02	335.10-2748	4 x 335.10-0516-T15P	1/4HEX-T15PX50	6.5Nm	MC6S 12x40
R335.10-100-03.27-7	B-R335.10-100.27-03	335.10-2748	4 x 335.10-0516-T15P	1/4HEX-T15PX50	6.5Nm	MC6S 12x40
R335.10-100-04.27-7	B-R335.10-100.27-04	335.10-2748	4 x 335.10-0516-T15P	1/4HEX-T15PX50	6.5Nm	MC6S 12x40
R335.10-125-02.32-9	B-R335.10-125.32-02	335.10-3258	4 x 335.10-0516-T15P	1/4HEX-T15PX50	6.5Nm	220.17-694
R335.10-125-03.32-9	B-R335.10-125.32-03	335.10-3258	4 x 335.10-0516-T15P	1/4HEX-T15PX50	6.5Nm	220.17-694
R335.10-125-04.32-9	B-R335.10-125.32-04	335.10-3258	4 x 335.10-0516-T15P	1/4HEX-T15PX50	6.5Nm	220.17-694
R335.10-160-02.40-12	B-R335.10-160.40-02	335.10-4080	4 x 335.10-1030-T30P	1/4HEX-T30PX50	10Nm	MC6S 20x40
R335.10-160-03.40-12	B-R335.10-160.40-03	335.10-4080	4 x 335.10-1030-T30P	1/4HEX-T30PX50	10Nm	MC6S 20x40
R335.10-160-04.40-12	B-R335.10-160.40-04	335.10-4080	4 x 335.10-1030-T30P	1/4HEX-T30PX50	10Nm	MC6S 20x40

Combimaster

Designation	Cutter body Part No.	Holder Part No.	Assembly screw	Clamp key	Torque Nm
					
R335.10-1663.RE-02-5	B-R335.10-063.10-02	335.10-16RE-10	3 x 335.10-0516-T15P	1/4HEX-T15PX50	6.5Nm
R335.10-1680.RE-02-6	B-R335.10-080.18-02	335.10-16RE-18	3 x 335.10-0516-T15P	1/4HEX-T15PX50	6.5Nm
R335.10-1663.RE-03-5	B-R335.10-063.10-03	335.10-16RE-10	3 x 335.10-0516-T15P	1/4HEX-T15PX50	6.5Nm
R335.10-1680.RE-03-6	B-R335.10-080.18-03	335.10-16RE-18	3 x 335.10-0516-T15P	1/4HEX-T15PX50	6.5Nm
R335.10-1663.RE-04-5	B-R335.10-063.10-04	335.10-16RE-10	3 x 335.10-0516-T15P	1/4HEX-T15PX50	6.5Nm
R335.10-1680.RE-04-6	B-R335.10-080.18-04	335.10-16RE-18	3 x 335.10-0516-T15P	1/4HEX-T15PX50	6.5Nm

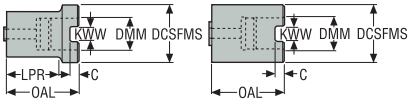
Spare Parts – Inch

Holder for Weldon type



Designation	DMM	DCSFMS	OAL	LPR
335.10-01.00-3-A	1.00	1.25	4.17	1.00
335.10-01.25-3-A	1.25	1.50	5.90	1.18

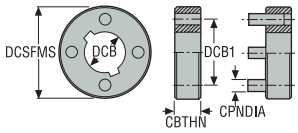
Holder for Arbor type



Designation	DMM	DCSFMS	OAL	LPR	KWW	C
335.10-00.75-1.25B-A	0.75	1.26	1.969	1.50	0.32	0.20
335.10-00.75-1.50B-A	0.75	1.58	1.969	–	0.32	0.20
335.10-01.00-1.89B-A	1.00	1.89	1.969	–	0.38	0.23
335.10-01.25-2.28B-A	1.25	2.28	2.480	–	0.51	0.28
335.10-01.50-3.15B-A	1.50	3.15	2.480	–	0.63	0.38

Note: Assembly screws delivered with Weldon and arbor holders

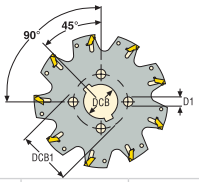
Drive rings for Arbor hole type



Designation	DCB	DCSFMS	CBTHN	DCB1	CPNDIA
335.10-14531	2.16	1.25	1.77	0.22	0.39
335.10-15531	2.83	1.25	2.16	0.42	0.47
335.10-17451	3.50	2.00	2.91	0.42	0.47

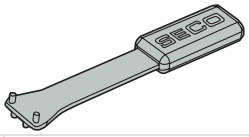
Drive ring to be ordered separately

Arbor hole type



Designation	DCB	DCB1	D1		
335.10-03.00-04.00	1.00	–	–		
335.10-05.00	1.25	1.77	0.24		
335.10-06.00	1.25	2.16	0.43		
335.10-08.00-12.00	2.00	2.91	0.43		

Spare parts (key included in delivery)



For cutter	Insert removal key
R335.10-..	150.10-150

Assembly components/Standard parts – inch

Weldon type cutters

Designation	Cutter body Part No.	Holder Part No.	Assembly screw	Clamp key	Torque in/lbs
					
R335.10-02.50-3-2	R335.10-02.50-2	335.10-01.00-3-A	335.10-0516-T15P(3X)	1/4HEX-T15PX50	57.5 in.lbs
R335.10-02.50-3-3	R335.10-02.50-3	335.10-01.00-3-A	335.10-0516-T15P(3X)	1/4HEX-T15PX50	57.5 in.lbs
R335.10-03.00-3-2	R335.10-03.00-2	335.10-01.25-3-A	335.10-0516-T15P(3X)	1/4HEX-T15PX50	57.5 in.lbs
R335.10-03.00-3-3	R335.10-03.00-3	335.10-01.25-3-A	335.10-0516-T15P(3X)	1/4HEX-T15PX50	57.5 in.lbs

Arbor type cutters

Designation	Cutter body Part No.	Holder Part No.	Assembly screw	Clamp key	Torque in/lbs	Arbor screw
						
R335.10-02.50-2B	R335.10-02.50-2	335.10-00.75-1.25B-A	335.10-0516-T15P(3X)	1/4HEX-T15PX50	57.5 in.lbs	220.17-695
R335.10-02.50-3B	R335.10-02.50-3	335.10-00.75-1.25B-A	335.10-0516-T15P(3X)	1/4HEX-T15PX50	57.5 in.lbs	220.17-695
R335.10-03.00-2B	R335.10-03.00-2	335.10-00.75-1.50B-A	335.10-0516-T15P(3X)	1/4HEX-T15PX50	57.5 in.lbs	220.17-695
R335.10-03.00-3B	R335.10-03.00-3	335.10-00.75-1.50B-A	335.10-0516-T15P(3X)	1/4HEX-T15PX50	57.5 in.lbs	220.17-695

Arbor type cutters

Designation	Cutter body Part No.	Holder Part No.	Assembly screw	Insert key	Torque in/lbs	Arbor screw
						
R335.10-04.00-2B	R335.10-04.00-2	335.10-01.00-1.89B-A	335.10-0516-T15P(4X)	1/4HEX-T15PX50	57.5 in.lbs	UC6S1/2UNFX1-1/2
R335.10-04.00-3B	R335.10-04.00-3	335.10-01.00-1.89B-A	335.10-0516-T15P(4X)	1/4HEX-T15PX50	57.5 in.lbs	UC6S1/2UNFX1-1/2
R335.10-05.00-2B	R335.10-05.00-2	335.10-01.25-2.28B-A	335.10-0516-T15P(4X)	1/4HEX-T15PX50	57.5 in.lbs	UC6S5/8UNFX11/2
R335.10-05.00-3B	R335.10-05.00-3	335.10-01.25-2.28B-A	335.10-0516-T15P(4X)	1/4HEX-T15PX50	57.5 in.lbs	UC6S5/8UNFX11/2
R335.10-06.00-2B	R335.10-06.00-2	335.10-01.50-3-15B-A	335.10-1030-T30P(4X)	1/4HEX-T30PX50	88.5 in.lbs	UC6S3/4UNFX1-1/4
R335.10-06.00-3B	R335.10-06.00-3	335.10-01.50-3-15B-A	335.10-1030-T30P(4X)	1/4HEX-T30PX50	88.5 in.lbs	UC6S3/4UNFX1-1/4

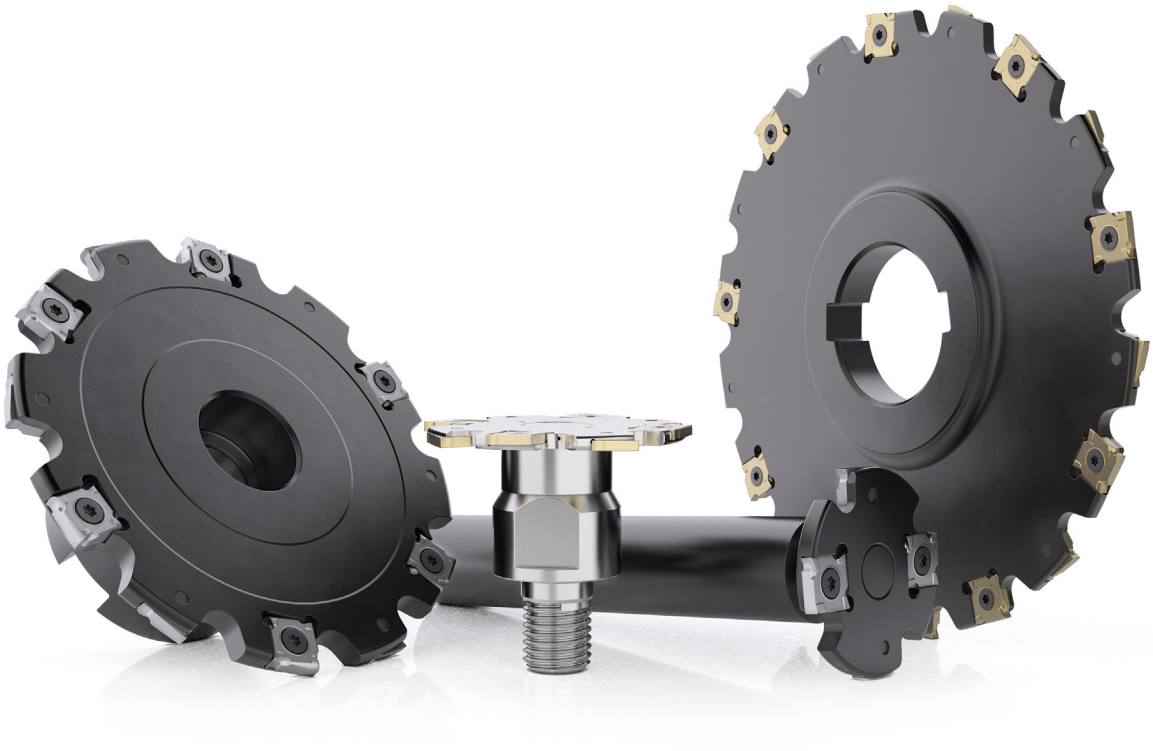
335.10– Insert selection – mm/*Inch*

SMG					f_z			
					30%	20%	10%	5%
P1	150.10-2.25N-16 CP600	150.10-2.5N-12 CP600	*150.10-3N-12 CP600*	*150.10-4N-12 CP600*	0,10 *0.0040*	0,11 *0.0044*	0,15 0.0060	0,20 0.0080
P2	150.10-2.25N-16 CP600	150.10-2.5N-12 CP600	*150.10-3N-12 CP600*	*150.10-4N-12 CP600*	0,10 *0.0040*	0,11 *0.0044*	0,15 0.0060	0,22 0.0085
P3	150.10-2.25N-16 CP600	150.10-2.5N-12 CP600	*150.10-3N-12 CP600*	*150.10-4N-12 CP600*	0,095 *0.0038*	0,11 *0.0044*	0,14 0.0055	0,20 0.0080
P4	150.10-2.25N-16 CP600	150.10-2.5N-12 CP600	*150.10-3N-12 CP600*	*150.10-4N-12 CP600*	0,090 *0.0036*	0,11 *0.0044*	0,14 0.0055	0,19 0.0075
P5	150.10-2.25N-16 CP600	150.10-2.5N-12 CP600	*150.10-3N-12 CP600*	*150.10-4N-12 CP600*	0,090 *0.0036*	0,10 *0.0040*	0,14 0.0055	0,19 0.0075
P6	150.10-2.25N-16 CP600	150.10-2.5N-12 CP600	*150.10-3N-12 CP600*	*150.10-4N-12 CP600*	0,090 *0.0036*	0,10 *0.0040*	0,14 0.0055	0,19 0.0075
P7	150.10-2.25N-16 CP600	150.10-2.5N-12 CP600	*150.10-3N-12 CP600*	*150.10-4N-12 CP600*	0,090 *0.0036*	0,10 *0.0040*	0,14 0.0055	0,19 0.0075
P8	150.10-2.25N-16 CP500	150.10-2.5N-12 CP600	*150.10-3N-12 CP600*	*150.10-4N-12 CP600*	0,095 *0.0038*	0,11 *0.0044*	0,14 0.0055	0,20 0.0080
P11	150.10-2.25N-16 CP600	150.10-2.5N-12 CP600	*150.10-3N-12 CP600*	*150.10-4N-12 CP600*	0,085 *0.0034*	0,095 *0.0038*	0,13 0.0050	0,17 0.0065
P12	150.10-2.25N-16 CP600	150.10-2.5N-12 CP600	*150.10-3N-12 CP600*	*150.10-4N-12 CP600*	0,055 *0.0022*	0,065 *0.0026*	0,085 0.0034	0,12 0.0048
M1	150.10-2.25N-14 CP600	150.10-2.5N-14 CP600	*150.10-3N-14 CP600*	*150.10-4N-14 CP600*	0,10 *0.0040*	0,11 *0.0044*	0,15 0.0060	0,22 0.0085
M2	150.10-2.25N-14 CP600	150.10-2.5N-14 CP600	*150.10-3N-14 CP600*	*150.10-4N-14 CP600*	0,090 *0.0036*	0,10 *0.0040*	0,14 0.0055	0,19 0.0075
M3	150.10-2.25N-14 CP600	150.10-2.5N-14 CP600	*150.10-3N-14 CP600*	*150.10-4N-14 CP600*	0,070 *0.0028*	0,085 *0.0034*	0,11 0.0044	0,15 0.0060
M4	150.10-2.25N-14 CP600	150.10-2.5N-14 CP600	*150.10-3N-14 CP600*	*150.10-4N-14 CP600*	0,065 *0.0026*	0,075 *0.0030*	0,095 0.0038	0,13 0.0050
M5	150.10-2.25N-14 CP600	150.10-2.5N-14 CP600	*150.10-3N-14 CP600*	*150.10-4N-14 CP600*	0,065 *0.0026*	0,075 *0.0030*	0,095 0.0038	0,13 0.0050
K1	150.10-2.25N-16 TGP45	150.10-2.5N-16 TGP45	*150.10-3N-16 TGP45*	*150.10-4N-16 TGP45*	0,10 *0.0040*	0,11 *0.0044*	0,15 0.0060	0,22 0.0085
K2	150.10-2.25N-16 TGP45	150.10-2.5N-16 TGP45	*150.10-3N-16 TGP45*	*150.10-4N-16 TGP45*	0,090 *0.0036*	0,10 *0.0040*	0,14 0.0055	0,19 0.0075
K3	150.10-2.25N-16 TGP45	150.10-2.5N-16 TGP45	*150.10-3N-16 TGP45*	*150.10-4N-16 TGP45*	0,090 *0.0036*	0,10 *0.0040*	0,14 0.0055	0,19 0.0075
K4	150.10-2.25N-16 TGP45	150.10-2.5N-16 TGP45	*150.10-3N-16 TGP45*	*150.10-4N-16 TGP45*	0,090 *0.0036*	0,10 *0.0040*	0,14 0.0055	0,19 0.0075
K5	150.10-2.25N-16 TGP45	150.10-2.5N-16 TGP45	*150.10-3N-16 TGP45*	*150.10-4N-16 TGP45*	0,080 *0.0032*	0,095 *0.0038*	0,12 0.0048	0,17 0.0065
K6	150.10-2.25N-16 TGP45	150.10-2.5N-16 TGP45	*150.10-3N-16 TGP45*	*150.10-4N-16 TGP45*	0,090 *0.0036*	0,10 *0.0040*	0,14 0.0055	0,19 0.0075
K7	150.10-2.25N-16 TGP45	150.10-2.5N-16 TGP45	*150.10-3N-16 TGP45*	*150.10-4N-16 TGP45*	0,080 *0.0032*	0,095 *0.0038*	0,12 0.0048	0,17 0.0065
N1	150.10-2.25N-14 CP500	150.10-2.5N-14 CP500	*150.10-3N-14 CP500*	*150.10-4N-14 CP500*	0,12 *0.0048*	0,14 *0.0055*	0,19 0.0075	0,26 0.010
N2	150.10-2.25N-14 CP500	150.10-2.5N-14 CP500	*150.10-3N-14 CP500*	*150.10-4N-14 CP500*	0,12 *0.0048*	0,14 *0.0055*	0,19 0.0075	0,26 0.010
N3	150.10-2.25N-14 CP500	150.10-2.5N-14 CP500	*150.10-3N-14 CP500*	*150.10-4N-14 CP500*	0,12 *0.0048*	0,14 *0.0055*	0,19 0.0075	0,26 0.010
N11	150.10-2.25N-14 CP500	150.10-2.5N-14 CP500	*150.10-3N-14 CP500*	*150.10-4N-14 CP500*	0,12 *0.0048*	0,14 *0.0055*	0,19 0.0075	0,26 0.010
S1	150.10-2.25N-14 CP600	150.10-2.5N-14 CP600	*150.10-3N-14 CP600*	*150.10-4N-14 CP600*	0,065 *0.0026*	0,075 *0.0030*	0,095 0.0038	0,13 0.0050
S2	150.10-2.25N-14 CP600	150.10-2.5N-14 CP600	*150.10-3N-14 CP600*	*150.10-4N-14 CP600*	0,065 *0.0026*	0,075 *0.0030*	0,095 0.0038	0,13 0.0050
S3	150.10-2.25N-14 CP600	150.10-2.5N-14 CP600	*150.10-3N-14 CP600*	*150.10-4N-14 CP600*	0,060 *0.0024*	0,065 *0.0026*	0,090 0.0036	0,12 0.0048
S11	150.10-2.25N-14 CP600	150.10-2.5N-14 CP600	*150.10-3N-14 CP600*	*150.10-4N-14 CP600*	0,070 *0.0028*	0,085 *0.0034*	0,11 0.0044	0,15 0.0060
S12	150.10-2.25N-14 CP600	150.10-2.5N-14 CP600	*150.10-3N-14 CP600*	*150.10-4N-14 CP600*	0,070 *0.0028*	0,085 *0.0034*	0,11 0.0044	0,15 0.0060
S13	150.10-2.25N-14 CP600	150.10-2.5N-14 CP600	*150.10-3N-14 CP600*	*150.10-4N-14 CP600*	0,065 *0.0026*	0,075 *0.0030*	0,095 0.0038	0,13 0.0050
H5	150.10-2.25N-16 CP500	150.10-2.5N-16 CP500	*150.10-3N-16 CP500*	*150.10-4N-16 CP500*	0,060 *0.0024*	0,070 *0.0028*	0,095 0.0038	0,13 0.0050
H8	150.10-2.25N-16 CP500	150.10-2.5N-16 CP500	*150.10-3N-16 CP500*	*150.10-4N-16 CP500*	0,048 *0.0019*	0,055 *0.0022*	0,070 0.0028	0,10 0.0040
H11	150.10-2.25N-16 CP500	150.10-2.5N-16 CP500	*150.10-3N-16 CP500*	*150.10-4N-16 CP500*	0,060 *0.0024*	0,070 *0.0028*	0,095 0.0038	0,13 0.0050
H12	150.10-2.25N-16 CP500	150.10-2.5N-16 CP500	*150.10-3N-16 CP500*	*150.10-4N-16 CP500*	0,048 *0.0019*	0,055 *0.0022*	0,070 0.0028	0,10 0.0040
H21	150.10-2.25N-16 CP500	150.10-2.5N-16 CP500	*150.10-3N-16 CP500*	*150.10-4N-16 CP500*	0,048 *0.0019*	0,055 *0.0022*	0,070 0.0028	0,10 0.0040

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

335.10 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	CP500				CP600				HX				TGP45				T350M			
	30%	20%	10%	5%	30%	20%	10%	5%	30%	20%	10%	5%	30%	20%	10%	5%	30%	20%	10%	5%
P1	195 *640*	210 *690*	230 *750*	250 *820*	185 *610*	200 *660*	220 *720*	240 *790*	— —	— —	— —	— —	250 *820*	270 *890*	295 *970*	325 *1075*	215 *710*	230 *750*	255 *840*	275 *900*
P2	190 *620*	205 *670*	225 *740*	245 *800*	180 *590*	195 *640*	215 *710*	235 *770*	— —	— —	— —	— —	240 *790*	260 *850*	290 *950*	310 *1025*	210 *690*	225 *740*	245 *800*	270 *890*
P3	165 *540*	180 *590*	200 *660*	215 *710*	155 *510*	170 *560*	190 *620*	205 *670*	— —	— —	— —	— —	215 *710*	225 *740*	250 *820*	270 *890*	180 *590*	195 *640*	220 *720*	235 *770*
P4	150 *490*	160 *520*	175 *570*	190 *620*	140 *460*	150 *490*	165 *540*	180 *590*	— —	— —	— —	— —	185 *610*	200 *660*	220 *720*	240 *790*	160 *520*	175 *570*	190 *620*	205 *670*
P5	140 *460*	150 *490*	165 *540*	180 *590*	135 *445*	145 *475*	160 *520*	170 *560*	— —	— —	— —	— —	180 *590*	195 *640*	215 *710*	235 *770*	155 *510*	165 *540*	185 *610*	200 *660*
P6	160 *520*	170 *560*	190 *620*	205 *670*	150 *490*	160 *520*	180 *590*	195 *640*	— —	— —	— —	— —	200 *660*	215 *710*	240 *790*	260 *850*	175 *570*	185 *610*	205 *670*	220 *720*
P7	150 *490*	160 *520*	175 *570*	190 *620*	145 *475*	150 *490*	170 *560*	180 *590*	— —	— —	— —	— —	190 *620*	205 *670*	225 *740*	245 *800*	165 *540*	175 *570*	195 *640*	210 *690*
P8	140 *460*	150 *490*	165 *540*	180 *590*	130 *425*	145 *475*	160 *520*	170 *560*	— —	— —	— —	— —	180 *590*	190 *620*	210 *690*	230 *750*	150 *490*	165 *540*	185 *610*	200 *660*
P11	145 *475*	155 *510*	170 *560*	185 *610*	140 *460*	150 *490*	165 *540*	175 *570*	— —	— —	— —	— —	185 *610*	200 *660*	220 *720*	240 *790*	160 *520*	170 *560*	190 *620*	205 *670*
P12	95 *310*	100 *330*	110 *360*	120 *395*	90 *295*	95 *310*	105 *345*	115 *375*	— —	— —	— —	— —	120 *395*	125 *410*	140 *460*	155 *510*	105 *345*	110 *360*	120 *395*	130 *425*
M1	155 *510*	165 *540*	180 *590*	200 *660*	145 *475*	155 *510*	175 *570*	190 *620*	105 *345*	110 *360*	120 *395*	130 *425*	175 *570*	185 *610*	205 *670*	225 *740*	160 *520*	175 *570*	190 *620*	205 *670*
M2	125 *410*	135 *445*	150 *490*	165 *540*	120 *395*	130 *425*	145 *475*	155 *510*	85 *280*	90 *295*	100 *330*	105 *345*	145 *475*	155 *510*	170 *560*	185 *610*	135 *445*	140 *460*	160 *520*	170 *560*
M3	105 *345*	110 *360*	120 *395*	130 *425*	100 *330*	105 *345*	115 *375*	125 *410*	70 *230*	75 *245*	80 *260*	85 *280*	115 *375*	125 *410*	140 *460*	150 *490*	110 *360*	115 *375*	125 *410*	140 *460*
M4	80 *260*	85 *280*	95 *310*	100 *330*	75 *245*	80 *260*	90 *295*	95 *310*	55 *180*	55 *180*	60 *195*	65 *215*	90 *295*	95 *310*	105 *345*	115 *375*	85 *280*	90 *295*	100 *330*	105 *345*
M5	65 *215*	70 *230*	80 *260*	85 *280*	65 *215*	70 *230*	75 *245*	80 *260*	45 *150*	47 *155*	50 *165*	55 *180*	75 *245*	80 *260*	90 *295*	95 *310*	70 *230*	75 *245*	80 *260*	90 *295*
K1	150 *490*	165 *540*	180 *590*	195 *640*	145 *475*	155 *510*	170 *560*	185 *610*	95 *310*	100 *330*	110 *360*	120 *395*	190 *620*	205 *670*	230 *750*	245 *800*	165 *540*	180 *590*	195 *640*	215 *710*
K2	135 *445*	145 *475*	160 *520*	170 *560*	130 *425*	135 *445*	150 *490*	165 *540*	85 *280*	90 *295*	100 *330*	105 *345*	170 *560*	185 *610*	205 *670*	220 *720*	145 *475*	155 *510*	175 *570*	190 *620*
K3	115 *375*	120 *395*	135 *445*	145 *475*	110 *360*	115 *375*	130 *425*	140 *460*	75 *245*	80 *260*	85 *280*	90 *295*	145 *475*	155 *510*	170 *560*	185 *610*	125 *410*	135 *445*	145 *475*	160 *520*
K4	110 *360*	115 *375*	130 *425*	140 *460*	105 *345*	110 *360*	120 *395*	130 *425*	70 *230*	75 *245*	80 *260*	85 *280*	135 *445*	150 *490*	165 *540*	180 *590*	120 *395*	125 *410*	140 *460*	150 *490*
K5	65 *215*	70 *230*	80 *260*	85 *280*	65 *215*	70 *230*	75 *245*	80 *260*	43 *140*	45 *150*	49 *160*	55 *180*	85 *280*	90 *295*	100 *330*	110 *360*	70 *230*	80 *260*	85 *280*	95 *310*
K6	95 *310*	100 *330*	115 *375*	120 *395*	90 *295*	95 *310*	105 *345*	115 *375*	60 *195*	65 *215*	70 *230*	75 *245*	120 *395*	130 *425*	145 *475*	155 *510*	105 *345*	110 *360*	125 *410*	135 *445*
K7	85 *280*	90 *295*	100 *330*	110 *360*	80 *260*	85 *280*	95 *310*	105 *345*	55 *180*	60 *195*	60 *195*	65 *215*	110 *360*	115 *375*	125 *410*	140 *460*	90 *295*	100 *330*	110 *360*	120 *395*
N1	900 *2950*	970 *3175*	1050 *3450*	1150 *3775*	850 *2800*	920 *3025*	1000 *3275*	1100 *3600*	580 *1900*	610 *2000*	670 *2200*	710 *2325*	— —	— —	— —	— —	— —	— —	— —	— —
N2	450 *1475*	490 *1600*	530 *1750*	580 *1900*	430 *1400*	465 *1525*	510 *1675*	550 *1800*	230 *750*	245 *800*	270 *890*	285 *940*	— —	— —	— —	— —	— —	— —	— —	— —
N3	300 *980*	325 *1075*	355 *1175*	390 *1275*	285 *940*	310 *1025*	340 *1125*	370 *1225*	155 *510*	165 *540*	180 *590*	190 *620*	— —	— —	— —	— —	— —	— —	— —	— —
N11	345 *1125*	370 *1225*	405 *1325*	445 *1450*	330 *1075*	355 *1175*	390 *1275*	425 *1400*	175 *570*	190 *620*	205 *670*	215 *710*	— —	— —	— —	— —	— —	— —	— —	— —
S1	37 *120*	40 *130*	44 *145*	48 *155*	35 *115*	38 *125*	42 *140*	45 *150*	20 *65*	22 *70*	24 *80*	25 *80*	— —	— —	— —	— —	39 *130*	42 *140*	46 *150*	50 *165*
S2	30 *100*	32 *105*	35 *115*	38 *125*	28 *90*	31 *100*	34 *110*	37 *120*	16 *50*	17 *55*	19 *60*	20 *65*	— —	— —	— —	— —	31 *100*	34 *110*	37 *120*	40 *130*
S3	26 *85*	28 *90*	31 *100*	33 *110*	25 *80*	27 *90*	29 *95*	32 *105*	14 *46*	15 *49*	16 *50*	17 *55*	— —	— —	— —	— —	27 *90*	29 *95*	32 *105*	35 *115*
S11	50 *165*	55 *180*	60 *195*	65 *215*	45 *150*	48 *155*	55 *180*	60 *195*	— —	— —	— —	— —	— —	— —	— —	— —	55 *180*	60 *195*	65 *215*	70 *230*
S12	37 *120*	39 *130*	43 *140*	47 *155*	42 *140*	44 *145*	49 *160*	55 *180*	— —	— —	— —	— —	— —	— —	— —	— —	46 *150*	49 *160*	55 *180*	60 *195*
S13	21 *70*	23 *75*	25 *80*	27 *90*	24 *80*	26 *85*	28 *90*	31 *100*	— —	— —	— —	— —	— —	— —	— —	— —	27 *90*	29 *95*	31 *100*	34 *110*
H5	31 *100*	34 *110*	37 *120*	40 *130*	30 *100*	32 *105*	35 *115*	38 *125*	32 *105*	33 *110*	36 *120*	39 *130*	36 *120*	38 *125*	43 *140*	46 *150*	34 *110*	37 *120*	40 *130*	44 *145*
H8	33 *110*	36 *120*	39 *130*	43 *140*	31 *100*	34 *110*	38 *125*	41 *135*	— —	— —	— —	— —	38 *125*	41 *135*	45 *150*	48 *155*	36 *120*	39 *130*	43 *140*	47 *155*
H11	40 *130*	43 *140*	47 *155*	50 *165*	38 *125*	41 *135*	45 *150*	48 *155*	— —	— —	— —	— —	46 *150*	49 *160*	55 *180*	60 *195*	44 *145*	47 *155*	50 *165*	55 *180*
H12	38 *125*	42 *140*	46 *150*	50 *165*	37 *120*	40 *130*	44 *145*	47 *155*	— —	— —	— —	— —	44 *145*	47 *155*	50 *165*	55 *180*	65 *215*	70 *230*	80 *260*	85 *280*
H21	33 *110*	36 *120*	39 *130*	43 *140*	31 *100*	34 *110*	38 *125*	41 *135*	— —	— —	— —	— —	38 *125*	41 *135*	45 *150*	48 *155*	36 *120*	39 *130*	43 *140*	47 *155*



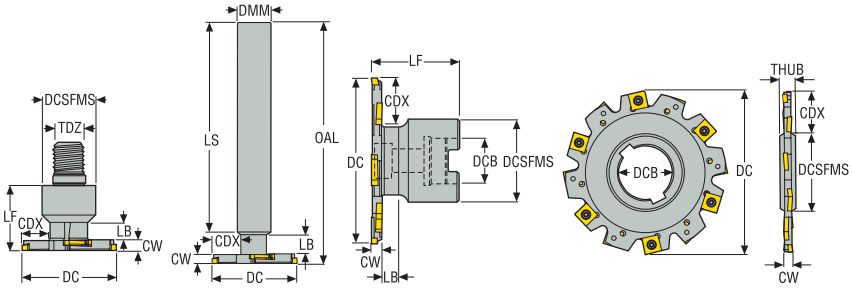
335.19

Economical, precise and free-cutting disc milling cutter system dedicated for small width of cut slotting and cutting off operations

- Width of cut 4-12 mm (.157 - .500 inch) - Flat bottom slot with SNHQ inserts.
- Cutter range diameter 40-250 mm (1.5 - 8 inch)
- Available with Cylindrical, Arbor, Arbor hole and Combimaster connection, with through coolant and close pitch option
- High insert precision with built-in wiper flat and corner radii range 0.2-6 mm (.008 - 0.236 inch)
- Economical solution with up to 4 cutting edges per inserts
- Theoretical tolerance of the slot -0.02 /+0.08mm - -0.001 / +0.003”

Width 4 mm - full side

Cutter 335.19 - Insert SNHQ – Metric

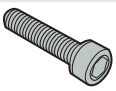


- For insert selection and cutting data recommendations, see page(s) 394-395
- For complete insert programme, see page(s) 826, 827, 833
- For spare parts and technical information, see page 390-391
- See “CW” Cutting Width information page 380
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	CW	CDX	ZEFP	ZNP	DMM	TDZ	DCB	DCSFMS	OAL	THUB	LF	LS	LB	RPMX	Weight	SNHQ..R	SNHQ..L
			mm	mm	mm			mm		mm	mm	mm	mm	mm	mm	mm		kg		
R335.19-1040.RE-04.2NA	03277857	Combimaster	40,0	4,0	11,6	2	4	–	M10	–	18,5	–	–	23,0	–	8,26	21500	0,1	1102	1102
R335.19-2550.0-04.2	02565023	Cylindrical	50,0	4,0	13,9	2	4	25,0	–	–	–	150,0	–	–	132,2	11,0	19100	0,7	1102	1102
R335.19-1250.RE-04.3NA	03277859	Combimaster	50,0	4,0	14,9	3	6	–	M12	–	23,0	–	–	28,0	–	10,26	19100	0,2	1102	1102
R335.19-1663.RE-04.4NA	03277862	Combimaster	63,0	4,0	17,7	4	8	–	M16	–	30,0	–	–	35,0	–	11,26	17100	0,3	1102	1102
R335.19-3263.0-04.4	02565024	Cylindrical	63,0	4,0	13,9	4	8	32,0	–	–	–	170,0	–	–	148,6	0,0	17100	1,2	1102	1102
R335.19-063.04.22-3	75011447	Arbor	63,0	4,0	13,9	3	6	–	–	22,0	40,0	–	–	50,0	–	11,3	17100	0,5	1102	1102
R335.19-063.04.16-4	02565016	Arbor	63,0	4,0	13,9	4	8	–	–	16,0	33,0	–	–	35,0	–	–	17100	0,3	1102	1102
335.19-063.04.22-4	02565012	Arbor hole	63,0	4,0	13,6	4	8	–	–	22,0	33,0	–	8,0	6,0	–	–	17100	0,1	1102	1102
R335.19-080.04.22-4	75066088	Arbor	80,0	4,0	22,4	4	8	–	–	22,0	40,0	–	–	50,0	–	11,3	15200	0,5	1102	1102
R335.19-1680.RE-04.5NA	03277866	Combimaster	80,0	4,0	26,2	5	10	–	M16	–	30,0	–	–	35,0	–	11,26	15200	0,4	1102	1102
R335.19-080.04.22-5	02565017	Arbor	80,0	4,0	22,4	5	10	–	–	22,0	40,0	–	–	50,0	–	11,3	15200	0,5	1102	1102
R335.19-100.04.27-6	75011449	Arbor	100,0	4,0	22,1	6	12	–	–	27,0	48,0	–	–	50,0	–	–	13500	0,8	1102	1102
335.19-100.04.27-6	75090131	Arbor hole	100,0	4,0	24,6	6	12	–	–	27,0	41,0	–	12,0	8,0	–	–	13500	0,3	1102	1102
R335.19-20100.RE-04.7NA	03277870	Combimaster	100,0	4,0	32,7	7	14	–	M20	–	36,5	–	–	35,0	–	13,432	13500	0,6	1102	1102
R335.19-125.04.32-7	02565018	Arbor	125,0	4,0	29,6	7	14	–	–	32,0	58,0	–	–	50,0	–	–	12200	1,1	1102	1102
335.19-125.04.40-7	75090190	Arbor hole	125,0	4,0	30,1	7	14	–	–	40,0	55,0	–	12,0	8,0	–	–	12200	0,4	1102	1102
R335.19-20125.RE-04.8NA	03277873	Combimaster	125,0	4,0	45,2	8	16	–	M20	–	36,5	–	–	35,0	–	13,432	12200	0,6	1102	1102
R335.19-160.04.40-9	02565020	Arbor	160,0	4,0	41,1	9	18	–	–	40,0	70,0	–	–	50,0	–	–	10700	1,2	1102	1102
335.19-160.04.40-9	75090137	Arbor hole	160,0	4,0	42,6	9	18	–	–	40,0	65,0	–	12,0	8,0	–	–	10700	0,7	1102	1102

Spare Parts, included in delivery

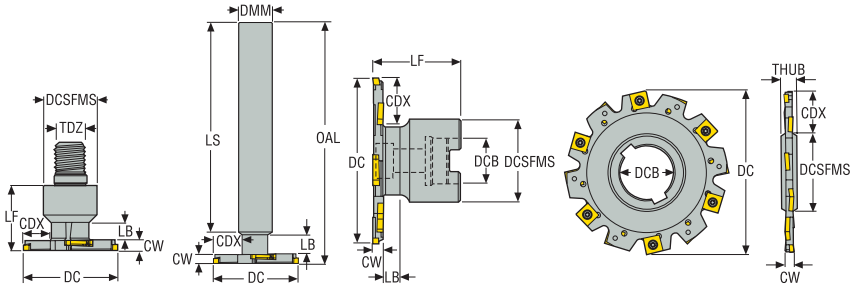
Accessories

For cutter	Arbor screw	Insert key	Insert screw	Insert clamping torque	Torque key
					
335/R335.19 RE	–	H4B-T09P	C93504-T09P	2.0NM	T00-09P20
R335.19 DCB=22	MC6S10X40	H4B-T09P	C93504-T09P	2.0NM	T00-09P20
R335.19 DCB=16	TCEI0825	H4B-T09P	C93504-T09P	2.0NM	T00-09P20
R335.19 DCB=40	–	H4B-T09P	C93504-T09P	2.0NM	T00-09P20
R335.19 DCB=27	MC6S12X35	H4B-T09P	C93504-T09P	2.0NM	T00-09P20
R335.19 DCB=32	MC6S16X35	H4B-T09P	C93504-T09P	2.0NM	T00-09P20

Torque and fixed keys, see page 872

Cutter 335.19 - Insert SNHQ

Width 5 mm - full side

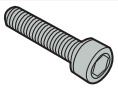


- For insert selection and cutting data recommendations, see page(s) 394-395
- For complete insert programme, see page(s) 826, 827, 833
- For spare parts and technical information, see page 390-391
- See "CW" Cutting Width information page 380
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	CW	CDX	ZEFP	ZNP	DMM	TDZ	DCB	DCSFMS	OAL	THUB	LF	LS	LB	RPMX	Weight	SNHQ..R	SNHQ..L
			mm	mm	mm			mm		mm	mm	mm	mm	mm	mm	mm		kg		
R335.19-1040.RE-05.2NA	03277858	Combimaster	40,0	5,0	11,6	2	4	–	M10	–	18,5	–	–	23,0	–	7,275	18700	0,2	1103	1103
R335.19-1250.RE-05.3NA	03277860	Combimaster	50,0	5,0	14,9	3	6	–	M12	–	23,0	–	–	28,0	–	9,275	16800	0,2	1103	1103
R335.19-2550.0-05.2	02565034	Cylindrical	50,0	5,0	13,9	2	4	25,0	–	–	–	150,0	–	–	132,2	10,0	16800	0,7	1103	1103
R335.19-1663.RE-05.4NA	03277863	Combimaster	63,0	5,0	17,6	4	8	–	M16	–	30,0	–	–	35,0	–	10,275	14900	0,3	1103	1103
R335.19-063.05.22-3	75011452	Arbor	63,0	5,0	13,9	3	6	–	–	22,0	40,0	–	–	50,0	–	10,3	14900	0,5	1103	1103
R335.19-1680.RE-05.5NA	03277867	Combimaster	80,0	5,0	26,1	5	10	–	M16	–	30,0	–	–	35,0	–	10,275	13200	0,4	1103	1103
R335.19-3280.0-05.5	02565036	Cylindrical	80,0	5,0	22,5	5	10	32,0	–	–	–	170,0	–	–	148,6	0,0	13200	1,2	1103	1103
R335.19-080.05.22-5	02565029	Arbor	80,0	5,0	22,4	5	10	–	–	22,0	40,0	–	–	50,0	–	10,3	13200	0,5	1103	1103
R335.19-080.05.22-4	75066089	Arbor	80,0	5,0	22,4	4	8	–	–	22,0	40,0	–	–	50,0	–	10,3	13200	0,5	1103	1103
335.19-080.05.22-5	02565027	Arbor hole	80,0	5,0	19,6	5	10	–	–	22,0	33,0	–	12,0	8,5	–	–	13200	0,2	1103	1103
R335.19-20100.RE-05.7NA	03277871	Combimaster	100,0	5,0	32,6	7	14	–	M20	–	36,5	–	–	35,0	–	12,447	11800	0,6	1103	1103
R335.19-100.05.27-6	75011453	Arbor	100,0	5,0	22,1	6	12	–	–	27,0	48,0	–	–	50,0	–	–	11800	0,8	1103	1103
335.19-100.05.27-6	75090132	Arbor hole	100,0	5,0	25,6	6	12	–	–	27,0	41,0	–	12,0	8,5	–	–	11800	0,3	1103	1103
R335.19-20125.RE-05.8NA	03277874	Combimaster	125,0	5,0	45,1	8	16	–	M20	–	36,5	–	–	35,0	–	12,447	10700	0,7	1103	1103
335.19-125.05.40-7	75090191	Arbor hole	125,0	5,0	31,1	7	14	–	–	40,0	55,0	–	12,0	8,5	–	–	10700	0,5	1103	1103
R335.19-125.05.32-7	02565031	Arbor	125,0	5,0	29,6	7	14	–	–	32,0	58,0	–	–	50,0	–	–	10700	1,1	1103	1103
335.19-160.05.40-9	75090138	Arbor hole	160,0	5,0	43,6	9	18	–	–	40,0	65,0	–	12,0	8,5	–	–	9300	0,8	1103	1103
R335.19-160.05.40-9	02565032	Arbor	160,0	5,0	41,1	9	18	–	–	40,0	70,0	–	–	50,0	–	–	9300	1,2	1103	1103

Spare Parts, included in delivery

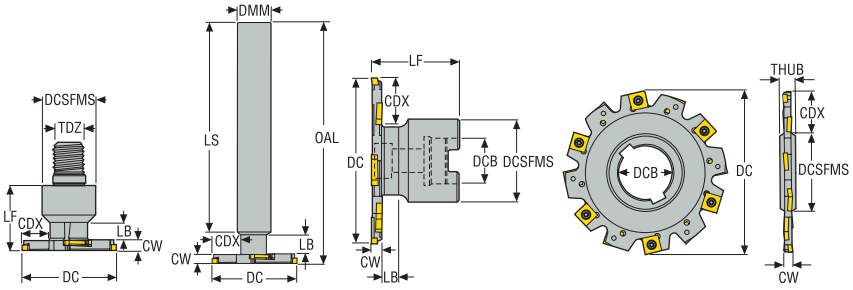
Accessories

For cutter	Arbor screw	Insert key	Insert screw	Insert clamping torque	Torque key
					
335/R335.19 RE/Cyl	–	H4B-T09P	C93505-T09P	2.0NM	T00-09P20
R335.19 DCB=22	MC6S10X40	H4B-T09P	C93505-T09P	2.0NM	T00-09P20
R335.19 DCB=27	MC6S12X35	H4B-T09P	C93505-T09P	2.0NM	T00-09P20
R335.19 DCB=40	–	H4B-T09P	C93505-T09P	2.0NM	T00-09P20
R335.19 DCB=32	MC6S16X35	H4B-T09P	C93505-T09P	2.0NM	T00-09P20

Torque and fixed keys, see page 872

Width 6 mm - full side

Cutter 335.19 - Insert SNHQ – Metric

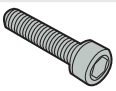


- For insert selection and cutting data recommendations, see page(s) 394-395
- For complete insert programme, see page(s) 826, 827, 833
- For spare parts and technical information, see page 390-391
- See “CW” Cutting Width information page 380
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	CW	CDX	ZEFP	ZNP	DMM	TDZ	DCB	DCSFMS	OAL	THUB	LF	LS	LB	RPMX	Weight	SNHQ..R	SNHQ..L
			mm	mm	mm			mm		mm	mm	mm	mm	mm	mm	mm		kg		
R335.19-1250.RE-06.2NA	03277861	Combimaster	50,0	6,0	14,9	2	4	–	M12	–	23,0	–	–	28,0	–	8,285	12300	0,2	1203	1203
R335.19-2550.0-06.2	02565041	Cylindrical	50,0	6,0	13,9	2	4	25,0	–	–	–	150,0	–	–	132,2	9,0	12300	0,7	1203	1203
R335.19-1663.RE-06.3NA	03277864	Combimaster	63,0	6,0	17,6	3	6	–	M16	–	30,0	–	–	35,0	–	9,285	10900	0,3	1203	1203
R335.19-3263.0-06.3	02565042	Cylindrical	63,0	6,0	14,0	3	6	32,0	–	–	–	170,0	–	–	148,6	0,0	10900	1,1	1203	1203
R335.19-063.06.16-3	02565038	Arbor	63,0	6,0	13,9	3	6	–	–	16,0	33,0	–	–	35,0	–	–	10900	0,3	1203	1203
R335.19-063.06.22-3	75011448	Arbor	63,0	6,0	13,9	3	6	–	–	22,0	40,0	–	–	50,0	–	9,3	10900	0,5	1203	1203
335.19-063.06.22-3	02565037	Arbor hole	63,0	6,0	13,6	3	6	–	–	22,0	33,0	–	12,0	9,0	–	–	10900	0,2	1203	1203
R335.19-1680.RE-06.4NA	03277868	Combimaster	80,0	6,0	26,3	4	8	–	M16	–	30,0	–	–	35,0	–	9,285	9700	0,4	1203	1203
R335.19-3280.0-06.4	02565043	Cylindrical	80,0	6,0	22,5	4	8	32,0	–	–	–	170,0	–	–	148,6	0,0	9700	1,3	1203	1203
R335.19-080.06.22-4	75066090	Arbor	80,0	6,0	22,4	4	8	–	–	22,0	40,0	–	–	50,0	–	9,3	9700	0,6	1203	1203
R335.19-20100.RE-06.6NA	03277872	Combimaster	100,0	6,0	32,8	6	12	–	M20	–	36,5	–	–	35,0	–	11,457	8700	0,5	1203	1203
R335.19-100.06.27-5	75011450	Arbor	100,0	6,0	22,0	5	10	–	–	27,0	48,0	–	–	50,0	–	–	8700	0,9	1203	1203
335.19-100.06.27-5	75011284	Arbor hole	100,0	6,0	25,6	5	10	–	–	27,0	41,0	–	12,0	9,0	–	–	8700	0,4	1203	1203
R335.19-125.06.32-6	02565039	Arbor	125,0	6,0	29,6	6	12	–	–	32,0	58,0	–	–	50,0	–	–	7700	1,3	1203	1203
335.19-125.06.40-6	75011289	Arbor hole	125,0	6,0	31,1	6	12	–	–	40,0	55,0	–	12,0	9,0	–	–	7700	0,5	1203	1203
R335.19-160.06.40-8	75012913	Arbor	160,0	6,0	41,1	8	16	–	–	40,0	70,0	–	–	50,0	–	–	6800	1,3	1203	1203
335.19-160.06.40-8	75011294	Arbor hole	160,0	6,0	43,6	8	16	–	–	40,0	65,0	–	12,0	9,0	–	–	6800	0,8	1203	1203
335.19-200.06.50-9	75090141	Arbor hole	200,0	6,0	61,6	9	18	–	–	50,0	69,0	–	12,0	9,0	–	–	6300	1,2	1203	1203
335.19-250.06.50-12	75012301	Arbor hole	250,0	6,0	86,6	12	24	–	–	50,0	69,0	–	12,0	9,0	–	–	5600	1,9	1203	1203

Spare Parts, included in delivery

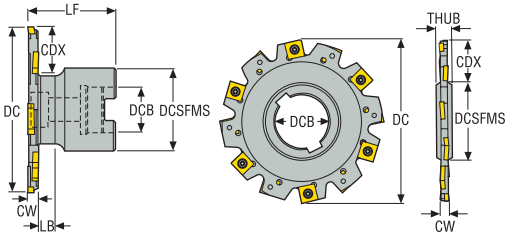
Accessories

For cutter	Arbor screw	Insert key	Insert screw	Insert clamping torque	Torque key
					
335/R335.19 RE/Cyl	–	H4B-T15P	C94005-T15P	3.5NM	T00-15P35
R335.19 DCB=16	TCEI0825	H4B-T15P	C94005-T15P	3.5NM	T00-15P35
R335.19 DCB=22	MC6S10X40	H4B-T15P	C94005-T15P	3.5NM	T00-15P35
R335.19 DCB=27	MC6S12X35	H4B-T15P	C94005-T15P	3.5NM	T00-15P35
R335.19 DCB=32	MC6S16X35	H4B-T15P	C94005-T15P	3.5NM	T00-15P35
R335.19 DCB=40	–	H4B-T15P	C94005-T15P	3.5NM	T00-15P35

Torque and fixed keys, see page 872

Cutter 335.19 - Insert SNHQ – Metric

Width 7/8/10 mm - full side



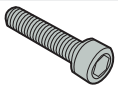
- For insert selection and cutting data recommendations, see page(s) 394-395
- For complete insert programme, see page(s) 826, 827, 833
- For spare parts and technical information, see page 390-391
- See "CW" Cutting Width information page 380
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	CW	CDX	ZEFP	ZNP	TDZ	DCB	DCSFMS	THUB	LF	LS	LB	RPMX	Weight	SNHQ..R	SNHQ..L
			mm	mm	mm				mm	mm	mm	mm	mm	mm		kg		
R335.19-1663.RE-07.3NA	03277865	Combimaster	63,0	7,0	17,6	3	6	M16	–	30,0	–	35,0	–	8,285	9400	0,3	1204/12045*	1204/12045*
R335.19-063.07.16-3	02565044	Arbor	63,0	7,0	13,8	3	6	–	16,0	33,0	–	35,0	–	–	9400	0,3	1204/12045*	1204/12045*
R335.19-063.07.22-3	75012680	Arbor	63,0	7,0	13,8	3	6	–	22,0	40,0	–	50,0	–	8,3	9400	0,5	1204/12045*	1204/12045*
R335.19-1680.RE-07.4NA	03277869	Combimaster	80,0	7,0	26,3	4	8	M16	–	30,0	–	35,0	–	8,285	8400	0,4	1204/12045*	1204/12045*
R335.19-080.07.22-4	75066091	Arbor	80,0	7,0	22,0	4	8	–	22,0	40,0	–	50,0	–	8,3	8400	0,6	1204/12045*	1204/12045*
335.19-080.07.22-4	00088988	Arbor hole	80,0	7,0	20,6	4	8	–	22,0	33,0	12,0	9,5	–	–	8400	0,2	1204/12045*	1204/12045*
R335.19-100.07.27-5	75012681	Arbor	100,0	7,0	22,0	5	10	–	27,0	48,0	–	50,0	–	–	7500	0,9	1204/12045*	1204/12045*
335.19-100.07.27-5	75012670	Arbor hole	100,0	7,0	26,6	5	10	–	27,0	41,0	12,0	9,5	–	–	7500	0,4	1204/12045*	1204/12045*
R335.19-125.07.32-6	02565045	Arbor	125,0	7,0	29,6	6	12	–	32,0	58,0	–	50,0	–	–	6700	1,3	1204/12045*	1204/12045*
335.19-125.07.40-6	75012672	Arbor hole	125,0	7,0	32,1	6	12	–	40,0	55,0	12,0	9,5	–	–	6700	0,6	1204/12045*	1204/12045*
R335.19-160.07.40-8	75012685	Arbor	160,0	7,0	41,1	8	16	–	40,0	70,0	–	50,0	–	–	5900	1,4	1204/12045*	1204/12045*
335.19-160.07.40-8	75012674	Arbor hole	160,0	7,0	44,6	8	16	–	40,0	65,0	12,0	9,5	–	–	5900	0,8	1204/12045*	1204/12045*
335.19-200.07.50-9	75012676	Arbor hole	200,0	7,0	62,6	9	18	–	50,0	69,0	12,0	9,5	–	–	5200	1,4	1204/12045*	1204/12045*
335.19-250.07.50-12	75012678	Arbor hole	250,0	7,0	87,6	12	24	–	50,0	69,0	12,0	9,5	–	–	4700	2,1	1204/12045*	1204/12045*
R335.19-100.10.27-5	75011451	Arbor	100,0	10,0	22,0	5	10	–	27,0	48,0	–	50,0	–	–	6600	1,0	1205	1205
335.19-100.10.27-5	75011288	Arbor hole	100,0	10,0	27,6	5	10	–	27,0	41,0	12,0	11,0	–	–	6600	0,5	1205	1205
R335.19-125.10.32-6	02565046	Arbor	125,0	10,0	29,6	6	12	–	32,0	58,0	–	50,0	–	–	6000	1,3	1205	1205
335.19-125.10.40-6	75011293	Arbor hole	125,0	10,0	33,1	6	12	–	40,0	55,0	12,0	11,0	–	–	6000	0,7	1205	1205
R335.19-160.10.40-8	75012914	Arbor	160,0	10,0	41,1	8	16	–	40,0	70,0	–	50,0	–	–	5200	1,7	1205	1205
335.19-160.10.40-8	75011298	Arbor hole	160,0	10,0	46,2	8	16	–	40,0	65,0	12,0	11,0	–	–	5200	1,2	1205	1205
335.19-200.10.50-9	75011373	Arbor hole	200,0	10,0	63,6	9	18	–	50,0	69,0	12,0	11,0	–	–	4700	1,9	1205	1205
335.19-250.10.50-12	75012210	Arbor hole	250,0	10,0	88,6	12	24	–	50,0	69,0	12,0	11,0	–	–	4200	3,0	1205	1205

*To generate CW=8mm use insert SNHQ12045..., LF=50,5mm and 35,5mm

Spare Parts, included in delivery

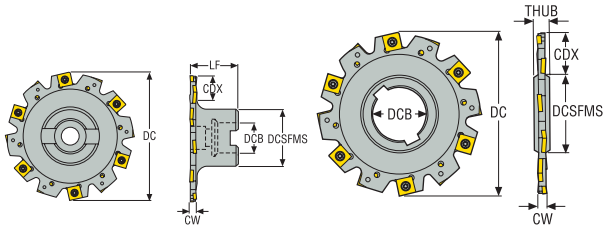
Accessories

For cutter	Arbor screw	Insert key	Insert screw	Insert clamping torque	Torque key
					
335/R335.19 RE CW7	–	H4B-T15P	C94006-T15P	3.5NM	T00-15P35
R335.19 DCB=16 CW7	TCEI0825	H4B-T15P	C94006-T15P	3.5NM	T00-15P35
R335.19 DCB=22 CW7	MC6S10X40	H4B-T15P	C94006-T15P	3.5NM	T00-15P35
R335.19 DCB=27 CW7	MC6S12X35	H4B-T15P	C94006-T15P	3.5NM	T00-15P35
R335.19 DCB=32 CW7	MC6S16X35	H4B-T15P	C94006-T15P	3.5NM	T00-15P35
R335.19 DCB=40 CW7	–	H4B-T15P	C94006-T15P	3.5NM	T00-15P35
R335.19 DCB=27 CW10	MC6S12X35	H4B-T15P	C94008-T15P	3.5NM	T00-15P35
335.19 CW10	–	H4B-T15P	C94008-T15P	3.5NM	T00-15P35
R335.19 DCB=32 CW10	MC6S16X35	H4B-T15P	C94008-T15P	3.5NM	T00-15P35
R335.19 DCB=40 CW10	–	H4B-T15P	C94008-T15P	3.5NM	T00-15P35

Torque and fixed keys, see page 872

Cutter 335.19 - Insert SNHQ – Metric

Width 12 mm - full side

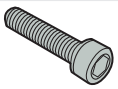


- For insert selection and cutting data recommendations, see page(s) 394-395
- For complete insert programme, see page(s) 826, 827, 833
- For spare parts and technical information, see page 390-391
- See "CW" Cutting Width information page 380
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	CW	CDX	ZEFP	ZNP	DCB	DCSFMS	THUB	LF	RPMX	Weight	SNHQ..R	SNHQ..L
			mm	mm	mm			mm	mm	mm	mm		kg		
R335.19-100.12.27-5	75012682	Arbor	100,0	12,0	22,0	5	10	27,0	48,0	–	50,0	6000	1,1	1207	1207
335.19-100.12.27-5	75012671	Arbor hole	100,0	12,0	27,9	5	10	27,0	41,0	12,0	12,0	6000	0,5	1207	1207
R335.19-125.12.32-6	02565047	Arbor	125,0	12,0	29,6	6	12	32,0	58,0	–	50,0	5300	1,6	1207	1207
R335.19-160.12.40-8	75012686	Arbor	160,0	12,0	41,1	8	16	40,0	70,0	–	50,0	4700	1,8	1207	1207
335.19-160.12.40-8	75012339	Arbor hole	160,0	12,0	45,9	8	16	40,0	65,0	12,0	12,0	4700	1,3	1207	1207
335.19-200.12.50-9	75012677	Arbor hole	200,0	12,0	64,2	9	18	50,0	69,0	12,0	12,0	4200	2,2	1207	1207
335.19-250.12.50-11	75012679	Arbor hole	250,0	12,0	89,2	11	22	50,0	69,0	12,0	12,0	3700	3,7	1207	1207

Spare Parts, included in delivery

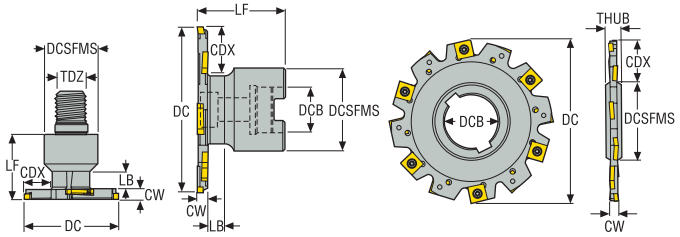
Accessories

For cutter	Arbor screw	Insert key	Insert screw	Insert clamping torque	Torque key
					
R335.19 DCB=27	MC6S12X35	H4B-T15P	C94010-T15P	3.5NM	T00-15P35
335.19	–	H4B-T15P	C94010-T15P	3.5NM	T00-15P35
R335.19 DCB=32	MC6S16X35	H4B-T15P	C94010-T15P	3.5NM	T00-15P35
R335.19 DCB=40	–	H4B-T15P	C94010-T15P	3.5NM	T00-15P35

Torque and fixed keys, see page 872

Width 0.156 / 0.187 / 0.250 inch – full side

Cutter 335.19 - Insert SNHQ – inch



- For insert selection and cutting data recommendations, see page(s) 394-395
- For complete insert programme, see page(s) 826, 827, 833
- For spare parts and technical information, see page 390-391
- See “CW” Cutting Width information page 380
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	CW	CDX	ZEFP	ZNP	DCB	DCSFMS	THUB	LF	LB	RPMX	Weight	SNHQ..R	SNHQ..L
			inch	inch	inch			inch	inch	inch	inch	inch		lbs		
R335.19-01.50-RE-0.15-2NA	03277875	Combimaster	1.500	0.156	0.445	2	4	–	0.728	–	0.906	0.326	22000	0.220	1102	1102
R335.19-02.00-RE-0.15-3NA	03277877	Combimaster	2.000	0.156	0.602	3	6	–	0.906	–	1.102	0.405	19100	0.440	1102	1102
R335.19-02.50-0.15-4	02881176	Arbor	2.500	0.156	0.559	4	8	0.750	1.575	–	2.000	0.445	17100	1.100	1102	1102
R335.19-02.50-RE-0.15-4NA	03277880	Combimaster	2.500	0.156	0.705	4	8	–	1.181	–	1.378	0.444	17100	0.660	1102	1102
R335.19-03.00-0.15-5	02881184	Arbor	3.000	0.156	0.807	5	10	0.750	1.575	–	2.000	0.445	15200	1.320	1102	1102
R335.19-03.00-RE-0.15-5NA	03277883	Combimaster	3.000	0.156	0.957	5	10	–	1.181	–	1.378	0.444	15200	0.880	1102	1102
R335.19-04.00-RE-0.15-7NA	03277886	Combimaster	4.000	0.156	1.319	7	14	–	1.437	–	1.378	0.444	13500	1.320	1102	1102
R335.19-01.50-RE-0.18-2NA	03277876	Combimaster	1.500	0.187	0.445	2	4	–	0.728	–	0.906	0.295	19100	0.220	1103	1103
R335.19-02.00-RE-0.18-3NA	03277878	Combimaster	2.000	0.187	0.602	3	6	–	0.906	–	1.102	0.374	16800	0.440	1103	1103
R335.19-02.50-0.18-4	02881177	Arbor	2.500	0.187	0.555	4	8	0.750	1.575	–	2.000	0.413	14900	1.100	1103	1103
R335.19-03.00-0.18-5	02881185	Arbor	3.000	0.187	0.807	5	10	0.750	1.575	–	2.000	0.413	13200	1.100	1103	1103
R335.19-03.00-RE-0.18-5NA	03277884	Combimaster	3.000	0.187	0.953	5	10	–	1.181	–	1.378	0.414	13200	0.880	1103	1103
335.19-04.00-0.18-6	02869718	Arbor hole	4.000	0.187	1.035	6	12	1.000	1.625	0.500	0.344	–	11800	0.660	1103	1103
R335.19-04.00-0.18-6	02869759	Arbor	4.000	0.187	0.906	6	12	1.000	1.880	–	2.000	–	11800	1.980	1103	1103
R335.19-04.00-RE-0.18-7NA	03277887	Combimaster	4.000	0.187	1.315	7	14	–	1.437	–	1.378	0.414	11800	1.320	1103	1103
335.19-05.00-0.18-7	02869719	Arbor hole	5.000	0.187	1.409	7	14	1.250	1.875	0.500	0.344	–	10700	1.100	1103	1103
335.19-06.00-0.18-9	02869720	Arbor hole	6.000	0.187	1.909	9	18	1.250	1.875	0.500	0.344	–	9300	1.320	1103	1103
R335.19-02.00-RE-0.25-2NA	03277879	Combimaster	2.000	0.250	0.602	2	4	–	0.906	–	1.102	0.312	12300	0.440	1204	1204
R335.19-02.50-0.25-3	02881178	Arbor	2.500	0.250	0.555	3	6	0.750	1.575	–	2.000	0.350	9400	1.100	1204	1204
R335.19-02.50-RE-0.25-3NA	03277882	Combimaster	2.500	0.250	0.705	3	6	–	1.181	–	1.378	0.352	9400	0.660	1204	1204
R335.19-03.00-0.25-4	02881186	Arbor	3.000	0.250	0.807	4	8	0.750	1.575	–	2.000	0.350	8400	1.320	1204	1204
R335.19-03.00-RE-0.25-4NA	03277885	Combimaster	3.000	0.250	0.961	4	8	–	1.181	–	1.378	0.352	8400	0.880	1204	1204
R335.19-04.00-RE-0.25-6NA	03277888	Combimaster	4.000	0.250	1.323	6	12	–	1.437	–	1.378	0.352	7500	1.320	1204	1204
R335.19-04.00-0.25-5	02869760	Arbor	4.000	0.250	0.906	5	10	1.000	1.880	–	2.000	–	7500	1.760	1204	1204
335.19-04.00-0.25-5	02869721	Arbor hole	4.000	0.250	1.075	5	10	1.000	1.625	0.500	0.375	–	7500	0.660	1204	1204
335.19-05.00-0.25-6	02869722	Arbor hole	5.000	0.250	1.449	6	12	1.250	1.875	0.500	0.375	–	6700	1.100	1204	1204
R335.19-05.00-0.25-6	02869761	Arbor	5.000	0.250	1.220	6	12	1.250	2.250	–	2.000	–	6700	2.650	1204	1204
335.19-06.00-0.25-7	02869723	Arbor hole	6.000	0.250	1.949	7	14	1.250	1.875	0.500	0.375	–	5900	1.760	1204	1204
R335.19-06.00-0.25-7	02869762	Arbor	6.000	0.250	1.220	7	14	1.500	2.750	–	2.000	–	5900	3.750	1204	1204
335.19-08.00-0.25-9	02869724	Arbor hole	8.000	0.250	2.512	9	18	1.500	2.750	0.500	0.375	–	5200	0.880	1204	1204

Spare Parts, included in delivery

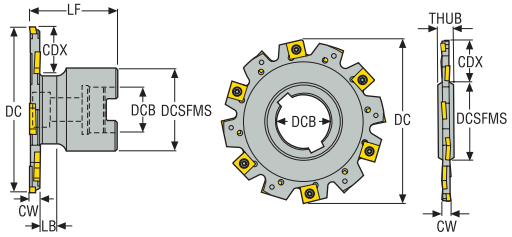
Accessories

For cutter	Arbor screw	Insert key	Insert screw	Insert clamping torque	Torque key
					
R335.19RE CW=0.156	–	H4B-T09P	C93504-T09P	17.7IN.LBS	T00-09P20
R335.19 DCB=0.75 CW=0.156	UC6S3/8UNFX1-3/4	H4B-T09P	C93504-T09P	17.7IN.LBS	T00-09P20
335.19, R335.19RE CW=0.187	–	H4B-T09P	C93505-T09P	17.7IN.LBS	T00-09P20
R335.19 DCB=0.75 CW=0.187	UC6S3/8UNFX1-3/4	H4B-T09P	C93505-T09P	17.7IN.LBS	T00-09P20
R335.19 DCB=1.00 CW=0.187	UC6S1/2UNFX1-1/2	H4B-T09P	C93505-T09P	17.7IN.LBS	T00-09P20
335.19, R335.19RE CW=0.25	–	H4B-T15P	C94055-T15P	31.0IN.LBS	T00-15P35
R335.19 DCB=0.75 CW=0.25	UC6S3/8UNFX1-3/4	H4B-T15P	C94055-T15P	31.0IN.LBS	T00-15P35
R335.19 DCB=1.00 CW=0.25	UC6S1/2UNFX1-1/2	H4B-T15P	C94055-T15P	31.0IN.LBS	T00-15P35
R335.19 DCB=1.25 CW=0.25	UC6S5/8UNFX11/2	H4B-T15P	C94055-T15P	31.0IN.LBS	T00-15P35
R335.19 DCB=1.50 CW=0.25	ULC6S3/4UNFX11/2	H4B-T15P	C94055-T15P	31.0IN.LBS	T00-15P35

Torque and fixed keys, see page 872

Width 0.313 / 0.375 / 0.5 inch – full side

Cutter 335.19 - Insert SNHQ – inch



- For insert selection and cutting data recommendations, see page(s) 394-395
- For complete insert programme, see page(s) 826, 827, 833
- For spare parts and technical information, see page 390-391
- See "CW" Cutting Width information page 380
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	CW	CDX	ZEFP	ZNP	DCB	DCSFMS	THUB	LF	LB	RPMX	Weight	SNHQ..R	SNHQ..L
			inch	inch	inch			inch	inch	inch	inch	inch		lbs		
R335.19-02.50-0.31-3	02881179	Arbor	2.500	0.313	0.555	3	6	0.750	1.575	–	2.000	0.287	9400	1.100	12045	12045
R335.19-03.00-0.31-4	02881187	Arbor	3.000	0.313	0.807	4	8	0.750	1.575	–	2.000	0.287	8400	1.320	12045	12045
R335.19-04.00-0.31-5	02869763	Arbor	4.000	0.313	0.906	5	10	1.000	1.880	–	2.000	–	7500	1.760	12045	12045
335.19-05.00-0.31-6	02869727	Arbor hole	5.000	0.313	1.449	6	12	1.250	1.875	0.500	0.406	–	6700	1.320	12045	12045
335.19-06.00-0.31-7	02869728	Arbor hole	6.000	0.313	1.949	7	14	1.250	1.875	0.500	0.406	–	5900	2.430	12045	12045
R335.19-02.50-0.37-3	02881180	Arbor	2.500	0.375	0.555	3	6	0.750	1.575	–	2.000	0.224	8400	1.100	1205	1205
R335.19-03.00-0.37-4	02881188	Arbor	3.000	0.375	0.807	4	8	0.750	1.575	–	2.000	0.224	8400	1.100	1205	1205
R335.19-04.00-0.37-5	02869766	Arbor	4.000	0.375	0.906	5	10	1.000	1.880	–	2.000	–	6600	1.980	1205	1205
335.19-04.00-0.37-5	02869731	Arbor hole	4.000	0.375	1.114	5	10	1.000	1.625	0.500	0.437	–	6600	1.100	1205	1205
335.19-05.00-0.37-6	02869732	Arbor hole	5.000	0.375	1.488	6	12	1.250	1.875	0.500	0.437	–	6000	1.320	1205	1205
335.19-06.00-0.37-7	02869733	Arbor hole	6.000	0.375	2.020	7	14	1.250	1.875	0.500	0.437	–	5200	2.200	1205	1205
R335.19-04.00-0.50-5	02869769	Arbor	4.000	0.500	0.906	5	10	1.000	1.880	–	2.000	–	6000	2.200	1207	1207
335.19-04.00-0.50-5	02869736	Arbor hole	4.000	0.500	1.126	5	10	1.000	1.625	0.500	0.500	–	6000	1.100	1207	1207
R335.19-05.00-0.50-6	02869770	Arbor	5.000	0.500	1.220	6	12	1.250	2.250	–	2.000	–	5300	3.750	1207	1207
335.19-06.00-0.50-7	02869738	Arbor hole	6.000	0.500	2.000	7	14	1.250	1.875	0.500	0.500	–	4700	2.870	1207	1207

Spare Parts, included in delivery

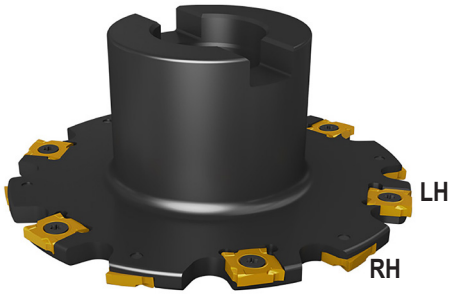
Accessories

For cutter	Arbor screw	Insert key	Insert screw	Insert clamping torque	Torque key
					
R335.19 DCB=0.75 CW=0.313	UC6S3/8UNFX1-3/4	H4B-T15P	C94006-T15P	31.0IN.LBS	T00-15P35
R335.19 DCB=1.00 CW=0.313	UC6S1/2UNFX1-1/2	H4B-T15P	C94006-T15P	31.0IN.LBS	T00-15P35
335.19- CW=0.313	–	H4B-T15P	C94006-T15P	31.0IN.LBS	T00-15P35
R335.19 DCB=0.75 CW=0.375	UC6S3/8UNFX1-3/4	H4B-T15P	C94008-T15P	31.0IN.LBS	T00-15P35
R335.19 DCB=1.00 CW=0.375	UC6S1/2UNFX1-1/2	H4B-T15P	C94008-T15P	31.0IN.LBS	T00-15P35
335.19 CW=0.375	–	H4B-T15P	C94008-T15P	31.0IN.LBS	T00-15P35
R335.19 DCB=1.00 CW=0.5	UC6S1/2UNFX1-1/2	H4B-T15P	C94010-T15P	31.0IN.LBS	T00-15P35
335.19 CW=0.5	–	H4B-T15P	C94010-T15P	31.0IN.LBS	T00-15P35
R335.19 DCB=1.25 CW=0.5	UC6S5/8UNFX11/2	H4B-T15P	C94010-T15P	31.0IN.LBS	T00-15P35

Torque and fixed keys, see page 872

Disc milling cutter 335.19 – Technical information

Cutter side



LH = Left hand insert
RH = Right hand insert

SNHQ insert choice: Width of cut and corner radius choice

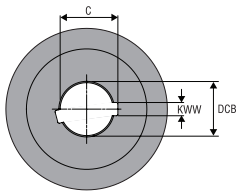


Inserts	a_p	R 0,2	R 0,4	R 0,8	R1,0	R 1,2	R 1,6	R 2,0	R 2,4	R 3,0	R 3,1	R 3,5	R 4,0	R 5,0	R 6,0
SNHQ 1102	4	■	■	■		■	■	■							
SNHQ 1103	5	■	■	■		■	■	■							
SNHQ 1203	6	■	■	■	■	■	■	■	x	o					
SNHQ 1204	7	■	■	■		■	■	■	x		x	o			
SNHQ 12045	8	■	■	■		■	■	■	x		x		o		
SNHQ 1205	10	■	■	■	■	■	■	■	x		x		x	o	
SNHQ 1207	12		■	■		■	■	■	x		x		x	x	o

Inserts	a_p	.008	.016	.031	.039	.047	.063	.079	.094	.118	.122	.138	.157	.197	.236
SNHQ 1102	.156	■	■	■		■	■	■							
SNHQ 1103	.187	■	■	■		■	■	■							
SNHQ 1204	.250	■	■	■		■	■	■	x		x				
SNHQ 12045	.313	■	■	■		■	■	■	x		x				
SNHQ 1205	.375	■	■	■	■	■	■	■	x		x		x		
SNHQ 1207	.500		■	■		■	■	■	x		x		x	x	x

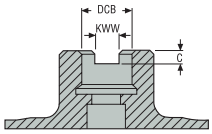
■ = SNHQ 4 edges
x= SNHQ 2 edges
o= Full radius possibillities

Keyway for Arbor hole type and Arbor type cutter



Dimensions in mm		
DCB	KWW	C
22	6	24,15
27	7	29,9
40	10	43,6
50	12	53,6

Dimensions in inch		
DCB	KWW	C
1.00	*0.250*	*1.110*
1.25	*0.312*	*1.393*
1.50	*0.375*	*1.673*
2.00	*0.500*	*2.198*



Dimensions in mm		
DCB	KWW	C
16	8,4	5,6
22	10,4	6,3
27	12,4	7
32	14,4	8
40	16,4	9

Dimensions in inch		
DCB	KWW	C
0.75	*0.32*	*0.19*
1.00	*0.38*	*0.22*
1.25	*0.51*	*0.28*
1.50	*0.63*	*0.38*

SNHQ – Insert selection – Metric / *Inch*

SMG		f_z		
		30%	20%	10%
P1	SNHQ...-M07 F40M	0,12 *0.0048*	0,14 *0.0055*	0,19 *0.0075*
P2	SNHQ...-M07 F40M	0,13 *0.0050*	0,14 *0.0055*	0,19 *0.0075*
P3	SNHQ...-M07 F40M	0,12 *0.0048*	0,14 *0.0055*	0,18 *0.0070*
P4	SNHQ...-M07 F40M	0,12 *0.0048*	0,13 *0.0050*	0,18 *0.0070*
P5	SNHQ...-M07 F40M	0,11 *0.0044*	0,13 *0.0050*	0,17 *0.0065*
P6	SNHQ...-M07 F40M	0,11 *0.0044*	0,13 *0.0050*	0,17 *0.0065*
P7	SNHQ...-M07 F40M	0,11 *0.0044*	0,13 *0.0050*	0,17 *0.0065*
P8	SNHQ...-M07 F30M	0,12 *0.0048*	0,14 *0.0055*	0,18 *0.0070*
P11	SNHQ...-M07 F40M	0,11 *0.0044*	0,13 *0.0050*	0,17 *0.0065*
P12	SNHQ...-M07 F40M	0,075 *0.0030*	0,090 *0.0036*	0,12 *0.0048*
M1	SNHQ...-M07 F40M	0,13 *0.0050*	0,14 *0.0055*	0,19 *0.0075*
M2	SNHQ...-M07 F40M	0,11 *0.0044*	0,13 *0.0050*	0,17 *0.0065*
M3	SNHQ...-M07 F40M	0,090 *0.0036*	0,10 *0.0040*	0,14 *0.0055*
M4	SNHQ...-M07 F40M	0,080 *0.0032*	0,090 *0.0036*	0,12 *0.0048*
M5	SNHQ...-M07 F40M	0,080 *0.0032*	0,090 *0.0036*	0,12 *0.0048*
K1	SNHQ...-M07 MP2501	0,13 *0.0050*	0,14 *0.0055*	0,19 *0.0075*
K2	SNHQ...-M07 MP2501	0,11 *0.0044*	0,13 *0.0050*	0,17 *0.0065*
K3	SNHQ...-M07 MP2501	0,11 *0.0044*	0,13 *0.0050*	0,17 *0.0065*
K4	SNHQ...-M07 MP2501	0,11 *0.0044*	0,13 *0.0050*	0,17 *0.0065*
K5	SNHQ...-M07 MP2501	0,10 *0.0040*	0,12 *0.0048*	0,16 *0.0065*
K6	SNHQ...-M07 MP2501	0,11 *0.0044*	0,13 *0.0050*	0,17 *0.0065*
K7	SNHQ...-M07 MP2501	0,10 *0.0040*	0,12 *0.0048*	0,16 *0.0065*
N1	SNHQ...-E05 H25	0,14 *0.0055*	0,16 *0.0065*	0,22 *0.0085*
N2	SNHQ...-E05 H25	0,14 *0.0055*	0,16 *0.0065*	0,22 *0.0085*
N3	SNHQ...-E05 H25	0,14 *0.0055*	0,16 *0.0065*	0,22 *0.0085*
N11	SNHQ...-E05 H25	0,14 *0.0055*	0,16 *0.0065*	0,22 *0.0085*
S1	SNHQ...-M07 F40M	0,080 *0.0032*	0,090 *0.0036*	0,12 *0.0048*
S2	SNHQ...-M07 F40M	0,080 *0.0032*	0,090 *0.0036*	0,12 *0.0048*
S3	SNHQ...-M07 F40M	0,075 *0.0030*	0,085 *0.0034*	0,11 *0.0044*
S11	SNHQ...-M07 F40M	0,090 *0.0036*	0,10 *0.0040*	0,14 *0.0055*
S12	SNHQ...-M07 F40M	0,090 *0.0036*	0,10 *0.0040*	0,14 *0.0055*
S13	SNHQ...-M07 F40M	0,080 *0.0032*	0,090 *0.0036*	0,12 *0.0048*
H5	SNHQ...-M07 F30M	0,075 *0.0030*	0,090 *0.0036*	0,12 *0.0048*
H8	SNHQ...-M07 F30M	0,060 *0.0024*	0,070 *0.0028*	0,090 *0.0036*
H11	SNHQ...-M07 F40M	0,075 *0.0030*	0,090 *0.0036*	0,12 *0.0048*
H12	SNHQ...-M07 F40M	0,060 *0.0024*	0,070 *0.0028*	0,090 *0.0036*
H21	SNHQ...-M07 F30M	0,060 *0.0024*	0,070 *0.0028*	0,090 *0.0036*

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

SNHQ – Cutting data v_c = (m/min)/*(sf/min)*

SMG	F30M			F40M			H25			MP2501		
	30%	20%	10%	30%	20%	10%	30%	20%	10%	30%	20%	10%
P1	195 *640*	205 *670*	230 *750*	185 *610*	195 *640*	215 *710*	— —	— —	— —	320 *1050*	335 *1100*	360 *1175*
P2	185 *610*	200 *660*	220 *720*	175 *570*	190 *620*	210 *690*	— —	— —	— —	305 *1000*	325 *1075*	350 *1150*
P3	165 *540*	175 *570*	195 *640*	155 *510*	165 *540*	185 *610*	— —	— —	— —	270 *890*	280 *920*	300 *980*
P4	145 *475*	155 *510*	170 *560*	135 *445*	150 *490*	165 *540*	— —	— —	— —	235 *770*	250 *820*	265 *870*
P5	140 *460*	150 *490*	165 *540*	135 *445*	140 *460*	155 *510*	— —	— —	— —	230 *750*	240 *790*	255 *840*
P6	155 *510*	165 *540*	185 *610*	150 *490*	160 *520*	175 *570*	— —	— —	— —	255 *840*	270 *890*	290 *950*
P7	150 *490*	160 *520*	175 *570*	140 *460*	150 *490*	165 *540*	— —	— —	— —	240 *790*	255 *840*	270 *890*
P8	135 *445*	145 *475*	165 *540*	130 *425*	140 *460*	155 *510*	— —	— —	— —	225 *740*	235 *770*	255 *840*
P11	145 *475*	155 *510*	170 *560*	135 *445*	145 *475*	160 *520*	— —	— —	— —	235 *770*	245 *800*	265 *870*
P12	95 *310*	100 *330*	110 *360*	90 *295*	95 *310*	105 *345*	— —	— —	— —	145 *475*	150 *490*	160 *520*
M1	150 *490*	165 *540*	180 *590*	140 *460*	155 *510*	170 *560*	— —	— —	— —	170 *560*	185 *610*	200 *660*
M2	125 *410*	135 *445*	150 *490*	120 *395*	125 *410*	140 *460*	— —	— —	— —	140 *460*	150 *490*	165 *540*
M3	100 *330*	110 *360*	120 *395*	95 *310*	105 *345*	115 *375*	— —	— —	— —	115 *375*	120 *395*	135 *445*
M4	80 *260*	85 *280*	90 *295*	75 *245*	80 *260*	90 *295*	— —	— —	— —	85 *280*	95 *310*	105 *345*
M5	65 *215*	70 *230*	75 *245*	60 *195*	65 *215*	75 *245*	— —	— —	— —	75 *245*	80 *260*	85 *280*
K1	145 *475*	160 *520*	175 *570*	140 *460*	150 *490*	170 *560*	— —	— —	— —	310 *1025*	330 *1075*	350 *1150*
K2	135 *445*	140 *460*	155 *510*	125 *410*	135 *445*	150 *490*	— —	— —	— —	275 *900*	290 *950*	310 *1025*
K3	115 *375*	120 *395*	135 *445*	105 *345*	115 *375*	125 *410*	— —	— —	— —	235 *770*	245 *800*	260 *850*
K4	105 *345*	115 *375*	125 *410*	100 *330*	110 *360*	120 *395*	— —	— —	— —	225 *740*	235 *770*	250 *820*
K5	65 *215*	70 *230*	75 *245*	60 *195*	65 *215*	75 *245*	— —	— —	— —	135 *445*	140 *460*	150 *490*
K6	95 *310*	100 *330*	110 *360*	90 *295*	95 *310*	105 *345*	— —	— —	— —	195 *640*	205 *670*	220 *720*
K7	85 *280*	90 *295*	100 *330*	80 *260*	85 *280*	95 *310*	— —	— —	— —	175 *570*	180 *590*	190 *620*
N1	1100 *3600*	1175 *3850*	1300 *4275*	1050 *3450*	1125 *3700*	1250 *4100*	1025 *3375*	1100 *3600*	1200 *3925*	— —	— —	— —
N2	445 *1450*	480 *1575*	530 *1750*	425 *1400*	455 *1500*	500 *1650*	415 *1350*	440 *1450*	485 *1600*	— —	— —	— —
N3	295 *970*	320 *1050*	355 *1175*	280 *920*	305 *1000*	335 *1100*	275 *900*	295 *970*	325 *1075*	— —	— —	— —
N11	340 *1125*	365 *1200*	405 *1325*	320 *1050*	345 *1125*	385 *1275*	315 *1025*	335 *1100*	370 *1225*	— —	— —	— —
S1	36 *120*	39 *130*	43 *140*	35 *115*	37 *120*	41 *135*	— —	— —	— —	— —	— —	— —
S2	29 *95*	31 *100*	35 *115*	28 *90*	30 *100*	33 *110*	— —	— —	— —	— —	— —	— —
S3	26 *85*	27 *90*	30 *100*	24 *80*	26 *85*	29 *95*	— —	— —	— —	— —	— —	— —
S11	50 *165*	55 *180*	60 *195*	49 *160*	50 *165*	55 *180*	— —	— —	— —	— —	— —	— —
S12	36 *120*	38 *125*	42 *140*	41 *135*	44 *145*	48 *155*	— —	— —	— —	— —	— —	— —
S13	21 *70*	22 *70*	24 *80*	24 *80*	25 *80*	28 *90*	— —	— —	— —	— —	— —	— —
H5	31 *100*	33 *110*	36 *120*	29 *95*	31 *100*	34 *110*	— —	— —	— —	— —	— —	— —
H8	32 *105*	34 *110*	38 *125*	31 *100*	33 *110*	36 *120*	— —	— —	— —	— —	— —	— —
H11	39 *130*	42 *140*	46 *150*	37 *120*	40 *130*	44 *145*	— —	— —	— —	— —	— —	— —
H12	38 *125*	40 *130*	45 *150*	36 *120*	38 *125*	42 *140*	— —	— —	— —	— —	— —	— —
H21	32 *105*	34 *110*	38 *125*	31 *100*	33 *110*	36 *120*	— —	— —	— —	— —	— —	— —

335.19 – Insert selection – mm/*Inch*

SMG		f_z		
		30%	20%	10%
P1	335.19-...-M08 F40M	0,12 *0.0048*	0,14 *0.0055*	0,19 *0.0075*
P2	335.19-...-M08 F40M	0,12 *0.0048*	0,14 *0.0055*	0,19 *0.0075*
P3	335.19-...-M08 F40M	0,12 *0.0048*	0,14 *0.0055*	0,18 *0.0070*
P4	335.19-...-M08 F40M	0,12 *0.0048*	0,13 *0.0050*	0,18 *0.0070*
P5	335.19-...-M08 F40M	0,11 *0.0044*	0,13 *0.0050*	0,17 *0.0065*
P6	335.19-...-M08 F40M	0,11 *0.0044*	0,13 *0.0050*	0,17 *0.0065*
P7	335.19-...-M08 F40M	0,11 *0.0044*	0,13 *0.0050*	0,17 *0.0065*
P8	335.19-...-MD09 F40M	0,13 *0.0050*	0,15 *0.0060*	0,20 *0.0080*
P11	335.19-...-M08 F40M	0,11 *0.0044*	0,13 *0.0050*	0,17 *0.0065*
P12	335.19-...-M08 F40M	0,075 *0.0030*	0,090 *0.0036*	0,12 *0.0048*
M1	335.19-...-M08 F40M	0,12 *0.0048*	0,14 *0.0055*	0,19 *0.0075*
M2	335.19-...-M08 F40M	0,11 *0.0044*	0,13 *0.0050*	0,17 *0.0065*
M3	335.19-...-M08 F40M	0,090 *0.0036*	0,10 *0.0040*	0,14 *0.0055*
M4	335.19-...-M08 F40M	0,080 *0.0032*	0,090 *0.0036*	0,12 *0.0048*
M5	335.19-...-M08 F40M	0,080 *0.0032*	0,090 *0.0036*	0,12 *0.0048*
K1	335.19-...-MD09 F40M	0,14 *0.0055*	0,16 *0.0065*	0,22 *0.0085*
K2	335.19-...-MD09 F40M	0,13 *0.0050*	0,15 *0.0060*	0,20 *0.0080*
K3	335.19-...-MD09 F40M	0,13 *0.0050*	0,15 *0.0060*	0,20 *0.0080*
K4	335.19-...-MD09 F40M	0,13 *0.0050*	0,15 *0.0060*	0,20 *0.0080*
K5	335.19-...-MD09 F40M	0,11 *0.0044*	0,13 *0.0050*	0,18 *0.0070*
K6	335.19-...-MD09 F40M	0,13 *0.0050*	0,15 *0.0060*	0,20 *0.0080*
K7	335.19-...-MD09 F40M	0,11 *0.0044*	0,13 *0.0050*	0,18 *0.0070*
S1	335.19-...-M08 F40M	0,080 *0.0032*	0,090 *0.0036*	0,12 *0.0048*
S2	335.19-...-M08 F40M	0,080 *0.0032*	0,090 *0.0036*	0,12 *0.0048*
S3	335.19-...-M08 F40M	0,075 *0.0030*	0,085 *0.0034*	0,11 *0.0044*
S11	335.19-...-M08 F40M	0,090 *0.0036*	0,10 *0.0040*	0,14 *0.0055*
S12	335.19-...-M08 F40M	0,090 *0.0036*	0,10 *0.0040*	0,14 *0.0055*
S13	335.19-...-M08 F40M	0,080 *0.0032*	0,090 *0.0036*	0,12 *0.0048*
H5	335.19-...-MD09 F40M	0,085 *0.0034*	0,10 *0.0040*	0,13 *0.0050*
H8	335.19-...-MD09 F40M	0,065 *0.0026*	0,075 *0.0030*	0,10 *0.0040*
H11	335.19-...-MD09 F40M	0,085 *0.0034*	0,10 *0.0040*	0,13 *0.0050*
H12	335.19-...-MD09 F40M	0,065 *0.0026*	0,075 *0.0030*	0,10 *0.0040*
H21	335.19-...-MD09 F40M	0,065 *0.0026*	0,075 *0.0030*	0,10 *0.0040*

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

335.19 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	F40M			MP2501		
	30%	20%	10%	30%	20%	10%
P1	175 *570*	185 *610*	205 *670*	295 *970*	310 *1025*	330 *1075*
P2	170 *560*	180 *590*	200 *660*	285 *940*	300 *980*	320 *1050*
P3	145 *475*	155 *510*	175 *570*	250 *820*	260 *850*	280 *920*
P4	130 *425*	140 *460*	155 *510*	220 *720*	230 *750*	250 *820*
P5	125 *410*	135 *445*	150 *490*	210 *690*	220 *720*	235 *770*
P6	140 *460*	150 *490*	165 *540*	235 *770*	250 *820*	270 *890*
P7	135 *445*	140 *460*	160 *520*	225 *740*	235 *770*	255 *840*
P8	125 *410*	130 *425*	145 *475*	210 *690*	220 *720*	235 *770*
P11	130 *425*	140 *460*	155 *510*	215 *710*	230 *750*	245 *800*
P12	85 *280*	90 *295*	100 *330*	140 *460*	145 *475*	155 *510*
M1	135 *445*	145 *475*	160 *520*	155 *510*	165 *540*	185 *610*
M2	115 *375*	120 *395*	135 *445*	130 *425*	135 *445*	150 *490*
M3	90 *295*	100 *330*	105 *345*	105 *345*	110 *360*	120 *395*
M4	70 *230*	75 *245*	85 *280*	80 *260*	85 *280*	95 *310*
M5	60 *195*	65 *215*	70 *230*	65 *215*	70 *230*	80 *260*
K1	135 *445*	145 *475*	160 *520*	290 *950*	305 *1000*	325 *1075*
K2	120 *395*	125 *410*	140 *460*	255 *840*	265 *870*	285 *940*
K3	100 *330*	110 *360*	120 *395*	215 *710*	225 *740*	245 *800*
K4	95 *310*	105 *345*	115 *375*	205 *670*	215 *710*	230 *750*
K5	60 *195*	60 *195*	70 *230*	125 *410*	130 *425*	140 *460*
K6	85 *280*	90 *295*	100 *330*	180 *590*	190 *620*	205 *670*
K7	75 *245*	80 *260*	90 *295*	160 *520*	170 *560*	180 *590*
N1	990 *3250*	1075 *3525*	1175 *3850*	— —	— —	— —
N2	400 *1300*	430 *1400*	475 *1550*	— —	— —	— —
N3	265 *870*	285 *940*	315 *1025*	— —	— —	— —
N11	305 *1000*	325 *1075*	365 *1200*	— —	— —	— —
S1	33 *110*	35 *115*	39 *130*	— —	— —	— —
S2	26 *85*	28 *90*	31 *100*	— —	— —	— —
S3	23 *75*	25 *80*	27 *90*	— —	— —	— —
S11	46 *150*	50 *165*	55 *180*	— —	— —	— —
S12	39 *130*	42 *140*	46 *150*	— —	— —	— —
S13	22 *70*	24 *80*	27 *90*	— —	— —	— —
H5	28 *90*	30 *100*	33 *110*	— —	— —	— —
H8	29 *95*	31 *100*	35 *115*	— —	— —	— —
H11	36 *120*	38 *125*	42 *140*	— —	— —	— —
H12	34 *110*	36 *120*	40 *130*	— —	— —	— —
H21	29 *95*	31 *100*	35 *115*	— —	— —	— —



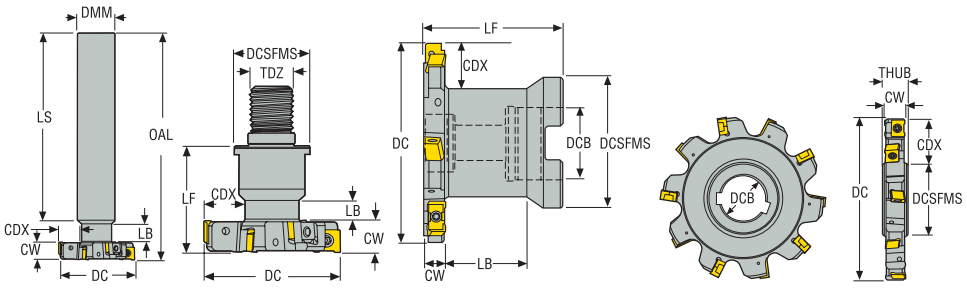
335.18

Highly economical, versatile and free-cutting disc milling cutter system dedicated for medium width of cut slotting, or half side and face cutting operations

- Width of cut 8-20 mm (.312 - .7500 inch) - slot with flat bottom
- Cutter range diameter 32-315 mm (1.25 - 12 inch)
- Fixed or adjustable cutting width with replaceable cassettes
- Available with Cylindrical, Arbor, Arbor hole and Combimaster connection, with through coolant and close pitch option
- Corner radii range 0.4-4 mm (.016 - 0.16 inch), and possibility to apply round insert dia 8/10/12mm in adjustable system
- Economical solution with up to 4 cutting edges per insert
- Basic tolerance of the slot:
  Fixed pocket cutters: +/-0.08mm (+/-0.003”)
  Adjustable cutters: +/-0.07mm (+/-0.0025”)

Width 8/10 mm - full side - Fixed pocket

Cutter 335.18 - Insert LNK. – Metric

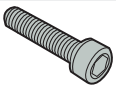


- For insert selection and cutting data recommendations, see page(s) 454-455
- For complete insert programme, see page(s) 811-812
- For spare parts and technical information, see page 447-453
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	CW	CDX	ZEFP	ZNP	DMM	TDZ	DCB	DCSFMS	OAL	THUB	LF	LS	LB	RPMX	Weight	Insert
			mm	mm	mm			mm		mm	mm	mm	mm	mm	mm	mm		kg	
R335.18-1632.0-08.1N	02541821	Cylindrical	32,0	8,0	9,0	1	2	16,0	–	–	–	140,0	–	–	108,0	23,0	17300	0,3	LNK.05..
R335.18-1032.RE-08.2NA	03277891	Combimaster	32,0	8,0	8,4	2	4	–	M10	–	18,5	–	–	28,0	–	8,89	17300	0,1	LNK.05..
R335.18-2040.0-08.2N	02541822	Cylindrical	40,0	8,0	12,0	2	4	20,0	–	–	–	140,0	–	–	108,0	22,0	15400	0,4	LNK.05..
R335.18-1240.RE-08.2NA	03277893	Combimaster	40,0	8,0	11,2	2	4	–	M12	–	23,0	–	–	30,0	–	8,39	15400	0,2	LNK.05..
R335.18-1650.RE-08.3NA	03277895	Combimaster	50,0	8,0	14,2	3	6	–	M16	–	30,0	–	–	35,0	–	10,59	13800	0,3	LNK.05..
R335.18-2550.0-08.3N	02541829	Cylindrical	50,0	8,0	15,0	3	6	25,0	–	–	–	150,0	–	–	110,0	29,5	13800	0,7	LNK.05..
R335.18-2063.RE-08.4NA	03277897	Combimaster	63,0	8,0	15,0	4	8	–	M20	–	36,5	–	–	40,0	–	14,89	12300	0,4	LNK.05..
R335.18-3263.0-08.3N	02541831	Cylindrical	63,0	8,0	15,5	3	6	32,0	–	–	–	170,0	–	–	155,0	0,0	12300	1,2	LNK.05..
R335.18-063.08.22-3N	02541815	Arbor	63,0	8,0	15,0	3	6	–	–	22,0	40,0	–	–	50,0	–	28,9	12300	0,4	LNK.05..
R335.18-080.08.22-4N	02541817	Arbor	80,0	8,0	23,5	4	8	–	–	22,0	40,0	–	–	50,0	–	28,9	10900	0,5	LNK.05..
R335.18-100.08.27-5N	02541818	Arbor	100,0	8,0	25,0	5	10	–	–	27,0	48,0	–	–	50,0	–	0,0	9700	0,9	LNK.05..
335.18-100.08.27-5N	02541812	Arbor hole	100,0	8,0	27,9	5	10	–	–	27,0	41,0	–	15,0	11,5	–	–	9700	0,4	LNK.05..
R335.18-125.08.32-6N	02541819	Arbor	125,0	8,0	34,0	6	12	–	–	32,0	58,0	–	–	50,0	–	0,0	8400	1,1	LNK.05..
R335.18-1032.RE-10.2NA	03277892	Combimaster	32,0	10,0	8,5	2	4	–	M10	–	18,5	–	–	28,0	–	6,89	17300	0,1	LNK.05..
R335.18-1632.0-10.1N-LN05	02541833	Cylindrical	32,0	10,0	9,0	1	2	16,0	–	–	–	140,0	–	–	108,0	21,0	17300	0,3	LNK.05..
R335.18-1240.RE-10.2NA	03277894	Combimaster	40,0	10,0	11,5	2	4	–	M12	–	23,0	–	–	30,0	–	6,39	15400	0,2	LNK.05..
R335.18-2040.0-10.2N-LN05	02541834	Cylindrical	40,0	10,0	12,0	2	4	20,0	–	–	–	140,0	–	–	108,0	20,0	15400	0,4	LNK.05..
R335.18-2040.0-10.2N	02449072	Cylindrical	40,0	10,0	12,0	2	4	20,0	–	–	–	140,0	–	–	108,0	20,0	14900	0,4	LNK.06..
R335.18-1650.RE-10.3NA	03279026	Combimaster	50,0	10,0	14,4	3	6	–	M16	–	30,0	–	–	35,0	–	8,59	13400	0,3	LNK.06..
R335.18-2550.0-10.3N	02449095	Cylindrical	50,0	10,0	15,0	3	6	25,0	–	–	–	150,0	–	–	110,0	27,5	13400	0,7	LNK.06..
R335.18-2063.RE-10.4NA	03277898	Combimaster	63,0	10,0	15,1	4	8	–	M20	–	36,5	–	–	40,0	–	12,89	11900	0,5	LNK.06..
R335.18-3263.0-10.3N	02449097	Cylindrical	63,0	10,0	15,5	3	6	32,0	–	–	–	170,0	–	–	155,0	0,0	11900	1,2	LNK.06..
R335.18-063.10.22-3N	00039922	Arbor	63,0	10,0	15,0	3	6	–	–	22,0	40,0	–	–	50,0	–	27,0	11900	0,5	LNK.06..
R335.18-3280.0-10.4N	02449098	Cylindrical	80,0	10,0	24,0	4	8	32,0	–	–	–	170,0	–	–	155,0	0,0	10500	1,4	LNK.06..
R335.18-080.10.22-4N	00039923	Arbor	80,0	10,0	23,5	4	8	–	–	22,0	40,0	–	–	50,0	–	27,0	10500	0,6	LNK.06..
335.18-080.10.27-4N	02449039	Arbor hole	80,0	10,0	19,0	4	8	–	–	27,0	41,0	–	15,0	12,5	–	–	10500	0,3	LNK.06..
R335.18-100.10.27-5N	00039924	Arbor	100,0	10,0	26,0	5	10	–	–	27,0	48,0	–	–	50,0	–	–	9400	1,0	LNK.06..
335.18-100.10.27-5N	02449040	Arbor hole	100,0	10,0	28,0	5	10	–	–	27,0	41,0	–	15,0	12,5	–	–	9400	0,5	LNK.06..
R335.18-125.10.32-6N	02448768	Arbor	125,0	10,0	34,0	6	12	–	–	32,0	58,0	–	–	50,0	–	0,0	8400	1,1	LNK.06..

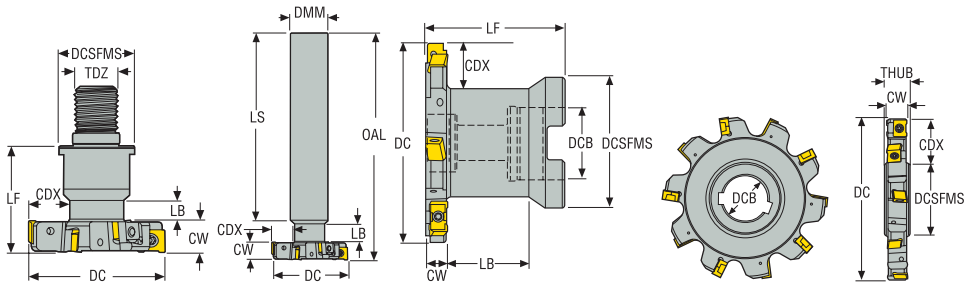
Spare Parts, included in delivery

Accessories

For cutter	Arbor screw	Insert key	Insert screw	Insert clamping torque	Torque key
					
335.18 / R335.18 .RE / R335.18 .0 CW=8	–	H4B-T08P	C02508-T08P	1.2NM	T00-08P12
R335.18 DCB=22 CW=08	MC6S10X40	H4B-T08P	C02508-T08P	1.2NM	T00-08P12
R335.18 DCB=27 CW=08	MC6S12X40	H4B-T08P	C02508-T08P	1.2NM	T00-08P12
R335.18 DCB=32 CW=08	–	H4B-T08P	C02508-T08P	1.2NM	T00-08P12
R335.18 .RE / R335.18 .0 CW=10 LN..05	–	H4B-T08P	C02508-T08P	1.2NM	T00-08P12
335.18 / R335.18 .RE / R335.18 .0 CW=10 LN..06	–	H4B-T09P	C73007-T09P	2.0NM	T00-09P20
R335.18 DCB=22 CW=10	MC6S10X40	H4B-T09P	C73007-T09P	2.0NM	T00-09P20
R335.18 DCB=27 CW=10	MC6S12X40	H4B-T09P	C73007-T09P	2.0NM	T00-09P20
R335.18 DCB=32 CW=10	–	H4B-T09P	C73007-T09P	2.0NM	T00-09P20

Width 12/14 mm - full side - Fixed pocket

Cutter 335.18 - Insert LNK. – Metric

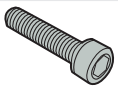


- For insert selection and cutting data recommendations, see page(s) 454-455
- For complete insert programme, see page(s) 811-812
- For spare parts and technical information, see page 447-453
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	CW	CDX	ZEFP	ZNP	DMM	TDZ	DCB	DCSFMS	OAL	THUB	LF	LS	LB	RPMX	Weight	Insert
			mm	mm	mm			mm		mm	mm	mm	mm	mm	mm	mm		kg	
R335.18-2550.0-12.3N	02449125	Cylindrical	50,0	12,0	15,0	3	6	25,0	–	–	–	150,0	–	–	110,0	25,5	13400	0,7	LNK.06..
R335.18-1650.RE-12.3NA	03277896	Combimaster	50,0	12,0	14,5	3	6	–	M16	–	30,0	–	–	35,0	–	6,59	13400	0,3	LNK.06..
R335.18-3263.0-12.3N	02449176	Cylindrical	63,0	12,0	15,5	3	6	32,0	–	–	–	170,0	–	–	155,0	0,0	11900	1,3	LNK.06..
R335.18-063.12.22-3N	00039925	Arbor	63,0	12,0	15,0	3	6	–	–	22,0	40,0	–	–	50,0	–	25,0	11900	0,4	LNK.06..
R335.18-3280.0-12.4N	02449178	Cylindrical	80,0	12,0	24,0	4	8	32,0	–	–	–	170,0	–	–	155,0	0,0	10500	1,4	LNK.06..
R335.18-080.12.22-4N	00039926	Arbor	80,0	12,0	23,5	4	8	–	–	22,0	40,0	–	–	50,0	–	25,0	10500	0,7	LNK.06..
335.18-080.12.27-4N	02449043	Arbor hole	80,0	12,0	19,0	4	8	–	–	27,0	41,0	–	15,0	13,5	–	–	10500	0,3	LNK.06..
R335.18-100.12.27-5N	00039927	Arbor	100,0	12,0	26,0	5	10	–	–	27,0	48,0	–	–	50,0	–	0,0	9400	1,0	LNK.06..
335.18-100.12.27-5N	02449044	Arbor hole	100,0	12,0	28,0	5	10	–	–	27,0	41,0	–	15,0	13,5	–	–	9400	0,5	LNK.06..
R335.18-125.12.32-6N	02448769	Arbor	125,0	12,0	34,0	6	12	–	–	32,0	58,0	–	–	50,0	–	0,0	8400	1,2	LNK.06..
335.18-125.12.40-6N	02449045	Arbor hole	125,0	12,0	33,0	6	12	–	–	40,0	55,0	–	15,0	13,5	–	–	8400	0,8	LNK.06..
R335.18-063.14.22-3N	00039928	Arbor	63,0	14,0	15,0	3	6	–	–	22,0	40,0	–	–	50,0	–	23,0	11900	0,5	LNK.08..
R335.18-080.14.22-4N	00039929	Arbor	80,0	14,0	23,5	4	8	–	–	22,0	40,0	–	–	50,0	–	23,0	10500	0,6	LNK.08..
R335.18-100.14.27-5N	00039930	Arbor	100,0	14,0	26,0	5	10	–	–	27,0	48,0	–	–	50,0	–	0,0	9400	1,1	LNK.08..
R335.18-125.14.32-6N	02448771	Arbor	125,0	14,0	34,0	6	12	–	–	32,0	58,0	–	–	50,0	–	0,0	8400	1,4	LNK.08..
335.18-160.14.40-7N	02449047	Arbor hole	160,0	14,0	51,0	7	14	–	–	40,0	55,0	–	15,0	14,5	–	–	7500	1,6	LNK.08..

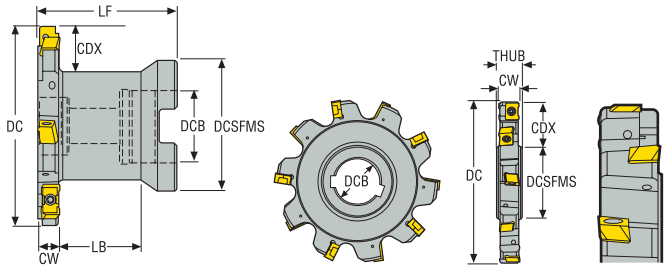
Spare Parts, included in delivery

Accessories

For cutter	Arbor screw	Insert key	Insert screw	Insert clamping torque	Torque key
					
335.18 / R335.18 .RE/R335.18 .0	–	H4B-T09P	C73007-T09P	2.0NM	T00-09P20
R335.18 DCB=22	MC6S10X40	H4B-T09P	C73007-T09P	2.0NM	T00-09P20
R335.18 DCB=27	MC6S12X40	H4B-T09P	C73007-T09P	2.0NM	T00-09P20
R335.18 DCB=32	–	H4B-T09P	C73007-T09P	2.0NM	T00-09P20

Cutter 335.18 - Insert LNK. – Metric

Width 17/20 mm - full side - Fixed pocket

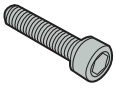


- For insert selection and cutting data recommendations, see page(s) 454-455
- For complete insert programme, see page(s) 811-812
- For spare parts and technical information, see page 447-453
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	CW	CDX	ZEFP	ZNP	DCB	DCSFMS	THUB	LF	LB	RPMX	Weight	Insert
			mm	mm	mm			mm	mm	mm	mm	mm		kg	
R335.18-080.17.22-3N	02469590	Arbor	80,0	17,0	24,0	3	9	22,0	40,0	–	50,0	20,0	10500	0,6	LNK.06..
R335.18-125.17.32-4N	02469592	Arbor	125,0	17,0	33,5	4	12	32,0	58,0	–	50,0	0,0	8400	1,5	LNK.06..
R335.18-160.17.40-5N	02469593	Arbor	160,0	17,0	45,0	5	15	40,0	70,0	–	50,0	0,0	7500	2,4	LNK.06..
R335.18-080.20.22-4N	02469597	Arbor	80,0	20,0	24,0	4	12	22,0	40,0	–	50,0	16,9	10500	0,7	LNK.08..
R335.18-100.20.27-5N	02469598	Arbor	100,0	20,0	26,0	5	15	27,0	48,0	–	50,0	0,0	9400	1,2	LNK.08..
R335.18-125.20.32-6N	02469599	Arbor	125,0	20,0	33,5	6	18	32,0	58,0	–	50,0	0,0	8400	1,6	LNK.08..
R335.18-160.20.40-7N	02469600	Arbor	160,0	20,0	45,0	7	21	40,0	70,0	–	50,0	0,0	7500	2,5	LNK.08..

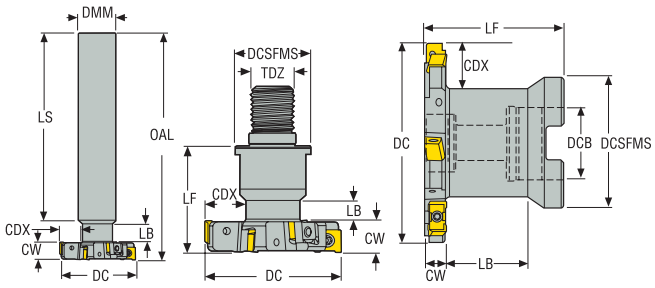
Spare Parts, included in delivery

Accessories

For cutter	Arbor screw	Insert key	Insert screw	Insert clamping torque	Torque key
					
R335.18 DCB=22	MC6S10X40	H4B-T09P	C73007-T09P	2.0NM	T00-09P20
335.18 DCB=40 / R335.18 DCB=32/40	–	H4B-T09P	C73007-T09P	2.0NM	T00-09P20
R335.18 DCB=27	MC6S12X40	H4B-T09P	C73007-T09P	2.0NM	T00-09P20

Width 0.312-0.375” - full side - Fixed pocket

Cutter 335.18 - Insert LNK. – inch



- For insert selection and cutting data recommendations, see page(s) 454-455
- For complete insert programme, see page(s) 811-812
- For spare parts and technical information, see page 447-453
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	CW	CDX	ZEFP	ZNP	DMM	TDZ	DCB	DCSFMS	OAL	THUB	LF	LS	LB	RPMX	Weight	Insert
			inch	inch	inch			inch		inch	inch	inch	inch	inch	inch	inch		lbs	
R335.18-1.25-0-0.31F-1N	02541852	Cylindrical	1.250	0.312	0.350	1	2	0.625	–	–	–	5.500	–	–	4.398	0.748	17300	0.660	LNK.05
R335.18-01.50-RE-0.31F-2NA	03277902	Combimaster	1.500	0.312	0.406	2	4	–	M12	–	0.906	–	–	1.181	–	0.333	15400	0.440	LNK.05..
R335.18-1.50-0-0.31F-2N	02541853	Cylindrical	1.500	0.312	0.409	2	4	0.750	–	–	–	5.500	–	–	4.398	0.748	15400	0.880	LNK.05
R335.18-02.00-RE-0.31F-3NA	03277904	Combimaster	2.000	0.312	0.575	3	6	–	M16	–	1.181	–	–	1.378	–	0.420	13800	0.660	LNK.05..
R335.18-2.00-0-0.31F-3N	02541854	Cylindrical	2.000	0.312	0.591	3	6	1.000	–	–	–	6.000	–	–	4.398	1.197	13800	1.540	LNK.05
R335.18-02.50-0.31F-3N	02541842	Arbor	2.500	0.312	0.598	3	6	–	–	0.750	1.580	–	–	2.000	–	1.209	12300	0.880	LNK.05
R335.18-2.50-0-0.31F-3N	02541856	Cylindrical	2.500	0.312	0.626	3	6	1.250	–	–	–	6.750	–	–	6.437	–	12300	2.650	LNK.05
R335.18-03.00-0.31F-4N	02541843	Arbor	3.000	0.312	0.713	4	8	–	–	1.000	1.880	–	–	2.000	–	1.150	10900	1.320	LNK.05
R335.18-04.00-0.31F-5N	02541844	Arbor	4.000	0.312	1.059	5	10	–	–	1.000	1.880	–	–	2.000	–	–	9700	1.980	LNK.05
R335.18-05.00-0.31F-6N	02541845	Arbor	5.000	0.312	1.378	6	12	–	–	1.250	2.250	–	–	2.000	–	–	8400	2.200	LNK.05
R335.18-1.25-0-0.37F-1N	02541858	Cylindrical	1.250	0.375	0.350	1	2	0.625	–	–	–	5.500	–	–	4.398	0.685	17300	0.880	LNK.05
R335.18-01.50-RE-0.37F-2NA	03277903	Combimaster	1.500	0.375	0.413	2	4	–	M12	–	0.906	–	–	1.181	–	0.270	15400	0.440	LNK.05..
R335.18-1.50-0-0.37F-2N	02541859	Cylindrical	1.500	0.375	0.413	2	4	0.750	–	–	–	5.500	–	–	4.398	0.685	15400	0.880	LNK.05
R335.18-02.00-RE-0.37F-3NA	03277905	Combimaster	2.000	0.375	0.587	3	6	–	M16	–	1.181	–	–	1.378	–	0.357	13800	0.660	LNK.05..
R335.18-2.00-0-0.37F-3N	02541860	Cylindrical	2.000	0.375	0.591	3	6	1.000	–	–	–	6.000	–	–	4.398	1.134	13800	1.540	LNK.05
R335.18-02.50-0.37F-3N	02541846	Arbor	2.500	0.375	0.598	3	6	–	–	0.750	1.580	–	–	2.000	–	1.146	12300	0.880	LNK.05
R335.18-2.50-0-0.37F-3N	02541861	Cylindrical	2.500	0.375	0.626	3	6	1.250	–	–	–	6.750	–	–	6.437	–	12300	2.430	LNK.05
R335.18-03.00-0.37F-4N	02541847	Arbor	3.000	0.375	0.713	4	8	–	–	1.000	1.880	–	–	2.000	–	1.087	10900	1.540	LNK.05
R335.18-04.00-0.37F-5N	02541848	Arbor	4.000	0.375	1.059	5	10	–	–	1.000	1.880	–	–	2.000	–	–	9700	2.200	LNK.05
R335.18-05.00-0.37F-6N	02541849	Arbor	5.000	0.375	1.378	6	12	–	–	1.250	2.250	–	–	2.000	–	–	8400	2.200	LNK.05

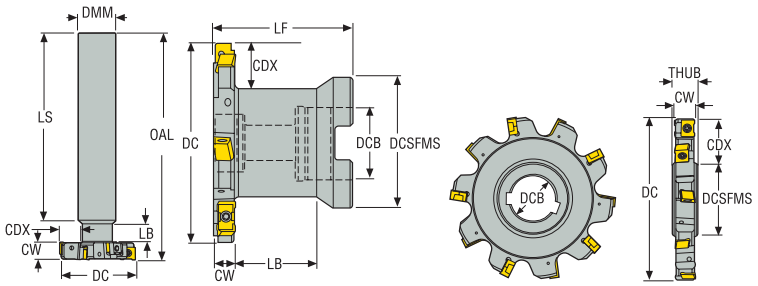
Spare Parts, included in delivery

Accessories

For cutter	Arbor screw	Insert key	Insert screw	Insert clamping torque	Torque key
R335 -RE- / R335.18 -0-	–	H4B-T08P	C02508-T08P	10.6IN.LBS	T00-08P12
R335.18 DCB=0.750	UC6S3/8UNFX1-3/4	H4B-T08P	C02508-T08P	10.6IN.LBS	T00-08P12
R335.18 DCB=1.000	UC6S1/2UNFX1-1/2	H4B-T08P	C02508-T08P	10.6IN.LBS	T00-08P12
R335.18 DCB=1.250	–	H4B-T08P	C02508-T08P	10.6IN.LBS	T00-08P12

Cutter 335.18 - Insert LNK. – inch

Width 0.500/0.625/ 0.750” - full side - Fixed pocket



- For insert selection and cutting data recommendations, see page(s) 454-455
- For complete insert programme, see page(s) 811-812
- For spare parts and technical information, see page 447-453
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	CW	CDX	ZEFP	ZNP	DMM	DCB	DCSFMS	OAL	THUB	LF	LS	LB	RPMX	Weight	Insert
			inch	inch	inch			inch	inch	inch	inch	inch	inch	inch	inch		lbs	
R335.18-02.00-0-0.50F-3N	02479049	Cylindrical	2.000	0.500	0.591	3	6	1.000	–	–	6.000	–	–	4.402	1.008	13400	1.540	LNK.08
R335.18-02.00-RE-0.5F-3NA	03277906	Combimaster	2.000	0.500	0.587	3	6	–	–	1.181	–	–	1.378	–	0.232	13400	0.660	LNK.08..
R335.18-02.50-0-0.50F-3N	02479056	Cylindrical	2.500	0.500	0.626	3	6	1.250	–	–	6.750	–	–	6.142	–	11900	2.870	LNK.08
R335.18-02.50-0.50F-3N	02478983	Arbor	2.500	0.500	0.598	3	6	–	0.750	1.580	–	–	2.000	–	1.024	12300	1.100	LNK.08
R335.18-03.00-0-0.50F-4N	02479063	Cylindrical	3.000	0.500	0.874	4	8	1.250	–	–	6.750	–	–	6.142	–	10500	2.870	LNK.08
R335.18-03.00-0.50F-4N	02478988	Arbor	3.000	0.500	0.713	4	8	–	1.000	1.880	–	–	2.000	–	0.961	10500	1.540	LNK.08
335.18-03.00-0.50F-4N	02478872	Arbor hole	3.000	0.500	0.709	4	8	–	1.000	1.630	–	0.625	0.563	–	–	10900	0.660	LNK.08
R335.18-04.00-0.50F-5N	02478994	Arbor	4.000	0.500	1.059	5	10	–	1.000	1.880	–	–	2.000	–	–	9400	2.200	LNK.08
R335.18-05.00-0.50F-6N	02478999	Arbor	5.000	0.500	1.378	6	12	–	1.250	2.250	–	–	2.000	–	–	8400	2.650	LNK.08
335.18-06.00-0.50F-7N	02478901	Arbor hole	6.000	0.500	1.811	7	14	–	1.500	2.252	–	0.625	0.563	–	–	7500	2.870	LNK.08
R335.18-04.00-0.62F-3N	02479012	Arbor	4.000	0.625	1.059	3	9	–	1.000	1.880	–	–	2.000	–	–	9400	2.650	LNK.06
R335.18-03.00-0.75F-3N	02479024	Arbor	3.000	0.750	0.709	3	9	–	1.000	1.880	–	–	2.000	–	0.709	10500	1.760	LNK.08
R335.18-04.00-0.75F-3N	02479032	Arbor	4.000	0.750	1.059	3	9	–	1.000	1.880	–	–	2.000	–	–	9400	2.870	LNK.08
R335.18-05.00-0.75F-4N	02479041	Arbor	5.000	0.750	1.378	4	12	–	1.250	2.250	–	–	2.000	–	–	8400	3.750	LNK.08

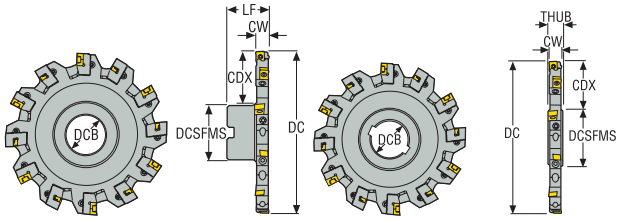
Spare Parts, included in delivery

Accessories

For cutter	Arbor screw	Insert key	Insert screw	Insert clamping torque	Torque key
					
335.18 / R335 -RE- / R335.18 -0-	–	H4B-T09P	C73007-T09P	17.7IN.LBS	T00-09P20
R335.18 DCB=0.750	UC6S3/8UNFX1-3/4	H4B-T09P	C73007-T09P	17.7IN.LBS	T00-09P20
R335.18 DCB=1.000	UC6S1/2UNFX1-1/2	H4B-T09P	C73007-T09P	17.7IN.LBS	T00-09P20
R335.18 DCB=1.250/1.500	–	H4B-T09P	C73007-T09P	17.7IN.LBS	T00-09P20

Width 8-12 mm - full side - Adjustable design

Cutter 335.18 - Insert LNK. – Metric



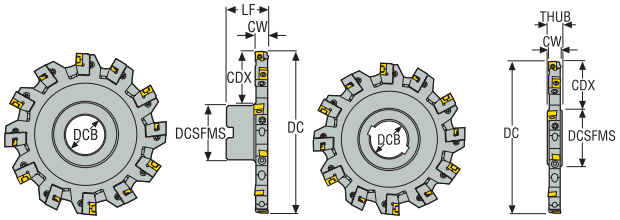
- For insert selection and cutting data recommendations, see page(s) 454-455
- For complete insert programme, see page(s) 811-812
- For spare parts and technical information, see page 447-453
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	CWN	CWX	CDX	ZEFP	ZNP	DCB	DCSFMS	THUB	LF	RPMX	Weight	Insert
			mm	mm	mm	mm			mm	mm	mm	mm		kg	
R335.18-080.0810.27-3N	02611694	Arbor	80,0	8,0	10,0	14,8	3	6	27,0	48,0	–	50,0	10900	0,8	LNK.05..
R335.18-100.0810.27-4N	02576013	Arbor	100,0	8,0	10,0	24,8	4	8	27,0	48,0	–	50,0	9400	0,9	LNK.05..
335.18-100.0810.27-4N	02575751	Arbor hole	100,0	8,0	10,0	27,2	4	8	27,0	41,0	15,0	11,5	9400	0,4	LNK.05..
R335.18-125.0810.32-5N	02576014	Arbor	125,0	8,0	10,0	32,3	5	10	32,0	58,0	–	50,0	8400	1,0	LNK.05..
335.18-125.0810.40-5N	02575752	Arbor hole	125,0	8,0	10,0	32,7	5	10	40,0	55,0	15,0	11,5	8400	0,6	LNK.05..
R335.18-160.0810.40-6N	02576015	Arbor	160,0	8,0	10,0	43,8	6	12	40,0	70,0	–	50,0	7500	1,6	LNK.05..
335.18-160.0810.40-6N	02575753	Arbor hole	160,0	8,0	10,0	50,2	6	12	40,0	55,0	15,0	11,5	7500	1,0	LNK.05..
R335.18-200.0810XL.40-7N	02713370	Arbor	200,0	8,0	10,0	53,5	7	14	40,0	90,0	–	50,0	6700	2,7	LNK.05..
335.18-200.0810XL.50-7N	02712923	Arbor hole	200,0	8,0	10,0	63,5	7	14	50,0	69,0	15,0	11,5	6700	1,4	LNK.05..
R335.18-250.0810XL.40-9N	02713381	Arbor	250,0	8,0	10,0	78,0	18	18	40,0	90,0	–	50,0	6000	4,4	LNK.05..
335.18-250.0810XL.50-9N	02712939	Arbor hole	250,0	8,0	10,0	88,5	9	18	50,0	69,0	15,0	11,5	6000	2,3	LNK.05..
335.18-315.0810XL.50-12N	02712948	Arbor hole	315,0	8,0	10,0	121,0	12	24	50,0	69,0	15,0	11,5	5300	2,4	LNK.05..
R335.18-080.1012.27-3N	00018581	Arbor	80,0	10,0	12,0	14,8	3	6	27,0	48,0	–	50,0	10500	0,8	LNK.06..
R335.18-100.1012.27-4N	00018597	Arbor	100,0	10,0	12,0	24,8	4	8	27,0	48,0	–	50,0	9400	0,9	LNK.06..
335.18-100.1012.27-4N	00018408	Arbor hole	100,0	10,0	12,0	27,2	4	8	27,0	41,0	15,0	12,5	9400	0,4	LNK.06..
R335.18-125.1012.32-5N	00018613	Arbor	125,0	10,0	12,0	32,3	5	10	32,0	58,0	–	50,0	8400	1,1	LNK.06..
335.18-125.1012.40-5N	00018417	Arbor hole	125,0	10,0	12,0	32,7	5	10	40,0	55,0	15,0	12,5	8400	0,6	LNK.06..
R335.18-160.1012.40-6N	00018641	Arbor	160,0	10,0	12,0	43,8	6	12	40,0	70,0	–	50,0	7500	1,8	LNK.06..
335.18-160.1012.40-6N	00018427	Arbor hole	160,0	10,0	12,0	50,2	6	12	40,0	55,0	15,0	12,5	7500	1,2	LNK.06..
R335.18-200.1012XL.40-7N	02713374	Arbor	200,0	10,0	12,0	53,5	7	14	40,0	90,0	–	50,0	6700	3,0	LNK.06..
335.18-200.1012XL.50-7N	02712930	Arbor hole	200,0	10,0	12,0	63,5	7	14	50,0	69,0	15,0	12,5	6700	1,5	LNK.06..
R335.18-250.1012XL.40-9N	02713382	Arbor	250,0	10,0	12,0	78,0	9	18	40,0	90,0	–	50,0	6000	4,5	LNK.06..
335.18-250.1012XL.50-9N	02712940	Arbor hole	250,0	10,0	12,0	88,5	9	18	50,0	69,0	15,0	12,5	6000	2,8	LNK.06..
335.18-315.1012XL.50-12N	02712950	Arbor hole	315,0	10,0	12,0	121,0	12	24	50,0	69,0	15,0	12,5	5300	4,5	LNK.06..

All listed adjustable cutters are set to the minimum cutter width CWN (factory setting).
Adjustable cutter may be ordered with the cutting width set to any value within its range (CWN - CWX), see technical data for more info at page 447

Cutter 335.18 - Insert LNK. – Metric

Width 12-15 mm - full side - Adjustable design



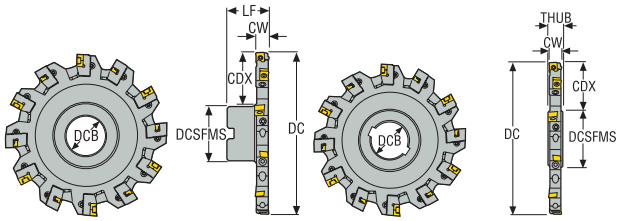
- For insert selection and cutting data recommendations, see page(s) 454-455
- For complete insert programme, see page(s) 811-812
- For spare parts and technical information, see page 447-453
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	CWN	CWX	CDX	ZEFP	ZNP	DCB	DCSFMS	THUB	LF	RPMX	Weight	Insert
			mm	mm	mm	mm			mm	mm	mm	mm		kg	
R335.18-080.1215.27-3N	00018712	Arbor	80,0	12,0	15,0	14,8	3	6	27,0	48,0	–	50,0	10500	0,7	LNK.08..
R335.18-100.1215.27-4N	00018734	Arbor	100,0	12,0	15,0	24,8	4	8	27,0	48,0	–	50,0	9400	0,9	LNK.08..
335.18-100.1215.27-4N	00018513	Arbor hole	100,0	12,0	15,0	27,2	4	8	27,0	41,0	15,0	13,5	9400	0,6	LNK.08..
R335.18-125.1215.32-5N	00018763	Arbor	125,0	12,0	15,0	32,3	5	10	32,0	58,0	–	50,0	8400	1,2	LNK.08..
335.18-125.1215.40-5N	00018535	Arbor hole	125,0	12,0	15,0	32,7	5	10	40,0	55,0	15,0	13,5	8400	0,8	LNK.08..
R335.18-160.1215.40-6N	00018782	Arbor	160,0	12,0	15,0	43,8	6	12	40,0	70,0	–	50,0	7500	2,0	LNK.08..
335.18-160.1215.40-6N	00018543	Arbor hole	160,0	12,0	15,0	50,2	6	12	40,0	55,0	15,0	13,5	7500	1,4	LNK.08..
R335.18-200.1215XL.40-7N	02713376	Arbor	200,0	12,0	15,0	53,5	7	14	40,0	90,0	–	50,0	6700	3,3	LNK.08..
335.18-200.1215XL.50-7N	02712932	Arbor hole	200,0	12,0	15,0	63,5	7	14	50,0	69,0	15,0	13,5	6700	2,1	LNK.08..
R335.18-250.1215XL.40-9N	02713383	Arbor	250,0	12,0	15,0	78,0	9	18	40,0	90,0	–	50,0	6000	5,1	LNK.08..
335.18-250.1215XL.50-9N	02712941	Arbor hole	250,0	12,0	15,0	88,5	9	18	50,0	69,0	15,0	13,5	6000	3,6	LNK.08..
335.18-315.1215XL.50-12N	02712951	Arbor hole	315,0	12,0	15,0	121,0	12	24	50,0	69,0	15,0	13,5	5300	5,5	LNK.08..

All listed adjustable cutters are set to the minimum cutter width CWN (factory setting).
Adjustable cutter may be ordered with the cutting width set to any value within its range (CWN - CWX), see technical data for more info at page 447

Width 0.313-0.591” - full side - Adjustable design

Cutter 335.18 - Insert LNK. – inch



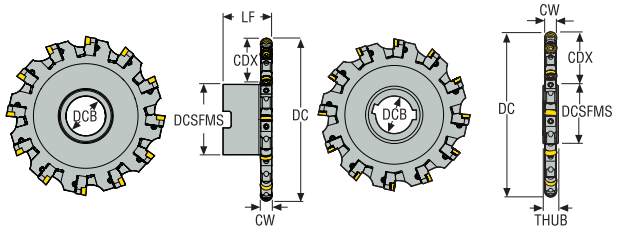
- For insert selection and cutting data recommendations, see page(s) 454-455
- For complete insert programme, see page(s) 811-812
- For spare parts and technical information, see page 447-453
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	CWN	CWX	CDX	ZEFP	ZNP	DCB	DCSFMS	THUB	LF	LB	RPMX	Weight	Insert
			inch	inch	inch	inch			inch	inch	inch	inch	inch		lbs	
R335.18-04.00-0506N	02834763	Arbor	4.000	0.312	0.394	1.024	4	8	1.000	1.880	–	2.000	–	9400	1.760	LNK.05
335.18-04.00-0506N	02834805	Arbor hole	4.000	0.312	0.394	1.102	4	8	1.000	1.551	0.625	0.470	–	9400	0.880	LNK.05
R335.18-05.00-0506N	02834764	Arbor	5.000	0.312	0.394	1.339	5	10	1.250	2.250	–	2.000	–	8400	2.650	LNK.05
335.18-05.00-0506N	02834810	Arbor hole	5.000	0.312	0.394	1.299	5	10	1.500	2.252	0.625	0.470	–	8400	1.320	LNK.05
R335.18-06.00-0506N	02834765	Arbor	6.000	0.312	0.394	1.575	6	12	1.500	2.750	–	2.000	–	7500	3.310	LNK.05
335.18-06.00-0506N	02834762	Arbor hole	6.000	0.312	0.394	1.772	6	12	1.500	2.252	0.625	0.470	–	7500	1.980	LNK.05
R335.18-08.00-XL0506N	02740895	Arbor	8.000	0.312	0.394	2.224	7	14	1.500	3.500	–	2.000	–	6700	6.170	LNK.05
335.18-08.00-XL0506N	02740202	Arbor hole	8.000	0.312	0.394	2.421	7	14	2.000	3.000	0.625	0.469	–	6700	3.310	LNK.05
R335.18-10.00-XL0506N	02741525	Arbor	10.000	0.312	0.394	3.209	9	18	1.500	3.500	–	2.000	–	6000	17.640	LNK.05
335.18-10.00-XL0506N	02740460	Arbor hole	10.000	0.312	0.394	3.386	9	18	2.000	3.000	0.625	0.469	–	6000	7.720	LNK.05
335.18-12.00-XL0506N	02740860	Arbor hole	12.000	0.312	0.394	4.390	11	22	2.000	3.000	0.625	0.469	–	5300	7.940	LNK.05
R335.18-04.00-0708N	00079782	Arbor	4.000	0.394	0.472	1.014	4	8	1.000	1.880	–	2.000	–	9400	2.200	LNK.06
R335.18-05.00-0708N	00079783	Arbor	5.000	0.394	0.472	1.329	5	10	1.250	2.250	–	2.000	–	8400	3.090	LNK.06
335.18-05.00-0708N	00079701	Arbor hole	5.000	0.394	0.472	1.258	5	10	1.500	2.252	0.625	0.509	–	8400	1.760	LNK.06
R335.18-06.00-0708N	00079784	Arbor	6.000	0.394	0.472	1.534	6	12	1.500	2.750	–	2.000	–	7500	3.750	LNK.06
335.18-06.00-0708N	00079702	Arbor hole	6.000	0.394	0.472	1.766	6	12	1.500	2.252	0.625	0.509	–	7500	2.430	LNK.06
R335.18-08.00-XL0708N	02740896	Arbor	8.000	0.394	0.472	2.224	7	14	1.500	3.500	–	2.000	–	6700	2.870	LNK.06
335.18-08.00-XL0708N	02740235	Arbor hole	8.000	0.394	0.472	2.421	7	14	2.000	3.000	0.625	0.509	–	6700	3.970	LNK.06
R335.18-10.00-XL0708N	02741541	Arbor	10.000	0.394	0.472	3.209	9	18	1.500	3.500	–	2.000	–	6000	18.960	LNK.06
335.18-10.00-XL0708N	02740497	Arbor hole	10.000	0.394	0.472	3.386	9	18	2.000	3.000	0.625	0.509	–	6000	9.260	LNK.06
335.18-12.00-XL0708N	02740866	Arbor hole	12.000	0.394	0.472	4.390	11	22	2.000	3.000	0.625	0.509	–	5300	9.700	LNK.06
R335.18-04.00-0809N	00079963	Arbor	4.000	0.472	0.591	1.014	4	8	1.000	1.880	–	2.000	–	9400	2.430	LNK.08
R335.18-05.00-0809N	00079964	Arbor	5.000	0.472	0.591	1.329	5	10	1.250	2.250	–	2.000	–	8400	3.530	LNK.08
335.18-05.00-0809N	00079932	Arbor hole	5.000	0.472	0.591	1.285	5	10	1.500	2.252	0.625	0.549	–	8400	1.980	LNK.08
R335.18-06.00-0809N	00079965	Arbor	6.000	0.472	0.591	1.585	6	12	1.500	2.750	–	2.000	–	7500	4.190	LNK.08
335.18-06.00-0809N	00079933	Arbor hole	6.000	0.472	0.591	1.790	6	12	1.500	2.252	0.625	0.549	–	7500	2.870	LNK.08
R335.18-08.00-XL0809N	02740897	Arbor	8.000	0.472	0.591	2.224	7	14	1.500	3.500	–	2.000	–	6700	8.600	LNK.08
335.18-08.00-XL0809N	02740236	Arbor hole	8.000	0.472	0.591	2.421	7	14	2.000	3.000	0.625	0.549	–	6700	7.500	LNK.08
R335.18-10.00-XL0809N	02741544	Arbor	10.000	0.472	0.591	3.209	9	18	1.500	3.500	–	2.000	–	6000	19.840	LNK.08
335.18-10.00-XL0809N	02740498	Arbor hole	10.000	0.472	0.591	3.386	9	18	2.000	3.000	0.625	0.549	–	6000	7.940	LNK.08
335.18-12.00-XL0809N	02740867	Arbor hole	12.000	0.472	0.591	4.390	11	22	2.000	3.000	0.625	0.549	–	5300	15.430	LNK.08

All listed adjustable cutters are set to the minimum cutter width CWN (factory setting).
Adjustable cutter may be ordered with the cutting width set to any value within its range (CWN - CWX), see technical data for more info at page 447

Cutter 335.18 - Insert RD..08/RD..10T3 – Metric

Width 8-12 mm - full side - radius profile - Adjustable design



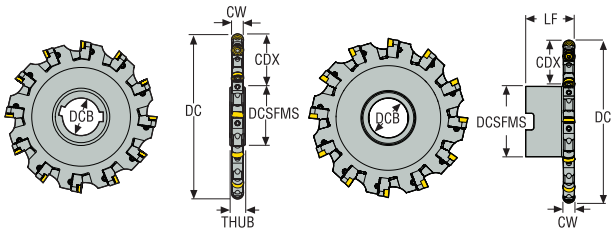
- For insert selection and cutting data recommendations, see page(s) 470-475
- For complete insert programme, see page(s) 817
- For spare parts and technical information, see page 447-453
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	CWN	CWX	CDX	ZEFP	DCB	DCSFMS	THUB	LF	RPMX	Weight	Insert
			mm	mm	mm	mm		mm	mm	mm	mm		kg	
R335.18-080.0810.27-6N-R4	02611700	Arbor	82,0	8,0	10,0	15,8	6	27,0	48,0	–	50,0	10500	0,7	RD..08..
R335.18-100.0810.27-8N-R4	02576017	Arbor	102,0	8,0	10,0	25,8	8	27,0	48,0	–	50,0	9400	0,8	RD..08..
335.18-100.0810.27-8N-R4	02575800	Arbor hole	102,0	8,0	10,0	28,2	8	27,0	41,0	15,0	11,5	9400	0,4	RD..08..
R335.18-125.0810.32-10N-R4	02576018	Arbor	127,0	8,0	10,0	32,3	10	32,0	58,0	–	50,0	8400	1,0	RD..08..
335.18-125.0810.40-10N-R4	02575801	Arbor hole	127,0	8,0	10,0	33,7	10	40,0	55,0	15,0	11,5	8400	0,6	RD..08..
R335.18-160.0810.40-12N-R4	02576020	Arbor	162,0	8,0	10,0	44,8	12	40,0	70,0	–	50,0	7500	1,6	RD..08..
335.18-160.0810.40-12N-R4	02575802	Arbor hole	162,0	8,0	10,0	51,2	12	40,0	55,0	15,0	11,5	7500	1,0	RD..08..
R335.18-200.0810XL.40-14N-R4	02713377	Arbor	200,0	8,0	10,0	53,5	14	40,0	90,0	–	50,0	6700	2,6	RD..08..
335.18-200.0810XL.50-14N-R4	02712934	Arbor hole	200,0	8,0	10,0	63,5	14	50,0	69,0	15,0	11,5	6700	1,4	RD..08..
R335.18-250.0810XL.40-18N-R4	02713384	Arbor	250,0	8,0	10,0	78,0	18	40,0	90,0	–	50,0	6000	3,5	RD..08..
335.18-250.0810XL.50-18N-R4	02712943	Arbor hole	250,0	8,0	10,0	88,5	18	50,0	69,0	15,0	11,5	6000	2,3	RD..08..
335.18-315.0810XL.50-24N-R4	02712952	Arbor hole	315,0	8,0	10,0	121,0	24	50,0	69,0	15,0	11,5	5300	3,7	RD..08..
R335.18-080.1012.27-3N-R5	00030352	Arbor	82,0	10,0	12,0	15,8	3	27,0	48,0	–	50,0	10500	0,7	RD..10T3
R335.18-100.1012.27-4N-R5	00030355	Arbor	102,0	10,0	12,0	25,8	4	27,0	48,0	–	50,0	9400	1,0	RD..10T3
335.18-100.1012.27-4N-R5	00030328	Arbor hole	102,0	10,0	12,0	28,2	4	27,0	41,0	15,0	12,5	9400	0,6	RD..10T3
R335.18-125.1012.32-5N-R5	00030359	Arbor	127,0	10,0	12,0	33,3	5	32,0	58,0	–	50,0	8400	1,1	RD..10T3
335.18-125.1012.40-5N-R5	00030340	Arbor hole	127,0	10,0	12,0	33,7	5	40,0	55,0	15,0	12,5	8400	0,7	RD..10T3
R335.18-160.1012.40-6N-R5	00030362	Arbor	162,0	10,0	12,0	44,8	6	40,0	70,0	–	50,0	7500	1,7	RD..10T3
335.18-160.1012.40-6N-R5	00030343	Arbor hole	162,0	10,0	12,0	51,2	6	40,0	55,0	15,0	12,5	7500	1,3	RD..10T3
R335.18-200.1012XL.40-7N-R5	02713379	Arbor	200,0	10,0	12,0	53,5	7	40,0	90,0	–	50,0	6700	2,2	RD..10T3
335.18-200.1012XL.50-7N-R5	02712935	Arbor hole	200,0	10,0	12,0	63,5	7	50,0	69,0	15,0	12,5	6700	1,7	RD..10T3
R335.18-250.1012XL.40-9N-R5	02713386	Arbor	250,0	10,0	12,0	78,0	9	40,0	90,0	–	50,0	6000	4,0	RD..10T3
335.18-250.1012XL.50-9N-R5	02712946	Arbor hole	250,0	10,0	12,0	88,5	9	50,0	69,0	15,0	12,5	6000	1,7	RD..10T3
335.18-315.1012XL.50-12N-R5	02712954	Arbor hole	315,0	10,0	12,0	121,0	12	50,0	69,0	15,0	12,5	5300	4,6	RD..10T3

All listed adjustable cutters are set to the minimum cutter width CWN (factory setting).
Adjustable cutter may be ordered with the cutting width set to any value within its range (CWN - CWX), see technical data for more info at page 447

Width 12-15 mm - full side - radius profile - Adjustable design

Cutter 335.18 - Insert RP..1204 – Metric



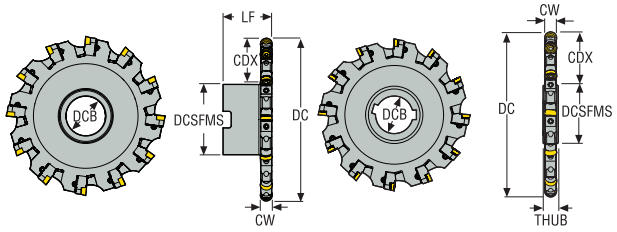
- For insert selection and cutting data recommendations, see page(s) 476-478
- For complete insert programme, see page(s) 819
- For spare parts and technical information, see page 447-453
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	CWN	CWX	CDX	ZEFP	DCB	DCSFMS	THUB	LF	RPMX	Weight	Insert
			mm	mm	mm	mm		mm	mm	mm	mm		kg	
R335.18-080.1215.27-3N-R6	00030404	Arbor	82,0	12,0	15,0	15,8	3	27,0	48,0	–	50,0	10000	0,7	RP..1204
R335.18-100.1215.27-4N-R6	00030412	Arbor	102,0	12,0	15,0	25,8	4	27,0	48,0	–	50,0	9400	0,9	RP..1204
335.18-100.1215.27-4N-R6	00030370	Arbor hole	102,0	12,0	15,0	28,2	4	27,0	41,0	15,0	13,5	9400	0,8	RP..1204
R335.18-125.1215.32-5N-R6	00030417	Arbor	127,0	12,0	15,0	33,3	5	32,0	58,0	–	50,0	8400	1,2	RP..1204
335.18-125.1215.40-5N-R6	00030374	Arbor hole	127,0	12,0	15,0	33,7	5	40,0	55,0	15,0	13,5	8400	0,9	RP..1204
R335.18-160.1215.40-6N-R6	00030420	Arbor	162,0	12,0	15,0	44,8	6	40,0	70,0	–	50,0	7500	1,9	RP..1204
335.18-160.1215.40-6N-R6	00030377	Arbor hole	162,0	12,0	15,0	51,2	6	40,0	55,0	15,0	13,5	7500	1,5	RP..1204
R335.18-200.1215XL.40-7N-R6	02713380	Arbor	200,0	12,0	15,0	53,5	7	40,0	90,0	–	50,0	6700	3,2	RP..1204
335.18-200.1215XL.50-7N-R6	02712937	Arbor hole	200,0	12,0	15,0	63,5	7	50,0	69,0	15,0	13,5	6700	2,0	RP..1204
R335.18-250.1215XL.40-9N-R6	02713387	Arbor	250,0	12,0	15,0	78,0	9	40,0	90,0	–	50,0	6000	4,5	RP..1204
335.18-250.1215XL.50-9N-R6	02712947	Arbor hole	250,0	12,0	15,0	88,5	9	50,0	69,0	15,0	13,5	6000	3,4	RP..1204
335.18-315.1215XL.50-12N-R6	02712955	Arbor hole	315,0	12,0	15,0	121,0	12	50,0	69,0	15,0	13,5	5300	5,5	RP..1204

All listed adjustable cutters are set to the minimum cutter width CWN (factory setting).
Adjustable cutter may be ordered with the cutting width set to any value within its range (CWN - CWX), see technical data for more info at page 447

Cutter 335.18 - Insert RD..08/RD..10/RP..12 – inch

Width 0.315-0.472” - full side - radius profile - Adjustable design



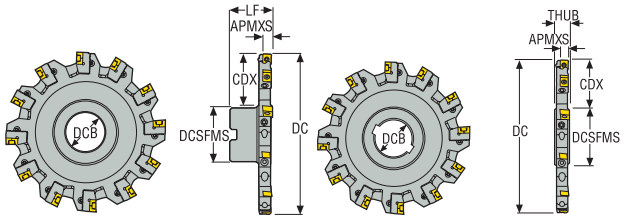
- For insert selection and cutting data recommendations, see page(s) 470-478
- For complete insert programme, see page(s) 817
- For spare parts and technical information, see page 447-453
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	CWN	CWX	CDX	ZEFP	DCB	DCSFMS	THUB	LF	RPMX	Weight	Insert
			inch	inch	inch	inch		inch	inch	inch	inch		lbs	
R335.18-04.00-0506N-R4	02834713	Arbor	4.079	0.315	0.394	1.063	4	1.000	1.880	–	2.000	9400	1.760	RD..08
335.18-04.00-0506N-R4	02834707	Arbor hole	4.079	0.315	0.394	1.142	4	1.000	1.551	0.625	0.470	9400	0.880	RD..08
R335.18-05.00-0506N-R4	02834714	Arbor	5.079	0.315	0.394	1.378	5	1.250	2.250	–	2.000	8400	2.650	RD..08
335.18-05.00-0506N-R4	02834708	Arbor hole	5.079	0.315	0.394	1.299	5	1.500	2.252	0.625	0.470	8400	1.320	RD..08
R335.18-06.00-0506N-R4	02834715	Arbor	6.079	0.315	0.394	1.614	6	1.500	2.750	–	2.000	7500	3.310	RD..08
335.18-06.00-0506N-R4	02834709	Arbor hole	6.079	0.315	0.394	1.772	6	1.500	2.252	0.625	0.470	7500	1.980	RD..08
R335.18-08.00-XL0506N-R4	02740898	Arbor	8.000	0.315	0.394	2.224	7	1.500	3.500	–	2.000	6700	6.170	RD..08
335.18-08.00-XL0506N-R4	02740237	Arbor hole	8.000	0.315	0.394	2.421	14	2.000	3.000	0.625	0.470	6700	3.310	RD..08
R335.18-10.00-XL0506N-R4	02741547	Arbor	10.000	0.315	0.394	3.209	9	1.500	3.500	–	2.000	6000	17.640	RD..08
335.18-10.00-XL0506N-R4	02740500	Arbor hole	10.000	0.315	0.394	3.386	9	2.000	3.000	0.625	0.470	6000	5.510	RD..08
335.18-12.00-XL0506N-R4	02740869	Arbor hole	12.000	0.315	0.394	4.390	11	2.000	3.000	0.625	0.470	5300	7.940	RD..08
R335.18-04.00-0708N-R5	00079997	Arbor	4.079	0.394	0.472	1.063	4	1.000	1.880	–	2.000	9400	2.650	RD..10
R335.18-05.00-0708N-R5	00079998	Arbor	5.079	0.394	0.472	1.378	5	1.250	2.250	–	2.000	8400	3.090	RD..10
335.18-05.00-0708N-R5	00079978	Arbor hole	5.079	0.394	0.472	1.295	5	1.500	2.252	0.625	0.509	8400	1.760	RD..10
R335.18-06.00-0708N-R5	00079999	Arbor	6.079	0.394	0.472	1.614	6	1.500	2.750	–	2.000	7500	3.750	RD..10
335.18-06.00-0708N-R5	00079979	Arbor hole	6.079	0.394	0.472	1.811	6	1.500	2.252	0.625	0.509	7500	2.430	RD..10
R335.18-08.00-XL0708N-R5	02740899	Arbor	8.000	0.394	0.472	2.224	7	1.500	3.500	–	2.000	6700	6.830	RD..10
335.18-08.00-XL0708N-R5	02740238	Arbor hole	8.000	0.394	0.472	2.421	7	2.000	3.000	0.625	0.509	6700	6.830	RD..10
R335.18-10.00-XL0708N-R5	02741551	Arbor	10.000	0.394	0.472	3.209	9	1.500	3.500	–	2.000	6000	9.260	RD..10
335.18-10.00-XL0708N-R5	02740502	Arbor hole	10.000	0.394	0.472	3.386	9	2.000	3.000	0.625	0.509	6000	6.610	RD..10
335.18-12.00-XL0708N-R5	02740870	Arbor hole	12.000	0.394	0.472	4.390	11	2.000	3.000	0.625	0.509	5300	9.700	RD..10
R335.18-04.00-0809N-R6	00080158	Arbor	4.079	0.472	0.591	1.053	4	1.000	1.880	–	2.000	9400	2.650	RP..12
R335.18-05.00-0809N-R6	00080160	Arbor	5.079	0.472	0.591	1.368	5	1.250	2.250	–	2.000	8400	3.530	RP..12
335.18-05.00-0809N-R6	00080035	Arbor hole	5.079	0.472	0.591	1.339	5	1.500	2.252	0.625	0.549	8400	1.980	RP..12
R335.18-06.00-0809N-R6	00080181	Arbor	6.079	0.472	0.591	1.624	6	1.500	2.750	–	2.000	7500	5.070	RP..12
335.18-06.00-0809N-R6	00080045	Arbor hole	6.079	0.472	0.591	1.829	6	1.500	2.252	0.625	0.549	7500	2.870	RP..12
R335.18-08.00-XL0809N-R6	02740900	Arbor	8.000	0.472	0.591	2.224	7	1.500	3.500	–	2.000	6700	8.600	RP..12
335.18-08.00-XL0809N-R6	02740240	Arbor hole	8.000	0.472	0.591	2.421	7	2.000	3.000	0.625	0.549	6700	4.630	RP..12
R335.18-10.00-XL0809N-R6	02741552	Arbor	10.000	0.472	0.591	3.209	9	1.500	3.500	–	2.000	6000	2.200	RP..12
335.18-10.00-XL0809N-R6	02740503	Arbor hole	10.000	0.472	0.591	3.386	9	2.000	3.000	0.625	0.549	6000	7.940	RP..12
335.18-12.00-XL0809N-R6	02740872	Arbor hole	12.000	0.472	0.591	4.390	11	2.000	3.000	0.625	0.549	5300	15.430	RP..12

All listed adjustable cutters are set to the minimum cutter width CWN (factory setting).
Adjustable cutter may be ordered with the cutting width set to any value within its range (CWN - CWX), see technical data for more info at page 447

Width max 5-6 mm - Half side - Right hand with cassette

Cutter 335.18 - Insert LNK. – Metric

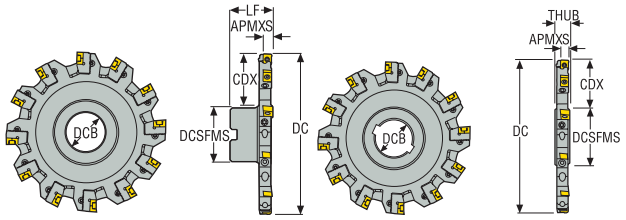


- For insert selection and cutting data recommendations, see page(s) 454-455
- For complete insert programme, see page(s) 811-812
- For spare parts and technical information, see page 447-453
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	APMXS	CDX	ZEFP	DCSFMS	DCB	THUB	LF	RPMX	Weight	Insert
			mm	mm	mm		mm	mm	mm	mm		kg	
R335.18-080.0810.27-6R	02611697	Arbor	80,0	5,0	14,8	6	48,0	27,0	–	50,0	10500	0,7	LNK.05..
R335.18-100.0810.27-8R	02576023	Arbor	100,0	5,0	24,8	8	48,0	27,0	–	50,0	9400	0,8	LNK.05..
335.18-100.0810.27-8R	02575757	Arbor hole	100,0	5,0	27,2	8	41,0	27,0	15,0	11,5	9400	0,4	LNK.05..
R335.18-125.0810.32-10R	02576025	Arbor	125,0	5,0	32,3	10	58,0	32,0	–	50,0	8400	1,0	LNK.05..
335.18-125.0810.40-10R	02575758	Arbor hole	125,0	5,0	32,7	10	55,0	40,0	15,0	11,5	8400	0,6	LNK.05..
R335.18-160.0810.40-12R	02576026	Arbor	160,0	5,0	43,8	12	70,0	40,0	–	50,0	7500	1,5	LNK.05..
335.18-160.0810.40-12R	02575759	Arbor	160,0	5,0	50,2	12	55,0	40,0	15,0	11,5	7500	1,0	LNK.05..
R335.18-200.0810XL.40-14R	02713422	Arbor	200,0	5,0	53,5	14	90,0	40,0	–	50,0	6700	2,6	LNK.05..
335.18-200.0810XL.50-14R	02713151	Arbor hole	200,0	5,0	63,5	14	69,0	50,0	15,0	11,5	6700	1,7	LNK.05..
R335.18-250.0810XL.40-18R	02713432	Arbor	250,0	5,0	78,0	18	90,0	40,0	–	50,0	6000	3,1	LNK.05..
335.18-250.0810XL.50-18R	02713163	Arbor hole	250,0	5,0	88,5	18	69,0	50,0	15,0	11,5	6000	2,3	LNK.05..
335.18-315.0810XL.50-24R	02713172	Arbor hole	315,0	5,0	121,0	24	69,0	50,0	15,0	11,5	5300	1,9	LNK.05..
R335.18-080.1012.27-6R	00018584	Arbor	80,0	6,0	14,8	6	48,0	27,0	–	50,0	10500	0,8	LNK.06..
R335.18-100.1012.27-8R	00018603	Arbor	100,0	6,0	24,8	8	48,0	27,0	–	50,0	9400	1,2	LNK.06..
335.18-100.1012.27-8R	00018409	Arbor hole	100,0	6,0	27,2	8	41,0	27,0	15,0	12,5	9400	0,4	LNK.06..
R335.18-125.1012.32-10R	00018618	Arbor	125,0	6,0	32,3	10	58,0	32,0	–	50,0	8400	1,0	LNK.06..
335.18-125.1012.40-10R	00018421	Arbor hole	125,0	6,0	32,7	10	55,0	40,0	15,0	12,5	8400	0,7	LNK.06..
R335.18-160.1012.40-12R	00018674	Arbor	160,0	6,0	43,8	12	70,0	40,0	–	50,0	7500	1,9	LNK.06..
335.18-160.1012.40-12R	00018431	Arbor hole	160,0	6,0	50,2	12	55,0	40,0	15,0	12,5	7500	1,5	LNK.06..
R335.18-200.1012XL.40-14R	02713423	Arbor	200,0	6,0	53,5	14	90,0	40,0	–	50,0	6700	2,9	LNK.06..
335.18-200.1012XL.50-14R	02713154	Arbor hole	200,0	6,0	63,5	14	69,0	50,0	15,0	12,5	6700	1,7	LNK.06..
R335.18-250.1012XL.40-18R	02713435	Arbor	250,0	6,0	78,0	18	90,0	40,0	–	50,0	6000	4,0	LNK.06..
335.18-250.1012XL.50-18R	02713165	Arbor hole	250,0	6,0	88,5	18	69,0	50,0	15,0	12,5	6000	2,8	LNK.06..
335.18-315.1012XL.50-24R	02713177	Arbor hole	315,0	6,0	121,0	24	69,0	50,0	15,0	12,5	5300	1,9	LNK.06..

Cutter 335.18 - Insert LNK. – Metric

Width max 7,5 mm - Half side - Right hand with cassette

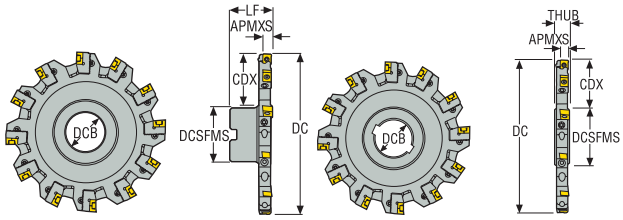


- For insert selection and cutting data recommendations, see page(s) 454-455
- For complete insert programme, see page(s) 811-812
- For spare parts and technical information, see page 447-453
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	APMXS	CDX	ZEFP	DCSFMS	DCB	THUB	LF	RPMX	Weight	Insert
			mm	mm	mm		mm	mm	mm	mm		kg	
R335.18-080.1215.27-6R	00018723	Arbor	80,0	7,5	14,8	6	48,0	27,0	–	50,0	10500	1,1	LNK.08..
R335.18-100.1215.27-8R	00018754	Arbor	100,0	7,5	24,8	8	48,0	27,0	–	50,0	9400	0,9	LNK.08..
335.18-100.1215.27-8R	00018515	Arbor hole	100,0	7,5	27,2	8	41,0	27,0	15,0	13,5	9400	0,5	LNK.08..
R335.18-125.1215.32-10R	00018766	Arbor	125,0	7,5	32,3	10	58,0	32,0	–	50,0	8400	1,2	LNK.08..
335.18-125.1215.40-10R	00018540	Arbor hole	125,0	7,5	32,7	10	55,0	40,0	15,0	13,5	8400	0,9	LNK.08..
R335.18-160.1215.40-12R	00018784	Arbor	160,0	7,5	43,8	12	70,0	40,0	–	50,0	7500	2,7	LNK.08..
335.18-160.1215.40-12R	00018546	Arbor hole	160,0	7,5	50,2	12	55,0	40,0	15,0	13,5	7500	1,5	LNK.08..
R335.18-200.1215XL.40-14R	02713424	Arbor	200,0	7,5	53,5	14	90,0	40,0	–	50,0	6700	3,6	LNK.08..
335.18-200.1215XL.50-14R	02713155	Arbor hole	200,0	7,5	63,5	14	69,0	50,0	15,0	13,5	6700	1,7	LNK.08..
R335.18-250.1215XL.40-18R	02713437	Arbor	250,0	7,5	78,0	18	90,0	40,0	–	50,0	6000	4,5	LNK.08..
335.18-250.1215XL.50-18R	02713166	Arbor hole	250,0	7,5	88,5	18	69,0	50,0	15,0	13,5	6000	2,5	LNK.08..
335.18-315.1215XL.50-24R	02713178	Arbor hole	315,0	7,5	121,0	24	69,0	50,0	15,0	13,5	5300	2,2	LNK.08..

Width max 0.197-0.236” - Half side - Right hand with cassette

Cutter 335.18 - Insert LNK. – inch

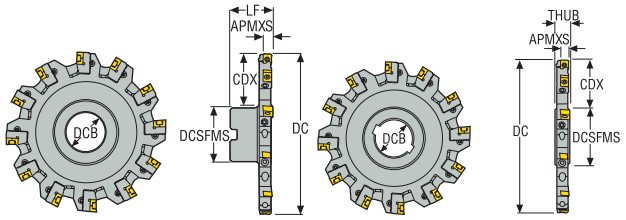


- For insert selection and cutting data recommendations, see page(s) 454-455
- For complete insert programme, see page(s) 811-812
- For spare parts and technical information, see page 447-453
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	APMX	CDX	ZEFP	DCSFMS	DCB	THUB	LF	RPMX	Weight	Insert
			inch	inch	inch		inch	inch	inch	inch		lbs	
R335.18-04.00-0506R	02834790	Arbor	4.000	0.197	1.024	8	1.880	1.000	–	2.000	9400	1.760	LNK.05
335.18-04.00-0506R	02834787	Arbor hole	4.000	0.197	1.102	8	1.550	1.000	0.625	0.469	9400	0.880	LNK.05
R335.18-05.00-0506R	02834791	Arbor	5.000	0.197	1.339	10	2.250	1.250	–	2.000	8400	2.650	LNK.05
335.18-05.00-0506R	02834788	Arbor hole	5.000	0.197	1.299	10	2.252	1.500	0.625	0.469	8400	1.320	LNK.05
R335.18-06.00-0506R	02834792	Arbor	6.000	0.197	1.575	12	2.750	1.500	–	2.000	7500	3.310	LNK.05
335.18-06.00-0506R	02834789	Arbor hole	6.000	0.197	1.772	12	2.252	1.500	0.625	0.469	7500	1.980	LNK.05
R335.18-08.00-XL0506R	02740901	Arbor	8.000	0.197	2.224	14	3.500	1.500	–	2.000	6700	6.170	LNK.05
335.18-08.00-XL0506R	02740241	Arbor hole	8.000	0.197	2.421	14	3.000	2.000	0.625	0.469	6700	3.310	LNK.05
R335.18-10.00-XL0506R	02741554	Arbor	10.000	0.197	3.209	18	3.500	1.500	–	2.000	6000	8.160	LNK.05
335.18-10.00-XL0506R	02740505	Arbor hole	10.000	0.197	3.386	18	3.000	2.000	0.625	0.469	6000	5.510	LNK.05
335.18-12.00-XL0506R	02740874	Arbor hole	12.000	0.197	4.390	22	3.000	2.000	0.625	0.469	5300	7.940	LNK.05
R335.18-04.00-0708R	00079792	Arbor	4.000	0.236	1.014	8	1.880	1.000	–	2.000	9400	2.200	LNK.06
R335.18-05.00-0708R	00079832	Arbor	5.000	0.236	1.329	10	2.250	1.250	–	2.000	8400	3.090	LNK.06
335.18-05.00-0708R	00079766	Arbor hole	5.000	0.236	1.258	10	2.252	1.500	0.625	0.508	8400	1.760	LNK.06
R335.18-06.00-0708R	00079833	Arbor	6.000	0.236	1.534	12	2.750	1.500	–	2.000	7500	3.750	LNK.06
335.18-06.00-0708R	00079767	Arbor hole	6.000	0.236	1.766	12	2.252	1.500	0.625	0.508	7500	2.430	LNK.06
R335.18-08.00-XL0708R	02740902	Arbor	8.000	0.236	2.224	14	3.500	1.500	–	2.000	6700	6.830	LNK.06
335.18-08.00-XL0708R	02740242	Arbor hole	8.000	0.236	2.421	14	3.000	2.000	0.625	0.508	6700	3.970	LNK.06
R335.18-10.00-XL0708R	02741556	Arbor	10.000	0.236	3.209	18	3.500	1.500	–	2.000	6000	9.260	LNK.06
335.18-10.00-XL0708R	02740506	Arbor hole	10.000	0.236	3.386	18	3.000	2.000	0.625	0.508	6000	6.610	LNK.06
335.18-12.00-XL0708R	02740875	Arbor hole	12.000	0.236	4.390	22	3.000	2.000	0.625	0.508	5300	9.700	LNK.06

Cutter 335.18 - Insert LNK. – inch

Width max 0.295” - Half side - Right hand with cassette

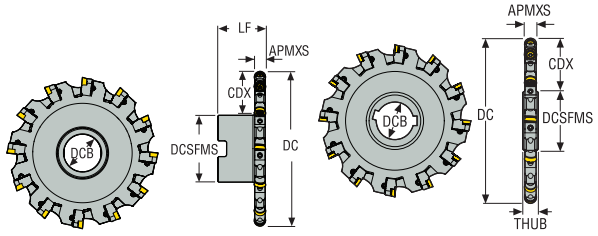


- For insert selection and cutting data recommendations, see page(s) 454-455
- For complete insert programme, see page(s) 811-812
- For spare parts and technical information, see page 447-453
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	APMX	CDX	ZEFP	DCSFMS	DCB	THUB	LF	RPMX	Weight	Insert
			inch	inch	inch		inch	inch	inch	inch		lbs	
R335.18-04.00-0809R	00079968	Arbor	4.000	0.295	1.014	8	1.880	1.000	–	2.000	9400	2.430	LNK.08
R335.18-05.00-0809R	00079969	Arbor	5.000	0.295	1.329	10	2.250	1.250	–	2.000	8400	3.530	LNK.08
335.18-05.00-0809R	00079951	Arbor hole	5.000	0.295	1.285	10	2.252	1.500	0.625	0.547	8400	2.650	LNK.08
R335.18-06.00-0809R	00079970	Arbor	6.000	0.295	1.585	12	2.750	1.500	–	2.000	7500	4.190	LNK.08
335.18-06.00-0809R	00079952	Arbor hole	6.000	0.295	1.790	12	2.252	1.500	0.625	0.547	7500	2.870	LNK.08
R335.18-08.00-XL0809R	02740903	Arbor	8.000	0.295	2.224	14	3.500	1.500	–	2.000	6700	7.720	LNK.08
335.18-08.00-XL0809R	02740244	Arbor hole	8.000	0.295	2.421	14	3.000	2.000	0.625	0.547	6700	4.850	LNK.08
R335.18-10.00-XL0809R	02741557	Arbor	10.000	0.295	3.209	18	3.500	1.500	–	2.000	6000	10.800	LNK.08
335.18-10.00-XL0809R	02740507	Arbor hole	10.000	0.295	3.386	18	3.000	2.000	0.625	0.547	6000	7.940	LNK.08
335.18-12.00-XL0809R	02740876	Arbor hole	12.000	0.295	4.390	22	3.000	2.000	0.625	0.547	5300	11.900	LNK.08

Half side - Right hand - Radius profile with cassette

Cutter 335.18 - Insert RD..10T3/RP..1204 – Metric

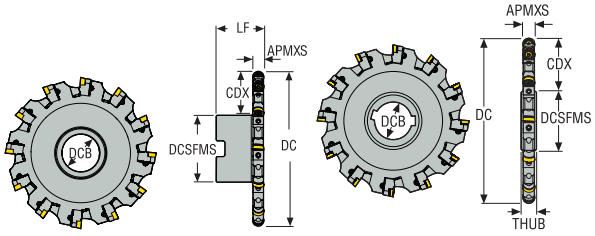


- For insert selection and cutting data recommendations, see page(s) 473-478
- For complete insert programme, see page(s) 817, 819
- For spare parts and technical information, see page 447-453
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	APMXS	CDX	ZEFP	DCB	DCSFMS	THUB	LF	RPMX	Weight	Insert
			mm	mm	mm		mm	mm	mm	mm		kg	
R335.18-080.1012.27-6R-R5	00030353	Arbor	82,0	5,0	15,8	6	27,0	48,0	–	50,0	10500	0,8	RD..10T3
R335.18-100.1012.27-8R-R5	00030357	Arbor	102,0	5,0	25,8	8	27,0	48,0	–	50,0	9400	1,2	RD..10T3
335.18-100.1012.27-8R-R5	00030329	Arbor hole	102,0	5,0	28,2	8	27,0	41,0	15,0	12,5	9400	0,4	RD..10T3
R335.18-125.1012.32-10R-R5	00030360	Arbor	127,0	5,0	33,3	10	32,0	58,0	–	50,0	8400	1,2	RD..10T3
335.18-125.1012.40-10R-R5	00030341	Arbor hole	127,0	5,0	33,7	10	40,0	55,0	15,0	12,5	8400	0,7	RD..10T3
R335.18-160.1012.40-12R-R5	00030364	Arbor	162,0	5,0	44,8	12	40,0	70,0	–	50,0	7500	0,1	RD..10T3
335.18-160.1012.40-12R-R5	00030344	Arbor hole	162,0	5,0	51,2	12	40,0	55,0	15,0	12,5	7500	1,2	RD..10T3
R335.18-200.1012XL.40-14R-R5	02713429	Arbor	200,0	5,0	53,5	14	40,0	90,0	–	50,0	6700	2,9	RD..10T3
335.18-200.1012XL.50-14R-R5	02713159	Arbor hole	200,0	5,0	63,5	14	50,0	69,0	15,0	12,5	6700	1,7	RD..10T3
R335.18-250.1012XL.40-18R-R5	02713438	Arbor	250,0	5,0	78,0	18	40,0	90,0	–	50,0	6000	4,0	RD..10T3
335.18-250.1012XL.50-18R-R5	02713169	Arbor hole	250,0	5,0	88,5	18	50,0	69,0	15,0	12,5	6000	3,8	RD..10T3
335.18-315.1012XL.50-24R-R5	02713180	Arbor hole	315,0	5,0	121,0	24	50,0	69,0	15,0	12,5	5300	4,6	RD..10T3
R335.18-080.1215.27-6R-R6	00030407	Arbor	82,0	6,0	14,8	6	27,0	48,0	–	50,0	10500	0,7	RP..1204
R335.18-100.1215.27-8R-R6	00030414	Arbor	102,0	6,0	25,8	8	27,0	48,0	–	50,0	9400	1,1	RP..1204
335.18-100.1215.27-8R-R6	00030372	Arbor hole	102,0	6,0	28,2	8	27,0	41,0	15,0	13,5	9400	0,5	RP..1204
R335.18-125.1215.32-10R-R6	00030418	Arbor	127,0	6,0	33,3	10	32,0	58,0	–	50,0	8400	1,4	RP..1204
335.18-125.1215.40-10R-R6	00030375	Arbor hole	127,0	6,0	33,7	10	40,0	55,0	15,0	13,5	8400	0,9	RP..1204
R335.18-160.1215.40-12R-R6	00030421	Arbor	162,0	6,0	44,8	12	40,0	70,0	–	50,0	7500	1,9	RP..1204
335.18-160.1215.40-12R-R6	00030378	Arbor hole	162,0	6,0	51,2	12	40,0	55,0	15,0	13,5	7500	1,5	RP..1204
R335.18-200.1215XL.40-14R-R6	02713431	Arbor	200,0	6,0	53,5	14	40,0	90,0	–	50,0	6700	4,3	RP..1204
335.18-200.1215XL.50-14R-R6	02713162	Arbor hole	200,0	6,0	63,5	14	50,0	69,0	15,0	13,5	6700	2,0	RP..1204
R335.18-250.1215XL.40-18R-R6	02713441	Arbor	250,0	6,0	78,0	18	40,0	90,0	–	50,0	6000	4,5	RP..1204
335.18-250.1215XL.50-18R-R6	02713170	Arbor hole	250,0	6,0	88,5	18	50,0	69,0	15,0	13,5	6000	4,7	RP..1204
335.18-315.1215XL.50-24R-R6	02713182	Arbor hole	315,0	6,0	121,0	24	50,0	69,0	15,0	13,5	5300	7,0	RP..1204

Cutter 335.18 - Insert RD..10T3/RP..1204 – inch

Half side - Right hand - Radius profile with cassette

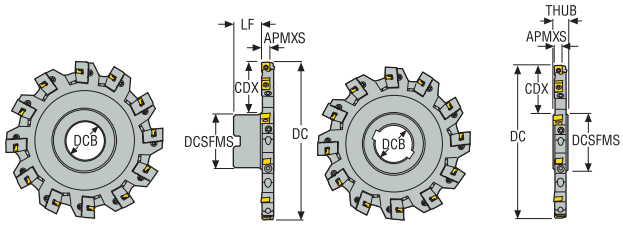


- For insert selection and cutting data recommendations, see page(s) 473-478
- For complete insert programme, see page(s) 817, 819
- For spare parts and technical information, see page 447-453
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	APMXS	CDX	ZEFP	DCB	DCSFMS	THUB	LF	RPMX	Weight	Insert
			inch	inch	inch		inch	inch	inch	inch		lbs	
R335.18-08.00-XL0708R-R5	02740905	Arbor	8.000	0.197	2.264	14	1.500	3.500	–	2.000	6700	6.830	RD..10
335.18-08.00-XL0708R-R5	02740245	Arbor hole	8.000	0.197	2.421	14	2.000	3.000	0.625	0.509	6700	3.970	RD..10
R335.18-10.00-XL0708R-R5	02741559	Arbor	10.000	0.197	3.248	18	1.500	3.500	–	2.000	6000	9.260	RD..10
335.18-10.00-XL0708R-R5	02740508	Arbor hole	10.000	0.197	3.386	18	2.000	3.000	0.625	0.509	6000	6.610	RD..10
335.18-12.00-XL0708R-R5	02740883	Arbor hole	12.000	0.197	4.390	22	2.000	3.000	0.625	0.509	5300	9.700	RD..10
R335.18-04.00-0809R-R6	02599486	Arbor	4.079	0.236	1.053	8	1.000	1.880	–	2.000	9400	2.650	RP..12
R335.18-05.00-0809R-R6	02599487	Arbor	5.079	0.236	1.368	10	1.250	2.250	–	2.000	8400	3.530	RP..12
335.18-05.00-0809R-R6	02599495	Arbor hole	5.079	0.236	1.324	10	1.500	2.252	0.625	0.548	8400	1.980	RP..12
R335.18-06.00-0809R-R6	02599488	Arbor	6.079	0.236	1.624	12	1.500	2.750	–	2.000	7500	4.190	RP..12
335.18-06.00-0809R-R6	02599496	Arbor hole	6.079	0.236	1.829	12	1.500	2.252	0.625	0.548	7500	2.870	RP..12
R335.18-08.00-XL0809R-R6	02740906	Arbor	8.000	0.236	2.264	14	1.500	3.500	–	2.000	6700	8.380	RP..12
335.18-08.00-XL0809R-R6	02740246	Arbor hole	8.000	0.236	2.421	14	2.000	3.000	0.625	0.548	6700	4.850	RP..12
R335.18-10.00-XL0809R-R6	02741561	Arbor	10.000	0.236	3.248	18	1.500	3.500	–	2.000	6000	10.800	RP..12
335.18-10.00-XL0809R-R6	02740527	Arbor hole	10.000	0.236	3.386	18	2.000	3.000	0.625	0.548	6000	7.940	RP..12
335.18-12.00-XL0809R-R6	02740884	Arbor hole	12.000	0.236	4.390	22	2.000	3.000	0.625	0.548	5300	11.900	RP..12

Width max 5-6 mm - Half side - Left hand with cassette

Cutter 335.18 - Insert LNK. – Metric

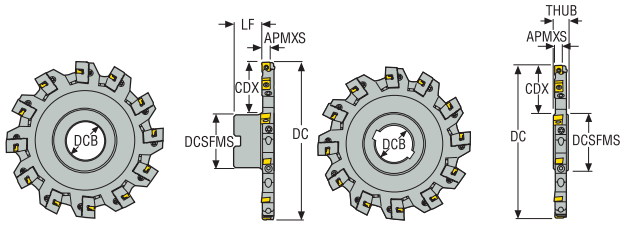


- For insert selection and cutting data recommendations, see page(s) 454-455
- For complete insert programme, see page(s) 811-812
- For spare parts and technical information, see page 447-453
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	APMXS	CDX	ZEFP	DCSFMS	DCB	THUB	LF	RPMX	Weight	Insert
			mm	mm	mm		mm	mm	mm	mm		kg	
R335.18-080.0810.27-6L	02611696	Arbor	80,0	5,0	14,8	6	48,0	27,0	–	42,0	10500	0,7	LNK.05..
R335.18-100.0810.27-8L	02576028	Arbor	100,0	5,0	24,8	8	48,0	27,0	–	42,0	9400	0,8	LNK.05..
335.18-100.0810.27-8L	02575778	Arbor hole	100,0	5,0	27,2	8	41,0	27,0	15,0	3,5	9400	0,4	LNK.05..
R335.18-125.0810.32-10L	02576029	Arbor	125,0	5,0	32,3	10	58,0	32,0	–	42,0	8400	1,0	LNK.05..
335.18-125.0810.40-10L	02575787	Arbor hole	125,0	5,0	32,7	10	55,0	40,0	15,0	3,5	8400	0,6	LNK.05..
R335.18-160.0810.40-12L	02576030	Arbor	160,0	5,0	43,8	12	70,0	40,0	–	42,0	7500	1,6	LNK.05..
335.18-160.0810.40-12L	02575796	Arbor hole	160,0	5,0	50,2	12	55,0	40,0	15,0	3,5	7500	1,0	LNK.05..
R335.18-200.0810XL.40-14L	02713444	Arbor	200,0	5,0	53,5	14	90,0	40,0	–	42,0	6700	2,7	LNK.05..
335.18-200.0810XL.50-14L	02713344	Arbor hole	200,0	5,0	63,5	14	69,0	50,0	15,0	3,5	6700	1,7	LNK.05..
R335.18-250.0810XL.40-18L	02713466	Arbor	250,0	5,0	78,0	18	90,0	40,0	–	42,0	6000	3,5	LNK.05..
335.18-250.0810XL.50-18L	02713355	Arbor hole	250,0	5,0	88,5	18	69,0	50,0	15,0	3,5	6000	1,7	LNK.05..
335.18-315.0810XL.50-24L	02713361	Arbor hole	315,0	5,0	121,0	24	69,0	50,0	15,0	3,5	5300	1,9	LNK.05..
R335.18-080.1012.27-6L	00018592	Arbor	80,0	6,0	14,8	6	48,0	27,0	–	40,0	10500	1,0	LNK.06..
R335.18-100.1012.27-8L	00018612	Arbor	100,0	6,0	24,8	8	48,0	27,0	–	40,0	9400	0,9	LNK.06..
335.18-100.1012.27-8L	00018412	Arbor hole	100,0	6,0	27,2	8	41,0	27,0	15,0	2,5	9400	0,4	LNK.06..
R335.18-125.1012.32-10L	00018624	Arbor	125,0	6,0	32,3	10	58,0	32,0	–	40,0	8400	0,9	LNK.06..
335.18-125.1012.40-10L	00018426	Arbor hole	125,0	6,0	32,7	10	55,0	40,0	15,0	2,5	8400	0,8	LNK.06..
R335.18-160.1012.40-12L	00018687	Arbor	160,0	6,0	43,8	12	70,0	40,0	–	40,0	7500	1,3	LNK.06..
335.18-160.1012.40-12L	00018439	Arbor hole	160,0	6,0	50,2	12	55,0	40,0	15,0	2,5	7500	1,5	LNK.06..
R335.18-200.1012XL.40-14L	02713459	Arbor	200,0	6,0	53,5	14	90,0	40,0	–	40,0	6700	2,9	LNK.06..
335.18-200.1012XL.50-14L	02713348	Arbor hole	200,0	6,0	63,5	14	69,0	50,0	15,0	2,5	6700	1,7	LNK.06..
R335.18-250.1012XL.40-18L	02713467	Arbor	250,0	6,0	78,0	18	90,0	40,0	–	40,0	6000	3,9	LNK.06..
335.18-250.1012XL.50-18L	02713356	Arbor hole	250,0	6,0	88,5	18	69,0	50,0	15,0	2,5	6000	1,8	LNK.06..
335.18-315.1012XL.50-24L	02713363	Arbor hole	315,0	6,0	121,0	24	69,0	50,0	15,0	2,5	5300	4,5	LNK.06..

Cutter 335.18 - Insert LNK. – Metric

Width max 7,5 mm - Half side - Left hand with cassette

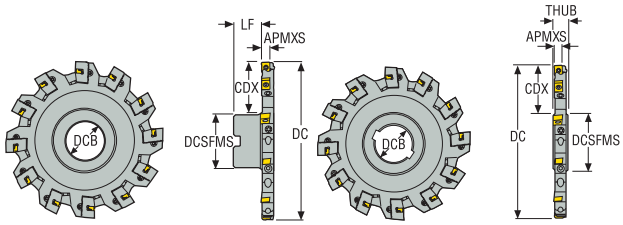


- For insert selection and cutting data recommendations, see page(s) 454-455
- For complete insert programme, see page(s) 812
- For spare parts and technical information, see page 447-453
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	APMXS	CDX	ZEFP	DCSFMS	DCB	THUB	LF	RPMX	Weight	Insert
			mm	mm	mm		mm	mm	mm	mm		kg	
R335.18-080.1215.27-6L	00018729	Arbor	80,0	7,5	14,8	6	48,0	27,0	–	38,0	10500	0,8	LNK.08..
R335.18-100.1215.27-8L	00018756	Arbor	100,0	7,5	24,8	8	48,0	27,0	–	38,0	9400	1,1	LNK.08..
335.18-100.1215.27-8L	00018530	Arbor hole	100,0	7,5	27,2	8	41,0	27,0	15,0	1,5	9400	0,6	LNK.08..
R335.18-125.1215.32-10L	00018777	Arbor	125,0	7,5	33,3	10	58,0	32,0	–	38,0	8400	1,0	LNK.08..
335.18-125.1215.40-10L	00018542	Arbor hole	125,0	7,5	32,7	10	55,0	40,0	15,0	1,5	8400	0,9	LNK.08..
R335.18-160.1215.40-12L	00018788	Arbor	160,0	7,5	43,8	12	70,0	40,0	–	38,0	7500	2,1	LNK.08..
335.18-160.1215.40-12L	00018548	Arbor hole	160,0	7,5	50,2	12	55,0	40,0	15,0	1,5	7500	1,4	LNK.08..
R335.18-200.1215XL.40-14L	02713461	Arbor	200,0	7,5	53,5	14	90,0	40,0	–	38,0	6700	3,5	LNK.08..
335.18-200.1215XL.50-14L	02713349	Arbor hole	200,0	7,5	63,5	14	69,0	50,0	15,0	1,5	6700	2,0	LNK.08..
R335.18-250.1215XL.40-18L	02713470	Arbor	250,0	7,5	78,0	18	90,0	40,0	–	90,0	6000	4,5	LNK.08..
335.18-250.1215XL.50-18L	02713357	Arbor hole	250,0	7,5	88,5	18	69,0	50,0	15,0	1,5	6000	3,2	LNK.08..
335.18-315.1215XL.50-24L	02713364	Arbor hole	315,0	7,5	121,0	24	69,0	50,0	15,0	1,5	5300	5,6	LNK.08..

Width max 0.197-0.236” - Half side - Left hand with cassette

Cutter 335.18 - Insert LNK. – inch

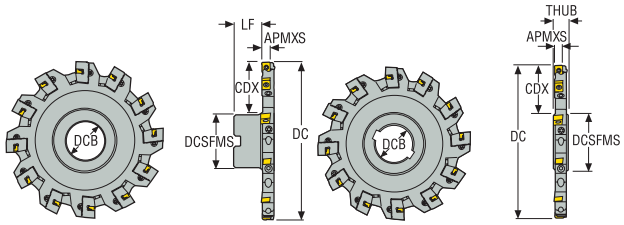


- For insert selection and cutting data recommendations, see page(s) 454-455
- For complete insert programme, see page(s) 811-812
- For spare parts and technical information, see page 447-453
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	APMX	CDX	ZEFP	DCSFMS	DCB	THUB	LF	RPMX	Weight	Insert
			inch	inch	inch		inch	inch	inch	inch		lbs	
R335.18-04.00-0506L	02834741	Arbor	4.000	0.236	1.024	8	1.880	1.000	–	1.685	9400	1.760	LNK.05
335.18-04.00-0506L	02834738	Arbor hole	4.000	0.197	1.102	8	1.550	1.000	0.625	0.154	9400	0.880	LNK.05
R335.18-05.00-0506L	02834742	Arbor	5.000	0.197	1.339	10	2.250	1.250	–	1.685	8400	2.650	LNK.05
335.18-05.00-0506L	02834739	Arbor hole	5.000	0.197	1.299	10	2.252	1.500	0.625	0.154	8400	1.320	LNK.05
R335.18-06.00-0506L	02834743	Arbor	6.000	0.197	1.575	12	2.750	1.500	–	1.685	7500	3.310	LNK.05
335.18-06.00-0506L	02834740	Arbor hole	6.000	0.197	1.772	12	2.252	1.500	0.625	0.154	7500	1.980	LNK.05
R335.18-08.00-XL0506L	02740907	Arbor	8.000	0.197	2.224	14	3.500	1.500	–	1.685	6700	6.170	LNK.05
335.18-08.00-XL0506L	02740247	Arbor hole	8.000	0.197	2.421	14	3.000	2.000	0.625	0.154	6700	3.310	LNK.05
R335.18-10.00-XL0506L	02741562	Arbor	10.000	0.197	3.209	18	3.500	1.500	–	1.685	6000	8.160	LNK.05
335.18-10.00-XL0506L	02740528	Arbor hole	10.000	0.197	3.386	18	3.000	2.000	0.625	0.154	6000	5.510	LNK.05
335.18-12.00-XL0506L	02740885	Arbor hole	12.000	0.197	4.390	22	3.000	2.000	0.625	0.154	5300	7.940	LNK.05
R335.18-04.00-0708L	00079837	Arbor	4.000	0.236	1.014	8	1.880	1.000	–	1.606	9400	2.200	LNK.06
R335.18-05.00-0708L	00079838	Arbor	5.000	0.236	1.329	10	2.250	1.250	–	1.606	8400	3.090	LNK.06
335.18-05.00-0708L	00079776	Arbor hole	5.000	0.236	1.258	10	2.252	1.500	0.625	0.117	8400	1.760	LNK.06
R335.18-06.00-0708L	00079839	Arbor	6.000	0.236	1.534	12	2.750	1.500	–	1.606	7500	3.750	LNK.06
335.18-06.00-0708L	00079777	Arbor hole	6.000	0.236	1.766	12	2.252	1.500	0.625	0.117	7500	2.430	LNK.06
R335.18-08.00-XL0708L	02740908	Arbor	8.000	0.236	2.224	14	3.500	1.500	–	1.606	6700	6.830	LNK.06
335.18-08.00-XL0708L	02740248	Arbor hole	8.000	0.236	2.421	14	3.000	2.000	0.625	0.117	6700	3.970	LNK.06
R335.18-10.00-XL0708L	02741564	Arbor	10.000	0.236	3.209	18	3.500	1.500	–	1.606	6000	9.260	LNK.06
335.18-10.00-XL0708L	02740530	Arbor hole	10.000	0.236	3.386	18	3.000	2.000	0.625	0.117	6000	6.610	LNK.06
335.18-12.00-XL0708L	02740887	Arbor hole	12.000	0.236	4.390	22	3.000	2.000	0.625	0.117	5300	9.700	LNK.06

Cutter 335.18 - Insert LNK. – inch

Width max 0.295” - Half side - Half side - Left hand with cassette

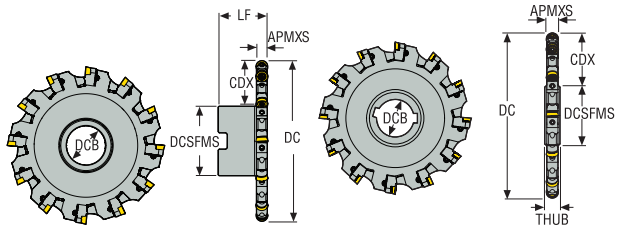


- For insert selection and cutting data recommendations, see page(s) 454-455
- For complete insert programme, see page(s) 812
- For spare parts and technical information, see page 447-453
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	APMX	CDX	ZEFP	DCSFMS	DCB	THUB	LF	RPMX	Weight	Insert
			inch	inch	inch		inch	inch	inch	inch		lbs	
R335.18-04.00-0809L	00079973	Arbor	4.000	0.295	1.014	8	1.880	1.000	–	1.528	9400	2.430	LNK.08
R335.18-05.00-0809L	00079974	Arbor	5.000	0.295	1.329	10	2.250	1.250	–	1.528	8400	3.530	LNK.08
335.18-05.00-0809L	00079957	Arbor hole	5.000	0.295	1.285	10	2.252	1.500	0.625	0.077	8400	1.980	LNK.08
R335.18-06.00-0809L	00079975	Arbor	6.000	0.295	1.585	12	2.750	1.500	–	1.528	7500	4.190	LNK.08
335.18-06.00-0809L	00079958	Arbor hole	6.000	0.295	1.790	12	2.252	1.500	0.625	0.077	7500	2.870	LNK.08
R335.18-08.00-XL0809L	02740909	Arbor	8.000	0.295	2.224	14	3.500	1.500	–	1.528	6700	7.720	LNK.08
335.18-08.00-XL0809L	02740249	Arbor hole	8.000	0.295	2.421	14	3.000	2.000	0.625	0.077	6700	4.850	LNK.08
R335.18-10.00-XL0809L	02741566	Arbor	10.000	0.295	3.209	18	3.500	1.500	–	1.528	6000	10.800	LNK.08
335.18-10.00-XL0809L	02740531	Arbor hole	10.000	0.295	3.386	18	3.000	2.000	0.625	0.077	6000	7.940	LNK.08
335.18-12.00-XL0809L	02740888	Arbor hole	12.000	0.295	4.390	22	3.000	2.000	0.625	0.077	5300	11.900	LNK.08

Half side - Left hand - Radius profile with cassette

Cutter 335.18 - Insert RD..10T3/RP..1204 – Metric

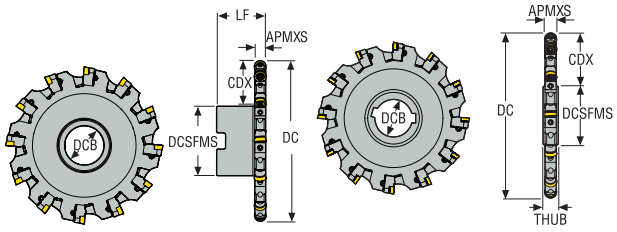


- For insert selection and cutting data recommendations, see page(s) 473-478
- For complete insert programme, see page(s) 817, 819
- For spare parts and technical information, see page 447-453
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	APMXS	CDX	ZEFP	DCB	DCSFMS	THUB	LF	RPMX	Weight	Insert
			mm	mm	mm		mm	mm	mm	mm		kg	
R335.18-080.1012.27-6L-R5	00030354	Arbor	82,0	5,0	15,8	6	27,0	48,0	–	40,0	10500	0,8	RD..10T3
R335.18-100.1012.27-8L-R5	00030358	Arbor	102,0	5,0	25,8	8	27,0	48,0	–	40,0	9400	1,0	RD..10T3
335.18-100.1012.27-8L-R5	00030339	Arbor hole	102,0	5,0	28,2	8	27,0	41,0	15,0	2,5	9400	0,4	RD..10T3
R335.18-125.1012.32-10L-R5	00030361	Arbor	127,0	5,0	33,3	10	32,0	58,0	–	42,0	8400	1,2	RD..10T3
335.18-125.1012.40-10L-R5	00030342	Arbor hole	127,0	5,0	33,7	10	40,0	55,0	15,0	2,5	8400	0,8	RD..10T3
R335.18-160.1012.40-12L-R5	00030366	Arbor	162,0	5,0	44,8	12	40,0	70,0	–	40,0	7500	2,3	RD..10T3
335.18-160.1012.40-12L-R5	00030345	Arbor hole	162,0	5,0	51,2	12	40,0	55,0	15,0	2,5	7500	11,0	RD..10T3
R335.18-200.1012XL.40-14L-R5	02713464	Arbor	200,0	5,0	53,5	14	40,0	90,0	–	40,0	6700	2,9	RD..10T3
335.18-200.1012XL.50-14L-R5	02713352	Arbor hole	200,0	5,0	63,5	14	50,0	69,0	15,0	2,5	6700	3,0	RD..10T3
R335.18-250.1012XL.40-18L-R5	02713476	Arbor	250,0	5,0	78,0	18	40,0	90,0	–	40,0	6000	9,5	RD..10T3
335.18-250.1012XL.50-18L-R5	02713359	Arbor hole	250,0	5,0	88,5	18	50,0	69,0	15,0	2,5	6000	1,8	RD..10T3
335.18-315.1012XL.50-24L-R5	02713367	Arbor hole	315,0	5,0	121,0	24	50,0	69,0	15,0	2,5	5300	2,0	RD..10T3
R335.18-080.1215.27-6L-R6	00030408	Arbor	82,0	6,0	15,8	6	27,0	48,0	–	38,0	10500	0,7	RP..1204
R335.18-100.1215.27-8L-R6	00030416	Arbor	102,0	6,0	25,8	8	27,0	48,0	–	38,0	9400	1,1	RP..1204
335.18-100.1215.27-8L-R6	00030373	Arbor hole	102,0	6,0	28,2	8	27,0	41,0	15,0	1,5	9400	0,6	RP..1204
R335.18-125.1215.32-10L-R6	00030419	Arbor	127,0	6,0	32,3	10	32,0	58,0	–	38,0	8400	1,1	RP..1204
335.18-125.1215.40-10L-R6	00030376	Arbor hole	127,0	6,0	33,7	10	40,0	55,0	15,0	1,5	8400	0,9	RP..1204
R335.18-160.1215.40-12L-R6	00030422	Arbor	162,0	6,0	44,8	12	40,0	70,0	–	38,0	7500	2,0	RP..1204
335.18-160.1215.40-12L-R6	00030380	Arbor hole	162,0	6,0	51,2	12	40,0	55,0	15,0	1,5	7500	1,5	RP..1204
R335.18-200.1215XL.40-14L-R6	02713465	Arbor	200,0	6,0	53,5	14	40,0	90,0	–	38,0	6700	3,4	RP..1204
335.18-200.1215XL.50-14L-R6	02713354	Arbor hole	200,0	6,0	63,5	14	50,0	69,0	15,0	1,5	6700	1,9	RP..1204
R335.18-250.1215XL.40-18L-R6	02713478	Arbor	250,0	6,0	78,0	18	40,0	90,0	–	38,0	6000	4,4	RP..1204
335.18-250.1215XL.50-18L-R6	02713360	Arbor hole	250,0	6,0	88,5	18	50,0	69,0	15,0	1,5	6000	2,0	RP..1204
335.18-315.1215XL.50-24L-R6	02713368	Arbor hole	315,0	6,0	121,0	24	50,0	69,0	15,0	1,5	5300	2,2	RP..1204

Cutter 335.18 - Insert RD..10T3/RP..1204 – inch

Half side - Left hand - Radius profile with cassette



- For insert selection and cutting data recommendations, see page(s) 473-478
- For complete insert programme, see page(s) 817, 819
- For spare parts and technical information, see page 447-453
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	APMXS	CDX	ZEFP	DCB	DCSFMS	THUB	LF	RPMX	Weight	Insert
			inch	inch	inch		inch	inch	inch	inch		lbs	
335.18-08.00-XL0708L-R5	02740251	Arbor hole	8.000	0.197	2.421	14	2.000	3.000	0.625	0.115	6700	3.970	RD..10
335.18-10.00-XL0708L-R5	02740532	Arbor hole	10.000	0.197	3.386	18	2.000	3.000	0.625	0.115	6000	6.610	RD..10
335.18-12.00-XL0708L-R5	02740889	Arbor hole	12.000	0.197	4.390	22	2.000	3.000	0.625	0.115	5300	9.700	RD..10
R335.18-08.00-XL0708L-R5	02740910	Arbor	8.000	0.197	2.224	14	1.500	3.500	–	1.606	6700	6.830	RD..10
R335.18-10.00-XL0708L-R5	02741572	Arbor	10.000	0.197	3.248	18	1.500	3.500	–	1.606	6000	9.260	RD..10
335.18-05.00-0809L-R6	02599499	Arbor hole	5.079	0.236	1.324	10	1.500	2.252	0.625	0.078	8400	1.980	RP..12
335.18-06.00-0809L-R6	02599500	Arbor hole	6.079	0.236	1.829	12	1.500	2.252	0.625	0.078	7500	2.870	RP..12
335.18-08.00-XL0809L-R6	02740252	Arbor hole	8.000	0.236	2.421	14	2.000	3.000	0.625	0.078	6700	4.850	RP..12
335.18-10.00-XL0809L-R6	02740534	Arbor hole	10.000	0.236	3.386	18	2.000	3.000	0.625	0.078	6000	7.940	RP..12
335.18-12.00-XL0809L-R6	02740891	Arbor hole	12.000	0.236	4.390	22	2.000	3.000	0.625	0.078	5300	11.900	RP..12
R335.18-08.00-XL0809L-R6	02740911	Arbor	8.000	0.236	2.224	14	1.500	3.500	–	1.528	6700	7.720	RP..12
R335.18-10.00-XL0809L-R6	02741574	Arbor	10.000	0.236	3.248	18	1.500	3.500	–	1.528	6000	10.800	RP..12
R335.18-04.00-0809L-R6	02599491	Arbor	4.079	0.236	1.063	4	1.000	1.880	–	1.528	9400	2.430	RP..12
R335.18-05.00-0809L-R6	02599492	Arbor	5.079	0.236	1.368	10	1.250	2.250	–	1.528	8400	3.530	RP..12
R335.18-06.00-0809L-R6	02599493	Arbor	6.079	0.236	1.624	12	1.500	2.750	–	1.528	7500	4.190	RP..12



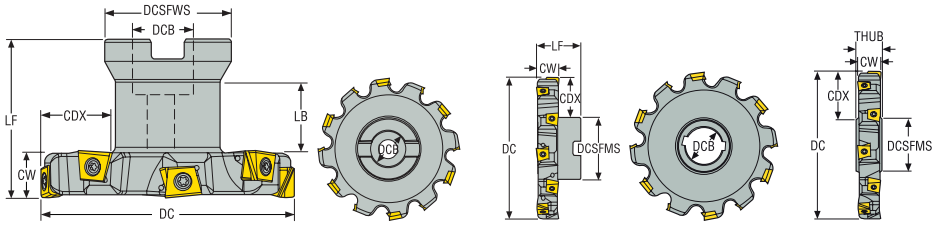
335.25

Easy to use, strong and free-cutting disc milling cutter system dedicated for large width of cut slotting, or half side and face cutting operations

- Width of cut 13.5-32 mm (.512 - 1.25 inch) - slot with flat bottom
- Cutter range diameter 80-315 mm (4.0 - 12 inch)
- Fixed or adjustable cutting width with replaceable cassettes
- Available with Arbor or Arbor hole connection , with through coolant option up to diameter 160mm
- Corner radii range 0.4-6 mm (.016 - 0.236 inch), and possibility to apply round insert dia 16/20 mm on adjustable system
- Economical solution with 4 cutting edges per insert
- Basic tolerance of the slot: Fixed pocket cutters: +/-0.08mm (+/-0.003”),Adjustable cutter: +/-0.07mm (+/-0.0025”)

Cutter 335.25 - Insert XNHQ/LNHQ – Metric

Width 15/20/25 mm - Full side and face - Fixed pocket

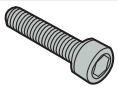
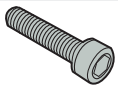


- For insert selection and cutting data recommendations, see page(s) 456-463
- For complete insert programme, see page(s) 841, 842
- For spare parts and technical information, see page 447-453
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	CW	CDX	ZEFP	ZNP	DCB	DCSFMS	THUB	LF	LB	Through coolant	RPMX	Weight	Insert: First choice	Insert: Alternative choice
			mm	mm	mm			mm	mm	mm	mm	mm			kg		
R335.25-080.15.22-4NA	02989533	Arbor	80,0	15,0	22,7	4	8	22,0	40,0	–	50,0	21,4	✓	10200	0,7	XNHQ09…	–
R335.25-100.15.27-5NA	02989535	Arbor	100,0	15,0	25,3	5	10	27,0	48,0	–	50,0	–	✓	9200	1,0	XNHQ09…	–
R335.25-125.15.32-6NA	02989541	Arbor	125,0	15,0	32,8	6	12	32,0	58,0	–	50,0	–	✓	8200	1,7	XNHQ09…	–
R335.25-160.15.40-7NA	02989542	Arbor	160,0	15,0	44,3	7	14	40,0	70,0	–	50,0	–	✓	7200	2,5	XNHQ09…	–
335.25-160.15.40-7N	02989544	Arbor hole	160,0	15,0	52,0	7	14	40,0	55,0	15,0	15,0	–	–	7200	1,7	XNHQ09…	–
R335.25-200.15.40-8N	02989543	Arbor	200,0	15,0	54,3	8	16	40,0	90,0	–	50,0	–	–	6500	3,6	XNHQ09…	–
335.25-200.15.50-8N	02989545	Arbor hole	200,0	15,0	64,5	8	16	50,0	69,0	15,0	15,0	–	–	6500	2,6	XNHQ09…	–
R335.25-100.20.27-4NA	02953594	Arbor	100,0	20,0	25,3	4	8	27,0	48,0	–	50,0	–	✓	7200	1,3	XNHQ12…	–
R335.25-125.20.32-5NA	02953595	Arbor	125,0	20,0	32,8	5	10	32,0	58,0	–	50,0	–	✓	6500	2,0	XNHQ12…	–
R335.25-160.20.40-6NA	02953596	Arbor	160,0	20,0	44,3	6	12	40,0	70,0	–	50,0	–	✓	5700	2,9	XNHQ12…	–
335.25-160.20.40-6N	02961517	Arbor hole	160,0	20,0	51,5	6	12	40,0	55,0	20,0	20,0	–	–	5600	2,3	XNHQ12…	–
R335.25-200.20.40-7N	02953597	Arbor	200,0	20,0	54,3	7	14	40,0	90,0	–	50,0	–	–	5100	5,1	XNHQ12…	–
335.25-200.20.50-7N	02961518	Arbor hole	200,0	20,0	64,3	7	14	50,0	69,0	20,0	20,0	–	–	5100	3,5	XNHQ12…	–
R335.25-250.20.60-9N	02953598	Arbor	250,0	20,0	59,3	9	18	60,0	130,0	–	50,0	–	–	4600	7,2	XNHQ12…	–
335.25-250.20.50-9N	02961519	Arbor hole	250,0	20,0	88,5	9	18	50,0	71,0	20,0	20,0	–	–	4600	5,8	XNHQ12…	–
R335.25-125.25.32-5NA	02788023	Arbor	125,0	25,0	33,0	5	10	32,0	58,0	–	50,0	–	✓	4900	2,0	XNHQ1407…	LNHQ1407…
R335.25-160.25.40-6NA	02788024	Arbor	160,0	25,0	44,4	6	12	40,0	70,0	–	50,0	–	✓	4400	3,1	XNHQ1407…	LNHQ1407…
R335.25-200.25.40-7N	02788025	Arbor	200,0	25,0	54,5	7	14	40,0	90,0	–	50,0	–	–	3900	5,6	XNHQ1407…	LNHQ1407…
335.25-200.25.50-7N	02788028	Arbor hole	200,0	25,0	62,7	7	14	50,0	71,0	32,0	25,0	–	–	3900	4,3	XNHQ1407…	LNHQ1407…
335.25-250.25.50-9N	02788029	Arbor hole	250,0	25,0	87,7	9	18	50,0	71,0	32,0	25,0	–	–	3500	7,3	XNHQ1407…	LNHQ1407…
R335.25-250.25.60-9N	02788026	Arbor	250,0	25,0	59,5	9	18	60,0	130,0	–	50,0	–	–	3500	8,3	XNHQ1407…	LNHQ1407…

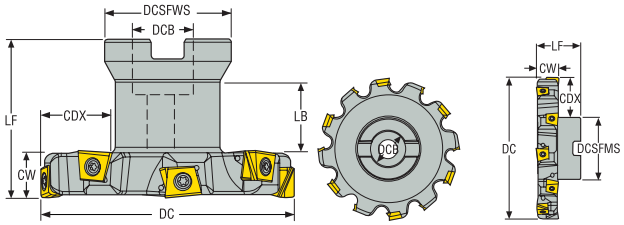
Spare Parts, included in delivery

Accessories

For cutter	Arbor screw	Insert key	Insert screw	Arbor screw	Insert clamping torque	Torque key
						
R335.25 CW=15 DC=80	MLC6S10X45	H4B-T10P	C03509-T10P	–	3.0NM	T00-10P30
R335.25 CW=15 DC=100	MLC6S12X50	H4B-T10P	C03509-T10P	–	3.0NM	T00-10P30
R335.25 CW=15 DC=125	950E1645	H4B-T10P	C03509-T10P	–	3.0NM	T00-10P30
R335.25 CW=15 DC=160	MLC6S20X40	H4B-T10P	C03509-T10P	–	3.0NM	T00-10P30
335.25 CW=15	–	H4B-T10P	C03509-T10P	–	3.0NM	T00-10P30
R335.25 CW=15 DC=200	–	–	C03509-T10P	MC6S12X50	3.0NM	T00-10P30
R335.25 CW=20 DC=100	MLC6S12X50	H4B-T10P	C03511-T10P	–	3.0NM	T00-10P30
R335.25 CW=20 DC=125	950E1645	H4B-T10P	C03511-T10P	–	3.0NM	T00-10P30
R335.25 CW=20 DC=160	MLC6S20X40	H4B-T10P	C03511-T10P	–	3.0NM	T00-10P30
335.25 CW=20	–	H4B-T10P	C03511-T10P	–	3.0NM	T00-10P30
R335.25 CW=20 DC=200	–	H4B-T10P	C03511-T10P	MC6S12X50	3.0NM	T00-10P30
R335.25 CW=20 DC=250	–	H4B-T10P	C03511-T10P	MC6S16X50	3.0NM	T00-10P30
R335.25 CW=25 DC=125	MLC6S16X35	H4B-T15PL	C04013-T15P	–	5.0NM	T00-15P50
R335.25 CW=25 DC=160	MLC6S20X40	H4B-T15PL	C04013-T15P	–	5.0NM	T00-15P50
R335.25 CW=25 DC=200	–	H4B-T15PL	C04013-T15P	MC6S12X50	5.0NM	T00-15P50
335.25 CW=25	–	H4B-T15PL	C04013-T15P	–	5.0NM	T00-15P50
R335.25 CW=25 DC=250	–	H4B-T15PL	C04013-T15P	MC6S16X50	5.0NM	T00-15P50

Cutter 335.25 - Insert XNHQ/LNHQ – inch

Width 0.750/1.000” - Full side and face - Fixed pocket

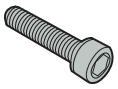


- For insert selection and cutting data recommendations, see page(s) 458-463
- For complete insert programme, see page(s) 841, 842
- For spare parts and technical information, see page 447-453
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	CW	CDX	ZEFP	ZNP	DCB	DCSFMS	THUB	LF	LB	Through coolant	RPMX	Weight	Insert: First choice	Insert: Alternative choice
			inch	inch	inch			inch	inch	inch	inch	inch			lbs		
R335.25-05.00-0.75-5NA	02989512	Arbor	5.000	0.750	1.331	5	10	1.250	2.283	–	2.000	–	✓	6500	4.410	XNHQ12	–
R335.25-06.00-0.75-6NA	02989513	Arbor	6.000	0.750	1.595	6	12	1.500	2.756	–	2.000	–	✓	5700	6.170	XNHQ12	–
R335.25-05.00-1.000-5NA	02788030	Arbor	5.000	1.000	1.350	5	10	1.250	2.250	–	2.000	–	✓	4900	4.630	XNHQ14	LNHQ14
R335.25-06.00-1.000-6NA	02788031	Arbor	6.000	1.000	1.598	6	12	1.500	2.750	–	2.000	–	✓	4400	6.390	XNHQ14	LNHQ14
335.25-06.00-1.000-6N	02788034	Arbor hole	6.000	1.000	1.846	6	12	1.500	2.252	1.250	1.000	–	–	4400	5.730	XNHQ14	LNHQ14
R335.25-08.00-1.000-7N	02788032	Arbor	8.000	1.000	2.224	7	14	1.500	3.500	–	2.000	–	–	3900	11.680	XNHQ14	LNHQ14
335.25-10.00-1.000-9N	02788036	Arbor hole	10.000	1.000	3.429	9	18	2.000	3.000	1.250	1.000	–	–	3500	18.080	XNHQ14	LNHQ14

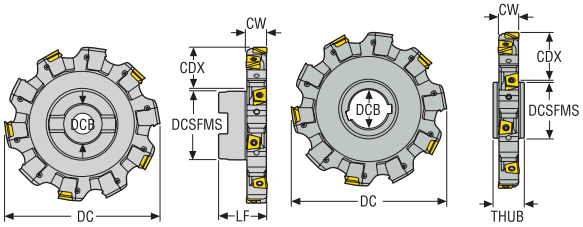
Spare Parts, included in delivery

Accessories

For cutter	Arbor screw	Insert key	Insert screw	Insert clamping torque	Torque key
					
R335.25 CW 0.750 DC=5.000	ULC6S5/8UNFX11/2	H4B-T10P	C03511-T10P	26.6IN.LBS	T00-10P30
R335.25 CW 0.750 DC=6.000	ULC6S3/4UNFX11/2	H4B-T10P	C03511-T10P	26.6IN.LBS	T00-10P30
R335.25 CW 1.000 DC=5.000	ULC6S5/8UNFX11/2	H4B-T15PL	C04013-T15P	44.3IN.LBS	T00-15P50
R335.25 CW 1.000 DC=6.000	ULC6S5/8UNFX11/2	H4B-T15PL	C04013-T15P	44.3IN.LBS	T00-15P50
335.25 CW 1.000	–	H4B-T15PL	C04013-T15P	44.3IN.LBS	T00-15P50
R335.25 CW 1.000 DC=8.000	–	H4B-T15PL	C04013-T15P	44.3IN.LBS	T00-15P50

Width 13,5 - 21 mm - Full side and face - Adjustable design

Cutter 335.25 - Insert XNHQ – Metric



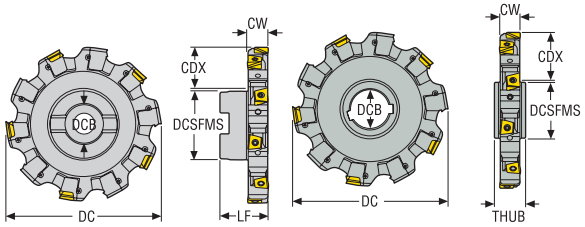
- For insert selection and cutting data recommendations, see page(s) 456-463
- For complete insert programme, see page(s) 841, 842
- For spare parts and technical information, see page 447-453
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	CWN	CWX	CDX	ZEFP	ZNP	DCB	DCSFMS	THUB	LF	RPMX	Weight	Insert
			mm	mm	mm	mm			mm	mm	mm	mm		kg	
R335.25-100.1317.27-3N	02993725	Arbor	100,0	13,5	17,0	24,8	3	6	27,0	48,0	–	50,0	9200	1,0	XNHQ09..
R335.25-125.1317.32-4N	02993726	Arbor	125,0	13,5	17,0	32,3	4	8	32,0	58,0	–	50,0	8200	1,4	XNHQ09..
335.25-125.1317.40-4N	02993731	Arbor hole	125,0	13,5	17,0	32,9	4	8	40,0	55,0	17,0	15,25	8200	0,9	XNHQ09..
R335.25-160.1317.40-6N	02993727	Arbor	160,0	13,5	17,0	43,8	6	12	40,0	70,0	–	50,0	7200	2,3	XNHQ09..
335.25-160.1317.40-6N	02993732	Arbor hole	160,0	13,5	17,0	50,5	6	12	40,0	55,0	17,0	15,25	7200	1,5	XNHQ09..
R335.25-200.1317.40-7N	02993728	Arbor	200,0	13,5	17,0	54,0	7	14	40,0	90,0	–	50,0	6500	3,6	XNHQ09..
335.25-200.1317.50-7N	02993733	Arbor hole	200,0	13,5	17,0	63,5	7	14	50,0	69,0	17,0	15,25	6500	2,5	XNHQ09..
R335.25-250.1317XL.60-8N	02993729	Arbor	250,0	13,5	17,0	59,0	8	16	60,0	130,0	–	50,0	5800	6,0	XNHQ09..
335.25-250.1317XL.50-8N	02993734	Arbor hole	250,0	13,5	17,0	88,5	8	16	50,0	69,0	17,0	15,25	5800	3,9	XNHQ09..
R335.25-315.1317XL.60-10N	02993730	Arbor	315,0	13,5	17,0	91,5	10	20	60,0	130,0	–	50,0	5200	9,0	XNHQ09..
335.25-315.1317XL.50-10N	02993735	Arbor hole	315,0	13,5	17,0	121,0	10	20	50,0	69,0	17,0	15,25	5200	6,5	XNHQ09..
R335.25-100.1721.27-3N	02993714	Arbor	100,0	17,0	21,0	24,8	3	6	27,0	48,0	–	50,0	7200	1,1	XNHQ12..
R335.25-125.1721.32-4N	02993715	Arbor	125,0	17,0	21,0	32,3	4	8	32,0	58,0	–	50,0	6500	1,6	XNHQ12..
335.25-125.1721.40-4N	02993720	Arbor hole	125,0	17,0	21,0	32,9	4	8	40,0	55,0	21,0	19,0	8200	1,2	XNHQ12..
R335.25-160.1721.40-5N	02993716	Arbor	160,0	17,0	21,0	43,8	5	10	40,0	70,0	–	50,0	5700	2,7	XNHQ12..
335.25-160.1721.40-5N	02993721	Arbor hole	160,0	17,0	21,0	50,5	5	10	40,0	55,0	21,0	19,0	7200	1,9	XNHQ12..
R335.25-200.1721.40-6N	02993717	Arbor	200,0	17,0	21,0	54,0	6	12	40,0	90,0	–	50,0	5100	4,1	XNHQ12..
335.25-200.1721.50-6N	02993722	Arbor hole	200,0	17,0	21,0	63,5	6	12	50,0	69,0	21,0	19,0	5100	3,2	XNHQ12..
R335.25-250.1721XL.60-8N	02993718	Arbor	250,0	17,0	21,0	59,0	8	16	60,0	130,0	–	50,0	4600	6,7	XNHQ12..
335.25-250.1721XL.50-8N	02993723	Arbor hole	250,0	17,0	21,0	88,5	8	16	50,0	69,0	21,0	19,0	5800	4,9	XNHQ12..
R335.25-315.1721XL.60-10N	02993719	Arbor	315,0	17,0	21,0	91,5	10	20	60,0	130,0	–	50,0	4100	10,0	XNHQ12..
335.25-315.1721XL.50-10N	02993724	Arbor hole	315,0	17,0	21,0	121,0	10	20	50,0	69,0	21,0	19,0	5200	8,2	XNHQ12..

All listed adjustable cutters are set to the minimum cutter width CWN (factory setting).
Adjustable cutter may be ordered with the cutting width set to any value within its range (CWN - CWX), see technical data for more info at page 447

Cutter 335.25 - Insert XNHQ/LNHQ – Metric

Width 21 - 32 mm - Full side and face - Adjustable design



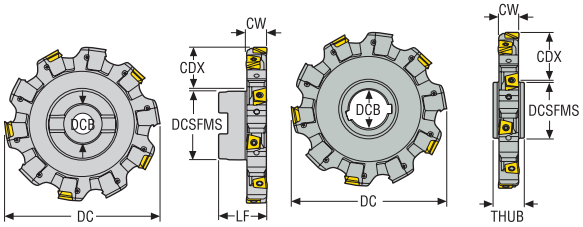
- For insert selection and cutting data recommendations, see page(s) 460-463
- For complete insert programme, see page(s) 841, 842
- For spare parts and technical information, see page 447-453
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	CWN	CWX	CDX	ZEFP	ZNP	DCB	DCSFMS	THUB	LF	RPMX	Weight	Insert: First choice	Insert: Alternative choice
			mm	mm	mm	mm			mm	mm	mm	mm		kg		
R335.25-125.2126.32-4N	02814578	Arbor	125,0	21,0	26,0	32,3	4	8	32,0	58,0	–	50,0	4900	1,7	XNHQ1407...	LNHQ1407...
335.25-125.2126.40-4N	02814599	Arbor hole	125,0	21,0	26,0	32,7	4	8	40,0	55,0	32,0	26,5	4900	1,3	XNHQ1407...	LNHQ1407...
R335.25-160.2126.40-5N	02814582	Arbor	160,0	21,0	26,0	43,8	5	10	40,0	70,0	–	50,0	4400	2,9	XNHQ1407...	LNHQ1407...
335.25-160.2126.40-5N	02814603	Arbor hole	160,0	21,0	26,0	50,3	5	10	40,0	55,0	32,0	26,5	4400	2,3	XNHQ1407...	LNHQ1407...
R335.25-200.2126.40-6N	02814586	Arbor	200,0	21,0	26,0	54,0	6	12	40,0	90,0	–	50,0	3900	4,6	XNHQ1407...	LNHQ1407...
335.25-200.2126.50-6N	02814607	Arbor hole	200,0	21,0	26,0	63,3	6	12	50,0	69,0	32,0	26,5	3900	3,9	XNHQ1407...	LNHQ1407...
R335.25-250.2126XL.60-7N	02814590	Arbor	250,0	21,0	26,0	59,0	7	14	60,0	130,0	–	50,0	3500	7,3	XNHQ1407...	LNHQ1407...
335.25-250.2126XL.50-7N	02814611	Arbor hole	250,0	21,0	26,0	88,3	7	14	50,0	69,0	32,0	26,5	3500	6,0	XNHQ1407...	LNHQ1407...
R335.25-315.2126XL.60-9N	02814594	Arbor	315,0	21,0	26,0	91,5	9	18	60,0	130,0	–	50,0	3100	11,3	XNHQ1407...	LNHQ1407...
335.25-315.2126XL.60-9N	02814615	Arbor hole	315,0	21,0	26,0	113,3	9	18	60,0	84,0	32,0	26,5	3100	10,0	XNHQ1407...	LNHQ1407...
R335.25-160.2632.40-5N	02827411	Arbor	160,0	26,0	32,0	43,8	5	10	40,0	70,0	–	50,0	4600	3,4	XNHQ1707...	LNHQ1707...
335.25-160.2632.40-5N	02829065	Arbor hole	160,0	26,0	32,0	50,3	5	10	40,0	55,0	32,0	29,0	4600	3,0	XNHQ1707...	LNHQ1707...
R335.25-200.2632.40-6N	02827415	Arbor	200,0	26,0	32,0	54,0	6	12	40,0	90,0	–	50,0	4100	5,3	XNHQ1707...	LNHQ1707...
335.25-200.2632.50-6N	02827441	Arbor hole	200,0	26,0	32,0	63,3	6	12	50,0	69,0	32,0	29,0	4100	4,8	XNHQ1707...	LNHQ1707...
R335.25-250.2632XL.60-7N	02827419	Arbor	250,0	26,0	32,0	59,0	7	14	60,0	130,0	–	50,0	3700	8,4	XNHQ1707...	LNHQ1707...
335.25-250.2632XL.50-7N	02827445	Arbor hole	250,0	26,0	32,0	88,3	7	14	50,0	69,0	32,0	29,0	3700	7,4	XNHQ1707...	LNHQ1707...
R335.25-315.2632XL.60-9N	02827423	Arbor	315,0	26,0	32,0	91,5	9	18	60,0	130,0	–	50,0	3300	13,4	XNHQ1707...	LNHQ1707...
335.25-315.2632XL.60-9N	02827449	Arbor hole	315,0	26,0	32,0	113,3	9	18	60,0	84,0	32,0	29,0	3300	12,3	XNHQ1707...	LNHQ1707...

All listed adjustable cutters are set to the minimum cutter width CWN (factory setting).
Adjustable cutter may be ordered with the cutting width set to any value within its range (CWN - CWX), see technical data for more info at page 447

Width 0.53-0.83” - Full side and face - Adjustable design

Cutter 335.25 - Insert XNHQ – inch



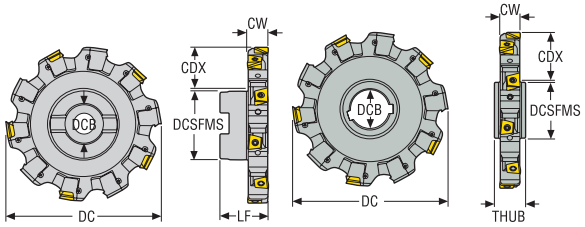
- For insert selection and cutting data recommendations, see page(s) 456-459
- For complete insert programme, see page(s) 841, 842
- For spare parts and technical information, see page 447-453
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	CWN	CWX	CDX	ZEFP	ZNP	DCB	DCSFMS	THUB	LF	RPMX	Weight	Insert
			inch	inch	inch	inch			inch	inch	inch	inch		lbs	
R335.25-04.00-0911N	02993907	Arbor	4.000	0.531	0.669	1.014	3	6	1.000	1.880	–	2.000	9200	2.870	XNHQ09
R335.25-05.00-0911N	02993911	Arbor	5.000	0.531	0.669	1.329	4	8	1.250	2.250	–	2.000	8200	18.740	XNHQ09
335.25-05.00-0911N	02993931	Arbor hole	5.000	0.531	0.669	1.289	4	8	1.500	2.250	0.750	0.641	8200	1.980	XNHQ09
R335.25-06.00-0911N	02993915	Arbor	6.000	0.531	0.669	1.579	5	10	1.500	2.750	–	2.000	7200	4.850	XNHQ09
335.25-06.00-0911N	02993935	Arbor hole	6.000	0.531	0.669	1.795	5	10	1.500	2.250	0.750	0.641	7200	3.750	XNHQ09
R335.25-08.00-0911N	02993919	Arbor	8.000	0.531	0.669	2.210	7	14	1.500	3.500	–	2.000	6500	9.260	XNHQ09
335.25-08.00-0911N	02993939	Arbor hole	8.000	0.531	0.669	2.420	7	14	2.000	3.000	0.750	0.641	6500	5.730	XNHQ09
R335.25-10.00-XL0911N	02993923	Arbor	10.000	0.531	0.669	2.400	8	16	2.500	5.120	–	2.000	5800	13.450	XNHQ09
335.25-10.00-XL0911N	02993943	Arbor hole	10.000	0.531	0.669	3.420	8	16	2.000	3.000	0.750	0.641	5800	9.040	XNHQ09
R335.25-12.00-XL0911N	02993927	Arbor	12.000	0.531	0.669	3.400	10	20	2.500	5.120	–	2.000	5200	17.860	XNHQ09
335.25-12.00-XL0911N	02993947	Arbor hole	12.000	0.531	0.669	4.460	10	20	2.000	3.000	0.750	0.641	5200	13.450	XNHQ09
R335.25-04.00-1113N	02993850	Arbor	4.000	0.669	0.827	1.014	3	6	1.000	1.880	–	2.000	7200	2.870	XNHQ12
R335.25-05.00-1113N	02993854	Arbor	5.000	0.669	0.827	1.329	4	8	1.250	2.250	–	2.000	6500	2.870	XNHQ12
335.25-05.00-1113N	02993881	Arbor hole	5.000	0.669	0.827	1.289	4	8	1.500	2.250	1.000	0.835	6500	2.650	XNHQ12
R335.25-06.00-1113N	02993858	Arbor	6.000	0.669	0.827	1.579	5	10	1.500	2.750	–	2.000	5700	5.510	XNHQ12
335.25-06.00-1113N	02993885	Arbor hole	6.000	0.669	0.827	1.795	5	10	1.500	2.250	1.000	0.835	5700	4.630	XNHQ12
R335.25-08.00-1113N	02993862	Arbor	8.000	0.669	0.827	2.210	6	12	1.500	3.500	–	2.000	5100	10.800	XNHQ12
335.25-08.00-1113N	02993889	Arbor hole	8.000	0.669	0.827	2.420	6	12	2.000	3.000	1.000	0.835	5100	9.920	XNHQ12
R335.25-10.00-XL1113N	02993866	Arbor	10.000	0.669	0.827	2.400	8	16	2.500	5.120	–	2.000	4600	15.210	XNHQ12
335.25-10.00-XL1113N	02993893	Arbor hole	10.000	0.669	0.827	3.420	8	16	2.000	3.000	1.000	0.835	4600	13.890	XNHQ12
R335.25-12.00-XL1113N	02993870	Arbor	12.000	0.669	0.827	3.400	10	20	2.500	5.120	–	2.000	4100	20.720	XNHQ12
335.25-12.00-XL1113N	02993897	Arbor hole	12.000	0.669	0.827	4.420	10	20	2.000	3.000	1.000	0.835	4100	16.980	XNHQ12

All listed adjustable cutters are set to the minimum cutter width CWN (factory setting).
Adjustable cutter may be ordered with the cutting width set to any value within its range (CWN - CWX), see technical data for more info at page 447

Cutter 335.25 - Insert XNHQ/LNHQ – inch

Width 0.83-1.26” - Full side and face - Adjustable design



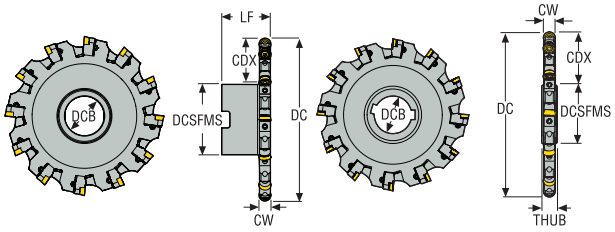
- For insert selection and cutting data recommendations, see page(s) 460-463
- For complete insert programme, see page(s) 841, 842
- For spare parts and technical information, see page 447-453
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	CWN	CWX	CDX	ZEFP	ZNP	DCB	DCSFMS	THUB	LF	RPMX	Weight	Insert: First choice	Insert: Alternative choice
			inch	inch	inch	inch			inch	inch	inch	inch		lbs		
R335.25-05.00-1316N	02814619	Arbor	5.000	0.827	1.024	1.327	4	8	1.250	2.250	–	2.000	4900	3.970	XNHQ14	LNHQ14
335.25-05.00-1316N	02814639	Arbor hole	5.000	0.827	1.024	1.291	4	8	1.500	2.250	1.250	1.038	4900	3.090	XNHQ14	LNHQ14
R335.25-06.00-1316N	02814623	Arbor	6.000	0.827	1.024	1.579	5	10	1.500	2.750	–	2.000	4500	5.950	XNHQ14	LNHQ14
335.25-06.00-1316N	02814643	Arbor hole	6.000	0.827	1.024	1.791	5	10	1.500	2.250	1.250	1.038	4500	4.630	XNHQ14	LNHQ14
R335.25-08.00-1316N	02814627	Arbor	8.000	0.827	1.024	2.209	6	12	1.500	3.500	–	2.000	3900	10.800	XNHQ14	LNHQ14
335.25-08.00-1316N	02814647	Arbor hole	8.000	0.827	1.024	2.413	6	12	2.000	3.000	1.250	1.038	3900	9.040	XNHQ14	LNHQ14
R335.25-10.00-XL1316N	02814631	Arbor	10.000	0.827	1.024	2.402	7	14	2.500	5.118	–	2.000	3500	16.530	XNHQ14	LNHQ14
335.25-10.00-XL1316N	02814651	Arbor hole	10.000	0.827	1.024	3.413	7	14	2.000	3.000	1.250	1.038	3500	13.890	XNHQ14	LNHQ14
R335.25-12.00-XL1316N	02814635	Arbor	12.000	0.827	1.024	3.402	9	18	2.500	5.118	–	2.000	3200	23.150	XNHQ14	LNHQ14
335.25-12.00-XL1316N	02814655	Arbor hole	12.000	0.827	1.024	4.413	9	18	2.000	3.000	1.250	1.038	3200	20.500	XNHQ14	LNHQ14
R335.25-06.00-1620N	02827713	Arbor	6.000	1.024	1.260	1.579	5	10	1.500	2.750	–	2.000	4700	6.830	XNHQ17	LNHQ17
335.25-06.00-1620N	02827735	Arbor hole	6.000	1.024	1.260	1.791	5	10	1.500	2.250	1.250	1.137	4700	5.730	XNHQ17	LNHQ17
R335.25-08.00-1620N	02827717	Arbor	8.000	1.024	1.260	2.209	6	12	1.500	3.500	–	2.000	4100	12.570	XNHQ17	LNHQ17
335.25-08.00-1620N	02827740	Arbor hole	8.000	1.024	1.260	2.413	6	12	2.000	3.000	1.250	1.137	4100	11.020	XNHQ17	LNHQ17
R335.25-10.00-XL1620N	02827721	Arbor	10.000	1.024	1.260	2.402	7	14	2.500	5.118	–	2.000	3600	18.960	XNHQ17	LNHQ17
335.25-10.00-XL1620N	02827744	Arbor hole	10.000	1.024	1.260	3.413	7	14	2.000	3.000	1.250	1.137	3600	16.980	XNHQ17	LNHQ17
R335.25-12.00-XL1620N	02827725	Arbor	12.000	1.024	1.260	3.402	9	18	2.500	5.118	–	2.000	3300	27.120	XNHQ17	LNHQ17
335.25-12.00-XL1620N	02827748	Arbor hole	12.000	1.024	1.260	4.413	9	18	2.000	3.000	1.250	1.137	3300	25.350	XNHQ17	LNHQ17

All listed adjustable cutters are set to the minimum cutter width CWN (factory setting).
Adjustable cutter may be ordered with the cutting width set to any value within its range (CWN - CWX), see technical data for more info at page 447

Width 16-21 mm - full side - radius profile - Adjustable design

Cutter 335.25 - Insert RP..1605/RP..2006 – Metric



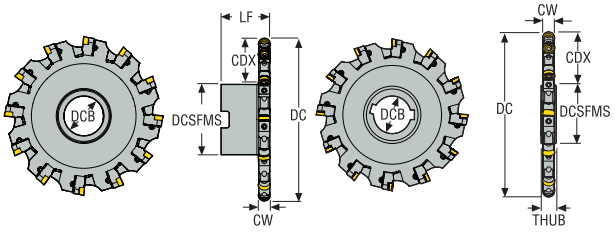
- For insert selection and cutting data recommendations, see page(s) 479-484
- For complete insert programme, see page(s) 820
- For spare parts and technical information, see page 447-453
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	CWN	CWX	CDX	ZEFP	ZNP	DCB	DCSFMS	THUB	LF	RPMX	Weight	Insert
			mm	mm	mm	mm			mm	mm	mm	mm		kg	
R335.25-100.1317.27-3N-R8	02993815	Arbor	105,0	16,03	17,0	28,0	3	6	27,0	48,0	–	51,265	9200	1,0	RP..1605
R335.25-125.1317.32-4N-R8	02993818	Arbor	130,0	16,03	17,0	35,5	4	8	32,0	58,0	–	51,265	8200	1,4	RP..1605
335.25-125.1317.40-4N-R8	02993833	Arbor hole	130,0	16,03	17,0	36,0	4	8	40,0	55,0	17,0	16,52	8200	1,0	RP..1605
R335.25-160.1317.40-6N-R8	02993821	Arbor	165,0	16,03	17,0	47,0	6	12	40,0	70,0	–	51,265	7200	2,3	RP..1605
335.25-160.1317.40-6N-R8	02993836	Arbor hole	165,0	16,03	17,0	53,5	6	12	40,0	55,0	17,0	16,52	7200	1,5	RP..1605
R335.25-200.1317.40-7N-R8	02993824	Arbor	205,0	16,03	17,0	57,0	7	14	40,0	90,0	–	51,265	6500	4,0	RP..1605
335.25-200.1317.50-7N-R8	02993839	Arbor hole	205,0	16,03	17,0	66,5	7	14	50,0	69,0	17,0	16,52	6500	2,4	RP..1605
R335.25-250.1317XL.60-8N-R8	02993827	Arbor	255,0	16,03	17,0	62,0	8	16	60,0	130,0	–	51,265	5800	10,3	RP..1605
335.25-250.1317XL.50-8N-R8	02993842	Arbor hole	255,0	16,03	17,0	91,5	8	16	50,0	69,0	17,0	16,52	5800	5,2	RP..1605
R335.25-315.1317XL.60-10N-R8	02993830	Arbor	320,0	16,03	17,0	94,5	10	20	60,0	130,0	–	51,265	5200	8,6	RP..1605
335.25-315.1317XL.50-10N-R8	02993845	Arbor hole	320,0	16,03	17,0	124,0	10	20	50,0	69,0	17,0	16,52	5200	6,5	RP..1605
R335.25-250.1721XL.60-8N-R10	02993754	Arbor	255,0	20,03	21,0	62,0	8	16	60,0	130,0	–	51,515	4600	6,6	RP..2006
335.25-250.1721XL.50-8N-R10	02993775	Arbor hole	255,0	20,03	21,0	91,5	8	16	50,0	69,0	21,0	20,52	4600	4,9	RP..2006
R335.25-315.1721XL.60-10N-R10	02993757	Arbor	320,0	20,03	21,0	94,5	10	20	60,0	130,0	–	51,515	4100	9,9	RP..2006
335.25-315.1721XL.50-10N-R10	02993778	Arbor hole	320,0	20,03	21,0	124,1	10	20	50,0	69,0	21,0	20,52	4100	10,0	RP..2006

All listed adjustable cutters are set to the minimum cutter width CWN (factory setting).
Adjustable cutter may be ordered with the cutting width set to any value within its range (CWN - CWX), see technical data for more info at page 447

Cutter 335.25 - Insert RP..1605/RP..2006 – inch

Width 0.631-0.827” - full side - radius profile - Adjustable design



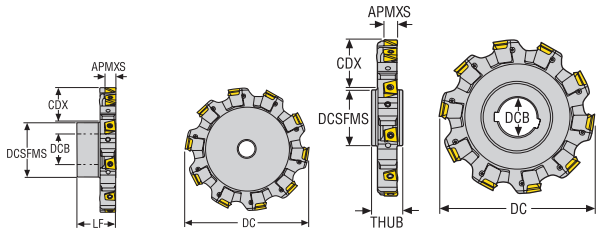
- For insert selection and cutting data recommendations, see page(s) 479-484
- For complete insert programme, see page(s) 820
- For spare parts and technical information, see page 447-453
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	CWN	CWX	CDX	ZEFP	ZNP	DCB	DCSFMS	THUB	LF	RPMX	Weight	Insert
			inch	inch	inch	inch			inch	inch	inch	inch		lbs	
335.25-05.00-0911N-R8	02993969	Arbor hole	5.197	0.631	0.669	1.415	4	8	1.500	2.250	0.750	0.691	8200	2.200	RP..1605
335.25-06.00-0911N-R8	02993972	Arbor hole	6.197	0.631	0.669	1.914	5	10	1.500	2.250	0.750	0.691	7200	3.090	RP..1605
335.25-08.00-0911N-R8	02993975	Arbor hole	8.197	0.631	0.669	2.539	7	14	2.000	3.000	0.750	0.691	6500	5.730	RP..1605
335.25-10.00-XL0911N-R8	02993978	Arbor hole	10.197	0.631	0.669	3.539	8	16	2.000	3.000	0.750	0.691	5800	9.260	RP..1605
335.25-12.00-XL0911N-R8	02993981	Arbor hole	12.197	0.631	0.669	4.579	10	20	2.000	3.000	0.750	0.691	5200	31.310	RP..1605
R335.25-12.00-XL0911N-R8	02993966	Arbor	12.197	0.631	0.669	3.519	10	20	2.500	5.120	–	2.050	5200	31.530	RP..1605
R335.25-06.00-0911N-R8	02993957	Arbor	6.197	0.631	0.669	1.704	5	10	1.500	2.750	–	2.050	7200	6.390	RP..1605
R335.25-04.00-0911N-R8	02993951	Arbor	4.197	0.631	0.669	1.139	3	6	1.000	1.880	–	2.050	9200	2.200	RP..1605
R335.25-05.00-0911N-R8	02993954	Arbor	5.197	0.631	0.669	1.454	4	8	1.250	2.250	–	2.050	8200	3.310	RP..1605
R335.25-08.00-0911N-R8	02993960	Arbor	8.197	0.631	0.669	2.329	7	14	1.500	3.500	–	2.050	6500	8.160	RP..1605
R335.25-10.00-XL0911N-R8	02993963	Arbor	10.197	0.631	0.669	2.519	8	16	2.500	5.120	–	2.050	5800	13.670	RP..1605
335.25-10.00-XL1113N-R10	02993901	Arbor hole	10.197	0.789	0.827	3.539	8	16	2.000	3.000	1.000	0.894	4600	11.460	RP..2006
335.25-12.00-XL1113N-R10	02993904	Arbor hole	12.197	0.789	0.827	4.539	10	20	2.000	3.000	1.000	0.894	4100	17.200	RP..2006
R335.25-10.00-XL1113N-R10	02993874	Arbor	10.197	0.789	0.827	2.519	8	16	2.500	5.120	–	2.060	4600	15.210	RP..2006
R335.25-12.00-XL1113N-R10	02993878	Arbor	12.197	0.789	0.827	3.519	10	20	2.500	5.120	–	2.060	4100	20.720	RP..2006

All listed adjustable cutters are set to the minimum cutter width CWN (factory setting).
Adjustable cutter may be ordered with the cutting width set to any value within its range (CWN - CWX), see technical data for more info at page 447

Max depth of cut 9-11,1 mm - Half side - Right hand with cassette

Cutter 335.25 - Insert XNHQ – Metric

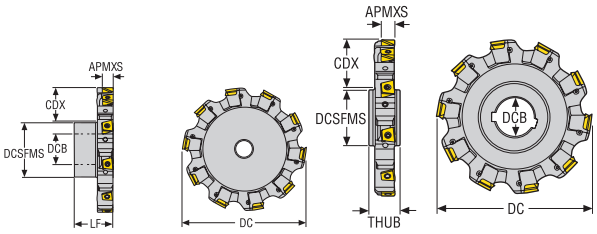


- For insert selection and cutting data recommendations, see page(s) 456-459
- For complete insert programme, see page(s) 841, 842
- For spare parts and technical information, see page 447-453
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	APMXS	CDX	ZEFP	DCB	DCSFMS	THUB	LF	RPMX	Weight	Insert
			mm	mm	mm		mm	mm	mm	mm		kg	
R335.25-100.1317.27-6R	02993783	Arbor	100,0	8,5	24,8	6	27,0	48,0	–	50,0	9200	1,2	XNHQ09..
R335.25-125.1317.32-8R	02993786	Arbor	125,0	8,5	32,3	8	32,0	58,0	–	50,0	8200	1,4	XNHQ09..
335.25-125.1317.40-8R	02993801	Arbor hole	125,0	8,5	32,9	8	40,0	55,0	17,0	15,25	8200	0,9	XNHQ09..
R335.25-160.1317.40-12R	02993789	Arbor	160,0	8,5	43,8	12	40,0	70,0	–	50,0	7200	2,8	XNHQ09..
335.25-160.1317.40-12R	02993804	Arbor hole	160,0	8,5	50,5	12	40,0	55,0	17,0	15,25	7200	1,5	XNHQ09..
R335.25-200.1317.40-14R	02993792	Arbor	200,0	8,5	54,0	14	40,0	90,0	–	50,0	6500	3,6	XNHQ09..
335.25-200.1317.50-14R	02993807	Arbor hole	200,0	8,5	63,5	14	50,0	69,0	17,0	15,25	6500	3,1	XNHQ09..
R335.25-250.1317XL.60-16R	02993795	Arbor	250,0	8,5	59,0	16	60,0	130,0	–	50,0	5800	6,0	XNHQ09..
335.25-250.1317XL.50-16R	02993810	Arbor hole	250,0	8,5	88,5	16	50,0	69,0	17,0	15,25	5800	3,8	XNHQ09..
R335.25-315.1317XL.60-20R	02993798	Arbor	315,0	8,5	91,5	20	60,0	130,0	–	50,0	5200	8,5	XNHQ09..
335.25-315.1317XL.50-20R	02993813	Arbor hole	315,0	8,5	121,0	20	50,0	69,0	17,0	15,25	5200	6,4	XNHQ09..
R335.25-100.1721.27-6R	02993737	Arbor	100,0	11,0	24,8	6	27,0	48,0	–	50,0	7200	1,1	XNHQ12..
R335.25-125.1721.32-8R	02993740	Arbor	125,0	11,0	32,3	8	32,0	58,0	–	50,0	6500	1,6	XNHQ12..
335.25-125.1721.40-8R	02993761	Arbor hole	125,0	11,0	32,9	8	40,0	55,0	21,0	19,0	6500	1,0	XNHQ12..
R335.25-160.1721.40-10R	02993743	Arbor	160,0	11,0	43,8	10	40,0	70,0	–	50,0	5700	3,2	XNHQ12..
335.25-160.1721.40-10R	02993764	Arbor hole	160,0	11,0	50,5	10	40,0	55,0	21,0	19,0	5700	1,9	XNHQ12..
R335.25-200.1721.40-12R	02993746	Arbor	200,0	11,0	54,0	12	40,0	90,0	–	50,0	5100	4,1	XNHQ12..
335.25-200.1721.50-12R	02993767	Arbor hole	200,0	11,0	63,5	12	50,0	69,0	21,0	19,0	5100	3,1	XNHQ12..
R335.25-250.1721XL.60-16R	02993749	Arbor	250,0	11,0	59,0	16	60,0	130,0	–	50,0	4600	11,5	XNHQ12..
335.25-250.1721XL.50-16R	02993770	Arbor hole	250,0	11,0	88,5	16	50,0	69,0	21,0	19,0	4600	8,2	XNHQ12..
R335.25-315.1721XL.60-20R	02993752	Arbor	315,0	11,0	91,5	20	60,0	130,0	–	50,0	4100	16,4	XNHQ12..
335.25-315.1721XL.50-20R	02993773	Arbor hole	315,0	11,0	121,0	20	50,0	69,0	21,0	19,0	4100	8,1	XNHQ12..

Cutter 335.25 - Insert XNHQ/LNHQ – Metric

Max depth of cut 13-16 mm - Half side - Right hand with cassette

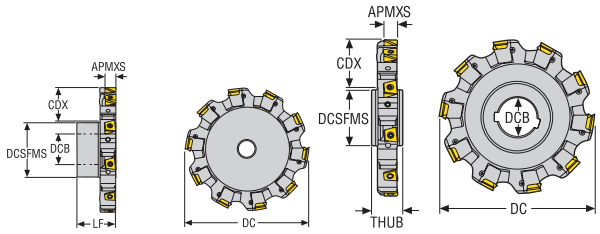


- For insert selection and cutting data recommendations, see page(s) 460-463
- For complete insert programme, see page(s) 841, 842
- For spare parts and technical information, see page 447-453
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	APMXS	CDX	ZEFP	DCB	DCSFMS	THUB	LF	RPMX	Weight	Insert: First choice	Insert: Alternative choice
			mm	mm	mm		mm	mm	mm	mm		kg		
R335.25-125.2126.32-8R	02814580	Arbor	125,0	13,0	32,3	8	32,0	58,0	–	50,0	4900	1,7	XNHQ1407...	LNHQ1407...
335.25-125.2126.40-8R	02814601	Arbor hole	125,0	13,0	32,7	8	40,0	55,0	32,0	26,5	4900	1,3	XNHQ1407...	LNHQ1407...
R335.25-160.2126.40-10R	02814584	Arbor	160,0	13,0	43,8	10	40,0	70,0	–	50,0	4400	2,9	XNHQ1407...	LNHQ1407...
335.25-160.2126.40-10R	02814605	Arbor hole	160,0	13,0	50,3	10	40,0	55,0	32,0	26,5	4400	2,3	XNHQ1407...	LNHQ1407...
R335.25-200.2126.40-12R	02814588	Arbor	200,0	13,0	54,0	12	40,0	90,0	–	50,0	3900	4,6	XNHQ1407...	LNHQ1407...
335.25-200.2126.50-12R	02814609	Arbor hole	200,0	13,0	63,3	12	50,0	69,0	32,0	26,5	3900	3,9	XNHQ1407...	LNHQ1407...
R335.25-250.2126XL.60-14R	02814592	Arbor	250,0	13,0	59,0	14	60,0	130,0	–	50,0	3500	7,3	XNHQ1407...	LNHQ1407...
335.25-250.2126XL.50-14R	02814613	Arbor hole	250,0	13,0	88,3	14	50,0	69,0	32,0	26,5	3500	6,0	XNHQ1407...	LNHQ1407...
R335.25-315.2126XL.60-18R	02814597	Arbor	315,0	13,0	91,5	18	60,0	130,0	–	50,0	3100	11,3	XNHQ1407...	LNHQ1407...
335.25-315.2126XL.60-18R	02814617	Arbor hole	315,0	13,0	113,3	18	60,0	84,0	32,0	26,5	3100	10,0	XNHQ1407...	LNHQ1407...
R335.25-160.2632.40-10R	02827413	Arbor	160,0	16,0	43,8	10	40,0	70,0	–	50,0	4600	3,4	XNHQ1707...	LNHQ1707...
335.25-160.2632.40-10R	02829067	Arbor hole	160,0	16,0	50,3	10	40,0	55,0	32,0	29,0	4600	2,9	XNHQ1707...	LNHQ1707...
R335.25-200.2632.40-12R	02827417	Arbor	200,0	16,0	54,0	12	40,0	90,0	–	50,0	4100	5,4	XNHQ1707...	LNHQ1707...
335.25-200.2632.50-12R	02827443	Arbor hole	200,0	16,0	63,3	12	50,0	69,0	32,0	29,0	4100	5,2	XNHQ1707...	LNHQ1707...
R335.25-250.2632XL.60-14R	02827421	Arbor	250,0	16,0	59,0	14	60,0	130,0	–	50,0	3700	8,4	XNHQ1707...	LNHQ1707...
335.25-250.2632XL.50-14R	02827447	Arbor hole	250,0	16,0	88,3	14	50,0	69,0	32,0	29,0	3700	7,4	XNHQ1707...	LNHQ1707...
R335.25-315.2632XL.60-18R	02827425	Arbor	315,0	16,0	91,5	18	60,0	130,0	–	50,0	3300	13,4	XNHQ1707...	LNHQ1707...
335.25-315.2632XL.60-18R	02827451	Arbor hole	315,0	16,0	113,3	18	60,0	84,0	32,0	29,0	3300	12,3	XNHQ1707...	LNHQ1707...

Max depth of cut 0.354 - 0.437” - Half side - Right hand with cassette

Cutter 335.25 - Insert XNHQ – inch

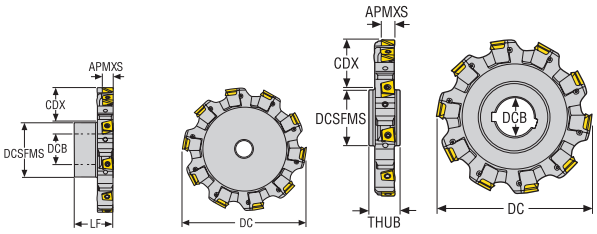


- For insert selection and cutting data recommendations, see page(s) 456-459
- For complete insert programme, see page(s) 841, 842
- For spare parts and technical information, see page 447-453
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	APMXS	CDX	ZEFP	DCB	DCSFMS	THUB	LF	RPMX	Weight	Insert
			inch	inch	inch		inch	inch	inch	inch		lbs	
R335.25-04.00-0911R	02993909	Arbor	4.000	0.335	1.014	6	1.000	1.880	–	2.000	9200	2.200	XNHQ09
R335.25-05.00-0911R	02993913	Arbor	5.000	0.335	1.329	8	1.250	2.250	–	2.000	8200	3.310	XNHQ09
335.25-05.00-0911R	02993933	Arbor hole	5.000	0.335	1.289	8	1.500	2.250	0.750	0.641	8200	2.200	XNHQ09
R335.25-06.00-0911R	02993917	Arbor	6.000	0.335	1.579	10	1.500	2.750	–	2.000	7200	6.390	XNHQ09
335.25-06.00-0911R	02993937	Arbor hole	6.000	0.335	1.795	10	1.500	2.250	0.750	0.641	7200	3.090	XNHQ09
R335.25-08.00-0911R	02993921	Arbor	8.000	0.335	2.210	14	1.500	3.500	–	2.000	6500	8.160	XNHQ09
335.25-08.00-0911R	02993941	Arbor hole	8.000	0.335	2.420	14	2.000	3.000	0.750	0.641	6500	5.730	XNHQ09
R335.25-10.00-XL0911R	02993925	Arbor	10.000	0.335	2.400	16	2.500	5.120	–	2.000	5800	13.450	XNHQ09
335.25-10.00-XL0911R	02993945	Arbor hole	10.000	0.335	3.420	16	2.000	3.000	0.750	0.641	5800	9.040	XNHQ09
R335.25-12.00-XL0911R	02993929	Arbor	12.000	0.335	3.400	20	2.500	5.120	–	2.000	5200	17.860	XNHQ09
335.25-12.00-XL0911R	02993949	Arbor hole	12.000	0.335	4.460	20	2.000	3.000	0.750	0.641	5200	13.450	XNHQ09
R335.25-04.00-1113R	02993852	Arbor	4.000	0.433	1.014	6	1.000	1.880	–	2.000	7200	2.430	XNHQ12
R335.25-05.00-1113R	02993856	Arbor	5.000	0.433	1.329	8	1.250	2.250	–	2.000	6500	3.750	XNHQ12
335.25-05.00-1113R	02993883	Arbor hole	5.000	0.433	1.289	8	1.500	2.250	1.000	0.835	6500	2.650	XNHQ12
R335.25-06.00-1113R	02993860	Arbor	6.000	0.433	1.579	10	1.500	2.750	–	2.000	5700	5.510	XNHQ12
335.25-06.00-1113R	02993887	Arbor hole	6.000	0.433	1.795	10	1.500	2.250	1.000	0.835	5700	3.970	XNHQ12
R335.25-08.00-1113R	02993864	Arbor	8.000	0.433	2.210	12	1.500	3.500	–	2.000	5100	9.700	XNHQ12
335.25-08.00-1113R	02993891	Arbor hole	8.000	0.433	2.420	12	2.000	3.000	1.000	0.835	5100	10.140	XNHQ12
R335.25-10.00-XL1113R	02993868	Arbor	10.000	0.433	2.400	16	2.500	5.120	–	2.000	4600	15.210	XNHQ12
335.25-10.00-XL1113R	02993895	Arbor hole	10.000	0.433	3.420	16	2.000	3.000	1.000	0.835	4600	11.460	XNHQ12
R335.25-12.00-XL1113R	02993872	Arbor	12.000	0.433	3.400	20	2.500	5.120	–	2.000	4100	20.720	XNHQ12
335.25-12.00-XL1113R	02993899	Arbor hole	12.000	0.433	4.420	20	2.000	3.000	1.000	0.835	4100	16.980	XNHQ12

Cutter 335.25 - Insert XNHQ/LNHQ – inch

Max depth of cut 0.512 - 0.630” - Half side - Right hand with cassette

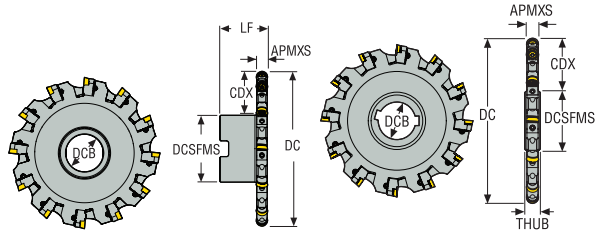


- For insert selection and cutting data recommendations, see page(s) 460-463
- For complete insert programme, see page(s) 841, 842
- For spare parts and technical information, see page 447-453
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	APMXS	CDX	ZEFP	DCB	DCSFMS	THUB	LF	RPMX	Weight	Insert: First choice	Insert: Alternative choice
			inch	inch	inch		inch	inch	inch	inch		lbs		
R335.25-05.00-1316R	02814621	Arbor	5.000	0.512	1.327	8	1.250	2.250	–	2.000	4900	3.970	XNHQ14	LNHQ14
335.25-05.00-1316R	02814641	Arbor hole	5.000	0.512	1.291	8	1.500	2.250	1.250	1.038	4900	3.090	XNHQ14	LNHQ14
R335.25-06.00-1316R	02814625	Arbor	6.000	0.512	1.579	10	1.500	2.750	–	2.000	4500	5.950	XNHQ14	LNHQ14
335.25-06.00-1316R	02814645	Arbor hole	6.000	0.512	1.791	10	1.500	2.250	1.250	1.038	4500	4.850	XNHQ14	LNHQ14
R335.25-08.00-1316R	02814629	Arbor	8.000	0.512	2.209	12	1.500	3.500	–	2.000	3900	12.130	XNHQ14	LNHQ14
335.25-08.00-1316R	02814649	Arbor hole	8.000	0.512	2.413	12	2.000	3.000	1.250	1.038	3900	9.040	XNHQ14	LNHQ14
R335.25-10.00-XL1316R	02814633	Arbor	10.000	0.512	2.402	14	2.500	5.118	–	2.000	3500	16.530	XNHQ14	LNHQ14
335.25-10.00-XL1316R	02814653	Arbor hole	10.000	0.512	3.413	14	2.000	3.000	1.250	1.038	3500	13.890	XNHQ14	LNHQ14
R335.25-12.00-XL1316R	02814637	Arbor	12.000	0.512	3.402	18	2.500	5.118	–	2.000	3200	23.150	XNHQ14	LNHQ14
335.25-12.00-XL1316R	02814657	Arbor hole	12.000	0.512	4.413	18	2.000	3.000	1.250	1.038	3200	20.720	XNHQ14	LNHQ14
R335.25-06.00-1620R	02827715	Arbor	6.000	0.630	1.579	10	1.500	2.750	–	2.000	4700	6.830	XNHQ17	LNHQ17
335.25-06.00-1620R	02827738	Arbor hole	6.000	0.630	1.791	10	1.500	2.250	1.250	1.137	4700	5.730	XNHQ17	LNHQ17
R335.25-08.00-1620R	02827719	Arbor	8.000	0.630	2.209	12	1.500	3.500	–	2.000	4100	12.570	XNHQ17	LNHQ17
335.25-08.00-1620R	02827742	Arbor hole	8.000	0.630	2.413	12	2.000	3.000	1.250	1.137	4100	11.020	XNHQ17	LNHQ17
R335.25-10.00-XL1620R	02827723	Arbor	10.000	0.630	2.402	14	2.500	5.118	–	2.000	3600	18.740	XNHQ17	LNHQ17
335.25-10.00-XL1620R	02827746	Arbor hole	10.000	0.630	3.413	14	2.000	3.000	1.250	1.137	3600	16.980	XNHQ17	LNHQ17
R335.25-12.00-XL1620R	02827727	Arbor	12.000	0.630	3.402	18	2.500	5.118	–	2.000	3300	27.340	XNHQ17	LNHQ17
335.25-12.00-XL1620R	02827750	Arbor hole	12.000	0.630	4.413	18	2.000	3.000	1.250	1.137	3300	25.350	XNHQ17	LNHQ17

Half side - Right hand - Radius profile with cassette

Cutter 335.25 - Insert RP..1605/RP..2006 – Metric

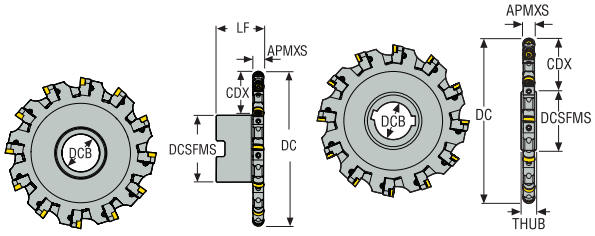


- For insert selection and cutting data recommendations, see page(s) 479-484
- For complete insert programme, see page(s) 820
- For spare parts and technical information, see page 447-453
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	APMXS	CDX	ZEFP	ZNP	DCB	DCSFMS	THUB	LF	RPMX	Weight	Insert
			mm	mm	mm			mm	mm	mm	mm		kg	
R335.25-100.1317.27-6R-R8	02993816	Arbor	105,0	8,0	28,0	6	6	27,0	48,0	–	51,265	9200	1,0	RP..1605
R335.25-125.1317.32-8R-R8	02993819	Arbor	130,0	8,0	35,5	8	8	32,0	58,0	–	51,265	8200	1,4	RP..1605
335.25-125.1317.40-8R-R8	02993834	Arbor hole	130,0	8,0	36,1	8	8	40,0	55,0	17,0	16,52	8200	0,9	RP..1605
R335.25-160.1317.40-12R-R8	02993822	Arbor	165,0	8,0	47,0	12	12	40,0	70,0	–	51,265	7200	2,3	RP..1605
335.25-160.1317.40-12R-R8	02993837	Arbor hole	165,0	8,0	53,6	12	12	40,0	55,0	17,0	16,52	7200	1,5	RP..1605
R335.25-200.1317.40-14R-R8	02993825	Arbor	205,0	8,0	57,0	14	14	40,0	90,0	–	51,265	6500	3,5	RP..1605
335.25-200.1317.50-14R-R8	02993840	Arbor hole	205,0	8,0	66,6	14	14	50,0	69,0	17,0	16,52	6500	2,4	RP..1605
R335.25-250.1317XL.60-16R-R8	02993828	Arbor	255,0	8,0	62,0	16	16	60,0	130,0	–	51,265	5800	6,0	RP..1605
335.25-250.1317XL.50-16R-R8	02993843	Arbor hole	255,0	8,0	91,6	16	16	50,0	69,0	17,0	16,52	5800	4,0	RP..1605
R335.25-315.1317XL.60-20R-R8	02993831	Arbor	320,0	8,0	94,5	20	20	60,0	130,0	–	51,265	5200	8,6	RP..1605
335.25-315.1317XL.50-20R-R8	02993846	Arbor hole	320,0	8,0	124,1	20	20	50,0	69,0	17,0	16,52	5200	6,6	RP..1605
R335.25-250.1721XL.60-16R-R10	02993755	Arbor	255,0	10,0	62,0	16	16	60,0	130,0	–	51,515	4600	6,7	RP..2006
335.25-250.1721XL.50-16R-R10	02993776	Arbor hole	255,0	10,0	91,6	16	16	50,0	69,0	21,0	20,52	4600	5,0	RP..2006
R335.25-315.1721XL.60-20R-R10	02993758	Arbor	320,0	10,0	94,5	20	20	60,0	130,0	–	51,515	4100	10,0	RP..2006
335.25-315.1721XL.50-20R-R10	02993779	Arbor hole	320,0	10,0	124,1	20	20	50,0	69,0	21,0	20,52	4100	8,2	RP..2006

Cutter 335.25 - Insert RP..1605/RP..2006 – inch

Half side - Right hand - Radius profile with cassette

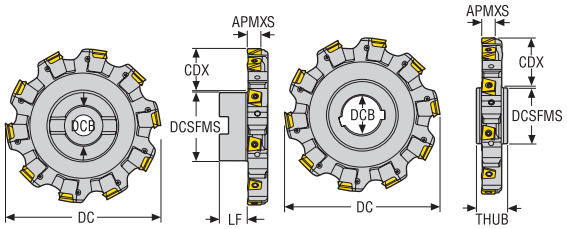


- For insert selection and cutting data recommendations, see page(s) 479-484
- For complete insert programme, see page(s) 820
- For spare parts and technical information, see page 447-453
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	APMXS	CDX	ZEFP	ZNP	DCB	DCSFMS	THUB	LF	RPMX	Weight	Insert
			inch	inch	inch			inch	inch	inch	inch		lbs	
R335.25-04.00-0911R-R8	02993952	Arbor	4.197	0.315	1.138	6	6	1.000	1.880	–	2.050	9200	2.200	RP..1605
R335.25-05.00-0911R-R8	02993955	Arbor	5.197	0.315	1.453	8	8	1.250	2.250	–	2.050	8200	3.310	RP..1605
335.25-05.00-0911R-R8	02993970	Arbor hole	5.197	0.315	1.414	8	8	1.500	2.250	0.750	0.691	8200	2.200	RP..1605
R335.25-06.00-0911R-R8	02993958	Arbor	6.197	0.315	1.703	10	10	1.500	2.750	–	2.050	7200	6.170	RP..1605
335.25-06.00-0911R-R8	02993973	Arbor hole	6.197	0.315	1.914	10	10	1.500	2.250	0.750	0.691	7200	3.090	RP..1605
R335.25-08.00-0911R-R8	02993961	Arbor	8.197	0.315	2.329	14	14	1.500	3.500	–	2.050	6500	8.160	RP..1605
335.25-08.00-0911R-R8	02993976	Arbor hole	8.197	0.315	2.539	14	14	2.000	3.000	0.750	0.691	6500	5.730	RP..1605
R335.25-10.00-XL0911R-R8	02993964	Arbor	10.197	0.315	2.519	16	16	2.500	5.120	–	2.050	5800	13.670	RP..1605
335.25-10.00-XL0911R-R8	02993979	Arbor hole	10.197	0.315	3.539	16	16	2.000	3.000	0.750	0.691	5800	9.260	RP..1605
R335.25-12.00-XL0911R-R8	02993967	Arbor	12.197	0.315	3.519	20	20	2.500	5.120	–	2.050	5200	18.080	RP..1605
335.25-12.00-XL0911R-R8	02993982	Arbor hole	12.197	0.315	4.579	20	20	2.000	3.000	0.750	0.691	5200	13.450	RP..1605
R335.25-10.00-XL1113R-R10	02993875	Arbor	10.197	0.394	2.519	16	16	2.500	5.120	–	2.060	4600	15.210	RP..2006
335.25-10.00-XL1113R-R10	02993902	Arbor hole	10.197	0.394	3.539	16	16	2.000	3.000	1.000	0.894	4600	11.460	RP..2006
R335.25-12.00-XL1113R-R10	02993879	Arbor	12.197	0.394	3.519	20	20	2.500	5.120	–	2.060	4100	20.720	RP..2006
335.25-12.00-XL1113R-R10	02993905	Arbor hole	12.197	0.394	4.539	20	20	2.000	3.000	1.000	0.894	4100	17.200	RP..2006

Max depth of cut 9-11,1 mm – Half side – Left hand with cassette

Cutter 335.25 - Insert XNHQ – Metric

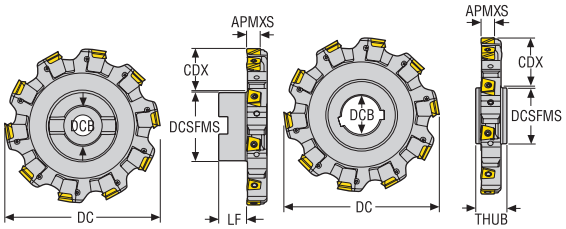


- For insert selection and cutting data recommendations, see page(s) 456-459
- For complete insert programme, see page(s) 841, 842
- For spare parts and technical information, see page 447-453
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	APMXS	CDX	ZEFP	DCB	DCSFMS	THUB	LF	RPMX	Weight	Insert
			mm	mm	mm		mm	mm	mm	mm		kg	
R335.25-100.1317.27-6L	02993784	Arbor	100,0	8,5	24,8	6	27,0	48,0	–	50,0	9200	1,3	XNHQ09..
R335.25-125.1317.32-8L	02993787	Arbor	125,0	8,5	32,3	8	32,0	58,0	–	50,0	8200	1,4	XNHQ09..
335.25-125.1317.40-8L	02993802	Arbor hole	125,0	8,5	32,9	8	40,0	55,0	17,0	1,75	8200	0,9	XNHQ09..
R335.25-160.1317.40-12L	02993790	Arbor	160,0	8,5	43,8	12	40,0	70,0	–	50,0	7200	2,3	XNHQ09..
335.25-160.1317.40-12L	02993805	Arbor hole	160,0	8,5	50,5	12	40,0	55,0	17,0	1,75	7200	1,5	XNHQ09..
R335.25-200.1317.40-14L	02993793	Arbor	200,0	8,5	54,0	14	40,0	90,0	–	50,0	6500	3,5	XNHQ09..
335.25-200.1317.50-14L	02993808	Arbor hole	200,0	8,5	63,5	14	50,0	69,0	17,0	1,75	6500	3,1	XNHQ09..
R335.25-250.1317XL.60-16L	02993796	Arbor	250,0	8,5	59,0	16	60,0	130,0	–	50,0	5800	5,9	XNHQ09..
335.25-250.1317XL.50-16L	02993811	Arbor hole	250,0	8,5	88,5	16	50,0	69,0	17,0	1,75	5800	5,1	XNHQ09..
R335.25-315.1317XL.60-20L	02993799	Arbor	315,0	8,5	91,5	20	60,0	130,0	–	50,0	5200	8,5	XNHQ09..
335.25-315.1317XL.50-20L	02993814	Arbor hole	315,0	8,5	121,0	20	50,0	69,0	17,0	1,75	5200	6,5	XNHQ09..
R335.25-100.1721.27-6L	02993738	Arbor	100,0	11,0	24,8	6	27,0	48,0	–	50,0	7200	1,1	XNHQ12..
R335.25-125.1721.32-8L	02993741	Arbor	125,0	11,0	32,3	8	32,0	58,0	–	50,0	6500	1,9	XNHQ12..
335.25-125.1721.40-8L	02993762	Arbor hole	125,0	11,0	32,9	8	40,0	55,0	21,0	2,0	6500	1,4	XNHQ12..
R335.25-160.1721.40-10L	02993744	Arbor	160,0	11,0	43,8	10	40,0	70,0	–	50,0	5700	2,8	XNHQ12..
335.25-160.1721.40-10L	02993765	Arbor hole	160,0	11,0	50,5	10	40,0	55,0	21,0	2,0	5700	1,9	XNHQ12..
R335.25-200.1721.40-12L	02993747	Arbor	200,0	11,0	54,0	12	40,0	90,0	–	50,0	5100	4,5	XNHQ12..
335.25-200.1721.50-12L	02993768	Arbor hole	200,0	11,0	63,5	12	50,0	69,0	21,0	2,0	5100	4,5	XNHQ12..
R335.25-250.1721XL.60-16L	02993750	Arbor	250,0	11,0	59,0	16	60,0	130,0	–	50,0	4600	6,7	XNHQ12..
335.25-250.1721XL.50-16L	02993771	Arbor hole	250,0	11,0	88,5	16	50,0	69,0	21,0	2,0	4600	4,9	XNHQ12..
R335.25-315.1721XL.60-20L	02993753	Arbor	315,0	11,0	91,5	20	60,0	130,0	–	50,0	4100	10,0	XNHQ12..
335.25-315.1721XL.50-20L	02993774	Arbor hole	315,0	11,0	121,0	20	50,0	69,0	21,0	2,0	4100	8,1	XNHQ12..

Cutter 335.25 - Insert XNHQ/LNHQ – Metric

Max depth of cut 13-16 mm – Half side – Left hand with cassette

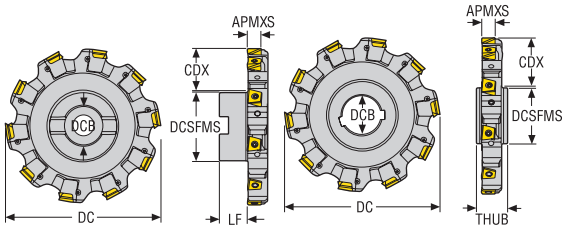


- For insert selection and cutting data recommendations, see page(s) 460-463
- For complete insert programme, see page(s) 841, 842
- For spare parts and technical information, see page 447-453
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	APMXS	CDX	ZEFP	DCB	DCSFMS	THUB	LF	RPMX	Weight	Insert: First choice	Insert: Alternative choice
			mm	mm	mm		mm	mm	mm	mm		kg		
R335.25-125.2126.32-8L	02814581	Arbor	125,0	13,0	32,3	8	32,0	58,0	–	29,0	4900	1,7	XNHQ1407...	LNHQ1407...
335.25-125.2126.40-8L	02814602	Arbor hole	125,0	13,0	32,7	8	40,0	55,0	32,0	5,5	4900	1,3	XNHQ1407...	LNHQ1407...
R335.25-160.2126.40-10L	02814585	Arbor	160,0	13,0	43,8	10	40,0	70,0	–	29,0	4400	2,9	XNHQ1407...	LNHQ1407...
335.25-160.2126.40-10L	02814606	Arbor hole	160,0	13,0	50,3	10	40,0	55,0	32,0	5,5	4400	2,3	XNHQ1407...	LNHQ1407...
R335.25-200.2126.40-12L	02814589	Arbor	200,0	13,0	54,0	12	40,0	90,0	–	29,0	3900	4,7	XNHQ1407...	LNHQ1407...
335.25-200.2126.50-12L	02814610	Arbor hole	200,0	13,0	63,3	12	50,0	69,0	32,0	5,5	3900	3,9	XNHQ1407...	LNHQ1407...
R335.25-250.2126XL.60-14L	02814593	Arbor	250,0	13,0	59,0	14	60,0	130,0	–	29,0	3500	7,3	XNHQ1407...	LNHQ1407...
335.25-250.2126XL.50-14L	02814614	Arbor hole	250,0	13,0	88,3	14	50,0	69,0	32,0	5,5	3500	6,0	XNHQ1407...	LNHQ1407...
R335.25-315.2126XL.60-18L	02814598	Arbor	315,0	13,0	91,5	18	60,0	130,0	–	29,0	3100	11,3	XNHQ1407...	LNHQ1407...
335.25-315.2126XL.60-18L	02814618	Arbor hole	315,0	13,0	113,3	18	60,0	84,0	32,0	5,5	3100	10,0	XNHQ1407...	LNHQ1407...
R335.25-160.2632.40-10L	02827414	Arbor	160,0	16,0	43,8	10	40,0	70,0	–	24,0	4600	3,4	XNHQ1707...	LNHQ1707...
335.25-160.2632.40-10L	02829068	Arbor hole	160,0	16,0	50,3	10	40,0	55,0	32,0	3,0	4600	2,9	XNHQ1707...	LNHQ1707...
R335.25-200.2632.40-12L	02827418	Arbor	200,0	16,0	54,0	12	40,0	90,0	–	24,0	4100	5,4	XNHQ1707...	LNHQ1707...
335.25-200.2632.50-12L	02827444	Arbor hole	200,0	16,0	63,3	12	50,0	69,0	32,0	3,0	4100	4,8	XNHQ1707...	LNHQ1707...
R335.25-250.2632XL.60-14L	02827422	Arbor	250,0	16,0	59,0	14	60,0	130,0	–	24,0	3700	8,4	XNHQ1707...	LNHQ1707...
335.25-250.2632XL.50-14L	02827448	Arbor hole	250,0	16,0	88,3	14	50,0	69,0	32,0	3,0	3700	8,5	XNHQ1707...	LNHQ1707...
R335.25-315.2632XL.60-18L	02827426	Arbor	315,0	16,0	91,5	18	60,0	130,0	–	24,0	3300	13,4	XNHQ1707...	LNHQ1707...
335.25-315.2632XL.60-18L	02827452	Arbor hole	315,0	16,0	113,3	18	60,0	84,0	32,0	3,0	3300	12,3	XNHQ1707...	LNHQ1707...

Max depth of cut 0.354-0.437" – Half side – Left hand with cassette

Cutter 335.25 - Insert XNHQ – inch

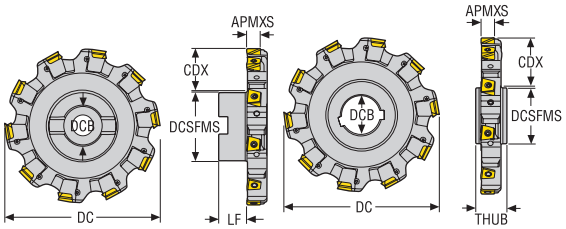


- For insert selection and cutting data recommendations, see page(s) 456-459
- For complete insert programme, see page(s) 841, 842
- For spare parts and technical information, see page 447-453
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	APMXS	CDX	ZEFP	DCB	DCSFMS	THUB	LF	RPMX	Weight	Insert
			inch	inch	inch		inch	inch	inch	inch		lbs	
R335.25-04.00-0911L	02993910	Arbor	4.000	0.335	1.014	6	1.000	1.880	–	2.000	9200	2.200	XNHQ09
R335.25-05.00-0911L	02993914	Arbor	5.000	0.335	1.329	8	1.250	2.250	–	2.000	8200	3.310	XNHQ09
335.25-05.00-0911L	02993934	Arbor hole	5.000	0.335	1.289	8	1.500	2.250	0.750	0.109	8200	2.200	XNHQ09
R335.25-06.00-0911L	02993918	Arbor	6.000	0.335	1.579	10	1.500	2.750	–	2.000	7200	6.170	XNHQ09
335.25-06.00-0911L	02993938	Arbor hole	6.000	0.335	1.795	10	1.500	2.250	0.750	0.109	7200	3.090	XNHQ09
R335.25-08.00-0911L	02993922	Arbor	8.000	0.335	2.210	14	1.500	3.500	–	2.000	6500	8.160	XNHQ09
335.25-08.00-0911L	02993942	Arbor hole	8.000	0.335	2.420	14	2.000	3.000	0.750	0.109	6500	5.730	XNHQ09
R335.25-10.00-XL0911L	02993926	Arbor	10.000	0.335	2.400	16	2.500	5.120	–	2.000	5800	13.450	XNHQ09
335.25-10.00-XL0911L	02993946	Arbor hole	10.000	0.335	3.420	16	2.000	3.000	0.750	0.109	5800	9.040	XNHQ09
R335.25-12.00-XL0911L	02993930	Arbor	12.000	0.335	3.400	20	2.500	5.120	–	2.000	5200	17.860	XNHQ09
335.25-12.00-XL0911L	02993950	Arbor hole	12.000	0.335	4.460	20	2.000	3.000	0.750	0.109	5200	13.450	XNHQ09
R335.25-04.00-1113L	02993853	Arbor	4.000	0.433	1.014	6	1.000	1.880	–	2.000	7200	2.430	XNHQ12
R335.25-05.00-1113L	02993857	Arbor	5.000	0.433	1.329	8	1.250	2.250	–	2.000	6500	3.750	XNHQ12
335.25-05.00-1113L	02993884	Arbor hole	5.000	0.433	1.289	8	1.500	2.250	1.000	0.165	6500	2.650	XNHQ12
R335.25-06.00-1113L	02993861	Arbor	6.000	0.433	1.579	10	1.500	2.750	–	2.000	5700	6.830	XNHQ12
335.25-06.00-1113L	02993888	Arbor hole	6.000	0.433	1.795	10	1.500	2.250	1.000	0.165	5700	3.970	XNHQ12
R335.25-08.00-1113L	02993865	Arbor	8.000	0.433	2.210	12	1.500	3.500	–	2.000	5100	9.700	XNHQ12
335.25-08.00-1113L	02993892	Arbor hole	8.000	0.433	2.420	12	2.000	3.000	1.000	0.165	5100	7.500	XNHQ12
R335.25-10.00-XL1113L	02993869	Arbor	10.000	0.433	2.400	16	2.500	5.120	–	2.000	4600	15.210	XNHQ12
335.25-10.00-XL1113L	02993896	Arbor hole	10.000	0.433	3.420	16	2.000	3.000	1.000	0.165	4600	13.890	XNHQ12
R335.25-12.00-XL1113L	02993873	Arbor	12.000	0.433	3.400	20	2.500	5.120	–	2.000	4100	20.720	XNHQ12
335.25-12.00-XL1113L	02993900	Arbor hole	12.000	0.433	4.420	20	2.000	3.000	1.000	0.165	4100	16.980	XNHQ12

Cutter 335.25 - Insert XNHQ/LNHQ – inch

Max depth of cut 0.512-0.630” – Half side – Left hand with cassette

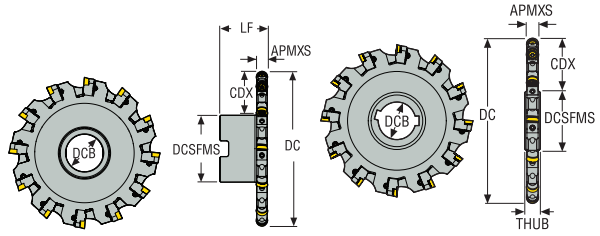


- For insert selection and cutting data recommendations, see page(s) 460-463
- For complete insert programme, see page(s) 841, 842
- For spare parts and technical information, see page 447-453
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	APMXS	CDX	ZEFP	DCB	DCSFMS	THUB	LF	RPMX	Weight	Insert: First choice	Insert: Alternative choice
			inch	inch	inch		inch	inch	inch	inch		lbs		
R335.25-05.00-1316L	02814622	Arbor	5.000	0.512	1.327	8	1.250	2.250	–	1.173	4900	3.970	XNHQ14	LNHQ14
335.25-05.00-1316L	02814642	Arbor hole	5.000	0.512	1.291	8	1.500	2.250	1.250	0.212	4900	3.090	XNHQ14	LNHQ14
R335.25-06.00-1316L	02814626	Arbor	6.000	0.512	1.579	10	1.500	2.750	–	1.173	4500	5.950	XNHQ14	LNHQ14
335.25-06.00-1316L	02814646	Arbor hole	6.000	0.512	1.791	10	1.500	2.250	1.250	0.212	4500	4.850	XNHQ14	LNHQ14
R335.25-08.00-1316L	02814630	Arbor	8.000	0.512	2.209	12	1.500	3.500	–	1.173	3900	10.800	XNHQ14	LNHQ14
335.25-08.00-1316L	02814650	Arbor hole	8.000	0.512	2.413	12	2.000	3.000	1.250	0.212	3900	9.040	XNHQ14	LNHQ14
R335.25-10.00-XL1316L	02814634	Arbor	10.000	0.512	2.402	14	2.500	5.120	–	1.173	3500	16.530	XNHQ14	LNHQ14
335.25-10.00-XL1316L	02814654	Arbor hole	10.000	0.512	3.413	14	2.000	3.000	1.250	0.212	3500	13.890	XNHQ14	LNHQ14
R335.25-12.00-XL1316L	02814638	Arbor	12.000	0.512	3.402	18	2.500	5.120	–	1.173	3200	23.150	XNHQ14	LNHQ14
335.25-12.00-XL1316L	02814658	Arbor hole	12.000	0.512	4.413	18	2.000	3.000	1.250	0.212	3200	20.720	XNHQ14	LNHQ14
R335.25-06.00-1620L	02827716	Arbor	6.000	0.630	1.579	10	1.500	2.750	–	0.976	4700	6.830	XNHQ17	LNHQ17
335.25-06.00-1620L	02827739	Arbor hole	6.000	0.630	1.791	10	1.500	2.250	1.250	0.113	4700	5.730	XNHQ17	LNHQ17
R335.25-08.00-1620L	02827720	Arbor	8.000	0.630	2.209	12	1.500	3.500	–	0.976	4100	12.570	XNHQ17	LNHQ17
335.25-08.00-1620L	02827743	Arbor hole	8.000	0.630	2.413	12	2.000	3.000	1.250	0.113	4100	11.020	XNHQ17	LNHQ17
R335.25-10.00-XL1620L	02827724	Arbor	10.000	0.630	2.402	14	2.500	5.120	–	0.976	3600	18.740	XNHQ17	LNHQ17
335.25-10.00-XL1620L	02827747	Arbor hole	10.000	0.630	3.413	14	2.000	3.000	1.250	0.113	3600	19.400	XNHQ17	LNHQ17
R335.25-12.00-XL1620L	02827728	Arbor	12.000	0.630	3.402	18	2.500	5.120	–	0.976	3300	27.340	XNHQ17	LNHQ17
335.25-12.00-XL1620L	02827751	Arbor hole	12.000	0.630	4.413	18	2.000	3.000	1.250	0.113	3300	25.350	XNHQ17	LNHQ17

Half side - Left hand - Radius profile with cassette

Cutter 335.25 - Insert RP..1605/RP..2006 – Metric

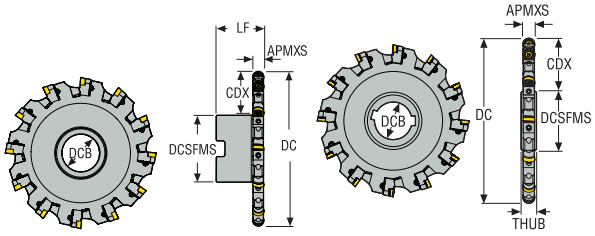


- For insert selection and cutting data recommendations, see page(s) 479-484
- For complete insert programme, see page(s) 820
- For spare parts and technical information, see page 447-453
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	APMXS	CDX	ZEFP	ZNP	DCB	DCSFMS	THUB	LF	RPMX	Weight	Insert
			mm	mm	mm			mm	mm	mm	mm		kg	
R335.25-100.1317.27-6L-R8	02993817	Arbor	105,0	8,0	28,0	6	6	27,0	48,0	–	51,265	9200	1,2	RP..1605
R335.25-125.1317.32-8L-R8	02993820	Arbor	130,0	8,0	35,5	8	8	32,0	58,0	–	51,265	8200	1,8	RP..1605
335.25-125.1317.40-8L-R8	02993835	Arbor hole	130,0	8,0	36,1	8	8	40,0	55,0	17,0	0,48	8200	0,9	RP..1605
R335.25-160.1317.40-12L-R8	02993823	Arbor	165,0	8,0	47,0	12	12	40,0	70,0	–	51,265	7200	2,3	RP..1605
335.25-160.1317.40-12L-R8	02993838	Arbor hole	165,0	8,0	53,6	12	12	40,0	55,0	17,0	0,48	7200	1,5	RP..1605
R335.25-200.1317.40-14L-R8	02993826	Arbor	205,0	8,0	57,0	14	14	40,0	90,0	–	51,265	6500	3,5	RP..1605
335.25-200.1317.50-14L-R8	02993841	Arbor hole	205,0	8,0	66,6	14	14	50,0	69,0	17,0	0,48	6500	3,8	RP..1605
R335.25-250.1317XL.60-16L-R8	02993829	Arbor	255,0	8,0	62,0	16	16	60,0	130,0	–	51,265	5800	6,1	RP..1605
335.25-250.1317XL.50-16L-R8	02993844	Arbor hole	255,0	8,0	91,6	16	16	50,0	69,0	17,0	0,48	5800	5,3	RP..1605
R335.25-315.1317XL.60-20L-R8	02993832	Arbor	320,0	8,0	94,5	20	20	60,0	130,0	–	51,265	5200	8,6	RP..1605
335.25-315.1317XL.50-20L-R8	02993847	Arbor hole	320,0	8,0	124,1	20	20	50,0	69,0	17,0	0,48	5200	6,5	RP..1605
R335.25-250.1721XL.60-16L-R10	02993756	Arbor	255,0	10,0	62,0	16	16	60,0	130,0	–	51,515	4600	6,7	RP..2006
335.25-250.1721XL.50-16L-R10	02993777	Arbor hole	255,0	10,0	91,6	16	16	50,0	69,0	21,0	0,48	4600	6,4	RP..2006
R335.25-315.1721XL.60-20L-R10	02993759	Arbor	320,0	10,0	94,5	20	20	60,0	130,0	–	51,515	4100	9,9	RP..2006
335.25-315.1721XL.50-20L-R10	02993780	Arbor hole	320,0	10,0	124,1	20	20	50,0	69,0	21,0	0,48	4100	8,2	RP..2006

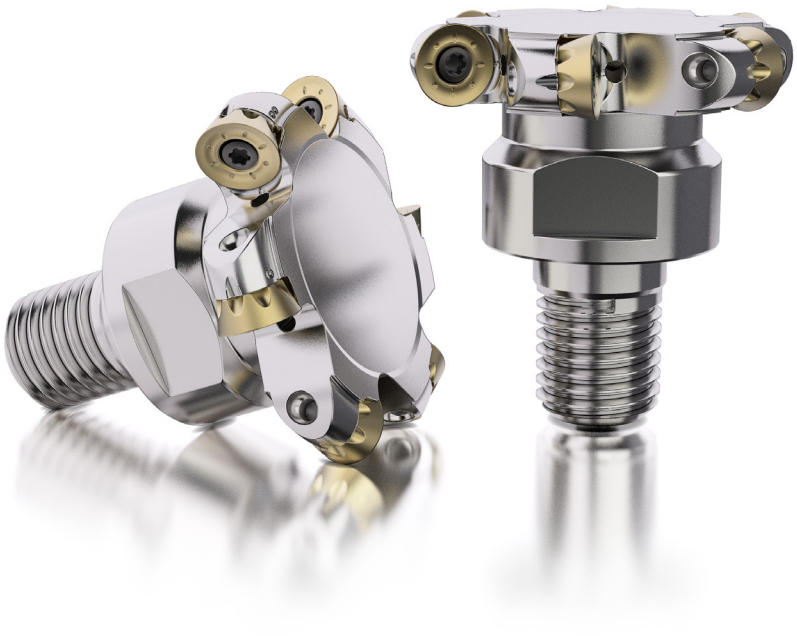
Cutter 335.25 - Insert RP..1605/RP..2006 – inch

Half side - Left hand - Radius profile with cassette



- For insert selection and cutting data recommendations, see page(s) 479-484
- For complete insert programme, see page(s) 820
- For spare parts and technical information, see page 447-453
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	APMXS	CDX	ZEFP	ZNP	DCB	DCSFMS	THUB	LF	RPMX	Weight	Insert
			inch	inch	inch			inch	inch	inch	inch		lbs	
R335.25-04.00-0911L-R8	02993953	Arbor	4.197	0.315	1.138	6	6	1.000	1.880	–	2.050	9200	2.200	RP..1605
R335.25-05.00-0911L-R8	02993956	Arbor	5.197	0.315	1.453	8	8	1.250	2.250	–	2.050	8200	3.310	RP..1605
335.25-05.00-0911L-R8	02993971	Arbor hole	5.197	0.315	1.414	8	8	1.500	2.250	0.750	0.059	8200	2.200	RP..1605
R335.25-06.00-0911L-R8	02993959	Arbor	6.197	0.315	1.703	10	10	1.500	2.750	–	2.050	7200	4.850	RP..1605
335.25-06.00-0911L-R8	02993974	Arbor hole	6.197	0.315	1.914	10	10	1.500	2.250	0.750	0.059	7200	3.090	RP..1605
R335.25-08.00-0911L-R8	02993962	Arbor	8.197	0.315	2.329	14	14	1.500	3.500	–	2.050	6500	8.160	RP..1605
335.25-08.00-0911L-R8	02993977	Arbor hole	8.197	0.315	2.539	14	14	2.000	3.000	0.750	0.059	6500	18.080	RP..1605
R335.25-10.00-XL0911L-R8	02993965	Arbor	10.197	0.315	2.519	16	16	2.500	5.120	–	2.050	5800	13.670	RP..1605
335.25-10.00-XL0911L-R8	02993980	Arbor hole	10.197	0.315	3.539	16	16	2.000	3.000	0.750	0.059	5800	9.260	RP..1605
R335.25-12.00-XL0911L-R8	02993968	Arbor	12.197	0.315	3.519	20	20	2.500	5.120	–	2.050	5200	18.080	RP..1605
335.25-12.00-XL0911L-R8	02993983	Arbor hole	12.197	0.315	4.579	20	20	2.000	3.000	0.750	0.059	5200	13.670	RP..1605
R335.25-10.00-XL1113L-R10	02993877	Arbor	10.197	0.394	2.519	16	16	2.500	5.120	–	2.060	4600	15.210	RP..2006
335.25-10.00-XL1113L-R10	02993903	Arbor hole	10.197	0.394	3.539	16	16	2.000	3.000	1.000	0.106	4600	11.460	RP..2006
R335.25-12.00-XL1113L-R10	02993880	Arbor	12.197	0.394	3.519	20	20	2.500	5.120	–	2.060	4100	20.720	RP..2006
335.25-12.00-XL1113L-R10	02993906	Arbor hole	12.197	0.394	4.539	20	20	2.000	3.000	1.000	0.106	4100	17.200	RP..2006



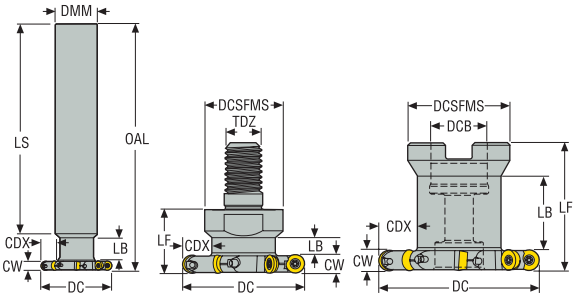
335.29

Free-cutting disc milling cutter system equipped with round inserts dedicated for slotting with full radius or 3D profiling operation

- Width of cut 5-12 mm (.236 - .394 inch)
- Cutter range diameter 25-80 mm (1.5 - 3.0 inch)
- Available with Cylindrical, Arbor, and Combimaster connection, with through coolant capability
- Economical solution with 4 cutting edges per insert

Cutter 335.29 - Round insert – Metric

Width 5/6/7/8/10/12 mm - full side - radius profile - Fixed pocket



- For insert selection and cutting data recommendations, see page(s) 464-478
- For complete insert programme, see page(s) 817, 819
- For spare parts and technical information, see page 447-453
- For ISO attribute explanation, see page 16

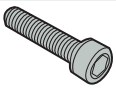
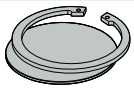
Designation	Item number	Type of mounting	DC	CW	CDX	ZEFP	DMM	TDZ	DCB	DCSFMS	OAL	LF	LS	LB	RPMX	Weight	Insert
			mm	mm	mm		mm		mm	mm	mm	mm	mm	mm		kg	
R335.29-1225.0-05.4N-R25A	02628056	Cylindrical	25,0	5,0	6,9	4	12,0	–	–	–	110,0	–	94,0	10,0	44800	0,2	RD..0501
R335.29-1632.0-05.5N-R25A	02628063	Cylindrical	32,0	5,0	8,4	5	16,0	–	–	–	130,0	–	114,0	10,0	39600	0,3	RD..0501
R335.29-2040.0-05.6N-R25A	02628067	Cylindrical	40,0	5,0	10,4	6	20,0	–	–	–	140,0	–	124,0	10,0	35400	0,4	RD..0501
R335.29-2550.0-05.8N-R25A	02628071	Cylindrical	50,0	5,0	12,9	8	25,0	–	–	–	150,0	–	134,0	10,0	31700	0,6	RD..0501
R335.29-1225.0-06.4N-R3A	02628045	Cylindrical	25,0	6,0	6,9	4	12,0	–	–	–	110,0	–	93,0	10,0	20600	0,2	RD..06T1
R335.29-1632.0-06.5N-R3A	02628061	Cylindrical	32,0	6,0	8,4	5	16,0	–	–	–	130,0	–	113,0	10,0	18700	0,3	RD..06T1
R335.29-2040.0-06.6N-R3A	02628066	Cylindrical	40,0	6,0	10,4	6	20,0	–	–	–	140,0	–	123,0	10,0	16300	0,4	RD..06T1
R335.29-1240.RE-06.6N-R3A	02661227	Combimaster	40,0	6,0	10,0	6	–	M12	–	23,0	–	28,0	–	10,0	17600	0,2	RD..06T1
R335.29-2550.0-06.8N-R3A	02628069	Cylindrical	50,0	6,0	12,9	8	25,0	–	–	–	150,0	–	133,0	10,0	17300	0,6	RD..06T1
R335.29-1650.RE-06.8N-R3A	02661228	Combimaster	50,0	6,0	12,5	8	–	M16	–	30,0	–	28,0	–	9,0	17300	0,3	RD..06T1
R335.29-063.06.22-10N-R3A	02627922	Arbor	63,0	6,0	15,0	10	–	–	22,0	40,0	–	50,0	–	30,6	13900	0,4	RD..06T1
R335.29-1632.0-07.5N-R35A	02628060	Cylindrical	32,0	7,0	8,4	5	16,0	–	–	–	130,0	–	112,0	10,0	31600	0,2	RD..0702
R335.29-1240.RE-07.6N-R35A	02627979	Combimaster	40,0	7,0	10,0	6	–	M12	–	23,0	–	28,0	–	9,0	28200	0,2	RD..0702
R335.29-1650.RE-07.7N-R35A	02627984	Combimaster	50,0	7,0	12,5	7	–	M16	–	30,0	–	28,0	–	8,0	25300	0,2	RD..0702
R335.29-063.07.22-10N-R35A	02627950	Arbor	63,0	7,0	15,0	10	–	–	22,0	40,0	–	50,0	–	29,6	22500	0,4	RD..0702
R335.29-1632.0-08.4N-R4A	02628058	Cylindrical	32,0	8,0	8,4	4	16,0	–	–	–	130,0	–	111,0	10,0	23300	0,3	RD..08..
R335.29-2040.0-08.5N-R4A	02628064	Cylindrical	40,0	8,0	10,4	5	20,0	–	–	–	140,0	–	121,0	10,0	18800	0,4	RD..08..
R335.29-1240.RE-08.5N-R4A	02627978	Combimaster	40,0	8,0	10,0	5	–	M12	–	23,0	–	28,0	–	8,0	18800	0,2	RD..08..
R335.29-2550.0-08.6N-R4A	02628068	Cylindrical	50,0	8,0	12,9	6	25,0	–	–	–	150,0	–	131,0	10,0	17300	0,6	RD..08..
R335.29-1650.RE-08.6N-R4A	02661229	Combimaster	50,0	8,0	12,5	6	–	M16	–	30,0	–	28,0	–	7,0	17300	0,2	RD..08..
R335.29-063.08.22-8N-R4A	02661224	Arbor	63,0	8,0	15,0	8	–	–	22,0	40,0	–	50,0	–	28,6	15600	0,4	RD..08..
R335.29-080.08.27-10N-R4A	02627974	Arbor	80,0	8,0	20,0	10	–	–	27,0	48,0	–	50,0	–	26,8	13700	0,6	RD..08..
R335.29I-1650.RE-10.6N-R5A	03278721	Combimaster	50,0	10,0	12,34	3	–	M16	–	30,0	–	28,0	–	4,3	15800	0,3	RD..10T3
R335.29I-063.10.22-6N-R5A	03278719	Arbor	63,0	10,0	14,67	6	–	–	22,0	38,0	–	50,0	–	26,61	13500	0,4	RD..10T3
R335.29I-080.10.27-8N-R5A	03278720	Arbor	80,0	10,0	19,67	8	–	–	27,0	46,0	–	50,0	–	24,74	12000	0,6	RD..10T3
R335.29I-1650.RE-12.4N-R6A	02988077	Combimaster	50,0	12,0	12,5	2	–	M16	–	30,0	–	28,0	–	4,3	11200	0,2	RP..1204
R335.29I-063.12.22-6N-R6A	02988078	Arbor	63,0	12,0	15,0	6	–	–	22,0	40,0	–	50,0	–	24,6	10200	0,4	RP..1204
R335.29I-080.12.27-8N-R6A	02988079	Arbor	80,0	12,0	20,0	4	–	–	27,0	48,0	–	50,0	–	22,7	10000	0,6	RP..1204

R335.29I Disc Milling cutters offer indexing possibility - Indexing screw SX2035-T05P included in the delivery

Note: All cutters are equipped with central coolant channels, Arbor type are delivered with a lid kit to get central coolant capability

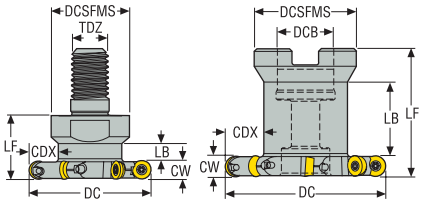
Spare Parts, included in delivery

Accessories

For cutter	Arbor screw	Coolant kit	Insert key	Insert screw	Key	Screw	Insert clamping torque	Torque key
								
R335.29 -R25A	–	–	H4B-T06P	C02053-T06P	–	–	0.5NM	T00-06P05
R335.29 .REXXX-R3A / .0-XXX-R3A	–	–	H4B-T07P	C02205-T07P	–	–	0.9NM	T00-07P09
R335.29 R3A DCB=22	MC6S10X40	LUBRICATION_SET_19	H4B-T07P	C02205-T07P	–	–	0.9NM	T00-07P09
R335.29 .REXXX-R35A / .0-XXX-R35A	–	–	H4B-T07P	C02545-T07P	–	–	0.9NM	T00-07P09
R335.29 R35A DCB=22	MC6S10X40	LUBRICATION_SET_19	H4B-T07P	C02545-T07P	–	–	0.9NM	T00-07P09
R335.29 .REXXX-R4A / .0-XXX-R4A	–	–	H4B-T08P	C02506-T08P	–	–	1.2NM	T00-08P12
R335.29 R4A DCB=22	MC6S10X40	LUBRICATION_SET_19	H4B-T08P	C02506-T08P	–	–	1.2NM	T00-08P12
R335.29 R4A DCB=27	MC6S12X35	LUBRICATION_SET_29	H4B-T08P	C02506-T08P	–	–	1.2NM	T00-08P12
R335.29 .REXXX-R5A / .0-XXX-R5A	–	–	H4B-T09P	C03007-T09P	–	–	2.0NM	T00-09P20
R335.29 R5A DCB=22	MC6S10X40	LUBRICATION_SET_19	H4B-T09P	C03007-T09P	–	–	2.0NM	T00-09P20
R335.29 R5A DCB=27	MC6S12X35	LUBRICATION_SET_29	H4B-T09P	C03007-T09P	–	–	2.0NM	T00-09P20
R335.29 .REXXX-R5A / .0-XXX-R5A	–	–	H4B-T15P	C03509-T15P	T05P-2	SX2035-T05P	3.0NM	T00-15P30
R335.29 R6A DCB=22	MC6S10X40	LUBRICATION_SET_19	H4B-T15P	C03509-T15P	T05P-2	SX2035-T05P	3.0NM	T00-15P30
R335.29 R6A DCB=27	MC6S12X35	LUBRICATION_SET_29	H4B-T15P	C03509-T15P	T05P-2	SX2035-T05P	3.0NM	T00-15P30

Cutter 335.29 - Round insert – inch

Width 0.236/0.315/0.394” - full side - radius profile - Fixed pocket



- For insert selection and cutting data recommendations, see page(s) 466-467, 470-475
- For complete insert programme, see page(s) 817
- For spare parts and technical information, see page 447-453
- For ISO attribute explanation, see page 16

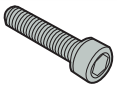
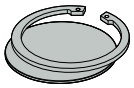
Designation	Item number	Type of mounting	DC	CW	CDX	ZEFP	TDZ	DCB	DCSFMS	LF	LB	RPMX	Weight	Insert
			inch	inch	inch			inch	inch	inch	inch		lbs	
R335.29-1.50-12RE-6N-R3	02477694	Combimaster	1.500	0.236	0.297	6	M12	–	0.906	1.102	–	33700	0.440	RD..06T1
R335.29-2.00-16RE-8N-R3	02477702	Combimaster	2.000	0.236	0.409	8	M16	–	1.181	1.102	–	30200	0.660	RD..06T1
R335.29-2.00-16RE-6N-R4	02477709	Combimaster	2.000	0.315	0.409	6	M16	–	1.181	1.102	–	20200	0.660	RD..08
R335.29I-02.50-6N-R5A	03278722	Arbor	2.500	0.394	0.587	6	–	0.750	1.501	1.998	1.075	13500	1.100	RD..10T3
R335.29I-03.00-8N-R5A	03278723	Arbor	3.000	0.394	0.700	8	–	1.000	1.803	2.000	1.052	12000	1.320	RD..10T3

R335.29I Disc Milling cutters offer indexing possibility

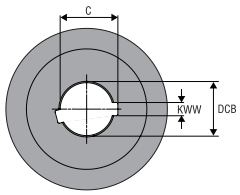
Note: All cutters are equipped with central coolant channels, Arbor type are delivered with a lid kit to get central coolant capability

Spare Parts, included in delivery

Accessories

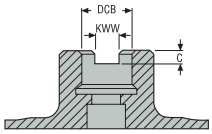
For cutter	Arbor screw	Coolant kit	Insert key	Insert screw	Insert clamping torque	Torque key
						
R335.29 RE- R3	–	–	H4B-T07P	C02205-T07P	8.0IN.LBS	T00-07P09
R335.29 RE- R4	–	–	H4B-T08P	C02506-T08P	10.6IN.LBS	T00-08P12
R335.29I -R5A DCB=0.750	UC6S3/8UNFX11/2	LUBRICATION_SET_19	H4B-T09P	C03007-T09P	17.7IN.LBS	T00-09P20
R335.29I -R5A DCB=1.000	UC6S1/2UNFX1-1/2	LUBRICATION_SET_29	H4B-T09P	C03007-T09P	17.7IN.LBS	T00-09P20

335.18 and 335.25 – Keyway for Arbor hole type and Arbor cutter



Dimensions in mm		
DCB	KWW	C
22	6	24,15
27	7	29,9
40	10	43,6
50	12	53,6
60	14	64,3

Dimensions in inch		
DCB	KWW	C
1.00	*0.250*	*1.110*
1.25	*0.312*	*1.393*
1.50	*0.375*	*1.673*
2.00	*0.500*	*2.198*



Dimensions in mm		
DCB	KWW	C
16	8,4	5,6
22	10,4	6,3
27	12,4	7
32	14,4	8
40	16,4	9

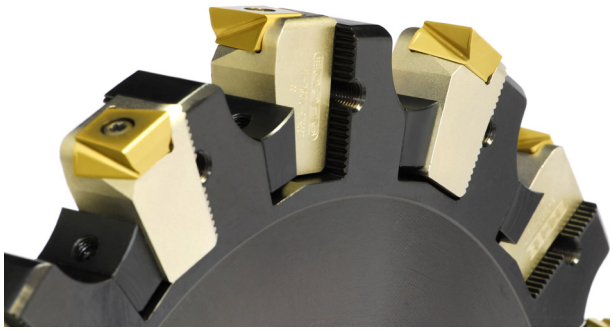
Dimensions in inch		
DCB	KWW	C
0.75	*0.32*	*0.19*
1.00	*0.38*	*0.22*
1.25	*0.51*	*0.28*
1.50	*0.63*	*0.38*

Retaining screw Arbor type cutter: R335.18 / R335.25 (supplied with the cutter in the delivery) - Metric/Inch

For cutter dia – metric	Cutter 335.18 adj. "0810", "1012", "1215" series – metric	Cutter 335.25 - adjustable – metric	For cutter dia – Inch	Cutter 335.25 - adjustable – Inch
63	MC6S 10x40	-	*2.50*	-
80	MC6S 12x40	-	*3.00*	*MLC6S10X45*
100	MC6S 12x40	MC6S12X40	*4.00*	*UC6S1/2UNFX1-1/2*
125	-	MC6S16X40	*5.00*	*ULC6S5/8UNFX11/2*
160	-	MLC6S20X40	*6.00*	*ULC6S3/4UNFX1-1/2*

Note: For disc cutter not mentioned in the tables, please use cross head retaining screw, supplied with the Seco Tooling System shell mill holder

To order a standard adjustable disc milling cutter set at a specific width:



To obtain an adjustable disc mill set to your required dimension add "/ADJ" at the end of the reference and specify your required width which will be set with a tolerance of +/- 0,03 mm (+/- .001"). Without specification the standard disc mill is set to the minimum cutting width.

Ordering example: R335.25-200.1317.40-7N/ADJ and specify on your order your width to any value within its range, for example specify a cutting width of 15.50mm in your order. The disc mill will be set to 15.50 +/- 0,03 mm (0.610" +/- .001").

The delivery time is approx. 3 days for a set adjustable disc mill.

(R)335.18 – LNK inserts



LNK.05
For width 8-10, .312"-.375"



LNK.06
For width 10-12, .625"



LNK.08
For width 12-15, 500"-.750"

LNK.06 and LNK.08 have the same size, but LNK.06 have a reduced cutting length (6mm, .250") to decrease cutting forces for width= 10-12 mm, .394"-.472". LNK.08 have a cutting length = 7,5 mm, .295" for width 12-15 mm, .500"-.750".

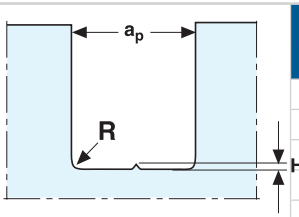
Radius possibilities/Number of cutting edges

	Insert	R	Fixed pocket version: CW =						Adjustable version: CW =				R	Fixed pocket version: CW inch =				Adjustable version: CW inch =			
			8	10	12	14	17	20	8	10	12	15		0.312/ 0.375	0.500	0.625	0.750	0.313	0.394	0.472	0.591
4 cutting edges																					
	LNK.050404	0,4	x	x					x	x			.016	x				x	x		
	LNK.050408	0,8	x	x					x	x			.031	x				x	x		
	LNK.050416	1,6	x	x					x	x			.063	x				x	x		
	LNK.050420	2,0	x	x					x	x			.079	x				x	x		
	LNK.060504	0,4		x	x		x			x	x		.016			x			x	x	
	LNK.060508	0,8		x	x		x			x	x		.031			x			x	x	
	LNK.060516	1,6		x	x		x			x	x		.063			x			x	x	
	LNK.080504	0,4		o	o	x	o	x		o	o	x	.016		x	o	x		o	o	x
	LNK.080508	0,8		o	o	x	o	x		o	o	x	.031		x	o	x		o	o	x
	LNK.080516	1,6		o	o	x	o	x		o	o	x	.063		x	o	x		o	o	x
	LNK.080520	2,0		x	x	x	x	x		x	x	x	.079		x	x	x		x	x	x
	LNK.080524	2,4		x	x	x	x	x		x	x	x	.094		x	x	x		x	x	x
2 cutting edges																					
	LNK.050424	2,4	x	x					x	x			.094	x				x	x		
	LNK.060531	3,1		x	x		x			x	x		.122			x			x	x	
	LNK.080531	3,1			o	x	o	x			o	x	.122		x	o	x			o	x
1 cutting edge (L and R insert)																					
	LNK.050431...C*	3,1	x						x				.122	x				x	x		
	LNK.050431*	3,1		x						x			.157			x			x	x	
	LNK.060540	4,0		x	x		x			x	x		.157		x	o	x			o	x
	LNK.080540	4,0			o	x	o	x			o	x									

*LNK.0504031...C is the first choice for CW = 8 to 9mm and LNK.0504031 is the first choice for CW= 9 to 10mm

x = First choice o = Alternative choice

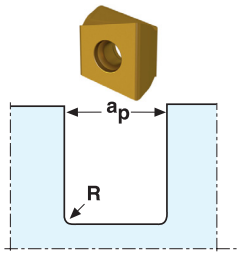
Width and profile generated with LNK.06/08 radii R1,6/R2,0 and R2,4



a_p (mm)	H (mm)		a_p (in)	H (in)	
	Radius 1,6	Radii 2 and 2,4		Radius .063	Radii .079 and .095
13,4	–	0	*.518*	–	0
14	–	0,03	*.551*	–	*.001*
14,2	0	0,07	*.559*	*0*	*.003*
14,5	0,01	0,13	*.570*	*.0004*	*.005*
15	0,1	0,3	*.591*	*.004*	*.012*

(R)335.25 – LNHQ/XNHQ inserts

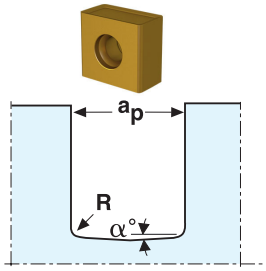
Width and profile generated by XNHQ insert with fixed pocket cutter for a_p = 15/20/25mm, a_p = 0.75", 1.00"



Insert corner radius	a_p = 15mm	a_p = 20mm	a_p = 25mm
0,4	15	20	25
0,8	15	20	25
1,2	15	20	25
1,6	15	20	25
2	15	20	25
2,4	15	20	25
3,1	14,86	20	25
4	14,6	19,78	25
5	–	19,46	24,73
6	–	–	24,46

Insert corner radius	a_p = 0.75"	a_p = 1.00"
0.016	0.75	1.00
0.032	0.75	1.00
0.047	0.75	1.00
0.063	0.75	1.00
0.079	0.75	1.00
0.094	0.75	1.00
0.122	0.75	1.00
0.157	0.741	1.00
0.197	0.729	0.989
0.236	–	0.979

Width and profile generated by LNHQ* insert with fixed pocket cutter for a_p = 25mm, a_p = 1.00"

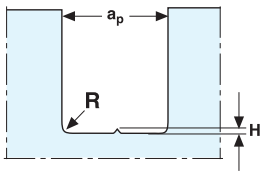


Insert corner radius mm	a_p mm generated	angle α°
0,8	25,17	2
3,1	25,02	2
4	24,92	2
5	24,78	2
6	24,64	2

Insert corner radius inch	a_p inch generated	angle α°
0.0315	1.007	2
0.122	1.001	2
0.157	0.997	2
0.197	0.992	2
0.236	0.986	2

*LNHQ is an insert intended for roughing in difficult conditions (this will not generate a flat bottom).

Width and profile generated with XNHQ 14 and 17 insert, radii 5 and 6 mm, radii 0.197" and 0.236" with adjustable cutter

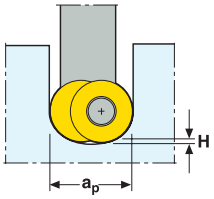


Width cutter	a_p mm	H (mm)	
		Radius 5	Radius 6
21-26	25,5	0	0
21-26	25,8	0	0,01
21-26	26,0	0,01	0,03
26-32	31,7	0	0
26-32	32,0	0	0,01

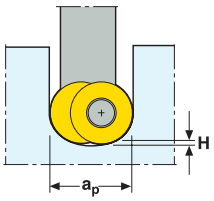
Width cutter	a_p inch	H (inch)	
		Radius 0.197"	Radius 0.236"
0.83-1.02	1.004	0	0
0.83-1.02	1.016	0	.0004
0.83-1.02	1.024	.0004	.0011
1.02-1.26	1.248	0	0
1.02-1.26	1.260	0	.0004

Profile machined with adjustable 335.18/335.25 cutter

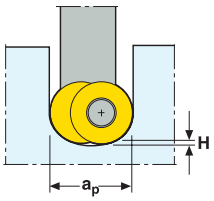
335.18/335.25 cutter equipped with round inserts mm/inch



	Round 8		Round 8		Round 10		Round 10	
	a_p mm	Profile height H mm	a_p inch	Profile height H inch	a_p mm	Profile height H mm	a_p inch	Profile height H inch
a_p min	8,03	0	.316	0	10,03	0	.406	0
a_p max	8,50	0	.335	0	10,50	0	.413	0
	9,00	0,03	.354	.001	11,00	0,025	.433	.001
	9,50	0,07	.374	.003	11,50	0,060	.453	.002
	10,00	0,13	.394	.005	12,00	0,100	.472	.004
	Recom. min setting width is 8,03 mm		Recom. min setting width is .316 inch		Recom. min setting width is 10,03 mm		Recom. min setting width is .406 inch	



	Round 12		Round 12		Round 16		Round 16	
	a_p mm	Profile height H mm	a_p mm	Profile height H mm	a_p mm	Profile height H mm	a_p inch	Profile height H inch
a_p min	12,03	0	.474	0	16,03	0	.631	0
a_p max	12,50	0,01	.492	.0004	16,50	0	.650	0
	13,00	0,02	.512	.001	17,00	0,02	.669	.001
	14,00	0,08	.551	.002			.709	.002
	15,00	0,19	.591	.007			.728	.004
	Recom. min setting width is 12,03 mm		Recom. min setting width is .474 inch		Recom. min setting width is 16,03 mm		Recom. min setting width is .631 inch	



	Round 20		Round 20	
	a_p mm	Profile height H mm	a_p mm	Profile height H mm
a_p min	20,03	0	0,789	0,0000
a_p max	20,5	0,01	0,807	0,0004
	21	0,02	0,827	0,0008
	Recom. min setting width is 20,03 mm		Recom. min setting width is 0,789 inch	

Spare parts

(R)335.18 -LNK and round insert - Adjustable design - Metric

(R)335.18-xxx-	Insert type	Insert screw/Nm	Insert key	Wedge	Wedge screw	Key for wedge screw	Adjusting screw	Key for adjusting screw	Cassettes R335.18-...	Cassettes L335.18-...
										
0810	LN.K05...	C02508-T08P/1,2	H4B-T08P	335.18-607	LD5018F-T15P	H6B-T15PL	SH6004-T08P	H4B-T08P	...0810-05	...0810-05
0810XL	LN.K05...	C02508-T08P/1,2	H4B-T08P	335.18-XL607	LD5018F-T15P	H6B-T15PL	SH6004-T08P	H4B-T08P	...0810XL-05	...0810XL-05
0810	RD..08..	C02506-T08P/1,2	H4B-T08P	335.18-607	LD5018F-T15P	H6B-T15PL	SH6004-T08P	H4B-T08P	N335.18-08-R4	N335.18-08-R4
0810XL	RD..08..	C02506-T08P/1,2	H4B-T08P	335.18-XL607	LD5018F-T15P	H6B-T15PL	SH6004-T08P	H4B-T08P	N335.18-08XL-R4	N335.18-08XL-R4
1012	LNK.06..	C73007-T09P/2,0	H4B-T09P	335.18-609	LD6018F-T20P	H6B-T20PL	SH6005-T09P	H4B-T09P	...1012-06	...1012-06
1012XL	LNK.06..	C73007-T09P/2,0	H4B-T09P	335.18-XL609	LD6018F-T20P	H6B-T20PL	SH6005-T09P	H4B-T09P	...1012XL-06	...1012XL-06
1012	RD..10T3	C03007-T09P/2,0	H4B-T09P	335.18-609	LD6018F-T20P	H6B-T20PL	SH6005-T09P	H4B-T09P	...10-R5I	...10-R5I
1012XL	RD..10T3	C03007-T09P/2,0	H4B-T09P	335.18-XL609	LD6018F-T20P	H6B-T20PL	SH6005-T09P	H4B-T09P	...10XL-R5I	...10XL-R5I
1215	LNK08..	C73007-T09P/2,0	H4B-T09P	335.18-611	LD6018F-T20P	H6B-T20PL	SH6005-T09P	H4B-T09P	...1215-08	...1215-08
1215XL	LNK08..	C73007-T09P/2,0	H4B-T09P	335.18-XL611	LD6018F-T20P	H6B-T20PL	SH6005-T09P	H4B-T09P	...1215XL-08	...1215XL-08
1215	RP..12..	C03508-T15P/3,0	H6B-T15PL	335.18-611	LD6018F-T20P	H6B-T20PL	SH6005-T09P	H4B-T09P	...12-R6	...12-R6
1215XL	RP..12..	C03508-T15P/3,0	H6B-T15PL	335.18-XL611	LD6018F-T20P	H6B-T20PL	SH6005-T09P	H4B-T09P	...12XL-R6	...12XL-R6

Torque and fixed keys, see page 872

(R)335.18 -LNK and round insert - Adjustable design - Inch

(R)335.18-xxx-	Insert type	Insert screw/in. lbs	Insert key	Wedge	Wedge screw	Key for wedge screw	Adjusting screw	Key for adjusting screw	Cassettes R335.18-...	Cassettes L335.18-...
										
0506	LN.K05...	C02508-T08P 10.6	H4B-T08P	335.18-607	LD5018F-T15P	H6B-T15PL	SH6004-T08P	H4B-T08P	...0810-05	...0810-05
XL0506	LN.K05...	C02508-T08P 10.6	H4B-T08P	335.18-XL607	LD5018F-T15P	H6B-T15PL	SH6004-T08P	H4B-T08P	...0810XL-05	...0810XL-05
0506	RD..08..	C02508-T08P 10.6	H4B-T08P	335.18-607	LD5018F-T15P	H6B-T15PL	SH6004-T08P	H4B-T08P	N335.18-08-R4	N335.18-08-R4
XL0506	RD..08..	C02508-T08P 10.6	H4B-T08P	335.18-XL607	LD5018F-T15P	H6B-T15PL	SH6004-T08P	H4B-T08P	N335.18-08XL-R4	N335.18-08XL-R4
0708	LNK.06..	C73007-T09P 17.7	H4B-T08P	335.18-609	LD6018F-T20P	H6B-T20PL	SH6005-T09P	H4B-T09P	...1012-06	...1012-06
XL0708	LNK.06..	C73007-T09P 17.7	H4B-T09P	335.18-XL609	LD6018F-T20P	H6B-T20PL	SH6005-T09P	H4B-T09P	...1012XL-06	...1012XL-06
0708	RD..10T3	C73007-T09P 17.7	H4B-T09P	335.18-609	LD6018F-T20P	H6B-T20PL	SH6005-T09P	H4B-T09P	...10-R5	...10-R5
XL0708	RD..10T3	C73007-T09P 17.7	H4B-T09P	335.18-XL609	LD6018F-T20P	H6B-T20PL	SH6005-T09P	H4B-T09P	...10XL-R5	...10XL-R5
0809	LNK08..	C73007-T09P 17.7	H4B-T09P	335.18-611	LD6018F-T20P	H6B-T20PL	SH6005-T09P	H4B-T09P	...1215-08	...1215-08
XL0809	LNK08..	C73007-T09P 17.7	H4B-T09P	335.18-XL611	LD6018F-T20P	H6B-T20PL	SH6005-T09P	H4B-T09P	...1215XL-08	...1215XL-08
0809	RP..12..	C03508-T15P 26.6	H4B-T09P	335.18-611	LD6018F-T20P	H6B-T20PL	SH6005-T09P	H4B-T09P	...12-R6	...12-R6
XL0809	RP..12..	C03508-T15P 26.6	H6B-T15PL	335.18-XL611	LD6018F-T20P	H6B-T20PL	SH6005-T09P	H4B-T09P	...12XL-R6	...12XL-R6

Torque and fixed keys, see page 872

Spare parts

For adjustable cutter (R)335.25 equipped with XHNQ/LNHQ inserts - Metric

(R)335.25-xxx-	Insert type	Insert screw/Nm	Insert key	Wedge	Wedge screw	Key for wedge screw	Adjusting screw	Key for adjusting screw	Cassettes R335.25-...	Cassettes L335.25-...
										
1317	XNHQ09	C03509-T10P/3	H4B-T10P	335.25-612	LD6018F-T20P	H6B-T20PL	SH6005-T09P	H4B-T09P	1317-09*	1317-09*
1317XL	XNHQ09	C03509-T10P/3	H4B-T10P	335.25-612	LD6018F-T20P	H6B-T20PL	SH6005-T09P	H4B-T09P	1317XL-09	1317XL-09
1721	XNHQ12	C03511-T10P/3	H4B-T10P	335.25-616	LD6018F-T20P	H6B-T20PL	SH6005-T09P	H4B-T09P	1721-12**	1721-12**
1721XL	XNHQ12	C03511-T10P/3	H4B-T10P	335.25-616	LD6018F-T20P	H6B-T20PL	SH6005-T09P	H4B-T09P	1721XL-12	1721XL-12
2126	XNHQ14 / LNHQ14	C04013-T15P/5	H4B-T15P	335.25-620	LD6018F-T20P	H6B-T20PL	SH6005-T09P	H4B-T09P	2126-14***	2126-14***
2126XL	XNHQ14 / LNHQ14	C04013-T15P/5	H4B-T15P	335.25-620	LD6018F-T20P	H6B-T20PL	SH6005-T09P	H4B-T09P	2126XL-14	2126XL-14
2632	XNHQ17 / LNHQ17	C05013-T20P/5	H6B-T20P	335.25-625	LD6018F-T20P	H6B-T20PL	SH6005-T09P	H4B-T09P	2632-17****	2632-17****
2632XL	XNHQ17 / LNHQ17	C05013-T20P/5	H6B-T20P	335.25-625	LD6018F-T20P	H6B-T20PL	SH6005-T09P	H4B-T09P	2632XL-17	2632XL-17

*Cassette compatible with adjustable disc milling cutter x335.18-xxx-1418 series to generate width of cut from 14 to 17 mm, generating nominal “DC” diameter
**Cassette compatible with adjustable disc milling cutter x335.18-xxx-1924 series to generate width of cut from 18.5 to 21 mm, generating nominal “DC” diameter
***Cassette compatible with adjustable disc milling cutter x335.18-xxx-2530 series to generate width of cut from 24,3 to 26 mm, generating nominal “DC” diameter
**** Cassette compatible with adjustable disc milling cutter x335.18-xxx-2530 series to generate width of cut from 26 to 30,5 mm, generating nominal “DC” diameter

For adjustable cutter (R)335.25 equipped with round insert dia 16 and 20mm - Metric

(R)335.25-xxx-	Insert type	Insert screw/Nm	Insert key	Wedge	Wedge screw	Key for wedge screw	Adjusting screw	Key for adjusting screw	Cassettes R335.25-...	Cassettes L335.25-...
										
1317	RP..1605	C05010-T20P / 5	H6B-T20P	335.25-612	LD6018F-T20P	H6B-T20PL	SH6005-T09P	H4B-T09P	...16-R8I-D5*	...16-R8I-D5*
1317XL	RP..1605	C05010-T20P / 5	H6B-T20P	335.25-612	LD6018F-T20P	H6B-T20PL	SH6005-T09P	H4B-T09P	...16XL-R8I-D5	...16XL-R8I-D5
1721XL	RP..2006	C05013-T20P / 5	H6B-T20P	335.25-616	LD6018F-T20P	H6B-T20PL	SH6005-T09P	H4B-T09P	...20XL-R10-D5	...20XL-R10-D5

*Cassette compatible with adjustable disc milling cutter x335.18-xxx-1418 series to generate width of cut from 16 to 18,5 mm, generating nominal “DC” diameter +5mm

Spare parts

Spare parts for adjustable cutter (R)335.25 equipped with XHNQ/LNHQ inserts - Inch

(R)335.25-xxx-	Insert type	Insert screw/in. lbs	Insert key	Wedge	Wedge screw	Key for wedge screw	Adjusting screw	Key for adjusting screw	Cassettes R335.25-...	Cassettes L335.25-...
										
0911	XNHQ09	C03509-T10P/26.5	H4B-T10P	335.25-612	LD6018F-T20P	H6B-T20PL	SH6005-T09P	H4B-T09P	1317-09*	1317-09*
XL0911	XNHQ09	C03509-T10P/26.5	H4B-T10P	335.25-612	LD6018F-T20P	H6B-T20PL	SH6005-T09P	H4B-T09P	1317XL-09	1317XL-09
1113	XNHQ12	C03511-T10P/26.5	H4B-T10P	335.25-616	LD6018F-T20P	H6B-T20PL	SH6005-T09P	H4B-T09P	1721-12**	1721-12**
XL1113	XNHQ12	C03511-T10P/26.5	H4B-T10P	335.25-616	LD6018F-T20P	H6B-T20PL	SH6005-T09P	H4B-T09P	1721XL-12	1721XL-12
1316	XNHQ14 / LNHQ14	C04013-T15P/44	H4B-T15P	335.25-620	LD6018F-T20P	H6B-T20PL	SH6005-T09P	H4B-T09P	2126-14***	2126-14***
XL1316	XNHQ14 / LNHQ14	C04013-T15P/44	H4B-T15P	335.25-620	LD6018F-T20P	H6B-T20PL	SH6005-T09P	H4B-T09P	2126XL-14	2126XL-14
1620	XNHQ17 / LNHQ17	C05013-T20P/44	H6B-T20P	335.25-625	LD6018F-T20P	H6B-T20PL	SH6005-T09P	H4B-T09P	2632-17****	2632-17****
XL1620	XNHQ17 / LNHQ17	C05013-T20P/44	H6B-T20P	335.25-625	LD6018F-T20P	H6B-T20PL	SH6005-T09P	H4B-T09P	2632XL-17	2632XL-17

*Cassette compatible with adjustable disc milling cutter x335.18-xxx-1418 series to generate width of cut from 14 to 17 mm, generating nominal “DC” diameter
**Cassette compatible with adjustable disc milling cutter x335.18-xxx-1924 series to generate width of cut from 18.5 to 21 mm, generating nominal “DC” diameter
***Cassette compatible with adjustable disc milling cutter x335.18-xxx-2530 series to generate width of cut from 24,3 to 26 mm, generating nominal “DC” diameter
**** Cassette compatible with adjustable disc milling cutter x335.18-xxx-2530 series to generate width of cut from 26 to 30,5 mm, generating nominal “DC” diameter

Spare parts for adjustable cutter (R)335.25 equipped with round insert dia 16 and 20mm - Inch

(R)335.25-xxx-	Insert type	Insert screw/in. lbs	Insert key	Wedge	Wedge screw	Key for wedge screw	Adjusting screw	Key for adjusting screw	Cassettes R335.25-...	Cassettes L335.25-...
										
0911	RP..1605	C05010-T20P/44.3	H6B-T20P	335.25-612	LD6018F-T20P	H6B-T20PL	SH6005-T09P	H4B-T09P	...16-R8I-D5*	...16-R8I-D5*
XL0911	RP..1605	C05010-T20P/44.3	H6B-T20P	335.25-612	LD6018F-T20P	H6B-T20PL	SH6005-T09P	H4B-T09P	...16XL-R8I-D5	...16XL-R8I-D5
XL1113	RP..2006	C05010-T20P/44.3	H6B-T20P	335.25-616	LD6018F-T20P	H6B-T20PL	SH6005-T09P	H4B-T09P	...20XL-R10-D5	...20XL-R10-D5

*Cassette compatible with adjustable disc milling cutter x335.18-xxx-1418 series to generate width of cut from 16 to 18,5 mm, generating nominal “DC” diameter +5mm

335.18-LNK – Insert selection – mm/*Inch*

SMG				f_z		
				30%	20%	10%
P1	LNKT05...-M06 F40M	LNKT06...-M06 F40M	*LNKT08...-M06 F40M*	0,12 *0.0048*	0,14 *0.0055*	0,19 *0.0075*
P2	LNKT05...-M06 F40M	LNKT06...-M06 F40M	*LNKT08...-M06 F40M*	0,13 *0.0050*	0,14 *0.0055*	0,19 *0.0075*
P3	LNKT05...-M06 F40M	LNKT06...-M06 F40M	*LNKT08...-M06 F40M*	0,12 *0.0048*	0,14 *0.0055*	0,18 *0.0070*
P4	LNKT05...-M06 F40M	LNKT06...-M06 F40M	*LNKT08...-M06 F40M*	0,12 *0.0048*	0,13 *0.0050*	0,18 *0.0070*
P5	LNKT05...-M06 F40M	LNKT06...-M06 F40M	*LNKT08...-M06 F40M*	0,11 *0.0044*	0,13 *0.0050*	0,17 *0.0065*
P6	LNKT05...-M06 F40M	LNKT06...-M06 F40M	*LNKT08...-M06 F40M*	0,11 *0.0044*	0,13 *0.0050*	0,17 *0.0065*
P7	LNKT05...-M06 F40M	LNKT06...-M06 F40M	*LNKT08...-M06 F40M*	0,11 *0.0044*	0,13 *0.0050*	0,17 *0.0065*
P8	LNKT05...-M06 MP3000	LNKT06...-M06 MP3000	*LNKT08...-M06 MP3000*	0,12 *0.0048*	0,14 *0.0055*	0,18 *0.0070*
P11	LNKT05...-M06 F40M	LNKT06...-M06 F40M	*LNKT08...-M06 F40M*	0,11 *0.0044*	0,13 *0.0050*	0,17 *0.0065*
P12	LNKT05...-M06 F40M	LNKT06...-M06 F40M	*LNKT08...-M06 F40M*	0,075 *0.0030*	0,090 *0.0036*	0,12 *0.0048*
M1	LNKT05...-M06 F40M	LNKT06...-M06 F40M	*LNKT08...-M06 F40M*	0,13 *0.0050*	0,14 *0.0055*	0,19 *0.0075*
M2	LNKT05...-M06 F40M	LNKT06...-M06 F40M	*LNKT08...-M06 F40M*	0,11 *0.0044*	0,13 *0.0050*	0,17 *0.0065*
M3	LNKT05...-M06 F40M	LNKT06...-M06 F40M	*LNKT08...-M06 F40M*	0,090 *0.0036*	0,10 *0.0040*	0,14 *0.0055*
M4	LNKT05...-M06 F40M	LNKT06...-M06 F40M	*LNKT08...-M06 F40M*	0,080 *0.0032*	0,090 *0.0036*	0,12 *0.0048*
M5	LNKT05...-M06 F40M	LNKT06...-M06 F40M	*LNKT08...-M06 F40M*	0,080 *0.0032*	0,090 *0.0036*	0,12 *0.0048*
K1	LNKT05...-M06 MP3000	LNKT06...-M06 MK2050	*LNKT08...-M06 MK2050*	0,13 *0.0050*	0,14 *0.0055*	0,19 *0.0075*
K2	LNKT05...-M06 MP3000	LNKT06...-M06 MK2050	*LNKT08...-M06 MK2050*	0,11 *0.0044*	0,13 *0.0050*	0,17 *0.0065*
K3	LNKT05...-M06 MP3000	LNKT06...-M06 MK2050	*LNKT08...-M06 MK2050*	0,11 *0.0044*	0,13 *0.0050*	0,17 *0.0065*
K4	LNKT05...-M06 MP3000	LNKT06...-M06 MK2050	*LNKT08...-M06 MK2050*	0,11 *0.0044*	0,13 *0.0050*	0,17 *0.0065*
K5	LNKT05...-M06 MP3000	LNKT06...-M06 MK2050	*LNKT08...-M06 MK2050*	0,10 *0.0040*	0,12 *0.0048*	0,16 *0.0065*
K6	LNKT05...-M06 MP3000	LNKT06...-M06 MK2050	*LNKT08...-M06 MK2050*	0,11 *0.0044*	0,13 *0.0050*	0,17 *0.0065*
K7	LNKT05...-M06 MP3000	LNKT06...-M06 MK2050	*LNKT08...-M06 MK2050*	0,10 *0.0040*	0,12 *0.0048*	0,16 *0.0065*
N1	LNKT05...-E05 H25	LNKT06...-E05 H25	*LNKT08...-E05 H25*	0,14 *0.0055*	0,16 *0.0065*	0,22 *0.0085*
N2	LNKT05...-E05 H25	LNKT06...-E05 H25	*LNKT08...-E05 H25*	0,14 *0.0055*	0,16 *0.0065*	0,22 *0.0085*
N3	LNKT05...-E05 H25	LNKT06...-E05 H25	*LNKT08...-E05 H25*	0,14 *0.0055*	0,16 *0.0065*	0,22 *0.0085*
N11	LNKT05...-E05 H25	LNKT06...-E05 H25	*LNKT08...-E05 H25*	0,14 *0.0055*	0,16 *0.0065*	0,22 *0.0085*
S1	LNKT05...-M06 F40M	LNKT06...-M06 F40M	*LNKT08...-M06 F40M*	0,080 *0.0032*	0,090 *0.0036*	0,12 *0.0048*
S2	LNKT05...-M06 F40M	LNKT06...-M06 F40M	*LNKT08...-M06 F40M*	0,080 *0.0032*	0,090 *0.0036*	0,12 *0.0048*
S3	LNKT05...-M06 F40M	LNKT06...-M06 F40M	*LNKT08...-M06 F40M*	0,075 *0.0030*	0,085 *0.0034*	0,11 *0.0044*
S11	LNKT05...-M06 F40M	LNKT06...-M06 F40M	*LNKT08...-M06 F40M*	0,090 *0.0036*	0,10 *0.0040*	0,14 *0.0055*
S12	LNKT05...-M06 F40M	LNKT06...-M06 F40M	*LNKT08...-M06 F40M*	0,090 *0.0036*	0,10 *0.0040*	0,14 *0.0055*
S13	LNKT05...-M06 F40M	LNKT06...-M06 F40M	*LNKT08...-M06 F40M*	0,080 *0.0032*	0,090 *0.0036*	0,12 *0.0048*
H5	LNKT05...-M06 MP3000	LNKT06...-M06 MP3000	*LNKT08...-M06 MP3000*	0,075 *0.0030*	0,090 *0.0036*	0,12 *0.0048*
H8	LNKT05...-M06 MP3000	LNKT06...-M06 MP3000	*LNKT08...-M06 MP3000*	0,060 *0.0024*	0,070 *0.0028*	0,090 *0.0036*
H11	LNKT05...-M06 F40M	LNKT06...-M06 F40M	*LNKT08...-M06 F40M*	0,075 *0.0030*	0,090 *0.0036*	0,12 *0.0048*
H12	LNKT05...-M06 F40M	LNKT06...-M06 F40M	*LNKT08...-M06 F40M*	0,060 *0.0024*	0,070 *0.0028*	0,090 *0.0036*
H21	LNKT05...-M06 MP3000	LNKT06...-M06 MP3000	*LNKT08...-M06 MP3000*	0,060 *0.0024*	0,070 *0.0028*	0,090 *0.0036*

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

335.18-LNK – Cutting data v_c = (m/min)/*(sf/min)*

SMG	MK2050			MP3000			F40M			H25			MK1500			MP2501			MP3501		
	30%	20%	10%	30%	20%	10%	30%	20%	10%	30%	20%	10%	30%	20%	10%	30%	20%	10%	30%	20%	10%
P1	245 *800*	260 *850*	285 *940*	235 *770*	250 *820*	275 *900*	185 *610*	200 *660*	220 *720*	— —	— —	— —	— —	— —	— —	325 *1075*	335 *1100*	360 *1175*	290 *950*	305 *1000*	325 *1075*
P2	235 *770*	250 *820*	275 *900*	225 *740*	240 *790*	265 *870*	180 *590*	195 *640*	215 *710*	— —	— —	— —	— —	— —	— —	315 *1025*	330 *1075*	350 *1150*	285 *940*	295 *970*	315 *1025*
P3	205 *670*	215 *710*	240 *790*	195 *640*	210 *690*	235 *770*	155 *510*	165 *540*	185 *610*	— —	— —	— —	— —	— —	— —	270 *890*	285 *940*	305 *1000*	245 *800*	255 *840*	275 *900*
P4	180 *590*	195 *640*	215 *710*	170 *560*	185 *610*	205 *670*	140 *460*	150 *490*	165 *540*	— —	— —	— —	— —	— —	— —	240 *790*	250 *820*	270 *890*	215 *710*	225 *740*	240 *790*
P5	175 *570*	185 *610*	205 *670*	170 *560*	180 *590*	200 *660*	135 *445*	145 *475*	160 *520*	— —	— —	— —	— —	— —	— —	230 *750*	240 *790*	260 *850*	210 *690*	215 *710*	235 *770*
P6	195 *640*	210 *690*	230 *750*	190 *620*	200 *660*	225 *740*	150 *490*	160 *520*	180 *590*	— —	— —	— —	— —	— —	— —	260 *850*	270 *890*	290 *950*	235 *770*	245 *800*	260 *850*
P7	185 *610*	195 *640*	220 *720*	180 *590*	190 *620*	210 *690*	140 *460*	150 *490*	170 *560*	— —	— —	— —	— —	— —	— —	245 *800*	255 *840*	275 *900*	220 *720*	230 *750*	250 *820*
P8	170 *560*	180 *590*	205 *670*	165 *540*	175 *570*	195 *640*	130 *425*	140 *460*	155 *510*	— —	— —	— —	— —	— —	— —	225 *740*	240 *790*	255 *840*	205 *670*	215 *710*	230 *750*
P11	180 *590*	190 *620*	210 *690*	175 *570*	185 *610*	205 *670*	140 *460*	145 *475*	165 *540*	— —	— —	— —	— —	— —	— —	240 *790*	250 *820*	265 *870*	215 *710*	225 *740*	240 *790*
P12	115 *375*	125 *410*	135 *445*	110 *360*	120 *395*	130 *425*	90 *295*	95 *310*	105 *345*	— —	— —	— —	— —	— —	— —	150 *490*	155 *510*	165 *540*	135 *445*	140 *460*	150 *490*
M1	— —	— —	— —	170 *560*	180 *590*	200 *660*	145 *475*	155 *510*	170 *560*	— —	— —	— —	— —	— —	— —	175 *570*	185 *610*	205 *670*	160 *520*	170 *560*	190 *620*
M2	— —	— —	— —	140 *460*	150 *490*	165 *540*	120 *395*	130 *425*	145 *475*	— —	— —	— —	— —	— —	— —	145 *475*	150 *490*	170 *560*	135 *445*	140 *460*	155 *510*
M3	— —	— —	— —	110 *360*	120 *395*	130 *425*	95 *310*	105 *345*	115 *375*	— —	— —	— —	— —	— —	— —	115 *375*	125 *410*	135 *445*	105 *345*	115 *375*	125 *410*
M4	— —	— —	— —	85 *280*	95 *310*	105 *345*	75 *245*	80 *260*	90 *295*	— —	— —	— —	— —	— —	— —	90 *295*	95 *310*	105 *345*	80 *260*	90 *295*	95 *310*
M5	— —	— —	— —	70 *230*	80 *260*	85 *280*	60 *195*	65 *215*	75 *245*	— —	— —	— —	— —	— —	— —	75 *245*	80 *260*	85 *280*	70 *230*	75 *245*	80 *260*
K1	255 *840*	270 *890*	300 *980*	150 *490*	160 *520*	175 *570*	145 *475*	155 *510*	170 *560*	— —	— —	— —	270 *890*	285 *940*	315 *1025*	315 *1025*	330 *1075*	355 *1175*	285 *940*	300 *980*	320 *1050*
K2	225 *740*	240 *790*	265 *870*	135 *445*	140 *460*	160 *520*	130 *425*	135 *445*	150 *490*	— —	— —	— —	240 *790*	255 *840*	280 *920*	280 *920*	290 *950*	315 *1025*	250 *820*	260 *850*	285 *940*
K3	190 *620*	205 *670*	225 *740*	115 *375*	120 *395*	135 *445*	110 *360*	115 *375*	130 *425*	— —	— —	— —	200 *660*	215 *710*	240 *790*	235 *770*	245 *800*	265 *870*	215 *710*	220 *720*	240 *790*
K4	185 *610*	195 *640*	215 *710*	110 *360*	115 *375*	130 *425*	105 *345*	110 *360*	120 *395*	— —	— —	— —	195 *640*	205 *670*	230 *750*	225 *740*	235 *770*	255 *840*	205 *670*	210 *690*	230 *750*
K5	110 *360*	120 *395*	130 *425*	65 *215*	70 *230*	75 *245*	65 *215*	65 *215*	75 *245*	— —	— —	— —	120 *395*	125 *410*	135 *445*	135 *445*	140 *460*	150 *490*	125 *410*	130 *425*	135 *445*
K6	160 *520*	170 *560*	190 *620*	95 *310*	100 *330*	115 *375*	90 *295*	95 *310*	105 *345*	— —	— —	— —	170 *560*	180 *590*	200 *660*	200 *660*	205 *670*	225 *740*	180 *590*	185 *610*	200 *660*
K7	140 *460*	150 *490*	165 *540*	85 *280*	90 *295*	100 *330*	80 *260*	85 *280*	95 *310*	— —	— —	— —	150 *490*	160 *520*	175 *570*	175 *570*	180 *590*	195 *640*	160 *520*	165 *540*	175 *570*
N1	— —	— —	— —	1325 *4350*	1425 *4675*	1575 *5175*	1050 *3450*	1125 *3700*	1250 *4100*	1100 *3600*	1175 *3850*	1275 *4175*	— —	— —	— —	— —	— —	— —	— —	— —	— —
N2	— —	— —	— —	530 *1750*	570 *1875*	630 *2075*	425 *1400*	460 *1500*	510 *1675*	440 *1450*	470 *1550*	520 *1700*	— —	— —	— —	— —	— —	— —	— —	— —	— —
N3	— —	— —	— —	355 *1175*	380 *1250*	425 *1400*	285 *940*	305 *1000*	340 *1125*	295 *970*	315 *1025*	345 *1125*	— —	— —	— —	— —	— —	— —	— —	— —	— —
N11	— —	— —	— —	405 *1325*	435 *1425*	485 *1600*	325 *1075*	350 *1150*	385 *1275*	335 *1100*	360 *1175*	395 *1300*	— —	— —	— —	— —	— —	— —	— —	— —	— —
S1	— —	— —	— —	40 *130*	43 *140*	48 *155*	35 *115*	37 *120*	41 *135*	— —	— —	— —	— —	— —	— —	— —	— —	— —	27 *90*	29 *95*	32 *105*
S2	— —	— —	— —	33 *110*	35 *115*	39 *130*	28 *90*	30 *100*	33 *110*	— —	— —	— —	— —	— —	— —	— —	— —	— —	22 *70*	23 *75*	26 *85*
S3	— —	— —	— —	28 *90*	30 *100*	34 *110*	25 *80*	26 *85*	29 *95*	— —	— —	— —	— —	— —	— —	— —	— —	— —	27 *90*	29 *95*	32 *105*
S11	— —	— —	— —	55 *180*	60 *195*	65 *215*	49 *160*	55 *180*	60 *195*	— —	— —	— —	— —	— —	— —	— —	— —	— —	55 *180*	60 *195*	65 *215*
S12	— —	— —	— —	48 *155*	50 *165*	55 *180*	41 *135*	44 *145*	48 *155*	— —	— —	— —	— —	— —	— —	— —	— —	— —	37 *120*	40 *130*	44 *145*
S13	— —	— —	— —	28 *90*	30 *100*	33 *110*	24 *80*	26 *85*	28 *90*	— —	— —	— —	— —	— —	— —	— —	— —	— —	22 *70*	23 *75*	26 *85*
H5	— —	— —	— —	31 *100*	33 *110*	36 *120*	30 *100*	31 *100*	35 *115*	— —	— —	— —	— —	— —	— —	— —	— —	— —	34 *110*	36 *120*	40 *130*
H8	— —	— —	— —	33 *110*	35 *115*	39 *130*	31 *100*	33 *110*	37 *120*	— —	— —	— —	— —	— —	— —	— —	— —	— —	36 *120*	38 *125*	42 *140*
H11	— —	— —	— —	40 *130*	42 *140*	46 *150*	38 *125*	40 *130*	44 *145*	— —	— —	— —	— —	— —	— —	— —	— —	— —	43 *140*	46 *150*	50 *165*
H12	— —	— —	— —	38 *125*	40 *130*	45 *150*	36 *120*	39 *130*	43 *140*	— —	— —	— —	— —	— —	— —	— —	— —	— —	65 *215*	70 *230*	75 *245*
H21	— —	— —	— —	33 *110*	35 *115*	39 *130*	31 *100*	33 *110*	37 *120*	— —	— —	— —	— —	— —	— —	— —	— —	— —	36 *120*	38 *125*	42 *140*

335.25-XN09 – Insert selection – mm/*Inch*

SMG		f_z		
		30%	20%	10%
P1	XNHQ090508TN4-M08 F40M	0,14 *0.0055*	0,16 *0.0065*	0,22 *0.0085*
P2	XNHQ090508TN4-M08 F40M	0,14 *0.0055*	0,16 *0.0065*	0,22 *0.0085*
P3	XNHQ090508TN4-M08 F40M	0,13 *0.0050*	0,15 *0.0060*	0,20 *0.0080*
P4	XNHQ090508TN4-M08 F40M	0,13 *0.0050*	0,15 *0.0060*	0,20 *0.0080*
P5	XNHQ090508TN4-M08 F40M	0,13 *0.0050*	0,15 *0.0060*	0,20 *0.0080*
P6	XNHQ090508TN4-M08 F40M	0,13 *0.0050*	0,15 *0.0060*	0,19 *0.0075*
P7	XNHQ090508TN4-M08 F40M	0,13 *0.0050*	0,15 *0.0060*	0,19 *0.0075*
P8	XNHQ090508TN4-M08 MP2501	0,13 *0.0050*	0,15 *0.0060*	0,20 *0.0080*
P11	XNHQ090508TN4-M08 F40M	0,13 *0.0050*	0,15 *0.0060*	0,19 *0.0075*
P12	XNHQ090508TN4-M08 F40M	0,085 *0.0034*	0,10 *0.0040*	0,13 *0.0050*
M1	XNHQ090508TN4-M08 F40M	0,14 *0.0055*	0,16 *0.0065*	0,22 *0.0085*
M2	XNHQ090508TN4-M08 F40M	0,13 *0.0050*	0,15 *0.0060*	0,20 *0.0080*
M3	XNHQ090508TN4-M08 F40M	0,10 *0.0040*	0,12 *0.0048*	0,16 *0.0065*
M4	XNHQ090508TN4-M08 F40M	0,090 *0.0036*	0,10 *0.0040*	0,14 *0.0055*
M5	XNHQ090508TN4-M08 F40M	0,090 *0.0036*	0,10 *0.0040*	0,14 *0.0055*
K1	XNHQ090508TN4-M08 MK2050	0,14 *0.0055*	0,16 *0.0065*	0,22 *0.0085*
K2	XNHQ090508TN4-M08 MK2050	0,13 *0.0050*	0,15 *0.0060*	0,20 *0.0080*
K3	XNHQ090508TN4-M08 MK2050	0,13 *0.0050*	0,15 *0.0060*	0,20 *0.0080*
K4	XNHQ090508TN4-M08 MK2050	0,13 *0.0050*	0,15 *0.0060*	0,20 *0.0080*
K5	XNHQ090508TN4-M08 MK2050	0,12 *0.0048*	0,13 *0.0050*	0,18 *0.0070*
K6	XNHQ090508TN4-M08 MK2050	0,13 *0.0050*	0,15 *0.0060*	0,20 *0.0080*
K7	XNHQ090508TN4-M08 MK2050	0,12 *0.0048*	0,13 *0.0050*	0,18 *0.0070*
N1	XNHQ090508EN4-E07 F40M	0,16 *0.0065*	0,18 *0.0070*	0,24 *0.0095*
N2	XNHQ090508EN4-E07 F40M	0,16 *0.0065*	0,18 *0.0070*	0,24 *0.0095*
N3	XNHQ090508EN4-E07 F40M	0,16 *0.0065*	0,18 *0.0070*	0,24 *0.0095*
N11	XNHQ090508EN4-E07 F40M	0,16 *0.0065*	0,18 *0.0070*	0,24 *0.0095*
S1	XNHQ090508TN4-M08 F40M	0,090 *0.0036*	0,10 *0.0040*	0,14 *0.0055*
S2	XNHQ090508TN4-M08 F40M	0,090 *0.0036*	0,10 *0.0040*	0,14 *0.0055*
S3	XNHQ090508TN4-M08 F40M	0,085 *0.0034*	0,095 *0.0038*	0,13 *0.0050*
S11	XNHQ090508TN4-M08 F40M	0,10 *0.0040*	0,12 *0.0048*	0,16 *0.0065*
S12	XNHQ090508TN4-M08 F40M	0,10 *0.0040*	0,12 *0.0048*	0,16 *0.0065*
S13	XNHQ090508TN4-M08 F40M	0,090 *0.0036*	0,10 *0.0040*	0,14 *0.0055*
H5	XNHQ090508TN4-M08 MP2501	0,085 *0.0034*	0,10 *0.0040*	0,13 *0.0050*
H8	XNHQ090508TN4-M08 MP2501	0,065 *0.0026*	0,075 *0.0030*	0,10 *0.0040*
H11	XNHQ090508TN4-M08 F40M	0,085 *0.0034*	0,10 *0.0040*	0,13 *0.0050*
H12	XNHQ090508TN4-M08 F40M	0,065 *0.0026*	0,075 *0.0030*	0,10 *0.0040*
H21	XNHQ090508TN4-M08 MP2501	0,065 *0.0026*	0,075 *0.0030*	0,10 *0.0040*

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

335.25-XN09 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	MK2050			F40M			MP2501		
	30%	20%	10%	30%	20%	10%	30%	20%	10%
P1	240 *790*	255 *840*	280 *920*	185 *610*	195 *640*	215 *710*	320 *1050*	335 *1100*	360 *1175*
P2	230 *750*	250 *820*	275 *900*	180 *590*	190 *620*	210 *690*	310 *1025*	325 *1075*	350 *1150*
P3	205 *670*	220 *720*	240 *790*	155 *510*	170 *560*	185 *610*	270 *890*	285 *940*	305 *1000*
P4	180 *590*	190 *620*	210 *690*	140 *460*	150 *490*	165 *540*	240 *790*	250 *820*	270 *890*
P5	170 *560*	185 *610*	205 *670*	130 *425*	140 *460*	155 *510*	230 *750*	240 *790*	260 *850*
P6	195 *640*	205 *670*	230 *750*	150 *490*	160 *520*	180 *590*	255 *840*	270 *890*	290 *950*
P7	180 *590*	195 *640*	220 *720*	140 *460*	150 *490*	170 *560*	240 *790*	255 *840*	275 *900*
P8	170 *560*	185 *610*	205 *670*	130 *425*	140 *460*	155 *510*	230 *750*	240 *790*	260 *850*
P11	175 *570*	190 *620*	210 *690*	135 *445*	145 *475*	165 *540*	235 *770*	245 *800*	270 *890*
P12	115 *375*	125 *410*	135 *445*	90 *295*	95 *310*	105 *345*	150 *490*	155 *510*	165 *540*
M1	— —	— —	— —	145 *475*	155 *510*	170 *560*	170 *560*	180 *590*	200 *660*
M2	— —	— —	— —	120 *395*	125 *410*	140 *460*	140 *460*	150 *490*	165 *540*
M3	— —	— —	— —	95 *310*	100 *330*	115 *375*	115 *375*	120 *395*	135 *445*
M4	— —	— —	— —	75 *245*	80 *260*	90 *295*	90 *295*	95 *310*	105 *345*
M5	— —	— —	— —	60 *195*	65 *215*	75 *245*	75 *245*	80 *260*	85 *280*
K1	250 *820*	270 *890*	295 *970*	140 *460*	150 *490*	165 *540*	315 *1025*	330 *1075*	355 *1175*
K2	220 *720*	235 *770*	260 *850*	125 *410*	135 *445*	150 *490*	275 *900*	290 *950*	310 *1025*
K3	190 *620*	200 *660*	220 *720*	105 *345*	115 *375*	125 *410*	235 *770*	245 *800*	265 *870*
K4	180 *590*	190 *620*	210 *690*	100 *330*	110 *360*	120 *395*	225 *740*	235 *770*	250 *820*
K5	110 *360*	120 *395*	130 *425*	60 *195*	65 *215*	75 *245*	135 *445*	145 *475*	155 *510*
K6	160 *520*	170 *560*	185 *610*	90 *295*	95 *310*	105 *345*	195 *640*	205 *670*	220 *720*
K7	140 *460*	150 *490*	165 *540*	80 *260*	85 *280*	95 *310*	175 *570*	185 *610*	195 *640*
N1	— —	— —	— —	1050 *3450*	1125 *3700*	1225 *4025*	— —	— —	— —
N2	— —	— —	— —	420 *1375*	455 *1500*	500 *1650*	— —	— —	— —
N3	— —	— —	— —	280 *920*	305 *1000*	330 *1075*	— —	— —	— —
N11	— —	— —	— —	320 *1050*	345 *1125*	380 *1250*	— —	— —	— —
S1	— —	— —	— —	35 *115*	37 *120*	41 *135*	— —	— —	— —
S2	— —	— —	— —	28 *90*	30 *100*	33 *110*	— —	— —	— —
S3	— —	— —	— —	24 *80*	26 *85*	29 *95*	— —	— —	— —
S11	— —	— —	— —	49 *160*	50 *165*	55 *180*	— —	— —	— —
S12	— —	— —	— —	41 *135*	43 *140*	48 *155*	— —	— —	— —
S13	— —	— —	— —	24 *80*	26 *85*	28 *90*	— —	— —	— —
H5	— —	— —	— —	30 *100*	31 *100*	35 *115*	— —	— —	— —
H8	— —	— —	— —	31 *100*	33 *110*	37 *120*	— —	— —	— —
H11	— —	— —	— —	38 *125*	40 *130*	44 *145*	— —	— —	— —
H12	— —	— —	— —	36 *120*	39 *130*	43 *140*	— —	— —	— —
H21	— —	— —	— —	31 *100*	33 *110*	37 *120*	— —	— —	— —

335.25-XN12 – Insert selection – mm/*Inch*

SMG		f_z		
		30%	20%	10%
P1	XNHQ120608TN4-M10 F40M	0,17 *0.0065*	0,19 *0.0075*	0,26 *0.010*
P2	XNHQ120608TN4-M10 F40M	0,17 *0.0065*	0,20 *0.0080*	0,26 *0.010*
P3	XNHQ120608TN4-M10 F40M	0,16 *0.0065*	0,19 *0.0075*	0,25 *0.010*
P4	XNHQ120608TN4-M10 F40M	0,16 *0.0065*	0,18 *0.0070*	0,24 *0.0095*
P5	XNHQ120608TN4-M10 F40M	0,16 *0.0065*	0,18 *0.0070*	0,24 *0.0095*
P6	XNHQ120608TN4-M10 F40M	0,15 *0.0060*	0,18 *0.0070*	0,24 *0.0095*
P7	XNHQ120608TN4-M10 F40M	0,15 *0.0060*	0,18 *0.0070*	0,24 *0.0095*
P8	XNHQ120608TN4-M10 MP2501	0,16 *0.0065*	0,19 *0.0075*	0,25 *0.010*
P11	XNHQ120608TN4-M10 F40M	0,15 *0.0060*	0,18 *0.0070*	0,24 *0.0095*
P12	XNHQ120608TN4-M10 F40M	0,11 *0.0044*	0,12 *0.0048*	0,16 *0.0065*
M1	XNHQ120608TN4-M10 F40M	0,17 *0.0065*	0,20 *0.0080*	0,26 *0.010*
M2	XNHQ120608TN4-M10 F40M	0,16 *0.0065*	0,18 *0.0070*	0,24 *0.0095*
M3	XNHQ120608TN4-M10 F40M	0,12 *0.0048*	0,14 *0.0055*	0,19 *0.0075*
M4	XNHQ120608TN4-M10 F40M	0,11 *0.0044*	0,13 *0.0050*	0,17 *0.0065*
M5	XNHQ120608TN4-M10 F40M	0,11 *0.0044*	0,13 *0.0050*	0,17 *0.0065*
K1	XNHQ120608TN4-M10 MK2050	0,17 *0.0065*	0,20 *0.0080*	0,26 *0.010*
K2	XNHQ120608TN4-M10 MK2050	0,16 *0.0065*	0,18 *0.0070*	0,24 *0.0095*
K3	XNHQ120608TN4-M10 MK2050	0,16 *0.0065*	0,18 *0.0070*	0,24 *0.0095*
K4	XNHQ120608TN4-M10 MK2050	0,16 *0.0065*	0,18 *0.0070*	0,24 *0.0095*
K5	XNHQ120608TN4-M10 MK2050	0,14 *0.0055*	0,16 *0.0065*	0,22 *0.0085*
K6	XNHQ120608TN4-M10 MK2050	0,16 *0.0065*	0,18 *0.0070*	0,24 *0.0095*
K7	XNHQ120608TN4-M10 MK2050	0,14 *0.0055*	0,16 *0.0065*	0,22 *0.0085*
N1	XNHQ120608EN4-E09 F40M	0,20 *0.0080*	0,22 *0.0085*	0,30 *0.012*
N2	XNHQ120608EN4-E09 F40M	0,20 *0.0080*	0,22 *0.0085*	0,30 *0.012*
N3	XNHQ120608EN4-E09 F40M	0,20 *0.0080*	0,22 *0.0085*	0,30 *0.012*
N11	XNHQ120608EN4-E09 F40M	0,20 *0.0080*	0,22 *0.0085*	0,30 *0.012*
S1	XNHQ120608TN4-M10 F40M	0,11 *0.0044*	0,13 *0.0050*	0,17 *0.0065*
S2	XNHQ120608TN4-M10 F40M	0,11 *0.0044*	0,13 *0.0050*	0,17 *0.0065*
S3	XNHQ120608TN4-M10 F40M	0,10 *0.0040*	0,12 *0.0048*	0,16 *0.0065*
S11	XNHQ120608TN4-M10 F40M	0,12 *0.0048*	0,14 *0.0055*	0,19 *0.0075*
S12	XNHQ120608TN4-M10 F40M	0,12 *0.0048*	0,14 *0.0055*	0,19 *0.0075*
S13	XNHQ120608TN4-M10 F40M	0,11 *0.0044*	0,13 *0.0050*	0,17 *0.0065*
H5	XNHQ120608TN4-M10 MP2501	0,11 *0.0044*	0,12 *0.0048*	0,16 *0.0065*
H8	XNHQ120608TN4-M10 MP2501	0,080 *0.0032*	0,095 *0.0038*	0,12 *0.0048*
H11	XNHQ120608TN4-M10 F40M	0,11 *0.0044*	0,12 *0.0048*	0,16 *0.0065*
H12	XNHQ120608TN4-M10 F40M	0,080 *0.0032*	0,095 *0.0038*	0,12 *0.0048*
H21	XNHQ120608TN4-M10 MP2501	0,080 *0.0032*	0,095 *0.0038*	0,12 *0.0048*

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

335.25-XN12 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	MK2050			F40M			MP2501		
	30%	20%	10%	30%	20%	10%	30%	20%	10%
P1	230 *750*	250 *820*	275 *900*	175 *570*	190 *620*	210 *690*	310 *1025*	330 *1075*	350 *1150*
P2	225 *740*	240 *790*	265 *870*	170 *560*	185 *610*	205 *670*	300 *980*	315 *1025*	345 *1125*
P3	195 *640*	210 *690*	230 *750*	150 *490*	160 *520*	180 *590*	265 *870*	275 *900*	300 *980*
P4	175 *570*	185 *610*	205 *670*	135 *445*	145 *475*	160 *520*	230 *750*	245 *800*	265 *870*
P5	165 *540*	175 *570*	195 *640*	125 *410*	135 *445*	150 *490*	220 *720*	235 *770*	255 *840*
P6	190 *620*	200 *660*	220 *720*	145 *475*	155 *510*	170 *560*	255 *840*	265 *870*	285 *940*
P7	180 *590*	190 *620*	210 *690*	135 *445*	145 *475*	160 *520*	240 *790*	250 *820*	270 *890*
P8	165 *540*	175 *570*	195 *640*	125 *410*	135 *445*	150 *490*	220 *720*	230 *750*	250 *820*
P11	175 *570*	185 *610*	200 *660*	135 *445*	140 *460*	155 *510*	230 *750*	240 *790*	260 *850*
P12	110 *360*	120 *395*	135 *445*	85 *280*	90 *295*	100 *330*	145 *475*	155 *510*	165 *540*
M1	— —	— —	— —	140 *460*	150 *490*	165 *540*	165 *540*	175 *570*	195 *640*
M2	— —	— —	— —	115 *375*	125 *410*	135 *445*	135 *445*	145 *475*	160 *520*
M3	— —	— —	— —	95 *310*	100 *330*	110 *360*	110 *360*	120 *395*	130 *425*
M4	— —	— —	— —	70 *230*	75 *245*	85 *280*	85 *280*	90 *295*	100 *330*
M5	— —	— —	— —	60 *195*	65 *215*	70 *230*	70 *230*	75 *245*	85 *280*
K1	240 *790*	255 *840*	285 *940*	135 *445*	145 *475*	160 *520*	305 *1000*	320 *1050*	345 *1125*
K2	215 *710*	230 *750*	255 *840*	120 *395*	130 *425*	145 *475*	270 *890*	285 *940*	305 *1000*
K3	180 *590*	195 *640*	215 *710*	100 *330*	110 *360*	120 *395*	225 *740*	240 *790*	260 *850*
K4	170 *560*	185 *610*	205 *670*	95 *310*	105 *345*	115 *375*	215 *710*	230 *750*	245 *800*
K5	105 *345*	115 *375*	125 *410*	60 *195*	65 *215*	70 *230*	135 *445*	140 *460*	150 *490*
K6	150 *490*	165 *540*	180 *590*	85 *280*	90 *295*	100 *330*	190 *620*	200 *660*	220 *720*
K7	135 *445*	145 *475*	160 *520*	75 *245*	80 *260*	90 *295*	170 *560*	180 *590*	190 *620*
N1	— —	— —	— —	1000 *3275*	1075 *3525*	1175 *3850*	— —	— —	— —
N2	— —	— —	— —	405 *1325*	435 *1425*	480 *1575*	— —	— —	— —
N3	— —	— —	— —	270 *890*	290 *950*	320 *1050*	— —	— —	— —
N11	— —	— —	— —	305 *1000*	330 *1075*	365 *1200*	— —	— —	— —
S1	— —	— —	— —	34 *110*	36 *120*	40 *130*	— —	— —	— —
S2	— —	— —	— —	27 *90*	29 *95*	32 *105*	— —	— —	— —
S3	— —	— —	— —	24 *80*	25 *80*	28 *90*	— —	— —	— —
S11	— —	— —	— —	48 *155*	50 *165*	55 *180*	— —	— —	— —
S12	— —	— —	— —	40 *130*	43 *140*	47 *155*	— —	— —	— —
S13	— —	— —	— —	23 *75*	24 *80*	27 *90*	— —	— —	— —
H5	— —	— —	— —	28 *90*	31 *100*	34 *110*	— —	— —	— —
H8	— —	— —	— —	31 *100*	32 *105*	36 *120*	— —	— —	— —
H11	— —	— —	— —	36 *120*	39 *130*	43 *140*	— —	— —	— —
H12	— —	— —	— —	36 *120*	38 *125*	42 *140*	— —	— —	— —
H21	— —	— —	— —	31 *100*	32 *105*	36 *120*	— —	— —	— —

335.25-XN14/XN17 – Insert selection – mm/*Inch*

SMG			f_z		
			30%	20%	10%
P1	XNHQ140708TN4-M11 F40M	XNHQ170708TN4-M13 F40M	0,20 *0.0080*	0,22 *0.0085*	0,30 *0.012*
P2	XNHQ140708TN4-M11 F40M	XNHQ170708TN4-M13 F40M	0,20 *0.0080*	0,24 *0.0095*	0,32 *0.013*
P3	XNHQ140708TN4-M11 F40M	XNHQ170708TN4-M13 F40M	0,19 *0.0075*	0,22 *0.0085*	0,30 *0.012*
P4	XNHQ140708TN4-M11 F40M	XNHQ170708TN4-M13 F40M	0,19 *0.0075*	0,22 *0.0085*	0,28 *0.011*
P5	XNHQ140708TN4-M11 F40M	XNHQ170708TN4-M13 F40M	0,18 *0.0070*	0,22 *0.0085*	0,28 *0.011*
P6	XNHQ140708TN4-M11 F40M	XNHQ170708TN4-M13 F40M	0,18 *0.0070*	0,20 *0.0080*	0,28 *0.011*
P7	XNHQ140708TN4-M11 F40M	XNHQ170708TN4-M13 F40M	0,18 *0.0070*	0,20 *0.0080*	0,28 *0.011*
P8	XNHQ140708TN4-M11 MP2501	XNHQ170708TN4-M13 MP2501	0,19 *0.0075*	0,22 *0.0085*	0,30 *0.012*
P11	XNHQ140708TN4-M11 F40M	XNHQ170708TN4-M13 F40M	0,18 *0.0070*	0,20 *0.0080*	0,28 *0.011*
P12	XNHQ140708TN4-M11 F40M	XNHQ170708TN4-M13 F40M	0,13 *0.0050*	0,14 *0.0055*	0,19 *0.0075*
M1	XNHQ140708TN4-M11 F40M	XNHQ170708TN4-M13 F40M	0,20 *0.0080*	0,24 *0.0095*	0,32 *0.013*
M2	XNHQ140708TN4-M11 F40M	XNHQ170708TN4-M13 F40M	0,18 *0.0070*	0,22 *0.0085*	0,28 *0.011*
M3	XNHQ140708TN4-M11 F40M	XNHQ170708TN4-M13 F40M	0,15 *0.0060*	0,17 *0.0065*	0,22 *0.0085*
M4	XNHQ140708TN4-M11 F40M	XNHQ170708TN4-M13 F40M	0,13 *0.0050*	0,15 *0.0060*	0,20 *0.0080*
M5	XNHQ140708TN4-M11 F40M	XNHQ170708TN4-M13 F40M	0,13 *0.0050*	0,15 *0.0060*	0,20 *0.0080*
K1	XNHQ140708TN4-M11 MK2050	XNHQ170708TN4-M13 MK2050	0,20 *0.0080*	0,24 *0.0095*	0,32 *0.013*
K2	XNHQ140708TN4-M11 MK2050	XNHQ170708TN4-M13 MK2050	0,18 *0.0070*	0,22 *0.0085*	0,28 *0.011*
K3	XNHQ140708TN4-M11 MK2050	XNHQ170708TN4-M13 MK2050	0,18 *0.0070*	0,22 *0.0085*	0,28 *0.011*
K4	XNHQ140708TN4-M11 MK2050	XNHQ170708TN4-M13 MK2050	0,18 *0.0070*	0,22 *0.0085*	0,28 *0.011*
K5	XNHQ140708TN4-M11 MK2050	XNHQ170708TN4-M13 MK2050	0,17 *0.0065*	0,19 *0.0075*	0,25 *0.010*
K6	XNHQ140708TN4-M11 MK2050	XNHQ170708TN4-M13 MK2050	0,18 *0.0070*	0,22 *0.0085*	0,28 *0.011*
K7	XNHQ140708TN4-M11 MK2050	XNHQ170708TN4-M13 MK2050	0,17 *0.0065*	0,19 *0.0075*	0,25 *0.010*
N1	XNHQ140708EN4-E10 H25	XNHQ170708EN4-E12 F40M	0,24 *0.0095*	0,28 *0.011*	0,36 *0.014*
N2	XNHQ140708EN4-E10 H25	XNHQ170708EN4-E12 F40M	0,24 *0.0095*	0,28 *0.011*	0,36 *0.014*
N3	XNHQ140708EN4-E10 H25	XNHQ170708EN4-E12 F40M	0,24 *0.0095*	0,28 *0.011*	0,36 *0.014*
N11	XNHQ140708EN4-E10 H25	XNHQ170708EN4-E12 F40M	0,24 *0.0095*	0,28 *0.011*	0,36 *0.014*
S1	XNHQ140708TN4-M11 F40M	XNHQ170708TN4-M13 F40M	0,13 *0.0050*	0,15 *0.0060*	0,20 *0.0080*
S2	XNHQ140708TN4-M11 F40M	XNHQ170708TN4-M13 F40M	0,13 *0.0050*	0,15 *0.0060*	0,20 *0.0080*
S3	XNHQ140708TN4-M11 F40M	XNHQ170708TN4-M13 F40M	0,12 *0.0048*	0,14 *0.0055*	0,18 *0.0070*
S11	XNHQ140708TN4-M11 F40M	XNHQ170708TN4-M13 F40M	0,15 *0.0060*	0,17 *0.0065*	0,22 *0.0085*
S12	XNHQ140708TN4-M11 F40M	XNHQ170708TN4-M13 F40M	0,15 *0.0060*	0,17 *0.0065*	0,22 *0.0085*
S13	XNHQ140708TN4-M11 F40M	XNHQ170708TN4-M13 F40M	0,13 *0.0050*	0,15 *0.0060*	0,20 *0.0080*
H5	XNHQ140708TN4-M11 MP2501	XNHQ170708TN4-M13 MP2501	0,13 *0.0050*	0,14 *0.0055*	0,19 *0.0075*
H8	XNHQ140708TN4-M11 MP2501	XNHQ170708TN4-M13 MP2501	0,095 *0.0038*	0,11 *0.0044*	0,15 *0.0060*
H11	XNHQ140708TN4-M11 F40M	XNHQ170708TN4-M13 F40M	0,13 *0.0050*	0,14 *0.0055*	0,19 *0.0075*
H12	XNHQ140708TN4-M11 F40M	XNHQ170708TN4-M13 F40M	0,095 *0.0038*	0,11 *0.0044*	0,15 *0.0060*
H21	XNHQ140708TN4-M11 MP2501	XNHQ170708TN4-M13 MP2501	0,095 *0.0038*	0,11 *0.0044*	0,15 *0.0060*

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

335.25-XN14/XN17 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	MK2050			F40M			H25			MP2501		
	30%	20%	10%	30%	20%	10%	30%	20%	10%	30%	20%	10%
P1	225 *740*	245 *800*	265 *870*	170 *560*	185 *610*	205 *670*	— —	— —	— —	300 *980*	320 *1050*	345 *1125*
P2	220 *720*	230 *750*	255 *840*	165 *540*	175 *570*	195 *640*	— —	— —	— —	290 *950*	305 *1000*	330 *1075*
P3	190 *620*	205 *670*	225 *740*	145 *475*	155 *510*	170 *560*	— —	— —	— —	255 *840*	270 *890*	290 *950*
P4	165 *540*	180 *590*	200 *660*	130 *425*	140 *460*	155 *510*	— —	— —	— —	225 *740*	235 *770*	260 *850*
P5	165 *540*	170 *560*	190 *620*	125 *410*	130 *425*	150 *490*	— —	— —	— —	220 *720*	225 *740*	250 *820*
P6	180 *590*	195 *640*	215 *710*	140 *460*	150 *490*	165 *540*	— —	— —	— —	245 *800*	260 *850*	280 *920*
P7	170 *560*	185 *610*	205 *670*	130 *425*	145 *475*	155 *510*	— —	— —	— —	230 *750*	245 *800*	265 *870*
P8	160 *520*	170 *560*	190 *620*	125 *410*	130 *425*	145 *475*	— —	— —	— —	215 *710*	225 *740*	245 *800*
P11	165 *540*	180 *590*	200 *660*	130 *425*	140 *460*	150 *490*	— —	— —	— —	225 *740*	240 *790*	255 *840*
P12	110 *360*	120 *395*	130 *425*	85 *280*	90 *295*	100 *330*	— —	— —	— —	145 *475*	155 *510*	165 *540*
M1	— —	— —	— —	135 *445*	145 *475*	160 *520*	— —	— —	— —	160 *520*	170 *560*	185 *610*
M2	— —	— —	— —	115 *375*	120 *395*	135 *445*	— —	— —	— —	135 *445*	140 *460*	155 *510*
M3	— —	— —	— —	90 *295*	95 *310*	110 *360*	— —	— —	— —	105 *345*	115 *375*	130 *425*
M4	— —	— —	— —	70 *230*	75 *245*	85 *280*	— —	— —	— —	85 *280*	90 *295*	100 *330*
M5	— —	— —	— —	60 *195*	65 *215*	70 *230*	— —	— —	— —	70 *230*	75 *245*	80 *260*
K1	235 *770*	250 *820*	275 *900*	135 *445*	140 *460*	155 *510*	— —	— —	— —	295 *970*	305 *1000*	335 *1100*
K2	210 *690*	220 *720*	250 *820*	120 *395*	125 *410*	140 *460*	— —	— —	— —	265 *870*	275 *900*	300 *980*
K3	180 *590*	185 *610*	210 *690*	100 *330*	105 *345*	120 *395*	— —	— —	— —	225 *740*	230 *750*	255 *840*
K4	170 *560*	180 *590*	200 *660*	95 *310*	100 *330*	115 *375*	— —	— —	— —	215 *710*	220 *720*	240 *790*
K5	105 *345*	110 *360*	125 *410*	60 *195*	65 *215*	70 *230*	— —	— —	— —	130 *425*	135 *445*	150 *490*
K6	150 *490*	155 *510*	175 *570*	85 *280*	90 *295*	100 *330*	— —	— —	— —	190 *620*	195 *640*	215 *710*
K7	130 *425*	140 *460*	160 *520*	75 *245*	80 *260*	90 *295*	— —	— —	— —	165 *540*	175 *570*	190 *620*
N1	— —	— —	— —	970 *3175*	1025 *3375*	1150 *3775*	980 *3225*	1050 *3450*	1175 *3850*	— —	— —	— —
N2	— —	— —	— —	390 *1275*	420 *1375*	465 *1525*	395 *1300*	420 *1375*	470 *1550*	— —	— —	— —
N3	— —	— —	— —	260 *850*	280 *920*	310 *1025*	265 *870*	280 *920*	315 *1025*	— —	— —	— —
N11	— —	— —	— —	295 *970*	320 *1050*	355 *1175*	300 *980*	320 *1050*	360 *1175*	— —	— —	— —
S1	— —	— —	— —	33 *110*	35 *115*	39 *130*	— —	— —	— —	— —	— —	— —
S2	— —	— —	— —	27 *90*	28 *90*	31 *100*	— —	— —	— —	— —	— —	— —
S3	— —	— —	— —	23 *75*	25 *80*	28 *90*	— —	— —	— —	— —	— —	— —
S11	— —	— —	— —	46 *150*	49 *160*	55 *180*	— —	— —	— —	— —	— —	— —
S12	— —	— —	— —	38 *125*	41 *135*	46 *150*	— —	— —	— —	— —	— —	— —
S13	— —	— —	— —	22 *70*	24 *80*	27 *90*	— —	— —	— —	— —	— —	— —
H5	— —	— —	— —	28 *90*	30 *100*	33 *110*	— —	— —	— —	— —	— —	— —
H8	— —	— —	— —	30 *100*	32 *105*	35 *115*	— —	— —	— —	— —	— —	— —
H11	— —	— —	— —	35 *115*	38 *125*	42 *140*	— —	— —	— —	— —	— —	— —
H12	— —	— —	— —	35 *115*	37 *120*	41 *135*	— —	— —	— —	— —	— —	— —
H21	— —	— —	— —	30 *100*	32 *105*	35 *115*	— —	— —	— —	— —	— —	— —

335.25-LN14/LN17 – Insert selection – mm/*Inch*

SMG			f_z		
			30%	20%	10%
P1	LNHQ140708TN4-M11 F40M	LNHQ170708TN4-M13 F40M	0,20 *0.0080*	0,22 *0.0085*	0,30 *0.012*
P2	LNHQ140708TN4-M11 F40M	LNHQ170708TN4-M13 F40M	0,20 *0.0080*	0,24 *0.0095*	0,32 *0.013*
P3	LNHQ140708TN4-M11 F40M	LNHQ170708TN4-M13 F40M	0,19 *0.0075*	0,22 *0.0085*	0,30 *0.012*
P4	LNHQ140708TN4-M11 F40M	LNHQ170708TN4-M13 F40M	0,19 *0.0075*	0,22 *0.0085*	0,28 *0.011*
P5	LNHQ140708TN4-M11 F40M	LNHQ170708TN4-M13 F40M	0,18 *0.0070*	0,22 *0.0085*	0,28 *0.011*
P6	LNHQ140708TN4-M11 F40M	LNHQ170708TN4-M13 F40M	0,18 *0.0070*	0,20 *0.0080*	0,28 *0.011*
P7	LNHQ140708TN4-M11 F40M	LNHQ170708TN4-M13 F40M	0,18 *0.0070*	0,20 *0.0080*	0,28 *0.011*
P8	LNHQ140708TN4-M11 MP2501	LNHQ170708TN4-M13 F40M	0,19 *0.0075*	0,22 *0.0085*	0,30 *0.012*
P11	LNHQ140708TN4-M11 F40M	LNHQ170708TN4-M13 F40M	0,18 *0.0070*	0,20 *0.0080*	0,28 *0.011*
P12	LNHQ140708TN4-M11 F40M	LNHQ170708TN4-M13 F40M	0,13 *0.0050*	0,14 *0.0055*	0,19 *0.0075*
M1	LNHQ140708TN4-M11 F40M	LNHQ170708TN4-M13 F40M	0,20 *0.0080*	0,24 *0.0095*	0,32 *0.013*
M2	LNHQ140708TN4-M11 F40M	LNHQ170708TN4-M13 F40M	0,18 *0.0070*	0,22 *0.0085*	0,28 *0.011*
M3	LNHQ140708TN4-M11 F40M	LNHQ170708TN4-M13 F40M	0,15 *0.0060*	0,17 *0.0065*	0,22 *0.0085*
M4	LNHQ140708TN4-M11 F40M	LNHQ170708TN4-M13 F40M	0,13 *0.0050*	0,15 *0.0060*	0,20 *0.0080*
M5	LNHQ140708TN4-M11 F40M	LNHQ170708TN4-M13 F40M	0,13 *0.0050*	0,15 *0.0060*	0,20 *0.0080*
K1	LNHQ140708TN4-M11 MP2501	LNHQ170708TN4-M13 F40M	0,20 *0.0080*	0,24 *0.0095*	0,32 *0.013*
K2	LNHQ140708TN4-M11 MP2501	LNHQ170708TN4-M13 F40M	0,18 *0.0070*	0,22 *0.0085*	0,28 *0.011*
K3	LNHQ140708TN4-M11 MP2501	LNHQ170708TN4-M13 F40M	0,18 *0.0070*	0,22 *0.0085*	0,28 *0.011*
K4	LNHQ140708TN4-M11 MP2501	LNHQ170708TN4-M13 F40M	0,18 *0.0070*	0,22 *0.0085*	0,28 *0.011*
K5	LNHQ140708TN4-M11 MP2501	LNHQ170708TN4-M13 F40M	0,17 *0.0065*	0,19 *0.0075*	0,25 *0.010*
K6	LNHQ140708TN4-M11 MP2501	LNHQ170708TN4-M13 F40M	0,18 *0.0070*	0,22 *0.0085*	0,28 *0.011*
K7	LNHQ140708TN4-M11 MP2501	LNHQ170708TN4-M13 F40M	0,17 *0.0065*	0,19 *0.0075*	0,25 *0.010*
S1	LNHQ140708TN4-M11 F40M	LNHQ170708TN4-M13 F40M	0,13 *0.0050*	0,15 *0.0060*	0,20 *0.0080*
S2	LNHQ140708TN4-M11 F40M	LNHQ170708TN4-M13 F40M	0,13 *0.0050*	0,15 *0.0060*	0,20 *0.0080*
S3	LNHQ140708TN4-M11 F40M	LNHQ170708TN4-M13 F40M	0,12 *0.0048*	0,14 *0.0055*	0,18 *0.0070*
S11	LNHQ140708TN4-M11 F40M	LNHQ170708TN4-M13 F40M	0,15 *0.0060*	0,17 *0.0065*	0,22 *0.0085*
S12	LNHQ140708TN4-M11 F40M	LNHQ170708TN4-M13 F40M	0,15 *0.0060*	0,17 *0.0065*	0,22 *0.0085*
S13	LNHQ140708TN4-M11 F40M	LNHQ170708TN4-M13 F40M	0,13 *0.0050*	0,15 *0.0060*	0,20 *0.0080*
H5	LNHQ140708TN4-M11 MP2501	LNHQ170708TN4-M13 F40M	0,13 *0.0050*	0,14 *0.0055*	0,19 *0.0075*
H8	LNHQ140708TN4-M11 MP2501	LNHQ170708TN4-M13 F40M	0,095 *0.0038*	0,11 *0.0044*	0,15 *0.0060*
H11	LNHQ140708TN4-M11 F40M	LNHQ170708TN4-M13 F40M	0,13 *0.0050*	0,14 *0.0055*	0,19 *0.0075*
H12	LNHQ140708TN4-M11 F40M	LNHQ170708TN4-M13 F40M	0,095 *0.0038*	0,11 *0.0044*	0,15 *0.0060*
H21	LNHQ140708TN4-M11 MP2501	LNHQ170708TN4-M13 F40M	0,095 *0.0038*	0,11 *0.0044*	0,15 *0.0060*

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

335.25-LN14/LN17 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	F40M			MP2501		
	30%	20%	10%	30%	20%	10%
P1	170 *560*	185 *610*	205 *670*	300 *980*	320 *1050*	345 *1125*
P2	165 *540*	175 *570*	195 *640*	290 *950*	305 *1000*	330 *1075*
P3	145 *475*	155 *510*	170 *560*	255 *840*	270 *890*	290 *950*
P4	130 *425*	140 *460*	155 *510*	225 *740*	235 *770*	260 *850*
P5	125 *410*	130 *425*	150 *490*	220 *720*	225 *740*	250 *820*
P6	140 *460*	150 *490*	165 *540*	245 *800*	260 *850*	280 *920*
P7	130 *425*	145 *475*	155 *510*	230 *750*	245 *800*	265 *870*
P8	125 *410*	130 *425*	145 *475*	215 *710*	225 *740*	245 *800*
P11	130 *425*	140 *460*	150 *490*	225 *740*	240 *790*	255 *840*
P12	85 *280*	90 *295*	100 *330*	145 *475*	155 *510*	165 *540*
M1	135 *445*	145 *475*	160 *520*	160 *520*	170 *560*	185 *610*
M2	115 *375*	120 *395*	135 *445*	135 *445*	140 *460*	155 *510*
M3	90 *295*	95 *310*	110 *360*	105 *345*	115 *375*	130 *425*
M4	70 *230*	75 *245*	85 *280*	85 *280*	90 *295*	100 *330*
M5	60 *195*	65 *215*	70 *230*	70 *230*	75 *245*	80 *260*
K1	135 *445*	140 *460*	155 *510*	295 *970*	305 *1000*	335 *1100*
K2	120 *395*	125 *410*	140 *460*	265 *870*	275 *900*	300 *980*
K3	100 *330*	105 *345*	120 *395*	225 *740*	230 *750*	255 *840*
K4	95 *310*	100 *330*	115 *375*	215 *710*	220 *720*	240 *790*
K5	60 *195*	65 *215*	70 *230*	130 *425*	135 *445*	150 *490*
K6	85 *280*	90 *295*	100 *330*	190 *620*	195 *640*	215 *710*
K7	75 *245*	80 *260*	90 *295*	165 *540*	175 *570*	190 *620*
N1	970 *3175*	1025 *3375*	1150 *3775*	— —	— —	— —
N2	390 *1275*	420 *1375*	465 *1525*	— —	— —	— —
N3	260 *850*	280 *920*	310 *1025*	— —	— —	— —
N11	295 *970*	320 *1050*	355 *1175*	— —	— —	— —
S1	33 *110*	35 *115*	39 *130*	— —	— —	— —
S2	27 *90*	28 *90*	31 *100*	— —	— —	— —
S3	23 *75*	25 *80*	28 *90*	— —	— —	— —
S11	46 *150*	49 *160*	55 *180*	— —	— —	— —
S12	38 *125*	41 *135*	46 *150*	— —	— —	— —
S13	22 *70*	24 *80*	27 *90*	— —	— —	— —
H5	28 *90*	30 *100*	33 *110*	— —	— —	— —
H8	30 *100*	32 *105*	35 *115*	— —	— —	— —
H11	35 *115*	38 *125*	42 *140*	— —	— —	— —
H12	35 *115*	37 *120*	41 *135*	— —	— —	— —
H21	30 *100*	32 *105*	35 *115*	— —	— —	— —

335.29 Round 5 – Insert selection – mm/*Inch*

SMG		f_z		
		25%	10%	5%
P1	RDHW0501M0-MD01 F40M	0,055 *0.0022*	0,080 *0.0032*	0,11 *0.0044*
P2	RDHW0501M0-MD01 F40M	0,055 *0.0022*	0,080 *0.0032*	0,11 *0.0044*
P3	RDHW0501M0-MD01 F40M	0,050 *0.0020*	0,075 *0.0030*	0,10 *0.0040*
P4	RDHW0501M0-MD01 F40M	0,050 *0.0020*	0,075 *0.0030*	0,10 *0.0040*
P5	RDHW0501M0-MD01 F40M	0,050 *0.0020*	0,075 *0.0030*	0,10 *0.0040*
P6	RDHW0501M0-MD01 F40M	0,050 *0.0020*	0,070 *0.0028*	0,10 *0.0040*
P7	RDHW0501M0-MD01 F40M	0,050 *0.0020*	0,070 *0.0028*	0,10 *0.0040*
P8	RDHW0501M0-MD01 MP3000	0,050 *0.0020*	0,075 *0.0030*	0,10 *0.0040*
P11	RDHW0501M0-MD01 F40M	0,050 *0.0020*	0,070 *0.0028*	0,10 *0.0040*
P12	RDHW0501M0-MD01 F40M	0,034 *0.0013*	0,050 *0.0020*	0,070 *0.0028*
M1	RDHW0501M0-MD01 F40M	0,055 *0.0022*	0,080 *0.0032*	0,11 *0.0044*
M2	RDHW0501M0-MD01 F40M	0,050 *0.0020*	0,075 *0.0030*	0,10 *0.0040*
M3	RDHW0501M0-MD01 F40M	0,040 *0.0016*	0,060 *0.0024*	0,080 *0.0032*
M4	RDHW0501M0-MD01 F40M	0,036 *0.0014*	0,050 *0.0020*	0,070 *0.0028*
M5	RDHW0501M0-MD01 F40M	0,036 *0.0014*	0,050 *0.0020*	0,070 *0.0028*
K1	RDHW0501M0-MD01 MP3000	0,055 *0.0022*	0,080 *0.0032*	0,11 *0.0044*
K2	RDHW0501M0-MD01 MP3000	0,050 *0.0020*	0,075 *0.0030*	0,10 *0.0040*
K3	RDHW0501M0-MD01 MP3000	0,050 *0.0020*	0,075 *0.0030*	0,10 *0.0040*
K4	RDHW0501M0-MD01 MP3000	0,050 *0.0020*	0,075 *0.0030*	0,10 *0.0040*
K5	RDHW0501M0-MD01 MP3000	0,046 *0.0018*	0,065 *0.0026*	0,090 *0.0036*
K6	RDHW0501M0-MD01 MP3000	0,050 *0.0020*	0,075 *0.0030*	0,10 *0.0040*
K7	RDHW0501M0-MD01 MP3000	0,046 *0.0018*	0,065 *0.0026*	0,090 *0.0036*
N1	RDHW0501M0-MD01 MP3000	0,070 *0.0028*	0,10 *0.0040*	0,14 *0.0055*
N2	RDHW0501M0-MD01 MP3000	0,070 *0.0028*	0,10 *0.0040*	0,14 *0.0055*
N3	RDHW0501M0-MD01 MP3000	0,070 *0.0028*	0,10 *0.0040*	0,14 *0.0055*
N11	RDHW0501M0-MD01 MP3000	0,070 *0.0028*	0,10 *0.0040*	0,14 *0.0055*
S1	RDHW0501M0-MD01 F40M	0,036 *0.0014*	0,050 *0.0020*	0,070 *0.0028*
S2	RDHW0501M0-MD01 F40M	0,036 *0.0014*	0,050 *0.0020*	0,070 *0.0028*
S3	RDHW0501M0-MD01 F40M	0,032 *0.0013*	0,048 *0.0019*	0,065 *0.0026*
S11	RDHW0501M0-MD01 F40M	0,040 *0.0016*	0,060 *0.0024*	0,080 *0.0032*
S12	RDHW0501M0-MD01 F40M	0,040 *0.0016*	0,060 *0.0024*	0,080 *0.0032*
S13	RDHW0501M0-MD01 F40M	0,036 *0.0014*	0,050 *0.0020*	0,070 *0.0028*
H5	RDHW0501M0-MD01 MP3000	0,034 *0.0013*	0,050 *0.0020*	0,070 *0.0028*
H8	RDHW0501M0-MD01 MP3000	0,026 *0.0010*	0,038 *0.0015*	0,050 *0.0020*
H11	RDHW0501M0-MD01 MP3000	0,034 *0.0013*	0,050 *0.0020*	0,070 *0.0028*
H12	RDHW0501M0-MD01 MP3000	0,026 *0.0010*	0,038 *0.0015*	0,050 *0.0020*
H21	RDHW0501M0-MD01 MP3000	0,026 *0.0010*	0,038 *0.0015*	0,050 *0.0020*

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

335.29 Round 5 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	MP3000			F40M		
	25%	10%	5%	25%	10%	5%
P1	325 *1075*	365 *1200*	400 *1300*	260 *850*	295 *970*	320 *1050*
P2	315 *1025*	360 *1175*	390 *1275*	250 *820*	285 *940*	310 *1025*
P3	275 *900*	310 *1025*	340 *1125*	220 *720*	250 *820*	270 *890*
P4	240 *790*	275 *900*	300 *980*	195 *640*	220 *720*	240 *790*
P5	230 *750*	260 *850*	285 *940*	185 *610*	210 *690*	225 *740*
P6	260 *850*	295 *970*	320 *1050*	205 *670*	235 *770*	255 *840*
P7	245 *800*	280 *920*	300 *980*	195 *640*	225 *740*	240 *790*
P8	230 *750*	260 *850*	285 *940*	185 *610*	210 *690*	225 *740*
P11	235 *770*	270 *890*	295 *970*	190 *620*	215 *710*	235 *770*
P12	145 *475*	165 *540*	180 *590*	120 *395*	135 *445*	145 *475*
M1	235 *770*	270 *890*	290 *950*	200 *660*	230 *750*	250 *820*
M2	195 *640*	220 *720*	240 *790*	165 *540*	190 *620*	205 *670*
M3	150 *490*	170 *560*	185 *610*	130 *425*	150 *490*	160 *520*
M4	115 *375*	130 *425*	140 *460*	100 *330*	115 *375*	120 *395*
M5	95 *310*	110 *360*	120 *395*	80 *260*	95 *310*	100 *330*
K1	210 *690*	240 *790*	260 *850*	200 *660*	225 *740*	245 *800*
K2	185 *610*	210 *690*	225 *740*	175 *570*	200 *660*	215 *710*
K3	155 *510*	175 *570*	190 *620*	150 *490*	170 *560*	185 *610*
K4	150 *490*	170 *560*	185 *610*	140 *460*	160 *520*	175 *570*
K5	90 *295*	100 *330*	110 *360*	85 *280*	95 *310*	105 *345*
K6	130 *425*	150 *490*	160 *520*	125 *410*	140 *460*	155 *510*
K7	115 *375*	130 *425*	140 *460*	110 *360*	125 *410*	135 *445*
N1	1900 *6225*	2175 *7125*	2350 *7700*	1525 *5000*	1725 *5650*	1875 *6150*
N2	760 *2500*	870 *2850*	950 *3125*	610 *2000*	700 *2300*	760 *2500*
N3	510 *1675*	580 *1900*	630 *2075*	410 *1350*	465 *1525*	500 *1650*
N11	580 *1900*	670 *2200*	720 *2350*	465 *1525*	530 *1750*	580 *1900*
S1	55 *180*	60 *195*	65 *215*	46 *150*	55 *180*	55 *180*
S2	43 *140*	49 *160*	55 *180*	37 *120*	42 *140*	46 *150*
S3	38 *125*	43 *140*	46 *150*	32 *105*	37 *120*	40 *130*
S11	75 *245*	85 *280*	95 *310*	65 *215*	75 *245*	80 *260*
S12	65 *215*	75 *245*	80 *260*	55 *180*	65 *215*	70 *230*
S13	37 *120*	42 *140*	45 *150*	32 *105*	36 *120*	39 *130*
H5	41 *135*	47 *155*	50 *165*	39 *130*	44 *145*	48 *155*
H8	42 *140*	48 *155*	50 *165*	40 *130*	45 *150*	49 *160*
H11	50 *165*	60 *195*	65 *215*	50 *165*	55 *180*	60 *195*
H12	49 *160*	55 *180*	60 *195*	47 *155*	55 *180*	55 *180*
H21	42 *140*	48 *155*	50 *165*	40 *130*	45 *150*	49 *160*

335.29 Round 6 – Insert selection – mm/*Inch*

SMG		f_z		
		20%	10%	5%
P1	RDHW06T1M0-MD02 F40M	0,060 *0.0024*	0,080 *0.0032*	0,11 *0.0044*
P2	RDHW06T1M0-MD02 F40M	0,060 *0.0024*	0,080 *0.0032*	0,11 *0.0044*
P3	RDHW06T1M0-MD02 F40M	0,055 *0.0022*	0,075 *0.0030*	0,10 *0.0040*
P4	RDHW06T1M0-MD02 F40M	0,055 *0.0022*	0,075 *0.0030*	0,10 *0.0040*
P5	RDHW06T1M0-MD02 F40M	0,055 *0.0022*	0,075 *0.0030*	0,10 *0.0040*
P6	RDHW06T1M0-MD02 F40M	0,055 *0.0022*	0,070 *0.0028*	0,10 *0.0040*
P7	RDHW06T1M0-MD02 F40M	0,055 *0.0022*	0,070 *0.0028*	0,10 *0.0040*
P8	RDHW06T1M0-MD02 MP3000	0,055 *0.0022*	0,075 *0.0030*	0,10 *0.0040*
P11	RDHW06T1M0-MD02 F40M	0,055 *0.0022*	0,070 *0.0028*	0,10 *0.0040*
P12	RDHW06T1M0-MD02 F40M	0,038 *0.0015*	0,050 *0.0020*	0,070 *0.0028*
M1	RDHW06T1M0-MD02 F40M	0,060 *0.0024*	0,080 *0.0032*	0,11 *0.0044*
M2	RDHW06T1M0-MD02 F40M	0,055 *0.0022*	0,075 *0.0030*	0,10 *0.0040*
M3	RDHW06T1M0-MD02 F40M	0,044 *0.0017*	0,060 *0.0024*	0,080 *0.0032*
M4	RDHW06T1M0-MD02 F40M	0,038 *0.0015*	0,050 *0.0020*	0,070 *0.0028*
M5	RDHW06T1M0-MD02 F40M	0,038 *0.0015*	0,050 *0.0020*	0,070 *0.0028*
K1	RDHW06T1M0-MD02 MK2050	0,060 *0.0024*	0,080 *0.0032*	0,11 *0.0044*
K2	RDHW06T1M0-MD02 MK2050	0,055 *0.0022*	0,075 *0.0030*	0,10 *0.0040*
K3	RDHW06T1M0-MD02 MK2050	0,055 *0.0022*	0,075 *0.0030*	0,10 *0.0040*
K4	RDHW06T1M0-MD02 MK2050	0,055 *0.0022*	0,075 *0.0030*	0,10 *0.0040*
K5	RDHW06T1M0-MD02 MK2050	0,050 *0.0020*	0,065 *0.0026*	0,090 *0.0036*
K6	RDHW06T1M0-MD02 MK2050	0,055 *0.0022*	0,075 *0.0030*	0,10 *0.0040*
K7	RDHW06T1M0-MD02 MK2050	0,050 *0.0020*	0,065 *0.0026*	0,090 *0.0036*
N1	RDHT06T1M0-E02 H25	0,050 *0.0020*	0,070 *0.0028*	0,095 *0.0038*
N2	RDHT06T1M0-E02 H25	0,050 *0.0020*	0,070 *0.0028*	0,095 *0.0038*
N3	RDHT06T1M0-E02 H25	0,050 *0.0020*	0,070 *0.0028*	0,095 *0.0038*
N11	RDHT06T1M0-E02 H25	0,050 *0.0020*	0,070 *0.0028*	0,095 *0.0038*
S1	RDHW06T1M0-MD02 F40M	0,038 *0.0015*	0,050 *0.0020*	0,070 *0.0028*
S2	RDHW06T1M0-MD02 F40M	0,038 *0.0015*	0,050 *0.0020*	0,070 *0.0028*
S3	RDHW06T1M0-MD02 F40M	0,036 *0.0014*	0,048 *0.0019*	0,065 *0.0026*
S11	RDHW06T1M0-MD02 F40M	0,044 *0.0017*	0,060 *0.0024*	0,080 *0.0032*
S12	RDHW06T1M0-MD02 F40M	0,044 *0.0017*	0,060 *0.0024*	0,080 *0.0032*
S13	RDHW06T1M0-MD02 F40M	0,038 *0.0015*	0,050 *0.0020*	0,070 *0.0028*
H5	RDHW06T1M0-MD02 F15M	0,038 *0.0015*	0,050 *0.0020*	0,070 *0.0028*
H8	RDHW06T1M0-MD02 F15M	0,028 *0.0011*	0,038 *0.0015*	0,050 *0.0020*
H11	RDHW06T1M0-MD02 F15M	0,038 *0.0015*	0,050 *0.0020*	0,070 *0.0028*
H12	RDHW06T1M0-MD02 F15M	0,028 *0.0011*	0,038 *0.0015*	0,050 *0.0020*
H21	RDHW06T1M0-MD02 F15M	0,028 *0.0011*	0,038 *0.0015*	0,050 *0.0020*

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

335.29 Round 6 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	F15M			MK2050			F30M			MP3000			F40M			H25		
	20%	10%	5%	20%	10%	5%	20%	10%	5%	20%	10%	5%	20%	10%	5%	20%	10%	5%
P1	305 *1000*	340 *1125*	365 *1200*	330 *1075*	365 *1200*	395 *1300*	270 *890*	295 *970*	320 *1050*	320 *1050*	350 *1150*	380 *1250*	255 *840*	280 *920*	305 *1000*	— —	— —	— —
P2	300 *980*	330 *1075*	355 *1175*	325 *1075*	355 *1175*	385 *1275*	260 *850*	290 *950*	310 *1025*	310 *1025*	345 *1125*	370 *1225*	250 *820*	275 *900*	295 *970*	— —	— —	— —
P3	260 *850*	285 *940*	310 *1025*	280 *920*	310 *1025*	335 *1100*	230 *750*	250 *820*	270 *890*	270 *890*	300 *980*	325 *1075*	215 *710*	240 *790*	260 *850*	— —	— —	— —
P4	230 *750*	250 *820*	275 *900*	250 *820*	275 *900*	295 *970*	200 *660*	220 *720*	240 *790*	240 *790*	260 *850*	285 *940*	190 *620*	210 *690*	230 *750*	— —	— —	— —
P5	220 *720*	240 *790*	260 *850*	235 *770*	260 *850*	285 *940*	190 *620*	210 *690*	230 *750*	230 *750*	250 *820*	275 *900*	180 *590*	200 *660*	220 *720*	— —	— —	— —
P6	245 *800*	275 *900*	295 *970*	265 *870*	295 *970*	320 *1050*	215 *710*	240 *790*	255 *840*	255 *840*	285 *940*	305 *1000*	205 *670*	225 *740*	245 *800*	— —	— —	— —
P7	230 *750*	255 *840*	275 *900*	250 *820*	280 *920*	300 *980*	205 *670*	225 *740*	245 *800*	240 *790*	270 *890*	290 *950*	195 *640*	215 *710*	230 *750*	— —	— —	— —
P8	220 *720*	240 *790*	260 *850*	235 *770*	260 *850*	285 *940*	190 *620*	210 *690*	230 *750*	230 *750*	250 *820*	275 *900*	180 *590*	200 *660*	220 *720*	— —	— —	— —
P11	225 *740*	250 *820*	270 *890*	245 *800*	270 *890*	290 *950*	195 *640*	220 *720*	235 *770*	235 *770*	260 *850*	280 *920*	190 *620*	210 *690*	225 *740*	— —	— —	— —
M1	— —	— —	— —	— —	— —	— —	210 *690*	230 *750*	250 *820*	235 *770*	255 *840*	280 *920*	200 *660*	220 *720*	240 *790*	— —	— —	— —
M2	— —	— —	— —	— —	— —	— —	170 *560*	190 *620*	205 *670*	190 *620*	210 *690*	230 *750*	165 *540*	180 *590*	195 *640*	— —	— —	— —
M3	— —	— —	— —	— —	— —	— —	135 *445*	150 *490*	160 *520*	150 *490*	165 *540*	180 *590*	130 *425*	140 *460*	155 *510*	— —	— —	— —
M4	— —	— —	— —	— —	— —	— —	105 *345*	115 *375*	125 *410*	115 *375*	125 *410*	135 *445*	100 *330*	110 *360*	115 *375*	— —	— —	— —
M5	— —	— —	— —	— —	— —	— —	85 *280*	95 *310*	105 *345*	95 *310*	105 *345*	115 *375*	80 *260*	90 *295*	100 *330*	— —	— —	— —
K1	235 *770*	260 *850*	285 *940*	350 *1150*	385 *1275*	415 *1350*	205 *670*	230 *750*	245 *800*	205 *670*	230 *750*	245 *800*	195 *640*	215 *710*	235 *770*	— —	— —	— —
K2	210 *690*	230 *750*	250 *820*	305 *1000*	335 *1100*	365 *1200*	180 *590*	200 *660*	215 *710*	180 *590*	200 *660*	215 *710*	175 *570*	190 *620*	205 *670*	— —	— —	— —
K3	175 *570*	195 *640*	210 *690*	260 *850*	285 *940*	310 *1025*	155 *510*	170 *560*	185 *610*	155 *510*	170 *560*	185 *610*	145 *475*	160 *520*	175 *570*	— —	— —	— —
K4	170 *560*	185 *610*	200 *660*	250 *820*	270 *890*	295 *970*	145 *475*	160 *520*	175 *570*	145 *475*	160 *520*	175 *570*	140 *460*	155 *510*	165 *540*	— —	— —	— —
K5	100 *330*	110 *360*	120 *395*	150 *490*	165 *540*	180 *590*	90 *295*	100 *330*	105 *345*	90 *295*	100 *330*	105 *345*	85 *280*	95 *310*	100 *330*	— —	— —	— —
K6	150 *490*	160 *520*	175 *570*	220 *720*	240 *790*	260 *850*	130 *425*	140 *460*	155 *510*	130 *425*	140 *460*	155 *510*	125 *410*	135 *445*	145 *475*	— —	— —	— —
K7	130 *425*	145 *475*	155 *510*	190 *620*	210 *690*	230 *750*	115 *375*	125 *410*	135 *445*	115 *375*	125 *410*	135 *445*	110 *360*	120 *395*	130 *425*	— —	— —	— —
N1	— —	— —	— —	— —	— —	— —	1575 *5175*	1750 *5750*	1875 *6150*	1875 *6150*	2075 *6800*	2250 *7375*	1500 *4925*	1650 *5425*	1800 *5900*	1725 *5650*	1900 *6225*	2050 *6725*
N2	— —	— —	— —	— —	— —	— —	640 *2100*	700 *2300*	760 *2500*	760 *2500*	840 *2750*	910 *2975*	610 *2000*	670 *2200*	730 *2400*	700 *2300*	770 *2525*	830 *2725*
N3	— —	— —	— —	— —	— —	— —	425 *1400*	470 *1550*	510 *1675*	510 *1675*	560 *1825*	600 *1975*	405 *1325*	445 *1450*	485 *1600*	465 *1525*	510 *1675*	560 *1825*
N11	— —	— —	— —	— —	— —	— —	485 *1600*	540 *1775*	580 *1900*	580 *1900*	640 *2100*	690 *2275*	465 *1525*	510 *1675*	550 *1800*	530 *1750*	580 *1900*	630 *2075*
S1	— —	— —	— —	— —	— —	— —	48 *155*	55 *180*	55 *180*	55 *180*	60 *195*	65 *215*	46 *150*	50 *165*	55 *180*	— —	— —	— —
S2	— —	— —	— —	— —	— —	— —	39 *130*	43 *140*	46 *150*	43 *140*	47 *155*	50 *165*	37 *120*	41 *135*	44 *145*	— —	— —	— —
S3	— —	— —	— —	— —	— —	— —	34 *110*	37 *120*	40 *130*	37 *120*	41 *135*	44 *145*	32 *105*	35 *115*	38 *125*	— —	— —	— —
S11	— —	— —	— —	— —	— —	— —	70 *230*	75 *245*	80 *260*	75 *245*	85 *280*	90 *295*	65 *215*	70 *230*	80 *260*	— —	— —	— —
S12	— —	— —	— —	— —	— —	— —	48 *155*	55 *180*	55 *180*	65 *215*	70 *230*	75 *245*	55 *180*	60 *195*	65 *215*	— —	— —	— —
S13	— —	— —	— —	— —	— —	— —	27 *90*	30 *100*	33 *110*	36 *120*	40 *130*	43 *140*	31 *100*	35 *115*	37 *120*	— —	— —	— —
H5	46 *150*	50 *165*	55 *180*	— —	— —	— —	40 *130*	45 *150*	48 *155*	40 *130*	45 *150*	48 *155*	39 *130*	43 *140*	46 *150*	— —	— —	— —
H8	48 *155*	50 *165*	55 *180*	— —	— —	— —	42 *140*	46 *150*	50 *165*	42 *140*	46 *150*	50 *165*	40 *130*	44 *145*	47 *155*	— —	— —	— —
H11	60 *195*	65 *215*	70 *230*	— —	— —	— —	50 *165*	55 *180*	60 *195*	50 *165*	55 *180*	60 *195*	49 *160*	55 *180*	60 *195*	— —	— —	— —
H12	55 *180*	60 *195*	65 *215*	— —	— —	— —	49 *160*	55 *180*	60 *195*	49 *160*	55 *180*	60 *195*	46 *150*	50 *165*	55 *180*	— —	— —	— —
H21	48 *155*	50 *165*	55 *180*	— —	— —	— —	42 *140*	46 *150*	50 *165*	42 *140*	46 *150*	50 *165*	40 *130*	44 *145*	47 *155*	— —	— —	— —

335.29 Round 7 – Insert selection – mm/*Inch*

SMG		f_z		
		20%	10%	5%
P1	RDHW0702M0-MD03 F40M	0,080 *0.0032*	0,10 *0.0040*	0,14 *0.0055*
P2	RDHW0702M0-MD03 F40M	0,080 *0.0032*	0,11 *0.0044*	0,15 *0.0060*
P3	RDHW0702M0-MD03 F40M	0,075 *0.0030*	0,10 *0.0040*	0,14 *0.0055*
P4	RDHW0702M0-MD03 F40M	0,075 *0.0030*	0,10 *0.0040*	0,14 *0.0055*
P5	RDHW0702M0-MD03 F40M	0,075 *0.0030*	0,095 *0.0038*	0,13 *0.0050*
P6	RDHW0702M0-MD03 F40M	0,070 *0.0028*	0,095 *0.0038*	0,13 *0.0050*
P7	RDHW0702M0-MD03 F40M	0,070 *0.0028*	0,095 *0.0038*	0,13 *0.0050*
P8	RDHW0702M0-MD03 MP3000	0,075 *0.0030*	0,10 *0.0040*	0,14 *0.0055*
P11	RDHW0702M0-MD03 F40M	0,070 *0.0028*	0,095 *0.0038*	0,13 *0.0050*
P12	RDHW0702M0-MD03 F40M	0,050 *0.0020*	0,065 *0.0026*	0,090 *0.0036*
M1	RDHW0702M0-MD03 F40M	0,080 *0.0032*	0,11 *0.0044*	0,15 *0.0060*
M2	RDHW0702M0-MD03 F40M	0,075 *0.0030*	0,095 *0.0038*	0,13 *0.0050*
M3	RDHW0702M0-MD03 F40M	0,060 *0.0024*	0,080 *0.0032*	0,11 *0.0044*
M4	RDHW0702M0-MD03 F40M	0,050 *0.0020*	0,070 *0.0028*	0,095 *0.0038*
M5	RDHW0702M0-MD03 F40M	0,050 *0.0020*	0,070 *0.0028*	0,095 *0.0038*
K1	RDHW0702M0-MD03 MP3000	0,080 *0.0032*	0,11 *0.0044*	0,15 *0.0060*
K2	RDHW0702M0-MD03 MP3000	0,075 *0.0030*	0,095 *0.0038*	0,13 *0.0050*
K3	RDHW0702M0-MD03 MP3000	0,075 *0.0030*	0,095 *0.0038*	0,13 *0.0050*
K4	RDHW0702M0-MD03 MP3000	0,075 *0.0030*	0,095 *0.0038*	0,13 *0.0050*
K5	RDHW0702M0-MD03 MP3000	0,065 *0.0026*	0,085 *0.0034*	0,12 *0.0048*
K6	RDHW0702M0-MD03 MP3000	0,075 *0.0030*	0,095 *0.0038*	0,13 *0.0050*
K7	RDHW0702M0-MD03 MP3000	0,065 *0.0026*	0,085 *0.0034*	0,12 *0.0048*
N1	RDHW0702M0-MD03 MP3000	0,10 *0.0040*	0,14 *0.0055*	0,19 *0.0075*
N2	RDHW0702M0-MD03 MP3000	0,10 *0.0040*	0,14 *0.0055*	0,19 *0.0075*
N3	RDHW0702M0-MD03 MP3000	0,10 *0.0040*	0,14 *0.0055*	0,19 *0.0075*
N11	RDHW0702M0-MD03 MP3000	0,10 *0.0040*	0,14 *0.0055*	0,19 *0.0075*
S1	RDHW0702M0-MD03 F40M	0,050 *0.0020*	0,070 *0.0028*	0,095 *0.0038*
S2	RDHW0702M0-MD03 F40M	0,050 *0.0020*	0,070 *0.0028*	0,095 *0.0038*
S3	RDHW0702M0-MD03 F40M	0,048 *0.0019*	0,065 *0.0026*	0,085 *0.0034*
S11	RDHW0702M0-MD03 F40M	0,060 *0.0024*	0,080 *0.0032*	0,11 *0.0044*
S12	RDHW0702M0-MD03 F40M	0,060 *0.0024*	0,080 *0.0032*	0,11 *0.0044*
S13	RDHW0702M0-MD03 F40M	0,050 *0.0020*	0,070 *0.0028*	0,095 *0.0038*
H5	RDHW0702M0T-MD04 F15M	0,050 *0.0020*	0,065 *0.0026*	0,090 *0.0036*
H8	RDHW0702M0T-MD04 F15M	0,038 *0.0015*	0,050 *0.0020*	0,070 *0.0028*
H11	RDHW0702M0T-MD04 F15M	0,050 *0.0020*	0,065 *0.0026*	0,090 *0.0036*
H12	RDHW0702M0T-MD04 F15M	0,038 *0.0015*	0,050 *0.0020*	0,070 *0.0028*
H21	RDHW0702M0T-MD04 F15M	0,038 *0.0015*	0,050 *0.0020*	0,070 *0.0028*

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

335.29 Round 7 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	F15M			MP3000			F40M		
	20%	10%	5%	20%	10%	5%	20%	10%	5%
P1	295 *970*	325 *1075*	355 *1175*	305 *1000*	340 *1125*	370 *1225*	245 *800*	270 *890*	295 *970*
P2	285 *940*	315 *1025*	340 *1125*	295 *970*	325 *1075*	355 *1175*	235 *770*	260 *850*	285 *940*
P3	250 *820*	275 *900*	295 *970*	260 *850*	285 *940*	310 *1025*	205 *670*	230 *750*	245 *800*
P4	220 *720*	240 *790*	260 *850*	225 *740*	250 *820*	270 *890*	180 *590*	200 *660*	215 *710*
P5	210 *690*	230 *750*	250 *820*	215 *710*	240 *790*	260 *850*	175 *570*	195 *640*	210 *690*
P6	235 *770*	260 *850*	285 *940*	245 *800*	270 *890*	295 *970*	195 *640*	215 *710*	235 *770*
P7	225 *740*	245 *800*	265 *870*	235 *770*	255 *840*	280 *920*	185 *610*	205 *670*	220 *720*
P8	210 *690*	230 *750*	250 *820*	215 *710*	240 *790*	260 *850*	175 *570*	190 *620*	205 *670*
P11	215 *710*	240 *790*	260 *850*	225 *740*	250 *820*	270 *890*	180 *590*	200 *660*	215 *710*
P12	— —	— —	— —	140 *460*	155 *510*	170 *560*	110 *360*	125 *410*	135 *445*
M1	— —	— —	— —	220 *720*	245 *800*	265 *870*	190 *620*	210 *690*	230 *750*
M2	— —	— —	— —	180 *590*	200 *660*	220 *720*	155 *510*	175 *570*	190 *620*
M3	— —	— —	— —	145 *475*	160 *520*	170 *560*	125 *410*	135 *445*	150 *490*
M4	— —	— —	— —	110 *360*	120 *395*	130 *425*	95 *310*	105 *345*	115 *375*
M5	— —	— —	— —	90 *295*	100 *330*	110 *360*	80 *260*	85 *280*	95 *310*
K1	225 *740*	250 *820*	270 *890*	200 *660*	215 *710*	235 *770*	190 *620*	205 *670*	225 *740*
K2	200 *660*	220 *720*	240 *790*	175 *570*	195 *640*	210 *690*	165 *540*	185 *610*	200 *660*
K3	165 *540*	185 *610*	200 *660*	145 *475*	165 *540*	175 *570*	140 *460*	155 *510*	170 *560*
K4	160 *520*	180 *590*	195 *640*	140 *460*	155 *510*	170 *560*	135 *445*	150 *490*	160 *520*
K5	95 *310*	110 *360*	115 *375*	85 *280*	95 *310*	100 *330*	80 *260*	90 *295*	95 *310*
K6	140 *460*	155 *510*	170 *560*	125 *410*	135 *445*	150 *490*	115 *375*	130 *425*	140 *460*
K7	125 *410*	140 *460*	150 *490*	110 *360*	120 *395*	130 *425*	105 *345*	115 *375*	125 *410*
N1	— —	— —	— —	1775 *5825*	1950 *6400*	2125 *6975*	1425 *4675*	1550 *5075*	1700 *5575*
N2	— —	— —	— —	720 *2350*	790 *2600*	860 *2825*	580 *1900*	630 *2075*	690 *2275*
N3	— —	— —	— —	480 *1575*	530 *1750*	570 *1875*	385 *1275*	420 *1375*	460 *1500*
N11	— —	— —	— —	550 *1800*	600 *1975*	650 *2125*	440 *1450*	480 *1575*	520 *1700*
S1	— —	— —	— —	50 *165*	55 *180*	60 *195*	44 *145*	49 *160*	55 *180*
S2	— —	— —	— —	41 *135*	45 *150*	49 *160*	36 *120*	39 *130*	42 *140*
S3	— —	— —	— —	36 *120*	39 *130*	43 *140*	31 *100*	34 *110*	37 *120*
S11	— —	— —	— —	70 *230*	80 *260*	85 *280*	60 *195*	70 *230*	75 *245*
S12	— —	— —	— —	60 *195*	65 *215*	75 *245*	50 *165*	60 *195*	65 *215*
S13	— —	— —	— —	35 *115*	38 *125*	42 *140*	30 *100*	33 *110*	36 *120*
H5	45 *150*	49 *160*	55 *180*	39 *130*	43 *140*	47 *155*	37 *120*	41 *135*	45 *150*
H8	46 *150*	50 *165*	55 *180*	40 *130*	45 *150*	48 *155*	39 *130*	43 *140*	46 *150*
H11	55 *180*	65 *215*	70 *230*	50 *165*	55 *180*	60 *195*	47 *155*	50 *165*	55 *180*
H12	55 *180*	60 *195*	65 *215*	47 *155*	50 *165*	55 *180*	45 *150*	49 *160*	55 *180*
H21	46 *150*	50 *165*	55 *180*	40 *130*	45 *150*	48 *155*	39 *130*	43 *140*	46 *150*

335.18/29 Round 8 – Insert selection – mm/*Inch*

SMG		f_z		
		30%	20%	10%
P1	RDHW0803M0-MD03 F40M	0,065 *0.0026*	0,075 *0.0030*	0,10 *0.0040*
P2	RDHW0803M0-MD03 F40M	0,065 *0.0026*	0,075 *0.0030*	0,10 *0.0040*
P3	RDHW0803M0-MD03 F40M	0,065 *0.0026*	0,075 *0.0030*	0,095 *0.0038*
P4	RDKW0803M0T-MD05 F40M	0,080 *0.0032*	0,090 *0.0036*	0,12 *0.0048*
P5	RDKW0803M0T-MD05 F40M	0,075 *0.0030*	0,090 *0.0036*	0,12 *0.0048*
P6	RDKW0803M0T-MD05 F40M	0,075 *0.0030*	0,085 *0.0034*	0,12 *0.0048*
P7	RDKW0803M0T-MD05 F40M	0,075 *0.0030*	0,085 *0.0034*	0,12 *0.0048*
P8	RDKW0803M0T-MD05 MP2501	0,080 *0.0032*	0,090 *0.0036*	0,12 *0.0048*
P11	RDKW0803M0T-MD05 F40M	0,075 *0.0030*	0,085 *0.0034*	0,12 *0.0048*
P12	RDKW0803M0T-MD05 F40M	0,050 *0.0020*	0,060 *0.0024*	0,080 *0.0032*
M1	RDHW0803M0-MD03 F40M	0,065 *0.0026*	0,075 *0.0030*	0,10 *0.0040*
M2	RDHW0803M0-MD03 F40M	0,060 *0.0024*	0,070 *0.0028*	0,095 *0.0038*
M3	RDHW0803M0-MD03 F40M	0,048 *0.0019*	0,055 *0.0022*	0,075 *0.0030*
M4	RDHW0803M0-MD03 F40M	0,042 *0.0017*	0,050 *0.0020*	0,065 *0.0026*
M5	RDHW0803M0-MD03 F40M	0,042 *0.0017*	0,050 *0.0020*	0,065 *0.0026*
K1	RDKW0803M0T-MD05 MK2050	0,085 *0.0034*	0,095 *0.0038*	0,13 *0.0050*
K2	RDKW0803M0T-MD05 MK2050	0,075 *0.0030*	0,090 *0.0036*	0,12 *0.0048*
K3	RDKW0803M0T-MD05 MK2050	0,075 *0.0030*	0,090 *0.0036*	0,12 *0.0048*
K4	RDKW0803M0T-MD05 MK2050	0,075 *0.0030*	0,090 *0.0036*	0,12 *0.0048*
K5	RDKW0803M0T-MD05 MK2050	0,070 *0.0028*	0,080 *0.0032*	0,11 *0.0044*
K6	RDKW0803M0T-MD05 MK2050	0,075 *0.0030*	0,090 *0.0036*	0,12 *0.0048*
K7	RDKW0803M0T-MD05 MK2050	0,070 *0.0028*	0,080 *0.0032*	0,11 *0.0044*
N1	RDHT0803M0-E03 H25	0,065 *0.0026*	0,075 *0.0030*	0,10 *0.0040*
N2	RDHT0803M0-E03 H25	0,065 *0.0026*	0,075 *0.0030*	0,10 *0.0040*
N3	RDHT0803M0-E03 H25	0,065 *0.0026*	0,075 *0.0030*	0,10 *0.0040*
N11	RDHT0803M0-E03 H25	0,065 *0.0026*	0,075 *0.0030*	0,10 *0.0040*
S1	RDHW0803M0-MD03 F40M	0,042 *0.0017*	0,050 *0.0020*	0,065 *0.0026*
S2	RDHW0803M0-MD03 F40M	0,042 *0.0017*	0,050 *0.0020*	0,065 *0.0026*
S3	RDHW0803M0-MD03 F40M	0,040 *0.0016*	0,046 *0.0018*	0,060 *0.0024*
S11	RDHW0803M0-MD03 F40M	0,048 *0.0019*	0,055 *0.0022*	0,075 *0.0030*
S12	RDHW0803M0-MD03 F40M	0,048 *0.0019*	0,055 *0.0022*	0,075 *0.0030*
S13	RDHW0803M0-MD03 F40M	0,042 *0.0017*	0,050 *0.0020*	0,065 *0.0026*
H5	RDKW0803M0T-MD05 F15M	0,050 *0.0020*	0,060 *0.0024*	0,080 *0.0032*
H8	RDKW0803M0T-MD05 F15M	0,040 *0.0016*	0,046 *0.0018*	0,060 *0.0024*
H11	RDKW0803M0T-MD05 F15M	0,050 *0.0020*	0,060 *0.0024*	0,080 *0.0032*
H12	RDKW0803M0T-MD05 F15M	0,040 *0.0016*	0,046 *0.0018*	0,060 *0.0024*
H21	RDKW0803M0T-MD05 F15M	0,040 *0.0016*	0,046 *0.0018*	0,060 *0.0024*

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

335.18/29 Round 8 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	F15M			MK2050			F25M			F30M			MP3000			MS2050		
	30%	20%	10%	30%	20%	10%	30%	20%	10%	30%	20%	10%	30%	20%	10%	30%	20%	10%
P1	260 *850*	275 *900*	305 *1000*	280 *920*	300 *980*	330 *1075*	240 *790*	255 *840*	280 *920*	235 *770*	250 *820*	280 *920*	280 *920*	300 *980*	335 *1100*	— —	— —	— —
P2	255 *840*	270 *890*	300 *980*	275 *900*	290 *950*	325 *1075*	230 *750*	245 *800*	275 *900*	230 *750*	245 *800*	270 *890*	275 *900*	290 *950*	320 *1050*	— —	— —	— —
P3	220 *720*	235 *770*	255 *840*	240 *790*	255 *840*	280 *920*	200 *660*	215 *710*	235 *770*	200 *660*	215 *710*	235 *770*	240 *790*	255 *840*	280 *920*	— —	— —	— —
P4	195 *640*	205 *670*	230 *750*	210 *690*	225 *740*	250 *820*	180 *590*	190 *620*	210 *690*	175 *570*	190 *620*	205 *670*	210 *690*	225 *740*	245 *800*	— —	— —	— —
P5	185 *610*	200 *660*	220 *720*	200 *660*	215 *710*	240 *790*	170 *560*	180 *590*	200 *660*	170 *560*	180 *590*	200 *660*	200 *660*	215 *710*	240 *790*	— —	— —	— —
P6	210 *690*	225 *740*	245 *800*	225 *740*	240 *790*	265 *870*	190 *620*	205 *670*	225 *740*	190 *620*	205 *670*	225 *740*	225 *740*	245 *800*	265 *870*	— —	— —	— —
P7	195 *640*	210 *690*	230 *750*	215 *710*	230 *750*	250 *820*	180 *590*	195 *640*	215 *710*	180 *590*	190 *620*	210 *690*	215 *710*	230 *750*	250 *820*	— —	— —	— —
P8	185 *610*	195 *640*	215 *710*	200 *660*	215 *710*	235 *770*	170 *560*	180 *590*	200 *660*	170 *560*	180 *590*	200 *660*	200 *660*	215 *710*	235 *770*	— —	— —	— —
P11	190 *620*	205 *670*	225 *740*	205 *670*	220 *720*	245 *800*	175 *570*	185 *610*	205 *670*	175 *570*	185 *610*	205 *670*	205 *670*	225 *740*	245 *800*	— —	— —	— —
P12	— —	— —	— —	130 *425*	140 *460*	155 *510*	110 *360*	120 *395*	130 *425*	110 *360*	115 *375*	130 *425*	130 *425*	140 *460*	155 *510*	— —	— —	— —
M1	— —	— —	— —	— —	— —	— —	— —	— —	— —	185 *610*	200 *660*	215 *710*	205 *670*	220 *720*	240 *790*	— —	— —	— —
M2	— —	— —	— —	— —	— —	— —	— —	— —	— —	150 *490*	160 *520*	180 *590*	170 *560*	180 *590*	200 *660*	— —	— —	— —
M3	— —	— —	— —	— —	— —	— —	— —	— —	— —	120 *395*	130 *425*	140 *460*	135 *445*	140 *460*	155 *510*	— —	— —	— —
M4	— —	— —	— —	— —	— —	— —	— —	— —	— —	90 *295*	100 *330*	110 *360*	100 *330*	110 *360*	120 *395*	— —	— —	— —
M5	— —	— —	— —	— —	— —	— —	— —	— —	— —	75 *245*	80 *260*	90 *295*	85 *280*	90 *295*	100 *330*	— —	— —	— —
K1	200 *660*	215 *710*	235 *770*	295 *970*	315 *1025*	350 *1150*	185 *610*	195 *640*	215 *710*	180 *590*	195 *640*	215 *710*	180 *590*	195 *640*	215 *710*	— —	— —	— —
K2	175 *570*	190 *620*	210 *690*	260 *850*	280 *920*	305 *1000*	160 *520*	175 *570*	190 *620*	160 *520*	170 *560*	190 *620*	160 *520*	170 *560*	190 *620*	— —	— —	— —
K3	150 *490*	160 *520*	175 *570*	220 *720*	235 *770*	260 *850*	135 *445*	145 *475*	160 *520*	135 *445*	145 *475*	160 *520*	135 *445*	145 *475*	160 *520*	— —	— —	— —
K4	140 *460*	150 *490*	170 *560*	210 *690*	225 *740*	250 *820*	130 *425*	140 *460*	155 *510*	130 *425*	140 *460*	155 *510*	130 *425*	140 *460*	155 *510*	— —	— —	— —
K5	85 *280*	95 *310*	100 *330*	130 *425*	135 *445*	150 *490*	80 *260*	85 *280*	95 *310*	80 *260*	85 *280*	95 *310*	80 *260*	85 *280*	95 *310*	— —	— —	— —
K6	125 *410*	135 *445*	150 *490*	185 *610*	200 *660*	220 *720*	115 *375*	125 *410*	135 *445*	115 *375*	120 *395*	135 *445*	115 *375*	120 *395*	135 *445*	— —	— —	— —
K7	110 *360*	120 *395*	130 *425*	165 *540*	175 *570*	190 *620*	100 *330*	110 *360*	120 *395*	100 *330*	105 *345*	120 *395*	100 *330*	105 *345*	120 *395*	— —	— —	— —
N1	— —	— —	— —	— —	— —	— —	— —	— —	— —	1375 *4500*	1475 *4850*	1625 *5325*	1625 *5325*	1750 *5750*	1925 *6325*	— —	— —	— —
N2	— —	— —	— —	— —	— —	— —	— —	— —	— —	560 *1825*	600 *1975*	650 *2125*	660 *2175*	710 *2325*	780 *2550*	— —	— —	— —
N3	— —	— —	— —	— —	— —	— —	— —	— —	— —	370 *1225*	395 *1300*	435 *1425*	440 *1450*	475 *1550*	520 *1700*	— —	— —	— —
N11	— —	— —	— —	— —	— —	— —	— —	— —	— —	425 *1400*	455 *1500*	495 *1625*	500 *1650*	540 *1775*	590 *1925*	— —	— —	— —
S1	— —	— —	— —	— —	— —	— —	— —	— —	— —	43 *140*	46 *150*	50 *165*	48 *155*	50 *165*	55 *180*	45 *150*	48 *155*	55 *180*
S2	— —	— —	— —	— —	— —	— —	— —	— —	— —	35 *115*	37 *120*	40 *130*	38 *125*	41 *135*	45 *150*	36 *120*	39 *130*	42 *140*
S3	— —	— —	— —	— —	— —	— —	— —	— —	— —	30 *100*	32 *105*	35 *115*	33 *110*	35 *115*	39 *130*	32 *105*	34 *110*	37 *120*
S11	— —	— —	— —	— —	— —	— —	— —	— —	— —	60 *195*	65 *215*	70 *230*	65 *215*	70 *230*	80 *260*	65 *215*	70 *230*	75 *245*
S12	— —	— —	— —	— —	— —	— —	— —	— —	— —	43 *140*	45 *150*	50 *165*	55 *180*	60 *195*	65 *215*	55 *180*	55 *180*	65 *215*
S13	— —	— —	— —	— —	— —	— —	— —	— —	— —	25 *80*	26 *85*	29 *95*	32 *105*	35 *115*	38 *125*	31 *100*	33 *110*	36 *120*
H5	40 *130*	43 *140*	47 *155*	— —	— —	— —	— —	— —	— —	36 *120*	39 *130*	43 *140*	36 *120*	39 *130*	43 *140*	— —	— —	— —
H8	42 *140*	44 *145*	49 *160*	— —	— —	— —	— —	— —	— —	38 *125*	40 *130*	44 *145*	38 *125*	40 *130*	44 *145*	— —	— —	— —
H11	50 *165*	55 *180*	60 *195*	— —	— —	— —	— —	— —	— —	46 *150*	49 *160*	55 *180*	46 *150*	49 *160*	55 *180*	— —	— —	— —
H12	48 *155*	50 *165*	55 *180*	— —	— —	— —	— —	— —	— —	44 *145*	46 *150*	50 *165*	44 *145*	46 *150*	50 *165*	— —	— —	— —
H21	42 *140*	44 *145*	49 *160*	— —	— —	— —	— —	— —	— —	38 *125*	40 *130*	44 *145*	38 *125*	40 *130*	44 *145*	— —	— —	— —

335.18/29 Round 8 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	F40M			H25			MP2501			MS2500			MP3501		
	30%	20%	10%	30%	20%	10%	30%	20%	10%	30%	20%	10%	30%	20%	10%
P1	225 *740*	240 *790*	270 *890*	— —	— —	— —	345 *1125*	355 *1175*	380 *1250*	315 *1025*	330 *1075*	370 *1225*	350 *1150*	360 *1175*	380 *1250*
P2	220 *720*	235 *770*	255 *840*	— —	— —	— —	335 *1100*	345 *1125*	370 *1225*	305 *1000*	325 *1075*	360 *1175*	340 *1125*	350 *1150*	370 *1225*
P3	190 *620*	205 *670*	225 *740*	— —	— —	— —	290 *950*	300 *980*	315 *1025*	265 *870*	280 *920*	310 *1025*	290 *950*	300 *980*	315 *1025*
P4	170 *560*	180 *590*	200 *660*	— —	— —	— —	255 *840*	265 *870*	280 *920*	235 *770*	245 *800*	275 *900*	255 *840*	265 *870*	275 *900*
P5	160 *520*	170 *560*	190 *620*	— —	— —	— —	240 *790*	250 *820*	265 *870*	225 *740*	240 *790*	265 *870*	245 *800*	250 *820*	265 *870*
P6	180 *590*	195 *640*	215 *710*	— —	— —	— —	270 *890*	280 *920*	300 *980*	250 *820*	270 *890*	295 *970*	275 *900*	280 *920*	295 *970*
P7	170 *560*	185 *610*	200 *660*	— —	— —	— —	255 *840*	265 *870*	280 *920*	235 *770*	255 *840*	280 *920*	260 *850*	265 *870*	275 *900*
P8	160 *520*	170 *560*	190 *620*	— —	— —	— —	240 *790*	250 *820*	265 *870*	225 *740*	235 *770*	260 *850*	245 *800*	250 *820*	265 *870*
P11	165 *540*	180 *590*	195 *640*	— —	— —	— —	250 *820*	260 *850*	275 *900*	230 *750*	245 *800*	270 *890*	250 *820*	260 *850*	270 *890*
P12	105 *345*	110 *360*	120 *395*	— —	— —	— —	145 *475*	150 *490*	155 *510*	145 *475*	155 *510*	170 *560*	135 *445*	140 *460*	145 *475*
M1	175 *570*	190 *620*	205 *670*	— —	— —	— —	200 *660*	215 *710*	235 *770*	220 *720*	230 *750*	255 *840*	235 *770*	250 *820*	275 *900*
M2	145 *475*	155 *510*	170 *560*	— —	— —	— —	165 *540*	175 *570*	195 *640*	180 *590*	190 *620*	210 *690*	190 *620*	205 *670*	225 *740*
M3	115 *375*	120 *395*	135 *445*	— —	— —	— —	130 *425*	140 *460*	155 *510*	140 *460*	150 *490*	165 *540*	150 *490*	160 *520*	175 *570*
M4	90 *295*	95 *310*	100 *330*	— —	— —	— —	100 *330*	105 *345*	120 *395*	110 *360*	115 *375*	125 *410*	115 *375*	125 *410*	135 *445*
M5	75 *245*	80 *260*	85 *280*	— —	— —	— —	85 *280*	90 *295*	100 *330*	90 *295*	95 *310*	105 *345*	95 *310*	100 *330*	115 *375*
K1	175 *570*	185 *610*	205 *670*	— —	— —	— —	335 *1100*	350 *1150*	370 *1225*	— —	— —	— —	— —	— —	— —
K2	150 *490*	160 *520*	180 *590*	— —	— —	— —	295 *970*	305 *1000*	320 *1050*	— —	— —	— —	— —	— —	— —
K3	130 *425*	135 *445*	155 *510*	— —	— —	— —	250 *820*	255 *840*	270 *890*	— —	— —	— —	— —	— —	— —
K4	125 *410*	130 *425*	145 *475*	— —	— —	— —	235 *770*	245 *800*	260 *850*	— —	— —	— —	— —	— —	— —
K5	75 *245*	80 *260*	90 *295*	— —	— —	— —	140 *460*	145 *475*	155 *510*	— —	— —	— —	— —	— —	— —
K6	110 *360*	115 *375*	130 *425*	— —	— —	— —	210 *690*	215 *710*	230 *750*	— —	— —	— —	— —	— —	— —
K7	95 *310*	100 *330*	115 *375*	— —	— —	— —	180 *590*	185 *610*	195 *640*	— —	— —	— —	— —	— —	— —
N1	1300 *4275*	1400 *4600*	1550 *5075*	1525 *5000*	1625 *5325*	1800 *5900*	— —	— —	— —	— —	— —	— —	— —	— —	— —
N2	530 *1750*	570 *1875*	620 *2025*	620 *2025*	650 *2125*	720 *2350*	— —	— —	— —	— —	— —	— —	— —	— —	— —
N3	355 *1175*	380 *1250*	415 *1350*	410 *1350*	435 *1425*	480 *1575*	— —	— —	— —	— —	— —	— —	— —	— —	— —
N11	405 *1325*	435 *1425*	475 *1550*	470 *1550*	500 *1650*	550 *1800*	— —	— —	— —	— —	— —	— —	— —	— —	— —
S1	41 *135*	44 *145*	48 *155*	— —	— —	— —	— —	— —	— —	55 *180*	55 *180*	60 *195*	38 *125*	40 *130*	44 *145*
S2	33 *110*	35 *115*	39 *130*	— —	— —	— —	— —	— —	— —	43 *140*	45 *150*	50 *165*	30 *100*	32 *105*	36 *120*
S3	29 *95*	30 *100*	34 *110*	— —	— —	— —	— —	— —	— —	37 *120*	40 *130*	44 *145*	38 *125*	40 *130*	44 *145*
S11	60 *195*	60 *195*	70 *230*	— —	— —	— —	— —	— —	— —	75 *245*	80 *260*	90 *295*	75 *245*	80 *260*	90 *295*
S12	49 *160*	50 *165*	55 *180*	— —	— —	— —	— —	— —	— —	65 *215*	65 *215*	75 *245*	55 *180*	55 *180*	60 *195*
S13	28 *90*	30 *100*	33 *110*	— —	— —	— —	— —	— —	— —	36 *120*	38 *125*	43 *140*	30 *100*	32 *105*	35 *115*
H5	34 *110*	37 *120*	41 *135*	— —	— —	— —	— —	— —	— —	— —	— —	— —	48 *155*	50 *165*	55 *180*
H8	36 *120*	38 *125*	42 *140*	— —	— —	— —	— —	— —	— —	— —	— —	— —	49 *160*	50 *165*	55 *180*
H11	44 *145*	47 *155*	50 *165*	— —	— —	— —	— —	— —	— —	— —	— —	— —	60 *195*	65 *215*	70 *230*
H12	42 *140*	44 *145*	49 *160*	— —	— —	— —	— —	— —	— —	50 *165*	55 *180*	60 *195*	85 *280*	95 *310*	100 *330*
H21	36 *120*	38 *125*	42 *140*	— —	— —	— —	— —	— —	— —	— —	— —	— —	49 *160*	50 *165*	55 *180*

335.18/29 Round 10 – Insert selection – mm/*Inch*

SMG		f_z		
		30%	20%	10%
P1	RDKT10T3M0T-8-M05 F40M	0,085 *0.0034*	0,095 *0.0038*	0,13 *0.0050*
P2	RDKT10T3M0T-8-M05 F40M	0,085 *0.0034*	0,095 *0.0038*	0,13 *0.0050*
P3	RDKT10T3M0T-8-M05 F40M	0,080 *0.0032*	0,090 *0.0036*	0,12 *0.0048*
P4	RDKT10T3M0T-8-M05 F40M	0,080 *0.0032*	0,090 *0.0036*	0,12 *0.0048*
P5	RDKT10T3M0T-8-M05 F40M	0,075 *0.0030*	0,090 *0.0036*	0,12 *0.0048*
P6	RDKT10T3M0T-8-M05 F40M	0,075 *0.0030*	0,085 *0.0034*	0,12 *0.0048*
P7	RDKW10T3M0T-8-MD06 F40M	0,090 *0.0036*	0,10 *0.0040*	0,14 *0.0055*
P8	RDKW10T3M0T-8-MD06 MP2501	0,095 *0.0038*	0,11 *0.0044*	0,15 *0.0060*
P11	RDKT10T3M0T-8-M07 F40M	0,11 *0.0044*	0,12 *0.0048*	0,16 *0.0065*
P12	RDKT10T3M0T-8-M07 F40M	0,075 *0.0030*	0,085 *0.0034*	0,11 *0.0044*
M1	RDKT10T3M0T-8-M05 F40M	0,085 *0.0034*	0,095 *0.0038*	0,13 *0.0050*
M2	RDKT10T3M0T-8-M05 F40M	0,075 *0.0030*	0,090 *0.0036*	0,12 *0.0048*
M3	RDKT10T3M0T-8-M05 F40M	0,060 *0.0024*	0,070 *0.0028*	0,095 *0.0038*
M4	RDKT10T3M0T-8-M05 F40M	0,055 *0.0022*	0,060 *0.0024*	0,080 *0.0032*
M5	RDKT10T3M0T-8-M05 F40M	0,055 *0.0022*	0,060 *0.0024*	0,080 *0.0032*
K1	RDKW10T3M0T-8-MD06 MK2050	0,10 *0.0040*	0,12 *0.0048*	0,16 *0.0065*
K2	RDKW10T3M0T-8-MD06 MK2050	0,090 *0.0036*	0,11 *0.0044*	0,14 *0.0055*
K3	RDKW10T3M0T-8-MD06 MK2050	0,090 *0.0036*	0,11 *0.0044*	0,14 *0.0055*
K4	RDKW10T3M0T-8-MD06 MK2050	0,090 *0.0036*	0,11 *0.0044*	0,14 *0.0055*
K5	RDKW10T3M0T-8-MD06 MK2050	0,085 *0.0034*	0,095 *0.0038*	0,13 *0.0050*
K6	RDKW10T3M0T-8-MD06 MK2050	0,090 *0.0036*	0,11 *0.0044*	0,14 *0.0055*
K7	RDKW10T3M0T-8-MD06 MK2050	0,085 *0.0034*	0,095 *0.0038*	0,13 *0.0050*
N1	RDHT10T3M0-8-E04 H25	0,085 *0.0034*	0,10 *0.0040*	0,13 *0.0050*
N2	RDHT10T3M0-8-E04 H25	0,085 *0.0034*	0,10 *0.0040*	0,13 *0.0050*
N3	RDHT10T3M0-8-E04 H25	0,085 *0.0034*	0,10 *0.0040*	0,13 *0.0050*
N11	RDHT10T3M0-8-E04 H25	0,085 *0.0034*	0,10 *0.0040*	0,13 *0.0050*
S1	RDKT10T3M0T-8-M05 F40M	0,055 *0.0022*	0,060 *0.0024*	0,080 *0.0032*
S2	RDKT10T3M0T-8-M05 F40M	0,055 *0.0022*	0,060 *0.0024*	0,080 *0.0032*
S3	RDKT10T3M0T-8-M05 F40M	0,050 *0.0020*	0,055 *0.0022*	0,075 *0.0030*
S11	RDKT10T3M0T-8-M05 F40M	0,060 *0.0024*	0,070 *0.0028*	0,095 *0.0038*
S12	RDKT10T3M0T-8-M05 F40M	0,060 *0.0024*	0,070 *0.0028*	0,095 *0.0038*
S13	RDKT10T3M0T-8-M05 F40M	0,055 *0.0022*	0,060 *0.0024*	0,080 *0.0032*
H5	RDKW10T3M0T-8-MD06 F15M	0,065 *0.0026*	0,070 *0.0028*	0,095 *0.0038*
H8	RDKW10T3M0T-8-MD06 F15M	0,048 *0.0019*	0,055 *0.0022*	0,075 *0.0030*
H11	RDKW10T3M0T-8-MD06 F15M	0,065 *0.0026*	0,070 *0.0028*	0,095 *0.0038*
H12	RDKW10T3M0T-8-MD06 F15M	0,048 *0.0019*	0,055 *0.0022*	0,075 *0.0030*
H21	RDKW10T3M0T-8-MD06 F15M	0,048 *0.0019*	0,055 *0.0022*	0,075 *0.0030*

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

335.18/29 Round 10 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	MH1000			F15M			MK2050			MS2050			F40M			H25		
	30%	20%	10%	30%	20%	10%	30%	20%	10%	30%	20%	10%	30%	20%	10%	30%	20%	10%
P1	—	—	—	255	270	295	285	305	340	220	235	265	245	260	290	—	—	—
	—	—	—	*840*	*890*	*970*	*940*	*1000*	*1125*	*720*	*770*	*870*	*800*	*850*	*950*	—	—	—
P2	—	—	—	245	260	290	280	295	325	215	230	255	240	255	280	—	—	—
	—	—	—	*800*	*850*	*950*	*920*	*970*	*1075*	*710*	*750*	*840*	*790*	*840*	*920*	—	—	—
P3	—	—	—	210	230	250	240	260	285	190	205	220	210	220	240	—	—	—
	—	—	—	*690*	*750*	*820*	*790*	*850*	*940*	*620*	*670*	*720*	*690*	*720*	*790*	—	—	—
P4	—	—	—	190	200	220	215	230	255	165	180	195	185	195	215	—	—	—
	—	—	—	*620*	*660*	*720*	*710*	*750*	*840*	*540*	*590*	*640*	*610*	*640*	*710*	—	—	—
P5	220	230	255	180	190	210	205	220	240	160	170	190	175	185	205	—	—	—
	720	*750*	*840*	*590*	*620*	*690*	*670*	*720*	*790*	*520*	*560*	*620*	*570*	*610*	*670*	—	—	—
P6	245	260	290	205	215	240	230	245	270	180	190	215	195	210	230	—	—	—
	800	*850*	*950*	*670*	*710*	*790*	*750*	*800*	*890*	*590*	*620*	*710*	*640*	*690*	*750*	—	—	—
P7	230	245	275	190	205	225	215	230	255	170	180	200	185	200	220	—	—	—
	750	*800*	*900*	*620*	*670*	*740*	*710*	*750*	*840*	*560*	*590*	*660*	*610*	*660*	*720*	—	—	—
P8	215	230	255	180	190	210	200	220	240	160	170	185	175	185	205	—	—	—
	710	*750*	*840*	*590*	*620*	*690*	*660*	*720*	*790*	*520*	*560*	*610*	*570*	*610*	*670*	—	—	—
P11	225	240	265	185	200	220	210	225	250	165	175	195	180	190	210	—	—	—
	740	*790*	*870*	*610*	*660*	*720*	*690*	*740*	*820*	*540*	*570*	*640*	*590*	*620*	*690*	—	—	—
P12	140	150	165	—	—	—	135	145	155	105	115	125	115	120	135	—	—	—
	460	*490*	*540*	—	—	—	*445*	*475*	*510*	*345*	*375*	*410*	*375*	*395*	*445*	—	—	—
M1	—	—	—	—	—	—	—	—	—	175	185	205	190	205	225	—	—	—
	—	—	—	—	—	—	—	—	—	*570*	*610*	*670*	*620*	*670*	*740*	—	—	—
M2	—	—	—	—	—	—	—	—	—	145	155	170	155	170	185	—	—	—
	—	—	—	—	—	—	—	—	—	*475*	*510*	*560*	*510*	*560*	*610*	—	—	—
M3	—	—	—	—	—	—	—	—	—	115	125	135	125	130	145	—	—	—
	—	—	—	—	—	—	—	—	—	*375*	*410*	*445*	*410*	*425*	*475*	—	—	—
M4	—	—	—	—	—	—	—	—	—	90	95	105	95	100	110	—	—	—
	—	—	—	—	—	—	—	—	—	*295*	*310*	*345*	*310*	*330*	*360*	—	—	—
M5	—	—	—	—	—	—	—	—	—	75	80	90	80	85	95	—	—	—
	—	—	—	—	—	—	—	—	—	*245*	*260*	*295*	*260*	*280*	*310*	—	—	—
K1	235	250	275	195	205	230	300	320	350	—	—	—	190	200	220	—	—	—
	770	*820*	*900*	*640*	*670*	*750*	*980*	*1050*	*1150*	—	—	—	*620*	*660*	*720*	—	—	—
K2	205	220	240	170	185	200	265	280	310	—	—	—	165	175	195	—	—	—
	670	*720*	*790*	*560*	*610*	*660*	*870*	*920*	*1025*	—	—	—	*540*	*570*	*640*	—	—	—
K3	175	185	205	145	155	170	225	240	265	—	—	—	140	150	165	—	—	—
	570	*610*	*670*	*475*	*510*	*560*	*740*	*790*	*870*	—	—	—	*460*	*490*	*540*	—	—	—
K4	165	180	195	140	145	160	215	225	250	—	—	—	135	145	160	—	—	—
	540	*590*	*640*	*460*	*475*	*520*	*710*	*740*	*820*	—	—	—	*445*	*475*	*520*	—	—	—
K5	100	110	120	85	90	100	130	140	155	—	—	—	80	85	95	—	—	—
	330	*360*	*395*	*280*	*295*	*330*	*425*	*460*	*510*	—	—	—	*260*	*280*	*310*	—	—	—
K6	145	155	175	120	130	145	190	200	220	—	—	—	120	125	140	—	—	—
	475	*510*	*570*	*395*	*425*	*475*	*620*	*660*	*720*	—	—	—	*395*	*410*	*460*	—	—	—
K7	130	140	155	110	115	125	165	180	195	—	—	—	105	110	120	—	—	—
	425	*460*	*510*	*360*	*375*	*410*	*540*	*590*	*640*	—	—	—	*345*	*360*	*395*	—	—	—
N1	—	—	—	—	—	—	—	—	—	—	—	—	1425	1500	1675	1450	1550	1700
	—	—	—	—	—	—	—	—	—	—	—	—	*4675*	*4925*	*5500*	*4750*	*5075*	*5575*
N2	—	—	—	—	—	—	—	—	—	—	—	—	570	610	670	580	620	680
	—	—	—	—	—	—	—	—	—	—	—	—	*1875*	*2000*	*2200*	*1900*	*2025*	*2225*
N3	—	—	—	—	—	—	—	—	—	—	—	—	380	405	450	390	415	455
	—	—	—	—	—	—	—	—	—	—	—	—	*1250*	*1325*	*1475*	*1275*	*1350*	*1500*
N11	—	—	—	—	—	—	—	—	—	—	—	—	435	460	510	445	475	520
	—	—	—	—	—	—	—	—	—	—	—	—	*1425*	*1500*	*1675*	*1450*	*1550*	*1700*
S1	—	—	—	—	—	—	—	—	—	42	45	49	45	47	50	—	—	—
	—	—	—	—	—	—	—	—	—	*140*	*150*	*160*	*150*	*155*	*165*	—	—	—
S2	—	—	—	—	—	—	—	—	—	34	36	40	36	38	42	—	—	—
	—	—	—	—	—	—	—	—	—	*110*	*120*	*130*	*120*	*125*	*140*	—	—	—
S3	—	—	—	—	—	—	—	—	—	30	32	35	32	33	37	—	—	—
	—	—	—	—	—	—	—	—	—	*100*	*105*	*115*	*105*	*110*	*120*	—	—	—
S11	—	—	—	—	—	—	—	—	—	60	65	70	65	65	75	—	—	—
	—	—	—	—	—	—	—	—	—	*195*	*215*	*230*	*215*	*215*	*245*	—	—	—
S12	—	—	—	—	—	—	—	—	—	49	55	60	55	55	65	—	—	—
	—	—	—	—	—	—	—	—	—	*160*	*180*	*195*	*180*	*180*	*215*	—	—	—
S13	—	—	—	—	—	—	—	—	—	29	31	34	31	32	36	—	—	—
	—	—	—	—	—	—	—	—	—	*95*	*100*	*110*	*100*	*105*	*120*	—	—	—
H5	47	50	55	39	42	46	—	—	—	—	—	—	38	40	44	—	—	—
	155	*165*	*180*	*130*	*140*	*150*	—	—	—	—	—	—	*125*	*130*	*145*	—	—	—
H8	49	55	60	41	44	48	—	—	—	—	—	—	39	42	46	—	—	—
	160	*180*	*195*	*135*	*145*	*155*	—	—	—	—	—	—	*130*	*140*	*150*	—	—	—
H11	60	65	70	50	55	60	—	—	—	—	—	—	48	50	55	—	—	—
	195	*215*	*230*	*165*	*180*	*195*	—	—	—	—	—	—	*155*	*165*	*180*	—	—	—
H12	55	60	70	47	50	55	—	—	—	—	—	—	45	48	55	—	—	—
	180	*195*	*230*	*155*	*165*	*180*	—	—	—	—	—	—	*150*	*155*	*180*	—	—	—
H21	49	55	60	41	44	48	—	—	—	—	—	—	39	42	46	—	—	—
	160	*180*	*195*	*135*	*145*	*155*	—	—	—	—	—	—	*130*	*140*	*150*	—	—	—

335.18/29 Round 10 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	MP1501			MP2501			MS2500			MP3501			MM4500		
	30%	20%	10%	30%	20%	10%	30%	20%	10%	30%	20%	10%	30%	20%	10%
P1	345 *1125*	360 *1175*	385 *1275*	365 *1200*	380 *1250*	410 *1350*	355 *1175*	375 *1225*	415 *1350*	350 *1150*	365 *1200*	385 *1275*	200 *660*	210 *690*	235 *770*
P2	335 *1100*	350 *1150*	370 *1225*	355 *1175*	370 *1225*	395 *1300*	345 *1125*	365 *1200*	405 *1325*	340 *1125*	355 *1175*	375 *1225*	195 *640*	205 *670*	230 *750*
P3	290 *950*	300 *980*	320 *1050*	305 *1000*	320 *1050*	340 *1125*	300 *980*	315 *1025*	350 *1150*	295 *970*	305 *1000*	325 *1075*	170 *560*	180 *590*	195 *640*
P4	255 *840*	265 *870*	285 *940*	270 *890*	285 *940*	300 *980*	265 *870*	280 *920*	310 *1025*	260 *850*	270 *890*	285 *940*	150 *490*	155 *510*	175 *570*
P5	245 *800*	255 *840*	270 *890*	260 *850*	270 *890*	290 *950*	250 *820*	270 *890*	295 *970*	245 *800*	255 *840*	270 *890*	140 *460*	150 *490*	165 *540*
P6	275 *900*	285 *940*	305 *1000*	290 *950*	305 *1000*	325 *1075*	280 *920*	300 *980*	335 *1100*	275 *900*	285 *940*	305 *1000*	160 *520*	170 *560*	190 *620*
P7	260 *850*	270 *890*	285 *940*	275 *900*	285 *940*	305 *1000*	265 *870*	285 *940*	315 *1025*	260 *850*	270 *890*	285 *940*	150 *490*	160 *520*	175 *570*
P8	245 *800*	255 *840*	270 *890*	260 *850*	270 *890*	285 *940*	250 *820*	265 *870*	290 *950*	245 *800*	255 *840*	270 *890*	140 *460*	150 *490*	165 *540*
P11	250 *820*	260 *850*	280 *920*	270 *890*	280 *920*	295 *970*	260 *850*	275 *900*	305 *1000*	255 *840*	265 *870*	280 *920*	145 *475*	155 *510*	170 *560*
P12	150 *490*	155 *510*	160 *520*	160 *520*	165 *540*	175 *570*	165 *540*	175 *570*	195 *640*	145 *475*	150 *490*	160 *520*	90 *295*	100 *330*	110 *360*
M1	— —	— —	— —	205 *670*	215 *710*	240 *790*	245 *800*	260 *850*	290 *950*	210 *690*	225 *740*	250 *820*	165 *540*	175 *570*	195 *640*
M2	— —	— —	— —	170 *560*	180 *590*	195 *640*	200 *660*	215 *710*	235 *770*	175 *570*	185 *610*	205 *670*	135 *445*	145 *475*	160 *520*
M3	— —	— —	— —	135 *445*	145 *475*	155 *510*	160 *520*	170 *560*	190 *620*	135 *445*	145 *475*	160 *520*	105 *345*	115 *375*	125 *410*
M4	— —	— —	— —	100 *330*	110 *360*	120 *395*	125 *410*	130 *425*	145 *475*	105 *345*	110 *360*	125 *410*	85 *280*	90 *295*	95 *310*
M5	— —	— —	— —	85 *280*	90 *295*	100 *330*	100 *330*	110 *360*	120 *395*	90 *295*	95 *310*	105 *345*	70 *230*	75 *245*	80 *260*
K1	340 *1125*	355 *1175*	375 *1225*	360 *1175*	375 *1225*	400 *1300*	270 *890*	290 *950*	320 *1050*	345 *1125*	355 *1175*	380 *1250*	— —	— —	— —
K2	295 *970*	305 *1000*	325 *1075*	315 *1025*	325 *1075*	350 *1150*	240 *790*	255 *840*	280 *920*	300 *980*	310 *1025*	330 *1075*	— —	— —	— —
K3	250 *820*	260 *850*	275 *900*	265 *870*	275 *900*	295 *970*	200 *660*	215 *710*	240 *790*	250 *820*	260 *850*	275 *900*	— —	— —	— —
K4	240 *790*	250 *820*	265 *870*	255 *840*	265 *870*	280 *920*	195 *640*	205 *670*	230 *750*	240 *790*	250 *820*	265 *870*	— —	— —	— —
K5	145 *475*	150 *490*	155 *510*	150 *490*	160 *520*	170 *560*	120 *395*	125 *410*	140 *460*	145 *475*	150 *490*	155 *510*	— —	— —	— —
K6	210 *690*	220 *720*	230 *750*	225 *740*	235 *770*	250 *820*	170 *560*	180 *590*	200 *660*	210 *690*	220 *720*	235 *770*	— —	— —	— —
K7	185 *610*	190 *620*	200 *660*	195 *640*	205 *670*	215 *710*	150 *490*	160 *520*	175 *570*	185 *610*	190 *620*	200 *660*	— —	— —	— —
N1	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —
N2	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —
N3	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —
N11	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —
S1	— —	— —	— —	— —	— —	— —	60 *195*	65 *215*	70 *230*	34 *110*	37 *120*	40 *130*	25 *80*	27 *90*	30 *100*
S2	— —	— —	— —	— —	— —	— —	48 *155*	50 *165*	55 *180*	28 *90*	29 *95*	33 *110*	20 *65*	22 *70*	24 *80*
S3	— —	— —	— —	— —	— —	— —	42 *140*	45 *150*	49 *160*	35 *115*	37 *120*	40 *130*	18 *60*	19 *60*	21 *70*
S11	— —	— —	— —	— —	— —	— —	85 *280*	90 *295*	100 *330*	70 *230*	75 *245*	80 *260*	36 *120*	38 *125*	42 *140*
S12	— —	— —	— —	— —	— —	— —	70 *230*	75 *245*	85 *280*	48 *155*	50 *165*	55 *180*	33 *110*	35 *115*	39 *130*
S13	— —	— —	— —	— —	— —	— —	41 *135*	43 *140*	48 *155*	28 *90*	29 *95*	32 *105*	19 *60*	20 *65*	22 *70*
H5	49 *160*	50 *165*	55 *180*	— —	— —	— —	49 *160*	50 *165*	60 *195*	43 *140*	46 *150*	50 *165*	— —	— —	— —
H8	50 *165*	55 *180*	60 *195*	— —	— —	— —	50 *165*	55 *180*	60 *195*	45 *150*	48 *155*	55 *180*	— —	— —	— —
H11	60 *195*	65 *215*	75 *245*	— —	— —	— —	60 *195*	65 *215*	75 *245*	55 *180*	60 *195*	65 *215*	— —	— —	— —
H12	60 *195*	65 *215*	70 *230*	— —	— —	— —	60 *195*	65 *215*	70 *230*	80 *260*	85 *280*	95 *310*	— —	— —	— —
H21	50 *165*	55 *180*	60 *195*	— —	— —	— —	50 *165*	55 *180*	60 *195*	45 *150*	48 *155*	55 *180*	— —	— —	— —

335.18/29 Round 12 – Insert selection – mm/*Inch*

SMG		f_z		
		30%	20%	10%
P1	RPHT1204M0T-6-ME07 F40M	0,12 *0.0048*	0,13 *0.0050*	0,18 *0.0070*
P2	RPHT1204M0T-6-ME07 F40M	0,12 *0.0048*	0,13 *0.0050*	0,18 *0.0070*
P3	RPHT1204M0T-6-M08 F40M	0,13 *0.0050*	0,15 *0.0060*	0,19 *0.0075*
P4	RPHT1204M0T-6-M08 F40M	0,12 *0.0048*	0,14 *0.0055*	0,19 *0.0075*
P5	RPHT1204M0T-6-M08 F40M	0,12 *0.0048*	0,14 *0.0055*	0,19 *0.0075*
P6	RPHT1204M0T-6-M08 F40M	0,12 *0.0048*	0,14 *0.0055*	0,19 *0.0075*
P7	RPHT1204M0T-6-M08 F40M	0,12 *0.0048*	0,14 *0.0055*	0,19 *0.0075*
P8	RPHT1204M0T-6-M08 MP2501	0,13 *0.0050*	0,15 *0.0060*	0,19 *0.0075*
P11	RPHT1204M0T-6-M08 F40M	0,12 *0.0048*	0,14 *0.0055*	0,19 *0.0075*
P12	RPHT1204M0T-6-M08 F40M	0,085 *0.0034*	0,095 *0.0038*	0,13 *0.0050*
M1	RPHT1204M0T-6-ME07 F40M	0,12 *0.0048*	0,13 *0.0050*	0,18 *0.0070*
M2	RPHT1204M0T-6-ME07 F40M	0,11 *0.0044*	0,12 *0.0048*	0,16 *0.0065*
M3	RPHT1204M0T-6-M08 F40M	0,10 *0.0040*	0,11 *0.0044*	0,15 *0.0060*
M4	RPHT1204M0T-6-M08 F40M	0,085 *0.0034*	0,10 *0.0040*	0,13 *0.0050*
M5	RPHT1204M0T-6-M08 F40M	0,085 *0.0034*	0,10 *0.0040*	0,13 *0.0050*
K1	RPKW1204M0T-6-MD10 MK2050	0,17 *0.0065*	0,19 *0.0075*	0,26 *0.010*
K2	RPKW1204M0T-6-MD10 MK2050	0,15 *0.0060*	0,18 *0.0070*	0,24 *0.0095*
K3	RPKW1204M0T-6-MD10 MK2050	0,15 *0.0060*	0,18 *0.0070*	0,24 *0.0095*
K4	RPKW1204M0T-6-MD10 MK2050	0,15 *0.0060*	0,18 *0.0070*	0,24 *0.0095*
K5	RPKW1204M0T-6-MD10 MK2050	0,14 *0.0055*	0,16 *0.0065*	0,22 *0.0085*
K6	RPKW1204M0T-6-MD10 MK2050	0,15 *0.0060*	0,18 *0.0070*	0,24 *0.0095*
K7	RPKW1204M0T-6-MD10 MK2050	0,14 *0.0055*	0,16 *0.0065*	0,22 *0.0085*
N1	RPHT1204M0-6-E05 H25	0,11 *0.0044*	0,12 *0.0048*	0,16 *0.0065*
N2	RPHT1204M0-6-E05 H25	0,11 *0.0044*	0,12 *0.0048*	0,16 *0.0065*
N3	RPHT1204M0-6-E05 H25	0,11 *0.0044*	0,12 *0.0048*	0,16 *0.0065*
N11	RPHT1204M0-6-E05 H25	0,11 *0.0044*	0,12 *0.0048*	0,16 *0.0065*
S1	RPHT1204M0T-6-M08 F40M	0,085 *0.0034*	0,10 *0.0040*	0,13 *0.0050*
S2	RPHT1204M0T-6-M08 F40M	0,085 *0.0034*	0,10 *0.0040*	0,13 *0.0050*
S3	RPHT1204M0T-6-M08 F40M	0,080 *0.0032*	0,090 *0.0036*	0,12 *0.0048*
S11	RPHT1204M0T-6-ME07 F40M	0,085 *0.0034*	0,10 *0.0040*	0,13 *0.0050*
S12	RPHT1204M0T-6-ME07 F40M	0,085 *0.0034*	0,10 *0.0040*	0,13 *0.0050*
S13	RPHT1204M0T-6-M08 F40M	0,085 *0.0034*	0,10 *0.0040*	0,13 *0.0050*
H5	RPHW1204M0T-6-MD12 MH1000	0,12 *0.0048*	0,14 *0.0055*	0,19 *0.0075*
H8	RPHW1204M0T-6-MD12 MH1000	0,095 *0.0038*	0,11 *0.0044*	0,15 *0.0060*
H11	RPHT1204M0T-6-M13 F40M	0,14 *0.0055*	0,15 *0.0060*	0,20 *0.0080*
H12	RPHT1204M0T-6-M13 F40M	0,10 *0.0040*	0,12 *0.0048*	0,16 *0.0065*
H21	RPHW1204M0T-6-MD12 MH1000	0,095 *0.0038*	0,11 *0.0044*	0,15 *0.0060*

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

335.18/29 Round 12 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	MH1000			MK2050			MP3000			MS2050			F40M			H25		
	30%	20%	10%	30%	20%	10%	30%	20%	10%	30%	20%	10%	30%	20%	10%	30%	20%	10%
P1	—	—	—	240	255	285	270	285	320	240	255	290	220	235	260	—	—	—
	—	—	—	*790*	*840*	*940*	*890*	*940*	*1050*	*790*	*840*	*950*	*720*	*770*	*850*	—	—	—
P2	—	—	—	235	250	275	265	280	310	235	250	275	210	225	250	—	—	—
	—	—	—	*770*	*820*	*900*	*870*	*920*	*1025*	*770*	*820*	*900*	*690*	*740*	*820*	—	—	—
P3	—	—	—	200	220	240	230	245	265	205	220	240	185	200	220	—	—	—
	—	—	—	*660*	*720*	*790*	*750*	*800*	*870*	*670*	*720*	*790*	*610*	*660*	*720*	—	—	—
P4	—	—	—	180	190	210	200	215	240	180	190	215	165	175	195	—	—	—
	—	—	—	*590*	*620*	*690*	*660*	*710*	*790*	*590*	*620*	*710*	*540*	*570*	*640*	—	—	—
P5	225	240	265	170	185	205	195	205	230	170	185	205	155	165	185	—	—	—
	740	*790*	*870*	*560*	*610*	*670*	*640*	*670*	*750*	*560*	*610*	*670*	*510*	*540*	*610*	—	—	—
P6	250	270	295	195	210	230	215	230	255	195	210	230	175	190	210	—	—	—
	820	*890*	*970*	*640*	*690*	*750*	*710*	*750*	*840*	*640*	*690*	*750*	*570*	*620*	*690*	—	—	—
P7	235	255	280	180	200	220	205	220	240	180	200	220	165	180	200	—	—	—
	770	*840*	*920*	*590*	*660*	*720*	*670*	*720*	*790*	*590*	*660*	*720*	*540*	*590*	*660*	—	—	—
P8	225	235	260	170	185	200	195	205	225	170	185	205	155	165	185	—	—	—
	740	*770*	*850*	*560*	*610*	*660*	*640*	*670*	*740*	*560*	*610*	*670*	*510*	*540*	*610*	—	—	—
P11	230	245	270	175	195	210	200	210	235	175	190	210	160	175	190	—	—	—
	750	*800*	*890*	*570*	*640*	*690*	*660*	*690*	*770*	*570*	*620*	*690*	*520*	*570*	*620*	—	—	—
P12	145	155	170	115	125	135	125	135	150	115	120	135	105	110	125	—	—	—
	475	*510*	*560*	*375*	*410*	*445*	*410*	*445*	*490*	*375*	*395*	*445*	*345*	*360*	*410*	—	—	—
M1	—	—	—	—	—	—	195	210	230	190	200	220	170	185	200	—	—	—
	—	—	—	—	—	—	*640*	*690*	*750*	*620*	*660*	*720*	*560*	*610*	*660*	—	—	—
M2	—	—	—	—	—	—	160	175	190	155	165	185	140	150	170	—	—	—
	—	—	—	—	—	—	*520*	*570*	*620*	*510*	*540*	*610*	*460*	*490*	*560*	—	—	—
M3	—	—	—	—	—	—	130	135	150	125	130	145	115	120	135	—	—	—
	—	—	—	—	—	—	*425*	*445*	*490*	*410*	*425*	*475*	*375*	*395*	*445*	—	—	—
M4	—	—	—	—	—	—	100	105	115	95	105	115	85	95	100	—	—	—
	—	—	—	—	—	—	*330*	*345*	*375*	*310*	*345*	*375*	*280*	*310*	*330*	—	—	—
M5	—	—	—	—	—	—	80	85	95	80	85	95	75	80	85	—	—	—
	—	—	—	—	—	—	*260*	*280*	*310*	*260*	*280*	*310*	*245*	*260*	*280*	—	—	—
K1	240	255	285	250	270	295	175	185	205	—	—	—	170	180	200	—	—	—
	790	*840*	*940*	*820*	*890*	*970*	*570*	*610*	*670*	—	—	—	*560*	*590*	*660*	—	—	—
K2	210	225	250	220	235	265	155	165	180	—	—	—	150	160	175	—	—	—
	690	*740*	*820*	*720*	*770*	*870*	*510*	*540*	*590*	—	—	—	*490*	*520*	*570*	—	—	—
K3	180	190	210	190	200	225	130	140	155	—	—	—	125	135	150	—	—	—
	590	*620*	*690*	*620*	*660*	*740*	*425*	*460*	*510*	—	—	—	*410*	*445*	*490*	—	—	—
K4	170	185	205	180	190	215	125	135	145	—	—	—	120	130	145	—	—	—
	560	*610*	*670*	*590*	*620*	*710*	*410*	*445*	*475*	—	—	—	*395*	*425*	*475*	—	—	—
K5	105	110	125	110	120	130	75	80	90	—	—	—	75	80	85	—	—	—
	345	*360*	*410*	*360*	*395*	*425*	*245*	*260*	*295*	—	—	—	*245*	*260*	*280*	—	—	—
K6	150	160	180	160	170	190	110	115	130	—	—	—	105	115	125	—	—	—
	490	*520*	*590*	*520*	*560*	*620*	*360*	*375*	*425*	—	—	—	*345*	*375*	*410*	—	—	—
K7	135	145	155	140	150	170	95	105	115	—	—	—	95	100	110	—	—	—
	445	*475*	*510*	*460*	*490*	*560*	*310*	*345*	*375*	—	—	—	*310*	*330*	*360*	—	—	—
N1	—	—	—	—	—	—	1575	1650	1850	—	—	—	1250	1350	1475	1375	1450	1625
	—	—	—	—	—	—	*5175*	*5425*	*6075*	—	—	—	*4100*	*4425*	*4850*	*4500*	*4750*	*5325*
N2	—	—	—	—	—	—	630	670	740	—	—	—	500	540	600	560	590	650
	—	—	—	—	—	—	*2075*	*2200*	*2425*	—	—	—	*1650*	*1775*	*1975*	*1825*	*1925*	*2125*
N3	—	—	—	—	—	—	420	445	495	—	—	—	335	365	395	370	395	435
	—	—	—	—	—	—	*1375*	*1450*	*1625*	—	—	—	*1100*	*1200*	*1300*	*1225*	*1300*	*1425*
N11	—	—	—	—	—	—	480	510	570	—	—	—	385	415	455	425	450	500
	—	—	—	—	—	—	*1575*	*1675*	*1875*	—	—	—	*1275*	*1350*	*1500*	*1400*	*1475*	*1650*
S1	—	—	—	—	—	—	46	49	55	45	48	55	41	44	48	—	—	—
	—	—	—	—	—	—	*150*	*160*	*180*	*150*	*155*	*180*	*135*	*145*	*155*	—	—	—
S2	—	—	—	—	—	—	37	39	43	36	39	42	33	35	38	—	—	—
	—	—	—	—	—	—	*120*	*130*	*140*	*120*	*130*	*140*	*110*	*115*	*125*	—	—	—
S3	—	—	—	—	—	—	32	34	38	32	34	37	29	31	34	—	—	—
	—	—	—	—	—	—	*105*	*110*	*125*	*105*	*110*	*120*	*95*	*100*	*110*	—	—	—
S11	—	—	—	—	—	—	65	70	75	65	65	75	55	60	65	—	—	—
	—	—	—	—	—	—	*215*	*230*	*245*	*215*	*215*	*245*	*180*	*195*	*215*	—	—	—
S12	—	—	—	—	—	—	55	60	65	55	55	60	48	50	55	—	—	—
	—	—	—	—	—	—	*180*	*195*	*215*	*180*	*180*	*195*	*155*	*165*	*180*	—	—	—
S13	—	—	—	—	—	—	31	33	37	31	33	36	28	30	33	—	—	—
	—	—	—	—	—	—	*100*	*110*	*120*	*100*	*110*	*120*	*90*	*100*	*110*	—	—	—
H5	48	50	55	—	—	—	35	37	41	—	—	—	35	37	41	—	—	—
	155	*165*	*180*	—	—	—	*115*	*120*	*135*	—	—	—	*115*	*120*	*135*	—	—	—
H8	50	55	60	—	—	—	36	39	42	—	—	—	36	39	43	—	—	—
	165	*180*	*195*	—	—	—	*120*	*130*	*140*	—	—	—	*120*	*130*	*140*	—	—	—
H11	60	65	75	—	—	—	44	48	55	—	—	—	44	47	50	—	—	—
	195	*215*	*245*	—	—	—	*145*	*155*	*180*	—	—	—	*145*	*155*	*165*	—	—	—
H12	60	60	70	—	—	—	42	45	49	—	—	—	42	45	50	—	—	—
	195	*195*	*230*	—	—	—	*140*	*150*	*160*	—	—	—	*140*	*150*	*165*	—	—	—
H21	50	55	60	—	—	—	36	39	42	—	—	—	36	39	43	—	—	—
	165	*180*	*195*	—	—	—	*120*	*130*	*140*	—	—	—	*120*	*130*	*140*	—	—	—

335.18/29 Round 12 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	MP1501			MP2501			MS2500			MP3501			MM4500		
	30%	20%	10%	30%	20%	10%	30%	20%	10%	30%	20%	10%	30%	20%	10%
P1	325 *1075*	345 *1125*	370 *1225*	370 *1225*	385 *1275*	415 *1350*	315 *1025*	335 *1100*	375 *1225*	335 *1100*	350 *1150*	375 *1225*	175 *570*	190 *620*	210 *690*
P2	320 *1050*	335 *1100*	360 *1175*	360 *1175*	375 *1225*	400 *1300*	305 *1000*	325 *1075*	360 *1175*	325 *1075*	340 *1125*	360 *1175*	170 *560*	185 *610*	200 *660*
P3	275 *900*	295 *970*	315 *1025*	315 *1025*	325 *1075*	350 *1150*	270 *890*	285 *940*	315 *1025*	280 *920*	295 *970*	315 *1025*	150 *490*	160 *520*	180 *590*
P4	245 *800*	260 *850*	275 *900*	275 *900*	285 *940*	305 *1000*	235 *770*	250 *820*	280 *920*	250 *820*	260 *850*	275 *900*	135 *445*	140 *460*	155 *510*
P5	235 *770*	245 *800*	270 *890*	265 *870*	275 *900*	295 *970*	225 *740*	240 *790*	270 *890*	235 *770*	250 *820*	265 *870*	125 *410*	135 *445*	150 *490*
P6	265 *870*	280 *920*	300 *980*	295 *970*	310 *1025*	330 *1075*	255 *840*	275 *900*	300 *980*	265 *870*	280 *920*	300 *980*	140 *460*	155 *510*	170 *560*
P7	250 *820*	265 *870*	285 *940*	280 *920*	295 *970*	310 *1025*	240 *790*	260 *850*	285 *940*	250 *820*	265 *870*	280 *920*	135 *445*	145 *475*	160 *520*
P8	235 *770*	245 *800*	265 *870*	265 *870*	275 *900*	295 *970*	225 *740*	240 *790*	265 *870*	235 *770*	250 *820*	265 *870*	125 *410*	135 *445*	150 *490*
P11	240 *790*	260 *850*	275 *900*	270 *890*	285 *940*	305 *1000*	230 *750*	250 *820*	275 *900*	245 *800*	255 *840*	275 *900*	130 *425*	140 *460*	155 *510*
P12	155 *510*	160 *520*	175 *570*	165 *540*	170 *560*	180 *590*	150 *490*	160 *520*	175 *570*	150 *490*	155 *510*	165 *540*	85 *280*	90 *295*	100 *330*
M1	— —	— —	— —	200 *660*	215 *710*	235 *770*	220 *720*	235 *770*	255 *840*	190 *620*	200 *660*	220 *720*	150 *490*	160 *520*	175 *570*
M2	— —	— —	— —	165 *540*	175 *570*	200 *660*	180 *590*	190 *620*	215 *710*	155 *510*	165 *540*	185 *610*	120 *395*	130 *425*	145 *475*
M3	— —	— —	— —	135 *445*	140 *460*	155 *510*	145 *475*	155 *510*	170 *560*	125 *410*	130 *425*	145 *475*	100 *330*	105 *345*	115 *375*
M4	— —	— —	— —	105 *345*	110 *360*	120 *395*	110 *360*	120 *395*	130 *425*	95 *310*	105 *345*	115 *375*	75 *245*	80 *260*	90 *295*
M5	— —	— —	— —	85 *280*	90 *295*	100 *330*	95 *310*	100 *330*	110 *360*	80 *260*	85 *280*	95 *310*	65 *215*	65 *215*	75 *245*
K1	320 *1050*	340 *1125*	365 *1200*	365 *1200*	380 *1250*	405 *1325*	240 *790*	260 *850*	285 *940*	330 *1075*	345 *1125*	365 *1200*	— —	— —	— —
K2	285 *940*	300 *980*	325 *1075*	320 *1050*	330 *1075*	355 *1175*	215 *710*	230 *750*	255 *840*	285 *940*	300 *980*	320 *1050*	— —	— —	— —
K3	240 *790*	250 *820*	275 *900*	270 *890*	280 *920*	300 *980*	180 *590*	195 *640*	215 *710*	245 *800*	255 *840*	270 *890*	— —	— —	— —
K4	230 *750*	240 *790*	260 *850*	255 *840*	270 *890*	290 *950*	175 *570*	185 *610*	205 *670*	230 *750*	240 *790*	260 *850*	— —	— —	— —
K5	140 *460*	145 *475*	160 *520*	155 *510*	160 *520*	175 *570*	105 *345*	115 *375*	125 *410*	140 *460*	145 *475*	155 *510*	— —	— —	— —
K6	200 *660*	210 *690*	230 *750*	225 *740*	235 *770*	255 *840*	150 *490*	160 *520*	180 *590*	205 *670*	215 *710*	230 *750*	— —	— —	— —
K7	180 *590*	190 *620*	205 *670*	200 *660*	205 *670*	220 *720*	135 *445*	145 *475*	160 *520*	180 *590*	185 *610*	200 *660*	— —	— —	— —
N1	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —
N2	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —
N3	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —
N11	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —
S1	— —	— —	— —	— —	— —	— —	55 *180*	60 *195*	65 *215*	31 *100*	34 *110*	37 *120*	23 *75*	25 *80*	27 *90*
S2	— —	— —	— —	— —	— —	— —	44 *145*	47 *155*	50 *165*	25 *80*	27 *90*	30 *100*	19 *60*	20 *65*	22 *70*
S3	— —	— —	— —	— —	— —	— —	39 *130*	41 *135*	45 *150*	32 *105*	34 *110*	37 *120*	16 *50*	17 *55*	19 *60*
S11	— —	— —	— —	— —	— —	— —	75 *245*	80 *260*	90 *295*	65 *215*	65 *215*	75 *245*	32 *105*	34 *110*	38 *125*
S12	— —	— —	— —	— —	— —	— —	65 *215*	70 *230*	75 *245*	44 *145*	46 *150*	50 *165*	30 *100*	32 *105*	35 *115*
S13	— —	— —	— —	— —	— —	— —	37 *120*	40 *130*	44 *145*	25 *80*	27 *90*	30 *100*	17 *55*	19 *60*	20 *65*
H5	44 *145*	47 *155*	50 *165*	— —	— —	— —	45 *150*	48 *155*	55 *180*	40 *130*	42 *140*	47 *155*	— —	— —	— —
H8	48 *155*	50 *165*	55 *180*	— —	— —	— —	47 *155*	50 *165*	55 *180*	42 *140*	44 *145*	49 *160*	— —	— —	— —
H11	55 *180*	60 *195*	65 *215*	— —	— —	— —	55 *180*	60 *195*	65 *215*	50 *165*	55 *180*	60 *195*	— —	— —	— —
H12	55 *180*	60 *195*	65 *215*	— —	— —	— —	55 *180*	60 *195*	65 *215*	75 *245*	80 *260*	90 *295*	— —	— —	— —
H21	48 *155*	50 *165*	55 *180*	— —	— —	— —	47 *155*	50 *165*	55 *180*	42 *140*	44 *145*	49 *160*	— —	— —	— —

335.25 Round 16 – Insert selection – mm/*Inch*

SMG		f_z		
		30%	20%	10%
P1	RPHT1605M0T-8-ME11 F40M	0,19 *0.0075*	0,22 *0.0085*	0,28 *0.011*
P2	RPHT1605M0T-8-ME11 F40M	0,19 *0.0075*	0,22 *0.0085*	0,30 *0.012*
P3	RPHT1605M0T-8-ME11 F40M	0,18 *0.0070*	0,20 *0.0080*	0,28 *0.011*
P4	RPHT1605M0T-8-M12 F40M	0,19 *0.0075*	0,22 *0.0085*	0,30 *0.012*
P5	RPHT1605M0T-8-M12 F40M	0,19 *0.0075*	0,22 *0.0085*	0,28 *0.011*
P6	RPHT1605M0T-8-M12 F40M	0,19 *0.0075*	0,22 *0.0085*	0,28 *0.011*
P7	RPHT1605M0T-8-M12 F40M	0,19 *0.0075*	0,22 *0.0085*	0,28 *0.011*
P8	RPKT1605M0T-8-M12 MP2501	0,20 *0.0080*	0,22 *0.0085*	0,30 *0.012*
P11	RPHT1605M0T-8-M12 F40M	0,19 *0.0075*	0,22 *0.0085*	0,28 *0.011*
P12	RPHT1605M0T-8-M12 F40M	0,13 *0.0050*	0,15 *0.0060*	0,20 *0.0080*
M1	RPHT1605M0T-8-ME11 F40M	0,19 *0.0075*	0,22 *0.0085*	0,30 *0.012*
M2	RPHT1605M0T-8-ME11 F40M	0,17 *0.0065*	0,20 *0.0080*	0,26 *0.010*
M3	RPHT1605M0T-8-M12 F40M	0,15 *0.0060*	0,17 *0.0065*	0,24 *0.0095*
M4	RPHT1605M0T-8-M12 F40M	0,13 *0.0050*	0,15 *0.0060*	0,20 *0.0080*
M5	RPHT1605M0T-8-M12 F40M	0,13 *0.0050*	0,15 *0.0060*	0,20 *0.0080*
K1	RPKT1605M0T-8-M18 MK2050	0,32 *0.013*	0,36 *0.014*	0,48 *0.019*
K2	RPKT1605M0T-8-M18 MK2050	0,28 *0.011*	0,32 *0.013*	0,44 *0.017*
K3	RPKT1605M0T-8-M18 MK2050	0,28 *0.011*	0,32 *0.013*	0,44 *0.017*
K4	RPKT1605M0T-8-M18 MK2050	0,28 *0.011*	0,32 *0.013*	0,44 *0.017*
K5	RPKT1605M0T-8-M18 MK2050	0,25 *0.010*	0,30 *0.012*	0,38 *0.015*
K6	RPKT1605M0T-8-M18 MK2050	0,28 *0.011*	0,32 *0.013*	0,44 *0.017*
K7	RPKT1605M0T-8-M18 MK2050	0,25 *0.010*	0,30 *0.012*	0,38 *0.015*
N1	RPHT1605M0T-8-ME11 F40M	0,24 *0.0095*	0,28 *0.011*	0,36 *0.014*
N2	RPHT1605M0T-8-ME11 F40M	0,24 *0.0095*	0,28 *0.011*	0,36 *0.014*
N3	RPHT1605M0T-8-ME11 F40M	0,24 *0.0095*	0,28 *0.011*	0,36 *0.014*
N11	RPHT1605M0T-8-ME11 F40M	0,24 *0.0095*	0,28 *0.011*	0,36 *0.014*
S1	RPHT1605M0T-8-M12 F40M	0,13 *0.0050*	0,15 *0.0060*	0,20 *0.0080*
S2	RPHT1605M0T-8-M12 F40M	0,13 *0.0050*	0,15 *0.0060*	0,20 *0.0080*
S3	RPHT1605M0T-8-M12 F40M	0,12 *0.0048*	0,14 *0.0055*	0,19 *0.0075*
S11	RPHT1605M0T-8-ME11 F40M	0,14 *0.0055*	0,16 *0.0065*	0,22 *0.0085*
S12	RPHT1605M0T-8-ME11 F40M	0,14 *0.0055*	0,16 *0.0065*	0,22 *0.0085*
H5	RPKW1605M0T-8-MD20 F15M	0,22 *0.0085*	0,24 *0.0095*	0,32 *0.013*
H8	RPKW1605M0T-8-MD20 F15M	0,16 *0.0065*	0,19 *0.0075*	0,25 *0.010*
H11	RPKW1605M0T-8-MD20 F15M	0,22 *0.0085*	0,24 *0.0095*	0,32 *0.013*
H12	RPKW1605M0T-8-MD20 F15M	0,16 *0.0065*	0,19 *0.0075*	0,25 *0.010*
H21	RPKW1605M0T-8-MD20 F15M	0,16 *0.0065*	0,19 *0.0075*	0,25 *0.010*

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

335.25 Round 16 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	F15M			MK2050			MP3000			MS2050			F40M		
	30%	20%	10%	30%	20%	10%	30%	20%	10%	30%	20%	10%	30%	20%	10%
P1	170 *560*	180 *590*	205 *670*	215 *710*	230 *750*	255 *840*	205 *670*	220 *720*	245 *800*	215 *710*	230 *750*	260 *850*	185 *610*	195 *640*	220 *720*
P2	165 *540*	175 *570*	195 *640*	205 *670*	220 *720*	245 *800*	200 *660*	215 *710*	235 *770*	210 *690*	225 *740*	250 *820*	180 *590*	190 *620*	210 *690*
P3	145 *475*	155 *510*	170 *560*	180 *590*	195 *640*	215 *710*	175 *570*	185 *610*	205 *670*	185 *610*	200 *660*	215 *710*	155 *510*	170 *560*	185 *610*
P4	130 *425*	135 *445*	150 *490*	160 *520*	170 *560*	190 *620*	155 *510*	165 *540*	185 *610*	160 *520*	175 *570*	190 *620*	140 *460*	150 *490*	165 *540*
P5	125 *410*	130 *425*	145 *475*	155 *510*	165 *540*	185 *610*	150 *490*	160 *520*	175 *570*	155 *510*	165 *540*	185 *610*	135 *445*	140 *460*	155 *510*
P6	140 *460*	150 *490*	165 *540*	175 *570*	185 *610*	205 *670*	165 *540*	180 *590*	195 *640*	175 *570*	185 *610*	210 *690*	150 *490*	160 *520*	180 *590*
P7	130 *425*	140 *460*	155 *510*	165 *540*	175 *570*	195 *640*	160 *520*	170 *560*	185 *610*	165 *540*	175 *570*	195 *640*	140 *460*	150 *490*	170 *560*
P8	125 *410*	130 *425*	145 *475*	150 *490*	165 *540*	180 *590*	145 *475*	155 *510*	175 *570*	155 *510*	165 *540*	180 *590*	130 *425*	140 *460*	155 *510*
P11	125 *410*	135 *445*	150 *490*	160 *520*	170 *560*	190 *620*	155 *510*	165 *540*	180 *590*	160 *520*	170 *560*	190 *620*	135 *445*	145 *475*	165 *540*
P12	— —	— —	— —	105 *345*	110 *360*	125 *410*	100 *330*	110 *360*	120 *395*	105 *345*	110 *360*	125 *410*	90 *295*	95 *310*	105 *345*
M1	— —	— —	— —	— —	— —	— —	150 *490*	160 *520*	175 *570*	170 *560*	180 *590*	200 *660*	145 *475*	155 *510*	170 *560*
M2	— —	— —	— —	— —	— —	— —	125 *410*	135 *445*	145 *475*	140 *460*	150 *490*	165 *540*	120 *395*	130 *425*	140 *460*
M3	— —	— —	— —	— —	— —	— —	100 *330*	110 *360*	120 *395*	115 *375*	120 *395*	135 *445*	95 *310*	105 *345*	115 *375*
M4	— —	— —	— —	— —	— —	— —	80 *260*	85 *280*	95 *310*	90 *295*	95 *310*	105 *345*	75 *245*	80 *260*	90 *295*
M5	— —	— —	— —	— —	— —	— —	65 *215*	70 *230*	80 *260*	75 *245*	80 *260*	85 *280*	65 *215*	65 *215*	75 *245*
K1	130 *425*	140 *460*	155 *510*	220 *720*	240 *790*	265 *870*	130 *425*	140 *460*	155 *510*	— —	— —	— —	145 *475*	150 *490*	170 *560*
K2	115 *375*	125 *410*	140 *460*	200 *660*	215 *710*	235 *770*	120 *395*	125 *410*	140 *460*	— —	— —	— —	125 *410*	135 *445*	150 *490*
K3	100 *330*	105 *345*	120 *395*	170 *560*	180 *590*	200 *660*	100 *330*	110 *360*	120 *395*	— —	— —	— —	105 *345*	115 *375*	125 *410*
K4	95 *310*	100 *330*	115 *375*	160 *520*	175 *570*	190 *620*	95 *310*	105 *345*	115 *375*	— —	— —	— —	100 *330*	110 *360*	120 *395*
K5	60 *195*	65 *215*	70 *230*	100 *330*	105 *345*	115 *375*	60 *195*	60 *195*	70 *230*	— —	— —	— —	60 *195*	65 *215*	75 *245*
K6	85 *280*	90 *295*	100 *330*	140 *460*	155 *510*	170 *560*	85 *280*	90 *295*	100 *330*	— —	— —	— —	90 *295*	95 *310*	105 *345*
K7	75 *245*	80 *260*	90 *295*	125 *410*	135 *445*	150 *490*	75 *245*	80 *260*	90 *295*	— —	— —	— —	80 *260*	85 *280*	95 *310*
N1	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	1050 *3450*	1125 *3700*	1250 *4100*
N2	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	425 *1400*	455 *1500*	510 *1675*
N3	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	285 *940*	305 *1000*	335 *1100*
N11	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	325 *1075*	345 *1125*	385 *1275*
S1	— —	— —	— —	— —	— —	— —	37 *120*	40 *130*	43 *140*	41 *135*	44 *145*	48 *155*	35 *115*	37 *120*	41 *135*
S2	— —	— —	— —	— —	— —	— —	29 *95*	32 *105*	35 *115*	33 *110*	35 *115*	39 *130*	28 *90*	30 *100*	33 *110*
S3	— —	— —	— —	— —	— —	— —	26 *85*	27 *90*	31 *100*	29 *95*	31 *100*	34 *110*	25 *80*	26 *85*	29 *95*
S11	— —	— —	— —	— —	— —	— —	— —	— —	— —	55 *180*	60 *195*	65 *215*	49 *160*	55 *180*	55 *180*
S12	— —	— —	— —	— —	— —	— —	— —	— —	— —	48 *155*	50 *165*	55 *180*	41 *135*	44 *145*	48 *155*
S13	— —	— —	— —	— —	— —	— —	— —	— —	— —	28 *90*	30 *100*	33 *110*	24 *80*	26 *85*	28 *90*
H5	28 *90*	30 *100*	33 *110*	— —	— —	— —	28 *90*	30 *100*	33 *110*	— —	— —	— —	29 *95*	31 *100*	35 *115*
H8	30 *100*	32 *105*	35 *115*	— —	— —	— —	30 *100*	32 *105*	36 *120*	— —	— —	— —	31 *100*	34 *110*	37 *120*
H11	35 *115*	38 *125*	42 *140*	— —	— —	— —	36 *120*	38 *125*	42 *140*	— —	— —	— —	38 *125*	40 *130*	44 *145*
H12	35 *115*	37 *120*	41 *135*	— —	— —	— —	35 *115*	37 *120*	42 *140*	— —	— —	— —	36 *120*	39 *130*	43 *140*
H21	30 *100*	32 *105*	35 *115*	— —	— —	— —	30 *100*	32 *105*	36 *120*	— —	— —	— —	31 *100*	34 *110*	37 *120*

335.25 Round 16 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	MP1501			MP2501			MS2500			MP3501			MM4500		
	30%	20%	10%	30%	20%	10%	30%	20%	10%	30%	20%	10%	30%	20%	10%
P1	295 *970*	310 *1025*	335 *1100*	325 *1075*	335 *1100*	360 *1175*	285 *940*	305 *1000*	340 *1125*	305 *1000*	320 *1050*	350 *1150*	160 *520*	170 *560*	190 *620*
P2	280 *920*	300 *980*	325 *1075*	315 *1025*	330 *1075*	355 *1175*	275 *900*	295 *970*	325 *1075*	300 *980*	315 *1025*	335 *1100*	155 *510*	165 *540*	180 *590*
P3	245 *800*	260 *850*	280 *920*	270 *890*	285 *940*	310 *1025*	240 *790*	260 *850*	285 *940*	260 *850*	275 *900*	295 *970*	135 *445*	145 *475*	160 *520*
P4	220 *720*	230 *750*	250 *820*	240 *790*	255 *840*	270 *890*	210 *690*	230 *750*	250 *820*	230 *750*	240 *790*	260 *850*	120 *395*	130 *425*	140 *460*
P5	210 *690*	225 *740*	240 *790*	230 *750*	240 *790*	260 *850*	205 *670*	220 *720*	245 *800*	220 *720*	230 *750*	250 *820*	115 *375*	125 *410*	135 *445*
P6	240 *790*	250 *820*	270 *890*	260 *850*	270 *890*	295 *970*	230 *750*	245 *800*	275 *900*	250 *820*	260 *850*	280 *920*	130 *425*	140 *460*	155 *510*
P7	225 *740*	240 *790*	255 *840*	245 *800*	255 *840*	280 *920*	220 *720*	230 *750*	260 *850*	235 *770*	245 *800*	265 *870*	125 *410*	130 *425*	145 *475*
P8	210 *690*	220 *720*	235 *770*	230 *750*	240 *790*	260 *850*	200 *660*	220 *720*	240 *790*	220 *720*	230 *750*	245 *800*	115 *375*	125 *410*	135 *445*
P11	220 *720*	230 *750*	245 *800*	235 *770*	250 *820*	270 *890*	210 *690*	225 *740*	250 *820*	230 *750*	240 *790*	255 *840*	120 *395*	125 *410*	140 *460*
P12	140 *460*	150 *490*	160 *520*	150 *490*	155 *510*	165 *540*	135 *445*	145 *475*	160 *520*	140 *460*	150 *490*	160 *520*	75 *245*	80 *260*	90 *295*
M1	— —	— —	— —	170 *560*	180 *590*	200 *660*	200 *660*	210 *690*	230 *750*	170 *560*	180 *590*	200 *660*	135 *445*	140 *460*	155 *510*
M2	— —	— —	— —	140 *460*	150 *490*	165 *540*	165 *540*	175 *570*	195 *640*	140 *460*	150 *490*	165 *540*	110 *360*	120 *395*	130 *425*
M3	— —	— —	— —	115 *375*	125 *410*	135 *445*	130 *425*	140 *460*	155 *510*	115 *375*	120 *395*	135 *445*	90 *295*	95 *310*	105 *345*
M4	— —	— —	— —	90 *295*	95 *310*	105 *345*	100 *330*	110 *360*	120 *395*	90 *295*	95 *310*	105 *345*	70 *230*	75 *245*	80 *260*
M5	— —	— —	— —	75 *245*	80 *260*	85 *280*	85 *280*	90 *295*	100 *330*	75 *245*	80 *260*	85 *280*	55 *180*	60 *195*	65 *215*
K1	285 *940*	300 *980*	325 *1075*	320 *1050*	330 *1075*	355 *1175*	220 *720*	235 *770*	255 *840*	300 *980*	315 *1025*	340 *1125*	— —	— —	— —
K2	255 *840*	270 *890*	290 *950*	280 *920*	290 *950*	315 *1025*	195 *640*	205 *670*	230 *750*	270 *890*	280 *920*	300 *980*	— —	— —	— —
K3	215 *710*	230 *750*	245 *800*	235 *770*	245 *800*	265 *870*	165 *540*	175 *570*	195 *640*	225 *740*	235 *770*	255 *840*	— —	— —	— —
K4	205 *670*	220 *720*	235 *770*	225 *740*	235 *770*	255 *840*	160 *520*	165 *540*	185 *610*	215 *710*	225 *740*	245 *800*	— —	— —	— —
K5	125 *410*	135 *445*	145 *475*	135 *445*	145 *475*	155 *510*	95 *310*	100 *330*	115 *375*	130 *425*	135 *445*	145 *475*	— —	— —	— —
K6	185 *610*	195 *640*	205 *670*	200 *660*	210 *690*	225 *740*	140 *460*	150 *490*	165 *540*	190 *620*	200 *660*	215 *710*	— —	— —	— —
K7	160 *520*	170 *560*	185 *610*	175 *570*	185 *610*	195 *640*	120 *395*	130 *425*	145 *475*	165 *540*	175 *570*	190 *620*	— —	— —	— —
N1	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —
N2	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —
N3	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —
N11	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —
S1	— —	— —	— —	— —	— —	— —	50 *165*	55 *180*	60 *195*	29 *95*	31 *100*	34 *110*	21 *70*	22 *70*	25 *80*
S2	— —	— —	— —	— —	— —	— —	40 *130*	43 *140*	47 *155*	23 *75*	25 *80*	27 *90*	17 *55*	18 *60*	20 *65*
S3	— —	— —	— —	— —	— —	— —	35 *115*	38 *125*	42 *140*	29 *95*	31 *100*	34 *110*	15 *49*	16 *50*	18 *60*
S11	— —	— —	— —	— —	— —	— —	70 *230*	75 *245*	80 *260*	55 *180*	60 *195*	65 *215*	29 *95*	31 *100*	34 *110*
S12	— —	— —	— —	— —	— —	— —	60 *195*	65 *215*	70 *230*	40 *130*	42 *140*	46 *150*	27 *90*	29 *95*	32 *105*
S13	— —	— —	— —	— —	— —	— —	34 *110*	36 *120*	40 *130*	23 *75*	25 *80*	27 *90*	16 *50*	17 *55*	19 *60*
H5	40 *130*	43 *140*	47 *155*	— —	— —	— —	41 *135*	43 *140*	48 *155*	36 *120*	38 *125*	43 *140*	— —	— —	— —
H8	42 *140*	46 *150*	50 *165*	— —	— —	— —	43 *140*	47 *155*	50 *165*	38 *125*	41 *135*	45 *150*	— —	— —	— —
H11	50 *165*	55 *180*	60 *195*	— —	— —	— —	50 *165*	55 *180*	60 *195*	46 *150*	49 *160*	55 *180*	— —	— —	— —
H12	49 *160*	55 *180*	60 *195*	— —	— —	— —	50 *165*	55 *180*	60 *195*	70 *230*	75 *245*	80 *260*	— —	— —	— —
H21	42 *140*	46 *150*	50 *165*	— —	— —	— —	43 *140*	47 *155*	50 *165*	38 *125*	41 *135*	45 *150*	— —	— —	— —

335.25 Round 20 – Insert selection – mm/*Inch*

SMG		f_z		
		30%	20%	10%
P1	RPHT2006M0T-ME12 F40M	0,20 *0.0080*	0,24 *0.0095*	0,32 *0.013*
P2	RPHT2006M0T-ME12 F40M	0,20 *0.0080*	0,24 *0.0095*	0,32 *0.013*
P3	RPHT2006M0T-ME12 F40M	0,20 *0.0080*	0,22 *0.0085*	0,30 *0.012*
P4	RPHT2006M0T-ME12 F40M	0,19 *0.0075*	0,22 *0.0085*	0,30 *0.012*
P5	RPKT2006M0T-M15 F40M	0,24 *0.0095*	0,28 *0.011*	0,36 *0.014*
P6	RPKT2006M0T-M15 F40M	0,24 *0.0095*	0,26 *0.010*	0,36 *0.014*
P7	RPKT2006M0T-M15 F40M	0,24 *0.0095*	0,26 *0.010*	0,36 *0.014*
P8	RPKT2006M0T-M15 MP2501	0,25 *0.010*	0,28 *0.011*	0,38 *0.015*
P11	RPHT2006M0T-ME12 F40M	0,19 *0.0075*	0,22 *0.0085*	0,28 *0.011*
P12	RPHT2006M0T-ME12 F40M	0,13 *0.0050*	0,15 *0.0060*	0,20 *0.0080*
M1	RPHT2006M0T-ME12 F40M	0,20 *0.0080*	0,24 *0.0095*	0,32 *0.013*
M2	RPHT2006M0T-ME12 F40M	0,19 *0.0075*	0,22 *0.0085*	0,28 *0.011*
M3	RPHT2006M0T-ME12 F40M	0,15 *0.0060*	0,17 *0.0065*	0,24 *0.0095*
M4	RPHT2006M0T-ME12 F40M	0,13 *0.0050*	0,15 *0.0060*	0,20 *0.0080*
M5	RPHT2006M0T-ME12 F40M	0,13 *0.0050*	0,15 *0.0060*	0,20 *0.0080*
K1	RPKT2006M0T-M20 MK2050	0,26 *0.010*	0,30 *0.012*	0,40 *0.016*
K2	RPKT2006M0T-M20 MK2050	0,24 *0.0095*	0,28 *0.011*	0,36 *0.014*
K3	RPKT2006M0T-M20 MK2050	0,24 *0.0095*	0,28 *0.011*	0,36 *0.014*
K4	RPKT2006M0T-M20 MK2050	0,24 *0.0095*	0,28 *0.011*	0,36 *0.014*
K5	RPKT2006M0T-M20 MK2050	0,22 *0.0085*	0,24 *0.0095*	0,32 *0.013*
K6	RPKT2006M0T-M20 MK2050	0,24 *0.0095*	0,28 *0.011*	0,36 *0.014*
K7	RPKT2006M0T-M20 MK2050	0,22 *0.0085*	0,24 *0.0095*	0,32 *0.013*
N1	RPHT2006M0T-ME12 F40M	0,26 *0.010*	0,30 *0.012*	0,40 *0.016*
N2	RPHT2006M0T-ME12 F40M	0,26 *0.010*	0,30 *0.012*	0,40 *0.016*
N3	RPHT2006M0T-ME12 F40M	0,26 *0.010*	0,30 *0.012*	0,40 *0.016*
N11	RPHT2006M0T-ME12 F40M	0,26 *0.010*	0,30 *0.012*	0,40 *0.016*
S1	RPHT2006M0T-ME12 F40M	0,13 *0.0050*	0,15 *0.0060*	0,20 *0.0080*
S2	RPHT2006M0T-ME12 F40M	0,13 *0.0050*	0,15 *0.0060*	0,20 *0.0080*
S3	RPHT2006M0T-ME12 F40M	0,12 *0.0048*	0,14 *0.0055*	0,19 *0.0075*
S11	RPHT2006M0T-ME12 F40M	0,15 *0.0060*	0,17 *0.0065*	0,24 *0.0095*
S12	RPHT2006M0T-ME12 F40M	0,15 *0.0060*	0,17 *0.0065*	0,24 *0.0095*
H5	RPKW2006M0T-MD22 F15M	0,24 *0.0095*	0,26 *0.010*	0,36 *0.014*
H8	RPKW2006M0T-MD22 F15M	0,18 *0.0070*	0,20 *0.0080*	0,28 *0.011*
H11	RPKW2006M0T-MD22 F15M	0,24 *0.0095*	0,26 *0.010*	0,36 *0.014*
H12	RPKW2006M0T-MD22 F15M	0,18 *0.0070*	0,20 *0.0080*	0,28 *0.011*
H21	RPKW2006M0T-MD22 F15M	0,18 *0.0070*	0,20 *0.0080*	0,28 *0.011*

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

335.25 Round 20 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	F15M			MK2050			F25M			F30M			F40M		
	30%	20%	10%	30%	20%	10%	30%	20%	10%	30%	20%	10%	30%	20%	10%
P1	165 *540*	175 *570*	195 *640*	225 *740*	240 *790*	265 *870*	190 *620*	205 *670*	225 *740*	180 *590*	195 *640*	215 *710*	195 *640*	205 *670*	225 *740*
P2	160 *520*	170 *560*	190 *620*	220 *720*	235 *770*	260 *850*	185 *610*	200 *660*	220 *720*	180 *590*	190 *620*	210 *690*	190 *620*	200 *660*	220 *720*
P3	140 *460*	150 *490*	165 *540*	190 *620*	205 *670*	225 *740*	160 *520*	175 *570*	190 *620*	155 *510*	165 *540*	185 *610*	160 *520*	175 *570*	190 *620*
P4	125 *410*	135 *445*	145 *475*	170 *560*	180 *590*	200 *660*	145 *475*	155 *510*	170 *560*	135 *445*	145 *475*	160 *520*	145 *475*	155 *510*	170 *560*
P5	120 *395*	130 *425*	140 *460*	160 *520*	175 *570*	195 *640*	135 *445*	145 *475*	165 *540*	130 *425*	140 *460*	155 *510*	140 *460*	145 *475*	160 *520*
P6	135 *445*	145 *475*	160 *520*	180 *590*	200 *660*	215 *710*	155 *510*	165 *540*	185 *610*	145 *475*	155 *510*	175 *570*	155 *510*	165 *540*	185 *610*
P7	125 *410*	135 *445*	150 *490*	170 *560*	185 *610*	205 *670*	145 *475*	160 *520*	175 *570*	140 *460*	150 *490*	165 *540*	145 *475*	155 *510*	175 *570*
P8	120 *395*	125 *410*	140 *460*	160 *520*	175 *570*	190 *620*	135 *445*	145 *475*	160 *520*	130 *425*	140 *460*	155 *510*	135 *445*	145 *475*	160 *520*
P11	125 *410*	130 *425*	145 *475*	165 *540*	180 *590*	200 *660*	140 *460*	155 *510*	170 *560*	135 *445*	145 *475*	160 *520*	140 *460*	150 *490*	170 *560*
P12	— —	— —	— —	110 *360*	115 *375*	130 *425*	95 *310*	100 *330*	110 *360*	85 *280*	95 *310*	105 *345*	90 *295*	100 *330*	110 *360*
M1	— —	— —	— —	— —	— —	— —	— —	— —	— —	145 *475*	150 *490*	170 *560*	150 *490*	160 *520*	175 *570*
M2	— —	— —	— —	— —	— —	— —	— —	— —	— —	115 *375*	125 *410*	140 *460*	125 *410*	130 *425*	145 *475*
M3	— —	— —	— —	— —	— —	— —	— —	— —	— —	95 *310*	100 *330*	110 *360*	100 *330*	110 *360*	115 *375*
M4	— —	— —	— —	— —	— —	— —	— —	— —	— —	75 *245*	80 *260*	85 *280*	80 *260*	85 *280*	90 *295*
M5	— —	— —	— —	— —	— —	— —	— —	— —	— —	60 *195*	65 *215*	70 *230*	65 *215*	70 *230*	75 *245*
K1	125 *410*	135 *445*	150 *490*	235 *770*	250 *820*	280 *920*	145 *475*	155 *510*	175 *570*	140 *460*	150 *490*	165 *540*	150 *490*	155 *510*	175 *570*
K2	115 *375*	120 *395*	135 *445*	210 *690*	225 *740*	250 *820*	130 *425*	140 *460*	155 *510*	125 *410*	135 *445*	145 *475*	130 *425*	140 *460*	155 *510*
K3	95 *310*	105 *345*	115 *375*	175 *570*	190 *620*	210 *690*	110 *360*	115 *375*	130 *425*	105 *345*	115 *375*	125 *410*	110 *360*	120 *395*	130 *425*
K4	90 *295*	100 *330*	110 *360*	170 *560*	180 *590*	200 *660*	105 *345*	110 *360*	125 *410*	100 *330*	105 *345*	120 *395*	105 *345*	115 *375*	125 *410*
K5	55 *180*	60 *195*	65 *215*	105 *345*	110 *360*	125 *410*	65 *215*	70 *230*	75 *245*	60 *195*	65 *215*	70 *230*	65 *215*	70 *230*	75 *245*
K6	80 *260*	85 *280*	95 *310*	150 *490*	160 *520*	180 *590*	95 *310*	100 *330*	110 *360*	90 *295*	95 *310*	105 *345*	95 *310*	100 *330*	110 *360*
K7	70 *230*	75 *245*	85 *280*	130 *425*	140 *460*	160 *520*	80 *260*	90 *295*	100 *330*	80 *260*	85 *280*	95 *310*	85 *280*	90 *295*	100 *330*
N1	— —	— —	— —	— —	— —	— —	— —	— —	— —	1050 *3450*	1125 *3700*	1225 *4025*	— —	— —	— —
N2	— —	— —	— —	— —	— —	— —	— —	— —	— —	420 *1375*	450 *1475*	495 *1625*	— —	— —	— —
N3	— —	— —	— —	— —	— —	— —	— —	— —	— —	280 *920*	300 *980*	330 *1075*	— —	— —	— —
N11	— —	— —	— —	— —	— —	— —	— —	— —	— —	320 *1050*	345 *1125*	380 *1250*	— —	— —	— —
S1	— —	— —	— —	— —	— —	— —	— —	— —	— —	34 *110*	36 *120*	40 *130*	36 *120*	39 *130*	43 *140*
S2	— —	— —	— —	— —	— —	— —	— —	— —	— —	28 *90*	29 *95*	32 *105*	29 *95*	31 *100*	35 *115*
S3	— —	— —	— —	— —	— —	— —	— —	— —	— —	24 *80*	26 *85*	28 *90*	26 *85*	27 *90*	30 *100*
S11	— —	— —	— —	— —	— —	— —	— —	— —	— —	48 *155*	50 *165*	55 *180*	50 *165*	55 *180*	60 *195*
S12	— —	— —	— —	— —	— —	— —	— —	— —	— —	33 *110*	36 *120*	40 *130*	43 *140*	46 *150*	50 *165*
S13	— —	— —	— —	— —	— —	— —	— —	— —	— —	19 *60*	21 *70*	23 *75*	25 *80*	26 *85*	29 *95*
H5	27 *90*	29 *95*	32 *105*	— —	— —	— —	31 *100*	33 *110*	36 *120*	29 *95*	31 *100*	34 *110*	31 *100*	33 *110*	36 *120*
H8	29 *95*	31 *100*	34 *110*	— —	— —	— —	33 *110*	35 *115*	39 *130*	31 *100*	33 *110*	36 *120*	32 *105*	35 *115*	38 *125*
H11	34 *110*	37 *120*	41 *135*	— —	— —	— —	39 *130*	42 *140*	46 *150*	37 *120*	40 *130*	44 *145*	39 *130*	41 *135*	46 *150*
H12	34 *110*	37 *120*	40 *130*	— —	— —	— —	38 *125*	41 *135*	45 *150*	36 *120*	38 *125*	42 *140*	38 *125*	41 *135*	45 *150*
H21	29 *95*	31 *100*	34 *110*	— —	— —	— —	33 *110*	35 *115*	39 *130*	31 *100*	33 *110*	36 *120*	32 *105*	35 *115*	38 *125*

335.25 Round 20 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	MP1501			MP2501			MS2500			T25M			MS2500			T25M			MM4500		
	30%	20%	10%	30%	20%	10%	30%	20%	10%	30%	20%	10%	30%	20%	10%	30%	20%	10%	30%	20%	10%
P1	285 *940*	300 *980*	330 *1075*	335 *1100*	350 *1150*	375 *1225*	280 *920*	295 *970*	325 *1075*	210 *690*	225 *740*	250 *820*	250 *820*	265 *870*	295 *970*	210 *690*	225 *740*	250 *820*	155 *510*	165 *540*	185 *610*
P2	275 *900*	290 *950*	310 *1025*	325 *1075*	340 *1125*	365 *1200*	270 *890*	285 *940*	315 *1025*	205 *670*	220 *720*	240 *790*	240 *790*	260 *850*	285 *940*	205 *670*	220 *720*	240 *790*	150 *490*	160 *520*	180 *590*
P3	240 *790*	255 *840*	275 *900*	280 *920*	300 *980*	320 *1050*	235 *770*	250 *820*	275 *900*	180 *590*	190 *620*	210 *690*	210 *690*	230 *750*	250 *820*	180 *590*	190 *620*	210 *690*	130 *425*	140 *460*	155 *510*
P4	215 *710*	225 *740*	245 *800*	250 *820*	260 *850*	280 *920*	210 *690*	220 *720*	245 *800*	160 *520*	170 *560*	185 *610*	190 *620*	200 *660*	220 *720*	160 *520*	170 *560*	185 *610*	115 *375*	125 *410*	135 *445*
P5	205 *670*	215 *710*	235 *770*	240 *790*	250 *820*	270 *890*	200 *660*	210 *690*	235 *770*	150 *490*	160 *520*	180 *590*	180 *590*	190 *620*	215 *710*	150 *490*	160 *520*	180 *590*	110 *360*	120 *395*	130 *425*
P6	230 *750*	245 *800*	265 *870*	270 *890*	280 *920*	305 *1000*	225 *740*	240 *790*	265 *870*	170 *560*	180 *590*	205 *670*	200 *660*	220 *720*	240 *790*	170 *560*	180 *590*	205 *670*	125 *410*	135 *445*	150 *490*
P7	215 *710*	230 *750*	250 *820*	255 *840*	265 *870*	285 *940*	210 *690*	225 *740*	250 *820*	160 *520*	170 *560*	190 *620*	190 *620*	205 *670*	225 *740*	160 *520*	170 *560*	190 *620*	120 *395*	125 *410*	140 *460*
P8	205 *670*	215 *710*	230 *750*	235 *770*	250 *820*	270 *890*	195 *640*	210 *690*	235 *770*	150 *490*	160 *520*	180 *590*	175 *570*	190 *620*	210 *690*	150 *490*	160 *520*	180 *590*	110 *360*	120 *395*	130 *425*
P11	210 *690*	225 *740*	240 *790*	245 *800*	255 *840*	280 *920*	205 *670*	220 *720*	245 *800*	155 *510*	165 *540*	185 *610*	185 *610*	200 *660*	220 *720*	155 *510*	165 *540*	185 *610*	115 *375*	125 *410*	135 *445*
P12	135 *445*	145 *475*	155 *510*	155 *510*	160 *520*	170 *560*	130 *425*	140 *460*	155 *510*	100 *330*	110 *360*	120 *395*	120 *395*	130 *425*	145 *475*	100 *330*	110 *360*	120 *395*	75 *245*	80 *260*	90 *295*
M1	— —	— —	— —	180 *590*	190 *620*	210 *690*	195 *640*	205 *670*	225 *740*	165 *540*	175 *570*	195 *640*	175 *570*	185 *610*	205 *670*	165 *540*	175 *570*	195 *640*	130 *425*	140 *460*	155 *510*
M2	— —	— —	— —	145 *475*	155 *510*	170 *560*	160 *520*	170 *560*	185 *610*	135 *445*	145 *475*	160 *520*	145 *475*	155 *510*	170 *560*	135 *445*	145 *475*	160 *520*	105 *345*	115 *375*	125 *410*
M3	— —	— —	— —	120 *395*	125 *410*	140 *460*	130 *425*	140 *460*	150 *490*	110 *360*	120 *395*	130 *425*	115 *375*	125 *410*	135 *445*	110 *360*	120 *395*	130 *425*	85 *280*	95 *310*	100 *330*
M4	— —	— —	— —	90 *295*	100 *330*	110 *360*	100 *330*	105 *345*	120 *395*	85 *280*	90 *295*	100 *330*	90 *295*	95 *310*	110 *360*	85 *280*	90 *295*	100 *330*	65 *215*	70 *230*	80 *260*
M5	— —	— —	— —	75 *245*	80 *260*	90 *295*	85 *280*	90 *295*	100 *330*	70 *230*	75 *245*	85 *280*	75 *245*	80 *260*	90 *295*	70 *230*	75 *245*	85 *280*	55 *180*	60 *195*	65 *215*
K1	280 *920*	290 *950*	315 *1025*	330 *1075*	345 *1125*	370 *1225*	215 *710*	225 *740*	250 *820*	165 *540*	175 *570*	190 *620*	190 *620*	205 *670*	230 *750*	165 *540*	175 *570*	190 *620*	— —	— —	— —
K2	245 *800*	260 *850*	285 *940*	290 *950*	305 *1000*	325 *1075*	190 *620*	200 *660*	220 *720*	145 *475*	155 *510*	170 *560*	170 *560*	180 *590*	205 *670*	145 *475*	155 *510*	170 *560*	— —	— —	— —
K3	210 *690*	220 *720*	240 *790*	245 *800*	255 *840*	275 *900*	160 *520*	170 *560*	185 *610*	120 *395*	130 *425*	145 *475*	145 *475*	155 *510*	170 *560*	120 *395*	130 *425*	145 *475*	— —	— —	— —
K4	200 *660*	210 *690*	230 *750*	235 *770*	245 *800*	260 *850*	150 *490*	160 *520*	180 *590*	115 *375*	125 *410*	135 *445*	140 *460*	145 *475*	165 *540*	115 *375*	125 *410*	135 *445*	— —	— —	— —
K5	125 *410*	130 *425*	140 *460*	140 *460*	150 *490*	160 *520*	95 *310*	100 *330*	110 *360*	70 *230*	75 *245*	85 *280*	85 *280*	90 *295*	100 *330*	70 *230*	75 *245*	85 *280*	— —	— —	— —
K6	175 *570*	185 *610*	200 *660*	205 *670*	215 *710*	230 *750*	135 *445*	145 *475*	155 *510*	100 *330*	110 *360*	120 *395*	120 *395*	130 *425*	145 *475*	100 *330*	110 *360*	120 *395*	— —	— —	— —
K7	160 *520*	165 *540*	180 *590*	180 *590*	190 *620*	205 *670*	120 *395*	125 *410*	140 *460*	90 *295*	95 *310*	110 *360*	105 *345*	115 *375*	130 *425*	90 *295*	95 *310*	110 *360*	— —	— —	— —
N1	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —
N2	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —
N3	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —
N11	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —
S1	— —	— —	— —	— —	— —	— —	49 *160*	50 *165*	55 *180*	— —	— —	— —	44 *145*	47 *155*	55 *180*	— —	— —	— —	21 *70*	22 *70*	24 *80*
S2	— —	— —	— —	— —	— —	— —	39 *130*	42 *140*	46 *150*	— —	— —	— —	35 *115*	38 *125*	42 *140*	— —	— —	— —	17 *55*	18 *60*	20 *65*
S3	— —	— —	— —	— —	— —	— —	34 *110*	37 *120*	40 *130*	— —	— —	— —	32 *105*	33 *110*	37 *120*	— —	— —	— —	15 *49*	15 *49*	17 *55*
S11	— —	— —	— —	— —	— —	— —	70 *230*	75 *245*	80 *260*	— —	— —	— —	60 *195*	65 *215*	75 *245*	— —	— —	— —	29 *95*	31 *100*	34 *110*
S12	— —	— —	— —	— —	— —	— —	55 *180*	60 *195*	65 *215*	— —	— —	— —	50 *165*	55 *180*	60 *195*	— —	— —	— —	26 *85*	28 *90*	31 *100*
S13	— —	— —	— —	— —	— —	— —	33 *110*	35 *115*	39 *130*	— —	— —	— —	30 *100*	32 *105*	36 *120*	— —	— —	— —	15 *49*	16 *50*	18 *60*
H5	38 *125*	41 *135*	46 *150*	— —	— —	— —	40 *130*	42 *140*	47 *155*	— —	— —	— —	36 *120*	39 *130*	43 *140*	— —	— —	— —	— —	— —	— —
H8	42 *140*	44 *145*	49 *160*	— —	— —	— —	42 *140*	45 *150*	50 *165*	— —	— —	— —	39 *130*	42 *140*	46 *150*	— —	— —	— —	— —	— —	— —
H11	49 *160*	50 *165*	60 *195*	— —	— —	— —	50 *165*	55 *180*	60 *195*	— —	— —	— —	46 *150*	49 *160*	55 *180*	— —	— —	— —	— —	— —	— —
H12	49 *160*	50 *165*	55 *180*	— —	— —	— —	49 *160*	55 *180*	60 *195*	— —	— —	— —	45 *150*	48 *155*	55 *180*	— —	— —	— —	— —	— —	— —
H21	42 *140*	44 *145*	49 *160*	— —	— —	— —	42 *140*	45 *150*	50 *165*	— —	— —	— —	39 *130*	42 *140*	46 *150*	— —	— —	— —	— —	— —	— —

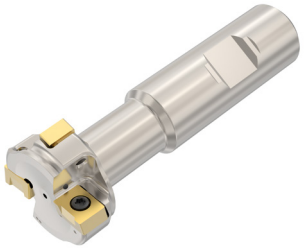


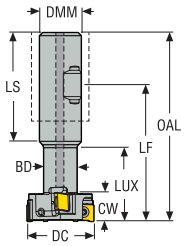
335.16

Free-cutting and reliable disc milling cutter system dedicated for T-shape slotting

- Width of cut 10.91 -21 mm (.387 - .823 inch)
- Cutter range diameter 25-50 mm (0.969 - 1.844 inch)
- Weldon connection, with through coolant capability for reliable chips evacuation
- Economical solution with 4 cutting edges per insert

R335.16 – Metric





- For insert selection and cutting data recommendations, see page(s) 488-493
- For complete insert programme, see page(s) 812, 838
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	CW	ZNP	ZEFP	DMM	LS	LF	LUX	BD	OAL	RPMX	Weight	Insert
			mm	mm			mm	mm	mm	mm	mm	mm		kg	
R335.16-1625.3-11.2NA	02980627	Weldon	25,0	10,91	4	2	16,0	49,0	56,0	28.38	12,0	80,0	24500	0,2	SPMX07..
R335.16-2032.3-14.2NA	02980628	Weldon	32,0	13,91	4	2	20,0	52,0	65,0	35.38	16,0	90,0	17600	0,3	LNK.08..
R335.16-2540.3-18.2NA	02980629	Weldon	40,0	17,91	5	2	25,0	58,0	73,0	43.67	20,0	105,0	14600	0,4	LNK.08..
R335.16-3250.3-21.2NA	02980630	Weldon	50,0	21,0	6	2	32,0	61,0	84,0	55.17	26,0	120,0	9800	0,8	LNK.08..

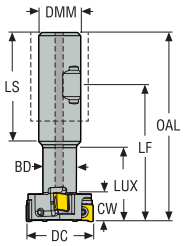
Spare Parts, included in delivery

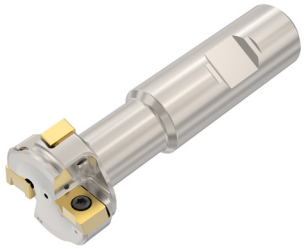
Accessories

For cutter	Insert key	Insert screw	Insert clamping torque	Torque key
				
ø 25	H4B-T07P	C02506-T07P	1.2NM	T00-07P12
ø 32-50	H4B-T09P	C73007-T09P	2.0NM	T00-09P20

For best result it is recommended to let a stock allowance when machining the T-slot shank passage H = min 20% of the CW at the bottom of the T-slot. H= 0.2 x CW
Torque and fixed keys, see page 872

R335.16 – inch





- For insert selection and cutting data recommendations, see page(s) 488-493
- For complete insert programme, see page(s) 812, 838
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	CW	ZNP	ZEFP	DMM	LS	LF	LUX	BD	OAL	RPMX	Weight	Insert
			inch	inch			inch	inch	inch	inch	inch	inch		lbs	
R335.16-00.97-3-0.39-2NA	02980638	Weldon	0.969	0.387	4	2	0.750	2.307	2.528	1.063	0.453	3.543	24500	0.440	SPMX06..
R335.16-01.25-3-0.48-2NA	02980639	Weldon	1.249	0.477	4	2	1.000	2.539	2.796	1.256	0.656	3.937	17600	0.880	LNK.08..
R335.16-01.47-3-0.63-2NA	02980640	Weldon	1.469	0.626	5	2	1.000	2.539	3.190	1.633	0.748	4.331	14600	1.100	LNK.08..
R335.16-01.84-3-0.83-2NA	02980641	Weldon	1.844	0.823	6	2	1.250	2.697	3.978	2.264	1.000	5.118	9800	1.760	LNK.08..

Spare Parts, included in delivery

Accessories

For cutter	Insert key	Insert screw	Insert clamping torque	Torque key
				
ø 0.97	H4B-T07P	C02205-T07P	8.0IN.LBS	T00-07P09
ø 1.25-1.84	H4B-T09P	C73007-T09P	17.7IN.LBS	T00-09P20

For best result it is recommended to let a stock allowance when machining the T-slot shank passage H = min 20% of the CW at the bottom of the T-slot. H= 0.2 x CW
Torque and fixed keys, see page 872

335.16 - SP06 – Insert selection – mm/*Inch*

SMG		f_z		
		100%	20%	10%
P1	SPMX060204-75 F40M	0,070 *0.0028*	0,090 *0.0036*	0,12 *0.0048*
P2	SPMX060204-75 F40M	0,070 *0.0028*	0,090 *0.0036*	0,12 *0.0048*
P3	SPMX060204-75 F40M	0,070 *0.0028*	0,085 *0.0034*	0,11 *0.0044*
P4	SPMX060204-75 F40M	0,065 *0.0026*	0,085 *0.0034*	0,11 *0.0044*
P5	SPMX060204-75 F40M	0,065 *0.0026*	0,080 *0.0032*	0,11 *0.0044*
P6	SPMX060204-75 F40M	0,065 *0.0026*	0,080 *0.0032*	0,11 *0.0044*
P7	SPMX060204-75 F40M	0,065 *0.0026*	0,080 *0.0032*	0,11 *0.0044*
P8	SPMX060204-75 F40M	0,070 *0.0028*	0,085 *0.0034*	0,11 *0.0044*
P11	SPMX060204-75 F40M	0,065 *0.0026*	0,080 *0.0032*	0,11 *0.0044*
P12	SPMX060204-75 F40M	0,044 *0.0017*	0,055 *0.0022*	0,075 *0.0030*
M1	SPMX060204-75 F40M	0,070 *0.0028*	0,090 *0.0036*	0,12 *0.0048*
M2	SPMX060204-75 F40M	0,065 *0.0026*	0,080 *0.0032*	0,11 *0.0044*
M3	SPMX060204-75 F40M	0,050 *0.0020*	0,065 *0.0026*	0,085 *0.0034*
M4	SPMX060204-75 F40M	0,046 *0.0018*	0,055 *0.0022*	0,075 *0.0030*
M5	SPMX060204-75 F40M	0,046 *0.0018*	0,055 *0.0022*	0,075 *0.0030*
K1	SPMX060204-75 F40M	0,070 *0.0028*	0,090 *0.0036*	0,12 *0.0048*
K2	SPMX060204-75 F40M	0,065 *0.0026*	0,080 *0.0032*	0,11 *0.0044*
K3	SPMX060204-75 F40M	0,065 *0.0026*	0,080 *0.0032*	0,11 *0.0044*
K4	SPMX060204-75 F40M	0,065 *0.0026*	0,080 *0.0032*	0,11 *0.0044*
K5	SPMX060204-75 F40M	0,060 *0.0024*	0,075 *0.0030*	0,10 *0.0040*
K6	SPMX060204-75 F40M	0,065 *0.0026*	0,080 *0.0032*	0,11 *0.0044*
K7	SPMX060204-75 F40M	0,060 *0.0024*	0,075 *0.0030*	0,10 *0.0040*
N1	SPMX060204-75 F40M	0,090 *0.0036*	0,11 *0.0044*	0,15 *0.0060*
N2	SPMX060204-75 F40M	0,090 *0.0036*	0,11 *0.0044*	0,15 *0.0060*
N3	SPMX060204-75 F40M	0,090 *0.0036*	0,11 *0.0044*	0,15 *0.0060*
N11	SPMX060204-75 F40M	0,090 *0.0036*	0,11 *0.0044*	0,15 *0.0060*
S1	SPMX060204-75 F40M	0,046 *0.0018*	0,055 *0.0022*	0,075 *0.0030*
S2	SPMX060204-75 F40M	0,046 *0.0018*	0,055 *0.0022*	0,075 *0.0030*
S3	SPMX060204-75 F40M	0,042 *0.0017*	0,055 *0.0022*	0,070 *0.0028*
S11	SPMX060204-75 F40M	0,050 *0.0020*	0,065 *0.0026*	0,085 *0.0034*
S12	SPMX060204-75 F40M	0,050 *0.0020*	0,065 *0.0026*	0,085 *0.0034*
S13	SPMX060204-75 F40M	0,046 *0.0018*	0,055 *0.0022*	0,075 *0.0030*
H5	SPMX060204-75 F40M	0,044 *0.0017*	0,055 *0.0022*	0,075 *0.0030*
H8	SPMX060204-75 F40M	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*
H11	SPMX060204-75 F40M	0,044 *0.0017*	0,055 *0.0022*	0,075 *0.0030*
H12	SPMX060204-75 F40M	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*
H21	SPMX060204-75 F40M	0,034 *0.0013*	0,042 *0.0017*	0,055 *0.0022*

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

335.16 - SP06 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	F40M			T25M		
	100%	20%	10%	100%	20%	10%
P1	190 *620*	270 *890*	295 *970*	210 *690*	295 *970*	325 *1075*
P2	185 *610*	260 *850*	290 *950*	205 *670*	290 *950*	320 *1050*
P3	160 *520*	230 *750*	255 *840*	175 *570*	250 *820*	280 *920*
P4	145 *475*	200 *660*	225 *740*	160 *520*	220 *720*	245 *800*
P5	140 *460*	195 *640*	215 *710*	150 *490*	215 *710*	235 *770*
P6	155 *510*	220 *720*	240 *790*	170 *560*	240 *790*	265 *870*
P7	145 *475*	205 *670*	225 *740*	160 *520*	225 *740*	250 *820*
P8	135 *445*	190 *620*	215 *710*	150 *490*	210 *690*	235 *770*
P11	140 *460*	200 *660*	220 *720*	155 *510*	220 *720*	240 *790*
P12	90 *295*	125 *410*	140 *460*	100 *330*	140 *460*	155 *510*
M1	150 *490*	210 *690*	235 *770*	165 *540*	230 *750*	255 *840*
M2	125 *410*	175 *570*	190 *620*	135 *445*	190 *620*	210 *690*
M3	100 *330*	140 *460*	155 *510*	110 *360*	155 *510*	170 *560*
M4	75 *245*	105 *345*	120 *395*	85 *280*	120 *395*	130 *425*
M5	65 *215*	90 *295*	100 *330*	70 *230*	100 *330*	110 *360*
K1	150 *490*	205 *670*	230 *750*	165 *540*	230 *750*	250 *820*
K2	130 *425*	185 *610*	200 *660*	145 *475*	205 *670*	225 *740*
K3	110 *360*	155 *510*	170 *560*	120 *395*	170 *560*	190 *620*
K4	105 *345*	150 *490*	165 *540*	115 *375*	165 *540*	180 *590*
K5	65 *215*	90 *295*	100 *330*	70 *230*	100 *330*	110 *360*
K6	95 *310*	130 *425*	145 *475*	100 *330*	145 *475*	160 *520*
K7	80 *260*	115 *375*	125 *410*	90 *295*	125 *410*	140 *460*
N1	1100 *3600*	1575 *5175*	1725 *5650*	— —	— —	— —
N2	445 *1450*	630 *2075*	700 *2300*	— —	— —	— —
N3	295 *970*	420 *1375*	465 *1525*	— —	— —	— —
N11	340 *1125*	480 *1575*	530 *1750*	— —	— —	— —
S1	36 *120*	50 *165*	55 *180*	— —	— —	— —
S2	29 *95*	40 *130*	44 *145*	— —	— —	— —
S3	25 *80*	35 *115*	39 *130*	— —	— —	— —
S11	50 *165*	70 *230*	80 *260*	— —	— —	— —
S12	42 *140*	60 *195*	65 *215*	— —	— —	— —
S13	24 *80*	34 *110*	38 *125*	— —	— —	— —
H5	30 *100*	42 *140*	46 *150*	— —	— —	— —
H8	32 *105*	44 *145*	49 *160*	— —	— —	— —
H11	38 *125*	55 *180*	60 *195*	— —	— —	— —
H12	37 *120*	50 *165*	55 *180*	— —	— —	— —
H21	32 *105*	44 *145*	49 *160*	— —	— —	— —

335.16 - SP07 – Insert selection – mm/*Inch*

SMG		f_z		
		100%	20%	10%
P1	SPMX070304-75 F40M	0,085 *0.0034*	0,11 *0.0044*	0,14 *0.0055*
P2	SPMX070304-75 F40M	0,085 *0.0034*	0,11 *0.0044*	0,14 *0.0055*
P3	SPMX070304-75 F40M	0,080 *0.0032*	0,10 *0.0040*	0,14 *0.0055*
P4	SPMX070304-75 F40M	0,080 *0.0032*	0,10 *0.0040*	0,13 *0.0050*
P5	SPMX070304-75 F40M	0,080 *0.0032*	0,10 *0.0040*	0,13 *0.0050*
P6	SPMX070304-75 F40M	0,075 *0.0030*	0,095 *0.0038*	0,13 *0.0050*
P7	SPMX070304-75 F40M	0,075 *0.0030*	0,095 *0.0038*	0,13 *0.0050*
P8	SPMX070304-75 F40M	0,080 *0.0032*	0,10 *0.0040*	0,14 *0.0055*
P11	SPMX070304-75 F40M	0,075 *0.0030*	0,095 *0.0038*	0,13 *0.0050*
P12	SPMX070304-75 F40M	0,055 *0.0022*	0,065 *0.0026*	0,090 *0.0036*
M1	SPMX070304-75 F40M	0,085 *0.0034*	0,11 *0.0044*	0,14 *0.0055*
M2	SPMX070304-75 F40M	0,080 *0.0032*	0,10 *0.0040*	0,13 *0.0050*
M3	SPMX070304-75 F40M	0,060 *0.0024*	0,080 *0.0032*	0,10 *0.0040*
M4	SPMX070304-75 F40M	0,055 *0.0022*	0,070 *0.0028*	0,090 *0.0036*
M5	SPMX070304-75 F40M	0,055 *0.0022*	0,070 *0.0028*	0,090 *0.0036*
K1	SPMX070304-75 F40M	0,085 *0.0034*	0,11 *0.0044*	0,14 *0.0055*
K2	SPMX070304-75 F40M	0,080 *0.0032*	0,10 *0.0040*	0,13 *0.0050*
K3	SPMX070304-75 F40M	0,080 *0.0032*	0,10 *0.0040*	0,13 *0.0050*
K4	SPMX070304-75 F40M	0,080 *0.0032*	0,10 *0.0040*	0,13 *0.0050*
K5	SPMX070304-75 F40M	0,070 *0.0028*	0,090 *0.0036*	0,12 *0.0048*
K6	SPMX070304-75 F40M	0,080 *0.0032*	0,10 *0.0040*	0,13 *0.0050*
K7	SPMX070304-75 F40M	0,070 *0.0028*	0,090 *0.0036*	0,12 *0.0048*
N1	SPMX070304-75 F40M	0,11 *0.0044*	0,14 *0.0055*	0,18 *0.0070*
N2	SPMX070304-75 F40M	0,11 *0.0044*	0,14 *0.0055*	0,18 *0.0070*
N3	SPMX070304-75 F40M	0,11 *0.0044*	0,14 *0.0055*	0,18 *0.0070*
N11	SPMX070304-75 F40M	0,11 *0.0044*	0,14 *0.0055*	0,18 *0.0070*
S1	SPMX070304-75 F40M	0,055 *0.0022*	0,070 *0.0028*	0,090 *0.0036*
S2	SPMX070304-75 F40M	0,055 *0.0022*	0,070 *0.0028*	0,090 *0.0036*
S3	SPMX070304-75 F40M	0,050 *0.0020*	0,065 *0.0026*	0,085 *0.0034*
S11	SPMX070304-75 F40M	0,060 *0.0024*	0,080 *0.0032*	0,10 *0.0040*
S12	SPMX070304-75 F40M	0,060 *0.0024*	0,080 *0.0032*	0,10 *0.0040*
S13	SPMX070304-75 F40M	0,055 *0.0022*	0,070 *0.0028*	0,090 *0.0036*
H5	SPMX070304-75 F40M	0,055 *0.0022*	0,065 *0.0026*	0,090 *0.0036*
H8	SPMX070304-75 F40M	0,040 *0.0016*	0,050 *0.0020*	0,070 *0.0028*
H11	SPMX070304-75 F40M	0,055 *0.0022*	0,065 *0.0026*	0,090 *0.0036*
H12	SPMX070304-75 F40M	0,040 *0.0016*	0,050 *0.0020*	0,070 *0.0028*
H21	SPMX070304-75 F40M	0,040 *0.0016*	0,050 *0.0020*	0,070 *0.0028*

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

335.16 - SP07 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	F40M			T25M		
	100%	20%	10%	100%	20%	10%
P1	175 *570*	250 *820*	275 *900*	195 *640*	275 *900*	305 *1000*
P2	170 *560*	240 *790*	270 *890*	190 *620*	265 *870*	295 *970*
P3	150 *490*	210 *690*	230 *750*	165 *540*	235 *770*	255 *840*
P4	130 *425*	185 *610*	210 *690*	145 *475*	205 *670*	230 *750*
P5	125 *410*	180 *590*	200 *660*	140 *460*	195 *640*	220 *720*
P6	145 *475*	205 *670*	225 *740*	160 *520*	225 *740*	245 *800*
P7	135 *445*	190 *620*	210 *690*	150 *490*	210 *690*	230 *750*
P8	125 *410*	180 *590*	195 *640*	140 *460*	195 *640*	215 *710*
P11	130 *425*	185 *610*	205 *670*	145 *475*	205 *670*	225 *740*
P12	85 *280*	120 *395*	130 *425*	90 *295*	130 *425*	145 *475*
M1	140 *460*	195 *640*	215 *710*	155 *510*	215 *710*	240 *790*
M2	115 *375*	160 *520*	180 *590*	125 *410*	175 *570*	195 *640*
M3	95 *310*	130 *425*	145 *475*	100 *330*	140 *460*	160 *520*
M4	70 *230*	100 *330*	110 *360*	80 *260*	110 *360*	120 *395*
M5	60 *195*	85 *280*	90 *295*	65 *215*	90 *295*	100 *330*
K1	135 *445*	190 *620*	215 *710*	150 *490*	210 *690*	235 *770*
K2	120 *395*	170 *560*	190 *620*	130 *425*	185 *610*	205 *670*
K3	100 *330*	145 *475*	160 *520*	110 *360*	160 *520*	175 *570*
K4	95 *310*	135 *445*	150 *490*	105 *345*	150 *490*	165 *540*
K5	60 *195*	85 *280*	90 *295*	65 *215*	90 *295*	100 *330*
K6	85 *280*	120 *395*	135 *445*	95 *310*	135 *445*	145 *475*
K7	75 *245*	105 *345*	120 *395*	85 *280*	115 *375*	130 *425*
N1	1000 *3275*	1425 *4675*	1600 *5250*	— —	— —	— —
N2	405 *1325*	570 *1875*	640 *2100*	— —	— —	— —
N3	270 *890*	385 *1275*	430 *1400*	— —	— —	— —
N11	310 *1025*	440 *1450*	490 *1600*	— —	— —	— —
S1	33 *110*	46 *150*	50 *165*	— —	— —	— —
S2	27 *90*	37 *120*	41 *135*	— —	— —	— —
S3	23 *75*	33 *110*	36 *120*	— —	— —	— —
S11	47 *155*	65 *215*	75 *245*	— —	— —	— —
S12	39 *130*	55 *180*	60 *195*	— —	— —	— —
S13	23 *75*	32 *105*	35 *115*	— —	— —	— —
H5	28 *90*	39 *130*	43 *140*	— —	— —	— —
H8	30 *100*	41 *135*	45 *150*	— —	— —	— —
H11	35 *115*	50 *165*	55 *180*	— —	— —	— —
H12	34 *110*	48 *155*	55 *180*	— —	— —	— —
H21	30 *100*	41 *135*	45 *150*	— —	— —	— —

335.16 -LNK – Insert selection – mm/*Inch*

SMG		f_z		
		100%	20%	10%
P1	LNKT080508PPTN-M06 F40M	0,11 *0.0044*	0,14 *0.0055*	0,19 *0.0075*
P2	LNKT080508PPTN-M06 F40M	0,11 *0.0044*	0,14 *0.0055*	0,19 *0.0075*
P3	LNKT080508PPTN-M06 F40M	0,11 *0.0044*	0,14 *0.0055*	0,18 *0.0070*
P4	LNKT080508PPTN-M06 F40M	0,11 *0.0044*	0,13 *0.0050*	0,18 *0.0070*
P5	LNKT080508PPTN-M06 F40M	0,10 *0.0040*	0,13 *0.0050*	0,17 *0.0065*
P6	LNKT080508PPTN-M06 F40M	0,10 *0.0040*	0,13 *0.0050*	0,17 *0.0065*
P7	LNKT080508PPTN-M06 F40M	0,10 *0.0040*	0,13 *0.0050*	0,17 *0.0065*
P8	LNKT080508PPTN-M06 MP3000	0,11 *0.0044*	0,14 *0.0055*	0,18 *0.0070*
P11	LNKT080508PPTN-M06 F40M	0,10 *0.0040*	0,13 *0.0050*	0,17 *0.0065*
P12	LNKT080508PPTN-M06 F40M	0,070 *0.0028*	0,090 *0.0036*	0,12 *0.0048*
M1	LNKT080508PPTN-M06 F40M	0,11 *0.0044*	0,14 *0.0055*	0,19 *0.0075*
M2	LNKT080508PPTN-M06 F40M	0,10 *0.0040*	0,13 *0.0050*	0,17 *0.0065*
M3	LNKT080508PPTN-M06 F40M	0,085 *0.0034*	0,10 *0.0040*	0,14 *0.0055*
M4	LNKT080508PPTN-M06 F40M	0,075 *0.0030*	0,090 *0.0036*	0,12 *0.0048*
M5	LNKT080508PPTN-M06 F40M	0,075 *0.0030*	0,090 *0.0036*	0,12 *0.0048*
K1	LNKT080508PPTN-M06 MK2050	0,11 *0.0044*	0,14 *0.0055*	0,19 *0.0075*
K2	LNKT080508PPTN-M06 MK2050	0,10 *0.0040*	0,13 *0.0050*	0,17 *0.0065*
K3	LNKT080508PPTN-M06 MK2050	0,10 *0.0040*	0,13 *0.0050*	0,17 *0.0065*
K4	LNKT080508PPTN-M06 MK2050	0,10 *0.0040*	0,13 *0.0050*	0,17 *0.0065*
K5	LNKT080508PPTN-M06 MK2050	0,095 *0.0038*	0,12 *0.0048*	0,16 *0.0065*
K6	LNKT080508PPTN-M06 MK2050	0,10 *0.0040*	0,13 *0.0050*	0,17 *0.0065*
K7	LNKT080508PPTN-M06 MK2050	0,095 *0.0038*	0,12 *0.0048*	0,16 *0.0065*
N1	LNKT080508PPN-E05 H25	0,13 *0.0050*	0,16 *0.0065*	0,22 *0.0085*
N2	LNKT080508PPN-E05 H25	0,13 *0.0050*	0,16 *0.0065*	0,22 *0.0085*
N3	LNKT080508PPN-E05 H25	0,13 *0.0050*	0,16 *0.0065*	0,22 *0.0085*
N11	LNKT080508PPN-E05 H25	0,13 *0.0050*	0,16 *0.0065*	0,22 *0.0085*
S1	LNKT080508PPTN-M06 F40M	0,075 *0.0030*	0,090 *0.0036*	0,12 *0.0048*
S2	LNKT080508PPTN-M06 F40M	0,075 *0.0030*	0,090 *0.0036*	0,12 *0.0048*
S3	LNKT080508PPTN-M06 F40M	0,070 *0.0028*	0,085 *0.0034*	0,11 *0.0044*
S11	LNKT080508PPTN-M06 F40M	0,085 *0.0034*	0,10 *0.0040*	0,14 *0.0055*
S12	LNKT080508PPTN-M06 F40M	0,085 *0.0034*	0,10 *0.0040*	0,14 *0.0055*
S13	LNKT080508PPTN-M06 F40M	0,075 *0.0030*	0,090 *0.0036*	0,12 *0.0048*
H5	LNKT080508PPTN-M06 MP3000	0,070 *0.0028*	0,090 *0.0036*	0,12 *0.0048*
H8	LNKT080508PPTN-M06 MP3000	0,055 *0.0022*	0,070 *0.0028*	0,090 *0.0036*
H11	LNKT080508PPTN-M06 F40M	0,070 *0.0028*	0,090 *0.0036*	0,12 *0.0048*
H12	LNKT080508PPTN-M06 F40M	0,055 *0.0022*	0,070 *0.0028*	0,090 *0.0036*
H21	LNKT080508PPTN-M06 MP3000	0,055 *0.0022*	0,070 *0.0028*	0,090 *0.0036*

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

335.16 -LNK – Cutting data v_c = (m/min)/*(sf/min)*

SMG	MK2050			MP3000			F40M			H25			MK1500			MP2501			MP3501		
	100%	20%	10%	100%	20%	10%	100%	20%	10%	100%	20%	10%	100%	20%	10%	100%	20%	10%	100%	20%	10%
P1	200	280	310	190	270	300	155	215	240	—	—	—	—	—	—	285	370	395	260	330	355
	660	*920*	*1025*	*620*	*890*	*980*	*510*	*710*	*790*	—	—	—	—	—	—	*940*	*1225*	*1300*	*850*	*1075*	*1175*
P2	195	275	300	185	265	290	150	210	230	—	—	—	—	—	—	280	360	385	250	320	345
	640	*900*	*980*	*610*	*870*	*950*	*490*	*690*	*750*	—	—	—	—	—	—	*920*	*1175*	*1275*	*820*	*1050*	*1125*
P3	165	235	265	160	225	255	130	180	205	—	—	—	—	—	—	240	310	335	215	275	300
	540	*770*	*870*	*520*	*740*	*840*	*425*	*590*	*670*	—	—	—	—	—	—	*790*	*1025*	*1100*	*710*	*900*	*980*
P4	145	210	230	140	205	225	115	165	180	—	—	—	—	—	—	210	275	295	190	250	265
	475	*690*	*750*	*460*	*670*	*740*	*375*	*540*	*590*	—	—	—	—	—	—	*690*	*900*	*970*	*620*	*820*	*870*
P5	145	200	225	140	195	215	110	155	175	—	—	—	—	—	—	205	260	280	185	235	255
	475	*660*	*740*	*460*	*640*	*710*	*360*	*510*	*570*	—	—	—	—	—	—	*670*	*850*	*920*	*610*	*770*	*840*
P6	160	225	250	155	220	245	125	175	195	—	—	—	—	—	—	230	295	315	210	265	285
	520	*740*	*820*	*510*	*720*	*800*	*410*	*570*	*640*	—	—	—	—	—	—	*750*	*970*	*1025*	*690*	*870*	*940*
P7	155	215	240	145	205	230	115	165	185	—	—	—	—	—	—	220	280	300	195	250	270
	510	*710*	*790*	*475*	*670*	*750*	*375*	*540*	*610*	—	—	—	—	—	—	*720*	*920*	*980*	*640*	*820*	*890*
P8	140	200	220	135	190	215	110	150	170	—	—	—	—	—	—	200	260	280	180	235	250
	460	*660*	*720*	*445*	*620*	*710*	*360*	*490*	*560*	—	—	—	—	—	—	*660*	*850*	*920*	*590*	*770*	*820*
P11	150	210	230	145	200	220	115	160	180	—	—	—	—	—	—	215	270	290	190	245	260
	490	*690*	*750*	*475*	*660*	*720*	*375*	*520*	*590*	—	—	—	—	—	—	*710*	*890*	*950*	*620*	*800*	*850*
P12	95	135	150	90	130	140	75	105	115	—	—	—	—	—	—	135	165	180	120	150	160
	310	*445*	*490*	*295*	*425*	*460*	*245*	*345*	*375*	—	—	—	—	—	—	*445*	*540*	*590*	*395*	*490*	*520*
M1	—	—	—	140	195	215	120	170	185	—	—	—	—	—	—	140	200	220	130	185	205
	—	—	—	*460*	*640*	*710*	*395*	*560*	*610*	—	—	—	—	—	—	*460*	*660*	*720*	*425*	*610*	*670*
M2	—	—	—	115	160	180	100	140	155	—	—	—	—	—	—	120	165	185	110	155	170
	—	—	—	*375*	*520*	*590*	*330*	*460*	*510*	—	—	—	—	—	—	*395*	*540*	*610*	*360*	*510*	*560*
M3	—	—	—	90	130	145	80	115	125	—	—	—	—	—	—	95	135	145	85	125	135
	—	—	—	*295*	*425*	*475*	*260*	*375*	*410*	—	—	—	—	—	—	*310*	*445*	*475*	*280*	*410*	*445*
M4	—	—	—	70	100	110	60	85	95	—	—	—	—	—	—	70	105	115	65	95	105
	—	—	—	*230*	*330*	*360*	*195*	*280*	*310*	—	—	—	—	—	—	*230*	*345*	*375*	*215*	*310*	*345*
M5	—	—	—	60	85	95	50	75	80	—	—	—	—	—	—	60	85	95	55	80	90
	—	—	—	*195*	*280*	*310*	*165*	*245*	*260*	—	—	—	—	—	—	*195*	*280*	*310*	*180*	*260*	*295*
K1	210	295	325	125	175	195	120	165	185	—	—	—	220	310	345	280	360	385	255	325	350
	690	*970*	*1075*	*410*	*570*	*640*	*395*	*540*	*610*	—	—	—	*720*	*1025*	*1125*	*920*	*1175*	*1275*	*840*	*1075*	*1150*
K2	185	260	290	110	155	170	105	150	165	—	—	—	195	275	305	250	315	340	225	285	310
	610	*850*	*950*	*360*	*510*	*560*	*345*	*490*	*540*	—	—	—	*640*	*900*	*1000*	*820*	*1025*	*1125*	*740*	*940*	*1025*
K3	160	220	245	95	130	145	90	125	140	—	—	—	165	235	260	210	270	290	190	240	260
	520	*720*	*800*	*310*	*425*	*475*	*295*	*410*	*460*	—	—	—	*540*	*770*	*850*	*690*	*890*	*950*	*620*	*790*	*850*
K4	150	210	235	90	125	140	85	120	135	—	—	—	160	225	250	200	255	275	180	230	250
	490	*690*	*770*	*295*	*410*	*460*	*280*	*395*	*445*	—	—	—	*520*	*740*	*820*	*660*	*840*	*900*	*590*	*750*	*820*
K5	90	130	140	55	75	85	50	70	80	—	—	—	95	135	150	120	155	165	110	140	150
	295	*425*	*460*	*180*	*245*	*280*	*165*	*230*	*260*	—	—	—	*310*	*445*	*490*	*395*	*510*	*540*	*360*	*460*	*490*
K6	135	185	205	80	110	125	75	105	115	—	—	—	140	195	220	180	225	245	160	205	220
	445	*610*	*670*	*260*	*360*	*410*	*245*	*345*	*375*	—	—	—	*460*	*640*	*720*	*590*	*740*	*800*	*520*	*670*	*720*
K7	115	165	180	70	95	110	65	95	100	—	—	—	125	175	190	155	200	210	140	180	190
	375	*540*	*590*	*230*	*310*	*360*	*215*	*310*	*330*	—	—	—	*410*	*570*	*620*	*510*	*660*	*690*	*460*	*590*	*620*
N1	—	—	—	1075	1550	1700	860	1225	1375	900	1275	1400	—	—	—	—	—	—	—	—	—
	—	—	—	*3525*	*5075*	*5575*	*2825*	*4025*	*4500*	*2950*	*4175*	*4600*	—	—	—	—	—	—	—	—	—
N2	—	—	—	430	620	690	345	500	550	365	520	570	—	—	—	—	—	—	—	—	—
	—	—	—	*1400*	*2025*	*2275*	*1125*	*1650*	*1800*	*1200*	*1700*	*1875*	—	—	—	—	—	—	—	—	—
N3	—	—	—	290	415	460	230	330	370	240	345	380	—	—	—	—	—	—	—	—	—
	—	—	—	*950*	*1350*	*1500*	*750*	*1075*	*1225*	*790*	*1125*	*1250*	—	—	—	—	—	—	—	—	—
N11	—	—	—	330	475	530	265	380	420	275	395	435	—	—	—	—	—	—	—	—	—
	—	—	—	*1075*	*1550*	*1750*	*870*	*1250*	*1375*	*900*	*1300*	*1425*	—	—	—	—	—	—	—	—	—
S1	—	—	—	33	47	50	29	41	45	—	—	—	—	—	—	—	—	—	22	31	35
	—	—	—	*110*	*155*	*165*	*95*	*135*	*150*	—	—	—	—	—	—	—	—	—	*70*	*100*	*115*
S2	—	—	—	27	38	42	23	33	36	—	—	—	—	—	—	—	—	—	18	25	28
	—	—	—	*90*	*125*	*140*	*75*	*110*	*120*	—	—	—	—	—	—	—	—	—	*60*	*80*	*90*
S3	—	—	—	23	33	37	20	29	32	—	—	—	—	—	—	—	—	—	22	31	35
	—	—	—	*75*	*110*	*120*	*65*	*95*	*105*	—	—	—	—	—	—	—	—	—	*70*	*100*	*115*
S11	—	—	—	46	65	75	40	55	65	—	—	—	—	—	—	—	—	—	44	65	70
	—	—	—	*150*	*215*	*245*	*130*	*180*	*215*	—	—	—	—	—	—	—	—	—	*145*	*215*	*230*
S12	—	—	—	39	55	60	34	48	55	—	—	—	—	—	—	—	—	—	31	44	48
	—	—	—	*130*	*180*	*195*	*110*	*155*	*180*	—	—	—	—	—	—	—	—	—	*100*	*145*	*155*
S13	—	—	—	23	32	36	20	28	31	—	—	—	—	—	—	—	—	—	18	25	28
	—	—	—	*75*	*105*	*120*	*65*	*90*	*100*	—	—	—	—	—	—	—	—	—	*60*	*80*	*90*
H5	—	—	—	26	36	40	24	34	38	—	—	—	—	—	—	—	—	—	28	39	43
	—	—	—	*85*	*120*	*130*	*80*	*110*	*125*	—	—	—	—	—	—	—	—	—	*90*	*130*	*140*
H8	—	—	—	27	38	42	26	36	40	—	—	—	—	—	—	—	—	—	30	41	46
	—	—	—	*90*	*125*	*140*	*85*	*120*	*130*	—	—	—	—	—	—	—	—	—	*100*	*135*	*150*
H11	—	—	—	33	46	50	31	44	48	—	—	—	—	—	—	—	—	—	36	50	55
	—	—	—	*110*	*150*	*165*	*100*	*145*	*155*	—	—	—	—	—	—	—	—	—	*120*	*165*	*180*
H12	—	—	—	31	44	49	30	42	47	—	—	—	—	—	—	—	—	—	55	75	85
	—	—	—	*100*	*145*	*160*	*100*	*140*	*155*	—	—	—	—	—	—	—	—	—	*180*	*245*	*280*
H21	—	—	—	27	38	42	26	36	40	—	—	—	—	—	—	—	—	—	30	41	46
	—	—	—	*90*	*125*	*140*	*85*	*120*	*130*	—	—	—	—	—	—	—	—	—	*100*	*135*	*150*

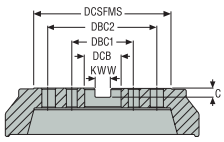


Code keys metric and inch

R	217	.	21	-	12	25	.	RE	-	LP06	.	4	A
1	2		3		4	5		6		7		8	9

R	217	.	21	-	01.00	0	-	LP06	.	3	A
1	2		3		5	6		7		8	9

1.	2.	3.
R = Right hand rotation Cx = For Seco-Capto	217 = With shank 220 = For arbor	Cutter system
4. (Not for inch designation)	**5.**	**6.**
Connecting diameter	Cutter diameter	Shank type .RE for Combimaster .0 for Cylindrical .3 for Weldon .3S for Seco Weldon
7.	**8.**	**9.**
Insert type and size	No. of teeth	A = Through coolant supply E = Solid carbide shank

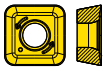
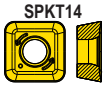


Dimensions in mm					
DCB	DCSFMS	DBC1	DBC2	KWW	C
16	30-35	–	–	8,4	5,6
22	42-47	–	–	10,4	6,3
27	48-62	–	–	12,4	7
32	60-90	–	–	14,4	8
40	90-130	66,7	–	16,4	9
60	130-270	101,6	177,8	25,7	14

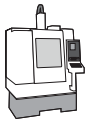
Dimensions in inch					
DCB	DCSFMS	DBC1	DBC2	KWW	C
0.500	*1.181 - 1.378*			*0.258*	*0.165*
0.750	*1.378 - 1.850*	–	–	*0.321*	*0.193*
1.000	*1.803 - 2.441*	–	–	*0.382*	*0.224*
1.250	*2.250 - 3.031*	–	–	*0.508*	*0.287*
1.500	*2.750 - 3.543*	–	–	*0.630*	*0.382*
2.000	*4.331*	–	–	*0.756*	*0.445*
2.500	*5.118 - 6.299 (8.858)*	*4.000*	*(7.000)*	*1.000*	*0.551*

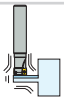
For a more exact DCSFMS and DCB measurement, see each product table.

Selection – Metric

Insert	a_p max	Material suitability									
		P	M	K	N	S	H				
SPKT10 	1,1	■	■	■	□	■	◩	■	◩	■	■
SPKT14 	1,8	■	■	■	□	■	◩	◩	■	■	■
SPKT18 	2,5	■	■	■	□	■	◩	□	■	■	■

1st choice	■
Alternative choice	◩
Possible choice	□

High speed machine with low power/torque	
Strong stable machine with rigid connecion	
Not recommended	-

Unstable condition suitability	
Ramping ability	
Plunging ability	

Selection – Metric

Insert	No. of cutting edges	Application	Cutter diameter (mm) available with effective number of teeth																									See page
			12	14	16	18	20	25	27	32	35	40	42	50	52	63	66	80	84	88	100	108	125	153	160	188	228	
SPKT10	4									3	3	4	4	5	5	6												505
											4	5	5	6	6	7												
SPKT14	4											3		4	4	5	5	6	6		8		9					510, 511
														5	5	6	6	7										
SPKT18	4															5	5	5			7		8	6	10	8	10	516
																		6										

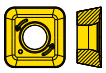
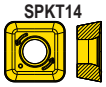
x — x indicates number of teeth (first choice)

x — x indicates number of teeth

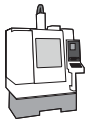
Troubleshooter for unstable fixturing and/or unstable conditions

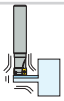
Basic choice

Selection – Inch

Insert	a_p max	Material suitability									
		P	M	K	N	S	H				
SPKT10 	0.043	■	■	■	□	■	◩	■	◩	■	■
SPKT14 	0.071	■	■	■	□	■	◩	◩	■	■	■
SPKT18 	0.098	■	■	■	□	■	◩	□	■	■	■

1st choice	■
Alternative choice	◩
Possible choice	□

High speed machine with low power/torque	
Strong stable machine with rigid connecion	
Not recommended	-

Unstable condition suitability	
Ramping ability	
Plunging ability	

Selection – Inch

Insert	No. of cutting edges	Application	Cutter diameter available (inch)/number of teeth													See page
			0.50	0.625	0.75	1.00	1.25	1.50	2.00	2.50	3.00	3.50	4.00	5.00	6.00	
SPKT10	4						3	4	5	6						505
									6	7						
SPKT14	4								4	5	6		8			510, 511
									5	6	7					
SPKT18	4									5	5		7	8	10	516
											6					

x — x indicates number of teeth (first choice)

x — x indicates number of teeth

Troubleshooter for unstable fixturing and/or unstable conditions

Basic choice

Selection – Metric

Insert	a_p max	Material suitability									
		P	M	K	N	S	H				
LP05	0,65	■	■	■	□	■	■	■	□	■	■
LP06	0,8	■	■	■	■	■	■	■	□	■	■
LP09	1,8	■	■	■	□	■	□	■	■	■	■
LO06	0,9	■	◩	■	–	■	■	■	◩	◩	◩
218.19-080	0,6	■	◩	■	■	◩	■	■	◩	■	■
218.19-100	0,7	■	◩	■	■	◩	■	■	◩	■	■
218.19-125	1,0	■	◩	■	■	◩	■	◩	■	■	■
218.19-160	1,8	■	◩	■	■	◩	□	-	■	■	■
218.21-230	1,8	■	■	■	-	◩	◩	-	■	□	■
SCET	1,5	■	■	■	-	■	-	-	■	□	■
ON09	2,0	■	-	■	-	-	-	-	■	-	-

1st choice	■
Alternative choice	◩
Possible choice	□

High speed machine with low power/torque	
Strong stable machine with rigid connecion	
Not recommended	-

Unstable condition suitability	
Ramping ability	
Plunging ability	

Selection – Metric

Insert	No. of cutting edges	Application	Cutter diameter (mm) available with effective number of teeth																									See page
			12	14	16	18	20	25	27	32	35	40	42	50	52	63	66	80	84	88	100	108	125	133	160	168	208	
LP05	2				2		3																					529
			2	2	3	3	4																					
LP06	2										4																	536
							2	3	3	4	5	6																
					2	2	3	4		5	6	7																
LP09	2									3				5														543
								2		4	4	4	4	6	5	6	6	7										
												5	5	7	7	8	8	9	7		10							
LO06	4											5																551
							2	3	3	4	5	6																
								4		5	6	7	7	8	8	9												
218.19-080	3				2																							572
218.19-100	3							2																				
							2	3																				
218.19-125	3									2																		
								2		3	3	4																
218.19-160	3													3		4												
														4	4	5	5	6	6		7							
										2		3		5	5	6	6	7			9							
218.21-230	6													4		5		6	6		7		9		10			559, 560
												3	3	5	5	6	6	7	8		9							
SCET	4															4	4	5	5		5							566
														4	4	5		6	6		7		6		7			
														5	5	6	6	7			8							
ON09	16																	6			7		8		10			590

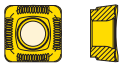
x — x indicates number of teeth (first choice)

x — x indicates number of teeth

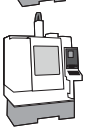
Troubleshooter for unstable fixturing and/or unstable conditions

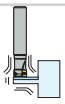
Basic choice

Selection – Inch

Insert	a_p max	Material suitability									
		P	M	K	N	S	H				
LP05 	0.020	■	■	■	□	■	■	■	□	■	■
LP06 	0.031	■	■	■	■	■	■	■	□	■	■
LP09 	0.071	■	■	■	□	■	□	■	■	■	■
LO06 	0.031	■	◩	■	–	■	■	■	◩	◩	◩
218.19-080 	0.025	■	◩	■	■	◩	■	■	◩	■	■
218.19-100 	0.028	■	◩	■	■	◩	■	■	◩	■	■
218.19-125 	0.039	■	◩	■	■	◩	■	◩	■	■	■
218.19-160 	0.071	■	◩	■	■	◩	□	-	■	■	■
218.21-230 	0.071	■	■	■	-	◩	◩	-	■	□	■
SCET 	0.059	■	■	■	-	■	-	-	■	□	■
ON09 	0.079	■	-	■	-	-	-	-	■	-	-

1st choice	■
Alternative choice	◩
Possible choice	□

High speed machine with low power/torque	
Strong stable machine with rigid connecion	
Not recommended	-

Unstable condition suitability	
Ramping ability	
Plunging ability	

Selection – Inch

Insert	No. of cutting edges	Application	Cutter diameter available (inch)/number of teeth												See page
			0.50	0.625	0.75	1.00	1.25	1.50	2.00	2.50	3.00	3.50	4.00	5.00	6.00	
LP05	2			2	3											529
			2	3	4											
LP06	2				2	3	4	6								536
				2	3	4	5	7								
LP09	2						4	5	6	6	6	8	9			543
									7	8	8		10			
LO06	4					3	4	5								551
						4	5	6	8	9						
218.19-080	3			2												572
218.19-100	3				2	3										
218.19-125	3					2	3	4								
218.19-160	3						2	3	3	5	6		7			
									4	6	7		9			
									5							
218.21-230	6							3	4	5	5		7			559, 560
									5	6	6	8	9			
SCET	4									4	5		5			566
									4	6	6		8			
									5	6						
ON09	16										6		7	8	10	590

x — x indicates number of teeth (first choice)

x — x indicates number of teeth

Troubleshooter for unstable fixturing and/or unstable conditions

Basic choice

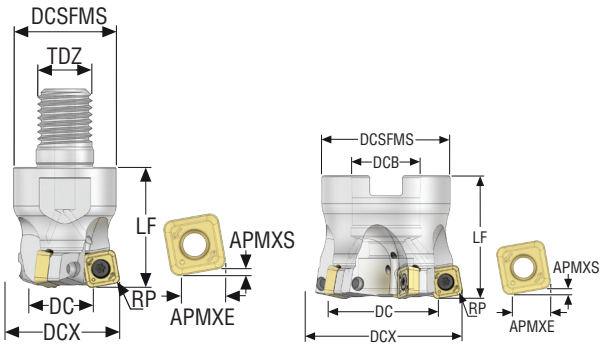


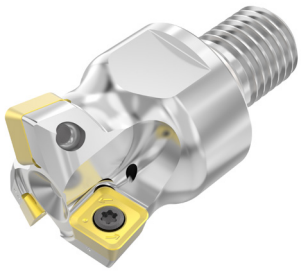
HIGH FEED SP

For challenging ISO P, M and S materials, the Seco High Feed SP features a combination of dedicated cutting geometries and insert grades, as well as optimized lead angles, that combine to boost material removal rates, maximize chip evacuation and extend tool life. Packed with versility, one High Feed SP tool optimizes copy milling, ramping, pocketing, face milling and plunging operations to reduce tooling inventory further. Designed for ease of use, the milling tools provide simple foolproof insert indexing that prevents operator mistakes, unexpected machine downtime and scrapped parts.

- 3 insert sizes, with IC = 10, 14 & 18mm
- 30 items in metric version, Ø32 to Ø160mm
- 19 items in inch version, Ø01.25 to Ø06.00
- Standard and close pitch
- Well proven SPKT inserts with a range of premium Seco grades optimized for tough materials.

R217/220.21-SP10 – Metric



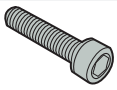


- For insert selection and cutting data recommendations, see page(s) 507-509
- For complete insert programme, see page(s) 837
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	DCX	ZEFP	APMXS	APMXE	DCB	DCSFMS	LF	RP	RMPX°	Cmin	Cmax	Weight	RPMX	Insert
			mm	mm		mm	mm	mm	mm	mm	mm		mm	mm	kg		
R217.21-1632.RE-SP10.3A	10097555	Combimaster	15,7	32,0	3	1,1	7,0	–	30,0	35,0	2,83	4,3	47,7	62,0	0,2	21600	SPKT10T317
R217.21-1635.RE-SP10.3A	10097557	Combimaster	18,7	35,0	3	1,1	7,0	–	30,0	35,0	2,8	3,5	53,7	68,0	0,2	20700	SPKT10T317
R217.21-1635.RE-SP10.4A	10097558	Combimaster	18,7	35,0	4	1,1	7,0	–	30,0	35,0	2,8	3,5	53,7	68,0	0,3	20700	SPKT10T317
R217.21-2040.RE-SP10.4A	10097559	Combimaster	23,7	40,0	4	1,1	7,0	–	36,5	40,0	2,79	2,7	63,7	78,0	0,4	19300	SPKT10T317
R217.21-2040.RE-SP10.5A	10097560	Combimaster	23,7	40,0	5	1,1	7,0	–	36,5	40,0	2,79	2,7	63,7	78,0	0,4	19300	SPKT10T317
R217.21-2042.RE-SP10.4A	10097561	Combimaster	25,7	42,0	4	1,1	7,0	–	36,5	40,0	2,8	2,5	67,7	82,0	0,4	18800	SPKT10T317
R217.21-2042.RE-SP10.5A	10097562	Combimaster	25,7	42,0	5	1,1	7,0	–	36,5	40,0	2,8	2,5	67,7	82,0	0,4	18800	SPKT10T317
R220.21-0050-SP10.5A	10097563	Arbor	33,7	50,0	5	1,1	7,0	22,0	41,0	40,0	2,8	1,9	83,7	98,0	0,3	17300	SPKT10T317
R220.21-0050-SP10.6A	10097564	Arbor	33,7	50,0	6	1,1	7,0	22,0	41,0	40,0	2,8	1,9	83,7	98,0	0,4	17300	SPKT10T317
R220.21-0052-SP10.5A	10097565	Arbor	35,7	52,0	5	1,1	7,0	22,0	49,0	40,0	2,8	1,8	87,7	102,0	0,4	17000	SPKT10T317
R220.21-0052-SP10.6A	10097566	Arbor	35,7	52,0	6	1,1	7,0	22,0	49,0	40,0	2,8	1,8	87,7	102,0	0,4	17000	SPKT10T317
R220.21-0063-SP10.6A	10097567	Arbor	46,7	63,0	6	1,1	7,0	22,0	49,0	40,0	2,8	1,3	109,7	124,0	0,5	15800	SPKT10T317
R220.21-0063-SP10.7A	10097568	Arbor	46,7	63,0	7	1,1	7,0	22,0	49,0	40,0	2,8	1,3	109,7	124,0	0,5	15800	SPKT10T317

For Combimaster Shanks, see Machining Navigator Tooling System

Spare Parts, included in delivery

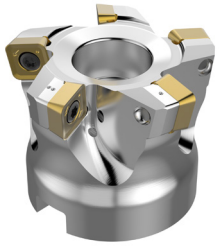
For cutter	Arbor screw	Insert key	Insert screw
			
R217.21-..	–	H4B-T10P	C03508-T10P
R217.21-2040-2042-4A	–	H4B-T10P	C03509-T10P
R220.21-0050-0063	220.17-692	H4B-T10P	C03509-T10P
R220.21-0050-0052-6A	220.17-692	H4B-T10P	C03508-T10P

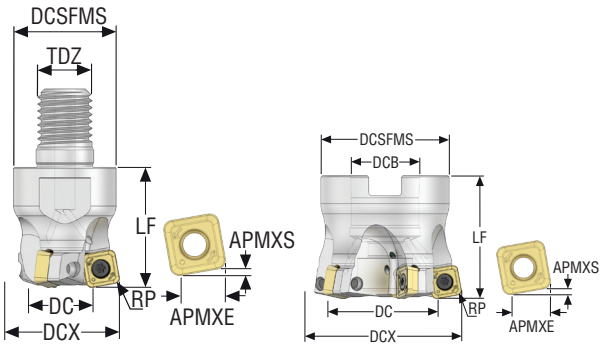
Accessories

For cutter	Insert clamping torque	Torque key
		
R217/220.21-..	3.0NM	T00-10P30

Torque and fixed keys, see page 872

R217/220.21-SP10 – Inch



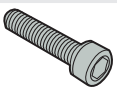


- For insert selection and cutting data recommendations, see page(s) 507-509
- For complete insert programme, see page(s) 837
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	DCX	ZEFP	APMXS	APMXE	DCB	DCSFMS	LF	RP	RMPX°	C min	C max	Weight	RPMX	Insert
			inch	inch		inch	inch	inch	inch	inch	inch		inch	inch	lbs		
R217.21-01.25.16RE-SP10.3A	10097569	Combimaster	0.606	1.250	3	0.043	0.276	–	1.181	1.378	0.111	5,6	1.856	2.421	0.440	21600	SPKT10T317
R217.21-01.50.20RE-SP10.4A	10097571	Combimaster	0.858	1.500	4	0.043	0.276	–	1.437	1.575	0.110	3,0	2.358	2.921	0.880	19300	SPKT10T317
R220.21-02.00-SP10.5A	10128666	Arbor	1.358	2.000	5	0.043	0.276	0.750	1.789	1.500	0.110	1,9	3.358	3.921	0.880	17300	SPKT10T317
R220.21-02.00-SP10.6A	10097573	Arbor	1.358	2.000	6	0.043	0.276	0.750	1.789	1.500	0.110	1,9	3.358	3.921	0.880	17300	SPKT10T317
R220.21-02.50-SP10.6A	10128667	Arbor	1.858	2.500	6	0.043	0.276	0.750	1.789	1.500	0.110	1,3	4.358	4.921	1.100	15800	SPKT10T317
R220.21-02.50-SP10.7A	10097574	Arbor	1.858	2.500	7	0.043	0.276	0.750	1.789	1.500	0.110	1,3	4.358	4.921	1.320	15800	SPKT10T317

For Combimaster Shanks, see Machining Navigator Tooling System

Spare Parts, included in delivery

For cutter	Arbor screw	Insert key	Insert screw
			
R217.21-..	–	H4B-T10P	C03508-T10P
R220.21-02.00	UC6S3/8UNFX1-1/4	H4B-T10P	C03508-T10P
R220.21-02.50	UC6S3/8UNFX1-1/4	H4B-T10P	C03509-T10P

Accessories

For cutter	Insert clamping torque	Torque key
		
R217/220.21-..	26.6IN.LBS	T00-10P30

Torque and fixed keys, see page 872

R220.21-SP10 – Insert selection – mm/*Inch*

SMG		a_p	f_z		
			100%	70%	30%
P1	SPKT10T317TN-M10 MP3501	1,1 *0.044*	0,80 *0.032*	0,80 *0.032*	0,90 *0.038*
P2	SPKT10T317TN-M10 MP3501	1,1 *0.044*	0,80 *0.032*	0,80 *0.032*	0,95 *0.038*
P3	SPKT10T317TN-M10 MP2501	1,1 *0.044*	0,75 *0.030*	0,75 *0.030*	0,90 *0.036*
P4	SPKT10T317TN-M10 MP2501	1,1 *0.044*	0,75 *0.030*	0,75 *0.030*	0,85 *0.034*
P5	SPKT10T317TN-M10 MP2501	1,1 *0.044*	0,75 *0.030*	0,75 *0.030*	0,85 *0.034*
P6	SPKT10T317TN-M10 MP2501	1,1 *0.044*	0,70 *0.028*	0,70 *0.028*	0,85 *0.034*
P7	SPKT10T317TN-M10 MP2501	1,1 *0.044*	0,70 *0.028*	0,70 *0.028*	0,85 *0.034*
P8	SPKT10T317TN-M10 MP2501	1,1 *0.044*	0,75 *0.030*	0,75 *0.030*	0,90 *0.036*
P11	SPKT10T317TN-M10 MP3501	1,1 *0.044*	0,70 *0.028*	0,70 *0.028*	0,85 *0.034*
P12	SPKT10T317TN-M10 MP2501	0,85 *0.034*	0,50 *0.020*	0,50 *0.020*	0,55 *0.022*
M1	SPKT10T317TN-M10 MS2050	1,1 *0.044*	0,80 *0.032*	0,80 *0.032*	0,95 *0.038*
M2	SPKT10T317TN-M10 MS2050	1,1 *0.044*	0,75 *0.030*	0,75 *0.030*	0,85 *0.034*
M3	SPKT10T317TN-M10 MS2050	0,85 *0.034*	0,60 *0.024*	0,60 *0.024*	0,65 *0.026*
M4	SPKT10T317TN-M10 MP3501	0,85 *0.034*	0,50 *0.020*	0,50 *0.020*	0,60 *0.024*
M5	SPKT10T317TN-M10 MP3501	0,85 *0.034*	0,50 *0.020*	0,50 *0.020*	0,60 *0.024*
K1	SPKT10T317TN-MD12 MK2050	1,1 *0.044*	0,95 *0.038*	0,95 *0.038*	1,1 *0.044*
K2	SPKT10T317TN-MD12 MK2050	1,1 *0.044*	0,85 *0.034*	0,85 *0.034*	1,0 *0.040*
K3	SPKT10T317TN-MD12 MK2050	1,1 *0.044*	0,85 *0.034*	0,85 *0.034*	1,0 *0.040*
K4	SPKT10T317TN-MD12 MK2050	1,1 *0.044*	0,85 *0.034*	0,85 *0.034*	1,0 *0.040*
K5	SPKT10T317TN-MD12 MK2050	1,1 *0.044*	0,80 *0.032*	0,80 *0.032*	0,90 *0.038*
K6	SPKT10T317TN-MD12 MK2050	1,1 *0.044*	0,85 *0.034*	0,85 *0.034*	1,0 *0.040*
K7	SPKT10T317TN-MD12 MK2050	1,1 *0.044*	0,80 *0.032*	0,80 *0.032*	0,90 *0.038*
S1	SPKT10T317TN-M10 MP3501	0,85 *0.034*	0,50 *0.020*	0,50 *0.020*	0,60 *0.024*
S2	SPKT10T317TN-M10 MP3501	0,85 *0.034*	0,50 *0.020*	0,50 *0.020*	0,60 *0.024*
S3	SPKT10T317TN-M10 MP3501	0,85 *0.034*	0,48 *0.019*	0,48 *0.019*	0,55 *0.022*
S11	SPKT10T317TN-M10 MS2050	0,85 *0.034*	0,60 *0.024*	0,60 *0.024*	0,65 *0.026*
S12	SPKT10T317TN-M10 MS2050	0,85 *0.034*	0,60 *0.024*	0,60 *0.024*	0,65 *0.026*
S13	SPKT10T317TN-M10 MS2050	0,85 *0.034*	0,50 *0.020*	0,50 *0.020*	0,60 *0.024*
H5	SPKT10T317TN-MD12 MP3000	0,85 *0.034*	0,60 *0.024*	0,60 *0.024*	0,70 *0.028*
H8	SPKT10T317TN-MD12 MP3000	0,85 *0.034*	0,46 *0.018*	0,46 *0.018*	0,50 *0.020*
H11	SPKT10T317TN-MD12 MP1501	0,85 *0.034*	0,60 *0.024*	0,60 *0.024*	0,70 *0.028*
H12	SPKT10T317TN-MD12 MP1501	0,85 *0.034*	0,46 *0.018*	0,46 *0.018*	0,50 *0.020*

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

R220.21-SP10 – Cutting data v_c = (m/min)/*(sf/min)*

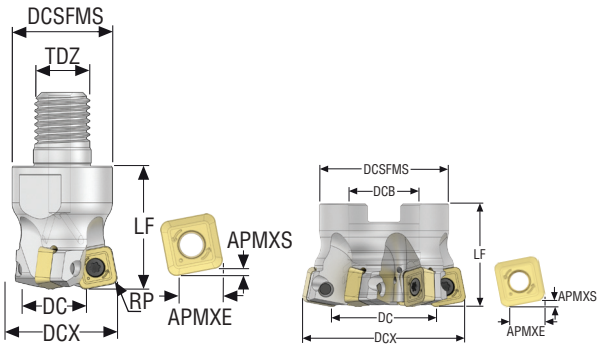
SMG	MK2050			MP3000			MS2050			F40M			MP2050		
	100%	70%	30%	100%	70%	30%	100%	70%	30%	100%	70%	30%	100%	70%	30%
P1	285 *940*	325 *1075*	390 *1275*	270 *890*	315 *1025*	375 *1225*	265 *870*	305 *1000*	365 *1200*	240 *790*	280 *920*	335 *1100*	315 *1025*	360 *1175*	430 *1400*
P2	270 *890*	315 *1025*	370 *1225*	260 *850*	300 *980*	360 *1175*	260 *850*	300 *980*	355 *1175*	235 *770*	270 *890*	325 *1075*	305 *1000*	355 *1175*	420 *1375*
P3	235 *770*	275 *900*	330 *1075*	230 *750*	265 *870*	315 *1025*	225 *740*	260 *850*	310 *1025*	205 *670*	235 *770*	285 *940*	265 *870*	305 *1000*	365 *1200*
P4	210 *690*	245 *800*	290 *950*	205 *670*	235 *770*	280 *920*	200 *660*	230 *750*	275 *900*	180 *590*	210 *690*	250 *820*	235 *770*	270 *890*	325 *1075*
P5	200 *660*	235 *770*	275 *900*	195 *640*	225 *740*	265 *870*	190 *620*	220 *720*	260 *850*	175 *570*	200 *660*	240 *790*	225 *740*	260 *850*	310 *1025*
P6	225 *740*	260 *850*	320 *1050*	220 *720*	250 *820*	305 *1000*	215 *710*	250 *820*	300 *980*	195 *640*	225 *740*	270 *890*	255 *840*	290 *950*	350 *1150*
P7	215 *710*	245 *800*	300 *980*	205 *670*	240 *790*	290 *950*	200 *660*	235 *770*	280 *920*	185 *610*	210 *690*	255 *840*	240 *790*	275 *900*	330 *1075*
P8	200 *660*	230 *750*	275 *900*	190 *620*	220 *720*	265 *870*	190 *620*	215 *710*	260 *850*	170 *560*	195 *640*	240 *790*	220 *720*	255 *840*	310 *1025*
P11	210 *690*	240 *790*	290 *950*	200 *660*	230 *750*	280 *920*	195 *640*	225 *740*	275 *900*	180 *590*	205 *670*	250 *820*	230 *750*	265 *870*	320 *1050*
P12	135 *445*	155 *510*	190 *620*	130 *425*	150 *490*	180 *590*	125 *410*	145 *475*	175 *570*	115 *375*	135 *445*	160 *520*	150 *490*	175 *570*	205 *670*
M1	— —	— —	— —	195 *640*	225 *740*	270 *890*	210 *690*	240 *790*	285 *940*	190 *620*	220 *720*	260 *850*	220 *720*	255 *840*	300 *980*
M2	— —	— —	— —	165 *540*	190 *620*	220 *720*	170 *560*	200 *660*	235 *770*	155 *510*	180 *590*	215 *710*	180 *590*	210 *690*	245 *800*
M3	— —	— —	— —	130 *425*	150 *490*	180 *590*	135 *445*	160 *520*	190 *620*	125 *410*	145 *475*	175 *570*	145 *475*	165 *540*	200 *660*
M4	— —	— —	— —	100 *330*	115 *375*	140 *460*	110 *360*	125 *410*	150 *490*	100 *330*	115 *375*	135 *445*	115 *375*	130 *425*	155 *510*
M5	— —	— —	— —	85 *280*	95 *310*	115 *375*	90 *295*	105 *345*	125 *410*	80 *260*	95 *310*	115 *375*	95 *310*	110 *360*	130 *425*
K1	295 *970*	340 *1125*	400 *1300*	205 *670*	240 *790*	285 *940*	— —	— —	— —	185 *610*	215 *710*	255 *840*	— —	— —	— —
K2	260 *850*	300 *980*	355 *1175*	185 *610*	215 *710*	250 *820*	— —	— —	— —	165 *540*	190 *620*	225 *740*	— —	— —	— —
K3	220 *720*	255 *840*	300 *980*	155 *510*	180 *590*	215 *710*	— —	— —	— —	140 *460*	160 *520*	190 *620*	— —	— —	— —
K4	210 *690*	245 *800*	290 *950*	150 *490*	170 *560*	205 *670*	— —	— —	— —	135 *445*	155 *510*	180 *590*	— —	— —	— —
K5	130 *425*	150 *490*	180 *590*	90 *295*	105 *345*	125 *410*	— —	— —	— —	80 *260*	95 *310*	110 *360*	— —	— —	— —
K6	185 *610*	215 *710*	255 *840*	130 *425*	150 *490*	180 *590*	— —	— —	— —	115 *375*	135 *445*	160 *520*	— —	— —	— —
K7	165 *540*	190 *620*	230 *750*	120 *395*	135 *445*	160 *520*	— —	— —	— —	105 *345*	120 *395*	145 *475*	— —	— —	— —
S1	— —	— —	— —	47 *155*	55 *180*	65 *215*	50 *165*	60 *195*	70 *230*	46 *150*	55 *180*	65 *215*	55 *180*	65 *215*	75 *245*
S2	— —	— —	— —	38 *125*	43 *140*	55 *180*	41 *135*	47 *155*	55 *180*	37 *120*	43 *140*	50 *165*	44 *145*	50 *165*	60 *195*
S3	— —	— —	— —	33 *110*	38 *125*	46 *150*	35 *115*	41 *135*	49 *160*	32 *105*	37 *120*	45 *150*	39 *130*	45 *150*	55 *180*
S11	— —	— —	— —	65 *215*	75 *245*	90 *295*	70 *230*	80 *260*	95 *310*	65 *215*	75 *245*	90 *295*	75 *245*	90 *295*	105 *345*
S12	— —	— —	— —	46 *150*	55 *180*	65 *215*	48 *155*	55 *180*	65 *215*	44 *145*	50 *165*	60 *195*	55 *180*	60 *195*	75 *245*
S13	— —	— —	— —	26 *85*	30 *100*	37 *120*	28 *90*	33 *110*	39 *130*	26 *85*	30 *100*	36 *120*	31 *100*	36 *120*	43 *140*
H5	— —	— —	— —	41 *135*	47 *155*	55 *180*	— —	— —	— —	38 *125*	44 *145*	55 *180*	— —	— —	— —
H8	— —	— —	— —	43 *140*	50 *165*	60 *195*	— —	— —	— —	41 *135*	47 *155*	55 *180*	— —	— —	— —
H11	— —	— —	— —	50 *165*	60 *195*	70 *230*	— —	— —	— —	49 *160*	55 *180*	70 *230*	55 *180*	65 *215*	80 *260*
H12	— —	— —	— —	85 *280*	95 *310*	115 *375*	— —	— —	— —	75 *245*	85 *280*	100 *330*	95 *310*	110 *360*	130 *425*

R220.21-SP10 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	MP1501			MP2501			MS2500			MP3501			MM4500		
	100%	70%	30%	100%	70%	30%	100%	70%	30%	100%	70%	30%	100%	70%	30%
P1	415 *1350*	460 *1500*	530 *1750*	455 *1500*	500 *1650*	570 *1875*	350 *1150*	400 *1300*	480 *1575*	405 *1325*	450 *1475*	520 *1700*	195 *640*	225 *740*	270 *890*
P2	395 *1300*	440 *1450*	510 *1675*	440 *1450*	490 *1600*	560 *1825*	340 *1125*	390 *1275*	465 *1525*	395 *1300*	435 *1425*	500 *1650*	190 *620*	220 *720*	260 *850*
P3	345 *1125*	385 *1275*	445 *1450*	380 *1250*	420 *1375*	490 *1600*	290 *950*	335 *1100*	405 *1325*	340 *1125*	375 *1225*	440 *1450*	165 *540*	190 *620*	230 *750*
P4	310 *1025*	345 *1125*	390 *1275*	340 *1125*	375 *1225*	430 *1400*	260 *850*	300 *980*	360 *1175*	305 *1000*	335 *1100*	385 *1275*	145 *475*	170 *560*	200 *660*
P5	295 *970*	330 *1075*	375 *1225*	325 *1075*	360 *1175*	410 *1350*	250 *820*	290 *950*	340 *1125*	290 *950*	320 *1050*	370 *1225*	140 *460*	160 *520*	195 *640*
P6	335 *1100*	370 *1225*	430 *1400*	365 *1200*	405 *1325*	465 *1525*	280 *920*	325 *1075*	390 *1275*	325 *1075*	360 *1175*	420 *1375*	160 *520*	180 *590*	220 *720*
P7	315 *1025*	350 *1150*	405 *1325*	345 *1125*	380 *1250*	440 *1450*	265 *870*	305 *1000*	370 *1225*	310 *1025*	340 *1125*	395 *1300*	150 *490*	170 *560*	205 *670*
P8	290 *950*	325 *1075*	375 *1225*	320 *1050*	355 *1175*	410 *1350*	245 *800*	285 *940*	340 *1125*	285 *940*	315 *1025*	370 *1225*	140 *460*	160 *520*	195 *640*
P11	305 *1000*	340 *1125*	395 *1300*	335 *1100*	370 *1225*	430 *1400*	255 *840*	295 *970*	360 *1175*	300 *980*	330 *1075*	385 *1275*	145 *475*	165 *540*	200 *660*
P12	195 *640*	220 *720*	250 *820*	215 *710*	235 *770*	270 *890*	165 *540*	190 *620*	230 *750*	195 *640*	215 *710*	245 *800*	95 *310*	110 *360*	130 *425*
M1	— —	— —	— —	225 *740*	260 *850*	310 *1025*	245 *800*	280 *920*	335 *1100*	210 *690*	240 *790*	285 *940*	165 *540*	190 *620*	225 *740*
M2	— —	— —	— —	185 *610*	215 *710*	250 *820*	200 *660*	230 *750*	275 *900*	170 *560*	200 *660*	235 *770*	135 *445*	155 *510*	185 *610*
M3	— —	— —	— —	145 *475*	170 *560*	205 *670*	160 *520*	185 *610*	225 *740*	135 *445*	160 *520*	190 *620*	110 *360*	125 *410*	150 *490*
M4	— —	— —	— —	115 *375*	135 *445*	160 *520*	125 *410*	145 *475*	175 *570*	110 *360*	125 *410*	150 *490*	85 *280*	100 *330*	115 *375*
M5	— —	— —	— —	95 *310*	110 *360*	135 *445*	105 *345*	120 *395*	145 *475*	90 *295*	105 *345*	125 *410*	70 *230*	80 *260*	95 *310*
K1	400 *1300*	445 *1450*	510 *1675*	445 *1450*	490 *1600*	560 *1825*	270 *890*	310 *1025*	370 *1225*	400 *1300*	440 *1450*	510 *1675*	— —	— —	— —
K2	360 *1175*	395 *1300*	455 *1500*	395 *1300*	435 *1425*	495 *1625*	235 *770*	275 *900*	325 *1075*	350 *1150*	390 *1275*	445 *1450*	— —	— —	— —
K3	305 *1000*	335 *1100*	385 *1275*	330 *1075*	370 *1225*	420 *1375*	200 *660*	230 *750*	275 *900*	300 *980*	330 *1075*	375 *1225*	— —	— —	— —
K4	290 *950*	320 *1050*	365 *1200*	315 *1025*	350 *1150*	400 *1300*	190 *620*	220 *720*	260 *850*	285 *940*	315 *1025*	360 *1175*	— —	— —	— —
K5	180 *590*	195 *640*	225 *740*	195 *640*	215 *710*	245 *800*	120 *395*	135 *445*	160 *520*	175 *570*	195 *640*	220 *720*	— —	— —	— —
K6	255 *840*	280 *920*	320 *1050*	280 *920*	310 *1025*	355 *1175*	170 *560*	195 *640*	230 *750*	250 *820*	275 *900*	315 *1025*	— —	— —	— —
K7	230 *750*	255 *840*	290 *950*	250 *820*	280 *920*	315 *1025*	150 *490*	175 *570*	205 *670*	225 *740*	250 *820*	280 *920*	— —	— —	— —
S1	— —	— —	— —	— —	— —	— —	60 *195*	70 *230*	85 *280*	50 *165*	60 *195*	70 *230*	26 *85*	30 *100*	36 *120*
S2	— —	— —	— —	— —	— —	— —	49 *160*	55 *180*	70 *230*	41 *135*	47 *155*	55 *180*	21 *70*	24 *80*	29 *95*
S3	— —	— —	— —	— —	— —	— —	43 *140*	50 *165*	60 *195*	35 *115*	41 *135*	49 *160*	18 *60*	21 *70*	25 *80*
S11	— —	— —	— —	— —	— —	— —	85 *280*	95 *310*	120 *395*	70 *230*	80 *260*	95 *310*	36 *120*	41 *135*	50 *165*
S12	— —	— —	— —	— —	— —	— —	60 *195*	65 *215*	80 *260*	48 *155*	55 *180*	65 *215*	33 *110*	38 *125*	46 *150*
S13	— —	— —	— —	— —	— —	— —	34 *110*	40 *130*	48 *155*	28 *90*	33 *110*	39 *130*	19 *60*	22 *70*	27 *90*
H5	50 *165*	60 *195*	70 *230*	— —	— —	— —	50 *165*	60 *195*	70 *230*	44 *145*	50 *165*	60 *195*	— —	— —	— —
H8	55 *180*	65 *215*	75 *245*	— —	— —	— —	55 *180*	60 *195*	75 *245*	47 *155*	55 *180*	65 *215*	— —	— —	— —
H11	65 *215*	75 *245*	90 *295*	— —	— —	— —	65 *215*	75 *245*	90 *295*	55 *180*	65 *215*	80 *260*	— —	— —	— —
H12	100 *330*	115 *375*	135 *445*	— —	— —	— —	105 *345*	120 *395*	145 *475*	85 *280*	100 *330*	115 *375*	— —	— —	— —

R217/220.21-SP14 – Metric



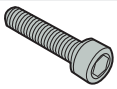
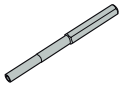


- For insert selection and cutting data recommendations, see page(s) 513-515
- For complete insert programme, see page(s) 837
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	DCX	ZEFP	APMXS	APMXE	DCB	DCSFMS	LF	RP	RMPX°	Cmin	Cmax	Weight	RPMX	Insert
			mm	mm		mm	mm	mm	mm	mm	mm		mm	mm	kg		
R217.21-2040.RE-SP14.3A	10135958	Combimaster	17,0	40,0	3	1,8	10,0	–	36,5	45,0	4,06	2,9	57,0	78,0	0,4	11900	SPKT140523
R220.21-0050-SP14.4A	10068147	Arbor	27,1	50,0	4	1,8	10,0	22,0	41,0	40,0	4,02	3,5	77,1	98,0	0,3	10700	SPKT140523
R220.21-0050-SP14.5A	10068148	Arbor	27,1	50,0	5	1,8	10,0	22,0	41,0	40,0	4,04	1,8	77,1	98,0	0,3	10700	SPKT140523
R220.21-0052-SP14.4A	10068149	Arbor	29,1	52,0	4	1,8	10,0	22,0	49,0	40,0	4,02	3,2	81,1	102,0	0,4	10500	SPKT140523
R220.21-0052-SP14.5A	10101535	Arbor	29,1	52,0	5	1,8	10,0	22,0	49,0	40,0	4,02	3,2	81,1	102,0	0,4	10500	SPKT140523
R220.21-0063-SP14.5A	10068150	Arbor	40,1	63,0	5	1,8	10,0	27,0	49,0	50,0	4,01	2,3	103,1	124,0	0,5	9600	SPKT140523
R220.21-0063-SP14.6A	10068151	Arbor	40,1	63,0	6	1,8	10,0	27,0	49,0	50,0	4,01	2,3	103,1	124,0	0,6	9600	SPKT140523
R220.21-0066-SP14.5A	10068152	Arbor	43,0	66,0	5	1,8	10,0	27,0	61,0	50,0	4,02	2,1	109,0	130,0	0,8	9400	SPKT140523
R220.21-0066-SP14.6A	10101540	Arbor	43,0	66,0	6	1,8	10,0	27,0	61,0	50,0	4,02	2,1	109,0	130,0	0,8	9400	SPKT140523
R220.21-0080-SP14.6A	10068154	Arbor	57,0	80,0	6	1,8	10,0	27,0	61,0	50,0	4,01	1,6	137,0	158,0	1,0	8500	SPKT140523
R220.21-0080-SP14.7A	10068155	Arbor	57,0	80,0	7	1,8	10,0	27,0	61,0	50,0	4,01	1,6	137,0	158,0	1,1	8500	SPKT140523
R220.21-0084-SP14.6A	10068156	Arbor	61,0	84,0	6	1,8	10,0	32,0	79,0	50,0	4,01	1,5	145,0	166,0	1,3	8300	SPKT140523
R220.21-0100-SP14.8A	10068157	Arbor	77,0	100,0	8	1,8	10,0	32,0	79,0	50,0	4,01	1,2	177,0	198,0	1,6	7600	SPKT140523
R220.21-0125-SP14.9A	10132522	Arbor	102,0	125,0	9	1,8	10,0	40,0	90,0	63,0	4,0	0,9	227,0	248,0	3,2	6800	SPKT140523

For Combimaster Shanks, see Machining Navigator Tooling System

Spare Parts, included in delivery

For cutter	Arbor screw	Insert key	Insert screw
			
R217.21-..	–	H6B-T20P	C45011-T20P
R220.21-0050-0052	220.17-692M	H6B-T20P	C45011-T20P
R220.21-0063	MC6S12X40	H6B-T20P	C45011-T20P
R220.21-0066	MC6S12X40	H6B-T20P	C45011-T20P
R220.21-0080	MC6S12X40	H6B-T20PL	C45011-T20P
R220.21-0084-0100	MLC6S16X35	H6B-T20PL	C45011-T20P
R220.21-0125	MC6S20X50	H6B-T20PL	C45011-T20P

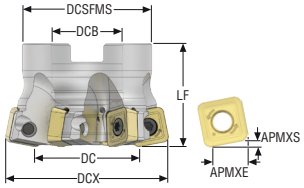
Accessories

For cutter	Insert clamping torque	Torque key
		
R217/220.21-..	5.0NM	T00-20P50

Torque and fixed keys, see page 872

R220.21-SP14 – inch

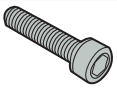
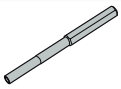




- For insert selection and cutting data recommendations, see page(s) 513-515
- For complete insert programme, see page(s) 837
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	DCX	ZEFP	APMXS	APMXE	DCB	DCSFMS	LF	RP	RMPX°	C min	C max	Weight	RPMX	Insert
			inch	inch		inch	inch	inch	inch	inch	inch		inch	inch	lbs		
R220.21-02.00-SP14.4A	10068158	Arbor	1.098	2.000	4	0.071	0.394	0.750	1.789	1.500	0.158	3,3	3.098	3.921	0.880	10700	SPKT140523
R220.21-02.00-SP14.5A	10068159	Arbor	1.098	2.000	5	0.071	0.394	0.750	1.789	1.500	0.158	3,3	3.098	3.921	0.880	10700	SPKT140523
R220.21-02.50-SP14.5A	10068160	Arbor	1.594	2.500	5	0.071	0.394	0.750	1.789	1.500	0.158	2,2	4.094	4.921	1.100	9600	SPKT140523
R220.21-02.50-SP14.6A	10068161	Arbor	1.594	2.500	6	0.071	0.394	0.750	1.789	1.500	0.158	2,2	4.094	4.921	1.100	9600	SPKT140523
R220.21-03.00-SP14.6A	10068162	Arbor	2.094	3.000	6	0.071	0.394	1.000	2.289	2.000	0.158	1,7	4.583	5.921	1.980	8500	SPKT140523
R220.21-03.00-SP14.7A	10068163	Arbor	2.094	3.000	7	0.071	0.394	1.000	2.289	2.000	0.158	1,7	4.583	5.921	2.200	8500	SPKT140523
R220.21-04.00-SP14.8A	10068164	Arbor	3.094	4.000	8	0.071	0.394	1.500	3.539	2.000	0.158	1,2	7.094	7.921	4.190	7600	SPKT140523

Spare Parts, included in delivery

For cutter	Arbor screw	Insert key	Insert screw
			
R220.21-02.00-02.50	UC6S3/8UNFX1-1/4	H6B-T20P	C45011-T20P
R220.21-03.00	UC6S1/2UNFX1-1/2	H6B-T20PL	C45011-T20P
R220.21-04.00	ULC6S3/4UNFX11/2	H6B-T20PL	C45011-T20P

Accessories

For cutter	Insert clamping torque	Torque key
		
R220.21-..	44.3IN.LBS	T00-20P50

Torque and fixed keys, see page 872

R220.21-SP14 – Insert selection – mm/*Inch*

SMG		a_p	f_z		
			100%	70%	30%
P1	SPKT140523TN-M14 MP3501	1,8 *0.070*	1,0 *0.040*	1,0 *0.040*	1,2 *0.048*
P2	SPKT140523TN-M14 MP3501	1,8 *0.070*	1,1 *0.044*	1,1 *0.044*	1,3 *0.050*
P3	SPKT140523TN-M14 MP2501	1,8 *0.070*	1,0 *0.040*	1,0 *0.040*	1,2 *0.048*
P4	SPKT140523TN-M14 MP2501	1,8 *0.070*	1,0 *0.040*	1,0 *0.040*	1,2 *0.048*
P5	SPKT140523TN-M14 MP2501	1,8 *0.070*	0,95 *0.038*	0,95 *0.038*	1,2 *0.048*
P6	SPKT140523TN-M14 MP2501	1,8 *0.070*	0,95 *0.038*	0,95 *0.038*	1,1 *0.044*
P7	SPKT140523TN-M14 MP2501	1,8 *0.070*	0,95 *0.038*	0,95 *0.038*	1,1 *0.044*
P8	SPKT140523TN-M14 MP2501	1,8 *0.070*	1,0 *0.040*	1,0 *0.040*	1,2 *0.048*
P11	SPKT140523TN-M14 MP3501	1,8 *0.070*	0,95 *0.038*	0,95 *0.038*	1,1 *0.044*
P12	SPKT140523TN-M14 MP2501	1,4 *0.055*	0,65 *0.026*	0,65 *0.026*	0,75 *0.030*
M1	SPKT140523TN-M14 MS2050	1,8 *0.070*	1,1 *0.044*	1,1 *0.044*	1,3 *0.050*
M2	SPKT140523TN-M14 MS2050	1,8 *0.070*	0,95 *0.038*	0,95 *0.038*	1,2 *0.048*
M3	SPKT140523TN-M14 MS2050	1,4 *0.055*	0,75 *0.030*	0,75 *0.030*	0,90 *0.036*
M4	SPKT140523TN-M14 MP3501	1,4 *0.055*	0,65 *0.026*	0,65 *0.026*	0,80 *0.032*
M5	SPKT140523TN-M14 MP3501	1,4 *0.055*	0,65 *0.026*	0,65 *0.026*	0,80 *0.032*
K1	SPKT140523TN-MD16 MK2050	1,8 *0.070*	1,2 *0.048*	1,2 *0.048*	1,5 *0.060*
K2	SPKT140523TN-MD16 MK2050	1,8 *0.070*	1,1 *0.044*	1,1 *0.044*	1,3 *0.050*
K3	SPKT140523TN-MD16 MK2050	1,8 *0.070*	1,1 *0.044*	1,1 *0.044*	1,3 *0.050*
K4	SPKT140523TN-MD16 MK2050	1,8 *0.070*	1,1 *0.044*	1,1 *0.044*	1,3 *0.050*
K5	SPKT140523TN-MD16 MK2050	1,8 *0.070*	1,0 *0.040*	1,0 *0.040*	1,2 *0.048*
K6	SPKT140523TN-MD16 MK2050	1,8 *0.070*	1,1 *0.044*	1,1 *0.044*	1,3 *0.050*
K7	SPKT140523TN-MD16 MK2050	1,8 *0.070*	1,0 *0.040*	1,0 *0.040*	1,2 *0.048*
S1	SPKT140523TN-M14 MP3501	1,4 *0.055*	0,65 *0.026*	0,65 *0.026*	0,80 *0.032*
S2	SPKT140523TN-M14 MP3501	1,4 *0.055*	0,65 *0.026*	0,65 *0.026*	0,80 *0.032*
S3	SPKT140523TN-M14 MP3501	1,4 *0.055*	0,65 *0.026*	0,65 *0.026*	0,75 *0.030*
S11	SPKT140523TN-M14 MS2050	1,4 *0.055*	0,75 *0.030*	0,75 *0.030*	0,90 *0.036*
S12	SPKT140523TN-M14 MS2050	1,4 *0.055*	0,75 *0.030*	0,75 *0.030*	0,90 *0.036*
S13	SPKT140523TN-M14 MS2050	1,4 *0.055*	0,65 *0.026*	0,65 *0.026*	0,80 *0.032*
H5	SPKT140523TN-MD16 MP3000	1,4 *0.055*	0,75 *0.030*	0,75 *0.030*	0,90 *0.036*
H8	SPKT140523TN-MD16 MP3000	1,4 *0.055*	0,55 *0.022*	0,55 *0.022*	0,65 *0.026*
H11	SPKT140523TN-MD16 MP1501	1,4 *0.055*	0,75 *0.030*	0,75 *0.030*	0,90 *0.036*
H12	SPKT140523TN-MD16 MP1501	1,4 *0.055*	0,55 *0.022*	0,55 *0.022*	0,65 *0.026*

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

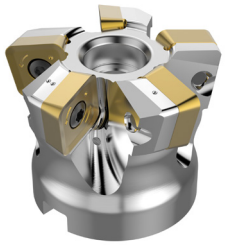
R220.21-SP14 – Cutting data v_c = (m/min)/*(sf/min)*

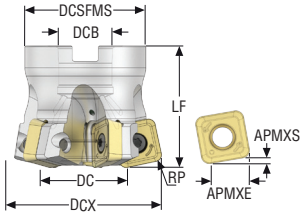
SMG	MK2050			MP3000			MS2050			F40M			MP2050		
	100%	70%	30%	100%	70%	30%	100%	70%	30%	100%	70%	30%	100%	70%	30%
P1	260 *850*	305 *1000*	365 *1200*	250 *820*	290 *950*	350 *1150*	240 *790*	280 *920*	335 *1100*	220 *720*	255 *840*	305 *1000*	280 *920*	330 *1075*	395 *1300*
P2	255 *840*	295 *970*	350 *1150*	245 *800*	285 *940*	335 *1100*	235 *770*	270 *890*	325 *1075*	210 *690*	245 *800*	295 *970*	275 *900*	320 *1050*	385 *1275*
P3	220 *720*	255 *840*	305 *1000*	210 *690*	245 *800*	295 *970*	205 *670*	240 *790*	290 *950*	190 *620*	220 *720*	260 *850*	245 *800*	285 *940*	340 *1125*
P4	195 *640*	230 *750*	270 *890*	190 *620*	220 *720*	260 *850*	180 *590*	210 *690*	255 *840*	165 *540*	195 *640*	230 *750*	215 *710*	250 *820*	300 *980*
P5	190 *620*	220 *720*	265 *870*	180 *590*	210 *690*	255 *840*	175 *570*	205 *670*	240 *790*	160 *520*	185 *610*	220 *720*	205 *670*	240 *790*	285 *940*
P6	210 *690*	245 *800*	295 *970*	205 *670*	235 *770*	285 *940*	200 *660*	230 *750*	270 *890*	180 *590*	210 *690*	245 *800*	235 *770*	275 *900*	320 *1050*
P7	200 *660*	235 *770*	280 *920*	190 *620*	225 *740*	270 *890*	185 *610*	220 *720*	255 *840*	170 *560*	200 *660*	235 *770*	220 *720*	255 *840*	300 *980*
P8	185 *610*	215 *710*	260 *850*	175 *570*	205 *670*	250 *820*	175 *570*	205 *670*	240 *790*	160 *520*	185 *610*	220 *720*	205 *670*	240 *790*	285 *940*
P11	195 *640*	225 *740*	270 *890*	185 *610*	215 *710*	260 *850*	180 *590*	210 *690*	250 *820*	165 *540*	195 *640*	225 *740*	215 *710*	250 *820*	295 *970*
P12	125 *410*	145 *475*	175 *570*	120 *395*	140 *460*	170 *560*	120 *395*	140 *460*	165 *540*	105 *345*	125 *410*	150 *490*	140 *460*	165 *540*	195 *640*
M1	— —	— —	— —	180 *590*	210 *690*	250 *820*	190 *620*	220 *720*	265 *870*	170 *560*	200 *660*	240 *790*	195 *640*	230 *750*	275 *900*
M2	— —	— —	— —	150 *490*	175 *570*	210 *690*	155 *510*	185 *610*	220 *720*	140 *460*	165 *540*	200 *660*	165 *540*	190 *620*	230 *750*
M3	— —	— —	— —	120 *395*	140 *460*	170 *560*	125 *410*	145 *475*	180 *590*	115 *375*	135 *445*	160 *520*	130 *425*	155 *510*	185 *610*
M4	— —	— —	— —	95 *310*	110 *360*	130 *425*	100 *330*	115 *375*	140 *460*	90 *295*	105 *345*	125 *410*	100 *330*	120 *395*	145 *475*
M5	— —	— —	— —	80 *260*	90 *295*	110 *360*	80 *260*	95 *310*	115 *375*	75 *245*	85 *280*	105 *345*	85 *280*	100 *330*	120 *395*
K1	275 *900*	320 *1050*	375 *1225*	195 *640*	225 *740*	265 *870*	— —	— —	— —	170 *560*	195 *640*	235 *770*	— —	— —	— —
K2	245 *800*	285 *940*	340 *1125*	170 *560*	200 *660*	240 *790*	— —	— —	— —	150 *490*	175 *570*	210 *690*	— —	— —	— —
K3	205 *670*	240 *790*	290 *950*	145 *475*	170 *560*	205 *670*	— —	— —	— —	125 *410*	150 *490*	175 *570*	— —	— —	— —
K4	195 *640*	230 *750*	275 *900*	140 *460*	160 *520*	195 *640*	— —	— —	— —	120 *395*	140 *460*	170 *560*	— —	— —	— —
K5	120 *395*	140 *460*	170 *560*	85 *280*	100 *330*	120 *395*	— —	— —	— —	75 *245*	85 *280*	105 *345*	— —	— —	— —
K6	175 *570*	200 *660*	240 *790*	120 *395*	145 *475*	170 *560*	— —	— —	— —	105 *345*	125 *410*	150 *490*	— —	— —	— —
K7	155 *510*	180 *590*	215 *710*	110 *360*	125 *410*	150 *490*	— —	— —	— —	95 *310*	110 *360*	130 *425*	— —	— —	— —
S1	— —	— —	— —	44 *145*	50 *165*	60 *195*	46 *150*	55 *180*	65 *215*	42 *140*	49 *160*	60 *195*	50 *165*	60 *195*	70 *230*
S2	— —	— —	— —	35 *115*	41 *135*	49 *160*	37 *120*	43 *140*	50 *165*	33 *110*	39 *130*	48 *155*	40 *130*	47 *155*	60 *195*
S3	— —	— —	— —	31 *100*	36 *120*	44 *145*	32 *105*	38 *125*	46 *150*	29 *95*	34 *110*	42 *140*	35 *115*	42 *140*	50 *165*
S11	— —	— —	— —	60 *195*	70 *230*	85 *280*	65 *215*	75 *245*	90 *295*	60 *195*	65 *215*	80 *260*	70 *230*	80 *260*	100 *330*
S12	— —	— —	— —	42 *140*	49 *160*	60 *195*	44 *145*	50 *165*	60 *195*	40 *130*	47 *155*	55 *180*	48 *155*	55 *180*	70 *230*
S13	— —	— —	— —	25 *80*	29 *95*	35 *115*	26 *85*	30 *100*	37 *120*	23 *75*	27 *90*	33 *110*	28 *90*	33 *110*	40 *130*
H5	— —	— —	— —	38 *125*	44 *145*	55 *180*	— —	— —	— —	36 *120*	42 *140*	50 *165*	— —	— —	— —
H8	— —	— —	— —	40 *130*	47 *155*	55 *180*	— —	— —	— —	38 *125*	45 *150*	55 *180*	— —	— —	— —
H11	— —	— —	— —	48 *155*	55 *180*	65 *215*	— —	— —	— —	45 *150*	55 *180*	65 *215*	55 *180*	60 *195*	75 *245*
H12	— —	— —	— —	75 *245*	90 *295*	110 *360*	— —	— —	— —	70 *230*	80 *260*	95 *310*	90 *295*	105 *345*	125 *410*

R220.21-SP14 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	MP1501			MP2501			MS2500			MP3501			MM4500		
	100%	70%	30%	100%	70%	30%	100%	70%	30%	100%	70%	30%	100%	70%	30%
P1	375 *1225*	420 *1375*	495 *1625*	400 *1300*	445 *1450*	520 *1700*	315 *1025*	365 *1200*	440 *1450*	355 *1175*	395 *1300*	470 *1550*	175 *570*	205 *670*	245 *800*
P2	365 *1200*	410 *1350*	470 *1550*	390 *1275*	435 *1425*	510 *1675*	305 *1000*	355 *1175*	425 *1400*	345 *1125*	385 *1275*	455 *1500*	170 *560*	200 *660*	240 *790*
P3	315 *1025*	350 *1150*	415 *1350*	345 *1125*	390 *1275*	450 *1475*	270 *890*	315 *1025*	375 *1225*	310 *1025*	345 *1125*	405 *1325*	150 *490*	180 *590*	210 *690*
P4	285 *940*	320 *1050*	365 *1200*	305 *1000*	340 *1125*	400 *1300*	240 *790*	280 *920*	330 *1075*	270 *890*	305 *1000*	355 *1175*	135 *445*	155 *510*	185 *610*
P5	275 *900*	305 *1000*	355 *1175*	290 *950*	325 *1075*	380 *1250*	225 *740*	265 *870*	315 *1025*	260 *850*	290 *950*	340 *1125*	130 *425*	150 *490*	180 *590*
P6	305 *1000*	345 *1125*	400 *1300*	335 *1100*	375 *1225*	425 *1400*	260 *850*	305 *1000*	355 *1175*	295 *970*	330 *1075*	380 *1250*	145 *475*	170 *560*	200 *660*
P7	290 *950*	325 *1075*	380 *1250*	315 *1025*	350 *1150*	400 *1300*	245 *800*	285 *940*	335 *1100*	280 *920*	315 *1025*	360 *1175*	140 *460*	160 *520*	190 *620*
P8	265 *870*	295 *970*	350 *1150*	290 *950*	325 *1075*	380 *1250*	225 *740*	265 *870*	315 *1025*	260 *850*	290 *950*	340 *1125*	130 *425*	150 *490*	180 *590*
P11	280 *920*	315 *1025*	370 *1225*	305 *1000*	340 *1125*	390 *1275*	240 *790*	280 *920*	325 *1075*	270 *890*	305 *1000*	350 *1150*	135 *445*	155 *510*	185 *610*
P12	185 *610*	205 *670*	240 *790*	200 *660*	225 *740*	260 *850*	155 *510*	180 *590*	215 *710*	180 *590*	200 *660*	230 *750*	85 *280*	100 *330*	120 *395*
M1	— —	— —	— —	200 *660*	235 *770*	280 *920*	220 *720*	255 *840*	305 *1000*	190 *620*	220 *720*	265 *870*	145 *475*	170 *560*	205 *670*
M2	— —	— —	— —	170 *560*	195 *640*	235 *770*	180 *590*	210 *690*	255 *840*	155 *510*	185 *610*	220 *720*	125 *410*	145 *475*	170 *560*
M3	— —	— —	— —	135 *445*	155 *510*	190 *620*	145 *475*	170 *560*	205 *670*	125 *410*	145 *475*	180 *590*	100 *330*	115 *375*	140 *460*
M4	— —	— —	— —	105 *345*	125 *410*	150 *490*	115 *375*	135 *445*	160 *520*	100 *330*	115 *375*	140 *460*	75 *245*	90 *295*	110 *360*
M5	— —	— —	— —	85 *280*	100 *330*	125 *410*	95 *310*	110 *360*	135 *445*	80 *260*	95 *310*	115 *375*	65 *215*	75 *245*	90 *295*
K1	370 *1225*	415 *1350*	475 *1550*	390 *1275*	440 *1450*	520 *1700*	240 *790*	280 *920*	340 *1125*	350 *1150*	390 *1275*	460 *1500*	— —	— —	— —
K2	330 *1075*	370 *1225*	430 *1400*	355 *1175*	395 *1300*	460 *1500*	215 *710*	250 *820*	300 *980*	315 *1025*	350 *1150*	410 *1350*	— —	— —	— —
K3	280 *920*	315 *1025*	365 *1200*	300 *980*	335 *1100*	390 *1275*	185 *610*	215 *710*	255 *840*	265 *870*	295 *970*	345 *1125*	— —	— —	— —
K4	265 *870*	300 *980*	350 *1150*	285 *940*	320 *1050*	370 *1225*	175 *570*	205 *670*	245 *800*	255 *840*	285 *940*	330 *1075*	— —	— —	— —
K5	165 *540*	185 *610*	215 *710*	175 *570*	195 *640*	225 *740*	105 *345*	125 *410*	150 *490*	155 *510*	175 *570*	205 *670*	— —	— —	— —
K6	235 *770*	265 *870*	310 *1025*	250 *820*	280 *920*	325 *1075*	155 *510*	180 *590*	215 *710*	225 *740*	250 *820*	290 *950*	— —	— —	— —
K7	210 *690*	235 *770*	275 *900*	225 *740*	250 *820*	290 *950*	135 *445*	160 *520*	190 *620*	200 *660*	225 *740*	260 *850*	— —	— —	— —
S1	— —	— —	— —	— —	— —	— —	55 *180*	65 *215*	80 *260*	46 *150*	55 *180*	65 *215*	23 *75*	27 *90*	33 *110*
S2	— —	— —	— —	— —	— —	— —	45 *150*	50 *165*	65 *215*	37 *120*	43 *140*	50 *165*	19 *60*	22 *70*	27 *90*
S3	— —	— —	— —	— —	— —	— —	39 *130*	46 *150*	55 *180*	32 *105*	38 *125*	46 *150*	17 *55*	19 *60*	24 *80*
S11	— —	— —	— —	— —	— —	— —	75 *245*	90 *295*	110 *360*	65 *215*	75 *245*	90 *295*	33 *110*	38 *125*	46 *150*
S12	— —	— —	— —	— —	— —	— —	55 *180*	65 *215*	75 *245*	44 *145*	50 *165*	60 *195*	30 *100*	35 *115*	43 *140*
S13	— —	— —	— —	— —	— —	— —	31 *100*	37 *120*	45 *150*	26 *85*	30 *100*	37 *120*	18 *60*	21 *70*	25 *80*
H5	48 *155*	55 *180*	65 *215*	— —	— —	— —	46 *150*	55 *180*	65 *215*	41 *135*	48 *155*	55 *180*	— —	— —	— —
H8	50 *165*	60 *195*	70 *230*	— —	— —	— —	50 *165*	60 *195*	70 *230*	44 *145*	50 *165*	60 *195*	— —	— —	— —
H11	60 *195*	70 *230*	85 *280*	— —	— —	— —	60 *195*	70 *230*	80 *260*	50 *165*	60 *195*	75 *245*	— —	— —	— —
H12	90 *295*	105 *345*	130 *425*	— —	— —	— —	100 *330*	115 *375*	140 *460*	80 *260*	90 *295*	110 *360*	— —	— —	— —

R220.21-SP18 – Metric

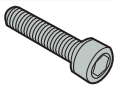
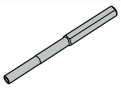
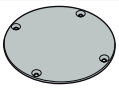




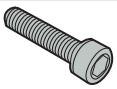
- For insert selection and cutting data recommendations, see page(s) 519-521
- For complete insert programme, see page(s) 837
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	DCX	ZEFP	APMXS	APMXE	DCB	DCSFMS	LF	RP	RMPX°	Cmin	Cmax	Weight	RPMX	Insert
			mm	mm		mm	mm	mm	mm	mm	mm		mm	mm	kg		
R220.21-0063-SP18.5A	10097579	Arbor	33,7	63,0	5	2,5	14,0	22,0	49,0	50,0	5,41	2,4	96,7	124,0	0,6	5800	SPKT180630
R220.21-0066-SP18.5A	10097580	Arbor	36,7	66,0	5	2,5	14,0	27,0	61,0	55,0	5,4	3,4	102,7	130,0	0,8	5700	SPKT180630
R220.21-0080-SP18.5A	10097581	Arbor	50,7	80,0	5	2,5	14,0	27,0	61,0	50,0	5,4	2,4	130,7	158,0	1,0	5100	SPKT180630
R220.21-0080-SP18.6A	10097582	Arbor	50,7	80,0	6	2,5	14,0	27,0	61,0	50,0	5,4	2,4	130,7	158,0	1,4	5100	SPKT180630
R220.21-0100-SP18.7A	10097583	Arbor	70,7	100,0	7	2,5	14,0	32,0	79,0	50,0	5,39	1,7	170,7	198,0	1,6	4500	SPKT180630
R220.21-0125-SP18.8A	10097584	Arbor	95,6	125,0	8	2,5	14,0	40,0	90,0	63,0	5,39	1,2	220,6	248,0	3,1	4000	SPKT180630
R220.21-8160-SP18.10A	10097585	Arbor	130,6	160,0	10	2,5	14,0	40,0	90,0	63,0	5,39	0,9	290,6	318,0	3,9	3600	SPKT180630

Spare Parts, included in delivery

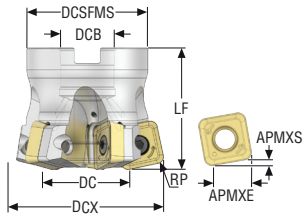
For cutter	Arbor screw	Insert key	Insert screw	Lid	Lid screw
					
R220.21-0063	MLC6S10X45	H6B-T20P	C05013-T20P	–	–
R220.21-0066	MLC6S12X50	H6B-T20P	C05013-T20P	–	–
R220.21-0080	MC6S12X40	H6B-T20PL	C05013-T20P	–	–
R220.21-0100	MLC6S16X35	H6B-T20PL	C05013-T20P	–	–
R220.21-0125	MC6S20X50	H6B-T20PL	C05013-T20P	–	–
R220.21-8160	–	H6B-T20PL	C05013-T20P	SC160-53	MF6S4X10

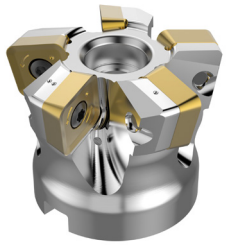
Accessories

For cutter	Arbor screw	Insert clamping torque	Torque key
			
R220.21-0063-0125	–	5.0NM	T00-20P50
R220.21-8160	MC6S12X40	5.0NM	T00-20P50

Torque and fixed keys, see page 872

R220.21-SP18 – inch





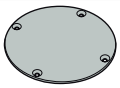
- For insert selection and cutting data recommendations, see page(s) 519-521
- For complete insert programme, see page(s) 837
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	DCX	ZEFP	APMXS	APMXE	DCB	DCSFMS	LF	RP	RMPX°	C min	C max	Weight	RPMX	Insert
			inch	inch		inch	inch	inch	inch	inch	inch		inch	inch	lbs		
R220.21-02.50-SP18.5A	10097586	Arbor	1.346	2.500	5	0.098	0.551	0.750	1.789	2.000	0.213	3,7	3.846	4.921	1.320	5800	SPKT180630
R220.21-03.00-SP18.5A	10128670	Arbor	1.846	3.000	5	0.098	0.551	1.000	2.289	2.000	0.213	2,6	4.846	5.921	1.980	5100	SPKT180630
R220.21-03.00-SP18.6A	10097587	Arbor	1.846	3.000	6	0.098	0.551	1.000	2.289	2.000	0.213	2,6	4.846	5.921	1.980	5100	SPKT180630
R220.21-04.00-SP18.7A	10097588	Arbor	2.846	4.000	7	0.098	0.551	1.500	3.539	2.000	0.212	1,7	6.846	7.921	1.320	4500	SPKT180630
R220.21-05.00-SP18.8A	10097589	Arbor	3.843	5.000	8	0.098	0.551	1.500	3.539	2.500	0.212	1,2	8.843	9.921	6.610	4000	SPKT180630
R220.21-06.00-SP18.10A	10097590	Arbor	4.843	6.000	10	0.098	0.551	2.000	4.909	2.500	0.212	1,0	10.843	11.921	8.600	3700	SPKT180630

Spare Parts, included in delivery

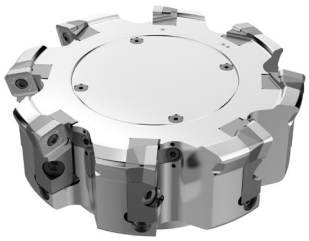
For cutter	Arbor screw	Insert screw
		
R220.21-02.50	UC6S3/8UNFX11/2	C05013-T20P
R220.21-03.00	UC6S1/2UNFX1-1/2	C05013-T20P
R220.21-04.00	ULC6S3/4UNFX11/2	C05013-T20P
R220.21-05.00	UC6S3/4UNFX2	C05013-T20P
R220.21-06.00	–	C05013-T20P

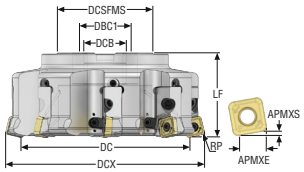
Accessories

For cutter	Insert clamping torque	Lid	Lid Screw	Torque key
				
R220.21-02.50-05.00	44.3IN.LBS	–	–	T00-20P50
R220.21-06.00	44.3IN.LBS	SC-160-90	MF6S4X10	T00-20P50

Torque and fixed keys, see page 872

R220.21-SP18CA – Metric

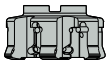




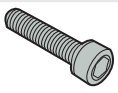
- For insert selection and cutting data recommendations, see page(s) 522-527
- For complete insert programme, see page(s) 837
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	DCX	ZEFP	APMXS	APMXE	DCB	DBC1	DCSFMS	LF	RP	RMPX°	Cmin	Cmax	Weight	RPMX	Insert
			mm	mm		mm	mm	mm	mm	mm	mm	mm		mm	mm	kg		
R220.21-0153-SP18HF-6CA	10135928	Arbor	123,8	153,0	6	2,9	14,0	40,0	–	90,0	80,0	5,79	0,8	276,8	304,0	6,1	3700	SPKT180630
R220.21-0153-SP18MF-6CA	10135931	Arbor	124,5	153,0	6	4,1	14,0	40,0	–	90,0	80,0	6,99	0,7	277,5	304,0	6,1	3700	SPKT180630
R220.21-8188-SP18HF-8CA	10135929	Arbor	158,8	188,0	8	2,9	14,0	40,0	66,7	90,0	80,0	5,79	0,6	346,8	374,0	8,2	3300	SPKT180630
R220.21-8188-SP18MF-8CA	10135932	Arbor	159,5	188,0	8	4,1	14,0	40,0	66,7	90,0	80,0	6,99	0,5	347,5	374,0	8,2	3300	SPKT180630
R220.21-8228-SP18HF-10CA	10135930	Arbor	198,7	228,0	10	2,9	14,0	60,0	101,6	130,0	80,0	5,79	0,5	426,7	454,0	11,5	3000	SPKT180630
R220.21-8228-SP18MF-10CA	10135933	Arbor	199,5	228,0	10	4,1	14,0	60,0	101,6	130,0	80,0	6,99	0,4	427,5	454,0	11,5	3000	SPKT180630

Spare Parts, included in delivery

For cutter	Adjustment unit	Arbor screw	Basic body	Cassette	Cassette screw	Insert screw	Lid	Lid screw	Wedge clamp	Wedge screw
										
R220.21-0153HF	AU1114T-T15P	MC6S20X70	B-R220.21/29I-0153-6CA	SP18HF-R	FS98030	C05013-T20P	–	–	CW0810	LD8020-T25P
R220.21-0153MF	AU1114T-T15P	MC6S20X70	B-R220.21/29I-0153-6CA	SP18MF-R	FS98030	C05013-T20P	–	–	CW0810	LD8020-T25P
R220.21-8188HF	AU1114T-T15P	–	B-R220.21/29I-8188-8CA	SP18HF-R	FS98030	C05013-T20P	SC-160-90	MF6S4X10	CW0810	LD8020-T25P
R220.21-8188MF	AU1114T-T15P	–	B-R220.21/29I-8188-8CA	SP18MF-R	FS98030	C05013-T20P	SC-160-90	MF6S4X10	CW0810	LD8020-T25P
R220.21-8228HF	AU1114T-T15P	–	B-R220.21/29I-8228-10CA	SP18HF-R	FS98030	C05013-T20P	SC-200-90	MF6S4X10	CW0810	LD8020-T25P
R220.21-8228MF	AU1114T-T15P	–	B-R220.21/29I-8228-10CA	SP18MF-R	FS98030	C05013-T20P	SC-200-90	MF6S4X10	CW0810	LD8020-T25P

Accessories

For cutter	Arbor screw	Setting key	Torque key	Wedge key
				
R220.21-0153	–	1/4HEX-T15PX50	1/4HEX-T-HANDLE-5.0-14.0NM	1/4HEX-T25PX50
R220.21-8188	MC6S12X40	1/4HEX-T15PX50	1/4HEX-T-HANDLE-5.0-14.0NM	1/4HEX-T25PX50
R220.21-8228	MC6S16X50	1/4HEX-T15PX50	1/4HEX-T-HANDLE-5.0-14.0NM	1/4HEX-T25PX50

Torque and fixed keys, see page 872

R220.21-SP18 – Insert selection – mm/*Inch*

SMG		a_p	f_z		
			100%	70%	30%
P1	SPKT180630TN-M14 MP3501	2,5 *0.10*	1,0 *0.040*	1,0 *0.040*	1,2 *0.048*
P2	SPKT180630TN-M14 MP3501	2,5 *0.10*	1,0 *0.040*	1,0 *0.040*	1,2 *0.048*
P3	SPKT180630TN-M14 MP2501	2,5 *0.10*	0,95 *0.038*	0,95 *0.038*	1,1 *0.044*
P4	SPKT180630TN-M14 MP2501	2,5 *0.10*	0,95 *0.038*	0,95 *0.038*	1,1 *0.044*
P5	SPKT180630TN-M14 MP2501	2,5 *0.10*	0,90 *0.036*	0,90 *0.036*	1,1 *0.044*
P6	SPKT180630TN-M14 MP2501	2,5 *0.10*	0,90 *0.036*	0,90 *0.036*	1,1 *0.044*
P7	SPKT180630TN-M14 MP2501	2,5 *0.10*	0,90 *0.036*	0,90 *0.036*	1,1 *0.044*
P8	SPKT180630TN-M14 MP2501	2,5 *0.10*	0,95 *0.038*	0,95 *0.038*	1,1 *0.044*
P11	SPKT180630TN-M14 MP3501	2,5 *0.10*	0,90 *0.036*	0,90 *0.036*	1,1 *0.044*
P12	SPKT180630TN-M14 MP2501	2,0 *0.075*	0,60 *0.024*	0,60 *0.024*	0,70 *0.028*
M1	SPKT180630TN-M14 MS2050	2,5 *0.10*	1,0 *0.040*	1,0 *0.040*	1,2 *0.048*
M2	SPKT180630TN-M14 MS2050	2,5 *0.10*	0,90 *0.036*	0,90 *0.036*	1,1 *0.044*
M3	SPKT180630TN-M14 MS2050	2,0 *0.075*	0,75 *0.030*	0,75 *0.030*	0,85 *0.034*
M4	SPKT180630TN-M14 MP3501	2,0 *0.075*	0,65 *0.026*	0,65 *0.026*	0,75 *0.030*
M5	SPKT180630TN-M14 MP3501	2,0 *0.075*	0,65 *0.026*	0,65 *0.026*	0,75 *0.030*
K1	SPKT180630TN-MD16 MK2050	2,5 *0.10*	1,2 *0.048*	1,2 *0.048*	1,3 *0.050*
K2	SPKT180630TN-MD16 MK2050	2,5 *0.10*	1,0 *0.040*	1,0 *0.040*	1,2 *0.048*
K3	SPKT180630TN-MD16 MK2050	2,5 *0.10*	1,0 *0.040*	1,0 *0.040*	1,2 *0.048*
K4	SPKT180630TN-MD16 MK2050	2,5 *0.10*	1,0 *0.040*	1,0 *0.040*	1,2 *0.048*
K5	SPKT180630TN-MD16 MK2050	2,5 *0.10*	0,95 *0.038*	0,95 *0.038*	1,1 *0.044*
K6	SPKT180630TN-MD16 MK2050	2,5 *0.10*	1,0 *0.040*	1,0 *0.040*	1,2 *0.048*
K7	SPKT180630TN-MD16 MK2050	2,5 *0.10*	0,95 *0.038*	0,95 *0.038*	1,1 *0.044*
S1	SPKT180630TN-M14 MP3501	2,0 *0.075*	0,65 *0.026*	0,65 *0.026*	0,75 *0.030*
S2	SPKT180630TN-M14 MP3501	2,0 *0.075*	0,65 *0.026*	0,65 *0.026*	0,75 *0.030*
S3	SPKT180630TN-M14 MP3501	2,0 *0.075*	0,60 *0.024*	0,60 *0.024*	0,70 *0.028*
S11	SPKT180630TN-M14 MS2050	2,0 *0.075*	0,75 *0.030*	0,75 *0.030*	0,85 *0.034*
S12	SPKT180630TN-M14 MS2050	2,0 *0.075*	0,75 *0.030*	0,75 *0.030*	0,85 *0.034*
S13	SPKT180630TN-M14 MS2050	2,0 *0.075*	0,65 *0.026*	0,65 *0.026*	0,75 *0.030*
H5	SPKT180630TN-MD16 MP3000	2,0 *0.075*	0,70 *0.028*	0,70 *0.028*	0,80 *0.032*
H8	SPKT180630TN-MD16 MP3000	2,0 *0.075*	0,55 *0.022*	0,55 *0.022*	0,65 *0.026*
H11	SPKT180630TN-MD16 MP1501	2,0 *0.075*	0,70 *0.028*	0,70 *0.028*	0,80 *0.032*
H12	SPKT180630TN-MD16 MP1501	2,0 *0.075*	0,55 *0.022*	0,55 *0.022*	0,65 *0.026*

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

R220.21-SP18 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	MP1501			MP2501			MS2500			MP3501		
	100%	70%	30%	100%	70%	30%	100%	70%	30%	100%	70%	30%
P1	360 *1175*	395 *1300*	465 *1525*	385 *1275*	425 *1400*	500 *1650*	305 *1000*	345 *1125*	420 *1375*	345 *1125*	380 *1250*	450 *1475*
P2	350 *1150*	385 *1275*	450 *1475*	370 *1225*	405 *1325*	475 *1550*	290 *950*	330 *1075*	395 *1300*	330 *1075*	360 *1175*	425 *1400*
P3	300 *980*	330 *1075*	400 *1300*	325 *1075*	355 *1175*	420 *1375*	255 *840*	290 *950*	350 *1150*	290 *950*	315 *1025*	375 *1225*
P4	275 *900*	300 *980*	350 *1150*	290 *950*	320 *1050*	370 *1225*	225 *740*	260 *850*	310 *1025*	260 *850*	285 *940*	330 *1075*
P5	260 *850*	290 *950*	335 *1100*	280 *920*	305 *1000*	365 *1200*	215 *710*	250 *820*	305 *1000*	250 *820*	270 *890*	325 *1075*
P6	295 *970*	325 *1075*	375 *1225*	310 *1025*	345 *1125*	410 *1350*	245 *800*	280 *920*	340 *1125*	280 *920*	305 *1000*	365 *1200*
P7	275 *900*	305 *1000*	355 *1175*	295 *970*	325 *1075*	385 *1275*	230 *750*	265 *870*	320 *1050*	260 *850*	290 *950*	345 *1125*
P8	250 *820*	280 *920*	335 *1100*	275 *900*	300 *980*	355 *1175*	215 *710*	245 *800*	295 *970*	240 *790*	265 *870*	315 *1025*
P11	270 *890*	295 *970*	345 *1125*	285 *940*	315 *1025*	375 *1225*	225 *740*	255 *840*	310 *1025*	255 *840*	280 *920*	335 *1100*
P12	175 *570*	195 *640*	230 *750*	190 *620*	210 *690*	245 *800*	145 *475*	165 *540*	205 *670*	170 *560*	185 *610*	220 *720*
M1	— —	— —	— —	190 *620*	220 *720*	260 *850*	210 *690*	240 *790*	285 *940*	180 *590*	205 *670*	245 *800*
M2	— —	— —	— —	160 *520*	185 *610*	225 *740*	175 *570*	200 *660*	245 *800*	150 *490*	170 *560*	210 *690*
M3	— —	— —	— —	130 *425*	150 *490*	180 *590*	140 *460*	160 *520*	195 *640*	120 *395*	140 *460*	165 *540*
M4	— —	— —	— —	100 *330*	115 *375*	140 *460*	110 *360*	125 *410*	150 *490*	95 *310*	105 *345*	130 *425*
M5	— —	— —	— —	85 *280*	95 *310*	115 *375*	90 *295*	100 *330*	125 *410*	75 *245*	90 *295*	110 *360*
K1	350 *1150*	385 *1275*	455 *1500*	375 *1225*	410 *1350*	480 *1575*	230 *750*	265 *870*	315 *1025*	330 *1075*	365 *1200*	425 *1400*
K2	315 *1025*	350 *1150*	405 *1325*	335 *1100*	370 *1225*	440 *1450*	205 *670*	235 *770*	290 *950*	300 *980*	330 *1075*	395 *1300*
K3	265 *870*	295 *970*	345 *1125*	285 *940*	315 *1025*	375 *1225*	175 *570*	200 *660*	245 *800*	255 *840*	280 *920*	335 *1100*
K4	255 *840*	280 *920*	325 *1075*	270 *890*	300 *980*	355 *1175*	165 *540*	190 *620*	235 *770*	240 *790*	265 *870*	320 *1050*
K5	160 *520*	175 *570*	200 *660*	170 *560*	185 *610*	215 *710*	105 *345*	120 *395*	140 *460*	150 *490*	165 *540*	195 *640*
K6	225 *740*	250 *820*	290 *950*	240 *790*	265 *870*	315 *1025*	145 *475*	170 *560*	205 *670*	215 *710*	235 *770*	280 *920*
K7	200 *660*	225 *740*	255 *840*	215 *710*	240 *790*	275 *900*	130 *425*	150 *490*	180 *590*	195 *640*	210 *690*	245 *800*
S1	— —	— —	— —	— —	— —	— —	55 *180*	60 *195*	75 *245*	43 *140*	49 *160*	60 *195*
S2	— —	— —	— —	— —	— —	— —	43 *140*	48 *155*	60 *195*	35 *115*	40 *130*	49 *160*
S3	— —	— —	— —	— —	— —	— —	37 *120*	43 *140*	50 *165*	31 *100*	35 *115*	43 *140*
S11	— —	— —	— —	— —	— —	— —	75 *245*	85 *280*	105 *345*	60 *195*	70 *230*	85 *280*
S12	— —	— —	— —	— —	— —	— —	50 *165*	60 *195*	70 *230*	42 *140*	48 *155*	60 *195*
S13	— —	— —	— —	— —	— —	— —	30 *100*	34 *110*	41 *135*	24 *80*	28 *90*	34 *110*
H5	46 *150*	50 *165*	65 *215*	— —	— —	— —	44 *145*	50 *165*	60 *195*	39 *130*	44 *145*	55 *180*
H8	49 *160*	55 *180*	70 *230*	— —	— —	— —	47 *155*	55 *180*	65 *215*	41 *135*	48 *155*	60 *195*
H11	60 *195*	65 *215*	80 *260*	— —	— —	— —	55 *180*	65 *215*	80 *260*	50 *165*	55 *180*	70 *230*
H12	90 *295*	100 *330*	125 *410*	— —	— —	— —	95 *310*	105 *345*	130 *425*	75 *245*	85 *280*	105 *345*

R220.21-SP18 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	MK2050			MS2050			MS2500			MP2050		
	100%	70%	30%	100%	70%	30%	100%	70%	30%	100%	70%	30%
P1	270 *890*	310 *1025*	370 *1225*	230 *750*	260 *850*	315 *1025*	300 *980*	345 *1125*	410 *1350*	270 *890*	310 *1025*	370 *1225*
P2	260 *850*	300 *980*	360 *1175*	220 *720*	255 *840*	305 *1000*	290 *950*	335 *1100*	400 *1300*	260 *850*	300 *980*	360 *1175*
P3	230 *750*	265 *870*	320 *1050*	195 *640*	225 *740*	270 *890*	255 *840*	290 *950*	350 *1150*	230 *750*	265 *870*	315 *1025*
P4	200 *660*	230 *750*	280 *920*	170 *560*	195 *640*	235 *770*	225 *740*	255 *840*	310 *1025*	200 *660*	230 *750*	280 *920*
P5	195 *640*	225 *740*	265 *870*	165 *540*	190 *620*	225 *740*	215 *710*	250 *820*	295 *970*	195 *640*	225 *740*	265 *870*
P6	220 *720*	255 *840*	300 *980*	185 *610*	215 *710*	255 *840*	245 *800*	280 *920*	330 *1075*	220 *720*	250 *820*	300 *980*
P7	210 *690*	240 *790*	285 *940*	175 *570*	200 *660*	240 *790*	230 *750*	265 *870*	315 *1025*	205 *670*	240 *790*	280 *920*
P8	195 *640*	220 *720*	265 *870*	165 *540*	185 *610*	225 *740*	215 *710*	245 *800*	295 *970*	190 *620*	220 *720*	265 *870*
P11	200 *660*	230 *750*	275 *900*	170 *560*	195 *640*	235 *770*	225 *740*	255 *840*	305 *1000*	200 *660*	230 *750*	275 *900*
P12	130 *425*	150 *490*	180 *590*	110 *360*	125 *410*	155 *510*	145 *475*	165 *540*	200 *660*	130 *425*	145 *475*	180 *590*
M1	— —	— —	— —	180 *590*	205 *670*	245 *800*	210 *690*	240 *790*	285 *940*	185 *610*	215 *710*	255 *840*
M2	— —	— —	— —	150 *490*	170 *560*	205 *670*	175 *570*	200 *660*	235 *770*	155 *510*	180 *590*	215 *710*
M3	— —	— —	— —	120 *395*	135 *445*	165 *540*	140 *460*	155 *510*	190 *620*	125 *410*	140 *460*	170 *560*
M4	— —	— —	— —	95 *310*	105 *345*	125 *410*	110 *360*	125 *410*	150 *490*	95 *310*	110 *360*	135 *445*
M5	— —	— —	— —	75 *245*	90 *295*	105 *345*	90 *295*	105 *345*	125 *410*	80 *260*	90 *295*	110 *360*
K1	285 *940*	325 *1075*	390 *1275*	— —	— —	— —	— —	— —	— —	— —	— —	— —
K2	255 *840*	290 *950*	345 *1125*	— —	— —	— —	— —	— —	— —	— —	— —	— —
K3	215 *710*	245 *800*	290 *950*	— —	— —	— —	— —	— —	— —	— —	— —	— —
K4	205 *670*	235 *770*	280 *920*	— —	— —	— —	— —	— —	— —	— —	— —	— —
K5	125 *410*	145 *475*	175 *570*	— —	— —	— —	— —	— —	— —	— —	— —	— —
K6	180 *590*	205 *670*	245 *800*	— —	— —	— —	— —	— —	— —	— —	— —	— —
K7	160 *520*	185 *610*	220 *720*	— —	— —	— —	— —	— —	— —	— —	— —	— —
S1	— —	— —	— —	43 *140*	49 *160*	60 *195*	55 *180*	60 *195*	70 *230*	48 *155*	55 *180*	65 *215*
S2	— —	— —	— —	35 *115*	40 *130*	48 *155*	43 *140*	48 *155*	60 *195*	38 *125*	44 *145*	50 *165*
S3	— —	— —	— —	31 *100*	35 *115*	42 *140*	38 *125*	43 *140*	50 *165*	34 *110*	38 *125*	46 *150*
S11	— —	— —	— —	60 *195*	70 *230*	85 *280*	75 *245*	85 *280*	100 *330*	65 *215*	75 *245*	90 *295*
S12	— —	— —	— —	42 *140*	47 *155*	55 *180*	50 *165*	60 *195*	70 *230*	46 *150*	50 *165*	65 *215*
S13	— —	— —	— —	24 *80*	28 *90*	33 *110*	30 *100*	34 *110*	41 *135*	27 *90*	30 *100*	37 *120*
H5	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —
H8	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —
H11	— —	— —	— —	— —	— —	— —	— —	— —	— —	49 *160*	55 *180*	70 *230*
H12	— —	— —	— —	— —	— —	— —	95 *310*	105 *345*	125 *410*	85 *280*	95 *310*	115 *375*
H21	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —

R220.21-SP18HF-CA – Insert selection – Metric / *Inch*

SMG		a_p	f_z		
			100%	70%	30%
P1	SPKT180630TN-M14 MP3501	3,0 *0.11*	0,85 *0.034*	0,85 *0.034*	0,90 *0.036*
P2	SPKT180630TN-M14 MP3501	3,0 *0.11*	0,85 *0.034*	0,85 *0.034*	0,95 *0.038*
P3	SPKT180630TN-M14 MP2501	3,0 *0.11*	0,80 *0.032*	0,80 *0.032*	0,90 *0.036*
P4	SPKT180630TN-M14 MP2501	3,0 *0.11*	0,80 *0.032*	0,80 *0.032*	0,85 *0.034*
P5	SPKT180630TN-M14 MP2501	3,0 *0.11*	0,75 *0.030*	0,75 *0.030*	0,85 *0.034*
P6	SPKT180630TN-M14 MP2501	3,0 *0.11*	0,75 *0.030*	0,75 *0.030*	0,85 *0.034*
P7	SPKT180630TN-M14 MP2501	3,0 *0.11*	0,75 *0.030*	0,75 *0.030*	0,85 *0.034*
P8	SPKT180630TN-M14 MP2501	3,0 *0.11*	0,80 *0.032*	0,80 *0.032*	0,90 *0.036*
P11	SPKT180630TN-M14 MP3501	3,0 *0.11*	0,75 *0.030*	0,75 *0.030*	0,85 *0.034*
P12	SPKT180630TN-M14 MP2501	2,5 *0.090*	0,50 *0.020*	0,50 *0.020*	0,60 *0.024*
M1	SPKT180630TN-M14 MS2050	3,0 *0.11*	0,85 *0.034*	0,85 *0.034*	0,95 *0.038*
M2	SPKT180630TN-M14 MS2050	3,0 *0.11*	0,75 *0.030*	0,75 *0.030*	0,85 *0.034*
M3	SPKT180630TN-M14 MS2050	2,5 *0.090*	0,60 *0.024*	0,60 *0.024*	0,70 *0.028*
M4	SPKT180630TN-M14 MP3501	2,5 *0.090*	0,55 *0.022*	0,55 *0.022*	0,60 *0.024*
M5	SPKT180630TN-M14 MP3501	2,5 *0.090*	0,55 *0.022*	0,55 *0.022*	0,60 *0.024*
K1	SPKT180630TN-MD16 MK2050	3,0 *0.11*	0,95 *0.038*	0,95 *0.038*	1,1 *0.044*
K2	SPKT180630TN-MD16 MK2050	3,0 *0.11*	0,90 *0.036*	0,90 *0.036*	1,0 *0.040*
K3	SPKT180630TN-MD16 MK2050	3,0 *0.11*	0,90 *0.036*	0,90 *0.036*	1,0 *0.040*
K4	SPKT180630TN-MD16 MK2050	3,0 *0.11*	0,90 *0.036*	0,90 *0.036*	1,0 *0.040*
K5	SPKT180630TN-MD16 MK2050	3,0 *0.11*	0,80 *0.032*	0,80 *0.032*	0,90 *0.036*
K6	SPKT180630TN-MD16 MK2050	3,0 *0.11*	0,90 *0.036*	0,90 *0.036*	1,0 *0.040*
K7	SPKT180630TN-MD16 MK2050	3,0 *0.11*	0,80 *0.032*	0,80 *0.032*	0,90 *0.036*
S1	SPKT180630TN-M14 MP3501	2,5 *0.090*	0,55 *0.022*	0,55 *0.022*	0,60 *0.024*
S2	SPKT180630TN-M14 MP3501	2,5 *0.090*	0,55 *0.022*	0,55 *0.022*	0,60 *0.024*
S3	SPKT180630TN-M14 MP3501	2,5 *0.090*	0,50 *0.020*	0,50 *0.020*	0,55 *0.022*
S11	SPKT180630TN-M14 MS2050	2,5 *0.090*	0,60 *0.024*	0,60 *0.024*	0,70 *0.028*
S12	SPKT180630TN-M14 MS2050	2,5 *0.090*	0,60 *0.024*	0,60 *0.024*	0,70 *0.028*
S13	SPKT180630TN-M14 MS2050	2,5 *0.090*	0,55 *0.022*	0,55 *0.022*	0,60 *0.024*
H5	SPKT180630TN-MD16 MP3000	2,5 *0.090*	0,60 *0.024*	0,60 *0.024*	0,65 *0.026*
H8	SPKT180630TN-MD16 MP3000	2,5 *0.090*	0,46 *0.018*	0,46 *0.018*	0,50 *0.020*
H11	SPKT180630TN-MD16 MP1501	2,5 *0.090*	0,60 *0.024*	0,60 *0.024*	0,65 *0.026*
H12	SPKT180630TN-MD16 MP1501	2,5 *0.090*	0,46 *0.018*	0,46 *0.018*	0,50 *0.020*

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

R220.21-SP18HF-CA – Cutting data v_c = (m/min)/*(sf/min)*

SMG	MK2050			MP3000			MS2050			F40M			MP2050		
	100%	70%	30%	100%	70%	30%	100%	70%	30%	100%	70%	30%	100%	70%	30%
P1	230 *750*	250 *820*	305 *1000*	220 *720*	240 *790*	295 *970*	210 *690*	235 *770*	285 *940*	190 *620*	210 *690*	260 *850*	250 *820*	275 *900*	335 *1100*
P2	220 *720*	245 *800*	295 *970*	215 *710*	235 *770*	285 *940*	205 *670*	225 *740*	275 *900*	185 *610*	205 *670*	250 *820*	240 *790*	265 *870*	325 *1075*
P3	195 *640*	215 *710*	265 *870*	185 *610*	205 *670*	255 *840*	180 *590*	200 *660*	240 *790*	165 *540*	180 *590*	220 *720*	210 *690*	235 *770*	285 *940*
P4	170 *560*	190 *620*	230 *750*	165 *540*	180 *590*	225 *740*	160 *520*	175 *570*	215 *710*	145 *475*	160 *520*	195 *640*	185 *610*	205 *670*	250 *820*
P5	165 *540*	180 *590*	220 *720*	155 *510*	175 *570*	215 *710*	155 *510*	170 *560*	205 *670*	140 *460*	155 *510*	190 *620*	180 *590*	200 *660*	245 *800*
P6	185 *610*	205 *670*	250 *820*	175 *570*	195 *640*	240 *790*	175 *570*	190 *620*	230 *750*	155 *510*	175 *570*	210 *690*	205 *670*	225 *740*	275 *900*
P7	175 *570*	190 *620*	235 *770*	165 *540*	185 *610*	225 *740*	165 *540*	180 *590*	220 *720*	150 *490*	165 *540*	200 *660*	190 *620*	215 *710*	260 *850*
P8	165 *540*	180 *590*	220 *720*	155 *510*	175 *570*	215 *710*	150 *490*	165 *540*	205 *670*	135 *445*	150 *490*	185 *610*	180 *590*	195 *640*	240 *790*
P11	170 *560*	185 *610*	230 *750*	160 *520*	180 *590*	220 *720*	160 *520*	175 *570*	215 *710*	145 *475*	160 *520*	195 *640*	185 *610*	205 *670*	250 *820*
P12	110 *360*	125 *410*	150 *490*	110 *360*	120 *395*	145 *475*	100 *330*	115 *375*	140 *460*	95 *310*	105 *345*	125 *410*	120 *395*	135 *445*	165 *540*
M1	— —	— —	— —	160 *520*	175 *570*	215 *710*	165 *540*	185 *610*	225 *740*	150 *490*	165 *540*	205 *670*	175 *570*	190 *620*	235 *770*
M2	— —	— —	— —	130 *425*	145 *475*	180 *590*	140 *460*	155 *510*	185 *610*	125 *410*	140 *460*	170 *560*	145 *475*	160 *520*	195 *640*
M3	— —	— —	— —	110 *360*	120 *395*	145 *475*	115 *375*	125 *410*	150 *490*	100 *330*	115 *375*	135 *445*	120 *395*	130 *425*	155 *510*
M4	— —	— —	— —	85 *280*	95 *310*	110 *360*	85 *280*	95 *310*	120 *395*	80 *260*	85 *280*	105 *345*	90 *295*	100 *330*	125 *410*
M5	— —	— —	— —	70 *230*	80 *260*	95 *310*	70 *230*	80 *260*	100 *330*	65 *215*	75 *245*	90 *295*	75 *245*	85 *280*	105 *345*
K1	240 *790*	265 *870*	320 *1050*	170 *560*	185 *610*	225 *740*	— —	— —	— —	145 *475*	165 *540*	200 *660*	— —	— —	— —
K2	210 *690*	235 *770*	285 *940*	150 *490*	165 *540*	200 *660*	— —	— —	— —	135 *445*	145 *475*	180 *590*	— —	— —	— —
K3	180 *590*	200 *660*	240 *790*	125 *410*	140 *460*	170 *560*	— —	— —	— —	110 *360*	125 *410*	150 *490*	— —	— —	— —
K4	170 *560*	190 *620*	230 *750*	120 *395*	135 *445*	165 *540*	— —	— —	— —	105 *345*	120 *395*	145 *475*	— —	— —	— —
K5	105 *345*	115 *375*	140 *460*	75 *245*	80 *260*	100 *330*	— —	— —	— —	65 *215*	70 *230*	85 *280*	— —	— —	— —
K6	150 *490*	165 *540*	205 *670*	105 *345*	115 *375*	145 *475*	— —	— —	— —	95 *310*	105 *345*	125 *410*	— —	— —	— —
K7	135 *445*	150 *490*	180 *590*	95 *310*	105 *345*	130 *425*	— —	— —	— —	85 *280*	95 *310*	110 *360*	— —	— —	— —
S1	— —	— —	— —	40 *130*	44 *145*	50 *165*	40 *130*	45 *150*	55 *180*	37 *120*	41 *135*	50 *165*	44 *145*	49 *160*	60 *195*
S2	— —	— —	— —	32 *105*	35 *115*	42 *140*	33 *110*	36 *120*	44 *145*	30 *100*	33 *110*	40 *130*	36 *120*	40 *130*	48 *155*
S3	— —	— —	— —	27 *90*	30 *100*	37 *120*	29 *95*	32 *105*	39 *130*	26 *85*	29 *95*	35 *115*	32 *105*	35 *115*	43 *140*
S11	— —	— —	— —	55 *180*	60 *195*	75 *245*	55 *180*	65 *215*	75 *245*	50 *165*	55 *180*	70 *230*	60 *195*	70 *230*	85 *280*
S12	— —	— —	— —	38 *125*	42 *140*	50 *165*	39 *130*	44 *145*	55 *180*	36 *120*	40 *130*	48 *155*	43 *140*	48 *155*	60 *195*
S13	— —	— —	— —	22 *70*	25 *80*	30 *100*	23 *75*	25 *80*	31 *100*	21 *70*	23 *75*	28 *90*	25 *80*	28 *90*	34 *110*
H5	— —	— —	— —	34 *110*	37 *120*	45 *150*	— —	— —	— —	31 *100*	34 *110*	42 *140*	— —	— —	— —
H8	— —	— —	— —	36 *120*	40 *130*	49 *160*	— —	— —	— —	34 *110*	37 *120*	45 *150*	— —	— —	— —
H11	— —	— —	— —	43 *140*	47 *155*	60 *195*	— —	— —	— —	39 *130*	44 *145*	55 *180*	46 *150*	50 *165*	60 *195*
H12	— —	— —	— —	70 *230*	75 *245*	95 *310*	— —	— —	— —	60 *195*	65 *215*	80 *260*	80 *260*	85 *280*	105 *345*

R220.21-SP18HF-CA – Cutting data v_c = (m/min)/*(sf/min)*

SMG	MP1501			MP2501			MS2500			MP3501		
	100%	70%	30%	100%	70%	30%	100%	70%	30%	100%	70%	30%
P1	330 *1075*	350 *1150*	415 *1350*	350 *1150*	375 *1225*	445 *1450*	275 *900*	305 *1000*	370 *1225*	310 *1025*	330 *1075*	400 *1300*
P2	320 *1050*	340 *1125*	405 *1325*	340 *1125*	365 *1200*	435 *1425*	270 *890*	295 *970*	360 *1175*	305 *1000*	325 *1075*	390 *1275*
P3	280 *920*	300 *980*	360 *1175*	300 *980*	320 *1050*	380 *1250*	235 *770*	260 *850*	315 *1025*	270 *890*	285 *940*	340 *1125*
P4	245 *800*	265 *870*	315 *1025*	265 *870*	285 *940*	335 *1100*	205 *670*	230 *750*	280 *920*	235 *770*	250 *820*	300 *980*
P5	235 *770*	250 *820*	300 *980*	260 *850*	275 *900*	325 *1075*	200 *660*	225 *740*	270 *890*	230 *750*	245 *800*	290 *950*
P6	265 *870*	285 *940*	340 *1125*	290 *950*	310 *1025*	365 *1200*	225 *740*	250 *820*	305 *1000*	260 *850*	275 *900*	330 *1075*
P7	250 *820*	265 *870*	320 *1050*	275 *900*	295 *970*	345 *1125*	215 *710*	235 *770*	285 *940*	245 *800*	260 *850*	310 *1025*
P8	235 *770*	250 *820*	300 *980*	255 *840*	270 *890*	320 *1050*	200 *660*	220 *720*	265 *870*	225 *740*	240 *790*	285 *940*
P11	245 *800*	260 *850*	310 *1025*	265 *870*	285 *940*	335 *1100*	210 *690*	230 *750*	280 *920*	240 *790*	255 *840*	300 *980*
P12	165 *540*	175 *570*	205 *670*	175 *570*	185 *610*	220 *720*	135 *445*	150 *490*	180 *590*	155 *510*	165 *540*	195 *640*
M1	— —	— —	— —	175 *570*	195 *640*	240 *790*	190 *620*	215 *710*	260 *850*	165 *540*	185 *610*	225 *740*
M2	— —	— —	— —	150 *490*	165 *540*	200 *660*	160 *520*	180 *590*	215 *710*	140 *460*	155 *510*	185 *610*
M3	— —	— —	— —	120 *395*	135 *445*	160 *520*	130 *425*	145 *475*	175 *570*	115 *375*	125 *410*	150 *490*
M4	— —	— —	— —	95 *310*	105 *345*	125 *410*	100 *330*	110 *360*	135 *445*	85 *280*	95 *310*	120 *395*
M5	— —	— —	— —	75 *245*	85 *280*	105 *345*	85 *280*	95 *310*	115 *375*	70 *230*	80 *260*	100 *330*
K1	325 *1075*	345 *1125*	405 *1325*	345 *1125*	365 *1200*	440 *1450*	210 *690*	235 *770*	285 *940*	305 *1000*	325 *1075*	390 *1275*
K2	285 *940*	305 *1000*	365 *1200*	315 *1025*	335 *1100*	395 *1300*	190 *620*	210 *690*	255 *840*	280 *920*	295 *970*	355 *1175*
K3	240 *790*	260 *850*	310 *1025*	265 *870*	285 *940*	335 *1100*	160 *520*	180 *590*	220 *720*	235 *770*	250 *820*	300 *980*
K4	230 *750*	245 *800*	295 *970*	255 *840*	270 *890*	320 *1050*	155 *510*	170 *560*	210 *690*	225 *740*	240 *790*	285 *940*
K5	145 *475*	155 *510*	180 *590*	155 *510*	165 *540*	195 *640*	95 *310*	105 *345*	125 *410*	140 *460*	145 *475*	175 *570*
K6	205 *670*	215 *710*	260 *850*	225 *740*	240 *790*	280 *920*	135 *445*	150 *490*	185 *610*	200 *660*	210 *690*	250 *820*
K7	185 *610*	195 *640*	230 *750*	200 *660*	210 *690*	250 *820*	120 *395*	135 *445*	160 *520*	175 *570*	190 *620*	220 *720*
S1	— —	— —	— —	— —	— —	— —	49 *160*	55 *180*	65 *215*	40 *130*	45 *150*	55 *180*
S2	— —	— —	— —	— —	— —	— —	40 *130*	44 *145*	55 *180*	33 *110*	36 *120*	44 *145*
S3	— —	— —	— —	— —	— —	— —	35 *115*	39 *130*	48 *155*	29 *95*	32 *105*	39 *130*
S11	— —	— —	— —	— —	— —	— —	70 *230*	75 *245*	95 *310*	55 *180*	65 *215*	75 *245*
S12	— —	— —	— —	— —	— —	— —	48 *155*	55 *180*	65 *215*	39 *130*	44 *145*	55 *180*
S13	— —	— —	— —	— —	— —	— —	28 *90*	31 *100*	38 *125*	23 *75*	25 *80*	31 *100*
H5	43 *140*	47 *155*	60 *195*	— —	— —	— —	40 *130*	44 *145*	55 *180*	36 *120*	39 *130*	48 *155*
H8	46 *150*	50 *165*	60 *195*	— —	— —	— —	44 *145*	49 *160*	60 *195*	39 *130*	43 *140*	50 *165*
H11	55 *180*	60 *195*	75 *245*	— —	— —	— —	50 *165*	55 *180*	70 *230*	45 *150*	50 *165*	60 *195*
H12	85 *280*	90 *295*	110 *360*	— —	— —	— —	85 *280*	95 *310*	120 *395*	70 *230*	75 *245*	95 *310*

R220.21-SP18MF-CA – Insert selection – Metric / *Inch*

SMG		a_p	f_z		
			100%	70%	30%
P1	SPKT180630TN-M14 MP3501	4,0 *0.16*	0,60 *0.024*	0,60 *0.024*	0,70 *0.028*
P2	SPKT180630TN-M14 MP3501	4,0 *0.16*	0,60 *0.024*	0,60 *0.024*	0,70 *0.028*
P3	SPKT180630TN-M14 MP2501	4,0 *0.16*	0,60 *0.024*	0,60 *0.024*	0,65 *0.026*
P4	SPKT180630TN-M14 MP2501	4,0 *0.16*	0,55 *0.022*	0,55 *0.022*	0,65 *0.026*
P5	SPKT180630TN-M14 MP2501	4,0 *0.16*	0,55 *0.022*	0,55 *0.022*	0,65 *0.026*
P6	SPKT180630TN-M14 MP2501	4,0 *0.16*	0,55 *0.022*	0,55 *0.022*	0,60 *0.024*
P7	SPKT180630TN-M14 MP2501	4,0 *0.16*	0,55 *0.022*	0,55 *0.022*	0,60 *0.024*
P8	SPKT180630TN-M14 MP2501	4,0 *0.16*	0,60 *0.024*	0,60 *0.024*	0,65 *0.026*
P11	SPKT180630TN-M14 MP3501	4,0 *0.16*	0,55 *0.022*	0,55 *0.022*	0,60 *0.024*
P12	SPKT180630TN-M14 MP2501	3,0 *0.12*	0,38 *0.015*	0,38 *0.015*	0,42 *0.017*
M1	SPKT180630TN-M14 MS2050	4,0 *0.16*	0,60 *0.024*	0,60 *0.024*	0,70 *0.028*
M2	SPKT180630TN-M14 MS2050	4,0 *0.16*	0,55 *0.022*	0,55 *0.022*	0,65 *0.026*
M3	SPKT180630TN-M14 MS2050	3,0 *0.12*	0,44 *0.017*	0,44 *0.017*	0,50 *0.020*
M4	SPKT180630TN-M14 MP3501	3,0 *0.12*	0,40 *0.016*	0,40 *0.016*	0,44 *0.017*
M5	SPKT180630TN-M14 MP3501	3,0 *0.12*	0,40 *0.016*	0,40 *0.016*	0,44 *0.017*
K1	SPKT180630TN-MD16 MK2050	4,0 *0.16*	0,70 *0.028*	0,70 *0.028*	0,80 *0.032*
K2	SPKT180630TN-MD16 MK2050	4,0 *0.16*	0,65 *0.026*	0,65 *0.026*	0,70 *0.028*
K3	SPKT180630TN-MD16 MK2050	4,0 *0.16*	0,65 *0.026*	0,65 *0.026*	0,70 *0.028*
K4	SPKT180630TN-MD16 MK2050	4,0 *0.16*	0,65 *0.026*	0,65 *0.026*	0,70 *0.028*
K5	SPKT180630TN-MD16 MK2050	4,0 *0.16*	0,60 *0.024*	0,60 *0.024*	0,65 *0.026*
K6	SPKT180630TN-MD16 MK2050	4,0 *0.16*	0,65 *0.026*	0,65 *0.026*	0,70 *0.028*
K7	SPKT180630TN-MD16 MK2050	4,0 *0.16*	0,60 *0.024*	0,60 *0.024*	0,65 *0.026*
S1	SPKT180630TN-M14 MP3501	3,0 *0.12*	0,40 *0.016*	0,40 *0.016*	0,44 *0.017*
S2	SPKT180630TN-M14 MP3501	3,0 *0.12*	0,40 *0.016*	0,40 *0.016*	0,44 *0.017*
S3	SPKT180630TN-M14 MP3501	3,0 *0.12*	0,36 *0.014*	0,36 *0.014*	0,40 *0.016*
S11	SPKT180630TN-M14 MS2050	3,0 *0.12*	0,44 *0.017*	0,44 *0.017*	0,50 *0.020*
S12	SPKT180630TN-M14 MS2050	3,0 *0.12*	0,44 *0.017*	0,44 *0.017*	0,50 *0.020*
S13	SPKT180630TN-M14 MS2050	3,0 *0.12*	0,40 *0.016*	0,40 *0.016*	0,44 *0.017*
H5	SPKT180630TN-MD16 MP3000	3,0 *0.12*	0,44 *0.017*	0,44 *0.017*	0,48 *0.019*
H8	SPKT180630TN-MD16 MP3000	3,0 *0.12*	0,34 *0.013*	0,34 *0.013*	0,38 *0.015*
H11	SPKT180630TN-MD16 MP1501	3,0 *0.12*	0,44 *0.017*	0,44 *0.017*	0,48 *0.019*
H12	SPKT180630TN-MD16 MP1501	3,0 *0.12*	0,34 *0.013*	0,34 *0.013*	0,38 *0.015*

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

R220.21-SP18MF-CA – Cutting data v_c = (m/min)/*(sf/min)*

SMG	MK2050			MP3000			MS2050			F40M			MP2050		
	100%	70%	30%	100%	70%	30%	100%	70%	30%	100%	70%	30%	100%	70%	30%
P1	225 *740*	250 *820*	305 *1000*	215 *710*	240 *790*	295 *970*	210 *690*	230 *750*	285 *940*	190 *620*	210 *690*	260 *850*	245 *800*	275 *900*	335 *1100*
P2	220 *720*	240 *790*	295 *970*	210 *690*	230 *750*	280 *920*	205 *670*	225 *740*	270 *890*	185 *610*	205 *670*	245 *800*	240 *790*	265 *870*	320 *1050*
P3	190 *620*	215 *710*	255 *840*	185 *610*	205 *670*	245 *800*	175 *570*	195 *640*	240 *790*	160 *520*	175 *570*	220 *720*	205 *670*	230 *750*	280 *920*
P4	170 *560*	185 *610*	230 *750*	165 *540*	180 *590*	225 *740*	160 *520*	175 *570*	210 *690*	145 *475*	160 *520*	190 *620*	185 *610*	205 *670*	250 *820*
P5	160 *520*	180 *590*	220 *720*	155 *510*	170 *560*	210 *690*	150 *490*	170 *560*	205 *670*	140 *460*	155 *510*	185 *610*	180 *590*	200 *660*	245 *800*
P6	180 *590*	200 *660*	250 *820*	175 *570*	195 *640*	240 *790*	170 *560*	190 *620*	230 *750*	155 *510*	170 *560*	210 *690*	200 *660*	220 *720*	275 *900*
P7	170 *560*	190 *620*	235 *770*	165 *540*	180 *590*	225 *740*	160 *520*	180 *590*	220 *720*	145 *475*	160 *520*	200 *660*	190 *620*	210 *690*	255 *840*
P8	160 *520*	180 *590*	215 *710*	155 *510*	170 *560*	210 *690*	150 *490*	165 *540*	200 *660*	135 *445*	150 *490*	185 *610*	175 *570*	190 *620*	235 *770*
P11	165 *540*	185 *610*	225 *740*	160 *520*	175 *570*	220 *720*	155 *510*	175 *570*	210 *690*	140 *460*	155 *510*	195 *640*	185 *610*	205 *670*	250 *820*
P12	110 *360*	125 *410*	150 *490*	105 *345*	120 *395*	145 *475*	105 *345*	115 *375*	140 *460*	95 *310*	105 *345*	125 *410*	120 *395*	135 *445*	165 *540*
M1	— —	— —	— —	155 *510*	175 *570*	210 *690*	165 *540*	180 *590*	220 *720*	150 *490*	165 *540*	200 *660*	170 *560*	190 *620*	230 *750*
M2	— —	— —	— —	130 *425*	145 *475*	175 *570*	135 *445*	150 *490*	185 *610*	125 *410*	135 *445*	170 *560*	145 *475*	160 *520*	195 *640*
M3	— —	— —	— —	105 *345*	120 *395*	145 *475*	110 *360*	125 *410*	150 *490*	100 *330*	110 *360*	135 *445*	115 *375*	130 *425*	155 *510*
M4	— —	— —	— —	85 *280*	95 *310*	110 *360*	85 *280*	95 *310*	115 *375*	80 *260*	85 *280*	105 *345*	90 *295*	100 *330*	120 *395*
M5	— —	— —	— —	70 *230*	75 *245*	95 *310*	70 *230*	80 *260*	95 *310*	65 *215*	70 *230*	90 *295*	75 *245*	85 *280*	100 *330*
K1	235 *770*	260 *850*	315 *1025*	165 *540*	185 *610*	225 *740*	— —	— —	— —	145 *475*	165 *540*	195 *640*	— —	— —	— —
K2	210 *690*	230 *750*	285 *940*	150 *490*	165 *540*	200 *660*	— —	— —	— —	130 *425*	145 *475*	180 *590*	— —	— —	— —
K3	175 *570*	195 *640*	240 *790*	125 *410*	140 *460*	170 *560*	— —	— —	— —	110 *360*	125 *410*	150 *490*	— —	— —	— —
K4	170 *560*	185 *610*	230 *750*	120 *395*	130 *425*	165 *540*	— —	— —	— —	105 *345*	115 *375*	145 *475*	— —	— —	— —
K5	105 *345*	115 *375*	140 *460*	75 *245*	85 *280*	100 *330*	— —	— —	— —	65 *215*	70 *230*	90 *295*	— —	— —	— —
K6	150 *490*	165 *540*	205 *670*	105 *345*	115 *375*	145 *475*	— —	— —	— —	95 *310*	105 *345*	125 *410*	— —	— —	— —
K7	135 *445*	150 *490*	180 *590*	95 *310*	105 *345*	125 *410*	— —	— —	— —	85 *280*	90 *295*	110 *360*	— —	— —	— —
S1	— —	— —	— —	39 *130*	43 *140*	50 *165*	40 *130*	44 *145*	55 *180*	36 *120*	40 *130*	49 *160*	44 *145*	49 *160*	60 *195*
S2	— —	— —	— —	31 *100*	35 *115*	42 *140*	32 *105*	36 *120*	44 *145*	29 *95*	32 *105*	40 *130*	35 *115*	39 *130*	48 *155*
S3	— —	— —	— —	27 *90*	30 *100*	37 *120*	29 *95*	32 *105*	39 *130*	26 *85*	29 *95*	35 *115*	31 *100*	35 *115*	42 *140*
S11	— —	— —	— —	55 *180*	60 *195*	75 *245*	55 *180*	60 *195*	75 *245*	50 *165*	55 *180*	70 *230*	60 *195*	70 *230*	85 *280*
S12	— —	— —	— —	38 *125*	42 *140*	50 *165*	39 *130*	43 *140*	50 *165*	35 *115*	39 *130*	47 *155*	43 *140*	47 *155*	55 *180*
S13	— —	— —	— —	22 *70*	24 *80*	29 *95*	23 *75*	25 *80*	30 *100*	20 *65*	23 *75*	28 *90*	25 *80*	27 *90*	33 *110*
H5	— —	— —	— —	33 *110*	37 *120*	45 *150*	— —	— —	— —	31 *100*	34 *110*	42 *140*	— —	— —	— —
H8	— —	— —	— —	36 *120*	39 *130*	48 *155*	— —	— —	— —	33 *110*	37 *120*	45 *150*	— —	— —	— —
H11	— —	— —	— —	42 *140*	47 *155*	55 *180*	— —	— —	— —	40 *130*	44 *145*	55 *180*	46 *150*	50 *165*	60 *195*
H12	— —	— —	— —	70 *230*	75 *245*	95 *310*	— —	— —	— —	60 *195*	65 *215*	80 *260*	75 *245*	85 *280*	105 *345*

R220.21-SP18MF-CA – Cutting data v_c = (m/min)/*(sf/min)*

SMG	MP1501			MP2501			MS2500			MP3501		
	100%	70%	30%	100%	70%	30%	100%	70%	30%	100%	70%	30%
P1	320 *1050*	345 *1125*	420 *1375*	350 *1150*	375 *1225*	450 *1475*	275 *900*	305 *1000*	375 *1225*	310 *1025*	330 *1075*	400 *1300*
P2	315 *1025*	335 *1100*	400 *1300*	340 *1125*	365 *1200*	430 *1400*	265 *870*	295 *970*	355 *1175*	305 *1000*	320 *1050*	380 *1250*
P3	280 *920*	295 *970*	350 *1150*	295 *970*	310 *1025*	380 *1250*	230 *750*	255 *840*	315 *1025*	260 *850*	275 *900*	335 *1100*
P4	245 *800*	260 *850*	315 *1025*	265 *870*	285 *940*	335 *1100*	210 *690*	230 *750*	275 *900*	240 *790*	255 *840*	295 *970*
P5	235 *770*	250 *820*	300 *980*	255 *840*	270 *890*	325 *1075*	200 *660*	220 *720*	270 *890*	225 *740*	240 *790*	290 *950*
P6	260 *850*	280 *920*	340 *1125*	285 *940*	305 *1000*	365 *1200*	225 *740*	245 *800*	305 *1000*	255 *840*	270 *890*	325 *1075*
P7	250 *820*	265 *870*	320 *1050*	270 *890*	290 *950*	345 *1125*	210 *690*	235 *770*	285 *940*	240 *790*	255 *840*	310 *1025*
P8	235 *770*	250 *820*	295 *970*	245 *800*	265 *870*	320 *1050*	195 *640*	215 *710*	265 *870*	220 *720*	235 *770*	285 *940*
P11	240 *790*	255 *840*	310 *1025*	265 *870*	280 *920*	335 *1100*	205 *670*	225 *740*	280 *920*	235 *770*	250 *820*	300 *980*
P12	160 *520*	175 *570*	205 *670*	175 *570*	185 *610*	220 *720*	135 *445*	150 *490*	180 *590*	155 *510*	165 *540*	195 *640*
M1	— —	— —	— —	175 *570*	195 *640*	235 *770*	190 *620*	210 *690*	255 *840*	165 *540*	180 *590*	220 *720*
M2	— —	— —	— —	145 *475*	160 *520*	200 *660*	160 *520*	175 *570*	215 *710*	135 *445*	150 *490*	185 *610*
M3	— —	— —	— —	120 *395*	130 *425*	160 *520*	130 *425*	145 *475*	175 *570*	110 *360*	125 *410*	150 *490*
M4	— —	— —	— —	90 *295*	100 *330*	125 *410*	100 *330*	110 *360*	135 *445*	85 *280*	95 *310*	115 *375*
M5	— —	— —	— —	75 *245*	85 *280*	105 *345*	85 *280*	90 *295*	115 *375*	70 *230*	80 *260*	95 *310*
K1	315 *1025*	335 *1100*	400 *1300*	345 *1125*	365 *1200*	430 *1400*	210 *690*	235 *770*	280 *920*	305 *1000*	325 *1075*	385 *1275*
K2	285 *940*	300 *980*	365 *1200*	310 *1025*	330 *1075*	395 *1300*	190 *620*	210 *690*	255 *840*	275 *900*	290 *950*	350 *1150*
K3	240 *790*	255 *840*	310 *1025*	260 *850*	280 *920*	335 *1100*	160 *520*	175 *570*	215 *710*	230 *750*	245 *800*	300 *980*
K4	230 *750*	245 *800*	295 *970*	250 *820*	265 *870*	320 *1050*	150 *490*	170 *560*	205 *670*	220 *720*	235 *770*	285 *940*
K5	145 *475*	155 *510*	180 *590*	155 *510*	165 *540*	195 *640*	95 *310*	105 *345*	125 *410*	135 *445*	145 *475*	175 *570*
K6	200 *660*	215 *710*	260 *850*	220 *720*	235 *770*	280 *920*	135 *445*	150 *490*	180 *590*	195 *640*	210 *690*	250 *820*
K7	185 *610*	200 *660*	230 *750*	195 *640*	210 *690*	250 *820*	120 *395*	130 *425*	160 *520*	175 *570*	185 *610*	225 *740*
S1	— —	— —	— —	— —	— —	— —	49 *160*	55 *180*	65 *215*	40 *130*	44 *145*	55 *180*
S2	— —	— —	— —	— —	— —	— —	39 *130*	44 *145*	55 *180*	32 *105*	36 *120*	44 *145*
S3	— —	— —	— —	— —	— —	— —	35 *115*	39 *130*	47 *155*	29 *95*	32 *105*	39 *130*
S11	— —	— —	— —	— —	— —	— —	70 *230*	75 *245*	90 *295*	55 *180*	60 *195*	75 *245*
S12	— —	— —	— —	— —	— —	— —	47 *155*	50 *165*	65 *215*	39 *130*	43 *140*	50 *165*
S13	— —	— —	— —	— —	— —	— —	27 *90*	30 *100*	37 *120*	23 *75*	25 *80*	30 *100*
H5	42 *140*	47 *155*	55 *180*	— —	— —	— —	40 *130*	45 *150*	55 *180*	36 *120*	40 *130*	48 *155*
H8	45 *150*	50 *165*	60 *195*	— —	— —	— —	43 *140*	48 *155*	60 *195*	38 *125*	42 *140*	50 *165*
H11	55 *180*	60 *195*	75 *245*	— —	— —	— —	50 *165*	55 *180*	70 *230*	45 *150*	50 *165*	60 *195*
H12	80 *260*	90 *295*	110 *360*	— —	— —	— —	85 *280*	95 *310*	115 *375*	70 *230*	75 *245*	95 *310*

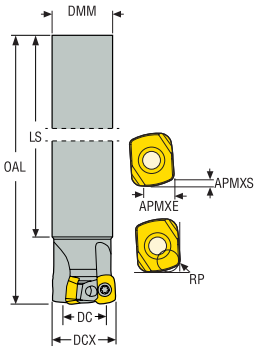


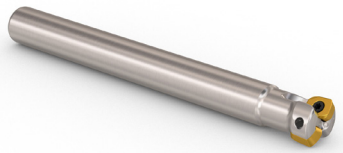
R217/220.21 HIGH FEED 2

Highfeed 2 for LP05/06/09 insert types, 2-cutting edge, single sided positive inserts.
The inserts have modern geometries that provide the lowest possible cutting forces in all materials. These low forces lead to superior tool life.

- Cutter range 12-100 mm (.5 - 4 inch)
- Max depths of cut by insert type: LP05/0.65 mm, LP06/0.8 mm, LP09/1.8 mm
- First choice for ISO M & S materials in small-to-medium size machines
- Excellent solution for plunge milling

R217.21-LP05 – Metric





- For insert selection and cutting data recommendations, see page(s) 533-535
- For complete insert programme, see page(s) 813
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	DCX	ZEFP	APMXS	APMXE	DMM	LS	OAL	RP	RMPX°	Cmin	Cmax	RPMX	Weight	Insert
			mm	mm		mm	mm	mm	mm	mm	mm		mm	mm		kg	
R217.21-1012.0-LP05.2A	02952509	Cylindrical	5,4	12,0	2	0,65	3,5	10,0	84,0	100,0	1,5	3,9	17,4	22,0	45000	0,1	LP..05
R217.21-1214.0-LP05.2A	02881032	Cylindrical	7,4	14,0	2	0,65	3,5	12,0	104,0	120,0	1,5	3,5	21,4	26,0	42000	0,2	LP..05
R217.21-1416.0-LP05.2A	02881033	Cylindrical	9,4	16,0	2	0,65	3,5	14,0	132,0	150,0	1,5	3,0	25,4	30,0	39000	0,3	LP..05
R217.21-1618.0-LP05.3A	02881034	Cylindrical	11,4	18,0	3	0,65	3,5	16,0	142,0	160,0	1,5	2,2	29,4	34,0	37000	0,3	LP..05
R217.21-1820.0-LP05.3A	02881035	Cylindrical	13,4	20,0	3	0,65	3,5	18,0	142,0	160,0	1,5	1,9	33,4	38,0	35000	0,4	LP..05

Spare Parts, included in delivery

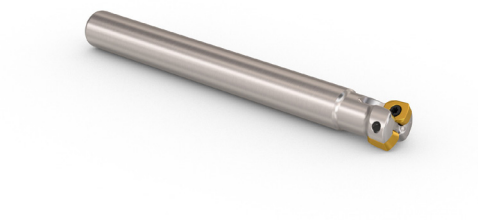
For cutter	Insert key	Insert screw
		
R217.21-1012	H4B-T06P	C02005-T06P
R217.21-1214-1820	H4B-T06P	C02053-T06P

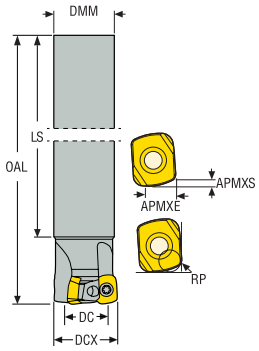
Accessories

For cutter	Insert clamping torque	Torque key
		
R217.21-..	0.5NM	T00-06P05

Torque and fixed keys, see page 872

R217.21-LP05 – inch





- For insert selection and cutting data recommendations, see page(s) 533-535
- For complete insert programme, see page(s) 813
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	DCX	ZEFP	APMXS	APMXE	DMM	LS	OAL	RP	RMPX°	C min	C max	RPMX	Weight	Insert
			inch	inch		inch	inch	inch	inch	inch	inch		inch	inch		lbs	
R217.21-00.500-0-LP05-2A	02881043	Cylindrical	0.240	0.500	2	0.026	0.138	0.500	4.370	5.000	0.059	5,4	0.740	0.921	45000	0.440	LP..05
R217.21-00.625-0-LP05-2A	02881044	Cylindrical	0.362	0.625	2	0.026	0.138	0.625	5.000	6.000	0.059	3,0	0.987	1.171	39000	0.440	LP..05

Spare Parts, included in delivery

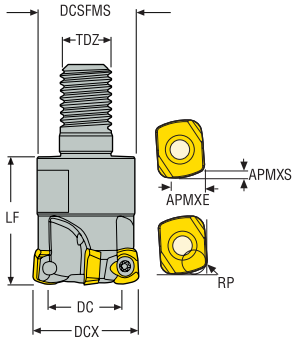
For cutter	Insert key	Insert screw
		
R217.21-0.500	H4B-T06P	C02005-T06P
R217.21-0.625-0.750	H4B-T06P	C02053-T06P

Accessories

For cutter	Insert clamping torque	Torque key
		
R217.21-0.500	4.4IN.LBS	T00-06P05
R217.21-0.625-0.750	4.4IN.LBS	T00-06P05

Torque and fixed keys, see page 872

R217.21-LP05 – Metric





- For insert selection and cutting data recommendations, see page(s) 533-535
- For complete insert programme, see page(s) 813
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	DCX	ZEFP	APMXS	APMXE	TDZ	DCSFMS	LF	RP	RMPX°	Cmin	Cmax	Weight	RPMX	Insert
			mm	mm		mm	mm		mm	mm	mm		mm	mm	kg		
R217.21-0612.RE-LP05.2A	02952506	Combimaster	5,4	12,0	2	0,65	3,5	M6	11,0	18,0	1,5	3,9	17,4	22,0	0,1	45000	LP..05
R217.21-0812.RE-LP05.2A	02952507	Combimaster	5,4	12,0	2	0,65	3,5	M8	13,5	20,0	1,5	3,9	17,4	22,0	0,1	45000	LP..05
R217.21-0614.RE-LP05.2A	02881029	Combimaster	7,4	14,0	2	0,65	3,5	M6	11,0	18,0	1,5	3,5	21,4	26,0	0,1	42000	LP..05
R217.21-0814.RE-LP05.2A	02952508	Combimaster	7,4	14,0	2	0,65	3,5	M8	13,5	20,0	1,5	3,5	21,4	26,0	0,1	42000	LP..05
R217.21-0816.RE-LP05.3A	02881030	Combimaster	9,4	16,0	3	0,65	3,5	M8	13,5	20,0	1,5	3,0	25,4	30,0	0,1	39000	LP..05
R217.21-1020.RE-LP05.4A	02881031	Combimaster	13,4	20,0	4	0,65	3,5	M10	18,5	23,0	1,5	1,9	33,4	38,0	0,1	35000	LP..05

For Combimaster Shanks, see Machining Navigator Tooling System

Spare Parts, included in delivery

For cutter	Insert key	Insert screw
		
R217.21-.. Ø12	H4B-T06P	C02005-T06P
R217.21-.. Ø14-20	H4B-T06P	C02053-T06P

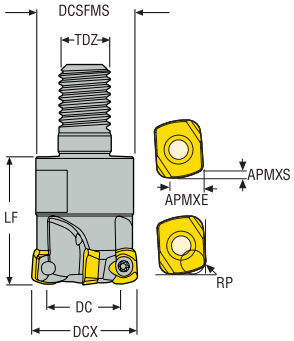
Accessories

For cutter	Insert clamping torque	Torque key
		
R217.21-..	0.5NM	T00-06P05

Torque and fixed keys, see page 872

R217.21-LP05 – inch





- For insert selection and cutting data recommendations, see page(s) 533-535
- For complete insert programme, see page(s) 813
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	DCX	ZEFP	APMXS	APMXE	TDZ	DCSFMS	LF	RP	RMPX°	C min	C max	Weight	RPMX	Insert
			inch	inch		inch	inch		inch	inch	inch		inch	inch	lbs		
R217.21-00.500-06RE-LP05-2A	02881039	Combimaster	0.240	0.500	2	0.026	0.138	M6	0.433	0.709	0.059	3,9	0.740	0.921	0.220	45000	LP..05
R217.21-00.625-08RE-LP05-3A	02881040	Combimaster	0.362	0.625	3	0.026	0.138	M8	0.531	0.787	0.059	3,0	0.987	1.171	0.220	39000	LP..05

For Combimaster Shanks, see Machining Navigator Tooling System

Spare Parts, included in delivery

For cutter	Insert key	Insert screw
		
R217.21-0.500-00.625	H4B-T06P	C02005-T06P

Accessories

For cutter	Insert clamping torque	Torque key
		
R217.21-..	4.4IN.LBS	T00-06P05

Torque and fixed keys, see page 872

R217.21-LP05 – Insert selection – mm/*Inch*

SMG		a_p	f_z		
			100%	70%	30%
P1	LPHT05T210TR-ME04 MP3501	0,60 *0.024*	0,44 *0.017*	0,44 *0.017*	0,55 *0.022*
P2	LPHT05T210TR-ME04 MP3501	0,60 *0.024*	0,44 *0.017*	0,44 *0.017*	0,55 *0.022*
P3	LPKT05T210TR-M05 MP2501	0,60 *0.024*	0,55 *0.022*	0,55 *0.022*	0,65 *0.026*
P4	LPKT05T210TR-M05 MP2501	0,60 *0.024*	0,50 *0.020*	0,50 *0.020*	0,65 *0.026*
P5	LPKT05T210TR-M05 MP2501	0,60 *0.024*	0,50 *0.020*	0,50 *0.020*	0,65 *0.026*
P6	LPKT05T210TR-M05 MP2501	0,60 *0.024*	0,50 *0.020*	0,50 *0.020*	0,60 *0.024*
P7	LPKT05T210TR-M05 MP2501	0,60 *0.024*	0,50 *0.020*	0,50 *0.020*	0,60 *0.024*
P8	LPKT05T210TR-M05 MP2501	0,60 *0.024*	0,55 *0.022*	0,55 *0.022*	0,65 *0.026*
P11	LPHT05T210TR-ME04 MP3501	0,60 *0.024*	0,40 *0.016*	0,40 *0.016*	0,48 *0.020*
P12	LPKT05T210TR-M05 MP2501	0,46 *0.018*	0,40 *0.016*	0,40 *0.016*	0,48 *0.019*
M1	LPHT05T210TR-ME04 MS2050	0,60 *0.024*	0,44 *0.017*	0,44 *0.017*	0,55 *0.022*
M2	LPHT05T210TR-ME04 MS2050	0,60 *0.024*	0,40 *0.016*	0,40 *0.016*	0,50 *0.020*
M3	LPHT05T210TR-ME04 MS2050	0,46 *0.018*	0,38 *0.015*	0,38 *0.015*	0,46 *0.018*
M4	LPHT05T210TR-ME04 MP3501	0,36 *0.014*	0,34 *0.013*	0,34 *0.013*	0,42 *0.017*
M5	LPHT05T210TR-ME04 MP3501	0,36 *0.014*	0,34 *0.013*	0,34 *0.013*	0,42 *0.017*
K1	LPKW05T210TR-MD05 MP2501	0,60 *0.024*	0,55 *0.022*	0,55 *0.022*	0,70 *0.028*
K2	LPKW05T210TR-MD05 MP2501	0,60 *0.024*	0,50 *0.020*	0,50 *0.020*	0,65 *0.026*
K3	LPKW05T210TR-MD05 MP2501	0,60 *0.024*	0,50 *0.020*	0,50 *0.020*	0,65 *0.026*
K4	LPKW05T210TR-MD05 MP2501	0,60 *0.024*	0,50 *0.020*	0,50 *0.020*	0,65 *0.026*
K5	LPKW05T210TR-MD05 MP2501	0,60 *0.024*	0,46 *0.018*	0,46 *0.018*	0,55 *0.022*
K6	LPKW05T210TR-MD05 MP2501	0,60 *0.024*	0,50 *0.020*	0,50 *0.020*	0,65 *0.026*
K7	LPKW05T210TR-MD05 MP2501	0,60 *0.024*	0,46 *0.018*	0,46 *0.018*	0,55 *0.022*
S1	LPHT05T210TR-ME04 MP3501	0,36 *0.014*	0,34 *0.013*	0,34 *0.013*	0,42 *0.017*
S2	LPHT05T210TR-ME04 MP3501	0,36 *0.014*	0,34 *0.013*	0,34 *0.013*	0,42 *0.017*
S3	LPHT05T210TR-ME04 MP3501	0,36 *0.014*	0,32 *0.013*	0,32 *0.013*	0,38 *0.015*
S11	LPHT05T210TR-ME04 MS2050	0,40 *0.016*	0,40 *0.016*	0,40 *0.016*	0,48 *0.019*
S12	LPHT05T210TR-ME04 MS2050	0,40 *0.016*	0,40 *0.016*	0,40 *0.016*	0,48 *0.019*
S13	LPHT05T210TR-ME04 MS2050	0,36 *0.014*	0,34 *0.013*	0,34 *0.013*	0,42 *0.017*
H5	LPHW05T210TR-MD05 MH1000	0,36 *0.014*	0,36 *0.014*	0,36 *0.014*	0,44 *0.017*
H8	LPHW05T210TR-MD05 MH1000	0,32 *0.013*	0,28 *0.011*	0,28 *0.011*	0,34 *0.013*
H11	LPKW05T210TR-MD05 MP3000	0,36 *0.014*	0,36 *0.014*	0,36 *0.014*	0,44 *0.017*
H12	LPKW05T210TR-MD05 MP3000	0,32 *0.013*	0,28 *0.011*	0,28 *0.011*	0,34 *0.013*

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

R217.21-LP05 – Cutting data v_c = (m/min)/*(sf/min)*

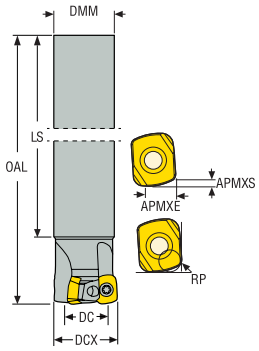
SMG	MH1000			MP3000			MS2050			F40M		
	100%	70%	30%	100%	70%	30%	100%	70%	30%	100%	70%	30%
P1	— —	— —	— —	290 *950*	345 *1125*	400 *1300*	305 *1000*	360 *1175*	420 *1375*	250 *820*	300 *980*	350 *1150*
P2	— —	— —	— —	285 *940*	335 *1100*	390 *1275*	295 *970*	350 *1150*	410 *1350*	245 *800*	290 *950*	340 *1125*
P3	— —	— —	— —	245 *800*	290 *950*	340 *1125*	255 *840*	305 *1000*	360 *1175*	210 *690*	250 *820*	295 *970*
P4	— —	— —	— —	220 *720*	260 *850*	300 *980*	225 *740*	270 *890*	315 *1025*	190 *620*	225 *740*	260 *850*
P5	245 *800*	290 *950*	335 *1100*	210 *690*	250 *820*	290 *950*	220 *720*	260 *850*	300 *980*	180 *590*	215 *710*	250 *820*
P6	275 *900*	325 *1075*	380 *1250*	235 *770*	280 *920*	330 *1075*	245 *800*	290 *950*	340 *1125*	205 *670*	240 *790*	285 *940*
P7	260 *850*	305 *1000*	360 *1175*	220 *720*	265 *870*	310 *1025*	230 *750*	275 *900*	320 *1050*	195 *640*	230 *750*	270 *890*
P8	235 *770*	280 *920*	335 *1100*	205 *670*	245 *800*	290 *950*	215 *710*	255 *840*	300 *980*	175 *570*	210 *690*	250 *820*
P11	250 *820*	295 *970*	350 *1150*	215 *710*	255 *840*	300 *980*	225 *740*	265 *870*	310 *1025*	185 *610*	220 *720*	260 *850*
P12	160 *520*	190 *620*	225 *740*	140 *460*	165 *540*	195 *640*	145 *475*	170 *560*	200 *660*	120 *395*	140 *460*	165 *540*
M1	— —	— —	— —	210 *690*	250 *820*	290 *950*	240 *790*	280 *920*	330 *1075*	200 *660*	235 *770*	275 *900*
M2	— —	— —	— —	175 *570*	210 *690*	240 *790*	195 *640*	235 *770*	270 *890*	165 *540*	195 *640*	225 *740*
M3	— —	— —	— —	140 *460*	165 *540*	195 *640*	160 *520*	185 *610*	215 *710*	130 *425*	155 *510*	185 *610*
M4	— —	— —	— —	110 *360*	130 *425*	150 *490*	120 *395*	140 *460*	165 *540*	100 *330*	120 *395*	140 *460*
M5	— —	— —	— —	90 *295*	105 *345*	125 *410*	100 *330*	120 *395*	140 *460*	85 *280*	100 *330*	115 *375*
K1	260 *850*	310 *1025*	360 *1175*	225 *740*	265 *870*	310 *1025*	— —	— —	— —	195 *640*	230 *750*	270 *890*
K2	230 *750*	275 *900*	315 *1025*	200 *660*	235 *770*	275 *900*	— —	— —	— —	170 *560*	205 *670*	235 *770*
K3	195 *640*	230 *750*	270 *890*	170 *560*	200 *660*	230 *750*	— —	— —	— —	145 *475*	175 *570*	200 *660*
K4	185 *610*	220 *720*	255 *840*	160 *520*	190 *620*	220 *720*	— —	— —	— —	140 *460*	165 *540*	190 *620*
K5	115 *375*	135 *445*	160 *520*	100 *330*	115 *375*	135 *445*	— —	— —	— —	85 *280*	100 *330*	120 *395*
K6	165 *540*	195 *640*	225 *740*	140 *460*	170 *560*	195 *640*	— —	— —	— —	125 *410*	145 *475*	170 *560*
K7	145 *475*	170 *560*	205 *670*	125 *410*	150 *490*	175 *570*	— —	— —	— —	110 *360*	130 *425*	150 *490*
S1	— —	— —	— —	50 *165*	60 *195*	70 *230*	55 *180*	65 *215*	80 *260*	48 *155*	55 *180*	65 *215*
S2	— —	— —	— —	41 *135*	48 *155*	55 *180*	46 *150*	55 *180*	65 *215*	39 *130*	45 *150*	55 *180*
S3	— —	— —	— —	36 *120*	42 *140*	50 *165*	40 *130*	47 *155*	55 *180*	34 *110*	39 *130*	46 *150*
S11	— —	— —	— —	70 *230*	85 *280*	100 *330*	80 *260*	95 *310*	110 *360*	65 *215*	80 *260*	90 *295*
S12	— —	— —	— —	49 *160*	60 *195*	70 *230*	55 *180*	65 *215*	75 *245*	46 *150*	55 *180*	65 *215*
S13	— —	— —	— —	29 *95*	34 *110*	39 *130*	32 *105*	37 *120*	44 *145*	27 *90*	31 *100*	37 *120*
H5	55 *180*	65 *215*	75 *245*	45 *150*	50 *165*	60 *195*	— —	— —	— —	41 *135*	48 *155*	55 *180*
H8	60 *195*	70 *230*	80 *260*	48 *155*	55 *180*	65 *215*	— —	— —	— —	45 *150*	50 *165*	60 *195*
H11	70 *230*	85 *280*	100 *330*	55 *180*	65 *215*	80 *260*	— —	— —	— —	55 *180*	60 *195*	75 *245*
H12	105 *345*	125 *410*	145 *475*	90 *295*	105 *345*	125 *410*	— —	— —	— —	80 *260*	95 *310*	110 *360*

R217.21-LP05 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	MS2050			MP2501			MS2500			MP3501		
	100%	70%	30%	100%	70%	30%	100%	70%	30%	100%	70%	30%
P1	275 *900*	330 *1075*	380 *1250*	470 *1550*	530 *1750*	600 *1975*	365 *1200*	430 *1400*	500 *1650*	460 *1500*	520 *1700*	580 *1900*
P2	270 *890*	320 *1050*	370 *1225*	460 *1500*	520 *1700*	580 *1900*	355 *1175*	420 *1375*	485 *1600*	450 *1475*	510 *1675*	570 *1875*
P3	230 *750*	275 *900*	325 *1075*	395 *1300*	445 *1450*	510 *1675*	305 *1000*	360 *1175*	425 *1400*	390 *1275*	440 *1450*	495 *1625*
P4	210 *690*	250 *820*	285 *940*	355 *1175*	400 *1300*	445 *1450*	275 *900*	325 *1075*	375 *1225*	345 *1125*	385 *1275*	435 *1425*
P5	200 *660*	235 *770*	275 *900*	340 *1125*	385 *1275*	425 *1400*	260 *850*	310 *1025*	360 *1175*	330 *1075*	375 *1225*	415 *1350*
P6	225 *740*	265 *870*	315 *1025*	380 *1250*	430 *1400*	485 *1600*	295 *970*	350 *1150*	410 *1350*	370 *1225*	420 *1375*	465 *1525*
P7	210 *690*	250 *820*	295 *970*	360 *1175*	405 *1325*	460 *1500*	275 *900*	330 *1075*	390 *1275*	350 *1150*	395 *1300*	440 *1450*
P8	195 *640*	230 *750*	275 *900*	330 *1075*	375 *1225*	425 *1400*	255 *840*	305 *1000*	360 *1175*	330 *1075*	370 *1225*	415 *1350*
P11	205 *670*	245 *800*	290 *950*	350 *1150*	395 *1300*	445 *1450*	270 *890*	320 *1050*	375 *1225*	340 *1125*	385 *1275*	425 *1400*
P12	130 *425*	155 *510*	185 *610*	220 *720*	245 *800*	275 *900*	175 *570*	205 *670*	240 *790*	210 *690*	235 *770*	260 *850*
M1	215 *710*	260 *850*	300 *980*	235 *770*	275 *900*	320 *1050*	255 *840*	300 *980*	350 *1150*	240 *790*	280 *920*	330 *1075*
M2	180 *590*	215 *710*	245 *800*	195 *640*	230 *750*	265 *870*	210 *690*	250 *820*	285 *940*	195 *640*	235 *770*	270 *890*
M3	145 *475*	170 *560*	200 *660*	155 *510*	185 *610*	215 *710*	170 *560*	200 *660*	235 *770*	160 *520*	185 *610*	215 *710*
M4	115 *375*	130 *425*	155 *510*	120 *395*	140 *460*	165 *540*	130 *425*	155 *510*	180 *590*	120 *395*	140 *460*	165 *540*
M5	95 *310*	110 *360*	130 *425*	100 *330*	115 *375*	140 *460*	110 *360*	125 *410*	150 *490*	100 *330*	120 *395*	140 *460*
K1	— —	— —	— —	465 *1525*	520 *1700*	580 *1900*	280 *920*	330 *1075*	385 *1275*	455 *1500*	510 *1675*	570 *1875*
K2	— —	— —	— —	410 *1350*	465 *1525*	510 *1675*	250 *820*	295 *970*	340 *1125*	400 *1300*	450 *1475*	500 *1650*
K3	— —	— —	— —	345 *1125*	390 *1275*	435 *1425*	210 *690*	250 *820*	290 *950*	340 *1125*	380 *1250*	425 *1400*
K4	— —	— —	— —	330 *1075*	375 *1225*	415 *1350*	200 *660*	240 *790*	275 *900*	325 *1075*	365 *1200*	405 *1325*
K5	— —	— —	— —	200 *660*	225 *740*	255 *840*	120 *395*	145 *475*	170 *560*	195 *640*	220 *720*	245 *800*
K6	— —	— —	— —	290 *950*	330 *1075*	365 *1200*	175 *570*	210 *690*	240 *790*	285 *940*	320 *1050*	355 *1175*
K7	— —	— —	— —	255 *840*	290 *950*	325 *1075*	155 *510*	185 *610*	220 *720*	250 *820*	280 *920*	315 *1025*
S1	55 *180*	60 *195*	70 *230*	— —	— —	— —	65 *215*	75 *245*	85 *280*	55 *180*	65 *215*	80 *260*
S2	42 *140*	49 *160*	60 *195*	— —	— —	— —	50 *165*	60 *195*	70 *230*	46 *150*	55 *180*	65 *215*
S3	37 *120*	43 *140*	50 *165*	— —	— —	— —	45 *150*	50 *165*	60 *195*	40 *130*	47 *155*	55 *180*
S11	75 *245*	85 *280*	100 *330*	— —	— —	— —	90 *295*	105 *345*	125 *410*	80 *260*	95 *310*	110 *360*
S12	50 *165*	60 *195*	70 *230*	— —	— —	— —	60 *195*	70 *230*	85 *280*	55 *180*	65 *215*	75 *245*
S13	30 *100*	34 *110*	40 *130*	— —	— —	— —	36 *120*	42 *140*	49 *160*	32 *105*	37 *120*	44 *145*
H5	— —	— —	— —	— —	— —	— —	55 *180*	65 *215*	75 *245*	50 *165*	60 *195*	70 *230*
H8	— —	— —	— —	— —	— —	— —	60 *195*	65 *215*	80 *260*	55 *180*	65 *215*	75 *245*
H11	— —	— —	— —	— —	— —	— —	70 *230*	80 *260*	95 *310*	65 *215*	75 *245*	90 *295*
H12	— —	— —	— —	— —	— —	— —	115 *375*	135 *445*	155 *510*	100 *330*	115 *375*	135 *445*

R217.21-LP06 – Metric





- For insert selection and cutting data recommendations, see page(s) 540-542
- For complete insert programme, see page(s) 813
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	DCX	ZEFP	APMXS	APMXE	DMM	LS	OAL	RP	RMPX°	Cmin	Cmax	RPMX	Weight	Insert
			mm	mm		mm	mm	mm	mm	mm	mm		mm	mm		kg	
R217.21-1416.0-LP06.2A	02789713	Cylindrical	7,5	16,0	2	0,8	4,5	14,0	132,0	150,0	1,8	5,0	23,5	30,0	39000	0,3	LP..06
R217.21-1618.0-LP06.2A	02789715	Cylindrical	9,5	18,0	2	0,8	4,5	16,0	142,0	160,0	1,8	3,5	27,5	34,0	37000	0,3	LP..06
R217.21-1820.0-LP06.2A	02789717	Cylindrical	11,6	20,0	2	0,8	4,5	18,0	142,0	160,0	1,8	3,0	31,6	38,0	35000	0,4	LP..06
R217.21-2525.0-LP06.3A	02789720	Cylindrical	16,5	25,0	3	0,8	4,5	25,0	140,0	180,0	1,8	2,0	41,5	48,0	30000	0,7	LP..06
R217.21-2527.0-LP06.3A	02789722	Cylindrical	18,5	27,0	3	0,8	4,5	25,0	228,0	250,0	1,8	1,5	45,5	52,0	30000	0,9	LP..06
R217.21-3232.0-LP06.4A	02789725	Cylindrical	23,5	32,0	4	0,8	4,5	32,0	160,0	200,0	1,8	1,5	55,5	62,0	27000	1,2	LP..06
R217.21-3235.0-LP06.4A	02789729	Cylindrical	26,5	35,0	4	0,8	4,5	32,0	228,0	250,0	1,8	1,2	61,5	68,0	26000	0,4	LP..06

Spare Parts, included in delivery

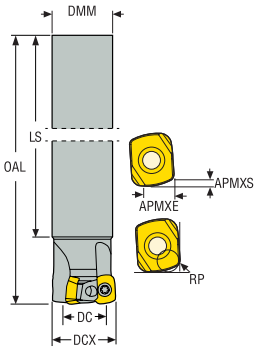
For cutter	Insert key	Insert screw
		
R217.21-1416-1820	H4B-T08P	C02555-T08P
R217.21-2525-3235	H4B-T08P	C02506-T08P

Accessories

For cutter	Insert clamping torque	Torque key
		
R217.21-..	1.2NM	T00-08P12

Torque and fixed keys, see page 872

R217.21-LP06 – inch





- For insert selection and cutting data recommendations, see page(s) 540-542
- For complete insert programme, see page(s) 813
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	DCX	ZEFP	APMXS	APMXE	DMM	LS	OAL	RP	RMPX°	C min	C max	RPMX	Weight	Insert
			inch	inch		inch	inch	inch	inch	inch	inch		inch	inch		lbs	
R217.21-00.625-0-LP06-2A	02789777	Cylindrical	0.290	0.625	2	0.030	0.177	0.625	5.000	6.000	0.071	5,0	0.915	1.171	39000	0.440	LP..06
R217.21-00.750-0-LP06-2A	02789778	Cylindrical	0.410	0.750	2	0.030	0.177	0.750	5.591	6.500	0.071	3,0	1.160	1.421	35000	0.660	LP..06
R217.21-01.00-0-LP06-3A	02789782	Cylindrical	0.660	1.000	3	0.030	0.177	1.000	5.512	7.000	0.071	2,0	1.660	1.921	30000	1.540	LP..06
R217.21-01.25-0-LP06-4A	02789785	Cylindrical	0.659	1.250	4	0.030	0.177	1.250	6.299	8.000	0.071	1,5	1.909	2.421	27000	2.650	LP..06

Spare Parts, included in delivery

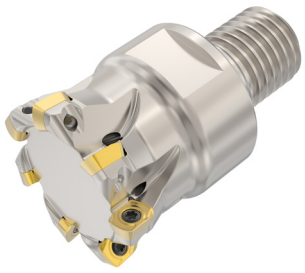
For cutter	Insert key	Insert screw
		
R217.21-0.625-0.750	H4B-T08P	C02555-T08P
R217.21-1.00-1.50	H4B-T08P	C02506-T08P

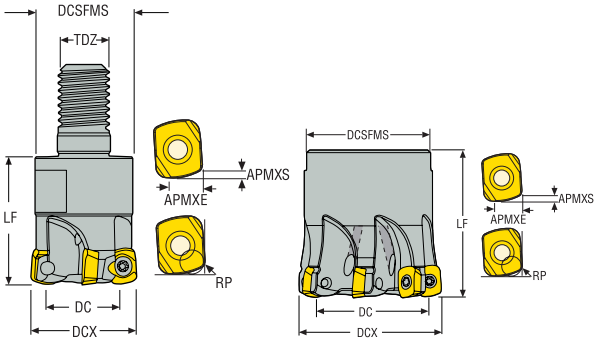
Accessories

For cutter	Insert clamping torque	Torque key
		
R217.21-..	10.6IN.LBS	T00-08P12

Torque and fixed keys, see page 872

R217/220.21-LP06 – Metric



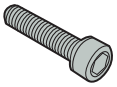


- For insert selection and cutting data recommendations, see page(s) 540-542
- For complete insert programme, see page(s) 813
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	DCX	ZEFP	APMXS	APMXE	DCB	TDZ	DCSFMS	LF	RP	RMPX°	Cmin	Cmax	Weight	RPMX	Insert
			mm	mm		mm	mm	mm		mm	mm	mm		mm	mm	kg		
R217.21-0816.RE-LP06.2A	02789697	Combimaster	7,5	16,0	2	0,8	4,5	–	M8	13,5	20,0	1,8	5,0	23,5	30,0	0,1	39000	LP..06
R217.21-1020.RE-LP06.2A	02789700	Combimaster	11,5	20,0	2	0,8	4,5	–	M10	18,5	28,0	1,8	3,0	31,5	38,0	0,1	35000	LP..06
R217.21-1020.RE-LP06.3A	02789701	Combimaster	11,5	20,0	3	0,8	4,5	–	M10	18,5	28,0	1,8	3,0	31,5	38,0	0,1	35000	LP..06
R217.21-1225.RE-LP06.3A	02789702	Combimaster	16,5	25,0	3	0,8	4,5	–	M12	23,0	30,0	1,8	2,0	41,5	48,0	0,2	30000	LP..06
R217.21-1225.RE-LP06.4A	02789705	Combimaster	16,5	25,0	4	0,8	4,5	–	M12	23,0	30,0	1,8	2,0	41,5	48,0	0,2	30000	LP..06
R217.21-1632.RE-LP06.5A	02789708	Combimaster	23,5	32,0	5	0,8	4,5	–	M16	30,0	35,0	1,8	1,5	55,5	62,0	0,3	27000	LP..06
R217.21-1635.RE-LP06.5A	02789711	Combimaster	26,5	35,0	5	0,8	4,5	–	M16	30,0	35,0	1,8	1,5	61,5	68,0	0,3	26000	LP..06
R217.21-2040.RE-LP06.7A	02928084	Combimaster	31,5	40,0	7	0,8	4,5	–	M20	36,5	40,0	1,8	0,9	71,5	78,0	0,4	24000	LP..06
R220.21-0035-LP06.6A	02789734	Arbor	26,5	35,0	6	0,8	4,5	16,0	–	32,0	35,0	1,8	1,29	61,5	68,0	0,2	26000	LP..06
R220.21-0040-LP06.6A	02892228	Arbor	31,5	40,0	6	0,8	4,5	16,0	–	32,0	40,0	1,8	0,9	71,5	78,0	0,3	24000	LP..06

For Combimaster Shanks, see Machining Navigator Tooling System

Spare Parts, included in delivery

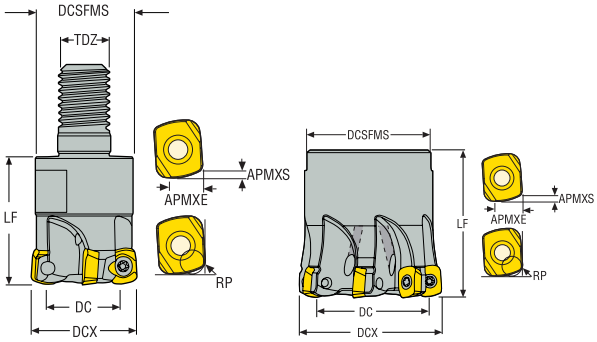
For cutter	Arbor screw	Insert key	Insert screw
			
R217.21-0816-1020	–	H4B-T08P	C02555-T08P
R217.21-1225-2040	–	H4B-T08P	C02506-T08P
R220.21-..	220.17-689	H4B-T08P	C02506-T08P

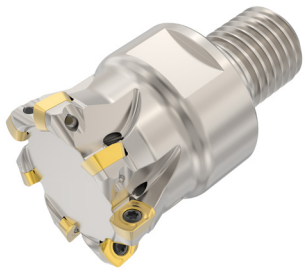
Accessories

For cutter	Insert clamping torque	Torque key
		
R217/220.21-..	1.2NM	T00-08P12

Torque and fixed keys, see page 872

R217/220.21-LP06 – inch



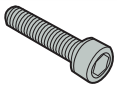


- For insert selection and cutting data recommendations, see page(s) 540-542
- For complete insert programme, see page(s) 813
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	DCX	ZEFP	APMXS	APMXE	DCB	TDZ	DCSFMS	LF	RP	RMPX°	C min	C max	Weight	RPMX	Insert
			inch	inch		inch	inch	inch		inch	inch	inch		inch	inch	lbs		
R217.21-00.625-08RE-LP06-2A	02789772	Combimaster	0.290	0.625	2	0.031	0.177	–	M8	0.531	0.787	0.071	5,0	0.915	1.171	0.040	39000	LP..06
R217.21-00.750-10RE-LP06-3A	02789773	Combimaster	0.409	0.750	3	0.031	0.177	–	M10	0.728	1.102	0.071	3,0	1.159	1.421	0.220	35000	LP..06
R217.21-01.00-12RE-LP06-3A	02789774	Combimaster	0.660	1.000	3	0.031	0.177	–	M12	0.906	1.181	0.071	2,0	1.660	1.921	0.440	30000	LP..06
R217.21-01.00-12RE-LP06-4A	02789775	Combimaster	0.660	1.000	4	0.031	0.177	–	M12	0.906	1.181	0.071	2,0	1.660	1.921	0.440	30000	LP..06
R217.21-01.25-16RE-LP06-5A	02789776	Combimaster	0.909	1.250	5	0.031	0.177	–	M16	1.181	1.378	0.071	1,2	2.159	2.421	0.660	27000	LP..06
R217.21-01.50-20RE-LP06.7A	02928069	Combimaster	1.181	1.500	7	0.031	0.177	–	M20	1.437	1.575	0.071	0,9	2.681	2.921	0.880	24000	LP..06
R220.21-01.50-LP06-6A	02892229	Arbor	1.165	1.500	6	0.031	0.177	0.500	–	1.260	1.500	0.071	1,0	2.665	2.921	0.440	25000	LP..06

For Combimaster Shanks, see Machining Navigator Tooling System

Spare Parts, included in delivery

For cutter	Arbor screw	Insert key	Insert screw
			
R217.21-0.625-0.750	–	H4B-T08P	C02555-T08P
R217.21-1.00-1.50	–	H4B-T08P	C02506-T08P
R220.21-..	UC6S1/4UNFX1	H4B-T08P	C02506-T08P

Accessories

For cutter	Insert clamping torque	Torque key
		
R217/220.21-..	10.6IN.LBS	T00-08P12

Torque and fixed keys, see page 872

R217/220.21-LP06 – Insert selection – mm/*Inch*

SMG		a_p	f_z		
			100%	70%	30%
P1	LPHT060310TR-M06 MP3501	0,70 *0.028*	0,70 *0.028*	0,70 *0.028*	0,85 *0.034*
P2	LPHT060310TR-M06 MP3501	0,70 *0.028*	0,70 *0.028*	0,70 *0.028*	0,85 *0.034*
P3	LPHT060310TR-M06 MP2501	0,70 *0.028*	0,65 *0.026*	0,65 *0.026*	0,80 *0.032*
P4	LPHT060310TR-M06 MP2501	0,70 *0.028*	0,65 *0.026*	0,65 *0.026*	0,80 *0.032*
P5	LPHT060310TR-M06 MP2501	0,70 *0.028*	0,65 *0.026*	0,65 *0.026*	0,80 *0.032*
P6	LPHT060310TR-M06 MP2501	0,70 *0.028*	0,65 *0.026*	0,65 *0.026*	0,75 *0.030*
P7	LPHT060310TR-M06 MP2501	0,70 *0.028*	0,65 *0.026*	0,65 *0.026*	0,75 *0.030*
P8	LPHT060310TR-M06 MP2501	0,70 *0.028*	0,65 *0.026*	0,65 *0.026*	0,80 *0.032*
P11	LPHT060310TR-M06 MP3501	0,70 *0.028*	0,65 *0.026*	0,65 *0.026*	0,75 *0.030*
P12	LPHT060310TR-M06 MP2501	0,60 *0.024*	0,46 *0.018*	0,46 *0.018*	0,55 *0.022*
M1	LPHT060310TR-ME05 MS2050	0,70 *0.028*	0,60 *0.024*	0,60 *0.024*	0,70 *0.028*
M2	LPHT060310TR-ME05 MS2050	0,70 *0.028*	0,55 *0.022*	0,55 *0.022*	0,65 *0.026*
M3	LPHT060310TR-ME05 MS2050	0,60 *0.024*	0,44 *0.017*	0,44 *0.017*	0,55 *0.022*
M4	LPHT060310TR-M06 MP3501	0,44 *0.017*	0,50 *0.020*	0,50 *0.020*	0,60 *0.024*
M5	LPHT060310TR-M06 MP3501	0,44 *0.017*	0,50 *0.020*	0,50 *0.020*	0,60 *0.024*
K1	LPHW060310TR-D06 MP3000	0,70 *0.028*	0,70 *0.028*	0,70 *0.028*	0,85 *0.034*
K2	LPHW060310TR-D06 MP3000	0,70 *0.028*	0,65 *0.026*	0,65 *0.026*	0,80 *0.032*
K3	LPHW060310TR-D06 MP3000	0,70 *0.028*	0,65 *0.026*	0,65 *0.026*	0,80 *0.032*
K4	LPHW060310TR-D06 MP3000	0,70 *0.028*	0,65 *0.026*	0,65 *0.026*	0,80 *0.032*
K5	LPHW060310TR-D06 MP3000	0,70 *0.028*	0,55 *0.022*	0,55 *0.022*	0,70 *0.028*
K6	LPHW060310TR-D06 MP3000	0,70 *0.028*	0,65 *0.026*	0,65 *0.026*	0,80 *0.032*
K7	LPHW060310TR-D06 MP3000	0,70 *0.028*	0,55 *0.022*	0,55 *0.022*	0,70 *0.028*
N1	LPHT060310ER-E05 H25	0,70 *0.028*	0,75 *0.030*	0,75 *0.030*	0,90 *0.036*
N2	LPHT060310ER-E05 H25	0,70 *0.028*	0,75 *0.030*	0,75 *0.030*	0,90 *0.036*
N3	LPHT060310ER-E05 H25	0,70 *0.028*	0,75 *0.030*	0,75 *0.030*	0,90 *0.036*
N11	LPHT060310ER-E05 H25	0,70 *0.028*	0,75 *0.030*	0,75 *0.030*	0,90 *0.036*
S1	LPHT060310TR-M06 MP3501	0,44 *0.017*	0,50 *0.020*	0,50 *0.020*	0,60 *0.024*
S2	LPHT060310TR-M06 MP3501	0,44 *0.017*	0,50 *0.020*	0,50 *0.020*	0,60 *0.024*
S3	LPHT060310TR-M06 MP3501	0,44 *0.017*	0,48 *0.019*	0,48 *0.019*	0,60 *0.024*
S11	LPHT060310TR-M06 MS2050	0,50 *0.020*	0,60 *0.024*	0,60 *0.024*	0,70 *0.028*
S12	LPHT060310TR-M06 MS2050	0,50 *0.020*	0,60 *0.024*	0,60 *0.024*	0,70 *0.028*
S13	LPHT060310TR-M06 MS2050	0,44 *0.017*	0,50 *0.020*	0,50 *0.020*	0,60 *0.024*
H5	LPHW060310TR-D06 MH1000	0,44 *0.017*	0,44 *0.017*	0,44 *0.017*	0,50 *0.020*
H8	LPHW060310TR-D06 MH1000	0,40 *0.016*	0,34 *0.013*	0,34 *0.013*	0,40 *0.016*
H11	LPHW060310TR-D06 MP3000	0,44 *0.017*	0,44 *0.017*	0,44 *0.017*	0,50 *0.020*
H12	LPHW060310TR-D06 MP3000	0,40 *0.016*	0,34 *0.013*	0,34 *0.013*	0,40 *0.016*

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

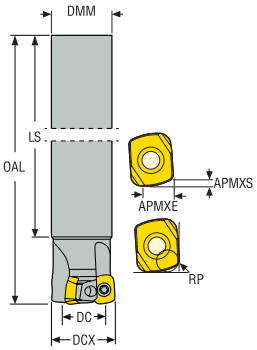
R217/220.21-LP06 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	MH1000			MP3000			MS2050			F40M			MP2050		
	100%	70%	30%	100%	70%	30%	100%	70%	30%	100%	70%	30%	100%	70%	30%
P1	—	—	—	260	300	360	250	285	345	225	260	310	295	335	405
	—	—	—	*850*	*980*	*1175*	*820*	*940*	*1125*	*740*	*850*	*1025*	*970*	*1100*	*1325*
P2	—	—	—	255	290	350	240	280	335	220	250	305	285	325	395
	—	—	—	*840*	*950*	*1150*	*790*	*920*	*1100*	*720*	*820*	*1000*	*940*	*1075*	*1300*
P3	—	—	—	225	255	305	210	245	290	195	220	265	250	285	345
	—	—	—	*740*	*840*	*1000*	*690*	*800*	*950*	*640*	*720*	*870*	*820*	*940*	*1125*
P4	—	—	—	195	225	270	185	215	255	170	195	235	220	255	305
	—	—	—	*640*	*740*	*890*	*610*	*710*	*840*	*560*	*640*	*770*	*720*	*840*	*1000*
P5	—	—	—	190	215	260	180	205	245	160	185	225	210	240	290
	—	—	—	*620*	*710*	*850*	*590*	*670*	*800*	*520*	*610*	*740*	*690*	*790*	*950*
P6	245	280	335	210	240	290	200	230	275	180	210	250	235	270	325
	800	*920*	*1100*	*690*	*790*	*950*	*660*	*750*	*900*	*590*	*690*	*820*	*770*	*890*	*1075*
P7	230	265	315	200	230	275	190	215	260	170	195	235	225	255	305
	750	*870*	*1025*	*660*	*750*	*900*	*620*	*710*	*850*	*560*	*640*	*770*	*740*	*840*	*1000*
P8	220	250	300	190	215	260	180	205	245	160	185	225	210	240	290
	720	*820*	*980*	*620*	*710*	*850*	*590*	*670*	*800*	*520*	*610*	*740*	*690*	*790*	*950*
P11	225	255	310	195	220	265	185	210	255	165	190	230	215	250	300
	740	*840*	*1025*	*640*	*720*	*870*	*610*	*690*	*840*	*540*	*620*	*750*	*710*	*820*	*980*
P12	145	170	200	125	145	175	120	140	165	110	125	150	145	165	195
	475	*560*	*660*	*410*	*475*	*570*	*395*	*460*	*540*	*360*	*410*	*490*	*475*	*540*	*640*
M1	—	—	—	—	—	—	195	225	270	175	205	245	205	235	280
	—	—	—	—	—	—	*640*	*740*	*890*	*570*	*670*	*800*	*670*	*770*	*920*
M2	—	—	—	—	—	—	160	185	220	145	170	200	170	195	230
	—	—	—	—	—	—	*520*	*610*	*720*	*475*	*560*	*660*	*560*	*640*	*750*
M3	—	—	—	—	—	—	130	150	180	120	135	165	135	155	190
	—	—	—	—	—	—	*425*	*490*	*590*	*395*	*445*	*540*	*445*	*510*	*620*
M4	—	—	—	—	—	—	100	115	140	95	105	125	105	120	145
	—	—	—	—	—	—	*330*	*375*	*460*	*310*	*345*	*410*	*345*	*395*	*475*
M5	—	—	—	—	—	—	85	95	115	75	85	105	90	100	120
	—	—	—	—	—	—	*280*	*310*	*375*	*245*	*280*	*345*	*295*	*330*	*395*
K1	235	270	320	200	230	275	—	—	—	175	200	240	—	—	—
	770	*890*	*1050*	*660*	*750*	*900*	—	—	—	*570*	*660*	*790*	—	—	—
K2	205	235	285	180	205	245	—	—	—	155	175	210	—	—	—
	670	*770*	*940*	*590*	*670*	*800*	—	—	—	*510*	*570*	*690*	—	—	—
K3	175	200	240	150	175	205	—	—	—	130	150	180	—	—	—
	570	*660*	*790*	*490*	*570*	*670*	—	—	—	*425*	*490*	*590*	—	—	—
K4	165	190	230	145	165	200	—	—	—	125	145	170	—	—	—
	540	*620*	*750*	*475*	*540*	*660*	—	—	—	*410*	*475*	*560*	—	—	—
K5	105	120	140	90	105	120	—	—	—	75	90	105	—	—	—
	345	*395*	*460*	*295*	*345*	*395*	—	—	—	*245*	*295*	*345*	—	—	—
K6	145	170	200	125	145	175	—	—	—	110	125	150	—	—	—
	475	*560*	*660*	*410*	*475*	*570*	—	—	—	*360*	*410*	*490*	—	—	—
K7	135	155	180	115	130	155	—	—	—	100	115	135	—	—	—
	445	*510*	*590*	*375*	*425*	*510*	—	—	—	*330*	*375*	*445*	—	—	—
N1	—	—	—	—	—	—	—	—	—	1275	1475	1775	—	—	—
	—	—	—	—	—	—	—	—	—	*4175*	*4850*	*5825*	—	—	—
N2	—	—	—	—	—	—	—	—	—	520	590	720	—	—	—
	—	—	—	—	—	—	—	—	—	*1700*	*1925*	*2350*	—	—	—
N3	—	—	—	—	—	—	—	—	—	345	395	480	—	—	—
	—	—	—	—	—	—	—	—	—	*1125*	*1300*	*1575*	—	—	—
N11	—	—	—	—	—	—	—	—	—	395	455	550	—	—	—
	—	—	—	—	—	—	—	—	—	*1300*	*1500*	*1800*	—	—	—
S1	—	—	—	—	—	—	48	55	65	43	49	60	50	60	70
	—	—	—	—	—	—	*155*	*180*	*215*	*140*	*160*	*195*	*165*	*195*	*230*
S2	—	—	—	—	—	—	38	43	50	35	39	47	42	47	55
	—	—	—	—	—	—	*125*	*140*	*165*	*115*	*130*	*155*	*140*	*155*	*180*
S3	—	—	—	—	—	—	34	38	46	31	35	42	37	42	50
	—	—	—	—	—	—	*110*	*125*	*150*	*100*	*115*	*140*	*120*	*140*	*165*
S11	—	—	—	—	—	—	65	75	90	60	70	85	75	85	100
	—	—	—	—	—	—	*215*	*245*	*295*	*195*	*230*	*280*	*245*	*280*	*330*
S12	—	—	—	—	—	—	46	55	65	42	48	55	50	60	70
	—	—	—	—	—	—	*150*	*180*	*215*	*140*	*155*	*180*	*165*	*195*	*230*
S13	—	—	—	—	—	—	27	30	36	24	27	33	29	33	40
	—	—	—	—	—	—	*90*	*100*	*120*	*80*	*90*	*110*	*95*	*110*	*130*
H5	50	60	70	41	47	55	—	—	—	38	44	50	—	—	—
	165	*195*	*230*	*135*	*155*	*180*	—	—	—	*125*	*145*	*165*	—	—	—
H8	55	60	75	44	50	60	—	—	—	41	47	55	—	—	—
	180	*195*	*245*	*145*	*165*	*195*	—	—	—	*135*	*155*	*180*	—	—	—
H11	65	75	90	55	60	70	—	—	—	49	55	65	55	65	75
	215	*245*	*295*	*180*	*195*	*230*	—	—	—	*160*	*180*	*215*	*180*	*215*	*245*
H12	—	—	—	85	95	115	—	—	—	75	85	100	95	110	125
	—	—	—	*280*	*310*	*375*	—	—	—	*245*	*280*	*330*	*310*	*360*	*410*

R217/220.21-LP06 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	H25			MP2501			MS2500			MP3501			MM4500		
	100%	70%	30%	100%	70%	30%	100%	70%	30%	100%	70%	30%	100%	70%	30%
P1	—	—	—	420	465	540	325	375	450	380	415	485	200	230	275
	—	—	—	*1375*	*1525*	*1775*	*1075*	*1225*	*1475*	*1250*	*1350*	*1600*	*660*	*750*	*900*
P2	—	—	—	410	450	520	315	365	435	370	405	470	190	220	265
	—	—	—	*1350*	*1475*	*1700*	*1025*	*1200*	*1425*	*1225*	*1325*	*1550*	*620*	*720*	*870*
P3	—	—	—	360	400	460	280	320	380	325	355	410	170	195	230
	—	—	—	*1175*	*1300*	*1500*	*920*	*1050*	*1250*	*1075*	*1175*	*1350*	*560*	*640*	*750*
P4	—	—	—	320	350	405	245	280	335	285	315	365	150	170	205
	—	—	—	*1050*	*1150*	*1325*	*800*	*920*	*1100*	*940*	*1025*	*1200*	*490*	*560*	*670*
P5	—	—	—	305	335	385	235	270	320	270	300	345	140	165	200
	—	—	—	*1000*	*1100*	*1275*	*770*	*890*	*1050*	*890*	*980*	*1125*	*460*	*540*	*660*
P6	—	—	—	340	375	435	260	300	360	305	335	390	165	190	220
	—	—	—	*1125*	*1225*	*1425*	*850*	*980*	*1175*	*1000*	*1100*	*1275*	*540*	*620*	*720*
P7	—	—	—	320	355	410	250	285	340	290	315	365	155	180	210
	—	—	—	*1050*	*1175*	*1350*	*820*	*940*	*1125*	*950*	*1025*	*1200*	*510*	*590*	*690*
P8	—	—	—	305	335	385	235	270	320	270	300	345	140	165	195
	—	—	—	*1000*	*1100*	*1275*	*770*	*890*	*1050*	*890*	*980*	*1125*	*460*	*540*	*640*
P11	—	—	—	315	345	395	240	275	330	280	310	355	150	170	205
	—	—	—	*1025*	*1125*	*1300*	*790*	*900*	*1075*	*920*	*1025*	*1175*	*490*	*560*	*670*
P12	—	—	—	205	225	255	160	180	215	185	200	230	95	110	130
	—	—	—	*670*	*740*	*840*	*520*	*590*	*710*	*610*	*660*	*750*	*310*	*360*	*425*
M1	—	—	—	210	240	290	225	260	315	195	225	270	165	190	225
	—	—	—	*690*	*790*	*950*	*740*	*850*	*1025*	*640*	*740*	*890*	*540*	*620*	*740*
M2	—	—	—	170	200	235	185	215	255	160	185	220	135	155	190
	—	—	—	*560*	*660*	*770*	*610*	*710*	*840*	*520*	*610*	*720*	*445*	*510*	*620*
M3	—	—	—	140	160	195	150	175	210	130	150	180	110	125	150
	—	—	—	*460*	*520*	*640*	*490*	*570*	*690*	*425*	*490*	*590*	*360*	*410*	*490*
M4	—	—	—	110	125	150	120	135	160	100	115	140	85	100	115
	—	—	—	*360*	*410*	*490*	*395*	*445*	*520*	*330*	*375*	*460*	*280*	*330*	*375*
M5	—	—	—	90	100	125	100	110	135	85	95	115	75	80	100
	—	—	—	*295*	*330*	*410*	*330*	*360*	*445*	*280*	*310*	*375*	*245*	*260*	*330*
K1	—	—	—	415	455	530	250	290	345	370	410	475	—	—	—
	—	—	—	*1350*	*1500*	*1750*	*820*	*950*	*1125*	*1225*	*1350*	*1550*	—	—	—
K2	—	—	—	365	405	465	220	255	305	330	360	420	—	—	—
	—	—	—	*1200*	*1325*	*1525*	*720*	*840*	*1000*	*1075*	*1175*	*1375*	—	—	—
K3	—	—	—	310	340	395	190	215	260	280	305	355	—	—	—
	—	—	—	*1025*	*1125*	*1300*	*620*	*710*	*850*	*920*	*1000*	*1175*	—	—	—
K4	—	—	—	295	325	375	180	205	245	265	290	340	—	—	—
	—	—	—	*970*	*1075*	*1225*	*590*	*670*	*800*	*870*	*950*	*1125*	—	—	—
K5	—	—	—	185	205	230	110	130	150	165	180	210	—	—	—
	—	—	—	*610*	*670*	*750*	*360*	*425*	*490*	*540*	*590*	*690*	—	—	—
K6	—	—	—	260	290	330	160	180	215	235	260	300	—	—	—
	—	—	—	*850*	*950*	*1075*	*520*	*590*	*710*	*770*	*850*	*980*	—	—	—
K7	—	—	—	235	260	295	145	165	195	210	235	265	—	—	—
	—	—	—	*770*	*850*	*970*	*475*	*540*	*640*	*690*	*770*	*870*	—	—	—
N1	1325	1525	1825	—	—	—	—	—	—	—	—	—	—	—	—
	4350	*5000*	*6000*	—	—	—	—	—	—	—	—	—	—	—	—
N2	540	620	740	—	—	—	—	—	—	—	—	—	—	—	—
	1775	*2025*	*2425*	—	—	—	—	—	—	—	—	—	—	—	—
N3	360	410	495	—	—	—	—	—	—	—	—	—	—	—	—
	1175	*1350*	*1625*	—	—	—	—	—	—	—	—	—	—	—	—
N11	410	470	570	—	—	—	—	—	—	—	—	—	—	—	—
	1350	*1550*	*1875*	—	—	—	—	—	—	—	—	—	—	—	—
S1	—	—	—	—	—	—	60	65	80	48	55	65	27	30	36
	—	—	—	—	—	—	*195*	*215*	*260*	*155*	*180*	*215*	*90*	*100*	*120*
S2	—	—	—	—	—	—	47	55	65	38	43	50	21	24	29
	—	—	—	—	—	—	*155*	*180*	*215*	*125*	*140*	*165*	*70*	*80*	*95*
S3	—	—	—	—	—	—	41	47	55	34	38	46	19	21	25
	—	—	—	—	—	—	*135*	*155*	*180*	*110*	*125*	*150*	*60*	*70*	*80*
S11	—	—	—	—	—	—	80	95	110	65	75	90	37	42	50
	—	—	—	—	—	—	*260*	*310*	*360*	*215*	*245*	*295*	*120*	*140*	*165*
S12	—	—	—	—	—	—	55	65	75	46	55	65	34	39	47
	—	—	—	—	—	—	*180*	*215*	*245*	*150*	*180*	*215*	*110*	*130*	*155*
S13	—	—	—	—	—	—	33	37	44	27	30	36	20	23	27
	—	—	—	—	—	—	*110*	*120*	*145*	*90*	*100*	*120*	*65*	*75*	*90*
H5	—	—	—	—	—	—	50	55	70	44	50	60	—	—	—
	—	—	—	—	—	—	*165*	*180*	*230*	*145*	*165*	*195*	—	—	—
H8	—	—	—	—	—	—	55	60	70	47	55	65	—	—	—
	—	—	—	—	—	—	*180*	*195*	*230*	*155*	*180*	*215*	—	—	—
H11	—	—	—	—	—	—	65	70	85	55	65	75	—	—	—
	—	—	—	—	—	—	*215*	*230*	*280*	*180*	*215*	*245*	—	—	—
H12	—	—	—	—	—	—	105	120	140	85	95	115	—	—	—
	—	—	—	—	—	—	*345*	*395*	*460*	*280*	*310*	*375*	—	—	—

R217.21-LP09 – inch





- For insert selection and cutting data recommendations, see page(s) 547-549
- For complete insert programme, see page(s) 813
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	DCX	ZEFP	APMXS	APMXE	DMM	LS	OAL	RP	RMPX°	C min	C max	RPMX	Weight	Insert
			inch	inch		inch	inch	inch	inch	inch	inch		inch	inch		lbs	
R217.21-01.25-0-LP09-4A	03212900	Cylindrical	0.744	1.250	4	0.071	0.287	1.250	6.102	8.000	0.137	4,9	1.994	2.421	31200	2.430	LP..09
R217.21-01.50-0-LP09-5A	03212901	Cylindrical	0.992	1.500	5	0.071	0.287	1.500	6.102	8.000	0.137	3,4	2.492	2.921	28500	3.530	LP..09

Spare Parts, included in delivery

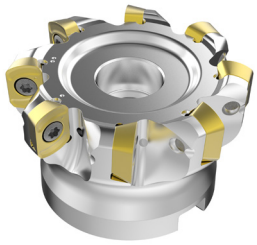
For cutter	Insert key	Insert screw
		
R217.21-..	H4B-T15P	C04009-T15P

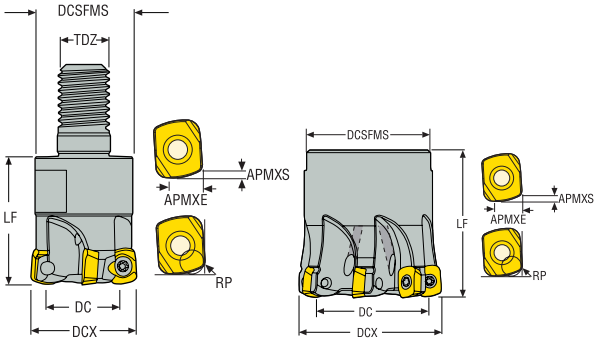
Accessories

For cutter	Insert clamping torque	Torque key
		
R217.21-..	31.0IN.LBS	T00-15P35

Torque and fixed keys, see page 872

R220.21-LP09 – Metric

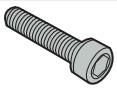




- For insert selection and cutting data recommendations, see page(s) 547-549
- For complete insert programme, see page(s) 813
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	DCX	ZEFP	APMXS	APMXE	DCB	TDZ	DCSFMS	LF	RP	RMPX°	Cmin	Cmax	Weight	RPMX	Insert
			mm	mm		mm	mm	mm		mm	mm	mm		mm	mm	kg		
R217.21-1225.RE-LP09.2A	03212883	Combimaster	12,0	25,0	2	1,8	7,3	–	M12	23,0	35,0	3,49	8,8	37,0	48,0	0,2	35200	LP..09
R217.21-1632.RE-LP09.3A	03212884	Combimaster	19,1	32,0	3	1,8	7,3	–	M16	30,0	35,0	3,45	4,8	51,1	62,0	0,2	31100	LP..09
R217.21-1632.RE-LP09.4A	03212885	Combimaster	19,1	32,0	4	1,8	7,3	–	M16	30,0	35,0	3,47	4,8	51,1	62,0	0,3	31100	LP..09
R217.21-1635.RE-LP09.4A	03212886	Combimaster	22,1	35,0	4	1,8	7,3	–	M16	30,0	35,0	3,47	4,0	57,1	68,0	0,3	29700	LP..09
R217.21-2040.RE-LP09.5A	03212887	Combimaster	27,0	40,0	5	1,8	7,3	–	M20	36,5	40,0	3,48	3,2	67,0	78,0	0,4	27800	LP..09
R217.21-2042.RE-LP09.5A	03212888	Combimaster	28,9	42,0	5	1,8	7,3	–	M20	36,5	40,0	3,48	2,9	70,9	82,0	0,4	27100	LP..09
R220.21-0040-LP09.4A	03212889	Arbor	27,5	40,0	4	1,8	7,3	16,0	–	32,0	40,0	3,46	3,2	67,5	78,0	0,3	27800	LP..09
R220.21-0050-LP09.5A	03212890	Arbor	37,0	50,0	5	1,8	7,3	22,0	–	40,0	40,0	3,45	2,2	87,0	98,0	0,3	24800	LP..09
R220.21-0050-LP09.6A	03212891	Arbor	37,0	50,0	6	1,8	7,3	22,0	–	40,0	40,0	3,45	2,2	87,0	98,0	0,3	24800	LP..09
R220.21-0050-LP09.7A	03212892	Arbor	37,1	50,0	7	1,8	7,3	22,0	–	40,0	40,0	3,47	2,2	87,1	98,0	0,3	24800	LP..09
R220.21-0052-LP09.5A	03252422	Arbor	39,0	51,98	5	1,8	7,3	22,0	–	49,0	40,0	3,45	2,1	90,98	101,96	0,5	24400	LP..09
R220.21-0052-LP09.7A	03212893	Arbor	39,1	51,98	7	1,8	7,3	22,0	–	48,0	40,0	3,47	2,1	91,08	101,96	0,4	24400	LP..09
R220.21-0063-LP09.6A	03212894	Arbor	50,0	63,0	6	1,8	7,3	22,0	–	48,0	40,0	3,45	2,7	113,0	124,0	0,5	22100	LP..09
R220.21-0063-LP09.6A-27	03317247	Arbor	50,0	63,0	6	1,8	7,3	27,0	–	61,0	50,0	3,45	2,7	113,0	124,0	0,8	22100	LP..09
R220.21-0063-LP09.8A	03212895	Arbor	50,1	63,0	8	1,8	7,3	22,0	–	48,0	40,0	3,47	1,6	113,1	124,0	0,5	22100	LP..09
R220.21-0063-LP09.8A-27	03317248	Arbor	50,1	63,0	8	1,8	7,3	27,0	–	61,0	50,0	3,47	1,6	113,1	124,0	0,8	22100	LP..09
R220.21-0066-LP09.6A	03252423	Arbor	53,1	66,0	6	1,8	7,3	27,0	–	61,0	50,0	3,47	1,5	119,1	130,0	0,8	21600	LP..09
R220.21-0066-LP09.8A	03212896	Arbor	53,1	66,0	8	1,8	7,3	27,0	–	60,0	50,0	3,47	1,5	119,1	130,0	0,8	21600	LP..09
R220.21-0080-LP09.7A	03212897	Arbor	67,0	80,0	7	1,8	7,3	27,0	–	60,0	50,0	3,45	1,1	147,0	158,0	1,0	19600	LP..09
R220.21-0080-LP09.9A	03212898	Arbor	67,0	80,0	9	1,8	7,3	27,0	–	60,0	50,0	3,45	1,1	147,0	158,0	1,0	19600	LP..09
R220.21-0084-LP09.7A	03252424	Arbor	71,0	84,0	7	1,8	7,3	32,0	–	79,0	50,0	3,44	1,1	155,0	166,0	1,4	18600	LP..09
R220.21-0100-LP09.10A	03212899	Arbor	87,0	100,0	10	1,8	7,3	32,0	–	78,0	50,0	3,44	0,8	187,0	198,0	1,7	17600	LP..09

Spare Parts, included in delivery

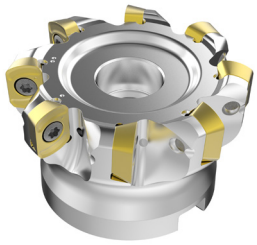
For cutter	Arbor screw	Insert key	Insert screw
			
R217.21-..	–	H4B-T15P	C04009-T15P
R220.21-0040	MC6S8X30	H4B-T15P	C04009-T15P
R220.21-0050-0063	220.17-692	H4B-T15P	C04009-T15P
R220.21-0063-6A	220.17-692	H4B-T15P	C04011-T15P
R220.21-0063-6A-27	MC6S12X40	H4B-T15P	C04011-T15P
R220.21-0063-8A-27	MC6S12X40	H4B-T15P	C04009-T15P
R220.21-0066	MC6S12X35	H4B-T15P	C04009-T15P
R220.21-0080	MC6S12X35	H4B-T15P	C04011-T15P
R220.21-0084	MLC6S16X35	H4B-T15P	C04009-T15P
R220.21-0100	MLC6S16X35	H4B-T15PL	C04011-T15P

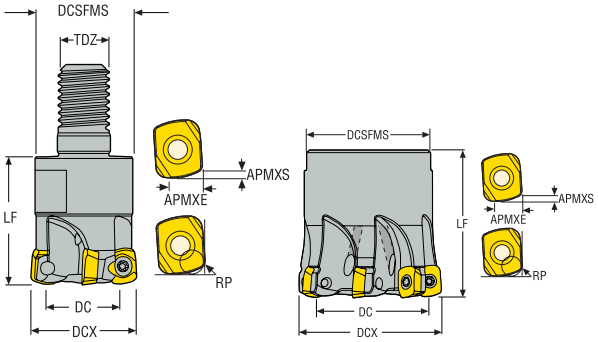
Accessories

For cutter	Insert clamping torque	Torque key
		
R217/220.21-..	3.5NM	T00-15P35

Torque and fixed keys, see page 872

R220.21-LP09 – inch

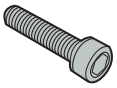




- For insert selection and cutting data recommendations, see page(s) 547-549
- For complete insert programme, see page(s) 813
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	DCX	ZEFP	APMXS	APMXE	DCB	TDZ	DCSFMS	LF	RP	RMPX°	C min	C max	Weight	RPMX	Insert
			inch	inch		inch	inch	inch		inch	inch	inch		inch	inch	lbs		
R217.21-01.25-16RE-LP09-4A	03212902	Combimaster	0.744	1.250	4	0.071	0.287	–	M16	1.181	1.378	0.137	4,9	1.994	2.421	0.660	31100	LP..09
R220.21-02.00-LP09-6A	03212903	Arbor	1.488	2.000	6	0.071	0.287	0.750	–	1.750	1.500	0.136	2,2	3.488	3.921	0.880	24600	LP..09
R220.21-02.00-LP09-7A	03212904	Arbor	1.492	2.000	7	0.071	0.287	0.750	–	1.750	1.500	0.137	2,2	3.492	3.921	0.880	24600	LP..09
R220.21-02.50-LP09-6A	03212905	Arbor	1.988	2.500	6	0.071	0.287	0.750	–	1.750	1.500	0.136	1,6	4.488	4.921	1.100	22000	LP..09
R220.21-03.00-LP09-6A	03212907	Arbor	2.488	3.000	6	0.071	0.287	1.000	–	2.250	2.000	0.136	1,2	5.488	5.921	2.200	19600	LP..09
R220.21-03.00-LP09-8A	03212908	Arbor	2.488	3.000	8	0.071	0.287	1.000	–	2.250	2.000	0.136	1,2	5.488	5.921	2.200	20100	LP..09

Spare Parts, included in delivery

For cutter	Arbor screw	Insert key	Insert screw
			
R217.21-..	–	H4B-T15P	C04009-T15P
R220.21-02.00-02.50	UC6S3/8UNFX1-1/4	H4B-T15P	C04009-T15P
R220.21-03.00	UC6S1/2UNFX1-1/2	H4B-T15P	C04011-T15P

Accessories

For cutter	Insert clamping torque	Torque key
		
R217/220.21-..	31.0IN.LBS	T00-15P35

Torque and fixed keys, see page 872

R217/220.21-LP09 – Insert selection – mm/*Inch*

SMG		a_p	f_z		
			100%	70%	30%
P1	LPKT09T420TR-M13 MP3501	1,6 *0.065*	1,1 *0.044*	1,1 *0.044*	1,3 *0.050*
P2	LPKT09T420TR-M13 MP3501	1,6 *0.065*	1,1 *0.044*	1,1 *0.044*	1,3 *0.050*
P3	LPKT09T420TR-M13 MP2501	1,6 *0.065*	1,0 *0.040*	1,0 *0.040*	1,3 *0.050*
P4	LPKT09T420TR-M13 MP2501	1,6 *0.065*	1,0 *0.040*	1,0 *0.040*	1,2 *0.048*
P5	LPKT09T420TR-M13 MP2501	1,6 *0.065*	1,0 *0.040*	1,0 *0.040*	1,2 *0.048*
P6	LPKT09T420TR-M13 MP2501	1,6 *0.065*	1,0 *0.040*	1,0 *0.040*	1,2 *0.048*
P7	LPKT09T420TR-M13 MP2501	1,6 *0.065*	1,0 *0.040*	1,0 *0.040*	1,2 *0.048*
P8	LPKT09T420TR-M13 MP2501	1,6 *0.065*	1,0 *0.040*	1,0 *0.040*	1,3 *0.050*
P11	LPKT09T420TR-M13 MP3501	1,6 *0.065*	1,0 *0.040*	1,0 *0.040*	1,2 *0.048*
P12	LPKT09T420TR-M13 MP2501	1,3 *0.050*	0,75 *0.030*	0,75 *0.030*	0,90 *0.036*
M1	LPKT09T420TR-ME08 MS2050	1,6 *0.065*	0,70 *0.028*	0,70 *0.028*	0,80 *0.032*
M2	LPKT09T420TR-ME08 MS2050	1,6 *0.065*	0,60 *0.024*	0,60 *0.024*	0,75 *0.030*
M3	LPKT09T420TR-ME08 MS2050	1,3 *0.050*	0,55 *0.022*	0,55 *0.022*	0,65 *0.026*
M4	LPKT09T420TR-M13 MP3501	0,95 *0.038*	0,90 *0.036*	0,90 *0.036*	1,1 *0.044*
M5	LPKT09T420TR-M13 MP3501	0,95 *0.038*	0,90 *0.036*	0,90 *0.036*	1,1 *0.044*
K1	LPKW09T420TR-D15 MK2050	1,6 *0.065*	1,3 *0.050*	1,3 *0.050*	1,5 *0.060*
K2	LPKW09T420TR-D15 MK2050	1,6 *0.065*	1,2 *0.048*	1,2 *0.048*	1,4 *0.055*
K3	LPKW09T420TR-D15 MK2050	1,6 *0.065*	1,2 *0.048*	1,2 *0.048*	1,4 *0.055*
K4	LPKW09T420TR-D15 MK2050	1,6 *0.065*	1,2 *0.048*	1,2 *0.048*	1,4 *0.055*
K5	LPKW09T420TR-D15 MK2050	1,6 *0.065*	1,0 *0.040*	1,0 *0.040*	1,3 *0.050*
K6	LPKW09T420TR-D15 MK2050	1,6 *0.065*	1,2 *0.048*	1,2 *0.048*	1,4 *0.055*
K7	LPKW09T420TR-D15 MK2050	1,6 *0.065*	1,0 *0.040*	1,0 *0.040*	1,3 *0.050*
N1	LPHT09T420R-E08 H25	1,6 *0.065*	0,85 *0.034*	0,85 *0.034*	1,0 *0.040*
N2	LPHT09T420R-E08 H25	1,6 *0.065*	0,85 *0.034*	0,85 *0.034*	1,0 *0.040*
N3	LPHT09T420R-E08 H25	1,6 *0.065*	0,85 *0.034*	0,85 *0.034*	1,0 *0.040*
N11	LPHT09T420R-E08 H25	1,6 *0.065*	0,85 *0.034*	0,85 *0.034*	1,0 *0.040*
S1	LPKT09T420TR-M13 MP3501	0,95 *0.038*	0,90 *0.036*	0,90 *0.036*	1,1 *0.044*
S2	LPKT09T420TR-M13 MP3501	0,95 *0.038*	0,90 *0.036*	0,90 *0.036*	1,1 *0.044*
S3	LPKT09T420TR-M13 MP3501	0,95 *0.038*	0,85 *0.034*	0,85 *0.034*	1,0 *0.040*
S11	LPKT09T420TR-ME08 MS2050	1,1 *0.044*	0,60 *0.024*	0,60 *0.024*	0,70 *0.028*
S12	LPKT09T420TR-ME08 MS2050	1,1 *0.044*	0,60 *0.024*	0,60 *0.024*	0,70 *0.028*
S13	LPKT09T420TR-ME08 MS2050	0,95 *0.038*	0,55 *0.022*	0,55 *0.022*	0,65 *0.026*
H5	LPHW09T420TR-D12 MH1000	1,0 *0.040*	0,70 *0.028*	0,70 *0.028*	0,80 *0.032*
H8	LPHW09T420TR-D12 MH1000	0,90 *0.036*	0,55 *0.022*	0,55 *0.022*	0,65 *0.026*
H11	LPKW09T420TR-D15 MP3000	1,0 *0.040*	0,85 *0.034*	0,85 *0.034*	1,0 *0.040*
H12	LPKW09T420TR-D15 MP3000	0,90 *0.036*	0,70 *0.028*	0,70 *0.028*	0,80 *0.032*

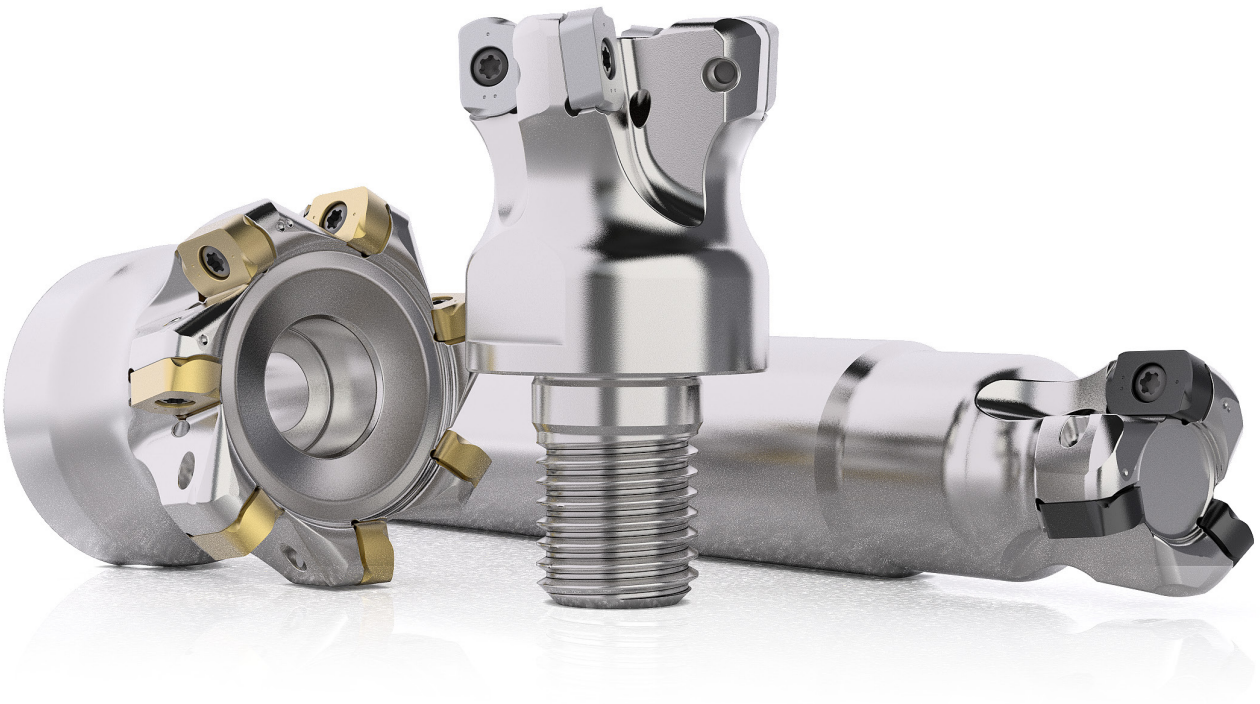
SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

R217/220.21-LP09 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	MH1000			MK2050			MP3000			MS2050			F40M			MP2050		
	100%	70%	30%	100%	70%	30%	100%	70%	30%	100%	70%	30%	100%	70%	30%	100%	70%	30%
P1	—	—	—	215	250	295	205	240	280	245	285	340	180	210	255	235	275	330
	—	—	—	*710*	*820*	*970*	*670*	*790*	*920*	*800*	*940*	*1125*	*590*	*690*	*840*	*770*	*900*	*1075*
P2	—	—	—	200	235	285	195	225	275	235	270	330	175	205	250	230	265	320
	—	—	—	*660*	*770*	*940*	*640*	*740*	*900*	*770*	*890*	*1075*	*570*	*670*	*820*	*750*	*870*	*1050*
P3	—	—	—	180	210	245	170	200	235	205	240	290	155	185	215	205	235	275
	—	—	—	*590*	*690*	*800*	*560*	*660*	*770*	*670*	*790*	*950*	*510*	*610*	*710*	*670*	*770*	*900*
P4	—	—	—	155	185	220	150	175	215	180	210	255	140	160	195	180	210	250
	—	—	—	*510*	*610*	*720*	*490*	*570*	*710*	*590*	*690*	*840*	*460*	*520*	*640*	*590*	*690*	*820*
P5	—	—	—	150	175	210	145	170	205	175	205	240	130	155	185	170	200	240
	—	—	—	*490*	*570*	*690*	*475*	*560*	*670*	*570*	*670*	*790*	*425*	*510*	*610*	*560*	*660*	*790*
P6	205	240	285	175	200	235	165	195	230	200	230	270	150	170	205	190	225	270
	670	*790*	*940*	*570*	*660*	*770*	*540*	*640*	*750*	*660*	*750*	*890*	*490*	*560*	*670*	*620*	*740*	*890*
P7	195	230	270	165	190	225	155	185	215	185	220	255	140	165	195	180	210	255
	640	*750*	*890*	*540*	*620*	*740*	*510*	*610*	*710*	*610*	*720*	*840*	*460*	*540*	*640*	*590*	*690*	*840*
P8	180	210	250	150	175	205	145	170	200	170	200	240	130	155	180	170	200	230
	590	*690*	*820*	*490*	*570*	*670*	*475*	*560*	*660*	*560*	*660*	*790*	*425*	*510*	*590*	*560*	*660*	*750*
P11	190	220	265	160	185	220	155	180	210	180	210	250	135	160	190	175	205	245
	620	*720*	*870*	*520*	*610*	*720*	*510*	*590*	*690*	*590*	*690*	*820*	*445*	*520*	*620*	*570*	*670*	*800*
P12	125	145	175	105	120	145	100	115	140	120	140	165	90	105	125	120	135	165
	410	*475*	*570*	*345*	*395*	*475*	*330*	*375*	*460*	*395*	*460*	*540*	*295*	*345*	*410*	*395*	*445*	*540*
M1	—	—	—	—	—	—	—	—	—	190	220	265	140	165	200	165	190	230
	—	—	—	—	—	—	—	—	—	*620*	*720*	*870*	*460*	*540*	*660*	*540*	*620*	*750*
M2	—	—	—	—	—	—	—	—	—	160	185	220	120	140	165	135	160	190
	—	—	—	—	—	—	—	—	—	*520*	*610*	*720*	*395*	*460*	*540*	*445*	*520*	*620*
M3	—	—	—	—	—	—	—	—	—	130	145	180	95	115	135	110	130	155
	—	—	—	—	—	—	—	—	—	*425*	*475*	*590*	*310*	*375*	*445*	*360*	*425*	*510*
M4	—	—	—	—	—	—	—	—	—	100	115	140	75	90	105	90	100	120
	—	—	—	—	—	—	—	—	—	*330*	*375*	*460*	*245*	*295*	*345*	*295*	*330*	*395*
M5	—	—	—	—	—	—	—	—	—	85	95	115	65	75	90	75	85	100
	—	—	—	—	—	—	—	—	—	*280*	*310*	*375*	*215*	*245*	*295*	*245*	*280*	*330*
K1	195	225	270	215	255	310	155	180	220	—	—	—	140	165	195	—	—	—
	640	*740*	*890*	*710*	*840*	*1025*	*510*	*590*	*720*	—	—	—	*460*	*540*	*640*	—	—	—
K2	175	205	240	195	225	275	135	160	195	—	—	—	125	145	175	—	—	—
	570	*670*	*790*	*640*	*740*	*900*	*445*	*520*	*640*	—	—	—	*410*	*475*	*570*	—	—	—
K3	150	170	205	165	190	230	115	135	165	—	—	—	105	125	150	—	—	—
	490	*560*	*670*	*540*	*620*	*750*	*375*	*445*	*540*	—	—	—	*345*	*410*	*490*	—	—	—
K4	140	165	195	155	180	220	110	130	155	—	—	—	100	120	140	—	—	—
	460	*540*	*640*	*510*	*590*	*720*	*360*	*425*	*510*	—	—	—	*330*	*395*	*460*	—	—	—
K5	85	100	120	100	115	135	70	80	95	—	—	—	60	75	85	—	—	—
	280	*330*	*395*	*330*	*375*	*445*	*230*	*260*	*310*	—	—	—	*195*	*245*	*280*	—	—	—
K6	125	145	170	140	160	195	95	115	135	—	—	—	90	105	125	—	—	—
	410	*475*	*560*	*460*	*520*	*640*	*310*	*375*	*445*	—	—	—	*295*	*345*	*410*	—	—	—
K7	110	130	155	125	150	170	90	105	120	—	—	—	80	95	110	—	—	—
	360	*425*	*510*	*410*	*490*	*560*	*295*	*345*	*395*	—	—	—	*260*	*310*	*360*	—	—	—
N1	—	—	—	—	—	—	—	—	—	—	—	—	1025	1175	1425	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	*3375*	*3850*	*4675*	—	—	—
N2	—	—	—	—	—	—	—	—	—	—	—	—	410	480	570	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	*1350*	*1575*	*1875*	—	—	—
N3	—	—	—	—	—	—	—	—	—	—	—	—	275	320	380	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	*900*	*1050*	*1250*	—	—	—
N11	—	—	—	—	—	—	—	—	—	—	—	—	315	365	435	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	*1025*	*1200*	*1425*	—	—	—
S1	—	—	—	—	—	—	—	—	—	47	55	65	36	41	49	43	49	60
	—	—	—	—	—	—	—	—	—	*155*	*180*	*215*	*120*	*135*	*160*	*140*	*160*	*195*
S2	—	—	—	—	—	—	—	—	—	38	44	50	29	33	40	35	40	48
	—	—	—	—	—	—	—	—	—	*125*	*145*	*165*	*95*	*110*	*130*	*115*	*130*	*155*
S3	—	—	—	—	—	—	—	—	—	33	38	46	25	29	35	30	35	42
	—	—	—	—	—	—	—	—	—	*110*	*125*	*150*	*80*	*95*	*115*	*100*	*115*	*140*
S11	—	—	—	—	—	—	—	—	—	65	75	90	49	55	70	60	70	85
	—	—	—	—	—	—	—	—	—	*215*	*245*	*295*	*160*	*180*	*230*	*195*	*230*	*280*
S12	—	—	—	—	—	—	—	—	—	45	50	60	34	39	48	41	47	55
	—	—	—	—	—	—	—	—	—	*150*	*165*	*195*	*110*	*130*	*155*	*135*	*155*	*180*
S13	—	—	—	—	—	—	—	—	—	26	31	36	20	23	28	24	28	33
	—	—	—	—	—	—	—	—	—	*85*	*100*	*120*	*65*	*75*	*90*	*80*	*90*	*110*
H5	43	50	60	—	—	—	33	38	45	—	—	—	31	36	43	—	—	—
	140	*165*	*195*	—	—	—	*110*	*125*	*150*	—	—	—	*100*	*120*	*140*	—	—	—
H8	47	55	65	—	—	—	35	41	49	—	—	—	34	39	46	—	—	—
	155	*180*	*215*	—	—	—	*115*	*135*	*160*	—	—	—	*110*	*130*	*150*	—	—	—
H11	55	65	75	—	—	—	42	48	60	—	—	—	40	46	55	47	55	65
	180	*215*	*245*	—	—	—	*140*	*155*	*195*	—	—	—	*130*	*150*	*180*	*155*	*180*	*215*
H12	—	—	—	—	—	—	70	80	95	—	—	—	60	70	85	80	90	110
	—	—	—	—	—	—	*230*	*260*	*310*	—	—	—	*195*	*230*	*280*	*260*	*295*	*360*

R217/220.21-LP09 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	H25			MP1501			MP2501			MS2500			MP3501			MM4500		
	100%	70%	30%	100%	70%	30%	100%	70%	30%	100%	70%	30%	100%	70%	30%	100%	70%	30%
P1	—	—	—	330	370	440	320	355	425	260	305	365	280	315	375	180	210	250
	—	—	—	*1075*	*1225*	*1450*	*1050*	*1175*	*1400*	*850*	*1000*	*1200*	*920*	*1025*	*1225*	*590*	*690*	*820*
P2	—	—	—	320	360	430	310	345	415	255	295	355	270	305	365	170	200	240
	—	—	—	*1050*	*1175*	*1400*	*1025*	*1125*	*1350*	*840*	*970*	*1175*	*890*	*1000*	*1200*	*560*	*660*	*790*
P3	—	—	—	290	325	370	280	310	355	225	265	305	245	275	315	150	175	210
	—	—	—	*950*	*1075*	*1225*	*920*	*1025*	*1175*	*740*	*870*	*1000*	*800*	*900*	*1025*	*490*	*570*	*690*
P4	—	—	—	255	285	335	245	275	325	200	230	275	215	240	290	135	155	185
	—	—	—	*840*	*940*	*1100*	*800*	*900*	*1075*	*660*	*750*	*900*	*710*	*790*	*950*	*445*	*510*	*610*
P5	—	—	—	245	270	320	235	260	310	190	220	265	205	230	275	130	150	180
	—	—	—	*800*	*890*	*1050*	*770*	*850*	*1025*	*620*	*720*	*870*	*670*	*750*	*900*	*425*	*490*	*590*
P6	—	—	—	270	305	360	265	295	350	215	250	295	230	260	310	145	170	200
	—	—	—	*890*	*1000*	*1175*	*870*	*970*	*1150*	*710*	*820*	*970*	*750*	*850*	*1025*	*475*	*560*	*660*
P7	—	—	—	255	290	340	250	280	330	200	235	280	220	245	290	140	160	190
	—	—	—	*840*	*950*	*1125*	*820*	*920*	*1075*	*660*	*770*	*920*	*720*	*800*	*950*	*460*	*520*	*620*
P8	—	—	—	245	270	310	235	260	300	190	220	260	205	230	265	125	150	180
	—	—	—	*800*	*890*	*1025*	*770*	*850*	*980*	*620*	*720*	*850*	*670*	*750*	*870*	*410*	*490*	*590*
P11	—	—	—	250	280	330	240	270	320	195	230	275	210	240	285	135	155	185
	—	—	—	*820*	*920*	*1075*	*790*	*890*	*1050*	*640*	*750*	*900*	*690*	*790*	*940*	*445*	*510*	*610*
P12	—	—	—	170	190	220	170	185	215	130	150	180	150	165	195	90	100	120
	—	—	—	*560*	*620*	*720*	*560*	*610*	*710*	*425*	*490*	*590*	*490*	*540*	*640*	*295*	*330*	*395*
M1	—	—	—	—	—	—	170	195	235	180	210	255	155	180	220	145	170	210
	—	—	—	—	—	—	*560*	*640*	*770*	*590*	*690*	*840*	*510*	*590*	*720*	*475*	*560*	*690*
M2	—	—	—	—	—	—	140	165	195	150	175	210	130	150	180	125	145	170
	—	—	—	—	—	—	*460*	*540*	*640*	*490*	*570*	*690*	*425*	*490*	*590*	*410*	*475*	*560*
M3	—	—	—	—	—	—	115	135	160	125	145	175	105	125	150	100	115	140
	—	—	—	—	—	—	*375*	*445*	*520*	*410*	*475*	*570*	*345*	*410*	*490*	*330*	*375*	*460*
M4	—	—	—	—	—	—	90	105	125	100	110	135	85	95	115	80	90	110
	—	—	—	—	—	—	*295*	*345*	*410*	*330*	*360*	*445*	*280*	*310*	*375*	*260*	*295*	*360*
M5	—	—	—	—	—	—	75	85	105	80	95	110	70	80	95	65	75	90
	—	—	—	—	—	—	*245*	*280*	*345*	*260*	*310*	*360*	*230*	*260*	*310*	*215*	*245*	*295*
K1	—	—	—	325	365	435	310	350	420	200	235	285	275	310	370	—	—	—
	—	—	—	*1075*	*1200*	*1425*	*1025*	*1150*	*1375*	*660*	*770*	*940*	*900*	*1025*	*1225*	—	—	—
K2	—	—	—	295	330	390	285	315	375	180	210	250	250	280	330	—	—	—
	—	—	—	*970*	*1075*	*1275*	*940*	*1025*	*1225*	*590*	*690*	*820*	*820*	*920*	*1075*	—	—	—
K3	—	—	—	250	280	330	240	270	320	150	180	215	210	235	280	—	—	—
	—	—	—	*820*	*920*	*1075*	*790*	*890*	*1050*	*490*	*590*	*710*	*690*	*770*	*920*	—	—	—
K4	—	—	—	235	265	315	230	255	305	145	170	205	200	225	270	—	—	—
	—	—	—	*770*	*870*	*1025*	*750*	*840*	*1000*	*475*	*560*	*670*	*660*	*740*	*890*	—	—	—
K5	—	—	—	145	165	195	145	160	185	90	105	125	125	140	165	—	—	—
	—	—	—	*475*	*540*	*640*	*475*	*520*	*610*	*295*	*345*	*410*	*410*	*460*	*540*	—	—	—
K6	—	—	—	210	235	275	200	225	265	130	150	180	175	200	235	—	—	—
	—	—	—	*690*	*770*	*900*	*660*	*740*	*870*	*425*	*490*	*590*	*570*	*660*	*770*	—	—	—
K7	—	—	—	190	210	245	185	205	240	115	135	160	160	180	210	—	—	—
	—	—	—	*620*	*690*	*800*	*610*	*670*	*790*	*375*	*445*	*520*	*520*	*590*	*690*	—	—	—
N1	1225	1425	1725	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	4025	*4675*	*5650*	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
N2	495	580	690	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	1625	*1900*	*2275*	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
N3	330	385	460	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	1075	*1275*	*1500*	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
N11	375	440	530	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	1225	*1450*	*1750*	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S1	—	—	—	—	—	—	—	—	—	48	55	65	39	45	55	24	28	33
	—	—	—	—	—	—	—	—	—	*155*	*180*	*215*	*130*	*150*	*180*	*80*	*90*	*110*
S2	—	—	—	—	—	—	—	—	—	39	44	55	32	36	44	19	23	27
	—	—	—	—	—	—	—	—	—	*130*	*145*	*180*	*105*	*120*	*145*	*60*	*75*	*90*
S3	—	—	—	—	—	—	—	—	—	34	39	47	28	32	38	17	20	24
	—	—	—	—	—	—	—	—	—	*110*	*130*	*155*	*90*	*105*	*125*	*55*	*65*	*80*
S11	—	—	—	—	—	—	—	—	—	65	75	90	55	60	75	33	39	46
	—	—	—	—	—	—	—	—	—	*215*	*245*	*295*	*180*	*195*	*245*	*110*	*130*	*150*
S12	—	—	—	—	—	—	—	—	—	46	55	65	38	43	50	31	36	42
	—	—	—	—	—	—	—	—	—	*150*	*180*	*215*	*125*	*140*	*165*	*100*	*120*	*140*
S13	—	—	—	—	—	—	—	—	—	27	31	37	22	25	30	18	21	25
	—	—	—	—	—	—	—	—	—	*90*	*100*	*120*	*70*	*80*	*100*	*60*	*70*	*80*
H5	—	—	—	47	55	65	—	—	—	41	47	55	36	42	49	—	—	—
	—	—	—	*155*	*180*	*215*	—	—	—	*135*	*155*	*180*	*120*	*140*	*160*	—	—	—
H8	—	—	—	50	60	70	—	—	—	44	50	60	39	45	55	—	—	—
	—	—	—	*165*	*195*	*230*	—	—	—	*145*	*165*	*195*	*130*	*150*	*180*	—	—	—
H11	—	—	—	60	70	80	—	—	—	50	60	70	46	55	65	—	—	—
	—	—	—	*195*	*230*	*260*	—	—	—	*165*	*195*	*230*	*150*	*180*	*215*	—	—	—
H12	—	—	—	90	105	125	—	—	—	90	100	120	70	80	95	—	—	—
	—	—	—	*295*	*345*	*410*	—	—	—	*295*	*330*	*395*	*230*	*260*	*310*	—	—	—

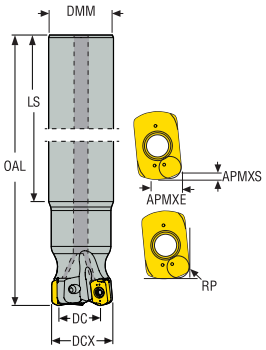


R217/220.21 HIGH FEED 4

Highfeed 4 for LO06 insert types, 4-cutting edge, double sided inserts.
The inserts is strong and reliable for applications with low demands on ramping capability. A wide selection of inserts and geometries make it easy to find the right combination for your application.

- Cutter range 20-63 mm (1 - 2.5 inch)
- Max depth of cut 0.9 mm
- First choice for ISO P & K materials in small-to-medium-size machines

R217.21-LO06 – Metric





- For insert selection and cutting data recommendations, see page(s) 555-557
- For complete insert programme, see page(s) 808
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	DCX	ZEFP	APMXS	APMXE	DMM	LS	OAL	RP	RMPX°	Cmin	Cmax	RPMX	Weight	Insert
			mm	mm		mm	mm	mm	mm	mm	mm		mm	mm		kg	
R217.21-1820.0-LO06.2A	02952673	Cylindrical	13,3	20,0	2	0,9	2,5	18,0	134,9	160,0	1,8	1,0	33,3	38,0	23400	0,4	LO..06
R217.21-2525.0-LO06.3A	02828469	Cylindrical	18,3	25,0	3	0,9	2,5	25,0	140,0	180,0	1,8	0,8	43,3	48,0	20900	0,7	LO..06
R217.21-2527.0-LO06.3A	02828470	Cylindrical	20,3	27,0	3	0,9	2,5	25,0	175,0	200,0	1,8	0,7	47,3	52,0	20100	0,8	LO..06
R217.21-3232.0-LO06.4A	02828474	Cylindrical	25,3	32,0	4	0,9	2,5	32,0	160,0	200,0	1,8	0,5	57,3	62,0	18500	1,2	LO..06

Spare Parts, included in delivery

For cutter	Insert key	Insert screw
		
R217.21-..	H4B-T08P	C02508-T08P

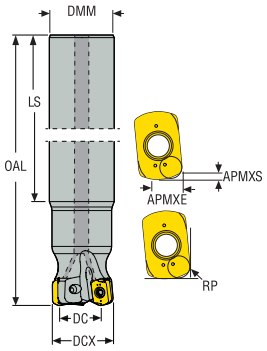
Accessories

For cutter	Insert clamping torque	Torque key
		
R217.21-..	1.2NM	T00-08P12

Torque and fixed keys, see page 872

R217.21-LO06 – inch





- For insert selection and cutting data recommendations, see page(s) 555-557
- For complete insert programme, see page(s) 808
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	DCX	ZEFP	APMXS	APMXE	DMM	LS	OAL	RP	RMPX°	C min	C max	RPMX	Weight	Insert
			inch	inch		inch	inch	inch	inch	inch	inch		inch	inch		lbs	
R217.21-01.00-0-LO06-3A	02842018	Cylindrical	0.736	1.000	3	0.035	0.098	1.000	5.500	7.000	0.071	0,7	1.736	1.921	20700	1.540	LO..06
R217.21-01.25-0-LO06-4A	02842021	Cylindrical	0.984	1.250	4	0.035	0.098	1.250	6.500	8.000	0.071	0,5	2.234	2.421	18600	2.650	LO..06

Spare Parts, included in delivery

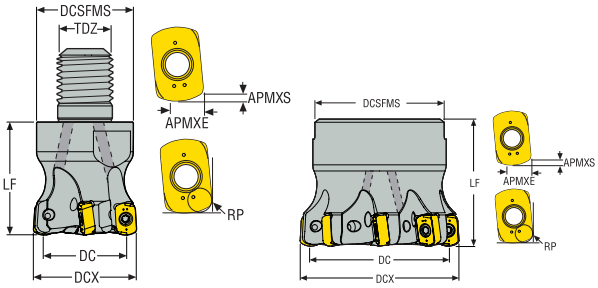
For cutter	Insert key	Insert screw
		
R217.21..	H4B-T08P	C02508-T08P

Accessories

For cutter	Insert clamping torque	Torque key
		
R217.21-..	10.6IN.LBS	T00-08P12

Torque and fixed keys, see page 872

R217/220.21-LO06 – Metric



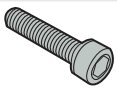


- For insert selection and cutting data recommendations, see page(s) 555-557
- For complete insert programme, see page(s) 808
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	DCX	ZEFP	APMXS	APMXE	DCB	TDZ	DCSFMS	LF	RP	RMPX°	Cmin	Cmax	Weight	RPMX	Insert
			mm	mm		mm	mm	mm		mm	mm	mm		mm	mm	kg		
R217.21-1020.RE-LO06.2A	03020137	Combimaster	13,3	20,0	2	0,9	2,5	–	M10	18,5	28,0	1,8	1,0	33,3	38,0	0,1	23400	LO..06
R217.21-1225.RE-LO06.3A	03020140	Combimaster	18,3	25,0	3	0,9	2,5	–	M12	23,0	30,0	1,8	0,8	43,3	48,0	0,2	20900	LO..06
R217.21-1225.RE-LO06.4A	02828468	Combimaster	18,3	25,0	4	0,9	2,5	–	M12	23,0	30,0	1,8	0,8	43,3	48,0	0,2	20900	LO..06
R217.21-1632.RE-LO06.4A	02927092	Combimaster	25,3	32,0	4	0,9	2,5	–	M16	30,0	35,0	1,8	0,5	57,3	62,0	0,2	18500	LO..06
R217.21-1632.RE-LO06.5A	02828471	Combimaster	25,3	32,0	5	0,9	2,5	–	M16	30,0	35,0	1,8	0,5	57,3	62,0	0,3	18500	LO..06
R217.21-1635.RE-LO06.5A	02828472	Combimaster	28,3	35,0	5	0,9	2,5	–	M16	30,0	35,0	1,8	0,5	63,3	68,0	0,3	17700	LO..06
R217.21-1640.RE-LO06.5A	02828478	Combimaster	33,3	40,0	5	0,9	2,5	–	M16	30,0	35,0	1,8	0,4	73,3	78,0	0,3	16500	LO..06
R217.21-2040.RE-LO06.6A	02991177	Combimaster	33,0	40,0	6	0,9	2,5	–	M20	36,5	40,0	1,8	0,4	73,3	78,0	0,4	16500	LO..06
R220.21-0035-LO06.6A	02952739	Arbor	28,3	35,0	6	0,9	2,5	16,0	–	32,0	35,0	1,8	0,5	63,3	68,0	0,2	17700	LO..06
R220.21-0040-LO06.7A	02927090	Arbor	33,3	40,0	7	0,9	2,5	16,0	–	35,0	40,0	1,8	0,4	73,3	78,0	0,3	16500	LO..06
R220.21-0042-LO06.7A	02828477	Arbor	35,3	42,0	7	0,9	2,5	16,0	–	35,0	40,0	1,8	0,4	77,3	82,0	0,3	16100	LO..06
R220.21-0050-LO06.8A	02927091	Arbor	43,3	50,0	8	0,9	2,5	22,0	–	42,0	40,0	1,8	0,3	93,3	98,0	0,4	14800	LO..06
R220.21-0052-LO06.8A	02952735	Arbor	45,3	52,0	8	0,9	2,5	22,0	–	42,0	40,0	1,8	0,3	97,3	102,0	0,4	14500	LO..06
R220.21-0063-LO06.9A	02952736	Arbor	56,3	63,0	9	0,9	2,5	22,0	–	47,0	40,0	1,8	0,25	119,3	124,0	0,6	13100	LO..06

For Combimaster Shanks, see Machining Navigator Tooling System

Spare Parts, included in delivery

For cutter	Arbor screw	Insert key	Insert screw
			
R217.21-..	–	H4B-T08P	C02508-T08P
R220.21- Ø35	TCEI0825	H4B-T08P	C02508-T08P
R220.21- Ø40-42	220.17-689	H4B-T08P	C02508-T08P
R220.21- Ø50-63	220.17-692	H4B-T08P	C02508-T08P

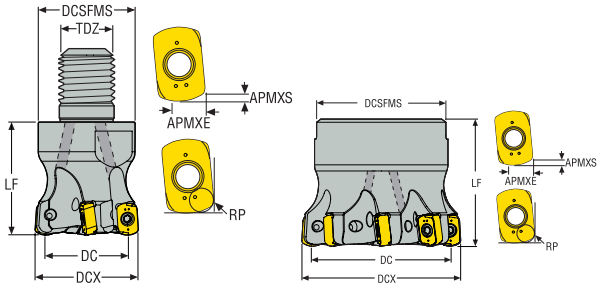
Accessories

For cutter	Insert clamping torque	Torque key
		
R217/220.21-..	1.2NM	T00-08P12

Torque and fixed keys, see page 872

R217/220.21-LO06 – inch



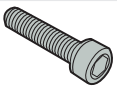


- For insert selection and cutting data recommendations, see page(s) 555-557
- For complete insert programme, see page(s) 808
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	DCX	ZEFP	APMXS	APMXE	DCB	TDZ	DCSFMS	LF	RP	RMPX°	C min	C max	Weight	RPMX	Insert
			inch	inch		inch	inch	inch		inch	inch	inch		inch	inch	lbs		
R217.21-01.00-12RE-LO06-4A	02842017	Combimaster	0.736	1.000	4	0.035	0.098	–	M12	0.906	1.181	0.071	0,7	1.736	1.921	0.440	20700	LO..06
R217.21-01.50-16RE-LO06-5A	02952695	Combimaster	1.236	1.500	5	0.035	0.098	–	M16	1.181	1.378	0.071	0,4	2.736	2.921	0.440	16900	LO..06
R217.21-01.50-20RE-LO06.6A	03002406	Combimaster	1.299	1.500	6	0.035	0.098	–	M20	1.437	1.575	0.071	0,4	2.736	2.921	0.660	16900	LO..06
R220.21-02.00-LO06-8A	02952697	Arbor	1.736	2.000	8	0.035	0.098	0.750	–	1.654	1.500	0.071	0,3	3.736	3.921	0.880	14700	LO..06

For Combimaster Shanks, see Machining Navigator Tooling System

Spare Parts, included in delivery

For cutter	Arbor screw	Insert key	Insert screw
			
R217.21-..	–	H4B-T08P	C02508-T08P
R220.21-2.00-2.50	UC6S3/8UNFX1	H4B-T08P	C02508-T08P

Accessories

For cutter	Insert clamping torque	Torque key
		
R217/220.21-..	10.6IN.LBS	T00-08P12

Torque and fixed keys, see page 872

R217/220.21-LO06 – Insert selection – mm/*Inch*

SMG		a_p	f_z		
			100%	70%	30%
P1	LOHT060310TR-M07 MP3501	0,80 *0.032*	0,60 *0.024*	0,60 *0.024*	0,70 *0.028*
P2	LOHT060310TR-M07 MP3501	0,80 *0.032*	0,60 *0.024*	0,60 *0.024*	0,70 *0.028*
P3	LOHT060310TR-M07 MP2501	0,80 *0.032*	0,60 *0.024*	0,60 *0.024*	0,65 *0.026*
P4	LOHT060310TR-M07 MP2501	0,80 *0.032*	0,55 *0.022*	0,55 *0.022*	0,65 *0.026*
P5	LOHT060310TR-M07 MP2501	0,80 *0.032*	0,55 *0.022*	0,55 *0.022*	0,65 *0.026*
P6	LOHT060310TR-M07 MP2501	0,80 *0.032*	0,55 *0.022*	0,55 *0.022*	0,65 *0.026*
P7	LOHT060310TR-M07 MP2501	0,80 *0.032*	0,55 *0.022*	0,55 *0.022*	0,65 *0.026*
P8	LOHT060310TR-M07 MP2501	0,80 *0.032*	0,60 *0.024*	0,60 *0.024*	0,65 *0.026*
P11	LOHT060310TR-M07 MP3501	0,80 *0.032*	0,55 *0.022*	0,55 *0.022*	0,65 *0.026*
P12	LOHT060310TR-M07 MP2501	0,65 *0.026*	0,42 *0.017*	0,42 *0.017*	0,48 *0.019*
M1	LOHT060310TR-ME06 MS2050	0,80 *0.032*	0,55 *0.022*	0,55 *0.022*	0,60 *0.024*
M2	LOHT060310TR-ME06 MS2050	0,80 *0.032*	0,48 *0.019*	0,48 *0.019*	0,55 *0.022*
M3	LOHT060310TR-ME06 MS2050	0,65 *0.026*	0,44 *0.017*	0,44 *0.017*	0,48 *0.019*
M4	LOHT060310TR-ME06 MP3501	0,48 *0.019*	0,44 *0.017*	0,44 *0.017*	0,50 *0.020*
M5	LOHT060310TR-ME06 MP3501	0,48 *0.019*	0,44 *0.017*	0,44 *0.017*	0,50 *0.020*
K1	LOHT060310TR-MD07 MK2050	0,80 *0.032*	0,60 *0.024*	0,60 *0.024*	0,70 *0.028*
K2	LOHT060310TR-MD07 MK2050	0,80 *0.032*	0,55 *0.022*	0,55 *0.022*	0,65 *0.026*
K3	LOHT060310TR-MD07 MK2050	0,80 *0.032*	0,55 *0.022*	0,55 *0.022*	0,65 *0.026*
K4	LOHT060310TR-MD07 MK2050	0,80 *0.032*	0,55 *0.022*	0,55 *0.022*	0,65 *0.026*
K5	LOHT060310TR-MD07 MK2050	0,80 *0.032*	0,50 *0.020*	0,50 *0.020*	0,55 *0.022*
K6	LOHT060310TR-MD07 MK2050	0,80 *0.032*	0,55 *0.022*	0,55 *0.022*	0,65 *0.026*
K7	LOHT060310TR-MD07 MK2050	0,80 *0.032*	0,50 *0.020*	0,50 *0.020*	0,55 *0.022*
S1	LOHT060310TR-ME06 MP3501	0,48 *0.019*	0,44 *0.017*	0,44 *0.017*	0,50 *0.020*
S2	LOHT060310TR-ME06 MP3501	0,48 *0.019*	0,44 *0.017*	0,44 *0.017*	0,50 *0.020*
S3	LOHT060310TR-ME06 MP3501	0,48 *0.019*	0,42 *0.017*	0,42 *0.017*	0,46 *0.018*
S11	LOHT060310TR-ME06 MS2050	0,55 *0.022*	0,46 *0.018*	0,46 *0.018*	0,55 *0.022*
S12	LOHT060310TR-ME06 MS2050	0,55 *0.022*	0,46 *0.018*	0,46 *0.018*	0,55 *0.022*
S13	LOHT060310TR-ME06 MS2050	0,48 *0.019*	0,44 *0.017*	0,44 *0.017*	0,50 *0.020*
H5	LOHW060310TR-D07 MH1000	0,50 *0.020*	0,42 *0.017*	0,42 *0.017*	0,48 *0.019*
H8	LOHW060310TR-D07 MH1000	0,44 *0.017*	0,36 *0.014*	0,36 *0.014*	0,40 *0.016*
H11	LOHT060310TR-MD07 MP1501	0,50 *0.020*	0,42 *0.017*	0,42 *0.017*	0,48 *0.019*
H12	LOHT060310TR-MD07 MP1501	0,44 *0.017*	0,36 *0.014*	0,36 *0.014*	0,40 *0.016*

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

R217/220.21-LO06 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	MH1000			MK2050			MP3000			MS2050			F40M			MP2050		
	100%	70%	30%	100%	70%	30%	100%	70%	30%	100%	70%	30%	100%	70%	30%	100%	70%	30%
P1	—	—	—	250	280	335	240	270	320	230	260	310	210	235	285	270	305	365
	—	—	—	*820*	*920*	*1100*	*790*	*890*	*1050*	*750*	*850*	*1025*	*690*	*770*	*940*	*890*	*1000*	*1200*
P2	—	—	—	240	270	325	230	260	310	225	255	305	205	230	275	265	300	355
	—	—	—	*790*	*890*	*1075*	*750*	*850*	*1025*	*740*	*840*	*1000*	*670*	*750*	*900*	*870*	*980*	*1175*
P3	—	—	—	205	235	285	200	225	275	195	220	265	175	200	240	230	255	315
	—	—	—	*670*	*770*	*940*	*660*	*740*	*900*	*640*	*720*	*870*	*570*	*660*	*790*	*750*	*840*	*1025*
P4	—	—	—	185	205	250	175	200	240	170	190	235	155	175	215	200	225	275
	—	—	—	*610*	*670*	*820*	*570*	*660*	*790*	*560*	*620*	*770*	*510*	*570*	*710*	*660*	*740*	*900*
P5	—	—	—	180	200	240	170	195	230	165	190	225	150	170	205	195	220	265
	—	—	—	*590*	*660*	*790*	*560*	*640*	*750*	*540*	*620*	*740*	*490*	*560*	*670*	*640*	*720*	*870*
P6	210	240	285	200	225	270	195	215	260	185	210	250	170	190	230	220	250	295
	690	*790*	*940*	*660*	*740*	*890*	*640*	*710*	*850*	*610*	*690*	*820*	*560*	*620*	*750*	*720*	*820*	*970*
P7	200	225	270	190	215	255	180	205	245	175	200	235	160	180	215	210	235	280
	660	*740*	*890*	*620*	*710*	*840*	*590*	*670*	*800*	*570*	*660*	*770*	*520*	*590*	*710*	*690*	*770*	*920*
P8	185	205	255	175	195	240	170	190	230	160	185	225	150	165	205	190	215	265
	610	*670*	*840*	*570*	*640*	*790*	*560*	*620*	*750*	*520*	*610*	*740*	*490*	*540*	*670*	*620*	*710*	*870*
P11	195	220	260	185	205	245	175	200	235	170	195	230	155	175	210	200	225	270
	640	*720*	*850*	*610*	*670*	*800*	*570*	*660*	*770*	*560*	*640*	*750*	*510*	*570*	*690*	*660*	*740*	*890*
P12	125	140	170	120	135	160	115	130	155	110	125	150	100	115	135	130	145	175
	410	*460*	*560*	*395*	*445*	*520*	*375*	*425*	*510*	*360*	*410*	*490*	*330*	*375*	*445*	*425*	*475*	*570*
M1	—	—	—	—	—	—	175	195	235	180	205	245	165	185	220	190	215	255
	—	—	—	—	—	—	*570*	*640*	*770*	*590*	*670*	*800*	*540*	*610*	*720*	*620*	*710*	*840*
M2	—	—	—	—	—	—	145	160	195	150	170	200	135	155	185	155	175	210
	—	—	—	—	—	—	*475*	*520*	*640*	*490*	*560*	*660*	*445*	*510*	*610*	*510*	*570*	*690*
M3	—	—	—	—	—	—	115	130	155	120	135	160	110	125	145	125	140	170
	—	—	—	—	—	—	*375*	*425*	*510*	*395*	*445*	*520*	*360*	*410*	*475*	*410*	*460*	*560*
M4	—	—	—	—	—	—	90	100	120	95	105	125	85	95	115	100	110	130
	—	—	—	—	—	—	*295*	*330*	*395*	*310*	*345*	*410*	*280*	*310*	*375*	*330*	*360*	*425*
M5	—	—	—	—	—	—	75	85	100	80	90	105	70	80	95	85	90	110
	—	—	—	—	—	—	*245*	*280*	*330*	*260*	*295*	*345*	*230*	*260*	*310*	*280*	*295*	*360*
K1	200	225	270	260	295	350	185	205	245	—	—	—	160	180	220	—	—	—
	660	*740*	*890*	*850*	*970*	*1150*	*610*	*670*	*800*	—	—	—	*520*	*590*	*720*	—	—	—
K2	180	200	240	230	260	310	165	185	220	—	—	—	145	160	195	—	—	—
	590	*660*	*790*	*750*	*850*	*1025*	*540*	*610*	*720*	—	—	—	*475*	*520*	*640*	—	—	—
K3	150	170	205	195	220	260	140	155	185	—	—	—	120	135	165	—	—	—
	490	*560*	*670*	*640*	*720*	*850*	*460*	*510*	*610*	—	—	—	*395*	*445*	*540*	—	—	—
K4	145	165	195	185	210	250	130	150	175	—	—	—	115	130	155	—	—	—
	475	*540*	*640*	*610*	*690*	*820*	*425*	*490*	*570*	—	—	—	*375*	*425*	*510*	—	—	—
K5	90	100	120	115	130	150	80	90	110	—	—	—	70	80	95	—	—	—
	295	*330*	*395*	*375*	*425*	*490*	*260*	*295*	*360*	—	—	—	*230*	*260*	*310*	—	—	—
K6	125	145	170	165	185	220	115	130	155	—	—	—	100	115	135	—	—	—
	410	*475*	*560*	*540*	*610*	*720*	*375*	*425*	*510*	—	—	—	*330*	*375*	*445*	—	—	—
K7	115	125	150	145	165	195	105	115	140	—	—	—	90	100	120	—	—	—
	375	*410*	*490*	*475*	*540*	*640*	*345*	*375*	*460*	—	—	—	*295*	*330*	*395*	—	—	—
S1	—	—	—	—	—	—	42	47	55	44	49	60	40	45	55	48	55	65
	—	—	—	—	—	—	*140*	*155*	*180*	*145*	*160*	*195*	*130*	*150*	*180*	*155*	*180*	*215*
S2	—	—	—	—	—	—	34	38	45	36	40	47	32	36	43	39	43	50
	—	—	—	—	—	—	*110*	*125*	*150*	*120*	*130*	*155*	*105*	*120*	*140*	*130*	*140*	*165*
S3	—	—	—	—	—	—	30	33	40	31	35	42	28	32	38	34	38	46
	—	—	—	—	—	—	*100*	*110*	*130*	*100*	*115*	*140*	*90*	*105*	*125*	*110*	*125*	*150*
S11	—	—	—	—	—	—	60	65	80	60	70	80	55	65	75	65	75	90
	—	—	—	—	—	—	*195*	*215*	*260*	*195*	*230*	*260*	*180*	*215*	*245*	*215*	*245*	*295*
S12	—	—	—	—	—	—	41	46	55	42	48	55	38	44	50	46	55	65
	—	—	—	—	—	—	*135*	*150*	*180*	*140*	*155*	*180*	*125*	*145*	*165*	*150*	*180*	*215*
S13	—	—	—	—	—	—	24	26	32	25	28	33	23	25	30	27	30	36
	—	—	—	—	—	—	*80*	*85*	*105*	*80*	*90*	*110*	*75*	*80*	*100*	*90*	*100*	*120*
H5	44	49	60	—	—	—	37	42	50	—	—	—	35	39	47	—	—	—
	145	*160*	*195*	—	—	—	*120*	*140*	*165*	—	—	—	*115*	*130*	*155*	—	—	—
H8	47	50	60	—	—	—	40	44	55	—	—	—	37	42	50	—	—	—
	155	*165*	*195*	—	—	—	*130*	*145*	*180*	—	—	—	*120*	*140*	*165*	—	—	—
H11	55	60	75	—	—	—	47	55	65	—	—	—	45	50	60	50	60	70
	180	*195*	*245*	—	—	—	*155*	*180*	*215*	—	—	—	*150*	*165*	*195*	*165*	*195*	*230*
H12	—	—	—	—	—	—	75	85	100	—	—	—	65	75	90	85	95	115
	—	—	—	—	—	—	*245*	*280*	*330*	—	—	—	*215*	*245*	*295*	*280*	*310*	*375*

R217/220.21-LO06 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	MP1501			MP2501			MS2500			MP3501			MM4500		
	100%	70%	30%	100%	70%	30%	100%	70%	30%	100%	70%	30%	100%	70%	30%
P1	360 *1175*	395 *1300*	455 *1500*	390 *1275*	425 *1400*	490 *1600*	300 *980*	340 *1125*	405 *1325*	350 *1150*	380 *1250*	440 *1450*	185 *610*	205 *670*	250 *820*
P2	355 *1175*	385 *1275*	445 *1450*	380 *1250*	410 *1350*	480 *1575*	295 *970*	330 *1075*	395 *1300*	340 *1125*	370 *1225*	430 *1400*	180 *590*	200 *660*	245 *800*
P3	305 *1000*	330 *1075*	390 *1275*	325 *1075*	355 *1175*	420 *1375*	255 *840*	285 *940*	350 *1150*	290 *950*	315 *1025*	375 *1225*	155 *510*	175 *570*	210 *690*
P4	265 *870*	290 *950*	340 *1125*	290 *950*	310 *1025*	370 *1225*	225 *740*	250 *820*	305 *1000*	255 *840*	280 *920*	330 *1075*	140 *460*	155 *510*	190 *620*
P5	260 *850*	285 *940*	325 *1075*	285 *940*	305 *1000*	355 *1175*	220 *720*	245 *800*	290 *950*	255 *840*	275 *900*	315 *1025*	135 *445*	150 *490*	180 *590*
P6	295 *970*	320 *1050*	365 *1200*	315 *1025*	345 *1125*	395 *1300*	245 *800*	275 *900*	330 *1075*	285 *940*	305 *1000*	355 *1175*	150 *490*	170 *560*	205 *670*
P7	275 *900*	300 *980*	345 *1125*	300 *980*	325 *1075*	375 *1225*	230 *750*	260 *850*	310 *1025*	270 *890*	290 *950*	335 *1100*	140 *460*	160 *520*	190 *620*
P8	255 *840*	275 *900*	325 *1075*	275 *900*	300 *980*	355 *1175*	215 *710*	240 *790*	290 *950*	245 *800*	265 *870*	315 *1025*	130 *425*	150 *490*	175 *570*
P11	270 *890*	290 *950*	335 *1100*	290 *950*	315 *1025*	365 *1200*	225 *740*	255 *840*	300 *980*	260 *850*	280 *920*	325 *1075*	140 *460*	155 *510*	185 *610*
P12	175 *570*	190 *620*	215 *710*	190 *620*	205 *670*	235 *770*	145 *475*	165 *540*	195 *640*	170 *560*	185 *610*	210 *690*	90 *295*	100 *330*	120 *395*
M1	— —	— —	— —	195 *640*	220 *720*	260 *850*	210 *690*	235 *770*	285 *940*	180 *590*	205 *670*	245 *800*	155 *510*	170 *560*	210 *690*
M2	— —	— —	— —	160 *520*	180 *590*	215 *710*	175 *570*	195 *640*	235 *770*	150 *490*	170 *560*	200 *660*	130 *425*	145 *475*	175 *570*
M3	— —	— —	— —	130 *425*	145 *475*	175 *570*	140 *460*	160 *520*	190 *620*	120 *395*	135 *445*	160 *520*	105 *345*	115 *375*	140 *460*
M4	— —	— —	— —	100 *330*	115 *375*	135 *445*	110 *360*	125 *410*	145 *475*	95 *310*	105 *345*	125 *410*	80 *260*	90 *295*	110 *360*
M5	— —	— —	— —	85 *280*	95 *310*	115 *375*	90 *295*	100 *330*	125 *410*	80 *260*	90 *295*	105 *345*	65 *215*	75 *245*	90 *295*
K1	355 *1175*	385 *1275*	445 *1450*	385 *1275*	415 *1350*	485 *1600*	235 *770*	260 *850*	315 *1025*	345 *1125*	370 *1225*	430 *1400*	— —	— —	— —
K2	315 *1025*	345 *1125*	395 *1300*	340 *1125*	370 *1225*	425 *1400*	205 *670*	235 *770*	280 *920*	305 *1000*	330 *1075*	385 *1275*	— —	— —	— —
K3	270 *890*	290 *950*	335 *1100*	290 *950*	315 *1025*	360 *1175*	175 *570*	195 *640*	235 *770*	260 *850*	280 *920*	325 *1075*	— —	— —	— —
K4	255 *840*	275 *900*	320 *1050*	275 *900*	300 *980*	345 *1125*	165 *540*	190 *620*	225 *740*	245 *800*	265 *870*	310 *1025*	— —	— —	— —
K5	155 *510*	170 *560*	195 *640*	170 *560*	185 *610*	210 *690*	100 *330*	115 *375*	135 *445*	150 *490*	165 *540*	190 *620*	— —	— —	— —
K6	225 *740*	245 *800*	280 *920*	245 *800*	265 *870*	305 *1000*	145 *475*	165 *540*	200 *660*	220 *720*	235 *770*	270 *890*	— —	— —	— —
K7	200 *660*	215 *710*	245 *800*	215 *710*	235 *770*	270 *890*	130 *425*	145 *475*	175 *570*	195 *640*	210 *690*	240 *790*	— —	— —	— —
N1	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —
N2	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —
N3	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —
N11	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —
S1	— —	— —	— —	— —	— —	— —	55 *180*	60 *195*	70 *230*	44 *145*	49 *160*	60 *195*	25 *80*	27 *90*	33 *110*
S2	— —	— —	— —	— —	— —	— —	43 *140*	48 *155*	60 *195*	36 *120*	40 *130*	47 *155*	20 *65*	22 *70*	27 *90*
S3	— —	— —	— —	— —	— —	— —	38 *125*	43 *140*	50 *165*	31 *100*	35 *115*	42 *140*	17 *55*	20 *65*	23 *75*
S11	— —	— —	— —	— —	— —	— —	75 *245*	85 *280*	100 *330*	60 *195*	70 *230*	80 *260*	34 *110*	39 *130*	46 *150*
S12	— —	— —	— —	— —	— —	— —	50 *165*	60 *195*	70 *230*	42 *140*	48 *155*	55 *180*	32 *105*	36 *120*	42 *140*
S13	— —	— —	— —	— —	— —	— —	30 *100*	34 *110*	40 *130*	25 *80*	28 *90*	33 *110*	18 *60*	21 *70*	25 *80*
H5	47 *155*	55 *180*	65 *215*	— —	— —	— —	46 *150*	50 *165*	60 *195*	40 *130*	45 *150*	55 *180*	— —	— —	— —
H8	50 *165*	55 *180*	65 *215*	— —	— —	— —	49 *160*	55 *180*	65 *215*	43 *140*	48 *155*	55 *180*	— —	— —	— —
H11	60 *195*	70 *230*	80 *260*	— —	— —	— —	60 *195*	65 *215*	80 *260*	50 *165*	60 *195*	70 *230*	— —	— —	— —
H12	90 *295*	100 *330*	120 *395*	— —	— —	— —	95 *310*	110 *360*	130 *425*	75 *245*	85 *280*	100 *330*	— —	— —	— —

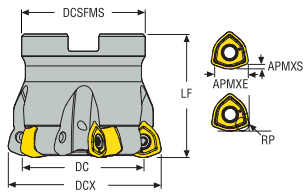


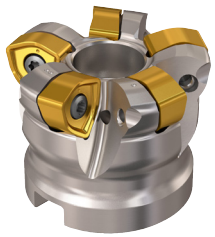
R217/220.21 HIGH FEED 6

High feed 6, for 218.21 insert type, 6-cutting edge, double sided inserts.
This familly consists of shell end mill bodies with fixed pockets and very strong negative inserts with six cutting edges.

- Cutter range 40-160 mm (1.5 - 6 inch)
- Max depth of cut 1.8 mm
- First choice for ISO P & K materials for medium-size machines

R220.21-R230 – Metric

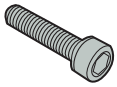
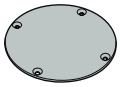




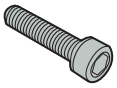
- For insert selection and cutting data recommendations, see page(s) 562-564
- For complete insert programme, see page(s) 857
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	DCX	ZEFP	APMXS	APMXE	DCB	TDZ	DCSFMS	LF	RP	RMPX°	Cmin	Cmax	Weight	RPMX	Insert
			mm	mm		mm	mm	mm		mm	mm	mm		mm	mm	kg		
R217.21-2040.RE-R230.3A	03136708	Combimaster	25,6	40,0	3	1,8	10,0	–	M20	36,5	45,0	3,32	1,4	65,6	78,0	0,4	12100	218.21-..
R220.21-0050-R230.4A	02826551	Arbor	35,6	50,0	4	1,8	10,0	22,0	–	42,0	40,0	3,32	0,9	85,6	98,0	0,4	12100	218.21-..
R220.21-0050-R230.5A	02826550	Arbor	35,6	50,0	5	1,8	10,0	22,0	–	42,0	40,0	3,32	0,9	85,6	98,0	0,4	12100	218.21-..
R220.21-0052-R230.5A	02826552	Arbor	37,6	52,0	5	1,8	10,0	22,0	–	42,0	40,0	3,32	0,9	89,6	102,0	0,4	11900	218.21-..
R220.21-0063-R230.5A	02826553	Arbor	48,3	63,0	5	1,8	10,0	27,0	–	50,0	50,0	3,32	0,6	111,3	124,0	0,6	10800	218.21-..
R220.21-0063-R230.6A	02826554	Arbor	48,3	63,0	6	1,8	10,0	27,0	–	50,0	50,0	3,32	0,6	111,3	124,0	0,6	10800	218.21-..
R220.21-0066-R230.6A	02826555	Arbor	51,3	66,0	6	1,8	10,0	27,0	–	62,0	50,0	3,32	0,6	117,3	130,0	0,9	10600	218.21-..
R220.21-0080-R230.6A	02826556	Arbor	65,6	80,0	6	1,8	10,0	27,0	–	62,0	50,0	3,32	0,4	145,6	158,0	1,0	9600	218.21-..
R220.21-0080-R230.7A	02826557	Arbor	65,6	80,0	7	1,8	10,0	27,0	–	62,0	50,0	3,32	0,4	145,6	158,0	1,1	9600	218.21-..
R220.21-0084-R230.8A	02826558	Arbor	69,6	84,0	8	1,8	10,0	32,0	–	77,0	50,0	3,32	0,4	153,6	166,0	1,4	9400	218.21-..
R220.21-0100-R230.7A	02950391	Arbor	85,6	100,0	7	1,8	10,0	32,0	–	77,0	50,0	3,3	0,3	185,6	198,0	1,6	8600	218.21-..
R220.21-0100-R230.9A	02826559	Arbor	85,6	100,0	9	1,8	10,0	32,0	–	77,0	50,0	3,32	0,3	185,6	198,0	1,6	8600	218.21-..
R220.21-0125-R230.9A	02826560	Arbor	110,2	125,0	9	1,8	10,0	40,0	–	90,0	63,0	3,32	0,2	235,2	248,0	2,9	7700	218.21-..
R220.21-8160-R230.10A	02826561	Arbor	145,2	160,0	10	1,8	10,0	40,0	–	90,0	63,0	3,32	0,1	305,2	318,0	4,0	6800	218.21-..

Spare Parts, included in delivery

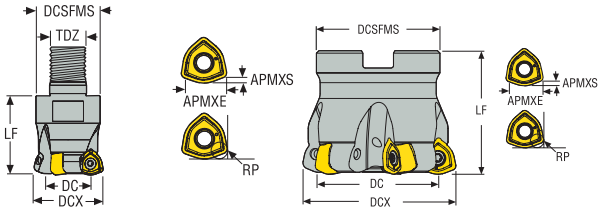
For cutter	Arbor screw	Insert key	Insert screw	Lid	Lid screw
					
R217.21-2040	–	H4B-T15P	C04011-T15P	–	–
R220.21-0050	220.17-692	H4B-T15P	C04011-T15P	–	–
R220.21-0063-0066	MC6S12X35	H4B-T15P	C04011-T15P	–	–
R220.21-0080	MC6S12X35	H4B-T15PL	C04011-T15P	–	–
R220.21-0084-0100	MLC6S16X35	H4B-T15PL	C04011-T15P	–	–
R220.21-0125	MLC6S20X40	H4B-T15PL	C04011-T15P	–	–
R220.21-8160	–	H4B-T15PL	C04011-T15P	SC160-53	MF6S4X10

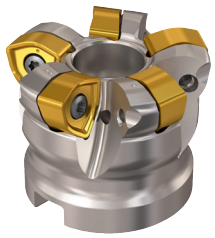
Accessories

For cutter	Arbor screw	Insert clamping torque	Torque key
			
R217/220.21-2040-0125	–	3.5NM	T00-15P35
R220.21-8160	MC6S12X40	3.5NM	T00-15P35

Torque and fixed keys, see page 872

R220.21-R230 – inch

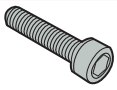




- For insert selection and cutting data recommendations, see page(s) 562-564
- For complete insert programme, see page(s) 857
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	DCX	ZEFP	APMXS	APMXE	DCB	TDZ	DCSFMS	LF	RP	RMPX°	C min	C max	Weight	RPMX	Insert
			inch	inch		inch	inch	inch		inch	inch	inch		inch	inch	lbs		
R220.21-02.00-R230-4A	02842027	Arbor	1.421	2.000	4	0.071	0.394	0.750	–	1.654	1.575	0.131	0,9	3.421	3.921	0.660	12100	218.21-..
R220.21-02.00-R230-5A	02842026	Arbor	1.421	2.000	5	0.071	0.394	0.750	–	1.654	1.575	0.131	0,9	3.421	3.921	0.880	12100	218.21-..
R220.21-02.50-R230-5A	02842028	Arbor	1.921	2.500	5	0.071	0.394	0.750	–	1.850	1.575	0.131	0,6	4.421	4.921	1.100	9600	218.21-..
R220.21-02.50-R230-6A	02842029	Arbor	1.921	2.500	6	0.071	0.394	0.750	–	1.850	1.575	0.131	0,6	4.421	4.921	1.100	9600	218.21-..
R220.21-03.00-R230-5A	02842030	Arbor	2.429	2.996	5	0.071	0.394	1.000	–	2.441	1.969	0.131	0,5	5.425	5.913	1.980	9800	218.21-..
R220.21-03.00-R230-6A	02842031	Arbor	2.429	2.996	6	0.071	0.394	1.000	–	2.441	1.969	0.131	0,5	5.425	5.913	2.430	9800	218.21-..
R220.21-04.00-R230-7A	03067226	Arbor	3.433	4.000	7	0.071	0.394	1.500	–	3.543	1.969	0.130	0,3	7.433	7.921	3.970	8500	218.21-..

Spare Parts, included in delivery

For cutter	Arbor screw	Insert key	Insert screw
			
R220.21-02.00-02.50	UC6S3/8UNFX1-1/4	H4B-T15P	C04011-T15P
R220.21-03.00	UC6S1/2UNFX1-1/4	H4B-T15P	C04011-T15P
R220.21-04.00	ULC6S3/4UNFX11/2	H4B-T15PL	C04011-T15P

Accessories

For cutter	Insert clamping torque	Torque key
		
R220.21-..	31.0IN.LBS	T00-15P35

Torque and fixed keys, see page 872

R217/220.21-R230 – Insert selection – mm/*Inch*

SMG		a_p	f_z		
			100%	70%	30%
P1	218.21-230TR-06-M15 MP3501	1,6 *0.065*	1,3 *0.050*	1,3 *0.050*	1,5 *0.060*
P2	218.21-230TR-06-M15 MP3501	1,6 *0.065*	1,3 *0.050*	1,3 *0.050*	1,5 *0.060*
P3	218.21-230TR-06-M15 MP2501	1,6 *0.065*	1,2 *0.048*	1,2 *0.048*	1,4 *0.055*
P4	218.21-230TR-06-M15 MP2501	1,6 *0.065*	1,2 *0.048*	1,2 *0.048*	1,4 *0.055*
P5	218.21-230TR-06-M15 MP2501	1,6 *0.065*	1,2 *0.048*	1,2 *0.048*	1,4 *0.055*
P6	218.21-230TR-06-M15 MP2501	1,6 *0.065*	1,2 *0.048*	1,2 *0.048*	1,4 *0.055*
P7	218.21-230TR-06-M15 MP2501	1,6 *0.065*	1,2 *0.048*	1,2 *0.048*	1,4 *0.055*
P8	218.21-230TR-06-M15 MP2501	1,6 *0.065*	1,2 *0.048*	1,2 *0.048*	1,4 *0.055*
P11	218.21-230TR-06-M15 MP3501	1,6 *0.065*	1,2 *0.048*	1,2 *0.048*	1,4 *0.055*
P12	218.21-230TR-06-M15 MP2501	1,3 *0.050*	0,85 *0.034*	0,85 *0.034*	0,95 *0.038*
M1	218.21-230TR-06-ME13 MS2050	1,6 *0.065*	1,1 *0.044*	1,1 *0.044*	1,3 *0.050*
M2	218.21-230TR-06-ME13 MS2050	1,6 *0.065*	1,0 *0.040*	1,0 *0.040*	1,2 *0.048*
M3	218.21-230TR-06-ME13 MS2050	1,3 *0.050*	0,85 *0.034*	0,85 *0.034*	1,0 *0.040*
M4	218.21-230TR-06-M15 MP3501	0,95 *0.038*	1,0 *0.040*	1,0 *0.040*	1,1 *0.044*
M5	218.21-230TR-06-M15 MP3501	0,95 *0.038*	1,0 *0.040*	1,0 *0.040*	1,1 *0.044*
K1	218.21-230TR-06-MD17 MK2050	1,6 *0.065*	1,5 *0.060*	1,5 *0.060*	1,7 *0.065*
K2	218.21-230TR-06-MD17 MK2050	1,6 *0.065*	1,4 *0.055*	1,4 *0.055*	1,6 *0.065*
K3	218.21-230TR-06-MD17 MK2050	1,6 *0.065*	1,4 *0.055*	1,4 *0.055*	1,6 *0.065*
K4	218.21-230TR-06-MD17 MK2050	1,6 *0.065*	1,4 *0.055*	1,4 *0.055*	1,6 *0.065*
K5	218.21-230TR-06-MD17 MK2050	1,6 *0.065*	1,2 *0.048*	1,2 *0.048*	1,4 *0.055*
K6	218.21-230TR-06-MD17 MK2050	1,6 *0.065*	1,4 *0.055*	1,4 *0.055*	1,6 *0.065*
K7	218.21-230TR-06-MD17 MK2050	1,6 *0.065*	1,2 *0.048*	1,2 *0.048*	1,4 *0.055*
S1	218.21-230TR-06-M15 MP3501	0,95 *0.038*	1,0 *0.040*	1,0 *0.040*	1,1 *0.044*
S2	218.21-230TR-06-M15 MP3501	0,95 *0.038*	1,0 *0.040*	1,0 *0.040*	1,1 *0.044*
S3	218.21-230TR-06-M15 MP3501	0,95 *0.038*	0,90 *0.036*	0,90 *0.036*	1,0 *0.040*
S11	218.21-230TR-06-ME13 MS2050	1,1 *0.044*	0,95 *0.038*	0,95 *0.038*	1,1 *0.044*
S12	218.21-230TR-06-ME13 MS2050	1,1 *0.044*	0,95 *0.038*	0,95 *0.038*	1,1 *0.044*
S13	218.21-230TR-06-ME13 MS2050	0,95 *0.038*	0,85 *0.034*	0,85 *0.034*	0,95 *0.038*
H5	218.21-230TR-06-MD17 MP3000	1,0 *0.040*	0,95 *0.038*	0,95 *0.038*	1,1 *0.044*
H8	218.21-230TR-06-MD17 MP3000	0,90 *0.036*	0,75 *0.030*	0,75 *0.030*	0,85 *0.034*
H11	218.21-230TR-06-MD17 MP1501	1,0 *0.040*	0,95 *0.038*	0,95 *0.038*	1,1 *0.044*
H12	218.21-230TR-06-MD17 MP1501	0,90 *0.036*	0,75 *0.030*	0,75 *0.030*	0,85 *0.034*

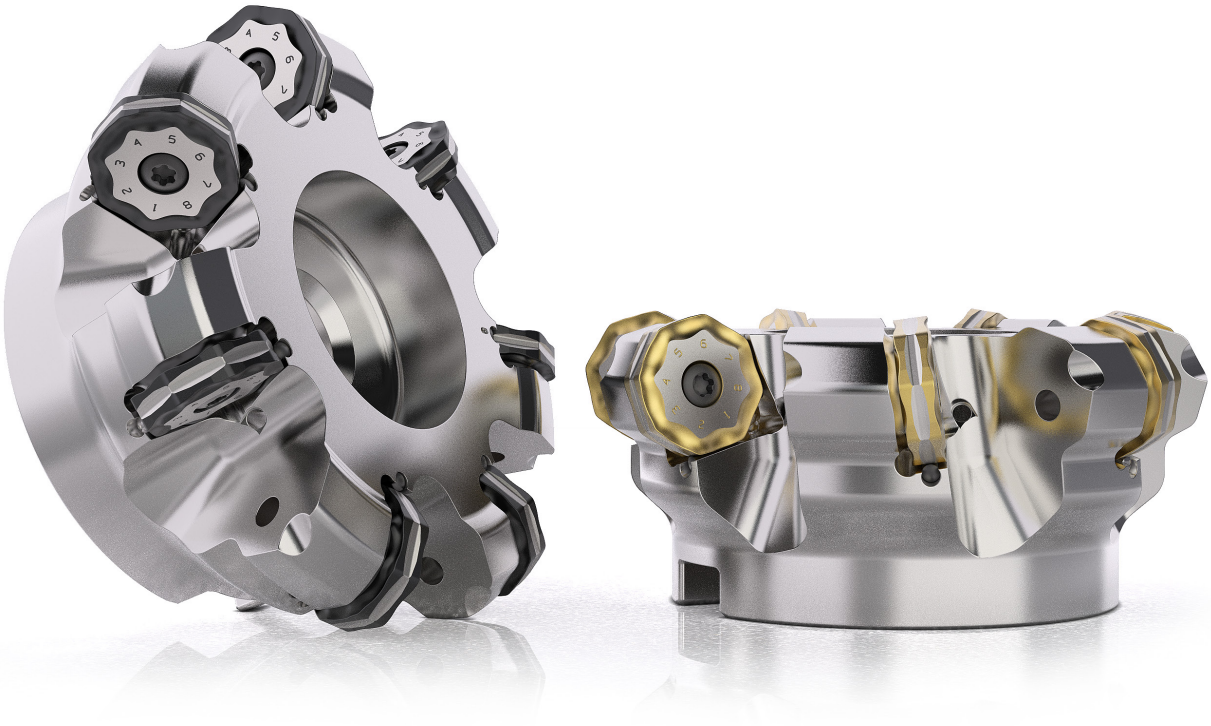
SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

R217/220.21-R230 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	MK2050			MP3000			MS2050			F40M			MP2050		
	100%	70%	30%	100%	70%	30%	100%	70%	30%	100%	70%	30%	100%	70%	30%
P1	190 *620*	215 *710*	260 *850*	180 *590*	205 *670*	250 *820*	195 *640*	225 *740*	270 *890*	165 *540*	185 *610*	225 *740*	215 *710*	240 *790*	295 *970*
P2	185 *610*	210 *690*	255 *840*	175 *570*	200 *660*	245 *800*	190 *620*	220 *720*	260 *850*	160 *520*	180 *590*	220 *720*	205 *670*	235 *770*	285 *940*
P3	160 *520*	185 *610*	225 *740*	155 *510*	175 *570*	215 *710*	165 *540*	185 *610*	230 *750*	140 *460*	160 *520*	195 *640*	185 *610*	210 *690*	250 *820*
P4	140 *460*	160 *520*	195 *640*	135 *445*	155 *510*	190 *620*	150 *490*	170 *560*	205 *670*	125 *410*	140 *460*	170 *560*	160 *520*	185 *610*	220 *720*
P5	140 *460*	160 *520*	190 *620*	135 *445*	150 *490*	180 *590*	145 *475*	165 *540*	195 *640*	120 *395*	135 *445*	165 *540*	155 *510*	175 *570*	210 *690*
P6	155 *510*	180 *590*	215 *710*	150 *490*	170 *560*	210 *690*	160 *520*	185 *610*	220 *720*	135 *445*	150 *490*	185 *610*	175 *570*	195 *640*	240 *790*
P7	150 *490*	170 *560*	205 *670*	140 *460*	160 *520*	195 *640*	150 *490*	170 *560*	205 *670*	125 *410*	145 *475*	175 *570*	165 *540*	185 *610*	225 *740*
P8	135 *445*	155 *510*	190 *620*	130 *425*	150 *490*	180 *590*	140 *460*	160 *520*	195 *640*	120 *395*	135 *445*	165 *540*	155 *510*	175 *570*	210 *690*
P11	145 *475*	165 *540*	200 *660*	140 *460*	155 *510*	190 *620*	145 *475*	170 *560*	200 *660*	120 *395*	140 *460*	170 *560*	160 *520*	180 *590*	220 *720*
P12	95 *310*	110 *360*	130 *425*	90 *295*	105 *345*	125 *410*	95 *310*	110 *360*	135 *445*	80 *260*	95 *310*	115 *375*	105 *345*	120 *395*	145 *475*
M1	— —	— —	— —	130 *425*	150 *490*	185 *610*	155 *510*	175 *570*	210 *690*	130 *425*	145 *475*	180 *590*	150 *490*	170 *560*	205 *670*
M2	— —	— —	— —	110 *360*	125 *410*	150 *490*	130 *425*	145 *475*	175 *570*	105 *345*	120 *395*	145 *475*	125 *410*	140 *460*	170 *560*
M3	— —	— —	— —	90 *295*	105 *345*	125 *410*	105 *345*	120 *395*	145 *475*	90 *295*	100 *330*	120 *395*	100 *330*	115 *375*	140 *460*
M4	— —	— —	— —	70 *230*	80 *260*	100 *330*	80 *260*	90 *295*	110 *360*	70 *230*	75 *245*	95 *310*	80 *260*	90 *295*	110 *360*
M5	— —	— —	— —	60 *195*	65 *215*	80 *260*	70 *230*	75 *245*	95 *310*	55 *180*	65 *215*	80 *260*	65 *215*	75 *245*	90 *295*
K1	200 *660*	225 *740*	275 *900*	140 *460*	160 *520*	195 *640*	— —	— —	— —	125 *410*	145 *475*	175 *570*	— —	— —	— —
K2	180 *590*	205 *670*	245 *800*	125 *410*	145 *475*	170 *560*	— —	— —	— —	115 *375*	130 *425*	155 *510*	— —	— —	— —
K3	155 *510*	175 *570*	205 *670*	110 *360*	120 *395*	145 *475*	— —	— —	— —	95 *310*	110 *360*	130 *425*	— —	— —	— —
K4	145 *475*	165 *540*	195 *640*	105 *345*	115 *375*	140 *460*	— —	— —	— —	90 *295*	105 *345*	125 *410*	— —	— —	— —
K5	90 *295*	100 *330*	120 *395*	65 *215*	70 *230*	85 *280*	— —	— —	— —	55 *180*	65 *215*	80 *260*	— —	— —	— —
K6	130 *425*	145 *475*	175 *570*	90 *295*	105 *345*	120 *395*	— —	— —	— —	80 *260*	90 *295*	110 *360*	— —	— —	— —
K7	115 *375*	130 *425*	155 *510*	80 *260*	90 *295*	110 *360*	— —	— —	— —	70 *230*	80 *260*	100 *330*	— —	— —	— —
S1	— —	— —	— —	33 *110*	37 *120*	46 *150*	38 *125*	43 *140*	50 *165*	32 *105*	36 *120*	44 *145*	38 *125*	43 *140*	55 *180*
S2	— —	— —	— —	27 *90*	30 *100*	37 *120*	31 *100*	35 *115*	42 *140*	26 *85*	29 *95*	35 *115*	31 *100*	35 *115*	43 *140*
S3	— —	— —	— —	24 *80*	26 *85*	33 *110*	27 *90*	30 *100*	37 *120*	23 *75*	26 *85*	31 *100*	28 *90*	31 *100*	37 *120*
S11	— —	— —	— —	46 *150*	50 *165*	65 *215*	55 *180*	60 *195*	70 *230*	44 *145*	50 *165*	60 *195*	55 *180*	60 *195*	75 *245*
S12	— —	— —	— —	32 *105*	36 *120*	44 *145*	37 *120*	41 *135*	50 *165*	30 *100*	35 *115*	43 *140*	37 *120*	42 *140*	50 *165*
S13	— —	— —	— —	19 *60*	21 *70*	26 *85*	21 *70*	24 *80*	29 *95*	18 *60*	20 *65*	25 *80*	22 *70*	24 *80*	30 *100*
H5	— —	— —	— —	30 *100*	34 *110*	40 *130*	— —	— —	— —	29 *95*	32 *105*	38 *125*	— —	— —	— —
H8	— —	— —	— —	32 *105*	36 *120*	44 *145*	— —	— —	— —	31 *100*	35 *115*	42 *140*	— —	— —	— —
H11	— —	— —	— —	38 *125*	43 *140*	50 *165*	— —	— —	— —	36 *120*	41 *135*	49 *160*	43 *140*	48 *155*	55 *180*
H12	— —	— —	— —	60 *195*	70 *230*	85 *280*	— —	— —	— —	55 *180*	60 *195*	75 *245*	70 *230*	80 *260*	100 *330*

R217/220.21-R230 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	MP1501			MP2501			MS2500			MP3501			MM4500		
	100%	70%	30%	100%	70%	30%	100%	70%	30%	100%	70%	30%	100%	70%	30%
P1	255 *840*	280 *920*	345 *1125*	285 *940*	310 *1025*	375 *1225*	235 *770*	270 *890*	325 *1075*	250 *820*	270 *890*	330 *1075*	145 *475*	165 *540*	200 *660*
P2	250 *820*	275 *900*	335 *1100*	275 *900*	300 *980*	365 *1200*	230 *750*	260 *850*	320 *1050*	240 *790*	265 *870*	320 *1050*	140 *460*	160 *520*	195 *640*
P3	220 *720*	245 *800*	295 *970*	245 *800*	270 *890*	325 *1075*	205 *670*	230 *750*	280 *920*	215 *710*	235 *770*	285 *940*	120 *395*	140 *460*	170 *560*
P4	195 *640*	215 *710*	260 *850*	220 *720*	240 *790*	285 *940*	180 *590*	205 *670*	245 *800*	190 *620*	210 *690*	250 *820*	110 *360*	125 *410*	150 *490*
P5	195 *640*	210 *690*	250 *820*	210 *690*	225 *740*	275 *900*	170 *560*	195 *640*	235 *770*	180 *590*	200 *660*	240 *790*	105 *345*	120 *395*	145 *475*
P6	215 *710*	240 *790*	285 *940*	235 *770*	255 *840*	305 *1000*	190 *620*	220 *720*	265 *870*	205 *670*	225 *740*	270 *890*	120 *395*	135 *445*	160 *520*
P7	205 *670*	225 *740*	270 *890*	220 *720*	240 *790*	290 *950*	180 *590*	205 *670*	250 *820*	195 *640*	210 *690*	255 *840*	110 *360*	125 *410*	150 *490*
P8	185 *610*	205 *670*	250 *820*	210 *690*	225 *740*	275 *900*	170 *560*	195 *640*	235 *770*	180 *590*	200 *660*	240 *790*	100 *330*	115 *375*	145 *475*
P11	200 *660*	220 *720*	265 *870*	215 *710*	235 *770*	280 *920*	175 *570*	200 *660*	240 *790*	190 *620*	205 *670*	250 *820*	110 *360*	125 *410*	150 *490*
P12	140 *460*	150 *490*	175 *570*	150 *490*	165 *540*	195 *640*	120 *395*	135 *445*	160 *520*	135 *445*	145 *475*	175 *570*	70 *230*	80 *260*	100 *330*
M1	— —	— —	— —	150 *490*	175 *570*	210 *690*	165 *540*	185 *610*	230 *750*	140 *460*	160 *520*	195 *640*	120 *395*	140 *460*	165 *540*
M2	— —	— —	— —	125 *410*	145 *475*	175 *570*	135 *445*	155 *510*	190 *620*	120 *395*	135 *445*	160 *520*	100 *330*	115 *375*	135 *445*
M3	— —	— —	— —	105 *345*	115 *375*	145 *475*	115 *375*	125 *410*	155 *510*	95 *310*	110 *360*	135 *445*	80 *260*	95 *310*	115 *375*
M4	— —	— —	— —	80 *260*	90 *295*	110 *360*	90 *295*	100 *330*	120 *395*	75 *245*	85 *280*	105 *345*	65 *215*	70 *230*	90 *295*
M5	— —	— —	— —	65 *215*	75 *245*	95 *310*	75 *245*	80 *260*	100 *330*	65 *215*	70 *230*	85 *280*	55 *180*	60 *195*	75 *245*
K1	250 *820*	275 *900*	340 *1125*	280 *920*	305 *1000*	370 *1225*	180 *590*	205 *670*	250 *820*	245 *800*	265 *870*	325 *1075*	— —	— —	— —
K2	235 *770*	255 *840*	300 *980*	250 *820*	275 *900*	330 *1075*	165 *540*	185 *610*	225 *740*	220 *720*	240 *790*	290 *950*	— —	— —	— —
K3	200 *660*	215 *710*	255 *840*	215 *710*	230 *750*	280 *920*	140 *460*	155 *510*	190 *620*	185 *610*	205 *670*	245 *800*	— —	— —	— —
K4	190 *620*	205 *670*	245 *800*	205 *670*	220 *720*	265 *870*	130 *425*	150 *490*	180 *590*	180 *590*	195 *640*	235 *770*	— —	— —	— —
K5	115 *375*	130 *425*	155 *510*	125 *410*	140 *460*	170 *560*	80 *260*	90 *295*	115 *375*	110 *360*	120 *395*	150 *490*	— —	— —	— —
K6	165 *540*	180 *590*	215 *710*	180 *590*	195 *640*	235 *770*	115 *375*	130 *425*	160 *520*	155 *510*	170 *560*	205 *670*	— —	— —	— —
K7	150 *490*	165 *540*	195 *640*	160 *520*	175 *570*	215 *710*	105 *345*	115 *375*	145 *475*	140 *460*	155 *510*	190 *620*	— —	— —	— —
S1	— —	— —	— —	— —	— —	— —	43 *140*	48 *155*	60 *195*	35 *115*	40 *130*	48 *155*	20 *65*	22 *70*	27 *90*
S2	— —	— —	— —	— —	— —	— —	34 *110*	39 *130*	48 *155*	28 *90*	32 *105*	39 *130*	16 *50*	18 *60*	22 *70*
S3	— —	— —	— —	— —	— —	— —	31 *100*	35 *115*	42 *140*	25 *80*	28 *90*	34 *110*	14 *46*	16 *50*	19 *60*
S11	— —	— —	— —	— —	— —	— —	60 *195*	70 *230*	85 *280*	48 *155*	55 *180*	70 *230*	27 *90*	31 *100*	37 *120*
S12	— —	— —	— —	— —	— —	— —	41 *135*	47 *155*	55 *180*	33 *110*	39 *130*	47 *155*	25 *80*	28 *90*	34 *110*
S13	— —	— —	— —	— —	— —	— —	24 *80*	27 *90*	33 *110*	20 *65*	22 *70*	27 *90*	15 *49*	17 *55*	20 *65*
H5	38 *125*	43 *140*	50 *165*	— —	— —	— —	37 *120*	42 *140*	50 *165*	33 *110*	37 *120*	44 *145*	— —	— —	— —
H8	41 *135*	46 *150*	55 *180*	— —	— —	— —	40 *130*	45 *150*	55 *180*	35 *115*	40 *130*	48 *155*	— —	— —	— —
H11	48 *155*	55 *180*	65 *215*	— —	— —	— —	47 *155*	55 *180*	65 *215*	42 *140*	47 *155*	55 *180*	— —	— —	— —
H12	75 *245*	80 *260*	100 *330*	— —	— —	— —	80 *260*	90 *295*	110 *360*	65 *215*	70 *230*	85 *280*	— —	— —	— —



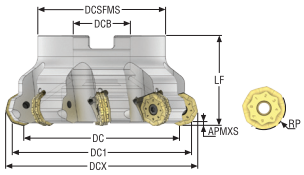
R220.21 (ON09) HIGH FEED

High feed double octomill insert cutters. ON09 inserts have 16 cutting edges, making them the most cost-effective choice for face milling applications using a high feed strategy.
HSS pins securely position inserts in the fixed pockets of the cutter and decrease the time required for indexing.

- Cutter range 80-160 mm (3 - 6 inch)
- Max depth of cut 2 mm (.078 inch)
- Facing applications only

R220.21-ON09 – Metric

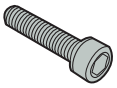
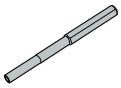




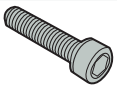
- For insert selection and cutting data recommendations, see page(s) 568-569
- For complete insert programme, see page(s) 816
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	DC1	DCX	ZEFP	APMXS	APMXE	DCB	DCSFMS	LF	RP	Weight	RPMX	Insert
			mm	mm	mm		mm	mm	mm	mm	mm	mm	kg		
R220.21-0080-ON09-6A	02848781	Arbor	65,35	80,0	89,9	6	2,0	7,0	27,0	62,0	50,0	10,28	1,0	4400	ON..09
R220.21-0100-ON09-7A	02848782	Arbor	85,35	100,0	109,9	7	2,0	7,0	32,0	77,0	50,0	10,28	1,5	3900	ON..09
R220.21-0125-ON09-8A	02848783	Arbor	110,35	125,0	134,9	8	2,0	7,0	40,0	90,0	63,0	10,28	2,9	3500	ON..09
R220.21-8160-ON09-10	02848784	Arbor	145,35	160,0	169,9	10	2,0	7,0	40,0	90,0	63,0	10,28	4,2	3100	ON..09

Spare Parts, included in delivery

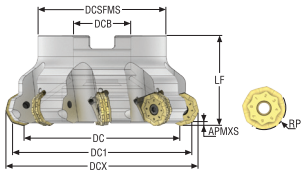
For cutter	Arbor screw	Insert key	Insert screw
			
R220.21-0080	MC6S12X35	H6B-T20PL	C05013-T20P
R220.21-0100-0125	–	H6B-T20PL	C05013-T20P
R220.21-8160	–	H6B-T20PL	C05013-T20P

Accessories

For cutter	Arbor screw	Insert clamping torque	Torque key
			
R220.21-0080-0125	–	5.0NM	T00-20P50
R220.21-8160	MC6S12X40	5.0NM	T00-20P50

Torque and fixed keys, see page 872

R220.21-ON09 – inch

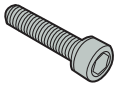
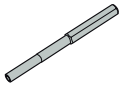




- For insert selection and cutting data recommendations, see page(s) 568-569
- For complete insert programme, see page(s) 816
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	DC1	DCX	ZEFP	APMXS	APMXE	DCB	DCSFMS	LF	RP	Weight	RPMX	Insert
			inch	inch	inch		inch	inch	inch	inch	inch	inch	lbs		
R220.21-03.00-ON09-6A	02848785	Arbor	2.423	3.000	3.389	6	0.079	0.276	1.000	2.441	1.969	0.405	1.980	4400	ON..09
R220.21-06.00-ON09-10	02848788	Arbor	5.423	6.000	6.389	10	0.079	0.276	2.000	4.331	2.480	0.405	8.380	3200	ON..09

Spare Parts, included in delivery

For cutter	Arbor screw	Insert key	Insert screw
			
R220.21-03.00	UC6S1/2UNFX1-1/4	H6B-T20P	C05013-T20P
R220.21-06.00	–	H6B-T20PL	C05013-T20P

Accessories

For cutter	Arbor screw	Insert clamping torque	Torque key
			
R220.21-03.00	–	44.3IN.LBS	T00-20P50
R220.21-06.00	58215080	44.3IN.LBS	T00-20P50

Torque and fixed keys, see page 872

R220.21-ON09 – Insert selection – mm/*Inch*

SMG		a_p	f_z	
			70%	30%
P1	ONMU090512TN-ME16 MP3501	2,0 *0.080*	0,75 *0.030*	0,85 *0.034*
P2	ONMU090512TN-ME16 MP3501	2,0 *0.080*	0,75 *0.030*	0,85 *0.034*
P3	ONMU090512TN-ME16 MP2501	2,0 *0.080*	0,70 *0.028*	0,80 *0.032*
P4	ONMU090512TN-ME16 MP2501	2,0 *0.080*	0,70 *0.028*	0,80 *0.032*
P5	ONMU090512TN-ME16 MP2501	2,0 *0.080*	0,70 *0.028*	0,80 *0.032*
P6	ONMU090512TN-ME16 MP2501	2,0 *0.080*	0,70 *0.028*	0,75 *0.030*
P7	ONMU090512TN-ME16 MP2501	2,0 *0.080*	0,70 *0.028*	0,75 *0.030*
P8	ONMU090512TN-ME16 MP2501	2,0 *0.080*	0,70 *0.028*	0,80 *0.032*
P11	ONMU090512TN-ME16 MP3501	2,0 *0.080*	0,70 *0.028*	0,75 *0.030*
P12	ONMU090512TN-ME16 MP2501	1,6 *0.060*	0,46 *0.018*	0,50 *0.020*
M1	ONMU090512TN-ME16 MS2050	2,0 *0.080*	0,75 *0.030*	0,85 *0.034*
M2	ONMU090512TN-ME16 MS2050	2,0 *0.080*	0,70 *0.028*	0,80 *0.032*
M3	ONMU090512TN-ME16 MS2050	1,6 *0.060*	0,55 *0.022*	0,60 *0.024*
M4	ONMU090512TN-ME16 MP3501	1,6 *0.060*	0,48 *0.019*	0,55 *0.022*
M5	ONMU090512TN-ME16 MP3501	1,6 *0.060*	0,48 *0.019*	0,55 *0.022*
K1	ONMU090512TN-ME16 MK2050	2,0 *0.080*	0,75 *0.030*	0,85 *0.034*
K2	ONMU090512TN-ME16 MK2050	2,0 *0.080*	0,70 *0.028*	0,80 *0.032*
K3	ONMU090512TN-ME16 MK2050	2,0 *0.080*	0,70 *0.028*	0,80 *0.032*
K4	ONMU090512TN-ME16 MK2050	2,0 *0.080*	0,70 *0.028*	0,80 *0.032*
K5	ONMU090512TN-ME16 MK2050	2,0 *0.080*	0,60 *0.024*	0,70 *0.028*
K6	ONMU090512TN-ME16 MK2050	2,0 *0.080*	0,70 *0.028*	0,80 *0.032*
K7	ONMU090512TN-ME16 MK2050	2,0 *0.080*	0,60 *0.024*	0,70 *0.028*
S1	ONMU090512TN-ME16 MS2500	1,6 *0.060*	0,48 *0.019*	0,55 *0.022*
S2	ONMU090512TN-ME16 MS2500	1,6 *0.060*	0,48 *0.019*	0,55 *0.022*
S3	ONMU090512TN-ME16 MS2500	1,6 *0.060*	0,44 *0.017*	0,50 *0.020*
S11	ONMU090512TN-ME16 MS2050	1,6 *0.060*	0,55 *0.022*	0,60 *0.024*
S12	ONMU090512TN-ME16 MS2050	1,6 *0.060*	0,55 *0.022*	0,60 *0.024*
S13	ONMU090512TN-ME16 MS2050	1,6 *0.060*	0,48 *0.019*	0,55 *0.022*

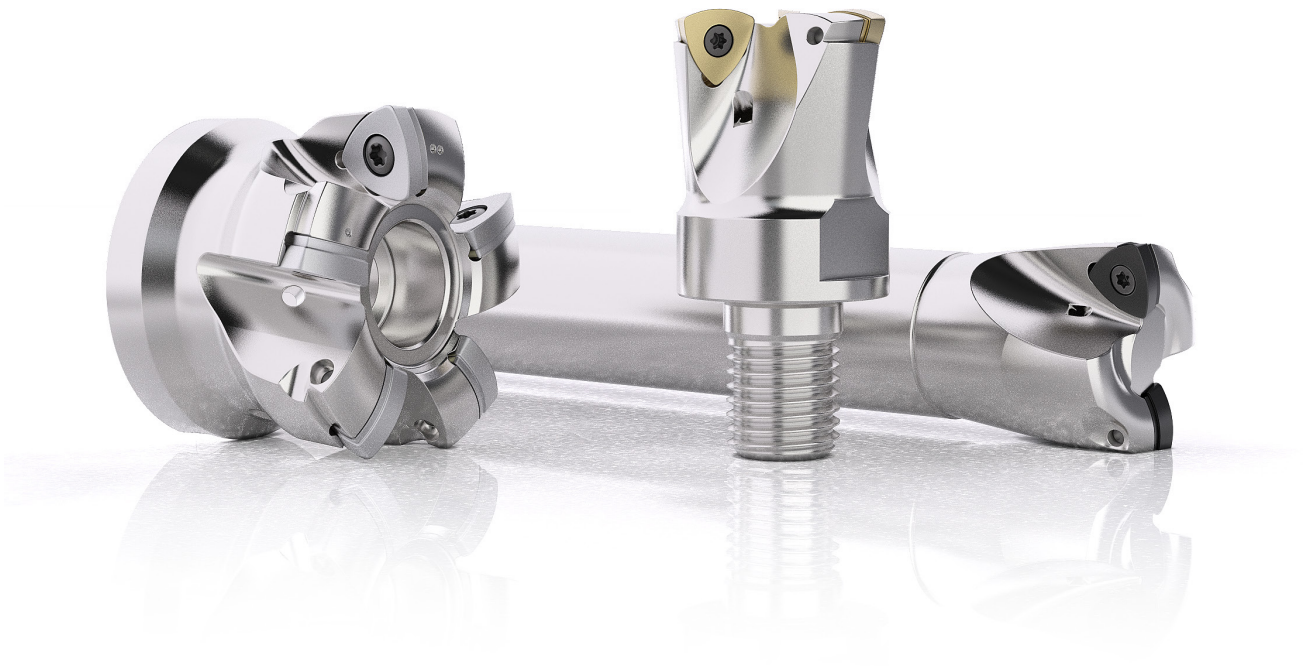
SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

R220.21-ON09 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	MK2050			MP3000			MS2050			F40M			MP2050		
	100%	70%	30%	100%	70%	30%	100%	70%	30%	100%	70%	30%	100%	70%	30%
P1	270 *890*	305 *1000*	370 *1225*	260 *850*	295 *970*	355 *1175*	230 *750*	260 *850*	315 *1025*	210 *690*	235 *770*	285 *940*	270 *890*	305 *1000*	370 *1225*
P2	265 *870*	295 *970*	360 *1175*	255 *840*	285 *940*	345 *1125*	225 *740*	250 *820*	305 *1000*	205 *670*	230 *750*	275 *900*	265 *870*	295 *970*	360 *1175*
P3	230 *750*	260 *850*	315 *1025*	225 *740*	250 *820*	305 *1000*	195 *640*	220 *720*	270 *890*	180 *590*	200 *660*	245 *800*	230 *750*	260 *850*	315 *1025*
P4	205 *670*	230 *750*	280 *920*	195 *640*	220 *720*	265 *870*	175 *570*	195 *640*	235 *770*	155 *510*	175 *570*	215 *710*	205 *670*	230 *750*	280 *920*
P5	195 *640*	220 *720*	270 *890*	190 *620*	215 *710*	260 *850*	165 *540*	185 *610*	230 *750*	155 *510*	175 *570*	210 *690*	195 *640*	220 *720*	270 *890*
P6	225 *740*	250 *820*	305 *1000*	215 *710*	240 *790*	290 *950*	190 *620*	215 *710*	255 *840*	170 *560*	195 *640*	235 *770*	225 *740*	250 *820*	305 *1000*
P7	210 *690*	240 *790*	285 *940*	205 *670*	230 *750*	275 *900*	180 *590*	200 *660*	245 *800*	165 *540*	185 *610*	220 *720*	210 *690*	240 *790*	285 *940*
P8	195 *640*	220 *720*	265 *870*	185 *610*	210 *690*	255 *840*	165 *540*	185 *610*	225 *740*	150 *490*	170 *560*	205 *670*	195 *640*	220 *720*	265 *870*
P11	205 *670*	230 *750*	280 *920*	195 *640*	220 *720*	270 *890*	175 *570*	195 *640*	235 *770*	160 *520*	180 *590*	215 *710*	205 *670*	230 *750*	280 *920*
P12	135 *445*	150 *490*	185 *610*	130 *425*	145 *475*	175 *570*	115 *375*	125 *410*	155 *510*	100 *330*	115 *375*	140 *460*	135 *445*	150 *490*	185 *610*
M1	— —	— —	— —	190 *620*	215 *710*	260 *850*	180 *590*	205 *670*	245 *800*	165 *540*	185 *610*	225 *740*	190 *620*	210 *690*	260 *850*
M2	— —	— —	— —	160 *520*	180 *590*	215 *710*	150 *490*	165 *540*	205 *670*	140 *460*	155 *510*	185 *610*	155 *510*	175 *570*	215 *710*
M3	— —	— —	— —	125 *410*	145 *475*	175 *570*	120 *395*	135 *445*	165 *540*	110 *360*	125 *410*	150 *490*	125 *410*	140 *460*	175 *570*
M4	— —	— —	— —	100 *330*	110 *360*	135 *445*	95 *310*	105 *345*	130 *425*	85 *280*	95 *310*	115 *375*	100 *330*	110 *360*	135 *445*
M5	— —	— —	— —	85 *280*	95 *310*	115 *375*	80 *260*	90 *295*	105 *345*	70 *230*	80 *260*	95 *310*	80 *260*	95 *310*	110 *360*
K1	285 *940*	320 *1050*	390 *1275*	200 *660*	225 *740*	275 *900*	— —	— —	— —	160 *520*	180 *590*	220 *720*	— —	— —	— —
K2	250 *820*	285 *940*	350 *1150*	180 *590*	205 *670*	245 *800*	— —	— —	— —	145 *475*	165 *540*	200 *660*	— —	— —	— —
K3	215 *710*	240 *790*	295 *970*	155 *510*	175 *570*	210 *690*	— —	— —	— —	125 *410*	140 *460*	165 *540*	— —	— —	— —
K4	205 *670*	230 *750*	285 *940*	145 *475*	165 *540*	200 *660*	— —	— —	— —	120 *395*	130 *425*	160 *520*	— —	— —	— —
K5	125 *410*	145 *475*	170 *560*	90 *295*	100 *330*	120 *395*	— —	— —	— —	70 *230*	80 *260*	95 *310*	— —	— —	— —
K6	180 *590*	200 *660*	250 *820*	130 *425*	145 *475*	175 *570*	— —	— —	— —	105 *345*	115 *375*	140 *460*	— —	— —	— —
K7	165 *540*	185 *610*	220 *720*	115 *375*	130 *425*	155 *510*	— —	— —	— —	90 *295*	105 *345*	125 *410*	— —	— —	— —

R220.21-ON09 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	MK1500			MP1501			MP2501			MS2500			MP3501			MM4500		
	100%	70%	30%	100%	70%	30%	100%	70%	30%	100%	70%	30%	100%	70%	30%	100%	70%	30%
P1	—	—	—	395	425	510	385	415	495	300	340	410	340	365	440	180	205	250
	—	—	—	*1300*	*1400*	*1675*	*1275*	*1350*	*1625*	*980*	*1125*	*1350*	*1125*	*1200*	*1450*	*590*	*670*	*820*
P2	—	—	—	385	415	490	375	405	480	290	330	400	330	360	430	175	200	240
	—	—	—	*1275*	*1350*	*1600*	*1225*	*1325*	*1575*	*950*	*1075*	*1300*	*1075*	*1175*	*1400*	*570*	*660*	*790*
P3	—	—	—	340	365	430	330	355	420	255	290	350	295	315	375	155	175	210
	—	—	—	*1125*	*1200*	*1400*	*1075*	*1175*	*1375*	*840*	*950*	*1150*	*970*	*1025*	*1225*	*510*	*570*	*690*
P4	—	—	—	300	325	380	290	315	370	225	255	310	260	280	330	135	155	190
	—	—	—	*980*	*1075*	*1250*	*950*	*1025*	*1225*	*740*	*840*	*1025*	*850*	*920*	*1075*	*445*	*510*	*620*
P5	—	—	—	285	310	370	275	300	360	215	245	300	245	265	325	130	150	180
	—	—	—	*940*	*1025*	*1225*	*900*	*980*	*1175*	*710*	*800*	*980*	*800*	*870*	*1075*	*425*	*490*	*590*
P6	—	—	—	325	355	415	320	345	405	250	280	335	285	310	365	150	165	200
	—	—	—	*1075*	*1175*	*1350*	*1050*	*1125*	*1325*	*820*	*920*	*1100*	*940*	*1025*	*1200*	*490*	*540*	*660*
P7	—	—	—	310	335	390	300	325	385	235	265	320	270	290	345	140	160	190
	—	—	—	*1025*	*1100*	*1275*	*980*	*1075*	*1275*	*770*	*870*	*1050*	*890*	*950*	*1125*	*460*	*520*	*620*
P8	—	—	—	285	310	365	275	300	355	215	245	295	245	265	315	130	145	175
	—	—	—	*940*	*1025*	*1200*	*900*	*980*	*1175*	*710*	*800*	*970*	*800*	*870*	*1025*	*425*	*475*	*570*
P11	—	—	—	300	325	380	295	315	375	230	255	310	260	280	335	135	155	185
	—	—	—	*980*	*1075*	*1250*	*970*	*1025*	*1225*	*750*	*840*	*1025*	*850*	*920*	*1100*	*445*	*510*	*610*
P12	—	—	—	195	210	250	190	210	245	150	165	205	170	185	220	85	100	120
	—	—	—	*640*	*690*	*820*	*620*	*690*	*800*	*490*	*540*	*670*	*560*	*610*	*720*	*280*	*330*	*395*
M1	—	—	—	—	—	—	195	215	265	210	235	285	180	205	245	150	170	205
	—	—	—	—	—	—	*640*	*710*	*870*	*690*	*770*	*940*	*590*	*670*	*800*	*490*	*560*	*670*
M2	—	—	—	—	—	—	160	180	220	175	195	240	150	165	205	125	145	170
	—	—	—	—	—	—	*520*	*590*	*720*	*570*	*640*	*790*	*490*	*540*	*670*	*410*	*475*	*560*
M3	—	—	—	—	—	—	130	145	180	140	160	195	120	135	165	100	115	140
	—	—	—	—	—	—	*425*	*475*	*590*	*460*	*520*	*640*	*395*	*445*	*540*	*330*	*375*	*460*
M4	—	—	—	—	—	—	100	115	140	110	125	150	95	105	130	80	90	110
	—	—	—	—	—	—	*330*	*375*	*460*	*360*	*410*	*490*	*310*	*345*	*425*	*260*	*295*	*360*
M5	—	—	—	—	—	—	85	95	115	90	105	125	80	90	105	65	75	90
	—	—	—	—	—	—	*280*	*310*	*375*	*295*	*345*	*410*	*260*	*295*	*345*	*215*	*245*	*295*
K1	315	350	430	385	420	495	375	405	485	230	260	315	335	360	430	—	—	—
	1025	*1150*	*1400*	*1275*	*1375*	*1625*	*1225*	*1325*	*1600*	*750*	*850*	*1025*	*1100*	*1175*	*1400*	—	—	—
K2	280	315	385	345	370	445	335	360	440	205	230	285	300	320	390	—	—	—
	920	*1025*	*1275*	*1125*	*1225*	*1450*	*1100*	*1175*	*1450*	*670*	*750*	*940*	*980*	*1050*	*1275*	—	—	—
K3	235	265	325	290	315	380	285	305	370	175	195	240	250	270	330	—	—	—
	770	*870*	*1075*	*950*	*1025*	*1250*	*940*	*1000*	*1225*	*570*	*640*	*790*	*820*	*890*	*1075*	—	—	—
K4	225	255	310	275	300	360	270	295	355	165	185	230	240	260	315	—	—	—
	740	*840*	*1025*	*900*	*980*	*1175*	*890*	*970*	*1175*	*540*	*610*	*750*	*790*	*850*	*1025*	—	—	—
K5	140	155	190	175	190	220	170	185	215	105	115	140	150	165	190	—	—	—
	460	*510*	*620*	*570*	*620*	*720*	*560*	*610*	*710*	*345*	*375*	*460*	*490*	*540*	*620*	—	—	—
K6	200	225	270	245	265	320	240	260	310	145	165	205	210	230	280	—	—	—
	660	*740*	*890*	*800*	*870*	*1050*	*790*	*850*	*1025*	*475*	*540*	*670*	*690*	*750*	*920*	—	—	—
K7	180	200	240	225	240	280	220	235	275	130	150	180	195	210	245	—	—	—
	590	*660*	*790*	*740*	*790*	*920*	*720*	*770*	*900*	*425*	*490*	*590*	*640*	*690*	*800*	—	—	—



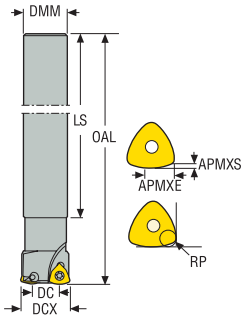
R217/220.21 HIGH FEED

High feed mills for general purpose applications, 3-cutting edge, single sided inserts.
218.19 insert range include a wide selection of cutting geometries and grades for many different materials.

- Cutter range 16-100 mm (.625-4 inch)
- Suitable for long overhangs and/or unstable conditions
- Small-to-medium sized CNC machines with high rpms and high feed rates
- Also works for machines that run lower rpms and feed rates

R217.21 – Metric





- For insert selection and cutting data recommendations, see page(s) 578-588
- For complete insert programme, see page(s) 855
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	DCX	ZEFP	APMXS	APMXE	DMM	LS	OAL	RP	RMPX°	Cmin	Cmax	RPMX	Weight	Insert
			mm	mm		mm	mm	mm	mm	mm	mm		mm	mm		kg	
R217.21-1416.0-R080.2A	02554443	Cylindrical	9,25	16,0	2	0,63	5,0	14,0	127,0	150,0	1,0	6,1	25,25	30,0	53400	0,2	218.19-080
R217.21-1820.0-R100.2A	02554439	Cylindrical	11,4	20,0	2	0,74	7,0	18,0	132,0	160,0	1,47	5,7	31,4	38,0	32600	0,4	218.19-100
R217.21-2025.0-R100.2A	02616308	Cylindrical	16,46	25,0	2	0,74	7,0	20,0	140,0	170,0	1,47	3,48	41,46	48,0	29100	0,5	218.19-100
R217.21-2525.0-R100.3A	02616320	Cylindrical	16,46	25,0	3	0,74	7,0	25,0	135,0	170,0	1,47	3,48	41,46	48,0	29100	0,7	218.19-100
R217.21-2532.0-R125.2A	02616323	Cylindrical	21,16	32,0	2	1,0	9,0	25,0	161,0	195,0	1,74	3,67	53,16	62,0	19700	0,8	218.19-125
R217.21-3232.0-R125.3A	02616325	Cylindrical	21,16	32,0	3	1,0	9,0	32,0	155,0	195,0	1,74	3,67	53,16	62,0	19700	1,2	218.19-125

Spare Parts, included in delivery

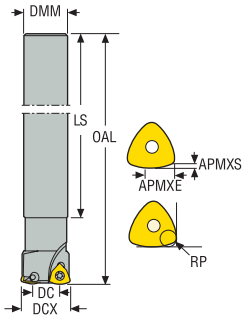
For cutter	Insert key	Insert screw
		
R217.21-R080	H4B-T07P	C02205-T07P
R217.21-R100	H4B-T08P	C02506-T08P
R217.21-R125	H4B-T09P	C03007-T09P

Accessories

For cutter	Insert clamping torque	Torque key
		
R217.21-R080	0.9NM	T00-07P09
R217.21-R100	1.2NM	T00-08P12
R217.21-R125	2.0NM	T00-09P20

Torque and fixed keys, see page 872

R217.21 – inch





- For insert selection and cutting data recommendations, see page(s) 578-588
- For complete insert programme, see page(s) 855
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	DCX	ZEFP	APMXS	APMXE	DMM	LS	OAL	RP	RMPX°	C min	C max	RPMX	Weight	Insert
			inch	inch		inch	inch	inch	inch	inch	inch		inch	inch		lbs	
R217.21-00.750-0-R100.2A	02559353	Cylindrical	0.410	0.750	2	0.029	0.276	0.750	5.250	6.500	0.058	6,45	1.160	1.421	32600	0.880	218.19-100
R217.21-00.750-0-R100.2HA	02548132	Cylindrical	0.357	0.750	2	0.043	0.276	0.750	5.250	6.500	0.071	4,5	1.107	1.421	32600	0.880	218.19-100
R217.21-01.00-0-R100.3A	02559354	Cylindrical	0.660	1.000	3	0.029	0.276	1.000	5.512	7.000	0.058	3,38	1.660	1.921	29100	1.540	218.19-100
R217.21-01.25-0-R125-3A	02553726	Cylindrical	0.823	1.250	3	0.039	0.354	1.250	5.906	7.500	0.069	3,73	2.073	2.421	19700	2.430	218.19-125
R217.21-01.25-0-R160-2HA	02553730	Cylindrical	0.583	1.250	2	0.080	0.433	1.250	5.906	7.500	0.121	3,37	1.833	2.421	16200	2.430	218.19-160
R217.21-01.50-0-R160-3HA	02553733	Cylindrical	0.591	1.500	3	0.080	0.433	1.500	5.906	8.000	0.120	3,09	2.091	2.921	17600	3.530	218.19-160

Spare Parts, included in delivery

For cutter	Insert key	Insert screw
		
R217.21-R100	H4B-T08P	C02506-T08P
R217.21-R125	H4B-T09P	C03007-T09P
R217.21-R160	H4B-T15P	C03510-T15P

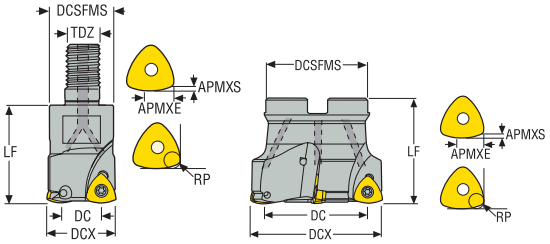
Accessories

For cutter	Insert clamping torque	Torque key
		
R217.21-R100	10.6IN.LBS	T00-08P12
R217.21-R125	17.7IN.LBS	T00-09P20
R217.21-R160	26.6IN.LBS	T00-15P30

Torque and fixed keys, see page 872

R217.21 – Metric



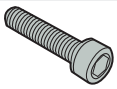


- For insert selection and cutting data recommendations, see page(s) 578-588
- For complete insert programme, see page(s) 855
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	DCX	ZEFP	APMXS	APMXE	DCB	TDZ	DCSFMS	LF	RP	RMPX°	Cmin	Cmax	Weight	RPMX	Insert
			mm	mm		mm	mm	mm		mm	mm	mm		mm	mm	kg		
R217.21-0816.RE-R080.2	00030707	Combimaster	9,25	16,0	2	0,6	5,0	–	M8	13,5	23,0	1,0	6,1	25,25	30,0	0,1	53400	218.19-080
R217.21-1020.RE-R100.2A	00030708	Combimaster	11,45	20,0	2	0,7	7,0	–	M10	18,5	28,0	1,47	5,71	31,45	38,0	0,1	32600	218.19-100
R217.21-1020.RE-R100.2HA	02546332	Combimaster	10,44	20,0	2	1,0	7,0	–	M10	18,5	28,0	1,7	4,32	30,44	38,0	0,1	32600	218.19-100
R217.21-1225.RE-R100.3A	00030710	Combimaster	16,46	25,0	3	0,7	7,0	–	M12	23,0	35,0	1,47	3,48	41,46	48,0	0,2	29100	218.19-100
R217.21-1225.RE-R125.2HA	02502370	Combimaster	12,36	25,0	2	1,5	9,0	–	M12	23,0	35,0	2,18	4,25	37,36	48,0	0,2	29100	218.19-125
R217.21-1632.RE-R125.3A	00030714	Combimaster	21,21	32,0	3	1,0	9,0	–	M16	30,0	40,0	1,74	3,7	53,21	62,0	0,3	19700	218.19-125
R217.21-1632.RE-R160.2HA	02546333	Combimaster	16,09	32,0	2	1,8	11,0	–	M16	30,0	40,0	2,87	3,76	48,09	62,0	0,2	16200	218.19-160
R217.21-1635.RE-R125.3A	00030715	Combimaster	24,16	35,0	3	1,0	9,0	–	M16	30,0	40,0	1,74	3,1	59,16	68,0	0,3	18800	218.19-125
R217.21-1640.RE-R125.4A	00039503	Combimaster	29,25	40,0	4	1,0	9,0	–	M16	30,0	40,0	1,74	2,47	69,25	78,0	0,3	17600	218.19-125
R217.21-1640.RE-R160.3HA	02546335	Combimaster	23,99	40,0	3	1,8	11,0	–	M16	30,0	40,0	2,87	2,18	63,99	78,0	0,3	14500	218.19-160
R220.21-0040-R125.4A	00030717	Arbor	29,2	40,0	4	1,0	9,0	16,0	–	35,0	40,0	1,75	2,47	69,2	78,0	0,3	17600	218.19-125
R220.21-0042-R125.4A	00030720	Arbor	31,2	42,0	4	1,0	9,0	16,0	–	35,0	40,0	1,75	2,28	73,2	82,0	0,3	17200	218.19-125
R220.21-0050-R160.4A	00030723	Arbor	34,17	50,0	4	1,8	11,0	22,0	–	47,0	40,0	2,85	1,47	84,17	98,0	0,4	12900	218.19-160
R220.21-0050-R160.5A	03136664	Arbor	33,7	50,0	5	1,8	11,0	22,0	–	47,0	40,0	3,01	0,9	83,7	98,0	0,4	12900	218.19-160
R220.21-0052-R160.4A	02425827	Arbor	36,19	52,0	4	1,8	11,0	22,0	–	47,0	40,0	2,85	1,38	88,19	102,0	0,4	12700	218.19-160
R220.21-0052-R160.5A	03136665	Arbor	35,7	52,0	5	1,8	11,0	22,0	–	47,0	40,0	3,03	0,8	87,7	102,0	0,4	12700	218.19-160
R220.21-0063-R160.4A	00030724	Arbor	47,2	63,0	4	1,8	11,0	27,0	–	50,0	50,0	2,85	1,0	110,2	124,0	0,6	11500	218.19-160
R220.21-0063-R160.5A	00030726	Arbor	47,2	63,0	5	1,8	11,0	27,0	–	50,0	50,0	2,85	1,0	110,2	124,0	0,6	11500	218.19-160
R220.21-0063-R160.6A	03136666	Arbor	47,9	63,0	6	1,8	11,0	27,0	–	50,0	50,0	3,0	0,6	110,9	124,0	0,6	11500	218.19-160
R220.21-0066-R160.5A	02409011	Arbor	50,21	66,0	5	1,8	11,0	27,0	–	50,0	50,0	2,85	0,95	116,21	130,0	0,5	11200	218.19-160
R220.21-0066-R160.6A	03136667	Arbor	50,9	66,0	6	1,8	11,0	27,0	–	62,0	50,0	3,0	0,5	116,9	130,0	0,8	11200	218.19-160
R220.21-0080-R160.6A	02530950	Arbor	64,15	80,0	6	1,8	11,0	27,0	–	62,0	50,0	2,85	0,73	144,15	158,0	1,0	10200	218.19-160
R220.21-0080-R160.7A	03136668	Arbor	63,6	80,0	7	1,8	11,0	27,0	–	62,0	50,0	3,0	0,4	143,6	158,0	1,1	10200	218.19-160
R220.21-0084-R160.6A	02969095	Arbor	68,0	84,0	6	1,8	11,0	32,0	–	77,0	50,0	2,85	0,7	152,0	166,0	1,4	10000	218.19-160
R220.21-0100-R160.7A	02530946	Arbor	84,13	100,0	7	1,8	11,0	32,0	–	77,0	50,0	2,85	0,54	184,13	198,0	1,6	9700	218.19-160
R220.21-0100-R160.9A	03136671	Arbor	83,6	100,0	9	1,8	11,0	32,0	–	77,0	50,0	3,0	0,3	183,6	198,0	1,8	9700	218.19-160

For Combimaster Shanks, see Machining Navigator Tooling System

Spare Parts, included in delivery

For cutter	Arbor screw	Insert key	Insert screw
			
R217.21-R080	–	H4B-T07P	C02205-T07P
R217.21-R100	–	H4B-T08P	C02506-T08P
R217.21-R125	–	H4B-T09P	C03007-T09P
R217.21-R160	–	H4B-T15P	C03510-T15P
R220.21-0040-0042	220.17-689	H4B-T09P	C03007-T09P
R220.21-0050-0052	220.17-692	H4B-T15P	C03510-T15P
R220.21-0063	MC6S12X35	H4B-T15P	C03510-T15P
R220.21-0080	MC6S12X35	H4B-T15PL	C03510-T15P
R220.21-0084	950E1645	H4B-T15PL	C03510-T15P
R220.21-0100	MC6S16X35	H4B-T15PL	C03510-T15P
R220.21-0100.9A	950E1645	H4B-T15PL	C03510-T15P

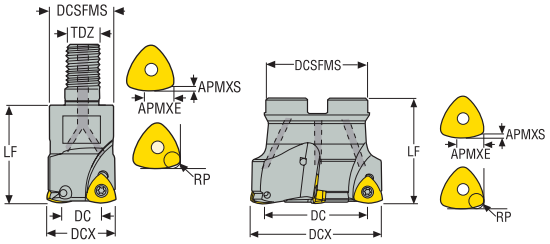
Accessories

For cutter	Insert clamping torque	Torque key
		
R217.21-R080	0.9NM	T00-07P09
R217.21-R100	1.2NM	T00-08P12
R217.21-R125	2.0NM	T00-09P20
R217.21-R160	3.0NM	T00-15P30
R220.21-0040-0042	2.0NM	T00-09P20
R220.21-0050-0100	3.0NM	T00-15P30

Torque and fixed keys, see page 872

R217/220.21 – Inch



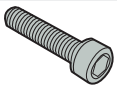


- For insert selection and cutting data recommendations, see page(s) 578-588
- For complete insert programme, see page(s) 855
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	DCX	ZEFP	APMXS	APMXE	DCB	TDZ	DCSFMS	LF	RP	RMPX°	C min	C max	Weight	RPMX	Insert
			inch	inch		inch	inch	inch		inch	inch	inch		inch	inch	lbs		
R217.21-00.750-10RE-R100-2A	00098320	Combimaster	0.414	0.750	2	0.028	0.276	–	M10	0.728	1.100	0.058	6,45	1.164	1.421	0.220	32600	218.19-100
R217.21-00.750-10RE-R100-2HA	02548133	Combimaster	0.357	0.750	2	0.043	0.276	–	M10	0.728	1.100	0.071	4,5	1.107	1.421	0.220	32600	218.19-100
R217.21-01.00-12RE-R100-3A	00098330	Combimaster	0.663	1.000	3	0.028	0.276	–	M12	0.906	1.400	0.058	3,38	1.663	1.921	0.440	29100	218.19-100
R217.21-01.25-16RE-R160-2HA	02548129	Combimaster	0.543	1.250	2	0.079	0.433	–	M16	1.181	1.600	0.121	3,37	1.793	2.421	0.660	16200	218.19-160
R217.21-01.25-16RE-R125-3A	00098351	Combimaster	0.823	1.250	3	0.039	0.354	–	M16	1.181	1.600	0.069	3,73	2.073	2.421	0.660	19700	218.19-125
R217.21-01.50-16RE-R160-3HA	02548130	Combimaster	0.791	1.498	3	0.079	0.433	–	M16	1.181	1.600	0.121	1,96	2.289	2.917	0.660	14500	218.19-160
R217.21-01.50-16RE-R125-4A	02435615	Combimaster	1.002	1.500	4	0.059	0.354	–	M16	1.181	1.600	0.086	1,69	2.502	2.921	0.660	17600	218.19-125
R220.21-01.50-R125-4A	00098850	Arbor	1.002	1.500	4	0.060	0.354	0.500	–	1.378	1.600	0.087	1,69	2.502	2.921	0.440	17600	218.19-125
R220.21-02.00-R160-4A	00098952	Arbor	1.346	2.000	4	0.079	0.433	0.750	–	1.850	1.600	0.119	1,17	3.346	3.921	0.880	12900	218.19-160
R220.21-02.00-R160-5A	02789050	Arbor	1.327	2.000	5	0.079	0.433	0.750	–	1.850	1.600	0.119	1,17	3.327	3.921	0.660	12900	218.19-160
R220.21-02.50-R160-5A	00099029	Arbor	1.843	2.500	5	0.079	0.433	0.750	–	2.350	2.000	0.119	0,83	4.343	4.921	1.320	11500	218.19-160
R220.21-02.50-R160-6A	02825654	Arbor	1.827	2.500	6	0.079	0.433	0.750	–	2.350	2.000	0.119	0,83	4.327	4.921	1.540	11500	218.19-160
R220.21-03.00-R160-6A	02427189	Arbor	2.280	3.000	6	0.098	0.433	1.000	–	2.441	2.000	0.138	0,39	5.280	5.921	2.200	10200	218.19-160
R220.21-03.00-R160-7A	02828389	Arbor	2.348	3.000	7	0.079	0.433	1.000	–	2.441	2.000	0.119	0,39	5.348	5.921	2.430	10200	218.19-160
R220.21-04.00-R160-7A	02427191	Arbor	3.286	4.000	7	0.098	0.433	1.500	–	3.543	2.000	0.138	0,27	7.286	7.921	4.190	9100	218.19-160
R220.21-04.00-R160-9A	02810684	Arbor	3.348	4.000	9	0.083	0.433	1.500	–	3.543	2.000	0.119	0,27	7.348	7.921	4.630	9100	218.19-160

For Combimaster Shanks, see Machining Navigator Tooling System

Spare Parts, included in delivery

For cutter	Arbor screw	Insert key	Insert screw
			
R217.21-0.75/1.00/0.75HA	–	H4B-T08P	C02506-T08P
R217.21-1.25HA/1.50HA	–	H4B-T15P	C03510-T15P
R217.21-1.25/1.50/1.00HA	–	H4B-T09P	C03007-T09P
R220.21-01.50	UC6S1/4UNFX1	H4B-T09P	C03007-T09P
R220.21-02.00	UC6S3/8UNFX1	H4B-T15P	C03510-T15P
R220.21-02.00.5A	UC6S3/8UNFX1	1/4HEX-T15PX50	C03508-T15P
R220.21-02.50	UC6S3/8UNFX11/2	H4B-T15P	C03510-T15P
R220.21-02.50.5A	UC6S3/8UNFX11/2	H4B-T15P	C03508-T15P
R220.21-03.00	UC6S1/2UNFX1-1/4	H4B-T15P	C03510-T15P
R220.21-03.00.7A	UC6S1/2UNFX1-1/4	H4B-T15P	C03508-T15P
R220.21-04.00	UC6S3/4UNFX1-1/4	H4B-T15PL	C03510-T15P
R220.21-04.00.9A	UC6S3/4UNFX1-1/4	H4B-T15PL	C03508-T15P

Accessories

For cutter	Adjustable Torque key	Insert clamping torque	Torque key
			
R217.21-0.75 / 1.00 / 0.75HA	–	10.6IN.LBS	T00-08P12
R217.21-1.25HA-1.50HA	–	26.6IN.LBS	T00-15P30
R217.21-1.25-1.50	–	17.7IN.LBS	T00-09P20
R220.21-01.50	–	17.7IN.LBS	T00-09P20
R220.21-02.00-04.00	–	26.6IN.LBS	T00-15P30
R220.21-02.00-04.00	1/4HEX-S-HANDLE-0.8-5.0NM	26.6IN.LBS	T00-15P30

Torque and fixed keys, see page 872

R217.21-080 – Insert selection – mm/*Inch*

SMG		a_p	f_z		
			100%	70%	30%
P1	218.19-080T-M04 MP2501	0,55 *0.022*	0,50 *0.020*	0,50 *0.020*	0,65 *0.026*
P2	218.19-080T-M04 MP2501	0,55 *0.022*	0,50 *0.020*	0,50 *0.020*	0,65 *0.026*
P3	218.19-080T-M04 MP2501	0,55 *0.022*	0,48 *0.019*	0,48 *0.019*	0,60 *0.026*
P4	218.19-080T-M04 MP2501	0,55 *0.022*	0,48 *0.019*	0,48 *0.019*	0,60 *0.024*
P5	218.19-080T-M04 MP2501	0,55 *0.022*	0,46 *0.018*	0,46 *0.018*	0,60 *0.024*
P6	218.19-080T-M04 MP2501	0,55 *0.022*	0,46 *0.018*	0,46 *0.018*	0,60 *0.024*
P7	218.19-080T-M04 MP2501	0,55 *0.022*	0,46 *0.018*	0,46 *0.018*	0,60 *0.024*
P8	218.19-080T-M04 MP2501	0,55 *0.022*	0,48 *0.019*	0,48 *0.019*	0,60 *0.026*
P11	218.19-080T-M04 F40M	0,55 *0.022*	0,46 *0.018*	0,46 *0.018*	0,60 *0.024*
P12	218.19-080T-M04 MP2501	0,44 *0.017*	0,34 *0.013*	0,34 *0.013*	0,42 *0.017*
M1	218.19-080T-M04 F40M	0,55 *0.022*	0,50 *0.020*	0,50 *0.020*	0,65 *0.026*
M2	218.19-080T-M04 F40M	0,55 *0.022*	0,46 *0.018*	0,46 *0.018*	0,60 *0.024*
M3	218.19-080T-M04 F40M	0,44 *0.017*	0,40 *0.016*	0,40 *0.016*	0,50 *0.020*
M4	218.19-080T-M04 F40M	0,32 *0.013*	0,34 *0.013*	0,34 *0.013*	0,42 *0.017*
M5	218.19-080T-M04 F40M	0,32 *0.013*	0,34 *0.013*	0,34 *0.013*	0,42 *0.017*
K1	218.19-080T-MD04 F15M	0,55 *0.022*	0,50 *0.020*	0,50 *0.020*	0,65 *0.026*
K2	218.19-080T-MD04 F15M	0,55 *0.022*	0,46 *0.018*	0,46 *0.018*	0,60 *0.024*
K3	218.19-080T-MD04 F15M	0,55 *0.022*	0,46 *0.018*	0,46 *0.018*	0,60 *0.024*
K4	218.19-080T-MD04 F15M	0,55 *0.022*	0,46 *0.018*	0,46 *0.018*	0,60 *0.024*
K5	218.19-080T-MD04 F15M	0,55 *0.022*	0,42 *0.017*	0,42 *0.017*	0,55 *0.022*
K6	218.19-080T-MD04 F15M	0,55 *0.022*	0,46 *0.018*	0,46 *0.018*	0,60 *0.024*
K7	218.19-080T-MD04 F15M	0,55 *0.022*	0,42 *0.017*	0,42 *0.017*	0,55 *0.022*
S1	218.19-080T-M04 F40M	0,32 *0.013*	0,34 *0.013*	0,34 *0.013*	0,42 *0.017*
S2	218.19-080T-M04 F40M	0,32 *0.013*	0,34 *0.013*	0,34 *0.013*	0,42 *0.017*
S3	218.19-080T-M04 F40M	0,32 *0.013*	0,32 *0.013*	0,32 *0.013*	0,40 *0.016*
S11	218.19-080T-M04 F40M	0,38 *0.015*	0,40 *0.016*	0,40 *0.016*	0,50 *0.020*
S12	218.19-080T-M04 F40M	0,38 *0.015*	0,40 *0.016*	0,40 *0.016*	0,50 *0.020*
S13	218.19-080T-M04 F40M	0,32 *0.013*	0,34 *0.013*	0,34 *0.013*	0,42 *0.017*
H5	218.19-080T-MD04 F15M	0,34 *0.013*	0,30 *0.012*	0,30 *0.012*	0,36 *0.014*
H8	218.19-080T-MD04 F15M	0,30 *0.012*	0,22 *0.0085*	0,22 *0.0085*	0,28 *0.011*
H11	218.19-080T-MD04 F15M	0,34 *0.013*	0,30 *0.012*	0,30 *0.012*	0,36 *0.014*
H12	218.19-080T-MD04 F15M	0,30 *0.012*	0,22 *0.0085*	0,22 *0.0085*	0,28 *0.011*

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

R217.21-080 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	F15M			F30M			F40M			MP2501			MS2500		
	100%	70%	30%	100%	70%	30%	100%	70%	30%	100%	70%	30%	100%	70%	30%
P1	310 *1025*	380 *1250*	440 *1450*	285 *940*	350 *1150*	405 *1325*	270 *890*	330 *1075*	385 *1275*	510 *1675*	580 *1900*	640 *2100*	375 *1225*	455 *1500*	520 *1700*
P2	305 *1000*	360 *1175*	420 *1375*	280 *920*	330 *1075*	385 *1275*	265 *870*	315 *1025*	365 *1200*	490 *1600*	560 *1825*	620 *2025*	365 *1200*	430 *1400*	500 *1650*
P3	260 *850*	315 *1025*	365 *1200*	240 *790*	290 *950*	335 *1100*	230 *750*	280 *920*	320 *1050*	425 *1400*	485 *1600*	540 *1775*	310 *1025*	380 *1250*	440 *1450*
P4	230 *750*	280 *920*	325 *1075*	215 *710*	260 *850*	295 *970*	205 *670*	245 *800*	285 *940*	375 *1225*	430 *1400*	475 *1550*	280 *920*	340 *1125*	385 *1275*
P5	220 *720*	270 *890*	315 *1025*	205 *670*	250 *820*	290 *950*	195 *640*	235 *770*	275 *900*	360 *1175*	410 *1350*	455 *1500*	265 *870*	325 *1075*	375 *1225*
P6	250 *820*	300 *980*	350 *1150*	230 *750*	280 *920*	325 *1075*	215 *710*	265 *870*	310 *1025*	405 *1325*	460 *1500*	510 *1675*	300 *980*	365 *1200*	425 *1400*
P7	235 *770*	285 *940*	335 *1100*	215 *710*	260 *850*	305 *1000*	205 *670*	250 *820*	290 *950*	380 *1250*	435 *1425*	485 *1600*	280 *920*	340 *1125*	400 *1300*
P8	220 *720*	265 *870*	310 *1025*	200 *660*	245 *800*	285 *940*	190 *620*	235 *770*	270 *890*	355 *1175*	410 *1350*	450 *1475*	265 *870*	320 *1050*	370 *1225*
P11	230 *750*	275 *900*	325 *1075*	210 *690*	255 *840*	295 *970*	200 *660*	245 *800*	285 *940*	370 *1225*	425 *1400*	470 *1550*	275 *900*	330 *1075*	390 *1275*
P12	— —	— —	— —	135 *445*	165 *540*	190 *620*	130 *425*	155 *510*	180 *590*	230 *750*	260 *850*	285 *940*	180 *590*	215 *710*	245 *800*
M1	— —	— —	— —	225 *740*	265 *870*	310 *1025*	215 *710*	255 *840*	295 *970*	250 *820*	300 *980*	350 *1150*	260 *850*	310 *1025*	360 *1175*
M2	— —	— —	— —	185 *610*	225 *740*	260 *850*	175 *570*	210 *690*	245 *800*	205 *670*	250 *820*	290 *950*	210 *690*	260 *850*	300 *980*
M3	— —	— —	— —	150 *490*	180 *590*	205 *670*	140 *460*	170 *560*	200 *660*	165 *540*	200 *660*	235 *770*	175 *570*	205 *670*	240 *790*
M4	— —	— —	— —	120 *395*	140 *460*	160 *520*	110 *360*	130 *425*	150 *490*	130 *425*	155 *510*	180 *590*	135 *445*	160 *520*	185 *610*
M5	— —	— —	— —	100 *330*	115 *375*	135 *445*	95 *310*	110 *360*	125 *410*	110 *360*	130 *425*	150 *490*	115 *375*	135 *445*	155 *510*
K1	240 *790*	285 *940*	330 *1075*	220 *720*	260 *850*	305 *1000*	210 *690*	250 *820*	290 *950*	495 *1625*	560 *1825*	620 *2025*	— —	— —	— —
K2	210 *690*	255 *840*	300 *980*	195 *640*	235 *770*	275 *900*	185 *610*	225 *740*	260 *850*	435 *1425*	500 *1650*	550 *1800*	— —	— —	— —
K3	180 *590*	215 *710*	250 *820*	165 *540*	200 *660*	230 *750*	155 *510*	190 *620*	220 *720*	365 *1200*	420 *1375*	465 *1525*	— —	— —	— —
K4	170 *560*	205 *670*	240 *790*	155 *510*	190 *620*	220 *720*	150 *490*	180 *590*	210 *690*	350 *1150*	400 *1300*	445 *1450*	— —	— —	— —
K5	105 *345*	125 *410*	145 *475*	95 *310*	115 *375*	135 *445*	90 *295*	110 *360*	130 *425*	215 *710*	245 *800*	270 *890*	— —	— —	— —
K6	150 *490*	180 *590*	210 *690*	135 *445*	165 *540*	195 *640*	130 *425*	160 *520*	185 *610*	310 *1025*	355 *1175*	395 *1300*	— —	— —	— —
K7	135 *445*	160 *520*	185 *610*	125 *410*	150 *490*	170 *560*	115 *375*	140 *460*	165 *540*	275 *900*	315 *1025*	345 *1125*	— —	— —	— —
N1	— —	— —	— —	1625 *5325*	2000 *6550*	2300 *7550*	1550 *5075*	1900 *6225*	2200 *7225*	— —	— —	— —	— —	— —	— —
N2	— —	— —	— —	660 *2175*	800 *2625*	930 *3050*	630 *2075*	770 *2525*	880 *2875*	— —	— —	— —	— —	— —	— —
N3	— —	— —	— —	440 *1450*	540 *1775*	620 *2025*	420 *1375*	510 *1675*	590 *1925*	— —	— —	— —	— —	— —	— —
N11	— —	— —	— —	500 *1650*	610 *2000*	710 *2325*	480 *1575*	580 *1900*	670 *2200*	— —	— —	— —	— —	— —	— —
S1	— —	— —	— —	— —	— —	— —	50 *165*	60 *195*	70 *230*	— —	— —	— —	65 *215*	80 *260*	90 *295*
S2	— —	— —	— —	— —	— —	— —	42 *140*	50 *165*	55 *180*	— —	— —	— —	55 *180*	65 *215*	75 *245*
S3	— —	— —	— —	— —	— —	— —	37 *120*	44 *145*	50 *165*	— —	— —	— —	47 *155*	55 *180*	65 *215*
S11	— —	— —	— —	— —	— —	— —	75 *245*	85 *280*	100 *330*	— —	— —	— —	95 *310*	110 *360*	130 *425*
S12	— —	— —	— —	— —	— —	— —	50 *165*	60 *195*	70 *230*	— —	— —	— —	65 *215*	75 *245*	90 *295*
S13	— —	— —	— —	— —	— —	— —	29 *95*	35 *115*	40 *130*	— —	— —	— —	37 *120*	44 *145*	50 *165*
H5	50 *165*	60 *195*	70 *230*	48 *155*	55 *180*	65 *215*	— —	— —	— —	— —	— —	— —	— —	— —	— —
H8	55 *180*	65 *215*	75 *245*	50 *165*	60 *195*	70 *230*	— —	— —	— —	— —	— —	— —	— —	— —	— —
H11	65 *215*	80 *260*	90 *295*	60 *195*	70 *230*	85 *280*	— —	— —	— —	— —	— —	— —	— —	— —	— —
H12	100 *330*	115 *375*	135 *445*	90 *295*	110 *360*	125 *410*	— —	— —	— —	— —	— —	— —	120 *395*	140 *460*	160 *520*

R217.21-100 – Insert selection – mm/*Inch*

SMG		a_p	f_z		
			100%	70%	30%
P1	218.19-100T-M06 MP3501	0,65 *0.026*	0,80 *0.032*	0,80 *0.032*	1,0 *0.040*
P2	218.19-100T-M06 MP3501	0,65 *0.026*	0,80 *0.032*	0,80 *0.032*	1,1 *0.044*
P3	218.19-100T-M06 MP2501	0,65 *0.026*	0,75 *0.030*	0,80 *0.032*	1,0 *0.040*
P4	218.19-100T-M06 MP2501	0,65 *0.026*	0,75 *0.030*	0,75 *0.030*	1,0 *0.040*
P5	218.19-100T-M06 MP2501	0,65 *0.026*	0,75 *0.030*	0,75 *0.030*	0,95 *0.038*
P6	218.19-100T-M06 MP2501	0,65 *0.026*	0,75 *0.030*	0,75 *0.030*	0,95 *0.038*
P7	218.19-100T-M06 MP2501	0,65 *0.026*	0,75 *0.030*	0,75 *0.030*	0,95 *0.038*
P8	218.19-100T-M06 MP2501	0,65 *0.026*	0,75 *0.030*	0,80 *0.032*	1,0 *0.040*
P11	218.19-100T-M06 MP3501	0,65 *0.026*	0,75 *0.030*	0,75 *0.030*	0,95 *0.038*
P12	218.19-100T-M06 MP2501	0,50 *0.020*	0,50 *0.020*	0,50 *0.020*	0,65 *0.026*
M1	218.19-100T-M06 MS2050	0,65 *0.026*	0,80 *0.032*	0,80 *0.032*	1,1 *0.044*
M2	218.19-100T-M06 MS2050	0,65 *0.026*	0,75 *0.030*	0,75 *0.030*	0,95 *0.038*
M3	218.19-100T-M06 MS2050	0,50 *0.020*	0,60 *0.024*	0,60 *0.024*	0,75 *0.030*
M4	218.19-100T-M06 MP3501	0,38 *0.015*	0,50 *0.020*	0,50 *0.020*	0,65 *0.026*
M5	218.19-100T-M06 MP3501	0,38 *0.015*	0,50 *0.020*	0,50 *0.020*	0,65 *0.026*
K1	218.19-100T-MD08 MP2501	0,65 *0.026*	1,1 *0.044*	1,1 *0.044*	1,4 *0.055*
K2	218.19-100T-MD08 MP2501	0,65 *0.026*	1,0 *0.040*	1,0 *0.040*	1,3 *0.050*
K3	218.19-100T-MD08 MP2501	0,65 *0.026*	1,0 *0.040*	1,0 *0.040*	1,3 *0.050*
K4	218.19-100T-MD08 MP2501	0,65 *0.026*	1,0 *0.040*	1,0 *0.040*	1,3 *0.050*
K5	218.19-100T-MD08 MP2501	0,65 *0.026*	0,90 *0.036*	0,90 *0.036*	1,2 *0.048*
K6	218.19-100T-MD08 MP2501	0,65 *0.026*	1,0 *0.040*	1,0 *0.040*	1,3 *0.050*
K7	218.19-100T-MD08 MP2501	0,65 *0.026*	0,90 *0.036*	0,90 *0.036*	1,2 *0.048*
S1	218.19-100T-M06 MS2500	0,38 *0.015*	0,50 *0.020*	0,50 *0.020*	0,65 *0.026*
S2	218.19-100T-M06 MS2500	0,38 *0.015*	0,50 *0.020*	0,50 *0.020*	0,65 *0.026*
S3	218.19-100T-M06 MS2500	0,38 *0.015*	0,48 *0.019*	0,48 *0.019*	0,60 *0.024*
S11	218.19-100T-M06 MS2050	0,44 *0.017*	0,60 *0.024*	0,60 *0.024*	0,75 *0.030*
S12	218.19-100T-M06 MS2050	0,44 *0.017*	0,60 *0.024*	0,60 *0.024*	0,75 *0.030*
S13	218.19-100T-M06 MS2050	0,38 *0.015*	0,50 *0.020*	0,50 *0.020*	0,65 *0.026*
H5	218.19-100T-MD08 MH1000	0,40 *0.016*	0,60 *0.024*	0,60 *0.024*	0,70 *0.030*
H8	218.19-100T-MD08 MH1000	0,34 *0.013*	0,44 *0.017*	0,44 *0.017*	0,55 *0.022*
H11	218.19-100T-M06 MP3000	0,40 *0.016*	0,44 *0.017*	0,44 *0.017*	0,55 *0.022*
H12	218.19-100T-M06 MP3000	0,34 *0.013*	0,34 *0.013*	0,34 *0.013*	0,40 *0.017*

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

R217.21-100 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	MH1000			F15M			F25M			F30M			MP3000		
	100%	70%	30%	100%	70%	30%	100%	70%	30%	100%	70%	30%	100%	70%	30%
P1	—	—	—	245	290	345	225	265	320	250	295	345	295	350	410
	—	—	—	*800*	*950*	*1125*	*740*	*870*	*1050*	*820*	*970*	*1125*	*970*	*1150*	*1350*
P2	—	—	—	240	285	340	220	260	310	240	285	335	285	340	395
	—	—	—	*790*	*940*	*1125*	*720*	*850*	*1025*	*790*	*940*	*1100*	*940*	*1125*	*1300*
P3	—	—	—	210	250	290	195	230	265	210	250	290	250	295	345
	—	—	—	*690*	*820*	*950*	*640*	*750*	*870*	*690*	*820*	*950*	*820*	*970*	*1125*
P4	—	—	—	185	220	260	170	200	240	185	220	260	220	260	310
	—	—	—	*610*	*720*	*850*	*560*	*660*	*790*	*610*	*720*	*850*	*720*	*850*	*1025*
P5	215	255	300	180	210	250	165	195	230	175	210	250	210	250	295
	710	*840*	*980*	*590*	*690*	*820*	*540*	*640*	*750*	*570*	*690*	*820*	*690*	*820*	*970*
P6	245	290	340	205	240	280	185	220	255	200	235	280	235	280	330
	800	*950*	*1125*	*670*	*790*	*920*	*610*	*720*	*840*	*660*	*770*	*920*	*770*	*920*	*1075*
P7	230	275	320	190	225	265	175	205	245	190	220	265	225	265	315
	750	*900*	*1050*	*620*	*740*	*870*	*570*	*670*	*800*	*620*	*720*	*870*	*740*	*870*	*1025*
P8	215	255	295	180	210	245	165	195	225	175	210	245	210	250	290
	710	*840*	*970*	*590*	*690*	*800*	*540*	*640*	*740*	*570*	*690*	*800*	*690*	*820*	*950*
P11	225	265	310	185	220	255	170	200	235	185	215	255	215	255	305
	740	*870*	*1025*	*610*	*720*	*840*	*560*	*660*	*770*	*610*	*710*	*840*	*710*	*840*	*1000*
P12	150	175	205	—	—	—	115	130	155	125	145	165	145	170	195
	490	*570*	*670*	—	—	—	*375*	*425*	*510*	*410*	*475*	*540*	*475*	*560*	*640*
M1	—	—	—	—	—	—	—	—	—	195	230	270	215	255	295
	—	—	—	—	—	—	—	—	—	*640*	*750*	*890*	*710*	*840*	*970*
M2	—	—	—	—	—	—	—	—	—	160	190	225	175	210	245
	—	—	—	—	—	—	—	—	—	*520*	*620*	*740*	*570*	*690*	*800*
M3	—	—	—	—	—	—	—	—	—	135	155	180	145	170	200
	—	—	—	—	—	—	—	—	—	*445*	*510*	*590*	*475*	*560*	*660*
M4	—	—	—	—	—	—	—	—	—	105	120	140	115	135	155
	—	—	—	—	—	—	—	—	—	*345*	*395*	*460*	*375*	*445*	*510*
M5	—	—	—	—	—	—	—	—	—	90	100	115	95	110	130
	—	—	—	—	—	—	—	—	—	*295*	*330*	*375*	*310*	*360*	*425*
K1	230	270	325	190	225	265	175	205	245	190	225	265	225	270	315
	750	*890*	*1075*	*620*	*740*	*870*	*570*	*670*	*800*	*620*	*740*	*870*	*740*	*890*	*1025*
K2	205	240	285	170	200	235	155	185	215	170	200	235	200	235	280
	670	*790*	*940*	*560*	*660*	*770*	*510*	*610*	*710*	*560*	*660*	*770*	*660*	*770*	*920*
K3	175	205	240	145	170	200	130	155	185	145	170	200	170	200	235
	570	*670*	*790*	*475*	*560*	*660*	*425*	*510*	*610*	*475*	*560*	*660*	*560*	*660*	*770*
K4	165	195	230	135	160	190	125	150	175	135	160	190	160	190	225
	540	*640*	*750*	*445*	*520*	*620*	*410*	*490*	*570*	*445*	*520*	*620*	*520*	*620*	*740*
K5	100	120	140	85	100	115	75	90	105	85	100	115	100	120	140
	330	*395*	*460*	*280*	*330*	*375*	*245*	*295*	*345*	*280*	*330*	*375*	*330*	*395*	*460*
K6	145	170	205	120	140	170	110	130	155	120	140	170	145	170	200
	475	*560*	*670*	*395*	*460*	*560*	*360*	*425*	*510*	*395*	*460*	*560*	*475*	*560*	*660*
K7	130	155	180	105	125	150	100	115	135	110	125	150	130	150	180
	425	*510*	*590*	*345*	*410*	*490*	*330*	*375*	*445*	*360*	*410*	*490*	*425*	*490*	*590*
N1	—	—	—	—	—	—	—	—	—	1425	1675	1950	—	—	—
	—	—	—	—	—	—	—	—	—	*4675*	*5500*	*6400*	—	—	—
N2	—	—	—	—	—	—	—	—	—	570	680	790	—	—	—
	—	—	—	—	—	—	—	—	—	*1875*	*2225*	*2600*	—	—	—
N3	—	—	—	—	—	—	—	—	—	380	450	520	—	—	—
	—	—	—	—	—	—	—	—	—	*1250*	*1475*	*1700*	—	—	—
N11	—	—	—	—	—	—	—	—	—	435	520	600	—	—	—
	—	—	—	—	—	—	—	—	—	*1425*	*1700*	*1975*	—	—	—
S1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S12	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S13	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
H5	55	60	75	44	50	60	—	—	—	43	50	60	48	55	65
	180	*195*	*245*	*145*	*165*	*195*	—	—	—	*140*	*165*	*195*	*155*	*180*	*215*
H8	55	65	75	47	55	65	—	—	—	46	55	60	50	60	70
	180	*215*	*245*	*155*	*180*	*215*	—	—	—	*150*	*180*	*195*	*165*	*195*	*230*
H11	65	80	95	55	65	75	—	—	—	55	65	75	60	70	85
	215	*260*	*310*	*180*	*215*	*245*	—	—	—	*180*	*215*	*245*	*195*	*230*	*280*
H12	100	120	140	85	100	115	—	—	—	85	95	110	100	115	135
	330	*395*	*460*	*280*	*330*	*375*	—	—	—	*280*	*310*	*360*	*330*	*375*	*445*

R217.21-100 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	MS2050			F40M			MP2501			MS2500			MP3501		
	100%	70%	30%	100%	70%	30%	100%	70%	30%	100%	70%	30%	100%	70%	30%
P1	260 *850*	305 *1000*	360 *1175*	235 *770*	280 *920*	325 *1075*	440 *1450*	495 *1625*	560 *1825*	340 *1125*	400 *1300*	470 *1550*	395 *1300*	445 *1450*	510 *1675*
P2	255 *840*	300 *980*	350 *1150*	230 *750*	270 *890*	320 *1050*	430 *1400*	485 *1600*	550 *1800*	330 *1075*	390 *1275*	460 *1500*	385 *1275*	435 *1425*	490 *1600*
P3	220 *720*	260 *850*	305 *1000*	200 *660*	240 *790*	275 *900*	375 *1225*	425 *1400*	480 *1575*	290 *950*	340 *1125*	400 *1300*	335 *1100*	380 *1250*	430 *1400*
P4	195 *640*	230 *750*	270 *890*	175 *570*	210 *690*	250 *820*	330 *1075*	375 *1225*	425 *1400*	255 *840*	300 *980*	355 *1175*	295 *970*	335 *1100*	385 *1275*
P5	185 *610*	220 *720*	260 *850*	170 *560*	200 *660*	235 *770*	315 *1025*	355 *1175*	405 *1325*	245 *800*	290 *950*	340 *1125*	285 *940*	320 *1050*	365 *1200*
P6	210 *690*	245 *800*	290 *950*	190 *620*	225 *740*	265 *870*	355 *1175*	400 *1300*	455 *1500*	275 *900*	325 *1075*	380 *1250*	320 *1050*	360 *1175*	410 *1350*
P7	195 *640*	235 *770*	275 *900*	180 *590*	210 *690*	250 *820*	335 *1100*	380 *1250*	430 *1400*	260 *850*	305 *1000*	360 *1175*	300 *980*	340 *1125*	385 *1275*
P8	185 *610*	220 *720*	255 *840*	170 *560*	200 *660*	235 *770*	315 *1025*	355 *1175*	400 *1300*	245 *800*	290 *950*	335 *1100*	285 *940*	320 *1050*	360 *1175*
P11	190 *620*	225 *740*	270 *890*	175 *570*	205 *670*	245 *800*	325 *1075*	365 *1200*	420 *1375*	250 *820*	295 *970*	350 *1150*	290 *950*	330 *1075*	375 *1225*
P12	130 *425*	150 *490*	175 *570*	115 *375*	135 *445*	155 *510*	215 *710*	240 *790*	265 *870*	170 *560*	195 *640*	225 *740*	195 *640*	215 *710*	240 *790*
M1	205 *670*	240 *790*	280 *920*	185 *610*	220 *720*	255 *840*	220 *720*	260 *850*	300 *980*	235 *770*	280 *920*	330 *1075*	205 *670*	240 *790*	280 *920*
M2	165 *540*	200 *660*	235 *770*	150 *490*	180 *590*	215 *710*	180 *590*	210 *690*	250 *820*	195 *640*	230 *750*	270 *890*	165 *540*	200 *660*	235 *770*
M3	140 *460*	160 *520*	190 *620*	125 *410*	150 *490*	170 *560*	150 *490*	175 *570*	200 *660*	160 *520*	190 *620*	220 *720*	140 *460*	160 *520*	190 *620*
M4	110 *360*	125 *410*	145 *475*	100 *330*	115 *375*	135 *445*	120 *395*	135 *445*	160 *520*	130 *425*	145 *475*	170 *560*	110 *360*	125 *410*	145 *475*
M5	90 *295*	105 *345*	125 *410*	85 *280*	95 *310*	110 *360*	100 *330*	115 *375*	130 *425*	105 *345*	125 *410*	145 *475*	90 *295*	105 *345*	125 *410*
K1	— —	— —	— —	180 *590*	215 *710*	250 *820*	435 *1425*	490 *1600*	550 *1800*	260 *850*	310 *1025*	365 *1200*	390 *1275*	435 *1425*	495 *1625*
K2	— —	— —	— —	160 *520*	190 *620*	225 *740*	380 *1250*	430 *1400*	490 *1600*	230 *750*	275 *900*	325 *1075*	345 *1125*	385 *1275*	440 *1450*
K3	— —	— —	— —	135 *445*	160 *520*	190 *620*	325 *1075*	365 *1200*	415 *1350*	195 *640*	230 *750*	275 *900*	290 *950*	325 *1075*	375 *1225*
K4	— —	— —	— —	130 *425*	155 *510*	180 *590*	310 *1025*	350 *1150*	395 *1300*	185 *610*	220 *720*	260 *850*	275 *900*	310 *1025*	355 *1175*
K5	— —	— —	— —	80 *260*	95 *310*	110 *360*	190 *620*	215 *710*	240 *790*	115 *375*	135 *445*	160 *520*	170 *560*	195 *640*	220 *720*
K6	— —	— —	— —	115 *375*	135 *445*	160 *520*	270 *890*	305 *1000*	350 *1150*	165 *540*	195 *640*	230 *750*	245 *800*	275 *900*	315 *1025*
K7	— —	— —	— —	105 *345*	120 *395*	140 *460*	245 *800*	275 *900*	310 *1025*	150 *490*	175 *570*	205 *670*	220 *720*	245 *800*	280 *920*
N1	— —	— —	— —	1350 *4425*	1600 *5250*	1850 *6075*	— —	— —	— —	— —	— —	— —	— —	— —	— —
N2	— —	— —	— —	550 *1800*	640 *2100*	750 *2450*	— —	— —	— —	— —	— —	— —	— —	— —	— —
N3	— —	— —	— —	365 *1200*	430 *1400*	500 *1650*	— —	— —	— —	— —	— —	— —	— —	— —	— —
N11	— —	— —	— —	415 *1350*	490 *1600*	570 *1875*	— —	— —	— —	— —	— —	— —	— —	— —	— —
S1	50 *165*	60 *195*	70 *230*	47 *155*	55 *180*	60 *195*	— —	— —	— —	65 *215*	70 *230*	85 *280*	50 *165*	60 *195*	70 *230*
S2	41 *135*	47 *155*	55 *180*	38 *125*	43 *140*	50 *165*	— —	— —	— —	50 *165*	60 *195*	65 *215*	41 *135*	47 *155*	55 *180*
S3	37 *120*	42 *140*	49 *160*	33 *110*	38 *125*	44 *145*	— —	— —	— —	44 *145*	50 *165*	60 *195*	37 *120*	42 *140*	49 *160*
S11	70 *230*	85 *280*	95 *310*	65 *215*	75 *245*	85 *280*	— —	— —	— —	85 *280*	100 *330*	115 *375*	70 *230*	85 *280*	95 *310*
S12	50 *165*	55 *180*	65 *215*	45 *150*	50 *165*	60 *195*	— —	— —	— —	60 *195*	70 *230*	80 *260*	50 *165*	55 *180*	65 *215*
S13	29 *95*	33 *110*	39 *130*	26 *85*	30 *100*	35 *115*	— —	— —	— —	35 *115*	40 *130*	47 *155*	29 *95*	33 *110*	39 *130*
H5	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —
H8	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —
H11	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —
H12	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —

R217/220.21-125 – Insert selection – mm/*Inch*

SMG		a_p	f_z		
			100%	70%	30%
P1	218.19-125T-T3-M07 MP3501	0,90 *0.036*	0,90 *0.036*	0,90 *0.036*	1,1 *0.044*
P2	218.19-125T-T3-M07 MP3501	0,90 *0.036*	0,90 *0.036*	0,90 *0.036*	1,1 *0.044*
P3	218.19-125T-T3-M07 MP2501	0,90 *0.036*	0,85 *0.034*	0,85 *0.034*	1,0 *0.040*
P4	218.19-125T-T3-M07 MP2501	0,90 *0.036*	0,85 *0.034*	0,85 *0.034*	1,0 *0.040*
P5	218.19-125T-T3-M07 MP2501	0,90 *0.036*	0,80 *0.032*	0,80 *0.032*	1,0 *0.040*
P6	218.19-125T-T3-M07 MP2501	0,90 *0.036*	0,80 *0.032*	0,80 *0.032*	1,0 *0.040*
P7	218.19-125T-T3-M07 MP2501	0,90 *0.036*	0,80 *0.032*	0,80 *0.032*	1,0 *0.040*
P8	218.19-125T-T3-M07 MP2501	0,90 *0.036*	0,85 *0.034*	0,85 *0.034*	1,0 *0.040*
P11	218.19-125T-T3-M07 MP3501	0,90 *0.036*	0,80 *0.032*	0,80 *0.032*	1,0 *0.040*
P12	218.19-125T-T3-M07 MP2501	0,70 *0.028*	0,60 *0.024*	0,60 *0.024*	0,70 *0.028*
M1	218.19-125T-T3-M07 MS2050	0,90 *0.036*	0,90 *0.036*	0,90 *0.036*	1,1 *0.044*
M2	218.19-125T-T3-M07 MS2050	0,90 *0.036*	0,80 *0.032*	0,80 *0.032*	1,0 *0.040*
M3	218.19-125T-T3-M07 MS2050	0,70 *0.028*	0,70 *0.028*	0,70 *0.028*	0,85 *0.034*
M4	218.19-125T-T3-M07 MP3501	0,55 *0.022*	0,60 *0.024*	0,60 *0.024*	0,70 *0.028*
M5	218.19-125T-T3-M07 MP3501	0,55 *0.022*	0,60 *0.024*	0,60 *0.024*	0,70 *0.028*
K1	218.19-125T-T3-MD08 MP3000	0,90 *0.036*	1,0 *0.040*	1,0 *0.040*	1,3 *0.050*
K2	218.19-125T-T3-MD08 MP3000	0,90 *0.036*	0,95 *0.038*	0,95 *0.038*	1,1 *0.048*
K3	218.19-125T-T3-MD08 MP3000	0,90 *0.036*	0,95 *0.038*	0,95 *0.038*	1,1 *0.048*
K4	218.19-125T-T3-MD08 MP3000	0,90 *0.036*	0,95 *0.038*	0,95 *0.038*	1,1 *0.048*
K5	218.19-125T-T3-MD08 MP3000	0,90 *0.036*	0,85 *0.034*	0,85 *0.034*	1,0 *0.040*
K6	218.19-125T-T3-MD08 MP3000	0,90 *0.036*	0,95 *0.038*	0,95 *0.038*	1,1 *0.048*
K7	218.19-125T-T3-MD08 MP3000	0,90 *0.036*	0,85 *0.034*	0,85 *0.034*	1,0 *0.040*
S1	218.19-125T-T3-M07 MP3501	0,55 *0.022*	0,60 *0.024*	0,60 *0.024*	0,70 *0.028*
S2	218.19-125T-T3-M07 MP3501	0,55 *0.022*	0,60 *0.024*	0,60 *0.024*	0,70 *0.028*
S3	218.19-125T-T3-M07 MP3501	0,55 *0.022*	0,55 *0.022*	0,55 *0.022*	0,65 *0.026*
S11	218.19-125T-T3-M07 MS2050	0,65 *0.026*	0,70 *0.028*	0,70 *0.028*	0,85 *0.034*
S12	218.19-125T-T3-M07 MS2050	0,65 *0.026*	0,70 *0.028*	0,70 *0.028*	0,85 *0.034*
S13	218.19-125T-T3-M07 MS2050	0,55 *0.022*	0,60 *0.024*	0,60 *0.024*	0,70 *0.028*
H5	218.19-125T-T3-MD10 MH1000	0,55 *0.022*	0,75 *0.030*	0,75 *0.030*	0,85 *0.034*
H8	218.19-125T-T3-MD10 MH1000	0,50 *0.020*	0,55 *0.022*	0,55 *0.022*	0,65 *0.026*
H11	218.19-125T-T3-MD08 MP3000	0,55 *0.022*	0,60 *0.024*	0,60 *0.024*	0,70 *0.028*
H12	218.19-125T-T3-MD08 MP3000	0,50 *0.020*	0,44 *0.017*	0,44 *0.017*	0,55 *0.022*

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

R217/220.21-125 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	MH1000			F15M			F25M			F30M			MP3000			MS2050		
	100%	70%	30%	100%	70%	30%	100%	70%	30%	100%	70%	30%	100%	70%	30%	100%	70%	30%
P1	—	—	—	225	260	310	205	235	285	235	270	330	280	325	390	245	285	345
	—	—	—	*740*	*850*	*1025*	*670*	*770*	*940*	*770*	*890*	*1075*	*920*	*1075*	*1275*	*800*	*940*	*1125*
P2	—	—	—	215	250	305	200	230	280	230	265	310	270	315	370	240	275	325
	—	—	—	*710*	*820*	*1000*	*660*	*750*	*920*	*750*	*870*	*1025*	*890*	*1025*	*1225*	*790*	*900*	*1075*
P3	—	—	—	190	220	265	175	205	245	200	230	275	235	275	330	210	240	290
	—	—	—	*620*	*720*	*870*	*570*	*670*	*800*	*660*	*750*	*900*	*770*	*900*	*1075*	*690*	*790*	*950*
P4	—	—	—	170	195	235	155	180	215	175	205	245	210	240	290	185	215	255
	—	—	—	*560*	*640*	*770*	*510*	*590*	*710*	*570*	*670*	*800*	*690*	*790*	*950*	*610*	*710*	*840*
P5	195	225	270	160	185	225	150	170	205	170	200	235	205	235	280	180	205	245
	640	*740*	*890*	*520*	*610*	*740*	*490*	*560*	*670*	*560*	*660*	*770*	*670*	*770*	*920*	*590*	*670*	*800*
P6	220	255	305	180	210	250	165	190	230	190	220	265	230	265	315	200	230	275
	720	*840*	*1000*	*590*	*690*	*820*	*540*	*620*	*750*	*620*	*720*	*870*	*750*	*870*	*1025*	*660*	*750*	*900*
P7	205	240	285	170	195	235	155	180	215	180	210	250	215	250	295	190	220	260
	670	*790*	*940*	*560*	*640*	*770*	*510*	*590*	*710*	*590*	*690*	*820*	*710*	*820*	*970*	*620*	*720*	*850*
P8	195	225	270	160	185	225	150	170	205	170	195	230	200	230	275	175	205	245
	640	*740*	*890*	*520*	*610*	*740*	*490*	*560*	*670*	*560*	*640*	*750*	*660*	*750*	*900*	*570*	*670*	*800*
P11	200	230	280	165	190	230	150	175	210	175	205	240	210	240	290	185	215	255
	660	*750*	*920*	*540*	*620*	*750*	*490*	*570*	*690*	*570*	*670*	*790*	*690*	*790*	*950*	*610*	*710*	*840*
P12	135	155	185	—	—	—	105	120	140	115	135	160	140	160	190	120	140	165
	445	*510*	*610*	—	—	—	*345*	*395*	*460*	*375*	*445*	*520*	*460*	*520*	*620*	*395*	*460*	*540*
M1	—	—	—	—	—	—	—	—	—	185	215	250	205	235	280	195	225	265
	—	—	—	—	—	—	—	—	—	*610*	*710*	*820*	*670*	*770*	*920*	*640*	*740*	*870*
M2	—	—	—	—	—	—	—	—	—	155	180	210	170	195	235	160	185	220
	—	—	—	—	—	—	—	—	—	*510*	*590*	*690*	*560*	*640*	*770*	*520*	*610*	*720*
M3	—	—	—	—	—	—	—	—	—	125	145	170	140	160	190	130	150	180
	—	—	—	—	—	—	—	—	—	*410*	*475*	*560*	*460*	*520*	*620*	*425*	*490*	*590*
M4	—	—	—	—	—	—	—	—	—	100	115	130	110	125	145	105	120	140
	—	—	—	—	—	—	—	—	—	*330*	*375*	*425*	*360*	*410*	*475*	*345*	*395*	*460*
M5	—	—	—	—	—	—	—	—	—	85	95	110	95	105	120	90	100	115
	—	—	—	—	—	—	—	—	—	*280*	*310*	*360*	*310*	*345*	*395*	*295*	*330*	*375*
K1	210	240	290	170	200	240	160	180	220	180	210	245	215	250	295	—	—	—
	690	*790*	*950*	*560*	*660*	*790*	*520*	*590*	*720*	*590*	*690*	*800*	*710*	*820*	*970*	—	—	—
K2	185	215	255	155	175	210	140	160	195	160	190	225	195	225	265	—	—	—
	610	*710*	*840*	*510*	*570*	*690*	*460*	*520*	*640*	*520*	*620*	*740*	*640*	*740*	*870*	—	—	—
K3	155	180	215	130	150	180	120	135	165	135	160	190	165	190	225	—	—	—
	510	*590*	*710*	*425*	*490*	*590*	*395*	*445*	*540*	*445*	*520*	*620*	*540*	*620*	*740*	—	—	—
K4	150	175	205	125	145	170	115	130	155	130	150	180	155	180	215	—	—	—
	490	*570*	*670*	*410*	*475*	*560*	*375*	*425*	*510*	*425*	*490*	*590*	*510*	*590*	*710*	—	—	—
K5	95	110	130	80	90	105	70	80	100	80	90	110	95	110	130	—	—	—
	310	*360*	*425*	*260*	*295*	*345*	*230*	*260*	*330*	*260*	*295*	*360*	*310*	*360*	*425*	—	—	—
K6	130	150	185	110	125	150	100	115	140	115	135	160	135	160	190	—	—	—
	425	*490*	*610*	*360*	*410*	*490*	*330*	*375*	*460*	*375*	*445*	*520*	*445*	*520*	*620*	—	—	—
K7	120	140	165	100	115	135	90	105	125	100	120	140	120	140	170	—	—	—
	395	*460*	*540*	*330*	*375*	*445*	*295*	*345*	*410*	*330*	*395*	*460*	*395*	*460*	*560*	—	—	—
N1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
N2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
N3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
N11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S1	—	—	—	—	—	—	—	—	—	47	55	60	50	60	70	49	55	65
	—	—	—	—	—	—	—	—	—	*155*	*180*	*195*	*165*	*195*	*230*	*160*	*180*	*215*
S2	—	—	—	—	—	—	—	—	—	38	43	49	42	47	55	40	45	50
	—	—	—	—	—	—	—	—	—	*125*	*140*	*160*	*140*	*155*	*180*	*130*	*150*	*165*
S3	—	—	—	—	—	—	—	—	—	33	37	43	36	41	48	34	39	45
	—	—	—	—	—	—	—	—	—	*110*	*120*	*140*	*120*	*135*	*155*	*110*	*130*	*150*
S11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	65	75	90
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	*215*	*245*	*295*
S12	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	47	55	65
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	*155*	*180*	*215*
S13	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	28	31	36
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	*90*	*100*	*120*
H5	48	55	65	40	46	55	—	—	—	41	47	55	46	55	60	—	—	—
	155	*180*	*215*	*130*	*150*	*180*	—	—	—	*135*	*155*	*180*	*150*	*180*	*195*	—	—	—
H8	55	60	70	44	50	60	—	—	—	44	50	60	49	55	65	—	—	—
	180	*195*	*230*	*145*	*165*	*195*	—	—	—	*145*	*165*	*195*	*160*	*180*	*215*	—	—	—
H11	60	70	85	50	60	70	—	—	—	55	60	70	60	65	80	—	—	—
	195	*230*	*280*	*165*	*195*	*230*	—	—	—	*180*	*195*	*230*	*195*	*215*	*260*	—	—	—
H12	95	110	125	80	90	105	—	—	—	80	90	105	95	105	125	—	—	—
	310	*360*	*410*	*260*	*295*	*345*	—	—	—	*260*	*295*	*345*	*310*	*345*	*410*	—	—	—

R217/220.21-125 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	F40M			MP1501			MP2501			MS2500			MP3501			MM4500		
	100%	70%	30%	100%	70%	30%	100%	70%	30%	100%	70%	30%	100%	70%	30%	100%	70%	30%
P1	225 *740*	260 *850*	315 *1025*	350 *1150*	385 *1275*	455 *1500*	415 *1350*	460 *1500*	540 *1775*	320 *1050*	370 *1225*	450 *1475*	370 *1225*	410 *1350*	485 *1600*	180 *590*	210 *690*	255 *840*
P2	215 *710*	250 *820*	295 *970*	340 *1125*	375 *1225*	445 *1450*	405 *1325*	450 *1475*	510 *1675*	315 *1025*	360 *1175*	430 *1400*	360 *1175*	400 *1300*	460 *1500*	175 *570*	205 *670*	240 *790*
P3	190 *620*	220 *720*	265 *870*	300 *980*	335 *1100*	390 *1275*	355 *1175*	395 *1300*	455 *1500*	275 *900*	315 *1025*	380 *1250*	315 *1025*	350 *1150*	405 *1325*	155 *510*	180 *590*	215 *710*
P4	165 *540*	195 *640*	230 *750*	265 *870*	295 *970*	345 *1125*	310 *1025*	345 *1125*	400 *1300*	240 *790*	280 *920*	335 *1100*	280 *920*	310 *1025*	360 *1175*	135 *445*	155 *510*	185 *610*
P5	165 *540*	190 *620*	225 *740*	250 *820*	280 *920*	330 *1075*	305 *1000*	335 *1100*	390 *1275*	235 *770*	270 *890*	325 *1075*	270 *890*	300 *980*	345 *1125*	130 *425*	150 *490*	180 *590*
P6	180 *590*	210 *690*	250 *820*	285 *940*	315 *1025*	370 *1225*	340 *1125*	380 *1250*	435 *1425*	265 *870*	305 *1000*	360 *1175*	305 *1000*	340 *1125*	390 *1275*	150 *490*	170 *560*	205 *670*
P7	170 *560*	200 *660*	235 *770*	265 *870*	295 *970*	350 *1150*	320 *1050*	355 *1175*	410 *1350*	250 *820*	285 *940*	340 *1125*	285 *940*	320 *1050*	370 *1225*	140 *460*	160 *520*	190 *620*
P8	160 *520*	185 *610*	220 *720*	250 *820*	280 *920*	330 *1075*	295 *970*	330 *1075*	380 *1250*	230 *750*	265 *870*	320 *1050*	265 *870*	295 *970*	340 *1125*	130 *425*	150 *490*	180 *590*
P11	165 *540*	195 *640*	230 *750*	260 *850*	290 *950*	340 *1125*	310 *1025*	345 *1125*	400 *1300*	240 *790*	280 *920*	330 *1075*	280 *920*	310 *1025*	360 *1175*	135 *445*	155 *510*	185 *610*
P12	110 *360*	125 *410*	150 *490*	180 *590*	195 *640*	225 *740*	205 *670*	225 *740*	255 *840*	160 *520*	180 *590*	220 *720*	185 *610*	205 *670*	230 *750*	90 *295*	100 *330*	120 *395*
M1	175 *570*	205 *670*	240 *790*	— —	— —	— —	205 *670*	240 *790*	285 *940*	225 *740*	260 *850*	305 *1000*	195 *640*	225 *740*	265 *870*	150 *490*	175 *570*	205 *670*
M2	145 *475*	170 *560*	200 *660*	— —	— —	— —	175 *570*	200 *660*	240 *790*	185 *610*	215 *710*	260 *850*	160 *520*	185 *610*	220 *720*	125 *410*	145 *475*	175 *570*
M3	120 *395*	135 *445*	160 *520*	— —	— —	— —	140 *460*	160 *520*	190 *620*	155 *510*	175 *570*	205 *670*	130 *425*	150 *490*	180 *590*	105 *345*	120 *395*	140 *460*
M4	95 *310*	110 *360*	125 *410*	— —	— —	— —	115 *375*	130 *425*	150 *490*	125 *410*	140 *460*	160 *520*	105 *345*	120 *395*	140 *460*	85 *280*	95 *310*	110 *360*
M5	80 *260*	90 *295*	105 *345*	— —	— —	— —	95 *310*	105 *345*	125 *410*	105 *345*	115 *375*	135 *445*	90 *295*	100 *330*	115 *375*	70 *230*	80 *260*	90 *295*
K1	170 *560*	200 *660*	235 *770*	340 *1125*	380 *1250*	450 *1475*	405 *1325*	450 *1475*	520 *1700*	250 *820*	285 *940*	340 *1125*	365 *1200*	405 *1325*	465 *1525*	— —	— —	— —
K2	155 *510*	180 *590*	215 *710*	305 *1000*	340 *1125*	400 *1300*	365 *1200*	405 *1325*	470 *1550*	220 *720*	255 *840*	305 *1000*	330 *1075*	365 *1200*	420 *1375*	— —	— —	— —
K3	130 *425*	150 *490*	180 *590*	260 *850*	285 *940*	335 *1100*	310 *1025*	345 *1125*	395 *1300*	190 *620*	220 *720*	260 *850*	275 *900*	310 *1025*	355 *1175*	— —	— —	— —
K4	125 *410*	145 *475*	170 *560*	245 *800*	275 *900*	320 *1050*	295 *970*	330 *1075*	380 *1250*	180 *590*	210 *690*	245 *800*	265 *870*	295 *970*	340 *1125*	— —	— —	— —
K5	75 *245*	85 *280*	105 *345*	155 *510*	175 *570*	200 *660*	180 *590*	200 *660*	230 *750*	110 *360*	125 *410*	150 *490*	160 *520*	180 *590*	210 *690*	— —	— —	— —
K6	110 *360*	125 *410*	150 *490*	215 *710*	240 *790*	285 *940*	260 *850*	290 *950*	335 *1100*	160 *520*	185 *610*	220 *720*	235 *770*	260 *850*	300 *980*	— —	— —	— —
K7	95 *310*	110 *360*	135 *445*	200 *660*	220 *720*	255 *840*	230 *750*	255 *840*	295 *970*	140 *460*	160 *520*	195 *640*	205 *670*	230 *750*	265 *870*	— —	— —	— —
N1	1275 *4175*	1475 *4850*	1725 *5650*	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —
N2	520 *1700*	600 *1975*	700 *2300*	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —
N3	345 *1125*	400 *1300*	465 *1525*	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —
N11	395 *1300*	455 *1500*	530 *1750*	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —
S1	45 *150*	50 *165*	60 *195*	— —	— —	— —	— —	— —	— —	60 *195*	70 *230*	80 *260*	49 *160*	55 *180*	65 *215*	25 *80*	29 *95*	33 *110*
S2	36 *120*	41 *135*	47 *155*	— —	— —	— —	— —	— —	— —	48 *155*	55 *180*	65 *215*	40 *130*	45 *150*	50 *165*	20 *65*	23 *75*	27 *90*
S3	31 *100*	35 *115*	41 *135*	— —	— —	— —	— —	— —	— —	42 *140*	47 *155*	55 *180*	34 *110*	39 *130*	45 *150*	18 *60*	20 *65*	23 *75*
S11	60 *195*	70 *230*	80 *260*	— —	— —	— —	— —	— —	— —	80 *260*	95 *310*	110 *360*	65 *215*	75 *245*	90 *295*	35 *115*	39 *130*	47 *155*
S12	42 *140*	48 *155*	55 *180*	— —	— —	— —	— —	— —	— —	55 *180*	65 *215*	75 *245*	47 *155*	55 *180*	65 *215*	32 *105*	36 *120*	43 *140*
S13	25 *80*	28 *90*	33 *110*	— —	— —	— —	— —	— —	— —	34 *110*	38 *125*	44 *145*	28 *90*	31 *100*	36 *120*	19 *60*	21 *70*	25 *80*
H5	39 *130*	45 *150*	55 *180*	50 *165*	55 *180*	70 *230*	— —	— —	— —	50 *165*	60 *195*	70 *230*	45 *150*	50 *165*	60 *195*	— —	— —	— —
H8	42 *140*	48 *155*	55 *180*	55 *180*	60 *195*	70 *230*	— —	— —	— —	55 *180*	60 *195*	75 *245*	48 *155*	55 *180*	65 *215*	— —	— —	— —
H11	50 *165*	60 *195*	70 *230*	65 *215*	70 *230*	85 *280*	— —	— —	— —	65 *215*	75 *245*	90 *295*	60 *195*	65 *215*	80 *260*	— —	— —	— —
H12	75 *245*	85 *280*	100 *330*	95 *310*	110 *360*	130 *425*	— —	— —	— —	110 *360*	125 *410*	145 *475*	85 *280*	100 *330*	115 *375*	— —	— —	— —

R217/220.21-160 – Insert selection – mm/*Inch*

SMG		a_p	f_z		
			100%	70%	30%
P1	218.19-160T-04-M08 MP3501	1,6 *0.065*	0,85 *0.034*	0,85 *0.034*	1,0 *0.040*
P2	218.19-160T-04-M08 MP3501	1,6 *0.065*	0,85 *0.034*	0,85 *0.034*	1,0 *0.040*
P3	218.19-160T-04-M11 MP2501	1,6 *0.065*	1,1 *0.044*	1,1 *0.044*	1,3 *0.050*
P4	218.19-160T-04-M11 MP2501	1,6 *0.065*	1,1 *0.044*	1,1 *0.044*	1,3 *0.050*
P5	218.19-160T-04-M11 MP2501	1,6 *0.065*	1,1 *0.044*	1,1 *0.044*	1,3 *0.050*
P6	218.19-160T-04-M11 MP2501	1,6 *0.065*	1,1 *0.044*	1,1 *0.044*	1,3 *0.050*
P7	218.19-160T-04-M11 MP2501	1,6 *0.065*	1,1 *0.044*	1,1 *0.044*	1,3 *0.050*
P8	218.19-160T-04-M11 MP2501	1,6 *0.065*	1,1 *0.044*	1,1 *0.044*	1,3 *0.050*
P11	218.19-160T-04-M08 MP3501	1,6 *0.065*	0,75 *0.030*	0,75 *0.030*	0,95 *0.038*
P12	218.19-160T-04-M11 MP2501	1,3 *0.050*	0,85 *0.034*	0,85 *0.034*	1,0 *0.040*
M1	218.19-160T-04-M08 MS2050	1,6 *0.065*	0,85 *0.034*	0,85 *0.034*	1,0 *0.040*
M2	218.19-160T-04-M08 MS2050	1,6 *0.065*	0,80 *0.032*	0,80 *0.032*	0,95 *0.038*
M3	218.19-160T-04-M08 MS2050	1,3 *0.050*	0,70 *0.028*	0,70 *0.028*	0,85 *0.034*
M4	218.19-160T-04-M08 MP3501	0,95 *0.038*	0,70 *0.028*	0,70 *0.028*	0,80 *0.032*
M5	218.19-160T-04-M08 MP3501	0,95 *0.038*	0,70 *0.028*	0,70 *0.028*	0,80 *0.032*
K1	218.19-160T-04-MD11 MK2050	1,6 *0.065*	1,2 *0.048*	1,2 *0.048*	1,4 *0.055*
K2	218.19-160T-04-MD11 MK2050	1,6 *0.065*	1,1 *0.044*	1,1 *0.044*	1,3 *0.050*
K3	218.19-160T-04-MD11 MK2050	1,6 *0.065*	1,1 *0.044*	1,1 *0.044*	1,3 *0.050*
K4	218.19-160T-04-MD11 MK2050	1,6 *0.065*	1,1 *0.044*	1,1 *0.044*	1,3 *0.050*
K5	218.19-160T-04-MD11 MK2050	1,6 *0.065*	0,95 *0.038*	0,95 *0.038*	1,2 *0.048*
K6	218.19-160T-04-MD11 MK2050	1,6 *0.065*	1,1 *0.044*	1,1 *0.044*	1,3 *0.050*
K7	218.19-160T-04-MD11 MK2050	1,6 *0.065*	0,95 *0.038*	0,95 *0.038*	1,2 *0.048*
N1	218.19-160-04-E07 H25	1,6 *0.065*	0,95 *0.038*	0,95 *0.038*	1,2 *0.044*
N2	218.19-160-04-E07 H25	1,6 *0.065*	0,95 *0.038*	0,95 *0.038*	1,2 *0.044*
N3	218.19-160-04-E07 H25	1,6 *0.065*	0,95 *0.038*	0,95 *0.038*	1,2 *0.044*
N11	218.19-160-04-E07 H25	1,6 *0.065*	0,95 *0.038*	0,95 *0.038*	1,2 *0.044*
S1	218.19-160T-04-M08 MS2500	0,95 *0.038*	0,70 *0.028*	0,70 *0.028*	0,80 *0.032*
S2	218.19-160T-04-M08 MS2500	0,95 *0.038*	0,70 *0.028*	0,70 *0.028*	0,80 *0.032*
S3	218.19-160T-04-M08 MS2500	0,95 *0.038*	0,65 *0.026*	0,65 *0.026*	0,75 *0.030*
S11	218.19-160T-04-M08 MS2050	1,1 *0.044*	0,75 *0.030*	0,75 *0.030*	0,90 *0.036*
S12	218.19-160T-04-M08 MS2050	1,1 *0.044*	0,75 *0.030*	0,75 *0.030*	0,90 *0.036*
S13	218.19-160T-04-M08 MS2050	0,95 *0.038*	0,70 *0.028*	0,70 *0.028*	0,80 *0.032*
H5	218.19-160T-04-MD11 MH1000	1,0 *0.040*	0,80 *0.032*	0,80 *0.032*	0,95 *0.038*
H8	218.19-160T-04-MD11 MH1000	0,90 *0.036*	0,60 *0.024*	0,60 *0.024*	0,70 *0.028*
H11	218.19-160T-04-MD09 MP3000	1,0 *0.040*	0,65 *0.026*	0,65 *0.026*	0,75 *0.030*
H12	218.19-160T-04-MD09 MP3000	0,90 *0.036*	0,50 *0.020*	0,50 *0.020*	0,60 *0.024*

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

R217/220.21-160 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	MH1000			F15M			MK2050			F25M			F30M			MP3000			MS2050		
	100%	70%	30%	100%	70%	30%	100%	70%	30%	100%	70%	30%	100%	70%	30%	100%	70%	30%	100%	70%	30%
P1	—	—	—	215	255	305	235	275	330	235	280	335	225	265	320	245	285	335	235	280	335
	—	—	—	*710*	*840*	*1000*	*770*	*900*	*1075*	*770*	*920*	*1100*	*740*	*870*	*1050*	*800*	*940*	*1100*	*770*	*920*	*1100*
P2	—	—	—	210	245	300	230	265	320	230	270	325	220	260	310	230	275	325	230	270	325
	—	—	—	*690*	*800*	*980*	*750*	*870*	*1050*	*750*	*890*	*1075*	*720*	*850*	*1025*	*750*	*900*	*1075*	*750*	*890*	*1075*
P3	—	—	—	185	220	255	200	235	275	205	240	280	195	225	265	205	240	290	205	240	280
	—	—	—	*610*	*720*	*840*	*660*	*770*	*900*	*670*	*790*	*920*	*640*	*740*	*870*	*670*	*790*	*950*	*670*	*790*	*920*
P4	—	—	—	165	190	230	180	210	250	180	210	250	170	200	240	180	215	255	180	210	250
	—	—	—	*540*	*620*	*750*	*590*	*690*	*820*	*590*	*690*	*820*	*560*	*660*	*790*	*590*	*710*	*840*	*590*	*690*	*820*
P5	190	220	265	155	185	220	170	200	240	170	200	240	165	190	230	175	205	240	170	200	240
	620	*720*	*870*	*510*	*610*	*720*	*560*	*660*	*790*	*560*	*660*	*790*	*540*	*620*	*750*	*570*	*670*	*790*	*560*	*660*	*790*
P6	210	250	300	175	205	245	190	225	270	190	225	270	185	215	255	195	230	270	190	225	270
	690	*820*	*980*	*570*	*670*	*800*	*620*	*740*	*890*	*620*	*740*	*890*	*610*	*710*	*840*	*640*	*750*	*890*	*620*	*740*	*890*
P7	200	235	280	165	195	235	180	210	255	180	210	255	170	200	240	185	215	255	180	210	255
	660	*770*	*920*	*540*	*640*	*770*	*590*	*690*	*840*	*590*	*690*	*840*	*560*	*660*	*790*	*610*	*710*	*840*	*590*	*690*	*840*
P8	190	220	260	155	185	215	170	200	235	170	200	235	165	190	225	175	205	240	170	200	235
	620	*720*	*850*	*510*	*610*	*710*	*560*	*660*	*770*	*560*	*660*	*770*	*540*	*620*	*740*	*570*	*670*	*790*	*560*	*660*	*770*
P11	195	230	275	160	190	225	175	205	245	175	205	245	165	195	235	180	210	250	175	205	245
	640	*750*	*900*	*520*	*620*	*740*	*570*	*670*	*800*	*570*	*670*	*800*	*540*	*640*	*770*	*590*	*690*	*820*	*570*	*670*	*800*
P12	130	150	180	—	—	—	115	135	165	115	135	160	110	130	155	120	140	165	115	135	160
	425	*490*	*590*	—	—	—	*375*	*445*	*540*	*375*	*445*	*520*	*360*	*425*	*510*	*395*	*460*	*540*	*375*	*445*	*520*
M1	—	—	—	—	—	—	—	—	—	—	—	—	180	210	250	175	205	245	185	220	260
	—	—	—	—	—	—	—	—	—	—	—	—	*590*	*690*	*820*	*570*	*670*	*800*	*610*	*720*	*850*
M2	—	—	—	—	—	—	—	—	—	—	—	—	145	170	205	145	170	200	155	180	215
	—	—	—	—	—	—	—	—	—	—	—	—	*475*	*560*	*670*	*475*	*560*	*660*	*510*	*590*	*710*
M3	—	—	—	—	—	—	—	—	—	—	—	—	120	140	165	120	140	165	125	145	175
	—	—	—	—	—	—	—	—	—	—	—	—	*395*	*460*	*540*	*395*	*460*	*540*	*410*	*475*	*570*
M4	—	—	—	—	—	—	—	—	—	—	—	—	95	110	130	95	105	130	100	115	135
	—	—	—	—	—	—	—	—	—	—	—	—	*310*	*360*	*425*	*310*	*345*	*425*	*330*	*375*	*445*
M5	—	—	—	—	—	—	—	—	—	—	—	—	80	90	110	75	90	105	80	95	115
	—	—	—	—	—	—	—	—	—	—	—	—	*260*	*295*	*360*	*245*	*295*	*345*	*260*	*310*	*375*
K1	200	235	285	165	195	235	245	290	350	185	215	260	175	205	245	185	215	260	—	—	—
	660	*770*	*940*	*540*	*640*	*770*	*800*	*950*	*1150*	*610*	*710*	*850*	*570*	*670*	*800*	*610*	*710*	*850*	—	—	—
K2	180	210	255	150	175	210	220	255	310	160	190	225	155	180	215	165	195	230	—	—	—
	590	*690*	*840*	*490*	*570*	*690*	*720*	*840*	*1025*	*520*	*620*	*740*	*510*	*590*	*710*	*540*	*640*	*750*	—	—	—
K3	150	180	215	125	145	175	185	215	260	135	160	190	130	155	185	140	165	195	—	—	—
	490	*590*	*710*	*410*	*475*	*570*	*610*	*710*	*850*	*445*	*520*	*620*	*425*	*510*	*610*	*460*	*540*	*640*	—	—	—
K4	145	170	205	120	140	170	175	210	250	130	155	185	125	145	175	135	155	185	—	—	—
	475	*560*	*670*	*395*	*460*	*560*	*570*	*690*	*820*	*425*	*510*	*610*	*410*	*475*	*570*	*445*	*510*	*610*	—	—	—
K5	90	105	125	75	85	105	110	125	150	80	95	115	75	90	105	80	95	115	—	—	—
	295	*345*	*410*	*245*	*280*	*345*	*360*	*410*	*490*	*260*	*310*	*375*	*245*	*295*	*345*	*260*	*310*	*375*	—	—	—
K6	130	150	180	105	125	150	155	185	220	115	135	160	110	130	155	115	140	165	—	—	—
	425	*490*	*590*	*345*	*410*	*490*	*510*	*610*	*720*	*375*	*445*	*520*	*360*	*425*	*510*	*375*	*460*	*540*	—	—	—
K7	115	135	160	95	110	130	140	165	195	105	120	145	100	115	135	105	125	150	—	—	—
	375	*445*	*520*	*310*	*360*	*425*	*460*	*540*	*640*	*345*	*395*	*475*	*330*	*375*	*445*	*345*	*410*	*490*	—	—	—
N1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1375	1600	1900	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	*4500*	*5250*	*6225*	—	—	—
N2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	550	650	770	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	*1800*	*2125*	*2525*	—	—	—
N3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	370	435	510	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	*1225*	*1425*	*1675*	—	—	—
N11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	420	495	580	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	*1375*	*1625*	*1900*	—	—	—
S1	—	—	—	—	—	—	—	—	—	—	—	—	44	50	60	43	50	60	46	55	65
	—	—	—	—	—	—	—	—	—	—	—	—	*145*	*165*	*195*	*140*	*165*	*195*	*150*	*180*	*215*
S2	—	—	—	—	—	—	—	—	—	—	—	—	35	41	49	35	40	48	37	43	50
	—	—	—	—	—	—	—	—	—	—	—	—	*115*	*135*	*160*	*115*	*130*	*155*	*120*	*140*	*165*
S3	—	—	—	—	—	—	—	—	—	—	—	—	31	36	43	31	36	42	32	38	45
	—	—	—	—	—	—	—	—	—	—	—	—	*100*	*120*	*140*	*100*	*120*	*140*	*105*	*125*	*150*
S11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	60	70	85	65	75	90
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	*195*	*230*	*280*	*215*	*245*	*295*
S12	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	42	48	60	44	50	60
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	*140*	*155*	*195*	*145*	*165*	*195*
S13	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	24	28	34	26	30	36
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	*80*	*90*	*110*	*85*	*100*	*120*
H5	45	50	60	37	43	50	—	—	—	40	46	55	38	44	50	39	45	55	—	—	—
	150	*165*	*195*	*120*	*140*	*165*	—	—	—	*130*	*150*	*180*	*125*	*145*	*165*	*130*	*150*	*180*	—	—	—
H8	48	55	65	40	46	55	—	—	—	43	50	60	41	48	55	42	48	55	—	—	—
	155	*180*	*215*	*130*	*150*	*180*	—	—	—	*140*	*165*	*195*	*135*	*155*	*180*	*140*	*155*	*180*	—	—	—
H11	55	65	80	48	55	65	—	—	—	50	60	70	48	55	65	49	55	65	—	—	—
	180	*215*	*260*	*155*	*180*	*215*	—	—	—	*165*	*195*	*230*	*155*	*180*	*215*	*160*	*180*	*215*	—	—	—
H12	85	100	120	70	85	100	—	—	—	75	90	105	75	85	100	80	95	110	—	—	—
	280	*330*	*395*	*230*	*280*	*330*	—	—	—	*245*	*295*	*345*	*245*	*280*	*330*	*260*	*310*	*360*	—	—	—

R217/220.21-160 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	F40M			MP2050			MP1501			MP2501			MS2500			MP3501			MM4500		
	100%	70%	30%	100%	70%	30%	100%	70%	30%	100%	70%	30%	100%	70%	30%	100%	70%	30%	100%	70%	30%
P1	215	255	305	280	330	395	370	415	495	360	405	480	310	365	435	355	400	470	175	205	245
	710	*840*	*1000*	*920*	*1075*	*1300*	*1225*	*1350*	*1625*	*1175*	*1325*	*1575*	*1025*	*1200*	*1425*	*1175*	*1300*	*1550*	*570*	*670*	*800*
P2	210	245	295	270	320	385	360	405	480	350	390	470	305	355	425	345	390	455	170	200	240
	690	*800*	*970*	*890*	*1050*	*1275*	*1175*	*1325*	*1575*	*1150*	*1275*	*1550*	*1000*	*1175*	*1400*	*1125*	*1275*	*1500*	*560*	*660*	*790*
P3	185	215	255	240	280	330	320	360	415	310	350	405	265	310	365	305	340	390	150	175	205
	610	*710*	*840*	*790*	*920*	*1075*	*1050*	*1175*	*1350*	*1025*	*1150*	*1325*	*870*	*1025*	*1200*	*1000*	*1125*	*1275*	*490*	*570*	*670*
P4	160	190	225	210	245	295	285	320	375	275	310	365	235	275	325	270	300	350	130	155	185
	520	*620*	*740*	*690*	*800*	*970*	*940*	*1050*	*1225*	*900*	*1025*	*1200*	*770*	*900*	*1075*	*890*	*980*	*1150*	*425*	*510*	*610*
P5	155	180	215	200	235	280	270	305	360	260	295	350	225	260	310	255	285	335	125	145	175
	510	*590*	*710*	*660*	*770*	*920*	*890*	*1000*	*1175*	*850*	*970*	*1150*	*740*	*850*	*1025*	*840*	*940*	*1100*	*410*	*475*	*570*
P6	175	205	245	225	265	315	305	340	400	295	330	390	250	295	350	285	320	375	140	165	195
	570	*670*	*800*	*740*	*870*	*1025*	*1000*	*1125*	*1300*	*970*	*1075*	*1275*	*820*	*970*	*1150*	*940*	*1050*	*1225*	*460*	*540*	*640*
P7	165	190	230	215	250	300	285	325	380	275	310	370	235	275	330	270	305	355	135	155	185
	540	*620*	*750*	*710*	*820*	*980*	*940*	*1075*	*1250*	*900*	*1025*	*1225*	*770*	*900*	*1075*	*890*	*1000*	*1175*	*445*	*510*	*610*
P8	155	180	215	200	235	275	270	305	350	260	295	340	225	260	310	255	285	330	125	145	175
	510	*590*	*710*	*660*	*770*	*900*	*890*	*1000*	*1150*	*850*	*970*	*1125*	*740*	*850*	*1025*	*840*	*940*	*1075*	*410*	*475*	*570*
P11	160	185	225	205	240	290	280	315	370	270	305	360	230	270	320	265	295	345	130	150	180
	520	*610*	*740*	*670*	*790*	*950*	*920*	*1025*	*1225*	*890*	*1000*	*1175*	*750*	*890*	*1050*	*870*	*970*	*1125*	*425*	*490*	*590*
P12	105	125	145	135	160	190	190	210	245	185	205	240	150	180	210	175	200	225	85	100	120
	345	*410*	*475*	*445*	*520*	*620*	*620*	*690*	*800*	*610*	*670*	*790*	*490*	*590*	*690*	*570*	*660*	*740*	*280*	*330*	*395*
M1	170	200	240	195	230	275	—	—	—	185	215	260	215	255	305	185	220	260	145	170	205
	560	*660*	*790*	*640*	*750*	*900*	—	—	—	*610*	*710*	*850*	*710*	*840*	*1000*	*610*	*720*	*850*	*475*	*560*	*670*
M2	140	165	195	160	190	225	—	—	—	155	180	215	180	210	250	155	180	215	120	140	170
	460	*540*	*640*	*520*	*620*	*740*	—	—	—	*510*	*590*	*710*	*590*	*690*	*820*	*510*	*590*	*710*	*395*	*460*	*560*
M3	115	130	155	130	150	180	—	—	—	125	145	175	145	170	200	125	145	175	100	115	135
	375	*425*	*510*	*425*	*490*	*590*	—	—	—	*410*	*475*	*570*	*475*	*560*	*660*	*410*	*475*	*570*	*330*	*375*	*445*
M4	90	105	125	105	120	140	—	—	—	100	115	140	115	130	160	100	115	135	75	90	105
	295	*345*	*410*	*345*	*395*	*460*	—	—	—	*330*	*375*	*460*	*375*	*425*	*520*	*330*	*375*	*445*	*245*	*295*	*345*
M5	75	85	105	85	100	120	—	—	—	80	95	115	95	110	130	80	95	115	65	75	90
	245	*280*	*345*	*280*	*330*	*395*	—	—	—	*260*	*310*	*375*	*310*	*360*	*425*	*260*	*310*	*375*	*215*	*245*	*295*
K1	165	195	235	—	—	—	365	410	485	350	395	475	240	280	335	350	390	460	—	—	—
	540	*640*	*770*	—	—	—	*1200*	*1350*	*1600*	*1150*	*1300*	*1550*	*790*	*920*	*1100*	*1150*	*1275*	*1500*	—	—	—
K2	145	170	205	—	—	—	325	370	435	315	355	420	210	250	295	310	345	405	—	—	—
	475	*560*	*670*	—	—	—	*1075*	*1225*	*1425*	*1025*	*1175*	*1375*	*690*	*820*	*970*	*1025*	*1125*	*1325*	—	—	—
K3	125	145	175	—	—	—	275	310	365	270	300	355	180	210	250	260	295	345	—	—	—
	410	*475*	*570*	—	—	—	*900*	*1025*	*1200*	*890*	*980*	*1175*	*590*	*690*	*820*	*850*	*970*	*1125*	—	—	—
K4	120	140	165	—	—	—	265	295	350	255	290	340	170	200	240	250	280	325	—	—	—
	395	*460*	*540*	—	—	—	*870*	*970*	*1150*	*840*	*950*	*1125*	*560*	*660*	*790*	*820*	*920*	*1075*	—	—	—
K5	75	85	100	—	—	—	165	185	215	160	180	210	105	125	145	155	175	200	—	—	—
	245	*280*	*330*	—	—	—	*540*	*610*	*710*	*520*	*590*	*690*	*345*	*410*	*475*	*510*	*570*	*660*	—	—	—
K6	105	125	145	—	—	—	230	260	310	225	255	300	150	175	210	220	245	290	—	—	—
	345	*410*	*475*	—	—	—	*750*	*850*	*1025*	*740*	*840*	*980*	*490*	*570*	*690*	*720*	*800*	*950*	—	—	—
K7	95	110	130	—	—	—	210	235	275	205	230	265	135	160	190	200	225	260	—	—	—
	310	*360*	*425*	—	—	—	*690*	*770*	*900*	*670*	*750*	*870*	*445*	*520*	*620*	*660*	*740*	*850*	—	—	—
N1	1225	1425	1700	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	4025	*4675*	*5575*	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
N2	490	570	690	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	1600	*1875*	*2275*	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
N3	325	385	460	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	1075	*1275*	*1500*	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
N11	375	440	530	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	1225	*1450*	*1750*	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S1	42	48	60	50	60	70	—	—	—	—	—	—	55	65	75	46	55	65	24	27	33
	140	*155*	*195*	*165*	*195*	*230*	—	—	—	—	—	—	*180*	*215*	*245*	*150*	*180*	*215*	*80*	*90*	*110*
S2	33	39	46	40	47	55	—	—	—	—	—	—	45	50	60	37	43	50	19	22	26
	110	*130*	*150*	*130*	*155*	*180*	—	—	—	—	—	—	*150*	*165*	*195*	*120*	*140*	*165*	*60*	*70*	*85*
S3	29	34	41	36	41	49	—	—	—	—	—	—	39	46	55	32	38	45	17	19	23
	95	*110*	*135*	*120*	*135*	*160*	—	—	—	—	—	—	*130*	*150*	*180*	*105*	*125*	*150*	*55*	*60*	*75*
S11	60	65	80	70	80	95	—	—	—	—	—	—	75	90	105	65	75	90	33	38	45
	195	*215*	*260*	*230*	*260*	*310*	—	—	—	—	—	—	*245*	*295*	*345*	*215*	*245*	*295*	*110*	*125*	*150*
S12	40	46	55	48	55	65	—	—	—	—	—	—	55	60	75	44	50	60	30	35	42
	130	*150*	*180*	*155*	*180*	*215*	—	—	—	—	—	—	*180*	*195*	*245*	*145*	*165*	*195*	*100*	*115*	*140*
S13	23	27	32	28	33	39	—	—	—	—	—	—	31	36	43	26	30	36	18	20	24
	75	*90*	*105*	*90*	*110*	*130*	—	—	—	—	—	—	*100*	*120*	*140*	*85*	*100*	*120*	*60*	*65*	*80*
H5	36	42	50	—	—	—	50	60	70	—	—	—	47	55	65	42	48	55	—	—	—
	120	*140*	*165*	—	—	—	*165*	*195*	*230*	—	—	—	*155*	*180*	*215*	*140*	*155*	*180*	—	—	—
H8	39	45	55	—	—	—	55	65	75	—	—	—	50	60	70	45	50	60	—	—	—
	130	*150*	*180*	—	—	—	*180*	*215*	*245*	—	—	—	*165*	*195*	*230*	*150*	*165*	*195*	—	—	—
H11	46	55	65	55	60	75	65	75	90	—	—	—	60	70	85	55	60	75	—	—	—
	150	*180*	*215*	*180*	*195*	*245*	*215*	*245*	*295*	—	—	—	*195*	*230*	*280*	*180*	*195*	*245*	—	—	—
H12	70	80	95	90	105	125	100	115	135	—	—	—	100	115	135	80	95	110	—	—	—
	230	*260*	*310*	*295*	*345*	*410*	*330*	*375*	*445*	—	—	—	*330*	*375*	*445*	*260*	*310*	*360*	—	—	—



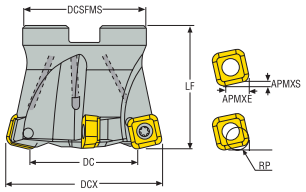
R220.21 (SC12) HIGH FEED

High feed mills for high-torque machines, for SCET12 inserts, 4-cutting edge, single sided. These cutter bodies with fixed pockets are optimised for strong horizontal machines. SCET120630T is our 6.35-mm thick insert range with a corner radius of 3.0 mm.

- Cutter range 50-160 mm (2 - 4 inch)
- Max depth of cut 1,5 mm (.059 inch)
- Heavy roughing operations
- Large, powerful machines

R220.21-SC – Metric

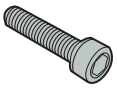
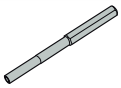




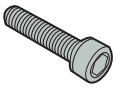
- For insert selection and cutting data recommendations, see page(s) 591-592
- For complete insert programme, see page(s) 821
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	DCX	ZEFP	APMXS	APMXE	DCB	DCSFMS	LF	RP	RMPX°	Cmin	Cmax	Weight	RPMX	Insert
			mm	mm		mm	mm	mm	mm	mm	mm		mm	mm	kg		
R220.21-0050-SC12.4A	02600275	Arbor	31,0	50,0	4	1,5	9,0	22,0	42,0	40,0	4,4	2,3	81,0	98,0	0,3	10700	SC..12
R220.21-0050-SC12.5A	03136672	Arbor	31,0	50,0	5	1,5	9,0	22,0	42,0	40,0	4,4	2,1	81,0	98,0	0,3	10700	SC..12
R220.21-0052-SC12.4A	02585965	Arbor	33,0	52,0	4	1,5	9,0	22,0	42,0	40,0	4,4	2,2	85,0	102,0	0,3	10500	SC..12
R220.21-0052-SC12.5A	03138188	Arbor	33,0	52,0	5	1,5	9,0	22,0	47,0	40,0	4,5	2,0	85,0	102,0	0,4	10500	SC..12
R220.21-0063-SC12.5A	02682416	Arbor	44,0	63,0	5	1,5	9,0	27,0	50,0	50,0	4,4	0,9	107,0	124,0	0,6	9600	SC..12
R220.21-0080-SC12.5A	02585971	Arbor	61,0	80,0	5	1,5	9,0	27,0	62,0	50,0	4,4	0,8	141,0	158,0	1,0	8500	SC..12
R220.21-0080-SC12.6A	02682419	Arbor	61,0	80,0	6	1,5	9,0	27,0	62,0	50,0	4,4	0,8	141,0	158,0	1,0	8500	SC..12
R220.21-0080-SC12.7A	03136674	Arbor	61,1	80,0	7	1,5	9,0	27,0	62,0	50,0	4,4	0,8	141,1	158,0	1,1	8500	SC..12
R220.21-0100-SC12.5A	02585973	Arbor	81,0	100,0	5	1,5	9,0	32,0	77,0	50,0	4,4	0,75	181,0	198,0	1,6	7600	SC..12
R220.21-0100-SC12.7A	02682422	Arbor	81,0	100,0	7	1,5	9,0	32,0	77,0	50,0	4,4	0,75	181,0	198,0	1,6	7600	SC..12
R220.21-0125-SC12.6A	02585974	Arbor	106,0	125,0	6	1,5	9,0	40,0	90,0	63,0	4,4	0,7	231,0	248,0	2,5	6800	SC..12
R220.21-8160-SC12.7	02585975	Arbor	141,0	160,0	7	1,5	9,0	40,0	90,0	63,0	4,4	0,7	–	–	3,8	6000	SC..12

Spare Parts, included in delivery

For cutter	Arbor screw	Insert key	Insert screw
			
R220.21-0050-0052	220.17-692M	H6B-T20P	C45011-T20P
R220.21-0050-0052	220.17-692M	1/4HEX-T20PX50	C45011-T20P
R220.21-0063-0066	MC6S12X35	H6B-T20P	C45011-T20P
R220.21-0080	MC6S12X35	H6B-T20PL	C45011-T20P
R220.21-0100	MLC6S16X35	H6B-T20PL	C45011-T20P
R220.21-0125	–	H6B-T20PL	C45011-T20P
R220.21-8160	–	1/4HEX-T20PX90	C45011-T20P

Accessories

For cutter	Adjustable Torque key	Adjustable Torque key 2	Arbor screw	Insert clamping torque	Torque key
					
R220.21-0050-0125	–	–	–	5.0NM	T00-20P50
R220.21-0050-0125	1/4HEX-S-HANDLE-0.8-5.0NM	–	–	5.0NM	T00-20P50
R220.21-8160	1/4HEX-S-HANDLE-0.8-5.0NM	1/4HEX-T-HANDLE-5.0-14.0NM	MC6S12X40	5.0NM	T00-20P50

Torque and fixed keys, see page 872

R220.21-SC12 – Insert selection – mm/*Inch*

SMG		a_p	f_z		
			100%	70%	30%
P1	SCET120630T-M14 MP3501	1,5 *0.060*	0,95 *0.038*	0,95 *0.038*	1,1 *0.044*
P2	SCET120630T-M14 MP3501	1,5 *0.060*	0,95 *0.038*	0,95 *0.038*	1,1 *0.044*
P3	SCET120630T-M14 MP2501	1,5 *0.060*	0,90 *0.036*	0,90 *0.036*	1,1 *0.044*
P4	SCET120630T-M14 MP2501	1,5 *0.060*	0,90 *0.036*	0,90 *0.036*	1,1 *0.044*
P5	SCET120630T-M14 MP2501	1,5 *0.060*	0,85 *0.034*	0,85 *0.034*	1,0 *0.040*
P6	SCET120630T-M14 MP2501	1,5 *0.060*	0,85 *0.034*	0,85 *0.034*	1,0 *0.040*
P7	SCET120630T-M14 MP2501	1,5 *0.060*	0,85 *0.034*	0,85 *0.034*	1,0 *0.040*
P8	SCET120630T-M14 MP2501	1,5 *0.060*	0,90 *0.036*	0,90 *0.036*	1,1 *0.044*
P11	SCET120630T-M14 MP3501	1,5 *0.060*	0,85 *0.034*	0,85 *0.034*	1,0 *0.040*
P12	SCET120630T-M14 MP2501	1,5 *0.060*	0,60 *0.024*	0,60 *0.024*	0,70 *0.028*
M1	SCET120630T-M14 MS2050	1,5 *0.060*	0,95 *0.038*	0,95 *0.038*	1,1 *0.044*
M2	SCET120630T-M14 MS2050	1,5 *0.060*	0,85 *0.034*	0,85 *0.034*	1,0 *0.040*
M3	SCET120630T-M14 MS2050	1,5 *0.060*	0,70 *0.028*	0,70 *0.028*	0,85 *0.034*
M4	SCET120630T-M14 MP3501	1,5 *0.060*	0,60 *0.024*	0,60 *0.024*	0,75 *0.030*
M5	SCET120630T-M14 MP3501	1,5 *0.060*	0,60 *0.024*	0,60 *0.024*	0,75 *0.030*
K1	SCET120630T-MD16 MP1501	1,5 *0.060*	1,1 *0.044*	1,1 *0.044*	1,3 *0.050*
K2	SCET120630T-MD16 MP1501	1,5 *0.060*	1,0 *0.040*	1,0 *0.040*	1,2 *0.048*
K3	SCET120630T-MD16 MP1501	1,5 *0.060*	1,0 *0.040*	1,0 *0.040*	1,2 *0.048*
K4	SCET120630T-MD16 MP1501	1,5 *0.060*	1,0 *0.040*	1,0 *0.040*	1,2 *0.048*
K5	SCET120630T-MD16 MP1501	1,5 *0.060*	0,90 *0.036*	0,90 *0.036*	1,1 *0.044*
K6	SCET120630T-MD16 MP1501	1,5 *0.060*	1,0 *0.040*	1,0 *0.040*	1,2 *0.048*
K7	SCET120630T-MD16 MP1501	1,5 *0.060*	0,90 *0.036*	0,90 *0.036*	1,1 *0.044*
S1	SCET120630T-M14 MS2500	1,5 *0.060*	0,60 *0.024*	0,60 *0.024*	0,75 *0.030*
S2	SCET120630T-M14 MS2500	1,5 *0.060*	0,60 *0.024*	0,60 *0.024*	0,75 *0.030*
S3	SCET120630T-M14 MS2500	1,5 *0.060*	0,55 *0.022*	0,55 *0.022*	0,70 *0.028*
S11	SCET120630T-M14 MS2050	1,5 *0.060*	0,70 *0.028*	0,70 *0.028*	0,85 *0.034*
S12	SCET120630T-M14 MS2050	1,5 *0.060*	0,70 *0.028*	0,70 *0.028*	0,85 *0.034*
S13	SCET120630T-M14 MS2050	1,5 *0.060*	0,60 *0.024*	0,60 *0.024*	0,75 *0.030*
H5	SCET120630T-MD16 MP3501	1,5 *0.060*	0,70 *0.028*	0,70 *0.028*	0,80 *0.032*
H8	SCET120630T-MD16 MP3501	1,5 *0.060*	0,50 *0.020*	0,50 *0.020*	0,60 *0.024*
H11	SCET120630T-MD16 MP1501	1,5 *0.060*	0,70 *0.028*	0,70 *0.028*	0,80 *0.032*
H12	SCET120630T-MD16 MP1501	1,5 *0.060*	0,50 *0.020*	0,50 *0.020*	0,60 *0.024*

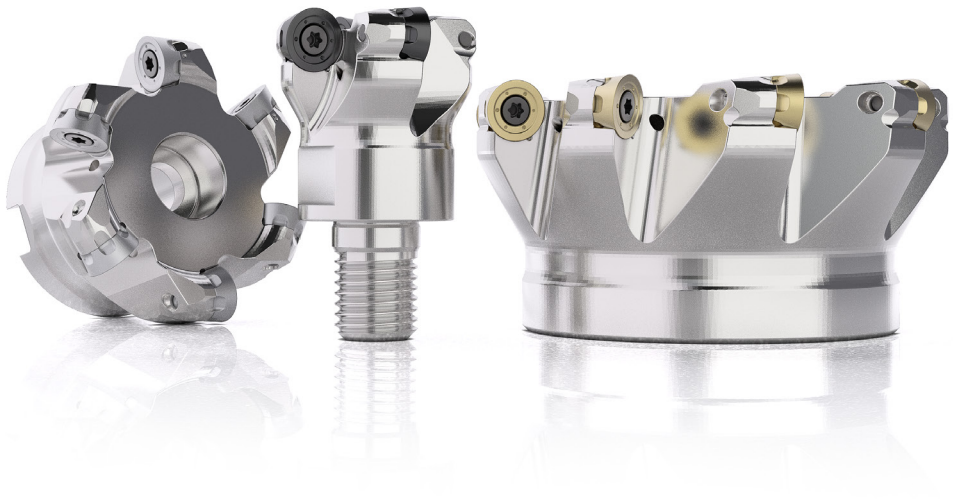
SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

R220.21-SC12 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	MK2050			MP3000			MS2050			F40M		
	100%	70%	30%	100%	70%	30%	100%	70%	30%	100%	70%	30%
P1	275 *900*	320 *1050*	390 *1275*	265 *870*	305 *1000*	375 *1225*	235 *770*	270 *890*	330 *1075*	215 *710*	245 *800*	300 *980*
P2	265 *870*	305 *1000*	370 *1225*	255 *840*	295 *970*	355 *1175*	225 *740*	260 *850*	315 *1025*	205 *670*	235 *770*	285 *940*
P3	230 *750*	265 *870*	330 *1075*	225 *740*	255 *840*	315 *1025*	195 *640*	225 *740*	280 *920*	180 *590*	205 *670*	250 *820*
P4	210 *690*	240 *790*	290 *950*	200 *660*	230 *750*	280 *920*	175 *570*	200 *660*	245 *800*	160 *520*	185 *610*	220 *720*
P5	200 *660*	230 *750*	285 *940*	190 *620*	220 *720*	275 *900*	170 *560*	195 *640*	240 *790*	155 *510*	175 *570*	220 *720*
P6	225 *740*	255 *840*	320 *1050*	215 *710*	245 *800*	305 *1000*	190 *620*	215 *710*	270 *890*	170 *560*	195 *640*	245 *800*
P7	210 *690*	240 *790*	300 *980*	200 *660*	230 *750*	290 *950*	180 *590*	205 *670*	255 *840*	160 *520*	185 *610*	230 *750*
P8	195 *640*	225 *740*	275 *900*	190 *620*	215 *710*	265 *870*	165 *540*	190 *620*	235 *770*	150 *490*	170 *560*	210 *690*
P11	205 *670*	235 *770*	290 *950*	195 *640*	225 *740*	280 *920*	175 *570*	200 *660*	245 *800*	155 *510*	180 *590*	225 *740*
P12	135 *445*	155 *510*	190 *620*	130 *425*	145 *475*	180 *590*	115 *375*	130 *425*	160 *520*	105 *345*	120 *395*	145 *475*
M1	— —	— —	— —	190 *620*	220 *720*	265 *870*	180 *590*	210 *690*	255 *840*	165 *540*	190 *620*	230 *750*
M2	— —	— —	— —	160 *520*	185 *610*	230 *750*	150 *490*	175 *570*	215 *710*	135 *445*	160 *520*	195 *640*
M3	— —	— —	— —	130 *425*	145 *475*	180 *590*	120 *395*	135 *445*	170 *560*	110 *360*	125 *410*	155 *510*
M4	— —	— —	— —	100 *330*	115 *375*	140 *460*	95 *310*	105 *345*	135 *445*	85 *280*	95 *310*	120 *395*
M5	— —	— —	— —	85 *280*	95 *310*	115 *375*	80 *260*	90 *295*	110 *360*	70 *230*	80 *260*	100 *330*
K1	285 *940*	330 *1075*	400 *1300*	200 *660*	230 *750*	285 *940*	— —	— —	— —	160 *520*	185 *610*	225 *740*
K2	255 *840*	295 *970*	365 *1200*	180 *590*	210 *690*	260 *850*	— —	— —	— —	145 *475*	165 *540*	205 *670*
K3	215 *710*	250 *820*	310 *1025*	155 *510*	175 *570*	220 *720*	— —	— —	— —	125 *410*	140 *460*	175 *570*
K4	205 *670*	240 *790*	295 *970*	145 *475*	170 *560*	210 *690*	— —	— —	— —	115 *375*	135 *445*	165 *540*
K5	130 *425*	145 *475*	180 *590*	90 *295*	105 *345*	125 *410*	— —	— —	— —	70 *230*	85 *280*	100 *330*
K6	185 *610*	210 *690*	260 *850*	130 *425*	150 *490*	185 *610*	— —	— —	— —	105 *345*	120 *395*	145 *475*
K7	165 *540*	190 *620*	230 *750*	115 *375*	135 *445*	160 *520*	— —	— —	— —	90 *295*	105 *345*	130 *425*
N1	— —	— —	— —	— —	— —	— —	— —	— —	— —	1175 *3850*	1350 *4425*	1675 *5500*
N2	— —	— —	— —	— —	— —	— —	— —	— —	— —	475 *1550*	550 *1800*	670 *2200*
N3	— —	— —	— —	— —	— —	— —	— —	— —	— —	320 *1050*	365 *1200*	450 *1475*
N11	— —	— —	— —	— —	— —	— —	— —	— —	— —	365 *1200*	415 *1350*	510 *1675*
S1	— —	— —	— —	46 *150*	55 *180*	65 *215*	44 *145*	50 *165*	60 *195*	40 *130*	45 *150*	55 *180*
S2	— —	— —	— —	37 *120*	42 *140*	55 *180*	35 *115*	40 *130*	50 *165*	32 *105*	37 *120*	45 *150*
S3	— —	— —	— —	33 *110*	37 *120*	46 *150*	31 *100*	36 *120*	44 *145*	28 *90*	32 *105*	40 *130*
S11	— —	— —	— —	— —	— —	— —	60 *195*	70 *230*	85 *280*	55 *180*	65 *215*	80 *260*
S12	— —	— —	— —	— —	— —	— —	42 *140*	48 *155*	60 *195*	38 *125*	44 *145*	55 *180*
S13	— —	— —	— —	— —	— —	— —	25 *80*	28 *90*	35 *115*	23 *75*	26 *85*	32 *105*
H5	— —	— —	— —	40 *130*	46 *150*	55 *180*	— —	— —	— —	34 *110*	39 *130*	48 *155*
H8	— —	— —	— —	43 *140*	49 *160*	60 *195*	— —	— —	— —	36 *120*	41 *135*	50 *165*
H11	— —	— —	— —	50 *165*	60 *195*	70 *230*	— —	— —	— —	44 *145*	50 *165*	60 *195*
H12	— —	— —	— —	80 *260*	95 *310*	115 *375*	— —	— —	— —	65 *215*	75 *245*	90 *295*
H21	— —	— —	— —	43 *140*	49 *160*	60 *195*	— —	— —	— —	36 *120*	41 *135*	50 *165*

R220.21-SC12 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	MP1501			MP2501			MS2500			MP3501		
	100%	70%	30%	100%	70%	30%	100%	70%	30%	100%	70%	30%
P1	385 *1275*	425 *1400*	500 *1650*	370 *1225*	410 *1350*	490 *1600*	305 *1000*	355 *1175*	435 *1425*	350 *1150*	385 *1275*	465 *1525*
P2	375 *1225*	410 *1350*	490 *1600*	365 *1200*	400 *1300*	480 *1575*	295 *970*	340 *1125*	410 *1350*	335 *1100*	370 *1225*	440 *1450*
P3	320 *1050*	355 *1175*	435 *1425*	310 *1025*	345 *1125*	425 *1400*	255 *840*	295 *970*	365 *1200*	295 *970*	325 *1075*	390 *1275*
P4	295 *970*	325 *1075*	380 *1250*	285 *940*	315 *1025*	375 *1225*	230 *750*	265 *870*	320 *1050*	265 *870*	290 *950*	345 *1125*
P5	280 *920*	310 *1025*	365 *1200*	270 *890*	300 *980*	355 *1175*	220 *720*	250 *820*	315 *1025*	250 *820*	275 *900*	340 *1125*
P6	315 *1025*	345 *1125*	410 *1350*	305 *1000*	335 *1100*	400 *1300*	245 *800*	285 *940*	355 *1175*	285 *940*	310 *1025*	380 *1250*
P7	295 *970*	325 *1075*	385 *1275*	290 *950*	315 *1025*	375 *1225*	235 *770*	265 *870*	335 *1100*	265 *870*	295 *970*	360 *1175*
P8	270 *890*	300 *980*	365 *1200*	260 *850*	290 *950*	355 *1175*	215 *710*	250 *820*	305 *1000*	245 *800*	270 *890*	325 *1075*
P11	290 *950*	315 *1025*	375 *1225*	280 *920*	310 *1025*	365 *1200*	225 *740*	260 *850*	325 *1075*	260 *850*	285 *940*	350 *1150*
P12	190 *620*	205 *670*	245 *800*	185 *610*	200 *660*	240 *790*	150 *490*	170 *560*	210 *690*	175 *570*	190 *620*	225 *740*
M1	— —	— —	— —	190 *620*	215 *710*	265 *870*	210 *690*	240 *790*	295 *970*	180 *590*	210 *690*	255 *840*
M2	— —	— —	— —	155 *510*	180 *590*	220 *720*	175 *570*	200 *660*	250 *820*	150 *490*	175 *570*	215 *710*
M3	— —	— —	— —	125 *410*	140 *460*	180 *590*	140 *460*	160 *520*	200 *660*	120 *395*	135 *445*	170 *560*
M4	— —	— —	— —	95 *310*	110 *360*	140 *460*	110 *360*	125 *410*	155 *510*	95 *310*	105 *345*	135 *445*
M5	— —	— —	— —	80 *260*	90 *295*	115 *375*	90 *295*	105 *345*	130 *425*	80 *260*	90 *295*	110 *360*
K1	375 *1225*	415 *1350*	495 *1625*	365 *1200*	405 *1325*	485 *1600*	235 *770*	270 *890*	325 *1075*	335 *1100*	370 *1225*	445 *1450*
K2	340 *1125*	375 *1225*	440 *1450*	330 *1075*	360 *1175*	430 *1400*	210 *690*	240 *790*	300 *980*	305 *1000*	335 *1100*	410 *1350*
K3	285 *940*	315 *1025*	375 *1225*	280 *920*	305 *1000*	365 *1200*	175 *570*	205 *670*	255 *840*	260 *850*	285 *940*	345 *1125*
K4	275 *900*	300 *980*	355 *1175*	265 *870*	295 *970*	350 *1150*	170 *560*	195 *640*	240 *790*	245 *800*	270 *890*	330 *1075*
K5	165 *540*	185 *610*	220 *720*	160 *520*	180 *590*	215 *710*	105 *345*	120 *395*	145 *475*	155 *510*	170 *560*	200 *660*
K6	240 *790*	265 *870*	315 *1025*	235 *770*	260 *850*	305 *1000*	150 *490*	170 *560*	210 *690*	215 *710*	240 *790*	290 *950*
K7	210 *690*	240 *790*	280 *920*	205 *670*	230 *750*	275 *900*	135 *445*	155 *510*	185 *610*	195 *640*	215 *710*	255 *840*
N1	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —
N2	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —
N3	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —
N11	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —
S1	— —	— —	— —	— —	— —	— —	55 *180*	60 *195*	75 *245*	44 *145*	50 *165*	60 *195*
S2	— —	— —	— —	— —	— —	— —	43 *140*	49 *160*	60 *195*	35 *115*	40 *130*	50 *165*
S3	— —	— —	— —	— —	— —	— —	38 *125*	43 *140*	55 *180*	31 *100*	36 *120*	44 *145*
S11	— —	— —	— —	— —	— —	— —	75 *245*	85 *280*	105 *345*	60 *195*	70 *230*	85 *280*
S12	— —	— —	— —	— —	— —	— —	50 *165*	60 *195*	75 *245*	42 *140*	48 *155*	60 *195*
S13	— —	— —	— —	— —	— —	— —	30 *100*	34 *110*	42 *140*	25 *80*	28 *90*	35 *115*
H5	49 *160*	55 *180*	70 *230*	— —	— —	— —	45 *150*	50 *165*	65 *215*	40 *130*	45 *150*	55 *180*
H8	50 *165*	60 *195*	75 *245*	— —	— —	— —	47 *155*	55 *180*	65 *215*	42 *140*	48 *155*	60 *195*
H11	65 *215*	70 *230*	90 *295*	— —	— —	— —	55 *180*	65 *215*	80 *260*	50 *165*	55 *180*	70 *230*
H12	95 *310*	105 *345*	135 *445*	— —	— —	— —	95 *310*	105 *345*	135 *445*	75 *245*	85 *280*	105 *345*
H21	50 *165*	60 *195*	75 *245*	— —	— —	— —	47 *155*	55 *180*	65 *215*	42 *140*	48 *155*	60 *195*

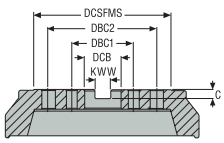


Code keys metric and inch

R	217	.	29	-	16	16	.	0	-	04	.	2	.	140	A
1	2		3		4	5		6		7		8		9	10

R	217	.	29l	-	01.00	-	0	-	06	.	2	A
1	2		3		4		6		7		8	9

1.	2.	3.
R = Right hand rotation Cx = For Seco-Capto	217 = With shank 220 = For arbor	Cutter system
4.	**5. (Not for inch designation)**	**6.**
Shank diameter (connecting thread diameter for Combimaster)	Outer cutting diameter/ball nose type = cutting diameter	Shank type RE = Combimaster 0. = Cylindrical 3. = Weldon
7.	**8.**	**9.**
Max. axial cutting depth	No. of teeth	Setting length (for the shank for combimaster)
10.		
A = Through coolant supply E = Solid carbide shank		



Dimensions in mm					
DCB	DCSFMS	DBC1	DBC2	KWW	C
16	30-35	–	–	8,4	5,6
22	42-47	–	–	10,4	6,3
27	48-62	–	–	12,4	7
32	60-90	–	–	14,4	8
40	90-130	66,7	–	16,4	9
60	130-270	101,6	177,8	25,7	14

Dimensions in inch					
DCB	DCSFMS	DBC1	DBC2	KWW	C
0.500	*1.181 - 1.378*			*0.258*	*0.165*
0.750	*1.378 - 1.850*	–	–	*0.321*	*0.193*
1.000	*1.803 - 2.441*	–	–	*0.382*	*0.224*
1.250	*2.250 - 3.031*	–	–	*0.508*	*0.287*
1.500	*2.750 - 3.543*	–	–	*0.630*	*0.382*
2.000	*4.331*	–	–	*0.756*	*0.445*
2.500	*5.118 - 6.299 (8.858)*	*4.000*	*(7.000)*	*1.000*	*0.551*

For a more exact DCSFMS and DCB measurement, see each product table.

Selection – Metric

Cutter	Insert	Material suitability						Corner radius (mm)				No. of cutting edges	Diameters (mm) available and max depth of cut (mm)								See page
		P	M	K	N	S	H						12	16	20	25	30	32	40	50	
R218.20	218.20-060	■	■	■	◩	■	-	6,0	■	□	◩	2	10								664, 665
	218.20-080	■	■	■	◩	■	◩	8,0	■	◩	◩	2		14							
	218.20-100	■	■	■	◩	■	◩	10,0	■	■	◩	2			18						
	218.20-125	■	■	■	◩	■	◩	12,5	■	■	◩	2				22					
	218.20-150	■	■	■	◩	■	◩	15,0	◩	■	◩	2					27				
	218.20-160	■	■	■	◩	■	◩	16,0	◩	■	◩	2						28			
	218.20-200	■	■	■	◩	■	-	20,0	□	■	◩	2							35		
	218.20-250	■	■	■	◩	■	-	25,0	□	■	◩	2								44	
R218.20 long cutting edge	218.20-150 / SPMT10	■	■	■	◩	■	◩	15,0	◩	■	◩	2/4					44				
	218.20-160 / SPMT10	■	■	■	◩	■	◩	16,0	◩	■	◩	2/4						54			
	218.20-200 / SC..12	■	■	■	◩	■	-	20,0	□	■	◩	2/4							60		
	218.20-250 / SC..12	■	■	■	◩	■	-	25,0	□	■	◩	2/4								70	

1st choice	■	High speed machine with low power/torque		x indicates the maximum depth of cut
Alternative choice	◩	Strong stable machine with rigid connecion		x
Possible choice	□	Unstable condition suitability		
Not recommended	-			

Selection – Metric

Cutter	Insert	Material suitability						Corner radius (mm)				No. of cutting edges	Diameters (mm) available and max depth of cut (mm)							See page
		P	M	K	N	S	H						16	20	25	30	32	40	50	
R218.19	218.19-080/SPMX06	■	◩	■	◩	■	◩	8,0	■	◩	■	3/4	12 17							694
	218.19-100/SPMX07	■	◩	■	◩	■	◩	10,0	■	■	■	3/4		16 21						
	218.19-125/SPMX09	■	◩	■	◩	■	◩	16,0	■	■	■	3/4			26					
	218.19-160/SPMT10	■	◩	■	◩	■	◩	16,0	◩	■	■	3/4					31 38			
R218.19 HFA	218.19-125	■	■	■	◩	■	◩	12,5	■	■	■	3			12					696
	218.19-160	■	■	■	◩	■	◩	16,0	◩	■	■	3					16			
	218.19-200	■	■	■	◩	■	□	20,0	□	■	■	3						20		

1st choice	■	High speed machine with low power/torque		x indicates the maximum depth of cut	x
Alternative choice	◩	Strong stable machine with rigid connecion			
Possible choice	□	Unstable condition suitability			
Not recommended	-				

Selection – inch

Cutter	Insert	Material suitability						Corner radius (inch)				No. of cutting edges	Diameters (inch) available and max depth of cut (inch)							See page
		P	M	K	N	S	H						0.50	0.63	0.75	1.00	1.25	1.50	2.00	
R218.20	218.20-0.250	■	■	■	◩	■	-	0.250	■	□	◩	2	0.433							664, 665
	218.20-080	■	■	■	◩	■	◩	0.315	■	◩	◩	2			0.669					
	218.20-0.375	■	■	■	◩	■	◩	0.375	■	■	◩	2					1.102			
	218.20-125	■	■	■	◩	■	◩	0.492	■	■	◩	2							1.732	
	218.20-160	■	■	■	◩	■	◩	0.630	◩	■	◩	2					2.126			
	218.20-0.750	■	■	■	◩	■	◩	0.750	◩	■	◩	2							2.756	
	218.20-250	■	■	■	◩	■	-		□	■	◩	2		0.551						
R218.20 long cutting edge	218.20-125 / SPMT10	■	■	■	◩	■	◩	0.630	◩	■	◩	2/4				0.866				
	218.20-160 / SPMT10	■	■	■	◩	■	◩		◩	■	◩	2/4						1.339		
	218.20-0.750 / SC..12	■	■	■	◩	■	-	0.750	□	■	◩	2/4				1.772				
	218.20-250 / SC..12	■	■	■	◩	■	-	0.984	□	■	◩	2/4						2.362		

1st choice	■	High speed machine with low power/torque	x indicates the maximum depth of cut	x
Alternative choice	◩	Strong stable machine with rigid connecion		
Possible choice	□	Unstable condition suitability		
Not recommended	-			

Selection – Inch

Cutter	Insert	Material suitability						Corner radius (inch)				No. of cutting edges	Diameters (inch) available and max depth of cut (inch)							See page
		P	M	K	N	S	H						0.50	0.63	0.75	1.00	1.25	1.50	2.00	
R218.19	218.19-100/SPMX07 	■	◩	■	◩	■	◩	0.394	■	■	■	3/4			0.835					694
	218.19-125/SPMX09 	■	◩	■	◩	■	◩	0.492	■	■	■	3/4				1.063				
R218.19 HFA	218.19-125 	■	■	■	◩	■	◩		■	■	■	3								696
	218.19-160 	■	■	■	◩	■	◩		◩	■	■	3								
	218.19-200 	■	■	■	◩	■	□		□	■	■	3								

1st choice	■	High speed machine with low power/torque		x indicates the maximum depth of cut	x
Alternative choice	◩	Strong stable machine with rigid connecion			
Possible choice	□	Unstable condition suitability			
Not recommended	-				

Selection – Metric

Insert	a_p max	a_p rec.	Material suitability									
			P	M	K	N	S	H				
Round 5	2,5	1	■	◩	■	□	■	■	■	◩	■	□
Round 6	3	1	■	■	■	■	◩	■	■	◩	■	□
Round 7	3,5	1,5	■	◩	■	■	◩	■	■	◩	■	□
Round 8	4	1,5	■	■	■	■	■	■	■	◩	■	◩
Round 10	5	2	■	■	■	■	■	■	■	■	■	◩
Round 12	6	3	■	■	■	■	■	■	□	■	■	◩
Round 16	8	5	■	■	■	-	■	◩	-	■	■	◩
Round 20	10	6	■	■	■	-	■	□	-	■	■	◩
Round 12 R217/220.28	6	3	■	■	■	□	■	◩	□	■	□	◩

■ 1st choice
□ Alternative choice
◩ Possible choice

High speed machine with low power/torque
Strong stable machine with rigid connecion
Not recommended -

Unstable condition suitability
Ramping ability
Plunging ability

a_p max = Maximum depth of cut possible
a_p rec. = Recommended depth of cut for optimal result

Selection – Metric

Insert	Applica-tion	Cutter diameter available (mm)/number of teeth																											See page
		10	12	15	16	20	25	27	32	35	40	42	44	50	52	63	66	80	83	84	92	100	112	125	137	160	200	250	
Round 5		2	3	4		5																							606
Round 6			2		3	4	5		6	7	8																		610
Round 7					3	4	5																						615
Round 8						2	3							5															618
					2	3	4		5		6			7															
Round 10											4			4		6													623
							2		4		5	5																	
					1	2	3	3	5	5	6	6		6	7	8													
Round 12										3	3		4	4	4	5		6		6			7		8				631
														5	5	6	6	7			7								
							2		3	4	4	5		6		7		8				9		11					
Round 16																4	5	5		5		6		6		7			641, 642
									2		3			4	4	5/6	6	7				8		10		10			
Round 20																		4	4			5		5		6			650
							1				2			3		4		5				6		7			8	9	
Round 12														5	5	6	7	8				10							656, 657
R217/220.28									3		4			6		8						12							

x — x indicates number of teeth (first choice)

x — x indicates number of teeth

Coarse pitch-troubleshooter for unstable conditions and long overhang

Normal pitch-alternative choice

Close pitch-basic choice for productivity

Selection – Inch

Insert	a_p max	a_p rec.	Material suitability									
			P	M	K	N	S	H				
Round 5	0.059	0.039	■	◩	■	□	■	■	■	◩	■	□
Round 6	0.118	0.04	■	■	■	■	◩	■	■	◩	■	□
Round 7	0.138	0.059	■	◩	■	■	◩	■	■	◩	■	□
Round 8	0.158	0.059	■	■	■	■	■	■	■	◩	■	◩
Round 10	0.197	0.079	■	■	■	■	■	■	■	■	■	◩
Round 12	0.236	0.118	■	■	■	■	■	■	□	■	■	◩
Round 16	0.315	0.197	■	■	■	-	■	◩	-	■	■	◩
Round 19	0.374	0.160	■	■	■	-	■	□	-	■	■	◩
Round 20	0.394	0.236	■	■	■	-	■	□	-	■	■	◩
Round 12 R217/220.28	0.236	0.118	■	■	■	□	■	◩	□	■	□	◩

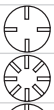
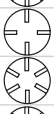
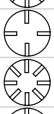
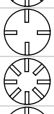
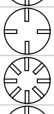
1st choice	■
Alternative choice	□
Possible choice	◩

High speed machine with low power/torque	
Strong stable machine with rigid connecion	
Not recommended	-

Unstable condition suitability	
Ramping ability	
Plunging ability	

a_p max = Maximum depth of cut possible
a_p rec. = Recommended depth of cut for optimal result

Selection – Inch

Insert	Application	Cutter diameter available (inch)/number of teeth										See page
		0.75	1.00	1.25	1.50	2.00	2.50	3.00	4.00	5.00	6.00	
Round 5												606
Round 6		4	5	6								610
Round 7												615
Round 8												618
Round 10			3	4	5	6						623
Round 12			2	3	4	(4/5)	(6/7)	(6/7)	(7/9)		8	631
Round 16						4	5	6	7			641, 642
Round 19							4	6	5	7		650
									5	9		650
Round 20						3	4	4	5			650
Round 12												656, 657
R217/220.28				3	4	(5/6)	7	8	(10/12)			

x — x indicates number of teeth (first choice)

x — x indicates number of teeth

 Coarse pitch-troubleshooter for unstable conditions and long overhang

 Normal pitch-alternative choice

 Close pitch-basic choice for productivity

Selection – Metric

Cutter	Insert	Material suitability						Corner radius (mm)				No. of cutting edges	Diameters (mm) available and max depth of cut (mm)									See page
		P	M	K	N	S	H						16	20	25	32	40	50	63	80	100	
R217/220.97	R217/220.97-XP08				■			0,4/0,8/ 1,6/2,0/ 2,4/3,1	■	■	■	2	2	2/3	3/4							714
	R217/220.97-XP12				■			0,4/0,8/ 2,0/2,4/ 3,1/4,0	■	■	■	2			2	2/3	3	4				718
	R217/220.97-VP22				■			0,5/0,8/ 1,6/2,0/ 2,4/3,1/ 4,0/4,8/6,3		■	■	2				2	2	2/3	3/4	4	5	722

1st choice	■	High speed machine with low power/torque	x indicates the maximum depth of cut	x
Alternative choice	◩	Strong stable machine with rigid connecion		
Possible choice	□	Unstable condition suitability		
Not recommended	-			

Selection – inch

Cutter	Insert	Material suitability						Corner radius (inch)				No. of cutting edges	Diameters (inch) available and max depth of cut (inch)									See page
		P	M	K	N	S	H						0.63	0.08	1.00	1.25	1.50	2.00	2.50	3.00	4.00	
R217/220.97	R217/220.97-XP08				■			0.016/0.031/ 0.063/0.079/ 0.094/0.122	■	■	■	2	2	2	3							714
	R217/220.97-XP12				■			0.016/0.031/ 0.079/0.094/ 0.122/0.157	■	■	■	2				2	2	(2/3)	4	4	5	718
	R217/220.97-VP22				■			0.020/0.031/ 0.063/0.079/ 0.094/0.122/		■	■	2			2	3	3	(3/4)				722

1st choice	■	High speed machine with low power/torque	x indicates the maximum depth of cut	x
Alternative choice	◩	Strong stable machine with rigid connecion		
Possible choice	□	Unstable condition suitability		
Not recommended	-			



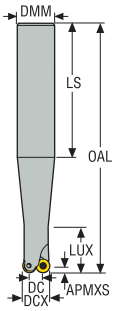
R217/220.29 ROUND INSERT CUTTERS

Our comprehensive range of round insert cutters, R217/220.29, is ideal for semi-finishing and roughing in all copy milling applications and materials.

- Insert size 05, cutter range 10-20mm
- Insert size 06, cutter range 12-40mm (0.75 - 1.25 inch)
- Insert size 07, cutter range 16-25mm
- Insert size 08, cutter range 16-50mm
- Insert size 3/4, cutter range (2.5 - 5 inch)
- Insert size 10, cutter range 16-63mm (1 - 2.0 inch)
- Insert size 12, cutter range 25-137mm (1 - 6 inch)
- Insert size 16, cutter range 32-160mm (2.0 - 4.0 inch)
- Insert size 20, cutter range 25-250mm (2 - 3 inch)

R217.29-025 – Metric





- For insert selection and cutting data recommendations, see page(s) 608-609
- For complete insert programme, see page(s) 817
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	DCX	ZEFP	APMXS	DMM	LS	OAL	LUX	RMPX°	Cmin	Cmax	RPMX	Weight	Insert
			mm	mm		mm	mm	mm	mm	mm		mm	mm		kg	
R217.29-1010.0-025.2.090E	02495669	Cylindrical	5,0	10,0	2	2,5	10,0	100,0	130,0	30,0	90,0	15,0	18,0	75000	0,2	RDH.0501

Spare Parts, included in delivery

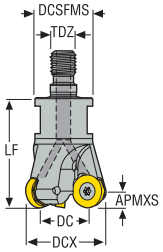
For cutter	Insert key	Insert screw
		
R217.29-..	H4B-T06P	C02035-T06P

Accessories

For cutter	Insert clamping torque	Torque key
		
R217.29-..	0.5NM	T00-06P05

Torque and fixed keys, see page 872

R217.29-025 – Metric





- For insert selection and cutting data recommendations, see page(s) 608-609
- For complete insert programme, see page(s) 817
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	DCX	ZEFP	APMXS	TDZ	DCSFMS	LF	RMPX°	Cmin	Cmax	RPMX	Weight	Insert
			mm	mm		mm		mm	mm		mm	mm		kg	
R217.29-0612.RE-025.3A	02642920	Combimaster	7,0	12,0	3	2,5	M6	11,0	18,0	13,9	19,0	22,0	65000	0,1	RDH.0501
R217.29-0812.RE-025.3A	02495672	Combimaster	7,0	12,0	3	2,5	M8	13,5	20,0	13,9	19,0	22,0	65000	0,1	RDH.0501
R217.29-0815.RE-025.4A	02495675	Combimaster	10,0	15,0	4	2,5	M8	13,5	20,0	8,4	25,0	28,0	60000	0,1	RDH.0501
R217.29-1020.RE-025.5A	02643352	Combimaster	15,0	20,0	5	2,5	M10	18,0	23,0	5,0	35,0	38,0	50000	0,1	RDH.0501

For Combimaster Shanks, see Machining Navigator Tooling System

Spare Parts, included in delivery

For cutter	Insert key	Insert screw
		
R217.29-..	H4B-T06P	C02035-T06P

Accessories

For cutter	Insert clamping torque	Torque key
		
R217.29-..	0.5NM	T00-06P05

Torque and fixed keys, see page 872

R217.29-025 – Insert selection – mm/*Inch*

SMG		a_p	f_z			
			100%	70%	30%	10%
P1	RDHW0501M0-MD01 F40M	1,0 *0.040*	0,095 *0.0038*	0,095 *0.0038*	0,11 *0.0044*	0,18 *0.0070*
P2	RDHW0501M0-MD01 F40M	1,0 *0.040*	0,095 *0.0038*	0,095 *0.0038*	0,11 *0.0044*	0,18 *0.0070*
P3	RDHW0501M0-MD01 F40M	1,0 *0.040*	0,090 *0.0036*	0,090 *0.0036*	0,11 *0.0044*	0,17 *0.0065*
P4	RDHW0501M0-MD01 MP3000	1,0 *0.040*	0,090 *0.0036*	0,090 *0.0036*	0,10 *0.0040*	0,17 *0.0065*
P5	RDHW0501M0-MD01 MP3000	1,0 *0.040*	0,090 *0.0036*	0,090 *0.0036*	0,10 *0.0040*	0,16 *0.0065*
P6	RDHW0501M0-MD01 MP3000	1,0 *0.040*	0,085 *0.0034*	0,085 *0.0034*	0,10 *0.0040*	0,16 *0.0065*
P7	RDHW0501M0-MD01 MP3000	1,0 *0.040*	0,085 *0.0034*	0,085 *0.0034*	0,10 *0.0040*	0,16 *0.0065*
P8	RDHW0501M0-MD01 MP3000	1,0 *0.040*	0,090 *0.0036*	0,090 *0.0036*	0,11 *0.0044*	0,17 *0.0065*
P11	RDHW0501M0-MD01 MP3000	1,0 *0.040*	0,085 *0.0034*	0,085 *0.0034*	0,10 *0.0040*	0,16 *0.0065*
P12	RDHW0501M0-MD01 MP3000	0,80 *0.032*	0,065 *0.0026*	0,065 *0.0026*	0,075 *0.0030*	0,12 *0.0048*
M1	RDHW0501M0-MD01 F40M	1,0 *0.040*	0,095 *0.0038*	0,095 *0.0038*	0,11 *0.0044*	0,18 *0.0070*
M2	RDHW0501M0-MD01 F40M	1,0 *0.040*	0,090 *0.0036*	0,090 *0.0036*	0,10 *0.0040*	0,16 *0.0065*
M3	RDHW0501M0-MD01 F40M	0,80 *0.032*	0,080 *0.0032*	0,080 *0.0032*	0,090 *0.0036*	0,14 *0.0055*
M4	RDHW0501M0-MD01 F40M	0,60 *0.024*	0,080 *0.0032*	0,080 *0.0032*	0,090 *0.0036*	0,14 *0.0055*
M5	RDHW0501M0-MD01 F40M	0,60 *0.024*	0,080 *0.0032*	0,080 *0.0032*	0,090 *0.0036*	0,14 *0.0055*
K1	RDHW0501M0-MD01 MP3000	1,0 *0.040*	0,095 *0.0038*	0,095 *0.0038*	0,11 *0.0044*	0,18 *0.0070*
K2	RDHW0501M0-MD01 MP3000	1,0 *0.040*	0,090 *0.0036*	0,090 *0.0036*	0,10 *0.0040*	0,16 *0.0065*
K3	RDHW0501M0-MD01 MP3000	1,0 *0.040*	0,090 *0.0036*	0,090 *0.0036*	0,10 *0.0040*	0,16 *0.0065*
K4	RDHW0501M0-MD01 MP3000	1,0 *0.040*	0,090 *0.0036*	0,090 *0.0036*	0,10 *0.0040*	0,16 *0.0065*
K5	RDHW0501M0-MD01 MP3000	1,0 *0.040*	0,080 *0.0032*	0,080 *0.0032*	0,090 *0.0036*	0,15 *0.0060*
K6	RDHW0501M0-MD01 MP3000	1,0 *0.040*	0,090 *0.0036*	0,090 *0.0036*	0,10 *0.0040*	0,16 *0.0065*
K7	RDHW0501M0-MD01 MP3000	1,0 *0.040*	0,080 *0.0032*	0,080 *0.0032*	0,090 *0.0036*	0,15 *0.0060*
N1	RDHW0501M0-MD01 F40M	1,0 *0.040*	0,12 *0.0048*	0,12 *0.0048*	0,14 *0.0055*	0,22 *0.0085*
N2	RDHW0501M0-MD01 F40M	1,0 *0.040*	0,12 *0.0048*	0,12 *0.0048*	0,14 *0.0055*	0,22 *0.0085*
N3	RDHW0501M0-MD01 F40M	1,0 *0.040*	0,12 *0.0048*	0,12 *0.0048*	0,14 *0.0055*	0,22 *0.0085*
N11	RDHW0501M0-MD01 F40M	1,0 *0.040*	0,12 *0.0048*	0,12 *0.0048*	0,14 *0.0055*	0,22 *0.0085*
S1	RDHW0501M0-MD01 F40M	0,60 *0.024*	0,080 *0.0032*	0,080 *0.0032*	0,090 *0.0036*	0,14 *0.0055*
S2	RDHW0501M0-MD01 F40M	0,60 *0.024*	0,080 *0.0032*	0,080 *0.0032*	0,090 *0.0036*	0,14 *0.0055*
S3	RDHW0501M0-MD01 F40M	0,60 *0.024*	0,075 *0.0030*	0,075 *0.0030*	0,085 *0.0034*	0,13 *0.0050*
S11	RDHW0501M0-MD01 F40M	0,70 *0.028*	0,085 *0.0034*	0,085 *0.0034*	0,095 *0.0038*	0,15 *0.0060*
S12	RDHW0501M0-MD01 F40M	0,70 *0.028*	0,085 *0.0034*	0,085 *0.0034*	0,095 *0.0038*	0,15 *0.0060*
S13	RDHW0501M0-MD01 F40M	0,60 *0.024*	0,080 *0.0032*	0,080 *0.0032*	0,090 *0.0036*	0,14 *0.0055*
H5	RDHW0501M0-MD01 MP3000	0,80 *0.032*	0,065 *0.0026*	0,065 *0.0026*	0,075 *0.0030*	0,12 *0.0048*
H8	RDHW0501M0-MD01 MP3000	0,70 *0.028*	0,055 *0.0022*	0,055 *0.0022*	0,065 *0.0026*	0,10 *0.0040*
H11	RDHW0501M0-MD01 MP3000	0,80 *0.032*	0,065 *0.0026*	0,065 *0.0026*	0,075 *0.0030*	0,12 *0.0048*
H12	RDHW0501M0-MD01 F40M	0,70 *0.028*	0,055 *0.0022*	0,055 *0.0022*	0,065 *0.0026*	0,10 *0.0040*
H21	RDHW0501M0-MD01 MP3000	0,70 *0.028*	0,055 *0.0022*	0,055 *0.0022*	0,065 *0.0026*	0,10 *0.0040*

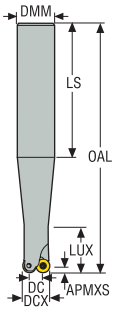
SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

R217/220.29-025 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	MP3000				F40M			
	100%	70%	30%	10%	100%	70%	30%	10%
P1	360 *1175*	415 *1350*	485 *1600*	570 *1875*	285 *940*	330 *1075*	390 *1275*	455 *1500*
P2	350 *1150*	400 *1300*	475 *1550*	550 *1800*	280 *920*	320 *1050*	380 *1250*	440 *1450*
P3	300 *980*	350 *1150*	410 *1350*	480 *1575*	240 *790*	280 *920*	330 *1075*	385 *1275*
P4	265 *870*	305 *1000*	360 *1175*	420 *1375*	215 *710*	245 *800*	290 *950*	340 *1125*
P5	255 *840*	295 *970*	350 *1150*	405 *1325*	205 *670*	235 *770*	280 *920*	325 *1075*
P6	290 *950*	335 *1100*	390 *1275*	460 *1500*	230 *750*	265 *870*	315 *1025*	365 *1200*
P7	270 *890*	315 *1025*	370 *1225*	435 *1425*	220 *720*	250 *820*	295 *970*	345 *1125*
P8	255 *840*	295 *970*	345 *1125*	405 *1325*	205 *670*	235 *770*	275 *900*	325 *1075*
P11	265 *870*	305 *1000*	360 *1175*	420 *1375*	210 *690*	245 *800*	285 *940*	335 *1100*
P12	165 *540*	190 *620*	225 *740*	260 *850*	135 *445*	155 *510*	180 *590*	210 *690*
M1	260 *850*	300 *980*	355 *1175*	410 *1350*	225 *740*	260 *850*	305 *1000*	355 *1175*
M2	215 *710*	250 *820*	290 *950*	335 *1100*	185 *610*	215 *710*	250 *820*	290 *950*
M3	170 *560*	195 *640*	230 *750*	265 *870*	145 *475*	165 *540*	200 *660*	230 *750*
M4	130 *425*	150 *490*	175 *570*	205 *670*	110 *360*	125 *410*	150 *490*	175 *570*
M5	105 *345*	125 *410*	145 *475*	170 *560*	95 *310*	105 *345*	125 *410*	145 *475*
K1	275 *900*	320 *1050*	375 *1225*	435 *1425*	220 *720*	255 *840*	300 *980*	350 *1150*
K2	245 *800*	280 *920*	330 *1075*	385 *1275*	195 *640*	225 *740*	265 *870*	305 *1000*
K3	205 *670*	240 *790*	280 *920*	325 *1075*	165 *540*	190 *620*	225 *740*	260 *850*
K4	195 *640*	225 *740*	265 *870*	310 *1025*	160 *520*	180 *590*	215 *710*	245 *800*
K5	120 *395*	135 *445*	160 *520*	190 *620*	95 *310*	110 *360*	130 *425*	150 *490*
K6	175 *570*	200 *660*	235 *770*	270 *890*	140 *460*	160 *520*	190 *620*	220 *720*
K7	150 *490*	175 *570*	205 *670*	240 *790*	120 *395*	140 *460*	165 *540*	195 *640*
N1	2075 *6800*	2400 *7875*	2850 *9350*	3300 *10825*	1675 *5500*	1925 *6325*	2275 *7475*	2650 *8700*
N2	840 *2750*	970 *3175*	1150 *3775*	1325 *4350*	670 *2200*	780 *2550*	920 *3025*	1075 *3525*
N3	560 *1825*	650 *2125*	760 *2500*	890 *2925*	450 *1475*	520 *1700*	610 *2000*	710 *2325*
N11	640 *2100*	740 *2425*	870 *2850*	1025 *3375*	510 *1675*	590 *1925*	700 *2300*	810 *2650*
S1	60 *195*	70 *230*	80 *260*	95 *310*	50 *165*	60 *195*	70 *230*	80 *260*
S2	48 *155*	55 *180*	65 *215*	75 *245*	42 *140*	48 *155*	55 *180*	65 *215*
S3	42 *140*	48 *155*	55 *180*	65 *215*	36 *120*	42 *140*	49 *160*	60 *195*
S11	85 *280*	100 *330*	115 *375*	135 *445*	75 *245*	85 *280*	100 *330*	115 *375*
S12	60 *195*	70 *230*	80 *260*	95 *310*	50 *165*	60 *195*	70 *230*	80 *260*
S13	34 *110*	39 *130*	46 *150*	55 *180*	29 *95*	33 *110*	39 *130*	46 *150*
H5	50 *165*	60 *195*	70 *230*	80 *260*	44 *145*	50 *165*	60 *195*	70 *230*
H8	55 *180*	60 *195*	70 *230*	85 *280*	46 *150*	50 *165*	60 *195*	70 *230*
H11	65 *215*	75 *245*	90 *295*	105 *345*	55 *180*	65 *215*	75 *245*	90 *295*
H12	100 *330*	115 *375*	140 *460*	160 *520*	80 *260*	95 *310*	110 *360*	130 *425*

R217.29-03 – Metric





- For insert selection and cutting data recommendations, see page(s) 613-614
- For complete insert programme, see page(s) 817
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	DCX	ZEFP	APMXS	DMM	LS	OAL	LUX	RMPX°	Cmin	Cmax	RPMX	Weight	Insert
			mm	mm		mm	mm	mm	mm	mm		mm	mm		kg	
R217.29-1612.0-03.2.050	02427364	Cylindrical	6,0	12,0	2	3,0	16,0	60,0	110,0	20,0	90,0	18,0	22,0	32000	0,2	RD..06T1
R217.29-1212.0-03.2.070E	02427368	Cylindrical	6,0	12,0	2	3,0	12,0	80,0	130,0	50,0	90,0	18,0	22,0	32000	0,3	RD..06T1
R217.29-2016.0-03.3.070	02427371	Cylindrical	10,0	16,0	3	3,0	20,0	60,0	130,0	30,0	15,62	26,0	30,0	28800	0,4	RD..06T1
R217.29-1616.0-03.3.100E	02427379	Cylindrical	10,0	16,0	3	3,0	16,0	140,0	160,0	50,0	15,62	26,0	30,0	28800	0,5	RD..06T1
R217.29-1620.0-03.4.100E	02427381	Cylindrical	14,0	20,0	4	3,0	16,0	140,0	160,0	100,0	9,84	34,0	38,0	25600	0,5	RD..06T1

Spare Parts, included in delivery

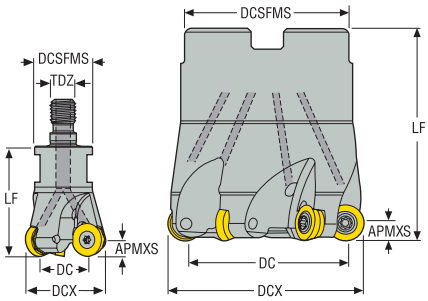
For cutter	Insert key	Insert screw
		
R217.29- ø12-16	H4B-T07P	C02204-T07P
R217.29- ø20-32	H4B-T07P	C02245-T07P

Accessories

For cutter	Insert clamping torque	Torque key
		
R217.29-..	0.9NM	T00-07P09

Torque and fixed keys, see page 872

R217/220.29-03 – Metric



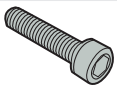


- For insert selection and cutting data recommendations, see page(s) 613-614
- For complete insert programme, see page(s) 817
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	DCX	ZEFP	APMXS	TDZ	DCSFMS	LF	RMPX°	Cmin	Cmax	RPMX	Weight	Insert
			mm	mm		mm		mm	mm		mm	mm		kg	
R217.29-0816.RE-03.3	02435540	Combimaster	10,0	16,0	3	3,0	M8	13,5	23,0	15,62	26,0	30,0	28800	0,1	RD..06T1
R217.29-1020.RE-03.4A	02427383	Combimaster	14,0	20,0	4	3,0	M10	18,5	28,0	9,84	34,0	38,0	25600	0,1	RD..06T1
R217.29-1225.RE-03.5A	02427386	Combimaster	19,0	25,0	5	3,0	M12	23,0	28,0	6,76	44,0	48,0	23200	0,2	RD..06T1
R217.29-1632.RE-03.6A	02427388	Combimaster	26,0	32,0	6	3,0	M16	30,0	28,0	4,7	58,0	62,0	20000	0,2	RD..06T1
R217.29-1635.RE-03.7A	02427389	Combimaster	29,0	35,0	7	3,0	M16	30,0	28,0	4,16	64,0	68,0	19200	0,2	RD..06T1
R220.29-0040-03.8A	02427391	Arbor	34,0	40,0	8	3,0	–	35,0	35,0	3,49	74,0	78,0	17600	0,3	RD..06T1

For Combimaster Shanks, see Machining Navigator Tooling System

Spare Parts, included in delivery

For cutter	Arbor screw	Insert key	Insert screw
			
R217.29- ø16	–	H4B-T07P	C02204-T07P
R217.29- ø20-32	–	H4B-T07P	C02245-T07P
R220.29-0040	220.17-689	H4B-T07P	C02245-T07P

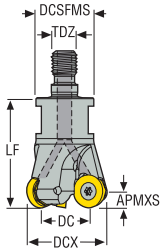
Accessories

For cutter	Insert clamping torque	Torque key
		
R217/220.29-..	0.9NM	T00-07P09

Torque and fixed keys, see page 872

R217/220.29-03 – inch





- For insert selection and cutting data recommendations, see page(s) 613-614
- For complete insert programme, see page(s) 817
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	DCX	ZEFP	APMXS	TDZ	DCSFMS	LF	RMPX°	C min	C max	RPMX	Weight	Insert
			inch	inch		inch		inch	inch		inch	inch		lbs	
R217.29-0.75-10RE-03.4A	00096942	Combimaster	0.514	0.750	4	0.118	M10	0.728	1.100	9,84	1.264	1.421	25600	0.220	RD..06T1
R217.29-1.00-12RE-03.5A	00096943	Combimaster	0.764	1.000	5	0.118	M12	0.906	1.100	6,76	1.764	1.921	23200	0.220	RD..06T1
R217.29-1.25-16RE-03.6A	00096944	Combimaster	1.014	1.250	6	0.118	M16	1.181	1.100	4,7	2.264	2.421	20000	0.440	RD..06T1

For Combimaster Shanks, see Machining Navigator Tooling System

Spare Parts, included in delivery

For cutter	Insert key	Insert screw
		
R217.29-00.750	H4B-T07P	C02204-T07P
R217.29-01.00-01.25	H4B-T07P	C02245-T07P

Accessories

For cutter	Insert clamping torque	Torque key
		
R217.29-00.750	8.0IN.LBS	T00-07P09
R217.29-01.00-01.25	8.0IN.LBS	T00-07P09

Torque and fixed keys, see page 872

R217/220.29-03 – Insert selection – mm/*Inch*

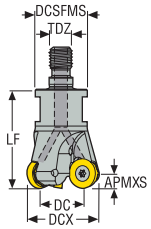
SMG		a_p	f_z			
			100%	70%	30%	10%
P1	RDHT06T1M0-E02 F40M	1,2 *0.048*	0,065 *0.0026*	0,065 *0.0026*	0,075 *0.0030*	0,12 *0.0048*
P2	RDHT06T1M0-E02 F40M	1,2 *0.048*	0,065 *0.0026*	0,065 *0.0026*	0,075 *0.0030*	0,12 *0.0048*
P3	RDHT06T1M0-E02 F40M	1,2 *0.048*	0,060 *0.0024*	0,060 *0.0024*	0,070 *0.0028*	0,11 *0.0044*
P4	RDHW06T1M0-MD02 F40M	1,2 *0.048*	0,090 *0.0036*	0,090 *0.0036*	0,11 *0.0044*	0,17 *0.0065*
P5	RDHW06T1M0-MD02 F40M	1,2 *0.048*	0,090 *0.0036*	0,090 *0.0036*	0,10 *0.0040*	0,17 *0.0065*
P6	RDHW06T1M0-MD02 MP3000	1,2 *0.048*	0,085 *0.0034*	0,085 *0.0034*	0,10 *0.0040*	0,16 *0.0065*
P7	RDHW06T1M0-MD02 MP3000	1,2 *0.048*	0,085 *0.0034*	0,085 *0.0034*	0,10 *0.0040*	0,16 *0.0065*
P8	RDHW06T1M0-MD02 MP3000	1,2 *0.048*	0,090 *0.0036*	0,090 *0.0036*	0,11 *0.0044*	0,17 *0.0065*
P11	RDHW06T1M0-MD02 MP3000	1,2 *0.048*	0,085 *0.0034*	0,085 *0.0034*	0,10 *0.0040*	0,16 *0.0065*
P12	RDHW06T1M0-MD02 MP3000	0,95 *0.038*	0,065 *0.0026*	0,065 *0.0026*	0,080 *0.0032*	0,12 *0.0048*
M1	RDHT06T1M0-E02 F40M	1,2 *0.048*	0,065 *0.0026*	0,065 *0.0026*	0,075 *0.0030*	0,12 *0.0048*
M2	RDHT06T1M0-E02 F40M	1,2 *0.048*	0,060 *0.0024*	0,060 *0.0024*	0,070 *0.0028*	0,11 *0.0044*
M3	RDHT06T1M0-E02 F40M	0,95 *0.038*	0,050 *0.0020*	0,050 *0.0020*	0,060 *0.0024*	0,095 *0.0040*
M4	RDHT06T1M0-E02 F40M	0,70 *0.028*	0,055 *0.0022*	0,055 *0.0022*	0,060 *0.0024*	0,10 *0.0040*
M5	RDHT06T1M0-E02 F40M	0,70 *0.028*	0,055 *0.0022*	0,055 *0.0022*	0,060 *0.0024*	0,10 *0.0040*
K1	RDHW06T1M0-MD02 MK2050	1,2 *0.048*	0,095 *0.0038*	0,095 *0.0038*	0,11 *0.0044*	0,18 *0.0070*
K2	RDHW06T1M0-MD02 MK2050	1,2 *0.048*	0,090 *0.0036*	0,090 *0.0036*	0,10 *0.0040*	0,17 *0.0065*
K3	RDHW06T1M0-MD02 MK2050	1,2 *0.048*	0,090 *0.0036*	0,090 *0.0036*	0,10 *0.0040*	0,17 *0.0065*
K4	RDHW06T1M0-MD02 MK2050	1,2 *0.048*	0,090 *0.0036*	0,090 *0.0036*	0,10 *0.0040*	0,17 *0.0065*
K5	RDHW06T1M0-MD02 MK2050	1,2 *0.048*	0,080 *0.0032*	0,080 *0.0032*	0,095 *0.0038*	0,15 *0.0060*
K6	RDHW06T1M0-MD02 MK2050	1,2 *0.048*	0,090 *0.0036*	0,090 *0.0036*	0,10 *0.0040*	0,17 *0.0065*
K7	RDHW06T1M0-MD02 MK2050	1,2 *0.048*	0,080 *0.0032*	0,080 *0.0032*	0,095 *0.0038*	0,15 *0.0060*
N1	RDHT06T1M0-E02 H25	1,2 *0.048*	0,080 *0.0032*	0,080 *0.0032*	0,095 *0.0038*	0,16 *0.0060*
N2	RDHT06T1M0-E02 H25	1,2 *0.048*	0,080 *0.0032*	0,080 *0.0032*	0,095 *0.0038*	0,16 *0.0060*
N3	RDHT06T1M0-E02 H25	1,2 *0.048*	0,080 *0.0032*	0,080 *0.0032*	0,095 *0.0038*	0,16 *0.0060*
N11	RDHT06T1M0-E02 H25	1,2 *0.048*	0,080 *0.0032*	0,080 *0.0032*	0,095 *0.0038*	0,16 *0.0060*
S1	RDHW06T1M0-MD02 F40M	0,70 *0.028*	0,080 *0.0032*	0,080 *0.0032*	0,095 *0.0038*	0,15 *0.0060*
S2	RDHW06T1M0-MD02 F40M	0,70 *0.028*	0,080 *0.0032*	0,080 *0.0032*	0,095 *0.0038*	0,15 *0.0060*
S3	RDHW06T1M0-MD02 F40M	0,70 *0.028*	0,075 *0.0030*	0,075 *0.0030*	0,085 *0.0034*	0,14 *0.0055*
S11	RDHW06T1M0-MD02 F40M	0,85 *0.034*	0,080 *0.0032*	0,080 *0.0032*	0,095 *0.0038*	0,15 *0.0060*
S12	RDHW06T1M0-MD02 F40M	0,85 *0.034*	0,080 *0.0032*	0,080 *0.0032*	0,095 *0.0038*	0,15 *0.0060*
S13	RDHW06T1M0-MD02 F40M	0,70 *0.028*	0,080 *0.0032*	0,080 *0.0032*	0,095 *0.0038*	0,15 *0.0060*
H5	RDHW06T1M0-MD02 F15M	0,95 *0.038*	0,065 *0.0026*	0,065 *0.0026*	0,080 *0.0032*	0,12 *0.0048*
H8	RDHW06T1M0-MD02 F15M	0,85 *0.034*	0,055 *0.0022*	0,055 *0.0022*	0,065 *0.0026*	0,10 *0.0040*
H11	RDHW06T1M0-MD02 F15M	0,95 *0.038*	0,065 *0.0026*	0,065 *0.0026*	0,080 *0.0032*	0,12 *0.0048*
H12	RDHW06T1M0-MD02 F40M	0,85 *0.034*	0,055 *0.0022*	0,055 *0.0022*	0,065 *0.0026*	0,10 *0.0040*

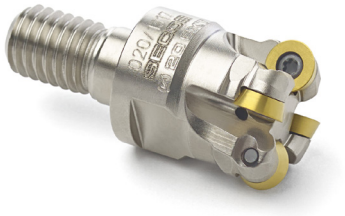
SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

R217/220.29-03 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	F15M				MK2050				F30M				MP3000				F40M				H25			
	100%	70%	30%	10%	100%	70%	30%	10%	100%	70%	30%	10%	100%	70%	30%	10%	100%	70%	30%	10%	100%	70%	30%	10%
P1	330 *1075*	380 *1250*	445 *1450*	530 *1750*	360 *1175*	410 *1350*	485 *1600*	570 *1875*	290 *950*	330 *1075*	390 *1275*	460 *1500*	345 *1125*	395 *1300*	465 *1525*	550 *1800*	275 *900*	315 *1025*	375 *1225*	440 *1450*	— —	— —	— —	— —
P2	325 *1075*	370 *1225*	435 *1425*	510 *1675*	350 *1150*	400 *1300*	470 *1550*	560 *1825*	285 *940*	320 *1050*	380 *1250*	450 *1475*	335 *1100*	385 *1275*	455 *1500*	530 *1750*	270 *890*	305 *1000*	365 *1200*	430 *1400*	— —	— —	— —	— —
P3	280 *920*	320 *1050*	380 *1250*	440 *1450*	305 *1000*	345 *1125*	410 *1350*	480 *1575*	245 *800*	280 *920*	330 *1075*	385 *1275*	295 *970*	335 *1100*	395 *1300*	460 *1500*	235 *770*	265 *870*	315 *1025*	370 *1225*	— —	— —	— —	— —
P4	250 *820*	280 *920*	335 *1100*	395 *1300*	270 *890*	305 *1000*	360 *1175*	425 *1400*	215 *710*	245 *800*	290 *950*	345 *1125*	260 *850*	295 *970*	345 *1125*	410 *1350*	205 *670*	235 *770*	280 *920*	330 *1075*	— —	— —	— —	— —
P5	240 *790*	270 *890*	320 *1050*	375 *1225*	260 *850*	295 *970*	350 *1150*	405 *1325*	210 *690*	240 *790*	280 *920*	330 *1075*	250 *820*	285 *940*	335 *1100*	390 *1275*	200 *660*	225 *740*	270 *890*	315 *1025*	— —	— —	— —	— —
P6	270 *890*	305 *1000*	360 *1175*	420 *1375*	290 *950*	330 *1075*	390 *1275*	455 *1500*	235 *770*	265 *870*	315 *1025*	370 *1225*	280 *920*	320 *1050*	375 *1225*	440 *1450*	225 *740*	255 *840*	300 *980*	350 *1150*	— —	— —	— —	— —
P7	255 *840*	290 *950*	340 *1125*	400 *1300*	275 *900*	310 *1025*	370 *1225*	430 *1400*	220 *720*	250 *820*	300 *980*	350 *1150*	265 *870*	300 *980*	355 *1175*	415 *1350*	210 *690*	240 *790*	285 *940*	330 *1075*	— —	— —	— —	— —
P8	235 *770*	270 *890*	320 *1050*	370 *1225*	255 *840*	290 *950*	345 *1125*	400 *1300*	205 *670*	235 *770*	280 *920*	325 *1075*	245 *800*	280 *920*	330 *1075*	385 *1275*	195 *640*	225 *740*	265 *870*	310 *1025*	— —	— —	— —	— —
P11	245 *800*	280 *920*	330 *1075*	385 *1275*	265 *870*	305 *1000*	360 *1175*	420 *1375*	215 *710*	245 *800*	290 *950*	340 *1125*	255 *840*	290 *950*	345 *1125*	405 *1325*	205 *670*	235 *770*	275 *900*	325 *1075*	— —	— —	— —	— —
P12	— —	— —	— —	— —	165 *540*	190 *620*	220 *720*	260 *850*	135 *445*	155 *510*	180 *590*	210 *690*	160 *520*	185 *610*	215 *710*	250 *820*	130 *425*	145 *475*	170 *560*	200 *660*	— —	— —	— —	— —
M1	— —	— —	— —	— —	— —	— —	— —	— —	230 *750*	260 *850*	305 *1000*	360 *1175*	250 *820*	285 *940*	340 *1125*	400 *1300*	215 *710*	245 *800*	295 *970*	345 *1125*	— —	— —	— —	— —
M2	— —	— —	— —	— —	— —	— —	— —	— —	190 *620*	215 *710*	255 *840*	295 *970*	210 *690*	235 *770*	280 *920*	325 *1075*	180 *590*	205 *670*	240 *790*	280 *920*	— —	— —	— —	— —
M3	— —	— —	— —	— —	— —	— —	— —	— —	150 *490*	170 *560*	200 *660*	230 *750*	165 *540*	185 *610*	220 *720*	255 *840*	140 *460*	160 *520*	190 *620*	220 *720*	— —	— —	— —	— —
M4	— —	— —	— —	— —	— —	— —	— —	— —	115 *375*	130 *425*	150 *490*	180 *590*	125 *410*	140 *460*	170 *560*	195 *640*	110 *360*	120 *395*	145 *475*	170 *560*	— —	— —	— —	— —
M5	— —	— —	— —	— —	— —	— —	— —	— —	95 *310*	105 *345*	125 *410*	150 *490*	105 *345*	120 *395*	140 *460*	165 *540*	90 *295*	100 *330*	120 *395*	140 *460*	— —	— —	— —	— —
K1	255 *840*	290 *950*	345 *1125*	405 *1325*	380 *1250*	430 *1400*	510 *1675*	600 *1975*	225 *740*	255 *840*	300 *980*	355 *1175*	265 *870*	305 *1000*	360 *1175*	425 *1400*	215 *710*	245 *800*	290 *950*	340 *1125*	— —	— —	— —	— —
K2	225 *740*	260 *850*	305 *1000*	355 *1175*	335 *1100*	380 *1250*	450 *1475*	530 *1750*	200 *660*	225 *740*	265 *870*	310 *1025*	235 *770*	270 *890*	320 *1050*	370 *1225*	190 *620*	215 *710*	255 *840*	295 *970*	— —	— —	— —	— —
K3	190 *620*	220 *720*	260 *850*	300 *980*	285 *940*	320 *1050*	380 *1250*	445 *1450*	170 *560*	190 *620*	225 *740*	265 *870*	200 *660*	230 *750*	270 *890*	315 *1025*	160 *520*	180 *590*	215 *710*	250 *820*	— —	— —	— —	— —
K4	185 *610*	210 *690*	245 *800*	290 *950*	270 *890*	310 *1025*	365 *1200*	425 *1400*	160 *520*	185 *610*	215 *710*	250 *820*	190 *620*	215 *710*	255 *840*	300 *980*	155 *510*	175 *570*	205 *670*	240 *790*	— —	— —	— —	— —
K5	110 *360*	125 *410*	150 *490*	175 *570*	165 *540*	185 *610*	220 *720*	255 *840*	95 *310*	110 *360*	130 *425*	150 *490*	115 *375*	130 *425*	155 *510*	180 *590*	90 *295*	105 *345*	125 *410*	145 *475*	— —	— —	— —	— —
K6	160 *520*	185 *610*	215 *710*	255 *840*	240 *790*	270 *890*	320 *1050*	375 *1225*	140 *460*	160 *520*	190 *620*	220 *720*	170 *560*	190 *620*	225 *740*	265 *870*	135 *445*	155 *510*	180 *590*	210 *690*	— —	— —	— —	— —
K7	140 *460*	160 *520*	190 *620*	225 *740*	210 *690*	235 *770*	280 *920*	330 *1075*	125 *410*	140 *460*	165 *540*	195 *640*	145 *475*	165 *540*	195 *640*	230 *750*	120 *395*	135 *445*	160 *520*	185 *610*	— —	— —	— —	— —
N1	— —	— —	— —	— —	— —	— —	— —	— —	1700 *5575*	1925 *6325*	2275 *7475*	2675 *8775*	2025 *6650*	2300 *7550*	2725 *8950*	3200 *10500*	1625 *5325*	1825 *6000*	2175 *7125*	2550 *8375*	1875 *6150*	2150 *7050*	2525 *8275*	2975 *9750*
N2	— —	— —	— —	— —	— —	— —	— —	— —	680 *2225*	780 *2550*	920 *3025*	1075 *3525*	810 *2650*	930 *3050*	1100 *3600*	1300 *4275*	650 *2125*	740 *2425*	880 *2875*	1025 *3375*	760 *2500*	870 *2850*	1025 *3375*	1200 *3925*
N3	— —	— —	— —	— —	— —	— —	— —	— —	455 *1500*	520 *1700*	620 *2025*	720 *2350*	540 *1775*	620 *2025*	730 *2400*	860 *2825*	435 *1425*	495 *1625*	590 *1925*	690 *2275*	510 *1675*	580 *1900*	680 *2225*	800 *2625*
N11	— —	— —	— —	— —	— —	— —	— —	— —	520 *1700*	590 *1925*	700 *2300*	830 *2725*	620 *2025*	710 *2325*	840 *2750*	980 *3225*	495 *1625*	560 *1825*	670 *2200*	790 *2600*	580 *1900*	660 *2175*	780 *2550*	910 *2975*
S1	— —	— —	— —	— —	— —	— —	— —	— —	55 *180*	60 *195*	70 *230*	85 *280*	60 *195*	65 *215*	80 *260*	90 *295*	50 *165*	55 *180*	65 *215*	80 *260*	— —	— —	— —	— —
S2	— —	— —	— —	— —	— —	— —	— —	— —	43 *140*	48 *155*	55 *180*	65 *215*	47 *155*	55 *180*	65 *215*	75 *245*	41 *135*	46 *150*	55 *180*	65 *215*	— —	— —	— —	— —
S3	— —	— —	— —	— —	— —	— —	— —	— —	37 *120*	42 *140*	50 *165*	60 *195*	41 *135*	46 *150*	55 *180*	65 *215*	35 *115*	40 *130*	47 *155*	55 *180*	— —	— —	— —	— —
S11	— —	— —	— —	— —	— —	— —	— —	— —	75 *245*	85 *280*	100 *330*	115 *375*	80 *260*	95 *310*	110 *360*	130 *425*	70 *230*	80 *260*	95 *310*	110 *360*	— —	— —	— —	— —
S12	— —	— —	— —	— —	— —	— —	— —	— —	43 *140*	49 *160*	60 *195*	70 *230*	55 *180*	65 *215*	75 *245*	90 *295*	49 *160*	55 *180*	65 *215*	75 *245*	— —	— —	— —	— —
S13	— —	— —	— —	— —	— —	— —	— —	— —	25 *80*	28 *90*	33 *110*	39 *130*	33 *110*	37 *120*	44 *145*	50 *165*	28 *90*	32 *105*	38 *125*	44 *145*	— —	— —	— —	— —
H5	50 *165*	60 *195*	70 *230*	80 *260*	— —	— —	— —	— —	45 *150*	50 *165*	60 *195*	70 *230*	50 *165*	55 *180*	65 *215*	80 *260*	43 *140*	49 *160*	55 *180*	65 *215*	— —	— —	— —	— —
H8	55 *180*	60 *195*	70 *230*	80 *260*	— —	— —	— —	— —	46 *150*	55 *180*	60 *195*	70 *230*	50 *165*	60 *195*	70 *230*	80 *260*	44 *145*	50 *165*	60 *195*	70 *230*	— —	— —	— —	— —
H11	65 *215*	75 *245*	85 *280*	100 *330*	— —	— —	— —	— —	55 *180*	65 *215*	75 *245*	90 *295*	65 *215*	70 *230*	85 *280*	100 *330*	55 *180*	60 *195*	70 *230*	85 *280*	— —	— —	— —	— —
H12	95 *310*	110 *360*	125 *410*	150 *490*	— —	— —	— —	— —	85 *280*	95 *310*	110 *360*	130 *425*	100 *330*	110 *360*	130 *425*	155 *510*	80 *260*	90 *295*	105 *345*	125 *410*	— —	— —	— —	— —

R217.29-035 – Metric





- For insert selection and cutting data recommendations, see page(s) [XXX]-[XXX]
- For complete insert programme, see page(s) [XXX]
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	DCX	ZEFP	APMXS	TDZ	DCSFMS	LF	RMPX°	Cmin	Cmax	RPMX	Weight	Insert
			mm	mm		mm		mm	mm		mm	mm		kg	
R217.29-0816.RE-035.3A	02643410	Combimaster	9,0	16,0	3	3,5	M8	13,5	20,0	17,8	25,0	30,0	48000	0,1	RDH.0702
R217.29-1020.RE-035.4A	02495678	Combimaster	13,0	20,0	4	3,5	M10	18,5	23,0	10,4	33,0	38,0	44000	0,1	RDH.0702
R217.29-1225.RE-035.5A	02643411	Combimaster	18,0	25,0	5	3,5	M12	23,0	28,0	6,9	43,0	48,0	35000	0,2	RDH.0702

For Combimaster Shanks, see Machining Navigator Tooling System

Spare Parts, included in delivery

For cutter	Insert key	Insert screw
		
R217.29-..	H4B-T07P	C02545-T07P

Accessories

For cutter	Insert clamping torque	Torque key
		
R217.29-..	0.9NM	T00-07P09

Torque and fixed keys, see page [XXX]

R217.29-035 – Insert selection – mm/*Inch*

SMG		a_p	f_z			
			100%	70%	30%	10%
P1	RDHW0702M0-MD03 F40M	1,4 *0.055*	0,13 *0.0050*	0,13 *0.0050*	0,15 *0.0060*	0,25 *0.010*
P2	RDHW0702M0-MD03 F40M	1,4 *0.055*	0,13 *0.0050*	0,13 *0.0050*	0,16 *0.0065*	0,25 *0.010*
P3	RDHW0702M0-MD03 F40M	1,4 *0.055*	0,12 *0.0048*	0,12 *0.0048*	0,15 *0.0060*	0,24 *0.0095*
P4	RDHW0702M0-MD03 MP3000	1,4 *0.055*	0,12 *0.0048*	0,12 *0.0048*	0,14 *0.0055*	0,24 *0.0095*
P5	RDHW0702M0-MD03 MP3000	1,4 *0.055*	0,12 *0.0048*	0,12 *0.0048*	0,14 *0.0055*	0,22 *0.0085*
P6	RDHW0702M0-MD03 MP3000	1,4 *0.055*	0,12 *0.0048*	0,12 *0.0048*	0,14 *0.0055*	0,22 *0.0085*
P7	RDHW0702M0-MD03 MP3000	1,4 *0.055*	0,12 *0.0048*	0,12 *0.0048*	0,14 *0.0055*	0,22 *0.0085*
P8	RDHW0702M0-MD03 MP3000	1,4 *0.055*	0,12 *0.0048*	0,12 *0.0048*	0,15 *0.0060*	0,24 *0.0095*
P11	RDHW0702M0-MD03 MP3000	1,4 *0.055*	0,12 *0.0048*	0,12 *0.0048*	0,14 *0.0055*	0,22 *0.0085*
P12	RDHW0702M0-MD03 MP3000	1,1 *0.044*	0,090 *0.0036*	0,090 *0.0036*	0,11 *0.0044*	0,17 *0.0065*
M1	RDHW0702M0-MD03 F40M	1,4 *0.055*	0,13 *0.0050*	0,13 *0.0050*	0,16 *0.0065*	0,25 *0.010*
M2	RDHW0702M0-MD03 F40M	1,4 *0.055*	0,12 *0.0048*	0,12 *0.0048*	0,14 *0.0055*	0,22 *0.0085*
M3	RDHW0702M0-MD03 F40M	1,1 *0.044*	0,10 *0.0040*	0,10 *0.0040*	0,13 *0.0050*	0,20 *0.0080*
M4	RDHW0702M0-MD03 F40M	0,85 *0.034*	0,10 *0.0040*	0,10 *0.0040*	0,12 *0.0048*	0,20 *0.0080*
M5	RDHW0702M0-MD03 F40M	0,85 *0.034*	0,10 *0.0040*	0,10 *0.0040*	0,12 *0.0048*	0,20 *0.0080*
K1	RDHW0702M0T-MD04 F15M	1,4 *0.055*	0,13 *0.0050*	0,13 *0.0050*	0,16 *0.0065*	0,25 *0.010*
K2	RDHW0702M0T-MD04 F15M	1,4 *0.055*	0,12 *0.0048*	0,12 *0.0048*	0,14 *0.0055*	0,22 *0.0085*
K3	RDHW0702M0T-MD04 F15M	1,4 *0.055*	0,12 *0.0048*	0,12 *0.0048*	0,14 *0.0055*	0,22 *0.0085*
K4	RDHW0702M0T-MD04 F15M	1,4 *0.055*	0,12 *0.0048*	0,12 *0.0048*	0,14 *0.0055*	0,22 *0.0085*
K5	RDHW0702M0T-MD04 F15M	1,4 *0.055*	0,11 *0.0044*	0,11 *0.0044*	0,13 *0.0050*	0,20 *0.0080*
K6	RDHW0702M0T-MD04 F15M	1,4 *0.055*	0,12 *0.0048*	0,12 *0.0048*	0,14 *0.0055*	0,22 *0.0085*
K7	RDHW0702M0T-MD04 F15M	1,4 *0.055*	0,11 *0.0044*	0,11 *0.0044*	0,13 *0.0050*	0,20 *0.0080*
S1	RDHW0702M0-MD03 F40M	0,85 *0.034*	0,10 *0.0040*	0,10 *0.0040*	0,12 *0.0048*	0,20 *0.0080*
S2	RDHW0702M0-MD03 F40M	0,85 *0.034*	0,10 *0.0040*	0,10 *0.0040*	0,12 *0.0048*	0,20 *0.0080*
S3	RDHW0702M0-MD03 F40M	0,85 *0.034*	0,095 *0.0038*	0,095 *0.0038*	0,11 *0.0044*	0,18 *0.0070*
S11	RDHW0702M0-MD03 F40M	1,0 *0.040*	0,11 *0.0044*	0,11 *0.0044*	0,13 *0.0050*	0,20 *0.0080*
S12	RDHW0702M0-MD03 F40M	1,0 *0.040*	0,11 *0.0044*	0,11 *0.0044*	0,13 *0.0050*	0,20 *0.0080*
S13	RDHW0702M0-MD03 F40M	0,85 *0.034*	0,10 *0.0040*	0,10 *0.0040*	0,12 *0.0048*	0,20 *0.0080*
H5	RDHW0702M0T-MD04 F15M	1,1 *0.044*	0,090 *0.0036*	0,090 *0.0036*	0,11 *0.0044*	0,17 *0.0065*
H8	RDHW0702M0T-MD04 F15M	1,0 *0.040*	0,070 *0.0028*	0,070 *0.0028*	0,085 *0.0034*	0,14 *0.0055*
H11	RDHW0702M0T-MD04 F15M	1,1 *0.044*	0,090 *0.0036*	0,090 *0.0036*	0,11 *0.0044*	0,17 *0.0065*
H12	RDHW0702M0T-MD04 F15M	1,0 *0.040*	0,070 *0.0028*	0,070 *0.0028*	0,085 *0.0034*	0,14 *0.0055*

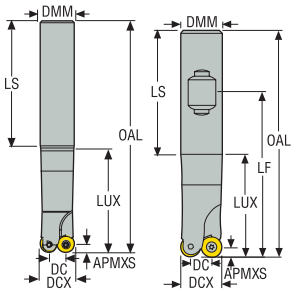
SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

R217/220.29-035 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	F15M				MP3000				F40M			
	100%	70%	30%	10%	100%	70%	30%	10%	100%	70%	30%	10%
P1	325 *1075*	380 *1250*	450 *1475*	520 *1700*	335 *1100*	400 *1300*	470 *1550*	550 *1800*	270 *890*	320 *1050*	375 *1225*	435 *1425*
P2	315 *1025*	370 *1225*	440 *1450*	510 *1675*	330 *1075*	385 *1275*	455 *1500*	530 *1750*	260 *850*	310 *1025*	365 *1200*	425 *1400*
P3	275 *900*	325 *1075*	385 *1275*	445 *1450*	285 *940*	340 *1125*	400 *1300*	460 *1500*	230 *750*	270 *890*	320 *1050*	370 *1225*
P4	240 *790*	285 *940*	340 *1125*	390 *1275*	250 *820*	300 *980*	350 *1150*	405 *1325*	200 *660*	240 *790*	280 *920*	325 *1075*
P5	230 *750*	275 *900*	320 *1050*	375 *1225*	240 *790*	285 *940*	335 *1100*	390 *1275*	195 *640*	230 *750*	270 *890*	315 *1025*
P6	265 *870*	315 *1025*	360 *1175*	425 *1400*	275 *900*	325 *1075*	375 *1225*	440 *1450*	220 *720*	260 *850*	300 *980*	350 *1150*
P7	250 *820*	295 *970*	340 *1125*	400 *1300*	260 *850*	305 *1000*	355 *1175*	415 *1350*	210 *690*	245 *800*	285 *940*	335 *1100*
P8	230 *750*	275 *900*	320 *1050*	375 *1225*	240 *790*	285 *940*	335 *1100*	390 *1275*	195 *640*	230 *750*	270 *890*	310 *1025*
P11	240 *790*	285 *940*	330 *1075*	390 *1275*	255 *840*	300 *980*	345 *1125*	405 *1325*	200 *660*	240 *790*	275 *900*	325 *1075*
P12	— —	— —	— —	— —	160 *520*	185 *610*	220 *720*	255 *840*	125 *410*	150 *490*	175 *570*	200 *660*
M1	— —	— —	— —	— —	245 *800*	290 *950*	340 *1125*	395 *1300*	210 *690*	250 *820*	295 *970*	340 *1125*
M2	— —	— —	— —	— —	200 *660*	240 *790*	280 *920*	330 *1075*	175 *570*	205 *670*	240 *790*	285 *940*
M3	— —	— —	— —	— —	165 *540*	190 *620*	220 *720*	260 *850*	140 *460*	165 *540*	190 *620*	225 *740*
M4	— —	— —	— —	— —	125 *410*	145 *475*	170 *560*	200 *660*	110 *360*	125 *410*	145 *475*	170 *560*
M5	— —	— —	— —	— —	105 *345*	120 *395*	140 *460*	165 *540*	90 *295*	105 *345*	125 *410*	145 *475*
K1	250 *820*	295 *970*	350 *1150*	405 *1325*	260 *850*	305 *1000*	360 *1175*	420 *1375*	210 *690*	245 *800*	290 *950*	335 *1100*
K2	220 *720*	260 *850*	305 *1000*	360 *1175*	230 *750*	270 *890*	320 *1050*	370 *1225*	185 *610*	215 *710*	255 *840*	300 *980*
K3	185 *610*	220 *720*	260 *850*	305 *1000*	195 *640*	230 *750*	270 *890*	315 *1025*	155 *510*	185 *610*	215 *710*	250 *820*
K4	175 *570*	210 *690*	245 *800*	290 *950*	185 *610*	220 *720*	260 *850*	300 *980*	150 *490*	175 *570*	205 *670*	240 *790*
K5	110 *360*	130 *425*	150 *490*	175 *570*	115 *375*	135 *445*	155 *510*	180 *590*	90 *295*	110 *360*	125 *410*	145 *475*
K6	155 *510*	185 *610*	220 *720*	255 *840*	165 *540*	195 *640*	225 *740*	265 *870*	130 *425*	155 *510*	180 *590*	210 *690*
K7	140 *460*	165 *540*	190 *620*	225 *740*	145 *475*	175 *570*	200 *660*	230 *750*	115 *375*	140 *460*	160 *520*	185 *610*
S1	— —	— —	— —	— —	60 *195*	70 *230*	80 *260*	95 *310*	50 *165*	60 *195*	70 *230*	80 *260*
S2	— —	— —	— —	— —	47 *155*	55 *180*	65 *215*	75 *245*	40 *130*	47 *155*	55 *180*	65 *215*
S3	— —	— —	— —	— —	41 *135*	48 *155*	55 *180*	65 *215*	35 *115*	41 *135*	48 *155*	55 *180*
S11	— —	— —	— —	— —	80 *260*	95 *310*	115 *375*	130 *425*	70 *230*	85 *280*	95 *310*	115 *375*
S12	— —	— —	— —	— —	55 *180*	65 *215*	80 *260*	90 *295*	49 *160*	55 *180*	65 *215*	80 *260*
S13	— —	— —	— —	— —	33 *110*	38 *125*	45 *150*	50 *165*	28 *90*	33 *110*	39 *130*	45 *150*
H5	50 *165*	60 *195*	70 *230*	80 *260*	49 *160*	60 *195*	70 *230*	80 *260*	42 *140*	49 *160*	60 *195*	65 *215*
H8	55 *180*	60 *195*	75 *245*	85 *280*	50 *165*	60 *195*	70 *230*	80 *260*	44 *145*	50 *165*	60 *195*	70 *230*
H11	65 *215*	75 *245*	90 *295*	105 *345*	65 *215*	75 *245*	85 *280*	100 *330*	55 *180*	65 *215*	75 *245*	85 *280*
H12	95 *310*	110 *360*	130 *425*	150 *490*	100 *330*	115 *375*	135 *445*	155 *510*	80 *260*	95 *310*	110 *360*	125 *410*

R217.29-04 – Metric





- For insert selection and cutting data recommendations, see page(s) 620-622
- For complete insert programme, see page(s) 817
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	DCX	ZEFP	APMXS	DMM	LS	OAL	LUX	RMPX°	Cmin	Cmax	RPMX	Weight	Insert
			mm	mm		mm	mm	mm	mm	mm		mm	mm		kg	
R217.29-1616.0-04.2.050	00040299	Cylindrical	8,0	16,0	2	4,0	16,0	60,0	110,0	50,0	90,0	24,0	30,0	36200	0,2	RD..0803
R217.29-1616.0-04.2.100E	00040300	Cylindrical	8,0	16,0	2	4,0	16,0	95,0	160,0	100,0	90,0	24,0	30,0	36200	0,5	RD..0803
R217.29-1616.3-04.2.040	00040302	Weldon	8,0	16,0	2	4,0	16,0	48,0	88,0	38,0	90,0	24,0	30,0	36200	0,2	RD..0803

Spare Parts, included in delivery

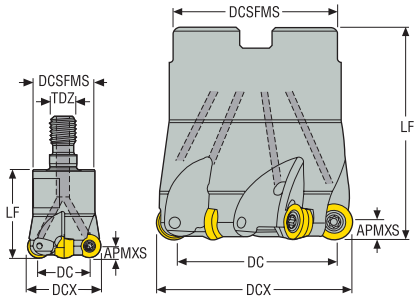
For cutter	Insert key	Insert screw
		
R217.69-..Ø16	H4B-T08P	C02505-T08P

Accessories

For cutter	Insert clamping torque	Torque key
		
R217.29-..	1.2NM	T00-08P12

Torque and fixed keys, see page 872

R217/220.29-04 – Metric



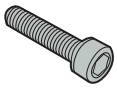


- For insert selection and cutting data recommendations, see page(s) 620-622
- For complete insert programme, see page(s) 817
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	DCX	ZEFP	APMXS	DCB	TDZ	DCSFMS	LF	RMPX°	Cmin	Cmax	RPMX	Weight	Insert
			mm	mm		mm	mm		mm	mm		mm	mm		kg	
R217.29-0816.RE-04.2	00047266	Combimaster	8,0	16,0	2	4,0	–	M8	13,5	23,0	90,0	24,0	30,0	36200	0,1	RD..0803
R217.29-1020.RE-04.2A	00040294	Combimaster	12,0	20,0	2	4,0	–	M10	18,5	28,0	16,43	32,0	38,0	32400	0,1	RD..0803
R217.29-1020.RE-04.3A	00040062	Combimaster	12,0	20,0	3	4,0	–	M10	18,5	28,0	16,43	32,0	38,0	32400	0,1	RD..0803
R217.29-1225.RE-04.3A	02410817	Combimaster	17,0	25,0	3	4,0	–	M12	23,0	30,0	10,01	42,0	48,0	29000	0,2	–
R217.29-1225.RE-04.4A	00040297	Combimaster	17,0	25,0	4	4,0	–	M12	23,0	30,0	10,01	42,0	48,0	29000	0,2	RD..0803
R217.29-1632.RE-04.5A	02410823	Combimaster	24,0	32,0	5	4,0	–	M16	30,0	40,0	6,51	56,0	62,0	26100	0,3	RD..0803
R217.29-1640.RE-04.6A	00040303	Combimaster	32,0	40,0	6	4,0	–	M16	30,0	40,0	4,66	72,0	78,0	23300	0,3	RD..0803
R220.29-0050-04.5A	02410828	Arbor	42,0	50,0	5	4,0	22,0	–	42,0	40,0	3,44	92,0	98,0	17300	0,4	RD..0803
R220.29-0050-04.7A	02410829	Arbor	42,0	50,0	7	4,0	22,0	–	42,0	40,0	3,44	92,0	98,0	17300	0,4	RD..0803

For Combimaster Shanks, see Machining Navigator Tooling System

Spare Parts, included in delivery

For cutter	Arbor screw	Insert key	Insert screw
			
R217.69-..Ø16	–	H4B-T08P	C02505-T08P
R217.29-..Ø20-40	–	H4B-T08P	C02506-T08P
R220.29-..0050	220.17-692	H4B-T08P	C02506-T08P

Accessories

For cutter	Insert clamping torque	Torque key
		
R217/220.29-..	1.2NM	T00-08P12

Torque and fixed keys, see page 872

R217/220.29-04 – Insert selection – mm/*Inch*

SMG		a_p	f_z			
			100%	70%	30%	10%
P1	RDKW0803M0T-MD05 MP2501	1,6 *0.065*	0,16 *0.0065*	0,16 *0.0065*	0,18 *0.0070*	0,28 *0.011*
P2	RDKW0803M0T-MD05 MP2501	1,6 *0.065*	0,16 *0.0065*	0,16 *0.0065*	0,18 *0.0070*	0,28 *0.011*
P3	RDKW0803M0T-MD05 MP2501	1,6 *0.065*	0,15 *0.0060*	0,15 *0.0060*	0,17 *0.0065*	0,28 *0.011*
P4	RDKW0803M0T-MD05 MP2501	1,6 *0.065*	0,15 *0.0060*	0,15 *0.0060*	0,17 *0.0065*	0,26 *0.010*
P5	RDKW0803M0T-MD05 MP2501	1,6 *0.065*	0,15 *0.0060*	0,15 *0.0060*	0,17 *0.0065*	0,26 *0.010*
P6	RDKW0803M0T-MD05 MP2501	1,6 *0.065*	0,14 *0.0055*	0,14 *0.0055*	0,16 *0.0065*	0,26 *0.010*
P7	RDKW0803M0T-MD05 MP2501	1,6 *0.065*	0,14 *0.0055*	0,14 *0.0055*	0,16 *0.0065*	0,26 *0.010*
P8	RDKW0803M0T-MD05 MP2501	1,6 *0.065*	0,15 *0.0060*	0,15 *0.0060*	0,17 *0.0065*	0,28 *0.011*
P11	RDKW0803M0T-MD05 MP2501	1,6 *0.065*	0,14 *0.0055*	0,14 *0.0055*	0,16 *0.0065*	0,26 *0.010*
P12	RDKW0803M0T-MD05 MP2501	1,3 *0.050*	0,11 *0.0044*	0,11 *0.0044*	0,12 *0.0048*	0,19 *0.0075*
M1	RDHT0803M0-E03 MP3501	1,6 *0.065*	0,095 *0.0038*	0,095 *0.0038*	0,11 *0.0044*	0,17 *0.0065*
M2	RDHT0803M0-E03 MP3501	1,6 *0.065*	0,090 *0.0036*	0,090 *0.0036*	0,10 *0.0040*	0,16 *0.0065*
M3	RDHT0803M0-E03 MP3501	1,3 *0.050*	0,075 *0.0030*	0,075 *0.0030*	0,085 *0.0034*	0,13 *0.0050*
M4	RDHT0803M0-E03 MP3501	0,95 *0.038*	0,080 *0.0032*	0,080 *0.0032*	0,090 *0.0036*	0,14 *0.0055*
M5	RDHT0803M0-E03 MP3501	0,95 *0.038*	0,080 *0.0032*	0,080 *0.0032*	0,090 *0.0036*	0,14 *0.0055*
K1	RDKW0803M0T-MD05 MK2050	1,6 *0.065*	0,16 *0.0065*	0,16 *0.0065*	0,18 *0.0070*	0,28 *0.011*
K2	RDKW0803M0T-MD05 MK2050	1,6 *0.065*	0,15 *0.0060*	0,15 *0.0060*	0,17 *0.0065*	0,26 *0.010*
K3	RDKW0803M0T-MD05 MK2050	1,6 *0.065*	0,15 *0.0060*	0,15 *0.0060*	0,17 *0.0065*	0,26 *0.010*
K4	RDKW0803M0T-MD05 MK2050	1,6 *0.065*	0,15 *0.0060*	0,15 *0.0060*	0,17 *0.0065*	0,26 *0.010*
K5	RDKW0803M0T-MD05 MK2050	1,6 *0.065*	0,13 *0.0050*	0,13 *0.0050*	0,15 *0.0060*	0,24 *0.0095*
K6	RDKW0803M0T-MD05 MK2050	1,6 *0.065*	0,15 *0.0060*	0,15 *0.0060*	0,17 *0.0065*	0,26 *0.010*
K7	RDKW0803M0T-MD05 MK2050	1,6 *0.065*	0,13 *0.0050*	0,13 *0.0050*	0,15 *0.0060*	0,24 *0.0095*
N1	RDHT0803M0-E03 H25	1,6 *0.065*	0,12 *0.0048*	0,12 *0.0048*	0,14 *0.0055*	0,22 *0.0085*
N2	RDHT0803M0-E03 H25	1,6 *0.065*	0,12 *0.0048*	0,12 *0.0048*	0,14 *0.0055*	0,22 *0.0085*
N3	RDHT0803M0-E03 H25	1,6 *0.065*	0,12 *0.0048*	0,12 *0.0048*	0,14 *0.0055*	0,22 *0.0085*
N11	RDHT0803M0-E03 H25	1,6 *0.065*	0,12 *0.0048*	0,12 *0.0048*	0,14 *0.0055*	0,22 *0.0085*
S1	RDHW0803M0-MD03 F40M	0,95 *0.038*	0,11 *0.0044*	0,11 *0.0044*	0,12 *0.0048*	0,19 *0.0075*
S2	RDHW0803M0-MD03 F40M	0,95 *0.038*	0,11 *0.0044*	0,11 *0.0044*	0,12 *0.0048*	0,19 *0.0075*
S3	RDHW0803M0-MD03 F40M	0,95 *0.038*	0,10 *0.0040*	0,10 *0.0040*	0,11 *0.0044*	0,17 *0.0065*
S11	RDHW0803M0-MD03 MS2050	1,1 *0.044*	0,11 *0.0044*	0,11 *0.0044*	0,13 *0.0050*	0,20 *0.0080*
S12	RDHW0803M0-MD03 MS2050	1,1 *0.044*	0,11 *0.0044*	0,11 *0.0044*	0,13 *0.0050*	0,20 *0.0080*
S13	RDHW0803M0-MD03 MS2050	0,95 *0.038*	0,11 *0.0044*	0,11 *0.0044*	0,12 *0.0048*	0,19 *0.0075*
H5	RDKW0803M0T-MD05 F15M	1,3 *0.050*	0,11 *0.0044*	0,11 *0.0044*	0,12 *0.0048*	0,19 *0.0075*
H8	RDKW0803M0T-MD05 F15M	1,1 *0.044*	0,090 *0.0036*	0,090 *0.0036*	0,10 *0.0040*	0,16 *0.0065*
H11	RDKW0803M0T-MD05 F15M	1,3 *0.050*	0,11 *0.0044*	0,11 *0.0044*	0,12 *0.0048*	0,19 *0.0075*
H12	RDKW0803M0T-MD05 F15M	1,1 *0.044*	0,090 *0.0036*	0,090 *0.0036*	0,10 *0.0040*	0,16 *0.0065*

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

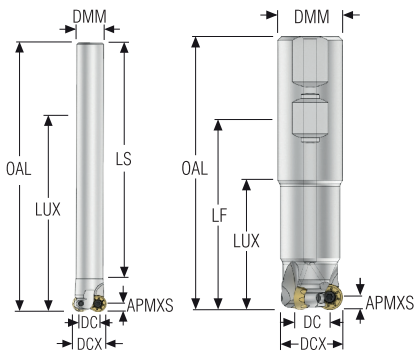
R217/220.29-04 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	F15M				MK2050				F25M				F30M				MP3000			
	100%	70%	30%	10%	100%	70%	30%	10%	100%	70%	30%	10%	100%	70%	30%	10%	100%	70%	30%	10%
P1	300 *980*	340 *1125*	410 *1350*	485 *1600*	325 *1075*	370 *1225*	440 *1450*	520 *1700*	275 *900*	310 *1025*	375 *1225*	440 *1450*	275 *900*	310 *1025*	375 *1225*	440 *1450*	330 *1075*	370 *1225*	445 *1450*	520 *1700*
P2	295 *970*	330 *1075*	400 *1300*	470 *1550*	320 *1050*	360 *1175*	430 *1400*	510 *1675*	270 *890*	305 *1000*	365 *1200*	430 *1400*	270 *890*	305 *1000*	365 *1200*	430 *1400*	320 *1050*	360 *1175*	435 *1425*	510 *1675*
P3	255 *840*	290 *950*	345 *1125*	405 *1325*	280 *920*	315 *1025*	375 *1225*	440 *1450*	235 *770*	265 *870*	320 *1050*	370 *1225*	235 *770*	265 *870*	320 *1050*	375 *1225*	280 *920*	315 *1025*	380 *1250*	445 *1450*
P4	225 *740*	255 *840*	305 *1000*	355 *1175*	245 *800*	275 *900*	330 *1075*	385 *1275*	205 *670*	235 *770*	280 *920*	325 *1075*	205 *670*	235 *770*	280 *920*	330 *1075*	245 *800*	280 *920*	335 *1100*	390 *1275*
P5	215 *710*	245 *800*	290 *950*	345 *1125*	235 *770*	265 *870*	315 *1025*	375 *1225*	195 *640*	225 *740*	265 *870*	320 *1050*	200 *660*	225 *740*	265 *870*	315 *1025*	235 *770*	265 *870*	320 *1050*	375 *1225*
P6	245 *800*	275 *900*	325 *1075*	390 *1275*	265 *870*	300 *980*	355 *1175*	420 *1375*	225 *740*	255 *840*	300 *980*	355 *1175*	220 *720*	250 *820*	300 *980*	355 *1175*	265 *870*	300 *980*	355 *1175*	425 *1400*
P7	230 *750*	260 *850*	310 *1025*	365 *1200*	250 *820*	285 *940*	335 *1100*	400 *1300*	215 *710*	240 *790*	285 *940*	335 *1100*	210 *690*	235 *770*	285 *940*	335 *1100*	250 *820*	280 *920*	335 *1100*	400 *1300*
P8	215 *710*	245 *800*	290 *950*	340 *1125*	235 *770*	265 *870*	315 *1025*	370 *1225*	195 *640*	225 *740*	265 *870*	310 *1025*	200 *660*	225 *740*	265 *870*	315 *1025*	235 *770*	265 *870*	320 *1050*	375 *1225*
P11	225 *740*	255 *840*	300 *980*	355 *1175*	245 *800*	275 *900*	325 *1075*	385 *1275*	205 *670*	235 *770*	275 *900*	325 *1075*	205 *670*	230 *750*	275 *900*	325 *1075*	245 *800*	275 *900*	325 *1075*	390 *1275*
P12	— —	— —	— —	— —	155 *510*	175 *570*	210 *690*	245 *800*	130 *425*	150 *490*	175 *570*	205 *670*	130 *425*	145 *475*	175 *570*	205 *670*	155 *510*	175 *570*	210 *690*	245 *800*
M1	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	215 *710*	245 *800*	295 *970*	345 *1125*	240 *790*	270 *890*	325 *1075*	380 *1250*
M2	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	180 *590*	200 *660*	240 *790*	280 *920*	195 *640*	220 *720*	265 *870*	310 *1025*
M3	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	145 *475*	160 *520*	190 *620*	225 *740*	160 *520*	180 *590*	210 *690*	250 *820*
M4	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	110 *360*	120 *395*	145 *475*	170 *560*	120 *395*	135 *445*	165 *540*	190 *620*
M5	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	90 *295*	100 *330*	125 *410*	145 *475*	100 *330*	115 *375*	135 *445*	160 *520*
K1	230 *750*	260 *850*	315 *1025*	370 *1225*	345 *1125*	385 *1275*	465 *1525*	550 *1800*	215 *710*	240 *790*	290 *950*	340 *1125*	215 *710*	240 *790*	290 *950*	340 *1125*	255 *840*	285 *940*	345 *1125*	405 *1325*
K2	205 *670*	230 *750*	275 *900*	330 *1075*	300 *980*	340 *1125*	410 *1350*	485 *1600*	185 *610*	210 *690*	255 *840*	300 *980*	190 *620*	210 *690*	255 *840*	295 *970*	225 *740*	255 *840*	300 *980*	355 *1175*
K3	175 *570*	195 *640*	235 *770*	280 *920*	255 *840*	290 *950*	345 *1125*	410 *1350*	160 *520*	180 *590*	215 *710*	255 *840*	160 *520*	180 *590*	215 *710*	250 *820*	190 *620*	215 *710*	255 *840*	300 *980*
K4	165 *540*	185 *610*	225 *740*	265 *870*	245 *800*	275 *900*	330 *1075*	390 *1275*	150 *490*	170 *560*	205 *670*	245 *800*	150 *490*	170 *560*	205 *670*	240 *790*	180 *590*	205 *670*	245 *800*	285 *940*
K5	100 *330*	115 *375*	135 *445*	160 *520*	150 *490*	170 *560*	200 *660*	235 *770*	95 *310*	105 *345*	125 *410*	145 *475*	95 *310*	105 *345*	125 *410*	145 *475*	110 *360*	125 *410*	150 *490*	175 *570*
K6	145 *475*	165 *540*	195 *640*	235 *770*	215 *710*	240 *790*	290 *950*	345 *1125*	135 *445*	150 *490*	180 *590*	215 *710*	135 *445*	150 *490*	180 *590*	210 *690*	160 *520*	180 *590*	215 *710*	250 *820*
K7	130 *425*	145 *475*	175 *570*	205 *670*	190 *620*	215 *710*	260 *850*	300 *980*	120 *395*	135 *445*	160 *520*	190 *620*	120 *395*	135 *445*	160 *520*	185 *610*	145 *475*	160 *520*	190 *620*	225 *740*
N1	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	1600 *5250*	1825 *6000*	2150 *7050*	2525 *8275*	1925 *6325*	2150 *7050*	2550 *8375*	3000 *9850*
N2	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	650 *2125*	730 *2400*	870 *2850*	1025 *3375*	770 *2525*	870 *2850*	1025 *3375*	1225 *4025*
N3	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	435 *1425*	490 *1600*	580 *1900*	680 *2225*	520 *1700*	580 *1900*	690 *2275*	810 *2650*
N11	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	495 *1625*	560 *1825*	660 *2175*	780 *2550*	590 *1925*	670 *2200*	790 *2600*	930 *3050*
S1	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	50 *165*	55 *180*	70 *230*	80 *260*	55 *180*	65 *215*	75 *245*	90 *295*
S2	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	41 *135*	46 *150*	55 *180*	65 *215*	45 *150*	50 *165*	60 *195*	70 *230*
S3	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	36 *120*	40 *130*	48 *155*	55 *180*	40 *130*	45 *150*	55 *180*	60 *195*
S11	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	70 *230*	80 *260*	95 *310*	115 *375*	80 *260*	90 *295*	105 *345*	125 *410*
S12	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	42 *140*	47 *155*	55 *180*	65 *215*	55 *180*	60 *195*	75 *245*	85 *280*
S13	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	24 *80*	27 *90*	32 *105*	37 *120*	32 *105*	36 *120*	43 *140*	50 *165*
H5	47 *155*	55 *180*	65 *215*	75 *245*	— —	— —	— —	— —	— —	— —	— —	— —	43 *140*	49 *160*	60 *195*	70 *230*	48 *155*	55 *180*	65 *215*	75 *245*
H8	50 *165*	55 *180*	65 *215*	80 *260*	— —	— —	— —	— —	— —	— —	— —	— —	45 *150*	50 *165*	60 *195*	70 *230*	50 *165*	55 *180*	65 *215*	80 *260*
H11	60 *195*	70 *230*	80 *260*	95 *310*	— —	— —	— —	— —	— —	— —	— —	— —	55 *180*	60 *195*	75 *245*	85 *280*	60 *195*	70 *230*	80 *260*	95 *310*
H12	90 *295*	100 *330*	120 *395*	140 *460*	— —	— —	— —	— —	— —	— —	— —	— —	80 *260*	90 *295*	110 *360*	125 *410*	95 *310*	110 *360*	130 *425*	150 *490*

R217/220.29-04 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	MS2050				F40M				H25				MS2500				MP3501			
	100%	70%	30%	10%	100%	70%	30%	10%	100%	70%	30%	10%	100%	70%	30%	10%	100%	70%	30%	10%
P1	—	—	—	—	250	285	340	400	—	—	—	—	360	410	490	580	495	540	590	640
	—	—	—	—	*820*	*940*	*1125*	*1300*	—	—	—	—	*1175*	*1350*	*1600*	*1900*	*1625*	*1775*	*1925*	*2100*
P2	—	—	—	—	245	275	330	390	—	—	—	—	350	395	475	560	485	530	570	630
	—	—	—	—	*800*	*900*	*1075*	*1275*	—	—	—	—	*1150*	*1300*	*1550*	*1825*	*1600*	*1750*	*1875*	*2075*
P3	—	—	—	—	215	240	290	335	—	—	—	—	310	345	415	485	415	455	490	540
	—	—	—	—	*710*	*790*	*950*	*1100*	—	—	—	—	*1025*	*1125*	*1350*	*1600*	*1350*	*1500*	*1600*	*1775*
P4	—	—	—	—	190	210	255	295	—	—	—	—	270	305	365	425	365	400	430	470
	—	—	—	—	*620*	*690*	*840*	*970*	—	—	—	—	*890*	*1000*	*1200*	*1400*	*1200*	*1300*	*1400*	*1550*
P5	—	—	—	—	180	205	245	290	—	—	—	—	260	290	350	415	350	380	410	445
	—	—	—	—	*590*	*670*	*800*	*950*	—	—	—	—	*850*	*950*	*1150*	*1350*	*1150*	*1250*	*1350*	*1450*
P6	—	—	—	—	205	230	275	325	—	—	—	—	295	335	395	465	390	430	465	500
	—	—	—	—	*670*	*750*	*900*	*1075*	—	—	—	—	*970*	*1100*	*1300*	*1525*	*1275*	*1400*	*1525*	*1650*
P7	—	—	—	—	195	220	255	305	—	—	—	—	280	315	370	440	370	405	435	475
	—	—	—	—	*640*	*720*	*840*	*1000*	—	—	—	—	*920*	*1025*	*1225*	*1450*	*1225*	*1325*	*1425*	*1550*
P8	—	—	—	—	180	205	245	285	—	—	—	—	260	290	350	410	350	380	410	450
	—	—	—	—	*590*	*670*	*800*	*940*	—	—	—	—	*850*	*950*	*1150*	*1350*	*1150*	*1250*	*1350*	*1475*
P11	—	—	—	—	190	210	250	295	—	—	—	—	270	305	360	430	360	395	425	460
	—	—	—	—	*620*	*690*	*820*	*970*	—	—	—	—	*890*	*1000*	*1175*	*1400*	*1175*	*1300*	*1400*	*1500*
P12	—	—	—	—	120	135	160	190	—	—	—	—	170	195	230	270	210	225	240	260
	—	—	—	—	*395*	*445*	*520*	*620*	—	—	—	—	*560*	*640*	*750*	*890*	*690*	*740*	*790*	*850*
M1	—	—	—	—	195	220	265	315	—	—	—	—	250	285	340	405	280	315	370	435
	—	—	—	—	*640*	*720*	*870*	*1025*	—	—	—	—	*820*	*940*	*1125*	*1325*	*920*	*1025*	*1225*	*1425*
M2	—	—	—	—	160	180	220	260	—	—	—	—	205	235	280	335	230	260	305	360
	—	—	—	—	*520*	*590*	*720*	*850*	—	—	—	—	*670*	*770*	*920*	*1100*	*750*	*850*	*1000*	*1175*
M3	—	—	—	—	130	145	175	205	—	—	—	—	165	185	225	260	180	205	240	285
	—	—	—	—	*425*	*475*	*570*	*670*	—	—	—	—	*540*	*610*	*740*	*850*	*590*	*670*	*790*	*940*
M4	—	—	—	—	100	115	135	155	—	—	—	—	130	145	170	200	140	155	185	215
	—	—	—	—	*330*	*375*	*445*	*510*	—	—	—	—	*425*	*475*	*560*	*660*	*460*	*510*	*610*	*710*
M5	—	—	—	—	85	95	110	130	—	—	—	—	105	120	140	165	115	130	155	180
	—	—	—	—	*280*	*310*	*360*	*425*	—	—	—	—	*345*	*395*	*460*	*540*	*375*	*425*	*510*	*590*
K1	—	—	—	—	195	220	260	310	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	*640*	*720*	*850*	*1025*	—	—	—	—	—	—	—	—	—	—	—	—
K2	—	—	—	—	170	190	230	275	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	*560*	*620*	*750*	*900*	—	—	—	—	—	—	—	—	—	—	—	—
K3	—	—	—	—	145	165	195	230	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	*475*	*540*	*640*	*750*	—	—	—	—	—	—	—	—	—	—	—	—
K4	—	—	—	—	140	155	185	220	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	*460*	*510*	*610*	*720*	—	—	—	—	—	—	—	—	—	—	—	—
K5	—	—	—	—	85	95	115	135	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	*280*	*310*	*375*	*445*	—	—	—	—	—	—	—	—	—	—	—	—
K6	—	—	—	—	120	135	165	195	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	*395*	*445*	*540*	*640*	—	—	—	—	—	—	—	—	—	—	—	—
K7	—	—	—	—	110	120	145	170	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	*360*	*395*	*475*	*560*	—	—	—	—	—	—	—	—	—	—	—	—
N1	—	—	—	—	1450	1625	1975	2300	1775	2025	2400	2825	—	—	—	—	—	—	—	—
	—	—	—	—	*4750*	*5325*	*6475*	*7550*	*5825*	*6650*	*7875*	*9275*	—	—	—	—	—	—	—	—
N2	—	—	—	—	590	660	800	920	720	810	970	1150	—	—	—	—	—	—	—	—
	—	—	—	—	*1925*	*2175*	*2625*	*3025*	*2350*	*2650*	*3175*	*3775*	—	—	—	—	—	—	—	—
N3	—	—	—	—	390	440	530	620	480	540	650	760	—	—	—	—	—	—	—	—
	—	—	—	—	*1275*	*1450*	*1750*	*2025*	*1575*	*1775*	*2125*	*2500*	—	—	—	—	—	—	—	—
N11	—	—	—	—	445	500	610	700	550	620	740	870	—	—	—	—	—	—	—	—
	—	—	—	—	*1450*	*1650*	*2000*	*2300*	*1800*	*2025*	*2425*	*2850*	—	—	—	—	—	—	—	—
S1	55	60	70	85	47	55	60	75	—	—	—	—	65	70	85	100	65	75	85	100
	180	*195*	*230*	*280*	*155*	*180*	*195*	*245*	—	—	—	—	*215*	*230*	*280*	*330*	*215*	*245*	*280*	*330*
S2	43	48	60	65	38	42	50	60	—	—	—	—	50	55	65	80	50	60	70	80
	140	*155*	*195*	*215*	*125*	*140*	*165*	*195*	—	—	—	—	*165*	*180*	*215*	*260*	*165*	*195*	*230*	*260*
S3	38	42	50	60	33	37	44	50	—	—	—	—	44	50	60	70	45	50	60	70
	125	*140*	*165*	*195*	*110*	*120*	*145*	*165*	—	—	—	—	*145*	*165*	*195*	*230*	*150*	*165*	*195*	*230*
S11	75	85	100	120	65	75	90	105	—	—	—	—	90	100	120	140	90	105	120	145
	245	*280*	*330*	*395*	*215*	*245*	*295*	*345*	—	—	—	—	*295*	*330*	*395*	*460*	*295*	*345*	*395*	*475*
S12	50	60	70	85	45	50	60	70	—	—	—	—	60	70	80	95	65	70	85	100
	165	*195*	*230*	*280*	*150*	*165*	*195*	*230*	—	—	—	—	*195*	*230*	*260*	*310*	*215*	*230*	*280*	*330*
S13	30	34	40	47	26	30	35	41	—	—	—	—	35	40	47	55	36	41	48	55
	100	*110*	*130*	*155*	*85*	*100*	*115*	*135*	—	—	—	—	*115*	*130*	*155*	*180*	*120*	*135*	*155*	*180*
H5	—	—	—	—	39	45	55	60	—	—	—	—	—	—	—	—	55	65	75	90
	—	—	—	—	*130*	*150*	*180*	*195*	—	—	—	—	—	—	—	—	*180*	*215*	*245*	*295*
H8	—	—	—	—	42	47	55	65	—	—	—	—	—	—	—	—	60	65	80	90
	—	—	—	—	*140*	*155*	*180*	*215*	—	—	—	—	—	—	—	—	*195*	*215*	*260*	*295*
H11	—	—	—	—	50	55	70	80	—	—	—	—	—	—	—	—	75	80	95	115
	—	—	—	—	*165*	*180*	*230*	*260*	—	—	—	—	—	—	—	—	*245*	*260*	*310*	*375*
H12	—	—	—	—	75	85	100	115	—	—	—	—	105	120	145	170	105	120	140	165
	—	—	—	—	*245*	*280*	*330*	*375*	—	—	—	—	*345*	*395*	*475*	*560*	*345*	*395*	*460*	*540*

R217.29I-05 – Metric





- For insert selection and cutting data recommendations, see page(s) 628-630
- For complete insert programme, see page(s) 817
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	DCX	ZEFP	APMXS	DMM	LS	OAL	LUX	RMPX°	Cmin	Cmax	RPMX	Weight	Insert
			mm	mm		mm	mm	mm	mm	mm		mm	mm		kg	
R217.29I-2016.0-05.1.100A	03278796	Cylindrical	5,9	16,0	1	5,0	20,0	90,0	150,0	60,0	6,9	21,8	30,0	29900	0,4	RD..10T3
R217.29I-1620.0-05.2.112E	03278795	Cylindrical	10,0	20,0	2	5,0	16,0	140,0	160,0	112,0	90,0	30,0	38,0	27400	0,5	RD..10T3
R217.29I-2025.0-05.2.120A	03278797	Cylindrical	15,0	25,0	2	5,0	20,0	140,0	170,0	120,0	14,5	40,0	48,0	24400	0,4	RD..10T3
R217.29I-2525.0-05.3.124A	03278798	Cylindrical	15,0	25,0	3	5,0	25,0	130,0	180,0	50,1	13,8	40,0	48,0	24400	0,7	RD..10T3
R217.29I-2520.3-05.2.070A	03278800	Weldon	10,0	20,0	2	5,0	25,0	55,5	125,5	70,0	90,0	30,0	38,0	27400	0,4	RD..10T3
R217.29I-2525.3-05.3.050A	03278801	Weldon	15,0	25,0	3	5,0	25,0	55,5	105,5	50,0	14,4	40,0	48,0	24400	0,4	RD..10T3
R217.29I-3232.3-05.4.060A	03278802	Weldon	22,0	32,0	4	5,0	32,0	59,5	119,5	60,0	8,7	54,0	62,0	21600	0,7	RD..10T3

Spare Parts, included in delivery

For cutter	Insert key	Insert screw
		
R217.29I-2016-2520	H4B-T09P	C03006-T09P
R217.29I-2025-3232	H4B-T09P	C03007-T09P

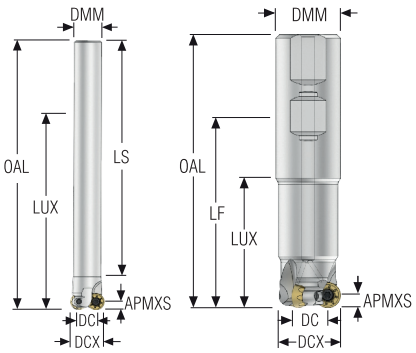
Accessories

For cutter	Insert clamping torque	Torque key
		
R217.29I-..	2.0NM	T00-09P20

Torque and fixed keys, see page 872

R217.29I-05 – inch





- For insert selection and cutting data recommendations, see page(s) 628-630
- For complete insert programme, see page(s) 817
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	DCX	ZEFP	APMXS	DMM	LS	OAL	LUX	RMPX°	C min	C max	RPMX	Weight	Insert
			inch	inch		inch	inch	inch	inch	inch		inch	inch		lbs	
R217.29I-01.00-3-05.3A	03278812	Weldon	0.608	1.000	3	0.197	1.000	2.280	5.280	3.000	13,8	1.610	1.921	24400	1.100	RD..10T3

Spare Parts, included in delivery

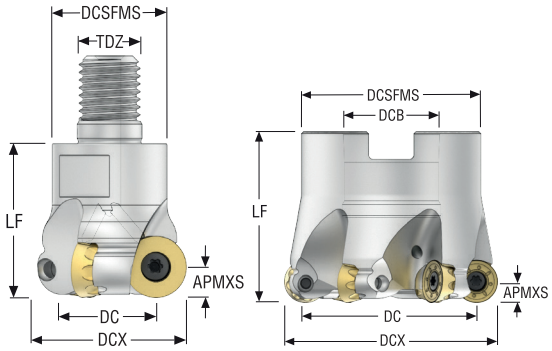
For cutter	Insert key	Insert screw
		
R217.29I-..	H4B-T09P	C03007-T09P

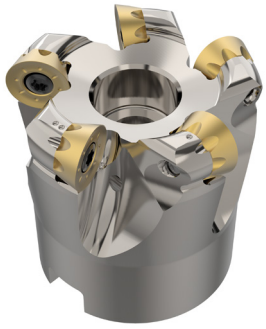
Accessories

Insert clamping torque	Torque key
	
17.7IN.LBS	T00-09P20

Torque and fixed keys, see page 872

R217/220.29I-05 – Metric



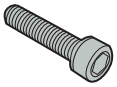


- For insert selection and cutting data recommendations, see page(s) 628-630
- For complete insert programme, see page(s) 817
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	DCX	ZEFP	APMXS	DCB	TDZ	DCSFMS	LF	RMPX°	Cmin	Cmax	RPMX	Weight	Insert
			mm	mm		mm	mm		mm	mm		mm	mm		kg	
R217.29I-1020.RE-05.2A	03278781	Combimaster	10,0	20,0	2	5,0	–	M10	18,5	28,0	90,0	30,0	38,0	27400	0,1	RD..10T3
R217.29I-1225.RE-05.3A	03278782	Combimaster	15,0	25,0	3	5,0	–	M12	23,0	30,0	13,8	40,0	48,0	24400	0,2	RD..10T3
R217.29I-1232.RE-05.4A	03278783	Combimaster	22,0	32,0	4	5,0	–	M12	23,0	30,0	8,0	54,0	62,0	21600	0,2	RD..10T3
R217.29I-1632.RE-05.4A	03278784	Combimaster	22,0	32,0	4	5,0	–	M16	30,0	40,0	8,8	54,0	62,0	21600	0,3	RD..10T3
R217.29I-1632.RE-05.5A	03278785	Combimaster	22,2	32,0	5	5,0	–	M16	30,0	40,0	4,1	54,4	62,0	21600	0,3	RD..10T3
R217.29I-1635.RE-05.5A	03278786	Combimaster	25,1	35,0	5	5,0	–	M16	30,0	40,0	7,5	60,2	68,0	15600	0,3	RD..10T3
R217.29I-1640.RE-05.4A	03278787	Combimaster	30,0	40,0	4	5,0	–	M16	30,0	40,0	5,5	70,0	78,0	19300	0,3	RD..10T3
R217.29I-1640.RE-05.5A	03278788	Combimaster	30,0	40,0	5	5,0	–	M16	30,0	40,0	5,5	70,0	78,0	19300	0,3	RD..10T3
R217.29I-2040.RE-05.6A	03278791	Combimaster	30,2	40,0	6	5,0	–	M20	36,5	40,0	5,9	70,4	78,0	19300	0,4	RD..10T3
R217.29I-1642.RE-05.5A	03278789	Combimaster	32,0	42,0	5	5,0	–	M16	30,0	40,0	5,6	74,0	82,0	18800	0,3	RD..10T3
R217.29I-1642.RE-05.6A	03278790	Combimaster	32,0	42,0	6	5,0	–	M16	30,0	40,0	6,0	74,0	82,0	18800	0,3	RD..10T3
R220.29I-0040-05.5A	03278803	Arbor	30,0	40,0	5	5,0	16,0	–	33,0	40,0	7,3	70,0	78,0	19300	0,3	RD..10T3
R220.29I-0050-05.4A	03278804	Arbor	40,0	50,0	4	5,0	22,0	–	41,0	40,0	4,3	90,0	98,0	17300	0,4	RD..10T3
R220.29I-0050-05.6A	03278805	Arbor	40,0	50,0	6	5,0	22,0	–	41,0	40,0	4,3	90,0	98,0	17300	0,4	RD..10T3
R220.29I-0052-05.7A	03278806	Arbor	42,1	52,0	7	5,0	22,0	–	41,0	40,0	4,3	94,2	102,0	17000	0,4	RD..10T3
R220.29I-0063-05.6A	03278807	Arbor	53,0	63,0	6	5,0	22,0	–	49,0	40,0	3,1	116,0	124,0	15800	0,6	RD..10T3
R220.29I-0063-05.8A	03278808	Arbor	53,0	63,0	8	5,0	22,0	–	49,0	40,0	3,9	116,0	124,0	15800	0,6	RD..10T3

For Combimaster Shanks, see Machining Navigator Tooling System

Spare Parts, included in delivery

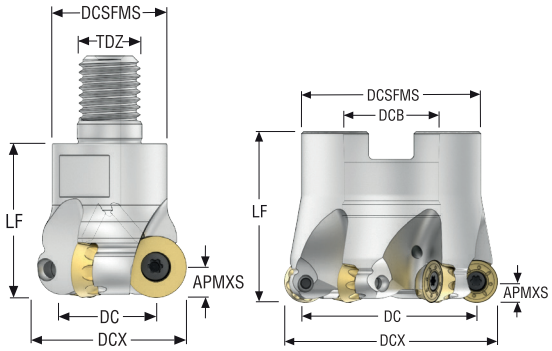
For cutter	Arbor screw	Insert key	Insert screw
			
R217.29I-1020	–	H4B-T09P	C03006-T09P
R217.29I-1225-2042	–	H4B-T09P	C03007-T09P
R220.29I-0040	220.17-689	H4B-T09P	C03007-T09P
R220.29I-0050-0063	220.17-692	H4B-T09P	C03007-T09P

Accessories

For cutter	Insert clamping torque	Torque key
		
R217/220.29I-..	2.0NM	T00-09P20

Torque and fixed keys, see page 872

R217/220.29I-05 – inch



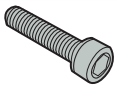


- For insert selection and cutting data recommendations, see page(s) 628-630
- For complete insert programme, see page(s) 817
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	DCX	ZEFP	APMXS	DCB	TDZ	DCSFMS	LF	RMPX°	C min	C max	RPMX	Weight	Insert
			inch	inch		inch	inch		inch	inch		inch	inch		lbs	
R217.29I-1.00-12RE-05.3A	03278809	Combimaster	0.608	1.000	3	0.197	–	M12	0.906	1.181	13,3	1.610	1.921	24400	0.440	RD..10T3
R217.29I-1.25-16RE-05.4A	03278810	Combimaster	0.856	1.250	4	0.197	–	M16	1.181	1.575	8,9	2.106	2.421	21600	0.440	RD..10T3
R217.29I-1.50-16RE-05.5A	03278811	Combimaster	1.106	1.500	5	0.197	–	M16	1.181	1.575	6,0	2.606	2.921	19300	0.660	RD..10T3
R220.29I-01.50-05.5A	03278813	Arbor	1.106	1.500	5	0.197	0.500	–	1.339	1.500	6,5	2.606	2.921	14000	0.660	RD..10T3
R220.29I-02.00-05.6A	03278814	Arbor	1.606	2.000	6	0.197	0.750	–	1.614	1.500	4,2	3.606	3.921	12500	0.880	RD..10T3

For Combimaster Shanks, see Machining Navigator Tooling System

Spare Parts, included in delivery

For cutter	Arbor screw	Insert key	Insert screw
			
R217.29I-..	–	H4B-T09P	C03007-T09P
R220.29I-01.50	UC6S1/4UNFX1	H4B-T09P	C03007-T09P
R220.29I-02.00	UC6S3/8UNFX1	H4B-T09P	C03007-T09P

Accessories

For cutter	Insert clamping torque	Torque key
		
R217/220.29I-..	17.7IN.LBS	T00-09P20

Torque and fixed keys, see page 872

R217/220.29I-05 – Insert selection – mm/*Inch*

SMG		a_p	f_z			
			100%	70%	30%	10%
P1	RDKT10T3M0T-6-M05 MP2501	2,0 *0.080*	0,16 *0.0065*	0,16 *0.0065*	0,18 *0.0070*	0,28 *0.011*
P2	RDKT10T3M0T-6-M05 MP2501	2,0 *0.080*	0,16 *0.0065*	0,16 *0.0065*	0,18 *0.0070*	0,30 *0.012*
P3	RDKT10T3M0T-6-M05 MP2501	2,0 *0.080*	0,15 *0.0060*	0,15 *0.0060*	0,17 *0.0065*	0,28 *0.011*
P4	RDKT10T3M0T-8-M07 MP2501	2,0 *0.080*	0,20 *0.0080*	0,20 *0.0080*	0,24 *0.0095*	0,38 *0.015*
P5	RDKT10T3M0T-8-M07 MP2501	2,0 *0.080*	0,20 *0.0080*	0,20 *0.0080*	0,24 *0.0095*	0,38 *0.014*
P6	RDKT10T3M0T-8-M07 MP2501	2,0 *0.080*	0,20 *0.0080*	0,20 *0.0080*	0,24 *0.0095*	0,36 *0.014*
P7	RDKW10T3M0T-8-MD06 MP1501	2,0 *0.080*	0,17 *0.0065*	0,17 *0.0065*	0,20 *0.0080*	0,32 *0.013*
P8	RDKW10T3M0T-8-MD06 MP1501	2,0 *0.080*	0,18 *0.0070*	0,18 *0.0070*	0,20 *0.0080*	0,32 *0.013*
P11	RDKW10T3M0T-8-MD06 MP1501	2,0 *0.080*	0,17 *0.0065*	0,17 *0.0065*	0,20 *0.0080*	0,32 *0.013*
P12	RDKW10T3M0T-8-MD06 MP1501	1,6 *0.065*	0,13 *0.0050*	0,13 *0.0050*	0,15 *0.0060*	0,24 *0.0095*
M1	RDHT10T3M0T-8-M11 MS2050	2,0 *0.080*	0,36 *0.014*	0,36 *0.014*	0,40 *0.016*	0,65 *0.026*
M2	RDHT10T3M0T-8-M11 MS2050	2,0 *0.080*	0,32 *0.013*	0,32 *0.013*	0,36 *0.014*	0,60 *0.024*
M3	RDHT10T3M0T-8-M11 MS2050	1,6 *0.065*	0,28 *0.011*	0,28 *0.011*	0,32 *0.013*	0,50 *0.020*
M4	RDHT10T3M0T-8-M11 MS2050	1,2 *0.048*	0,30 *0.012*	0,30 *0.012*	0,34 *0.013*	0,50 *0.020*
M5	RDHT10T3M0T-8-M11 MS2050	1,2 *0.048*	0,30 *0.012*	0,30 *0.012*	0,34 *0.013*	0,50 *0.020*
K1	RDKW10T3M0T-8-MD06 MK2050	2,0 *0.080*	0,19 *0.0075*	0,19 *0.0075*	0,22 *0.0085*	0,34 *0.013*
K2	RDKW10T3M0T-8-MD06 MK2050	2,0 *0.080*	0,18 *0.0070*	0,18 *0.0070*	0,20 *0.0080*	0,32 *0.013*
K3	RDKW10T3M0T-8-MD06 MK2050	2,0 *0.080*	0,18 *0.0070*	0,18 *0.0070*	0,20 *0.0080*	0,32 *0.013*
K4	RDKW10T3M0T-8-MD06 MK2050	2,0 *0.080*	0,18 *0.0070*	0,18 *0.0070*	0,20 *0.0080*	0,32 *0.013*
K5	RDKW10T3M0T-8-MD06 MK2050	2,0 *0.080*	0,16 *0.0065*	0,16 *0.0065*	0,18 *0.0070*	0,28 *0.011*
K6	RDKW10T3M0T-8-MD06 MK2050	2,0 *0.080*	0,18 *0.0070*	0,18 *0.0070*	0,20 *0.0080*	0,32 *0.013*
K7	RDKW10T3M0T-8-MD06 MK2050	2,0 *0.080*	0,16 *0.0065*	0,16 *0.0065*	0,18 *0.0070*	0,28 *0.011*
N1	RDHT10T3M0-8-E04 H25	2,0 *0.080*	0,16 *0.0065*	0,16 *0.0065*	0,19 *0.0075*	0,30 *0.012*
N2	RDHT10T3M0-8-E04 H25	2,0 *0.080*	0,16 *0.0065*	0,16 *0.0065*	0,19 *0.0075*	0,30 *0.012*
N3	RDHT10T3M0-8-E04 H25	2,0 *0.080*	0,16 *0.0065*	0,16 *0.0065*	0,19 *0.0075*	0,30 *0.012*
N11	RDHT10T3M0-8-E04 H25	2,0 *0.080*	0,16 *0.0065*	0,16 *0.0065*	0,19 *0.0075*	0,30 *0.012*
S1	RDKT10T3M0T-8-M07 MS2500	1,2 *0.048*	0,19 *0.0075*	0,19 *0.0075*	0,22 *0.0085*	0,34 *0.013*
S2	RDKT10T3M0T-8-M07 MS2500	1,2 *0.048*	0,19 *0.0075*	0,19 *0.0075*	0,22 *0.0085*	0,34 *0.013*
S3	RDKT10T3M0T-6-M05 MS2500	1,2 *0.048*	0,12 *0.0048*	0,12 *0.0048*	0,14 *0.0055*	0,22 *0.0085*
S11	RDHT10T3M0T-8-M11 MS2050	1,4 *0.055*	0,30 *0.012*	0,30 *0.012*	0,36 *0.014*	0,55 *0.022*
S12	RDHT10T3M0T-8-M11 MS2050	1,4 *0.055*	0,30 *0.012*	0,30 *0.012*	0,36 *0.014*	0,55 *0.022*
S13	RDHT10T3M0T-8-M11 MS2050	1,2 *0.048*	0,30 *0.012*	0,30 *0.012*	0,34 *0.013*	0,50 *0.020*
H5	RDHW10T3M0T-8-MD06 MH1000	1,6 *0.065*	0,13 *0.0050*	0,13 *0.0050*	0,15 *0.0060*	0,24 *0.0095*
H8	RDHW10T3M0T-8-MD06 MH1000	1,4 *0.055*	0,11 *0.0044*	0,11 *0.0044*	0,12 *0.0048*	0,19 *0.0075*
H11	RDHW10T3M0T-8-MD06 MH1000	1,6 *0.065*	0,13 *0.0050*	0,13 *0.0050*	0,15 *0.0060*	0,24 *0.0095*
H12	RDHW10T3M0T-8-MD06 MH1000	1,4 *0.055*	0,11 *0.0044*	0,11 *0.0044*	0,12 *0.0048*	0,19 *0.0075*

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

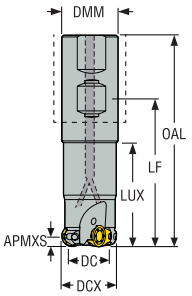
R217/220.29-05 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	MH1000				F15M				MK2050				F25M				MP3000				MS2050				F40M			
	100%	70%	30%	10%	100%	70%	30%	10%	100%	70%	30%	10%	100%	70%	30%	10%	100%	70%	30%	10%	100%	70%	30%	10%	100%	70%	30%	10%
P1	—	—	—	—	290	325	395	460	310	355	425	500	265	300	360	425	300	340	410	480	310	350	420	490	280	320	380	445
	—	—	—	—	*950*	*1075*	*1300*	*1500*	*1025*	*1175*	*1400*	*1650*	*870*	*980*	*1175*	*1400*	*980*	*1125*	*1350*	*1575*	*1025*	*1150*	*1375*	*1600*	*920*	*1050*	*1250*	*1450*
P2	—	—	—	—	280	320	380	450	305	345	410	485	255	290	350	410	290	330	395	470	300	340	410	480	270	310	370	435
	—	—	—	—	*920*	*1050*	*1250*	*1475*	*1000*	*1125*	*1350*	*1600*	*840*	*950*	*1150*	*1350*	*950*	*1075*	*1300*	*1550*	*980*	*1125*	*1350*	*1575*	*890*	*1025*	*1225*	*1425*
P3	—	—	—	—	245	280	330	390	265	300	360	425	225	255	305	360	255	290	345	405	260	300	350	420	240	270	320	380
	—	—	—	—	*800*	*920*	*1075*	*1275*	*870*	*980*	*1175*	*1400*	*740*	*840*	*1000*	*1175*	*840*	*950*	*1125*	*1325*	*850*	*980*	*1150*	*1375*	*790*	*890*	*1050*	*1250*
P4	—	—	—	—	215	245	295	345	235	265	320	370	195	225	270	315	225	255	305	360	230	260	315	370	210	240	285	335
	—	—	—	—	*710*	*800*	*970*	*1125*	*770*	*870*	*1050*	*1225*	*640*	*740*	*890*	*1025*	*740*	*840*	*1000*	*1175*	*750*	*850*	*1025*	*1225*	*690*	*790*	*940*	*1100*
P5	250	285	340	400	210	235	280	330	225	255	305	360	190	215	260	305	215	245	295	345	220	250	300	355	200	225	275	320
	820	*940*	*1125*	*1300*	*690*	*770*	*920*	*1075*	*740*	*840*	*1000*	*1175*	*620*	*710*	*850*	*1000*	*710*	*800*	*970*	*1125*	*720*	*820*	*980*	*1175*	*660*	*740*	*900*	*1050*
P6	280	320	380	450	235	265	315	370	255	290	340	405	215	245	290	340	245	275	330	385	250	285	335	395	230	260	305	360
	920	*1050*	*1250*	*1475*	*770*	*870*	*1025*	*1225*	*840*	*950*	*1125*	*1325*	*710*	*800*	*950*	*1125*	*800*	*900*	*1075*	*1275*	*820*	*940*	*1100*	*1300*	*750*	*850*	*1000*	*1175*
P7	265	305	360	425	220	250	300	350	240	270	325	380	200	230	275	320	230	260	310	365	235	270	320	375	215	245	290	340
	870	*1000*	*1175*	*1400*	*720*	*820*	*980*	*1150*	*790*	*890*	*1075*	*1250*	*660*	*750*	*900*	*1050*	*750*	*850*	*1025*	*1200*	*770*	*890*	*1050*	*1225*	*710*	*800*	*950*	*1125*
P8	250	280	335	395	205	235	280	330	220	255	300	355	190	215	255	300	215	245	290	340	220	250	295	355	200	225	270	320
	820	*920*	*1100*	*1300*	*670*	*770*	*920*	*1075*	*720*	*840*	*980*	*1175*	*620*	*710*	*840*	*980*	*710*	*800*	*950*	*1125*	*720*	*820*	*970*	*1175*	*660*	*740*	*890*	*1050*
P11	260	295	350	410	215	245	290	340	230	265	315	370	195	225	265	310	225	255	300	355	230	260	310	365	210	240	280	330
	850	*970*	*1150*	*1350*	*710*	*800*	*950*	*1125*	*750*	*870*	*1025*	*1225*	*640*	*740*	*870*	*1025*	*740*	*840*	*980*	*1175*	*750*	*850*	*1025*	*1200*	*690*	*790*	*920*	*1075*
P12	165	190	225	265	—	—	—	—	150	170	200	235	125	145	170	200	145	165	195	230	145	165	195	230	130	150	180	210
	540	*620*	*740*	*870*	—	—	—	—	*490*	*560*	*660*	*770*	*410*	*475*	*560*	*660*	*475*	*540*	*640*	*750*	*475*	*540*	*640*	*750*	*425*	*490*	*590*	*690*
M1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	220	250	295	350	240	275	330	385	220	250	300	350
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	*720*	*820*	*970*	*1150*	*790*	*900*	*1075*	*1275*	*720*	*820*	*980*	*1150*
M2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	180	205	245	290	200	225	270	320	180	205	245	290
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	*590*	*670*	*800*	*950*	*660*	*740*	*890*	*1050*	*590*	*670*	*800*	*950*
M3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	145	165	195	230	160	180	215	255	145	165	195	230
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	*475*	*540*	*640*	*750*	*520*	*590*	*710*	*840*	*475*	*540*	*640*	*750*
M4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	110	125	150	175	125	140	165	195	110	125	150	175
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	*360*	*410*	*490*	*570*	*410*	*460*	*540*	*640*	*360*	*410*	*490*	*570*
M5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	90	105	125	145	100	115	135	160	95	105	125	145
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	*295*	*345*	*410*	*475*	*330*	*375*	*445*	*520*	*310*	*345*	*410*	*475*
K1	270	305	365	430	220	250	300	355	325	370	445	530	205	230	275	325	230	265	315	370	—	—	—	—	215	245	295	345
	890	*1000*	*1200*	*1400*	*720*	*820*	*980*	*1175*	*1075*	*1225*	*1450*	*1750*	*670*	*750*	*900*	*1075*	*750*	*870*	*1025*	*1225*	—	—	—	—	*710*	*800*	*970*	*1125*
K2	240	270	320	380	200	225	265	315	290	330	395	465	180	205	245	290	205	235	280	325	—	—	—	—	190	215	260	305
	790	*890*	*1050*	*1250*	*660*	*740*	*870*	*1025*	*950*	*1075*	*1300*	*1525*	*590*	*670*	*800*	*950*	*670*	*770*	*920*	*1075*	—	—	—	—	*620*	*710*	*850*	*1000*
K3	200	230	275	320	165	190	225	265	245	280	335	390	155	175	205	245	175	200	235	275	—	—	—	—	160	185	220	260
	660	*750*	*900*	*1050*	*540*	*620*	*740*	*870*	*800*	*920*	*1100*	*1275*	*510*	*570*	*670*	*800*	*570*	*660*	*770*	*900*	—	—	—	—	*520*	*610*	*720*	*850*
K4	195	220	260	305	160	180	215	255	235	270	320	375	145	165	200	235	165	190	225	265	—	—	—	—	155	175	210	245
	640	*720*	*850*	*1000*	*520*	*590*	*710*	*840*	*770*	*890*	*1050*	*1225*	*475*	*540*	*660*	*770*	*540*	*620*	*740*	*870*	—	—	—	—	*510*	*570*	*690*	*800*
K5	115	130	160	185	95	110	130	155	140	160	195	225	90	100	120	140	100	115	135	160	—	—	—	—	95	105	130	150
	375	*425*	*520*	*610*	*310*	*360*	*425*	*510*	*460*	*520*	*640*	*740*	*295*	*330*	*395*	*460*	*330*	*375*	*445*	*520*	—	—	—	—	*310*	*345*	*425*	*490*
K6	170	195	230	270	140	160	190	225	205	235	280	330	130	145	175	205	145	165	200	235	—	—	—	—	135	155	185	215
	560	*640*	*750*	*890*	*460*	*520*	*620*	*740*	*670*	*770*	*920*	*1075*	*425*	*475*	*570*	*670*	*475*	*540*	*660*	*770*	—	—	—	—	*445*	*510*	*610*	*710*
K7	150	170	205	240	125	140	170	195	180	205	250	290	115	130	155	180	130	145	175	205	—	—	—	—	120	135	165	190
	490	*560*	*670*	*790*	*410*	*460*	*560*	*640*	*590*	*670*	*820*	*950*	*375*	*425*	*510*	*590*	*425*	*475*	*570*	*670*	—	—	—	—	*395*	*445*	*540*	*620*
N1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1725	1950	2350	2750	—	—	—	—	1625	1825	2225	2575
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	*5650*	*6400*	*7700*	*9025*	—	—	—	—	*5325*	*6000*	*7300*	*8450*
N2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	700	790	950	1100	—	—	—	—	650	740	900	1050
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	*2300*	*2600*	*3125*	*3600*	—	—	—	—	*2125*	*2425*	*2950*	*3450*
N3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	465	530	630	740	—	—	—	—	435	495	600	700
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	*1525*	*1750*	*2075*	*2425*	—	—	—	—	*1425*	*1625*	*1975*	*2300*
N11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	530	600	720	850	—	—	—	—	495	570	680	790
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	*1750*	*1975*	*2350*	*2800*	—	—	—	—	*1625*	*1875*	*2225*	*2600*
S1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	50	60	70	85	55	65	75	90	50	60	70	85
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	*165*	*195*	*230*	*280*	*180*	*215*	*245*	*295*	*165*	*195*	*230*	*280*
S2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	42	47	55	65	46	50	60	75	42	47	55	65
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	*140*	*155*	*180*	*215*	*150*	*165*	*195*	*245*	*140*	*155*	*180*	*215*
S3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	36	41	49	60	40	46	55	65	37	42	49	60
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	*120*	*135*	*160*	*195*	*130*	*150*	*180*	*215*	*120*	*140*	*160*	*195*
S11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	75	80	100	115	80	90	110	130	75	85	100	115
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	*245*	*260*	*330*	*375*	*260*	*295*	*360*	*425*	*245*	*280*	*330*	*375*
S12	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	50	55	70	80	55	65	75	90	50	55	70	80
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	*165*	*180*	*230*	*260*	*180*	*215*	*245*	*295*	*165*	*180*	*230*	*260*
S13	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	29	33	39	46	32	36	43	50	29	33	39	46
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	*95*	*110*	*130*	*150*	*105*	*120*	*140*	*165*	*95*	*110*	*130*	*150*
H5	55	65	75	90	46	50	60	75	—	—	—	—	—	—	—	—	44	50	60	70	—	—	—	—	44	50	60	70
	180	*215*	*245*	*295*	*150*	*165*	*195*	*245*	—	—	—	—	—	—	—	—	*145*	*165*	*195*	*230*	—	—	—	—	*145*	*165*	*195*	*230*
H8	60	65	80	90	48	55	65	75	—	—	—	—	—	—	—	—	47	55	65	75	—	—	—	—	46	50	60	75
	195	*215*	*260*	*295*	*155*	*180*	*215*	*245*	—	—	—	—	—	—	—	—	*155*	*180*	*215*	*245*	—	—	—	—	*150*	*165*	*195*	*245*
H11	70	80	95	110	60	65	80	90	—	—	—	—	—	—	—	—	55	65	75	90	—	—	—	—	55	65	75	90
	230	*260*	*310*	*360*	*195*	*215*	*260*	*295*	—	—	—	—	—	—	—	—	*180*	*215*	*245*	*295*	—	—	—	—	*180*	*215*	*245*	*295*
H12	105	120	140	165	85	95	115	135	—	—	—	—	—	—	—	—	90	100	120	140	—	—	—	—	85	95	110	130
	345	*395*	*460*	*540*	*280*	*310*	*375*	*445*	—	—	—	—	—	—	—	—	*295*	*330*	*395*	*460*	—	—	—	—	*280*	*310*	*360*	*425*

R217/220.29I-05 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	MP2050				H25				MP1501				MP2501				MS2500				MP3501				MM4500			
	100%	70%	30%	10%	100%	70%	30%	10%	100%	70%	30%	10%	100%	70%	30%	10%	100%	70%	30%	10%	100%	70%	30%	10%	100%	70%	30%	10%
P1	360	410	495	580	—	—	—	—	450	490	550	610	465	510	580	650	405	460	550	640	460	500	570	620	225	260	310	360
	1175	*1350*	*1625*	*1900*	—	—	—	—	*1475*	*1600*	*1800*	*2000*	*1525*	*1675*	*1900*	*2125*	*1325*	*1500*	*1800*	*2100*	*1500*	*1650*	*1875*	*2025*	*740*	*850*	*1025*	*1175*
P2	355	400	480	560	—	—	—	—	435	475	540	600	455	495	560	620	390	445	540	630	450	490	550	610	220	250	300	355
	1175	*1300*	*1575*	*1825*	—	—	—	—	*1425*	*1550*	*1775*	*1975*	*1500*	*1625*	*1825*	*2025*	*1275*	*1450*	*1775*	*2075*	*1475*	*1600*	*1800*	*2000*	*720*	*820*	*980*	*1175*
P3	310	350	415	495	—	—	—	—	380	415	465	520	390	425	485	540	340	390	460	550	390	425	475	520	195	220	260	310
	1025	*1150*	*1350*	*1625*	—	—	—	—	*1250*	*1350*	*1525*	*1700*	*1275*	*1400*	*1600*	*1775*	*1125*	*1275*	*1500*	*1800*	*1275*	*1400*	*1550*	*1700*	*640*	*720*	*850*	*1025*
P4	270	310	370	435	—	—	—	—	335	365	410	455	350	380	430	480	300	345	410	485	345	375	420	460	170	195	230	275
	890	*1025*	*1225*	*1425*	—	—	—	—	*1100*	*1200*	*1350*	*1500*	*1150*	*1250*	*1400*	*1575*	*980*	*1125*	*1350*	*1600*	*1125*	*1225*	*1375*	*1500*	*560*	*640*	*750*	*900*
P5	260	295	355	415	—	—	—	—	320	350	395	435	335	365	415	460	290	330	395	460	325	360	400	440	160	185	220	260
	850	*970*	*1175*	*1350*	—	—	—	—	*1050*	*1150*	*1300*	*1425*	*1100*	*1200*	*1350*	*1500*	*950*	*1075*	*1300*	*1500*	*1075*	*1175*	*1300*	*1450*	*520*	*610*	*720*	*850*
P6	295	335	395	465	—	—	—	—	360	395	440	490	375	410	465	520	330	375	440	520	370	405	450	495	185	210	250	290
	970	*1100*	*1300*	*1525*	—	—	—	—	*1175*	*1300*	*1450*	*1600*	*1225*	*1350*	*1525*	*1700*	*1075*	*1225*	*1450*	*1700*	*1225*	*1325*	*1475*	*1625*	*610*	*690*	*820*	*950*
P7	280	315	375	440	—	—	—	—	340	370	415	460	355	385	440	485	310	355	415	490	350	380	425	470	175	200	235	275
	920	*1025*	*1225*	*1450*	—	—	—	—	*1125*	*1225*	*1350*	*1500*	*1175*	*1275*	*1450*	*1600*	*1025*	*1175*	*1350*	*1600*	*1150*	*1250*	*1400*	*1550*	*570*	*660*	*770*	*900*
P8	260	295	350	415	—	—	—	—	320	350	390	435	325	360	410	455	290	330	390	460	325	360	400	440	160	185	220	260
	850	*970*	*1150*	*1350*	—	—	—	—	*1050*	*1150*	*1275*	*1425*	*1075*	*1175*	*1350*	*1500*	*950*	*1075*	*1275*	*1500*	*1075*	*1175*	*1300*	*1450*	*520*	*610*	*720*	*850*
P11	270	310	365	430	—	—	—	—	330	360	405	450	345	375	430	475	300	345	405	475	340	370	410	455	170	195	230	270
	890	*1025*	*1200*	*1400*	—	—	—	—	*1075*	*1175*	*1325*	*1475*	*1125*	*1225*	*1400*	*1550*	*980*	*1125*	*1325*	*1550*	*1125*	*1225*	*1350*	*1500*	*560*	*640*	*750*	*890*
P12	170	195	235	270	—	—	—	—	205	220	245	270	215	235	260	285	190	215	260	300	205	225	245	265	105	120	145	170
	560	*640*	*770*	*890*	—	—	—	—	*670*	*720*	*800*	*890*	*710*	*770*	*850*	*940*	*620*	*710*	*850*	*980*	*670*	*740*	*800*	*870*	*345*	*395*	*475*	*560*
M1	255	290	345	405	—	—	—	—	—	—	—	—	230	265	310	365	280	320	385	450	240	275	330	385	190	215	260	305
	840	*950*	*1125*	*1325*	—	—	—	—	—	—	—	—	*750*	*870*	*1025*	*1200*	*920*	*1050*	*1275*	*1475*	*790*	*900*	*1075*	*1275*	*620*	*710*	*850*	*1000*
M2	205	235	285	335	—	—	—	—	—	—	—	—	190	220	265	305	230	260	315	370	200	225	270	320	155	175	210	250
	670	*770*	*940*	*1100*	—	—	—	—	—	—	—	—	*620*	*720*	*870*	*1000*	*750*	*850*	*1025*	*1225*	*660*	*740*	*890*	*1050*	*510*	*570*	*690*	*820*
M3	165	190	225	265	—	—	—	—	—	—	—	—	155	175	210	245	185	210	250	295	160	180	215	255	125	140	170	200
	540	*620*	*740*	*870*	—	—	—	—	—	—	—	—	*510*	*570*	*690*	*800*	*610*	*690*	*820*	*970*	*520*	*590*	*710*	*840*	*410*	*460*	*560*	*660*
M4	130	145	170	205	—	—	—	—	—	—	—	—	120	135	160	190	145	160	190	225	125	140	165	195	95	110	130	155
	425	*475*	*560*	*670*	—	—	—	—	—	—	—	—	*395*	*445*	*520*	*620*	*475*	*520*	*620*	*740*	*410*	*460*	*540*	*640*	*310*	*360*	*425*	*510*
M5	105	120	145	170	—	—	—	—	—	—	—	—	100	110	135	155	120	135	160	190	100	115	135	160	80	90	110	125
	345	*395*	*475*	*560*	—	—	—	—	—	—	—	—	*330*	*360*	*445*	*510*	*395*	*445*	*520*	*620*	*330*	*375*	*445*	*520*	*260*	*295*	*360*	*410*
K1	—	—	—	—	—	—	—	—	440	480	540	600	455	500	560	630	310	355	425	495	450	495	560	610	—	—	—	—
	—	—	—	—	—	—	—	—	*1450*	*1575*	*1775*	*1975*	*1500*	*1650*	*1825*	*2075*	*1025*	*1175*	*1400*	*1625*	*1475*	*1625*	*1825*	*2000*	—	—	—	—
K2	—	—	—	—	—	—	—	—	390	425	475	530	405	440	500	560	275	310	375	440	395	435	485	530	—	—	—	—
	—	—	—	—	—	—	—	—	*1275*	*1400*	*1550*	*1750*	*1325*	*1450*	*1650*	*1825*	*900*	*1025*	*1225*	*1450*	*1300*	*1425*	*1600*	*1750*	—	—	—	—
K3	—	—	—	—	—	—	—	—	330	360	400	445	340	375	425	470	230	265	315	370	335	365	410	450	—	—	—	—
	—	—	—	—	—	—	—	—	*1075*	*1175*	*1300*	*1450*	*1125*	*1225*	*1400*	*1550*	*750*	*870*	*1025*	*1225*	*1100*	*1200*	*1350*	*1475*	—	—	—	—
K4	—	—	—	—	—	—	—	—	315	345	385	425	325	355	405	450	220	250	300	355	320	350	390	430	—	—	—	—
	—	—	—	—	—	—	—	—	*1025*	*1125*	*1275*	*1400*	*1075*	*1175*	*1325*	*1475*	*720*	*820*	*980*	*1175*	*1050*	*1150*	*1275*	*1400*	—	—	—	—
K5	—	—	—	—	—	—	—	—	190	205	230	255	200	215	245	270	135	155	185	215	195	210	235	255	—	—	—	—
	—	—	—	—	—	—	—	—	*620*	*670*	*750*	*840*	*660*	*710*	*800*	*890*	*445*	*510*	*610*	*710*	*640*	*690*	*770*	*840*	—	—	—	—
K6	—	—	—	—	—	—	—	—	275	300	340	375	285	315	360	395	195	220	265	310	280	310	345	380	—	—	—	—
	—	—	—	—	—	—	—	—	*900*	*980*	*1125*	*1225*	*940*	*1025*	*1175*	*1300*	*640*	*720*	*870*	*1025*	*920*	*1025*	*1125*	*1250*	—	—	—	—
K7	—	—	—	—	—	—	—	—	240	265	295	325	255	275	310	345	175	200	235	275	245	270	300	330	—	—	—	—
	—	—	—	—	—	—	—	—	*790*	*870*	*970*	*1075*	*840*	*900*	*1025*	*1125*	*570*	*660*	*770*	*900*	*800*	*890*	*980*	*1075*	—	—	—	—
N1	—	—	—	—	1675	1900	2250	2650	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	*5500*	*6225*	*7375*	*8700*	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
N2	—	—	—	—	670	760	910	1075	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	*2200*	*2500*	*2975*	*3525*	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
N3	—	—	—	—	450	510	600	720	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	*1475*	*1675*	*1975*	*2350*	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
N11	—	—	—	—	510	580	690	820	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	*1675*	*1900*	*2275*	*2700*	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S1	65	70	85	100	—	—	—	—	—	—	—	—	—	—	—	—	70	80	95	110	55	65	75	90	29	33	39	47
	215	*230*	*280*	*330*	—	—	—	—	—	—	—	—	—	—	—	—	*230*	*260*	*310*	*360*	*180*	*215*	*245*	*295*	*95*	*110*	*130*	*155*
S2	50	55	70	80	—	—	—	—	—	—	—	—	—	—	—	—	55	65	75	90	46	50	60	75	24	27	32	38
	165	*180*	*230*	*260*	—	—	—	—	—	—	—	—	—	—	—	—	*180*	*215*	*245*	*295*	*150*	*165*	*195*	*245*	*80*	*90*	*105*	*125*
S3	44	50	60	70	—	—	—	—	—	—	—	—	—	—	—	—	49	55	65	80	40	46	55	65	21	24	28	33
	145	*165*	*195*	*230*	—	—	—	—	—	—	—	—	—	—	—	—	*160*	*180*	*215*	*260*	*130*	*150*	*180*	*215*	*70*	*80*	*90*	*110*
S11	90	100	120	140	—	—	—	—	—	—	—	—	—	—	—	—	100	110	135	155	80	90	110	130	41	47	55	65
	295	*330*	*395*	*460*	—	—	—	—	—	—	—	—	—	—	—	—	*330*	*360*	*445*	*510*	*260*	*295*	*360*	*425*	*135*	*155*	*180*	*215*
S12	60	70	85	95	—	—	—	—	—	—	—	—	—	—	—	—	70	75	90	110	55	65	75	90	38	43	50	60
	195	*230*	*280*	*310*	—	—	—	—	—	—	—	—	—	—	—	—	*230*	*245*	*295*	*360*	*180*	*215*	*245*	*295*	*125*	*140*	*165*	*195*
S13	35	40	47	55	—	—	—	—	—	—	—	—	—	—	—	—	39	44	55	60	32	36	43	50	22	25	30	35
	115	*130*	*155*	*180*	—	—	—	—	—	—	—	—	—	—	—	—	*130*	*145*	*180*	*195*	*105*	*120*	*140*	*165*	*70*	*80*	*100*	*115*
H5	—	—	—	—	—	—	—	—	55	65	75	90	—	—	—	—	55	65	75	90	50	60	70	80	—	—	—	—
	—	—	—	—	—	—	—	—	*180*	*215*	*245*	*295*	—	—	—	—	*180*	*215*	*245*	*295*	*165*	*195*	*230*	*260*	—	—	—	—
H8	—	—	—	—	—	—	—	—	60	65	80	95	—	—	—	—	60	70	80	95	55	60	70	85	—	—	—	—
	—	—	—	—	—	—	—	—	*195*	*215*	*260*	*310*	—	—	—	—	*195*	*230*	*260*	*310*	*180*	*195*	*230*	*280*	—	—	—	—
H11	65	75	90	105	—	—	—	—	70	80	100	115	—	—	—	—	75	85	100	115	65	75	85	100	—	—	—	—
	215	*245*	*295*	*345*	—	—	—	—	*230*	*260*	*330*	*375*	—	—	—	—	*245*	*280*	*330*	*375*	*215*	*245*	*280*	*330*	—	—	—	—
H12	105	120	145	170	—	—	—	—	105	120	145	170	—	—	—	—	120	135	160	190	95	110	130	150	—	—	—	—
	345	*395*	*475*	*560*	—	—	—	—	*345*	*395*	*475*	*560*	—	—	—	—	*395*	*445*	*520*	*620*	*310*	*360*	*425*	*490*	—	—	—	—

R217.29I-06 – Metric





- For insert selection and cutting data recommendations, see page(s) 638-640
- For complete insert programme, see page(s) 819
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	DCX	ZEFP	APMXS	DMM	LS	OAL	LUX	RMPX°	Cmin	Cmax	RPMX	Weight	Insert
			mm	mm		mm	mm	mm	mm	mm		mm	mm		kg	
R217.29I-2525.3-06.2.050A	02949613	Weldon	13,0	25,0	2	6,0	25,0	46,0	106,0	21,6	13,0	38,0	48,0	17700	0,4	RP..1204
R217.29I-3232.3-06.3.060A	02949614	Weldon	20,0	32,0	3	6,0	32,0	60,0	120,0	26,6	7,0	52,0	62,0	15600	0,7	RP..1204
R217.29I-3240.3-06-055.4A	03024047	Weldon	28,0	40,0	4	6,0	32,0	60,0	115,0	55,0	8,0	68,0	78,0	14000	0,7	RP..1204
R217.29I-3240.3-06.4.075A	02949615	Weldon	28,0	40,0	4	6,0	32,0	60,0	135,0	72,0	8,0	68,0	78,0	14000	0,8	RP..1204

Center coolant hole possibility by removning centre screw

Spare Parts, included in delivery

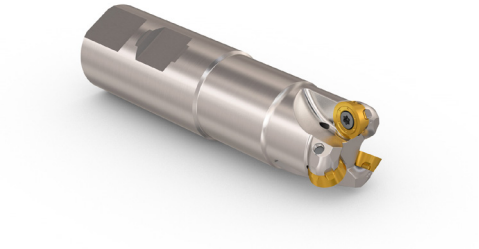
For cutter	Centre screw	Insert key	Insert screw	Key	Screw
					
R217.29I-.. Ø25	–	H4B-T15P	C03508-T15P	T05P-2	SX2035-T05P
R217.29I-.. Ø32-40	–	H4B-T15P	C03509-T15P	T05P-2	SX2035-T05P
R217.29I-.. Ø32-40-4A	SH3040	H4B-T15P	C03509-T15P	T05P-2	SX2035-T05P

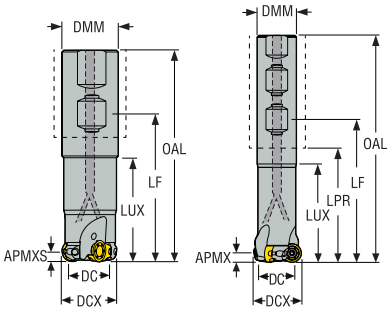
Accessories

For cutter	Insert clamping torque	Torque key
		
R217.29-..	3.0NM	T00-15P30

Torque and fixed keys, see page 872

R217.29I-06 – inch





- For insert selection and cutting data recommendations, see page(s) 638-640
- For complete insert programme, see page(s) 819
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	DCX	ZEFP	APMXS	DMM	LS	LPR	OAL	LUX	RMPX°	C min	C max	RPMX	Weight	Insert
			inch	inch		inch	inch	inch	inch	inch	inch		inch	inch		lbs	
R217.29I-01.00-0-06.2A	02949638	Cylindrical	0.528	1.000	2	0.236	1.000	4.008	4.295	6.500	2.480	12,0	1.528	1.921	17700	1.320	RP..1204
R217.29I-01.00-3F-06.2A	02949640	Weldon	0.528	1.000	2	0.236	1.000	3.280	2.500	5.780	2.500	12,0	1.528	1.921	17700	1.100	RP..1204

Center coolant hole possibility by removning centre screw

Spare Parts, included in delivery

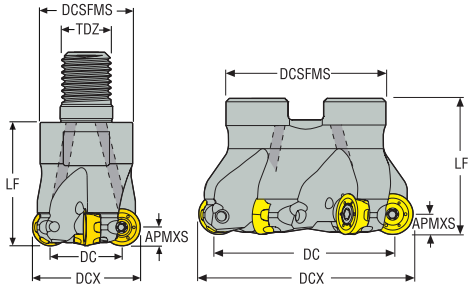
For cutter	Insert key	Insert screw	Key	Screw
				
R217.29I-..	H4B-T15P	C03508-T15P	T05P-2	SX2035-T05P

Accessories

For cutter	Insert clamping torque	Torque key
		
R217.29I-01.00	26.6IN.LBS	T00-15P30

Torque and fixed keys, see page 872

R220.29I-06 – Metric

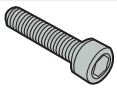




- For insert selection and cutting data recommendations, see page(s) 638-640
- For complete insert programme, see page(s) 819
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	DCX	ZEFP	APMXS	DCB	TDZ	DCSFMS	LF	RMPX°	Cmin	Cmax	RPMX	Weight	Insert
			mm	mm		mm	mm		mm	mm		mm	mm		kg	
R217.29I-1225.RE-06.2A	02949605	Combimaster	13,0	25,0	2	6,0	–	M12	23,0	35,0	13,0	38,0	48,0	17700	0,2	RP..1204
R217.29I-1632.RE-06.3A	02949607	Combimaster	20,0	32,0	3	6,0	–	M16	30,0	40,0	7,0	52,0	62,0	15600	0,3	RP..1204
R217.29I-1635.RE-06.3A	02949608	Combimaster	23,0	35,0	3	6,0	–	M16	30,0	40,0	10,0	58,0	68,0	15000	0,3	RP..1204
R217.29I-1635.RE-06.4A	02949609	Combimaster	23,0	35,0	4	6,0	–	M16	30,0	40,0	6,0	58,0	68,0	15000	0,3	RP..1204
R217.29I-1640.RE-06.4A	02949611	Combimaster	28,0	40,0	4	6,0	–	M16	30,0	40,0	8,0	68,0	78,0	14000	0,3	RP..1204
R217.29I-2040.RE06.4A	02928079	Combimaster	28,0	40,0	4	6,0	–	M20	36,5	45,0	8,0	68,0	78,0	14000	0,4	RP..1204
R217.29I-1642.RE-06.5A	02949612	Combimaster	30,0	42,0	5	6,0	–	M16	30,0	40,0	4,0	72,0	82,0	13600	0,3	RP..1204
R217.29I-2042.RE-06.5A	02991174	Combimaster	30,0	42,0	5	6,0	–	M20	36,5	45,0	4,2	72,0	82,0	13600	0,4	RP..1204
R220.29I-0040-06.4A	02949616	Arbor	28,0	40,0	4	6,0	16,0	–	35,0	40,0	8,0	68,0	78,0	14000	0,3	RP..1204
R220.29I-0044-06.4A	03002205	Arbor	32,0	44,0	4	6,0	16,0	–	35,0	40,0	7,9	76,0	86,0	13300	0,3	RP..1204
R220.29I-0050-06.4A	02949617	Arbor	38,0	50,0	4	6,0	22,0	–	42,0	40,0	5,5	88,0	98,0	12500	0,4	RP..1204
R220.29I-0050-06.5A	02949618	Arbor	38,0	50,0	5	6,0	22,0	–	42,0	40,0	5,5	88,0	98,0	12500	0,4	RP..1204
R220.29I-0050-06.6A	03203202	Arbor	38,0	50,0	6	6,0	22,0	–	42,0	40,0	5,0	88,0	98,0	12500	0,4	RP..1204
R220.29I-0052-06.4A	02949619	Arbor	40,0	52,0	4	6,0	22,0	–	42,0	40,0	5,0	92,0	102,0	12300	0,4	RP..1204
R220.29I-0052-06.5A	02949620	Arbor	40,0	52,0	5	6,0	22,0	–	42,0	40,0	5,0	92,0	102,0	12300	0,4	RP..1204
R220.29I-0063-06.5A	02949621	Arbor	51,0	63,0	5	6,0	22,0	–	47,0	40,0	4,0	114,0	124,0	11200	0,5	RP..1204
R220.29I-0063-06.6A	02949622	Arbor	51,0	63,0	6	6,0	22,0	–	47,0	40,0	4,0	114,0	124,0	11200	0,5	RP..1204
R220.29I-0063-06.7A	02949623	Arbor	51,0	63,0	7	6,0	22,0	–	47,0	40,0	3,0	114,0	124,0	11200	0,5	RP..1204
R220.29I-0066-06.6A	02949624	Arbor	54,0	66,0	6	6,0	27,0	–	50,0	50,0	3,5	120,0	130,0	10900	0,7	RP..1204
R220.29I-0080-06.6A	02949625	Arbor	68,0	80,0	6	6,0	27,0	–	62,0	50,0	3,0	148,0	158,0	10000	1,1	RP..1204
R220.29I-0080-06.7A	02949626	Arbor	68,0	80,0	7	6,0	27,0	–	62,0	50,0	3,0	148,0	158,0	10000	1,1	RP..1204
R220.29I-0080-06.8A	02949627	Arbor	68,0	80,0	8	6,0	27,0	–	62,0	50,0	2,0	148,0	158,0	10000	1,1	RP..1204
R220.29I-0084-06.6A	02969096	Arbor	72,0	84,0	6	6,0	32,0	–	77,0	50,0	2,5	156,0	166,0	9500	1,4	RP..1204
R220.29I-0092-06.7A	02949628	Arbor	80,0	92,0	7	6,0	32,0	–	77,0	50,0	2,5	172,0	182,0	9200	1,5	RP..1204
R220.29I-0100-06.9A	02949629	Arbor	88,0	100,0	9	6,0	32,0	–	77,0	50,0	2,0	188,0	198,0	8800	1,8	RP..1204
R220.29I-0112-06.7A	02949630	Arbor	100,0	112,0	7	6,0	32,0	–	77,0	63,0	1,5	212,0	222,0	8400	1,9	RP..1204
R220.29I-0125-06.11A	02949631	Arbor	113,0	125,0	11	6,0	40,0	–	90,0	63,0	1,5	238,0	248,0	8000	3,3	RP..1204
R220.29I-0137-06.8A	02949632	Arbor	125,0	137,0	8	6,0	40,0	–	90,0	63,0	1,5	262,0	272,0	7600	3,4	RP..1204

Spare Parts, included in delivery

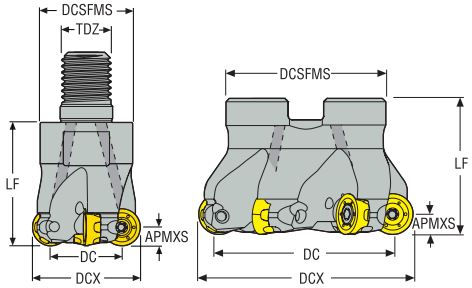
For cutter	Arbor screw	Insert key	Insert screw	Key	Screw
					
R217.29I-25/35-4A/42	–	H4B-T15P	C03508-T15P	T05P-2	SX2035-T05P
R217.29I-32/35-3A/40	–	H4B-T15P	C03509-T15P	T05P-2	SX2035-T05P
R220.29I-.. Ø40-44	220.17-689	H4B-T15P	C03509-T15P	T05P-2	SX2035-T05P
R220.29I-.. Ø50-52	220.17-692	H4B-T15P	C03509-T15P	T05P-2	SX2035-T05P
R220.29I-.. Ø50-6A	220.17-692	H4B-T15P	C03508-T15P	T05P-2	SX2035-T05P
R220.29I-.. Ø63	220.17-692	H4B-T15P	C03509-T15P	T05P-2	SX2035-T05P
R220.29I-.. Ø66-80	MC6S12X35	H4B-T15P	C03509-T15P	T05P-2	SX2035-T05P
R220.29I-.. Ø84-112	950E1645	H4B-T15P	C03509-T15P	T05P-2	SX2035-T05P
R220.29I-.. Ø84-112	950E1645	H4B-T15PL	C03509-T15P	T05P-2	SX2035-T05P
R220.29I-.. Ø125-137	MC6S20X50	H4B-T15PL	C03509-T15P	T05P-2	SX2035-T05P

Accessories

For cutter	Insert clamping torque	Torque key
		
R217/220.29-..	3.0NM	T00-15P30

Torque and fixed keys, see page 872

R220.29I-06 – inch

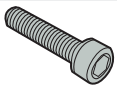




- For insert selection and cutting data recommendations, see page(s) 638-640
- For complete insert programme, see page(s) 819
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	DCX	ZEFP	APMXS	DCB	TDZ	DCSFMS	LF	RMPX°	C min	C max	RPMX	Weight	Insert
			inch	inch		inch	inch		inch	inch		inch	inch		lbs	
R217.29I-01.00-12RE-06.2A	02949633	Combimaster	0.528	1.000	2	0.236	–	M12	0.906	1.378	12,0	1.528	1.921	17700	0.440	RP..1204
R217.29I-01.25-12RE-06.3A	02949635	Combimaster	0.778	1.250	3	0.236	–	M12	0.906	1.575	7,0	2.028	2.421	15600	0.440	RP..1204
R217.29I-01.25-16RE-06.3A	02949634	Combimaster	0.778	1.250	3	0.236	–	M16	1.181	1.575	7,0	2.028	2.421	15600	0.660	RP..1204
R217.29I-01.50-16RE-06.3A	02949636	Combimaster	1.028	1.500	3	0.236	–	M16	1.181	1.575	8,5	2.528	2.921	14000	0.660	RP..1204
R217.29I-01.50-16RE-06.4A	02949637	Combimaster	1.028	1.500	4	0.236	–	M16	1.181	1.575	8,5	2.528	2.921	14000	0.660	RP..1204
R217.29I-01.50-20RE-06.4A	03002402	Combimaster	1.028	1.500	4	0.236	–	M20	1.437	1.575	8,5	2.528	2.921	14000	0.660	RP..1204
R220.29I-02.00-06.4A	02949642	Arbor	1.528	2.000	4	0.236	0.750	–	1.654	1.500	6,5	3.528	3.921	12500	0.660	RP..1204
R220.29I-02.00-06.5A	02949643	Arbor	1.528	2.000	5	0.236	0.750	–	1.654	1.500	6,5	3.528	3.921	12500	0.880	RP..1204
R220.29I-02.00-06.6A	03279243	Arbor	1.535	2.000	6	0.236	0.750	–	1.654	1.500	5,0	3.535	3.921	12500	0.660	RP..1204
R220.29I-02.50-06.6A	02949644	Arbor	2.028	2.500	6	0.236	0.750	–	1.850	1.500	4,6	4.528	4.921	11200	1.100	RP..1204
R220.29I-02.50-06.7A	02949645	Arbor	2.028	2.500	7	0.236	0.750	–	1.850	1.500	4,6	4.528	4.921	11200	1.100	RP..1204
R220.29I-03.00-06.6A	02949647	Arbor	2.528	3.000	6	0.236	1.000	–	2.441	2.000	3,0	5.528	5.921	10000	2.430	RP..1204
R220.29I-03.00-06.7A	02949648	Arbor	2.528	3.000	7	0.236	1.000	–	2.441	2.000	3,0	5.528	5.921	10000	2.430	RP..1204
R220.29I-04.00-06.7A	02949649	Arbor	3.528	4.000	7	0.236	1.500	–	3.543	2.000	2,0	7.528	7.921	8800	4.410	RP..1204
R220.29I-06.00-06.8	02949652	Arbor	5.528	6.000	8	0.236	2.000	–	4.331	2.000	1,2	11.528	11.921	7600	6.830	RP..1204

Spare Parts, included in delivery

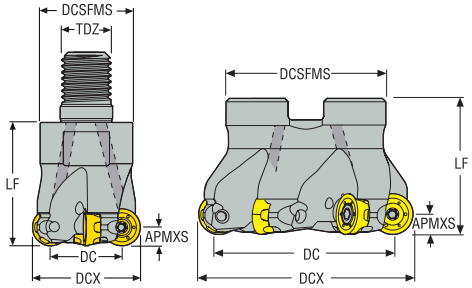
For cutter	Arbor screw	Insert key	Insert screw	Key	Screw
					
R217.29I-01.00	–	H4B-T15P	C03508-T15P	T05P-2	SX2035-T05P
R217.29I-01.25-01.50	–	H4B-T15P	C03509-T15P	T05P-2	SX2035-T05P
R220.29I-02.00-02.50	UC6S3/8UNFX1	H4B-T15P	C03509-T15P	T05P-2	SX2035-T05P
R220.29I-02.00-6A	UC6S3/8UNFX1	H4B-T15P	C03508-T15P	T05P-2	SX2035-T05P
R220.29I-03.00	UC6S1/2UNFX1-1/2	H4B-T15P	C03509-T15P	T05P-2	SX2035-T05P
R220.29I-04.00	ULC6S3/4UNFX11/2	H4B-T15PL	C03509-T15P	T05P-2	SX2035-T05P
R220.29I-06.00	–	H4B-T15PL	C03509-T15P	T05P-2	SX2035-T05P

Accessories

For cutter	Arbor screw	Insert clamping torque	Torque key
			
R217/220.29-01.00-04.00	–	26.6IN.LBS	T00-15P30
R220.29I-06.00	58215080	26.6IN.LBS	T00-15P30

Torque and fixed keys, see page 872

R217/220.29B-06 – For blade machining – Metric



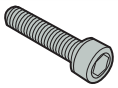


- For insert selection and cutting data recommendations, see page(s) 638-640
- For complete insert programme, see page(s) 819
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	DCX	ZEFP	APMXS	DCB	TDZ	DCSFMS	LF	RMPX°	Cmin	Cmax	RPMX	Weight	Insert
			mm	mm		mm	mm		mm	mm		mm	mm		kg	
R220.29B-0040-06.4A	03007485	Arbor	28,0	40,0	4	6,0	16,0	–	35,0	40,0	5,0	68,0	78,0	14000	0,2	RP..1204
R220.29B-0050-06.5A	03007486	Arbor	38,0	50,0	5	6,0	22,0	–	42,0	40,0	5,0	88,0	98,0	12500	0,3	RP..1204
R220.29B-0052-06.5A	03007487	Arbor	38,0	52,0	5	6,0	22,0	–	42,0	40,0	5,0	90,0	102,0	12300	0,3	RP..1204
R220.29B-0063-06.6A	03074236	Arbor	51,0	63,0	6	6,0	22,0	–	47,0	40,0	4,0	114,0	124,0	11200	0,5	RP..1204
R220.29B-0063-06.7A	03074237	Arbor	51,0	63,0	7	6,0	22,0	–	47,0	40,0	4,0	114,0	124,0	11200	0,5	RP..1204

For Combimaster Shanks, see Machining Navigator Tooling System

Spare Parts, included in delivery

For cutter	Arbor screw	Insert key	Insert screw	Key	Screw
					
R220.29-0040	220.17-689	H4B-T15P	C03509-T15P	T05P-2	SX2035-T05P
R220.29-0050-0063	220.17-692	H4B-T15P	C03509-T15P	T05P-2	SX2035-T05P

Accessories

For cutter	Insert clamping torque	Torque key
		
R220.29-..	3.0NM	T00-15P30

Torque and fixed keys, see page 872

R217/220.29-06 – Insert selection – mm/*Inch*

SMG		a_p	f_z			
			100%	70%	30%	10%
P1	RPHT1204M0T-6-M08 MP2501	2,5 *0.10*	0,25 *0.010*	0,25 *0.010*	0,28 *0.011*	0,46 *0.018*
P2	RPHT1204M0T-6-M08 MP2501	2,5 *0.10*	0,25 *0.010*	0,25 *0.010*	0,30 *0.012*	0,46 *0.018*
P3	RPHT1204M0T-6-M08 MP2501	2,5 *0.10*	0,24 *0.0095*	0,24 *0.0095*	0,28 *0.011*	0,44 *0.017*
P4	RPKT1204M0T-6-M15 MP2501	2,5 *0.10*	0,44 *0.017*	0,44 *0.017*	0,50 *0.020*	0,80 *0.032*
P5	RPKT1204M0T-6-M15 MP2501	2,5 *0.10*	0,44 *0.017*	0,44 *0.017*	0,50 *0.020*	0,80 *0.032*
P6	RPKT1204M0T-6-M15 MP2501	2,5 *0.10*	0,42 *0.017*	0,42 *0.017*	0,50 *0.020*	0,80 *0.032*
P7	RPKT1204M0T-6-M15 MP2501	2,5 *0.10*	0,42 *0.017*	0,42 *0.017*	0,50 *0.020*	0,80 *0.032*
P8	RPHT1204M0T-6-M13 MS2500	2,5 *0.10*	0,38 *0.015*	0,38 *0.015*	0,46 *0.018*	0,70 *0.028*
P11	RPHT1204M0T-6-M13 MS2500	2,5 *0.10*	0,36 *0.014*	0,36 *0.014*	0,42 *0.017*	0,70 *0.028*
P12	RPHT1204M0T-4-M13 MS2500	1,9 *0.075*	0,28 *0.011*	0,28 *0.011*	0,34 *0.013*	0,55 *0.022*
M1	RPHT1204M0T-6-ME07 MS2050	2,5 *0.10*	0,22 *0.0085*	0,22 *0.0085*	0,26 *0.010*	0,40 *0.016*
M2	RPHT1204M0T-6-ME07 MS2050	2,5 *0.10*	0,20 *0.0080*	0,20 *0.0080*	0,24 *0.0095*	0,36 *0.014*
M3	RPHT1204M0T-6-ME07 MS2050	1,9 *0.075*	0,18 *0.0070*	0,18 *0.0070*	0,22 *0.0085*	0,34 *0.013*
M4	RPHT1204M0T-6-M08 MP3501	1,4 *0.055*	0,22 *0.0085*	0,22 *0.0085*	0,24 *0.0095*	0,38 *0.015*
M5	RPHT1204M0T-6-M08 MP3501	1,4 *0.055*	0,22 *0.0085*	0,22 *0.0085*	0,24 *0.0095*	0,38 *0.015*
K1	RPKT1204M0T-6-M15 MK2050	2,5 *0.10*	0,48 *0.019*	0,48 *0.019*	0,55 *0.022*	0,90 *0.036*
K2	RPKT1204M0T-6-M15 MK2050	2,5 *0.10*	0,44 *0.017*	0,44 *0.017*	0,50 *0.020*	0,80 *0.032*
K3	RPKT1204M0T-6-M15 MK2050	2,5 *0.10*	0,44 *0.017*	0,44 *0.017*	0,50 *0.020*	0,80 *0.032*
K4	RPKT1204M0T-6-M15 MK2050	2,5 *0.10*	0,44 *0.017*	0,44 *0.017*	0,50 *0.020*	0,80 *0.032*
K5	RPKT1204M0T-6-M15 MK2050	2,5 *0.10*	0,38 *0.015*	0,38 *0.015*	0,46 *0.018*	0,70 *0.028*
K6	RPKT1204M0T-6-M15 MK2050	2,5 *0.10*	0,44 *0.017*	0,44 *0.017*	0,50 *0.020*	0,80 *0.032*
K7	RPKT1204M0T-6-M15 MK2050	2,5 *0.10*	0,38 *0.015*	0,38 *0.015*	0,46 *0.018*	0,70 *0.028*
N1	RPHT1204M0-6-E05 H25	2,5 *0.10*	0,20 *0.0080*	0,20 *0.0080*	0,24 *0.0095*	0,36 *0.014*
N2	RPHT1204M0-6-E05 H25	2,5 *0.10*	0,20 *0.0080*	0,20 *0.0080*	0,24 *0.0095*	0,36 *0.014*
N3	RPHT1204M0-6-E05 H25	2,5 *0.10*	0,20 *0.0080*	0,20 *0.0080*	0,24 *0.0095*	0,36 *0.014*
N11	RPHT1204M0-6-E05 H25	2,5 *0.10*	0,20 *0.0080*	0,20 *0.0080*	0,24 *0.0095*	0,36 *0.014*
S1	RPHT1204M0T-6-M13 MS2500	1,4 *0.055*	0,34 *0.013*	0,34 *0.013*	0,40 *0.016*	0,65 *0.026*
S2	RPHT1204M0T-6-M13 MS2500	1,4 *0.055*	0,34 *0.013*	0,34 *0.013*	0,40 *0.016*	0,65 *0.026*
S3	RPHT1204M0T-6-M13 MS2500	1,4 *0.055*	0,32 *0.013*	0,32 *0.013*	0,36 *0.014*	0,60 *0.024*
S11	RPHT1204M0T-6-M13 MS2050	1,7 *0.065*	0,36 *0.014*	0,36 *0.014*	0,40 *0.016*	0,65 *0.026*
S12	RPHT1204M0T-6-M13 MS2050	1,7 *0.065*	0,36 *0.014*	0,36 *0.014*	0,40 *0.016*	0,65 *0.026*
S13	RPHT1204M0T-6-M13 MS2050	1,4 *0.055*	0,34 *0.013*	0,34 *0.013*	0,40 *0.016*	0,65 *0.026*
H5	RPHW1204M0T-6-MD12 MH1000	1,9 *0.075*	0,26 *0.010*	0,26 *0.010*	0,30 *0.012*	0,48 *0.019*
H8	RPHW1204M0T-6-MD12 MH1000	1,7 *0.065*	0,22 *0.0085*	0,22 *0.0085*	0,25 *0.010*	0,38 *0.015*
H11	RPHW1204M0T-6-MD12 MH1000	1,9 *0.075*	0,26 *0.010*	0,26 *0.010*	0,30 *0.012*	0,48 *0.019*
H12	RPHT1204M0T-6-M13 MP3501	1,7 *0.065*	0,24 *0.0095*	0,24 *0.0095*	0,26 *0.010*	0,42 *0.017*

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

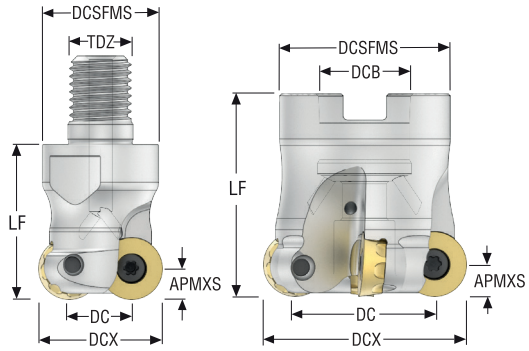
R217/220.29-06 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	MH1000				MK2050				MP3000				MS2050				F40M			
	100%	70%	30%	10%	100%	70%	30%	10%	100%	70%	30%	10%	100%	70%	30%	10%	100%	70%	30%	10%
P1	—	—	—	—	275	315	380	440	315	365	430	510	240	275	330	390	265	305	365	430
	—	—	—	—	*900*	*1025*	*1250*	*1450*	*1025*	*1200*	*1400*	*1675*	*790*	*900*	*1075*	*1275*	*870*	*1000*	*1200*	*1400*
P2	—	—	—	—	265	300	360	430	305	350	415	485	235	265	320	380	260	295	355	420
	—	—	—	—	*870*	*980*	*1175*	*1400*	*1000*	*1150*	*1350*	*1600*	*770*	*870*	*1050*	*1250*	*850*	*970*	*1175*	*1375*
P3	—	—	—	—	230	265	315	375	265	305	360	425	205	235	280	335	230	260	310	365
	—	—	—	—	*750*	*870*	*1025*	*1225*	*870*	*1000*	*1175*	*1400*	*670*	*770*	*920*	*1100*	*750*	*850*	*1025*	*1200*
P4	—	—	—	—	205	235	285	330	235	270	325	375	180	205	245	295	200	230	275	320
	—	—	—	—	*670*	*770*	*940*	*1075*	*770*	*890*	*1075*	*1225*	*590*	*670*	*800*	*970*	*660*	*750*	*900*	*1050*
P5	210	240	285	340	200	225	270	320	225	260	310	365	170	195	240	280	190	220	260	305
	690	*790*	*940*	*1125*	*660*	*740*	*890*	*1050*	*740*	*850*	*1025*	*1200*	*560*	*640*	*790*	*920*	*620*	*720*	*850*	*1000*
P6	235	270	320	380	220	255	305	355	255	295	345	410	195	225	270	315	215	245	295	345
	770	*890*	*1050*	*1250*	*720*	*840*	*1000*	*1175*	*840*	*970*	*1125*	*1350*	*640*	*740*	*890*	*1025*	*710*	*800*	*970*	*1125*
P7	220	255	305	360	210	240	290	335	240	275	325	385	185	210	255	295	205	235	280	325
	720	*840*	*1000*	*1175*	*690*	*790*	*950*	*1100*	*790*	*900*	*1075*	*1275*	*610*	*690*	*840*	*970*	*670*	*770*	*920*	*1075*
P8	205	235	280	330	195	220	265	315	225	255	305	355	170	195	235	280	190	220	260	305
	670	*770*	*920*	*1075*	*640*	*720*	*870*	*1025*	*740*	*840*	*1000*	*1175*	*560*	*640*	*770*	*920*	*620*	*720*	*850*	*1000*
P11	215	245	295	350	205	235	280	330	235	270	320	375	180	205	245	290	195	225	270	315
	710	*800*	*970*	*1150*	*670*	*770*	*920*	*1075*	*770*	*890*	*1050*	*1225*	*590*	*670*	*800*	*950*	*640*	*740*	*890*	*1025*
P12	140	160	195	230	135	150	185	215	150	170	205	235	120	135	160	190	125	145	175	205
	460	*520*	*640*	*750*	*445*	*490*	*610*	*710*	*490*	*560*	*670*	*770*	*395*	*445*	*520*	*620*	*410*	*475*	*570*	*670*
M1	—	—	—	—	—	—	—	—	225	260	310	365	190	215	260	305	210	240	285	335
	—	—	—	—	—	—	—	—	*740*	*850*	*1025*	*1200*	*620*	*710*	*850*	*1000*	*690*	*790*	*940*	*1100*
M2	—	—	—	—	—	—	—	—	190	220	260	305	155	175	215	250	170	200	235	275
	—	—	—	—	—	—	—	—	*620*	*720*	*850*	*1000*	*510*	*570*	*710*	*820*	*560*	*660*	*770*	*900*
M3	—	—	—	—	—	—	—	—	150	175	205	240	125	145	175	205	140	160	190	220
	—	—	—	—	—	—	—	—	*490*	*570*	*670*	*790*	*410*	*475*	*570*	*670*	*460*	*520*	*620*	*720*
M4	—	—	—	—	—	—	—	—	115	135	155	185	100	110	135	160	105	120	145	175
	—	—	—	—	—	—	—	—	*375*	*445*	*510*	*610*	*330*	*360*	*445*	*520*	*345*	*395*	*475*	*570*
M5	—	—	—	—	—	—	—	—	95	110	130	155	80	95	115	135	90	100	120	145
	—	—	—	—	—	—	—	—	*310*	*360*	*425*	*510*	*260*	*310*	*375*	*445*	*295*	*330*	*395*	*475*
K1	220	255	305	360	285	325	390	465	240	275	330	385	—	—	—	—	205	235	280	330
	720	*840*	*1000*	*1175*	*940*	*1075*	*1275*	*1525*	*790*	*900*	*1075*	*1275*	—	—	—	—	*670*	*770*	*920*	*1075*
K2	200	225	270	320	255	295	350	410	215	250	295	345	—	—	—	—	180	210	250	290
	660	*740*	*890*	*1050*	*840*	*970*	*1150*	*1350*	*710*	*820*	*970*	*1125*	—	—	—	—	*590*	*690*	*820*	*950*
K3	170	190	230	270	215	250	295	350	180	210	250	295	—	—	—	—	155	175	210	245
	560	*620*	*750*	*890*	*710*	*820*	*970*	*1150*	*590*	*690*	*820*	*970*	—	—	—	—	*510*	*570*	*690*	*800*
K4	160	185	220	260	205	235	285	330	175	200	235	280	—	—	—	—	145	170	200	235
	520	*610*	*720*	*850*	*670*	*770*	*940*	*1075*	*570*	*660*	*770*	*920*	—	—	—	—	*475*	*560*	*660*	*770*
K5	100	115	135	160	125	145	175	205	105	120	145	170	—	—	—	—	90	105	125	145
	330	*375*	*445*	*520*	*410*	*475*	*570*	*670*	*345*	*395*	*475*	*560*	—	—	—	—	*295*	*345*	*410*	*475*
K6	140	160	195	230	180	210	250	295	155	175	210	245	—	—	—	—	130	150	175	205
	460	*520*	*640*	*750*	*590*	*690*	*820*	*970*	*510*	*570*	*690*	*800*	—	—	—	—	*425*	*490*	*570*	*670*
K7	125	145	175	200	160	185	225	260	135	155	185	215	—	—	—	—	115	130	155	185
	410	*475*	*570*	*660*	*520*	*610*	*740*	*850*	*445*	*510*	*610*	*710*	—	—	—	—	*375*	*425*	*510*	*610*
N1	—	—	—	—	—	—	—	—	1800	2075	2475	2900	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	*5900*	*6800*	*8125*	*9525*	—	—	—	—	—	—	—	—
N2	—	—	—	—	—	—	—	—	730	840	1000	1175	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	*2400*	*2750*	*3275*	*3850*	—	—	—	—	—	—	—	—
N3	—	—	—	—	—	—	—	—	485	560	660	780	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	*1600*	*1825*	*2175*	*2550*	—	—	—	—	—	—	—	—
N11	—	—	—	—	—	—	—	—	560	640	760	890	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	*1825*	*2100*	*2500*	*2925*	—	—	—	—	—	—	—	—
S1	—	—	—	—	—	—	—	—	55	60	75	85	46	50	65	75	50	55	70	80
	—	—	—	—	—	—	—	—	*180*	*195*	*245*	*280*	*150*	*165*	*215*	*245*	*165*	*180*	*230*	*260*
S2	—	—	—	—	—	—	—	—	44	50	60	70	37	42	50	60	40	46	55	65
	—	—	—	—	—	—	—	—	*145*	*165*	*195*	*230*	*120*	*140*	*165*	*195*	*130*	*150*	*180*	*215*
S3	—	—	—	—	—	—	—	—	38	44	50	60	33	37	45	50	35	40	48	55
	—	—	—	—	—	—	—	—	*125*	*145*	*165*	*195*	*110*	*120*	*150*	*165*	*115*	*130*	*155*	*180*
S11	—	—	—	—	—	—	—	—	75	85	105	120	65	75	90	105	70	80	95	110
	—	—	—	—	—	—	—	—	*245*	*280*	*345*	*395*	*215*	*245*	*295*	*345*	*230*	*260*	*310*	*360*
S12	—	—	—	—	—	—	—	—	55	60	70	85	44	50	60	70	49	55	65	80
	—	—	—	—	—	—	—	—	*180*	*195*	*230*	*280*	*145*	*165*	*195*	*230*	*160*	*180*	*215*	*260*
S13	—	—	—	—	—	—	—	—	31	35	41	48	26	30	36	42	28	32	38	45
	—	—	—	—	—	—	—	—	*100*	*115*	*135*	*155*	*85*	*100*	*120*	*140*	*90*	*105*	*125*	*150*
H5	47	55	65	75	—	—	—	—	46	55	65	75	—	—	—	—	42	48	60	70
	155	*180*	*215*	*245*	—	—	—	—	*150*	*180*	*215*	*245*	—	—	—	—	*140*	*155*	*195*	*230*
H8	50	55	70	80	—	—	—	—	49	55	65	75	—	—	—	—	45	50	60	70
	165	*180*	*230*	*260*	—	—	—	—	*160*	*180*	*215*	*245*	—	—	—	—	*150*	*165*	*195*	*230*
H11	60	70	80	95	—	—	—	—	60	70	80	95	—	—	—	—	55	60	75	85
	195	*230*	*260*	*310*	—	—	—	—	*195*	*230*	*260*	*310*	—	—	—	—	*180*	*195*	*245*	*280*
H12	90	100	125	145	—	—	—	—	95	105	125	145	—	—	—	—	80	90	110	130
	295	*330*	*410*	*475*	—	—	—	—	*310*	*345*	*410*	*475*	—	—	—	—	*260*	*295*	*360*	*425*

R217/220.29-06 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	MP2050				H25				MS2500				MP3501				MM4500			
	100%	70%	30%	10%	100%	70%	30%	10%	100%	70%	30%	10%	100%	70%	30%	10%	100%	70%	30%	10%
P1	280 *920*	325 *1075*	390 *1275*	455 *1500*	— —	— —	— —	— —	315 *1025*	360 *1175*	430 *1400*	510 *1675*	360 *1175*	395 *1300*	465 *1525*	530 *1750*	200 *660*	230 *750*	280 *920*	330 *1075*
P2	275 *900*	315 *1025*	380 *1250*	445 *1450*	— —	— —	— —	— —	305 *1000*	350 *1150*	420 *1375*	495 *1625*	350 *1150*	385 *1275*	450 *1475*	510 *1675*	195 *640*	225 *740*	270 *890*	315 *1025*
P3	240 *790*	275 *900*	330 *1075*	395 *1300*	— —	— —	— —	— —	265 *870*	305 *1000*	370 *1225*	435 *1425*	305 *1000*	335 *1100*	395 *1300*	450 *1475*	170 *560*	195 *640*	235 *770*	275 *900*
P4	210 *690*	240 *790*	290 *950*	345 *1125*	— —	— —	— —	— —	235 *770*	270 *890*	325 *1075*	385 *1275*	270 *890*	295 *970*	350 *1150*	400 *1300*	150 *490*	175 *570*	205 *670*	245 *800*
P5	200 *660*	230 *750*	285 *940*	330 *1075*	— —	— —	— —	— —	225 *740*	255 *840*	315 *1025*	365 *1200*	260 *850*	285 *940*	340 *1125*	380 *1250*	150 *490*	170 *560*	200 *660*	235 *770*
P6	230 *750*	265 *870*	315 *1025*	370 *1225*	— —	— —	— —	— —	255 *840*	295 *970*	355 *1175*	410 *1350*	295 *970*	325 *1075*	380 *1250*	425 *1400*	165 *540*	190 *620*	225 *740*	265 *870*
P7	215 *710*	250 *820*	300 *980*	350 *1150*	— —	— —	— —	— —	240 *790*	275 *900*	335 *1100*	390 *1275*	280 *920*	305 *1000*	360 *1175*	400 *1300*	155 *510*	180 *590*	215 *710*	250 *820*
P8	200 *660*	230 *750*	280 *920*	330 *1075*	— —	— —	— —	— —	225 *740*	255 *840*	310 *1025*	365 *1200*	260 *850*	285 *940*	335 *1100*	380 *1250*	145 *475*	165 *540*	200 *660*	230 *750*
P11	210 *690*	240 *790*	290 *950*	340 *1125*	— —	— —	— —	— —	235 *770*	270 *890*	325 *1075*	380 *1250*	270 *890*	300 *980*	350 *1150*	390 *1275*	150 *490*	175 *570*	210 *690*	240 *790*
P12	140 *460*	160 *520*	190 *620*	220 *720*	— —	— —	— —	— —	155 *510*	175 *570*	215 *710*	245 *800*	180 *590*	200 *660*	230 *750*	250 *820*	95 *310*	110 *360*	135 *445*	160 *520*
M1	195 *640*	225 *740*	270 *890*	320 *1050*	— —	— —	— —	— —	220 *720*	250 *820*	300 *980*	355 *1175*	190 *620*	215 *710*	260 *850*	305 *1000*	170 *560*	195 *640*	230 *750*	270 *890*
M2	160 *520*	185 *610*	225 *740*	265 *870*	— —	— —	— —	— —	180 *590*	205 *670*	250 *820*	295 *970*	155 *510*	175 *570*	215 *710*	250 *820*	140 *460*	160 *520*	195 *640*	225 *740*
M3	130 *425*	150 *490*	180 *590*	215 *710*	— —	— —	— —	— —	145 *475*	170 *560*	200 *660*	240 *790*	125 *410*	145 *475*	175 *570*	205 *670*	115 *375*	130 *425*	155 *510*	185 *610*
M4	105 *345*	120 *395*	140 *460*	165 *540*	— —	— —	— —	— —	115 *375*	130 *425*	155 *510*	185 *610*	100 *330*	110 *360*	135 *445*	160 *520*	85 *280*	100 *330*	120 *395*	140 *460*
M5	85 *280*	100 *330*	120 *395*	140 *460*	— —	— —	— —	— —	95 *310*	110 *360*	130 *425*	155 *510*	85 *280*	95 *310*	115 *375*	135 *445*	70 *230*	80 *260*	100 *330*	115 *375*
K1	— —	— —	— —	— —	— —	— —	— —	— —	240 *790*	275 *900*	335 *1100*	390 *1275*	355 *1175*	390 *1275*	455 *1500*	520 *1700*	— —	— —	— —	— —
K2	— —	— —	— —	— —	— —	— —	— —	— —	215 *710*	245 *800*	300 *980*	350 *1150*	310 *1025*	345 *1125*	410 *1350*	460 *1500*	— —	— —	— —	— —
K3	— —	— —	— —	— —	— —	— —	— —	— —	180 *590*	205 *670*	250 *820*	295 *970*	265 *870*	290 *950*	345 *1125*	390 *1275*	— —	— —	— —	— —
K4	— —	— —	— —	— —	— —	— —	— —	— —	170 *560*	195 *640*	240 *790*	280 *920*	250 *820*	275 *900*	330 *1075*	370 *1225*	— —	— —	— —	— —
K5	— —	— —	— —	— —	— —	— —	— —	— —	105 *345*	120 *395*	145 *475*	170 *560*	155 *510*	170 *560*	200 *660*	225 *740*	— —	— —	— —	— —
K6	— —	— —	— —	— —	— —	— —	— —	— —	150 *490*	175 *570*	210 *690*	250 *820*	220 *720*	245 *800*	290 *950*	325 *1075*	— —	— —	— —	— —
K7	— —	— —	— —	— —	— —	— —	— —	— —	135 *445*	155 *510*	185 *610*	220 *720*	200 *660*	220 *720*	255 *840*	290 *950*	— —	— —	— —	— —
N1	— —	— —	— —	— —	1575 *5175*	1800 *5900*	2150 *7050*	2525 *8275*	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —
N2	— —	— —	— —	— —	640 *2100*	730 *2400*	870 *2850*	1025 *3375*	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —
N3	— —	— —	— —	— —	425 *1400*	490 *1600*	580 *1900*	680 *2225*	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —
N11	— —	— —	— —	— —	485 *1600*	560 *1825*	660 *2175*	780 *2550*	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —
S1	50 *165*	60 *195*	70 *230*	80 *260*	— —	— —	— —	— —	55 *180*	65 *215*	75 *245*	90 *295*	46 *150*	50 *165*	65 *215*	75 *245*	27 *90*	30 *100*	36 *120*	43 *140*
S2	41 *135*	46 *150*	55 *180*	65 *215*	— —	— —	— —	— —	45 *150*	50 *165*	60 *195*	75 *245*	37 *120*	42 *140*	50 *165*	60 *195*	21 *70*	24 *80*	29 *95*	34 *110*
S3	36 *120*	41 *135*	49 *160*	55 *180*	— —	— —	— —	— —	40 *130*	45 *150*	55 *180*	65 *215*	33 *110*	37 *120*	45 *150*	50 *165*	19 *60*	21 *70*	26 *85*	30 *100*
S11	70 *230*	80 *260*	95 *310*	115 *375*	— —	— —	— —	— —	80 *260*	90 *295*	105 *345*	125 *410*	65 *215*	75 *245*	90 *295*	105 *345*	37 *120*	43 *140*	50 *165*	60 *195*
S12	49 *160*	55 *180*	65 *215*	80 *260*	— —	— —	— —	— —	55 *180*	60 *195*	75 *245*	85 *280*	44 *145*	50 *165*	60 *195*	70 *230*	35 *115*	39 *130*	48 *155*	55 *180*
S13	28 *90*	32 *105*	39 *130*	46 *150*	— —	— —	— —	— —	32 *105*	36 *120*	43 *140*	50 *165*	26 *85*	30 *100*	36 *120*	42 *140*	20 *65*	23 *75*	27 *90*	32 *105*
H5	— —	— —	— —	— —	— —	— —	— —	— —	46 *150*	55 *180*	65 *215*	75 *245*	41 *135*	47 *155*	55 *180*	65 *215*	— —	— —	— —	— —
H8	— —	— —	— —	— —	— —	— —	— —	— —	49 *160*	55 *180*	70 *230*	80 *260*	43 *140*	49 *160*	60 *195*	70 *230*	— —	— —	— —	— —
H11	55 *180*	60 *195*	75 *245*	85 *280*	— —	— —	— —	— —	60 *195*	65 *215*	80 *260*	95 *310*	50 *165*	60 *195*	70 *230*	85 *280*	— —	— —	— —	— —
H12	90 *295*	100 *330*	120 *395*	140 *460*	— —	— —	— —	— —	95 *310*	110 *360*	135 *445*	160 *520*	80 *260*	90 *295*	110 *360*	125 *410*	— —	— —	— —	— —

R217/220.29I-08 – Metric



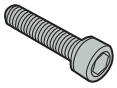
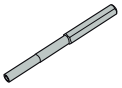
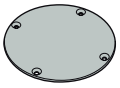


- For insert selection and cutting data recommendations, see page(s) 644-646
- For complete insert programme, see page(s) 820
- For ISO attribute explanation, see page 16

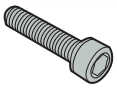
Designation	Item number	Type of mounting	DC	DCX	ZEFP	APMXS	DCB	TDZ	DCSFMS	LF	RMPX°	Cmin	Cmax	RPMX	Weight	Insert
			mm	mm		mm	mm		mm	mm		mm	mm		kg	
R217.29I-1632.RE-08.2A	03278975	Combimaster	15,9	32,0	2	8,0	–	M16	30,0	40,0	17,8	47,8	62,0	12200	0,3	RP..1605
R217.29I-1640.RE-08.3A	03278976	Combimaster	24,2	40,0	3	8,0	–	M16	30,0	40,0	2,4	64,4	78,0	10900	0,3	RP..1605
R217.29I-2040.RE-08.3A	03278977	Combimaster	24,2	40,0	3	8,0	–	M20	36,5	40,0	2,4	64,4	78,0	10900	0,3	RP..1605
R220.29I-0050-08.4A	03278978	Arbor	34,2	50,0	4	8,0	22,0	–	41,0	50,0	4,8	84,4	98,0	9700	0,4	RP..1605
R220.29I-0052-08.4A	03278979	Arbor	36,2	52,0	4	8,0	22,0	–	41,0	50,0	5,7	88,4	102,0	9600	0,4	RP..1605
R220.29I-0063-08.4A	03278980	Arbor	47,1	63,0	4	8,0	22,0	–	49,0	50,0	7,5	110,2	124,0	8700	0,6	RP..1605
R220.29I-0063-08.5A	03278981	Arbor	47,1	63,0	5	8,0	22,0	–	49,0	50,0	7,1	110,2	124,0	8700	0,6	RP..1605
R220.29I-0063-08.6A	03278982	Arbor	47,1	63,0	6	8,0	22,0	–	49,0	50,0	7,1	110,2	124,0	8700	0,7	RP..1605
R220.29I-0066-08.5A	03278983	Arbor	50,1	66,0	5	8,0	27,0	–	61,0	50,0	6,9	116,2	130,0	8400	0,8	RP..1605
R220.29I-0066-08.6A	03278984	Arbor	50,0	66,0	6	8,0	27,0	–	61,0	50,0	6,7	116,0	130,0	8400	0,8	RP..1605
R220.29I-0080-08.5A	03278985	Arbor	64,1	80,0	5	8,0	27,0	–	61,0	50,0	5,0	144,2	158,0	7700	1,1	RP..1605
R220.29I-0080-08.7A	03278986	Arbor	64,1	80,0	7	8,0	27,0	–	61,0	50,0	5,0	144,2	158,0	7700	1,1	RP..1605
R220.29I-0084-08.5A	03278987	Arbor	68,1	84,0	5	8,0	32,0	–	79,0	50,0	4,6	152,2	166,0	7500	1,4	RP..1605
R220.29I-0100-08.6MA	03278992	Arbor	84,1	100,0	6	8,0	32,0	–	79,0	50,0	3,8	184,2	198,0	6800	1,8	RP..1605
R220.29I-0100-08.8A	03278988	Arbor	84,1	100,0	8	8,0	32,0	–	79,0	50,0	3,7	184,2	198,0	6800	1,8	RP..1605
R220.29I-0125-08.6MA	03278991	Arbor	109,1	125,0	6	8,0	40,0	–	90,0	63,0	2,8	234,2	248,0	6100	3,2	RP..1605
R220.29I-0125-08.10A	03278989	Arbor	109,1	125,0	10	8,0	40,0	–	90,0	63,0	2,8	234,2	248,0	6100	3,2	RP..1605
R220.29I-8160-08.7MA	03278993	Arbor	143,1	160,0	7	8,0	40,0	–	90,0	63,0	2,2	302,2	318,0	5400	4,2	RP..1605
R220.29I-8160-08.10A	03278990	Arbor	144,1	160,0	10	8,0	40,0	–	90,0	63,0	2,1	304,2	318,0	5400	4,3	RP..1605

For Combimaster Shanks, see Machining Navigator Tooling System

Spare Parts, included in delivery

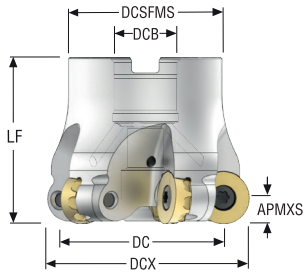
For cutter	Arbor screw	Insert key	Insert screw	Insert shim	Key	Lid	Lid screw	Shim screw	Stop screw
									
R217.29I-1632-2040	–	H6B-T20P	C05010-T20P	–	T05P-2	–	–	–	SX2035-T05P
R220.29I-0050-0052	220.17-692M	H6B-T20P	C05013-T20P	–	T05P-2	–	–	–	SX2035-T05P
R220.29I-0063	MC6S10X40	H6B-T20P	C05013-T20P	–	T05P-2	–	–	–	SX2035-T05P
R220.29I-0066-0080	MC6S12X40	H6B-T20P	C05013-T20P	–	T05P-2	–	–	–	SX2035-T05P
R220.29I-0084	950E1645	H6B-T20P	C05013-T20P	–	T05P-2	–	–	–	SX2035-T05P
R220.29I-0100MA	950E1645	H6B-T20P	C05018-T20P	SRP1604IM0	T05P-2	–	–	CA5010	SX2035-T05P
R220.29I-0100	950E1645	H6B-T20P	C05013-T20P	–	T05P-2	–	–	–	SX2035-T05P
R220.29I-0125MA	MC6S20X50	H6B-T20P	C05018-T20P	SRP1604IM0	T05P-2	–	–	CA5010	SX2035-T05P
R220.29I-0125	MC6S20X50	H6B-T20P	C05013-T20P	–	T05P-2	–	–	–	SX2035-T05P
R220.29I-8160MA	–	H6B-T20P	C05018-T20P	SRP1604IM0	T05P-2	SC160-53	MF6S4X10	CA5010	SX2035-T05P
R220.29I-8160	–	H6B-T20P	C05013-T20P	–	T05P-2	SC160-53	MF6S4X10	–	SX2035-T05P

Accessories

For cutter	Arbor screw	Insert clamping torque	Torque key
			
R217/220.29I-1632-0125	–	5.0NM	T00-20P50
R220.29I-8160	MC6S12X40	5.0NM	T00-20P50

Torque and fixed keys, see page 872

R217/220.29I-08 – inch

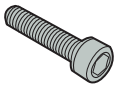
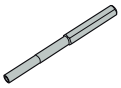




- For insert selection and cutting data recommendations, see page(s) 644-646
- For complete insert programme, see page(s) 820
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	DCX	ZEFP	APMXS	DCB	DCSFMS	LF	RMPX°	C min	C max	RPMX	Weight	Insert
			inch	inch		inch	inch	inch	inch		inch	inch		lbs	
R220.29I-02.00-08.4A	03278994	Arbor	1.379	2.000	4	0.315	0.750	1.614	2.000	2,7	3.388	3.921	9600	0.880	RP..1605
R220.29I-02.50-08.5A	03278995	Arbor	1.876	2.500	5	0.315	0.750	1.811	2.000	7,0	4.382	4.921	8700	0.220	RP..1605
R220.29I-03.00-08.6A	03278996	Arbor	2.376	3.000	6	0.315	1.000	2.402	2.000	5,3	5.381	5.921	7700	1.980	RP..1605
R220.29I-04.00-08.7A	03278997	Arbor	3.375	4.000	7	0.315	1.500	3.504	2.500	3,6	7.380	7.921	6800	5.290	RP..1605

Spare Parts, included in delivery

For cutter	Arbor screw	Insert key	Insert screw	Key	Stop screw
					
R220.29I-02.00-02.50	UC6S3/8UNFX11/2	H6B-T20P	C05013-T20P	T05P-2	SX2035-T05P
R220.29I-03.00	UC6S1/2UNFX1-1/2	H6B-T20P	C05013-T20P	T05P-2	SX2035-T05P
R220.29I-04.00	UC6S3/4UNFX1-1/4	H6B-T20P	C05013-T20P	T05P-2	SX2035-T05P

Accessories

For cutter	Insert clamping torque	Torque key
		
R220.29I-..	44.3IN.LBS	T00-20P50

Torque and fixed keys, see page 872

R217/220.29-08I – Insert selection – mm/*Inch*

SMG		a_p	f_z			
			100%	70%	30%	10%
P1	RPKT1605M0T-8-M12 MP2501	3,0 *0.12*	0,38 *0.015*	0,38 *0.015*	0,46 *0.018*	0,75 *0.030*
P2	RPKT1605M0T-8-M12 MP2501	3,0 *0.12*	0,40 *0.016*	0,40 *0.016*	0,48 *0.019*	0,75 *0.030*
P3	RPKT1605M0T-8-M12 MP2501	3,0 *0.12*	0,38 *0.015*	0,38 *0.015*	0,44 *0.017*	0,70 *0.028*
P4	RPKT1605M0T-8-M12 MP2501	3,0 *0.12*	0,36 *0.014*	0,36 *0.014*	0,44 *0.017*	0,70 *0.028*
P5	RPKT1605M0T-8-M12 MP2501	3,0 *0.12*	0,36 *0.014*	0,36 *0.014*	0,42 *0.017*	0,70 *0.028*
P6	RPKT1605M0T-8-M18 MS2500	3,0 *0.12*	0,55 *0.022*	0,55 *0.022*	0,65 *0.026*	1,0 *0.040*
P7	RPKT1605M0T-6-M18 MS2500	3,0 *0.12*	0,55 *0.022*	0,55 *0.022*	0,65 *0.026*	1,0 *0.040*
P8	RPKT1605M0T-6-M18 MS2500	3,0 *0.12*	0,55 *0.022*	0,55 *0.022*	0,65 *0.026*	1,1 *0.044*
P11	RPKT1605M0T-6-M18 MS2500	3,0 *0.12*	0,55 *0.022*	0,55 *0.022*	0,65 *0.026*	1,0 *0.040*
P12	RPKT1605M0T-6-M18 MS2500	2,5 *0.10*	0,40 *0.016*	0,40 *0.016*	0,48 *0.019*	0,75 *0.030*
M1	RPHT1605M0T-8-M12 MS2050	3,0 *0.12*	0,40 *0.016*	0,40 *0.016*	0,48 *0.019*	0,75 *0.030*
M2	RPHT1605M0T-8-M12 MS2050	3,0 *0.12*	0,36 *0.014*	0,36 *0.014*	0,42 *0.017*	0,70 *0.028*
M3	RPHT1605M0T-8-M12 MS2050	2,5 *0.10*	0,32 *0.013*	0,32 *0.013*	0,38 *0.015*	0,60 *0.024*
M4	RPKT1605M0T-8-M12 MP3501	1,9 *0.075*	0,32 *0.013*	0,32 *0.013*	0,38 *0.015*	0,60 *0.024*
M5	RPKT1605M0T-8-M12 MP3501	1,9 *0.075*	0,32 *0.013*	0,32 *0.013*	0,38 *0.015*	0,60 *0.024*
K1	RPKT1605M0T-8-M18 MK2050	3,0 *0.12*	0,60 *0.024*	0,60 *0.024*	0,70 *0.028*	1,2 *0.048*
K2	RPKT1605M0T-8-M18 MK2050	3,0 *0.12*	0,55 *0.022*	0,55 *0.022*	0,65 *0.026*	1,0 *0.040*
K3	RPKT1605M0T-8-M18 MK2050	3,0 *0.12*	0,55 *0.022*	0,55 *0.022*	0,65 *0.026*	1,0 *0.040*
K4	RPKT1605M0T-8-M18 MK2050	3,0 *0.12*	0,55 *0.022*	0,55 *0.022*	0,65 *0.026*	1,0 *0.040*
K5	RPKT1605M0T-8-M18 MK2050	3,0 *0.12*	0,48 *0.019*	0,48 *0.019*	0,60 *0.024*	0,95 *0.038*
K6	RPKT1605M0T-8-M18 MK2050	3,0 *0.12*	0,55 *0.022*	0,55 *0.022*	0,65 *0.026*	1,0 *0.040*
K7	RPKT1605M0T-8-M18 MK2050	3,0 *0.12*	0,48 *0.019*	0,48 *0.019*	0,60 *0.024*	0,95 *0.038*
N1	RPHT1605M0T-8-ME11 F40M	— —	— —	— —	— —	— —
N2	RPHT1605M0T-8-ME11 F40M	— —	— —	— —	— —	— —
N3	RPHT1605M0T-8-ME11 F40M	— —	— —	— —	— —	— —
N11	RPHT1605M0T-8-ME11 F40M	— —	— —	— —	— —	— —
S1	RPKT1605M0T-8-M12 MS2500	1,9 *0.075*	0,32 *0.013*	0,32 *0.013*	0,38 *0.015*	0,60 *0.024*
S2	RPKT1605M0T-8-M12 MS2500	1,9 *0.075*	0,32 *0.013*	0,32 *0.013*	0,38 *0.015*	0,60 *0.024*
S3	RPKT1605M0T-8-M12 MS2500	1,9 *0.075*	0,30 *0.012*	0,30 *0.012*	0,34 *0.013*	0,55 *0.022*
S11	RPHT1605M0T-8-M12 MS2050	2,5 *0.10*	0,32 *0.013*	0,32 *0.013*	0,38 *0.015*	0,60 *0.024*
S12	RPHT1605M0T-8-M12 MS2050	2,5 *0.10*	0,32 *0.013*	0,32 *0.013*	0,38 *0.015*	0,60 *0.024*
S13	RPHT1605M0T-8-M12 MS2050	1,9 *0.075*	0,32 *0.013*	0,32 *0.013*	0,38 *0.015*	0,60 *0.024*
H5	RPKW1605M0T-8-MD20 F15M	2,5 *0.10*	0,44 *0.017*	0,44 *0.017*	0,55 *0.022*	0,85 *0.034*
H8	RPKW1605M0T-8-MD20 F15M	2,5 *0.10*	0,34 *0.013*	0,34 *0.013*	0,40 *0.016*	0,65 *0.026*
H11	RPKW1605M0T-8-MD20 F15M	2,5 *0.10*	0,44 *0.017*	0,44 *0.017*	0,55 *0.022*	0,85 *0.034*
H12	RPKW1605M0T-8-MD20 F15M	2,5 *0.10*	0,34 *0.013*	0,34 *0.013*	0,40 *0.016*	0,65 *0.026*

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

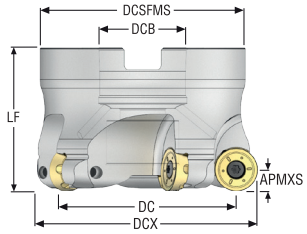
R217/220.29-08 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	F15M				MK2050				MP3000				MS2050				F40M				MP2050			
	100%	70%	30%	10%	100%	70%	30%	10%	100%	70%	30%	10%	100%	70%	30%	10%	100%	70%	30%	10%	100%	70%	30%	10%
P1	205 *670*	240 *790*	285 *940*	335 *1100*	255 *840*	295 *970*	355 *1175*	420 *1375*	245 *800*	285 *940*	340 *1125*	405 *1325*	250 *820*	290 *950*	345 *1125*	405 *1325*	225 *740*	265 *870*	315 *1025*	365 *1200*	295 *970*	340 *1125*	410 *1350*	475 *1550*
P2	200 *660*	235 *770*	280 *920*	325 *1075*	245 *800*	290 *950*	345 *1125*	410 *1350*	240 *790*	275 *900*	335 *1100*	395 *1300*	240 *790*	280 *920*	335 *1100*	390 *1275*	215 *710*	255 *840*	300 *980*	355 *1175*	280 *920*	330 *1075*	390 *1275*	460 *1500*
P3	175 *570*	205 *670*	245 *800*	285 *940*	220 *720*	255 *840*	305 *1000*	360 *1175*	210 *690*	245 *800*	295 *970*	345 *1125*	210 *690*	245 *800*	295 *970*	345 *1125*	190 *620*	220 *720*	270 *890*	315 *1025*	245 *800*	285 *940*	350 *1150*	405 *1325*
P4	155 *510*	180 *590*	215 *710*	250 *820*	195 *640*	225 *740*	270 *890*	315 *1025*	185 *610*	215 *710*	260 *850*	305 *1000*	185 *610*	220 *720*	260 *850*	305 *1000*	170 *560*	200 *660*	235 *770*	275 *900*	220 *720*	255 *840*	305 *1000*	360 *1175*
P5	150 *490*	175 *570*	205 *670*	245 *800*	185 *610*	215 *710*	260 *850*	300 *980*	175 *570*	205 *670*	250 *820*	290 *950*	180 *590*	210 *690*	250 *820*	290 *950*	160 *520*	190 *620*	225 *740*	265 *870*	210 *690*	245 *800*	290 *950*	345 *1125*
P6	165 *540*	195 *640*	235 *770*	275 *900*	205 *670*	240 *790*	290 *950*	345 *1125*	200 *660*	230 *750*	280 *920*	330 *1075*	200 *660*	235 *770*	280 *920*	325 *1075*	180 *590*	210 *690*	255 *840*	295 *970*	235 *770*	275 *900*	330 *1075*	385 *1275*
P7	155 *510*	185 *610*	220 *720*	260 *850*	195 *640*	230 *750*	275 *900*	325 *1075*	190 *620*	220 *720*	260 *850*	315 *1025*	190 *620*	220 *720*	265 *870*	310 *1025*	170 *560*	200 *660*	240 *790*	280 *920*	220 *720*	260 *850*	310 *1025*	365 *1200*
P8	150 *490*	175 *570*	205 *670*	240 *790*	185 *610*	215 *710*	260 *850*	300 *980*	175 *570*	205 *670*	250 *820*	290 *950*	175 *570*	205 *670*	250 *820*	290 *950*	160 *520*	185 *610*	225 *740*	265 *870*	205 *670*	240 *790*	290 *950*	345 *1125*
P11	155 *510*	180 *590*	215 *710*	250 *820*	190 *620*	220 *720*	265 *870*	315 *1025*	180 *590*	215 *710*	255 *840*	305 *1000*	185 *610*	215 *710*	255 *840*	300 *980*	165 *540*	195 *640*	230 *750*	270 *890*	215 *710*	250 *820*	300 *980*	355 *1175*
P12	— —	— —	— —	— —	125 *410*	150 *490*	180 *590*	210 *690*	120 *395*	140 *460*	170 *560*	200 *660*	120 *395*	140 *460*	170 *560*	200 *660*	110 *360*	130 *425*	155 *510*	180 *590*	145 *475*	165 *540*	200 *660*	235 *770*
M1	— —	— —	— —	— —	— —	— —	— —	— —	180 *590*	205 *670*	250 *820*	295 *970*	190 *620*	225 *740*	270 *890*	315 *1025*	175 *570*	205 *670*	245 *800*	285 *940*	200 *660*	235 *770*	280 *920*	330 *1075*
M2	— —	— —	— —	— —	— —	— —	— —	— —	150 *490*	175 *570*	205 *670*	240 *790*	160 *520*	185 *610*	225 *740*	260 *850*	145 *475*	170 *560*	205 *670*	240 *790*	170 *560*	195 *640*	235 *770*	275 *900*
M3	— —	— —	— —	— —	— —	— —	— —	— —	120 *395*	140 *460*	170 *560*	200 *660*	130 *425*	150 *490*	180 *590*	210 *690*	120 *395*	135 *445*	165 *540*	195 *640*	135 *445*	160 *520*	190 *620*	220 *720*
M4	— —	— —	— —	— —	— —	— —	— —	— —	95 *310*	110 *360*	135 *445*	160 *520*	100 *330*	115 *375*	140 *460*	165 *540*	90 *295*	105 *345*	130 *425*	150 *490*	105 *345*	120 *395*	145 *475*	175 *570*
M5	— —	— —	— —	— —	— —	— —	— —	— —	80 *260*	90 *295*	110 *360*	130 *425*	85 *280*	95 *310*	115 *375*	140 *460*	75 *245*	90 *295*	105 *345*	125 *410*	90 *295*	100 *330*	125 *410*	145 *475*
K1	160 *520*	185 *610*	220 *720*	260 *850*	265 *870*	310 *1025*	375 *1225*	440 *1450*	190 *620*	220 *720*	265 *870*	310 *1025*	— —	— —	— —	— —	170 *560*	200 *660*	240 *790*	280 *920*	— —	— —	— —	— —
K2	140 *460*	165 *540*	195 *640*	235 *770*	240 *790*	280 *920*	335 *1100*	390 *1275*	170 *560*	195 *640*	235 *770*	275 *900*	— —	— —	— —	— —	155 *510*	180 *590*	215 *710*	250 *820*	— —	— —	— —	— —
K3	120 *395*	140 *460*	165 *540*	195 *640*	200 *660*	235 *770*	280 *920*	330 *1075*	140 *460*	165 *540*	200 *660*	235 *770*	— —	— —	— —	— —	130 *425*	150 *490*	180 *590*	210 *690*	— —	— —	— —	— —
K4	115 *375*	135 *445*	160 *520*	190 *620*	190 *620*	225 *740*	270 *890*	315 *1025*	135 *445*	160 *520*	190 *620*	220 *720*	— —	— —	— —	— —	125 *410*	145 *475*	175 *570*	205 *670*	— —	— —	— —	— —
K5	70 *230*	80 *260*	95 *310*	115 *375*	120 *395*	140 *460*	165 *540*	195 *640*	85 *280*	100 *330*	120 *395*	140 *460*	— —	— —	— —	— —	75 *245*	90 *295*	105 *345*	125 *410*	— —	— —	— —	— —
K6	100 *330*	115 *375*	140 *460*	165 *540*	170 *560*	200 *660*	235 *770*	275 *900*	120 *395*	140 *460*	165 *540*	195 *640*	— —	— —	— —	— —	110 *360*	130 *425*	150 *490*	180 *590*	— —	— —	— —	— —
K7	90 *295*	105 *345*	125 *410*	145 *475*	155 *510*	180 *590*	215 *710*	250 *820*	110 *360*	125 *410*	150 *490*	175 *570*	— —	— —	— —	— —	100 *330*	115 *375*	135 *445*	160 *520*	— —	— —	— —	— —
N1	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	1275 *4175*	1475 *4850*	1775 *5825*	2100 *6900*	— —	— —	— —	— —
N2	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	510 *1675*	600 *1975*	720 *2350*	840 *2750*	— —	— —	— —	— —
N3	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	340 *1125*	400 *1300*	475 *1550*	560 *1825*	— —	— —	— —	— —
N11	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	390 *1275*	455 *1500*	540 *1775*	640 *2100*	— —	— —	— —	— —
S1	— —	— —	— —	— —	— —	— —	— —	— —	44 *145*	50 *165*	60 *195*	75 *245*	47 *155*	55 *180*	65 *215*	75 *245*	43 *140*	50 *165*	60 *195*	70 *230*	50 *165*	60 *195*	70 *230*	85 *280*
S2	— —	— —	— —	— —	— —	— —	— —	— —	36 *120*	41 *135*	50 *165*	60 *195*	38 *125*	44 *145*	55 *180*	60 *195*	35 *115*	40 *130*	48 *155*	55 *180*	42 *140*	48 *155*	60 *195*	70 *230*
S3	— —	— —	— —	— —	— —	— —	— —	— —	32 *105*	36 *120*	44 *145*	50 *165*	33 *110*	39 *130*	46 *150*	55 *180*	30 *100*	35 *115*	42 *140*	49 *160*	37 *120*	42 *140*	50 *165*	60 *195*
S11	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	65 *215*	75 *245*	90 *295*	105 *345*	60 *195*	70 *230*	85 *280*	95 *310*	70 *230*	85 *280*	100 *330*	115 *375*
S12	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	45 *150*	55 *180*	65 *215*	75 *245*	41 *135*	48 *155*	60 *195*	65 *215*	50 *165*	60 *195*	70 *230*	80 *260*
S13	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	27 *90*	31 *100*	37 *120*	43 *140*	24 *80*	28 *90*	34 *110*	39 *130*	29 *95*	34 *110*	41 *135*	48 *155*
H5	34 *110*	40 *130*	48 *155*	55 *180*	— —	— —	— —	— —	38 *125*	44 *145*	55 *180*	60 *195*	— —	— —	— —	— —	37 *120*	43 *140*	50 *165*	60 *195*	— —	— —	— —	— —
H8	37 *120*	43 *140*	50 *165*	60 *195*	— —	— —	— —	— —	41 *135*	48 *155*	55 *180*	65 *215*	— —	— —	— —	— —	39 *130*	46 *150*	55 *180*	65 *215*	— —	— —	— —	— —
H11	43 *140*	50 *165*	60 *195*	70 *230*	— —	— —	— —	— —	48 *155*	55 *180*	70 *230*	80 *260*	— —	— —	— —	— —	47 *155*	55 *180*	65 *215*	75 *245*	55 *180*	65 *215*	75 *245*	90 *295*
H12	65 *215*	75 *245*	90 *295*	105 *345*	— —	— —	— —	— —	80 *260*	90 *295*	110 *360*	130 *425*	— —	— —	— —	— —	70 *230*	80 *260*	100 *330*	115 *375*	90 *295*	105 *345*	125 *410*	145 *475*

R217/220.29-08 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	MP1501				MP2501				MS2500				MP3501				MM4500			
	100%	70%	30%	10%	100%	70%	30%	10%	100%	70%	30%	10%	100%	70%	30%	10%	100%	70%	30%	10%
P1	365 *1200*	405 *1325*	480 *1575*	550 *1800*	350 *1150*	395 *1300*	465 *1525*	530 *1750*	280 *920*	330 *1075*	395 *1300*	465 *1525*	310 *1025*	345 *1125*	410 *1350*	475 *1550*	195 *640*	225 *740*	270 *890*	315 *1025*
P2	355 *1175*	395 *1300*	465 *1525*	530 *1750*	340 *1125*	385 *1275*	455 *1500*	520 *1700*	275 *900*	320 *1050*	385 *1275*	455 *1500*	300 *980*	340 *1125*	400 *1300*	460 *1500*	190 *620*	220 *720*	265 *870*	310 *1025*
P3	315 *1025*	355 *1175*	415 *1350*	470 *1550*	305 *1000*	340 *1125*	405 *1325*	455 *1500*	245 *800*	285 *940*	340 *1125*	395 *1300*	270 *890*	305 *1000*	360 *1175*	405 *1325*	165 *540*	195 *640*	230 *750*	270 *890*
P4	280 *920*	310 *1025*	365 *1200*	410 *1350*	270 *890*	300 *980*	355 *1175*	400 *1300*	215 *710*	250 *820*	300 *980*	350 *1150*	240 *790*	265 *870*	315 *1025*	355 *1175*	145 *475*	170 *560*	205 *670*	240 *790*
P5	265 *870*	295 *970*	350 *1150*	395 *1300*	255 *840*	290 *950*	340 *1125*	385 *1275*	205 *670*	240 *790*	285 *940*	335 *1100*	225 *740*	255 *840*	300 *980*	340 *1125*	140 *460*	165 *540*	195 *640*	230 *750*
P6	295 *970*	335 *1100*	390 *1275*	450 *1475*	290 *950*	325 *1075*	380 *1250*	440 *1450*	230 *750*	265 *870*	320 *1050*	380 *1250*	255 *840*	285 *940*	340 *1125*	390 *1275*	160 *520*	185 *610*	220 *720*	255 *840*
P7	280 *920*	315 *1025*	370 *1225*	425 *1400*	270 *890*	305 *1000*	360 *1175*	415 *1350*	215 *710*	250 *820*	300 *980*	360 *1175*	240 *790*	270 *890*	320 *1050*	370 *1225*	150 *490*	175 *570*	210 *690*	245 *800*
P8	265 *870*	295 *970*	350 *1150*	395 *1300*	255 *840*	290 *950*	340 *1125*	385 *1275*	205 *670*	240 *790*	285 *940*	335 *1100*	225 *740*	255 *840*	300 *980*	340 *1125*	140 *460*	160 *520*	195 *640*	230 *750*
P11	275 *900*	305 *1000*	360 *1175*	415 *1350*	265 *870*	295 *970*	350 *1150*	405 *1325*	210 *690*	245 *800*	295 *970*	350 *1150*	235 *770*	260 *850*	310 *1025*	360 *1175*	145 *475*	170 *560*	205 *670*	235 *770*
P12	185 *610*	210 *690*	240 *790*	270 *890*	185 *610*	205 *670*	235 *770*	265 *870*	140 *460*	165 *540*	195 *640*	230 *750*	165 *540*	180 *590*	210 *690*	240 *790*	95 *310*	110 *360*	130 *425*	155 *510*
M1	— —	— —	— —	— —	180 *590*	210 *690*	255 *840*	300 *980*	195 *640*	230 *750*	275 *900*	325 *1075*	170 *560*	195 *640*	235 *770*	280 *920*	160 *520*	190 *620*	225 *740*	265 *870*
M2	— —	— —	— —	— —	150 *490*	175 *570*	210 *690*	245 *800*	165 *540*	190 *620*	230 *750*	265 *870*	140 *460*	165 *540*	195 *640*	230 *750*	135 *445*	160 *520*	190 *620*	220 *720*
M3	— —	— —	— —	— —	125 *410*	145 *475*	175 *570*	205 *670*	135 *445*	155 *510*	190 *620*	220 *720*	115 *375*	135 *445*	165 *540*	190 *620*	110 *360*	130 *425*	150 *490*	175 *570*
M4	— —	— —	— —	— —	95 *310*	110 *360*	135 *445*	160 *520*	105 *345*	120 *395*	145 *475*	175 *570*	90 *295*	105 *345*	125 *410*	150 *490*	85 *280*	100 *330*	115 *375*	140 *460*
M5	— —	— —	— —	— —	80 *260*	95 *310*	115 *375*	135 *445*	85 *280*	100 *330*	120 *395*	145 *475*	75 *245*	85 *280*	105 *345*	125 *410*	70 *230*	80 *260*	100 *330*	115 *375*
K1	355 *1175*	400 *1300*	470 *1550*	540 *1775*	345 *1125*	385 *1275*	455 *1500*	520 *1700*	215 *710*	255 *840*	305 *1000*	360 *1175*	305 *1000*	340 *1125*	405 *1325*	465 *1525*	— —	— —	— —	— —
K2	320 *1050*	360 *1175*	420 *1375*	475 *1550*	310 *1025*	350 *1150*	410 *1350*	465 *1525*	195 *640*	225 *740*	270 *890*	315 *1025*	275 *900*	310 *1025*	365 *1200*	410 *1350*	— —	— —	— —	— —
K3	270 *890*	305 *1000*	355 *1175*	400 *1300*	265 *870*	295 *970*	345 *1125*	390 *1275*	165 *540*	190 *620*	230 *750*	270 *890*	235 *770*	260 *850*	310 *1025*	350 *1150*	— —	— —	— —	— —
K4	260 *850*	290 *950*	340 *1125*	385 *1275*	250 *820*	280 *920*	330 *1075*	375 *1225*	155 *510*	180 *590*	220 *720*	255 *840*	220 *720*	250 *820*	295 *970*	335 *1100*	— —	— —	— —	— —
K5	160 *520*	180 *590*	210 *690*	240 *790*	160 *520*	175 *570*	205 *670*	235 *770*	95 *310*	115 *375*	135 *445*	160 *520*	140 *460*	155 *510*	185 *610*	205 *670*	— —	— —	— —	— —
K6	230 *750*	255 *840*	300 *980*	340 *1125*	220 *720*	250 *820*	290 *950*	330 *1075*	140 *460*	160 *520*	195 *640*	225 *740*	195 *640*	220 *720*	260 *850*	295 *970*	— —	— —	— —	— —
K7	210 *690*	235 *770*	270 *890*	305 *1000*	200 *660*	225 *740*	265 *870*	300 *980*	125 *410*	145 *475*	175 *570*	205 *670*	180 *590*	200 *660*	235 *770*	265 *870*	— —	— —	— —	— —
N1	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —
N2	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —
N3	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —
N11	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —
S1	— —	— —	— —	— —	— —	— —	— —	— —	50 *165*	60 *195*	70 *230*	85 *280*	42 *140*	48 *155*	60 *195*	70 *230*	26 *85*	30 *100*	36 *120*	42 *140*
S2	— —	— —	— —	— —	— —	— —	— —	— —	41 *135*	48 *155*	60 *195*	70 *230*	34 *110*	39 *130*	47 *155*	55 *180*	21 *70*	24 *80*	29 *95*	34 *110*
S3	— —	— —	— —	— —	— —	— —	— —	— —	36 *120*	42 *140*	50 *165*	60 *195*	30 *100*	35 *115*	42 *140*	48 *155*	19 *60*	21 *70*	25 *80*	30 *100*
S11	— —	— —	— —	— —	— —	— —	— —	— —	70 *230*	80 *260*	100 *330*	115 *375*	60 *195*	70 *230*	80 *260*	95 *310*	36 *120*	42 *140*	50 *165*	60 *195*
S12	— —	— —	— —	— —	— —	— —	— —	— —	49 *160*	55 *180*	70 *230*	80 *260*	40 *130*	47 *155*	55 *180*	65 *215*	34 *110*	39 *130*	46 *150*	55 *180*
S13	— —	— —	— —	— —	— —	— —	— —	— —	29 *95*	33 *110*	40 *130*	48 *155*	24 *80*	27 *90*	33 *110*	39 *130*	20 *65*	23 *75*	27 *90*	32 *105*
H5	48 *155*	55 *180*	70 *230*	80 *260*	— —	— —	— —	— —	42 *140*	49 *160*	60 *195*	70 *230*	37 *120*	43 *140*	50 *165*	60 *195*	— —	— —	— —	— —
H8	55 *180*	60 *195*	70 *230*	85 *280*	— —	— —	— —	— —	46 *150*	55 *180*	65 *215*	75 *245*	41 *135*	47 *155*	55 *180*	65 *215*	— —	— —	— —	— —
H11	60 *195*	70 *230*	85 *280*	100 *330*	— —	— —	— —	— —	55 *180*	65 *215*	75 *245*	90 *295*	48 *155*	55 *180*	65 *215*	80 *260*	— —	— —	— —	— —
H12	95 *310*	110 *360*	130 *425*	155 *510*	— —	— —	— —	— —	90 *295*	105 *345*	125 *410*	150 *490*	75 *245*	85 *280*	100 *330*	120 *395*	— —	— —	— —	— —

R220.29-38 – inch



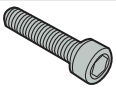
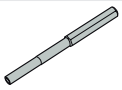


- For insert selection and cutting data recommendations, see page(s) 648-649
- For complete insert programme, see page(s) 820
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	DCX	ZEFP	APMXS	DCB	DCSFMS	LF	RMPX°	C min	C max	RPMX	Weight	Insert
			inch	inch		inch	inch	inch	inch		inch	inch		lbs	
R220.29I-02.50-38-04A	10005910	Arbor	1.756	2.500	4	0.374	0.750	1.789	2.000	10,39	4.256	4.921	5800	1.320	RPHT19
R220.29I-03.00-38-06A	10005911	Arbor	2.256	3.000	6	0.374	1.000	2.289	2.000	7,69	5.256	5.921	5100	1.980	RPHT19
R220.29I-04.00-38-05A	10005912	Arbor	3.256	4.000	5	0.374	1.500	3.539	2.500	5,06	7.256	7.921	4500	5.070	RPHT19
R220.29I-04.00-38-06A	10005913	Arbor	3.256	4.000	6	0.374	1.500	3.539	2.500	5,06	7.256	7.921	4500	5.070	RPHT19
R220.29I-05.00-38-07A	10005914	Arbor	4.256	5.000	7	0.374	1.500	3.539	2.500	3,76	9.256	9.921	4000	6.830	RPHT19
R220.29I-05.00-38-09A	10005915	Arbor	4.256	5.000	9	0.374	1.500	3.539	2.500	3,76	9.256	9.921	4000	4.410	RPHT19

For Combimaster Shanks, see Machining Navigator Tooling System

Spare Parts, included in delivery

For cutter	Arbor screw	Coolant screw	Insert key	Insert screw
				
R220.29I-02.50	UC6S3/8UNFX11/2	SX2035-T05P	H6B-T20P	C05013-T20P
R220.29I-03.00	UC6S1/2UNFX1-1/2	SX2035-T05P	H6B-T20P	C05013-T20P
R220.29I-04.00-05.00	UC6S3/4UNFX1-1/4	SX2035-T05P	H6B-T20PL	C05013-T20P

Accessories

For cutter	Insert clamping torque	Torque key
		
R220.29I-..	44.3IN.LBS	T00-20P50

Torque and fixed keys, see page 872

R217.29-38 – Insert selection – mm/*Inch*

SMG		a_p	f_z			
			100%	30%	10%	5%
P1	RPHT190600T-6-M13 T350M	4,0 *0.16*	0,60 *0.024*	0,60 *0.024*	0,90 *0.036*	1,3 *0.050*
P2	RPHT190600T-6-M13 T350M	4,0 *0.16*	0,60 *0.024*	0,60 *0.024*	0,90 *0.036*	1,3 *0.050*
P3	RPHT190600T-6-M13 T350M	4,0 *0.16*	0,55 *0.022*	0,60 *0.024*	0,85 *0.034*	1,2 *0.048*
P4	RPHT190600T-6-M13 MS2500	4,0 *0.16*	0,55 *0.022*	0,60 *0.024*	0,85 *0.034*	1,2 *0.048*
P5	RPHT190600T-6-M13 MS2500	4,0 *0.16*	0,55 *0.022*	0,55 *0.022*	0,85 *0.034*	1,2 *0.048*
P6	RPHT190600T-6-M13 MS2500	4,0 *0.16*	0,55 *0.022*	0,55 *0.022*	0,80 *0.032*	1,2 *0.048*
P7	RPHT190600T-6-M13 MS2500	4,0 *0.16*	0,55 *0.022*	0,55 *0.022*	0,80 *0.032*	1,2 *0.048*
P8	RPHT190600T-6-M13 MS2500	4,0 *0.16*	0,55 *0.022*	0,60 *0.024*	0,85 *0.034*	1,2 *0.048*
P11	RPHT190600T-6-M13 MS2500	4,0 *0.16*	0,55 *0.022*	0,55 *0.022*	0,80 *0.032*	1,2 *0.048*
P12	RPHT190600T-6-M13 MS2500	3,0 *0.12*	0,42 *0.017*	0,40 *0.016*	0,55 *0.022*	0,80 *0.032*
M1	RPHT190600T-6-M13 F40M	4,0 *0.16*	0,60 *0.024*	0,60 *0.024*	0,90 *0.036*	1,3 *0.050*
M2	RPHT190600T-6-M13 F40M	4,0 *0.16*	0,55 *0.022*	0,55 *0.022*	0,85 *0.034*	1,2 *0.048*
M3	RPHT190600T-6-M13 F40M	3,0 *0.12*	0,50 *0.020*	0,48 *0.019*	0,65 *0.026*	0,95 *0.038*
M4	RPHT190600T-6-M13 F40M	2,5 *0.10*	0,48 *0.019*	0,50 *0.020*	0,60 *0.024*	0,80 *0.032*
M5	RPHT190600T-6-M13 F40M	2,5 *0.10*	0,48 *0.019*	0,50 *0.020*	0,60 *0.024*	0,80 *0.032*
S1	RPHT190600T-6-M13 MS2500	2,5 *0.10*	0,48 *0.019*	0,50 *0.020*	0,60 *0.024*	0,80 *0.032*
S2	RPHT190600T-6-M13 MS2500	2,5 *0.10*	0,48 *0.019*	0,50 *0.020*	0,60 *0.024*	0,80 *0.032*
S3	RPHT190600T-6-M13 MS2500	2,5 *0.10*	0,44 *0.017*	0,46 *0.018*	0,55 *0.022*	0,75 *0.030*
S11	RPHT190600T-6-M13 MS2050	2,5 *0.10*	0,55 *0.022*	0,50 *0.020*	0,65 *0.026*	0,95 *0.038*
S12	RPHT190600T-6-M13 MS2050	2,5 *0.10*	0,55 *0.022*	0,50 *0.020*	0,65 *0.026*	0,95 *0.038*
S13	RPHT190600T-6-M13 MS2050	2,5 *0.10*	0,48 *0.019*	0,50 *0.020*	0,60 *0.024*	0,80 *0.032*

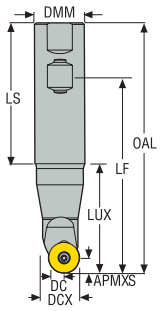
SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

R217/220.29-38 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	T350M				F40M				MS2050				MS2500			
	100%	30%	10%	5%	100%	30%	10%	5%	100%	30%	10%	5%	100%	30%	10%	5%
P1	215 *710*	305 *1000*	355 *1175*	370 *1225*	190 *620*	265 *870*	310 *1025*	320 *1050*	205 *670*	290 *950*	340 *1125*	355 *1175*	270 *890*	380 *1250*	445 *1450*	465 *1525*
P2	210 *690*	295 *970*	345 *1125*	360 *1175*	185 *610*	260 *850*	300 *980*	315 *1025*	200 *660*	285 *940*	330 *1075*	345 *1125*	265 *870*	370 *1225*	435 *1425*	450 *1475*
P3	185 *610*	255 *840*	305 *1000*	320 *1050*	160 *520*	220 *720*	265 *870*	275 *900*	180 *590*	245 *800*	290 *950*	305 *1000*	235 *770*	320 *1050*	380 *1250*	400 *1300*
P4	165 *540*	225 *740*	270 *890*	280 *920*	145 *475*	195 *640*	235 *770*	245 *800*	155 *510*	215 *710*	255 *840*	270 *890*	205 *670*	280 *920*	335 *1100*	350 *1150*
P5	155 *510*	220 *720*	255 *840*	265 *870*	135 *445*	190 *620*	220 *720*	230 *750*	150 *490*	210 *690*	245 *800*	255 *840*	195 *640*	275 *900*	320 *1050*	335 *1100*
P6	175 *570*	250 *820*	290 *950*	300 *980*	155 *510*	215 *710*	255 *840*	260 *850*	170 *560*	235 *770*	280 *920*	285 *940*	220 *720*	310 *1025*	365 *1200*	375 *1225*
P7	165 *540*	235 *770*	275 *900*	285 *940*	145 *475*	205 *670*	240 *790*	245 *800*	160 *520*	225 *740*	265 *870*	270 *890*	210 *690*	295 *970*	345 *1125*	355 *1175*
P8	155 *510*	215 *710*	255 *840*	265 *870*	135 *445*	185 *610*	220 *720*	230 *750*	150 *490*	205 *670*	245 *800*	255 *840*	195 *640*	270 *890*	320 *1050*	335 *1100*
P11	160 *520*	225 *740*	270 *890*	275 *900*	140 *460*	200 *660*	235 *770*	240 *790*	155 *510*	215 *710*	255 *840*	265 *870*	200 *660*	285 *940*	335 *1100*	345 *1125*
P12	110 *360*	150 *490*	175 *570*	185 *610*	95 *310*	130 *425*	155 *510*	160 *520*	105 *345*	145 *475*	170 *560*	175 *570*	135 *445*	190 *620*	220 *720*	230 *750*
M1	160 *520*	230 *750*	265 *870*	280 *920*	145 *475*	210 *690*	245 *800*	250 *820*	160 *520*	230 *750*	265 *870*	275 *900*	190 *620*	265 *870*	310 *1025*	325 *1075*
M2	135 *445*	190 *620*	220 *720*	230 *750*	120 *395*	175 *570*	200 *660*	210 *690*	135 *445*	190 *620*	220 *720*	230 *750*	155 *510*	220 *720*	255 *840*	270 *890*
M3	110 *360*	155 *510*	180 *590*	190 *620*	100 *330*	140 *460*	165 *540*	170 *560*	110 *360*	155 *510*	180 *590*	190 *620*	130 *425*	180 *590*	210 *690*	220 *720*
M4	150 *490*	210 *690*	245 *800*	260 *850*	80 *260*	110 *360*	125 *410*	135 *445*	85 *280*	120 *395*	140 *460*	150 *490*	100 *330*	140 *460*	165 *540*	175 *570*
M5	150 *490*	210 *690*	245 *800*	260 *850*	65 *215*	90 *295*	105 *345*	115 *375*	70 *230*	100 *330*	115 *375*	125 *410*	85 *280*	115 *375*	135 *445*	145 *475*
S1	41 *135*	55 *180*	65 *215*	70 *230*	37 *120*	50 *165*	60 *195*	65 *215*	41 *135*	55 *180*	65 *215*	70 *230*	49 *160*	70 *230*	80 *260*	85 *280*
S2	33 *110*	45 *150*	55 *180*	55 *180*	30 *100*	41 *135*	48 *155*	50 *165*	33 *110*	45 *150*	55 *180*	55 *180*	40 *130*	55 *180*	65 *215*	70 *230*
S3	29 *95*	40 *130*	47 *155*	49 *160*	26 *85*	36 *120*	42 *140*	45 *150*	29 *95*	40 *130*	47 *155*	49 *160*	35 *115*	48 *155*	55 *180*	60 *195*
S11	55 *180*	80 *260*	90 *295*	95 *310*	50 *165*	70 *230*	85 *280*	85 *280*	55 *180*	80 *260*	90 *295*	95 *310*	70 *230*	95 *310*	110 *360*	115 *375*
S12	39 *130*	55 *180*	65 *215*	65 *215*	35 *115*	49 *160*	60 *195*	60 *195*	39 *130*	55 *180*	65 *215*	65 *215*	47 *155*	65 *215*	80 *260*	80 *260*
S13	23 *75*	31 *100*	37 *120*	39 *130*	21 *70*	29 *95*	33 *110*	36 *120*	23 *75*	31 *100*	37 *120*	39 *130*	28 *90*	38 *125*	45 *150*	48 *155*

R217.29-10 – Metric

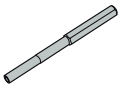




- For insert selection and cutting data recommendations, see page(s) 654-656
- For complete insert programme, see page(s) 820
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	DCX	ZEFP	APMXS	DMM	LS	OAL	LUX	RMPX°	Cmin	Cmax	RPMX	Weight	Insert
			mm	mm		mm	mm	mm	mm	mm		mm	mm		kg	
R217.29-3250.3-10.3.080	02426255	Weldon	30,0	50,0	3	10,0	32,0	87,0	140,0	79,0	9,5	80,0	98,0	6500	0,9	RP..2006

Spare Parts, included in delivery

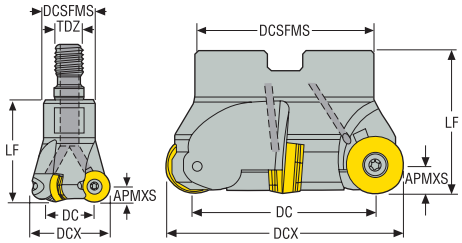
For cutter	Insert key	Insert screw
		
R217.29-..	H6B-T20P	C05013-T20P

Accessories

For cutter	Insert clamping torque	Torque key
		
R217.29-..	5.0NM	T00-20P50

Torque and fixed keys, see page 872

R220.29-10 – Metric



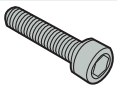
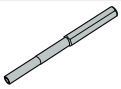
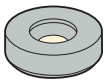
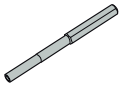


- For insert selection and cutting data recommendations, see page(s) 654-656
- For complete insert programme, see page(s) 820
- For ISO attribute explanation, see page 16

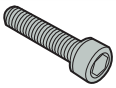
Designation	Item number	Type of mounting	DC	DCX	ZEFP	APMXS	DCB	TDZ	DCSFMS	LF	RMPX°	Cmin	Cmax	RPMX	Weight	Insert
			mm	mm		mm	mm		mm	mm		mm	mm		kg	
R217.29-1640.RE-10.2A	02426282	Combimaster	20,0	40,0	2	10,0	–	M16	30,0	40,0	40,0	60,0	78,0	8400	0,3	RP..2006
R220.29-0063-10.4A	02427241	Arbor	43,0	63,0	4	10,0	22,0	–	47,0	50,0	6,0	106,0	124,0	5800	0,6	RP..2006
R220.29-0080-10.4MA	02497996	Arbor	60,0	80,0	4	10,0	27,0	–	62,0	50,0	6,5	140,0	158,0	2100	1,0	RP..2006
R220.29-0080-10.5A	02497999	Arbor	60,0	80,0	5	10,0	27,0	–	62,0	50,0	6,5	140,0	158,0	2100	0,9	RP..2006
R220.29-0083-10.4MA	02498001	Arbor	63,0	83,0	4	10,0	27,0	–	62,0	50,0	6,2	146,0	164,0	5000	1,1	RP..2006
R220.29-0100-10.5MA	02498002	Arbor	80,0	100,0	5	10,0	32,0	–	77,0	50,0	4,7	180,0	198,0	4500	1,6	RP..2006
R220.29-0100-10.6A	02468476	Arbor	80,0	100,0	6	10,0	32,0	–	77,0	50,0	4,7	180,0	198,0	4500	1,5	RP..2006
R220.29-0125-10.5MA	02498005	Arbor	105,0	125,0	5	10,0	40,0	–	90,0	63,0	3,47	230,0	248,0	4000	3,0	RP..2006
R220.29-0125-10.7A	02498006	Arbor	105,0	125,0	7	10,0	40,0	–	90,0	63,0	3,47	230,0	248,0	4000	2,9	RP..2006
R220.29-8160-10.6M	02498008	Arbor	140,0	160,0	6	10,0	40,0	–	90,0	63,0	2,2	300,0	318,0	3600	4,1	RP..2006
R220.29-8200-10.8M	02495666	Arbor	180,0	200,0	8	10,0	60,0	–	130,0	63,0	1,66	380,0	398,0	3200	6,0	RP..2006
R220.29-8250-10.9M	02495667	Arbor	230,0	250,0	9	10,0	60,0	–	130,0	63,0	1,3	480,0	498,0	2900	11,1	RP..2006

For Combimaster Shanks, see Machining Navigator Tooling System

Spare Parts, included in delivery

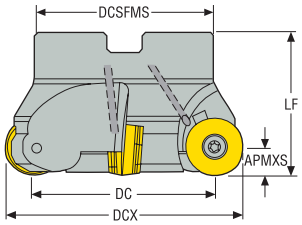
For cutter	Arbor screw	Insert key	Insert screw	Insert shim	Shim key	Shim screw
						
R217.29-..	–	H6B-T20P	C05013-T20P	–	–	–
R220.29-0063	220.17-692	H6B-T20P	C05013-T20P	–	–	–
R220.29-0080M	MC6S12X35	H6B-T20P	C05018-T20P	SRP2004M0	H6B-H5.0L	CA5010
R220.29-0080A	MC6S12X35	H6B-T20P	C05013-T20P	–	–	–
R220.29-0083M	MC6S12X35	H6B-T20PL	C05018-T20P	SRP2004M0	H6B-H5.0L	CA5010
R220.29-0100M	MLC6S16X35	H6B-T20PL	C05018-T20P	SRP2004M0	H6B-H5.0L	CA5010
R220.29-0100	MLC6S16X35	H6B-T20PL	C05013-T20P	–	–	–
R220.29-0125M	MLC6S20X40	H6B-T20PL	C05018-T20P	SRP2004M0	H6B-H5.0L	CA5010
R220.29-0125A	MLC6S20X40	H6B-T20PL	C05013-T20P	–	–	–
R220.29-8160M	–	1/4HEX-T20PX90	C05018-T20P	SRP2004M0	1/4HEX-H5.0X50	CA5010
R220.29-8200-8250M	–	H6B-T20PL	C05018-T20P	SRP2004M0	H6B-H5.0L	CA5010

Accessories

For cutter	Adjustable Torque key	Adjustable Torque key 2	Arbor screw	Insert clamping torque	Torque key
					
R217.29-..	–	–	–	5.0NM	T00-20P50
R220.29-0063-0125	–	–	–	5.0NM	T00-20P50
R220.29-8160	1/4HEX-S-HANDLE-0.8-5.0NM	1/4HEX-T-HANDLE-5.0-14.0NM	MC6S12X40	5.0NM	T00-20P50
R220.29-8200-8250	–	–	MC6S16X50	5.0NM	T00-20P50

Torque and fixed keys, see page 872

R220.29-10 – inch



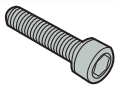
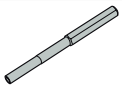
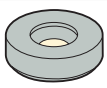
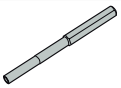


- For insert selection and cutting data recommendations, see page(s) 654-656
- For complete insert programme, see page(s) 820
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	DCX	ZEFP	APMXS	DCB	TDZ	DCSFMS	LF	RMPX°	C min	C max	RPMX	Weight	Insert
			inch	inch		inch	inch		inch	inch		inch	inch		lbs	
R220.29-02.50-10.4A	00087697	Arbor	1.713	2.500	4	0.394	0.750	–	1.850	2.000	6,0	4.213	4.921	5800	1.320	RP..2006
R220.29-03.00-10.4A	00087698	Arbor	2.213	3.000	4	0.394	1.000	–	2.441	2.000	5,0	5.213	5.921	5100	2.200	RP..2006

For Combimaster Shanks, see Machining Navigator Tooling System

Spare Parts, included in delivery

For cutter	Arbor screw	Insert key	Insert screw	Insert shim	Shim key	Shim screw
						
R220.29-02.50	UC6S3/8UNFX11/2	H6B-T20P	C05013-T20P	–	–	–
R220.29-03.00	UC6S1/2UNFX1-1/4	H6B-T20P	C05018-T20P	SRP2004M0	H6B-H5.0L	CA5010

Accessories

For cutter	Insert clamping torque	Torque key
		
R220.29-..	44.3IN.LBS	T00-20P50

Torque and fixed keys, see page 872

R217/220.29-10 – Insert selection – mm/*Inch*

SMG		a_p	f_z			
			100%	70%	30%	10%
P1	RPHT2006M0T-ME12 MP2501	4,0 *0.16*	0,38 *0.015*	0,38 *0.015*	0,46 *0.018*	0,75 *0.030*
P2	RPHT2006M0T-ME12 MP2501	4,0 *0.16*	0,38 *0.015*	0,38 *0.015*	0,46 *0.018*	0,75 *0.030*
P3	RPHT2006M0T-ME12 MP2501	4,0 *0.16*	0,36 *0.014*	0,36 *0.014*	0,44 *0.017*	0,70 *0.028*
P4	RPKT2006M0T-M15 MP2501	4,0 *0.16*	0,44 *0.017*	0,44 *0.017*	0,55 *0.022*	0,85 *0.034*
P5	RPKT2006M0T-M15 MP2501	4,0 *0.16*	0,44 *0.017*	0,44 *0.017*	0,55 *0.022*	0,85 *0.034*
P6	RPKT2006M0T-M20 MS2500	4,0 *0.16*	0,44 *0.017*	0,44 *0.017*	0,50 *0.020*	0,85 *0.034*
P7	RPKT2006M0T-M20 MS2500	4,0 *0.16*	0,44 *0.017*	0,44 *0.017*	0,50 *0.020*	0,85 *0.034*
P8	RPKT2006M0T-M20 MS2500	4,0 *0.16*	0,46 *0.018*	0,46 *0.018*	0,55 *0.022*	0,90 *0.036*
P11	RPKT2006M0T-M20 MS2500	4,0 *0.16*	0,44 *0.017*	0,44 *0.017*	0,50 *0.020*	0,85 *0.034*
P12	RPKT2006M0T-M20 MS2500	3,0 *0.12*	0,34 *0.013*	0,34 *0.013*	0,40 *0.016*	0,65 *0.026*
M1	RPHT2006M0T-ME12 MS2050	4,0 *0.16*	0,38 *0.015*	0,38 *0.015*	0,46 *0.018*	0,75 *0.030*
M2	RPHT2006M0T-ME12 MS2050	4,0 *0.16*	0,36 *0.014*	0,36 *0.014*	0,42 *0.017*	0,65 *0.026*
M3	RPHT2006M0T-ME12 MS2050	3,0 *0.12*	0,32 *0.013*	0,32 *0.013*	0,38 *0.015*	0,60 *0.024*
M4	RPHT2006M0T-ME12 T350M	2,5 *0.10*	0,30 *0.012*	0,30 *0.012*	0,36 *0.014*	0,60 *0.024*
M5	RPHT2006M0T-ME12 T350M	2,5 *0.10*	0,30 *0.012*	0,30 *0.012*	0,36 *0.014*	0,60 *0.024*
K1	RPKT2006M0T-M20 MK2050	4,0 *0.16*	0,48 *0.019*	0,48 *0.019*	0,60 *0.024*	0,95 *0.038*
K2	RPKT2006M0T-M20 MK2050	4,0 *0.16*	0,44 *0.017*	0,44 *0.017*	0,55 *0.022*	0,85 *0.034*
K3	RPKT2006M0T-M20 MK2050	4,0 *0.16*	0,44 *0.017*	0,44 *0.017*	0,55 *0.022*	0,85 *0.034*
K4	RPKT2006M0T-M20 MK2050	4,0 *0.16*	0,44 *0.017*	0,44 *0.017*	0,55 *0.022*	0,85 *0.034*
K5	RPKT2006M0T-M20 MK2050	4,0 *0.16*	0,40 *0.016*	0,40 *0.016*	0,48 *0.019*	0,75 *0.030*
K6	RPKT2006M0T-M20 MK2050	4,0 *0.16*	0,44 *0.017*	0,44 *0.017*	0,55 *0.022*	0,85 *0.034*
K7	RPKT2006M0T-M20 MK2050	4,0 *0.16*	0,40 *0.016*	0,40 *0.016*	0,48 *0.019*	0,75 *0.030*
S1	RPHT2006M0T-ME12 MS2500	2,5 *0.10*	0,30 *0.012*	0,30 *0.012*	0,36 *0.014*	0,60 *0.024*
S2	RPHT2006M0T-ME12 MS2500	2,5 *0.10*	0,30 *0.012*	0,30 *0.012*	0,36 *0.014*	0,60 *0.024*
S3	RPKT2006M0T-M15 MS2500	2,5 *0.10*	0,36 *0.014*	0,36 *0.014*	0,42 *0.017*	0,70 *0.028*
S11	RPHT2006M0T-ME12 MS2050	3,0 *0.12*	0,32 *0.013*	0,32 *0.013*	0,38 *0.015*	0,60 *0.024*
S12	RPHT2006M0T-ME12 MS2050	3,0 *0.12*	0,32 *0.013*	0,32 *0.013*	0,38 *0.015*	0,60 *0.024*
S13	RPHT2006M0T-ME12 MS2050	2,5 *0.10*	0,30 *0.012*	0,30 *0.012*	0,36 *0.014*	0,60 *0.024*
H5	RPKW2006M0T-MD22 F15M	3,0 *0.12*	0,50 *0.020*	0,50 *0.020*	0,60 *0.024*	0,95 *0.038*
H8	RPKW2006M0T-MD22 F15M	3,0 *0.12*	0,38 *0.015*	0,38 *0.015*	0,46 *0.018*	0,70 *0.028*
H11	RPKW2006M0T-MD22 F15M	3,0 *0.12*	0,50 *0.020*	0,50 *0.020*	0,60 *0.024*	0,95 *0.038*
H12	RPKW2006M0T-MD22 F25M	— —	— —	— —	— —	— —

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

R217/220.29-10 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	F15M				MK2050				F25M				F30M				MS2050				F40M				MP2050			
	100%	70%	30%	10%	100%	70%	30%	10%	100%	70%	30%	10%	100%	70%	30%	10%	100%	70%	30%	10%	100%	70%	30%	10%	100%	70%	30%	10%
P1	200	230	280	330	215	250	300	360	230	270	325	380	225	260	310	370	255	300	355	420	210	245	295	345	290	340	405	480
	660	*750*	*920*	*1075*	*710*	*820*	*980*	*1175*	*750*	*890*	*1075*	*1250*	*740*	*850*	*1025*	*1225*	*840*	*980*	*1175*	*1375*	*690*	*800*	*970*	*1125*	*950*	*1125*	*1325*	*1575*
P2	190	225	270	310	210	245	295	340	225	260	315	370	215	255	305	355	250	290	345	410	205	235	285	335	285	330	395	470
	620	*740*	*890*	*1025*	*690*	*800*	*970*	*1125*	*740*	*850*	*1025*	*1225*	*710*	*840*	*1000*	*1175*	*820*	*950*	*1125*	*1350*	*670*	*770*	*940*	*1100*	*940*	*1075*	*1300*	*1550*
P3	170	200	240	280	185	215	260	300	195	230	275	325	190	225	265	310	215	255	305	355	175	205	250	295	250	290	345	405
	560	*660*	*790*	*920*	*610*	*710*	*850*	*980*	*640*	*750*	*900*	*1075*	*620*	*740*	*870*	*1025*	*710*	*840*	*1000*	*1175*	*570*	*670*	*820*	*970*	*820*	*950*	*1125*	*1325*
P4	150	175	210	245	160	190	230	265	175	205	245	285	170	195	235	275	190	225	265	310	160	185	220	260	220	255	305	355
	490	*570*	*690*	*800*	*520*	*620*	*750*	*870*	*570*	*670*	*800*	*940*	*560*	*640*	*770*	*900*	*620*	*740*	*870*	*1025*	*520*	*610*	*720*	*850*	*720*	*840*	*1000*	*1175*
P5	145	165	200	240	155	180	220	255	165	195	235	275	160	185	225	265	185	220	260	305	150	175	210	250	210	250	295	350
	475	*540*	*660*	*790*	*510*	*590*	*720*	*840*	*540*	*640*	*770*	*900*	*520*	*610*	*740*	*870*	*610*	*720*	*850*	*1000*	*490*	*570*	*690*	*820*	*690*	*820*	*970*	*1150*
P6	160	185	225	265	175	205	245	290	185	220	265	305	185	215	255	300	210	245	290	345	170	200	240	280	240	280	330	390
	520	*610*	*740*	*870*	*570*	*670*	*800*	*950*	*610*	*720*	*870*	*1000*	*610*	*710*	*840*	*980*	*690*	*800*	*950*	*1125*	*560*	*660*	*790*	*920*	*790*	*920*	*1075*	*1275*
P7	150	175	215	250	165	190	230	275	175	205	250	290	175	200	240	280	195	230	275	325	160	185	225	265	225	265	315	370
	490	*570*	*710*	*820*	*540*	*620*	*750*	*900*	*570*	*670*	*820*	*950*	*570*	*660*	*790*	*920*	*640*	*750*	*900*	*1075*	*520*	*610*	*740*	*870*	*740*	*870*	*1025*	*1225*
P8	145	165	200	235	155	180	220	255	165	190	235	275	160	185	225	260	185	215	255	295	150	175	210	250	210	245	290	340
	475	*540*	*660*	*770*	*510*	*590*	*720*	*840*	*540*	*620*	*770*	*900*	*520*	*610*	*740*	*850*	*610*	*710*	*840*	*970*	*490*	*570*	*690*	*820*	*690*	*800*	*950*	*1125*
P11	145	170	205	245	160	185	225	265	170	200	245	280	170	195	235	275	190	225	265	315	155	180	220	255	220	255	305	360
	475	*560*	*670*	*800*	*520*	*610*	*740*	*870*	*560*	*660*	*800*	*920*	*560*	*640*	*770*	*900*	*620*	*740*	*870*	*1025*	*510*	*590*	*720*	*840*	*720*	*840*	*1000*	*1175*
P12	—	—	—	—	110	125	150	175	115	130	160	185	110	130	150	175	125	145	175	205	105	120	145	170	140	165	195	235
	—	—	—	—	*360*	*410*	*490*	*570*	*375*	*425*	*520*	*610*	*360*	*425*	*490*	*570*	*410*	*475*	*570*	*670*	*345*	*395*	*475*	*560*	*460*	*540*	*640*	*770*
M1	—	—	—	—	—	—	—	—	—	—	—	—	175	205	245	285	200	235	280	330	165	190	230	270	205	235	285	335
	—	—	—	—	—	—	—	—	—	—	—	—	*570*	*670*	*800*	*940*	*660*	*770*	*920*	*1075*	*540*	*620*	*750*	*890*	*670*	*770*	*940*	*1100*
M2	—	—	—	—	—	—	—	—	—	—	—	—	145	170	205	240	165	195	235	275	135	160	190	225	170	200	235	280
	—	—	—	—	—	—	—	—	—	—	—	—	*475*	*560*	*670*	*790*	*540*	*640*	*770*	*900*	*445*	*520*	*620*	*740*	*560*	*660*	*770*	*920*
M3	—	—	—	—	—	—	—	—	—	—	—	—	120	140	165	190	135	155	190	220	110	130	155	185	135	160	190	220
	—	—	—	—	—	—	—	—	—	—	—	—	*395*	*460*	*540*	*620*	*445*	*510*	*620*	*720*	*360*	*425*	*510*	*610*	*445*	*520*	*620*	*720*
M4	—	—	—	—	—	—	—	—	—	—	—	—	90	105	130	150	105	120	145	170	85	100	120	140	105	125	145	175
	—	—	—	—	—	—	—	—	—	—	—	—	*295*	*345*	*425*	*490*	*345*	*395*	*475*	*560*	*280*	*330*	*395*	*460*	*345*	*410*	*475*	*570*
M5	—	—	—	—	—	—	—	—	—	—	—	—	75	90	105	125	90	100	120	145	75	85	100	120	90	105	125	145
	—	—	—	—	—	—	—	—	—	—	—	—	*245*	*295*	*345*	*410*	*295*	*330*	*395*	*475*	*245*	*280*	*330*	*395*	*295*	*345*	*410*	*475*
K1	150	180	215	250	225	265	315	365	175	205	250	295	170	200	240	280	—	—	—	—	160	190	225	265	—	—	—	—
	490	*590*	*710*	*820*	*740*	*870*	*1025*	*1200*	*570*	*670*	*820*	*970*	*560*	*660*	*790*	*920*	—	—	—	—	*520*	*620*	*740*	*870*	—	—	—	—
K2	135	160	190	225	200	235	280	335	160	185	220	260	150	180	215	250	—	—	—	—	145	170	200	235	—	—	—	—
	445	*520*	*620*	*740*	*660*	*770*	*920*	*1100*	*520*	*610*	*720*	*850*	*490*	*590*	*710*	*820*	—	—	—	—	*475*	*560*	*660*	*770*	—	—	—	—
K3	115	135	160	190	170	200	240	280	135	155	185	220	130	150	180	215	—	—	—	—	120	140	170	200	—	—	—	—
	375	*445*	*520*	*620*	*560*	*660*	*790*	*920*	*445*	*510*	*610*	*720*	*425*	*490*	*590*	*710*	—	—	—	—	*395*	*460*	*560*	*660*	—	—	—	—
K4	110	130	155	180	160	190	225	270	125	150	180	210	125	145	175	205	—	—	—	—	115	135	160	190	—	—	—	—
	360	*425*	*510*	*590*	*520*	*620*	*740*	*890*	*410*	*490*	*590*	*690*	*410*	*475*	*570*	*670*	—	—	—	—	*375*	*445*	*520*	*620*	—	—	—	—
K5	70	80	95	110	100	120	145	165	80	90	110	130	75	90	105	125	—	—	—	—	70	85	100	115	—	—	—	—
	230	*260*	*310*	*360*	*330*	*395*	*475*	*540*	*260*	*295*	*360*	*425*	*245*	*295*	*345*	*410*	—	—	—	—	*230*	*280*	*330*	*375*	—	—	—	—
K6	95	115	135	160	140	165	200	235	110	130	155	185	110	125	155	180	—	—	—	—	100	120	145	170	—	—	—	—
	310	*375*	*445*	*520*	*460*	*540*	*660*	*770*	*360*	*425*	*510*	*610*	*360*	*410*	*510*	*590*	—	—	—	—	*330*	*395*	*475*	*560*	—	—	—	—
K7	90	105	125	145	130	150	185	210	100	115	140	165	95	115	135	160	—	—	—	—	90	105	130	150	—	—	—	—
	295	*345*	*410*	*475*	*425*	*490*	*610*	*690*	*330*	*375*	*460*	*540*	*310*	*375*	*445*	*520*	—	—	—	—	*295*	*345*	*425*	*490*	—	—	—	—
S1	—	—	—	—	—	—	—	—	—	—	—	—	43	49	60	70	49	55	70	80	41	47	55	65	50	60	70	85
	—	—	—	—	—	—	—	—	—	—	—	—	*140*	*160*	*195*	*230*	*160*	*180*	*230*	*260*	*135*	*155*	*180*	*215*	*165*	*195*	*230*	*280*
S2	—	—	—	—	—	—	—	—	—	—	—	—	34	40	48	55	40	46	55	65	33	38	46	55	42	49	60	70
	—	—	—	—	—	—	—	—	—	—	—	—	*110*	*130*	*155*	*180*	*130*	*150*	*180*	*215*	*110*	*125*	*150*	*180*	*140*	*160*	*195*	*230*
S3	—	—	—	—	—	—	—	—	—	—	—	—	30	35	42	49	35	40	48	55	29	33	40	47	37	43	50	60
	—	—	—	—	—	—	—	—	—	—	—	—	*100*	*115*	*140*	*160*	*115*	*130*	*155*	*180*	*95*	*110*	*130*	*155*	*120*	*140*	*165*	*195*
S11	—	—	—	—	—	—	—	—	—	—	—	—	60	70	85	95	70	80	95	110	55	65	80	95	75	85	100	120
	—	—	—	—	—	—	—	—	—	—	—	—	*195*	*230*	*280*	*310*	*230*	*260*	*310*	*360*	*180*	*215*	*260*	*310*	*245*	*280*	*330*	*395*
S12	—	—	—	—	—	—	—	—	—	—	—	—	35	40	48	55	47	55	65	75	39	45	55	65	50	60	70	80
	—	—	—	—	—	—	—	—	—	—	—	—	*115*	*130*	*155*	*180*	*155*	*180*	*215*	*245*	*130*	*150*	*180*	*215*	*165*	*195*	*230*	*260*
S13	—	—	—	—	—	—	—	—	—	—	—	—	20	23	28	32	28	32	38	45	23	26	32	37	29	34	41	48
	—	—	—	—	—	—	—	—	—	—	—	—	*65*	*75*	*90*	*105*	*90*	*105*	*125*	*150*	*75*	*85*	*105*	*120*	*95*	*110*	*135*	*155*
H5	33	38	46	55	—	—	—	—	38	44	55	60	36	42	50	60	—	—	—	—	34	40	48	55	—	—	—	—
	110	*125*	*150*	*180*	—	—	—	—	*125*	*145*	*180*	*195*	*120*	*140*	*165*	*195*	—	—	—	—	*110*	*130*	*155*	*180*	—	—	—	—
H8	36	42	50	60	—	—	—	—	41	47	55	65	39	45	55	60	—	—	—	—	37	43	50	60	—	—	—	—
	120	*140*	*165*	*195*	—	—	—	—	*135*	*155*	*180*	*215*	*130*	*150*	*180*	*195*	—	—	—	—	*120*	*140*	*165*	*195*	—	—	—	—
H11	42	49	60	70	—	—	—	—	48	55	65	80	46	55	65	75	—	—	—	—	44	50	60	70	55	65	75	90
	140	*160*	*195*	*230*	—	—	—	—	*155*	*180*	*215*	*260*	*150*	*180*	*215*	*245*	—	—	—	—	*145*	*165*	*195*	*230*	*180*	*215*	*245*	*295*
H12	65	75	90	105	—	—	—	—	75	85	100	120	70	80	95	110	—	—	—	—	65	75	95	110	90	105	125	150
	215	*245*	*295*	*345*	—	—	—	—	*245*	*280*	*330*	*395*	*230*	*260*	*310*	*360*	—	—	—	—	*215*	*245*	*310*	*360*	*295*	*345*	*410*	*490*

R217/220.29-10 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	MP1501				MP2501				MS2500				T350M				T25M				MM4500			
	100%	70%	30%	10%	100%	70%	30%	10%	100%	70%	30%	10%	100%	70%	30%	10%	100%	70%	30%	10%	100%	70%	30%	10%
P1	345 *1125*	390 *1275*	475 *1550*	530 *1750*	335 *1100*	375 *1225*	460 *1500*	510 *1675*	300 *980*	350 *1150*	425 *1400*	495 *1625*	240 *790*	280 *920*	340 *1125*	395 *1300*	255 *840*	300 *980*	355 *1175*	420 *1375*	190 *620*	220 *720*	265 *870*	310 *1025*
P2	335 *1100*	380 *1250*	450 *1475*	510 *1675*	325 *1075*	365 *1200*	435 *1425*	500 *1650*	290 *950*	340 *1125*	410 *1350*	485 *1600*	235 *770*	275 *900*	325 *1075*	385 *1275*	250 *820*	290 *950*	345 *1125*	410 *1350*	185 *610*	215 *710*	255 *840*	305 *1000*
P3	300 *980*	335 *1100*	400 *1300*	450 *1475*	290 *950*	325 *1075*	385 *1275*	440 *1450*	255 *840*	300 *980*	360 *1175*	425 *1400*	205 *670*	240 *790*	290 *950*	340 *1125*	215 *710*	255 *840*	305 *1000*	355 *1175*	160 *520*	185 *610*	225 *740*	260 *850*
P4	265 *870*	295 *970*	350 *1150*	400 *1300*	255 *840*	285 *940*	340 *1125*	385 *1275*	230 *750*	265 *870*	320 *1050*	375 *1225*	180 *590*	215 *710*	255 *840*	300 *980*	190 *620*	225 *740*	265 *870*	310 *1025*	140 *460*	165 *540*	195 *640*	230 *750*
P5	250 *820*	285 *940*	335 *1100*	385 *1275*	245 *800*	275 *900*	325 *1075*	375 *1225*	215 *710*	255 *840*	305 *1000*	360 *1175*	175 *570*	205 *670*	245 *800*	285 *940*	185 *610*	220 *720*	260 *850*	305 *1000*	135 *445*	160 *520*	190 *620*	225 *740*
P6	295 *970*	330 *1075*	390 *1275*	435 *1425*	285 *940*	320 *1050*	375 *1225*	425 *1400*	245 *800*	285 *940*	345 *1125*	400 *1300*	195 *640*	230 *750*	275 *900*	320 *1050*	210 *690*	245 *800*	290 *950*	345 *1125*	155 *510*	180 *590*	215 *710*	255 *840*
P7	275 *900*	310 *1025*	365 *1200*	410 *1350*	270 *890*	300 *980*	355 *1175*	400 *1300*	230 *750*	270 *890*	325 *1075*	380 *1250*	185 *610*	215 *710*	260 *850*	305 *1000*	195 *640*	230 *750*	275 *900*	325 *1075*	145 *475*	170 *560*	205 *670*	240 *790*
P8	250 *820*	285 *940*	335 *1100*	380 *1250*	245 *800*	275 *900*	325 *1075*	370 *1225*	215 *710*	250 *820*	305 *1000*	360 *1175*	170 *560*	200 *660*	245 *800*	285 *940*	185 *610*	215 *710*	255 *840*	295 *970*	135 *445*	160 *520*	190 *620*	220 *720*
P11	270 *890*	305 *1000*	355 *1175*	400 *1300*	260 *850*	295 *970*	345 *1125*	390 *1275*	225 *740*	260 *850*	320 *1050*	370 *1225*	180 *590*	210 *690*	255 *840*	295 *970*	190 *620*	225 *740*	265 *870*	315 *1025*	140 *460*	165 *540*	195 *640*	230 *750*
P12	180 *590*	200 *660*	235 *770*	260 *850*	175 *570*	195 *640*	230 *750*	255 *840*	150 *490*	175 *570*	210 *690*	245 *800*	120 *395*	140 *460*	165 *540*	195 *640*	125 *410*	145 *475*	175 *570*	205 *670*	90 *295*	105 *345*	130 *425*	150 *490*
M1	— —	— —	— —	— —	175 *570*	205 *670*	245 *800*	290 *950*	210 *690*	245 *800*	295 *970*	345 *1125*	180 *590*	210 *690*	250 *820*	300 *980*	200 *660*	235 *770*	280 *920*	330 *1075*	155 *510*	185 *610*	220 *720*	260 *850*
M2	— —	— —	— —	— —	145 *475*	170 *560*	205 *670*	245 *800*	175 *570*	205 *670*	245 *800*	285 *940*	150 *490*	175 *570*	210 *690*	245 *800*	165 *540*	195 *640*	235 *770*	275 *900*	130 *425*	155 *510*	185 *610*	215 *710*
M3	— —	— —	— —	— —	120 *395*	140 *460*	170 *560*	195 *640*	145 *475*	165 *540*	200 *660*	235 *770*	125 *410*	140 *460*	170 *560*	205 *670*	135 *445*	155 *510*	190 *620*	220 *720*	105 *345*	125 *410*	150 *490*	170 *560*
M4	— —	— —	— —	— —	95 *310*	110 *360*	130 *425*	155 *510*	110 *360*	130 *425*	155 *510*	180 *590*	95 *310*	110 *360*	135 *445*	155 *510*	105 *345*	120 *395*	145 *475*	170 *560*	85 *280*	95 *310*	115 *375*	135 *445*
M5	— —	— —	— —	— —	80 *260*	90 *295*	110 *360*	130 *425*	95 *310*	105 *345*	130 *425*	150 *490*	80 *260*	90 *295*	110 *360*	130 *425*	90 *295*	100 *330*	120 *395*	145 *475*	70 *230*	80 *260*	95 *310*	110 *360*
K1	340 *1125*	380 *1250*	455 *1500*	520 *1700*	325 *1075*	370 *1225*	440 *1450*	500 *1650*	230 *750*	270 *890*	325 *1075*	385 *1275*	185 *610*	215 *710*	260 *850*	305 *1000*	195 *640*	230 *750*	275 *900*	325 *1075*	— —	— —	— —	— —
K2	305 *1000*	345 *1125*	405 *1325*	470 *1550*	295 *970*	330 *1075*	395 *1300*	455 *1500*	205 *670*	240 *790*	290 *950*	340 *1125*	165 *540*	195 *640*	230 *750*	270 *890*	175 *570*	205 *670*	245 *800*	290 *950*	— —	— —	— —	— —
K3	260 *850*	290 *950*	340 *1125*	395 *1300*	250 *820*	280 *920*	330 *1075*	385 *1275*	175 *570*	205 *670*	245 *800*	290 *950*	140 *460*	165 *540*	195 *640*	230 *750*	150 *490*	175 *570*	210 *690*	245 *800*	— —	— —	— —	— —
K4	245 *800*	275 *900*	325 *1075*	380 *1250*	240 *790*	265 *870*	315 *1025*	370 *1225*	165 *540*	195 *640*	235 *770*	275 *900*	135 *445*	155 *510*	185 *610*	220 *720*	145 *475*	165 *540*	200 *660*	235 *770*	— —	— —	— —	— —
K5	160 *520*	180 *590*	210 *690*	230 *750*	155 *510*	170 *560*	205 *670*	225 *740*	100 *330*	120 *395*	145 *475*	165 *540*	80 *260*	95 *310*	115 *375*	135 *445*	85 *280*	100 *330*	120 *395*	145 *475*	— —	— —	— —	— —
K6	215 *710*	245 *800*	290 *950*	335 *1100*	210 *690*	235 *770*	280 *920*	325 *1075*	145 *475*	170 *560*	205 *670*	240 *790*	115 *375*	135 *445*	165 *540*	195 *640*	125 *410*	145 *475*	175 *570*	205 *670*	— —	— —	— —	— —
K7	200 *660*	225 *740*	265 *870*	295 *970*	195 *640*	220 *720*	260 *850*	285 *940*	130 *425*	155 *510*	185 *610*	215 *710*	105 *345*	120 *395*	150 *490*	170 *560*	110 *360*	130 *425*	155 *510*	185 *610*	— —	— —	— —	— —
S1	— —	— —	— —	— —	— —	— —	— —	— —	55 *180*	65 *215*	75 *245*	90 *295*	45 *150*	50 *165*	60 *195*	75 *245*	— —	— —	— —	— —	25 *80*	29 *95*	35 *115*	41 *135*
S2	— —	— —	— —	— —	— —	— —	— —	— —	44 *145*	50 *165*	60 *195*	70 *230*	36 *120*	42 *140*	50 *165*	60 *195*	— —	— —	— —	— —	20 *65*	24 *80*	28 *90*	33 *110*
S3	— —	— —	— —	— —	— —	— —	— —	— —	38 *125*	44 *145*	55 *180*	65 *215*	32 *105*	36 *120*	44 *145*	50 *165*	— —	— —	— —	— —	18 *60*	21 *70*	25 *80*	29 *95*
S11	— —	— —	— —	— —	— —	— —	— —	— —	75 *245*	90 *295*	105 *345*	125 *410*	60 *195*	70 *230*	85 *280*	100 *330*	— —	— —	— —	— —	35 *115*	41 *135*	49 *160*	55 *180*
S12	— —	— —	— —	— —	— —	— —	— —	— —	50 *165*	60 *195*	75 *245*	85 *280*	43 *140*	50 *165*	60 *195*	70 *230*	— —	— —	— —	— —	32 *105*	38 *125*	45 *150*	55 *180*
S13	— —	— —	— —	— —	— —	— —	— —	— —	31 *100*	35 *115*	43 *140*	50 *165*	25 *80*	29 *95*	35 *115*	41 *135*	— —	— —	— —	— —	19 *60*	22 *70*	26 *85*	31 *100*
H5	47 *155*	55 *180*	65 *215*	75 *245*	— —	— —	— —	— —	45 *150*	50 *165*	60 *195*	75 *245*	40 *130*	46 *150*	55 *180*	65 *215*	— —	— —	— —	— —	— —	— —	— —	— —
H8	50 *165*	60 *195*	70 *230*	85 *280*	— —	— —	— —	— —	48 *155*	55 *180*	65 *215*	80 *260*	43 *140*	49 *160*	60 *195*	70 *230*	— —	— —	— —	— —	— —	— —	— —	— —
H11	60 *195*	70 *230*	85 *280*	95 *310*	— —	— —	— —	— —	55 *180*	65 *215*	80 *260*	95 *310*	50 *165*	60 *195*	70 *230*	80 *260*	— —	— —	— —	— —	— —	— —	— —	— —
H12	90 *295*	105 *345*	130 *425*	150 *490*	— —	— —	— —	— —	95 *310*	110 *360*	135 *445*	155 *510*	75 *245*	90 *295*	105 *345*	125 *410*	— —	— —	— —	— —	— —	— —	— —	— —



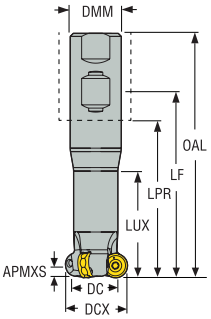
R217/220.28 ROUND INSERT CUTTERS

Our range of double-sided round inserts in size 12 and cutters, R217/220.28, is ideal for light copy milling applications, face milling, slot milling and side milling in all workpiece materials.

- Cutter range 32-100 mm (1.25 - 4 inch)
- Max depth of cut 6 mm (.236 inch)
- Recommended slotting depth of cut 3 mm (.118 inch)
- Up to 16 cutting edges

R217.28-06 – inch





- For insert selection and cutting data recommendations, see page(s) 661-662
- For complete insert programme, see page(s) 818
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	DCX	ZEFP	APMXS	DMM	LS	OAL	LUX	RMPX°	C min	C max	RPMX	Weight	Insert
			inch	inch		inch	inch	inch	inch	inch		inch	inch		lbs	
R217.28-01.25-3-06-3A	03092089	Weldon	0.780	1.250	3	0.236	1.000	2.280	4.783	2.578	0,4	2.030	2.421	15600	1.100	RNMU12..

Spare Parts, included in delivery

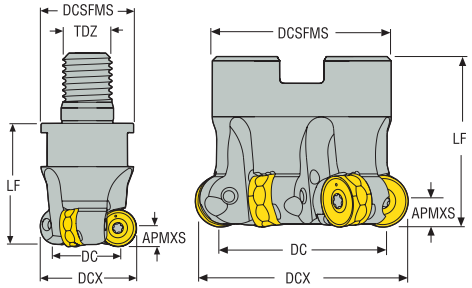
For cutter	Insert key	Insert screw
		
R217.28-..	H4B-T15P	C04009-T15P

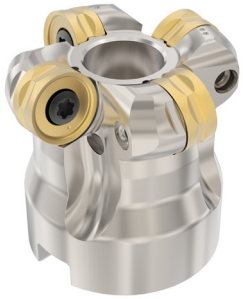
Accessories

For cutter	Insert clamping torque	Torque key
		
R217.28-..	31.0IN.LBS	T00-15P35

Torque and fixed keys, see page 872

R220.28-06 – Metric

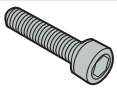




- For insert selection and cutting data recommendations, see page(s) 661-662
- For complete insert programme, see page(s) 818
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	DCX	ZEFP	APMXS	DCB	TDZ	DCSFMS	LF	RMPX°	Cmin	Cmax	RPMX	Weight	Insert
			mm	mm		mm	mm		mm	mm		mm	mm		kg	
R217.28-1632.RE-06.3A	03092078	Combimaster	20,1	32,0	3	6,0	–	M16	30,0	40,0	0,4	52,1	62,0	15600	0,3	RNMU12..
R220.28-0040-06.4A	03092080	Arbor	28,0	40,0	4	6,0	16,0	–	35,0	40,0	0,54	68,0	78,0	14000	0,3	RNMU12..
R220.28-0050-06.5A	03092081	Arbor	38,0	50,0	5	6,0	22,0	–	42,0	40,0	0,62	88,0	98,0	12500	0,3	RNMU12..
R220.28-0050-06.6A	03092082	Arbor	38,0	50,0	6	6,0	22,0	–	42,0	40,0	0,62	88,0	98,0	12500	0,4	RNMU12..
R220.28-0052-06.5A	03092083	Arbor	40,0	52,0	5	6,0	22,0	–	47,0	40,0	0,6	92,0	102,0	12300	0,4	RNMU12..
R220.28-0063-06.6A	03092084	Arbor	51,0	63,0	6	6,0	22,0	–	47,0	40,0	0,47	114,0	124,0	11200	0,5	RNMU12..
R220.28-0063-06.8A	03092086	Arbor	51,0	63,0	8	6,0	22,0	–	47,0	40,0	0,47	114,0	124,0	10000	0,5	RNMU12..
R220.28-0066-06.7A	03092087	Arbor	54,0	66,0	7	6,0	27,0	–	62,0	50,0	0,45	120,0	130,0	10900	0,9	RNMU12..
R220.28-0080-06.8A	03092088	Arbor	67,9	80,0	8	6,0	27,0	–	62,0	50,0	0,53	147,9	158,0	10000	1,1	RNMU12..

Spare Parts, included in delivery

For cutter	Arbor screw	Insert key	Insert screw
			
R217.28-..	–	H4B-T15P	C04009-T15P
R220.28-0040-0063	220.17-692	H4B-T15P	C04009-T15P
R220.28-0066	MC6S12X40	H4B-T15P	C04009-T15P
R220.28-0080	MC6S12X40	H4B-T15P	C04009-T15P

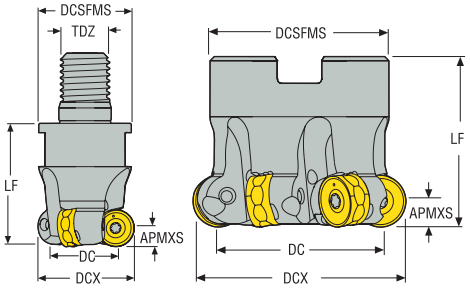
Accessories

For cutter	Insert clamping torque	Torque key
		
R217/220.28-..	3.5NM	T00-15P35

Torque and fixed keys, see page 872

R220.28-06 – inch

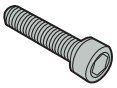




- For insert selection and cutting data recommendations, see page(s) 661-662
- For complete insert programme, see page(s) 818
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	DCX	ZEFP	APMXS	DCB	TDZ	DCSFMS	LF	RMPX°	C min	C max	RPMX	Weight	Insert
			inch	inch		inch	inch		inch	inch		inch	inch		lbs	
R220.28-02.00-06-5A	03092092	Arbor	1.528	2.000	5	0.236	0.750	–	1.654	1.500	0,61	3.528	3.921	12500	0.660	RNMU12..
R220.28-02.00-06-6A	03092093	Arbor	1.528	2.000	6	0.236	0.750	–	1.654	1.500	0,61	3.528	3.921	12500	0.660	RNMU12..
R220.28-02.50-06-7A	03092094	Arbor	2.028	2.500	7	0.236	0.750	–	1.850	1.500	0,47	4.528	4.921	11200	1.100	RNMU12..
R220.28-04.00-06-12A	03137204	Arbor	3.528	4.000	12	0.236	1.500	–	3.543	2.000	0,11	7.528	7.921	8800	3.970	RNMU12..

Spare Parts, included in delivery

For cutter	Arbor screw	Insert key	Insert screw
			
R220.28-02.00-02.50	UC6S3/8UNFX1-1/4	H4B-T15P	C04009-T15P
R220.28-04.00	ULC6S3/4UNFX11/2	H4B-T15PL	C04009-T15P

Accessories

For cutter	Insert clamping torque	Torque key
		
R220.28-..	31.0IN.LBS	T00-15P35

Torque and fixed keys, see page 872

R217/220.28 – Insert selection – mm/*Inch*

SMG		a_p	f_z			
			100%	70%	30%	10%
P1	RNMU1204M0-ME10 MP3501	2,5 *0.10*	0,30 *0.012*	0,30 *0.012*	0,34 *0.013*	0,55 *0.022*
P2	RNMU1204M0-ME10 MP3501	2,5 *0.10*	0,30 *0.012*	0,30 *0.012*	0,36 *0.014*	0,55 *0.022*
P3	RNMU1204M0-ME10 MP3501	2,5 *0.10*	0,30 *0.012*	0,30 *0.012*	0,34 *0.013*	0,55 *0.022*
P4	RNMU1204M0T-M10 MP2501	2,5 *0.10*	0,28 *0.011*	0,28 *0.011*	0,32 *0.013*	0,50 *0.020*
P5	RNMU1204M0T-M10 MP2501	2,5 *0.10*	0,28 *0.011*	0,28 *0.011*	0,32 *0.013*	0,50 *0.020*
P6	RNMU1204M0T-M10 MP2501	2,5 *0.10*	0,28 *0.011*	0,28 *0.011*	0,32 *0.013*	0,50 *0.020*
P7	RNMU1204M0T-M10 MP2501	2,5 *0.10*	0,28 *0.011*	0,28 *0.011*	0,32 *0.013*	0,50 *0.020*
P8	RNMU1204M0T-M10 MP2050	2,5 *0.10*	0,30 *0.012*	0,30 *0.012*	0,34 *0.013*	0,55 *0.022*
P11	RNMU1204M0T-M10 MP2050	2,5 *0.10*	0,28 *0.011*	0,28 *0.011*	0,32 *0.013*	0,50 *0.020*
P12	RNMU1204M0T-M10 MS2500	1,9 *0.075*	0,22 *0.0085*	0,22 *0.0085*	0,25 *0.010*	0,40 *0.016*
M1	RNMU1204M0-ME10 MS2050	2,5 *0.10*	0,30 *0.012*	0,30 *0.012*	0,36 *0.014*	0,55 *0.022*
M2	RNMU1204M0-ME10 MS2050	2,5 *0.10*	0,28 *0.011*	0,28 *0.011*	0,32 *0.013*	0,50 *0.020*
M3	RNMU1204M0-ME10 MS2050	1,9 *0.075*	0,26 *0.010*	0,26 *0.010*	0,30 *0.012*	0,46 *0.018*
M4	RNMU1204M0T-M10 MP3501	1,4 *0.055*	0,26 *0.010*	0,26 *0.010*	0,30 *0.012*	0,48 *0.019*
M5	RNMU1204M0T-M10 MP3501	1,4 *0.055*	0,26 *0.010*	0,26 *0.010*	0,30 *0.012*	0,48 *0.019*
K1	RNMU1204M0T-M10 MK2050	2,5 *0.10*	0,30 *0.012*	0,30 *0.012*	0,36 *0.014*	0,55 *0.022*
K2	RNMU1204M0T-M10 MK2050	2,5 *0.10*	0,28 *0.011*	0,28 *0.011*	0,32 *0.013*	0,50 *0.020*
K3	RNMU1204M0T-M10 MK2050	2,5 *0.10*	0,28 *0.011*	0,28 *0.011*	0,32 *0.013*	0,50 *0.020*
K4	RNMU1204M0T-M10 MK2050	2,5 *0.10*	0,28 *0.011*	0,28 *0.011*	0,32 *0.013*	0,50 *0.020*
K5	RNMU1204M0T-M10 MK2050	2,5 *0.10*	0,25 *0.010*	0,25 *0.010*	0,30 *0.012*	0,46 *0.018*
K6	RNMU1204M0T-M10 MK2050	2,5 *0.10*	0,28 *0.011*	0,28 *0.011*	0,32 *0.013*	0,50 *0.020*
K7	RNMU1204M0T-M10 MK2050	2,5 *0.10*	0,25 *0.010*	0,25 *0.010*	0,30 *0.012*	0,46 *0.018*
N1	RNMU1204M0-ME10 F40M	2,5 *0.10*	0,40 *0.016*	0,40 *0.016*	0,46 *0.018*	0,70 *0.028*
N2	RNMU1204M0-ME10 F40M	2,5 *0.10*	0,40 *0.016*	0,40 *0.016*	0,46 *0.018*	0,70 *0.028*
N3	RNMU1204M0-ME10 F40M	2,5 *0.10*	0,40 *0.016*	0,40 *0.016*	0,46 *0.018*	0,70 *0.028*
N11	RNMU1204M0-ME10 F40M	2,5 *0.10*	0,40 *0.016*	0,40 *0.016*	0,46 *0.018*	0,70 *0.028*
S1	RNMU1204M0T-M10 MS2500	1,4 *0.055*	0,26 *0.010*	0,26 *0.010*	0,30 *0.012*	0,48 *0.019*
S2	RNMU1204M0T-M10 MS2500	1,4 *0.055*	0,26 *0.010*	0,26 *0.010*	0,30 *0.012*	0,48 *0.019*
S3	RNMU1204M0T-M10 MS2500	1,4 *0.055*	0,25 *0.010*	0,25 *0.010*	0,28 *0.011*	0,44 *0.017*
S11	RNMU1204M0-ME10 MS2050	1,7 *0.065*	0,28 *0.011*	0,28 *0.011*	0,32 *0.013*	0,48 *0.019*
S12	RNMU1204M0-ME10 MS2050	1,7 *0.065*	0,28 *0.011*	0,28 *0.011*	0,32 *0.013*	0,48 *0.019*
S13	RNMU1204M0-ME10 MS2050	1,4 *0.055*	0,26 *0.010*	0,26 *0.010*	0,30 *0.012*	0,48 *0.019*
H5	RNMU1204M0T-M10 MP3501	1,9 *0.075*	0,22 *0.0085*	0,22 *0.0085*	0,25 *0.010*	0,40 *0.016*
H8	RNMU1204M0T-M10 MP3501	1,7 *0.065*	0,18 *0.0070*	0,18 *0.0070*	0,20 *0.0080*	0,32 *0.013*
H11	RNMU1204M0T-M10 MP3501	1,9 *0.075*	0,22 *0.0085*	0,22 *0.0085*	0,25 *0.010*	0,40 *0.016*
H12	RNMU1204M0T-M10 MP3501	1,7 *0.065*	0,18 *0.0070*	0,18 *0.0070*	0,20 *0.0080*	0,32 *0.013*

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

R217/220.28 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	MK2050				MS2050				F40M				MP2050				MP2501				MS2500				MP3501			
P1																												
	940	1075	1275	1500	800	900	1075	1275	720	820	980	1175	980	1125	1325	1575	1350	1475	1700	1900	1050	1175	1400	1675	1225	1300	1525	1750
	275	*310*	*380*	*445*	*230*	*265*	*320*	*380*	*210*	*240*	*290*	*345*	*285*	*325*	*395*	*470*	*395*	*430*	*500*	*570*	*305*	*345*	*420*	*495*	*350*	*385*	*455*	*510*
P2	900	1025	1250	1450	750	870	1050	1250	690	790	950	1125	940	1075	1300	1550	1300	1400	1650	1875	1000	1125	1375	1625	1150	1275	1500	1675
	240	*270*	*330*	*390*	*205*	*230*	*280*	*330*	*185*	*210*	*255*	*300*	*250*	*285*	*350*	*405*	*345*	*375*	*440*	*495*	*265*	*300*	*370*	*430*	*310*	*335*	*395*	*445*
P3	790	890	1075	1275	670	750	920	1075	610	690	840	980	820	940	1150	1325	1125	1225	1450	1625	870	980	1225	1400	1025	1100	1300	1450
	215	*245*	*290*	*345*	*185*	*205*	*245*	*290*	*165*	*190*	*225*	*265*	*225*	*255*	*305*	*360*	*310*	*340*	*390*	*435*	*240*	*270*	*325*	*380*	*280*	*305*	*350*	*390*
P4	710	800	950	1125	610	670	800	950	540	620	740	870	740	840	1000	1175	1025	1125	1275	1425	790	890	1075	1250	920	1000	1150	1275
	205	*235*	*280*	*330*	*175*	*200*	*235*	*280*	*160*	*180*	*215*	*255*	*215*	*245*	*290*	*345*	*295*	*325*	*370*	*420*	*230*	*260*	*310*	*365*	*265*	*290*	*335*	*380*
P5	670	770	920	1075	570	660	770	920	520	590	710	840	710	800	950	1125	970	1075	1225	1375	750	850	1025	1200	870	950	1100	1250
	230	*260*	*315*	*370*	*195*	*220*	*265*	*315*	*180*	*200*	*240*	*285*	*240*	*275*	*330*	*390*	*335*	*365*	*415*	*470*	*255*	*290*	*345*	*410*	*300*	*325*	*375*	*425*
P6	750	850	1025	1225	640	720	870	1025	590	660	790	940	790	900	1075	1275	1100	1200	1350	1550	840	950	1125	1350	980	1075	1225	1400
	220	*245*	*295*	*350*	*185*	*210*	*250*	*295*	*170*	*190*	*230*	*270*	*230*	*260*	*310*	*370*	*315*	*340*	*395*	*445*	*240*	*275*	*330*	*390*	*280*	*305*	*355*	*400*
P7	720	800	970	1150	610	690	820	970	560	620	750	890	750	850	1025	1225	1025	1125	1300	1450	790	900	1075	1275	920	1000	1175	1300
	200	*230*	*280*	*325*	*170*	*195*	*235*	*275*	*155*	*175*	*215*	*250*	*210*	*240*	*290*	*340*	*290*	*315*	*370*	*415*	*225*	*255*	*310*	*360*	*260*	*285*	*335*	*375*
P8	660	750	920	1075	560	640	770	900	510	570	710	820	690	790	950	1125	950	1025	1225	1350	740	840	1025	1175	850	940	1100	1225
	210	*240*	*285*	*340*	*180*	*205*	*245*	*290*	*165*	*185*	*220*	*260*	*220*	*250*	*300*	*355*	*305*	*330*	*380*	*430*	*235*	*265*	*320*	*380*	*275*	*300*	*345*	*390*
P11	690	790	940	1125	590	670	800	950	540	610	720	850	720	820	980	1175	1000	1075	1250	1400	770	870	1050	1250	900	980	1125	1275
	140	*155*	*190*	*220*	*115*	*135*	*160*	*185*	*105*	*120*	*145*	*170*	*145*	*165*	*195*	*230*	*195*	*215*	*245*	*270*	*155*	*175*	*210*	*245*	*180*	*195*	*220*	*245*
P12	460	510	620	720	375	445	520	610	345	395	475	560	475	540	640	750	640	710	800	890	510	570	690	800	590	640	720	800
	—	—	—	—	*185*	*210*	*260*	*305*	*170*	*190*	*235*	*275*	*205*	*235*	*285*	*335*	*200*	*225*	*275*	*325*	*220*	*245*	*300*	*355*	*185*	*210*	*260*	*305*
M1	—	—	—	—	610	690	850	1000	560	620	770	900	670	770	940	1100	660	740	900	1075	720	800	980	1175	610	690	850	1000
	—	—	—	—	*155*	*180*	*215*	*250*	*145*	*160*	*195*	*230*	*170*	*195*	*235*	*280*	*170*	*190*	*230*	*270*	*185*	*205*	*245*	*295*	*155*	*180*	*215*	*250*
M2	—	—	—	—	510	590	710	820	475	520	640	750	560	640	770	920	560	620	750	890	610	670	800	970	510	590	710	820
	—	—	—	—	*125*	*145*	*170*	*205*	*115*	*130*	*155*	*185*	*140*	*155*	*190*	*225*	*135*	*155*	*185*	*220*	*150*	*165*	*200*	*235*	*125*	*145*	*170*	*205*
M3	—	—	—	—	410	475	560	670	375	425	510	610	460	510	620	740	445	510	610	720	490	540	660	770	410	475	560	670
	—	—	—	—	*100*	*110*	*135*	*160*	*90*	*100*	*120*	*145*	*110*	*125*	*150*	*175*	*105*	*120*	*145*	*170*	*115*	*130*	*155*	*185*	*100*	*110*	*135*	*160*
M4	—	—	—	—	330	360	445	520	295	330	395	475	360	410	490	570	345	395	475	560	375	425	510	610	330	360	445	520
	—	—	—	—	*80*	*95*	*110*	*130*	*75*	*85*	*100*	*120*	*90*	*100*	*125*	*145*	*90*	*100*	*120*	*140*	*95*	*110*	*130*	*155*	*80*	*95*	*110*	*130*
M5	—	—	—	—	260	310	360	425	245	280	330	395	295	330	410	475	295	330	395	460	310	360	425	510	260	310	360	425
	295	*335*	*410*	*480*	—	—	—	—	*165*	*190*	*230*	*270*	—	—	—	—	*400*	*435*	*510*	*570*	*240*	*270*	*330*	*390*	*355*	*385*	*455*	*520*
K1	970	1100	1350	1575	—	—	—	—	540	620	750	890	—	—	—	—	1300	1425	1675	1875	790	890	1075	1275	1175	1275	1500	1700
	265	*300*	*360*	*430*	—	—	—	—	*150*	*170*	*205*	*240*	—	—	—	—	*360*	*390*	*450*	*510*	*215*	*245*	*295*	*350*	*320*	*350*	*405*	*455*
K2	870	980	1175	1400	—	—	—	—	490	560	670	790	—	—	—	—	1175	1275	1475	1675	710	800	970	1150	1050	1150	1325	1500
	225	*255*	*305*	*365*	—	—	—	—	*125*	*145*	*170*	*205*	—	—	—	—	*305*	*330*	*380*	*430*	*185*	*210*	*250*	*295*	*270*	*295*	*340*	*385*
K3	740	840	1000	1200	—	—	—	—	410	475	560	670	—	—	—	—	1000	1075	1250	1400	610	690	820	970	890	970	1125	1275
	215	*245*	*290*	*345*	—	—	—	—	*120*	*140*	*165*	*195*	—	—	—	—	*290*	*315*	*365*	*410*	*175*	*200*	*235*	*280*	*260*	*285*	*325*	*370*
K4	710	800	950	1125	—	—	—	—	395	460	540	640	—	—	—	—	950	1025	1200	1350	570	660	770	920	850	940	1075	1225
	130	*150*	*180*	*210*	—	—	—	—	*75*	*85*	*100*	*120*	—	—	—	—	*180*	*195*	*220*	*250*	*105*	*120*	*145*	*170*	*160*	*175*	*200*	*225*
K5	425	490	590	690	—	—	—	—	245	280	330	395	—	—	—	—	590	640	720	820	345	395	475	560	520	570	660	740
	190	*215*	*255*	*305*	—	—	—	—	*105*	*120*	*145*	*170*	—	—	—	—	*255*	*280*	*320*	*360*	*155*	*175*	*210*	*250*	*230*	*250*	*285*	*325*
K6	620	710	840	1000	—	—	—	—	345	395	475	560	—	—	—	—	840	920	1050	1175	510	570	690	820	750	820	940	1075
	170	*190*	*230*	*270*	—	—	—	—	*95*	*110*	*130*	*155*	—	—	—	—	*230*	*250*	*285*	*320*	*140*	*155*	*185*	*220*	*205*	*225*	*255*	*285*
K7	560	620	750	890	—	—	—	—	310	360	425	510	—	—	—	—	750	820	940	1050	460	510	610	720	670	740	840	940
	—	—	—	—	—	—	—	—	*1225*	*1400*	*1700*	*2025*	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
N1	—	—	—	—	—	—	—	—	4025	4600	5575	6650	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	*500*	*560*	*690*	*820*	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
N2	—	—	—	—	—	—	—	—	1650	1825	2275	2700	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	*335*	*375*	*460*	*540*	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
N3	—	—	—	—	—	—	—	—	1100	1225	1500	1775	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	*380*	*430*	*520*	*620*	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
N11	—	—	—	—	—	—	—	—	1250	1400	1700	2025	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	*46*	*50*	*65*	*75*	*42*	*47*	*55*	*65*	*55*	*60*	*70*	*85*	—	—	—	—	*55*	*65*	*75*	*90*	*46*	*50*	*65*	*75*
S1	—	—	—	—	150	165	215	245	140	155	180	215	180	195	230	280	—	—	—	—	180	215	245	295	150	165	215	245
	—	—	—	—	*37*	*42*	*50*	*60*	*34*	*38*	*46*	*55*	*43*	*48*	*60*	*70*	—	—	—	—	*45*	*50*	*60*	*70*	*37*	*42*	*50*	*60*
S2	—	—	—	—	120	140	165	195	110	125	150	180	140	155	195	230	—	—	—	—	150	165	195	230	120	140	165	195
	—	—	—	—	*33*	*37*	*45*	*50*	*30*	*34*	*41*	*47*	*38*	*42*	*50*	*60*	—	—	—	—	*40*	*45*	*55*	*65*	*33*	*37*	*45*	*50*
S3	—	—	—	—	110	120	150	165	100	110	135	155	125	140	165	195	—	—	—	—	130	150	180	215	110	120	150	165
	—	—	—	—	*65*	*70*	*85*	*105*	*60*	*65*	*80*	*95*	*75*	*85*	*100*	*120*	—	—	—	—	*80*	*90*	*105*	*125*	*65*	*70*	*85*	*105*
S11	—	—	—	—	215	230	280	345	195	215	260	310	245	280	330	395	—	—	—	—	260	295	345	410	215	230	280	345
	—	—	—	—	*44*	*50*	*60*	*70*	*40*	*45*	*55*	*65*	*50*	*55*	*70*	*80*	—	—	—	—	*55*	*60*	*75*	*85*	*44*	*50*	*60*	*70*
S12	—	—	—	—	145	165	195	230	130	150	180	215	165	180	230	260	—	—	—	—	180	195	245	280	145	165	195	230
	—	—	—	—	*26*	*29*	*35*	*41*	*24*	*27*	*32*	*38*	*30*	*34*	*41*	*48*	—	—	—	—	*32*	*36*	*43*	*50*	*26*	*29*	*35*	*41*
S13	—	—	—	—	85	95	115	135	80	90	105	125	100	110	135	155	—	—	—	—	105	120	140	165	85	95	115	135
	—	—	—	—	—	—	—	—	*35*	*40*	*48*	*55*	—	—	—	—	—	—	—	—	*46*	*50*	*60*	*75*	*41*	*46*	*55*	*65*
H5	—	—	—	—	—	—	—	—	115	130	155	180	—	—	—	—	—	—	—	—	150	165	195	245	135	150	180	215
	—	—	—	—	—	—	—	—	*38*	*43*	*50*	*60*	—	—	—	—	—	—	—	—	*49*	*55*	*65*	*75*	*43*	*49*	*60*	*70*
H8	—	—	—	—	—	—	—	—	125	140	165	195	—	—	—	—	—	—	—	—	160	180	215	245	140	160	195	230
	—	—	—	—	—	—	—	—	*45*	*50*	*60*	*70*	*55*	*65*	*75*	*90*	—	—	—	—	*60*	*65*	*80*	*95*	*50*	*60*	*70*	*80*
H11	—	—	—	—	—	—	—	—	150	165	195	230	180	215	245	295	—	—	—	—	195	215	260	310	165	195	230	260
	—	—	—	—	—	—	—	—	*70*	*75*	*90*	*105*	*90*	*105*	*125*	*145*	—	—	—	—	*95*	*110*	*130*	*155*	*80*	*90*	*105*	*120*
	—	—	—	—	—	—	—	—	230	245	295	345	295	345	410	475	—	—	—	—	310	360	425	510	260	295	345	395



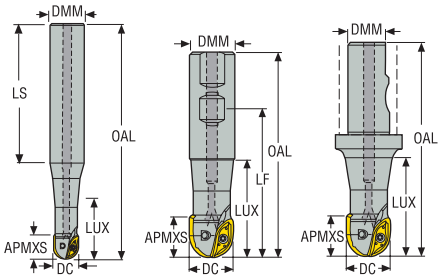
R218.20/19/24 BALLNOSE

We offer a variety of highly productive ballnose cutters for all materials and applications, ranging from general purpose to segment-oriented tools. The ballnose cutter is designed to deliver higher performance and better reliability in copy milling applications.

- Ballnose K=1, 3-cutting edge, cutter range 16-40 mm (0.75 - 1 inch)
- Ballnose K=2, 2-cutting edge, cutter range 12-50 mm (0.5 - 2 inch)
- Tapered Ballnose, 2-cutting edge, cutter range 16 mm

R218.20 – Metric





- For insert selection and cutting data recommendations, see page(s) 672-693
- For complete insert programme, see page(s) 837, 856
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	ZEFP	APMXS	APMXE	DMM	LS	LF	OAL	LUX	RMPX°	RPMX	Weight	218.20	SPM.
			mm		mm	mm	mm	mm	mm	mm	mm			kg		
R218.20-1612.0-10.112A	02627903	Cylindrical	12,0	2	10,0	6,0	16,0	120,0	–	160,0	25,0	45,0	30000	0,3	-060(2)	–
R218.20-2016.0-14.070A	02722506	Cylindrical	16,0	2	14,0	8,0	20,0	70,0	–	120,0	36,0	45,0	28500	0,3	-080(2)	–
R218.20-1616.0-14.105E	00031596	Cylindrical	16,0	2	14,0	8,0	16,0	115,0	–	165,0	49,0	45,0	28500	0,5	-080(2)	–
R218.20-2520.0-18.120A	00031701	Cylindrical	20,0	2	18,0	10,0	25,0	104,0	–	176,0	54,0	45,0	20200	0,6	-100(2)	–
R218.20-3225.0-22.160A	00031940	Cylindrical	25,0	2	22,0	12,5	32,0	130,0	–	220,0	68,0	45,0	16900	1,1	-125(2)	–
R218.20-3230.0-26.160A	00032027	Cylindrical	30,0	2	27,0	15,0	32,0	130,0	–	220,0	73,0	45,0	12500	1,1	-150(2)	–
R218.20-3232.0-28.160A	00030730	Cylindrical	32,0	2	28,0	16,0	32,0	130,0	–	220,0	90,0	45,0	10900	1,2	-160(2)	–
R218.20-2520.3-18.070A	00031654	Weldon	20,0	2	18,0	10,0	25,0	56,0	93,94	126,0	54,0	45,0	20200	0,4	-100(2)	–
R218.20-2525.3-22.060A	00038464	Weldon	25,0	2	22,0	12,5	25,0	60,0	83,96	116,0	56,0	45,0	16900	0,4	-125(2)	–
R218.20-2525.3-22.080A	00031897	Weldon	25,0	2	22,0	12,5	25,0	60,0	103,96	136,0	75,5	45,0	16900	0,5	-125(2)	–
R218.20-3230.3-45.100A	00032046	Weldon	30,0	2	44,0	15,0	32,0	70,0	123,93	160,0	71,0	45,0	12500	0,8	-150(2)	SPMT10(2)
R218.20-3232.3-28.070A	00032245	Weldon	32,0	2	28,0	16,0	32,0	60,0	93,92	130,0	68,0	45,0	10900	0,7	-160(2)	–
R218.20-3232.3-28.100A	00030731	Weldon	32,0	2	28,0	16,0	32,0	70,0	123,92	160,0	89,0	45,0	10900	0,9	-160(2)	–
R218.20-3232.3-54.100A	00030733	Weldon	32,0	2	54,0	16,0	32,0	70,0	123,92	160,0	89,0	45,0	10900	0,8	-160(2)	SPMT10(3)

Spare Parts, included in delivery

For cutter	Insert key	Insert screw centre	Insert screw periph
			
R218.20-1612	H4B-T06P	C01805-T06P	–
R218.20.. Ø16	H4B-T08P	C02506-T08P	–
R218.20.. Ø20	H4B-T09P	C03007-T09P	–
R218.20.. Ø25-30	H4B-T15P	C04009-T15P	–
R218.20.. Ø32	H4B-T15P	C04011-T15P	–
R218.20.. Ø30-100A	H4B-T15P	C04009-T15P	C03508-T15P
R218.20.. Ø32-100A	H4B-T15P	C04011-T15P	C03508-T15P

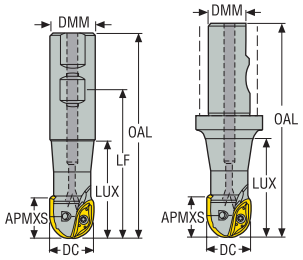
Accessories

For cutter	Insert clamping torque	Insert clamping torque 2	Torque key	Torque key 2
				
R218.20-1612	0.5NM	–	T00-06P05	–
R218.20.. Ø16	1.2NM	–	T00-08P12	–
R218.20.. Ø20	2.0NM	–	T00-09P20	–
R218.20.. Ø25-32	3.5NM	–	T00-15P35	–
R218.20.. Ø30-32-100A	3.5NM	3.0NM	T00-15P35	T00-15P30

Torque and fixed keys, see page 872

R218.20 – Metric

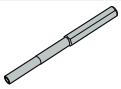
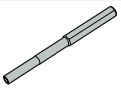




- For insert selection and cutting data recommendations, see page(s) 672-693
- For complete insert programme, see page(s) 821, 856
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	ZEFP	APMXS	APMXE	DMM	LS	LF	OAL	LUX	RMPX°	RPMX	Weight	218.20	SCET
			mm		mm	mm	mm	mm	mm	mm	mm			kg		
R218.20-3240.3S-60.100	00032440	Seco-Weldon	40,0	2	60,0	20,0	32,0	59,5	–	159,4	89,0	45,0	7200	1,1	-200(2)	SC..12 (3)
R218.20-3250.3S-70.100	00032627	Seco-Weldon	50,0	2	70,0	25,0	32,0	59,5	–	159,37	91,0	45,0	3700	1,3	-250(2)	SC..12 (3)
R218.20-5050.3-70.150	00032677	Weldon	50,0	2	70,0	25,0	50,0	80,0	184,87	229,87	149,0	45,0	3700	2,8	-250(2)	SC..12 (3)

Spare Parts, included in delivery

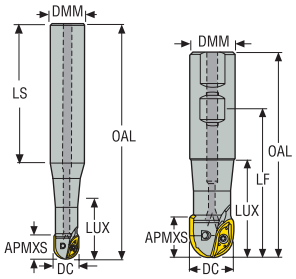
For cutter	Insert key	Insert screw centre	Insert screw periph	Key periphery
				
R218.20.. Ø40	H6B-T20P	C05013-T20P	C45011-T20P	–
R218.20.. Ø50	H6B-T25P	C06018-T25P	C45011-T20P	H6B-T20P

Accessories

For cutter	Insert clamping torque	Torque key
		
R218.20.. Ø40	5.0NM	T00-20P50
R218.20.. Ø50	5.0NM	T00T-25P80

Torque and fixed keys, see page 872

R218.20 – inch





- For insert selection and cutting data recommendations, see page(s) 672-693
- For complete insert programme, see page(s) 837, 856
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	ZEFP	APMXS	APMXE	DMM	LS	LF	OAL	LUX	RMPX°	RPMX	Weight	218.20
			inch		inch	inch	inch	inch	inch	inch	inch			lbs	
R218.20-0.500.0-11-111A	02687512	Cylindrical	0.500	2	0.433	0.250	0.625	4.724	–	6.298	1.142	45,0	30000	0.660	-0.250.R (2)
R218.20-0.625.0-14-070A	02740370	Cylindrical	0.625	2	0.551	0.313	0.750	2.819	–	4.785	1.398	45,0	28500	0.660	-080.R (2)
R218.20-0.750.0-17-120A	00040031	Cylindrical	0.750	2	0.669	0.375	1.000	4.248	–	7.002	2.087	45,0	20200	1.320	-0.375.R (2)
R218.20-01.00.0-22-160A	00040032	Cylindrical	1.000	2	0.866	0.500	1.250	4.996	–	8.577	2.795	45,0	16900	2.430	-125.R (2)
R218.20-0.500.3-11-060A	02687514	Weldon	0.500	2	0.433	0.250	0.750	2.362	3.313	4.331	0.827	45,0	30000	0.440	-0.250.R (2)
R218.20-0.625.3-14-050A	02740373	Weldon	0.625	2	0.551	0.313	0.625	2.299	2.919	3.874	1.500	45,0	28500	0.440	-080 (2)
R218.20-0.750.3-17-070A	00040022	Weldon	0.750	2	0.669	0.375	1.000	2.280	3.895	5.035	2.000	45,0	20200	0.880	-0.375.R (2)
R218.20-01.00.3-22-070A	00040024	Weldon	1.000	2	0.866	0.500	1.000	2.362	3.896	5.039	2.000	45,0	16900	1.100	-125.R (2)
R218.20-01.25.3-28-100A	00040025	Weldon	1.250	2	1.102	0.625	1.250	2.673	5.073	6.213	3.500	45,0	10900	1.760	-160.R (2)
R218.20-01.50.3-34-100A	00040027	Weldon	1.500	2	1.339	0.750	1.500	3.083	5.435	6.626	3.500	45,0	7200	2.650	-0.750.R (2)

Spare Parts, included in delivery

For cutter	Insert key	Insert screw
		
R218.20-0.500	H4B-T06P	C02052-T06P
R218.20-0.625	H4B-T08P	C02506-T08P
R218.20-0.750	H4B-T09P	C03006-T09P
R218.20-01.00	H4B-T15P	C04009-T15P
R218.20-01.25	H4B-T15P	C04011-T15P
R218.20-01.50	H6B-T20P	C05013-T20P

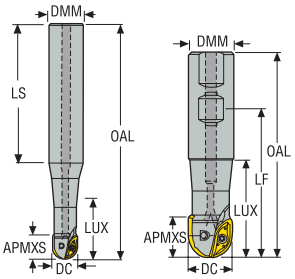
Accessories

For cutter	Insert clamping torque	Torque key
		
R218.20-0.500	0.5NM	T00-06P05
R218.20-0.625	1.2NM	T00-08P12
R218.20-0.750	2.0NM	T00-09P20
R218.20-01.00-01.25	3.5NM	T00-15P35
R218.20-01.50	5.0NM	T00-20P50

Torque and fixed keys, see page 872

R218.20 – inch

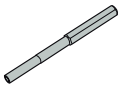
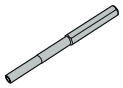




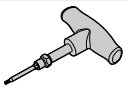
- For insert selection and cutting data recommendations, see page(s) 672-693
- For complete insert programme, see page(s) 821, 856
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	ZEFP	APMXS	APMXE	DMM	LS	LF	OAL	LUX	RMPX°	RPMX	Weight	218.20	SCET
			inch		inch	inch	inch	inch	inch	inch	inch			lbs		
R218.20-02.00.3-70-120A	02740375	Weldon	2.000	2	2.756	1.000	2.000	3.243	6.124	7.967	4.705	45,0	3700	5.730	-250.R (2)	SC..12 (3)

Spare Parts, included in delivery

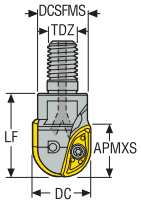
For cutter	Insert key	Insert screw centre	Insert screw periph	Key periphery
				
R218.20-02.00	H6B-T25P	C06018-T25P	C45011-T20P	H6B-T20P

Accessories

For cutter	Insert clamping torque	Torque key
		
R218.20-02.00	70.8IN.LBS	T00T-25P80

Torque and fixed keys, see page 872

R218.20 – Metric





- For insert selection and cutting data recommendations, see page(s) 672-693
- For complete insert programme, see page(s) 856
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	ZEFP	APMXS	APMXE	DCSFMS	TDZ	LF	RMPX°	RPMX	Weight	218.20
			mm		mm	mm	mm		mm			kg	
R218.20-0612.RE-10A	02731891	Combimaster	12,0	2	10,0	6,0	11,0	M6	20,0	45,0	30000	0,1	-060(2)
R218.20-0812.RE-10A	02627909	Combimaster	12,0	2	10,0	6,0	13,5	M8	23,0	45,0	30000	0,1	-060(2)
R218.20-0816.RE-14A	02742691	Combimaster	16,0	2	14,0	8,0	13,5	M8	23,0	45,0	28500	0,1	-080(2)
R218.20-1016.RE-14A	00031585	Combimaster	16,0	2	14,0	8,0	18,0	M10	28,0	45,0	28500	0,1	-080(2)
R218.20-1020.RE-18A	00039896	Combimaster	20,0	2	18,0	10,0	18,0	M10	28,0	45,0	20200	0,1	-100(2)
R218.20-1220.RE-18A	00031619	Combimaster	20,0	2	18,0	10,0	21,5	M12	35,0	45,0	20200	0,2	-100(2)
R218.20-1225.RE-22A	00031777	Combimaster	25,0	2	22,0	12,5	21,5	M12	35,0	45,0	16900	0,2	-125(2)
R218.20-1630.RE-26A	00032025	Combimaster	30,0	2	27,0	15,0	28,5	M16	40,0	45,0	12500	0,2	-150(2)
R218.20-1632.RE-28A	00030728	Combimaster	32,0	2	28,0	16,0	28,5	M16	40,0	45,0	10900	0,2	-160(2)
R218.20-1640.RE-35A	00032409	Combimaster	40,0	2	35,0	20,0	34,0	M16	50,0	45,0	7200	0,3	-200(2)
R218.20-2040.RE-35A	02928081	Combimaster	40,0	2	35,0	20,0	36,5	M20	55,0	45,0	7200	0,4	-200(2)
R218.20-2050.RE-44A	02928082	Combimaster	50,0	2	44,0	25,0	36,5	M20	65,0	45,0	5000	0,5	-250(2)

For Combimaster Shanks, see Machining Navigator Tooling System

Spare Parts, included in delivery

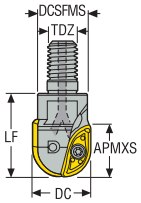
For cutter	Insert key	Insert screw
		
R218.20-0612-0812	H4B-T06P	C01805-T06P
R218.20-0816-1016	H4B-T08P	C02506-T08P
R218.20-1020-1220	H4B-T09P	C03007-T09P
R218.20-1225-1630	H4B-T15P	C04009-T15P
R218.20-1632	H4B-T15P	C04011-T15P
R218.20-1640-2040	H6B-T20P	C05013-T20P
R218.20-2050	H6B-T25P	C06018-T25P

Accessories

For cutter	Insert clamping torque	Torque key
		
R218.20-0612-0812	0.5NM	T00-06P05
R218.20-0816-1016	1.2NM	T00-08P12
R218.20-1020-1220	2.0NM	T00-09P20
R218.20-1225-1632	3.5NM	T00-15P35
R218.20-1640-2040	5.0NM	T00-20P50
R218.20-2050	8.0NM	T00T-25P80

Torque and fixed keys, see page 872

R218.20 – inch





- For insert selection and cutting data recommendations, see page(s) 672-693
- For complete insert programme, see page(s) 856
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	ZEFP	APMXS	APMXE	DCSFMS	TDZ	LF	RMPX°	RPMX	Weight	218.20
			inch		inch	inch	inch		inch			lbs	
R218.20-0.500-06RE-11A	02687515	Combimaster	0.500	2	0.433	0.250	0.433	M6	0.787	45,0	30000	0.220	-0.250.R (2)
R218.20-0.500-08RE-11A	02687516	Combimaster	0.500	2	0.433	0.250	0.531	M8	0.906	45,0	28500	0.220	-0.250.R (2)
R218.20-0.750-10RE-17A	02428548	Combimaster	0.750	2	0.669	0.375	0.728	M10	1.102	45,0	20200	0.220	-0.375.R (2)
R218.20-01.00-12RE-22A	00040018	Combimaster	1.000	2	0.866	0.500	0.846	M12	1.378	45,0	16900	0.440	-125.R (2)
R218.20-01.25-16RE-28A	00040019	Combimaster	1.250	2	1.102	0.625	1.122	M16	1.575	45,0	10900	0.220	-160.R (2)
R218.20-01.50-16RE-34A	00040020	Combimaster	1.500	2	1.339	0.750	1.339	M16	1.969	45,0	7200	0.660	-0.750.R (2)
R218.20-02.00-20RE-44A	02928066	Combimaster	2.000	2	1.732	1.000	1.437	M20	2.559	45,0	5000	1.100	-250(2)

For Combimaster Shanks, see Machining Navigator Tooling System

Spare Parts, included in delivery

For cutter	Insert key	Insert screw
		
R218.20-0.500	H4B-T06P	C02052-T06P
R218.20-0.750	H4B-T09P	C03006-T09P
R218.20-01.00	H4B-T15P	C04009-T15P
R218.20-01.25	H4B-T15P	C04011-T15P
R218.20-01.50	H6B-T20P	C05013-T20P
R218.20-02.00	H6B-T25P	C06018-T25P

Accessories

For cutter	Insert clamping torque	Torque key
		
R218.20-0.500	4.4IN.LBS	T00-06P05
R218.20-0.750	17.7IN.LBS	T00-09P20
R218.20-01.00-01.25	31.0IN.LBS	T00-15P35
R218.20-01.50	44.3IN.LBS	T00-20P50
R218.20-02.00	70.8IN.LBS	T00T-25P80

Torque and fixed keys, see page 872

R218.20-0.250 – Insert selection – mm/*Inch*

SMG		a_p	f_z				
			100%	70%	30%	10%	5%
P1	218.20-0.250ER-M03 F40M	7,0 *0.28*	0,044 *0.0017*	0,044 *0.0017*	0,048 *0.0019*	0,075 *0.0030*	0,10 *0.0040*
P2	218.20-0.250ER-M03 F40M	7,0 *0.28*	0,044 *0.0017*	0,044 *0.0017*	0,048 *0.0019*	0,075 *0.0030*	0,10 *0.0040*
P3	218.20-0.250ER-M03 F40M	7,0 *0.28*	0,042 *0.0017*	0,042 *0.0017*	0,046 *0.0018*	0,070 *0.0028*	0,095 *0.0038*
P4	218.20-0.250ER-M03 F40M	7,0 *0.28*	0,042 *0.0017*	0,042 *0.0017*	0,046 *0.0017*	0,070 *0.0028*	0,095 *0.0038*
P5	218.20-0.250ER-M03 F40M	7,0 *0.28*	0,040 *0.0016*	0,040 *0.0016*	0,044 *0.0017*	0,065 *0.0026*	0,095 *0.0038*
P6	218.20-0.250ER-M03 F40M	7,0 *0.28*	0,040 *0.0016*	0,040 *0.0016*	0,044 *0.0017*	0,065 *0.0026*	0,095 *0.0036*
P7	218.20-0.250ER-M03 F40M	7,0 *0.28*	0,040 *0.0016*	0,040 *0.0016*	0,044 *0.0017*	0,065 *0.0026*	0,095 *0.0036*
P8	218.20-0.250ER-M03 F40M	7,0 *0.28*	0,042 *0.0017*	0,042 *0.0017*	0,046 *0.0018*	0,070 *0.0028*	0,095 *0.0038*
P11	218.20-0.250ER-M03 F40M	7,0 *0.28*	0,040 *0.0016*	0,040 *0.0016*	0,044 *0.0017*	0,065 *0.0026*	0,095 *0.0036*
P12	218.20-0.250ER-M03 F40M	5,0 *0.20*	0,030 *0.0012*	0,030 *0.0012*	0,032 *0.0013*	0,046 *0.0018*	0,065 *0.0026*
M1	218.20-0.250ER-ME03 F40M	7,0 *0.28*	0,044 *0.0017*	0,044 *0.0017*	0,048 *0.0019*	0,075 *0.0030*	0,10 *0.0040*
M2	218.20-0.250ER-ME03 F40M	7,0 *0.28*	0,040 *0.0016*	0,040 *0.0016*	0,044 *0.0017*	0,065 *0.0026*	0,095 *0.0038*
M3	218.20-0.250ER-ME03 F40M	5,0 *0.20*	0,034 *0.0013*	0,034 *0.0013*	0,036 *0.0014*	0,055 *0.0022*	0,075 *0.0030*
M4	218.20-0.250ER-ME03 F40M	4,0 *0.16*	0,032 *0.0013*	0,032 *0.0013*	0,034 *0.0013*	0,048 *0.0019*	0,065 *0.0026*
M5	218.20-0.250ER-ME03 F40M	4,0 *0.16*	0,032 *0.0013*	0,032 *0.0013*	0,034 *0.0013*	0,048 *0.0019*	0,065 *0.0026*
K1	218.20-0.250ER-M03 F40M	7,0 *0.28*	0,044 *0.0017*	0,044 *0.0017*	0,048 *0.0019*	0,075 *0.0030*	0,10 *0.0040*
K2	218.20-0.250ER-M03 F40M	7,0 *0.28*	0,040 *0.0016*	0,040 *0.0016*	0,044 *0.0017*	0,065 *0.0026*	0,095 *0.0038*
K3	218.20-0.250ER-M03 F40M	7,0 *0.28*	0,040 *0.0016*	0,040 *0.0016*	0,044 *0.0017*	0,065 *0.0026*	0,095 *0.0038*
K4	218.20-0.250ER-M03 F40M	7,0 *0.28*	0,040 *0.0016*	0,040 *0.0016*	0,044 *0.0017*	0,065 *0.0026*	0,095 *0.0038*
K5	218.20-0.250ER-M03 F40M	7,0 *0.28*	0,036 *0.0014*	0,036 *0.0014*	0,040 *0.0016*	0,060 *0.0024*	0,085 *0.0034*
K6	218.20-0.250ER-M03 F40M	7,0 *0.28*	0,040 *0.0016*	0,040 *0.0016*	0,044 *0.0017*	0,065 *0.0026*	0,095 *0.0038*
K7	218.20-0.250ER-M03 F40M	7,0 *0.28*	0,036 *0.0014*	0,036 *0.0014*	0,040 *0.0016*	0,060 *0.0024*	0,085 *0.0034*
N1	218.20-0.250ER-ME03 F40M	7,0 *0.28*	0,055 *0.0022*	0,055 *0.0022*	0,060 *0.0024*	0,095 *0.0038*	0,13 *0.0050*
N2	218.20-0.250ER-ME03 F40M	7,0 *0.28*	0,055 *0.0022*	0,055 *0.0022*	0,060 *0.0024*	0,095 *0.0038*	0,13 *0.0050*
N3	218.20-0.250ER-ME03 F40M	7,0 *0.28*	0,055 *0.0022*	0,055 *0.0022*	0,060 *0.0024*	0,095 *0.0038*	0,13 *0.0050*
N11	218.20-0.250ER-ME03 F40M	7,0 *0.28*	0,055 *0.0022*	0,055 *0.0022*	0,060 *0.0024*	0,095 *0.0038*	0,13 *0.0050*
S1	218.20-0.250ER-ME03 F40M	4,0 *0.16*	0,032 *0.0013*	0,032 *0.0013*	0,034 *0.0013*	0,048 *0.0019*	0,065 *0.0026*
S2	218.20-0.250ER-ME03 F40M	4,0 *0.16*	0,032 *0.0013*	0,032 *0.0013*	0,034 *0.0013*	0,048 *0.0019*	0,065 *0.0026*
S3	218.20-0.250ER-ME03 F40M	4,0 *0.16*	0,030 *0.0012*	0,030 *0.0012*	0,030 *0.0012*	0,046 *0.0018*	0,060 *0.0024*
S11	218.20-0.250ER-ME03 F40M	4,5 *0.18*	0,036 *0.0014*	0,036 *0.0014*	0,038 *0.0015*	0,055 *0.0022*	0,075 *0.0030*
S12	218.20-0.250ER-ME03 F40M	4,5 *0.18*	0,036 *0.0014*	0,036 *0.0014*	0,038 *0.0015*	0,055 *0.0022*	0,075 *0.0030*
S13	218.20-0.250ER-ME03 F40M	4,0 *0.16*	0,032 *0.0013*	0,032 *0.0013*	0,034 *0.0013*	0,048 *0.0019*	0,065 *0.0026*
H5	218.20-0.250ER-M03 F40M	5,0 *0.20*	0,030 *0.0012*	0,030 *0.0012*	0,032 *0.0013*	0,046 *0.0018*	0,065 *0.0026*
H8	218.20-0.250ER-M03 F40M	4,5 *0.18*	0,024 *0.00095*	0,024 *0.00095*	0,024 *0.00095*	0,036 *0.0014*	0,050 *0.0020*
H11	218.20-0.250ER-M03 F40M	5,0 *0.20*	0,030 *0.0012*	0,030 *0.0012*	0,032 *0.0013*	0,046 *0.0018*	0,065 *0.0026*
H12	218.20-0.250ER-M03 F40M	4,5 *0.18*	0,024 *0.00095*	0,024 *0.00095*	0,024 *0.00095*	0,036 *0.0014*	0,050 *0.0020*

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

R218.20-0.250 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	F40M				
	100%	70%	30%	10%	5%
P1	290 *950*	315 *1025*	375 *1225*	435 *1425*	480 *1575*
P2	280 *920*	305 *1000*	365 *1200*	425 *1400*	465 *1525*
P3	245 *800*	265 *870*	315 *1025*	370 *1225*	405 *1325*
P4	215 *710*	235 *770*	275 *900*	325 *1075*	355 *1175*
P5	205 *670*	225 *740*	265 *870*	315 *1025*	340 *1125*
P6	230 *750*	255 *840*	300 *980*	350 *1150*	385 *1275*
P7	220 *720*	240 *790*	280 *920*	330 *1075*	360 *1175*
P8	205 *670*	225 *740*	265 *870*	310 *1025*	340 *1125*
P11	210 *690*	230 *750*	275 *900*	325 *1075*	350 *1150*
P12	140 *460*	150 *490*	175 *570*	200 *660*	215 *710*
M1	225 *740*	245 *800*	295 *970*	345 *1125*	375 *1225*
M2	185 *610*	205 *670*	240 *790*	280 *920*	305 *1000*
M3	155 *510*	170 *560*	195 *640*	220 *720*	240 *790*
M4	125 *410*	130 *425*	150 *490*	165 *540*	180 *590*
M5	105 *345*	110 *360*	125 *410*	140 *460*	150 *490*
K1	220 *720*	245 *800*	290 *950*	335 *1100*	370 *1225*
K2	195 *640*	215 *710*	255 *840*	300 *980*	320 *1050*
K3	165 *540*	180 *590*	215 *710*	250 *820*	270 *890*
K4	160 *520*	175 *570*	205 *670*	240 *790*	260 *850*
K5	95 *310*	105 *345*	125 *410*	145 *475*	155 *510*
K6	140 *460*	150 *490*	180 *590*	210 *690*	230 *750*
K7	120 *395*	135 *445*	160 *520*	185 *610*	200 *660*
N1	1700 *5575*	1850 *6075*	2200 *7225*	2575 *8450*	2800 *9175*
N2	680 *2225*	740 *2425*	890 *2925*	1025 *3375*	1125 *3700*
N3	455 *1500*	495 *1625*	590 *1925*	690 *2275*	750 *2450*
N11	520 *1700*	570 *1875*	680 *2225*	790 *2600*	860 *2825*
S1	60 *195*	60 *195*	70 *230*	80 *260*	85 *280*
S2	46 *150*	49 *160*	55 *180*	65 *215*	70 *230*
S3	40 *130*	43 *140*	48 *155*	55 *180*	60 *195*
S11	80 *260*	85 *280*	100 *330*	110 *360*	120 *395*
S12	55 *180*	60 *195*	70 *230*	75 *245*	85 *280*
S13	32 *105*	34 *110*	39 *130*	44 *145*	48 *155*
H5	47 *155*	50 *165*	60 *195*	65 *215*	70 *230*
H8	49 *160*	50 *165*	60 *195*	70 *230*	75 *245*
H11	60 *195*	65 *215*	75 *245*	85 *280*	90 *295*
H12	90 *295*	95 *310*	105 *345*	120 *395*	130 *425*

R218.20-0.375 – Insert selection – mm/*Inch*

SMG		a_p	f_z				
			100%	70%	30%	10%	5%
P1	218.20-0.375ER-M05 F40M	10,0 *0.40*	0,075 *0.0030*	0,075 *0.0030*	0,080 *0.0032*	0,12 *0.0048*	0,17 *0.0065*
P2	218.20-0.375ER-M05 F40M	10,0 *0.40*	0,075 *0.0030*	0,075 *0.0030*	0,080 *0.0032*	0,12 *0.0048*	0,17 *0.0065*
P3	218.20-0.375ER-M05 F40M	10,0 *0.40*	0,070 *0.0028*	0,070 *0.0028*	0,075 *0.0030*	0,12 *0.0048*	0,16 *0.0065*
P4	218.20-0.375ER-M05 F40M	10,0 *0.40*	0,070 *0.0028*	0,070 *0.0028*	0,075 *0.0030*	0,11 *0.0048*	0,16 *0.0065*
P5	218.20-0.375ER-M05 F40M	10,0 *0.40*	0,070 *0.0028*	0,070 *0.0028*	0,075 *0.0030*	0,11 *0.0044*	0,16 *0.0065*
P6	218.20-0.375ER-M05 F40M	10,0 *0.40*	0,070 *0.0028*	0,070 *0.0028*	0,075 *0.0030*	0,11 *0.0044*	0,15 *0.0060*
P7	218.20-0.375ER-M05 F40M	10,0 *0.40*	0,070 *0.0028*	0,070 *0.0028*	0,075 *0.0030*	0,11 *0.0044*	0,15 *0.0060*
P8	218.20-0.375ER-M05 F40M	10,0 *0.40*	0,070 *0.0028*	0,070 *0.0028*	0,075 *0.0030*	0,12 *0.0048*	0,16 *0.0065*
P11	218.20-0.375ER-M05 F40M	10,0 *0.40*	0,070 *0.0028*	0,070 *0.0028*	0,075 *0.0030*	0,11 *0.0044*	0,15 *0.0060*
P12	218.20-0.375ER-M05 F40M	8,0 *0.32*	0,048 *0.0019*	0,048 *0.0019*	0,050 *0.0020*	0,080 *0.0030*	0,11 *0.0044*
M1	218.20-0.375ER-ME05 MS2050	10,0 *0.40*	0,075 *0.0030*	0,075 *0.0030*	0,080 *0.0032*	0,12 *0.0048*	0,17 *0.0065*
M2	218.20-0.375ER-ME05 MS2050	10,0 *0.40*	0,070 *0.0028*	0,070 *0.0028*	0,075 *0.0030*	0,11 *0.0044*	0,16 *0.0065*
M3	218.20-0.375ER-ME05 MS2050	8,0 *0.32*	0,055 *0.0022*	0,055 *0.0022*	0,060 *0.0024*	0,090 *0.0036*	0,13 *0.0050*
M4	218.20-0.375ER-ME05 F40M	6,0 *0.24*	0,055 *0.0022*	0,055 *0.0022*	0,055 *0.0022*	0,080 *0.0032*	0,11 *0.0044*
M5	218.20-0.375ER-ME05 F40M	6,0 *0.24*	0,055 *0.0022*	0,055 *0.0022*	0,055 *0.0022*	0,080 *0.0032*	0,11 *0.0044*
K1	218.20-0.375ER-M05 F40M	10,0 *0.40*	0,075 *0.0030*	0,075 *0.0030*	0,080 *0.0032*	0,12 *0.0048*	0,17 *0.0065*
K2	218.20-0.375ER-M05 F40M	10,0 *0.40*	0,070 *0.0028*	0,070 *0.0028*	0,075 *0.0030*	0,11 *0.0044*	0,16 *0.0065*
K3	218.20-0.375ER-M05 F40M	10,0 *0.40*	0,070 *0.0028*	0,070 *0.0028*	0,075 *0.0030*	0,11 *0.0044*	0,16 *0.0065*
K4	218.20-0.375ER-M05 F40M	10,0 *0.40*	0,070 *0.0028*	0,070 *0.0028*	0,075 *0.0030*	0,11 *0.0044*	0,16 *0.0065*
K5	218.20-0.375ER-M05 F40M	10,0 *0.40*	0,060 *0.0024*	0,060 *0.0024*	0,065 *0.0026*	0,10 *0.0040*	0,14 *0.0055*
K6	218.20-0.375ER-M05 F40M	10,0 *0.40*	0,070 *0.0028*	0,070 *0.0028*	0,075 *0.0030*	0,11 *0.0044*	0,16 *0.0065*
K7	218.20-0.375ER-M05 F40M	10,0 *0.40*	0,060 *0.0024*	0,060 *0.0024*	0,065 *0.0026*	0,10 *0.0040*	0,14 *0.0055*
N1	218.20-0.375ER-ME05 F40M	10,0 *0.40*	0,095 *0.0038*	0,095 *0.0038*	0,10 *0.0040*	0,16 *0.0065*	0,22 *0.0085*
N2	218.20-0.375ER-ME05 F40M	10,0 *0.40*	0,095 *0.0038*	0,095 *0.0038*	0,10 *0.0040*	0,16 *0.0065*	0,22 *0.0085*
N3	218.20-0.375ER-ME05 F40M	10,0 *0.40*	0,095 *0.0038*	0,095 *0.0038*	0,10 *0.0040*	0,16 *0.0065*	0,22 *0.0085*
N11	218.20-0.375ER-ME05 F40M	10,0 *0.40*	0,095 *0.0038*	0,095 *0.0038*	0,10 *0.0040*	0,16 *0.0065*	0,22 *0.0085*
S1	218.20-0.375ER-ME05 F40M	6,0 *0.24*	0,055 *0.0022*	0,055 *0.0022*	0,055 *0.0022*	0,080 *0.0032*	0,11 *0.0044*
S2	218.20-0.375ER-ME05 F40M	6,0 *0.24*	0,055 *0.0022*	0,055 *0.0022*	0,055 *0.0022*	0,080 *0.0032*	0,11 *0.0044*
S3	218.20-0.375ER-ME05 F40M	6,0 *0.24*	0,050 *0.0020*	0,050 *0.0020*	0,050 *0.0020*	0,075 *0.0030*	0,10 *0.0040*
S11	218.20-0.375ER-ME05 MS2050	7,0 *0.28*	0,060 *0.0024*	0,060 *0.0024*	0,060 *0.0024*	0,090 *0.0036*	0,13 *0.0050*
S12	218.20-0.375ER-ME05 MS2050	7,0 *0.28*	0,060 *0.0024*	0,060 *0.0024*	0,060 *0.0024*	0,090 *0.0036*	0,13 *0.0050*
S13	218.20-0.375ER-ME05 MS2050	6,0 *0.24*	0,055 *0.0022*	0,055 *0.0022*	0,055 *0.0022*	0,080 *0.0032*	0,11 *0.0044*
H5	218.20-0.375ER-M05 F40M	8,0 *0.32*	0,048 *0.0019*	0,048 *0.0019*	0,050 *0.0020*	0,080 *0.0030*	0,11 *0.0044*
H8	218.20-0.375ER-M05 F40M	7,0 *0.28*	0,038 *0.0015*	0,038 *0.0015*	0,040 *0.0016*	0,060 *0.0024*	0,080 *0.0032*
H11	218.20-0.375ER-M05 F40M	8,0 *0.32*	0,048 *0.0019*	0,048 *0.0019*	0,050 *0.0020*	0,080 *0.0030*	0,11 *0.0044*
H12	218.20-0.375ER-M05 F40M	7,0 *0.28*	0,038 *0.0015*	0,038 *0.0015*	0,040 *0.0016*	0,060 *0.0024*	0,080 *0.0032*

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

R218.20-0.375 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	F25M					MS2050					F40M				
	100%	70%	30%	10%	5%	100%	70%	30%	10%	5%	100%	70%	30%	10%	5%
P1	280 *920*	305 *1000*	370 *1225*	435 *1425*	475 *1550*	300 *980*	325 *1075*	390 *1275*	460 *1500*	500 *1650*	255 *840*	280 *920*	335 *1100*	395 *1300*	430 *1400*
P2	275 *900*	300 *980*	360 *1175*	425 *1400*	460 *1500*	290 *950*	315 *1025*	380 *1250*	450 *1475*	490 *1600*	250 *820*	270 *890*	325 *1075*	385 *1275*	420 *1375*
P3	240 *790*	260 *850*	315 *1025*	365 *1200*	400 *1300*	255 *840*	275 *900*	330 *1075*	385 *1275*	425 *1400*	220 *720*	235 *770*	285 *940*	330 *1075*	365 *1200*
P4	210 *690*	230 *750*	275 *900*	320 *1050*	355 *1175*	225 *740*	245 *800*	290 *950*	340 *1125*	375 *1225*	190 *620*	210 *690*	250 *820*	290 *950*	320 *1050*
P5	200 *660*	220 *720*	265 *870*	310 *1025*	335 *1100*	215 *710*	230 *750*	280 *920*	330 *1075*	355 *1175*	185 *610*	200 *660*	240 *790*	285 *940*	305 *1000*
P6	225 *740*	245 *800*	295 *970*	350 *1150*	385 *1275*	240 *790*	260 *850*	315 *1025*	370 *1225*	405 *1325*	205 *670*	225 *740*	270 *890*	320 *1050*	350 *1150*
P7	215 *710*	230 *750*	280 *920*	330 *1075*	360 *1175*	225 *740*	245 *800*	295 *970*	350 *1150*	385 *1275*	195 *640*	210 *690*	255 *840*	300 *980*	330 *1075*
P8	200 *660*	220 *720*	265 *870*	305 *1000*	335 *1100*	215 *710*	230 *750*	280 *920*	325 *1075*	355 *1175*	185 *610*	200 *660*	240 *790*	280 *920*	305 *1000*
P11	205 *670*	225 *740*	270 *890*	320 *1050*	350 *1150*	220 *720*	240 *790*	285 *940*	340 *1125*	370 *1225*	190 *620*	205 *670*	245 *800*	290 *950*	320 *1050*
P12	140 *460*	150 *490*	170 *560*	200 *660*	220 *720*	150 *490*	160 *520*	180 *590*	215 *710*	230 *750*	125 *410*	135 *445*	155 *510*	185 *610*	200 *660*
M1	— —	— —	— —	— —	— —	235 *770*	255 *840*	305 *1000*	360 *1175*	395 *1300*	200 *660*	220 *720*	265 *870*	310 *1025*	335 *1100*
M2	— —	— —	— —	— —	— —	190 *620*	210 *690*	250 *820*	295 *970*	320 *1050*	165 *540*	180 *590*	215 *710*	255 *840*	275 *900*
M3	— —	— —	— —	— —	— —	165 *540*	175 *570*	200 *660*	235 *770*	255 *840*	140 *460*	150 *490*	170 *560*	200 *660*	220 *720*
M4	— —	— —	— —	— —	— —	130 *425*	135 *445*	160 *520*	180 *590*	195 *640*	110 *360*	115 *375*	135 *445*	155 *510*	170 *560*
M5	— —	— —	— —	— —	— —	110 *360*	115 *375*	130 *425*	150 *490*	165 *540*	95 *310*	95 *310*	115 *375*	130 *425*	140 *460*
K1	220 *720*	235 *770*	285 *940*	335 *1100*	365 *1200*	— —	— —	— —	— —	— —	200 *660*	215 *710*	260 *850*	305 *1000*	330 *1075*
K2	190 *620*	210 *690*	250 *820*	295 *970*	320 *1050*	— —	— —	— —	— —	— —	175 *570*	190 *620*	225 *740*	270 *890*	290 *950*
K3	160 *520*	175 *570*	210 *690*	250 *820*	270 *890*	— —	— —	— —	— —	— —	145 *475*	160 *520*	190 *620*	230 *750*	245 *800*
K4	155 *510*	170 *560*	200 *660*	240 *790*	260 *850*	— —	— —	— —	— —	— —	140 *460*	155 *510*	185 *610*	215 *710*	235 *770*
K5	95 *310*	105 *345*	125 *410*	145 *475*	155 *510*	— —	— —	— —	— —	— —	85 *280*	95 *310*	110 *360*	130 *425*	145 *475*
K6	135 *445*	150 *490*	180 *590*	210 *690*	230 *750*	— —	— —	— —	— —	— —	125 *410*	135 *445*	160 *520*	190 *620*	205 *670*
K7	120 *395*	130 *425*	160 *520*	185 *610*	200 *660*	— —	— —	— —	— —	— —	110 *360*	120 *395*	145 *475*	170 *560*	185 *610*
N1	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	1500 *4925*	1600 *5250*	1950 *6400*	2275 *7475*	2500 *8200*
N2	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	600 *1975*	650 *2125*	790 *2600*	920 *3025*	1000 *3275*
N3	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	400 *1300*	435 *1425*	530 *1750*	610 *2000*	670 *2200*
N11	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	460 *1500*	495 *1625*	600 *1975*	700 *2300*	770 *2525*
S1	— —	— —	— —	— —	— —	60 *195*	65 *215*	75 *245*	85 *280*	90 *295*	50 *165*	55 *180*	65 *215*	70 *230*	80 *260*
S2	— —	— —	— —	— —	— —	49 *160*	50 *165*	60 *195*	65 *215*	75 *245*	42 *140*	44 *145*	50 *165*	60 *195*	65 *215*
S3	— —	— —	— —	— —	— —	43 *140*	44 *145*	50 *165*	60 *195*	65 *215*	37 *120*	38 *125*	44 *145*	50 *165*	55 *180*
S11	— —	— —	— —	— —	— —	85 *280*	90 *295*	105 *345*	120 *395*	130 *425*	70 *230*	75 *245*	90 *295*	100 *330*	110 *360*
S12	— —	— —	— —	— —	— —	60 *195*	60 *195*	70 *230*	80 *260*	90 *295*	50 *165*	55 *180*	60 *195*	70 *230*	75 *245*
S13	— —	— —	— —	— —	— —	34 *110*	36 *120*	41 *135*	47 *155*	50 *165*	29 *95*	31 *100*	35 *115*	40 *130*	44 *145*
H5	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	42 *140*	45 *150*	50 *165*	60 *195*	65 *215*
H8	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	45 *150*	47 *155*	55 *180*	65 *215*	70 *230*
H11	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	55 *180*	60 *195*	65 *215*	75 *245*	85 *280*
H12	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	80 *260*	85 *280*	100 *330*	115 *375*	125 *410*

R218.20-0.750 – Insert selection – mm/*Inch*

SMG		a_p	f_z				
			100%	70%	30%	10%	5%
P1	218.20-0.750ER-ME10 F40M	20,0 *0.80*	0,15 *0.0060*	0,15 *0.0060*	0,16 *0.0065*	0,24 *0.0095*	0,34 *0.013*
P2	218.20-0.750ER-ME10 F40M	20,0 *0.80*	0,15 *0.0060*	0,15 *0.0060*	0,16 *0.0065*	0,25 *0.010*	0,34 *0.013*
P3	218.20-0.750ER-ME10 F40M	20,0 *0.80*	0,14 *0.0055*	0,14 *0.0055*	0,15 *0.0060*	0,24 *0.0095*	0,32 *0.013*
P4	218.20-0.750ER-ME10 F40M	20,0 *0.80*	0,14 *0.0055*	0,14 *0.0055*	0,15 *0.0060*	0,22 *0.0085*	0,32 *0.013*
P5	218.20-0.750ER-ME10 F40M	20,0 *0.80*	0,14 *0.0055*	0,14 *0.0055*	0,15 *0.0060*	0,22 *0.0085*	0,32 *0.013*
P6	218.20-0.750ER-ME10 F40M	20,0 *0.80*	0,14 *0.0055*	0,14 *0.0055*	0,15 *0.0060*	0,22 *0.0085*	0,30 *0.012*
P7	218.20-0.750ER-ME10 F40M	20,0 *0.80*	0,14 *0.0055*	0,14 *0.0055*	0,15 *0.0060*	0,22 *0.0085*	0,30 *0.012*
P8	218.20-0.750ER-ME10 F40M	20,0 *0.80*	0,14 *0.0055*	0,14 *0.0055*	0,15 *0.0060*	0,24 *0.0095*	0,32 *0.013*
P11	218.20-0.750ER-ME10 F40M	20,0 *0.80*	0,14 *0.0055*	0,14 *0.0055*	0,15 *0.0060*	0,22 *0.0085*	0,30 *0.012*
P12	218.20-0.750ER-ME10 F40M	16,0 *0.65*	0,095 *0.0038*	0,095 *0.0038*	0,10 *0.0040*	0,16 *0.0065*	0,22 *0.0085*
M1	218.20-0.750ER-ME10 F40M	20,0 *0.80*	0,15 *0.0060*	0,15 *0.0060*	0,16 *0.0065*	0,25 *0.010*	0,34 *0.013*
M2	218.20-0.750ER-ME10 F40M	20,0 *0.80*	0,14 *0.0055*	0,14 *0.0055*	0,15 *0.0060*	0,22 *0.0085*	0,32 *0.013*
M3	218.20-0.750ER-ME10 F40M	16,0 *0.65*	0,11 *0.0044*	0,11 *0.0044*	0,12 *0.0048*	0,18 *0.0070*	0,25 *0.010*
M4	218.20-0.750ER-ME10 F40M	12,0 *0.48*	0,11 *0.0044*	0,11 *0.0044*	0,11 *0.0044*	0,16 *0.0065*	0,22 *0.0085*
M5	218.20-0.750ER-ME10 F40M	12,0 *0.48*	0,11 *0.0044*	0,11 *0.0044*	0,11 *0.0044*	0,16 *0.0065*	0,22 *0.0085*
K1	218.20-0.750ER-ME10 F40M	20,0 *0.80*	0,15 *0.0060*	0,15 *0.0060*	0,16 *0.0065*	0,25 *0.010*	0,34 *0.013*
K2	218.20-0.750ER-ME10 F40M	20,0 *0.80*	0,14 *0.0055*	0,14 *0.0055*	0,15 *0.0060*	0,22 *0.0085*	0,32 *0.013*
K3	218.20-0.750ER-ME10 F40M	20,0 *0.80*	0,14 *0.0055*	0,14 *0.0055*	0,15 *0.0060*	0,22 *0.0085*	0,32 *0.013*
K4	218.20-0.750ER-ME10 F40M	20,0 *0.80*	0,14 *0.0055*	0,14 *0.0055*	0,15 *0.0060*	0,22 *0.0085*	0,32 *0.013*
K5	218.20-0.750ER-ME10 F40M	20,0 *0.80*	0,12 *0.0048*	0,12 *0.0048*	0,13 *0.0050*	0,20 *0.0080*	0,28 *0.011*
K6	218.20-0.750ER-ME10 F40M	20,0 *0.80*	0,14 *0.0055*	0,14 *0.0055*	0,15 *0.0060*	0,22 *0.0085*	0,32 *0.013*
K7	218.20-0.750ER-ME10 F40M	20,0 *0.80*	0,12 *0.0048*	0,12 *0.0048*	0,13 *0.0050*	0,20 *0.0080*	0,28 *0.011*
N1	218.20-0.750ER-ME10 F40M	20,0 *0.80*	0,19 *0.0075*	0,19 *0.0075*	0,20 *0.0080*	0,32 *0.013*	0,44 *0.017*
N2	218.20-0.750ER-ME10 F40M	20,0 *0.80*	0,19 *0.0075*	0,19 *0.0075*	0,20 *0.0080*	0,32 *0.013*	0,44 *0.017*
N3	218.20-0.750ER-ME10 F40M	20,0 *0.80*	0,19 *0.0075*	0,19 *0.0075*	0,20 *0.0080*	0,32 *0.013*	0,44 *0.017*
N11	218.20-0.750ER-ME10 F40M	20,0 *0.80*	0,19 *0.0075*	0,19 *0.0075*	0,20 *0.0080*	0,32 *0.013*	0,44 *0.017*
S1	218.20-0.750ER-ME10 F40M	12,0 *0.48*	0,11 *0.0044*	0,11 *0.0044*	0,11 *0.0044*	0,16 *0.0065*	0,22 *0.0085*
S2	218.20-0.750ER-ME10 F40M	12,0 *0.48*	0,11 *0.0044*	0,11 *0.0044*	0,11 *0.0044*	0,16 *0.0065*	0,22 *0.0085*
S3	218.20-0.750ER-ME10 F40M	12,0 *0.48*	0,10 *0.0040*	0,10 *0.0040*	0,10 *0.0040*	0,15 *0.0060*	0,20 *0.0080*
S11	218.20-0.750ER-ME10 F40M	14,0 *0.55*	0,12 *0.0048*	0,12 *0.0048*	0,12 *0.0048*	0,18 *0.0070*	0,25 *0.010*
S12	218.20-0.750ER-ME10 F40M	14,0 *0.55*	0,12 *0.0048*	0,12 *0.0048*	0,12 *0.0048*	0,18 *0.0070*	0,25 *0.010*
S13	218.20-0.750ER-ME10 F40M	12,0 *0.48*	0,11 *0.0044*	0,11 *0.0044*	0,11 *0.0044*	0,16 *0.0065*	0,22 *0.0085*
H5	218.20-0.750ER-ME10 F40M	16,0 *0.65*	0,095 *0.0038*	0,095 *0.0038*	0,10 *0.0040*	0,16 *0.0065*	0,22 *0.0085*
H8	218.20-0.750ER-ME10 F40M	14,0 *0.55*	0,075 *0.0030*	0,075 *0.0030*	0,080 *0.0032*	0,12 *0.0048*	0,16 *0.0065*
H11	218.20-0.750ER-ME10 F40M	16,0 *0.65*	0,095 *0.0038*	0,095 *0.0038*	0,10 *0.0040*	0,16 *0.0065*	0,22 *0.0085*
H12	218.20-0.750ER-ME10 F40M	14,0 *0.55*	0,075 *0.0030*	0,075 *0.0030*	0,080 *0.0032*	0,12 *0.0048*	0,16 *0.0065*

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

R218.20-0.750 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	F40M					MM4500				
	100%	70%	30%	10%	5%	100%	70%	30%	10%	5%
P1	225 *740*	240 *790*	295 *970*	350 *1150*	380 *1250*	170 *560*	185 *610*	225 *740*	265 *870*	290 *950*
P2	215 *710*	235 *770*	285 *940*	335 *1100*	370 *1225*	165 *540*	180 *590*	220 *720*	255 *840*	280 *920*
P3	190 *620*	205 *670*	250 *820*	290 *950*	320 *1050*	145 *475*	155 *510*	190 *620*	225 *740*	245 *800*
P4	165 *540*	180 *590*	220 *720*	255 *840*	285 *940*	130 *425*	140 *460*	170 *560*	195 *640*	215 *710*
P5	160 *520*	170 *560*	210 *690*	250 *820*	270 *890*	120 *395*	130 *425*	160 *520*	190 *620*	205 *670*
P6	180 *590*	195 *640*	235 *770*	280 *920*	310 *1025*	135 *445*	150 *490*	180 *590*	215 *710*	235 *770*
P7	170 *560*	180 *590*	220 *720*	265 *870*	290 *950*	130 *425*	140 *460*	170 *560*	205 *670*	220 *720*
P8	160 *520*	170 *560*	210 *690*	245 *800*	270 *890*	120 *395*	130 *425*	160 *520*	185 *610*	205 *670*
P11	165 *540*	175 *570*	215 *710*	260 *850*	280 *920*	125 *410*	135 *445*	165 *540*	195 *640*	215 *710*
P12	115 *375*	120 *395*	140 *460*	165 *540*	180 *590*	85 *280*	90 *295*	110 *360*	125 *410*	135 *445*
M1	175 *570*	190 *620*	230 *750*	270 *890*	295 *970*	140 *460*	155 *510*	185 *610*	220 *720*	240 *790*
M2	145 *475*	155 *510*	190 *620*	225 *740*	245 *800*	115 *375*	125 *410*	155 *510*	185 *610*	195 *640*
M3	125 *410*	130 *425*	155 *510*	180 *590*	195 *640*	100 *330*	105 *345*	125 *410*	145 *475*	160 *520*
M4	100 *330*	105 *345*	120 *395*	140 *460*	150 *490*	80 *260*	85 *280*	100 *330*	115 *375*	125 *410*
M5	85 *280*	85 *280*	100 *330*	115 *375*	125 *410*	65 *215*	70 *230*	80 *260*	95 *310*	100 *330*
K1	170 *560*	185 *610*	225 *740*	265 *870*	290 *950*	— —	— —	— —	— —	— —
K2	150 *490*	165 *540*	200 *660*	240 *790*	255 *840*	— —	— —	— —	— —	— —
K3	130 *425*	140 *460*	170 *560*	200 *660*	215 *710*	— —	— —	— —	— —	— —
K4	120 *395*	130 *425*	160 *520*	190 *620*	205 *670*	— —	— —	— —	— —	— —
K5	75 *245*	80 *260*	100 *330*	115 *375*	125 *410*	— —	— —	— —	— —	— —
K6	110 *360*	115 *375*	140 *460*	170 *560*	180 *590*	— —	— —	— —	— —	— —
K7	95 *310*	105 *345*	125 *410*	150 *490*	165 *540*	— —	— —	— —	— —	— —
N1	1275 *4175*	1375 *4500*	1675 *5500*	1975 *6475*	2150 *7050*	— —	— —	— —	— —	— —
N2	510 *1675*	550 *1800*	680 *2225*	800 *2625*	870 *2850*	— —	— —	— —	— —	— —
N3	345 *1125*	370 *1225*	455 *1500*	530 *1750*	580 *1900*	— —	— —	— —	— —	— —
N11	390 *1275*	420 *1375*	520 *1700*	610 *2000*	660 *2175*	— —	— —	— —	— —	— —
S1	46 *150*	49 *160*	55 *180*	65 *215*	70 *230*	25 *80*	26 *85*	30 *100*	34 *110*	38 *125*
S2	37 *120*	39 *130*	45 *150*	50 *165*	55 *180*	20 *65*	21 *70*	24 *80*	28 *90*	30 *100*
S3	33 *110*	34 *110*	40 *130*	45 *150*	50 *165*	18 *60*	18 *60*	21 *70*	24 *80*	27 *90*
S11	65 *215*	65 *215*	80 *260*	90 *295*	100 *330*	34 *110*	35 *115*	42 *140*	48 *155*	55 *180*
S12	44 *145*	46 *150*	55 *180*	65 *215*	70 *230*	31 *100*	33 *110*	39 *130*	45 *150*	49 *160*
S13	26 *85*	28 *90*	32 *105*	36 *120*	40 *130*	19 *60*	20 *65*	23 *75*	26 *85*	28 *90*
H5	38 *125*	40 *130*	47 *155*	55 *180*	60 *195*	— —	— —	— —	— —	— —
H8	41 *135*	43 *140*	50 *165*	60 *195*	65 *215*	— —	— —	— —	— —	— —
H11	48 *155*	50 *165*	60 *195*	70 *230*	75 *245*	— —	— —	— —	— —	— —
H12	75 *245*	75 *245*	90 *295*	105 *345*	115 *375*	— —	— —	— —	— —	— —

R218.20-060 – Insert selection – mm/*Inch*

SMG		a_p	f_z				
			100%	70%	30%	10%	5%
P1	218.20-060ER-ME03 F40M	6,0 *0.24*	0,044 *0.0017*	0,044 *0.0017*	0,048 *0.0019*	0,075 *0.0030*	0,10 *0.0040*
P2	218.20-060ER-ME03 F40M	6,0 *0.24*	0,046 *0.0018*	0,046 *0.0018*	0,050 *0.0020*	0,075 *0.0030*	0,10 *0.0040*
P3	218.20-060ER-ME03 F40M	6,0 *0.24*	0,044 *0.0017*	0,044 *0.0017*	0,046 *0.0018*	0,070 *0.0028*	0,10 *0.0040*
P4	218.20-060ER-ME03 F40M	6,0 *0.24*	0,042 *0.0017*	0,042 *0.0017*	0,046 *0.0018*	0,070 *0.0028*	0,095 *0.0038*
P5	218.20-060ER-ME03 F40M	6,0 *0.24*	0,042 *0.0017*	0,042 *0.0017*	0,044 *0.0017*	0,070 *0.0028*	0,095 *0.0038*
P6	218.20-060ER-ME03 F40M	6,0 *0.24*	0,042 *0.0017*	0,042 *0.0017*	0,044 *0.0017*	0,065 *0.0026*	0,095 *0.0038*
P7	218.20-060ER-ME03 F40M	6,0 *0.24*	0,042 *0.0017*	0,042 *0.0017*	0,044 *0.0017*	0,065 *0.0026*	0,095 *0.0038*
P8	218.20-060ER-ME03 F40M	6,0 *0.24*	0,044 *0.0017*	0,044 *0.0017*	0,046 *0.0018*	0,070 *0.0028*	0,10 *0.0040*
P11	218.20-060ER-ME03 F40M	6,0 *0.24*	0,042 *0.0017*	0,042 *0.0017*	0,044 *0.0017*	0,065 *0.0026*	0,095 *0.0038*
P12	218.20-060ER-ME03 F40M	5,0 *0.20*	0,030 *0.0012*	0,030 *0.0012*	0,030 *0.0012*	0,046 *0.0018*	0,065 *0.0026*
M1	218.20-060ER-ME03 MS2050	6,0 *0.24*	0,046 *0.0018*	0,046 *0.0018*	0,050 *0.0020*	0,075 *0.0030*	0,10 *0.0040*
M2	218.20-060ER-ME03 MS2050	6,0 *0.24*	0,042 *0.0017*	0,042 *0.0017*	0,044 *0.0017*	0,070 *0.0028*	0,095 *0.0038*
M3	218.20-060ER-ME03 MS2050	5,0 *0.20*	0,034 *0.0013*	0,034 *0.0013*	0,036 *0.0014*	0,055 *0.0022*	0,075 *0.0030*
M4	218.20-060ER-ME03 F40M	3,5 *0.14*	0,032 *0.0013*	0,032 *0.0013*	0,034 *0.0013*	0,048 *0.0019*	0,065 *0.0026*
M5	218.20-060ER-ME03 F40M	3,5 *0.14*	0,032 *0.0013*	0,032 *0.0013*	0,034 *0.0013*	0,048 *0.0019*	0,065 *0.0026*
K1	218.20-060ER-ME03 F40M	6,0 *0.24*	0,046 *0.0018*	0,046 *0.0018*	0,050 *0.0020*	0,075 *0.0030*	0,10 *0.0040*
K2	218.20-060ER-ME03 F40M	6,0 *0.24*	0,042 *0.0017*	0,042 *0.0017*	0,044 *0.0017*	0,070 *0.0028*	0,095 *0.0038*
K3	218.20-060ER-ME03 F40M	6,0 *0.24*	0,042 *0.0017*	0,042 *0.0017*	0,044 *0.0017*	0,070 *0.0028*	0,095 *0.0038*
K4	218.20-060ER-ME03 F40M	6,0 *0.24*	0,042 *0.0017*	0,042 *0.0017*	0,044 *0.0017*	0,070 *0.0028*	0,095 *0.0038*
K5	218.20-060ER-ME03 F40M	6,0 *0.24*	0,038 *0.0015*	0,038 *0.0015*	0,040 *0.0016*	0,060 *0.0024*	0,085 *0.0034*
K6	218.20-060ER-ME03 F40M	6,0 *0.24*	0,042 *0.0017*	0,042 *0.0017*	0,044 *0.0017*	0,070 *0.0028*	0,095 *0.0038*
K7	218.20-060ER-ME03 F40M	6,0 *0.24*	0,038 *0.0015*	0,038 *0.0015*	0,040 *0.0016*	0,060 *0.0024*	0,085 *0.0034*
N1	218.20-060ER-ME03 F40M	6,0 *0.24*	0,060 *0.0024*	0,060 *0.0024*	0,060 *0.0026*	0,095 *0.0038*	0,13 *0.0050*
N2	218.20-060ER-ME03 F40M	6,0 *0.24*	0,060 *0.0024*	0,060 *0.0024*	0,060 *0.0026*	0,095 *0.0038*	0,13 *0.0050*
N3	218.20-060ER-ME03 F40M	6,0 *0.24*	0,060 *0.0024*	0,060 *0.0024*	0,060 *0.0026*	0,095 *0.0038*	0,13 *0.0050*
N11	218.20-060ER-ME03 F40M	6,0 *0.24*	0,060 *0.0024*	0,060 *0.0024*	0,060 *0.0026*	0,095 *0.0038*	0,13 *0.0050*
S1	218.20-060ER-ME03 F40M	3,5 *0.14*	0,032 *0.0013*	0,032 *0.0013*	0,034 *0.0013*	0,048 *0.0019*	0,065 *0.0026*
S2	218.20-060ER-ME03 F40M	3,5 *0.14*	0,032 *0.0013*	0,032 *0.0013*	0,034 *0.0013*	0,048 *0.0019*	0,065 *0.0026*
S3	218.20-060ER-ME03 F40M	3,5 *0.14*	0,030 *0.0012*	0,030 *0.0012*	0,030 *0.0012*	0,046 *0.0018*	0,060 *0.0024*
S11	218.20-060ER-ME03 MS2050	4,0 *0.16*	0,036 *0.0014*	0,036 *0.0014*	0,038 *0.0015*	0,055 *0.0022*	0,075 *0.0030*
S12	218.20-060ER-ME03 MS2050	4,0 *0.16*	0,036 *0.0014*	0,036 *0.0014*	0,038 *0.0015*	0,055 *0.0022*	0,075 *0.0030*
S13	218.20-060ER-ME03 MS2050	3,5 *0.14*	0,032 *0.0013*	0,032 *0.0013*	0,034 *0.0013*	0,048 *0.0019*	0,065 *0.0026*
H5	218.20-060ER-ME03 F40M	5,0 *0.20*	0,030 *0.0012*	0,030 *0.0012*	0,030 *0.0012*	0,046 *0.0018*	0,065 *0.0026*
H8	218.20-060ER-ME03 F40M	4,0 *0.16*	0,024 *0.00095*	0,024 *0.00095*	0,024 *0.00095*	0,036 *0.0014*	0,050 *0.0020*
H11	218.20-060ER-ME03 F40M	5,0 *0.20*	0,030 *0.0012*	0,030 *0.0012*	0,030 *0.0012*	0,046 *0.0018*	0,065 *0.0026*
H12	218.20-060ER-ME03 F40M	4,0 *0.16*	0,024 *0.00095*	0,024 *0.00095*	0,024 *0.00095*	0,036 *0.0014*	0,050 *0.0020*

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

R218.20-060 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	MS2050					F40M				
	100%	70%	30%	10%	5%	100%	70%	30%	10%	5%
P1	335 *1100*	365 *1200*	435 *1425*	510 *1675*	560 *1825*	305 *1000*	335 *1100*	395 *1300*	465 *1525*	510 *1675*
P2	325 *1075*	355 *1175*	420 *1375*	495 *1625*	540 *1775*	295 *970*	320 *1050*	385 *1275*	450 *1475*	495 *1625*
P3	280 *920*	305 *1000*	365 *1200*	430 *1400*	470 *1550*	255 *840*	280 *920*	335 *1100*	390 *1275*	425 *1400*
P4	250 *820*	275 *900*	325 *1075*	380 *1250*	415 *1350*	230 *750*	250 *820*	295 *970*	345 *1125*	375 *1225*
P5	240 *790*	260 *850*	310 *1025*	360 *1175*	395 *1300*	215 *710*	235 *770*	280 *920*	330 *1075*	360 *1175*
P6	270 *890*	290 *950*	350 *1150*	410 *1350*	445 *1450*	245 *800*	265 *870*	315 *1025*	375 *1225*	405 *1325*
P7	255 *840*	275 *900*	330 *1075*	390 *1275*	420 *1375*	230 *750*	250 *820*	300 *980*	350 *1150*	380 *1250*
P8	235 *770*	260 *850*	310 *1025*	360 *1175*	395 *1300*	215 *710*	235 *770*	280 *920*	330 *1075*	360 *1175*
P11	245 *800*	270 *890*	320 *1050*	375 *1225*	410 *1350*	225 *740*	245 *800*	290 *950*	340 *1125*	370 *1225*
P12	160 *520*	170 *560*	200 *660*	230 *750*	250 *820*	145 *475*	155 *510*	180 *590*	210 *690*	230 *750*
M1	265 *870*	285 *940*	340 *1125*	400 *1300*	440 *1450*	240 *790*	260 *850*	310 *1025*	365 *1200*	400 *1300*
M2	215 *710*	235 *770*	280 *920*	325 *1075*	355 *1175*	195 *640*	215 *710*	255 *840*	295 *970*	325 *1075*
M3	175 *570*	190 *620*	220 *720*	255 *840*	280 *920*	160 *520*	175 *570*	200 *660*	235 *770*	255 *840*
M4	140 *460*	150 *490*	170 *560*	195 *640*	215 *710*	130 *425*	135 *445*	155 *510*	175 *570*	195 *640*
M5	120 *395*	125 *410*	145 *475*	165 *540*	180 *590*	110 *360*	110 *360*	130 *425*	150 *490*	160 *520*
K1	— —	— —	— —	— —	— —	235 *770*	255 *840*	305 *1000*	355 *1175*	390 *1275*
K2	— —	— —	— —	— —	— —	205 *670*	225 *740*	270 *890*	310 *1025*	340 *1125*
K3	— —	— —	— —	— —	— —	175 *570*	190 *620*	225 *740*	265 *870*	290 *950*
K4	— —	— —	— —	— —	— —	165 *540*	180 *590*	215 *710*	250 *820*	275 *900*
K5	— —	— —	— —	— —	— —	100 *330*	110 *360*	130 *425*	155 *510*	165 *540*
K6	— —	— —	— —	— —	— —	145 *475*	160 *520*	190 *620*	220 *720*	245 *800*
K7	— —	— —	— —	— —	— —	130 *425*	140 *460*	165 *540*	195 *640*	215 *710*
N1	— —	— —	— —	— —	— —	1775 *5825*	1925 *6325*	2325 *7625*	2725 *8950*	2975 *9750*
N2	— —	— —	— —	— —	— —	720 *2350*	780 *2550*	940 *3075*	1100 *3600*	1200 *3925*
N3	— —	— —	— —	— —	— —	475 *1550*	520 *1700*	630 *2075*	730 *2400*	800 *2625*
N11	— —	— —	— —	— —	— —	550 *1800*	590 *1925*	720 *2350*	840 *2750*	920 *3025*
S1	65 *215*	70 *230*	80 *260*	90 *295*	100 *330*	60 *195*	65 *215*	75 *245*	85 *280*	90 *295*
S2	55 *180*	55 *180*	65 *215*	75 *245*	80 *260*	49 *160*	50 *165*	60 *195*	65 *215*	75 *245*
S3	46 *150*	48 *155*	55 *180*	65 *215*	70 *230*	42 *140*	44 *145*	50 *165*	60 *195*	65 *215*
S11	95 *310*	95 *310*	115 *375*	130 *425*	140 *460*	85 *280*	90 *295*	105 *345*	120 *395*	130 *425*
S12	65 *215*	65 *215*	80 *260*	90 *295*	100 *330*	60 *195*	60 *195*	70 *230*	80 *260*	90 *295*
S13	37 *120*	39 *130*	45 *150*	50 *165*	55 *180*	34 *110*	35 *115*	41 *135*	47 *155*	50 *165*
H5	— —	— —	— —	— —	— —	48 *155*	50 *165*	60 *195*	70 *230*	75 *245*
H8	— —	— —	— —	— —	— —	50 *165*	55 *180*	65 *215*	70 *230*	80 *260*
H11	— —	— —	— —	— —	— —	60 *195*	65 *215*	75 *245*	90 *295*	95 *310*
H12	— —	— —	— —	— —	— —	90 *295*	100 *330*	115 *375*	130 *425*	140 *460*

R218.20-080 – Insert selection – mm/*Inch*

SMG		a_p	f_z				
			100%	70%	30%	10%	5%
P1	218.20-080ER-M04 F40M	8,0 *0.32*	0,10 *0.0040*	0,10 *0.0040*	0,11 *0.0044*	0,17 *0.0065*	0,24 *0.0095*
P2	218.20-080ER-M04 F40M	8,0 *0.32*	0,11 *0.0044*	0,11 *0.0044*	0,11 *0.0044*	0,18 *0.0065*	0,25 *0.0095*
P3	218.20-080ER-M04 F40M	8,0 *0.32*	0,10 *0.0040*	0,10 *0.0040*	0,11 *0.0044*	0,17 *0.0065*	0,24 *0.0095*
P4	218.20-080ER-M04 F40M	8,0 *0.32*	0,10 *0.0040*	0,10 *0.0040*	0,11 *0.0044*	0,16 *0.0065*	0,22 *0.0085*
P5	218.20-080ER-M04 F40M	8,0 *0.32*	0,095 *0.0038*	0,095 *0.0038*	0,10 *0.0040*	0,16 *0.0065*	0,22 *0.0085*
P6	218.20-080ER-M04 F40M	8,0 *0.32*	0,095 *0.0038*	0,095 *0.0038*	0,10 *0.0040*	0,16 *0.0065*	0,22 *0.0085*
P7	218.20-080ER-M04 F40M	8,0 *0.32*	0,095 *0.0038*	0,095 *0.0038*	0,10 *0.0040*	0,16 *0.0065*	0,22 *0.0085*
P8	218.20-080ER-M04 F40M	8,0 *0.32*	0,10 *0.0040*	0,10 *0.0040*	0,11 *0.0044*	0,17 *0.0065*	0,24 *0.0095*
P11	218.20-080ER-M04 F40M	8,0 *0.32*	0,095 *0.0038*	0,095 *0.0038*	0,10 *0.0040*	0,16 *0.0065*	0,22 *0.0085*
P12	218.20-080ER-M04 F40M	7,0 *0.28*	0,065 *0.0026*	0,065 *0.0026*	0,070 *0.0028*	0,11 *0.0044*	0,15 *0.0060*
M1	218.20-080ER-ME04 MS2050	8,0 *0.32*	0,060 *0.0024*	0,060 *0.0024*	0,065 *0.0026*	0,10 *0.0040*	0,14 *0.0055*
M2	218.20-080ER-ME04 MS2050	8,0 *0.32*	0,055 *0.0022*	0,055 *0.0022*	0,060 *0.0024*	0,090 *0.0036*	0,13 *0.0050*
M3	218.20-080ER-ME04 MS2050	7,0 *0.28*	0,046 *0.0018*	0,046 *0.0018*	0,048 *0.0019*	0,075 *0.0030*	0,10 *0.0040*
M4	218.20-080ER-ME04 MP3501	5,0 *0.20*	0,042 *0.0017*	0,042 *0.0017*	0,044 *0.0017*	0,065 *0.0026*	0,090 *0.0036*
M5	218.20-080ER-ME04 MP3501	5,0 *0.20*	0,042 *0.0017*	0,042 *0.0017*	0,044 *0.0017*	0,065 *0.0026*	0,090 *0.0036*
K1	218.20-080ER-M04 F40M	8,0 *0.32*	0,11 *0.0044*	0,11 *0.0044*	0,11 *0.0044*	0,18 *0.0065*	0,25 *0.0095*
K2	218.20-080ER-M04 F40M	8,0 *0.32*	0,095 *0.0038*	0,095 *0.0038*	0,10 *0.0040*	0,16 *0.0065*	0,22 *0.0085*
K3	218.20-080ER-M04 F40M	8,0 *0.32*	0,095 *0.0038*	0,095 *0.0038*	0,10 *0.0040*	0,16 *0.0065*	0,22 *0.0085*
K4	218.20-080ER-M04 F40M	8,0 *0.32*	0,095 *0.0038*	0,095 *0.0038*	0,10 *0.0040*	0,16 *0.0065*	0,22 *0.0085*
K5	218.20-080ER-M04 F40M	8,0 *0.32*	0,085 *0.0034*	0,085 *0.0034*	0,095 *0.0038*	0,14 *0.0055*	0,20 *0.0080*
K6	218.20-080ER-M04 F40M	8,0 *0.32*	0,095 *0.0038*	0,095 *0.0038*	0,10 *0.0040*	0,16 *0.0065*	0,22 *0.0085*
K7	218.20-080ER-M04 F40M	8,0 *0.32*	0,085 *0.0034*	0,085 *0.0034*	0,095 *0.0038*	0,14 *0.0055*	0,20 *0.0080*
N1	218.20-080ER-ME04 F40M	8,0 *0.32*	0,14 *0.0055*	0,14 *0.0055*	0,15 *0.0060*	0,22 *0.0085*	0,32 *0.013*
N2	218.20-080ER-ME04 F40M	8,0 *0.32*	0,14 *0.0055*	0,14 *0.0055*	0,15 *0.0060*	0,22 *0.0085*	0,32 *0.013*
N3	218.20-080ER-ME04 F40M	8,0 *0.32*	0,14 *0.0055*	0,14 *0.0055*	0,15 *0.0060*	0,22 *0.0085*	0,32 *0.013*
N11	218.20-080ER-ME04 F40M	8,0 *0.32*	0,14 *0.0055*	0,14 *0.0055*	0,15 *0.0060*	0,22 *0.0085*	0,32 *0.013*
S1	218.20-080ER-ME04 MP3501	5,0 *0.20*	0,042 *0.0017*	0,042 *0.0017*	0,044 *0.0017*	0,065 *0.0026*	0,090 *0.0036*
S2	218.20-080ER-ME04 MP3501	5,0 *0.20*	0,042 *0.0017*	0,042 *0.0017*	0,044 *0.0017*	0,065 *0.0026*	0,090 *0.0036*
S3	218.20-080ER-ME04 MP3501	5,0 *0.20*	0,040 *0.0016*	0,040 *0.0016*	0,040 *0.0016*	0,060 *0.0024*	0,085 *0.0034*
S11	218.20-080ER-ME04 MS2050	6,0 *0.24*	0,046 *0.0018*	0,046 *0.0018*	0,050 *0.0020*	0,075 *0.0030*	0,10 *0.0040*
S12	218.20-080ER-ME04 MS2050	6,0 *0.24*	0,046 *0.0018*	0,046 *0.0018*	0,050 *0.0020*	0,075 *0.0030*	0,10 *0.0040*
S13	218.20-080ER-ME04 MS2050	5,0 *0.20*	0,042 *0.0017*	0,042 *0.0017*	0,044 *0.0017*	0,065 *0.0026*	0,090 *0.0036*
H5	218.20-080ER-M04 F40M	7,0 *0.28*	0,065 *0.0026*	0,065 *0.0026*	0,070 *0.0028*	0,11 *0.0044*	0,15 *0.0060*
H8	218.20-080ER-M04 F40M	6,0 *0.24*	0,055 *0.0022*	0,055 *0.0022*	0,055 *0.0022*	0,085 *0.0034*	0,12 *0.0048*
H11	218.20-080ER-M04 F40M	7,0 *0.28*	0,065 *0.0026*	0,065 *0.0026*	0,070 *0.0028*	0,11 *0.0044*	0,15 *0.0060*
H12	218.20-080ER-M04 F40M	6,0 *0.24*	0,055 *0.0022*	0,055 *0.0022*	0,055 *0.0022*	0,085 *0.0034*	0,12 *0.0048*

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

R218.20-080 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	F25M					MS2050					F40M					MP3501					MM4500				
	100%	70%	30%	10%	5%	100%	70%	30%	10%	5%	100%	70%	30%	10%	5%	100%	70%	30%	10%	5%	100%	70%	30%	10%	5%
P1	265 *870*	285 *940*	345 *1125*	405 *1325*	440 *1450*	305 *1000*	330 *1075*	395 *1300*	465 *1525*	500 *1650*	240 *790*	260 *850*	315 *1025*	370 *1225*	400 *1300*	420 *1375*	450 *1475*	490 *1600*	530 *1750*	560 *1825*	195 *640*	210 *690*	255 *840*	300 *980*	325 *1075*
P2	250 *820*	270 *890*	335 *1100*	390 *1275*	425 *1400*	295 *970*	320 *1050*	385 *1275*	450 *1475*	490 *1600*	230 *750*	250 *820*	305 *1000*	355 *1175*	385 *1275*	410 *1350*	435 *1425*	475 *1550*	520 *1700*	550 *1800*	185 *610*	200 *660*	245 *800*	285 *940*	315 *1025*
P3	220 *720*	240 *790*	290 *950*	340 *1125*	370 *1225*	255 *840*	275 *900*	335 *1100*	390 *1275*	425 *1400*	200 *660*	220 *720*	260 *850*	310 *1025*	335 *1100*	350 *1150*	375 *1225*	410 *1350*	445 *1450*	470 *1550*	165 *540*	175 *570*	210 *690*	250 *820*	270 *890*
P4	195 *640*	210 *690*	255 *840*	305 *1000*	330 *1075*	230 *750*	245 *800*	295 *970*	345 *1125*	375 *1225*	180 *590*	190 *620*	230 *750*	275 *900*	300 *980*	310 *1025*	330 *1075*	360 *1175*	390 *1275*	415 *1350*	145 *475*	155 *510*	185 *610*	225 *740*	245 *800*
P5	190 *620*	205 *670*	245 *800*	290 *950*	315 *1025*	215 *710*	235 *770*	280 *920*	330 *1075*	360 *1175*	170 *560*	185 *610*	225 *740*	265 *870*	285 *940*	295 *970*	315 *1025*	345 *1125*	375 *1225*	395 *1300*	140 *460*	150 *490*	180 *590*	215 *710*	235 *770*
P6	210 *690*	230 *750*	280 *920*	325 *1075*	355 *1175*	245 *800*	265 *870*	315 *1025*	370 *1225*	410 *1350*	195 *640*	210 *690*	255 *840*	295 *970*	325 *1075*	330 *1075*	355 *1175*	385 *1275*	420 *1375*	440 *1450*	155 *510*	170 *560*	205 *670*	240 *790*	260 *850*
P7	200 *660*	215 *710*	260 *850*	305 *1000*	335 *1100*	230 *750*	250 *820*	300 *980*	350 *1150*	385 *1275*	180 *590*	195 *640*	240 *790*	280 *920*	305 *1000*	315 *1025*	335 *1100*	365 *1200*	395 *1300*	415 *1350*	145 *475*	160 *520*	195 *640*	225 *740*	245 *800*
P8	185 *610*	200 *660*	240 *790*	285 *940*	310 *1025*	215 *710*	230 *750*	280 *920*	330 *1075*	360 *1175*	170 *560*	185 *610*	220 *720*	260 *850*	280 *920*	295 *970*	315 *1025*	345 *1125*	375 *1225*	395 *1300*	140 *460*	150 *490*	180 *590*	210 *690*	230 *750*
P11	195 *640*	210 *690*	255 *840*	300 *980*	325 *1075*	225 *740*	245 *800*	290 *950*	340 *1125*	375 *1225*	175 *570*	190 *620*	230 *750*	270 *890*	295 *970*	305 *1000*	325 *1075*	355 *1175*	385 *1275*	405 *1325*	145 *475*	155 *510*	190 *620*	220 *720*	240 *790*
P12	125 *410*	135 *445*	160 *520*	190 *620*	205 *670*	145 *475*	155 *510*	180 *590*	215 *710*	230 *750*	115 *375*	125 *410*	145 *475*	170 *560*	190 *620*	180 *590*	190 *620*	200 *660*	215 *710*	225 *740*	95 *310*	100 *330*	120 *395*	140 *460*	150 *490*
M1	— —	— —	— —	— —	— —	240 *790*	260 *850*	310 *1025*	365 *1200*	395 *1300*	185 *610*	200 *660*	245 *800*	285 *940*	310 *1025*	240 *790*	260 *850*	310 *1025*	365 *1200*	395 *1300*	160 *520*	170 *560*	210 *690*	245 *800*	270 *890*
M2	— —	— —	— —	— —	— —	195 *640*	210 *690*	255 *840*	300 *980*	325 *1075*	155 *510*	165 *540*	200 *660*	235 *770*	260 *850*	195 *640*	210 *690*	255 *840*	300 *980*	325 *1075*	135 *445*	145 *475*	175 *570*	205 *670*	225 *740*
M3	— —	— —	— —	— —	— —	160 *520*	170 *560*	200 *660*	235 *770*	255 *840*	125 *410*	135 *445*	160 *520*	190 *620*	205 *670*	160 *520*	170 *560*	200 *660*	235 *770*	255 *840*	110 *360*	120 *395*	140 *460*	160 *520*	175 *570*
M4	— —	— —	— —	— —	— —	130 *425*	135 *445*	155 *510*	180 *590*	195 *640*	105 *345*	110 *360*	125 *410*	145 *475*	160 *520*	130 *425*	135 *445*	155 *510*	180 *590*	195 *640*	90 *295*	95 *310*	110 *360*	125 *410*	135 *445*
M5	— —	— —	— —	— —	— —	110 *360*	115 *375*	130 *425*	150 *490*	165 *540*	85 *280*	90 *295*	105 *345*	120 *395*	135 *445*	110 *360*	115 *375*	130 *425*	150 *490*	165 *540*	75 *245*	80 *260*	90 *295*	105 *345*	115 *375*
K1	200 *660*	215 *710*	265 *870*	310 *1025*	335 *1100*	— —	— —	— —	— —	— —	180 *590*	195 *640*	240 *790*	280 *920*	305 *1000*	415 *1350*	440 *1450*	480 *1575*	530 *1750*	550 *1800*	— —	— —	— —	— —	— —
K2	180 *590*	195 *640*	235 *770*	275 *900*	300 *980*	— —	— —	— —	— —	— —	165 *540*	175 *570*	215 *710*	250 *820*	275 *900*	360 *1175*	385 *1275*	415 *1350*	450 *1475*	480 *1575*	— —	— —	— —	— —	— —
K3	150 *490*	165 *540*	200 *660*	230 *750*	255 *840*	— —	— —	— —	— —	— —	140 *460*	150 *490*	180 *590*	210 *690*	230 *750*	305 *1000*	325 *1075*	350 *1150*	380 *1250*	405 *1325*	— —	— —	— —	— —	— —
K4	145 *475*	155 *510*	190 *620*	220 *720*	240 *790*	— —	— —	— —	— —	— —	130 *425*	140 *460*	170 *560*	200 *660*	220 *720*	290 *950*	310 *1025*	335 *1100*	365 *1200*	385 *1275*	— —	— —	— —	— —	— —
K5	90 *295*	95 *310*	115 *375*	135 *445*	145 *475*	— —	— —	— —	— —	— —	80 *260*	85 *280*	105 *345*	125 *410*	135 *445*	170 *560*	185 *610*	200 *660*	215 *710*	225 *740*	— —	— —	— —	— —	— —
K6	130 *425*	140 *460*	165 *540*	195 *640*	215 *710*	— —	— —	— —	— —	— —	115 *375*	125 *410*	150 *490*	180 *590*	195 *640*	255 *840*	270 *890*	295 *970*	320 *1050*	340 *1125*	— —	— —	— —	— —	— —
K7	115 *375*	120 *395*	145 *475*	175 *570*	190 *620*	— —	— —	— —	— —	— —	105 *345*	110 *360*	135 *445*	160 *520*	170 *560*	220 *720*	235 *770*	255 *840*	275 *900*	290 *950*	— —	— —	— —	— —	— —
N1	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	1350 *4425*	1450 *4750*	1775 *5825*	2125 *6975*	2300 *7550*	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —
N2	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	550 *1800*	590 *1925*	720 *2350*	860 *2825*	920 *3025*	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —
N3	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	365 *1200*	395 *1300*	480 *1575*	570 *1875*	620 *2025*	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —
N11	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	415 *1350*	450 *1475*	550 *1800*	650 *2125*	700 *2300*	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —
S1	— —	— —	— —	— —	— —	60 *195*	65 *215*	75 *245*	85 *280*	90 *295*	48 *155*	50 *165*	60 *195*	70 *230*	75 *245*	60 *195*	65 *215*	75 *245*	85 *280*	90 *295*	27 *90*	29 *95*	33 *110*	38 *125*	42 *140*
S2	— —	— —	— —	— —	— —	49 *160*	50 *165*	60 *195*	65 *215*	75 *245*	39 *130*	41 *135*	47 *155*	55 *180*	60 *195*	49 *160*	50 *165*	60 *195*	65 *215*	75 *245*	22 *70*	23 *75*	27 *90*	31 *100*	34 *110*
S3	— —	— —	— —	— —	— —	42 *140*	44 *145*	50 *165*	60 *195*	65 *215*	34 *110*	36 *120*	41 *135*	48 *155*	50 *165*	42 *140*	44 *145*	50 *165*	60 *195*	65 *215*	19 *60*	20 *65*	23 *75*	27 *90*	30 *100*
S11	— —	— —	— —	— —	— —	85 *280*	90 *295*	100 *330*	120 *395*	130 *425*	65 *215*	70 *230*	80 *260*	95 *310*	105 *345*	85 *280*	90 *295*	100 *330*	120 *395*	130 *425*	38 *125*	40 *130*	46 *150*	55 *180*	60 *195*
S12	— —	— —	— —	— —	— —	60 *195*	60 *195*	70 *230*	85 *280*	90 *295*	46 *150*	49 *160*	55 *180*	65 *215*	70 *230*	60 *195*	60 *195*	70 *230*	85 *280*	90 *295*	35 *115*	37 *120*	42 *140*	50 *165*	55 *180*
S13	— —	— —	— —	— —	— —	34 *110*	36 *120*	41 *135*	47 *155*	50 *165*	27 *90*	28 *90*	33 *110*	38 *125*	42 *140*	34 *110*	36 *120*	41 *135*	47 *155*	50 *165*	21 *70*	21 *70*	25 *80*	29 *95*	31 *100*
H5	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	38 *125*	41 *135*	49 *160*	55 *180*	60 *195*	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —
H8	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	42 *140*	44 *145*	50 *165*	60 *195*	65 *215*	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —
H11	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	49 *160*	55 *180*	60 *195*	75 *245*	80 *260*	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —
H12	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	75 *245*	80 *260*	90 *295*	110 *360*	120 *395*	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —

R218.20-100 – Insert selection – mm/*Inch*

SMG		a_p	f_z				
			100%	70%	30%	10%	5%
P1	218.20-100ER-M05 F40M	11,0 *0.44*	0,10 *0.0040*	0,10 *0.0040*	0,11 *0.0044*	0,17 *0.0065*	0,24 *0.0095*
P2	218.20-100ER-M05 F40M	11,0 *0.44*	0,10 *0.0040*	0,10 *0.0040*	0,11 *0.0044*	0,17 *0.0065*	0,24 *0.0095*
P3	218.20-100ER-M05 F40M	11,0 *0.44*	0,10 *0.0040*	0,10 *0.0040*	0,11 *0.0044*	0,16 *0.0065*	0,22 *0.0085*
P4	218.20-100ER-M05 F40M	11,0 *0.44*	0,095 *0.0038*	0,095 *0.0038*	0,11 *0.0044*	0,16 *0.0065*	0,22 *0.0085*
P5	218.20-100ER-M05 F40M	11,0 *0.44*	0,095 *0.0038*	0,095 *0.0038*	0,10 *0.0040*	0,16 *0.0065*	0,22 *0.0085*
P6	218.20-100ER-M05 F40M	11,0 *0.44*	0,095 *0.0038*	0,095 *0.0038*	0,10 *0.0040*	0,16 *0.0065*	0,22 *0.0085*
P7	218.20-100ER-M05 F40M	11,0 *0.44*	0,095 *0.0038*	0,095 *0.0038*	0,10 *0.0040*	0,16 *0.0065*	0,22 *0.0085*
P8	218.20-100ER-M05 F40M	11,0 *0.44*	0,10 *0.0040*	0,10 *0.0040*	0,11 *0.0044*	0,16 *0.0065*	0,22 *0.0085*
P11	218.20-100ER-M05 F40M	11,0 *0.44*	0,095 *0.0038*	0,095 *0.0038*	0,10 *0.0040*	0,16 *0.0065*	0,22 *0.0085*
P12	218.20-100ER-M05 F40M	9,0 *0.36*	0,065 *0.0026*	0,065 *0.0026*	0,070 *0.0028*	0,11 *0.0044*	0,15 *0.0060*
M1	218.20-100ER-ME05 MS2050	11,0 *0.44*	0,075 *0.0030*	0,075 *0.0030*	0,080 *0.0032*	0,12 *0.0048*	0,17 *0.0065*
M2	218.20-100ER-ME05 MS2050	11,0 *0.44*	0,070 *0.0028*	0,070 *0.0028*	0,075 *0.0030*	0,11 *0.0044*	0,16 *0.0065*
M3	218.20-100ER-ME05 MS2050	9,0 *0.36*	0,055 *0.0022*	0,055 *0.0022*	0,060 *0.0024*	0,090 *0.0036*	0,13 *0.0050*
M4	218.20-100ER-ME05 F40M	6,0 *0.24*	0,075 *0.0030*	0,075 *0.0030*	0,075 *0.0030*	0,11 *0.0044*	0,16 *0.0065*
M5	218.20-100ER-ME05 F40M	6,0 *0.24*	0,075 *0.0030*	0,075 *0.0030*	0,075 *0.0030*	0,11 *0.0044*	0,16 *0.0065*
K1	218.20-100ER-M05 F40M	11,0 *0.44*	0,10 *0.0040*	0,10 *0.0040*	0,11 *0.0044*	0,17 *0.0065*	0,24 *0.0095*
K2	218.20-100ER-M05 F40M	11,0 *0.44*	0,095 *0.0038*	0,095 *0.0038*	0,10 *0.0040*	0,16 *0.0065*	0,22 *0.0085*
K3	218.20-100ER-M05 F40M	11,0 *0.44*	0,095 *0.0038*	0,095 *0.0038*	0,10 *0.0040*	0,16 *0.0065*	0,22 *0.0085*
K4	218.20-100ER-M05 F40M	11,0 *0.44*	0,095 *0.0038*	0,095 *0.0038*	0,10 *0.0040*	0,16 *0.0065*	0,22 *0.0085*
K5	218.20-100ER-M05 F40M	11,0 *0.44*	0,085 *0.0034*	0,085 *0.0034*	0,095 *0.0038*	0,14 *0.0055*	0,20 *0.0080*
K6	218.20-100ER-M05 F40M	11,0 *0.44*	0,095 *0.0038*	0,095 *0.0038*	0,10 *0.0040*	0,16 *0.0065*	0,22 *0.0085*
K7	218.20-100ER-M05 F40M	11,0 *0.44*	0,085 *0.0034*	0,085 *0.0034*	0,095 *0.0038*	0,14 *0.0055*	0,20 *0.0080*
N1	218.20-100ER-ME05 F40M	11,0 *0.44*	0,13 *0.0050*	0,13 *0.0050*	0,14 *0.0055*	0,22 *0.0085*	0,32 *0.013*
N2	218.20-100ER-ME05 F40M	11,0 *0.44*	0,13 *0.0050*	0,13 *0.0050*	0,14 *0.0055*	0,22 *0.0085*	0,32 *0.013*
N3	218.20-100ER-ME05 F40M	11,0 *0.44*	0,13 *0.0050*	0,13 *0.0050*	0,14 *0.0055*	0,22 *0.0085*	0,32 *0.013*
N11	218.20-100ER-ME05 F40M	11,0 *0.44*	0,13 *0.0050*	0,13 *0.0050*	0,14 *0.0055*	0,22 *0.0085*	0,32 *0.013*
S1	218.20-100ER-ME05 F40M	6,0 *0.24*	0,075 *0.0030*	0,075 *0.0030*	0,075 *0.0030*	0,11 *0.0044*	0,16 *0.0065*
S2	218.20-100ER-ME05 F40M	6,0 *0.24*	0,075 *0.0030*	0,075 *0.0030*	0,075 *0.0030*	0,11 *0.0044*	0,16 *0.0065*
S3	218.20-100ER-ME05 F40M	6,0 *0.24*	0,070 *0.0028*	0,070 *0.0028*	0,070 *0.0028*	0,11 *0.0044*	0,15 *0.0060*
S11	218.20-100ER-ME05 MS2050	8,0 *0.32*	0,060 *0.0024*	0,060 *0.0024*	0,060 *0.0024*	0,090 *0.0036*	0,13 *0.0050*
S12	218.20-100ER-ME05 MS2050	8,0 *0.32*	0,060 *0.0024*	0,060 *0.0024*	0,060 *0.0024*	0,090 *0.0036*	0,13 *0.0050*
S13	218.20-100ER-ME05 MS2050	6,0 *0.24*	0,055 *0.0022*	0,055 *0.0022*	0,055 *0.0022*	0,080 *0.0032*	0,11 *0.0044*
H5	218.20-100ER-M05 F40M	9,0 *0.36*	0,065 *0.0026*	0,065 *0.0026*	0,070 *0.0028*	0,11 *0.0044*	0,15 *0.0060*
H8	218.20-100ER-M05 F40M	8,0 *0.32*	0,055 *0.0022*	0,055 *0.0022*	0,055 *0.0022*	0,085 *0.0034*	0,12 *0.0048*
H11	218.20-100ER-M05 F40M	9,0 *0.36*	0,065 *0.0026*	0,065 *0.0026*	0,070 *0.0028*	0,11 *0.0044*	0,15 *0.0060*
H12	218.20-100ER-M05 F40M	8,0 *0.32*	0,055 *0.0022*	0,055 *0.0022*	0,055 *0.0022*	0,085 *0.0034*	0,12 *0.0048*

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

R218.20-100 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	F25M					MS2050					F40M					MM4500				
	100%	70%	30%	10%	5%	100%	70%	30%	10%	5%	100%	70%	30%	10%	5%	100%	70%	30%	10%	5%
P1	260 *850*	280 *920*	340 *1125*	400 *1300*	430 *1400*	280 *920*	305 *1000*	365 *1200*	430 *1400*	465 *1525*	235 *770*	255 *840*	310 *1025*	360 *1175*	395 *1300*	190 *620*	205 *670*	250 *820*	295 *970*	320 *1050*
P2	255 *840*	275 *900*	330 *1075*	390 *1275*	420 *1375*	270 *890*	295 *970*	355 *1175*	420 *1375*	455 *1500*	230 *750*	250 *820*	300 *980*	355 *1175*	385 *1275*	185 *610*	200 *660*	245 *800*	285 *940*	310 *1025*
P3	215 *710*	235 *770*	285 *940*	340 *1125*	370 *1225*	235 *770*	260 *850*	310 *1025*	360 *1175*	395 *1300*	200 *660*	215 *710*	260 *850*	310 *1025*	335 *1100*	160 *520*	175 *570*	210 *690*	250 *820*	270 *890*
P4	195 *640*	210 *690*	250 *820*	300 *980*	325 *1075*	210 *690*	225 *740*	270 *890*	325 *1075*	350 *1150*	175 *570*	190 *620*	225 *740*	270 *890*	295 *970*	145 *475*	155 *510*	185 *610*	220 *720*	240 *790*
P5	185 *610*	200 *660*	245 *800*	285 *940*	310 *1025*	200 *660*	215 *710*	260 *850*	310 *1025*	335 *1100*	170 *560*	180 *590*	220 *720*	260 *850*	280 *920*	135 *445*	150 *490*	180 *590*	210 *690*	230 *750*
P6	205 *670*	225 *740*	275 *900*	320 *1050*	350 *1150*	225 *740*	245 *800*	290 *950*	345 *1125*	380 *1250*	190 *620*	205 *670*	250 *820*	290 *950*	315 *1025*	155 *510*	165 *540*	200 *660*	235 *770*	255 *840*
P7	195 *640*	215 *710*	260 *850*	300 *980*	330 *1075*	215 *710*	235 *770*	275 *900*	325 *1075*	355 *1175*	180 *590*	195 *640*	235 *770*	275 *900*	300 *980*	145 *475*	155 *510*	190 *620*	220 *720*	240 *790*
P8	185 *610*	200 *660*	240 *790*	285 *940*	310 *1025*	200 *660*	215 *710*	260 *850*	305 *1000*	335 *1100*	165 *540*	180 *590*	215 *710*	260 *850*	280 *920*	135 *445*	145 *475*	175 *570*	210 *690*	230 *750*
P11	190 *620*	205 *670*	250 *820*	295 *970*	320 *1050*	210 *690*	225 *740*	270 *890*	320 *1050*	345 *1125*	175 *570*	190 *620*	230 *750*	265 *870*	290 *950*	140 *460*	150 *490*	185 *610*	215 *710*	235 *770*
P12	130 *425*	140 *460*	165 *540*	185 *610*	205 *670*	135 *445*	150 *490*	175 *570*	200 *660*	215 *710*	115 *375*	125 *410*	150 *490*	170 *560*	185 *610*	95 *310*	100 *330*	120 *395*	135 *445*	150 *490*
M1	— —	— —	— —	— —	— —	220 *720*	240 *790*	285 *940*	340 *1125*	365 *1200*	185 *610*	200 *660*	240 *790*	285 *940*	310 *1025*	160 *520*	175 *570*	210 *690*	245 *800*	265 *870*
M2	— —	— —	— —	— —	— —	180 *590*	195 *640*	235 *770*	280 *920*	300 *980*	150 *490*	165 *540*	200 *660*	235 *770*	255 *840*	130 *425*	140 *460*	170 *560*	200 *660*	220 *720*
M3	— —	— —	— —	— —	— —	150 *490*	165 *540*	190 *620*	220 *720*	240 *790*	125 *410*	135 *445*	160 *520*	185 *610*	205 *670*	110 *360*	120 *395*	140 *460*	160 *520*	175 *570*
M4	— —	— —	— —	— —	— —	125 *410*	130 *425*	150 *490*	165 *540*	180 *590*	105 *345*	110 *360*	125 *410*	145 *475*	155 *510*	90 *295*	95 *310*	110 *360*	125 *410*	135 *445*
M5	— —	— —	— —	— —	— —	105 *345*	110 *360*	125 *410*	140 *460*	150 *490*	90 *295*	90 *295*	105 *345*	120 *395*	130 *425*	75 *245*	80 *260*	90 *295*	105 *345*	110 *360*
K1	200 *660*	215 *710*	260 *850*	305 *1000*	335 *1100*	— —	— —	— —	— —	— —	180 *590*	195 *640*	235 *770*	280 *920*	305 *1000*	— —	— —	— —	— —	— —
K2	175 *570*	190 *620*	230 *750*	270 *890*	295 *970*	— —	— —	— —	— —	— —	160 *520*	175 *570*	210 *690*	245 *800*	270 *890*	— —	— —	— —	— —	— —
K3	150 *490*	160 *520*	195 *640*	230 *750*	250 *820*	— —	— —	— —	— —	— —	135 *445*	145 *475*	180 *590*	210 *690*	225 *740*	— —	— —	— —	— —	— —
K4	140 *460*	155 *510*	185 *610*	220 *720*	240 *790*	— —	— —	— —	— —	— —	130 *425*	140 *460*	170 *560*	200 *660*	215 *710*	— —	— —	— —	— —	— —
K5	85 *280*	95 *310*	110 *360*	135 *445*	145 *475*	— —	— —	— —	— —	— —	80 *260*	85 *280*	100 *330*	120 *395*	130 *425*	— —	— —	— —	— —	— —
K6	125 *410*	135 *445*	165 *540*	190 *620*	210 *690*	— —	— —	— —	— —	— —	115 *375*	125 *410*	150 *490*	175 *570*	190 *620*	— —	— —	— —	— —	— —
K7	110 *360*	120 *395*	145 *475*	170 *560*	185 *610*	— —	— —	— —	— —	— —	100 *330*	110 *360*	130 *425*	155 *510*	170 *560*	— —	— —	— —	— —	— —
N1	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	1350 *4425*	1450 *4750*	1775 *5825*	2075 *6800*	2250 *7375*	— —	— —	— —	— —	— —
N2	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	550 *1800*	590 *1925*	720 *2350*	840 *2750*	910 *2975*	— —	— —	— —	— —	— —
N3	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	365 *1200*	395 *1300*	480 *1575*	560 *1825*	600 *1975*	— —	— —	— —	— —	— —
N11	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	415 *1350*	450 *1475*	550 *1800*	640 *2100*	690 *2275*	— —	— —	— —	— —	— —
S1	— —	— —	— —	— —	— —	55 *180*	60 *195*	70 *230*	80 *260*	85 *280*	49 *160*	50 *165*	60 *195*	65 *215*	75 *245*	28 *90*	29 *95*	33 *110*	38 *125*	41 *135*
S2	— —	— —	— —	— —	— —	46 *150*	49 *160*	55 *180*	65 *215*	70 *230*	40 *130*	41 *135*	48 *155*	55 *180*	60 *195*	22 *70*	23 *75*	27 *90*	30 *100*	33 *110*
S3	— —	— —	— —	— —	— —	40 *130*	42 *140*	49 *160*	55 *180*	60 *195*	35 *115*	36 *120*	42 *140*	47 *155*	50 *165*	20 *65*	20 *65*	23 *75*	27 *90*	29 *95*
S11	— —	— —	— —	— —	— —	75 *245*	85 *280*	95 *310*	110 *360*	120 *395*	65 *215*	70 *230*	80 *260*	95 *310*	105 *345*	37 *120*	40 *130*	46 *150*	55 *180*	60 *195*
S12	— —	— —	— —	— —	— —	55 *180*	55 *180*	65 *215*	75 *245*	85 *280*	46 *150*	49 *160*	55 *180*	65 *215*	70 *230*	35 *115*	37 *120*	42 *140*	49 *160*	55 *180*
S13	— —	— —	— —	— —	— —	32 *105*	34 *110*	39 *130*	44 *145*	48 *155*	28 *90*	28 *90*	33 *110*	38 *125*	41 *135*	21 *70*	21 *70*	25 *80*	28 *90*	31 *100*
H5	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	39 *130*	42 *140*	49 *160*	55 *180*	60 *195*	— —	— —	— —	— —	— —
H8	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	41 *135*	44 *145*	50 *165*	60 *195*	65 *215*	— —	— —	— —	— —	— —
H11	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	50 *165*	55 *180*	60 *195*	70 *230*	80 *260*	— —	— —	— —	— —	— —
H12	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	75 *245*	80 *260*	90 *295*	105 *345*	115 *375*	— —	— —	— —	— —	— —

R218.20-125 – Insert selection – mm/*Inch*

SMG		a_p	f_z				
			100%	70%	30%	10%	5%
P1	218.20-125ER-M07 F40M	13,0 *0.50*	0,10 *0.0040*	0,10 *0.0040*	0,11 *0.0044*	0,17 *0.0065*	0,24 *0.0095*
P2	218.20-125ER-M07 F40M	13,0 *0.50*	0,11 *0.0044*	0,11 *0.0044*	0,11 *0.0044*	0,17 *0.0065*	0,24 *0.0095*
P3	218.20-125ER-M07 F40M	13,0 *0.50*	0,10 *0.0040*	0,10 *0.0040*	0,11 *0.0044*	0,16 *0.0065*	0,22 *0.0085*
P4	218.20-125ER-M07 F40M	13,0 *0.50*	0,10 *0.0040*	0,10 *0.0040*	0,11 *0.0044*	0,16 *0.0065*	0,22 *0.0085*
P5	218.20-125ER-M07 F40M	13,0 *0.50*	0,095 *0.0038*	0,095 *0.0038*	0,10 *0.0040*	0,16 *0.0065*	0,22 *0.0085*
P6	218.20-125ER-M07 F40M	13,0 *0.50*	0,095 *0.0038*	0,095 *0.0038*	0,10 *0.0040*	0,16 *0.0065*	0,22 *0.0085*
P7	218.20-125ER-M07 F40M	13,0 *0.50*	0,095 *0.0038*	0,095 *0.0038*	0,10 *0.0040*	0,16 *0.0065*	0,22 *0.0085*
P8	218.20-125ER-M07 F40M	13,0 *0.50*	0,10 *0.0040*	0,10 *0.0040*	0,11 *0.0044*	0,16 *0.0065*	0,22 *0.0085*
P11	218.20-125ER-M07 F40M	13,0 *0.50*	0,095 *0.0038*	0,095 *0.0038*	0,10 *0.0040*	0,16 *0.0065*	0,22 *0.0085*
P12	218.20-125ER-M07 F40M	11,0 *0.44*	0,065 *0.0026*	0,065 *0.0026*	0,070 *0.0028*	0,11 *0.0044*	0,15 *0.0060*
M1	218.20-125ER-ME07 MS2050	13,0 *0.50*	0,11 *0.0044*	0,11 *0.0044*	0,11 *0.0044*	0,17 *0.0065*	0,24 *0.0095*
M2	218.20-125ER-ME07 MS2050	13,0 *0.50*	0,095 *0.0038*	0,095 *0.0038*	0,10 *0.0040*	0,16 *0.0065*	0,22 *0.0085*
M3	218.20-125ER-ME07 MS2050	11,0 *0.44*	0,080 *0.0032*	0,080 *0.0032*	0,085 *0.0034*	0,13 *0.0050*	0,18 *0.0070*
M4	218.20-125ER-ME07 F40M	8,0 *0.32*	0,075 *0.0030*	0,075 *0.0030*	0,075 *0.0030*	0,11 *0.0044*	0,16 *0.0065*
M5	218.20-125ER-ME07 F40M	8,0 *0.32*	0,075 *0.0030*	0,075 *0.0030*	0,075 *0.0030*	0,11 *0.0044*	0,16 *0.0065*
K1	218.20-125ER-M07 F40M	13,0 *0.50*	0,11 *0.0044*	0,11 *0.0044*	0,11 *0.0044*	0,17 *0.0065*	0,24 *0.0095*
K2	218.20-125ER-M07 F40M	13,0 *0.50*	0,095 *0.0038*	0,095 *0.0038*	0,10 *0.0040*	0,16 *0.0065*	0,22 *0.0085*
K3	218.20-125ER-M07 F40M	13,0 *0.50*	0,095 *0.0038*	0,095 *0.0038*	0,10 *0.0040*	0,16 *0.0065*	0,22 *0.0085*
K4	218.20-125ER-M07 F40M	13,0 *0.50*	0,095 *0.0038*	0,095 *0.0038*	0,10 *0.0040*	0,16 *0.0065*	0,22 *0.0085*
K5	218.20-125ER-M07 F40M	13,0 *0.50*	0,085 *0.0034*	0,085 *0.0034*	0,095 *0.0038*	0,14 *0.0055*	0,20 *0.0080*
K6	218.20-125ER-M07 F40M	13,0 *0.50*	0,095 *0.0038*	0,095 *0.0038*	0,10 *0.0040*	0,16 *0.0065*	0,22 *0.0085*
K7	218.20-125ER-M07 F40M	13,0 *0.50*	0,085 *0.0034*	0,085 *0.0034*	0,095 *0.0038*	0,14 *0.0055*	0,20 *0.0080*
N1	218.20-125ER-ME07 F40M	13,0 *0.50*	0,13 *0.0050*	0,13 *0.0050*	0,15 *0.0060*	0,22 *0.0085*	0,30 *0.012*
N2	218.20-125ER-ME07 F40M	13,0 *0.50*	0,13 *0.0050*	0,13 *0.0050*	0,15 *0.0060*	0,22 *0.0085*	0,30 *0.012*
N3	218.20-125ER-ME07 F40M	13,0 *0.50*	0,13 *0.0050*	0,13 *0.0050*	0,15 *0.0060*	0,22 *0.0085*	0,30 *0.012*
N11	218.20-125ER-ME07 F40M	13,0 *0.50*	0,13 *0.0050*	0,13 *0.0050*	0,15 *0.0060*	0,22 *0.0085*	0,30 *0.012*
S1	218.20-125ER-ME07 F40M	8,0 *0.32*	0,075 *0.0030*	0,075 *0.0030*	0,075 *0.0030*	0,11 *0.0044*	0,16 *0.0065*
S2	218.20-125ER-ME07 F40M	8,0 *0.32*	0,075 *0.0030*	0,075 *0.0030*	0,075 *0.0030*	0,11 *0.0044*	0,16 *0.0065*
S3	218.20-125ER-ME07 F40M	8,0 *0.32*	0,070 *0.0028*	0,070 *0.0028*	0,070 *0.0028*	0,11 *0.0044*	0,14 *0.0060*
S11	218.20-125ER-ME07 MS2050	9,0 *0.36*	0,085 *0.0034*	0,085 *0.0034*	0,085 *0.0034*	0,13 *0.0050*	0,18 *0.0070*
S12	218.20-125ER-ME07 MS2050	9,0 *0.36*	0,085 *0.0034*	0,085 *0.0034*	0,085 *0.0034*	0,13 *0.0050*	0,18 *0.0070*
S13	218.20-125ER-ME07 MS2050	8,0 *0.32*	0,075 *0.0030*	0,075 *0.0030*	0,075 *0.0030*	0,11 *0.0044*	0,16 *0.0065*
H5	218.20-125ER-M07 F40M	11,0 *0.44*	0,065 *0.0026*	0,065 *0.0026*	0,070 *0.0028*	0,11 *0.0044*	0,15 *0.0060*
H8	218.20-125ER-M07 F40M	9,0 *0.36*	0,055 *0.0022*	0,055 *0.0022*	0,055 *0.0022*	0,085 *0.0034*	0,12 *0.0048*
H11	218.20-125ER-M07 F40M	11,0 *0.44*	0,065 *0.0026*	0,065 *0.0026*	0,070 *0.0028*	0,11 *0.0044*	0,15 *0.0060*
H12	218.20-125ER-M07 F40M	9,0 *0.36*	0,055 *0.0022*	0,055 *0.0022*	0,055 *0.0022*	0,085 *0.0034*	0,12 *0.0048*

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

R218.20-125 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	F25M					MS2050					F40M					MM4500				
	100%	70%	30%	10%	5%	100%	70%	30%	10%	5%	100%	70%	30%	10%	5%	100%	70%	30%	10%	5%
P1	260 *850*	285 *940*	340 *1125*	400 *1300*	435 *1425*	280 *920*	305 *1000*	365 *1200*	430 *1400*	470 *1550*	240 *790*	255 *840*	310 *1025*	365 *1200*	395 *1300*	205 *670*	225 *740*	270 *890*	320 *1050*	345 *1125*
P2	250 *820*	270 *890*	330 *1075*	390 *1275*	425 *1400*	270 *890*	290 *950*	355 *1175*	420 *1375*	455 *1500*	225 *740*	245 *800*	300 *980*	355 *1175*	385 *1275*	200 *660*	215 *710*	265 *870*	310 *1025*	335 *1100*
P3	220 *720*	235 *770*	285 *940*	340 *1125*	370 *1225*	235 *770*	255 *840*	305 *1000*	365 *1200*	400 *1300*	200 *660*	215 *710*	260 *850*	310 *1025*	340 *1125*	175 *570*	190 *620*	225 *740*	270 *890*	295 *970*
P4	195 *640*	210 *690*	250 *820*	300 *980*	325 *1075*	210 *690*	225 *740*	270 *890*	320 *1050*	350 *1150*	175 *570*	190 *620*	230 *750*	270 *890*	300 *980*	155 *510*	165 *540*	200 *660*	240 *790*	260 *850*
P5	185 *610*	200 *660*	245 *800*	285 *940*	315 *1025*	200 *660*	215 *710*	265 *870*	310 *1025*	335 *1100*	170 *560*	185 *610*	225 *740*	260 *850*	285 *940*	150 *490*	160 *520*	195 *640*	225 *740*	250 *820*
P6	210 *690*	225 *740*	275 *900*	320 *1050*	350 *1150*	225 *740*	245 *800*	295 *970*	345 *1125*	375 *1225*	190 *620*	205 *670*	250 *820*	290 *950*	320 *1050*	165 *540*	180 *590*	220 *720*	255 *840*	280 *920*
P7	200 *660*	215 *710*	260 *850*	305 *1000*	330 *1075*	215 *710*	230 *750*	280 *920*	325 *1075*	355 *1175*	180 *590*	195 *640*	235 *770*	275 *900*	300 *980*	155 *510*	170 *560*	205 *670*	240 *790*	260 *850*
P8	185 *610*	200 *660*	240 *790*	285 *940*	315 *1025*	200 *660*	215 *710*	260 *850*	310 *1025*	335 *1100*	170 *560*	180 *590*	220 *720*	260 *850*	285 *940*	145 *475*	160 *520*	190 *620*	225 *740*	250 *820*
P11	190 *620*	210 *690*	250 *820*	295 *970*	320 *1050*	205 *670*	225 *740*	270 *890*	315 *1025*	345 *1125*	175 *570*	190 *620*	230 *750*	270 *890*	290 *950*	150 *490*	165 *540*	200 *660*	235 *770*	255 *840*
P12	130 *425*	140 *460*	165 *540*	185 *610*	205 *670*	140 *460*	150 *490*	175 *570*	200 *660*	220 *720*	115 *375*	125 *410*	150 *490*	170 *560*	185 *610*	100 *330*	110 *360*	130 *425*	150 *490*	160 *520*
M1	— —	— —	— —	— —	— —	215 *710*	235 *770*	285 *940*	340 *1125*	370 *1225*	185 *610*	195 *640*	245 *800*	285 *940*	310 *1025*	170 *560*	185 *610*	225 *740*	265 *870*	290 *950*
M2	— —	— —	— —	— —	— —	180 *590*	195 *640*	235 *770*	275 *900*	305 *1000*	155 *510*	165 *540*	200 *660*	235 *770*	255 *840*	140 *460*	155 *510*	185 *610*	215 *710*	235 *770*
M3	— —	— —	— —	— —	— —	150 *490*	160 *520*	190 *620*	220 *720*	245 *800*	125 *410*	135 *445*	160 *520*	185 *610*	205 *670*	120 *395*	125 *410*	150 *490*	175 *570*	190 *620*
M4	— —	— —	— —	— —	— —	120 *395*	130 *425*	150 *490*	170 *560*	185 *610*	105 *345*	110 *360*	125 *410*	145 *475*	155 *510*	95 *310*	100 *330*	115 *375*	135 *445*	145 *475*
M5	— —	— —	— —	— —	— —	100 *330*	105 *345*	125 *410*	140 *460*	155 *510*	85 *280*	90 *295*	105 *345*	120 *395*	130 *425*	80 *260*	85 *280*	100 *330*	110 *360*	120 *395*
K1	195 *640*	215 *710*	265 *870*	310 *1025*	335 *1100*	— —	— —	— —	— —	— —	180 *590*	195 *640*	240 *790*	280 *920*	305 *1000*	— —	— —	— —	— —	— —
K2	175 *570*	190 *620*	230 *750*	270 *890*	295 *970*	— —	— —	— —	— —	— —	160 *520*	175 *570*	210 *690*	245 *800*	270 *890*	— —	— —	— —	— —	— —
K3	150 *490*	160 *520*	195 *640*	230 *750*	250 *820*	— —	— —	— —	— —	— —	135 *445*	145 *475*	180 *590*	210 *690*	230 *750*	— —	— —	— —	— —	— —
K4	145 *475*	155 *510*	190 *620*	220 *720*	240 *790*	— —	— —	— —	— —	— —	130 *425*	140 *460*	170 *560*	200 *660*	220 *720*	— —	— —	— —	— —	— —
K5	85 *280*	95 *310*	115 *375*	135 *445*	145 *475*	— —	— —	— —	— —	— —	80 *260*	85 *280*	105 *345*	120 *395*	130 *425*	— —	— —	— —	— —	— —
K6	125 *410*	135 *445*	165 *540*	195 *640*	210 *690*	— —	— —	— —	— —	— —	115 *375*	125 *410*	150 *490*	175 *570*	190 *620*	— —	— —	— —	— —	— —
K7	110 *360*	120 *395*	145 *475*	170 *560*	185 *610*	— —	— —	— —	— —	— —	100 *330*	110 *360*	130 *425*	155 *510*	170 *560*	— —	— —	— —	— —	— —
N1	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	1375 *4500*	1475 *4850*	1750 *5750*	2100 *6900*	2300 *7550*	— —	— —	— —	— —	— —
N2	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	550 *1800*	590 *1925*	710 *2325*	850 *2800*	930 *3050*	— —	— —	— —	— —	— —
N3	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	365 *1200*	395 *1300*	475 *1550*	560 *1825*	620 *2025*	— —	— —	— —	— —	— —
N11	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	420 *1375*	450 *1475*	540 *1775*	650 *2125*	710 *2325*	— —	— —	— —	— —	— —
S1	— —	— —	— —	— —	— —	55 *180*	60 *195*	70 *230*	80 *260*	85 *280*	48 *155*	50 *165*	60 *195*	65 *215*	75 *245*	29 *95*	31 *100*	36 *120*	41 *135*	45 *150*
S2	— —	— —	— —	— —	— —	46 *150*	48 *155*	55 *180*	65 *215*	70 *230*	39 *130*	41 *135*	47 *155*	55 *180*	60 *195*	24 *80*	25 *80*	29 *95*	33 *110*	36 *120*
S3	— —	— —	— —	— —	— —	40 *130*	42 *140*	49 *160*	55 *180*	60 *195*	34 *110*	36 *120*	41 *135*	47 *155*	50 *165*	21 *70*	22 *70*	25 *80*	29 *95*	31 *100*
S11	— —	— —	— —	— —	— —	80 *260*	85 *280*	95 *310*	110 *360*	125 *410*	65 *215*	70 *230*	80 *260*	95 *310*	105 *345*	40 *130*	43 *140*	50 *165*	55 *180*	65 *215*
S12	— —	— —	— —	— —	— —	55 *180*	55 *180*	65 *215*	75 *245*	85 *280*	46 *150*	48 *155*	55 *180*	65 *215*	70 *230*	37 *120*	39 *130*	46 *150*	55 *180*	60 *195*
S13	— —	— —	— —	— —	— —	32 *105*	34 *110*	39 *130*	45 *150*	49 *160*	27 *90*	28 *90*	33 *110*	38 *125*	41 *135*	22 *70*	23 *75*	27 *90*	31 *100*	34 *110*
H5	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	39 *130*	42 *140*	49 *160*	55 *180*	60 *195*	— —	— —	— —	— —	— —
H8	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	42 *140*	44 *145*	50 *165*	60 *195*	65 *215*	— —	— —	— —	— —	— —
H11	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	50 *165*	55 *180*	65 *215*	70 *230*	80 *260*	— —	— —	— —	— —	— —
H12	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	75 *245*	80 *260*	90 *295*	105 *345*	115 *375*	— —	— —	— —	— —	— —

R218.20-150 – Insert selection – mm/*Inch*

SMG			a_p	f_z				
				100%	70%	30%	10%	5%
P1	218.20-150ER-M08 F40M	SPMT100408T-M08 F40M	26,0 *1.0*	0,14 *0.0055*	0,14 *0.0055*	0,15 *0.0060*	0,24 0.0095	0,34 0.013
P2	218.20-150ER-M08 F40M	SPMT100408T-M08 F40M	26,0 *1.0*	0,14 *0.0055*	0,14 *0.0055*	0,16 *0.0065*	0,24 0.0095	0,34 0.013
P3	218.20-150ER-M08 F40M	SPMT100408T-M08 F40M	26,0 *1.0*	0,14 *0.0055*	0,14 *0.0055*	0,15 *0.0060*	0,22 0.0085	0,32 0.013
P4	218.20-150ER-M08 F40M	SPMT100408T-M08 F40M	26,0 *1.0*	0,13 *0.0050*	0,13 *0.0050*	0,15 *0.0060*	0,22 0.0085	0,32 0.013
P5	218.20-150ER-M08 F40M	SPMT100408T-M08 F40M	26,0 *1.0*	0,13 *0.0050*	0,13 *0.0050*	0,14 *0.0055*	0,22 0.0085	0,30 0.012
P6	218.20-150ER-M08 F40M	SPMT100408T-M08 F40M	26,0 *1.0*	0,13 *0.0050*	0,13 *0.0050*	0,14 *0.0055*	0,22 0.0085	0,30 0.012
P7	218.20-150ER-M08 F40M	SPMT100408T-M08 F40M	26,0 *1.0*	0,13 *0.0050*	0,13 *0.0050*	0,14 *0.0055*	0,22 0.0085	0,30 0.012
P8	218.20-150ER-M08 F40M	SPMT100408T-M08 F40M	26,0 *1.0*	0,14 *0.0055*	0,14 *0.0055*	0,15 *0.0060*	0,22 0.0085	0,32 0.013
P11	218.20-150ER-M08 F40M	SPMT100408T-M08 F40M	26,0 *1.0*	0,13 *0.0050*	0,13 *0.0050*	0,14 *0.0055*	0,22 0.0085	0,30 0.012
P12	218.20-150ER-M08 F40M	SPMT100408T-M08 F40M	21,0 *0.85*	0,090 *0.0036*	0,090 *0.0036*	0,10 *0.0040*	0,15 0.0060	0,20 0.0080
M1	218.20-150ER-ME07 MS2050	SPMT100408T-M08 F40M	26,0 *1.0*	0,10 *0.0040*	0,10 *0.0040*	0,11 *0.0044*	0,17 0.0065	0,24 0.0095
M2	218.20-150ER-ME07 MS2050	SPMT100408T-M08 F40M	26,0 *1.0*	0,090 *0.0036*	0,090 *0.0036*	0,10 *0.0040*	0,15 0.0060	0,22 0.0085
M3	218.20-150ER-ME07 MS2050	SPMT100408T-M08 F40M	21,0 *0.85*	0,075 *0.0030*	0,075 *0.0030*	0,080 *0.0032*	0,12 0.0048	0,17 0.0065
M4	218.20-150ER-ME07 F40M	SPMT100408T-M08 F40M	16,0 *0.65*	0,095 *0.0038*	0,095 *0.0038*	0,10 *0.0040*	0,16 0.0065	0,22 0.0085
M5	218.20-150ER-ME07 F40M	SPMT100408T-M08 F40M	16,0 *0.65*	0,095 *0.0038*	0,095 *0.0038*	0,10 *0.0040*	0,16 0.0065	0,22 0.0085
K1	218.20-150ER-M08 F40M	SPMT100408T-M08 F40M	26,0 *1.0*	0,14 *0.0055*	0,14 *0.0055*	0,16 *0.0065*	0,24 0.0095	0,34 0.013
K2	218.20-150ER-M08 F40M	SPMT100408T-M08 F40M	26,0 *1.0*	0,13 *0.0050*	0,13 *0.0050*	0,14 *0.0055*	0,22 0.0085	0,30 0.012
K3	218.20-150ER-M08 F40M	SPMT100408T-M08 F40M	26,0 *1.0*	0,13 *0.0050*	0,13 *0.0050*	0,14 *0.0055*	0,22 0.0085	0,30 0.012
K4	218.20-150ER-M08 F40M	SPMT100408T-M08 F40M	26,0 *1.0*	0,13 *0.0050*	0,13 *0.0050*	0,14 *0.0055*	0,22 0.0085	0,30 0.012
K5	218.20-150ER-M08 F40M	SPMT100408T-M08 F40M	26,0 *1.0*	0,12 *0.0048*	0,12 *0.0048*	0,13 *0.0050*	0,20 0.0080	0,28 0.011
K6	218.20-150ER-M08 F40M	SPMT100408T-M08 F40M	26,0 *1.0*	0,13 *0.0050*	0,13 *0.0050*	0,14 *0.0055*	0,22 0.0085	0,30 0.012
K7	218.20-150ER-M08 F40M	SPMT100408T-M08 F40M	26,0 *1.0*	0,12 *0.0048*	0,12 *0.0048*	0,13 *0.0050*	0,20 0.0080	0,28 0.011
N1	218.20-150ER-ME07 F40M	SPMT100408T-M08 F40M	26,0 *1.0*	0,18 *0.0070*	0,18 *0.0070*	0,20 *0.0080*	0,30 0.012	0,44 0.017
N2	218.20-150ER-ME07 F40M	SPMT100408T-M08 F40M	26,0 *1.0*	0,18 *0.0070*	0,18 *0.0070*	0,20 *0.0080*	0,30 0.012	0,44 0.017
N3	218.20-150ER-ME07 F40M	SPMT100408T-M08 F40M	26,0 *1.0*	0,18 *0.0070*	0,18 *0.0070*	0,20 *0.0080*	0,30 0.012	0,44 0.017
N11	218.20-150ER-ME07 F40M	SPMT100408T-M08 F40M	26,0 *1.0*	0,18 *0.0070*	0,18 *0.0070*	0,20 *0.0080*	0,30 0.012	0,44 0.017
S1	218.20-150ER-ME07 F40M	SPMT100408T-M08 F40M	16,0 *0.65*	0,095 *0.0038*	0,095 *0.0038*	0,10 *0.0040*	0,16 0.0065	0,22 0.0085
S2	218.20-150ER-ME07 F40M	SPMT100408T-M08 F40M	16,0 *0.65*	0,095 *0.0038*	0,095 *0.0038*	0,10 *0.0040*	0,16 0.0065	0,22 0.0085
S3	218.20-150ER-ME07 F40M	SPMT100408T-M08 F40M	16,0 *0.65*	0,090 *0.0036*	0,090 *0.0036*	0,095 *0.0038*	0,15 0.0060	0,20 0.0080
S11	218.20-150ER-ME07 MS2050	SPMT100408T-M08 F40M	18,0 *0.70*	0,075 *0.0030*	0,075 *0.0030*	0,080 *0.0032*	0,13 0.0050	0,17 0.0065
S12	218.20-150ER-ME07 MS2050	SPMT100408T-M08 F40M	18,0 *0.70*	0,075 *0.0030*	0,075 *0.0030*	0,080 *0.0032*	0,13 0.0050	0,17 0.0065
S13	218.20-150ER-ME07 MS2050	SPMT100408T-M08 F40M	16,0 *0.65*	0,065 *0.0026*	0,065 *0.0026*	0,070 *0.0028*	0,11 0.0044	0,15 0.0060
H5	218.20-150ER-M08 F40M	SPMT100408T-M08 F40M	21,0 *0.85*	0,090 *0.0036*	0,090 *0.0036*	0,10 *0.0040*	0,15 0.0060	0,20 0.0080
H8	218.20-150ER-M08 F40M	SPMT100408T-M08 F40M	18,0 *0.70*	0,070 *0.0028*	0,070 *0.0028*	0,075 *0.0030*	0,12 0.0048	0,16 0.0065
H11	218.20-150ER-M08 F40M	SPMT100408T-M08 F40M	21,0 *0.85*	0,090 *0.0036*	0,090 *0.0036*	0,10 *0.0040*	0,15 0.0060	0,20 0.0080
H12	218.20-150ER-M08 F40M	SPMT100408T-M08 F40M	18,0 *0.70*	0,070 *0.0028*	0,070 *0.0028*	0,075 *0.0030*	0,12 0.0048	0,16 0.0065

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

R218.20-150 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	MS2050					F40M					MM4500				
	100%	70%	30%	10%	5%	100%	70%	30%	10%	5%	100%	70%	30%	10%	5%
P1	270 *890*	290 *950*	350 *1150*	415 *1350*	450 *1475*	210 *690*	225 *740*	275 *900*	325 *1075*	355 *1175*	170 *560*	180 *590*	225 *740*	265 *870*	285 *940*
P2	255 *840*	280 *920*	340 *1125*	405 *1325*	435 *1425*	205 *670*	220 *720*	265 *870*	315 *1025*	345 *1125*	165 *540*	180 *590*	215 *710*	255 *840*	280 *920*
P3	225 *740*	245 *800*	295 *970*	350 *1150*	385 *1275*	180 *590*	190 *620*	235 *770*	275 *900*	300 *980*	145 *475*	155 *510*	190 *620*	220 *720*	245 *800*
P4	200 *660*	215 *710*	260 *850*	310 *1025*	335 *1100*	155 *510*	170 *560*	205 *670*	240 *790*	265 *870*	125 *410*	135 *445*	165 *540*	195 *640*	215 *710*
P5	190 *620*	210 *690*	255 *840*	295 *970*	320 *1050*	150 *490*	160 *520*	195 *640*	235 *770*	255 *840*	120 *395*	130 *425*	160 *520*	190 *620*	205 *670*
P6	215 *710*	235 *770*	285 *940*	330 *1075*	360 *1175*	170 *560*	180 *590*	220 *720*	265 *870*	285 *940*	135 *445*	145 *475*	180 *590*	215 *710*	230 *750*
P7	205 *670*	220 *720*	270 *890*	315 *1025*	340 *1125*	160 *520*	170 *560*	210 *690*	250 *820*	270 *890*	130 *425*	140 *460*	170 *560*	200 *660*	215 *710*
P8	190 *620*	205 *670*	245 *800*	295 *970*	320 *1050*	150 *490*	160 *520*	195 *640*	230 *750*	255 *840*	120 *395*	130 *425*	160 *520*	185 *610*	205 *670*
P11	200 *660*	215 *710*	260 *850*	305 *1000*	330 *1075*	155 *510*	165 *540*	200 *660*	240 *790*	260 *850*	125 *410*	135 *445*	165 *540*	195 *640*	210 *690*
P12	130 *425*	140 *460*	165 *540*	195 *640*	210 *690*	105 *345*	115 *375*	135 *445*	155 *510*	165 *540*	85 *280*	90 *295*	110 *360*	125 *410*	135 *445*
M1	205 *670*	225 *740*	275 *900*	325 *1075*	350 *1150*	165 *540*	175 *570*	215 *710*	255 *840*	280 *920*	140 *460*	150 *490*	185 *610*	220 *720*	240 *790*
M2	175 *570*	185 *610*	225 *740*	265 *870*	290 *950*	135 *445*	145 *475*	175 *570*	210 *690*	230 *750*	115 *375*	125 *410*	155 *510*	185 *610*	195 *640*
M3	145 *475*	155 *510*	180 *590*	210 *690*	235 *770*	115 *375*	125 *410*	145 *475*	170 *560*	185 *610*	100 *330*	105 *345*	125 *410*	145 *475*	160 *520*
M4	115 *375*	125 *410*	140 *460*	165 *540*	180 *590*	95 *310*	100 *330*	115 *375*	130 *425*	140 *460*	80 *260*	85 *280*	100 *330*	110 *360*	120 *395*
M5	100 *330*	105 *345*	120 *395*	135 *445*	150 *490*	80 *260*	85 *280*	95 *310*	110 *360*	120 *395*	70 *230*	70 *230*	85 *280*	95 *310*	100 *330*
K1	— —	— —	— —	— —	— —	160 *520*	175 *570*	210 *690*	250 *820*	275 *900*	— —	— —	— —	— —	— —
K2	— —	— —	— —	— —	— —	140 *460*	155 *510*	185 *610*	225 *740*	240 *790*	— —	— —	— —	— —	— —
K3	— —	— —	— —	— —	— —	120 *395*	130 *425*	160 *520*	190 *620*	205 *670*	— —	— —	— —	— —	— —
K4	— —	— —	— —	— —	— —	115 *375*	125 *410*	150 *490*	180 *590*	195 *640*	— —	— —	— —	— —	— —
K5	— —	— —	— —	— —	— —	70 *230*	75 *245*	95 *310*	110 *360*	120 *395*	— —	— —	— —	— —	— —
K6	— —	— —	— —	— —	— —	100 *330*	110 *360*	135 *445*	160 *520*	170 *560*	— —	— —	— —	— —	— —
K7	— —	— —	— —	— —	— —	90 *295*	100 *330*	120 *395*	140 *460*	155 *510*	— —	— —	— —	— —	— —
N1	— —	— —	— —	— —	— —	1200 *3925*	1275 *4175*	1575 *5175*	1850 *6075*	2025 *6650*	— —	— —	— —	— —	— —
N2	— —	— —	— —	— —	— —	480 *1575*	520 *1700*	640 *2100*	750 *2450*	820 *2700*	— —	— —	— —	— —	— —
N3	— —	— —	— —	— —	— —	320 *1050*	345 *1125*	425 *1400*	500 *1650*	540 *1775*	— —	— —	— —	— —	— —
N11	— —	— —	— —	— —	— —	365 *1200*	395 *1300*	485 *1600*	570 *1875*	620 *2025*	— —	— —	— —	— —	— —
S1	55 *180*	55 *180*	65 *215*	75 *245*	85 *280*	44 *145*	46 *150*	55 *180*	60 *195*	65 *215*	25 *80*	26 *85*	30 *100*	34 *110*	37 *120*
S2	44 *145*	46 *150*	55 *180*	60 *195*	65 *215*	36 *120*	37 *120*	43 *140*	49 *160*	55 *180*	20 *65*	21 *70*	24 *80*	28 *90*	30 *100*
S3	38 *125*	40 *130*	47 *155*	55 *180*	60 *195*	31 *100*	32 *105*	38 *125*	43 *140*	47 *155*	18 *60*	18 *60*	21 *70*	24 *80*	26 *85*
S11	75 *245*	80 *260*	90 *295*	105 *345*	120 *395*	60 *195*	60 *195*	75 *245*	85 *280*	95 *310*	34 *110*	35 *115*	41 *135*	48 *155*	55 *180*
S12	55 *180*	55 *180*	65 *215*	75 *245*	80 *260*	41 *135*	43 *140*	50 *165*	60 *195*	65 *215*	31 *100*	33 *110*	38 *125*	45 *150*	49 *160*
S13	31 *100*	32 *105*	37 *120*	43 *140*	47 *155*	25 *80*	26 *85*	30 *100*	34 *110*	37 *120*	19 *60*	20 *65*	23 *75*	26 *85*	28 *90*
H5	— —	— —	— —	— —	— —	35 *115*	38 *125*	44 *145*	50 *165*	55 *180*	— —	— —	— —	— —	— —
H8	— —	— —	— —	— —	— —	39 *130*	40 *130*	47 *155*	55 *180*	60 *195*	— —	— —	— —	— —	— —
H11	— —	— —	— —	— —	— —	45 *150*	48 *155*	55 *180*	65 *215*	70 *230*	— —	— —	— —	— —	— —
H12	— —	— —	— —	— —	— —	70 *230*	70 *230*	85 *280*	95 *310*	105 *345*	— —	— —	— —	— —	— —

R218.20-160 – Insert selection – mm/*Inch*

SMG			a_p	f_z				
				100%	70%	30%	10%	5%
P1	218.20-160ER-M08 F40M	SPMT100408T-M08 F40M	32,0 *1.3*	0,14 *0.0055*	0,14 *0.0055*	0,15 *0.0060*	0,24 0.0095	0,32 0.013
P2	218.20-160ER-M08 F40M	SPMT100408T-M08 F40M	32,0 *1.3*	0,14 *0.0055*	0,14 *0.0055*	0,16 *0.0065*	0,24 0.0095	0,34 0.013
P3	218.20-160ER-M08 F40M	SPMT100408T-M08 F40M	32,0 *1.3*	0,14 *0.0055*	0,14 *0.0055*	0,15 *0.0060*	0,22 0.0085	0,32 0.013
P4	218.20-160ER-M08 F40M	SPMT100408T-M08 F40M	32,0 *1.3*	0,13 *0.0050*	0,13 *0.0050*	0,14 *0.0055*	0,22 0.0085	0,30 0.012
P5	218.20-160ER-M08 F40M	SPMT100408T-M08 F40M	32,0 *1.3*	0,13 *0.0050*	0,13 *0.0050*	0,14 *0.0055*	0,22 0.0085	0,30 0.012
P6	218.20-160ER-M08 F40M	SPMT100408T-M08 F40M	32,0 *1.3*	0,13 *0.0050*	0,13 *0.0050*	0,14 *0.0055*	0,22 0.0085	0,30 0.012
P7	218.20-160ER-M08 F40M	SPMT100408T-M08 F40M	32,0 *1.3*	0,13 *0.0050*	0,13 *0.0050*	0,14 *0.0055*	0,22 0.0085	0,30 0.012
P8	218.20-160ER-M08 F40M	SPMT100408T-M08 F40M	32,0 *1.3*	0,14 *0.0055*	0,14 *0.0055*	0,15 *0.0060*	0,22 0.0085	0,32 0.013
P11	218.20-160ER-M08 F40M	SPMT100408T-M08 F40M	32,0 *1.3*	0,13 *0.0050*	0,13 *0.0050*	0,14 *0.0055*	0,22 0.0085	0,30 0.012
P12	218.20-160ER-M08 F40M	SPMT100408T-M08 F40M	26,0 *1.0*	0,090 *0.0036*	0,090 *0.0036*	0,095 *0.0038*	0,15 0.0060	0,20 0.0080
M1	218.20-160ER-ME08 MS2050	SPMT100408T-M08 F40M	32,0 *1.3*	0,11 *0.0044*	0,11 *0.0044*	0,12 *0.0048*	0,19 0.0075	0,26 0.010
M2	218.20-160ER-ME08 MS2050	SPMT100408T-M08 F40M	32,0 *1.3*	0,10 *0.0040*	0,10 *0.0040*	0,11 *0.0044*	0,17 0.0065	0,24 0.0095
M3	218.20-160ER-ME08 MS2050	SPMT100408T-M08 F40M	26,0 *1.0*	0,085 *0.0034*	0,085 *0.0034*	0,090 *0.0036*	0,14 0.0055	0,19 0.0075
M4	218.20-160ER-ME08 F40M	SPMT100408T-M08 F40M	19,0 *0.75*	0,095 *0.0038*	0,095 *0.0038*	0,10 *0.0040*	0,16 0.0065	0,22 0.0085
M5	218.20-160ER-ME08 F40M	SPMT100408T-M08 F40M	19,0 *0.75*	0,095 *0.0038*	0,095 *0.0038*	0,10 *0.0040*	0,16 0.0065	0,22 0.0085
K1	218.20-160ER-M08 F40M	SPMT100408T-M08 F40M	32,0 *1.3*	0,14 *0.0055*	0,14 *0.0055*	0,16 *0.0065*	0,24 0.0095	0,34 0.013
K2	218.20-160ER-M08 F40M	SPMT100408T-M08 F40M	32,0 *1.3*	0,13 *0.0050*	0,13 *0.0050*	0,14 *0.0055*	0,22 0.0085	0,30 0.012
K3	218.20-160ER-M08 F40M	SPMT100408T-M08 F40M	32,0 *1.3*	0,13 *0.0050*	0,13 *0.0050*	0,14 *0.0055*	0,22 0.0085	0,30 0.012
K4	218.20-160ER-M08 F40M	SPMT100408T-M08 F40M	32,0 *1.3*	0,13 *0.0050*	0,13 *0.0050*	0,14 *0.0055*	0,22 0.0085	0,30 0.012
K5	218.20-160ER-M08 F40M	SPMT100408T-M08 F40M	32,0 *1.3*	0,12 *0.0048*	0,12 *0.0048*	0,13 *0.0050*	0,20 0.0080	0,28 0.011
K6	218.20-160ER-M08 F40M	SPMT100408T-M08 F40M	32,0 *1.3*	0,13 *0.0050*	0,13 *0.0050*	0,14 *0.0055*	0,22 0.0085	0,30 0.012
K7	218.20-160ER-M08 F40M	SPMT100408T-M08 F40M	32,0 *1.3*	0,12 *0.0048*	0,12 *0.0048*	0,13 *0.0050*	0,20 0.0080	0,28 0.011
N1	218.20-160ER-ME08 F40M	SPMT100408T-M08 F40M	32,0 *1.3*	0,18 *0.0070*	0,18 *0.0070*	0,20 *0.0080*	0,30 0.012	0,42 0.017
N2	218.20-160ER-ME08 F40M	SPMT100408T-M08 F40M	32,0 *1.3*	0,18 *0.0070*	0,18 *0.0070*	0,20 *0.0080*	0,30 0.012	0,42 0.017
N3	218.20-160ER-ME08 F40M	SPMT100408T-M08 F40M	32,0 *1.3*	0,18 *0.0070*	0,18 *0.0070*	0,20 *0.0080*	0,30 0.012	0,42 0.017
N11	218.20-160ER-ME08 F40M	SPMT100408T-M08 F40M	32,0 *1.3*	0,18 *0.0070*	0,18 *0.0070*	0,20 *0.0080*	0,30 0.012	0,42 0.017
S1	218.20-160ER-ME08 F40M	SPMT100408T-M08 F40M	19,0 *0.75*	0,095 *0.0038*	0,095 *0.0038*	0,10 *0.0040*	0,16 0.0065	0,22 0.0085
S2	218.20-160ER-ME08 F40M	SPMT100408T-M08 F40M	19,0 *0.75*	0,095 *0.0038*	0,095 *0.0038*	0,10 *0.0040*	0,16 0.0065	0,22 0.0085
S3	218.20-160ER-ME08 F40M	SPMT100408T-M08 F40M	19,0 *0.75*	0,085 *0.0034*	0,085 *0.0034*	0,095 *0.0038*	0,15 0.0055	0,20 0.0080
S11	218.20-160ER-ME08 MS2050	SPMT100408T-M08 F40M	23,0 *0.90*	0,085 *0.0034*	0,085 *0.0034*	0,090 *0.0036*	0,14 0.0055	0,20 0.0080
S12	218.20-160ER-ME08 MS2050	SPMT100408T-M08 F40M	23,0 *0.90*	0,085 *0.0034*	0,085 *0.0034*	0,090 *0.0036*	0,14 0.0055	0,20 0.0080
S13	218.20-160ER-ME08 MS2050	SPMT100408T-M08 F40M	19,0 *0.75*	0,075 *0.0030*	0,075 *0.0030*	0,080 *0.0032*	0,12 0.0048	0,17 0.0065
H5	218.20-160ER-M08 F40M	SPMT100408T-M08 F40M	26,0 *1.0*	0,090 *0.0036*	0,090 *0.0036*	0,095 *0.0038*	0,15 0.0060	0,20 0.0080
H8	218.20-160ER-M08 F40M	SPMT100408T-M08 F40M	23,0 *0.90*	0,070 *0.0028*	0,070 *0.0028*	0,075 *0.0030*	0,11 0.0044	0,16 0.0065
H11	218.20-160ER-M08 F40M	SPMT100408T-M08 F40M	26,0 *1.0*	0,090 *0.0036*	0,090 *0.0036*	0,095 *0.0038*	0,15 0.0060	0,20 0.0080
H12	218.20-160ER-M08 F40M	SPMT100408T-M08 F40M	23,0 *0.90*	0,070 *0.0028*	0,070 *0.0028*	0,075 *0.0030*	0,11 0.0044	0,16 0.0065

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

R218.20-160 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	F25M					MS2050					F40M					MM4500				
	100%	70%	30%	10%	5%	100%	70%	30%	10%	5%	100%	70%	30%	10%	5%	100%	70%	30%	10%	5%
P1	230 *750*	250 *820*	300 *980*	360 *1175*	390 *1275*	260 *850*	280 *920*	340 *1125*	405 *1325*	435 *1425*	210 *690*	225 *740*	275 *900*	325 *1075*	355 *1175*	180 *590*	195 *640*	235 *770*	280 *920*	305 *1000*
P2	225 *740*	240 *790*	295 *970*	345 *1125*	380 *1250*	250 *820*	270 *890*	330 *1075*	390 *1275*	425 *1400*	205 *670*	220 *720*	270 *890*	315 *1025*	345 *1125*	175 *570*	190 *620*	230 *750*	270 *890*	295 *970*
P3	195 *640*	210 *690*	260 *850*	300 *980*	330 *1075*	220 *720*	240 *790*	290 *950*	340 *1125*	370 *1225*	180 *590*	190 *620*	235 *770*	275 *900*	300 *980*	155 *510*	165 *540*	200 *660*	235 *770*	260 *850*
P4	170 *560*	185 *610*	225 *740*	265 *870*	290 *950*	195 *640*	210 *690*	255 *840*	300 *980*	330 *1075*	155 *510*	170 *560*	205 *670*	240 *790*	265 *870*	135 *445*	145 *475*	175 *570*	210 *690*	230 *750*
P5	165 *540*	180 *590*	215 *710*	260 *850*	280 *920*	185 *610*	200 *660*	245 *800*	290 *950*	315 *1025*	150 *490*	160 *520*	195 *640*	235 *770*	255 *840*	130 *425*	140 *460*	170 *560*	205 *670*	220 *720*
P6	185 *610*	200 *660*	245 *800*	290 *950*	315 *1025*	210 *690*	225 *740*	270 *890*	325 *1075*	350 *1150*	170 *560*	180 *590*	220 *720*	265 *870*	285 *940*	145 *475*	155 *510*	190 *620*	225 *740*	245 *800*
P7	175 *570*	190 *620*	230 *750*	275 *900*	295 *970*	195 *640*	215 *710*	255 *840*	305 *1000*	330 *1075*	160 *520*	170 *560*	210 *690*	250 *820*	270 *890*	135 *445*	145 *475*	180 *590*	215 *710*	230 *750*
P8	165 *540*	180 *590*	215 *710*	255 *840*	280 *920*	185 *610*	200 *660*	245 *800*	285 *940*	310 *1025*	150 *490*	160 *520*	195 *640*	230 *750*	255 *840*	130 *425*	140 *460*	170 *560*	200 *660*	220 *720*
P11	170 *560*	185 *610*	225 *740*	265 *870*	285 *940*	190 *620*	205 *670*	250 *820*	295 *970*	325 *1075*	155 *510*	165 *540*	205 *670*	240 *790*	260 *850*	135 *445*	145 *475*	175 *570*	210 *690*	225 *740*
P12	120 *395*	125 *410*	145 *475*	170 *560*	185 *610*	130 *425*	140 *460*	165 *540*	190 *620*	205 *670*	105 *345*	115 *375*	135 *445*	155 *510*	170 *560*	90 *295*	100 *330*	115 *375*	135 *445*	145 *475*
M1	— —	— —	— —	— —	— —	205 *670*	220 *720*	265 *870*	315 *1025*	340 *1125*	165 *540*	175 *570*	215 *710*	255 *840*	280 *920*	150 *490*	160 *520*	200 *660*	235 *770*	255 *840*
M2	— —	— —	— —	— —	— —	165 *540*	180 *590*	220 *720*	260 *850*	280 *920*	135 *445*	145 *475*	175 *570*	210 *690*	230 *750*	125 *410*	135 *445*	160 *520*	195 *640*	210 *690*
M3	— —	— —	— —	— —	— —	145 *475*	150 *490*	180 *590*	210 *690*	225 *740*	115 *375*	125 *410*	145 *475*	170 *560*	185 *610*	105 *345*	115 *375*	135 *445*	155 *510*	170 *560*
M4	— —	— —	— —	— —	— —	115 *375*	120 *395*	140 *460*	160 *520*	175 *570*	95 *310*	100 *330*	115 *375*	130 *425*	140 *460*	85 *280*	90 *295*	105 *345*	120 *395*	130 *425*
M5	— —	— —	— —	— —	— —	95 *310*	100 *330*	115 *375*	130 *425*	145 *475*	80 *260*	80 *260*	95 *310*	110 *360*	120 *395*	70 *230*	75 *245*	85 *280*	100 *330*	110 *360*
K1	175 *570*	190 *620*	235 *770*	275 *900*	300 *980*	— —	— —	— —	— —	— —	160 *520*	175 *570*	210 *690*	250 *820*	275 *900*	— —	— —	— —	— —	— —
K2	155 *510*	170 *560*	205 *670*	245 *800*	265 *870*	— —	— —	— —	— —	— —	140 *460*	155 *510*	185 *610*	225 *740*	240 *790*	— —	— —	— —	— —	— —
K3	130 *425*	145 *475*	175 *570*	210 *690*	225 *740*	— —	— —	— —	— —	— —	120 *395*	130 *425*	160 *520*	190 *620*	205 *670*	— —	— —	— —	— —	— —
K4	125 *410*	135 *445*	165 *540*	200 *660*	215 *710*	— —	— —	— —	— —	— —	115 *375*	125 *410*	150 *490*	180 *590*	195 *640*	— —	— —	— —	— —	— —
K5	80 *260*	85 *280*	100 *330*	120 *395*	130 *425*	— —	— —	— —	— —	— —	70 *230*	75 *245*	95 *310*	110 *360*	120 *395*	— —	— —	— —	— —	— —
K6	110 *360*	120 *395*	145 *475*	175 *570*	190 *620*	— —	— —	— —	— —	— —	100 *330*	110 *360*	135 *445*	160 *520*	170 *560*	— —	— —	— —	— —	— —
K7	100 *330*	110 *360*	130 *425*	155 *510*	170 *560*	— —	— —	— —	— —	— —	90 *295*	100 *330*	120 *395*	140 *460*	155 *510*	— —	— —	— —	— —	— —
N1	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	1200 *3925*	1275 *4175*	1575 *5175*	1850 *6075*	2025 *6650*	— —	— —	— —	— —	— —
N2	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	480 *1575*	520 *1700*	640 *2100*	750 *2450*	820 *2700*	— —	— —	— —	— —	— —
N3	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	320 *1050*	345 *1125*	425 *1400*	500 *1650*	540 *1775*	— —	— —	— —	— —	— —
N11	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	365 *1200*	395 *1300*	485 *1600*	570 *1875*	620 *2025*	— —	— —	— —	— —	— —
S1	— —	— —	— —	— —	— —	55 *180*	55 *180*	65 *215*	75 *245*	80 *260*	44 *145*	46 *150*	55 *180*	60 *195*	65 *215*	26 *85*	28 *90*	32 *105*	36 *120*	40 *130*
S2	— —	— —	— —	— —	— —	43 *140*	45 *150*	55 *180*	60 *195*	65 *215*	35 *115*	37 *120*	43 *140*	49 *160*	55 *180*	21 *70*	22 *70*	26 *85*	29 *95*	32 *105*
S3	— —	— —	— —	— —	— —	38 *125*	40 *130*	46 *150*	50 *165*	55 *180*	31 *100*	32 *105*	38 *125*	43 *140*	47 *155*	19 *60*	19 *60*	23 *75*	26 *85*	28 *90*
S11	— —	— —	— —	— —	— —	75 *245*	80 *260*	90 *295*	105 *345*	115 *375*	60 *195*	65 *215*	75 *245*	85 *280*	95 *310*	36 *120*	38 *125*	45 *150*	50 *165*	55 *180*
S12	— —	— —	— —	— —	— —	50 *165*	55 *180*	65 *215*	75 *245*	80 *260*	41 *135*	44 *145*	50 *165*	60 *195*	65 *215*	33 *110*	35 *115*	41 *135*	47 *155*	50 *165*
S13	— —	— —	— —	— —	— —	30 *100*	31 *100*	37 *120*	42 *140*	46 *150*	25 *80*	26 *85*	30 *100*	34 *110*	37 *120*	20 *65*	21 *70*	24 *80*	27 *90*	30 *100*
H5	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	35 *115*	38 *125*	44 *145*	50 *165*	55 *180*	— —	— —	— —	— —	— —
H8	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	38 *125*	41 *135*	47 *155*	55 *180*	60 *195*	— —	— —	— —	— —	— —
H11	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	45 *150*	48 *155*	55 *180*	65 *215*	70 *230*	— —	— —	— —	— —	— —
H12	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	70 *230*	75 *245*	85 *280*	95 *310*	105 *345*	— —	— —	— —	— —	— —

R218.20-200 – Insert selection – mm/*Inch*

SMG			a_p	f_z				
				100%	70%	30%	10%	5%
P1	218.20-200ER-M10 F40M	SCET120612T-M14 F40M	36,0 *1.4*	0,20 *0.0080*	0,20 *0.0080*	0,22 *0.0085*	0,34 0.013	0,46 0.018
P2	218.20-200ER-M10 F40M	SCET120612T-M14 F40M	36,0 *1.4*	0,20 *0.0080*	0,20 *0.0080*	0,22 *0.0085*	0,34 0.013	0,48 0.019
P3	218.20-200ER-M10 F40M	SCET120612T-M14 F40M	36,0 *1.4*	0,19 *0.0075*	0,19 *0.0075*	0,20 *0.0080*	0,32 0.013	0,44 0.017
P4	218.20-200ER-M10 F40M	SCET120612T-M14 F40M	36,0 *1.4*	0,19 *0.0075*	0,19 *0.0075*	0,20 *0.0080*	0,32 0.013	0,44 0.017
P5	218.20-200ER-M10 F40M	SCET120612T-M14 F40M	36,0 *1.4*	0,18 *0.0070*	0,18 *0.0070*	0,20 *0.0080*	0,30 0.012	0,42 0.017
P6	218.20-200ER-M10 F40M	SCET120612T-M14 F40M	36,0 *1.4*	0,18 *0.0070*	0,18 *0.0070*	0,20 *0.0080*	0,30 0.012	0,42 0.017
P7	218.20-200ER-M10 F40M	SCET120612T-M14 F40M	36,0 *1.4*	0,18 *0.0070*	0,18 *0.0070*	0,20 *0.0080*	0,30 0.012	0,42 0.017
P8	218.20-200ER-M10 F40M	SCET120612T-M14 F40M	36,0 *1.4*	0,19 *0.0075*	0,19 *0.0075*	0,20 *0.0080*	0,32 0.013	0,44 0.017
P11	218.20-200ER-M10 F40M	SCET120612T-M14 F40M	36,0 *1.4*	0,18 *0.0070*	0,18 *0.0070*	0,20 *0.0080*	0,30 0.012	0,42 0.017
P12	218.20-200ER-M10 F40M	SCET120612T-M14 F40M	29,0 *1.1*	0,13 *0.0050*	0,13 *0.0050*	0,14 *0.0055*	0,22 0.0085	0,30 0.012
M1	218.20-200ER-ME10 MS2050	SCET120612T-ME10 MS2050	36,0 *1.4*	0,14 *0.0055*	0,14 *0.0055*	0,16 *0.0065*	0,24 0.0095	0,34 0.013
M2	218.20-200ER-ME10 MS2050	SCET120612T-ME10 MS2050	36,0 *1.4*	0,13 *0.0050*	0,13 *0.0050*	0,14 *0.0055*	0,22 0.0085	0,30 0.012
M3	218.20-200ER-ME10 MS2050	SCET120612T-ME10 MS2050	29,0 *1.1*	0,11 *0.0044*	0,11 *0.0044*	0,12 *0.0048*	0,18 0.0070	0,24 0.0095
M4	218.20-200ER-ME10 F40M	SCET120612T-ME10 F40M	22,0 *0.85*	0,13 *0.0050*	0,13 *0.0050*	0,14 *0.0055*	0,22 0.0085	0,30 0.012
M5	218.20-200ER-ME10 F40M	SCET120612T-ME10 F40M	22,0 *0.85*	0,13 *0.0050*	0,13 *0.0050*	0,14 *0.0055*	0,22 0.0085	0,30 0.012
K1	218.20-200ER-M10 F40M	SCET120612T-M14 F40M	36,0 *1.4*	0,20 *0.0080*	0,20 *0.0080*	0,22 *0.0085*	0,34 0.013	0,48 0.019
K2	218.20-200ER-M10 F40M	SCET120612T-M14 F40M	36,0 *1.4*	0,18 *0.0070*	0,18 *0.0070*	0,20 *0.0080*	0,30 0.012	0,42 0.017
K3	218.20-200ER-M10 F40M	SCET120612T-M14 F40M	36,0 *1.4*	0,18 *0.0070*	0,18 *0.0070*	0,20 *0.0080*	0,30 0.012	0,42 0.017
K4	218.20-200ER-M10 F40M	SCET120612T-M14 F40M	36,0 *1.4*	0,18 *0.0070*	0,18 *0.0070*	0,20 *0.0080*	0,30 0.012	0,42 0.017
K5	218.20-200ER-M10 F40M	SCET120612T-M14 F40M	36,0 *1.4*	0,16 *0.0065*	0,16 *0.0065*	0,18 *0.0070*	0,28 0.011	0,38 0.015
K6	218.20-200ER-M10 F40M	SCET120612T-M14 F40M	36,0 *1.4*	0,18 *0.0070*	0,18 *0.0070*	0,20 *0.0080*	0,30 0.012	0,42 0.017
K7	218.20-200ER-M10 F40M	SCET120612T-M14 F40M	36,0 *1.4*	0,16 *0.0065*	0,16 *0.0065*	0,18 *0.0070*	0,28 0.011	0,38 0.015
N1	218.20-200ER-ME10 F40M	SCET120612T-M14 HX	36,0 *1.4*	0,26 *0.010*	0,26 *0.010*	0,28 *0.011*	0,44 0.017	0,60 0.024
N2	218.20-200ER-ME10 F40M	SCET120612T-M14 HX	36,0 *1.4*	0,26 *0.010*	0,26 *0.010*	0,28 *0.011*	0,44 0.017	0,60 0.024
N3	218.20-200ER-ME10 F40M	SCET120612T-M14 HX	36,0 *1.4*	0,26 *0.010*	0,26 *0.010*	0,28 *0.011*	0,44 0.017	0,60 0.024
N11	218.20-200ER-ME10 F40M	SCET120612T-M14 HX	36,0 *1.4*	0,26 *0.010*	0,26 *0.010*	0,28 *0.011*	0,44 0.017	0,60 0.024
S1	218.20-200ER-ME10 F40M	SCET120612T-M14 F40M	22,0 *0.85*	0,13 *0.0050*	0,13 *0.0050*	0,14 *0.0055*	0,22 0.0085	0,30 0.012
S2	218.20-200ER-ME10 F40M	SCET120612T-M14 F40M	22,0 *0.85*	0,13 *0.0050*	0,13 *0.0050*	0,14 *0.0055*	0,22 0.0085	0,30 0.012
S3	218.20-200ER-ME10 F40M	SCET120612T-M14 F40M	22,0 *0.85*	0,12 *0.0048*	0,12 *0.0048*	0,13 *0.0050*	0,20 0.0080	0,28 0.011
S11	218.20-200ER-ME10 MS2050	SCET120612T-ME10 MS2050	25,0 *1.0*	0,11 *0.0044*	0,11 *0.0044*	0,12 *0.0048*	0,18 0.0070	0,25 0.010
S12	218.20-200ER-ME10 MS2050	SCET120612T-ME10 MS2050	25,0 *1.0*	0,11 *0.0044*	0,11 *0.0044*	0,12 *0.0048*	0,18 0.0070	0,25 0.010
S13	218.20-200ER-ME10 MS2050	SCET120612T-ME10 MS2050	22,0 *0.85*	0,095 *0.0038*	0,095 *0.0038*	0,10 *0.0040*	0,16 0.0065	0,22 0.0085
H5	218.20-200ER-M10 F40M	SCET120612T-M14 F40M	29,0 *1.1*	0,13 *0.0050*	0,13 *0.0050*	0,14 *0.0055*	0,22 0.0085	0,30 0.012
H8	218.20-200ER-M10 F40M	SCET120612T-M14 F40M	25,0 *1.0*	0,095 *0.0038*	0,095 *0.0038*	0,11 *0.0044*	0,16 0.0065	0,22 0.0085
H11	218.20-200ER-M10 F40M	SCET120612T-M14 F40M	29,0 *1.1*	0,13 *0.0050*	0,13 *0.0050*	0,14 *0.0055*	0,22 0.0085	0,30 0.012
H12	218.20-200ER-M10 F40M	SCET120612T-M14 F40M	25,0 *1.0*	0,095 *0.0038*	0,095 *0.0038*	0,11 *0.0044*	0,16 0.0065	0,22 0.0085

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

R218.20-200 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	MS2050					F40M					MM4500				
	100%	70%	30%	10%	5%	100%	70%	30%	10%	5%	100%	70%	30%	10%	5%
P1	245 *800*	265 *870*	320 *1050*	385 *1275*	415 *1350*	195 *640*	210 *690*	255 *840*	300 *980*	325 *1075*	165 *540*	180 *590*	220 *720*	260 *850*	280 *920*
P2	240 *790*	255 *840*	315 *1025*	370 *1225*	405 *1325*	185 *610*	195 *640*	245 *800*	290 *950*	315 *1025*	160 *520*	170 *560*	210 *690*	250 *820*	270 *890*
P3	210 *690*	225 *740*	275 *900*	320 *1050*	355 *1175*	160 *520*	175 *570*	210 *690*	255 *840*	275 *900*	140 *460*	150 *490*	180 *590*	220 *720*	235 *770*
P4	185 *610*	200 *660*	240 *790*	290 *950*	310 *1025*	145 *475*	155 *510*	185 *610*	225 *740*	245 *800*	125 *410*	130 *425*	160 *520*	195 *640*	210 *690*
P5	175 *570*	190 *620*	230 *750*	275 *900*	295 *970*	140 *460*	150 *490*	185 *610*	215 *710*	235 *770*	120 *395*	130 *425*	160 *520*	185 *610*	200 *660*
P6	195 *640*	215 *710*	260 *850*	310 *1025*	340 *1125*	155 *510*	165 *540*	205 *670*	240 *790*	265 *870*	135 *445*	145 *475*	175 *570*	205 *670*	225 *740*
P7	185 *610*	200 *660*	245 *800*	290 *950*	320 *1050*	145 *475*	160 *520*	195 *640*	225 *740*	250 *820*	125 *410*	135 *445*	165 *540*	195 *640*	215 *710*
P8	175 *570*	190 *620*	230 *750*	270 *890*	295 *970*	135 *445*	145 *475*	180 *590*	215 *710*	230 *750*	115 *375*	125 *410*	155 *510*	185 *610*	200 *660*
P11	180 *590*	195 *640*	235 *770*	285 *940*	310 *1025*	140 *460*	155 *510*	190 *620*	220 *720*	240 *790*	120 *395*	130 *425*	160 *520*	190 *620*	210 *690*
P12	125 *410*	135 *445*	155 *510*	180 *590*	195 *640*	95 *310*	105 *345*	125 *410*	145 *475*	155 *510*	85 *280*	90 *295*	105 *345*	125 *410*	135 *445*
M1	190 *620*	205 *670*	255 *840*	300 *980*	325 *1075*	150 *490*	160 *520*	200 *660*	235 *770*	255 *840*	135 *445*	145 *475*	180 *590*	215 *710*	235 *770*
M2	160 *520*	170 *560*	210 *690*	250 *820*	265 *870*	125 *410*	135 *445*	165 *540*	195 *640*	210 *690*	115 *375*	125 *410*	150 *490*	175 *570*	195 *640*
M3	135 *445*	145 *475*	170 *560*	200 *660*	215 *710*	105 *345*	115 *375*	135 *445*	155 *510*	170 *560*	95 *310*	105 *345*	120 *395*	145 *475*	155 *510*
M4	110 *360*	115 *375*	135 *445*	150 *490*	165 *540*	85 *280*	90 *295*	105 *345*	120 *395*	135 *445*	80 *260*	80 *260*	95 *310*	110 *360*	120 *395*
M5	90 *295*	95 *310*	110 *360*	125 *410*	140 *460*	70 *230*	75 *245*	90 *295*	100 *330*	110 *360*	65 *215*	70 *230*	80 *260*	95 *310*	100 *330*
K1	— —	— —	— —	— —	— —	145 *475*	155 *510*	195 *640*	230 *750*	250 *820*	— —	— —	— —	— —	— —
K2	— —	— —	— —	— —	— —	130 *425*	140 *460*	175 *570*	205 *670*	220 *720*	— —	— —	— —	— —	— —
K3	— —	— —	— —	— —	— —	110 *360*	120 *395*	145 *475*	170 *560*	190 *620*	— —	— —	— —	— —	— —
K4	— —	— —	— —	— —	— —	105 *345*	115 *375*	140 *460*	165 *540*	180 *590*	— —	— —	— —	— —	— —
K5	— —	— —	— —	— —	— —	65 *215*	70 *230*	85 *280*	100 *330*	110 *360*	— —	— —	— —	— —	— —
K6	— —	— —	— —	— —	— —	95 *310*	100 *330*	125 *410*	145 *475*	160 *520*	— —	— —	— —	— —	— —
K7	— —	— —	— —	— —	— —	85 *280*	90 *295*	110 *360*	130 *425*	140 *460*	— —	— —	— —	— —	— —
N1	— —	— —	— —	— —	— —	1100 *3600*	1175 *3850*	1450 *4750*	1700 *5575*	1850 *6075*	— —	— —	— —	— —	— —
N2	— —	— —	— —	— —	— —	440 *1450*	470 *1550*	580 *1900*	690 *2275*	750 *2450*	— —	— —	— —	— —	— —
N3	— —	— —	— —	— —	— —	295 *970*	315 *1025*	385 *1275*	455 *1500*	500 *1650*	— —	— —	— —	— —	— —
N11	— —	— —	— —	— —	— —	335 *1100*	360 *1175*	445 *1450*	520 *1700*	570 *1875*	— —	— —	— —	— —	— —
S1	50 *165*	55 *180*	60 *195*	70 *230*	80 *260*	40 *130*	42 *140*	49 *160*	55 *180*	60 *195*	24 *80*	25 *80*	30 *100*	34 *110*	37 *120*
S2	41 *135*	43 *140*	50 *165*	55 *180*	65 *215*	32 *105*	33 *110*	40 *130*	46 *150*	50 *165*	20 *65*	20 *65*	24 *80*	27 *90*	30 *100*
S3	36 *120*	38 *125*	44 *145*	50 *165*	55 *180*	28 *90*	30 *100*	35 *115*	40 *130*	44 *145*	17 *55*	18 *60*	21 *70*	24 *80*	26 *85*
S11	70 *230*	75 *245*	85 *280*	100 *330*	110 *360*	55 *180*	60 *195*	70 *230*	80 *260*	85 *280*	33 *110*	35 *115*	41 *135*	48 *155*	50 *165*
S12	48 *155*	50 *165*	60 *195*	70 *230*	75 *245*	38 *125*	40 *130*	47 *155*	55 *180*	60 *195*	31 *100*	32 *105*	38 *125*	44 *145*	47 *155*
S13	29 *95*	30 *100*	35 *115*	40 *130*	44 *145*	23 *75*	23 *75*	28 *90*	32 *105*	35 *115*	18 *60*	19 *60*	22 *70*	26 *85*	28 *90*
H5	— —	— —	— —	— —	— —	32 *105*	34 *110*	41 *135*	48 *155*	50 *165*	— —	— —	— —	— —	— —
H8	— —	— —	— —	— —	— —	35 *115*	37 *120*	44 *145*	50 *165*	55 *180*	— —	— —	— —	— —	— —
H11	— —	— —	— —	— —	— —	41 *135*	44 *145*	50 *165*	60 *195*	65 *215*	— —	— —	— —	— —	— —
H12	— —	— —	— —	— —	— —	65 *215*	65 *215*	80 *260*	90 *295*	100 *330*	— —	— —	— —	— —	— —

R218.20-250 – Insert selection – mm/*Inch*

SMG			a_p	f_z				
				100%	70%	30%	10%	5%
P1	218.20-250TR-M14 F40M	SCET120612T-M14 F40M	42,0 *1.7*	0,20 *0.0080*	0,20 *0.0080*	0,22 *0.0085*	0,34 0.013	0,46 0.018
P2	218.20-250TR-M14 F40M	SCET120612T-M14 F40M	42,0 *1.7*	0,20 *0.0080*	0,20 *0.0080*	0,22 *0.0085*	0,34 0.013	0,46 0.019
P3	218.20-250TR-M14 F40M	SCET120612T-M14 F40M	42,0 *1.7*	0,19 *0.0075*	0,19 *0.0075*	0,20 *0.0080*	0,32 0.013	0,44 0.017
P4	218.20-250TR-M14 F40M	SCET120612T-M14 F40M	42,0 *1.7*	0,19 *0.0075*	0,19 *0.0075*	0,20 *0.0080*	0,32 0.013	0,44 0.017
P5	218.20-250TR-M14 F40M	SCET120612T-M14 F40M	42,0 *1.7*	0,18 *0.0070*	0,18 *0.0070*	0,20 *0.0080*	0,30 0.012	0,42 0.017
P6	218.20-250TR-M14 F40M	SCET120612T-M14 F40M	42,0 *1.7*	0,18 *0.0070*	0,18 *0.0070*	0,20 *0.0080*	0,30 0.012	0,42 0.017
P7	218.20-250TR-M14 F40M	SCET120612T-M14 F40M	42,0 *1.7*	0,18 *0.0070*	0,18 *0.0070*	0,20 *0.0080*	0,30 0.012	0,42 0.017
P8	218.20-250TR-M14 F40M	SCET120612T-M14 F40M	42,0 *1.7*	0,19 *0.0075*	0,19 *0.0075*	0,20 *0.0080*	0,32 0.013	0,44 0.017
P11	218.20-250TR-M14 F40M	SCET120612T-M14 F40M	42,0 *1.7*	0,18 *0.0070*	0,18 *0.0070*	0,20 *0.0080*	0,30 0.012	0,42 0.017
P12	218.20-250TR-M14 F40M	SCET120612T-M14 F40M	34,0 *1.3*	0,13 *0.0050*	0,13 *0.0050*	0,14 *0.0055*	0,22 0.0085	0,30 0.012
M1	218.20-250ER-ME12 MS2050	SCET120612T-ME10 MS2050	42,0 *1.7*	0,17 *0.0065*	0,17 *0.0065*	0,19 *0.0075*	0,28 0.011	0,40 0.016
M2	218.20-250ER-ME12 MS2050	SCET120612T-ME10 MS2050	42,0 *1.7*	0,16 *0.0065*	0,16 *0.0065*	0,17 *0.0065*	0,26 0.010	0,36 0.014
M3	218.20-250ER-ME12 MS2050	SCET120612T-ME10 MS2050	34,0 *1.3*	0,13 *0.0050*	0,13 *0.0050*	0,14 *0.0055*	0,22 0.0085	0,30 0.012
M4	218.20-250ER-ME12 F40M	SCET120612T-ME10 F40M	25,0 *1.0*	0,12 *0.0048*	0,12 *0.0048*	0,12 *0.0048*	0,19 0.0075	0,26 0.010
M5	218.20-250ER-ME12 F40M	SCET120612T-ME10 F40M	25,0 *1.0*	0,12 *0.0048*	0,12 *0.0048*	0,12 *0.0048*	0,19 0.0075	0,26 0.010
K1	218.20-250TR-M14 F40M	SCET120612T-M14 F40M	42,0 *1.7*	0,20 *0.0080*	0,20 *0.0080*	0,22 *0.0085*	0,34 0.013	0,46 0.019
K2	218.20-250TR-M14 F40M	SCET120612T-M14 F40M	42,0 *1.7*	0,18 *0.0070*	0,18 *0.0070*	0,20 *0.0080*	0,30 0.012	0,42 0.017
K3	218.20-250TR-M14 F40M	SCET120612T-M14 F40M	42,0 *1.7*	0,18 *0.0070*	0,18 *0.0070*	0,20 *0.0080*	0,30 0.012	0,42 0.017
K4	218.20-250TR-M14 F40M	SCET120612T-M14 F40M	42,0 *1.7*	0,18 *0.0070*	0,18 *0.0070*	0,20 *0.0080*	0,30 0.012	0,42 0.017
K5	218.20-250TR-M14 F40M	SCET120612T-M14 F40M	42,0 *1.7*	0,16 *0.0065*	0,16 *0.0065*	0,18 *0.0070*	0,28 0.011	0,38 0.015
K6	218.20-250TR-M14 F40M	SCET120612T-M14 F40M	42,0 *1.7*	0,18 *0.0070*	0,18 *0.0070*	0,20 *0.0080*	0,30 0.012	0,42 0.017
K7	218.20-250TR-M14 F40M	SCET120612T-M14 F40M	42,0 *1.7*	0,16 *0.0065*	0,16 *0.0065*	0,18 *0.0070*	0,28 0.011	0,38 0.015
N1	218.20-250ER-ME12 F40M	SCET120612T-M14 HX	42,0 *1.7*	0,22 *0.0085*	0,22 *0.0085*	0,24 *0.0095*	0,36 0.014	0,50 0.020
N2	218.20-250ER-ME12 F40M	SCET120612T-M14 HX	42,0 *1.7*	0,22 *0.0085*	0,22 *0.0085*	0,24 *0.0095*	0,36 0.014	0,50 0.020
N3	218.20-250ER-ME12 F40M	SCET120612T-M14 HX	42,0 *1.7*	0,22 *0.0085*	0,22 *0.0085*	0,24 *0.0095*	0,36 0.014	0,50 0.020
N11	218.20-250ER-ME12 F40M	SCET120612T-M14 HX	42,0 *1.7*	0,22 *0.0085*	0,22 *0.0085*	0,24 *0.0095*	0,36 0.014	0,50 0.020
S1	218.20-250ER-ME12 F40M	SCET120612T-ME10 F40M	25,0 *1.0*	0,12 *0.0048*	0,12 *0.0048*	0,12 *0.0048*	0,19 0.0075	0,26 0.010
S2	218.20-250ER-ME12 F40M	SCET120612T-ME10 F40M	25,0 *1.0*	0,12 *0.0048*	0,12 *0.0048*	0,12 *0.0048*	0,19 0.0075	0,26 0.010
S3	218.20-250ER-ME12 F40M	SCET120612T-ME10 F40M	25,0 *1.0*	0,11 *0.0044*	0,11 *0.0044*	0,12 *0.0048*	0,18 0.0070	0,24 0.0095
S11	218.20-250ER-ME12 MS2050	SCET120612T-ME10 MS2050	29,0 *1.1*	0,13 *0.0050*	0,13 *0.0050*	0,14 *0.0055*	0,22 0.0085	0,30 0.012
S12	218.20-250ER-ME12 MS2050	SCET120612T-ME10 MS2050	29,0 *1.1*	0,13 *0.0050*	0,13 *0.0050*	0,14 *0.0055*	0,22 0.0085	0,30 0.012
S13	218.20-250ER-ME12 MS2050	SCET120612T-ME10 MS2050	25,0 *1.0*	0,12 *0.0048*	0,12 *0.0048*	0,12 *0.0048*	0,19 0.0075	0,26 0.010
H5	218.20-250TR-M14 F40M	SCET120612T-M14 F40M	34,0 *1.3*	0,13 *0.0050*	0,13 *0.0050*	0,14 *0.0055*	0,22 0.0085	0,30 0.012
H8	218.20-250TR-M14 F40M	SCET120612T-M14 F40M	29,0 *1.1*	0,10 *0.0040*	0,10 *0.0040*	0,11 *0.0044*	0,16 0.0065	0,22 0.0085
H11	218.20-250TR-M14 F40M	SCET120612T-M14 F40M	34,0 *1.3*	0,13 *0.0050*	0,13 *0.0050*	0,14 *0.0055*	0,22 0.0085	0,30 0.012
H12	218.20-250TR-M14 F40M	SCET120612T-M14 F40M	29,0 *1.1*	0,10 *0.0040*	0,10 *0.0040*	0,11 *0.0044*	0,16 0.0065	0,22 0.0085

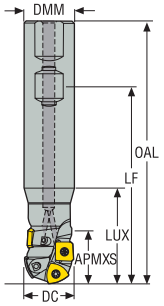
SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

R218.20-250 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	MS2050					F40M					MM4500				
	100%	70%	30%	10%	5%	100%	70%	30%	10%	5%	100%	70%	30%	10%	5%
P1	210 *690*	230 *750*	280 *920*	335 *1100*	360 *1175*	170 *560*	185 *610*	230 *750*	270 *890*	295 *970*	155 *510*	170 *560*	210 *690*	245 *800*	265 *870*
P2	205 *670*	225 *740*	270 *890*	325 *1075*	350 *1150*	165 *540*	180 *590*	220 *720*	265 *870*	285 *940*	150 *490*	165 *540*	200 *660*	240 *790*	255 *840*
P3	180 *590*	195 *640*	235 *770*	280 *920*	305 *1000*	145 *475*	160 *520*	195 *640*	230 *750*	250 *820*	130 *425*	145 *475*	175 *570*	205 *670*	225 *740*
P4	160 *520*	170 *560*	210 *690*	250 *820*	270 *890*	130 *425*	140 *460*	175 *570*	205 *670*	220 *720*	115 *375*	125 *410*	155 *510*	185 *610*	195 *640*
P5	150 *490*	165 *540*	200 *660*	240 *790*	260 *850*	125 *410*	135 *445*	165 *540*	195 *640*	215 *710*	110 *360*	120 *395*	150 *490*	175 *570*	190 *620*
P6	170 *560*	185 *610*	225 *740*	270 *890*	290 *950*	140 *460*	150 *490*	185 *610*	220 *720*	240 *790*	125 *410*	135 *445*	165 *540*	200 *660*	215 *710*
P7	160 *520*	175 *570*	215 *710*	255 *840*	275 *900*	130 *425*	145 *475*	175 *570*	210 *690*	225 *740*	120 *395*	130 *425*	160 *520*	185 *610*	200 *660*
P8	150 *490*	165 *540*	200 *660*	235 *770*	255 *840*	125 *410*	135 *445*	165 *540*	195 *640*	210 *690*	110 *360*	120 *395*	145 *475*	175 *570*	190 *620*
P11	155 *510*	170 *560*	210 *690*	245 *800*	265 *870*	130 *425*	140 *460*	170 *560*	205 *670*	220 *720*	115 *375*	125 *410*	155 *510*	180 *590*	195 *640*
P12	105 *345*	110 *360*	135 *445*	160 *520*	170 *560*	85 *280*	90 *295*	110 *360*	135 *445*	145 *475*	75 *245*	85 *280*	100 *330*	115 *375*	125 *410*
M1	165 *540*	180 *590*	220 *720*	260 *850*	280 *920*	135 *445*	145 *475*	180 *590*	210 *690*	230 *750*	130 *425*	140 *460*	170 *560*	205 *670*	220 *720*
M2	135 *445*	150 *490*	180 *590*	215 *710*	235 *770*	110 *360*	120 *395*	150 *490*	175 *570*	190 *620*	105 *345*	115 *375*	140 *460*	170 *560*	185 *610*
M3	110 *360*	120 *395*	145 *475*	170 *560*	185 *610*	90 *295*	100 *330*	120 *395*	140 *460*	155 *510*	90 *295*	95 *310*	115 *375*	135 *445*	145 *475*
M4	95 *310*	100 *330*	115 *375*	135 *445*	145 *475*	75 *245*	80 *260*	95 *310*	110 *360*	120 *395*	75 *245*	80 *260*	90 *295*	105 *345*	115 *375*
M5	75 *245*	85 *280*	95 *310*	110 *360*	120 *395*	65 *215*	70 *230*	80 *260*	90 *295*	100 *330*	60 *195*	65 *215*	75 *245*	90 *295*	95 *310*
K1	— —	— —	— —	— —	— —	135 *445*	145 *475*	175 *570*	210 *690*	225 *740*	— —	— —	— —	— —	— —
K2	— —	— —	— —	— —	— —	120 *395*	130 *425*	155 *510*	185 *610*	200 *660*	— —	— —	— —	— —	— —
K3	— —	— —	— —	— —	— —	100 *330*	110 *360*	135 *445*	160 *520*	170 *560*	— —	— —	— —	— —	— —
K4	— —	— —	— —	— —	— —	95 *310*	105 *345*	125 *410*	150 *490*	165 *540*	— —	— —	— —	— —	— —
K5	— —	— —	— —	— —	— —	60 *195*	65 *215*	80 *260*	90 *295*	100 *330*	— —	— —	— —	— —	— —
K6	— —	— —	— —	— —	— —	85 *280*	90 *295*	110 *360*	135 *445*	145 *475*	— —	— —	— —	— —	— —
K7	— —	— —	— —	— —	— —	75 *245*	80 *260*	100 *330*	115 *375*	130 *425*	— —	— —	— —	— —	— —
N1	— —	— —	— —	— —	— —	970 *3175*	1050 *3450*	1300 *4275*	1525 *5000*	1675 *5500*	— —	— —	— —	— —	— —
N2	— —	— —	— —	— —	— —	390 *1275*	425 *1400*	520 *1700*	620 *2025*	670 *2200*	— —	— —	— —	— —	— —
N3	— —	— —	— —	— —	— —	260 *850*	280 *920*	350 *1150*	410 *1350*	450 *1475*	— —	— —	— —	— —	— —
N11	— —	— —	— —	— —	— —	295 *970*	320 *1050*	400 *1300*	470 *1550*	510 *1675*	— —	— —	— —	— —	— —
S1	43 *140*	47 *155*	55 *180*	65 *215*	70 *230*	36 *120*	38 *125*	44 *145*	50 *165*	55 *180*	22 *70*	24 *80*	28 *90*	32 *105*	35 *115*
S2	35 *115*	38 *125*	43 *140*	50 *165*	55 *180*	29 *95*	31 *100*	36 *120*	41 *135*	45 *150*	18 *60*	19 *60*	22 *70*	26 *85*	28 *90*
S3	31 *100*	32 *105*	38 *125*	44 *145*	48 *155*	25 *80*	27 *90*	31 *100*	36 *120*	39 *130*	16 *50*	17 *55*	19 *60*	23 *75*	25 *80*
S11	60 *195*	65 *215*	75 *245*	85 *280*	95 *310*	48 *155*	50 *165*	60 *195*	70 *230*	80 *260*	30 *100*	32 *105*	38 *125*	44 *145*	48 *155*
S12	40 *130*	43 *140*	50 *165*	60 *195*	65 *215*	33 *110*	36 *120*	42 *140*	50 *165*	55 *180*	28 *90*	30 *100*	35 *115*	41 *135*	45 *150*
S13	24 *80*	26 *85*	30 *100*	35 *115*	38 *125*	20 *65*	22 *70*	25 *80*	29 *95*	31 *100*	17 *55*	18 *60*	21 *70*	24 *80*	26 *85*
H5	— —	— —	— —	— —	— —	28 *90*	31 *100*	37 *120*	44 *145*	48 *155*	— —	— —	— —	— —	— —
H8	— —	— —	— —	— —	— —	31 *100*	34 *110*	40 *130*	46 *150*	50 *165*	— —	— —	— —	— —	— —
H11	— —	— —	— —	— —	— —	36 *120*	39 *130*	47 *155*	55 *180*	60 *195*	— —	— —	— —	— —	— —
H12	— —	— —	— —	— —	— —	55 *180*	60 *195*	70 *230*	85 *280*	90 *295*	— —	— —	— —	— —	— —

R218.19 – Metric





- For insert selection and cutting data recommendations, see page(s) 697-709
- For complete insert programme, see page(s) 837, 855
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	ZEFP	APMXS	DMM	LS	OAL	LUX	RPMX	Weight	218.19	SPMT
			mm		mm	mm	mm	mm	mm		kg		
R218.19-2016.3-17.050A	75069117	Weldon	16,0	1	17,5	20,0	60,0	100,0	31,0	41600	0,3	-080(2)	-0602(2)
R218.19-2520.3-21.069A	75069118	Weldon	20,0	1	21,6	25,0	82,5	125,0	31,0	26200	0,4	-100(2)	-0703(2)
R218.19-2525.3-26.074HA	75069119	Weldon	25,0	1	26,6	25,0	82,5	130,0	46,0	21700	0,5	-125(2)	-0903(2)
R218.19-3232.3-30.070HA	75069120	Weldon	32,0	1	31,2	32,0	82,5	130,0	46,0	14800	0,7	-160(2)	–

Spare Parts, included in delivery

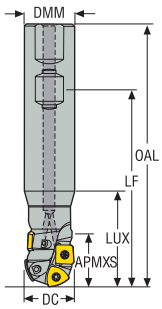
For cutter	Insert key	Insert screw
		
R218.19-2016	H4B-T07P	C02205-T07P
R218.19-2520	H4B-T07P	C02506-T07P
R218.19-2525	H4B-T09P	C03006-T09P
R218.19-3232	H4B-T15P	C03508-T15P

Accessories

For cutter	Insert clamping torque	Torque key
		
R218.19-2016	0.9NM	T00-07P09
R218.19-2520	0.9NM	T00-07P09
R218.19-2525	2.0NM	T00-09P20
R218.19-3232	3.0NM	T00-15P30

Torque and fixed keys, see page 872

R218.19 – inch





- For insert selection and cutting data recommendations, see page(s) 697-709
- For complete insert programme, see page(s) 837, 855
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	ZEFP	APMXS	DMM	LS	OAL	LUX	RPMX	Weight	218.19	SPMX
			inch		inch	inch	inch	inch	inch		lbs		
R218.19-00.75-3-21M	00087573	Weldon	0.750	1	0.835	0.750	2.583	4.031	1.425	26200	0.660	100 (2)	0703 (2)
R218.19-01.00-3-26H	00087575	Weldon	1.000	1	1.063	1.000	2.835	5.031	2.173	21700	1.100	125 (2)	0903 (2)

Spare Parts, included in delivery

For cutter	Insert key	Insert screw
		
R218.19-00.75	H4B-T07P	C02506-T07P
R218.19-01.00	H4B-T09P	C03006-T09P

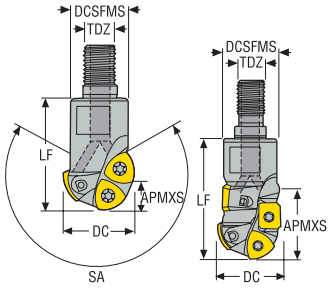
Accessories

For cutter	Insert clamping torque	Torque key
		
R218.19-00.750	8.0IN.LBS	T00-07P09
R218.19-01.00	17.7IN.LBS	T00-09P20

Torque and fixed keys, see page 872

R218.19 – Metric





- For insert selection and cutting data recommendations, see page(s) 697-709
- For complete insert programme, see page(s) 837, 855
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	ZEFP	APMXS	DCSFMS	TDZ	LF	RPMX	Weight	218.19	SPMX	SPMT
			mm		mm	mm		mm		kg			
R218.19-0816.RE-12A	02644033	Combimaster	16,0	1	12,0	13,5	M8	23,0	41600	0,1	-080(2)	-0602	–
R218.19-1020.RE-16A	02644034	Combimaster	20,0	1	16,0	18,0	M10	28,0	26200	0,1	-100(2)	-0703	–
R218.19-1220.RE-21A	75077649	Combimaster	20,0	1	21,6	21,0	M12	45,0	26200	0,2	-100(2)	-0703(2)	–
R218.19-1225.RE-26HA	75094632	Combimaster	25,0	1	26,6	21,0	M12	45,0	21700	0,1	-125(2)	-0903(2)	–
R218.19-1632.RE-36HA	75077650	Combimaster	32,0	1	38,6	28,0	M16	55,0	14800	0,3	-160(2)	–	-1004(3)
R218.19-1225.RE-14HFA	75094633	Combimaster	25,0	1	12,5	21,0	M12	40,0	21700	0,2	-125(3)	–	–
R218.19-1632.RE-18HFA	75094580	Combimaster	32,0	1	16,0	28,0	M16	40,0	14800	0,2	-160(3)	–	–
R218.19-1640.RE-25HFA	00089918	Combimaster	40,0	1	20,0	28,0	M16	50,0	10400	0,3	-200(3)	–	–

For Combimaster Shanks, see Machining Navigator Tooling System

Spare Parts, included in delivery

For cutter	Insert key	Insert screw
		
R218.19-0816	H4B-T07P	C02205-T07P
R218.19-1020	H4B-T07P	C02506-T07P
R218.19-1220	H4B-T07P	C02506-T07P
R218.19-1225	H4B-T09P	C03006-T09P
R218.19-1632	H4B-T15P	C03508-T15P
R218.19-1640	H6B-T20P	C45011-T20P

Accessories

For cutter	Insert clamping torque	Torque key
		
R218.19-0816-1220	0.9NM	T00-07P09
R218.19-1225	2.0NM	T00-09P20
R218.19-1632	3.0NM	T00-15P30
R218.19-1640	5.0NM	T00-20P50

Torque and fixed keys, see page 872

R218.19-080 – Insert selection – mm/*Inch*

SMG			a_p	f_z				
				100%	70%	30%	10%	5%
P1	218.19-080T-M04 F40M	SPMX060204-75 F40M	11,0 *0.44*	0,15 *0.0060*	0,15 *0.0060*	0,16 *0.0065*	0,25 0.010	0,36 0.014
P2	218.19-080T-M04 F40M	SPMX060204-75 F40M	11,0 *0.44*	0,15 *0.0060*	0,15 *0.0060*	0,17 *0.0065*	0,26 0.010	0,36 0.014
P3	218.19-080T-M04 F40M	SPMX060204-75 F40M	11,0 *0.44*	0,14 *0.0055*	0,14 *0.0055*	0,16 *0.0065*	0,24 0.0095	0,34 0.013
P4	218.19-080T-M04 F40M	SPMX060204-75 F40M	11,0 *0.44*	0,14 *0.0055*	0,14 *0.0055*	0,15 *0.0060*	0,24 0.0095	0,34 0.013
P5	218.19-080T-M04 F40M	SPMX060204-75 F40M	11,0 *0.44*	0,14 *0.0055*	0,14 *0.0055*	0,15 *0.0060*	0,24 0.0095	0,34 0.013
P6	218.19-080T-M04 F40M	SPMX060204-75 F40M	11,0 *0.44*	0,14 *0.0055*	0,14 *0.0055*	0,15 *0.0060*	0,24 0.0095	0,32 0.013
P7	218.19-080T-M04 F40M	SPMX060204-75 F40M	11,0 *0.44*	0,14 *0.0055*	0,14 *0.0055*	0,15 *0.0060*	0,24 0.0095	0,32 0.013
P8	218.19-080T-M04 F40M	SPMX060204-75 F40M	11,0 *0.44*	0,14 *0.0055*	0,14 *0.0055*	0,16 *0.0065*	0,24 0.0095	0,34 0.013
P11	218.19-080T-M04 F40M	SPMX060204-75 F40M	11,0 *0.44*	0,14 *0.0055*	0,14 *0.0055*	0,15 *0.0060*	0,24 0.0095	0,32 0.013
P12	218.19-080T-M04 F40M	SPMX060204-75 F40M	9,0 *0.36*	0,095 *0.0038*	0,095 *0.0038*	0,10 *0.0040*	0,16 0.0065	0,22 0.0085
M1	218.19-080T-M04 F40M	SPMX060204-75 F40M	11,0 *0.44*	0,15 *0.0060*	0,15 *0.0060*	0,17 *0.0065*	0,26 0.010	0,36 0.014
M2	218.19-080T-M04 F40M	SPMX060204-75 F40M	11,0 *0.44*	0,14 *0.0055*	0,14 *0.0055*	0,15 *0.0060*	0,24 0.0095	0,34 0.013
M3	218.19-080T-M04 F40M	SPMX060204-75 F40M	9,0 *0.36*	0,11 *0.0044*	0,11 *0.0044*	0,12 *0.0048*	0,19 0.0075	0,26 0.010
M4	218.19-080T-M04 F40M	SPMX060204-75 F40M	6,0 *0.24*	0,11 *0.0044*	0,11 *0.0044*	0,11 *0.0044*	0,17 0.0065	0,24 0.0095
M5	218.19-080T-M04 F40M	SPMX060204-75 F40M	6,0 *0.24*	0,11 *0.0044*	0,11 *0.0044*	0,11 *0.0044*	0,17 0.0065	0,24 0.0095
K1	218.19-080T-M04 F40M	SPMX060204-75 F40M	11,0 *0.44*	0,15 *0.0060*	0,15 *0.0060*	0,17 *0.0065*	0,26 0.010	0,36 0.014
K2	218.19-080T-M04 F40M	SPMX060204-75 F40M	11,0 *0.44*	0,14 *0.0055*	0,14 *0.0055*	0,15 *0.0060*	0,24 0.0095	0,34 0.013
K3	218.19-080T-M04 F40M	SPMX060204-75 F40M	11,0 *0.44*	0,14 *0.0055*	0,14 *0.0055*	0,15 *0.0060*	0,24 0.0095	0,34 0.013
K4	218.19-080T-M04 F40M	SPMX060204-75 F40M	11,0 *0.44*	0,14 *0.0055*	0,14 *0.0055*	0,15 *0.0060*	0,24 0.0095	0,34 0.013
K5	218.19-080T-M04 F40M	SPMX060204-75 F40M	11,0 *0.44*	0,12 *0.0048*	0,12 *0.0048*	0,14 *0.0055*	0,22 0.0085	0,30 0.012
K6	218.19-080T-M04 F40M	SPMX060204-75 F40M	11,0 *0.44*	0,14 *0.0055*	0,14 *0.0055*	0,15 *0.0060*	0,24 0.0095	0,34 0.013
K7	218.19-080T-M04 F40M	SPMX060204-75 F40M	11,0 *0.44*	0,12 *0.0048*	0,12 *0.0048*	0,14 *0.0055*	0,22 0.0085	0,30 0.012
N1	218.19-080T-M04 F40M	SPMX060204-75 F40M	11,0 *0.44*	0,19 *0.0075*	0,19 *0.0075*	0,22 *0.0085*	0,34 0.013	0,48 0.019
N2	218.19-080T-M04 F40M	SPMX060204-75 F40M	11,0 *0.44*	0,19 *0.0075*	0,19 *0.0075*	0,22 *0.0085*	0,34 0.013	0,48 0.019
N3	218.19-080T-M04 F40M	SPMX060204-75 F40M	11,0 *0.44*	0,19 *0.0075*	0,19 *0.0075*	0,22 *0.0085*	0,34 0.013	0,48 0.019
N11	218.19-080T-M04 F40M	SPMX060204-75 F40M	11,0 *0.44*	0,19 *0.0075*	0,19 *0.0075*	0,22 *0.0085*	0,34 0.013	0,48 0.019
S1	218.19-080T-M04 F40M	SPMX060204-75 F40M	6,0 *0.24*	0,11 *0.0044*	0,11 *0.0044*	0,11 *0.0044*	0,17 0.0065	0,24 0.0095
S2	218.19-080T-M04 F40M	SPMX060204-75 F40M	6,0 *0.24*	0,11 *0.0044*	0,11 *0.0044*	0,11 *0.0044*	0,17 0.0065	0,24 0.0095
S3	218.19-080T-M04 F40M	SPMX060204-75 F40M	6,0 *0.24*	0,10 *0.0040*	0,10 *0.0040*	0,10 *0.0040*	0,16 0.0065	0,22 0.0085
S11	218.19-080T-M04 F40M	SPMX060204-75 F40M	8,0 *0.32*	0,12 *0.0048*	0,12 *0.0048*	0,12 *0.0048*	0,19 0.0075	0,26 0.010
S12	218.19-080T-M04 F40M	SPMX060204-75 F40M	8,0 *0.32*	0,12 *0.0048*	0,12 *0.0048*	0,12 *0.0048*	0,19 0.0075	0,26 0.010
S13	218.19-080T-M04 F40M	SPMX060204-75 F40M	6,0 *0.24*	0,11 *0.0044*	0,11 *0.0044*	0,11 *0.0044*	0,17 0.0065	0,24 0.0095
H5	218.19-080T-M04 F40M	SPMX060204-75 F40M	7,0 *0.28*	0,090 *0.0036*	0,090 *0.0036*	0,095 *0.0038*	0,14 0.0055	0,20 0.0080
H8	218.19-080T-M04 F40M	SPMX060204-75 F40M	6,0 *0.24*	0,070 *0.0028*	0,070 *0.0028*	0,075 *0.0030*	0,11 0.0044	0,15 0.0060
H11	218.19-080T-M04 F40M	SPMX060204-75 F40M	7,0 *0.28*	0,090 *0.0036*	0,090 *0.0036*	0,095 *0.0038*	0,14 0.0055	0,20 0.0080
H12	218.19-080T-M04 F40M	SPMX060204-75 F40M	6,0 *0.24*	0,070 *0.0028*	0,070 *0.0028*	0,075 *0.0030*	0,11 0.0044	0,15 0.0060

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

R218.19-080 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	F15M					F30M					F40M					MP2501					MS2500				
	100%	70%	30%	10%	5%	100%	70%	30%	10%	5%	100%	70%	30%	10%	5%	100%	70%	30%	10%	5%	100%	70%	30%	10%	5%
P1	235 *770*	260 *850*	315 *1025*	370 *1225*	400 *1300*	220 *720*	240 *790*	290 *950*	340 *1125*	370 *1225*	210 *690*	225 *740*	275 *900*	325 *1075*	350 *1150*	390 *1275*	410 *1350*	480 *1575*	540 *1775*	560 *1825*	285 *940*	310 *1025*	380 *1250*	445 *1450*	480 *1575*
P2	230 *750*	250 *820*	300 *980*	360 *1175*	390 *1275*	210 *690*	230 *750*	280 *920*	330 *1075*	360 *1175*	200 *660*	220 *720*	265 *870*	315 *1025*	340 *1125*	380 *1250*	400 *1300*	460 *1500*	520 *1700*	550 *1800*	275 *900*	300 *980*	360 *1175*	430 *1400*	465 *1525*
P3	200 *660*	220 *720*	265 *870*	315 *1025*	340 *1125*	185 *610*	205 *670*	245 *800*	290 *950*	310 *1025*	175 *570*	195 *640*	230 *750*	275 *900*	300 *980*	330 *1075*	350 *1150*	400 *1300*	455 *1500*	475 *1550*	240 *790*	265 *870*	315 *1025*	375 *1225*	405 *1325*
P4	180 *590*	195 *640*	235 *770*	275 *900*	300 *980*	165 *540*	180 *590*	220 *720*	255 *840*	275 *900*	155 *510*	170 *560*	210 *690*	245 *800*	260 *850*	290 *950*	310 *1025*	355 *1175*	400 *1300*	420 *1375*	215 *710*	235 *770*	285 *940*	330 *1075*	360 *1175*
P5	170 *560*	185 *610*	225 *740*	265 *870*	285 *940*	155 *510*	170 *560*	210 *690*	245 *800*	265 *870*	150 *490*	165 *540*	200 *660*	230 *750*	250 *820*	280 *920*	295 *970*	340 *1125*	380 *1250*	400 *1300*	205 *670*	220 *720*	270 *890*	315 *1025*	340 *1125*
P6	190 *620*	210 *690*	255 *840*	295 *970*	325 *1075*	175 *570*	190 *620*	235 *770*	275 *900*	300 *980*	165 *540*	180 *590*	225 *740*	260 *850*	285 *940*	310 *1025*	330 *1075*	385 *1275*	425 *1400*	455 *1500*	230 *750*	250 *820*	305 *1000*	355 *1175*	390 *1275*
P7	180 *590*	195 *640*	240 *790*	280 *920*	305 *1000*	165 *540*	180 *590*	220 *720*	260 *850*	285 *940*	160 *520*	170 *560*	210 *690*	245 *800*	270 *890*	295 *970*	310 *1025*	360 *1175*	405 *1325*	430 *1400*	215 *710*	235 *770*	285 *940*	335 *1100*	370 *1225*
P8	170 *560*	185 *610*	220 *720*	265 *870*	285 *940*	155 *510*	170 *560*	205 *670*	245 *800*	265 *870*	150 *490*	165 *540*	195 *640*	230 *750*	250 *820*	280 *920*	295 *970*	335 *1100*	380 *1250*	400 *1300*	205 *670*	220 *720*	265 *870*	315 *1025*	340 *1125*
P11	175 *570*	190 *620*	230 *750*	270 *890*	300 *980*	160 *520*	175 *570*	215 *710*	250 *820*	275 *900*	155 *510*	165 *540*	205 *670*	240 *790*	260 *850*	285 *940*	305 *1000*	350 *1150*	390 *1275*	415 *1350*	210 *690*	230 *750*	280 *920*	325 *1075*	355 *1175*
P12	— —	— —	— —	— —	— —	110 *360*	120 *395*	140 *460*	165 *540*	175 *570*	105 *345*	115 *375*	135 *445*	155 *510*	170 *560*	190 *620*	200 *660*	220 *720*	245 *800*	255 *840*	140 *460*	155 *510*	185 *610*	215 *710*	230 *750*
M1	— —	— —	— —	— —	— —	170 *560*	185 *610*	225 *740*	265 *870*	290 *950*	165 *540*	180 *590*	215 *710*	255 *840*	275 *900*	190 *620*	210 *690*	250 *820*	300 *980*	325 *1075*	200 *660*	215 *710*	260 *850*	310 *1025*	335 *1100*
M2	— —	— —	— —	— —	— —	140 *460*	155 *510*	185 *610*	220 *720*	235 *770*	135 *445*	145 *475*	180 *590*	210 *690*	225 *740*	160 *520*	175 *570*	210 *690*	245 *800*	265 *870*	165 *540*	180 *590*	215 *710*	255 *840*	275 *900*
M3	— —	— —	— —	— —	— —	120 *395*	130 *425*	155 *510*	180 *590*	190 *620*	115 *375*	125 *410*	145 *475*	170 *560*	185 *610*	135 *445*	145 *475*	170 *560*	200 *660*	215 *710*	140 *460*	150 *490*	175 *570*	210 *690*	220 *720*
M4	— —	— —	— —	— —	— —	100 *330*	105 *345*	120 *395*	140 *460*	150 *490*	95 *310*	100 *330*	115 *375*	135 *445*	140 *460*	115 *375*	120 *395*	135 *445*	155 *510*	170 *560*	115 *375*	120 *395*	140 *460*	160 *520*	175 *570*
M5	— —	— —	— —	— —	— —	85 *280*	90 *295*	100 *330*	115 *375*	125 *410*	80 *260*	85 *280*	95 *310*	110 *360*	120 *395*	95 *310*	100 *330*	110 *360*	130 *425*	140 *460*	95 *310*	100 *330*	115 *375*	135 *445*	145 *475*
K1	185 *610*	200 *660*	240 *790*	285 *940*	310 *1025*	170 *560*	185 *610*	220 *720*	260 *850*	285 *940*	160 *520*	175 *570*	210 *690*	250 *820*	270 *890*	380 *1250*	405 *1325*	465 *1525*	520 *1700*	550 *1800*	— —	— —	— —	— —	— —
K2	160 *520*	175 *570*	215 *710*	250 *820*	270 *890*	150 *490*	160 *520*	200 *660*	230 *750*	250 *820*	140 *460*	155 *510*	190 *620*	220 *720*	235 *770*	335 *1100*	355 *1175*	410 *1350*	460 *1500*	485 *1600*	— —	— —	— —	— —	— —
K3	135 *445*	150 *490*	180 *590*	210 *690*	230 *750*	125 *410*	135 *445*	165 *540*	195 *640*	210 *690*	120 *395*	130 *425*	160 *520*	185 *610*	200 *660*	285 *940*	300 *980*	350 *1150*	390 *1275*	410 *1350*	— —	— —	— —	— —	— —
K4	130 *425*	140 *460*	175 *570*	205 *670*	220 *720*	120 *395*	130 *425*	160 *520*	185 *610*	200 *660*	115 *375*	125 *410*	150 *490*	180 *590*	190 *620*	270 *890*	285 *940*	335 *1100*	370 *1225*	390 *1275*	— —	— —	— —	— —	— —
K5	80 *260*	90 *295*	105 *345*	125 *410*	135 *445*	75 *245*	80 *260*	95 *310*	115 *375*	125 *410*	70 *230*	75 *245*	90 *295*	110 *360*	120 *395*	165 *540*	175 *570*	200 *660*	225 *740*	240 *790*	— —	— —	— —	— —	— —
K6	115 *375*	125 *410*	150 *490*	180 *590*	190 *620*	105 *345*	115 *375*	140 *460*	165 *540*	175 *570*	100 *330*	110 *360*	135 *445*	155 *510*	170 *560*	240 *790*	255 *840*	295 *970*	325 *1075*	345 *1125*	— —	— —	— —	— —	— —
K7	105 *345*	115 *375*	135 *445*	160 *520*	170 *560*	95 *310*	105 *345*	125 *410*	145 *475*	160 *520*	90 *295*	100 *330*	120 *395*	140 *460*	150 *490*	215 *710*	225 *740*	255 *840*	285 *940*	305 *1000*	— —	— —	— —	— —	— —
N1	— —	— —	— —	— —	— —	1250 *4100*	1350 *4425*	1625 *5325*	1925 *6325*	2075 *6800*	1175 *3850*	1300 *4275*	1550 *5075*	1825 *6000*	1975 *6475*	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —
N2	— —	— —	— —	— —	— —	500 *1650*	550 *1800*	660 *2175*	780 *2550*	840 *2750*	480 *1575*	520 *1700*	620 *2025*	740 *2425*	800 *2625*	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —
N3	— —	— —	— —	— —	— —	335 *1100*	365 *1200*	435 *1425*	520 *1700*	560 *1825*	320 *1050*	345 *1125*	415 *1350*	495 *1625*	530 *1750*	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —
N11	— —	— —	— —	— —	— —	385 *1275*	415 *1350*	500 *1650*	590 *1925*	640 *2100*	365 *1200*	395 *1300*	475 *1550*	560 *1825*	610 *2000*	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —
S1	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	45 *150*	47 *155*	55 *180*	60 *195*	65 *215*	— —	— —	— —	— —	— —	55 *180*	60 *195*	70 *230*	80 *260*	85 *280*
S2	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	36 *120*	38 *125*	43 *140*	50 *165*	55 *180*	— —	— —	— —	— —	— —	46 *150*	48 *155*	55 *180*	65 *215*	70 *230*
S3	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	32 *105*	33 *110*	38 *125*	44 *145*	47 *155*	— —	— —	— —	— —	— —	40 *130*	42 *140*	48 *155*	55 *180*	60 *195*
S11	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	60 *195*	65 *215*	75 *245*	85 *280*	95 *310*	— —	— —	— —	— —	— —	75 *245*	80 *260*	95 *310*	110 *360*	120 *395*
S12	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	40 *130*	44 *145*	50 *165*	60 *195*	65 *215*	— —	— —	— —	— —	— —	50 *165*	55 *180*	65 *215*	75 *245*	85 *280*
S13	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	25 *80*	26 *85*	30 *100*	35 *115*	37 *120*	— —	— —	— —	— —	— —	32 *105*	34 *110*	38 *125*	44 *145*	47 *155*
H5	43 *140*	46 *150*	55 *180*	65 *215*	70 *230*	40 *130*	42 *140*	50 *165*	60 *195*	65 *215*	38 *125*	40 *130*	49 *160*	60 *195*	65 *215*	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —
H8	47 *155*	50 *165*	60 *195*	70 *230*	75 *245*	43 *140*	46 *150*	55 *180*	65 *215*	70 *230*	41 *135*	44 *145*	55 *180*	60 *195*	65 *215*	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —
H11	55 *180*	60 *195*	70 *230*	85 *280*	90 *295*	50 *165*	55 *180*	65 *215*	80 *260*	85 *280*	48 *155*	50 *165*	60 *195*	75 *245*	80 *260*	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —
H12	85 *280*	90 *295*	105 *345*	125 *410*	135 *445*	80 *260*	85 *280*	100 *330*	115 *375*	125 *410*	75 *245*	80 *260*	95 *310*	110 *360*	120 *395*	— —	— —	— —	— —	— —	100 *330*	105 *345*	130 *425*	150 *490*	165 *540*

R218.19-100 – Insert selection – mm/*Inch*

SMG			a_p	f_z				
				100%	70%	30%	10%	5%
P1	218.19-100T-M06 F40M	SPMX070304-75 F40M	19,0 *0.75*	0,20 *0.0080*	0,20 *0.0080*	0,22 *0.0085*	0,36 0.014	0,50 0.020
P2	218.19-100T-M06 F40M	SPMX070304-75 F40M	19,0 *0.75*	0,22 *0.0085*	0,22 *0.0085*	0,24 *0.0095*	0,36 0.014	0,50 0.020
P3	218.19-100T-M06 F40M	SPMX070304-75 F40M	19,0 *0.75*	0,20 *0.0080*	0,20 *0.0080*	0,22 *0.0085*	0,34 0.013	0,48 0.019
P4	218.19-100T-M06 F40M	SPMX070304-75 F40M	19,0 *0.75*	0,20 *0.0080*	0,20 *0.0080*	0,22 *0.0085*	0,34 0.013	0,48 0.019
P5	218.19-100T-M06 F40M	SPMX070304-75 F40M	19,0 *0.75*	0,19 *0.0075*	0,19 *0.0075*	0,22 *0.0085*	0,32 0.013	0,46 0.018
P6	218.19-100T-M06 F40M	SPMX070304-75 F40M	19,0 *0.75*	0,19 *0.0075*	0,19 *0.0075*	0,20 *0.0080*	0,32 0.013	0,46 0.018
P7	218.19-100T-M06 F40M	SPMX070304-75 F40M	19,0 *0.75*	0,19 *0.0075*	0,19 *0.0075*	0,20 *0.0080*	0,32 0.013	0,46 0.018
P8	218.19-100T-M06 F40M	SPMX070304-75 F40M	19,0 *0.75*	0,20 *0.0080*	0,20 *0.0080*	0,22 *0.0085*	0,34 0.013	0,48 0.019
P11	218.19-100T-M06 F40M	SPMX070304-75 F40M	19,0 *0.75*	0,19 *0.0075*	0,19 *0.0075*	0,20 *0.0080*	0,32 0.013	0,46 0.018
P12	218.19-100T-M06 F40M	SPMX070304-75 F40M	16,0 *0.65*	0,13 *0.0050*	0,13 *0.0050*	0,14 *0.0055*	0,22 0.0085	0,32 0.013
M1	218.19-100T-M06 F40M	SPMX070304-75 F40M	19,0 *0.75*	0,22 *0.0085*	0,22 *0.0085*	0,24 *0.0095*	0,36 0.014	0,50 0.020
M2	218.19-100T-M06 F40M	SPMX070304-75 F40M	19,0 *0.75*	0,19 *0.0075*	0,19 *0.0075*	0,22 *0.0085*	0,32 0.013	0,46 0.018
M3	218.19-100T-M06 F40M	SPMX070304-75 F40M	16,0 *0.65*	0,16 *0.0065*	0,16 *0.0065*	0,17 *0.0065*	0,26 0.010	0,38 0.015
M4	218.19-100T-M06 F40M	SPMX070304-75 F40M	12,0 *0.48*	0,14 *0.0055*	0,14 *0.0055*	0,15 *0.0060*	0,24 0.0095	0,32 0.013
M5	218.19-100T-M06 F40M	SPMX070304-75 F40M	12,0 *0.48*	0,14 *0.0055*	0,14 *0.0055*	0,15 *0.0060*	0,24 0.0095	0,32 0.013
K1	218.19-100T-M06 F40M	SPMX070304-75 F40M	19,0 *0.75*	0,22 *0.0085*	0,22 *0.0085*	0,24 *0.0095*	0,36 0.014	0,50 0.020
K2	218.19-100T-M06 F40M	SPMX070304-75 F40M	19,0 *0.75*	0,19 *0.0075*	0,19 *0.0075*	0,22 *0.0085*	0,32 0.013	0,46 0.018
K3	218.19-100T-M06 F40M	SPMX070304-75 F40M	19,0 *0.75*	0,19 *0.0075*	0,19 *0.0075*	0,22 *0.0085*	0,32 0.013	0,46 0.018
K4	218.19-100T-M06 F40M	SPMX070304-75 F40M	19,0 *0.75*	0,19 *0.0075*	0,19 *0.0075*	0,22 *0.0085*	0,32 0.013	0,46 0.018
K5	218.19-100T-M06 F40M	SPMX070304-75 F40M	19,0 *0.75*	0,17 *0.0065*	0,17 *0.0065*	0,19 *0.0075*	0,30 0.012	0,42 0.017
K6	218.19-100T-M06 F40M	SPMX070304-75 F40M	19,0 *0.75*	0,19 *0.0075*	0,19 *0.0075*	0,22 *0.0085*	0,32 0.013	0,46 0.018
K7	218.19-100T-M06 F40M	SPMX070304-75 F40M	19,0 *0.75*	0,17 *0.0065*	0,17 *0.0065*	0,19 *0.0075*	0,30 0.012	0,42 0.017
N1	218.19-100T-M06 F40M	SPMX070304-75 F40M	19,0 *0.75*	0,28 *0.011*	0,28 *0.011*	0,30 *0.012*	0,46 0.018	0,65 0.026
N2	218.19-100T-M06 F40M	SPMX070304-75 F40M	19,0 *0.75*	0,28 *0.011*	0,28 *0.011*	0,30 *0.012*	0,46 0.018	0,65 0.026
N3	218.19-100T-M06 F40M	SPMX070304-75 F40M	19,0 *0.75*	0,28 *0.011*	0,28 *0.011*	0,30 *0.012*	0,46 0.018	0,65 0.026
N11	218.19-100T-M06 F40M	SPMX070304-75 F40M	19,0 *0.75*	0,28 *0.011*	0,28 *0.011*	0,30 *0.012*	0,46 0.018	0,65 0.026
S1	218.19-100T-M06 F40M	SPMX070304-75 F40M	12,0 *0.48*	0,14 *0.0055*	0,14 *0.0055*	0,15 *0.0060*	0,24 0.0095	0,32 0.013
S2	218.19-100T-M06 F40M	SPMX070304-75 F40M	12,0 *0.48*	0,14 *0.0055*	0,14 *0.0055*	0,15 *0.0060*	0,24 0.0095	0,32 0.013
S3	218.19-100T-M06 F40M	SPMX070304-75 F40M	12,0 *0.48*	0,13 *0.0050*	0,13 *0.0050*	0,14 *0.0055*	0,22 0.0085	0,30 0.012
S11	218.19-100T-M06 F40M	SPMX070304-75 F40M	14,0 *0.55*	0,16 *0.0065*	0,16 *0.0065*	0,17 *0.0065*	0,26 0.010	0,38 0.015
S12	218.19-100T-M06 F40M	SPMX070304-75 F40M	14,0 *0.55*	0,16 *0.0065*	0,16 *0.0065*	0,17 *0.0065*	0,26 0.010	0,38 0.015
S13	218.19-100T-M06 F40M	SPMX070304-75 F40M	12,0 *0.48*	0,14 *0.0055*	0,14 *0.0055*	0,15 *0.0060*	0,24 0.0095	0,32 0.013
H5	218.19-100T-M06 F40M	SPMX070304-75 F40M	12,0 *0.48*	0,12 *0.0048*	0,12 *0.0048*	0,13 *0.0050*	0,20 0.0080	0,28 0.011
H8	218.19-100T-M06 F40M	SPMX070304-75 F40M	11,0 *0.44*	0,090 *0.0036*	0,090 *0.0036*	0,10 *0.0040*	0,15 0.0060	0,20 0.0080
H11	218.19-100T-M06 F40M	SPMX070304-75 F40M	12,0 *0.48*	0,12 *0.0048*	0,12 *0.0048*	0,13 *0.0050*	0,20 0.0080	0,28 0.011
H12	218.19-100T-M06 F40M	SPMX070304-75 F40M	11,0 *0.44*	0,090 *0.0036*	0,090 *0.0036*	0,10 *0.0040*	0,15 0.0060	0,20 0.0080

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

R218.19-100 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	MH1000					F15M					F25M					F30M					MP3000				
	100%	70%	30%	10%	5%	100%	70%	30%	10%	5%	100%	70%	30%	10%	5%	100%	70%	30%	10%	5%	100%	70%	30%	10%	5%
P1	—	—	—	—	—	195	210	260	305	330	180	195	240	280	300	195	210	260	310	335	230	250	305	365	400
	—	—	—	—	—	*640*	*690*	*850*	*1000*	*1075*	*590*	*640*	*790*	*920*	*980*	*640*	*690*	*850*	*1025*	*1100*	*750*	*820*	*1000*	*1200*	*1300*
P2	—	—	—	—	—	190	205	250	295	320	175	190	230	270	290	190	205	250	300	325	225	245	300	355	385
	—	—	—	—	—	*620*	*670*	*820*	*970*	*1050*	*570*	*620*	*750*	*890*	*950*	*620*	*670*	*820*	*980*	*1075*	*740*	*800*	*980*	*1175*	*1275*
P3	—	—	—	—	—	165	175	220	260	280	150	160	200	240	255	165	180	220	265	280	200	215	265	315	335
	—	—	—	—	—	*540*	*570*	*720*	*850*	*920*	*490*	*520*	*660*	*790*	*840*	*540*	*590*	*720*	*870*	*920*	*660*	*710*	*870*	*1025*	*1100*
P4	—	—	—	—	—	145	160	195	230	245	135	145	175	210	225	145	160	195	230	250	175	190	235	275	295
	—	—	—	—	—	*475*	*520*	*640*	*750*	*800*	*445*	*475*	*570*	*690*	*740*	*475*	*520*	*640*	*750*	*820*	*570*	*620*	*770*	*900*	*970*
P5	170	185	225	270	285	140	155	190	220	235	130	140	170	205	215	140	155	185	220	240	170	180	220	265	285
	560	*610*	*740*	*890*	*940*	*460*	*510*	*620*	*720*	*770*	*425*	*460*	*560*	*670*	*710*	*460*	*510*	*610*	*720*	*790*	*560*	*590*	*720*	*870*	*940*
P6	190	205	255	300	320	160	170	210	250	265	145	155	195	230	245	160	175	210	250	270	190	210	250	300	320
	620	*670*	*840*	*980*	*1050*	*520*	*560*	*690*	*820*	*870*	*475*	*510*	*640*	*750*	*800*	*520*	*570*	*690*	*820*	*890*	*620*	*690*	*820*	*980*	*1050*
P7	180	195	240	285	300	150	160	200	235	250	135	150	185	215	230	150	165	200	240	255	180	195	235	285	305
	590	*640*	*790*	*940*	*980*	*490*	*520*	*660*	*770*	*820*	*445*	*490*	*610*	*710*	*750*	*490*	*540*	*660*	*790*	*840*	*590*	*640*	*770*	*940*	*1000*
P8	165	180	225	265	285	135	150	185	220	235	125	135	170	200	215	140	155	185	220	235	170	180	220	265	280
	540	*590*	*740*	*870*	*940*	*445*	*490*	*610*	*720*	*770*	*410*	*445*	*560*	*660*	*710*	*460*	*510*	*610*	*720*	*770*	*560*	*590*	*720*	*870*	*920*
P11	175	190	235	275	295	145	155	195	230	245	135	145	180	210	225	145	160	190	230	250	175	190	230	275	295
	570	*620*	*770*	*900*	*970*	*475*	*510*	*640*	*750*	*800*	*445*	*475*	*590*	*690*	*740*	*475*	*520*	*620*	*750*	*820*	*570*	*620*	*750*	*900*	*970*
P12	120	130	155	180	195	—	—	—	—	—	90	100	115	140	150	95	105	125	150	160	115	125	150	180	190
	395	*425*	*510*	*590*	*640*	—	—	—	—	—	*295*	*330*	*375*	*460*	*490*	*310*	*345*	*410*	*490*	*520*	*375*	*410*	*490*	*590*	*620*
M1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	150	165	205	240	260	170	185	225	265	290
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	*490*	*540*	*670*	*790*	*850*	*560*	*610*	*740*	*870*	*950*
M2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	125	140	170	200	215	140	150	185	220	235
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	*410*	*460*	*560*	*660*	*710*	*460*	*490*	*610*	*720*	*770*
M3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	105	115	140	165	175	115	125	155	180	190
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	*345*	*375*	*460*	*540*	*570*	*375*	*410*	*510*	*590*	*620*
M4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	90	95	110	125	135	100	105	125	140	150
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	*295*	*310*	*360*	*410*	*445*	*330*	*345*	*410*	*460*	*490*
M5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	75	80	95	105	115	80	85	100	115	125
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	*245*	*260*	*310*	*345*	*375*	*260*	*280*	*330*	*375*	*410*
K1	180	195	240	280	305	150	165	200	235	255	140	150	180	215	230	150	165	200	240	260	180	195	235	285	305
	590	*640*	*790*	*920*	*1000*	*490*	*540*	*660*	*770*	*840*	*460*	*490*	*590*	*710*	*750*	*490*	*540*	*660*	*790*	*850*	*590*	*640*	*770*	*940*	*1000*
K2	160	175	215	255	270	135	145	180	210	225	120	135	165	195	205	135	145	175	210	225	160	175	210	250	270
	520	*570*	*710*	*840*	*890*	*445*	*475*	*590*	*690*	*740*	*395*	*445*	*540*	*640*	*670*	*445*	*475*	*570*	*690*	*740*	*520*	*570*	*690*	*820*	*890*
K3	135	150	185	215	230	115	125	150	180	190	105	110	140	165	175	115	125	150	175	190	135	145	180	210	230
	445	*490*	*610*	*710*	*750*	*375*	*410*	*490*	*590*	*620*	*345*	*360*	*460*	*540*	*570*	*375*	*410*	*490*	*570*	*620*	*445*	*475*	*590*	*690*	*750*
K4	130	140	175	205	220	110	115	145	170	180	100	105	130	155	165	110	115	145	170	185	130	140	170	200	215
	425	*460*	*570*	*670*	*720*	*360*	*375*	*475*	*560*	*590*	*330*	*345*	*425*	*510*	*540*	*360*	*375*	*475*	*560*	*610*	*425*	*460*	*560*	*660*	*710*
K5	80	85	105	125	135	65	70	90	105	115	60	65	80	95	105	65	70	90	105	115	80	85	105	125	135
	260	*280*	*345*	*410*	*445*	*215*	*230*	*295*	*345*	*375*	*195*	*215*	*260*	*310*	*345*	*215*	*230*	*295*	*345*	*375*	*260*	*280*	*345*	*410*	*445*
K6	115	125	155	180	195	95	105	125	150	160	85	95	115	135	145	95	105	125	150	160	115	125	150	175	190
	375	*410*	*510*	*590*	*640*	*310*	*345*	*410*	*490*	*520*	*280*	*310*	*375*	*445*	*475*	*310*	*345*	*410*	*490*	*520*	*375*	*410*	*490*	*570*	*620*
K7	100	110	135	160	175	85	90	110	135	145	75	85	105	120	135	85	90	115	135	145	100	110	135	160	170
	330	*360*	*445*	*520*	*570*	*280*	*295*	*360*	*445*	*475*	*245*	*280*	*345*	*395*	*445*	*280*	*295*	*375*	*445*	*475*	*330*	*360*	*445*	*520*	*560*
N1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1100	1200	1475	1725	1875	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	*3600*	*3925*	*4850*	*5650*	*6150*	—	—	—	—	—
N2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	445	480	590	700	760	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	*1450*	*1575*	*1925*	*2300*	*2500*	—	—	—	—	—
N3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	295	320	395	465	510	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	*970*	*1050*	*1300*	*1525*	*1675*	—	—	—	—	—
N11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	340	365	455	530	580	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	*1125*	*1200*	*1500*	*1750*	*1900*	—	—	—	—	—
S1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S12	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S13	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
H5	45	48	60	70	75	37	39	48	55	60	—	—	—	—	—	37	39	47	55	60	41	44	55	60	70
	150	*155*	*195*	*230*	*245*	*120*	*130*	*155*	*180*	*195*	—	—	—	—	—	*120*	*130*	*155*	*180*	*195*	*135*	*145*	*180*	*195*	*230*
H8	49	50	60	75	80	40	43	50	60	65	—	—	—	—	—	40	42	50	60	65	44	47	55	65	70
	160	*165*	*195*	*245*	*260*	*130*	*140*	*165*	*195*	*215*	—	—	—	—	—	*130*	*140*	*165*	*195*	*215*	*145*	*155*	*180*	*215*	*230*
H11	55	60	75	90	95	47	50	60	75	80	—	—	—	—	—	47	50	60	70	80	50	55	65	80	85
	180	*195*	*245*	*295*	*310*	*155*	*165*	*195*	*245*	*260*	—	—	—	—	—	*155*	*165*	*195*	*230*	*260*	*165*	*180*	*215*	*260*	*280*
H12	85	90	110	130	145	70	75	95	110	120	—	—	—	—	—	70	75	90	105	115	85	90	110	125	140
	280	*295*	*360*	*425*	*475*	*230*	*245*	*310*	*360*	*395*	—	—	—	—	—	*230*	*245*	*295*	*345*	*375*	*280*	*295*	*360*	*410*	*460*

R218.19-100 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	MS2050					F40M					MP2501					MS2500					MP3501				
	100%	70%	30%	10%	5%	100%	70%	30%	10%	5%	100%	70%	30%	10%	5%	100%	70%	30%	10%	5%	100%	70%	30%	10%	5%
P1	205 *670*	220 *720*	270 *890*	325 *1075*	350 *1150*	185 *610*	200 *660*	245 *800*	295 *970*	320 *1050*	345 *1125*	360 *1175*	430 *1400*	495 *1625*	520 *1700*	265 *870*	290 *950*	355 *1175*	425 *1400*	460 *1500*	305 *1000*	320 *1050*	385 *1275*	440 *1450*	470 *1550*
P2	200 *660*	215 *710*	265 *870*	315 *1025*	340 *1125*	180 *590*	195 *640*	240 *790*	285 *940*	310 *1025*	335 *1100*	350 *1150*	420 *1375*	480 *1575*	510 *1675*	260 *850*	280 *920*	345 *1125*	410 *1350*	445 *1450*	300 *980*	315 *1025*	375 *1225*	430 *1400*	455 *1500*
P3	175 *570*	190 *620*	230 *750*	275 *900*	295 *970*	160 *520*	175 *570*	210 *690*	250 *820*	265 *870*	300 *980*	315 *1025*	370 *1225*	420 *1375*	440 *1450*	230 *750*	250 *820*	305 *1000*	360 *1175*	385 *1275*	265 *870*	280 *920*	330 *1075*	375 *1225*	390 *1275*
P4	155 *510*	170 *560*	205 *670*	240 *790*	260 *850*	140 *460*	155 *510*	185 *610*	220 *720*	240 *790*	260 *850*	275 *900*	325 *1075*	370 *1225*	390 *1275*	200 *660*	220 *720*	270 *890*	315 *1025*	340 *1125*	235 *770*	245 *800*	290 *950*	330 *1075*	350 *1150*
P5	145 *475*	160 *520*	195 *640*	230 *750*	250 *820*	135 *445*	145 *475*	180 *590*	210 *690*	225 *740*	250 *820*	265 *870*	310 *1025*	350 *1150*	370 *1225*	195 *640*	210 *690*	255 *840*	305 *1000*	325 *1075*	225 *740*	235 *770*	280 *920*	315 *1025*	335 *1100*
P6	170 *560*	185 *610*	220 *720*	265 *870*	285 *940*	155 *510*	165 *540*	200 *660*	240 *790*	260 *850*	285 *940*	300 *980*	350 *1150*	400 *1300*	420 *1375*	220 *720*	240 *790*	285 *940*	345 *1125*	370 *1225*	255 *840*	270 *890*	310 *1025*	360 *1175*	380 *1250*
P7	160 *520*	170 *560*	205 *670*	250 *820*	270 *890*	145 *475*	155 *510*	190 *620*	225 *740*	245 *800*	270 *890*	285 *940*	330 *1075*	380 *1250*	400 *1300*	210 *690*	225 *740*	270 *890*	325 *1075*	350 *1150*	240 *790*	255 *840*	295 *970*	340 *1125*	355 *1175*
P8	145 *475*	160 *520*	195 *640*	230 *750*	245 *800*	135 *445*	145 *475*	180 *590*	210 *690*	225 *740*	250 *820*	265 *870*	310 *1025*	350 *1150*	370 *1225*	195 *640*	210 *690*	255 *840*	305 *1000*	325 *1075*	225 *740*	235 *770*	280 *920*	315 *1025*	330 *1075*
P11	155 *510*	170 *560*	200 *660*	240 *790*	260 *850*	140 *460*	150 *490*	185 *610*	220 *720*	235 *770*	260 *850*	275 *900*	320 *1050*	370 *1225*	385 *1275*	200 *660*	220 *720*	265 *870*	315 *1025*	340 *1125*	235 *770*	245 *800*	285 *940*	330 *1075*	345 *1125*
P12	100 *330*	110 *360*	135 *445*	160 *520*	170 *560*	95 *310*	100 *330*	120 *395*	145 *475*	155 *510*	175 *570*	180 *590*	210 *690*	235 *770*	245 *800*	135 *445*	145 *475*	175 *570*	205 *670*	220 *720*	155 *510*	165 *540*	185 *610*	210 *690*	220 *720*
M1	160 *520*	175 *570*	210 *690*	255 *840*	275 *900*	145 *475*	160 *520*	195 *640*	230 *750*	250 *820*	170 *560*	185 *610*	230 *750*	270 *890*	295 *970*	185 *610*	200 *660*	245 *800*	295 *970*	320 *1050*	160 *520*	175 *570*	210 *690*	255 *840*	275 *900*
M2	135 *445*	145 *475*	175 *570*	210 *690*	225 *740*	120 *395*	130 *425*	160 *520*	190 *620*	205 *670*	140 *460*	155 *510*	190 *620*	225 *740*	240 *790*	155 *510*	170 *560*	205 *670*	240 *790*	260 *850*	135 *445*	145 *475*	175 *570*	210 *690*	225 *740*
M3	110 *360*	120 *395*	145 *475*	170 *560*	180 *590*	100 *330*	110 *360*	130 *425*	155 *510*	165 *540*	120 *395*	130 *425*	155 *510*	185 *610*	195 *640*	130 *425*	140 *460*	170 *560*	200 *660*	210 *690*	110 *360*	120 *395*	145 *475*	170 *560*	180 *590*
M4	90 *295*	100 *330*	115 *375*	130 *425*	145 *475*	85 *280*	90 *295*	105 *345*	120 *395*	130 *425*	100 *330*	105 *345*	125 *410*	140 *460*	155 *510*	110 *360*	115 *375*	135 *445*	155 *510*	165 *540*	90 *295*	100 *330*	115 *375*	130 *425*	145 *475*
M5	75 *245*	80 *260*	95 *310*	110 *360*	120 *395*	70 *230*	75 *245*	90 *295*	100 *330*	110 *360*	85 *280*	90 *295*	105 *345*	120 *395*	130 *425*	90 *295*	95 *310*	115 *375*	130 *425*	140 *460*	75 *245*	80 *260*	95 *310*	110 *360*	120 *395*
K1	— —	— —	— —	— —	— —	145 *475*	155 *510*	190 *620*	225 *740*	245 *800*	340 *1125*	355 *1175*	420 *1375*	485 *1600*	510 *1675*	205 *670*	225 *740*	275 *900*	325 *1075*	355 *1175*	300 *980*	315 *1025*	380 *1250*	435 *1425*	460 *1500*
K2	— —	— —	— —	— —	— —	125 *410*	140 *460*	170 *560*	200 *660*	215 *710*	305 *1000*	320 *1050*	375 *1225*	425 *1400*	450 *1475*	185 *610*	200 *660*	245 *800*	285 *940*	310 *1025*	270 *890*	285 *940*	335 *1100*	380 *1250*	405 *1325*
K3	— —	— —	— —	— —	— —	110 *360*	115 *375*	145 *475*	170 *560*	180 *590*	255 *840*	270 *890*	315 *1025*	360 *1175*	380 *1250*	155 *510*	170 *560*	205 *670*	245 *800*	260 *850*	230 *750*	240 *790*	285 *940*	325 *1075*	340 *1125*
K4	— —	— —	— —	— —	— —	105 *345*	110 *360*	135 *445*	160 *520*	175 *570*	245 *800*	255 *840*	305 *1000*	345 *1125*	365 *1200*	150 *490*	160 *520*	195 *640*	230 *750*	250 *820*	220 *720*	230 *750*	270 *890*	310 *1025*	325 *1075*
K5	— —	— —	— —	— —	— —	65 *215*	70 *230*	85 *280*	100 *330*	105 *345*	150 *490*	160 *520*	185 *610*	210 *690*	225 *740*	90 *295*	100 *330*	120 *395*	145 *475*	155 *510*	135 *445*	140 *460*	170 *560*	190 *620*	200 *660*
K6	— —	— —	— —	— —	— —	90 *295*	100 *330*	120 *395*	140 *460*	155 *510*	215 *710*	225 *740*	265 *870*	305 *1000*	320 *1050*	130 *425*	140 *460*	175 *570*	205 *670*	220 *720*	195 *640*	200 *660*	240 *790*	270 *890*	285 *940*
K7	— —	— —	— —	— —	— —	80 *260*	90 *295*	110 *360*	125 *410*	140 *460*	190 *620*	205 *670*	240 *790*	270 *890*	285 *940*	115 *375*	125 *410*	155 *510*	185 *610*	200 *660*	170 *560*	180 *590*	215 *710*	245 *800*	255 *840*
N1	— —	— —	— —	— —	— —	1050 *3450*	1125 *3700*	1400 *4600*	1650 *5425*	1800 *5900*	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —
N2	— —	— —	— —	— —	— —	420 *1375*	455 *1500*	570 *1875*	660 *2175*	730 *2400*	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —
N3	— —	— —	— —	— —	— —	280 *920*	305 *1000*	375 *1225*	445 *1450*	485 *1600*	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —
N11	— —	— —	— —	— —	— —	320 *1050*	350 *1150*	430 *1400*	510 *1675*	550 *1800*	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —
S1	43 *140*	46 *150*	55 *180*	60 *195*	65 *215*	39 *130*	42 *140*	49 *160*	55 *180*	60 *195*	— —	— —	— —	— —	— —	55 *180*	55 *180*	65 *215*	75 *245*	80 *260*	43 *140*	46 *150*	55 *180*	60 *195*	65 *215*
S2	35 *115*	37 *120*	44 *145*	50 *165*	55 *180*	32 *105*	34 *110*	40 *130*	45 *150*	49 *160*	— —	— —	— —	— —	— —	42 *140*	45 *150*	55 *180*	60 *195*	65 *215*	35 *115*	37 *120*	44 *145*	50 *165*	55 *180*
S3	31 *100*	33 *110*	38 *125*	44 *145*	47 *155*	28 *90*	30 *100*	35 *115*	40 *130*	43 *140*	— —	— —	— —	— —	— —	37 *120*	40 *130*	47 *155*	55 *180*	55 *180*	31 *100*	33 *110*	38 *125*	44 *145*	47 *155*
S11	60 *195*	65 *215*	75 *245*	85 *280*	90 *295*	55 *180*	60 *195*	70 *230*	80 *260*	85 *280*	— —	— —	— —	— —	— —	70 *230*	80 *260*	90 *295*	105 *345*	110 *360*	60 *195*	65 *215*	75 *245*	85 *280*	90 *295*
S12	41 *135*	44 *145*	50 *165*	60 *195*	65 *215*	37 *120*	40 *130*	47 *155*	55 *180*	60 *195*	— —	— —	— —	— —	— —	50 *165*	55 *180*	65 *215*	75 *245*	80 *260*	41 *135*	44 *145*	50 *165*	60 *195*	65 *215*
S13	24 *80*	26 *85*	31 *100*	35 *115*	38 *125*	22 *70*	24 *80*	28 *90*	31 *100*	34 *110*	— —	— —	— —	— —	— —	30 *100*	32 *105*	37 *120*	42 *140*	46 *150*	24 *80*	26 *85*	31 *100*	35 *115*	38 *125*
H5	— —	— —	— —	— —	— —	35 *115*	37 *120*	45 *150*	55 *180*	60 *195*	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —
H8	— —	— —	— —	— —	— —	38 *125*	40 *130*	49 *160*	55 *180*	60 *195*	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —
H11	— —	— —	— —	— —	— —	44 *145*	48 *155*	55 *180*	70 *230*	75 *245*	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —
H12	— —	— —	— —	— —	— —	70 *230*	70 *230*	90 *295*	100 *330*	110 *360*	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —

R218.19-125 – Insert selection – mm/*Inch*

SMG			a_p	f_z				
				100%	70%	30%	10%	5%
P1	218.19-125T-T3-M07 F40M	SPMX090304-75 F40M	24,0 *0.95*	0,22 *0.0085*	0,22 *0.0085*	0,25 *0.010*	0,38 0.015	0,55 0.022
P2	218.19-125T-T3-M07 F40M	SPMX090304-75 F40M	24,0 *0.95*	0,22 *0.0085*	0,22 *0.0085*	0,25 *0.010*	0,38 0.015	0,55 0.022
P3	218.19-125T-T3-M07 F40M	SPMX090304-75 F40M	24,0 *0.95*	0,22 *0.0085*	0,22 *0.0085*	0,24 *0.0095*	0,36 0.014	0,50 0.020
P4	218.19-125T-T3-M07 F40M	SPMX090304-75 F40M	24,0 *0.95*	0,22 *0.0085*	0,22 *0.0085*	0,24 *0.0095*	0,36 0.014	0,50 0.020
P5	218.19-125T-T3-M07 F40M	SPMX090304-75 F40M	24,0 *0.95*	0,20 *0.0080*	0,20 *0.0080*	0,22 *0.0085*	0,36 0.014	0,50 0.020
P6	218.19-125T-T3-M07 F40M	SPMX090304-75 F40M	24,0 *0.95*	0,20 *0.0080*	0,20 *0.0080*	0,22 *0.0085*	0,34 0.013	0,50 0.019
P7	218.19-125T-T3-M07 F40M	SPMX090304-75 F40M	24,0 *0.95*	0,20 *0.0080*	0,20 *0.0080*	0,22 *0.0085*	0,34 0.013	0,50 0.019
P8	218.19-125T-T3-M07 F40M	SPMX090304-75 F40M	24,0 *0.95*	0,22 *0.0085*	0,22 *0.0085*	0,24 *0.0095*	0,36 0.014	0,50 0.020
P11	218.19-125T-T3-M07 F40M	SPMX090304-75 F40M	24,0 *0.95*	0,20 *0.0080*	0,20 *0.0080*	0,22 *0.0085*	0,34 0.013	0,50 0.019
P12	218.19-125T-T3-M07 F40M	SPMX090304-75 F40M	19,0 *0.75*	0,14 *0.0055*	0,14 *0.0055*	0,16 *0.0065*	0,24 0.0095	0,34 0.013
M1	218.19-125T-T3-M07 F40M	SPMX090304-75 F40M	24,0 *0.95*	0,22 *0.0085*	0,22 *0.0085*	0,25 *0.010*	0,38 0.015	0,55 0.022
M2	218.19-125T-T3-M07 F40M	SPMX090304-75 F40M	24,0 *0.95*	0,20 *0.0080*	0,20 *0.0080*	0,22 *0.0085*	0,36 0.014	0,50 0.020
M3	218.19-125T-T3-M07 F40M	SPMX090304-75 F40M	19,0 *0.75*	0,17 *0.0065*	0,17 *0.0065*	0,18 *0.0070*	0,28 0.011	0,40 0.016
M4	218.19-125T-T3-M07 F40M	SPMX090304-75 F40M	14,0 *0.55*	0,15 *0.0060*	0,15 *0.0060*	0,16 *0.0065*	0,25 0.010	0,36 0.014
M5	218.19-125T-T3-M07 F40M	SPMX090304-75 F40M	14,0 *0.55*	0,15 *0.0060*	0,15 *0.0060*	0,16 *0.0065*	0,25 0.010	0,36 0.014
K1	218.19-125T-T3-M07 F40M	SPMX090304-75 F40M	24,0 *0.95*	0,22 *0.0085*	0,22 *0.0085*	0,25 *0.010*	0,38 0.015	0,55 0.022
K2	218.19-125T-T3-M07 F40M	SPMX090304-75 F40M	24,0 *0.95*	0,20 *0.0080*	0,20 *0.0080*	0,22 *0.0085*	0,36 0.014	0,50 0.020
K3	218.19-125T-T3-M07 F40M	SPMX090304-75 F40M	24,0 *0.95*	0,20 *0.0080*	0,20 *0.0080*	0,22 *0.0085*	0,36 0.014	0,50 0.020
K4	218.19-125T-T3-M07 F40M	SPMX090304-75 F40M	24,0 *0.95*	0,20 *0.0080*	0,20 *0.0080*	0,22 *0.0085*	0,36 0.014	0,50 0.020
K5	218.19-125T-T3-M07 F40M	SPMX090304-75 F40M	24,0 *0.95*	0,19 *0.0075*	0,19 *0.0075*	0,20 *0.0080*	0,32 0.013	0,44 0.017
K6	218.19-125T-T3-M07 F40M	SPMX090304-75 F40M	24,0 *0.95*	0,20 *0.0080*	0,20 *0.0080*	0,22 *0.0085*	0,36 0.014	0,50 0.020
K7	218.19-125T-T3-M07 F40M	SPMX090304-75 F40M	24,0 *0.95*	0,19 *0.0075*	0,19 *0.0075*	0,20 *0.0080*	0,32 0.013	0,44 0.017
N1	218.19-125T-T3-M07 F40M	SPMX090304-75 F40M	24,0 *0.95*	0,30 *0.012*	0,30 *0.012*	0,32 *0.013*	0,50 0.020	0,70 0.028
N2	218.19-125T-T3-M07 F40M	SPMX090304-75 F40M	24,0 *0.95*	0,30 *0.012*	0,30 *0.012*	0,32 *0.013*	0,50 0.020	0,70 0.028
N3	218.19-125T-T3-M07 F40M	SPMX090304-75 F40M	24,0 *0.95*	0,30 *0.012*	0,30 *0.012*	0,32 *0.013*	0,50 0.020	0,70 0.028
N11	218.19-125T-T3-M07 F40M	SPMX090304-75 F40M	24,0 *0.95*	0,30 *0.012*	0,30 *0.012*	0,32 *0.013*	0,50 0.020	0,70 0.028
S1	218.19-125T-T3-M07 F40M	SPMX090304-75 F40M	14,0 *0.55*	0,15 *0.0060*	0,15 *0.0060*	0,16 *0.0065*	0,25 0.010	0,36 0.014
S2	218.19-125T-T3-M07 F40M	SPMX090304-75 F40M	14,0 *0.55*	0,15 *0.0060*	0,15 *0.0060*	0,16 *0.0065*	0,25 0.010	0,36 0.014
S3	218.19-125T-T3-M07 F40M	SPMX090304-75 F40M	14,0 *0.55*	0,14 *0.0055*	0,14 *0.0055*	0,15 *0.0060*	0,24 0.0095	0,32 0.013
S11	218.19-125T-T3-M07 F40M	SPMX090304-75 F40M	17,0 *0.65*	0,17 *0.0065*	0,17 *0.0065*	0,19 *0.0075*	0,28 0.011	0,40 0.016
S12	218.19-125T-T3-M07 F40M	SPMX090304-75 F40M	17,0 *0.65*	0,17 *0.0065*	0,17 *0.0065*	0,19 *0.0075*	0,28 0.011	0,40 0.016
S13	218.19-125T-T3-M07 F40M	SPMX090304-75 F40M	14,0 *0.55*	0,15 *0.0060*	0,15 *0.0060*	0,16 *0.0065*	0,25 0.010	0,36 0.014
H5	218.19-125T-T3-M07 F40M	SPMX090304-75 F40M	15,0 *0.60*	0,13 *0.0050*	0,13 *0.0050*	0,14 *0.0055*	0,22 0.0085	0,30 0.012
H8	218.19-125T-T3-M07 F40M	SPMX090304-75 F40M	13,0 *0.50*	0,10 *0.0040*	0,10 *0.0040*	0,11 *0.0044*	0,16 0.0065	0,22 0.0085
H11	218.19-125T-T3-M07 F40M	SPMX090304-75 F40M	15,0 *0.60*	0,13 *0.0050*	0,13 *0.0050*	0,14 *0.0055*	0,22 0.0085	0,30 0.012
H12	218.19-125T-T3-M07 F40M	SPMX090304-75 F40M	13,0 *0.50*	0,10 *0.0040*	0,10 *0.0040*	0,11 *0.0044*	0,16 0.0065	0,22 0.0085

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

R218.19-125 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	MH1000					F15M					F25M					F30M					MP3000					MS2050				
	100%	70%	30%	10%	5%	100%	70%	30%	10%	5%	100%	70%	30%	10%	5%	100%	70%	30%	10%	5%	100%	70%	30%	10%	5%	100%	70%	30%	10%	5%
P1	—	—	—	—	—	180	195	240	285	300	165	180	220	260	275	190	210	250	300	320	230	245	300	355	380	200	220	265	315	335
	—	—	—	—	—	*590*	*640*	*790*	*940*	*980*	*540*	*590*	*720*	*850*	*900*	*620*	*690*	*820*	*980*	*1050*	*750*	*800*	*980*	*1175*	*1250*	*660*	*720*	*870*	*1025*	*1100*
P2	—	—	—	—	—	175	190	230	275	295	160	175	210	255	270	185	200	245	290	315	220	240	290	350	370	195	210	255	305	325
	—	—	—	—	—	*570*	*620*	*750*	*900*	*970*	*520*	*570*	*690*	*840*	*890*	*610*	*660*	*800*	*950*	*1025*	*720*	*790*	*950*	*1150*	*1225*	*640*	*690*	*840*	*1000*	*1075*
P3	—	—	—	—	—	155	165	205	235	260	140	155	185	215	235	160	175	215	255	275	190	205	255	305	330	170	180	225	265	290
	—	—	—	—	—	*510*	*540*	*670*	*770*	*850*	*460*	*510*	*610*	*710*	*770*	*520*	*570*	*710*	*840*	*900*	*620*	*670*	*840*	*1000*	*1075*	*560*	*590*	*740*	*870*	*950*
P4	—	—	—	—	—	135	145	180	215	230	125	135	165	200	210	140	155	190	225	245	170	180	225	270	290	150	160	195	235	255
	—	—	—	—	—	*445*	*475*	*590*	*710*	*750*	*410*	*445*	*540*	*660*	*690*	*460*	*510*	*620*	*740*	*800*	*560*	*590*	*740*	*890*	*950*	*490*	*520*	*640*	*770*	*840*
P5	155	170	210	250	270	130	140	175	205	225	120	130	160	190	205	140	150	185	215	235	165	180	220	255	275	145	160	195	225	245
	510	*560*	*690*	*820*	*890*	*425*	*460*	*570*	*670*	*740*	*395*	*425*	*520*	*620*	*670*	*460*	*490*	*610*	*710*	*770*	*540*	*590*	*720*	*840*	*900*	*475*	*520*	*640*	*740*	*800*
P6	175	190	235	280	300	145	155	195	230	250	135	145	180	210	230	155	170	205	245	260	185	200	245	290	310	165	175	215	255	275
	570	*620*	*770*	*920*	*980*	*475*	*510*	*640*	*750*	*820*	*445*	*475*	*590*	*690*	*750*	*510*	*560*	*670*	*800*	*850*	*610*	*660*	*800*	*950*	*1025*	*540*	*570*	*710*	*840*	*900*
P7	165	180	225	265	285	135	150	185	220	235	125	135	170	200	215	145	160	195	230	245	175	190	230	275	295	155	165	205	240	260
	540	*590*	*740*	*870*	*940*	*445*	*490*	*610*	*720*	*770*	*410*	*445*	*560*	*660*	*710*	*475*	*520*	*640*	*750*	*800*	*570*	*620*	*750*	*900*	*970*	*510*	*540*	*670*	*790*	*850*
P8	155	170	205	240	265	130	140	170	200	220	120	130	155	185	200	135	145	180	215	235	160	175	215	255	275	140	155	190	225	245
	510	*560*	*670*	*790*	*870*	*425*	*460*	*560*	*660*	*720*	*395*	*425*	*510*	*610*	*660*	*445*	*475*	*590*	*710*	*770*	*520*	*570*	*710*	*840*	*900*	*460*	*510*	*620*	*740*	*800*
P11	160	175	215	255	275	135	145	180	210	230	120	130	165	195	210	145	155	190	225	240	170	185	225	265	285	150	165	200	235	250
	520	*570*	*710*	*840*	*900*	*445*	*475*	*590*	*690*	*750*	*395*	*425*	*540*	*640*	*690*	*475*	*510*	*620*	*740*	*790*	*560*	*610*	*740*	*870*	*940*	*490*	*540*	*660*	*770*	*820*
P12	110	120	145	170	185	—	—	—	—	—	85	90	110	130	140	95	105	125	145	160	115	125	145	175	190	100	110	130	155	165
	360	*395*	*475*	*560*	*610*	—	—	—	—	—	*280*	*295*	*360*	*425*	*460*	*310*	*345*	*410*	*475*	*520*	*375*	*410*	*475*	*570*	*620*	*330*	*360*	*425*	*510*	*540*
M1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	150	165	200	235	250	165	180	220	260	280	155	170	205	245	265
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	*490*	*540*	*660*	*770*	*820*	*540*	*590*	*720*	*850*	*920*	*510*	*560*	*670*	*800*	*870*
M2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	125	135	165	195	210	140	150	185	215	230	130	140	175	200	220
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	*410*	*445*	*540*	*640*	*690*	*460*	*490*	*610*	*710*	*750*	*425*	*460*	*570*	*660*	*720*
M3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	100	110	135	160	170	110	120	150	175	190	105	115	140	165	180
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	*330*	*360*	*445*	*520*	*560*	*360*	*395*	*490*	*570*	*620*	*345*	*375*	*460*	*540*	*590*
M4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	85	90	105	125	135	90	100	115	135	145	85	95	110	130	140
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	*280*	*295*	*345*	*410*	*445*	*295*	*330*	*375*	*445*	*475*	*280*	*310*	*360*	*425*	*460*
M5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	70	75	90	100	110	75	80	95	115	125	75	80	90	105	115
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	*230*	*245*	*295*	*330*	*360*	*245*	*260*	*310*	*375*	*410*	*245*	*260*	*295*	*345*	*375*
K1	165	180	220	265	280	140	150	185	220	235	125	135	170	200	215	150	160	195	230	250	175	190	230	275	295	—	—	—	—	—
	540	*590*	*720*	*870*	*920*	*460*	*490*	*610*	*720*	*770*	*410*	*445*	*560*	*660*	*710*	*490*	*520*	*640*	*750*	*820*	*570*	*620*	*750*	*900*	*970*	—	—	—	—	—
K2	150	160	200	235	255	125	135	165	195	210	110	120	150	180	195	130	145	175	205	220	155	170	210	240	265	—	—	—	—	—
	490	*520*	*660*	*770*	*840*	*410*	*445*	*540*	*640*	*690*	*360*	*395*	*490*	*590*	*640*	*425*	*475*	*570*	*670*	*720*	*510*	*560*	*690*	*790*	*870*	—	—	—	—	—
K3	125	135	170	200	215	105	110	140	165	180	95	105	130	150	165	110	120	150	170	185	135	145	175	205	220	—	—	—	—	—
	410	*445*	*560*	*660*	*710*	*345*	*360*	*460*	*540*	*590*	*310*	*345*	*425*	*490*	*540*	*360*	*395*	*490*	*560*	*610*	*445*	*475*	*570*	*670*	*720*	—	—	—	—	—
K4	120	130	160	190	205	100	105	135	160	170	90	100	120	145	155	105	115	140	165	180	125	140	170	195	210	—	—	—	—	—
	395	*425*	*520*	*620*	*670*	*330*	*345*	*445*	*520*	*560*	*295*	*330*	*395*	*475*	*510*	*345*	*375*	*460*	*540*	*590*	*410*	*460*	*560*	*640*	*690*	—	—	—	—	—
K5	75	80	100	115	125	60	65	80	95	105	55	60	75	90	95	65	70	85	100	110	75	85	105	120	130	—	—	—	—	—
	245	*260*	*330*	*375*	*410*	*195*	*215*	*260*	*310*	*345*	*180*	*195*	*245*	*295*	*310*	*215*	*230*	*280*	*330*	*360*	*245*	*280*	*345*	*395*	*425*	—	—	—	—	—
K6	105	115	140	170	180	85	95	115	140	150	80	85	110	125	140	95	100	125	145	155	110	120	150	175	185	—	—	—	—	—
	345	*375*	*460*	*560*	*590*	*280*	*310*	*375*	*460*	*490*	*260*	*280*	*360*	*410*	*460*	*310*	*330*	*410*	*475*	*510*	*360*	*395*	*490*	*570*	*610*	—	—	—	—	—
K7	95	105	125	150	160	80	85	105	125	135	75	80	95	115	120	80	90	110	130	140	100	105	130	155	170	—	—	—	—	—
	310	*345*	*410*	*490*	*520*	*260*	*280*	*345*	*410*	*445*	*245*	*260*	*310*	*375*	*395*	*260*	*295*	*360*	*425*	*460*	*330*	*345*	*425*	*510*	*560*	—	—	—	—	—
N1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
N2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
N3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
N11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	39	41	49	55	60	43	46	55	65	70	41	43	50	60	65
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	*130*	*135*	*160*	*180*	*195*	*140*	*150*	*180*	*215*	*230*	*135*	*140*	*165*	*195*	*215*
S2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	31	33	40	46	50	35	37	44	50	55	33	35	41	48	55
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	*100*	*110*	*130*	*150*	*165*	*115*	*120*	*145*	*165*	*180*	*110*	*115*	*135*	*155*	*180*
S3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	28	29	35	41	44	30	32	38	45	49	29	31	36	43	46
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	*90*	*95*	*115*	*135*	*145*	*100*	*105*	*125*	*150*	*160*	*95*	*100*	*120*	*140*	*150*
S11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	55	60	70	85	90
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	*180*	*195*	*230*	*280*	*295*
S12	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	38	41	50	60	60
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	*125*	*135*	*165*	*195*	*195*
S13	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	23	24	29	34	37
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	*75*	*80*	*95*	*110*	*120*
H5	39	42	50	60	65	32	35	43	50	55	—	—	—	—	—	33	36	44	50	55	37	40	49	60	65	—	—	—	—	—
	130	*140*	*165*	*195*	*215*	*105*	*115*	*140*	*165*	*180*	—	—	—	—	—	*110*	*120*	*145*	*165*	*180*	*120*	*130*	*160*	*195*	*215*	—	—	—	—	—
H8	44	47	55	65	70	36	39	47	55	60	—	—	—	—	—	37	40	47	55	60	41	45	55	60	65	—	—	—	—	—
	145	*155*	*180*	*215*	*230*	*120*	*130*	*155*	*180*	*195*	—	—	—	—	—	*120*	*130*	*155*	*180*	*195*	*135*	*150*	*180*	*195*	*215*	—	—	—	—	—
H11	50	55	65	80	85	41	45	55	65	70	—	—	—	—	—	42	46	55	65	70	47	50	60	75	80	—	—	—	—	—
	165	*180*	*215*	*260*	*280*	*135*	*150*	*180*	*215*	*230*	—	—	—	—	—	*140*	*150*	*180*	*215*	*230*	*155*	*165*	*195*	*245*	*260*	—	—	—	—	—
H12	80	85	100	115	130	65	70	85	95	105	—	—	—	—	—	65	70	85	100	110	80	85	100	120	130	—	—	—	—	—
	260	*280*	*330*	*375*	*425*	*215*	*230*	*280*	*310*	*345*	—	—	—	—	—	*215*	*230*	*280*	*330*	*360*	*260*	*280*	*330*	*395*	*425*	—	—	—	—	—

R218.19-125 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	F40M					MP1501					MP2501					MS2500					MP3501					MM4500				
	100%	70%	30%	10%	5%	100%	70%	30%	10%	5%	100%	70%	30%	10%	5%	100%	70%	30%	10%	5%	100%	70%	30%	10%	5%	100%	70%	30%	10%	5%
P1	180	200	240	285	305	280	290	350	405	420	340	355	420	480	500	265	285	345	410	440	300	315	375	430	450	150	160	195	230	250
	590	*660*	*790*	*940*	*1000*	*920*	*950*	*1150*	*1325*	*1375*	*1125*	*1175*	*1375*	*1575*	*1650*	*870*	*940*	*1125*	*1350*	*1450*	*980*	*1025*	*1225*	*1400*	*1475*	*490*	*520*	*640*	*750*	*820*
P2	175	195	235	280	300	270	280	340	395	410	330	345	405	465	490	255	275	335	400	430	295	305	365	415	440	145	155	190	225	240
	570	*640*	*770*	*920*	*980*	*890*	*920*	*1125*	*1300*	*1350*	*1075*	*1125*	*1325*	*1525*	*1600*	*840*	*900*	*1100*	*1300*	*1400*	*970*	*1000*	*1200*	*1350*	*1450*	*475*	*510*	*620*	*740*	*790*
P3	155	165	205	245	265	240	250	300	340	360	285	295	355	410	435	220	240	295	350	380	250	265	315	365	390	125	135	165	195	215
	510	*540*	*670*	*800*	*870*	*790*	*820*	*980*	*1125*	*1175*	*940*	*970*	*1175*	*1350*	*1425*	*720*	*790*	*970*	*1150*	*1250*	*820*	*870*	*1025*	*1200*	*1275*	*410*	*445*	*540*	*640*	*710*
P4	135	145	180	215	230	210	220	265	310	320	250	260	310	360	380	195	210	260	310	335	220	230	280	320	340	110	120	145	175	190
	445	*475*	*590*	*710*	*750*	*690*	*720*	*870*	*1025*	*1050*	*820*	*850*	*1025*	*1175*	*1250*	*640*	*690*	*850*	*1025*	*1100*	*720*	*750*	*920*	*1050*	*1125*	*360*	*395*	*475*	*570*	*620*
P5	130	145	175	205	220	200	210	255	295	310	245	260	305	345	365	190	205	255	295	320	220	230	275	305	325	105	115	140	165	180
	425	*475*	*570*	*670*	*720*	*660*	*690*	*840*	*970*	*1025*	*800*	*850*	*1000*	*1125*	*1200*	*620*	*670*	*840*	*970*	*1050*	*720*	*750*	*900*	*1000*	*1075*	*345*	*375*	*460*	*540*	*590*
P6	150	160	195	235	250	225	235	290	330	350	275	290	345	390	410	215	230	285	335	360	245	260	310	350	365	120	130	160	190	200
	490	*520*	*640*	*770*	*820*	*740*	*770*	*950*	*1075*	*1150*	*900*	*950*	*1125*	*1275*	*1350*	*710*	*750*	*940*	*1100*	*1175*	*800*	*850*	*1025*	*1150*	*1200*	*395*	*425*	*520*	*620*	*660*
P7	140	150	185	220	235	215	225	270	310	330	260	275	325	370	385	200	220	270	315	340	235	245	290	330	345	115	125	150	180	190
	460	*490*	*610*	*720*	*770*	*710*	*740*	*890*	*1025*	*1075*	*850*	*900*	*1075*	*1225*	*1275*	*660*	*720*	*890*	*1025*	*1125*	*770*	*800*	*950*	*1075*	*1125*	*375*	*410*	*490*	*590*	*620*
P8	130	140	170	205	220	200	210	250	285	305	240	250	300	345	365	185	200	245	295	320	210	220	265	305	325	105	115	140	165	180
	425	*460*	*560*	*670*	*720*	*660*	*690*	*820*	*940*	*1000*	*790*	*820*	*980*	*1125*	*1200*	*610*	*660*	*800*	*970*	*1050*	*690*	*720*	*870*	*1000*	*1075*	*345*	*375*	*460*	*540*	*590*
P11	135	150	180	215	230	205	215	265	300	320	255	265	315	360	375	195	215	260	310	330	225	235	280	320	335	110	120	145	175	185
	445	*490*	*590*	*710*	*750*	*670*	*710*	*870*	*980*	*1050*	*840*	*870*	*1025*	*1175*	*1225*	*640*	*710*	*850*	*1025*	*1075*	*740*	*770*	*920*	*1050*	*1100*	*360*	*395*	*475*	*570*	*610*
P12	90	100	120	140	150	145	150	180	200	210	170	180	205	230	240	130	140	170	200	215	150	160	185	205	220	75	80	95	115	120
	295	*330*	*395*	*460*	*490*	*475*	*490*	*590*	*660*	*690*	*560*	*590*	*670*	*750*	*790*	*425*	*460*	*560*	*660*	*710*	*490*	*520*	*610*	*670*	*720*	*245*	*260*	*310*	*375*	*395*
M1	145	155	190	225	240	—	—	—	—	—	170	185	220	265	285	185	200	240	285	305	155	170	205	245	265	125	135	160	195	205
	475	*510*	*620*	*740*	*790*	—	—	—	—	—	*560*	*610*	*720*	*870*	*940*	*610*	*660*	*790*	*940*	*1000*	*510*	*560*	*670*	*800*	*870*	*410*	*445*	*520*	*640*	*670*
M2	120	130	160	185	200	—	—	—	—	—	140	155	185	215	235	150	165	200	235	255	130	140	175	200	220	105	110	135	160	170
	395	*425*	*520*	*610*	*660*	—	—	—	—	—	*460*	*510*	*610*	*710*	*770*	*490*	*540*	*660*	*770*	*840*	*425*	*460*	*570*	*660*	*720*	*345*	*360*	*445*	*520*	*560*
M3	95	105	130	150	160	—	—	—	—	—	115	125	150	180	190	125	135	165	195	210	105	115	140	165	180	85	90	110	130	140
	310	*345*	*425*	*490*	*520*	—	—	—	—	—	*375*	*410*	*490*	*590*	*620*	*410*	*445*	*540*	*640*	*690*	*345*	*375*	*460*	*540*	*590*	*280*	*295*	*360*	*425*	*460*
M4	80	85	100	115	125	—	—	—	—	—	95	100	120	140	150	100	110	130	150	165	85	95	110	130	140	70	75	85	100	110
	260	*280*	*330*	*375*	*410*	—	—	—	—	—	*310*	*330*	*395*	*460*	*490*	*330*	*360*	*425*	*490*	*540*	*280*	*310*	*360*	*425*	*460*	*230*	*245*	*280*	*330*	*360*
M5	65	70	85	95	105	—	—	—	—	—	80	85	100	115	125	85	90	105	125	135	75	80	90	105	115	55	60	70	85	90
	215	*230*	*280*	*310*	*345*	—	—	—	—	—	*260*	*280*	*330*	*375*	*410*	*280*	*295*	*345*	*410*	*445*	*245*	*260*	*295*	*345*	*375*	*180*	*195*	*230*	*280*	*295*
K1	140	155	185	220	235	275	285	345	395	415	330	350	410	470	495	200	220	265	315	340	295	310	365	420	440	—	—	—	—	—
	460	*510*	*610*	*720*	*770*	*900*	*940*	*1125*	*1300*	*1350*	*1075*	*1150*	*1350*	*1550*	*1625*	*660*	*720*	*870*	*1025*	*1125*	*970*	*1025*	*1200*	*1375*	*1450*	—	—	—	—	—
K2	125	135	165	195	210	245	255	310	355	375	300	310	370	415	440	180	195	240	280	305	265	280	330	370	395	—	—	—	—	—
	410	*445*	*540*	*640*	*690*	*800*	*840*	*1025*	*1175*	*1225*	*980*	*1025*	*1225*	*1350*	*1450*	*590*	*640*	*790*	*920*	*1000*	*870*	*920*	*1075*	*1225*	*1300*	—	—	—	—	—
K3	105	115	140	165	180	205	215	265	300	320	250	265	315	350	375	155	165	205	235	255	225	235	280	315	335	—	—	—	—	—
	345	*375*	*460*	*540*	*590*	*670*	*710*	*870*	*980*	*1050*	*820*	*870*	*1025*	*1150*	*1225*	*510*	*540*	*670*	*770*	*840*	*740*	*770*	*920*	*1025*	*1100*	—	—	—	—	—
K4	100	110	135	155	170	195	205	250	285	305	240	250	300	335	355	145	160	195	225	245	215	225	270	300	320	—	—	—	—	—
	330	*360*	*445*	*510*	*560*	*640*	*670*	*820*	*940*	*1000*	*790*	*820*	*980*	*1100*	*1175*	*475*	*520*	*640*	*740*	*800*	*710*	*740*	*890*	*980*	*1050*	—	—	—	—	—
K5	60	65	80	95	105	125	130	155	175	185	145	155	185	205	220	90	95	120	140	150	130	135	165	185	195	—	—	—	—	—
	195	*215*	*260*	*310*	*345*	*410*	*425*	*510*	*570*	*610*	*475*	*510*	*610*	*670*	*720*	*295*	*310*	*395*	*460*	*490*	*425*	*445*	*540*	*610*	*640*	—	—	—	—	—
K6	90	95	120	140	150	175	180	220	255	270	210	220	265	295	315	130	140	170	200	215	190	200	235	265	280	—	—	—	—	—
	295	*310*	*395*	*460*	*490*	*570*	*590*	*720*	*840*	*890*	*690*	*720*	*870*	*970*	*1025*	*425*	*460*	*560*	*660*	*710*	*620*	*660*	*770*	*870*	*920*	—	—	—	—	—
K7	80	85	105	125	135	160	165	195	225	240	185	195	235	265	280	115	125	150	180	195	165	175	210	235	250	—	—	—	—	—
	260	*280*	*345*	*410*	*445*	*520*	*540*	*640*	*740*	*790*	*610*	*640*	*770*	*870*	*920*	*375*	*410*	*490*	*590*	*640*	*540*	*570*	*690*	*770*	*820*	—	—	—	—	—
N1	1000	1100	1350	1600	1725	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	3275	*3600*	*4425*	*5250*	*5650*	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
N2	405	440	550	650	700	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	1325	*1450*	*1800*	*2125*	*2300*	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
N3	270	295	365	430	465	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	890	*970*	*1200*	*1400*	*1525*	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
N11	310	335	415	490	530	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	1025	*1100*	*1350*	*1600*	*1750*	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S1	37	39	47	55	60	—	—	—	—	—	—	—	—	—	—	50	55	65	75	80	41	43	50	60	65	21	22	26	31	34
	120	*130*	*155*	*180*	*195*	—	—	—	—	—	—	—	—	—	—	*165*	*180*	*215*	*245*	*260*	*135*	*140*	*165*	*195*	*215*	*70*	*70*	*85*	*100*	*110*
S2	30	32	38	44	48	—	—	—	—	—	—	—	—	—	—	40	43	50	60	65	33	35	41	48	55	17	18	21	25	27
	100	*105*	*125*	*145*	*155*	—	—	—	—	—	—	—	—	—	—	*130*	*140*	*165*	*195*	*215*	*110*	*115*	*135*	*155*	*180*	*55*	*60*	*70*	*80*	*90*
S3	26	28	33	39	42	—	—	—	—	—	—	—	—	—	—	35	37	44	50	55	29	31	36	43	46	15	16	19	22	24
	85	*90*	*110*	*130*	*140*	—	—	—	—	—	—	—	—	—	—	*115*	*120*	*145*	*165*	*180*	*95*	*100*	*120*	*140*	*150*	*49*	*50*	*60*	*70*	*80*
S11	49	55	65	75	80	—	—	—	—	—	—	—	—	—	—	65	70	85	100	110	55	60	70	85	90	28	30	37	43	46
	160	*180*	*215*	*245*	*260*	—	—	—	—	—	—	—	—	—	—	*215*	*230*	*280*	*330*	*360*	*180*	*195*	*230*	*280*	*295*	*90*	*100*	*120*	*140*	*150*
S12	34	37	45	55	55	—	—	—	—	—	—	—	—	—	—	46	50	60	70	75	38	41	50	60	60	26	28	34	40	43
	110	*120*	*150*	*180*	*180*	—	—	—	—	—	—	—	—	—	—	*150*	*165*	*195*	*230*	*245*	*125*	*135*	*165*	*195*	*195*	*85*	*90*	*110*	*130*	*140*
S13	21	22	26	31	33	—	—	—	—	—	—	—	—	—	—	28	30	35	41	45	23	24	29	34	37	16	17	20	23	25
	70	*70*	*85*	*100*	*110*	—	—	—	—	—	—	—	—	—	—	*90*	*100*	*115*	*135*	*150*	*75*	*80*	*95*	*110*	*120*	*50*	*55*	*65*	*75*	*80*
H5	32	35	42	49	55	40	44	55	65	70	—	—	—	—	—	41	45	55	65	70	37	40	48	55	60	—	—	—	—	—
	105	*115*	*140*	*160*	*180*	*130*	*145*	*180*	*215*	*230*	—	—	—	—	—	*135*	*150*	*180*	*215*	*230*	*120*	*130*	*155*	*180*	*195*	—	—	—	—	—
H8	35	38	45	55	60	45	48	60	65	75	—	—	—	—	—	46	50	60	70	75	41	44	50	60	65	—	—	—	—	—
	115	*125*	*150*	*180*	*195*	*150*	*155*	*195*	*215*	*245*	—	—	—	—	—	*150*	*165*	*195*	*230*	*245*	*135*	*145*	*165*	*195*	*215*	—	—	—	—	—
H11	40	44	55	65	70	50	55	65	80	85	—	—	—	—	—	55	55	70	80	90	47	50	60	70	80	—	—	—	—	—
	130	*145*	*180*	*215*	*230*	*165*	*180*	*215*	*260*	*280*	—	—	—	—	—	*180*	*180*	*230*	*260*	*295*	*155*	*165*	*195*	*230*	*260*	—	—	—	—	—
H12	65	70	80	95	105	80	85	105	120	130	—	—	—	—	—	90	100	115	135	150	75	80	95	110	120	—	—	—	—	—
	215	*230*	*260*	*310*	*345*	*260*	*280*	*345*	*395*	*425*	—	—	—	—	—	*295*	*330*	*375*	*445*	*490*	*245*	*260*	*310*	*360*	*395*	—	—	—	—	—

R218.19-160 – Insert selection – mm/*Inch*

SMG			a_p	f_z				
				100%	70%	30%	10%	5%
P1	218.19-160T-04-M08 F40M	SPMT100408T-M08 F40M	28,0 *1.1*	0,22 *0.0085*	0,22 *0.0085*	0,25 *0.010*	0,38 0.015	0,55 0.022
P2	218.19-160T-04-M08 F40M	SPMT100408T-M08 F40M	28,0 *1.1*	0,24 *0.0095*	0,24 *0.0095*	0,26 *0.010*	0,40 0.016	0,55 0.022
P3	218.19-160T-04-M08 F40M	SPMT100408T-M08 F40M	28,0 *1.1*	0,22 *0.0085*	0,22 *0.0085*	0,24 *0.0095*	0,38 0.015	0,50 0.020
P4	218.19-160T-04-M08 F40M	SPMT100408T-M08 F40M	28,0 *1.1*	0,22 *0.0085*	0,22 *0.0085*	0,24 *0.0095*	0,36 0.014	0,50 0.020
P5	218.19-160T-04-M08 F40M	SPMT100408T-M08 F40M	28,0 *1.1*	0,22 *0.0085*	0,22 *0.0085*	0,24 *0.0095*	0,36 0.014	0,50 0.020
P6	218.19-160T-04-M08 F40M	SPMT100408T-M08 F40M	28,0 *1.1*	0,22 *0.0085*	0,22 *0.0085*	0,24 *0.0095*	0,36 0.014	0,50 0.020
P7	218.19-160T-04-M08 F40M	SPMT100408T-M08 F40M	28,0 *1.1*	0,22 *0.0085*	0,22 *0.0085*	0,24 *0.0095*	0,36 0.014	0,50 0.020
P8	218.19-160T-04-M08 F40M	SPMT100408T-M08 F40M	28,0 *1.1*	0,22 *0.0085*	0,22 *0.0085*	0,24 *0.0095*	0,38 0.015	0,50 0.020
P11	218.19-160T-04-M08 F40M	SPMT100408T-M08 F40M	28,0 *1.1*	0,22 *0.0085*	0,22 *0.0085*	0,24 *0.0095*	0,36 0.014	0,50 0.020
P12	218.19-160T-04-M08 F40M	SPMT100408T-M08 F40M	22,0 *0.85*	0,15 *0.0060*	0,15 *0.0060*	0,16 *0.0065*	0,25 0.010	0,34 0.013
M1	218.19-160T-04-M08 F40M	SPMT100408T-M08 F40M	28,0 *1.1*	0,24 *0.0095*	0,24 *0.0095*	0,26 *0.010*	0,40 0.016	0,55 0.022
M2	218.19-160T-04-M08 F40M	SPMT100408T-M08 F40M	28,0 *1.1*	0,22 *0.0085*	0,22 *0.0085*	0,24 *0.0095*	0,36 0.014	0,50 0.020
M3	218.19-160T-04-M08 F40M	SPMT100408T-M08 F40M	22,0 *0.85*	0,17 *0.0065*	0,17 *0.0065*	0,19 *0.0075*	0,30 0.012	0,40 0.016
M4	218.19-160T-04-M08 F40M	SPMT100408T-M08 F40M	17,0 *0.65*	0,16 *0.0065*	0,16 *0.0065*	0,17 *0.0065*	0,26 0.010	0,36 0.014
M5	218.19-160T-04-M08 F40M	SPMT100408T-M08 F40M	17,0 *0.65*	0,16 *0.0065*	0,16 *0.0065*	0,17 *0.0065*	0,26 0.010	0,36 0.014
K1	218.19-160T-04-M08 F40M	SPMT100408T-M08 F40M	28,0 *1.1*	0,24 *0.0095*	0,24 *0.0095*	0,26 *0.010*	0,40 0.016	0,55 0.022
K2	218.19-160T-04-M08 F40M	SPMT100408T-M08 F40M	28,0 *1.1*	0,22 *0.0085*	0,22 *0.0085*	0,24 *0.0095*	0,36 0.014	0,50 0.020
K3	218.19-160T-04-M08 F40M	SPMT100408T-M08 F40M	28,0 *1.1*	0,22 *0.0085*	0,22 *0.0085*	0,24 *0.0095*	0,36 0.014	0,50 0.020
K4	218.19-160T-04-M08 F40M	SPMT100408T-M08 F40M	28,0 *1.1*	0,22 *0.0085*	0,22 *0.0085*	0,24 *0.0095*	0,36 0.014	0,50 0.020
K5	218.19-160T-04-M08 F40M	SPMT100408T-M08 F40M	28,0 *1.1*	0,19 *0.0075*	0,19 *0.0075*	0,20 *0.0080*	0,32 0.013	0,46 0.018
K6	218.19-160T-04-M08 F40M	SPMT100408T-M08 F40M	28,0 *1.1*	0,22 *0.0085*	0,22 *0.0085*	0,24 *0.0095*	0,36 0.014	0,50 0.020
K7	218.19-160T-04-M08 F40M	SPMT100408T-M08 F40M	28,0 *1.1*	0,19 *0.0075*	0,19 *0.0075*	0,20 *0.0080*	0,32 0.013	0,46 0.018
N1	218.19-160T-04-M08 F40M	SPMT100408T-M08 F40M	28,0 *1.1*	0,30 *0.012*	0,30 *0.012*	0,32 *0.013*	0,50 0.020	0,70 0.028
N2	218.19-160T-04-M08 F40M	SPMT100408T-M08 F40M	28,0 *1.1*	0,30 *0.012*	0,30 *0.012*	0,32 *0.013*	0,50 0.020	0,70 0.028
N3	218.19-160T-04-M08 F40M	SPMT100408T-M08 F40M	28,0 *1.1*	0,30 *0.012*	0,30 *0.012*	0,32 *0.013*	0,50 0.020	0,70 0.028
N11	218.19-160T-04-M08 F40M	SPMT100408T-M08 F40M	28,0 *1.1*	0,30 *0.012*	0,30 *0.012*	0,32 *0.013*	0,50 0.020	0,70 0.028
S1	218.19-160T-04-M08 F40M	SPMT100408T-M08 F40M	17,0 *0.65*	0,16 *0.0065*	0,16 *0.0065*	0,17 *0.0065*	0,26 0.010	0,36 0.014
S2	218.19-160T-04-M08 F40M	SPMT100408T-M08 F40M	17,0 *0.65*	0,16 *0.0065*	0,16 *0.0065*	0,17 *0.0065*	0,26 0.010	0,36 0.014
S3	218.19-160T-04-M08 F40M	SPMT100408T-M08 F40M	17,0 *0.65*	0,15 *0.0060*	0,15 *0.0060*	0,16 *0.0065*	0,24 0.0095	0,34 0.013
S11	218.19-160T-04-M08 F40M	SPMT100408T-M08 F40M	20,0 *0.80*	0,17 *0.0065*	0,17 *0.0065*	0,19 *0.0075*	0,30 0.012	0,40 0.016
S12	218.19-160T-04-M08 F40M	SPMT100408T-M08 F40M	20,0 *0.80*	0,17 *0.0065*	0,17 *0.0065*	0,19 *0.0075*	0,30 0.012	0,40 0.016
S13	218.19-160T-04-M08 F40M	SPMT100408T-M08 F40M	17,0 *0.65*	0,16 *0.0065*	0,16 *0.0065*	0,17 *0.0065*	0,26 0.010	0,36 0.014
H5	218.19-160T-04-M08 F40M	SPMT100408T-M08 F40M	18,0 *0.70*	0,13 *0.0050*	0,13 *0.0050*	0,14 *0.0055*	0,22 0.0085	0,30 0.012
H8	218.19-160T-04-M08 F40M	SPMT100408T-M08 F40M	15,0 *0.60*	0,10 *0.0040*	0,10 *0.0040*	0,11 *0.0044*	0,17 0.0065	0,24 0.0095
H11	218.19-160T-04-M08 F40M	SPMT100408T-M08 F40M	18,0 *0.70*	0,13 *0.0050*	0,13 *0.0050*	0,14 *0.0055*	0,22 0.0085	0,30 0.012
H12	218.19-160T-04-M08 F40M	SPMT100408T-M08 F40M	15,0 *0.60*	0,10 *0.0040*	0,10 *0.0040*	0,11 *0.0044*	0,17 0.0065	0,24 0.0095

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

R218.19-160 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	MH1000					F15M					MK2050					F25M					F30M					MP3000					MS2050				
		70%	30%	10%	5%		70%	30%	10%	5%		70%	30%	10%	5%		70%	30%	10%	5%		70%	30%	10%	5%		70%	30%	10%	5%		70%	30%	10%	5%
P1	—	—	—	—	—	175	190	240	280	305	190	205	255	300	330	195	215	260	310	330	190	205	245	295	315	225	245	295	350	375	195	215	260	310	330
	—	—	—	—	—	*570*	*620*	*790*	*920*	*1000*	*620*	*670*	*840*	*980*	*1075*	*640*	*710*	*850*	*1025*	*1075*	*620*	*670*	*800*	*970*	*1025*	*740*	*800*	*970*	*1150*	*1225*	*640*	*710*	*850*	*1025*	*1075*
P2	—	—	—	—	—	170	185	225	270	295	185	200	245	295	320	185	200	250	295	320	180	195	240	280	305	210	230	285	335	365	185	200	250	295	320
	—	—	—	—	—	*560*	*610*	*740*	*890*	*970*	*610*	*660*	*800*	*970*	*1050*	*610*	*660*	*820*	*970*	*1050*	*590*	*640*	*790*	*920*	*1000*	*690*	*750*	*940*	*1100*	*1200*	*610*	*660*	*820*	*970*	*1050*
P3	—	—	—	—	—	150	165	200	240	255	165	175	215	260	275	165	180	220	260	285	155	170	210	245	270	185	205	250	295	325	165	180	220	260	285
	—	—	—	—	—	*490*	*540*	*660*	*790*	*840*	*540*	*570*	*710*	*850*	*900*	*540*	*590*	*720*	*850*	*940*	*510*	*560*	*690*	*800*	*890*	*610*	*670*	*820*	*970*	*1075*	*540*	*590*	*720*	*850*	*940*
P4	—	—	—	—	—	135	145	180	210	230	145	155	195	230	250	145	160	195	230	250	140	150	185	220	240	165	180	220	265	285	145	160	195	230	250
	—	—	—	—	—	*445*	*475*	*590*	*690*	*750*	*475*	*510*	*640*	*750*	*820*	*475*	*520*	*640*	*750*	*820*	*460*	*490*	*610*	*720*	*790*	*540*	*590*	*720*	*870*	*940*	*475*	*520*	*640*	*750*	*820*
P5	155	165	205	245	265	125	135	170	200	220	135	150	185	220	235	140	150	185	220	240	130	145	175	210	230	160	170	210	250	270	140	150	185	220	240
	510	*540*	*670*	*800*	*870*	*410*	*445*	*560*	*660*	*720*	*445*	*490*	*610*	*720*	*770*	*460*	*490*	*610*	*720*	*790*	*425*	*475*	*570*	*690*	*750*	*520*	*560*	*690*	*820*	*890*	*460*	*490*	*610*	*720*	*790*
P6	175	190	230	280	295	145	160	190	230	245	160	170	210	250	265	155	170	215	250	270	150	160	205	235	255	175	190	240	280	305	155	170	215	250	270
	570	*620*	*750*	*920*	*970*	*475*	*520*	*620*	*750*	*800*	*520*	*560*	*690*	*820*	*870*	*510*	*560*	*710*	*820*	*890*	*490*	*520*	*670*	*770*	*840*	*570*	*620*	*790*	*920*	*1000*	*510*	*560*	*710*	*820*	*890*
P7	165	180	220	260	280	140	150	180	215	230	150	160	195	235	250	145	160	200	235	255	140	150	190	225	240	165	180	230	265	290	145	160	200	235	255
	540	*590*	*720*	*850*	*920*	*460*	*490*	*590*	*710*	*750*	*490*	*520*	*640*	*770*	*820*	*475*	*520*	*660*	*770*	*840*	*460*	*490*	*620*	*740*	*790*	*540*	*590*	*750*	*870*	*950*	*475*	*520*	*660*	*770*	*840*
P8	155	165	200	245	260	125	135	165	200	215	135	150	180	220	230	140	150	185	215	240	130	145	175	205	230	160	170	210	245	270	140	150	185	215	240
	510	*540*	*660*	*800*	*850*	*410*	*445*	*540*	*660*	*710*	*445*	*490*	*590*	*720*	*750*	*460*	*490*	*610*	*710*	*790*	*425*	*475*	*570*	*670*	*750*	*520*	*560*	*690*	*800*	*890*	*460*	*490*	*610*	*710*	*790*
P11	160	175	210	255	270	135	145	175	210	225	145	155	190	230	245	145	155	195	225	245	135	150	185	215	235	160	175	220	260	280	145	155	195	225	245
	520	*570*	*690*	*840*	*890*	*445*	*475*	*570*	*690*	*740*	*475*	*510*	*620*	*750*	*800*	*475*	*510*	*640*	*740*	*800*	*445*	*490*	*610*	*710*	*770*	*520*	*570*	*720*	*850*	*920*	*475*	*510*	*640*	*740*	*800*
P12	110	115	140	170	185	—	—	—	—	—	95	105	125	150	165	100	105	125	150	160	95	100	120	145	155	110	120	145	170	185	100	105	125	150	160
	360	*375*	*460*	*560*	*610*	—	—	—	—	—	*310*	*345*	*410*	*490*	*540*	*330*	*345*	*410*	*490*	*520*	*310*	*330*	*395*	*475*	*510*	*360*	*395*	*475*	*560*	*610*	*330*	*345*	*410*	*490*	*520*
M1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	145	155	195	225	245	160	170	215	250	275	150	165	205	240	260
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	*475*	*510*	*640*	*740*	*800*	*520*	*560*	*710*	*820*	*900*	*490*	*540*	*670*	*790*	*850*
M2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	120	130	160	190	205	130	145	175	210	225	125	135	165	200	215
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	*395*	*425*	*520*	*620*	*670*	*425*	*475*	*570*	*690*	*740*	*410*	*445*	*540*	*660*	*710*
M3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	100	110	130	155	165	110	120	145	170	185	105	115	135	165	175
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	*330*	*360*	*425*	*510*	*540*	*360*	*395*	*475*	*560*	*610*	*345*	*375*	*445*	*540*	*570*
M4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	80	85	105	120	130	90	95	115	135	145	85	90	110	125	140
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	*260*	*280*	*345*	*395*	*425*	*295*	*310*	*375*	*445*	*475*	*280*	*295*	*360*	*410*	*460*
M5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	65	70	85	100	110	75	80	95	110	120	70	75	90	105	115
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	*215*	*230*	*280*	*330*	*360*	*245*	*260*	*310*	*360*	*395*	*230*	*245*	*295*	*345*	*375*
K1	165	175	215	260	285	135	145	180	215	235	200	215	265	315	345	150	160	200	235	255	140	155	190	225	245	170	180	225	265	290	—	—	—	—	—
	540	*570*	*710*	*850*	*940*	*445*	*475*	*590*	*710*	*770*	*660*	*710*	*870*	*1025*	*1125*	*490*	*520*	*660*	*770*	*840*	*460*	*510*	*620*	*740*	*800*	*560*	*590*	*740*	*870*	*950*	—	—	—	—	—
K2	145	155	195	230	250	120	130	160	190	205	180	190	240	285	305	130	145	175	210	225	125	135	165	200	215	150	160	200	240	260	—	—	—	—	—
	475	*510*	*640*	*750*	*820*	*395*	*425*	*520*	*620*	*670*	*590*	*620*	*790*	*940*	*1000*	*425*	*475*	*570*	*690*	*740*	*410*	*445*	*540*	*660*	*710*	*490*	*520*	*660*	*790*	*850*	—	—	—	—	—
K3	125	135	165	195	210	100	110	135	160	175	150	165	200	240	260	110	120	150	175	190	105	115	140	170	185	125	135	170	200	220	—	—	—	—	—
	410	*445*	*540*	*640*	*690*	*330*	*360*	*445*	*520*	*570*	*490*	*540*	*660*	*790*	*850*	*360*	*395*	*490*	*570*	*620*	*345*	*375*	*460*	*560*	*610*	*410*	*445*	*560*	*660*	*720*	—	—	—	—	—
K4	115	125	160	185	200	95	105	130	155	165	145	155	195	230	245	105	115	140	170	185	100	110	135	160	175	120	130	160	190	210	—	—	—	—	—
	375	*410*	*520*	*610*	*660*	*310*	*345*	*425*	*510*	*540*	*475*	*510*	*640*	*750*	*800*	*345*	*375*	*460*	*560*	*610*	*330*	*360*	*445*	*520*	*570*	*395*	*425*	*520*	*620*	*690*	—	—	—	—	—
K5	75	80	100	115	125	60	65	80	95	105	90	95	120	140	155	65	70	90	105	115	65	70	85	100	110	75	80	100	120	130	—	—	—	—	—
	245	*260*	*330*	*375*	*410*	*195*	*215*	*260*	*310*	*345*	*295*	*310*	*395*	*460*	*510*	*215*	*230*	*295*	*345*	*375*	*215*	*230*	*280*	*330*	*360*	*245*	*260*	*330*	*395*	*425*	—	—	—	—	—
K6	105	110	140	165	180	85	95	115	135	150	125	135	170	200	220	95	100	125	150	160	90	95	120	140	155	105	115	140	170	185	—	—	—	—	—
	345	*360*	*460*	*540*	*590*	*280*	*310*	*375*	*445*	*490*	*410*	*445*	*560*	*660*	*720*	*310*	*330*	*410*	*490*	*520*	*295*	*310*	*395*	*460*	*510*	*345*	*375*	*460*	*560*	*610*	—	—	—	—	—
K7	95	100	125	150	160	80	85	105	125	135	115	125	155	180	200	85	90	115	135	145	80	90	110	125	140	95	105	130	150	165	—	—	—	—	—
	310	*330*	*410*	*490*	*520*	*260*	*280*	*345*	*410*	*445*	*375*	*410*	*510*	*590*	*660*	*280*	*295*	*375*	*445*	*475*	*260*	*295*	*360*	*410*	*460*	*310*	*345*	*425*	*490*	*540*	—	—	—	—	—
N1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
N2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
N3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
N11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	37	40	48	55	60	41	44	55	60	70	39	42	50	60	65
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	*120*	*130*	*155*	*180*	*195*	*135*	*145*	*180*	*195*	*230*	*130*	*140*	*165*	*195*	*215*
S2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	30	32	39	45	49	33	36	43	50	55	31	34	41	48	50
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	*100*	*105*	*130*	*150*	*160*	*110*	*120*	*140*	*165*	*180*	*100*	*110*	*135*	*155*	*165*
S3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	26	28	34	40	43	29	31	38	44	48	28	30	36	41	45
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	*85*	*90*	*110*	*130*	*140*	*95*	*100*	*125*	*145*	*155*	*90*	*100*	*120*	*135*	*150*
S11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	55	60	70	85	90
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	*180*	*195*	*230*	*280*	*295*
S12	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	37	40	48	55	60
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	*120*	*130*	*155*	*180*	*195*
S13	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	22	24	28	33	36
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	*70*	*80*	*90*	*110*	*120*
H5	38	42	50	60	65	32	35	42	49	55	—	—	—	—	—	34	37	45	55	55	32	35	43	50	55	36	39	48	55	60	—	—	—	—	—
	125	*140*	*165*	*195*	*215*	*105*	*115*	*140*	*160*	*180*	—	—	—	—	—	*110*	*120*	*150*	*180*	*180*	*105*	*115*	*140*	*165*	*180*	*120*	*130*	*155*	*180*	*195*	—	—	—	—	—
H8	42	45	55	65	70	34	37	45	55	55	—	—	—	—	—	37	40	48	55	60	35	38	46	55	60	39	43	50	60	65	—	—	—	—	—
	140	*150*	*180*	*215*	*230*	*110*	*120*	*150*	*180*	*180*	—	—	—	—	—	*120*	*130*	*155*	*180*	*195*	*115*	*125*	*150*	*180*	*195*	*130*	*140*	*165*	*195*	*215*	—	—	—	—	—
H11	49	55	65	75	85	40	44	55	65	70	—	—	—	—	—	43	47	55	65	75	41	45	55	65	70	46	50	60	70	75	—	—	—	—	—
	160	*180*	*215*	*245*	*280*	*130*	*145*	*180*	*215*	*230*	—	—	—	—	—	*140*	*155*	*180*	*215*	*245*	*135*	*150*	*180*	*215*	*230*	*150*	*165*	*195*	*230*	*245*	—	—	—	—	—
H12	75	80	100	115	125	60	65	80	95	105	—	—	—	—	—	65	70	85	100	110	65	70	80	95	105	75	80	100	115	125	—	—	—	—	—
	245	*260*	*330*	*375*	*410*	*195*	*215*	*260*	*310*	*345*	—	—	—	—	—	*215*	*230*	*280*	*330*	*360*	*215*	*230*	*260*	*310*	*345*	*245*	*260*	*330*	*375*	*410*	—	—	—	—	—

R218.19-160 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	F40M					MP2050					MP1501					MP2501					MS2500					MP3501					MM4500				
		70%	30%	10%	5%		70%	30%	10%	5%		70%	30%	10%	5%		70%	30%	10%	5%		70%	30%	10%	5%		70%	30%	10%	5%		70%	30%	10%	5%
P1	180	195	235	280	300	230	250	305	365	390	305	315	390	440	470	295	305	380	430	460	235	255	320	370	405	295	310	365	420	440	145	155	190	225	245
	590	*640*	*770*	*920*	*980*	*750*	*820*	*1000*	*1200*	*1275*	*1000*	*1025*	*1275*	*1450*	*1550*	*970*	*1000*	*1250*	*1400*	*1500*	*770*	*840*	*1050*	*1225*	*1325*	*970*	*1025*	*1200*	*1375*	*1450*	*475*	*510*	*620*	*740*	*800*
P2	170	185	230	270	290	220	240	295	350	380	295	310	370	430	460	285	295	360	415	445	230	250	305	360	395	275	290	355	405	430	135	150	185	220	235
	560	*610*	*750*	*890*	*950*	*720*	*790*	*970*	*1150*	*1250*	*970*	*1025*	*1225*	*1400*	*1500*	*940*	*970*	*1175*	*1350*	*1450*	*750*	*820*	*1000*	*1175*	*1300*	*900*	*950*	*1175*	*1325*	*1400*	*445*	*490*	*610*	*720*	*770*
P3	150	165	200	235	260	195	210	260	305	335	260	275	325	380	395	250	265	315	370	385	200	220	265	320	340	245	260	310	355	380	120	130	160	190	210
	490	*540*	*660*	*770*	*850*	*640*	*690*	*850*	*1000*	*1100*	*850*	*900*	*1075*	*1250*	*1300*	*820*	*870*	*1025*	*1225*	*1275*	*660*	*720*	*870*	*1050*	*1125*	*800*	*850*	*1025*	*1175*	*1250*	*395*	*425*	*520*	*620*	*690*
P4	130	145	175	210	230	170	185	230	270	295	230	240	295	335	355	220	230	285	325	345	180	190	240	285	305	215	225	275	315	335	105	115	140	170	185
	425	*475*	*570*	*690*	*750*	*560*	*610*	*750*	*890*	*970*	*750*	*790*	*970*	*1100*	*1175*	*720*	*750*	*940*	*1075*	*1125*	*590*	*620*	*790*	*940*	*1000*	*710*	*740*	*900*	*1025*	*1100*	*345*	*375*	*460*	*560*	*610*
P5	125	135	170	200	220	165	175	220	260	280	220	230	280	320	340	210	220	275	315	330	170	185	230	270	290	210	215	260	300	320	100	110	135	165	175
	410	*445*	*560*	*660*	*720*	*540*	*570*	*720*	*850*	*920*	*720*	*750*	*920*	*1050*	*1125*	*690*	*720*	*900*	*1025*	*1075*	*560*	*610*	*750*	*890*	*950*	*690*	*710*	*850*	*980*	*1050*	*330*	*360*	*445*	*540*	*570*
P6	140	155	195	225	245	185	200	250	290	315	255	265	315	365	385	245	255	305	355	370	195	210	255	305	330	235	245	300	340	360	115	125	155	185	200
	460	*510*	*640*	*740*	*800*	*610*	*660*	*820*	*950*	*1025*	*840*	*870*	*1025*	*1200*	*1275*	*800*	*840*	*1000*	*1175*	*1225*	*640*	*690*	*840*	*1000*	*1075*	*770*	*800*	*980*	*1125*	*1175*	*375*	*410*	*510*	*610*	*660*
P7	135	145	185	215	230	175	190	235	275	300	240	250	300	345	360	230	240	290	335	350	185	200	240	290	310	220	230	285	320	340	110	115	150	170	185
	445	*475*	*610*	*710*	*750*	*570*	*620*	*770*	*900*	*980*	*790*	*820*	*980*	*1125*	*1175*	*750*	*790*	*950*	*1100*	*1150*	*610*	*660*	*790*	*950*	*1025*	*720*	*750*	*940*	*1050*	*1125*	*360*	*375*	*490*	*560*	*610*
P8	125	135	170	200	220	165	175	220	255	280	220	230	275	320	335	210	220	265	315	325	170	185	225	270	285	210	215	260	295	320	100	110	135	160	175
	410	*445*	*560*	*660*	*720*	*540*	*570*	*720*	*840*	*920*	*720*	*750*	*900*	*1050*	*1100*	*690*	*720*	*870*	*1025*	*1075*	*560*	*610*	*740*	*890*	*940*	*690*	*710*	*850*	*970*	*1050*	*330*	*360*	*445*	*520*	*570*
P11	130	140	175	205	225	170	180	230	270	290	230	245	290	335	350	225	235	280	325	340	180	195	235	280	300	215	225	275	310	330	105	115	145	165	180
	425	*460*	*570*	*670*	*740*	*560*	*590*	*750*	*890*	*950*	*750*	*800*	*950*	*1100*	*1150*	*740*	*770*	*920*	*1075*	*1125*	*590*	*640*	*770*	*920*	*980*	*710*	*740*	*900*	*1025*	*1075*	*345*	*375*	*475*	*540*	*590*
P12	90	95	115	135	145	115	125	150	180	190	160	165	195	220	235	155	160	190	215	230	120	130	155	185	200	150	155	180	205	215	70	80	95	110	120
	295	*310*	*375*	*445*	*475*	*375*	*410*	*490*	*590*	*620*	*520*	*540*	*640*	*720*	*770*	*510*	*520*	*620*	*710*	*750*	*395*	*425*	*510*	*610*	*660*	*490*	*510*	*590*	*670*	*710*	*230*	*260*	*310*	*360*	*395*
M1	135	150	185	215	235	155	170	215	250	270	—	—	—	—	—	150	165	200	240	260	165	180	215	260	285	150	165	205	240	260	120	130	160	185	205
	445	*490*	*610*	*710*	*770*	*510*	*560*	*710*	*820*	*890*	—	—	—	—	—	*490*	*540*	*660*	*790*	*850*	*540*	*590*	*710*	*850*	*940*	*490*	*540*	*670*	*790*	*850*	*395*	*425*	*520*	*610*	*670*
M2	115	125	150	180	195	130	140	175	210	225	—	—	—	—	—	125	135	170	200	215	135	145	185	215	235	125	135	165	200	215	100	105	130	155	170
	375	*410*	*490*	*590*	*640*	*425*	*460*	*570*	*690*	*740*	—	—	—	—	—	*410*	*445*	*560*	*660*	*710*	*445*	*475*	*610*	*710*	*770*	*410*	*445*	*540*	*660*	*710*	*330*	*345*	*425*	*510*	*560*
M3	95	105	125	150	160	110	120	145	170	185	—	—	—	—	—	105	115	140	165	175	115	125	150	175	195	105	115	135	165	175	80	90	105	130	135
	310	*345*	*410*	*490*	*520*	*360*	*395*	*475*	*560*	*610*	—	—	—	—	—	*345*	*375*	*460*	*540*	*570*	*375*	*410*	*490*	*570*	*640*	*345*	*375*	*445*	*540*	*570*	*260*	*295*	*345*	*425*	*445*
M4	75	80	100	115	125	85	95	115	130	145	—	—	—	—	—	85	90	110	130	140	90	100	120	140	150	85	90	110	125	140	65	70	85	100	110
	245	*260*	*330*	*375*	*410*	*280*	*310*	*375*	*425*	*475*	—	—	—	—	—	*280*	*295*	*360*	*425*	*460*	*295*	*330*	*395*	*460*	*490*	*280*	*295*	*360*	*410*	*460*	*215*	*230*	*280*	*330*	*360*
M5	65	70	80	95	105	75	80	95	110	120	—	—	—	—	—	70	75	90	105	115	75	85	100	115	125	70	75	90	105	115	55	60	70	85	90
	215	*230*	*260*	*310*	*345*	*245*	*260*	*310*	*360*	*395*	—	—	—	—	—	*230*	*245*	*295*	*345*	*375*	*245*	*280*	*330*	*375*	*410*	*230*	*245*	*295*	*345*	*375*	*180*	*195*	*230*	*280*	*295*
K1	135	145	180	215	230	—	—	—	—	—	300	310	375	435	465	285	300	360	420	450	180	195	240	285	315	280	290	360	405	435	—	—	—	—	—
	445	*475*	*590*	*710*	*750*	—	—	—	—	—	*980*	*1025*	*1225*	*1425*	*1525*	*940*	*980*	*1175*	*1375*	*1475*	*590*	*640*	*790*	*940*	*1025*	*920*	*950*	*1175*	*1325*	*1425*	—	—	—	—	—
K2	120	130	160	190	205	—	—	—	—	—	265	275	340	390	410	255	265	330	380	400	160	175	215	255	275	250	260	315	365	385	—	—	—	—	—
	395	*425*	*520*	*620*	*670*	—	—	—	—	—	*870*	*900*	*1125*	*1275*	*1350*	*840*	*870*	*1075*	*1250*	*1300*	*520*	*570*	*710*	*840*	*900*	*820*	*850*	*1025*	*1200*	*1275*	—	—	—	—	—
K3	100	110	135	160	175	—	—	—	—	—	225	235	285	330	350	215	225	280	320	340	135	145	185	215	235	210	220	265	310	330	—	—	—	—	—
	330	*360*	*445*	*520*	*570*	—	—	—	—	—	*740*	*770*	*940*	*1075*	*1150*	*710*	*740*	*920*	*1050*	*1125*	*445*	*475*	*610*	*710*	*770*	*690*	*720*	*870*	*1025*	*1075*	—	—	—	—	—
K4	95	105	130	155	165	—	—	—	—	—	215	225	275	315	335	205	215	265	305	325	130	140	175	205	225	205	210	255	295	315	—	—	—	—	—
	310	*345*	*425*	*510*	*540*	—	—	—	—	—	*710*	*740*	*900*	*1025*	*1100*	*670*	*710*	*870*	*1000*	*1075*	*425*	*460*	*570*	*670*	*740*	*670*	*690*	*840*	*970*	*1025*	—	—	—	—	—
K5	60	65	80	95	105	—	—	—	—	—	135	140	170	195	210	130	135	165	190	205	80	90	110	130	140	130	135	160	180	195	—	—	—	—	—
	195	*215*	*260*	*310*	*345*	—	—	—	—	—	*445*	*460*	*560*	*640*	*690*	*425*	*445*	*540*	*620*	*670*	*260*	*295*	*360*	*425*	*460*	*425*	*445*	*520*	*590*	*640*	—	—	—	—	—
K6	85	90	115	135	145	—	—	—	—	—	190	195	240	275	295	185	190	235	270	285	115	125	155	180	195	180	185	225	260	275	—	—	—	—	—
	280	*295*	*375*	*445*	*475*	—	—	—	—	—	*620*	*640*	*790*	*900*	*970*	*610*	*620*	*770*	*890*	*940*	*375*	*410*	*510*	*590*	*640*	*590*	*610*	*740*	*850*	*900*	—	—	—	—	—
K7	75	85	105	120	130	—	—	—	—	—	175	180	220	250	265	170	175	215	245	260	105	115	140	165	180	165	170	205	230	245	—	—	—	—	—
	245	*280*	*345*	*395*	*425*	—	—	—	—	—	*570*	*590*	*720*	*820*	*870*	*560*	*570*	*710*	*800*	*850*	*345*	*375*	*460*	*540*	*590*	*540*	*560*	*670*	*750*	*800*	—	—	—	—	—
N1	990	1075	1325	1575	1700	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	3250	*3525*	*4350*	*5175*	*5575*	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
N2	400	430	540	630	690	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	1300	*1400*	*1775*	*2075*	*2275*	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
N3	265	285	355	425	455	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	870	*940*	*1175*	*1400*	*1500*	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
N11	305	330	410	485	520	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	1000	*1075*	*1350*	*1600*	*1700*	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S1	35	38	46	55	60	43	46	55	65	70	—	—	—	—	—	—	—	—	—	—	45	49	60	70	75	39	42	50	60	65	20	22	26	30	33
	115	*125*	*150*	*180*	*195*	*140*	*150*	*180*	*215*	*230*	—	—	—	—	—	—	—	—	—	—	*150*	*160*	*195*	*230*	*245*	*130*	*140*	*165*	*195*	*215*	*65*	*70*	*85*	*100*	*110*
S2	28	31	37	43	47	34	37	45	50	55	—	—	—	—	—	—	—	—	—	—	36	39	47	55	60	31	34	41	48	50	16	17	21	24	27
	90	*100*	*120*	*140*	*155*	*110*	*120*	*150*	*165*	*180*	—	—	—	—	—	—	—	—	—	—	*120*	*130*	*155*	*180*	*195*	*100*	*110*	*135*	*155*	*165*	*50*	*55*	*70*	*80*	*90*
S3	25	27	32	38	41	30	33	39	45	50	—	—	—	—	—	—	—	—	—	—	32	34	42	48	50	28	30	36	41	45	14	15	18	21	23
	80	*90*	*105*	*125*	*135*	*100*	*110*	*130*	*150*	*165*	—	—	—	—	—	—	—	—	—	—	*105*	*110*	*140*	*155*	*165*	*90*	*100*	*120*	*135*	*150*	*46*	*49*	*60*	*70*	*75*
S11	48	55	65	75	80	60	65	75	90	95	—	—	—	—	—	—	—	—	—	—	60	65	80	95	100	55	60	70	85	90	27	30	36	42	46
	155	*180*	*215*	*245*	*260*	*195*	*215*	*245*	*295*	*310*	—	—	—	—	—	—	—	—	—	—	*195*	*215*	*260*	*310*	*330*	*180*	*195*	*230*	*280*	*295*	*90*	*100*	*120*	*140*	*150*
S12	34	36	44	50	55	40	44	55	65	65	—	—	—	—	—	—	—	—	—	—	42	45	55	65	70	37	40	48	55	60	25	27	33	39	42
	110	*120*	*145*	*165*	*180*	*130*	*145*	*180*	*215*	*215*	—	—	—	—	—	—	—	—	—	—	*140*	*150*	*180*	*215*	*230*	*120*	*130*	*155*	*180*	*195*	*80*	*90*	*110*	*130*	*140*
S13	20	21	26	30	33	24	26	31	36	40	—	—	—	—	—	—	—	—	—	—	25	27	33	38	41	22	24	28	33	36	15	16	19	23	25
	65	*70*	*85*	*100*	*110*	*80*	*85*	*100*	*120*	*130*	—	—	—	—	—	—	—	—	—	—	*80*	*90*	*110*	*125*	*135*	*70*	*80*	*90*	*110*	*120*	*49*	*50*	*60*	*75*	*80*
H5	31	33	41	48	50	—	—	—	—	—	44	48	60	70	75	—	—	—	—	—	38	42	50	60	65	35	38	47	55	60	—	—	—	—	—
	100	*110*	*135*	*155*	*165*	—	—	—	—	—	*145*	*155*	*195*	*230*	*245*	—	—	—	—	—	*125*	*140*	*165*	*195*	*215*	*115*	*125*	*155*	*180*	*195*	—	—	—	—	—
H8	34	37	44	50	55	—	—	—	—	—	48	50	60	75	80	—	—	—	—	—	42	45	55	65	70	39	42	50	60	65	—	—	—	—	—
	110	*120*	*145*	*165*	*180*	—	—	—	—	—	*155*	*165*	*195*	*245*	*260*	—	—	—	—	—	*140*	*150*	*180*	*215*	*230*	*130*	*140*	*165*	*195*	*215*	—	—	—	—	—
H11	39	43	50	60	65	46	50	60	70	75	55	60	75	85	95	—	—	—	—	—	49	55	65	75	85	45	49	60	70	75	—	—	—	—	—
	130	*140*	*165*	*195*	*215*	*150*	*165*	*195*	*230*	*245*	*180*	*195*	*245*	*280*	*310*	—	—	—	—	—	*160*	*180*	*215*	*245*	*280*	*150*	*160*	*195*	*230*	*245*	—	—	—	—	—
H12	60	65	80	95	100	80	85	100	120	130	85	95	110	135	145	—	—	—	—	—	85	90	110	130	140	70	75	90	105	115	—	—	—	—	—
	195	*215*	*260*	*310*	*330*	*260*	*280*	*330*	*395*	*425*	*280*	*310*	*360*	*445*	*475*	—	—	—	—	—	*280*	*295*	*360*	*425*	*460*	*230*	*245*	*295*	*345*	*375*	—	—	—	—	—

R218.19-200 – Insert selection – mm/*Inch*

SMG		a_p	f_z				
			100%	70%	30%	10%	5%
P1	218.19-200T-05-M10 F40M	18,0 *0.70*	0,28 *0.011*	0,28 *0.011*	0,30 *0.012*	0,44 *0.017*	0,60 *0.024*
P2	218.19-200T-05-M10 F40M	18,0 *0.70*	0,28 *0.011*	0,28 *0.011*	0,30 *0.012*	0,46 *0.018*	0,65 *0.026*
P3	218.19-200T-05-M10 F40M	18,0 *0.70*	0,26 *0.010*	0,26 *0.010*	0,28 *0.011*	0,42 *0.017*	0,60 *0.024*
P4	218.19-200T-05-M10 F40M	18,0 *0.70*	0,26 *0.010*	0,26 *0.010*	0,28 *0.011*	0,42 *0.017*	0,60 *0.024*
P5	218.19-200T-05-M10 F40M	18,0 *0.70*	0,25 *0.010*	0,25 *0.010*	0,28 *0.011*	0,42 *0.017*	0,55 *0.022*
P6	218.19-200T-05-M10 F40M	18,0 *0.70*	0,25 *0.010*	0,25 *0.010*	0,26 *0.010*	0,40 *0.016*	0,55 *0.022*
P7	218.19-200T-05-M10 F40M	18,0 *0.70*	0,25 *0.010*	0,25 *0.010*	0,26 *0.010*	0,40 *0.016*	0,55 *0.022*
P8	218.19-200T-05-M10 F40M	18,0 *0.70*	0,26 *0.010*	0,26 *0.010*	0,28 *0.011*	0,42 *0.017*	0,60 *0.024*
P11	218.19-200T-05-M10 F40M	18,0 *0.70*	0,25 *0.010*	0,25 *0.010*	0,26 *0.010*	0,40 *0.016*	0,55 *0.022*
P12	218.19-200T-05-M10 F40M	14,0 *0.55*	0,18 *0.0070*	0,18 *0.0070*	0,19 *0.0075*	0,28 *0.011*	0,40 *0.016*
M1	218.19-200T-05-M10 F40M	18,0 *0.70*	0,28 *0.011*	0,28 *0.011*	0,30 *0.012*	0,46 *0.018*	0,65 *0.026*
M2	218.19-200T-05-M10 F40M	18,0 *0.70*	0,25 *0.010*	0,25 *0.010*	0,28 *0.011*	0,42 *0.017*	0,55 *0.022*
M3	218.19-200T-05-M10 F40M	14,0 *0.55*	0,22 *0.0085*	0,22 *0.0085*	0,22 *0.0085*	0,34 *0.013*	0,46 *0.018*
M4	218.19-200T-05-M10 F40M	11,0 *0.44*	0,20 *0.0080*	0,20 *0.0080*	0,20 *0.0080*	0,30 *0.012*	0,40 *0.016*
M5	218.19-200T-05-M10 F40M	11,0 *0.44*	0,20 *0.0080*	0,20 *0.0080*	0,20 *0.0080*	0,30 *0.012*	0,40 *0.016*
K1	218.19-200T-05-M10 F40M	18,0 *0.70*	0,28 *0.011*	0,28 *0.011*	0,30 *0.012*	0,46 *0.018*	0,65 *0.026*
K2	218.19-200T-05-M10 F40M	18,0 *0.70*	0,25 *0.010*	0,25 *0.010*	0,28 *0.011*	0,42 *0.017*	0,55 *0.022*
K3	218.19-200T-05-M10 F40M	18,0 *0.70*	0,25 *0.010*	0,25 *0.010*	0,28 *0.011*	0,42 *0.017*	0,55 *0.022*
K4	218.19-200T-05-M10 F40M	18,0 *0.70*	0,25 *0.010*	0,25 *0.010*	0,28 *0.011*	0,42 *0.017*	0,55 *0.022*
K5	218.19-200T-05-M10 F40M	18,0 *0.70*	0,22 *0.0085*	0,22 *0.0085*	0,24 *0.0095*	0,36 *0.014*	0,50 *0.020*
K6	218.19-200T-05-M10 F40M	18,0 *0.70*	0,25 *0.010*	0,25 *0.010*	0,28 *0.011*	0,42 *0.017*	0,55 *0.022*
K7	218.19-200T-05-M10 F40M	18,0 *0.70*	0,22 *0.0085*	0,22 *0.0085*	0,24 *0.0095*	0,36 *0.014*	0,50 *0.020*
N1	218.19-200T-05-M10 F40M	18,0 *0.70*	0,36 *0.014*	0,36 *0.014*	0,38 *0.015*	0,60 *0.024*	0,80 *0.032*
N2	218.19-200T-05-M10 F40M	18,0 *0.70*	0,36 *0.014*	0,36 *0.014*	0,38 *0.015*	0,60 *0.024*	0,80 *0.032*
N3	218.19-200T-05-M10 F40M	18,0 *0.70*	0,36 *0.014*	0,36 *0.014*	0,38 *0.015*	0,60 *0.024*	0,80 *0.032*
N11	218.19-200T-05-M10 F40M	18,0 *0.70*	0,36 *0.014*	0,36 *0.014*	0,38 *0.015*	0,60 *0.024*	0,80 *0.032*
S1	218.19-200T-05-M10 F40M	11,0 *0.44*	0,20 *0.0080*	0,20 *0.0080*	0,20 *0.0080*	0,30 *0.012*	0,40 *0.016*
S2	218.19-200T-05-M10 F40M	11,0 *0.44*	0,20 *0.0080*	0,20 *0.0080*	0,20 *0.0080*	0,30 *0.012*	0,40 *0.016*
S3	218.19-200T-05-M10 F40M	11,0 *0.44*	0,18 *0.0070*	0,18 *0.0070*	0,19 *0.0075*	0,28 *0.011*	0,38 *0.015*
S11	218.19-200T-05-M10 F40M	13,0 *0.50*	0,22 *0.0085*	0,22 *0.0085*	0,22 *0.0085*	0,34 *0.013*	0,46 *0.018*
S12	218.19-200T-05-M10 F40M	13,0 *0.50*	0,22 *0.0085*	0,22 *0.0085*	0,22 *0.0085*	0,34 *0.013*	0,46 *0.018*
S13	218.19-200T-05-M10 F40M	11,0 *0.44*	0,20 *0.0080*	0,20 *0.0080*	0,20 *0.0080*	0,30 *0.012*	0,40 *0.016*
H5	218.19-200T-05-M10 F40M	11,0 *0.44*	0,16 *0.0065*	0,16 *0.0065*	0,17 *0.0065*	0,25 *0.010*	0,34 *0.013*
H8	218.19-200T-05-M10 F40M	10,0 *0.40*	0,13 *0.0050*	0,13 *0.0050*	0,13 *0.0050*	0,19 *0.0075*	0,26 *0.010*
H11	218.19-200T-05-M10 F40M	11,0 *0.44*	0,16 *0.0065*	0,16 *0.0065*	0,17 *0.0065*	0,25 *0.010*	0,34 *0.013*
H12	218.19-200T-05-M10 F40M	10,0 *0.40*	0,13 *0.0050*	0,13 *0.0050*	0,13 *0.0050*	0,19 *0.0075*	0,26 *0.010*

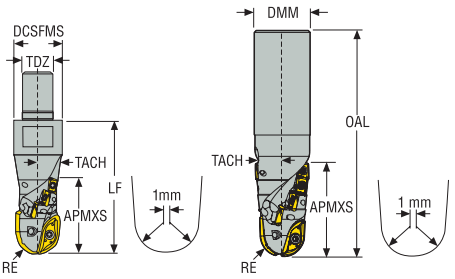
SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

R218.19-200 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	F25M					F40M				
	100%	70%	30%	10%	5%	100%	70%	30%	10%	5%
P1	215 *710*	230 *750*	285 *940*	340 *1125*	375 *1225*	195 *640*	210 *690*	260 *850*	310 *1025*	340 *1125*
P2	210 *690*	225 *740*	275 *900*	330 *1075*	360 *1175*	190 *620*	205 *670*	250 *820*	300 *980*	325 *1075*
P3	185 *610*	200 *660*	245 *800*	290 *950*	315 *1025*	170 *560*	180 *590*	220 *720*	265 *870*	285 *940*
P4	165 *540*	175 *570*	215 *710*	255 *840*	280 *920*	150 *490*	160 *520*	195 *640*	230 *750*	255 *840*
P5	160 *520*	170 *560*	210 *690*	245 *800*	270 *890*	145 *475*	155 *510*	190 *620*	220 *720*	245 *800*
P6	180 *590*	190 *620*	235 *770*	280 *920*	305 *1000*	160 *520*	170 *560*	215 *710*	255 *840*	280 *920*
P7	170 *560*	180 *590*	220 *720*	260 *850*	290 *950*	155 *510*	160 *520*	200 *660*	240 *790*	260 *850*
P8	155 *510*	165 *540*	205 *670*	245 *800*	265 *870*	140 *460*	150 *490*	185 *610*	220 *720*	240 *790*
P11	165 *540*	175 *570*	215 *710*	255 *840*	280 *920*	150 *490*	155 *510*	195 *640*	230 *750*	255 *840*
P12	115 *375*	115 *375*	140 *460*	170 *560*	185 *610*	105 *345*	105 *345*	130 *425*	150 *490*	165 *540*
M1	— —	— —	— —	— —	— —	155 *510*	165 *540*	205 *670*	240 *790*	260 *850*
M2	— —	— —	— —	— —	— —	130 *425*	140 *460*	170 *560*	200 *660*	225 *740*
M3	— —	— —	— —	— —	— —	110 *360*	115 *375*	140 *460*	165 *540*	180 *590*
M4	— —	— —	— —	— —	— —	90 *295*	90 *295*	110 *360*	130 *425*	140 *460*
M5	— —	— —	— —	— —	— —	75 *245*	75 *245*	95 *310*	110 *360*	115 *375*
K1	170 *560*	180 *590*	220 *720*	260 *850*	285 *940*	150 *490*	160 *520*	200 *660*	235 *770*	260 *850*
K2	150 *490*	160 *520*	200 *660*	230 *750*	260 *850*	135 *445*	145 *475*	180 *590*	210 *690*	235 *770*
K3	125 *410*	135 *445*	170 *560*	195 *640*	220 *720*	115 *375*	125 *410*	155 *510*	180 *590*	200 *660*
K4	120 *395*	130 *425*	160 *520*	185 *610*	210 *690*	110 *360*	115 *375*	145 *475*	170 *560*	190 *620*
K5	75 *245*	80 *260*	100 *330*	115 *375*	130 *425*	70 *230*	75 *245*	90 *295*	105 *345*	115 *375*
K6	105 *345*	115 *375*	140 *460*	165 *540*	185 *610*	95 *310*	105 *345*	130 *425*	150 *490*	165 *540*
K7	95 *310*	100 *330*	125 *410*	150 *490*	165 *540*	85 *280*	95 *310*	115 *375*	135 *445*	150 *490*
N1	— —	— —	— —	— —	— —	1100 *3600*	1175 *3850*	1450 *4750*	1725 *5650*	1925 *6325*
N2	— —	— —	— —	— —	— —	450 *1475*	475 *1550*	590 *1925*	700 *2300*	770 *2525*
N3	— —	— —	— —	— —	— —	300 *980*	315 *1025*	395 *1300*	465 *1525*	520 *1700*
N11	— —	— —	— —	— —	— —	340 *1125*	360 *1175*	450 *1475*	530 *1750*	590 *1925*
S1	— —	— —	— —	— —	— —	41 *135*	42 *140*	50 *165*	60 *195*	65 *215*
S2	— —	— —	— —	— —	— —	33 *110*	34 *110*	42 *140*	49 *160*	55 *180*
S3	— —	— —	— —	— —	— —	30 *100*	30 *100*	37 *120*	43 *140*	46 *150*
S11	— —	— —	— —	— —	— —	55 *180*	60 *195*	70 *230*	85 *280*	90 *295*
S12	— —	— —	— —	— —	— —	39 *130*	40 *130*	49 *160*	60 *195*	65 *215*
S13	— —	— —	— —	— —	— —	23 *75*	24 *80*	29 *95*	34 *110*	37 *120*
H5	41 *135*	42 *140*	50 *165*	60 *195*	65 *215*	37 *120*	38 *125*	46 *150*	55 *180*	60 *195*
H8	43 *140*	44 *145*	55 *180*	65 *215*	70 *230*	39 *130*	40 *130*	49 *160*	60 *195*	65 *215*
H11	50 *165*	55 *180*	65 *215*	75 *245*	85 *280*	47 *155*	48 *155*	60 *195*	70 *230*	75 *245*
H12	80 *260*	80 *260*	95 *310*	115 *375*	125 *410*	70 *230*	70 *230*	90 *295*	105 *345*	115 *375*

R218.24 – Metric





- For insert selection and cutting data recommendations, see page(s) 711-712
- For complete insert programme, see page(s) 843-844, 845, 856
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	ZEFP	APMXS	DCSFMS	DMM	TDZ	LF	RPMX	Weight	218.20	XO.X
			mm		mm	mm	mm		mm		kg		
R218.24-12R080.RE-028-06.2A	02735924	Combimaster	15,92	2	28,0	23,0	–	M12	50,0	18000	0,2	R080 (2)	06 (8)

Spare Parts, included in delivery

For cutter	Insert key	Insert screw centre	Insert screw periph	Key periphery
				
R218.24-080	H4B-T08P	C02506-T08P	C01804-T06P	H4B-T06P

Accessories

For cutter	Insert clamping torque	Torque key
		
R218.24-080	0.5NM	T00-08P12

Torque and fixed keys, see page 872

R218.24-080 – Insert selection – mm/*Inch*

SMG			f_z				
			100%	70%	30%	10%	5%
P1	218.20-080ER-M04 F40M	XOMX060204R-M05 F40M	0,10 *0.0040*	0,10 *0.0040*	0,11 *0.0044*	0,17 *0.0065*	0,24 0.0095
P2	218.20-080ER-M04 F40M	XOMX060204R-M05 F40M	0,10 *0.0040*	0,10 *0.0040*	0,11 *0.0044*	0,17 *0.0065*	0,24 0.0095
P3	218.20-080ER-M04 F40M	XOMX060204R-M05 F40M	0,095 *0.0038*	0,095 *0.0038*	0,10 *0.0040*	0,16 *0.0065*	0,22 0.0085
P4	218.20-080ER-M04 F40M	XOMX060204R-M05 F40M	0,095 *0.0038*	0,095 *0.0038*	0,10 *0.0040*	0,16 *0.0065*	0,22 0.0085
P5	218.20-080ER-M04 F40M	XOMX060204R-M05 F40M	0,090 *0.0036*	0,090 *0.0036*	0,10 *0.0040*	0,15 *0.0060*	0,22 0.0085
P6	218.20-080ER-M04 F40M	XOMX060204R-M05 F40M	0,090 *0.0036*	0,090 *0.0036*	0,10 *0.0040*	0,15 *0.0060*	0,22 0.0085
P7	218.20-080ER-M04 F40M	XOMX060204R-M05 F40M	0,090 *0.0036*	0,090 *0.0036*	0,10 *0.0040*	0,15 *0.0060*	0,22 0.0085
P8	218.20-080ER-M04 F40M	XOMX060204R-M05 F40M	0,095 *0.0038*	0,095 *0.0038*	0,10 *0.0040*	0,16 *0.0065*	0,22 0.0085
P11	218.20-080ER-M04 F40M	XOMX060204R-M05 F40M	0,090 *0.0036*	0,090 *0.0036*	0,10 *0.0040*	0,15 *0.0060*	0,22 0.0085
P12	218.20-080ER-M04 F40M	XOMX060204R-M05 F40M	0,060 *0.0024*	0,060 *0.0024*	0,070 *0.0028*	0,10 *0.0040*	0,15 0.0060
M1	218.20-080ER-ME04 MS2050	XOMX060204R-M05 MS2050	0,055 *0.0022*	0,055 *0.0022*	0,060 *0.0026*	0,095 *0.0038*	0,13 0.0050
M2	218.20-080ER-ME04 MS2050	XOMX060204R-M05 MS2050	0,050 *0.0020*	0,050 *0.0020*	0,055 *0.0022*	0,085 *0.0034*	0,12 0.0048
M3	218.20-080ER-ME04 MS2050	XOMX060204R-M05 MS2050	0,042 *0.0017*	0,042 *0.0017*	0,046 *0.0018*	0,070 *0.0028*	0,095 0.0038
M4	218.20-080ER-ME04 F40M	XOMX060204R-M05 F40M	0,065 *0.0026*	0,065 *0.0026*	0,070 *0.0028*	0,11 *0.0044*	0,15 0.0060
M5	218.20-080ER-ME04 F40M	XOMX060204R-M05 F40M	0,065 *0.0026*	0,065 *0.0026*	0,070 *0.0028*	0,11 *0.0044*	0,15 0.0060
K1	218.20-080ER-M04 F40M	XOMX060204R-M05 F40M	0,10 *0.0040*	0,10 *0.0040*	0,11 *0.0044*	0,17 *0.0065*	0,24 0.0095
K2	218.20-080ER-M04 F40M	XOMX060204R-M05 F40M	0,090 *0.0036*	0,090 *0.0036*	0,10 *0.0040*	0,15 *0.0060*	0,22 0.0085
K3	218.20-080ER-M04 F40M	XOMX060204R-M05 F40M	0,090 *0.0036*	0,090 *0.0036*	0,10 *0.0040*	0,15 *0.0060*	0,22 0.0085
K4	218.20-080ER-M04 F40M	XOMX060204R-M05 F40M	0,090 *0.0036*	0,090 *0.0036*	0,10 *0.0040*	0,15 *0.0060*	0,22 0.0085
K5	218.20-080ER-M04 F40M	XOMX060204R-M05 F40M	0,080 *0.0032*	0,080 *0.0032*	0,090 *0.0036*	0,14 *0.0055*	0,19 0.0075
K6	218.20-080ER-M04 F40M	XOMX060204R-M05 F40M	0,090 *0.0036*	0,090 *0.0036*	0,10 *0.0040*	0,15 *0.0060*	0,22 0.0085
K7	218.20-080ER-M04 F40M	XOMX060204R-M05 F40M	0,080 *0.0032*	0,080 *0.0032*	0,090 *0.0036*	0,14 *0.0055*	0,19 0.0075
N1	218.20-080ER-ME04 F40M	XOEX060204FR-E03 F40M	0,13 *0.0050*	0,13 *0.0050*	0,14 *0.0055*	0,22 *0.0085*	0,30 0.012
N2	218.20-080ER-ME04 F40M	XOEX060204FR-E03 F40M	0,13 *0.0050*	0,13 *0.0050*	0,14 *0.0055*	0,22 *0.0085*	0,30 0.012
N3	218.20-080ER-ME04 F40M	XOEX060204FR-E03 F40M	0,13 *0.0050*	0,13 *0.0050*	0,14 *0.0055*	0,22 *0.0085*	0,30 0.012
N11	218.20-080ER-ME04 F40M	XOEX060204FR-E03 F40M	0,13 *0.0050*	0,13 *0.0050*	0,14 *0.0055*	0,22 *0.0085*	0,30 0.012
S1	218.20-080ER-ME04 F40M	XOMX060204R-M05 F40M	0,065 *0.0026*	0,065 *0.0026*	0,070 *0.0028*	0,11 *0.0044*	0,15 0.0060
S2	218.20-080ER-ME04 F40M	XOMX060204R-M05 F40M	0,065 *0.0026*	0,065 *0.0026*	0,070 *0.0028*	0,11 *0.0044*	0,15 0.0060
S3	218.20-080ER-ME04 F40M	XOMX060204R-M05 F40M	0,060 *0.0024*	0,060 *0.0024*	0,065 *0.0026*	0,10 *0.0040*	0,14 0.0055
S11	218.20-080ER-ME04 MS2050	XOMX060204R-M05 MS2050	0,042 *0.0017*	0,042 *0.0017*	0,046 *0.0018*	0,070 *0.0028*	0,095 0.0040
S12	218.20-080ER-ME04 MS2050	XOMX060204R-M05 MS2050	0,042 *0.0017*	0,042 *0.0017*	0,046 *0.0018*	0,070 *0.0028*	0,095 0.0040
S13	218.20-080ER-ME04 MS2050	XOMX060204R-M05 MS2050	0,038 *0.0015*	0,038 *0.0015*	0,040 *0.0016*	0,060 *0.0024*	0,085 0.0034
H5	218.20-080ER-M04 F40M	XOMX060204R-M05 F40M	0,060 *0.0024*	0,060 *0.0024*	0,070 *0.0028*	0,10 *0.0040*	0,15 0.0060
H8	218.20-080ER-M04 F40M	XOMX060204R-M05 F40M	0,048 *0.0019*	0,048 *0.0019*	0,050 *0.0020*	0,080 *0.0032*	0,11 0.0044
H11	218.20-080ER-M04 F40M	XOMX060204R-M05 F40M	0,060 *0.0024*	0,060 *0.0024*	0,070 *0.0028*	0,10 *0.0040*	0,15 0.0060
H12	218.20-080ER-M04 F40M	XOMX060204R-M05 F40M	0,048 *0.0019*	0,048 *0.0019*	0,050 *0.0020*	0,080 *0.0032*	0,11 0.0044

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

R218.24-080 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	F25M					MS2050					F40M					MP3501					MM4500				
	100%	70%	30%	10%	5%	100%	70%	30%	10%	5%	100%	70%	30%	10%	5%	100%	70%	30%	10%	5%	100%	70%	30%	10%	5%
P1	225 *740*	245 *800*	295 *970*	345 *1125*	375 *1225*	265 *870*	290 *950*	345 *1125*	405 *1325*	440 *1450*	205 *670*	220 *720*	265 *870*	315 *1025*	340 *1125*	375 *1225*	400 *1300*	440 *1450*	480 *1575*	510 *1675*	165 *540*	180 *590*	215 *710*	255 *840*	275 *900*
P2	215 *710*	235 *770*	285 *940*	340 *1125*	365 *1200*	255 *840*	280 *920*	335 *1100*	395 *1300*	425 *1400*	195 *640*	215 *710*	260 *850*	305 *1000*	330 *1075*	365 *1200*	390 *1275*	425 *1400*	470 *1550*	495 *1625*	160 *520*	175 *570*	210 *690*	250 *820*	270 *890*
P3	190 *620*	205 *670*	250 *820*	295 *970*	320 *1050*	220 *720*	240 *790*	290 *950*	340 *1125*	365 *1200*	170 *560*	190 *620*	230 *750*	270 *890*	290 *950*	310 *1025*	335 *1100*	370 *1225*	405 *1325*	425 *1400*	140 *460*	150 *490*	185 *610*	215 *710*	235 *770*
P4	165 *540*	180 *590*	220 *720*	260 *850*	280 *920*	195 *640*	215 *710*	255 *840*	300 *980*	330 *1075*	150 *490*	165 *540*	200 *660*	235 *770*	255 *840*	275 *900*	295 *970*	325 *1075*	355 *1175*	370 *1225*	125 *410*	135 *445*	165 *540*	190 *620*	210 *690*
P5	160 *520*	175 *570*	210 *690*	250 *820*	270 *890*	190 *620*	205 *670*	245 *800*	290 *950*	315 *1025*	145 *475*	160 *520*	195 *640*	230 *750*	245 *800*	265 *870*	285 *940*	310 *1025*	335 *1100*	355 *1175*	120 *395*	130 *425*	155 *510*	185 *610*	200 *660*
P6	180 *590*	200 *660*	240 *790*	280 *920*	300 *980*	210 *690*	235 *770*	275 *900*	325 *1075*	350 *1150*	165 *540*	180 *590*	215 *710*	255 *840*	275 *900*	295 *970*	320 *1050*	345 *1125*	380 *1250*	400 *1300*	135 *445*	145 *475*	175 *570*	210 *690*	225 *740*
P7	170 *560*	185 *610*	225 *740*	265 *870*	285 *940*	200 *660*	220 *720*	260 *850*	305 *1000*	330 *1075*	155 *510*	170 *560*	205 *670*	240 *790*	260 *850*	280 *920*	300 *980*	325 *1075*	355 *1175*	375 *1225*	125 *410*	140 *460*	165 *540*	195 *640*	210 *690*
P8	160 *520*	175 *570*	210 *690*	250 *820*	270 *890*	185 *610*	205 *670*	245 *800*	285 *940*	310 *1025*	145 *475*	160 *520*	195 *640*	225 *740*	245 *800*	260 *850*	280 *920*	310 *1025*	340 *1125*	355 *1175*	115 *375*	130 *425*	155 *510*	185 *610*	200 *660*
P11	165 *540*	180 *590*	220 *720*	260 *850*	275 *900*	195 *640*	215 *710*	255 *840*	300 *980*	320 *1050*	150 *490*	165 *540*	200 *660*	235 *770*	250 *820*	270 *890*	290 *950*	315 *1025*	345 *1125*	365 *1200*	120 *395*	135 *445*	160 *520*	190 *620*	205 *670*
P12	110 *360*	120 *395*	140 *460*	165 *540*	180 *590*	120 *395*	135 *445*	160 *520*	185 *610*	205 *670*	100 *330*	110 *360*	125 *410*	150 *490*	165 *540*	155 *510*	170 *560*	180 *590*	195 *640*	205 *670*	80 *260*	85 *280*	105 *345*	120 *395*	130 *425*
M1	— —	— —	— —	— —	— —	205 *670*	225 *740*	270 *890*	315 *1025*	345 *1125*	160 *520*	175 *570*	210 *690*	245 *800*	265 *870*	205 *670*	225 *740*	270 *890*	315 *1025*	345 *1125*	135 *445*	150 *490*	180 *590*	215 *710*	230 *750*
M2	— —	— —	— —	— —	— —	170 *560*	185 *610*	220 *720*	260 *850*	280 *920*	130 *425*	145 *475*	175 *570*	205 *670*	220 *720*	170 *560*	185 *610*	220 *720*	260 *850*	280 *920*	115 *375*	125 *410*	150 *490*	175 *570*	190 *620*
M3	— —	— —	— —	— —	— —	135 *445*	150 *490*	175 *570*	205 *670*	225 *740*	105 *345*	115 *375*	140 *460*	165 *540*	175 *570*	135 *445*	150 *490*	175 *570*	205 *670*	225 *740*	90 *295*	100 *330*	120 *395*	140 *460*	155 *510*
M4	— —	— —	— —	— —	— —	105 *345*	115 *375*	135 *445*	160 *520*	170 *560*	85 *280*	90 *295*	110 *360*	125 *410*	135 *445*	105 *345*	115 *375*	135 *445*	160 *520*	170 *560*	70 *230*	80 *260*	95 *310*	110 *360*	120 *395*
M5	— —	— —	— —	— —	— —	85 *280*	95 *310*	110 *360*	130 *425*	140 *460*	70 *230*	75 *245*	90 *295*	105 *345*	115 *375*	85 *280*	95 *310*	110 *360*	130 *425*	140 *460*	60 *195*	65 *215*	80 *260*	90 *295*	100 *330*
K1	170 *560*	190 *620*	225 *740*	270 *890*	290 *950*	— —	— —	— —	— —	— —	155 *510*	170 *560*	205 *670*	245 *800*	265 *870*	365 *1200*	395 *1300*	430 *1400*	475 *1550*	495 *1625*	— —	— —	— —	— —	— —
K2	155 *510*	165 *540*	200 *660*	240 *790*	255 *840*	— —	— —	— —	— —	— —	140 *460*	150 *490*	185 *610*	215 *710*	230 *750*	320 *1050*	340 *1125*	375 *1225*	410 *1350*	430 *1400*	— —	— —	— —	— —	— —
K3	130 *425*	140 *460*	170 *560*	200 *660*	215 *710*	— —	— —	— —	— —	— —	120 *395*	130 *425*	155 *510*	185 *610*	195 *640*	270 *890*	290 *950*	315 *1025*	345 *1125*	365 *1200*	— —	— —	— —	— —	— —
K4	125 *410*	135 *445*	160 *520*	195 *640*	205 *670*	— —	— —	— —	— —	— —	110 *360*	125 *410*	150 *490*	175 *570*	185 *610*	255 *840*	275 *900*	300 *980*	330 *1075*	345 *1125*	— —	— —	— —	— —	— —
K5	75 *245*	85 *280*	100 *330*	115 *375*	125 *410*	— —	— —	— —	— —	— —	70 *230*	75 *245*	90 *295*	105 *345*	115 *375*	155 *510*	165 *540*	180 *590*	195 *640*	205 *670*	— —	— —	— —	— —	— —
K6	110 *360*	120 *395*	145 *475*	170 *560*	180 *590*	— —	— —	— —	— —	— —	100 *330*	110 *360*	130 *425*	155 *510*	165 *540*	225 *740*	245 *800*	265 *870*	290 *950*	305 *1000*	— —	— —	— —	— —	— —
K7	95 *310*	105 *345*	125 *410*	150 *490*	160 *520*	— —	— —	— —	— —	— —	90 *295*	95 *310*	115 *375*	135 *445*	150 *490*	195 *640*	210 *690*	230 *750*	250 *820*	260 *850*	— —	— —	— —	— —	— —
N1	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	1150 *3775*	1250 *4100*	1525 *5000*	1800 *5900*	1975 *6475*	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —
N2	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	465 *1525*	510 *1675*	620 *2025*	730 *2400*	790 *2600*	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —
N3	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	310 *1025*	340 *1125*	415 *1350*	485 *1600*	530 *1750*	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —
N11	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	355 *1175*	390 *1275*	475 *1550*	560 *1825*	610 *2000*	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —
S1	— —	— —	— —	— —	— —	49 *160*	55 *180*	65 *215*	75 *245*	80 *260*	39 *130*	42 *140*	50 *165*	60 *195*	65 *215*	49 *160*	55 *180*	65 *215*	75 *245*	80 *260*	22 *70*	24 *80*	28 *90*	33 *110*	36 *120*
S2	— —	— —	— —	— —	— —	39 *130*	43 *140*	50 *165*	60 *195*	65 *215*	32 *105*	34 *110*	41 *135*	47 *155*	50 *165*	39 *130*	43 *140*	50 *165*	60 *195*	65 *215*	18 *60*	19 *60*	23 *75*	27 *90*	29 *95*
S3	— —	— —	— —	— —	— —	34 *110*	38 *125*	44 *145*	50 *165*	55 *180*	28 *90*	30 *100*	35 *115*	41 *135*	45 *150*	34 *110*	38 *125*	44 *145*	50 *165*	55 *180*	16 *50*	17 *55*	20 *65*	23 *75*	25 *80*
S11	— —	— —	— —	— —	— —	70 *230*	75 *245*	90 *295*	105 *345*	115 *375*	55 *180*	60 *195*	70 *230*	85 *280*	90 *295*	70 *230*	75 *245*	90 *295*	105 *345*	115 *375*	31 *100*	33 *110*	40 *130*	47 *155*	50 *165*
S12	— —	— —	— —	— —	— —	47 *155*	50 *165*	60 *195*	70 *230*	80 *260*	37 *120*	41 *135*	49 *160*	60 *195*	60 *195*	47 *155*	50 *165*	60 *195*	70 *230*	80 *260*	28 *90*	31 *100*	37 *120*	43 *140*	47 *155*
S13	— —	— —	— —	— —	— —	27 *90*	30 *100*	35 *115*	41 *135*	45 *150*	22 *70*	24 *80*	28 *90*	33 *110*	36 *120*	27 *90*	30 *100*	35 *115*	41 *135*	45 *150*	17 *55*	18 *60*	21 *70*	25 *80*	27 *90*
H5	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	33 *110*	36 *120*	42 *140*	50 *165*	55 *180*	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —
H8	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	34 *110*	38 *125*	45 *150*	50 *165*	55 *180*	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —
H11	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	42 *140*	46 *150*	55 *180*	65 *215*	70 *230*	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —
H12	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	60 *195*	70 *230*	80 *260*	95 *310*	100 *330*	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —



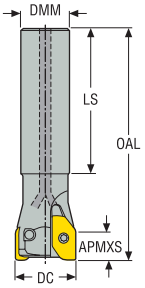
R217/220.97

Aluminium routers high productivity cutters are designed to provide optimal performance in slotting, square shoulder milling and pocketing operations in aluminum. These tools are specifically optimized to achieve high speed and high metal removal rates in aluminum.

- Cutter range 16-100mm (0.625 - 4 inch)
- Available in cylindrical, combimaster or for arbor mounting

R217.97-X08 – Metric





- For insert selection and cutting data recommendations, see page(s) 726
- For complete insert programme, see page(s) 852
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	ZEFP	APMXS	DMM	LS	OAL	RMPX°	Cmin	Cmax	RPMX	Weight	Insert
			mm		mm	mm	mm	mm		mm	mm		kg	
R217.97-1616.0-X08.2A	03245364	Cylindrical	16,0	2	8,0	16,0	67,0	100,0	11,0	26,4	30,0	40000	0,2	XP..08..
R217.97-2020.0-X08.2A	03245365	Cylindrical	20,0	2	8,0	20,0	79,0	120,0	7,2	34,4	38,0	40000	0,3	XP..08..
R217.97-2525.0-X08.3A	03245366	Cylindrical	25,0	3	8,0	25,0	99,0	150,0	5,0	44,4	48,0	40000	0,6	XP..08..

Spare Parts, included in delivery

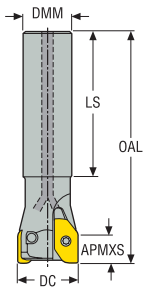
For cutter	Insert key	Insert screw
		
R217.97-1616-2020	H4B-T07P	C02505-T07P
R217.97-2525	H4B-T07P	C02506-T07P

Accessories

For cutter	Insert clamping torque	Torque key
		
R217.97-..	0.9NM	T00-07P09

Torque and fixed keys, see page 872

R217.97-X08 – inch





- For insert selection and cutting data recommendations, see page(s) 726
- For complete insert programme, see page(s) 852
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	ZEFP	APMXS	DMM	LS	OAL	RMPX°	C min	C max	RPMX	Weight	Insert
			inch		inch	inch	inch	inch		inch	inch		lbs	
R217.97-0.62-0-X08.2A	03245370	Cylindrical	0.625	2	0.315	0.625	2.638	3.937	11,2	1.028	1.171	40000	0.440	XP..08..
R217.97-0.75-0-X08.2A	03245371	Cylindrical	0.750	2	0.315	0.750	3.110	4.724	7,8	1.280	1.421	40000	0.660	XP..08..
R217.97-1.00-0-X08.3A	03245372	Cylindrical	1.000	3	0.315	1.000	3.898	5.906	4,9	1.780	1.921	40000	1.320	XP..08..

Spare Parts, included in delivery

For cutter	Insert key	Insert screw
		
R217.97-0.62-0.75	H4B-T07P	C02505-T07P
R217.97-1.00	H4B-T07P	C02506-T07P

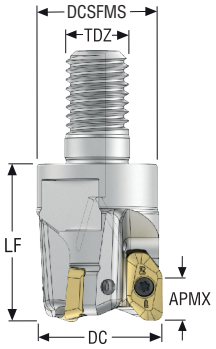
Accessories

For cutter	Insert clamping torque	Torque key
		
R217.97-..	8.0IN.LBS	T00-07P09

Torque and fixed keys, see page 872

R217.97-X08 – Metric





- For insert selection and cutting data recommendations, see page(s) 726
- For complete insert programme, see page(s) 852
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	ZEFP	APMXS	TDZ	DCSFMS	LF	RMPX°	Cmin	Cmax	RPMX	Weight	Insert
			mm		mm		mm	mm		mm	mm		kg	
R217.97-0816.RE-X08.2A	03245589	Combimaster	16,0	2	8,0	M8	13,5	23,0	11,0	26,4	30,0	40000	0,1	XP..08..
R217.97-1020.RE-X08.2A	03245362	Combimaster	20,0	2	8,0	M10	18,5	28,0	7,2	34,4	38,0	40000	0,1	XP..08..
R217.97-1020.RE-X08.3A	03308725	Combimaster	20,0	3	8,0	M10	18,5	28,0	7,2	34,4	38,0	40000	0,1	XP..08..
R217.97-1225.RE-X08.3A	03245363	Combimaster	25,0	3	8,0	M12	23,0	30,0	5,0	44,4	48,0	40000	0,2	XP..08..
R217.97-1225.RE-X08.4A	03308726	Combimaster	25,0	4	8,0	M12	23,0	30,0	5,0	44,4	48,0	40000	0,2	XP..08..

For Combimaster Shanks, see Machining Navigator Tooling System

Spare Parts, included in delivery

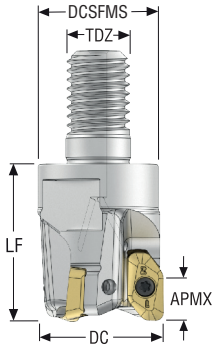
For cutter	Insert key	Insert screw
		
R217.97-0816-1020	H4B-T07P	C02505-T07P
R217.97-1225	H4B-T07P	C02506-T07P

Accessories

For cutter	Insert clamping torque	Torque key
		
R217.97-..	0.9NM	T00-07P09

Torque and fixed keys, see page 872

R217.97-X08 – inch





- For insert selection and cutting data recommendations, see page(s) 726
- For complete insert programme, see page(s) 852
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	ZEFP	APMXS	TDZ	DCSFMS	LF	RMPX°	C min	C max	RPMX	Weight	Insert
			inch		inch		inch	inch		inch	inch		lbs	
R217.97-0.62-08RE-X08.2A	03245367	Combimaster	0.625	2	0.315	M8	0.531	0.906	11,2	1.028	1.171	40000	0.220	XP..08..
R217.97-0.75-10RE-X08.2A	03245368	Combimaster	0.750	2	0.315	M10	0.728	1.102	7,8	1.280	1.421	40000	0.220	XP..08..
R217.97-1.00-12RE-X08.3A	03245369	Combimaster	1.000	3	0.315	M12	0.906	1.181	4,9	1.780	1.921	40000	0.220	XP..08..

For Combimaster Shanks, see Machining Navigator Tooling System

Spare Parts, included in delivery

For cutter	Insert key	Insert screw
		
R217.97-0.62-0.75	H4B-T07P	C02505-T07P
R217.97-1.00	H4B-T07P	C02506-T07P

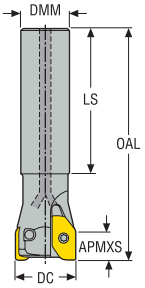
Accessories

For cutter	Insert clamping torque	Torque key
		
R217.97-..	8.0IN.LBS	T00-07P09

Torque and fixed keys, see page 872

R217.97-X12 – Metric





- For insert selection and cutting data recommendations, see page(s) 727
- For complete insert programme, see page(s) 852
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	ZEFP	APMXS	DMM	LS	OAL	LUX	RMPX°	Cmin	Cmax	RPMX	Weight	Insert
			mm		mm	mm	mm	mm	mm		mm	mm		kg	
R217.97-2525.0-X12.2A	02450300	Cylindrical	25,0	2	12,0	25,0	95,0	150,0	54,5	10,0	40,0	49,0	40000	0,6	XP..12
R217.97-3232.0-X12.2A	02450301	Cylindrical	32,0	2	12,0	32,0	85,0	150,0	64,5	8,0	54,0	63,0	40000	0,9	XP..12
R217.97-3232.0-X12.3A	02450302	Cylindrical	32,0	3	12,0	32,0	85,0	150,0	64,5	8,0	54,0	63,0	40000	0,9	XP..12

Spare Parts, included in delivery

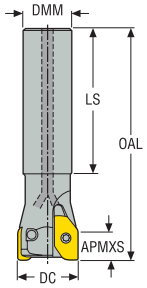
For cutter	Insert key	Insert screw
		
R217.97-..Ø25	H4B-T10P	C03508-T10P
R217.97-..Ø32	H4B-T10P	C03509-T10P

Accessories

For cutter	Insert clamping torque	Torque key
		
R217.97-..	3.0NM	T00-10P30

Torque and fixed keys, see page 872

R217.97-X12 – inch





- For insert selection and cutting data recommendations, see page(s) 727
- For complete insert programme, see page(s) 852
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	ZEFP	APMXS	DMM	LS	OAL	LUX	RMPX°	C min	C max	RPMX	Weight	Insert
			inch		inch	inch	inch	inch	inch		inch	inch		lbs	
R217.97-01.00-0-12.2A	02450377	Cylindrical	1.000	2	0.472	1.000	3.799	6.000	2.165	10,0	1.606	1.961	40000	1.320	XP..12

Spare Parts, included in delivery

For cutter	Insert key	Insert screw
		
R217.97-01.00	H4B-T10P	C03508-T10P

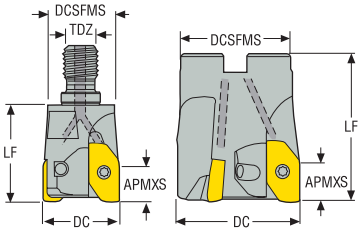
Accessories

For cutter	Insert clamping torque	Torque key
		
R217.97-..	26.6IN.LBS	T00-10P30

Torque and fixed keys, see page 872

R217/220.97-X12 – Metric



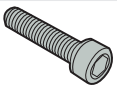


- For insert selection and cutting data recommendations, see page(s) 727
- For complete insert programme, see page(s) 852
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	ZEFP	APMXS	TDZ	DCSFMS	LF	RMPX°	Cmin	Cmax	RPMX	Weight	Insert
			mm		mm		mm	mm		mm	mm		kg	
R217.97-1225.RE-X12.2A	02449582	Combimaster	25,0	2	12,0	M12	23,0	30,0	10,0	40,0	49,0	40000	0,1	XP..12
R217.97-1632.RE-X12.2A	02450297	Combimaster	32,0	2	12,0	M16	30,0	40,0	8,0	54,0	63,0	40000	0,3	XP..12
R217.97-1632.RE-X12.3A	02450299	Combimaster	32,0	3	12,0	M16	30,0	40,0	8,0	54,0	63,0	40000	0,3	XP..12
R217.97-1640.RE-X12.3A	02486599	Combimaster	40,0	3	12,0	M16	30,0	40,0	6,0	70,0	79,0	35000	0,3	XP..12
R217.97-2040.RE-X12.3A	02928076	Combimaster	40,0	3	12,0	M20	36,5	40,0	6,0	70,0	79,0	35000	0,4	XP..12
R220.97-0050-X12.4A	02450306	Arbor	50,0	4	12,0	–	47,0	45,0	5,0	90,0	99,0	30000	0,4	XP..12

For Combimaster Shanks, see Machining Navigator Tooling System

Spare Parts, included in delivery

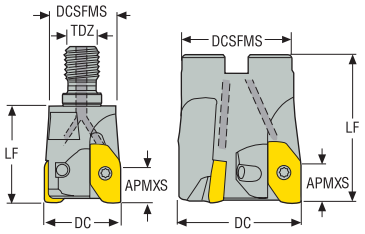
For cutter	Arbor screw	Insert key	Insert screw
			
R217.97-.. Ø25	–	H4B-T10P	C03508-T10P
R217.97-.. Ø32-40	–	H4B-T10P	C03509-T10P
R220.97-0050	220.17-692	H4B-T10P	C03509-T10P

Accessories

For cutter	Insert clamping torque	Torque key
		
R217/220.97-..	3.0NM	T00-10P30

Torque and fixed keys, see page 872

R217/220.97-X12 – inch



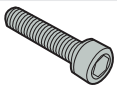


- For insert selection and cutting data recommendations, see page(s) 727
- For complete insert programme, see page(s) 852
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	ZEFP	APMXS	TDZ	DCSFMS	LF	RMPX°	C min	C max	RPMX	Weight	Insert
			inch		inch		inch	inch		inch	inch		lbs	
R217.97-1.00-12RE-12.2A	02450374	Combimaster	1.000	2	0.472	M12	0.906	1.181	10,0	1.606	1.961	40000	0.440	XP..12
R217.97-1.25-16RE-12.3A	02450376	Combimaster	1.250	3	0.472	M16	1.181	1.575	8,0	2.106	2.461	40000	0.440	XP..12
R217.97-01.50-20RE-12.3A	02928061	Combimaster	1.500	3	0.472	M20	1.437	1.575	6,0	2.606	2.961	35000	0.880	XP..12
R217.97-1.50-16RE-12.3A	02520346	Combimaster	1.500	3	0.472	M16	1.181	1.575	6,0	2.606	2.961	35000	0.660	XP..12
R220.97-02.00-12.3A	02534482	Arbor	2.000	3	0.472	–	1.850	1.772	5,0	3.606	3.961	30000	0.880	XP..12
R220.97-02.00-12.4A	02450395	Arbor	2.000	4	0.472	–	1.850	1.772	5,0	3.606	3.961	30000	1.100	XP..12

For Combimaster Shanks, see Machining Navigator Tooling System

Spare Parts, included in delivery

For cutter	Arbor screw	Insert key	Insert screw
			
R217.97-01.00	–	H4B-T10P	C03508-T10P
R217.97-01.25-01.50	–	H4B-T10P	C03509-T10P
R220.97-..	UC6S3/8UNFX1	H4B-T10P	C03509-T10P

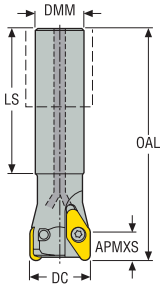
Accessories

For cutter	Insert clamping torque	Torque key
		
R217/220.97-..	26.6IN.LBS	T00-10P30

Torque and fixed keys, see page 872

R217.97-V22 – Metric

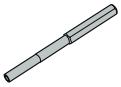




- For insert selection and cutting data recommendations, see page(s) 728
- For complete insert programme, see page(s) 839
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	ZEFP	APMXS	DMM	LS	OAL	LUX	RMPX°	Cmin	Cmax	RPMX	Weight	Insert
			mm		mm	mm	mm	mm	mm		mm	mm		kg	
R217.97-2532.0-V22.2A	00035425	Cylindrical	32,0	2	14,0	25,0	75,0	120,0	64,0	15,0	56,0	62,0	40000	0,5	VPGX22
R217.97-3240.0-V22.2A	00035427	Cylindrical	40,0	2	14,0	32,0	105,0	150,0	90,0	10,0	72,0	78,0	35000	0,9	VPGX22

Spare Parts, included in delivery

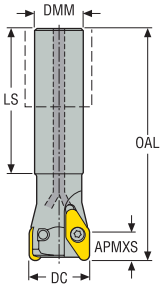
For cutter	Insert key	Insert screw
		
R217.97-..	H6B-T20P	C05010-T20P

Accessories

For cutter	Insert clamping torque	Torque key
		
R217.97-..	5.0NM	T00-20P50

Torque and fixed keys, see page 872

R217.97-V22 – inch

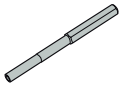




- For insert selection and cutting data recommendations, see page(s) 728
- For complete insert programme, see page(s) 839
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	ZEFP	APMXS	DMM	LS	OAL	LUX	RMPX°	C min	C max	RPMX	Weight	Insert
			inch		inch	inch	inch	inch	inch		inch	inch		lbs	
R217.97-01.25-0-V22.2A	00054103	Cylindrical	1.250	2	0.551	1.000	4.000	6.000	3.795	10,0	2.185	2.421	40000	1.320	VPGX22
R217.97-01.50-0-V22.2A	00054181	Cylindrical	1.500	2	0.551	1.250	4.000	6.000	3.638	10,0	2.685	2.921	35000	1.980	VPGX22

Spare Parts, included in delivery

For cutter	Insert key	Insert screw
		
R217.97-..	H6B-T20P	C05010-T20P

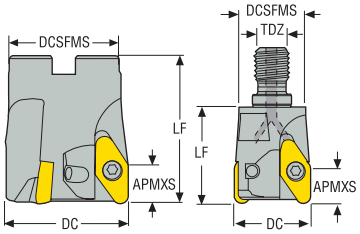
Accessories

For cutter	Insert clamping torque	Torque key
		
R217.97-..	44.3IN.LBS	T00-20P50

Torque and fixed keys, see page 872

R217/220.97-V22 – Metric



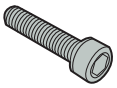
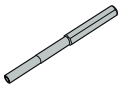


- For insert selection and cutting data recommendations, see page(s) 728
- For complete insert programme, see page(s) 839
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	ZEFP	APMXS	TDZ	DCSFMS	LF	RMPX°	Cmin	Cmax	RPMX	Weight	Insert
			mm		mm		mm	mm		mm	mm		kg	
R217.97-1632.RE-V22.2A	00035424	Combimaster	32,0	2	14,0	M16	30,0	40,0	15,0	56,0	62,0	40000	0,2	VPGX22
R217.97-1640.RE-V22.2A	00035426	Combimaster	40,0	2	14,0	M16	30,0	40,0	10,0	72,0	78,0	35000	0,3	VPGX22
R217.97-2040.RE-V22.2A	02928075	Combimaster	40,0	2	14,0	M20	36,5	45,0	10,0	72,0	78,0	35000	0,4	VPGX22
R220.97-0050-V22.2A	00035392	Arbor	50,0	2	14,0	–	47,0	57,0	8,0	92,0	98,0	30000	0,6	VPGX22
R220.97-0050-V22.3A	00035393	Arbor	50,0	3	14,0	–	47,0	57,0	8,0	92,0	98,0	30000	0,6	VPGX22
R220.97-0063-V22.3A	00035394	Arbor	63,0	3	14,0	–	50,0	57,0	6,0	116,0	125,0	27000	0,7	VPGX22
R220.97-0063-V22.4A	00035395	Arbor	63,0	4	14,0	–	50,0	57,0	6,0	116,0	125,0	27000	0,7	VPGX22
R220.97-0080-V22.4A	00035396	Arbor	80,0	4	14,0	–	60,0	57,0	5,0	152,0	158,0	25000	1,1	VPGX22
R220.97-0100-V22.5A	00035397	Arbor	100,0	5	14,0	–	77,0	57,0	4,0	192,0	198,0	22000	1,8	VPGX22

For Combimaster Shanks, see Machining Navigator Tooling System

Spare Parts, included in delivery

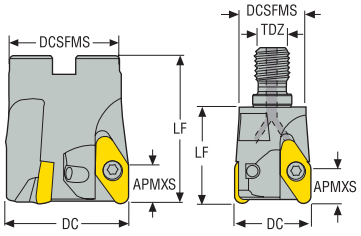
For cutter	Arbor screw	Insert key	Insert screw
			
R217.97-1632-1640	–	H6B-T20P	C05010-T20P
R217.97-2040	–	H6B-T20P	C05010-T20P
R220.97-0050	MC6S10X40	H6B-T20P	C05010-T20P
R220.97-0063	MC6S12X35	H6B-T20P	C05013-T20P
R220.97-0080	MC6S16X40	H6B-T20P	C05013-T20P
R220.97-0100	MC6S16X40	H6B-T20PL	C05013-T20P

Accessories

For cutter	Insert clamping torque	Torque key
		
R217/220.97-..	5.0NM	T00-20P50

Torque and fixed keys, see page 872

R217/220.97-V22 – inch



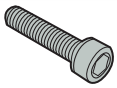
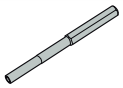


- For insert selection and cutting data recommendations, see page(s) 728
- For complete insert programme, see page(s) 839
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	ZEFP	APMXS	TDZ	DCSFMS	LF	RMPX°	C min	C max	RPMX	Weight	Insert
			inch		inch		inch	inch		inch	inch		lbs	
R217.97-1.25-16REV22.2A	00054077	Combimaster	1.250	2	0.551	M16	1.181	1.600	10,0	2.185	2.421	40000	0.660	VPGX22
R217.97-1.50-16REV22.2A	00054146	Combimaster	1.500	2	0.551	M16	1.181	1.600	10,0	2.685	2.921	35000	0.660	VPGX22
R220.97-02.00-V22.2A	00054269	Arbor	2.000	2	0.551	–	1.850	2.250	8,0	3.685	3.921	30000	1.320	VPGX22
R220.97-02.00-V22.3A	00054587	Arbor	2.000	3	0.551	–	1.850	2.250	8,0	3.685	3.921	30000	1.320	VPGX22
R220.97-02.50-V22.4A	00055249	Arbor	2.500	4	0.551	–	2.047	2.250	6,0	4.685	4.921	27000	1.980	VPGX22
R220.97-03.00-V22.4A	00050756	Arbor	3.000	4	0.551	–	2.441	2.250	5,0	5.685	5.921	25000	2.430	VPGX22
R220.97-04.00-V22.5A	00050828	Arbor	4.000	5	0.551	–	3.543	2.250	4,0	7.685	7.921	22000	4.850	VPGX22

For Combimaster Shanks, see Machining Navigator Tooling System

Spare Parts, included in delivery

For cutter	Arbor screw	Insert key	Insert screw
			
R217.97-..	–	H6B-T20P	C05010-T20P
R220.97-02.00	UC6S3/8UNFX11/2	H6B-T20P	C05010-T20P
R220.97-02.50-03.00	UC6S1/2UNFX1-1/2	H6B-T20P	C05013-T20P
R220.97-04.00	UC6S3/4UNFX1-1/4	H6B-T20PL	C05013-T20P

Accessories

For cutter	Insert clamping torque	Torque key
		
R217/220.97-..	44.3IN.LBS	T00-20P50

Torque and fixed keys, see page 872

R217.97-X08 – Insert selection – mm/*Inch*

SMG		a_p	f_z				
			100%	70%	30%	10%	5%
N1	XPKX080304PDER-E06 H25	4,0 *0.16*	0,18 *0.0070*	0,18 *0.0070*	0,20 *0.0080*	0,32 *0.013*	0,44 *0.017*
N2	XPKX080304PDER-E06 H25	4,0 *0.16*	0,18 *0.0070*	0,18 *0.0070*	0,20 *0.0080*	0,32 *0.013*	0,44 *0.017*
N3	XPKX080304PDER-E06 H25	4,0 *0.16*	0,18 *0.0070*	0,18 *0.0070*	0,20 *0.0080*	0,32 *0.013*	0,44 *0.017*
N11	XPKX080304PDER-E06 H25	4,0 *0.16*	0,18 *0.0070*	0,18 *0.0070*	0,20 *0.0080*	0,32 *0.013*	0,44 *0.017*

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

R217.97-X08 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	H25				
	100%	70%	30%	10%	5%
N1	2025 *6650*	2200 *7225*	2675 *8775*	3175 *10425*	3400 *11150*
N2	510 *1675*	560 *1825*	680 *2225*	800 *2625*	860 *2825*
N3	340 *1125*	370 *1225*	450 *1475*	540 *1775*	570 *1875*
N11	390 *1275*	425 *1400*	510 *1675*	610 *2000*	650 *2125*

R217/220.97-X12 – Insert selection – mm/*Inch*

SMG		a_p	f_z				
			100%	70%	30%	10%	5%
N1	XPKX12T304PDER-E08 H25	6,0 *0.24*	0,20 *0.0080*	0,20 *0.0080*	0,22 *0.0085*	0,34 *0.013*	0,48 *0.019*
N2	XPKX12T304PDER-E08 H25	6,0 *0.24*	0,20 *0.0080*	0,20 *0.0080*	0,22 *0.0085*	0,34 *0.013*	0,48 *0.019*
N3	XPKX12T304PDER-E08 H25	6,0 *0.24*	0,20 *0.0080*	0,20 *0.0080*	0,22 *0.0085*	0,34 *0.013*	0,48 *0.019*
N11	XPKX12T304PDER-E08 H25	6,0 *0.24*	0,20 *0.0080*	0,20 *0.0080*	0,22 *0.0085*	0,34 *0.013*	0,48 *0.019*

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

R217/220.97-X12 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	H25				
	100%	70%	30%	10%	5%
N1	1900 *6225*	2075 *6800*	2525 *8275*	3000 *9850*	3225 *10575*
N2	480 *1575*	520 *1700*	640 *2100*	760 *2500*	820 *2700*
N3	320 *1050*	350 *1150*	425 *1400*	500 *1650*	540 *1775*
N11	365 *1200*	400 *1300*	485 *1600*	580 *1900*	620 *2025*

R217/220.97-V22 – Insert selection – mm/*Inch*

SMG		a_p	f_z				
			100%	70%	30%	10%	5%
N1	VPGX220605ER-E10 H25	7,0 *0.28*	0,22 *0.0085*	0,22 *0.0085*	0,24 *0.0095*	0,36 *0.014*	0,50 *0.020*
N2	VPGX220605ER-E10 H25	7,0 *0.28*	0,22 *0.0085*	0,22 *0.0085*	0,24 *0.0095*	0,36 *0.014*	0,50 *0.020*
N3	VPGX220605ER-E10 H25	7,0 *0.28*	0,22 *0.0085*	0,22 *0.0085*	0,24 *0.0095*	0,36 *0.014*	0,50 *0.020*
N11	VPGX220605ER-E10 H25	7,0 *0.28*	0,22 *0.0085*	0,22 *0.0085*	0,24 *0.0095*	0,36 *0.014*	0,50 *0.020*

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

R217/220.97-V22 – Cutting data v_c = (m/min)/*(sf/min)*

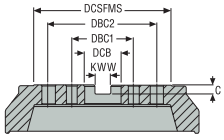
SMG	H15					H25				
	100%	70%	30%	10%	5%	100%	70%	30%	10%	5%
N1	1925 *6325*	2075 *6800*	2550 *8375*	3050 *10000*	3300 *10825*	1925 *6325*	2075 *6800*	2550 *8375*	3050 *10000*	3300 *10825*
N2	485 *1600*	530 *1750*	650 *2125*	770 *2525*	840 *2750*	485 *1600*	530 *1750*	650 *2125*	770 *2525*	840 *2750*
N3	325 *1075*	350 *1150*	430 *1400*	510 *1675*	560 *1825*	325 *1075*	350 *1150*	430 *1400*	510 *1675*	560 *1825*
N11	370 *1225*	400 *1300*	490 *1600*	590 *1925*	640 *2100*	370 *1225*	400 *1300*	490 *1600*	590 *1925*	640 *2100*

Code keys metric and inch

R	217	.	79	-	18	20	.	0	-	10	A
1	2		3		4	5		6		7	8

R	217	.	79	-	01.50	-	3	-	08	3	A
1	2		3		4		5		6	7	8

1.	2.	3.
R = Right hand rotation Cx = For Seco-Capto	217 = With shank 220 = For arbor	Cutter system
4.	**5. (Not for inch designation)**	**6.**
Shank diameter (connecting thread diameter for Combimaster)	Cutter diameter	Shank type RE = Combimaster 0. = Cylindrical 3. = Weldon
7.	**8.**	
Insert size	A = With through coolant supply	



Dimensions in mm					
DCB	DCSFMS	DBC1	DBC2	KWW	C
16	30-35	–	–	8,4	5,6
22	42-47	–	–	10,4	6,3
27	48-62	–	–	12,4	7
32	60-90	–	–	14,4	8
40	90-130	66,7	–	16,4	9
60	130-270	101,6	177,8	25,7	14

Dimensions in inch					
DCB	DCSFMS	DBC1	DBC2	KWW	C
0.500	*1.181 - 1.378*			*0.258*	*0.165*
0.750	*1.378 - 1.850*	–	–	*0.321*	*0.193*
1.000	*1.803 - 2.441*	–	–	*0.382*	*0.224*
1.250	*2.250 - 3.031*	–	–	*0.508*	*0.287*
1.500	*2.750 - 3.543*	–	–	*0.630*	*0.382*
2.000	*4.331*	–	–	*0.756*	*0.445*
2.500	*5.118 - 6.299 (8.858)*	*4.000*	*(7.000)*	*1.000*	*0.551*

For a more exact DCSFMS and DCB measurement, see each product table.

Selection – Metric

Insert	a_p max	Material suitability								
		P	M	K	N	S	H			
XO06	3,0	■	■	■	■	■	□	■	◩	■
XO10	6,0	■	■	■	■	■	□	■	■	■
XO12	7,0	■	■	■	■	■	□	◩	■	■
SCET	11,0	■	■	■	■	■	□	-	■	◩
	20,0									
	30,0									
	40,0									
XNEX08..L	7,0	■	■	■	■	■	□	■	■	■

1st choice	■
Alternative choice	◩
Possible choice	□

High speed machine with low power/torque	
Strong stable machine with rigid connecion	
Not recommended	-

Unstable condition suitability	
Ramping ability	
Plunging ability	

Selection – Metric

Insert	No. of cutting edges	Application	Cutter diameter (mm) available with effective number of teeth												See page
			12	16	20	25	32	40	50	63	80	100	125	160	
XO.X06	2		2	3											740
			3	4											
XO.X10	2				2										743
						3	4	5							
XO.X12	2						2	3	4						750
						2	3	4		5					
SCET12	4						2	3	4	5	6	7	8		757
												4			
													4		
														4	
XNEX08	6							3	4	5	6	7			735
									5	6	7	9			

x — x indicates number of teeth (first choice)

x — x indicates number of teeth

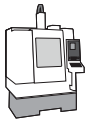
Troubleshooter for unstable fixturing and/or unstable conditions

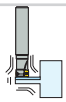
Basic choice

Selection – Inch

Insert	a_p max	Material suitability								
		P	M	K	N	S	H			
XO10 	0.236	■	■	■	■	■	□	■	■	■
XO12 	0.276	■	■	■	■	■	□	◩	■	■
SCET 	0.433	■	■	■	■	■	□	-	■	◩
XNEX08..L 	0.276	■	■	■	■	■	□	■	■	■

1st choice	■
Alternative choice	◩
Possible choice	□

High speed machine with low power/torque	
Strong stable machine with rigid connecion	
Not recommended	-

Unstable condition suitability	
Ramping ability	
Plunging ability	

Selection – Inch

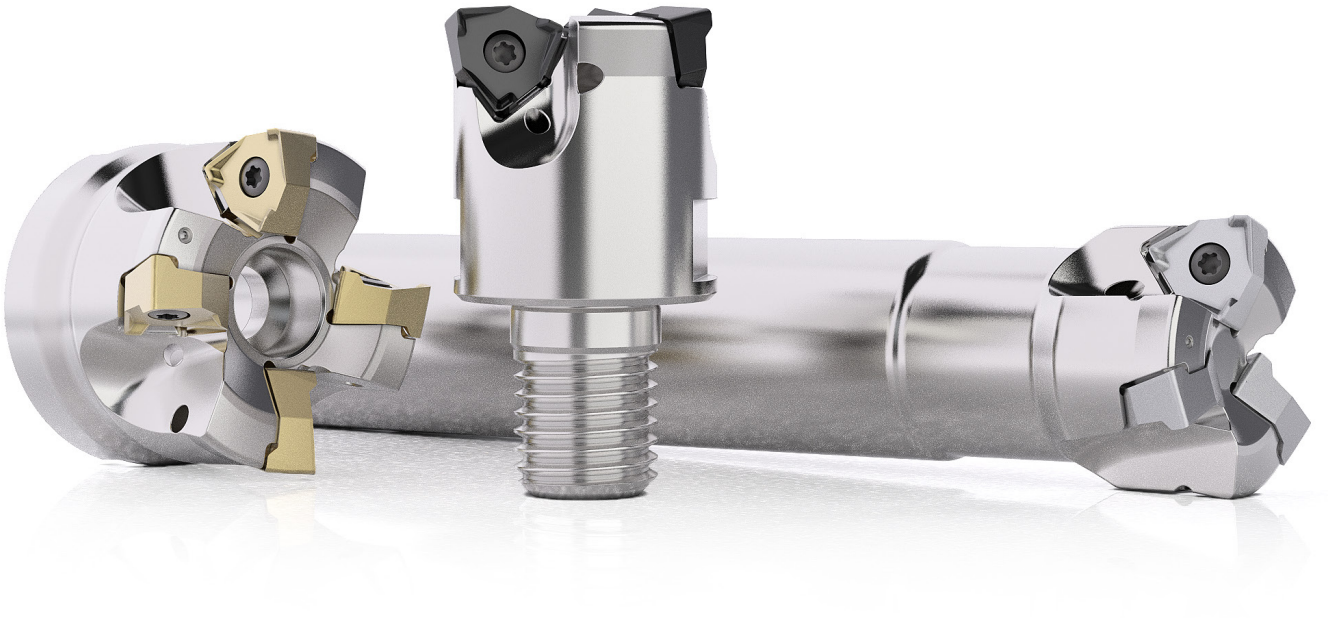
Insert	No. of cutting edges	Application	Cutter diameter (inch) available with effective number of teeth								See page
			0.75	1.00	1.25	1.50	2.00	2.50	3.00	4.00	
XO.X10	2		2								743
											
XO.X12	2										750
				2							
SCET12	4				2	3	4	5	6	7	757
											
											
											
XNEX08	6					3	4	6	7	9	735
											

x — x indicates number of teeth (first choice)

x — x indicates number of teeth

 Troubleshooter for unstable fixturing and/or unstable conditions

 Basic choice

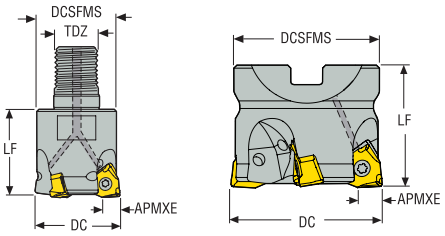


Square 6 PLUNGE MILL

The Plunge Square 6 cutters are equipt with double sided inserts, means 6 cutting edges.

- Cutter range: 40-100 mm (1.5 - 3 inch)
- Max radial depth of cut 7 mm (.275 inch)
- Insert corner radii range 0.8-1.6 mm (.031 - .063 inch)

R217/220.79-08 – Metric





- For insert selection and cutting data recommendations, see page(s) 737-738
- For complete insert programme, see page(s) 840
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	ZEFP	APMXE	DCB	TDZ	DCSFMS	LF	Weight	RPMX	Insert
			mm		mm	mm		mm	mm	kg		
R217.79-2040.RE-08-3A	03058302	Combimaster	40,0	3	7,0	–	M20	36,5	40,0	0,4	11800	XNEX08..L
R217.79-3240.3-08-3A	03058304	Weldon	40,0	3	7,0	–	–	–	164,0	1,3	11800	XNEX08..L
R220.79-0050-08-4A	03058315	Arbor	50,0	4	7,0	22,0	–	48,0	40,0	0,3	10600	XNEX08..L
R220.79-0050-08-5A	03058316	Arbor	50,0	5	7,0	22,0	–	48,0	40,0	0,3	10600	XNEX08..L
R220.79-0063-08-6A	03058318	Arbor	63,0	6	7,0	27,0	–	60,0	50,0	0,8	9400	XNEX08..L
R220.79-0080-08-7A	03058320	Arbor	80,0	7	7,0	27,0	–	62,0	50,0	1,1	8400	XNEX08..L

Spare Parts, included in delivery

For cutter	Arbor screw	Insert key	Insert screw
			
R217.79-.. Ø40	–	H4B-T15P	C04011-T15P
220.79-Ø50	220.17-696	1/4HEX-T15PX50	C04011-T15P
220.79-Ø50	220.17-696	H4B-T15P	C04011-T15P
220.79-Ø63	MC6S12X35	H4B-T15P	C04011-T15P
R220.79- Ø80	–	H4B-T15PL	C04011-T15P

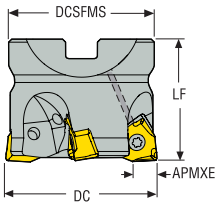
Accessories

For cutter	Adjustable Torque key	Insert clamping torque	Torque key
			
R217/220.79-..	–	3.5NM	T00-15P35
R217/220.79-..	1/4HEX-S-HANDLE-0.8-5.0NM	3.5NM	T00-15P35

Torque and fixed keys, see page 872

R217/220.79-08 – inch

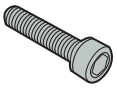




- For insert selection and cutting data recommendations, see page(s) 737-738
- For complete insert programme, see page(s) 840
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	ZEFP	APMXE	DCB	DCSFMS	LF	Weight	RPMX	Insert
			inch		inch	inch	inch	inch	lbs		
R220.79-02.50-08-6A	03058349	Arbor	2.500	6	0.276	1.000	2.250	1.969	1.980	9400	XNEX08..L

Spare Parts, included in delivery

For cutter	Arbor screw	Insert key	Insert screw
			
R217.79-02.50-03.00	UC6S1/2UNFX1-1/4	H4B-T15P	C04011-T15P

Accessories

For cutter	Insert clamping torque	Torque key
		
R217.79-..	31.0IN.LBS	T00-15P35

Torque and fixed keys, see page 872

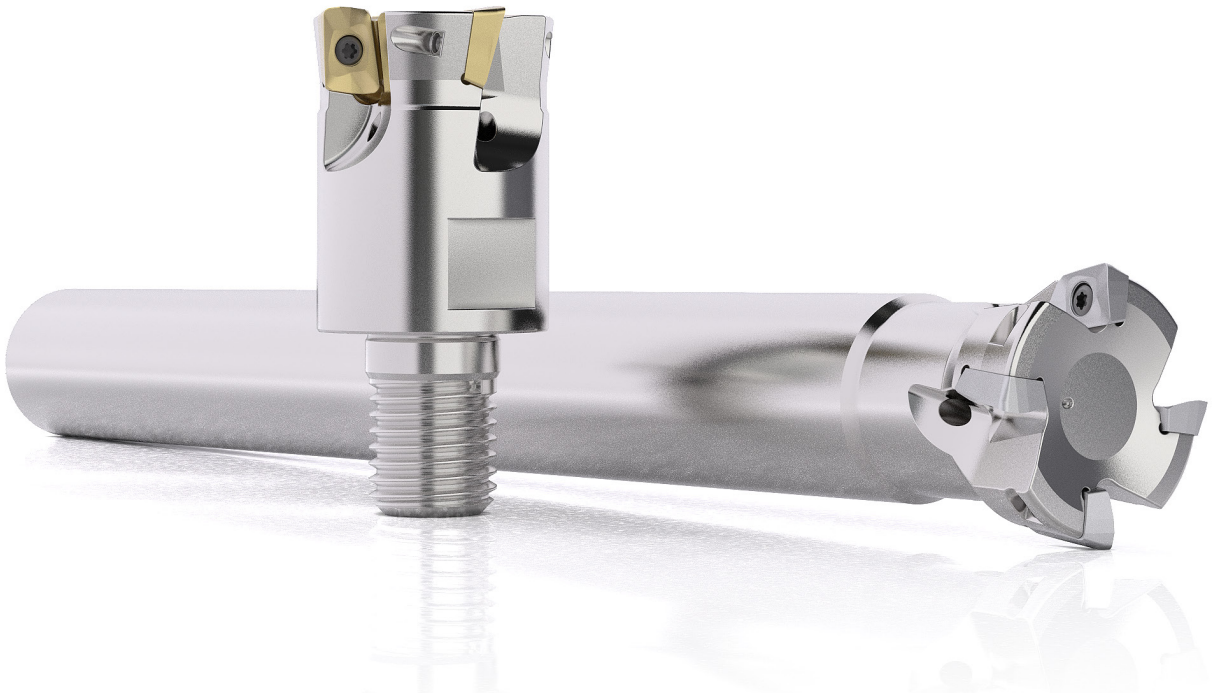
R217/220.79-08 – Insert selection – mm/*Inch*

SMG		f_z	a_{so}			
			100%	70%	50%	30%
P1	XNEX080608TL-M13 F40M	0,18 *0.0070*	5,0 *0.20*	5,0 *0.20*	5,0 *0.20*	6,0 *0.24*
P2	XNEX080608TL-M13 F40M	0,19 *0.0075*	5,0 *0.20*	5,0 *0.20*	5,0 *0.20*	6,0 *0.24*
P3	XNEX080608TL-M13 MP2501	0,18 *0.0070*	5,0 *0.20*	5,0 *0.20*	5,0 *0.20*	6,0 *0.24*
P4	XNEX080608TL-M13 MP2501	0,17 *0.0065*	5,0 *0.20*	5,0 *0.20*	5,0 *0.20*	6,0 *0.24*
P5	XNEX080608TL-M13 MP2501	0,17 *0.0065*	5,0 *0.20*	5,0 *0.20*	5,0 *0.20*	6,0 *0.24*
P6	XNEX080608TL-M13 MP2501	0,17 *0.0065*	5,0 *0.20*	5,0 *0.20*	5,0 *0.20*	6,0 *0.24*
P7	XNEX080608TL-M13 MP2501	0,17 *0.0065*	5,0 *0.20*	5,0 *0.20*	5,0 *0.20*	6,0 *0.24*
P8	XNEX080608TL-M13 MP2501	0,18 *0.0070*	5,0 *0.20*	5,0 *0.20*	5,0 *0.20*	6,0 *0.24*
P11	XNEX080608TL-M13 MP3501	0,17 *0.0065*	5,0 *0.20*	5,0 *0.20*	5,0 *0.20*	6,0 *0.24*
P12	XNEX080608TL-M13 MP2501	0,11 *0.0044*	4,0 *0.16*	4,0 *0.16*	4,0 *0.16*	4,5 *0.18*
M1	XNEX080608TL-M13 F40M	0,19 *0.0075*	5,0 *0.20*	5,0 *0.20*	5,0 *0.20*	6,0 *0.24*
M2	XNEX080608TL-M13 F40M	0,17 *0.0065*	5,0 *0.20*	5,0 *0.20*	5,0 *0.20*	6,0 *0.24*
M3	XNEX080608TL-M13 F40M	0,14 *0.0055*	4,0 *0.16*	4,0 *0.16*	4,0 *0.16*	4,5 *0.18*
M4	XNEX080608TL-M13 MP3501	0,12 *0.0048*	3,0 *0.12*	3,0 *0.12*	3,0 *0.12*	3,5 *0.14*
M5	XNEX080608TL-M13 MP3501	0,12 *0.0048*	3,0 *0.12*	3,0 *0.12*	3,0 *0.12*	3,5 *0.14*
K1	XNEX080608TL-M13 MP2501	0,19 *0.0075*	5,0 *0.20*	5,0 *0.20*	5,0 *0.20*	6,0 *0.24*
K2	XNEX080608TL-M13 MP2501	0,17 *0.0065*	5,0 *0.20*	5,0 *0.20*	5,0 *0.20*	6,0 *0.24*
K3	XNEX080608TL-M13 MP2501	0,17 *0.0065*	5,0 *0.20*	5,0 *0.20*	5,0 *0.20*	6,0 *0.24*
K4	XNEX080608TL-M13 MP2501	0,17 *0.0065*	5,0 *0.20*	5,0 *0.20*	5,0 *0.20*	6,0 *0.24*
K5	XNEX080608TL-M13 MP2501	0,15 *0.0060*	5,0 *0.20*	5,0 *0.20*	5,0 *0.20*	6,0 *0.24*
K6	XNEX080608TL-M13 MP2501	0,17 *0.0065*	5,0 *0.20*	5,0 *0.20*	5,0 *0.20*	6,0 *0.24*
K7	XNEX080608TL-M13 MP2501	0,15 *0.0060*	5,0 *0.20*	5,0 *0.20*	5,0 *0.20*	6,0 *0.24*
S1	XNEX080608TL-M13 MP3501	0,12 *0.0048*	3,0 *0.12*	3,0 *0.12*	3,0 *0.12*	3,5 *0.14*
S2	XNEX080608TL-M13 MP3501	0,12 *0.0048*	3,0 *0.12*	3,0 *0.12*	3,0 *0.12*	3,5 *0.14*
S3	XNEX080608TL-M13 MP3501	0,11 *0.0044*	3,0 *0.12*	3,0 *0.12*	3,0 *0.12*	3,5 *0.14*
S11	XNEX080608TL-M13 MS2050	0,14 *0.0055*	3,5 *0.14*	3,5 *0.14*	3,5 *0.14*	4,0 *0.16*
S12	XNEX080608TL-M13 MS2050	0,14 *0.0055*	3,5 *0.14*	3,5 *0.14*	3,5 *0.14*	4,0 *0.16*
S13	XNEX080608TL-M13 MS2050	0,12 *0.0048*	3,0 *0.12*	3,0 *0.12*	3,0 *0.12*	3,5 *0.14*
H5	XNEX080608TL-M13 MP3501	0,11 *0.0044*	4,0 *0.16*	4,0 *0.16*	4,0 *0.16*	4,5 *0.18*
H8	XNEX080608TL-M13 MP3501	0,090 *0.0036*	3,5 *0.14*	3,5 *0.14*	3,5 *0.14*	4,0 *0.16*
H11	XNEX080608TL-M13 MP3501	0,11 *0.0044*	4,0 *0.16*	4,0 *0.16*	4,0 *0.16*	4,5 *0.18*
H12	XNEX080608TL-M13 MP3501	0,090 *0.0036*	3,5 *0.14*	3,5 *0.14*	3,5 *0.14*	4,0 *0.16*

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

R217/220.79-08 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	MS2050				F40M				MP2501				MP3501			
	100%	70%	50%	30%	100%	70%	50%	30%	100%	70%	50%	30%	100%	70%	50%	30%
P1	190 *620*	210 *690*	220 *720*	240 *790*	170 *560*	190 *620*	200 *660*	215 *710*	305 *1000*	330 *1075*	345 *1125*	365 *1200*	270 *890*	290 *950*	305 *1000*	320 *1050*
P2	180 *590*	200 *660*	210 *690*	225 *740*	165 *540*	180 *590*	195 *640*	205 *670*	290 *950*	315 *1025*	330 *1075*	345 *1125*	255 *840*	275 *900*	290 *950*	305 *1000*
P3	155 *510*	175 *570*	185 *610*	200 *660*	145 *475*	160 *520*	170 *560*	180 *590*	255 *840*	275 *900*	290 *950*	305 *1000*	225 *740*	245 *800*	255 *840*	270 *890*
P4	140 *460*	160 *520*	165 *540*	180 *590*	130 *425*	145 *475*	150 *490*	160 *520*	230 *750*	250 *820*	260 *850*	275 *900*	205 *670*	220 *720*	230 *750*	245 *800*
P5	135 *445*	150 *490*	160 *520*	170 *560*	125 *410*	135 *445*	145 *475*	155 *510*	220 *720*	240 *790*	250 *820*	265 *870*	195 *640*	210 *690*	220 *720*	235 *770*
P6	150 *490*	170 *560*	180 *590*	190 *620*	140 *460*	155 *510*	165 *540*	175 *570*	245 *800*	270 *890*	280 *920*	295 *970*	220 *720*	235 *770*	250 *820*	260 *850*
P7	145 *475*	160 *520*	170 *560*	180 *590*	130 *425*	145 *475*	155 *510*	165 *540*	235 *770*	255 *840*	265 *870*	280 *920*	205 *670*	225 *740*	235 *770*	245 *800*
P8	130 *425*	150 *490*	155 *510*	165 *540*	120 *395*	135 *445*	140 *460*	150 *490*	215 *710*	235 *770*	245 *800*	255 *840*	190 *620*	205 *670*	215 *710*	225 *740*
P11	140 *460*	155 *510*	165 *540*	175 *570*	125 *410*	140 *460*	150 *490*	160 *520*	225 *740*	245 *800*	255 *840*	270 *890*	200 *660*	215 *710*	225 *740*	240 *790*
P12	95 *310*	105 *345*	110 *360*	120 *395*	85 *280*	95 *310*	100 *330*	110 *360*	160 *520*	175 *570*	180 *590*	190 *620*	140 *460*	155 *510*	160 *520*	170 *560*
M1	145 *475*	160 *520*	170 *560*	185 *610*	130 *425*	145 *475*	155 *510*	165 *540*	155 *510*	175 *570*	185 *610*	195 *640*	145 *475*	160 *520*	170 *560*	185 *610*
M2	120 *395*	135 *445*	145 *475*	155 *510*	110 *360*	125 *410*	130 *425*	140 *460*	130 *425*	145 *475*	155 *510*	165 *540*	120 *395*	135 *445*	145 *475*	155 *510*
M3	100 *330*	110 *360*	115 *375*	125 *410*	90 *295*	100 *330*	105 *345*	115 *375*	105 *345*	120 *395*	125 *410*	135 *445*	100 *330*	110 *360*	115 *375*	125 *410*
M4	80 *260*	90 *295*	95 *310*	100 *330*	70 *230*	80 *260*	85 *280*	90 *295*	85 *280*	95 *310*	100 *330*	105 *345*	80 *260*	90 *295*	95 *310*	100 *330*
M5	65 *215*	75 *245*	75 *245*	85 *280*	60 *195*	65 *215*	70 *230*	75 *245*	70 *230*	80 *260*	85 *280*	90 *295*	65 *215*	75 *245*	75 *245*	85 *280*
K1	— —	— —	— —	— —	130 *425*	145 *475*	155 *510*	165 *540*	290 *950*	315 *1025*	330 *1075*	350 *1150*	255 *840*	280 *920*	290 *950*	310 *1025*
K2	— —	— —	— —	— —	115 *375*	130 *425*	135 *445*	145 *475*	265 *870*	290 *950*	300 *980*	320 *1050*	235 *770*	255 *840*	265 *870*	280 *920*
K3	— —	— —	— —	— —	100 *330*	110 *360*	115 *375*	125 *410*	225 *740*	245 *800*	255 *840*	270 *890*	200 *660*	215 *710*	225 *740*	240 *790*
K4	— —	— —	— —	— —	95 *310*	105 *345*	110 *360*	120 *395*	215 *710*	235 *770*	245 *800*	255 *840*	190 *620*	205 *670*	215 *710*	225 *740*
K5	— —	— —	— —	— —	60 *195*	65 *215*	70 *230*	75 *245*	135 *445*	145 *475*	155 *510*	160 *520*	120 *395*	130 *425*	135 *445*	145 *475*
K6	— —	— —	— —	— —	85 *280*	90 *295*	100 *330*	105 *345*	190 *620*	205 *670*	215 *710*	225 *740*	165 *540*	180 *590*	190 *620*	200 *660*
K7	— —	— —	— —	— —	75 *245*	85 *280*	90 *295*	95 *310*	175 *570*	190 *620*	195 *640*	205 *670*	155 *510*	165 *540*	175 *570*	185 *610*
S1	37 *120*	41 *135*	43 *140*	47 *155*	33 *110*	37 *120*	39 *130*	42 *140*	— —	— —	— —	— —	37 *120*	41 *135*	43 *140*	47 *155*
S2	29 *95*	33 *110*	35 *115*	38 *125*	27 *90*	30 *100*	32 *105*	34 *110*	— —	— —	— —	— —	29 *95*	33 *110*	35 *115*	38 *125*
S3	26 *85*	29 *95*	31 *100*	33 *110*	24 *80*	26 *85*	28 *90*	30 *100*	— —	— —	— —	— —	26 *85*	29 *95*	31 *100*	33 *110*
S11	50 *165*	55 *180*	60 *195*	65 *215*	46 *150*	50 *165*	55 *180*	60 *195*	— —	— —	— —	— —	50 *165*	55 *180*	60 *195*	65 *215*
S12	35 *115*	39 *130*	41 *135*	44 *145*	32 *105*	35 *115*	37 *120*	40 *130*	— —	— —	— —	— —	35 *115*	39 *130*	41 *135*	44 *145*
S13	21 *70*	23 *75*	24 *80*	26 *85*	19 *60*	21 *70*	22 *70*	24 *80*	— —	— —	— —	— —	21 *70*	23 *75*	24 *80*	26 *85*
H5	— —	— —	— —	— —	29 *95*	32 *105*	34 *110*	36 *120*	— —	— —	— —	— —	33 *110*	37 *120*	39 *130*	42 *140*
H8	— —	— —	— —	— —	30 *100*	34 *110*	36 *120*	39 *130*	— —	— —	— —	— —	35 *115*	39 *130*	41 *135*	44 *145*
H11	— —	— —	— —	— —	36 *120*	41 *135*	43 *140*	46 *150*	— —	— —	— —	— —	42 *140*	47 *155*	49 *160*	55 *180*
H12	— —	— —	— —	— —	55 *180*	60 *195*	65 *215*	70 *230*	— —	— —	— —	— —	65 *215*	70 *230*	75 *245*	80 *260*

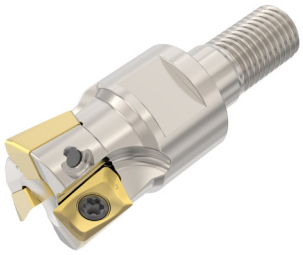


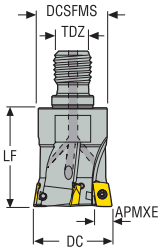
TURBO PLUNGE MILL

Turbo Plunge mills can be used for both up-copying and down-copying in an axial feed direction, such as in deep cavities for mold tools. All cutters in this family incorporate internal coolant to optimize chip evacuation.

- Insert size 06, cutter range 12-16 mm
- Insert size 10, cutter range 20-32 mm (0.75 - 1 inch)
- Insert size 12, cutter range 25-63 mm (1 inch)

R217/220.79-06 – Metric





- For insert selection and cutting data recommendations, see page(s) 741-742
- For complete insert programme, see page(s) 843
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	ZEFP	APMXE	TDZ	DCSFMS	LF	Weight	RPMX	Insert
			mm		mm		mm	mm	kg		
R217.79-0612.RE-06.3AN	02705857	Combimaster	12,0	3	3,0	M6	11,0	18,0	0,1	32000	XO..06
R217.79-0816.RE-06.3AN	02705859	Combimaster	16,0	3	3,0	M8	13,5	20,0	0,1	28000	XO..06

Spare Parts, included in delivery

For cutter	Insert key	Insert screw
		
R217.79-..	H4B-T06P	C01804-T06P

Accessories

For cutter	Insert clamping torque	Torque key
		
R217.79-..	0.5NM	T00-06P05

Torque and fixed keys, see page 872

R217.79-06 – Insert selection – mm/*Inch*

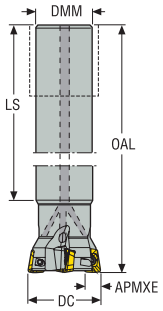
SMG		f_z	a_{so}			
			100%	70%	50%	30%
P1	XOMX060204R-M05 F40M	0,070 *0.0028*	2,0 *0.080*	2,0 *0.080*	2,0 *0.080*	2,5 *0.10*
P2	XOMX060204R-M05 F40M	0,070 *0.0028*	2,0 *0.080*	2,0 *0.080*	2,0 *0.080*	2,5 *0.10*
P3	XOMX060204R-M05 F40M	0,070 *0.0028*	2,0 *0.080*	2,0 *0.080*	2,0 *0.080*	2,5 *0.10*
P4	XOMX060204R-M05 F40M	0,065 *0.0026*	2,0 *0.080*	2,0 *0.080*	2,0 *0.080*	2,5 *0.10*
P5	XOMX060204R-M05 F40M	0,065 *0.0026*	2,0 *0.080*	2,0 *0.080*	2,0 *0.080*	2,5 *0.10*
P6	XOMX060204R-M05 F40M	0,065 *0.0026*	2,0 *0.080*	2,0 *0.080*	2,0 *0.080*	2,5 *0.10*
P7	XOMX060204R-M05 F40M	0,065 *0.0026*	2,0 *0.080*	2,0 *0.080*	2,0 *0.080*	2,5 *0.10*
P8	XOMX060204R-M05 F40M	0,070 *0.0028*	2,0 *0.080*	2,0 *0.080*	2,0 *0.080*	2,5 *0.10*
P11	XOMX060204R-M05 MP3000	0,065 *0.0026*	2,0 *0.080*	2,0 *0.080*	2,0 *0.080*	2,5 *0.10*
P12	XOMX060204R-M05 MP3000	0,044 *0.0017*	1,7 *0.065*	1,7 *0.065*	1,7 *0.065*	2,0 *0.080*
M1	XOMX060204R-M05 F40M	0,070 *0.0028*	2,0 *0.080*	2,0 *0.080*	2,0 *0.080*	2,5 *0.10*
M2	XOMX060204R-M05 F40M	0,065 *0.0026*	2,0 *0.080*	2,0 *0.080*	2,0 *0.080*	2,5 *0.10*
M3	XOMX060204R-M05 F40M	0,050 *0.0020*	1,7 *0.065*	1,7 *0.065*	1,7 *0.065*	2,0 *0.080*
M4	XOMX060204R-M05 F40M	0,046 *0.0018*	1,3 *0.050*	1,3 *0.050*	1,3 *0.050*	1,4 *0.055*
M5	XOMX060204R-M05 F40M	0,046 *0.0018*	1,3 *0.050*	1,3 *0.050*	1,3 *0.050*	1,4 *0.055*
K1	XOMX060204R-M05 MP3000	0,070 *0.0028*	2,0 *0.080*	2,0 *0.080*	2,0 *0.080*	2,5 *0.10*
K2	XOMX060204R-M05 MP3000	0,065 *0.0026*	2,0 *0.080*	2,0 *0.080*	2,0 *0.080*	2,5 *0.10*
K3	XOMX060204R-M05 MP3000	0,065 *0.0026*	2,0 *0.080*	2,0 *0.080*	2,0 *0.080*	2,5 *0.10*
K4	XOMX060204R-M05 MP3000	0,065 *0.0026*	2,0 *0.080*	2,0 *0.080*	2,0 *0.080*	2,5 *0.10*
K5	XOMX060204R-M05 MP3000	0,060 *0.0024*	2,0 *0.080*	2,0 *0.080*	2,0 *0.080*	2,5 *0.10*
K6	XOMX060204R-M05 MP3000	0,065 *0.0026*	2,0 *0.080*	2,0 *0.080*	2,0 *0.080*	2,5 *0.10*
K7	XOMX060204R-M05 MP3000	0,060 *0.0024*	2,0 *0.080*	2,0 *0.080*	2,0 *0.080*	2,5 *0.10*
N1	XOEX060204FR-E03 H15	0,075 *0.0030*	2,0 *0.080*	2,0 *0.080*	2,0 *0.080*	2,5 *0.10*
N2	XOEX060204FR-E03 H15	0,075 *0.0030*	2,0 *0.080*	2,0 *0.080*	2,0 *0.080*	2,5 *0.10*
N3	XOEX060204FR-E03 H15	0,075 *0.0030*	2,0 *0.080*	2,0 *0.080*	2,0 *0.080*	2,5 *0.10*
N11	XOEX060204FR-E03 H15	0,075 *0.0030*	2,0 *0.080*	2,0 *0.080*	2,0 *0.080*	2,5 *0.10*
S1	XOMX060204R-M05 F40M	0,046 *0.0018*	1,3 *0.050*	1,3 *0.050*	1,3 *0.050*	1,4 *0.055*
S2	XOMX060204R-M05 F40M	0,046 *0.0018*	1,3 *0.050*	1,3 *0.050*	1,3 *0.050*	1,4 *0.055*
S3	XOMX060204R-M05 F40M	0,042 *0.0017*	1,3 *0.050*	1,3 *0.050*	1,3 *0.050*	1,4 *0.055*
S11	XOMX060204R-M05 MS2050	0,050 *0.0020*	1,5 *0.060*	1,5 *0.060*	1,5 *0.060*	1,7 *0.065*
S12	XOMX060204R-M05 MS2050	0,050 *0.0020*	1,5 *0.060*	1,5 *0.060*	1,5 *0.060*	1,7 *0.065*
S13	XOMX060204R-M05 MS2050	0,046 *0.0018*	1,3 *0.050*	1,3 *0.050*	1,3 *0.050*	1,4 *0.055*
H5	XOMX060204R-M05 MP3000	0,044 *0.0017*	1,7 *0.065*	1,7 *0.065*	1,7 *0.065*	2,0 *0.080*
H8	XOMX060204R-M05 MP3000	0,034 *0.0013*	1,5 *0.060*	1,5 *0.060*	1,5 *0.060*	1,7 *0.065*
H11	XOMX060204R-M05 MP3000	0,044 *0.0017*	1,7 *0.065*	1,7 *0.065*	1,7 *0.065*	2,0 *0.080*
H12	XOMX060204R-M05 MP3000	0,034 *0.0013*	1,5 *0.060*	1,5 *0.060*	1,5 *0.060*	1,7 *0.065*

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

R217.79-06 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	F15M				F30M				MP3000				MS2050				F40M				H15				MM4500			
	100%	70%	50%	30%	100%	70%	50%	30%	100%	70%	50%	30%	100%	70%	50%	30%	100%	70%	50%	30%	100%	70%	50%	30%	100%	70%	50%	30%
P1	—	—	—	—	240	270	285	300	290	320	340	360	255	280	300	315	230	255	270	290	—	—	—	—	185	210	220	235
	—	—	—	—	*790*	*890*	*940*	*980*	*950*	*1050*	*1125*	*1175*	*840*	*920*	*980*	*1025*	*750*	*840*	*890*	*950*	—	—	—	—	*610*	*690*	*720*	*770*
P2	—	—	—	—	235	260	275	295	280	310	330	350	245	275	290	310	225	250	265	280	—	—	—	—	180	200	215	225
	—	—	—	—	*770*	*850*	*900*	*970*	*920*	*1025*	*1075*	*1150*	*800*	*900*	*950*	*1025*	*740*	*820*	*870*	*920*	—	—	—	—	*590*	*660*	*710*	*740*
P3	—	—	—	—	205	225	240	255	240	270	285	300	210	235	250	265	195	215	225	240	—	—	—	—	155	175	185	195
	—	—	—	—	*670*	*740*	*790*	*840*	*790*	*890*	*940*	*980*	*690*	*770*	*820*	*870*	*640*	*710*	*740*	*790*	—	—	—	—	*510*	*570*	*610*	*640*
P4	—	—	—	—	180	200	215	225	215	240	255	270	190	210	225	240	175	195	205	215	—	—	—	—	140	155	165	175
	—	—	—	—	*590*	*660*	*710*	*740*	*710*	*790*	*840*	*890*	*620*	*690*	*740*	*790*	*570*	*640*	*670*	*710*	—	—	—	—	*460*	*510*	*540*	*570*
P5	—	—	—	—	175	195	205	215	205	230	245	260	180	200	215	225	165	185	195	205	—	—	—	—	135	150	155	165
	—	—	—	—	*570*	*640*	*670*	*710*	*670*	*750*	*800*	*850*	*590*	*660*	*710*	*740*	*540*	*610*	*640*	*670*	—	—	—	—	*445*	*490*	*510*	*540*
P6	—	—	—	—	195	215	230	245	230	260	275	290	205	225	240	255	185	205	220	230	—	—	—	—	150	165	175	190
	—	—	—	—	*640*	*710*	*750*	*800*	*750*	*850*	*900*	*950*	*670*	*740*	*790*	*840*	*610*	*670*	*720*	*750*	—	—	—	—	*490*	*540*	*570*	*620*
P7	—	—	—	—	185	205	215	230	220	245	255	275	195	215	225	240	175	195	205	220	—	—	—	—	140	160	165	175
	—	—	—	—	*610*	*670*	*710*	*750*	*720*	*800*	*840*	*900*	*640*	*710*	*740*	*790*	*570*	*640*	*670*	*720*	—	—	—	—	*460*	*520*	*540*	*570*
P8	—	—	—	—	170	190	200	215	205	225	240	255	180	200	210	225	160	180	190	205	—	—	—	—	130	145	155	165
	—	—	—	—	*560*	*620*	*660*	*710*	*670*	*740*	*790*	*840*	*590*	*660*	*690*	*740*	*520*	*590*	*620*	*670*	—	—	—	—	*425*	*475*	*510*	*540*
P11	—	—	—	—	180	200	210	225	215	235	250	265	185	210	220	235	170	190	200	210	—	—	—	—	140	155	160	170
	—	—	—	—	*590*	*660*	*690*	*740*	*710*	*770*	*820*	*870*	*610*	*690*	*720*	*770*	*560*	*620*	*660*	*690*	—	—	—	—	*460*	*510*	*520*	*560*
P12	—	—	—	—	115	130	135	145	140	155	165	175	120	135	145	155	110	125	130	140	—	—	—	—	90	100	105	115
	—	—	—	—	*375*	*425*	*445*	*475*	*460*	*510*	*540*	*570*	*395*	*445*	*475*	*510*	*360*	*410*	*425*	*460*	—	—	—	—	*295*	*330*	*345*	*375*
M1	—	—	—	—	190	210	225	235	210	235	245	260	200	220	235	250	180	200	210	225	—	—	—	—	155	175	185	195
	—	—	—	—	*620*	*690*	*740*	*770*	*690*	*770*	*800*	*850*	*660*	*720*	*770*	*820*	*590*	*660*	*690*	*740*	—	—	—	—	*510*	*570*	*610*	*640*
M2	—	—	—	—	155	175	185	195	175	190	205	215	165	180	190	205	150	165	175	185	—	—	—	—	130	145	150	160
	—	—	—	—	*510*	*570*	*610*	*640*	*570*	*620*	*670*	*710*	*540*	*590*	*620*	*670*	*490*	*540*	*570*	*610*	—	—	—	—	*425*	*475*	*490*	*520*
M3	—	—	—	—	125	140	150	160	140	155	165	175	135	150	155	170	120	135	145	150	—	—	—	—	105	115	125	130
	—	—	—	—	*410*	*460*	*490*	*520*	*460*	*510*	*540*	*570*	*445*	*490*	*510*	*560*	*395*	*445*	*475*	*490*	—	—	—	—	*345*	*375*	*410*	*425*
M4	—	—	—	—	100	110	115	125	110	120	130	135	105	115	120	130	95	105	110	120	—	—	—	—	80	90	95	100
	—	—	—	—	*330*	*360*	*375*	*410*	*360*	*395*	*425*	*445*	*345*	*375*	*395*	*425*	*310*	*345*	*360*	*395*	—	—	—	—	*260*	*295*	*310*	*330*
M5	—	—	—	—	80	90	95	105	90	100	105	115	85	95	100	110	80	85	90	100	—	—	—	—	65	75	80	85
	—	—	—	—	*260*	*295*	*310*	*345*	*295*	*330*	*345*	*375*	*280*	*310*	*330*	*360*	*260*	*280*	*295*	*330*	—	—	—	—	*215*	*245*	*260*	*280*
K1	215	235	250	265	185	205	220	235	220	245	260	275	—	—	—	—	180	200	210	220	—	—	—	—	—	—	—	—
	710	*770*	*820*	*870*	*610*	*670*	*720*	*770*	*720*	*800*	*850*	*900*	—	—	—	—	*590*	*660*	*690*	*720*	—	—	—	—	—	—	—	—
K2	190	210	220	235	165	185	195	205	195	220	230	245	—	—	—	—	155	175	185	195	—	—	—	—	—	—	—	—
	620	*690*	*720*	*770*	*540*	*610*	*640*	*670*	*640*	*720*	*750*	*800*	—	—	—	—	*510*	*570*	*610*	*640*	—	—	—	—	—	—	—	—
K3	160	175	185	200	140	155	165	175	165	185	195	205	—	—	—	—	135	150	155	165	—	—	—	—	—	—	—	—
	520	*570*	*610*	*660*	*460*	*510*	*540*	*570*	*540*	*610*	*640*	*670*	—	—	—	—	*445*	*490*	*510*	*540*	—	—	—	—	—	—	—	—
K4	150	170	180	190	135	150	155	165	160	175	185	200	—	—	—	—	125	140	150	160	—	—	—	—	—	—	—	—
	490	*560*	*590*	*620*	*445*	*490*	*510*	*540*	*520*	*570*	*610*	*660*	—	—	—	—	*410*	*460*	*490*	*520*	—	—	—	—	—	—	—	—
K5	90	105	110	115	80	90	95	100	95	105	115	120	—	—	—	—	75	85	90	95	—	—	—	—	—	—	—	—
	295	*345*	*360*	*375*	*260*	*295*	*310*	*330*	*310*	*345*	*375*	*395*	—	—	—	—	*245*	*280*	*295*	*310*	—	—	—	—	—	—	—	—
K6	135	150	155	165	115	130	140	145	140	155	165	175	—	—	—	—	110	125	130	140	—	—	—	—	—	—	—	—
	445	*490*	*510*	*540*	*375*	*425*	*460*	*475*	*460*	*510*	*540*	*570*	—	—	—	—	*360*	*410*	*425*	*460*	—	—	—	—	—	—	—	—
K7	120	130	140	150	105	115	120	130	125	135	145	155	—	—	—	—	100	110	115	125	—	—	—	—	—	—	—	—
	395	*425*	*460*	*490*	*345*	*375*	*395*	*425*	*410*	*445*	*475*	*510*	—	—	—	—	*330*	*360*	*375*	*410*	—	—	—	—	—	—	—	—
N1	1575	1750	1850	1975	1375	1525	1625	1725	—	—	—	—	—	—	—	—	1325	1450	1550	1650	1400	1550	1650	1750	—	—	—	—
	5175	*5750*	*6075*	*6475*	*4500*	*5000*	*5325*	*5650*	—	—	—	—	—	—	—	—	*4350*	*4750*	*5075*	*5425*	*4600*	*5075*	*5425*	*5750*	—	—	—	—
N2	640	710	750	800	560	620	660	700	—	—	—	—	—	—	—	—	530	590	620	660	560	630	660	700	—	—	—	—
	2100	*2325*	*2450*	*2625*	*1825*	*2025*	*2175*	*2300*	—	—	—	—	—	—	—	—	*1750*	*1925*	*2025*	*2175*	*1825*	*2075*	*2175*	*2300*	—	—	—	—
N3	425	470	500	530	370	415	435	465	—	—	—	—	—	—	—	—	355	395	415	440	375	420	440	470	—	—	—	—
	1400	*1550*	*1650*	*1750*	*1225*	*1350*	*1425*	*1525*	—	—	—	—	—	—	—	—	*1175*	*1300*	*1350*	*1450*	*1225*	*1375*	*1450*	*1550*	—	—	—	—
N11	485	540	570	610	425	470	500	530	—	—	—	—	—	—	—	—	405	450	475	510	430	480	510	540	—	—	—	—
	1600	*1775*	*1875*	*2000*	*1400*	*1550*	*1650*	*1750*	—	—	—	—	—	—	—	—	*1325*	*1475*	*1550*	*1675*	*1400*	*1575*	*1675*	*1775*	—	—	—	—
S1	—	—	—	—	—	—	—	—	—	—	—	—	48	55	55	60	44	49	50	55	—	—	—	—	25	27	29	31
	—	—	—	—	—	—	—	—	—	—	—	—	*155*	*180*	*180*	*195*	*145*	*160*	*165*	*180*	—	—	—	—	*80*	*90*	*95*	*100*
S2	—	—	—	—	—	—	—	—	—	—	—	—	39	43	45	49	35	39	41	44	—	—	—	—	20	22	23	25
	—	—	—	—	—	—	—	—	—	—	—	—	*130*	*140*	*150*	*160*	*115*	*130*	*135*	*145*	—	—	—	—	*65*	*70*	*75*	*80*
S3	—	—	—	—	—	—	—	—	—	—	—	—	34	38	40	43	31	34	36	39	—	—	—	—	17	19	21	22
	—	—	—	—	—	—	—	—	—	—	—	—	*110*	*125*	*130*	*140*	*100*	*110*	*120*	*130*	—	—	—	—	*55*	*60*	*70*	*70*
S11	—	—	—	—	—	—	—	—	—	—	—	—	70	75	80	85	60	70	70	80	—	—	—	—	35	39	41	44
	—	—	—	—	—	—	—	—	—	—	—	—	*230*	*245*	*260*	*280*	*195*	*230*	*230*	*260*	—	—	—	—	*115*	*130*	*135*	*145*
S12	—	—	—	—	—	—	—	—	—	—	—	—	47	50	55	60	43	47	50	55	—	—	—	—	32	36	38	40
	—	—	—	—	—	—	—	—	—	—	—	—	*155*	*165*	*180*	*195*	*140*	*155*	*165*	*180*	—	—	—	—	*105*	*120*	*125*	*130*
S13	—	—	—	—	—	—	—	—	—	—	—	—	27	30	32	34	24	27	29	31	—	—	—	—	18	21	22	23
	—	—	—	—	—	—	—	—	—	—	—	—	*90*	*100*	*105*	*110*	*80*	*90*	*95*	*100*	—	—	—	—	*60*	*70*	*70*	*75*
H5	—	—	—	—	39	43	45	48	43	48	50	55	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	*130*	*140*	*150*	*155*	*140*	*155*	*165*	*180*	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
H8	—	—	—	—	41	46	48	50	46	50	55	55	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	*135*	*150*	*155*	*165*	*150*	*165*	*180*	*180*	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
H11	—	—	—	—	49	55	60	60	55	60	65	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	*160*	*180*	*195*	*195*	*180*	*195*	*215*	*230*	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
H12	—	—	—	—	75	80	85	90	85	95	105	110	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	*245*	*260*	*280*	*295*	*280*	*310*	*345*	*360*	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

R217.79-10 – Metric





- For insert selection and cutting data recommendations, see page(s) 747-749
- For complete insert programme, see page(s) 844, 845
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	ZEFP	APMXE	DMM	LS	OAL	RPMX	Weight	Insert
			mm		mm	mm	mm	mm		kg	
R217.79-1820.0-10-2A	02842051	Cylindrical	20,0	2	6,0	18,0	130,0	160,0	29000	0,3	XO.X10T3
R217.79-2025.0-10-3A	02842052	Cylindrical	25,0	3	6,0	20,0	170,0	200,0	26000	0,5	XO.X10T3
R217.79-2532.0-10-4A	02842053	Cylindrical	32,0	4	6,0	25,0	218,0	250,0	22900	0,9	XO.X10T3

Spare Parts, included in delivery

For cutter	Insert key	Insert screw
		
R217.79-..	H4B-T07P	C02506-T07P

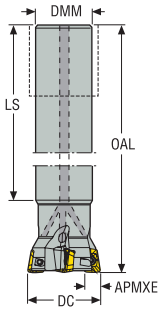
Accessories

For cutter	Insert clamping torque	Torque key
		
R217.79-..	0.9NM	T00-07P09

Torque and fixed keys, see page 872

R217.79-10 – inch





- For insert selection and cutting data recommendations, see page(s) 747-749
- For complete insert programme, see page(s) 844, 845
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	ZEFP	APMXE	DMM	LS	OAL	RPMX	Weight	Insert
			inch		inch	inch	inch	inch		lbs	
R217.79-00.75-0-10-2A	02844106	Cylindrical	0.750	2	0.236	0.625	5.118	6.299	29000	0.660	XO.X10T3
R217.79-01.00-0-10-3A	02844107	Cylindrical	1.000	3	0.236	0.750	6.693	7.874	15000	1.100	XO.X10T3

Spare Parts, included in delivery

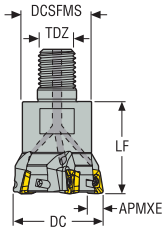
For cutter	Insert key	Insert screw
		
R217.79-..	H4B-T07P	C02506-T07P

Accessories

For cutter	Insert clamping torque	Torque key
		
R217.79-..	8.0IN.LBS	T00-07P09

Torque and fixed keys, see page 872

R217.79-10 – Metric





- For insert selection and cutting data recommendations, see page(s) 747-749
- For complete insert programme, see page(s) 844, 845
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	ZEFP	APMXE	TDZ	DCSFMS	LF	Weight	RPMX	Insert
			mm		mm		mm	mm	kg		
R217.79-1020.RE-10-2A	02842054	Combimaster	20,0	2	6,0	M10	18,0	28,0	0,1	29000	XO.X10T3
R217.79-1225.RE-10-3A	02842056	Combimaster	25,0	3	6,0	M12	22,5	30,0	0,2	26000	XO.X10T3
R217.79-1632.RE-10-4A	02842057	Combimaster	32,0	4	6,0	M16	29,0	40,0	0,3	22900	XO.X10T3
R217.79-1640.RE-10-5A	02842058	Combimaster	40,0	5	6,0	M16	30,0	40,0	0,3	15000	XO.X10T3

For Combimaster Shanks, see Machining Navigator Tooling System

Spare Parts, included in delivery

For cutter	Insert key	Insert screw
		
R217.79-..	H4B-T07P	C02506-T07P

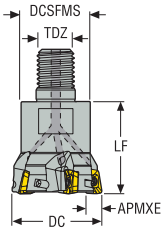
Accessories

For cutter	Insert clamping torque	Torque key
		
R217.79-..	0.9NM	T00-07P09

Torque and fixed keys, see page 872

R217.79-10 – inch





- For insert selection and cutting data recommendations, see page(s) 747-749
- For complete insert programme, see page(s) 844, 845
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	ZEFP	APMXE	TDZ	DCSFMS	LF	Weight	RPMX	Insert
			inch		inch		inch	inch	lbs		
R217.79-1.00-12RE-10.3A	02844109	Combimaster	1.000	3	0.236	M12	0.886	1.181	0.220	15000	XO.X10T3

For Combimaster Shanks, see Machining Navigator Tooling System

Spare Parts, included in delivery

For cutter	Insert key	Insert screw
		
R217.79-..	H4B-T07P	C02506-T07P

Accessories

For cutter	Insert clamping torque	Torque key
		
R217.79-..	8.0IN.LBS	T00-07P09

Torque and fixed keys, see page 872

R217/220.79-10 – Insert selection – mm/*Inch*

SMG		f_z	a_{so}			
			100%	70%	50%	30%
P1	XOMX10T308TR-ME07 F40M	0,10 *0.0040*	4,0 *0.16*	4,0 *0.16*	4,0 *0.16*	5,0 *0.20*
P2	XOMX10T308TR-ME07 F40M	0,10 *0.0040*	4,0 *0.16*	4,0 *0.16*	4,0 *0.16*	5,0 *0.20*
P3	XOMX10T308TR-ME07 MP2501	0,095 *0.0038*	4,0 *0.16*	4,0 *0.16*	4,0 *0.16*	5,0 *0.20*
P4	XOMX10T308TR-ME07 MP2501	0,095 *0.0038*	4,0 *0.16*	4,0 *0.16*	4,0 *0.16*	5,0 *0.20*
P5	XOMX10T308TR-M09 MP2501	0,12 *0.0048*	4,0 *0.16*	4,0 *0.16*	4,0 *0.16*	5,0 *0.20*
P6	XOMX10T308TR-M09 MP2501	0,12 *0.0048*	4,0 *0.16*	4,0 *0.16*	4,0 *0.16*	5,0 *0.20*
P7	XOMX10T308TR-M09 MP2501	0,12 *0.0048*	4,0 *0.16*	4,0 *0.16*	4,0 *0.16*	5,0 *0.20*
P8	XOMX10T308TR-M09 MP2501	0,12 *0.0048*	4,0 *0.16*	4,0 *0.16*	4,0 *0.16*	5,0 *0.20*
P11	XOMX10T308TR-M09 MP3501	0,12 *0.0048*	4,0 *0.16*	4,0 *0.16*	4,0 *0.16*	5,0 *0.20*
P12	XOMX10T308TR-M09 MS2500	0,080 *0.0032*	3,5 *0.14*	3,5 *0.14*	3,5 *0.14*	4,0 *0.16*
M1	XOEX10T308R-M06 F40M	0,085 *0.0034*	4,0 *0.16*	4,0 *0.16*	4,0 *0.16*	5,0 *0.20*
M2	XOEX10T308R-M06 F40M	0,080 *0.0032*	4,0 *0.16*	4,0 *0.16*	4,0 *0.16*	5,0 *0.20*
M3	XOEX10T308R-M06 F40M	0,060 *0.0024*	3,5 *0.14*	3,5 *0.14*	3,5 *0.14*	4,0 *0.16*
M4	XOEX10T308R-M06 MS2050	0,055 *0.0022*	2,5 *0.10*	2,5 *0.10*	2,5 *0.10*	3,0 *0.12*
M5	XOEX10T308R-M06 MS2050	0,055 *0.0022*	2,5 *0.10*	2,5 *0.10*	2,5 *0.10*	3,0 *0.12*
K1	XOMX10T308TR-M09 MK1500	0,13 *0.0050*	4,0 *0.16*	4,0 *0.16*	4,0 *0.16*	5,0 *0.20*
K2	XOMX10T308TR-M09 MK1500	0,12 *0.0048*	4,0 *0.16*	4,0 *0.16*	4,0 *0.16*	5,0 *0.20*
K3	XOMX10T308TR-M09 MK1500	0,12 *0.0048*	4,0 *0.16*	4,0 *0.16*	4,0 *0.16*	5,0 *0.20*
K4	XOMX10T308TR-M09 MK1500	0,12 *0.0048*	4,0 *0.16*	4,0 *0.16*	4,0 *0.16*	5,0 *0.20*
K5	XOMX10T308TR-M09 MK1500	0,11 *0.0044*	4,0 *0.16*	4,0 *0.16*	4,0 *0.16*	5,0 *0.20*
K6	XOMX10T308TR-M09 MK1500	0,12 *0.0048*	4,0 *0.16*	4,0 *0.16*	4,0 *0.16*	5,0 *0.20*
K7	XOMX10T308TR-M09 MK2050	0,11 *0.0044*	4,0 *0.16*	4,0 *0.16*	4,0 *0.16*	5,0 *0.20*
N1	XOEX10T308FR-E05 H15	0,090 *0.0036*	4,0 *0.16*	4,0 *0.16*	4,0 *0.16*	5,0 *0.20*
N2	XOEX10T308FR-E05 H15	0,090 *0.0036*	4,0 *0.16*	4,0 *0.16*	4,0 *0.16*	5,0 *0.20*
N3	XOEX10T308FR-E05 H15	0,090 *0.0036*	4,0 *0.16*	4,0 *0.16*	4,0 *0.16*	5,0 *0.20*
N11	XOEX10T308FR-E05 H15	0,090 *0.0036*	4,0 *0.16*	4,0 *0.16*	4,0 *0.16*	5,0 *0.20*
S1	XOEX10T308R-M06 F40M	0,055 *0.0022*	2,5 *0.10*	2,5 *0.10*	2,5 *0.10*	3,0 *0.12*
S2	XOEX10T308R-M06 F40M	0,055 *0.0022*	2,5 *0.10*	2,5 *0.10*	2,5 *0.10*	3,0 *0.12*
S3	XOEX10T308R-M06 F40M	0,050 *0.0020*	2,5 *0.10*	2,5 *0.10*	2,5 *0.10*	3,0 *0.12*
S11	XOEX10T308R-M06 MS2050	0,060 *0.0024*	3,0 *0.12*	3,0 *0.12*	3,0 *0.12*	3,5 *0.14*
S12	XOEX10T308R-M06 MS2050	0,060 *0.0024*	3,0 *0.12*	3,0 *0.12*	3,0 *0.12*	3,5 *0.14*
S13	XOEX10T308R-M06 MS2050	0,055 *0.0022*	2,5 *0.10*	2,5 *0.10*	2,5 *0.10*	3,0 *0.12*
H5	XOMX10T308TR-M09 MP3000	0,080 *0.0032*	3,5 *0.14*	3,5 *0.14*	3,5 *0.14*	4,0 *0.16*
H8	XOMX10T308TR-M09 MP3000	0,060 *0.0024*	3,0 *0.12*	3,0 *0.12*	3,0 *0.12*	3,5 *0.14*
H11	XOMX10T308TR-M09 MP1501	0,080 *0.0032*	3,5 *0.14*	3,5 *0.14*	3,5 *0.14*	4,0 *0.16*
H12	XOMX10T308TR-M09 MP1501	0,060 *0.0024*	3,0 *0.12*	3,0 *0.12*	3,0 *0.12*	3,5 *0.14*

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

R217/220.79-10 – Cutting data v_c = (m/min)/*(sf/min)*

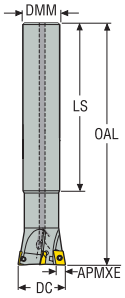
SMG	MK2050				MP3000				MS2050				F40M				MP2050				H15			
	100%	70%	50%	30%	100%	70%	50%	30%	100%	70%	50%	30%	100%	70%	50%	30%	100%	70%	50%	30%	100%	70%	50%	30%
P1	240 *790*	265 *870*	280 *920*	300 *980*	230 *750*	255 *840*	270 *890*	290 *950*	240 *790*	265 *870*	280 *920*	300 *980*	185 *610*	205 *670*	215 *710*	230 *750*	280 *920*	310 *1025*	330 *1075*	350 *1150*	— —	— —	— —	— —
P2	235 *770*	260 *850*	275 *900*	290 *950*	225 *740*	250 *820*	265 *870*	280 *920*	230 *750*	260 *850*	275 *900*	290 *950*	180 *590*	200 *660*	210 *690*	225 *740*	275 *900*	305 *1000*	320 *1050*	340 *1125*	— —	— —	— —	— —
P3	205 *670*	230 *750*	245 *800*	260 *850*	200 *660*	220 *720*	235 *770*	250 *820*	205 *670*	225 *740*	240 *790*	255 *840*	160 *520*	175 *570*	185 *610*	200 *660*	240 *790*	265 *870*	280 *920*	300 *980*	— —	— —	— —	— —
P4	180 *590*	200 *660*	215 *710*	225 *740*	175 *570*	195 *640*	205 *670*	220 *720*	180 *590*	200 *660*	210 *690*	225 *740*	140 *460*	155 *510*	165 *540*	175 *570*	210 *690*	235 *770*	250 *820*	265 *870*	— —	— —	— —	— —
P5	175 *570*	195 *640*	205 *670*	215 *710*	165 *540*	185 *610*	195 *640*	210 *690*	170 *560*	190 *620*	200 *660*	215 *710*	135 *445*	150 *490*	155 *510*	165 *540*	200 *660*	225 *740*	235 *770*	250 *820*	— —	— —	— —	— —
P6	195 *640*	215 *710*	230 *750*	245 *800*	185 *610*	210 *690*	220 *720*	235 *770*	195 *640*	215 *710*	230 *750*	245 *800*	150 *490*	165 *540*	175 *570*	185 *610*	230 *750*	255 *840*	270 *890*	285 *940*	— —	— —	— —	— —
P7	185 *610*	205 *670*	215 *710*	230 *750*	175 *570*	195 *640*	210 *690*	220 *720*	185 *610*	205 *670*	215 *710*	230 *750*	140 *460*	155 *510*	165 *540*	175 *570*	215 *710*	240 *790*	255 *840*	270 *890*	— —	— —	— —	— —
P8	175 *570*	195 *640*	205 *670*	215 *710*	165 *540*	185 *610*	195 *640*	210 *690*	170 *560*	190 *620*	200 *660*	215 *710*	135 *445*	150 *490*	155 *510*	165 *540*	200 *660*	225 *740*	235 *770*	250 *820*	— —	— —	— —	— —
P11	180 *590*	200 *660*	210 *690*	225 *740*	170 *560*	190 *620*	200 *660*	215 *710*	180 *590*	200 *660*	210 *690*	225 *740*	135 *445*	155 *510*	160 *520*	170 *560*	210 *690*	235 *770*	250 *820*	265 *870*	— —	— —	— —	— —
P12	120 *395*	130 *425*	140 *460*	150 *490*	115 *375*	125 *410*	135 *445*	145 *475*	115 *375*	130 *425*	135 *445*	145 *475*	90 *295*	100 *330*	110 *360*	115 *375*	135 *445*	150 *490*	160 *520*	170 *560*	— —	— —	— —	— —
M1	— —	— —	— —	— —	170 *560*	185 *610*	200 *660*	210 *690*	185 *610*	210 *690*	220 *720*	235 *770*	145 *475*	160 *520*	170 *560*	180 *590*	195 *640*	220 *720*	230 *750*	245 *800*	— —	— —	— —	— —
M2	— —	— —	— —	— —	140 *460*	155 *510*	165 *540*	175 *570*	155 *510*	170 *560*	180 *590*	190 *620*	120 *395*	135 *445*	140 *460*	150 *490*	160 *520*	180 *590*	190 *620*	200 *660*	— —	— —	— —	— —
M3	— —	— —	— —	— —	115 *375*	125 *410*	135 *445*	145 *475*	125 *410*	140 *460*	150 *490*	160 *520*	100 *330*	110 *360*	115 *375*	125 *410*	135 *445*	150 *490*	155 *510*	165 *540*	— —	— —	— —	— —
M4	— —	— —	— —	— —	90 *295*	100 *330*	105 *345*	115 *375*	100 *330*	110 *360*	115 *375*	125 *410*	80 *260*	85 *280*	90 *295*	100 *330*	100 *330*	115 *375*	120 *395*	130 *425*	— —	— —	— —	— —
M5	— —	— —	— —	— —	75 *245*	85 *280*	90 *295*	95 *310*	80 *260*	90 *295*	95 *310*	105 *345*	65 *215*	70 *230*	75 *245*	80 *260*	85 *280*	95 *310*	100 *330*	110 *360*	— —	— —	— —	— —
K1	250 *820*	280 *920*	295 *970*	315 *1025*	180 *590*	200 *660*	210 *690*	225 *740*	— —	— —	— —	— —	140 *460*	160 *520*	170 *560*	180 *590*	— —	— —	— —	— —	— —	— —	— —	— —
K2	225 *740*	250 *820*	265 *870*	280 *920*	160 *520*	175 *570*	185 *610*	200 *660*	— —	— —	— —	— —	125 *410*	140 *460*	150 *490*	160 *520*	— —	— —	— —	— —	— —	— —	— —	— —
K3	190 *620*	210 *690*	225 *740*	235 *770*	135 *445*	150 *490*	155 *510*	165 *540*	— —	— —	— —	— —	105 *345*	120 *395*	125 *410*	135 *445*	— —	— —	— —	— —	— —	— —	— —	— —
K4	180 *590*	200 *660*	215 *710*	225 *740*	130 *425*	140 *460*	150 *490*	160 *520*	— —	— —	— —	— —	100 *330*	115 *375*	120 *395*	130 *425*	— —	— —	— —	— —	— —	— —	— —	— —
K5	110 *360*	125 *410*	130 *425*	140 *460*	80 *260*	85 *280*	90 *295*	100 *330*	— —	— —	— —	— —	60 *195*	70 *230*	75 *245*	80 *260*	— —	— —	— —	— —	— —	— —	— —	— —
K6	160 *520*	175 *570*	190 *620*	200 *660*	115 *375*	125 *410*	130 *425*	140 *460*	— —	— —	— —	— —	90 *295*	100 *330*	105 *345*	115 *375*	— —	— —	— —	— —	— —	— —	— —	— —
K7	140 *460*	160 *520*	165 *540*	175 *570*	100 *330*	110 *360*	120 *395*	125 *410*	— —	— —	— —	— —	80 *260*	90 *295*	95 *310*	100 *330*	— —	— —	— —	— —	— —	— —	— —	— —
N1	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	1050 *3450*	1175 *3850*	1250 *4100*	1325 *4350*	— —	— —	— —	— —	1300 *4275*	1450 *4750*	1525 *5000*	1625 *5325*
N2	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	425 *1400*	475 *1550*	500 *1650*	530 *1750*	— —	— —	— —	— —	520 *1700*	580 *1900*	610 *2000*	650 *2125*
N3	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	285 *940*	315 *1025*	335 *1100*	355 *1175*	— —	— —	— —	— —	350 *1150*	390 *1275*	410 *1350*	435 *1425*
N11	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	325 *1075*	360 *1175*	380 *1250*	405 *1325*	— —	— —	— —	— —	400 *1300*	445 *1450*	470 *1550*	495 *1625*
S1	— —	— —	— —	— —	42 *140*	47 *155*	50 *165*	55 *180*	46 *150*	50 *165*	55 *180*	60 *195*	36 *120*	41 *135*	43 *140*	46 *150*	50 *165*	55 *180*	60 *195*	65 *215*	— —	— —	— —	— —
S2	— —	— —	— —	— —	34 *110*	38 *125*	40 *130*	43 *140*	37 *120*	41 *135*	43 *140*	46 *150*	29 *95*	33 *110*	35 *115*	37 *120*	40 *130*	45 *150*	47 *155*	50 *165*	— —	— —	— —	— —
S3	— —	— —	— —	— —	30 *100*	33 *110*	35 *115*	38 *125*	32 *105*	36 *120*	38 *125*	41 *135*	26 *85*	29 *95*	30 *100*	32 *105*	35 *115*	40 *130*	42 *140*	45 *150*	— —	— —	— —	— —
S11	— —	— —	— —	— —	— —	— —	— —	— —	65 *215*	70 *230*	75 *245*	80 *260*	50 *165*	55 *180*	60 *195*	65 *215*	70 *230*	80 *260*	85 *280*	90 *295*	— —	— —	— —	— —
S12	— —	— —	— —	— —	— —	— —	— —	— —	44 *145*	50 *165*	50 *165*	55 *180*	35 *115*	39 *130*	41 *135*	44 *145*	49 *160*	55 *180*	55 *180*	60 *195*	— —	— —	— —	— —
S13	— —	— —	— —	— —	— —	— —	— —	— —	26 *85*	29 *95*	30 *100*	32 *105*	20 *65*	23 *75*	24 *80*	26 *85*	28 *90*	31 *100*	33 *110*	35 *115*	— —	— —	— —	— —
H5	— —	— —	— —	— —	36 *120*	40 *130*	42 *140*	45 *150*	— —	— —	— —	— —	30 *100*	34 *110*	36 *120*	38 *125*	— —	— —	— —	— —	— —	— —	— —	— —
H8	— —	— —	— —	— —	38 *125*	43 *140*	45 *150*	48 *155*	— —	— —	— —	— —	33 *110*	37 *120*	39 *130*	41 *135*	— —	— —	— —	— —	— —	— —	— —	— —
H11	— —	— —	— —	— —	45 *150*	50 *165*	55 *180*	55 *180*	— —	— —	— —	— —	39 *130*	43 *140*	46 *150*	49 *160*	50 *165*	55 *180*	60 *195*	65 *215*	— —	— —	— —	— —
H12	— —	— —	— —	— —	75 *245*	80 *260*	85 *280*	95 *310*	— —	— —	— —	— —	60 *195*	65 *215*	70 *230*	75 *245*	85 *280*	95 *310*	105 *345*	110 *360*	— —	— —	— —	— —

R217/220.79-10 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	MK1500				MP1501				MP2501				MS2500				MP3501				MM4500			
	100%	70%	50%	30%	100%	70%	50%	30%	100%	70%	50%	30%	100%	70%	50%	30%	100%	70%	50%	30%	100%	70%	50%	30%
P1	—	—	—	—	350	380	395	415	340	370	385	405	265	295	315	335	300	330	340	360	150	165	175	185
	—	—	—	—	*1150*	*1250*	*1300*	*1350*	*1125*	*1225*	*1275*	*1325*	*870*	*970*	*1025*	*1100*	*980*	*1075*	*1125*	*1175*	*490*	*540*	*570*	*610*
P2	—	—	—	—	340	370	385	405	330	360	375	390	260	290	305	325	295	320	335	350	145	160	170	180
	—	—	—	—	*1125*	*1225*	*1275*	*1325*	*1075*	*1175*	*1225*	*1275*	*850*	*950*	*1000*	*1075*	*970*	*1050*	*1100*	*1150*	*475*	*520*	*560*	*590*
P3	—	—	—	—	300	325	340	355	295	320	330	350	230	255	270	285	260	285	295	310	130	145	150	160
	—	—	—	—	*980*	*1075*	*1125*	*1175*	*970*	*1050*	*1075*	*1150*	*750*	*840*	*890*	*940*	*850*	*940*	*970*	*1025*	*425*	*475*	*490*	*520*
P4	—	—	—	—	265	285	300	315	260	280	290	305	200	225	235	250	230	250	260	270	115	125	135	140
	—	—	—	—	*870*	*940*	*980*	*1025*	*850*	*920*	*950*	*1000*	*660*	*740*	*770*	*820*	*750*	*820*	*850*	*890*	*375*	*410*	*445*	*460*
P5	—	—	—	—	255	275	285	300	245	265	280	290	190	215	225	240	220	240	250	260	110	120	125	135
	—	—	—	—	*840*	*900*	*940*	*980*	*800*	*870*	*920*	*950*	*620*	*710*	*740*	*790*	*720*	*790*	*820*	*850*	*360*	*395*	*410*	*445*
P6	—	—	—	—	285	310	320	335	275	300	315	330	215	240	255	270	245	265	280	290	120	135	145	150
	—	—	—	—	*940*	*1025*	*1050*	*1100*	*900*	*980*	*1025*	*1075*	*710*	*790*	*840*	*890*	*800*	*870*	*920*	*950*	*395*	*445*	*475*	*490*
P7	—	—	—	—	270	290	305	315	260	285	295	310	205	225	240	255	235	250	265	275	115	125	135	145
	—	—	—	—	*890*	*950*	*1000*	*1025*	*850*	*940*	*970*	*1025*	*670*	*740*	*790*	*840*	*770*	*820*	*870*	*900*	*375*	*410*	*445*	*475*
P8	—	—	—	—	255	275	285	300	245	265	280	290	190	215	225	240	220	240	250	260	110	120	125	135
	—	—	—	—	*840*	*900*	*940*	*980*	*800*	*870*	*920*	*950*	*620*	*710*	*740*	*790*	*720*	*790*	*820*	*850*	*360*	*395*	*410*	*445*
P11	—	—	—	—	260	280	295	310	255	275	285	300	200	220	230	245	225	245	255	270	110	125	130	140
	—	—	—	—	*850*	*920*	*970*	*1025*	*840*	*900*	*940*	*980*	*660*	*720*	*750*	*800*	*740*	*800*	*840*	*890*	*360*	*410*	*425*	*460*
P12	—	—	—	—	175	190	195	205	170	185	195	205	130	145	155	165	155	165	175	180	75	85	85	95
	—	—	—	—	*570*	*620*	*640*	*670*	*560*	*610*	*640*	*670*	*425*	*475*	*510*	*540*	*510*	*540*	*570*	*590*	*245*	*280*	*280*	*310*
M1	—	—	—	—	—	—	—	—	170	190	200	215	185	205	220	230	160	175	190	200	125	140	145	155
	—	—	—	—	—	—	—	—	*560*	*620*	*660*	*710*	*610*	*670*	*720*	*750*	*520*	*570*	*620*	*660*	*410*	*460*	*475*	*510*
M2	—	—	—	—	—	—	—	—	140	160	165	175	155	170	180	190	130	145	155	165	105	115	120	130
	—	—	—	—	—	—	—	—	*460*	*520*	*540*	*570*	*510*	*560*	*590*	*620*	*425*	*475*	*510*	*540*	*345*	*375*	*395*	*425*
M3	—	—	—	—	—	—	—	—	115	130	135	145	125	140	150	160	110	120	125	135	85	95	100	105
	—	—	—	—	—	—	—	—	*375*	*425*	*445*	*475*	*410*	*460*	*490*	*520*	*360*	*395*	*410*	*445*	*280*	*310*	*330*	*345*
M4	—	—	—	—	—	—	—	—	90	105	110	115	100	110	120	125	85	95	100	110	65	75	80	85
	—	—	—	—	—	—	—	—	*295*	*345*	*360*	*375*	*330*	*360*	*395*	*410*	*280*	*310*	*330*	*360*	*215*	*245*	*260*	*280*
M5	—	—	—	—	—	—	—	—	75	85	90	95	85	95	100	105	70	80	85	90	55	65	65	70
	—	—	—	—	—	—	—	—	*245*	*280*	*295*	*310*	*280*	*310*	*330*	*345*	*230*	*260*	*280*	*295*	*180*	*215*	*215*	*230*
K1	265	295	315	335	345	370	390	405	335	360	380	395	205	230	240	255	295	320	335	350	—	—	—	—
	870	*970*	*1025*	*1100*	*1125*	*1225*	*1275*	*1325*	*1100*	*1175*	*1250*	*1300*	*670*	*750*	*790*	*840*	*970*	*1050*	*1100*	*1150*	—	—	—	—
K2	235	265	280	295	305	330	345	360	300	325	335	355	180	205	215	230	265	290	300	315	—	—	—	—
	770	*870*	*920*	*970*	*1000*	*1075*	*1125*	*1175*	*980*	*1075*	*1100*	*1175*	*590*	*670*	*710*	*750*	*870*	*950*	*980*	*1025*	—	—	—	—
K3	200	225	235	250	260	280	295	305	255	275	285	300	155	170	180	195	225	245	255	265	—	—	—	—
	660	*740*	*770*	*820*	*850*	*920*	*970*	*1000*	*840*	*900*	*940*	*980*	*510*	*560*	*590*	*640*	*740*	*800*	*840*	*870*	—	—	—	—
K4	190	215	225	240	245	270	280	295	240	260	270	285	145	165	175	185	215	230	245	255	—	—	—	—
	620	*710*	*740*	*790*	*800*	*890*	*920*	*970*	*790*	*850*	*890*	*940*	*475*	*540*	*570*	*610*	*710*	*750*	*800*	*840*	—	—	—	—
K5	115	130	135	145	150	165	170	180	150	160	165	175	90	100	105	110	130	145	150	155	—	—	—	—
	375	*425*	*445*	*475*	*490*	*540*	*560*	*590*	*490*	*520*	*540*	*570*	*295*	*330*	*345*	*360*	*425*	*475*	*490*	*510*	—	—	—	—
K6	170	185	200	210	220	235	245	260	215	230	240	250	130	145	155	160	190	205	215	225	—	—	—	—
	560	*610*	*660*	*690*	*720*	*770*	*800*	*850*	*710*	*750*	*790*	*820*	*425*	*475*	*510*	*520*	*620*	*670*	*710*	*740*	—	—	—	—
K7	150	165	175	185	195	210	220	230	190	205	215	225	115	130	135	145	170	185	190	200	—	—	—	—
	490	*540*	*570*	*610*	*640*	*690*	*720*	*750*	*620*	*670*	*710*	*740*	*375*	*425*	*445*	*475*	*560*	*610*	*620*	*660*	—	—	—	—
N1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
N2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
N3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
N11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S1	—	—	—	—	—	—	—	—	—	—	—	—	49	55	60	60	40	45	47	50	21	23	24	26
	—	—	—	—	—	—	—	—	—	—	—	—	*160*	*180*	*195*	*195*	*130*	*150*	*155*	*165*	*70*	*75*	*80*	*85*
S2	—	—	—	—	—	—	—	—	—	—	—	—	39	44	46	50	32	36	38	41	17	18	20	21
	—	—	—	—	—	—	—	—	—	—	—	—	*130*	*145*	*150*	*165*	*105*	*120*	*125*	*135*	*55*	*60*	*65*	*70*
S3	—	—	—	—	—	—	—	—	—	—	—	—	34	38	41	44	28	32	33	36	15	16	17	18
	—	—	—	—	—	—	—	—	—	—	—	—	*110*	*125*	*135*	*145*	*90*	*105*	*110*	*120*	*49*	*50*	*55*	*60*
S11	—	—	—	—	—	—	—	—	—	—	—	—	65	75	80	85	55	60	65	70	28	31	33	36
	—	—	—	—	—	—	—	—	—	—	—	—	*215*	*245*	*260*	*280*	*180*	*195*	*215*	*230*	*90*	*100*	*110*	*120*
S12	—	—	—	—	—	—	—	—	—	—	—	—	46	50	55	60	38	42	45	48	26	29	31	33
	—	—	—	—	—	—	—	—	—	—	—	—	*150*	*165*	*180*	*195*	*125*	*140*	*150*	*155*	*85*	*95*	*100*	*110*
S13	—	—	—	—	—	—	—	—	—	—	—	—	27	31	32	35	23	25	27	28	15	17	18	19
	—	—	—	—	—	—	—	—	—	—	—	—	*90*	*100*	*105*	*115*	*75*	*80*	*90*	*90*	*49*	*55*	*60*	*60*
H5	—	—	—	—	45	50	55	55	—	—	—	—	39	44	46	50	35	39	41	44	—	—	—	—
	—	—	—	—	*150*	*165*	*180*	*180*	—	—	—	—	*130*	*145*	*150*	*165*	*115*	*130*	*135*	*145*	—	—	—	—
H8	—	—	—	—	49	55	60	60	—	—	—	—	43	48	50	55	38	42	45	48	—	—	—	—
	—	—	—	—	*160*	*180*	*195*	*195*	—	—	—	—	*140*	*155*	*165*	*180*	*125*	*140*	*150*	*155*	—	—	—	—
H11	—	—	—	—	60	65	70	70	—	—	—	—	50	55	60	65	44	50	50	55	—	—	—	—
	—	—	—	—	*195*	*215*	*230*	*230*	—	—	—	—	*165*	*180*	*195*	*215*	*145*	*165*	*165*	*180*	—	—	—	—
H12	—	—	—	—	90	100	105	110	—	—	—	—	85	95	100	105	70	75	80	85	—	—	—	—
	—	—	—	—	*295*	*330*	*345*	*360*	—	—	—	—	*280*	*310*	*330*	*345*	*230*	*245*	*260*	*280*	—	—	—	—

R217.79-XO12 – Metric





- For insert selection and cutting data recommendations, see page(s) 753-755
- For complete insert programme, see page(s) 846, 847
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	ZEFP	APMXE	DMM	LS	OAL	RPMX	Weight	Insert
			mm		mm	mm	mm	mm		kg	
R217.79-2025.0-XO12-2AN	02732332	Cylindrical	25,0	2	7,0	20,0	170,0	200,0	20800	0,5	XO..1204
R217.79-2532.0-XO12-3AN	02732333	Cylindrical	32,0	3	7,0	25,0	215,0	250,0	18400	0,9	XO..1204

Spare Parts, included in delivery

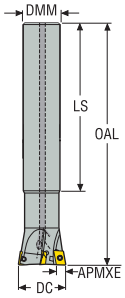
For cutter	Insert key	Insert screw
		
R217.79-..	H4B-T10P	C03507-T10P

Accessories

For cutter	Insert clamping torque	Torque key
		
R217.79-..	3.0NM	T00-10P30

Torque and fixed keys, see page 872

R217.79-XO12 – inch





- For insert selection and cutting data recommendations, see page(s) 753-755
- For complete insert programme, see page(s) 846, 847
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	ZEFP	APMXE	DMM	LS	OAL	RPMX	Weight	Insert
			inch		inch	inch	inch	inch		lbs	
R217.79-1.00.3-XO.2A	00097192	Weldon	1.000	2	0.276	0.750	6.693	7.874	20800	1.100	XO..1204

Spare Parts, included in delivery

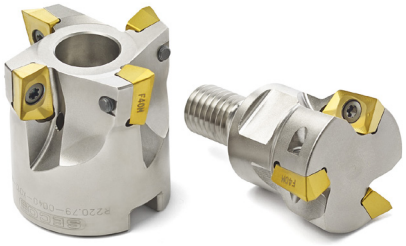
For cutter	Insert key	Insert screw
		
R217.79-..	H4B-T10P	C03507-T10P

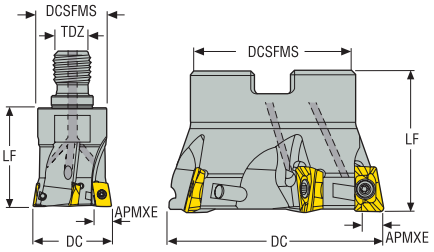
Accessories

For cutter	Insert clamping torque	Torque key
		
R217.79-..	26.6IN.LBS	T00-10P30

Torque and fixed keys, see page 872

R217.79-XO12 – Metric



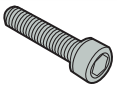


- For insert selection and cutting data recommendations, see page(s) 753-755
- For complete insert programme, see page(s) 846, 847
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	ZEFP	APMXE	DCB	TDZ	DCSFMS	LF	Weight	RPMX	Insert
			mm		mm	mm		mm	mm	kg		
R217.79-1225.RE-XO12-2AN	02732338	Combimaster	25,0	2	7,0	–	M12	23,0	30,0	0,1	20800	XO..1204
R217.79-1632.RE-XO12-3AN	02732344	Combimaster	32,0	3	7,0	–	M16	30,0	40,0	0,2	18400	XO..1204
R220.79-0040-XO12-4AN	02732351	Arbor	40,0	4	7,0	16,0	–	35,0	40,0	0,3	16400	XO..1204
R220.79-0050-XO12-4AN	02732353	Arbor	50,0	4	7,0	22,0	–	42,0	40,0	0,4	14800	XO..1204
R220.79-0063-XO12-5AN	02732354	Arbor	63,0	5	7,0	22,0	–	47,0	40,0	0,6	13200	XO..1204

For Combimaster Shanks, see Machining Navigator Tooling System

Spare Parts, included in delivery

For cutter	Arbor screw	Insert key	Insert screw
			
R217.79-..	–	H4B-T10P	C03507-T10P
R220.79-0040	MC6S8X30	H4B-T10P	C03509-T10P
R220.79-0050-0063	220.17-692	1/4HEX-T10PX50	C03509-T10P

Accessories

For cutter	Adjustable Torque key	Insert clamping torque	Torque key
			
R217/220.79-..	–	3.0NM	T00-10P30
R217/220.79-..	1/4HEX-S-HANDLE-0.8-5.0NM	3.0NM	T00-10P30

Torque and fixed keys, see page 872

R217/220.79-XO12 – Insert selection – mm/*Inch*

SMG		f_z	a_{so}			
			100%	70%	50%	30%
P1	XOMX120408TR-ME08 F40M	0,11 *0.0044*	5,0 *0.20*	5,0 *0.20*	5,0 *0.20*	6,0 *0.24*
P2	XOMX120408TR-ME08 F40M	0,11 *0.0044*	5,0 *0.20*	5,0 *0.20*	5,0 *0.20*	6,0 *0.24*
P3	XOMX120408TR-M12 MP2501	0,16 *0.0065*	5,0 *0.20*	5,0 *0.20*	5,0 *0.20*	6,0 *0.24*
P4	XOMX120408TR-M12 MP2501	0,16 *0.0065*	5,0 *0.20*	5,0 *0.20*	5,0 *0.20*	6,0 *0.24*
P5	XOMX120408TR-M12 MP2501	0,16 *0.0065*	5,0 *0.20*	5,0 *0.20*	5,0 *0.20*	6,0 *0.24*
P6	XOMX120408TR-M12 MP2501	0,15 *0.0060*	5,0 *0.20*	5,0 *0.20*	5,0 *0.20*	6,0 *0.24*
P7	XOMX120408TR-M12 MP2501	0,15 *0.0060*	5,0 *0.20*	5,0 *0.20*	5,0 *0.20*	6,0 *0.24*
P8	XOMX120408TR-M12 MP2501	0,16 *0.0065*	5,0 *0.20*	5,0 *0.20*	5,0 *0.20*	6,0 *0.24*
P11	XOMX120408TR-M12 MP3501	0,15 *0.0060*	5,0 *0.20*	5,0 *0.20*	5,0 *0.20*	6,0 *0.24*
P12	XOEX120408R-M07 MS2500	0,080 *0.0032*	4,0 *0.16*	4,0 *0.16*	4,0 *0.16*	4,5 *0.18*
M1	XOEX120408R-M07 F40M	0,13 *0.0050*	5,0 *0.20*	5,0 *0.20*	5,0 *0.20*	6,0 *0.24*
M2	XOEX120408R-M07 F40M	0,12 *0.0048*	5,0 *0.20*	5,0 *0.20*	5,0 *0.20*	6,0 *0.24*
M3	XOEX120408R-M07 F40M	0,095 *0.0038*	4,0 *0.16*	4,0 *0.16*	4,0 *0.16*	4,5 *0.18*
M4	XOEX120408R-M07 MS2050	0,080 *0.0032*	3,0 *0.12*	3,0 *0.12*	3,0 *0.12*	3,5 *0.14*
M5	XOEX120408R-M07 MS2050	0,080 *0.0032*	3,0 *0.12*	3,0 *0.12*	3,0 *0.12*	3,5 *0.14*
K1	XOMX120408TR-M12 MK1500	0,17 *0.0065*	5,0 *0.20*	5,0 *0.20*	5,0 *0.20*	6,0 *0.24*
K2	XOMX120408TR-M12 MK1500	0,16 *0.0065*	5,0 *0.20*	5,0 *0.20*	5,0 *0.20*	6,0 *0.24*
K3	XOMX120408TR-M12 MK2050	0,16 *0.0065*	5,0 *0.20*	5,0 *0.20*	5,0 *0.20*	6,0 *0.24*
K4	XOMX120408TR-M12 MK2050	0,16 *0.0065*	5,0 *0.20*	5,0 *0.20*	5,0 *0.20*	6,0 *0.24*
K5	XOMX120408TR-MD13 MK2050	0,15 *0.0060*	5,0 *0.20*	5,0 *0.20*	5,0 *0.20*	6,0 *0.24*
K6	XOMX120408TR-MD13 MK2050	0,17 *0.0065*	5,0 *0.20*	5,0 *0.20*	5,0 *0.20*	6,0 *0.24*
K7	XOMX120408TR-MD13 MK2050	0,15 *0.0060*	5,0 *0.20*	5,0 *0.20*	5,0 *0.20*	6,0 *0.24*
N1	XOEX120408FR-E06 H15	0,13 *0.0050*	5,0 *0.20*	5,0 *0.20*	5,0 *0.20*	6,0 *0.24*
N2	XOEX120408FR-E06 H15	0,13 *0.0050*	5,0 *0.20*	5,0 *0.20*	5,0 *0.20*	6,0 *0.24*
N3	XOEX120408FR-E06 H15	0,13 *0.0050*	5,0 *0.20*	5,0 *0.20*	5,0 *0.20*	6,0 *0.24*
N11	XOEX120408FR-E06 H15	0,13 *0.0050*	5,0 *0.20*	5,0 *0.20*	5,0 *0.20*	6,0 *0.24*
S1	XOEX120408R-M07 MP3501	0,080 *0.0032*	3,0 *0.12*	3,0 *0.12*	3,0 *0.12*	3,5 *0.14*
S2	XOEX120408R-M07 MP3501	0,080 *0.0032*	3,0 *0.12*	3,0 *0.12*	3,0 *0.12*	3,5 *0.14*
S3	XOEX120408R-M07 MP3501	0,075 *0.0030*	3,0 *0.12*	3,0 *0.12*	3,0 *0.12*	3,5 *0.14*
S11	XOEX120408R-M07 MS2050	0,095 *0.0038*	3,5 *0.14*	3,5 *0.14*	3,5 *0.14*	4,0 *0.16*
S12	XOEX120408R-M07 MS2050	0,095 *0.0038*	3,5 *0.14*	3,5 *0.14*	3,5 *0.14*	4,0 *0.16*
S13	XOEX120408R-M07 MS2050	0,080 *0.0032*	3,0 *0.12*	3,0 *0.12*	3,0 *0.12*	3,5 *0.14*
H5	XOMX120408TR-MD13 MP3000	0,11 *0.0044*	4,0 *0.16*	4,0 *0.16*	4,0 *0.16*	4,5 *0.18*
H8	XOMX120408TR-MD13 MP3000	0,090 *0.0036*	3,5 *0.14*	3,5 *0.14*	3,5 *0.14*	4,0 *0.16*
H11	XOMX120408TR-MD13 MP1501	0,11 *0.0044*	4,0 *0.16*	4,0 *0.16*	4,0 *0.16*	4,5 *0.18*
H12	XOMX120408TR-MD13 MP1501	0,090 *0.0036*	3,5 *0.14*	3,5 *0.14*	3,5 *0.14*	4,0 *0.16*

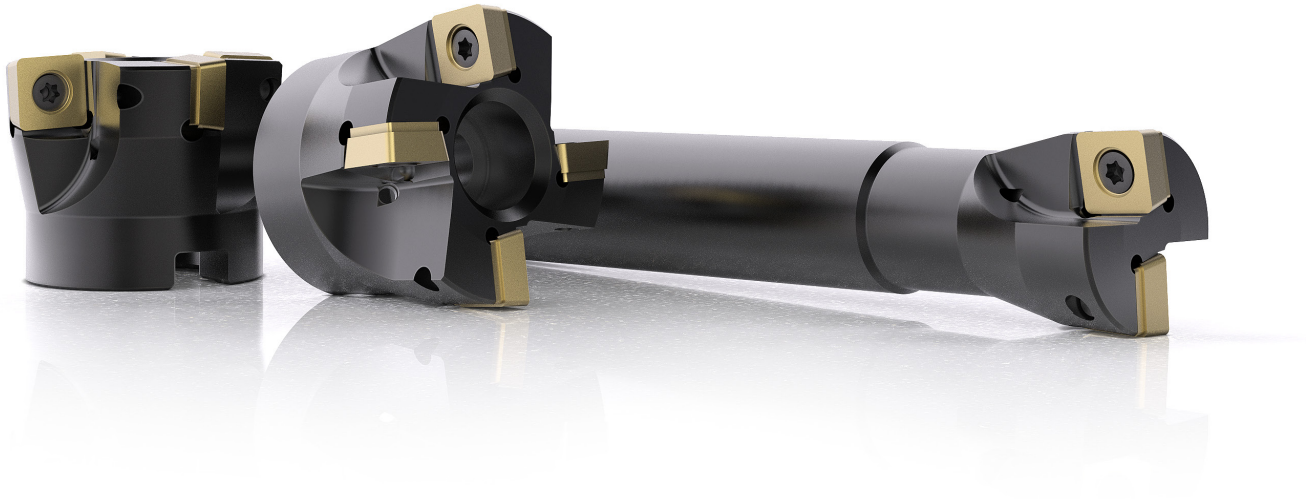
SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

R217/220.79-XO12 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	F15M				MK2050				F30M				MP3000				MS2050				F40M				MP2050			
	100%	70%	50%	30%	100%	70%	50%	30%	100%	70%	50%	30%	100%	70%	50%	30%	100%	70%	50%	30%	100%	70%	50%	30%	100%	70%	50%	30%
P1	—	—	—	—	220	245	260	275	155	170	180	195	210	235	250	265	215	240	255	270	165	185	195	210	255	280	300	320
	—	—	—	—	*720*	*800*	*850*	*900*	*510*	*560*	*590*	*640*	*690*	*770*	*820*	*870*	*710*	*790*	*840*	*890*	*540*	*610*	*640*	*690*	*840*	*920*	*980*	*1050*
P2	—	—	—	—	210	235	250	265	150	170	180	190	200	225	240	255	210	235	245	265	165	180	190	205	245	275	290	310
	—	—	—	—	*690*	*770*	*820*	*870*	*490*	*560*	*590*	*620*	*660*	*740*	*790*	*840*	*690*	*770*	*800*	*870*	*540*	*590*	*620*	*670*	*800*	*900*	*950*	*1025*
P3	—	—	—	—	185	205	215	230	130	145	155	165	175	195	210	225	185	205	220	235	145	160	170	180	220	245	255	275
	—	—	—	—	*610*	*670*	*710*	*750*	*425*	*475*	*510*	*540*	*570*	*640*	*690*	*740*	*610*	*670*	*720*	*770*	*475*	*520*	*560*	*590*	*720*	*800*	*840*	*900*
P4	—	—	—	—	165	185	195	210	115	130	135	145	160	175	190	200	165	180	190	205	125	140	150	160	190	215	225	240
	—	—	—	—	*540*	*610*	*640*	*690*	*375*	*425*	*445*	*475*	*520*	*570*	*620*	*660*	*540*	*590*	*620*	*670*	*410*	*460*	*490*	*520*	*620*	*710*	*740*	*790*
P5	—	—	—	—	160	175	185	200	115	125	135	140	150	170	180	190	155	175	185	195	120	135	140	150	185	205	215	230
	—	—	—	—	*520*	*570*	*610*	*660*	*375*	*410*	*445*	*460*	*490*	*560*	*590*	*620*	*510*	*570*	*610*	*640*	*395*	*445*	*460*	*490*	*610*	*670*	*710*	*750*
P6	—	—	—	—	175	200	210	225	125	140	150	160	170	190	200	215	175	195	205	220	140	155	160	175	205	230	240	260
	—	—	—	—	*570*	*660*	*690*	*740*	*410*	*460*	*490*	*520*	*560*	*620*	*660*	*710*	*570*	*640*	*670*	*720*	*460*	*510*	*520*	*570*	*670*	*750*	*790*	*850*
P7	—	—	—	—	165	185	195	210	120	135	140	150	160	180	190	205	165	185	195	205	130	145	155	165	195	215	230	245
	—	—	—	—	*540*	*610*	*640*	*690*	*395*	*445*	*460*	*490*	*520*	*590*	*620*	*670*	*540*	*610*	*640*	*670*	*425*	*475*	*510*	*540*	*640*	*710*	*750*	*800*
P8	—	—	—	—	155	175	185	195	110	125	130	140	150	165	175	190	155	175	185	195	120	135	140	150	185	205	215	230
	—	—	—	—	*510*	*570*	*610*	*640*	*360*	*410*	*425*	*460*	*490*	*540*	*570*	*620*	*510*	*570*	*610*	*640*	*395*	*445*	*460*	*490*	*610*	*670*	*710*	*750*
P11	—	—	—	—	165	180	190	205	115	130	135	145	155	175	185	195	160	180	190	200	125	140	150	160	190	210	220	235
	—	—	—	—	*540*	*590*	*620*	*670*	*375*	*425*	*445*	*475*	*510*	*570*	*610*	*640*	*520*	*590*	*620*	*660*	*410*	*460*	*490*	*520*	*620*	*690*	*720*	*770*
P12	—	—	—	—	110	125	130	140	80	90	95	100	105	120	125	135	105	120	125	135	85	90	95	105	125	140	150	160
	—	—	—	—	*360*	*410*	*425*	*460*	*260*	*295*	*310*	*330*	*345*	*395*	*410*	*445*	*345*	*395*	*410*	*445*	*280*	*295*	*310*	*345*	*410*	*460*	*490*	*520*
M1	—	—	—	—	—	—	—	—	—	—	—	—	150	170	180	190	170	190	200	210	130	145	155	165	175	195	210	220
	—	—	—	—	—	—	—	—	—	—	—	—	*490*	*560*	*590*	*620*	*560*	*620*	*660*	*690*	*425*	*475*	*510*	*540*	*570*	*640*	*690*	*720*
M2	—	—	—	—	—	—	—	—	—	—	—	—	125	140	150	160	140	155	165	175	110	120	130	135	145	165	175	185
	—	—	—	—	—	—	—	—	—	—	—	—	*410*	*460*	*490*	*520*	*460*	*510*	*540*	*570*	*360*	*395*	*425*	*445*	*475*	*540*	*570*	*610*
M3	—	—	—	—	—	—	—	—	—	—	—	—	105	115	120	130	115	130	135	145	90	100	105	115	120	135	140	150
	—	—	—	—	—	—	—	—	—	—	—	—	*345*	*375*	*395*	*425*	*375*	*425*	*445*	*475*	*295*	*330*	*345*	*375*	*395*	*445*	*460*	*490*
M4	—	—	—	—	—	—	—	—	—	—	—	—	80	90	95	105	90	100	105	115	70	80	85	90	95	105	110	120
	—	—	—	—	—	—	—	—	—	—	—	—	*260*	*295*	*310*	*345*	*295*	*330*	*345*	*375*	*230*	*260*	*280*	*295*	*310*	*345*	*360*	*395*
M5	—	—	—	—	—	—	—	—	—	—	—	—	70	75	80	85	75	85	90	95	60	65	70	75	80	90	95	100
	—	—	—	—	—	—	—	—	—	—	—	—	*230*	*245*	*260*	*280*	*245*	*280*	*295*	*310*	*195*	*215*	*230*	*245*	*260*	*295*	*310*	*330*
K1	205	230	240	260	225	255	270	285	120	135	140	150	160	180	190	200	—	—	—	—	130	145	150	165	—	—	—	—
	670	*750*	*790*	*850*	*740*	*840*	*890*	*940*	*395*	*445*	*460*	*490*	*520*	*590*	*620*	*660*	—	—	—	—	*425*	*475*	*490*	*540*	—	—	—	—
K2	185	205	215	230	205	230	240	255	105	120	125	135	145	160	170	180	—	—	—	—	115	125	135	145	—	—	—	—
	610	*670*	*710*	*750*	*670*	*750*	*790*	*840*	*345*	*395*	*410*	*445*	*475*	*520*	*560*	*590*	—	—	—	—	*375*	*410*	*445*	*475*	—	—	—	—
K3	155	175	185	195	175	195	205	220	90	100	105	115	120	135	145	155	—	—	—	—	95	110	115	120	—	—	—	—
	510	*570*	*610*	*640*	*570*	*640*	*670*	*720*	*295*	*330*	*345*	*375*	*395*	*445*	*475*	*510*	—	—	—	—	*310*	*360*	*375*	*395*	—	—	—	—
K4	150	165	175	185	165	185	195	210	85	95	100	110	115	130	135	145	—	—	—	—	90	105	110	115	—	—	—	—
	490	*540*	*570*	*610*	*540*	*610*	*640*	*690*	*280*	*310*	*330*	*360*	*375*	*425*	*445*	*475*	—	—	—	—	*295*	*345*	*360*	*375*	—	—	—	—
K5	90	100	110	115	100	115	120	130	55	60	65	65	70	80	85	90	—	—	—	—	55	65	70	70	—	—	—	—
	295	*330*	*360*	*375*	*330*	*375*	*395*	*425*	*180*	*195*	*215*	*215*	*230*	*260*	*280*	*295*	—	—	—	—	*180*	*215*	*230*	*230*	—	—	—	—
K6	130	145	155	165	145	160	170	185	75	85	90	95	105	115	120	130	—	—	—	—	80	90	95	100	—	—	—	—
	425	*475*	*510*	*540*	*475*	*520*	*560*	*610*	*245*	*280*	*295*	*310*	*345*	*375*	*395*	*425*	—	—	—	—	*260*	*295*	*310*	*330*	—	—	—	—
K7	115	130	140	145	130	145	155	165	70	75	80	85	90	105	110	115	—	—	—	—	75	80	85	90	—	—	—	—
	375	*425*	*460*	*475*	*425*	*475*	*510*	*540*	*230*	*245*	*260*	*280*	*295*	*345*	*360*	*375*	—	—	—	—	*245*	*260*	*280*	*295*	—	—	—	—
N1	1500	1675	1775	1900	—	—	—	—	—	—	—	—	1175	1300	1375	1475	—	—	—	—	940	1050	1100	1175	—	—	—	—
	4925	*5500*	*5825*	*6225*	—	—	—	—	—	—	—	—	*3850*	*4275*	*4500*	*4850*	—	—	—	—	*3075*	*3450*	*3600*	*3850*	—	—	—	—
N2	610	680	710	760	—	—	—	—	—	—	—	—	470	530	560	600	—	—	—	—	380	420	445	475	—	—	—	—
	2000	*2225*	*2325*	*2500*	—	—	—	—	—	—	—	—	*1550*	*1750*	*1825*	*1975*	—	—	—	—	*1250*	*1375*	*1450*	*1550*	—	—	—	—
N3	405	450	475	510	—	—	—	—	—	—	—	—	315	350	370	395	—	—	—	—	250	280	295	315	—	—	—	—
	1325	*1475*	*1550*	*1675*	—	—	—	—	—	—	—	—	*1025*	*1150*	*1225*	*1300*	—	—	—	—	*820*	*920*	*970*	*1025*	—	—	—	—
N11	460	520	540	580	—	—	—	—	—	—	—	—	360	400	425	455	—	—	—	—	290	320	340	365	—	—	—	—
	1500	*1700*	*1775*	*1900*	—	—	—	—	—	—	—	—	*1175*	*1300*	*1400*	*1500*	—	—	—	—	*950*	*1050*	*1125*	*1200*	—	—	—	—
S1	—	—	—	—	—	—	—	—	30	34	36	39	38	43	45	49	42	47	50	55	33	37	39	42	46	50	55	60
	—	—	—	—	—	—	—	—	*100*	*110*	*120*	*130*	*125*	*140*	*150*	*160*	*140*	*155*	*165*	*180*	*110*	*120*	*130*	*140*	*150*	*165*	*180*	*195*
S2	—	—	—	—	—	—	—	—	25	27	29	31	31	34	36	39	34	38	40	43	26	30	31	34	37	42	44	47
	—	—	—	—	—	—	—	—	*80*	*90*	*95*	*100*	*100*	*110*	*120*	*130*	*110*	*125*	*130*	*140*	*85*	*100*	*100*	*110*	*120*	*140*	*145*	*155*
S3	—	—	—	—	—	—	—	—	22	24	26	28	27	30	32	35	30	33	35	38	23	26	28	30	33	37	39	42
	—	—	—	—	—	—	—	—	*70*	*80*	*85*	*90*	*90*	*100*	*105*	*115*	*100*	*110*	*115*	*125*	*75*	*85*	*90*	*100*	*110*	*120*	*130*	*140*
S11	—	—	—	—	—	—	—	—	—	—	—	—	55	60	60	65	60	65	70	75	46	50	55	60	65	70	75	80
	—	—	—	—	—	—	—	—	—	—	—	—	*180*	*195*	*195*	*215*	*195*	*215*	*230*	*245*	*150*	*165*	*180*	*195*	*215*	*230*	*245*	*260*
S12	—	—	—	—	—	—	—	—	—	—	—	—	36	41	43	46	40	45	48	50	32	36	38	40	44	49	50	55
	—	—	—	—	—	—	—	—	—	—	—	—	*120*	*135*	*140*	*150*	*130*	*150*	*155*	*165*	*105*	*120*	*125*	*130*	*145*	*160*	*165*	*180*
S13	—	—	—	—	—	—	—	—	—	—	—	—	22	24	25	27	24	27	28	30	18	21	22	23	26	29	31	33
	—	—	—	—	—	—	—	—	—	—	—	—	*70*	*80*	*80*	*90*	*80*	*90*	*90*	*100*	*60*	*70*	*70*	*75*	*85*	*95*	*100*	*110*
H5	—	—	—	—	—	—	—	—	26	29	31	33	33	37	39	42	—	—	—	—	27	31	32	35	—	—	—	—
	—	—	—	—	—	—	—	—	*85*	*95*	*100*	*110*	*110*	*120*	*130*	*140*	—	—	—	—	*90*	*100*	*105*	*115*	—	—	—	—
H8	—	—	—	—	—	—	—	—	28	31	33	36	35	39	42	45	—	—	—	—	30	34	36	38	—	—	—	—
	—	—	—	—	—	—	—	—	*90*	*100*	*110*	*120*	*115*	*130*	*140*	*150*	—	—	—	—	*100*	*110*	*120*	*125*	—	—	—	—
H11	—	—	—	—	—	—	—	—	33	37	39	42	42	47	50	55	—	—	—	—	35	39	41	44	48	55	55	60
	—	—	—	—	—	—	—	—	*110*	*120*	*130*	*140*	*140*	*155*	*165*	*180*	—	—	—	—	*115*	*130*	*135*	*145*	*155*	*180*	*180*	*195*
H12	—	—	—	—	—	—	—	—	50	55	60	65	65	75	80	85	—	—	—	—	55	60	65	70	80	90	95	105
	—	—	—	—	—	—	—	—	*165*	*180*	*195*	*215*	*215*	*245*	*260*	*280*	—	—	—	—	*180*	*195*	*215*	*230*	*260*	*295*	*310*	*345*

R217/220.79-XO12 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	H15				MK1500				MP1501				MP2501				MS2500				MP3501				MM4500			
	100%	70%	50%	30%	100%	70%	50%	30%	100%	70%	50%	30%	100%	70%	50%	30%	100%	70%	50%	30%	100%	70%	50%	30%	100%	70%	50%	30%
P1	—	—	—	—	—	—	—	—	310	335	355	370	300	325	340	360	280	315	330	355	265	285	300	315	160	175	185	200
	—	—	—	—	—	—	—	—	*1025*	*1100*	*1175*	*1225*	*980*	*1075*	*1125*	*1175*	*920*	*1025*	*1075*	*1175*	*870*	*940*	*980*	*1025*	*520*	*570*	*610*	*660*
P2	—	—	—	—	—	—	—	—	300	330	345	360	290	315	330	350	275	305	325	345	260	280	295	310	155	170	180	195
	—	—	—	—	—	—	—	—	*980*	*1075*	*1125*	*1175*	*950*	*1025*	*1075*	*1150*	*900*	*1000*	*1075*	*1125*	*850*	*920*	*970*	*1025*	*510*	*560*	*590*	*640*
P3	—	—	—	—	—	—	—	—	265	290	305	320	260	280	295	310	240	270	285	305	230	250	260	275	135	150	160	170
	—	—	—	—	—	—	—	—	*870*	*950*	*1000*	*1050*	*850*	*920*	*970*	*1025*	*790*	*890*	*940*	*1000*	*750*	*820*	*850*	*900*	*445*	*490*	*520*	*560*
P4	—	—	—	—	—	—	—	—	235	255	265	280	225	245	260	270	215	235	250	270	200	220	230	240	120	135	140	150
	—	—	—	—	—	—	—	—	*770*	*840*	*870*	*920*	*740*	*800*	*850*	*890*	*710*	*770*	*820*	*890*	*660*	*720*	*750*	*790*	*395*	*445*	*460*	*490*
P5	—	—	—	—	—	—	—	—	225	245	255	270	215	235	245	260	205	225	240	255	190	210	220	230	115	130	135	145
	—	—	—	—	—	—	—	—	*740*	*800*	*840*	*890*	*710*	*770*	*800*	*850*	*670*	*740*	*790*	*840*	*620*	*690*	*720*	*750*	*375*	*425*	*445*	*475*
P6	—	—	—	—	—	—	—	—	260	280	295	310	250	270	285	300	230	255	270	285	220	240	250	265	130	145	150	160
	—	—	—	—	—	—	—	—	*850*	*920*	*970*	*1025*	*820*	*890*	*940*	*980*	*750*	*840*	*890*	*940*	*720*	*790*	*820*	*870*	*425*	*475*	*490*	*520*
P7	—	—	—	—	—	—	—	—	245	265	275	290	235	255	270	280	215	240	255	270	210	225	235	250	120	135	145	155
	—	—	—	—	—	—	—	—	*800*	*870*	*900*	*950*	*770*	*840*	*890*	*920*	*710*	*790*	*840*	*890*	*690*	*740*	*770*	*820*	*395*	*445*	*475*	*510*
P8	—	—	—	—	—	—	—	—	225	245	255	270	215	235	245	260	205	225	240	255	190	210	220	230	115	130	135	145
	—	—	—	—	—	—	—	—	*740*	*800*	*840*	*890*	*710*	*770*	*800*	*850*	*670*	*740*	*790*	*840*	*620*	*690*	*720*	*750*	*375*	*425*	*445*	*475*
P11	—	—	—	—	—	—	—	—	235	255	270	285	230	250	260	275	210	235	245	265	205	220	230	245	120	130	140	150
	—	—	—	—	—	—	—	—	*770*	*840*	*890*	*940*	*750*	*820*	*850*	*900*	*690*	*770*	*800*	*870*	*670*	*720*	*750*	*800*	*395*	*425*	*460*	*490*
P12	—	—	—	—	—	—	—	—	155	170	180	185	155	165	175	185	140	155	165	175	135	150	155	165	80	90	95	100
	—	—	—	—	—	—	—	—	*510*	*560*	*590*	*610*	*510*	*540*	*570*	*610*	*460*	*510*	*540*	*570*	*445*	*490*	*510*	*540*	*260*	*295*	*310*	*330*
M1	—	—	—	—	—	—	—	—	—	—	—	—	155	175	185	195	195	220	230	245	145	160	170	180	130	150	155	165
	—	—	—	—	—	—	—	—	—	—	—	—	*510*	*570*	*610*	*640*	*640*	*720*	*750*	*800*	*475*	*520*	*560*	*590*	*425*	*490*	*510*	*540*
M2	—	—	—	—	—	—	—	—	—	—	—	—	130	140	150	160	165	180	190	205	120	135	140	150	110	120	130	140
	—	—	—	—	—	—	—	—	—	—	—	—	*425*	*460*	*490*	*520*	*540*	*590*	*620*	*670*	*395*	*445*	*460*	*490*	*360*	*395*	*425*	*460*
M3	—	—	—	—	—	—	—	—	—	—	—	—	105	120	125	135	135	150	160	170	100	110	120	125	90	100	105	115
	—	—	—	—	—	—	—	—	—	—	—	—	*345*	*395*	*410*	*445*	*445*	*490*	*520*	*560*	*330*	*360*	*395*	*410*	*295*	*330*	*345*	*375*
M4	—	—	—	—	—	—	—	—	—	—	—	—	85	95	100	105	105	120	125	135	75	85	90	100	70	80	85	90
	—	—	—	—	—	—	—	—	—	—	—	—	*280*	*310*	*330*	*345*	*345*	*395*	*410*	*445*	*245*	*280*	*295*	*330*	*230*	*260*	*280*	*295*
M5	—	—	—	—	—	—	—	—	—	—	—	—	70	75	80	90	90	100	105	110	65	70	75	80	60	65	70	75
	—	—	—	—	—	—	—	—	—	—	—	—	*230*	*245*	*260*	*295*	*295*	*330*	*345*	*360*	*215*	*230*	*245*	*260*	*195*	*215*	*230*	*245*
K1	—	—	—	—	240	265	285	300	305	330	345	365	295	320	335	355	215	240	255	275	260	280	295	310	—	—	—	—
	—	—	—	—	*790*	*870*	*940*	*980*	*1000*	*1075*	*1125*	*1200*	*970*	*1050*	*1100*	*1175*	*710*	*790*	*840*	*900*	*850*	*920*	*970*	*1025*	—	—	—	—
K2	—	—	—	—	215	240	255	270	270	295	310	325	260	285	300	315	195	215	225	245	230	250	265	275	—	—	—	—
	—	—	—	—	*710*	*790*	*840*	*890*	*890*	*970*	*1025*	*1075*	*850*	*940*	*980*	*1025*	*640*	*710*	*740*	*800*	*750*	*820*	*870*	*900*	—	—	—	—
K3	—	—	—	—	185	205	215	230	230	250	260	275	220	240	250	265	165	180	190	205	195	215	225	235	—	—	—	—
	—	—	—	—	*610*	*670*	*710*	*750*	*750*	*820*	*850*	*900*	*720*	*790*	*820*	*870*	*540*	*590*	*620*	*670*	*640*	*710*	*740*	*770*	—	—	—	—
K4	—	—	—	—	175	195	205	220	220	240	250	260	210	230	240	255	155	175	185	195	185	205	215	225	—	—	—	—
	—	—	—	—	*570*	*640*	*670*	*720*	*720*	*790*	*820*	*850*	*690*	*750*	*790*	*840*	*510*	*570*	*610*	*640*	*610*	*670*	*710*	*740*	—	—	—	—
K5	—	—	—	—	110	120	125	135	135	150	155	165	135	145	150	160	95	105	110	120	120	130	135	140	—	—	—	—
	—	—	—	—	*360*	*395*	*410*	*445*	*445*	*490*	*510*	*540*	*445*	*475*	*490*	*520*	*310*	*345*	*360*	*395*	*395*	*425*	*445*	*460*	—	—	—	—
K6	—	—	—	—	155	170	180	195	195	210	220	230	185	205	210	225	135	155	160	175	165	180	185	195	—	—	—	—
	—	—	—	—	*510*	*560*	*590*	*640*	*640*	*690*	*720*	*750*	*610*	*670*	*690*	*740*	*445*	*510*	*520*	*570*	*540*	*590*	*610*	*640*	—	—	—	—
K7	—	—	—	—	140	155	165	175	175	190	200	210	170	185	195	205	120	135	145	155	150	165	170	180	—	—	—	—
	—	—	—	—	*460*	*510*	*540*	*570*	*570*	*620*	*660*	*690*	*560*	*610*	*640*	*670*	*395*	*445*	*475*	*510*	*490*	*540*	*560*	*590*	—	—	—	—
N1	1200	1325	1400	1500	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	3925	*4350*	*4600*	*4925*	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
N2	480	540	570	600	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	1575	*1775*	*1875*	*1975*	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
N3	320	355	375	405	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	1050	*1175*	*1225*	*1325*	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
N11	365	410	430	460	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	1200	*1350*	*1400*	*1500*	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	50	60	60	65	36	40	43	46	22	24	26	28
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	*165*	*195*	*195*	*215*	*120*	*130*	*140*	*150*	*70*	*80*	*85*	*90*
S2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	42	46	49	55	29	32	34	37	18	20	21	22
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	*140*	*150*	*160*	*180*	*95*	*105*	*110*	*120*	*60*	*65*	*70*	*70*
S3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	36	41	43	46	26	29	31	33	15	17	18	20
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	*120*	*135*	*140*	*150*	*85*	*95*	*100*	*110*	*49*	*55*	*60*	*65*
S11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	70	80	85	90	50	55	60	65	30	33	35	38
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	*230*	*260*	*280*	*295*	*165*	*180*	*195*	*215*	*100*	*110*	*115*	*125*
S12	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	49	55	60	60	35	39	41	44	28	31	33	35
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	*160*	*180*	*195*	*195*	*115*	*130*	*135*	*145*	*90*	*100*	*110*	*115*
S13	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	29	32	34	37	20	23	24	26	16	18	19	21
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	*95*	*105*	*110*	*120*	*65*	*75*	*80*	*85*	*50*	*60*	*60*	*70*
H5	—	—	—	—	—	—	—	—	41	46	48	50	—	—	—	—	—	—	—	—	32	35	37	40	—	—	—	—
	—	—	—	—	—	—	—	—	*135*	*150*	*155*	*165*	—	—	—	—	—	—	—	—	*105*	*115*	*120*	*130*	—	—	—	—
H8	—	—	—	—	—	—	—	—	45	50	55	55	—	—	—	—	—	—	—	—	35	39	41	44	—	—	—	—
	—	—	—	—	—	—	—	—	*150*	*165*	*180*	*180*	—	—	—	—	—	—	—	—	*115*	*130*	*135*	*145*	—	—	—	—
H11	—	—	—	—	—	—	—	—	50	60	60	65	—	—	—	—	—	—	—	—	40	45	47	50	—	—	—	—
	—	—	—	—	—	—	—	—	*165*	*195*	*195*	*215*	—	—	—	—	—	—	—	—	*130*	*150*	*155*	*165*	—	—	—	—
H12	—	—	—	—	—	—	—	—	80	90	95	100	—	—	—	—	—	—	—	—	60	70	75	80	—	—	—	—
	—	—	—	—	—	—	—	—	*260*	*295*	*310*	*330*	—	—	—	—	—	—	—	—	*195*	*230*	*245*	*260*	—	—	—	—

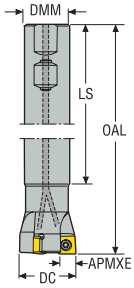


R217/220.79-12

The R217/220.79 for SCET12 inserts are strong and robust plunge mill.

- Cutter range 32-160 mm (1.25 - 6 inch)
- Max radial depth of cut: 11 mm (.433 inch)
- Insert corner radii range 1.2-3.1 mm (.047 - .122 inch)

R217.79-SC..12 – Metric

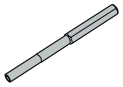




- For insert selection and cutting data recommendations, see page(s) 762-763
- For complete insert programme, see page(s) 821
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	ZEFP	APMXE	DMM	LS	OAL	RPMX	Weight	Insert
			mm		mm	mm	mm	mm		kg	
R217.79-2532.3-12A	00097786	Weldon	32,0	2	11,0	25,0	150,0	200,0	12100	0,7	SC..1206
R217.79-3240.3-12A	00097787	Weldon	40,0	3	11,0	32,0	150,0	200,0	10800	1,2	SC..1206

Spare Parts, included in delivery

For cutter	Insert key	Insert screw
		
R217.79-..	H6B-T20P	C45011-T20P

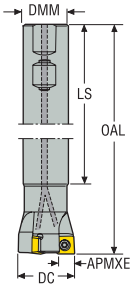
Accessories

For cutter	Insert clamping torque	Torque key
		
R217.79-..	5.0NM	T00-20P50

Torque and fixed keys, see page 872

R217.79-SC..12 – inch

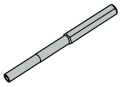




- For insert selection and cutting data recommendations, see page(s) 762-763
- For complete insert programme, see page(s) 821
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	ZEFP	APMXE	DMM	LS	OAL	RPMX	Weight	Insert
			inch		inch	inch	inch	inch		lbs	
R217.79-01.25-3-12A	00057587	Weldon	1.250	2	0.433	1.000	5.906	7.874	12100	1.760	SC..1206
R217.79-01.50-3-12A	00057588	Weldon	1.500	3	0.433	1.250	5.906	7.874	10800	2.650	SC..1206

Spare Parts, included in delivery

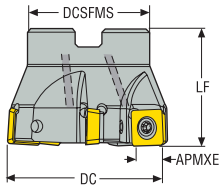
For cutter	Insert key	Insert screw
		
R217.79-..	H6B-T20P	C45011-T20P

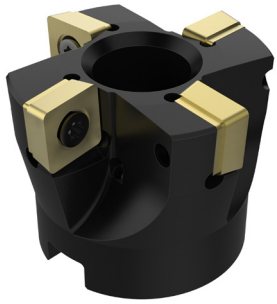
Accessories

For cutter	Insert clamping torque	Torque key
		
R217.79-..	44.3IN.LBS	T00-20P50

Torque and fixed keys, see page 872

R220.79-SC..12 – Metric

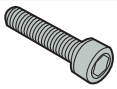
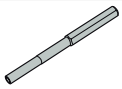




- For insert selection and cutting data recommendations, see page(s) 762-763
- For complete insert programme, see page(s) 821
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	ZEFP	APMXE	DCB	TDZ	DCSFMS	LF	Weight	RPMX	Insert
			mm		mm	mm		mm	mm	kg		
R220.79-0050-12A	00030330	Arbor	50,0	4	11,0	22,0	–	42,0	40,0	0,2	9700	SC..1206
R220.79-0063-12A	00030331	Arbor	63,0	5	11,0	22,0	–	47,0	40,0	0,5	8600	SC..1206
R220.79-0080-12A	00030332	Arbor	80,0	6	11,0	27,0	–	62,0	50,0	0,9	7600	SC..1206
R220.79-0100-12A	00030335	Arbor	100,0	7	11,0	32,0	–	77,0	50,0	1,6	7000	SC..1206
R220.79-0125-12	00069980	Arbor	125,0	8	11,0	40,0	–	90,0	63,0	3,0	6300	SC..1206

Spare Parts, included in delivery

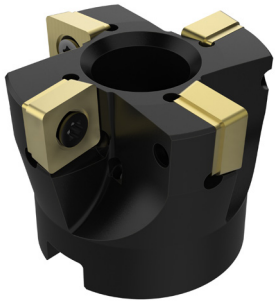
For cutter	Arbor screw	Insert key	Insert screw
			
R220.79-0050-0063	220.17-692	H6B-T20P	C45011-T20P
R220.79-0080	–	H6B-T20P	C45011-T20P
R220.79-0100-0125	–	H6B-T20PL	C45011-T20P

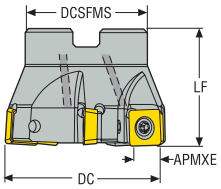
Accessories

For cutter	Insert clamping torque	Torque key
		
R220.79-..	5.0NM	T00-20P50

Torque and fixed keys, see page 872

R220.79-SC..12 – inch

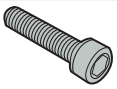
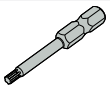




- For insert selection and cutting data recommendations, see page(s) 762-763
- For complete insert programme, see page(s) 821
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	ZEFP	APMXE	DCB	TDZ	DCSFMS	LF	Weight	RPMX	Insert
			inch		inch	inch		inch	inch	lbs		
R220.79-02.00-12A	00039776	Arbor	2.000	4	0.433	0.750	–	1.850	1.500	0.880	9700	SC..1206
R220.79-02.50-12A	00039777	Arbor	2.500	5	0.433	0.750	–	1.850	1.500	1.320	8600	SC..1206
R220.79-03.00-12A	00039778	Arbor	3.000	6	0.433	1.000	–	2.441	2.000	2.650	7600	SC..1206

Spare Parts, included in delivery

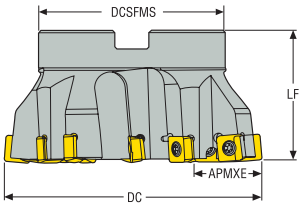
For cutter	Arbor screw	Insert key	Insert screw
			
R220.79-02.00-02.50	UC6S3/8UNFX1	1/4HEX-T20PX50	C45011-T20P
R220.79-03.00	UC6S1/2UNFX1-1/4	H6B-T20P	C45011-T20P

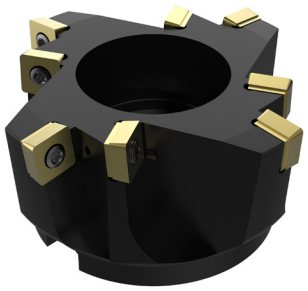
Accessories

For cutter	Adjustable Torque key	Insert clamping torque	Torque key
			
R220.79-..	1/4HEX-S-HANDLE-0.8-5.0NM	44.3IN.LBS	T00-20P50
R220.79-..	–	44.3IN.LBS	T00-20P50

Torque and fixed keys, see page 872

R220.79-SC..12 – Metric

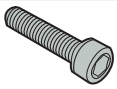
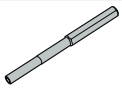




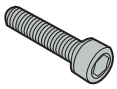
- For insert selection and cutting data recommendations, see page(s) 762-763
- For complete insert programme, see page(s) 821
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	ZEFP	APMXE	DCB	TDZ	DCSFMS	LF	Weight	RPMX	Insert
			mm		mm	mm		mm	mm	kg		
R220.79-0100-20	00045683	Arbor	100,0	4	20,0	32,0	–	77,0	50,0	1,3	7000	SC..1206
R220.79-0125-30	00091797	Arbor	125,0	4	30,0	40,0	–	90,0	63,0	2,8	6300	SC..1206
R220.79-8160-40	00094578	Arbor	160,0	4	40,0	40,0	–	90,0	64,0	4,1	5600	SC..1206

Spare Parts, included in delivery

For cutter	Arbor screw	Insert key	Insert screw
			
R220.79-0100	–	H6B-T20PL	C45011-T20P
R220.79-0125	MC6S20X40	H6B-T20PL	C45011-T20P
R220.79-8160	–	H6B-T20PL	C45011-T20P

Accessories

For cutter	Arbor screw	Insert clamping torque	Torque key
			
R220.79-0100-0125	–	5.0NM	T00-20P50
R220.79-8160	MC6S12X40	5.0NM	T00-20P50

Torque and fixed keys, see page 872

R217/220.79-12 – Insert selection – mm/*Inch*

SMG		f_z	a_{so}			
			100%	70%	50%	30%
P1	SCET120612T-M14 MP3501	0,20 *0.0080*	8,0 *0.32*	8,0 *0.32*	8,0 *0.32*	9,0 *0.36*
P2	SCET120612T-M14 MP3501	0,20 *0.0080*	8,0 *0.32*	8,0 *0.32*	8,0 *0.32*	9,0 *0.36*
P3	SCET120612T-M14 MP2501	0,19 *0.0075*	8,0 *0.32*	8,0 *0.32*	8,0 *0.32*	9,0 *0.36*
P4	SCET120612T-M14 MP2501	0,19 *0.0075*	8,0 *0.32*	8,0 *0.32*	8,0 *0.32*	9,0 *0.36*
P5	SCET120612T-M14 MP2501	0,18 *0.0070*	8,0 *0.32*	8,0 *0.32*	8,0 *0.32*	9,0 *0.36*
P6	SCET120612T-M14 MP2501	0,18 *0.0070*	8,0 *0.32*	8,0 *0.32*	8,0 *0.32*	9,0 *0.36*
P7	SCET120612T-M14 MP2501	0,18 *0.0070*	8,0 *0.32*	8,0 *0.32*	8,0 *0.32*	9,0 *0.36*
P8	SCET120612T-M14 MP2501	0,19 *0.0075*	8,0 *0.32*	8,0 *0.32*	8,0 *0.32*	9,0 *0.36*
P11	SCET120612T-M14 MP3501	0,18 *0.0070*	8,0 *0.32*	8,0 *0.32*	8,0 *0.32*	9,0 *0.36*
P12	SCET120612T-M14 MP2501	0,12 *0.0048*	6,0 *0.24*	6,0 *0.24*	6,0 *0.24*	7,0 *0.28*
M1	SCET120612T-M14 MS2050	0,20 *0.0080*	8,0 *0.32*	8,0 *0.32*	8,0 *0.32*	9,0 *0.36*
M2	SCET120612T-M14 MS2050	0,18 *0.0070*	8,0 *0.32*	8,0 *0.32*	8,0 *0.32*	9,0 *0.36*
M3	SCET120612T-M14 MS2050	0,15 *0.0060*	6,0 *0.24*	6,0 *0.24*	6,0 *0.24*	7,0 *0.28*
M4	SCET120612T-M14 MP3501	0,13 *0.0050*	4,5 *0.18*	4,5 *0.18*	4,5 *0.18*	5,0 *0.20*
M5	SCET120612T-M14 MP3501	0,13 *0.0050*	4,5 *0.18*	4,5 *0.18*	4,5 *0.18*	5,0 *0.20*
K1	SCET120612T-M14 MP2501	0,20 *0.0080*	8,0 *0.32*	8,0 *0.32*	8,0 *0.32*	9,0 *0.36*
K2	SCET120612T-M14 MP2501	0,18 *0.0070*	8,0 *0.32*	8,0 *0.32*	8,0 *0.32*	9,0 *0.36*
K3	SCET120612T-M14 MP2501	0,18 *0.0070*	8,0 *0.32*	8,0 *0.32*	8,0 *0.32*	9,0 *0.36*
K4	SCET120612T-M14 MP2501	0,18 *0.0070*	8,0 *0.32*	8,0 *0.32*	8,0 *0.32*	9,0 *0.36*
K5	SCET120612T-M14 MP2501	0,16 *0.0065*	8,0 *0.32*	8,0 *0.32*	8,0 *0.32*	9,0 *0.36*
K6	SCET120612T-M14 MP2501	0,18 *0.0070*	8,0 *0.32*	8,0 *0.32*	8,0 *0.32*	9,0 *0.36*
K7	SCET120612T-M14 MP2501	0,16 *0.0065*	8,0 *0.32*	8,0 *0.32*	8,0 *0.32*	9,0 *0.36*
N1	SCET120612T-M14 F40M	0,25 *0.010*	8,0 *0.32*	8,0 *0.32*	8,0 *0.32*	9,0 *0.36*
N2	SCET120612T-M14 F40M	0,25 *0.010*	8,0 *0.32*	8,0 *0.32*	8,0 *0.32*	9,0 *0.36*
N3	SCET120612T-M14 F40M	0,25 *0.010*	8,0 *0.32*	8,0 *0.32*	8,0 *0.32*	9,0 *0.36*
N11	SCET120612T-M14 F40M	0,25 *0.010*	8,0 *0.32*	8,0 *0.32*	8,0 *0.32*	9,0 *0.36*
S1	SCET120612T-M14 MP3501	0,13 *0.0050*	4,5 *0.18*	4,5 *0.18*	4,5 *0.18*	5,0 *0.20*
S2	SCET120612T-M14 MP3501	0,13 *0.0050*	4,5 *0.18*	4,5 *0.18*	4,5 *0.18*	5,0 *0.20*
S3	SCET120612T-M14 MP3501	0,12 *0.0048*	4,5 *0.18*	4,5 *0.18*	4,5 *0.18*	5,0 *0.20*
S11	SCET120612T-M14 MS2050	0,15 *0.0060*	5,0 *0.20*	5,0 *0.20*	5,0 *0.20*	6,0 *0.24*
S12	SCET120612T-M14 MS2050	0,15 *0.0060*	5,0 *0.20*	5,0 *0.20*	5,0 *0.20*	6,0 *0.24*
S13	SCET120612T-M14 MS2050	0,13 *0.0050*	4,5 *0.18*	4,5 *0.18*	4,5 *0.18*	5,0 *0.20*
H5	SCET120612T-M14 MP3501	0,12 *0.0048*	6,0 *0.24*	6,0 *0.24*	6,0 *0.24*	7,0 *0.28*
H8	SCET120612T-M14 MP3501	0,095 *0.0038*	5,0 *0.20*	5,0 *0.20*	5,0 *0.20*	6,0 *0.24*
H11	SCET120612T-M14 MP3501	0,12 *0.0048*	6,0 *0.24*	6,0 *0.24*	6,0 *0.24*	7,0 *0.28*
H12	SCET120612T-M14 MP3501	0,095 *0.0038*	5,0 *0.20*	5,0 *0.20*	5,0 *0.20*	6,0 *0.24*

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

R217/220.79-12 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	MS2050				F40M				MK1500				MP2501				MP3501				T25M			
	100%	70%	50%	30%	100%	70%	50%	30%	100%	70%	50%	30%	100%	70%	50%	30%	100%	70%	50%	30%	100%	70%	50%	30%
P1	185	205	215	230	165	185	195	210	—	—	—	—	290	315	330	350	255	280	290	310	185	205	215	230
	610	*670*	*710*	*750*	*540*	*610*	*640*	*690*	—	—	—	—	*950*	*1025*	*1075*	*1150*	*840*	*920*	*950*	*1025*	*610*	*670*	*710*	*750*
P2	180	200	210	225	160	180	190	205	—	—	—	—	285	310	325	340	250	270	285	300	180	200	210	225
	590	*660*	*690*	*740*	*520*	*590*	*620*	*670*	—	—	—	—	*940*	*1025*	*1075*	*1125*	*820*	*890*	*940*	*980*	*590*	*660*	*690*	*740*
P3	155	175	185	195	140	160	165	180	—	—	—	—	250	275	285	300	220	240	250	265	155	175	185	195
	510	*570*	*610*	*640*	*460*	*520*	*540*	*590*	—	—	—	—	*820*	*900*	*940*	*980*	*720*	*790*	*820*	*870*	*510*	*570*	*610*	*640*
P4	140	155	160	175	125	140	145	160	—	—	—	—	220	240	250	265	195	210	220	235	140	155	160	175
	460	*510*	*520*	*570*	*410*	*460*	*475*	*520*	—	—	—	—	*720*	*790*	*820*	*870*	*640*	*690*	*720*	*770*	*460*	*510*	*520*	*570*
P5	135	150	160	170	120	135	145	155	—	—	—	—	215	235	245	260	190	205	215	230	135	150	160	170
	445	*490*	*520*	*560*	*395*	*445*	*475*	*510*	—	—	—	—	*710*	*770*	*800*	*850*	*620*	*670*	*710*	*750*	*445*	*490*	*520*	*560*
P6	150	170	175	190	135	150	160	170	—	—	—	—	245	265	275	290	215	230	245	255	150	170	175	190
	490	*560*	*570*	*620*	*445*	*490*	*520*	*560*	—	—	—	—	*800*	*870*	*900*	*950*	*710*	*750*	*800*	*840*	*490*	*560*	*570*	*620*
P7	140	160	165	180	130	145	150	165	—	—	—	—	230	250	260	275	200	220	230	240	140	160	165	180
	460	*520*	*540*	*590*	*425*	*475*	*490*	*540*	—	—	—	—	*750*	*820*	*850*	*900*	*660*	*720*	*750*	*790*	*460*	*520*	*540*	*590*
P8	130	145	155	165	120	135	140	150	—	—	—	—	210	230	240	255	185	200	210	220	130	145	155	165
	425	*475*	*510*	*540*	*395*	*445*	*460*	*490*	—	—	—	—	*690*	*750*	*790*	*840*	*610*	*660*	*690*	*720*	*425*	*475*	*510*	*540*
P11	140	155	160	175	125	140	150	160	—	—	—	—	220	240	255	265	195	215	225	235	140	155	160	175
	460	*510*	*520*	*570*	*410*	*460*	*490*	*520*	—	—	—	—	*720*	*790*	*840*	*870*	*640*	*710*	*740*	*770*	*460*	*510*	*520*	*570*
P12	95	105	110	120	85	95	100	105	—	—	—	—	155	170	180	185	140	150	160	165	95	105	110	120
	310	*345*	*360*	*395*	*280*	*310*	*330*	*345*	—	—	—	—	*510*	*560*	*590*	*610*	*460*	*490*	*520*	*540*	*310*	*345*	*360*	*395*
M1	145	160	170	180	130	145	155	165	—	—	—	—	155	170	180	195	145	160	170	180	145	160	170	180
	475	*520*	*560*	*590*	*425*	*475*	*510*	*540*	—	—	—	—	*510*	*560*	*590*	*640*	*475*	*520*	*560*	*590*	*475*	*520*	*560*	*590*
M2	120	135	140	150	110	120	130	140	—	—	—	—	130	145	150	165	120	135	140	150	120	135	140	150
	395	*445*	*460*	*490*	*360*	*395*	*425*	*460*	—	—	—	—	*425*	*475*	*490*	*540*	*395*	*445*	*460*	*490*	*395*	*445*	*460*	*490*
M3	100	110	115	125	90	100	105	115	—	—	—	—	105	120	125	135	100	110	115	125	100	110	115	125
	330	*360*	*375*	*410*	*295*	*330*	*345*	*375*	—	—	—	—	*345*	*395*	*410*	*445*	*330*	*360*	*375*	*410*	*330*	*360*	*375*	*410*
M4	80	85	90	100	70	80	85	90	—	—	—	—	85	95	100	105	80	85	90	100	80	85	90	100
	260	*280*	*295*	*330*	*230*	*260*	*280*	*295*	—	—	—	—	*280*	*310*	*330*	*345*	*260*	*280*	*295*	*330*	*260*	*280*	*295*	*330*
M5	65	70	75	80	60	65	70	75	—	—	—	—	70	75	80	90	65	70	75	80	65	70	75	80
	215	*230*	*245*	*260*	*195*	*215*	*230*	*245*	—	—	—	—	*230*	*245*	*260*	*295*	*215*	*230*	*245*	*260*	*215*	*230*	*245*	*260*
K1	—	—	—	—	130	145	150	160	240	270	285	305	285	310	325	345	250	275	285	300	140	160	165	180
	—	—	—	—	*425*	*475*	*490*	*520*	*790*	*890*	*940*	*1000*	*940*	*1025*	*1075*	*1125*	*820*	*900*	*940*	*980*	*460*	*520*	*540*	*590*
K2	—	—	—	—	115	130	135	145	215	240	255	275	260	285	295	315	230	250	260	275	125	140	150	160
	—	—	—	—	*375*	*425*	*445*	*475*	*710*	*790*	*840*	*900*	*850*	*940*	*970*	*1025*	*750*	*820*	*850*	*900*	*410*	*460*	*490*	*520*
K3	—	—	—	—	100	110	115	125	185	205	215	230	220	240	250	265	195	210	220	235	110	120	125	135
	—	—	—	—	*330*	*360*	*375*	*410*	*610*	*670*	*710*	*750*	*720*	*790*	*820*	*870*	*640*	*690*	*720*	*770*	*360*	*395*	*410*	*445*
K4	—	—	—	—	95	105	110	120	175	195	205	220	210	230	240	255	185	200	210	225	105	115	120	130
	—	—	—	—	*310*	*345*	*360*	*395*	*570*	*640*	*670*	*720*	*690*	*750*	*790*	*840*	*610*	*660*	*690*	*740*	*345*	*375*	*395*	*425*
K5	—	—	—	—	60	65	70	75	110	120	125	135	135	145	150	160	115	125	135	140	65	70	75	80
	—	—	—	—	*195*	*215*	*230*	*245*	*360*	*395*	*410*	*445*	*445*	*475*	*490*	*520*	*375*	*410*	*445*	*460*	*215*	*230*	*245*	*260*
K6	—	—	—	—	80	90	95	105	155	170	180	195	185	200	210	225	165	180	185	195	90	100	105	115
	—	—	—	—	*260*	*295*	*310*	*345*	*510*	*560*	*590*	*640*	*610*	*660*	*690*	*740*	*540*	*590*	*610*	*640*	*295*	*330*	*345*	*375*
K7	—	—	—	—	75	80	85	95	140	155	165	175	170	185	195	205	150	165	170	180	80	90	95	105
	—	—	—	—	*245*	*260*	*280*	*310*	*460*	*510*	*540*	*570*	*560*	*610*	*640*	*670*	*490*	*540*	*560*	*590*	*260*	*295*	*310*	*345*
N1	—	—	—	—	940	1050	1100	1175	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	*3075*	*3450*	*3600*	*3850*	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
N2	—	—	—	—	380	420	445	480	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	*1250*	*1375*	*1450*	*1575*	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
N3	—	—	—	—	255	280	300	320	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	*840*	*920*	*980*	*1050*	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
N11	—	—	—	—	290	320	340	365	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	*950*	*1050*	*1125*	*1200*	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S1	36	40	43	46	33	37	39	42	—	—	—	—	—	—	—	—	36	40	43	46	—	—	—	—
	120	*130*	*140*	*150*	*110*	*120*	*130*	*140*	—	—	—	—	—	—	—	—	*120*	*130*	*140*	*150*	—	—	—	—
S2	29	33	34	37	27	30	31	34	—	—	—	—	—	—	—	—	29	33	34	37	—	—	—	—
	95	*110*	*110*	*120*	*90*	*100*	*100*	*110*	—	—	—	—	—	—	—	—	*95*	*110*	*110*	*120*	—	—	—	—
S3	26	29	30	33	23	26	28	30	—	—	—	—	—	—	—	—	26	29	30	33	—	—	—	—
	85	*95*	*100*	*110*	*75*	*85*	*90*	*100*	—	—	—	—	—	—	—	—	*85*	*95*	*100*	*110*	—	—	—	—
S11	50	55	60	65	45	50	55	55	—	—	—	—	—	—	—	—	50	55	60	65	—	—	—	—
	165	*180*	*195*	*215*	*150*	*165*	*180*	*180*	—	—	—	—	—	—	—	—	*165*	*180*	*195*	*215*	—	—	—	—
S12	35	39	41	44	31	35	37	40	—	—	—	—	—	—	—	—	35	39	41	44	—	—	—	—
	115	*130*	*135*	*145*	*100*	*115*	*120*	*130*	—	—	—	—	—	—	—	—	*115*	*130*	*135*	*145*	—	—	—	—
S13	20	23	24	26	19	21	22	24	—	—	—	—	—	—	—	—	20	23	24	26	—	—	—	—
	65	*75*	*80*	*85*	*60*	*70*	*70*	*80*	—	—	—	—	—	—	—	—	*65*	*75*	*80*	*85*	—	—	—	—
H5	—	—	—	—	28	31	33	36	—	—	—	—	—	—	—	—	32	36	38	41	—	—	—	—
	—	—	—	—	*90*	*100*	*110*	*120*	—	—	—	—	—	—	—	—	*105*	*120*	*125*	*135*	—	—	—	—
H8	—	—	—	—	30	34	36	38	—	—	—	—	—	—	—	—	35	39	41	44	—	—	—	—
	—	—	—	—	*100*	*110*	*120*	*125*	—	—	—	—	—	—	—	—	*115*	*130*	*135*	*145*	—	—	—	—
H11	—	—	—	—	36	40	42	45	—	—	—	—	—	—	—	—	41	46	49	50	—	—	—	—
	—	—	—	—	*120*	*130*	*140*	*150*	—	—	—	—	—	—	—	—	*135*	*150*	*160*	*165*	—	—	—	—
H12	—	—	—	—	55	60	65	70	—	—	—	—	—	—	—	—	65	70	75	80	—	—	—	—
	—	—	—	—	*180*	*195*	*215*	*230*	—	—	—	—	—	—	—	—	*215*	*230*	*245*	*260*	—	—	—	—



Chamfer Mills

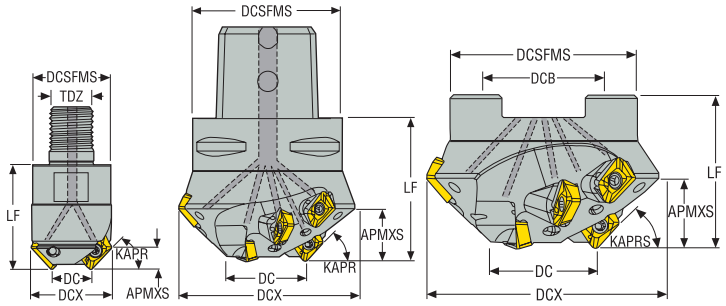
Turbo 12, R217/220.49-XO12 Chamfer mills, for XOMX12 inserts with 2 cutting edges and is available in many different grades for most common workpiece materials

- Chamfer angle 30°, 45°, 60° and 75°
- Max. depth of cut 31 mm (1.22 inch) with the 75° milling cutter
- Front chamfering
- Available in combimaster, Seco-Capto or for arbor mounting

R215/220.49 Chamfer mills for SPMX06/09/12 insert types, 4-cutting edges, single sided positive inserts.

- Chamfer angle 45° and 60°
- Front and back chamfering
- Available in Weldon and Arbor mounting

R217/220.49-XO12 – Metric

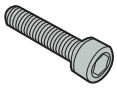




- For insert selection and cutting data recommendations, see page(s) 767-769
- For complete insert programme, see page(s) 846, 847
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	KAPRS°	DC	DCX	APMXS	ZEFP	ZNP	DCB	DCSFMS	LF	RPMX	Weight	Insert
				mm	mm	mm			mm	mm	mm		kg	
R217.49-1620.RE-XO12-30.3A	02669573	Combimaster	30,0	20,0	39,8	5,5	3	3	–	30,0	40,0	16400	0,3	XO.X12
R217.49-1616.RE-XO12-45.2A	02669571	Combimaster	45,0	16,0	30,8	8,0	2	2	–	30,0	40,0	18600	0,3	XO.X12
R217.49-1620.RE-XO12-45.3A	02669574	Combimaster	45,0	20,0	34,8	7,7	3	3	–	30,0	40,0	17400	0,3	XO.X12
R217.49-1216.RE-XO12-60.2A	02669572	Combimaster	60,0	16,0	27,0	9,0	2	2	–	23,0	30,0	20100	0,2	XO.X12
R217.49-1620.RE-XO12-60.3A	02669575	Combimaster	60,0	20,0	30,5	9,0	3	3	–	30,0	40,0	18400	0,3	XO.X12
R217.49-1220.RE-XO12-75.2A	02669576	Combimaster	75,0	20,0	25,4	11,0	2	2	–	23,0	30,0	20500	0,2	XO.X12
C6-R217.49-032-15-XO12-30.3A	02669613	Seco-Capto	30,0	32,0	88,8	15,9	3	9	–	63,0	60,0	10900	1,6	XO.X12
C6-R217.49-032-22-XO12-45.3A	02669615	Seco-Capto	45,0	32,0	76,4	22,5	3	9	–	63,0	60,0	11800	1,4	XO.X12
C6-R217.49-032-28-XO12-60.3A	02669616	Seco-Capto	60,0	32,0	64,0	28,0	3	9	–	63,0	60,0	12900	1,3	XO.X12
C5-R217.49-032-42-XO12-75.3A	02669617	Seco-Capto	75,0	32,0	54,1	42,5	3	12	–	50,0	70,0	14100	0,8	XO.X12
R220.49-0035-15-XO12-30.3A	02669634	Arbor	30,0	35,0	91,9	15,9	3	9	27,0	62,0	50,0	10700	1,1	XO.X12
R220.49-0035-22-XO12-45.3A	02669637	Arbor	45,0	35,0	79,4	22,5	3	9	27,0	62,0	50,0	11600	0,9	XO.X12
R220.49-0035-28-XO12-60.3A	02669638	Arbor	60,0	35,0	67,0	28,0	3	9	27,0	62,0	50,0	12600	0,7	XO.X12
R220.49-0035-31-XO12-75.3A	02669639	Arbor	75,0	35,0	51,5	31,0	3	9	22,0	47,0	50,0	14400	0,4	XO.X12

Spare Parts, included in delivery

For cutter	Arbor screw	Insert key	Insert screw
			
R217.49 Ø 20 30/45°	–	H4B-T10P	C03509-T10P
R217.49 Ø 16 45/60°	–	H4B-T10P	C03507-T10P
R217.49 Ø 20 60/75°	–	H4B-T10P	C03507-T10P
Cx-R217.49 Ø 32 30/45/60/75°	–	H4B-T10P	C03509-T10P
R220.49-... 30/45/60°	MC6S12X35	H4B-T10P	C03509-T10P
R220.49-...75°	MC6S10X40	H4B-T10P	C03509-T10P

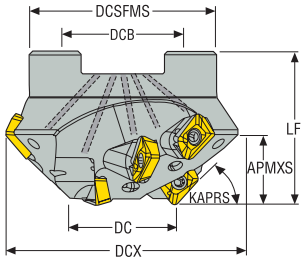
Accessories

For cutter	Insert clamping torque	Torque key
		
R217/220.49-..	3.0NM	T00-10P30

Torque and fixed keys, see page 872

R217/220.49-XO12 – inch

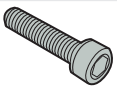




- For insert selection and cutting data recommendations, see page(s) 767-769
- For complete insert programme, see page(s) 846, 847
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	KAPRS°	DC	DCX	APMXS	ZEFP	ZNP	DCB	DCSFMS	LF	RPMX	Weight	Insert
				inch	inch	inch			inch	inch	inch		lbs	
R220.49-01.38-15-XO12-30.3A	02670045	Arbor	30,0	1.378	3.618	0.626	3	9	1.000	2.441	1.969	14400	2.430	XO.X12
R220.49-01.38-22-XO12-45.3A	02670048	Arbor	45,0	1.378	3.126	0.886	3	9	1.000	2.441	1.969	14400	1.980	XO.X12
R220.49-01.38-28-XO12-60.3A	02670049	Arbor	60,0	1.378	2.638	1.110	3	9	1.000	2.441	1.969	14400	1.320	XO.X12
R220.49-01.38-31-XO12-75.3A	02670051	Arbor	75,0	1.378	2.028	1.244	3	9	0.750	1.850	1.969	14400	0.880	XO.X12

Spare Parts, included in delivery

For cutter	Arbor screw	Insert key	Insert screw
			
R220.49-... 30/45/60°	UC6S1/2UNFX1-1/2	H4B-T10P	C03509-T10P
R220.49-...75°	UC6S3/8UNFX11/2	H4B-T10P	C03509-T10P

Accessories

For cutter	Insert clamping torque	Torque key
		
R217/220.49-..	26.6IN.LBS	T00-10P30

Torque and fixed keys, see page 872

R217/220.49-XO12 – Insert selection – mm/*Inch*

SMG		f_z		
		50%	30%	10%
P1	XOMX120408TR-ME08 F40M	0,17 *0.0065*	0,20 *0.0080*	0,32 *0.013*
P2	XOMX120408TR-ME08 F40M	0,17 *0.0065*	0,20 *0.0080*	0,32 *0.013*
P3	XOMX120408TR-M12 MP2501	0,25 *0.010*	0,28 *0.011*	0,46 *0.018*
P4	XOMX120408TR-M12 MP2501	0,24 *0.0095*	0,28 *0.011*	0,46 *0.018*
P5	XOMX120408TR-M12 MP2501	0,24 *0.0095*	0,28 *0.011*	0,44 *0.017*
P6	XOMX120408TR-M12 MP2501	0,24 *0.0095*	0,28 *0.011*	0,44 *0.017*
P7	XOMX120408TR-M12 MP2501	0,24 *0.0095*	0,28 *0.011*	0,44 *0.017*
P8	XOMX120408TR-M12 MP2501	0,25 *0.010*	0,28 *0.011*	0,46 *0.018*
P11	XOMX120408TR-M12 MP3501	0,24 *0.0095*	0,28 *0.011*	0,44 *0.017*
P12	XOEX120408R-M07 MS2500	0,12 *0.0048*	0,14 *0.0055*	0,22 *0.0085*
M1	XOEX120408R-M07 F40M	0,20 *0.0080*	0,22 *0.0085*	0,36 *0.014*
M2	XOEX120408R-M07 F40M	0,18 *0.0070*	0,20 *0.0080*	0,34 *0.013*
M3	XOEX120408R-M07 F40M	0,14 *0.0055*	0,17 *0.0065*	0,26 *0.010*
M4	XOEX120408R-M07 MS2050	0,12 *0.0048*	0,14 *0.0055*	0,22 *0.0085*
M5	XOEX120408R-M07 MS2050	0,12 *0.0048*	0,14 *0.0055*	0,22 *0.0085*
K1	XOMX120408TR-M12 MK1500	0,26 *0.010*	0,30 *0.012*	0,50 *0.020*
K2	XOMX120408TR-M12 MK1500	0,24 *0.0095*	0,28 *0.011*	0,44 *0.017*
K3	XOMX120408TR-M12 MK2050	0,24 *0.0095*	0,28 *0.011*	0,44 *0.017*
K4	XOMX120408TR-M12 MK2050	0,24 *0.0095*	0,28 *0.011*	0,44 *0.017*
K5	XOMX120408TR-M12 MK2050	0,22 *0.0085*	0,25 *0.010*	0,40 *0.016*
K6	XOMX120408TR-M12 MK2050	0,24 *0.0095*	0,28 *0.011*	0,44 *0.017*
K7	XOMX120408TR-M12 MK2050	0,22 *0.0085*	0,25 *0.010*	0,40 *0.016*
N1	XOEX120408FR-E06 H15	0,19 *0.0075*	0,22 *0.0085*	0,36 *0.014*
N2	XOEX120408FR-E06 H15	0,19 *0.0075*	0,22 *0.0085*	0,36 *0.014*
N3	XOEX120408FR-E06 H15	0,19 *0.0075*	0,22 *0.0085*	0,36 *0.014*
N11	XOEX120408FR-E06 H15	0,19 *0.0075*	0,22 *0.0085*	0,36 *0.014*
S1	XOEX120408R-M07 F40M	0,12 *0.0048*	0,14 *0.0055*	0,22 *0.0085*
S2	XOEX120408R-M07 F40M	0,12 *0.0048*	0,14 *0.0055*	0,22 *0.0085*
S3	XOEX120408R-M07 F40M	0,11 *0.0044*	0,13 *0.0050*	0,20 *0.0080*
S11	XOEX120408R-M07 MS2050	0,14 *0.0055*	0,16 *0.0065*	0,26 *0.010*
S12	XOEX120408R-M07 MS2050	0,14 *0.0055*	0,16 *0.0065*	0,26 *0.010*
S13	XOEX120408R-M07 MS2050	0,12 *0.0048*	0,14 *0.0055*	0,22 *0.0085*
H5	XOMX120408TR-M12 MP3000	0,16 *0.0065*	0,19 *0.0075*	0,30 *0.012*
H8	XOMX120408TR-M12 MP3000	0,12 *0.0048*	0,14 *0.0055*	0,22 *0.0085*
H11	XOMX120408TR-MD13 MP1501	0,17 *0.0065*	0,20 *0.0080*	0,32 *0.013*
H12	XOMX120408TR-M12 MP1501	0,12 *0.0048*	0,14 *0.0055*	0,22 *0.0085*

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

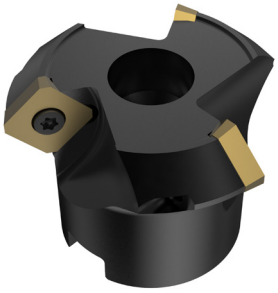
R217/220.49-XO12 – Cutting data v_c = (m/min)/*(sf/min)*

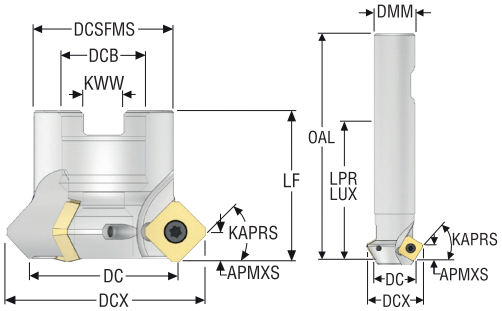
SMG	MK2050			MP3000			MS2050			F40M			MP2050			H15		
	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%
P1	315 *1025*	355 *1175*	430 *1400*	305 *1000*	340 *1125*	410 *1350*	315 *1025*	350 *1150*	420 *1375*	285 *940*	320 *1050*	385 *1275*	370 *1225*	415 *1350*	495 *1625*	— —	— —	— —
P2	310 *1025*	345 *1125*	410 *1350*	295 *970*	335 *1100*	395 *1300*	300 *980*	340 *1125*	405 *1325*	275 *900*	310 *1025*	370 *1225*	355 *1175*	400 *1300*	480 *1575*	— —	— —	— —
P3	270 *890*	300 *980*	360 *1175*	260 *850*	285 *940*	345 *1125*	265 *870*	295 *970*	355 *1175*	240 *790*	265 *870*	320 *1050*	310 *1025*	345 *1125*	415 *1350*	— —	— —	— —
P4	235 *770*	265 *870*	320 *1050*	230 *750*	255 *840*	310 *1025*	235 *770*	265 *870*	320 *1050*	210 *690*	240 *790*	290 *950*	275 *900*	310 *1025*	375 *1225*	— —	— —	— —
P5	225 *740*	255 *840*	305 *1000*	220 *720*	245 *800*	295 *970*	225 *740*	250 *820*	305 *1000*	205 *670*	230 *750*	275 *900*	270 *890*	295 *970*	355 *1175*	— —	— —	— —
P6	260 *850*	285 *940*	345 *1125*	250 *820*	275 *900*	330 *1075*	255 *840*	280 *920*	340 *1125*	230 *750*	255 *840*	310 *1025*	300 *980*	335 *1100*	400 *1300*	— —	— —	— —
P7	245 *800*	270 *890*	325 *1075*	235 *770*	260 *850*	315 *1025*	240 *790*	265 *870*	320 *1050*	220 *720*	240 *790*	290 *950*	285 *940*	315 *1025*	380 *1250*	— —	— —	— —
P8	225 *740*	250 *820*	300 *980*	220 *720*	240 *790*	290 *950*	220 *720*	245 *800*	295 *970*	200 *660*	225 *740*	270 *890*	260 *850*	290 *950*	350 *1150*	— —	— —	— —
P11	240 *790*	260 *850*	315 *1025*	230 *750*	250 *820*	305 *1000*	235 *770*	260 *850*	310 *1025*	215 *710*	235 *770*	285 *940*	275 *900*	305 *1000*	370 *1225*	— —	— —	— —
P12	155 *510*	170 *560*	210 *690*	150 *490*	165 *540*	200 *660*	150 *490*	165 *540*	200 *660*	135 *445*	150 *490*	185 *610*	175 *570*	195 *640*	240 *790*	— —	— —	— —
M1	— —	— —	— —	220 *720*	250 *820*	295 *970*	245 *800*	275 *900*	325 *1075*	220 *720*	250 *820*	295 *970*	255 *840*	290 *950*	340 *1125*	— —	— —	— —
M2	— —	— —	— —	180 *590*	205 *670*	245 *800*	205 *670*	225 *740*	275 *900*	185 *610*	205 *670*	250 *820*	215 *710*	235 *770*	285 *940*	— —	— —	— —
M3	— —	— —	— —	150 *490*	165 *540*	200 *660*	160 *520*	180 *590*	220 *720*	145 *475*	165 *540*	200 *660*	170 *560*	190 *620*	230 *750*	— —	— —	— —
M4	— —	— —	— —	110 *360*	125 *410*	155 *510*	125 *410*	135 *445*	170 *560*	115 *375*	125 *410*	155 *510*	130 *425*	145 *475*	175 *570*	— —	— —	— —
M5	— —	— —	— —	95 *310*	105 *345*	130 *425*	105 *345*	115 *375*	140 *460*	95 *310*	105 *345*	125 *410*	110 *360*	120 *395*	145 *475*	— —	— —	— —
K1	330 *1075*	375 *1225*	440 *1450*	235 *770*	265 *870*	310 *1025*	— —	— —	— —	215 *710*	245 *800*	290 *950*	— —	— —	— —	— —	— —	— —
K2	295 *970*	330 *1075*	395 *1300*	205 *670*	230 *750*	280 *920*	— —	— —	— —	195 *640*	215 *710*	260 *850*	— —	— —	— —	— —	— —	— —
K3	250 *820*	280 *920*	335 *1100*	175 *570*	195 *640*	235 *770*	— —	— —	— —	165 *540*	185 *610*	220 *720*	— —	— —	— —	— —	— —	— —
K4	235 *770*	265 *870*	320 *1050*	165 *540*	190 *620*	225 *740*	— —	— —	— —	160 *520*	175 *570*	210 *690*	— —	— —	— —	— —	— —	— —
K5	145 *475*	165 *540*	195 *640*	105 *345*	115 *375*	140 *460*	— —	— —	— —	95 *310*	105 *345*	130 *425*	— —	— —	— —	— —	— —	— —
K6	210 *690*	235 *770*	285 *940*	145 *475*	165 *540*	200 *660*	— —	— —	— —	140 *460*	155 *510*	185 *610*	— —	— —	— —	— —	— —	— —
K7	185 *610*	210 *690*	250 *820*	130 *425*	150 *490*	175 *570*	— —	— —	— —	125 *410*	135 *445*	165 *540*	— —	— —	— —	— —	— —	— —
N1	— —	— —	— —	— —	— —	— —	— —	— —	— —	1625 *5325*	1800 *5900*	2150 *7050*	— —	— —	— —	1750 *5750*	1925 *6325*	2325 *7625*
N2	— —	— —	— —	— —	— —	— —	— —	— —	— —	650 *2125*	720 *2350*	870 *2850*	— —	— —	— —	700 *2300*	780 *2550*	940 *3075*
N3	— —	— —	— —	— —	— —	— —	— —	— —	— —	435 *1425*	480 *1575*	580 *1900*	— —	— —	— —	470 *1550*	520 *1700*	630 *2075*
N11	— —	— —	— —	— —	— —	— —	— —	— —	— —	500 *1650*	550 *1800*	660 *2175*	— —	— —	— —	540 *1775*	600 *1975*	720 *2350*
S1	— —	— —	— —	50 *165*	60 *195*	75 *245*	60 *195*	65 *215*	80 *260*	55 *180*	60 *195*	70 *230*	65 *215*	70 *230*	85 *280*	— —	— —	— —
S2	— —	— —	— —	42 *140*	48 *155*	60 *195*	47 *155*	50 *165*	65 *215*	42 *140*	47 *155*	55 *180*	50 *165*	55 *180*	70 *230*	— —	— —	— —
S3	— —	— —	— —	37 *120*	42 *140*	50 *165*	41 *135*	46 *150*	55 *180*	37 *120*	41 *135*	50 *165*	45 *150*	50 *165*	60 *195*	— —	— —	— —
S11	— —	— —	— —	— —	— —	— —	80 *260*	90 *295*	110 *360*	75 *245*	85 *280*	100 *330*	90 *295*	100 *330*	120 *395*	— —	— —	— —
S12	— —	— —	— —	— —	— —	— —	55 *180*	65 *215*	75 *245*	50 *165*	55 *180*	70 *230*	60 *195*	70 *230*	85 *280*	— —	— —	— —
S13	— —	— —	— —	— —	— —	— —	33 *110*	36 *120*	44 *145*	30 *100*	33 *110*	40 *130*	36 *120*	40 *130*	48 *155*	— —	— —	— —
H5	— —	— —	— —	46 *150*	50 *165*	60 *195*	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —
H8	— —	— —	— —	49 *160*	55 *180*	65 *215*	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —
H11	— —	— —	— —	60 *195*	65 *215*	80 *260*	— —	— —	— —	— —	— —	— —	65 *215*	75 *245*	90 *295*	— —	— —	— —
H12	— —	— —	— —	95 *310*	105 *345*	125 *410*	— —	— —	— —	— —	— —	— —	110 *360*	120 *395*	150 *490*	— —	— —	— —

R217/220.49-XO12 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	MK1500			MP1501			MP2501			MS2500			MP3501			MM4500		
	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%
P1	—	—	—	440	485	560	430	475	550	415	460	550	385	425	490	235	260	310
	—	—	—	*1450*	*1600*	*1825*	*1400*	*1550*	*1800*	*1350*	*1500*	*1800*	*1275*	*1400*	*1600*	*770*	*850*	*1025*
P2	—	—	—	430	470	540	420	465	530	395	445	530	375	415	470	220	250	300
	—	—	—	*1400*	*1550*	*1775*	*1375*	*1525*	*1750*	*1300*	*1450*	*1750*	*1225*	*1350*	*1550*	*720*	*820*	*980*
P3	—	—	—	375	405	470	365	400	460	345	385	460	330	355	410	195	215	260
	—	—	—	*1225*	*1325*	*1550*	*1200*	*1300*	*1500*	*1125*	*1275*	*1500*	*1075*	*1175*	*1350*	*640*	*710*	*850*
P4	—	—	—	330	365	420	325	355	410	305	345	415	290	320	370	170	195	235
	—	—	—	*1075*	*1200*	*1375*	*1075*	*1175*	*1350*	*1000*	*1125*	*1350*	*950*	*1050*	*1225*	*560*	*640*	*770*
P5	—	—	—	315	345	400	310	340	395	300	330	395	275	305	355	165	185	225
	—	—	—	*1025*	*1125*	*1300*	*1025*	*1125*	*1300*	*980*	*1075*	*1300*	*900*	*1000*	*1175*	*540*	*610*	*740*
P6	—	—	—	360	390	450	355	380	440	335	370	445	315	340	395	190	210	250
	—	—	—	*1175*	*1275*	*1475*	*1175*	*1250*	*1450*	*1100*	*1225*	*1450*	*1025*	*1125*	*1300*	*620*	*690*	*820*
P7	—	—	—	340	365	425	335	360	415	315	350	420	300	320	375	175	195	235
	—	—	—	*1125*	*1200*	*1400*	*1100*	*1175*	*1350*	*1025*	*1150*	*1375*	*980*	*1050*	*1225*	*570*	*640*	*770*
P8	—	—	—	315	340	395	310	335	385	290	325	390	275	300	345	165	180	220
	—	—	—	*1025*	*1125*	*1300*	*1025*	*1100*	*1275*	*950*	*1075*	*1275*	*900*	*980*	*1125*	*540*	*590*	*720*
P11	—	—	—	330	355	410	325	350	405	305	340	410	290	315	365	170	190	230
	—	—	—	*1075*	*1175*	*1350*	*1075*	*1150*	*1325*	*1000*	*1125*	*1350*	*950*	*1025*	*1200*	*560*	*620*	*750*
P12	—	—	—	210	230	265	210	225	260	195	220	265	185	200	235	110	125	150
	—	—	—	*690*	*750*	*870*	*690*	*740*	*850*	*640*	*720*	*870*	*610*	*660*	*770*	*360*	*410*	*490*
M1	—	—	—	—	—	—	225	255	300	280	320	380	210	235	280	190	215	255
	—	—	—	—	—	—	*740*	*840*	*980*	*920*	*1050*	*1250*	*690*	*770*	*920*	*620*	*710*	*840*
M2	—	—	—	—	—	—	185	210	250	240	265	320	175	195	235	160	175	215
	—	—	—	—	—	—	*610*	*690*	*820*	*790*	*870*	*1050*	*570*	*640*	*770*	*520*	*570*	*710*
M3	—	—	—	—	—	—	150	170	205	185	210	255	140	155	190	125	140	170
	—	—	—	—	—	—	*490*	*560*	*670*	*610*	*690*	*840*	*460*	*510*	*620*	*410*	*460*	*560*
M4	—	—	—	—	—	—	115	130	160	145	160	195	105	120	150	95	110	130
	—	—	—	—	—	—	*375*	*425*	*520*	*475*	*520*	*640*	*345*	*395*	*490*	*310*	*360*	*425*
M5	—	—	—	—	—	—	95	105	135	120	135	165	90	100	125	80	90	110
	—	—	—	—	—	—	*310*	*345*	*445*	*395*	*445*	*540*	*295*	*330*	*410*	*260*	*295*	*360*
K1	350	395	465	430	475	540	420	465	530	310	355	420	375	420	475	—	—	—
	1150	*1300*	*1525*	*1400*	*1550*	*1775*	*1375*	*1525*	*1750*	*1025*	*1175*	*1375*	*1225*	*1375*	*1550*	—	—	—
K2	310	345	420	380	420	485	375	410	475	280	310	375	335	370	425	—	—	—
	1025	*1125*	*1375*	*1250*	*1375*	*1600*	*1225*	*1350*	*1550*	*920*	*1025*	*1225*	*1100*	*1225*	*1400*	—	—	—
K3	260	295	355	325	355	410	315	350	405	240	265	320	280	310	360	—	—	—
	850	*970*	*1175*	*1075*	*1175*	*1350*	*1025*	*1150*	*1325*	*790*	*870*	*1050*	*920*	*1025*	*1175*	—	—	—
K4	250	280	340	310	340	390	300	330	385	230	250	305	270	295	345	—	—	—
	820	*920*	*1125*	*1025*	*1125*	*1275*	*980*	*1075*	*1275*	*750*	*820*	*1000*	*890*	*970*	*1125*	—	—	—
K5	155	175	205	190	205	235	185	205	235	140	155	185	165	185	210	—	—	—
	510	*570*	*670*	*620*	*670*	*770*	*610*	*670*	*770*	*460*	*510*	*610*	*540*	*610*	*690*	—	—	—
K6	220	245	300	270	300	345	265	295	340	200	220	270	235	260	305	—	—	—
	720	*800*	*980*	*890*	*980*	*1125*	*870*	*970*	*1125*	*660*	*720*	*890*	*770*	*850*	*1000*	—	—	—
K7	200	220	265	245	265	305	240	260	300	180	195	240	215	235	270	—	—	—
	660	*720*	*870*	*800*	*870*	*1000*	*790*	*850*	*980*	*590*	*640*	*790*	*710*	*770*	*890*	—	—	—
N1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
N2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
N3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
N11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S1	—	—	—	—	—	—	—	—	—	70	80	95	49	55	70	30	33	40
	—	—	—	—	—	—	—	—	—	*230*	*260*	*310*	*160*	*180*	*230*	*100*	*110*	*130*
S2	—	—	—	—	—	—	—	—	—	55	65	75	40	45	55	24	27	32
	—	—	—	—	—	—	—	—	—	*180*	*215*	*245*	*130*	*150*	*180*	*80*	*90*	*105*
S3	—	—	—	—	—	—	—	—	—	50	55	65	35	40	49	21	23	28
	—	—	—	—	—	—	—	—	—	*165*	*180*	*215*	*115*	*130*	*160*	*70*	*75*	*90*
S11	—	—	—	—	—	—	—	—	—	100	110	135	70	80	95	42	47	55
	—	—	—	—	—	—	—	—	—	*330*	*360*	*445*	*230*	*260*	*310*	*140*	*155*	*180*
S12	—	—	—	—	—	—	—	—	—	70	75	95	49	55	65	38	43	55
	—	—	—	—	—	—	—	—	—	*230*	*245*	*310*	*160*	*180*	*215*	*125*	*140*	*180*
S13	—	—	—	—	—	—	—	—	—	40	44	55	28	31	39	22	25	30
	—	—	—	—	—	—	—	—	—	*130*	*145*	*180*	*90*	*100*	*130*	*70*	*80*	*100*
H5	—	—	—	60	65	80	—	—	—	—	—	—	45	50	60	—	—	—
	—	—	—	*195*	*215*	*260*	—	—	—	—	—	—	*150*	*165*	*195*	—	—	—
H8	—	—	—	60	70	85	—	—	—	—	—	—	48	55	65	—	—	—
	—	—	—	*195*	*230*	*280*	—	—	—	—	—	—	*155*	*180*	*215*	—	—	—
H11	—	—	—	75	80	100	—	—	—	—	—	—	55	65	80	—	—	—
	—	—	—	*245*	*260*	*330*	—	—	—	—	—	—	*180*	*215*	*260*	—	—	—
H12	—	—	—	110	125	150	—	—	—	—	—	—	85	95	115	—	—	—
	—	—	—	*360*	*410*	*490*	—	—	—	—	—	—	*280*	*310*	*375*	—	—	—

R215.39/49 - R220.49 – Metric

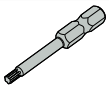




- For insert selection and cutting data recommendations, see page(s) 772-773
- For complete insert programme, see page(s) 838
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	KAPRS°	DC	DCX	APMXS	ZEFP	DCB	DCSFMS	OAL	LF	LPR	LUX	RPMX	Weight	Insert
				mm	mm	mm		mm	mm	mm	mm	mm	mm		kg	
R215.49-1609.3-06	75002621	Weldon	45,0	9,0	16,0	4,0	1	–	–	80,0	–	32,0	32,0	55600	0,2	SPMX0602
R215.49-2016.3-09	75002622	Weldon	45,0	16,0	26,0	5,0	2	–	–	110,0	–	60,0	60,0	27200	0,3	SPMX0903
R215.39-2020.3-09	75002620	Weldon	60,0	20,0	27,0	6,5	2	–	–	110,0	–	60,0	60,0	24300	0,3	SPMX0903
R215.49-3225.3-12	75002623	Weldon	45,0	25,0	39,0	7,0	2	–	–	130,0	–	70,0	70,0	16900	0,7	SPMX12T3
R220.49-0040-12	75012896	Arbor	45,0	40,0	54,0	7,0	3	22,0	37,0	–	40,0	–	–	13400	0,3	SPMX12T3

Spare Parts, included in delivery

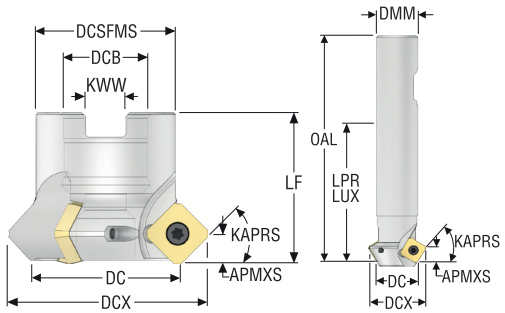
For cutter	Arbor screw	Insert key	Insert screw
			
R215.49-06	–	1/4HEX-T07PX50	C02205-T07P
R215.49-09	–	1/4HEX-T09PX50	C03007-T09P
R215.39-09	–	1/4HEX-T09PX50	C03007-T09P
R215.49-12	–	1/4HEX-T15PX50	C03510-T15P
R220.49-12	220.17-691	1/4HEX-T15PX50	C03508-T15P

Accessories

For cutter	Adjustable Torque key	Insert clamping torque	Torque key
			
R215.49-06	1/4HEX-S-HANDLE-0.8-5.0NM	0.9NM	T00-07P09
R215.49-09	1/4HEX-S-HANDLE-0.8-5.0NM	2.0NM	T00-09P20
R215.39-09	1/4HEX-S-HANDLE-0.8-5.0NM	2.0NM	T00-09P20
R215.49-12	1/4HEX-S-HANDLE-0.8-5.0NM	3.0NM	T00-15P30
R220.49-12	1/4HEX-S-HANDLE-0.8-5.0NM	3.0NM	T00-15P30

Torque and fixed keys, see page 872

R215.39/49 - R220.49 – inch

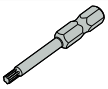




- For insert selection and cutting data recommendations, see page(s) 772-773
- For complete insert programme, see page(s) 838
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	KAPRS°	DC	DCX	APMXS	ZEFP	DCB	DCSFMS	OAL	LF	LPR	LUX	RPMX	Weight	Insert
				inch	inch	inch		inch	inch	inch	inch	inch	inch		lbs	
R215.49-00.375-3	00070083	Weldon	45,0	0.392	0.647	0.157	1	–	–	3.150	–	1.240	1.240	55600	0.440	SPMX0602
R215.49-00.625-3	00072168	Weldon	45,0	0.625	1.039	0.236	2	–	–	4.331	–	2.362	2.362	27200	0.660	SPMX0903
R215.39-00.750-3	00070080	Weldon	60,0	0.750	1.043	0.236	2	–	–	4.331	–	2.362	2.362	24300	0.660	SPMX0903
R215.49-01.00-3	00070081	Weldon	45,0	1.000	1.551	0.276	2	–	–	5.118	–	2.913	2.913	16900	1.320	SPMX12T3
R220.49-01.50	00070079	Arbor	45,0	1.500	2.047	0.276	3	0.750	1.575	–	1.575	–	–	13400	0.660	SPMX12T3

Spare Parts, included in delivery

For cutter	Arbor screw	Insert key	Insert screw
			
R215-49.00.375	–	1/4HEX-T07PX50	C02205-T07P
R215-49.00.625	–	1/4HEX-T09PX50	C03007-T09P
R215.39-00.750	–	1/4HEX-T09PX50	C03007-T09P
R215-49.01.00	–	1/4HEX-T15PX50	C03510-T15P
R220.49-01.50	220.17-695	1/4HEX-T15PX50	C03508-T15P

Accessories

For cutter	Adjustable Torque key	Insert clamping torque	Torque key
			
R215-49.00.375	1/4HEX-S-HANDLE-0.8-5.0NM	8.0IN.LBS	T00-07P09
R215-49.00.625-00.750	1/4HEX-S-HANDLE-0.8-5.0NM	17.7IN.LBS	T00-09P20
R215-49.01.00-01.50	1/4HEX-S-HANDLE-0.8-5.0NM	26.6IN.LBS	T00-15P30

Torque and fixed keys, see page 872

R217/220.49-SPMX06/09/12 – Insert selection – mm/*Inch*

SMG		a_p	f_z		
			50%	30%	10%
P1	SPMX 06/09/12-75 F40M	4,0 *0.16*	0,28 *0.011*	0,32 *0.013*	0,50 *0.020*
P2	SPMX 06/09/12-75 F40M	4,0 *0.16*	0,30 *0.012*	0,32 *0.013*	0,50 *0.020*
P3	SPMX 06/09/12-75 F40M	4,0 *0.16*	0,28 *0.011*	0,30 *0.012*	0,48 *0.019*
P4	SPMX 06/09/12-75 F40M	4,0 *0.16*	0,26 *0.010*	0,30 *0.012*	0,48 *0.019*
P5	SPMX 06/09/12-75 F40M	4,0 *0.16*	0,26 *0.010*	0,30 *0.012*	0,46 *0.018*
P6	SPMX 06/09/12-75 F40M	4,0 *0.16*	0,26 *0.010*	0,30 *0.012*	0,46 *0.018*
P7	SPMX 06/09/12-75 F40M	4,0 *0.16*	0,26 *0.010*	0,30 *0.012*	0,46 *0.018*
P8	SPMX 06/09/12-75 F40M	4,0 *0.16*	0,28 *0.011*	0,30 *0.012*	0,48 *0.019*
P11	SPMX 06/09/12-75 F40M	4,0 *0.16*	0,26 *0.010*	0,30 *0.012*	0,46 *0.018*
P12	SPMX 06/09/12-75 F40M	3,5 *0.14*	0,18 *0.0070*	0,20 *0.0080*	0,32 *0.013*
M1	SPMX 06/09/12-75 F40M	4,0 *0.16*	0,30 *0.012*	0,32 *0.013*	0,50 *0.020*
M2	SPMX 06/09/12-75 F40M	4,0 *0.16*	0,26 *0.010*	0,30 *0.012*	0,46 *0.018*
M3	SPMX 06/09/12-75 F40M	3,5 *0.14*	0,22 *0.0085*	0,24 *0.0095*	0,38 *0.015*
M4	SPMX 06/09/12-75 F40M	2,5 *0.10*	0,20 *0.0080*	0,22 *0.0085*	0,32 *0.013*
M5	SPMX 06/09/12-75 F40M	2,5 *0.10*	0,20 *0.0080*	0,22 *0.0085*	0,32 *0.013*
K1	SPMX 06/09/12-75 F40M	4,0 *0.16*	0,30 *0.012*	0,32 *0.013*	0,50 *0.020*
K2	SPMX 06/09/12-75 F40M	4,0 *0.16*	0,26 *0.010*	0,30 *0.012*	0,46 *0.018*
K3	SPMX 06/09/12-75 F40M	4,0 *0.16*	0,26 *0.010*	0,30 *0.012*	0,46 *0.018*
K4	SPMX 06/09/12-75 F40M	4,0 *0.16*	0,26 *0.010*	0,30 *0.012*	0,46 *0.018*
K5	SPMX 06/09/12-75 F40M	4,0 *0.16*	0,24 *0.0095*	0,26 *0.010*	0,42 *0.017*
K6	SPMX 06/09/12-75 F40M	4,0 *0.16*	0,26 *0.010*	0,30 *0.012*	0,46 *0.018*
K7	SPMX 06/09/12-75 F40M	4,0 *0.16*	0,24 *0.0095*	0,26 *0.010*	0,42 *0.017*
N1	SPMX 06/09/12-75 F40M	4,0 *0.16*	0,36 *0.014*	0,42 *0.017*	0,65 *0.026*
N2	SPMX 06/09/12-75 F40M	4,0 *0.16*	0,36 *0.014*	0,42 *0.017*	0,65 *0.026*
N3	SPMX 06/09/12-75 F40M	4,0 *0.16*	0,36 *0.014*	0,42 *0.017*	0,65 *0.026*
N11	SPMX 06/09/12-75 F40M	4,0 *0.16*	0,36 *0.014*	0,42 *0.017*	0,65 *0.026*
S1	SPMX 06/09/12-75 F40M	2,5 *0.10*	0,20 *0.0080*	0,22 *0.0085*	0,32 *0.013*
S2	SPMX 06/09/12-75 F40M	2,5 *0.10*	0,20 *0.0080*	0,22 *0.0085*	0,32 *0.013*
S3	SPMX 06/09/12-75 F40M	2,5 *0.10*	0,19 *0.0075*	0,20 *0.0080*	0,30 *0.012*
S11	SPMX 06/09/12-75 F40M	3,0 *0.12*	0,22 *0.0085*	0,25 *0.010*	0,38 *0.015*
S12	SPMX 06/09/12-75 F40M	3,0 *0.12*	0,22 *0.0085*	0,25 *0.010*	0,38 *0.015*
S13	SPMX 06/09/12-75 F40M	2,5 *0.10*	0,20 *0.0080*	0,22 *0.0085*	0,32 *0.013*

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

R217/220.49-SPMX06/09/12 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	F40M		
	50%	30%	10%
P1	275 *900*	300 *980*	355 *1175*
P2	265 *870*	290 *950*	345 *1125*
P3	230 *750*	255 *840*	300 *980*
P4	205 *670*	225 *740*	265 *870*
P5	195 *640*	220 *720*	260 *850*
P6	220 *720*	250 *820*	290 *950*
P7	210 *690*	235 *770*	275 *900*
P8	195 *640*	215 *710*	255 *840*
P11	200 *660*	225 *740*	265 *870*
P12	135 *445*	145 *475*	175 *570*
M1	215 *710*	235 *770*	280 *920*
M2	175 *570*	200 *660*	230 *750*
M3	145 *475*	155 *510*	190 *620*
M4	110 *360*	120 *395*	145 *475*
M5	90 *295*	100 *330*	120 *395*
K1	210 *690*	230 *750*	275 *900*
K2	185 *610*	210 *690*	245 *800*
K3	160 *520*	175 *570*	205 *670*
K4	150 *490*	170 *560*	200 *660*
K5	90 *295*	105 *345*	120 *395*
K6	135 *445*	150 *490*	175 *570*
K7	120 *395*	130 *425*	155 *510*
N1	1525 *5000*	1700 *5575*	2000 *6550*
N2	620 *2025*	690 *2275*	810 *2650*
N3	410 *1350*	460 *1500*	540 *1775*
N11	470 *1550*	520 *1700*	620 *2025*
S1	50 *165*	55 *180*	70 *230*
S2	41 *135*	46 *150*	55 *180*
S3	36 *120*	40 *130*	48 *155*
S11	70 *230*	80 *260*	95 *310*
S12	50 *165*	55 *180*	65 *215*
S13	29 *95*	32 *105*	38 *125*

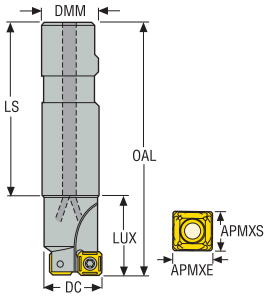


R417.19 SPOT FACING

Seco spot facing mills are cutters for milling spot faces of blind and countersunk holes. Key benefits include smooth cutting, reduced spindle bearing wear via a highly balanced tool and high security through a center-lock clamping system, all engineered in an economical solution.

- Strong SPMX inserts, available in many different grades for most workpiece materials
- Inserts with 4 cutting edges
- Cutter range metric, Ø 18-42mm (Imperial Ø 0.625-1.620 inch)

R417.19-SPMX – Metric

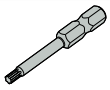




- For insert selection and cutting data recommendations, see page(s) 777-779
- For complete insert programme, see page(s) 838
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	ZEFP	ZNP	APMXS	APMXE	DMM	LUX	LS	OAL	RPMX	Weight	Centre insert SPMX	Periph insert SPMX
			mm			mm	mm	mm	mm	mm	mm		kg		
R417.19-2018.3-06A	00070768	Weldon	18,0	1	2	5,0	9,0	20,0	20,0	87,0	110,0	39200	0,3	0602AP (1)	060204 (1)
R417.19-2020.3-07A	00012939	Weldon	20,0	1	2	7,0	10,0	20,0	28,0	92,0	120,0	26200	0,3	0703AP (1)	070304 (1)
R417.19-2022.3-07A	02201611	Weldon	22,0	1	2	7,0	11,0	20,0	70,0	92,0	120,0	25000	0,3	0703AP (1)	070304 (1)
R417.19-2524.3-07A	02201606	Weldon	24,0	1	2	7,0	12,0	25,0	31,0	98,0	130,0	24000	0,5	0703AP (1)	070304 (1)
R417.19-2526.3-09A	00070772	Weldon	26,0	1	2	8,0	13,0	25,0	74,0	98,0	130,0	21200	0,5	0903AP (1)	090304 (1)
R417.19-2530.3-09A	02201604	Weldon	30,0	1	2	8,0	15,0	25,0	74,0	90,0	130,0	19800	0,5	0903AP (1)	090304 (1)
R417.19-3232.3-09A	02201607	Weldon	32,0	1	2	8,0	16,0	32,0	38,0	90,0	130,0	19200	0,8	0903AP (1)	090304 (1)
R417.19-3236.3-12A	02201608	Weldon	36,0	1	2	11,0	18,0	32,0	70,0	90,0	130,0	12600	0,8	12T3AP (1)	12T308 (1)
R417.19-3238.3-12A	02448870	Weldon	38,0	1	2	11,0	19,0	32,0	70,0	90,0	130,0	12300	0,8	12T3AP (1)	12T308 (1)
R417.19-3242.3-12A	02448871	Weldon	42,0	1	2	11,0	21,0	32,0	70,0	90,0	130,0	12000	0,8	12T3AP (1)	12T308 (1)

Spare Parts, included in delivery

For cutter	Insert key	Insert screw
		
R417.19-06A	1/4HEX-T07PX50	C02205-T07P
R417.19-07A	1/4HEX-T07PX50	C02506-T07P
R417.19-09A	1/4HEX-T09PX50	C03007-T09P
R417.19-12A	1/4HEX-T15PX50	C03510-T15P

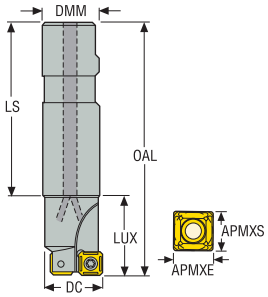
Accessories

For cutter	Adjustable Torque key	Insert clamping torque	Torque key
			
R417.19-06A	1/4HEX-S-HANDLE-0.8-5.0NM	0.9NM	T00-07P09
R417.19-07A	1/4HEX-S-HANDLE-0.8-5.0NM	0.9NM	T00-07P09
R417.19-09A	1/4HEX-S-HANDLE-0.8-5.0NM	2.0NM	T00-09P20
R417.19-12A	1/4HEX-S-HANDLE-0.8-5.0NM	3.0NM	T00-15P30

Torque and fixed keys, see page 872

R417.19-SPMX – inch

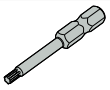




- For insert selection and cutting data recommendations, see page(s) 777-779
- For complete insert programme, see page(s) 838
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	ZEFP	ZNP	APMXS	APMXE	DMM	LUX	LS	OAL	RPMX	Weight	Centre insert SPMX	Periph insert SPMX
			inch			inch	inch	inch	inch	inch	inch		lbs		
R417.19-00.62-3	75072193	Weldon	0.625	1	2	0.197	0.276	0.750	0.787	2.559	3.740	49100	0.660	0602AP (1)	060204 (1)
R417.19-00.750-3	75072183	Weldon	0.750	1	2	0.197	0.276	0.750	1.181	3.150	4.331	32500	0.660	0602AP (1)	060204 (1)
R417.19-00.81-3	75054856	Weldon	0.812	1	2	0.276	0.276	0.750	2.717	3.346	4.724	26200	0.880	0703AP (1)	070304 (1)
R417.19-01.00-3	75072173	Weldon	1.000	1	2	0.315	0.472	1.000	1.575	3.543	5.118	22500	1.100	0903AP (1)	090304 (1)
R417.19-01.18-3	75054857	Weldon	1.181	1	2	0.315	0.472	1.000	2.874	3.543	5.118	21200	1.320	0903AP (1)	090304 (1)
R417.19-01.37-3	75054858	Weldon	1.375	1	2	0.433	0.472	1.250	2.874	3.543	5.118	12600	3.310	12T3AP (1)	12T308 (1)
R417.19-01.62-3	75054859	Weldon	1.620	1	2	0.433	0.472	1.250	2.874	3.543	5.118	12000	1.980	12T3AP (1)	12T308 (1)

Spare Parts, included in delivery

For cutter	Insert key	Insert screw
		
R417.19-00.625-00.750	1/4HEX-T07PX50	C02205-T07P
R417.19-00.812	1/4HEX-T07PX50	C02506-T07P
R417.19-01.00-01.18	1/4HEX-T09PX50	C03007-T09P
R417.19-01.37-01.62	1/4HEX-T15PX50	C03510-T15P

Accessories

For cutter	Adjustable Torque key	Insert clamping torque	Torque key
			
R417.19-00.625-00.750	1/4HEX-S-HANDLE-0.8-5.0NM	8.0IN.LBS	T00-07P09
R417.19-00.812	1/4HEX-S-HANDLE-0.8-5.0NM	8.0IN.LBS	T00-07P09
R417.19-01.00-01.18	1/4HEX-S-HANDLE-0.8-5.0NM	17.7IN.LBS	T00-09P20
R417.19-01.37-01.62	1/4HEX-S-HANDLE-0.8-5.0NM	26.6IN.LBS	T00-15P30

Torque and fixed keys, see page 872

R417.19-SPMX06/07 – Insert selection – mm/*Inch*

SMG		f_z		
		100%	30%	10%
P1	SPMX 06/07-75 F40M	0,080 *0.0032*	0,085 *0.0034*	0,13 *0.0050*
P2	SPMX 06/07-75 F40M	0,080 *0.0032*	0,090 *0.0036*	0,13 *0.0050*
P3	SPMX 06/07-75 F40M	0,075 *0.0030*	0,085 *0.0034*	0,13 *0.0050*
P4	SPMX 06/07-75 F40M	0,075 *0.0030*	0,080 *0.0032*	0,12 *0.0048*
P5	SPMX 06/07-75 F40M	0,075 *0.0030*	0,080 *0.0032*	0,12 *0.0048*
P6	SPMX 06/07-75 F40M	0,070 *0.0028*	0,080 *0.0032*	0,12 *0.0048*
P7	SPMX 06/07-75 F40M	0,070 *0.0028*	0,080 *0.0032*	0,12 *0.0048*
P8	SPMX 06/07-75 F40M	0,075 *0.0030*	0,085 *0.0034*	0,13 *0.0050*
P11	SPMX 06/07-75 F40M	0,070 *0.0028*	0,080 *0.0032*	0,12 *0.0048*
P12	SPMX 06/07-75 F40M	0,050 *0.0020*	0,055 *0.0022*	0,085 *0.0034*
M1	SPMX 06/07-75 F40M	0,080 *0.0032*	0,090 *0.0036*	0,13 *0.0050*
M2	SPMX 06/07-75 F40M	0,075 *0.0030*	0,080 *0.0032*	0,12 *0.0048*
M3	SPMX 06/07-75 F40M	0,060 *0.0024*	0,065 *0.0026*	0,10 *0.0040*
M4	SPMX 06/07-75 F40M	0,050 *0.0020*	0,055 *0.0022*	0,085 *0.0034*
M5	SPMX 06/07-75 F40M	0,050 *0.0020*	0,055 *0.0022*	0,085 *0.0034*
K1	SPMX 06/07-75 F40M	0,080 *0.0032*	0,090 *0.0036*	0,13 *0.0050*
K2	SPMX 06/07-75 F40M	0,075 *0.0030*	0,080 *0.0032*	0,12 *0.0048*
K3	SPMX 06/07-75 F40M	0,075 *0.0030*	0,080 *0.0032*	0,12 *0.0048*
K4	SPMX 06/07-75 F40M	0,075 *0.0030*	0,080 *0.0032*	0,12 *0.0048*
K5	SPMX 06/07-75 F40M	0,065 *0.0026*	0,070 *0.0028*	0,11 *0.0044*
K6	SPMX 06/07-75 F40M	0,075 *0.0030*	0,080 *0.0032*	0,12 *0.0048*
K7	SPMX 06/07-75 F40M	0,065 *0.0026*	0,070 *0.0028*	0,11 *0.0044*

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

R417.19-SPMX09/12 – Insert selection – mm/*Inch*

SMG		f_z		
		100%	30%	10%
P1	SPMX 09/12-75 F40M	0,12 *0.0048*	0,13 *0.0050*	0,20 *0.0080*
P2	SPMX 09/12-75 F40M	0,12 *0.0048*	0,13 *0.0050*	0,20 *0.0080*
P3	SPMX 09/12-75 F40M	0,11 *0.0044*	0,12 *0.0048*	0,19 *0.0075*
P4	SPMX 09/12-75 F40M	0,11 *0.0044*	0,12 *0.0048*	0,19 *0.0075*
P5	SPMX 09/12-75 F40M	0,11 *0.0044*	0,12 *0.0048*	0,18 *0.0070*
P6	SPMX 09/12-75 F40M	0,11 *0.0044*	0,12 *0.0048*	0,18 *0.0070*
P7	SPMX 09/12-75 F40M	0,11 *0.0044*	0,12 *0.0048*	0,18 *0.0070*
P8	SPMX 09/12-75 F40M	0,11 *0.0044*	0,12 *0.0048*	0,19 *0.0075*
P11	SPMX 09/12-75 F40M	0,11 *0.0044*	0,12 *0.0048*	0,18 *0.0070*
P12	SPMX 09/12-75 F40M	0,075 *0.0030*	0,080 *0.0032*	0,12 *0.0048*
M1	SPMX 09/12-75 F40M	0,12 *0.0048*	0,13 *0.0050*	0,20 *0.0080*
M2	SPMX 09/12-75 F40M	0,11 *0.0044*	0,12 *0.0048*	0,18 *0.0070*
M3	SPMX 09/12-75 F40M	0,085 *0.0034*	0,095 *0.0038*	0,15 *0.0060*
M4	SPMX 09/12-75 F40M	0,075 *0.0030*	0,085 *0.0034*	0,13 *0.0050*
M5	SPMX 09/12-75 F40M	0,075 *0.0030*	0,085 *0.0034*	0,13 *0.0050*
K1	SPMX 09/12-75 F40M	0,12 *0.0048*	0,13 *0.0050*	0,20 *0.0080*
K2	SPMX 09/12-75 F40M	0,11 *0.0044*	0,12 *0.0048*	0,18 *0.0070*
K3	SPMX 09/12-75 F40M	0,11 *0.0044*	0,12 *0.0048*	0,18 *0.0070*
K4	SPMX 09/12-75 F40M	0,11 *0.0044*	0,12 *0.0048*	0,18 *0.0070*
K5	SPMX 09/12-75 F40M	0,10 *0.0040*	0,11 *0.0044*	0,16 *0.0065*
K6	SPMX 09/12-75 F40M	0,11 *0.0044*	0,12 *0.0048*	0,18 *0.0070*
K7	SPMX 09/12-75 F40M	0,10 *0.0040*	0,11 *0.0044*	0,16 *0.0065*

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_e/DC = %
All cutting data are start values

R417.19-SPMX06/07/09/12 – Cutting data v_c = (m/min)/*(sf/min)*

SMG	F40M		
	100%	30%	10%
P1	195 *640*	225 *740*	240 *790*
P2	195 *640*	220 *720*	240 *790*
P3	180 *590*	205 *670*	225 *740*
P4	170 *560*	195 *640*	215 *710*
P5	165 *540*	190 *620*	210 *690*
P6	175 *570*	205 *670*	220 *720*
P7	170 *560*	195 *640*	215 *710*
P8	165 *540*	190 *620*	205 *670*
P11	165 *540*	195 *640*	210 *690*
P12	120 *395*	150 *490*	165 *540*
M1	170 *560*	200 *660*	215 *710*
M2	150 *490*	180 *590*	200 *660*
M3	130 *425*	160 *520*	175 *570*
M4	105 *345*	135 *445*	150 *490*
M5	90 *295*	115 *375*	130 *425*
K1	170 *560*	200 *660*	215 *710*
K2	160 *520*	185 *610*	205 *670*
K3	140 *460*	170 *560*	185 *610*
K4	135 *445*	165 *540*	180 *590*
K5	90 *295*	115 *375*	130 *425*
K6	125 *410*	150 *490*	170 *560*
K7	110 *360*	140 *460*	155 *510*

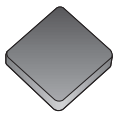
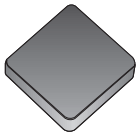
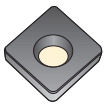
Introduction

Polycrystalline Cubic Boron Nitride (PCBN) is a material which is sintered at extremely high pressure and high temperature into a wear-resistant material with properties close to those of diamond. Due to the hot hardness, oxidation resistance and fracture toughness of the material, inserts made of PCBN have excellent edge strength and long tool life when machining hard ferrous materials and pearlitic grey cast iron.

Secomax™ PCBN inserts are suitable for machining:

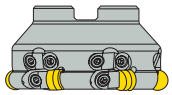
- Hardened steel (including hard-facing alloys)
- Pearlitic grey cast iron
- Chilled and white cast iron
- Manganese steel
- Cemented carbide
- Powder Metallurgy (PM) alloys

For more information including a comprehensive guide to understanding and applying PCBN successfully, please ask your sales representative for the Secomax™ PCBN, Technical Guide (available in English).

Selection of insert type	
	• Solid insert • According to the geometry, two sides can be used. • Grades: CBN200, CBN300, CBN300P, CBN500, CBN600
	• CBN layer sintered on to carbide. One side is usable. • Grades: CBN200
	

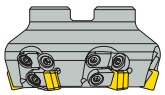
Cutters for PCBN inserts

Face milling cutter type R217/220.70



- Cutter especially developed for CBN inserts, 2 insert sizes.
- Maximum cutting depth 3 mm DC = 20-63 mm and maximum cutting depth 4,5 mm DC = 63-200 mm (DC = 125-200 mm fitted with wiper insert).
- Inserts for finishing: RNGN060300E (E = honed) RNGN/RNMN090300E
- Inserts for roughing: RNGN/RNMN060300S (S = chamfered and honed) RNGN/RNMN090300S
- Wiper insert: SNEX120312ZZ
- The relation between cutting depth and number of usable cutting edges (per side).

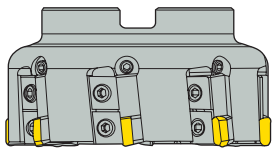
Face milling cutter type 220.74



- Cutter especially developed for CBN inserts, maximum cutting depth 8,0 mm D = 63-200 mm. (D = 125-200 mm fitted with wiper insert).
- Inserts for finishing: SNEN0903ENE-M06 (E = honed) SNMN090308E SNMN090312E
- Inserts for roughing: SNEN0903ENS-M08 (S = chamfered and honed) SNMN090308S SNMN090312S SNMN090316S
- Wiper insert: SNEX120312ZZ

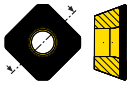
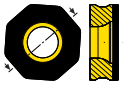
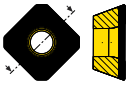
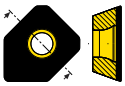
D.O.C a_p (mm)	D.O.C a_p (inch)	RN.. 060300	RN.. 090300	D.O.C a_p (mm)	D.O.C a_p (inch)	RN.. 060300	RNMN 090300
0,1	.004	20	24	1,2	.048	5	7
0,15	.006	16	20	1,5	.060	5	6
0,2	.008	14	17	1,8	.072	4	5
0,25	.010	12	15	2,0	.080	4	5
0,3	.012	11	14	2,5	.100	3	4
0,4	.016	10	12	3,0	.120	3	4
0,5	.020	8	10	3,5	.140	–	4
0,8	.032	7	8	4,0	.160	–	3
1,0	.040	6	7	4,5	.200	–	–

Square shoulder and slot milling cutter type R220.68



- Insert with corner chamfernfor finishing operations: TNGN1604PNE
- Insert with corner chamfer for roughing operations: TNGN1604PNS
- Insert with corner radius for roughing operations: TNGN1604PRS

Inserts for standard milling cutters

Face milling cutters	Face milling cutters	Face milling cutters	Face milling cutters
			
• For roughing • SEEX09T3AFTN-D09-LF • SEEX1204AFTN-D16-LF • R220.53	• For roughing • ONEW05 • Octomill R217/220.48	• For roughing • SEEN1203AFTN-D16 • R220.13	• For finishing • SEEX1203AETN-MD13-LF • R220.30
Wiper insert for high quality surface finish	**Disc milling cutter**	**High feed milling cutter**	**Copy milling cutter**
			
• SEEX1204ZZTN-D16-LF	• RDHW0803M0S-01030-LF • R335.25/R335.18	• 218.19-100T-MD08-LF	• RDHW0803M0S-01030-LF • R217/220.29

Cutting speed recommendations are in the cutting data table.
Feed rate recommendations are in the cutting data table.
Formulae for cutting data calculation are on page 862

PCBN, Finishing a_p < 0,5 mm/*Inch*

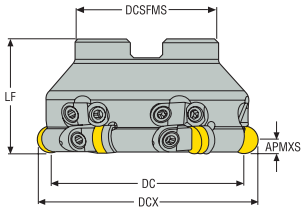
SMG	CBN200		CBN300		CBN500	
	v_c	f_z	v_c	f_z	v_c	f_z
K1	700 — 1900 —	0,050 — 0,20 —	700 — 1700 —	0,050 — 0,20 —	700 — 1700 —	0,050 — 0,20 —
H3	110 — 350 —	0,050 — 0,20 —	— —	— —	— —	— —
H5	200 — 320 —	0,050 — 0,20 —	— —	— —	— —	— —
H7	200 — 300 —	0,050 — 0,20 —	— —	— —	— —	— —
H8	170 — 250 —	0,050 — 0,20 —	— —	— —	— —	— —
H11	— —	— —	— —	— —	— —	— —
H21	120 — 220 —	0,050 — 0,20 —	— —	— —	130 — 230 —	0,050 — 0,20 —
H31	120 — 220 —	0,050 — 0,20 —	— —	— —	100 — 270 —	0,050 — 0,20 —
PM1	180 — 400 —	0,050 — 0,20 —	— —	— —	— —	— —
PM2	150 — 300 —	0,050 — 0,20 —	— —	— —	— —	— —
PM3	— —	— —	— —	— —	— —	— —
HF1	— —	— —	— —	— —	— —	— —
HF2	— —	— —	— —	— —	— —	— —

PCBN, Roughing a_p 0,5-3,0 mm/*Inch*

SMG	CBN200		CBN300		CBN500	
	v_c	f_z	v_c	f_z	v_c	f_z
K1	700 — 1700 —	0,050 — 0,20 —	700 — 1700 —	0,050 — 0,20 —	700 — 1700 —	0,050 — 0,20 —
H3	— —	— —	— —	— —	— —	— —
H5	— —	— —	— —	— —	— —	— —
H7	— —	— —	— —	— —	— —	— —
H8	— —	— —	— —	— —	— —	— —
H11	— —	— —	— —	— —	— —	— —
H21	120 — 220 —	0,050 — 0,20 —	— —	— —	130 — 230 —	0,050 — 0,20 —
H31	120 — 220 —	0,050 — 0,20 —	— —	— —	100 — 270 —	0,050 — 0,20 —
PM1	180 — 400 —	0,050 — 0,20 —	— —	— —	— —	— —
PM2	150 — 300 —	0,050 — 0,20 —	— —	— —	— —	— —
PM3	— —	— —	— —	— —	— —	— —
HF1	150 — 240 —	0,050 — 0,20 —	— —	— —	150 — 250 —	0,050 — 0,20 —
HF2	120 — 300 —	0,050 — 0,20 —	— —	— —	120 — 300 —	0,050 — 0,20 —

220.70-06/09 – Metric





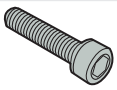
- For insert selection and cutting data recommendations, see page(s) 783
- For complete insert programme, see page(s) 791
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	ZEFP	APMXS	DCX	DCB	DCSFMS	LF	RPMX	Weight	Insert
			mm		mm	mm	mm	mm	mm		kg	
R220.70-0063-09-6	00023749	Arbor	63,0	6	4,5	72,5	22,0	47,0	40,0	10200	0,8	RN..09
R220.70-0080-09-6	00023750	Arbor	80,0	6	4,5	89,5	27,0	62,0	50,0	9100	1,4	RN..09
R220.70-0100-09-8	00023751	Arbor	100,0	8	4,5	109,5	32,0	77,0	50,0	8100	2,0	RN..09
R220.70-8160-09-10	00023753	Arbor	160,0	10	4,5	169,5	40,0	90,0	63,0	6400	5,7	RN..09/SNEX12*

Spare Parts, included in delivery

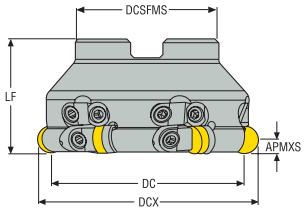
For cutter	Anvil	Anvil screw	Arbor screw	Gauge screw	Insert key	Insert shim	Insert wedge	Setting gauge	Setting wedge	Shim screw	Wedge	Wedge screw
												
R220.70-0063	–	–	220.17-692	LD6019-T15P	1/4HEX-T15PX50	117.10-620	–	AS6011F	–	174.10-652-T07P	CW0608M	LD6018T-T15P
R220.70-0080	–	–	–	LD6019-T15P	1/4HEX-T15PX50	117.10-620	–	AS6011F	–	174.10-652-T07P	CW0608M	LD6018T-T15P
R220.70-0100	–	–	–	LD6019-T15P	1/4HEX-T15PX50	117.10-620	–	AS6011F	–	174.10-652-T07P	CW0608M	LD6018T-T15P
R220.70-8160	268-621	F94009-T09P	–	LD6019-T15P	1/4HEX-T15PX50	117.10-620	CW0608S	AS6011F	AS6011	174.10-652-T07P	CW0608M	LD6018T-T15P

Accessories

For cutter	Adjustable Torque key	Arbor screw	Insert clamping torque	Shim key	Torque key
					
R220.70-0063-0100	1/4HEX-S-HANDLE-0.8-5.0NM	–	3.5NM	H4B-T07P	T00-15P35
R220.70-8160	1/4HEX-S-HANDLE-0.8-5.0NM	MC6S12X40	3.5NM	H4B-T07P	T00-15P35

Torque and fixed keys, see page 872

220.70-06/09 – inch

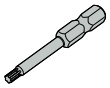
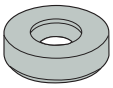




- For insert selection and cutting data recommendations, see page(s) 783
- For complete insert programme, see page(s) 791
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	ZEFP	APMXS	DCX	DCB	DCSFMS	LF	RPMX	Weight	Insert
			inch		inch	inch	inch	inch	inch		lbs	
R220.70-03.00-09-6	00059852	Arbor	3.150	6	0.177	3.520	1.000	3.543	2.382	15900	3.530	RN..09

Spare Parts, included in delivery

For cutter	Gauge screw	Insert key	Insert shim	Setting gauge	Shim screw	Wedge	Wedge screw
							
R220.70-03.00	LD6019-T15P	1/4HEX-T15PX50	117.10-620	AS6011F	174.10-652-T07P	CW0608M	LD6018T-T15P

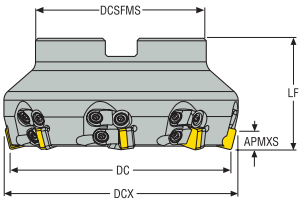
Accessories

For cutter	Adjustable Torque key	Insert clamping torque	Shim key	Torque key
				
R220.70-03.00	1/4HEX-S-HANDLE-0.8-5.0NM	31.0IN.LBS	H4B-T07P	T00-15P35

Torque and fixed keys, see page 872

220.74-09 – Metric





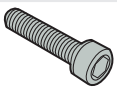
- For insert selection and cutting data recommendations, see page(s) 783
- For complete insert programme, see page(s) 793-792
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	ZEFP	APMXS	KAPRS°	DCX	DCB	DCSFMS	LF	RPMX	Weight	Insert
			mm		mm		mm	mm	mm	mm		kg	
R220.74-0063-09-6	00023743	Arbor	63,0	6	8,0	75,0	65,3	22,0	47,0	40,0	10200	0,8	SN..09..
R220.74-0080-09-6	00023744	Arbor	80,0	6	8,0	75,0	82,3	27,0	62,0	50,0	9100	1,4	SN..09..
R220.74-0100-09-8	00023745	Arbor	100,0	8	8,0	75,0	102,3	32,0	77,0	50,0	8100	2,1	SN..09..
R220.74-8160-09-10	00023747	Arbor	160,0	10	8,0	75,0	162,3	40,0	90,0	63,0	6400	6,2	SN..09/SNEX12*
R220.74-8200-09-12	00023748	Arbor	200,0	12	8,0	75,0	202,3	60,0	130,0	63,0	5700	9,0	SN..09/SNEX12*

Spare Parts, included in delivery

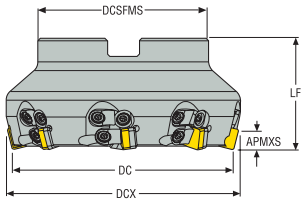
For cutter	Anvil	Anvil screw	Arbor screw	Insert key	Insert shim	Setting gauge	Setting screw	Shim screw	Wedge	Wedge screw
										
R220.74-0063	–	–	220.17-692	1/4HEX-T15PX50	174.10-620	AS6011	LD6019-T15P	174.10-652-T07P	CW0608M	LD6018T-T15P
R220.74-0080	–	–	–	1/4HEX-T15PX50	174.10-620	AS6011	LD6019-T15P	174.10-652-T07P	CW0608M	LD6018T-T15P
R220.74-0100	–	–	–	1/4HEX-T15PX50	174.10-620	AS6011	LD6019-T15P	174.10-652-T07P	CW0608M	LD6018T-T15P
R220.74-8160	–	–	–	1/4HEX-T15PX50	174.10-620	AS6011	LD6019-T15P	174.10-652-T07P	CW0608M	LD6018T-T15P
R220.74-8200	268-621	F94009-T09P	–	1/4HEX-T15PX50	174.10-620	AS6011	LD6019-T15P	174.10-652-T07P	CW0608M	LD6018T-T15P

Accessories

For cutter	Adjustable Torque key	Anvil Key	Arbor screw	Insert clamping torque	Shim key	Torque key
						
R220.74-0063-0100	1/4HEX-S-HANDLE-0.8-5.0NM	–	–	3.5NM	H4B-T07P	T00-15P35
R220.74-8160	1/4HEX-S-HANDLE-0.8-5.0NM	H4B-T09P	MC6S12X40	3.5NM	H4B-T07P	T00-15P35
R220.74-8200	1/4HEX-S-HANDLE-0.8-5.0NM	H4B-T09P	–	3.5NM	H4B-T07P	T00-15P35

Torque and fixed keys, see page 872

220.74-09 – inch





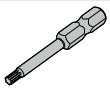
- For insert selection and cutting data recommendations, see page(s) 783
- For complete insert programme, see page(s) 793-792
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	ZEFP	APMXS	KAPRS°	DCX	DCB	DCSFMS	LF	RPMX	Weight	Insert
			inch		inch		inch	inch	inch	inch		lbs	
R220.74-04.00-09-8	00059859	Arbor	4.028	8	0.315	75,0	4.028	1.500	3.543	2.374	8100	6.390	SN..09
R220.74-05.00-09-8	00059860	Arbor	5.008	8	0.315	75,0	5.012	1.500	3.543	2.374	7200	8.600	SN..09 / SNEX12*
R220.74-06.00-09-10	00059861	Arbor	6.299	10	0.315	75,0	6.390	2.000	4.331	2.374	6400	13.670	SN..09 / SNEX12*

Spare Parts, included in delivery

For cutter	Anvil	Anvil screw	Insert key	Insert shim	Setting gauge	Setting screw	Shim screw	Wedge	Wedge screw
									
R220.74-04.00	–	–	1/4HEX-T15PX50	174.10-620	AS6011	LD6019-T15P	174.10-652-T07P	CW0608M	LD6018T-T15P
R220.74-05.00	268-621	F94009-T09P	1/4HEX-T15PX50	174.10-620	AS6011	LD6019-T15P	174.10-652-T07P	CW0608M	LD6018T-T15P
R220.74-06.00	268-621	F94009-T09P	1/4HEX-T15PX50	174.10-620	AS6011	LD6019-T15P	174.10-652-T07P	CW0608M	LD6018T-T15P

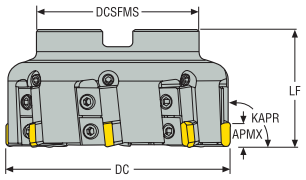
Accessories

For cutter	Adjustable Torque key	Anvil Key	Arbor screw	Insert clamping torque	Shim key	Torque key
						
R220.74-04.00	1/4HEX-S-HANDLE-0.8-5.0NM	–	–	31.0IN.LBS	H4B-T07P	T00-15P35
R220.74-05.00	1/4HEX-S-HANDLE-0.8-5.0NM	1/4HEX-T09PX50	–	31.0IN.LBS	1/4HEX-T07PX50	T00-15P35
R220.74-06.00	1/4HEX-S-HANDLE-0.8-5.0NM	H4B-T09P	58215080	31.0IN.LBS	H4B-T07P	T00-15P35

Torque and fixed keys, see page 872

R220.68-T16C – Metric





- For insert selection and cutting data recommendations, see page(s) 783
- For complete insert programme, see page(s) 794
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	ZEFP	APMXS	KAPRS°	DCB	DCSFMS	LF	RPMX	Weight	Insert
			mm		mm		mm	mm	mm		kg	
R220.68-0063-T11C-4	02600204	Arbor	63,0	4	5,0	90,0	22,0	47,0	63,0	20600	1,1	TNGN1103..
R220.68-0080-T11C-5	02600206	Arbor	80,0	5	5,0	90,0	27,0	62,0	63,0	16700	1,7	TNGN1103..
R220.68-0100-T11C-6	02600207	Arbor	100,0	6	5,0	90,0	32,0	77,0	63,0	13400	2,7	TNGN1103..
R220.68-0125-T11C-8	02600208	Arbor	125,0	8	5,0	90,0	40,0	90,0	63,0	10400	3,4	TNGN1103..
R220.68-8160-T11C-10	02600209	Arbor	160,0	10	5,0	90,0	40,0	90,0	63,0	8400	5,6	TNGN1103..
R220.68-0063-T16C-4	00063814	Arbor	63,0	4	14,0	90,0	22,0	47,0	63,0	12000	1,1	TNGN1604..
R220.68-0080-T16C-5	00063812	Arbor	80,0	5	14,0	90,0	27,0	62,0	63,0	9600	1,9	TNGN1604..
R220.68-0125-T16C-8	00063815	Arbor	125,0	8	14,0	90,0	40,0	90,0	63,0	6100	3,4	TNGN1604..
R220.68-8160-T16C-10	00063813	Arbor	160,0	10	14,0	90,0	40,0	90,0	63,0	4800	5,9	TNGN1604..

Spare Parts, included in delivery

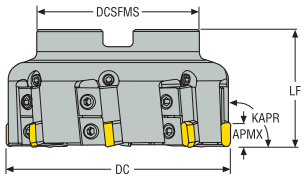
For cutter	Adjustment unit	Arbor screw	Cassette	Insert wedge	Setting key	Wedge clamp	Wedge key	Wedge screw
R220.68-0063-T11C	AU1114T-T15P	220.17-696	TN11PR	L257.9-120-T11	–	L257.9-120M	H6B-T25P	LD8020-T25P
R220.68-0080-T11C	AU1114T-T15P	MC6S12X40	TN11PR	L257.9-120-T11	–	L257.9-120M	H6B-T25P	LD8020-T25P
R220.68-0100-T11C	AU1114T-T15P	MC6S16X35	TN11PR	L257.9-120-T11	–	L257.9-120M	H6B-T25PL	LD8020-T25P
R220.68-0125-T11C	AU1114T-T15P	–	TN11PR	L257.9-120-T11	–	L257.9-120M	H6B-T25PL	LD8020-T25P
R220.68-8160-T11C	AU1114T-T15P	–	TN11PR	L257.9-120-T11	–	L257.9-120M	1/4HEX-T25PX90	LD8020-T25P
R220.68-0063-T16C	AU1114T-T15P	220.17-696	TN16PR	L257.9-120-T16	T15P-4	L257.9-120M	H6B-T25PL	LD8020-T25P
R220.68-0080-T16C	AU1114T-T15P	MC6S12X40	TN16PR	L257.9-120-T16	T15P-4	L257.9-120M	H6B-T25PL	LD8020-T25P
R220.68-0125-T16C	AU1114T-T15P	–	TN16PR	L257.9-120-T16	T15P-4	L257.9-120M	H6B-T25PL	LD8020-T25P
R220.68-8160-T16C	AU1114T-T15P	–	TN16PR	L257.9-120-T16	T15P-4	L257.9-120M	H6B-T25PL	LD8020-T25P

Accessories

For cutter	Adjustable Torque key	Arbor screw	Insert clamping torque	Torque key
R220.68-0063-0125-T11C	–	–	6.0NM	T00T-25P60
R220.68-8160-T11C	1/4HEX-T-HANDLE-5.0-14.0NM	MC6S12X40	6.0NM	T00T-25P60
R220.68-0063-0125-T16C	–	–	6.0NM	T00T-25P60
R220.68-8160-T16C	–	MC6S12X40	6.0NM	T00T-25P60

Torque and fixed keys, see page 872

R220.68-T16C – inch





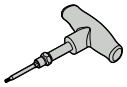
- For insert selection and cutting data recommendations, see page(s) 783
- For complete insert programme, see page(s) 794
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	ZEFP	APMXS	KAPRS°	DCB	DCSFMS	LF	RPMX	Weight	Insert
			inch		inch		inch	inch	inch		lbs	
R220.68-02.50-T11C-4	02611344	Arbor	2.500	4	0.197	90,0	0.750	1.850	2.480	20600	2.430	TN..11
R220.68-03.00-T11C-5	02611345	Arbor	3.000	5	0.197	90,0	1.000	2.441	2.480	9600	3.970	TN..11
R220.68-04.00-T11C-6	02611346	Arbor	4.000	6	0.197	90,0	1.500	3.031	2.480	7600	5.730	TN..11
R220.68-05.00-T11C-8	02611347	Arbor	5.000	8	0.197	90,0	1.500	3.543	2.480	6100	7.500	TN..11
R220.68-06.00-T11C-10	02611348	Arbor	6.000	10	0.197	90,0	2.000	4.331	2.480	4800	12.350	TN..11

Spare Parts, included in delivery

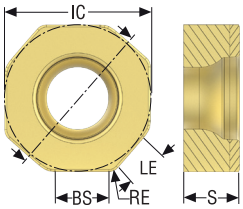
For cutter	Adjustment unit	Arbor screw	Cassette	Circlip	Insert key	Insert wedge	Ring	Wedge clamp	Wedge key	Wedge screw
										
R220.68-02.50	AU1114T-T15P	220.17-695	TN11PR	SGH19SMS1582	H4B-T15P	L257.9-120-T11	220.13-114	L257.9-120M	H6B-T25P	LD8020-T25P
R220.68-03.00	AU1114T-T15P	UC6S1/2UNFX1-1/4	TN11PR	–	H4B-T15P	L257.9-120-T11	–	L257.9-120M	H6B-T25P	LD8020-T25P
R220.68-04.00	AU1114T-T15P	UC6S3/4UNFX2	TN11PR	–	H4B-T15PL	L257.9-120-T11	–	L257.9-120M	H6B-T25PL	LD8020-T25P
R220.68-05.00	AU1114T-T15P	UC6S3/4UNFX2	TN11PR	–	H4B-T15PL	L257.9-120-T11	–	L257.9-120M	H6B-T25PL	LD8020-T25P
R220.68-06.00	AU1114T-T15P	–	TN11PR	–	1/4HEX-T15PX90	L257.9-120-T11	–	L257.9-120M	1/4HEX-T25PX90	LD8020-T25P

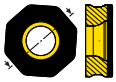
Accessories

For cutter	Adjustable Torque key	Arbor screw	Insert clamping torque	Torque key
				
R220.68-02.50-05.00	–	–	53.1IN.LBS	T00T-25P60
R220.68-06.00	1/4HEX-T-HANDLE-5.0-14.0NM	58215080	53.1IN.LBS	T00T-25P60

Torque and fixed keys, see page 872

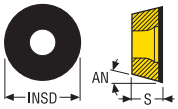
ONEW05





Designation	IC	BS	RE	LE	S	GAN	Grades CBN					
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		CBN200	CBN300	CBN300P	CBN400C	CBN500	CBN600
ONEW050410ANSN-02020-LF	12,0 *0.472*	0,3 *0.012*	1,0 *0.039*	3,6 *0.142*	4,427 *0.174*	0,0 °	■					

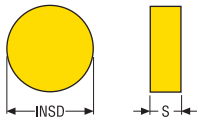
RDHW





Designation	INSD	S	AN°	Grades CBN					
	mm *Inch*	mm *Inch*	mm *Inch*	CBN200	CBN300	CBN300P	CBN400C	CBN500	CBN600
RDHW0803M0S-01030-LF	8,0 *0.315*	3,18 *0.125*	15,0 *0.591*	■					
RDHW10T3M0S-01030-8-LF	10,0 *0.394*	3,97 *0.156*	15,0 *0.591*	■					

RN.N-LF06/09/12



RNGN



RNGN-LF

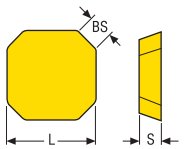


RNMN



Designation	INSD	S	GAN	Grades CBN					
	mm *Inch*	mm *Inch*		CBN200	CBN300	CBN300P	CBN400C	CBN500	CBN600
RNGN060300S-02020-LF	6,35 *0.250*	3,18 *0.125*	0,0 °	■					
RNGN090300S-02020-LF	9,52 *0.375*	3,18 *0.125*	0,0 °	■					
RNGN120400S-02020-LF	12,7 *0.500*	4,76 *0.187*	0,0 °	■					
RNGN060300S	6,35 *0.250*	3,18 *0.125*	0,0 °	■					
RNGN090300S	9,52 *0.375*	3,18 *0.125*	0,0 °	■					
RNMN060300S	6,35 *0.250*	3,18 *0.125*	0,0 °		■	■			
RNMN060300S-02020P	6,35 *0.250*	3,18 *0.125*	0,0 °						■
RNMN090300E	9,52 *0.375*	3,18 *0.125*	0,0 °		■		■		
RNMN090300S	9,52 *0.375*	3,18 *0.125*	0,0 °		■	■			
RNMN090300S-02020	9,52 *0.375*	3,18 *0.125*	0,0 °				■	■	
RNMN090300S-02020P	9,52 *0.375*	3,18 *0.125*	0,0 °						■

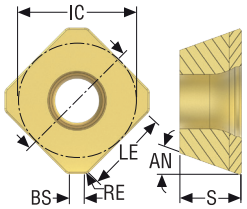
SEE.12

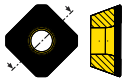




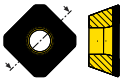
Designation	RE	BS	L	S	GAN	Grades Coated					
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		CBN200	CBN300	CBN300P	CBN400C	CBN500	CBN600
SEEN1203AFTN-D16	1,0 *0.039*	1,5 *0.059*	12,7 *0.500*	3,18 *0.125*	0,0 °		■				

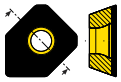
SEEX





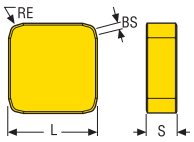






Designation	IC	BS	RE	LE	S	AN°	GAN	Grades CBN					
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			CBN200	CBN300	CBN300P	CBN400C	CBN500	CBN600
SEEX09T3AFTN-D09-LF	9,52 *0.375*	1,25 *0.049*	0,5 *0.020*	2,86 *0.113*	3,97 *0.156*	20,0	0,0 °	■					
SEEX1203AETN-MD13-LF	12,7 *0.500*	8,0 *0.315*	1,0 *0.039*	2,2 *0.087*	3,18 *0.125*	20,0	0,0 °	■					
SEEX1204AFTN-D16-LF	12,7 *0.500*	1,6 *0.063*	1,1 *0.043*	3,81 *0.150*	4,76 *0.187*	20,0	0,0 °	■					
SEEX1204ZZTN-D16-LF	12,7 *0.500*	7,53 *0.296*	1,0 *0.039*	3,81 *0.150*	4,76 *0.187*	20,0	0,0 °	■					

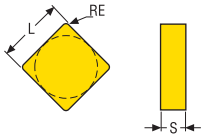
SNEN





Designation	RE	BS	L	S	GAN	Grades CBN					
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		CBN200	CBN300	CBN300P	CBN400C	CBN500	CBN600
SNEN0903ENE-M06	0,8 *0.031*	0,9 *0.035*	9,52 *0.375*	3,18 *0.125*	0,0 °	■					
SNEN0903ENS-M08	0,8 *0.031*	0,9 *0.035*	9,52 *0.375*	3,18 *0.125*	0,0 °	■					

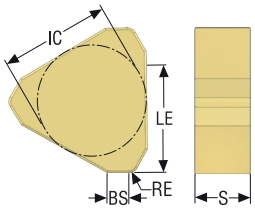
SN..06/09/SNEX12





Designation	RE	L	S	GAN	Grades CBN					
	mm *Inch*	mm *Inch*	mm *Inch*		CBN200	CBN300	CBN300P	CBN400C	CBN500	CBN600
SNMN060308E	0,8 *0.031*	6,35 *0.250*	3,18 *0.125*	0,0 °				■		
SNMN060308S	0,8 *0.031*	6,35 *0.250*	3,18 *0.125*	0,0 °		■				
SNMN090308E	0,8 *0.031*	9,525 *0.375*	3,18 *0.125*	0,0 °		■				
SNMN090308S	0,8 *0.031*	9,525 *0.375*	3,18 *0.125*	0,0 °		■				
SNMN090312S	1,2 *0.047*	9,525 *0.375*	3,18 *0.125*	0,0 °		■	■			
SNMN090312S-02020P	1,2 *0.047*	9,525 *0.375*	3,18 *0.125*							■
SNMN090316S	1,6 *0.063*	9,525 *0.375*	3,18 *0.125*	0,0 °		■				
SNGN090308E	0,8 *0.031*	9,525 *0.375*	3,18 *0.125*	0,0 °	■					
SNGN090308S	0,8 *0.031*	9,525 *0.375*	3,18 *0.125*	0,0 °	■					
SNGN090312S	1,2 *0.047*	9,525 *0.375*	3,18 *0.125*	0,0 °	■					
SNGN090316S	1,6 *0.063*	9,525 *0.375*	3,18 *0.125*	0,0 °	■					
SNEX120312ZZ	1,2 *0.047*	12,7 *0.500*	3,18 *0.125*	0,0 °	■					

TNGN

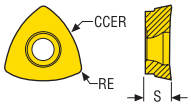


TNGN



Designation	IC	BS	RE	LE	S	GAN	Grades CBN					
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		CBN200	CBN300	CBN300P	CBN400C	CBN500	CBN600
TNGN1103PNE	6,35 *0.250*	1,0 *0.039*	0,8 *0.031*	3,3 *0.130*	3,18 *0.125*	0,0 °	■					
TNGN1103PNS	6,35 *0.250*	1,0 *0.039*	0,8 *0.031*	3,3 *0.130*	3,18 *0.125*	0,0 °	■					
TNGN1103PRS	6,35 *0.250*	1,0 *0.039*	1,2 *0.047*	3,3 *0.130*	3,18 *0.125*	0,0 °	■					
TNGN1604PNE	9,52 *0.375*	1,9 *0.075*	0,8 *0.031*	4,95 *0.195*	4,76 *0.187*	0,0 °	■					
TNGN1604PNS	9,52 *0.375*	1,9 *0.075*	0,8 *0.031*	4,95 *0.195*	4,76 *0.187*	0,0 °	■					
TNGN1604PRS	9,52 *0.375*	1,3 *0.051*	1,2 *0.047*	4,95 *0.195*	4,76 *0.187*	0,0 °	■					

218.19





Designation	RE	CCER	S	GAN	Grades CBN					
	mm *Inch*	mm *Inch*	mm *Inch*		CBN200	CBN300	CBN300P	CBN400C	CBN500	CBN600
218.19-100T-MD08-LF	0,8 *0.031*	10,0 *0.394*	2,81 *0.111*	0,0 °	■					

Introduction

Application areas

Secomax ceramics include a range of products developed to meet the manufacturing industries ever increasing demands on productivity and product performance.

The inserts are die-pressed and sintered by a HIP process using very fine and pure raw materials with fine microstructure to reach excellent material properties. All surfaces are then ground ensuring a product with superior dimensions and tolerances.

This comes together in a product with outstanding features:

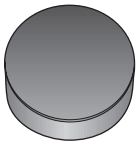
– high thermal shock resistance

– optimised fracture toughness

– excellent wear resistance

– high product quality

CS300



Format:
Solid.

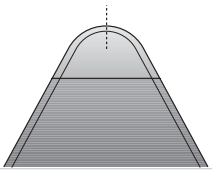
Composition:
Sialon (Si, Al, O, N) ceramic grade.

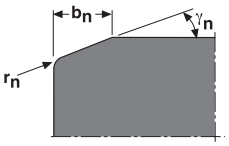
Coating:
No coating.

Chamfer size and angle

CS300	=	0,10 mm x 20°
S	=	Chamfered and honed
T	=	Chamfered, no honing
E	=	Honed

Chamfer size and angle



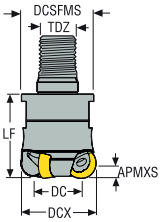


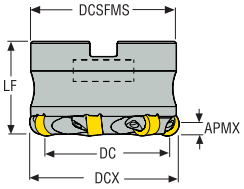
b_n = Chamfer width
γ_n = Chamfer angle
r_n = Hone radius

Ceramic, Roughing a_p 0,5 – 3,0 mm/*Inch*

SMG	CS300	
	v_c	f_z
S1	600 — 1000 *2000 — 3200*	0,050 — 0,15 *0.00197 — 0.00590*
S2	600 — 1000 *2000 — 3200*	0,050 — 0,15 *0.00197 — 0.00590*
S3	600 — 1000 *2000 — 3200*	0,050 — 0,15 *0.00197 — 0.00590*
S11	— —	— —
S12	— —	— —
S13	— —	— —

R217/220.26 - Metric





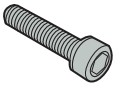
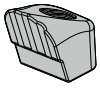


- For insert selection and cutting data recommendations, see page(s) 796
- For complete insert programme, see page(s) 799
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	DCX	ZEFP	APMXS	DCB	TDZ	DCSFMS	LF	RPMX	Weight	Insert
			mm	mm		mm	mm		mm	mm		kg	
R217.26-1632.RE-RN1204.3A	03115686	Combimaster	19,3	32,0	3	6,0	–	M16	30,0	35,0	19100	0,3	RN1204
R217.26-1632.RE-RP1204.3A	03204228	Combimaster	19,4	32,0	3	6,0	–	M16	30,0	35,0	20800	0,2	RP1204
R217.26-2040.RE-RN1204.4A	03115687	Combimaster	27,3	40,0	4	6,0	–	M20	36,5	40,0	17100	0,4	RN1204
R217.26-2040.RE-RP1204.4A	03115679	Combimaster	27,4	40,0	4	6,0	–	M20	36,5	40,0	18600	0,4	RP1204
R220.26-0050-RN1204.6A	03115702	Arbor	37,3	50,0	6	6,0	22,0	–	47,0	45,0	16700	0,5	RN1204
R220.26-0050-RP1204.6A	03133188	Arbor	37,4	50,0	6	6,0	22,0	–	47,0	45,0	16700	0,5	RP1204
R220.26-0050-RN1207.5A	03115710	Arbor	37,3	50,0	5	6,0	22,0	–	47,0	45,0	11900	0,5	RN1207
R220.26-0063-RN1207.6A	03115711	Arbor	50,3	63,0	6	6,0	27,0	–	60,0	50,0	10600	0,8	RN1207
R220.26-0063-RN1207.7A	03115712	Arbor	50,3	63,0	7	6,0	27,0	–	60,0	50,0	10600	0,9	RN1207
R220.26-0080-RN1207.7A	03115713	Arbor	67,3	80,0	7	6,0	32,0	–	77,0	50,0	9400	1,6	RN1207
R220.26-0080-RN1207.8A	03115714	Arbor	67,3	80,0	8	6,0	32,0	–	77,0	50,0	9400	1,4	RN1207
R220.26-0100-RN1207.8A	03115715	Arbor	87,3	100,0	8	6,0	40,0	–	90,0	63,0	8400	2,8	RN1207
R220.26-0125-RN1207.9	03115716	Arbor	112,3	125,0	9	6,0	40,0	–	90,0	63,0	7500	3,6	RN1207

Spigot size = DCB

Spare Parts, included in delivery

For cutter	Arbor screw	Insert key	Wedge clamp	Wedge screw
				
R217/220.26-..	–	1/4HEX-H2.5X50	CW0508	LD5015C
R217/220.26-..	220.17-692	1/4HEX-H2.5X50	CW0508	LD5015C
R217/220.26-..	MC6S12X40	1/4HEX-H2.5X50	CW0508	LD5015C
R217/220.26-..	950E1645	1/4HEX-H2.5X50	CW0508	LD5015C
R217/220.26-..	MC6S20X50	1/4HEX-H2.5X50	CW0508	LD5015C

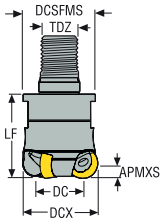
Accessories

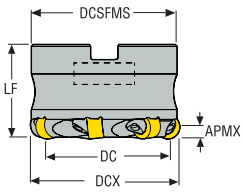
For cutter	Adjustable Torque key	Insert clamping torque	Torque key
			
R217/220.26-..	1/4HEX-S-HANDLE-0.8-5.0NM	3.5NM	H00-2535

Torque and fixed keys, see page 872

R217/220.26 - inch



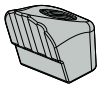




- For insert selection and cutting data recommendations, see page(s) 796
- For complete insert programme, see page(s) 799
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	DCX	ZEFP	APMXS	TDZ	DCSFMS	LF	RPMX	Weight	Insert
			inch	inch		inch		inch	inch		lbs	
R217.26-01.50-20RE-RN1207.3A	10008700	Arbor	1.001	1.500	3	0.236	M20	1.437	1.575	12500	0.880	RN1207
R220.26-02.00-RN1207.5A	03115723	Arbor	1.501	2.000	5	0.236	–	1.750	2.000	11900	1.320	RN1207
R220.26-02.50-RN1207.6A	03115724	Arbor	2.001	2.500	6	0.236	–	2.250	2.000	10600	1.980	RN1207
R220.26-03.00-RN1207.7A	03115725	Arbor	2.499	3.000	7	0.236	–	2.750	2.000	9400	2.870	RN1207

Spare Parts, included in delivery

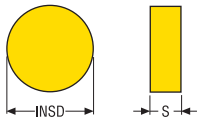
For cutter	Arbor screw	Insert key	Wedge clamp	Wedge screw
				
R217/220.26-..	–	1/4HEX-H2.5X50	CW0508	LD5015C
R217/220.26-..	UC6S3/8UNFX1-3/4	1/4HEX-H2.5X50	CW0508	LD5015C
R217/220.26-..	UC6S1/2UNFX1-1/2	1/4HEX-H2.5X50	CW0508	LD5015C

Accessories

For cutter	Adjustable Torque key	Insert clamping torque	Torque key
			
R217/220.26-..	1/4HEX-S-HANDLE-0.8-5.0NM	31.0IN.LBS	H00-2535

Torque and fixed keys, see page 872

RNGN12



RNGN



RPGN



Designation	INSD	S	Grades Ceramic				
	mm *Inch*	mm *Inch*	CS300				
RNGN120400T-01020	12,7 *0.500*	4,76 *0.187*	■				
RNGN120700T-01020	12,7 *0.500*	7,94 *0.313*	■				
RPGN120400T-01020	12,7 *0.500*	4,76 *0.187*	■				

Introduction

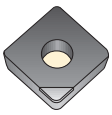
Polycrystalline Diamond (PCD) is produced by sintering together carefully selected particles of diamond under conditions of high temperature and high pressure. PCD cutting tools combine the hardness, abrasion resistance and thermal conductivity of diamond with the toughness of tungsten carbide.

Secomax™ PCD inserts are suitable for machining non-ferrous metals and alloys, e.g.:

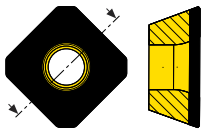
- Aluminium
- Copper
- Brass
- Bronze
- Cemented carbide

It can also be used for other materials, e.g.:

- Composites (MMC, ...)
- Reinforced plastics
- Graphite
- Tungsten carbide
- Ceramics
- Titanium alloys

Selection of insert types	
	• Sintered layer -LF • PCD sintered on carbide. • All cutting edges on one side are usable. • Grades: PCD20, PCD30M
	• Brazed tip -L1 and L2 • PCD brazed on to standard carbide inserts. • Grades:PCD05, PCD20, PCD30

Inserts for standard milling cutters

Face milling cutters		Face milling cutters	
• SEHN12 • R220.13 • R220.30		• SEEX12 • R220.53	
Face milling cutters		**Square shoulder milling cutters**	
• OFEX05 • R220.43		• XOEX06/10/12/16 • 217/220.69	

Cutting speed recommendations are in the cutting data table.
Feed rate recommendations are in the cutting data table.
Formulae for cutting data calculation are on page 862

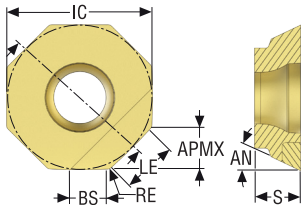
PCD, Roughing a_p 0,5 - 3,0 mm/*Inch*

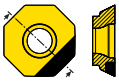
SMG	PCD05		PCD20		PCD30		PCD30M	
	v_c	f_z	v_c	f_z	v_c	f_z	v_c	f_z
N1	600 — 3500 *2000 — 11400*	0,050 — 0,30 *0.00197 — 0.0118*	600 — 3500 *2000 — 11400*	0,050 — 0,30 *0.00197 — 0.0118*	— —	— —	— —	— —
N2	400 — 2500 *1400 — 8200*	0,050 — 0,20 *0.00197 — 0.00787*	400 — 2500 *1400 — 8200*	0,050 — 0,20 *0.00197 — 0.00787*	— —	— —	— —	— —
N3	300 — 1000 *990 — 3200*	0,050 — 0,10 *0.00197 — 0.00393*	— —	— —	300 — 1000 *990 — 3200*	0,050 — 0,10 *0.00197 — 0.00393*	300 — 1000 *990 — 3200*	0,050 — 0,10 *0.00197 — 0.00393*
N11	600 — 1200 *2000 — 3900*	0,10 — 0,50 *0.00394 — 0.0196*	600 — 1200 *2000 — 3900*	0,10 — 0,50 *0.00394 — 0.0196*	400 — 1200 *1400 — 3900*	0,10 — 0,50 *0.00394 — 0.0196*	600 — 1200 *2000 — 3900*	0,10 — 0,50 *0.00394 — 0.0196*
TS1	100 — 1500 *330 — 4900*	0,10 — 0,40 *0.00394 — 0.0157*	100 — 1500 *330 — 4900*	0,10 — 0,40 *0.00394 — 0.0157*	— —	— —	— —	— —
TS2	400 — 800 *1400 — 2600*	0,10 — 0,20 *0.00394 — 0.00787*	400 — 800 *1400 — 2600*	0,10 — 0,20 *0.00394 — 0.00787*	400 — 800 *1400 — 2600*	0,10 — 0,20 *0.00394 — 0.00787*	400 — 800 *1400 — 2600*	0,10 — 0,20 *0.00394 — 0.00787*
TS3	100 — 800 *330 — 2600*	0,050 — 0,20 *0.00197 — 0.00787*	100 — 800 *330 — 2600*	0,050 — 0,20 *0.00197 — 0.00787*	100 — 800 *330 — 2600*	0,050 — 0,20 *0.00197 — 0.00787*	100 — 800 *330 — 2600*	0,050 — 0,20 *0.00197 — 0.00787*
TS4	400 — 800 *1400 — 2600*	0,10 — 0,20 *0.00394 — 0.00787*	400 — 800 *1400 — 2600*	0,10 — 0,20 *0.00394 — 0.00787*	400 — 800 *1400 — 2600*	0,10 — 0,20 *0.00394 — 0.00787*	400 — 800 *1400 — 2600*	0,10 — 0,20 *0.00394 — 0.00787*
TP1	100 — 1500 *330 — 4900*	0,10 — 0,40 *0.00394 — 0.0157*	100 — 1500 *330 — 4900*	0,10 — 0,40 *0.00394 — 0.0157*	— —	— —	— —	— —
TP2	400 — 800 *1400 — 2600*	0,10 — 0,20 *0.00394 — 0.00787*	400 — 800 *1400 — 2600*	0,10 — 0,20 *0.00394 — 0.00787*	400 — 800 *1400 — 2600*	0,10 — 0,20 *0.00394 — 0.00787*	400 — 800 *1400 — 2600*	0,10 — 0,20 *0.00394 — 0.00787*
TP3	100 — 800 *330 — 2600*	0,050 — 0,20 *0.00197 — 0.00787*	100 — 800 *330 — 2600*	0,050 — 0,20 *0.00197 — 0.00787*	100 — 800 *330 — 2600*	0,050 — 0,20 *0.00197 — 0.00787*	100 — 800 *330 — 2600*	0,050 — 0,20 *0.00197 — 0.00787*
TP4	400 — 800 *1400 — 2600*	0,10 — 0,20 *0.00394 — 0.00787*	400 — 800 *1400 — 2600*	0,10 — 0,20 *0.00394 — 0.00787*	400 — 800 *1400 — 2600*	0,10 — 0,20 *0.00394 — 0.00787*	400 — 800 *1400 — 2600*	0,10 — 0,20 *0.00394 — 0.00787*
GR1	100 — 1500 *330 — 4900*	0,10 — 0,20 *0.00394 — 0.00787*	100 — 1500 *330 — 4900*	0,10 — 0,20 *0.00394 — 0.00787*	— —	— —	— —	— —

PCD, Finishing a_p < 0,5 mm/*Inch*

SMG	PCD05		PCD20		PCD30		PCD30M	
	v_c	f_z	v_c	f_z	v_c	f_z	v_c	f_z
N1	600 — 3500 *2000 — 11400*	0,050 — 0,30 *0.00197 — 0.0118*	600 — 3500 *2000 — 11400*	0,050 — 0,30 *0.00197 — 0.0118*	— —	— —	— —	— —
N2	400 — 2500 *1400 — 8200*	0,050 — 0,20 *0.00197 — 0.00787*	400 — 2500 *1400 — 8200*	0,050 — 0,20 *0.00197 — 0.00787*	— —	— —	— —	— —
N3	300 — 1000 *990 — 3200*	0,050 — 0,10 *0.00197 — 0.00393*	— —	— —	300 — 1000 *990 — 3200*	0,050 — 0,10 *0.00197 — 0.00393*	300 — 1000 *990 — 3200*	0,050 — 0,10 *0.00197 — 0.00393*
N11	600 — 1200 *2000 — 3900*	0,10 — 0,50 *0.00394 — 0.0196*	600 — 1200 *2000 — 3900*	0,10 — 0,50 *0.00394 — 0.0196*	400 — 1200 *1400 — 3900*	0,10 — 0,50 *0.00394 — 0.0196*	600 — 1200 *2000 — 3900*	0,10 — 0,50 *0.00394 — 0.0196*
TS1	100 — 1500 *330 — 4900*	0,10 — 0,40 *0.00394 — 0.0157*	100 — 1500 *330 — 4900*	0,10 — 0,40 *0.00394 — 0.0157*	— —	— —	— —	— —
TS2	400 — 800 *1400 — 2600*	0,10 — 0,20 *0.00394 — 0.00787*	400 — 800 *1400 — 2600*	0,10 — 0,20 *0.00394 — 0.00787*	400 — 800 *1400 — 2600*	0,10 — 0,20 *0.00394 — 0.00787*	400 — 800 *1400 — 2600*	0,10 — 0,20 *0.00394 — 0.00787*
TS3	100 — 800 *330 — 2600*	0,050 — 0,20 *0.00197 — 0.00787*	100 — 800 *330 — 2600*	0,050 — 0,20 *0.00197 — 0.00787*	100 — 800 *330 — 2600*	0,050 — 0,20 *0.00197 — 0.00787*	100 — 800 *330 — 2600*	0,050 — 0,20 *0.00197 — 0.00787*
TS4	400 — 800 *1400 — 2600*	0,10 — 0,20 *0.00394 — 0.00787*	400 — 800 *1400 — 2600*	0,10 — 0,20 *0.00394 — 0.00787*	400 — 800 *1400 — 2600*	0,10 — 0,20 *0.00394 — 0.00787*	400 — 800 *1400 — 2600*	0,10 — 0,20 *0.00394 — 0.00787*
TP1	100 — 1500 *330 — 4900*	0,10 — 0,40 *0.00394 — 0.0157*	100 — 1500 *330 — 4900*	0,10 — 0,40 *0.00394 — 0.0157*	— —	— —	— —	— —
TP2	400 — 800 *1400 — 2600*	0,10 — 0,20 *0.00394 — 0.00787*	400 — 800 *1400 — 2600*	0,10 — 0,20 *0.00394 — 0.00787*	400 — 800 *1400 — 2600*	0,10 — 0,20 *0.00394 — 0.00787*	400 — 800 *1400 — 2600*	0,10 — 0,20 *0.00394 — 0.00787*
TP3	100 — 800 *330 — 2600*	0,050 — 0,20 *0.00197 — 0.00787*	100 — 800 *330 — 2600*	0,050 — 0,20 *0.00197 — 0.00787*	100 — 800 *330 — 2600*	0,050 — 0,20 *0.00197 — 0.00787*	100 — 800 *330 — 2600*	0,050 — 0,20 *0.00197 — 0.00787*
TP4	400 — 800 *1400 — 2600*	0,10 — 0,20 *0.00394 — 0.00787*	400 — 800 *1400 — 2600*	0,10 — 0,20 *0.00394 — 0.00787*	400 — 800 *1400 — 2600*	0,10 — 0,20 *0.00394 — 0.00787*	400 — 800 *1400 — 2600*	0,10 — 0,20 *0.00394 — 0.00787*
GR1	100 — 1500 *330 — 4900*	0,10 — 0,20 *0.00394 — 0.00787*	100 — 1500 *330 — 4900*	0,10 — 0,20 *0.00394 — 0.00787*	— —	— —	— —	— —

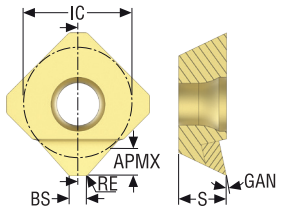
OFEX

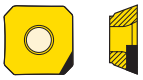




Designation	IC	BS	RE	LE	APMX	S	AN°	Grades PCD			
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		PCD05	PCD20	PCD30	PCD30M
OFEX05T305FN-M05	12,79 *0.504*	2,4 *0.094*	0,5 *0.020*	3,5 *0.138*	3,0 *0.118*	3,97 *0.156*	26,0		■		

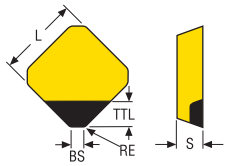
SEEX





Designation	IC	BS	RE	LE	APMX	S	GAN	Grades PCD			
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		PCD05	PCD20	PCD30	PCD30M
SEEX09T3AFFN-L1	9,525 *0.375*	1,5 *0.059*	0,4 *0.016*	1,95 *0.077*	2,8 *0.110*	3,97 *0.156*	12,0 °	■	■		

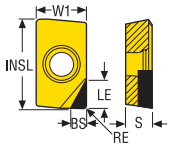
SEHN





Designation	RE	BS	L	TTL	S	GAN	Grades PCD			
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		PCD05	PCD20	PCD30	PCD30M
SEHN1203AFFN-E08	1,0 *0.039*	1,6 *0.063*	12,7 *0.500*	– –	3,18 *0.125*	0,0 °		■		

XOEX

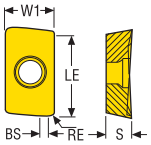




Designation	RE	BS	LE	INSL	W1	S	GAN	Grades PCD			
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		PCD05	PCD20	PCD30	PCD30M
XOEX060204FR	0,4 *0.016*	1,1 *0.043*	2,5 *0.098*	6,94 *0.273*	4,09 *0.161*	2,45 *0.096*	8,0 °	■			
XOEX10T304F	0,4 *0.016*	1,08 *0.043*	4,0 *0.157*	11,08 *0.436*	6,87 *0.270*	3,77 *0.148*	15,0 °	■	■		
XOEX120404FR	0,4 *0.016*	1,11 *0.044*	4,0 *0.157*	13,88 *0.546*	8,18 *0.322*	5,03 *0.198*	15,0 °		■	■	
XOEX120404FR-L2	0,4 *0.016*	1,95 *0.077*	4,5 *0.177*	13,7 *0.539*	8,18 *0.322*	4,95 *0.195*	14,0 °	■			
XOEX160508F	0,8 *0.031*	1,3 *0.051*	15,7 *0.618*	18,3 *0.720*	10,2 *0.402*	5,8 *0.228*	15,65 °	■	■		■



ABEX26

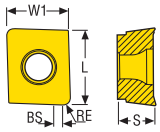


M15

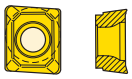


Designation	RE	BS	LE	W1	S	GAN	Grades Coated															Uncoated	
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		MP1501	MP2050	MP2501	MP3000	MP3501	MH1000	MM4500	MK1500	MK2050	MS2050	MS2500	T25M	T350M	F15M	F30M	F40M	H15	H25
ABEX2606ZFFR-M15	1,6 *0.063*	2,0 *0.079*	24,4 *0.961*	14,0 *0.551*	6,35 *0.250*	17,0 °	■		■		■			■					■			■		
ABEX2606ZZFR-M15	1,6 *0.063*	10,0 *0.394*	24,4 *0.961*	14,0 *0.551*	6,35 *0.250*	17,0 °					■								■					

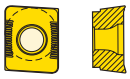
AC..15



M10/M11/M14/MD15

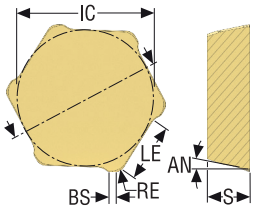


ME10

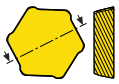


Designation	RE	BS	L	W1	S	GAN	Grades Coated																Uncoated	
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		MP1501	MP2050	MP2501	MP3000	MP3501	MH1000	MM4500	MK1500	MK2050	MS2050	MS2500	T25M	T350M	F15M	F30M	F40M	H15	H25
ACET150612TR-ME10	1,2 *0.047*	0,13 *0.005*	15,0 *0.591*	12,7 *0.500*	6,35 *0.250*	22,0 °										■						■		
ACET150612TL-M11	1,2 *0.047*	0,13 *0.005*	15,0 *0.591*	12,7 *0.500*	6,35 *0.250*	14,0 °																■		
ACET150612TR-M11	1,2 *0.047*	0,13 *0.005*	15,0 *0.591*	12,7 *0.500*	6,35 *0.250*	14,0 °	■		■		■			■				■	■			■		
ACET150631TR-M11	3,1 *0.122*	0,0 –	15,0 *0.591*	12,7 *0.500*	6,35 *0.250*	14,0 °																■		
ACET150612TL-M14	1,2 *0.047*	0,13 *0.005*	15,0 *0.591*	12,7 *0.500*	6,35 *0.250*	15,0 °																■		
ACET150612TR-M14	1,2 *0.047*	0,13 *0.005*	15,0 *0.591*	12,7 *0.500*	6,35 *0.250*	15,0 °			■		■			■					■			■		
ACET150630TR-M14	3,0 *0.118*	0,0 –	15,0 *0.591*	12,7 *0.500*	6,35 *0.250*	15,0 °					■								■					
ACET150631TR-M14	3,1 *0.122*	0,0 –	15,0 *0.591*	12,7 *0.500*	6,35 *0.250*	15,0 °																■		
ACET150660TL-M14	6,0 *0.236*	0,0 –	15,0 *0.591*	12,7 *0.500*	6,35 *0.250*	15,0 °																■		
ACET150660TR-M14	6,0 *0.236*	0,0 –	15,0 *0.591*	12,7 *0.500*	6,35 *0.250*	15,0 °					■								■			■		
ACET150612TR-MD15	1,2 *0.047*	0,13 *0.005*	15,0 *0.591*	12,7 *0.500*	6,35 *0.250*	15,0 °	■			■	■								■					
ACET150630TR-MD15	3,0 *0.118*	0,0 –	15,0 *0.591*	12,7 *0.500*	6,35 *0.250*	15,0 °	■																	
ACMT150612TR-M14	1,2 *0.047*	0,13 *0.005*	15,0 *0.591*	12,7 *0.500*	6,35 *0.250*	15,0 °			■										■			■		

HPMN12

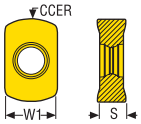


D25



Designation	RE	BS	IC	LE	S	AN°	Grades Coated																Uncoated	
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		MP1501	MP2050	MP2501	MP3000	MP3501	MH1000	MM4500	MK1500	MK2050	MS2050	MS2500	T25M	T350M	F15M	F30M	F40M	H15	H25
HPMN1206ZETR-D25	1,7 *0.067*	0,8 *0.031*	21,458 *0.845*	9,0 *0.354*	6,35 *0.250*	11,0	■		■															

LOH.06



D07



M07



MD07

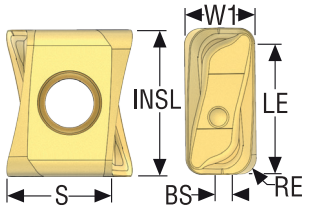


ME06

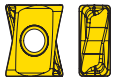


Designation	RE	W1	S	CCER	GAN	Grades Coated																	Uncoated	
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		MP1501	MP2050	MP2501	MP3000	MP3501	MH1000	MM4500	MK1500	MK2050	MS2050	MS2500	T25M	T350M	F15M	F30M	F40M	H15	H25
LOHT060310TR-M07	1,0 *0.039*	6,35 *0.250*	3,57 *0.141*	5,5 *0.217*	20,0 °		■	■	■	■					■	■		■			■		
LOHT060310TR-MD07	1,0 *0.039*	6,35 *0.250*	3,57 *0.141*	5,5 *0.217*	7,0 °	■		■	■					■									
LOHT060310TR-ME06	1,0 *0.039*	6,35 *0.250*	3,57 *0.141*	5,5 *0.217*	27,0 °					■		■			■	■		■			■		
LOHW060310TR-D07	1,0 *0.039*	6,35 *0.250*	3,45 *0.136*	5,5 *0.217*	0,0 °	■			■		■												

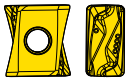
LOEX08/12



M08/MD08



M09/M12/MD13

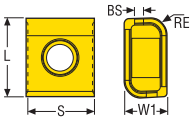


Designation	RE	BS	LE	S	INSL	W1	GAN	Grades Coated																Uncoated	
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		MP1501	MP2050	MP2501	MP3000	MP3501	MH1000	MM4500	MK1500	MK2050	MS2050	MS2500	T25M	T350M	F15M	F30M	F40M	H15	H25
LOEX080404TR-M08	0,4 *0.016*	1,29 *0.051*	8,3 *0.327*	6,67 *0.263*	9,3 *0.366*	4,4 *0.173*	33,3 °	■		■	■					■							■		
LOEX080408TR-M08	0,8 *0.031*	0,9 *0.035*	8,3 *0.327*	6,6 *0.260*	9,3 *0.366*	4,4 *0.173*	34,0 °	■	■	■	■	■			■	■	■			■			■		
LOEX080412TR-M08	1,2 *0.047*	0,52 *0.020*	8,3 *0.327*	6,52 *0.257*	9,3 *0.366*	4,4 *0.173*	33,3 °			■						■							■		
LOEX080416TR-M08	1,6 *0.063*	0,13 *0.005*	8,3 *0.327*	6,45 *0.254*	9,3 *0.366*	4,4 *0.173*	33,3 °		■		■						■						■		
LOEX080404TR-MD08	0,4 *0.016*	1,29 *0.051*	8,3 *0.327*	6,67 *0.263*	9,3 *0.366*	4,4 *0.173*	29,0 °			■						■							■		
LOEX080408TR-MD08	0,8 *0.031*	0,92 *0.036*	8,3 *0.327*	6,6 *0.260*	9,3 *0.366*	4,4 *0.173*	29,5 °	■		■		■			■	■				■			■		
LOEX080412TR-MD08	1,2 *0.047*	0,52 *0.020*	8,3 *0.327*	6,52 *0.257*	9,3 *0.366*	4,4 *0.173*	29,5 °									■									
LOEX080416TR-MD08	1,6 *0.063*	0,13 *0.005*	8,3 *0.327*	6,45 *0.254*	9,3 *0.366*	4,4 *0.173*	29,5 °			■													■		
LOEX120704R-T4-M09	0,4 *0.016*	2,83 *0.111*	12,0 *0.472*	10,33 *0.407*	14,2 *0.559*	7,5 *0.295*	36,0 °																■		
LOEX120708R-T4-M09	0,8 *0.031*	2,47 *0.097*	12,0 *0.472*	10,26 *0.404*	14,2 *0.559*	7,5 *0.295*	36,0 °		■	■	■						■	■					■		
LOEX120716R-T4-M09	1,6 *0.063*	1,74 *0.069*	12,0 *0.472*	10,12 *0.398*	14,2 *0.559*	7,5 *0.295*	36,0 °				■						■						■		
LOEX120724R-T4-M09	2,4 *0.094*	1,01 *0.040*	12,0 *0.472*	9,98 *0.393*	14,2 *0.559*	7,5 *0.295*	36,0 °										■								
LOEX120731R-T4-M09	3,1 *0.122*	0,37 *0.015*	12,0 *0.472*	9,88 *0.389*	14,2 *0.559*	7,5 *0.295*	36,0 °				■						■						■		
LOEX120740R-T4-M09	4,0 *0.157*	0,14 *0.006*	12,0 *0.472*	9,74 *0.383*	14,2 *0.559*	7,5 *0.295*	36,0 °										■						■		
LOEX120750R-T2-M09	5,0 *0.197*	1,06 *0.042*	12,0 *0.472*	9,52 *0.375*	14,2 *0.559*	7,5 *0.295*	36,0 °																■		
LOEX120763R-T2-M09	6,3 *0.248*	0,43 *0.017*	12,0 *0.472*	9,28 *0.365*	14,2 *0.559*	7,5 *0.295*	36,0 °										■						■		
LOEX120708TR-T4-M12	0,8 *0.031*	2,47 *0.097*	12,0 *0.472*	10,26 *0.404*	14,2 *0.559*	7,5 *0.295*	35,0 °		■	■	■	■		■		■	■	■					■		
LOEX120712TR-T4-M12	1,2 *0.047*	2,1 *0.083*	12,0 *0.472*	10,19 *0.401*	14,2 *0.559*	7,5 *0.295*	35,0 °					■											■		
LOEX120716TR-T4-M12	1,6 *0.063*	1,74 *0.069*	12,0 *0.472*	10,12 *0.398*	14,2 *0.559*	7,5 *0.295*	35,0 °									■							■		
LOEX120720TR-T4-M12	2,0 *0.079*	1,37 *0.054*	12,0 *0.472*	10,04 *0.395*	14,2 *0.559*	7,5 *0.295*	35,0 °			■	■						■						■		
LOEX120724TR-T4-M12	2,4 *0.094*	1,01 *0.040*	12,0 *0.472*	9,98 *0.393*	14,2 *0.559*	7,5 *0.295*	35,0 °			■							■						■		
LOEX120731TR-T4-M12	3,1 *0.122*	0,37 *0.015*	12,0 *0.472*	9,88 *0.389*	14,2 *0.559*	7,5 *0.295*	35,0 °			■	■						■						■		
LOEX120708TR-T4-MD13	0,8 *0.031*	2,47 *0.097*	12,0 *0.472*	10,26 *0.404*	14,2 *0.559*	7,5 *0.295*	30,0 °	■		■					■	■							■		

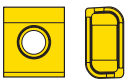
Designation	RE	BS	LE	S	INSL	W1	GAN	Grades Coated														Uncoated	
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		MP1501	MP2050	MP2501	MP3000	MP3501	MH1000	MM4500	MK1500	MK2050	MS2050	MS2500	T25M	T350M	F15M	F30M	F40M	H15	H25
LOEX120712TR-T4-MD13	1,2 *0.047*	2,1 *0.083*	12,0 *0.472*	10,19 *0.401*	14,2 *0.559*	7,5 *0.295*	30,0 °			■						■								
LOEX120716TR-T4-MD13	1,6 *0.063*	1,74 *0.069*	12,0 *0.472*	10,12 *0.398*	14,2 *0.559*	7,5 *0.295*	30,0 °	■		■		■				■						■		

Note: LOEX1207xxR-2-M09 have only 2 edges

LNHQ14/17

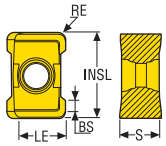


M11/M13

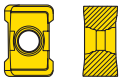


Designation	RE	L	W1	GAN	Grades Coated															Uncoated	
	mm *Inch*	mm *Inch*	mm *Inch*		MP1501	MP2050	MP2501	MP3000	MP3501	MH1000	MM4500	MK1500	MK2050	MS2050	MS2500	T25M	T350M	F15M	F30M	F40M	H15	H25
LNHQ140708TN4-M11	0,8 *0.031*	14,0 *0.551*	7,5 *0.295*	16,0 °			■													■		
LNHQ140731TN4-M11	3,1 *0.122*	14,0 *0.551*	7,5 *0.295*	16,0 °			■													■		
LNHQ140740TN4-M11	4,0 *0.157*	14,0 *0.551*	7,5 *0.295*	16,0 °																■		
LNHQ140750TN4-M11	5,0 *0.197*	14,0 *0.551*	7,5 *0.295*	16,0 °																■		
LNHQ140760TN4-M11	6,0 *0.236*	14,0 *0.551*	7,5 *0.295*	16,0 °			■													■		

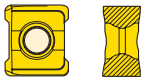
LNK.05/06



LNK.05



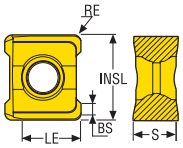
LNK.06



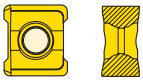
Designation	RE	BS	LE	INSL	S	GAN	Grades Coated																Uncoated	
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		MP1501	MP2050	MP2501	MP3000	MP3501	MH1000	MM4500	MK1500	MK2050	MS2050	MS2500	T25M	T350M	F15M	F30M	F40M	H15	H25
LNKT050404PPN4-E05	0,4 *0.016*	1,3 *0.051*	5,0 *0.197*	10,0 *0.394*	4,7 *0.185*	23,0 °																■		■
LNKT050404PPTN4-M06	0,4 *0.016*	1,3 *0.051*	5,0 *0.197*	10,0 *0.394*	4,7 *0.185*	15,0 °				■			■									■		
LNKT050408PPTN4-M06	0,8 *0.031*	1,3 *0.051*	5,0 *0.197*	10,0 *0.394*	4,7 *0.185*	15,0 °				■	■								■			■		
LNKT050416PPTN4-M06	1,6 *0.063*	0,8 *0.031*	5,0 *0.197*	10,0 *0.394*	4,7 *0.185*	15,0 °																■		
LNKT050420PPTN4-M06	2,0 *0.079*	0,8 *0.031*	5,0 *0.197*	10,0 *0.394*	4,7 *0.185*	15,0 °																■		
LNKT050424PPTN2-M06	2,4 *0.094*	0,6 *0.024*	5,0 *0.197*	10,0 *0.394*	4,7 *0.185*	15,0 °																■		
LNKT050431PPTL1-M06	3,1 *0.122*	0,6 *0.024*	5,0 *0.197*	10,0 *0.394*	4,7 *0.185*	15,0 °																■		
LNKT050431PPTR1-M06	3,1 *0.122*	0,6 *0.024*	5,0 *0.197*	10,0 *0.394*	4,7 *0.185*	15,0 °																■		
LNKT050431PPTR1C-M06	3,1 *0.122*	0,6 *0.024*	4,96 *0.195*	10,0 *0.394*	4,7 *0.185*	15,0 °																■		
LNKT050431PPTL1C-M06	3,1 *0.122*	0,6 *0.024*	4,96 *0.195*	10,0 *0.394*	4,7 *0.185*	15,0 °																■		
LNKT060504PPN-E05	0,4 *0.016*	1,6 *0.063*	6,0 *0.236*	10,0 *0.394*	5,0 *0.197*	23,0 °																		■
LNKT060508PPN-E05	0,8 *0.031*	1,1 *0.043*	6,0 *0.236*	10,0 *0.394*	5,0 *0.197*	23,0 °																		■
LNKT060504PPTN-M06	0,4 *0.016*	1,6 *0.063*	6,0 *0.236*	10,0 *0.394*	5,0 *0.197*	15,0 °			■		■								■			■		
LNKT060508PPTN-M06	0,8 *0.031*	1,1 *0.043*	6,0 *0.236*	10,0 *0.394*	5,0 *0.197*	15,0 °			■	■	■			■	■				■			■		
LNKT060516PPTN-M06	1,6 *0.063*	1,3 *0.051*	6,0 *0.236*	10,0 *0.394*	5,0 *0.197*	15,0 °								■	■							■		
LNKT060531PPTN-M06	3,1 *0.122*	0,6 *0.024*	6,0 *0.236*	10,0 *0.394*	5,0 *0.197*	15,0 °																■		
LNKT060540PPTL-M06	4,0 *0.157*	0,8 *0.031*	6,0 *0.236*	10,0 *0.394*	5,0 *0.197*	15,0 °																■		
LNKT060540PPTR-M06	4,0 *0.157*	0,8 *0.031*	6,0 *0.236*	10,0 *0.394*	5,0 *0.197*	15,0 °																■		
LNKW060504PPN-MD08	0,4 *0.016*	1,6 *0.063*	6,0 *0.236*	10,0 *0.394*	5,0 *0.197*	0,0 °									■									
LNKW060508PPN-MD08	0,8 *0.031*	1,1 *0.043*	6,0 *0.236*	10,0 *0.394*	5,0 *0.197*	0,0 °			■					■										

LNK.0504031...C is the first choice for CW = 8 to 9mm and LNK.0504031 is the first choice for CW= 9 to 10mm

LNK.08



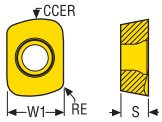
LNK.08



Designation	RE	BS	LE	INSL	S	GAN	Grades Coated																Uncoated	
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		MP1501	MP2050	MP2501	MP3000	MP3501	MH1000	MM4500	MK1500	MK2050	MS2050	MS2500	T25M	T350M	F15M	F30M	F40M	H15	H25
LNKT080504PPN-E05	0,4 *0.016*	1,6 *0.063*	7,5 *0.295*	10,0 *0.394*	5,0 *0.197*	23,0 °																		■
LNKT080508PPN-E05	0,8 *0.031*	1,1 *0.043*	7,5 *0.295*	10,0 *0.394*	5,0 *0.197*	23,0 °																		■
LNKT080520PPN-E05	2,0 *0.079*	0,7 *0.028*	6,7 *0.264*	10,0 *0.394*	5,0 *0.197*	23,0 °																		■
LNKT080531PPN-E05	3,1 *0.122*	0,6 *0.024*	7,5 *0.295*	10,0 *0.394*	5,0 *0.197*	23,0 °																		■
LNKT080504PPTN-M06	0,4 *0.016*	1,6 *0.063*	7,5 *0.295*	10,0 *0.394*	5,0 *0.197*	15,0 °			■		■								■			■		
LNKT080508PPTN-M06	0,8 *0.031*	1,1 *0.043*	7,5 *0.295*	10,0 *0.394*	5,0 *0.197*	15,0 °			■	■	■			■	■				■			■		
LNKT080516PPTN-M06	1,6 *0.063*	1,3 *0.051*	7,2 *0.283*	10,0 *0.394*	5,0 *0.197*	15,0 °									■							■		
LNKT080520PPTN-M06	2,0 *0.079*	0,7 *0.028*	6,7 *0.264*	10,0 *0.394*	5,0 *0.197*	15,0 °								■	■							■		
LNKT080524PPTN-M06	2,4 *0.094*	0,5 *0.020*	6,7 *0.264*	10,0 *0.394*	5,0 *0.197*	15,0 °								■	■							■		
LNKT080531PPTN-M06	3,1 *0.122*	0,6 *0.024*	7,5 *0.295*	10,0 *0.394*	5,0 *0.197*	15,0 °								■	■							■		
LNKT080540PPTL-M06	4,0 *0.157*	0,8 *0.031*	7,5 *0.295*	10,0 *0.394*	5,0 *0.197*	15,0 °																■		
LNKT080540PPTR-M06	4,0 *0.157*	0,8 *0.031*	7,5 *0.295*	10,0 *0.394*	5,0 *0.197*	15,0 °																■		
LNKW080508PPN-MD08	0,8 *0.031*	1,1 *0.043*	7,5 *0.295*	10,0 *0.394*	5,0 *0.197*	0,0 °			■					■										

Note: When using LNK insert with corner radius RE= 2,4, 3,1 and 4,0 mm
please modify the external profile of the cutter or cassette by adding a corner radius or chamfer = 2,5 mm

LPH.05/06/09



E05/E08/ME04/ME05/ME08/M05/M06/M13

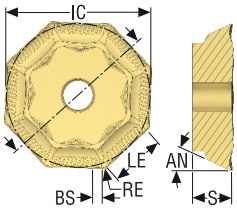


MD05/MD07/MD15/D06/D12/D15



Designation	RE	W1	CCER	S	GAN	Grades Coated																Uncoated	
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		MP1501	MP2050	MP2501	MP3000	MP3501	MH1000	MM4500	MK1500	MK2050	MS2050	MS2500	T25M	T350M	F15M	F30M	F40M	H15	H25
LPHT05T210TR-ME04	1,0 *0.039*	5,07 *0.200*	6,4 *0.252*	2,54 *0.100*	16,0 °					■					■			■			■		
LPHT060310ER-E05	1,0 *0.039*	6,35 *0.250*	8,0 *0.315*	3,18 *0.125*	16,0 °							■									■		■
LPHT060310TR-ME05	1,0 *0.039*	6,35 *0.250*	8,0 *0.315*	3,18 *0.125*	16,0 °				■			■			■						■		
LPHT060310TR-M06	1,0 *0.039*	6,35 *0.250*	8,0 *0.315*	3,18 *0.125*	11,0 °		■	■	■	■					■	■		■			■		
LPHT09T420R-E08	2,0 *0.079*	9,5 *0.374*	9,75 *0.384*	4,76 *0.187*	20,0 °																		■
LPHW05T210TR-MD05	1,0 *0.039*	5,07 *0.200*	6,4 *0.252*	2,54 *0.100*	0,0 °						■												
LPHW060310TR-MD07	1,0 *0.039*	6,35 *0.250*	8,0 *0.315*	3,18 *0.125*	0,0 °			■								■							
LPHW060310TR-D06	1,0 *0.039*	6,35 *0.250*	8,0 *0.315*	3,18 *0.125*	0,0 °				■		■												
LPHW09T420TR-D12	2,0 *0.079*	9,5 *0.374*	9,75 *0.384*	4,76 *0.187*	0,0 °						■												
LPKT05T210TR-M05	1,0 *0.039*	5,07 *0.200*	6,4 *0.252*	2,54 *0.100*	11,0 °		■	■	■						■	■					■		
LPKT09T420TR-ME08	2,0 *0.079*	9,5 *0.374*	9,75 *0.384*	4,76 *0.187*	15,0 °							■			■						■		
LPKT09T420TR-M13	2,0 *0.079*	9,5 *0.374*	9,75 *0.384*	4,76 *0.187*	10,0 °	■	■	■	■	■					■	■		■			■		
LPKW05T210TR-MD05	1,0 *0.039*	5,07 *0.200*	6,4 *0.252*	2,54 *0.100*	0,0 °			■	■														
LPKW09T420TR-MD15	2,0 *0.079*	9,5 *0.374*	9,75 *0.384*	4,76 *0.187*	0,0 °	■	■	■															
LPKW09T420TR-D15	2,0 *0.079*	9,5 *0.374*	9,75 *0.384*	4,76 *0.187*	0,0 °				■					■									

OFER/OFEN/OFMR07



E07/M10/D18/M16



ME10/ME13/ME15/M15

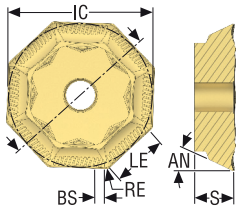


ZZ..M10/M16



Designation	IC	BS	RE	LE	S	AN°	GAN	Grades Coated															Uncoated	
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			MP1501	MP2050	MP2501	MP3000	MP3501	MH1000	MM4500	MK1500	MK2050	MS2050	MS2500	T25M	T350M	F15M	F30M	F40M	H15	H25
OFER070405N-E07	17,941 *0.706*	1,4 *0.055*	0,5 *0.020*	7,0 *0.276*	4,56 *0.180*	26,0	20,0 °														■			■	
OFER070405TN-ME10	17,941 *0.706*	1,4 *0.055*	0,5 *0.020*	7,1 *0.280*	4,56 *0.180*	26,0	18,0 °			■													■		
OFER070405TN-ME15	17,941 *0.706*	1,4 *0.055*	0,5 *0.020*	7,1 *0.280*	4,56 *0.180*	26,0	16,0 °			■		■								■			■		
OFER070405N-M10	17,941 *0.706*	1,4 *0.055*	0,5 *0.020*	7,0 *0.276*	4,56 *0.180*	26,0	0,0 °															■			
OFER070405TN-M16	17,941 *0.706*	1,4 *0.055*	0,5 *0.020*	7,1 *0.280*	4,56 *0.180*	26,0	0,0 °	■		■		■			■	■				■			■		
OFMR070405TR-ME13	17,972 *0.708*	1,0 *0.039*	0,5 *0.020*	5,2 *0.205*	4,86 *0.191*	26,0	15,0 °			■															
OFMR070405TR-M15	17,972 *0.708*	1,2 *0.047*	0,5 *0.020*	5,2 *0.205*	4,86 *0.191*	26,0	0,0 °			■					■								■		
OFEN070405TN-D18	17,96 *0.707*	2,0 *0.079*	0,5 *0.020*	7,0 *0.276*	4,76 *0.187*	26,0	0,0 °	■		■	■				■										
OFEN0704ZZR-M10	18,081 *0.712*	6,6 *0.260*	0,5 *0.020*	7,5 *0.295*	4,76 *0.187*	26,0	0,0 °															■			
OFEN0704ZZTR-M16	18,115 *0.713*	6,6 *0.260*	0,5 *0.020*	7,4 *0.291*	4,74 *0.187*	26,0	0,0 °					■			■					■					

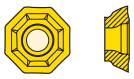
OF..05/07



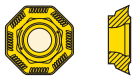
E04/M05



M08/M14



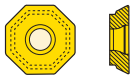
ME07ME12//D09



ME10/ME15/M16

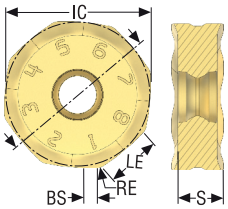


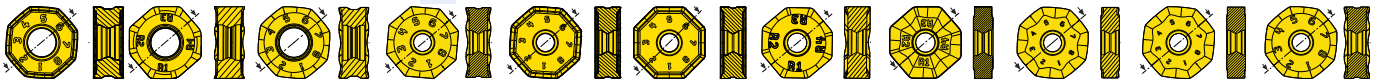
ME13/ME09/M13/M15/D18



Designation	IC	BS	RE	LE	S	AN°	GAN	Grades Coated															Uncoated	
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			MP1501	MP2050	MP2501	MP3000	MP3501	MH1000	MM4500	MK1500	MK2050	MS2050	MS2500	T25M	T350M	F15M	F30M	F40M	H15	H25
OFEX05T305N-E04	12,7 *0.500*	1,5 *0.059*	0,5 *0.020*	4,9 *0.193*	3,77 *0.148*	26,0	20,0 °														■			■	
OFEX05T305TN-ME07	12,7 *0.500*	1,5 *0.059*	0,5 *0.020*	4,9 *0.193*	3,77 *0.148*	26,0	18,0 °			■													■		
OFEX05T305N-M05	12,7 *0.500*	1,5 *0.059*	0,5 *0.020*	4,9 *0.193*	3,77 *0.148*	26,0	0,0 °															■			
OFEX05T305TN-M08	12,7 *0.500*	1,5 *0.059*	0,5 *0.020*	4,9 *0.193*	3,77 *0.148*	26,0	0,0 °			■		■			■					■			■		
OFEX05T305TN-D09	12,806 *0.504*	1,5 *0.059*	0,5 *0.020*	4,9 *0.193*	3,97 *0.156*	26,0	0,0 °	■																	
OFMT050405TR-ME12	13,18 *0.519*	1,5 *0.059*	0,5 *0.020*	2,6 *0.102*	4,76 *0.187*	26,0	18,0 °																■		
OFMT070405TN-ME13	17,972 *0.708*	1,1 *0.043*	0,5 *0.020*	7,1 *0.280*	4,86 *0.191*	26,0	18,0 °			■															
OFMT070405TN-M15	17,972 *0.708*	1,1 *0.043*	0,5 *0.020*	7,1 *0.280*	4,86 *0.191*	26,0	0,0 °			■													■		
OFMT070405TR-M15	17,972 *0.708*	1,0 *0.039*	0,5 *0.020*	5,2 *0.205*	4,86 *0.191*	26,0	0,0 °																■		
OFET070405TN-ME10	17,941 *0.706*	1,4 *0.055*	0,5 *0.020*	7,1 *0.280*	4,56 *0.180*	26,0	18,0 °																■		
OFET070405TN-ME15	17,941 *0.706*	1,4 *0.055*	0,5 *0.020*	7,1 *0.280*	4,56 *0.180*	26,0	18,0 °																■		

ON.U05/09

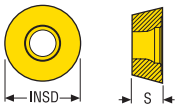




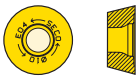
Designation	*	IC	BS	RE	LE	S	GAN	Grades Coated															Uncoated	
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		MP1501	MP2050	MP2501	MP3000	MP3501	MH1000	MM4500	MK1500	MK2050	MS2050	MS2500	T25M	T350M	F15M	F30M	F40M	H15	H25
ONMU050410ANTN-ME10	*	12,0 *0.472*	0,3 *0.012*	1,0 *0.039*	3,9 *0.154*	4,5 *0.177*	20,0 °							■			■						■		
ONMU050410ANTN-ME11		12,0 *0.472*	1,0 *0.039*	1,0 *0.039*	3,4 *0.134*	4,5 *0.177*	20,0 °			■	■						■						■		
ONMU050406ANTN-ME14		12,0 *0.472*	1,3 *0.051*	0,6 *0.024*	3,2 *0.126*	4,5 *0.177*	25,0 °	■		■	■	■				■	■			■			■		
ONMU050410ANTN-M10	*	12,0 *0.472*	0,3 *0.012*	1,0 *0.039*	4,1 *0.161*	4,5 *0.177*	20,0 °	■	■	■	■	■				■				■			■		
ONMU050410ANTN-M11		12,0 *0.472*	1,0 *0.039*	1,0 *0.039*	3,4 *0.134*	4,5 *0.177*	20,0 °	■	■	■	■	■			■	■				■					
ONEU050410ZZTN4-M10		12,0 *0.472*	3,2 *0.126*	1,0 *0.039*	3,4 *0.134*	4,25 *0.167*	20,0 °									■									
ONMU090510ANTN-ME16		22,0 *0.866*	1,5 *0.059*	1,0 *0.039*	6,8 *0.268*	6,8 *0.268*	25,0 °	■		■	■	■				■	■			■			■		
ONMU090512TN-ME16		22,0 *0.866*	0,0 –	1,2 *0.047*	8,1 *0.319*	6,8 *0.268*	25,0 °	■	■	■		■				■	■	■		■					
ONMU090520ANTN-ME12	**	22,0 *0.866*	0,45 *0.018*	2,0 *0.079*	7,3 *0.287*	6,8 *0.268*	20,0 °	■		■				■			■	■					■		
ONMU090520ANTN-ME13		22,0 *0.866*	2,11 *0.083*	2,0 *0.079*	7,7 *0.303*	6,8 *0.268*	20,0 °	■		■	■	■				■	■	■		■			■		
ONMU090510ANTN-M12		22,0 *0.866*	0,0 –	1,0 *0.039*	8,3 *0.327*	6,8 *0.268*	20,0 °		■							■	■	■							
ONMU090520ANTN-M12	**	22,0 *0.866*	0,45 *0.018*	2,0 *0.079*	7,3 *0.287*	6,8 *0.268*	20,0 °	■	■	■		■		■		■		■		■			■		
ONMU090520ANTN-M13	***	22,0 *0.866*	2,11 *0.083*	2,0 *0.079*	7,7 *0.303*	6,8 *0.268*	20,0 °	■		■	■	■		■	■	■				■			■		
ONMU090520ANTN-M14	***	22,0 *0.866*	0,45 *0.018*	2,0 *0.079*	7,3 *0.287*	5,56 *0.219*	15,0 °	■		■	■	■			■	■				■			■		
ONMU090520ANTN-M15		22,0 *0.866*	2,11 *0.083*	2,0 *0.079*	7,7 *0.303*	5,56 *0.219*	15,0 °	■		■	■	■			■	■									
ONMU090520ANTN-MD16	***	22,0 *0.866*	0,45 *0.018*	2,0 *0.079*	7,3 *0.287*	5,56 *0.219*	0,0 °	■		■		■			■					■					
ONMU090520ANTN-MD17		22,0 *0.866*	2,11 *0.083*	2,0 *0.079*	7,4 *0.291*	5,56 *0.219*	0,0 °	■		■					■										
ONEU090520ZZTN4-M12		21,41 *0.843*	6,3 *0.248*	2,0 *0.079*	6,3 *0.248*	6,8 *0.268*	20,0 °	■		■						■									
ONEU090520ZZTN4-M14		21,41 *0.843*	6,3 *0.248*	2,0 *0.079*	6,3 *0.248*	5,56 *0.219*	15,0 °	■		■		■			■	■				■			■		

The marked inserts are compatible with these dedicated wiper inserts:
*ONEU050410ZZTN4-M10
**ONEU090520ZZTN4-M12
***ONEU090520ZZTN4-M14

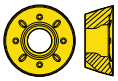
RD..05/06/07/08/10



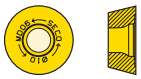
RDHT-Exx



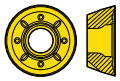
RDHT-Mxx



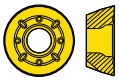
RDHW-MDxx



RDKT-Mxx

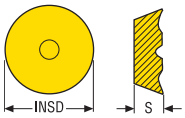


RDKW-MDxx



Designation	INSD	S	AN°	GAN	Grades Coated																Uncoated	
	mm *Inch*	mm *Inch*	mm *Inch*		MP1501	MP2050	MP2501	MP3000	MP3501	MH1000	MM4500	MK1500	MK2050	MS2050	MS2500	T25M	T350M	F15M	F30M	F40M	H15	H25
RDHT06T1M0-E02	6,0 *0.236*	2,18 *0.086*	15,0 *0.591*	18,0 °															■		■
RDHT0803M0-E03	8,0 *0.315*	3,18 *0.125*	15,0 *0.591*	20,0 °					■								■		■		■
RDHW0501M0-MD01	5,0 *0.197*	1,51 *0.059*	15,0 *0.591*	0,0 °				■											■		
RDHW06T1M0-MD02	6,0 *0.236*	2,18 *0.086*	15,0 *0.591*	0,0 °				■					■					■	■	■	
RDHW0702M0-MD03	7,0 *0.276*	2,38 *0.094*	15,0 *0.591*	0,0 °				■												■	
RDHW0702M0T-MD04	7,0 *0.276*	2,38 *0.094*	15,0 *0.591*	0,0 °														■			
RDHW0803M0-MD03	8,0 *0.315*	3,18 *0.125*	15,0 *0.591*	0,0 °				■						■					■	■	
RDKW0803M0T-MD05	8,0 *0.315*	3,18 *0.125*	15,0 *0.591*	0,0 °			■						■		■			■		■	
RDHT10T3M0-8-E04	10,0 *0.394*	3,97 *0.156*	15,0 *0.591*	20,0 °																■	■
RDHT10T3M0T-8-M11	10,0 *0.394*	3,97 *0.156*	15,0 *0.591*	16,0 °		■								■						■	
RDHW10T3M0-8-MD04	10,0 *0.394*	3,97 *0.156*	15,0 *0.591*	0,0 °				■												■	
RDHW10T3M0T-8-MD06	10,0 *0.394*	3,97 *0.156*	15,0 *0.591*	0,0 °						■											
RDKT10T3M0T-6-M05	10,0 *0.394*	3,97 *0.156*	15,0 *0.591*	16,0 °			■							■	■					■	
RDKT10T3M0T-8-M05	10,0 *0.394*	3,97 *0.156*	15,0 *0.591*	16,0 °		■			■		■			■	■		■			■	
RDKT10T3M0T-8-M07	10,0 *0.394*	3,97 *0.156*	15,0 *0.591*	11,0 °			■		■		■		■		■		■			■	
RDKW10T3M0T-6-MD06	10,0 *0.394*	3,97 *0.156*	15,0 *0.591*	0,0 °											■			■		■	
RDKW10T3M0T-8-MD06	10,0 *0.394*	3,97 *0.156*	15,0 *0.591*	0,0 °	■		■	■					■		■			■		■	

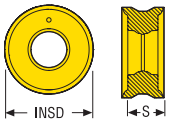
REHR16

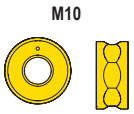


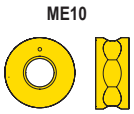


Designation	INSD	S	Grades Coated																Uncoated	
	mm *Inch*	mm *Inch*	MP1501	MP2050	MP2501	MP3000	MP3501	MH1000	MM4500	MK1500	MK2050	MS2050	MS2500	T25M	T350M	F15M	F30M	F40M	H15	H25
REHR1605M0T-MD15	16,0 *0.630*	5,56 *0.219*	■																	

RNMU12

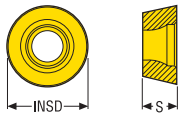


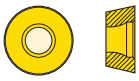




Designation	INSD	S	GAN	Grades Coated															Uncoated	
	mm *Inch*	mm *Inch*		MP1501	MP2050	MP2501	MP3000	MP3501	MH1000	MM4500	MK1500	MK2050	MS2050	MS2500	T25M	T350M	F15M	F30M	F40M	H15	H25
RNMU1204M0-ME10	12,0 *0.472*	4,8 *0.189*	27,0 °		■			■					■	■		■			■		
RNMU1204M0T-M10	12,0 *0.472*	4,8 *0.189*	20,0 °		■	■		■				■	■	■		■			■		

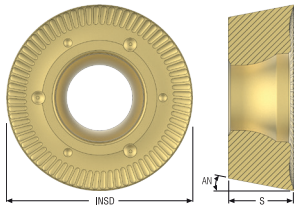
ROHT10/12

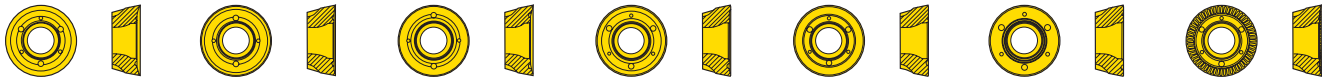




Designation	INSD	S	GAN	Grades Coated																Uncoated	
	mm *Inch*	mm *Inch*		MP1501	MP2050	MP2501	MP3000	MP3501	MH1000	MM4500	MK1500	MK2050	MS2050	MS2500	T25M	T350M	F15M	F30M	F40M	H15	H25
ROHT1204M0-M12	12,0 *0.472*	4,76 *0.187*	10,0 °											■		■					
ROHT1204M0-M14	12,0 *0.472*	4,76 *0.187*	16,0 °											■							

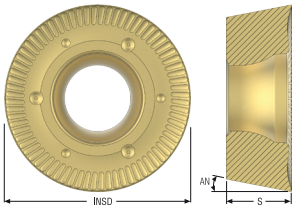
RP..12





Designation	INSD	S	AN°	GAN	Grades Coated																Uncoated	
	mm *Inch*	mm *Inch*			MP1501	MP2050	MP2501	MP3000	MP3501	MH1000	MM4500	MK1500	MK2050	MS2050	MS2500	T25M	T350M	F15M	F30M	F40M	H15	H25
RPHT1204M0T-4-M08	12,0 *0.472*	4,76 *0.187*	11,0	16,0 °					■						■		■			■		
RPKT1204M0T-4-M10	12,0 *0.472*	4,76 *0.187*	11,0	11,0 °		■																
RPHT1204M0T-4-M13	12,0 *0.472*	4,76 *0.187*	11,0	16,0 °		■								■	■		■					
RPHT1204M0-6-E05	12,0 *0.472*	4,76 *0.187*	11,0	20,0 °										■						■		■
RPHT1204M0T-6-ME07	12,0 *0.472*	4,76 *0.187*	11,0	20,0 °					■		■			■			■			■		
RPHT1204M0T-6-M08	12,0 *0.472*	4,76 *0.187*	11,0	16,0 °			■		■		■			■	■		■			■		
RPHT1204M0T-6-M13	12,0 *0.472*	4,76 *0.187*	11,0	16,0 °			■		■					■	■		■			■		
RPKT1204M0T-6-M15	12,0 *0.472*	4,76 *0.187*	11,0	15,0 °	■		■		■				■		■		■			■		
RPKW1204M0T-6-MD10	12,0 *0.472*	4,76 *0.187*	11,0	0,0 °	■		■	■					■									
RPHW1204M0T-6-MD12	12,0 *0.472*	4,76 *0.187*	11,0	0,0 °						■												

RP..16/19/20



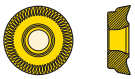
M15/M20



MD10/MD22

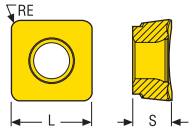


ME12

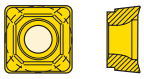


Designation	INSD	S	AN°	GAN	Grades Coated																Uncoated	
	mm *Inch*	mm *Inch*			MP1501	MP2050	MP2501	MP3000	MP3501	MH1000	MM4500	MK1500	MK2050	MS2050	MS2500	T25M	T350M	F15M	F30M	F40M	H15	H25
RPHT1605M0T-6-ME11	16,0 *0.630*	5,56 *0.219*	11,0	21,0 °										■						■		
RPHT1605M0T-6-M12	16,0 *0.630*	5,56 *0.219*	11,0	15,0 °																■		
RPKT1605M0T-6-M18	16,0 *0.630*	5,56 *0.219*	11,0	15,0 °			■								■							
RPKW1605M0T-6-MD20	16,0 *0.630*	5,56 *0.219*	11,0	0,0 °	■		■						■		■							
RPHT1605M0T-8-ME11	16,0 *0.630*	5,56 *0.219*	11,0	21,0 °		■			■		■			■	■		■			■		
RPHT1605M0T-8-M12	16,0 *0.630*	5,56 *0.219*	11,0	15,0 °		■					■			■						■		
RPKT1605M0T-8-M12	16,0 *0.630*	5,56 *0.219*	11,0	15,0 °			■		■						■		■					
RPKT1605M0T-8-M18	16,0 *0.630*	5,56 *0.219*	11,0	15,0 °	■		■	■	■				■		■		■			■		
RPKW1605M0T-8-MD20	16,0 *0.630*	5,56 *0.219*	11,0	0,0 °	■		■											■				
RPHT190600T-6-M13	19,05 *0.750*	6,39 *0.252*	11,0	16,0 °										■	■		■			■		
RPHT2006M0T-ME12	20,0 *0.787*	6,35 *0.250*	11,0	20,0 °		■	■				■			■	■		■			■		
RPKT2006M0T-M15	20,0 *0.787*	6,35 *0.250*	11,0	15,0 °			■								■		■			■		
RPKT2006M0T-M20	20,0 *0.787*	6,35 *0.250*	11,0	15,0 °	■		■						■		■		■			■		
RPKW2006M0-MD10	20,0 *0.787*	6,35 *0.250*	11,0	0,0 °															■	■		
RPKW2006M0T-MD22	20,0 *0.787*	6,35 *0.250*	11,0	0,0 °	■								■		■			■				

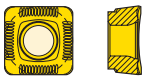
SC..12



M10/M11/M14/MD15/MD16

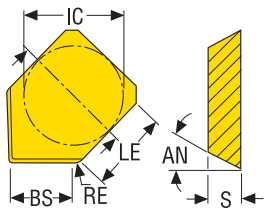


ME10

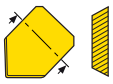


Designation	RE	L	S	GAN	Grades Coated																Uncoated	
	mm *Inch*	mm *Inch*	mm *Inch*		MP1501	MP2050	MP2501	MP3000	MP3501	MH1000	MM4500	MK1500	MK2050	MS2050	MS2500	T25M	T350M	F15M	F30M	F40M	H15	H25
SCET120612R-M10	1,2 *0.047*	12,673 *0.499*	6,35 *0.250*	20,0 °										■								
SCET120612T-ME10	1,2 *0.047*	12,7 *0.500*	6,35 *0.250*	22,0 °										■						■		
SCET120612T-M11	1,2 *0.047*	12,7 *0.500*	6,35 *0.250*	14,0 °	■		■					■					■			■		
SCET120612T-M14	1,2 *0.047*	12,7 *0.500*	6,35 *0.250*	15,0 °			■					■		■			■			■		
SCET120612T-MD15	1,2 *0.047*	12,7 *0.500*	6,35 *0.250*	15,0 °	■			■									■					
SCET120630T-M14	3,0 *0.118*	12,7 *0.500*	6,35 *0.250*	15,0 °			■	■	■				■	■	■		■			■		
SCET120630T-MD16	3,0 *0.118*	12,7 *0.500*	6,35 *0.250*	15,0 °	■		■		■						■		■			■		
SCEX120660T-M14	6,0 *0.236*	12,7 *0.500*	6,35 *0.250*	15,0 °													■					
SCMT120612T-M14	1,2 *0.047*	12,7 *0.500*	6,35 *0.250*	15,0 °													■			■		

SEAN12-ZZ

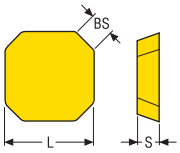


M15-18/MD15

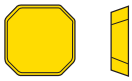


Designation	IC	BS	RE	LE	S	AN°	GAN	Grades Coated																Uncoated	
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			MP1501	MP2050	MP2501	MP3000	MP3501	MH1000	MM4500	MK1500	MK2050	MS2050	MS2500	T25M	T350M	F15M	F30M	F40M	H15	H25
SEAN1203ZZTN-M15	12,7 *0.500*	7,3 *0.287*	1,0 *0.039*	9,3 *0.366*	3,18 *0.125*	20,0	0,0 °								■										
SEAN1203ZZTN-MD15	12,7 *0.500*	7,3 *0.287*	1,0 *0.039*	9,3 *0.366*	3,18 *0.125*	20,0	0,0 °	■																	

SEAN12

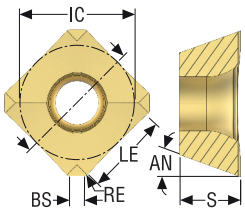


E12-E15/M14-M19

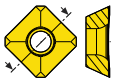


Designation	RE	BS	L	S	GAN	Grades Coated															Uncoated	
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		MP1501	MP2050	MP2501	MP3000	MP3501	MH1000	MM4500	MK1500	MK2050	MS2050	MS2500	T25M	T350M	F15M	F30M	F40M	H15	H25
SEAN1203AFN-E12	1,0 *0.039*	1,5 *0.059*	12,7 *0.500*	3,18 *0.125*	0,0 °														■				
SEAN1203AFTN-M14	1,0 *0.039*	1,5 *0.059*	12,7 *0.500*	3,18 *0.125*	0,0 °												■						
SEAN1303AFTN-M14	0,8 *0.031*	3,5 *0.138*	13,44 *0.529*	3,36 *0.132*	0,0 °					■								■					
SEAN1303AFTN-M15	0,8 *0.031*	3,5 *0.138*	13,44 *0.529*	3,36 *0.132*	0,0 °								■										
SEAN1604AFTN-M19	1,0 *0.039*	4,1 *0.161*	16,8 *0.661*	4,79 *0.189*	0,0 °								■										

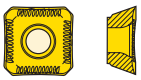
SE.X09



E04/M05/M08/D09

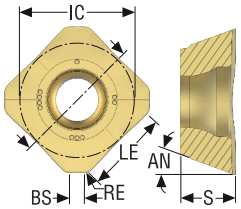


ME06-07

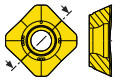


Designation	IC	BS	RE	LE	S	AN°	GAN	Grades Coated														Uncoated	
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			MP1501	MP2050	MP2501	MP3000	MP3501	MH1000	MM4500	MK1500	MK2050	MS2050	MS2500	T25M	T350M	F15M	F30M	F40M	H15	H25
SEEX09T3AFN-E04	9,525 *0.375*	1,5 *0.059*	0,3 *0.012*	7,1 *0.280*	3,97 *0.156*	20,0	25,0 °														■			■	
SEEX09T3AFN-M05	9,525 *0.375*	1,5 *0.059*	0,3 *0.012*	7,1 *0.280*	3,97 *0.156*	20,0	0,0 °				■						■						■		
SEEX09T3AFTN-M08	9,525 *0.375*	1,5 *0.059*	0,3 *0.012*	7,1 *0.280*	3,97 *0.156*	20,0	0,0 °					■			■	■				■			■		
SEEX09T3AFTN-ME07	9,525 *0.375*	1,5 *0.059*	0,3 *0.012*	7,1 *0.280*	3,97 *0.156*	20,0	22,0 °			■		■							■	■			■		
SEEX09T3AFTN-D09	9,525 *0.375*	1,5 *0.059*	0,3 *0.012*	7,1 *0.280*	3,97 *0.156*	20,0	0,0 °	■																	
SEMX09T3AFTN-M08	9,525 *0.375*	1,5 *0.059*	0,3 *0.012*	7,1 *0.280*	3,97 *0.156*	20,0	0,0 °			■													■		
SEMX09T3AFTN-ME06	9,525 *0.375*	1,5 *0.059*	0,3 *0.012*	7,1 *0.280*	3,97 *0.156*	20,0	22,0 °			■															

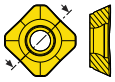
SE.X12/15



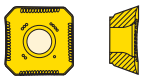
E08/M10/M14/M15/MD18/MD19



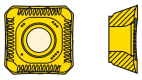
E10/M12/M17/M18/MD20



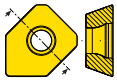
ME11-12



ME15

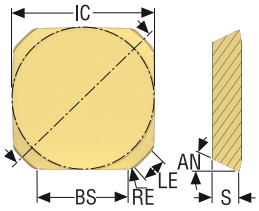


ZZTN-M14-17

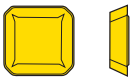


Designation	IC	BS	RE	LE	S	AN°	GAN	Grades Coated																Uncoated	
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			MP1501	MP2050	MP2501	MP3000	MP3501	MH1000	MM4500	MK1500	MK2050	MS2050	MS2500	T25M	T350M	F15M	F30M	F40M	H15	H25
SEEX1204AFN-E08	12,7 *0.500*	1,5 *0.059*	1,12 *0.044*	8,7 *0.343*	4,76 *0.187*	20,0	25,0 °																■		■
SEEX1204AFTN-ME11	12,7 *0.500*	1,5 *0.059*	1,12 *0.044*	8,7 *0.343*	4,76 *0.187*	20,0	21,0 °			■		■								■			■		
SEEX1204AFN-M10	12,7 *0.500*	1,5 *0.059*	1,12 *0.044*	8,7 *0.343*	4,76 *0.187*	20,0	5,0 °				■	■		■			■			■			■		
SEEX1204AFTN-M14	12,7 *0.500*	1,5 *0.059*	1,12 *0.044*	8,7 *0.343*	4,76 *0.187*	20,0	5,0 °	■		■		■			■	■				■			■		
SEEX1204ZZTN-M14	12,7 *0.500*	7,4 *0.291*	1,12 *0.044*	8,7 *0.343*	4,76 *0.187*	20,0	5,0 °	■		■		■			■					■		■	■		
SEEX1204AFTN-MD18	12,7 *0.500*	1,5 *0.059*	1,12 *0.044*	8,7 *0.343*	4,76 *0.187*	20,0	0,0 °	■				■													
SEMX1204AFTN-ME12	12,7 *0.500*	1,5 *0.059*	1,12 *0.044*	8,7 *0.343*	4,76 *0.187*	20,0	21,0 °			■		■								■			■		
SEMX1204AFTN-M15	12,7 *0.500*	1,5 *0.059*	1,12 *0.044*	8,7 *0.343*	4,76 *0.187*	20,0	4,0 °	■		■		■		■	■	■				■			■		
SEMX1204AFTN-MD19	12,7 *0.500*	1,5 *0.059*	1,12 *0.044*	8,7 *0.343*	4,76 *0.187*	20,0	0,0 °	■			■	■								■					
SEEX1505AFN-E10	15,875 *0.625*	1,8 *0.071*	1,5 *0.059*	10,3 *0.406*	5,56 *0.219*	20,0	25,0 °																		■
SEEX1505AFN-M12	15,875 *0.625*	1,8 *0.071*	1,5 *0.059*	10,3 *0.406*	5,56 *0.219*	20,0	5,0 °		■			■					■						■		
SEEX1505AFTN-M17	15,875 *0.625*	1,8 *0.071*	1,5 *0.059*	10,3 *0.406*	5,56 *0.219*	20,0	5,0 °			■		■													
SEEX1505ZZTN-M17	15,875 *0.625*	9,4 *0.370*	1,5 *0.059*	10,3 *0.406*	5,56 *0.219*	20,0	5,0 °			■		■								■					
SEMX1505AFTN-ME15	15,875 *0.625*	1,8 *0.071*	1,5 *0.059*	10,3 *0.406*	5,56 *0.219*	20,0	21,0 °					■								■					
SEMX1505AFTN-M18	15,875 *0.625*	1,8 *0.071*	1,5 *0.059*	10,3 *0.406*	5,56 *0.219*	20,0	5,0 °	■		■		■			■	■				■			■		
SEMX1505AFTN-MD20	15,875 *0.625*	1,8 *0.071*	1,5 *0.059*	10,3 *0.406*	5,56 *0.219*	20,0	0,0 °	■		■	■	■								■					

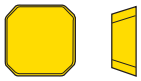
SE..12/15



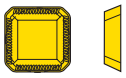
E07



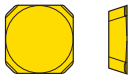
E10-15/M13-18/MD14-20/D16



ME10/ME12/ME13/ME16

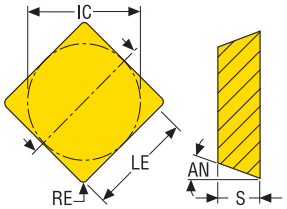


SEEX1203AFTN-M13/MD14

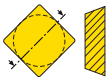


Designation	IC	BS	RE	LE	S	AN°	GAN	Grades Coated																Uncoated	
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			MP1501	MP2050	MP2501	MP3000	MP3501	MH1000	MM4500	MK1500	MK2050	MS2050	MS2500	T25M	T350M	F15M	F30M	F40M	H15	H25
SEKR1203AFN-E07	12,7 *0.500*	1,5 *0.059*	1,0 *0.039*	8,8 *0.346*	3,18 *0.125*	20,0	18,0 °												■						
SEKR1203AFTN-ME10	12,7 *0.500*	1,5 *0.059*	1,0 *0.039*	8,8 *0.346*	3,18 *0.125*	20,0	20,0 °					■							■				■		
SEKR1203AFTN-ME13	12,7 *0.500*	1,5 *0.059*	1,0 *0.039*	8,8 *0.346*	3,18 *0.125*	20,0	25,5 °			■		■							■	■			■		
SEKR1303AFTN-ME13	13,44 *0.529*	3,46 *0.136*	0,8 *0.031*	7,0 *0.276*	3,36 *0.132*	20,0	24,0 °																■		
SEKR1504AFTN-ME16	15,875 *0.625*	1,5 *0.059*	1,0 *0.039*	11,6 *0.457*	4,76 *0.187*	20,0	20,0 °												■						
SEKR1604AFTN-ME16	16,8 *0.661*	4,1 *0.161*	1,0 *0.039*	– –	4,79 *0.189*	20,0	20,0 °												■						
SEEX1203AFTN-M13	12,77 *0.503*	8,0 *0.315*	1,0 *0.039*	2,2 *0.087*	3,18 *0.125*	20,0	0,0 °					■								■					
SEEX1203AFTN-MD14	12,77 *0.503*	8,0 *0.315*	1,0 *0.039*	2,2 *0.087*	3,18 *0.125*	20,0	0,0 °						■		■						■			■	
SEKN1203AFTN-E10	12,7 *0.500*	2,3 *0.091*	0,0 –	8,8 *0.346*	3,18 *0.125*	20,0	0,0 °															■			
SEKN1203AFN-E12	12,7 *0.500*	1,6 *0.063*	2,0 *0.079*	8,8 *0.346*	3,18 *0.125*	20,0	0,0 °																■		
SEKN1203AFTN-M14	12,7 *0.500*	1,5 *0.059*	1,0 *0.039*	8,8 *0.346*	3,18 *0.125*	20,0	0,0 °	■		■		■			■	■			■	■			■		
SEKN1203AFTN-D16	12,7 *0.500*	1,6 *0.063*	2,0 *0.079*	8,8 *0.346*	3,18 *0.125*	20,0	0,0 °	■																	
SEKN1204AFTN-M18	12,7 *0.500*	1,5 *0.059*	1,0 *0.039*	8,8 *0.346*	4,76 *0.187*	20,0	0,0 °					■								■					
SEKN1504AFTN-M18	15,87 *0.625*	1,5 *0.059*	1,0 *0.039*	11,6 *0.457*	4,76 *0.187*	20,0	0,0 °			■					■				■				■		
SEKN1504AFTN-MD20	15,87 *0.625*	1,9 *0.075*	2,0 *0.079*	11,6 *0.457*	4,76 *0.187*	20,0	0,0 °	■																	

SENN

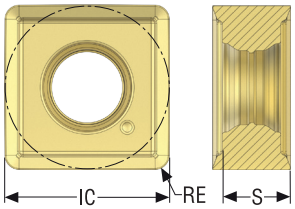


E10/M12

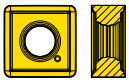


Designation	IC	RE	LE	S	AN°	GAN	Grades Coated															Uncoated	
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			MP1501	MP2050	MP2501	MP3000	MP3501	MH1000	MM4500	MK1500	MK2050	MS2050	MS2500	T25M	T350M	F15M	F30M	F40M	H15	H25
SENN120308T-M12	12,7 *0.500*	0,8 *0.031*	11,1 *0.437*	3,18 *0.125*	20,0	0,0 °																■		

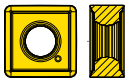
SN.U13



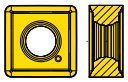
M12



M14

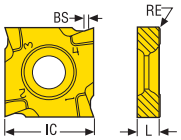


ME10

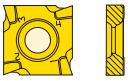


Designation	IC	RE	S	GAN	Grades Coated															Uncoated	
	mm *Inch*	mm *Inch*	mm *Inch*		MP1501	MP2050	MP2501	MP3000	MP3501	MH1000	MM4500	MK1500	MK2050	MS2050	MS2500	T25M	T350M	F15M	F30M	F40M	H15	H25
SNGU130612EN-ME10	13,587 *0.535*	1,2 *0.047*	5,56 *0.219*	26,0 °		■								■	■					■		
SNGU130612TN-M14	13,6 *0.535*	1,2 *0.047*	5,56 *0.219*	23,0 °	■		■						■									
SNXU130612TN-M12	13,587 *0.535*	1,2 *0.047*	5,56 *0.219*	21,0 °			■		■				■	■	■		■			■		

SNHQ11



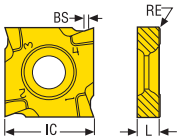
E05/M07



Designation	RE	BS	L	IC	GAN	Grades Coated																Uncoated	
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		MP1501	MP2050	MP2501	MP3000	MP3501	MH1000	MM4500	MK1500	MK2050	MS2050	MS2500	T25M	T350M	F15M	F30M	F40M	H15	H25
SNHQ110202EL4-E05	0,2 *0.008*	0,5 *0.020*	2,3 *0.091*	11,0 *0.433*	20,0 °																		■
SNHQ110202ER4-E05	0,2 *0.008*	0,5 *0.020*	2,3 *0.091*	11,0 *0.433*	20,0 °																		■
SNHQ110202TL4-M07	0,2 *0.008*	0,5 *0.020*	2,3 *0.091*	11,0 *0.433*	20,0 °																■		
SNHQ110202TR4-M07	0,2 *0.008*	0,5 *0.020*	2,3 *0.091*	11,0 *0.433*	20,0 °																■		
SNHQ110204TL4-M07	0,4 *0.016*	0,3 *0.012*	2,3 *0.091*	11,0 *0.433*	20,0 °			■												■	■		
SNHQ110204TR4-M07	0,4 *0.016*	0,3 *0.012*	2,3 *0.091*	11,0 *0.433*	20,0 °			■												■	■		
SNHQ110208TL4-M07	0,8 *0.031*	0,2 *0.008*	2,3 *0.091*	11,0 *0.433*	20,0 °							■			■						■		
SNHQ110208TR4-M07	0,8 *0.031*	0,2 *0.008*	2,3 *0.091*	11,0 *0.433*	20,0 °							■			■						■		
SNHQ110212TL4-M07	1,2 *0.047*	0,2 *0.008*	2,3 *0.091*	11,0 *0.433*	20,0 °																■		
SNHQ110212TR4-M07	1,2 *0.047*	0,2 *0.008*	2,3 *0.091*	11,0 *0.433*	20,0 °																■		
SNHQ110216TL4-M07	1,6 *0.063*	0,2 *0.008*	2,3 *0.091*	11,0 *0.433*	20,0 °																■		
SNHQ110216TR4-M07	1,6 *0.063*	0,2 *0.008*	2,3 *0.091*	11,0 *0.433*	20,0 °																■		
SNHQ110220TL4-M07	2,0 *0.079*	0,0 –	2,3 *0.091*	11,0 *0.433*	20,0 °															■			
SNHQ110220TR4-M07	2,0 *0.079*	0,0 –	2,3 *0.091*	11,0 *0.433*	20,0 °															■			
SNHQ110302EL4-E05	0,2 *0.008*	0,5 *0.020*	2,7 *0.106*	11,0 *0.433*	20,0 °																		■
SNHQ110302ER4-E05	0,2 *0.008*	0,5 *0.020*	2,7 *0.106*	11,0 *0.433*	20,0 °																		■
SNHQ110302TL4-M07	0,2 *0.008*	0,5 *0.020*	2,7 *0.106*	11,0 *0.433*	20,0 °																■		
SNHQ110302TR4-M07	0,2 *0.008*	0,5 *0.020*	2,7 *0.106*	11,0 *0.433*	20,0 °																■		
SNHQ110304TL4-M07	0,4 *0.016*	0,3 *0.012*	2,7 *0.106*	11,0 *0.433*	20,0 °			■												■	■		
SNHQ110304TR4-M07	0,4 *0.016*	0,3 *0.012*	2,7 *0.106*	11,0 *0.433*	20,0 °			■												■	■		
SNHQ110308TL4-M07	0,8 *0.031*	0,2 *0.008*	2,7 *0.106*	11,0 *0.433*	20,0 °																■		
SNHQ110308TR4-M07	0,8 *0.031*	0,2 *0.008*	2,7 *0.106*	11,0 *0.433*	20,0 °																■		
SNHQ110312TL4-M07	1,2 *0.047*	0,2 *0.008*	2,7 *0.106*	11,0 *0.433*	20,0 °																■		

Designation	RE	BS	L	IC	GAN	Grades Coated														Uncoated	
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		MP1501	MP2050	MP2501	MP3000	MP3501	MH1000	MM4500	MK1500	MK2050	MS2050	MS2500	T25M	T350M	F15M	F30M	F40M	H15	H25
SNHQ110312TR4-M07	1,2 *0.047*	0,2 *0.008*	2,7 *0.106*	11,0 *0.433*	20,0 °															■		
SNHQ110316TL4-M07	1,6 *0.063*	0,2 *0.008*	2,7 *0.106*	11,0 *0.433*	20,0 °															■		
SNHQ110316TR4-M07	1,6 *0.063*	0,2 *0.008*	2,7 *0.106*	11,0 *0.433*	20,0 °															■		
SNHQ110320TL4-M07	2,0 *0.079*	0,0 –	2,7 *0.106*	11,0 *0.433*	20,0 °														■			
SNHQ110320TR4-M07	2,0 *0.079*	0,0 –	2,7 *0.106*	11,0 *0.433*	20,0 °														■			

SNHQ1203/1204



EL/ER2-E05/M07



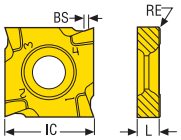
xL/xR4-E05/M07



Designation	RE	BS	L	IC	GAN	Grades Coated																Uncoated		
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		MP1501	MP2050	MP2501	MP3000	MP3501	MH1000	MM4500	MK1500	MK2050	MS2050	MS2500	T25M	T350M	F15M	F25M	F30M	F40M	HX	H15	H25
SNHQ120302EL4-E05	0,2 *0.008*	0,75 *0.030*	3,2 *0.126*	12,7 *0.500*	20,0 °																			■
SNHQ120302ER4-E05	0,2 *0.008*	0,75 *0.030*	3,2 *0.126*	12,7 *0.500*	20,0 °																			■
SNHQ120302TL4-M07	0,2 *0.008*	0,75 *0.030*	3,2 *0.126*	12,7 *0.500*	20,0 °																■			
SNHQ120302TR4-M07	0,2 *0.008*	0,75 *0.030*	3,2 *0.126*	12,7 *0.500*	20,0 °																■			
SNHQ120304TL4-M07	0,4 *0.016*	0,75 *0.030*	3,2 *0.126*	12,7 *0.500*	20,0 °			■												■	■			
SNHQ120304TR4-M07	0,4 *0.016*	0,75 *0.030*	3,2 *0.126*	12,7 *0.500*	20,0 °			■												■	■			
SNHQ120308TL4-M07	0,8 *0.031*	0,75 *0.030*	3,2 *0.126*	12,7 *0.500*	20,0 °			■													■			
SNHQ120308TR4-M07	0,8 *0.031*	0,75 *0.030*	3,2 *0.126*	12,7 *0.500*	20,0 °			■													■			
SNHQ120310TL4-M07	1,0 *0.039*	0,6 *0.024*	3,2 *0.126*	12,7 *0.500*	20,0 °																■			
SNHQ120310TR4-M07	1,0 *0.039*	0,6 *0.024*	3,2 *0.126*	12,7 *0.500*	20,0 °																■			
SNHQ120312TL4-M07	1,2 *0.047*	0,4 *0.016*	3,2 *0.126*	12,7 *0.500*	20,0 °																■			
SNHQ120312TR4-M07	1,2 *0.047*	0,4 *0.016*	3,2 *0.126*	12,7 *0.500*	20,0 °																■			
SNHQ120316TL4-M07	1,6 *0.063*	0,2 *0.008*	3,2 *0.126*	12,7 *0.500*	20,0 °																■			
SNHQ120316TR4-M07	1,6 *0.063*	0,2 *0.008*	3,2 *0.126*	12,7 *0.500*	20,0 °																■			
SNHQ120320TL4-M07	2,0 *0.079*	0,2 *0.008*	3,2 *0.126*	12,7 *0.500*	20,0 °																■			
SNHQ120320TR4-M07	2,0 *0.079*	0,2 *0.008*	3,2 *0.126*	12,7 *0.500*	20,0 °																■			
SNHQ120324EL2-M07	2,4 *0.094*	0,0 –	3,2 *0.126*	12,7 *0.500*	20,0 °																■			
SNHQ120324ER2-M07	2,4 *0.094*	0,0 –	3,2 *0.126*	12,7 *0.500*	20,0 °																■			
SNHQ120330EL2-M07	3,0 *0.118*	0,0 –	3,2 *0.126*	12,7 *0.500*	20,0 °																■			
SNHQ120330ER2-M07	3,0 *0.118*	0,0 –	3,2 *0.126*	12,7 *0.500*	20,0 °																■			
SNHQ120404EL4-E05	0,4 *0.016*	0,75 *0.030*	4,0 *0.157*	12,7 *0.500*	20,0 °																			■
SNHQ120404ER4-E05	0,4 *0.016*	0,75 *0.030*	4,0 *0.157*	12,7 *0.500*	20,0 °																			■
SNHQ120402TL4-M07	0,2 *0.008*	0,75 *0.030*	4,0 *0.157*	12,7 *0.500*	20,0 °																■			

Designation	RE	BS	L	IC	GAN	Grades Coated																Uncoated		
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		MP1501	MP2050	MP2501	MP3000	MP3501	MH1000	MM4500	MK1500	MK2050	MS2050	MS2500	T25M	T350M	F15M	F25M	F30M	F40M	HX	H15	H25
SNHQ120402TR4-M07	0,2 *0.008*	0,75 *0.030*	4,0 *0.157*	12,7 *0.500*	20,0 °																■			
SNHQ120404TL4-M07	0,4 *0.016*	0,75 *0.030*	4,0 *0.157*	12,7 *0.500*	20,0 °															■	■			
SNHQ120404TR4-M07	0,4 *0.016*	0,75 *0.030*	4,0 *0.157*	12,7 *0.500*	20,0 °															■	■			
SNHQ120408TL4-M07	0,8 *0.031*	0,75 *0.030*	4,0 *0.157*	12,7 *0.500*	20,0 °			■												■	■			
SNHQ120408TR4-M07	0,8 *0.031*	0,75 *0.030*	4,0 *0.157*	12,7 *0.500*	20,0 °			■												■	■			
SNHQ120412TL4-M07	1,2 *0.047*	0,4 *0.016*	4,0 *0.157*	12,7 *0.500*	20,0 °																■			
SNHQ120412TR4-M07	1,2 *0.047*	0,4 *0.016*	4,0 *0.157*	12,7 *0.500*	20,0 °																■			
SNHQ120416TL4-M07	1,6 *0.063*	0,2 *0.008*	4,0 *0.157*	12,7 *0.500*	20,0 °																■			
SNHQ120416TR4-M07	1,6 *0.063*	0,2 *0.008*	4,0 *0.157*	12,7 *0.500*	20,0 °																■			
SNHQ120420TL4-M07	2,0 *0.079*	0,2 *0.008*	4,0 *0.157*	12,7 *0.500*	20,0 °																■			
SNHQ120420TR4-M07	2,0 *0.079*	0,2 *0.008*	4,0 *0.157*	12,7 *0.500*	20,0 °																■			
SNHQ120424EL2-M07	2,4 *0.094*	0,0 –	4,0 *0.157*	12,7 *0.500*	20,0 °																■			
SNHQ120424ER2-M07	2,4 *0.094*	0,0 –	4,0 *0.157*	12,7 *0.500*	20,0 °																■			
SNHQ120431EL2-M07	3,1 *0.122*	0,0 –	4,0 *0.157*	12,7 *0.500*	20,0 °																■			
SNHQ120431ER2-M07	3,1 *0.122*	0,0 –	4,0 *0.157*	12,7 *0.500*	20,0 °																■			
SNHQ120435EL2-M07	3,5 *0.138*	0,0 –	4,0 *0.157*	12,7 *0.500*	20,0 °																■			
SNHQ120435ER2-M07	3,5 *0.138*	0,0 –	4,0 *0.157*	12,7 *0.500*	20,0 °																■			

SNHQ12045



EL/ER2-M07

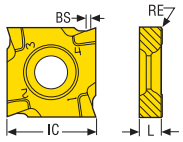


xL/xR4-E05/M07



Designation	RE	BS	L	IC	GAN	Grades Coated															Uncoated	
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		MP1501	MP2050	MP2501	MP3000	MP3501	MH1000	MM4500	MK1500	MK2050	MS2050	MS2500	T25M	T350M	F15M	F30M	F40M	H15	H25
SNHQ1204504EL4-E05	0,4 *0.016*	0,75 *0.030*	4,5 *0.177*	12,7 *0.500*	20,0 °																	■
SNHQ1204504ER4-E05	0,4 *0.016*	0,75 *0.030*	4,5 *0.177*	12,7 *0.500*	20,0 °																	■
SNHQ1204502TL4-M07	0,2 *0.008*	0,75 *0.030*	4,5 *0.177*	12,7 *0.500*	20,0 °																■	
SNHQ1204502TR4-M07	0,2 *0.008*	0,75 *0.030*	4,5 *0.177*	12,7 *0.500*	20,0 °																■	
SNHQ1204504TL4-M07	0,4 *0.016*	0,75 *0.030*	4,5 *0.177*	12,7 *0.500*	20,0 °			■												■	■	
SNHQ1204504TR4-M07	0,4 *0.016*	0,75 *0.030*	4,5 *0.177*	12,7 *0.500*	20,0 °			■												■	■	
SNHQ1204508TL4-M07	0,8 *0.031*	0,75 *0.030*	4,5 *0.177*	12,7 *0.500*	20,0 °			■													■	
SNHQ1204508TR4-M07	0,8 *0.031*	0,75 *0.030*	4,5 *0.177*	12,7 *0.500*	20,0 °			■													■	
SNHQ1204512TL4-M07	1,2 *0.047*	0,4 *0.016*	4,5 *0.177*	12,7 *0.500*	20,0 °																■	
SNHQ1204512TR4-M07	1,2 *0.047*	0,4 *0.016*	4,5 *0.177*	12,7 *0.500*	20,0 °																■	
SNHQ1204516TL4-M07	1,6 *0.063*	0,2 *0.008*	4,5 *0.177*	12,7 *0.500*	20,0 °																■	
SNHQ1204516TR4-M07	1,6 *0.063*	0,2 *0.008*	4,5 *0.177*	12,7 *0.500*	20,0 °																■	
SNHQ1204520TL4-M07	2,0 *0.079*	0,2 *0.008*	4,5 *0.177*	12,7 *0.500*	20,0 °																■	
SNHQ1204520TR4-M07	2,0 *0.079*	0,2 *0.008*	4,5 *0.177*	12,7 *0.500*	20,0 °																■	
SNHQ1204524EL2-M07	2,4 *0.094*	0,0 –	4,5 *0.177*	12,7 *0.500*	20,0 °																■	
SNHQ1204524ER2-M07	2,4 *0.094*	0,0 –	4,5 *0.177*	12,7 *0.500*	20,0 °																■	
SNHQ1204531EL2-M07	3,1 *0.122*	0,0 –	4,5 *0.177*	12,7 *0.500*	20,0 °																■	
SNHQ1204531ER2-M07	3,1 *0.122*	0,0 –	4,5 *0.177*	12,7 *0.500*	20,0 °																■	
SNHQ1204540EL2-M07	4,0 *0.157*	0,0 –	4,5 *0.177*	12,7 *0.500*	20,0 °																■	
SNHQ1204540ER2-M07	4,0 *0.157*	0,0 –	4,5 *0.177*	12,7 *0.500*	20,0 °																■	

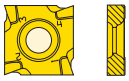
SNHQ1205



ER/EL2-M07



xL/xR4-E05/M07

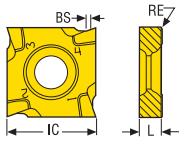


Designation	RE	BS	L	IC	GAN	Grades Coated															Uncoated	
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		MP1501	MP2050	MP2501	MP3000	MP3501	MH1000	MM4500	MK1500	MK2050	MS2050	MS2500	T25M	T350M	F15M	F30M	F40M	H15	H25
SNHQ120504EL4-E05	0,4 *0.016*	0,75 *0.030*	5,4 *0.213*	12,7 *0.500*	20,0 °																	■
SNHQ120504ER4-E05	0,4 *0.016*	0,75 *0.030*	5,4 *0.213*	12,7 *0.500*	20,0 °																	■
SNHQ120502TL4-M07	0,2 *0.008*	0,75 *0.030*	5,4 *0.213*	12,7 *0.500*	20,0 °																■	
SNHQ120502TR4-M07	0,2 *0.008*	0,75 *0.030*	5,4 *0.213*	12,7 *0.500*	20,0 °																■	
SNHQ120504TL4-M07	0,4 *0.016*	0,75 *0.030*	5,4 *0.213*	12,7 *0.500*	20,0 °			■				■								■	■	
SNHQ120504TR4-M07	0,4 *0.016*	0,75 *0.030*	5,4 *0.213*	12,7 *0.500*	20,0 °			■				■								■	■	
SNHQ120508TL4-M07	0,8 *0.031*	0,75 *0.030*	5,4 *0.213*	12,7 *0.500*	20,0 °			■												■	■	
SNHQ120508TR4-M07	0,8 *0.031*	0,75 *0.030*	5,4 *0.213*	12,7 *0.500*	20,0 °			■												■	■	
SNHQ120510TL4-M07	1,0 *0.039*	0,6 *0.024*	5,4 *0.213*	12,7 *0.500*	20,0 °																■	
SNHQ120510TR4-M07	1,0 *0.039*	0,6 *0.024*	5,4 *0.213*	12,7 *0.500*	20,0 °																■	
SNHQ120512TL4-M07	1,2 *0.047*	0,4 *0.016*	5,4 *0.213*	12,7 *0.500*	20,0 °																■	
SNHQ120512TR4-M07	1,2 *0.047*	0,4 *0.016*	5,4 *0.213*	12,7 *0.500*	20,0 °																■	
SNHQ120516TL4-M07	1,6 *0.063*	0,2 *0.008*	5,4 *0.213*	12,7 *0.500*	20,0 °																■	
SNHQ120516TR4-M07	1,6 *0.063*	0,2 *0.008*	5,4 *0.213*	12,7 *0.500*	20,0 °																■	
SNHQ120520TL4-M07	2,0 *0.079*	0,2 *0.008*	5,4 *0.213*	12,7 *0.500*	20,0 °																■	
SNHQ120520TR4-M07	2,0 *0.079*	0,2 *0.008*	5,4 *0.213*	12,7 *0.500*	20,0 °																■	
SNHQ120524EL2-M07	2,4 *0.094*	0,0 –	5,4 *0.213*	12,7 *0.500*	20,0 °																■	
SNHQ120524ER2-M07	2,4 *0.094*	0,0 –	5,4 *0.213*	12,7 *0.500*	20,0 °																■	
SNHQ120531EL2-M07	3,1 *0.122*	0,0 –	5,4 *0.213*	12,7 *0.500*	20,0 °																■	
SNHQ120531ER2-M07	3,1 *0.122*	0,0 –	5,4 *0.213*	12,7 *0.500*	20,0 °																■	
SNHQ120540EL2-M07	4,0 *0.157*	0,0 –	5,4 *0.213*	12,7 *0.500*	20,0 °																■	
SNHQ120540ER2-M07	4,0 *0.157*	0,0 –	5,4 *0.213*	12,7 *0.500*	20,0 °																■	
SNHQ120550FEL2-M07	5,0 *0.197*	0,0 –	5,54 *0.218*	12,7 *0.500*	20,0 °																■	

Designation	RE	BS	L	IC	GAN	Grades Coated															Uncoated	
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		MP1501	MP2050	MP2501	MP3000	MP3501	MH1000	MM4500	MK1500	MK2050	MS2050	MS2500	T25M	T350M	F15M	F30M	F40M	H15	H25
SNHQ120550FER2-M07	5,0 *0.197*	0,0 –	5,54 *0.218*	12,7 *0.500*	20,0 °																■	

Note: When using SNHQ insert with corner radius = 5 mm,
please modify the external profile of the cutter by adding a corner radius or chamfer = 4 mm

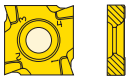
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EL/ER2-M07



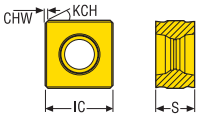
xL/xR4-E05/M07

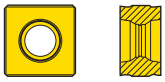


Designation	RE	BS	L	IC	GAN	Grades Coated															Uncoated	
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		MP1501	MP2050	MP2501	MP3000	MP3501	MH1000	MM4500	MK1500	MK2050	MS2050	MS2500	T25M	T350M	F15M	F30M	F40M	H15	H25
SNHQ120704EL4-E05	0,4 *0.016*	0,75 *0.030*	7,0 *0.276*	12,7 *0.500*	20,0 °																	■
SNHQ120704ER4-E05	0,4 *0.016*	0,75 *0.030*	7,0 *0.276*	12,7 *0.500*	20,0 °																	■
SNHQ120704TL4-M07	0,4 *0.016*	0,75 *0.030*	7,0 *0.276*	12,7 *0.500*	20,0 °																■	
SNHQ120704TR4-M07	0,4 *0.016*	0,75 *0.030*	7,0 *0.276*	12,7 *0.500*	20,0 °																■	
SNHQ120708TL4-M07	0,8 *0.031*	0,75 *0.030*	7,0 *0.276*	12,7 *0.500*	20,0 °			■												■	■	
SNHQ120708TR4-M07	0,8 *0.031*	0,75 *0.030*	7,0 *0.276*	12,7 *0.500*	20,0 °			■												■	■	
SNHQ120712TL4-M07	1,2 *0.047*	0,4 *0.016*	7,0 *0.276*	12,7 *0.500*	20,0 °																■	
SNHQ120712TR4-M07	1,2 *0.047*	0,4 *0.016*	7,0 *0.276*	12,7 *0.500*	20,0 °																■	
SNHQ120716TL4-M07	1,6 *0.063*	0,2 *0.008*	7,0 *0.276*	12,7 *0.500*	20,0 °																■	
SNHQ120716TR4-M07	1,6 *0.063*	0,2 *0.008*	7,0 *0.276*	12,7 *0.500*	20,0 °																■	
SNHQ120720TL4-M07	2,0 *0.079*	0,2 *0.008*	7,0 *0.276*	12,7 *0.500*	20,0 °																■	
SNHQ120720TR4-M07	2,0 *0.079*	0,2 *0.008*	7,0 *0.276*	12,7 *0.500*	20,0 °																■	
SNHQ120724EL2-M07	2,4 *0.094*	0,0 –	7,0 *0.276*	12,7 *0.500*	20,0 °																■	
SNHQ120724ER2-M07	2,4 *0.094*	0,0 –	7,0 *0.276*	12,7 *0.500*	20,0 °																■	
SNHQ120731EL2-M07	3,1 *0.122*	0,0 –	7,0 *0.276*	12,7 *0.500*	20,0 °																■	
SNHQ120731ER2-M07	3,1 *0.122*	0,0 –	7,0 *0.276*	12,7 *0.500*	20,0 °																■	
SNHQ120740EL2-M07	4,0 *0.157*	0,0 –	7,0 *0.276*	12,7 *0.500*	20,0 °																■	
SNHQ120740ER2-M07	4,0 *0.157*	0,0 –	7,0 *0.276*	12,7 *0.500*	20,0 °																■	
SNHQ120750FEL2-M07	5,0 *0.197*	0,0 –	7,14 *0.281*	12,7 *0.500*	20,0 °																■	
SNHQ120750FER2-M07	5,0 *0.197*	0,0 –	7,14 *0.281*	12,7 *0.500*	20,0 °																■	
SNHQ120760FEL2-M07	6,0 *0.236*	0,0 –	7,15 *0.281*	12,7 *0.500*	20,0 °																■	
SNHQ120760FER2-M07	6,0 *0.236*	0,0 –	7,15 *0.281*	12,7 *0.500*	20,0 °																■	

Note: When using SNHQ insert with corner radius = 5 and 6 mm,
please modify the external profile of the cutter by adding a corner radius or chamfer = 4 mm

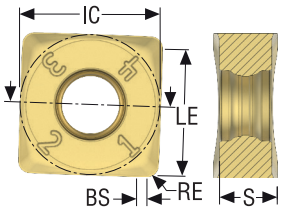
SNHX11/14

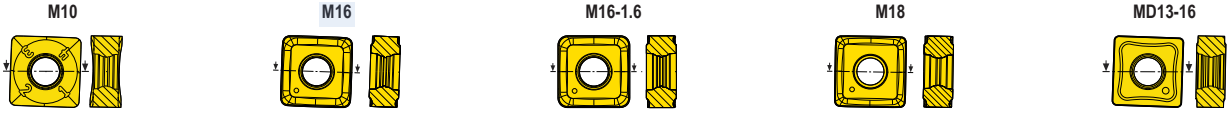




Designation	CHW	S	IC	KCH°	GAN	Grades Coated																Uncoated	
	mm *Inch*	mm *Inch*	mm *Inch*	mm		MP1501	MP2050	MP2501	MP3000	MP3501	MH1000	MM4500	MK1500	MK2050	MS2050	MS2500	T25M	T350M	F15M	F30M	F40M	H15	H25
SNHX1106TN8-M11	0,5 *0.020*	6,35 *0.250*	11,0 *0.433*	45,0	10,0 °			■		■								■			■		
SNHX1406TN8-M12	0,8 *0.031*	6,35 *0.250*	14,5 *0.571*	45,0	10,0 °			■										■			■		

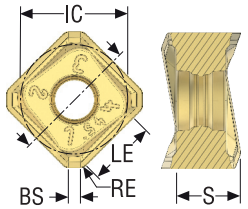
SNMU12/16



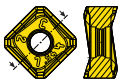


Designation	IC	RE	BS	S	GAN	Grades Coated																Uncoated	
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		MP1501	MP2050	MP2501	MP3000	MP3501	MH1000	MM4500	MK1500	MK2050	MS2050	MS2500	T25M	T350M	F15M	F30M	F40M	H15	H25
SNMU120408TN-M10	12,0 *0.472*	0,8 *0.031*	0,0 –	4,8 *0.189*	20,0 °	■		■						■									
SNMU120410TN-M10	12,0 *0.472*	1,0 *0.039*	1,0 *0.039*	4,8 *0.189*	20,0 °	■		■	■	■				■	■	■		■			■		
SNMU120412TN-M16	12,0 *0.472*	1,2 *0.047*	1,4 *0.055*	4,78 *0.188*	15,0 °	■		■	■	■			■	■				■			■		
SNMU120416TN-M16	12,0 *0.472*	1,6 *0.063*	0,0 –	4,78 *0.188*	15,0 °	■		■						■							■		
SNMU120408TN-MD13	12,0 *0.472*	0,8 *0.031*	0,0 –	4,8 *0.189*	0,0 °								■	■									
SNMU120410TN-MD13	12,0 *0.472*	1,0 *0.039*	1,0 *0.039*	4,8 *0.189*	0,0 °	■		■					■	■									
SNMU160612TN-M10	16,0 *0.630*	1,2 *0.047*	1,2 *0.047*	6,4 *0.252*	20,0 °	■		■	■					■									
SNMU160612TN-M18	16,0 *0.630*	1,2 *0.047*	1,6 *0.063*	6,38 *0.251*	15,0 °	■		■	■	■			■	■				■			■		
SNMU160610TN-MD16	16,0 *0.630*	1,0 *0.039*	0,0 –	6,4 *0.252*	0,0 °	■							■										
SNMU160612TN-MD16	16,0 *0.630*	1,2 *0.047*	1,2 *0.047*	6,4 *0.252*	0,0 °	■							■	■									

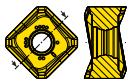
SN.X14/22



1407ANR-ME10



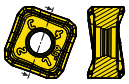
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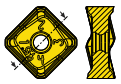
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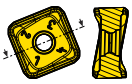
1407ZNR-ME10



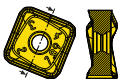
2209ANTR-M12-M18/2209ANR-ME12



2209ZNTL-M18

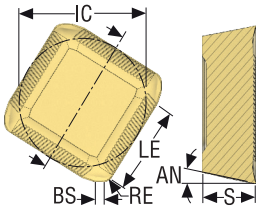


2209ZNTR-M12-M18/2209ZNR-ME12



Designation	IC	BS	RE	LE	S	GAN	Grades Coated																Uncoated	
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		MP1501	MP2050	MP2501	MP3000	MP3501	MH1000	MM4500	MK1500	MK2050	MS2050	MS2500	T25M	T350M	F15M	F30M	F40M	H15	H25
SNHX1407ANR-ME10	14,0 *0.551*	1,5 *0.059*	1,0 *0.039*	8,4 *0.331*	6,59 *0.259*	20,0 °										■						■		■
SNMX1407ANTR-M10	14,0 *0.551*	1,5 *0.059*	1,0 *0.039*	8,4 *0.331*	6,59 *0.259*	17,0 °	■	■	■	■	■				■	■	■		■			■		
SNMX1407ANTR-M16	14,0 *0.551*	1,5 *0.059*	1,0 *0.039*	8,4 *0.331*	6,59 *0.259*	17,0 °	■		■	■	■			■	■		■		■					
SNHX1407ZNR-ME10	14,0 *0.551*	1,5 *0.059*	1,0 *0.039*	9,5 *0.374*	6,59 *0.259*	20,0 °										■								
SNMX1407ZNTR-M10	14,0 *0.551*	1,5 *0.059*	1,0 *0.039*	9,5 *0.374*	6,59 *0.259*	20,0 °	■	■	■	■					■	■	■		■			■		
SNMX1407ZNTR-M16	14,0 *0.551*	1,5 *0.059*	1,0 *0.039*	9,5 *0.374*	6,59 *0.259*	15,0 °	■		■					■	■							■		
SNMX2209ANR-ME12	22,0 *0.866*	1,5 *0.059*	2,0 *0.079*	14,8 *0.583*	8,81 *0.347*	20,0 °																■		
SNMX2209ANTR-M12	22,0 *0.866*	1,5 *0.059*	2,0 *0.079*	14,8 *0.583*	8,81 *0.347*	20,0 °		■	■							■			■					
SNMX2209ANTR-M18	22,0 *0.866*	1,5 *0.059*	2,0 *0.079*	14,8 *0.583*	8,81 *0.347*	25,0 °	■		■		■			■	■				■					
SNMX2209ZNTR-M12	22,0 *0.866*	1,5 *0.059*	2,0 *0.079*	14,3 *0.563*	8,79 *0.346*	20,0 °			■							■						■		
SNMX2209ZNTR-M18	22,0 *0.866*	1,5 *0.059*	2,0 *0.079*	14,3 *0.563*	8,79 *0.346*	25,0 °	■		■		■			■	■				■					
SNMX2209ZNTL-M18	22,0 *0.866*	1,5 *0.059*	2,0 *0.079*	14,3 *0.563*	8,79 *0.346*	25,0 °	■		■															

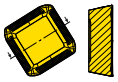
SP..19/28



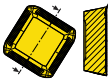
D35



ZETL-M17-MD20

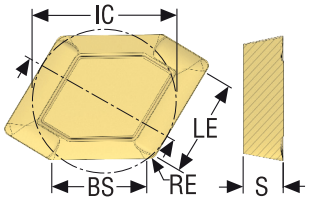


ZETR-M17-MD20-D25

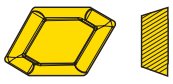


Designation	IC	BS	RE	LE	S	AN°	GAN	Grades Coated																Uncoated	
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			MP1501	MP2050	MP2501	MP3000	MP3501	MH1000	MM4500	MK1500	MK2050	MS2050	MS2500	T25M	T350M	F15M	F30M	F40M	H15	H25
SPER1906ZETL-M17	19,05 *0.750*	1,8 *0.071*	3,0 *0.118*	12,7 *0.500*	6,35 *0.250*	11,0	17,0 °		■																
SPER1906ZETR-M17	19,05 *0.750*	1,8 *0.071*	1,6 *0.063*	12,7 *0.500*	6,35 *0.250*	11,0	17,0 °					■								■					
SPEN1906ZETL-MD20	19,05 *0.750*	1,8 *0.071*	1,6 *0.063*	13,3 *0.524*	6,35 *0.250*	11,0	0,0 °			■															
SPEN1906ZETR-MD20	19,05 *0.750*	1,8 *0.071*	1,6 *0.063*	13,3 *0.524*	6,35 *0.250*	11,0	0,0 °			■		■							■	■					
SPEN1906ZETR-D25	19,05 *0.750*	1,8 *0.071*	1,6 *0.063*	13,3 *0.524*	6,35 *0.250*	11,0	0,0 °	■																	
SPEN2807ZETR-D35	28,58 *1.125*	1,8 *0.071*	2,0 *0.079*	13,3 *0.524*	7,938 *0.313*	11,0	0,0 °	■																	
SPMR1906ZETR-M17	19,05 *0.750*	1,0 *0.039*	1,6 *0.063*	12,9 *0.508*	6,35 *0.250*	11,0	17,0 °		■																

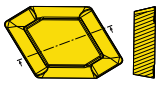
SPE.ZZ



M17/D25/MD20

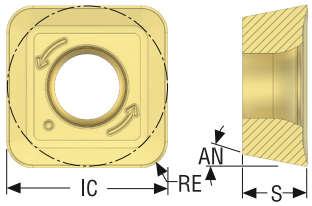


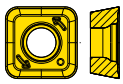
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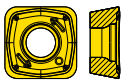


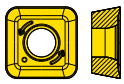
Designation	RE	BS	L	S	GAN	Grades Coated																		Uncoated	
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		MP1501	MP2050	MP2501	MP3000	MP3501	MH1000	MM4500	MK1500	MK2050	MS2050	MS2500	T25M	T350M	F15M	F30M	F40M	H15	H25
SPER1906ZZTL-M17	3,0 *0.118*	12,0 *0.472*	19,05 *0.750*	6,35 *0.250*	17,0 °		■																
SPER1906ZZTR-M17	3,0 *0.118*	12,0 *0.472*	19,05 *0.750*	6,35 *0.250*	17,0 °		■																
SPEN1906ZZTR-D25	3,0 *0.118*	12,0 *0.472*	20,0 *0.787*	6,35 *0.250*	0,0 °	■		■															
SPEN1906ZZTR-MD20	3,0 *0.118*	12,0 *0.472*	20,0 *0.787*	6,35 *0.250*	0,0 °			■															

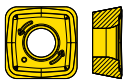
SPKT10/14/18

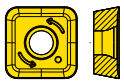


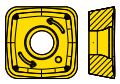
SP10-M10 

SP10-MD12 

SP14-M14 

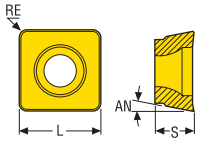
SP14-MD16 

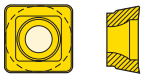
SP18-M14 

SP18-MD16 

Designation	IC	RE	S	AN°	GAN	Grades Coated																Uncoated	
	mm *Inch*	mm *Inch*	mm *Inch*			MP1501	MP2050	MP2501	MP3000	MP3501	MH1000	MM4500	MK1500	MK2050	MS2050	MS2500	T25M	T350M	F15M	F30M	F40M	H15	H25
SPKT10T317TN-M10	10,0 *0.394*	1,7 *0.067*	3,97 *0.156*	11,0	13,0 °	■	■	■		■		■		■	■	■		■			■		
SPKT10T317TN-MD12	10,0 *0.394*	1,7 *0.067*	3,97 *0.156*	11,0	5,0 °	■		■	■					■							■		
SPKT140523TN-M14	14,0 *0.551*	2,3 *0.091*	5,56 *0.219*	11,0	13,0 °		■	■		■		■		■	■	■		■			■		
SPKT140523TN-MD16	14,0 *0.551*	2,3 *0.091*	5,56 *0.219*	11,0	5,0 °	■	■	■	■	■				■		■		■			■		
SPKT180630TN-M14	18,0 *0.709*	3,0 *0.118*	6,35 *0.250*	11,0	12,0 °	■	■	■		■				■	■	■		■			■		
SPKT180630TN-MD16	18,0 *0.709*	3,0 *0.118*	6,35 *0.250*	11,0	5,0 °	■		■	■					■							■		

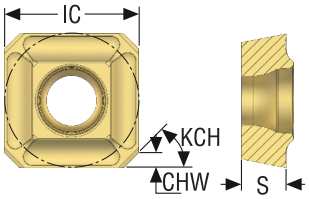
SPMT



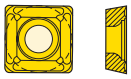
M08 

Designation	RE	L	S	AN°	GAN	Grades Coated																Uncoated	
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		MP1501	MP2050	MP2501	MP3000	MP3501	MH1000	MM4500	MK1500	MK2050	MS2050	MS2500	T25M	T350M	F15M	F30M	F40M	H15	H25
SPMT100408T-M08	0,8 *0.031*	10,0 *0.394*	4,76 *0.187*	11,0 *0.433*	10,0 °																■		

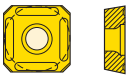
SPMX



-75

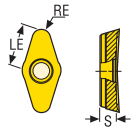


AP-75



Designation	CHW	IC	S	KCH°	GAN	Grades Coated															Uncoated	
	mm *Inch*	mm *Inch*	mm *Inch*	mm		MP1501	MP2050	MP2501	MP3000	MP3501	MH1000	MM4500	MK1500	MK2050	MS2050	MS2500	T25M	T350M	F15M	F30M	F40M	H15	H25
SPMX0602AP-75	0,69 *0.027*	6,35 *0.250*	2,38 *0.094*	45,0	0,0 °																■		
SPMX0703AP-75	0,87 *0.034*	7,94 *0.313*	3,18 *0.125*	45,0	0,0 °																■		
SPMX0903AP-75	1,05 *0.041*	9,525 *0.375*	3,18 *0.125*	45,0	0,0 °					■								■			■		
SPMX12T3AP-75	1,39 *0.055*	12,7 *0.500*	3,97 *0.156*	45,0	0,0 °					■								■			■		
SPMX060204-75	– –	6,35 *0.250*	2,38 *0.094*	–	20,0 °												■				■		
SPMX070304-75	– –	7,94 *0.313*	3,18 *0.125*	–	16,0 °												■				■		
SPMX090304-75	– –	9,525 *0.375*	3,18 *0.125*	–	16,0 °												■				■		
SPMX12T308-75	– –	12,7 *0.500*	3,97 *0.156*	–	14,0 °																■		

VPGX



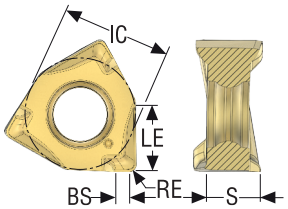
E06/E10



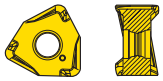
Designation	RE	LE	S	GAN	Grades Coated																Uncoated	
	mm *Inch*	mm *Inch*	mm *Inch*		MP1501	MP2050	MP2501	MP3000	MP3501	MH1000	MM4500	MK1500	MK2050	MS2050	MS2500	T25M	T350M	F15M	F30M	F40M	H15	H25
VPGX220605FR-E06	0,5 *0.020*	14,2 *0.559*	6,35 *0.250*	25,0 °																■	
VPGX220605ER-E10	0,5 *0.020*	14,2 *0.559*	6,35 *0.250*	25,0 °																	■
VPGX220608PDER-E10	0,8 *0.031*	14,2 *0.559*	6,35 *0.250*	25,0 °																	■
VPGX220616ER-E10	1,6 *0.063*	13,7 *0.539*	6,35 *0.250*	25,0 °																	■
VPGX220620ER-E10	2,0 *0.079*	14,2 *0.559*	6,35 *0.250*	25,0 °																	■
VPGX220624ER-E10	2,4 *0.094*	14,2 *0.559*	6,35 *0.250*	25,0 °																	■
VPGX220631EN-E10	3,1 *0.122*	14,2 *0.559*	6,35 *0.250*	25,0 °																	■
VPGX220631FN-E06	3,1 *0.122*	14,2 *0.559*	6,35 *0.250*	25,0 °																■	
VPGX220640ER-E10	4,0 *0.157*	14,2 *0.559*	6,35 *0.250*	25,0 °																	■
VPGX220663ER-E10	6,3 *0.248*	11,8 *0.465*	6,35 *0.250*	25,0 °																	■

*Insert with wiper flat 1,5mm

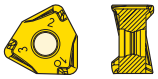
XNEX04/08



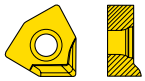
XNEX04..



XNEX08..

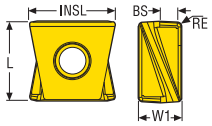


ZZR-M11



Designation	RE	BS	LE	S	IC	GAN	Grades Coated																Uncoated	
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		MP1501	MP2050	MP2501	MP3000	MP3501	MH1000	MM4500	MK1500	MK2050	MS2050	MS2500	T25M	T350M	F15M	F30M	F40M	H15	H25
XNEX040304R-M06	0,4 *0.016*	0,8 *0.031*	4,0 *0.157*	3,31 *0.130*	6,7 *0.264*	32,6 °				■						■						■		
XNEX040308R-M06	0,8 *0.031*	0,4 *0.016*	4,0 *0.157*	3,31 *0.130*	6,7 *0.264*	32,6 °			■	■			■			■						■		
XNEX040304TR-M08	0,4 *0.016*	0,8 *0.031*	4,0 *0.157*	3,29 *0.130*	6,7 *0.264*	27,0 °	■		■	■				■	■							■		
XNEX040308TR-M08	0,8 *0.031*	0,4 *0.016*	4,0 *0.157*	3,29 *0.130*	6,7 *0.264*	27,0 °	■		■	■				■	■							■		
XNEX080604TR-M13	0,4 *0.016*	1,8 *0.071*	7,5 *0.295*	6,45 *0.254*	12,48 *0.491*	22,0 °				■	■								■			■		
XNEX080604TR-ME09	0,4 *0.016*	1,8 *0.071*	7,5 *0.295*	6,45 *0.254*	12,48 *0.491*	27,0 °			■	■												■		
XNEX080608TR-ME09	0,8 *0.031*	1,4 *0.055*	7,5 *0.295*	6,45 *0.254*	12,48 *0.491*	27,0 °	■		■	■	■		■	■	■				■			■		
XNEX080608R-M08	0,8 *0.031*	1,4 *0.055*	7,5 *0.295*	6,45 *0.254*	12,48 *0.491*	24,0 °		■		■	■		■			■	■		■			■		■
XNEX080608TR-M13	0,8 *0.031*	1,3 *0.051*	7,5 *0.295*	6,45 *0.254*	12,48 *0.491*	22,0 °	■		■	■	■			■	■				■			■		
XNEX080608TR-MD15	0,8 *0.031*	1,4 *0.055*	7,5 *0.295*	6,45 *0.254*	12,48 *0.491*	17,0 °	■		■	■	■			■	■				■			■		
XNEX080612TR-ME09	1,2 *0.047*	1,0 *0.039*	7,5 *0.295*	6,45 *0.254*	12,48 *0.491*	27,0 °			■				■		■							■		
XNEX080612TR-M13	1,2 *0.047*	0,9 *0.035*	7,5 *0.295*	6,45 *0.254*	12,48 *0.491*	22,0 °			■					■	■							■		
XNEX080612TR-MD15	1,2 *0.047*	1,0 *0.039*	7,5 *0.295*	6,45 *0.254*	12,48 *0.491*	17,0 °	■		■					■										
XNEX080616TR-ME09	1,6 *0.063*	0,6 *0.024*	7,5 *0.295*	6,45 *0.254*	12,48 *0.491*	27,0 °			■	■			■									■		
XNEX080616TR-M13	1,6 *0.063*	0,5 *0.020*	7,5 *0.295*	6,45 *0.254*	12,48 *0.491*	22,0 °	■		■	■	■			■	■				■			■		
XNEX080616TR-MD15	1,6 *0.063*	0,7 *0.028*	7,5 *0.295*	6,45 *0.254*	12,48 *0.491*	17,0 °	■		■	■	■			■	■				■			■		
XNEX080608TL-M13	0,8 *0.031*	1,3 *0.051*	7,5 *0.295*	6,45 *0.254*	12,48 *0.491*	22,0 °			■		■					■			■			■		
XNEX080616TL-M13	1,6 *0.063*	0,5 *0.020*	7,5 *0.295*	6,45 *0.254*	12,48 *0.491*	22,0 °			■															
XNEX080608ZZR-M11	0,8 *0.031*	6,0 *0.236*	7,5 *0.295*	6,45 *0.254*	12,48 *0.491*	19,0 °				■				■								■		

XNHQ09/12/14/17



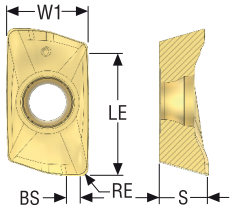
E07/E09/E10/E12/M08/M10/M11/M13



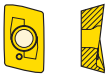
Designation	RE	BS	L	INSL	W1	GAN	Grades Coated															Uncoated	
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		MP1501	MP2050	MP2501	MP3000	MP3501	MH1000	MM4500	MK1500	MK2050	MS2050	MS2500	T25M	T350M	F15M	F30M	F40M	H15	H25
XNHQ090504TN4-M08	0,4 *0.016*	2,2 *0.087*	9,3 *0.366*	11,81 *0.465*	5,5 *0.217*	16,0 °															■		
XNHQ090508TN4-M08	0,8 *0.031*	1,8 *0.071*	9,3 *0.366*	11,7 *0.461*	5,5 *0.217*	16,0 °			■						■						■		
XNHQ090512TN4-M08	1,2 *0.047*	1,4 *0.055*	9,3 *0.366*	11,58 *0.456*	5,5 *0.217*	16,0 °															■		
XNHQ090516TN4-M08	1,6 *0.063*	1,0 *0.039*	9,3 *0.366*	11,46 *0.451*	5,5 *0.217*	16,0 °			■												■		
XNHQ090520TN4-M08	2,0 *0.079*	0,6 *0.024*	9,3 *0.366*	11,4 *0.449*	5,5 *0.217*	16,0 °															■		
XNHQ090524TN4-M08	2,4 *0.094*	0,2 *0.008*	9,3 *0.366*	11,2 *0.441*	5,5 *0.217*	16,0 °															■		
XNHQ090531TN4-M08	3,1 *0.122*	0,0 –	9,3 *0.366*	11,0 *0.433*	5,5 *0.217*	16,0 °															■		
XNHQ090540TN4-M08	4,0 *0.157*	0,0 –	9,3 *0.366*	10,7 *0.421*	5,5 *0.217*	16,0 °															■		
XNHQ120608EN4-E09	0,8 *0.031*	2,3 *0.091*	11,7 *0.461*	13,34 *0.525*	6,5 *0.256*	21,0 °															■		
XNHQ120608TN4-M10	0,8 *0.031*	2,3 *0.091*	11,7 *0.461*	13,16 *0.518*	6,5 *0.256*	16,0 °			■						■						■		
XNHQ120612TN4-M10	1,2 *0.047*	1,9 *0.075*	11,7 *0.461*	13,05 *0.514*	6,5 *0.256*	16,0 °															■		
XNHQ120616TN4-M10	1,6 *0.063*	1,58 *0.062*	11,7 *0.461*	12,94 *0.509*	6,5 *0.256*	16,0 °			■												■		
XNHQ120620TN4-M10	2,0 *0.079*	1,1 *0.043*	11,7 *0.461*	12,81 *0.504*	6,5 *0.256*	16,0 °															■		
XNHQ120624TN4-M10	2,4 *0.094*	0,7 *0.028*	11,7 *0.461*	12,72 *0.501*	6,5 *0.256*	16,0 °															■		
XNHQ120631TN4-M10	3,1 *0.122*	0,15 *0.006*	11,7 *0.461*	12,53 *0.493*	6,5 *0.256*	16,0 °															■		
XNHQ120640TN4-M10	4,0 *0.157*	0,0 –	11,7 *0.461*	12,25 *0.482*	6,5 *0.256*	16,0 °															■		
XNHQ120650TN4-M10	5,0 *0.197*	0,0 –	11,7 *0.461*	11,87 *0.467*	6,5 *0.256*	16,0 °															■		
XNHQ140708EN4-E10	0,8 *0.031*	3,0 *0.118*	14,0 *0.551*	15,1 *0.594*	7,5 *0.295*	22,0 °															■		■
XNHQ140708TN4-M11	0,8 *0.031*	3,0 *0.118*	14,0 *0.551*	15,1 *0.594*	7,5 *0.295*	16,0 °			■						■						■		
XNHQ140716TN4-M11	1,6 *0.063*	2,2 *0.087*	14,0 *0.551*	14,8 *0.583*	7,5 *0.295*	16,0 °			■												■		
XNHQ140720TN4-M11	2,0 *0.079*	1,8 *0.071*	14,0 *0.551*	14,7 *0.579*	7,5 *0.295*	16,0 °															■		
XNHQ140724TN4-M11	2,4 *0.094*	1,4 *0.055*	14,0 *0.551*	14,6 *0.575*	7,5 *0.295*	16,0 °															■		
XNHQ140731TN4-M11	3,1 *0.122*	0,7 *0.028*	14,0 *0.551*	14,4 *0.567*	7,5 *0.295*	16,0 °			■												■		

Designation	RE	BS	L	INSL	W1	GAN	Grades Coated															Uncoated	
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		MP1501	MP2050	MP2501	MP3000	MP3501	MH1000	MM4500	MK1500	MK2050	MS2050	MS2500	T25M	T350M	F15M	F30M	F40M	H15	H25
XNHQ140740TN4-M11	4,0 *0.157*	0,0 *–*	14,0 *0.551*	14,2 *0.559*	7,5 *0.295*	16,0 °																■		
XNHQ140750TN4-M11	5,0 *0.197*	0,0 *–*	14,0 *0.551*	13,9 *0.547*	7,5 *0.295*	16,0 °																■		
XNHQ140760TN4-M11	6,0 *0.236*	0,0 *–*	14,0 *0.551*	13,6 *0.535*	7,5 *0.295*	16,0 °																■		
XNHQ170708EN4-E12	0,8 *0.031*	3,0 *0.118*	17,0 *0.669*	0,0 *–*	7,5 *0.295*	16,0 °																■		
XNHQ170708TN4-M13	0,8 *0.031*	3,0 *0.118*	17,0 *0.669*	0,0 *–*	7,5 *0.295*	16,0 °			■						■							■		
XNHQ170716TN4-M13	1,6 *0.063*	2,2 *0.087*	17,0 *0.669*	0,0 *–*	7,5 *0.295*	16,0 °			■													■		
XNHQ170720TN4-M13	2,0 *0.079*	1,8 *0.071*	17,0 *0.669*	0,0 *–*	7,5 *0.295*	16,0 °																■		
XNHQ170724TN4-M13	2,4 *0.094*	1,4 *0.055*	17,0 *0.669*	0,0 *–*	7,5 *0.295*	16,0 °																■		
XNHQ170731TN4-M13	3,1 *0.122*	0,7 *0.028*	17,0 *0.669*	0,0 *–*	7,5 *0.295*	16,0 °																■		
XNHQ170740TN4-M13	4,0 *0.157*	0,0 *–*	17,0 *0.669*	0,0 *–*	7,5 *0.295*	16,0 °																■		
XNHQ170750TN4-M13	5,0 *0.197*	0,0 *–*	17,0 *0.669*	0,0 *–*	7,5 *0.295*	16,0 °																■		
XNHQ170760TN4-M13	6,0 *0.236*	0,0 *–*	17,0 *0.669*	0,0 *–*	7,5 *0.295*	16,0 °																■		

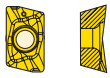
XO.X06



E03

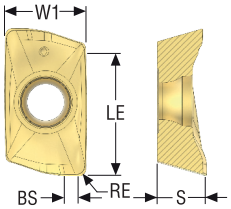


M05

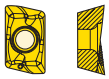


Designation	RE	BS	LE	W1	S	GAN	Grades Coated															Uncoated	
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		MP1501	MP2050	MP2501	MP3000	MP3501	MH1000	MM4500	MK1500	MK2050	MS2050	MS2500	T25M	T350M	F15M	F30M	F40M	H15	H25
XOEX060202FR-E03	0,2 *0.008*	1,1 *0.043*	6,0 *0.236*	4,1 *0.161*	2,45 *0.096*	30,6 °																■	
XOEX060204FR-E03	0,4 *0.016*	0,9 *0.035*	6,0 *0.236*	4,1 *0.161*	2,45 *0.096*	29,2 °															■	■	
XOMX060202R-M05	0,2 *0.008*	1,1 *0.043*	5,5 *0.217*	4,1 *0.161*	2,45 *0.096*	20,2 °				■										■	■		
XOMX060204R-M05	0,4 *0.016*	0,91 *0.036*	5,5 *0.217*	4,1 *0.161*	2,45 *0.096*	20,2 °				■			■			■				■	■		
XOMX060208R-M05	0,8 *0.031*	0,51 *0.020*	5,5 *0.217*	4,1 *0.161*	2,45 *0.096*	20,2 °				■			■			■			■	■	■		
XOMX060216R-M05	1,6 *0.063*	0,64 *0.025*	5,5 *0.217*	4,1 *0.161*	2,45 *0.096*	20,2 °				■			■			■				■	■		

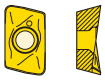
XO.X10



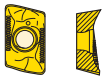
E05/M06



M09



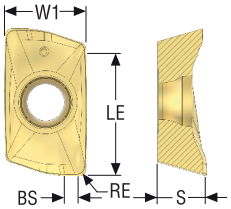
ME07



Designation	RE	BS	LE	W1	S	GAN	Grades Coated																Uncoated	
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		MP1501	MP2050	MP2501	MP3000	MP3501	MH1000	MM4500	MK1500	MK2050	MS2050	MS2500	T25M	T350M	F15M	F30M	F40M	H15	H25
XOEX10T304FR-E05	0,4 *0.016*	1,3 *0.051*	9,7 *0.382*	6,9 *0.272*	3,8 *0.150*	21,6 °																■	■	
XOEX10T308FR-E05	0,8 *0.031*	1,3 *0.051*	9,7 *0.382*	6,9 *0.272*	3,8 *0.150*	21,6 °																■	■	
XOEX10T312FR-E05	1,2 *0.047*	1,3 *0.051*	9,7 *0.382*	6,9 *0.272*	3,8 *0.150*	21,6 °																	■	
XOEX10T320FR-E05	2,0 *0.079*	0,6 *0.024*	9,7 *0.382*	6,9 *0.272*	3,8 *0.150*	21,6 °																	■	
XOEX10T331FR-E05	3,1 *0.122*	0,39 *0.015*	9,7 *0.382*	6,9 *0.272*	3,8 *0.150*	24,1 °																	■	
XOEX10T302R-M06	0,2 *0.008*	1,3 *0.051*	9,7 *0.382*	6,9 *0.272*	3,8 *0.150*	15,1 °																■		
XOEX10T304R-M06	0,4 *0.016*	1,3 *0.051*	9,7 *0.382*	6,9 *0.272*	3,8 *0.150*	15,1 °			■							■						■		
XOEX10T308R-M06	0,8 *0.031*	1,3 *0.051*	9,7 *0.382*	6,9 *0.272*	3,8 *0.150*	15,1 °		■	■		■					■	■		■			■		
XOEX10T312R-M06	1,2 *0.047*	1,3 *0.051*	9,7 *0.382*	6,9 *0.272*	3,8 *0.150*	15,1 °										■						■		
XOEX10T316R-M06	1,6 *0.063*	1,0 *0.039*	9,7 *0.382*	6,9 *0.272*	3,8 *0.150*	15,1 °										■						■		
XOEX10T320R-M06	2,0 *0.079*	0,6 *0.024*	9,7 *0.382*	6,9 *0.272*	3,8 *0.150*	18,8 °					■					■			■					
XOEX10T324R-M06	2,4 *0.094*	0,2 *0.008*	9,7 *0.382*	6,9 *0.272*	3,8 *0.150*	18,3 °										■								
XOEX10T331R-M06	3,1 *0.122*	0,4 *0.016*	9,7 *0.382*	6,9 *0.272*	3,8 *0.150*	17,3 °		■								■	■					■		
XOMX10T304TR-ME07	0,4 *0.016*	1,3 *0.051*	9,3 *0.366*	6,9 *0.272*	3,83 *0.151*	20,4 °	■		■	■	■			■		■	■		■			■		
XOMX10T308TR-ME07	0,8 *0.031*	1,3 *0.051*	9,3 *0.366*	6,9 *0.272*	3,83 *0.151*	20,4 °	■	■	■	■	■		■	■		■	■		■			■		
XOMX10T312TR-ME07	1,2 *0.047*	1,3 *0.051*	9,3 *0.366*	6,9 *0.272*	3,83 *0.151*	20,4 °			■	■	■					■			■			■		
XOMX10T316TR-ME07	1,6 *0.063*	1,0 *0.039*	9,3 *0.366*	6,9 *0.272*	3,83 *0.151*	20,4 °		■	■	■	■					■			■			■		
XOMX10T320TR-ME07	2,0 *0.079*	0,6 *0.024*	9,3 *0.366*	6,9 *0.272*	3,83 *0.151*	20,4 °			■	■	■					■			■			■		
XOMX10T324TR-ME07	2,4 *0.094*	0,2 *0.008*	9,3 *0.366*	6,9 *0.272*	3,83 *0.151*	20,4 °			■							■						■		
XOMX10T331TR-ME07	3,1 *0.122*	0,4 *0.016*	9,3 *0.366*	6,9 *0.272*	3,83 *0.151*	20,4 °		■	■							■						■		
XOMX10T304TR-M09	0,4 *0.016*	1,3 *0.051*	9,3 *0.366*	6,9 *0.272*	3,83 *0.151*	10,6 °	■		■	■	■			■	■				■			■		
XOMX10T308TR-M09	0,8 *0.031*	1,3 *0.051*	9,3 *0.366*	6,9 *0.272*	3,83 *0.151*	10,6 °	■		■	■	■		■	■	■		■		■			■		
XOMX10T312TR-M09	1,2 *0.047*	1,3 *0.051*	9,3 *0.366*	6,9 *0.272*	3,83 *0.151*	10,6 °					■				■				■			■		

Designation	RE	BS	LE	W1	S	GAN	Grades Coated															Uncoated	
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		MP1501	MP2050	MP2501	MP3000	MP3501	MH1000	MM4500	MK1500	MK2050	MS2050	MS2500	T25M	T350M	F15M	F30M	F40M	H15	H25
XOMX10T316TR-M09	1,6 *0.063*	1,0 *0.039*	9,3 *0.366*	6,9 *0.272*	3,83 *0.151*	10,6 °					■								■			■		
XOMX10T320TR-M09	2,0 *0.079*	0,6 *0.024*	9,3 *0.366*	6,9 *0.272*	3,83 *0.151*	10,6 °					■								■			■		
XOMX10T324TR-M09	2,4 *0.094*	0,2 *0.008*	9,3 *0.366*	6,9 *0.272*	3,83 *0.151*	10,6 °																■		
XOMX10T331TR-M09	3,1 *0.122*	0,4 *0.016*	9,3 *0.366*	6,9 *0.272*	3,83 *0.151*	10,6 °					■								■			■		

XO.X12



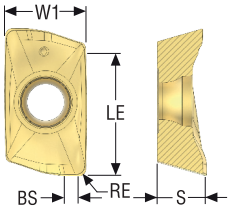
D14 E06 M07 M12 MD13 ME08



Designation	RE	BS	LE	W1	S	GAN	Grades Coated														Uncoated	
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		MP1501	MP2050	MP2501	MP3000	MP3501	MH1000	MM4500	MK1500	MK2050	MS2050	MS2500	T25M	T350M	F15M	F30M	F40M	H15	H25
XOEX120404FR-E06	0,4 *0.016*	2,0 *0.079*	12,0 *0.472*	8,2 *0.323*	5,03 *0.198*	27,4 °														■		■	■	
XOEX120408FR-E06	0,8 *0.031*	1,6 *0.063*	12,0 *0.472*	8,2 *0.323*	5,03 *0.198*	27,2 °														■		■	■	
XOEX120420FR-E06	2,0 *0.079*	0,6 *0.024*	12,0 *0.472*	8,2 *0.323*	5,03 *0.198*	21,2 °														■		■		
XOEX120416FR-E06	1,6 *0.063*	1,2 *0.047*	12,0 *0.472*	8,2 *0.323*	5,03 *0.198*	26,3 °														■		■		
XOEX120431FR-E06	3,1 *0.122*	– –	12,0 *0.472*	8,2 *0.323*	5,03 *0.198*	24,8 °																■		
XOEX120402R-M07	0,2 *0.008*	2,0 *0.079*	12,0 *0.472*	8,2 *0.323*	5,03 *0.198*	20,5 °																■		
XOEX120404R-M07	0,4 *0.016*	2,0 *0.079*	12,0 *0.472*	8,2 *0.323*	5,03 *0.198*	20,5 °			■							■					■	■		
XOEX120408R-M07	0,8 *0.031*	1,6 *0.063*	12,0 *0.472*	8,2 *0.323*	5,03 *0.198*	20,3 °		■	■	■	■		■			■	■		■		■	■		
XOEX120416R-M07	1,6 *0.063*	1,2 *0.047*	12,0 *0.472*	8,2 *0.323*	5,03 *0.198*	19,1 °				■						■	■					■		
XOEX120420R-M07	2,0 *0.079*	0,95 *0.037*	12,0 *0.472*	8,2 *0.323*	5,03 *0.198*	18,6 °										■								
XOEX120424R-M07	2,4 *0.094*	0,6 *0.024*	12,0 *0.472*	8,2 *0.323*	5,03 *0.198*	18,6 °										■					■	■		
XOEX120431R-M07	3,1 *0.122*	– –	12,0 *0.472*	8,2 *0.323*	5,03 *0.198*	15,0 °		■			■					■	■		■			■		
XOEX120440R-M07	4,0 *0.157*	– –	12,0 *0.472*	8,2 *0.323*	5,03 *0.198*	23,7 °										■						■		
XOEX120463R-M07	6,3 *0.248*	– –	12,0 *0.472*	8,2 *0.323*	5,03 *0.198*	15,3 °										■						■		
XOEX120450R-M07	5,0 *0.197*	– –	12,0 *0.472*	8,2 *0.323*	5,03 *0.198*	16,8 °										■						■		
XOEX120408ZZR-M07	0,8 *0.031*	6,6 *0.260*	11,1 *0.437*	8,2 *0.323*	5,03 *0.198*	20,3 °				■											■	■		
XOMX120404TR-ME08	0,4 *0.016*	2,0 *0.079*	11,6 *0.457*	8,2 *0.323*	5,07 *0.200*	20,1 °			■					■		■						■		
XOMX120408TR-ME08	0,8 *0.031*	1,6 *0.063*	11,6 *0.457*	8,2 *0.323*	5,07 *0.200*	20,1 °		■	■		■		■	■	■	■	■		■			■		
XOMX120412TR-ME08	1,2 *0.047*	1,2 *0.047*	11,6 *0.457*	8,2 *0.323*	5,07 *0.200*	20,1 °			■		■					■			■			■		
XOMX120416TR-ME08	1,6 *0.063*	1,2 *0.047*	11,6 *0.457*	8,2 *0.323*	5,07 *0.200*	20,1 °		■	■		■						■		■			■		
XOMX120420TR-ME08	2,0 *0.079*	1,0 *0.039*	11,6 *0.457*	8,2 *0.323*	5,07 *0.200*	20,1 °			■		■					■			■			■		
XOMX120424TR-ME08	2,4 *0.094*	0,92 *0.036*	11,6 *0.457*	8,2 *0.323*	5,07 *0.200*	20,1 °			■		■					■			■			■		
XOMX120431TR-ME08	3,1 *0.122*	0,6 *0.024*	11,6 *0.457*	8,2 *0.323*	5,07 *0.200*	20,1 °		■	■		■					■	■		■			■		

Designation	RE	BS	LE	W1	S	GAN	Grades Coated															Uncoated	
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		MP1501	MP2050	MP2501	MP3000	MP3501	MH1000	MM4500	MK1500	MK2050	MS2050	MS2500	T25M	T350M	F15M	F30M	F40M	H15	H25
XOMX120440TR-ME08	4,0 *0.157*	0,8 *0.031*	11,6 *0.457*	8,2 *0.323*	5,07 *0.200*	20,1 °			■							■						■		
XOMX120408TR-M12	0,8 *0.031*	1,6 *0.063*	11,6 *0.457*	8,2 *0.323*	5,07 *0.200*	10,4 °	■		■	■	■			■	■				■			■		
XOMX120416TR-M12	1,6 *0.063*	1,2 *0.047*	11,6 *0.457*	8,2 *0.323*	5,07 *0.200*	10,4 °				■	■								■			■		
XOMX120431TR-M12	3,1 *0.122*	0,6 *0.024*	11,6 *0.457*	8,2 *0.323*	5,07 *0.200*	10,4 °				■	■								■			■		
XOMX120408TR-MD13	0,8 *0.031*	1,6 *0.063*	11,6 *0.457*	8,2 *0.323*	5,07 *0.200*	14,6 °	■		■	■	■			■	■				■			■		
XOMX120404TR-MD13	0,4 *0.016*	2,0 *0.079*	11,6 *0.457*	8,2 *0.323*	5,07 *0.200*	14,6 °	■							■								■		
XOMX120412TR-MD13	1,2 *0.047*	1,2 *0.047*	11,6 *0.457*	8,2 *0.323*	5,07 *0.200*	14,7 °	■			■				■								■		
XOMX120416TR-MD13	1,6 *0.063*	1,2 *0.047*	11,6 *0.457*	8,2 *0.323*	5,07 *0.200*	14,7 °	■			■				■								■		
XOMX120408TR-D14	0,8 *0.031*	1,6 *0.063*	11,6 *0.457*	8,2 *0.323*	5,07 *0.200*	1,0 °	■		■	■				■							■			
XOMX120431TR-D14	3,1 *0.122*	0,6 *0.024*	11,6 *0.457*	8,2 *0.323*	5,07 *0.200*	1,0 °				■											■			

XO.X16



E07/M09



M13



MD14



ME11



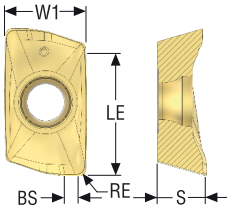
XOMX-M09



Designation	RE	BS	LE	W1	S	GAN	Grades Coated															Uncoated	
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		MP1501	MP2050	MP2501	MP3000	MP3501	MH1000	MM4500	MK1500	MK2050	MS2050	MS2500	T25M	T350M	F15M	F30M	F40M	H15	H25
XOEX160504FR-E07	0,4 *0.016*	2,0 *0.079*	15,4 *0.606*	10,2 *0.402*	5,9 *0.232*	23,0 °																	■
XOEX160508FR-E07	0,8 *0.031*	2,0 *0.079*	15,4 *0.606*	10,2 *0.402*	5,9 *0.232*	23,0 °																	■
XOEX160504R-M09	0,4 *0.016*	2,0 *0.079*	15,4 *0.606*	10,2 *0.402*	5,9 *0.232*	14,0 °			■	■											■		
XOEX160508R-M09	0,8 *0.031*	2,0 *0.079*	15,4 *0.606*	10,2 *0.402*	5,9 *0.232*	14,0 °		■	■	■						■	■		■		■		
XOEX160516R-M09	1,6 *0.063*	2,0 *0.079*	15,4 *0.606*	10,2 *0.402*	5,9 *0.232*	14,0 °										■	■				■		
XOEX160520R-M09	2,0 *0.079*	2,0 *0.079*	15,4 *0.606*	10,2 *0.402*	5,9 *0.232*	14,0 °										■					■		
XOEX160524R-M09	2,4 *0.094*	1,8 *0.071*	15,4 *0.606*	10,2 *0.402*	5,9 *0.232*	14,0 °		■								■					■		
XOEX160531R-M09	3,1 *0.122*	1,6 *0.063*	15,3 *0.602*	10,2 *0.402*	5,9 *0.232*	14,0 °		■								■	■				■		
XOEX160540R-M09	4,0 *0.157*	1,2 *0.047*	15,2 *0.598*	10,2 *0.402*	5,9 *0.232*	14,0 °										■					■		
XOEX160550R-M09	5,0 *0.197*	0,3 *0.012*	15,0 *0.591*	10,2 *0.402*	5,59 *0.220*	14,0 °										■					■		
XOEX160563R-M09	6,3 *0.248*	0,2 *0.008*	14,7 *0.579*	10,2 *0.402*	5,34 *0.210*	14,0 °										■					■		
XOMX160504TR-ME11	0,4 *0.016*	2,0 *0.079*	15,4 *0.606*	10,2 *0.402*	5,94 *0.234*	19,0 °			■												■		
XOMX160508TR-ME11	0,8 *0.031*	2,0 *0.079*	15,4 *0.606*	10,2 *0.402*	5,94 *0.234*	19,0 °		■	■		■				■	■			■		■		
XOMX160512TR-ME11	1,2 *0.047*	2,0 *0.079*	15,4 *0.606*	10,2 *0.402*	5,94 *0.234*	19,0 °			■												■		
XOMX160516TR-ME11	1,6 *0.063*	2,0 *0.079*	15,4 *0.606*	10,2 *0.402*	5,94 *0.234*	18,0 °			■												■		
XOMX160520TR-ME11	2,0 *0.079*	1,9 *0.075*	15,4 *0.606*	10,2 *0.402*	5,94 *0.234*	18,0 °			■							■					■		
XOMX160531TR-ME11	3,1 *0.122*	1,6 *0.063*	15,4 *0.606*	10,2 *0.402*	5,93 *0.233*	19,0 °		■								■					■		
XOMX160540TR-ME11	4,0 *0.157*	1,2 *0.047*	15,2 *0.598*	10,2 *0.402*	5,93 *0.233*	19,0 °										■					■		
XOMX160550TR-ME11	5,0 *0.197*	0,3 *0.012*	15,0 *0.591*	10,2 *0.402*	5,56 *0.219*	18,0 °										■					■		
XOMX160563TR-ME11	6,3 *0.248*	0,2 *0.008*	14,6 *0.575*	10,2 *0.402*	5,3 *0.209*	18,0 °										■					■		
XOMX160508R-M09	0,8 *0.031*	2,0 *0.079*	15,4 *0.606*	10,2 *0.402*	5,9 *0.232*	14,0 °										■					■		
XOMX160508TR-M13	0,8 *0.031*	2,0 *0.079*	15,4 *0.606*	10,2 *0.402*	5,98 *0.235*	9,0 °	■		■	■	■			■	■				■		■		
XOMX160516TR-M13	1,6 *0.063*	2,0 *0.079*	15,4 *0.606*	10,2 *0.402*	5,98 *0.235*	9,0 °															■		

Designation	RE	BS	LE	W1	S	GAN	Grades Coated															Uncoated	
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		MP1501	MP2050	MP2501	MP3000	MP3501	MH1000	MM4500	MK1500	MK2050	MS2050	MS2500	T25M	T350M	F15M	F30M	F40M	H15	H25
XOMX160531TR-M13	3,1 *0.122*	1,6 *0.063*	15,4 *0.606*	10,2 *0.402*	5,98 *0.235*	9,0 °															■		
XOMX160504TR-MD14	0,4 *0.016*	2,0 *0.079*	15,4 *0.606*	10,2 *0.402*	6,01 *0.237*	4,0 °									■								
XOMX160508TR-MD14	0,8 *0.031*	2,0 *0.079*	15,4 *0.606*	10,2 *0.402*	6,01 *0.237*	4,0 °	■			■	■				■				■				

XO.X18



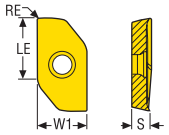
D16 E10/M10 M10 M14 MD15 ME13



Designation	RE	BS	LE	W1	S	GAN	Grades Coated															Uncoated	
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		MP1501	MP2050	MP2501	MP3000	MP3501	MH1000	MM4500	MK1500	MK2050	MS2050	MS2500	T25M	T350M	F15M	F30M	F40M	H15	H25
XOEX180604FR-E10	0,4 *0.016*	2,4 *0.094*	17,0 *0.669*	11,2 *0.441*	6,4 *0.252*	29,0 °																■		■
XOEX180608FR-E10	0,8 *0.031*	2,4 *0.094*	17,0 *0.669*	11,2 *0.441*	6,4 *0.252*	29,0 °																■		■
XOEX180616FR-E10	1,6 *0.063*	2,3 *0.091*	17,0 *0.669*	11,2 *0.441*	6,4 *0.252*	30,0 °																		■
XOEX180620FR-E10	2,0 *0.079*	2,2 *0.087*	17,0 *0.669*	11,2 *0.441*	6,4 *0.252*	30,0 °																		■
XOEX180631FR-E10	3,1 *0.122*	2,2 *0.087*	17,0 *0.669*	11,2 *0.441*	6,4 *0.252*	29,0 °																		■
XOEX180608ZZR-M10	0,8 *0.031*	9,0 *0.354*	17,0 *0.669*	11,2 *0.441*	6,4 *0.252*	22,4 °																■		
XOMX180604TR-ME13	0,4 *0.016*	2,4 *0.094*	17,0 *0.669*	11,2 *0.441*	6,4 *0.252*	25,0 °			■													■		
XOMX180608TR-ME13	0,8 *0.031*	2,4 *0.094*	17,0 *0.669*	11,2 *0.441*	6,4 *0.252*	25,3 °			■		■		■	■					■			■		
XOMX180616TR-ME13	1,6 *0.063*	2,3 *0.091*	17,0 *0.669*	11,2 *0.441*	6,4 *0.252*	24,7 °			■															
XOMX180620TR-ME13	2,0 *0.079*	2,2 *0.087*	17,0 *0.669*	11,2 *0.441*	6,4 *0.252*	24,7 °			■													■		
XOMX180631TR-ME13	3,1 *0.122*	2,2 *0.087*	17,0 *0.669*	11,2 *0.441*	6,38 *0.251*	23,6 °			■													■		
XOMX180640TR-ME13	4,0 *0.157*	0,8 *0.031*	17,0 *0.669*	11,2 *0.441*	6,38 *0.251*	24,0 °			■															
XOMX180604R-M10	0,4 *0.016*	2,4 *0.094*	17,0 *0.669*	11,2 *0.441*	6,4 *0.252*	22,0 °										■						■		
XOMX180608R-M10	0,8 *0.031*	2,4 *0.094*	17,0 *0.669*	11,2 *0.441*	6,4 *0.252*	22,4 °		■	■		■		■			■			■		■	■		
XOMX180616R-M10	1,6 *0.063*	2,3 *0.091*	17,0 *0.669*	11,2 *0.441*	6,4 *0.252*	21,7 °					■		■			■			■			■		
XOMX180620R-M10	2,0 *0.079*	2,2 *0.087*	17,0 *0.669*	11,2 *0.441*	6,4 *0.252*	21,8 °					■					■			■			■		
XOMX180624R-M10	2,4 *0.094*	2,2 *0.087*	17,0 *0.669*	11,2 *0.441*	6,35 *0.250*	21,1 °										■						■		
XOMX180631R-M10	3,1 *0.122*	2,2 *0.087*	17,0 *0.669*	11,2 *0.441*	6,35 *0.250*	21,0 °					■		■			■			■			■		
XOMX180640R-M10	4,0 *0.157*	0,8 *0.031*	17,0 *0.669*	11,2 *0.441*	6,35 *0.250*	21,0 °					■					■			■			■		
XOMX180650R-M10	5,0 *0.197*	0,3 *0.012*	17,0 *0.669*	11,2 *0.441*	6,35 *0.250*	19,4 °		■			■					■			■			■		
XOMX180663R-M10	6,3 *0.248*	0,3 *0.012*	17,0 *0.669*	11,2 *0.441*	6,35 *0.250*	19,0 °					■					■			■			■		
XOMX180608TR-M14	0,8 *0.031*	2,38 *0.094*	17,0 *0.669*	11,2 *0.441*	6,4 *0.252*	15,5 °	■		■	■	■			■	■				■		■	■		
XOMX180612TR-M14	1,2 *0.047*	2,4 *0.094*	17,0 *0.669*	11,2 *0.441*	6,4 *0.252*	15,5 °	■		■	■	■			■	■				■			■		

Designation	RE	BS	LE	W1	S	GAN	Grades Coated															Uncoated	
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		MP1501	MP2050	MP2501	MP3000	MP3501	MH1000	MM4500	MK1500	MK2050	MS2050	MS2500	T25M	T350M	F15M	F30M	F40M	H15	H25
XOMX180616TR-M14	1,6 *0.063*	2,3 *0.091*	17,0 *0.669*	11,2 *0.441*	6,4 *0.252*	15,0 °			■	■	■			■					■			■		
XOMX180620TR-M14	2,0 *0.079*	2,2 *0.087*	17,0 *0.669*	11,2 *0.441*	6,4 *0.252*	15,0 °			■		■								■			■		
XOMX180624TR-M14	2,4 *0.094*	2,2 *0.087*	17,0 *0.669*	11,2 *0.441*	6,37 *0.251*	14,0 °			■		■								■			■		
XOMX180631TR-M14	3,1 *0.122*	2,2 *0.087*	17,0 *0.669*	11,2 *0.441*	6,37 *0.251*	14,0 °			■	■	■								■			■		
XOMX180608TR-MD15	0,8 *0.031*	2,4 *0.094*	17,0 *0.669*	11,2 *0.441*	6,4 *0.252*	15,9 °	■		■	■	■			■	■				■		■	■		
XOMX180612TR-MD15	1,2 *0.047*	2,4 *0.094*	17,0 *0.669*	11,2 *0.441*	6,4 *0.252*	15,0 °	■			■												■		
XOMX180616TR-MD15	1,6 *0.063*	2,3 *0.091*	17,0 *0.669*	11,2 *0.441*	6,4 *0.252*	15,3 °				■	■			■					■			■		
XOMX180608TR-D16	0,8 *0.031*	2,4 *0.094*	17,0 *0.669*	11,2 *0.441*	6,4 *0.252*	11,0 °	■		■		■			■					■		■			
XOMX180631TR-D16	3,1 *0.122*	2,2 *0.087*	17,0 *0.669*	11,2 *0.441*	6,39 *0.252*	9,0 °	■			■														

XPKX



E06

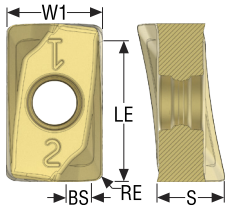


E08



Designation	RE	LE	W1	S	GAN	Grades Coated																Uncoated	
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		MP1501	MP2050	MP2501	MP3000	MP3501	MH1000	MM4500	MK1500	MK2050	MS2050	MS2500	T25M	T350M	F15M	F30M	F40M	H15	H25
XPKX080304PDER-E06	0,4 *0.016*	8,0 *0.315*	7,0 *0.276*	3,4 *0.134*	25,0 °																		■
XPKX080308PDER-E06	0,8 *0.031*	8,0 *0.315*	7,0 *0.276*	3,4 *0.134*	25,0 °																		■
XPKX080316PDER-E06	1,6 *0.063*	8,0 *0.315*	7,0 *0.276*	3,4 *0.134*	25,0 °																		■
XPKX080320PDER-E06	2,0 *0.079*	8,0 *0.315*	7,0 *0.276*	3,4 *0.134*	25,0 °																		■
XPKX080324PDER-E06	2,4 *0.094*	8,0 *0.315*	7,0 *0.276*	3,4 *0.134*	25,0 °																		■
XPKX080331PDER-E06	3,1 *0.122*	8,0 *0.315*	7,0 *0.276*	3,4 *0.134*	25,0 °																		■
XPKX12T304PDER-E08	0,4 *0.016*	12,1 *0.476*	10,0 *0.394*	3,97 *0.156*	23,1 °																		■
XPKX12T308PDER-E08	0,8 *0.031*	12,1 *0.476*	10,0 *0.394*	3,97 *0.156*	23,0 °																		■
XPKX12T320PDER-E08	2,0 *0.079*	12,1 *0.476*	10,0 *0.394*	3,97 *0.156*	25,0 °																		■
XPKX12T324PDER-E08	2,4 *0.094*	12,1 *0.476*	10,0 *0.394*	3,97 *0.156*	25,0 °																		■
XPKX12T331PDER-E08	3,1 *0.122*	12,1 *0.476*	10,0 *0.394*	3,97 *0.156*	25,0 °																		■
XPKX12T340PDER-E08	4,0 *0.157*	12,1 *0.476*	10,0 *0.394*	3,97 *0.156*	25,0 °																		■

ZOMX16



ME10

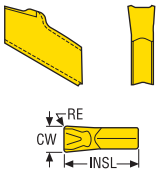


M12



Designation	RE	BS	LE	W1	S	GAN	Grades Coated																Uncoated	
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		MP1501	MP2050	MP2501	MP3000	MP3501	MH1000	MM4500	MK1500	MK2050	MS2050	MS2500	T25M	T350M	F15M	F30M	F40M	H15	H25
ZOMX160708TR-ME10	0,8 *0.031*	2,0 *0.079*	15,5 *0.610*	10,76 *0.424*	7,38 *0.291*	39,1 °			■		■					■						■		
ZOMX160708TR-M12	0,8 *0.031*	2,0 *0.079*	15,5 *0.610*	10,76 *0.424*	7,38 *0.291*	29,0 °	■		■	■	■				■		■					■		
ZOMX160716TR-ME10	1,6 *0.063*	1,2 *0.047*	15,5 *0.610*	10,76 *0.424*	7,26 *0.286*	39,1 °			■							■						■		
ZOMX160716TR-M12	1,6 *0.063*	1,2 *0.047*	15,5 *0.610*	10,76 *0.424*	7,26 *0.286*	29,0 °	■		■	■					■							■		

150.10



150.10-12



150.10-14

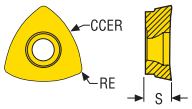


150.10-16



Designation	RE	CW	INSL	GAN	Grades Coated																Uncoated	
	mm *Inch*	mm *Inch*	mm *Inch*		MP1501	MP2050	MP2501	MP3000	MP3501	MH1000	MM4500	MK1500	MK2050	MS2050	MS2500	T25M	T350M	F15M	F30M	F40M	H15	H25
150.10-2.5N-12	0,17 *0.007*	2,5 *0.098*	9,0 *0.354*													■	■					
150.10-3N-12	0,19 *0.007*	3,1 *0.122*	9,0 *0.354*													■	■					
150.10-2.25N-14	0,15 *0.006*	2,25 *0.089*	9,0 *0.354*														■					
150.10-2.5N-14	0,17 *0.007*	2,5 *0.098*	9,0 *0.354*													■						
150.10-3N-14	0,19 *0.007*	3,1 *0.122*	9,0 *0.354*													■	■					
150.10-2.25N-16	0,15 *0.006*	2,25 *0.089*	9,0 *0.354*													■	■					
150.10-2.5N-16	0,17 *0.007*	2,5 *0.098*	9,0 *0.354*													■	■					
150.10-3N-16	0,19 *0.007*	3,1 *0.122*	9,0 *0.354*													■	■					
150.10-4N-12	0,23 *0.009*	4,1 *0.161*	9,0 *0.354*													■	■					
150.10-4N-14	0,23 *0.009*	4,1 *0.161*	9,0 *0.354*													■	■					
150.10-4N-16	0,23 *0.009*	4,1 *0.161*	9,0 *0.354*													■	■					

218.19



E04-E07



M04-M11



MD04-MD11

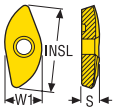


ME07-ME12



Designation	RE	S	CCER	GAN	Grades Coated															Uncoated	
	mm *Inch*	mm *Inch*	mm *Inch*		MP1501	MP2050	MP2501	MP3000	MP3501	MH1000	MM4500	MK1500	MK2050	MS2050	MS2500	T25M	T350M	F15M	F30M	F40M	H15	H25
218.19-160-04-E07	1,2 *0.047*	4,76 *0.187*	16,0 *0.630*	20,0 °																	■
218.19-125T-T3-ME07	0,8 *0.031*	3,97 *0.156*	12,5 *0.492*	20,0 °																■	
218.19-160T-04-ME08	1,2 *0.047*	4,76 *0.187*	16,0 *0.630*	20,0 °																■	
218.19-200T-05-ME10	0,6 *0.024*	5,5 *0.217*	20,0 *0.787*	20,0 °																■	
218.19-080T-M04	0,4 *0.016*	2,38 *0.094*	8,0 *0.315*	7,0 °			■												■	■	
218.19-100T-M06	0,8 *0.031*	2,78 *0.109*	10,0 *0.394*	7,0 °			■	■	■					■	■		■		■	■	
218.19-125T-T3-M07	0,8 *0.031*	3,97 *0.156*	12,5 *0.492*	10,0 °			■	■	■		■			■	■		■		■	■	
218.19-160T-04-M11	1,2 *0.047*	4,76 *0.187*	16,0 *0.630*	15,0 °	■		■								■						
218.19-160T-04-M08	1,2 *0.047*	4,76 *0.187*	16,0 *0.630*	10,0 °		■	■	■	■		■			■	■		■		■	■	
218.19-200T-05-M10	0,6 *0.024*	5,5 *0.217*	20,0 *0.787*	10,0 °																■	
218.19-080T-MD04	0,4 *0.016*	2,38 *0.094*	8,0 *0.315*	0,0 °											■			■			
218.19-100T-MD08	0,8 *0.031*	2,78 *0.109*	10,0 *0.394*	0,0 °			■			■					■			■			
218.19-125T-T3-MD10	0,8 *0.031*	3,97 *0.156*	12,5 *0.492*	0,0 °	■		■		■	■					■		■	■			
218.19-125T-T3-MD08	0,8 *0.031*	3,97 *0.156*	12,5 *0.492*	0,0 °				■											■		
218.19-160T-04-MD11	1,2 *0.047*	4,76 *0.187*	16,0 *0.630*	0,0 °	■		■		■	■			■		■		■	■			
218.19-160T-04-MD09	1,2 *0.047*	4,76 *0.187*	16,0 *0.630*	0,0 °				■											■		

218.20

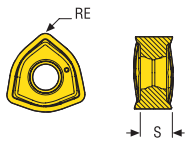


ME/M



Designation	INSL	W1	S	GAN	Grades Coated															Uncoated	
	mm *Inch*	mm *Inch*	mm *Inch*		MP1501	MP2050	MP2501	MP3000	MP3501	MH1000	MM4500	MK1500	MK2050	MS2050	MS2500	T25M	T350M	F15M	F30M	F40M	H15	H25
218.20-0.250ER-ME03	12,42 *0.489*	5,46 *0.215*	2,52 *0.099*	11,0 °																■		
218.20-0.250ER-M03	12,42 *0.489*	5,46 *0.215*	2,52 *0.099*	7,0 °																■		
218.20-0.375ER-M05	18,62 *0.733*	8,19 *0.322*	3,85 *0.152*	3,0 °																■		
218.20-0.375ER-ME05	18,62 *0.733*	8,19 *0.322*	3,85 *0.152*	11,0 °										■						■		
218.20-0.750ER-M10	36,44 *1.435*	15,12 *0.595*	7,625 *0.300*	-2,0 °							■											
218.20-0.750ER-ME10	36,44 *1.435*	15,12 *0.595*	7,625 *0.300*	6,0 °																■		
218.20-060ER-ME03	11,73 *0.462*	5,16 *0.203*	2,37 *0.093*	12,0 °										■						■		
218.20-080ER-ME04	15,64 *0.616*	6,88 *0.271*	3,21 *0.126*	5,0 °					■					■			■			■		
218.20-080ER-M04	15,64 *0.616*	6,88 *0.271*	3,21 *0.126*	1,0 °							■									■		
218.20-100ER-ME05	19,55 *0.770*	8,59 *0.338*	4,05 *0.159*	3,0 °							■			■						■		
218.20-100ER-M05	19,55 *0.770*	8,59 *0.338*	4,05 *0.159*	2,0 °							■									■		
218.20-125ER-ME07	24,48 *0.964*	10,74 *0.423*	5,05 *0.199*	11,0 °							■			■						■		
218.20-125ER-M07	24,48 *0.964*	10,74 *0.423*	5,05 *0.199*	1,0 °																■		
218.20-150ER-ME07	28,7 *1.130*	11,91 *0.469*	5,99 *0.236*	6,0 °										■						■		
218.20-150ER-M08	28,7 *1.130*	11,91 *0.469*	5,99 *0.236*	-2,0 °							■									■		
218.20-160ER-ME08	30,61 *1.205*	12,7 *0.500*	6,4 *0.252*	6,0 °							■			■						■		
218.20-160ER-M08	30,61 *1.205*	12,7 *0.500*	6,4 *0.252*	-2,0 °							■									■		
218.20-200ER-ME10	38,26 *1.506*	15,88 *0.625*	8,06 *0.317*	6,0 °							■			■						■		
218.20-200ER-M10	38,26 *1.506*	15,88 *0.625*	8,06 *0.317*	-2,0 °																■		
218.20-250ER-ME12	47,83 *1.883*	19,85 *0.781*	10,16 *0.400*	6,0 °							■			■						■		
218.20-250TR-M14	47,83 *1.883*	19,85 *0.781*	10,16 *0.400*	-2,0 °																■		

218.21



M15



MD17



ME13



Designation	RE	S	GAN	Grades Coated																Uncoated	
	mm *Inch*	mm *Inch*		MP1501	MP2050	MP2501	MP3000	MP3501	MH1000	MM4500	MK1500	MK2050	MS2050	MS2500	T25M	T350M	F15M	F30M	F40M	H15	H25
218.21-230TR-06-ME13	1,6 *0.063*	5,95 *0.234*	21,0 °		■			■		■			■	■		■			■		
218.21-230TR-06-M15	1,6 *0.063*	5,95 *0.234*	17,0 °		■	■	■	■					■	■		■			■		
218.21-230TR-06-MD17	1,6 *0.063*	6,02 *0.237*	7,0 °	■		■	■					■		■							

R235.15

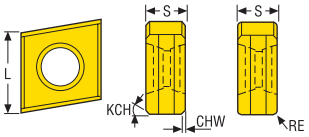


E05

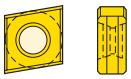


Designation	L	GAN	Grades Coated																	Uncoated	
	mm *Inch*		MP1501	MP2050	MP2501	MP3000	MP3501	MH1000	MM4500	MK1500	MK2050	MS2050	MS2500	T25M	T350M	F15M	F30M	F40M	H15	H25
R235.15-032-E05	42,987 *1.692*	22,0 °															■			
R235.15-050-E05	54,64 *2.151*	22,0 °															■			
R235.15-080-E05	54,746 *2.155*	22,0 °															■			

335.18

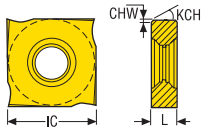


M10/M11/M12



Designation	CHW	L	S	KCH°	GAN	Grades Coated																Uncoated	
	mm *Inch*	mm *Inch*	mm *Inch*	mm		MP1501	MP2050	MP2501	MP3000	MP3501	MH1000	MM4500	MK1500	MK2050	MS2050	MS2500	T25M	T350M	F15M	F30M	F40M	H15	H25
335.18-1005T-M10	0,5 *0.020*	10,0 *0.394*	5,4 *0.213*	45,0	10,0 °	■		■					■	■							■		
335.18-100508-M10	0,0 –	10,0 *0.394*	5,4 *0.213*	0,0	10,0 °					■								■					
335.18-1305T-M11	0,5 *0.020*	12,7 *0.500*	5,4 *0.213*	45,0	10,0 °	■		■					■	■							■		
335.18-130508-M11	0,0 –	12,7 *0.500*	5,4 *0.213*	0,0	10,0 °					■								■					
335.18-1606T-M12	0,5 *0.020*	16,0 *0.630*	6,4 *0.252*	45,0	10,0 °	■		■													■		
335.18-160608-M12	0,0 –	16,0 *0.630*	6,4 *0.252*	0,0	10,0 °													■					

335.19



M08

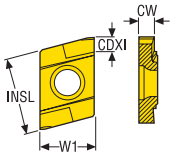


MD09



Designation	CHW	L	IC	KCH°	GAN	Grades Coated																Uncoated	
	mm *Inch*	mm *Inch*	mm *Inch*	mm		MP1501	MP2050	MP2501	MP3000	MP3501	MH1000	MM4500	MK1500	MK2050	MS2050	MS2500	T25M	T350M	F15M	F30M	F40M	H15	H25
335.19-1102-M08	0,1 *0.004*	2,3 *0.091*	11,0 *0.433*	45,0	15,0 °																■		
335.19-1103-M08	0,1 *0.004*	2,7 *0.106*	11,0 *0.433*	45,0	15,0 °																■		
335.19-1203-M08	0,15 *0.006*	3,2 *0.126*	12,7 *0.500*	45,0	15,0 °																■		
335.19-1204-M08	0,15 *0.006*	4,0 *0.157*	12,7 *0.500*	45,0	15,0 °																■		
335.19-12045-M08	0,15 *0.006*	4,5 *0.177*	12,7 *0.500*	45,0	15,0 °																■		
335.19-1205-M08	0,15 *0.006*	5,4 *0.213*	12,7 *0.500*	45,0	15,0 °																■		
335.19-1207-M08	0,15 *0.006*	7,0 *0.276*	12,7 *0.500*	45,0	15,0 °																■		
335.19-1203T-MD09	0,1 *0.004*	3,2 *0.126*	12,7 *0.500*	20,0	15,0 °																■		
335.19-12045T-MD09	0,1 *0.004*	4,5 *0.177*	12,7 *0.500*	20,0	15,0 °																■		
335.19-1204T-MD09	0,1 *0.004*	4,0 *0.157*	12,7 *0.500*	20,0	15,0 °																■		
335.19-1205T-MD09	0,1 *0.004*	5,4 *0.213*	12,7 *0.500*	20,0	15,0 °			■									■				■		
335.19-1207T-MD09	0,1 *0.004*	7,0 *0.276*	12,7 *0.500*	20,0	15,0 °																■		

R335.15-13/18



E08



M12



M8



Designation	INSL	W1	CW	CDX	GAN	Grades Coated															Uncoated	
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		MP1501	MP2050	MP2501	MP3000	MP3501	MH1000	MM4500	MK1500	MK2050	MS2050	MS2500	T25M	T350M	F15M	F30M	F40M	H15	H25
R335.15-13110FG-E08	13,5 *0.531*	9,0 *0.354*	1,13 *0.044*	1,8 *0.071*	15,0 °																■	
R335.15-13130FG-E08	13,5 *0.531*	9,0 *0.354*	1,33 *0.052*	2,0 *0.079*	15,0 °																■	
R335.15-13160FG-E08	13,5 *0.531*	9,0 *0.354*	1,63 *0.064*	2,6 *0.102*	15,0 °																■	
R335.15-13185FG-E08	13,5 *0.531*	9,0 *0.354*	1,88 *0.074*	2,6 *0.102*	15,0 °																■	
R335.15-13215FG-E08	13,5 *0.531*	9,0 *0.354*	2,18 *0.086*	3,15 *0.124*	15,0 °																■	
R335.15-13265FG-E08	13,5 *0.531*	9,0 *0.354*	2,68 *0.106*	3,15 *0.124*	15,0 °																■	
R335.15-13215FG-M10	13,5 *0.531*	9,0 *0.354*	2,18 *0.086*	3,15 *0.124*	0,0 °																■	
R335.15-13265FG-M10	13,5 *0.531*	9,0 *0.354*	2,68 *0.106*	3,15 *0.124*	0,0 °																■	
R335.15-18315FG-M12	18,0 *0.709*	9,0 *0.354*	3,2 *0.126*	3,8 *0.150*	0,0 °																■	
R335.15-18350FG-M12	18,0 *0.709*	9,0 *0.354*	3,55 *0.140*	4,1 *0.161*	0,0 °																■	
R335.15-18400FG-M12	18,0 *0.709*	9,0 *0.354*	4,05 *0.159*	4,8 *0.189*	0,0 °																■	
R335.15-18415FG-M12	18,0 *0.709*	9,0 *0.354*	4,2 *0.165*	4,8 *0.189*	0,0 °																■	
R335.15-18500FG-M12	18,0 *0.709*	9,0 *0.354*	5,05 *0.199*	5,5 *0.217*	0,0 °																■	
R335.15-18515FG-M12	18,0 *0.709*	9,0 *0.354*	5,2 *0.205*	5,5 *0.217*	0,0 °																■	

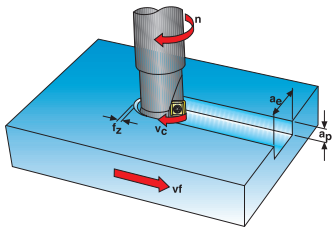
Tolerance (mm): CW: +0/+0.05 - CDX: +0/+0.15

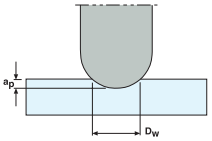


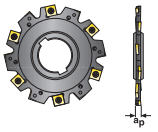
Cutting data calculation		
RPM	$n = \frac{v_c \cdot 1000}{\pi \cdot D_c}$	(rev/min) (inch/min)
Cutting speed	$v_c = \frac{n \cdot \pi \cdot D_c}{1000}$	(m/min) (ft/min)
Feed speed	$v_f = n \cdot ZEFP \cdot f_z$	(mm/min) (inch/min)
Feed per revolution	$f = ZEFP \cdot f_z$	(mm/rev) (inch/rev)
Material removal rate	$Q = \frac{a_e \cdot a_p \cdot v_f}{1000}$	(cm^3/min) ($inch^3$/min)
Cutting speed and RPM for copying	$v_c = \frac{n \cdot \pi \cdot D_w}{1000}$	(m/min) (ft/min)
	$D_w = 2 \cdot \sqrt{a_p (D_c - a_p)}$	(mm) (inch)
	$n = \frac{v_c \cdot 1000}{\pi \cdot D_w}$	(RPM)

Effective No. of teeth (ZEFP)
The effective No. of teeth (ZEFP) is used to calculate the feed speed (v_f) and the feed per revolution (f).
For most of the cutters the effective No. of teeth (ZEFP) is equal to the No. of teeth in the cutter (ZNP), but for some of the cutters ZEFP is less than ZNP.

Cutting data calculation





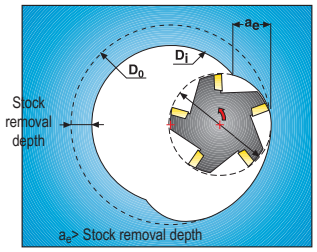


a_e	=	Width of cut mm/radial depth of cut	Example: Disc mill 335.19 Total No. of teeth (ZNP) = 12 Effective No. of teeth (ZEFP) = 6
a_p	=	Depth of cut mm/axial depth of cut	
DC	=	Cutter diameter	Explanation: 6 inserts on one side of the cutter and 6 overlapping inserts on the other side are used to get the full width (a_p) ,which means ZEFP = 6.
f	=	Feed per revolution	
f_z	=	Feed per tooth	
ZEFP	=	Effective No. of teeth for calculation of feed speed or feed per rev (see below)	
n	=	RPM	
Q	=	Material removal rate	
V_c	=	Cutting speed	
v_f	=	Feed speed	
v_f	=	Feed speed	

Cutting data calculation

Internal circular interpolation
When using circular interpolation or helical interpolation ramping to increase the diameter of a hole in a workpiece, the stock removal depth is not the same as the width of cut value. The real width of cut must be calculated from the formula below. The width of cut value is then used for calculation of feed/tooth and feed speed.

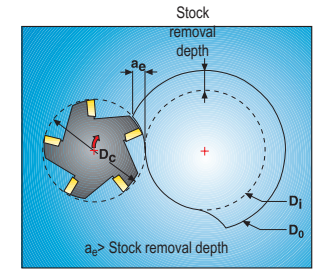
$$a_e = \frac{D_o^2 - D_i^2}{4\,(D_o - D_c)}$$



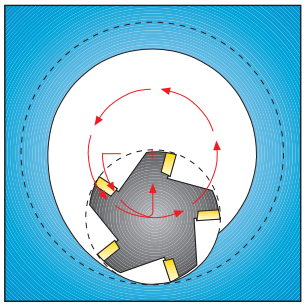
External circular interpolation
When using external circular interpolation or helical interpolation ramping to decrease the diameter of a round workpiece the stock removal depth is not the same as the width of cut value. The real width of cut must be calculated from the formula below.

The width of cut is then used for calculation of feed/tooth and feed speed.

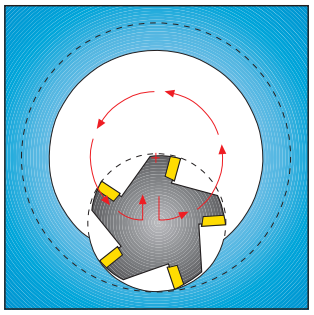
$$a_e = \frac{D_o^2 - D_i^2}{4\,(D_i + D_c)}$$



Increase the width of cut successively to full value
For circular interpolation operations it is recommended to successively increase the width of cut up to full value. When using radial infeed up to full width of cut, reduce the feed/tooth and feed speed to half.

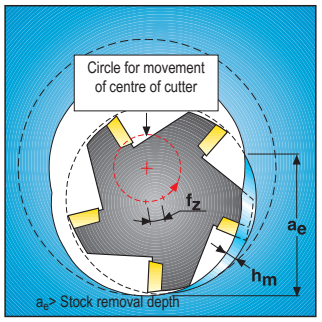


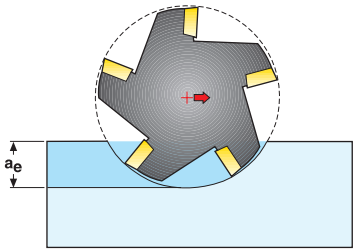
Successive increase of width of cut – recommended method.



Radial infeed – Reduce feed/tooth.

Feed speed related to the centre of the cutter
When calculating feed speed and feed/tooth from average chip thickness using circular interpolation or helical interpolation ramping in an operation, the feed speed and feed/tooth are always related to the centre and not to the periphery of the cutter.



Side milling	
	Relative engagement of the cutter diameter (a_e/DC=%) 30% 20% 10% 5% Multiply the feed per tooth by the following factor 1.25 1.5 2.0 3.0

This table can be used for cutters with cutting edge angle = 90º

a_e/DC %	Feed Per Tooth, mm/tooth (f_z)													Speed Factor
	0,03	0,06	0,08	0,10	0,15	0,20	0,25	0,30	0,40	0,50	0,60	0,80	1,00	
	Average Chip Thickness, mm/tooth (hm)													
Width of cut up to and including DC/2														
2 (0.02)					0,02	0,03	0,04	0,04	0,06	0,07	0,08	0,11	0,14	1.8
3 (0.03)				0,02	0,03	0,03	0,04	0,05	0,07	0,09	0,10	0,14	0,17	1.7
5 (0.05)			0,02	0,02	0,03	0,04	0,06	0,07	0,09	0,11	0,13	0,18	0,22	1.6
10 (0.10)		0,02	0,02	0,03	0,05	0,06	0,08	0,09	0,12	0,16	0,19	0,25	0,31	1.5
15 (0.15)	0,011	0,02	0,03	0,04	0,06	0,08	0,09	0,11	0,15	0,19	0,23	0,30		1.4
20 (0.20)	0,013	0,03	0,03	0,04	0,06	0,09	0,11	0,13	0,17	0,22	0,26			1.35
30 (0.30)	0,016	0,03	0,04	0,05	0,08	0,10	0,13	0,16	0,21	0,26	0,31			1.3
40 (0.40)	0,018	0,04	0,05	0,06	0,09	0,12	0,15	0,18	0,23	0,29				1.25
50 (0.50)	0,02	0,04	0,05	0,06	0,10	0,13	0,16	0,19	0,25	0,32				1.2
Slotting (Width of cut = DC)														
100 (1.00)	0,02	0,04	0,05	0,06	0,10	0,13	0,16	0,19	0,25	0,32				1.0
= Feed per tooth correction example: at 20% engagement also increase speed by 1.35														

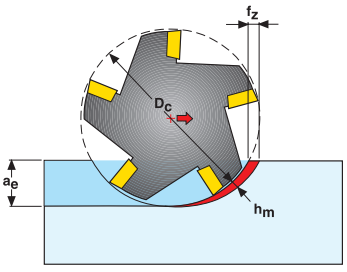
When using side milling it is necessary to increase the feed per tooth to keep the chip thickness at the same value.
It is also possible to increase the cutting speed and keep the same tool life. Use the tables below.

a_e/D_c %	Feed Per Tooth, in/tooth (fz)													Speed Factor
	.0012	.0024	.0031	.004	.006	.008	.010	.012	.016	.020	.024	.031	.039	
	Average Chip Thickness, in/tooth (hm)													
Width of cut up to and including Dc/2														
2 (0.02)					.0008	.0012	.0016	.0016	.0024	.0028	.0031	.0043	.0055	1.8
3 (0.03)				.0008	.0012	.0012	.0016	.0020	.0028	.0035	.0039	.0055	.0067	1.7
5 (0.05)			.0008	.0008	.0012	.0016	.0024	.0028	.0035	.0043	.0051	.0071	.0087	1.6
10 (0.10)		.0008	.0008	.0012	.0020	.0024	.0031	.0035	.0047	.0063	.0075	.0098	.0122	1.5
15 (0.15)	.0004	.0008	.0012	.0016	.0024	.0031	.0035	.0043	.0059	.0075	.0091	.0118		1.4
20 (0.20)	.0005	.0012	.0012	.0016	.0024	.0035	.0043	.0051	.0067	.0087	.0102			1.35
30 (0.30)	.0006	.0012	.0016	.0020	.0031	.0039	.0051	.0063	.0083	.0102	.0122			1.3
40 (0.40)	.0007	.0016	.0020	.0024	.0035	.0047	.0059	.0071	.0091	.0114				1.25
50 (0.50)	.0008	.0016	.0020	.0024	.0039	.0051	.0063	.0075	.0098	.0126				1.2
Slotting (Width of cut = Dc)														
100 (1.00)	.0008	.0016	.0020	.0024	.0039	.0051	.0063	.0075	.0098	.0126				1.0
= Feed per tooth correction example: at 20% engagement also increase speed by 1.35														

Instead of using the table above for calculating hm and fz, the following formula could be used if a_e/DC < 30%.

$$h_m = f_z \cdot \sqrt{\frac{a_e}{D_c}}$$

$$f_z = h_m \cdot \sqrt{\frac{D_c}{a_e}}$$



This table can be used for cutters with cutting edge angle = 45º

a_e/DC %	Feed Per Tooth, mm/tooth (f_z)													Speed Factor
	0,03	0,06	0,08	0,10	0,15	0,20	0,25	0,30	0,40	0,50	0,60	0,80	1,00	
	Average Chip Thickness, mm/tooth (hm)													
Width of cut up to and including DC/2														
2 (0.02)					0,01	0,02	0,02	0,03	0,04	0,05	0,06	0,08	0,10	1.8
3 (0.03)				0,01	0,02	0,02	0,03	0,04	0,05	0,06	0,07	0,10	0,12	1.7
5 (0.05)			0,01	0,02	0,02	0,03	0,04	0,05	0,06	0,08	0,09	0,13	0,16	1.6
10 (0.10)		0,01	0,02	0,02	0,03	0,04	0,05	0,07	0,09	0,11	0,13	0,18	0,22	1.5
15 (0.15)	0,008	0,02	0,02	0,03	0,04	0,05	0,07	0,08	0,11	0,13	0,16	0,21		1.4
20 (0.20)	0,009	0,02	0,02	0,03	0,05	0,06	0,08	0,09	0,12	0,15	0,18			1.35
30 (0.30)	0,011	0,02	0,03	0,04	0,05	0,07	0,09	0,11	0,15	0,18	0,22			1.3
40 (0.40)	0,012	0,02	0,03	0,04	0,06	0,08	0,10	0,12	0,17	0,21				1.25
50 (0.50)	0,01	0,03	0,04	0,05	0,07	0,09	0,11	0,14	0,18	0,23				1.2
Face milling full engagement (Width of cut = DC)														
100 (1.00)	0,02	0,04	0,05	0,06	0,10	0,13	0,16	0,19	0,25	0,32				1.0

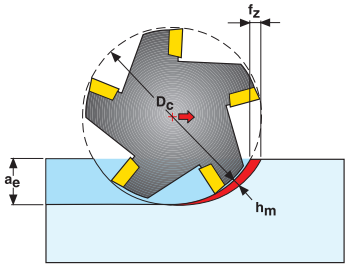
When using side milling it is necessary to increase the feed per tooth to keep the chip thickness at the same value.
It is also possible to increase the cutting speed and keep the same tool life. Use the tables below.

a_e/D_c %	Feed Per Tooth, in/tooth (f_z)													Speed Factor
	.0012	.0024	.0031	.004	.006	.008	.010	.012	.016	.020	.024	.031	.039	
	Average Chip Thickness, in/tooth (hm)													
Width of cut up to and including D_c/2														
2 (0.02)					.0004	.0008	.0008	.0012	.0016	.0020	.0024	.0031	.0039	1.8
3 (0.03)				.0004	.0008	.0008	.0012	.0016	.0020	.0024	.0028	.0039	.0047	1.7
5 (0.05)			.0004	.0008	.0008	.0012	.0016	.0020	.0024	.0031	.0035	.0051	.0063	1.6
10 (0.10)		.0004	.0008	.0008	.0012	.0016	.0020	.0028	.0035	.0043	.0051	.0071	.0087	1.5
15 (0.15)	.0003	.0008	.0008	.0012	.0016	.0020	.0028	.0031	.0043	.0051	.0063	.0083		1.4
20 (0.20)	.0004	.0008	.0008	.0012	.0020	.0024	.0031	.0035	.0047	.0059	.0071			1.35
30 (0.30)	.0004	.0008	.0012	.0016	.0020	.0028	.0035	.0043	.0059	.0071	.0087			1.3
40 (0.40)	.0005	.0008	.0012	.0016	.0024	.0031	.0039	.0047	.0067	.0083				1.25
50 (0.50)	.0004	.0012	.0016	.0020	.0028	.0035	.0043	.0055	.0071	.0091				1.2
Face milling full engagement (Width of cut = D_c)														
100 (1.00)	.0004	.0012	.0016	.0020	.0028	.0035	.0043	.0055	.0071	.0091				1.0

Instead of using the table above for calculating hm and fz, the following formula could be used if a_e/DC < 30%.

$$h_m = f_z \cdot \sqrt{\frac{a_e}{D_c}}$$

$$f_z = h_m \cdot \sqrt{\frac{D_c}{a_e}}$$



This table can be used for cutters with cutting edge angle = 60º

a_e/DC %	Feed Per Tooth, mm/tooth (f_z)													Speed Factor
	0,03	0,06	0,08	0,10	0,15	0,20	0,25	0,30	0,40	0,50	0,60	0,80	1,00	
	Average Chip Thickness, mm/tooth (hm)													
Width of cut up to and including DC/2														
2 (0.02)					0,02	0,02	0,03	0,04	0,05	0,06	0,07	0,10	0,12	1.8
3 (0.03)				0,01	0,02	0,03	0,04	0,04	0,06	0,07	0,09	0,12	0,15	1.7
5 (0.05)			0,02	0,02	0,03	0,04	0,05	0,06	0,08	0,10	0,12	0,15	0,19	1.6
10 (0.10)		0,02	0,02	0,03	0,04	0,05	0,07	0,08	0,11	0,13	0,16	0,22	0,27	1.5
15 (0.15)	0,010	0,02	0,03	0,03	0,05	0,07	0,08	0,10	0,13	0,16	0,20	0,26		1.4
20 (0.20)	0,011	0,02	0,03	0,04	0,06	0,07	0,09	0,11	0,15	0,19	0,22			1.35
30 (0.30)	0,013	0,03	0,04	0,04	0,07	0,08	0,11	0,13	0,18	0,22	0,27			1.3
40 (0.40)	0,015	0,03	0,04	0,05	0,08	0,10	0,13	0,15	0,20	0,25				1.25
50 (0.50)	0,02	0,03	0,04	0,06	0,08	0,11	0,14	0,17	0,22	0,28				1.2
Face milling full engagement (Width of cut = DC)														
100 (1.00)	0,02	0,04	0,05	0,06	0,10	0,13	0,16	0,19	0,25	0,32				1.0

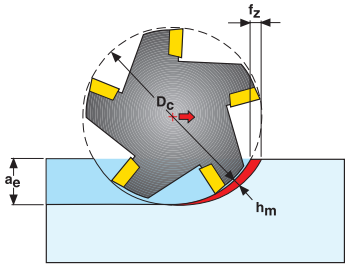
When using side milling it is necessary to increase the feed per tooth to keep the chip thickness at the same value.
It is also possible to increase the cutting speed and keep the same tool life. Use the tables below.

a_e/D_c %	Feed Per Tooth, in/tooth (f_z)													Speed Factor
	.0012	.0024	.0031	.004	.006	.008	.010	.012	.016	.020	.024	.031	1,00	
	Average Chip Thickness, in/tooth (hm)													
Width of cut up to and including D_c/2														
2 (0.02)					.0008	.0008	.0012	.0016	.0020	.0024	.0028	.0039	.0047	1.8
3 (0.03)				.0004	.0008	.0012	.0016	.0016	.0024	.0028	.0035	.0047	.0059	1.7
5 (0.05)			.0008	.0008	.0012	.0016	.0020	.0024	.0031	.0039	.0047	.0059	.0075	1.6
10 (0.10)		.0008	.0008	.0012	.0016	.0020	.0028	.0031	.0043	.0051	.0063	.0087	.0106	1.5
15 (0.15)	.0004	.0008	.0012	.0012	.0020	.0028	.0031	.0039	.0051	.0063	.0079	.0102		1.4
20 (0.20)	.0004	.0008	.0012	.0016	.0024	.0028	.0035	.0043	.0059	.0075	.0087			1.35
30 (0.30)	.0005	.0012	.0016	.0016	.0028	.0031	.0043	.0051	.0071	.0087	.0102			1.3
40 (0.40)	.0006	.0012	.0016	.0020	.0031	.0039	.0051	.0059	.0079	.0098				1.25
50 (0.50)	.0008	.0012	.0016	.0024	.0031	.0043	.0055	.0067	.0087	.0110				1.2
Face milling full engagement (Width of cut = D_c)														
100 (1.00)	.0008	.0012	.0016	.0024	.0031	.0043	.0055	.0067	.0087	.0110				1.0

Instead of using the table above for calculating hm and fz, the following formula could be used if $a_e/DC < 30\%$.

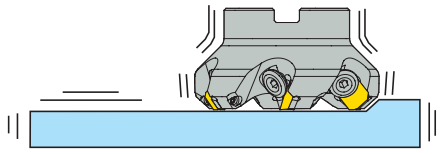
$$h_m = f_z \cdot \sqrt{\frac{a_e}{D_C}}$$

$$f_z = h_m \cdot \sqrt{\frac{D_C}{a_e}}$$

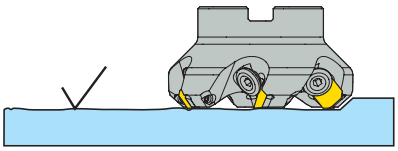


Trouble shooting carbide milling

Vibrations



- Improve the stability of cutter and workpiece.
- Change cutter positioning.
- Minimize tool overhang.
- Reduce the cutting speed.
- Increase the feed rate.
- Reduce the depth of cut.
- Select a different insert geometriy, see page Insert geometry
- Use Steadyline antivibration bar



- Improve the stability of cutter and workpiece.
- Minimize tool overhang.
- Reduce the feed rate.
- Incease the cutting speed
- Use coolant.
- Use wiper inserts.
- Keep feed/rev value within wiper width
- Use Steadyline antivibration bar

Tool life problems

Rapid flank wear



- Reduce the cutting speed.
- Increase the feed rate.
- Climb milling.

Comb cracks



- Reduce the cutting speed.
- Reduce the feed rate.
- No coolant
- Change cutter positioning.

Rapid notch wear



- Reduce the cutting speed.
- Increase the feed rate.
- Increase the depth of cut.
- Climb milling.
- Change cutter positioning

Built-up edge (BUE)



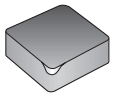
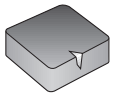
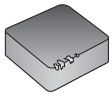
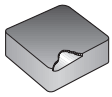
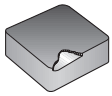
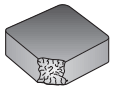
- Increase the cutting speed.
- Increase the feed rate
- No coolant.
- Climb milling.
- Change cutter positioning

Chipping

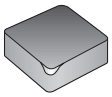
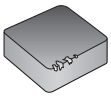


- Increase the cutting speed.
- reduce the feed rate.
- Conventional milling.
- Improve chip evacuation.
- Change cutter positioning.
- Minimize tool overhang.
- Improve stability.

Troubleshooting – PCBN

Problem	Cause	Suggested action(s)
Flank wear 	Not correct edge temperature	• Increase cutting speed • Increase feed rate • Increase depth of cut • Check cutting tool centre height • Check the ferrite content
Crater wear 	Not correct edge temperature	• Decrease cutting speed • Decrease feed rate • Reduce chamfer angle • Use E edge preparation • Use coated insert • Use coolant (only in continuous cut)
Notch wear 	Not correct edge temperature Too high cutting forces	• Increase cutting speed • Decrease feed rate • Increase insert approach angle (preferably round inserts) • Vary the depth of cut • Use inserts with chamfered cutting edges
Edge chipping 	Too high cutting forces	• Use inserts with chamfered cutting edges • Increase system rigidity • For interrupted cuts, chamfer the tool entry/exit slots and holes • Vary the cutting speed to eliminate vibrations
Edge flaking (continuous cut) 	Too high cutting forces	• Increase cutting speed • Reduce feed rate • Use chamfered and honed cutting edges • Check cutting tool center height • Reduce insert approach angle
Edge flaking (interrupted cut) 	Too high cutting forces	• Do not use coolant • Use chamfered and honed cutting edges • Reduce feed rate • Increase cutting speed • Check cutting tool centre height • Reduce insert approach angle
Edge breakage 	Too high cutting forces	• Reduce depth of cut • Reduce cutting speed • Increase nose radius • Use chamfered and honed inserts • Check cutting tool center height
Insert breakage 	Too high cutting forces	• Check insert seating • Check insert shim and insert clamp • Check cutting tool centre height

Troubleshooting – PCD

Problem	Cause	Suggested action(s)
Flank wear 	Wrong grade Precense of Fe/Ni/Co	• Change to coarser PCD grade • Check material composition • Reduce cutting speed • Use coolant
Built-up edge 	Not correct edge temperature Wrong grade	• Decrease or increase cutting speed • Choose a sharper insert • Change to a finer grade
Edge chipping 	Poor rigidity Wrong grade Incorrect cutting data High run-out	• Minimize vibrations • Change to a tougher grade • Change cutting data • Check set-up
Poor surface finish	Wrong grade Too high cutting data Incrrect wiper position	• Change to a finer PCD grade • Reduce cutting speed and feed rate • Check wiper position
Flaking of workpiece	Too high depth of cut	• Decrease depth of cut • Add entry chamfer on component

Torque keys, insert keys and Combimaster tightening torque

The range of Torque keys with fixed torque values are available in combinations of key grip/torque value for insert locking for most of the Seco milling products. By using a Torque key you always ensure the correct tightening force when mounting the insert.
Torque keys are calibrated according to ISO 6789.

Code key: T00-15P35

T00 = Torque screw driver type for Torx Plus blade
T00T= Torque T-handle type for Torx Plus blade

15P= Torx Plus size
35 = Torque value 3,5 Nm

Please observe that blades are not interchangeable between screw driver type and T-handle type.
Torx Plus® is a registered trade mark belonging to
Camcar-Textron (USA)

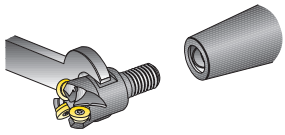
Torque key*	Replaceable blade	Torx Plus size	Torque value Nm/in.lbs
			
T00-06P05	T00-06P	T06P	0,5 / *4.4*
T00-07P05	T00-07P	T07P	0,5 / *4.4*
T00-07P09	T00-07P	T07P	0,9 / *8.0*
T00-08P12	T00-08P	T08P	1,2 / *10.6*
T00-08P20	T00-08P	T08P	2,0 / *17.7*
T00-09P09	T00-09P	T09P	0,9 / *8.0*
T00-09P12	T00-09P	T09P	1,2 / *10.6*
T00-09P20	T00-09P	T09P	2,0 / *17.7*
T00-10P20	T00-10P	T10P	2,0 / *17.7*
T00-10P30	T00-10P	T10P	3,0 / *26.6*
T00-10P35	T00-10P	T10P	3,5 / *31.0*
T00-15P20	T00-15P	T15P	2,0 / *17.7*
T00-15P30	T00-15P	T15P	3,0 / *26.6*
T00-15P35	T00-15P	T15P	3,5 / *31.0*
T00-15P40	T00-15P	T15P	4,0 / *35.4*
T00-15P50	T00-15P	T15P	5,0 / *44.3*
T00-20P35	T00-20P	T20P	3,5 / *31.0*
T00-20P50	T00-20P	T20P	5,0 / *44.3*
*Including blade			

Torque key*	Replaceable blade	Torx Plus size	Torque value Nm/in.lbs
			
T00T-15P50	T00T-15P	T15P	5,0 / *44.3*
T00T-20P50	T00T-20P	T20P	5,0 / *44.3*
T00T-20P60	T00T-20P	T20P	6,0 / *53.1*
T00T-20P80	T00T-20P	T20P	8,0 / *70.8*
T00T-25P50	T00T-25P	T25P	5,0 / *44.3*
T00T-25P60	T00T-25P	T25P	6,0 / *53.1*
T00T-25P80	T00T-25P	T25P	8,0 / *70.8*
T00T-30P80	T00T-30P	T30P	8,0 / *70.8*
*Including blade			

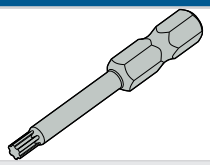
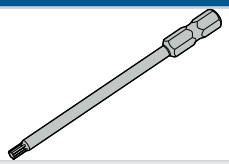
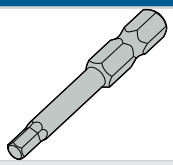
Torx Plus size	Torx Plus bit - short	Torx Plus bit - long	Key (T-handle)
			
T06P	H4B-T06P	-	DOUBLE-T
T07P	H4B-T07P	-	DOUBLE-T
T08P	H4B-T08P	-	DOUBLE-T
T09P	H4B-T09P	-	DOUBLE-T
T10P	H4B-T10P	-	DOUBLE-T
T15P	H4B-T15P	H4B-T15PL	DOUBLE-T
T20P	H6B-T20P	H6B-T20PL	DOUBLE-T
T25P	H6B-T25P	H6B-T25PL	DOUBLE-T
T30P	-	H6B-T30PL	DOUBLE-T

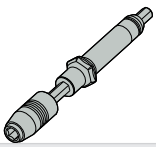
Hexagonal size	Hexagonal bit - short	Hexagonal bit - long	Key (T-handle)
			
3,0 mm	H6B-3.0	-	DOUBLE-T
5,0 mm	-	H6B-H5.0L	DOUBLE-T

Combimaster size M	Tightening torque
M6	10 Nm
M8	25 Nm
M10	40 Nm
M12	60 Nm
M16	80 Nm
M20	120 Nm



1/4” Hex Drive Bits and Adjustable Torque handles.

Size	Torx Plus bits (50 mm / 1.96 Inch)	Torx Plus bits (90 mm / 3.54 Inch)	Hexagonal bits (50 mm / 1.96 Inch)
			
Torx Plus - T05P	1/4HEX-T05Px50	-	
Torx Plus - T06P	1/4HEX-T06Px50	-	
Torx Plus - T07P	1/4HEX-T07Px50	-	
Torx Plus - T08P	1/4HEX-T08Px50	1/4HEX-T08Px90	
Torx Plus - T09P	1/4HEX-T09Px50	1/4HEX-T09Px90	
Torx Plus - T10P	1/4HEX-T10Px50	1/4HEX-T10Px90	
Torx Plus - T15P	1/4HEX-T15Px50	1/4HEX-T15Px90	
Torx Plus - T20P	1/4HEX-T20Px50	1/4HEX-T20Px90	
Torx Plus - T25P	1/4HEX-T25Px50	1/4HEX-T25Px90	
Torx Plus - T30P	1/4HEX-T30Px50	-	
Hexagonal - 2,5mm	-	-	1/4HEX-H2.5x50
Hexagonal - 4,0mm	-	-	1/4HEX-H4.0x50
Hexagonal - 5,0mm	-	-	1/4HEX-H5.0x50

Adjustable torque S-handle 0,8 - 5,0 Nm (7.1 - 44.0 in.lbs) *	Bit holder for S-HANDLE **	Adjustable torque T-handle 5,0 - 14,0 Nm (44.0 - 123.9 in.lbs) *	Bit holder for T-HANDLE ***
			
1/4HEX-S-HANDLE-0.8-5.0NM	1/4HEX-BITHOLDER-S	1/4HEX-T-HANDLE-5.0-14.0NM	1/4HEX-BITHOLDER-T

* Including Bit holder
**The bit holder is also compatible with the fixed Torque keys.
*** The bit holder is also compatible with the fixed T-handle Torque keys.

Steels, ferritic and martensitic stainless steels

SMG	Description	Properties	Reference	$k_{c1.1}$	m_c
P1	Free-cutting steels	360 < R_m < 880	11 SMn30 R_m = 385 N/mm^2	1500	0,14
P2	Low-alloy ferritic steels, C < 0.25%wt Low-alloy weldable general structural steels	320 < R_m < 600	S235JRG2 R_m = 420 N/mm^2	1600	0,23
P3	Ferritic & ferritic/pearlitic steels, C < 0.25%wt Weldable general structural steels Case-hardening steels	430 < R_m < 610	16 MnCr 5 R_m = 550 N/mm^2	1800	0,14
P4	Low-alloy general structural steels, 0.25% < C < 0.67%wt Low-alloy Quench & Temper steels	520 < R_m < 1200	C 45E R_m = 660 N/mm^2	2000	0,15
P5	Structural steels, 0.25% < C < 0.67%wt Quench & Temper steels	550 < R_m < 1200	42 CrMo 4 R_m = 700 N/mm^2	2020	0,18
P6	Low-alloy through-hardening steels, C > 0.67%wt Low-alloy spring and bearing steels	520 < R_m < 1200	C 100S R_m = 600 N/mm^2	2100	0,17
P7	Through-hardening steels, C > 0.67%wt Spring and bearing steels	600 < R_m < 1200	100 Cr 6 R_m = 650 N/mm^2	2160	0,17
P8	Tool steels High Speed Steels (HSS)	600 < R_m < 1200	X 40 CrMoV 5 1 R_m = 700 N/mm^2	2400	0,20
P11	Ferritic & martensitic stainless steels	415 < R_m < 1200	X 20 Cr 13 R_m = 675 N/mm^2	2000	0,15
P12	Maraging and precipitation-hardening stainless steels	500 < R_m < 1200	X 5 CrNiCuNb 16 4 R_m = 1100 N/mm^2	2100	0,17

Free-cutting, austenitic and duplex stainless steels

SMG	Description	Properties	Reference	$k_{c1.1}$	m_c
M1	Free-cutting austenitic stainless steels		X 10 CrNiS 18 9	1700	0,14
M2	Low-alloy austenitic stainless steels		X 5 CrNi 18 10	1920	0,18
M3	Medium-alloy austenitic stainless steels		X 2 CrNiMo 18 14 3	2070	0,17
M4	High-alloy austenitic and duplex stainless steels		X 2 CrNiMoN 22 5 3	2230	0,16
M5	Difficult high-alloy austenitic and duplex stainless steels		X 2 CrNiMoN 25 7 4	2510	0,13

Cast irons

SMG	Description	Properties	Reference	$k_{c1.1}$	m_c
K1	Grey cast irons (GCI)		EN-GJL-250	930	0,32
K2	Compacted graphite irons (CGI)		EN-GJV-400	1000	0,35
K3	Malleable cast irons (MCI)		EN-GJMB-550-4	1050	0,37
K4	Nodular cast irons (SGI)		EN-GJS-500-7	1160	0,37
K5	Austempered ductile irons (ADI)		EN-GJS-1000-5		
K6	Austenitic lamellar cast irons		EN-GJLA-XNiCuCr15-6-2		
K7	Austenitic nodular cast irons		EN-GJSA-XNiMn23-4		

Non-ferrous metals

SMG	Description	Properties	Reference	$k_{c1.1}$	m_c
N1	Aluminium alloys, Si < 9%		AW-7075		
N2	Aluminium alloys, 9% < Si < 16%		AC-44200 Si = 12%		
N3	Aluminium alloys, Si >16%		AlSi17Cu5		
N11	Copper alloys		CW614N	740	0,26

Superalloys and titanium

SMG	Description	Properties	Reference	$k_{c1.1}$	m_c
S1	Iron-based superalloys		Discalloy		
S2	Cobalt-based superalloys		Stellite 21		
S3	Nickel-based superalloys		Inconel 718	2530	0,21
S11	Titanium, low alloyed, (α)		Ti		
S12	Titanium, medium alloyed, (α+β)		TiAl6V4	1500	0,24
S13	Titanium, high alloyed, (near β and β)		Ti10V2Fe3Al		

Hard materials

SMG	Description	Properties	Reference	$k_{c1.1}$	m_c
H3	Case-hardened steels	58 < HRC < 62	16 MnCr 5 60 HRC	2070	0,14
H5	Quenched & Tempered steels	38 < HRC < 56	42 CrMo 4 50 HRC	2320	0,18
H7	Quenched & Tempered steels Bearing steels	56 < HRC < 64	100 Cr 6 60 HRC	2480	0,17
H8	Tool steels High Speed Steels (HSS)	38 < HRC < 64	X 40 CrMoV 5 1 50 HRC	2750	0,20
H11	Martensitic stainless steels	38 < HRC < 50	X 20 Cr 13 45 HRC	2300	0,15
H12	Maraged and precipitation-hardened stainless steels	1200 < R_m < 1650	X 5 CrNiCuNb 16 4 R_m = 1450 N/mm^2	2410	0,17
H21	Manganese steels	23 < HRC < 64	X 120 Mn 12 50 HRC		
H31	White cast irons	50 < HRC < 64	EN-GJN-HV600(XCr11) 55 HRC		

Other difficult materials

SMG	Description	Properties	Reference	$k_{c1.1}$	m_c
PM1	Low-alloy PM-materials		F-0008 Fe-0.7C		
PM2	Medium-alloy PM-materials		FLC-4608 Fe2Cu1.8Ni 0.5Mo0.2Mn0.8C		
PM3	High-alloy PM-materials Exhaust valve seat materials, etc.				
HF1	Hardfacing alloys Welded or plasma-deposited iron-based alloys				
HF2	Hardfacing alloys Welded or plasma-deposited cobalt- and nickel-based alloys				
CC1	Sintered tungsten carbide		G50		

Plastics and Composites

SMG	Description	Properties	Reference	$k_{c1.1}$	m_c
TS1	Thermosetting polymers		Urea formaldehyde (UF)		
TS2	Thermosetting carbon-fibre composites		T300 T700 T800 HTA-S IMA - Epoxy (M21)...		
TS3	Thermosetting glass-fibre composites		Epoxy - HX..(42..)/E glass (7781...)...		
TS4	Thermosetting aramide-fibre composites		Kevlar 49		
TP1	Thermoplastic polymers		Polycarbonate (PC)		
TP2	Thermoplastic carbon-fibre composites		PPS/PEEK - T300..		
TP3	Thermoplastic glass-fibre composites		PPS/PEEK - E-glass or A-glass...		
TP4	Thermoplastic aramide-fibre composites				

Graphite

SMG	Description	Properties	Reference	$k_{c1.1}$	m_c
GR1	Graphite		R 8500		

SMG

SMG	EN	EN-Nr	W.-Nr	DIN	AFNOR	BS	UNI	JIS	SS	UNS
	11 SMn 30	1.0715	1.0715	9 SMn 28	S 250	230 M 07	CF 9 SMn 28	SUM 22	1912	G12130
	11 SMnPb 30	1.0718	1.0718	9 SMnPb 28	S 250 Pb		CF 9 SMnPb 28	SUM 22 L	1914	G12134
	10 S 20	1.0721	1.0721	10 S 20	10 F 1	210 M 15	CF 10 S 20			
			1.0722	10 SPb 20	10 PbF 2		CF 10 SPb 20			
P1	15 SMn 13	1.0725	1.0723	15 S 20		210 A 15		SUM 32	1922	
	35 S20	1.0726	1.0726	35 S 20	35 MF 4	212 M 36			1957	G11400
	46 S20	1.0727	1.0727	46 S 20	45 MF 4	212 M 44			1973	G11460
	11 SMn 37	1.0736	1.0736	9 SMn 36	S 300	240 M 07	CF 9 SMn 36			G12150
	11 SMn 37	1.0736	1.0736	9 SMn 36	S 300	240 M 07	CF 9 SMn 36			G12150
	S235JR	1.0037	1.0037	St 37-2	E 24-2		Fe 360 B	STKM 12 C	1311	
	S235JRG2	1.0038	1.0116	St 37-3	E 24-3, E 24-4	4360-40 C	Fe 360 D FF		1312, 1313	
	S275J2G3	1.0144	1.0144	St 44-3 N	E 28-3, E 28-4	4360-43 C	Fe 430 D FF	SM 41 C	1412, 1414	
	C 10	1.0301	1.0301	C 10	34 C 10, XC 10	045 M 10	C 10	S 10 C		G10100
P2			1.0401	C 15	37 C 12, XC 18	080 M 15	C 15, C 16		1350	G10170
	C22	1.0402	1.0402	C 22	C 20	050 A 20	C 20, C 21		1450	G10200
	S355JR	1.0570	1.0570	St 52-3	E 36-3, E 36-4	4360-50 C	Fe 510 B	SM 50 YA	2172, 2132	
	C 15R	1.1141	1.1141	Ck 15	XC 15, XC 18	080 M 15	C 15, C 16	S 15 C, S 15 CK	1370	G10170
			1.1158	Ck 25	XC 25	060 A 25	C 25	S 25 C		G10250
			1.2162	21 MnCr 5	20 NC 5			SCR 420 H		
	16 Mo 3	1.5415	1.5415	15 Mo 3	15 D 3	1501-240	16 Mo 3		2912	
			1.5423	16 Mo 5		1503-245-420	16 Mo 5	SB 450 M		G45200
	14 NiCr 14	1.5752	1.5752	14 NiCr 14	12 NC 15	655 M 13		SNC 815 (H)		G33106
			1.5919	15 CrNi 6	16 NC 6	S 107	16 CrNi 4			
	18 NiCrMo 7 6	1.6587	1.6587	18 CrNiMo 7 6	18 NCD 6	820 A 16	18 NiCrMo 7			
P3	16 MnCr 5	1.7131	1.7131	16 MnCr 5	16 MC 5	527 M 17	16 MnCr 5	SCR 415	2511	G51170
	16 MnCrS 5	1.7139	1.7139	16 MnCrS 5						
	20 MnCr 5	1.7147	1.7147	20 MnCr 5	20 MC 5		20 MnCr 5	SMnC 420 (H)		G51200
	20 MnCrS 5	1.7149	1.7149	20 MnCrS 5	20 MnCrS 5			SMnC 21 H		
	13 CrMo 4 5	1.7335	1.7335	13 CrMo 4 4	15 CD 3.5	1501-620 Gr. 27	14 CrMo 4 5		2216	
			1.7337	16 CrMo 4 4	15 CD 4.5	1501-620 Gr. 27	14 CrMo 4 5		2216	
	10 CrMo 9 10	1.7380	1.7380	10 CrMo 9 10	10 CD 9.10	1501-622 Gr. 31	12 CrMo 9 10		2218	J21890
	C35		1.0501	C 35	55 C 35	060 A 35	C 35		1550	G10350
	E 335	1.0503	1.0503	C 45	65 C 45	80 M 46	C 45	S 45 C	1650	G10430
	C40		1.0511	C 40	60 C 40	080 M 40	C 40	S 40 C		
	E 360	1.0070	1.0535	St 70-2	A 70-2		Fe 690		1655	
	C60	1.0601	1.0601	C 60	CC 55	080 A 62	C 60			G10600
P4			1.1157	40 Mn 4	35 M 5	150 M 36				G10390
	G 28 Mn6	1.1165	1.1165	30 Mn 5		120 M 36		SMn 1 H, SCMn 2		G13300
	C 35E	1.1181	1.1181	Ck 35	XC 38 H1	080 M 36	C 35	S 35 C	1572	G10340
	C 45E	1.1191	1.1191	Ck 45	XC 42	080 M 46	C 45	S 45 C	1672	G10420
	C 60E	1.1221	1.1221	Ck 60	XC 60	080 A 62	C 60	S 58 C	1665, 1678	G10640
			1.1740	C 60 W	Y3 55			SK 7		
	55 SiCr7	1.7100	1.0904	55 Si 7	55 S 7	250 A 53	55 Si 8		2085, 2090	
			1.2330	35 CrMo 4	34 CD 4	708 A 37	35 CrMo 4		2234	T51620
			1.2542	45 WCrV 7		BS 1	45 WCrV 8 KU		2710	T41901
		1.2714	1.2714	56 NiCrMoV 7		BH 224-5	56 NiCrMoV7-KU	SKT 4		T61206
			1.5121	46 MnSi 4						
			1.5710	36 NiCr 6	35 NC 6	640 A 35		SNC 236		
			1.5736	36 NiCr 10	35 NC 11		35 NiCr 9	SNC 631 (H)		
	36 CrNiMo 4		1.6511	36 CrNiMo 4	40 NCD 3	816 M 40	38 NiCrMo 4 (KB)			G98400
P5	34 CrNiMo 6	1.6582	1.6582	34 CrNiMo 6	35 NCD 6	817 M 40	35 NiCrMo 6 (KW)	SNCM 447	2541	G43400
	34 Cr 4	1.7033	1.7033	34 Cr 4	32 C 4	530 A 32	34 Cr 4 (KB)	SCR 430 (H)		G51320
	41 Cr 4	1.7035	1.7035	41 Cr 4	42 C 4	530 M 40	41 Cr 4	SCR 440 (H)		G51400
	25 CrMo 4	1.7218	1.7218	25 CrMo 4	25 CD 4 S	708 M 25	25 CrMo 4 (KB)	SCM 425	2225	G41300
	42 CrMo 4	1.7225	1.7225	42 CrMo 4	42 CD 4	708 M 40	42 CrMo 4	SCM 440 (H)	2244	G41400
	42 CrMo 4	1.7225	1.7225	42 CrMo 4	42 CD 4	708 M 40	42 CrMo 4	SCM 440 (H)	2244	G41400
			1.7361	32 CrMo 12	30 CD 12	722 M 24	32 CrMo 12		2240	
	50 CrV 4	1.8159	1.8159	50 CrV 4	50 CV 4	735 A 50	51 CrV 4	SUP 10	2230	H61500
	41 CrAlMo 7 10	1.8509	1.8509	41 CrAlMo 7	40 CAD 6.12	905 M 39	41 CrAlMo 7	SACM 645	2940	K24065
	C 67S	1.1231	1.1231	Ck 67	XC 68	060 A 67	C 70		1770	G10700
	C 100S	1.1274	1.1274	Ck 101		060 A 96		SUP 4	1870	G10950
P6	C 105U	1.1545	1.1545	C 105 W1	Y1 105		C 100 KU		1880	
			1.1645	C 105 W2	Y1 105		C 100 KU	SK 3		
			1.1663	C 125 W	Y2 120		C 120 KU	SK 2		

SMG

U.N.E./ I.H.A.	AISI / ASTM	GOST	ČSN	Misc. Brands	Condition	Structure
	1213				Annealed	
	12 L 13				Annealed	
	1108				Annealed	
	11 L 08				Annealed	
					Annealed	
	1140	40			Annealed	
	1146				Annealed	
	1215				Annealed	
	12 L 14				Annealed	
		16D			Annealed	
	A573 Grade 58	18kp	11 378		Annealed	
	A573 Grade 70	St14kP	11 448		Annealed	
	1010	10			Annealed	
F.1110	1015	15			Annealed	
	1020, 1023	20	12 024		Annealed	
		17G1S	11 523		Annealed	
F.1511	1015	15			Annealed	
F.1120	1025	25			Annealed	
					Annealed	
	A204 Grade A		15 020		Annealed	
	4520				Annealed	
	3310, 9314	20X2H4A	16 420		Annealed	
	4320		16 220		Annealed	
					Annealed	
F.1516	5115	12KHN2	14 220		Annealed	
		18HG			Annealed	
	5120	20KH	14 221		Annealed	
	5120 H	20KH			Annealed	
	A182-F11, A182-F12	12KHM	15 121		Annealed	
	A387 Grade 12 Cl. 2				Annealed	
F.155	A182-F22	12KH8	15 313		Annealed	
F.1130	1035	35	12 040		Annealed	
F.5110	1045	45	12 050		Annealed	
	1040	40	12 041		Annealed	
F.1150	1055	55			Annealed	
	1060	60	12 061		Annealed	
	1039	40G			Annealed	
	1330	30G2			Annealed	
F.1135	1035	35			Annealed	
F.1140	1045	45	12 050		Annealed	
F.1150	1064	60			Annealed	
	1060	60			Annealed	
F.144	9255	55S2			Annealed	
F.1250	4135	35KHM			Annealed	
F.5241	S1	5KHV2S			Annealed	
	L6	5KHNV			Annealed	
	5045				Annealed	
	3135				Quenched & Tempered	
	3435				Annealed	
	9840				Quenched & Tempered	
F.1280	4340	38H2N2MA	16 343		Annealed	
	5132	35KH			Quenched & Tempered	
	5140	40H	14 140		Quenched & Tempered	
F.1251	4130	20KHM	15 130		Quenched & Tempered	
F.1252	4142, 4140	38HM	15 142		Annealed	
F.1252	4142, 4140	38HM	15 142		Quenched & Tempered	
					Quenched & Tempered	
F.143	6150	50KHFA	15 260		Quenched & Tempered	
F.1740	A355 Cl. A				Annealed	
F.5103	1070	70			Annealed	
F.5117	1095				Annealed	
F.5118	W1	U10A			Annealed	
		U10			Annealed	
	W1	U13			Annealed	

SMG

SMG	EN	EN-Nr	W.-Nr	DIN	AFNOR	BS	UNI	JIS	SS	UNS
P7	107 CrV 3	1.2210	1.2210	115 CrV 3	100 C 3		107 CrV 3 KU			T61202
			1.2510	100 MnCrW 4	90 MWCV 5	BO 1	95 MnWCr 5 KU	SKS 3	2140	T31501
	90 MnCrV 8	1.2842	1.2842	90 MnCrV 8	90 MV 8	BO 2	90 MnVCr 8 KU			T31502
	100 Cr 6	1.3505	1.3505	100 Cr 6	100 C 6	534 A 99	100 Cr 6	SUJ 2	2258	G51986
P8	X 210 Cr 12	1.2080	1.2080	X 210 Cr 12	Z 200 C 12	BD 3	X 210 Cr 13 KU	SKD 1		T30403
			1.2343	X 38 CrMoV 5 1	Z 38 CDV 5	BH 11	X 37 CrMoV 5 1 KU	SKD 6		T20811
	X 40 CrMoV 5 1	1.2344	1.2344	X 40 CrMoV 5 1	Z 40 CDV 5	BH 13	X 40 CrMo 5 1 1 KU	SKD 61	2242	T20813
	X 100 CrMoV 5	1.2363	1.2363	X 100 CrMoV 5 1	Z 100 CDV 5	BA 2	X 100 CrMoV 5 1 KU	SKD 12	2260	T30102
			1.2365	X 32 CrMoV 3 3	32 DCV 28	BH 10	30 CrMoV 12 27 KU	SKD 7		T20810
			1.2436	X 210 CrW 12			X 215 CrW 12 1 KU	SKD 2	2312	
			1.2601	X 165 CrMoV 12			X 165 CrMoW 12 KU		2310	
			1.2713	55 NiCrMoV 6	55 NCDV 7			SKT 4		T61206
	HS 6-5-2-5	1.3243	1.3243	S 6-5-2-5	Z 85 WDKCV 06-05-05-04-02		HS 6-5-2-5	SKH 55	2723	
	HS 2-10-1-8	1.3247	1.3247	S 2-10-1-8	Z 110 DKCWV 09-08-04	BM 42	HS 2-9-1-8	SKH 51		T11342
	HS 18-1-2-5	1.3255	1.3255	S 18-1-2-5	Z 80 WKCV 18-05-04-01	BT 4	HS 18-1-1-5	SKH 3		T12004
	HS 6-5-2	1.3343	1.3343	S 6-5-2	Z 85 WDCV 06-05-04-02	BM 2	HS 6-5-2	SKH 9, SKH 51	2722	T11302
	HS 2-9-2	1.3348	1.3348	S 2-9-2	Z 100 DCWV 09-04-02-02		HS 2-9-2	SKH 58	2782	T11307
	HS 18-0-1	1.3355	1.3355	S 18-0-1	Z 80 WCV 18-04-01	BT 1	HS 18-0-1	SKH 2		T12001
P11	X 6 Cr 13	1.4000	1.4000	X 6 Cr 13	Z 6 C 12	403 S 17	X 6 Cr 13	SUS 403	2301	S41008
	X 12 Cr 13	1.4006	1.4006	X 10 Cr 13	Z 10 C 13	410 S 21	X 12 Cr 13	SUS 410	2302	S41000
	X 6 Cr 17	1.4016	1.4016	X 6 Cr 17	Z 8 C 17	430 S 15	X 8 Cr 17	SUS 430	2320	S43000
	X 20 Cr 13	1.4021	1.4021	X 20 Cr 13	Z 20 C 13	420 S 37	X 20 Cr 13	SUS 420 J 1	2303	S42000
	X 39 Cr 13	1.4031	1.4031	X 40 Cr 13	Z 40 C 14	420 S 45	X 40 Cr 14	SUS 420	2304	S40280
	X 70 CrMo 15	1.4109	1.4109	X 65 CrMo 14	Z 70 D 14			SUS 440 A		S44002
	X 90 CrMoV 18	1.4112	1.4112	X 90 CrMoV 18	Z 2 CND 18 05	409 S 19	X CrTi 12	SUS 440 B	2327	S44003
	X 105 CrMo 17	1.4125	1.4125	X 105 CrMo 17	Z 100 CD 17		X 105 CrMo 17	SUS 440 C		S44004
	X 3 CrNIMo 13 3	1.4313	1.4313	X 5 CrNi 13 4	Z 5 CN 13.4	425 C 11	X 6 CrNi 13 04	SCS 5	2385	S41500
	X 18 CrN 28	1.4749	1.4749	X 18 CrN 28	Z 18 C 25				2322	S44600
P12	X 6 NiCrTiMoV 25 15	1.4534	1.4534	X 3 CrNiMoAl 13 8 2						S13800
	X 4 CrNiCuNb 16 4	1.4540	1.4540	X 4 CrNiCuNb 16 4						S15500
		1.4540	1.4540	X 4 CrNiCuNb 16 4	Z 4 CNUNb 16.4 M					S15500
	X 4 CrNiCuNb 16 4	1.4540	1.4540	X 4 CrNiCuNb 16 4						S15500
	X 5 CrNiCuNb 16 4	1.4542	1.4542	X 5 CrNiCuNb 16 4				SUS 630		S17400
	X 5 CrNiCuNb 17 4	1.4548	1.4542	X 5 CrNiCuNb 17 4	Z 6 CNU 17.4			SCS 24, SUS 630		S17400
	X 7 CrNiAl 17 7	1.4564	1.4564	X 7 CrNiAl 17 7	Z 9 CAN 17.7	301 S 81	X 7 CrNiAl 17 7	SUS 631	2388	S17700
	X 2 NiCoMoTi 18 12 4	1.6356	1.6356	X 2 NiCoMoTi 18 12 4						K93160
	X 2 NiCoMoTi 18 9 5	1.6358	1.6358	X 2 NiCoMoTi 18 9 5	Z 2 NKD 19-09					K93120
	X 2 NiCoMo 18 9 5	1.6358	1.6358	X 2 NiCoMoTi 18 9 5	Z 2 NKD 19-09					K93120
	X 2 NiCoMo 18 8 5	1.6359	1.6359	X 2 NiCoMo 18 8 5		S 162				K92890
	X 2 NiCoMo 18 8 5	1.6359	1.6359	X 2 NiCoMo 18 8 5		S 162				K92890
M1	X 10 CrNiS 18 9	1.4305	1.4305	X 10 CrNiS 18 9	Z 10 CNF 18.09	303 S 31	X 10 CrNi 18 09	SUS 303	2346	S30300
M2	X 2 CrNi 19 11	1.4306	1.4306	X 2 CrNi 19 11	Z 2 CN 18.10	304 S 12	X 3 Cr Ni 18 11	SUS 304 L	2352	S30403
	X 5 CrNi 18 10	1.4301	1.4301	X 5 CrNi 18 10	Z 6 CN 18.09	304 S 31	X 5 CrNi 18 11	SUS 304	2333	S30400
	X 5 CrNiMo 17 12 2	1.4401	1.4401	X 5 CrNiMo 17 12 2	Z 3 CND 17.11.1	316 S 31	X 5 CrNiMo 17 12	SUS 316	2347	S31600
	X 6 CrNiNb 18 10	1.4550	1.4550	X 6 CrNiNb 18 10	Z 6 CNNb 18.10	347 S 31	X 6 CrNiNb 18 11	SUS 347	2338	S34700
	X 9 CrNi 18 8	1.4310	1.4310	X 12 CrNi 17 7	Z 12 CN 17.07	301 S 21	X 12 CrNi 17 07	SUS 301	(2331)	S30100
	X 12 CrNi 18 8	1.4300	1.4300	X 12 CrNi 18 8	Z 12 CN 18	302 S 25		SUS 302	2331	S30200
M3	X 2 CrNiMo 18 14 3	1.4435	1.4435	X 2 CrNiMo 18 14 3	Z 2 CND 17.13	316 S 12	X 2 CrNiMo 17 13 2	SCS 16, SUS 316 L	2353	S31603
	X 2 CrNiMoN 17 13 3	1.4429	1.4429	X 2 CrNiMoN 17 13 3	Z 2 CND 17.13 Az	316 S 62	X 2 CrNiMoN 17 13 3	SUS 316 LN	2375	S31653
	X 2 CrNiN 18 10	1.4311	1.4311	X 2 CrNiN 19 11	Z 2 CN 18 .10 Az	304 S 62	X 2 CrNiN 18 11	SUS 304 LN	2371	S30453
	X 3 CrNiMo 18 12 3	1.4466	1.4466	X 5 CrNi 18 15		317 S 16	X 5 CrNi 18 15	SUS 317	2366	S31700
	X 9 CrNiSiNCe 21 11 2	1.4835	1.4893	X 9 CrNiSiNCe 21 11 2		310 S 31			2368	S30815
	X 12 CrNi 25 21	1.4335	1.4335	X 12 CrNi 25 21	Z 12 CN 25.20	310 S 24	X 6 CrNi 26 20	SUH 310, SUS 310 S	2361	S31008
M4	X 2 CrNiMoN 22 5 3	1.4462	1.4462	X 2 CrNiMoN 22 5	Z 2 CND 22.05 Az	332 S 15	X 2 CrNiMoN 22 5		2377	S31803
	X 2 CrNiMoSi 19 5	1.4424	1.4417	X 2 CrNiMoSi 19 5	Z 2 CND 18.05.03				2376	S31500
	X 2 NiCrMoCu 25 20 5	1.4539	1.4539	X 2 NiCrMoCu 25 20 5	Z 2 NCDU 25 20	904 S 13			2562	N08904
	X 3 CrNiMo 27 5 2	1.4460	1.4460	X 4 CrNiMo 27 5 2	Z 3 CND 25.7 Az		X 3 CrNiMo 27 5 2	SUS 329 J 1	2324	S32900
	X 5 CrNiCuNb 16 4	1.4980	1.4943	X 4 NiCrTi 25 15	Z 6 NCTDV 25.15	HR 51		SUH 660	2570	S66286
M5	X 1 CrNiMoN 20 18 7	1.4547	1.4529	X 1 CrNiMoN 20 18 7	Z 1 CNDU 20.18.05 Az		X 1 CrNiMoN 20 18 7		2778	S31254
	X 1 CrNiMoN 25 22 8	1.4652	1.4652	X 2 CrNiMoN 25 22 7						S32654
	X 10 NiCrAlTi 32 20	1.4876	1.4876	X 10 NiCrAlTi 32 20	Z 10 NC 32.21			NCF 800		N08800
	X 2 CrNiMoN 25 7 4	1.4410	1.4410	X 2 CrNiMoN 25 7 4	Z 3 CND 25.07 Az		X 2 CrNiMoN 25 7 4		2328	S32750

SMG

U.N.E./ I.H.A.	AISI / ASTM	GOST	ČSN	Misc. Brands	Condition	Structure
F.520L	L2	11KHF			Annealed	
F.5220	O1	9KHVG			Annealed	
	O2	9G2F			Annealed	
F.5230	52100	SHKH15	14 109		Annealed	
F.5212	D3	KH12			Annealed	
	H11	4KH5MFS			Annealed	
F.5318	H13	4KH5MF1S			Annealed	
F.5227	A2	9KH5VF			Annealed	
	H10	3KH3M3F			Annealed	
F.5213		KH12			Annealed	
		KH12MF			Annealed	
F.520.S	L6	5KHNM			Annealed	
F.5613	M35	R6M5K5			Annealed	
	M42	R2AM9K5			Annealed	
	T4	R18K5F2			Annealed	
F.5603	M2	R6M5			Annealed	
	M7				Annealed	
	T1	R18			Annealed	
	403	08KH13			Annealed	Ferritic
F.3401	410, CA-15	12KH13, 08KH13			Annealed	Martensitic
F.3113	430	12KH17			Annealed	Ferritic
F.5261	420	20KH13	17 022		Annealed	Martensitic
F.3404	420	40KH13			Annealed	Martensitic
	440 A				Annealed	Martensitic
	440 B	95KH18			Annealed	Martensitic
	440 C	95KH18			Annealed	Martensitic
	A182 F6NM			F6NM	Annealed	Martensitic
	446	15KH28			Annealed	Ferritic
	XM-13			PH 13-8 Mo	Solution annealed	Austenitic
	XM-12			15-5 PH	H1150	Martensitic
	XM-12			15-5 PH	Solution annealed	Martensitic
	XM-12			15-5 PH	H1025	Martensitic
	SAE 630			17-4 PH	H1150	Martensitic
	630			17-4 PH	Solution annealed	Martensitic
	631	09KH17N7YU1		17-7 PH	Solution annealed	Austenitic/Ferritic
	AMS 6515			Marage 350	Solution annealed	Martensitic
	AMS 6521			Marage 300	Solution annealed	Martensitic
	AMS 6514			Marage 300, Vascomax C300	Solution annealed	Martensitic
	AMS 6512			Marage 250	Solution annealed	Martensitic
	AMS 6512			Marage 250, Vascomax C250	Solution annealed	Martensitic
F.3508	303	12KH19N9			Annealed	Austenitic
F.3504	304 L	03KH18N11			Annealed	Austenitic
F.3504	304	08KH18N10	17 240		Annealed	Austenitic
F.3534	316	08KH17H13M2T	17 346		Annealed	Austenitic
F.3524	347	08KH18N12B			Annealed	Austenitic
F.3517	301	07KH16N6			Annealed	Austenitic
	302	12KH18N9			Annealed	Austenitic
F.3533	(316 L)	03KH17N14M3	17 349		Annealed	Austenitic
	316 LN	03KH16N15M3			Annealed	Austenitic
F.3541	304 LN	03KH18N11			Annealed	Austenitic
	317	08KH17H15M3T			Annealed	Austenitic
				253 MA	Annealed	Austenitic
	310 S	12KH25N20			Annealed	Austenitic
	329 LN			SAF 2205	Annealed	Duplex
				3RE60	Annealed	Duplex
	904L				Annealed	Super austenitic
	329				Annealed	Duplex
	660			A286	Solution annealed	Austenitic
				254 SMO	Annealed	Super austenitic
				654 SMO	Annealed	Super austenitic
				Alloy 800	Annealed	Austenitic
	F 53			SAF 2507	Annealed	Super duplex

SMG

SMG	EN	EN-Nr	W.-Nr	DIN	AFNOR	BS	UNI	JIS	SS	UNS
	EN-GJL-150	0.6150	0.6150	GG-15	Ft 15 D	Grade 150	G15	FC 150	01 15-00	F11601
	EN-GJL-200	0.6200	0.6200	GG-20	Ft 20 D	Grade 220	G20	FC 200	01 20-00	F12101
K1	EN-GJL-250	0.6250	0.6250	GG-25	Ft 25 D	Grade 260	G25	FC 250	01 25-00	F12401
	EN-GJL-350	0.6350	0.6350	GG-35	Ft 35 D	Grade 350	G35	FC 350	01 35-00	F13502
	EN-GJL-215			GG-220 HB					02 19	
	EN-GJV-300			GJV-300						
	EN-GJV-350			GJV-350						
K2	EN-GJV-400			GJV-400						
	EN-GJV-450			GJV-450						
	EN-GJV-500			GJV-500						
K3	EN-GJMB-550-4	0.8155		GTS-55-04	P 540/5	P 540/5	P 55-04	PCMP55-04	08 54-00	F24130
	EN-GJS-350-22	0.7033	0.7033	GGG-35.3	FGS 370-17	Grade 350/22		FCD 350-22L	07 17-15	
	EN-GJS-400-15	0.7040	0.7040	GGG-40	FGS 400-12	Grade 420/12	GS 400-12	FCD 400-18L	07 17-02	F32800
K4	EN-GJS-400-18	0.7043	0.7043	GGG-40.3	FGS 370-17	Grade 370/17	GSO 42/17		07 17-12	F32800
	EN-GJS-500-7	0.7050	0.7050	GGG-50	FGS 500-7	Grade 500/7	GS 500-7	FCD 500-7	07 27-02	F33800
	EN-GJS-600-3	0.7060	0.7060	GGG-60	FGS 600-3	Grade 600/3	GS 600-3	FCD 600-3	07 32-03	F34100
	EN-GJS-700-2	0.7070	0.7070	GGG-70	FGS 700-2	Grade 700/2	GS 700-2	FCD 700-2	07 37-01	F34800
										ADI grade 5
	EN-GJS-1000-5			GJS-1000-5						ADI grade 2
K5	EN-GJS-1200-2			GJS-1200-2						ADI grade 3
	EN-GJS-1400-1			GJS-1400-1						ADI grade 4
	EN-GJS-800-8			GJS-800-8						ADI grade 1
	EN-GJLA-XNiCr 20-2	0.6660	0.6660	GGL-NiCr 20 2	FGL Ni20 Cr2	Grade F2			05 23-00	F41002
K6	EN-GJLA-XNiCr 30-3	0.6676	0.6676	GGL-NiCr 30 3	FGL Ni30 Cr3	Grade F3				F41004
	EN-GJLA-XNiCuCr 15-6-2	0.6655	0.6655	GGL-NiCuCr 15 6 2	FGL Ni15 Cu6 Cr2	Grade F1				F41000
	EN-GJSA-XNiMn 13-7	0.7652	0.7652	GGG-NiMn 13 7	FGS Ni13 Mn7	Grade S6			07 72-00	
	EN-GJSA-XNiCr 20-2	0.7660	0.7660	GGG-NiCr 20 2	FGS Ni20 Cr2	Grade S2				F43000
K7	EN-GJSA-XNiMn 23-4	0.7673	0.7673	GGG-NiMn 23 4	FGS Ni23 Mn4	Grade S2M				F43010
	EN-GJSA-XNiCr 30-3	0.7676	0.7676	GGG-NiCr 30 3	FGS Ni30 Cr3	Grade S3				F43003
	EN-GJSA-XNi 35	0.7683	0.7683	GGG-Ni 35	FGS Ni35					F43006
	AW-1050A	Al99.5	3.0255	Al99.5	A-5/1050A	1B		(A1050)	4007	AA1050A
	AW-2011	AlCuBiPb	3.1655	AlCuBiPb	A-U5PbBi/2011	FC1		A2011	4355	AA2011
	AW-2014	AlCuSiMn	3.1255	AlCuSiMn	A-U4SG/2014	H15			4338	AA2014
	AW-5005	AlMg1	3.3315	AlMg1	A-G0.6	N41			4106	AA5005
	AW-6060	AlMgSi0.5	3.3206	AlMgSi0.5	A-GS/6060	(H9)			4103	AA6060
	AW-6063	AlMgSi0.7	3.3210	AlMgSi0.7	A-GSUC/6061	(H10)		(A6063)	4104, 4107	AA6005
	AW-3103	AlMn1	3.0515	AlMn1		N3			4054	AA3103
N1	AW-3003	AlMn1Cu	3.0517	AlMn1Cu	A-M1/3003			A3003		AA3003
	AW-7020	AlZn4.5Mg1	3.4335	AlZn4.5Mg1	A-Z5G/7020	H17			4425	AA7020
	AW-7075		3.4365	AlZnMgCu1.5	A-Z5GU/7075	2L95/2L96		A7075		AA7075
	AC-42000		3.2341	G-AlSi5Mg	A-S7G	LM25	3599	AC 4C	4244	
	AC-46200	AlSi8Cu3(Si)	3.2161	G-AlSi8Cu3					4251	A13800
	MG-P-63	MgAl6Zn	3.5612	G-MgAl6Zn	G-A6-Z1	MAG-E-121				M11600
	MG-P-61	MgAl8Zn	3.5812	G-MgAl8Zn	(G-A7-Z1)					
	MN65120	MgSe3Zn2Zr1	3.5103	G-MgSe3Zn2Zr1	ZRE1	MAG6-TE				M12330
	AC-43400	AlSi10Mg(Fe)	3.2381	G-AlSi10Mg	A-S10G	LM9			4253	A13600
N2	AC-44200	AlSi12	3.2382	GD-AlSi12						
	AW-6082	AlMgSi1	3.2315	AlMgSi1	A-SGM0.7/6082	H30			4212	AA6082
N3		AlSi17Cu5						ADC14		
	CC331G		2.0940.01	CuAl10Fe	CuAl10Fe	AB1			5710	C95200
	CC333G		2.0975.01	CuAl10Ni	CuAl10Ni5Fe5	AB2			5716	C95500
		CuNi10Fe1Mn	2.0872	CuNi10Fe1Mn	CuNi10Fe1Mn	CN102			5667	C70600
				CuNi10Zn45						
		CW408J	2.0790	CuNi18Zn19Pb	CuNi18Zn19Pb1					C76300
	CW352H		2.1176	CuPb10Sn	CuSn10Pb10	LB2			5640	C93700
	CC480K		2.1050.01	CuSn10	CuSn10	CT1			5443	C90700
N11			2.1087	CuSn10Zn					5458	C90500
	CW452K	CuSn6	2.1020	CuSn6	CuSn6	PB103		C5191	5428	C51900
	CW502L	CuZn15	2.0240	CuZn15	CuZn15	CZ102		C2300	5112	C23000
	CW706R	CuZn28Sn1	2.0470	CuZn28Sn1	CuZn29Sn1				5220	C44300
	CW508L	CuZn37	2.0321	CuZn37	CuZn37	CZ108			5150	C27200
	CW717R	CuZn38Sn1	2.0530	CuZn38Sn1						C46400
	CW614N	CuZn39Pb3	2.0401	CuZn39Pb3	CuZn39Pb3	CZ121			5170	C38500
	CW612N	CuZn40Pb2	2.0402	CuZn40Pb2	CuZn39Pb2	CZ120			5168	C37800
	CW622N	CuZn44Pb2	2.0410	CuZn44Pb2		CZ104			5272	C68700

SMG

U.N.E./ I.H.A.	AISI / ASTM	GOST	ČSN	Misc. Brands	Condition	Structure
	A48 25 B	Sc 15	422 415			Grey cast iron (GCI)
	A48 30 B	Sc 20	422 420			Grey cast iron (GCI)
	A48 35 B	Sc 25	422 425			Grey cast iron (GCI)
	A48 50 B	Sc 35				Grey cast iron (GCI)
	G 3500					Grey cast iron (GCI)
	Grade 350					Compacted graphite iron (CGI)
	Grade 400					Compacted graphite iron (CGI)
	Grade 400-15					Compacted graphite iron (CGI)
	Grade 450					Compacted graphite iron (CGI)
	Grade 500					Compacted graphite iron (CGI)
	A220 60004				Tempered	Malleable cast iron (MCI)
						Nodular cast iron (SGI)
FGE 38-17	60-40-18	Vc 42-12	422 304			Nodular cast iron (SGI)
	60-40-18	Vc 42-12				Nodular cast iron (SGI)
FGE 50-7	A536, 80-55-06	Vc 50-2	422 305			Nodular cast iron (SGI)
FGE 60-2	A476, 80-60-03	Vc 60-2	422 306			Nodular cast iron (SGI)
FGE 70-2	A536, 100-70-03	Vc 70-2				Nodular cast iron (SGI)
	1600/1300/-					Austempered ductile iron (ADI)
	1050/700/7					Austempered ductile iron (ADI)
	1200/850/4					Austempered ductile iron (ADI)
	1400/1100/1					Austempered ductile iron (ADI)
	850/550/10					Austempered ductile iron (ADI)
	A436 Type 2			Ni-Resist 2		Austenitic lamellar cast iron
	A436 Type 3			Ni-Resist 3		Austenitic lamellar cast iron
	A436 Type 1			Ni-Resist 1		Austenitic lamellar cast iron
				Nodumag		Austenitic nodular cast iron
	A436 Type D-2			Ni-Resist D-2		Austenitic nodular cast iron
	A439 Type D-2M			Ni-Resist D-2M		Austenitic nodular cast iron
	A436 Type D-3			Ni-Resist D-3		Austenitic nodular cast iron
	A439 Type D-5			Ni-Resist D-5		Austenitic nodular cast iron
	B26					
	A380					
	AZ61A					
	AZ80A					
	AMS 4442					
	B85					
	A413.2					
	B390.0					
	CA952	BrA9ZH3L				
	CA955	BrA10ZH4N4L				
	CA937					
		BrOF6.5-0.15				
		L90				
		LOMsh70-1-0.05				
		LO60-1				
		LAMsh77-2-0.05				

SMG

SMG	EN	EN-Nr	W.-Nr	DIN	AFNOR	BS	UNI	JIS	SS	UNS
S1										
S2										
S3	NiMo30		2.4810							N10002
	NiMo16Cr15W		2.4819							N10276
	NiCr19Fe19Nb5Mo3		2.4668							N07718
			2.4669							N07750
	NiCr20TiAl		2.4631							N07080
	NiCr19Co18Mo4Ti3Al3									N07500
	NiCr20Co13Mo4Ti3Al		2.4654							N07001
S11			3.7024							
										R54620
S12										R56320
	TiAl6V4		3.7164							R56400
S13				TiV10Fe2Al3						
H3	16 MnCr 5	1.7131	1.7131	16 MnCr 5	16 MC 5	527 M 17	16 MnCr 5	SCR 415	2511	G51170
H5	C 67S	1.1231	1.1231	Ck 67	XC 68	060 A 67	C 70		1770	G10700
	C 75S	1.1248	1.1248	Ck 75	XC 75	060 A 78	C 75		1774, 1778	G10780
	C 100S	1.1274	1.1274	Ck 101		060 A 96		SUP 4	1870	G10950
	C 105U	1.1545	1.1545	C 105 W1	Y1 105		C 100 KU		1880	
			1.2550	60 WCrV 7	55 WC 20		55 WCrV 8 KU			
	55 Cr 3	1.7176	1.7176	55 Cr 3	55 C 3	527 A 60	55 Cr 3	SUP 9 (A)	2253	G51550
	42 CrMo 4	1.7225	1.7225	42 CrMo 4	42 CD 4	708 M 40	42 CrMo 4	SCM 440 (H)	2244	G41400
H7	107 CrV 3	1.2210	1.2210	115 CrV 3	100 C 3		107 CrV 3 KU			T61202
			1.2510	100 MnCrW 4	90 MWCV 5	BO 1	95 MnWCr 5 KU	SKS 3	2140	T31501
	90 MnCrV 8	1.2842	1.2842	90 MnCrV 8	90 MV 8	BO 2	90 MnVCr 8 KU			T31502
	100 Cr 6	1.3505	1.3505	100 Cr 6	100 C 6	534 A 99	100 Cr 6	SUJ 2	2258	G51986
H8	X 40 CrMoV 5 1	1.2344	1.2344	X 40 CrMoV 5 1	Z 40 CDV 5	BH 13	X 40 CrMo 5 1 1 KU	SKD 61	2242	T20813
	X 100 CrMoV 5	1.2363	1.2363	X 100 CrMoV 5 1	Z 100 CDV 5	BA 2	X 100 CrMoV 5 1 KU	SKD 12	2260	T30102
	X 155 CrVMo 12 1		1.2379	X 155 CrVMo 12 1	Z 160 CDV 12	BD 2	X 155 CrVMo 12 1 KU	SKD 11		T30402
			1.2436	X 210 CrW 12			X 215 CrW 12 1 KU	SKD 2	2312	
			1.2601	X 165 CrMoV 12			X 165 CrMoW 12 KU		2310	
			1.2713	55 NiCrMoV 6	55 NCDV 7			SKT 4		T61206
	HS 6-5-2-5	1.3243	1.3243	S 6-5-2-5	Z 85 WDKCV 06-05-05-04-02		HS 6-5-2-5	SKH 55	2723	
	HS 2-10-1-8	1.3247	1.3247	S 2-10-1-8	Z 110 DKCWV 09-08-	BM 42	HS 2-9-1-8	SKH 51		T11342
	HS 18-0-1	1.3355	1.3355	S 18-0-1	Z 80 WCV 18-04-01	BT 1	HS 18-0-1	SKH 2		T12001
H11	X 20 Cr 13	1.4021	1.4021	X 20 Cr 13	Z 20 C 13	420 S 37	X 20 Cr 13	SUS 420 J 1	2303	S42000
	X 70 CrMo 15	1.4109	1.4109	X 65 CrMo 14	Z 70 D 14			SUS 440 A		S44002
	X 90 CrMoV 18	1.4112	1.4112	X 90 CrMoV 18	Z 2 CND 18 05	409 S 19	X CrTi 12	SUS 440 B	2327	S44003
	X 105 CrMo 17	1.4125	1.4125	X 105 CrMo 17	Z 100 CD 17		X 105 CrMo 17	SUS 440 C		S44004
H12	X 4 CrNiCuNb 16 4	1.4540	1.4540	X 4 CrNiCuNb 16 4						S15500
	X 5 CrNiCuNb 16 4	1.4542	1.4542	X 5 CrNiCuNb 16 4				SUS 630		S17400
	X 5 CrNiCuNb 16 4	1.4542	1.4542	X 5 CrNiCuNb 16 4				SUS 630		S17400
	X 7 CrNiAl 17 7	1.4568	1.4568	X 7 CrNiAl 17 7	Z 9 CAN 17.7	301 S 81	X 7 CrNiAl 17 7	SUS 631	2388	S17700
	X 8 CrNiMoAl 15 7 5	1.4574	1.4574	X 8 CrNiMoAl 15 7 5						S15700
	X 6 NiCrTiMoV 25 15	1.4980	1.4943	X 4 NiCrTi 25 15	Z 6 NCTDV 25.15	HR 51		SUH 660	2570	S66286
	X 2 NiCoMo 18 8 5	1.6359	1.6359	X 2 NiCoMo 18 8 5		S 162				K92890
	X 2 NiCoMoTi 18 9 5	1.6358	1.6358	X 2 NiCoMoTi 18 9 5	Z 2 NKD 19-09					K93120
	X 2 NiCoMoTi 18 9 5	1.6358	1.6358	X 2 NiCoMoTi 18 9 5	Z 2 NKD 19-09					K93120
	X 2 NiCoMoTi 18 12 4	1.6356	1.6356	X 2 NiCoMoTi 18 12 4						K93160
H21	X 120 Mn 12	1.3401	1.3401	X 120 Mn 12	Z 120 M 12	BW 10		SC MnH 1	2183	
H31	EN-GJN-HV520	0.9620	0.9620	G-X330 NiCr 4 2	FB Ni4 Cr2 BC	Grade 2 A			05 12-00	F45001
	EN-GJN-HV550	0.9625	0.9625	G-X260 NiCr 4 2	FB Ni4 Cr2 HC	Grade 2 B			05 13-00	F45000
	EN-GJN-HV600(XCr11)	0.9630	0.9630	G-X300 CrNiSi 9 5 2	FB Cr9 Ni5	Grade 2 C, D, E			04 57-00	F45003

SMG

U.N.E./ I.H.A.	AISI / ASTM	GOST	ČSN	Misc. Brands	Condition	Structure
				Discalloy	Precipitation hardened	
				Haynes 25		
				Stellite 21		
				Hastelloy C		
		KHN65MV		Hastelloy C-276		
				IN 100		
				Inconel 718		
				Inconel X-750	Solution annealed	
				Nimonic 80A		
				René 41		
				Udimet 500		
				Waspalloy		
				Ti	Commercially pure	Ti (α)
	AMS 4919			Ti 6-2-4-2	Annealed	Ti (α)
	AMS 4943			Ti 3Al-2.5V (grd 9)	Annealed	Ti (α+β)
	AMS 4920, Grade 5	VT6		Ti 6Al-4V	Annealed	Ti (α+β)
	AMS 4986			Ti 10V-2Fe-3Al	Annealed	Ti (β)
F.1516	5115	12KHN2	14 220		Case hardened	
F.5103	1070	70			Quenched & Tempered	
F.5107	1078, 1080	75			Quenched & Tempered	
F.5117	1095				Quenched & Tempered	
F.5118	W1	U10A			Quenched & Tempered	
	S1	5KHV2SF			Quenched & Tempered	
	5155				Quenched & Tempered	
F.1252	4142, 4140	38HM	15 142		Quenched & Tempered	
F.520L	L2	11KHF			Quenched & Tempered	
F.5220	O1	9KHVG			Quenched & Tempered	
	O2	9G2F			Quenched & Tempered	
F.5230	52100	SHKH15	14 109		Quenched & Tempered	
F.5318	H13	4KH5MF1S			Quenched & Tempered	
F.5227	A2	9KH5VF			Quenched & Tempered	
F.5211	D2	KH12MF			Quenched & Tempered	
F.5213		KH12			Quenched & Tempered	
		KH12MF			Quenched & Tempered	
F.520.S	L6	5KHNM			Quenched & Tempered	
F.5613	M35	R6M5K5			Quenched & Tempered	
	M42	R2AM9K5			Quenched & Tempered	
	T1	R18			Quenched & Tempered	
F.5261	420	20KH13	17 022		Quenched & Tempered	Martensitic
	440 A				Quenched & Tempered	Martensitic
	440 B	95KH18			Quenched & Tempered	Martensitic
	440 C	95KH18			Quenched & Tempered	Martensitic
	XM-12			15-5 PH	H900	Martensitic
	SAE 630			17-4 PH	H1025	Martensitic
	SAE 630			17-4 PH	H900	Martensitic
	AMS 5528	09KH17N7YU1		17-7 PH	TH1050	Martensitic
	632			PH 15-7 Mo	TH1050	Martensitic
	660			A286	Precipitation hardened	Austenitic
	AMS 6512			Marage 250	Precipitation hardened	Martensitic
	AMS 6521			Marage 300	Precipitation hardened	Martensitic
	AMS 6521			Marage 300	Precipitation hardened	Martensitic
	AMS 6515			Marage 350	Precipitation hardened	Martensitic
	A128 Grade A			Hadfield		
	A532 IB (NiCr-LC			Ni-Hard 2		White cast iron
	A532 IA (NiCr-HC)			Ni-Hard 1		White cast iron
	A532 ID (Ni-HiCr)			Ni-Hard 4		White cast iron

Cemented carbide inserts and insert carriers

Cemented carbide inserts and cemented carbide insert carriers from Seco Tools are not included in the product range intended for the following requirements.
Nevertheless Seco Tools can make the following declaration.
These products meet all requirements in RoHS (Restriction of the use of certain Hazardous Substances in electrical and electronic equipment), WEEE (Waste Electrical & Electronic Equipment) and ELV (End of Life Vehicles) requirements.
Products do not contain mercury, lead, hexavalent chromium, cadmium, CFC, HCFC, flame retardants or solvents in concentrations that exceed specifications in the regulations.

Regrinding:
Wet or dry grinding can produce potentially hazardous dusts or mists that can irritate skin, eyes, nose, throat and result in lung damage or disease. To avoid injury use proper safety precautions and protective equipment.

Disposal:
Seco Tools will buy back used inserts and solid carbide tools for recycling. Inserts and solid carbide tools should be separated from other metal waste (steel, aluminium, copper etc).
All packing material is fully recyclable.

CBN and PCD inserts

Inserts from Seco Tools are not included in the product range intended for the following requirements. Nevertheless Seco Tools can make the following declaration.
This product meets all requirements in RoHS (Restriction of the use of certain Hazardous Substances in electrical and electronic equipment), WEEE (Waste Electrical & Electronic Equipment) and ELV (End of Life Vehicles) requirements.
Products do not contain mercury, lead, hexavalent chromium, cadmium, CFC, HCFC, flame retardants or solvents in concentrations that exceed specifications in the regulations.

Regrinding:
Wet or dry grinding can produce potentially hazardous dusts or mists that can irritate skin, eyes, nose, throat and result in lung damage or disease. To avoid injury use proper safety precautions and protective equipment.

Disposal:
Seco Tools will buy back used CBN- or PCD-tipped inserts for recycling. Inserts should be separated from other metal waste (steel, aluminium, copper etc). Solid CBN-inserts may be discarded as landfill waste.
All packing material is fully recyclable.

Black oxide insert carriers

Insert carriers from Seco Tools are not included in the product range intended for the following requirements. Nevertheless Seco Tools can make the following declaration.
This product meets all requirements in RoHS (Restriction of the use of certain Hazardous Substances in electrical and electronic equipment), WEEE (Waste Electrical & Electronic Equipment) and ELV (End of Life Vehicles) requirements.
Products do not contain mercury, lead, hexavalent chromium, cadmium, CFC, HCFC, flame retardants or solvents in concentrations that exceed specifications in the regulations.

Disposal:
Used insert carriers may be sent for recycling together with ordinary steel waste (swarf and discarded steel scrap) for recycling.
All packing material is fully recyclable.

Cermet inserts

Inserts from Seco Tools are not included in the product range intended for the following requirements. Nevertheless Seco Tools can make the following declaration.
This product meets all requirements in RoHS (Restriction of the use of certain Hazardous Substances in electrical and electronic equipment), WEEE (Waste Electrical & Electronic Equipment) and ELV (End of Life Vehicles) requirements.
Cermet grade C15M inserts do contain nickel and will leach nickel when in contact with the skin. Amount of leaching is higher than specified in norm SS-EN 1811 Reference test method for release of nickel from products intended to come into direct and prolonged contact with the skin. These norms are intended for products that are in direct and prolonged contact with the skin and are therefore not directly applicable for cermet inserts. Persons with known allergic reactions to nickel are advised to wear protective gloves when handling cermet inserts.

Regrinding:
Wet or dry grinding can produce potentially hazardous dusts or mists that can irritate skin, eyes, nose, throat and result in lung damage or disease. To avoid injury use proper safety precautions and protective equipment.

Disposal:
Used inserts may be recycled. Inserts should be separated from other metal waste (steel, aluminium, copper, etc) including cemented carbide inserts.
All packing material is fully recyclable.

Nickel coated insert carriers

Insert carriers from Seco Tools are not included in the product range intended for the following requirements. Nevertheless Seco Tools can make the following declaration.
This product meets all requirements in RoHS (Restriction of the use of certain Hazardous Substances in electrical and electronic equipment), WEEE (Waste Electrical & Electronic Equipment) and ELV (End of Life Vehicles) requirements.
Products do not contain mercury, lead, hexavalent chromium, cadmium, CFC, HCFC, flame retardants or solvents in concentrations that exceed specifications in the regulations.
Insert carriers do contain nickel and will leach nickel when in contact with the skin. Amount of leaching is not higher then norm SS-EN 1811 Reference test method for release of nickel from products intended to come into direct and prolonged contact with the skin.
These norms are intended for products that are in direct and prolonged contact with the skin and are therefore not directly applicable for insert carriers.
Persons with known allergic reactions to nickel are advised to wear protective gloves when handling nickel coated insert carriers.

Disposal:
Used tools maybe sent for recycling together with ordinary steel waste (swarf and discarded steel scrap) for recycling.
All packing material is fully recyclable.

Intentionally added alloying elements

Grade	Cemented carbide											Coating						
	W	Ti	Ta	Nb	Co	Cr	Ni	Mo	C	N	Ru	Ti	Al	C	N	O	Si	Nb
CP20	■				■				■			■			■			
CP200	■				■	■			■			■	■		■			
CP300	■	■	■	■	■				■			■	■		■			
CP500	■				■	■			■			■	■		■			
CP600	■				■	■			■			■	■		■			
C15M	■	■	■	■	■		■	■	■	■								
CF	■		■		■		■	■	■									
CM	■		■		■		■	■	■									
DP2000	■		■	■	■				■			■	■	■	■	■		
DP3000	■	■	■	■	■				■	■		■	■	■	■	■		
DS2050	■				■	■			■			■	■		■			■
DS4050	■				■	■			■			■	■		■			■
F15M	■				■	■			■			■	■		■			
F25M	■	■	■	■	■				■			■	■		■			
F30M	■				■	■			■			■	■		■			
F40M	■				■	■			■			■	■		■			
HX	■		■		■				■									
H02	■		■		■	■			■									
H15	■				■	■			■									
H25	■				■	■			■									
KX	■				■	■			■									
MH1000	■				■	■			■			■	■		■			
MK1500	■		■		■				■			■	■	■	■	■		
MK2050	■		■		■	■			■			■	■		■		■	
MM4500	■				■	■			■			■	■	■	■	■		
MP1501	■		■	■	■				■			■	■	■	■	■		
MP2050	■				■						■	■	■		■		■	
MP2501	■		■	■	■				■			■	■	■	■	■		
MP3000	■				■	■			■			■	■		■			
MP3501	■		■	■	■				■			■	■	■	■	■		
MS2500	■		■	■	■				■			■	■	■	■	■		
MS2050	■				■	■			■			■	■		■			■
RX1500	■		■		■		■	■	■			■	■		■			
RX2000	■		■		■	■			■			■	■		■			
RM2020	■				■				■			■						
RM2090	■				■	■			■			■	■				■	
RN2010	■				■	■			■									
RS2090	■				■	■			■			■	■				■	
T350M	■		■	■	■				■			■	■	■	■	■		
T25M	■		■	■	■				■			■		■	■			
TGH1050	■				■	■			■			■	■		■		■	
TGK1500	■		■		■				■			■	■	■	■	■		
TGP25	■	■	■	■	■				■			■	■	■	■	■		
TGP35	■		■	■	■				■			■	■	■	■	■		
TGP45	■		■	■	■				■			■	■	■	■	■		
TGS2050	■				■	■			■			■	■		■		■	
TH1000	■				■	■			■			■	■		■		■	
TH1500	■				■	■			■			■	■	■	■	■		
TK0501	■				■	■			■			■	■	■	■	■		
TK1501	■		■		■	■			■			■	■	■	■	■		
TM1501	■	■	■	■	■	■			■	■		■	■	■	■	■		
TM2000	■	■	■	■	■				■	■		■	■	■	■	■		
TM2501	■	■	■	■	■				■	■		■	■	■	■	■		
TM3501	■				■				■			■	■	■	■	■		
TM4000	■	■	■	■	■				■	■		■	■	■	■	■		
TP0501	■	■	■	■	■	■			■			■	■	■	■	■		
TP1020	■	■	■	■	■				■	■								
TP1030	■	■	■	■	■				■	■		■	■		■		■	
TP1501	■	■	■	■	■				■	■		■	■	■	■	■		
TP25	■	■	■	■	■	■			■	■		■	■	■	■	■		
TP200	■	■	■	■	■				■	■		■	■	■	■	■		
TP2501	■	■	■	■	■	■			■	■		■	■	■	■	■		
TP3501	■	■	■	■	■				■	■		■	■	■	■	■		
TP40	■		■	■	■				■			■		■	■			
TS2000	■				■	■			■			■	■		■			
TS2050	■				■	■			■			■	■		■		■	
TS2500	■		■		■				■			■	■		■			
TTP2050	■				■	■			■			■	■		■		■	
T250D	■				■	■			■			■	■		■			
T400D	■				■	■			■			■	■		■			
T100R	■		■		■	■			■			■	■		■			
T60M	■	■	■	■	■				■			■	■		■			
883	■		■		■				■									
890	■				■	■			■									

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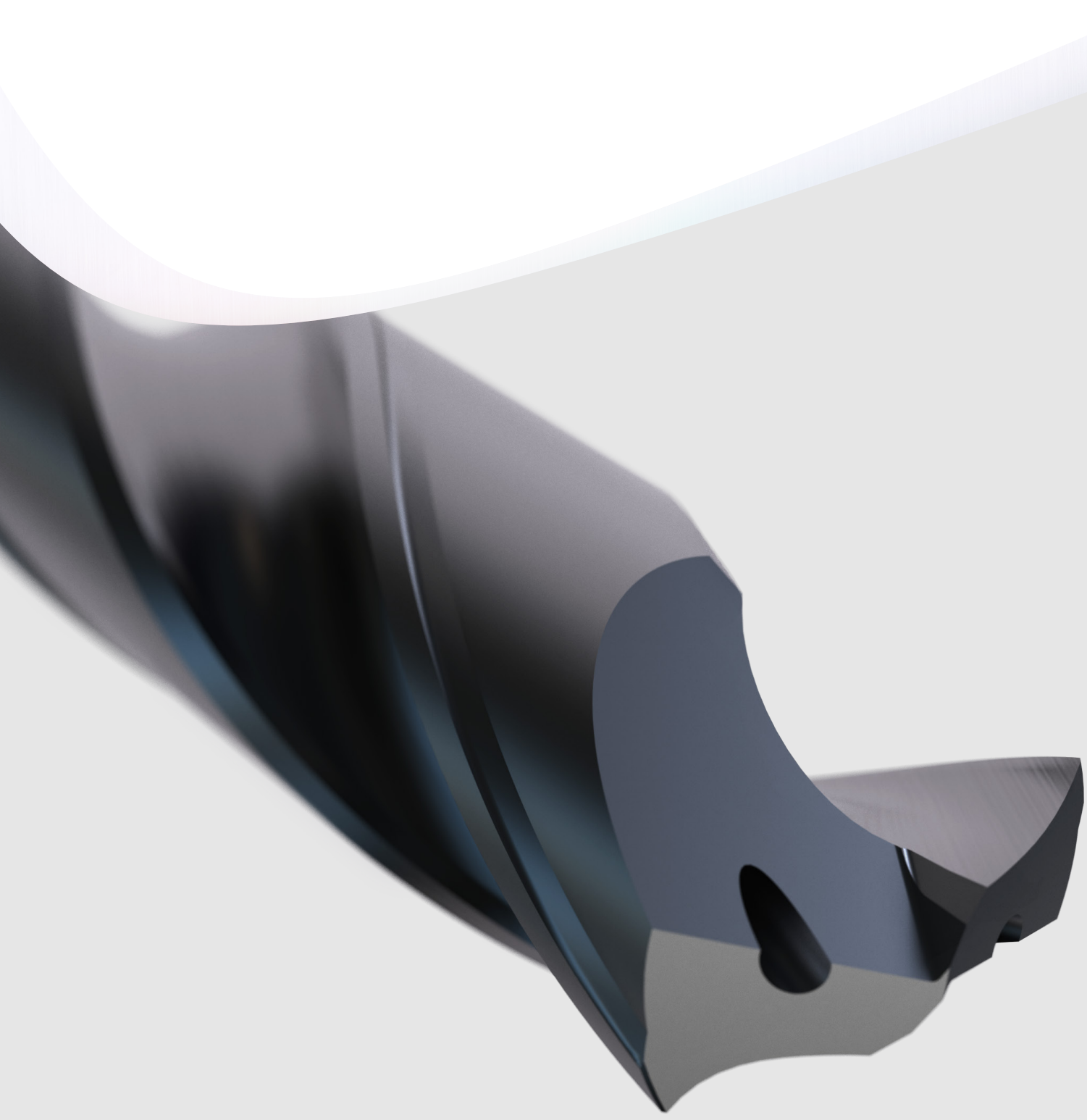
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Seco

Catalog & technical guide 2024.1

Holemaking



Seco

At Seco, we make tools, tech, and solutions for the most advanced manufacturing challenges on Earth. From our founding in Fagersta Sweden, to today's global company, our business has always been made to measure, and built on trust.

Combining cutting-edge, precision tools with lasting, personal partnerships, we're a true people company helping our partners discover the future of the manufacturing industry.

We're proud to make for makers, invent for inventors, and partner with pioneers. Driving the future forward with our focus on innovation. In short - if the right tool for the job exists, we'll deliver it. If it doesn't, we'll create it.

We're proud to put sustainability at the heart of everything we do, challenging perceptions of our industry, changing the process of manufacturing, and playing our own small part in shaping a brighter looking future.

Made for Makers

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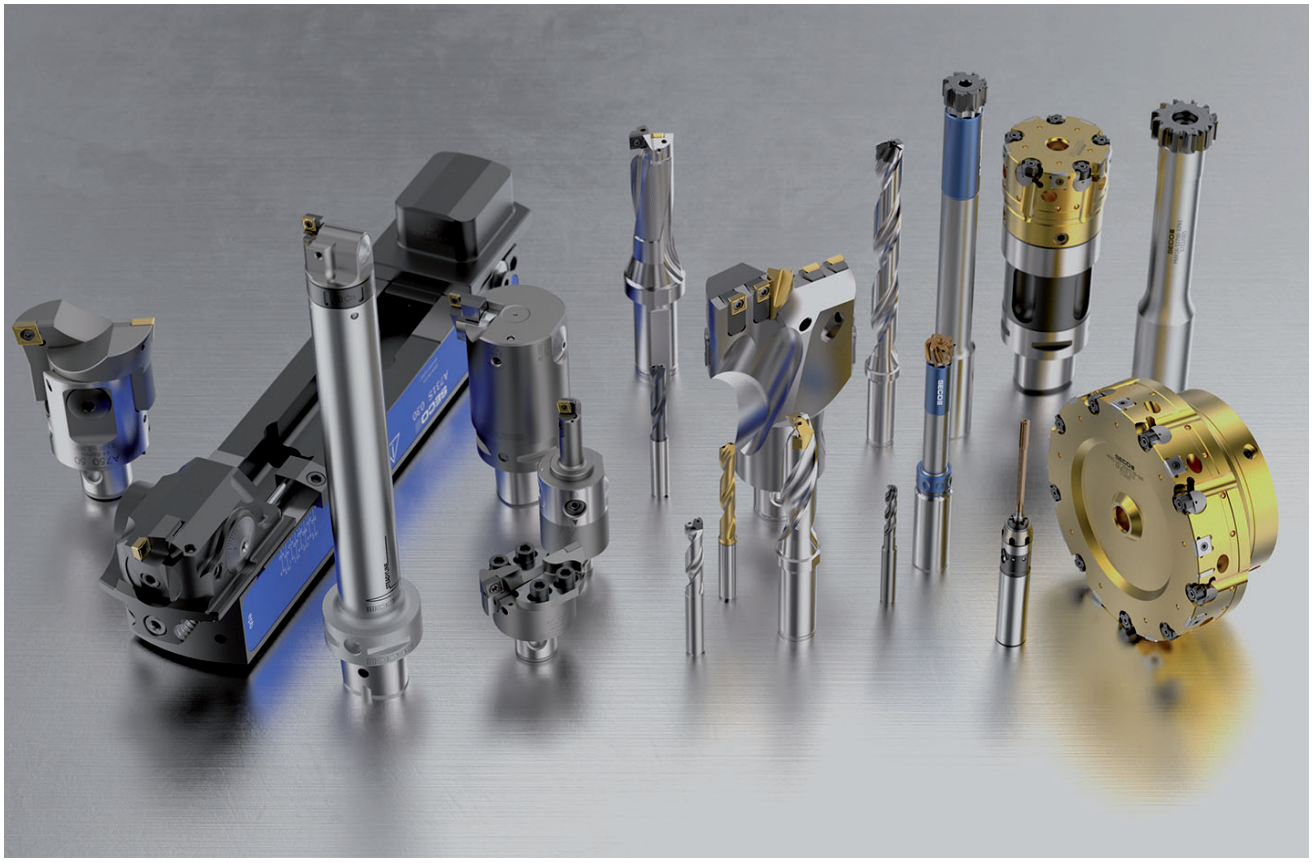
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WBGW 684-685
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Overcome any holemaking challenge

Holemaking can mean the difference between profit or scrapped parts and success requires the highest quality tooling for the greatest level of productivity enhancements and cost-reduction opportunities. To achieve that level of success, manufacturers need a partner who can help prove out processes and test new solutions. A partner with the ability to meet all your unique challenges with a truly comprehensive range of drilling, reaming, boring and threading tools.

Seco Tools is your single-source provider for comprehensive holemaking solutions. With years of experience developing holemaking solutions for customers' challenging applications, we have the R&D and metal cutting expertise to help manufacturers achieve fully optimal processes.

We are committed to our customers' holemaking productivity. That means you can purchase tools, receive technical support, consult with experts and develop solutions with just one provider and with access to the industry's most comprehensive range of indexable and solid drills, reamers, threaders and boring heads.



What are you looking for in making a hole?

	Drilling			Reaming				Boring		Threading			
	Seco Universal Seco Feedmax™	Crownloc® Crownloc® Plus	Perfomax®	Precimaster™ Plus	Nanofix™ / Nanojet	Bifix®	Xfix™	Rough boring	Fine boring	Threadmaster™	Threadmaster™ Taps		Thread milling 396.18/.19/.20
Page(s)	24-170	171-224	225-323	328-367	368-401	423-449	450-490	518-606	607-658	See Threading catalog			
													
IT	7-9	9-10	12	6-8	6-8	6-7	6-7	9-10	5-6	–	–	–	–
⊕	0,02 mm *(0.0008")*	0,05 mm *(0.002")*	–	Follow the pre-bore	Follow the pre-bore	Follow the pre-bore	Follow the pre-bore	0,005 mm *(0.0002")*	0,005 mm *(0.0002")*	–	Follow the pre-bore	Follow the pre-bore	–
⌭	0,02 mm *(0.0008")*	0,05 mm *(0.002")*	–	0,007 mm *(0.0003")*	0,007 mm *(0.0003")*	0,005 mm *(0.0002")*	0,005 mm *(0.0002")*	0,02 mm *(0.0008")*	0,01 mm *(0.0004")*	–	–	–	–
$\sqrt{R_a}$	1,0 µm *(39 µin)*	1,6 µm *(63 µin)*	2,0 µm *(79 µin)*	0,6 µm *(24 µin)*	0,6 µm *(24 µin)*	0,25 µm *(10 µin)*	0,8 µm *(31 µin)*	1,0 µm *(39 µin)*	0,6 µm *(24 µin)*	–	–	–	–
TCTR	–	–	–	–	–	–	–	–	–	–	6H 6HX 6G 2B Normal	5HX 2BX Normal-X 6HX 6GX	–
Thread form	–	–	–	–	–	–	–	–	–	M MF UNC UNF NPT NPTF BSP	M MF UNC UNF G NPT NPTF	M MF UNC UNF G	ISO UN W NPT NPTF BSPT

⊕ **Positioning accuracy**
Seco Feedmax, A750 rough boring heads and the whole range of fine boring heads are the holemaking tools that offer the best positioning accuracy.

⌭ **Hole geometry**
For excellent hole geometry, such as roundness and straightness, all of Seco's drilling, boring and reaming tools offer the same high and consistent quality. Seco's boring heads will always guarantee the best results on straightness.

$\sqrt{R_a}$ **Surface finish**
For a really smooth hole surface, Bifix is your first choice and Seco's fine boring heads offer a full range of machining capabilities.

TCTR = Thread Tolerance Class

IT = Hole tolerance

ISO attributes

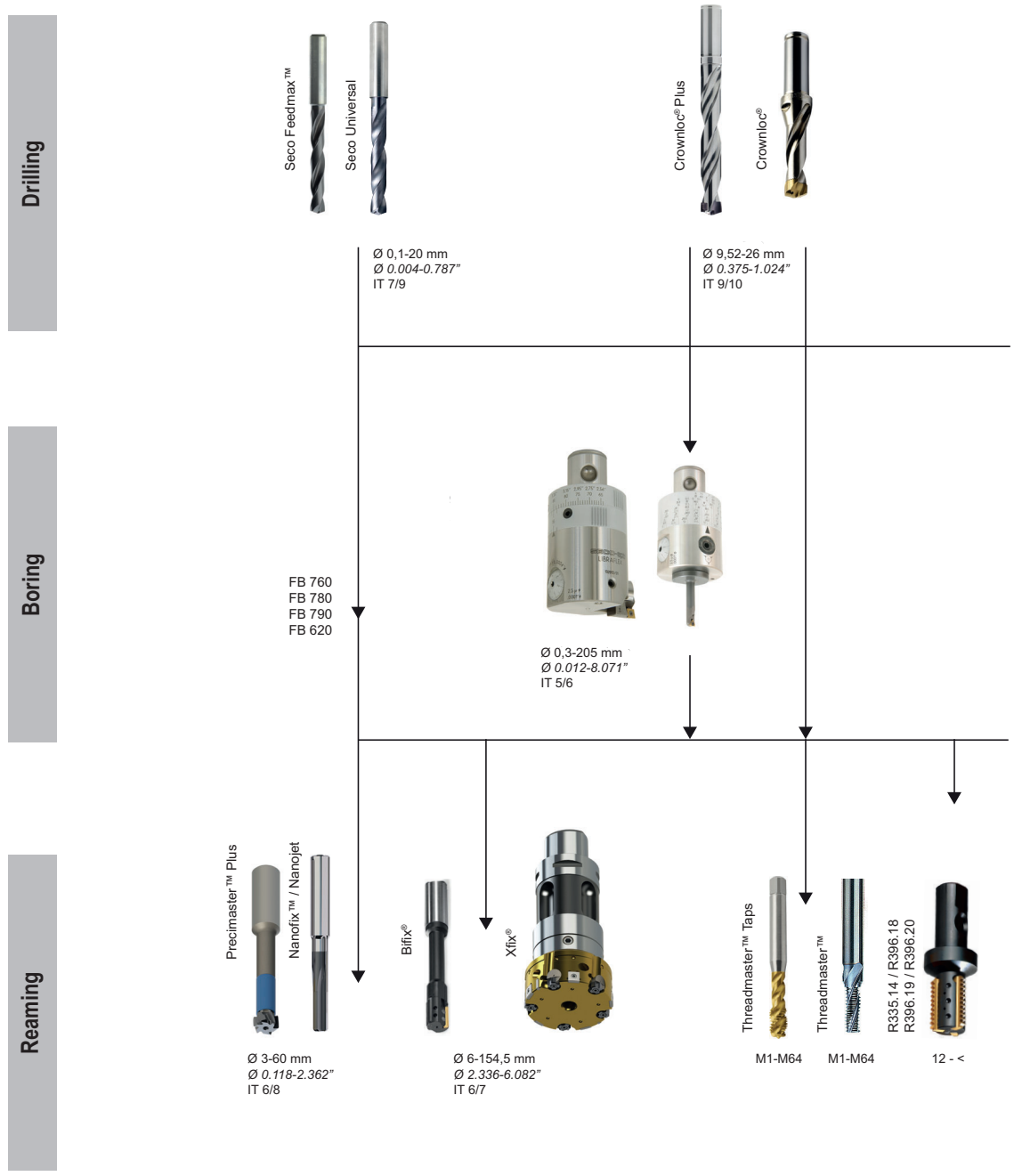
ISO attribute	Explanation
ADJLN	Minimum adjustment limit
ADJLX	Maximum adjustment limit
ADJRG	Adjustment range
AN	Clearance angle major
APMX	Depth of cut maximum
AZ	Maximum plunge depth
B	Shank width
BD	Body diameter
BD1	Body diameter 1
BD2	Body diameter 2
BDX	Body diameter maximum
BHTA	Body half taper angle
BLQ	Balance quality code
BN	Face land width
CBDP	Connection bore depth
CDX	Cutting depth maximum
CEDC	Cutting edge count
CHA	Cross hole angle
CHW	Corner chamfer width
CNT	Coolant entry thread size
CW	Cutting width
CZC	Connection size code
D1	Fixing hole diameter
DC	Cutting diameter
DCB	Connection bore diameter
DCBN	Connection bore diameter minimum
DCBX	Connection bore diameter maximum
DCB1	Connection bore diameter 1
DCC	Design configuration style code
DCINN	Minimum cutting diameter internal
DCINX	Maximum cutting diameter internal
DCN	Minimum cutting diameter
DCON	Connection diameter
DCX	Maximum cutting diameter
DF	Flange diameter
DMM	Shank diameter
FLGW	Flange width
GAN	Insert rake angle
GB	Face land angle
HTB	Body height
IC	Inscribed circle diameter
INSD	Insert diameter
INSL	Insert length
KRINS	Major cutting edge angle
L	Cutting edge length
LB	Body length
LB1	Body length 1
LCF	Chip flute length
LE	Cutting edge effective length
LF	Functional length
LFS	Secondary functional length
LH	Head length
LPR	Protruding length
LS	Shank length
LSC	Clamping length
LU	Usable length
LUX	Maximum usable length
M	M-dimension
OAL	Overall length
RE	Corner radius
S	Insert thickness
TDZ	Thread diameter size
WB	Body width
WF	Functional width

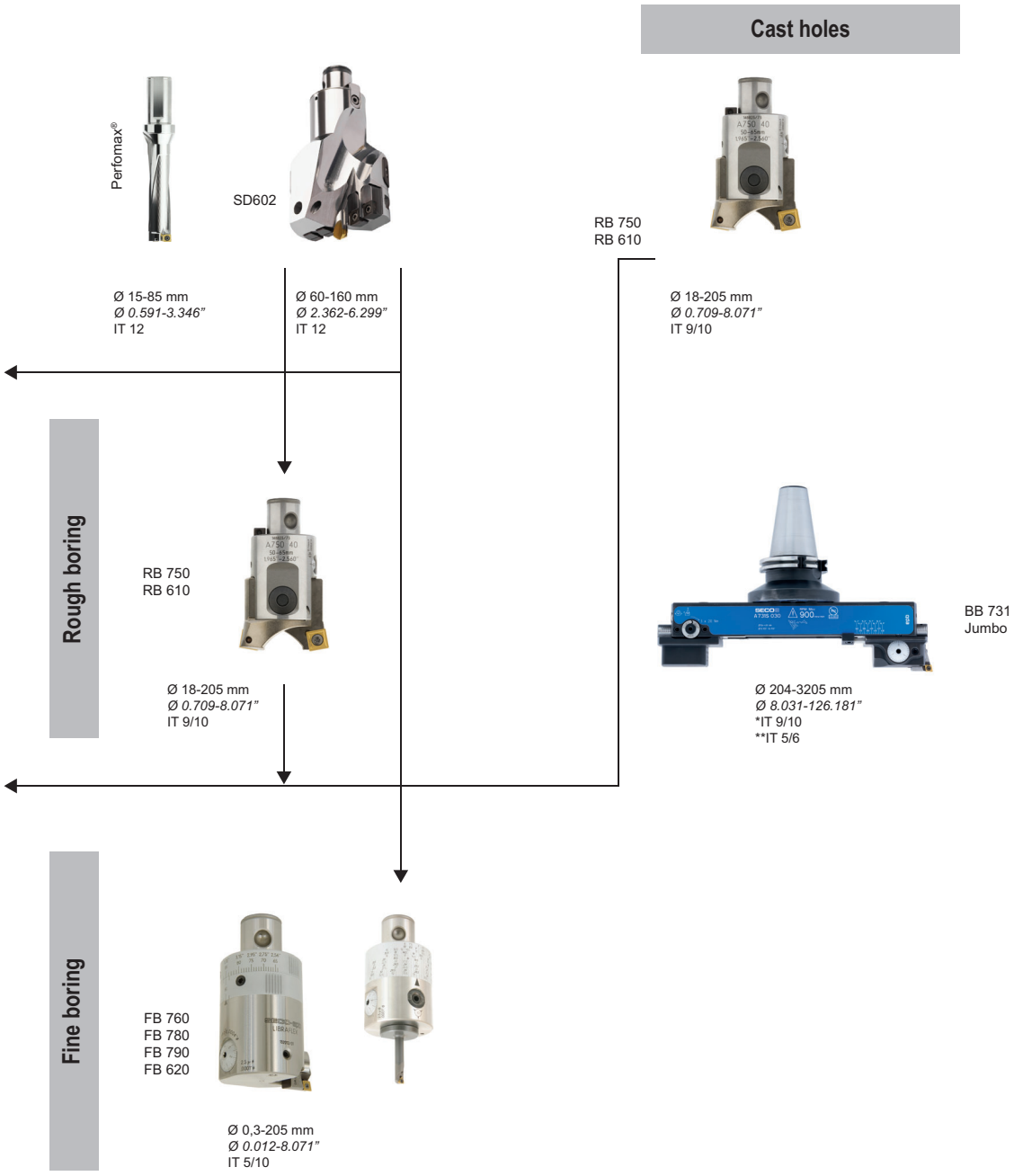
Tool guide

Feedmax, Crownloc and Perfomax are used to drill holes 0.1-160 mm (0.004-6.299") in diameter, with tolerances from IT7 to IT12.
For already cast holes, rough boring or semi-finishing is often used, with Bridge Bars and Jumbo Bridge Bars used for the large diameters.
Finally, high quality holes are made with reaming and fine boring heads, reaching tolerances of IT5 or IT6.
* Rough IT9/10, ** Fine IT 5/6

Threadmaster DTM, TM, TM2, 396.18 and 396.19;
The same cutter could be used for machining right and left hand threads. Metric and UN versions are only for internal threading. It's also possible to make all types of tolerances with the same cutter.

Threadmaster Tap:
Available in the most popular threads and tolerances in both cutting and forming taps.




Cast holes
Perfomax®
SD602
RB 750
RB 610
Ø 15-85 mm
Ø 0.591-3.346"
IT 12
Ø 60-160 mm
Ø 2.362-6.299"
IT 12
Ø 18-205 mm
Ø 0.709-8.071"
IT 9/10
Rough boring
RB 750
RB 610
Ø 18-205 mm
Ø 0.709-8.071"
IT 9/10
BB 731
Jumbo
Ø 204-3205 mm
Ø 8.031-126.181"
*IT 9/10
**IT 5/6
Fine boring
FB 760
FB 780
FB 790
FB 620
Ø 0,3-205 mm
Ø 0.012-8.071"
IT 5/10

Drilling range – Choice of drill

Seco Feedmax™ Solid carbide drills



PRODUCTIVITY

- High feeds and cutting speeds
- Close tolerance holes
- For applications with high stability
- For all workpiece materials

Crownloc® & Crownloc® Plus Exchangeble crown drills



FLEXIBILITY

- Exchangeable carbide tips
- Geometries for different workpiece materials
- No regrinding
- Several tip diameters for each drill body

Perfomax® Indexable insert drills



COST EFFECTIVENESS

- Grades and geometries for all workpiece materials
- Square inserts for low cost/hole
- Drilling, plunging, crossing holes with angled entrance or exit, boring, etc.
- High application security

SMG - Introduction

As example the reference materials EN C45E for SMG P4 and EN 42 CrMo 4 for both SMG P5 and SMG H5 see further details in the following tables.
In SMG classification of workpiece materials involves a specific material standard in a specific condition assigned as reference for easy and unambigious adjustment of cutting data for any actual material compared to any Seco reference material. As examples the reference materials EN C45E for SMG P4 and EN 42 CrMo 4 for both SMG P5 and SMG H5 shown below in table 1 where the reference level material property is indicated.

The foundation for SMG is a classification of workpiece materials based on their type rather than their relative machinability and consequently it contains workpiece materials like composites. It is comprehensive enough, but still easy to identify to which SMG a particular material belongs.
Each SMG has a specific material standard in a specific condition assigned as reference to allow easy adjustment of cutting data for any actual material compared to any Seco reference material see pages 698-709.

SMG	Description	Properties	Reference
P4	Low-alloy general structural steels, 0.25% < C < 0.67%wt Low-alloy Quench & Temper steels	520 < R_m < 1200	C 45E R_m = 660 N/mm^2
P5	Structural steels, 0.25% < C < 0.67%wt Quench & Temper steels	550 < R_m < 1200	42 CrMo 4 R_m = 700 N/mm^2

SMG	Description	Properties	Reference
H5	Quenched & Tempered steels	38 < HRC < 56	42 CrMo 4 50 HRC

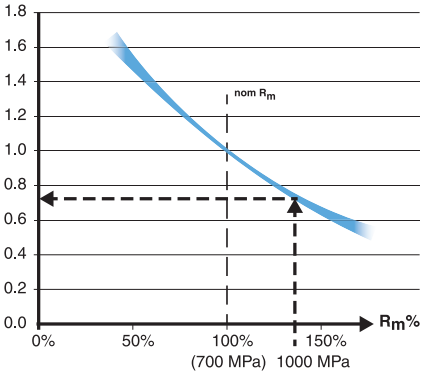
Focusing specifically on EN 42 CrMo 4 in annealed condition, the ultimate tensile strength R_m may typically vary between R_m = 630 N/mm^2 and R_m = 780 N/mm^2, which provide a reference level for SMG P5.

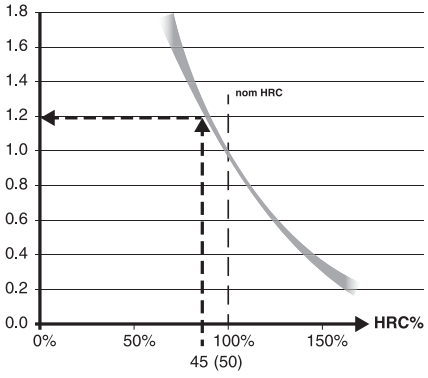
In Quenched & Tempered condition, the ultimate tensile strength Rm may typically be between R_m = 900 N/mm^2 and R_m = 1100 N/mm^2 thus still belongs to SMG P5.
However, if hardened above R_m = 1200 N/mm^2 it now belongs to SMG H5.

SMG	EN	W.-Nr	AFNOR	BS	UNI	JIS	AISI / ASTM	GOST	Condition	R_{m_nom}	HRC_{nom}
P4	42 CrMo 4	1.1201	42 CD 4	708 M 40	42 CrMo 4	SCM 440 (H)	4142, 4140	38HM	Annealed	700	
	42 CrMo 4	1.1201	42 CD 4	708 M 40	42 CrMo 4	SCM 440 (H)	4142, 4140	38HM	Quenched & Tempered	1000	
H5	42 CrMo 4	1.1201	42 CD 4	708 M 40	42 CrMo 4	SCM 440 (H)	4142, 4140	38HM	Quenched & Tempered		45
	42 CrMo 4	1.1201	42 CD 4	708 M 40	42 CrMo 4	SCM 440 (H)	4142, 4140	38HM	Quenched & Tempered		50

The EN 42CrMo4 quench & tempered steel could be used to illustrate the machinability dependence of materials' condition.

The graphs below indicate how speed recommendations for a nominal material conditions may be adjusted for relative R_m (left diagram valid for ISO-P) and for relative HRC (valid for ISO-H).





To further illustrate how the SMG P5 nominal v_c can be adjusted to a more accurate recommended v_c we need ultimate tensile strength Rm data and in this case we use the EN 42 CrMo 4 quenched & tempered to R_m = 1000 N/mm2 according to above table (bold blue arrows). Assume that we find that the SMG P5 nominal v_c = 280 m/min for a certain product and machining.
Then, actual recommended v_c = 280 m/min x 0,75 = 210 m/min. Consequently in the SMG H5 the nominal v_c can be adjusted using the hardened EN 42 CrMo 4 at HRC 45 (smaller grey arrows).

Assume that the SMG H5 nominal v_c = 50 m/min for a certain product and machining using a coated cemented carbide tool then, actual recommended v_c = 50 m/min x 1,2 = 60 m/min.
For further workpiece material details please see page(s) 698-709 and suggested cutting data at applicable pages.
For more convenient cutting data handling we recommend applicable tools in My Pages – Suggest on www.secotools.com

High performance and Universal solutions

What are you looking for in your solid drill application?

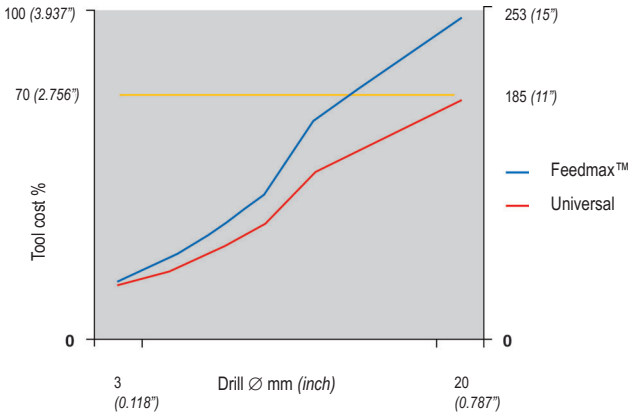
Universal – Versatile general performance solid carbide drill

Universal is a multi purpose general performance solid carbide drill, that can be used in a wide range of materials and applications in all industry segments. Thanks to the design with a strong self centering 140 degree drill point, polished chip flutes and the excellent quality of the drill - high capacity utilization, application security and versatility is provided at a very low cost.
With Universal stock holding cost can be reduced and greater machining flexibility is offered, leading to reduced set-up time. Universal is an alternative to Feedmax™ in operations when versatility, flexibility and reduced stock holding cost are the main targets.

Feedmax™ – Productive high performance solid carbide drill

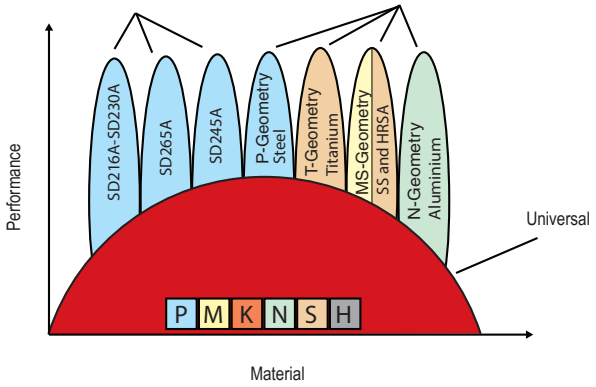
Feedmax™ offers a unique combination of state-of-the-art carbide, coating- and geometry technology.
Feedmax™ is designed for high productivity and low cost per hole with high feeds up to 0,70 mm/rev *(0.028 in/rev)* and high cutting speeds up to 220 m/min *(720 sf/min)*. With excellent centering capabilities - high hole quality is achieved with no need for center drilling operations. Thanks to the modern coating with high hot hardness, the strong cutting edges with protective corner chamfers, high strength carbide rod, excellent chip evacuation capabilities and a superb cutting edge quality - a long and predictable tool life is achieved.
Feedmax™ has a wide range of optimized geometries for different materials and applications, to obtain a good quality hole at the lowest cost.

MRR, Metal removal rate (cm^3 / min)

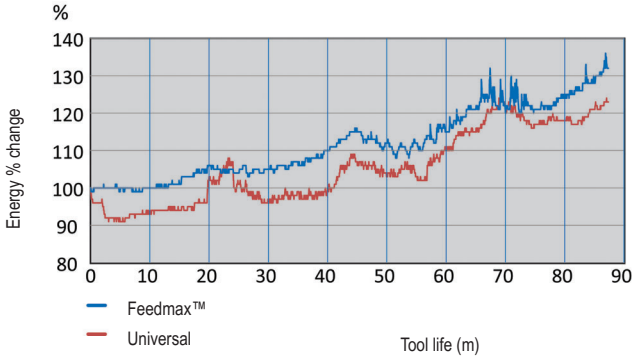


Feedmax™
Application optimized geometries

Feedmax™
Material optimized geometries



Tool life, lower cutting data

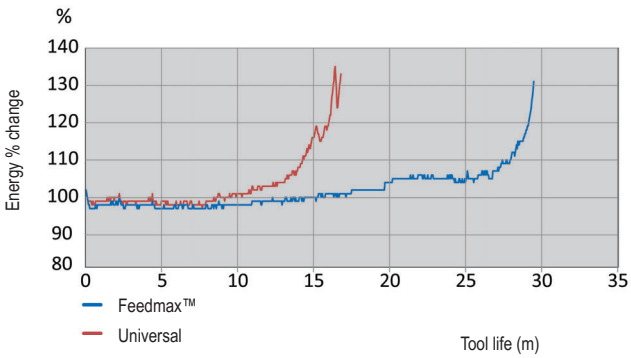


First hole is set as reference, 100% based on the spindle power
Cutting data
v_c = 90 m/min
f = 0,15 mm/rev

v_c = 295 sf/min
f = 0.006 in/rev

Material = SMG P5-P6, SS2244, DIN41CrMo4, AISI 4140

Tool life, high cutting data

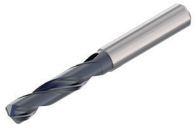
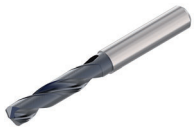
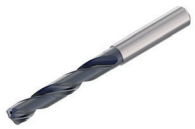


First hole is set as reference, 100% based on the spindle power
Cutting data
v_c = 160 m/min
f = 0,24 mm/rev

v_c = 525 sf/min
f = 0.009 in/rev

Material =SMG P5-P6, SS2244, DIN41CrMo4, AISI 4140

Range overview

Universal & Feedmax™	Page(s)	∅ Range	Drill depth	Drill ∅ tolerance	Hole tolerance (1)	Surface finish (2)
SD1103 	25, 26, 27, 28, 29, 30	3-20 mm *(0.118-0.787")*	~ 3 x D	m7	IT 8-9	Ra 1-2 µm *(Ra 39-79 µin)*
SD1103A 	31, 32, 33, 34, 35, 36	3-20 mm *(0.118-0.787")*	~ 3 x D	m7	IT 8-9	Ra 1-2 µm *(Ra 39-79 µin)*
SD1105A 	37, 38, 39, 40, 41, 42, 43, 44	3-20 mm *(0.118-0.787")*	~ 5 x D	m7	IT 8-9	Ra 1-3 µm *(Ra 39-118 µin)*
SD1108A 	45, 46, 47, 48, 49	3-20 mm *(0.118-0.787")*	~ 8 x D	m7	IT 9	Ra 1-3 µm *(Ra 39-118 µin)*
SD1112A 	50, 51, 52, 53	3-20 mm *(0.118-0.787")*	~ 12 x D	m7	IT 9	Ra 1-3 µm *(Ra 39-118 µin)*
SD203A-P 	55, 56, 57, 58, 59, 60	2-20 mm *(0.078-0.787")*	~ 3 x D	m7	IT 8-9	Ra 1-2 µm *(Ra 39-79 µin)*
SD205A-P 	61, 62, 63, 64, 65, 66, 67, 68	2-20 mm *(0.078-0.787")*	~ 5 x D	m7	IT 8-9	Ra 1-2 µm *(Ra 39-79 µin)*
SD206, SD206A 	69, 70	0,7-2,0 mm *(0.027-0.078")*	~ 6 x D	h6	IT 9	Ra 1-2 µm *(Ra 39-79 µin)*
SD207A-P 	71, 72, 73	3-20 mm *(0.118-0.787")*	~ 7 x D	m7	IT 9	Ra 1-3 µm *(Ra 39-118 µin)*

1) Variations can occur depending on the material and the cutting data used.
2) Drill depth, cutting data, coolant pressure and material can cause deterioration of the surface finish.

Range overview

Feedmax™	Page(s)	∅ Range	Drill depth	Drill ∅ tolerance	Hole tolerance (1)	Surface finish (2)
SD216A 	74	3-12 mm *(0.118-0.472")*	~ 16 x D	m7	IT 9	Ra 1-3 µm *(Ra 39-118 µin)*
SD230A 	75	4-10 mm *(0.157-0.393")*	~ 30 x D	m7	IT 9	Ra 1-3 µm *(Ra 39-118 µin)*
SD2040A 	76	3-8 mm *(0.118-0.315")*	~ 40 x D	e8	IT 9-10	Ra 1-3 µm *(Ra 39-118 µin)*
SD2050A 	77	3-6,35 mm *(0.118-0.250")*	~ 50 x D	e8	IT 9	Ra 1-3 µm *(Ra 39-118 µin)*
SD2060A 	78	3-5 mm *(0.118-0.197")*	~ 60 x D	e8	IT 9	Ra 1-3 µm *(Ra 39-118 µin)*
SD245A 	79-80, 81	5-14 mm *(0.196-0.551")*	~ 5 x D	m7	IT 8	Ra 1-2 µm *(Ra 39-79 µin)*
SD265A 	83	6-16 mm *(0.236-0.630")*	~ 5 x D	js6	IT 7	Ra 1-2 µm *(Ra 39-79 µin)*
SD203A-MS Superalloys 	90, 91, 92, 93, 94	2-20 mm *(0.079-0.551")*	~ 3 x D	m7	IT 8-9	Ra 1-2 µm *(Ra 39-79 µin)*
SD205A-MS Superalloys 	95, 96, 97, 98	2-20 mm *(0.079-0.551")*	~ 5 x D	m7	IT 8-9	Ra 1-2 µm *(Ra 39-79 µin)*

1) Variations can occur depending on the material and the cutting data used.
2) Drill depth, cutting data, coolant pressure and material can cause deterioration of the surface finish.

Range overview

Feedmax™	Page(s)	∅ Range	Drill depth	Drill ∅ tolerance	Hole tolerance (1)	Surface finish (2)
SD203A-M 	99, 100, 101	3-14,25 mm *(.118-.561")*	~ 3 x D	m7	IT 8-9	Ra 1-2 µm *(Ra 39-79 µin)*
SD205A-M 	102, 103, 104	2,5-16 mm *(.098-.630")*	~ 5 x D	m7	IT 8-9	Ra 1-2 µm *(Ra 39-79 µin)*
SD203A-T, SD205A-T 	105, 106	4,73-12 mm *(.188-.472")*	~ 3 x D, ~ 5 x D	m7	IT 8-9	Ra 1-2 µm *(Ra 39-79 µin)*
SD203A-N 	107, 108	2,5-14 mm *(.098-.551)*	~ 3 x D	m7	IT 8-9	Ra 1-2 µm *(Ra 39-79 µin)*
SD205A-C1, -C2 	112-113	6-9,55 mm *(.236-.376")*	~ 5 x D	m7	IT 9	–
SD203-CX1 	114	3,26-9,53 mm *(0.128-0.375")*	~ 5 x D	m7	IT 9	–
SD22 	116, 117, 118, 119, 120, 121, 122	0,1-2,0 mm *(0.004-0.079")*	~ 2 x D	0,005/0 mm (+0.0002"/0)	–	–
SD26 	123, 124, 125, 126, 127, 128, 129	0,1-2,0 mm *(0.004-0.079")*	~ 6 x D	0/-0,004 mm (0/-0.00016")	–	–

1) Variations can occur depending on the material and the cutting data used.
2) Drill depth, cutting data, coolant pressure and material can cause deterioration of the surface finish.

Code keys

Universal

Type of drill		Drill diameter		Shank diameter	Right hand rotation	
SD1105	A –	0850 –	049 –	10	R	1
	Internal through coolant		Drilling depth			Type of shank 1. Cylindrical

Feedmax™

Type of drill		Drill diameter		Shank diameter	Right hand rotation		P - Geometry for steel MS - Geometry for superalloys and stainless steel
SD205	A –	0950 –	049 –	10	R	1 –	P
	Internal through coolant		Drilling depth			Type of shank 1. Cylindrical	



Feedmax™

Type of drill		Drill diameter	Shank diam-eter	Right hand rotation		M - Geometry for superalloys T- Geometry for titanium alloys N- Geometry for aluminium C1 - Geometry for CFRP and exiting in CFRP C2 - Geometry for CFRP and exiting in i.e. Ti or Al CX1 - PCD drills for CFRP and GFRP
SD205	A –	9.5 –	45 –	10	R	1 –	M
	Internal through coolant		Drilling depth			Type of shank 1. Cylindrical 5. Whistle Notch	

SD1103: ~3 x D
SD1105: ~5 x D
SD1108: ~8 x D
SD1112: ~12 x D

SD203: ~3 x D
SD205: ~5 x D
SD207: ~7 x D

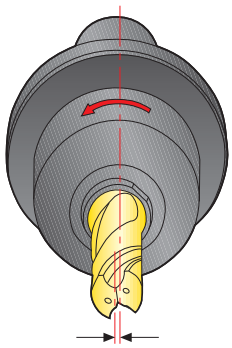
SD206: ~6 x D
SD216: ~16 x D
SD230: ~30 x D
SD245: ~5 x D
SD265: ~5 x D
SD22: ~2 x D
SD26: ~6 x D
SD2040: ~40 x D
SD2050: ~50 x D
SD2060: ~60 x D

Set up

Holding/run-Out
Drills with cylindrical shanks can be used with Shrinkfitholder, hydraulic chucks or collet chucks.
Keep the total indicated run-out of the drill within 0,04 mm (0.0016”) measured in the spindle.
For best result keep run-out 0,02 mm (0.0008”).

Stability
The stability of the application is important to obtain the best tool life and hole accuracy. Check the condition of the machine spindle, fixture and fixturing of the component to secure maximum stability and rigidity.
Unstable conditions can cause tool breakages.

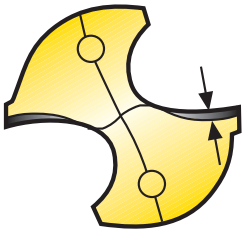
Recommended Tool Holders



For best result use holders:
Type 5603 - Shrinkfit holders, DIN type
Type 5834/HC/HCR/HCS
Type 5672 - High precision collet chucks
For more information see Tooling Systems catalog

Max. 0,02 mm (0.0008”)

Tool Life
Drills should not be used with flank wear exceeding 0,1-0,3 mm (0.004-0.012”) measured at the largest point.



0,1-0,3 mm (0.004-0.012”)

Shrinkfit holder
(For cylindrical, R1 shanks only)



Hydraulic chuck
(For cylindrical, R1 shanks only)



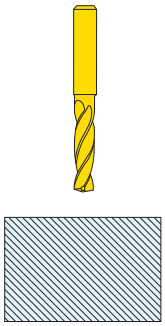
High precision collet chucks
(For cylindrical, R1 shanks only)



Machining methods

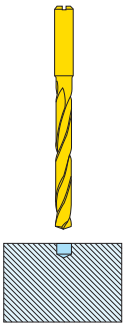
Hole entrance on a machined surface

3-15 x D



No pre-drilling or entrance feed needed.

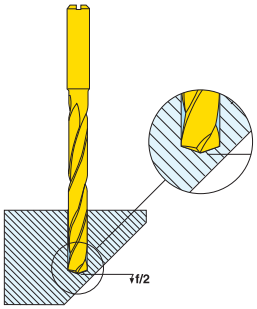
> 16 x D



When using a longer drill it's recommended to drill a pilot hole.

Angled Hole Exits

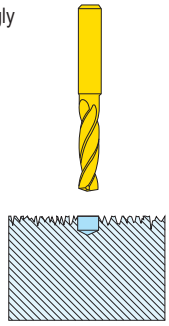
Before hole exit reduce the feed/rev by 50%.



Or use SD245A drills.

Irregular/angled Hole entrance

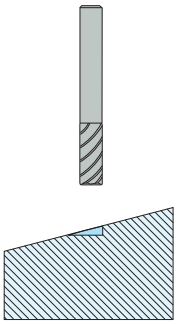
If irregular or angle entrance use pre operations accordingly



Regular hole entrance

Pre drill with a short standard Feedmax.

Pre-machining alternatives

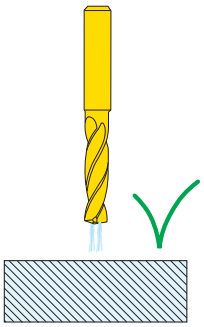


Angle-hole entrance

Machine a flat using an end mill from the Seco range.

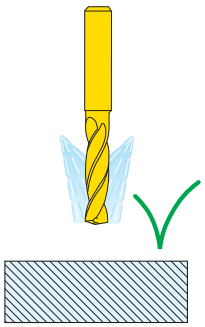
Coolant Recommendations

1.



First choice

2.



≤ 5 x D

1. Coolant pressure*
Minimum recommended coolant pressure 10 bar with ≤ 5 x D
Minimum recommended coolant pressure 30 bar with > 5 x D
Minimum recommended coolant pressure 40 bar with > 16 x D

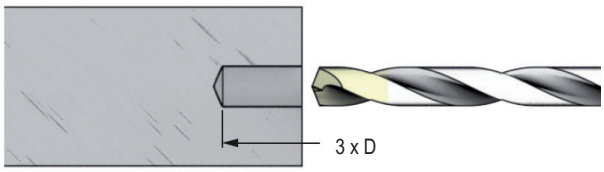
2. Coolant mix
Recommended emulsion mix 6-8%.
When drilling in stainless steels, superalloys and high strength steels a mix of 10% is recommended.

*If lower coolant pressure is used, adjust by reducing cutting data accordingly.

Machining strategy – Productivity

SD216A (16 x D) to SD2040A (40 x D)

1. Pilot drilling

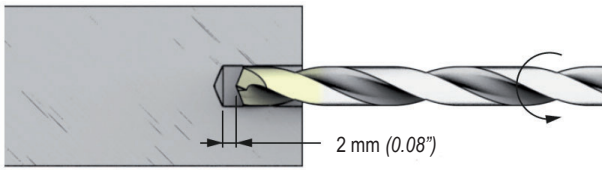




≥10 bar
ON

- SD203A

2. Feeding in

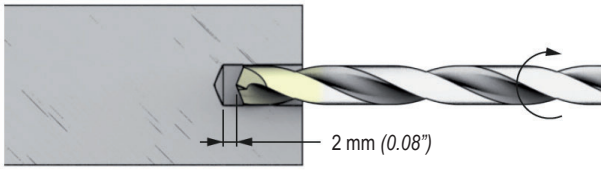




OFF

- Up to SD2040A
- With counter clockwise rotation and stop 2 mm above hole depth
- n_{max} = 100 rpm
- v_f = 1000 mm/min

3. Change spindle rotation

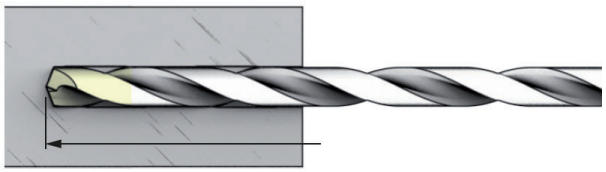




≥40 bar
ON

- Up to SD2040A
- Change rotation to clockwise and start coolant

4. Deep-hole drilling

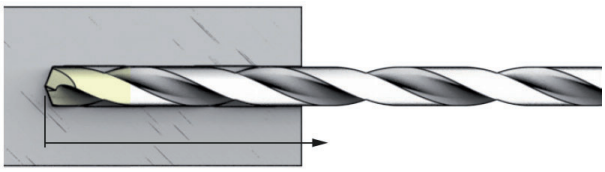




≥40 bar
ON

- Up to SD2040A
- v_c = 100%
- v_f = 100%

5. Retracting





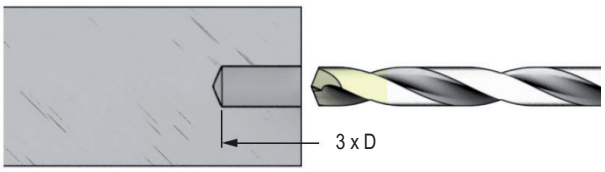
OFF

- Up to SD2040A
- n_{max} = 100 rpm
- v_f = 1000 mm/min

Machining strategy – Tool-cost saving

SD230A (30 x D) to SD2060A (60 x D)

1. Pilot drilling

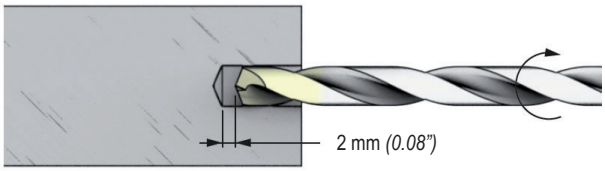




≥10 bar
ON

- SD203A

2. Feeding in

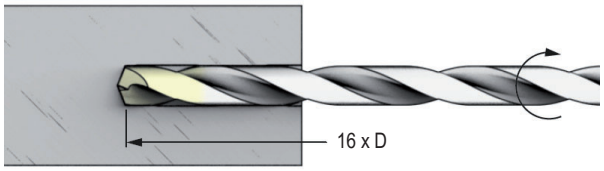




OFF

- SD216A
- With clockwise rotation and stop 2 mm above hole depth
- n_{max} = 100 rpm
- v_f = 1000 mm/min

3. Pre drilling

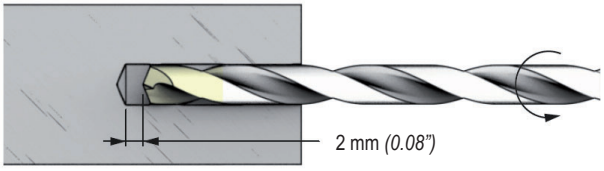




≥10 bar
ON

- SD216A
- v_c = 100%
- v_f = 100%

4. Feeding in

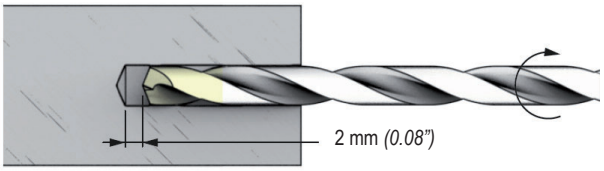




OFF

- SD230A - SD2060A
- With counter clockwise rotation and stop 2 mm above hole depth
- n_{max} = 100 rpm
- v_f = 1000 mm/min

5. Change spindle rotation

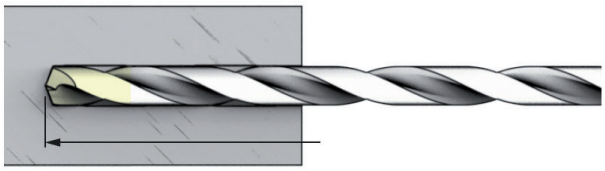




≥40 bar
ON

- SD230A - SD2060A
- Change rotation to clockwise and start coolant

6. Deep-hole drilling

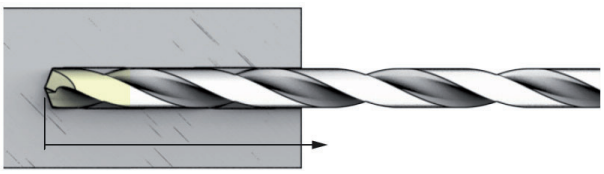




≥40 bar
ON

- SD230A - SD2060A
- v_c = 100%
- v_f = 100%

7. Retracting



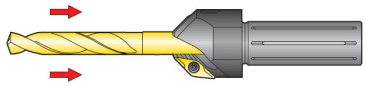


OFF

- SD230A - SD2060A
- n_{max} = 100 rpm
- v_f = 1000 mm/min

Chamfer module mounting instructions

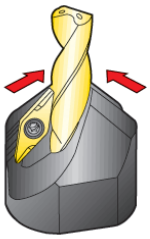
1.



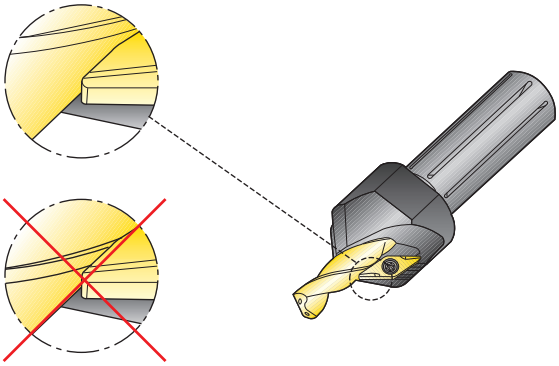
2.

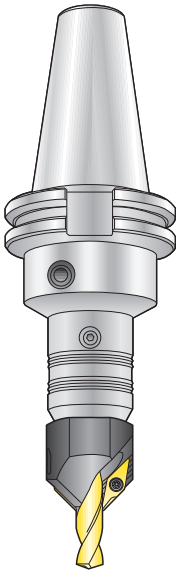


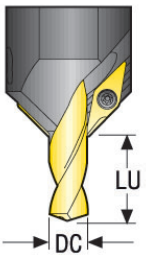
3.



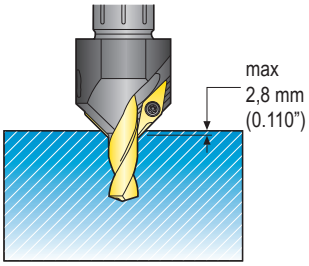
4.







Maximum chamfer depth



Drill diameter DC		LU drilling depth (min-max) SD1103 / SD203A		SD1105 / SD205A		SD207A	
mm	*inch*	mm	*inch*	mm	*inch*	mm	*inch*
4,00-4,75	*.157-.187*	4-17	*.157-.669*	10-27	*.394-1.063*	30-45	*1.181-1.772*
4,76-6,00	*.187-.236*	6-20	*.236-.787*	18-32	*.709-1.260*	30-45	*1.181-1.772*
6,01-8,00	*.241-.315*	15-27	*.590-1.063*	28-42	*1.102-1.653*	42-57	*1.653-2.244*
8,01-10,00	*.315-.394*	17-31	*.669-1.220*	34-48	*1.338-1.890*	47-62	*1.850-2.441*
10,01-12,00	*.394-.472*	21-36	*.826-1.417*	40-56	*1.575-2.205*	57-72	*2.244-2.835*
12,01-14,00	*.473-.551*	22-37	*.866-1.457*	43-59	*1.693-2.323*	68-83	*2.677-3.268*
14,01-16,00	*.552-.630*	23-39	*.906-1.535*	44-60	*1.732-2.362*	76-92	*2.992-3.622*

To be used with cylindrical shank only (R1).



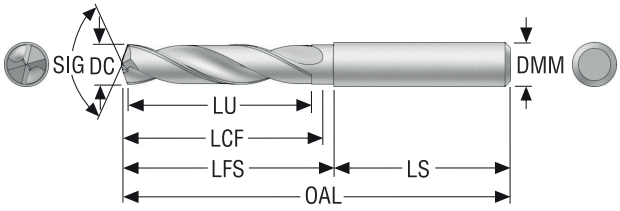
Seco Universal – Single diameter drills

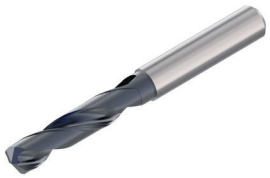
Seco Universal solid carbide drills are a cost effective and versatile solution with a perfect fit for small and medium batch production. The Seco Universal drills are suitable for most applications across all industry segments.

- Multi-purpose, 4-facett point geometry that provides excellent centering capability
- Highly wear resistant TiAlN coating secures for long tool life
- Can be used in conjunction with Threadmaster™ Tap and in pre-bore operations with Nanofix™/ Precimaster™ Plus

SD1103

Drilling depth ~ 3 x D – Metric/Inch





- Cylindrical shank DIN 6537A
- DC tolerance m7
- External coolant
- For cutting data see page(s) 140
- For intermediate diameters see the MyDesign software.

Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD1103-0300-014-06R1 *SD_DRILL_3.0MM_3XD*	02898974	3,0 *0.118*	14,0 *0.551*	62,0 *2.441*	26,0 *1.024*	36,0 *1.417*	20,0 *0.787*	6,0 *0.236*	140°	TiAlN	IT9
SD1103-0310-014-06R1 *SD_DRILL_3.1MM_3XD*	02898975	3,1 *0.122*	14,0 *0.551*	62,0 *2.441*	26,0 *1.024*	36,0 *1.417*	20,0 *0.787*	6,0 *0.236*	140°	TiAlN	IT9
SD1103-0318-014-06R1 *SD_DRILL_1/8_3XD*	02898976	3,175 *0.125*	14,0 *0.551*	62,0 *2.441*	26,0 *1.024*	36,0 *1.417*	20,0 *0.787*	6,0 *0.236*	140°	TiAlN	IT9
SD1103-0320-014-06R1 *SD_DRILL_3.2MM_3XD*	02898977	3,2 *0.126*	14,0 *0.551*	62,0 *2.441*	26,0 *1.024*	36,0 *1.417*	20,0 *0.787*	6,0 *0.236*	140°	TiAlN	IT9
SD1103-0325-014-06R1 *SD_DRILL_3.25MM_3XD*	02898978	3,25 *0.128*	14,0 *0.551*	62,0 *2.441*	26,0 *1.024*	36,0 *1.417*	20,0 *0.787*	6,0 *0.236*	140°	TiAlN	IT9
SD1103-0330-014-06R1 *SD_DRILL_3.3MM_3XD*	02898979	3,3 *0.130*	14,0 *0.551*	62,0 *2.441*	26,0 *1.024*	36,0 *1.417*	20,0 *0.787*	6,0 *0.236*	140°	TiAlN	IT9
SD1103-0340-014-06R1 *SD_DRILL_3.4MM_3XD*	02898980	3,4 *0.134*	14,0 *0.551*	62,0 *2.441*	26,0 *1.024*	36,0 *1.417*	20,0 *0.787*	6,0 *0.236*	140°	TiAlN	IT9
SD1103-0350-014-06R1 *SD_DRILL_3.5MM_3XD*	02898981	3,5 *0.138*	14,0 *0.551*	62,0 *2.441*	26,0 *1.024*	36,0 *1.417*	20,0 *0.787*	6,0 *0.236*	140°	TiAlN	IT9
SD1103-0357-014-06R1 *SD_DRILL_9/64_3XD*	02898982	3,572 *0.141*	14,0 *0.551*	62,0 *2.441*	26,0 *1.024*	36,0 *1.417*	20,0 *0.787*	6,0 *0.236*	140°	TiAlN	IT9
SD1103-0360-014-06R1 *SD_DRILL_3.6MM_3XD*	02898983	3,6 *0.142*	14,0 *0.551*	62,0 *2.441*	26,0 *1.024*	36,0 *1.417*	20,0 *0.787*	6,0 *0.236*	140°	TiAlN	IT9
SD1103-0365-014-06R1 *SD_DRILL_3.65MM_3XD*	02898984	3,65 *0.144*	14,0 *0.551*	62,0 *2.441*	26,0 *1.024*	36,0 *1.417*	20,0 *0.787*	6,0 *0.236*	140°	TiAlN	IT9
SD1103-0370-014-06R1 *SD_DRILL_3.7MM_3XD*	02898985	3,7 *0.146*	14,0 *0.551*	62,0 *2.441*	26,0 *1.024*	36,0 *1.417*	20,0 *0.787*	6,0 *0.236*	140°	TiAlN	IT9
SD1103-0380-017-06R1 *SD_DRILL_3.8MM_3XD*	02898986	3,8 *0.150*	17,0 *0.669*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	24,0 *0.945*	6,0 *0.236*	140°	TiAlN	IT9
SD1103-0390-017-06R1 *SD_DRILL_3.9MM_3XD*	02898987	3,9 *0.154*	17,0 *0.669*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	24,0 *0.945*	6,0 *0.236*	140°	TiAlN	IT9
SD1103-0397-017-06R1 *SD_DRILL_5/32_3XD*	02898988	3,969 *0.156*	17,0 *0.669*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	24,0 *0.945*	6,0 *0.236*	140°	TiAlN	IT9
SD1103-0400-017-06R1 *SD_DRILL_4.0MM_3XD*	02898989	4,0 *0.157*	17,0 *0.669*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	24,0 *0.945*	6,0 *0.236*	140°	TiAlN	IT9
SD1103-0410-017-06R1 *SD_DRILL_4.1MM_3XD*	02898990	4,1 *0.161*	17,0 *0.669*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	24,0 *0.945*	6,0 *0.236*	140°	TiAlN	IT9
SD1103-0420-017-06R1 *SD_DRILL_4.2MM_3XD*	02898991	4,2 *0.165*	17,0 *0.669*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	24,0 *0.945*	6,0 *0.236*	140°	TiAlN	IT9
SD1103-0430-017-06R1 *SD_DRILL_4.3MM_3XD*	02898992	4,3 *0.169*	17,0 *0.669*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	24,0 *0.945*	6,0 *0.236*	140°	TiAlN	IT9
SD1103-0437-017-06R1 *SD_DRILL_11/64_3XD*	02898993	4,366 *0.172*	17,0 *0.669*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	24,0 *0.945*	6,0 *0.236*	140°	TiAlN	IT9
SD1103-0440-017-06R1 *SD_DRILL_4.4MM_3XD*	02898994	4,4 *0.173*	17,0 *0.669*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	24,0 *0.945*	6,0 *0.236*	140°	TiAlN	IT9

Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD1103-0450-017-06R1 *SD_DRILL_4.5MM_3XD*	02898995	4,5 *0.177*	17,0 *0.669*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	24,0 *0.945*	6,0 *0.236*	140°	TiAlN	IT9
SD1103-0460-017-06R1 *SD_DRILL_4.6MM_3XD*	02898996	4,6 *0.181*	17,0 *0.669*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	24,0 *0.945*	6,0 *0.236*	140°	TiAlN	IT9
SD1103-0465-017-06R1 *SD_DRILL_4.65MM_3XD*	02898997	4,65 *0.183*	17,0 *0.669*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	24,0 *0.945*	6,0 *0.236*	140°	TiAlN	IT9
SD1103-0470-017-06R1 *SD_DRILL_4.7MM_3XD*	02898998	4,7 *0.185*	17,0 *0.669*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	24,0 *0.945*	6,0 *0.236*	140°	TiAlN	IT9
SD1103-0476-020-06R1 *SD_DRILL_3/16_3XD*	02898999	4,763 *0.188*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT9
SD1103-0480-020-06R1 *SD_DRILL_4.8MM_3XD*	02899000	4,8 *0.189*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT9
SD1103-0490-020-06R1 *SD_DRILL_4.9MM_3XD*	02899001	4,9 *0.193*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT9
SD1103-0500-020-06R1 *SD_DRILL_5.0MM_3XD*	02899002	5,0 *0.197*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT9
SD1103-0510-020-06R1 *SD_DRILL_5.1MM_3XD*	02899003	5,1 *0.201*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT9
SD1103-0516-020-06R1 *SD_DRILL_13/64_3XD*	02899004	5,159 *0.203*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT9
SD1103-0520-020-06R1 *SD_DRILL_5.2MM_3XD*	02899005	5,2 *0.205*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT9
SD1103-0530-020-06R1 *SD_DRILL_5.3MM_3XD*	02899006	5,3 *0.209*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT9
SD1103-0540-020-06R1 *SD_DRILL_5.4MM_3XD*	02899007	5,4 *0.213*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT9
SD1103-0550-020-06R1 *SD_DRILL_5.5MM_3XD*	02899008	5,5 *0.217*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT9
SD1103-0555-020-06R1 *SD_DRILL_5.55MM_3XD*	02899009	5,55 *0.219*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT9
SD1103-0556-020-06R1 *SD_DRILL_7/32_3XD*	02899010	5,556 *0.219*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT9
SD1103-0560-020-06R1 *SD_DRILL_5.6MM_3XD*	02899011	5,6 *0.220*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT9
SD1103-0570-020-06R1 *SD_DRILL_5.7MM_3XD*	02899012	5,7 *0.224*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT9
SD1103-0580-020-06R1 *SD_DRILL_5.8MM_3XD*	02899013	5,8 *0.228*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT9
SD1103-0590-020-06R1 *SD_DRILL_5.9MM_3XD*	02899014	5,9 *0.232*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT9
SD1103-0595-020-06R1 *SD_DRILL_15/64_3XD*	02899015	5,953 *0.234*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT9
SD1103-0600-020-06R1 *SD_DRILL_6.0MM_3XD*	02899016	6,0 *0.236*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT9
SD1103-0610-024-08R1 *SD_DRILL_6.1MM_3XD*	02899017	6,1 *0.240*	24,0 *0.945*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	34,0 *1.339*	8,0 *0.315*	140°	TiAlN	IT9
SD1103-0620-024-08R1 *SD_DRILL_6.2MM_3XD*	02899018	6,2 *0.244*	24,0 *0.945*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	34,0 *1.339*	8,0 *0.315*	140°	TiAlN	IT9
SD1103-0630-024-08R1 *SD_DRILL_6.3MM_3XD*	02899019	6,3 *0.248*	24,0 *0.945*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	34,0 *1.339*	8,0 *0.315*	140°	TiAlN	IT9
SD1103-0635-024-08R1 *SD_DRILL_1/4_3XD*	02899020	6,35 *0.250*	24,0 *0.945*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	34,0 *1.339*	8,0 *0.315*	140°	TiAlN	IT9
SD1103-0640-024-08R1 *SD_DRILL_6.4MM_3XD*	02899021	6,4 *0.252*	24,0 *0.945*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	34,0 *1.339*	8,0 *0.315*	140°	TiAlN	IT9
SD1103-0650-024-08R1 *SD_DRILL_6.5MM_3XD*	02899022	6,5 *0.256*	24,0 *0.945*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	34,0 *1.339*	8,0 *0.315*	140°	TiAlN	IT9
SD1103-0660-024-08R1 *SD_DRILL_6.6MM_3XD*	02899024	6,6 *0.260*	24,0 *0.945*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	34,0 *1.339*	8,0 *0.315*	140°	TiAlN	IT9
SD1103-0675-024-08R1 *SD_DRILL_17/64_3XD*	02899025	6,747 *0.266*	24,0 *0.945*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	34,0 *1.339*	8,0 *0.315*	140°	TiAlN	IT9
SD1103-0680-024-08R1 *SD_DRILL_6.8MM_3XD*	02899026	6,8 *0.268*	24,0 *0.945*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	34,0 *1.339*	8,0 *0.315*	140°	TiAlN	IT9

Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD1103-0690-024-08R1 *SD_DRILL_6.9MM_3XD*	02899027	6,9 *0.272*	24,0 *0.945*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	34,0 *1.339*	8,0 *0.315*	140°	TiAlN	IT9
SD1103-0700-024-08R1 *SD_DRILL_7.0MM_3XD*	02899028	7,0 *0.276*	24,0 *0.945*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	34,0 *1.339*	8,0 *0.315*	140°	TiAlN	IT9
SD1103-0710-029-08R1 *SD_DRILL_7.1MM_3XD*	02899029	7,1 *0.280*	29,0 *1.142*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	41,0 *1.614*	8,0 *0.315*	140°	TiAlN	IT9
SD1103-0714-029-08R1 *SD_DRILL_9/32_3XD*	02899030	7,144 *0.281*	29,0 *1.142*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	41,0 *1.614*	8,0 *0.315*	140°	TiAlN	IT9
SD1103-0720-029-08R1 *SD_DRILL_7.2MM_3XD*	02899031	7,2 *0.283*	29,0 *1.142*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	41,0 *1.614*	8,0 *0.315*	140°	TiAlN	IT9
SD1103-0730-029-08R1 *SD_DRILL_7.3MM_3XD*	02899032	7,3 *0.287*	29,0 *1.142*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	41,0 *1.614*	8,0 *0.315*	140°	TiAlN	IT9
SD1103-0740-029-08R1 *SD_DRILL_7.4MM_3XD*	02899033	7,4 *0.291*	29,0 *1.142*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	41,0 *1.614*	8,0 *0.315*	140°	TiAlN	IT9
SD1103-0750-029-08R1 *SD_DRILL_7.5MM_3XD*	02899034	7,5 *0.295*	29,0 *1.142*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	41,0 *1.614*	8,0 *0.315*	140°	TiAlN	IT9
SD1103-0754-029-08R1 *SD_DRILL_19/64_3XD*	02899035	7,541 *0.297*	29,0 *1.142*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	41,0 *1.614*	8,0 *0.315*	140°	TiAlN	IT9
SD1103-0755-029-08R1 *SD_DRILL_7.55MM_3XD*	02899036	7,55 *0.297*	29,0 *1.142*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	41,0 *1.614*	8,0 *0.315*	140°	TiAlN	IT9
SD1103-0760-029-08R1 *SD_DRILL_7.6MM_3XD*	02899037	7,6 *0.299*	29,0 *1.142*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	41,0 *1.614*	8,0 *0.315*	140°	TiAlN	IT9
SD1103-0770-029-08R1 *SD_DRILL_7.7MM_3XD*	02899038	7,7 *0.303*	29,0 *1.142*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	41,0 *1.614*	8,0 *0.315*	140°	TiAlN	IT9
SD1103-0780-029-08R1 *SD_DRILL_7.8MM_3XD*	02899040	7,8 *0.307*	29,0 *1.142*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	41,0 *1.614*	8,0 *0.315*	140°	TiAlN	IT9
SD1103-0790-029-08R1 *SD_DRILL_7.9MM_3XD*	02899041	7,9 *0.311*	29,0 *1.142*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	41,0 *1.614*	8,0 *0.315*	140°	TiAlN	IT9
SD1103-0794-029-08R1 *SD_DRILL_5/16_3XD*	02899042	7,938 *0.313*	29,0 *1.142*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	41,0 *1.614*	8,0 *0.315*	140°	TiAlN	IT9
SD1103-0800-029-08R1 *SD_DRILL_8.0MM_3XD*	02899043	8,0 *0.315*	29,0 *1.142*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	41,0 *1.614*	8,0 *0.315*	140°	TiAlN	IT9
SD1103-0810-035-10R1 *SD_DRILL_8.1MM_3XD*	02899044	8,1 *0.319*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT9
SD1103-0820-035-10R1 *SD_DRILL_8.2MM_3XD*	02899045	8,2 *0.323*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT9
SD1103-0830-035-10R1 *SD_DRILL_8.3MM_3XD*	02899046	8,3 *0.327*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT9
SD1103-0833-035-10R1 *SD_DRILL_21/64_3XD*	02899047	8,334 *0.328*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT9
SD1103-0840-035-10R1 *SD_DRILL_8.4MM_3XD*	02899048	8,4 *0.331*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT9
SD1103-0850-035-10R1 *SD_DRILL_8.5MM_3XD*	02899049	8,5 *0.335*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT9
SD1103-0860-035-10R1 *SD_DRILL_8.6MM_3XD*	02899050	8,6 *0.339*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT9
SD1103-0870-035-10R1 *SD_DRILL_8.7MM_3XD*	02899051	8,7 *0.343*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT9
SD1103-0873-035-10R1 *SD_DRILL_11/32_3XD*	02899052	8,731 *0.344*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT9
SD1103-0880-035-10R1 *SD_DRILL_8.8MM_3XD*	02899053	8,8 *0.346*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT9
SD1103-0890-035-10R1 *SD_DRILL_8.9MM_3XD*	02899054	8,9 *0.350*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT9
SD1103-0900-035-10R1 *SD_DRILL_9.0MM_3XD*	02899055	9,0 *0.354*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT9
SD1103-0910-035-10R1 *SD_DRILL_9.1MM_3XD*	02899056	9,1 *0.358*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT9
SD1103-0913-035-10R1 *SD_DRILL_23/64_3XD*	02899058	9,128 *0.359*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT9
SD1103-0920-035-10R1 *SD_DRILL_9.2MM_3XD*	02899059	9,2 *0.362*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT9

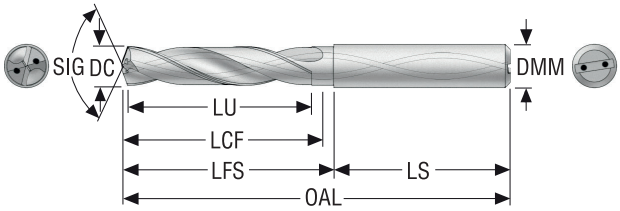
Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD1103-0930-035-10R1 *SD_DRILL_9.3MM_3XD*	02899060	9,3 *0.366*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT9
SD1103-0940-035-10R1 *SD_DRILL_9.4MM_3XD*	02899061	9,4 *0.370*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT9
SD1103-0950-035-10R1 *SD_DRILL_9.5MM_3XD*	02899062	9,5 *0.374*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT9
SD1103-0953-035-10R1 *SD_DRILL_3/8_3XD*	02899063	9,525 *0.375*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT9
SD1103-0955-035-10R1 *SD_DRILL_9.55MM_3XD*	02899064	9,55 *0.376*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT9
SD1103-0960-035-10R1 *SD_DRILL_9.6MM_3XD*	02899065	9,6 *0.378*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT9
SD1103-0970-035-10R1 *SD_DRILL_9.7MM_3XD*	02899066	9,7 *0.382*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT9
SD1103-0980-035-10R1 *SD_DRILL_9.8MM_3XD*	02899067	9,8 *0.386*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT9
SD1103-0990-035-10R1 *SD_DRILL_9.9MM_3XD*	02899068	9,9 *0.390*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT9
SD1103-0992-035-10R1 *SD_DRILL_25/64_3XD*	02899069	9,922 *0.391*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT9
SD1103-1000-035-10R1 *SD_DRILL_10.0MM_3XD*	02899070	10,0 *0.394*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT9
SD1103-1020-040-12R1 *SD_DRILL_10.2MM_3XD*	02899071	10,2 *0.402*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT9
SD1103-1032-040-12R1 *SD_DRILL_13/32_3XD*	02899072	10,319 *0.406*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT9
SD1103-1040-040-12R1 *SD_DRILL_10.4MM_3XD*	02899073	10,4 *0.409*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT9
SD1103-1050-040-12R1 *SD_DRILL_10.5MM_3XD*	02899074	10,5 *0.413*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT9
SD1103-1060-040-12R1 *SD_DRILL_10.6MM_3XD*	02899075	10,6 *0.417*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT9
SD1103-1072-040-12R1 *SD_DRILL_27/64_3XD*	02899076	10,716 *0.422*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT9
SD1103-1080-040-12R1 *SD_DRILL_10.8MM_3XD*	02899077	10,8 *0.425*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT9
SD1103-1090-040-12R1 *SD_DRILL_10.9MM_3XD*	02899078	10,9 *0.429*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT9
SD1103-1100-040-12R1 *SD_DRILL_11.0MM_3XD*	02899079	11,0 *0.433*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT9
SD1103-1110-040-12R1 *SD_DRILL_11.1MM_3XD*	02899080	11,1 *0.437*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT9
SD1103-1111-040-12R1 *SD_DRILL_7/16_3XD*	02899081	11,113 *0.438*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT9
SD1103-1120-040-12R1 *SD_DRILL_11.2MM_3XD*	02899082	11,2 *0.441*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT9
SD1103-1130-040-12R1 *SD_DRILL_11.3MM_3XD*	02899083	11,3 *0.445*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT9
SD1103-1140-040-12R1 *SD_DRILL_11.4MM_3XD*	02899084	11,4 *0.449*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT9
SD1103-1150-040-12R1 *SD_DRILL_11.5MM_3XD*	02899085	11,5 *0.453*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT9
SD1103-1151-040-12R1 *SD_DRILL_29/64_3XD*	02899086	11,509 *0.453*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT9
SD1103-1155-040-12R1 *SD_DRILL_11.55MM_3XD*	02899087	11,55 *0.455*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT9
SD1103-1160-040-12R1 *SD_DRILL_11.6MM_3XD*	02899088	11,6 *0.457*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT9
SD1103-1170-040-12R1 *SD_DRILL_11.7MM_3XD*	02899089	11,7 *0.461*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT9
SD1103-1180-040-12R1 *SD_DRILL_11.8MM_3XD*	02899090	11,8 *0.465*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT9

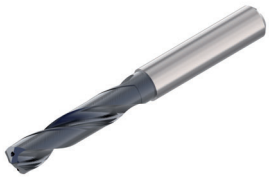
Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD1103-1190-040-12R1 *SD_DRILL_11.9MM_3XD*	02899091	11,9 *0.469*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT9
SD1103-1191-040-12R1 *SD_DRILL_15/32_3XD*	02899092	11,906 *0.469*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT9
SD1103-1200-040-12R1 *SD_DRILL_12.0MM_3XD*	02899093	12,0 *0.472*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT9
SD1103-1210-043-14R1 *SD_DRILL_12.1MM_3XD*	02899094	12,1 *0.476*	43,0 *1.693*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN	IT9
SD1103-1220-043-14R1 *SD_DRILL_12.2MM_3XD*	02899095	12,2 *0.480*	43,0 *1.693*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN	IT9
SD1103-1230-043-14R1 *SD_DRILL_31/64_3XD*	02899096	12,303 *0.484*	43,0 *1.693*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN	IT9
SD1103-1240-043-14R1 *SD_DRILL_12.4MM_3XD*	02899097	12,4 *0.488*	43,0 *1.693*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN	IT9
SD1103-1250-043-14R1 *SD_DRILL_12.5MM_3XD*	02899098	12,5 *0.492*	43,0 *1.693*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN	IT9
SD1103-1260-043-14R1 *SD_DRILL_12.6MM_3XD*	02899099	12,6 *0.496*	43,0 *1.693*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN	IT9
SD1103-1270-043-14R1 *SD_DRILL_1/2_3XD*	02899100	12,7 *0.500*	43,0 *1.693*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN	IT9
SD1103-1275-043-14R1 *SD_DRILL_12.75MM_3XD*	02899101	12,75 *0.502*	43,0 *1.693*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN	IT9
SD1103-1280-043-14R1 *SD_DRILL_12.8MM_3XD*	02899102	12,8 *0.504*	43,0 *1.693*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN	IT9
SD1103-1290-043-14R1 *SD_DRILL_12.9MM_3XD*	02899103	12,9 *0.508*	43,0 *1.693*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN	IT9
SD1103-1300-043-14R1 *SD_DRILL_13.0MM_3XD*	02899104	13,0 *0.512*	43,0 *1.693*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN	IT9
SD1103-1310-043-14R1 *SD_DRILL_33/64_3XD*	02899105	13,1 *0.516*	43,0 *1.693*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN	IT9
SD1103-1320-043-14R1 *SD_DRILL_13.2MM_3XD*	02899106	13,2 *0.520*	43,0 *1.693*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN	IT9
SD1103-1330-043-14R1 *SD_DRILL_13.3MM_3XD*	02899107	13,3 *0.524*	43,0 *1.693*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN	IT9
SD1103-1340-043-14R1 *SD_DRILL_13.4MM_3XD*	02899108	13,4 *0.528*	43,0 *1.693*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN	IT9
SD1103-1349-043-14R1 *SD_DRILL_17/32_3XD*	02899109	13,494 *0.531*	43,0 *1.693*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN	IT9
SD1103-1350-043-14R1 *SD_DRILL_13.5MM_3XD*	02899110	13,5 *0.531*	43,0 *1.693*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN	IT9
SD1103-1360-043-14R1 *SD_DRILL_13.6MM_3XD*	02899111	13,6 *0.535*	43,0 *1.693*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN	IT9
SD1103-1370-043-14R1 *SD_DRILL_13.7MM_3XD*	02899112	13,7 *0.539*	43,0 *1.693*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN	IT9
SD1103-1380-043-14R1 *SD_DRILL_13.8MM_3XD*	02899113	13,8 *0.543*	43,0 *1.693*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN	IT9
SD1103-1390-043-14R1 *SD_DRILL_35/64_3XD*	02899114	13,9 *0.547*	43,0 *1.693*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN	IT9
SD1103-1400-043-14R1 *SD_DRILL_14.0MM_3XD*	02899115	14,0 *0.551*	43,0 *1.693*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN	IT9
SD1103-1420-045-16R1 *SD_DRILL_14.2MM_3XD*	02899116	14,2 *0.559*	45,0 *1.772*	115,0 *4.528*	67,0 *2.638*	48,0 *1.890*	65,0 *2.559*	16,0 *0.630*	140°	TiAlN	IT9
SD1103-1429-045-16R1 *SD_DRILL_9/16_3XD*	02899117	14,288 *0.563*	45,0 *1.772*	115,0 *4.528*	67,0 *2.638*	48,0 *1.890*	65,0 *2.559*	16,0 *0.630*	140°	TiAlN	IT9
SD1103-1450-045-16R1 *SD_DRILL_14.5MM_3XD*	02899119	14,5 *0.571*	45,0 *1.772*	115,0 *4.528*	67,0 *2.638*	48,0 *1.890*	65,0 *2.559*	16,0 *0.630*	140°	TiAlN	IT9
SD1103-1470-045-16R1 *SD_DRILL_14.7MM_3XD*	02899120	14,7 *0.579*	45,0 *1.772*	115,0 *4.528*	67,0 *2.638*	48,0 *1.890*	65,0 *2.559*	16,0 *0.630*	140°	TiAlN	IT9
SD1103-1475-045-16R1 *SD_DRILL_14.75MM_3XD*	02899121	14,75 *0.581*	45,0 *1.772*	115,0 *4.528*	67,0 *2.638*	48,0 *1.890*	65,0 *2.559*	16,0 *0.630*	140°	TiAlN	IT9
SD1103-1480-045-16R1 *SD_DRILL_14.8MM_3XD*	02899122	14,8 *0.583*	45,0 *1.772*	115,0 *4.528*	67,0 *2.638*	48,0 *1.890*	65,0 *2.559*	16,0 *0.630*	140°	TiAlN	IT9

Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD1103-1500-045-16R1 *SD_DRILL_15.0MM_3XD*	02899123	15,0 *0.591*	45,0 *1.772*	115,0 *4.528*	67,0 *2.638*	48,0 *1.890*	65,0 *2.559*	16,0 *0.630*	140°	TiAlN	IT9
SD1103-1510-045-16R1 *SD_DRILL_15.1MM_3XD*	02899124	15,1 *0.594*	45,0 *1.772*	115,0 *4.528*	67,0 *2.638*	48,0 *1.890*	65,0 *2.559*	16,0 *0.630*	140°	TiAlN	IT9
SD1103-1530-045-16R1 *SD_DRILL_15.3MM_3XD*	02899125	15,3 *0.602*	45,0 *1.772*	115,0 *4.528*	67,0 *2.638*	48,0 *1.890*	65,0 *2.559*	16,0 *0.630*	140°	TiAlN	IT9
SD1103-1550-045-16R1 *SD_DRILL_15.5MM_3XD*	02899126	15,5 *0.610*	45,0 *1.772*	115,0 *4.528*	67,0 *2.638*	48,0 *1.890*	65,0 *2.559*	16,0 *0.630*	140°	TiAlN	IT9
SD1103-1570-045-16R1 *SD_DRILL_15.7MM_3XD*	02899127	15,7 *0.618*	45,0 *1.772*	115,0 *4.528*	67,0 *2.638*	48,0 *1.890*	65,0 *2.559*	16,0 *0.630*	140°	TiAlN	IT9
SD1103-1580-045-16R1 *SD_DRILL_15.8MM_3XD*	02899128	15,8 *0.622*	45,0 *1.772*	115,0 *4.528*	67,0 *2.638*	48,0 *1.890*	65,0 *2.559*	16,0 *0.630*	140°	TiAlN	IT9
SD1103-1588-045-16R1 *SD_DRILL_5/8_3XD*	02899129	15,875 *0.625*	45,0 *1.772*	115,0 *4.528*	67,0 *2.638*	48,0 *1.890*	65,0 *2.559*	16,0 *0.630*	140°	TiAlN	IT9
SD1103-1600-045-16R1 *SD_DRILL_16.0MM_3XD*	02899130	16,0 *0.630*	45,0 *1.772*	115,0 *4.528*	67,0 *2.638*	48,0 *1.890*	65,0 *2.559*	16,0 *0.630*	140°	TiAlN	IT9
SD1103-1650-051-18R1 *SD_DRILL_16.5MM_3XD*	02899131	16,5 *0.650*	51,0 *2.008*	123,0 *4.843*	75,0 *2.953*	48,0 *1.890*	73,0 *2.874*	18,0 *0.709*	140°	TiAlN	IT9
SD1103-1700-051-18R1 *SD_DRILL_17.0MM_3XD*	02899132	17,0 *0.669*	51,0 *2.008*	123,0 *4.843*	75,0 *2.953*	48,0 *1.890*	73,0 *2.874*	18,0 *0.709*	140°	TiAlN	IT9
SD1103-1750-051-18R1 *SD_DRILL_17.5MM_3XD*	02899133	17,5 *0.689*	51,0 *2.008*	123,0 *4.843*	75,0 *2.953*	48,0 *1.890*	73,0 *2.874*	18,0 *0.709*	140°	TiAlN	IT9
SD1103-1800-051-18R1 *SD_DRILL_18.0MM_3XD*	02899134	18,0 *0.709*	51,0 *2.008*	123,0 *4.843*	75,0 *2.953*	48,0 *1.890*	73,0 *2.874*	18,0 *0.709*	140°	TiAlN	IT9
SD1103-1850-055-20R1 *SD_DRILL_18.5MM_3XD*	02899135	18,5 *0.728*	55,0 *2.165*	131,0 *5.157*	81,0 *3.189*	50,0 *1.969*	79,0 *3.110*	20,0 *0.787*	140°	TiAlN	IT9
SD1103-1900-055-20R1 *SD_DRILL_19.0MM_3XD*	02899136	19,0 *0.748*	55,0 *2.165*	131,0 *5.157*	81,0 *3.189*	50,0 *1.969*	79,0 *3.110*	20,0 *0.787*	140°	TiAlN	IT9
SD1103-1905-055-20R1 *SD_DRILL_3/4_3XD*	02899137	19,05 *0.750*	55,0 *2.165*	131,0 *5.157*	81,0 *3.189*	50,0 *1.969*	79,0 *3.110*	20,0 *0.787*	140°	TiAlN	IT9
SD1103-1950-055-20R1 *SD_DRILL_19.5MM_3XD*	02899138	19,5 *0.768*	55,0 *2.165*	131,0 *5.157*	81,0 *3.189*	50,0 *1.969*	79,0 *3.110*	20,0 *0.787*	140°	TiAlN	IT9
SD1103-2000-055-20R1 *SD_DRILL_20.0MM_3XD*	02899139	20,0 *0.787*	55,0 *2.165*	131,0 *5.157*	81,0 *3.189*	50,0 *1.969*	79,0 *3.110*	20,0 *0.787*	140°	TiAlN	IT9

SD1103A

Drilling depth ~ 3 x D – Metric/Inch





- Cylindrical shank DIN 6537A
- DC tolerance m7
- Internal coolant
- For cutting data see page(s) 141
- For intermediate diameters see the MyDesign software.

Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD1103A-0300-014-06R1 *SD_DRILL_3.0MM_3XD_A*	02898244	3,0 *0.118*	14,0 *0.551*	62,0 *2.441*	26,0 *1.024*	36,0 *1.417*	20,0 *0.787*	6,0 *0.236*	140°	TiAlN	IT9
SD1103A-0310-014-06R1 *SD_DRILL_3.1MM_3XD_A*	02898245	3,1 *0.122*	14,0 *0.551*	62,0 *2.441*	26,0 *1.024*	36,0 *1.417*	20,0 *0.787*	6,0 *0.236*	140°	TiAlN	IT9
SD1103A-0318-014-06R1 *SD_DRILL_1/8_3XD_A*	02898246	3,175 *0.125*	14,0 *0.551*	62,0 *2.441*	26,0 *1.024*	36,0 *1.417*	20,0 *0.787*	6,0 *0.236*	140°	TiAlN	IT9
SD1103A-0320-014-06R1 *SD_DRILL_3.2MM_3XD_A*	02898247	3,2 *0.126*	14,0 *0.551*	62,0 *2.441*	26,0 *1.024*	36,0 *1.417*	20,0 *0.787*	6,0 *0.236*	140°	TiAlN	IT9
SD1103A-0325-014-06R1 *SD_DRILL_3.25MM_3XD_A*	02898248	3,25 *0.128*	14,0 *0.551*	62,0 *2.441*	26,0 *1.024*	36,0 *1.417*	20,0 *0.787*	6,0 *0.236*	140°	TiAlN	IT9
SD1103A-0330-014-06R1 *SD_DRILL_3.3MM_3XD_A*	02898249	3,3 *0.130*	14,0 *0.551*	62,0 *2.441*	26,0 *1.024*	36,0 *1.417*	20,0 *0.787*	6,0 *0.236*	140°	TiAlN	IT9
SD1103A-0340-014-06R1 *SD_DRILL_3.4MM_3XD_A*	02898250	3,4 *0.134*	14,0 *0.551*	62,0 *2.441*	26,0 *1.024*	36,0 *1.417*	20,0 *0.787*	6,0 *0.236*	140°	TiAlN	IT9
SD1103A-0350-014-06R1 *SD_DRILL_3.5MM_3XD_A*	02898251	3,5 *0.138*	14,0 *0.551*	62,0 *2.441*	26,0 *1.024*	36,0 *1.417*	20,0 *0.787*	6,0 *0.236*	140°	TiAlN	IT9
SD1103A-0357-014-06R1 *SD_DRILL_9/64_3XD_A*	02898252	3,572 *0.141*	14,0 *0.551*	62,0 *2.441*	26,0 *1.024*	36,0 *1.417*	20,0 *0.787*	6,0 *0.236*	140°	TiAlN	IT9
SD1103A-0360-014-06R1 *SD_DRILL_3.6MM_3XD_A*	02898253	3,6 *0.142*	14,0 *0.551*	62,0 *2.441*	26,0 *1.024*	36,0 *1.417*	20,0 *0.787*	6,0 *0.236*	140°	TiAlN	IT9
SD1103A-0365-014-06R1 *SD_DRILL_3.65MM_3XD_A*	02898254	3,65 *0.144*	14,0 *0.551*	62,0 *2.441*	26,0 *1.024*	36,0 *1.417*	20,0 *0.787*	6,0 *0.236*	140°	TiAlN	IT9
SD1103A-0370-014-06R1 *SD_DRILL_3.7MM_3XD_A*	02898255	3,7 *0.146*	14,0 *0.551*	62,0 *2.441*	26,0 *1.024*	36,0 *1.417*	20,0 *0.787*	6,0 *0.236*	140°	TiAlN	IT9
SD1103A-0380-017-06R1 *SD_DRILL_3.8MM_3XD_A*	02898256	3,8 *0.150*	17,0 *0.669*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	24,0 *0.945*	6,0 *0.236*	140°	TiAlN	IT9
SD1103A-0390-017-06R1 *SD_DRILL_3.9MM_3XD_A*	02898257	3,9 *0.154*	17,0 *0.669*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	24,0 *0.945*	6,0 *0.236*	140°	TiAlN	IT9
SD1103A-0397-017-06R1 *SD_DRILL_5/32_3XD_A*	02898258	3,969 *0.156*	17,0 *0.669*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	24,0 *0.945*	6,0 *0.236*	140°	TiAlN	IT9
SD1103A-0400-017-06R1 *SD_DRILL_4.0MM_3XD_A*	02898259	4,0 *0.157*	17,0 *0.669*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	24,0 *0.945*	6,0 *0.236*	140°	TiAlN	IT9
SD1103A-0410-017-06R1 *SD_DRILL_4.1MM_3XD_A*	02898260	4,1 *0.161*	17,0 *0.669*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	24,0 *0.945*	6,0 *0.236*	140°	TiAlN	IT9
SD1103A-0420-017-06R1 *SD_DRILL_4.2MM_3XD_A*	02898261	4,2 *0.165*	17,0 *0.669*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	24,0 *0.945*	6,0 *0.236*	140°	TiAlN	IT9
SD1103A-0430-017-06R1 *SD_DRILL_4.3MM_3XD_A*	02898262	4,3 *0.169*	17,0 *0.669*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	24,0 *0.945*	6,0 *0.236*	140°	TiAlN	IT9
SD1103A-0437-017-06R1 *SD_DRILL_11/64_3XD_A*	02898263	4,366 *0.172*	17,0 *0.669*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	24,0 *0.945*	6,0 *0.236*	140°	TiAlN	IT9
SD1103A-0450-017-06R1 *SD_DRILL_4.5MM_3XD_A*	02898264	4,5 *0.177*	17,0 *0.669*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	24,0 *0.945*	6,0 *0.236*	140°	TiAlN	IT9

Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD1103A-0460-017-06R1 *SD_DRILL_4.6MM_3XD_A*	02898265	4,6 *0.181*	17,0 *0.669*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	24,0 *0.945*	6,0 *0.236*	140°	TiAlN	IT9
SD1103A-0465-017-06R1 *SD_DRILL_4.65MM_3XD_A*	02898266	4,65 *0.183*	17,0 *0.669*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	24,0 *0.945*	6,0 *0.236*	140°	TiAlN	IT9
SD1103A-0470-017-06R1 *SD_DRILL_4.7MM_3XD_A*	02898267	4,7 *0.185*	17,0 *0.669*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	24,0 *0.945*	6,0 *0.236*	140°	TiAlN	IT9
SD1103A-0476-020-06R1 *SD_DRILL_3/16_3XD_A*	02898268	4,763 *0.188*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT9
SD1103A-0480-020-06R1 *SD_DRILL_4.8MM_3XD_A*	02898269	4,8 *0.189*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT9
SD1103A-0490-020-06R1 *SD_DRILL_4.9MM_3XD_A*	02898270	4,9 *0.193*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT9
SD1103A-0500-020-06R1 *SD_DRILL_5.0MM_3XD_A*	02898271	5,0 *0.197*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT9
SD1103A-0510-020-06R1 *SD_DRILL_5.1MM_3XD_A*	02898272	5,1 *0.201*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT9
SD1103A-0516-020-06R1 *SD_DRILL_13/64_3XD_A*	02898273	5,159 *0.203*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT9
SD1103A-0520-020-06R1 *SD_DRILL_5.2MM_3XD_A*	02898275	5,2 *0.205*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT9
SD1103A-0530-020-06R1 *SD_DRILL_5.3MM_3XD_A*	02898276	5,3 *0.209*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT9
SD1103A-0540-020-06R1 *SD_DRILL_5.4MM_3XD_A*	02898277	5,4 *0.213*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT9
SD1103A-0550-020-06R1 *SD_DRILL_5.5MM_3XD_A*	02898278	5,5 *0.217*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT9
SD1103A-0555-020-06R1 *SD_DRILL_5.55MM_3XD_A*	02898279	5,55 *0.219*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT9
SD1103A-0556-020-06R1 *SD_DRILL_7/32_3XD_A*	02898280	5,556 *0.219*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT9
SD1103A-0560-020-06R1 *SD_DRILL_5.6MM_3XD_A*	02898281	5,6 *0.220*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT9
SD1103A-0570-020-06R1 *SD_DRILL_5.7MM_3XD_A*	02898282	5,7 *0.224*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT9
SD1103A-0580-020-06R1 *SD_DRILL_5.8MM_3XD_A*	02898283	5,8 *0.228*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT9
SD1103A-0590-020-06R1 *SD_DRILL_5.9MM_3XD_A*	02898284	5,9 *0.232*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT9
SD1103A-0595-020-06R1 *SD_DRILL_15/64_3XD_A*	02898285	5,953 *0.234*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT9
SD1103A-0600-020-06R1 *SD_DRILL_6.0MM_3XD_A*	02898286	6,0 *0.236*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT9
SD1103A-0610-024-08R1 *SD_DRILL_6.1MM_3XD_A*	02898287	6,1 *0.240*	24,0 *0.945*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	34,0 *1.339*	8,0 *0.315*	140°	TiAlN	IT9
SD1103A-0620-024-08R1 *SD_DRILL_6.2MM_3XD_A*	02898288	6,2 *0.244*	24,0 *0.945*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	34,0 *1.339*	8,0 *0.315*	140°	TiAlN	IT9
SD1103A-0630-024-08R1 *SD_DRILL_6.3MM_3XD_A*	02898289	6,3 *0.248*	24,0 *0.945*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	34,0 *1.339*	8,0 *0.315*	140°	TiAlN	IT9
SD1103A-0635-024-08R1 *SD_DRILL_1/4_3XD_A*	02898290	6,35 *0.250*	24,0 *0.945*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	34,0 *1.339*	8,0 *0.315*	140°	TiAlN	IT9
SD1103A-0640-024-08R1 *SD_DRILL_6.4MM_3XD_A*	02898291	6,4 *0.252*	24,0 *0.945*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	34,0 *1.339*	8,0 *0.315*	140°	TiAlN	IT9
SD1103A-0650-024-08R1 *SD_DRILL_6.5MM_3XD_A*	02898292	6,5 *0.256*	24,0 *0.945*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	34,0 *1.339*	8,0 *0.315*	140°	TiAlN	IT9
SD1103A-0660-024-08R1 *SD_DRILL_6.6MM_3XD_A*	02898293	6,6 *0.260*	24,0 *0.945*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	34,0 *1.339*	8,0 *0.315*	140°	TiAlN	IT9
SD1103A-0670-024-08R1 *SD_DRILL_6.7MM_3XD_A*	02898294	6,7 *0.264*	24,0 *0.945*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	34,0 *1.339*	8,0 *0.315*	140°	TiAlN	IT9
SD1103A-0675-024-08R1 *SD_DRILL_17/64_3XD_A*	02898295	6,747 *0.266*	24,0 *0.945*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	34,0 *1.339*	8,0 *0.315*	140°	TiAlN	IT9
SD1103A-0680-024-08R1 *SD_DRILL_6.8MM_3XD_A*	02898296	6,8 *0.268*	24,0 *0.945*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	34,0 *1.339*	8,0 *0.315*	140°	TiAlN	IT9

Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD1103A-0690-024-08R1 *SD_DRILL_6.9MM_3XD_A*	02898297	6,9 *0.272*	24,0 *0.945*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	34,0 *1.339*	8,0 *0.315*	140°	TiAlN	IT9
SD1103A-0700-024-08R1 *SD_DRILL_7.0MM_3XD_A*	02898298	7,0 *0.276*	24,0 *0.945*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	34,0 *1.339*	8,0 *0.315*	140°	TiAlN	IT9
SD1103A-0710-029-08R1 *SD_DRILL_7.1MM_3XD_A*	02898299	7,1 *0.280*	29,0 *1.142*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	41,0 *1.614*	8,0 *0.315*	140°	TiAlN	IT9
SD1103A-0714-029-08R1 *SD_DRILL_9/32_3XD_A*	02898300	7,144 *0.281*	29,0 *1.142*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	41,0 *1.614*	8,0 *0.315*	140°	TiAlN	IT9
SD1103A-0720-029-08R1 *SD_DRILL_7.2MM_3XD_A*	02898301	7,2 *0.283*	29,0 *1.142*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	41,0 *1.614*	8,0 *0.315*	140°	TiAlN	IT9
SD1103A-0730-029-08R1 *SD_DRILL_7.3MM_3XD_A*	02898302	7,3 *0.287*	29,0 *1.142*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	41,0 *1.614*	8,0 *0.315*	140°	TiAlN	IT9
SD1103A-0740-029-08R1 *SD_DRILL_7.4MM_3XD_A*	02898303	7,4 *0.291*	29,0 *1.142*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	41,0 *1.614*	8,0 *0.315*	140°	TiAlN	IT9
SD1103A-0750-029-08R1 *SD_DRILL_7.5MM_3XD_A*	02898304	7,5 *0.295*	29,0 *1.142*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	41,0 *1.614*	8,0 *0.315*	140°	TiAlN	IT9
SD1103A-0754-029-08R1 *SD_DRILL_19/64_3XD_A*	02898305	7,541 *0.297*	29,0 *1.142*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	41,0 *1.614*	8,0 *0.315*	140°	TiAlN	IT9
SD1103A-0755-029-08R1 *SD_DRILL_7.55MM_3XD_A*	02898306	7,55 *0.297*	29,0 *1.142*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	41,0 *1.614*	8,0 *0.315*	140°	TiAlN	IT9
SD1103A-0760-029-08R1 *SD_DRILL_7.6MM_3XD_A*	02898307	7,6 *0.299*	29,0 *1.142*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	41,0 *1.614*	8,0 *0.315*	140°	TiAlN	IT9
SD1103A-0770-029-08R1 *SD_DRILL_7.7MM_3XD_A*	02898308	7,7 *0.303*	29,0 *1.142*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	41,0 *1.614*	8,0 *0.315*	140°	TiAlN	IT9
SD1103A-0780-029-08R1 *SD_DRILL_7.8MM_3XD_A*	02898309	7,8 *0.307*	29,0 *1.142*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	41,0 *1.614*	8,0 *0.315*	140°	TiAlN	IT9
SD1103A-0790-029-08R1 *SD_DRILL_7.9MM_3XD_A*	02898310	7,9 *0.311*	29,0 *1.142*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	41,0 *1.614*	8,0 *0.315*	140°	TiAlN	IT9
SD1103A-0794-029-08R1 *SD_DRILL_5/16_3XD_A*	02898311	7,938 *0.313*	29,0 *1.142*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	41,0 *1.614*	8,0 *0.315*	140°	TiAlN	IT9
SD1103A-0800-029-08R1 *SD_DRILL_8.0MM_3XD_A*	02898312	8,0 *0.315*	29,0 *1.142*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	41,0 *1.614*	8,0 *0.315*	140°	TiAlN	IT9
SD1103A-0810-035-10R1 *SD_DRILL_8.1MM_3XD_A*	02898313	8,1 *0.319*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT9
SD1103A-0820-035-10R1 *SD_DRILL_8.2MM_3XD_A*	02898314	8,2 *0.323*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT9
SD1103A-0830-035-10R1 *SD_DRILL_8.3MM_3XD_A*	02898315	8,3 *0.327*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT9
SD1103A-0833-035-10R1 *SD_DRILL_21/64_3XD_A*	02898316	8,334 *0.328*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT9
SD1103A-0840-035-10R1 *SD_DRILL_8.4MM_3XD_A*	02898317	8,4 *0.331*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT9
SD1103A-0850-035-10R1 *SD_DRILL_8.5MM_3XD_A*	02898318	8,5 *0.335*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT9
SD1103A-0860-035-10R1 *SD_DRILL_8.6MM_3XD_A*	02898319	8,6 *0.339*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT9
SD1103A-0870-035-10R1 *SD_DRILL_8.7MM_3XD_A*	02898320	8,7 *0.343*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT9
SD1103A-0873-035-10R1 *SD_DRILL_11/32_3XD_A*	02898321	8,731 *0.344*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT9
SD1103A-0880-035-10R1 *SD_DRILL_8.8MM_3XD_A*	02898322	8,8 *0.346*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT9
SD1103A-0890-035-10R1 *SD_DRILL_8.9MM_3XD_A*	02898323	8,9 *0.350*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT9
SD1103A-0900-035-10R1 *SD_DRILL_9.0MM_3XD_A*	02898324	9,0 *0.354*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT9
SD1103A-0910-035-10R1 *SD_DRILL_9.1MM_3XD_A*	02898325	9,1 *0.358*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT9
SD1103A-0913-035-10R1 *SD_DRILL_23/64_3XD_A*	02898326	9,128 *0.359*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT9
SD1103A-0920-035-10R1 *SD_DRILL_9.2MM_3XD_A*	02898327	9,2 *0.362*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT9

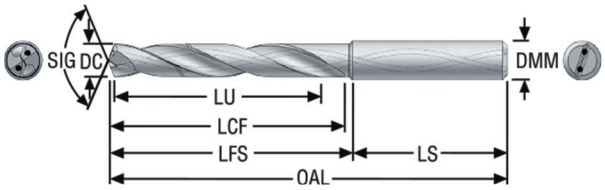
Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD1103A-0930-035-10R1 *SD_DRILL_9.3MM_3XD_A*	02898328	9,3 *0.366*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT9
SD1103A-0940-035-10R1 *SD_DRILL_9.4MM_3XD_A*	02898329	9,4 *0.370*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT9
SD1103A-0950-035-10R1 *SD_DRILL_9.5MM_3XD_A*	02898330	9,5 *0.374*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT9
SD1103A-0953-035-10R1 *SD_DRILL_3/8_3XD_A*	02898331	9,525 *0.375*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT9
SD1103A-0955-035-10R1 *SD_DRILL_9.55MM_3XD_A*	02898332	9,55 *0.376*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT9
SD1103A-0960-035-10R1 *SD_DRILL_9.6MM_3XD_A*	02898333	9,6 *0.378*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT9
SD1103A-0970-035-10R1 *SD_DRILL_9.7MM_3XD_A*	02898334	9,7 *0.382*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT9
SD1103A-0980-035-10R1 *SD_DRILL_9.8MM_3XD_A*	02898335	9,8 *0.386*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT9
SD1103A-0990-035-10R1 *SD_DRILL_9.9MM_3XD_A*	02898336	9,9 *0.390*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT9
SD1103A-0992-035-10R1 *SD_DRILL_25/64_3XD_A*	02898337	9,922 *0.391*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT9
SD1103A-1000-035-10R1 *SD_DRILL_10.0MM_3XD_A*	02898338	10,0 *0.394*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT9
SD1103A-1020-040-12R1 *SD_DRILL_10.2MM_3XD_A*	02898339	10,2 *0.402*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT9
SD1103A-1032-040-12R1 *SD_DRILL_13/32_3XD_A*	02898340	10,319 *0.406*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT9
SD1103A-1040-040-12R1 *SD_DRILL_10.4MM_3XD_A*	02898341	10,4 *0.409*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT9
SD1103A-1050-040-12R1 *SD_DRILL_10.5MM_3XD_A*	02898342	10,5 *0.413*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT9
SD1103A-1060-040-12R1 *SD_DRILL_10.6MM_3XD_A*	02898343	10,6 *0.417*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT9
SD1103A-1072-040-12R1 *SD_DRILL_27/64_3XD_A*	02898344	10,716 *0.422*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT9
SD1103A-1080-040-12R1 *SD_DRILL_10.8MM_3XD_A*	02898345	10,8 *0.425*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT9
SD1103A-1090-040-12R1 *SD_DRILL_10.9MM_3XD_A*	02898346	10,9 *0.429*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT9
SD1103A-1100-040-12R1 *SD_DRILL_11.0MM_3XD_A*	02898347	11,0 *0.433*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT9
SD1103A-1110-040-12R1 *SD_DRILL_11.1MM_3XD_A*	02898348	11,1 *0.437*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT9
SD1103A-1111-040-12R1 *SD_DRILL_7/16_3XD_A*	02898349	11,113 *0.438*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT9
SD1103A-1120-040-12R1 *SD_DRILL_11.2MM_3XD_A*	02898350	11,2 *0.441*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT9
SD1103A-1130-040-12R1 *SD_DRILL_11.3MM_3XD_A*	02898351	11,3 *0.445*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT9
SD1103A-1140-040-12R1 *SD_DRILL_11.4MM_3XD_A*	02898352	11,4 *0.449*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT9
SD1103A-1150-040-12R1 *SD_DRILL_11.5MM_3XD_A*	02898353	11,5 *0.453*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT9
SD1103A-1151-040-12R1 *SD_DRILL_29/64_3XD_A*	02898354	11,509 *0.453*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT9
SD1103A-1155-040-12R1 *SD_DRILL_11.55MM_3XD_A*	02898355	11,55 *0.455*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT9
SD1103A-1160-040-12R1 *SD_DRILL_11.6MM_3XD_A*	02898356	11,6 *0.457*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT9
SD1103A-1170-040-12R1 *SD_DRILL_11.7MM_3XD_A*	02898357	11,7 *0.461*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT9
SD1103A-1180-040-12R1 *SD_DRILL_11.8MM_3XD_A*	02898358	11,8 *0.465*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT9

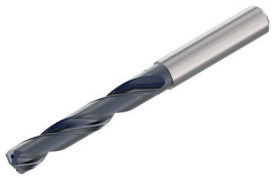
Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD1103A-1190-040-12R1 *SD_DRILL_11.9MM_3XD_A*	02898359	11,9 *0.469*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT9
SD1103A-1191-040-12R1 *SD_DRILL_15/32_3XD_A*	02898360	11,906 *0.469*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT9
SD1103A-1200-040-12R1 *SD_DRILL_12.0MM_3XD_A*	02898361	12,0 *0.472*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT9
SD1103A-1210-043-14R1 *SD_DRILL_12.1MM_3XD_A*	02898362	12,1 *0.476*	43,0 *1.693*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN	IT9
SD1103A-1220-043-14R1 *SD_DRILL_12.2MM_3XD_A*	02898363	12,2 *0.480*	43,0 *1.693*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN	IT9
SD1103A-1230-043-14R1 *SD_DRILL_31/64_3XD_A*	02898364	12,303 *0.484*	43,0 *1.693*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN	IT9
SD1103A-1240-043-14R1 *SD_DRILL_12.4MM_3XD_A*	02898365	12,4 *0.488*	43,0 *1.693*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN	IT9
SD1103A-1250-043-14R1 *SD_DRILL_12.5MM_3XD_A*	02898366	12,5 *0.492*	43,0 *1.693*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN	IT9
SD1103A-1260-043-14R1 *SD_DRILL_12.6MM_3XD_A*	02898367	12,6 *0.496*	43,0 *1.693*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN	IT9
SD1103A-1270-043-14R1 *SD_DRILL_1/2_3XD_A*	02898368	12,7 *0.500*	43,0 *1.693*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN	IT9
SD1103A-1275-043-14R1 *SD_DRILL_12.75MM_3XD_A*	02898369	12,75 *0.502*	43,0 *1.693*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN	IT9
SD1103A-1280-043-14R1 *SD_DRILL_12.8MM_3XD_A*	02898370	12,8 *0.504*	43,0 *1.693*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN	IT9
SD1103A-1290-043-14R1 *SD_DRILL_12.9MM_3XD_A*	02898371	12,9 *0.508*	43,0 *1.693*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN	IT9
SD1103A-1300-043-14R1 *SD_DRILL_13.0MM_3XD_A*	02898372	13,0 *0.512*	43,0 *1.693*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN	IT9
SD1103A-1310-043-14R1 *SD_DRILL_33/64_3XD_A*	02898373	13,1 *0.516*	43,0 *1.693*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN	IT9
SD1103A-1320-043-14R1 *SD_DRILL_13.2MM_3XD_A*	02898374	13,2 *0.520*	43,0 *1.693*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN	IT9
SD1103A-1330-043-14R1 *SD_DRILL_13.3MM_3XD_A*	02898375	13,3 *0.524*	43,0 *1.693*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN	IT9
SD1103A-1340-043-14R1 *SD_DRILL_13.4MM_3XD_A*	02898376	13,4 *0.528*	43,0 *1.693*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN	IT9
SD1103A-1349-043-14R1 *SD_DRILL_17/32_3XD_A*	02898377	13,494 *0.531*	43,0 *1.693*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN	IT9
SD1103A-1350-043-14R1 *SD_DRILL_13.5MM_3XD_A*	02898378	13,5 *0.531*	43,0 *1.693*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN	IT9
SD1103A-1360-043-14R1 *SD_DRILL_13.6MM_3XD_A*	02898379	13,6 *0.535*	43,0 *1.693*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN	IT9
SD1103A-1370-043-14R1 *SD_DRILL_13.7MM_3XD_A*	02898380	13,7 *0.539*	43,0 *1.693*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN	IT9
SD1103A-1380-043-14R1 *SD_DRILL_13.8MM_3XD_A*	02898381	13,8 *0.543*	43,0 *1.693*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN	IT9
SD1103A-1390-043-14R1 *SD_DRILL_13.9MM_3XD_A*	02898382	13,9 *0.547*	43,0 *1.693*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN	IT9
SD1103A-1400-043-14R1 *SD_DRILL_14.0MM_3XD_A*	02898383	14,0 *0.551*	43,0 *1.693*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN	IT9
SD1103A-1420-045-16R1 *SD_DRILL_14.2MM_3XD_A*	02898384	14,2 *0.559*	45,0 *1.772*	115,0 *4.528*	67,0 *2.638*	48,0 *1.890*	65,0 *2.559*	16,0 *0.630*	140°	TiAlN	IT9
SD1103A-1429-045-16R1 *SD_DRILL_9/16_3XD_A*	02898385	14,288 *0.563*	45,0 *1.772*	115,0 *4.528*	67,0 *2.638*	48,0 *1.890*	65,0 *2.559*	16,0 *0.630*	140°	TiAlN	IT9
SD1103A-1450-045-16R1 *SD_DRILL_14.5MM_3XD_A*	02898386	14,5 *0.571*	45,0 *1.772*	115,0 *4.528*	67,0 *2.638*	48,0 *1.890*	65,0 *2.559*	16,0 *0.630*	140°	TiAlN	IT9
SD1103A-1470-045-16R1 *SD_DRILL_14.7MM_3XD_A*	02898387	14,7 *0.579*	45,0 *1.772*	115,0 *4.528*	67,0 *2.638*	48,0 *1.890*	65,0 *2.559*	16,0 *0.630*	140°	TiAlN	IT9
SD1103A-1475-045-16R1 *SD_DRILL_14.75MM_3XD_A*	02898388	14,75 *0.581*	45,0 *1.772*	115,0 *4.528*	67,0 *2.638*	48,0 *1.890*	65,0 *2.559*	16,0 *0.630*	140°	TiAlN	IT9
SD1103A-1480-045-16R1 *SD_DRILL_14.8MM_3XD_A*	02898389	14,8 *0.583*	45,0 *1.772*	115,0 *4.528*	67,0 *2.638*	48,0 *1.890*	65,0 *2.559*	16,0 *0.630*	140°	TiAlN	IT9

Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD1103A-1500-045-16R1 *SD_DRILL_15.0MM_3XD_A*	02898390	15,0 *0.591*	45,0 *1.772*	115,0 *4.528*	67,0 *2.638*	48,0 *1.890*	65,0 *2.559*	16,0 *0.630*	140°	TiAlN	IT9
SD1103A-1510-045-16R1 *SD_DRILL_15.1MM_3XD_A*	02898391	15,1 *0.594*	45,0 *1.772*	115,0 *4.528*	67,0 *2.638*	48,0 *1.890*	65,0 *2.559*	16,0 *0.630*	140°	TiAlN	IT9
SD1103A-1530-045-16R1 *SD_DRILL_15.3MM_3XD_A*	02898392	15,3 *0.602*	45,0 *1.772*	115,0 *4.528*	67,0 *2.638*	48,0 *1.890*	65,0 *2.559*	16,0 *0.630*	140°	TiAlN	IT9
SD1103A-1550-045-16R1 *SD_DRILL_15.5MM_3XD_A*	02898393	15,5 *0.610*	45,0 *1.772*	115,0 *4.528*	67,0 *2.638*	48,0 *1.890*	65,0 *2.559*	16,0 *0.630*	140°	TiAlN	IT9
SD1103A-1570-045-16R1 *SD_DRILL_15.7MM_3XD_A*	02898394	15,7 *0.618*	45,0 *1.772*	115,0 *4.528*	67,0 *2.638*	48,0 *1.890*	65,0 *2.559*	16,0 *0.630*	140°	TiAlN	IT9
SD1103A-1580-045-16R1 *SD_DRILL_15.8MM_3XD_A*	02898395	15,8 *0.622*	45,0 *1.772*	115,0 *4.528*	67,0 *2.638*	48,0 *1.890*	65,0 *2.559*	16,0 *0.630*	140°	TiAlN	IT9
SD1103A-1588-045-16R1 *SD_DRILL_5/8_3XD_A*	02898396	15,875 *0.625*	45,0 *1.772*	115,0 *4.528*	67,0 *2.638*	48,0 *1.890*	65,0 *2.559*	16,0 *0.630*	140°	TiAlN	IT9
SD1103A-1600-045-16R1 *SD_DRILL_16.0MM_3XD_A*	02898397	16,0 *0.630*	45,0 *1.772*	115,0 *4.528*	67,0 *2.638*	48,0 *1.890*	65,0 *2.559*	16,0 *0.630*	140°	TiAlN	IT9
SD1103A-1650-051-18R1 *SD_DRILL_16.5MM_3XD_A*	02898398	16,5 *0.650*	51,0 *2.008*	123,0 *4.843*	75,0 *2.953*	48,0 *1.890*	73,0 *2.874*	18,0 *0.709*	140°	TiAlN	IT9
SD1103A-1700-051-18R1 *SD_DRILL_17.0MM_3XD_A*	02898399	17,0 *0.669*	51,0 *2.008*	123,0 *4.843*	75,0 *2.953*	48,0 *1.890*	73,0 *2.874*	18,0 *0.709*	140°	TiAlN	IT9
SD1103A-1750-051-18R1 *SD_DRILL_17.5MM_3XD_A*	02898400	17,5 *0.689*	51,0 *2.008*	123,0 *4.843*	75,0 *2.953*	48,0 *1.890*	73,0 *2.874*	18,0 *0.709*	140°	TiAlN	IT9
SD1103A-1800-051-18R1 *SD_DRILL_18.0MM_3XD_A*	02898401	18,0 *0.709*	51,0 *2.008*	123,0 *4.843*	75,0 *2.953*	48,0 *1.890*	73,0 *2.874*	18,0 *0.709*	140°	TiAlN	IT9
SD1103A-1850-055-20R1 *SD_DRILL_18.5MM_3XD_A*	02898402	18,5 *0.728*	55,0 *2.165*	131,0 *5.157*	81,0 *3.189*	50,0 *1.969*	79,0 *3.110*	20,0 *0.787*	140°	TiAlN	IT9
SD1103A-1900-055-20R1 *SD_DRILL_19.0MM_3XD_A*	02898403	19,0 *0.748*	55,0 *2.165*	131,0 *5.157*	81,0 *3.189*	50,0 *1.969*	79,0 *3.110*	20,0 *0.787*	140°	TiAlN	IT9
SD1103A-1905-055-20R1 *SD_DRILL_3/4_3XD_A*	02898404	19,05 *0.750*	55,0 *2.165*	131,0 *5.157*	81,0 *3.189*	50,0 *1.969*	79,0 *3.110*	20,0 *0.787*	140°	TiAlN	IT9
SD1103A-1950-055-20R1 *SD_DRILL_19.5MM_3XD_A*	02898405	19,5 *0.768*	55,0 *2.165*	131,0 *5.157*	81,0 *3.189*	50,0 *1.969*	79,0 *3.110*	20,0 *0.787*	140°	TiAlN	IT9
SD1103A-2000-055-20R1 *SD_DRILL_20.0MM_3XD_A*	02898406	20,0 *0.787*	55,0 *2.165*	131,0 *5.157*	81,0 *3.189*	50,0 *1.969*	79,0 *3.110*	20,0 *0.787*	140°	TiAlN	IT9

SD1105A

Drilling depth ~ 5 x D – Metric/Inch





- Cylindrical shank DIN 6537A
- Internal coolant
- For cutting data see page(s) 142
- For intermediate diameters see the MyDesign software.

Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD1105A-0300-023-06R1 *SD_DRILL_3.0MM_5XD_A*	02897845	3,0 *0.118*	23,0 *0.906*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT9
SD1105A-0310-023-06R1 *SD_DRILL_3.1MM_5XD_A*	02897846	3,1 *0.122*	23,0 *0.906*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT9
SD1105A-0318-023-06R1 *SD_DRILL_1/8_5XD_A*	02897847	3,175 *0.125*	23,0 *0.906*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT9
SD1105A-0320-023-06R1 *SD_DRILL_3.2MM_5XD_A*	02897848	3,2 *0.126*	23,0 *0.906*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT9
SD1105A-0325-023-06R1 *SD_DRILL_3.25MM_5XD_A*	02897849	3,25 *0.128*	23,0 *0.906*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT9
SD1105A-0330-023-06R1 *SD_DRILL_3.3MM_5XD_A*	02897850	3,3 *0.130*	23,0 *0.906*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT9
SD1105A-0340-023-06R1 *SD_DRILL_3.4MM_5XD_A*	02897851	3,4 *0.134*	23,0 *0.906*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT9
SD1105A-0350-023-06R1 *SD_DRILL_3.5MM_5XD_A*	02897852	3,5 *0.138*	23,0 *0.906*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT9
SD1105A-0357-023-06R1 *SD_DRILL_9/64_5XD_A*	02897853	3,572 *0.141*	23,0 *0.906*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT9
SD1105A-0360-023-06R1 *SD_DRILL_3.6MM_5XD_A*	02897854	3,6 *0.142*	23,0 *0.906*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT9
SD1105A-0365-023-06R1 *SD_DRILL_3.65MM_5XD_A*	02897855	3,65 *0.144*	23,0 *0.906*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT9
SD1105A-0370-023-06R1 *SD_DRILL_3.7MM_5XD_A*	02897856	3,7 *0.146*	23,0 *0.906*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT9
SD1105A-0380-029-06R1 *SD_DRILL_3.8MM_5XD_A*	02897857	3,8 *0.150*	29,0 *1.142*	74,0 *2.913*	38,0 *1.496*	36,0 *1.417*	36,0 *1.417*	6,0 *0.236*	140°	TiAlN	IT9
SD1105A-0390-029-06R1 *SD_DRILL_3.9MM_5XD_A*	02897858	3,9 *0.154*	29,0 *1.142*	74,0 *2.913*	38,0 *1.496*	36,0 *1.417*	36,0 *1.417*	6,0 *0.236*	140°	TiAlN	IT9
SD1105A-0397-029-06R1 *SD_DRILL_5/32_5XD_A*	02897859	3,969 *0.156*	29,0 *1.142*	74,0 *2.913*	38,0 *1.496*	36,0 *1.417*	36,0 *1.417*	6,0 *0.236*	140°	TiAlN	IT9
SD1105A-0400-029-06R1 *SD_DRILL_4.0MM_5XD_A*	02897860	4,0 *0.157*	29,0 *1.142*	74,0 *2.913*	38,0 *1.496*	36,0 *1.417*	36,0 *1.417*	6,0 *0.236*	140°	TiAlN	IT9
SD1105A-0410-029-06R1 *SD_DRILL_4.1MM_5XD_A*	02897861	4,1 *0.161*	29,0 *1.142*	74,0 *2.913*	38,0 *1.496*	36,0 *1.417*	36,0 *1.417*	6,0 *0.236*	140°	TiAlN	IT9
SD1105A-0420-029-06R1 *SD_DRILL_4.2MM_5XD_A*	02897862	4,2 *0.165*	29,0 *1.142*	74,0 *2.913*	38,0 *1.496*	36,0 *1.417*	36,0 *1.417*	6,0 *0.236*	140°	TiAlN	IT9
SD1105A-0430-029-06R1 *SD_DRILL_4.3MM_5XD_A*	02897863	4,3 *0.169*	29,0 *1.142*	74,0 *2.913*	38,0 *1.496*	36,0 *1.417*	36,0 *1.417*	6,0 *0.236*	140°	TiAlN	IT9
SD1105A-0437-029-06R1 *SD_DRILL_11/64_5XD_A*	02897864	4,366 *0.172*	29,0 *1.142*	74,0 *2.913*	38,0 *1.496*	36,0 *1.417*	36,0 *1.417*	6,0 *0.236*	140°	TiAlN	IT9
SD1105A-0440-029-06R1 *SD_DRILL_4.4MM_5XD_A*	02897865	4,4 *0.173*	29,0 *1.142*	74,0 *2.913*	38,0 *1.496*	36,0 *1.417*	36,0 *1.417*	6,0 *0.236*	140°	TiAlN	IT9
SD1105A-0450-029-06R1 *SD_DRILL_4.5MM_5XD_A*	02897866	4,5 *0.177*	29,0 *1.142*	74,0 *2.913*	38,0 *1.496*	36,0 *1.417*	36,0 *1.417*	6,0 *0.236*	140°	TiAlN	IT9

Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD1105A-0460-029-06R1 *SD_DRILL_4.6MM_5XD_A*	02897867	4,6 *0.181*	29,0 *1.142*	74,0 *2.913*	38,0 *1.496*	36,0 *1.417*	36,0 *1.417*	6,0 *0.236*	140°	TiAlN	IT9
SD1105A-0465-029-06R1 *SD_DRILL_4.65MM_5XD_A*	02897868	4,65 *0.183*	29,0 *1.142*	74,0 *2.913*	38,0 *1.496*	36,0 *1.417*	36,0 *1.417*	6,0 *0.236*	140°	TiAlN	IT9
SD1105A-0470-029-06R1 *SD_DRILL_4.7MM_5XD_A*	02897869	4,7 *0.185*	29,0 *1.142*	74,0 *2.913*	38,0 *1.496*	36,0 *1.417*	36,0 *1.417*	6,0 *0.236*	140°	TiAlN	IT9
SD1105A-0476-035-06R1 *SD_DRILL_3/16_5XD_A*	02897870	4,763 *0.188*	35,0 *1.378*	82,0 *3.228*	46,0 *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°	TiAlN	IT9
SD1105A-0480-035-06R1 *SD_DRILL_4.8MM_5XD_A*	02897871	4,8 *0.189*	35,0 *1.378*	82,0 *3.228*	46,0 *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°	TiAlN	IT9
SD1105A-0490-035-06R1 *SD_DRILL_4.9MM_5XD_A*	02897872	4,9 *0.193*	35,0 *1.378*	82,0 *3.228*	46,0 *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°	TiAlN	IT9
SD1105A-0500-035-06R1 *SD_DRILL_5.0MM_5XD_A*	02897873	5,0 *0.197*	35,0 *1.378*	82,0 *3.228*	46,0 *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°	TiAlN	IT9
SD1105A-0510-035-06R1 *SD_DRILL_5.1MM_5XD_A*	02897874	5,1 *0.201*	35,0 *1.378*	82,0 *3.228*	46,0 *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°	TiAlN	IT9
SD1105A-0516-035-06R1 *SD_DRILL_13/64_5XD_A*	02897875	5,159 *0.203*	35,0 *1.378*	82,0 *3.228*	46,0 *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°	TiAlN	IT9
SD1105A-0520-035-06R1 *SD_DRILL_5.2MM_5XD_A*	02897876	5,2 *0.205*	35,0 *1.378*	82,0 *3.228*	46,0 *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°	TiAlN	IT9
SD1105A-0530-035-06R1 *SD_DRILL_5.3MM_5XD_A*	02897877	5,3 *0.209*	35,0 *1.378*	82,0 *3.228*	46,0 *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°	TiAlN	IT9
SD1105A-0540-035-06R1 *SD_DRILL_5.4MM_5XD_A*	02897878	5,4 *0.213*	35,0 *1.378*	82,0 *3.228*	46,0 *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°	TiAlN	IT9
SD1105A-0550-035-06R1 *SD_DRILL_5.5MM_5XD_A*	02897879	5,5 *0.217*	35,0 *1.378*	82,0 *3.228*	46,0 *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°	TiAlN	IT9
SD1105A-0555-035-06R1 *SD_DRILL_5.55MM_5XD_A*	02897880	5,55 *0.219*	35,0 *1.378*	82,0 *3.228*	46,0 *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°	TiAlN	IT9
SD1105A-0556-035-06R1 *SD_DRILL_7/32_5XD_A*	02897881	5,556 *0.219*	35,0 *1.378*	82,0 *3.228*	46,0 *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°	TiAlN	IT9
SD1105A-0560-035-06R1 *SD_DRILL_5.6MM_5XD_A*	02897882	5,6 *0.220*	35,0 *1.378*	82,0 *3.228*	46,0 *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°	TiAlN	IT9
SD1105A-0570-035-06R1 *SD_DRILL_5.7MM_5XD_A*	02897883	5,7 *0.224*	35,0 *1.378*	82,0 *3.228*	46,0 *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°	TiAlN	IT9
SD1105A-0580-035-06R1 *SD_DRILL_5.8MM_5XD_A*	02897884	5,8 *0.228*	35,0 *1.378*	82,0 *3.228*	46,0 *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°	TiAlN	IT9
SD1105A-0590-035-06R1 *SD_DRILL_5.9MM_5XD_A*	02897885	5,9 *0.232*	35,0 *1.378*	82,0 *3.228*	46,0 *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°	TiAlN	IT9
SD1105A-0595-035-06R1 *SD_DRILL_15/64_5XD_A*	02897886	5,953 *0.234*	35,0 *1.378*	82,0 *3.228*	46,0 *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°	TiAlN	IT9
SD1105A-0600-035-06R1 *SD_DRILL_6.0MM_5XD_A*	02897887	6,0 *0.236*	35,0 *1.378*	82,0 *3.228*	46,0 *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°	TiAlN	IT9
SD1105A-0610-043-08R1 *SD_DRILL_6.1MM_5XD_A*	02897888	6,1 *0.240*	43,0 *1.693*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN	IT9
SD1105A-0620-043-08R1 *SD_DRILL_6.2MM_5XD_A*	02897889	6,2 *0.244*	43,0 *1.693*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN	IT9
SD1105A-0630-043-08R1 *SD_DRILL_6.3MM_5XD_A*	02897890	6,3 *0.248*	43,0 *1.693*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN	IT9
SD1105A-0635-043-08R1 *SD_DRILL_1/4_5XD_A*	02897891	6,35 *0.250*	43,0 *1.693*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN	IT9
SD1105A-0640-043-08R1 *SD_DRILL_6.4MM_5XD_A*	02897892	6,4 *0.252*	43,0 *1.693*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN	IT9
SD1105A-0650-043-08R1 *SD_DRILL_6.5MM_5XD_A*	02897893	6,5 *0.256*	43,0 *1.693*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN	IT9
SD1105A-0660-043-08R1 *SD_DRILL_6.6MM_5XD_A*	02897894	6,6 *0.260*	43,0 *1.693*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN	IT9
SD1105A-0670-043-08R1 *SD_DRILL_6.7MM_5XD_A*	02897895	6,7 *0.264*	43,0 *1.693*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN	IT9
SD1105A-0675-043-08R1 *SD_DRILL_17/64_5XD_A*	02897896	6,747 *0.266*	43,0 *1.693*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN	IT9
SD1105A-0680-043-08R1 *SD_DRILL_6.8MM_5XD_A*	02897897	6,8 *0.268*	43,0 *1.693*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN	IT9

Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD1105A-0690-043-08R1 *SD_DRILL_6.9MM_5XD_A*	02897898	6,9 *0.272*	43,0 *1.693*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN	IT9
SD1105A-0700-043-08R1 *SD_DRILL_7.0MM_5XD_A*	02897899	7,0 *0.276*	43,0 *1.693*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN	IT9
SD1105A-0710-043-08R1 *SD_DRILL_7.1MM_5XD_A*	02897900	7,1 *0.280*	43,0 *1.693*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN	IT9
SD1105A-0714-043-08R1 *SD_DRILL_9/32_5XD_A*	02897901	7,144 *0.281*	43,0 *1.693*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN	IT9
SD1105A-0720-043-08R1 *SD_DRILL_7.2MM_5XD_A*	02897902	7,2 *0.283*	43,0 *1.693*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN	IT9
SD1105A-0730-043-08R1 *SD_DRILL_7.3MM_5XD_A*	02897903	7,3 *0.287*	43,0 *1.693*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN	IT9
SD1105A-0740-043-08R1 *SD_DRILL_7.4MM_5XD_A*	02897904	7,4 *0.291*	43,0 *1.693*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN	IT9
SD1105A-0750-043-08R1 *SD_DRILL_7.5MM_5XD_A*	02897905	7,5 *0.295*	43,0 *1.693*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN	IT9
SD1105A-0754-043-08R1 *SD_DRILL_19/64_5XD_A*	02897906	7,541 *0.297*	43,0 *1.693*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN	IT9
SD1105A-0755-043-08R1 *SD_DRILL_7.55MM_5XD_A*	02897907	7,55 *0.297*	43,0 *1.693*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN	IT9
SD1105A-0760-043-08R1 *SD_DRILL_7.6MM_5XD_A*	02897908	7,6 *0.299*	43,0 *1.693*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN	IT9
SD1105A-0770-043-08R1 *SD_DRILL_7.7MM_5XD_A*	02897909	7,7 *0.303*	43,0 *1.693*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN	IT9
SD1105A-0780-043-08R1 *SD_DRILL_7.8MM_5XD_A*	02897910	7,8 *0.307*	43,0 *1.693*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN	IT9
SD1105A-0790-043-08R1 *SD_DRILL_7.9MM_5XD_A*	02897911	7,9 *0.311*	43,0 *1.693*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN	IT9
SD1105A-0794-043-08R1 *SD_DRILL_5/16_5XD_A*	02897912	7,938 *0.313*	43,0 *1.693*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN	IT9
SD1105A-0800-043-08R1 *SD_DRILL_8.0MM_5XD_A*	02897913	8,0 *0.315*	43,0 *1.693*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN	IT9
SD1105A-0810-049-10R1 *SD_DRILL_8.1MM_5XD_A*	02897914	8,1 *0.319*	49,0 *1.929*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN	IT9
SD1105A-0820-049-10R1 *SD_DRILL_8.2MM_5XD_A*	02897915	8,2 *0.323*	49,0 *1.929*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN	IT9
SD1105A-0830-049-10R1 *SD_DRILL_8.3MM_5XD_A*	02897916	8,3 *0.327*	49,0 *1.929*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN	IT9
SD1105A-0833-049-10R1 *SD_DRILL_21/64_5XD_A*	02897917	8,334 *0.328*	49,0 *1.929*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN	IT9
SD1105A-0840-049-10R1 *SD_DRILL_8.4MM_5XD_A*	02897918	8,4 *0.331*	49,0 *1.929*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN	IT9
SD1105A-0850-049-10R1 *SD_DRILL_8.5MM_5XD_A*	02897919	8,5 *0.335*	49,0 *1.929*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN	IT9
SD1105A-0860-049-10R1 *SD_DRILL_8.6MM_5XD_A*	02897920	8,6 *0.339*	49,0 *1.929*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN	IT9
SD1105A-0870-049-10R1 *SD_DRILL_8.7MM_5XD_A*	02897921	8,7 *0.343*	49,0 *1.929*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN	IT9
SD1105A-0873-049-10R1 *SD_DRILL_11/32_5XD_A*	02897922	8,731 *0.344*	49,0 *1.929*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN	IT9
SD1105A-0880-049-10R1 *SD_DRILL_8.8MM_5XD_A*	02897923	8,8 *0.346*	49,0 *1.929*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN	IT9
SD1105A-0890-049-10R1 *SD_DRILL_8.9MM_5XD_A*	02897924	8,9 *0.350*	49,0 *1.929*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN	IT9
SD1105A-0900-049-10R1 *SD_DRILL_9.0MM_5XD_A*	02897925	9,0 *0.354*	49,0 *1.929*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN	IT9
SD1105A-0910-049-10R1 *SD_DRILL_9.1MM_5XD_A*	02897926	9,1 *0.358*	49,0 *1.929*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN	IT9
SD1105A-0913-049-10R1 *SD_DRILL_23/64_5XD_A*	02897927	9,128 *0.359*	49,0 *1.929*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN	IT9
SD1105A-0920-049-10R1 *SD_DRILL_9.2MM_5XD_A*	02897928	9,2 *0.362*	49,0 *1.929*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN	IT9

Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD1105A-0930-049-10R1 *SD_DRILL_9.3MM_5XD_A*	02897929	9,3 *0.366*	49,0 *1.929*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN	IT9
SD1105A-0940-049-10R1 *SD_DRILL_9.4MM_5XD_A*	02897930	9,4 *0.370*	49,0 *1.929*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN	IT9
SD1105A-0950-049-10R1 *SD_DRILL_9.5MM_5XD_A*	02897931	9,5 *0.374*	49,0 *1.929*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN	IT9
SD1105A-0953-049-10R1 *SD_DRILL_3/8_5XD_A*	02897932	9,525 *0.375*	49,0 *1.929*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN	IT9
SD1105A-0955-049-10R1 *SD_DRILL_9.55MM_5XD_A*	02897933	9,55 *0.376*	49,0 *1.929*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN	IT9
SD1105A-0960-049-10R1 *SD_DRILL_9.6MM_5XD_A*	02897934	9,6 *0.378*	49,0 *1.929*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN	IT9
SD1105A-0970-049-10R1 *SD_DRILL_9.7MM_5XD_A*	02897935	9,7 *0.382*	49,0 *1.929*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN	IT9
SD1105A-0980-049-10R1 *SD_DRILL_9.8MM_5XD_A*	02897936	9,8 *0.386*	49,0 *1.929*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN	IT9
SD1105A-0990-049-10R1 *SD_DRILL_9.9MM_5XD_A*	02897937	9,9 *0.390*	49,0 *1.929*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN	IT9
SD1105A-0992-049-10R1 *SD_DRILL_25/64_5XD_A*	02897938	9,922 *0.391*	49,0 *1.929*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN	IT9
SD1105A-1000-049-10R1 *SD_DRILL_10.0MM_5XD_A*	02897939	10,0 *0.394*	49,0 *1.929*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN	IT9
SD1105A-1010-056-12R1 *SD_DRILL_10.1MM_5XD_A*	02897940	10,1 *0.398*	56,0 *2.205*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN	IT9
SD1105A-1020-056-12R1 *SD_DRILL_10.2MM_5XD_A*	02897941	10,2 *0.402*	56,0 *2.205*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN	IT9
SD1105A-1030-056-12R1 *SD_DRILL_10.3MM_5XD_A*	02897942	10,3 *0.406*	56,0 *2.205*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN	IT9
SD1105A-1032-056-12R1 *SD_DRILL_13/32_5XD_A*	02897943	10,319 *0.406*	56,0 *2.205*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN	IT9
SD1105A-1040-056-12R1 *SD_DRILL_10.4MM_5XD_A*	02897944	10,4 *0.409*	56,0 *2.205*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN	IT9
SD1105A-1050-056-12R1 *SD_DRILL_10.5MM_5XD_A*	02897945	10,5 *0.413*	56,0 *2.205*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN	IT9
SD1105A-1060-056-12R1 *SD_DRILL_10.6MM_5XD_A*	02897946	10,6 *0.417*	56,0 *2.205*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN	IT9
SD1105A-1070-056-12R1 *SD_DRILL_10.7MM_5XD_A*	02897947	10,7 *0.421*	56,0 *2.205*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN	IT9
SD1105A-1072-056-12R1 *SD_DRILL_27/64_5XD_A*	02897948	10,716 *0.422*	56,0 *2.205*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN	IT9
SD1105A-1080-056-12R1 *SD_DRILL_10.8MM_5XD_A*	02897949	10,8 *0.425*	56,0 *2.205*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN	IT9
SD1105A-1090-056-12R1 *SD_DRILL_10.9MM_5XD_A*	02897951	10,9 *0.429*	56,0 *2.205*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN	IT9
SD1105A-1100-056-12R1 *SD_DRILL_11.0MM_5XD_A*	02897952	11,0 *0.433*	56,0 *2.205*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN	IT9
SD1105A-1110-056-12R1 *SD_DRILL_11.1MM_5XD_A*	02897953	11,1 *0.437*	56,0 *2.205*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN	IT9
SD1105A-1111-056-12R1 *SD_DRILL_7/16_5XD_A*	02897954	11,113 *0.438*	56,0 *2.205*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN	IT9
SD1105A-1120-056-12R1 *SD_DRILL_11.2MM_5XD_A*	02897955	11,2 *0.441*	56,0 *2.205*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN	IT9
SD1105A-1130-056-12R1 *SD_DRILL_11.3MM_5XD_A*	02897956	11,3 *0.445*	56,0 *2.205*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN	IT9
SD1105A-1140-056-12R1 *SD_DRILL_11.4MM_5XD_A*	02897957	11,4 *0.449*	56,0 *2.205*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN	IT9
SD1105A-1150-056-12R1 *SD_DRILL_11.5MM_5XD_A*	02897958	11,5 *0.453*	56,0 *2.205*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN	IT9
SD1105A-1151-056-12R1 *SD_DRILL_29/64_5XD_A*	02897959	11,509 *0.453*	56,0 *2.205*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN	IT9
SD1105A-1155-056-12R1 *SD_DRILL_11.55MM_5XD_A*	02897960	11,55 *0.455*	56,0 *2.205*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN	IT9

Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD1105A-1160-056-12R1 *SD_DRILL_11.6MM_5XD_A*	02897961	11,6 *0.457*	56,0 *2.205*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN	IT9
SD1105A-1170-056-12R1 *SD_DRILL_11.7MM_5XD_A*	02897962	11,7 *0.461*	56,0 *2.205*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN	IT9
SD1105A-1180-056-12R1 *SD_DRILL_11.8MM_5XD_A*	02897963	11,8 *0.465*	56,0 *2.205*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN	IT9
SD1105A-1190-056-12R1 *SD_DRILL_11.9MM_5XD_A*	02897964	11,9 *0.469*	56,0 *2.205*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN	IT9
SD1105A-1191-056-12R1 *SD_DRILL_15/32_5XD_A*	02897965	11,906 *0.469*	56,0 *2.205*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN	IT9
SD1105A-1200-056-12R1 *SD_DRILL_12.0MM_5XD_A*	02897966	12,0 *0.472*	56,0 *2.205*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN	IT9
SD1105A-1210-060-14R1 *SD_DRILL_12.1MM_5XD_A*	02897967	12,1 *0.476*	60,0 *2.362*	124,0 *4.882*	79,0 *3.110*	45,0 *1.772*	77,0 *3.031*	14,0 *0.551*	140°	TiAlN	IT9
SD1105A-1220-060-14R1 *SD_DRILL_12.2MM_5XD_A*	02897968	12,2 *0.480*	60,0 *2.362*	124,0 *4.882*	79,0 *3.110*	45,0 *1.772*	77,0 *3.031*	14,0 *0.551*	140°	TiAlN	IT9
SD1105A-1225-060-14R1 *SD_DRILL_12.25MM_5XD_A*	02897969	12,25 *0.482*	60,0 *2.362*	124,0 *4.882*	79,0 *3.110*	45,0 *1.772*	77,0 *3.031*	14,0 *0.551*	140°	TiAlN	IT9
SD1105A-1230-060-14R1 *SD_DRILL_31/64_5XD_A*	02897970	12,303 *0.484*	60,0 *2.362*	124,0 *4.882*	79,0 *3.110*	45,0 *1.772*	77,0 *3.031*	14,0 *0.551*	140°	TiAlN	IT9
SD1105A-1240-060-14R1 *SD_DRILL_12.4MM_5XD_A*	02897972	12,4 *0.488*	60,0 *2.362*	124,0 *4.882*	79,0 *3.110*	45,0 *1.772*	77,0 *3.031*	14,0 *0.551*	140°	TiAlN	IT9
SD1105A-1250-060-14R1 *SD_DRILL_12.5MM_5XD_A*	02897973	12,5 *0.492*	60,0 *2.362*	124,0 *4.882*	79,0 *3.110*	45,0 *1.772*	77,0 *3.031*	14,0 *0.551*	140°	TiAlN	IT9
SD1105A-1260-060-14R1 *SD_DRILL_12.6MM_5XD_A*	02897974	12,6 *0.496*	60,0 *2.362*	124,0 *4.882*	79,0 *3.110*	45,0 *1.772*	77,0 *3.031*	14,0 *0.551*	140°	TiAlN	IT9
SD1105A-1270-060-14R1 *SD_DRILL_1/2_5XD_A*	02897950	12,7 *0.500*	60,0 *2.362*	124,0 *4.882*	79,0 *3.110*	45,0 *1.772*	77,0 *3.031*	14,0 *0.551*	140°	TiAlN	IT9
SD1105A-1275-060-14R1 *SD_DRILL_12.75MM_5XD_A*	02897976	12,75 *0.502*	60,0 *2.362*	124,0 *4.882*	79,0 *3.110*	45,0 *1.772*	77,0 *3.031*	14,0 *0.551*	140°	TiAlN	IT9
SD1105A-1280-060-14R1 *SD_DRILL_12.8MM_5XD_A*	02897977	12,8 *0.504*	60,0 *2.362*	124,0 *4.882*	79,0 *3.110*	45,0 *1.772*	77,0 *3.031*	14,0 *0.551*	140°	TiAlN	IT9
SD1105A-1290-060-14R1 *SD_DRILL_12.9MM_5XD_A*	02897978	12,9 *0.508*	60,0 *2.362*	124,0 *4.882*	79,0 *3.110*	45,0 *1.772*	77,0 *3.031*	14,0 *0.551*	140°	TiAlN	IT9
SD1105A-1300-060-14R1 *SD_DRILL_13.0MM_5XD_A*	02897979	13,0 *0.512*	60,0 *2.362*	124,0 *4.882*	79,0 *3.110*	45,0 *1.772*	77,0 *3.031*	14,0 *0.551*	140°	TiAlN	IT9
SD1105A-1310-060-14R1 *SD_DRILL_33/64_5XD_A*	02897980	13,1 *0.516*	60,0 *2.362*	124,0 *4.882*	79,0 *3.110*	45,0 *1.772*	77,0 *3.031*	14,0 *0.551*	140°	TiAlN	IT9
SD1105A-1320-060-14R1 *SD_DRILL_13.2MM_5XD_A*	02897981	13,2 *0.520*	60,0 *2.362*	124,0 *4.882*	79,0 *3.110*	45,0 *1.772*	77,0 *3.031*	14,0 *0.551*	140°	TiAlN	IT9
SD1105A-1330-060-14R1 *SD_DRILL_13.3MM_5XD_A*	02897982	13,3 *0.524*	60,0 *2.362*	124,0 *4.882*	79,0 *3.110*	45,0 *1.772*	77,0 *3.031*	14,0 *0.551*	140°	TiAlN	IT9
SD1105A-1340-060-14R1 *SD_DRILL_13.4MM_5XD_A*	02897983	13,4 *0.528*	60,0 *2.362*	124,0 *4.882*	79,0 *3.110*	45,0 *1.772*	77,0 *3.031*	14,0 *0.551*	140°	TiAlN	IT9
SD1105A-1349-060-14R1 *SD_DRILL_17/32_5XD_A*	02897984	13,494 *0.531*	60,0 *2.362*	124,0 *4.882*	79,0 *3.110*	45,0 *1.772*	77,0 *3.031*	14,0 *0.551*	140°	TiAlN	IT9
SD1105A-1350-060-14R1 *SD_DRILL_13.5MM_5XD_A*	02897985	13,5 *0.531*	60,0 *2.362*	124,0 *4.882*	79,0 *3.110*	45,0 *1.772*	77,0 *3.031*	14,0 *0.551*	140°	TiAlN	IT9
SD1105A-1360-060-14R1 *SD_DRILL_13.6MM_5XD_A*	02897986	13,6 *0.535*	60,0 *2.362*	124,0 *4.882*	79,0 *3.110*	45,0 *1.772*	77,0 *3.031*	14,0 *0.551*	140°	TiAlN	IT9
SD1105A-1370-060-14R1 *SD_DRILL_13.7MM_5XD_A*	02897987	13,7 *0.539*	60,0 *2.362*	124,0 *4.882*	79,0 *3.110*	45,0 *1.772*	77,0 *3.031*	14,0 *0.551*	140°	TiAlN	IT9
SD1105A-1380-060-14R1 *SD_DRILL_13.8MM_5XD_A*	02897988	13,8 *0.543*	60,0 *2.362*	124,0 *4.882*	79,0 *3.110*	45,0 *1.772*	77,0 *3.031*	14,0 *0.551*	140°	TiAlN	IT9
SD1105A-1390-060-14R1 *SD_DRILL_35/64_5XD_A*	02897989	13,9 *0.547*	60,0 *2.362*	124,0 *4.882*	79,0 *3.110*	45,0 *1.772*	77,0 *3.031*	14,0 *0.551*	140°	TiAlN	IT9
SD1105A-1400-060-14R1 *SD_DRILL_14.0MM_5XD_A*	02897990	14,0 *0.551*	60,0 *2.362*	124,0 *4.882*	79,0 *3.110*	45,0 *1.772*	77,0 *3.031*	14,0 *0.551*	140°	TiAlN	IT9
SD1105A-1410-063-16R1 *SD_DRILL_14.1MM_5XD_A*	02897991	14,1 *0.555*	63,0 *2.480*	133,0 *5.236*	85,0 *3.346*	48,0 *1.890*	83,0 *3.268*	16,0 *0.630*	140°	TiAlN	IT9
SD1105A-1420-063-16R1 *SD_DRILL_14.2MM_5XD_A*	02897992	14,2 *0.559*	63,0 *2.480*	133,0 *5.236*	85,0 *3.346*	48,0 *1.890*	83,0 *3.268*	16,0 *0.630*	140°	TiAlN	IT9

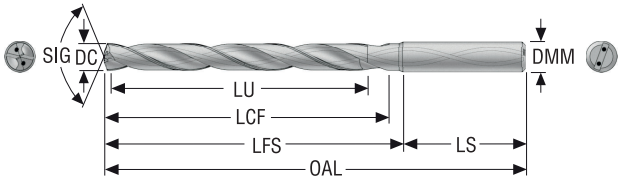
Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD1105A-1429-063-16R1 *SD_DRILL_9/16_5XD_A*	02897993	14,288 *0.563*	63,0 *2.480*	133,0 *5.236*	85,0 *3.346*	48,0 *1.890*	83,0 *3.268*	16,0 *0.630*	140°	TiAlN	IT9
SD1105A-1430-063-16R1 *SD_DRILL_14.3MM_5XD_A*	02897994	14,3 *0.563*	63,0 *2.480*	133,0 *5.236*	85,0 *3.346*	48,0 *1.890*	83,0 *3.268*	16,0 *0.630*	140°	TiAlN	IT9
SD1105A-1440-063-16R1 *SD_DRILL_14.4MM_5XD_A*	02897995	14,4 *0.567*	63,0 *2.480*	133,0 *5.236*	85,0 *3.346*	48,0 *1.890*	83,0 *3.268*	16,0 *0.630*	140°	TiAlN	IT9
SD1105A-1450-063-16R1 *SD_DRILL_14.5MM_5XD_A*	02897996	14,5 *0.571*	63,0 *2.480*	133,0 *5.236*	85,0 *3.346*	48,0 *1.890*	83,0 *3.268*	16,0 *0.630*	140°	TiAlN	IT9
SD1105A-1460-063-16R1 *SD_DRILL_14.6MM_5XD_A*	02897997	14,6 *0.575*	63,0 *2.480*	133,0 *5.236*	85,0 *3.346*	48,0 *1.890*	83,0 *3.268*	16,0 *0.630*	140°	TiAlN	IT9
SD1105A-1470-063-16R1 *SD_DRILL_14.7MM_5XD_A*	02897998	14,7 *0.579*	63,0 *2.480*	133,0 *5.236*	85,0 *3.346*	48,0 *1.890*	83,0 *3.268*	16,0 *0.630*	140°	TiAlN	IT9
SD1105A-1475-063-16R1 *SD_DRILL_14.75MM_5XD_A*	02897999	14,75 *0.581*	63,0 *2.480*	133,0 *5.236*	85,0 *3.346*	48,0 *1.890*	83,0 *3.268*	16,0 *0.630*	140°	TiAlN	IT9
SD1105A-1480-063-16R1 *SD_DRILL_14.8MM_5XD_A*	02898000	14,8 *0.583*	63,0 *2.480*	133,0 *5.236*	85,0 *3.346*	48,0 *1.890*	83,0 *3.268*	16,0 *0.630*	140°	TiAlN	IT9
SD1105A-1490-063-16R1 *SD_DRILL_14.9MM_5XD_A*	02898001	14,9 *0.587*	63,0 *2.480*	133,0 *5.236*	85,0 *3.346*	48,0 *1.890*	83,0 *3.268*	16,0 *0.630*	140°	TiAlN	IT9
SD1105A-1500-063-16R1 *SD_DRILL_15.0MM_5XD_A*	02898002	15,0 *0.591*	63,0 *2.480*	133,0 *5.236*	85,0 *3.346*	48,0 *1.890*	83,0 *3.268*	16,0 *0.630*	140°	TiAlN	IT9
SD1105A-1510-063-16R1 *SD_DRILL_15.1MM_5XD_A*	02898003	15,1 *0.594*	63,0 *2.480*	133,0 *5.236*	85,0 *3.346*	48,0 *1.890*	83,0 *3.268*	16,0 *0.630*	140°	TiAlN	IT9
SD1105A-1520-063-16R1 *SD_DRILL_15.2MM_5XD_A*	02898004	15,2 *0.598*	63,0 *2.480*	133,0 *5.236*	85,0 *3.346*	48,0 *1.890*	83,0 *3.268*	16,0 *0.630*	140°	TiAlN	IT9
SD1105A-1530-063-16R1 *SD_DRILL_15.3MM_5XD_A*	02898005	15,3 *0.602*	63,0 *2.480*	133,0 *5.236*	85,0 *3.346*	48,0 *1.890*	83,0 *3.268*	16,0 *0.630*	140°	TiAlN	IT9
SD1105A-1540-063-16R1 *SD_DRILL_15.4MM_5XD_A*	02898006	15,4 *0.606*	63,0 *2.480*	133,0 *5.236*	85,0 *3.346*	48,0 *1.890*	83,0 *3.268*	16,0 *0.630*	140°	TiAlN	IT9
SD1105A-1550-063-16R1 *SD_DRILL_15.5MM_5XD_A*	02898007	15,5 *0.610*	63,0 *2.480*	133,0 *5.236*	85,0 *3.346*	48,0 *1.890*	83,0 *3.268*	16,0 *0.630*	140°	TiAlN	IT9
SD1105A-1560-063-16R1 *SD_DRILL_15.6MM_5XD_A*	02898008	15,6 *0.614*	63,0 *2.480*	133,0 *5.236*	85,0 *3.346*	48,0 *1.890*	83,0 *3.268*	16,0 *0.630*	140°	TiAlN	IT9
SD1105A-1570-063-16R1 *SD_DRILL_15.7MM_5XD_A*	02898009	15,7 *0.618*	63,0 *2.480*	133,0 *5.236*	85,0 *3.346*	48,0 *1.890*	83,0 *3.268*	16,0 *0.630*	140°	TiAlN	IT9
SD1105A-1580-063-16R1 *SD_DRILL_15.8MM_5XD_A*	02898010	15,8 *0.622*	63,0 *2.480*	133,0 *5.236*	85,0 *3.346*	48,0 *1.890*	83,0 *3.268*	16,0 *0.630*	140°	TiAlN	IT9
SD1105A-1588-063-16R1 *SD_DRILL_5/8_5XD_A*	02898011	15,875 *0.625*	63,0 *2.480*	133,0 *5.236*	85,0 *3.346*	48,0 *1.890*	83,0 *3.268*	16,0 *0.630*	140°	TiAlN	IT9
SD1105A-1590-063-16R1 *SD_DRILL_15.9MM_5XD_A*	02898012	15,9 *0.626*	63,0 *2.480*	133,0 *5.236*	85,0 *3.346*	48,0 *1.890*	83,0 *3.268*	16,0 *0.630*	140°	TiAlN	IT9
SD1105A-1600-063-16R1 *SD_DRILL_16.0MM_5XD_A*	02898013	16,0 *0.630*	63,0 *2.480*	133,0 *5.236*	85,0 *3.346*	48,0 *1.890*	83,0 *3.268*	16,0 *0.630*	140°	TiAlN	IT9
SD1105A-1610-071-18R1 *SD_DRILL_16.1MM_5XD_A*	02898014	16,1 *0.634*	71,0 *2.795*	143,0 *5.630*	95,0 *3.740*	48,0 *1.890*	93,0 *3.661*	18,0 *0.709*	140°	TiAlN	IT9
SD1105A-1620-071-18R1 *SD_DRILL_16.2MM_5XD_A*	02898015	16,2 *0.638*	71,0 *2.795*	143,0 *5.630*	95,0 *3.740*	48,0 *1.890*	93,0 *3.661*	18,0 *0.709*	140°	TiAlN	IT9
SD1105A-1630-071-18R1 *SD_DRILL_16.3MM_5XD_A*	02898016	16,3 *0.642*	71,0 *2.795*	143,0 *5.630*	95,0 *3.740*	48,0 *1.890*	93,0 *3.661*	18,0 *0.709*	140°	TiAlN	IT9
SD1105A-1640-071-18R1 *SD_DRILL_16.4MM_5XD_A*	02898017	16,4 *0.646*	71,0 *2.795*	143,0 *5.630*	95,0 *3.740*	48,0 *1.890*	93,0 *3.661*	18,0 *0.709*	140°	TiAlN	IT9
SD1105A-1650-071-18R1 *SD_DRILL_16.5MM_5XD_A*	02898018	16,5 *0.650*	71,0 *2.795*	143,0 *5.630*	95,0 *3.740*	48,0 *1.890*	93,0 *3.661*	18,0 *0.709*	140°	TiAlN	IT9
SD1105A-1660-071-18R1 *SD_DRILL_16.6MM_5XD_A*	02898019	16,6 *0.654*	71,0 *2.795*	143,0 *5.630*	95,0 *3.740*	48,0 *1.890*	93,0 *3.661*	18,0 *0.709*	140°	TiAlN	IT9
SD1105A-1670-071-18R1 *SD_DRILL_16.7MM_5XD_A*	02898020	16,7 *0.657*	71,0 *2.795*	143,0 *5.630*	95,0 *3.740*	48,0 *1.890*	93,0 *3.661*	18,0 *0.709*	140°	TiAlN	IT9
SD1105A-1675-071-18R1 *SD_DRILL_16.75MM_5XD_A*	02898021	16,75 *0.659*	71,0 *2.795*	143,0 *5.630*	95,0 *3.740*	48,0 *1.890*	93,0 *3.661*	18,0 *0.709*	140°	TiAlN	IT9
SD1105A-1680-071-18R1 *SD_DRILL_16.8MM_5XD_A*	02898022	16,8 *0.661*	71,0 *2.795*	143,0 *5.630*	95,0 *3.740*	48,0 *1.890*	93,0 *3.661*	18,0 *0.709*	140°	TiAlN	IT9
SD1105A-1690-071-18R1 *SD_DRILL_16.9MM_5XD_A*	02898023	16,9 *0.665*	71,0 *2.795*	143,0 *5.630*	95,0 *3.740*	48,0 *1.890*	93,0 *3.661*	18,0 *0.709*	140°	TiAlN	IT9

Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD1105A-1700-071-18R1 *SD_DRILL_17.0MM_5XD_A*	02898024	17,0 *0.669*	71,0 *2.795*	143,0 *5.630*	95,0 *3.740*	48,0 *1.890*	93,0 *3.661*	18,0 *0.709*	140°	TiAlN	IT9
SD1105A-1710-071-18R1 *SD_DRILL_17.1MM_5XD_A*	02898025	17,1 *0.673*	71,0 *2.795*	143,0 *5.630*	95,0 *3.740*	48,0 *1.890*	93,0 *3.661*	18,0 *0.709*	140°	TiAlN	IT9
SD1105A-1720-071-18R1 *SD_DRILL_17.2MM_5XD_A*	02898026	17,2 *0.677*	71,0 *2.795*	143,0 *5.630*	95,0 *3.740*	48,0 *1.890*	93,0 *3.661*	18,0 *0.709*	140°	TiAlN	IT9
SD1105A-1730-071-18R1 *SD_DRILL_17.3MM_5XD_A*	02898027	17,3 *0.681*	71,0 *2.795*	143,0 *5.630*	95,0 *3.740*	48,0 *1.890*	93,0 *3.661*	18,0 *0.709*	140°	TiAlN	IT9
SD1105A-1740-071-18R1 *SD_DRILL_17.4MM_5XD_A*	02898028	17,4 *0.685*	71,0 *2.795*	143,0 *5.630*	95,0 *3.740*	48,0 *1.890*	93,0 *3.661*	18,0 *0.709*	140°	TiAlN	IT9
SD1105A-1750-071-18R1 *SD_DRILL_17.5MM_5XD_A*	02898029	17,5 *0.689*	71,0 *2.795*	143,0 *5.630*	95,0 *3.740*	48,0 *1.890*	93,0 *3.661*	18,0 *0.709*	140°	TiAlN	IT9
SD1105A-1760-071-18R1 *SD_DRILL_17.6MM_5XD_A*	02898030	17,6 *0.693*	71,0 *2.795*	143,0 *5.630*	95,0 *3.740*	48,0 *1.890*	93,0 *3.661*	18,0 *0.709*	140°	TiAlN	IT9
SD1105A-1770-071-18R1 *SD_DRILL_17.7MM_5XD_A*	02898031	17,7 *0.697*	71,0 *2.795*	143,0 *5.630*	95,0 *3.740*	48,0 *1.890*	93,0 *3.661*	18,0 *0.709*	140°	TiAlN	IT9
SD1105A-1780-071-18R1 *SD_DRILL_17.8MM_5XD_A*	02898032	17,8 *0.701*	71,0 *2.795*	143,0 *5.630*	95,0 *3.740*	48,0 *1.890*	93,0 *3.661*	18,0 *0.709*	140°	TiAlN	IT9
SD1105A-1790-071-18R1 *SD_DRILL_17.9MM_5XD_A*	02898033	17,9 *0.705*	71,0 *2.795*	143,0 *5.630*	95,0 *3.740*	48,0 *1.890*	93,0 *3.661*	18,0 *0.709*	140°	TiAlN	IT9
SD1105A-1800-071-18R1 *SD_DRILL_18.0MM_5XD_A*	02898034	18,0 *0.709*	71,0 *2.795*	143,0 *5.630*	95,0 *3.740*	48,0 *1.890*	93,0 *3.661*	18,0 *0.709*	140°	TiAlN	IT9
SD1105A-1810-077-20R1 *SD_DRILL_18.1MM_5XD_A*	02898035	18,1 *0.713*	77,0 *3.031*	153,0 *6.024*	103,0 *4.055*	50,0 *1.969*	101,0 *3.976*	20,0 *0.787*	140°	TiAlN	IT9
SD1105A-1820-077-20R1 *SD_DRILL_18.2MM_5XD_A*	02898036	18,2 *0.717*	77,0 *3.031*	153,0 *6.024*	103,0 *4.055*	50,0 *1.969*	101,0 *3.976*	20,0 *0.787*	140°	TiAlN	IT9
SD1105A-1830-077-20R1 *SD_DRILL_18.3MM_5XD_A*	02898037	18,3 *0.720*	77,0 *3.031*	153,0 *6.024*	103,0 *4.055*	50,0 *1.969*	101,0 *3.976*	20,0 *0.787*	140°	TiAlN	IT9
SD1105A-1840-077-20R1 *SD_DRILL_18.4MM_5XD_A*	02898038	18,4 *0.724*	77,0 *3.031*	153,0 *6.024*	103,0 *4.055*	50,0 *1.969*	101,0 *3.976*	20,0 *0.787*	140°	TiAlN	IT9
SD1105A-1850-077-20R1 *SD_DRILL_18.5MM_5XD_A*	02898039	18,5 *0.728*	77,0 *3.031*	153,0 *6.024*	103,0 *4.055*	50,0 *1.969*	101,0 *3.976*	20,0 *0.787*	140°	TiAlN	IT9
SD1105A-1860-077-20R1 *SD_DRILL_18.6MM_5XD_A*	02898040	18,6 *0.732*	77,0 *3.031*	153,0 *6.024*	103,0 *4.055*	50,0 *1.969*	101,0 *3.976*	20,0 *0.787*	140°	TiAlN	IT9
SD1105A-1870-077-20R1 *SD_DRILL_18.7MM_5XD_A*	02898041	18,7 *0.736*	77,0 *3.031*	153,0 *6.024*	103,0 *4.055*	50,0 *1.969*	101,0 *3.976*	20,0 *0.787*	140°	TiAlN	IT9
SD1105A-1880-077-20R1 *SD_DRILL_18.8MM_5XD_A*	02898042	18,8 *0.740*	77,0 *3.031*	153,0 *6.024*	103,0 *4.055*	50,0 *1.969*	101,0 *3.976*	20,0 *0.787*	140°	TiAlN	IT9
SD1105A-1890-077-20R1 *SD_DRILL_18.9MM_5XD_A*	02898043	18,9 *0.744*	77,0 *3.031*	153,0 *6.024*	103,0 *4.055*	50,0 *1.969*	101,0 *3.976*	20,0 *0.787*	140°	TiAlN	IT9
SD1105A-1900-077-20R1 *SD_DRILL_19.0MM_5XD_A*	02898044	19,0 *0.748*	77,0 *3.031*	153,0 *6.024*	103,0 *4.055*	50,0 *1.969*	101,0 *3.976*	20,0 *0.787*	140°	TiAlN	IT9
SD1105A-1905-077-20R1 *SD_DRILL_3/4_5XD_A*	02898045	19,05 *0.750*	77,0 *3.031*	153,0 *6.024*	103,0 *4.055*	50,0 *1.969*	101,0 *3.976*	20,0 *0.787*	140°	TiAlN	IT9
SD1105A-1910-077-20R1 *SD_DRILL_19.1MM_5XD_A*	02898046	19,1 *0.752*	77,0 *3.031*	153,0 *6.024*	103,0 *4.055*	50,0 *1.969*	101,0 *3.976*	20,0 *0.787*	140°	TiAlN	IT9
SD1105A-1920-077-20R1 *SD_DRILL_19.2MM_5XD_A*	02898047	19,2 *0.756*	77,0 *3.031*	153,0 *6.024*	103,0 *4.055*	50,0 *1.969*	101,0 *3.976*	20,0 *0.787*	140°	TiAlN	IT9
SD1105A-1930-077-20R1 *SD_DRILL_19.3MM_5XD_A*	02898048	19,3 *0.760*	77,0 *3.031*	153,0 *6.024*	103,0 *4.055*	50,0 *1.969*	101,0 *3.976*	20,0 *0.787*	140°	TiAlN	IT9
SD1105A-1940-077-20R1 *SD_DRILL_19.4MM_5XD_A*	02898049	19,4 *0.764*	77,0 *3.031*	153,0 *6.024*	103,0 *4.055*	50,0 *1.969*	101,0 *3.976*	20,0 *0.787*	140°	TiAlN	IT9
SD1105A-1950-077-20R1 *SD_DRILL_19.5MM_5XD_A*	02898050	19,5 *0.768*	77,0 *3.031*	153,0 *6.024*	103,0 *4.055*	50,0 *1.969*	101,0 *3.976*	20,0 *0.787*	140°	TiAlN	IT9
SD1105A-1960-077-20R1 *SD_DRILL_19.6MM_5XD_A*	02898051	19,6 *0.772*	77,0 *3.031*	153,0 *6.024*	103,0 *4.055*	50,0 *1.969*	101,0 *3.976*	20,0 *0.787*	140°	TiAlN	IT9
SD1105A-1970-077-20R1 *SD_DRILL_19.7MM_5XD_A*	02898052	19,7 *0.776*	77,0 *3.031*	153,0 *6.024*	103,0 *4.055*	50,0 *1.969*	101,0 *3.976*	20,0 *0.787*	140°	TiAlN	IT9
SD1105A-1980-077-20R1 *SD_DRILL_19.8MM_5XD_A*	02898053	19,8 *0.780*	77,0 *3.031*	153,0 *6.024*	103,0 *4.055*	50,0 *1.969*	101,0 *3.976*	20,0 *0.787*	140°	TiAlN	IT9

Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD1105A-1990-077-20R1 *SD_DRILL_19.9MM_5XD_A*	02898054	19,9 *0.783*	77,0 *3.031*	153,0 *6.024*	103,0 *4.055*	50,0 *1.969*	101,0 *3.976*	20,0 *0.787*	140°	TiAlN	IT9
SD1105A-2000-077-20R1 *SD_DRILL_20.0MM_5XD_A*	02898055	20,0 *0.787*	77,0 *3.031*	153,0 *6.024*	103,0 *4.055*	50,0 *1.969*	101,0 *3.976*	20,0 *0.787*	140°	TiAlN	IT9

SD1108A

Drilling depth ~ 8 x D – Metric/Inch





- Cylindrical shank DIN 6537A
- DC tolerance m7
- Internal coolant
- For cutting data see page(s) 143
- For intermediate diameters see the MyDesign software.

Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD1108A-0300-028-06R1 *SD_DRILL_3.0MM_8XD_A*	03295178	3,0 *0.118*	28,0 *1.102*	74,0 *2.913*	38,0 *1.496*	36,0 *1.417*	34,0 *1.339*	6,0 *0.236*	140°	TiAlN	IT9
SD1108A-0310-028-06R1 *SD_DRILL_3.1MM_8XD_A*	03295179	3,1 *0.122*	28,0 *1.102*	74,0 *2.913*	38,0 *1.496*	36,0 *1.417*	34,0 *1.339*	6,0 *0.236*	140°	TiAlN	IT9
SD1108A-0318-028-06R1 *SD_DRILL_1/8_8XD_A*	03323680	3,175 *0.125*	28,0 *1.102*	74,0 *2.913*	38,0 *1.496*	36,0 *1.417*	34,0 *1.339*	6,0 *0.236*	140°	TiAlN	IT9
SD1108A-0320-028-06R1 *SD_DRILL_3.2MM_8XD_A*	03295180	3,2 *0.126*	28,0 *1.102*	74,0 *2.913*	38,0 *1.496*	36,0 *1.417*	34,0 *1.339*	6,0 *0.236*	140°	TiAlN	IT9
SD1108A-0330-028-06R1 *SD_DRILL_3.3MM_8XD_A*	03295181	3,3 *0.130*	28,0 *1.102*	74,0 *2.913*	38,0 *1.496*	36,0 *1.417*	34,0 *1.339*	6,0 *0.236*	140°	TiAlN	IT9
SD1108A-0340-028-06R1 *SD_DRILL_3.4MM_8XD_A*	03295182	3,4 *0.134*	28,0 *1.102*	74,0 *2.913*	38,0 *1.496*	36,0 *1.417*	34,0 *1.339*	6,0 *0.236*	140°	TiAlN	IT9
SD1108A-0350-028-06R1 *SD_DRILL_3.5MM_8XD_A*	03295183	3,5 *0.138*	28,0 *1.102*	74,0 *2.913*	38,0 *1.496*	36,0 *1.417*	34,0 *1.339*	6,0 *0.236*	140°	TiAlN	IT9
SD1108A-0357-028-06R1 *SD_DRILL_9/64_8XD_A*	03323681	3,572 *0.141*	28,0 *1.102*	74,0 *2.913*	38,0 *1.496*	36,0 *1.417*	34,0 *1.339*	6,0 *0.236*	140°	TiAlN	IT9
SD1108A-0360-028-06R1 *SD_DRILL_3.6MM_8XD_A*	03295184	3,6 *0.142*	28,0 *1.102*	74,0 *2.913*	38,0 *1.496*	36,0 *1.417*	34,0 *1.339*	6,0 *0.236*	140°	TiAlN	IT9
SD1108A-0370-028-06R1 *SD_DRILL_3.7MM_8XD_A*	03295185	3,7 *0.146*	28,0 *1.102*	74,0 *2.913*	38,0 *1.496*	36,0 *1.417*	34,0 *1.339*	6,0 *0.236*	140°	TiAlN	IT9
SD1108A-0380-037-06R1 *SD_DRILL_3.8MM_8XD_A*	03295186	3,8 *0.150*	37,0 *1.457*	85,0 *3.346*	49,0 *1.929*	36,0 *1.417*	45,0 *1.772*	6,0 *0.236*	140°	TiAlN	IT9
SD1108A-0390-037-06R1 *SD_DRILL_3.9MM_8XD_A*	03295187	3,9 *0.154*	37,0 *1.457*	85,0 *3.346*	49,0 *1.929*	36,0 *1.417*	45,0 *1.772*	6,0 *0.236*	140°	TiAlN	IT9
SD1108A-0397-037-06R1 *SD_DRILL_5/32_8XD_A*	03323682	3,969 *0.156*	37,0 *1.457*	85,0 *3.346*	49,0 *1.929*	36,0 *1.417*	45,0 *1.772*	6,0 *0.236*	140°	TiAlN	IT9
SD1108A-0400-037-06R1 *SD_DRILL_4.0MM_8XD_A*	03295188	4,0 *0.157*	37,0 *1.457*	85,0 *3.346*	49,0 *1.929*	36,0 *1.417*	45,0 *1.772*	6,0 *0.236*	140°	TiAlN	IT9
SD1108A-0410-037-06R1 *SD_DRILL_4.1MM_8XD_A*	03295189	4,1 *0.161*	37,0 *1.457*	85,0 *3.346*	49,0 *1.929*	36,0 *1.417*	45,0 *1.772*	6,0 *0.236*	140°	TiAlN	IT9
SD1108A-0420-037-06R1 *SD_DRILL_4.2MM_8XD_A*	03295190	4,2 *0.165*	37,0 *1.457*	85,0 *3.346*	49,0 *1.929*	36,0 *1.417*	45,0 *1.772*	6,0 *0.236*	140°	TiAlN	IT9
SD1108A-0430-037-06R1 *SD_DRILL_4.3MM_8XD_A*	03295191	4,3 *0.169*	37,0 *1.457*	85,0 *3.346*	49,0 *1.929*	36,0 *1.417*	45,0 *1.772*	6,0 *0.236*	140°	TiAlN	IT9
SD1108A-0437-037-06R1 *SD_DRILL_11/64_8XD_A*	03323683	4,366 *0.172*	37,0 *1.457*	85,0 *3.346*	49,0 *1.929*	36,0 *1.417*	45,0 *1.772*	6,0 *0.236*	140°	TiAlN	IT9
SD1108A-0440-037-06R1 *SD_DRILL_4.4MM_8XD_A*	03295192	4,4 *0.173*	37,0 *1.457*	85,0 *3.346*	49,0 *1.929*	36,0 *1.417*	45,0 *1.772*	6,0 *0.236*	140°	TiAlN	IT9
SD1108A-0450-037-06R1 *SD_DRILL_4.5MM_8XD_A*	03295193	4,5 *0.177*	37,0 *1.457*	85,0 *3.346*	49,0 *1.929*	36,0 *1.417*	45,0 *1.772*	6,0 *0.236*	140°	TiAlN	IT9
SD1108A-0460-037-06R1 *SD_DRILL_4.6MM_8XD_A*	03295194	4,6 *0.181*	37,0 *1.457*	85,0 *3.346*	49,0 *1.929*	36,0 *1.417*	45,0 *1.772*	6,0 *0.236*	140°	TiAlN	IT9

Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD1108A-0470-037-06R1 *SD_DRILL_4.7MM_8XD_A*	03295195	4,7 *0.185*	37,0 *1.457*	85,0 *3.346*	49,0 *1.929*	36,0 *1.417*	45,0 *1.772*	6,0 *0.236*	140°	TiAlN	IT9
SD1108A-0476-048-06R1 *SD_DRILL_3/16_8XD_A*	03323684	4,763 *0.188*	48,0 *1.890*	97,0 *3.819*	61,0 *2.402*	36,0 *1.417*	57,0 *2.244*	6,0 *0.236*	140°	TiAlN	IT9
SD1108A-0480-048-06R1 *SD_DRILL_4.8MM_8XD_A*	03295197	4,8 *0.189*	48,0 *1.890*	97,0 *3.819*	61,0 *2.402*	36,0 *1.417*	57,0 *2.244*	6,0 *0.236*	140°	TiAlN	IT9
SD1108A-0490-048-06R1 *SD_DRILL_4.9MM_8XD_A*	03295198	4,9 *0.193*	48,0 *1.890*	97,0 *3.819*	61,0 *2.402*	36,0 *1.417*	57,0 *2.244*	6,0 *0.236*	140°	TiAlN	IT9
SD1108A-0500-048-06R1 *SD_DRILL_5.0MM_8XD_A*	03295199	5,0 *0.197*	48,0 *1.890*	97,0 *3.819*	61,0 *2.402*	36,0 *1.417*	57,0 *2.244*	6,0 *0.236*	140°	TiAlN	IT9
SD1108A-0510-048-06R1 *SD_DRILL_5.1MM_8XD_A*	03295200	5,1 *0.201*	48,0 *1.890*	97,0 *3.819*	61,0 *2.402*	36,0 *1.417*	57,0 *2.244*	6,0 *0.236*	140°	TiAlN	IT9
SD1108A-0516-048-06R1 *SD_DRILL_13/64_8XD_A*	03323685	5,159 *0.203*	48,0 *1.890*	97,0 *3.819*	61,0 *2.402*	36,0 *1.417*	57,0 *2.244*	6,0 *0.236*	140°	TiAlN	IT9
SD1108A-0520-048-06R1 *SD_DRILL_5.2MM_8XD_A*	03295201	5,2 *0.205*	48,0 *1.890*	97,0 *3.819*	61,0 *2.402*	36,0 *1.417*	57,0 *2.244*	6,0 *0.236*	140°	TiAlN	IT9
SD1108A-0530-048-06R1 *SD_DRILL_5.3MM_8XD_A*	03295202	5,3 *0.209*	48,0 *1.890*	97,0 *3.819*	61,0 *2.402*	36,0 *1.417*	57,0 *2.244*	6,0 *0.236*	140°	TiAlN	IT9
SD1108A-0540-048-06R1 *SD_DRILL_5.4MM_8XD_A*	03295203	5,4 *0.213*	48,0 *1.890*	97,0 *3.819*	61,0 *2.402*	36,0 *1.417*	57,0 *2.244*	6,0 *0.236*	140°	TiAlN	IT9
SD1108A-0550-048-06R1 *SD_DRILL_5.5MM_8XD_A*	03295204	5,5 *0.217*	48,0 *1.890*	97,0 *3.819*	61,0 *2.402*	36,0 *1.417*	57,0 *2.244*	6,0 *0.236*	140°	TiAlN	IT9
SD1108A-0556-048-06R1 *SD_DRILL_7/32_8XD_A*	03295206	5,556 *0.219*	48,0 *1.890*	97,0 *3.819*	61,0 *2.402*	36,0 *1.417*	57,0 *2.244*	6,0 *0.236*	140°	TiAlN	IT9
SD1108A-0560-048-06R1 *SD_DRILL_5.6MM_8XD_A*	03295207	5,6 *0.220*	48,0 *1.890*	97,0 *3.819*	61,0 *2.402*	36,0 *1.417*	57,0 *2.244*	6,0 *0.236*	140°	TiAlN	IT9
SD1108A-0570-048-06R1 *SD_DRILL_5.7MM_8XD_A*	03295208	5,7 *0.224*	48,0 *1.890*	97,0 *3.819*	61,0 *2.402*	36,0 *1.417*	57,0 *2.244*	6,0 *0.236*	140°	TiAlN	IT9
SD1108A-0580-048-06R1 *SD_DRILL_5.8MM_8XD_A*	03295012	5,8 *0.228*	48,0 *1.890*	97,0 *3.819*	61,0 *2.402*	36,0 *1.417*	57,0 *2.244*	6,0 *0.236*	140°	TiAlN	IT9
SD1108A-0590-048-06R1 *SD_DRILL_5.9MM_8XD_A*	03295013	5,9 *0.232*	48,0 *1.890*	97,0 *3.819*	61,0 *2.402*	36,0 *1.417*	57,0 *2.244*	6,0 *0.236*	140°	TiAlN	IT9
SD1108A-0595-048-06R1 *SD_DRILL_15/64_8XD_A*	03323686	5,953 *0.234*	48,0 *1.890*	97,0 *3.819*	61,0 *2.402*	36,0 *1.417*	57,0 *2.244*	6,0 *0.236*	140°	TiAlN	IT9
SD1108A-0600-048-06R1 *SD_DRILL_6.0MM_8XD_A*	03295014	6,0 *0.236*	48,0 *1.890*	97,0 *3.819*	61,0 *2.402*	36,0 *1.417*	57,0 *2.244*	6,0 *0.236*	140°	TiAlN	IT9
SD1108A-0610-055-08R1 *SD_DRILL_6.1MM_8XD_A*	03295015	6,1 *0.240*	55,0 *2.165*	106,0 *4.173*	70,0 *2.756*	36,0 *1.417*	66,0 *2.598*	8,0 *0.315*	140°	TiAlN	IT9
SD1108A-0620-055-08R1 *SD_DRILL_6.2MM_8XD_A*	03295016	6,2 *0.244*	55,0 *2.165*	106,0 *4.173*	70,0 *2.756*	36,0 *1.417*	66,0 *2.598*	8,0 *0.315*	140°	TiAlN	IT9
SD1108A-0630-055-08R1 *SD_DRILL_6.3MM_8XD_A*	03295017	6,3 *0.248*	55,0 *2.165*	106,0 *4.173*	70,0 *2.756*	36,0 *1.417*	66,0 *2.598*	8,0 *0.315*	140°	TiAlN	IT9
SD1108A-0635-055-08R1 *SD_DRILL_1/4_8XD_A*	03295018	6,35 *0.250*	55,0 *2.165*	106,0 *4.173*	70,0 *2.756*	36,0 *1.417*	66,0 *2.598*	8,0 *0.315*	140°	TiAlN	IT9
SD1108A-0640-055-08R1 *SD_DRILL_6.4MM_8XD_A*	03295019	6,4 *0.252*	55,0 *2.165*	106,0 *4.173*	70,0 *2.756*	36,0 *1.417*	66,0 *2.598*	8,0 *0.315*	140°	TiAlN	IT9
SD1108A-0650-055-08R1 *SD_DRILL_6.5MM_8XD_A*	03295020	6,5 *0.256*	55,0 *2.165*	106,0 *4.173*	70,0 *2.756*	36,0 *1.417*	66,0 *2.598*	8,0 *0.315*	140°	TiAlN	IT9
SD1108A-0660-055-08R1 *SD_DRILL_6.6MM_8XD_A*	03295021	6,6 *0.260*	55,0 *2.165*	106,0 *4.173*	70,0 *2.756*	36,0 *1.417*	66,0 *2.598*	8,0 *0.315*	140°	TiAlN	IT9
SD1108A-0670-055-08R1 *SD_DRILL_6.7MM_8XD_A*	03295022	6,7 *0.264*	55,0 *2.165*	106,0 *4.173*	70,0 *2.756*	36,0 *1.417*	66,0 *2.598*	8,0 *0.315*	140°	TiAlN	IT9
SD1108A-0675-055-08R1 *SD_DRILL_17/64_8XD_A*	03323687	6,747 *0.266*	55,0 *2.165*	106,0 *4.173*	70,0 *2.756*	36,0 *1.417*	66,0 *2.598*	8,0 *0.315*	140°	TiAlN	IT9
SD1108A-0680-055-08R1 *SD_DRILL_6.8MM_8XD_A*	03295023	6,8 *0.268*	55,0 *2.165*	106,0 *4.173*	70,0 *2.756*	36,0 *1.417*	66,0 *2.598*	8,0 *0.315*	140°	TiAlN	IT9
SD1108A-0690-055-08R1 *SD_DRILL_6.9MM_8XD_A*	03295024	6,9 *0.272*	55,0 *2.165*	106,0 *4.173*	70,0 *2.756*	36,0 *1.417*	66,0 *2.598*	8,0 *0.315*	140°	TiAlN	IT9
SD1108A-0700-055-08R1 *SD_DRILL_7.0MM_8XD_A*	03295025	7,0 *0.276*	55,0 *2.165*	106,0 *4.173*	70,0 *2.756*	36,0 *1.417*	66,0 *2.598*	8,0 *0.315*	140°	TiAlN	IT9
SD1108A-0710-064-08R1 *SD_DRILL_7.1MM_8XD_A*	03295026	7,1 *0.280*	64,0 *2.520*	116,0 *4.567*	80,0 *3.150*	36,0 *1.417*	76,0 *2.992*	8,0 *0.315*	140°	TiAlN	IT9

Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD1108A-0714-064-08R1 *SD_DRILL_9/32_8XD_A*	03323688	7,144 *0.281*	64,0 *2.520*	116,0 *4.567*	80,0 *3.150*	36,0 *1.417*	76,0 *2.992*	8,0 *0.315*	140°	TiAlN	IT9
SD1108A-0730-064-08R1 *SD_DRILL_7.3MM_8XD_A*	03323689	7,3 *0.287*	64,0 *2.520*	116,0 *4.567*	80,0 *3.150*	36,0 *1.417*	76,0 *2.992*	8,0 *0.315*	140°	TiAlN	IT9
SD1108A-0740-064-08R1 *SD_DRILL_7.4MM_8XD_A*	03295027	7,4 *0.291*	64,0 *2.520*	116,0 *4.567*	80,0 *3.150*	36,0 *1.417*	76,0 *2.992*	8,0 *0.315*	140°	TiAlN	IT9
SD1108A-0750-064-08R1 *SD_DRILL_7.5MM_8XD_A*	03295028	7,5 *0.295*	64,0 *2.520*	116,0 *4.567*	80,0 *3.150*	36,0 *1.417*	76,0 *2.992*	8,0 *0.315*	140°	TiAlN	IT9
SD1108A-0754-064-08R1 *SD_DRILL_19/64_8XD_A*	03323690	7,541 *0.297*	64,0 *2.520*	116,0 *4.567*	80,0 *3.150*	36,0 *1.417*	76,0 *2.992*	8,0 *0.315*	140°	TiAlN	IT9
SD1108A-0760-064-08R1 *SD_DRILL_7.6MM_8XD_A*	03323691	7,6 *0.299*	64,0 *2.520*	116,0 *4.567*	80,0 *3.150*	36,0 *1.417*	76,0 *2.992*	8,0 *0.315*	140°	TiAlN	IT9
SD1108A-0770-064-08R1 *SD_DRILL_7.7MM_8XD_A*	03295029	7,7 *0.303*	64,0 *2.520*	116,0 *4.567*	80,0 *3.150*	36,0 *1.417*	76,0 *2.992*	8,0 *0.315*	140°	TiAlN	IT9
SD1108A-0780-064-08R1 *SD_DRILL_7.8MM_8XD_A*	03295030	7,8 *0.307*	64,0 *2.520*	116,0 *4.567*	80,0 *3.150*	36,0 *1.417*	76,0 *2.992*	8,0 *0.315*	140°	TiAlN	IT9
SD1108A-0790-064-08R1 *SD_DRILL_7.9MM_8XD_A*	03295031	7,9 *0.311*	64,0 *2.520*	116,0 *4.567*	80,0 *3.150*	36,0 *1.417*	76,0 *2.992*	8,0 *0.315*	140°	TiAlN	IT9
SD1108A-0794-064-08R1 *SD_DRILL_5/16_8XD_A*	03323692	7,938 *0.313*	64,0 *2.520*	116,0 *4.567*	80,0 *3.150*	36,0 *1.417*	76,0 *2.992*	8,0 *0.315*	140°	TiAlN	IT9
SD1108A-0800-064-08R1 *SD_DRILL_8.0MM_8XD_A*	03295032	8,0 *0.315*	64,0 *2.520*	116,0 *4.567*	80,0 *3.150*	36,0 *1.417*	76,0 *2.992*	8,0 *0.315*	140°	TiAlN	IT9
SD1108A-0810-080-10R1 *SD_DRILL_8.1MM_8XD_A*	03295033	8,1 *0.319*	80,0 *3.150*	139,0 *5.472*	99,0 *3.898*	40,0 *1.575*	95,0 *3.740*	10,0 *0.394*	140°	TiAlN	IT9
SD1108A-0820-080-10R1 *SD_DRILL_8.2MM_8XD_A*	03295034	8,2 *0.323*	80,0 *3.150*	139,0 *5.472*	99,0 *3.898*	40,0 *1.575*	95,0 *3.740*	10,0 *0.394*	140°	TiAlN	IT9
SD1108A-0830-080-10R1 *SD_DRILL_8.3MM_8XD_A*	03295035	8,3 *0.327*	80,0 *3.150*	139,0 *5.472*	99,0 *3.898*	40,0 *1.575*	95,0 *3.740*	10,0 *0.394*	140°	TiAlN	IT9
SD1108A-0833-080-10R1 *SD_DRILL_21/64_8XD_A*	03323693	8,334 *0.328*	80,0 *3.150*	139,0 *5.472*	99,0 *3.898*	40,0 *1.575*	95,0 *3.740*	10,0 *0.394*	140°	TiAlN	IT9
SD1108A-0840-080-10R1 *SD_DRILL_8.4MM_8XD_A*	03295036	8,4 *0.331*	80,0 *3.150*	139,0 *5.472*	99,0 *3.898*	40,0 *1.575*	95,0 *3.740*	10,0 *0.394*	140°	TiAlN	IT9
SD1108A-0850-080-10R1 *SD_DRILL_8.5MM_8XD_A*	03295037	8,5 *0.335*	80,0 *3.150*	139,0 *5.472*	99,0 *3.898*	40,0 *1.575*	95,0 *3.740*	10,0 *0.394*	140°	TiAlN	IT9
SD1108A-0860-080-10R1 *SD_DRILL_8.6MM_8XD_A*	03295038	8,6 *0.339*	80,0 *3.150*	139,0 *5.472*	99,0 *3.898*	40,0 *1.575*	95,0 *3.740*	10,0 *0.394*	140°	TiAlN	IT9
SD1108A-0870-080-10R1 *SD_DRILL_8.7MM_8XD_A*	03295039	8,7 *0.343*	80,0 *3.150*	139,0 *5.472*	99,0 *3.898*	40,0 *1.575*	95,0 *3.740*	10,0 *0.394*	140°	TiAlN	IT9
SD1108A-0873-080-10R1 *SD_DRILL_11/32_8XD_A*	03323694	8,731 *0.344*	80,0 *3.150*	139,0 *5.472*	99,0 *3.898*	40,0 *1.575*	95,0 *3.740*	10,0 *0.394*	140°	TiAlN	IT9
SD1108A-0880-080-10R1 *SD_DRILL_8.8MM_8XD_A*	03295040	8,8 *0.346*	80,0 *3.150*	139,0 *5.472*	99,0 *3.898*	40,0 *1.575*	95,0 *3.740*	10,0 *0.394*	140°	TiAlN	IT9
SD1108A-0900-080-10R1 *SD_DRILL_9.0MM_8XD_A*	03295041	9,0 *0.354*	80,0 *3.150*	139,0 *5.472*	99,0 *3.898*	40,0 *1.575*	95,0 *3.740*	10,0 *0.394*	140°	TiAlN	IT9
SD1108A-0910-080-10R1 *SD_DRILL_9.1MM_8XD_A*	03295042	9,1 *0.358*	80,0 *3.150*	139,0 *5.472*	99,0 *3.898*	40,0 *1.575*	95,0 *3.740*	10,0 *0.394*	140°	TiAlN	IT9
SD1108A-0913-080-10R1 *SD_DRILL_23/64_8XD_A*	03323695	9,128 *0.359*	80,0 *3.150*	139,0 *5.472*	99,0 *3.898*	40,0 *1.575*	95,0 *3.740*	10,0 *0.394*	140°	TiAlN	IT9
SD1108A-0930-080-10R1 *SD_DRILL_9.3MM_8XD_A*	03295043	9,3 *0.366*	80,0 *3.150*	139,0 *5.472*	99,0 *3.898*	40,0 *1.575*	95,0 *3.740*	10,0 *0.394*	140°	TiAlN	IT9
SD1108A-0940-080-10R1 *SD_DRILL_9.4MM_8XD_A*	03295044	9,4 *0.370*	80,0 *3.150*	139,0 *5.472*	99,0 *3.898*	40,0 *1.575*	95,0 *3.740*	10,0 *0.394*	140°	TiAlN	IT9
SD1108A-0950-080-10R1 *SD_DRILL_9.5MM_8XD_A*	03295045	9,5 *0.374*	80,0 *3.150*	139,0 *5.472*	99,0 *3.898*	40,0 *1.575*	95,0 *3.740*	10,0 *0.394*	140°	TiAlN	IT9
SD1108A-0953-080-10R1 *SD_DRILL_3/8_8XD_A*	03323696	9,525 *0.375*	80,0 *3.150*	139,0 *5.472*	99,0 *3.898*	40,0 *1.575*	95,0 *3.740*	10,0 *0.394*	140°	TiAlN	IT9
SD1108A-0970-080-10R1 *SD_DRILL_9.7MM_8XD_A*	03295046	9,7 *0.382*	80,0 *3.150*	139,0 *5.472*	99,0 *3.898*	40,0 *1.575*	95,0 *3.740*	10,0 *0.394*	140°	TiAlN	IT9
SD1108A-0980-080-10R1 *SD_DRILL_9.8MM_8XD_A*	03295047	9,8 *0.386*	80,0 *3.150*	139,0 *5.472*	99,0 *3.898*	40,0 *1.575*	95,0 *3.740*	10,0 *0.394*	140°	TiAlN	IT9
SD1108A-0990-080-10R1 *SD_DRILL_9.9MM_8XD_A*	03295048	9,9 *0.390*	80,0 *3.150*	139,0 *5.472*	99,0 *3.898*	40,0 *1.575*	95,0 *3.740*	10,0 *0.394*	140°	TiAlN	IT9

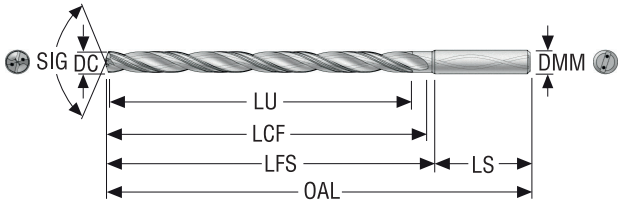
Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD1108A-0992-080-10R1 *SD_DRILL_25/64_8XD_A*	03323697	9,922 *0.391*	80,0 *3.150*	139,0 *5.472*	99,0 *3.898*	40,0 *1.575*	95,0 *3.740*	10,0 *0.394*	140°	TiAlN	IT9
SD1108A-1000-080-10R1 *SD_DRILL_10.0MM_8XD_A*	03295049	10,0 *0.394*	80,0 *3.150*	139,0 *5.472*	99,0 *3.898*	40,0 *1.575*	95,0 *3.740*	10,0 *0.394*	140°	TiAlN	IT9
SD1108A-1020-096-12R1 *SD_DRILL_10.2MM_8XD_A*	03295050	10,2 *0.402*	96,0 *3.780*	163,0 *6.417*	118,0 *4.646*	45,0 *1.772*	114,0 *4.488*	12,0 *0.472*	140°	TiAlN	IT9
SD1108A-1030-096-12R1 *SD_DRILL_10.3MM_8XD_A*	03295051	10,3 *0.406*	96,0 *3.780*	163,0 *6.417*	118,0 *4.646*	45,0 *1.772*	114,0 *4.488*	12,0 *0.472*	140°	TiAlN	IT9
SD1108A-1032-096-12R1 *SD_DRILL_13/32_8XD_A*	03323698	10,319 *0.406*	96,0 *3.780*	163,0 *6.417*	118,0 *4.646*	45,0 *1.772*	114,0 *4.488*	12,0 *0.472*	140°	TiAlN	IT9
SD1108A-1040-096-12R1 *SD_DRILL_10.4MM_8XD_A*	03295053	10,4 *0.409*	96,0 *3.780*	163,0 *6.417*	118,0 *4.646*	45,0 *1.772*	114,0 *4.488*	12,0 *0.472*	140°	TiAlN	IT9
SD1108A-1050-096-12R1 *SD_DRILL_10.5MM_8XD_A*	03295054	10,5 *0.413*	96,0 *3.780*	163,0 *6.417*	118,0 *4.646*	45,0 *1.772*	114,0 *4.488*	12,0 *0.472*	140°	TiAlN	IT9
SD1108A-1070-096-12R1 *SD_DRILL_10.7MM_8XD_A*	03295055	10,7 *0.421*	96,0 *3.780*	163,0 *6.417*	118,0 *4.646*	45,0 *1.772*	114,0 *4.488*	12,0 *0.472*	140°	TiAlN	IT9
SD1108A-1072-096-12R1 *SD_DRILL_27/64_8XD_A*	03323699	10,716 *0.422*	96,0 *3.780*	163,0 *6.417*	118,0 *4.646*	45,0 *1.772*	114,0 *4.488*	12,0 *0.472*	140°	TiAlN	IT9
SD1108A-1080-096-12R1 *SD_DRILL_10.8MM_8XD_A*	03295056	10,8 *0.425*	96,0 *3.780*	163,0 *6.417*	118,0 *4.646*	45,0 *1.772*	114,0 *4.488*	12,0 *0.472*	140°	TiAlN	IT9
SD1108A-1100-096-12R1 *SD_DRILL_11.0MM_8XD_A*	03295057	11,0 *0.433*	96,0 *3.780*	163,0 *6.417*	118,0 *4.646*	45,0 *1.772*	114,0 *4.488*	12,0 *0.472*	140°	TiAlN	IT9
SD1108A-1111-096-12R1 *SD_DRILL_7/16_8XD_A*	03323700	11,113 *0.438*	96,0 *3.780*	163,0 *6.417*	118,0 *4.646*	45,0 *1.772*	114,0 *4.488*	12,0 *0.472*	140°	TiAlN	IT9
SD1108A-1120-096-12R1 *SD_DRILL_11.2MM_8XD_A*	03295058	11,2 *0.441*	96,0 *3.780*	163,0 *6.417*	118,0 *4.646*	45,0 *1.772*	114,0 *4.488*	12,0 *0.472*	140°	TiAlN	IT9
SD1108A-1130-096-12R1 *SD_DRILL_11.3MM_8XD_A*	03295059	11,3 *0.445*	96,0 *3.780*	163,0 *6.417*	118,0 *4.646*	45,0 *1.772*	114,0 *4.488*	12,0 *0.472*	140°	TiAlN	IT9
SD1108A-1150-096-12R1 *SD_DRILL_11.5MM_8XD_A*	03295060	11,5 *0.453*	96,0 *3.780*	163,0 *6.417*	118,0 *4.646*	45,0 *1.772*	114,0 *4.488*	12,0 *0.472*	140°	TiAlN	IT9
SD1108A-1170-096-12R1 *SD_DRILL_11.7MM_8XD_A*	03295061	11,7 *0.461*	96,0 *3.780*	163,0 *6.417*	118,0 *4.646*	45,0 *1.772*	114,0 *4.488*	12,0 *0.472*	140°	TiAlN	IT9
SD1108A-1180-096-12R1 *SD_DRILL_11.8MM_8XD_A*	03295062	11,8 *0.465*	96,0 *3.780*	163,0 *6.417*	118,0 *4.646*	45,0 *1.772*	114,0 *4.488*	12,0 *0.472*	140°	TiAlN	IT9
SD1108A-1190-096-12R1 *SD_DRILL_11.9MM_8XD_A*	03295063	11,9 *0.469*	96,0 *3.780*	163,0 *6.417*	118,0 *4.646*	45,0 *1.772*	114,0 *4.488*	12,0 *0.472*	140°	TiAlN	IT9
SD1108A-1191-096-12R1 *SD_DRILL_15/32_8XD_A*	03323701	11,906 *0.469*	96,0 *3.780*	163,0 *6.417*	118,0 *4.646*	45,0 *1.772*	114,0 *4.488*	12,0 *0.472*	140°	TiAlN	IT9
SD1108A-1200-096-12R1 *SD_DRILL_12.0MM_8XD_A*	03295064	12,0 *0.472*	96,0 *3.780*	163,0 *6.417*	118,0 *4.646*	45,0 *1.772*	114,0 *4.488*	12,0 *0.472*	140°	TiAlN	IT9
SD1108A-1230-119-14R1 *SD_DRILL_31/64_8XD_A*	03295065	12,3 *0.484*	119,0 *4.685*	182,0 *7.165*	137,0 *5.394*	45,0 *1.772*	133,0 *5.236*	14,0 *0.551*	140°	TiAlN	IT9
SD1108A-1250-119-14R1 *SD_DRILL_12.5MM_8XD_A*	03295066	12,5 *0.492*	119,0 *4.685*	182,0 *7.165*	137,0 *5.394*	45,0 *1.772*	133,0 *5.236*	14,0 *0.551*	140°	TiAlN	IT9
SD1108A-1270-119-14R1 *SD_DRILL_1/2_8XD_A*	03295067	12,7 *0.500*	119,0 *4.685*	182,0 *7.165*	137,0 *5.394*	45,0 *1.772*	133,0 *5.236*	14,0 *0.551*	140°	TiAlN	IT9
SD1108A-1300-119-14R1 *SD_DRILL_13.0MM_8XD_A*	03295068	13,0 *0.512*	119,0 *4.685*	182,0 *7.165*	137,0 *5.394*	45,0 *1.772*	133,0 *5.236*	14,0 *0.551*	140°	TiAlN	IT9
SD1108A-1349-119-14R1 *SD_DRILL_17/32_8XD_A*	03323702	13,494 *0.531*	119,0 *4.685*	182,0 *7.165*	137,0 *5.394*	45,0 *1.772*	133,0 *5.236*	14,0 *0.551*	140°	TiAlN	IT9
SD1108A-1350-119-14R1 *SD_DRILL_13.5MM_8XD_A*	03295069	13,5 *0.531*	119,0 *4.685*	182,0 *7.165*	137,0 *5.394*	45,0 *1.772*	133,0 *5.236*	14,0 *0.551*	140°	TiAlN	IT9
SD1108A-1400-119-14R1 *SD_DRILL_14.0MM_8XD_A*	03295070	14,0 *0.551*	119,0 *4.685*	182,0 *7.165*	137,0 *5.394*	45,0 *1.772*	133,0 *5.236*	14,0 *0.551*	140°	TiAlN	IT9
SD1108A-1429-136-16R1 *SD_DRILL_9/16_8XD_A*	03295071	14,288 *0.563*	136,0 *5.354*	204,0 *8.031*	156,0 *6.142*	48,0 *1.890*	152,0 *5.984*	16,0 *0.630*	140°	TiAlN	IT9
SD1108A-1450-136-16R1 *SD_DRILL_14.5MM_8XD_A*	03295072	14,5 *0.571*	136,0 *5.354*	204,0 *8.031*	156,0 *6.142*	48,0 *1.890*	152,0 *5.984*	16,0 *0.630*	140°	TiAlN	IT9
SD1108A-1500-136-16R1 *SD_DRILL_15.0MM_8XD_A*	03295073	15,0 *0.591*	136,0 *5.354*	204,0 *8.031*	156,0 *6.142*	48,0 *1.890*	152,0 *5.984*	16,0 *0.630*	140°	TiAlN	IT9
SD1108A-1550-136-16R1 *SD_DRILL_15.5MM_8XD_A*	03295074	15,5 *0.610*	136,0 *5.354*	204,0 *8.031*	156,0 *6.142*	48,0 *1.890*	152,0 *5.984*	16,0 *0.630*	140°	TiAlN	IT9

Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD1108A-1588-136-16R1 *SD_DRILL_5/8_8XD_A*	03295075	15,875 *0.625*	136,0 *5.354*	204,0 *8.031*	156,0 *6.142*	48,0 *1.890*	152,0 *5.984*	16,0 *0.630*	140°	TiAlN	IT9
SD1108A-1600-136-16R1 *SD_DRILL_16.0MM_8XD_A*	03295076	16,0 *0.630*	136,0 *5.354*	204,0 *8.031*	156,0 *6.142*	48,0 *1.890*	152,0 *5.984*	16,0 *0.630*	140°	TiAlN	IT9
SD1108A-1650-153-18R1 *SD_DRILL_16.5MM_8XD_A*	03295077	16,5 *0.650*	153,0 *6.024*	223,0 *8.780*	175,0 *6.890*	48,0 *1.890*	171,0 *6.732*	18,0 *0.709*	140°	TiAlN	IT9
SD1108A-1700-153-18R1 *SD_DRILL_17.0MM_8XD_A*	03295078	17,0 *0.669*	153,0 *6.024*	223,0 *8.780*	175,0 *6.890*	48,0 *1.890*	171,0 *6.732*	18,0 *0.709*	140°	TiAlN	IT9
SD1108A-1750-153-18R1 *SD_DRILL_17.5MM_8XD_A*	03295079	17,5 *0.689*	153,0 *6.024*	223,0 *8.780*	175,0 *6.890*	48,0 *1.890*	171,0 *6.732*	18,0 *0.709*	140°	TiAlN	IT9
SD1108A-1800-153-18R1 *SD_DRILL_18.0MM_8XD_A*	03295080	18,0 *0.709*	153,0 *6.024*	223,0 *8.780*	175,0 *6.890*	48,0 *1.890*	171,0 *6.732*	18,0 *0.709*	140°	TiAlN	IT9
SD1108A-1850-170-20R1 *SD_DRILL_18.5MM_8XD_A*	03295081	18,5 *0.728*	170,0 *6.693*	244,0 *9.606*	194,0 *7.638*	50,0 *1.969*	190,0 *7.480*	20,0 *0.787*	140°	TiAlN	IT9
SD1108A-1900-170-20R1 *SD_DRILL_19.0MM_8XD_A*	03295082	19,0 *0.748*	170,0 *6.693*	244,0 *9.606*	194,0 *7.638*	50,0 *1.969*	190,0 *7.480*	20,0 *0.787*	140°	TiAlN	IT9
SD1108A-1905-170-20R1 *SD_DRILL_3/4_8XD_A*	03323703	19,05 *0.750*	170,0 *6.693*	244,0 *9.606*	194,0 *7.638*	50,0 *1.969*	190,0 *7.480*	20,0 *0.787*	140°	TiAlN	IT9
SD1108A-1950-170-20R1 *SD_DRILL_19.5MM_8XD_A*	03295083	19,5 *0.768*	170,0 *6.693*	244,0 *9.606*	194,0 *7.638*	50,0 *1.969*	190,0 *7.480*	20,0 *0.787*	140°	TiAlN	IT9
SD1108A-2000-170-20R1 *SD_DRILL_20.0MM_8XD_A*	03295084	20,0 *0.787*	170,0 *6.693*	244,0 *9.606*	194,0 *7.638*	50,0 *1.969*	190,0 *7.480*	20,0 *0.787*	140°	TiAlN	IT9

SD1112A

Drilling depth ~ 12 x D – Metric/Inch





- Cylindrical shank DIN 6537A
- DC tolerance m7
- Internal coolant
- For cutting data see page(s) 144
- For intermediate diameters see the MyDesign software.

Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD1112A-0300-048-06R1 *SD_DRILL_3.0MM_12XD_A*	03295085	3,0 *0.118*	48,0 *1.890*	92,0 *3.622*	56,0 *2.205*	36,0 *1.417*	54,0 *2.126*	6,0 *0.236*	140°	TiAlN	IT9
SD1112A-0310-048-06R1 *SD_DRILL_3.1MM_12XD_A*	03295086	3,1 *0.122*	48,0 *1.890*	92,0 *3.622*	56,0 *2.205*	36,0 *1.417*	54,0 *2.126*	6,0 *0.236*	140°	TiAlN	IT9
SD1112A-0318-048-06R1 *SD_DRILL_1/8_12XD_A*	03323704	3,175 *0.125*	48,0 *1.890*	92,0 *3.622*	56,0 *2.205*	36,0 *1.417*	54,0 *2.126*	6,0 *0.236*	140°	TiAlN	IT9
SD1112A-0320-048-06R1 *SD_DRILL_3.2MM_12XD_A*	03295087	3,2 *0.126*	48,0 *1.890*	92,0 *3.622*	56,0 *2.205*	36,0 *1.417*	54,0 *2.126*	6,0 *0.236*	140°	TiAlN	IT9
SD1112A-0330-048-06R1 *SD_DRILL_3.3MM_12XD_A*	03295088	3,3 *0.130*	48,0 *1.890*	92,0 *3.622*	56,0 *2.205*	36,0 *1.417*	54,0 *2.126*	6,0 *0.236*	140°	TiAlN	IT9
SD1112A-0340-048-06R1 *SD_DRILL_3.4MM_12XD_A*	03295089	3,4 *0.134*	48,0 *1.890*	92,0 *3.622*	56,0 *2.205*	36,0 *1.417*	54,0 *2.126*	6,0 *0.236*	140°	TiAlN	IT9
SD1112A-0350-048-06R1 *SD_DRILL_3.5MM_12XD_A*	03295090	3,5 *0.138*	48,0 *1.890*	92,0 *3.622*	56,0 *2.205*	36,0 *1.417*	54,0 *2.126*	6,0 *0.236*	140°	TiAlN	IT9
SD1112A-0357-048-06R1 *SD_DRILL_9/64_12XD_A*	03323705	3,572 *0.141*	48,0 *1.890*	92,0 *3.622*	56,0 *2.205*	36,0 *1.417*	54,0 *2.126*	6,0 *0.236*	140°	TiAlN	IT9
SD1112A-0360-048-06R1 *SD_DRILL_3.6MM_12XD_A*	03295091	3,6 *0.142*	48,0 *1.890*	92,0 *3.622*	56,0 *2.205*	36,0 *1.417*	54,0 *2.126*	6,0 *0.236*	140°	TiAlN	IT9
SD1112A-0370-048-06R1 *SD_DRILL_3.7MM_12XD_A*	03295092	3,7 *0.146*	48,0 *1.890*	92,0 *3.622*	56,0 *2.205*	36,0 *1.417*	54,0 *2.126*	6,0 *0.236*	140°	TiAlN	IT9
SD1112A-0380-056-06R1 *SD_DRILL_3.8MM_12XD_A*	03295093	3,8 *0.150*	56,0 *2.205*	102,0 *4.016*	66,0 *2.598*	36,0 *1.417*	64,0 *2.520*	6,0 *0.236*	140°	TiAlN	IT9
SD1112A-0390-056-06R1 *SD_DRILL_3.9MM_12XD_A*	03295094	3,9 *0.154*	56,0 *2.205*	102,0 *4.016*	66,0 *2.598*	36,0 *1.417*	64,0 *2.520*	6,0 *0.236*	140°	TiAlN	IT9
SD1112A-0397-056-06R1 *SD_DRILL_5/32_12XD_A*	03323706	3,969 *0.156*	56,0 *2.205*	102,0 *4.016*	66,0 *2.598*	36,0 *1.417*	64,0 *2.520*	6,0 *0.236*	140°	TiAlN	IT9
SD1112A-0400-056-06R1 *SD_DRILL_4.0MM_12XD_A*	03295095	4,0 *0.157*	56,0 *2.205*	102,0 *4.016*	66,0 *2.598*	36,0 *1.417*	64,0 *2.520*	6,0 *0.236*	140°	TiAlN	IT9
SD1112A-0410-056-06R1 *SD_DRILL_4.1MM_12XD_A*	03295096	4,1 *0.161*	56,0 *2.205*	102,0 *4.016*	66,0 *2.598*	36,0 *1.417*	64,0 *2.520*	6,0 *0.236*	140°	TiAlN	IT9
SD1112A-0420-056-06R1 *SD_DRILL_4.2MM_12XD_A*	03295097	4,2 *0.165*	56,0 *2.205*	102,0 *4.016*	66,0 *2.598*	36,0 *1.417*	64,0 *2.520*	6,0 *0.236*	140°	TiAlN	IT9
SD1112A-0430-056-06R1 *SD_DRILL_4.3MM_12XD_A*	03295098	4,3 *0.169*	56,0 *2.205*	102,0 *4.016*	66,0 *2.598*	36,0 *1.417*	64,0 *2.520*	6,0 *0.236*	140°	TiAlN	IT9
SD1112A-0437-056-06R1 *SD_DRILL_11/64_12XD_A*	03323707	4,366 *0.172*	56,0 *2.205*	102,0 *4.016*	66,0 *2.598*	36,0 *1.417*	64,0 *2.520*	6,0 *0.236*	140°	TiAlN	IT9
SD1112A-0440-056-06R1 *SD_DRILL_4.4MM_12XD_A*	03295099	4,4 *0.173*	56,0 *2.205*	102,0 *4.016*	66,0 *2.598*	36,0 *1.417*	64,0 *2.520*	6,0 *0.236*	140°	TiAlN	IT9
SD1112A-0450-056-06R1 *SD_DRILL_4.5MM_12XD_A*	03295100	4,5 *0.177*	56,0 *2.205*	102,0 *4.016*	66,0 *2.598*	36,0 *1.417*	64,0 *2.520*	6,0 *0.236*	140°	TiAlN	IT9
SD1112A-0460-056-06R1 *SD_DRILL_4.6MM_12XD_A*	03295101	4,6 *0.181*	56,0 *2.205*	102,0 *4.016*	66,0 *2.598*	36,0 *1.417*	64,0 *2.520*	6,0 *0.236*	140°	TiAlN	IT9

Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD1112A-0470-056-06R1 *SD_DRILL_4.7MM_12XD_A*	03295102	4,7 *0.185*	56,0 *2.205*	102,0 *4.016*	66,0 *2.598*	36,0 *1.417*	64,0 *2.520*	6,0 *0.236*	140°	TiAlN	IT9
SD1112A-0476-074-06R1 *SD_DRILL_3/16_12XD_A*	03323708	4,763 *0.188*	74,0 *2.913*	121,0 *4.764*	85,0 *3.346*	36,0 *1.417*	83,0 *3.268*	6,0 *0.236*	140°	TiAlN	IT9
SD1112A-0480-074-06R1 *SD_DRILL_4.8MM_12XD_A*	03295103	4,8 *0.189*	74,0 *2.913*	121,0 *4.764*	85,0 *3.346*	36,0 *1.417*	83,0 *3.268*	6,0 *0.236*	140°	TiAlN	IT9
SD1112A-0490-074-06R1 *SD_DRILL_4.9MM_12XD_A*	03295104	4,9 *0.193*	74,0 *2.913*	121,0 *4.764*	85,0 *3.346*	36,0 *1.417*	83,0 *3.268*	6,0 *0.236*	140°	TiAlN	IT9
SD1112A-0500-074-06R1 *SD_DRILL_5.0MM_12XD_A*	03295105	5,0 *0.197*	74,0 *2.913*	121,0 *4.764*	85,0 *3.346*	36,0 *1.417*	83,0 *3.268*	6,0 *0.236*	140°	TiAlN	IT9
SD1112A-0510-074-06R1 *SD_DRILL_5.1MM_12XD_A*	03295106	5,1 *0.201*	74,0 *2.913*	121,0 *4.764*	85,0 *3.346*	36,0 *1.417*	83,0 *3.268*	6,0 *0.236*	140°	TiAlN	IT9
SD1112A-0516-074-06R1 *SD_DRILL_13/64_12XD_A*	03323709	5,159 *0.203*	74,0 *2.913*	121,0 *4.764*	85,0 *3.346*	36,0 *1.417*	83,0 *3.268*	6,0 *0.236*	140°	TiAlN	IT9
SD1112A-0520-074-06R1 *SD_DRILL_5.2MM_12XD_A*	03295107	5,2 *0.205*	74,0 *2.913*	121,0 *4.764*	85,0 *3.346*	36,0 *1.417*	83,0 *3.268*	6,0 *0.236*	140°	TiAlN	IT9
SD1112A-0530-074-06R1 *SD_DRILL_5.3MM_12XD_A*	03295108	5,3 *0.209*	74,0 *2.913*	121,0 *4.764*	85,0 *3.346*	36,0 *1.417*	83,0 *3.268*	6,0 *0.236*	140°	TiAlN	IT9
SD1112A-0540-074-06R1 *SD_DRILL_5.4MM_12XD_A*	03295109	5,4 *0.213*	74,0 *2.913*	121,0 *4.764*	85,0 *3.346*	36,0 *1.417*	83,0 *3.268*	6,0 *0.236*	140°	TiAlN	IT9
SD1112A-0550-074-06R1 *SD_DRILL_5.5MM_12XD_A*	03295110	5,5 *0.217*	74,0 *2.913*	121,0 *4.764*	85,0 *3.346*	36,0 *1.417*	83,0 *3.268*	6,0 *0.236*	140°	TiAlN	IT9
SD1112A-0556-074-06R1 *SD_DRILL_7/32_12XD_A*	03295111	5,556 *0.219*	74,0 *2.913*	121,0 *4.764*	85,0 *3.346*	36,0 *1.417*	83,0 *3.268*	6,0 *0.236*	140°	TiAlN	IT9
SD1112A-0560-074-06R1 *SD_DRILL_5.6MM_12XD_A*	03295112	5,6 *0.220*	74,0 *2.913*	121,0 *4.764*	85,0 *3.346*	36,0 *1.417*	83,0 *3.268*	6,0 *0.236*	140°	TiAlN	IT9
SD1112A-0570-074-06R1 *SD_DRILL_5.7MM_12XD_A*	03295113	5,7 *0.224*	74,0 *2.913*	121,0 *4.764*	85,0 *3.346*	36,0 *1.417*	83,0 *3.268*	6,0 *0.236*	140°	TiAlN	IT9
SD1112A-0580-074-06R1 *SD_DRILL_5.8MM_12XD_A*	03295114	5,8 *0.228*	74,0 *2.913*	121,0 *4.764*	85,0 *3.346*	36,0 *1.417*	83,0 *3.268*	6,0 *0.236*	140°	TiAlN	IT9
SD1112A-0590-074-06R1 *SD_DRILL_5.9MM_12XD_A*	03295115	5,9 *0.232*	74,0 *2.913*	121,0 *4.764*	85,0 *3.346*	36,0 *1.417*	83,0 *3.268*	6,0 *0.236*	140°	TiAlN	IT9
SD1112A-0600-074-06R1 *SD_DRILL_6.0MM_12XD_A*	03295116	6,0 *0.236*	74,0 *2.913*	121,0 *4.764*	85,0 *3.346*	36,0 *1.417*	83,0 *3.268*	6,0 *0.236*	140°	TiAlN	IT9
SD1112A-0610-098-08R1 *SD_DRILL_6.1MM_12XD_A*	03295117	6,1 *0.240*	98,0 *3.858*	148,0 *5.827*	112,0 *4.409*	36,0 *1.417*	110,0 *4.331*	8,0 *0.315*	140°	TiAlN	IT9
SD1112A-0620-098-08R1 *SD_DRILL_6.2MM_12XD_A*	03295118	6,2 *0.244*	98,0 *3.858*	148,0 *5.827*	112,0 *4.409*	36,0 *1.417*	110,0 *4.331*	8,0 *0.315*	140°	TiAlN	IT9
SD1112A-0630-098-08R1 *SD_DRILL_6.3MM_12XD_A*	03295119	6,3 *0.248*	98,0 *3.858*	148,0 *5.827*	112,0 *4.409*	36,0 *1.417*	110,0 *4.331*	8,0 *0.315*	140°	TiAlN	IT9
SD1112A-0635-098-08R1 *SD_DRILL_1/4_12XD_A*	03295120	6,35 *0.250*	98,0 *3.858*	148,0 *5.827*	112,0 *4.409*	36,0 *1.417*	110,0 *4.331*	8,0 *0.315*	140°	TiAlN	IT9
SD1112A-0640-098-08R1 *SD_DRILL_6.4MM_12XD_A*	03295121	6,4 *0.252*	98,0 *3.858*	148,0 *5.827*	112,0 *4.409*	36,0 *1.417*	110,0 *4.331*	8,0 *0.315*	140°	TiAlN	IT9
SD1112A-0650-098-08R1 *SD_DRILL_6.5MM_12XD_A*	03295122	6,5 *0.256*	98,0 *3.858*	148,0 *5.827*	112,0 *4.409*	36,0 *1.417*	110,0 *4.331*	8,0 *0.315*	140°	TiAlN	IT9
SD1112A-0660-098-08R1 *SD_DRILL_6.6MM_12XD_A*	03295123	6,6 *0.260*	98,0 *3.858*	148,0 *5.827*	112,0 *4.409*	36,0 *1.417*	110,0 *4.331*	8,0 *0.315*	140°	TiAlN	IT9
SD1112A-0670-098-08R1 *SD_DRILL_6.7MM_12XD_A*	03295124	6,7 *0.264*	98,0 *3.858*	148,0 *5.827*	112,0 *4.409*	36,0 *1.417*	110,0 *4.331*	8,0 *0.315*	140°	TiAlN	IT9
SD1112A-0675-098-08R1 *SD_DRILL_17/64_12XD_A*	03323710	6,747 *0.266*	98,0 *3.858*	148,0 *5.827*	128,0 *5.039*	36,0 *1.417*	110,0 *4.331*	8,0 *0.315*	140°	TiAlN	IT9
SD1112A-0680-098-08R1 *SD_DRILL_6.8MM_12XD_A*	03295125	6,8 *0.268*	98,0 *3.858*	148,0 *5.827*	112,0 *4.409*	36,0 *1.417*	110,0 *4.331*	8,0 *0.315*	140°	TiAlN	IT9
SD1112A-0690-098-08R1 *SD_DRILL_6.9MM_12XD_A*	03295126	6,9 *0.272*	98,0 *3.858*	148,0 *5.827*	112,0 *4.409*	36,0 *1.417*	110,0 *4.331*	8,0 *0.315*	140°	TiAlN	IT9
SD1112A-0700-098-08R1 *SD_DRILL_7.0MM_12XD_A*	03295127	7,0 *0.276*	98,0 *3.858*	148,0 *5.827*	112,0 *4.409*	36,0 *1.417*	110,0 *4.331*	8,0 *0.315*	140°	TiAlN	IT9
SD1112A-0710-098-08R1 *SD_DRILL_7.1MM_12XD_A*	03295128	7,1 *0.280*	98,0 *3.858*	148,0 *5.827*	112,0 *4.409*	36,0 *1.417*	110,0 *4.331*	8,0 *0.315*	140°	TiAlN	IT9
SD1112A-0714-098-08R1 *SD_DRILL_9/32_12XD_A*	03323711	7,144 *0.281*	98,0 *3.858*	148,0 *5.827*	128,0 *5.039*	36,0 *1.417*	110,0 *4.331*	8,0 *0.315*	140°	TiAlN	IT9

Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD1112A-0730-098-08R1 *SD_DRILL_7.3MM_12XD_A*	03323712	7,3 *0.287*	98,0 *3.858*	148,0 *5.827*	128,0 *5.039*	36,0 *1.417*	110,0 *4.331*	8,0 *0.315*	140°	TiAlN	IT9
SD1112A-0740-098-08R1 *SD_DRILL_7.4MM_12XD_A*	03295129	7,4 *0.291*	98,0 *3.858*	148,0 *5.827*	112,0 *4.409*	36,0 *1.417*	110,0 *4.331*	8,0 *0.315*	140°	TiAlN	IT9
SD1112A-0750-098-08R1 *SD_DRILL_7.5MM_12XD_A*	03295130	7,5 *0.295*	98,0 *3.858*	148,0 *5.827*	112,0 *4.409*	36,0 *1.417*	110,0 *4.331*	8,0 *0.315*	140°	TiAlN	IT9
SD1112A-0754-098-08R1 *SD_DRILL_19/64_12XD_A*	03323713	7,541 *0.297*	98,0 *3.858*	148,0 *5.827*	128,0 *5.039*	36,0 *1.417*	110,0 *4.331*	8,0 *0.315*	140°	TiAlN	IT9
SD1112A-0780-098-08R1 *SD_DRILL_7.8MM_12XD_A*	03295131	7,8 *0.307*	98,0 *3.858*	148,0 *5.827*	112,0 *4.409*	36,0 *1.417*	110,0 *4.331*	8,0 *0.315*	140°	TiAlN	IT9
SD1112A-0790-098-08R1 *SD_DRILL_7.9MM_12XD_A*	03295132	7,9 *0.311*	98,0 *3.858*	148,0 *5.827*	112,0 *4.409*	36,0 *1.417*	110,0 *4.331*	8,0 *0.315*	140°	TiAlN	IT9
SD1112A-0794-098-08R1 *SD_DRILL_5/16_12XD_A*	03323714	7,938 *0.313*	98,0 *3.858*	148,0 *5.827*	128,0 *5.039*	36,0 *1.417*	110,0 *4.331*	8,0 *0.315*	140°	TiAlN	IT9
SD1112A-0800-098-08R1 *SD_DRILL_8.0MM_12XD_A*	03295133	8,0 *0.315*	98,0 *3.858*	148,0 *5.827*	112,0 *4.409*	36,0 *1.417*	110,0 *4.331*	8,0 *0.315*	140°	TiAlN	IT9
SD1112A-0810-123-10R1 *SD_DRILL_8.1MM_12XD_A*	03295135	8,1 *0.319*	123,0 *4.843*	180,0 *7.087*	140,0 *5.512*	40,0 *1.575*	138,0 *5.433*	10,0 *0.394*	140°	TiAlN	IT9
SD1112A-0820-123-10R1 *SD_DRILL_8.2MM_12XD_A*	03295136	8,2 *0.323*	123,0 *4.843*	180,0 *7.087*	140,0 *5.512*	40,0 *1.575*	138,0 *5.433*	10,0 *0.394*	140°	TiAlN	IT9
SD1112A-0830-123-10R1 *SD_DRILL_8.3MM_12XD_A*	03295137	8,3 *0.327*	123,0 *4.843*	180,0 *7.087*	140,0 *5.512*	40,0 *1.575*	138,0 *5.433*	10,0 *0.394*	140°	TiAlN	IT9
SD1112A-0840-123-10R1 *SD_DRILL_8.4MM_12XD_A*	03295138	8,4 *0.331*	123,0 *4.843*	180,0 *7.087*	140,0 *5.512*	40,0 *1.575*	138,0 *5.433*	10,0 *0.394*	140°	TiAlN	IT9
SD1112A-0850-123-10R1 *SD_DRILL_8.5MM_12XD_A*	03295139	8,5 *0.335*	123,0 *4.843*	180,0 *7.087*	140,0 *5.512*	40,0 *1.575*	138,0 *5.433*	10,0 *0.394*	140°	TiAlN	IT9
SD1112A-0860-123-10R1 *SD_DRILL_8.6MM_12XD_A*	03295140	8,6 *0.339*	123,0 *4.843*	180,0 *7.087*	140,0 *5.512*	40,0 *1.575*	138,0 *5.433*	10,0 *0.394*	140°	TiAlN	IT9
SD1112A-0870-123-10R1 *SD_DRILL_8.7MM_12XD_A*	03295141	8,7 *0.343*	123,0 *4.843*	180,0 *7.087*	140,0 *5.512*	40,0 *1.575*	138,0 *5.433*	10,0 *0.394*	140°	TiAlN	IT9
SD1112A-0873-123-10R1 *SD_DRILL_11/32_12XD_A*	03323715	8,731 *0.344*	123,0 *4.843*	180,0 *7.087*	140,0 *5.512*	40,0 *1.575*	138,0 *5.433*	10,0 *0.394*	140°	TiAlN	IT9
SD1112A-0880-123-10R1 *SD_DRILL_8.8MM_12XD_A*	03295142	8,8 *0.346*	123,0 *4.843*	180,0 *7.087*	140,0 *5.512*	40,0 *1.575*	138,0 *5.433*	10,0 *0.394*	140°	TiAlN	IT9
SD1112A-0900-123-10R1 *SD_DRILL_9.0MM_12XD_A*	03295143	9,0 *0.354*	123,0 *4.843*	180,0 *7.087*	140,0 *5.512*	40,0 *1.575*	138,0 *5.433*	10,0 *0.394*	140°	TiAlN	IT9
SD1112A-0913-123-10R1 *SD_DRILL_23/64_12XD_A*	03323716	9,128 *0.359*	123,0 *4.843*	180,0 *7.087*	140,0 *5.512*	40,0 *1.575*	138,0 *5.433*	10,0 *0.394*	140°	TiAlN	IT9
SD1112A-0930-123-10R1 *SD_DRILL_9.3MM_12XD_A*	03295144	9,3 *0.366*	123,0 *4.843*	180,0 *7.087*	140,0 *5.512*	40,0 *1.575*	138,0 *5.433*	10,0 *0.394*	140°	TiAlN	IT9
SD1112A-0950-123-10R1 *SD_DRILL_9.5MM_12XD_A*	03295145	9,5 *0.374*	123,0 *4.843*	180,0 *7.087*	140,0 *5.512*	40,0 *1.575*	138,0 *5.433*	10,0 *0.394*	140°	TiAlN	IT9
SD1112A-0953-123-10R1 *SD_DRILL_3/8_12XD_A*	03323717	9,525 *0.375*	123,0 *4.843*	180,0 *7.087*	140,0 *5.512*	40,0 *1.575*	138,0 *5.433*	10,0 *0.394*	140°	TiAlN	IT9
SD1112A-0970-123-10R1 *SD_DRILL_9.7MM_12XD_A*	03295146	9,7 *0.382*	123,0 *4.843*	180,0 *7.087*	140,0 *5.512*	40,0 *1.575*	138,0 *5.433*	10,0 *0.394*	140°	TiAlN	IT9
SD1112A-0980-123-10R1 *SD_DRILL_9.8MM_12XD_A*	03295147	9,8 *0.386*	123,0 *4.843*	180,0 *7.087*	140,0 *5.512*	40,0 *1.575*	138,0 *5.433*	10,0 *0.394*	140°	TiAlN	IT9
SD1112A-0992-123-10R1 *SD_DRILL_25/64_12XD_A*	03323718	9,922 *0.391*	123,0 *4.843*	180,0 *7.087*	140,0 *5.512*	40,0 *1.575*	138,0 *5.433*	10,0 *0.394*	140°	TiAlN	IT9
SD1112A-1000-123-10R1 *SD_DRILL_10.0MM_12XD_A*	03295148	10,0 *0.394*	123,0 *4.843*	180,0 *7.087*	140,0 *5.512*	40,0 *1.575*	138,0 *5.433*	10,0 *0.394*	140°	TiAlN	IT9
SD1112A-1020-140-12R1 *SD_DRILL_10.2MM_12XD_A*	03295149	10,2 *0.402*	140,0 *5.512*	206,0 *8.110*	161,0 *6.339*	45,0 *1.772*	158,0 *6.220*	12,0 *0.472*	140°	TiAlN	IT9
SD1112A-1030-140-12R1 *SD_DRILL_10.3MM_12XD_A*	03295150	10,3 *0.406*	140,0 *5.512*	206,0 *8.110*	161,0 *6.339*	45,0 *1.772*	158,0 *6.220*	12,0 *0.472*	140°	TiAlN	IT9
SD1112A-1032-140-12R1 *SD_DRILL_13/32_12XD_A*	03323719	10,319 *0.406*	140,0 *5.512*	206,0 *8.110*	161,0 *6.339*	45,0 *1.772*	158,0 *6.220*	12,0 *0.472*	140°	TiAlN	IT9
SD1112A-1050-140-12R1 *SD_DRILL_10.5MM_12XD_A*	03295151	10,5 *0.413*	140,0 *5.512*	206,0 *8.110*	161,0 *6.339*	45,0 *1.772*	158,0 *6.220*	12,0 *0.472*	140°	TiAlN	IT9
SD1112A-1072-140-12R1 *SD_DRILL_27/64_12XD_A*	03323720	10,716 *0.422*	140,0 *5.512*	206,0 *8.110*	161,0 *6.339*	45,0 *1.772*	158,0 *6.220*	12,0 *0.472*	140°	TiAlN	IT9

Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD1112A-1080-140-12R1 *SD_DRILL_10.8MM_12XD_A*	03295152	10,8 *0.425*	140,0 *5.512*	206,0 *8.110*	161,0 *6.339*	45,0 *1.772*	158,0 *6.220*	12,0 *0.472*	140°	TiAlN	IT9
SD1112A-1100-140-12R1 *SD_DRILL_11.0MM_12XD_A*	03295153	11,0 *0.433*	140,0 *5.512*	206,0 *8.110*	161,0 *6.339*	45,0 *1.772*	158,0 *6.220*	12,0 *0.472*	140°	TiAlN	IT9
SD1112A-1111-140-12R1 *SD_DRILL_7/16_12XD_A*	03323722	11,113 *0.438*	140,0 *5.512*	206,0 *8.110*	161,0 *6.339*	45,0 *1.772*	158,0 *6.220*	12,0 *0.472*	140°	TiAlN	IT9
SD1112A-1120-140-12R1 *SD_DRILL_11.2MM_12XD_A*	03295154	11,2 *0.441*	140,0 *5.512*	206,0 *8.110*	161,0 *6.339*	45,0 *1.772*	158,0 *6.220*	12,0 *0.472*	140°	TiAlN	IT9
SD1112A-1150-140-12R1 *SD_DRILL_11.5MM_12XD_A*	03295155	11,5 *0.453*	140,0 *5.512*	206,0 *8.110*	161,0 *6.339*	45,0 *1.772*	158,0 *6.220*	12,0 *0.472*	140°	TiAlN	IT9
SD1112A-1170-140-12R1 *SD_DRILL_11.7MM_12XD_A*	03295156	11,7 *0.461*	140,0 *5.512*	206,0 *8.110*	161,0 *6.339*	45,0 *1.772*	158,0 *6.220*	12,0 *0.472*	140°	TiAlN	IT9
SD1112A-1180-140-12R1 *SD_DRILL_11.8MM_12XD_A*	03295157	11,8 *0.465*	140,0 *5.512*	206,0 *8.110*	161,0 *6.339*	45,0 *1.772*	158,0 *6.220*	12,0 *0.472*	140°	TiAlN	IT9
SD1112A-1191-140-12R1 *SD_DRILL_15/32_12XD_A*	03323723	11,906 *0.469*	140,0 *5.512*	206,0 *8.110*	161,0 *6.339*	45,0 *1.772*	158,0 *6.220*	12,0 *0.472*	140°	TiAlN	IT9
SD1112A-1200-140-12R1 *SD_DRILL_12.0MM_12XD_A*	03295158	12,0 *0.472*	140,0 *5.512*	206,0 *8.110*	161,0 *6.339*	45,0 *1.772*	158,0 *6.220*	12,0 *0.472*	140°	TiAlN	IT9
SD1112A-1220-168-14R1 *SD_DRILL_12.2MM_12XD_A*	03295159	12,2 *0.480*	168,0 *6.614*	230,0 *9.055*	185,0 *7.283*	45,0 *1.772*	182,0 *7.165*	14,0 *0.551*	140°	TiAlN	IT9
SD1112A-1230-168-14R1 *SD_DRILL_31/64_12XD_A*	03295160	12,3 *0.484*	168,0 *6.614*	230,0 *9.055*	185,0 *7.283*	45,0 *1.772*	182,0 *7.165*	14,0 *0.551*	140°	TiAlN	IT9
SD1112A-1250-168-14R1 *SD_DRILL_12.5MM_12XD_A*	03295161	12,5 *0.492*	168,0 *6.614*	230,0 *9.055*	185,0 *7.283*	45,0 *1.772*	182,0 *7.165*	14,0 *0.551*	140°	TiAlN	IT9
SD1112A-1270-168-14R1 *SD_DRILL_1/2_12XD_A*	03295162	12,7 *0.500*	168,0 *6.614*	230,0 *9.055*	185,0 *7.283*	45,0 *1.772*	182,0 *7.165*	14,0 *0.551*	140°	TiAlN	IT9
SD1112A-1300-168-14R1 *SD_DRILL_13.0MM_12XD_A*	03295163	13,0 *0.512*	168,0 *6.614*	230,0 *9.055*	185,0 *7.283*	45,0 *1.772*	182,0 *7.165*	14,0 *0.551*	140°	TiAlN	IT9
SD1112A-1349-168-14R1 *SD_DRILL_17/32_12XD_A*	03323724	13,494 *0.531*	168,0 *6.614*	230,0 *9.055*	185,0 *7.283*	45,0 *1.772*	182,0 *7.165*	14,0 *0.551*	140°	TiAlN	IT9
SD1112A-1350-168-14R1 *SD_DRILL_13.5MM_12XD_A*	03295164	13,5 *0.531*	168,0 *6.614*	230,0 *9.055*	185,0 *7.283*	45,0 *1.772*	182,0 *7.165*	14,0 *0.551*	140°	TiAlN	IT9
SD1112A-1400-168-14R1 *SD_DRILL_14.0MM_12XD_A*	03295165	14,0 *0.551*	168,0 *6.614*	230,0 *9.055*	185,0 *7.283*	45,0 *1.772*	182,0 *7.165*	14,0 *0.551*	140°	TiAlN	IT9
SD1112A-1429-192-16R1 *SD_DRILL_9/16_12XD_A*	03295166	14,288 *0.563*	192,0 *7.559*	260,0 *10.236*	212,0 *8.346*	48,0 *1.890*	208,0 *8.189*	16,0 *0.630*	140°	TiAlN	IT9
SD1112A-1450-192-16R1 *SD_DRILL_14.5MM_12XD_A*	03295167	14,5 *0.571*	192,0 *7.559*	260,0 *10.236*	212,0 *8.346*	48,0 *1.890*	208,0 *8.189*	16,0 *0.630*	140°	TiAlN	IT9
SD1112A-1500-192-16R1 *SD_DRILL_15.0MM_12XD_A*	03295168	15,0 *0.591*	192,0 *7.559*	260,0 *10.236*	212,0 *8.346*	48,0 *1.890*	208,0 *8.189*	16,0 *0.630*	140°	TiAlN	IT9
SD1112A-1550-192-16R1 *SD_DRILL_15.5MM_12XD_A*	03295169	15,5 *0.610*	192,0 *7.559*	260,0 *10.236*	212,0 *8.346*	48,0 *1.890*	208,0 *8.189*	16,0 *0.630*	140°	TiAlN	IT9
SD1112A-1588-192-16R1 *SD_DRILL_5/8_12XD_A*	03295170	15,875 *0.625*	192,0 *7.559*	260,0 *10.236*	212,0 *8.346*	48,0 *1.890*	208,0 *8.189*	16,0 *0.630*	140°	TiAlN	IT9
SD1112A-1600-192-16R1 *SD_DRILL_16.0MM_12XD_A*	03295171	16,0 *0.630*	192,0 *7.559*	260,0 *10.236*	212,0 *8.346*	48,0 *1.890*	208,0 *8.189*	16,0 *0.630*	140°	TiAlN	IT9
SD1112A-1650-216-18R1 *SD_DRILL_16.5MM_12XD_A*	03295172	16,5 *0.650*	216,0 *8.504*	285,0 *11.220*	237,0 *9.331*	48,0 *1.890*	234,0 *9.213*	18,0 *0.709*	140°	TiAlN	IT9
SD1112A-1700-216-18R1 *SD_DRILL_17.0MM_12XD_A*	03295173	17,0 *0.669*	216,0 *8.504*	285,0 *11.220*	237,0 *9.331*	48,0 *1.890*	234,0 *9.213*	18,0 *0.709*	140°	TiAlN	IT9
SD1112A-1750-216-18R1 *SD_DRILL_17.5MM_12XD_A*	03295174	17,5 *0.689*	216,0 *8.504*	285,0 *11.220*	237,0 *9.331*	48,0 *1.890*	234,0 *9.213*	18,0 *0.709*	140°	TiAlN	IT9
SD1112A-1800-216-18R1 *SD_DRILL_18.0MM_12XD_A*	03295175	18,0 *0.709*	216,0 *8.504*	285,0 *11.220*	237,0 *9.331*	48,0 *1.890*	234,0 *9.213*	18,0 *0.709*	140°	TiAlN	IT9
SD1112A-1900-238-20R1 *SD_DRILL_19.0MM_12XD_A*	03295176	19,0 *0.748*	238,0 *9.370*	310,0 *12.205*	260,0 *10.236*	50,0 *1.969*	258,0 *10.157*	20,0 *0.787*	140°	TiAlN	IT9
SD1112A-2000-238-20R1 *SD_DRILL_20.0MM_12XD_A*	03295177	20,0 *0.787*	238,0 *9.370*	310,0 *12.205*	260,0 *10.236*	50,0 *1.969*	258,0 *10.157*	20,0 *0.787*	140°	TiAlN	IT9



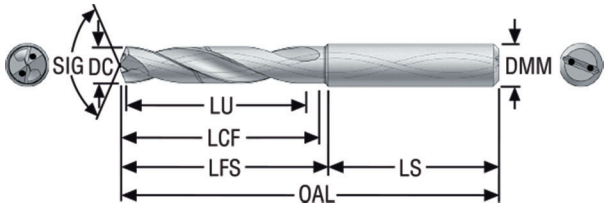
Feedmax -P – single diameter drills

Designed for high productivity and low cost per hole offering a unique combination of state-of-the-art carbide, coating and geometry technology.

- Self-centering geometry for high quality holes with no need for center-drilling operation.
- A special TiAlN coating gives Seco Feedmax drills high hot hardness that in combination with a strong cutting edge, ensures for long and predictable tool life

SD203A-P

Drilling depth ~ 3 x D – Metric/Inch





- Cylindrical shank DIN 6537A
- DC tolerance m7
- Internal coolant
- For cutting data see page(s) 145-146
- For intermediate diameters see the MyDesign software.

Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD203A-0200-007-04R1-P	03045918	2,0 *0.079*	7,0 *0.276*	41,0 *1.614*	14,0 *0.551*	27,0 *1.063*	11,0 *0.433*	4,0 *0.157*	140°	TiAlN	IT8-9
SD203A-0210-007-04R1-P	03045919	2,1 *0.083*	7,0 *0.276*	41,0 *1.614*	14,0 *0.551*	27,0 *1.063*	11,0 *0.433*	4,0 *0.157*	140°	TiAlN	IT8-9
SD203A-0220-007-04R1-P	03045920	2,2 *0.087*	7,0 *0.276*	41,0 *1.614*	14,0 *0.551*	27,0 *1.063*	11,0 *0.433*	4,0 *0.157*	140°	TiAlN	IT8-9
SD203A-0230-008-04R1-P	03045921	2,3 *0.091*	8,0 *0.315*	44,0 *1.732*	17,0 *0.669*	27,0 *1.063*	12,5 *0.492*	4,0 *0.157*	140°	TiAlN	IT8-9
SD203A-0235-008-04R1-P	03138154	2,35 *0.093*	8,0 *0.315*	44,0 *1.732*	17,0 *0.669*	27,0 *1.063*	12,5 *0.492*	4,0 *0.157*	140°	TiAlN	IT8-9
SD203A-0238-008-04R1-P	03120476	2,381 *0.094*	8,0 *0.315*	44,0 *1.732*	17,0 *0.669*	27,0 *1.063*	12,5 *0.492*	4,0 *0.157*	140°	TiAlN	IT8-9
SD203A-0240-008-04R1-P	03045922	2,4 *0.094*	8,0 *0.315*	44,0 *1.732*	17,0 *0.669*	27,0 *1.063*	12,5 *0.492*	4,0 *0.157*	140°	TiAlN	IT8-9
SD203A-0250-008-04R1-P	03045923	2,5 *0.098*	8,0 *0.315*	44,0 *1.732*	17,0 *0.669*	27,0 *1.063*	12,5 *0.492*	4,0 *0.157*	140°	TiAlN	IT8-9
SD203A-0260-008-04R1-P	03045924	2,6 *0.102*	8,0 *0.315*	44,0 *1.732*	17,0 *0.669*	27,0 *1.063*	12,5 *0.492*	4,0 *0.157*	140°	TiAlN	IT8-9
SD203A-0270-009-04R1-P	03045925	2,7 *0.106*	9,0 *0.354*	44,0 *1.732*	17,0 *0.669*	27,0 *1.063*	14,5 *0.571*	4,0 *0.157*	140°	TiAlN	IT8-9
SD203A-0278-009-04R1-P	03120495	2,778 *0.109*	9,0 *0.354*	44,0 *1.732*	17,0 *0.669*	27,0 *1.063*	14,5 *0.571*	4,0 *0.157*	140°	TiAlN	IT8-9
SD203A-0280-009-04R1-P	03045926	2,8 *0.110*	9,0 *0.354*	44,0 *1.732*	17,0 *0.669*	27,0 *1.063*	14,5 *0.571*	4,0 *0.157*	140°	TiAlN	IT8-9
SD203A-0290-009-04R1-P	03045927	2,9 *0.114*	9,0 *0.354*	44,0 *1.732*	17,0 *0.669*	27,0 *1.063*	14,5 *0.571*	4,0 *0.157*	140°	TiAlN	IT8-9
SD203A-0300-014-06R1-P	03045928	3,0 *0.118*	14,0 *0.551*	62,0 *2.441*	26,0 *1.024*	36,0 *1.417*	20,0 *0.787*	6,0 *0.236*	140°	TiAlN	IT8-9
SD203A-0310-014-06R1-P	03045929	3,1 *0.122*	14,0 *0.551*	62,0 *2.441*	26,0 *1.024*	36,0 *1.417*	20,0 *0.787*	6,0 *0.236*	140°	TiAlN	IT8-9
SD203A-0318-014-06R1-P	03046061	3,175 *0.125*	14,0 *0.551*	62,0 *2.441*	26,0 *1.024*	36,0 *1.417*	20,0 *0.787*	6,0 *0.236*	140°	TiAlN	IT8-9
SD203A-0320-014-06R1-P	03045930	3,2 *0.126*	14,0 *0.551*	62,0 *2.441*	26,0 *1.024*	36,0 *1.417*	20,0 *0.787*	6,0 *0.236*	140°	TiAlN	IT8-9
SD203A-0325-014-06R1-P	03045931	3,25 *0.128*	14,0 *0.551*	62,0 *2.441*	26,0 *1.024*	36,0 *1.417*	20,0 *0.787*	6,0 *0.236*	140°	TiAlN	IT8-9
SD203A-0330-014-06R1-P	03045932	3,3 *0.130*	14,0 *0.551*	62,0 *2.441*	26,0 *1.024*	36,0 *1.417*	20,0 *0.787*	6,0 *0.236*	140°	TiAlN	IT8-9
SD203A-0340-014-06R1-P	03045933	3,4 *0.134*	14,0 *0.551*	62,0 *2.441*	26,0 *1.024*	36,0 *1.417*	20,0 *0.787*	6,0 *0.236*	140°	TiAlN	IT8-9
SD203A-0350-014-06R1-P	03045934	3,5 *0.138*	14,0 *0.551*	62,0 *2.441*	26,0 *1.024*	36,0 *1.417*	20,0 *0.787*	6,0 *0.236*	140°	TiAlN	IT8-9
SD203A-0357-014-06R1-P	03046062	3,572 *0.141*	14,0 *0.551*	62,0 *2.441*	26,0 *1.024*	36,0 *1.417*	20,0 *0.787*	6,0 *0.236*	140°	TiAlN	IT8-9

Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD203A-0360-014-06R1-P	03045935	3,6 *0.142*	14,0 *0.551*	62,0 *2.441*	26,0 *1.024*	36,0 *1.417*	20,0 *0.787*	6,0 *0.236*	140°	TiAlN	IT8-9
SD203A-0365-014-06R1-P	03045936	3,65 *0.144*	14,0 *0.551*	62,0 *2.441*	26,0 *1.024*	36,0 *1.417*	20,0 *0.787*	6,0 *0.236*	140°	TiAlN	IT8-9
SD203A-0370-014-06R1-P	03045937	3,7 *0.146*	14,0 *0.551*	62,0 *2.441*	26,0 *1.024*	36,0 *1.417*	20,0 *0.787*	6,0 *0.236*	140°	TiAlN	IT8-9
SD203A-0380-017-06R1-P	03045938	3,8 *0.150*	17,0 *0.669*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	24,0 *0.945*	6,0 *0.236*	140°	TiAlN	IT8-9
SD203A-0390-017-06R1-P	03045939	3,9 *0.154*	17,0 *0.669*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	24,0 *0.945*	6,0 *0.236*	140°	TiAlN	IT8-9
SD203A-0397-017-06R1-P	03046063	3,97 *0.156*	17,0 *0.669*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	24,0 *0.945*	6,0 *0.236*	140°	TiAlN	IT8-9
SD203A-0400-017-06R1-P	03045940	4,0 *0.157*	17,0 *0.669*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	24,0 *0.945*	6,0 *0.236*	140°	TiAlN	IT8-9
SD203A-0410-017-06R1-P	03045941	4,1 *0.161*	17,0 *0.669*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	24,0 *0.945*	6,0 *0.236*	140°	TiAlN	IT8-9
SD203A-0420-017-06R1-P	03045942	4,2 *0.165*	17,0 *0.669*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	24,0 *0.945*	6,0 *0.236*	140°	TiAlN	IT8-9
SD203A-0430-017-06R1-P	03045943	4,3 *0.169*	17,0 *0.669*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	24,0 *0.945*	6,0 *0.236*	140°	TiAlN	IT8-9
SD203A-0437-017-06R1-P	03046064	4,366 *0.172*	17,0 *0.669*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	24,0 *0.945*	6,0 *0.236*	140°	TiAlN	IT8-9
SD203A-0450-017-06R1-P	03045944	4,5 *0.177*	17,0 *0.669*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	24,0 *0.945*	6,0 *0.236*	140°	TiAlN	IT8-9
SD203A-0460-017-06R1-P	03045945	4,6 *0.181*	17,0 *0.669*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	24,0 *0.945*	6,0 *0.236*	140°	TiAlN	IT8-9
SD203A-0465-017-06R1-P	03045946	4,65 *0.183*	17,0 *0.669*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	24,0 *0.945*	6,0 *0.236*	140°	TiAlN	IT8-9
SD203A-0470-017-06R1-P	03045947	4,7 *0.185*	17,0 *0.669*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	24,0 *0.945*	6,0 *0.236*	140°	TiAlN	IT8-9
SD203A-0476-020-06R1-P	03046065	4,763 *0.188*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT8-9
SD203A-0480-020-06R1-P	03045948	4,8 *0.189*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT8-9
SD203A-0490-020-06R1-P	03045949	4,9 *0.193*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT8-9
SD203A-0500-020-06R1-P	03045950	5,0 *0.197*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT8-9
SD203A-0510-020-06R1-P	03045951	5,1 *0.201*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT8-9
SD203A-0516-020-06R1-P	03046066	5,159 *0.203*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT8-9
SD203A-0520-020-06R1-P	03045952	5,2 *0.205*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT8-9
SD203A-0530-020-06R1-P	03045953	5,3 *0.209*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT8-9
SD203A-0540-020-06R1-P	03045954	5,4 *0.213*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT8-9
SD203A-0550-020-06R1-P	03045955	5,5 *0.217*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT8-9
SD203A-0555-020-06R1-P	03045956	5,55 *0.219*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT8-9
SD203A-0556-020-06R1-P	03046067	5,556 *0.219*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT8-9
SD203A-0560-020-06R1-P	03045957	5,6 *0.220*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT8-9
SD203A-0570-020-06R1-P	03045958	5,7 *0.224*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT8-9
SD203A-0580-020-06R1-P	03045959	5,8 *0.228*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT8-9
SD203A-0590-020-06R1-P	03045960	5,9 *0.232*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT8-9

Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD203A-0595-020-06R1-P	03046068	5,953 *0.234*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT8-9
SD203A-0600-020-06R1-P	03045961	6,0 *0.236*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN	IT8-9
SD203A-0610-024-08R1-P	03045962	6,1 *0.240*	24,0 *0.945*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	34,0 *1.339*	8,0 *0.315*	140°	TiAlN	IT8-9
SD203A-0620-024-08R1-P	03045963	6,2 *0.244*	24,0 *0.945*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	34,0 *1.339*	8,0 *0.315*	140°	TiAlN	IT8-9
SD203A-0630-024-08R1-P	03045964	6,3 *0.248*	24,0 *0.945*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	34,0 *1.339*	8,0 *0.315*	140°	TiAlN	IT8-9
SD203A-0635-024-08R1-P	03046069	6,35 *0.250*	24,0 *0.945*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	34,0 *1.339*	8,0 *0.315*	140°	TiAlN	IT8-9
SD203A-0640-024-08R1-P	03045965	6,4 *0.252*	24,0 *0.945*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	34,0 *1.339*	8,0 *0.315*	140°	TiAlN	IT8-9
SD203A-0650-024-08R1-P	03045966	6,5 *0.256*	24,0 *0.945*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	34,0 *1.339*	8,0 *0.315*	140°	TiAlN	IT8-9
SD203A-0660-024-08R1-P	03045967	6,6 *0.260*	24,0 *0.945*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	34,0 *1.339*	8,0 *0.315*	140°	TiAlN	IT8-9
SD203A-0670-024-08R1-P	03045968	6,7 *0.264*	24,0 *0.945*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	34,0 *1.339*	8,0 *0.315*	140°	TiAlN	IT8-9
SD203A-0675-024-08R1-P	03046070	6,747 *0.266*	24,0 *0.945*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	34,0 *1.339*	8,0 *0.315*	140°	TiAlN	IT8-9
SD203A-0680-024-08R1-P	03045969	6,8 *0.268*	24,0 *0.945*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	34,0 *1.339*	8,0 *0.315*	140°	TiAlN	IT8-9
SD203A-0690-024-08R1-P	03045970	6,9 *0.272*	24,0 *0.945*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	34,0 *1.339*	8,0 *0.315*	140°	TiAlN	IT8-9
SD203A-0700-024-08R1-P	03045971	7,0 *0.276*	24,0 *0.945*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	34,0 *1.339*	8,0 *0.315*	140°	TiAlN	IT8-9
SD203A-0710-029-08R1-P	03045972	7,1 *0.280*	29,0 *1.142*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	41,0 *1.614*	8,0 *0.315*	140°	TiAlN	IT8-9
SD203A-0714-029-08R1-P	03046071	7,144 *0.281*	29,0 *1.142*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	41,0 *1.614*	8,0 *0.315*	140°	TiAlN	IT8-9
SD203A-0720-029-08R1-P	03045973	7,2 *0.283*	29,0 *1.142*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	41,0 *1.614*	8,0 *0.315*	140°	TiAlN	IT8-9
SD203A-0730-029-08R1-P	03045974	7,3 *0.287*	29,0 *1.142*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	41,0 *1.614*	8,0 *0.315*	140°	TiAlN	IT8-9
SD203A-0740-029-08R1-P	03045975	7,4 *0.291*	29,0 *1.142*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	41,0 *1.614*	8,0 *0.315*	140°	TiAlN	IT8-9
SD203A-0750-029-08R1-P	03045976	7,5 *0.295*	29,0 *1.142*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	41,0 *1.614*	8,0 *0.315*	140°	TiAlN	IT8-9
SD203A-0754-029-08R1-P	03046072	7,541 *0.297*	29,0 *1.142*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	41,0 *1.614*	8,0 *0.315*	140°	TiAlN	IT8-9
SD203A-0755-029-08R1-P	03045977	7,55 *0.297*	29,0 *1.142*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	41,0 *1.614*	8,0 *0.315*	140°	TiAlN	IT8-9
SD203A-0760-029-08R1-P	03045978	7,6 *0.299*	29,0 *1.142*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	41,0 *1.614*	8,0 *0.315*	140°	TiAlN	IT8-9
SD203A-0770-029-08R1-P	03045979	7,7 *0.303*	29,0 *1.142*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	41,0 *1.614*	8,0 *0.315*	140°	TiAlN	IT8-9
SD203A-0780-029-08R1-P	03045980	7,8 *0.307*	29,0 *1.142*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	41,0 *1.614*	8,0 *0.315*	140°	TiAlN	IT8-9
SD203A-0790-029-08R1-P	03045981	7,9 *0.311*	29,0 *1.142*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	41,0 *1.614*	8,0 *0.315*	140°	TiAlN	IT8-9
SD203A-0794-029-08R1-P	03046073	7,938 *0.313*	29,0 *1.142*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	41,0 *1.614*	8,0 *0.315*	140°	TiAlN	IT8-9
SD203A-0800-029-08R1-P	03045982	8,0 *0.315*	29,0 *1.142*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	41,0 *1.614*	8,0 *0.315*	140°	TiAlN	IT8-9
SD203A-0810-035-10R1-P	03045983	8,1 *0.319*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT8-9
SD203A-0820-035-10R1-P	03045984	8,2 *0.323*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT8-9
SD203A-0830-035-10R1-P	03045985	8,3 *0.327*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT8-9

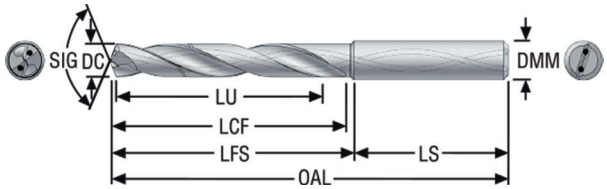
Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD203A-0833-035-10R1-P	03046074	8,334 *0.328*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT8-9
SD203A-0840-035-10R1-P	03045986	8,4 *0.331*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT8-9
SD203A-0850-035-10R1-P	03045987	8,5 *0.335*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT8-9
SD203A-0860-035-10R1-P	03045988	8,6 *0.339*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT8-9
SD203A-0870-035-10R1-P	03045989	8,7 *0.343*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT8-9
SD203A-0873-035-10R1-P	03046075	8,731 *0.344*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT8-9
SD203A-0880-035-10R1-P	03045990	8,8 *0.346*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT8-9
SD203A-0890-035-10R1-P	03045991	8,9 *0.350*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT8-9
SD203A-0900-035-10R1-P	03045992	9,0 *0.354*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT8-9
SD203A-0910-035-10R1-P	03045993	9,1 *0.358*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT8-9
SD203A-0913-035-10R1-P	03046076	9,128 *0.359*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT8-9
SD203A-0920-035-10R1-P	03045994	9,2 *0.362*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT8-9
SD203A-0930-035-10R1-P	03045995	9,3 *0.366*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT8-9
SD203A-0940-035-10R1-P	03045996	9,4 *0.370*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT8-9
SD203A-0950-035-10R1-P	03045997	9,5 *0.374*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT8-9
SD203A-0953-035-10R1-P	03046077	9,525 *0.375*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT8-9
SD203A-0955-035-10R1-P	03045998	9,55 *0.376*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT8-9
SD203A-0960-035-10R1-P	03045999	9,6 *0.378*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT8-9
SD203A-0970-035-10R1-P	03046000	9,7 *0.382*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT8-9
SD203A-0980-035-10R1-P	03046001	9,8 *0.386*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT8-9
SD203A-0990-035-10R1-P	03046002	9,9 *0.390*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT8-9
SD203A-0992-035-10R1-P	03046078	9,922 *0.391*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT8-9
SD203A-1000-035-10R1-P	03046003	10,0 *0.394*	35,0 *1.378*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN	IT8-9
SD203A-1020-040-12R1-P	03046004	10,2 *0.402*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT8-9
SD203A-1032-040-12R1-P	03046079	10,319 *0.406*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT8-9
SD203A-1040-040-12R1-P	03046005	10,4 *0.409*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT8-9
SD203A-1050-040-12R1-P	03046006	10,5 *0.413*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT8-9
SD203A-1060-040-12R1-P	03046007	10,6 *0.417*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT8-9
SD203A-1072-040-12R1-P	03046080	10,716 *0.422*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT8-9
SD203A-1080-040-12R1-P	03046008	10,8 *0.425*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT8-9
SD203A-1090-040-12R1-P	03046009	10,9 *0.429*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT8-9

Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD203A-1100-040-12R1-P	03046010	11,0 *0.433*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT8-9
SD203A-1110-040-12R1-P	03046011	11,1 *0.437*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT8-9
SD203A-1111-040-12R1-P	03046081	11,113 *0.438*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT8-9
SD203A-1120-040-12R1-P	03046012	11,2 *0.441*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT8-9
SD203A-1130-040-12R1-P	03046013	11,3 *0.445*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT8-9
SD203A-1140-040-12R1-P	03046014	11,4 *0.449*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT8-9
SD203A-1150-040-12R1-P	03046015	11,5 *0.453*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT8-9
SD203A-1151-040-12R1-P	03046082	11,509 *0.453*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT8-9
SD203A-1155-040-12R1-P	03046016	11,55 *0.455*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT8-9
SD203A-1160-040-12R1-P	03046017	11,6 *0.457*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT8-9
SD203A-1170-040-12R1-P	03046018	11,7 *0.461*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT8-9
SD203A-1180-040-12R1-P	03046019	11,8 *0.465*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT8-9
SD203A-1190-040-12R1-P	03046020	11,9 *0.469*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT8-9
SD203A-1191-040-12R1-P	03046083	11,906 *0.469*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT8-9
SD203A-1200-040-12R1-P	03046021	12,0 *0.472*	40,0 *1.575*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN	IT8-9
SD203A-1210-043-14R1-P	03046022	12,1 *0.476*	43,0 *1.693*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN	IT8-9
SD203A-1220-043-14R1-P	03046023	12,2 *0.480*	43,0 *1.693*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN	IT8-9
SD203A-1230-043-14R1-P	03046084	12,303 *0.484*	43,0 *1.693*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN	IT8-9
SD203A-1240-043-14R1-P	03046024	12,4 *0.488*	43,0 *1.693*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN	IT8-9
SD203A-1250-043-14R1-P	03046025	12,5 *0.492*	43,0 *1.693*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN	IT8-9
SD203A-1260-043-14R1-P	03046026	12,6 *0.496*	43,0 *1.693*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN	IT8-9
SD203A-1270-043-14R1-P	03046085	12,7 *0.500*	43,0 *1.693*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN	IT8-9
SD203A-1275-043-14R1-P	03046027	12,75 *0.502*	43,0 *1.693*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN	IT8-9
SD203A-1280-043-14R1-P	03046028	12,8 *0.504*	43,0 *1.693*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN	IT8-9
SD203A-1290-043-14R1-P	03046029	12,9 *0.508*	43,0 *1.693*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN	IT8-9
SD203A-1300-043-14R1-P	03046030	13,0 *0.512*	43,0 *1.693*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN	IT8-9
SD203A-1310-043-14R1-P	03046031	13,1 *0.516*	43,0 *1.693*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN	IT8-9
SD203A-1320-043-14R1-P	03046032	13,2 *0.520*	43,0 *1.693*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN	IT8-9
SD203A-1330-043-14R1-P	03046033	13,3 *0.524*	43,0 *1.693*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN	IT8-9
SD203A-1340-043-14R1-P	03046034	13,4 *0.528*	43,0 *1.693*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN	IT8-9
SD203A-1349-043-14R1-P	03046086	13,494 *0.531*	43,0 *1.693*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN	IT8-9

Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD203A-1350-043-14R1-P	03046035	13,5 *0.531*	43,0 *1.693*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN	IT8-9
SD203A-1360-043-14R1-P	03046036	13,6 *0.535*	43,0 *1.693*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN	IT8-9
SD203A-1370-043-14R1-P	03046037	13,7 *0.539*	43,0 *1.693*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN	IT8-9
SD203A-1380-043-14R1-P	03046038	13,8 *0.543*	43,0 *1.693*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN	IT8-9
SD203A-1390-043-14R1-P	03046039	13,9 *0.547*	43,0 *1.693*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN	IT8-9
SD203A-1400-043-14R1-P	03046040	14,0 *0.551*	43,0 *1.693*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN	IT8-9
SD203A-1420-045-16R1-P	03046041	14,2 *0.559*	45,0 *1.772*	115,0 *4.528*	67,0 *2.638*	48,0 *1.890*	65,0 *2.559*	16,0 *0.630*	140°	TiAlN	IT8-9
SD203A-1425-045-16R1-P	03138155	14,25 *0.561*	45,0 *1.772*	115,0 *4.528*	67,0 *2.638*	48,0 *1.890*	65,0 *2.559*	16,0 *0.630*	140°	TiAlN	IT8-9
SD203A-1429-045-16R1-P	03046087	14,288 *0.563*	45,0 *1.772*	115,0 *4.528*	67,0 *2.638*	48,0 *1.890*	65,0 *2.559*	16,0 *0.630*	140°	TiAlN	IT8-9
SD203A-1450-045-16R1-P	03046042	14,5 *0.571*	45,0 *1.772*	115,0 *4.528*	67,0 *2.638*	48,0 *1.890*	65,0 *2.559*	16,0 *0.630*	140°	TiAlN	IT8-9
SD203A-1470-045-16R1-P	03046043	14,7 *0.579*	45,0 *1.772*	115,0 *4.528*	67,0 *2.638*	48,0 *1.890*	65,0 *2.559*	16,0 *0.630*	140°	TiAlN	IT8-9
SD203A-1475-045-16R1-P	03046044	14,75 *0.581*	45,0 *1.772*	115,0 *4.528*	67,0 *2.638*	48,0 *1.890*	65,0 *2.559*	16,0 *0.630*	140°	TiAlN	IT8-9
SD203A-1480-045-16R1-P	03046045	14,8 *0.583*	45,0 *1.772*	115,0 *4.528*	67,0 *2.638*	48,0 *1.890*	65,0 *2.559*	16,0 *0.630*	140°	TiAlN	IT8-9
SD203A-1500-045-16R1-P	03046046	15,0 *0.591*	45,0 *1.772*	115,0 *4.528*	67,0 *2.638*	48,0 *1.890*	65,0 *2.559*	16,0 *0.630*	140°	TiAlN	IT8-9
SD203A-1510-045-16R1-P	03046047	15,1 *0.594*	45,0 *1.772*	115,0 *4.528*	67,0 *2.638*	48,0 *1.890*	65,0 *2.559*	16,0 *0.630*	140°	TiAlN	IT8-9
SD203A-1530-045-16R1-P	03046048	15,3 *0.602*	45,0 *1.772*	115,0 *4.528*	67,0 *2.638*	48,0 *1.890*	65,0 *2.559*	16,0 *0.630*	140°	TiAlN	IT8-9
SD203A-1550-045-16R1-P	03046049	15,5 *0.610*	45,0 *1.772*	115,0 *4.528*	67,0 *2.638*	48,0 *1.890*	65,0 *2.559*	16,0 *0.630*	140°	TiAlN	IT8-9
SD203A-1570-045-16R1-P	03046050	15,7 *0.618*	45,0 *1.772*	115,0 *4.528*	67,0 *2.638*	48,0 *1.890*	65,0 *2.559*	16,0 *0.630*	140°	TiAlN	IT8-9
SD203A-1580-045-16R1-P	03046051	15,8 *0.622*	45,0 *1.772*	115,0 *4.528*	67,0 *2.638*	48,0 *1.890*	65,0 *2.559*	16,0 *0.630*	140°	TiAlN	IT8-9
SD203A-1588-045-16R1-P	03046088	15,875 *0.625*	45,0 *1.772*	115,0 *4.528*	67,0 *2.638*	48,0 *1.890*	65,0 *2.559*	16,0 *0.630*	140°	TiAlN	IT8-9
SD203A-1600-045-16R1-P	03046052	16,0 *0.630*	45,0 *1.772*	115,0 *4.528*	67,0 *2.638*	48,0 *1.890*	65,0 *2.559*	16,0 *0.630*	140°	TiAlN	IT8-9
SD203A-1650-051-18R1-P	03046053	16,5 *0.650*	51,0 *2.008*	123,0 *4.843*	75,0 *2.953*	48,0 *1.890*	73,0 *2.874*	18,0 *0.709*	140°	TiAlN	IT8-9
SD203A-1700-051-18R1-P	03046054	17,0 *0.669*	51,0 *2.008*	123,0 *4.843*	75,0 *2.953*	48,0 *1.890*	73,0 *2.874*	18,0 *0.709*	140°	TiAlN	IT8-9
SD203A-1750-051-18R1-P	03046055	17,5 *0.689*	51,0 *2.008*	123,0 *4.843*	75,0 *2.953*	48,0 *1.890*	73,0 *2.874*	18,0 *0.709*	140°	TiAlN	IT8-9
SD203A-1800-051-18R1-P	03046056	18,0 *0.709*	51,0 *2.008*	123,0 *4.843*	75,0 *2.953*	48,0 *1.890*	73,0 *2.874*	18,0 *0.709*	140°	TiAlN	IT8-9
SD203A-1850-055-20R1-P	03046057	18,5 *0.728*	55,0 *2.165*	131,0 *5.157*	81,0 *3.189*	50,0 *1.969*	79,0 *3.110*	20,0 *0.787*	140°	TiAlN	IT8-9
SD203A-1900-055-20R1-P	03046058	19,0 *0.748*	55,0 *2.165*	131,0 *5.157*	81,0 *3.189*	50,0 *1.969*	79,0 *3.110*	20,0 *0.787*	140°	TiAlN	IT8-9
SD203A-1905-055-20R1-P	03046089	19,05 *0.750*	55,0 *2.165*	131,0 *5.157*	81,0 *3.189*	50,0 *1.969*	79,0 *3.110*	20,0 *0.787*	140°	TiAlN	IT8-9
SD203A-1950-055-20R1-P	03046059	19,5 *0.768*	55,0 *2.165*	131,0 *5.157*	81,0 *3.189*	50,0 *1.969*	79,0 *3.110*	20,0 *0.787*	140°	TiAlN	IT8-9
SD203A-1980-055-20R1-P	03138156	19,8 *0.780*	55,0 *2.165*	131,0 *5.157*	81,0 *3.189*	50,0 *1.969*	79,0 *3.110*	20,0 *0.787*	140°	TiAlN	IT8-9
SD203A-2000-055-20R1-P	03046060	20,0 *0.787*	55,0 *2.165*	131,0 *5.157*	81,0 *3.189*	50,0 *1.969*	79,0 *3.110*	20,0 *0.787*	140°	TiAlN	IT8-9

SD205A-P

Drilling depth ~ 5 x D – Metric/Inch





- Cylindrical shank DIN 6537A
- DC tolerance m7
- Internal coolant
- For cutting data see page(s) 147-148
- For intermediate diameters see the MyDesign software.

Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD205A-0200-012-04R1-P	03046131	2,0 *0.079*	12,0 *0.472*	46,0 *1.811*	19,0 mm *0.748*	27,0 *1.063*	15,0 *0.591*	4,0 *0.157*	140°	TiAlN	IT8-9
SD205A-0210-012-04R1-P	03046132	2,1 *0.083*	12,0 *0.472*	46,0 *1.811*	19,0 mm *0.748*	27,0 *1.063*	15,0 *0.591*	4,0 *0.157*	140°	TiAlN	IT8-9
SD205A-0220-012-04R1-P	03046133	2,2 *0.087*	12,0 *0.472*	46,0 *1.811*	19,0 mm *0.748*	27,0 *1.063*	15,0 *0.591*	4,0 *0.157*	140°	TiAlN	IT8-9
SD205A-0230-012-04R1-P	03046134	2,3 *0.091*	12,0 *0.472*	46,0 *1.811*	19,0 mm *0.748*	27,0 *1.063*	15,0 *0.591*	4,0 *0.157*	140°	TiAlN	IT8-9
SD205A-0238-013-04R1-P	03120477	2,381 *0.094*	13,0 *0.512*	50,0 *1.969*	23,0 mm *0.906*	27,0 *1.063*	17,5 *0.689*	4,0 *0.157*	140°	TiAlN	IT8-9
SD205A-0240-013-04R1-P	03046135	2,4 *0.094*	13,0 *0.512*	50,0 *1.969*	23,0 mm *0.906*	27,0 *1.063*	17,5 *0.689*	4,0 *0.157*	140°	TiAlN	IT8-9
SD205A-0250-013-04R1-P	03046136	2,5 *0.098*	13,0 *0.512*	50,0 *1.969*	23,0 mm *0.906*	27,0 *1.063*	17,5 *0.689*	4,0 *0.157*	140°	TiAlN	IT8-9
SD205A-0260-013-04R1-P	03046137	2,6 *0.102*	13,0 *0.512*	50,0 *1.969*	23,0 mm *0.906*	27,0 *1.063*	17,5 *0.689*	4,0 *0.157*	140°	TiAlN	IT8-9
SD205A-0270-015-04R1-P	03046138	2,7 *0.106*	15,0 *0.591*	50,0 *1.969*	23,0 mm *0.906*	27,0 *1.063*	20,5 *0.807*	4,0 *0.157*	140°	TiAlN	IT8-9
SD205A-0278-015-04R1-P	03120496	2,778 *0.109*	15,0 *0.591*	50,0 *1.969*	23,0 mm *0.906*	27,0 *1.063*	20,5 *0.807*	4,0 *0.157*	140°	TiAlN	IT8-9
SD205A-0280-015-04R1-P	03046139	2,8 *0.110*	15,0 *0.591*	50,0 *1.969*	23,0 mm *0.906*	27,0 *1.063*	20,5 *0.807*	4,0 *0.157*	140°	TiAlN	IT8-9
SD205A-0290-015-04R1-P	03046141	2,9 *0.114*	15,0 *0.591*	50,0 *1.969*	23,0 mm *0.906*	27,0 *1.063*	20,5 *0.807*	4,0 *0.157*	140°	TiAlN	IT8-9
SD205A-0300-023-06R1-P	03046142	3,0 *0.118*	23,0 *0.906*	66,0 *2.598*	30,0 mm *1.181*	36,0 *1.417*	26,0 *1.024*	6,0 *0.236*	140°	TiAlN	IT8-9
SD205A-0310-023-06R1-P	03046143	3,1 *0.122*	23,0 *0.906*	66,0 *2.598*	30,0 mm *1.181*	36,0 *1.417*	26,0 *1.024*	6,0 *0.236*	140°	TiAlN	IT8-9
SD205A-0318-023-06R1-P	03046327	3,175 *0.125*	23,0 *0.906*	66,0 *2.598*	30,0 mm *1.181*	36,0 *1.417*	26,0 *1.024*	6,0 *0.236*	140°	TiAlN	IT8-9
SD205A-0320-023-06R1-P	03046144	3,2 *0.126*	23,0 *0.906*	66,0 *2.598*	30,0 mm *1.181*	36,0 *1.417*	26,0 *1.024*	6,0 *0.236*	140°	TiAlN	IT8-9
SD205A-0325-023-06R1-P	03046145	3,25 *0.128*	23,0 *0.906*	66,0 *2.598*	30,0 mm *1.181*	36,0 *1.417*	26,0 *1.024*	6,0 *0.236*	140°	TiAlN	IT8-9
SD205A-0330-023-06R1-P	03046146	3,3 *0.130*	23,0 *0.906*	66,0 *2.598*	30,0 mm *1.181*	36,0 *1.417*	26,0 *1.024*	6,0 *0.236*	140°	TiAlN	IT8-9
SD205A-0340-023-06R1-P	03046147	3,4 *0.134*	23,0 *0.906*	66,0 *2.598*	30,0 mm *1.181*	36,0 *1.417*	26,0 *1.024*	6,0 *0.236*	140°	TiAlN	IT8-9
SD205A-0350-023-06R1-P	03046148	3,5 *0.138*	23,0 *0.906*	66,0 *2.598*	30,0 mm *1.181*	36,0 *1.417*	26,0 *1.024*	6,0 *0.236*	140°	TiAlN	IT8-9
SD205A-0357-023-06R1-P	03046328	3,572 *0.141*	23,0 *0.906*	66,0 *2.598*	30,0 mm *1.181*	36,0 *1.417*	26,0 *1.024*	6,0 *0.236*	140°	TiAlN	IT8-9
SD205A-0360-023-06R1-P	03046149	3,6 *0.142*	23,0 *0.906*	66,0 *2.598*	30,0 mm *1.181*	36,0 *1.417*	26,0 *1.024*	6,0 *0.236*	140°	TiAlN	IT8-9

Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD205A-0365-023-06R1-P	03046150	3,65 *0.144*	23,0 *0.906*	66,0 *2.598*	30,0 mm *1.181*	36,0 *1.417*	26,0 *1.024*	6,0 *0.236*	140°	TiAlN	IT8-9
SD205A-0370-023-06R1-P	03046151	3,7 *0.146*	23,0 *0.906*	66,0 *2.598*	30,0 mm *1.181*	36,0 *1.417*	26,0 *1.024*	6,0 *0.236*	140°	TiAlN	IT8-9
SD205A-0380-029-06R1-P	03046152	3,8 *0.150*	29,0 *1.142*	74,0 *2.913*	38,0 mm *1.496*	36,0 *1.417*	34,0 *1.339*	6,0 *0.236*	140°	TiAlN	IT8-9
SD205A-0390-029-06R1-P	03046153	3,9 *0.154*	29,0 *1.142*	74,0 *2.913*	38,0 mm *1.496*	36,0 *1.417*	34,0 *1.339*	6,0 *0.236*	140°	TiAlN	IT8-9
SD205A-0397-029-06R1-P	03046329	3,97 *0.156*	29,0 *1.142*	74,0 *2.913*	38,0 mm *1.496*	36,0 *1.417*	34,0 *1.339*	6,0 *0.236*	140°	TiAlN	IT8-9
SD205A-0400-029-06R1-P	03046154	4,0 *0.157*	29,0 *1.142*	74,0 *2.913*	38,0 mm *1.496*	36,0 *1.417*	34,0 *1.339*	6,0 *0.236*	140°	TiAlN	IT8-9
SD205A-0410-029-06R1-P	03046155	4,1 *0.161*	29,0 *1.142*	74,0 *2.913*	38,0 mm *1.496*	36,0 *1.417*	34,0 *1.339*	6,0 *0.236*	140°	TiAlN	IT8-9
SD205A-0420-029-06R1-P	03046157	4,2 *0.165*	29,0 *1.142*	74,0 *2.913*	38,0 mm *1.496*	36,0 *1.417*	34,0 *1.339*	6,0 *0.236*	140°	TiAlN	IT8-9
SD205A-0430-029-06R1-P	03046158	4,3 *0.169*	29,0 *1.142*	74,0 *2.913*	38,0 mm *1.496*	36,0 *1.417*	34,0 *1.339*	6,0 *0.236*	140°	TiAlN	IT8-9
SD205A-0437-029-06R1-P	03046330	4,366 *0.172*	29,0 *1.142*	74,0 *2.913*	38,0 mm *1.496*	36,0 *1.417*	34,0 *1.339*	6,0 *0.236*	140°	TiAlN	IT8-9
SD205A-0440-029-06R1-P	03046159	4,4 *0.173*	29,0 *1.142*	74,0 *2.913*	38,0 mm *1.496*	36,0 *1.417*	34,0 *1.339*	6,0 *0.236*	140°	TiAlN	IT8-9
SD205A-0450-029-06R1-P	03046160	4,5 *0.177*	29,0 *1.142*	74,0 *2.913*	38,0 mm *1.496*	36,0 *1.417*	34,0 *1.339*	6,0 *0.236*	140°	TiAlN	IT8-9
SD205A-0460-029-06R1-P	03046161	4,6 *0.181*	29,0 *1.142*	74,0 *2.913*	38,0 mm *1.496*	36,0 *1.417*	34,0 *1.339*	6,0 *0.236*	140°	TiAlN	IT8-9
SD205A-0465-029-06R1-P	03046162	4,65 *0.183*	29,0 *1.142*	74,0 *2.913*	38,0 mm *1.496*	36,0 *1.417*	34,0 *1.339*	6,0 *0.236*	140°	TiAlN	IT8-9
SD205A-0470-029-06R1-P	03046163	4,7 *0.185*	29,0 *1.142*	74,0 *2.913*	38,0 mm *1.496*	36,0 *1.417*	34,0 *1.339*	6,0 *0.236*	140°	TiAlN	IT8-9
SD205A-0476-035-06R1-P	03046331	4,763 *0.188*	35,0 *1.378*	82,0 *3.228*	46,0 mm *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°	TiAlN	IT8-9
SD205A-0480-035-06R1-P	03046164	4,8 *0.189*	35,0 *1.378*	82,0 *3.228*	46,0 mm *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°	TiAlN	IT8-9
SD205A-0490-035-06R1-P	03046165	4,9 *0.193*	35,0 *1.378*	82,0 *3.228*	46,0 mm *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°	TiAlN	IT8-9
SD205A-0500-035-06R1-P	03046166	5,0 *0.197*	35,0 *1.378*	82,0 *3.228*	46,0 mm *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°	TiAlN	IT8-9
SD205A-0510-035-06R1-P	03046167	5,1 *0.201*	35,0 *1.378*	82,0 *3.228*	46,0 mm *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°	TiAlN	IT8-9
SD205A-0516-035-06R1-P	03046332	5,159 *0.203*	35,0 *1.378*	82,0 *3.228*	46,0 mm *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°	TiAlN	IT8-9
SD205A-0520-035-06R1-P	03046168	5,2 *0.205*	35,0 *1.378*	82,0 *3.228*	46,0 mm *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°	TiAlN	IT8-9
SD205A-0530-035-06R1-P	03046169	5,3 *0.209*	35,0 *1.378*	82,0 *3.228*	46,0 mm *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°	TiAlN	IT8-9
SD205A-0540-035-06R1-P	03046170	5,4 *0.213*	35,0 *1.378*	82,0 *3.228*	46,0 mm *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°	TiAlN	IT8-9
SD205A-0550-035-06R1-P	03046171	5,5 *0.217*	35,0 *1.378*	82,0 *3.228*	46,0 mm *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°	TiAlN	IT8-9
SD205A-0555-035-06R1-P	03046172	5,55 *0.219*	35,0 *1.378*	82,0 *3.228*	46,0 mm *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°	TiAlN	IT8-9
SD205A-0556-035-06R1-P	03046333	5,556 *0.219*	35,0 *1.378*	82,0 *3.228*	46,0 mm *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°	TiAlN	IT8-9
SD205A-0560-035-06R1-P	03046173	5,6 *0.220*	35,0 *1.378*	82,0 *3.228*	46,0 mm *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°	TiAlN	IT8-9
SD205A-0570-035-06R1-P	03046174	5,7 *0.224*	35,0 *1.378*	82,0 *3.228*	46,0 mm *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°	TiAlN	IT8-9
SD205A-0580-035-06R1-P	03046175	5,8 *0.228*	35,0 *1.378*	82,0 *3.228*	46,0 mm *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°	TiAlN	IT8-9
SD205A-0590-035-06R1-P	03046176	5,9 *0.232*	35,0 *1.378*	82,0 *3.228*	46,0 mm *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°	TiAlN	IT8-9

Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD205A-0595-035-06R1-P	03046334	5,953 *0.234*	35,0 *1.378*	82,0 *3.228*	46,0 mm *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°	TiAlN	IT8-9
SD205A-0600-035-06R1-P	03046177	6,0 *0.236*	35,0 *1.378*	82,0 *3.228*	46,0 mm *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°	TiAlN	IT8-9
SD205A-0610-043-08R1-P	03046179	6,1 *0.240*	43,0 *1.693*	91,0 *3.583*	55,0 mm *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN	IT8-9
SD205A-0620-043-08R1-P	03046180	6,2 *0.244*	43,0 *1.693*	91,0 *3.583*	55,0 mm *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN	IT8-9
SD205A-0630-043-08R1-P	03046181	6,3 *0.248*	43,0 *1.693*	91,0 *3.583*	55,0 mm *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN	IT8-9
SD205A-0635-043-08R1-P	03046335	6,35 *0.250*	43,0 *1.693*	91,0 *3.583*	55,0 mm *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN	IT8-9
SD205A-0640-043-08R1-P	03046182	6,4 *0.252*	43,0 *1.693*	91,0 *3.583*	55,0 mm *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN	IT8-9
SD205A-0650-043-08R1-P	03046183	6,5 *0.256*	43,0 *1.693*	91,0 *3.583*	55,0 mm *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN	IT8-9
SD205A-0660-043-08R1-P	03046184	6,6 *0.260*	43,0 *1.693*	91,0 *3.583*	55,0 mm *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN	IT8-9
SD205A-0670-043-08R1-P	03046185	6,7 *0.264*	43,0 *1.693*	91,0 *3.583*	55,0 mm *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN	IT8-9
SD205A-0675-043-08R1-P	03046336	6,747 *0.266*	43,0 *1.693*	91,0 *3.583*	55,0 mm *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN	IT8-9
SD205A-0680-043-08R1-P	03046186	6,8 *0.268*	43,0 *1.693*	91,0 *3.583*	55,0 mm *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN	IT8-9
SD205A-0690-043-08R1-P	03046187	6,9 *0.272*	43,0 *1.693*	91,0 *3.583*	55,0 mm *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN	IT8-9
SD205A-0700-043-08R1-P	03046188	7,0 *0.276*	43,0 *1.693*	91,0 *3.583*	55,0 mm *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN	IT8-9
SD205A-0710-043-08R1-P	03046190	7,1 *0.280*	43,0 *1.693*	91,0 *3.583*	55,0 mm *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN	IT8-9
SD205A-0714-043-08R1-P	03046337	7,144 *0.281*	43,0 *1.693*	91,0 *3.583*	55,0 mm *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN	IT8-9
SD205A-0720-043-08R1-P	03046191	7,2 *0.283*	43,0 *1.693*	91,0 *3.583*	55,0 mm *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN	IT8-9
SD205A-0730-043-08R1-P	03046192	7,3 *0.287*	43,0 *1.693*	91,0 *3.583*	55,0 mm *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN	IT8-9
SD205A-0740-043-08R1-P	03046193	7,4 *0.291*	43,0 *1.693*	91,0 *3.583*	55,0 mm *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN	IT8-9
SD205A-0750-043-08R1-P	03046194	7,5 *0.295*	43,0 *1.693*	91,0 *3.583*	55,0 mm *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN	IT8-9
SD205A-0754-043-08R1-P	03046338	7,541 *0.297*	43,0 *1.693*	91,0 *3.583*	55,0 mm *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN	IT8-9
SD205A-0755-043-08R1-P	03046195	7,55 *0.297*	43,0 *1.693*	91,0 *3.583*	55,0 mm *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN	IT8-9
SD205A-0760-043-08R1-P	03046196	7,6 *0.299*	43,0 *1.693*	91,0 *3.583*	55,0 mm *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN	IT8-9
SD205A-0770-043-08R1-P	03046197	7,7 *0.303*	43,0 *1.693*	91,0 *3.583*	55,0 mm *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN	IT8-9
SD205A-0780-043-08R1-P	03046198	7,8 *0.307*	43,0 *1.693*	91,0 *3.583*	55,0 mm *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN	IT8-9
SD205A-0790-043-08R1-P	03046199	7,9 *0.311*	43,0 *1.693*	91,0 *3.583*	55,0 mm *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN	IT8-9
SD205A-0794-043-08R1-P	03046339	7,938 *0.313*	43,0 *1.693*	91,0 *3.583*	55,0 mm *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN	IT8-9
SD205A-0800-043-08R1-P	03046200	8,0 *0.315*	43,0 *1.693*	91,0 *3.583*	55,0 mm *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN	IT8-9
SD205A-0810-049-10R1-P	03046201	8,1 *0.319*	49,0 *1.929*	103,0 *4.055*	63,0 mm *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN	IT8-9
SD205A-0820-049-10R1-P	03046202	8,2 *0.323*	49,0 *1.929*	103,0 *4.055*	63,0 mm *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN	IT8-9
SD205A-0830-049-10R1-P	03046203	8,3 *0.327*	49,0 *1.929*	103,0 *4.055*	63,0 mm *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN	IT8-9

Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD205A-0833-049-10R1-P	03046340	8,334 *0.328*	49,0 *1.929*	103,0 *4.055*	63,0 mm *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN	IT8-9
SD205A-0840-049-10R1-P	03046204	8,4 *0.331*	49,0 *1.929*	103,0 *4.055*	63,0 mm *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN	IT8-9
SD205A-0850-049-10R1-P	03046205	8,5 *0.335*	49,0 *1.929*	103,0 *4.055*	63,0 mm *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN	IT8-9
SD205A-0860-049-10R1-P	03046206	8,6 *0.339*	49,0 *1.929*	103,0 *4.055*	63,0 mm *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN	IT8-9
SD205A-0870-049-10R1-P	03046207	8,7 *0.343*	49,0 *1.929*	103,0 *4.055*	63,0 mm *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN	IT8-9
SD205A-0873-049-10R1-P	03046341	8,731 *0.344*	49,0 *1.929*	103,0 *4.055*	63,0 mm *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN	IT8-9
SD205A-0880-049-10R1-P	03046208	8,8 *0.346*	49,0 *1.929*	103,0 *4.055*	63,0 mm *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN	IT8-9
SD205A-0890-049-10R1-P	03046209	8,9 *0.350*	49,0 *1.929*	103,0 *4.055*	63,0 mm *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN	IT8-9
SD205A-0900-049-10R1-P	03046210	9,0 *0.354*	49,0 *1.929*	103,0 *4.055*	63,0 mm *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN	IT8-9
SD205A-0910-049-10R1-P	03046211	9,1 *0.358*	49,0 *1.929*	103,0 *4.055*	63,0 mm *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN	IT8-9
SD205A-0913-049-10R1-P	03046342	9,128 *0.359*	49,0 *1.929*	103,0 *4.055*	63,0 mm *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN	IT8-9
SD205A-0920-049-10R1-P	03046212	9,2 *0.362*	49,0 *1.929*	103,0 *4.055*	63,0 mm *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN	IT8-9
SD205A-0930-049-10R1-P	03046213	9,3 *0.366*	49,0 *1.929*	103,0 *4.055*	63,0 mm *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN	IT8-9
SD205A-0940-049-10R1-P	03046214	9,4 *0.370*	49,0 *1.929*	103,0 *4.055*	63,0 mm *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN	IT8-9
SD205A-0950-049-10R1-P	03046215	9,5 *0.374*	49,0 *1.929*	103,0 *4.055*	63,0 mm *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN	IT8-9
SD205A-0953-049-10R1-P	03046343	9,525 *0.375*	49,0 *1.929*	103,0 *4.055*	63,0 mm *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN	IT8-9
SD205A-0955-049-10R1-P	03046216	9,55 *0.376*	49,0 *1.929*	103,0 *4.055*	63,0 mm *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN	IT8-9
SD205A-0960-049-10R1-P	03046217	9,6 *0.378*	49,0 *1.929*	103,0 *4.055*	63,0 mm *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN	IT8-9
SD205A-0970-049-10R1-P	03046218	9,7 *0.382*	49,0 *1.929*	103,0 *4.055*	63,0 mm *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN	IT8-9
SD205A-0980-049-10R1-P	03046219	9,8 *0.386*	49,0 *1.929*	103,0 *4.055*	63,0 mm *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN	IT8-9
SD205A-0990-049-10R1-P	03046220	9,9 *0.390*	49,0 *1.929*	103,0 *4.055*	63,0 mm *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN	IT8-9
SD205A-0992-049-10R1-P	03046344	9,922 *0.391*	49,0 *1.929*	103,0 *4.055*	63,0 mm *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN	IT8-9
SD205A-1000-049-10R1-P	03046221	10,0 *0.394*	49,0 *1.929*	103,0 *4.055*	63,0 mm *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN	IT8-9
SD205A-1010-056-12R1-P	03046222	10,1 *0.398*	56,0 *2.205*	118,0 *4.646*	73,0 mm *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN	IT8-9
SD205A-1020-056-12R1-P	03046223	10,2 *0.402*	56,0 *2.205*	118,0 *4.646*	73,0 mm *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN	IT8-9
SD205A-1030-056-12R1-P	03046224	10,3 *0.406*	56,0 *2.205*	118,0 *4.646*	73,0 mm *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN	IT8-9
SD205A-1032-056-12R1-P	03046345	10,319 *0.406*	56,0 *2.205*	118,0 *4.646*	73,0 mm *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN	IT8-9
SD205A-1040-056-12R1-P	03046225	10,4 *0.409*	56,0 *2.205*	118,0 *4.646*	73,0 mm *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN	IT8-9
SD205A-1050-056-12R1-P	03046226	10,5 *0.413*	56,0 *2.205*	118,0 *4.646*	73,0 mm *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN	IT8-9
SD205A-1060-056-12R1-P	03046227	10,6 *0.417*	56,0 *2.205*	118,0 *4.646*	73,0 mm *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN	IT8-9
SD205A-1070-056-12R1-P	03046228	10,7 *0.421*	56,0 *2.205*	118,0 *4.646*	73,0 mm *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN	IT8-9

Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD205A-1072-056-12R1-P	03046346	10,716 *0.422*	56,0 *2.205*	118,0 *4.646*	73,0 mm *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN	IT8-9
SD205A-1080-056-12R1-P	03046229	10,8 *0.425*	56,0 *2.205*	118,0 *4.646*	73,0 mm *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN	IT8-9
SD205A-1090-056-12R1-P	03046230	10,9 *0.429*	56,0 *2.205*	118,0 *4.646*	73,0 mm *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN	IT8-9
SD205A-1100-056-12R1-P	03046231	11,0 *0.433*	56,0 *2.205*	118,0 *4.646*	73,0 mm *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN	IT8-9
SD205A-1110-056-12R1-P	03046232	11,1 *0.437*	56,0 *2.205*	118,0 *4.646*	73,0 mm *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN	IT8-9
SD205A-1111-056-12R1-P	03046347	11,113 *0.438*	56,0 *2.205*	118,0 *4.646*	73,0 mm *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN	IT8-9
SD205A-1120-056-12R1-P	03046233	11,2 *0.441*	56,0 *2.205*	118,0 *4.646*	73,0 mm *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN	IT8-9
SD205A-1130-056-12R1-P	03046234	11,3 *0.445*	56,0 *2.205*	118,0 *4.646*	73,0 mm *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN	IT8-9
SD205A-1140-056-12R1-P	03046235	11,4 *0.449*	56,0 *2.205*	118,0 *4.646*	73,0 mm *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN	IT8-9
SD205A-1150-056-12R1-P	03046236	11,5 *0.453*	56,0 *2.205*	118,0 *4.646*	73,0 mm *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN	IT8-9
SD205A-1151-056-12R1-P	03046348	11,509 *0.453*	56,0 *2.205*	118,0 *4.646*	73,0 mm *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN	IT8-9
SD205A-1155-056-12R1-P	03046237	11,55 *0.455*	56,0 *2.205*	118,0 *4.646*	73,0 mm *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN	IT8-9
SD205A-1160-056-12R1-P	03046238	11,6 *0.457*	56,0 *2.205*	118,0 *4.646*	73,0 mm *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN	IT8-9
SD205A-1170-056-12R1-P	03046239	11,7 *0.461*	56,0 *2.205*	118,0 *4.646*	73,0 mm *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN	IT8-9
SD205A-1180-056-12R1-P	03046240	11,8 *0.465*	56,0 *2.205*	118,0 *4.646*	73,0 mm *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN	IT8-9
SD205A-1190-056-12R1-P	03046241	11,9 *0.469*	56,0 *2.205*	118,0 *4.646*	73,0 mm *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN	IT8-9
SD205A-1191-056-12R1-P	03046349	11,906 *0.469*	56,0 *2.205*	118,0 *4.646*	73,0 mm *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN	IT8-9
SD205A-1200-056-12R1-P	03046242	12,0 *0.472*	56,0 *2.205*	118,0 *4.646*	73,0 mm *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN	IT8-9
SD205A-1210-060-14R1-P	03046243	12,1 *0.476*	60,0 *2.362*	124,0 *4.882*	79,0 mm *3.110*	45,0 *1.772*	77,0 *3.031*	14,0 *0.551*	140°	TiAlN	IT8-9
SD205A-1220-060-14R1-P	03046244	12,2 *0.480*	60,0 *2.362*	124,0 *4.882*	79,0 mm *3.110*	45,0 *1.772*	77,0 *3.031*	14,0 *0.551*	140°	TiAlN	IT8-9
SD205A-1225-060-14R1-P	03046245	12,25 *0.482*	60,0 *2.362*	124,0 *4.882*	79,0 mm *3.110*	45,0 *1.772*	77,0 *3.031*	14,0 *0.551*	140°	TiAlN	IT8-9
SD205A-1230-060-14R1-P	03138157	12,3 *0.484*	60,0 *2.362*	124,0 *4.882*	79,0 mm *3.110*	45,0 *1.772*	77,0 *3.031*	14,0 *0.551*	140°	TiAlN	IT8-9
SD205A-1240-060-14R1-P	03046246	12,4 *0.488*	60,0 *2.362*	124,0 *4.882*	79,0 mm *3.110*	45,0 *1.772*	77,0 *3.031*	14,0 *0.551*	140°	TiAlN	IT8-9
SD205A-1250-060-14R1-P	03046247	12,5 *0.492*	60,0 *2.362*	124,0 *4.882*	79,0 mm *3.110*	45,0 *1.772*	77,0 *3.031*	14,0 *0.551*	140°	TiAlN	IT8-9
SD205A-1260-060-14R1-P	03046248	12,6 *0.496*	60,0 *2.362*	124,0 *4.882*	79,0 mm *3.110*	45,0 *1.772*	77,0 *3.031*	14,0 *0.551*	140°	TiAlN	IT8-9
SD205A-1270-060-14R1-P	03120497	12,7 *0.500*	60,0 *2.362*	124,0 *4.882*	79,0 mm *3.110*	45,0 *1.772*	77,0 *3.031*	14,0 *0.551*	140°	TiAlN	IT8-9
SD205A-1275-060-14R1-P	03046249	12,75 *0.502*	60,0 *2.362*	124,0 *4.882*	79,0 mm *3.110*	45,0 *1.772*	77,0 *3.031*	14,0 *0.551*	140°	TiAlN	IT8-9
SD205A-1280-060-14R1-P	03046250	12,8 *0.504*	60,0 *2.362*	124,0 *4.882*	79,0 mm *3.110*	45,0 *1.772*	77,0 *3.031*	14,0 *0.551*	140°	TiAlN	IT8-9
SD205A-1290-060-14R1-P	03046251	12,9 *0.508*	60,0 *2.362*	124,0 *4.882*	79,0 mm *3.110*	45,0 *1.772*	77,0 *3.031*	14,0 *0.551*	140°	TiAlN	IT8-9
SD205A-1300-060-14R1-P	03046252	13,0 *0.512*	60,0 *2.362*	124,0 *4.882*	79,0 mm *3.110*	45,0 *1.772*	77,0 *3.031*	14,0 *0.551*	140°	TiAlN	IT8-9
SD205A-1310-060-14R1-P	03046253	13,1 *0.516*	60,0 *2.362*	124,0 *4.882*	79,0 mm *3.110*	45,0 *1.772*	77,0 *3.031*	14,0 *0.551*	140°	TiAlN	IT8-9

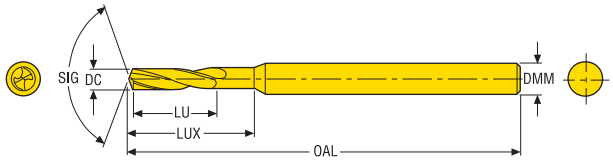
Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD205A-1320-060-14R1-P	03046254	13,2 *0.520*	60,0 *2.362*	124,0 *4.882*	79,0 mm *3.110*	45,0 *1.772*	77,0 *3.031*	14,0 *0.551*	140°	TiAlN	IT8-9
SD205A-1330-060-14R1-P	03046255	13,3 *0.524*	60,0 *2.362*	124,0 *4.882*	79,0 mm *3.110*	45,0 *1.772*	77,0 *3.031*	14,0 *0.551*	140°	TiAlN	IT8-9
SD205A-1340-060-14R1-P	03046256	13,4 *0.528*	60,0 *2.362*	124,0 *4.882*	79,0 mm *3.110*	45,0 *1.772*	77,0 *3.031*	14,0 *0.551*	140°	TiAlN	IT8-9
SD205A-1349-060-14R1-P	03046350	13,494 *0.531*	60,0 *2.362*	124,0 *4.882*	79,0 mm *3.110*	45,0 *1.772*	77,0 *3.031*	14,0 *0.551*	140°	TiAlN	IT8-9
SD205A-1350-060-14R1-P	03046257	13,5 *0.531*	60,0 *2.362*	124,0 *4.882*	79,0 mm *3.110*	45,0 *1.772*	77,0 *3.031*	14,0 *0.551*	140°	TiAlN	IT8-9
SD205A-1355-060-14R1-P	03138158	13,55 *0.533*	60,0 *2.362*	124,0 *4.882*	79,0 mm *3.110*	45,0 *1.772*	77,0 *3.031*	14,0 *0.551*	140°	TiAlN	IT8-9
SD205A-1360-060-14R1-P	03046258	13,6 *0.535*	60,0 *2.362*	124,0 *4.882*	79,0 mm *3.110*	45,0 *1.772*	77,0 *3.031*	14,0 *0.551*	140°	TiAlN	IT8-9
SD205A-1370-060-14R1-P	03046259	13,7 *0.539*	60,0 *2.362*	124,0 *4.882*	79,0 mm *3.110*	45,0 *1.772*	77,0 *3.031*	14,0 *0.551*	140°	TiAlN	IT8-9
SD205A-1380-060-14R1-P	03046260	13,8 *0.543*	60,0 *2.362*	124,0 *4.882*	79,0 mm *3.110*	45,0 *1.772*	77,0 *3.031*	14,0 *0.551*	140°	TiAlN	IT8-9
SD205A-1389-060-14R1-P	03120498	13,891 *0.547*	60,0 *2.362*	124,0 *4.882*	79,0 mm *3.110*	45,0 *1.772*	77,0 *3.031*	14,0 *0.551*	140°	TiAlN	IT8-9
SD205A-1390-060-14R1-P	03046261	13,9 *0.547*	60,0 *2.362*	124,0 *4.882*	79,0 mm *3.110*	45,0 *1.772*	77,0 *3.031*	14,0 *0.551*	140°	TiAlN	IT8-9
SD205A-1400-060-14R1-P	03046262	14,0 *0.551*	60,0 *2.362*	124,0 *4.882*	79,0 mm *3.110*	45,0 *1.772*	77,0 *3.031*	14,0 *0.551*	140°	TiAlN	IT8-9
SD205A-1410-063-16R1-P	03046263	14,1 *0.555*	63,0 *2.480*	133,0 *5.236*	85,0 mm *3.346*	48,0 *1.890*	83,0 *3.268*	16,0 *0.630*	140°	TiAlN	IT8-9
SD205A-1420-063-16R1-P	03046264	14,2 *0.559*	63,0 *2.480*	133,0 *5.236*	85,0 mm *3.346*	48,0 *1.890*	83,0 *3.268*	16,0 *0.630*	140°	TiAlN	IT8-9
SD205A-1425-063-16R1-P	03138159	14,25 *0.561*	63,0 *2.480*	133,0 *5.236*	85,0 mm *3.346*	48,0 *1.890*	83,0 *3.268*	16,0 *0.630*	140°	TiAlN	IT8-9
SD205A-1429-063-16R1-P	03046351	14,288 *0.563*	63,0 *2.480*	133,0 *5.236*	85,0 mm *3.346*	48,0 *1.890*	83,0 *3.268*	16,0 *0.630*	140°	TiAlN	IT8-9
SD205A-1430-063-16R1-P	03046265	14,3 *0.563*	63,0 *2.480*	133,0 *5.236*	85,0 mm *3.346*	48,0 *1.890*	83,0 *3.268*	16,0 *0.630*	140°	TiAlN	IT8-9
SD205A-1440-063-16R1-P	03046266	14,4 *0.567*	63,0 *2.480*	133,0 *5.236*	85,0 mm *3.346*	48,0 *1.890*	83,0 *3.268*	16,0 *0.630*	140°	TiAlN	IT8-9
SD205A-1450-063-16R1-P	03046267	14,5 *0.571*	63,0 *2.480*	133,0 *5.236*	85,0 mm *3.346*	48,0 *1.890*	83,0 *3.268*	16,0 *0.630*	140°	TiAlN	IT8-9
SD205A-1460-063-16R1-P	03046268	14,6 *0.575*	63,0 *2.480*	133,0 *5.236*	85,0 mm *3.346*	48,0 *1.890*	83,0 *3.268*	16,0 *0.630*	140°	TiAlN	IT8-9
SD205A-1470-063-16R1-P	03046269	14,7 *0.579*	63,0 *2.480*	133,0 *5.236*	85,0 mm *3.346*	48,0 *1.890*	83,0 *3.268*	16,0 *0.630*	140°	TiAlN	IT8-9
SD205A-1475-063-16R1-P	03046270	14,75 *0.581*	63,0 *2.480*	133,0 *5.236*	85,0 mm *3.346*	48,0 *1.890*	83,0 *3.268*	16,0 *0.630*	140°	TiAlN	IT8-9
SD205A-1480-063-16R1-P	03046271	14,8 *0.583*	63,0 *2.480*	133,0 *5.236*	85,0 mm *3.346*	48,0 *1.890*	83,0 *3.268*	16,0 *0.630*	140°	TiAlN	IT8-9
SD205A-1490-063-16R1-P	03046272	14,9 *0.587*	63,0 *2.480*	133,0 *5.236*	85,0 mm *3.346*	48,0 *1.890*	83,0 *3.268*	16,0 *0.630*	140°	TiAlN	IT8-9
SD205A-1500-063-16R1-P	03046273	15,0 *0.591*	63,0 *2.480*	133,0 *5.236*	85,0 mm *3.346*	48,0 *1.890*	83,0 *3.268*	16,0 *0.630*	140°	TiAlN	IT8-9
SD205A-1510-063-16R1-P	03046274	15,1 *0.594*	63,0 *2.480*	133,0 *5.236*	85,0 mm *3.346*	48,0 *1.890*	83,0 *3.268*	16,0 *0.630*	140°	TiAlN	IT8-9
SD205A-1520-063-16R1-P	03046275	15,2 *0.598*	63,0 *2.480*	133,0 *5.236*	85,0 mm *3.346*	48,0 *1.890*	83,0 *3.268*	16,0 *0.630*	140°	TiAlN	IT8-9
SD205A-1525-063-16R1-P	03138160	15,25 *0.600*	63,0 *2.480*	133,0 *5.236*	85,0 mm *3.346*	48,0 *1.890*	83,0 *3.268*	16,0 *0.630*	140°	TiAlN	IT8-9
SD205A-1530-063-16R1-P	03046276	15,3 *0.602*	63,0 *2.480*	133,0 *5.236*	85,0 mm *3.346*	48,0 *1.890*	83,0 *3.268*	16,0 *0.630*	140°	TiAlN	IT8-9
SD205A-1540-063-16R1-P	03046277	15,4 *0.606*	63,0 *2.480*	133,0 *5.236*	85,0 mm *3.346*	48,0 *1.890*	83,0 *3.268*	16,0 *0.630*	140°	TiAlN	IT8-9
SD205A-1550-063-16R1-P	03046278	15,5 *0.610*	63,0 *2.480*	133,0 *5.236*	85,0 mm *3.346*	48,0 *1.890*	83,0 *3.268*	16,0 *0.630*	140°	TiAlN	IT8-9

Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD205A-1560-063-16R1-P	03046280	15,6 *0.614*	63,0 *2.480*	133,0 *5.236*	85,0 mm *3.346*	48,0 *1.890*	83,0 *3.268*	16,0 *0.630*	140°	TiAlN	IT8-9
SD205A-1570-063-16R1-P	03046281	15,7 *0.618*	63,0 *2.480*	133,0 *5.236*	85,0 mm *3.346*	48,0 *1.890*	83,0 *3.268*	16,0 *0.630*	140°	TiAlN	IT8-9
SD205A-1580-063-16R1-P	03046282	15,8 *0.622*	63,0 *2.480*	133,0 *5.236*	85,0 mm *3.346*	48,0 *1.890*	83,0 *3.268*	16,0 *0.630*	140°	TiAlN	IT8-9
SD205A-1588-063-16R1-P	03046352	15,875 *0.625*	63,0 *2.480*	133,0 *5.236*	85,0 mm *3.346*	48,0 *1.890*	83,0 *3.268*	16,0 *0.630*	140°	TiAlN	IT8-9
SD205A-1590-063-16R1-P	03046283	15,9 *0.626*	63,0 *2.480*	133,0 *5.236*	85,0 mm *3.346*	48,0 *1.890*	83,0 *3.268*	16,0 *0.630*	140°	TiAlN	IT8-9
SD205A-1600-063-16R1-P	03046284	16,0 *0.630*	63,0 *2.480*	133,0 *5.236*	85,0 mm *3.346*	48,0 *1.890*	83,0 *3.268*	16,0 *0.630*	140°	TiAlN	IT8-9
SD205A-1610-071-18R1-P	03046285	16,1 *0.634*	71,0 *2.795*	143,0 *5.630*	95,0 mm *3.740*	48,0 *1.890*	93,0 *3.661*	18,0 *0.709*	140°	TiAlN	IT8-9
SD205A-1620-071-18R1-P	03046286	16,2 *0.638*	71,0 *2.795*	143,0 *5.630*	95,0 mm *3.740*	48,0 *1.890*	93,0 *3.661*	18,0 *0.709*	140°	TiAlN	IT8-9
SD205A-1625-071-18R1-P	03138161	16,25 *0.640*	71,0 *2.795*	143,0 *5.630*	95,0 mm *3.740*	48,0 *1.890*	93,0 *3.661*	18,0 *0.709*	140°	TiAlN	IT8-9
SD205A-1630-071-18R1-P	03046287	16,3 *0.642*	71,0 *2.795*	143,0 *5.630*	95,0 mm *3.740*	48,0 *1.890*	93,0 *3.661*	18,0 *0.709*	140°	TiAlN	IT8-9
SD205A-1640-071-18R1-P	03046288	16,4 *0.646*	71,0 *2.795*	143,0 *5.630*	95,0 mm *3.740*	48,0 *1.890*	93,0 *3.661*	18,0 *0.709*	140°	TiAlN	IT8-9
SD205A-1650-071-18R1-P	03046289	16,5 *0.650*	71,0 *2.795*	143,0 *5.630*	95,0 mm *3.740*	48,0 *1.890*	93,0 *3.661*	18,0 *0.709*	140°	TiAlN	IT8-9
SD205A-1660-071-18R1-P	03046290	16,6 *0.654*	71,0 *2.795*	143,0 *5.630*	95,0 mm *3.740*	48,0 *1.890*	93,0 *3.661*	18,0 *0.709*	140°	TiAlN	IT8-9
SD205A-1667-071-18R1-P	03120499	16,669 *0.656*	71,0 *2.795*	143,0 *5.630*	95,0 mm *3.740*	48,0 *1.890*	93,0 *3.661*	18,0 *0.709*	140°	TiAlN	IT8-9
SD205A-1670-071-18R1-P	03046291	16,7 *0.657*	71,0 *2.795*	143,0 *5.630*	95,0 mm *3.740*	48,0 *1.890*	93,0 *3.661*	18,0 *0.709*	140°	TiAlN	IT8-9
SD205A-1675-071-18R1-P	03046292	16,75 *0.659*	71,0 *2.795*	143,0 *5.630*	95,0 mm *3.740*	48,0 *1.890*	93,0 *3.661*	18,0 *0.709*	140°	TiAlN	IT8-9
SD205A-1680-071-18R1-P	03046293	16,8 *0.661*	71,0 *2.795*	143,0 *5.630*	95,0 mm *3.740*	48,0 *1.890*	93,0 *3.661*	18,0 *0.709*	140°	TiAlN	IT8-9
SD205A-1690-071-18R1-P	03046294	16,9 *0.665*	71,0 *2.795*	143,0 *5.630*	95,0 mm *3.740*	48,0 *1.890*	93,0 *3.661*	18,0 *0.709*	140°	TiAlN	IT8-9
SD205A-1700-071-18R1-P	03046296	17,0 *0.669*	71,0 *2.795*	143,0 *5.630*	95,0 mm *3.740*	48,0 *1.890*	93,0 *3.661*	18,0 *0.709*	140°	TiAlN	IT8-9
SD205A-1710-071-18R1-P	03046297	17,1 *0.673*	71,0 *2.795*	143,0 *5.630*	95,0 mm *3.740*	48,0 *1.890*	93,0 *3.661*	18,0 *0.709*	140°	TiAlN	IT8-9
SD205A-1720-071-18R1-P	03046298	17,2 *0.677*	71,0 *2.795*	143,0 *5.630*	95,0 mm *3.740*	48,0 *1.890*	93,0 *3.661*	18,0 *0.709*	140°	TiAlN	IT8-9
SD205A-1730-071-18R1-P	03046299	17,3 *0.681*	71,0 *2.795*	143,0 *5.630*	95,0 mm *3.740*	48,0 *1.890*	93,0 *3.661*	18,0 *0.709*	140°	TiAlN	IT8-9
SD205A-1740-071-18R1-P	03046300	17,4 *0.685*	71,0 *2.795*	143,0 *5.630*	95,0 mm *3.740*	48,0 *1.890*	93,0 *3.661*	18,0 *0.709*	140°	TiAlN	IT8-9
SD205A-1746-071-18R1-P	03120500	17,463 *0.688*	71,0 *2.795*	143,0 *5.630*	95,0 mm *3.740*	48,0 *1.890*	93,0 *3.661*	18,0 *0.709*	140°	TiAlN	IT8-9
SD205A-1750-071-18R1-P	03046301	17,5 *0.689*	71,0 *2.795*	143,0 *5.630*	95,0 mm *3.740*	48,0 *1.890*	93,0 *3.661*	18,0 *0.709*	140°	TiAlN	IT8-9
SD205A-1760-071-18R1-P	03046302	17,6 *0.693*	71,0 *2.795*	143,0 *5.630*	95,0 mm *3.740*	48,0 *1.890*	93,0 *3.661*	18,0 *0.709*	140°	TiAlN	IT8-9
SD205A-1770-071-18R1-P	03046303	17,7 *0.697*	71,0 *2.795*	143,0 *5.630*	95,0 mm *3.740*	48,0 *1.890*	93,0 *3.661*	18,0 *0.709*	140°	TiAlN	IT8-9
SD205A-1780-071-18R1-P	03046304	17,8 *0.701*	71,0 *2.795*	143,0 *5.630*	95,0 mm *3.740*	48,0 *1.890*	93,0 *3.661*	18,0 *0.709*	140°	TiAlN	IT8-9
SD205A-1790-071-18R1-P	03046305	17,9 *0.705*	71,0 *2.795*	143,0 *5.630*	95,0 mm *3.740*	48,0 *1.890*	93,0 *3.661*	18,0 *0.709*	140°	TiAlN	IT8-9
SD205A-1800-071-18R1-P	03046306	18,0 *0.709*	71,0 *2.795*	143,0 *5.630*	95,0 mm *3.740*	48,0 *1.890*	93,0 *3.661*	18,0 *0.709*	140°	TiAlN	IT8-9
SD205A-1810-077-20R1-P	03046307	18,1 *0.713*	77,0 *3.031*	153,0 *6.024*	103,0 mm *4.055*	50,0 *1.969*	101,0 *3.976*	20,0 *0.787*	140°	TiAlN	IT8-9

Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD205A-1820-077-20R1-P	03046308	18,2 *0.717*	77,0 *3.031*	153,0 *6.024*	103,0 mm *4.055*	50,0 *1.969*	101,0 *3.976*	20,0 *0.787*	140°	TiAlN	IT8-9
SD205A-1830-077-20R1-P	03046309	18,3 *0.720*	77,0 *3.031*	153,0 *6.024*	103,0 mm *4.055*	50,0 *1.969*	101,0 *3.976*	20,0 *0.787*	140°	TiAlN	IT8-9
SD205A-1840-077-20R1-P	03046310	18,4 *0.724*	77,0 *3.031*	153,0 *6.024*	103,0 mm *4.055*	50,0 *1.969*	101,0 *3.976*	20,0 *0.787*	140°	TiAlN	IT8-9
SD205A-1850-077-20R1-P	03046311	18,5 *0.728*	77,0 *3.031*	153,0 *6.024*	103,0 mm *4.055*	50,0 *1.969*	101,0 *3.976*	20,0 *0.787*	140°	TiAlN	IT8-9
SD205A-1860-077-20R1-P	03046312	18,6 *0.732*	77,0 *3.031*	153,0 *6.024*	103,0 mm *4.055*	50,0 *1.969*	101,0 *3.976*	20,0 *0.787*	140°	TiAlN	IT8-9
SD205A-1870-077-20R1-P	03046313	18,7 *0.736*	77,0 *3.031*	153,0 *6.024*	103,0 mm *4.055*	50,0 *1.969*	101,0 *3.976*	20,0 *0.787*	140°	TiAlN	IT8-9
SD205A-1880-077-20R1-P	03046314	18,8 *0.740*	77,0 *3.031*	153,0 *6.024*	103,0 mm *4.055*	50,0 *1.969*	101,0 *3.976*	20,0 *0.787*	140°	TiAlN	IT8-9
SD205A-1890-077-20R1-P	03046315	18,9 *0.744*	77,0 *3.031*	153,0 *6.024*	103,0 mm *4.055*	50,0 *1.969*	101,0 *3.976*	20,0 *0.787*	140°	TiAlN	IT8-9
SD205A-1900-077-20R1-P	03046316	19,0 *0.748*	77,0 *3.031*	153,0 *6.024*	103,0 mm *4.055*	50,0 *1.969*	101,0 *3.976*	20,0 *0.787*	140°	TiAlN	IT8-9
SD205A-1905-077-20R1-P	03046353	19,05 *0.750*	77,0 *3.031*	153,0 *6.024*	103,0 mm *4.055*	50,0 *1.969*	101,0 *3.976*	20,0 *0.787*	140°	TiAlN	IT8-9
SD205A-1910-077-20R1-P	03046317	19,1 *0.752*	77,0 *3.031*	153,0 *6.024*	103,0 mm *4.055*	50,0 *1.969*	101,0 *3.976*	20,0 *0.787*	140°	TiAlN	IT8-9
SD205A-1920-077-20R1-P	03046318	19,2 *0.756*	77,0 *3.031*	153,0 *6.024*	103,0 mm *4.055*	50,0 *1.969*	101,0 *3.976*	20,0 *0.787*	140°	TiAlN	IT8-9
SD205A-1930-077-20R1-P	03046319	19,3 *0.760*	77,0 *3.031*	153,0 *6.024*	103,0 mm *4.055*	50,0 *1.969*	101,0 *3.976*	20,0 *0.787*	140°	TiAlN	IT8-9
SD205A-1940-077-20R1-P	03046320	19,4 *0.764*	77,0 *3.031*	153,0 *6.024*	103,0 mm *4.055*	50,0 *1.969*	101,0 *3.976*	20,0 *0.787*	140°	TiAlN	IT8-9
SD205A-1950-077-20R1-P	03046321	19,5 *0.768*	77,0 *3.031*	153,0 *6.024*	103,0 mm *4.055*	50,0 *1.969*	101,0 *3.976*	20,0 *0.787*	140°	TiAlN	IT8-9
SD205A-1960-077-20R1-P	03046322	19,6 *0.772*	77,0 *3.031*	153,0 *6.024*	103,0 mm *4.055*	50,0 *1.969*	101,0 *3.976*	20,0 *0.787*	140°	TiAlN	IT8-9
SD205A-1970-077-20R1-P	03046323	19,7 *0.776*	77,0 *3.031*	153,0 *6.024*	103,0 mm *4.055*	50,0 *1.969*	101,0 *3.976*	20,0 *0.787*	140°	TiAlN	IT8-9
SD205A-1980-077-20R1-P	03046324	19,8 *0.780*	77,0 *3.031*	153,0 *6.024*	103,0 mm *4.055*	50,0 *1.969*	101,0 *3.976*	20,0 *0.787*	140°	TiAlN	IT8-9
SD205A-1990-077-20R1-P	03046325	19,9 *0.783*	77,0 *3.031*	153,0 *6.024*	103,0 mm *4.055*	50,0 *1.969*	101,0 *3.976*	20,0 *0.787*	140°	TiAlN	IT8-9
SD205A-2000-077-20R1-P	03046326	20,0 *0.787*	77,0 *3.031*	153,0 *6.024*	103,0 mm *4.055*	50,0 *1.969*	101,0 *3.976*	20,0 *0.787*	140°	TiAlN	IT8-9

SD206

Drilling depth ~ 6 x D – Metric/Inch





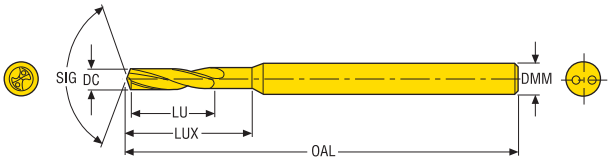
- Cylindrical shank
- External coolant
- For cutting data see page(s) 149

Designation	Item number	DC	LU	OAL	LUX	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD206-0.70-4.2-3R1	02731644	0,7 *0.028*	4,2 *0.165*	38,0 *1.496*	6,0 *0.236*	3,0 *0.118*	140°	TiAlN	IT9
SD206-0.80-4.8-3R1	02731645	0,8 *0.031*	4,8 *0.189*	38,0 *1.496*	6,7 *0.264*	3,0 *0.118*	140°	TiAlN	IT9
SD206-0.90-5.4-3R1	02731646	0,9 *0.035*	5,4 *0.213*	38,0 *1.496*	7,8 *0.307*	3,0 *0.118*	140°	TiAlN	IT9
SD206-1.00-6.0-3R1	02731647	1,0 *0.039*	6,0 *0.236*	38,0 *1.496*	8,0 *0.315*	3,0 *0.118*	140°	TiAlN	IT9
SD206-1.10-6.6-3R1	02731648	1,1 *0.043*	6,6 *0.260*	38,0 *1.496*	8,6 *0.339*	3,0 *0.118*	140°	TiAlN	IT9
SD206-1.20-7.2-3R1	02731649	1,2 *0.047*	7,2 *0.283*	38,0 *1.496*	9,2 *0.362*	3,0 *0.118*	140°	TiAlN	IT9
SD206-1.30-7.8-3R1	02731650	1,3 *0.051*	7,8 *0.307*	38,0 *1.496*	9,8 *0.386*	3,0 *0.118*	140°	TiAlN	IT9
SD206-1.40-8.4-3R1	02731651	1,4 *0.055*	8,4 *0.331*	38,0 *1.496*	10,4 *0.409*	3,0 *0.118*	140°	TiAlN	IT9
SD206-1.50-9.0-3R1	02731652	1,5 *0.059*	9,0 *0.354*	38,0 *1.496*	11,0 *0.433*	3,0 *0.118*	140°	TiAlN	IT9
SD206-1.60-9.6-3R1	02731653	1,6 *0.063*	9,6 *0.378*	38,0 *1.496*	11,6 *0.457*	3,0 *0.118*	140°	TiAlN	IT9
SD206-1.70-10.2-3R1	02731654	1,7 *0.067*	10,2 *0.402*	38,0 *1.496*	12,2 *0.480*	3,0 *0.118*	140°	TiAlN	IT9
SD206-1.80-10.8-3R1	02731655	1,8 *0.071*	10,8 *0.425*	38,0 *1.496*	12,8 *0.504*	3,0 *0.118*	140°	TiAlN	IT9
SD206-1.90-11.4-3R1	02731656	1,9 *0.075*	11,4 *0.449*	38,0 *1.496*	13,4 *0.528*	3,0 *0.118*	140°	TiAlN	IT9
SD206-2.00-12.0-3R1	02731657	2,0 *0.079*	12,0 *0.472*	50,0 *1.969*	14,0 *0.551*	3,0 *0.118*	140°	TiAlN	IT9

SD206A

Drilling depth ~ 6 x D – Metric/Inch



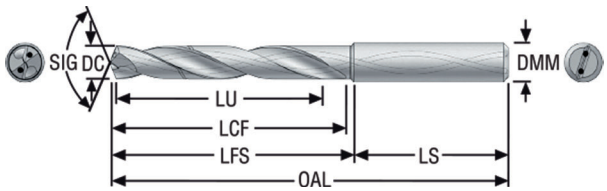


- Cylindrical shank
- Internal coolant
- For cutting data see page(s) 150

Designation	Item number	DC	LU	OAL	LUX	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD206A-1.00-6.0-3R1	02731658	1,0 *0.039*	6,0 *0.236*	38,0 *1.496*	8,0 *0.315*	3,0 *0.118*	140°	TiAlN	IT9
SD206A-1.10-6.6-3R1	02731659	1,1 *0.043*	6,6 *0.260*	38,0 *1.496*	8,6 *0.339*	3,0 *0.118*	140°	TiAlN	IT9
SD206A-1.20-7.2-3R1	02731660	1,2 *0.047*	7,2 *0.283*	38,0 *1.496*	9,2 *0.362*	3,0 *0.118*	140°	TiAlN	IT9
SD206A-1.30-7.8-3R1	02731661	1,3 *0.051*	7,8 *0.307*	38,0 *1.496*	9,8 *0.386*	3,0 *0.118*	140°	TiAlN	IT9
SD206A-1.40-8.4-3R1	02731662	1,4 *0.055*	8,4 *0.331*	38,0 *1.496*	10,4 *0.409*	3,0 *0.118*	140°	TiAlN	IT9
SD206A-1.50-9.0-3R1	02731663	1,5 *0.059*	9,0 *0.354*	38,0 *1.496*	11,0 *0.433*	3,0 *0.118*	140°	TiAlN	IT9
SD206A-1.60-9.6-3R1	02731664	1,6 *0.063*	9,6 *0.378*	38,0 *1.496*	11,6 *0.457*	3,0 *0.118*	140°	TiAlN	IT9
SD206A-1.70-10.2-3R1	02731665	1,7 *0.067*	10,2 *0.402*	38,0 *1.496*	12,2 *0.480*	3,0 *0.118*	140°	TiAlN	IT9
SD206A-1.80-10.8-3R1	02731666	1,8 *0.071*	10,8 *0.425*	38,0 *1.496*	12,8 *0.504*	3,0 *0.118*	140°	TiAlN	IT9
SD206A-1.90-11.4-3R1	02731667	1,9 *0.075*	11,4 *0.449*	38,0 *1.496*	13,4 *0.528*	3,0 *0.118*	140°	TiAlN	IT9
SD206A-2.00-12.0-3R1	02731668	2,0 *0.079*	12,0 *0.472*	50,0 *1.969*	14,0 *0.551*	3,0 *0.118*	140°	TiAlN	IT9

SD207A-P

Drilling depth ~ 7 x D – Metric/Inch





- Cylindrical shank DIN 6537A
- Internal coolant
- For cutting data see page(s) 151
- For intermediate diameters see the MyDesign software.

Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD207A-0300-030-06R1-P	03046358	3,0 *0.118*	30,0 *1.181*	74,0 *2.913*	38,0 *1.496*	36,0 *1.417*	36,0 *1.417*	6,0 *0.236*	140°	TiAlN	IT9
SD207A-0330-030-06R1-P	03046359	3,3 *0.130*	30,0 *1.181*	74,0 *2.913*	38,0 *1.496*	36,0 *1.417*	36,0 *1.417*	6,0 *0.236*	140°	TiAlN	IT9
SD207A-0350-030-06R1-P	03046360	3,5 *0.138*	30,0 *1.181*	74,0 *2.913*	38,0 *1.496*	36,0 *1.417*	36,0 *1.417*	6,0 *0.236*	140°	TiAlN	IT9
SD207A-0400-037-06R1-P	03046361	4,0 *0.157*	37,0 *1.457*	82,0 *3.228*	46,0 *1.811*	36,0 *1.417*	43,0 *1.693*	6,0 *0.236*	140°	TiAlN	IT9
SD207A-0450-037-06R1-P	03046412	4,5 *0.177*	37,0 *1.457*	82,0 *3.228*	46,0 *1.811*	36,0 *1.417*	43,0 *1.693*	6,0 *0.236*	140°	TiAlN	IT9
SD207A-0480-045-06R1-P	03046413	4,8 *0.189*	45,0 *1.772*	94,0 *3.701*	58,0 *2.283*	36,0 *1.417*	56,0 *2.205*	6,0 *0.236*	140°	TiAlN	IT9
SD207A-0500-045-06R1-P	03046414	5,0 *0.197*	45,0 *1.772*	94,0 *3.701*	58,0 *2.283*	36,0 *1.417*	56,0 *2.205*	6,0 *0.236*	140°	TiAlN	IT9
SD207A-0520-045-06R1-P	03046362	5,2 *0.205*	45,0 *1.772*	94,0 *3.701*	58,0 *2.283*	36,0 *1.417*	56,0 *2.205*	6,0 *0.236*	140°	TiAlN	IT9
SD207A-0550-045-06R1-P	03046363	5,5 *0.217*	45,0 *1.772*	94,0 *3.701*	58,0 *2.283*	36,0 *1.417*	56,0 *2.205*	6,0 *0.236*	140°	TiAlN	IT9
SD207A-0580-045-06R1-P	03046407	5,8 *0.228*	45,0 *1.772*	94,0 *3.701*	58,0 *2.283*	36,0 *1.417*	56,0 *2.205*	6,0 *0.236*	140°	TiAlN	IT9
SD207A-0600-045-06R1-P	03046364	6,0 *0.236*	45,0 *1.772*	94,0 *3.701*	58,0 *2.283*	36,0 *1.417*	56,0 *2.205*	6,0 *0.236*	140°	TiAlN	IT9
SD207A-0635-057-08R1-P	03046365	6,35 *0.250*	57,0 *2.244*	110,0 *4.331*	74,0 *2.913*	36,0 *1.417*	67,0 *2.638*	8,0 *0.315*	140°	TiAlN	IT9
SD207A-0650-057-08R1-P	03046366	6,5 *0.256*	57,0 *2.244*	110,0 *4.331*	74,0 *2.913*	36,0 *1.417*	67,0 *2.638*	8,0 *0.315*	140°	TiAlN	IT9
SD207A-0680-057-08R1-P	03046367	6,8 *0.268*	57,0 *2.244*	110,0 *4.331*	74,0 *2.913*	36,0 *1.417*	67,0 *2.638*	8,0 *0.315*	140°	TiAlN	IT9
SD207A-0690-057-08R1-P	03046368	6,9 *0.272*	57,0 *2.244*	110,0 *4.331*	74,0 *2.913*	36,0 *1.417*	67,0 *2.638*	8,0 *0.315*	140°	TiAlN	IT9
SD207A-0700-057-08R1-P	03046369	7,0 *0.276*	57,0 *2.244*	110,0 *4.331*	74,0 *2.913*	36,0 *1.417*	67,0 *2.638*	8,0 *0.315*	140°	TiAlN	IT9
SD207A-0750-057-08R1-P	03046370	7,5 *0.295*	57,0 *2.244*	110,0 *4.331*	74,0 *2.913*	36,0 *1.417*	72,0 *2.835*	8,0 *0.315*	140°	TiAlN	IT9
SD207A-0780-057-08R1-P	03046371	7,8 *0.307*	57,0 *2.244*	110,0 *4.331*	74,0 *2.913*	36,0 *1.417*	72,0 *2.835*	8,0 *0.315*	140°	TiAlN	IT9
SD207A-0800-057-08R1-P	03046372	8,0 *0.315*	57,0 *2.244*	110,0 *4.331*	74,0 *2.913*	36,0 *1.417*	72,0 *2.835*	8,0 *0.315*	140°	TiAlN	IT9
SD207A-0850-062-10R1-P	03046373	8,5 *0.335*	62,0 *2.441*	122,0 *4.803*	82,0 *3.228*	40,0 *1.575*	80,0 *3.150*	10,0 *0.394*	140°	TiAlN	IT9
SD207A-0860-062-10R1-P	03046374	8,6 *0.339*	62,0 *2.441*	122,0 *4.803*	82,0 *3.228*	40,0 *1.575*	80,0 *3.150*	10,0 *0.394*	140°	TiAlN	IT9
SD207A-0870-062-10R1-P	03046411	8,7 *0.343*	62,0 *2.441*	122,0 *4.803*	82,0 *3.228*	40,0 *1.575*	80,0 *3.150*	10,0 *0.394*	140°	TiAlN	IT9

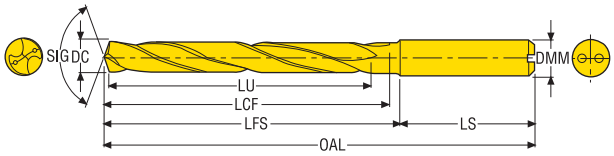
Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD207A-0880-062-10R1-P	03046408	8,8 *0.346*	62,0 *2.441*	122,0 *4.803*	82,0 *3.228*	40,0 *1.575*	80,0 *3.150*	10,0 *0.394*	140°	TiAlN	IT9
SD207A-0900-062-10R1-P	03046375	9,0 *0.354*	62,0 *2.441*	122,0 *4.803*	82,0 *3.228*	40,0 *1.575*	80,0 *3.150*	10,0 *0.394*	140°	TiAlN	IT9
SD207A-0950-062-10R1-P	03046376	9,5 *0.374*	62,0 *2.441*	122,0 *4.803*	82,0 *3.228*	40,0 *1.575*	80,0 *3.150*	10,0 *0.394*	140°	TiAlN	IT9
SD207A-0953-062-10R1-P	03046377	9,525 *0.375*	62,0 *2.441*	122,0 *4.803*	82,0 *3.228*	40,0 *1.575*	80,0 *3.150*	10,0 *0.394*	140°	TiAlN	IT9
SD207A-0975-062-10R1-P	03046402	9,75 *0.384*	62,0 *2.441*	122,0 *4.803*	82,0 *3.228*	40,0 *1.575*	80,0 *3.150*	10,0 *0.394*	140°	TiAlN	IT9
SD207A-0980-062-10R1-P	03046403	9,8 *0.386*	62,0 *2.441*	122,0 *4.803*	82,0 *3.228*	40,0 *1.575*	80,0 *3.150*	10,0 *0.394*	140°	TiAlN	IT9
SD207A-1000-062-10R1-P	03046378	10,0 *0.394*	62,0 *2.441*	122,0 *4.803*	82,0 *3.228*	40,0 *1.575*	80,0 *3.150*	10,0 *0.394*	140°	TiAlN	IT9
SD207A-1020-072-12R1-P	03046379	10,2 *0.402*	72,0 *2.835*	141,0 *5.551*	96,0 *3.780*	45,0 *1.772*	94,0 *3.701*	12,0 *0.472*	140°	TiAlN	IT9
SD207A-1040-072-12R1-P	03046401	10,4 *0.409*	72,0 *2.835*	141,0 *5.551*	96,0 *3.780*	45,0 *1.772*	94,0 *3.701*	12,0 *0.472*	140°	TiAlN	IT9
SD207A-1050-072-12R1-P	03046380	10,5 *0.413*	72,0 *2.835*	141,0 *5.551*	96,0 *3.780*	45,0 *1.772*	94,0 *3.701*	12,0 *0.472*	140°	TiAlN	IT9
SD207A-1080-072-12R1-P	03046404	10,8 *0.425*	72,0 *2.835*	141,0 *5.551*	96,0 *3.780*	45,0 *1.772*	94,0 *3.701*	12,0 *0.472*	140°	TiAlN	IT9
SD207A-1100-072-12R1-P	03046381	11,0 *0.433*	72,0 *2.835*	141,0 *5.551*	96,0 *3.780*	45,0 *1.772*	94,0 *3.701*	12,0 *0.472*	140°	TiAlN	IT9
SD207A-1150-072-12R1-P	03046382	11,5 *0.453*	72,0 *2.835*	141,0 *5.551*	96,0 *3.780*	45,0 *1.772*	94,0 *3.701*	12,0 *0.472*	140°	TiAlN	IT9
SD207A-1180-072-12R1-P	03046405	11,8 *0.465*	72,0 *2.835*	141,0 *5.551*	96,0 *3.780*	45,0 *1.772*	94,0 *3.701*	12,0 *0.472*	140°	TiAlN	IT9
SD207A-1200-072-12R1-P	03046383	12,0 *0.472*	72,0 *2.835*	141,0 *5.551*	96,0 *3.780*	45,0 *1.772*	94,0 *3.701*	12,0 *0.472*	140°	TiAlN	IT9
SD207A-1225-083-14R1-P	03046415	12,25 *0.482*	83,0 *3.268*	155,0 *6.102*	110,0 *4.331*	45,0 *1.772*	108,0 *4.252*	14,0 *0.551*	140°	TiAlN	IT9
SD207A-1250-083-14R1-P	03046384	12,5 *0.492*	83,0 *3.268*	155,0 *6.102*	110,0 *4.331*	45,0 *1.772*	108,0 *4.252*	14,0 *0.551*	140°	TiAlN	IT9
SD207A-1270-083-14R1-P	03046385	12,7 *0.500*	83,0 *3.268*	155,0 *6.102*	110,0 *4.331*	45,0 *1.772*	108,0 *4.252*	14,0 *0.551*	140°	TiAlN	IT9
SD207A-1280-083-14R1-P	03046416	12,8 *0.504*	83,0 *3.268*	155,0 *6.102*	110,0 *4.331*	45,0 *1.772*	108,0 *4.252*	14,0 *0.551*	140°	TiAlN	IT9
SD207A-1300-083-14R1-P	03046386	13,0 *0.512*	83,0 *3.268*	155,0 *6.102*	110,0 *4.331*	45,0 *1.772*	108,0 *4.252*	14,0 *0.551*	140°	TiAlN	IT9
SD207A-1350-083-14R1-P	03046387	13,5 *0.531*	83,0 *3.268*	155,0 *6.102*	110,0 *4.331*	45,0 *1.772*	108,0 *4.252*	14,0 *0.551*	140°	TiAlN	IT9
SD207A-1380-083-14R1-P	03046409	13,8 *0.543*	83,0 *3.268*	155,0 *6.102*	110,0 *4.331*	45,0 *1.772*	108,0 *4.252*	14,0 *0.551*	140°	TiAlN	IT9
SD207A-1400-083-14R1-P	03046388	14,0 *0.551*	83,0 *3.268*	155,0 *6.102*	110,0 *4.331*	45,0 *1.772*	108,0 *4.252*	14,0 *0.551*	140°	TiAlN	IT9
SD207A-1425-092-16R1-P	03046417	14,25 *0.561*	92,0 *3.622*	171,0 *6.732*	123,0 *4.843*	48,0 *1.890*	121,0 *4.764*	16,0 *0.630*	140°	TiAlN	IT9
SD207A-1450-092-16R1-P	03046389	14,5 *0.571*	92,0 *3.622*	171,0 *6.732*	123,0 *4.843*	48,0 *1.890*	121,0 *4.764*	16,0 *0.630*	140°	TiAlN	IT9
SD207A-1480-092-16R1-P	03046418	14,8 *0.583*	92,0 *3.622*	171,0 *6.732*	123,0 *4.843*	48,0 *1.890*	121,0 *4.764*	16,0 *0.630*	140°	TiAlN	IT9
SD207A-1500-092-16R1-P	03046390	15,0 *0.591*	92,0 *3.622*	171,0 *6.732*	123,0 *4.843*	48,0 *1.890*	121,0 *4.764*	16,0 *0.630*	140°	TiAlN	IT9
SD207A-1550-092-16R1-P	03046391	15,5 *0.610*	92,0 *3.622*	171,0 *6.732*	123,0 *4.843*	48,0 *1.890*	121,0 *4.764*	16,0 *0.630*	140°	TiAlN	IT9
SD207A-1580-092-16R1-P	03046410	15,8 *0.622*	92,0 *3.622*	171,0 *6.732*	123,0 *4.843*	48,0 *1.890*	121,0 *4.764*	16,0 *0.630*	140°	TiAlN	IT9
SD207A-1600-092-16R1-P	03046392	16,0 *0.630*	92,0 *3.622*	171,0 *6.732*	123,0 *4.843*	48,0 *1.890*	121,0 *4.764*	16,0 *0.630*	140°	TiAlN	IT9
SD207A-1650-103-18R1-P	03046393	16,5 *0.650*	103,0 *4.055*	185,0 *7.283*	137,0 *5.394*	48,0 *1.890*	135,0 *5.315*	18,0 *0.709*	140°	TiAlN	IT9

Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD207A-1680-103-18R1-P	03046419	16,8 *0.661*	103,0 *4.055*	185,0 *7.283*	137,0 *5.394*	48,0 *1.890*	135,0 *5.315*	18,0 *0.709*	140°	TiAlN	IT9
SD207A-1700-103-18R1-P	03046394	17,0 *0.669*	103,0 *4.055*	185,0 *7.283*	137,0 *5.394*	48,0 *1.890*	135,0 *5.315*	18,0 *0.709*	140°	TiAlN	IT9
SD207A-1750-103-18R1-P	03046395	17,5 *0.689*	103,0 *4.055*	185,0 *7.283*	137,0 *5.394*	48,0 *1.890*	135,0 *5.315*	18,0 *0.709*	140°	TiAlN	IT9
SD207A-1780-103-18R1-P	03046420	17,8 *0.701*	103,0 *4.055*	185,0 *7.283*	137,0 *5.394*	48,0 *1.890*	135,0 *5.315*	18,0 *0.709*	140°	TiAlN	IT9
SD207A-1800-103-18R1-P	03046396	18,0 *0.709*	103,0 *4.055*	185,0 *7.283*	137,0 *5.394*	48,0 *1.890*	135,0 *5.315*	18,0 *0.709*	140°	TiAlN	IT9
SD207A-1850-112-20R1-P	03046397	18,5 *0.728*	112,0 *4.409*	200,0 *7.874*	150,0 *5.906*	50,0 *1.969*	148,0 *5.827*	20,0 *0.787*	140°	TiAlN	IT9
SD207A-1880-112-20R1-P	03046421	18,8 *0.740*	112,0 *4.409*	200,0 *7.874*	150,0 *5.906*	50,0 *1.969*	148,0 *5.827*	20,0 *0.787*	140°	TiAlN	IT9
SD207A-1900-112-20R1-P	03046398	19,0 *0.748*	112,0 *4.409*	200,0 *7.874*	150,0 *5.906*	50,0 *1.969*	148,0 *5.827*	20,0 *0.787*	140°	TiAlN	IT9
SD207A-1905-112-20R1-P	03046399	19,05 *0.750*	112,0 *4.409*	200,0 *7.874*	150,0 *5.906*	50,0 *1.969*	148,0 *5.827*	20,0 *0.787*	140°	TiAlN	IT9
SD207A-1980-112-20R1-P	03046406	19,8 *0.780*	112,0 *4.409*	200,0 *7.874*	150,0 *5.906*	50,0 *1.969*	148,0 *5.827*	20,0 *0.787*	140°	TiAlN	IT9
SD207A-2000-112-20R1-P	03046400	20,0 *0.787*	112,0 *4.409*	200,0 *7.874*	150,0 *5.906*	50,0 *1.969*	148,0 *5.827*	20,0 *0.787*	140°	TiAlN	IT9

SD216A

Drilling depth ~ 16 x D – Metric/Inch



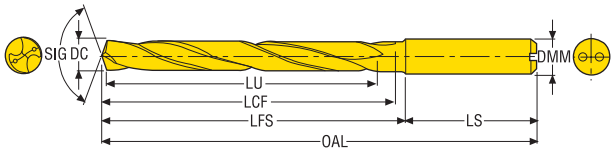


- Cylindrical shank DIN 6537A
- Internal coolant
- For cutting data see page(s) 152
- For intermediate diameters see the MyDesign software.

Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD216A-3.0-50-4R1	02712383	3,0 *0.118*	50,0 *1.969*	88,0 *3.465*	61,0 *2.402*	27,0 *1.063*	56,0 *2.205*	4,0 *0.157*	136°	TiAlN + TiN	IT9
SD216A-3.5-60-4R1	02712384	3,5 *0.138*	60,0 *2.362*	99,0 *3.898*	72,0 *2.835*	27,0 *1.063*	67,0 *2.638*	4,0 *0.157*	136°	TiAlN + TiN	IT9
SD216A-4.0-60-4R1	02712385	4,0 *0.157*	60,0 *2.362*	99,0 *3.898*	72,0 *2.835*	27,0 *1.063*	67,0 *2.638*	4,0 *0.157*	136°	TiAlN + TiN	IT9
SD216A-4.5-70-6R1	02712386	4,5 *0.177*	70,0 *2.756*	117,0 *4.606*	81,0 *3.189*	36,0 *1.417*	79,0 *3.110*	6,0 *0.236*	136°	TiAlN + TiN	IT9
SD216A-5.0-90-6R1	02637529	5,0 *0.197*	90,0 *3.543*	142,0 *5.591*	106,0 *4.173*	36,0 *1.417*	103,0 *4.055*	6,0 *0.236*	136°	TiAlN + TiN	IT9
SD216A-5.5-90-6R1	02637530	5,5 *0.217*	90,0 *3.543*	142,0 *5.591*	106,0 *4.173*	36,0 *1.417*	103,0 *4.055*	6,0 *0.236*	136°	TiAlN + TiN	IT9
SD216A-6.0-90-6R1	02637531	6,0 *0.236*	90,0 *3.543*	142,0 *5.591*	106,0 *4.173*	36,0 *1.417*	103,0 *4.055*	6,0 *0.236*	136°	TiAlN + TiN	IT9
SD216A-6.35-120-8R1	02656536	6,35 *0.250*	120,0 *4.724*	177,0 *6.969*	141,0 *5.551*	36,0 *1.417*	137,0 *5.394*	8,0 *0.315*	136°	TiAlN + TiN	IT9
SD216A-6.5-120-8R1	02637532	6,5 *0.256*	120,0 *4.724*	177,0 *6.969*	141,0 *5.551*	36,0 *1.417*	137,0 *5.394*	8,0 *0.315*	136°	TiAlN + TiN	IT9
SD216A-7.0-120-8R1	02637533	7,0 *0.276*	120,0 *4.724*	177,0 *6.969*	141,0 *5.551*	36,0 *1.417*	137,0 *5.394*	8,0 *0.315*	136°	TiAlN + TiN	IT9
SD216A-7.5-120-8R1	02637534	7,5 *0.295*	120,0 *4.724*	177,0 *6.969*	141,0 *5.551*	36,0 *1.417*	137,0 *5.394*	8,0 *0.315*	136°	TiAlN + TiN	IT9
SD216A-8.0-120-8R1	02637536	8,0 *0.315*	120,0 *4.724*	177,0 *6.969*	141,0 *5.551*	36,0 *1.417*	137,0 *5.394*	8,0 *0.315*	136°	TiAlN + TiN	IT9
SD216A-8.5-150-10R1	02637539	8,5 *0.335*	150,0 *5.906*	216,0 *8.504*	176,0 *6.929*	40,0 *1.575*	172,0 *6.772*	10,0 *0.394*	136°	TiAlN + TiN	IT9
SD216A-9.0-150-10R1	02637540	9,0 *0.354*	150,0 *5.906*	216,0 *8.504*	176,0 *6.929*	40,0 *1.575*	172,0 *6.772*	10,0 *0.394*	136°	TiAlN + TiN	IT9
SD216A-9.5-150-10R1	02637541	9,5 *0.374*	150,0 *5.906*	216,0 *8.504*	176,0 *6.929*	40,0 *1.575*	172,0 *6.772*	10,0 *0.394*	136°	TiAlN + TiN	IT9
SD216A-9.52-150-10R1	02656537	9,52 *0.375*	150,0 *5.906*	216,0 *8.504*	176,0 *6.929*	40,0 *1.575*	172,0 *6.772*	10,0 *0.394*	136°	TiAlN + TiN	IT9
SD216A-10.0-150-10R1	02637542	10,0 *0.394*	150,0 *5.906*	216,0 *8.504*	176,0 *6.929*	40,0 *1.575*	172,0 *6.772*	10,0 *0.394*	136°	TiAlN + TiN	IT9
SD216A-10.5-180-12R1	02637543	10,5 *0.413*	180,0 *7.087*	256,0 *10.079*	211,0 *8.307*	45,0 *1.772*	207,0 *8.150*	12,0 *0.472*	136°	TiAlN + TiN	IT9
SD216A-11.0-180-12R1	02637544	11,0 *0.433*	180,0 *7.087*	256,0 *10.079*	211,0 *8.307*	45,0 *1.772*	207,0 *8.150*	12,0 *0.472*	136°	TiAlN + TiN	IT9
SD216A-11.5-180-12R1	02637545	11,5 *0.453*	180,0 *7.087*	256,0 *10.079*	211,0 *8.307*	45,0 *1.772*	207,0 *8.150*	12,0 *0.472*	136°	TiAlN + TiN	IT9
SD216A-12.0-180-12R1	02637546	12,0 *0.472*	180,0 *7.087*	256,0 *10.079*	211,0 *8.307*	45,0 *1.772*	207,0 *8.150*	12,0 *0.472*	136°	TiAlN + TiN	IT9

SD230A

Drilling depth ~ 30 x D – Metric/Inch





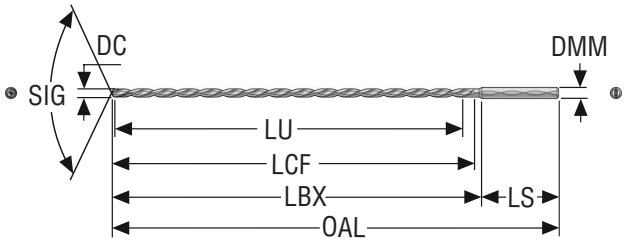
- Cylindrical shank DIN 6537A
- Internal coolant
- For cutting data see page(s) 153
- For intermediate diameters see the MyDesign software.

Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD230A-4.0-112-4R1	02712361	4,0 *0.157*	112,0 *4.409*	151,0 *5.945*	124,0 *4.882*	27,0 *1.063*	119,0 *4.685*	4,0 *0.157*	136°	TiAlN + TiN	IT9
SD230A-4.5-135-6R1	02712362	4,5 *0.177*	135,0 *5.315*	185,0 *7.283*	149,0 *5.866*	36,0 *1.417*	145,0 *5.709*	6,0 *0.236*	136°	TiAlN + TiN	IT9
SD230A-5.0-170-6R1	02712363	5,0 *0.197*	170,0 *6.693*	220,0 *8.661*	184,0 *7.244*	36,0 *1.417*	180,0 *7.087*	6,0 *0.236*	136°	TiAlN + TiN	IT9
SD230A-5.5-170-6R1	02712364	5,5 *0.217*	170,0 *6.693*	220,0 *8.661*	184,0 *7.244*	36,0 *1.417*	180,0 *7.087*	6,0 *0.236*	136°	TiAlN + TiN	IT9
SD230A-6.0-170-6R1	02712365	6,0 *0.236*	170,0 *6.693*	220,0 *8.661*	184,0 *7.244*	36,0 *1.417*	180,0 *7.087*	6,0 *0.236*	136°	TiAlN + TiN	IT9
SD230A-02500-886-0315R1	02712366	6,35 *0.250*	225,0 *8.858*	279,0 *10.984*	243,0 *9.567*	36,0 *1.417*	239,0 *9.409*	8,0 *0.315*	136°	TiAlN + TiN	IT9
SD230A-6.5-225-8R1	02712367	6,5 *0.256*	225,0 *8.858*	279,0 *10.984*	243,0 *9.567*	36,0 *1.417*	239,0 *9.409*	8,0 *0.315*	136°	TiAlN + TiN	IT9
SD230A-7.0-225-8R1	02712370	7,0 *0.276*	225,0 *8.858*	279,0 *10.984*	243,0 *9.567*	36,0 *1.417*	239,0 *9.409*	8,0 *0.315*	136°	TiAlN + TiN	IT9
SD230A-7.5-225-8R1	02712371	7,5 *0.295*	225,0 *8.858*	279,0 *10.984*	243,0 *9.567*	36,0 *1.417*	239,0 *9.409*	8,0 *0.315*	136°	TiAlN + TiN	IT9
SD230A-03125-886-0315R1	02712374	7,938 *0.313*	225,0 *8.858*	279,0 *10.984*	243,0 *9.567*	36,0 *1.417*	239,0 *9.409*	8,0 *0.315*	136°	TiAlN + TiN	IT9
SD230A-8.0-225-8R1	02712376	8,0 *0.315*	225,0 *8.858*	279,0 *10.984*	243,0 *9.567*	36,0 *1.417*	239,0 *9.409*	8,0 *0.315*	136°	TiAlN + TiN	IT9
SD230A-8.5-285-10R1	02712378	8,5 *0.335*	285,0 *11.220*	346,0 *13.622*	306,0 *12.047*	40,0 *1.575*	302,0 *11.890*	10,0 *0.394*	136°	TiAlN + TiN	IT9
SD230A-9.0-285-10R1	02712379	9,0 *0.354*	285,0 *11.220*	346,0 *13.622*	306,0 *12.047*	40,0 *1.575*	302,0 *11.890*	10,0 *0.394*	136°	TiAlN + TiN	IT9
SD230A-9.5-285-10R1	02712380	9,5 *0.374*	285,0 *11.220*	346,0 *13.622*	306,0 *12.047*	40,0 *1.575*	302,0 *11.890*	10,0 *0.394*	136°	TiAlN + TiN	IT9
SD230A-03750-1122-0394R1	02712381	9,525 *0.375*	285,0 *11.220*	346,0 *13.622*	306,0 *12.047*	40,0 *1.575*	302,0 *11.890*	10,0 *0.394*	136°	TiAlN + TiN	IT9
SD230A-10.0-285-10R1	02712382	10,0 *0.394*	285,0 *11.220*	346,0 *13.622*	306,0 *12.047*	40,0 *1.575*	302,0 *11.890*	10,0 *0.394*	136°	TiAlN + TiN	IT9

SD2040A

Drilling depth ~ 40 x D – Metric/Inch



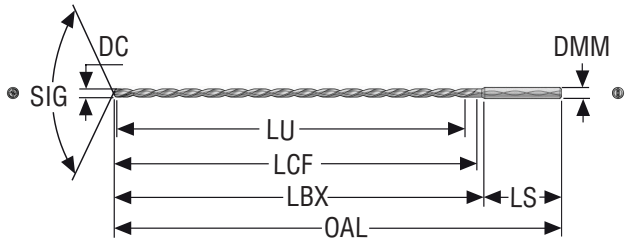


- Cylindrical shank DIN 6537A
- Internal coolant
- For cutting data see page(s) 154
- For intermediate diameters see the MyDesign software.

Designation	Item number	DC	DMM	LU	LCF	LBX	OAL	LS	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD2040A-0300-120-04R1	10143441	3,0 *0.118*	4,0 *0.157*	120 *4.724*	128,0 *5.039*	130,0 *5.118*	157,0 *6.181*	27,0 *1.063*	133°	TiAlN + TiN	IT9-10
SD2040A-0400-160-04R1	10143442	4,0 *0.157*	4,0 *0.157*	160 *6.299*	169,0 *6.654*	142,0 *5.591*	198,0 *7.795*	27,0 *1.063*	133°	TiAlN + TiN	IT9-10
SD2040A-0450-180-06R1	10143443	4,5 *0.177*	6,0 *0.236*	180 *7.087*	190,0 *7.480*	202,0 *7.953*	238,0 *9.370*	36,0 *1.417*	133°	TiAlN + TiN	IT9-10
SD2040A-0500-200-06R1	10143444	5,0 *0.197*	6,0 *0.236*	200 *7.874*	210,5 *8.287*	213,0 *8.386*	249,0 *9.803*	36,0 *1.417*	133°	TiAlN + TiN	IT9-10
SD2040A-0600-240-06R1	10143445	6,0 *0.236*	6,0 *0.236*	240 *9.449*	252,0 *9.921*	254,0 *10.000*	290,0 *11.417*	36,0 *1.417*	133°	TiAlN + TiN	IT9-10
SD2040A-0635-254-08R1	10143446	6,35 *0.250*	8,0 *0.315*	254 *10.000*	266,5 *10.492*	275,0 *10.827*	311,0 *12.244*	36,0 *1.417*	133°	TiAlN + TiN	IT9-10
SD2040A-0650-260-08R1	10143447	6,5 *0.256*	8,0 *0.315*	260 *10.236*	273,0 *10.748*	275,0 *10.827*	311,0 *12.244*	36,0 *1.417*	133°	TiAlN + TiN	IT9-10
SD2040A-0700-280-08R1	10143448	7,0 *0.276*	8,0 *0.315*	280 *11.024*	293,5 *11.555*	296,0 *11.654*	332,0 *13.071*	36,0 *1.417*	133°	TiAlN + TiN	IT9-10
SD2040A-0750-300-08R1	10143449	7,5 *0.295*	8,0 *0.315*	300 *11.811*	314,0 *12.362*	316,0 *12.441*	352,0 *13.858*	36,0 *1.417*	133°	TiAlN + TiN	IT9-10
SD2040A-0800-320-08R1	10143450	8,0 *0.315*	8,0 *0.315*	320 *12.598*	335,0 *13.189*	337,0 *13.268*	373,0 *14.685*	36,0 *1.417*	133°	TiAlN + TiN	IT9-10

SD2050A

Drilling depth ~ 50 x D – Metric/Inch





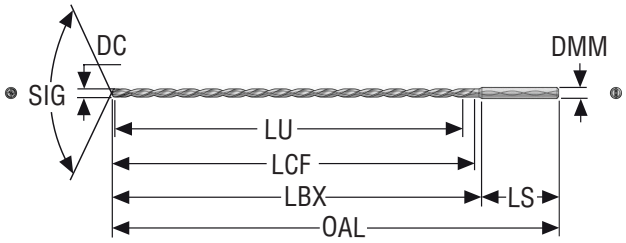
- Cylindrical shank DIN 6537A
- Internal coolant
- For cutting data see page(s) 154
- For intermediate diameters see the MyDesign software.

Designation	Item number	DC	DMM	LU	LCF	LBX	OAL	LS	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD2050A-0300-150-04R1	10188284	3,0 *0.118*	4,0 *0.157*	150 *5.906*	157,5 *6.201*	161,0 *6.339*	188,0 *7.402*	27,0 *1.063*	133°	TiAlN + TiN	IT9
SD2050A-0400-200-04R1	10188285	4,0 *0.157*	4,0 *0.157*	200 *7.874*	209,0 *8.228*	213,0 *8.386*	240,0 *9.449*	27,0 *1.063*	133°	TiAlN + TiN	IT9
SD2050A-0450-225-06R1	10188286	4,5 *0.177*	6,0 *0.236*	225 *8.858*	234,75 *9.242*	252,0 *9.921*	288,0 *11.339*	36,0 *1.417*	133°	TiAlN + TiN	IT9
SD2050A-0500-250-06R1	10188287	5,0 *0.197*	6,0 *0.236*	250 *9.843*	260,5 *10.256*	264,0 *10.394*	300,0 *11.811*	36,0 *1.417*	133°	TiAlN + TiN	IT9
SD2050A-0600-300-06R1	10188288	6,0 *0.236*	6,0 *0.236*	300 *11.811*	312,0 *12.283*	316,0 *12.441*	352,0 *13.858*	36,0 *1.417*	133°	TiAlN + TiN	IT9
SD2050A-0635-318-08R1	10188289	6,35 *0.250*	8,0 *0.315*	318 *12.520*	330,5 *13.012*	337,0 *13.268*	373,0 *14.685*	36,0 *1.417*	133°	TiAlN + TiN	IT9

SD2060A

Drilling depth ~ 60 x D – Metric/Inch





- Cylindrical shank DIN 6537A
- Internal coolant
- For cutting data see page(s) 154
- For intermediate diameters see the MyDesign software.

Designation	Item number	DC	DMM	LU	LCF	LBX	OAL	LS	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD2060A-0300-180-04R1	10188290	3,0 *0.118*	4,0 *0.157*	180 *7.087*	187,5 *7.382*	191,0 *7.520*	218,0 *8.583*	27,0 *1.063*	133°	TiAlN + TiN	IT9
SD2060A-0400-240-04R1	10188291	4,0 *0.157*	4,0 *0.157*	240 *9.449*	249,0 *9.803*	253,0 *9.961*	280,0 *11.024*	27,0 *1.063*	133°	TiAlN + TiN	IT9
SD2060A-0450-270-06R1	10188292	4,5 *0.177*	6,0 *0.236*	270 *10.630*	280,0 *11.024*	283,0 *11.142*	319,0 *12.559*	36,0 *1.417*	133°	TiAlN + TiN	IT9
SD2060A-0500-300-06R1	10188293	5,0 *0.197*	6,0 *0.236*	300 *11.811*	310,5 *12.224*	314,0 *12.362*	350,0 *13.780*	36,0 *1.417*	133°	TiAlN + TiN	IT9



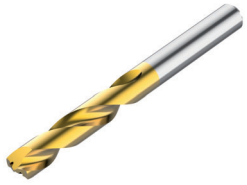
Feedmax™ SD245A

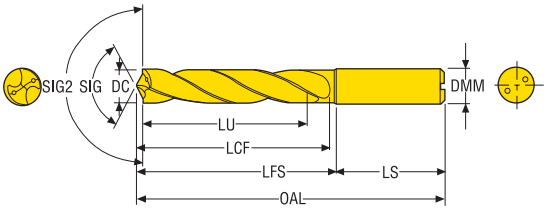
Seco Feedmax SD245A solid carbide drills bring high levels of stability and overall improved machining performance to holemaking applications with irregular exits and cross-hole interruptions. The following features enable the user to achieve good hole geometry:

- Four land margins
- An optimized self-centering point
- Highly wear-resistant TiAlN+TiN coating
- Enhanced edge preparation

SD245A

Drilling depth ~ 5 x D – Metric/Inch





- Cylindrical shank DIN 6537A
- Internal coolant
- For cutting data see page(s) 155
- For intermediate diameters see the MyDesign software.

Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD245A-5.0-32-6R1	02691683	5,0 *0.197*	32,0 *1.260*	82,0 *3.228*	46,0 *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°/180°	TiAlN + TiN	IT8
SD245A-6.0-32-6R1	02691684	6,0 *0.236*	32,0 *1.260*	82,0 *3.228*	46,0 *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°/180°	TiAlN + TiN	IT8
SD245A-02500-138-0315R1	02691686	6,35 *0.2500*	35,0 *1.378*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°/180°	TiAlN + TiN	IT8
SD245A-6.5-35-8R1	02691687	6,5 *0.256*	35,0 *1.378*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°/180°	TiAlN + TiN	IT8
SD245A-02656-157-0315R1	02691688	6,747 *0.2656*	40,0 *1.575*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°/180°	TiAlN + TiN	IT8
SD245A-6.8-40-8R1	02691689	6,8 *0.268*	40,0 *1.575*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°/180°	TiAlN + TiN	IT8
SD245A-7.0-40-8R1	02691690	7,0 *0.276*	40,0 *1.575*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°/180°	TiAlN + TiN	IT8
SD245A-02813-157-0315R1	02691691	7,144 *0.2813*	40,0 *1.575*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°/180°	TiAlN + TiN	IT8
SD245A-7.5-40-8R1	02691692	7,5 *0.295*	40,0 *1.575*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°/180°	TiAlN + TiN	IT8
SD245A-03125-165-0315R1	02691693	7,938 *0.3125*	42,0 *1.654*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°/180°	TiAlN + TiN	IT8
SD245A-8.0-42-8R1	02691694	8,0 *0.315*	42,0 *1.654*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°/180°	TiAlN + TiN	IT8
SD245A-8.5-42-10R1	02691695	8,5 *0.335*	42,0 *1.654*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°/180°	TiAlN + TiN	IT8
SD245A-9.0-45-10R1	02546059	9,0 *0.354*	45,0 *1.772*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°/180°	TiAlN + TiN	IT8
SD245A-9.5-45-10R1	02691696	9,5 *0.374*	45,0 *1.772*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°/180°	TiAlN + TiN	IT8
SD245A-03750-189-0394R1	02691697	9,525 *0.3750*	48,0 *1.890*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°/180°	TiAlN + TiN	IT8
SD245A-10.0-48-10R1	02536888	10,0 *0.394*	48,0 *1.890*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°/180°	TiAlN + TiN	IT8
SD245A-10.2-48-12R1	02691699	10,2 *0.402*	48,0 *1.890*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°/180°	TiAlN + TiN	IT8
SD245A-04063-189-0472R1	02691700	10,319 *0.4063*	48,0 *1.890*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°/180°	TiAlN + TiN	IT8
SD245A-10.5-48-12R1	02691701	10,5 *0.413*	48,0 *1.890*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°/180°	TiAlN + TiN	IT8
SD245A-11.0-56-12R1	02561860	11,0 *0.433*	56,0 *2.205*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°/180°	TiAlN + TiN	IT8
SD245A-04375-221-0472R1	02691702	11,113 *0.4375*	56,0 *2.205*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°/180°	TiAlN + TiN	IT8
SD245A-11.5-56-12R1	02691704	11,5 *0.453*	56,0 *2.205*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°/180°	TiAlN + TiN	IT8

Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD245A-12.0-56-12R1	02691705	12,0 *0.472*	56,0 *2.205*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°/180°	TiAlN + TiN	IT8
SD245A-12.5-56-14R1	02691706	12,5 *0.492*	56,0 *2.205*	124,0 *4.882*	79,0 *3.110*	45,0 *1.772*	77,0 *3.031*	14,0 *0.551*	140°/180°	TiAlN + TiN	IT8
SD245A-0500-221-0551R1	02691707	12,7 *0.500*	56,0 *2.205*	124,0 *4.882*	79,0 *3.110*	45,0 *1.772*	77,0 *3.031*	14,0 *0.551*	140°/180°	TiAlN + TiN	IT8
SD245A-13.0-56-14R1	02691708	13,0 *0.512*	56,0 *2.205*	124,0 *4.882*	79,0 *3.110*	45,0 *1.772*	77,0 *3.031*	14,0 *0.551*	140°/180°	TiAlN + TiN	IT8
SD245A-05312-232-0551R1	02691709	13,494 *0.5312*	59,0 *2.323*	124,0 *4.882*	79,0 *3.110*	45,0 *1.772*	77,0 *3.031*	14,0 *0.551*	140°/180°	TiAlN + TiN	IT8
SD245A-13.5-59-14R1	02691710	13,5 *0.5312*	59,0 *2.323*	124,0 *4.882*	79,0 *3.110*	45,0 *1.772*	77,0 *3.031*	14,0 *0.551*	140°/180°	TiAlN + TiN	IT8
SD245A-14.0-59-14R1	02691711	14,0 *0.551*	59,0 *2.323*	124,0 *4.882*	79,0 *3.110*	45,0 *1.772*	77,0 *3.031*	14,0 *0.551*	140°/180°	TiAlN + TiN	IT8



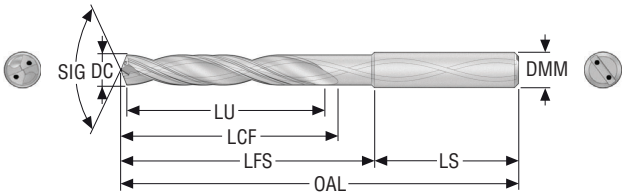
Feedmax™ SD265A

Seco Feedmax SD265A IT 7 high precision drills offer impeccable accuracy. Additionally, one SD265A drill can take the place of multiple tools and simplify complex drilling tasks. The following features enable the user to drill holes in a single pass:

- Optimized drill geometry and self-centering point
- Total of 6 land margins
- Tight manufacturing tolerances (±3µ)
- TiAlN coating for low friction and great wear resistance

SD265A

Drilling depth ~ 5 x D – Metric/Inch





- Cylindrical shank DIN 6537A
- Internal coolant
- For cutting data see page(s) 156
- For intermediate diameters see the MyDesign software.

Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD265A-6.006-32-6R1	02691714	6,006 *0.236*	32,0 *1.260*	82,0 *3.228*	46,0 *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°	TiAlN + TiN	IT7
SD265A-02497-138-0315R1	02722876	6,35 *0.250*	35,0 *1.378*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN + TiN	IT7
SD265A-03122-165-0315R1	02722877	7,938 *0.313*	42,0 *1.654*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN + TiN	IT7
SD265A-8.008-42-8R1	02691715	8,008 *0.315*	42,0 *1.654*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN + TiN	IT7
SD265A-03747-189-0394R1	02722878	9,525 *0.375*	48,0 *1.890*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN + TiN	IT7
SD265A-10.008-48-10R1	02691716	10,008 *0.394*	48,0 *1.890*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN + TiN	IT7
SD265A-12.009-56-12R1	02691717	12,009 *0.473*	56,0 *2.205*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN + TiN	IT7
SD265A-04997-221-0551R1	02722879	12,7 *0.500*	56,0 *2.205*	124,0 *4.882*	79,0 *3.110*	45,0 *1.772*	77,0 *3.031*	14,0 *0.551*	140°	TiAlN + TiN	IT7
SD265A-14.009-59-14R1	02691718	14,009 *0.552*	59,0 *2.323*	124,0 *4.882*	79,0 *3.110*	45,0 *1.772*	77,0 *3.031*	14,0 *0.551*	140°	TiAlN + TiN	IT7
SD265A-16.009-62-16R1	02691719	16,009 *0.630*	62,0 *2.441*	133,0 *5.236*	85,0 *3.346*	48,0 *1.890*	83,0 *3.268*	16,0 *0.630*	140°	TiAlN + TiN	IT7



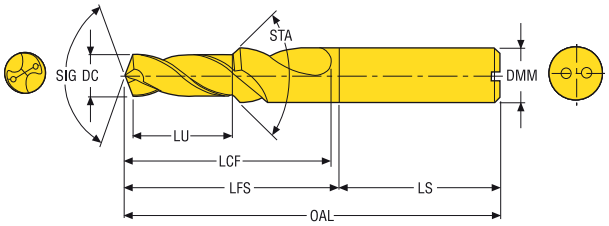
Feedmax™ – Chamfer drills

Seco Feedmax™ chamfer drills combine drilling and chamfering into a single process to maximize efficiency. The standard stocked range covers pre-drilling applications for common standard metric threads from M4 to M16.

- Special design minimizes cost per hole and increases productivity
- Special low friction coating provides high hot hardness and excellent chip evacuation
- The self-centering geometry provides high hole quality using a 45-degree (90-degree included angle) chamfer angle

Chamfer drills – M4 - M16 Thread

Metric/Inch





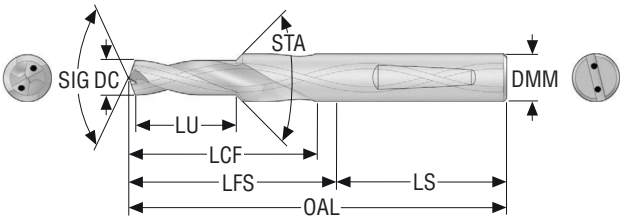
- Cylindrical shank DIN 6537A
- Internal coolant
- Coating: TiAlN + TiN
- Hole tolerance: IT8-9
- Included chamfer angle = 90°
- For cutting data see page(s) 145, 146

Designation	Item number	Tap thread type	Tap thread size	DC	LU	OAL	LFS	LS	LCF	DMM
				mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*
SD203A-C45-3.3-11.4-6R1	02500320	Normal pitch Metric thread	M4	3,3 *0.130*	11,4 *0.449*	66,0 *2.598*	26,0 *1.024*	36,0 *1.417*	20,0 *0.787*	6,0 *0.236*
SD203A-C45-3.4-11.4-6R1	02500323	Normal pitch Metric thread	M4	3,4 *0.134*	11,4 *0.449*	66,0 *2.598*	26,0 *1.024*	36,0 *1.417*	20,0 *0.787*	6,0 *0.236*
SD203A-C45-4.2-13.6-6R1	02500324	Normal pitch Metric thread	M5	4,2 *0.165*	13,6 *0.535*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	24,0 *0.945*	6,0 *0.236*
SD203A-C45-4.3-13.6-6R1	02500325	Normal pitch Metric thread	M5	4,3 *0.169*	13,6 *0.535*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	24,0 *0.945*	6,0 *0.236*
SD203A-C45-5.0-16.5-8R1	02500326	Normal pitch Metric thread	M6	5,0 *0.197*	16,5 *0.650*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	28,0 *1.102*	8,0 *0.315*
SD203A-C45-5.1-16.5-8R1	02500327	Normal pitch Metric thread	M6	5,1 *0.201*	16,5 *0.650*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	28,0 *1.102*	8,0 *0.315*
SD203A-C45-6.8-21-10R1	02500328	Normal pitch Metric thread	M8	6,8 *0.268*	21,0 *0.827*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	34,0 *1.339*	10,0 *0.394*
SD203A-C45-6.9-21-10R1	02500330	Normal pitch Metric thread	M8	6,9 *0.272*	21,0 *0.827*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	34,0 *1.339*	10,0 *0.394*
SD203A-C45-7.0-21-10R1	02500331	Fine pitch Metric thread	M8x1.0	7,0 *0.276*	21,0 *0.827*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	34,0 *1.339*	10,0 *0.394*
SD203A-C45-8.5-25.5-12R1	02500333	Normal pitch Metric thread	M10	8,5 *0.335*	25,5 *1.004*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	47,0 *1.850*	12,0 *0.472*
SD203A-C45-8.7-25.5-12R1	02500334	Normal pitch Metric thread	M10	8,7 *0.343*	25,5 *1.004*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	47,0 *1.850*	12,0 *0.472*
SD203A-C45-9.0-25.5-12R1	02500340	Fine pitch Metric thread	M10x1.0	9,0 *0.354*	25,5 *1.004*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	47,0 *1.850*	12,0 *0.472*
SD203A-C45-10.2-30.0-14R1	02500342	Normal pitch Metric thread	M12	10,2 *0.402*	30,0 *1.181*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	55,0 *2.165*	14,0 *0.551*
SD203A-C45-10.4-30.0-14R1	02500343	Normal pitch Metric thread	M12	10,4 *0.409*	30,0 *1.181*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	55,0 *2.165*	14,0 *0.551*
SD203A-C45-10.5-30.0-14R1	02500344	Fine pitch Metric thread	M12x1.5	10,5 *0.413*	34,5 *1.358*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	55,0 *2.165*	14,0 *0.551*
SD203A-C45-12.0-34.5-16R1	02500346	Normal pitch Metric thread	M14	12,0 *0.472*	34,5 *1.358*	115,0 *4.528*	70,0 *2.756*	45,0 *1.772*	60,0 *2.362*	16,0 *0.630*
SD203A-C45-12.25-34.5-16R1	02500348	Normal pitch Metric thread	M14	12,25 *0.482*	34,5 *1.358*	115,0 *4.528*	70,0 *2.756*	45,0 *1.772*	60,0 *2.362*	16,0 *0.630*
SD203A-C45-12.5-34.5-16R1	02500349	Fine pitch Metric thread	M14x1.5	12,5 *0.492*	34,5 *1.358*	115,0 *4.528*	70,0 *2.756*	45,0 *1.772*	60,0 *2.362*	16,0 *0.630*
SD203A-C45-14.0-38.5-18R1	02500350	Normal pitch Metric thread	M16	14,0 *0.551*	38,5 *1.516*	123,0 *4.843*	75,0 *2.953*	48,0 *1.890*	65,0 *2.559*	18,0 *0.709*
SD203A-C45-14.25-38.5-18R1	02500354	Normal pitch Metric thread	M16	14,25 *0.561*	38,5 *1.516*	123,0 *4.843*	75,0 *2.953*	48,0 *1.890*	65,0 *2.559*	18,0 *0.709*
SD203A-C45-14.5-38.5-18R1	02500356	Fine pitch Metric thread	M16x1.5	14,5 *0.571*	38,5 *1.516*	123,0 *4.843*	75,0 *2.953*	48,0 *1.890*	65,0 *2.559*	18,0 *0.709*

Chamfer drills – M4 - M16 Thread

Metric/Inch



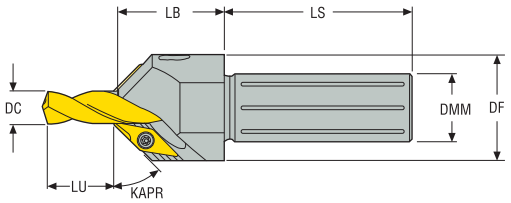


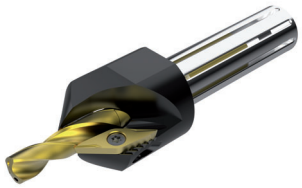
- Whistle Notch shank DIN6537B
- Internal coolant
- Coating: TiAlN + TiN
- Hole tolerance: IT8-9
- Included chamfer angle = 90°
- For cutting data see page(s) 145, 146

Designation	Item number	Tap thread type	Tap thread size	DC	LU	OAL	LFS	LS	LCF	DMM
				mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*
SD203A-C45-3.3-11.4-6R5	02500382	Normal pitch Metric thread	M4	3,3 *0.130*	11,4 *0.449*	66,0 *2.598*	26,0 *1.024*	36,0 *1.417*	20,0 *0.787*	6,0 *0.236*
SD203A-C45-3.4-11.4-6R5	02500383	Normal pitch Metric thread	M4	3,4 *0.134*	11,4 *0.449*	66,0 *2.598*	26,0 *1.024*	36,0 *1.417*	20,0 *0.787*	6,0 *0.236*
SD203A-C45-4.2-13.6-6R5	02500391	Normal pitch Metric thread	M5	4,2 *0.165*	13,6 *0.535*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	24,0 *0.945*	6,0 *0.236*
SD203A-C45-4.3-13.6-6R5	02500392	Normal pitch Metric thread	M5	4,3 *0.169*	13,6 *0.535*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	24,0 *0.945*	6,0 *0.236*
SD203A-C45-5.0-16.5-8R5	02500393	Normal pitch Metric thread	M6	5,0 *0.197*	16,5 *0.650*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	28,0 *1.102*	8,0 *0.315*
SD203A-C45-5.1-16.5-8R5	02500394	Normal pitch Metric thread	M6	5,1 *0.201*	16,5 *0.650*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	28,0 *1.102*	8,0 *0.315*
SD203A-C45-6.8-21.0-10R5	02500395	Normal pitch Metric thread	M8	6,8 *0.268*	21,0 *0.827*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	34,0 *1.339*	10,0 *0.394*
SD203A-C45-6.9-21.0-10R5	02500396	Normal pitch Metric thread	M8	6,9 *0.272*	21,0 *0.827*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	34,0 *1.339*	10,0 *0.394*
SD203A-C45-7.0-21.0-10R5	02500398	Fine pitch Metric thread	M8x1.0	7,0 *0.276*	21,0 *0.827*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	34,0 *1.339*	10,0 *0.394*
SD203A-C45-8.5-25.5-12R5	02500401	Normal pitch Metric thread	M10	8,5 *0.335*	25,5 *1.004*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	47,0 *1.850*	12,0 *0.472*
SD203A-C45-8.7-25.5-12R5	02500403	Normal pitch Metric thread	M10	8,7 *0.343*	25,5 *1.004*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	47,0 *1.850*	12,0 *0.472*
SD203A-C45-9.0-25.5-12R5	02500410	Fine pitch Metric thread	M10x1.0	9,0 *0.354*	25,5 *1.004*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	47,0 *1.850*	12,0 *0.472*
SD203A-C45-10.2-30.0-14R5	02500412	Normal pitch Metric thread	M12	10,2 *0.402*	30,0 *1.181*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	55,0 *2.165*	14,0 *0.551*
SD203A-C45-10.4-30.0-14R5	02500414	Normal pitch Metric thread	M12	10,4 *0.409*	30,0 *1.181*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	55,0 *2.165*	14,0 *0.551*
SD203A-C45-10.5-30.0-14R5	02500416	Fine pitch Metric thread	M12x1.5	10,5 *0.413*	34,5 *1.358*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	55,0 *2.165*	14,0 *0.551*
SD203A-C45-12.0-34.5-16R5	02500417	Normal pitch Metric thread	M14	12,0 *0.472*	34,5 *1.358*	115,0 *4.528*	70,0 *2.756*	45,0 *1.772*	60,0 *2.362*	16,0 *0.630*
SD203A-C45-12.25-34.5-16R5	02500418	Normal pitch Metric thread	M14	12,25 *0.482*	34,5 *1.358*	115,0 *4.528*	70,0 *2.756*	45,0 *1.772*	60,0 *2.362*	16,0 *0.630*
SD203A-C45-12.5-34.5-16R5	02500420	Fine pitch Metric thread	M14x1.5	12,5 *0.492*	34,5 *1.358*	115,0 *4.528*	70,0 *2.756*	45,0 *1.772*	60,0 *2.362*	16,0 *0.630*
SD203A-C45-14.0-38.5-18R5	02500423	Normal pitch Metric thread	M16	14,0 *0.551*	38,5 *1.516*	123,0 *4.843*	75,0 *2.953*	48,0 *1.890*	65,0 *2.559*	18,0 *0.709*
SD203A-C45-14.25-38.5-18R5	02500424	Normal pitch Metric thread	M16	14,25 *0.561*	38,5 *1.516*	123,0 *4.843*	75,0 *2.953*	48,0 *1.890*	65,0 *2.559*	18,0 *0.709*
SD203A-C45-14.5-38.5-18R5	02500425	Fine pitch Metric thread	M16x1.5	14,5 *0.571*	38,5 *1.516*	123,0 *4.843*	75,0 *2.953*	48,0 *1.890*	65,0 *2.559*	18,0 *0.709*

Chamfer module for Universal and Feedmax drills

Metric



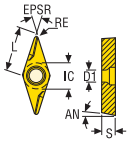


Designation	Item number	DC	Drill depth LU 3 x D (min-max)	5 x D (min-max)	7 x D (min-max)	Max chamfer depth	LB	DF	LS	DMM	KAPR°
		mm	mm	mm	mm	mm	mm	mm	mm	mm	
SD200-C45-6R1	02510275	4,01-6,1	4,0-17,0	10,0-27,0	30,0-45,0	2,8	25,0	21,0	41,0	12,0	45,0
SD200-C45-8R1	02510278	6,01-8,0	15,0-27,0	24,0-35,0	42,0-57,0	2,8	25,0	25,0	44,5	16,0	45,0
SD200-C45-10R1	02510280	8,01-10,0	17,0-31,0	34,0-48,0	47,0-62,0	2,8	25,0	25,0	44,5	16,0	45,0
SD200-C45-12R1	02510281	10,01-12,0	21,0-36,0	40,0-56,0	57,0-72,0	2,8	25,0	28,0	46,5	20,0	45,0
SD200-C45-14R1	02510283	12,01-14,0	22,0-37,0	43,0-59,0	68,0-83,0	2,8	25,0	30,0	46,5	20,0	45,0
SD200-C45-16R1	02510285	14,01-16,0	23,0-39,0	44,0-60,0	76,0-92,0	2,8	34,0	32,0	53,0	25,0	45,0

Spare Parts, included in delivery

For drill dia. (mm)	Insert key	Insert screw	Locking key	Locking screw	Cassette
					
	Insert	Insert	Module	Module	Module
4,00 - 16,00	T07P-2	C02205-T07P	H1.5-2D	SH3040	SD200-3x7.3

Insert

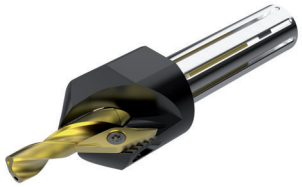


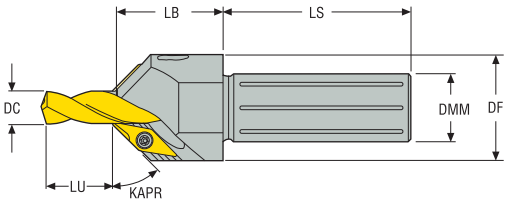
Tolerances: mm
IC = ±0,025
S = ±0,07
RE = ±0,10

Size	L mm	EPSR	RE mm	IC mm	D1 mm	AN	S mm
C45	9,000	45°	0,200	5,556	2,900	7°	2,500
Grade: T400D							
Designation: SD200-C45							
Item number: 02510325							

Chamfer module for Universal and Feedmax drills

Inch



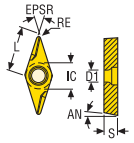


Designation	Item number	DC	Drill depth LU 3 x D (min-max)	5 x D (min-max)	7 x D (min-max)	Max chamfer depth	DF	LB	LS	DMM	KAPR°
		Inch	*Inch*	*Inch*	*Inch*	*Inch*	*Inch*	*Inch*	*Inch*	*Inch*	
SD200-C45-6-500R1	02510287	0.158-0.240	0.157-0.669	0.394-1.063	1.181-1.772	0.110	0.827	0.984	1.614	0.500	45
SD200-C45-8-625R1	02510289	0.237-0.315	0.591-1.063	0.945-1.378	1.654-2.244	0.110	0.984	0.984	1.752	0.625	45
SD200-C45-10-625R1	02510291	0.315-0.394	0.669-1.220	1.339-1.890	1.850-2.441	0.110	0.984	0.984	1.752	0.625	45
SD200-C45-12-750R1	02510292	0.394-0.472	0.827-1.417	1.575-2.205	2.244-2.835	0.110	1.102	0.984	1.831	0.750	45
SD200-C45-14-750R1	02510293	0.473-0.551	0.866-1.457	1.693-2.323	2.677-3.268	0.110	1.181	0.984	1.831	0.750	45
SD200-C45-16-1000R1	02510295	0.552-0.630	0.906-1.535	1.732-2.362	2.992-3.622	0.110	1.260	1.339	2.087	1.000	45

Spare Parts, included in delivery

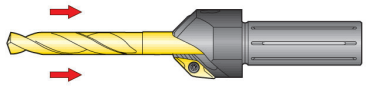
For drill dia. (inch)	Insert key	Insert screw	Locking key	Cassette
				
	Insert	Insert	Module	Module
0.1574 - 0.6299	T07P-2	C02205-T07P	H1.5-2D	SD200-3x7.3

Insert

	Tolerances: inch	Size	L inch	EPSR	RE inch	IC inch	D1 inch	AN	S inch
	IC = ±0.001 S = ±0.0027 RE = ±0.004	**C45**	**0.3543**	**45°**	**0.0078**	**0.2187**	**0.1141**	**7°**	**0.0984**
		Grade: T400D							
		Designation: SD200-C45							
		Item number: 02510325							

Chamfer module mounting instructions

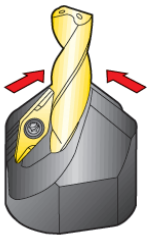
1.



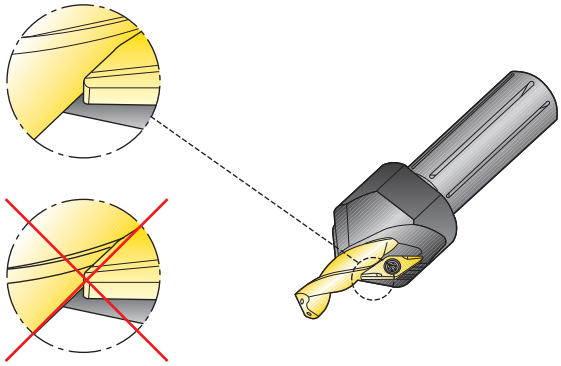
2.

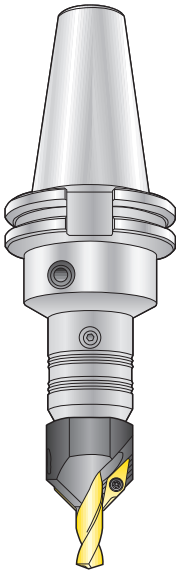


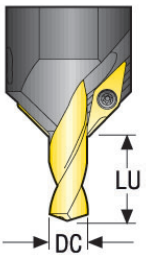
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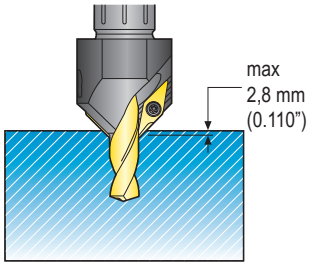
4.







Maximum chamfer depth



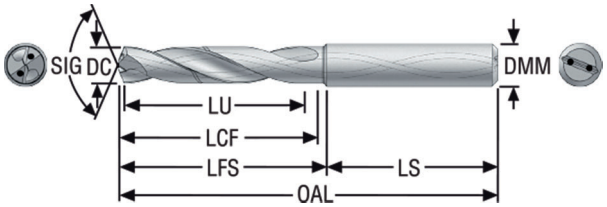
Drill diameter DC		LU drilling depth (min-max) SD1103 / SD203A		SD1105 / SD205A		SD207A	
mm	*inch*	mm	*inch*	mm	*inch*	mm	*inch*
4,00-4,75	*.157-.187*	4-17	*.157-.669*	10-27	*.394-1.063*	30-45	*1.181-1.772*
4,76-6,00	*.187-.236*	6-20	*.236-.787*	18-32	*.709-1.260*	30-45	*1.181-1.772*
6,01-8,00	*.241-.315*	15-27	*.590-1.063*	28-42	*1.102-1.653*	42-57	*1.653-2.244*
8,01-10,00	*.315-.394*	17-31	*.669-1.220*	34-48	*1.338-1.890*	47-62	*1.850-2.441*
10,01-12,00	*.394-.472*	21-36	*.826-1.417*	40-56	*1.575-2.205*	57-72	*2.244-2.835*
12,01-14,00	*.473-.551*	22-37	*.866-1.457*	43-59	*1.693-2.323*	68-83	*2.677-3.268*
14,01-16,00	*.552-.630*	23-39	*.906-1.535*	44-60	*1.732-2.362*	76-92	*2.992-3.622*

To be used with cylindrical shank only (R1).

SD203A, -MS

Drilling depth ~ 3 x D – Metric/Inch





- Cylindrical shank DIN 6537A
- DC tolerance m7
- Internal coolant
- For cutting data see page(s) 157-158
- For intermediate diameters see the MyDesign software.

Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD203A-0200-007-04R1-MS	10004064	2,0 *0.079*	7,0 *0.276*	41,0 *1.614*	14,0 *0.551*	27,0 *1.063*	11,0 *0.433*	4,0 *0.157*	140°	TiAlN + NbN	IT8-9
SD203A-0210-007-04R1-MS	10004065	2,1 *0.083*	7,0 *0.276*	41,0 *1.614*	14,0 *0.551*	27,0 *1.063*	11,0 *0.433*	4,0 *0.157*	140°	TiAlN + NbN	IT8-9
SD203A-0220-007-04R1-MS	10004066	2,2 *0.087*	7,0 *0.276*	41,0 *1.614*	14,0 *0.551*	27,0 *1.063*	11,0 *0.433*	4,0 *0.157*	140°	TiAlN + NbN	IT8-9
SD203A-0230-008-04R1-MS	10004067	2,3 *0.091*	8,0 *0.315*	44,0 *1.732*	17,0 *0.669*	27,0 *1.063*	12,5 *0.492*	4,0 *0.157*	140°	TiAlN + NbN	IT8-9
SD203A-0240-008-04R1-MS	10004068	2,4 *0.094*	8,0 *0.315*	44,0 *1.732*	17,0 *0.669*	27,0 *1.063*	12,5 *0.492*	4,0 *0.157*	140°	TiAlN + NbN	IT8-9
SD203A-0250-008-04R1-MS	10004072	2,5 *0.098*	8,0 *0.315*	44,0 *1.732*	17,0 *0.669*	27,0 *1.063*	12,5 *0.492*	4,0 *0.157*	140°	TiAlN + NbN	IT8-9
SD203A-0260-008-04R1-MS	10004073	2,6 *0.102*	8,0 *0.315*	44,0 *1.732*	17,0 *0.669*	27,0 *1.063*	12,5 *0.492*	4,0 *0.157*	140°	TiAlN + NbN	IT8-9
SD203A-0270-009-04R1-MS	10004074	2,7 *0.106*	9,0 *0.354*	44,0 *1.732*	17,0 *0.669*	27,0 *1.063*	14,5 *0.571*	4,0 *0.157*	140°	TiAlN + NbN	IT8-9
SD203A-0278-009-04R1-MS	10004075	2,78 *0.109*	9,0 *0.354*	44,0 *1.732*	17,0 *0.669*	27,0 *1.063*	14,5 *0.571*	4,0 *0.157*	140°	TiAlN + NbN	IT8-9
SD203A-0290-009-04R1-MS	10004076	2,9 *0.114*	9,0 *0.354*	44,0 *1.732*	17,0 *0.669*	27,0 *1.063*	14,5 *0.571*	4,0 *0.157*	140°	TiAlN + NbN	IT8-9
SD203A-0300-014-06R1-MS	10004077	3,0 *0.118*	14,0 *0.551*	62,0 *2.441*	26,0 *1.024*	36,0 *1.417*	20,0 *0.787*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD203A-0310-014-06R1-MS	10004078	3,1 *0.122*	14,0 *0.551*	62,0 *2.441*	26,0 *1.024*	36,0 *1.417*	20,0 *0.787*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD203A-0320-014-06R1-MS	10004079	3,2 *0.126*	14,0 *0.551*	62,0 *2.441*	26,0 *1.024*	36,0 *1.417*	20,0 *0.787*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD203A-0330-014-06R1-MS	10004080	3,3 *0.130*	14,0 *0.551*	62,0 *2.441*	26,0 *1.024*	36,0 *1.417*	20,0 *0.787*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD203A-0340-014-06R1-MS	10004081	3,4 *0.134*	14,0 *0.551*	62,0 *2.441*	26,0 *1.024*	36,0 *1.417*	20,0 *0.787*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD203A-0350-015-06R1-MS	10004083	3,5 *0.138*	15,0 *0.591*	62,0 *2.441*	26,0 *1.024*	36,0 *1.417*	20,0 *0.787*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD203A-0357-015-06R1-MS	10004084	3,57 *0.141*	15,0 *0.591*	62,0 *2.441*	26,0 *1.024*	36,0 *1.417*	20,0 *0.787*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD203A-0370-015-06R1-MS	10004085	3,7 *0.146*	15,0 *0.591*	62,0 *2.441*	26,0 *1.024*	36,0 *1.417*	20,0 *0.787*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD203A-0380-017-06R1-MS	10004086	3,8 *0.150*	17,0 *0.669*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	24,0 *0.945*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD203A-0390-017-06R1-MS	10004087	3,9 *0.154*	17,0 *0.669*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	24,0 *0.945*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD203A-0397-017-06R1-MS	10004088	3,97 *0.156*	17,0 *0.669*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	24,0 *0.945*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD203A-0400-017-06R1-MS	10004089	4,0 *0.157*	17,0 *0.669*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	24,0 *0.945*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9

Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD203A-0410-017-06R1-MS	10004090	4,1 *0.161*	17,0 *0.669*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	24,0 *0.945*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD203A-0420-017-06R1-MS	10004091	4,2 *0.165*	17,0 *0.669*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	24,0 *0.945*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD203A-0430-018-06R1-MS	10004092	4,3 *0.169*	18,0 *0.709*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	24,0 *0.945*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD203A-0450-018-06R1-MS	10004093	4,5 *0.177*	18,0 *0.709*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	24,0 *0.945*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD203A-0460-018-06R1-MS	10004094	4,6 *0.181*	18,0 *0.709*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	26,0 *1.024*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD203A-0465-018-06R1-MS	10004095	4,65 *0.183*	18,0 *0.709*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	26,0 *1.024*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD203A-0470-018-06R1-MS	10004096	4,7 *0.185*	18,0 *0.709*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	26,0 *1.024*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD203A-0476-020-06R1-MS	10004097	4,76 *0.187*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD203A-0480-020-06R1-MS	10004098	4,8 *0.189*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD203A-0490-020-06R1-MS	10004099	4,9 *0.193*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD203A-0500-020-06R1-MS	10004101	5,0 *0.197*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD203A-0510-020-06R1-MS	10004102	5,1 *0.201*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD203A-0516-020-06R1-MS	10004103	5,16 *0.203*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD203A-0520-020-06R1-MS	10004104	5,2 *0.205*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD203A-0530-020-06R1-MS	10004105	5,3 *0.209*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD203A-0540-020-06R1-MS	10004106	5,4 *0.213*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD203A-0550-020-06R1-MS	10004107	5,5 *0.217*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD203A-0556-020-06R1-MS	10004108	5,56 *0.219*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD203A-0560-021-06R1-MS	10004109	5,6 *0.220*	21,0 *0.827*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD203A-0570-021-06R1-MS	10004110	5,7 *0.224*	21,0 *0.827*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD203A-0580-021-06R1-MS	10004111	5,8 *0.228*	21,0 *0.827*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD203A-0590-021-06R1-MS	10004112	5,9 *0.232*	21,0 *0.827*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD203A-0595-021-06R1-MS	10004113	5,95 *0.234*	21,0 *0.827*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD203A-0600-021-06R1-MS	10004114	6,0 *0.236*	21,0 *0.827*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD203A-0610-021-08R1-MS	10004115	6,1 *0.240*	21,0 *0.827*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	34,0 *1.339*	8,0 *0.315*	140°	TiAlN + NbN	IT8-9
SD203A-0620-021-08R1-MS	10004116	6,2 *0.244*	21,0 *0.827*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	34,0 *1.339*	8,0 *0.315*	140°	TiAlN + NbN	IT8-9
SD203A-0630-021-08R1-MS	10004117	6,3 *0.248*	21,0 *0.827*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	34,0 *1.339*	8,0 *0.315*	140°	TiAlN + NbN	IT8-9
SD203A-0635-023-08R1-MS	10004121	6,35 *0.250*	23,0 *0.906*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	34,0 *1.339*	8,0 *0.315*	140°	TiAlN + NbN	IT8-9
SD203A-0650-023-08R1-MS	10004122	6,5 *0.256*	23,0 *0.906*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	34,0 *1.339*	8,0 *0.315*	140°	TiAlN + NbN	IT8-9
SD203A-0660-023-08R1-MS	10004123	6,6 *0.260*	23,0 *0.906*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	34,0 *1.339*	8,0 *0.315*	140°	TiAlN + NbN	IT8-9
SD203A-0675-025-08R1-MS	10004124	6,75 *0.266*	25,0 *0.984*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	34,0 *1.339*	8,0 *0.315*	140°	TiAlN + NbN	IT8-9

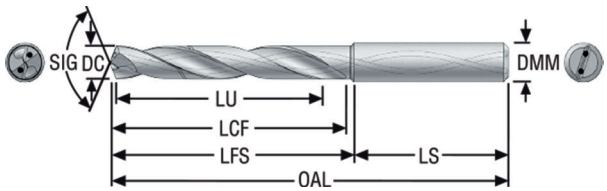
Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD203A-0680-025-08R1-MS	10004125	6,8 *0.268*	25,0 *0.984*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	34,0 *1.339*	8,0 *0.315*	140°	TiAlN + NbN	IT8-9
SD203A-0690-025-08R1-MS	10004127	6,9 *0.272*	25,0 *0.984*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	34,0 *1.339*	8,0 *0.315*	140°	TiAlN + NbN	IT8-9
SD203A-0700-025-08R1-MS	10004128	7,0 *0.276*	25,0 *0.984*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	34,0 *1.339*	8,0 *0.315*	140°	TiAlN + NbN	IT8-9
SD203A-0710-025-08R1-MS	10004129	7,1 *0.280*	25,0 *0.984*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	41,0 *1.614*	8,0 *0.315*	140°	TiAlN + NbN	IT8-9
SD203A-0714-025-08R1-MS	10004130	7,14 *0.281*	25,0 *0.984*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	41,0 *1.614*	8,0 *0.315*	140°	TiAlN + NbN	IT8-9
SD203A-0720-025-08R1-MS	10004132	7,2 *0.283*	25,0 *0.984*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	41,0 *1.614*	8,0 *0.315*	140°	TiAlN + NbN	IT8-9
SD203A-0730-025-08R1-MS	10004133	7,3 *0.287*	25,0 *0.984*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	41,0 *1.614*	8,0 *0.315*	140°	TiAlN + NbN	IT8-9
SD203A-0740-025-08R1-MS	10004134	7,4 *0.291*	25,0 *0.984*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	41,0 *1.614*	8,0 *0.315*	140°	TiAlN + NbN	IT8-9
SD203A-0750-025-08R1-MS	10004135	7,5 *0.295*	25,0 *0.984*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	41,0 *1.614*	8,0 *0.315*	140°	TiAlN + NbN	IT8-9
SD203A-0760-027-08R1-MS	10004136	7,6 *0.299*	27,0 *1.063*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	41,0 *1.614*	8,0 *0.315*	140°	TiAlN + NbN	IT8-9
SD203A-0780-027-08R1-MS	10004137	7,8 *0.307*	27,0 *1.063*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	41,0 *1.614*	8,0 *0.315*	140°	TiAlN + NbN	IT8-9
SD203A-0794-027-08R1-MS	10004138	7,94 *0.313*	27,0 *1.063*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	41,0 *1.614*	8,0 *0.315*	140°	TiAlN + NbN	IT8-9
SD203A-0800-027-08R1-MS	10004139	8,0 *0.315*	27,0 *1.063*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	41,0 *1.614*	8,0 *0.315*	140°	TiAlN + NbN	IT8-9
SD203A-0810-027-10R1-MS	10004140	8,1 *0.319*	27,0 *1.063*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN + NbN	IT8-9
SD203A-0820-027-10R1-MS	10004141	8,2 *0.323*	27,0 *1.063*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN + NbN	IT8-9
SD203A-0830-027-10R1-MS	10004143	8,3 *0.327*	27,0 *1.063*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN + NbN	IT8-9
SD203A-0840-027-10R1-MS	10004144	8,4 *0.331*	27,0 *1.063*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN + NbN	IT8-9
SD203A-0850-027-10R1-MS	10004146	8,5 *0.335*	27,0 *1.063*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN + NbN	IT8-9
SD203A-0860-029-10R1-MS	10004147	8,6 *0.339*	29,0 *1.142*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN + NbN	IT8-9
SD203A-0870-029-10R1-MS	10004148	8,7 *0.343*	29,0 *1.142*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN + NbN	IT8-9
SD203A-0873-029-10R1-MS	10004149	8,73 *0.344*	29,0 *1.142*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN + NbN	IT8-9
SD203A-0880-029-10R1-MS	10004150	8,8 *0.346*	29,0 *1.142*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN + NbN	IT8-9
SD203A-0900-029-10R1-MS	10004151	9,0 *0.354*	29,0 *1.142*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN + NbN	IT8-9
SD203A-0910-029-10R1-MS	10004153	9,1 *0.358*	29,0 *1.142*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN + NbN	IT8-9
SD203A-0913-029-10R1-MS	10004154	9,13 *0.359*	29,0 *1.142*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN + NbN	IT8-9
SD203A-0920-029-10R1-MS	10004156	9,2 *0.362*	29,0 *1.142*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN + NbN	IT8-9
SD203A-0930-029-10R1-MS	10004157	9,3 *0.366*	29,0 *1.142*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN + NbN	IT8-9
SD203A-0950-029-10R1-MS	10004158	9,5 *0.374*	29,0 *1.142*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN + NbN	IT8-9
SD203A-0953-031-10R1-MS	10004160	9,53 *0.375*	31,0 *1.220*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN + NbN	IT8-9
SD203A-0970-031-10R1-MS	10004161	9,7 *0.382*	31,0 *1.220*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN + NbN	IT8-9
SD203A-0980-031-10R1-MS	10004162	9,8 *0.386*	31,0 *1.220*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN + NbN	IT8-9

Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD203A-0990-031-10R1-MS	10004163	9,9 *0.390*	31,0 *1.220*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN + NbN	IT8-9
SD203A-0992-031-10R1-MS	10004164	9,92 *0.391*	31,0 *1.220*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN + NbN	IT8-9
SD203A-1000-031-10R1-MS	10004165	10,0 *0.394*	31,0 *1.220*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN + NbN	IT8-9
SD203A-1010-031-12R1-MS	10004166	10,1 *0.398*	31,0 *1.220*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN + NbN	IT8-9
SD203A-1020-031-12R1-MS	10004167	10,2 *0.402*	31,0 *1.220*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN + NbN	IT8-9
SD203A-1032-031-12R1-MS	10004168	10,32 *0.406*	31,0 *1.220*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN + NbN	IT8-9
SD203A-1040-031-12R1-MS	10004169	10,4 *0.409*	31,0 *1.220*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN + NbN	IT8-9
SD203A-1050-031-12R1-MS	10004170	10,5 *0.413*	31,0 *1.220*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN + NbN	IT8-9
SD203A-1072-033-12R1-MS	10004171	10,72 *0.422*	33,0 *1.299*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN + NbN	IT8-9
SD203A-1080-033-12R1-MS	10004172	10,8 *0.425*	33,0 *1.299*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN + NbN	IT8-9
SD203A-1100-033-12R1-MS	10004173	11,0 *0.433*	33,0 *1.299*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN + NbN	IT8-9
SD203A-1111-033-12R1-MS	10004174	11,11 *0.437*	33,0 *1.299*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN + NbN	IT8-9
SD203A-1120-033-12R1-MS	10004175	11,2 *0.441*	33,0 *1.299*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN + NbN	IT8-9
SD203A-1150-033-12R1-MS	10004176	11,5 *0.453*	33,0 *1.299*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN + NbN	IT8-9
SD203A-1180-033-12R1-MS	10004177	11,8 *0.465*	33,0 *1.299*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN + NbN	IT8-9
SD203A-1191-036-12R1-MS	10004309	11,91 *0.469*	36,0 *1.417*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN + NbN	IT8-9
SD203A-1200-036-12R1-MS	10004314	12,0 *0.472*	36,0 *1.417*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN + NbN	IT8-9
SD203A-1210-036-14R1-MS	10004315	12,1 *0.476*	36,0 *1.417*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN + NbN	IT8-9
SD203A-1250-036-14R1-MS	10004316	12,5 *0.492*	36,0 *1.417*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN + NbN	IT8-9
SD203A-1270-036-14R1-MS	10004317	12,7 *0.500*	36,0 *1.417*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN + NbN	IT8-9
SD203A-1300-036-14R1-MS	10004319	13,0 *0.512*	36,0 *1.417*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN + NbN	IT8-9
SD203A-1310-036-14R1-MS	10004320	13,1 *0.516*	36,0 *1.417*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN + NbN	IT8-9
SD203A-1350-037-14R1-MS	10004321	13,5 *0.531*	37,0 *1.457*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN + NbN	IT8-9
SD203A-1400-037-14R1-MS	10004325	14,0 *0.551*	37,0 *1.457*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN + NbN	IT8-9
SD203A-1420-037-16R1-MS	10004332	14,2 *0.559*	37,0 *1.457*	115,0 *4.528*	67,0 *2.638*	48,0 *1.890*	65,0 *2.559*	16,0 *0.630*	140°	TiAlN + NbN	IT8-9
SD203A-1425-038-16R1-MS	10004333	14,25 *0.561*	38,0 *1.496*	115,0 *4.528*	67,0 *2.638*	48,0 *1.890*	65,0 *2.559*	16,0 *0.630*	140°	TiAlN + NbN	IT8-9
SD203A-1470-038-16R1-MS	10004334	14,7 *0.579*	38,0 *1.496*	115,0 *4.528*	67,0 *2.638*	48,0 *1.890*	65,0 *2.559*	16,0 *0.630*	140°	TiAlN + NbN	IT8-9
SD203A-1500-040-16R1-MS	10004335	15,0 *0.591*	40,0 *1.575*	115,0 *4.528*	67,0 *2.638*	48,0 *1.890*	65,0 *2.559*	16,0 *0.630*	140°	TiAlN + NbN	IT8-9
SD203A-1525-040-16R1-MS	10004336	15,25 *0.600*	40,0 *1.575*	115,0 *4.528*	67,0 *2.638*	48,0 *1.890*	65,0 *2.559*	16,0 *0.630*	140°	TiAlN + NbN	IT8-9
SD203A-1550-040-16R1-MS	10004338	15,5 *0.610*	40,0 *1.575*	115,0 *4.528*	67,0 *2.638*	48,0 *1.890*	65,0 *2.559*	16,0 *0.630*	140°	TiAlN + NbN	IT8-9
SD203A-1588-040-16R1-MS	10004339	15,88 *0.625*	40,0 *1.575*	115,0 *4.528*	67,0 *2.638*	48,0 *1.890*	65,0 *2.559*	16,0 *0.630*	140°	TiAlN + NbN	IT8-9

Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD203A-1600-040-16R1-MS	10004340	16,0 *0.630*	40,0 *1.575*	115,0 *4.528*	67,0 *2.638*	48,0 *1.890*	65,0 *2.559*	16,0 *0.630*	140°	TiAlN + NbN	IT8-9
SD203A-1650-045-18R1-MS	10004341	16,5 *0.650*	45,0 *1.772*	123,0 *4.843*	75,0 *2.953*	48,0 *1.890*	73,0 *2.874*	18,0 *0.709*	140°	TiAlN + NbN	IT8-9
SD203A-1700-045-18R1-MS	10004342	17,0 *0.669*	45,0 *1.772*	123,0 *4.843*	75,0 *2.953*	48,0 *1.890*	73,0 *2.874*	18,0 *0.709*	140°	TiAlN + NbN	IT8-9
SD203A-1750-045-18R1-MS	10004343	17,5 *0.689*	45,0 *1.772*	123,0 *4.843*	75,0 *2.953*	48,0 *1.890*	73,0 *2.874*	18,0 *0.709*	140°	TiAlN + NbN	IT8-9
SD203A-1800-045-18R1-MS	10004344	18,0 *0.709*	45,0 *1.772*	123,0 *4.843*	75,0 *2.953*	48,0 *1.890*	73,0 *2.874*	18,0 *0.709*	140°	TiAlN + NbN	IT8-9
SD203A-1850-050-20R1-MS	10004345	18,5 *0.728*	50,0 *1.969*	131,0 *5.157*	81,0 *3.189*	50,0 *1.969*	79,0 *3.110*	20,0 *0.787*	140°	TiAlN + NbN	IT8-9
SD203A-1900-050-20R1-MS	10004346	19,0 *0.748*	50,0 *1.969*	131,0 *5.157*	81,0 *3.189*	50,0 *1.969*	79,0 *3.110*	20,0 *0.787*	140°	TiAlN + NbN	IT8-9
SD203A-1905-050-20R1-MS	10004347	19,05 *0.750*	50,0 *1.969*	131,0 *5.157*	81,0 *3.189*	50,0 *1.969*	79,0 *3.110*	20,0 *0.787*	140°	TiAlN + NbN	IT8-9
SD203A-1950-050-20R1-MS	10004348	19,5 *0.768*	50,0 *1.969*	131,0 *5.157*	81,0 *3.189*	50,0 *1.969*	79,0 *3.110*	20,0 *0.787*	140°	TiAlN + NbN	IT8-9
SD203A-2000-050-20R1-MS	10004349	20,0 *0.787*	50,0 *1.969*	131,0 *5.157*	81,0 *3.189*	50,0 *1.969*	79,0 *3.110*	20,0 *0.787*	140°	TiAlN + NbN	IT8-9

SD205A, -MS

Drilling depth ~ 5 x D – Metric/Inch





- Cylindrical shank DIN 6537A
- DC tolerance m7
- Internal coolant
- For cutting data see page(s) 159-160
- For intermediate diameters see the MyDesign software.

Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD205A-0200-012-04R1-MS	10004179	2,0 *0.079*	12,0 *0.472*	46,0 *1.811*	19,0 *0.748*	27,0 *1.063*	15,0 *0.591*	4,0 *0.157*	140°	TiAlN + NbN	IT8-9
SD205A-0210-012-04R1-MS	10004180	2,1 *0.083*	12,0 *0.472*	46,0 *1.811*	19,0 *0.748*	27,0 *1.063*	15,0 *0.591*	4,0 *0.157*	140°	TiAlN + NbN	IT8-9
SD205A-0220-012-04R1-MS	10004181	2,2 *0.087*	12,0 *0.472*	46,0 *1.811*	19,0 *0.748*	27,0 *1.063*	15,0 *0.591*	4,0 *0.157*	140°	TiAlN + NbN	IT8-9
SD205A-0230-012-04R1-MS	10004182	2,3 *0.091*	12,0 *0.472*	46,0 *1.811*	19,0 *0.748*	27,0 *1.063*	15,0 *0.591*	4,0 *0.157*	140°	TiAlN + NbN	IT8-9
SD205A-0240-013-04R1-MS	10004183	2,4 *0.094*	13,0 *0.512*	50,0 *1.969*	23,0 *0.906*	27,0 *1.063*	17,5 *0.689*	4,0 *0.157*	140°	TiAlN + NbN	IT8-9
SD205A-0250-013-04R1-MS	10004184	2,5 *0.098*	13,0 *0.512*	50,0 *1.969*	23,0 *0.906*	27,0 *1.063*	17,5 *0.689*	4,0 *0.157*	140°	TiAlN + NbN	IT8-9
SD205A-0260-013-04R1-MS	10004185	2,6 *0.102*	13,0 *0.512*	50,0 *1.969*	23,0 *0.906*	27,0 *1.063*	17,5 *0.689*	4,0 *0.157*	140°	TiAlN + NbN	IT8-9
SD205A-0270-013-04R1-MS	10004186	2,7 *0.106*	15,0 *0.591*	50,0 *1.969*	23,0 *0.906*	27,0 *1.063*	20,5 *0.807*	4,0 *0.157*	140°	TiAlN + NbN	IT8-9
SD205A-0280-013-04R1-MS	10004187	2,8 *0.110*	15,0 *0.591*	50,0 *1.969*	23,0 *0.906*	27,0 *1.063*	20,5 *0.807*	4,0 *0.157*	140°	TiAlN + NbN	IT8-9
SD205A-0300-021-06R1-MS	10004188	3,0 *0.118*	21,0 *0.827*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	26,0 *1.024*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD205A-0310-021-06R1-MS	10004189	3,1 *0.122*	21,0 *0.827*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	26,0 *1.024*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD205A-0318-021-06R1-MS	10004191	3,18 *0.125*	21,0 *0.827*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	26,0 *1.024*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD205A-0330-021-06R1-MS	10004192	3,3 *0.130*	21,0 *0.827*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	26,0 *1.024*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD205A-0340-021-06R1-MS	10004193	3,4 *0.134*	21,0 *0.827*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	26,0 *1.024*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD205A-0350-021-06R1-MS	10004194	3,5 *0.138*	21,0 *0.827*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	26,0 *1.024*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD205A-0360-027-06R1-MS	10004195	3,6 *0.142*	21,0 *0.827*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	26,0 *1.024*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD205A-0380-027-06R1-MS	10004196	3,8 *0.150*	27,0 *1.063*	74,0 *2.913*	38,0 *1.496*	36,0 *1.417*	34,0 *1.339*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD205A-0390-027-06R1-MS	10004197	3,9 *0.154*	27,0 *1.063*	74,0 *2.913*	38,0 *1.496*	36,0 *1.417*	34,0 *1.339*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD205A-0400-027-06R1-MS	10004198	4,0 *0.157*	27,0 *1.063*	74,0 *2.913*	38,0 *1.496*	36,0 *1.417*	34,0 *1.339*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD205A-0410-027-06R1-MS	10004199	4,1 *0.161*	27,0 *1.063*	74,0 *2.913*	38,0 *1.496*	36,0 *1.417*	34,0 *1.339*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD205A-0420-027-06R1-MS	10004200	4,2 *0.165*	27,0 *1.063*	74,0 *2.913*	38,0 *1.496*	36,0 *1.417*	34,0 *1.339*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD205A-0430-027-06R1-MS	10004201	4,3 *0.169*	27,0 *1.063*	74,0 *2.913*	38,0 *1.496*	36,0 *1.417*	34,0 *1.339*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9

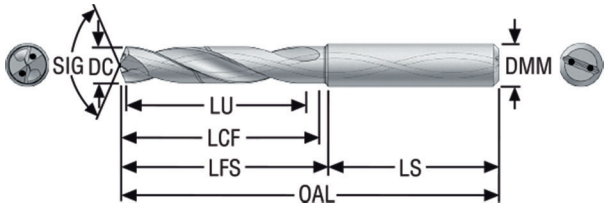
Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD205A-0450-027-06R1-MS	10004202	4,5 *0.177*	27,0 *1.063*	74,0 *2.913*	38,0 *1.496*	36,0 *1.417*	34,0 *1.339*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD205A-0460-027-06R1-MS	10004203	4,6 *0.181*	27,0 *1.063*	74,0 *2.913*	38,0 *1.496*	36,0 *1.417*	34,0 *1.339*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD205A-0465-027-06R1-MS	10004205	4,65 *0.183*	27,0 *1.063*	74,0 *2.913*	38,0 *1.496*	36,0 *1.417*	34,0 *1.339*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD205A-0470-027-06R1-MS	10004206	4,7 *0.185*	27,0 *1.063*	74,0 *2.913*	38,0 *1.496*	36,0 *1.417*	34,0 *1.339*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD205A-0476-027-06R1-MS	10004208	4,76 *0.187*	32,0 *1.260*	82,0 *3.228*	46,0 *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD205A-0490-032-06R1-MS	10004209	4,9 *0.193*	32,0 *1.260*	82,0 *3.228*	46,0 *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD205A-0500-032-06R1-MS	10004211	5,0 *0.197*	32,0 *1.260*	82,0 *3.228*	46,0 *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD205A-0510-032-06R1-MS	10004212	5,1 *0.201*	32,0 *1.260*	82,0 *3.228*	46,0 *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD205A-0516-032-06R1-MS	10004213	5,16 *0.203*	32,0 *1.260*	82,0 *3.228*	46,0 *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD205A-0520-032-06R1-MS	10004214	5,2 *0.205*	32,0 *1.260*	82,0 *3.228*	46,0 *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD205A-0550-032-06R1-MS	10004215	5,5 *0.217*	32,0 *1.260*	82,0 *3.228*	46,0 *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD205A-0556-032-06R1-MS	10004216	5,56 *0.219*	32,0 *1.260*	82,0 *3.228*	46,0 *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD205A-0560-032-06R1-MS	10004218	5,6 *0.220*	32,0 *1.260*	82,0 *3.228*	46,0 *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD205A-0580-032-06R1-MS	10004219	5,8 *0.228*	32,0 *1.260*	82,0 *3.228*	46,0 *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD205A-0590-032-06R1-MS	10004220	5,9 *0.232*	32,0 *1.260*	82,0 *3.228*	46,0 *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD205A-0595-032-06R1-MS	10004221	5,95 *0.234*	32,0 *1.260*	82,0 *3.228*	46,0 *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD205A-0600-032-06R1-MS	10004222	6,0 *0.236*	32,0 *1.260*	82,0 *3.228*	46,0 *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°	TiAlN + NbN	IT8-9
SD205A-0620-035-08R1-MS	10004224	6,2 *0.244*	35,0 *1.378*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN + NbN	IT8-9
SD205A-0630-035-08R1-MS	10004225	6,3 *0.248*	35,0 *1.378*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN + NbN	IT8-9
SD205A-0635-035-08R1-MS	10004226	6,35 *0.250*	35,0 *1.378*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN + NbN	IT8-9
SD205A-0640-035-08R1-MS	10004227	6,4 *0.252*	35,0 *1.378*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN + NbN	IT8-9
SD205A-0650-035-08R1-MS	10004228	6,5 *0.256*	35,0 *1.378*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN + NbN	IT8-9
SD205A-0660-035-08R1-MS	10004229	6,6 *0.260*	35,0 *1.378*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN + NbN	IT8-9
SD205A-0670-035-08R1-MS	10004231	6,7 *0.264*	35,0 *1.378*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN + NbN	IT8-9
SD205A-0680-040-08R1-MS	10004234	6,8 *0.268*	40,0 *1.575*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN + NbN	IT8-9
SD205A-0690-040-08R1-MS	10004235	6,9 *0.272*	40,0 *1.575*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN + NbN	IT8-9
SD205A-0700-040-08R1-MS	10004236	7,0 *0.276*	40,0 *1.575*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN + NbN	IT8-9
SD205A-0710-040-08R1-MS	10004237	7,1 *0.280*	40,0 *1.575*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN + NbN	IT8-9
SD205A-0714-040-08R1-MS	10004238	7,14 *0.281*	40,0 *1.575*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN + NbN	IT8-9
SD205A-0720-040-08R1-MS	10004239	7,2 *0.283*	40,0 *1.575*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN + NbN	IT8-9
SD205A-0750-040-08R1-MS	10004240	7,5 *0.295*	40,0 *1.575*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN + NbN	IT8-9

Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD205A-0780-042-08R1-MS	10004241	7,8 *0.307*	42,0 *1.654*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN + NbN	IT8-9
SD205A-0794-042-08R1-MS	10004243	7,94 *0.313*	42,0 *1.654*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN + NbN	IT8-9
SD205A-0800-042-08R1-MS	10004245	8,0 *0.315*	42,0 *1.654*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN + NbN	IT8-9
SD205A-0810-042-10R1-MS	10004246	8,1 *0.319*	42,0 *1.654*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN + NbN	IT8-9
SD205A-0820-042-10R1-MS	10004247	8,2 *0.323*	42,0 *1.654*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN + NbN	IT8-9
SD205A-0840-042-10R1-MS	10004250	8,4 *0.331*	42,0 *1.654*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN + NbN	IT8-9
SD205A-0850-042-10R1-MS	10004251	8,5 *0.335*	42,0 *1.654*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN + NbN	IT8-9
SD205A-0870-045-10R1-MS	10004252	8,7 *0.343*	45,0 *1.772*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN + NbN	IT8-9
SD205A-0880-045-10R1-MS	10004255	8,8 *0.346*	45,0 *1.772*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN + NbN	IT8-9
SD205A-0900-045-10R1-MS	10004256	9,0 *0.354*	45,0 *1.772*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN + NbN	IT8-9
SD205A-0910-045-10R1-MS	10004257	9,1 *0.358*	45,0 *1.772*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN + NbN	IT8-9
SD205A-0950-045-10R1-MS	10004258	9,5 *0.374*	45,0 *1.772*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN + NbN	IT8-9
SD205A-0953-048-10R1-MS	10004259	9,53 *0.375*	48,0 *1.890*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN + NbN	IT8-9
SD205A-0980-048-10R1-MS	10004266	9,8 *0.386*	48,0 *1.890*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN + NbN	IT8-9
SD205A-0992-048-10R1-MS	10004269	9,92 *0.391*	48,0 *1.890*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN + NbN	IT8-9
SD205A-1000-048-10R1-MS	10004270	10,0 *0.394*	48,0 *1.890*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN + NbN	IT8-9
SD205A-1020-048-12R1-MS	10004272	10,2 *0.402*	48,0 *1.890*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN + NbN	IT8-9
SD205A-1030-048-12R1-MS	10004273	10,3 *0.406*	48,0 *1.890*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN + NbN	IT8-9
SD205A-1050-048-12R1-MS	10004274	10,5 *0.413*	48,0 *1.890*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN + NbN	IT8-9
SD205A-1070-056-12R1-MS	10004275	10,7 *0.421*	56,0 *2.205*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN + NbN	IT8-9
SD205A-1080-056-12R1-MS	10004276	10,8 *0.425*	56,0 *2.205*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN + NbN	IT8-9
SD205A-1100-056-12R1-MS	10004277	11,0 *0.433*	56,0 *2.205*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN + NbN	IT8-9
SD205A-1111-056-12R1-MS	10004278	11,11 *0.437*	56,0 *2.205*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN + NbN	IT8-9
SD205A-1130-056-12R1-MS	10004279	11,3 *0.445*	56,0 *2.205*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN + NbN	IT8-9
SD205A-1150-056-12R1-MS	10004280	11,5 *0.453*	56,0 *2.205*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN + NbN	IT8-9
SD205A-1180-056-12R1-MS	10004281	11,8 *0.465*	56,0 *2.205*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN + NbN	IT8-9
SD205A-1200-056-12R1-MS	10004282	12,0 *0.472*	56,0 *2.205*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN + NbN	IT8-9
SD205A-1220-056-14R1-MS	10004283	12,2 *0.480*	56,0 *2.205*	124,0 *4.882*	79,0 *3.110*	45,0 *1.772*	77,0 *3.031*	14,0 *0.551*	140°	TiAlN + NbN	IT8-9
SD205A-1250-056-14R1-MS	10004284	12,5 *0.492*	56,0 *2.205*	124,0 *4.882*	79,0 *3.110*	45,0 *1.772*	77,0 *3.031*	14,0 *0.551*	140°	TiAlN + NbN	IT8-9
SD205A-1270-056-14R1-MS	10004285	12,7 *0.500*	56,0 *2.205*	124,0 *4.882*	79,0 *3.110*	45,0 *1.772*	77,0 *3.031*	14,0 *0.551*	140°	TiAlN + NbN	IT8-9
SD205A-1300-056-14R1-MS	10004286	13,0 *0.512*	56,0 *2.205*	124,0 *4.882*	79,0 *3.110*	45,0 *1.772*	77,0 *3.031*	14,0 *0.551*	140°	TiAlN + NbN	IT8-9

Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD205A-1310-056-14R1-MS	10004287	13,1 *0.516*	59,0 *2.323*	124,0 *4.882*	79,0 *3.110*	45,0 *1.772*	77,0 *3.031*	14,0 *0.551*	140°	TiAlN + NbN	IT8-9
SD205A-1350-059-14R1-MS	10004288	13,5 *0.531*	59,0 *2.323*	124,0 *4.882*	79,0 *3.110*	45,0 *1.772*	77,0 *3.031*	14,0 *0.551*	140°	TiAlN + NbN	IT8-9
SD205A-1400-059-14R1-MS	10004290	14,0 *0.551*	59,0 *2.323*	124,0 *4.882*	79,0 *3.110*	45,0 *1.772*	77,0 *3.031*	14,0 *0.551*	140°	TiAlN + NbN	IT8-9
SD205A-1420-060-16R1-MS	10004291	14,2 *0.559*	60,0 *2.362*	133,0 *5.236*	85,0 *3.346*	48,0 *1.890*	83,0 *3.268*	16,0 *0.630*	140°	TiAlN + NbN	IT8-9
SD205A-1425-060-16R1-MS	10004292	14,25 *0.561*	60,0 *2.362*	133,0 *5.236*	85,0 *3.346*	48,0 *1.890*	83,0 *3.268*	16,0 *0.630*	140°	TiAlN + NbN	IT8-9
SD205A-1450-060-16R1-MS	10004293	14,5 *0.571*	60,0 *2.362*	133,0 *5.236*	85,0 *3.346*	48,0 *1.890*	83,0 *3.268*	16,0 *0.630*	140°	TiAlN + NbN	IT8-9
SD205A-1500-060-16R1-MS	10004295	15,0 *0.591*	60,0 *2.362*	133,0 *5.236*	85,0 *3.346*	48,0 *1.890*	83,0 *3.268*	16,0 *0.630*	140°	TiAlN + NbN	IT8-9
SD205A-1550-062-16R1-MS	10004296	15,5 *0.610*	62,0 *2.441*	133,0 *5.236*	85,0 *3.346*	48,0 *1.890*	83,0 *3.268*	16,0 *0.630*	140°	TiAlN + NbN	IT8-9
SD205A-1580-062-16R1-MS	10004297	15,8 *0.622*	62,0 *2.441*	133,0 *5.236*	85,0 *3.346*	48,0 *1.890*	83,0 *3.268*	16,0 *0.630*	140°	TiAlN + NbN	IT8-9
SD205A-1600-062-16R1-MS	10004298	16,0 *0.630*	62,0 *2.441*	133,0 *5.236*	85,0 *3.346*	48,0 *1.890*	83,0 *3.268*	16,0 *0.630*	140°	TiAlN + NbN	IT8-9
SD205A-1650-071-18R1-MS	10004299	16,5 *0.650*	64,0 *2.520*	143,0 *5.630*	95,0 *3.740*	48,0 *1.890*	93,0 *3.661*	18,0 *0.709*	140°	TiAlN + NbN	IT8-9
SD205A-1700-071-18R1-MS	10004300	17,0 *0.669*	64,0 *2.520*	143,0 *5.630*	95,0 *3.740*	48,0 *1.890*	93,0 *3.661*	18,0 *0.709*	140°	TiAlN + NbN	IT8-9
SD205A-1750-071-18R1-MS	10004301	17,5 *0.689*	66,0 *2.598*	143,0 *5.630*	95,0 *3.740*	48,0 *1.890*	93,0 *3.661*	18,0 *0.709*	140°	TiAlN + NbN	IT8-9
SD205A-1800-071-18R1-MS	10004302	18,0 *0.709*	66,0 *2.598*	143,0 *5.630*	95,0 *3.740*	48,0 *1.890*	93,0 *3.661*	18,0 *0.709*	140°	TiAlN + NbN	IT8-9
SD205A-1850-077-20R1-MS	10004303	18,5 *0.728*	71,0 *2.795*	153,0 *6.024*	103,0 *4.055*	50,0 *1.969*	101,0 *3.976*	20,0 *0.787*	140°	TiAlN + NbN	IT8-9
SD205A-1900-077-20R1-MS	10004304	19,0 *0.748*	71,0 *2.795*	153,0 *6.024*	103,0 *4.055*	50,0 *1.969*	101,0 *3.976*	20,0 *0.787*	140°	TiAlN + NbN	IT8-9
SD205A-1930-077-20R1-MS	10004305	19,3 *0.760*	71,0 *2.795*	153,0 *6.024*	103,0 *4.055*	50,0 *1.969*	101,0 *3.976*	20,0 *0.787*	140°	TiAlN + NbN	IT8-9
SD205A-1950-077-20R1-MS	10004306	19,5 *0.768*	71,0 *2.795*	153,0 *6.024*	103,0 *4.055*	50,0 *1.969*	101,0 *3.976*	20,0 *0.787*	140°	TiAlN + NbN	IT8-9
SD205A-2000-077-20R1-MS	10004307	20,0 *0.787*	71,0 *2.795*	153,0 *6.024*	103,0 *4.055*	50,0 *1.969*	101,0 *3.976*	20,0 *0.787*	140°	TiAlN + NbN	IT8-9

SD203A, -M

Drilling depth ~ 3 x D – Metric/Inch





- Cylindrical shank DIN 6537A
- DC tolerance m7
- Internal coolant
- For cutting data see page(s) 161-162
- For intermediate diameters see the MyDesign software.

Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD203A-3.0-14-6R1-M	02569995	3,0 *0.118*	14,0 *0.551*	62,0 *2.441*	26,0 *1.024*	36,0 *1.417*	20,0 *0.787*	6,0 *0.236*	140°	TiAlN + TiN	IT8-9
SD203A-3.1-14-6R1-M	02570998	3,1 *0.122*	14,0 *0.551*	62,0 *2.441*	26,0 *1.024*	36,0 *1.417*	20,0 *0.787*	6,0 *0.236*	140°	TiAlN + TiN	IT8-9
SD203A-3.3-14-6R1-M	02555958	3,3 *0.130*	14,0 *0.551*	62,0 *2.441*	26,0 *1.024*	36,0 *1.417*	20,0 *0.787*	6,0 *0.236*	140°	TiAlN + TiN	IT8-9
SD203A-3.4-14-6R1-M	02570984	3,4 *0.134*	14,0 *0.551*	62,0 *2.441*	26,0 *1.024*	36,0 *1.417*	20,0 *0.787*	6,0 *0.236*	140°	TiAlN + TiN	IT8-9
SD203A-3.5-15-6R1-M	02533784	3,5 *0.138*	15,0 *0.591*	62,0 *2.441*	26,0 *1.024*	36,0 *1.417*	20,0 *0.787*	6,0 *0.236*	140°	TiAlN + TiN	IT8-9
SD203A-3.9-17-6R1-M	02570988	3,9 *0.154*	17,0 *0.669*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	24,0 *0.945*	6,0 *0.236*	140°	TiAlN + TiN	IT8-9
SD203A-4.0-17-6R1-M	02539902	4,0 *0.157*	17,0 *0.669*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	24,0 *0.945*	6,0 *0.236*	140°	TiAlN + TiN	IT8-9
SD203A-4.2-17-6R1-M	02555959	4,2 *0.165*	17,0 *0.669*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	24,0 *0.945*	6,0 *0.236*	140°	TiAlN + TiN	IT8-9
SD203A-4.3-18-6R1-M	02533700	4,3 *0.169*	18,0 *0.709*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	24,0 *0.945*	6,0 *0.236*	140°	TiAlN + TiN	IT8-9
SD203A-4.5-18-6R1-M	02570993	4,5 *0.177*	18,0 *0.709*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	24,0 *0.945*	6,0 *0.236*	140°	TiAlN + TiN	IT8-9
SD203A-01875-079-0236R1-M	02450103	4,763 *0.188*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN + TiN	IT8-9
SD203A-4.8-20-6R1-M	02570982	4,8 *0.189*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN + TiN	IT8-9
SD203A-4.9-20-6R1-M	02592709	4,9 *0.193*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN + TiN	IT8-9
SD203A-5.0-20-6R1-M	02450075	5,0 *0.197*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN + TiN	IT8-9
SD203A-5.5-21-6R1-M	02544249	5,5 *0.217*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN + TiN	IT8-9
SD203A-02188-083-0236R1-M	02450104	5,558 *0.219*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN + TiN	IT8-9
SD203A-5.6-21-6R1-M	02544028	5,6 *0.220*	21,0 *0.827*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN + TiN	IT8-9
SD203A-5.9-21-6R1-M	02515290	5,9 *0.232*	21,0 *0.827*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN + TiN	IT8-9
SD203A-6.0-21-6R1-M	02450076	6,0 *0.236*	21,0 *0.827*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	TiAlN + TiN	IT8-9
SD203A-02500-091-0315R1-M	02450105	6,35 *0.250*	23,0 *0.906*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	34,0 *1.339*	8,0 *0.315*	140°	TiAlN + TiN	IT8-9
SD203A-6.5-23-8R1-M	02450077	6,5 *0.256*	23,0 *0.906*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	34,0 *1.339*	8,0 *0.315*	140°	TiAlN + TiN	IT8-9
SD203A-6.6-23-8R1-M	02450078	6,6 *0.260*	23,0 *0.906*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	34,0 *1.339*	8,0 *0.315*	140°	TiAlN + TiN	IT8-9

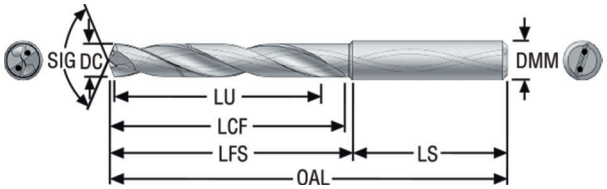
Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD203A-02656-098-0315R1-M	02450106	6,746 *0.266*	25,0 *0.984*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	34,0 *1.339*	8,0 *0.315*	140°	TiAlN + TiN	IT8-9
SD203A-6.8-25-8R1-M	02450079	6,8 *0.268*	25,0 *0.984*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	34,0 *1.339*	8,0 *0.315*	140°	TiAlN + TiN	IT8-9
SD203A-6.9-25-8R1-M	02450080	6,9 *0.272*	25,0 *0.984*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	34,0 *1.339*	8,0 *0.315*	140°	TiAlN + TiN	IT8-9
SD203A-7.0-25-8R1-M	02450081	7,0 *0.276*	25,0 *0.984*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	34,0 *1.339*	8,0 *0.315*	140°	TiAlN + TiN	IT8-9
SD203A-02813-098-0315R1-M	02450107	7,145 *0.281*	25,0 *0.984*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	41,0 *1.614*	8,0 *0.315*	140°	TiAlN + TiN	IT8-9
SD203A-7.2-25-8R1-M	02537185	7,2 *0.283*	25,0 *0.984*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	41,0 *1.614*	8,0 *0.315*	140°	TiAlN + TiN	IT8-9
SD203A-7.3-25-8R1-M	02530109	7,3 *0.287*	25,0 *0.984*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	41,0 *1.614*	8,0 *0.315*	140°	TiAlN + TiN	IT8-9
SD203A-7.5-25-8R1-M	02450082	7,5 *0.295*	25,0 *0.984*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	41,0 *1.614*	8,0 *0.315*	140°	TiAlN + TiN	IT8-9
SD203A-7.6-27-8R1-M	02545197	7,6 *0.299*	27,0 *1.063*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	41,0 *1.614*	8,0 *0.315*	140°	TiAlN + TiN	IT8-9
SD203A-7.8-27-8R1-M	02450083	7,8 *0.307*	27,0 *1.063*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	41,0 *1.614*	8,0 *0.315*	140°	TiAlN + TiN	IT8-9
SD203A-03125-106-0315R1-M	02450108	7,938 *0.313*	27,0 *1.063*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	41,0 *1.614*	8,0 *0.315*	140°	TiAlN + TiN	IT8-9
SD203A-8.0-27-8R1-M	02450084	8,0 *0.315*	27,0 *1.063*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	41,0 *1.614*	8,0 *0.315*	140°	TiAlN + TiN	IT8-9
SD203A-8.5-27-10R1-M	02450085	8,5 *0.335*	27,0 *1.063*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN + TiN	IT8-9
SD203A-03438-114-0394R1-M	02450109	8,733 *0.344*	29,0 *1.142*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN + TiN	IT8-9
SD203A-8.8-29-10R1-M	02450086	8,8 *0.346*	29,0 *1.142*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN + TiN	IT8-9
SD203A-9.0-29-10R1-M	02450087	9,0 *0.354*	29,0 *1.142*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN + TiN	IT8-9
SD203A-03594-114-0394R1-M	02450110	9,129 *0.359*	29,0 *1.142*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN + TiN	IT8-9
SD203A-9.2-29-10R1-M	02546516	9,2 *0.362*	29,0 *1.142*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN + TiN	IT8-9
SD203A-9.3-29-10R1-M	02582375	9,3 *0.366*	29,0 *1.142*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN + TiN	IT8-9
SD203A-9.5-29-10R1-M	02450088	9,5 *0.374*	29,0 *1.142*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN + TiN	IT8-9
SD203A-03750-122-0394R1-M	02450111	9,525 *0.375*	29,0 *1.142*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN + TiN	IT8-9
SD203A-9.8-31-10R1-M	02450089	9,8 *0.386*	31,0 *1.220*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN + TiN	IT8-9
SD203A-9.9-31-10R1-M	02515293	9,9 *0.390*	31,0 *1.220*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN + TiN	IT8-9
SD203A-10.0-31-10R1-M	02450090	10,0 *0.394*	31,0 *1.220*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	TiAlN + TiN	IT8-9
SD203A-10.2-31-12R1-M	02450091	10,2 *0.402*	31,0 *1.220*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN + TiN	IT8-9
SD203A-04063-122-0472R1-M	02450112	10,32 *0.406*	31,0 *1.220*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN + TiN	IT8-9
SD203A-10.4-31-12R1-M	02535267	10,4 *0.409*	31,0 *1.220*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN + TiN	IT8-9
SD203A-10.5-31-12R1-M	02450092	10,5 *0.413*	31,0 *1.220*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN + TiN	IT8-9
SD203A-04219-130-0472R1-M	02450113	10,716 *0.422*	33,0 *1.299*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN + TiN	IT8-9
SD203A-10.8-33-12R1-M	02450093	10,8 *0.425*	33,0 *1.299*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN + TiN	IT8-9
SD203A-11.0-33-12R1-M	02450094	11,0 *0.433*	33,0 *1.299*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN + TiN	IT8-9

Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD203A-04375-130-0472R1-M	02450114	11,113 *0.438*	33,0 *1.299*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN + TiN	IT8-9
SD203A-11.5-33-12R1-M	02450095	11,5 *0.453*	33,0 *1.299*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN + TiN	IT8-9
SD203A-11.8-33-12R1-M	02450096	11,8 *0.465*	33,0 *1.299*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN + TiN	IT8-9
SD203A-04688-142-0472R1-M	02592711	11,908 *0.469*	36,0 *1.417*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN + TiN	IT8-9
SD203A-12.0-36-12R1-M	02450097	12,0 *0.472*	36,0 *1.417*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	TiAlN + TiN	IT8-9
SD203A-12.25-36-14R1-M	02592712	12,25 *0.482*	36,0 *1.417*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN + TiN	IT8-9
SD203A-12.3-36-14R1-M	02450098	12,3 *0.484*	36,0 *1.417*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN + TiN	IT8-9
SD203A-12.5-36-14R1-M	02450099	12,5 *0.492*	36,0 *1.417*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN + TiN	IT8-9
SD203A-05000-142-0551R1-M	02450115	12,7 *0.500*	36,0 *1.417*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN + TiN	IT8-9
SD203A-12.9-36-14R1-M	02538263	12,9 *0.508*	36,0 *1.417*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN + TiN	IT8-9
SD203A-13.0-36-14R1-M	02450100	13,0 *0.512*	36,0 *1.417*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN + TiN	IT8-9
SD203A-13.5-37-14R1-M	02450101	13,5 *0.531*	37,0 *1.457*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN + TiN	IT8-9
SD203A-14.0-37-14R1-M	02450102	14,0 *0.551*	37,0 *1.457*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	TiAlN + TiN	IT8-9
SD203A-14.25-38-16R1-M	02592715	14,25 *0.561*	38,0 *1.496*	115,0 *4.528*	67,0 *2.638*	48,0 *1.890*	65,0 *2.559*	16,0 *0.630*	140°	TiAlN + TiN	IT8-9

SD205A, -M

Drilling depth ~ 5 x D – Metric/Inch





- Cylindrical shank DIN 6537A
- DC tolerance m7
- Internal coolant
- For cutting data see page(s) 163- 164
- For intermediate diameters see the MyDesign software.

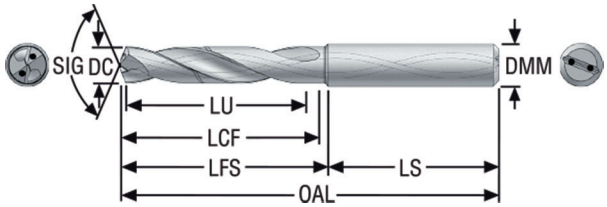
Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD205A-2.5-13-4R1-M	02666989	2,5 *0.098*	13,0 *0.512*	46,0 *1.811*	19,0 *0.748*	27,0 *1.063*	17,5 *0.689*	4,0 *0.157*	140°	TiAlN + TiN	IT8-9
SD205A-3.0-21-6R1-M	02556426	3,0 *0.118*	21,0 *0.827*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	26,0 *1.024*	6,0 *0.236*	140°	TiAlN + TiN	IT8-9
SD205A-3.1-21-6R1-M	02642448	3,1 *0.122*	21,0 *0.827*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	26,0 *1.024*	6,0 *0.236*	140°	TiAlN + TiN	IT8-9
SD205A-3.18-21-6R1-M	02541863	3,18 *0.125*	21,0 *0.827*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	26,0 *1.024*	6,0 *0.236*	140°	TiAlN + TiN	IT8-9
SD205A-3.3-21-6R1-M	02555960	3,3 *0.130*	21,0 *0.827*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	26,0 *1.024*	6,0 *0.236*	140°	TiAlN + TiN	IT8-9
SD205A-3.4-21-6R1-M	02554264	3,4 *0.134*	21,0 *0.827*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	26,0 *1.024*	6,0 *0.236*	140°	TiAlN + TiN	IT8-9
SD205A-3.5-21-6R1-M	02533780	3,5 *0.138*	21,0 *0.827*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	26,0 *1.024*	6,0 *0.236*	140°	TiAlN + TiN	IT8-9
SD205A-4.0-27-6R1-M	02508340	4,0 *0.157*	27,0 *1.063*	74,0 *2.913*	38,0 *1.496*	36,0 *1.417*	34,0 *1.339*	6,0 *0.236*	140°	TiAlN + TiN	IT8-9
SD205A-4.2-27-6R1-M	02502549	4,2 *0.165*	27,0 *1.063*	74,0 *2.913*	40,0 *1.575*	36,0 *1.417*	34,0 *1.339*	6,0 *0.236*	140°	TiAlN + TiN	IT8-9
SD205A-4.3-27-6R1-M	02592718	4,3 *0.169*	27,0 *1.063*	74,0 *2.913*	38,0 *1.496*	36,0 *1.417*	34,0 *1.339*	6,0 *0.236*	140°	TiAlN + TiN	IT8-9
SD205A-4.5-27-6R1-M	02563659	4,5 *0.177*	27,0 *1.063*	74,0 *2.913*	38,0 *1.496*	36,0 *1.417*	34,0 *1.339*	6,0 *0.236*	140°	TiAlN + TiN	IT8-9
SD205A-4.7-27-6R1-M	02604031	4,7 *0.185*	27,0 *1.063*	74,0 *2.913*	40,0 *1.575*	36,0 *1.417*	34,0 *1.339*	6,0 *0.236*	140°	TiAlN + TiN	IT8-9
SD205A-01875-126-0236R1-M	02450062	4,763 *0.188*	32,0 *1.260*	82,0 *3.228*	46,0 *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°	TiAlN + TiN	IT8-9
SD205A-4.9-32-6R1-M	02592720	4,9 *0.193*	32,0 *1.260*	82,0 *3.228*	46,0 *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°	TiAlN + TiN	IT8-9
SD205A-5.0-32-6R1-M	02450034	5,0 *0.197*	32,0 *1.260*	82,0 *3.228*	46,0 *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°	TiAlN + TiN	IT8-9
SD205A-5.1-32-6R1-M	02600034	5,1 *0.201*	32,0 *1.260*	82,0 *3.228*	46,0 *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°	TiAlN + TiN	IT8-9
SD205A-5.2-32-6R1-M	02504408	5,2 *0.205*	32,0 *1.260*	82,0 *3.228*	46,0 *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°	TiAlN + TiN	IT8-9
SD205A-5.5-32-6R1-M	02537341	5,5 *0.217*	32,0 *1.260*	82,0 *3.228*	46,0 *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°	TiAlN + TiN	IT8-9
SD205A-02188-126-0236R1-M	02450063	5,558 *0.219*	32,0 *1.260*	82,0 *3.228*	46,0 *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°	TiAlN + TiN	IT8-9
SD205A-5.6-32-6R1-M	02612445	5,6 *0.220*	32,0 *1.260*	82,0 *3.228*	46,0 *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°	TiAlN + TiN	IT8-9
SD205A-5.9-32-6R1-M	02539334	5,9 *0.232*	32,0 *1.260*	82,0 *3.228*	46,0 *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°	TiAlN + TiN	IT8-9
SD205A-6.0-32-6R1-M	02450035	6,0 *0.236*	32,0 *1.260*	82,0 *3.228*	46,0 *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°	TiAlN + TiN	IT8-9

Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD205A-6.2-35-8R1-M	02547543	6,2 *0.244*	35,0 *1.378*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN + TiN	IT8-9
SD205A-02500-138-0315R1-M	02450064	6,35 *0.250*	35,0 *1.378*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN + TiN	IT8-9
SD205A-6.4-35-8R1-M	02666488	6,4 *0.252*	35,0 *1.378*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN + TiN	IT8-9
SD205A-6.5-35-8R1-M	02450036	6,5 *0.256*	35,0 *1.378*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN + TiN	IT8-9
SD205A-6.6-35-8R1-M	02450037	6,6 *0.260*	35,0 *1.378*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN + TiN	IT8-9
SD205A-6.8-40-8R1-M	02450038	6,8 *0.268*	40,0 *1.575*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN + TiN	IT8-9
SD205A-6.9-40-8R1-M	02450039	6,9 *0.272*	40,0 *1.575*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN + TiN	IT8-9
SD205A-02813-157-0315R1-M	02450066	7,145 *0.281*	40,0 *1.575*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN + TiN	IT8-9
SD205A-7.2-40-8R1-M	02519059	7,2 *0.283*	40,0 *1.575*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN + TiN	IT8-9
SD205A-7.5-40-8R1-M	02450041	7,5 *0.295*	40,0 *1.575*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN + TiN	IT8-9
SD205A-7.8-42-8R1-M	02450042	7,8 *0.307*	42,0 *1.654*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN + TiN	IT8-9
SD205A-03125-165-0315R1-M	02450067	7,938 *0.313*	42,0 *1.654*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN + TiN	IT8-9
SD205A-8.0-42-8R1-M	02450043	8,0 *0.315*	42,0 *1.654*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	TiAlN + TiN	IT8-9
SD205A-8.1-42-10R1-M	02672327	8,1 *0.319*	42,0 *1.654*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN + TiN	IT8-9
SD205A-8.4-42-10R1-M	02570977	8,4 *0.331*	42,0 *1.654*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN + TiN	IT8-9
SD205A-8.5-42-10R1-M	02450044	8,5 *0.335*	42,0 *1.654*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN + TiN	IT8-9
SD205A-8.8-45-10R1-M	02450045	8,8 *0.346*	45,0 *1.772*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN + TiN	IT8-9
SD205A-9.0-45-10R1-M	02450046	9,0 *0.354*	45,0 *1.772*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN + TiN	IT8-9
SD205A-9.2-45-10R1-M	02516406	9,2 *0.362*	45,0 *1.772*	103,0 *4.055*	42,0 *1.654*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN + TiN	IT8-9
SD205A-9.5-45-10R1-M	02450047	9,5 *0.374*	45,0 *1.772*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN + TiN	IT8-9
SD205A-03750-189-0394R1-M	02450070	9,525 *0.375*	48,0 *1.890*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN + TiN	IT8-9
SD205A-9.8-48-10R1-M	02450048	9,8 *0.386*	48,0 *1.890*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN + TiN	IT8-9
SD205A-10.0-48-10R1-M	02450049	10,0 *0.394*	48,0 *1.890*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°	TiAlN + TiN	IT8-9
SD205A-10.2-48-12R1-M	02450050	10,2 *0.402*	48,0 *1.890*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN + TiN	IT8-9
SD205A-10.5-48-12R1-M	02450051	10,5 *0.413*	48,0 *1.890*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN + TiN	IT8-9
SD205A-10.8-56-12R1-M	02450052	10,8 *0.425*	56,0 *2.205*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN + TiN	IT8-9
SD205A-10.9-56-12R1-M	02592725	10,9 *0.429*	56,0 *2.205*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN + TiN	IT8-9
SD205A-11.0-56-12R1-M	02450053	11,0 *0.433*	56,0 *2.205*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN + TiN	IT8-9
SD205A-04375-221-0472R1-M	02450073	11,113 *0.438*	56,0 *2.205*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN + TiN	IT8-9
SD205A-11.5-56-12R1-M	02450054	11,5 *0.453*	56,0 *2.205*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN + TiN	IT8-9
SD205A-11.8-56-12R1-M	02450055	11,8 *0.465*	56,0 *2.205*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN + TiN	IT8-9

Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD205A-12.0-56-12R1-M	02450056	12,0 *0.472*	56,0 *2.205*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	TiAlN + TiN	IT8-9
SD205A-12.5-56-14R1-M	02450058	12,5 *0.492*	56,0 *2.205*	124,0 *4.882*	79,0 *3.110*	45,0 *1.772*	77,0 *3.031*	14,0 *0.551*	140°	TiAlN + TiN	IT8-9
SD205A-05000-221-0551R1-M	02450074	12,7 *0.500*	56,0 *2.205*	124,0 *4.882*	79,0 *3.110*	45,0 *1.772*	77,0 *3.031*	14,0 *0.551*	140°	TiAlN + TiN	IT8-9
SD205A-12.9-56-14R1-M	02592729	12,9 *0.508*	56,0 *2.205*	124,0 *4.882*	79,0 *3.110*	45,0 *1.772*	77,0 *3.031*	14,0 *0.551*	140°	TiAlN + TiN	IT8-9
SD205A-13.0-56-14R1-M	02450059	13,0 *0.512*	56,0 *2.205*	124,0 *4.882*	79,0 *3.110*	45,0 *1.772*	77,0 *3.031*	14,0 *0.551*	140°	TiAlN + TiN	IT8-9
SD205A-13.5-59-14R1-M	02450060	13,5 *0.531*	59,0 *2.323*	124,0 *4.882*	79,0 *3.110*	45,0 *1.772*	77,0 *3.031*	14,0 *0.551*	140°	TiAlN + TiN	IT8-9
SD205A-14.0-59-14R1-M	02450061	14,0 *0.551*	59,0 *2.323*	124,0 *4.882*	79,0 *3.110*	45,0 *1.772*	77,0 *3.031*	14,0 *0.551*	140°	TiAlN + TiN	IT8-9
SD205A-14.25-60-16R1-M	02592732	14,25 *0.561*	60,0 *2.362*	133,0 *5.236*	85,0 *3.346*	48,0 *1.890*	83,0 *3.268*	16,0 *0.630*	140°	TiAlN + TiN	IT8-9
SD205A-14.5-60-16R1-M	03117534	14,5 *0.571*	60,0 *2.362*	133,0 *5.236*	85,0 *3.346*	48,0 *1.890*	83,0 *3.268*	16,0 *0.630*	140°	TiAlN + TiN	IT8-9
SD205A-15.0-60-16R1-M	02570652	15,0 *0.591*	60,0 *2.362*	133,0 *5.236*	85,0 *3.346*	48,0 *1.890*	83,0 *3.268*	16,0 *0.630*	140°	TiAlN + TiN	IT8-9
SD205A-15.5-62-16R1-M	02543076	15,5 *0.610*	62,0 *2.441*	133,0 *5.236*	85,0 *3.346*	48,0 *1.890*	83,0 *3.268*	16,0 *0.630*	140°	TiAlN + TiN	IT8-9
SD205A-16.0-62-16R1-M	02555961	16,0 *0.630*	62,0 *2.441*	133,0 *5.236*	85,0 *3.346*	48,0 *1.890*	83,0 *3.268*	16,0 *0.630*	140°	TiAlN + TiN	IT8-9

SD203A, -T

Drilling depth ~ 3 x D – Metric/Inch





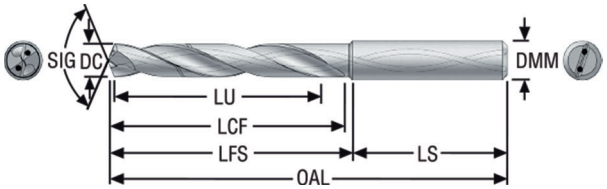
- Cylindrical shank DIN 6537A
- DC tolerance m7
- Internal coolant
- Cutting data - www.secotools.com
- For intermediate diameters see the MyDesign software.

Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD203A-01875-079-0236R1-T	02569147	4,763 *0.188*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	Uncoated	IT8-9
SD203A-5.0-20-6R1-T	02523021	5,0 *0.197*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	Uncoated	IT8-9
SD203A-02188-083-0236R1-T	02569156	5,558 *0.219*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	Uncoated	IT8-9
SD203A-6.0-21-6R1-T	02542682	6,0 *0.236*	21,0 *0.827*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	Uncoated	IT8-9
SD203A-02500-091-0315R1-T	02569149	6,35 *0.250*	23,0 *0.906*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	34,0 *1.339*	8,0 *0.315*	140°	Uncoated	IT8-9
SD203A-6.5-23-8R1-T	02545316	6,5 *0.256*	23,0 *0.906*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	34,0 *1.339*	8,0 *0.315*	140°	Uncoated	IT8-9
SD203A-6.9-25-8R1-T	02537280	6,9 *0.272*	25,0 *0.984*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	34,0 *1.339*	8,0 *0.315*	140°	Uncoated	IT8-9
SD203A-7.0-25-8R1-T	02525985	7,0 *0.276*	25,0 *0.984*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	34,0 *1.339*	8,0 *0.315*	140°	Uncoated	IT8-9
SD203A-02813-098-0315R1-T	02569151	7,145 *0.281*	25,0 *0.984*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	41,0 *1.614*	8,0 *0.315*	140°	Uncoated	IT8-9
SD203A-7.5-25-8R1-T	02527667	7,5 *0.295*	25,0 *0.984*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	41,0 *1.614*	8,0 *0.315*	140°	Uncoated	IT8-9
SD203A-03125-106-0315R1-T	02569152	7,938 *0.313*	27,0 *1.063*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	41,0 *1.614*	8,0 *0.315*	140°	Uncoated	IT8-9
SD203A-8.0-27-8R1-T	02513679	8,0 *0.315*	27,0 *1.063*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	41,0 *1.614*	8,0 *0.315*	140°	Uncoated	IT8-9
SD203A-8.5-27-10R1-T	02548250	8,5 *0.335*	27,0 *1.063*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	Uncoated	IT8-9
SD203A-8.8-29-10R1-T	02569153	8,8 *0.346*	29,0 *1.142*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	Uncoated	IT8-9
SD203A-9.0-29-10R1-T	02524440	9,0 *0.354*	29,0 *1.142*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	Uncoated	IT8-9
SD203A-9.5-29-10R1-T	02545386	9,5 *0.374*	29,0 *1.142*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	Uncoated	IT8-9
SD203A-10.0-31-10R1-T	02525984	10,0 *0.394*	31,0 *1.220*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	Uncoated	IT8-9
SD203A-10.5-31-12R1-T	02545387	10,5 *0.413*	31,0 *1.220*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	Uncoated	IT8-9
SD203A-11.0-33-12R1-T	02569155	11,0 *0.433*	33,0 *1.299*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	Uncoated	IT8-9
SD203A-11.5-33-12R1-T	02567385	11,5 *0.453*	33,0 *1.299*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	Uncoated	IT8-9
SD203A-12.0-36-12R1-T	02562784	12,0 *0.472*	36,0 *1.417*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	Uncoated	IT8-9

SD205A, -T

Drilling depth ~ 5 x D – Metric/Inch



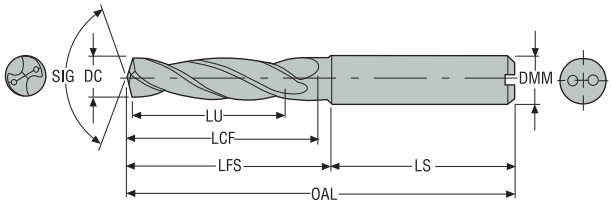


- Cylindrical shank DIN 6537A
- DC tolerance m7
- Internal coolant
- Cutting data - www.secotools.com
- For intermediate diameters see the MyDesign software.

Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD205A-8.0-42-8R1-T	02569164	8,0 *0.315*	42,0 *1.654*	91,0 *3.583*	55,0 *2.165*	36,0 *1.417*	53,0 *2.087*	8,0 *0.315*	140°	Uncoated	IT8-9
SD205A-12.0-56-12R1-T	02527621	12,0 *0.472*	56,0 *2.205*	118,0 *4.646*	73,0 *2.874*	45,0 *1.772*	71,0 *2.795*	12,0 *0.472*	140°	Uncoated	IT8-9

SD203A, -N

Drilling depth ~ 3 x D – Metric/Inch





- Cylindrical shank DIN 6537A
- DC tolerance m7
- Internal coolant
- For cutting data see page(s) 145- 146
- For intermediate diameters see the MyDesign software.

Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD203A-2.5-8-4R1-N	02691548	2,5 *0.098*	8,0 *0.315*	44,0 *1.732*	16,0 *0.630*	28,0 *1.102*	13,0 *0.512*	4,0 *0.157*	140°	DLC Coated	IT8-9
SD203A-3.0-14-6R1-N	02691549	3,0 *0.118*	14,0 *0.551*	62,0 *2.441*	26,0 *1.024*	36,0 *1.417*	20,0 *0.787*	6,0 *0.236*	140°	DLC Coated	IT8-9
SD203A-3.3-14-6R1-N	02691551	3,3 *0.130*	14,0 *0.551*	62,0 *2.441*	26,0 *1.024*	36,0 *1.417*	20,0 *0.787*	6,0 *0.236*	140°	DLC Coated	IT8-9
SD203A-3.5-15-6R1-N	02691552	3,5 *0.138*	15,0 *0.591*	62,0 *2.441*	26,0 *1.024*	36,0 *1.417*	20,0 *0.787*	6,0 *0.236*	140°	DLC Coated	IT8-9
SD203A-4.0-17-6R1-N	02691553	4,0 *0.157*	17,0 *0.669*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	24,0 *0.945*	6,0 *0.236*	140°	DLC Coated	IT8-9
SD203A-4.1-17-6R1-N	02691554	4,1 *0.161*	17,0 *0.669*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	24,0 *0.945*	6,0 *0.236*	140°	DLC Coated	IT8-9
SD203A-4.5-18-6R1-N	02691555	4,5 *0.177*	18,0 *0.709*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	24,0 *0.945*	6,0 *0.236*	140°	DLC Coated	IT8-9
SD203A-5.0-20-6R1-N	02691556	5,0 *0.197*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	DLC Coated	IT8-9
SD203A-5.2-20-6R1-N	02691557	5,2 *0.205*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	DLC Coated	IT8-9
SD203A-5.5-20-6R1-N	02691558	5,5 *0.217*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	DLC Coated	IT8-9
SD203A-6.0-21-6R1-N	02691559	6,0 *0.236*	21,0 *0.827*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	140°	DLC Coated	IT8-9
SD203A-02500-091-0315R1-N	02691560	6,35 *0.250*	23,0 *0.906*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	34,0 *1.339*	8,0 *0.315*	140°	DLC Coated	IT8-9
SD203A-6.5-23-8R1-N	02691562	6,5 *0.256*	23,0 *0.906*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	34,0 *1.339*	8,0 *0.315*	140°	DLC Coated	IT8-9
SD203A-02656-098-0315R1-N	02691564	6,746 *0.266*	25,0 *0.984*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	34,0 *1.339*	8,0 *0.315*	140°	DLC Coated	IT8-9
SD203A-6.8-25-8R1-N	02691565	6,8 *0.268*	25,0 *0.984*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	34,0 *1.339*	8,0 *0.315*	140°	DLC Coated	IT8-9
SD203A-7.0-25-8R1-N	02643590	7,0 *0.276*	25,0 *0.984*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	34,0 *1.339*	8,0 *0.315*	140°	DLC Coated	IT8-9
SD203A-7.1-25-8R1-N	02691567	7,1 *0.280*	25,0 *0.984*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	34,0 *1.339*	8,0 *0.315*	140°	DLC Coated	IT8-9
SD203A-02813-098-0315R1-N	02691568	7,145 *0.281*	25,0 *0.984*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	41,0 *1.614*	8,0 *0.315*	140°	DLC Coated	IT8-9
SD203A-7.5-25-8R1-N	02691569	7,5 *0.295*	25,0 *0.984*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	41,0 *1.614*	8,0 *0.315*	140°	DLC Coated	IT8-9
SD203A-03125-106-0315R1-N	02691570	7,938 *0.313*	27,0 *1.063*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	41,0 *1.614*	8,0 *0.315*	140°	DLC Coated	IT8-9
SD203A-8.0-27-8R1-N	02691571	8,0 *0.315*	27,0 *1.063*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	41,0 *1.614*	8,0 *0.315*	140°	DLC Coated	IT8-9
SD203A-8.5-27-10R1-N	02643592	8,5 *0.335*	27,0 *1.063*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	DLC Coated	IT8-9

Designation	Item number	DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating	Hole tolerance
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			
SD203A-9.0-29-10R1-N	02691574	9,0 *0.354*	29,0 *1.142*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	DLC Coated	IT8-9
SD203A-9.5-29-10R1-N	02691575	9,5 *0.374*	29,0 *1.142*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	DLC Coated	IT8-9
SD203A-03750-122-0394R1-N	02691576	9,525 *0.375*	31,0 *1.220*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	DLC Coated	IT8-9
SD203A-10.0-31-10R1-N	02691577	10,0 *0.394*	31,0 *1.220*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	140°	DLC Coated	IT8-9
SD203A-10.2-31-12R1-N	02691578	10,2 *0.402*	31,0 *1.220*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	DLC Coated	IT8-9
SD203A-04063-122-0472R1-N	02691579	10,32 *0.406*	31,0 *1.220*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	DLC Coated	IT8-9
SD203A-10.5-31-12R1-N	02691580	10,5 *0.413*	31,0 *1.220*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	DLC Coated	IT8-9
SD203A-11.0-33-12R1-N	02691582	11,0 *0.433*	33,0 *1.299*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	DLC Coated	IT8-9
SD203A-04375-130-0472R1-N	02691585	11,113 *0.438*	33,0 *1.299*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	DLC Coated	IT8-9
SD203A-11.5-33-12R1-N	02691588	11,5 *0.453*	33,0 *1.299*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	DLC Coated	IT8-9
SD203A-12.0-36-12R1-N	02691589	12,0 *0.472*	36,0 *1.417*	102,0 *4.016*	57,0 *2.244*	45,0 *1.772*	55,0 *2.165*	12,0 *0.472*	140°	DLC Coated	IT8-9
SD203A-12.5-36-14R1-N	02691591	12,5 *0.492*	36,0 *1.417*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	DLC Coated	IT8-9
SD203A-05000-142-0551R1-N	02691592	12,7 *0.500*	36,0 *1.417*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	DLC Coated	IT8-9
SD203A-13.0-36-14R1-N	02691594	13,0 *0.512*	36,0 *1.417*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	DLC Coated	IT8-9
SD203A-05312-146-0551R1-N	02691596	13,492 *0.531*	37,0 *1.457*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	DLC Coated	IT8-9
SD203A-13.5-37-14R1-N	02691597	13,5 *0.531*	37,0 *1.457*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	DLC Coated	IT8-9
SD203A-14.0-37-14R1-N	02691598	14,0 *0.551*	37,0 *1.457*	107,0 *4.213*	62,0 *2.441*	45,0 *1.772*	60,0 *2.362*	14,0 *0.551*	140°	DLC Coated	IT8-9

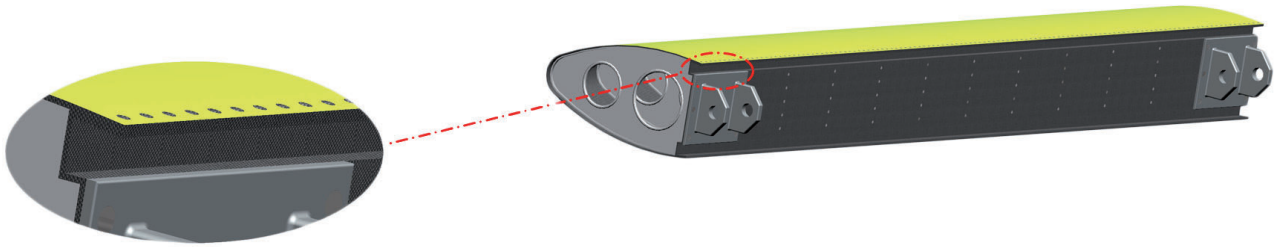


Composite drilling

Seco offers two distinct solutions for composite drilling: diamond-coated drills and polycrystalline diamond (PCD) drills. These tools feature geometries that are optimized specifically for regular composites or stacked materials.

- C1 and CX1 point geometry optimized for applications existing in CFRP material
- The C2:s flat geometry drill point machines stacked composite materials that incorporate layers of aluminum
- CX1 are polycrystalline diamond (PCD) drills that offer enhanced productivity and long tool life over conventional drills when machining composite materials
- Both C1 and C2 are diamond-coated carbide drills featuring a Dura diamond coating that provides very good toughness and abrasive resistance

Composite machining



When hole quality is in focus

With issues like entrance and exit delamination and splintering, the focus has been clear; design tools specifically optimized for composite applications, and tools specifically optimized for sandwich materials.
In both cases particular consideration was given to achieving excellent performance in both entering and exiting. (In sandwich material this usually involves
exiting in either Al or Ti).

- No push-up delamination (entrance)
- No pull-down delamination (exit)

The Dura diamond coating secures good dimensional tolerance throughout the long tool life.





Application sample

Plain CFRP/GFRP
(exit in composite material)

C1 geometry
CX1 geometry





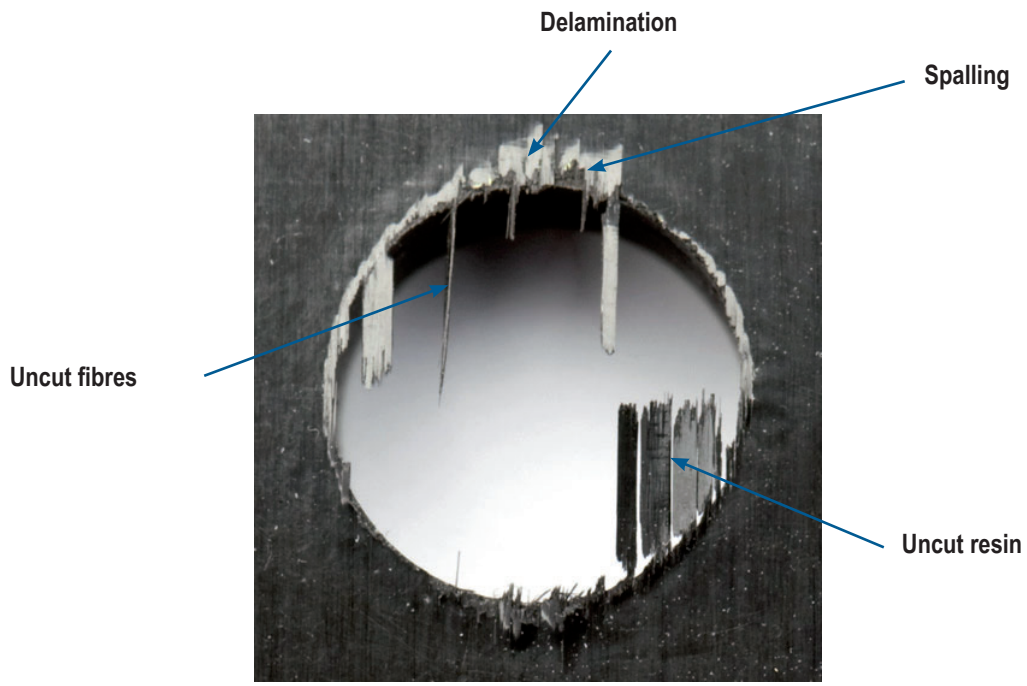
Sandwich material
(exit in Al/Ti)

C2 geometry





Troubleshooting – Hole exit

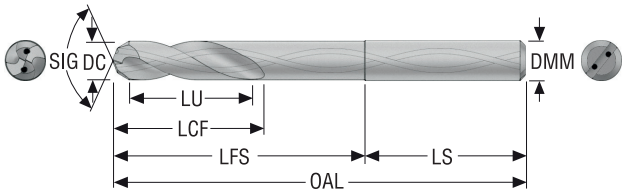


Problem:	Delamination (peel up / push down)	Spalling	Uncut fibres	Uncut resin
Solution:	**Peel up** ▪ Use tool with more negative geometry ▪ Reduce feed/rev **Push down** ▪ Reduce feed/rev	▪ Use tool with more positive geometry ▪ Reduce feed/rev	▪ Use tool with a sharper geometry ▪ Reduce feed/rev	▪ Use tool with a sharper geometry ▪ Reduce feed/rev ▪ Reduce cutting speed
Problem:	**Melted resin (too much heat)**	**Poor tool life**		
Solution:	▪ Reduce cutting speed	▪ Reduce cutting speed		

SD205A-C1

Drilling depth ~ 5 x D – Metric/Inch



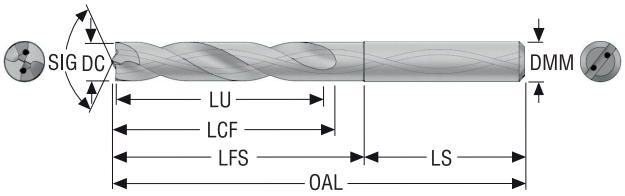


- Cylindrical shank DIN 6537A
- Internal coolant
- For cutting data see page(s) 165

Designation	Item number	Expected hole tolerance		DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating
		mm	*Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		
SD205A-6.0-31-6R1-C1	02740089	5,975/6,025	*0.2352/0.2372*	6,0 *0.236*	31,0 *1.220*	82,0 *3.228*	46,0 *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	60°/130°	Dura diamond
SD205A-9.55-46-10R1-C1	02740092	9,525/9,576	*0.3750/0.3770*	9,55 *0.376*	46,0 *1.811*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	60°/130°	Dura diamond

SD205A-C2

Drilling depth ~ 5 x D – Metric/Inch





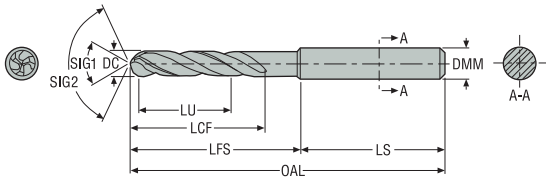
- Cylindrical shank DIN 6537A
- Internal coolant
- For cutting data see page(s) 165

Designation	Item number	Expected hole tolerance		DC	LU	OAL	LFS	LS	LCF	DMM	Point angle	Coating
		mm	*Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		
SD205A-6.0-32-6R1-C2	02740099	5,975/6,025	*0.2352/0.2372*	6,0 *0.236*	32,0 *1.260*	82,0 *3.228*	46,0 *1.811*	36,0 *1.417*	44,0 *1.732*	6,0 *0.236*	140°/180°	Dura diamond
SD205A-9.55-48-10R1-C2	02740103	9,525/9,576	*0.3750/0.3770*	9,55 *0.376*	48,0 *1.890*	103,0 *4.055*	63,0 *2.480*	40,0 *1.575*	61,0 *2.402*	10,0 *0.394*	140°/180°	Dura diamond

SD203-CX1

Drilling depth ~ 3 x D – Metric/Inch





- Cylindrical shank DIN 6537A
- PCD cutting edges
- For cutting data see page(s) 165

Designation	Item number	Expected hole tolerance		DC	LU	OAL	LFS	LS	LCF	DMM	Point angle
		mm	*Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	
SD203-3.26-14-6R1-CX1	02827923	3,235/3,285	*0.1273/0.1293*	3,26 *0.128*	14,0 *0.551*	62,0 *2.441*	26,0 *1.024*	36,0 *1.417*	21,0 *0.827*	6,0 *0.236*	60°/130°
SD203-4.17-17-6R1-CX1	02827924	4,142/4,192	*0.1630/0.1650*	4,17 *0.164*	17,0 *0.669*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	25,0 *0.984*	6,0 *0.236*	60°/130°
SD203-4.83-20-6R1-CX1	02827925	4,805/4,855	*0.1891/0.1911*	4,83 *0.190*	20,0 *0.787*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	60°/130°
SD203-6.06-21-6R1-CX1	02827926	6,035/6,085	*0.2375/0.2395*	6,06 *0.239*	21,0 *0.827*	66,0 *2.598*	30,0 *1.181*	36,0 *1.417*	28,0 *1.102*	6,0 *0.236*	60°/130°
SD203-6.36-23-8R1-CX1	02827927	6,33/6,38	*0.2492/0.2511*	6,36 *0.250*	23,0 *0.906*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	34,0 *1.339*	8,0 *0.315*	60°/130°
SD203-7.94-27-8R1-CX1	02827928	7,913/7,963	*0.3115/0.3135*	7,94 *0.313*	27,0 *1.063*	79,0 *3.110*	43,0 *1.693*	36,0 *1.417*	41,0 *1.614*	8,0 *0.315*	60°/130°
SD203-9.53-31-10R1-CX1	02827929	9,504/9,554	*0.3741/0.3761*	9,53 *0.375*	31,0 *1.220*	89,0 *3.504*	49,0 *1.929*	40,0 *1.575*	47,0 *1.850*	10,0 *0.394*	60°/130°



Micro drilling

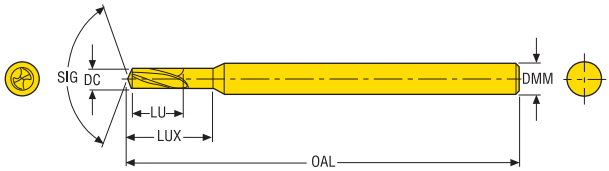
Seco addresses micro drilling applications with a portfolio of dedicated products that includes the SD22 and SD26 ranges of small solid carbide micro drills.

- Capable of delivering dramatic performance increases compared to traditional HSS drills
- Suitable for applications in the automotive and medical industries, as well as for small part production in the general engineering industry

SD22

Drilling depth ~ 2 x D (Pilot drill) – Metric/Inch





- Cylindrical shank
- External coolant
- For cutting data see page(s) 166-170

Designation	Item number	DC	LU	OAL	LUX	DMM	Point angle	Coating
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		
SD22-0.10-0.20-3R1	02731574	0,1 *0.004*	0,2 *0.008*	38,0 *1.496*	0,55 *0.022*	3,0 *0.118*	130°	Uncoated
SD22-0.11-0.22-3R1	02730362	0,11 *0.004*	0,22 *0.009*	38,0 *1.496*	0,55 *0.022*	3,0 *0.118*	130°	Uncoated
SD22-0.12-0.24-3R1	02730460	0,12 *0.005*	0,24 *0.009*	38,0 *1.496*	0,55 *0.022*	3,0 *0.118*	130°	Uncoated
SD22-0.13-0.26-3R1	02730461	0,13 *0.005*	0,26 *0.010*	38,0 *1.496*	0,6 *0.024*	3,0 *0.118*	130°	Uncoated
SD22-0.14-0.28-3R1	02730462	0,14 *0.006*	0,28 *0.011*	38,0 *1.496*	0,6 *0.024*	3,0 *0.118*	130°	Uncoated
SD22-0.15-0.30-3R1	02731575	0,15 *0.006*	0,3 *0.012*	38,0 *1.496*	0,6 *0.024*	3,0 *0.118*	130°	Uncoated
SD22-0.16-0.32-3R1	02730464	0,16 *0.006*	0,32 *0.013*	38,0 *1.496*	0,6 *0.024*	3,0 *0.118*	130°	Uncoated
SD22-0.17-0.34-3R1	02730465	0,17 *0.007*	0,34 *0.013*	38,0 *1.496*	0,7 *0.028*	3,0 *0.118*	130°	Uncoated
SD22-0.18-0.36-3R1	02730466	0,18 *0.007*	0,36 *0.014*	38,0 *1.496*	0,7 *0.028*	3,0 *0.118*	130°	Uncoated
SD22-0.19-0.38-3R1	02730467	0,19 *0.007*	0,38 *0.015*	38,0 *1.496*	0,7 *0.028*	3,0 *0.118*	130°	Uncoated
SD22-0.20-0.40-3R1	02731576	0,2 *0.008*	0,4 *0.016*	38,0 *1.496*	0,75 *0.030*	3,0 *0.118*	130°	Uncoated
SD22-0.21-0.42-3R1	02730468	0,21 *0.008*	0,42 *0.017*	38,0 *1.496*	0,75 *0.030*	3,0 *0.118*	130°	Uncoated
SD22-0.22-0.44-3R1	02730469	0,22 *0.009*	0,44 *0.017*	38,0 *1.496*	0,8 *0.031*	3,0 *0.118*	130°	Uncoated
SD22-0.23-0.46-3R1	02730470	0,23 *0.009*	0,46 *0.018*	38,0 *1.496*	0,8 *0.031*	3,0 *0.118*	130°	Uncoated
SD22-0.24-0.48-3R1	02730471	0,24 *0.009*	0,48 *0.019*	38,0 *1.496*	0,8 *0.031*	3,0 *0.118*	130°	Uncoated
SD22-0.25-0.50-3R1	02731577	0,25 *0.010*	0,5 *0.020*	38,0 *1.496*	0,9 *0.035*	3,0 *0.118*	130°	Uncoated
SD22-0.26-0.52-3R1	02730472	0,26 *0.010*	0,52 *0.020*	38,0 *1.496*	0,9 *0.035*	3,0 *0.118*	130°	Uncoated
SD22-0.27-0.54-3R1	02730473	0,27 *0.011*	0,54 *0.021*	38,0 *1.496*	0,9 *0.035*	3,0 *0.118*	130°	Uncoated
SD22-0.28-0.56-3R1	02730474	0,28 *0.011*	0,56 *0.022*	38,0 *1.496*	1,0 *0.039*	3,0 *0.118*	130°	Uncoated
SD22-0.29-0.58-3R1	02730475	0,29 *0.011*	0,58 *0.023*	38,0 *1.496*	1,0 *0.039*	3,0 *0.118*	130°	Uncoated
SD22-0.30-0.60-3R1	02731579	0,3 *0.012*	0,6 *0.024*	38,0 *1.496*	1,2 *0.047*	3,0 *0.118*	130°	Uncoated
SD22-0.31-0.62-3R1	02730476	0,31 *0.012*	0,62 *0.024*	38,0 *1.496*	1,2 *0.047*	3,0 *0.118*	130°	Uncoated

Designation	Item number	DC	LU	OAL	LUX	DMM	Point angle	Coating
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		
SD22-0.32-0.64-3R1	02730477	0,32 *0.013*	0,64 *0.025*	38,0 *1.496*	1,2 *0.047*	3,0 *0.118*	130°	Uncoated
SD22-0.33-0.66-3R1	02730478	0,33 *0.013*	0,66 *0.026*	38,0 *1.496*	1,2 *0.047*	3,0 *0.118*	130°	Uncoated
SD22-0.34-0.68-3R1	02730479	0,34 *0.013*	0,68 *0.027*	38,0 *1.496*	1,35 *0.053*	3,0 *0.118*	130°	Uncoated
SD22-0.35-0.70-3R1	02731580	0,35 *0.014*	0,7 *0.028*	38,0 *1.496*	1,35 *0.053*	3,0 *0.118*	130°	Uncoated
SD22-0.36-0.72-3R1	02730480	0,36 *0.014*	0,72 *0.028*	38,0 *1.496*	1,35 *0.053*	3,0 *0.118*	130°	Uncoated
SD22-0.37-0.74-3R1	02730481	0,37 *0.015*	0,74 *0.029*	38,0 *1.496*	1,35 *0.053*	3,0 *0.118*	130°	Uncoated
SD22-0.38-0.76-3R1	02730482	0,38 *0.015*	0,76 *0.030*	38,0 *1.496*	1,5 *0.059*	3,0 *0.118*	130°	Uncoated
SD22-0.39-0.78-3R1	02730483	0,39 *0.015*	0,78 *0.031*	38,0 *1.496*	1,5 *0.059*	3,0 *0.118*	130°	Uncoated
SD22-0.40-0.80-3R1	02731581	0,4 *0.016*	0,8 *0.031*	38,0 *1.496*	1,6 *0.063*	3,0 *0.118*	130°	Uncoated
SD22-0.41-0.82-3R1	02730484	0,41 *0.016*	0,82 *0.032*	38,0 *1.496*	1,6 *0.063*	3,0 *0.118*	130°	Uncoated
SD22-0.42-0.84-3R1	02730485	0,42 *0.017*	0,84 *0.033*	38,0 *1.496*	1,6 *0.063*	3,0 *0.118*	130°	Uncoated
SD22-0.43-0.86-3R1	02730486	0,43 *0.017*	0,86 *0.034*	38,0 *1.496*	1,6 *0.063*	3,0 *0.118*	130°	Uncoated
SD22-0.44-0.88-3R1	02730487	0,44 *0.017*	0,88 *0.035*	38,0 *1.496*	1,6 *0.063*	3,0 *0.118*	130°	Uncoated
SD22-0.45-0.90-3R1	02731582	0,45 *0.018*	0,9 *0.035*	38,0 *1.496*	1,6 *0.063*	3,0 *0.118*	130°	Uncoated
SD22-0.46-0.92-3R1	02730488	0,46 *0.018*	0,92 *0.036*	38,0 *1.496*	1,7 *0.067*	3,0 *0.118*	130°	Uncoated
SD22-0.47-0.94-3R1	02730489	0,47 *0.019*	0,94 *0.037*	38,0 *1.496*	1,7 *0.067*	3,0 *0.118*	130°	Uncoated
SD22-0.48-0.96-3R1	02730490	0,48 *0.019*	0,96 *0.038*	38,0 *1.496*	1,7 *0.067*	3,0 *0.118*	130°	Uncoated
SD22-0.49-0.98-3R1	02730491	0,49 *0.019*	0,98 *0.039*	38,0 *1.496*	1,7 *0.067*	3,0 *0.118*	130°	Uncoated
SD22-0.50-1.00-3R1	02731584	0,5 *0.020*	1,0 *0.039*	38,0 *1.496*	1,7 *0.067*	3,0 *0.118*	130°	Uncoated
SD22-0.51-1.02-3R1	02730492	0,51 *0.020*	1,02 *0.040*	38,0 *1.496*	1,8 *0.071*	3,0 *0.118*	130°	Uncoated
SD22-0.52-1.04-3R1	02730493	0,52 *0.020*	1,04 *0.041*	38,0 *1.496*	1,8 *0.071*	3,0 *0.118*	130°	Uncoated
SD22-0.53-1.06-3R1	02730494	0,53 *0.021*	1,06 *0.042*	38,0 *1.496*	1,8 *0.071*	3,0 *0.118*	130°	Uncoated
SD22-0.54-1.08-3R1	02730495	0,54 *0.021*	1,08 *0.043*	38,0 *1.496*	1,8 *0.071*	3,0 *0.118*	130°	Uncoated
SD22-0.55-1.10-3R1	02731585	0,55 *0.022*	1,1 *0.043*	38,0 *1.496*	1,8 *0.071*	3,0 *0.118*	130°	Uncoated
SD22-0.56-1.12-3R1	02730496	0,56 *0.022*	1,12 *0.044*	38,0 *1.496*	1,9 *0.075*	3,0 *0.118*	130°	Uncoated
SD22-0.57-1.14-3R1	02730497	0,57 *0.022*	1,14 *0.045*	38,0 *1.496*	1,9 *0.075*	3,0 *0.118*	130°	Uncoated
SD22-0.58-1.16-3R1	02730498	0,58 *0.023*	1,16 *0.046*	38,0 *1.496*	1,9 *0.075*	3,0 *0.118*	130°	Uncoated
SD22-0.59-1.18-3R1	02730499	0,59 *0.023*	1,18 *0.046*	38,0 *1.496*	1,9 *0.075*	3,0 *0.118*	130°	Uncoated
SD22-0.60-1.20-3R1	02731586	0,6 *0.024*	1,2 *0.047*	38,0 *1.496*	1,9 *0.075*	3,0 *0.118*	130°	Uncoated
SD22-0.61-1.22-3R1	02730500	0,61 *0.024*	1,22 *0.048*	38,0 *1.496*	2,0 *0.079*	3,0 *0.118*	130°	Uncoated
SD22-0.62-1.24-3R1	02730501	0,62 *0.024*	1,24 *0.049*	38,0 *1.496*	2,0 *0.079*	3,0 *0.118*	130°	Uncoated

Designation	Item number	DC	LU	OAL	LUX	DMM	Point angle	Coating
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		
SD22-0.63-1.26-3R1	02730502	0,63 *0.025*	1,26 *0.050*	38,0 *1.496*	2,0 *0.079*	3,0 *0.118*	130°	Uncoated
SD22-0.64-1.28-3R1	02730503	0,64 *0.025*	1,28 *0.050*	38,0 *1.496*	2,0 *0.079*	3,0 *0.118*	130°	Uncoated
SD22-0.65-1.30-3R1	02731587	0,65 *0.026*	1,3 *0.051*	38,0 *1.496*	2,0 *0.079*	3,0 *0.118*	130°	Uncoated
SD22-0.66-1.32-3R1	02730504	0,66 *0.026*	1,32 *0.052*	38,0 *1.496*	2,1 *0.083*	3,0 *0.118*	130°	Uncoated
SD22-0.67-1.34-3R1	02730505	0,67 *0.026*	1,34 *0.053*	38,0 *1.496*	2,1 *0.083*	3,0 *0.118*	130°	Uncoated
SD22-0.68-1.36-3R1	02730506	0,68 *0.027*	1,36 *0.054*	38,0 *1.496*	2,1 *0.083*	3,0 *0.118*	130°	Uncoated
SD22-0.69-1.38-3R1	02730507	0,69 *0.027*	1,38 *0.054*	38,0 *1.496*	2,1 *0.083*	3,0 *0.118*	130°	Uncoated
SD22-0.70-1.40-3R1	02731589	0,7 *0.028*	1,4 *0.055*	38,0 *1.496*	2,1 *0.083*	3,0 *0.118*	130°	Uncoated
SD22-0.71-1.42-3R1	02730508	0,71 *0.028*	1,42 *0.056*	38,0 *1.496*	2,2 *0.087*	3,0 *0.118*	130°	Uncoated
SD22-0.72-1.44-3R1	02730509	0,72 *0.028*	1,44 *0.057*	38,0 *1.496*	2,2 *0.087*	3,0 *0.118*	130°	Uncoated
SD22-0.73-1.46-3R1	02730510	0,73 *0.029*	1,46 *0.057*	38,0 *1.496*	2,2 *0.087*	3,0 *0.118*	130°	Uncoated
SD22-0.74-1.48-3R1	02730511	0,74 *0.029*	1,48 *0.058*	38,0 *1.496*	2,2 *0.087*	3,0 *0.118*	130°	Uncoated
SD22-0.75-1.50-3R1	02731590	0,75 *0.030*	1,5 *0.059*	38,0 *1.496*	2,2 *0.087*	3,0 *0.118*	130°	Uncoated
SD22-0.76-1.52-3R1	02730512	0,76 *0.030*	1,52 *0.060*	38,0 *1.496*	2,3 *0.091*	3,0 *0.118*	130°	Uncoated
SD22-0.77-1.54-3R1	02730513	0,77 *0.030*	1,54 *0.061*	38,0 *1.496*	2,3 *0.091*	3,0 *0.118*	130°	Uncoated
SD22-0.78-1.56-3R1	02730514	0,78 *0.031*	1,56 *0.061*	38,0 *1.496*	2,3 *0.091*	3,0 *0.118*	130°	Uncoated
SD22-0.79-1.58-3R1	02730515	0,79 *0.031*	1,58 *0.062*	38,0 *1.496*	2,3 *0.091*	3,0 *0.118*	130°	Uncoated
SD22-0.80-1.60-3R1	02731592	0,8 *0.031*	1,6 *0.063*	38,0 *1.496*	2,3 *0.091*	3,0 *0.118*	130°	Uncoated
SD22-0.81-1.62-3R1	02730516	0,81 *0.032*	1,62 *0.064*	38,0 *1.496*	2,4 *0.094*	3,0 *0.118*	130°	Uncoated
SD22-0.82-1.64-3R1	02730517	0,82 *0.032*	1,64 *0.065*	38,0 *1.496*	2,4 *0.094*	3,0 *0.118*	130°	Uncoated
SD22-0.83-1.66-3R1	02730518	0,83 *0.033*	1,66 *0.065*	38,0 *1.496*	2,4 *0.094*	3,0 *0.118*	130°	Uncoated
SD22-0.84-1.68-3R1	02730519	0,84 *0.033*	1,68 *0.066*	38,0 *1.496*	2,4 *0.094*	3,0 *0.118*	130°	Uncoated
SD22-0.85-1.70-3R1	02731593	0,85 *0.033*	1,7 *0.067*	38,0 *1.496*	2,4 *0.094*	3,0 *0.118*	130°	Uncoated
SD22-0.86-1.72-3R1	02730520	0,86 *0.034*	1,72 *0.068*	38,0 *1.496*	2,5 *0.098*	3,0 *0.118*	130°	Uncoated
SD22-0.87-1.74-3R1	02730521	0,87 *0.034*	1,74 *0.069*	38,0 *1.496*	2,5 *0.098*	3,0 *0.118*	130°	Uncoated
SD22-0.88-1.76-3R1	02730522	0,88 *0.035*	1,76 *0.069*	38,0 *1.496*	2,5 *0.098*	3,0 *0.118*	130°	Uncoated
SD22-0.89-1.78-3R1	02730523	0,89 *0.035*	1,78 *0.070*	38,0 *1.496*	2,5 *0.098*	3,0 *0.118*	130°	Uncoated
SD22-0.90-1.80-3R1	02731594	0,9 *0.035*	1,8 *0.071*	38,0 *1.496*	2,5 *0.098*	3,0 *0.118*	130°	Uncoated
SD22-0.91-1.82-3R1	02730524	0,91 *0.036*	1,82 *0.072*	38,0 *1.496*	2,6 *0.102*	3,0 *0.118*	130°	Uncoated
SD22-0.92-1.84-3R1	02730525	0,92 *0.036*	1,84 *0.072*	38,0 *1.496*	2,6 *0.102*	3,0 *0.118*	130°	Uncoated
SD22-0.93-1.86-3R1	02730526	0,93 *0.037*	1,86 *0.073*	38,0 *1.496*	2,6 *0.102*	3,0 *0.118*	130°	Uncoated

Designation	Item number	DC	LU	OAL	LUX	DMM	Point angle	Coating
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		
SD22-0.94-1.88-3R1	02730527	0,94 *0.037*	1,88 *0.074*	38,0 *1.496*	2,6 *0.102*	3,0 *0.118*	130°	Uncoated
SD22-0.95-1.90-3R1	02731595	0,95 *0.037*	1,9 *0.075*	38,0 *1.496*	2,6 *0.102*	3,0 *0.118*	130°	Uncoated
SD22-0.96-1.92-3R1	02730528	0,96 *0.038*	1,92 *0.076*	38,0 *1.496*	2,7 *0.106*	3,0 *0.118*	130°	Uncoated
SD22-0.97-1.94-3R1	02730529	0,97 *0.038*	1,94 *0.076*	38,0 *1.496*	2,7 *0.106*	3,0 *0.118*	130°	Uncoated
SD22-0.98-1.96-3R1	02730530	0,98 *0.039*	1,96 *0.077*	38,0 *1.496*	2,7 *0.106*	3,0 *0.118*	130°	Uncoated
SD22-0.99-1.98-3R1	02730531	0,99 *0.039*	1,98 *0.078*	38,0 *1.496*	2,7 *0.106*	3,0 *0.118*	130°	Uncoated
SD22-1.00-2.00-3R1	02731596	1,0 *0.039*	2,0 *0.079*	38,0 *1.496*	2,7 *0.106*	3,0 *0.118*	130°	Uncoated
SD22-1.01-2.02-3R1	02730532	1,01 *0.040*	2,02 *0.080*	38,0 *1.496*	3,5 *0.138*	3,0 *0.118*	130°	Uncoated
SD22-1.02-2.04-3R1	02730533	1,02 *0.040*	2,04 *0.080*	38,0 *1.496*	3,5 *0.138*	3,0 *0.118*	130°	Uncoated
SD22-1.03-2.06-3R1	02730534	1,03 *0.041*	2,06 *0.081*	38,0 *1.496*	3,5 *0.138*	3,0 *0.118*	130°	Uncoated
SD22-1.04-2.08-3R1	02730535	1,04 *0.041*	2,08 *0.082*	38,0 *1.496*	3,5 *0.138*	3,0 *0.118*	130°	Uncoated
SD22-1.05-2.10-3R1	02730536	1,05 *0.041*	2,1 *0.083*	38,0 *1.496*	3,5 *0.138*	3,0 *0.118*	130°	Uncoated
SD22-1.06-2.12-3R1	02730537	1,06 *0.042*	2,12 *0.083*	38,0 *1.496*	3,6 *0.142*	3,0 *0.118*	130°	Uncoated
SD22-1.07-2.14-3R1	02730538	1,07 *0.042*	2,14 *0.084*	38,0 *1.496*	3,6 *0.142*	3,0 *0.118*	130°	Uncoated
SD22-1.08-2.16-3R1	02730539	1,08 *0.043*	2,16 *0.085*	38,0 *1.496*	3,6 *0.142*	3,0 *0.118*	130°	Uncoated
SD22-1.09-2.18-3R1	02730540	1,09 *0.043*	2,18 *0.086*	38,0 *1.496*	3,6 *0.142*	3,0 *0.118*	130°	Uncoated
SD22-1.10-2.20-3R1	02731598	1,1 *0.043*	2,2 *0.087*	38,0 *1.496*	3,6 *0.142*	3,0 *0.118*	130°	Uncoated
SD22-1.11-2.22-3R1	02730541	1,11 *0.044*	2,22 *0.087*	38,0 *1.496*	3,7 *0.146*	3,0 *0.118*	130°	Uncoated
SD22-1.12-2.24-3R1	02730542	1,12 *0.044*	2,24 *0.088*	38,0 *1.496*	3,7 *0.146*	3,0 *0.118*	130°	Uncoated
SD22-1.13-2.26-3R1	02730543	1,13 *0.044*	2,26 *0.089*	38,0 *1.496*	3,7 *0.146*	3,0 *0.118*	130°	Uncoated
SD22-1.14-2.28-3R1	02730544	1,14 *0.045*	2,28 *0.090*	38,0 *1.496*	3,7 *0.146*	3,0 *0.118*	130°	Uncoated
SD22-1.15-2.30-3R1	02730545	1,15 *0.045*	2,3 *0.091*	38,0 *1.496*	3,7 *0.146*	3,0 *0.118*	130°	Uncoated
SD22-1.16-2.32-3R1	02730546	1,16 *0.046*	2,32 *0.091*	38,0 *1.496*	3,8 *0.150*	3,0 *0.118*	130°	Uncoated
SD22-1.17-2.34-3R1	02730547	1,17 *0.046*	2,34 *0.092*	38,0 *1.496*	3,8 *0.150*	3,0 *0.118*	130°	Uncoated
SD22-1.18-2.36-3R1	02730548	1,18 *0.046*	2,36 *0.093*	38,0 *1.496*	3,8 *0.150*	3,0 *0.118*	130°	Uncoated
SD22-1.19-2.38-3R1	02730549	1,19 *0.047*	2,38 *0.094*	38,0 *1.496*	3,8 *0.150*	3,0 *0.118*	130°	Uncoated
SD22-1.20-2.40-3R1	02731599	1,2 *0.047*	2,4 *0.094*	38,0 *1.496*	3,8 *0.150*	3,0 *0.118*	130°	Uncoated
SD22-1.21-2.42-3R1	02730550	1,21 *0.048*	2,42 *0.095*	38,0 *1.496*	4,2 *0.165*	3,0 *0.118*	130°	Uncoated
SD22-1.22-2.44-3R1	02730551	1,22 *0.048*	2,44 *0.096*	38,0 *1.496*	4,2 *0.165*	3,0 *0.118*	130°	Uncoated
SD22-1.23-2.46-3R1	02730552	1,23 *0.048*	2,46 *0.097*	38,0 *1.496*	4,2 *0.165*	3,0 *0.118*	130°	Uncoated
SD22-1.24-2.48-3R1	02730553	1,24 *0.049*	2,48 *0.098*	38,0 *1.496*	4,2 *0.165*	3,0 *0.118*	130°	Uncoated

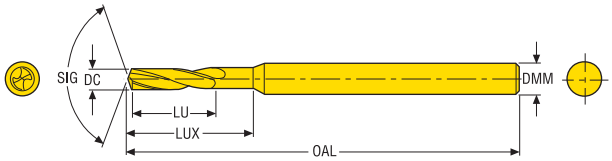
Designation	Item number	DC	LU	OAL	LUX	DMM	Point angle	Coating
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		
SD22-1.25-2.50-3R1	02730554	1,25 *0.049*	2,5 *0.098*	38,0 *1.496*	4,2 *0.165*	3,0 *0.118*	130°	Uncoated
SD22-1.26-2.52-3R1	02730555	1,26 *0.050*	2,52 *0.099*	38,0 *1.496*	4,3 *0.169*	3,0 *0.118*	130°	Uncoated
SD22-1.27-2.54-3R1	02730556	1,27 *0.050*	2,54 *0.100*	38,0 *1.496*	4,3 *0.169*	3,0 *0.118*	130°	Uncoated
SD22-1.28-2.56-3R1	02730557	1,28 *0.050*	2,56 *0.101*	38,0 *1.496*	4,3 *0.169*	3,0 *0.118*	130°	Uncoated
SD22-1.29-2.58-3R1	02730558	1,29 *0.051*	2,58 *0.102*	38,0 *1.496*	4,3 *0.169*	3,0 *0.118*	130°	Uncoated
SD22-1.30-2.60-3R1	02731600	1,3 *0.051*	2,6 *0.102*	38,0 *1.496*	4,3 *0.169*	3,0 *0.118*	130°	Uncoated
SD22-1.31-2.62-3R1	02730559	1,31 *0.052*	2,62 *0.103*	38,0 *1.496*	4,4 *0.173*	3,0 *0.118*	130°	Uncoated
SD22-1.32-2.64-3R1	02730560	1,32 *0.052*	2,64 *0.104*	38,0 *1.496*	4,4 *0.173*	3,0 *0.118*	130°	Uncoated
SD22-1.33-2.66-3R1	02730561	1,33 *0.052*	2,66 *0.105*	38,0 *1.496*	4,4 *0.173*	3,0 *0.118*	130°	Uncoated
SD22-1.34-2.68-3R1	02730562	1,34 *0.053*	2,68 *0.106*	38,0 *1.496*	4,4 *0.173*	3,0 *0.118*	130°	Uncoated
SD22-1.35-2.70-3R1	02730563	1,35 *0.053*	2,7 *0.106*	38,0 *1.496*	4,4 *0.173*	3,0 *0.118*	130°	Uncoated
SD22-1.36-2.72-3R1	02730564	1,36 *0.054*	2,72 *0.107*	38,0 *1.496*	4,5 *0.177*	3,0 *0.118*	130°	Uncoated
SD22-1.37-2.74-3R1	02730565	1,37 *0.054*	2,74 *0.108*	38,0 *1.496*	4,5 *0.177*	3,0 *0.118*	130°	Uncoated
SD22-1.38-2.76-3R1	02730566	1,38 *0.054*	2,76 *0.109*	38,0 *1.496*	4,5 *0.177*	3,0 *0.118*	130°	Uncoated
SD22-1.39-2.78-3R1	02730567	1,39 *0.055*	2,78 *0.109*	38,0 *1.496*	4,5 *0.177*	3,0 *0.118*	130°	Uncoated
SD22-1.40-2.80-3R1	02731602	1,4 *0.055*	2,8 *0.110*	38,0 *1.496*	4,5 *0.177*	3,0 *0.118*	130°	Uncoated
SD22-1.41-2.82-3R1	02730568	1,41 *0.056*	2,82 *0.111*	38,0 *1.496*	4,6 *0.181*	3,0 *0.118*	130°	Uncoated
SD22-1.42-2.84-3R1	02730569	1,42 *0.056*	2,84 *0.112*	38,0 *1.496*	4,6 *0.181*	3,0 *0.118*	130°	Uncoated
SD22-1.43-2.86-3R1	02730570	1,43 *0.056*	2,86 *0.113*	38,0 *1.496*	4,6 *0.181*	3,0 *0.118*	130°	Uncoated
SD22-1.44-2.88-3R1	02730571	1,44 *0.057*	2,88 *0.113*	38,0 *1.496*	4,6 *0.181*	3,0 *0.118*	130°	Uncoated
SD22-1.45-2.90-3R1	02730572	1,45 *0.057*	2,9 *0.114*	38,0 *1.496*	4,6 *0.181*	3,0 *0.118*	130°	Uncoated
SD22-1.46-2.92-3R1	02730573	1,46 *0.057*	2,92 *0.115*	38,0 *1.496*	4,7 *0.185*	3,0 *0.118*	130°	Uncoated
SD22-1.47-2.94-3R1	02730574	1,47 *0.058*	2,94 *0.116*	38,0 *1.496*	4,7 *0.185*	3,0 *0.118*	130°	Uncoated
SD22-1.48-2.96-3R1	02730575	1,48 *0.058*	2,96 *0.117*	38,0 *1.496*	4,7 *0.185*	3,0 *0.118*	130°	Uncoated
SD22-1.49-2.98-3R1	02730576	1,49 *0.059*	2,98 *0.117*	38,0 *1.496*	4,7 *0.185*	3,0 *0.118*	130°	Uncoated
SD22-1.50-3.00-3R1	02731603	1,5 *0.059*	3,0 *0.118*	38,0 *1.496*	4,7 *0.185*	3,0 *0.118*	130°	Uncoated
SD22-1.51-3.02-3R1	02730577	1,51 *0.059*	3,02 *0.119*	38,0 *1.496*	5,1 *0.201*	3,0 *0.118*	130°	Uncoated
SD22-1.52-3.04-3R1	02730578	1,52 *0.060*	3,04 *0.120*	38,0 *1.496*	5,1 *0.201*	3,0 *0.118*	130°	Uncoated
SD22-1.53-3.06-3R1	02730579	1,53 *0.060*	3,06 *0.120*	38,0 *1.496*	5,1 *0.201*	3,0 *0.118*	130°	Uncoated
SD22-1.54-3.08-3R1	02730580	1,54 *0.061*	3,08 *0.121*	38,0 *1.496*	5,1 *0.201*	3,0 *0.118*	130°	Uncoated
SD22-1.55-3.10-3R1	02730581	1,55 *0.061*	3,1 *0.122*	38,0 *1.496*	5,1 *0.201*	3,0 *0.118*	130°	Uncoated

Designation	Item number	DC	LU	OAL	LUX	DMM	Point angle	Coating
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		
SD22-1.56-3.12-3R1	02730582	1,56 *0.061*	3,12 *0.123*	38,0 *1.496*	5,2 *0.205*	3,0 *0.118*	130°	Uncoated
SD22-1.57-3.14-3R1	02730583	1,57 *0.062*	3,14 *0.124*	38,0 *1.496*	5,2 *0.205*	3,0 *0.118*	130°	Uncoated
SD22-1.58-3.16-3R1	02730584	1,58 *0.062*	3,16 *0.124*	38,0 *1.496*	5,2 *0.205*	3,0 *0.118*	130°	Uncoated
SD22-1.59-3.18-3R1	02730585	1,59 *0.063*	3,18 *0.125*	38,0 *1.496*	5,2 *0.205*	3,0 *0.118*	130°	Uncoated
SD22-1.60-3.20-3R1	02731605	1,6 *0.063*	3,2 *0.126*	38,0 *1.496*	5,2 *0.205*	3,0 *0.118*	130°	Uncoated
SD22-1.61-3.22-3R1	02730586	1,61 *0.063*	3,22 *0.127*	38,0 *1.496*	5,3 *0.209*	3,0 *0.118*	130°	Uncoated
SD22-1.62-3.24-3R1	02730587	1,62 *0.064*	3,24 *0.128*	38,0 *1.496*	5,3 *0.209*	3,0 *0.118*	130°	Uncoated
SD22-1.63-3.26-3R1	02730588	1,63 *0.064*	3,26 *0.128*	38,0 *1.496*	5,3 *0.209*	3,0 *0.118*	130°	Uncoated
SD22-1.64-3.28-3R1	02730589	1,64 *0.065*	3,28 *0.129*	38,0 *1.496*	5,3 *0.209*	3,0 *0.118*	130°	Uncoated
SD22-1.65-3.30-3R1	02730590	1,65 *0.065*	3,3 *0.130*	38,0 *1.496*	5,3 *0.209*	3,0 *0.118*	130°	Uncoated
SD22-1.66-3.32-3R1	02730592	1,66 *0.065*	3,32 *0.131*	38,0 *1.496*	5,4 *0.213*	3,0 *0.118*	130°	Uncoated
SD22-1.67-3.34-3R1	02730593	1,67 *0.066*	3,34 *0.131*	38,0 *1.496*	5,4 *0.213*	3,0 *0.118*	130°	Uncoated
SD22-1.68-3.36-3R1	02730594	1,68 *0.066*	3,36 *0.132*	38,0 *1.496*	5,4 *0.213*	3,0 *0.118*	130°	Uncoated
SD22-1.69-3.38-3R1	02730595	1,69 *0.067*	3,38 *0.133*	38,0 *1.496*	5,4 *0.213*	3,0 *0.118*	130°	Uncoated
SD22-1.70-3.40-3R1	02731606	1,7 *0.067*	3,4 *0.134*	38,0 *1.496*	5,4 *0.213*	3,0 *0.118*	130°	Uncoated
SD22-1.71-3.42-3R1	02730596	1,71 *0.067*	3,42 *0.135*	38,0 *1.496*	5,5 *0.217*	3,0 *0.118*	130°	Uncoated
SD22-1.72-3.44-3R1	02730597	1,72 *0.068*	3,44 *0.135*	38,0 *1.496*	5,5 *0.217*	3,0 *0.118*	130°	Uncoated
SD22-1.73-3.46-3R1	02730598	1,73 *0.068*	3,46 *0.136*	38,0 *1.496*	5,5 *0.217*	3,0 *0.118*	130°	Uncoated
SD22-1.74-3.48-3R1	02730599	1,74 *0.069*	3,48 *0.137*	38,0 *1.496*	5,5 *0.217*	3,0 *0.118*	130°	Uncoated
SD22-1.75-3.50-3R1	02730601	1,75 *0.069*	3,5 *0.138*	38,0 *1.496*	5,5 *0.217*	3,0 *0.118*	130°	Uncoated
SD22-1.76-3.52-3R1	02730602	1,76 *0.069*	3,52 *0.139*	38,0 *1.496*	5,6 *0.220*	3,0 *0.118*	130°	Uncoated
SD22-1.77-3.54-3R1	02730603	1,77 *0.070*	3,54 *0.139*	38,0 *1.496*	5,6 *0.220*	3,0 *0.118*	130°	Uncoated
SD22-1.78-3.56-3R1	02730604	1,78 *0.070*	3,56 *0.140*	38,0 *1.496*	5,6 *0.220*	3,0 *0.118*	130°	Uncoated
SD22-1.79-3.58-3R1	02730605	1,79 *0.070*	3,58 *0.141*	38,0 *1.496*	5,6 *0.220*	3,0 *0.118*	130°	Uncoated
SD22-1.80-3.60-3R1	02731607	1,8 *0.071*	3,6 *0.142*	38,0 *1.496*	5,6 *0.220*	3,0 *0.118*	130°	Uncoated
SD22-1.81-3.62-3R1	02730606	1,81 *0.071*	3,62 *0.143*	38,0 *1.496*	5,7 *0.224*	3,0 *0.118*	130°	Uncoated
SD22-1.82-3.64-3R1	02730607	1,82 *0.072*	3,64 *0.143*	38,0 *1.496*	5,7 *0.224*	3,0 *0.118*	130°	Uncoated
SD22-1.83-3.66-3R1	02730608	1,83 *0.072*	3,66 *0.144*	38,0 *1.496*	5,7 *0.224*	3,0 *0.118*	130°	Uncoated
SD22-1.84-3.68-3R1	02730609	1,84 *0.072*	3,68 *0.145*	38,0 *1.496*	5,7 *0.224*	3,0 *0.118*	130°	Uncoated
SD22-1.85-3.70-3R1	02730610	1,85 *0.073*	3,7 *0.146*	38,0 *1.496*	5,7 *0.224*	3,0 *0.118*	130°	Uncoated
SD22-1.86-3.72-3R1	02730611	1,86 *0.073*	3,72 *0.146*	38,0 *1.496*	5,8 *0.228*	3,0 *0.118*	130°	Uncoated

Designation	Item number	DC	LU	OAL	LUX	DMM	Point angle	Coating
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		
SD22-1.87-3.74-3R1	02730612	1,87 *0.074*	3,74 *0.147*	38,0 *1.496*	5,8 *0.228*	3,0 *0.118*	130°	Uncoated
SD22-1.88-3.76-3R1	02730613	1,88 *0.074*	3,76 *0.148*	38,0 *1.496*	5,8 *0.228*	3,0 *0.118*	130°	Uncoated
SD22-1.89-3.78-3R1	02730614	1,89 *0.074*	3,78 *0.149*	38,0 *1.496*	5,8 *0.228*	3,0 *0.118*	130°	Uncoated
SD22-1.90-3.80-3R1	02731609	1,9 *0.075*	3,8 *0.150*	38,0 *1.496*	5,8 *0.228*	3,0 *0.118*	130°	Uncoated
SD22-1.91-3.82-3R1	02730615	1,91 *0.075*	3,82 *0.150*	38,0 *1.496*	5,9 *0.232*	3,0 *0.118*	130°	Uncoated
SD22-1.92-3.84-3R1	02730616	1,92 *0.076*	3,84 *0.151*	38,0 *1.496*	5,9 *0.232*	3,0 *0.118*	130°	Uncoated
SD22-1.93-3.86-3R1	02730617	1,93 *0.076*	3,86 *0.152*	38,0 *1.496*	5,9 *0.232*	3,0 *0.118*	130°	Uncoated
SD22-1.94-3.88-3R1	02730618	1,94 *0.076*	3,88 *0.153*	38,0 *1.496*	5,9 *0.232*	3,0 *0.118*	130°	Uncoated
SD22-1.95-3.90-3R1	02730619	1,95 *0.077*	3,9 *0.154*	38,0 *1.496*	5,9 *0.232*	3,0 *0.118*	130°	Uncoated
SD22-1.96-3.92-3R1	02730620	1,96 *0.077*	3,92 *0.154*	38,0 *1.496*	6,0 *0.236*	3,0 *0.118*	130°	Uncoated
SD22-1.97-3.94-3R1	02730621	1,97 *0.078*	3,94 *0.155*	38,0 *1.496*	6,0 *0.236*	3,0 *0.118*	130°	Uncoated
SD22-1.98-3.96-3R1	02730622	1,98 *0.078*	3,96 *0.156*	38,0 *1.496*	6,0 *0.236*	3,0 *0.118*	130°	Uncoated
SD22-1.99-3.98-3R1	02730623	1,99 *0.078*	3,98 *0.157*	38,0 *1.496*	6,0 *0.236*	3,0 *0.118*	130°	Uncoated
SD22-2.00-4.00-3R1	02731610	2,0 *0.079*	4,0 *0.157*	38,0 *1.496*	6,0 *0.236*	3,0 *0.118*	130°	Uncoated

SD26

Drilling depth ~ 6 x D – Metric/Inch





- Cylindrical shank
- External coolant
- For cutting data see page(s) 166-170

Designation	Item number	DC	LU	OAL	LUX	DMM	Point angle	Coating
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		
SD26-0.10-0.40-3R1	02731612	0,1 *0.004*	0,4 *0.016*	38,0 *1.496*	0,7 *0.028*	3,0 *0.118*	130°	Uncoated
SD26-0.11-0.40-3R1	02730624	0,11 *0.004*	0,4 *0.016*	38,0 *1.496*	0,7 *0.028*	3,0 *0.118*	130°	Uncoated
SD26-0.12-0.40-3R1	02730625	0,12 *0.005*	0,4 *0.016*	38,0 *1.496*	0,7 *0.028*	3,0 *0.118*	130°	Uncoated
SD26-0.13-0.65-3R1	02730626	0,13 *0.005*	0,65 *0.026*	38,0 *1.496*	1,0 *0.039*	3,0 *0.118*	130°	Uncoated
SD26-0.14-0.65-3R1	02730627	0,14 *0.006*	0,65 *0.026*	38,0 *1.496*	1,0 *0.039*	3,0 *0.118*	130°	Uncoated
SD26-0.15-0.65-3R1	02731613	0,15 *0.006*	0,9 *0.035*	38,0 *1.496*	1,4 *0.055*	3,0 *0.118*	130°	Uncoated
SD26-0.16-0.90-3R1	02730628	0,16 *0.006*	0,9 *0.035*	38,0 *1.496*	1,4 *0.055*	3,0 *0.118*	130°	Uncoated
SD26-0.17-0.90-3R1	02730629	0,17 *0.007*	0,9 *0.035*	38,0 *1.496*	1,4 *0.055*	3,0 *0.118*	130°	Uncoated
SD26-0.18-0.90-3R1	02730630	0,18 *0.007*	0,9 *0.035*	38,0 *1.496*	1,4 *0.055*	3,0 *0.118*	130°	Uncoated
SD26-0.19-0.90-3R1	02730631	0,19 *0.007*	0,9 *0.035*	38,0 *1.496*	1,4 *0.055*	3,0 *0.118*	130°	Uncoated
SD26-0.20-1.25-3R1	02731615	0,2 *0.008*	1,25 *0.049*	38,0 *1.496*	1,8 *0.071*	3,0 *0.118*	130°	Uncoated
SD26-0.21-1.25-3R1	02730632	0,21 *0.008*	1,25 *0.049*	38,0 *1.496*	1,8 *0.071*	3,0 *0.118*	130°	Uncoated
SD26-0.22-1.25-3R1	02730633	0,22 *0.009*	1,25 *0.049*	38,0 *1.496*	1,8 *0.071*	3,0 *0.118*	130°	Uncoated
SD26-0.23-1.25-3R1	02730634	0,23 *0.009*	1,25 *0.049*	38,0 *1.496*	1,8 *0.071*	3,0 *0.118*	130°	Uncoated
SD26-0.24-1.25-3R1	02730635	0,24 *0.009*	1,25 *0.049*	38,0 *1.496*	1,8 *0.071*	3,0 *0.118*	130°	Uncoated
SD26-0.25-1.55-3R1	02731617	0,25 *0.010*	1,55 *0.061*	38,0 *1.496*	2,2 *0.087*	3,0 *0.118*	130°	Uncoated
SD26-0.26-1.55-3R1	02730636	0,26 *0.010*	1,55 *0.061*	38,0 *1.496*	2,2 *0.087*	3,0 *0.118*	130°	Uncoated
SD26-0.27-1.55-3R1	02730637	0,27 *0.011*	1,55 *0.061*	38,0 *1.496*	2,2 *0.087*	3,0 *0.118*	130°	Uncoated
SD26-0.28-1.55-3R1	02730638	0,28 *0.011*	1,55 *0.061*	38,0 *1.496*	2,2 *0.087*	3,0 *0.118*	130°	Uncoated
SD26-0.29-1.55-3R1	02730639	0,29 *0.011*	1,55 *0.061*	38,0 *1.496*	2,2 *0.087*	3,0 *0.118*	130°	Uncoated
SD26-0.30-1.80-3R1	02731618	0,3 *0.012*	1,8 *0.071*	38,0 *1.496*	2,4 *0.094*	3,0 *0.118*	130°	Uncoated
SD26-0.31-1.80-3R1	02730640	0,31 *0.012*	1,8 *0.071*	38,0 *1.496*	2,4 *0.094*	3,0 *0.118*	130°	Uncoated

Designation	Item number	DC	LU	OAL	LUX	DMM	Point angle	Coating
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		
SD26-0.32-1.80-3R1	02730641	0,32 *0.013*	1,8 *0.071*	38,0 *1.496*	2,4 *0.094*	3,0 *0.118*	130°	Uncoated
SD26-0.33-1.80-3R1	02730642	0,33 *0.013*	1,8 *0.071*	38,0 *1.496*	2,4 *0.094*	3,0 *0.118*	130°	Uncoated
SD26-0.34-1.80-3R1	02730643	0,34 *0.013*	1,8 *0.071*	38,0 *1.496*	2,4 *0.094*	3,0 *0.118*	130°	Uncoated
SD26-0.35-2.20-3R1	02731619	0,35 *0.014*	2,2 *0.087*	38,0 *1.496*	2,8 *0.110*	3,0 *0.118*	130°	Uncoated
SD26-0.36-2.20-3R1	02730644	0,36 *0.014*	2,2 *0.087*	38,0 *1.496*	2,8 *0.110*	3,0 *0.118*	130°	Uncoated
SD26-0.37-2.20-3R1	02730645	0,37 *0.015*	2,2 *0.087*	38,0 *1.496*	2,8 *0.110*	3,0 *0.118*	130°	Uncoated
SD26-0.38-2.20-3R1	02730646	0,38 *0.015*	2,2 *0.087*	38,0 *1.496*	2,8 *0.110*	3,0 *0.118*	130°	Uncoated
SD26-0.39-2.70-3R1	02730647	0,39 *0.015*	2,7 *0.106*	38,0 *1.496*	3,6 *0.142*	3,0 *0.118*	130°	Uncoated
SD26-0.40-2.70-3R1	02731620	0,4 *0.016*	2,7 *0.106*	38,0 *1.496*	3,6 *0.142*	3,0 *0.118*	130°	Uncoated
SD26-0.41-2.70-3R1	02730648	0,41 *0.016*	2,7 *0.106*	38,0 *1.496*	3,6 *0.142*	3,0 *0.118*	130°	Uncoated
SD26-0.42-2.70-3R1	02730649	0,42 *0.017*	2,7 *0.106*	38,0 *1.496*	3,6 *0.142*	3,0 *0.118*	130°	Uncoated
SD26-0.43-2.70-3R1	02730650	0,43 *0.017*	2,7 *0.106*	38,0 *1.496*	3,6 *0.142*	3,0 *0.118*	130°	Uncoated
SD26-0.44-2.70-3R1	02730651	0,44 *0.017*	2,7 *0.106*	38,0 *1.496*	3,6 *0.142*	3,0 *0.118*	130°	Uncoated
SD26-0.45-2.70-3R1	02731621	0,45 *0.018*	2,7 *0.106*	38,0 *1.496*	3,6 *0.142*	3,0 *0.118*	130°	Uncoated
SD26-0.46-2.70-3R1	02730652	0,46 *0.018*	2,7 *0.106*	38,0 *1.496*	3,6 *0.142*	3,0 *0.118*	130°	Uncoated
SD26-0.47-2.70-3R1	02730653	0,47 *0.019*	2,7 *0.106*	38,0 *1.496*	3,6 *0.142*	3,0 *0.118*	130°	Uncoated
SD26-0.48-2.70-3R1	02730654	0,48 *0.019*	2,7 *0.106*	38,0 *1.496*	3,6 *0.142*	3,0 *0.118*	130°	Uncoated
SD26-0.49-3.20-3R1	02730655	0,49 *0.019*	3,2 *0.126*	38,0 *1.496*	4,0 *0.157*	3,0 *0.118*	130°	Uncoated
SD26-0.50-3.20-3R1	02731622	0,5 *0.020*	3,2 *0.126*	38,0 *1.496*	4,0 *0.157*	3,0 *0.118*	130°	Uncoated
SD26-0.51-3.20-3R1	02730656	0,51 *0.020*	3,2 *0.126*	38,0 *1.496*	4,0 *0.157*	3,0 *0.118*	130°	Uncoated
SD26-0.52-3.20-3R1	02730657	0,52 *0.020*	3,2 *0.126*	38,0 *1.496*	4,0 *0.157*	3,0 *0.118*	130°	Uncoated
SD26-0.53-3.20-3R1	02730658	0,53 *0.021*	3,2 *0.126*	38,0 *1.496*	4,0 *0.157*	3,0 *0.118*	130°	Uncoated
SD26-0.54-3.60-3R1	02730659	0,54 *0.021*	3,6 *0.142*	38,0 *1.496*	4,5 *0.177*	3,0 *0.118*	130°	Uncoated
SD26-0.55-3.60-3R1	02731623	0,55 *0.022*	3,6 *0.142*	38,0 *1.496*	4,5 *0.177*	3,0 *0.118*	130°	Uncoated
SD26-0.56-3.60-3R1	02730660	0,56 *0.022*	3,6 *0.142*	38,0 *1.496*	4,5 *0.177*	3,0 *0.118*	130°	Uncoated
SD26-0.57-3.60-3R1	02730661	0,57 *0.022*	3,6 *0.142*	38,0 *1.496*	4,5 *0.177*	3,0 *0.118*	130°	Uncoated
SD26-0.58-3.60-3R1	02730662	0,58 *0.023*	3,6 *0.142*	38,0 *1.496*	4,5 *0.177*	3,0 *0.118*	130°	Uncoated
SD26-0.59-3.60-3R1	02730663	0,59 *0.023*	3,6 *0.142*	38,0 *1.496*	4,5 *0.177*	3,0 *0.118*	130°	Uncoated
SD26-0.60-3.60-3R1	02731624	0,6 *0.024*	3,6 *0.142*	38,0 *1.496*	4,5 *0.177*	3,0 *0.118*	130°	Uncoated
SD26-0.61-3.90-3R1	02730664	0,61 *0.024*	3,6 *0.142*	38,0 *1.496*	4,5 *0.177*	3,0 *0.118*	130°	Uncoated
SD26-0.62-3.90-3R1	02730665	0,62 *0.024*	3,9 *0.154*	38,0 *1.496*	5,0 *0.197*	3,0 *0.118*	130°	Uncoated

Designation	Item number	DC	LU	OAL	LUX	DMM	Point angle	Coating
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		
SD26-0.63-3.90-3R1	02730666	0,63 *0.025*	3,9 *0.154*	38,0 *1.496*	5,0 *0.197*	3,0 *0.118*	130°	Uncoated
SD26-0.64-3.90-3R1	02730667	0,64 *0.025*	3,9 *0.154*	38,0 *1.496*	5,0 *0.197*	3,0 *0.118*	130°	Uncoated
SD26-0.65-3.90-3R1	02731625	0,65 *0.026*	3,9 *0.154*	38,0 *1.496*	5,0 *0.197*	3,0 *0.118*	130°	Uncoated
SD26-0.66-3.90-3R1	02730668	0,66 *0.026*	3,9 *0.154*	38,0 *1.496*	5,0 *0.197*	3,0 *0.118*	130°	Uncoated
SD26-0.67-3.90-3R1	02730669	0,67 *0.026*	3,9 *0.154*	38,0 *1.496*	5,0 *0.197*	3,0 *0.118*	130°	Uncoated
SD26-0.68-4.50-3R1	02730670	0,68 *0.027*	4,5 *0.177*	38,0 *1.496*	5,6 *0.220*	3,0 *0.118*	130°	Uncoated
SD26-0.69-4.50-3R1	02730671	0,69 *0.027*	4,5 *0.177*	38,0 *1.496*	5,6 *0.220*	3,0 *0.118*	130°	Uncoated
SD26-0.70-4.50-3R1	02731626	0,7 *0.028*	4,5 *0.177*	38,0 *1.496*	5,6 *0.220*	3,0 *0.118*	130°	Uncoated
SD26-0.71-4.50-3R1	02730672	0,71 *0.028*	4,5 *0.177*	38,0 *1.496*	5,6 *0.220*	3,0 *0.118*	130°	Uncoated
SD26-0.72-4.50-3R1	02730673	0,72 *0.028*	4,5 *0.177*	38,0 *1.496*	5,6 *0.220*	3,0 *0.118*	130°	Uncoated
SD26-0.73-4.50-3R1	02730674	0,73 *0.029*	4,5 *0.177*	38,0 *1.496*	5,6 *0.220*	3,0 *0.118*	130°	Uncoated
SD26-0.74-4.50-3R1	02730675	0,74 *0.029*	4,5 *0.177*	38,0 *1.496*	5,6 *0.220*	3,0 *0.118*	130°	Uncoated
SD26-0.75-4.50-3R1	02731627	0,75 *0.030*	4,5 *0.177*	38,0 *1.496*	5,6 *0.220*	3,0 *0.118*	130°	Uncoated
SD26-0.76-5.00-3R1	02730676	0,76 *0.030*	5,0 *0.197*	38,0 *1.496*	6,3 *0.248*	3,0 *0.118*	130°	Uncoated
SD26-0.77-5.00-3R1	02730677	0,77 *0.030*	5,0 *0.197*	38,0 *1.496*	6,3 *0.248*	3,0 *0.118*	130°	Uncoated
SD26-0.78-5.00-3R1	02730678	0,78 *0.031*	5,0 *0.197*	38,0 *1.496*	6,3 *0.248*	3,0 *0.118*	130°	Uncoated
SD26-0.79-5.00-3R1	02730679	0,79 *0.031*	5,0 *0.197*	38,0 *1.496*	6,3 *0.248*	3,0 *0.118*	130°	Uncoated
SD26-0.80-5.00-3R1	02731628	0,8 *0.031*	5,0 *0.197*	38,0 *1.496*	6,3 *0.248*	3,0 *0.118*	130°	Uncoated
SD26-0.81-5.00-3R1	02730680	0,81 *0.032*	5,0 *0.197*	38,0 *1.496*	6,3 *0.248*	3,0 *0.118*	130°	Uncoated
SD26-0.82-5.00-3R1	02730681	0,82 *0.032*	5,0 *0.197*	38,0 *1.496*	6,3 *0.248*	3,0 *0.118*	130°	Uncoated
SD26-0.83-5.00-3R1	02730682	0,83 *0.033*	5,0 *0.197*	38,0 *1.496*	6,3 *0.248*	3,0 *0.118*	130°	Uncoated
SD26-0.84-5.00-3R1	02730683	0,84 *0.033*	5,0 *0.197*	38,0 *1.496*	6,3 *0.248*	3,0 *0.118*	130°	Uncoated
SD26-0.85-5.00-3R1	02731629	0,85 *0.033*	5,0 *0.197*	38,0 *1.496*	6,3 *0.248*	3,0 *0.118*	130°	Uncoated
SD26-0.86-5.70-3R1	02730684	0,86 *0.034*	5,7 *0.224*	38,0 *1.496*	7,1 *0.280*	3,0 *0.118*	130°	Uncoated
SD26-0.87-5.70-3R1	02730685	0,87 *0.034*	5,7 *0.224*	38,0 *1.496*	7,1 *0.280*	3,0 *0.118*	130°	Uncoated
SD26-0.88-5.70-3R1	02730686	0,88 *0.035*	5,7 *0.224*	38,0 *1.496*	7,1 *0.280*	3,0 *0.118*	130°	Uncoated
SD26-0.89-5.70-3R1	02730687	0,89 *0.035*	5,7 *0.224*	38,0 *1.496*	7,1 *0.280*	3,0 *0.118*	130°	Uncoated
SD26-0.90-5.70-3R1	02731630	0,9 *0.035*	5,7 *0.224*	38,0 *1.496*	7,1 *0.280*	3,0 *0.118*	130°	Uncoated
SD26-0.91-5.70-3R1	02730688	0,91 *0.036*	5,7 *0.224*	38,0 *1.496*	7,1 *0.280*	3,0 *0.118*	130°	Uncoated
SD26-0.92-5.70-3R1	02730689	0,92 *0.036*	5,7 *0.224*	38,0 *1.496*	7,1 *0.280*	3,0 *0.118*	130°	Uncoated
SD26-0.93-5.70-3R1	02730690	0,93 *0.037*	5,7 *0.224*	38,0 *1.496*	7,1 *0.280*	3,0 *0.118*	130°	Uncoated

Designation	Item number	DC	LU	OAL	LUX	DMM	Point angle	Coating
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		
SD26-0.94-5.70-3R1	02730691	0,94 *0.037*	5,7 *0.224*	38,0 *1.496*	7,1 *0.280*	3,0 *0.118*	130°	Uncoated
SD26-0.95-5.70-3R1	02731631	0,95 *0.037*	5,7 *0.224*	38,0 *1.496*	7,1 *0.280*	3,0 *0.118*	130°	Uncoated
SD26-0.96-6.50-3R1	02730692	0,96 *0.038*	6,5 *0.256*	38,0 *1.496*	8,0 *0.315*	3,0 *0.118*	130°	Uncoated
SD26-0.97-6.50-3R1	02730693	0,97 *0.038*	6,5 *0.256*	38,0 *1.496*	8,0 *0.315*	3,0 *0.118*	130°	Uncoated
SD26-0.98-6.50-3R1	02730694	0,98 *0.039*	6,5 *0.256*	38,0 *1.496*	8,0 *0.315*	3,0 *0.118*	130°	Uncoated
SD26-0.99-6.50-3R1	02730695	0,99 *0.039*	6,5 *0.256*	38,0 *1.496*	8,0 *0.315*	3,0 *0.118*	130°	Uncoated
SD26-1.00-6.50-3R1	02731632	1,0 *0.039*	6,5 *0.256*	38,0 *1.496*	8,0 *0.315*	3,0 *0.118*	130°	Uncoated
SD26-1.01-6.50-3R1	02730696	1,01 *0.040*	6,5 *0.256*	38,0 *1.496*	8,0 *0.315*	3,0 *0.118*	130°	Uncoated
SD26-1.02-6.50-3R1	02730697	1,02 *0.040*	6,5 *0.256*	38,0 *1.496*	8,0 *0.315*	3,0 *0.118*	130°	Uncoated
SD26-1.03-6.50-3R1	02730698	1,03 *0.041*	6,5 *0.256*	38,0 *1.496*	8,0 *0.315*	3,0 *0.118*	130°	Uncoated
SD26-1.04-6.50-3R1	02730699	1,04 *0.041*	6,5 *0.256*	38,0 *1.496*	8,0 *0.315*	3,0 *0.118*	130°	Uncoated
SD26-1.05-6.50-3R1	02730700	1,05 *0.041*	6,5 *0.256*	38,0 *1.496*	8,0 *0.315*	3,0 *0.118*	130°	Uncoated
SD26-1.06-7.30-3R1	02730701	1,06 *0.042*	7,3 *0.287*	38,0 *1.496*	9,0 *0.354*	3,0 *0.118*	130°	Uncoated
SD26-1.07-7.30-3R1	02730702	1,07 *0.042*	7,3 *0.287*	38,0 *1.496*	9,0 *0.354*	3,0 *0.118*	130°	Uncoated
SD26-1.08-7.30-3R1	02730703	1,08 *0.043*	7,3 *0.287*	38,0 *1.496*	9,0 *0.354*	3,0 *0.118*	130°	Uncoated
SD26-1.09-7.30-3R1	02730704	1,09 *0.043*	7,3 *0.287*	38,0 *1.496*	9,0 *0.354*	3,0 *0.118*	130°	Uncoated
SD26-1.10-7.30-3R1	02731633	1,1 *0.043*	7,3 *0.287*	38,0 *1.496*	9,0 *0.354*	3,0 *0.118*	130°	Uncoated
SD26-1.11-7.30-3R1	02730705	1,11 *0.044*	7,3 *0.287*	38,0 *1.496*	9,0 *0.354*	3,0 *0.118*	130°	Uncoated
SD26-1.12-7.30-3R1	02730706	1,12 *0.044*	7,3 *0.287*	38,0 *1.496*	9,0 *0.354*	3,0 *0.118*	130°	Uncoated
SD26-1.13-7.30-3R1	02730707	1,13 *0.044*	7,3 *0.287*	38,0 *1.496*	9,0 *0.354*	3,0 *0.118*	130°	Uncoated
SD26-1.14-7.30-3R1	02730708	1,14 *0.045*	7,3 *0.287*	38,0 *1.496*	9,0 *0.354*	3,0 *0.118*	130°	Uncoated
SD26-1.15-7.30-3R1	02730709	1,15 *0.045*	7,3 *0.287*	38,0 *1.496*	9,0 *0.354*	3,0 *0.118*	130°	Uncoated
SD26-1.16-8.20-3R1	02730710	1,16 *0.046*	8,2 *0.323*	38,0 *1.496*	10,0 *0.394*	3,0 *0.118*	130°	Uncoated
SD26-1.17-8.20-3R1	02730711	1,17 *0.046*	8,2 *0.323*	38,0 *1.496*	10,0 *0.394*	3,0 *0.118*	130°	Uncoated
SD26-1.18-8.20-3R1	02730712	1,18 *0.046*	8,2 *0.323*	38,0 *1.496*	10,0 *0.394*	3,0 *0.118*	130°	Uncoated
SD26-1.19-8.20-3R1	02730713	1,19 *0.047*	8,2 *0.323*	38,0 *1.496*	10,0 *0.394*	3,0 *0.118*	130°	Uncoated
SD26-1.20-8.20-3R1	02731634	1,2 *0.047*	8,2 *0.323*	38,0 *1.496*	10,0 *0.394*	3,0 *0.118*	130°	Uncoated
SD26-1.21-8.20-3R1	02730714	1,21 *0.048*	8,2 *0.323*	38,0 *1.496*	10,0 *0.394*	3,0 *0.118*	130°	Uncoated
SD26-1.22-8.20-3R1	02730715	1,22 *0.048*	8,2 *0.323*	38,0 *1.496*	10,0 *0.394*	3,0 *0.118*	130°	Uncoated
SD26-1.23-8.20-3R1	02730716	1,23 *0.048*	8,2 *0.323*	38,0 *1.496*	10,0 *0.394*	3,0 *0.118*	130°	Uncoated
SD26-1.24-8.20-3R1	02730717	1,24 *0.049*	8,2 *0.323*	38,0 *1.496*	10,0 *0.394*	3,0 *0.118*	130°	Uncoated

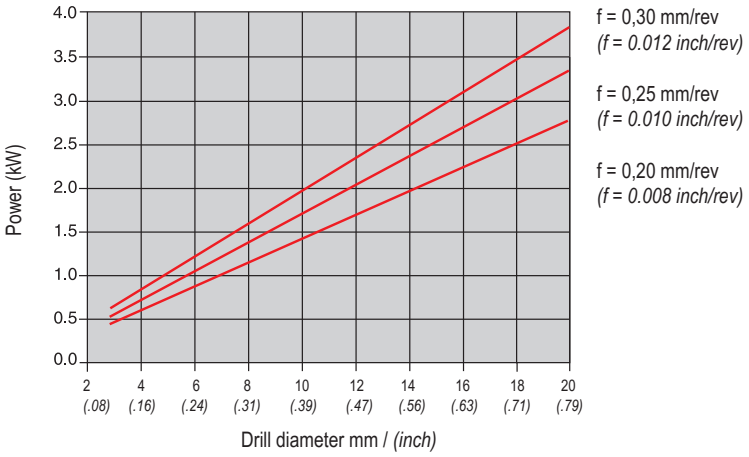
Designation	Item number	DC	LU	OAL	LUX	DMM	Point angle	Coating
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		
SD26-1.25-8.20-3R1	02730718	1,25 *0.049*	8,2 *0.323*	38,0 *1.496*	10,0 *0.394*	3,0 *0.118*	130°	Uncoated
SD26-1.26-8.20-3R1	02730719	1,26 *0.050*	8,2 *0.323*	38,0 *1.496*	10,0 *0.394*	3,0 *0.118*	130°	Uncoated
SD26-1.27-8.20-3R1	02730720	1,27 *0.050*	8,2 *0.323*	38,0 *1.496*	10,0 *0.394*	3,0 *0.118*	130°	Uncoated
SD26-1.28-8.20-3R1	02730721	1,28 *0.050*	8,2 *0.323*	38,0 *1.496*	10,0 *0.394*	3,0 *0.118*	130°	Uncoated
SD26-1.29-8.20-3R1	02730722	1,29 *0.051*	8,2 *0.323*	38,0 *1.496*	10,0 *0.394*	3,0 *0.118*	130°	Uncoated
SD26-1.30-8.20-3R1	02731635	1,3 *0.051*	8,2 *0.323*	38,0 *1.496*	10,0 *0.394*	3,0 *0.118*	130°	Uncoated
SD26-1.31-9.20-3R1	02730723	1,31 *0.052*	9,2 *0.362*	38,0 *1.496*	11,2 *0.441*	3,0 *0.118*	130°	Uncoated
SD26-1.32-9.20-3R1	02730724	1,32 *0.052*	9,2 *0.362*	38,0 *1.496*	11,2 *0.441*	3,0 *0.118*	130°	Uncoated
SD26-1.33-9.20-3R1	02730725	1,33 *0.052*	9,2 *0.362*	38,0 *1.496*	11,2 *0.441*	3,0 *0.118*	130°	Uncoated
SD26-1.34-9.20-3R1	02730726	1,34 *0.053*	9,2 *0.362*	38,0 *1.496*	11,2 *0.441*	3,0 *0.118*	130°	Uncoated
SD26-1.35-9.20-3R1	02730727	1,35 *0.053*	9,2 *0.362*	38,0 *1.496*	11,2 *0.441*	3,0 *0.118*	130°	Uncoated
SD26-1.36-9.20-3R1	02730728	1,36 *0.054*	9,2 *0.362*	38,0 *1.496*	11,2 *0.441*	3,0 *0.118*	130°	Uncoated
SD26-1.37-9.20-3R1	02730729	1,37 *0.054*	9,2 *0.362*	38,0 *1.496*	11,2 *0.441*	3,0 *0.118*	130°	Uncoated
SD26-1.38-9.20-3R1	02730730	1,38 *0.054*	9,2 *0.362*	38,0 *1.496*	11,2 *0.441*	3,0 *0.118*	130°	Uncoated
SD26-1.39-9.20-3R1	02730731	1,39 *0.055*	9,2 *0.362*	38,0 *1.496*	11,2 *0.441*	3,0 *0.118*	130°	Uncoated
SD26-1.40-9.20-3R1	02731637	1,4 *0.055*	9,2 *0.362*	38,0 *1.496*	11,2 *0.441*	3,0 *0.118*	130°	Uncoated
SD26-1.41-9.20-3R1	02730732	1,41 *0.056*	9,2 *0.362*	38,0 *1.496*	11,2 *0.441*	3,0 *0.118*	130°	Uncoated
SD26-1.42-9.20-3R1	02730733	1,42 *0.056*	9,2 *0.362*	38,0 *1.496*	11,2 *0.441*	3,0 *0.118*	130°	Uncoated
SD26-1.43-9.20-3R1	02730734	1,43 *0.056*	9,2 *0.362*	38,0 *1.496*	11,2 *0.441*	3,0 *0.118*	130°	Uncoated
SD26-1.44-9.20-3R1	02730735	1,44 *0.057*	9,2 *0.362*	38,0 *1.496*	11,2 *0.441*	3,0 *0.118*	130°	Uncoated
SD26-1.45-9.20-3R1	02730736	1,45 *0.057*	9,2 *0.362*	38,0 *1.496*	11,2 *0.441*	3,0 *0.118*	130°	Uncoated
SD26-1.46-9.20-3R1	02730737	1,46 *0.057*	9,2 *0.362*	38,0 *1.496*	11,2 *0.441*	3,0 *0.118*	130°	Uncoated
SD26-1.47-9.20-3R1	02730738	1,47 *0.058*	9,2 *0.362*	38,0 *1.496*	11,2 *0.441*	3,0 *0.118*	130°	Uncoated
SD26-1.48-9.20-3R1	02730739	1,48 *0.058*	9,2 *0.362*	38,0 *1.496*	11,2 *0.441*	3,0 *0.118*	130°	Uncoated
SD26-1.49-9.20-3R1	02730740	1,49 *0.059*	9,2 *0.362*	38,0 *1.496*	11,2 *0.441*	3,0 *0.118*	130°	Uncoated
SD26-1.50-9.20-3R1	02731638	1,5 *0.059*	9,2 *0.362*	38,0 *1.496*	11,2 *0.441*	3,0 *0.118*	130°	Uncoated
SD26-1.51-11.20-3R1	02730741	1,51 *0.059*	11,2 *0.441*	38,0 *1.496*	13,4 *0.528*	3,0 *0.118*	130°	Uncoated
SD26-1.52-11.20-3R1	02730742	1,52 *0.060*	11,2 *0.441*	38,0 *1.496*	13,4 *0.528*	3,0 *0.118*	130°	Uncoated
SD26-1.53-11.20-3R1	02730743	1,53 *0.060*	11,2 *0.441*	38,0 *1.496*	13,4 *0.528*	3,0 *0.118*	130°	Uncoated
SD26-1.54-11.20-3R1	02730744	1,54 *0.061*	11,2 *0.441*	38,0 *1.496*	13,4 *0.528*	3,0 *0.118*	130°	Uncoated
SD26-1.55-11.20-3R1	02730745	1,55 *0.061*	11,2 *0.441*	38,0 *1.496*	13,4 *0.528*	3,0 *0.118*	130°	Uncoated

Designation	Item number	DC	LU	OAL	LUX	DMM	Point angle	Coating
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		
SD26-1.56-11.20-3R1	02730746	1,56 *0.061*	11,2 *0.441*	38,0 *1.496*	13,4 *0.528*	3,0 *0.118*	130°	Uncoated
SD26-1.57-11.20-3R1	02730747	1,57 *0.062*	11,2 *0.441*	38,0 *1.496*	13,4 *0.528*	3,0 *0.118*	130°	Uncoated
SD26-1.58-11.20-3R1	02730748	1,58 *0.062*	11,2 *0.441*	38,0 *1.496*	13,4 *0.528*	3,0 *0.118*	130°	Uncoated
SD26-1.59-11.20-3R1	02730749	1,59 *0.063*	11,2 *0.441*	38,0 *1.496*	13,4 *0.528*	3,0 *0.118*	130°	Uncoated
SD26-1.60-11.20-3R1	02731639	1,6 *0.063*	11,2 *0.441*	38,0 *1.496*	13,4 *0.528*	3,0 *0.118*	130°	Uncoated
SD26-1.61-11.20-3R1	02730750	1,61 *0.063*	11,2 *0.441*	38,0 *1.496*	13,4 *0.528*	3,0 *0.118*	130°	Uncoated
SD26-1.62-11.20-3R1	02730751	1,62 *0.064*	11,2 *0.441*	38,0 *1.496*	13,4 *0.528*	3,0 *0.118*	130°	Uncoated
SD26-1.63-11.20-3R1	02730752	1,63 *0.064*	11,2 *0.441*	38,0 *1.496*	13,4 *0.528*	3,0 *0.118*	130°	Uncoated
SD26-1.64-11.20-3R1	02730753	1,64 *0.065*	11,2 *0.441*	38,0 *1.496*	13,4 *0.528*	3,0 *0.118*	130°	Uncoated
SD26-1.65-11.20-3R1	02730754	1,65 *0.065*	11,2 *0.441*	38,0 *1.496*	13,4 *0.528*	3,0 *0.118*	130°	Uncoated
SD26-1.66-11.20-3R1	02730755	1,66 *0.065*	11,2 *0.441*	38,0 *1.496*	13,4 *0.528*	3,0 *0.118*	130°	Uncoated
SD26-1.67-11.20-3R1	02730756	1,67 *0.066*	11,2 *0.441*	38,0 *1.496*	13,4 *0.528*	3,0 *0.118*	130°	Uncoated
SD26-1.68-11.20-3R1	02730757	1,68 *0.066*	11,2 *0.441*	38,0 *1.496*	13,4 *0.528*	3,0 *0.118*	130°	Uncoated
SD26-1.69-11.20-3R1	02730758	1,69 *0.067*	11,2 *0.441*	38,0 *1.496*	13,4 *0.528*	3,0 *0.118*	130°	Uncoated
SD26-1.70-11.20-3R1	02731640	1,7 *0.067*	11,2 *0.441*	38,0 *1.496*	13,4 *0.528*	3,0 *0.118*	130°	Uncoated
SD26-1.71-11.20-3R1	02730759	1,71 *0.067*	11,2 *0.441*	38,0 *1.496*	13,4 *0.528*	3,0 *0.118*	130°	Uncoated
SD26-1.72-11.20-3R1	02730760	1,72 *0.068*	11,2 *0.441*	38,0 *1.496*	13,4 *0.528*	3,0 *0.118*	130°	Uncoated
SD26-1.73-11.20-3R1	02730761	1,73 *0.068*	11,2 *0.441*	38,0 *1.496*	13,4 *0.528*	3,0 *0.118*	130°	Uncoated
SD26-1.74-11.20-3R1	02730762	1,74 *0.069*	11,2 *0.441*	38,0 *1.496*	13,4 *0.528*	3,0 *0.118*	130°	Uncoated
SD26-1.75-11.20-3R1	02730763	1,75 *0.069*	11,2 *0.441*	38,0 *1.496*	13,4 *0.528*	3,0 *0.118*	130°	Uncoated
SD26-1.76-11.20-3R1	02730764	1,76 *0.069*	11,2 *0.441*	38,0 *1.496*	13,4 *0.528*	3,0 *0.118*	130°	Uncoated
SD26-1.77-11.20-3R1	02730765	1,77 *0.070*	11,2 *0.441*	38,0 *1.496*	13,4 *0.528*	3,0 *0.118*	130°	Uncoated
SD26-1.78-11.20-3R1	02730766	1,78 *0.070*	11,2 *0.441*	38,0 *1.496*	13,4 *0.528*	3,0 *0.118*	130°	Uncoated
SD26-1.79-11.20-3R1	02730767	1,79 *0.070*	11,2 *0.441*	38,0 *1.496*	13,4 *0.528*	3,0 *0.118*	130°	Uncoated
SD26-1.80-11.20-3R1	02731641	1,8 *0.071*	11,2 *0.441*	38,0 *1.496*	13,4 *0.528*	3,0 *0.118*	130°	Uncoated
SD26-1.81-11.20-3R1	02730768	1,81 *0.071*	11,2 *0.441*	38,0 *1.496*	13,4 *0.528*	3,0 *0.118*	130°	Uncoated
SD26-1.82-11.20-3R1	02730769	1,82 *0.072*	11,2 *0.441*	38,0 *1.496*	13,4 *0.528*	3,0 *0.118*	130°	Uncoated
SD26-1.83-11.20-3R1	02730770	1,83 *0.072*	11,2 *0.441*	38,0 *1.496*	13,4 *0.528*	3,0 *0.118*	130°	Uncoated
SD26-1.84-11.20-3R1	02730771	1,84 *0.072*	11,2 *0.441*	38,0 *1.496*	13,4 *0.528*	3,0 *0.118*	130°	Uncoated
SD26-1.85-11.20-3R1	02730772	1,85 *0.073*	11,2 *0.441*	38,0 *1.496*	13,4 *0.528*	3,0 *0.118*	130°	Uncoated
SD26-1.86-11.20-3R1	02730773	1,86 *0.073*	11,2 *0.441*	38,0 *1.496*	13,4 *0.528*	3,0 *0.118*	130°	Uncoated

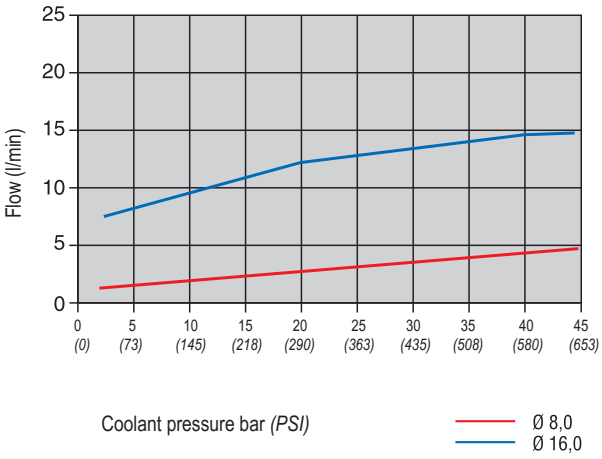
Designation	Item number	DC	LU	OAL	LUX	DMM	Point angle	Coating
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		
SD26-1.87-11.20-3R1	02730774	1,87 *0.074*	11,2 *0.441*	38,0 *1.496*	13,4 *0.528*	3,0 *0.118*	130°	Uncoated
SD26-1.88-11.20-3R1	02730775	1,88 *0.074*	11,2 *0.441*	38,0 *1.496*	13,4 *0.528*	3,0 *0.118*	130°	Uncoated
SD26-1.89-11.20-3R1	02730776	1,89 *0.074*	11,2 *0.441*	38,0 *1.496*	13,4 *0.528*	3,0 *0.118*	130°	Uncoated
SD26-1.90-11.20-3R1	02731642	1,9 *0.075*	11,2 *0.441*	38,0 *1.496*	13,4 *0.528*	3,0 *0.118*	130°	Uncoated
SD26-1.91-11.20-3R1	02730777	1,91 *0.075*	11,2 *0.441*	38,0 *1.496*	13,4 *0.528*	3,0 *0.118*	130°	Uncoated
SD26-1.92-11.20-3R1	02730778	1,92 *0.076*	11,2 *0.441*	38,0 *1.496*	13,4 *0.528*	3,0 *0.118*	130°	Uncoated
SD26-1.93-11.20-3R1	02730779	1,93 *0.076*	11,2 *0.441*	38,0 *1.496*	13,4 *0.528*	3,0 *0.118*	130°	Uncoated
SD26-1.94-11.20-3R1	02730780	1,94 *0.076*	11,2 *0.441*	38,0 *1.496*	13,4 *0.528*	3,0 *0.118*	130°	Uncoated
SD26-1.95-11.20-3R1	02730781	1,95 *0.077*	11,2 *0.441*	38,0 *1.496*	13,4 *0.528*	3,0 *0.118*	130°	Uncoated
SD26-1.96-11.20-3R1	02730782	1,96 *0.077*	11,2 *0.441*	38,0 *1.496*	13,4 *0.528*	3,0 *0.118*	130°	Uncoated
SD26-1.97-11.20-3R1	02730783	1,97 *0.078*	11,2 *0.441*	38,0 *1.496*	13,4 *0.528*	3,0 *0.118*	130°	Uncoated
SD26-1.98-11.20-3R1	02730784	1,98 *0.078*	11,2 *0.441*	38,0 *1.496*	13,4 *0.528*	3,0 *0.118*	130°	Uncoated
SD26-1.99-11.20-3R1	02730785	1,99 *0.078*	11,2 *0.441*	38,0 *1.496*	13,4 *0.528*	3,0 *0.118*	130°	Uncoated
SD26-2.00-11.20-3R1	02731643	2,0 *0.079*	11,2 *0.441*	38,0 *1.496*	13,4 *0.528*	3,0 *0.118*	130°	Uncoated

Machining data

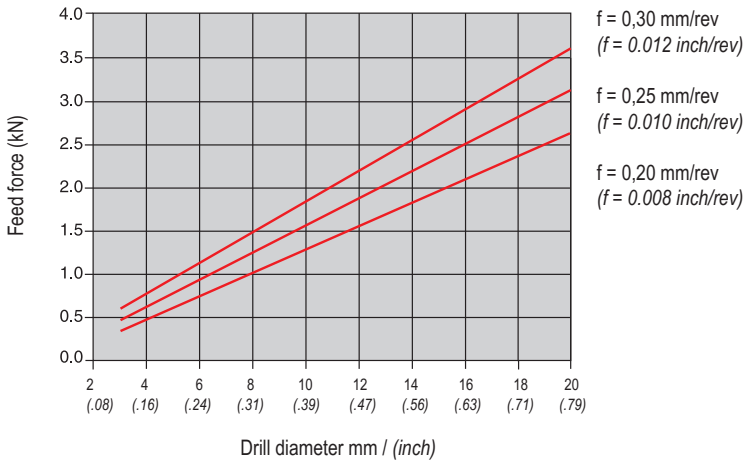
Net power consumption



Coolant flow at different pressures



Feed force



Method:
Adjust feed up or down to obtain as good chip formation as possible. Increased feed/rev gives shorter chips.

The values showing feed force and net power consumption above are basic values and vary with type of cutting data, material and tool wear.

Machining data

SD1103, SD1103A, SD1105A, SD203A, SD205A, SD206, SD206A, SD207A, SD216A, SD230A IT8–9/R_a 1–3*					
Drill ∅ DC (mm)	IT9 tolerance (µm)	IT10 tolerance (µm)	Drill ∅ DC *(inch)*	IT9 tolerance *(inch)*	IT10 tolerance *(inch)*
< 3	14	25	*-0.118*	*0.0006*	*0.0010*
3-6	18	30	*> 0.118-0.236*	*0.0007*	*0.0012*
6-10	22	36	*> 0.236-0.394*	*0.0009*	*0.0014*
10-18	27	43	*> 0.394-0.709*	*0.0011*	*0.0017*
> 18	33	52	*> 0.709*	*0.0013*	*0.0020*

*Deterioration of surface finish can occur when drilling in low carbon steel or stainless steel.

Troubleshooting – Initial check points

- Fixturing stability
- Machine spindle condition
- Tool holder condition

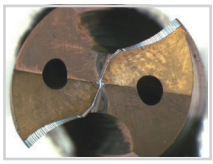
- Clamping of tool:
  - Run-out within 0,04 TIR
  - If using pre drilling within 0,04 TIR

- Chip evacuation:
  - Cutting data

- Coolant:
  - Pressure
  - Flow
  - Concentration

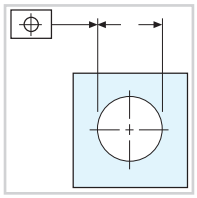
Rapid flank wear

- Reduce the cutting speed
- Increase coolant concentration



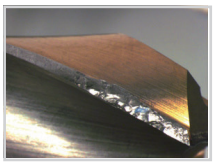
Unsatisfactory diameter tolerance

- Increase the feed/rev
- Use a reaming operation, see page(s) 327
- Use a boring operation, see page(s) 516-517



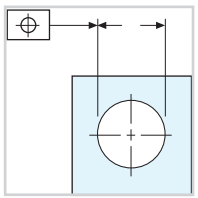
Wear/Periphery land

- Reduce the cutting speed
- Increase coolant concentration



Unsatisfactory positioning of the hole

- Reduce feed/rev on entrance
- Reduce feed/rev
- Use a boring operation, see page(s) 516-517
- If drilling through rough, hard and angled surfaces - reduce the feed by 30-50% during entrance and exit
- Centre drill with a 140° point angle



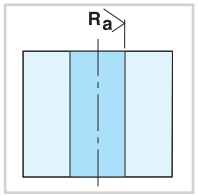
Chipping/Centre

- Reduce feed/rev on entrance
- Reduce feed/rev
- Use a boring operation, see page(s) 516-517



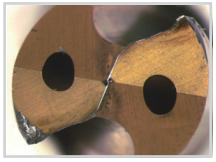
Unsatisfactory surface finish

- Reduce the feed/rev
- Increase the cutting speed
- Use a reaming operation, see page(s) 327



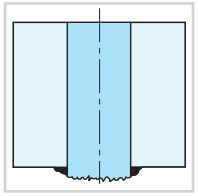
Chipping/Outer corner, cutting edge

- Reduce feed during entrance/exit
- Reduce the cutting speed
- Increase coolant concentration
- Regrind the drill



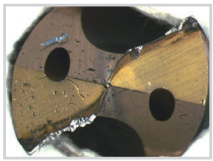
Burrs on exit

- Reduce the feed/rev on exit
- Reduce the width of edge preparation (BN)



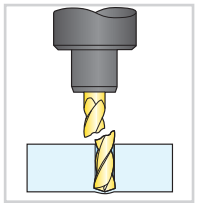
Built-up edge

- If closer to the periphery increase the cutting speed
- If closer to centre increase feed/rev
- If the drill is worn, regrind it



Breakage on contact/at hole bottom

- Reduce the feed/rev during entrance/exit
- Adjust cutting data for improved chip evacuation

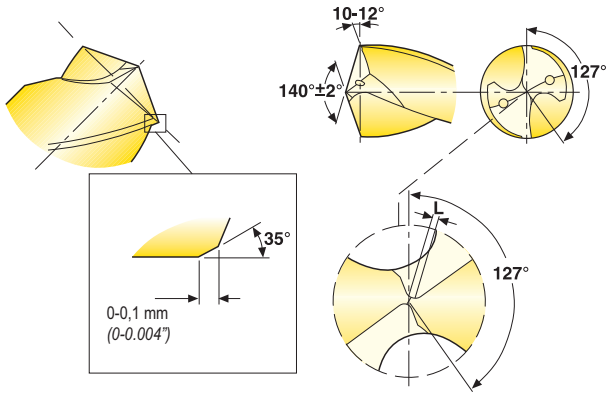


Regrinding instructions for SD1103, SD1103A, SD1105A, SD1108A and SD1112A

Specifications:
Proposed specification of diamond wheels:
Point relief: Wheel shape12A2 Grit size D54 (picture 1).
Gashing: Wheel shape 1A1 or 1V1 Grit size D64-D46 (picture 2-3).
Corner chamfer: Wheel shape 1A1 or 12A2 (picture 1).
Edge treatment: grinding K-land or brushing (picture 4).

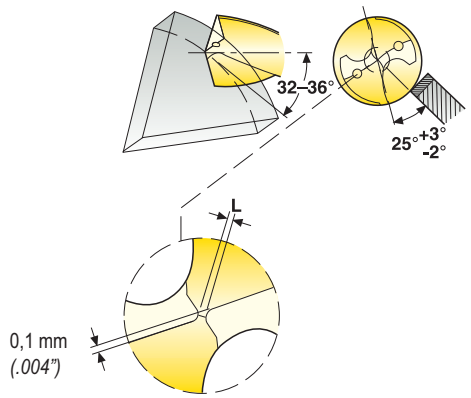
Important:
- The cutting edges must be uniform and have the same size of edge preparation.
- The edge preparation must be applied on the whole length of the cutting edges.

1. Four facet point



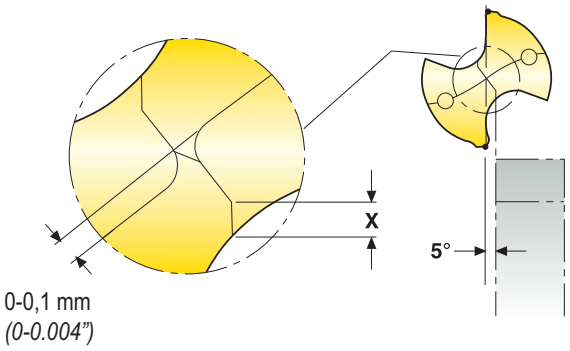
Lip height distance (axial run-out) to be within 0,02 mm *(0.008")*

2. Web thinning



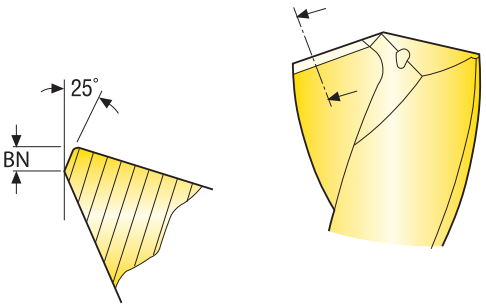
Drill ∅ DC mm	L mm	Drill ∅ DC *inch*	L *inch*
2-10	0,1-0,3	*0.079-0.394*	*0.004-0.012*
10-20	0,2-0,4	*0.394-0.787*	*0.008-0.016*

3. Grinding of flat X



X = 0,08 x (0.003) x drill diameter DC

4. Edge preparation



Workpiece material	BN			
	Drill ∅ ≤ 10 mm	Drill ∅ > 10 mm	Drill ∅ ≤ 0.394 *inch*	Drill ∅ > 0.394 *inch*
Steel	0,05	0,10	*0.002*	*0.004*
Stainless steel	0,05	0,05	*0.002*	*0.002*
Cast iron	0,05	0,10	*0.002*	*0.004*

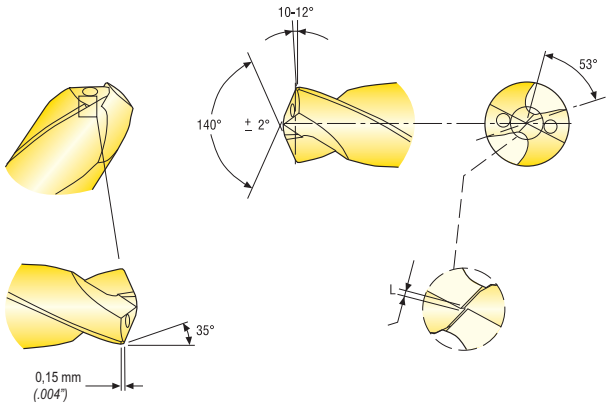
Max. allowed flank wear before regrinding is 0,1-0,3 mm *(0.004-0.012")* measured at the largest point.

Regrinding instructions for SD203A, SD205A and SD207A -P geometry

Specifications:
Proposed specification of diamond wheels:
Conical clearance: Wheel shape12A2 Grit size D54 (picture 1).
Gashing: Wheel shape 1A1 or 1V1 Grit size D64-D46 (picture 2-3).
Corner chamfer: Wheel shape 1A1 or 12A2 (picture 1).
Edge treatment: grinding K-land or brushing (picture 4).

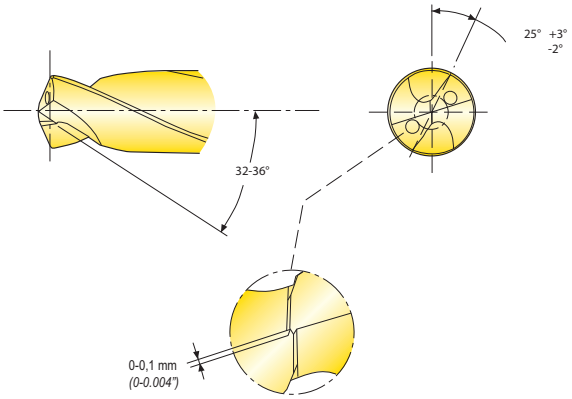
Important:
- The cutting edges must be uniform and have the same size of edge preparation.
- The edge preparation must be applied on the whole length of the cutting edges.

1. Conical flank



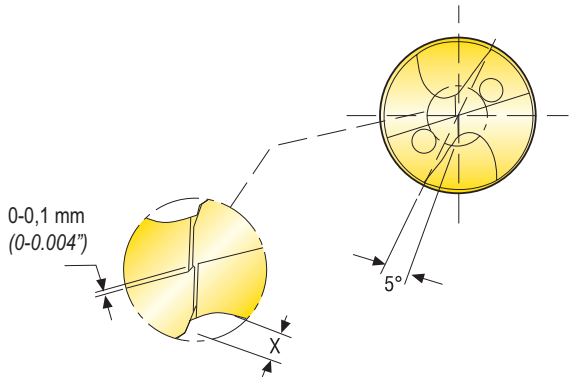
Lip height distance (axial run-out) to be within 0,02 mm *(0.008")*

2. Web thinning



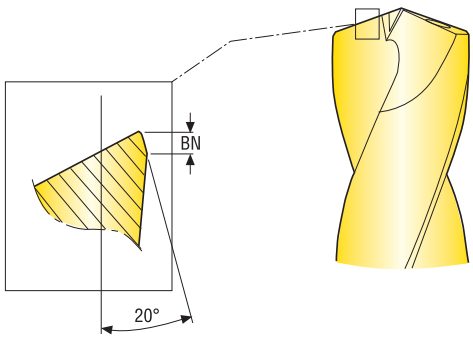
Drill ∅ DC mm	L mm	Drill ∅ DC *inch*	L *inch*
2-10	0,1-0,3	*0.079-0.394*	*0.004-0.012*
10-20	0,2-0,4	*0.394-0.787*	*0.008-0.016*

3. Grinding of flat X



X = 0,08 x (0.003) x drill diameter DC

4. Edge preparation



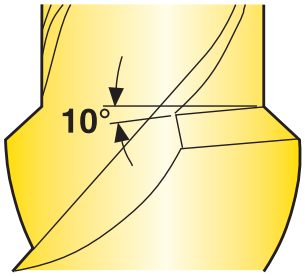
Workpiece material	BN			
	Drill ∅ ≤ 10 mm	Drill ∅ > 10 mm	Drill ∅ ≤ 0.394 *inch*	Drill ∅ > 0.394 *inch*
Steel	0,05	0,10	*0.002*	*0.004*
Stainless steel	0,05	0,05	*0.002*	*0.002*
Cast iron	0,05	0,10	*0.002*	*0.004*

Max. allowed flank wear before regrinding is 0,1-0,3 mm *(0.004-0.012")* measured at the largest point.

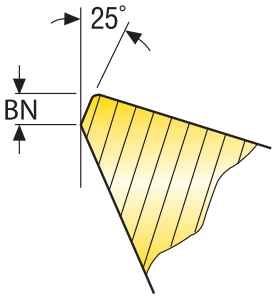
Regrinding instructions for chamfer drills

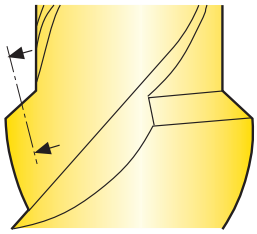
The regrinding instructions are the same as for SD203, SD203A, SD205A and SD207A except for the chamfer.

1. Chamfer relief



2. Edge preparation, chamfer





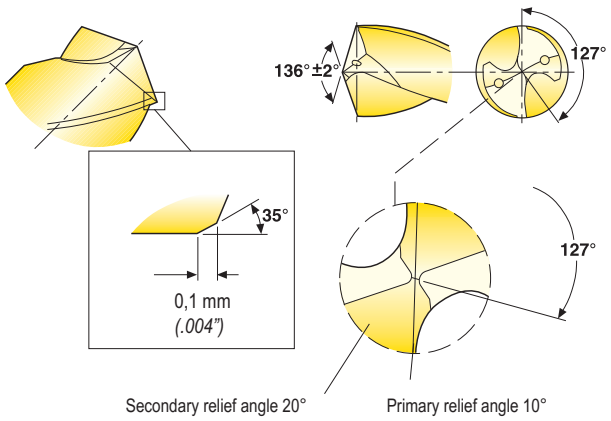
Workpiece material	BN			
	Drill ∅ ≤ 10 mm	Drill ∅ > 10 mm	Drill ∅ ≤ 0.394 *inch*	Drill ∅ > 0.394 *inch*
Steel	0,05	0,05	*0.002*	*0.002*
Stainless steel	0,05	0,05	*0.002*	*0.002*
Cast iron	0,05	0,05	*0.002*	*0.002*

Regrinding instructions for SD212A, SD216A, SD220A, SD225A and SD230A geometry

Specifications:
Proposed specification of diamond wheels:
Point relief: Wheel shape11V9 Grit size D54 (picture 1).
Gashing: Wheel shape 1A1 or 1V1 Grit size D64-D46 (picture 2-3).
Corner chamfer: Wheel shape 1A1 or 12A2 (picture 1).
Edge treatment: grinding K-land or brushing (picture 4).

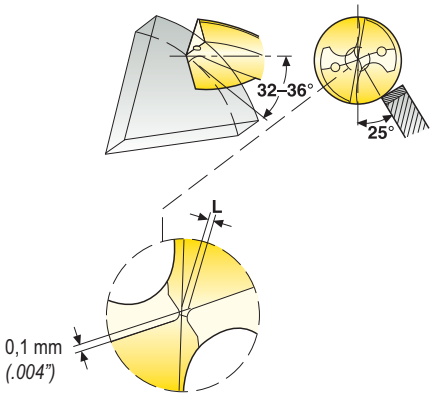
Important:
- The cutting edges must be uniform and have the same size of edge preparation.
- The edge preparation must be applied on the whole length of the cutting edges.

1. Conical flank



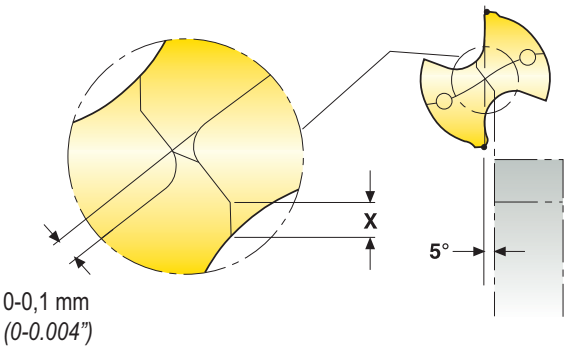
Lip height distance (axial run-out) to be within 0,02 mm *(0.008")*

2. Web thinning



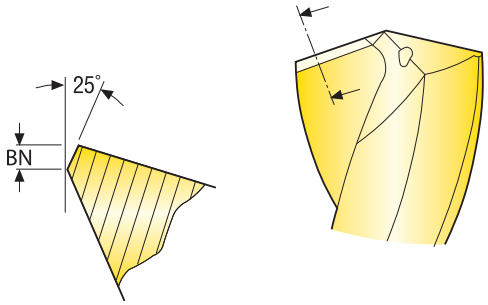
Drill ∅ DC mm	L mm	Drill ∅ DC *inch*	L *inch*
2-10	0,2	*0.079-0.394*	*0.008*
10-20	0,4	*0.394-0.787*	*0.016*

3. Grinding of flat X



X = 0,08 x (0.003) x drill diameter DC

4. Edge preparation

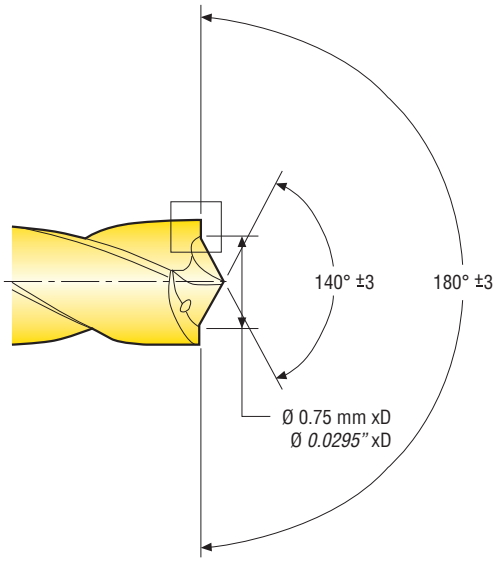


Workpiece material	BN			
	Drill ∅ ≤ 10 mm	Drill ∅ > 10 mm	Drill ∅ ≤ 0.394 *inch*	Drill ∅ > 0.394 *inch*
Steel	0,05	0,10	*0.002*	*0.004*
Stainless steel	0,05	0,05	*0.002*	*0.002*
Cast iron	0,05	0,10	*0.002*	*0.004*

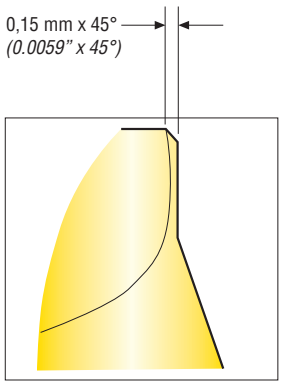
Max. allowed flank wear before regrinding is 0,1-0,3 mm *(0.004-0.012")* measured at the largest point.

Regrinding instructions for SD243, SD243A, SD245A and SD247A

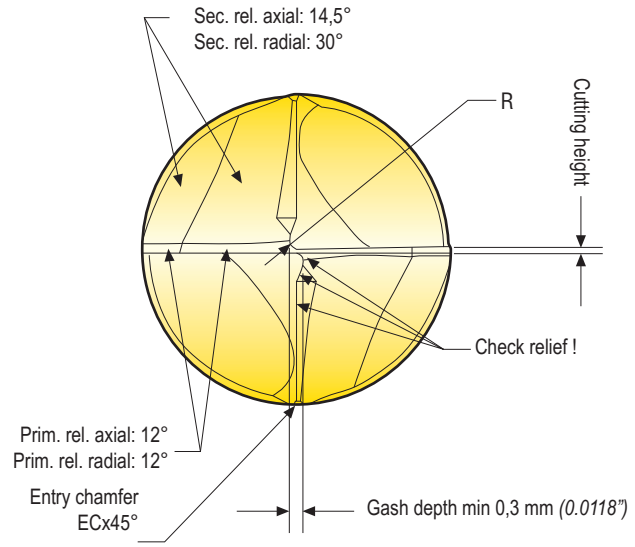
1. Point angles



2. Corner chamfer

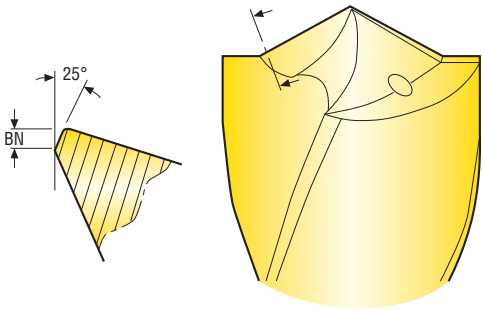


3.



Dimensions in mm *(inch)*	Cutting height mm *(inch)*	R mm *(inch)*	EC mm *(inch)*
– 10 *(0.3937)*	0,2 *(0.0079)*	0,2 *(0.0079)*	0,3 *(0.0118)*
10,01 *(0.3941)* –	0,3 *(0.0118)*	0,4 *(0.0157)*	0,5 *(0.0197)*

4. Edge preparation



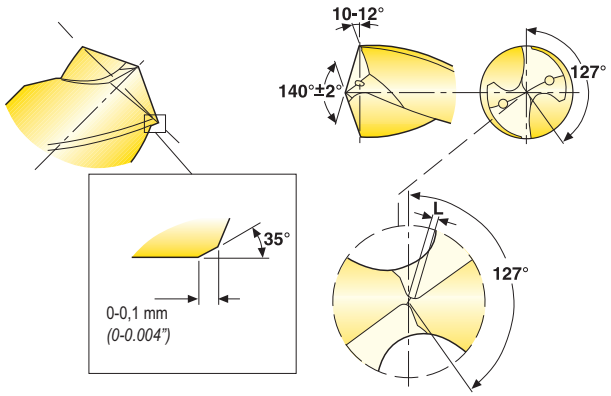
Workpiece material	BN Drill ∅ ≤ 10 mm	Drill ∅ > 10 mm	Drill ∅ ≤ 0.394 *inch*	Drill ∅ > 0.394 *inch*
Steel	0,05	0,10	*0.002*	*0.004*
Stainless steel	0,05	0,05	*0.002*	*0.002*
Cast iron	0,05	0,10	*0.002*	*0.004*

Regrinding instructions for SD265A

Specifications:
Proposed specification of diamond wheels:
Conical clearance: Wheel shape12A2 Grit size D54 (picture 1).
Gashing: Wheel shape 1A1 or 1V1 Grit size D64-D46 (picture 2-3).
Corner chamfer: Wheel shape 1A1 or 12A2 (picture 1).
Edge treatment: grinding K-land or brushing (picture 4).

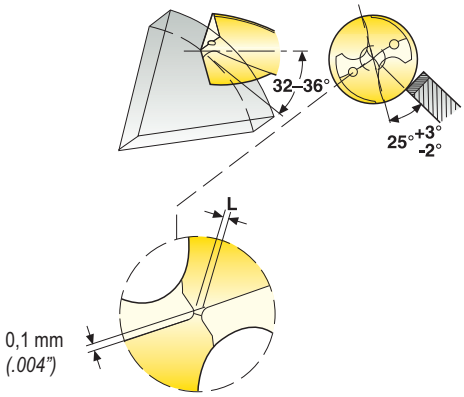
Important:
- The cutting edges must be uniform and have the same size of edge preparation.
- The edge preparation must be applied on the whole length of the cutting edges.

1. Conical flank



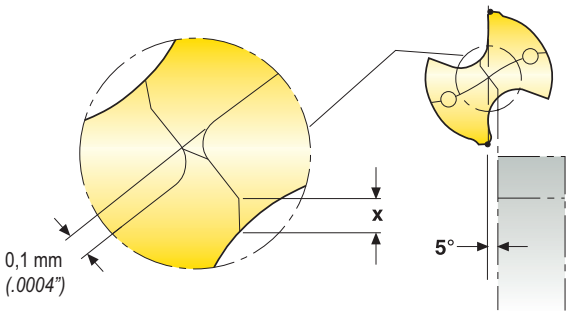
Lip height distance (axial run-out) to be within 0,02 mm *(0.008")*

2. Web thinning



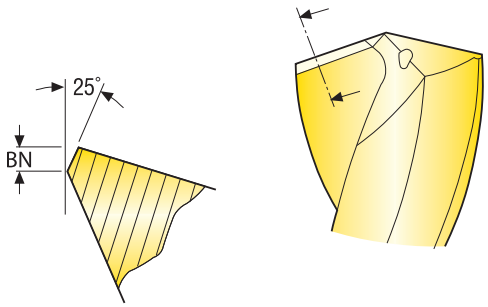
Drill ∅ DC mm	L mm	Drill ∅ DC *inch*	L *inch*
2-10	0,2	*0.079-0.394*	*0.008*
10-20	0,4	*0.394-0.787*	*0.016*

3. Grinding of flat X



X = 0,08 x (0.003) x drill diameter DC

4. Edge preparation



Workpiece material	BN			
	Drill ∅ ≤ 10 mm	Drill ∅ > 10 mm	Drill ∅ ≤ 0.394 *inch*	Drill ∅ > 0.394 *inch*
Steel	0,05	0,10	*0.002*	*0.004*
Stainless steel	0,05	0,05	*0.002*	*0.002*
Cast iron	0,05	0,10	*0.002*	*0.004*

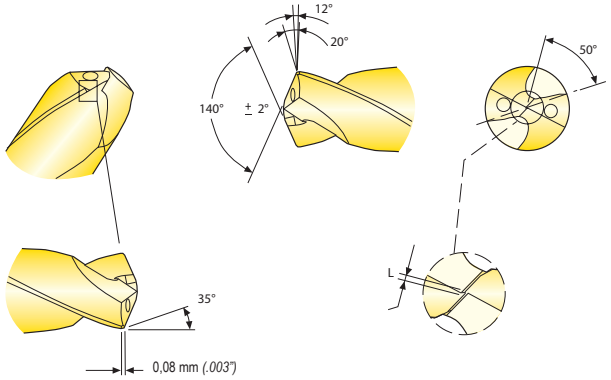
Max. allowed flank wear before regrinding is 0,1-0,3 mm *(0.004-0.012")* measured at the largest point.

Regrinding instructions for -MS geometry

Specifications:
Proposed specification of diamond wheels:
Conical clearance: Wheel shape12A2 Grit size D54 (picture 1).
Gashing: Wheel shape 1A1 or 1V1 Grit size D64-D46 (picture 2-3).
Corner chamfer: Wheel shape 1A1 or 12A2 (picture 1).
Edge treatment: grinding K-land or brushing (picture 4).

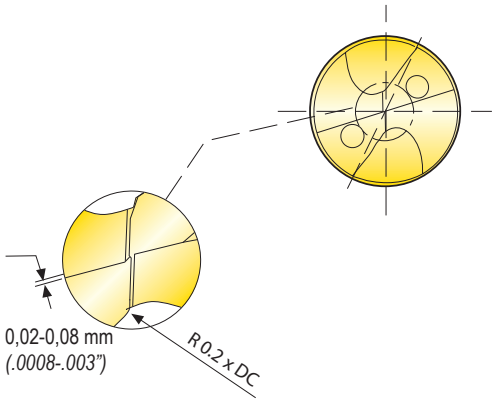
Important:
- The cutting edges must be uniform and have the same size of edge preparation.
- The edge preparation must be applied on the whole length of the cutting edges.

1. Four facet

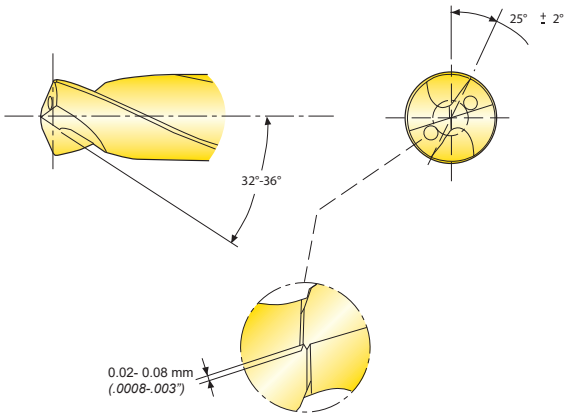


Lip height distance (axial run-out) to be within 0,02 mm *(0.008")*

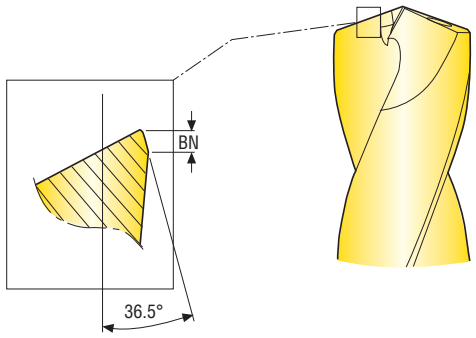
2. Grinding of radius R



3. Web thinning



4. Edge preparation



Drill ∅ DC mm	BN mm	Drill ∅ DC *inch*	BN *inch*
2-3	0,2	*0.079-0.118*	*0.00787*
3-6	0,025	*0.118-0.236*	*0.00098*
6-10	0,04	*0.236-0.394*	*0.00157*
10-20	0,055	*0.394-0.787*	*0.00216*
20-	0,07	*0.787-*	*0.00275*

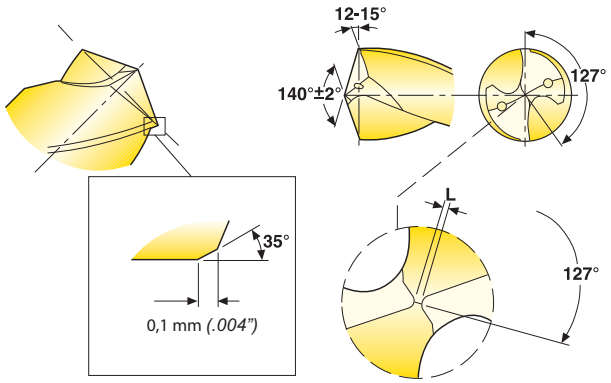
Max. allowed flank wear before regrinding is 0,1-0,3 mm *(0.004-0.012")* measured at the largest point.

Regrinding instructions for -M and -T geometry

Specifications:
Proposed specification of diamond wheels:
Conical clearance: Wheel shape12A2 Grit size D54 (picture 1).
Gashing: Wheel shape 1A1 or 1V1 Grit size D64-D46 (picture 2-3).
Corner chamfer: Wheel shape 1A1 or 12A2 (picture 1).
Edge treatment: grinding K-land or brushing (picture 4).

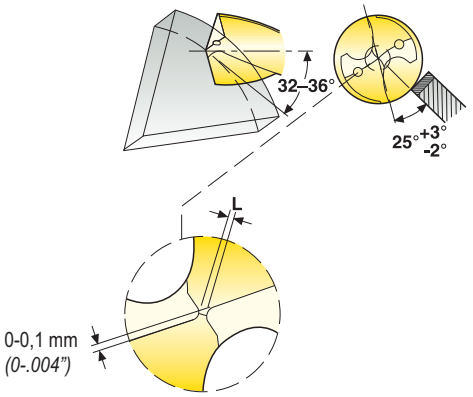
Important:
- The cutting edges must be uniform and have the same size of edge preparation.
- The edge preparation must be applied on the whole length of the cutting edges.

1. Conical flank



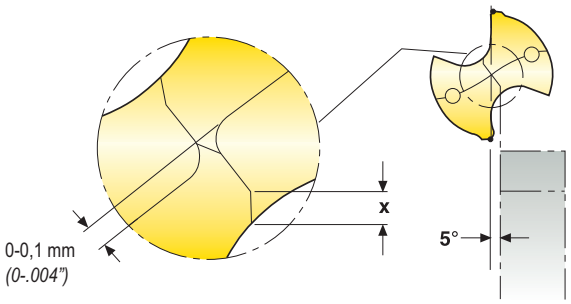
Lip height distance (axial run-out) to be within 0,01 mm *(0.0004")*

2. Web thinning

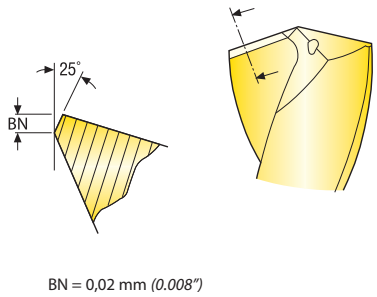


Drill ∅ DC mm	L mm	Drill ∅ DC *inch*	L *inch*
3-6	0,1-0,2	*0.118-0.236*	*0.004-0.008*
6-10	0,13-0,27	*0.236-0.394*	*0.005-0.011*
10-20	0,2-0,4	*0.394-0.787*	*0.008-0.016*

3. Grinding of flat X



4. Edge preparation



BN = 0,02 mm *(0.008")*

Max. allowed flank wear before regrinding is 0,1-0,3 mm *(0.004-0.012")* measured at the largest point.

SD1103 – ∅ 3-20 mm / *0.118-0.787 inch*

SMG	f										v_c
	Ø 3,00 *Ø 0.118*	Ø 4,00 *Ø 0.157*	Ø 6,00 *Ø 0.236*	Ø 8,00 *Ø 0.315*	Ø 10,00 *Ø 0.394*	Ø 12,00 *Ø 0.472*	Ø 14,00 *Ø 0.551*	Ø 16,00 *Ø 0.630*	Ø 18,00 *Ø 0.709*	Ø 20,00 *Ø 0.787*	
P1	0,12 *0.0048*	0,14 *0.0055*	0,18 *0.0070*	0,22 *0.0085*	0,25 *0.010*	0,28 *0.011*	0,30 *0.012*	0,32 *0.013*	0,34 *0.013*	0,36 *0.014*	105 *345*
P2	0,12 *0.0048*	0,14 *0.0055*	0,18 *0.0070*	0,22 *0.0085*	0,26 *0.010*	0,28 *0.011*	0,32 *0.013*	0,34 *0.013*	0,36 *0.014*	0,36 *0.014*	105 *345*
P3	0,11 *0.0044*	0,13 *0.0050*	0,17 *0.0065*	0,20 *0.0080*	0,24 *0.0095*	0,28 *0.011*	0,30 *0.012*	0,32 *0.013*	0,34 *0.013*	0,34 *0.013*	90 *295*
P4	0,11 *0.0044*	0,13 *0.0050*	0,17 *0.0065*	0,20 *0.0080*	0,24 *0.0095*	0,26 *0.010*	0,28 *0.011*	0,30 *0.012*	0,32 *0.013*	0,34 *0.013*	80 *260*
P5	0,11 *0.0044*	0,13 *0.0050*	0,16 *0.0065*	0,20 *0.0080*	0,24 *0.0095*	0,26 *0.010*	0,28 *0.011*	0,30 *0.012*	0,32 *0.013*	0,34 *0.013*	75 *245*
P6	0,11 *0.0044*	0,12 *0.0048*	0,16 *0.0065*	0,20 *0.0080*	0,24 *0.0095*	0,26 *0.010*	0,28 *0.011*	0,30 *0.012*	0,32 *0.013*	0,34 *0.013*	85 *280*
P7	0,11 *0.0044*	0,12 *0.0048*	0,16 *0.0065*	0,20 *0.0080*	0,24 *0.0095*	0,26 *0.010*	0,28 *0.011*	0,30 *0.012*	0,32 *0.013*	0,34 *0.013*	80 *260*
P8	0,11 *0.0044*	0,13 *0.0050*	0,17 *0.0065*	0,20 *0.0080*	0,24 *0.0095*	0,28 *0.011*	0,30 *0.012*	0,32 *0.013*	0,34 *0.013*	0,34 *0.013*	75 *245*
P11	0,11 *0.0044*	0,12 *0.0048*	0,16 *0.0065*	0,20 *0.0080*	0,24 *0.0095*	0,26 *0.010*	0,28 *0.011*	0,30 *0.012*	0,32 *0.013*	0,34 *0.013*	75 *245*
P12	0,075 *0.0030*	0,085 *0.0034*	0,11 *0.0044*	0,14 *0.0055*	0,16 *0.0065*	0,18 *0.0070*	0,19 *0.0075*	0,20 *0.0080*	0,22 *0.0085*	0,22 *0.0085*	46 *150*
M1	0,080 *0.0032*	0,095 *0.0038*	0,13 *0.0050*	0,17 *0.0065*	0,20 *0.0080*	0,22 *0.0085*	0,24 *0.0095*	0,26 *0.010*	0,28 *0.011*	0,30 *0.012*	55 *180*
M2	0,070 *0.0028*	0,085 *0.0034*	0,12 *0.0048*	0,15 *0.0060*	0,18 *0.0070*	0,20 *0.0080*	0,22 *0.0085*	0,24 *0.0095*	0,25 *0.010*	0,26 *0.010*	45 *150*
K1	0,12 *0.0048*	0,14 *0.0055*	0,18 *0.0070*	0,22 *0.0085*	0,26 *0.010*	0,28 *0.011*	0,30 *0.012*	0,34 *0.013*	0,34 *0.013*	0,36 *0.014*	70 *230*
K2	0,11 *0.0044*	0,13 *0.0050*	0,16 *0.0065*	0,20 *0.0080*	0,24 *0.0095*	0,26 *0.010*	0,28 *0.011*	0,30 *0.012*	0,32 *0.013*	0,34 *0.013*	60 *195*
K3	0,11 *0.0044*	0,13 *0.0050*	0,16 *0.0065*	0,20 *0.0080*	0,24 *0.0095*	0,26 *0.010*	0,28 *0.011*	0,30 *0.012*	0,32 *0.013*	0,34 *0.013*	50 *165*
K4	0,11 *0.0044*	0,13 *0.0050*	0,16 *0.0065*	0,20 *0.0080*	0,24 *0.0095*	0,26 *0.010*	0,28 *0.011*	0,30 *0.012*	0,32 *0.013*	0,34 *0.013*	49 *160*
K5	0,10 *0.0040*	0,11 *0.0044*	0,15 *0.0060*	0,18 *0.0070*	0,20 *0.0080*	0,24 *0.0095*	0,25 *0.010*	0,28 *0.011*	0,28 *0.011*	0,30 *0.012*	29 *95*
H3	0,048 *0.0019*	0,055 *0.0022*	0,075 *0.0030*	0,090 *0.0036*	0,10 *0.0040*	0,12 *0.0048*	0,13 *0.0050*	0,14 *0.0055*	0,14 *0.0055*	0,15 *0.0060*	24 *80*
H5	0,075 *0.0030*	0,085 *0.0034*	0,11 *0.0044*	0,14 *0.0055*	0,16 *0.0065*	0,18 *0.0070*	0,19 *0.0075*	0,20 *0.0080*	0,22 *0.0085*	0,22 *0.0085*	45 *150*
H7	0,048 *0.0019*	0,055 *0.0022*	0,075 *0.0030*	0,090 *0.0036*	0,10 *0.0040*	0,12 *0.0048*	0,13 *0.0050*	0,14 *0.0055*	0,14 *0.0055*	0,15 *0.0060*	24 *80*
H8	0,055 *0.0022*	0,065 *0.0026*	0,085 *0.0034*	0,10 *0.0040*	0,12 *0.0048*	0,14 *0.0055*	0,15 *0.0060*	0,16 *0.0065*	0,17 *0.0065*	0,17 *0.0065*	45 *150*
H11	0,075 *0.0030*	0,085 *0.0034*	0,11 *0.0044*	0,14 *0.0055*	0,16 *0.0065*	0,18 *0.0070*	0,19 *0.0075*	0,20 *0.0080*	0,22 *0.0085*	0,22 *0.0085*	60 *195*
H12	0,055 *0.0022*	0,065 *0.0026*	0,085 *0.0034*	0,10 *0.0040*	0,12 *0.0048*	0,14 *0.0055*	0,15 *0.0060*	0,16 *0.0065*	0,17 *0.0065*	0,17 *0.0065*	27 *90*

SMG = Seco material group f = mm/rev (IPR) v_c = m/min (sf/min) All cutting data are start values

SD1103A – ∅ 3-20 mm / *0.118-0.787 inch*

SMG	f										v_c
	Ø 3,00 *Ø 0.118*	Ø 4,00 *Ø 0.157*	Ø 6,00 *Ø 0.236*	Ø 8,00 *Ø 0.315*	Ø 10,00 *Ø 0.394*	Ø 12,00 *Ø 0.472*	Ø 14,00 *Ø 0.551*	Ø 16,00 *Ø 0.630*	Ø 18,00 *Ø 0.709*	Ø 20,00 *Ø 0.787*	
P1	0,12 *0.0048*	0,14 *0.0055*	0,18 *0.0070*	0,22 *0.0085*	0,25 *0.010*	0,28 *0.011*	0,30 *0.012*	0,32 *0.013*	0,34 *0.013*	0,36 *0.014*	150 *490*
P2	0,12 *0.0048*	0,14 *0.0055*	0,18 *0.0070*	0,22 *0.0085*	0,26 *0.010*	0,28 *0.011*	0,32 *0.013*	0,34 *0.013*	0,36 *0.014*	0,36 *0.014*	145 *475*
P3	0,11 *0.0044*	0,13 *0.0050*	0,17 *0.0065*	0,20 *0.0080*	0,24 *0.0095*	0,28 *0.011*	0,30 *0.012*	0,32 *0.013*	0,34 *0.013*	0,34 *0.013*	125 *410*
P4	0,11 *0.0044*	0,13 *0.0050*	0,17 *0.0065*	0,20 *0.0080*	0,24 *0.0095*	0,26 *0.010*	0,28 *0.011*	0,30 *0.012*	0,32 *0.013*	0,34 *0.013*	110 *360*
P5	0,11 *0.0044*	0,13 *0.0050*	0,16 *0.0065*	0,20 *0.0080*	0,24 *0.0095*	0,26 *0.010*	0,28 *0.011*	0,30 *0.012*	0,32 *0.013*	0,34 *0.013*	105 *345*
P6	0,11 *0.0044*	0,12 *0.0048*	0,16 *0.0065*	0,20 *0.0080*	0,24 *0.0095*	0,26 *0.010*	0,28 *0.011*	0,30 *0.012*	0,32 *0.013*	0,34 *0.013*	120 *395*
P7	0,11 *0.0044*	0,12 *0.0048*	0,16 *0.0065*	0,20 *0.0080*	0,24 *0.0095*	0,26 *0.010*	0,28 *0.011*	0,30 *0.012*	0,32 *0.013*	0,34 *0.013*	110 *360*
P8	0,11 *0.0044*	0,13 *0.0050*	0,17 *0.0065*	0,20 *0.0080*	0,24 *0.0095*	0,28 *0.011*	0,30 *0.012*	0,32 *0.013*	0,34 *0.013*	0,34 *0.013*	105 *345*
P11	0,11 *0.0044*	0,12 *0.0048*	0,16 *0.0065*	0,20 *0.0080*	0,24 *0.0095*	0,26 *0.010*	0,28 *0.011*	0,30 *0.012*	0,32 *0.013*	0,34 *0.013*	75 *245*
P12	0,075 *0.0030*	0,085 *0.0034*	0,11 *0.0044*	0,14 *0.0055*	0,16 *0.0065*	0,18 *0.0070*	0,19 *0.0075*	0,20 *0.0080*	0,22 *0.0085*	0,22 *0.0085*	50 *165*
M1	0,080 *0.0032*	0,095 *0.0038*	0,13 *0.0050*	0,17 *0.0065*	0,20 *0.0080*	0,22 *0.0085*	0,24 *0.0095*	0,26 *0.010*	0,28 *0.011*	0,30 *0.012*	80 *260*
M2	0,070 *0.0028*	0,085 *0.0034*	0,12 *0.0048*	0,15 *0.0060*	0,18 *0.0070*	0,20 *0.0080*	0,22 *0.0085*	0,24 *0.0095*	0,25 *0.010*	0,26 *0.010*	65 *215*
M3	0,055 *0.0022*	0,070 *0.0028*	0,095 *0.0038*	0,12 *0.0048*	0,14 *0.0055*	0,16 *0.0065*	0,18 *0.0070*	0,19 *0.0075*	0,20 *0.0080*	0,22 *0.0085*	48 *155*
M4	0,050 *0.0020*	0,060 *0.0024*	0,085 *0.0034*	0,11 *0.0044*	0,12 *0.0048*	0,14 *0.0055*	0,15 *0.0060*	0,17 *0.0065*	0,18 *0.0070*	0,19 *0.0075*	36 *120*
M5	0,050 *0.0020*	0,060 *0.0024*	0,085 *0.0034*	0,11 *0.0044*	0,12 *0.0048*	0,14 *0.0055*	0,15 *0.0060*	0,17 *0.0065*	0,18 *0.0070*	0,19 *0.0075*	30 *100*
K1	0,12 *0.0048*	0,14 *0.0055*	0,18 *0.0070*	0,22 *0.0085*	0,26 *0.010*	0,28 *0.011*	0,30 *0.012*	0,34 *0.013*	0,34 *0.013*	0,36 *0.014*	95 *310*
K2	0,11 *0.0044*	0,13 *0.0050*	0,16 *0.0065*	0,20 *0.0080*	0,24 *0.0095*	0,26 *0.010*	0,28 *0.011*	0,30 *0.012*	0,32 *0.013*	0,34 *0.013*	80 *260*
K3	0,11 *0.0044*	0,13 *0.0050*	0,16 *0.0065*	0,20 *0.0080*	0,24 *0.0095*	0,26 *0.010*	0,28 *0.011*	0,30 *0.012*	0,32 *0.013*	0,34 *0.013*	70 *230*
K4	0,11 *0.0044*	0,13 *0.0050*	0,16 *0.0065*	0,20 *0.0080*	0,24 *0.0095*	0,26 *0.010*	0,28 *0.011*	0,30 *0.012*	0,32 *0.013*	0,34 *0.013*	65 *215*
K5	0,10 *0.0040*	0,11 *0.0044*	0,15 *0.0060*	0,18 *0.0070*	0,20 *0.0080*	0,24 *0.0095*	0,25 *0.010*	0,28 *0.011*	0,28 *0.011*	0,30 *0.012*	39 *130*
N1	0,15 *0.0060*	0,17 *0.0065*	0,22 *0.0085*	0,25 *0.010*	0,28 *0.011*	0,32 *0.013*	0,34 *0.013*	0,36 *0.014*	0,38 *0.015*	0,40 *0.016*	260 *850*
N2	0,15 *0.0060*	0,17 *0.0065*	0,22 *0.0085*	0,25 *0.010*	0,28 *0.011*	0,32 *0.013*	0,34 *0.013*	0,36 *0.014*	0,38 *0.015*	0,40 *0.016*	170 *560*
N3	0,15 *0.0060*	0,17 *0.0065*	0,22 *0.0085*	0,25 *0.010*	0,28 *0.011*	0,32 *0.013*	0,34 *0.013*	0,36 *0.014*	0,38 *0.015*	0,40 *0.016*	110 *360*
N11	0,15 *0.0060*	0,17 *0.0065*	0,22 *0.0085*	0,25 *0.010*	0,28 *0.011*	0,32 *0.013*	0,34 *0.013*	0,36 *0.014*	0,38 *0.015*	0,40 *0.016*	210 *690*
H3	0,048 *0.0019*	0,055 *0.0022*	0,075 *0.0030*	0,090 *0.0036*	0,10 *0.0040*	0,12 *0.0048*	0,13 *0.0050*	0,14 *0.0055*	0,14 *0.0055*	0,15 *0.0060*	34 *110*
H5	0,075 *0.0030*	0,085 *0.0034*	0,11 *0.0044*	0,14 *0.0055*	0,16 *0.0065*	0,18 *0.0070*	0,19 *0.0075*	0,20 *0.0080*	0,22 *0.0085*	0,22 *0.0085*	65 *215*
H7	0,048 *0.0019*	0,055 *0.0022*	0,075 *0.0030*	0,090 *0.0036*	0,10 *0.0040*	0,12 *0.0048*	0,13 *0.0050*	0,14 *0.0055*	0,14 *0.0055*	0,15 *0.0060*	34 *110*
H8	0,055 *0.0022*	0,065 *0.0026*	0,085 *0.0034*	0,10 *0.0040*	0,12 *0.0048*	0,14 *0.0055*	0,15 *0.0060*	0,16 *0.0065*	0,17 *0.0065*	0,17 *0.0065*	65 *215*
H11	0,075 *0.0030*	0,085 *0.0034*	0,11 *0.0044*	0,14 *0.0055*	0,16 *0.0065*	0,18 *0.0070*	0,19 *0.0075*	0,20 *0.0080*	0,22 *0.0085*	0,22 *0.0085*	80 *260*
H12	0,055 *0.0022*	0,065 *0.0026*	0,085 *0.0034*	0,10 *0.0040*	0,12 *0.0048*	0,14 *0.0055*	0,15 *0.0060*	0,16 *0.0065*	0,17 *0.0065*	0,17 *0.0065*	38 *125*

SMG = Seco material group f = mm/rev (IPR) v_c = m/min (sf/min) All cutting data are start values

SD1105A – ∅ 3-20 mm / *0.118-0.787 inch*

SMG	f										v_c
	Ø 3,00 *Ø 0.118*	Ø 4,00 *Ø 0.157*	Ø 6,00 *Ø 0.236*	Ø 8,00 *Ø 0.315*	Ø 10,00 *Ø 0.394*	Ø 12,00 *Ø 0.472*	Ø 14,00 *Ø 0.551*	Ø 16,00 *Ø 0.630*	Ø 18,00 *Ø 0.709*	Ø 20,00 *Ø 0.787*	
P1	0,12 *0.0048*	0,14 *0.0055*	0,18 *0.0070*	0,22 *0.0085*	0,25 *0.010*	0,28 *0.011*	0,30 *0.012*	0,32 *0.013*	0,34 *0.013*	0,36 *0.014*	135 *445*
P2	0,12 *0.0048*	0,14 *0.0055*	0,18 *0.0070*	0,22 *0.0085*	0,26 *0.010*	0,28 *0.011*	0,32 *0.013*	0,34 *0.013*	0,36 *0.014*	0,36 *0.014*	135 *445*
P3	0,11 *0.0044*	0,13 *0.0050*	0,17 *0.0065*	0,20 *0.0080*	0,24 *0.0095*	0,28 *0.011*	0,30 *0.012*	0,32 *0.013*	0,34 *0.013*	0,34 *0.013*	115 *375*
P4	0,11 *0.0044*	0,13 *0.0050*	0,17 *0.0065*	0,20 *0.0080*	0,24 *0.0095*	0,26 *0.010*	0,28 *0.011*	0,30 *0.012*	0,32 *0.013*	0,34 *0.013*	100 *330*
P5	0,11 *0.0044*	0,13 *0.0050*	0,16 *0.0065*	0,20 *0.0080*	0,24 *0.0095*	0,26 *0.010*	0,28 *0.011*	0,30 *0.012*	0,32 *0.013*	0,34 *0.013*	95 *310*
P6	0,11 *0.0044*	0,12 *0.0048*	0,16 *0.0065*	0,20 *0.0080*	0,24 *0.0095*	0,26 *0.010*	0,28 *0.011*	0,30 *0.012*	0,32 *0.013*	0,34 *0.013*	110 *360*
P7	0,11 *0.0044*	0,12 *0.0048*	0,16 *0.0065*	0,20 *0.0080*	0,24 *0.0095*	0,26 *0.010*	0,28 *0.011*	0,30 *0.012*	0,32 *0.013*	0,34 *0.013*	100 *330*
P8	0,11 *0.0044*	0,13 *0.0050*	0,17 *0.0065*	0,20 *0.0080*	0,24 *0.0095*	0,28 *0.011*	0,30 *0.012*	0,32 *0.013*	0,34 *0.013*	0,34 *0.013*	95 *310*
P11	0,11 *0.0044*	0,12 *0.0048*	0,16 *0.0065*	0,20 *0.0080*	0,24 *0.0095*	0,26 *0.010*	0,28 *0.011*	0,30 *0.012*	0,32 *0.013*	0,34 *0.013*	65 *215*
P12	0,075 *0.0030*	0,085 *0.0034*	0,11 *0.0044*	0,14 *0.0055*	0,16 *0.0065*	0,18 *0.0070*	0,19 *0.0075*	0,20 *0.0080*	0,22 *0.0085*	0,22 *0.0085*	48 *155*
M1	0,080 *0.0032*	0,095 *0.0038*	0,13 *0.0050*	0,17 *0.0065*	0,20 *0.0080*	0,22 *0.0085*	0,24 *0.0095*	0,26 *0.010*	0,28 *0.011*	0,30 *0.012*	70 *230*
M2	0,070 *0.0028*	0,085 *0.0034*	0,12 *0.0048*	0,15 *0.0060*	0,18 *0.0070*	0,20 *0.0080*	0,22 *0.0085*	0,24 *0.0095*	0,25 *0.010*	0,26 *0.010*	60 *195*
M3	0,055 *0.0022*	0,070 *0.0028*	0,095 *0.0038*	0,12 *0.0048*	0,14 *0.0055*	0,16 *0.0065*	0,18 *0.0070*	0,19 *0.0075*	0,20 *0.0080*	0,22 *0.0085*	44 *145*
M4	0,050 *0.0020*	0,060 *0.0024*	0,085 *0.0034*	0,11 *0.0044*	0,12 *0.0048*	0,14 *0.0055*	0,15 *0.0060*	0,17 *0.0065*	0,18 *0.0070*	0,19 *0.0075*	33 *110*
M5	0,050 *0.0020*	0,060 *0.0024*	0,085 *0.0034*	0,11 *0.0044*	0,12 *0.0048*	0,14 *0.0055*	0,15 *0.0060*	0,17 *0.0065*	0,18 *0.0070*	0,19 *0.0075*	27 *90*
K1	0,12 *0.0048*	0,14 *0.0055*	0,18 *0.0070*	0,22 *0.0085*	0,26 *0.010*	0,28 *0.011*	0,30 *0.012*	0,34 *0.013*	0,34 *0.013*	0,36 *0.014*	85 *280*
K2	0,11 *0.0044*	0,13 *0.0050*	0,16 *0.0065*	0,20 *0.0080*	0,24 *0.0095*	0,26 *0.010*	0,28 *0.011*	0,30 *0.012*	0,32 *0.013*	0,34 *0.013*	75 *245*
K3	0,11 *0.0044*	0,13 *0.0050*	0,16 *0.0065*	0,20 *0.0080*	0,24 *0.0095*	0,26 *0.010*	0,28 *0.011*	0,30 *0.012*	0,32 *0.013*	0,34 *0.013*	65 *215*
K4	0,11 *0.0044*	0,13 *0.0050*	0,16 *0.0065*	0,20 *0.0080*	0,24 *0.0095*	0,26 *0.010*	0,28 *0.011*	0,30 *0.012*	0,32 *0.013*	0,34 *0.013*	60 *195*
K5	0,10 *0.0040*	0,11 *0.0044*	0,15 *0.0060*	0,18 *0.0070*	0,20 *0.0080*	0,24 *0.0095*	0,25 *0.010*	0,28 *0.011*	0,28 *0.011*	0,30 *0.012*	36 *120*
N1	0,15 *0.0060*	0,17 *0.0065*	0,22 *0.0085*	0,25 *0.010*	0,28 *0.011*	0,32 *0.013*	0,34 *0.013*	0,36 *0.014*	0,38 *0.015*	0,40 *0.016*	240 *790*
N2	0,15 *0.0060*	0,17 *0.0065*	0,22 *0.0085*	0,25 *0.010*	0,28 *0.011*	0,32 *0.013*	0,34 *0.013*	0,36 *0.014*	0,38 *0.015*	0,40 *0.016*	155 *510*
N3	0,15 *0.0060*	0,17 *0.0065*	0,22 *0.0085*	0,25 *0.010*	0,28 *0.011*	0,32 *0.013*	0,34 *0.013*	0,36 *0.014*	0,38 *0.015*	0,40 *0.016*	100 *330*
N11	0,15 *0.0060*	0,17 *0.0065*	0,22 *0.0085*	0,25 *0.010*	0,28 *0.011*	0,32 *0.013*	0,34 *0.013*	0,36 *0.014*	0,38 *0.015*	0,40 *0.016*	190 *620*
H3	0,048 *0.0019*	0,055 *0.0022*	0,075 *0.0030*	0,090 *0.0036*	0,10 *0.0040*	0,12 *0.0048*	0,13 *0.0050*	0,14 *0.0055*	0,14 *0.0055*	0,15 *0.0060*	31 *100*
H5	0,075 *0.0030*	0,085 *0.0034*	0,11 *0.0044*	0,14 *0.0055*	0,16 *0.0065*	0,18 *0.0070*	0,19 *0.0075*	0,20 *0.0080*	0,22 *0.0085*	0,22 *0.0085*	60 *195*
H7	0,048 *0.0019*	0,055 *0.0022*	0,075 *0.0030*	0,090 *0.0036*	0,10 *0.0040*	0,12 *0.0048*	0,13 *0.0050*	0,14 *0.0055*	0,14 *0.0055*	0,15 *0.0060*	31 *100*
H8	0,055 *0.0022*	0,065 *0.0026*	0,085 *0.0034*	0,10 *0.0040*	0,12 *0.0048*	0,14 *0.0055*	0,15 *0.0060*	0,16 *0.0065*	0,17 *0.0065*	0,17 *0.0065*	60 *195*
H11	0,075 *0.0030*	0,085 *0.0034*	0,11 *0.0044*	0,14 *0.0055*	0,16 *0.0065*	0,18 *0.0070*	0,19 *0.0075*	0,20 *0.0080*	0,22 *0.0085*	0,22 *0.0085*	75 *245*
H12	0,055 *0.0022*	0,065 *0.0026*	0,085 *0.0034*	0,10 *0.0040*	0,12 *0.0048*	0,14 *0.0055*	0,15 *0.0060*	0,16 *0.0065*	0,17 *0.0065*	0,17 *0.0065*	35 *115*

SMG = Seco material group f = mm/rev (IPR) v_c = m/min (sf/min) All cutting data are start values

SD1108A – ∅ 3-20 mm / *0.118-0.787 inch*

SMG	f										v_c
	Ø 3,00 *Ø 0.118*	Ø 4,00 *Ø 0.157*	Ø 6,00 *Ø 0.236*	Ø 8,00 *Ø 0.315*	Ø 10,00 *Ø 0.394*	Ø 12,00 *Ø 0.472*	Ø 14,00 *Ø 0.551*	Ø 16,00 *Ø 0.630*	Ø 18,00 *Ø 0.709*	Ø 20,00 *Ø 0.787*	
P1	0,12 *0.0048*	0,14 *0.0055*	0,18 *0.0070*	0,22 *0.0085*	0,25 *0.010*	0,28 *0.011*	0,30 *0.012*	0,32 *0.013*	0,34 *0.013*	0,36 *0.014*	120 *395*
P2	0,12 *0.0048*	0,14 *0.0055*	0,18 *0.0070*	0,22 *0.0085*	0,26 *0.010*	0,28 *0.011*	0,32 *0.013*	0,34 *0.013*	0,36 *0.014*	0,36 *0.014*	115 *375*
P3	0,11 *0.0044*	0,13 *0.0050*	0,17 *0.0065*	0,20 *0.0080*	0,24 *0.0095*	0,28 *0.011*	0,30 *0.012*	0,32 *0.013*	0,34 *0.013*	0,34 *0.013*	100 *330*
P4	0,11 *0.0044*	0,13 *0.0050*	0,17 *0.0065*	0,20 *0.0080*	0,24 *0.0095*	0,26 *0.010*	0,28 *0.011*	0,30 *0.012*	0,32 *0.013*	0,34 *0.013*	85 *280*
P5	0,11 *0.0044*	0,13 *0.0050*	0,16 *0.0065*	0,20 *0.0080*	0,24 *0.0095*	0,26 *0.010*	0,28 *0.011*	0,30 *0.012*	0,32 *0.013*	0,34 *0.013*	85 *280*
P6	0,11 *0.0044*	0,12 *0.0048*	0,16 *0.0065*	0,20 *0.0080*	0,24 *0.0095*	0,26 *0.010*	0,28 *0.011*	0,30 *0.012*	0,32 *0.013*	0,34 *0.013*	95 *310*
P7	0,11 *0.0044*	0,12 *0.0048*	0,16 *0.0065*	0,20 *0.0080*	0,24 *0.0095*	0,26 *0.010*	0,28 *0.011*	0,30 *0.012*	0,32 *0.013*	0,34 *0.013*	90 *295*
P8	0,11 *0.0044*	0,13 *0.0050*	0,17 *0.0065*	0,20 *0.0080*	0,24 *0.0095*	0,28 *0.011*	0,30 *0.012*	0,32 *0.013*	0,34 *0.013*	0,34 *0.013*	85 *280*
P11	0,11 *0.0044*	0,12 *0.0048*	0,16 *0.0065*	0,20 *0.0080*	0,24 *0.0095*	0,26 *0.010*	0,28 *0.011*	0,30 *0.012*	0,32 *0.013*	0,34 *0.013*	60 *195*
P12	0,075 *0.0030*	0,085 *0.0034*	0,11 *0.0044*	0,14 *0.0055*	0,16 *0.0065*	0,18 *0.0070*	0,19 *0.0075*	0,20 *0.0080*	0,22 *0.0085*	0,22 *0.0085*	42 *140*
M1	0,080 *0.0032*	0,095 *0.0038*	0,13 *0.0050*	0,17 *0.0065*	0,20 *0.0080*	0,22 *0.0085*	0,24 *0.0095*	0,26 *0.010*	0,28 *0.011*	0,30 *0.012*	60 *195*
M2	0,070 *0.0028*	0,085 *0.0034*	0,12 *0.0048*	0,15 *0.0060*	0,18 *0.0070*	0,20 *0.0080*	0,22 *0.0085*	0,24 *0.0095*	0,25 *0.010*	0,26 *0.010*	50 *165*
M3	0,055 *0.0022*	0,070 *0.0028*	0,095 *0.0038*	0,12 *0.0048*	0,14 *0.0055*	0,16 *0.0065*	0,18 *0.0070*	0,19 *0.0075*	0,20 *0.0080*	0,22 *0.0085*	38 *125*
M4	0,050 *0.0020*	0,060 *0.0024*	0,085 *0.0034*	0,11 *0.0044*	0,12 *0.0048*	0,14 *0.0055*	0,15 *0.0060*	0,17 *0.0065*	0,18 *0.0070*	0,19 *0.0075*	29 *95*
M5	0,050 *0.0020*	0,060 *0.0024*	0,085 *0.0034*	0,11 *0.0044*	0,12 *0.0048*	0,14 *0.0055*	0,15 *0.0060*	0,17 *0.0065*	0,18 *0.0070*	0,19 *0.0075*	24 *80*
K1	0,12 *0.0048*	0,14 *0.0055*	0,18 *0.0070*	0,22 *0.0085*	0,26 *0.010*	0,28 *0.011*	0,30 *0.012*	0,34 *0.013*	0,34 *0.013*	0,36 *0.014*	75 *245*
K2	0,11 *0.0044*	0,13 *0.0050*	0,16 *0.0065*	0,20 *0.0080*	0,24 *0.0095*	0,26 *0.010*	0,28 *0.011*	0,30 *0.012*	0,32 *0.013*	0,34 *0.013*	65 *215*
K3	0,11 *0.0044*	0,13 *0.0050*	0,16 *0.0065*	0,20 *0.0080*	0,24 *0.0095*	0,26 *0.010*	0,28 *0.011*	0,30 *0.012*	0,32 *0.013*	0,34 *0.013*	55 *180*
K4	0,11 *0.0044*	0,13 *0.0050*	0,16 *0.0065*	0,20 *0.0080*	0,24 *0.0095*	0,26 *0.010*	0,28 *0.011*	0,30 *0.012*	0,32 *0.013*	0,34 *0.013*	50 *165*
K5	0,10 *0.0040*	0,11 *0.0044*	0,15 *0.0060*	0,18 *0.0070*	0,20 *0.0080*	0,24 *0.0095*	0,25 *0.010*	0,28 *0.011*	0,28 *0.011*	0,30 *0.012*	31 *100*
N1	0,15 *0.0060*	0,17 *0.0065*	0,22 *0.0085*	0,25 *0.010*	0,28 *0.011*	0,32 *0.013*	0,34 *0.013*	0,36 *0.014*	0,38 *0.015*	0,40 *0.016*	205 *670*
N2	0,15 *0.0060*	0,17 *0.0065*	0,22 *0.0085*	0,25 *0.010*	0,28 *0.011*	0,32 *0.013*	0,34 *0.013*	0,36 *0.014*	0,38 *0.015*	0,40 *0.016*	135 *445*
N3	0,15 *0.0060*	0,17 *0.0065*	0,22 *0.0085*	0,25 *0.010*	0,28 *0.011*	0,32 *0.013*	0,34 *0.013*	0,36 *0.014*	0,38 *0.015*	0,40 *0.016*	90 *295*
N11	0,15 *0.0060*	0,17 *0.0065*	0,22 *0.0085*	0,25 *0.010*	0,28 *0.011*	0,32 *0.013*	0,34 *0.013*	0,36 *0.014*	0,38 *0.015*	0,40 *0.016*	165 *540*
H3	0,048 *0.0019*	0,055 *0.0022*	0,075 *0.0030*	0,090 *0.0036*	0,10 *0.0040*	0,12 *0.0048*	0,13 *0.0050*	0,14 *0.0055*	0,14 *0.0055*	0,15 *0.0060*	27 *90*
H5	0,075 *0.0030*	0,085 *0.0034*	0,11 *0.0044*	0,14 *0.0055*	0,16 *0.0065*	0,18 *0.0070*	0,19 *0.0075*	0,20 *0.0080*	0,22 *0.0085*	0,22 *0.0085*	50 *165*
H7	0,048 *0.0019*	0,055 *0.0022*	0,075 *0.0030*	0,090 *0.0036*	0,10 *0.0040*	0,12 *0.0048*	0,13 *0.0050*	0,14 *0.0055*	0,14 *0.0055*	0,15 *0.0060*	27 *90*
H8	0,055 *0.0022*	0,065 *0.0026*	0,085 *0.0034*	0,10 *0.0040*	0,12 *0.0048*	0,14 *0.0055*	0,15 *0.0060*	0,16 *0.0065*	0,17 *0.0065*	0,17 *0.0065*	50 *165*
H11	0,075 *0.0030*	0,085 *0.0034*	0,11 *0.0044*	0,14 *0.0055*	0,16 *0.0065*	0,18 *0.0070*	0,19 *0.0075*	0,20 *0.0080*	0,22 *0.0085*	0,22 *0.0085*	65 *215*
H12	0,055 *0.0022*	0,065 *0.0026*	0,085 *0.0034*	0,10 *0.0040*	0,12 *0.0048*	0,14 *0.0055*	0,15 *0.0060*	0,16 *0.0065*	0,17 *0.0065*	0,17 *0.0065*	30 *100*

SMG = Seco material group f = mm/rev (IPR) v_c = m/min (sf/min) All cutting data are start values

When drilling in stainless steel with 8xD and 12xD a pre-drilling operation might be needed

SD1112A – ∅ 3-20 mm / *0.118-0.787 inch*

SMG	f										v_c
	Ø 3,00 *Ø 0.118*	Ø 4,00 *Ø 0.157*	Ø 6,00 *Ø 0.236*	Ø 8,00 *Ø 0.315*	Ø 10,00 *Ø 0.394*	Ø 12,00 *Ø 0.472*	Ø 14,00 *Ø 0.551*	Ø 16,00 *Ø 0.630*	Ø 18,00 *Ø 0.709*	Ø 20,00 *Ø 0.787*	
P1	0,12 *0.0048*	0,14 *0.0055*	0,18 *0.0070*	0,22 *0.0085*	0,25 *0.010*	0,28 *0.011*	0,30 *0.012*	0,32 *0.013*	0,34 *0.013*	0,36 *0.014*	100 *330*
P2	0,12 *0.0048*	0,14 *0.0055*	0,18 *0.0070*	0,22 *0.0085*	0,26 *0.010*	0,28 *0.011*	0,32 *0.013*	0,34 *0.013*	0,36 *0.014*	0,36 *0.014*	100 *330*
P3	0,11 *0.0044*	0,13 *0.0050*	0,17 *0.0065*	0,20 *0.0080*	0,24 *0.0095*	0,28 *0.011*	0,30 *0.012*	0,32 *0.013*	0,34 *0.013*	0,34 *0.013*	85 *280*
P4	0,11 *0.0044*	0,13 *0.0050*	0,17 *0.0065*	0,20 *0.0080*	0,24 *0.0095*	0,26 *0.010*	0,28 *0.011*	0,30 *0.012*	0,32 *0.013*	0,34 *0.013*	75 *245*
P5	0,11 *0.0044*	0,13 *0.0050*	0,16 *0.0065*	0,20 *0.0080*	0,24 *0.0095*	0,26 *0.010*	0,28 *0.011*	0,30 *0.012*	0,32 *0.013*	0,34 *0.013*	70 *230*
P6	0,11 *0.0044*	0,12 *0.0048*	0,16 *0.0065*	0,20 *0.0080*	0,24 *0.0095*	0,26 *0.010*	0,28 *0.011*	0,30 *0.012*	0,32 *0.013*	0,34 *0.013*	80 *260*
P7	0,11 *0.0044*	0,12 *0.0048*	0,16 *0.0065*	0,20 *0.0080*	0,24 *0.0095*	0,26 *0.010*	0,28 *0.011*	0,30 *0.012*	0,32 *0.013*	0,34 *0.013*	75 *245*
P8	0,11 *0.0044*	0,13 *0.0050*	0,17 *0.0065*	0,20 *0.0080*	0,24 *0.0095*	0,28 *0.011*	0,30 *0.012*	0,32 *0.013*	0,34 *0.013*	0,34 *0.013*	70 *230*
P11	0,11 *0.0044*	0,12 *0.0048*	0,16 *0.0065*	0,20 *0.0080*	0,24 *0.0095*	0,26 *0.010*	0,28 *0.011*	0,30 *0.012*	0,32 *0.013*	0,34 *0.013*	50 *165*
P12	0,075 *0.0030*	0,085 *0.0034*	0,11 *0.0044*	0,14 *0.0055*	0,16 *0.0065*	0,18 *0.0070*	0,19 *0.0075*	0,20 *0.0080*	0,22 *0.0085*	0,22 *0.0085*	36 *120*
M1	0,080 *0.0032*	0,095 *0.0038*	0,13 *0.0050*	0,17 *0.0065*	0,20 *0.0080*	0,22 *0.0085*	0,24 *0.0095*	0,26 *0.010*	0,28 *0.011*	0,30 *0.012*	55 *180*
M2	0,070 *0.0028*	0,085 *0.0034*	0,12 *0.0048*	0,15 *0.0060*	0,18 *0.0070*	0,20 *0.0080*	0,22 *0.0085*	0,24 *0.0095*	0,25 *0.010*	0,26 *0.010*	43 *140*
M3	0,055 *0.0022*	0,070 *0.0028*	0,095 *0.0038*	0,12 *0.0048*	0,14 *0.0055*	0,16 *0.0065*	0,18 *0.0070*	0,19 *0.0075*	0,20 *0.0080*	0,22 *0.0085*	33 *110*
M4	0,050 *0.0020*	0,060 *0.0024*	0,085 *0.0034*	0,11 *0.0044*	0,12 *0.0048*	0,14 *0.0055*	0,15 *0.0060*	0,17 *0.0065*	0,18 *0.0070*	0,19 *0.0075*	25 *80*
M5	0,050 *0.0020*	0,060 *0.0024*	0,085 *0.0034*	0,11 *0.0044*	0,12 *0.0048*	0,14 *0.0055*	0,15 *0.0060*	0,17 *0.0065*	0,18 *0.0070*	0,19 *0.0075*	21 *70*
K1	0,12 *0.0048*	0,14 *0.0055*	0,18 *0.0070*	0,22 *0.0085*	0,26 *0.010*	0,28 *0.011*	0,30 *0.012*	0,34 *0.013*	0,34 *0.013*	0,36 *0.014*	65 *215*
K2	0,11 *0.0044*	0,13 *0.0050*	0,16 *0.0065*	0,20 *0.0080*	0,24 *0.0095*	0,26 *0.010*	0,28 *0.011*	0,30 *0.012*	0,32 *0.013*	0,34 *0.013*	55 *180*
K3	0,11 *0.0044*	0,13 *0.0050*	0,16 *0.0065*	0,20 *0.0080*	0,24 *0.0095*	0,26 *0.010*	0,28 *0.011*	0,30 *0.012*	0,32 *0.013*	0,34 *0.013*	47 *155*
K4	0,11 *0.0044*	0,13 *0.0050*	0,16 *0.0065*	0,20 *0.0080*	0,24 *0.0095*	0,26 *0.010*	0,28 *0.011*	0,30 *0.012*	0,32 *0.013*	0,34 *0.013*	45 *150*
K5	0,10 *0.0040*	0,11 *0.0044*	0,15 *0.0060*	0,18 *0.0070*	0,20 *0.0080*	0,24 *0.0095*	0,25 *0.010*	0,28 *0.011*	0,28 *0.011*	0,30 *0.012*	27 *90*
N1	0,15 *0.0060*	0,17 *0.0065*	0,22 *0.0085*	0,25 *0.010*	0,28 *0.011*	0,32 *0.013*	0,34 *0.013*	0,36 *0.014*	0,38 *0.015*	0,40 *0.016*	180 *590*
N2	0,15 *0.0060*	0,17 *0.0065*	0,22 *0.0085*	0,25 *0.010*	0,28 *0.011*	0,32 *0.013*	0,34 *0.013*	0,36 *0.014*	0,38 *0.015*	0,40 *0.016*	115 *375*
N3	0,15 *0.0060*	0,17 *0.0065*	0,22 *0.0085*	0,25 *0.010*	0,28 *0.011*	0,32 *0.013*	0,34 *0.013*	0,36 *0.014*	0,38 *0.015*	0,40 *0.016*	75 *245*
N11	0,15 *0.0060*	0,17 *0.0065*	0,22 *0.0085*	0,25 *0.010*	0,28 *0.011*	0,32 *0.013*	0,34 *0.013*	0,36 *0.014*	0,38 *0.015*	0,40 *0.016*	145 *475*
H3	0,048 *0.0019*	0,055 *0.0022*	0,075 *0.0030*	0,090 *0.0036*	0,10 *0.0040*	0,12 *0.0048*	0,13 *0.0050*	0,14 *0.0055*	0,14 *0.0055*	0,15 *0.0060*	23 *75*
H5	0,075 *0.0030*	0,085 *0.0034*	0,11 *0.0044*	0,14 *0.0055*	0,16 *0.0065*	0,18 *0.0070*	0,19 *0.0075*	0,20 *0.0080*	0,22 *0.0085*	0,22 *0.0085*	43 *140*
H7	0,048 *0.0019*	0,055 *0.0022*	0,075 *0.0030*	0,090 *0.0036*	0,10 *0.0040*	0,12 *0.0048*	0,13 *0.0050*	0,14 *0.0055*	0,14 *0.0055*	0,15 *0.0060*	23 *75*
H8	0,055 *0.0022*	0,065 *0.0026*	0,085 *0.0034*	0,10 *0.0040*	0,12 *0.0048*	0,14 *0.0055*	0,15 *0.0060*	0,16 *0.0065*	0,17 *0.0065*	0,17 *0.0065*	43 *140*
H11	0,075 *0.0030*	0,085 *0.0034*	0,11 *0.0044*	0,14 *0.0055*	0,16 *0.0065*	0,18 *0.0070*	0,19 *0.0075*	0,20 *0.0080*	0,22 *0.0085*	0,22 *0.0085*	55 *180*
H12	0,055 *0.0022*	0,065 *0.0026*	0,085 *0.0034*	0,10 *0.0040*	0,12 *0.0048*	0,14 *0.0055*	0,15 *0.0060*	0,16 *0.0065*	0,17 *0.0065*	0,17 *0.0065*	26 *85*

SMG = Seco material group f = mm/rev (IPR) v_c = m/min (sf/min) All cutting data are start values

When drilling in stainless steel with 8xD and 12xD a pre-drilling operation might be needed

SD203A – ∅ 2-8 mm / *0.079-0.315 inch*

SMG		f						v_c
		Ø 2,00 *Ø 0.079*	Ø 3,00 *Ø 0.118*	Ø 4,00 *Ø 0.157*	Ø 5,00 *Ø 0.197*	Ø 6,00 *Ø 0.236*	Ø 8,00 *Ø 0.315*	
P1	P	0,14	0,17	0,20	0,24	0,26	0,32	185
	P	*0.0055*	*0.0065*	*0.0080*	*0.0095*	*0.010*	*0.013*	*610*
P2	P	0,14	0,17	0,20	0,24	0,26	0,32	180
	P	*0.0055*	*0.0065*	*0.0080*	*0.0095*	*0.010*	*0.013*	*590*
P3	P	0,14	0,16	0,19	0,22	0,25	0,32	155
	P	*0.0055*	*0.0065*	*0.0075*	*0.0085*	*0.010*	*0.013*	*510*
P4	P	0,10	0,13	0,15	0,17	0,19	0,24	210
	P	*0.0040*	*0.0050*	*0.0060*	*0.0065*	*0.0075*	*0.0095*	*690*
P5	P	0,10	0,12	0,14	0,17	0,19	0,22	205
	P	*0.0040*	*0.0048*	*0.0055*	*0.0065*	*0.0075*	*0.0085*	*670*
P6	P	0,10	0,12	0,14	0,16	0,19	0,22	230
	P	*0.0040*	*0.0048*	*0.0055*	*0.0065*	*0.0075*	*0.0085*	*750*
P7	P	0,10	0,12	0,14	0,16	0,19	0,22	215
	P	*0.0040*	*0.0048*	*0.0055*	*0.0065*	*0.0075*	*0.0085*	*710*
P8	P	0,11	0,13	0,15	0,17	0,19	0,24	200
	P	*0.0044*	*0.0050*	*0.0060*	*0.0065*	*0.0075*	*0.0095*	*660*
P11	P	0,060	0,075	0,085	0,10	0,11	0,14	105
	P	*0.0024*	*0.0030*	*0.0034*	*0.0040*	*0.0044*	*0.0055*	*345*
P12	P	0,060	0,075	0,085	0,10	0,11	0,14	75
	P	*0.0024*	*0.0030*	*0.0034*	*0.0040*	*0.0044*	*0.0055*	*245*
M1	MS	0,075	0,095	0,11	0,13	0,15	0,19	110
	MS	*0.0030*	*0.0038*	*0.0044*	*0.0050*	*0.0060*	*0.0075*	*360*
M2	MS	0,065	0,085	0,10	0,12	0,14	0,17	90
	MS	*0.0026*	*0.0034*	*0.0040*	*0.0048*	*0.0055*	*0.0065*	*295*
M3	MS	0,095	0,11	0,13	0,15	0,17	0,20	45
	MS	*0.0038*	*0.0044*	*0.0050*	*0.0060*	*0.0065*	*0.0080*	*150*
M4	MS	0,048	0,060	0,070	0,085	0,095	0,12	50
	MS	*0.0019*	*0.0024*	*0.0028*	*0.0034*	*0.0038*	*0.0048*	*165*
M5	MS	0,048	0,060	0,070	0,085	0,095	0,12	42
	MS	*0.0019*	*0.0024*	*0.0028*	*0.0034*	*0.0038*	*0.0048*	*140*
K1	P	0,15	0,18	0,22	0,25	0,28	0,36	175
	P	*0.0060*	*0.0070*	*0.0085*	*0.010*	*0.011*	*0.014*	*570*
K2	P	0,14	0,17	0,20	0,22	0,26	0,32	150
	P	*0.0055*	*0.0065*	*0.0080*	*0.0085*	*0.010*	*0.013*	*490*
K3	P	0,14	0,17	0,20	0,22	0,26	0,32	125
	P	*0.0055*	*0.0065*	*0.0080*	*0.0085*	*0.010*	*0.013*	*410*
K4	P	0,14	0,17	0,20	0,22	0,26	0,32	120
	P	*0.0055*	*0.0065*	*0.0080*	*0.0085*	*0.010*	*0.013*	*395*
K5	P	0,12	0,15	0,18	0,20	0,24	0,28	70
	P	*0.0048*	*0.0060*	*0.0070*	*0.0080*	*0.0095*	*0.011*	*230*
N1	N	0,13	0,16	0,19	0,22	0,26	0,32	350
	N	*0.0050*	*0.0065*	*0.0075*	*0.0085*	*0.010*	*0.013*	*1150*
N2	MS	0,13	0,16	0,19	0,22	0,26	0,32	225
	MS	*0.0050*	*0.0065*	*0.0075*	*0.0085*	*0.010*	*0.013*	*740*
N3	MS	0,13	0,16	0,19	0,22	0,26	0,32	150
	MS	*0.0050*	*0.0065*	*0.0075*	*0.0085*	*0.010*	*0.013*	*490*
N11	MS	0,13	0,16	0,19	0,22	0,26	0,32	285
	MS	*0.0050*	*0.0065*	*0.0075*	*0.0085*	*0.010*	*0.013*	*940*
S1	MS	0,040	0,048	0,055	0,065	0,075	0,095	39
	MS	*0.0016*	*0.0019*	*0.0022*	*0.0026*	*0.0030*	*0.0038*	*130*
S2	MS	0,040	0,048	0,055	0,065	0,075	0,095	28
	MS	*0.0016*	*0.0019*	*0.0022*	*0.0026*	*0.0030*	*0.0038*	*90*
S3	MS	0,040	0,048	0,055	0,065	0,075	0,095	28
	MS	*0.0016*	*0.0019*	*0.0022*	*0.0026*	*0.0030*	*0.0038*	*90*
S11	MS	0,070	0,085	0,095	0,11	0,12	0,14	70
	MS	*0.0028*	*0.0034*	*0.0038*	*0.0044*	*0.0048*	*0.0055*	*230*
S12	MS	0,070	0,085	0,095	0,11	0,12	0,14	55
	MS	*0.0028*	*0.0034*	*0.0038*	*0.0044*	*0.0048*	*0.0055*	*180*
S13	MS	0,065	0,075	0,085	0,095	0,10	0,12	43
	MS	*0.0026*	*0.0030*	*0.0034*	*0.0038*	*0.0040*	*0.0048*	*140*
H3	P	0,055	0,070	0,080	0,090	0,10	0,12	28
	P	*0.0022*	*0.0028*	*0.0032*	*0.0036*	*0.0040*	*0.0048*	*90*
H5	P	0,085	0,10	0,12	0,13	0,15	0,18	55
	P	*0.0034*	*0.0040*	*0.0048*	*0.0050*	*0.0060*	*0.0070*	*180*
H7	P	0,055	0,070	0,080	0,090	0,10	0,12	28
	P	*0.0022*	*0.0028*	*0.0032*	*0.0036*	*0.0040*	*0.0048*	*90*
H8	P	0,065	0,080	0,090	0,10	0,12	0,14	55
	P	*0.0026*	*0.0032*	*0.0036*	*0.0040*	*0.0048*	*0.0055*	*180*
H11	P	0,085	0,10	0,12	0,13	0,15	0,18	65
	P	*0.0034*	*0.0040*	*0.0048*	*0.0050*	*0.0060*	*0.0070*	*215*
H12	P	0,065	0,080	0,090	0,10	0,12	0,14	80
	P	*0.0026*	*0.0032*	*0.0036*	*0.0040*	*0.0048*	*0.0055*	*260*
H21	P	0,065	0,080	0,090	0,10	0,12	0,14	55
	P	*0.0026*	*0.0032*	*0.0036*	*0.0040*	*0.0048*	*0.0055*	*180*

SMG = Seco material group f = mm/rev (IPR) v_c = m/min (sf/min) All cutting data are start values

SD203A – ∅ 10-20 mm / *0.394-0.787 inch*

SMG		f						v_c
		Ø 10,00 *Ø 0.394*	Ø 12,00 *Ø 0.472*	Ø 14,00 *Ø 0.551*	Ø 16,00 *Ø 0.630*	Ø 18,00 *Ø 0.709*	Ø 20,00 *Ø 0.787*	
P1	P	0,38	0,44	0,48	0,50	0,55	0,55	185
	P	*0.015*	*0.017*	*0.019*	*0.020*	*0.022*	*0.022*	*610*
P2	P	0,38	0,44	0,48	0,50	0,55	0,60	180
	P	*0.015*	*0.017*	*0.019*	*0.020*	*0.022*	*0.024*	*590*
P3	P	0,36	0,42	0,46	0,50	0,50	0,55	155
	P	*0.014*	*0.017*	*0.018*	*0.020*	*0.020*	*0.022*	*510*
P4	P	0,28	0,30	0,34	0,36	0,38	0,40	210
	P	*0.011*	*0.012*	*0.013*	*0.014*	*0.015*	*0.016*	*690*
P5	P	0,26	0,30	0,32	0,34	0,36	0,38	205
	P	*0.010*	*0.012*	*0.013*	*0.013*	*0.014*	*0.015*	*670*
P6	P	0,26	0,30	0,32	0,34	0,36	0,38	230
	P	*0.010*	*0.012*	*0.013*	*0.013*	*0.014*	*0.015*	*750*
P7	P	0,26	0,30	0,32	0,34	0,36	0,38	215
	P	*0.010*	*0.012*	*0.013*	*0.013*	*0.014*	*0.015*	*710*
P8	P	0,28	0,32	0,34	0,36	0,38	0,40	200
	P	*0.011*	*0.013*	*0.013*	*0.014*	*0.015*	*0.016*	*660*
P11	P	0,16	0,18	0,20	0,22	0,24	0,24	105
	P	*0.0065*	*0.0070*	*0.0080*	*0.0085*	*0.0095*	*0.0095*	*345*
P12	P	0,16	0,18	0,20	0,22	0,24	0,24	75
	P	*0.0065*	*0.0070*	*0.0080*	*0.0085*	*0.0095*	*0.0095*	*245*
M1	MS	0,22	0,25	0,28	0,30	0,30	0,32	110
	MS	*0.0085*	*0.010*	*0.011*	*0.012*	*0.012*	*0.013*	*360*
M2	MS	0,20	0,22	0,25	0,26	0,28	0,30	90
	MS	*0.0080*	*0.0085*	*0.010*	*0.010*	*0.011*	*0.012*	*295*
M3	MS	0,24	0,26	0,28	0,30	0,32	0,34	45
	MS	*0.0095*	*0.010*	*0.011*	*0.012*	*0.013*	*0.013*	*150*
M4	MS	0,14	0,16	0,17	0,19	0,20	0,20	50
	MS	*0.0055*	*0.0065*	*0.0065*	*0.0075*	*0.0080*	*0.0080*	*165*
M5	MS	0,14	0,16	0,17	0,19	0,20	0,20	42
	MS	*0.0055*	*0.0065*	*0.0065*	*0.0075*	*0.0080*	*0.0080*	*140*
K1	P	0,42	0,48	0,50	0,55	0,60	0,65	175
	P	*0.017*	*0.019*	*0.020*	*0.022*	*0.024*	*0.026*	*570*
K2	P	0,38	0,42	0,48	0,50	0,55	0,55	150
	P	*0.015*	*0.017*	*0.019*	*0.020*	*0.022*	*0.022*	*490*
K3	P	0,38	0,42	0,48	0,50	0,55	0,55	125
	P	*0.015*	*0.017*	*0.019*	*0.020*	*0.022*	*0.022*	*410*
K4	P	0,38	0,42	0,48	0,50	0,55	0,55	120
	P	*0.015*	*0.017*	*0.019*	*0.020*	*0.022*	*0.022*	*395*
K5	P	0,34	0,38	0,42	0,46	0,48	0,50	70
	P	*0.013*	*0.015*	*0.017*	*0.018*	*0.019*	*0.020*	*230*
N1	N	0,38	0,42	0,46	0,50	0,55	0,55	350
	N	*0.015*	*0.017*	*0.018*	*0.020*	*0.022*	*0.022*	*1150*
N2	MS	0,38	0,42	0,46	0,50	0,55	0,55	225
	MS	*0.015*	*0.017*	*0.018*	*0.020*	*0.022*	*0.022*	*740*
N3	MS	0,38	0,42	0,46	0,50	0,55	0,55	150
	MS	*0.015*	*0.017*	*0.018*	*0.020*	*0.022*	*0.022*	*490*
N11	MS	0,38	0,42	0,46	0,50	0,55	0,55	285
	MS	*0.015*	*0.017*	*0.018*	*0.020*	*0.022*	*0.022*	*940*
S1	MS	0,11	0,13	0,15	0,16	0,17	0,19	39
	MS	*0.0044*	*0.0050*	*0.0060*	*0.0065*	*0.0065*	*0.0075*	*130*
S2	MS	0,11	0,13	0,15	0,16	0,17	0,19	28
	MS	*0.0044*	*0.0050*	*0.0060*	*0.0065*	*0.0065*	*0.0075*	*90*
S3	MS	0,11	0,13	0,15	0,16	0,17	0,19	28
	MS	*0.0044*	*0.0050*	*0.0060*	*0.0065*	*0.0065*	*0.0075*	*90*
S11	MS	0,17	0,19	0,22	0,24	0,25	0,26	70
	MS	*0.0065*	*0.0075*	*0.0085*	*0.0095*	*0.010*	*0.010*	*230*
S12	MS	0,17	0,19	0,22	0,24	0,25	0,26	55
	MS	*0.0065*	*0.0075*	*0.0085*	*0.0095*	*0.010*	*0.010*	*180*
S13	MS	0,15	0,17	0,19	0,20	0,22	0,22	43
	MS	*0.0060*	*0.0065*	*0.0075*	*0.0080*	*0.0085*	*0.0085*	*140*
H3	P	0,14	0,16	0,18	0,19	0,20	0,20	28
	P	*0.0055*	*0.0065*	*0.0070*	*0.0075*	*0.0080*	*0.0080*	*90*
H5	P	0,22	0,24	0,26	0,28	0,30	0,32	55
	P	*0.0085*	*0.0095*	*0.010*	*0.011*	*0.012*	*0.013*	*180*
H7	P	0,14	0,16	0,18	0,19	0,20	0,20	28
	P	*0.0055*	*0.0065*	*0.0070*	*0.0075*	*0.0080*	*0.0080*	*90*
H8	P	0,16	0,19	0,20	0,22	0,24	0,24	55
	P	*0.0065*	*0.0075*	*0.0080*	*0.0085*	*0.0095*	*0.0095*	*180*
H11	P	0,22	0,24	0,26	0,28	0,30	0,32	65
	P	*0.0085*	*0.0095*	*0.010*	*0.011*	*0.012*	*0.013*	*215*
H12	P	0,16	0,19	0,20	0,22	0,24	0,24	80
	P	*0.0065*	*0.0075*	*0.0080*	*0.0085*	*0.0095*	*0.0095*	*260*
H21	P	0,16	0,19	0,20	0,22	0,24	0,24	55
	P	*0.0065*	*0.0075*	*0.0080*	*0.0085*	*0.0095*	*0.0095*	*180*

SMG = Seco material group f = mm/rev (IPR) v_c = m/min (sf/min) All cutting data are start values

SD205A – ∅ 2-8 mm / *0.079-0.315 inch*

SMG		f						v_c
		Ø 2,00 *Ø 0.079*	Ø 3,00 *Ø 0.118*	Ø 4,00 *Ø 0.157*	Ø 5,00 *Ø 0.197*	Ø 6,00 *Ø 0.236*	Ø 8,00 *Ø 0.315*	
P1	P *P*	0,14 *0.0055*	0,17 *0.0065*	0,20 *0.0080*	0,24 *0.0095*	0,26 *0.010*	0,32 *0.013*	170 *560*
P2	P *P*	0,14 *0.0055*	0,17 *0.0065*	0,20 *0.0080*	0,24 *0.0095*	0,26 *0.010*	0,32 *0.013*	165 *540*
P3	P *P*	0,14 *0.0055*	0,16 *0.0065*	0,19 *0.0075*	0,22 *0.0085*	0,25 *0.010*	0,32 *0.013*	140 *460*
P4	P *P*	0,10 *0.0040*	0,13 *0.0050*	0,15 *0.0060*	0,17 *0.0065*	0,19 *0.0075*	0,24 *0.0095*	195 *640*
P5	P *P*	0,10 *0.0040*	0,12 *0.0048*	0,14 *0.0055*	0,17 *0.0065*	0,19 *0.0075*	0,22 *0.0085*	185 *610*
P6	P *P*	0,10 *0.0040*	0,12 *0.0048*	0,14 *0.0055*	0,16 *0.0065*	0,19 *0.0075*	0,22 *0.0085*	210 *690*
P7	P *P*	0,10 *0.0040*	0,12 *0.0048*	0,14 *0.0055*	0,16 *0.0065*	0,19 *0.0075*	0,22 *0.0085*	200 *660*
P8	P *P*	0,11 *0.0044*	0,13 *0.0050*	0,15 *0.0060*	0,17 *0.0065*	0,19 *0.0075*	0,24 *0.0095*	185 *610*
P11	P *P*	0,060 *0.0024*	0,075 *0.0030*	0,085 *0.0034*	0,10 *0.0040*	0,11 *0.0044*	0,14 *0.0055*	95 *310*
P12	P *P*	0,060 *0.0024*	0,075 *0.0030*	0,085 *0.0034*	0,10 *0.0040*	0,11 *0.0044*	0,14 *0.0055*	65 *215*
M1	MS *MS*	0,075 *0.0030*	0,095 *0.0038*	0,11 *0.0044*	0,13 *0.0050*	0,15 *0.0060*	0,19 *0.0075*	110 *360*
M2	MS *MS*	0,065 *0.0026*	0,085 *0.0034*	0,10 *0.0040*	0,12 *0.0048*	0,14 *0.0055*	0,17 *0.0065*	90 *295*
M3	MS *MS*	0,095 *0.0038*	0,11 *0.0044*	0,13 *0.0050*	0,15 *0.0060*	0,17 *0.0065*	0,20 *0.0080*	45 *150*
M4	MS *MS*	0,048 *0.0019*	0,060 *0.0024*	0,070 *0.0028*	0,085 *0.0034*	0,095 *0.0038*	0,12 *0.0048*	50 *165*
M5	MS *MS*	0,048 *0.0019*	0,060 *0.0024*	0,070 *0.0028*	0,085 *0.0034*	0,095 *0.0038*	0,12 *0.0048*	42 *140*
K1	P *P*	0,15 *0.0060*	0,18 *0.0070*	0,22 *0.0085*	0,25 *0.010*	0,28 *0.011*	0,36 *0.014*	160 *520*
K2	P *P*	0,14 *0.0055*	0,17 *0.0065*	0,20 *0.0080*	0,22 *0.0085*	0,26 *0.010*	0,32 *0.013*	135 *445*
K3	P *P*	0,14 *0.0055*	0,17 *0.0065*	0,20 *0.0080*	0,22 *0.0085*	0,26 *0.010*	0,32 *0.013*	115 *375*
K4	P *P*	0,14 *0.0055*	0,17 *0.0065*	0,20 *0.0080*	0,22 *0.0085*	0,26 *0.010*	0,32 *0.013*	110 *360*
K5	P *P*	0,12 *0.0048*	0,15 *0.0060*	0,18 *0.0070*	0,20 *0.0080*	0,24 *0.0095*	0,28 *0.011*	65 *215*
N1	N *N*	0,13 *0.0050*	0,16 *0.0065*	0,19 *0.0075*	0,22 *0.0085*	0,26 *0.010*	0,32 *0.013*	350 *1150*
N2	MS *MS*	0,13 *0.0050*	0,16 *0.0065*	0,19 *0.0075*	0,22 *0.0085*	0,26 *0.010*	0,32 *0.013*	225 *740*
N3	MS *MS*	0,13 *0.0050*	0,16 *0.0065*	0,19 *0.0075*	0,22 *0.0085*	0,26 *0.010*	0,32 *0.013*	150 *490*
N11	MS *MS*	0,13 *0.0050*	0,16 *0.0065*	0,19 *0.0075*	0,22 *0.0085*	0,26 *0.010*	0,32 *0.013*	285 *940*
S1	MS *MS*	0,040 *0.0016*	0,048 *0.0019*	0,055 *0.0022*	0,065 *0.0026*	0,075 *0.0030*	0,095 *0.0038*	39 *130*
S2	MS *MS*	0,040 *0.0016*	0,048 *0.0019*	0,055 *0.0022*	0,065 *0.0026*	0,075 *0.0030*	0,095 *0.0038*	28 *90*
S3	MS *MS*	0,040 *0.0016*	0,048 *0.0019*	0,055 *0.0022*	0,065 *0.0026*	0,075 *0.0030*	0,095 *0.0038*	28 *90*
S11	MS *MS*	0,070 *0.0028*	0,085 *0.0034*	0,095 *0.0038*	0,11 *0.0044*	0,12 *0.0048*	0,14 *0.0055*	70 *230*
S12	MS *MS*	0,070 *0.0028*	0,085 *0.0034*	0,095 *0.0038*	0,11 *0.0044*	0,12 *0.0048*	0,14 *0.0055*	55 *180*
S13	MS *MS*	0,065 *0.0026*	0,075 *0.0030*	0,085 *0.0034*	0,095 *0.0038*	0,10 *0.0040*	0,12 *0.0048*	43 *140*
H3	P *P*	0,055 *0.0022*	0,070 *0.0028*	0,080 *0.0032*	0,090 *0.0036*	0,10 *0.0040*	0,12 *0.0048*	26 *85*
H5	P *P*	0,085 *0.0034*	0,10 *0.0040*	0,12 *0.0048*	0,13 *0.0050*	0,15 *0.0060*	0,18 *0.0070*	48 *155*
H7	P *P*	0,055 *0.0022*	0,070 *0.0028*	0,080 *0.0032*	0,090 *0.0036*	0,10 *0.0040*	0,12 *0.0048*	26 *85*
H8	P *P*	0,065 *0.0026*	0,080 *0.0032*	0,090 *0.0036*	0,10 *0.0040*	0,12 *0.0048*	0,14 *0.0055*	48 *155*
H11	P *P*	0,085 *0.0034*	0,10 *0.0040*	0,12 *0.0048*	0,13 *0.0050*	0,15 *0.0060*	0,18 *0.0070*	60 *195*
H12	P *P*	0,065 *0.0026*	0,080 *0.0032*	0,090 *0.0036*	0,10 *0.0040*	0,12 *0.0048*	0,14 *0.0055*	70 *230*
H21	P *P*	0,065 *0.0026*	0,080 *0.0032*	0,090 *0.0036*	0,10 *0.0040*	0,12 *0.0048*	0,14 *0.0055*	48 *155*

SMG = Seco material group f = mm/rev (IPR) v_c = m/min (sf/min) All cutting data are start values

SD205A – ∅ 10-20 mm / *0.394-0.787 inch*

SMG		f						v_c
		Ø 10,00 *Ø 0.394*	Ø 12,00 *Ø 0.472*	Ø 14,00 *Ø 0.551*	Ø 16,00 *Ø 0.630*	Ø 18,00 *Ø 0.709*	Ø 20,00 *Ø 0.787*	
P1	P	0,38	0,44	0,48	0,50	0,55	0,55	170
	P	*0.015*	*0.017*	*0.019*	*0.020*	*0.022*	*0.022*	*560*
P2	P	0,38	0,44	0,48	0,50	0,55	0,60	165
	P	*0.015*	*0.017*	*0.019*	*0.020*	*0.022*	*0.024*	*540*
P3	P	0,36	0,42	0,46	0,50	0,50	0,55	140
	P	*0.014*	*0.017*	*0.018*	*0.020*	*0.020*	*0.022*	*460*
P4	P	0,28	0,30	0,34	0,36	0,38	0,40	195
	P	*0.011*	*0.012*	*0.013*	*0.014*	*0.015*	*0.016*	*640*
P5	P	0,26	0,30	0,32	0,34	0,36	0,38	185
	P	*0.010*	*0.012*	*0.013*	*0.013*	*0.014*	*0.015*	*610*
P6	P	0,26	0,30	0,32	0,34	0,36	0,38	210
	P	*0.010*	*0.012*	*0.013*	*0.013*	*0.014*	*0.015*	*690*
P7	P	0,26	0,30	0,32	0,34	0,36	0,38	200
	P	*0.010*	*0.012*	*0.013*	*0.013*	*0.014*	*0.015*	*660*
P8	P	0,28	0,32	0,34	0,36	0,38	0,40	185
	P	*0.011*	*0.013*	*0.013*	*0.014*	*0.015*	*0.016*	*610*
P11	P	0,16	0,18	0,20	0,22	0,24	0,24	95
	P	*0.0065*	*0.0070*	*0.0080*	*0.0085*	*0.0095*	*0.0095*	*310*
M1	MS	0,22	0,25	0,28	0,30	0,30	0,32	110
	MS	*0.0085*	*0.010*	*0.011*	*0.012*	*0.012*	*0.013*	*360*
M2	MS	0,20	0,22	0,25	0,26	0,28	0,30	90
	MS	*0.0080*	*0.0085*	*0.010*	*0.010*	*0.011*	*0.012*	*295*
M3	MS	0,24	0,26	0,28	0,30	0,32	0,34	45
	MS	*0.0095*	*0.010*	*0.011*	*0.012*	*0.013*	*0.013*	*150*
M4	MS	0,14	0,16	0,17	0,19	0,20	0,20	50
	MS	*0.0055*	*0.0065*	*0.0065*	*0.0075*	*0.0080*	*0.0080*	*165*
M5	MS	0,14	0,16	0,17	0,19	0,20	0,20	42
	MS	*0.0055*	*0.0065*	*0.0065*	*0.0075*	*0.0080*	*0.0080*	*140*
K1	P	0,42	0,48	0,50	0,55	0,60	0,65	160
	P	*0.017*	*0.019*	*0.020*	*0.022*	*0.024*	*0.026*	*520*
K2	P	0,38	0,42	0,48	0,50	0,55	0,55	135
	P	*0.015*	*0.017*	*0.019*	*0.020*	*0.022*	*0.022*	*445*
K3	P	0,38	0,42	0,48	0,50	0,55	0,55	115
	P	*0.015*	*0.017*	*0.019*	*0.020*	*0.022*	*0.022*	*375*
K4	P	0,38	0,42	0,48	0,50	0,55	0,55	110
	P	*0.015*	*0.017*	*0.019*	*0.020*	*0.022*	*0.022*	*360*
K5	P	0,34	0,38	0,42	0,46	0,48	0,50	65
	P	*0.013*	*0.015*	*0.017*	*0.018*	*0.019*	*0.020*	*215*
N1	N	0,38	0,42	0,46	0,50	0,55	0,55	350
	N	*0.015*	*0.017*	*0.018*	*0.020*	*0.022*	*0.022*	*1150*
N2	MS	0,38	0,42	0,46	0,50	0,55	0,55	225
	MS	*0.015*	*0.017*	*0.018*	*0.020*	*0.022*	*0.022*	*740*
N3	MS	0,38	0,42	0,46	0,50	0,55	0,55	150
	MS	*0.015*	*0.017*	*0.018*	*0.020*	*0.022*	*0.022*	*490*
N11	MS	0,38	0,42	0,46	0,50	0,55	0,55	285
	MS	*0.015*	*0.017*	*0.018*	*0.020*	*0.022*	*0.022*	*940*
S1	MS	0,11	0,13	0,15	0,16	0,17	0,19	39
	MS	*0.0044*	*0.0050*	*0.0060*	*0.0065*	*0.0065*	*0.0075*	*130*
S2	MS	0,11	0,13	0,15	0,16	0,17	0,19	28
	MS	*0.0044*	*0.0050*	*0.0060*	*0.0065*	*0.0065*	*0.0075*	*90*
S3	MS	0,11	0,13	0,15	0,16	0,17	0,19	28
	MS	*0.0044*	*0.0050*	*0.0060*	*0.0065*	*0.0065*	*0.0075*	*90*
S11	MS	0,17	0,19	0,22	0,24	0,25	0,26	70
	MS	*0.0065*	*0.0075*	*0.0085*	*0.0095*	*0.010*	*0.010*	*230*
S12	MS	0,17	0,19	0,22	0,24	0,25	0,26	55
	MS	*0.0065*	*0.0075*	*0.0085*	*0.0095*	*0.010*	*0.010*	*180*
S13	MS	0,15	0,17	0,19	0,20	0,22	0,22	43
	MS	*0.0060*	*0.0065*	*0.0075*	*0.0080*	*0.0085*	*0.0085*	*140*
H3	P	0,14	0,16	0,18	0,19	0,20	0,20	26
	P	*0.0055*	*0.0065*	*0.0070*	*0.0075*	*0.0080*	*0.0080*	*85*
H5	P	0,22	0,24	0,26	0,28	0,30	0,32	48
	P	*0.0085*	*0.0095*	*0.010*	*0.011*	*0.012*	*0.013*	*155*
H7	P	0,14	0,16	0,18	0,19	0,20	0,20	26
	P	*0.0055*	*0.0065*	*0.0070*	*0.0075*	*0.0080*	*0.0080*	*85*
H8	P	0,16	0,19	0,20	0,22	0,24	0,24	48
	P	*0.0065*	*0.0075*	*0.0080*	*0.0085*	*0.0095*	*0.0095*	*155*
H11	P	0,22	0,24	0,26	0,28	0,30	0,32	60
	P	*0.0085*	*0.0095*	*0.010*	*0.011*	*0.012*	*0.013*	*195*
H12	P	0,16	0,19	0,20	0,22	0,24	0,24	70
	P	*0.0065*	*0.0075*	*0.0080*	*0.0085*	*0.0095*	*0.0095*	*230*
H21	P	0,16	0,19	0,20	0,22	0,24	0,24	48
	P	*0.0065*	*0.0075*	*0.0080*	*0.0085*	*0.0095*	*0.0095*	*155*

SMG = Seco material group f = mm/rev (IPR) v_c = m/min (sf/min) All cutting data are start values

SD206 – ∅ 0,7-2 mm / *0.0276-0.0787 inch*

SMG		f			v_c
		Ø 0,70 *Ø 0.0276*	Ø 1,00 *Ø 0.0394*	Ø 2,00 *Ø 0,0787*	
P1	P	0,080	0,090	0,11	140
	P	*0.0032*	*0.0036*	*0.0044*	*460*
P2	P	0,085	0,090	0,12	140
	P	*0.0034*	*0.0036*	*0.0048*	*460*
P3	P	0,080	0,085	0,11	120
	P	*0.0032*	*0.0034*	*0.0044*	*395*
P4	P	0,080	0,085	0,11	105
	P	*0.0032*	*0.0034*	*0.0044*	*345*
P5	P	0,075	0,085	0,11	100
	P	*0.0030*	*0.0034*	*0.0044*	*330*
P6	P	0,075	0,080	0,10	110
	P	*0.0030*	*0.0032*	*0.0040*	*360*
P7	P	0,075	0,080	0,10	105
	P	*0.0030*	*0.0032*	*0.0040*	*345*
P8	P	0,080	0,085	0,11	100
	P	*0.0032*	*0.0034*	*0.0044*	*330*
P11	P	0,075	0,080	0,10	105
	P	*0.0030*	*0.0032*	*0.0040*	*345*
P12	P	0,050	0,055	0,070	60
	P	*0.0020*	*0.0022*	*0.0028*	*195*
K1	P	0,085	0,090	0,12	100
	P	*0.0034*	*0.0036*	*0.0048*	*330*
K2	P	0,075	0,085	0,11	85
	P	*0.0030*	*0.0034*	*0.0044*	*280*
K3	P	0,075	0,085	0,11	75
	P	*0.0030*	*0.0034*	*0.0044*	*245*
K4	P	0,075	0,085	0,11	70
	P	*0.0030*	*0.0034*	*0.0044*	*230*
K5	P	0,070	0,075	0,095	42
	P	*0.0028*	*0.0030*	*0.0038*	*140*

SMG = Seco material group f = mm/rev (IPR) v_c = m/min (sf/min) All cutting data are start values

SD206A – ∅ 1-2 mm / *0.0394-0.0787 inch*

SMG		f			v_c
		Ø 1,00 *Ø 0.0394*	Ø 1,50 *Ø 0.0591*	Ø 2,00 *Ø 0.0787*	
P1	P	0,090	0,10	0,11	175
	P	*0.0036*	*0.0040*	*0.0044*	*570*
P2	P	0,090	0,10	0,12	170
	P	*0.0036*	*0.0040*	*0.0048*	*560*
P3	P	0,085	0,10	0,11	145
	P	*0.0034*	*0.0040*	*0.0044*	*475*
P4	P	0,085	0,095	0,11	130
	P	*0.0034*	*0.0038*	*0.0044*	*425*
P5	P	0,085	0,095	0,11	125
	P	*0.0034*	*0.0038*	*0.0044*	*410*
P6	P	0,080	0,095	0,10	140
	P	*0.0032*	*0.0038*	*0.0040*	*460*
P7	P	0,080	0,095	0,10	130
	P	*0.0032*	*0.0038*	*0.0040*	*425*
P8	P	0,085	0,10	0,11	125
	P	*0.0034*	*0.0040*	*0.0044*	*410*
P11	P	0,080	0,095	0,10	125
	P	*0.0032*	*0.0038*	*0.0040*	*410*
P12	P	0,055	0,065	0,070	75
	P	*0.0022*	*0.0026*	*0.0028*	*245*
M1	P	0,055	0,065	0,075	95
	P	*0.0022*	*0.0026*	*0.0030*	*310*
M2	P	0,050	0,060	0,070	75
	P	*0.0020*	*0.0024*	*0.0028*	*245*
M3	P	0,042	0,048	0,055	60
	P	*0.0017*	*0.0019*	*0.0022*	*195*
M4	P	0,036	0,042	0,048	43
	P	*0.0014*	*0.0017*	*0.0019*	*140*
M5	P	0,036	0,042	0,048	36
	P	*0.0014*	*0.0017*	*0.0019*	*120*
K1	P	0,095	0,11	0,12	115
	P	*0.0038*	*0.0044*	*0.0048*	*375*
K2	P	0,085	0,10	0,11	100
	P	*0.0034*	*0.0040*	*0.0044*	*330*
K3	P	0,085	0,10	0,11	85
	P	*0.0034*	*0.0040*	*0.0044*	*280*
K4	P	0,085	0,10	0,11	80
	P	*0.0034*	*0.0040*	*0.0044*	*260*
K5	P	0,075	0,090	0,10	47
	P	*0.0030*	*0.0036*	*0.0040*	*155*
N2	P	0,10	0,12	0,13	190
	P	*0.0040*	*0.0048*	*0.0050*	*620*
N3	P	0,10	0,12	0,13	125
	P	*0.0040*	*0.0048*	*0.0050*	*410*

SMG = Seco material group f = mm/rev (IPR) v_c = m/min (sf/min) All cutting data are start values

SMG		f										v_c
		Ø 3,00 *Ø 0.118*	Ø 5,00 *Ø 0.197*	Ø 6,00 *Ø 0.236*	Ø 8,00 *Ø 0.315*	Ø 10,00 *Ø 0.394*	Ø 12,00 *Ø 0.472*	Ø 14,00 *Ø 0.551*	Ø 16,00 *Ø 0.630*	Ø 18,00 *Ø 0.709*	Ø 20,00 *Ø 0.787*	
P1	P	0,17	0,24	0,26	0,32	0,38	0,44	0,48	0,50	0,55	0,55	155
	P	*0.0065*	*0.0095*	*0.010*	*0.013*	*0.015*	*0.017*	*0.019*	*0.020*	*0.022*	*0.022*	*510*
P2	P	0,17	0,24	0,26	0,32	0,38	0,44	0,48	0,50	0,55	0,60	155
	P	*0.0065*	*0.0095*	*0.010*	*0.013*	*0.015*	*0.017*	*0.019*	*0.020*	*0.022*	*0.024*	*510*
P3	P	0,16	0,22	0,25	0,32	0,36	0,42	0,46	0,50	0,50	0,55	130
	P	*0.0065*	*0.0085*	*0.010*	*0.013*	*0.014*	*0.017*	*0.018*	*0.020*	*0.020*	*0.022*	*425*
P4	P	0,13	0,17	0,19	0,24	0,28	0,30	0,34	0,36	0,38	0,40	180
	P	*0.0050*	*0.0065*	*0.0075*	*0.0095*	*0.011*	*0.012*	*0.013*	*0.014*	*0.015*	*0.016*	*590*
P5	P	0,12	0,17	0,19	0,22	0,26	0,30	0,32	0,34	0,36	0,38	175
	P	*0.0048*	*0.0065*	*0.0075*	*0.0085*	*0.010*	*0.012*	*0.013*	*0.013*	*0.014*	*0.015*	*570*
P6	P	0,12	0,16	0,19	0,22	0,26	0,30	0,32	0,34	0,36	0,38	195
	P	*0.0048*	*0.0065*	*0.0075*	*0.0085*	*0.010*	*0.012*	*0.013*	*0.013*	*0.014*	*0.015*	*640*
P7	P	0,12	0,16	0,19	0,22	0,26	0,30	0,32	0,34	0,36	0,38	185
	P	*0.0048*	*0.0065*	*0.0075*	*0.0085*	*0.010*	*0.012*	*0.013*	*0.013*	*0.014*	*0.015*	*610*
P8	P	0,13	0,17	0,19	0,24	0,28	0,32	0,34	0,36	0,38	0,40	175
	P	*0.0050*	*0.0065*	*0.0075*	*0.0095*	*0.011*	*0.013*	*0.013*	*0.014*	*0.015*	*0.016*	*570*
P11	P	0,075	0,10	0,11	0,14	0,16	0,18	0,20	0,22	0,24	0,24	90
	P	*0.0030*	*0.0040*	*0.0044*	*0.0055*	*0.0065*	*0.0070*	*0.0080*	*0.0085*	*0.0095*	*0.0095*	*295*
M1	P	0,095	0,13	0,15	0,19	0,22	0,25	0,28	0,30	0,30	0,32	50
	P	*0.0038*	*0.0050*	*0.0060*	*0.0075*	*0.0085*	*0.010*	*0.011*	*0.012*	*0.012*	*0.013*	*165*
M2	P	0,085	0,12	0,14	0,17	0,20	0,22	0,25	0,26	0,28	0,30	41
	P	*0.0034*	*0.0048*	*0.0055*	*0.0065*	*0.0080*	*0.0085*	*0.010*	*0.010*	*0.011*	*0.012*	*135*
M3	P	0,065	0,095	0,11	0,14	0,16	0,18	0,20	0,22	0,22	0,24	31
	P	*0.0026*	*0.0038*	*0.0044*	*0.0055*	*0.0065*	*0.0070*	*0.0080*	*0.0085*	*0.0085*	*0.0095*	*100*
M4	P	0,060	0,085	0,095	0,12	0,14	0,16	0,17	0,19	0,20	0,20	24
	P	*0.0024*	*0.0034*	*0.0038*	*0.0048*	*0.0055*	*0.0065*	*0.0065*	*0.0075*	*0.0080*	*0.0080*	*80*
M5	P	0,060	0,085	0,095	0,12	0,14	0,16	0,17	0,19	0,20	0,20	20
	P	*0.0024*	*0.0034*	*0.0038*	*0.0048*	*0.0055*	*0.0065*	*0.0065*	*0.0075*	*0.0080*	*0.0080*	*65*
K1	P	0,18	0,25	0,28	0,36	0,42	0,48	0,50	0,55	0,60	0,65	150
	P	*0.0070*	*0.010*	*0.011*	*0.014*	*0.017*	*0.019*	*0.020*	*0.022*	*0.024*	*0.026*	*490*
K2	P	0,17	0,22	0,26	0,32	0,38	0,42	0,48	0,50	0,55	0,55	130
	P	*0.0065*	*0.0085*	*0.010*	*0.013*	*0.015*	*0.017*	*0.019*	*0.020*	*0.022*	*0.022*	*425*
K3	P	0,17	0,22	0,26	0,32	0,38	0,42	0,48	0,50	0,55	0,55	110
	P	*0.0065*	*0.0085*	*0.010*	*0.013*	*0.015*	*0.017*	*0.019*	*0.020*	*0.022*	*0.022*	*360*
K4	P	0,17	0,22	0,26	0,32	0,38	0,42	0,48	0,50	0,55	0,55	105
	P	*0.0065*	*0.0085*	*0.010*	*0.013*	*0.015*	*0.017*	*0.019*	*0.020*	*0.022*	*0.022*	*345*
K5	P	0,15	0,20	0,24	0,28	0,34	0,38	0,42	0,46	0,48	0,50	60
	P	*0.0060*	*0.0080*	*0.0095*	*0.011*	*0.013*	*0.015*	*0.017*	*0.018*	*0.019*	*0.020*	*195*
H3	P	0,070	0,090	0,10	0,12	0,14	0,16	0,18	0,19	0,20	0,20	24
	P	*0.0028*	*0.0036*	*0.0040*	*0.0048*	*0.0055*	*0.0065*	*0.0070*	*0.0075*	*0.0080*	*0.0080*	*80*
H5	P	0,10	0,13	0,15	0,18	0,22	0,24	0,26	0,28	0,30	0,32	45
	P	*0.0040*	*0.0050*	*0.0060*	*0.0070*	*0.0085*	*0.0095*	*0.010*	*0.011*	*0.012*	*0.013*	*150*
H7	P	0,070	0,090	0,10	0,12	0,14	0,16	0,18	0,19	0,20	0,20	24
	P	*0.0028*	*0.0036*	*0.0040*	*0.0048*	*0.0055*	*0.0065*	*0.0070*	*0.0075*	*0.0080*	*0.0080*	*80*
H8	P	0,080	0,10	0,12	0,14	0,16	0,19	0,20	0,22	0,24	0,24	45
	P	*0.0032*	*0.0040*	*0.0048*	*0.0055*	*0.0065*	*0.0075*	*0.0080*	*0.0085*	*0.0095*	*0.0095*	*150*
H11	P	0,10	0,13	0,15	0,18	0,22	0,24	0,26	0,28	0,30	0,32	60
	P	*0.0040*	*0.0050*	*0.0060*	*0.0070*	*0.0085*	*0.0095*	*0.010*	*0.011*	*0.012*	*0.013*	*195*
H12	P	0,080	0,10	0,12	0,14	0,16	0,19	0,20	0,22	0,24	0,24	65
	P	*0.0032*	*0.0040*	*0.0048*	*0.0055*	*0.0065*	*0.0075*	*0.0080*	*0.0085*	*0.0095*	*0.0095*	*215*
H21	P	0,080	0,10	0,12	0,14	0,16	0,19	0,20	0,22	0,24	0,24	45
	P	*0.0032*	*0.0040*	*0.0048*	*0.0055*	*0.0065*	*0.0075*	*0.0080*	*0.0085*	*0.0095*	*0.0095*	*150*

SMG = Seco material group f = mm/rev (IPR) v_c = m/min (sf/min) All cutting data are start values

SD216A – ∅ 3-14 mm / *0.118-0.551 inch*

SMG		f							v_c
		Ø 3,00 *Ø 0.118*	Ø 5,00 *Ø 0.197*	Ø 6,00 *Ø 0.236*	Ø 8,00 *Ø 0.315*	Ø 10,00 *Ø 0.394*	Ø 12,00 *Ø 0.472*	Ø 14,00 *Ø 0.551*	
P1	P	0,13	0,18	0,20	0,25	0,30	0,32	0,36	125
	P	*0.0050*	*0.0070*	*0.0080*	*0.010*	*0.012*	*0.013*	*0.014*	*410*
P2	P	0,14	0,18	0,20	0,26	0,30	0,34	0,36	120
	P	*0.0055*	*0.0070*	*0.0080*	*0.010*	*0.012*	*0.013*	*0.014*	*395*
P3	P	0,13	0,17	0,20	0,24	0,28	0,32	0,34	105
	P	*0.0050*	*0.0065*	*0.0080*	*0.0095*	*0.011*	*0.013*	*0.013*	*345*
P4	P	0,13	0,17	0,19	0,24	0,28	0,30	0,34	90
	P	*0.0050*	*0.0065*	*0.0075*	*0.0095*	*0.011*	*0.012*	*0.013*	*295*
P5	P	0,12	0,17	0,19	0,24	0,28	0,30	0,34	85
	P	*0.0048*	*0.0065*	*0.0075*	*0.0095*	*0.011*	*0.012*	*0.013*	*280*
P6	P	0,12	0,17	0,19	0,24	0,26	0,30	0,32	95
	P	*0.0048*	*0.0065*	*0.0075*	*0.0095*	*0.010*	*0.012*	*0.013*	*310*
P7	P	0,12	0,17	0,19	0,24	0,26	0,30	0,32	90
	P	*0.0048*	*0.0065*	*0.0075*	*0.0095*	*0.010*	*0.012*	*0.013*	*295*
P8	P	0,13	0,17	0,20	0,24	0,28	0,32	0,34	85
	P	*0.0050*	*0.0065*	*0.0080*	*0.0095*	*0.011*	*0.013*	*0.013*	*280*
P11	P	0,12	0,17	0,19	0,24	0,26	0,30	0,32	90
	P	*0.0048*	*0.0065*	*0.0075*	*0.0095*	*0.010*	*0.012*	*0.013*	*295*
P12	P	0,085	0,11	0,13	0,16	0,18	0,20	0,22	55
	P	*0.0034*	*0.0044*	*0.0050*	*0.0065*	*0.0070*	*0.0080*	*0.0085*	*180*
M1	P	0,095	0,13	0,15	0,19	0,22	0,25	0,28	65
	P	*0.0038*	*0.0050*	*0.0060*	*0.0075*	*0.0085*	*0.010*	*0.011*	*215*
M2	P	0,085	0,12	0,14	0,17	0,20	0,22	0,25	55
	P	*0.0034*	*0.0048*	*0.0055*	*0.0065*	*0.0080*	*0.0085*	*0.010*	*180*
M3	P	0,070	0,095	0,11	0,14	0,16	0,18	0,20	41
	P	*0.0028*	*0.0038*	*0.0044*	*0.0055*	*0.0065*	*0.0070*	*0.0080*	*135*
M4	P	0,060	0,085	0,095	0,12	0,14	0,16	0,18	31
	P	*0.0024*	*0.0034*	*0.0038*	*0.0048*	*0.0055*	*0.0065*	*0.0070*	*100*
M5	P	0,060	0,085	0,095	0,12	0,14	0,16	0,18	25
	P	*0.0024*	*0.0034*	*0.0038*	*0.0048*	*0.0055*	*0.0065*	*0.0070*	*80*
K1	P	0,15	0,22	0,24	0,30	0,36	0,40	0,44	80
	P	*0.0060*	*0.0085*	*0.0095*	*0.012*	*0.014*	*0.016*	*0.017*	*260*
K2	P	0,14	0,19	0,22	0,28	0,32	0,36	0,40	70
	P	*0.0055*	*0.0075*	*0.0085*	*0.011*	*0.013*	*0.014*	*0.016*	*230*
K3	P	0,14	0,19	0,22	0,28	0,32	0,36	0,40	60
	P	*0.0055*	*0.0075*	*0.0085*	*0.011*	*0.013*	*0.014*	*0.016*	*195*
K4	P	0,14	0,19	0,22	0,28	0,32	0,36	0,40	55
	P	*0.0055*	*0.0075*	*0.0085*	*0.011*	*0.013*	*0.014*	*0.016*	*180*
K5	P	0,12	0,17	0,20	0,25	0,30	0,32	0,36	33
	P	*0.0048*	*0.0065*	*0.0080*	*0.010*	*0.012*	*0.013*	*0.014*	*110*
N2	P	0,16	0,22	0,26	0,32	0,38	0,42	0,46	135
	P	*0.0065*	*0.0085*	*0.010*	*0.013*	*0.015*	*0.017*	*0.018*	*445*
N3	P	0,16	0,22	0,26	0,32	0,38	0,42	0,46	90
	P	*0.0065*	*0.0085*	*0.010*	*0.013*	*0.015*	*0.017*	*0.018*	*295*
H3	P	0,055	0,075	0,085	0,10	0,12	0,14	0,15	22
	P	*0.0022*	*0.0030*	*0.0034*	*0.0040*	*0.0048*	*0.0055*	*0.0060*	*70*
H5	P	0,085	0,11	0,13	0,16	0,18	0,20	0,22	40
	P	*0.0034*	*0.0044*	*0.0050*	*0.0065*	*0.0070*	*0.0080*	*0.0085*	*130*
H7	P	0,055	0,075	0,085	0,10	0,12	0,14	0,15	22
	P	*0.0022*	*0.0030*	*0.0034*	*0.0040*	*0.0048*	*0.0055*	*0.0060*	*70*
H8	P	0,065	0,085	0,10	0,12	0,14	0,16	0,17	40
	P	*0.0026*	*0.0034*	*0.0040*	*0.0048*	*0.0055*	*0.0065*	*0.0065*	*130*
H11	P	0,085	0,11	0,13	0,16	0,18	0,20	0,22	50
	P	*0.0034*	*0.0044*	*0.0050*	*0.0065*	*0.0070*	*0.0080*	*0.0085*	*165*
H12	P	0,065	0,085	0,10	0,12	0,14	0,16	0,17	31
	P	*0.0026*	*0.0034*	*0.0040*	*0.0048*	*0.0055*	*0.0065*	*0.0065*	*100*
H21	P	0,065	0,085	0,10	0,12	0,14	0,16	0,17	40
	P	*0.0026*	*0.0034*	*0.0040*	*0.0048*	*0.0055*	*0.0065*	*0.0065*	*130*

SMG = Seco material group f = mm/rev (IPR) v_c = m/min (sf/min) All cutting data are start values

SMG		f						v_c
		Ø 3,00 *Ø 0.118*	Ø 5,00 *Ø 0.197*	Ø 6,00 *Ø 0.236*	Ø 8,00 *Ø 0.315*	Ø 10,00 *Ø 0.394*	Ø 12,00 *Ø 0.472*	
P1	P	0,13	0,18	0,20	0,25	0,30	0,32	90
	P	*0.0050*	*0.0070*	*0.0080*	*0.010*	*0.012*	*0.013*	*295*
P2	P	0,14	0,18	0,20	0,26	0,30	0,34	90
	P	*0.0055*	*0.0070*	*0.0080*	*0.010*	*0.012*	*0.013*	*295*
P3	P	0,13	0,17	0,20	0,24	0,28	0,32	75
	P	*0.0050*	*0.0065*	*0.0080*	*0.0095*	*0.011*	*0.013*	*245*
P4	P	0,13	0,17	0,19	0,24	0,28	0,30	70
	P	*0.0050*	*0.0065*	*0.0075*	*0.0095*	*0.011*	*0.012*	*230*
P5	P	0,12	0,17	0,19	0,24	0,28	0,30	65
	P	*0.0048*	*0.0065*	*0.0075*	*0.0095*	*0.011*	*0.012*	*215*
P6	P	0,12	0,17	0,19	0,24	0,26	0,30	75
	P	*0.0048*	*0.0065*	*0.0075*	*0.0095*	*0.010*	*0.012*	*245*
P7	P	0,12	0,17	0,19	0,24	0,26	0,30	70
	P	*0.0048*	*0.0065*	*0.0075*	*0.0095*	*0.010*	*0.012*	*230*
P8	P	0,13	0,17	0,20	0,24	0,28	0,32	65
	P	*0.0050*	*0.0065*	*0.0080*	*0.0095*	*0.011*	*0.013*	*215*
P11	P	0,12	0,17	0,19	0,24	0,26	0,30	65
	P	*0.0048*	*0.0065*	*0.0075*	*0.0095*	*0.010*	*0.012*	*215*
P12	P	0,085	0,11	0,13	0,16	0,18	0,20	39
	P	*0.0034*	*0.0044*	*0.0050*	*0.0065*	*0.0070*	*0.0080*	*130*
M1	P	0,095	0,13	0,15	0,19	0,22	0,25	50
	P	*0.0038*	*0.0050*	*0.0060*	*0.0075*	*0.0085*	*0.010*	*165*
M2	P	0,085	0,12	0,14	0,17	0,20	0,22	40
	P	*0.0034*	*0.0048*	*0.0055*	*0.0065*	*0.0080*	*0.0085*	*130*
M3	P	0,070	0,095	0,11	0,14	0,16	0,18	30
	P	*0.0028*	*0.0038*	*0.0044*	*0.0055*	*0.0065*	*0.0070*	*100*
M4	P	0,060	0,085	0,095	0,12	0,14	0,16	23
	P	*0.0024*	*0.0034*	*0.0038*	*0.0048*	*0.0055*	*0.0065*	*75*
M5	P	0,060	0,085	0,095	0,12	0,14	0,16	19
	P	*0.0024*	*0.0034*	*0.0038*	*0.0048*	*0.0055*	*0.0065*	*60*
K1	P	0,15	0,22	0,24	0,30	0,36	0,40	60
	P	*0.0060*	*0.0085*	*0.0095*	*0.012*	*0.014*	*0.016*	*195*
K2	P	0,14	0,19	0,22	0,28	0,32	0,36	50
	P	*0.0055*	*0.0075*	*0.0085*	*0.011*	*0.013*	*0.014*	*165*
K3	P	0,14	0,19	0,22	0,28	0,32	0,36	44
	P	*0.0055*	*0.0075*	*0.0085*	*0.011*	*0.013*	*0.014*	*145*
K4	P	0,14	0,19	0,22	0,28	0,32	0,36	42
	P	*0.0055*	*0.0075*	*0.0085*	*0.011*	*0.013*	*0.014*	*140*
K5	P	0,12	0,17	0,20	0,25	0,30	0,32	25
	P	*0.0048*	*0.0065*	*0.0080*	*0.010*	*0.012*	*0.013*	*80*
N2	P	0,16	0,22	0,26	0,32	0,38	0,42	100
	P	*0.0065*	*0.0085*	*0.010*	*0.013*	*0.015*	*0.017*	*330*
N3	P	0,16	0,22	0,26	0,32	0,38	0,42	65
	P	*0.0065*	*0.0085*	*0.010*	*0.013*	*0.015*	*0.017*	*215*
H3	P	0,055	0,075	0,085	0,10	0,12	0,14	16
	P	*0.0022*	*0.0030*	*0.0034*	*0.0040*	*0.0048*	*0.0055*	*50*
H5	P	0,085	0,11	0,13	0,16	0,18	0,20	30
	P	*0.0034*	*0.0044*	*0.0050*	*0.0065*	*0.0070*	*0.0080*	*100*
H7	P	0,055	0,075	0,085	0,10	0,12	0,14	16
	P	*0.0022*	*0.0030*	*0.0034*	*0.0040*	*0.0048*	*0.0055*	*50*
H8	P	0,065	0,085	0,10	0,12	0,14	0,16	30
	P	*0.0026*	*0.0034*	*0.0040*	*0.0048*	*0.0055*	*0.0065*	*100*
H11	P	0,085	0,11	0,13	0,16	0,18	0,20	39
	P	*0.0034*	*0.0044*	*0.0050*	*0.0065*	*0.0070*	*0.0080*	*130*
H12	P	0,065	0,085	0,10	0,12	0,14	0,16	24
	P	*0.0026*	*0.0034*	*0.0040*	*0.0048*	*0.0055*	*0.0065*	*80*
H21	P	0,065	0,085	0,10	0,12	0,14	0,16	30
	P	*0.0026*	*0.0034*	*0.0040*	*0.0048*	*0.0055*	*0.0065*	*100*

SMG = Seco material group f = mm/rev (IPR) v_c = m/min (sf/min) All cutting data are start values

SD2040-2060A – ∅ 3-8 mm / *0.118-0.315 inch*

SMG	f				v_c
	Ø3,00 *Ø 0.118*	Ø5,00 *Ø 0.197*	Ø6,00 *Ø 0.236*	Ø8,00 *Ø 0.315*	
P1	0,14 *0.0055*	0,18 *0.0070*	0,20 *0.0080*	0,25 *0.010*	85 *280*
P2	0,14 *0.0055*	0,19 *0.0075*	0,22 *0.0085*	0,26 *0.010*	85 *280*
P3	0,13 *0.0050*	0,18 *0.0070*	0,20 *0.0080*	0,25 *0.010*	70 *230*
P4	0,13 *0.0050*	0,17 *0.0065*	0,20 *0.0080*	0,24 *0.0095*	65 *215*
P5	0,13 *0.0050*	0,17 *0.0065*	0,19 *0.0075*	0,24 *0.0095*	60 *195*
P6	0,12 *0.0048*	0,17 *0.0065*	0,19 *0.0075*	0,24 *0.0095*	65 *215*
P7	0,12 *0.0048*	0,17 *0.0065*	0,19 *0.0075*	0,24 *0.0095*	65 *215*
P8	0,13 *0.0050*	0,18 *0.0070*	0,20 *0.0080*	0,25 *0.010*	60 *195*
P11	0,12 *0.0048*	0,17 *0.0065*	0,19 *0.0075*	0,24 *0.0095*	60 *195*
P12	0,085 *0.0034*	0,12 *0.0048*	0,13 *0.0050*	0,16 *0.0065*	36 *120*
M1	0,095 *0.0038*	0,13 *0.0050*	0,15 *0.0060*	0,19 *0.0075*	37 *120*
M2	0,085 *0.0034*	0,12 *0.0048*	0,14 *0.0055*	0,17 *0.0065*	30 *100*
M3	0,070 *0.0028*	0,095 *0.0038*	0,11 *0.0044*	0,14 *0.0055*	23 *75*
M4	0,060 *0.0024*	0,085 *0.0034*	0,095 *0.0038*	0,12 *0.0048*	17 *55*
M5	0,060 *0.0024*	0,085 *0.0034*	0,095 *0.0038*	0,12 *0.0048*	14 *46*
K1	0,15 *0.0060*	0,22 *0.0085*	0,25 *0.010*	0,30 *0.012*	43 *140*
K2	0,14 *0.0055*	0,20 *0.0080*	0,22 *0.0085*	0,28 *0.011*	37 *120*
K3	0,14 *0.0055*	0,20 *0.0080*	0,22 *0.0085*	0,28 *0.011*	31 *100*
K4	0,14 *0.0055*	0,20 *0.0080*	0,22 *0.0085*	0,28 *0.011*	30 *100*
K5	0,13 *0.0050*	0,18 *0.0070*	0,20 *0.0080*	0,25 *0.010*	18 *60*
N2	0,16 *0.0065*	0,22 *0.0085*	0,26 *0.010*	0,32 *0.013*	105 *345*
N3	0,16 *0.0065*	0,22 *0.0085*	0,26 *0.010*	0,32 *0.013*	70 *230*

SMG = Seco material group f = mm/rev (IPR) v_c = m/min (sf/min) All cutting data are start values

SMG		f							v_c
		Ø 4,00 *Ø 0.157*	Ø 6,00 *Ø 0.236*	Ø 8,00 *Ø 0.315*	Ø 10,00 *Ø 0.394*	Ø 12,00 *Ø 0.472*	Ø 14,00 *Ø 0.551*	Ø 16,00 *Ø 0.630*	
P1	P	0,11	0,15	0,19	0,22	0,26	0,28	0,32	185
	P	*0.0044*	*0.0060*	*0.0075*	*0.0085*	*0.010*	*0.011*	*0.013*	*610*
P2	P	0,11	0,15	0,19	0,22	0,26	0,30	0,32	180
	P	*0.0044*	*0.0060*	*0.0075*	*0.0085*	*0.010*	*0.012*	*0.013*	*590*
P3	P	0,11	0,14	0,18	0,22	0,25	0,28	0,30	155
	P	*0.0044*	*0.0055*	*0.0070*	*0.0085*	*0.010*	*0.011*	*0.012*	*510*
P4	P	0,11	0,14	0,18	0,22	0,24	0,26	0,30	135
	P	*0.0044*	*0.0055*	*0.0070*	*0.0085*	*0.0095*	*0.010*	*0.012*	*445*
P5	P	0,10	0,14	0,17	0,20	0,24	0,26	0,28	130
	P	*0.0040*	*0.0055*	*0.0065*	*0.0080*	*0.0095*	*0.010*	*0.011*	*425*
P6	P	0,10	0,14	0,17	0,20	0,24	0,26	0,28	145
	P	*0.0040*	*0.0055*	*0.0065*	*0.0080*	*0.0095*	*0.010*	*0.011*	*475*
P7	P	0,10	0,14	0,17	0,20	0,24	0,26	0,28	140
	P	*0.0040*	*0.0055*	*0.0065*	*0.0080*	*0.0095*	*0.010*	*0.011*	*460*
P8	P	0,11	0,14	0,18	0,22	0,25	0,28	0,30	130
	P	*0.0044*	*0.0055*	*0.0070*	*0.0085*	*0.010*	*0.011*	*0.012*	*425*
P11	P	0,10	0,14	0,17	0,20	0,24	0,26	0,28	135
	P	*0.0040*	*0.0055*	*0.0065*	*0.0080*	*0.0095*	*0.010*	*0.011*	*445*
P12	P	0,070	0,095	0,12	0,14	0,16	0,18	0,20	80
	P	*0.0028*	*0.0038*	*0.0048*	*0.0055*	*0.0065*	*0.0070*	*0.0080*	*260*
M1	P	0,11	0,15	0,19	0,22	0,26	0,30	0,32	100
	P	*0.0044*	*0.0060*	*0.0075*	*0.0085*	*0.010*	*0.012*	*0.013*	*330*
M2	P	0,10	0,14	0,17	0,20	0,24	0,26	0,28	80
	P	*0.0040*	*0.0055*	*0.0065*	*0.0080*	*0.0095*	*0.010*	*0.011*	*260*
K1	P	0,11	0,15	0,19	0,22	0,26	0,30	0,32	120
	P	*0.0044*	*0.0060*	*0.0075*	*0.0085*	*0.010*	*0.012*	*0.013*	*395*
K2	P	0,10	0,14	0,17	0,20	0,24	0,26	0,28	105
	P	*0.0040*	*0.0055*	*0.0065*	*0.0080*	*0.0095*	*0.010*	*0.011*	*345*
K3	P	0,10	0,14	0,17	0,20	0,24	0,26	0,28	90
	P	*0.0040*	*0.0055*	*0.0065*	*0.0080*	*0.0095*	*0.010*	*0.011*	*295*
K4	P	0,10	0,14	0,17	0,20	0,24	0,26	0,28	85
	P	*0.0040*	*0.0055*	*0.0065*	*0.0080*	*0.0095*	*0.010*	*0.011*	*280*
K5	P	0,095	0,12	0,16	0,19	0,22	0,24	0,26	50
	P	*0.0038*	*0.0048*	*0.0065*	*0.0075*	*0.0085*	*0.0095*	*0.010*	*165*
N2	P	0,14	0,19	0,24	0,28	0,34	0,38	0,40	200
	P	*0.0055*	*0.0075*	*0.0095*	*0.011*	*0.013*	*0.015*	*0.016*	*660*
N3	P	0,14	0,19	0,24	0,28	0,34	0,38	0,40	135
	P	*0.0055*	*0.0075*	*0.0095*	*0.011*	*0.013*	*0.015*	*0.016*	*445*
N11	P	0,14	0,19	0,24	0,28	0,34	0,38	0,40	255
	P	*0.0055*	*0.0075*	*0.0095*	*0.011*	*0.013*	*0.015*	*0.016*	*840*

SMG = Seco material group f = mm/rev (IPR) v_c = m/min (sf/min) All cutting data are start values

SD265A – ∅ 4-16 mm / *0.157-0.630 inch*

SMG		f							v_c
		Ø 4,00 *Ø 0.157*	Ø 6,00 *Ø 0.236*	Ø 8,00 *Ø 0.315*	Ø 10,00 *Ø 0.394*	Ø 12,00 *Ø 0.472*	Ø 14,00 *Ø 0.551*	Ø 16,00 *Ø 0.630*	
P1	P	0,12	0,16	0,20	0,24	0,28	0,30	0,34	180
	P	*0.0048*	*0.0065*	*0.0080*	*0.0095*	*0.011*	*0.012*	*0.013*	*590*
P2	P	0,12	0,16	0,20	0,24	0,28	0,30	0,34	175
	P	*0.0048*	*0.0065*	*0.0080*	*0.0095*	*0.011*	*0.012*	*0.013*	*570*
P3	P	0,11	0,15	0,19	0,22	0,26	0,30	0,32	150
	P	*0.0044*	*0.0060*	*0.0075*	*0.0085*	*0.010*	*0.012*	*0.013*	*490*
P4	P	0,11	0,15	0,19	0,22	0,26	0,28	0,32	135
	P	*0.0044*	*0.0060*	*0.0075*	*0.0085*	*0.010*	*0.011*	*0.013*	*445*
P5	P	0,11	0,15	0,18	0,22	0,25	0,28	0,30	130
	P	*0.0044*	*0.0060*	*0.0070*	*0.0085*	*0.010*	*0.011*	*0.012*	*425*
P6	P	0,11	0,15	0,18	0,22	0,25	0,28	0,30	145
	P	*0.0044*	*0.0060*	*0.0070*	*0.0085*	*0.010*	*0.011*	*0.012*	*475*
P7	P	0,11	0,15	0,18	0,22	0,25	0,28	0,30	135
	P	*0.0044*	*0.0060*	*0.0070*	*0.0085*	*0.010*	*0.011*	*0.012*	*445*
P8	P	0,11	0,15	0,19	0,22	0,26	0,30	0,32	130
	P	*0.0044*	*0.0060*	*0.0075*	*0.0085*	*0.010*	*0.012*	*0.013*	*425*
P11	P	0,11	0,15	0,18	0,22	0,25	0,28	0,30	130
	P	*0.0044*	*0.0060*	*0.0070*	*0.0085*	*0.010*	*0.011*	*0.012*	*425*
P12	P	0,075	0,10	0,12	0,15	0,17	0,19	0,20	80
	P	*0.0030*	*0.0040*	*0.0048*	*0.0060*	*0.0065*	*0.0075*	*0.0080*	*260*
M1	P	0,12	0,16	0,20	0,24	0,28	0,30	0,34	100
	P	*0.0048*	*0.0065*	*0.0080*	*0.0095*	*0.011*	*0.012*	*0.013*	*330*
M2	P	0,11	0,15	0,18	0,22	0,25	0,28	0,30	80
	P	*0.0044*	*0.0060*	*0.0070*	*0.0085*	*0.010*	*0.011*	*0.012*	*260*
K1	P	0,12	0,16	0,20	0,24	0,28	0,30	0,34	120
	P	*0.0048*	*0.0065*	*0.0080*	*0.0095*	*0.011*	*0.012*	*0.013*	*395*
K2	P	0,11	0,15	0,18	0,22	0,25	0,28	0,30	100
	P	*0.0044*	*0.0060*	*0.0070*	*0.0085*	*0.010*	*0.011*	*0.012*	*330*
K3	P	0,11	0,15	0,18	0,22	0,25	0,28	0,30	85
	P	*0.0044*	*0.0060*	*0.0070*	*0.0085*	*0.010*	*0.011*	*0.012*	*280*
K4	P	0,11	0,15	0,18	0,22	0,25	0,28	0,30	85
	P	*0.0044*	*0.0060*	*0.0070*	*0.0085*	*0.010*	*0.011*	*0.012*	*280*
K5	P	0,10	0,13	0,17	0,20	0,22	0,25	0,28	49
	P	*0.0040*	*0.0050*	*0.0065*	*0.0080*	*0.0085*	*0.010*	*0.011*	*160*
N2	P	0,15	0,20	0,26	0,30	0,36	0,40	0,42	195
	P	*0.0060*	*0.0080*	*0.010*	*0.012*	*0.014*	*0.016*	*0.017*	*640*
N3	P	0,15	0,20	0,26	0,30	0,36	0,40	0,42	130
	P	*0.0060*	*0.0080*	*0.010*	*0.012*	*0.014*	*0.016*	*0.017*	*425*
N11	P	0,15	0,20	0,26	0,30	0,36	0,40	0,42	250
	P	*0.0060*	*0.0080*	*0.010*	*0.012*	*0.014*	*0.016*	*0.017*	*820*

SMG = Seco material group f = mm/rev (IPR) v_c = m/min (sf/min) All cutting data are start values

SD203A -MS ∅ 2-8 mm / *0.079-0.315 inch*

SMG		f						v_c
		Ø 2,00 *Ø 0.079*	Ø 3,00 *Ø 0.118*	Ø 4,00 *Ø 0.157*	Ø 5,00 *Ø 0.197*	Ø 6,00 *Ø 0.236*	Ø 8,00 *Ø 0.315*	
P11	MS	0,060	0,080	0,10	0,12	0,14	0,18	90
	MS	*0.0024*	*0.0032*	*0.0040*	*0.0048*	*0.0055*	*0.0070*	*295*
P12	MS	0,060	0,070	0,080	0,090	0,10	0,12	65
	MS	*0.0024*	*0.0028*	*0.0032*	*0.0036*	*0.0040*	*0.0048*	*215*
M1	MS	0,075	0,095	0,11	0,13	0,15	0,19	110
	MS	*0.0030*	*0.0038*	*0.0044*	*0.0050*	*0.0060*	*0.0075*	*360*
M2	MS	0,065	0,085	0,10	0,12	0,14	0,17	90
	MS	*0.0026*	*0.0034*	*0.0040*	*0.0048*	*0.0055*	*0.0065*	*295*
M3	MS	0,095	0,11	0,13	0,15	0,17	0,20	45
	MS	*0.0038*	*0.0044*	*0.0050*	*0.0060*	*0.0065*	*0.0080*	*150*
M4	MS	0,048	0,060	0,070	0,085	0,095	0,12	50
	MS	*0.0019*	*0.0024*	*0.0028*	*0.0034*	*0.0038*	*0.0048*	*165*
M5	MS	0,048	0,060	0,070	0,085	0,095	0,12	42
	MS	*0.0019*	*0.0024*	*0.0028*	*0.0034*	*0.0038*	*0.0048*	*140*
N1	MS	0,13	0,16	0,19	0,22	0,26	0,32	345
	MS	*0.0050*	*0.0065*	*0.0075*	*0.0085*	*0.010*	*0.013*	*1125*
N2	MS	0,13	0,16	0,19	0,22	0,26	0,32	225
	MS	*0.0050*	*0.0065*	*0.0075*	*0.0085*	*0.010*	*0.013*	*740*
N3	MS	0,13	0,16	0,19	0,22	0,26	0,32	150
	MS	*0.0050*	*0.0065*	*0.0075*	*0.0085*	*0.010*	*0.013*	*490*
N11	MS	0,13	0,16	0,19	0,22	0,26	0,32	285
	MS	*0.0050*	*0.0065*	*0.0075*	*0.0085*	*0.010*	*0.013*	*940*
S1	MS	0,040	0,048	0,055	0,065	0,075	0,095	39
	MS	*0.0016*	*0.0019*	*0.0022*	*0.0026*	*0.0030*	*0.0038*	*130*
S2	MS	0,040	0,048	0,055	0,065	0,075	0,095	28
	MS	*0.0016*	*0.0019*	*0.0022*	*0.0026*	*0.0030*	*0.0038*	*90*
S3	MS	0,040	0,048	0,055	0,065	0,075	0,095	28
	MS	*0.0016*	*0.0019*	*0.0022*	*0.0026*	*0.0030*	*0.0038*	*90*
S11	MS	0,070	0,085	0,095	0,11	0,12	0,14	70
	MS	*0.0028*	*0.0034*	*0.0038*	*0.0044*	*0.0048*	*0.0055*	*230*
S12	MS	0,070	0,085	0,095	0,11	0,12	0,14	55
	MS	*0.0028*	*0.0034*	*0.0038*	*0.0044*	*0.0048*	*0.0055*	*180*
S13	MS	0,065	0,075	0,085	0,095	0,10	0,12	43
	MS	*0.0026*	*0.0030*	*0.0034*	*0.0038*	*0.0040*	*0.0048*	*140*
H3	MS	0,046	0,055	0,065	0,075	0,085	0,10	36
	MS	*0.0018*	*0.0022*	*0.0026*	*0.0030*	*0.0034*	*0.0040*	*120*
H5	MS	0,070	0,085	0,10	0,11	0,13	0,16	65
	MS	*0.0028*	*0.0034*	*0.0040*	*0.0044*	*0.0050*	*0.0065*	*215*
H7	MS	0,046	0,055	0,065	0,075	0,085	0,10	36
	MS	*0.0018*	*0.0022*	*0.0026*	*0.0030*	*0.0034*	*0.0040*	*120*
H8	MS	0,055	0,065	0,075	0,085	0,095	0,12	65
	MS	*0.0022*	*0.0026*	*0.0030*	*0.0034*	*0.0038*	*0.0048*	*215*
H11	MS	0,070	0,085	0,10	0,11	0,13	0,16	85
	MS	*0.0028*	*0.0034*	*0.0040*	*0.0044*	*0.0050*	*0.0065*	*280*
H12	MS	0,055	0,065	0,075	0,085	0,095	0,12	80
	MS	*0.0022*	*0.0026*	*0.0030*	*0.0034*	*0.0038*	*0.0048*	*260*
H21	MS	0,055	0,065	0,075	0,085	0,095	0,12	65
	MS	*0.0022*	*0.0026*	*0.0030*	*0.0034*	*0.0038*	*0.0048*	*215*

SMG = Seco material group f = mm/rev (IPR) v_c = m/min (sf/min) All cutting data are start values

SD203A -MS ∅ 10-20 mm / *0.394-0.787 inch*

SMG		f						v_c
		Ø 10,00 *Ø 0.394*	Ø 12,00 *Ø 0.472*	Ø 14,00 *Ø 0.551*	Ø 16,00 *Ø 0.630*	Ø 18,00 *Ø 0.709*	Ø 20,00 *Ø 0.787*	
P11	MS	0,22	0,24	0,26	0,30	0,30	0,32	90
	MS	*0.0085*	*0.0095*	*0.010*	*0.012*	*0.012*	*0.013*	*295*
P12	MS	0,14	0,15	0,16	0,18	0,18	0,19	65
	MS	*0.0055*	*0.0060*	*0.0065*	*0.0070*	*0.0070*	*0.0075*	*215*
M1	MS	0,22	0,25	0,28	0,30	0,30	0,32	110
	MS	*0.0085*	*0.010*	*0.011*	*0.012*	*0.012*	*0.013*	*360*
M2	MS	0,20	0,22	0,25	0,26	0,28	0,30	90
	MS	*0.0080*	*0.0085*	*0.010*	*0.010*	*0.011*	*0.012*	*295*
M3	MS	0,24	0,26	0,28	0,30	0,32	0,34	45
	MS	*0.0095*	*0.010*	*0.011*	*0.012*	*0.013*	*0.013*	*150*
M4	MS	0,14	0,16	0,17	0,19	0,20	0,20	50
	MS	*0.0055*	*0.0065*	*0.0065*	*0.0075*	*0.0080*	*0.0080*	*165*
M5	MS	0,14	0,16	0,17	0,19	0,20	0,20	42
	MS	*0.0055*	*0.0065*	*0.0065*	*0.0075*	*0.0080*	*0.0080*	*140*
N1	MS	0,38	0,42	0,46	0,50	0,55	0,55	345
	MS	*0.015*	*0.017*	*0.018*	*0.020*	*0.022*	*0.022*	*1125*
N2	MS	0,38	0,42	0,46	0,50	0,55	0,55	225
	MS	*0.015*	*0.017*	*0.018*	*0.020*	*0.022*	*0.022*	*740*
N3	MS	0,38	0,42	0,46	0,50	0,55	0,55	150
	MS	*0.015*	*0.017*	*0.018*	*0.020*	*0.022*	*0.022*	*490*
N11	MS	0,38	0,42	0,46	0,50	0,55	0,55	285
	MS	*0.015*	*0.017*	*0.018*	*0.020*	*0.022*	*0.022*	*940*
S1	MS	0,11	0,13	0,15	0,16	0,17	0,19	39
	MS	*0.0044*	*0.0050*	*0.0060*	*0.0065*	*0.0065*	*0.0075*	*130*
S2	MS	0,11	0,13	0,15	0,16	0,17	0,19	28
	MS	*0.0044*	*0.0050*	*0.0060*	*0.0065*	*0.0065*	*0.0075*	*90*
S3	MS	0,11	0,13	0,15	0,16	0,17	0,19	28
	MS	*0.0044*	*0.0050*	*0.0060*	*0.0065*	*0.0065*	*0.0075*	*90*
S11	MS	0,17	0,19	0,22	0,24	0,25	0,26	70
	MS	*0.0065*	*0.0075*	*0.0085*	*0.0095*	*0.010*	*0.010*	*230*
S12	MS	0,17	0,19	0,22	0,24	0,25	0,26	55
	MS	*0.0065*	*0.0075*	*0.0085*	*0.0095*	*0.010*	*0.010*	*180*
S13	MS	0,15	0,17	0,19	0,20	0,22	0,22	43
	MS	*0.0060*	*0.0065*	*0.0075*	*0.0080*	*0.0085*	*0.0085*	*140*
H3	MS	0,12	0,13	0,15	0,16	0,17	0,17	36
	MS	*0.0048*	*0.0050*	*0.0060*	*0.0065*	*0.0065*	*0.0065*	*120*
H5	MS	0,18	0,20	0,22	0,24	0,25	0,26	65
	MS	*0.0070*	*0.0080*	*0.0085*	*0.0095*	*0.010*	*0.010*	*215*
H7	MS	0,12	0,13	0,15	0,16	0,17	0,17	36
	MS	*0.0048*	*0.0050*	*0.0060*	*0.0065*	*0.0065*	*0.0065*	*120*
H8	MS	0,14	0,16	0,17	0,18	0,19	0,20	65
	MS	*0.0055*	*0.0065*	*0.0065*	*0.0070*	*0.0075*	*0.0080*	*215*
H11	MS	0,18	0,20	0,22	0,24	0,25	0,26	85
	MS	*0.0070*	*0.0080*	*0.0085*	*0.0095*	*0.010*	*0.010*	*280*
H12	MS	0,14	0,16	0,17	0,18	0,19	0,20	80
	MS	*0.0055*	*0.0065*	*0.0065*	*0.0070*	*0.0075*	*0.0080*	*260*
H21	MS	0,14	0,16	0,17	0,18	0,19	0,20	65
	MS	*0.0055*	*0.0065*	*0.0065*	*0.0070*	*0.0075*	*0.0080*	*215*

SMG = Seco material group f = mm/rev (IPR) v_c = m/min (sf/min) All cutting data are start values

SD205A -MS ∅ 2-8 mm / *0.079-0.315 inch*

SMG		f						v_c
		Ø 2,00 *Ø 0.079*	Ø 3,00 *Ø 0.118*	Ø 4,00 *Ø 0.157*	Ø 5,00 *Ø 0.197*	Ø 6,00 *Ø 0.236*	Ø 8,00 *Ø 0.315*	
P11	MS	0,060	0,080	0,10	0,12	0,14	0,18	80
	MS	*0.0024*	*0.0032*	*0.0040*	*0.0048*	*0.0055*	*0.0070*	*260*
P12	MS	0,060	0,070	0,080	0,090	0,10	0,12	60
	MS	*0.0024*	*0.0028*	*0.0032*	*0.0036*	*0.0040*	*0.0048*	*195*
M1	MS	0,075	0,095	0,11	0,13	0,15	0,19	100
	MS	*0.0030*	*0.0038*	*0.0044*	*0.0050*	*0.0060*	*0.0075*	*330*
M2	MS	0,065	0,085	0,10	0,12	0,14	0,17	80
	MS	*0.0026*	*0.0034*	*0.0040*	*0.0048*	*0.0055*	*0.0065*	*260*
M3	MS	0,095	0,11	0,13	0,15	0,17	0,20	40
	MS	*0.0038*	*0.0044*	*0.0050*	*0.0060*	*0.0065*	*0.0080*	*130*
M4	MS	0,048	0,060	0,070	0,085	0,095	0,12	46
	MS	*0.0019*	*0.0024*	*0.0028*	*0.0034*	*0.0038*	*0.0048*	*150*
M5	MS	0,048	0,060	0,070	0,085	0,095	0,12	38
	MS	*0.0019*	*0.0024*	*0.0028*	*0.0034*	*0.0038*	*0.0048*	*125*
N1	MS	0,13	0,16	0,19	0,22	0,26	0,32	310
	MS	*0.0050*	*0.0065*	*0.0075*	*0.0085*	*0.010*	*0.013*	*1025*
N2	MS	0,13	0,16	0,19	0,22	0,26	0,32	200
	MS	*0.0050*	*0.0065*	*0.0075*	*0.0085*	*0.010*	*0.013*	*660*
N3	MS	0,13	0,16	0,19	0,22	0,26	0,32	135
	MS	*0.0050*	*0.0065*	*0.0075*	*0.0085*	*0.010*	*0.013*	*445*
N11	MS	0,13	0,16	0,19	0,22	0,26	0,32	255
	MS	*0.0050*	*0.0065*	*0.0075*	*0.0085*	*0.010*	*0.013*	*840*
S1	MS	0,040	0,048	0,055	0,065	0,075	0,095	35
	MS	*0.0016*	*0.0019*	*0.0022*	*0.0026*	*0.0030*	*0.0038*	*115*
S2	MS	0,040	0,048	0,055	0,065	0,075	0,095	25
	MS	*0.0016*	*0.0019*	*0.0022*	*0.0026*	*0.0030*	*0.0038*	*80*
S3	MS	0,040	0,048	0,055	0,065	0,075	0,095	25
	MS	*0.0016*	*0.0019*	*0.0022*	*0.0026*	*0.0030*	*0.0038*	*80*
S11	MS	0,020	0,030	0,040	0,050	0,060	0,080	45
	MS	*0.00080*	*0.0012*	*0.0016*	*0.0020*	*0.0024*	*0.0032*	*150*
S12	MS	0,020	0,030	0,040	0,050	0,060	0,080	35
	MS	*0.00080*	*0.0012*	*0.0016*	*0.0020*	*0.0024*	*0.0032*	*115*
S13	MS	0,017	0,026	0,035	0,044	0,050	0.070	27
	MS	*0.00068*	*0.0010*	*0.0014*	*0.0018*	*0.0020*	*0.0028*	*90*
H3	MS	0,046	0,055	0,065	0,075	0,085	0,10	33
	MS	*0.0018*	*0.0022*	*0.0026*	*0.0030*	*0.0034*	*0.0040*	*110*
H5	MS	0,070	0,085	0,10	0,11	0,13	0,16	60
	MS	*0.0028*	*0.0034*	*0.0040*	*0.0044*	*0.0050*	*0.0065*	*195*
H7	MS	0,046	0,055	0,065	0,075	0,085	0,10	33
	MS	*0.0018*	*0.0022*	*0.0026*	*0.0030*	*0.0034*	*0.0040*	*110*
H8	MS	0,055	0,065	0,075	0,085	0,095	0,12	60
	MS	*0.0022*	*0.0026*	*0.0030*	*0.0034*	*0.0038*	*0.0048*	*195*
H11	MS	0,070	0,085	0,10	0,11	0,13	0,16	75
	MS	*0.0028*	*0.0034*	*0.0040*	*0.0044*	*0.0050*	*0.0065*	*245*
H12	MS	0,055	0,065	0,075	0,085	0,095	0,12	70
	MS	*0.0022*	*0.0026*	*0.0030*	*0.0034*	*0.0038*	*0.0048*	*230*
H21	MS	0,055	0,065	0,075	0,085	0,095	0,12	60
	MS	*0.0022*	*0.0026*	*0.0030*	*0.0034*	*0.0038*	*0.0048*	*195*

SMG = Seco material group f = mm/rev (IPR) v_c = m/min (sf/min) All cutting data are start values

SD205A -MS ∅ 10-20 mm / *0.394-0.787 inch*

SMG		f						v_c
		Ø 10,00 *Ø 0.394*	Ø 12,00 *Ø 0.472*	Ø 14,00 *Ø 0.551*	Ø 16,00 *Ø 0.630*	Ø 18,00 *Ø 0.709*	Ø 20,00 *Ø 0.787*	
P11	MS	0,22	0,24	0,26	0,30	0,30	0,32	80
	MS	*0.0085*	*0.0095*	*0.010*	*0.012*	*0.012*	*0.013*	*260*
P12	MS	0,14	0,15	0,16	0,18	0,18	0,19	60
	MS	*0.0055*	*0.0060*	*0.0065*	*0.0070*	*0.0070*	*0.0075*	*195*
M1	MS	0,22	0,25	0,28	0,30	0,30	0,32	100
	MS	*0.0085*	*0.010*	*0.011*	*0.012*	*0.012*	*0.013*	*330*
M2	MS	0,20	0,22	0,25	0,26	0,28	0,30	80
	MS	*0.0080*	*0.0085*	*0.010*	*0.010*	*0.011*	*0.012*	*260*
M3	MS	0,24	0,26	0,28	0,30	0,32	0,34	40
	MS	*0.0095*	*0.010*	*0.011*	*0.012*	*0.013*	*0.013*	*130*
M4	MS	0,14	0,16	0,17	0,19	0,20	0,20	46
	MS	*0.0055*	*0.0065*	*0.0065*	*0.0075*	*0.0080*	*0.0080*	*150*
M5	MS	0,14	0,16	0,17	0,19	0,20	0,20	38
	MS	*0.0055*	*0.0065*	*0.0065*	*0.0075*	*0.0080*	*0.0080*	*125*
N1	MS	0,38	0,42	0,46	0,50	0,55	0,55	310
	MS	*0.015*	*0.017*	*0.018*	*0.020*	*0.022*	*0.022*	*1025*
N2	MS	0,38	0,42	0,46	0,50	0,55	0,55	200
	MS	*0.015*	*0.017*	*0.018*	*0.020*	*0.022*	*0.022*	*660*
N3	MS	0,38	0,42	0,46	0,50	0,55	0,55	135
	MS	*0.015*	*0.017*	*0.018*	*0.020*	*0.022*	*0.022*	*445*
N11	MS	0,38	0,42	0,46	0,50	0,55	0,55	255
	MS	*0.015*	*0.017*	*0.018*	*0.020*	*0.022*	*0.022*	*840*
S1	MS	0,11	0,13	0,15	0,16	0,17	0,19	35
	MS	*0.0044*	*0.0050*	*0.0060*	*0.0065*	*0.0065*	*0.0075*	*115*
S2	MS	0,11	0,13	0,15	0,16	0,17	0,19	25
	MS	*0.0044*	*0.0050*	*0.0060*	*0.0065*	*0.0065*	*0.0075*	*80*
S3	MS	0,11	0,13	0,15	0,16	0,17	0,19	25
	MS	*0.0044*	*0.0050*	*0.0060*	*0.0065*	*0.0065*	*0.0075*	*80*
S11	MS	0,10	0,12	0,14	0,16	0,18	0,20	45
	MS	*0.0040*	*0.0048*	*0.0055*	*0.0065*	*0.0070*	*0.0080*	*150*
S12	MS	0,10	0,12	0,14	0,16	0,18	0,20	35
	MS	*0.0040*	*0.0048*	*0.0055*	*0.0065*	*0.0070*	*0.0080*	*115*
S13	MS	0,085	0,11	0,12	0,14	0,16	0,17	27
	MS	*0.0034*	*0.0044*	*0.0048*	*0.0055*	*0.0065*	*0.0070*	*90*
H3	MS	0,12	0,13	0,15	0,16	0,17	0,17	33
	MS	*0.0048*	*0.0050*	*0.0060*	*0.0065*	*0.0065*	*0.0065*	*110*
H5	MS	0,18	0,20	0,22	0,24	0,25	0,26	60
	MS	*0.0070*	*0.0080*	*0.0085*	*0.0095*	*0.010*	*0.010*	*195*
H7	MS	0,12	0,13	0,15	0,16	0,17	0,17	33
	MS	*0.0048*	*0.0050*	*0.0060*	*0.0065*	*0.0065*	*0.0065*	*110*
H8	MS	0,14	0,16	0,17	0,18	0,19	0,20	60
	MS	*0.0055*	*0.0065*	*0.0065*	*0.0070*	*0.0075*	*0.0080*	*195*
H11	MS	0,18	0,20	0,22	0,24	0,25	0,26	75
	MS	*0.0070*	*0.0080*	*0.0085*	*0.0095*	*0.010*	*0.010*	*245*
H12	MS	0,14	0,16	0,17	0,18	0,19	0,20	70
	MS	*0.0055*	*0.0065*	*0.0065*	*0.0070*	*0.0075*	*0.0080*	*230*
H21	MS	0,14	0,16	0,17	0,18	0,19	0,20	60
	MS	*0.0055*	*0.0065*	*0.0065*	*0.0070*	*0.0075*	*0.0080*	*195*

SMG = Seco material group f = mm/rev (IPR) v_c = m/min (sf/min) All cutting data are start values

SD203A – ∅ 2-8 mm / *0.079-0.315 inch*

SMG		f						v_c
		Ø 2,00 *Ø 0.079*	Ø 3,00 *Ø 0.118*	Ø 4,00 *Ø 0.157*	Ø 5,00 *Ø 0.197*	Ø 6,00 *Ø 0.236*	Ø 8,00 *Ø 0.315*	
P11	M *M*	0,060 *0.0024*	0,075 *0.0030*	0,085 *0.0034*	0,10 *0.0040*	0,11 *0.0044*	0,14 *0.0055*	150 *490*
P12	M *M*	0,060 *0.0024*	0,075 *0.0030*	0,085 *0.0034*	0,10 *0.0040*	0,11 *0.0044*	0,14 *0.0055*	90 *295*
M1	M *M*	0,075 *0.0030*	0,095 *0.0038*	0,11 *0.0044*	0,13 *0.0050*	0,15 *0.0060*	0,19 *0.0075*	110 *360*
M2	M *M*	0,065 *0.0026*	0,085 *0.0034*	0,10 *0.0040*	0,12 *0.0048*	0,14 *0.0055*	0,17 *0.0065*	90 *295*
M3	M *M*	0,055 *0.0022*	0,065 *0.0026*	0,080 *0.0032*	0,095 *0.0038*	0,11 *0.0044*	0,14 *0.0055*	70 *230*
M4	M *M*	0,048 *0.0019*	0,060 *0.0024*	0,070 *0.0028*	0,085 *0.0034*	0,095 *0.0038*	0,12 *0.0048*	50 *165*
M5	M *M*	0,048 *0.0019*	0,060 *0.0024*	0,070 *0.0028*	0,085 *0.0034*	0,095 *0.0038*	0,12 *0.0048*	42 *140*
N1	M *M*	0,13 *0.0050*	0,16 *0.0065*	0,19 *0.0075*	0,22 *0.0085*	0,26 *0.010*	0,32 *0.013*	345 *1125*
N2	M *M*	0,13 *0.0050*	0,16 *0.0065*	0,19 *0.0075*	0,22 *0.0085*	0,26 *0.010*	0,32 *0.013*	225 *740*
N3	M *M*	0,13 *0.0050*	0,16 *0.0065*	0,19 *0.0075*	0,22 *0.0085*	0,26 *0.010*	0,32 *0.013*	150 *490*
N11	M *M*	0,13 *0.0050*	0,16 *0.0065*	0,19 *0.0075*	0,22 *0.0085*	0,26 *0.010*	0,32 *0.013*	285 *940*
S1	M *M*	0,040 *0.0016*	0,048 *0.0019*	0,055 *0.0022*	0,065 *0.0026*	0,075 *0.0030*	0,095 *0.0038*	39 *130*
S2	M *M*	0,040 *0.0016*	0,048 *0.0019*	0,055 *0.0022*	0,065 *0.0026*	0,075 *0.0030*	0,095 *0.0038*	28 *90*
S3	M *M*	0,040 *0.0016*	0,048 *0.0019*	0,055 *0.0022*	0,065 *0.0026*	0,075 *0.0030*	0,095 *0.0038*	28 *90*
S11	M *M*	0,070 *0.0028*	0,085 *0.0034*	0,095 *0.0038*	0,11 *0.0044*	0,12 *0.0048*	0,14 *0.0055*	70 *230*
S12	M *M*	0,070 *0.0028*	0,085 *0.0034*	0,095 *0.0038*	0,11 *0.0044*	0,12 *0.0048*	0,14 *0.0055*	55 *180*
S13	M *M*	0,065 *0.0026*	0,075 *0.0030*	0,085 *0.0034*	0,095 *0.0038*	0,10 *0.0040*	0,12 *0.0048*	43 *140*

SMG = Seco material group f = mm/rev (IPR) v_c = m/min (sf/min) All cutting data are start values

SD203A – ∅ 10-20 mm / *0.394-0.787 inch*

SMG		f						v_c
		Ø 10,00 *Ø 0.394*	Ø 12,00 *Ø 0.472*	Ø 14,00 *Ø 0.551*	Ø 16,00 *Ø 0.630*	Ø 18,00 *Ø 0.709*	Ø 20,00 *Ø 0.787*	
P11	M	0,16	0,18	0,20	0,22	0,24	0,24	150
	M	*0.0065*	*0.0070*	*0.0080*	*0.0085*	*0.0095*	*0.0095*	*490*
P12	M	0,16	0,18	0,20	0,22	0,24	0,24	90
	M	*0.0065*	*0.0070*	*0.0080*	*0.0085*	*0.0095*	*0.0095*	*295*
M1	M	0,22	0,25	0,28	0,30	0,30	0,32	110
	M	*0.0085*	*0.010*	*0.011*	*0.012*	*0.012*	*0.013*	*360*
M2	M	0,20	0,22	0,25	0,26	0,28	0,30	90
	M	*0.0080*	*0.0085*	*0.010*	*0.010*	*0.011*	*0.012*	*295*
M3	M	0,16	0,18	0,20	0,22	0,22	0,24	70
	M	*0.0065*	*0.0070*	*0.0080*	*0.0085*	*0.0085*	*0.0095*	*230*
M4	M	0,14	0,16	0,17	0,19	0,20	0,20	50
	M	*0.0055*	*0.0065*	*0.0065*	*0.0075*	*0.0080*	*0.0080*	*165*
M5	M	0,14	0,16	0,17	0,19	0,20	0,20	42
	M	*0.0055*	*0.0065*	*0.0065*	*0.0075*	*0.0080*	*0.0080*	*140*
N1	M	0,38	0,42	0,46	0,50	0,55	0,55	345
	M	*0.015*	*0.017*	*0.018*	*0.020*	*0.022*	*0.022*	*1125*
N2	M	0,38	0,42	0,46	0,50	0,55	0,55	225
	M	*0.015*	*0.017*	*0.018*	*0.020*	*0.022*	*0.022*	*740*
N3	M	0,38	0,42	0,46	0,50	0,55	0,55	150
	M	*0.015*	*0.017*	*0.018*	*0.020*	*0.022*	*0.022*	*490*
N11	M	0,38	0,42	0,46	0,50	0,55	0,55	285
	M	*0.015*	*0.017*	*0.018*	*0.020*	*0.022*	*0.022*	*940*
S1	M	0,11	0,13	0,15	0,16	0,17	0,19	39
	M	*0.0044*	*0.0050*	*0.0060*	*0.0065*	*0.0065*	*0.0075*	*130*
S2	M	0,11	0,13	0,15	0,16	0,17	0,19	28
	M	*0.0044*	*0.0050*	*0.0060*	*0.0065*	*0.0065*	*0.0075*	*90*
S3	M	0,11	0,13	0,15	0,16	0,17	0,19	28
	M	*0.0044*	*0.0050*	*0.0060*	*0.0065*	*0.0065*	*0.0075*	*90*
S11	M	0,17	0,19	0,22	0,24	0,25	0,26	70
	M	*0.0065*	*0.0075*	*0.0085*	*0.0095*	*0.010*	*0.010*	*230*
S12	M	0,17	0,19	0,22	0,24	0,25	0,26	55
	M	*0.0065*	*0.0075*	*0.0085*	*0.0095*	*0.010*	*0.010*	*180*
S13	M	0,15	0,17	0,19	0,20	0,22	0,22	43
	M	*0.0060*	*0.0065*	*0.0075*	*0.0080*	*0.0085*	*0.0085*	*140*

SMG = Seco material group f = mm/rev (IPR) v_c = m/min (sf/min) All cutting data are start values

SD205A-M – ∅ 2-8 mm / *0.079-0.315 inch*

SMG		f						v_c
		Ø2,00 *Ø 0.079*	Ø3,00 *Ø 0.118*	Ø4,00 *Ø 0.157*	Ø5,00 *Ø 0.197*	Ø6,00 *Ø 0.236*	Ø8,00 *Ø 0.315*	
P11	M	0,060	0,075	0,085	0,10	0,11	0,14	135
	M	*0.0024*	*0.0030*	*0.0034*	*0.0040*	*0.0044*	*0.0055*	*445*
P12	M	0,060	0,075	0,085	0,10	0,11	0,14	80
	M	*0.0024*	*0.0030*	*0.0034*	*0.0040*	*0.0044*	*0.0055*	*260*
M1	M	0,075	0,095	0,11	0,13	0,15	0,19	100
	M	*0.0030*	*0.0038*	*0.0044*	*0.0050*	*0.0060*	*0.0075*	*330*
M2	M	0,065	0,085	0,10	0,12	0,14	0,17	80
	M	*0.0026*	*0.0034*	*0.0040*	*0.0048*	*0.0055*	*0.0065*	*260*
M3	M	0,055	0,065	0,080	0,095	0,11	0,14	60
	M	*0.0022*	*0.0026*	*0.0032*	*0.0038*	*0.0044*	*0.0055*	*195*
M4	M	0,048	0,060	0,070	0,085	0,095	0,12	46
	M	*0.0019*	*0.0024*	*0.0028*	*0.0034*	*0.0038*	*0.0048*	*150*
M5	M	0,048	0,060	0,070	0,085	0,095	0,12	38
	M	*0.0019*	*0.0024*	*0.0028*	*0.0034*	*0.0038*	*0.0048*	*125*
N1	M	0,13	0,16	0,19	0,22	0,26	0,32	310
	M	*0.0050*	*0.0065*	*0.0075*	*0.0085*	*0.010*	*0.013*	*1025*
N2	M	0,13	0,16	0,19	0,22	0,26	0,32	200
	M	*0.0050*	*0.0065*	*0.0075*	*0.0085*	*0.010*	*0.013*	*660*
N3	M	0,13	0,16	0,19	0,22	0,26	0,32	135
	M	*0.0050*	*0.0065*	*0.0075*	*0.0085*	*0.010*	*0.013*	*445*
N11	M	0,13	0,16	0,19	0,22	0,26	0,32	255
	M	*0.0050*	*0.0065*	*0.0075*	*0.0085*	*0.010*	*0.013*	*840*
S1	M	0,040	0,048	0,055	0,065	0,075	0,095	35
	M	*0.0016*	*0.0019*	*0.0022*	*0.0026*	*0.0030*	*0.0038*	*115*
S2	M	0,040	0,048	0,055	0,065	0,075	0,095	25
	M	*0.0016*	*0.0019*	*0.0022*	*0.0026*	*0.0030*	*0.0038*	*80*
S3	M	0,040	0,048	0,055	0,065	0,075	0,095	25
	M	*0.0016*	*0.0019*	*0.0022*	*0.0026*	*0.0030*	*0.0038*	*80*
S11	M	0,070	0,085	0,095	0,11	0,12	0,14	65
	M	*0.0028*	*0.0034*	*0.0038*	*0.0044*	*0.0048*	*0.0055*	*215*
S12	M	0,070	0,085	0,095	0,11	0,12	0,14	50
	M	*0.0028*	*0.0034*	*0.0038*	*0.0044*	*0.0048*	*0.0055*	*165*
S13	M	0,065	0,075	0,085	0,095	0,10	0,12	39
	M	*0.0026*	*0.0030*	*0.0034*	*0.0038*	*0.0040*	*0.0048*	*130*

SMG = Seco material group f = mm/rev (IPR) v_c = m/min (sf/min) All cutting data are start values

SD205A-M – ∅ 10-20 mm / *0.394-0.787 inch*

SMG		f						v_c
		Ø10,00 *Ø 0.394*	Ø12,00 *Ø 0.472*	Ø14,00 *Ø 0.551*	Ø16,00 *Ø 0.630*	Ø18,00 *Ø 0.709*	Ø20,00 *Ø 0.787*	
P11	M	0,16	0,18	0,20	0,22	0,24	0,24	135
	M	*0.0065*	*0.0070*	*0.0080*	*0.0085*	*0.0095*	*0.0095*	*445*
P12	M	0,16	0,18	0,20	0,22	0,24	0,24	80
	M	*0.0065*	*0.0070*	*0.0080*	*0.0085*	*0.0095*	*0.0095*	*260*
M1	M	0,22	0,25	0,28	0,30	0,30	0,32	100
	M	*0.0085*	*0.010*	*0.011*	*0.012*	*0.012*	*0.013*	*330*
M2	M	0,20	0,22	0,25	0,26	0,28	0,30	80
	M	*0.0080*	*0.0085*	*0.010*	*0.010*	*0.011*	*0.012*	*260*
M3	M	0,16	0,18	0,20	0,22	0,22	0,24	60
	M	*0.0065*	*0.0070*	*0.0080*	*0.0085*	*0.0085*	*0.0095*	*195*
M4	M	0,14	0,16	0,17	0,19	0,20	0,20	45
	M	*0.0055*	*0.0065*	*0.0065*	*0.0075*	*0.0080*	*0.0080*	*150*
M5	M	0,14	0,16	0,17	0,19	0,20	0,20	37
	M	*0.0055*	*0.0065*	*0.0065*	*0.0075*	*0.0080*	*0.0080*	*120*
N1	M	0,38	0,42	0,46	0,50	0,55	0,55	305
	M	*0.015*	*0.017*	*0.018*	*0.020*	*0.022*	*0.022*	*1000*
N2	M	0,38	0,42	0,46	0,50	0,55	0,55	195
	M	*0.015*	*0.017*	*0.018*	*0.020*	*0.022*	*0.022*	*640*
N3	M	0,38	0,42	0,46	0,50	0,55	0,55	130
	M	*0.015*	*0.017*	*0.018*	*0.020*	*0.022*	*0.022*	*425*
N11	M	0,38	0,42	0,46	0,50	0,55	0,55	250
	M	*0.015*	*0.017*	*0.018*	*0.020*	*0.022*	*0.022*	*820*
S1	M	0,11	0,13	0,15	0,16	0,17	0,19	34
	M	*0.0044*	*0.0050*	*0.0060*	*0.0065*	*0.0065*	*0.0075*	*110*
S2	M	0,11	0,13	0,15	0,16	0,17	0,19	25
	M	*0.0044*	*0.0050*	*0.0060*	*0.0065*	*0.0065*	*0.0075*	*80*
S3	M	0,11	0,13	0,15	0,16	0,17	0,19	25
	M	*0.0044*	*0.0050*	*0.0060*	*0.0065*	*0.0065*	*0.0075*	*80*
S11	M	0,17	0,19	0,22	0,24	0,25	0,26	65
	M	*0.0065*	*0.0075*	*0.0085*	*0.0095*	*0.010*	*0.010*	*215*
S12	M	0,17	0,19	0,22	0,24	0,25	0,26	49
	M	*0.0065*	*0.0075*	*0.0085*	*0.0095*	*0.010*	*0.010*	*160*
S13	M	0,15	0,17	0,19	0,20	0,22	0,22	38
	M	*0.0060*	*0.0065*	*0.0075*	*0.0080*	*0.0085*	*0.0085*	*125*

SMG = Seco material group f = mm/rev (IPR) v_c = m/min (sf/min) All cutting data are start values

SD205A-C1 – ∅ 3-13 mm / *0.118-0.512 inch*

SMG		f						v_c
		Ø 3,00 *Ø 0.118*	Ø 5,00 *Ø 0.197*	Ø 7,00 *Ø 0.276*	Ø 9,00 *Ø 0.354*	Ø 11,00 *Ø 0.433*	Ø 13,00 *Ø 0.512*	
TS2	C1 *C1*	0,060 *0.0024*	0,060 *0.0024*	0,065 *0.0026*	0,070 *0.0028*	0,075 *0.0030*	0,080 *0.0032*	65 *215*
TS3	C1 *C1*	0,060 *0.0024*	0,060 *0.0024*	0,065 *0.0026*	0,070 *0.0028*	0,075 *0.0030*	0,080 *0.0032*	50 *165*
TP2	C1 *C1*	0,060 *0.0024*	0,060 *0.0024*	0,065 *0.0026*	0,070 *0.0028*	0,075 *0.0030*	0,080 *0.0032*	65 *215*
TP3	C1 *C1*	0,060 *0.0024*	0,060 *0.0024*	0,065 *0.0026*	0,070 *0.0028*	0,075 *0.0030*	0,080 *0.0032*	50 *165*

SD205A-C2 – ∅ 3-13 mm / *0.118-0.512 inch*

SMG		f						v_c
		Ø 3,00 *Ø 0.118*	Ø 5,00 *Ø 0.197*	Ø 7,00 *Ø 0.276*	Ø 9,00 *Ø 0.354*	Ø 11,00 *Ø 0.433*	Ø 13,00 *Ø 0.512*	
N1	C2 *C2*	0,095 *0.0038*	0,10 *0.0040*	0,11 *0.0044*	0,12 *0.0048*	0,13 *0.0050*	0,14 *0.0055*	80 *260*
N2	C2 *C2*	0,095 *0.0038*	0,10 *0.0040*	0,11 *0.0044*	0,12 *0.0048*	0,13 *0.0050*	0,14 *0.0055*	50 *165*
N3	C2 *C2*	0,095 *0.0038*	0,10 *0.0040*	0,11 *0.0044*	0,12 *0.0048*	0,13 *0.0050*	0,14 *0.0055*	33 *110*
S11	C2 *C2*	0,055 *0.0022*	0,065 *0.0026*	0,080 *0.0032*	0,090 *0.0036*	0,10 *0.0040*	0,11 *0.0044*	50 *165*
S12	C2 *C2*	0,055 *0.0022*	0,065 *0.0026*	0,080 *0.0032*	0,090 *0.0036*	0,10 *0.0040*	0,11 *0.0044*	40 *130*
S13	C2 *C2*	0,048 *0.0019*	0,060 *0.0024*	0,070 *0.0028*	0,080 *0.0032*	0,090 *0.0036*	0,10 *0.0040*	31 *100*

SD203-CX1 – ∅ 3-9 mm / *0.118-0.354 inch*

SMG		f				v_c
		Ø 3,00 *Ø 0.118*	Ø 5,00 *Ø 0.197*	Ø 7,00 *Ø 0.276*	Ø 9,00 *Ø 0.354*	
TS2	CX1 *CX1*	0,075 *0.0030*	0,085 *0.0034*	0,090 *0.0036*	0,10 *0.0040*	150 *490*
TS3	CX1 *CX1*	0,075 *0.0030*	0,085 *0.0034*	0,090 *0.0036*	0,10 *0.0040*	120 *395*
TP2	CX1 *CX1*	0,075 *0.0030*	0,085 *0.0034*	0,090 *0.0036*	0,10 *0.0040*	150 *490*
TP3	CX1 *CX1*	0,075 *0.0030*	0,085 *0.0034*	0,090 *0.0036*	0,10 *0.0040*	120 *395*

SMG = Seco material group f = mm/rev (IPR) v_c = m/min (sf/min) All cutting data are start values

SD22 & SD26 – ∅ 0,1-0,3 mm / *0.0039-0.0118 inch*

SMG	f			v_c
	Ø 0,10 *Ø 0.0039*	Ø 0,20 *Ø 0.0079*	Ø 0,30 *Ø 0.0118*	
P1	0,0011 *0.000044*	0,0017 *0.000065*	0,0024 *0.000095*	11 *36*
P2	0,0011 *0.000044*	0,0017 *0.000065*	0,0024 *0.000095*	11 *36*
P3	0,0010 *0.000040*	0,0016 *0.000065*	0,0022 *0.000085*	10 *33*
P4	0,0010 *0.000040*	0,0016 *0.000065*	0,0022 *0.000085*	8 *26*
P5	0,0010 *0.000040*	0,0016 *0.000065*	0,0022 *0.000085*	8 *26*
P6	0,0010 *0.000040*	0,0016 *0.000065*	0,0022 *0.000085*	9 *30*
P7	0,0010 *0.000040*	0,0016 *0.000065*	0,0022 *0.000085*	8 *26*
P8	0,0010 *0.000040*	0,0016 *0.000065*	0,0022 *0.000085*	8 *26*
P11	0,0010 *0.000040*	0,0016 *0.000065*	0,0022 *0.000085*	8 *26*
P12	0,00070 *0.000028*	0,0011 *0.000044*	0,0015 *0.000060*	5 *16*
M1	0,0011 *0.000044*	0,0017 *0.000065*	0,0024 *0.000095*	2 *7*
M2	0,0010 *0.000040*	0,0016 *0.000065*	0,0022 *0.000085*	2 *7*
K1	0,0011 *0.000044*	0,0017 *0.000065*	0,0024 *0.000095*	6 *20*
K2	0,0010 *0.000040*	0,0016 *0.000065*	0,0022 *0.000085*	5 *16*
K3	0,0010 *0.000040*	0,0016 *0.000065*	0,0022 *0.000085*	4 *13*
K4	0,0010 *0.000040*	0,0016 *0.000065*	0,0022 *0.000085*	4 *13*
K5	0,00090 *0.000036*	0,0014 *0.000055*	0,0019 *0.000075*	3 *10*
N2	0,0014 *0.000055*	0,0022 *0.000085*	0,0030 *0.00012*	15 *49*
N3	0,0014 *0.000055*	0,0022 *0.000085*	0,0030 *0.00012*	10 *33*
S11	0,00080 *0.000032*	0,0013 *0.000050*	0,0017 *0.000065*	4 *13*
S12	0,00080 *0.000032*	0,0013 *0.000050*	0,0017 *0.000065*	3 *10*

SMG = Seco material group f = mm/rev (IPR) v_c = m/min (sf/min) All cutting data are start values

SD22 & SD26 – ∅ 0,4-0,5 mm / *0.0157-0.0197 inch*

SMG	f		v_c
	Ø 0,40 *Ø 0.0157*	Ø 0,50 *Ø 0.0197*	
P1	0,0030 *0.00012*	0,0036 *0.00014*	14 *46*
P2	0,0030 *0.00012*	0,0036 *0.00014*	14 *46*
P3	0,0028 *0.00011*	0,0034 *0.00013*	12 *39*
P4	0,0028 *0.00011*	0,0034 *0.00013*	10 *33*
P5	0,0028 *0.00011*	0,0034 *0.00013*	10 *33*
P6	0,0028 *0.00011*	0,0032 *0.00013*	11 *36*
P7	0,0028 *0.00011*	0,0032 *0.00013*	11 *36*
P8	0,0028 *0.00011*	0,0034 *0.00013*	10 *33*
P11	0,0028 *0.00011*	0,0032 *0.00013*	10 *33*
P12	0,0019 *0.000075*	0,0022 *0.000085*	6 *20*
M1	0,0030 *0.00012*	0,0036 *0.00014*	5 *16*
M2	0,0028 *0.00011*	0,0034 *0.00013*	4 *13*
K1	0,0030 *0.00012*	0,0036 *0.00014*	10 *33*
K2	0,0028 *0.00011*	0,0034 *0.00013*	9 *30*
K3	0,0028 *0.00011*	0,0034 *0.00013*	7 *23*
K4	0,0028 *0.00011*	0,0034 *0.00013*	7 *23*
K5	0,0025 *0.00010*	0,0030 *0.00012*	4 *13*
N2	0,0038 *0.00015*	0,0046 *0.00018*	30 *100*
N3	0,0038 *0.00015*	0,0046 *0.00018*	20 *65*
S11	0,0022 *0.000085*	0,0026 *0.00010*	8 *26*
S12	0,0022 *0.000085*	0,0026 *0.00010*	6 *20*

SMG = Seco material group f = mm/rev (IPR) v_c = m/min (sf/min) All cutting data are start values

SD22 & SD26 – ∅ 0,6-0,8 mm / *0.0236-0.0315 inch*

SMG	f			v_c
	Ø 0,60 *Ø 0.0236*	Ø 0,70 *Ø 0.0276*	Ø 0,80 *Ø 0.0315*	
P1	0,0042 *0.00017*	0,0048 *0.00019*	0,0055 *0.00022*	28 *90*
P2	0,0042 *0.00017*	0,0050 *0.00020*	0,0055 *0.00022*	28 *90*
P3	0,0040 *0.00016*	0,0046 *0.00018*	0,0055 *0.00022*	24 *80*
P4	0,0040 *0.00016*	0,0046 *0.00018*	0,0050 *0.00020*	21 *70*
P5	0,0038 *0.00015*	0,0044 *0.00017*	0,0050 *0.00020*	20 *65*
P6	0,0038 *0.00015*	0,0044 *0.00017*	0,0050 *0.00020*	22 *70*
P7	0,0038 *0.00015*	0,0044 *0.00017*	0,0050 *0.00020*	21 *70*
P8	0,0040 *0.00016*	0,0046 *0.00018*	0,0055 *0.00022*	20 *65*
P11	0,0038 *0.00015*	0,0044 *0.00017*	0,0050 *0.00020*	21 *70*
P12	0,0026 *0.00010*	0,0030 *0.00012*	0,0034 *0.00013*	12 *39*
M1	0,0042 *0.00017*	0,0050 *0.00020*	0,0055 *0.00022*	9 *30*
M2	0,0038 *0.00015*	0,0044 *0.00017*	0,0050 *0.00020*	7 *23*
K1	0,0042 *0.00017*	0,0050 *0.00020*	0,0055 *0.00022*	15 *49*
K2	0,0038 *0.00015*	0,0044 *0.00017*	0,0050 *0.00020*	13 *43*
K3	0,0038 *0.00015*	0,0044 *0.00017*	0,0050 *0.00020*	11 *36*
K4	0,0038 *0.00015*	0,0044 *0.00017*	0,0050 *0.00020*	10 *33*
K5	0,0036 *0.00014*	0,0040 *0.00016*	0,0046 *0.00018*	6 *20*
N2	0,0055 *0.00022*	0,0065 *0.00026*	0,0070 *0.00028*	60 *195*
N3	0,0055 *0.00022*	0,0065 *0.00026*	0,0070 *0.00028*	40 *130*
S11	0,0032 *0.00013*	0,0036 *0.00014*	0,0040 *0.00016*	13 *43*
S12	0,0032 *0.00013*	0,0036 *0.00014*	0,0040 *0.00016*	10 *33*

SMG = Seco material group f = mm/rev (IPR) v_c = m/min (sf/min) All cutting data are start values

SD22 & SD26 – ∅ 0,9-1,1 mm / *0.0354-0.0433 inch*

SMG	f			v_c
	Ø 0,90 *Ø 0.0354*	Ø 1,00 *Ø 0.0394*	Ø 1,10 *Ø 0.0433*	
P1	0,0060 *0.00024*	0,0065 *0.00026*	0,0075 *0.00030*	50 *165*
P2	0,0060 *0.00024*	0,0070 *0.00028*	0,0075 *0.00030*	48 *155*
P3	0,0060 *0.00024*	0,0065 *0.00026*	0,0070 *0.00028*	42 *140*
P4	0,0055 *0.00022*	0,0065 *0.00026*	0,0070 *0.00028*	37 *120*
P5	0,0055 *0.00022*	0,0060 *0.00024*	0,0070 *0.00028*	35 *115*
P6	0,0055 *0.00022*	0,0060 *0.00024*	0,0065 *0.00026*	39 *130*
P7	0,0055 *0.00022*	0,0060 *0.00024*	0,0065 *0.00026*	37 *120*
P8	0,0060 *0.00024*	0,0065 *0.00026*	0,0070 *0.00028*	35 *115*
P11	0,0055 *0.00022*	0,0060 *0.00024*	0,0065 *0.00026*	36 *120*
P12	0,0038 *0.00015*	0,0042 *0.00017*	0,0046 *0.00018*	21 *70*
M1	0,0060 *0.00024*	0,0070 *0.00028*	0,0075 *0.00030*	12 *39*
M2	0,0055 *0.00022*	0,0060 *0.00024*	0,0070 *0.00028*	10 *33*
K1	0,0060 *0.00024*	0,0070 *0.00028*	0,0075 *0.00030*	20 *65*
K2	0,0055 *0.00022*	0,0060 *0.00024*	0,0070 *0.00028*	17 *55*
K3	0,0055 *0.00022*	0,0060 *0.00024*	0,0070 *0.00028*	15 *49*
K4	0,0055 *0.00022*	0,0060 *0.00024*	0,0070 *0.00028*	14 *46*
K5	0,0050 *0.00020*	0,0055 *0.00022*	0,0060 *0.00024*	8 *26*
N2	0,0080 *0.00032*	0,0085 *0.00034*	0,0095 *0.00038*	80 *260*
N3	0,0080 *0.00032*	0,0085 *0.00034*	0,0095 *0.00038*	55 *180*
S11	0,0046 *0.00018*	0,0050 *0.00020*	0,0055 *0.00022*	19 *60*
S12	0,0046 *0.00018*	0,0050 *0.00020*	0,0055 *0.00022*	15 *49*

SMG = Seco material group f = mm/rev (IPR) v_c = m/min (sf/min) All cutting data are start values

SD22 & SD26 – ∅ 1,2-2,0 mm / *0.0472-0.0787 inch*

SMG	f					v_c
	Ø 1,20 *Ø 0.0472*	Ø 1,40 *Ø 0.0551*	Ø 1,60 *Ø 0.0630*	Ø 1,80 *Ø 0.0709*	Ø 2,00 *Ø 0.0787*	
P1	0,0080 *0.00032*	0,0090 *0.00036*	0,010 *0.00040*	0,012 *0.00048*	0,013 *0.00050*	70 *230*
P2	0,0080 *0.00032*	0,0095 *0.00038*	0,011 *0.00044*	0,012 *0.00048*	0,013 *0.00050*	70 *230*
P3	0,0075 *0.00030*	0,0090 *0.00036*	0,010 *0.00040*	0,011 *0.00044*	0,012 *0.00048*	60 *195*
P4	0,0075 *0.00030*	0,0085 *0.00034*	0,010 *0.00040*	0,011 *0.00044*	0,012 *0.00048*	50 *165*
P5	0,0075 *0.00030*	0,0085 *0.00034*	0,0095 *0.00038*	0,011 *0.00044*	0,012 *0.00048*	50 *165*
P6	0,0075 *0.00030*	0,0085 *0.00034*	0,0095 *0.00038*	0,011 *0.00044*	0,012 *0.00048*	55 *180*
P7	0,0075 *0.00030*	0,0085 *0.00034*	0,0095 *0.00038*	0,011 *0.00044*	0,012 *0.00048*	55 *180*
P8	0,0075 *0.00030*	0,0090 *0.00036*	0,010 *0.00040*	0,011 *0.00044*	0,012 *0.00048*	50 *165*
P11	0,0075 *0.00030*	0,0085 *0.00034*	0,0095 *0.00038*	0,011 *0.00044*	0,012 *0.00048*	50 *165*
P12	0,0050 *0.00020*	0,0060 *0.00024*	0,0065 *0.00026*	0,0075 *0.00030*	0,0080 *0.00032*	30 *100*
M1	0,0080 *0.00032*	0,0095 *0.00038*	0,011 *0.00044*	0,012 *0.00048*	0,013 *0.00050*	15 *49*
M2	0,0075 *0.00030*	0,0085 *0.00034*	0,0095 *0.00038*	0,011 *0.00044*	0,012 *0.00048*	12 *39*
K1	0,0080 *0.00032*	0,0095 *0.00038*	0,011 *0.00044*	0,012 *0.00048*	0,013 *0.00050*	35 *115*
K2	0,0075 *0.00030*	0,0085 *0.00034*	0,0095 *0.00038*	0,011 *0.00044*	0,012 *0.00048*	30 *100*
K3	0,0075 *0.00030*	0,0085 *0.00034*	0,0095 *0.00038*	0,011 *0.00044*	0,012 *0.00048*	26 *85*
K4	0,0075 *0.00030*	0,0085 *0.00034*	0,0095 *0.00038*	0,011 *0.00044*	0,012 *0.00048*	25 *80*
K5	0,0065 *0.00026*	0,0075 *0.00030*	0,0085 *0.00034*	0,010 *0.00040*	0,011 *0.00044*	15 *49*
N2	0,010 *0.00040*	0,012 *0.00048*	0,014 *0.00055*	0,015 *0.00060*	0,017 *0.00065*	100 *330*
N3	0,010 *0.00040*	0,012 *0.00048*	0,014 *0.00055*	0,015 *0.00060*	0,017 *0.00065*	65 *215*
S11	0,0060 *0.00024*	0,0070 *0.00028*	0,0075 *0.00030*	0,0085 *0.00034*	0,0095 *0.00038*	26 *85*
S12	0,0060 *0.00024*	0,0070 *0.00028*	0,0075 *0.00030*	0,0085 *0.00034*	0,0095 *0.00038*	20 *65*

SMG = Seco material group f = mm/rev (IPR) v_c = m/min (sf/min) All cutting data are start values



Seco Crownloc®

Seco Crownloc® is a range of exchangeable tip drills designed to offer high quality holes at a lower cost. Matching the quality of high precision drills, Crownloc uses replaceable crowns to eliminate the need for and cost of regrinding.

- Double coolant holes through the crown permit a high volume of coolant to reach the cutting edges
- Crownloc® is available in a large range of optimized tip geometries for different applications and workpiece materials

Range overview

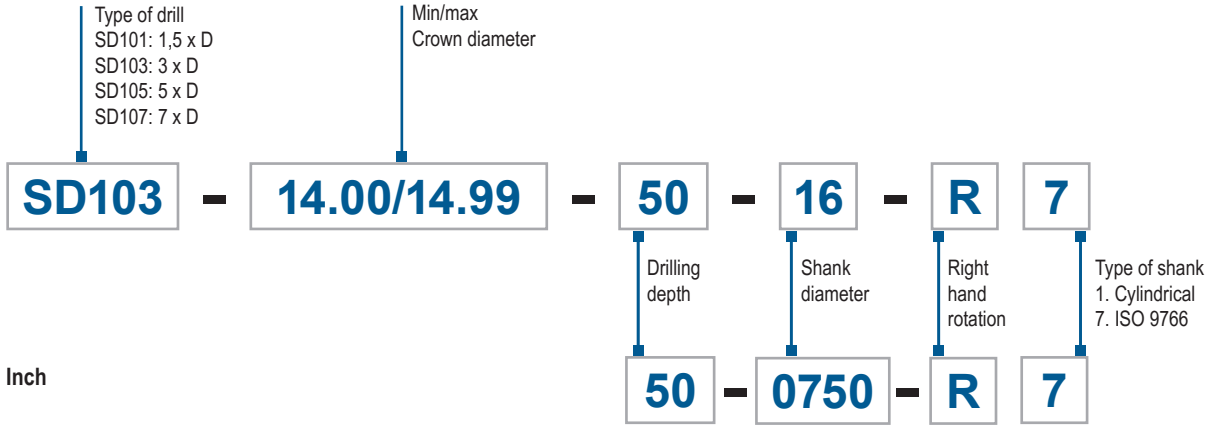
Crownloc®	∅ Range	Drill depth	Drill ∅ tolerance	Hole tolerance (1)	Surface finish (2)
SD101  Page(s) 175-176	12,00-25,99 mm *(0.472-1.023")*	1,5 x D	k7	IT 10	Ra 1-3 µm *(Ra 39-118 µin)*
SD103  Page(s) 177-178	9,52-25,99 mm *(0.375-1.023")*	3 x D	k7	IT 10	Ra 1-3 µm *(Ra 39-118 µin)*
SD105  Page(s) 179-180	10,00-25,99 mm *(0.394-1.023")*	5 x D	k7	IT 10	Ra 1-3 µm *(Ra 39-118 µin)*
SD107  Page(s) 181-182	12,00-25,99 mm *(0.472-1.023")*	7 x D	k7	IT 10	Ra 1-4 µm *(Ra 39-157 µin)*
Chamfer module  Page(s) 190	12.00-19,99 mm *(0.472-0.787")*	–	–	–	–

1) Variations can occur depending on the material and the cutting data used.
2) Drill depth, cutting data, coolant pressure and material can cause deterioration of the surface finish.

Code keys

Code key drill bodies

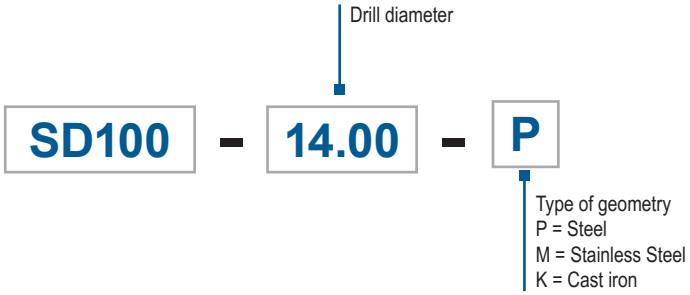
Metric





Inch

Code key crowns



Geometries

P-geometry
- Universal geometry, first choice for drilling in steel



M-geometry
- For stainless steels and high temp alloys



K-geometry
- First choice for drilling in cast iron



Spare part kits

Drill diameter mm (Inch)	SD101	SD103	SD105	SD107
10,00-11,99	–	SD103-SP-4.0	SD105-SP-4.0	–
12,00-13,99	SD101-SP-5.0	SD103-SP-5.0	SD105-SP-5.0	SD107-SP-5.0
14,00-16,99	SD101-SP-6.0	SD103-SP-6.0	SD105-SP-6.0	SD107-SP-6.0
17,00-19,99	SD101-SP-7.0	SD103-SP-7.0	SD105-SP-7.0	SD107-SP-7.0
20,00-25,99	SD101-SP-8.0	SD103-SP-8.0	SD105-SP-8.0	SD107-SP-8.0

Mounting instructions

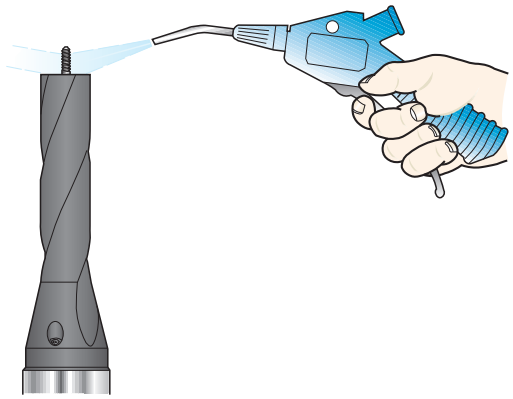
1. Clean the locking interface of the drill body carefully to remove any chips or debris.
2. Make sure that the pull rod is fully extended.
3. Mount new crown onto the pull rod and turn it until it reaches the bottom of the thread.

Turn the crown slightly counterclockwise (backwards) until the locking interfaces fit.
Push the crown towards the body into the right position while turning the clamping screw.
Make sure the interfaces fit.
Tighten the clamping screw firmly using the torque key.

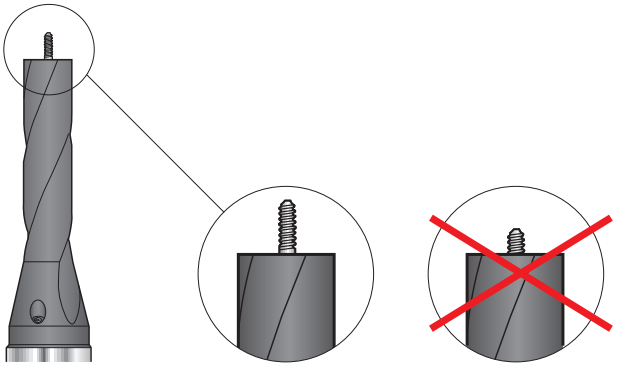
Stability
The stability of the applicationis important in obtaining the best tool life and hole accuracy. Check the condition of the machine spindle, fixture and fixturing of the component to secure maximum stability and rigidity. Unstable conditions can cause tool breakages.

Rotating
Total Indicated Run-out (TIR) should not exceed 0,06 mm *(0.002")* in a rotating application. Measure the run-out when the drill is mounted in the spindle.

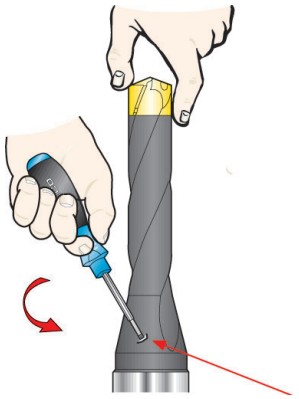
1.



2.

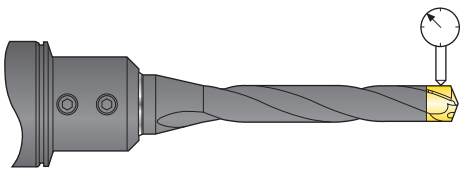


3.



Drill ∅ DC mm	M_c Nm	Drill ∅ DC *inch*	M_c *in/lbs*
10,00-13,99	0,8-1,0	*0.394-0.551*	*7-9*
14,00-16,99	1,8-2,2	*0.551-0.669*	*16-19.5*
17,00-25,99	2,5-3,0	*0.669-1.023*	*22-26*

Stationary
The distance between the drill point and the rotating center of the workpiece should not exceed 0.03 mm *(0.001")* radially in a stationary application.



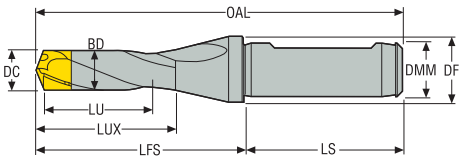
Recommended tool holders
For best results, use holders type DIN 1835 B/DIN 6535 HB (Weldon). For further information see Tooling catalog.



Weldon

SD101 – R7

Drilling depth ~ 1,5 x D – Metric shank





- Internal coolant
- ISO9766 fits holders: Weldon 1835B, ISO 5414, DIN 60880
- For cutting data see page(s) 193

Designation	Item number	DC	LU	OAL	LUX	BD	LFS	LS	DMM	DF
		mm	mm	mm	mm	mm	mm	mm	mm	mm
SD101-12.00/12.49-20-16R7	02445790	12,0-12,49	20,0	96,0	32,0	11,5	48,0	48,0	16,0	20,0
SD101-12.50/12.99-20-16R7	02445791	12,5-12,99	20,0	96,4	32,4	12,0	48,4	48,0	16,0	20,0
SD101-13.00/13.99-20-16R7	02445792	13,0-13,99	20,0	96,8	32,8	12,5	48,8	48,0	16,0	20,0
SD101-14.00/14.99-25-16R7	02445793	14,0-14,99	25,0	102,4	38,4	13,5	54,4	48,0	16,0	20,0
SD101-15.00/15.99-25-16R7	02445794	15,0-15,99	25,0	103,3	39,3	14,5	55,3	48,0	16,0	20,0
SD101-16.00/16.99-25-16R7	02445795	16,0-16,99	25,0	104,0	40,0	15,5	56,0	48,0	16,0	20,0
SD101-17.00/17.99-30-20R7	02445796	17,0-17,99	30,0	110,7	44,7	16,5	60,7	50,0	20,0	25,0
SD101-18.00/18.99-30-20R7	02445797	18,0-18,99	30,0	111,7	45,7	17,5	61,7	50,0	20,0	25,0
SD101-19.00/19.99-30-20R7	02445798	19,0-19,99	30,0	112,5	46,5	18,5	62,5	50,0	20,0	25,0
SD101-20.00/21.99-40-25R7	02462832	20,0-21,99	40,0	129,5	53,5	19,5	73,5	56,0	25,0	31,0
SD101-22.00/23.99-40-25R7	02462833	22,0-23,99	40,0	129,5	53,5	21,5	73,5	56,0	25,0	31,0
SD101-24.00/25.99-40-25R7	02462834	24,0-25,99	40,0	129,5	53,5	23,5	73,5	56,0	25,0	31,0

Spare Parts, included in delivery

For drill dia. (mm)	Locking key	Locking screw	Spare parts set
			
12,00-13,99	H1.5-2D	MP6SS3X12	SD101-SP-5.0
14,00-16,99	H2.0-2D	MP6SS4X12	SD101-SP-6.0
17,00-19,99	H2.5-2D	MP6SS5X16	SD101-SP-7.0
20,00-25,99	H2.5-2D	MP6SS5X16	SD101-SP-8.0

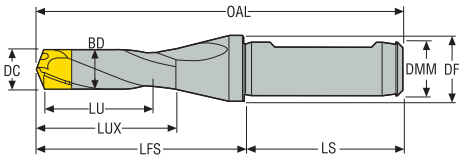
Accessories

Replacement blade	Torque key
	
H00-1.5	H00-1509
H00-2.0	H00-2020
H00-2.5	H00-2530
H00-2.5	H00-2535

SD101 – R7

Drilling depth ~ 1,5 x D – Inch shank





- Internal coolant
- ISO9766 fits holders: Weldon 1835B, ISO 5414, DIN 60880
- For cutting data see page(s) 193

Designation	Item number	DC	LU	BD	DF	OAL	LS	LFS	LUX	DMM
		Inch	*Inch*	*Inch*	*Inch*	*Inch*	*Inch*	*Inch*	*Inch*	*Inch*
SD101-12.00/12.49-20-0625R7	02445817	0.472-0.492	0.787	0.453	0.787	3.780	1.890	1.890	1.260	0.625
SD101-12.50/12.99-20-0625R7	02445818	0.492-0.511	0.787	0.472	0.787	3.795	1.890	1.906	1.276	0.625
SD101-13.00/13.99-20-0625R7	02445819	0.512-0.551	0.787	0.492	0.787	3.811	1.890	1.921	1.291	0.625
SD101-14.00/14.99-25-0625R7	02445820	0.551-0.590	0.984	0.531	0.787	4.031	1.890	2.142	1.512	0.625
SD101-15.00/15.99-25-0625R7	02445821	0.591-0.630	0.984	0.571	0.787	4.067	1.890	2.177	1.547	0.625
SD101-16.00/16.99-25-0625R7	02445822	0.630-0.669	0.984	0.610	0.787	4.094	1.890	2.205	1.575	0.625
SD101-17.00/17.99-30-0750R7	02445823	0.669-0.708	1.181	0.650	0.984	4.358	1.969	2.390	1.760	0.750
SD101-18.00/18.99-30-0750R7	02445824	0.709-0.748	1.181	0.689	0.984	4.398	1.969	2.429	1.799	0.750
SD101-19.00/19.99-30-0750R7	02445825	0.748-0.787	1.181	0.728	0.984	4.429	1.969	2.461	1.831	0.750
SD101-20.00/21.99-40-1000R7	02466044	0.787-0.866	1.575	0.768	1.220	5.098	2.205	2.894	2.106	1.000
SD101-22.00/23.99-40-1000R7	02466045	0.866-0.944	1.575	0.846	1.220	5.098	2.205	2.894	2.106	1.000
SD101-24.00/25.99-40-1000R7	02466046	0.945-1.023	1.575	0.925	1.220	5.098	2.205	2.894	2.106	1.000

Spare Parts, included in delivery

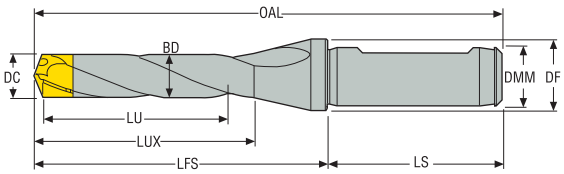
For drill dia. (inch)	Locking key	Locking screw	Spare parts set
			
0.472-0.551	H1.5-2D	MP6SS3X12	SD101-SP-5.0
0.551-0.669	H2.0-2D	MP6SS4X12	SD101-SP-6.0
0.669-0.787	H2.5-2D	MP6SS5X16	SD101-SP-7.0
0.787-1.023	H2.5-2D	MP6SS5X16	SD101-SP-8.0

Accessories

Replacement blade	Torque key
	
H00-1.5	H00-1509
H00-2.0	H00-2020
H00-2.5	H00-2530
H00-2.5	H00-2535

SD103 – R7

Drilling depth ~ 3 x D – Metric shank





- Internal coolant
- ISO9766 fits holders: Weldon 1835B, ISO 5414, DIN 60880
- For cutting data see page(s) 194

Designation	Item number	DC	LU	OAL	LUX	BD	LFS	LS	DMM	DF
		mm	mm	mm	mm	mm	mm	mm	mm	mm
SD103-10.00/10.49-30-16R7	02462815	10,0-10,49	30,0	101,0	38,0	9,5	53,0	48,0	16,0	20,0
SD103-10.50/10.99-30-16R7	02462818	10,5-10,99	30,0	101,0	38,0	10,0	53,0	48,0	16,0	20,0
SD103-11.00/11.49-30-16R7	02462819	11,0-11,49	30,0	101,0	38,0	10,5	53,0	48,0	16,0	20,0
SD103-11.50/11.99-30-16R7	02462820	11,5-11,99	30,0	101,0	38,0	11,0	53,0	48,0	16,0	20,0
SD103-12.00/12.49-40-16R7	02445799	12,0-12,49	40,0	116,0	48,0	11,5	68,0	48,0	16,0	20,0
SD103-12.50/12.99-40-16R7	02445800	12,5-12,99	40,0	116,4	48,4	12,0	68,4	48,0	16,0	20,0
SD103-13.00/13.99-40-16R7	02445801	13,0-13,99	40,0	116,8	48,8	12,5	68,8	48,0	16,0	20,0
SD103-14.00/14.99-50-16R7	02445802	14,0-14,99	50,0	127,4	59,4	13,5	79,4	48,0	16,0	20,0
SD103-15.00/15.99-50-16R7	02445803	15,0-15,99	50,0	128,3	60,3	14,5	80,3	48,0	16,0	20,0
SD103-16.00/16.99-50-16R7	02445804	16,0-16,99	50,0	129,0	61,0	15,5	81,0	48,0	16,0	20,0
SD103-17.00/17.99-60-20R7	02445805	17,0-17,99	60,0	140,7	67,7	16,5	90,7	50,0	20,0	25,0
SD103-18.00/18.99-60-20R7	02445806	18,0-18,99	60,0	141,7	68,7	17,5	91,7	50,0	20,0	25,0
SD103-19.00/19.99-60-20R7	02445807	19,0-19,99	60,0	142,5	69,5	18,5	92,7	50,0	20,0	25,0
SD103-20.00/21.99-75-25R7	02462836	20,0-21,99	75,0	164,5	88,5	19,5	108,5	56,0	25,0	31,0
SD103-22.00/23.99-75-25R7	02462838	22,0-23,99	75,0	164,5	88,5	21,5	108,5	56,0	25,0	31,0
SD103-24.00/25.99-75-25R7	02462841	24,0-25,99	75,0	164,5	88,5	23,5	108,5	56,0	25,0	31,0

Spare Parts, included in delivery

For drill dia. (mm)	Locking key	Locking screw	Spare parts set
			
10,00-11,99	H1.5-2D	MP6SS3X12	SD103-SP-4.0
12,00-13,99	H1.5-2D	MP6SS3X12	SD103-SP-5.0
14,00-16,99	H2.0-2D	MP6SS4X12	SD103-SP-6.0
17,00-19,99	H2.5-2D	MP6SS5X16	SD103-SP-7.0
20,00-25,99	H2.5-2D	MP6SS5X16	SD103-SP-8.0

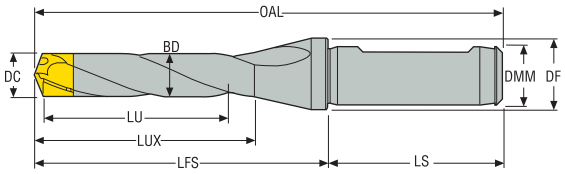
Accessories

Replacement blade	Torque key
	
H00-1.5	H00-1509
H00-1.5	H00-1509
H00-2.0	H00-2020
H00-2.5	H00-2530
H00-2.5	H00-2535

SD103 – R7

Drilling depth ~ 3 x D – Inch shank





- Internal coolant
- ISO9766 fits holders: Weldon 1835B, ISO 5414, DIN 60880
- For cutting data see page(s) 194

Designation	Item number	DC	LU	BD	DF	OAL	LS	LFS	LUX	DMM
		Inch	*Inch*	*Inch*	*Inch*	*Inch*	*Inch*	*Inch*	*Inch*	*Inch*
SD103-09.50/09.99-30-0625R7	02673828	0.374-0.393	1.181	0.354	0.787	4.252	1.969	2.323	1.835	0.625
SD103-10.00/10.49-30-0625R7	02466011	0.394-0.413	1.181	0.374	0.787	3.976	1.890	2.087	1.496	0.625
SD103-10.50/10.99-30-0625R7	02466012	0.413-0.433	1.181	0.394	0.787	3.976	1.890	2.087	1.496	0.625
SD103-11.00/11.49-30-0625R7	02466013	0.433-0.452	1.181	0.413	0.787	3.976	1.890	2.087	1.496	0.625
SD103-11.50/11.99-30-0625R7	02466014	0.453-0.472	1.181	0.433	0.787	3.976	1.890	2.087	1.496	0.625
SD103-12.00/12.49-40-0625R7	02445826	0.472-0.492	1.575	0.453	0.787	4.567	1.890	2.677	1.890	0.625
SD103-12.50/12.99-40-0625R7	02445827	0.492-0.511	1.575	0.472	0.787	4.583	1.890	2.693	1.906	0.625
SD103-13.00/13.99-40-0625R7	02445828	0.512-0.551	1.575	0.492	0.787	4.598	1.890	2.709	1.921	0.625
SD103-14.00/14.99-50-0625R7	02445829	0.551-0.590	1.969	0.531	0.787	5.016	1.890	3.126	2.339	0.625
SD103-15.00/15.99-50-0625R7	02445830	0.591-0.630	1.969	0.571	0.787	5.051	1.890	3.161	2.374	0.625
SD103-16.00/16.99-50-0625R7	02445831	0.630-0.669	1.969	0.610	0.787	5.079	1.890	3.189	2.402	0.625
SD103-17.00/17.99-60-0750R7	02445832	0.669-0.708	2.362	0.650	0.984	5.539	1.969	3.571	2.665	0.750
SD103-18.00/18.99-60-0750R7	02445833	0.709-0.748	2.362	0.689	0.984	5.579	1.969	3.610	2.705	0.750
SD103-19.00/19.99-60-0750R7	02445834	0.748-0.787	2.362	0.728	0.984	5.610	1.969	3.650	2.736	0.750
SD103-20.00/21.99-75-1000R7	02466049	0.787-0.866	2.953	0.768	1.220	6.476	2.205	4.272	3.484	1.000
SD103-22.00/23.99-75-1000R7	02466050	0.866-0.944	2.953	0.846	1.220	6.476	2.205	4.272	3.484	1.000
SD103-24.00/25.99-75-1000R7	02466051	0.945-1.023	2.953	0.925	1.220	6.476	2.205	4.272	3.484	1.000

Spare Parts, included in delivery

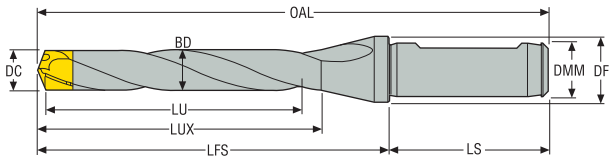
For drill dia. (inch)	Locking key	Locking screw	Spare parts set
			
0.374-0.393	H1.5-2D	MP6SS3X12	–
0.394-0.472	H1.5-2D	MP6SS3X12	SD103-SP-4.0
0.472-0.551	H1.5-2D	MP6SS3X12	SD103-SP-5.0
0.551-0.669	H2.0-2D	MP6SS4X12	SD103-SP-6.0
0.669-0.787	H2.5-2D	MP6SS5X16	SD103-SP-7.0
0.787-1.023	H2.5-2D	MP6SS5X16	SD103-SP-8.0

Accessories

Replacement blade	Torque key
	
H00-1.5	H00-1509
H00-1.5	H00-1509
H00-1.5	H00-1509
H00-2.0	H00-2020
H00-2.5	H00-2530
H00-2.5	H00-2535

SD105 – R7

Drilling depth ~ 5 x D – Metric shank





- Internal coolant
- ISO9766 fits holders: Weldon 1835B, ISO 5414, DIN 60880
- For cutting data see page(s) 195

Designation	Item number	DC	LU	OAL	LUX	BD	LFS	LS	DMM	DF
		mm	mm	mm	mm	mm	mm	mm	mm	mm
SD105-10.00/10.49-50-16R7	02462822	10,0-10,49	50,0	120,1	57,3	9,5	72,1	48,0	16,0	20,0
SD105-10.50/10.99-50-16R7	02462824	10,5-10,99	50,0	120,6	57,3	10,0	72,6	48,0	16,0	20,0
SD105-11.00/11.49-50-16R7	02462828	11,0-11,49	50,0	120,9	57,3	10,5	72,9	48,0	16,0	20,0
SD105-11.50/11.99-50-16R7	02462830	11,5-11,99	50,0	121,3	58,3	11,0	73,3	48,0	16,0	20,0
SD105-12.00/12.49-65-16R7	02445808	12,0-12,49	65,0	141,0	73,0	11,5	93,0	48,0	16,0	20,0
SD105-12.50/12.99-65-16R7	02445809	12,5-12,99	65,0	141,4	73,4	12,0	93,4	48,0	16,0	20,0
SD105-13.00/13.99-65-16R7	02445810	13,0-13,99	65,0	141,8	73,8	12,5	93,8	48,0	16,0	20,0
SD105-14.00/14.99-80-16R7	02445811	14,0-14,99	80,0	157,4	89,4	13,5	109,4	48,0	16,0	20,0
SD105-15.00/15.99-80-16R7	02445812	15,0-15,99	80,0	158,3	90,3	14,5	110,3	48,0	16,0	20,0
SD105-16.00/16.99-80-16R7	02445813	16,0-16,99	80,0	159,0	91,0	15,5	111,0	48,0	16,0	20,0
SD105-17.00/17.99-95-20R7	02445814	17,0-17,99	95,0	176,7	107,7	16,5	126,7	50,0	20,0	25,0
SD105-18.00/18.99-95-20R7	02445815	18,0-18,99	95,0	177,7	108,7	17,5	127,7	50,0	20,0	25,0
SD105-19.00/19.99-95-20R7	02445816	19,0-19,99	95,0	178,5	109,5	18,5	128,5	50,0	20,0	25,0
SD105-20.00/21.99-125-25R7	02462843	20,0-21,99	125,0	214,5	138,5	19,5	158,5	56,0	25,0	31,0
SD105-22.00/23.99-125-25R7	02462848	22,0-23,99	125,0	214,5	138,5	21,5	158,5	56,0	25,0	31,0
SD105-24.00/25.99-125-25R7	02462850	24,0-25,99	125,0	214,5	138,5	23,5	158,5	56,0	25,0	31,0

Spare Parts, included in delivery

For drill dia. (mm)	Locking key	Locking screw	Spare parts set
			
10,00-11,99	H1.5-2D	MP6SS3X12	SD105-SP-4.0
12,00-13,99	H1.5-2D	MP6SS3X12	SD105-SP-5.0
14,00-16,99	H2.0-2D	MP6SS4X12	SD105-SP-6.0
17,00-19,99	H2.5-2D	MP6SS5X16	SD105-SP-7.0
20,00-25,99	H2.5-2D	MP6SS5X16	SD105-SP-8.0

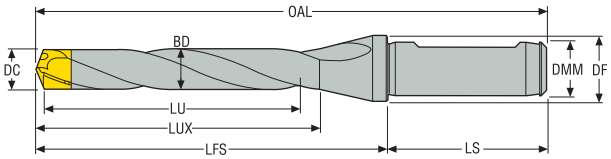
Accessories

Replacement blade	Torque key
	
H00-1.5	H00-1509
H00-1.5	H00-1509
H00-2.0	H00-2020
H00-2.5	H00-2530
H00-2.5	H00-2535

SD105 – R7

Drilling depth ~ 5 x D – Inch shank





- Internal coolant
- ISO9766 fits holders: Weldon 1835B, ISO 5414, DIN 60880
- For cutting data see page(s) 195

Designation	Item number	DC	LU	BD	DF	OAL	LS	LFS	LUX	DMM
		Inch	*Inch*	*Inch*	*Inch*	*Inch*	*Inch*	*Inch*	*Inch*	*Inch*
SD105-10.00/10.49-50-0625R7	02466034	0.394-0.413	1.969	0.374	0.787	4.728	1.890	2.839	2.256	0.625
SD105-10.50/10.99-50-0625R7	02466037	0.413-0.433	1.969	0.394	0.787	4.748	1.890	2.858	2.256	0.625
SD105-11.00/11.49-50-0625R7	02466041	0.433-0.452	1.969	0.413	0.787	4.760	1.890	2.870	2.256	0.625
SD105-11.50/11.99-50-0625R7	02466042	0.453-0.472	1.969	0.433	0.787	4.776	1.890	2.886	2.295	0.625
SD105-12.00/12.49-65-0625R7	02445835	0.472-0.492	2.559	0.453	0.787	5.551	1.890	3.661	2.874	0.625
SD105-12.50/12.99-65-0625R7	02445836	0.492-0.511	2.559	0.472	0.787	5.567	1.890	3.677	2.890	0.625
SD105-13.00/13.99-65-0625R7	02445837	0.512-0.551	2.559	0.492	0.787	5.583	1.890	3.693	2.906	0.625
SD105-14.00/14.99-80-0625R7	02445838	0.551-0.590	3.150	0.531	0.787	6.197	1.890	4.307	3.520	0.625
SD105-15.00/15.99-80-0625R7	02445839	0.591-0.630	3.150	0.571	0.787	6.232	1.890	4.343	3.555	0.625
SD105-16.00/16.99-80-0625R7	02445840	0.630-0.669	3.150	0.610	0.787	6.260	1.890	4.370	3.583	0.625
SD105-17.00/17.99-95-0750R7	02445841	0.669-0.708	3.740	0.650	0.984	6.957	1.969	4.988	4.240	0.750
SD105-18.00/18.99-95-0750R7	02445842	0.709-0.748	3.740	0.689	0.984	6.996	1.969	5.028	4.280	0.750
SD105-19.00/19.99-95-0750R7	02445843	0.748-0.787	3.740	0.728	0.984	7.028	1.969	5.059	4.311	0.750
SD105-20.00/21.99-125-1000R7	02466052	0.787-0.866	4.921	0.768	1.220	8.445	2.205	6.240	5.453	1.000
SD105-22.00/23.99-125-1000R7	02466053	0.866-0.944	4.921	0.846	1.220	8.445	2.205	6.240	5.453	1.000
SD105-24.00/25.99-125-1000R7	02466054	0.945-1.023	4.921	0.925	1.220	8.445	2.205	6.240	5.453	1.000

Spare Parts, included in delivery

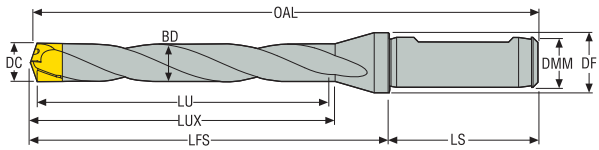
For drill dia. (inch)	Locking key	Locking screw	Spare parts set
			
0.394-0.472	H1.5-2D	MP6SS3X12	SD105-SP-4.0
0.472-0.551	H1.5-2D	MP6SS3X12	SD105-SP-5.0
0.551-0.669	H2.0-2D	MP6SS4X12	SD105-SP-6.0
0.669-0.787	H2.5-2D	MP6SS5X16	SD105-SP-7.0
0.787-1.023	H2.5-2D	MP6SS5X16	SD105-SP-8.0

Accessories

Replacement blade	Torque key
	
H00-1.5	H00-1509
H00-1.5	H00-1509
H00-2.0	H00-2020
H00-2.5	H00-2530
H00-2.5	H00-2535

SD107 – R7

Drilling depth ~ 7 x D – Metric shank





- Internal coolant
- ISO9766 fits holders: Weldon 1835B, ISO 5414, DIN 60880
- For cutting data see page(s) 196

Designation	Item number	DC	LU	OAL	LUX	BD	LFS	LS	DMM	DF
		mm	mm	mm	mm	mm	mm	mm	mm	mm
SD107-12.00/12.49-90-16R7	02427470	12,0-12,49	90,0	166,5	100,5	11,5	118,5	48,0	16,0	20,0
SD107-12.50/12.99-90-16R7	02427472	12,5-12,99	90,0	167,0	101,0	12,0	119,0	48,0	16,0	20,0
SD107-13.00/13.99-90-16R7	02427473	13,0-13,99	90,0	167,5	101,5	12,5	119,5	48,0	16,0	20,0
SD107-14.00/14.99-110-16R7	02427474	14,0-14,99	110,0	188,0	122,0	13,5	140,0	48,0	16,0	20,0
SD107-15.00/15.99-110-16R7	02427476	15,0-15,99	110,0	189,0	123,0	14,5	141,0	48,0	16,0	20,0
SD107-16.00/16.99-110-16R7	02427443	16,0-16,99	110,0	189,5	123,5	15,5	141,5	48,0	16,0	20,0
SD107-17.00/17.99-130-20R7	02427478	17,0-17,99	130,0	212,5	144,5	16,5	162,5	50,0	20,0	25,0
SD107-18.00/18.99-130-20R7	02427479	18,0-18,99	130,0	213,5	145,5	17,5	163,5	50,0	20,0	25,0
SD107-19.00/19.99-130-20R7	02427480	19,0-19,99	130,0	214,5	146,5	18,5	164,5	50,0	20,0	25,0
SD107-20.00/21.99-175-25R7	02530422	20,0-21,99	175,0	264,5	188,5	19,5	208,5	56,0	25,0	31,0
SD107-22.00/23.99-175-25R7	02530423	22,0-23,99	175,0	264,5	188,5	21,5	208,5	56,0	25,0	31,0
SD107-24.00/25.99-175-25R7	02517867	24,0-25,99	175,0	264,5	188,5	23,5	208,5	56,0	25,0	31,0

Spare Parts, included in delivery

For drill dia. (mm)	Locking key	Locking screw	Spare parts set
			
12,00-13,99	H1.5-2D	MP6SS3X12	SD107-SP-5.0
14,00-16,99	H2.0-2D	MP6SS4X12	SD107-SP-6.0
17,00-19,99	H2.5-2D	MP6SS5X16	SD107-SP-7.0
20,00-25,99	H2.5-2D	MP6SS5X16	SD107-SP-8.0

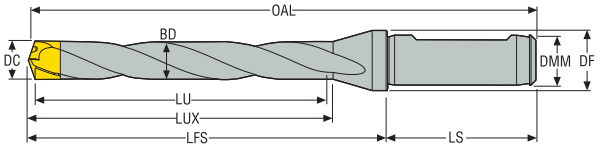
Accessories

Replacement blade	Torque key
	
H00-1.5	H00-1509
H00-2.0	H00-2020
H00-2.5	H00-2530
H00-2.5	H00-2535

SD107 – R7

Drilling depth ~ 7 x D – Inch shank





- Internal coolant
- ISO9766 fits holders: Weldon 1835B, ISO 5414, DIN 60880
- For cutting data see page(s) 196

Designation	Item number	DC	LU	BD	DF	OAL	LS	LFS	LUX	DMM
		Inch	*Inch*	*Inch*	*Inch*	*Inch*	*Inch*	*Inch*	*Inch*	*Inch*
SD107-12.00/12.49-90-0625R7	00040003	0.472-0.492	3.543	0.453	0.787	6.555	1.890	4.665	3.957	0.625
SD107-12.50/12.99-90-0625R7	00040004	0.492-0.511	3.543	0.472	0.787	6.575	1.890	4.685	3.976	0.625
SD107-13.00/13.99-90-0625R7	00040005	0.512-0.551	3.543	0.492	0.787	6.594	1.890	4.705	3.996	0.625
SD107-14.00/14.99-110-0625R7	00040006	0.551-0.590	4.331	0.531	0.787	7.402	1.890	5.512	4.803	0.625
SD107-15.00/15.99-110-0625R7	00040007	0.591-0.630	4.331	0.571	0.787	7.441	1.890	5.551	4.843	0.625
SD107-16.00/16.99-110-0625R7	00040008	0.630-0.669	4.331	0.610	0.787	7.461	1.890	5.571	4.862	0.625
SD107-17.00/17.99-130-0750R7	00040009	0.669-0.708	5.118	0.650	0.984	8.366	1.969	6.398	5.689	0.750
SD107-18.00/18.99-130-0750R7	00040010	0.709-0.748	5.118	0.689	0.984	8.406	1.969	6.437	5.728	0.750
SD107-19.00/19.99-130-0750R7	00040011	0.748-0.787	5.118	0.728	0.984	8.445	1.969	6.476	5.768	0.750
SD107-20.00/21.99-175-1000R7	02529095	0.787-0.866	6.890	0.768	1.220	10.413	2.205	8.209	7.421	1.000
SD107-22.00/23.99-175-1000R7	02530424	0.866-0.944	6.890	0.846	1.220	10.413	2.205	8.209	7.421	1.000
SD107-24.00/25.99-175-1000R7	02530425	0.945-1.023	6.890	0.925	1.220	10.413	2.205	8.209	7.421	1.000

Spare Parts, included in delivery

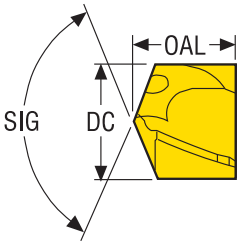
For drill dia. (inch)	Locking key	Locking screw	Spare parts set
			
0.472-0.551	H1.5-2D	MP6SS3X12	SD107-SP-5.0
0.551-0.669	H2.0-2D	MP6SS4X12	SD107-SP-6.0
0.669-0.787	H2.5-2D	MP6SS5X16	SD107-SP-7.0
0.787-1.023	H2.5-2D	MP6SS5X16	SD107-SP-8.0

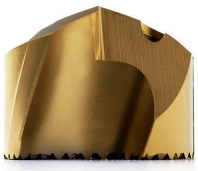
Accessories

For drill dia. (inch)	Replacement blade	Torque key
		
0.472-0.551	H00-1.5	H00-1509
0.551-0.669	H00-2.0	H00-2020
0.669-0.787	H00-2.5	H00-2530
0.787-1.023	H00-2.5	H00-2535

Crowns – Geometry -P, -M and -K

Point angle 140°









Designation	Item number	P-geometry for steel	M-geometry for stainless steels and high temp alloys	K-geometry for cast iron	DC		OAL	
					mm	*inch*	mm	*inch*
SD100-9.52-M	02700334	–	■	–	9,52	*0.375*	8,08	*0.318*
SD100-9.52-P	02673829	■	–	–	9,52	*0.375*	8,08	*0.318*
SD100-10.00-M	02469072	–	■	–	10,0	*0.394*	8,1	*0.319*
SD100-10.00-P	02469022	■	–	–	10,0	*0.394*	8,1	*0.319*
SD100-10.10-P	02469024	■	–	–	10,1	*0.398*	8,1	*0.319*
SD100-10.20-K	02544440	–	–	■	10,2	*0.402*	8,1	*0.319*
SD100-10.20-M	02469074	–	■	–	10,2	*0.402*	8,1	*0.319*
SD100-10.20-P	02469025	■	–	–	10,2	*0.402*	8,1	*0.319*
SD100-10.30-P	02469026	■	–	–	10,3	*0.406*	8,1	*0.319*
SD100-10.319-M	02469075	–	■	–	10,319	*0.406*	8,1	*0.319*
SD100-10.319-P	02469027	■	–	–	10,319	*0.406*	8,1	*0.319*
SD100-10.40-P	02592734	■	–	–	10,4	*0.409*	8,1	*0.319*
SD100-10.50-K	02556726	–	–	■	10,5	*0.413*	8,5	*0.335*
SD100-10.50-M	02469076	–	■	–	10,5	*0.413*	8,5	*0.335*
SD100-10.50-P	02469034	■	–	–	10,5	*0.413*	8,5	*0.335*
SD100-10.70-P	02469036	■	–	–	10,7	*0.421*	8,5	*0.335*
SD100-10.716-P	02469037	■	–	–	10,716	*0.422*	8,5	*0.335*
SD100-10.80-M	02469078	–	■	–	10,8	*0.425*	8,5	*0.335*
SD100-10.80-P	02469038	■	–	–	10,8	*0.425*	8,5	*0.335*
SD100-10.90-P	02469041	■	–	–	10,9	*0.429*	8,5	*0.335*
SD100-11.00-M	02469079	–	■	–	11,0	*0.433*	8,8	*0.346*
SD100-11.00-P	02469052	■	–	–	11,0	*0.433*	8,8	*0.346*
SD100-11.113-M	02469080	–	■	–	11,113	*0.438*	8,8	*0.346*
SD100-11.113-P	02469056	■	–	–	11,113	*0.438*	8,8	*0.346*
SD100-11.20-M	02469082	–	■	–	11,2	*0.441*	8,8	*0.346*
SD100-11.20-P	02469058	■	–	–	11,2	*0.441*	8,8	*0.346*
SD100-11.30-P	02469063	■	–	–	11,3	*0.445*	8,8	*0.346*
SD100-11.50-P	02469065	■	–	–	11,5	*0.453*	9,4	*0.370*
SD100-11.509-M	02469083	–	■	–	11,509	*0.453*	9,4	*0.370*
SD100-11.509-P	02469067	■	–	–	11,509	*0.453*	9,4	*0.370*
SD100-11.70-P	02469068	■	–	–	11,7	*0.461*	9,4	*0.370*
SD100-11.80-K	02542583	–	–	■	11,8	*0.465*	9,4	*0.370*
SD100-11.80-M	02469085	–	■	–	11,8	*0.465*	9,4	*0.370*
SD100-11.80-P	02469069	■	–	–	11,8	*0.465*	9,4	*0.370*
SD100-11.907-M	02592744	–	■	–	11,907	*0.469*	9,4	*0.370*
SD100-11.907-P	02469070	■	–	–	11,907	*0.469*	9,4	*0.370*
SD100-12.00-K	00090316	–	–	■	12,0	*0.472*	9,6	*0.378*
SD100-12.00-M	00090315	–	■	–	12,0	*0.472*	9,6	*0.378*

Designation	Item number	P-geometry for steel	M-geometry for stainless steels and high temp alloys	K-geometry for cast iron	DC		OAL	
					mm	inch	mm	inch
SD100-12.00-P	00090314	■	–	–	12,0	0.472	9,6	0.378
SD100-12.10-P	00039002	■	–	–	12,1	0.476	9,6	0.378
SD100-12.20-P	00048248	■	–	–	12,2	0.480	9,6	0.378
SD100-12.30-M	00071559	–	■	–	12,3	0.484	9,6	0.378
SD100-12.30-P	00071546	■	–	–	12,3	0.484	9,6	0.378
SD100-12.41-M	00059768	–	■	–	12,41	0.489	9,6	0.378
SD100-12.41-P	00059767	■	–	–	12,41	0.489	9,6	0.378
SD100-12.50-K	00090319	–	–	■	12,5	0.492	10,0	0.394
SD100-12.50-M	00090318	–	■	–	12,5	0.492	10,0	0.394
SD100-12.50-P	00090317	■	–	–	12,5	0.492	10,0	0.394
SD100-12.60-P	02207212	■	–	–	12,6	0.496	10,0	0.394
SD100-12.70-K	00059633	–	–	■	12,7	0.500	10,0	0.394
SD100-12.70-M	00059632	–	■	–	12,7	0.500	10,0	0.394
SD100-12.70-P	00059631	■	–	–	12,7	0.500	10,0	0.394
SD100-12.80-K	00059636	–	–	■	12,8	0.504	10,0	0.394
SD100-12.80-M	00059635	–	■	–	12,8	0.504	10,0	0.394
SD100-12.80-P	00059634	■	–	–	12,8	0.504	10,0	0.394
SD100-12.90-M	02503935	–	■	–	12,9	0.508	10,0	0.394
SD100-12.90-P	00030891	■	–	–	12,9	0.508	10,0	0.394
SD100-13.00-K	00098529	–	–	■	13,0	0.512	10,4	0.409
SD100-13.00-M	00098528	–	■	–	13,0	0.512	10,4	0.409
SD100-13.00-P	00098527	■	–	–	13,0	0.512	10,4	0.409
SD100-13.10-K	00059639	–	–	■	13,1	0.516	10,4	0.409
SD100-13.10-M	00059638	–	■	–	13,1	0.516	10,4	0.409
SD100-13.10-P	00059637	■	–	–	13,1	0.516	10,4	0.409
SD100-13.20-P	00030894	■	–	–	13,2	0.520	10,4	0.409
SD100-13.30-M	00059641	–	■	–	13,3	0.524	10,4	0.409
SD100-13.30-P	00059640	■	–	–	13,3	0.524	10,4	0.409
SD100-13.50-K	00098532	–	–	■	13,5	0.531	10,4	0.409
SD100-13.50-M	00098531	–	■	–	13,5	0.531	10,4	0.409
SD100-13.50-P	00098530	■	–	–	13,5	0.531	10,4	0.409
SD100-13.70-M	00059644	–	■	–	13,7	0.539	10,4	0.409
SD100-13.70-P	00059643	■	–	–	13,7	0.539	10,4	0.409
SD100-13.80-K	00059648	–	–	■	13,8	0.543	10,4	0.409
SD100-13.80-M	00059647	–	■	–	13,8	0.543	10,4	0.409
SD100-13.80-P	00059646	■	–	–	13,8	0.543	10,4	0.409
SD100-13.89-M	00059771	–	■	–	13,89	0.547	10,4	0.409
SD100-13.89-P	00059770	■	–	–	13,89	0.547	10,4	0.409
SD100-14.00-K	00090322	–	–	■	14,0	0.551	11,0	0.433
SD100-14.00-M	00090321	–	■	–	14,0	0.551	11,0	0.433
SD100-14.00-P	00090320	■	–	–	14,0	0.551	11,0	0.433
SD100-14.10-P	00082712	■	–	–	14,1	0.555	11,0	0.433
SD100-14.20-K	00071549	–	–	■	14,2	0.559	11,0	0.433
SD100-14.20-M	00071561	–	■	–	14,2	0.559	11,0	0.433
SD100-14.20-P	00071548	■	–	–	14,2	0.559	11,0	0.433
SD100-14.29-K	00059675	–	–	■	14,29	0.563	11,0	0.433
SD100-14.29-M	00059674	–	■	–	14,29	0.563	11,0	0.433
SD100-14.29-P	00059673	■	–	–	14,29	0.563	11,0	0.433
SD100-14.40-P	02207869	■	–	–	14,4	0.567	11,0	0.433
SD100-14.50-K	00090325	–	–	■	14,5	0.571	11,0	0.433
SD100-14.50-M	00090324	–	■	–	14,5	0.571	11,0	0.433

Designation	Item number	P-geometry for steel	M-geometry for stainless steels and high temp alloys	K-geometry for cast iron	DC		OAL	
					mm	*inch*	mm	*inch*
SD100-14.50-P	00090323	■	–	–	14,5	*0.571*	11,0	*0.433*
SD100-14.68-K	00059775	–	–	■	14,68	*0.578*	11,0	*0.433*
SD100-14.68-M	00059774	–	■	–	14,68	*0.578*	11,0	*0.433*
SD100-14.68-P	00059773	■	–	–	14,68	*0.578*	11,0	*0.433*
SD100-14.70-M	00059650	–	■	–	14,7	*0.579*	11,0	*0.433*
SD100-14.70-P	00059649	■	–	–	14,7	*0.579*	11,0	*0.433*
SD100-14.80-M	00059653	–	■	–	14,8	*0.583*	11,0	*0.433*
SD100-14.80-P	00059652	■	–	–	14,8	*0.583*	11,0	*0.433*
SD100-14.90-M	02592745	–	■	–	14,9	*0.587*	11,0	*0.433*
SD100-14.90-P	00030895	■	–	–	14,9	*0.587*	11,0	*0.433*
SD100-15.00-K	00090328	–	–	■	15,0	*0.591*	11,9	*0.469*
SD100-15.00-M	00090327	–	■	–	15,0	*0.591*	11,9	*0.469*
SD100-15.00-P	00090326	■	–	–	15,0	*0.591*	11,9	*0.469*
SD100-15.08-M	00059777	–	■	–	15,08	*0.594*	11,9	*0.469*
SD100-15.08-P	00059776	■	–	–	15,08	*0.594*	11,9	*0.469*
SD100-15.10-P	00079342	■	–	–	15,1	*0.594*	11,9	*0.469*
SD100-15.20-P	00030896	■	–	–	15,2	*0.598*	11,9	*0.469*
SD100-15.25-K	00071551	–	–	■	15,25	*0.600*	11,9	*0.469*
SD100-15.25-M	00071562	–	■	–	15,25	*0.600*	11,9	*0.469*
SD100-15.25-P	00071550	■	–	–	15,25	*0.600*	11,9	*0.469*
SD100-15.48-K	00022926	–	–	■	15,48	*0.609*	11,9	*0.469*
SD100-15.48-M	00059780	–	■	–	15,48	*0.609*	11,9	*0.469*
SD100-15.48-P	00059779	■	–	–	15,48	*0.609*	11,9	*0.469*
SD100-15.50-K	00098535	–	–	■	15,5	*0.610*	11,9	*0.469*
SD100-15.50-M	00098534	–	■	–	15,5	*0.610*	11,9	*0.469*
SD100-15.50-P	00098533	■	–	–	15,5	*0.610*	11,9	*0.469*
SD100-15.70-M	00059656	–	■	–	15,7	*0.618*	11,9	*0.469*
SD100-15.70-P	00059655	■	–	–	15,7	*0.618*	11,9	*0.469*
SD100-15.80-K	00059660	–	–	■	15,8	*0.622*	11,9	*0.469*
SD100-15.80-M	00059659	–	■	–	15,8	*0.622*	11,9	*0.469*
SD100-15.80-P	00059658	■	–	–	15,8	*0.622*	11,9	*0.469*
SD100-15.88-K	00059678	–	–	■	15,88	*0.625*	11,9	*0.469*
SD100-15.88-M	00059677	–	■	–	15,88	*0.625*	11,9	*0.469*
SD100-15.88-P	00059676	■	–	–	15,88	*0.625*	11,9	*0.469*
SD100-16.00-K	00098538	–	–	■	16,0	*0.630*	12,6	*0.496*
SD100-16.00-M	00098537	–	■	–	16,0	*0.630*	12,6	*0.496*
SD100-16.00-P	00098536	■	–	–	16,0	*0.630*	12,6	*0.496*
SD100-16.10-P	00077964	■	–	–	16,1	*0.634*	12,6	*0.496*
SD100-16.20-P	00047365	■	–	–	16,2	*0.638*	12,6	*0.496*
SD100-16.25-P	00034081	■	–	–	16,25	*0.640*	12,6	*0.496*
SD100-16.27-K	00022929	–	–	■	16,27	*0.641*	12,6	*0.496*
SD100-16.27-M	00022928	–	■	–	16,27	*0.641*	12,6	*0.496*
SD100-16.27-P	00022927	■	–	–	16,27	*0.641*	12,6	*0.496*
SD100-16.40-P	02301114	■	–	–	16,4	*0.646*	12,6	*0.496*
SD100-16.50-K	00098541	–	–	■	16,5	*0.650*	12,6	*0.496*
SD100-16.50-M	00098540	–	■	–	16,5	*0.650*	12,6	*0.496*
SD100-16.50-P	00098539	■	–	–	16,5	*0.650*	12,6	*0.496*
SD100-16.67-K	00059681	–	–	■	16,67	*0.656*	12,6	*0.496*
SD100-16.67-M	00059680	–	■	–	16,67	*0.656*	12,6	*0.496*
SD100-16.67-P	00059679	■	–	–	16,67	*0.656*	12,6	*0.496*
SD100-16.70-K	00059663	–	–	■	16,7	*0.657*	12,6	*0.496*

Designation	Item number	P-geometry for steel	M-geometry for stainless steels and high temp alloys	K-geometry for cast iron	DC		OAL	
					mm	*inch*	mm	*inch*
SD100-16.70-M	00059662	–	■	–	16,7	*0.657*	12,6	*0.496*
SD100-16.70-P	00059661	■	–	–	16,7	*0.657*	12,6	*0.496*
SD100-16.80-K	00059666	–	–	■	16,8	*0.661*	12,6	*0.496*
SD100-16.80-M	00059665	–	■	–	16,8	*0.661*	12,6	*0.496*
SD100-16.80-P	00059664	■	–	–	16,8	*0.661*	12,6	*0.496*
SD100-16.90-M	02593463	–	■	–	16,9	*0.665*	12,6	*0.496*
SD100-16.90-P	00030898	■	–	–	16,9	*0.665*	12,6	*0.496*
SD100-17.00-K	00090331	–	–	■	17,0	*0.669*	13,3	*0.524*
SD100-17.00-M	00090330	–	■	–	17,0	*0.669*	13,3	*0.524*
SD100-17.00-P	00090329	■	–	–	17,0	*0.669*	13,3	*0.524*
SD100-17.07-K	00022933	–	–	■	17,07	*0.672*	13,3	*0.524*
SD100-17.07-M	00022932	–	■	–	17,07	*0.672*	13,3	*0.524*
SD100-17.07-P	00022931	■	–	–	17,07	*0.672*	13,3	*0.524*
SD100-17.10-P	00034083	■	–	–	17,1	*0.673*	13,3	*0.524*
SD100-17.20-K	02515762	–	–	■	17,2	*0.677*	13,3	*0.524*
SD100-17.20-P	00047714	■	–	–	17,2	*0.677*	13,3	*0.524*
SD100-17.30-K	02203711	–	–	■	17,3	*0.681*	13,3	*0.524*
SD100-17.46-M	00059683	–	■	–	17,46	*0.687*	13,3	*0.524*
SD100-17.46-P	00059682	■	–	–	17,46	*0.687*	13,3	*0.524*
SD100-17.50-K	00090334	–	–	■	17,5	*0.689*	13,3	*0.524*
SD100-17.50-M	00090333	–	■	–	17,5	*0.689*	13,3	*0.524*
SD100-17.50-P	00090332	■	–	–	17,5	*0.689*	13,3	*0.524*
SD100-17.70-K	00059669	–	–	■	17,7	*0.697*	13,3	*0.524*
SD100-17.70-M	00059668	–	■	–	17,7	*0.697*	13,3	*0.524*
SD100-17.70-P	00059667	■	–	–	17,7	*0.697*	13,3	*0.524*
SD100-17.80-K	00059672	–	–	■	17,8	*0.701*	13,3	*0.524*
SD100-17.80-M	00059671	–	■	–	17,8	*0.701*	13,3	*0.524*
SD100-17.80-P	00059670	■	–	–	17,8	*0.701*	13,3	*0.524*
SD100-17.86-K	00022936	–	–	■	17,86	*0.703*	13,3	*0.524*
SD100-17.86-M	00022935	–	■	–	17,86	*0.703*	13,3	*0.524*
SD100-17.86-P	00022934	■	–	–	17,86	*0.703*	13,3	*0.524*
SD100-17.90-M	02442098	–	■	–	17,9	*0.705*	13,3	*0.524*
SD100-17.90-P	00047693	■	–	–	17,9	*0.705*	13,3	*0.524*
SD100-18.00-K	00090337	–	–	■	18,0	*0.709*	14,4	*0.567*
SD100-18.00-M	00090336	–	■	–	18,0	*0.709*	14,4	*0.567*
SD100-18.00-P	00090335	■	–	–	18,0	*0.709*	14,4	*0.567*
SD100-18.10-P	00030900	■	–	–	18,1	*0.713*	14,4	*0.567*
SD100-18.20-P	00038469	■	–	–	18,2	*0.717*	14,4	*0.567*
SD100-18.26-K	00035196	–	–	■	18,26	*0.719*	14,4	*0.567*
SD100-18.26-M	00022938	–	■	–	18,26	*0.719*	14,4	*0.567*
SD100-18.26-P	00022937	■	–	–	18,26	*0.719*	14,4	*0.567*
SD100-18.50-K	00059687	–	–	■	18,5	*0.728*	14,4	*0.567*
SD100-18.50-M	00059686	–	■	–	18,5	*0.728*	14,4	*0.567*
SD100-18.50-P	00059685	■	–	–	18,5	*0.728*	14,4	*0.567*
SD100-18.65-M	00035198	–	■	–	18,65	*0.734*	14,4	*0.567*
SD100-18.65-P	00035197	■	–	–	18,65	*0.734*	14,4	*0.567*
SD100-18.70-M	00059689	–	■	–	18,7	*0.736*	14,4	*0.567*
SD100-18.70-P	00059688	■	–	–	18,7	*0.736*	14,4	*0.567*
SD100-18.80-K	00059693	–	–	■	18,8	*0.740*	14,4	*0.567*
SD100-18.80-M	00059692	–	■	–	18,8	*0.740*	14,4	*0.567*
SD100-18.80-P	00059691	■	–	–	18,0	*0.709*	14,4	*0.567*

Designation	Item number	P-geometry for steel	M-geometry for stainless steels and high temp alloys	K-geometry for cast iron	DC		OAL	
					mm	*inch*	mm	*inch*
SD100-18.90-M	02592746	–	■	–	18,9	*0.744*	14,4	*0.567*
SD100-18.90-P	00030901	■	–	–	18,9	*0.744*	14,4	*0.567*
SD100-19.00-K	00059696	–	–	■	19,0	*0.748*	15,2	*0.598*
SD100-19.00-M	00059695	–	■	–	19,0	*0.748*	15,2	*0.598*
SD100-19.00-P	00059694	■	–	–	19,0	*0.748*	15,2	*0.598*
SD100-19.05-K	00059699	–	–	■	19,05	*0.750*	15,2	*0.598*
SD100-19.05-M	00059698	–	■	–	19,05	*0.750*	15,2	*0.598*
SD100-19.05-P	00059697	■	–	–	19,05	*0.750*	15,2	*0.598*
SD100-19.10-P	00030902	■	–	–	19,1	*0.752*	15,2	*0.598*
SD100-19.20-K	00071566	–	–	■	19,2	*0.756*	15,2	*0.598*
SD100-19.20-M	00071564	–	■	–	19,2	*0.756*	15,2	*0.598*
SD100-19.20-P	00071563	■	–	–	19,2	*0.756*	15,2	*0.598*
SD100-19.25-P	00048318	■	–	–	19,25	*0.758*	15,2	*0.598*
SD100-19.45-K	00035202	–	–	■	19,45	*0.766*	15,2	*0.598*
SD100-19.45-M	00035201	–	■	–	19,45	*0.766*	15,2	*0.598*
SD100-19.45-P	00035200	■	–	–	19,45	*0.766*	15,2	*0.598*
SD100-19.50-K	00059702	–	–	■	19,5	*0.768*	15,2	*0.598*
SD100-19.50-M	00059701	–	■	–	19,5	*0.768*	15,2	*0.598*
SD100-19.50-P	00059700	■	–	–	19,5	*0.768*	15,2	*0.598*
SD100-19.70-K	00059705	–	–	■	19,7	*0.776*	15,2	*0.598*
SD100-19.70-M	00059704	–	■	–	19,7	*0.776*	15,2	*0.598*
SD100-19.70-P	00059703	■	–	–	19,7	*0.776*	15,2	*0.598*
SD100-19.80-K	00059708	–	–	■	19,8	*0.780*	15,2	*0.598*
SD100-19.80-M	00059707	–	■	–	19,8	*0.780*	15,2	*0.598*
SD100-19.80-P	00059706	■	–	–	19,8	*0.780*	15,2	*0.598*
SD100-19.84-M	00035204	–	■	–	19,84	*0.781*	15,2	*0.598*
SD100-19.84-P	00035203	■	–	–	19,84	*0.781*	15,2	*0.598*
SD100-19.90-M	02592747	–	■	–	19,9	*0.783*	15,2	*0.598*
SD100-19.90-P	00010065	■	–	–	19,9	*0.783*	15,2	*0.598*
SD100-19.99-P	00081744	■	–	–	19,99	*0.787*	15,2	*0.598*
SD100-20.00-K	02433368	–	–	■	20,0	*0.787*	15,2	*0.598*
SD100-20.00-M	02469176	–	■	–	20,0	*0.787*	15,2	*0.598*
SD100-20.00-P	02469095	■	–	–	20,0	*0.787*	15,2	*0.598*
SD100-20.241-P	02469096	■	–	–	20,241	*0.797*	15,2	*0.598*
SD100-20.50-K	02569177	–	–	■	20,5	*0.807*	15,2	*0.598*
SD100-20.50-M	02469178	–	■	–	20,5	*0.807*	15,2	*0.598*
SD100-20.50-P	02469098	■	–	–	20,5	*0.807*	15,2	*0.598*
SD100-20.638-M	02469179	–	■	–	20,638	*0.813*	15,2	*0.598*
SD100-20.638-P	02469100	■	–	–	20,638	*0.813*	15,2	*0.598*
SD100-20.80-P	02508750	■	–	–	20,8	*0.819*	15,2	*0.598*
SD100-20.90-P	02586615	■	–	–	20,9	*0.823*	15,2	*0.598*
SD100-21.00-K	02523183	–	–	■	21,0	*0.827*	15,2	*0.598*
SD100-21.00-M	02469180	–	■	–	21,0	*0.827*	15,2	*0.598*
SD100-21.00-P	02469118	■	–	–	21,0	*0.827*	15,2	*0.598*
SD100-21.034-P	02469120	■	–	–	21,034	*0.828*	15,2	*0.598*
SD100-21.20-P	02469121	■	–	–	21,2	*0.835*	15,2	*0.598*
SD100-21.30-P	02521624	■	–	–	21,3	*0.839*	15,2	*0.598*
SD100-21.430-M	02469182	–	■	–	21,43	*0.844*	15,2	*0.598*
SD100-21.430-P	02469122	■	–	–	21,43	*0.844*	15,2	*0.598*
SD100-21.50-K	02521338	–	–	■	21,5	*0.846*	15,2	*0.598*
SD100-21.50-M	02469183	–	■	–	21,5	*0.846*	15,2	*0.598*

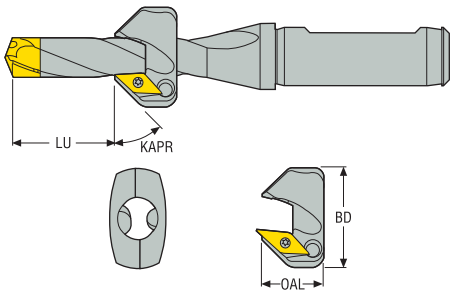
Designation	Item number	P-geometry for steel	M-geometry for stainless steels and high temp alloys	K-geometry for cast iron	DC		OAL	
					mm	inch	mm	inch
SD100-21.50-P	02469124	■	–	–	21,5	0.846	15,2	0.598
SD100-21.80-K	02592763	–	–	■	21,8	0.858	15,2	0.598
SD100-21.80-M	02555978	–	■	–	21,8	0.858	15,2	0.598
SD100-21.80-P	02592735	■	–	–	21,8	0.858	15,2	0.598
SD100-21.829-P	02469125	■	–	–	21,829	0.859	15,2	0.598
SD100-21.90-M	02592752	–	■	–	21,9	0.862	15,2	0.598
SD100-21.90-P	02592736	■	–	–	21,9	0.862	15,2	0.598
SD100-22.00-K	02511599	–	–	■	22,0	0.866	15,2	0.598
SD100-22.00-M	02469185	–	■	–	22,0	0.866	15,2	0.598
SD100-22.00-P	02469128	■	–	–	22,0	0.866	15,2	0.598
SD100-22.225-M	02469186	–	■	–	22,225	0.875	15,2	0.598
SD100-22.225-P	02469129	■	–	–	22,225	0.875	15,2	0.598
SD100-22.50-K	02569178	–	–	■	22,5	0.886	15,2	0.598
SD100-22.50-M	02469188	–	■	–	22,5	0.886	15,2	0.598
SD100-22.50-P	02469132	■	–	–	22,5	0.886	15,2	0.598
SD100-22.621-P	02469133	■	–	–	22,621	0.891	15,2	0.598
SD100-22.80-M	02592754	–	■	–	22,8	0.898	15,2	0.598
SD100-22.80-P	02539323	■	–	–	22,8	0.898	15,2	0.598
SD100-22.90-P	02592738	■	–	–	22,9	0.902	15,2	0.598
SD100-23.00-K	02515181	–	–	■	23,0	0.906	15,2	0.598
SD100-23.00-M	02469189	–	■	–	23,0	0.906	15,2	0.598
SD100-23.00-P	02469134	■	–	–	23,0	0.906	15,2	0.598
SD100-23.416-P	02469136	■	–	–	23,416	0.922	15,2	0.598
SD100-23.50-K	02551252	–	–	■	23,5	0.925	15,2	0.598
SD100-23.50-M	02469190	–	■	–	23,5	0.925	15,2	0.598
SD100-23.50-P	02469138	■	–	–	23,5	0.925	15,2	0.598
SD100-23.813-K	02592766	–	–	■	23,813	0.938	15,2	0.598
SD100-23.813-M	02554971	–	■	–	23,813	0.938	15,2	0.598
SD100-23.813-P	02469140	■	–	–	23,813	0.938	15,2	0.598
SD100-23.90-M	02592756	–	■	–	23,9	0.941	15,2	0.598
SD100-23.90-P	02592739	■	–	–	23,9	0.941	15,2	0.598
SD100-24.00-K	02569179	–	–	■	24,0	0.945	15,2	0.598
SD100-24.00-M	02469191	–	■	–	24,0	0.945	15,2	0.598
SD100-24.00-P	02469141	■	–	–	24,0	0.945	15,2	0.598
SD100-24.209-P	02469142	■	–	–	24,209	0.953	15,2	0.598
SD100-24.50-K	02569180	–	–	■	24,5	0.965	15,2	0.598
SD100-24.50-M	02469192	–	■	–	24,5	0.965	15,2	0.598
SD100-24.50-P	02469144	■	–	–	24,5	0.965	15,2	0.598
SD100-24.605-P	02469145	■	–	–	24,605	0.969	15,2	0.598
SD100-24.80-K	02592767	–	–	■	24,8	0.976	15,2	0.598
SD100-24.80-M	02508165	–	■	–	24,8	0.976	15,2	0.598
SD100-24.80-P	02529665	■	–	–	24,8	0.976	15,2	0.598
SD100-24.90-M	02592757	–	■	–	24,9	0.980	15,2	0.598
SD100-24.90-P	02592740	■	–	–	24,9	0.980	15,2	0.598
SD100-25.00-K	02524629	–	–	■	25,0	0.984	15,2	0.598
SD100-25.00-M	02469193	–	■	–	25,0	0.984	15,2	0.598
SD100-25.00-P	02469146	■	–	–	25,0	0.984	15,2	0.598
SD100-25.40-K	02569181	–	–	■	25,4	1.000	15,2	0.598
SD100-25.400-M	02469194	–	■	–	25,4	1.000	15,2	0.598
SD100-25.400-P	02469147	■	–	–	25,4	1.000	15,2	0.598
SD100-25.50-P	02536609	■	–	–	25,5	1.004	15,2	0.598

Designation	Item number	P-geometry for steel	M-geometry for stainless steels and high temp alloys	K-geometry for cast iron	DC		OAL	
					mm	*inch*	mm	*inch*
SD100-25.60-P	02519477	■	–	–	25,6	*1.008*	15,2	*0.598*
SD100-25.80-M	02592758	–	■	–	25,8	*1.016*	15,2	*0.598*
SD100-25.80-P	02581593	■	–	–	25,8	*1.016*	15,2	*0.598*
SD100-25.90-M	02592759	–	■	–	25,9	*1.020*	15,2	*0.598*
SD100-25.90-P	02592741	■	–	–	25,9	*1.020*	15,2	*0.598*
SD100-25.99-K	02516403	–	–	■	25,99	*1.023*	15,2	*0.598*
SD100-25.99-P	02516402	■	–	–	25,99	*1.023*	15,2	*0.598*

■ **Stock standard.**

Chamfer module



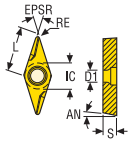


Designation	Item number	For drill body	Drill depth LU SD101 (min-max)		SD103 (min-max)		SD105 (min-max)		SD107 (min-max)		Max chamfer depth	OAL	BD
			mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*
SD100-C45-12.00/12.49	00014922	SD10x-12.00/12.49	12,0 *0.472*	13,0 *0.512*	12,0 *0.472*	28,0 *1.102*	28,0 *1.102*	53,0 *2.087*	53,0 *2.087*	78,0 *3.071*	1,5 *0.059*	19,0 *0.748*	28,0 *1.102*
SD100-C45-12.50/12.99	00014923	SD10x-12.50/12.99	12,0 *0.472*	14,0 *0.551*	12,0 *0.472*	29,0 *1.142*	29,0 *1.142*	54,0 *2.126*	54,0 *2.126*	79,0 *3.110*	1,5 *0.059*	19,0 *0.748*	28,0 *1.102*
SD100-C45-13.00/13.99	00014924	SD10x-13.00/13.99	13,0 *0.512*	14,0 *0.551*	13,0 *0.512*	29,0 *1.142*	29,0 *1.142*	54,0 *2.126*	54,0 *2.126*	79,0 *3.110*	1,5 *0.059*	19,0 *0.748*	28,0 *1.102*
SD100-C45-14.00/14.99	00014928	SD10x-14.00/14.99	14,0 *0.551*	20,0 *0.787*	14,0 *0.551*	40,0 *1.575*	40,0 *1.575*	70,0 *2.756*	70,0 *2.756*	100,0 *3.937*	2,0 *0.079*	19,0 *0.748*	31,0 *1.220*
SD100-C45-15.00/15.99	00014931	SD10x-15.00/15.99	14,0 *0.551*	21,0 *0.827*	14,0 *0.551*	41,0 *1.614*	41,0 *1.614*	71,0 *2.795*	71,0 *2.795*	101,0 *3.976*	2,0 *0.079*	19,0 *0.748*	31,0 *1.220*
SD100-C45-16.00/16.99	00014932	SD10x-16.00/16.99	15,0 *0.591*	22,0 *0.866*	15,0 *0.591*	42,0 *1.654*	42,0 *1.654*	72,0 *2.835*	72,0 *2.835*	102,0 *4.016*	2,0 *0.079*	19,0 *0.748*	31,0 *1.220*
SD100-C45-17.00/17.99	00014933	SD10x-17.00/17.99	16,0 *0.630*	25,0 *0.984*	16,0 *0.630*	51,0 *2.008*	51,0 *2.008*	87,0 *3.425*	87,0 *3.425*	123,0 *4.843*	2,0 *0.079*	19,0 *0.748*	36,0 *1.417*
SD100-C45-18.00/18.99	00014935	SD10x-18.00/18.99	17,0 *0.669*	26,0 *1.024*	17,0 *0.669*	52,0 *2.047*	52,0 *2.047*	88,0 *3.465*	88,0 *3.465*	124,0 *4.882*	2,0 *0.079*	19,0 *0.748*	36,0 *1.417*
SD100-C45-19.00/19.99	00014936	SD10x-19.00/19.99	18,0 *0.709*	27,0 *1.063*	18,0 *0.709*	53,0 *2.087*	53,0 *2.087*	89,0 *3.504*	89,0 *3.504*	125,0 *4.921*	2,0 *0.079*	19,0 *0.748*	36,0 *1.417*

Spare Parts, included in delivery

For drill dia. (mm)	Insert screw		Insert key	Locking key
				
	Insert	Module	Insert	Module
SD100-12.00–16.99	C02205-T07P	C04011-T15P	T07P-2	T15P-2
SD100-17.00–19.99	C02205-T07P	C05012-T15P	T07P-2	T15P-2

Insert

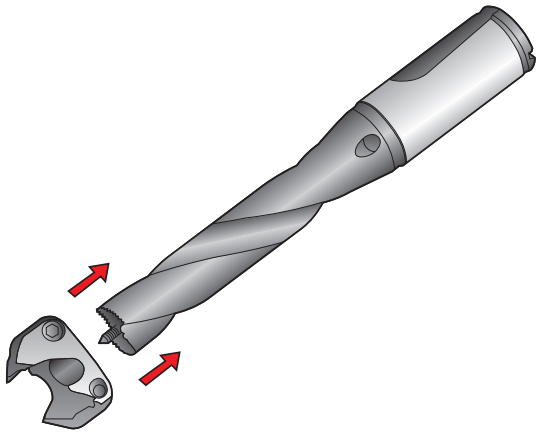


Tolerances: mm/*inch*
IC = ±0,025/*.0009842*
S = ±0,07/*.0027559*
RE = ±0,10/*.0039370*

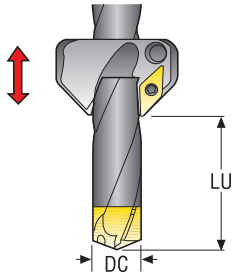
Size	L mm/*inch*	EPSR	RE mm/*inch*	IC mm/*inch*	D1 mm/*inch*	AN	S mm/*inch*
09	9,0/*.2187*	35°	0,2/*.0078*	5,556/*.2187*	2,9/*.1141*	7°	2,5/*.0984*
Grade: T400D							
Designation: VCGX090202-D1							
Item number: 00014948							

Chamfer module – Mounting instruction/placement of module

1. Fit the module on the drill without chamfer insert or crown mounted.

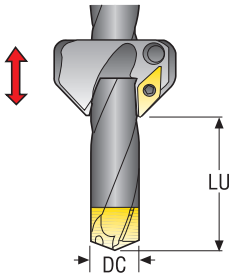


2.1 If possible, place the module as close to the shank as possible.



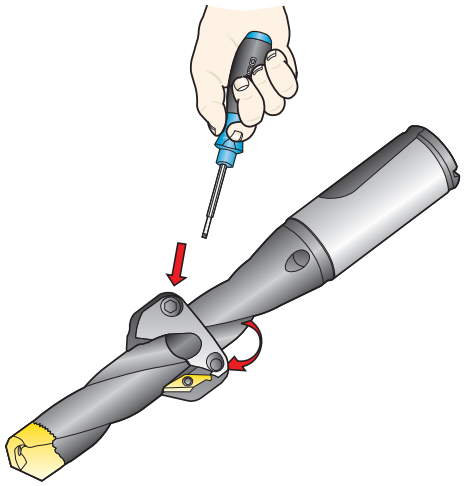
DC		LU drilling depth (min-max)			
		SD101		SD103	
mm	*inch*	mm	*inch*	mm	*inch*
12	*.472*	12-13	*.472-.512*	12-28	*.472-1.102*
12,5	*.492*	12-14	*.472-.551*	12-29	*.472-1.142*
13	*.512*	13-14	*.512-.551*	13-29	*.512-1.142*
14	*.551*	14-20	*.551-.787*	14-40	*.551-1.575*
15	*.591*	14-21	*.551-.827*	14-41	*.551-1.614*
16	*.630*	15-22	*.591-.866*	15-42	*.591-1.654*
17	*.669*	16-25	*.630-.984*	16-51	*.630-2.008*
18	*.709*	17-26	*.669-1.024*	17-52	*.669-2.047*
19	*.748*	18-27	*.709-1.063*	18-53	*.709-2.087*

2.2 If possible, place the module as close to the shank as possible.



DC		LU drilling depth (min-max)			
		SD105		SD107	
mm	*inch*	mm	*inch*	mm	*inch*
12	*.472*	28-53	*1.102-2.087*	53-78	*2.087-3.071*
12,5	*.492*	29-54	*1.142-2.126*	54-79	*2.126-3.110*
13	*.512*	29-54	*1.142-2.126*	54-79	*2.126-3.110*
14	*.551*	40-70	*1.575-2.756*	70-100	*2.756-3.937*
15	*.591*	41-71	*1.614-2.785*	71-101	*2.795-3.976*
16	*.630*	42-72	*1.654-2.835*	72-102	*2.835-4.016*
17	*.669*	51-87	*2.008-3.425*	87-123	*3.425-4.843*
18	*.709*	52-88	*2.047-3.465*	88-124	*3.465-4.882*
19	*.748*	53-89	*2.087-3.504*	89-125	*3.504-4.921*

3. Tighten both screws according to the table below.



DC		M	
mm	*inch*	Nm	*in-lbs*
12-19	*.472-.748*	3-4	*26-35*

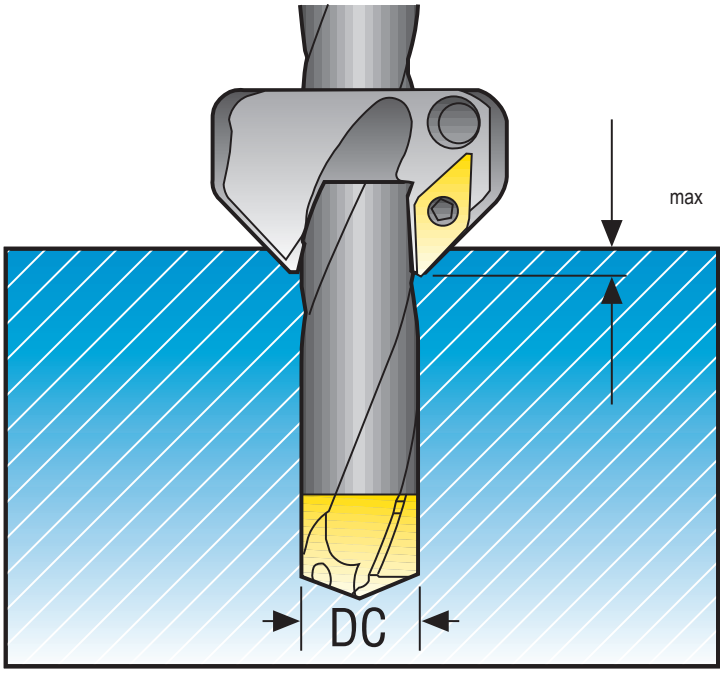
Chamfer module

The recommended cutting speeds and feeds for Crownloc® on pages 193-196 should also be used during the chamfering operation.

Troubleshooting

Vibrations during chamfering	• Reduce cutting speed • If possible, move the module closer to the shank of the drill • If possible, use a shorter drill

Maximum chamfer depth



DC		Max	
mm	*inch*	mm	*inch*
12-13	*.472-512*	1,5	*.059*
14-19	*.551-.748*	2	*.079*

SMG		f									v_c
		Ø 10.00 *Ø 0.394*	Ø 12.00 *Ø 0.472*	Ø 14.00 *Ø 0.551*	Ø 16.00 *Ø 0.630*	Ø 18.00 *Ø 0.709*	Ø 20.00 *Ø 0.787*	Ø 22.00 *Ø 0.866*	Ø 24.00 *Ø 0.945*	Ø 26.00 *Ø 1.024*	
P1	P	0,20	0,24	0,26	0,28	0,30	0,32	0,34	0,34	0,36	125
	P	*0.0080*	*0.0095*	*0.010*	*0.011*	*0.012*	*0.013*	*0.013*	*0.013*	*0.014*	*410*
P2	P	0,20	0,24	0,26	0,28	0,30	0,32	0,34	0,36	0,36	120
	P	*0.0080*	*0.0095*	*0.010*	*0.011*	*0.012*	*0.013*	*0.013*	*0.014*	*0.014*	*395*
P3	P	0,19	0,22	0,25	0,26	0,28	0,30	0,32	0,34	0,34	105
	P	*0.0075*	*0.0085*	*0.010*	*0.010*	*0.011*	*0.012*	*0.013*	*0.013*	*0.013*	*345*
P4	P	0,19	0,22	0,24	0,26	0,28	0,30	0,32	0,32	0,34	95
	P	*0.0075*	*0.0085*	*0.0095*	*0.010*	*0.011*	*0.012*	*0.013*	*0.013*	*0.013*	*310*
P5	P	0,19	0,22	0,24	0,26	0,28	0,30	0,30	0,32	0,34	90
	P	*0.0075*	*0.0085*	*0.0095*	*0.010*	*0.011*	*0.012*	*0.012*	*0.013*	*0.013*	*295*
P6	P	0,18	0,22	0,24	0,26	0,28	0,28	0,30	0,32	0,32	100
	P	*0.0070*	*0.0085*	*0.0095*	*0.010*	*0.011*	*0.011*	*0.012*	*0.013*	*0.013*	*330*
P7	P	0,18	0,22	0,24	0,26	0,28	0,28	0,30	0,32	0,32	95
	P	*0.0070*	*0.0085*	*0.0095*	*0.010*	*0.011*	*0.011*	*0.012*	*0.013*	*0.013*	*310*
P8	P	0,19	0,22	0,25	0,26	0,28	0,30	0,32	0,34	0,34	90
	P	*0.0075*	*0.0085*	*0.010*	*0.010*	*0.011*	*0.012*	*0.013*	*0.013*	*0.013*	*295*
P11	P	0,18	0,22	0,24	0,26	0,28	0,28	0,30	0,32	0,32	90
	P	*0.0070*	*0.0085*	*0.0095*	*0.010*	*0.011*	*0.011*	*0.012*	*0.013*	*0.013*	*295*
P12	P	0,13	0,15	0,16	0,18	0,19	0,20	0,20	0,22	0,22	55
	P	*0.0050*	*0.0060*	*0.0065*	*0.0070*	*0.0075*	*0.0080*	*0.0080*	*0.0085*	*0.0085*	*180*
M1	M	0,14	0,15	0,15	0,16	0,16	0,16	0,17	0,17	0,17	85
	M	*0.0055*	*0.0060*	*0.0060*	*0.0065*	*0.0065*	*0.0065*	*0.0065*	*0.0065*	*0.0065*	*280*
M2	M	0,13	0,13	0,14	0,14	0,15	0,15	0,15	0,16	0,16	70
	M	*0.0050*	*0.0050*	*0.0055*	*0.0055*	*0.0060*	*0.0060*	*0.0060*	*0.0065*	*0.0065*	*230*
M3	M	0,10	0,11	0,11	0,11	0,12	0,12	0,12	0,12	0,13	50
	M	*0.0040*	*0.0044*	*0.0044*	*0.0044*	*0.0048*	*0.0048*	*0.0048*	*0.0048*	*0.0050*	*165*
M4	M	0,090	0,095	0,095	0,10	0,10	0,10	0,11	0,11	0,11	39
	M	*0.0036*	*0.0038*	*0.0038*	*0.0040*	*0.0040*	*0.0040*	*0.0044*	*0.0044*	*0.0044*	*130*
M5	M	0,090	0,095	0,095	0,10	0,10	0,10	0,11	0,11	0,11	33
	M	*0.0036*	*0.0038*	*0.0038*	*0.0040*	*0.0040*	*0.0040*	*0.0044*	*0.0044*	*0.0044*	*110*
K1	K	0,28	0,32	0,34	0,36	0,38	0,40	0,42	0,42	0,44	100
	K	*0.011*	*0.013*	*0.013*	*0.014*	*0.015*	*0.016*	*0.017*	*0.017*	*0.017*	*330*
K2	K	0,26	0,28	0,30	0,32	0,34	0,36	0,38	0,38	0,40	85
	K	*0.010*	*0.011*	*0.012*	*0.013*	*0.013*	*0.014*	*0.015*	*0.015*	*0.016*	*280*
K3	K	0,26	0,28	0,30	0,32	0,34	0,36	0,38	0,38	0,40	70
	K	*0.010*	*0.011*	*0.012*	*0.013*	*0.013*	*0.014*	*0.015*	*0.015*	*0.016*	*230*
K4	K	0,26	0,28	0,30	0,32	0,34	0,36	0,38	0,38	0,40	70
	K	*0.010*	*0.011*	*0.012*	*0.013*	*0.013*	*0.014*	*0.015*	*0.015*	*0.016*	*230*
K5	K	0,24	0,26	0,28	0,30	0,32	0,32	0,34	0,36	0,36	41
	K	*0.0095*	*0.010*	*0.011*	*0.012*	*0.013*	*0.013*	*0.013*	*0.014*	*0.014*	*135*
N1	M	0,18	0,19	0,19	0,20	0,20	0,20	0,22	0,22	0,22	335
	M	*0.0070*	*0.0075*	*0.0075*	*0.0080*	*0.0080*	*0.0080*	*0.0085*	*0.0085*	*0.0085*	*1100*
N2	M	0,18	0,19	0,19	0,20	0,20	0,20	0,22	0,22	0,22	215
	M	*0.0070*	*0.0075*	*0.0075*	*0.0080*	*0.0080*	*0.0080*	*0.0085*	*0.0085*	*0.0085*	*710*
N3	M	0,18	0,19	0,19	0,20	0,20	0,20	0,22	0,22	0,22	145
	M	*0.0070*	*0.0075*	*0.0075*	*0.0080*	*0.0080*	*0.0080*	*0.0085*	*0.0085*	*0.0085*	*475*
N11	M	0,18	0,19	0,19	0,20	0,20	0,20	0,22	0,22	0,22	170
	M	*0.0070*	*0.0075*	*0.0075*	*0.0080*	*0.0080*	*0.0080*	*0.0085*	*0.0085*	*0.0085*	*560*
S1	M	0,090	0,095	0,095	0,10	0,10	0,10	0,11	0,11	0,11	34
	M	*0.0036*	*0.0038*	*0.0038*	*0.0040*	*0.0040*	*0.0040*	*0.0044*	*0.0044*	*0.0044*	*110*
S2	M	0,090	0,095	0,095	0,10	0,10	0,10	0,11	0,11	0,11	25
	M	*0.0036*	*0.0038*	*0.0038*	*0.0040*	*0.0040*	*0.0040*	*0.0044*	*0.0044*	*0.0044*	*80*
S3	M	0,085	0,085	0,090	0,095	0,095	0,095	0,10	0,10	0,10	25
	M	*0.0034*	*0.0034*	*0.0036*	*0.0038*	*0.0038*	*0.0038*	*0.0040*	*0.0040*	*0.0040*	*80*
S11	M	0,10	0,11	0,11	0,11	0,12	0,12	0,12	0,12	0,13	65
	M	*0.0040*	*0.0044*	*0.0044*	*0.0044*	*0.0048*	*0.0048*	*0.0048*	*0.0048*	*0.0050*	*215*
S12	M	0,10	0,11	0,11	0,11	0,12	0,12	0,12	0,12	0,13	49
	M	*0.0040*	*0.0044*	*0.0044*	*0.0044*	*0.0048*	*0.0048*	*0.0048*	*0.0048*	*0.0050*	*160*
S13	M	0,090	0,095	0,095	0,10	0,10	0,10	0,11	0,11	0,11	38
	M	*0.0036*	*0.0038*	*0.0038*	*0.0040*	*0.0040*	*0.0040*	*0.0044*	*0.0044*	*0.0044*	*125*
H3	P	0,085	0,095	0,11	0,12	0,12	0,13	0,14	0,14	0,15	27
	P	*0.0034*	*0.0038*	*0.0044*	*0.0048*	*0.0048*	*0.0050*	*0.0055*	*0.0055*	*0.0060*	*90*
H5	P	0,13	0,15	0,16	0,18	0,19	0,20	0,20	0,22	0,22	50
	P	*0.0050*	*0.0060*	*0.0065*	*0.0070*	*0.0075*	*0.0080*	*0.0080*	*0.0085*	*0.0085*	*165*
H7	P	0,085	0,095	0,11	0,12	0,12	0,13	0,14	0,14	0,15	27
	P	*0.0034*	*0.0038*	*0.0044*	*0.0048*	*0.0048*	*0.0050*	*0.0055*	*0.0055*	*0.0060*	*90*
H8	P	0,095	0,11	0,12	0,13	0,14	0,15	0,16	0,17	0,17	50
	P	*0.0038*	*0.0044*	*0.0048*	*0.0050*	*0.0055*	*0.0060*	*0.0065*	*0.0065*	*0.0065*	*165*
H11	P	0,13	0,15	0,16	0,18	0,19	0,20	0,20	0,22	0,22	65
	P	*0.0050*	*0.0060*	*0.0065*	*0.0070*	*0.0075*	*0.0080*	*0.0080*	*0.0085*	*0.0085*	*215*
H12	P	0,095	0,11	0,12	0,13	0,14	0,15	0,16	0,17	0,17	32
	P	*0.0038*	*0.0044*	*0.0048*	*0.0050*	*0.0055*	*0.0060*	*0.0065*	*0.0065*	*0.0065*	*105*
H21	P	0,095	0,11	0,12	0,13	0,14	0,15	0,16	0,17	0,17	50
	P	*0.0038*	*0.0044*	*0.0048*	*0.0050*	*0.0055*	*0.0060*	*0.0065*	*0.0065*	*0.0065*	*165*

SMG = Seco material group f = mm/rev (IPR) v_c = m/min (sf/min) All cutting data are start values

SD103 – ∅ 10-26 mm / *0.394-1.024 inch*

SMG		f									v_c
		Ø 10.00 *Ø 0.394*	Ø 12.00 *Ø 0.472*	Ø 14.00 *Ø 0.551*	Ø 16.00 *Ø 0.630*	Ø 18.00 *Ø 0.709*	Ø 20.00 *Ø 0.787*	Ø 22.00 *Ø 0.866*	Ø 24.00 *Ø 0.945*	Ø 26.00 *Ø 1.024*	
P1	P	0,20	0,24	0,26	0,28	0,30	0,32	0,34	0,34	0,36	120
	P	*0.008*	*0.0095*	*0.01*	*0.011*	*0.012*	*0.013*	*0.013*	*0.013*	*0.014*	*395*
P2	P	0,20	0,24	0,26	0,28	0,30	0,32	0,34	0,36	0,36	115
	P	*0.008*	*0.0095*	*0.01*	*0.011*	*0.012*	*0.013*	*0.013*	*0.014*	*0.014*	*375*
P3	P	0,19	0,22	0,25	0,26	0,28	0,30	0,32	0,34	0,34	100
	P	*0.0075*	*0.0085*	*0.01*	*0.01*	*0.011*	*0.012*	*0.013*	*0.013*	*0.013*	*330*
P4	P	0,19	0,22	0,24	0,26	0,28	0,30	0,32	0,32	0,34	85
	P	*0.0075*	*0.0085*	*0.0095*	*0.01*	*0.011*	*0.012*	*0.013*	*0.013*	*0.013*	*280*
P5	P	0,19	0,22	0,24	0,26	0,28	0,30	0,30	0,32	0,34	85
	P	*0.0075*	*0.0085*	*0.0095*	*0.01*	*0.011*	*0.012*	*0.012*	*0.013*	*0.013*	*280*
P6	P	0,18	0,22	0,24	0,26	0,28	0,28	0,30	0,32	0,32	95
	P	*0.007*	*0.0085*	*0.0095*	*0.01*	*0.011*	*0.011*	*0.012*	*0.013*	*0.013*	*310*
P7	P	0,18	0,22	0,24	0,26	0,28	0,28	0,30	0,32	0,32	90
	P	*0.007*	*0.0085*	*0.0095*	*0.01*	*0.011*	*0.011*	*0.012*	*0.013*	*0.013*	*295*
P8	P	0,19	0,22	0,25	0,26	0,28	0,30	0,32	0,34	0,34	85
	P	*0.0075*	*0.0085*	*0.01*	*0.01*	*0.011*	*0.012*	*0.013*	*0.013*	*0.013*	*280*
P11	P	0,18	0,22	0,24	0,26	0,28	0,28	0,30	0,32	0,32	85
	P	*0.007*	*0.0085*	*0.0095*	*0.01*	*0.011*	*0.011*	*0.012*	*0.013*	*0.013*	*280*
P12	P	0,13	0,15	0,16	0,18	0,19	0,20	0,20	0,22	0,22	50
	P	*0.005*	*0.006*	*0.0065*	*0.007*	*0.0075*	*0.008*	*0.008*	*0.0085*	*0.0085*	*165*
M1	M	0,14	0,15	0,15	0,16	0,16	0,16	0,17	0,17	0,17	80
	M	*0.0055*	*0.006*	*0.006*	*0.0065*	*0.0065*	*0.0065*	*0.0065*	*0.0065*	*0.0065*	*260*
M2	M	0,13	0,13	0,14	0,14	0,15	0,15	0,15	0,16	0,16	65
	M	*0.005*	*0.005*	*0.0055*	*0.0055*	*0.006*	*0.006*	*0.006*	*0.0065*	*0.0065*	*215*
M3	M	0,10	0,11	0,11	0,11	0,12	0,12	0,12	0,12	0,13	49
	M	*0.004*	*0.0044*	*0.0044*	*0.0044*	*0.0048*	*0.0048*	*0.0048*	*0.0048*	*0.005*	*160*
M4	M	0,090	0,095	0,095	0,10	0,10	0,10	0,11	0,11	0,11	37
	M	*0.0036*	*0.0038*	*0.0038*	*0.004*	*0.004*	*0.004*	*0.0044*	*0.0044*	*0.0044*	*120*
M5	M	0,090	0,095	0,095	0,10	0,10	0,10	0,11	0,11	0,11	31
	M	*0.0036*	*0.0038*	*0.0038*	*0.004*	*0.004*	*0.004*	*0.0044*	*0.0044*	*0.0044*	*100*
K1	K	0,28	0,32	0,34	0,36	0,38	0,40	0,42	0,42	0,44	90
	K	*0.011*	*0.013*	*0.013*	*0.014*	*0.015*	*0.016*	*0.017*	*0.017*	*0.017*	*295*
K2	K	0,26	0,28	0,30	0,32	0,34	0,36	0,38	0,38	0,40	80
	K	*0.01*	*0.011*	*0.012*	*0.013*	*0.013*	*0.014*	*0.015*	*0.015*	*0.016*	*260*
K3	K	0,26	0,28	0,30	0,32	0,34	0,36	0,38	0,38	0,40	65
	K	*0.01*	*0.011*	*0.012*	*0.013*	*0.013*	*0.014*	*0.015*	*0.015*	*0.016*	*215*
K4	K	0,26	0,28	0,30	0,32	0,34	0,36	0,38	0,38	0,40	65
	K	*0.01*	*0.011*	*0.012*	*0.013*	*0.013*	*0.014*	*0.015*	*0.015*	*0.016*	*215*
K5	K	0,24	0,26	0,28	0,30	0,32	0,32	0,34	0,36	0,36	38
	K	*0.0095*	*0.01*	*0.011*	*0.012*	*0.013*	*0.013*	*0.013*	*0.014*	*0.014*	*125*
N1	M	0,18	0,19	0,19	0,20	0,20	0,20	0,22	0,22	0,22	315
	M	*0.007*	*0.0075*	*0.0075*	*0.008*	*0.008*	*0.008*	*0.0085*	*0.0085*	*0.0085*	*1025*
N2	M	0,18	0,19	0,19	0,20	0,20	0,20	0,22	0,22	0,22	200
	M	*0.007*	*0.0075*	*0.0075*	*0.008*	*0.008*	*0.008*	*0.0085*	*0.0085*	*0.0085*	*660*
N3	M	0,18	0,19	0,19	0,20	0,20	0,20	0,22	0,22	0,22	135
	M	*0.007*	*0.0075*	*0.0075*	*0.008*	*0.008*	*0.008*	*0.0085*	*0.0085*	*0.0085*	*445*
N11	M	0,18	0,19	0,19	0,20	0,20	0,20	0,22	0,22	0,22	160
	M	*0.007*	*0.0075*	*0.0075*	*0.008*	*0.008*	*0.008*	*0.0085*	*0.0085*	*0.0085*	*520*
S1	M	0,090	0,095	0,095	0,10	0,10	0,10	0,11	0,11	0,11	32
	M	*0.0036*	*0.0038*	*0.0038*	*0.004*	*0.004*	*0.004*	*0.0044*	*0.0044*	*0.0044*	*105*
S2	M	0,090	0,095	0,095	0,10	0,10	0,10	0,11	0,11	0,11	23
	M	*0.0036*	*0.0038*	*0.0038*	*0.004*	*0.004*	*0.004*	*0.0044*	*0.0044*	*0.0044*	*75*
S3	M	0,085	0,085	0,090	0,095	0,095	0,095	0,10	0,10	0,10	23
	M	*0.0034*	*0.0034*	*0.0036*	*0.0038*	*0.0038*	*0.0038*	*0.004*	*0.004*	*0.004*	*75*
S11	M	0,10	0,11	0,11	0,11	0,12	0,12	0,12	0,12	0,13	60
	M	*0.004*	*0.0044*	*0.0044*	*0.0044*	*0.0048*	*0.0048*	*0.0048*	*0.0048*	*0.005*	*195*
S12	M	0,10	0,11	0,11	0,11	0,12	0,12	0,12	0,12	0,13	46
	M	*0.004*	*0.0044*	*0.0044*	*0.0044*	*0.0048*	*0.0048*	*0.0048*	*0.0048*	*0.005*	*150*
S13	M	0,090	0,095	0,095	0,10	0,10	0,10	0,11	0,11	0,11	36
	M	*0.0036*	*0.0038*	*0.0038*	*0.004*	*0.004*	*0.004*	*0.0044*	*0.0044*	*0.0044*	*120*
H3	P	0,085	0,095	0,11	0,12	0,12	0,13	0,14	0,14	0,15	25
	P	*0.0034*	*0.0038*	*0.0044*	*0.0048*	*0.0048*	*0.005*	*0.0055*	*0.0055*	*0.006*	*80*
H5	P	0,13	0,15	0,16	0,18	0,19	0,20	0,20	0,22	0,22	46
	P	*0.005*	*0.006*	*0.0065*	*0.007*	*0.0075*	*0.008*	*0.008*	*0.0085*	*0.0085*	*150*
H7	P	0,085	0,095	0,11	0,12	0,12	0,13	0,14	0,14	0,15	25
	P	*0.0034*	*0.0038*	*0.0044*	*0.0048*	*0.0048*	*0.005*	*0.0055*	*0.0055*	*0.006*	*80*
H8	P	0,095	0,11	0,12	0,13	0,14	0,15	0,16	0,17	0,17	46
	P	*0.0038*	*0.0044*	*0.0048*	*0.005*	*0.0055*	*0.006*	*0.0065*	*0.0065*	*0.0065*	*150*
H11	P	0,13	0,15	0,16	0,18	0,19	0,20	0,20	0,22	0,22	60
	P	*0.005*	*0.006*	*0.0065*	*0.007*	*0.0075*	*0.008*	*0.008*	*0.0085*	*0.0085*	*195*
H12	P	0,095	0,11	0,12	0,13	0,14	0,15	0,16	0,17	0,17	30
	P	*0.0038*	*0.0044*	*0.0048*	*0.005*	*0.0055*	*0.006*	*0.0065*	*0.0065*	*0.0065*	*100*
H21	P	0,095	0,11	0,12	0,13	0,14	0,15	0,16	0,17	0,17	46
	P	*0.0038*	*0.0044*	*0.0048*	*0.005*	*0.0055*	*0.006*	*0.0065*	*0.0065*	*0.0065*	*150*

SMG = Seco material group f = mm/rev (IPR) v_c = m/min (sf/min) All cutting data are start values

SMG		f									v_c
		Ø 10.00 *Ø 0.394*	Ø 12.00 *Ø 0.472*	Ø 14.00 *Ø 0.551*	Ø 16.00 *Ø 0.630*	Ø 18.00 *Ø 0.709*	Ø 20.00 *Ø 0.787*	Ø 22.00 *Ø 0.866*	Ø 24.00 *Ø 0.945*	Ø 26.00 *Ø 1.024*	
P1	P	0,20	0,24	0,26	0,28	0,30	0,32	0,34	0,34	0,36	110
	P	*0.0080*	*0.0095*	*0.010*	*0.011*	*0.012*	*0.013*	*0.013*	*0.013*	*0.014*	*360*
P2	P	0,20	0,24	0,26	0,28	0,30	0,32	0,34	0,36	0,36	110
	P	*0.0080*	*0.0095*	*0.010*	*0.011*	*0.012*	*0.013*	*0.013*	*0.014*	*0.014*	*360*
P3	P	0,19	0,22	0,25	0,26	0,28	0,30	0,32	0,34	0,34	95
	P	*0.0075*	*0.0085*	*0.010*	*0.010*	*0.011*	*0.012*	*0.013*	*0.013*	*0.013*	*310*
P4	P	0,19	0,22	0,24	0,26	0,28	0,30	0,32	0,32	0,34	85
	P	*0.0075*	*0.0085*	*0.0095*	*0.010*	*0.011*	*0.012*	*0.013*	*0.013*	*0.013*	*280*
P5	P	0,19	0,22	0,24	0,26	0,28	0,30	0,30	0,32	0,34	80
	P	*0.0075*	*0.0085*	*0.0095*	*0.010*	*0.011*	*0.012*	*0.012*	*0.013*	*0.013*	*260*
P6	P	0,18	0,22	0,24	0,26	0,28	0,28	0,30	0,32	0,32	90
	P	*0.0070*	*0.0085*	*0.0095*	*0.010*	*0.011*	*0.011*	*0.012*	*0.013*	*0.013*	*295*
P7	P	0,18	0,22	0,24	0,26	0,28	0,28	0,30	0,32	0,32	85
	P	*0.0070*	*0.0085*	*0.0095*	*0.010*	*0.011*	*0.011*	*0.012*	*0.013*	*0.013*	*280*
P8	P	0,19	0,22	0,25	0,26	0,28	0,30	0,32	0,34	0,34	80
	P	*0.0075*	*0.0085*	*0.010*	*0.010*	*0.011*	*0.012*	*0.013*	*0.013*	*0.013*	*260*
P11	P	0,18	0,22	0,24	0,26	0,28	0,28	0,30	0,32	0,32	80
	P	*0.0070*	*0.0085*	*0.0095*	*0.010*	*0.011*	*0.011*	*0.012*	*0.013*	*0.013*	*260*
P12	P	0,13	0,15	0,16	0,18	0,19	0,20	0,20	0,22	0,22	48
	P	*0.0050*	*0.0060*	*0.0065*	*0.0070*	*0.0075*	*0.0080*	*0.0080*	*0.0085*	*0.0085*	*155*
M1	M	0,14	0,15	0,15	0,16	0,16	0,16	0,17	0,17	0,17	75
	M	*0.0055*	*0.0060*	*0.0060*	*0.0065*	*0.0065*	*0.0065*	*0.0065*	*0.0065*	*0.0065*	*245*
M2	M	0,13	0,13	0,14	0,14	0,15	0,15	0,15	0,16	0,16	60
	M	*0.0050*	*0.0050*	*0.0055*	*0.0055*	*0.0060*	*0.0060*	*0.0060*	*0.0065*	*0.0065*	*195*
M3	M	0,10	0,11	0,11	0,11	0,12	0,12	0,12	0,12	0,13	46
	M	*0.0040*	*0.0044*	*0.0044*	*0.0044*	*0.0048*	*0.0048*	*0.0048*	*0.0048*	*0.0050*	*150*
M4	M	0,090	0,095	0,095	0,10	0,10	0,10	0,11	0,11	0,11	35
	M	*0.0036*	*0.0038*	*0.0038*	*0.0040*	*0.0040*	*0.0040*	*0.0044*	*0.0044*	*0.0044*	*115*
M5	M	0,090	0,095	0,095	0,10	0,10	0,10	0,11	0,11	0,11	29
	M	*0.0036*	*0.0038*	*0.0038*	*0.0040*	*0.0040*	*0.0040*	*0.0044*	*0.0044*	*0.0044*	*95*
K1	K	0,28	0,32	0,34	0,36	0,38	0,40	0,42	0,42	0,44	90
	K	*0.011*	*0.013*	*0.013*	*0.014*	*0.015*	*0.016*	*0.017*	*0.017*	*0.017*	*295*
K2	K	0,26	0,28	0,30	0,32	0,34	0,36	0,38	0,38	0,40	75
	K	*0.010*	*0.011*	*0.012*	*0.013*	*0.013*	*0.014*	*0.015*	*0.015*	*0.016*	*245*
K3	K	0,26	0,28	0,30	0,32	0,34	0,36	0,38	0,38	0,40	65
	K	*0.010*	*0.011*	*0.012*	*0.013*	*0.013*	*0.014*	*0.015*	*0.015*	*0.016*	*215*
K4	K	0,26	0,28	0,30	0,32	0,34	0,36	0,38	0,38	0,40	60
	K	*0.010*	*0.011*	*0.012*	*0.013*	*0.013*	*0.014*	*0.015*	*0.015*	*0.016*	*195*
K5	K	0,24	0,26	0,28	0,30	0,32	0,32	0,34	0,36	0,36	36
	K	*0.0095*	*0.010*	*0.011*	*0.012*	*0.013*	*0.013*	*0.013*	*0.014*	*0.014*	*120*
N1	M	0,18	0,19	0,19	0,20	0,20	0,20	0,22	0,22	0,22	300
	M	*0.0070*	*0.0075*	*0.0075*	*0.0080*	*0.0080*	*0.0080*	*0.0085*	*0.0085*	*0.0085*	*980*
N2	M	0,18	0,19	0,19	0,20	0,20	0,20	0,22	0,22	0,22	190
	M	*0.0070*	*0.0075*	*0.0075*	*0.0080*	*0.0080*	*0.0080*	*0.0085*	*0.0085*	*0.0085*	*620*
N3	M	0,18	0,19	0,19	0,20	0,20	0,20	0,22	0,22	0,22	130
	M	*0.0070*	*0.0075*	*0.0075*	*0.0080*	*0.0080*	*0.0080*	*0.0085*	*0.0085*	*0.0085*	*425*
N11	M	0,18	0,19	0,19	0,20	0,20	0,20	0,22	0,22	0,22	150
	M	*0.0070*	*0.0075*	*0.0075*	*0.0080*	*0.0080*	*0.0080*	*0.0085*	*0.0085*	*0.0085*	*490*
S1	M	0,090	0,095	0,095	0,10	0,10	0,10	0,11	0,11	0,11	30
	M	*0.0036*	*0.0038*	*0.0038*	*0.0040*	*0.0040*	*0.0040*	*0.0044*	*0.0044*	*0.0044*	*100*
S2	M	0,090	0,095	0,095	0,10	0,10	0,10	0,11	0,11	0,11	22
	M	*0.0036*	*0.0038*	*0.0038*	*0.0040*	*0.0040*	*0.0040*	*0.0044*	*0.0044*	*0.0044*	*70*
S3	M	0,085	0,085	0,090	0,095	0,095	0,095	0,10	0,10	0,10	22
	M	*0.0034*	*0.0034*	*0.0036*	*0.0038*	*0.0038*	*0.0038*	*0.0040*	*0.0040*	*0.0040*	*70*
S11	M	0,10	0,11	0,11	0,11	0,12	0,12	0,12	0,12	0,13	55
	M	*0.0040*	*0.0044*	*0.0044*	*0.0044*	*0.0048*	*0.0048*	*0.0048*	*0.0048*	*0.0050*	*180*
S12	M	0,10	0,11	0,11	0,11	0,12	0,12	0,12	0,12	0,13	44
	M	*0.0040*	*0.0044*	*0.0044*	*0.0044*	*0.0048*	*0.0048*	*0.0048*	*0.0048*	*0.0050*	*145*
S13	M	0,090	0,095	0,095	0,10	0,10	0,10	0,11	0,11	0,11	34
	M	*0.0036*	*0.0038*	*0.0038*	*0.0040*	*0.0040*	*0.0040*	*0.0044*	*0.0044*	*0.0044*	*110*
H3	P	0,085	0,095	0,11	0,12	0,12	0,13	0,14	0,14	0,15	24
	P	*0.0034*	*0.0038*	*0.0044*	*0.0048*	*0.0048*	*0.0050*	*0.0055*	*0.0055*	*0.0060*	*80*
H5	P	0,13	0,15	0,16	0,18	0,19	0,20	0,20	0,22	0,22	44
	P	*0.0050*	*0.0060*	*0.0065*	*0.0070*	*0.0075*	*0.0080*	*0.0080*	*0.0085*	*0.0085*	*145*
H7	P	0,085	0,095	0,11	0,12	0,12	0,13	0,14	0,14	0,15	24
	P	*0.0034*	*0.0038*	*0.0044*	*0.0048*	*0.0048*	*0.0050*	*0.0055*	*0.0055*	*0.0060*	*80*
H8	P	0,095	0,11	0,12	0,13	0,14	0,15	0,16	0,17	0,17	44
	P	*0.0038*	*0.0044*	*0.0048*	*0.0050*	*0.0055*	*0.0060*	*0.0065*	*0.0065*	*0.0065*	*145*
H11	P	0,13	0,15	0,16	0,18	0,19	0,20	0,20	0,22	0,22	55
	P	*0.0050*	*0.0060*	*0.0065*	*0.0070*	*0.0075*	*0.0080*	*0.0080*	*0.0085*	*0.0085*	*180*
H12	P	0,095	0,11	0,12	0,13	0,14	0,15	0,16	0,17	0,17	29
	P	*0.0038*	*0.0044*	*0.0048*	*0.0050*	*0.0055*	*0.0060*	*0.0065*	*0.0065*	*0.0065*	*95*
H21	P	0,095	0,11	0,12	0,13	0,14	0,15	0,16	0,17	0,17	44
	P	*0.0038*	*0.0044*	*0.0048*	*0.0050*	*0.0055*	*0.0060*	*0.0065*	*0.0065*	*0.0065*	*145*

SMG = Seco material group f = mm/rev (IPR) v_c = m/min (sf/min) All cutting data are start values

SD107 – ∅ 10-26 mm / *0.394-1.024 inch*

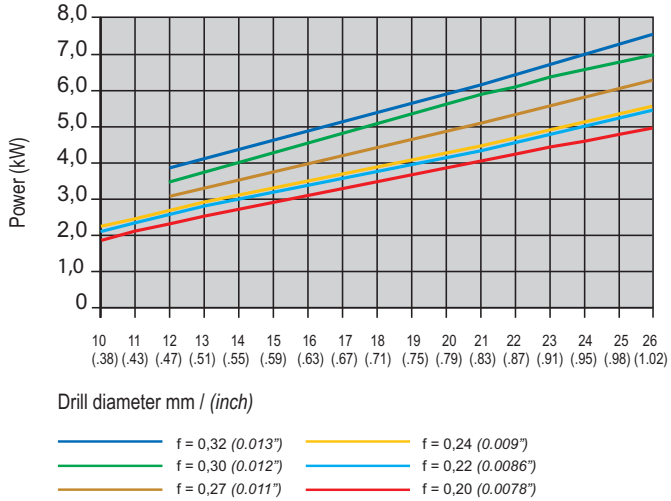
SMG		f								v_c
		Ø 12.00 *Ø 0.472*	Ø 14.00 *Ø 0.551*	Ø 16.00 *Ø 0.630*	Ø 18.00 *Ø 0.709*	Ø 20.00 *Ø 0.787*	Ø 22.00 *Ø 0.866*	Ø 24.00 *Ø 0.945*	Ø 26.00 *Ø 1.024*	
P1	P	0,24	0,26	0,28	0,30	0,32	0,34	0,34	0,36	110
	P	*0.0095*	*0.010*	*0.011*	*0.012*	*0.013*	*0.013*	*0.013*	*0.014*	*360*
P2	P	0,24	0,26	0,28	0,30	0,32	0,34	0,36	0,36	105
	P	*0.0095*	*0.010*	*0.011*	*0.012*	*0.013*	*0.013*	*0.014*	*0.014*	*345*
P3	P	0,22	0,25	0,26	0,28	0,30	0,32	0,34	0,34	90
	P	*0.0085*	*0.010*	*0.010*	*0.011*	*0.012*	*0.013*	*0.013*	*0.013*	*295*
P4	P	0,22	0,24	0,26	0,28	0,30	0,32	0,32	0,34	80
	P	*0.0085*	*0.0095*	*0.010*	*0.011*	*0.012*	*0.013*	*0.013*	*0.013*	*260*
P5	P	0,22	0,24	0,26	0,28	0,30	0,30	0,32	0,34	75
	P	*0.0085*	*0.0095*	*0.010*	*0.011*	*0.012*	*0.012*	*0.013*	*0.013*	*245*
P6	P	0,22	0,24	0,26	0,28	0,28	0,30	0,32	0,32	85
	P	*0.0085*	*0.0095*	*0.010*	*0.011*	*0.011*	*0.012*	*0.013*	*0.013*	*280*
P7	P	0,22	0,24	0,26	0,28	0,28	0,30	0,32	0,32	80
	P	*0.0085*	*0.0095*	*0.010*	*0.011*	*0.011*	*0.012*	*0.013*	*0.013*	*260*
P8	P	0,22	0,25	0,26	0,28	0,30	0,32	0,34	0,34	75
	P	*0.0085*	*0.010*	*0.010*	*0.011*	*0.012*	*0.013*	*0.013*	*0.013*	*245*
P11	P	0,22	0,24	0,26	0,28	0,28	0,30	0,32	0,32	80
	P	*0.0085*	*0.0095*	*0.010*	*0.011*	*0.011*	*0.012*	*0.013*	*0.013*	*260*
P12	P	0,15	0,16	0,18	0,19	0,20	0,20	0,22	0,22	47
	P	*0.0060*	*0.0065*	*0.0070*	*0.0075*	*0.0080*	*0.0080*	*0.0085*	*0.0085*	*155*
M1	M	0,15	0,15	0,16	0,16	0,16	0,17	0,17	0,17	75
	M	*0.0060*	*0.0060*	*0.0065*	*0.0065*	*0.0065*	*0.0065*	*0.0065*	*0.0065*	*245*
M2	M	0,13	0,14	0,14	0,15	0,15	0,15	0,16	0,16	60
	M	*0.0050*	*0.0055*	*0.0055*	*0.0060*	*0.0060*	*0.0060*	*0.0065*	*0.0065*	*195*
M3	M	0,11	0,11	0,11	0,12	0,12	0,12	0,12	0,13	45
	M	*0.0044*	*0.0044*	*0.0044*	*0.0048*	*0.0048*	*0.0048*	*0.0048*	*0.0050*	*150*
M4	M	0,095	0,095	0,10	0,10	0,10	0,11	0,11	0,11	34
	M	*0.0038*	*0.0038*	*0.0040*	*0.0040*	*0.0040*	*0.0044*	*0.0044*	*0.0044*	*110*
M5	M	0,095	0,095	0,10	0,10	0,10	0,11	0,11	0,11	28
	M	*0.0038*	*0.0038*	*0.0040*	*0.0040*	*0.0040*	*0.0044*	*0.0044*	*0.0044*	*90*
K1	K	0,32	0,34	0,36	0,38	0,40	0,42	0,42	0,44	85
	K	*0.013*	*0.013*	*0.014*	*0.015*	*0.016*	*0.017*	*0.017*	*0.017*	*280*
K2	K	0,28	0,30	0,32	0,34	0,36	0,38	0,38	0,40	75
	K	*0.011*	*0.012*	*0.013*	*0.013*	*0.014*	*0.015*	*0.015*	*0.016*	*245*
K3	K	0,28	0,30	0,32	0,34	0,36	0,38	0,38	0,40	60
	K	*0.011*	*0.012*	*0.013*	*0.013*	*0.014*	*0.015*	*0.015*	*0.016*	*195*
K4	K	0,28	0,30	0,32	0,34	0,36	0,38	0,38	0,40	60
	K	*0.011*	*0.012*	*0.013*	*0.013*	*0.014*	*0.015*	*0.015*	*0.016*	*195*
K5	K	0,26	0,28	0,30	0,32	0,32	0,34	0,36	0,36	35
	K	*0.010*	*0.011*	*0.012*	*0.013*	*0.013*	*0.013*	*0.014*	*0.014*	*115*
N1	M	0,19	0,19	0,20	0,20	0,20	0,22	0,22	0,22	290
	M	*0.0075*	*0.0075*	*0.0080*	*0.0080*	*0.0080*	*0.0085*	*0.0085*	*0.0085*	*950*
N2	M	0,19	0,19	0,20	0,20	0,20	0,22	0,22	0,22	185
	M	*0.0075*	*0.0075*	*0.0080*	*0.0080*	*0.0080*	*0.0085*	*0.0085*	*0.0085*	*610*
N3	M	0,19	0,19	0,20	0,20	0,20	0,22	0,22	0,22	125
	M	*0.0075*	*0.0075*	*0.0080*	*0.0080*	*0.0080*	*0.0085*	*0.0085*	*0.0085*	*410*
N11	M	0,19	0,19	0,20	0,20	0,20	0,22	0,22	0,22	145
	M	*0.0075*	*0.0075*	*0.0080*	*0.0080*	*0.0080*	*0.0085*	*0.0085*	*0.0085*	*475*
S1	M	0,095	0,095	0,10	0,10	0,10	0,11	0,11	0,11	29
	M	*0.0038*	*0.0038*	*0.0040*	*0.0040*	*0.0040*	*0.0044*	*0.0044*	*0.0044*	*95*
S2	M	0,095	0,095	0,10	0,10	0,10	0,11	0,11	0,11	21
	M	*0.0038*	*0.0038*	*0.0040*	*0.0040*	*0.0040*	*0.0044*	*0.0044*	*0.0044*	*70*
S3	M	0,085	0,090	0,095	0,095	0,095	0,10	0,10	0,10	21
	M	*0.0034*	*0.0036*	*0.0038*	*0.0038*	*0.0038*	*0.0040*	*0.0040*	*0.0040*	*70*
S11	M	0,11	0,11	0,11	0,12	0,12	0,12	0,12	0,13	55
	M	*0.0044*	*0.0044*	*0.0044*	*0.0048*	*0.0048*	*0.0048*	*0.0048*	*0.0050*	*180*
S12	M	0,11	0,11	0,11	0,12	0,12	0,12	0,12	0,13	42
	M	*0.0044*	*0.0044*	*0.0044*	*0.0048*	*0.0048*	*0.0048*	*0.0048*	*0.0050*	*140*
S13	M	0,095	0,095	0,10	0,10	0,10	0,11	0,11	0,11	33
	M	*0.0038*	*0.0038*	*0.0040*	*0.0040*	*0.0040*	*0.0044*	*0.0044*	*0.0044*	*110*
H3	P	0,095	0,11	0,12	0,12	0,13	0,14	0,14	0,15	23
	P	*0.0038*	*0.0044*	*0.0048*	*0.0048*	*0.0050*	*0.0055*	*0.0055*	*0.0060*	*75*
H5	P	0,15	0,16	0,18	0,19	0,20	0,20	0,22	0,22	43
	P	*0.0060*	*0.0065*	*0.0070*	*0.0075*	*0.0080*	*0.0080*	*0.0085*	*0.0085*	*140*
H7	P	0,095	0,11	0,12	0,12	0,13	0,14	0,14	0,15	23
	P	*0.0038*	*0.0044*	*0.0048*	*0.0048*	*0.0050*	*0.0055*	*0.0055*	*0.0060*	*75*
H8	P	0,11	0,12	0,13	0,14	0,15	0,16	0,17	0,17	43
	P	*0.0044*	*0.0048*	*0.0050*	*0.0055*	*0.0060*	*0.0065*	*0.0065*	*0.0065*	*140*
H11	P	0,15	0,16	0,18	0,19	0,20	0,20	0,22	0,22	55
	P	*0.0060*	*0.0065*	*0.0070*	*0.0075*	*0.0080*	*0.0080*	*0.0085*	*0.0085*	*180*
H12	P	0,11	0,12	0,13	0,14	0,15	0,16	0,17	0,17	28
	P	*0.0044*	*0.0048*	*0.0050*	*0.0055*	*0.0060*	*0.0065*	*0.0065*	*0.0065*	*90*
H21	P	0,11	0,12	0,13	0,14	0,15	0,16	0,17	0,17	43
	P	*0.0044*	*0.0048*	*0.0050*	*0.0055*	*0.0060*	*0.0065*	*0.0065*	*0.0065*	*140*

SMG = Seco material group f = mm/rev (IPR) v_c = m/min (sf/min) All cutting data are start values

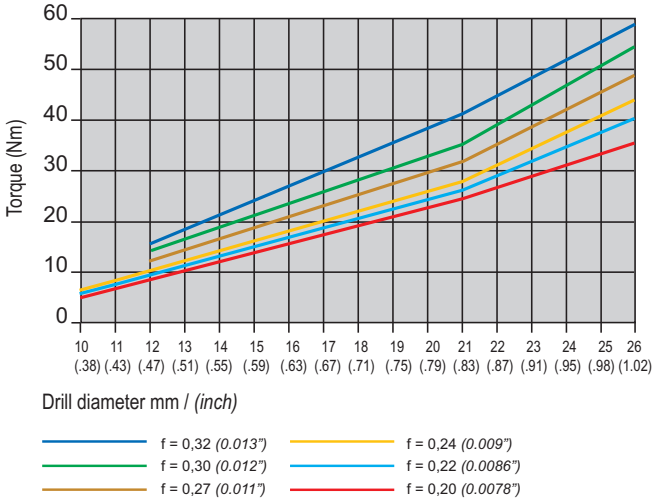
Machining data

The values in the graphs vary with e.g. cutting data, material, efficiency of the machine and tool wear.
The graphs below are valid for Seco Material Group (SMG) P5-P6 and cutting speed 90 m/min *(295 sf/min)*.

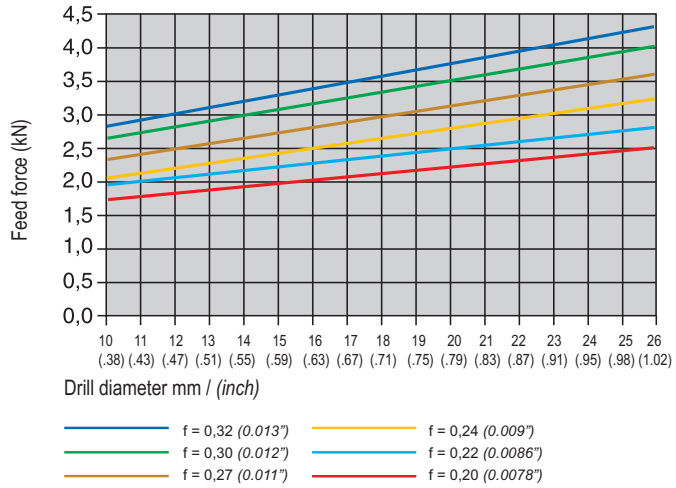
Net power consumption



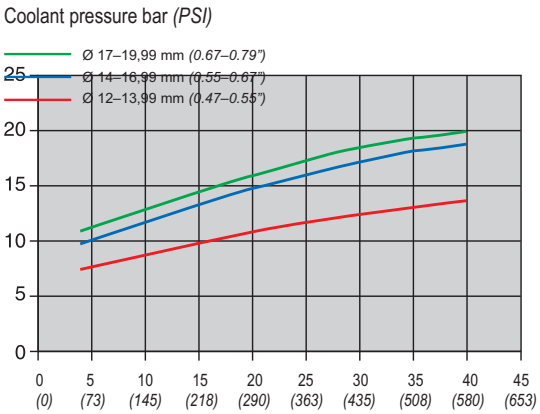
Drilling torque



Feed force



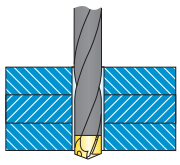
Coolant flow at different pressures



Recommended coolant flow Dx1 l/min
Minimum coolant flow D/2 l/min
D = Drill diameter
Minimum recommended coolant pressure 10 bar *(145 PSI)* with < 3 x D
Minimum recommended coolant pressure 20 bar *(290 PSI)* with > 3 x D
Minimum recommended coolant pressure 40 bar *(580 PSI)* with > 5 x D

Coolant mix
Recommended emulsion mix is 6–8%.
When drilling in stainless steels, superalloys and high strength steels a mix of 10% is recommended.

Machining recommendations
It is possible to drill stacked material as long as the pieces are securely clamped together, so that there are no air gaps between the parts. Air gaps can affect chip evacuation, and thereby damage the drill.



Hole tolerances/Surface finish

SD101, SD103, SD105 and SD107 IT9-10 / R_a 1-4*, R_a 39-157 µin*					
Drill ∅ DC (mm)	IT9 tolerance (µm)	IT10 tolerance (µm)	Drill ∅ DC *(inch)*	IT9 tolerance *(inch)*	IT10 tolerance *(inch)*
0 – +10-18	0 – +43	0 – +70	*0 – +0.394-0.709*	*0 – +0.0017*	*0 – +0.0028*
0 – +18-30	0 – +52	0 – +84	*0 – +0.709-1.181*	*0 – +0.0020*	*0 – +0.0033*

*Deterioration of surface finish and hole tolerance can occur when drilling in low carbon steel or stainless steel. Use the shortest drill possible for best hole quality.

Troubleshooting – Initial check points:

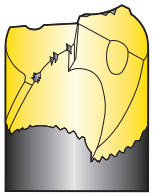
- Fixturing stability
- Machine spindle condition
- Tool holder condition

- Clamping of tool:
  - Run-out within 0,06 TIR

- Chip evacuation:
  - Cutting data

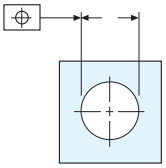
- Coolant:
  - Pressure
  - Flow
  - Concentration

Cutting edges get chipped



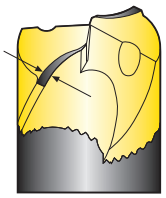
- Reduce the feed/rev
- If the drill vibrates, reduce the cutting speed and increase the feed rate
- When drilling through rough, hard or angled surfaces, reduce the feed rate by 30%-50% during entrance and exit

Unsatisfactory diameter tolerance



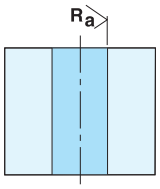
- Increase the feed/rev
- Use a Seco Feedmax solid carbide drill, see page(s) 15-17
- Use a reaming operation, see page(s) 327
- Use a boring operation, see pages(s) 516-517

Too fast flank wear



- Check that correct geometry is used
- Reduce the cutting speed

Unsatisfactory surface finish



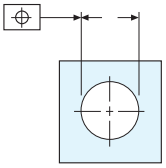
- Reduce the feed/rev
- Increase the cutting speed
- Check that the correct geometry is used
- Use a Seco Feedmax solid carbide drill, see page(s) 15-17
- Use a reaming operation, see page(s) 327

Groove wear



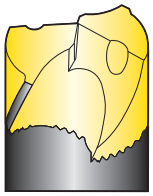
- Reduce the feed /rev
- Reduce the cutting speed
- Increase the coolant concentration

Unsatisfactory positioning of the hole



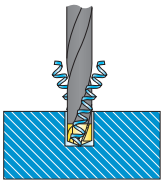
- Reduce the feed/rev
- If drilling through rough, hard and angled surface - reduce the feed by 30%-50% during entrance and exit
- Pre drill with a 140˚ point angle
- Use a Seco Feedmax solid carbide drill see Feedmax page(s) 15-17
- Use a boring operation, see page(s) 516-517

Wear of peripheral land margins



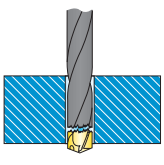
- Check that the correct geometry is used
- Reduce the cutting speed
- Increase the coolant concentration
- When drilling through rough, hard or angled surfaces, reduce the feed rate by 30-50% during entrance and exit

Chip jamming due to long chips



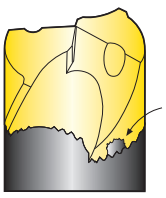
- Increase the feed
- In long chipping materials SMG P1-P4, SMG M1-M2:
  - Increase cutting speed and reduce feed/rev
  - Use the L geometry (MyDesign)

Breakage at hole exit



- If the crown connection breaks when the crown is just about to break through the material. The failure is caused by:
  - The interface has not been cleaned thoroughly and there is still dirt or chips left between crown and drill body
  - The crown has not been clamped securely. Use the torque key
  - Too few threads are holding the crown

Chipping of the locking interface



- Minor chipping is not hazardous to the locking system. It will not affect the drilling result
- If major chipping occurs when using a high feed rate or when drilling through angled surfaces - reduce the feed rate



Crownloc® Plus

Seco Crownloc® Plus is a new generation of Seco drills with exchangeable crowns. Featuring a new locking interface, Crownloc Plus improves chip evacuation and wear resistance in a variety of materials.

- Strong drill body design, high-strength locking interface with deep and wide flutes and polished body
- The first choice for general applications, the P geometry is a strong and versatile solution
- The M geometry provides excellent performance in high temperature alloys, titanium, titanium alloys and stainless steel

Range overview

Crownloc® Plus	∅ Range	Drill depth	Drill ∅ tolerance	Hole tolerance (1)	Surface finish (2)
SD403  Page(s) 203-206	12,00-19,99 mm *(0.472-0.787")*	~ 3 x D	k7	IT 9-10	Ra 1-3 µm *(Ra 39-118 µin)*
SD405  Page(s) 207-210	12,00-19,99 mm *(0.472-0.787")*	~ 5 x D	k7	IT 10	Ra 1-3 µm *(Ra 39-118 µin)*
SD408  Page(s) 211-214	12,00-19,99 mm *(0.472-0.787")*	~ 8 x D	k7	IT 10	Ra 1-3 µm *(Ra 39-118 µin)*

1) Variations can occur depending on the material and the cutting data used.
2) Drill depth, cutting data, coolant pressure and material can cause deterioration of the surface finish.

Code keys

Crownloc® Plus drill bodies

Metric

Type of drill
SD403: 3 x D
SD405: 5 x D
SD408: 8 x D

Min/max
Crown diameter

SD403 – 14.00/14.99 – 45 – 16 – R 7

Drilling depth

Shank diameter

Right hand rotation

Type of shank
1. Cylindrical
7. ISO 9766

Inch

45 – 0750 – R 7



Code key crowns

Drill diameter

SD400 – 14.00 – P

Type of geometry
P = Steel
M = Stainless Steel



Geometries

P-geometry
- Universal geometry, first choice for drilling in steel



M-geometry
- For stainless steels and high temp alloys



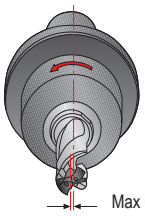
Mounting instructions

1. Stability

The stability of the application is important to obtain the best tool life and hole accuracy. Check the condition of the machine spindle, fixture and fixturing of the component to secure maximum stability and rigidity.
Unstable conditions can cause tool breakages.

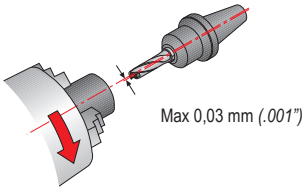
2. Rotating

Total Indicated Run-out (TIR) should not exceed 0.06 mm *(0.002")* in a rotating application.
Measure the run-out when turning the drill 360° in the spindle.



3. Stationary

The distance between the drill point and the rotating center of the workpiece should not exceed 0.03 mm *(0.001")* radially in a stationary application.



4. Recommended tool holders

Seco Tools offers a wide range of tools holders (Collet chucks, Shrinkfit holders, Weldon Hydraulic chucks...), available for a variety of machine spindle types.
For best results, use holders type ERHP 5672, High precision chuck.
For further information see Tooling Systems catalog.



High precision collet chuck
(For cylindrical, -R1 shanks only)



Hydraulic chuck
(For cylindrical, -R1 shanks only)

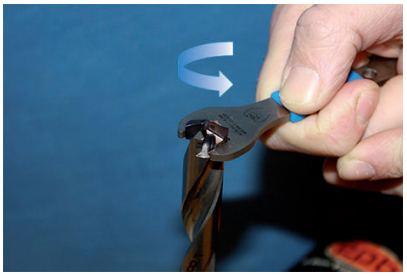


Weldon

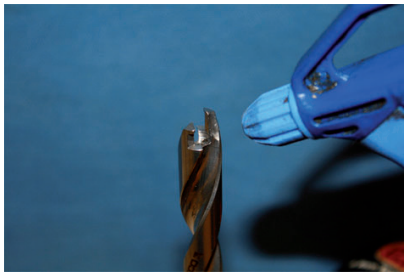
1.
To unclamp the crown, find the two flats on the Crown for the key.



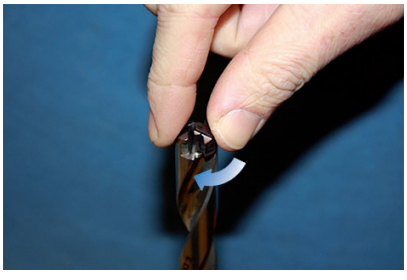
2.
Turn the key counterclockwise to unclamp it with a quarter of a turn.



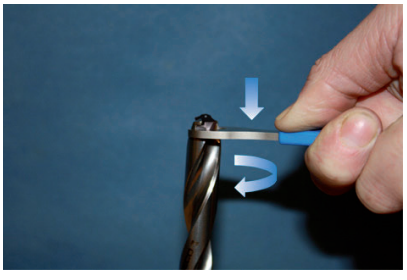
3.
Clean the connection, before mounting the crown.



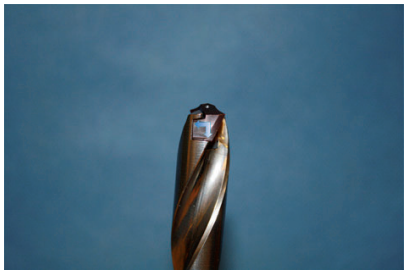
4.
Pre-clamp the crown with your fingers for easier clamping, before using the key.



5.
Simultaneously press down the crown when clamping on a quarter of a turn clockwise using the key and keep it perpendicular to the drill body.

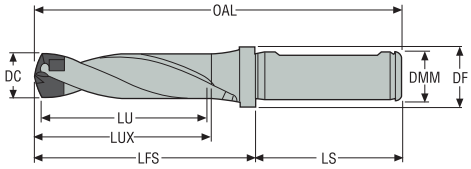


6.
When the crown is mounted in the drill body, full contact should be achieved in the connection between the suporting surfaces of the drill body and the Crown, see picture.



SD403 – R7

Drilling depth ~ 3 x D – Metric shank





- Internal coolant
- ISO9766 fits holders: Weldon 1835B, ISO 5414, DIN 60880
- For cutting data see page(s) 219

Designation	Item number	DC	LU	OAL	LUX	LFS	LS	DMM	DF
		mm	mm	mm	mm	mm	mm	mm	mm
SD403-12.00/12.49-38-16R7	02622894	12,0-12,49	38,0	106,2	46,2	58,2	48,0	16,0	20,0
SD403-12.50/12.99-39-16R7	02622895	12,5-12,99	39,0	108,0	47,5	60,0	48,0	16,0	20,0
SD403-13.00/13.99-42-16R7	02622896	13,0-13,99	42,0	111,9	50,9	63,9	48,0	16,0	20,0
SD403-14.00/14.99-45-16R7	02622898	14,0-14,99	45,0	116,5	54,5	68,5	48,0	16,0	20,0
SD403-15.00/15.99-48-16R7	02622899	15,0-15,99	48,0	121,2	58,2	73,2	48,0	16,0	20,0
SD403-16.00/16.99-51-20R7	02622900	16,0-16,99	51,0	127,9	61,9	77,9	50,0	20,0	24,0
SD403-17.00/17.99-54-20R7	02622902	17,0-17,99	54,0	132,6	65,6	82,6	50,0	20,0	24,0
SD403-18.00/18.99-57-20R7	02622903	18,0-18,99	57,0	137,3	69,3	87,3	50,0	20,0	24,0
SD403-19.00/19.99-60-20R7	02622905	19,0-19,99	60,0	142,0	73,0	92,0	50,0	20,0	24,0

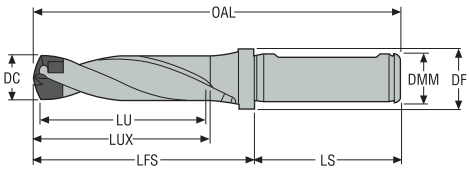
Accessories

For drill dia. (mm)	Key
	
12,00-12,99	SD400-K05
13,00-14,99	SD400-K06
15,00-16,99	SD400-K07
17,00-18,99	SD400-K08
19,00-19,99	SD400-K09

SD403 – R7

Drilling depth ~ 3 x D – Inch shank





- Internal coolant
- ISO9766 fits holders: Weldon 1835B, ISO 5414, DIN 60880
- For cutting data see page(s) 219

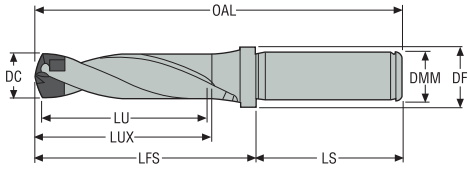
Designation	Item number	DC	LU	DF	OAL	LS	LFS	LUX	DMM
		Inch	*Inch*	*Inch*	*Inch*	*Inch*	*Inch*	*Inch*	*Inch*
SD403-12.00/12.49-38-0625R7	02622942	0.472-0.492	1.496	0.787	4.181	1.890	2.291	1.819	0.625
SD403-12.50/12.99-39-0625R7	02622943	0.492-0.511	1.535	0.787	4.252	1.890	2.362	1.870	0.625
SD403-13.00/13.99-42-0625R7	02622944	0.512-0.551	1.654	0.787	4.406	1.890	2.516	2.004	0.625
SD403-14.00/14.99-45-0625R7	02622945	0.551-0.590	1.772	0.787	4.587	1.890	2.697	2.146	0.625
SD403-15.00/15.99-48-0625R7	02622946	0.591-0.630	1.890	0.787	4.772	1.890	2.882	2.291	0.625
SD403-16.00/16.99-51-0750R7	02622947	0.630-0.669	2.008	0.945	5.035	1.969	3.067	2.437	0.750
SD403-17.00/17.99-54-0750R7	02622948	0.669-0.708	2.126	0.945	5.220	1.969	3.252	2.583	0.750
SD403-18.00/18.99-57-0750R7	02622949	0.709-0.748	2.244	0.945	5.406	1.969	3.437	2.728	0.750
SD403-19.00/19.99-60-0750R7	02622950	0.748-0.787	2.362	0.945	5.591	1.969	3.622	2.874	0.750

Accessories

For drill dia. (inch)	Key
	
0.472-0.511	SD400-K05
0.512-0.590	SD400-K06
0.591-0.669	SD400-K07
0.669-0.748	SD400-K08
0.748-0.787	SD400-K09

SD403 – R1

Drilling depth ~ 3 x D – Metric shank





- Internal coolant
- Cylindrical shank (R1) fits holders: 5834/HC/HCR/HCS and 5672
- For cutting data see page(s) 219

Designation	Item number	DC	LU	OAL	LUX	LFS	LS	DMM	DF
		mm	mm	mm	mm	mm	mm	mm	mm
SD403-12.00/12.49-38-16R1	02622920	12,0-12,49	38,0	106,2	46,2	58,2	48,0	16,0	20,0
SD403-12.50/12.99-39-16R1	02622921	12,5-12,99	39,0	108,0	47,5	60,0	48,0	16,0	20,0
SD403-13.00/13.99-42-16R1	02622922	13,0-13,99	42,0	111,9	50,9	63,9	48,0	16,0	20,0
SD403-14.00/14.99-45-16R1	02622923	14,0-14,99	45,0	116,5	54,5	68,5	48,0	16,0	20,0
SD403-15.00/15.99-48-16R1	02622924	15,0-15,99	48,0	121,2	58,2	73,2	48,0	16,0	20,0
SD403-16.00/16.99-51-20R1	02622927	16,0-16,99	51,0	127,9	61,9	77,9	50,0	20,0	24,0
SD403-17.00/17.99-54-20R1	02622928	17,0-17,99	54,0	132,6	65,6	82,6	50,0	20,0	24,0
SD403-18.00/18.99-57-20R1	02622930	18,0-18,99	57,0	137,3	69,3	87,3	50,0	20,0	24,0
SD403-19.00/19.99-60-20R1	02622931	19,0-19,99	60,0	142,0	73,0	92,0	50,0	20,0	24,0

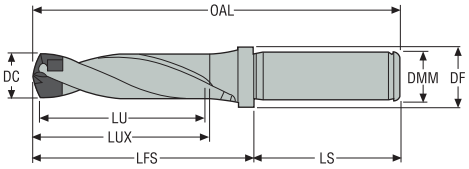
Accessories

For drill dia. (mm)	Key
	
12,00-12,99	SD400-K05
13,00-14,99	SD400-K06
15,00-16,99	SD400-K07
17,00-18,99	SD400-K08
19,00-19,99	SD400-K09

SD403 – R1

Drilling depth ~ 3 x D – Inch shank





- Internal coolant
- Cylindrical shank (R1) fits holders: 5834/HC/HCR/HCS and 5672
- For cutting data see page(s) 219

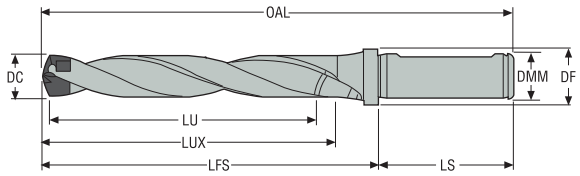
Designation	Item number	DC	LU	DF	OAL	LS	LFS	LUX	DMM
		Inch	*Inch*	*Inch*	*Inch*	*Inch*	*Inch*	*Inch*	*Inch*
SD403-12.00/12.49-38-0625R1	02623538	0.472-0.492	1.496	0.787	4.181	1.890	2.291	1.819	0.625
SD403-12.50/12.99-39-0625R1	02623539	0.492-0.511	1.535	0.787	4.252	1.890	2.362	1.870	0.625
SD403-13.00/13.99-42-0625R1	02623540	0.512-0.551	1.654	0.787	4.406	1.890	2.516	2.004	0.625
SD403-14.00/14.99-45-0625R1	02623541	0.551-0.590	1.772	0.787	4.587	1.890	2.697	2.146	0.625
SD403-15.00/15.99-48-0625R1	02623542	0.591-0.630	1.890	0.787	4.772	1.890	2.882	2.291	0.625
SD403-16.00/16.99-51-0750R1	02623543	0.630-0.669	2.008	0.945	5.035	1.969	3.067	2.437	0.750
SD403-17.00/17.99-54-0750R1	02623544	0.669-0.708	2.126	0.945	5.220	1.969	3.252	2.583	0.750
SD403-18.00/18.99-57-0750R1	02623545	0.709-0.748	2.244	0.945	5.406	1.969	3.437	2.728	0.750
SD403-19.00/19.99-60-0750R1	02623546	0.748-0.787	2.362	0.945	5.591	1.969	3.622	2.874	0.750

Accessories

For drill dia. (inch)	Key
	
0.472-0.511	SD400-K05
0.512-0.590	SD400-K06
0.591-0.669	SD400-K07
0.669-0.748	SD400-K08
0.748-0.787	SD400-K09

SD405 – R7

Drilling depth ~ 5 x D – Metric shank





- Internal coolant
- ISO9766 fits holders: Weldon 1835B, ISO 5414, DIN 60880
- For cutting data see page(s) 220

Designation	Item number	DC	LU	OAL	LUX	LFS	LS	DMM	DF
		mm	mm	mm	mm	mm	mm	mm	mm
SD405-12.00/12.49-63-16R7	02623554	12,0-12,49	63,0	131,2	71,2	83,2	48,0	16,0	20,0
SD405-12.50/12.99-65-16R7	02623555	12,5-12,99	65,0	134,0	73,5	86,0	48,0	16,0	20,0
SD405-13.00/13.99-70-16R7	02623556	13,0-13,99	70,0	139,9	78,9	91,9	48,0	16,0	20,0
SD405-14.00/14.99-75-16R7	02623557	14,0-14,99	75,0	146,5	84,5	98,5	48,0	16,0	20,0
SD405-15.00/15.99-80-16R7	02623558	15,0-15,99	80,0	153,2	90,2	105,2	48,0	16,0	20,0
SD405-16.00/16.99-85-20R7	02623559	16,0-16,99	85,0	161,9	95,9	111,9	50,0	20,0	24,0
SD405-17.00/17.99-90-20R7	02623560	17,0-17,99	90,0	168,6	101,6	118,6	50,0	20,0	24,0
SD405-18.00/18.99-95-20R7	02623561	18,0-18,99	95,0	175,3	107,3	125,3	50,0	20,0	24,0
SD405-19.00/19.99-100-20R7	02623562	19,0-19,99	100,0	182,0	113,0	132,0	50,0	20,0	24,0

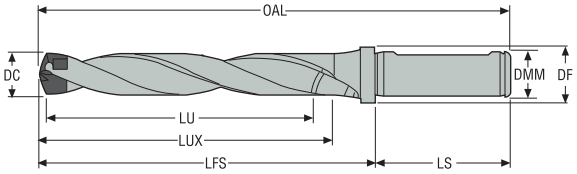
Accessories

For drill dia. (mm)	Key
	
12,00-12,99	SD400-K05
13,00-14,99	SD400-K06
15,00-16,99	SD400-K07
17,00-18,99	SD400-K08
19,00-19,99	SD400-K09

SD405 – R7

Drilling depth ~ 5 x D – Inch shank





- Internal coolant
- ISO9766 fits holders: Weldon 1835B, ISO 5414, DIN 60880
- For cutting data see page(s) 220

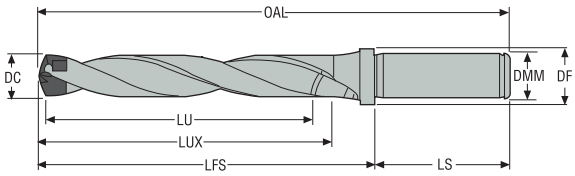
Designation	Item number	DC	LU	DF	OAL	LS	LFS	LUX	DMM
		Inch	*Inch*	*Inch*	*Inch*	*Inch*	*Inch*	*Inch*	*Inch*
SD405-12.00/12.49-63-0625R7	02623586	0.472-0.492	2.480	0.787	5.165	1.890	3.276	2.803	0.625
SD405-12.50/12.99-65-0625R7	02623587	0.492-0.511	2.559	0.787	5.276	1.890	3.386	2.894	0.625
SD405-13.00/13.99-70-0625R7	02623588	0.512-0.551	2.756	0.787	5.508	1.890	3.618	3.106	0.625
SD405-14.00/14.99-75-0625R7	02623589	0.551-0.590	2.953	0.787	5.768	1.890	3.878	3.327	0.625
SD405-15.00/15.99-80-0625R7	02623590	0.591-0.630	3.150	0.787	6.031	1.890	4.142	3.551	0.625
SD405-16.00/16.99-85-0750R7	02623591	0.630-0.669	3.346	0.945	6.374	1.969	4.406	3.776	0.750
SD405-17.00/17.99-90-0750R7	02623592	0.669-0.708	3.543	0.945	6.638	1.969	4.669	4.000	0.750
SD405-18.00/18.99-95-0750R7	02623593	0.709-0.748	3.740	0.945	6.902	1.969	4.933	4.224	0.750
SD405-19.00/19.99-100-0750R7	02623594	0.748-0.787	3.937	0.945	7.165	1.969	5.197	4.449	0.750

Accessories

For drill dia. (inch)	Key
	
0.472-0.511	SD400-K05
0.512-0.590	SD400-K06
0.591-0.669	SD400-K07
0.669-0.748	SD400-K08
0.748-0.787	SD400-K09

SD405 – R1

Drilling depth ~ 5 x D – Metric shank





- Internal coolant
- Cylindrical shank (R1) fits holders: 5834/HC/HCR/HCS and 5672
- For cutting data see page(s) 220

Designation	Item number	DC	LU	OAL	LUX	LFS	LS	DMM	DF
		mm	mm	mm	mm	mm	mm	mm	mm
SD405-12.00/12.49-63-16R1	02623570	12,0-12,49	63,0	131,2	71,2	83,2	48,0	16,0	20,0
SD405-12.50/12.99-65-16R1	02623571	12,5-12,99	65,0	134,0	73,5	86,0	48,0	16,0	20,0
SD405-13.00/13.99-70-16R1	02623572	13,0-13,99	70,0	139,9	78,9	91,9	48,0	16,0	20,0
SD405-14.00/14.99-75-16R1	02623573	14,0-14,99	75,0	146,5	84,5	98,5	48,0	16,0	20,0
SD405-15.00/15.99-80-16R1	02623574	15,0-15,99	80,0	153,2	90,2	105,2	48,0	16,0	20,0
SD405-16.00/16.99-85-20R1	02623575	16,0-16,99	85,0	161,9	95,9	111,9	50,0	20,0	24,0
SD405-17.00/17.99-90-20R1	02623576	17,0-17,99	90,0	168,6	101,6	118,6	50,0	20,0	24,0
SD405-18.00/18.99-95-20R1	02623577	18,0-18,99	95,0	175,3	107,3	125,3	50,0	20,0	24,0
SD405-19.00/19.99-100-20R1	02623578	19,0-19,99	100,0	182,0	113,0	132,0	50,0	20,0	24,0

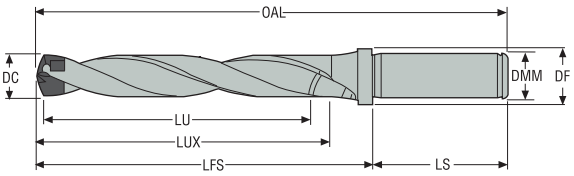
Accessories

For drill dia. (mm)	Key
	
12,00-12,99	SD400-K05
13,00-14,99	SD400-K06
15,00-16,99	SD400-K07
17,00-18,99	SD400-K08
19,00-19,99	SD400-K09

SD405 – R1

Drilling depth ~ 5 x D – Inch shank





- Internal coolant
- Cylindrical shank (R1) fits holders: 5834/HC/HCR/HCS and 5672
- For cutting data see page(s) 220

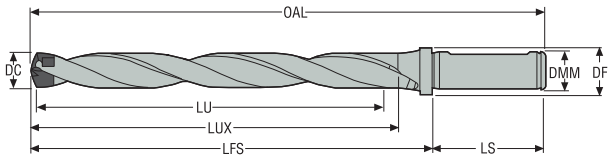
Designation	Item number	DC	LU	DF	OAL	LS	LFS	LUX	DMM
		Inch	*Inch*	*Inch*	*Inch*	*Inch*	*Inch*	*Inch*	*Inch*
SD405-12.00/12.49-63-0625R1	02623603	0.472-0.492	2.480	0.787	5.165	1.890	3.276	2.803	0.625
SD405-12.50/12.99-65-0625R1	02623604	0.492-0.511	2.559	0.787	5.276	1.890	3.386	2.894	0.625
SD405-13.00/13.99-70-0625R1	02623605	0.512-0.551	2.756	0.787	5.508	1.890	3.618	3.106	0.625
SD405-14.00/14.99-75-0625R1	02623606	0.551-0.590	2.953	0.787	5.768	1.890	3.878	3.327	0.625
SD405-15.00/15.99-80-0625R1	02623607	0.591-0.630	3.150	0.787	6.031	1.890	4.142	3.551	0.625
SD405-16.00/16.99-85-0750R1	02623608	0.630-0.669	3.346	0.945	6.374	1.969	4.406	3.776	0.750
SD405-17.00/17.99-90-0750R1	02623609	0.669-0.708	3.543	0.945	6.638	1.969	4.669	4.000	0.750
SD405-18.00/18.99-95-0750R1	02623610	0.709-0.748	3.740	0.945	6.902	1.969	4.933	4.224	0.750
SD405-19.00/19.99-100-0750R1	02623611	0.748-0.787	3.937	0.945	7.165	1.969	5.197	4.449	0.750

Accessories

For drill dia. (inch)	Key
	
0.472-0.511	SD400-K05
0.512-0.590	SD400-K06
0.591-0.669	SD400-K07
0.669-0.748	SD400-K08
0.748-0.787	SD400-K09

SD408 – R7

Drilling depth ~ 8 x D – Metric shank





- Internal coolant
- ISO9766 fits holders: Weldon 1835B, ISO 5414, DIN 60880
- For cutting data see page(s) 221

Designation	Item number	DC	LU	OAL	LUX	LFS	LS	DMM	DF
		mm	mm	mm	mm	mm	mm	mm	mm
SD408-12.00/12.49-100-16R7	02623615	12,0-12,49	100,0	168,2	108,2	120,2	48,0	16,0	20,0
SD408-12.50/12.99-104-16R7	02623616	12,5-12,99	104,0	173,0	112,5	125,0	48,0	16,0	20,0
SD408-13.00/13.99-112-16R7	02623617	13,0-13,99	112,0	181,9	120,9	133,9	48,0	16,0	20,0
SD408-14.00/14.99-120-16R7	02623618	14,0-14,99	120,0	191,5	129,5	143,5	48,0	16,0	20,0
SD408-15.00/15.99-128-16R7	02623619	15,0-15,99	128,0	201,2	138,2	153,2	48,0	16,0	20,0
SD408-16.00/16.99-136-20R7	02623620	16,0-16,99	136,0	212,9	146,9	162,9	50,0	20,0	24,0
SD408-17.00/17.99-144-20R7	02623621	17,0-17,99	144,0	222,6	155,6	172,6	50,0	20,0	24,0
SD408-18.00/18.99-152-20R7	02623622	18,0-18,99	152,0	232,3	164,3	182,3	50,0	20,0	24,0
SD408-19.00/19.99-160-20R7	02623623	19,0-19,99	160,0	242,0	173,0	192,0	50,0	20,0	24,0

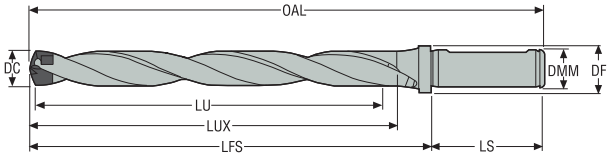
Accessories

For drill dia. (mm)	Key
	
12,00-12,99	SD400-K05
13,00-14,99	SD400-K06
15,00-16,99	SD400-K07
17,00-18,99	SD400-K08
19,00-19,99	SD400-K09

SD408 – R7

Drilling depth ~ 8 x D – Inch shank





- Internal coolant
- ISO9766 fits holders: Weldon 1835B, ISO 5414, DIN 60880
- For cutting data see page(s) 221

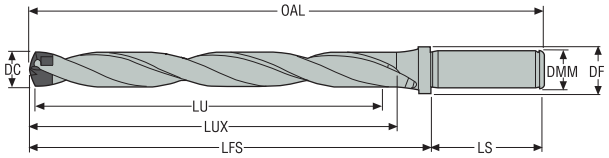
Designation	Item number	DC	LU	DF	OAL	LS	LFS	LUX	DMM
		Inch	*Inch*	*Inch*	*Inch*	*Inch*	*Inch*	*Inch*	*Inch*
SD408-12.00/12.49-100-0625R7	02623639	0.472-0.492	3.937	0.787	6.622	1.890	4.732	4.260	0.625
SD408-12.50/12.99-104-0625R7	02623640	0.492-0.511	4.094	0.787	6.811	1.890	4.921	4.429	0.625
SD408-13.00/13.99-112-0625R7	02623641	0.512-0.551	4.409	0.787	7.161	1.890	5.272	4.760	0.625
SD408-14.00/14.99-120-0625R7	02623642	0.551-0.590	4.724	0.787	7.539	1.890	5.650	5.098	0.625
SD408-15.00/15.99-128-0625R7	02623643	0.591-0.630	5.039	0.787	7.921	1.890	6.031	5.441	0.625
SD408-16.00/16.99-136-0750R7	02623644	0.630-0.669	5.354	0.945	8.382	1.969	6.413	5.783	0.750
SD408-17.00/17.99-144-0750R7	02623645	0.669-0.708	5.669	0.945	8.764	1.969	6.795	6.126	0.750
SD408-18.00/18.99-152-0750R7	02623646	0.709-0.748	5.984	0.945	9.146	1.969	7.177	6.469	0.750
SD408-19.00/19.99-160-0750R7	02623647	0.748-0.787	6.299	0.945	9.528	1.969	7.559	6.811	0.750

Accessories

For drill dia. (inch)	Key
	
0.472-0.511	SD400-K05
0.512-0.590	SD400-K06
0.591-0.669	SD400-K07
0.669-0.748	SD400-K08
0.748-0.787	SD400-K09

SD408 – R1

Drilling depth ~ 8 x D – Metric shank





- Internal coolant
- Cylindrical shank (R1) fits holders: 5834/HC/HCR/HCS and 5672
- For cutting data see page(s) 221

Designation	Item number	DC	LU	OAL	LUX	LFS	LS	DMM	DF
		mm	mm	mm	mm	mm	mm	mm	mm
SD408-12.00/12.49-100-16R1	02623627	12,0-12,49	100,0	168,2	108,2	120,2	48,0	16,0	20,0
SD408-12.50/12.99-104-16R1	02623628	12,5-12,99	104,0	173,0	112,5	125,0	48,0	16,0	20,0
SD408-13.00/13.99-112-16R1	02623629	13,0-13,99	112,0	181,9	120,9	133,9	48,0	16,0	20,0
SD408-14.00/14.99-120-16R1	02623630	14,0-14,99	120,0	191,5	129,5	143,5	48,0	16,0	20,0
SD408-15.00/15.99-128-16R1	02623631	15,0-15,99	128,0	201,2	138,2	153,2	48,0	16,0	20,0
SD408-16.00/16.99-136-20R1	02623632	16,0-16,99	136,0	212,9	146,9	162,9	50,0	20,0	24,0
SD408-17.00/17.99-144-20R1	02623633	17,0-17,99	144,0	222,6	155,6	172,6	50,0	20,0	24,0
SD408-18.00/18.99-152-20R1	02623634	18,0-18,99	152,0	232,3	164,3	182,3	50,0	20,0	24,0
SD408-19.00/19.99-160-20R1	02623635	19,0-19,99	160,0	242,0	173,0	192,0	50,0	20,0	24,0

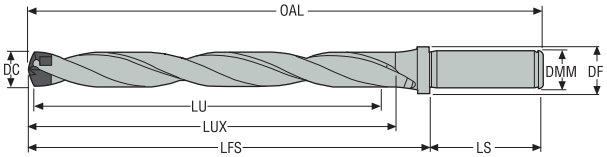
Accessories

For drill dia. (mm)	Key
	
12,00-12,99	SD400-K05
13,00-14,99	SD400-K06
15,00-16,99	SD400-K07
17,00-18,99	SD400-K08
19,00-19,99	SD400-K09

SD408 – R1

Drilling depth ~ 8 x D – Inch shank





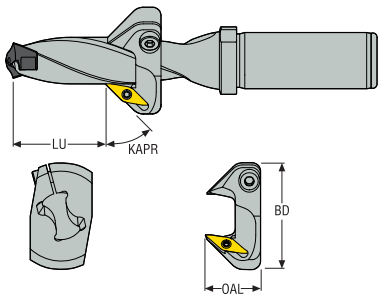
- Internal coolant
- Cylindrical shank (R1) fits holders: 5834/HC/HCR/HCS and 5672
- For cutting data see page(s) 221

Designation	Item number	DC	LU	DF	OAL	LS	LFS	LUX	DMM
		Inch	*Inch*	*Inch*	*Inch*	*Inch*	*Inch*	*Inch*	*Inch*
SD408-12.00/12.49-100-0625R1	02623651	0.472-0.492	3.937	0.787	6.622	1.890	4.732	4.260	0.625
SD408-12.50/12.99-104-0625R1	02623652	0.492-0.511	4.094	0.787	6.811	1.890	4.921	4.429	0.625
SD408-13.00/13.99-112-0625R1	02623653	0.512-0.551	4.409	0.787	7.161	1.890	5.272	4.760	0.625
SD408-14.00/14.99-120-0625R1	02623654	0.551-0.590	4.724	0.787	7.539	1.890	5.650	5.098	0.625
SD408-15.00/15.99-128-0625R1	02623655	0.591-0.630	5.039	0.787	7.921	1.890	6.031	5.441	0.625
SD408-16.00/16.99-136-0750R1	02623656	0.630-0.669	5.354	0.945	8.382	1.969	6.413	5.783	0.750
SD408-17.00/17.99-144-0750R1	02623657	0.669-0.708	5.669	0.945	8.764	1.969	6.795	6.126	0.750
SD408-18.00/18.99-152-0750R1	02623658	0.709-0.748	5.984	0.945	9.146	1.969	7.177	6.469	0.750
SD408-19.00/19.99-160-0750R1	02623659	0.748-0.787	6.299	0.945	9.528	1.969	7.559	6.811	0.750

Accessories

For drill dia. (inch)	Key
	
0.472-0.511	SD400-K05
0.512-0.590	SD400-K06
0.591-0.669	SD400-K07
0.669-0.748	SD400-K08
0.748-0.787	SD400-K09

Chamfer module



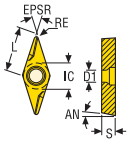


Designation	Item number	For drill body	Drill depth LU SD403 (min-max)		SD405 (min-max)		SD408 (min-max)		Max chamfer depth	OAL	BD	KAPR°
			mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	
SD400-C45-12.00/12.49	02846075	SD40x-12.00/12.49	6,0 *0.236*	22,0 *0.866*	6,0 *0.236*	47,0 *1.850*	47,0 *1.850*	84,0 *3.307*	1,5 *0.059*	20,0 *0.787*	34,0 *1.339*	45
SD400-C45-12.50/12.99	02846076	SD40x-12.50/12.99	7,0 *0.276*	23,0 *0.906*	7,0 *0.276*	48,0 *1.890*	48,0 *1.890*	88,0 *3.465*	1,5 *0.059*	20,0 *0.787*	34,0 *1.339*	45
SD400-C45-13.00/13.99	02846077	SD40x-13.00/13.99	7,0 *0.276*	27,0 *1.063*	7,0 *0.276*	55,0 *2.165*	55,0 *2.165*	97,0 *3.819*	1,5 *0.059*	20,0 *0.787*	34,0 *1.339*	45
SD400-C45-14.00/14.99	02846078	SD40x-14.00/14.99	7,0 *0.276*	33,0 *1.299*	7,0 *0.276*	60,0 *2.362*	60,0 *2.362*	105,0 *4.134*	1,5 *0.059*	20,0 *0.787*	36,0 *1.417*	45
SD400-C45-15.00/15.99	02846079	SD40x-15.00/15.99	8,0 *0.315*	35,0 *1.378*	8,0 *0.315*	67,0 *2.638*	67,0 *2.638*	114,0 *4.488*	1,5 *0.059*	20,0 *0.787*	36,0 *1.417*	45
SD400-C45-16.00/16.99	02846080	SD40x-16.00/16.99	8,0 *0.315*	38,0 *1.496*	8,0 *0.315*	72,0 *2.835*	72,0 *2.835*	123,0 *4.843*	1,5 *0.059*	20,0 *0.787*	38,0 *1.496*	45
SD400-C45-17.00/17.99	02846117	SD40x-17.00/17.99	9,0 *0.354*	43,0 *1.693*	9,0 *0.354*	79,0 *3.110*	79,0 *3.110*	132,0 *5.197*	1,5 *0.059*	20,0 *0.787*	38,0 *1.496*	45
SD400-C45-18.00/18.99	02846082	SD40x-18.00/18.99	9,0 *0.354*	45,0 *1.772*	9,0 *0.354*	83,0 *3.268*	83,0 *3.268*	140,0 *5.512*	1,5 *0.059*	20,0 *0.787*	40,0 *1.575*	45
SD400-C45-19.00/19.99	02846083	SD40x-19.00/19.99	10,0 *0.394*	49,0 *1.929*	10,0 *0.394*	89,0 *3.504*	89,0 *3.504*	149,0 *5.866*	1,5 *0.059*	20,0 *0.787*	40,0 *1.575*	45

Spare Parts, included in delivery

For drill dia. (mm)	Insert key	Insert screw	Locking key	Locking key	Locking screw 1	Locking screw 2
						
SD400-C45...	T07P-2	C02505-T07P	2SMS795	3SMS795	MC6S4X8	P6SS4X8

Insert



Tolerances: mm/*inch*
IC = ±0,025/*.0009842*
S = ±0,07/*.0027559*
RE = ±0,10/*.0039370*

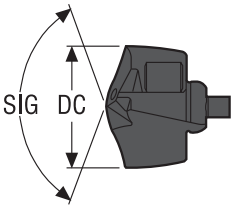
Size	L mm/*inch*	EPSR	RE mm/*inch*	IC mm/*inch*	D1 mm/*inch*	AN	S mm/*inch*
09	9,0/*.2187*	35°	0,2/*.0078*	5,556/*.2187*	2,9/*.1141*	7°	2,5/*.0984*
Grade: T400D							
Designation: VCGX090202-D1							
Item number: 00014948							

Crowns – Geometry -P and -M

Point angle 140°







Designation	Item number	P-geometry for steel	M-geometry for stainless steels and high temp alloys	DC	
				mm	*inch*
SD400-12.00-M	02826210	–	■	12,0	*0.472*
SD400-12.00-P	02630908	■	–	12,0	*0.472*
SD400-12.10-P	02630910	■	–	12,1	*0.476*
SD400-12.20-P	02630911	■	–	12,2	*0.480*
SD400-12.30-M	02826211	–	■	12,3	*0.484*
SD400-12.30-P	02630912	■	–	12,3	*0.484*
SD400-12.41-M	02826212	–	■	12,41	*0.489*
SD400-12.41-P	02630913	■	–	12,41	*0.489*
SD400-12.50-M	02826213	–	■	12,5	*0.492*
SD400-12.50-P	02630915	■	–	12,5	*0.492*
SD400-12.60-P	02630916	■	–	12,6	*0.496*
SD400-12.70-M	02826214	–	■	12,7	*0.500*
SD400-12.70-P	02630917	■	–	12,7	*0.500*
SD400-12.80-M	02826215	–	■	12,8	*0.504*
SD400-12.80-P	02630918	■	–	12,8	*0.504*
SD400-12.90-M	02826216	–	■	12,9	*0.508*
SD400-12.90-P	02630919	■	–	12,9	*0.508*
SD400-13.00-M	02826217	–	■	13,0	*0.512*
SD400-13.00-P	02634577	■	–	13,0	*0.512*
SD400-13.10-M	02826218	–	■	13,1	*0.516*
SD400-13.10-P	02634578	■	–	13,1	*0.516*
SD400-13.20-P	02634579	■	–	13,2	*0.520*
SD400-13.30-M	02826219	–	■	13,3	*0.524*
SD400-13.30-P	02634580	■	–	13,3	*0.524*
SD400-13.50-M	02826220	–	■	13,5	*0.531*
SD400-13.50-P	02634581	■	–	13,5	*0.531*
SD400-13.70-M	02826221	–	■	13,7	*0.539*
SD400-13.70-P	02634582	■	–	13,7	*0.539*
SD400-13.80-M	02826222	–	■	13,8	*0.543*
SD400-13.80-P	02634583	■	–	13,8	*0.543*
SD400-13.89-M	02826223	–	■	13,89	*0.547*
SD400-13.89-P	02634584	■	–	13,89	*0.547*
SD400-14.00-M	02826224	–	■	14,0	*0.551*
SD400-14.00-P	02634589	■	–	14,0	*0.551*
SD400-14.10-P	02634590	■	–	14,1	*0.555*
SD400-14.20-M	02826225	–	■	14,2	*0.559*
SD400-14.20-P	02634591	■	–	14,2	*0.559*
SD400-14.288-M	02826226	–	■	14,29	*0.563*
SD400-14.288-P	02634592	■	–	14,288	*0.563*

Designation	Item number	P-geometry for steel	M-geometry for stainless steels and high temp alloys	DC	
				mm	*inch*
SD400-14.40-P	02634593	■	–	14,4	*0.567*
SD400-14.50-M	02826227	–	■	14,5	*0.571*
SD400-14.50-P	02634594	■	–	14,5	*0.571*
SD400-14.68-M	02826228	–	■	14,68	*0.578*
SD400-14.68-P	02634595	■	–	14,68	*0.578*
SD400-14.70-M	02826229	–	■	14,7	*0.579*
SD400-14.70-P	02634596	■	–	14,7	*0.579*
SD400-14.80-M	02826230	–	■	14,8	*0.583*
SD400-14.80-P	02634597	■	–	14,8	*0.583*
SD400-14.90-M	02826231	–	■	14,9	*0.587*
SD400-14.90-P	02634598	■	–	14,9	*0.587*
SD400-15.00-M	02826232	–	■	15,0	*0.591*
SD400-15.00-P	02634599	■	–	15,0	*0.591*
SD400-15.08-M	02826233	–	■	15,08	*0.594*
SD400-15.08-P	02634600	■	–	15,08	*0.594*
SD400-15.10-P	02634601	■	–	15,1	*0.594*
SD400-15.20-P	02634602	■	–	15,2	*0.598*
SD400-15.25-M	02826234	–	■	15,25	*0.600*
SD400-15.25-P	02634603	■	–	15,25	*0.600*
SD400-15.478-M	02826235	–	■	15,48	*0.609*
SD400-15.478-P	02634604	■	–	15,478	*0.609*
SD400-15.50-M	02826236	–	■	15,5	*0.610*
SD400-15.50-P	02634605	■	–	15,5	*0.610*
SD400-15.70-M	02826237	–	■	15,7	*0.618*
SD400-15.70-P	02634607	■	–	15,7	*0.618*
SD400-15.80-M	02826238	–	■	15,8	*0.622*
SD400-15.80-P	02634608	■	–	15,8	*0.622*
SD400-15.875-M	02826239	–	■	15,88	*0.625*
SD400-15.875-P	02634609	■	–	15,875	*0.625*
SD400-16.00-M	02826240	–	■	16,0	*0.630*
SD400-16.00-P	02635956	■	–	16,0	*0.630*
SD400-16.10-P	02635957	■	–	16,1	*0.634*
SD400-16.20-P	02635958	■	–	16,2	*0.638*
SD400-16.25-P	02635959	■	–	16,25	*0.640*
SD400-16.27-M	02826241	–	■	16,27	*0.641*
SD400-16.27-P	02635960	■	–	16,27	*0.641*
SD400-16.40-P	02635962	■	–	16,4	*0.646*
SD400-16.50-M	02826242	–	■	16,5	*0.650*
SD400-16.50-P	02635963	■	–	16,5	*0.650*
SD400-16.669-M	02826243	–	■	16,67	*0.656*
SD400-16.669-P	02635964	■	–	16,669	*0.656*
SD400-16.70-M	02826244	–	■	16,7	*0.657*
SD400-16.70-P	02635966	■	–	16,7	*0.657*
SD400-16.80-M	02826245	–	■	16,8	*0.661*
SD400-16.80-P	02635968	■	–	16,8	*0.661*
SD400-16.90-P	02635969	■	–	16,9	*0.665*
SD400-17.00-M	02826246	–	■	17,0	*0.669*
SD400-17.00-P	02635970	■	–	17,0	*0.669*
SD400-17.065-M	02826247	–	■	17,07	*0.672*
SD400-17.065-P	02635972	■	–	17,065	*0.672*
SD400-17.10-P	02635973	■	–	17,1	*0.673*

Designation	Item number	P-geometry for steel	M-geometry for stainless steels and high temp alloys	DC	
				mm	*inch*
SD400-17.20-P	02635974	■	–	17,2	*0.677*
SD400-17.35-P	02888828	■	–	17,35	*0.683*
SD400-17.463-M	02826248	–	■	17,46	*0.687*
SD400-17.463-P	02635975	■	–	17,463	*0.688*
SD400-17.50-M	02826249	–	■	17,5	*0.689*
SD400-17.50-P	02635976	■	–	17,5	*0.689*
SD400-17.70-M	02826250	–	■	17,7	*0.697*
SD400-17.70-P	02635977	■	–	17,7	*0.697*
SD400-17.80-M	02826251	–	■	17,8	*0.701*
SD400-17.80-P	02635978	■	–	17,8	*0.701*
SD400-17.859-M	02826252	–	■	17,86	*0.703*
SD400-17.859-P	02635979	■	–	17,859	*0.703*
SD400-17.90-M	02826253	–	■	17,9	*0.705*
SD400-17.90-P	02635980	■	–	17,9	*0.705*
SD400-18.00-M	02826254	–	■	18,0	*0.709*
SD400-18.00-P	02635981	■	–	18,0	*0.709*
SD400-18.10-P	02635982	■	–	18,1	*0.713*
SD400-18.20-P	02635983	■	–	18,2	*0.717*
SD400-18.256-M	02826255	–	■	18,26	*0.719*
SD400-18.256-P	02635984	■	–	18,256	*0.719*
SD400-18.50-M	02826256	–	■	18,5	*0.728*
SD400-18.50-P	02635985	■	–	18,5	*0.728*
SD400-18.653-M	02826257	–	■	18,65	*0.734*
SD400-18.653-P	02635986	■	–	18,653	*0.734*
SD400-18.70-M	02826258	–	■	18,7	*0.736*
SD400-18.70-P	02635987	■	–	18,7	*0.736*
SD400-18.80-M	02826259	–	■	18,8	*0.740*
SD400-18.80-P	02635988	■	–	18,8	*0.740*
SD400-18.90-M	02826260	–	■	18,9	*0.744*
SD400-18.90-P	02635989	■	–	18,9	*0.744*
SD400-19.00-M	02826261	–	■	19,0	*0.748*
SD400-19.00-P	02635991	■	–	19,0	*0.748*
SD400-19.05-M	02826262	–	■	19,05	*0.750*
SD400-19.05-P	02635992	■	–	19,05	*0.750*
SD400-19.10-P	02635993	■	–	19,1	*0.752*
SD400-19.20-M	02826263	–	■	19,2	*0.756*
SD400-19.20-P	02635995	■	–	19,2	*0.756*
SD400-19.447-M	02826264	–	■	19,45	*0.766*
SD400-19.447-P	02635997	■	–	19,447	*0.766*
SD400-19.50-M	02826265	–	■	19,5	*0.768*
SD400-19.50-P	02635998	■	–	19,5	*0.768*
SD400-19.70-M	02826266	–	■	19,7	*0.776*
SD400-19.70-P	02635999	■	–	19,7	*0.776*
SD400-19.80-M	02826267	–	■	19,8	*0.780*
SD400-19.80-P	02636000	■	–	19,8	*0.780*
SD400-19.844-M	02826268	–	■	19,84	*0.781*
SD400-19.844-P	02636001	■	–	19,844	*0.781*
SD400-19.90-M	02826269	–	■	19,9	*0.783*
SD400-19.90-P	02636002	■	–	19,9	*0.783*

■ **Stock standard.**

SMG		f					v_c
		Ø12,00 *Ø 0.472*	Ø14,00 *Ø 0.551*	Ø16,00 *Ø 0.630*	Ø18,00 *Ø 0.709*	Ø20,00 *Ø 0.787*	
P1	P	0,30	0,32	0,34	0,36	0,36	155
	P	*0.012*	*0.013*	*0.013*	*0.014*	*0.014*	*510*
P2	P	0,30	0,32	0,34	0,36	0,38	150
	P	*0.012*	*0.013*	*0.013*	*0.014*	*0.015*	*490*
P3	P	0,28	0,30	0,32	0,34	0,36	130
	P	*0.011*	*0.012*	*0.013*	*0.013*	*0.014*	*425*
P4	P	0,28	0,30	0,32	0,34	0,34	115
	P	*0.011*	*0.012*	*0.013*	*0.013*	*0.013*	*375*
P5	P	0,28	0,30	0,32	0,32	0,34	110
	P	*0.011*	*0.012*	*0.013*	*0.013*	*0.013*	*360*
P6	P	0,28	0,30	0,30	0,32	0,34	120
	P	*0.011*	*0.012*	*0.012*	*0.013*	*0.013*	*395*
P7	P	0,28	0,30	0,30	0,32	0,34	115
	P	*0.011*	*0.012*	*0.012*	*0.013*	*0.013*	*375*
P8	P	0,28	0,30	0,32	0,34	0,36	110
	P	*0.011*	*0.012*	*0.013*	*0.013*	*0.014*	*360*
P11	P	0,28	0,30	0,30	0,32	0,34	110
	P	*0.011*	*0.012*	*0.012*	*0.013*	*0.013*	*360*
P12	P	0,19	0,20	0,22	0,22	0,24	65
	P	*0.0075*	*0.0080*	*0.0085*	*0.0085*	*0.0095*	*215*
M1	M	0,17	0,19	0,20	0,22	0,22	95
	M	*0.0065*	*0.0075*	*0.0080*	*0.0085*	*0.0085*	*310*
M2	M	0,16	0,17	0,18	0,19	0,20	80
	M	*0.0065*	*0.0065*	*0.0070*	*0.0075*	*0.0080*	*260*
M3	M	0,13	0,14	0,14	0,15	0,16	60
	M	*0.0050*	*0.0055*	*0.0055*	*0.0060*	*0.0065*	*195*
M4	M	0,11	0,12	0,13	0,13	0,14	45
	M	*0.0044*	*0.0048*	*0.0050*	*0.0050*	*0.0055*	*150*
M5	M	0,11	0,12	0,13	0,13	0,14	37
	M	*0.0044*	*0.0048*	*0.0050*	*0.0050*	*0.0055*	*120*
K1	P	0,28	0,30	0,32	0,34	0,36	110
	P	*0.011*	*0.012*	*0.013*	*0.013*	*0.014*	*360*
K2	P	0,26	0,28	0,30	0,32	0,32	95
	P	*0.010*	*0.011*	*0.012*	*0.013*	*0.013*	*310*
K3	P	0,26	0,28	0,30	0,32	0,32	80
	P	*0.010*	*0.011*	*0.012*	*0.013*	*0.013*	*260*
K4	P	0,26	0,28	0,30	0,32	0,32	75
	P	*0.010*	*0.011*	*0.012*	*0.013*	*0.013*	*245*
K5	P	0,24	0,25	0,26	0,28	0,30	45
	P	*0.0095*	*0.010*	*0.010*	*0.011*	*0.012*	*150*
N2	M	0,26	0,28	0,30	0,32	0,34	215
	M	*0.010*	*0.011*	*0.012*	*0.013*	*0.013*	*710*
N3	M	0,26	0,28	0,30	0,32	0,34	145
	M	*0.010*	*0.011*	*0.012*	*0.013*	*0.013*	*475*
N11	M	0,26	0,28	0,30	0,32	0,34	170
	M	*0.010*	*0.011*	*0.012*	*0.013*	*0.013*	*560*
S1	M	0,095	0,11	0,12	0,13	0,13	34
	M	*0.0038*	*0.0044*	*0.0048*	*0.0050*	*0.0050*	*110*
S2	M	0,095	0,11	0,12	0,13	0,13	24
	M	*0.0038*	*0.0044*	*0.0048*	*0.0050*	*0.0050*	*80*
S3	M	0,095	0,11	0,12	0,13	0,13	24
	M	*0.0038*	*0.0044*	*0.0048*	*0.0050*	*0.0050*	*80*
S11	M	0,16	0,17	0,19	0,20	0,22	65
	M	*0.0065*	*0.0065*	*0.0075*	*0.0080*	*0.0085*	*215*
S12	M	0,16	0,17	0,19	0,20	0,22	49
	M	*0.0065*	*0.0065*	*0.0075*	*0.0080*	*0.0085*	*160*
S13	M	0,14	0,15	0,17	0,18	0,19	38
	M	*0.0055*	*0.0060*	*0.0065*	*0.0070*	*0.0075*	*125*
H3	P	0,12	0,13	0,14	0,15	0,15	32
	P	*0.0048*	*0.0050*	*0.0055*	*0.0060*	*0.0060*	*105*
H5	P	0,19	0,20	0,22	0,22	0,24	60
	P	*0.0075*	*0.0080*	*0.0085*	*0.0085*	*0.0095*	*195*
H7	P	0,12	0,13	0,14	0,15	0,15	32
	P	*0.0048*	*0.0050*	*0.0055*	*0.0060*	*0.0060*	*105*
H8	P	0,14	0,15	0,16	0,17	0,18	60
	P	*0.0055*	*0.0060*	*0.0065*	*0.0065*	*0.0070*	*195*
H11	P	0,19	0,20	0,22	0,22	0,24	75
	P	*0.0075*	*0.0080*	*0.0085*	*0.0085*	*0.0095*	*245*
H12	P	0,14	0,15	0,16	0,17	0,18	39
	P	*0.0055*	*0.0060*	*0.0065*	*0.0065*	*0.0070*	*130*
H21	P	0,14	0,15	0,16	0,17	0,18	60
	P	*0.0055*	*0.0060*	*0.0065*	*0.0065*	*0.0070*	*195*

SMG = Seco material group f = mm/rev (IPR) v_c = m/min (sf/min) All cutting data are start values

SD405 – ∅ 12-20 mm / *0.472-0.787 inch*

SMG		f					v_c
		Ø 12,00 *Ø 0.472*	Ø 14,00 *Ø 0.551*	Ø 16,00 *Ø 0.630*	Ø 18,00 *Ø 0.709*	Ø 20,00 *Ø 0.787*	
P1	P	0,30	0,32	0,34	0,36	0,36	125
	P	*0.012*	*0.013*	*0.013*	*0.014*	*0.014*	*410*
P2	P	0,30	0,32	0,34	0,36	0,38	120
	P	*0.012*	*0.013*	*0.013*	*0.014*	*0.015*	*395*
P3	P	0,28	0,30	0,32	0,34	0,36	105
	P	*0.011*	*0.012*	*0.013*	*0.013*	*0.014*	*345*
P4	P	0,28	0,30	0,32	0,34	0,34	95
	P	*0.011*	*0.012*	*0.013*	*0.013*	*0.013*	*310*
P5	P	0,28	0,30	0,32	0,32	0,34	90
	P	*0.011*	*0.012*	*0.013*	*0.013*	*0.013*	*295*
P6	P	0,28	0,30	0,30	0,32	0,34	100
	P	*0.011*	*0.012*	*0.012*	*0.013*	*0.013*	*330*
P7	P	0,28	0,30	0,30	0,32	0,34	95
	P	*0.011*	*0.012*	*0.012*	*0.013*	*0.013*	*310*
P8	P	0,28	0,30	0,32	0,34	0,36	90
	P	*0.011*	*0.012*	*0.013*	*0.013*	*0.014*	*295*
P11	P	0,28	0,30	0,30	0,32	0,34	90
	P	*0.011*	*0.012*	*0.012*	*0.013*	*0.013*	*295*
P12	P	0,19	0,20	0,22	0,22	0,24	55
	P	*0.0075*	*0.0080*	*0.0085*	*0.0085*	*0.0095*	*180*
M1	M	0,17	0,19	0,20	0,22	0,22	80
	M	*0.0065*	*0.0075*	*0.0080*	*0.0085*	*0.0085*	*260*
M2	M	0,16	0,17	0,18	0,19	0,20	65
	M	*0.0065*	*0.0065*	*0.0070*	*0.0075*	*0.0080*	*215*
M3	M	0,13	0,14	0,14	0,15	0,16	49
	M	*0.0050*	*0.0055*	*0.0055*	*0.0060*	*0.0065*	*160*
M4	M	0,11	0,12	0,13	0,13	0,14	37
	M	*0.0044*	*0.0048*	*0.0050*	*0.0050*	*0.0055*	*120*
M5	M	0,11	0,12	0,13	0,13	0,14	31
	M	*0.0044*	*0.0048*	*0.0050*	*0.0050*	*0.0055*	*100*
K1	P	0,28	0,30	0,32	0,34	0,36	90
	P	*0.011*	*0.012*	*0.013*	*0.013*	*0.014*	*295*
K2	P	0,26	0,28	0,30	0,32	0,32	75
	P	*0.010*	*0.011*	*0.012*	*0.013*	*0.013*	*245*
K3	P	0,26	0,28	0,30	0,32	0,32	65
	P	*0.010*	*0.011*	*0.012*	*0.013*	*0.013*	*215*
K4	P	0,26	0,28	0,30	0,32	0,32	60
	P	*0.010*	*0.011*	*0.012*	*0.013*	*0.013*	*195*
K5	P	0,24	0,25	0,26	0,28	0,30	37
	P	*0.0095*	*0.010*	*0.010*	*0.011*	*0.012*	*120*
N2	M	0,26	0,28	0,30	0,32	0,34	175
	M	*0.010*	*0.011*	*0.012*	*0.013*	*0.013*	*570*
N3	M	0,26	0,28	0,30	0,32	0,34	120
	M	*0.010*	*0.011*	*0.012*	*0.013*	*0.013*	*395*
N11	M	0,26	0,28	0,30	0,32	0,34	140
	M	*0.010*	*0.011*	*0.012*	*0.013*	*0.013*	*460*
S1	M	0,095	0,11	0,12	0,13	0,13	28
	M	*0.0038*	*0.0044*	*0.0048*	*0.0050*	*0.0050*	*90*
S2	M	0,095	0,11	0,12	0,13	0,13	20
	M	*0.0038*	*0.0044*	*0.0048*	*0.0050*	*0.0050*	*65*
S3	M	0,095	0,11	0,12	0,13	0,13	20
	M	*0.0038*	*0.0044*	*0.0048*	*0.0050*	*0.0050*	*65*
S11	M	0,16	0,17	0,19	0,20	0,22	50
	M	*0.0065*	*0.0065*	*0.0075*	*0.0080*	*0.0085*	*165*
S12	M	0,16	0,17	0,19	0,20	0,22	40
	M	*0.0065*	*0.0065*	*0.0075*	*0.0080*	*0.0085*	*130*
S13	M	0,14	0,15	0,17	0,18	0,19	31
	M	*0.0055*	*0.0060*	*0.0065*	*0.0070*	*0.0075*	*100*
H3	P	0,12	0,13	0,14	0,15	0,15	26
	P	*0.0048*	*0.0050*	*0.0055*	*0.0060*	*0.0060*	*85*
H5	P	0,19	0,20	0,22	0,22	0,24	49
	P	*0.0075*	*0.0080*	*0.0085*	*0.0085*	*0.0095*	*160*
H7	P	0,12	0,13	0,14	0,15	0,15	26
	P	*0.0048*	*0.0050*	*0.0055*	*0.0060*	*0.0060*	*85*
H8	P	0,14	0,15	0,16	0,17	0,18	49
	P	*0.0055*	*0.0060*	*0.0065*	*0.0065*	*0.0070*	*160*
H11	P	0,19	0,20	0,22	0,22	0,24	60
	P	*0.0075*	*0.0080*	*0.0085*	*0.0085*	*0.0095*	*195*
H12	P	0,14	0,15	0,16	0,17	0,18	32
	P	*0.0055*	*0.0060*	*0.0065*	*0.0065*	*0.0070*	*105*
H21	P	0,14	0,15	0,16	0,17	0,18	49
	P	*0.0055*	*0.0060*	*0.0065*	*0.0065*	*0.0070*	*160*

SMG = Seco material group f = mm/rev (IPR) v_c = m/min (sf/min) All cutting data are start values

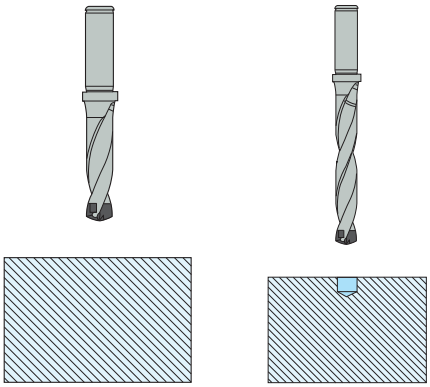
SMG		f					v_c
		Ø 12,00 *Ø 0.472*	Ø 14,00 *Ø 0.551*	Ø 16,00 *Ø 0.630*	Ø 18,00 *Ø 0.709*	Ø 20,00 *Ø 0.787*	
P1	P	0,30	0,32	0,34	0,36	0,36	100
	P	*0.012*	*0.013*	*0.013*	*0.014*	*0.014*	*330*
P2	P	0,30	0,32	0,34	0,36	0,38	100
	P	*0.012*	*0.013*	*0.013*	*0.014*	*0.015*	*330*
P3	P	0,28	0,30	0,32	0,34	0,36	85
	P	*0.011*	*0.012*	*0.013*	*0.013*	*0.014*	*280*
P4	P	0,28	0,30	0,32	0,34	0,34	75
	P	*0.011*	*0.012*	*0.013*	*0.013*	*0.013*	*245*
P5	P	0,28	0,30	0,32	0,32	0,34	70
	P	*0.011*	*0.012*	*0.013*	*0.013*	*0.013*	*230*
P6	P	0,28	0,30	0,30	0,32	0,34	80
	P	*0.011*	*0.012*	*0.012*	*0.013*	*0.013*	*260*
P7	P	0,28	0,30	0,30	0,32	0,34	75
	P	*0.011*	*0.012*	*0.012*	*0.013*	*0.013*	*245*
P8	P	0,28	0,30	0,32	0,34	0,36	70
	P	*0.011*	*0.012*	*0.013*	*0.013*	*0.014*	*230*
P11	P	0,28	0,30	0,30	0,32	0,34	75
	P	*0.011*	*0.012*	*0.012*	*0.013*	*0.013*	*245*
P12	P	0,19	0,20	0,22	0,22	0,24	43
	P	*0.0075*	*0.0080*	*0.0085*	*0.0085*	*0.0095*	*140*
M1	M	0,17	0,19	0,20	0,22	0,22	65
	M	*0.0065*	*0.0075*	*0.0080*	*0.0085*	*0.0085*	*215*
M2	M	0,16	0,17	0,18	0,19	0,20	50
	M	*0.0065*	*0.0065*	*0.0070*	*0.0075*	*0.0080*	*165*
M3	M	0,13	0,14	0,14	0,15	0,16	39
	M	*0.0050*	*0.0055*	*0.0055*	*0.0060*	*0.0065*	*130*
M4	M	0,11	0,12	0,13	0,13	0,14	29
	M	*0.0044*	*0.0048*	*0.0050*	*0.0050*	*0.0055*	*95*
M5	M	0,11	0,12	0,13	0,13	0,14	24
	M	*0.0044*	*0.0048*	*0.0050*	*0.0050*	*0.0055*	*80*
K1	P	0,28	0,30	0,32	0,34	0,36	70
	P	*0.011*	*0.012*	*0.013*	*0.013*	*0.014*	*230*
K2	P	0,26	0,28	0,30	0,32	0,32	60
	P	*0.010*	*0.011*	*0.012*	*0.013*	*0.013*	*195*
K3	P	0,26	0,28	0,30	0,32	0,32	50
	P	*0.010*	*0.011*	*0.012*	*0.013*	*0.013*	*165*
K4	P	0,26	0,28	0,30	0,32	0,32	49
	P	*0.010*	*0.011*	*0.012*	*0.013*	*0.013*	*160*
K5	P	0,24	0,25	0,26	0,28	0,30	29
	P	*0.0095*	*0.010*	*0.010*	*0.011*	*0.012*	*95*
N2	M	0,26	0,28	0,30	0,32	0,34	140
	M	*0.010*	*0.011*	*0.012*	*0.013*	*0.013*	*460*
N3	M	0,26	0,28	0,30	0,32	0,34	95
	M	*0.010*	*0.011*	*0.012*	*0.013*	*0.013*	*310*
N11	M	0,26	0,28	0,30	0,32	0,34	110
	M	*0.010*	*0.011*	*0.012*	*0.013*	*0.013*	*360*
S1	M	0,095	0,11	0,12	0,13	0,13	22
	M	*0.0038*	*0.0044*	*0.0048*	*0.0050*	*0.0050*	*70*
S2	M	0,095	0,11	0,12	0,13	0,13	16
	M	*0.0038*	*0.0044*	*0.0048*	*0.0050*	*0.0050*	*50*
S3	M	0,095	0,11	0,12	0,13	0,13	16
	M	*0.0038*	*0.0044*	*0.0048*	*0.0050*	*0.0050*	*50*
S11	M	0,16	0,17	0,19	0,20	0,22	42
	M	*0.0065*	*0.0065*	*0.0075*	*0.0080*	*0.0085*	*140*
S12	M	0,16	0,17	0,19	0,20	0,22	32
	M	*0.0065*	*0.0065*	*0.0075*	*0.0080*	*0.0085*	*105*
S13	M	0,14	0,15	0,17	0,18	0,19	25
	M	*0.0055*	*0.0060*	*0.0065*	*0.0070*	*0.0075*	*80*
H3	P	0,12	0,13	0,14	0,15	0,15	21
	P	*0.0048*	*0.0050*	*0.0055*	*0.0060*	*0.0060*	*70*
H5	P	0,19	0,20	0,22	0,22	0,24	39
	P	*0.0075*	*0.0080*	*0.0085*	*0.0085*	*0.0095*	*130*
H7	P	0,12	0,13	0,14	0,15	0,15	21
	P	*0.0048*	*0.0050*	*0.0055*	*0.0060*	*0.0060*	*70*
H8	P	0,14	0,15	0,16	0,17	0,18	39
	P	*0.0055*	*0.0060*	*0.0065*	*0.0065*	*0.0070*	*130*
H11	P	0,19	0,20	0,22	0,22	0,24	49
	P	*0.0075*	*0.0080*	*0.0085*	*0.0085*	*0.0095*	*160*
H12	P	0,14	0,15	0,16	0,17	0,18	26
	P	*0.0055*	*0.0060*	*0.0065*	*0.0065*	*0.0070*	*85*
H21	P	0,14	0,15	0,16	0,17	0,18	39
	P	*0.0055*	*0.0060*	*0.0065*	*0.0065*	*0.0070*	*130*

SMG = Seco material group f = mm/rev (IPR) v_c = m/min (sf/min) All cutting data are start values

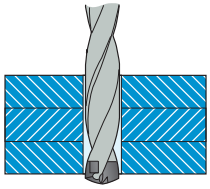
Application information

Application information

Machined suface
No pre-drilling or entrance feed needed when using SD403 and SD405. When using a SD408 drill body pre-drilling is always recommended. (When using SD405 in stainless steel a pre-drilling operation might be needed.)



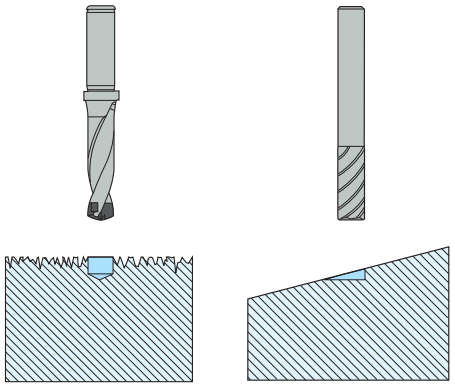
Stacked material
It is possible to drill stacked material as long as the pieces are securely clamped together, so that there are no air gaps between the parts. Air gaps can affect chip evacuation, and thereby damage the drill.



Irregular/Angled hole entrance

If irregular or angle entrance use pre operations accordingly. When using drills > 3 x D pre-drilling with a standard tool e.g. SD403 is recommended

Pre-drilling operation alternatives



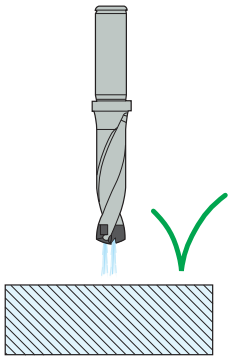
Irregular hole entrance

Angled hole entrance

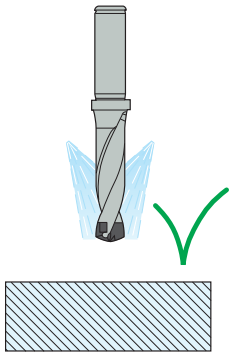
Machine a flat using an end mill from the Seco range.

Coolant recommendations

Coolant pressure
Minimum recommended coolant pressure 10 bar (145 PSI) with ≤ 3 x D
Minimum recommended coolant pressure 30 bar (435 PSI) with > 3 x D

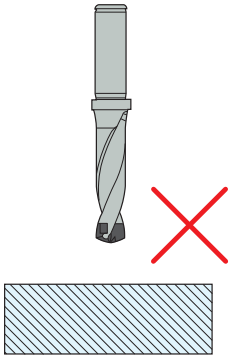


First choice



< 3 x D

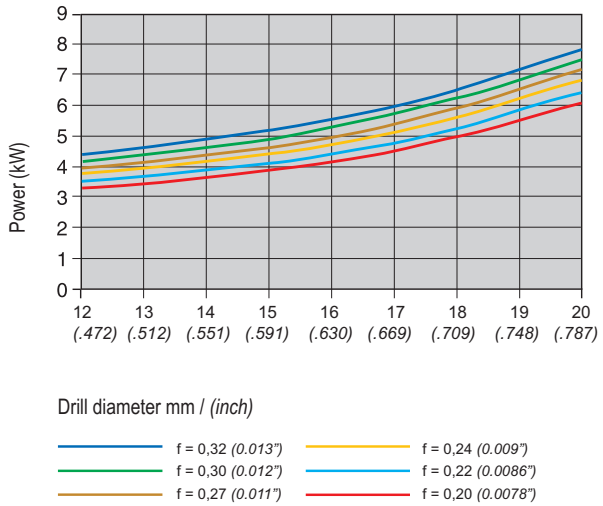
Coolant mix
Recommended emulsion mix 6-8%. When drilling in stainless steels, superalloys and high strength steels a mix of 10% is recommended



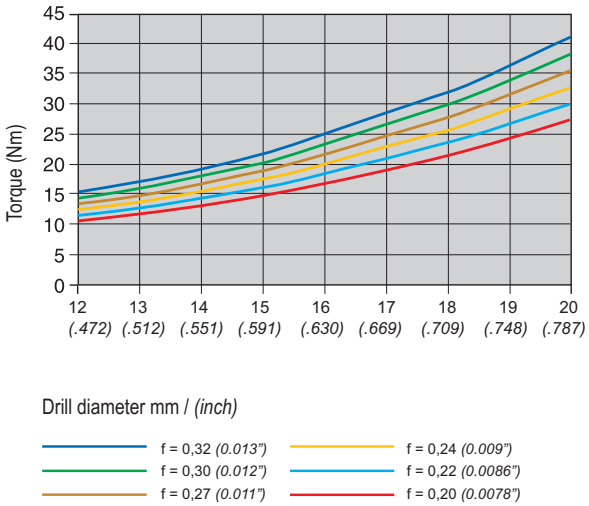
Machining data

The values in the graphs vary with e.g. cutting data, material, efficiency of the machine and tool wear.
The graphs below are valid for Seco Material Group (SMG) P5-P6 and cutting speed 90 m/min *(295 sf/min)*.

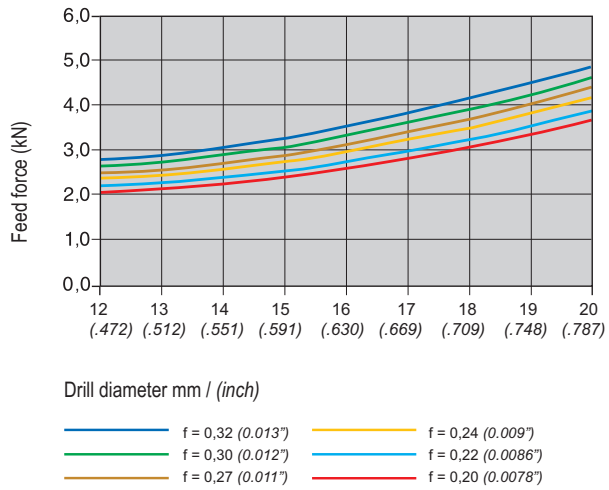
Net power consumption



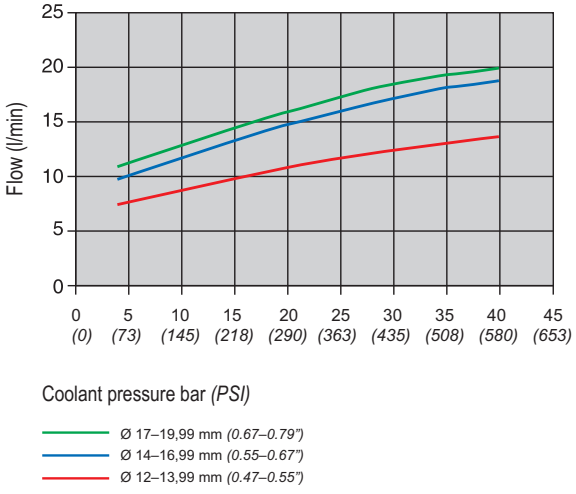
Drilling torque



Feed force



Coolant flow at different pressures



Recommended coolant flow Dx1 l/min
Minimum coolant flow D/2 l/min
D = Drill diameter
Minimum recommended coolant pressure 10 bar *(145 PSI)* with ≤ 3 x D
Minimum recommended coolant pressure 20 bar *(290 PSI)* with ≤ 5 x D
Minimum recommended coolant pressure 40 bar *(580 PSI)* with > 5 x D

Coolant mix
Recommended emulsion mix is 6–8%.
When drilling in stainless steels, superalloys and high strength steels a mix of 10% is recommended.

Hole tolerances/Surface finish

SD403, SD405 and SD408 IT9-10 / R_a 1-4*, R_a 39-157 µin*					
Drill ∅ DC (mm)	**IT9 tolerance (µm)**	**IT10 tolerance (µm)**	**Drill ∅ DC** *(inch)*	**IT9 tolerance** *(inch)*	**IT10 tolerance** *(inch)*
10-18	0 – +43	0 – +70	*0 – +0.394-0.709*	*0 – +0.0017*	*0 – +0.0028*
18-30	0 – +52	0 – +84	*0 – +0.709-1.181*	*0 – +0.0020*	*0 – +0.0033*

*Deterioration of surface finish and hole tolerance can occur when drilling in low carbon steel or stainless steel. Use the shortest drill possible for best hole quality.

Troubleshooting – Initial check points:

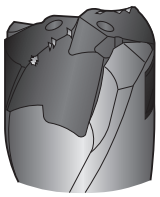
- Fixturing stability
- Machine spindle condition
- Tool holder condition

- Clamping of tool:
  - Run-out within 0,06 TIR

- Chip evacuation:
  - Cutting data

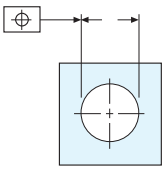
- Coolant:
  - Pressure
  - Flow
  - Concentration

Cutting edges get chipped



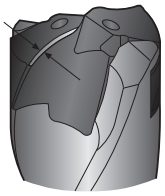
- Reduce the feed/rev
- If the drill vibrates, reduce the cutting speed and increase the feed rate
- When drilling through rough, hard or angled surfaces, reduce the feed rate by 30%-50% during entrance and exit

Unsatisfactory diameter tolerance



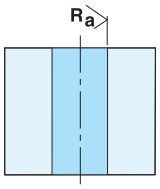
- Increase the feed/rev
- Use a Seco Feedmax solid carbide drill, see page(s) 15-17
- Use a reaming operation, see page(s) 327
- Use a boring operation, see pages(s) 516-517

Too fast flank wear



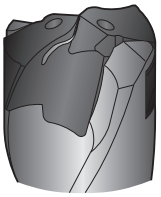
- Check that correct geometry is used
- Reduce the cutting speed

Unsatisfactory surface finish



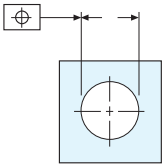
- Reduce the feed/rev
- Increase the cutting speed
- Check that the correct geometry is used
- Use a Seco Feedmax solid carbide drill, see page(s) 15-17
- Use a reaming operation, see page(s) 327

Groove wear



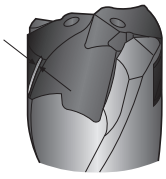
- Reduce the feed /rev
- Reduce the cutting speed
- Increase the coolant concentration

Unsatisfactory positioning of the hole



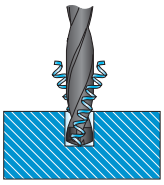
- Reduce the feed/rev
- If drilling through rough, hard and angled surface - reduce the feed by 30%-50% during entrance and exit
- Pre drill with a 140˚ point angle
- Use a Seco Feedmax solid carbide drill see Feedmax page(s) 15-17
- Use a boring operation, see page(s) 516-517

Wear of peripheral land margins



- Check that the correct geometry is used
- Reduce the cutting speed
- Increase the coolant concentration
- When drilling through rough, hard or angled surfaces, reduce the feed rate by 30-50% during entrance and exit

Chip jamming due to long chips



- Increase the feed
- In long chipping materials SMG P1-P4, SMG M1-M2:
  - Increase cutting speed and reduce feed/rev
  - Use the L geometry



Perfomax®

Perfomax® is a long-standing, proven range of indexable insert drills that offers an economical solution when it comes to productively drilling holes.

- Reliable and trustworthy, square inserts each offer four cutting edges
- Most modern inserts grades and geometries for different workpiece materials
- The drill body design features a unique chip flute design and through coolant holes on all sizes to optimize chip evacuation

Range overview

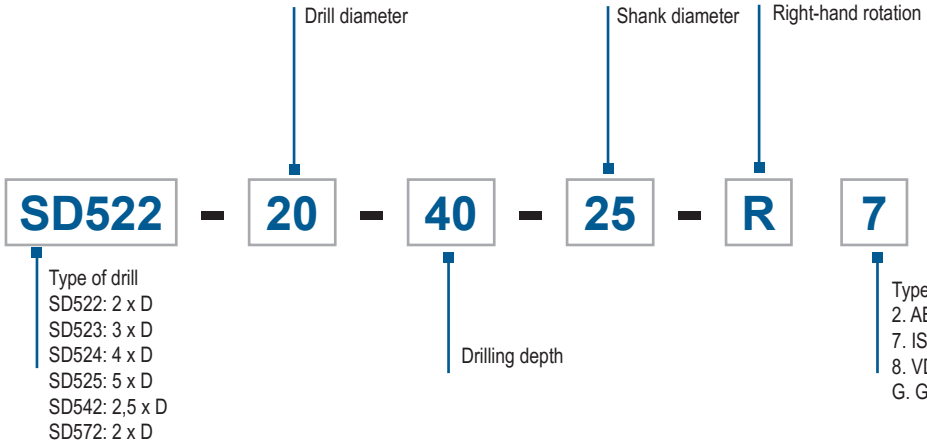
Perfomax®	∅ Range	Drill depth	Drill ∅ tolerance	Hole tolerance
SD522  Page(s) 232, 233, 234, 235-240, 241, 242	15-59 mm *(0.594-2.375")*	~ 2 x D	+/- 0,1 mm *(+/- 0.004")*	+0/+ 0,2 mm *(+0/+ 0.008")*
SD523  Page(s) 243, 244, 245, 246-259, 260, 261	15-59 mm *(0.594-2.375")*	~ 3 x D	+/- 0,1 mm *(+/- 0.004")*	+0/+ 0,3 mm *(+0/+ 0.012")*
SD524  Page(s) 262, 263, 264-275, 276	17-59 mm *(0.594-2.375")*	~ 4 x D	+/- 0,1 mm *(+/- 0.004")*	+ 0,4 mm *(+0/+ 0.016")*
SD525  Page(s) 277, 278-279	19-45 mm *(0.750-2.000")*	~ 5 x D	+/- 0,1 mm *(+/- 0.004")*	+0/+ 0,5 mm *(+0/+ 0.020")*
SD542  Page(s) 280-281	60-85 mm *(2.250-3.500")*	~ 2.5 x D	+/- 0,1 mm *(+/- 0.004")*	+0/+ 0,2 mm *(+0/+ 0.008")*

Range overview

Perfomax®	∅ Range	Drill depth	Drill ∅ tolerance	Hole tolerance
SD572  Page(s) 282, 283	15-47 mm *(0.591“-1.850”)*	~ 2 x D	+/- 0,1 mm *(+/- 0.004”)*	+0/+ 0,2 mm *(+0/+ 0.008”)*
SD602  Page(s) 287-291	60-160 mm *(2.5“-4.000“)*	~ 1-10 x D	+/- 0,2 mm *(+/- 0.008”)*	–

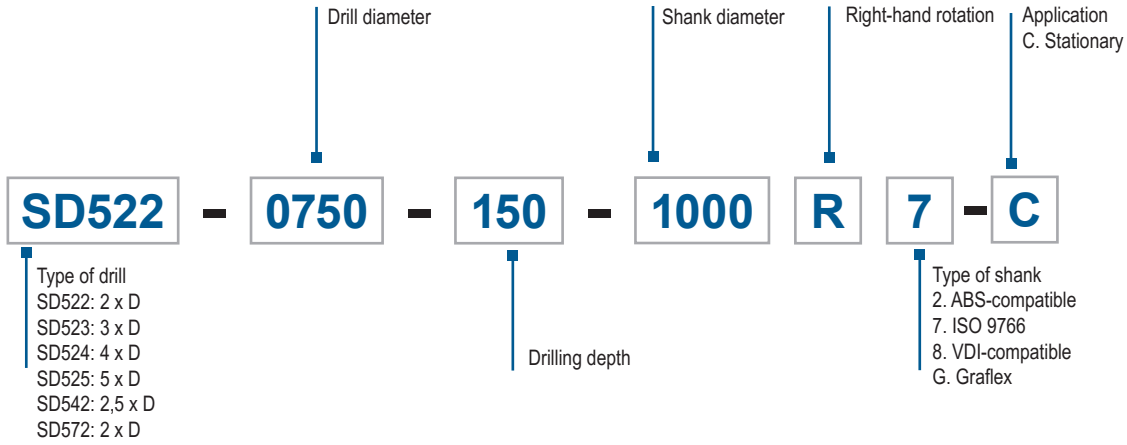
Code keys- Indexable insert drill

Metric

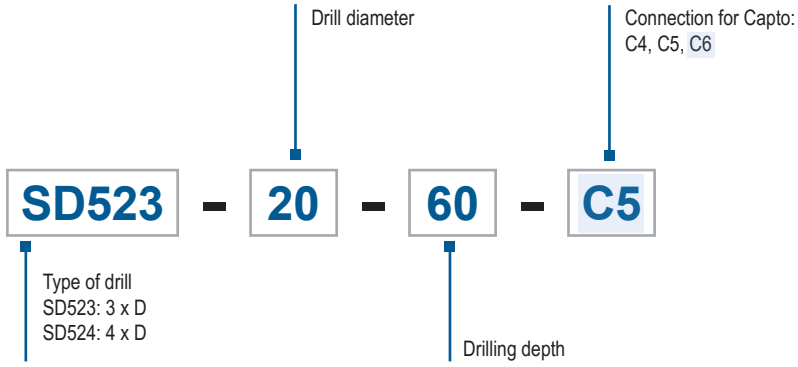




Inch



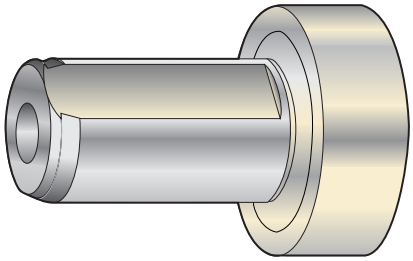
Capto™



Shanks

Shanks

-R7

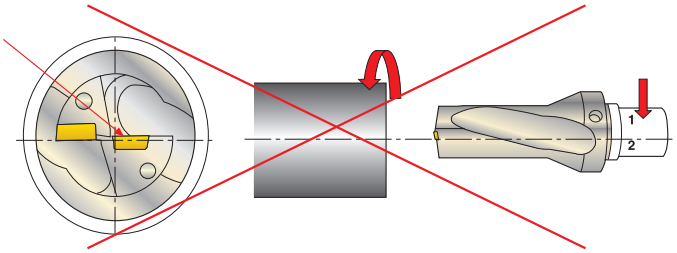


ISO 9766
Universal choice fits into most holders on the market such as:

- Weldon 1835B
- ISO 5414
- DIN 69880

Coolant inlet at the back end of the drill.

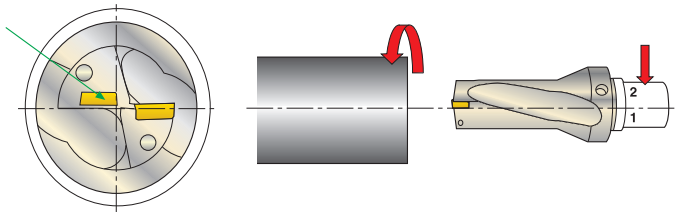
R7 and R7-C



Shanks with two or four flats
Center insert cutting edge above workpiece center line.

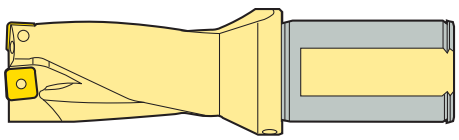
For non rotating applications:

- An additional flat is added to the shank for increased flexibility in lathe applications.
- In such applications the workpiece center line and the drill center line must align.
- If they don't the center insert could be located above the workpiece center line resulting in poor performance of the drill.



By turning the drill 180 degrees the second flat gives the possibility to compensate for this misalignment in a fast and simple way.

Shanks with four flats
Center insert cutting edge above workpiece center line.

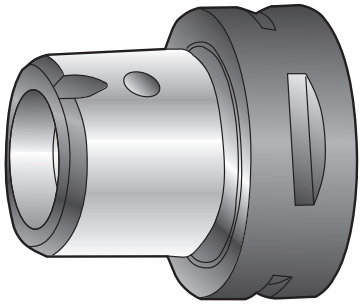


NOTE!

- If a drill with -7 shank is used in a rotating application together with our adjustable holder, the flat located on the same side as the center insert must be used.
- Otherwise the drill diameter will be positioned in the wrong way.

Shanks

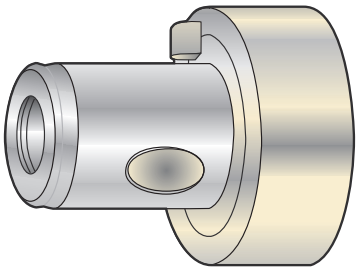
Seco-Capto



Seco-Capto C4, C5, C6

- Flexible - Same tool holder can easily be used in different machines.
- Modular - Possibility to build tools with extension adapters.
- High torque transmission - Torque load is spread symmetrically.
- High rigidity - Tight press fit guarantees that there is no play in the coupling.
- Accurate - Tapered polygon coupling produces a strong, self centering joint within 2 microns.

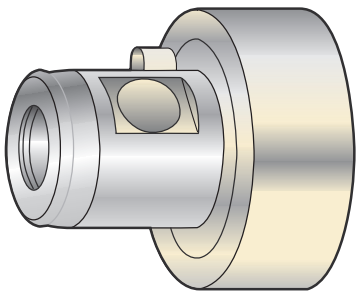
Graflex



- G

- Fits directly into Graflex holders and locked with two ball headed locking screws placed at 120°.
- Modular assemblies delivering rigidity and good run-out.
- Cylinder/face connection - great accuracy.
- Quick and easy assembling/disassembling of the modules for high flexibility.
- Coolant inlet at the back end of the drill.

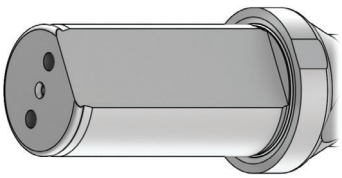
ABS 50 (compatible)



- 2

- An ABS 50 Compatible shank.
- Fits directly into ABS 50 holder with one locking screw.
- Coolant inlet at the back end of the drill.

VDI 30 and VDI 40 (compatible)



- 8

- VDI compatible shank.
- Fits directly into holders for:
  – VDI 3425 bl.2
  – DIN 69880

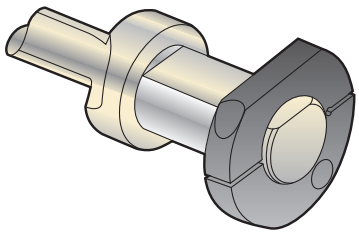
NOTE!
The coolant ring must be ordered separately.

Shanks – Coolant ring

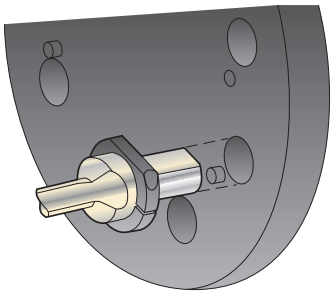
VDI 30			
Drill depth	Drill diameter		Accessories Coolant ring
	mm	*inch*	
2 x D	15-31	*0.591-1.220*	SDA5-30R8
3 x D	15-31	*0.591-1.220*	SDA5-30R8
4 x D	17-31	*0.669-1.220*	SDA5-30R8
5 x D	19-31	*0.748-1.220*	SDA5-30R8

VDI 40					
Drill depth	Drill diameter		Plug	Locking screw	Accessories Coolant ring
	mm	*inch*			
2 x D	15-31	*0.591-1.220*			SDA5-40R8
3 x D	15-31	*0.591-1.220*			SDA5-40R8
4 x D	17-31	*0.669-1.220*			SDA5-40R8
5 x D	19-31	*0.748-1.220*			SDA5-40R8
2 x D	41-59	*1.614-2.323*	R1/4”	P6SS8x8	SDA5-40R8
3 x D	41-59	*1.614-2.323*	R1/4”	P6SS8x8	SDA5-40R8

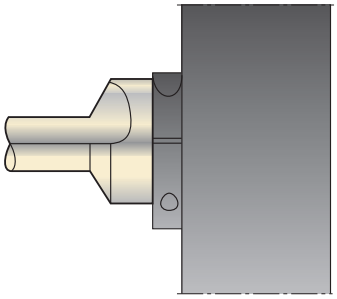
1. Fit the ring around the drill but do not tighten the locking screw.



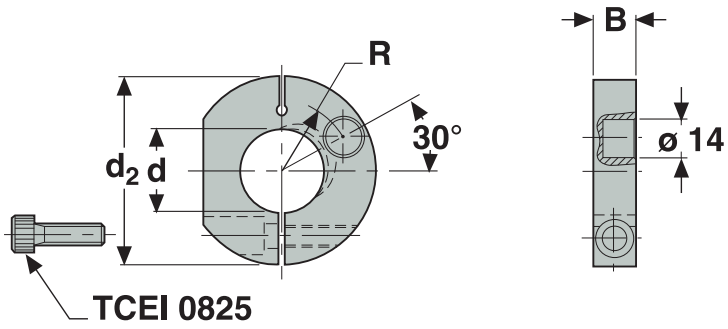
2. Lock the drill in the collet.



3. Tighten the locking screw in the coolant ring.



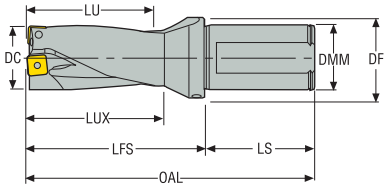
Coolant ring



SD522

Drilling depth ~ 2 X D – Metric/Inch





- ISO 9766 shank, -7
- Internal coolant
- For insert information see page(s) 297-303
- For cutting data see page(s) 304, 305
- For intermediate diameters see the MyDesign software.

Designation	Item number	DC	LU	OAL	LUX	LFS	LS	DMM	DF	Insert		Radial adjustment	
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	Center insert	Periph insert	mm - *Inch -*	mm + *Inch +*
SD522-15-30-20R7	03080744	15,0 *0.591*	30,0 *1.181*	110,0 *4.331*	35,0 *1.378*	60,0 *2.362*	50,0 *1.969*	20,0 *0.787*	30,0 *1.181*	SPGX0502	SCGX050204	0,22 *0.009*	0,31 *0.012*
SD522-15-30-25R7	03080745	15,0 *0.591*	30,0 *1.181*	116,0 *4.567*	35,0 *1.378*	60,0 *2.362*	56,0 *2.205*	25,0 *0.984*	35,0 *1.378*	SPGX0502	SCGX050204	0,22 *0.009*	0,31 *0.012*
SD522-15.5-31-20R7	03080740	15,5 *0.610*	31,0 *1.220*	111,0 *4.370*	36,0 *1.417*	61,0 *2.402*	50,0 *1.969*	20,0 *0.787*	30,0 *1.181*	SPGX0502	SCGX050204	0,17 *0.007*	0,36 *0.014*
SD522-15.5-31-25R7	03080741	15,5 *0.610*	31,0 *1.220*	117,0 *4.606*	36,0 *1.417*	61,0 *2.402*	56,0 *2.205*	25,0 *0.984*	35,0 *1.378*	SPGX0502	SCGX050204	0,17 *0.007*	0,36 *0.014*
SD522-16-32-20R7	03080749	16,0 *0.630*	32,0 *1.260*	112,0 *4.409*	37,0 *1.457*	62,0 *2.441*	50,0 *1.969*	20,0 *0.787*	30,0 *1.181*	SPGX0502	SCGX050204	0,12 *0.005*	0,41 *0.016*
SD522-16-32-25R7	03080750	16,0 *0.630*	32,0 *1.260*	118,0 *4.646*	37,0 *1.457*	62,0 *2.441*	56,0 *2.205*	25,0 *0.984*	35,0 *1.378*	SPGX0502	SCGX050204	0,12 *0.005*	0,41 *0.016*
SD522-16.5-33-20R7	03080746	16,5 *0.650*	33,0 *1.299*	113,0 *4.449*	38,0 *1.496*	63,0 *2.480*	50,0 *1.969*	20,0 *0.787*	30,0 *1.181*	SPGX0502	SCGX050204	0,07 *0.003*	0,46 *0.018*
SD522-16.5-33-25R7	03080747	16,5 *0.650*	33,0 *1.299*	119,0 *4.685*	38,0 *1.496*	63,0 *2.480*	56,0 *2.205*	25,0 *0.984*	35,0 *1.378*	SPGX0502	SCGX050204	0,07 *0.003*	0,46 *0.018*
SD522-17-34-20R7	03080754	17,0 *0.669*	34,0 *1.339*	114,0 *4.488*	39,0 *1.535*	64,0 *2.520*	50,0 *1.969*	20,0 *0.787*	30,0 *1.181*	SPGX0502	SCGX050204	0,02 *0.001*	0,5 *0.020*
SD522-17-34-25R7	03080755	17,0 *0.669*	34,0 *1.339*	120,0 *4.724*	39,0 *1.535*	64,0 *2.520*	56,0 *2.205*	25,0 *0.984*	35,0 *1.378*	SPGX0502	SCGX050204	0,02 *0.001*	0,5 *0.020*
SD522-17.5-35-20R7	03080752	17,5 *0.689*	35,0 *1.378*	115,0 *4.528*	40,0 *1.575*	65,0 *2.559*	50,0 *1.969*	20,0 *0.787*	30,0 *1.181*	SPGX0602	SCGX050204	0,43 *0.017*	0,1 *0.004*
SD522-17.5-35-25R7	03080753	17,5 *0.689*	35,0 *1.378*	121,0 *4.764*	40,0 *1.575*	65,0 *2.559*	56,0 *2.205*	25,0 *0.984*	35,0 *1.378*	SPGX0602	SCGX050204	0,43 *0.017*	0,1 *0.004*
SD522-18-36-20R7	03080760	18,0 *0.709*	36,0 *1.417*	116,0 *4.567*	41,0 *1.614*	66,0 *2.598*	50,0 *1.969*	20,0 *0.787*	30,0 *1.181*	SPGX0602	SCGX050204	0,32 *0.013*	0,21 *0.008*
SD522-18-36-25R7	03080761	18,0 *0.709*	36,0 *1.417*	122,0 *4.803*	41,0 *1.614*	66,0 *2.598*	56,0 *2.205*	25,0 *0.984*	35,0 *1.378*	SPGX0602	SCGX050204	0,32 *0.013*	0,21 *0.008*
SD522-18.5-37-20R7	03080758	18,5 *0.728*	37,0 *1.457*	117,0 *4.606*	42,0 *1.654*	67,0 *2.638*	50,0 *1.969*	20,0 *0.787*	30,0 *1.181*	SPGX0602	SCGX050204	0,22 *0.009*	0,31 *0.012*
SD522-18.5-37-25R7	03080759	18,5 *0.728*	37,0 *1.457*	123,0 *4.843*	42,0 *1.654*	67,0 *2.638*	56,0 *2.205*	25,0 *0.984*	35,0 *1.378*	SPGX0602	SCGX050204	0,22 *0.009*	0,31 *0.012*
SD522-19-38-20R7	03080765	19,0 *0.748*	38,0 *1.496*	118,0 *4.646*	43,0 *1.693*	68,0 *2.677*	50,0 *1.969*	20,0 *0.787*	30,0 *1.181*	SPGX0602	SCGX050204	0,11 *0.004*	0,42 *0.017*
SD522-19-38-25R7	03080766	19,0 *0.748*	38,0 *1.496*	124,0 *4.882*	43,0 *1.693*	68,0 *2.677*	56,0 *2.205*	25,0 *0.984*	35,0 *1.378*	SPGX0602	SCGX050204	0,11 *0.004*	0,42 *0.017*
SD522-19.5-39-20R7	03080764	19,5 *0.768*	39,0 *1.535*	119,0 *4.685*	44,0 *1.732*	69,0 *2.717*	50,0 *1.969*	20,0 *0.787*	30,0 *1.181*	SPGX0602	SCGX060204	0,11 *0.004*	0,42 *0.017*
SD522-20-40-25R7	03080771	20,0 *0.787*	40,0 *1.575*	126,0 *4.961*	45,0 *1.772*	70,0 *2.756*	56,0 *2.205*	25,0 *0.984*	35,0 *1.378*	SPGX0602	SCGX060204	0,07 *0.003*	0,46 *0.018*
SD522-21-42-25R7	03080775	21,0 *0.827*	42,0 *1.654*	128,0 *5.039*	47,0 *1.850*	72,0 *2.835*	56,0 *2.205*	25,0 *0.984*	35,0 *1.378*	SPGX0602	SCGX060204	0,01 *0*	0,5 *0.020*
SD522-22-44-25R7	03080777	22,0 *0.866*	44,0 *1.732*	130,0 *5.118*	49,0 *1.929*	74,0 *2.913*	56,0 *2.205*	25,0 *0.984*	35,0 *1.378*	SPGX0703	SCGX060204	0,44 *0.017*	0,46 *0.018*

Designation	Item number	DC	LU	OAL	LUX	LFS	LS	DMM	DF	Insert		Radial adjustment	
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	Center insert	Periph insert	mm - *Inch -*	mm + *Inch +*
SD522-23-46-25R7	03080781	23,0 *0.906*	46,0 *1.811*	132,0 *5.197*	51,0 *2.008*	76,0 *2.992*	56,0 *2.205*	25,0 *0.984*	35,0 *1.378*	SPGX0703	SCGX070308	0,33 *0.013*	0,5 *0.020*
SD522-23.5-47-25R7	03192517	23,5 *0.925*	47,0 *1.850*	133,0 *5.236*	52,0 *2.047*	77,0 *3.031*	56,0 *2.205*	25,0 *0.984*	35,0 *1.378*	SPGX0703	SCGX070308	0,23 *0.009*	0,5 *0.020*
SD522-24-48-25R7	03080785	24,0 *0.945*	48,0 *1.890*	134,0 *5.276*	53,0 *2.087*	78,0 *3.071*	56,0 *2.205*	25,0 *0.984*	35,0 *1.378*	SPGX0703	SCGX070308	0,11 *0.004*	0,5 *0.020*
SD522-25-50-32R7	03080788	25,0 *0.984*	50,0 *1.969*	140,0 *5.512*	55,0 *2.165*	80,0 *3.150*	60,0 *2.362*	32,0 *1.260*	42,0 *1.654*	SPGX0703	SCGX070308	0,11 *0.004*	0,5 *0.020*
SD522-26-52-32R7	03080790	26,0 *1.024*	52,0 *2.047*	142,0 *5.591*	57,0 *2.244*	82,0 *3.228*	60,0 *2.362*	32,0 *1.260*	42,0 *1.654*	SPGX0903	SCGX070308	0,5 *0.020*	0,11 *0.004*
SD522-27-54-32R7	03080792	27,0 *1.063*	54,0 *2.126*	144,0 *5.669*	59,0 *2.323*	84,0 *3.307*	60,0 *2.362*	32,0 *1.260*	42,0 *1.654*	SPGX0903	SCGX070308	0,5 *0.020*	0,26 *0.010*
SD522-28-56-32R7	03080795	28,0 *1.102*	56,0 *2.205*	146,0 *5.748*	61,0 *2.402*	86,0 *3.386*	60,0 *2.362*	32,0 *1.260*	42,0 *1.654*	SPGX0903	SCGX070308	0,28 *0.011*	0,5 *0.020*
SD522-29-58-32R7	03080796	29,0 *1.142*	58,0 *2.283*	148,0 *5.827*	63,0 *2.480*	88,0 *3.465*	60,0 *2.362*	32,0 *1.260*	42,0 *1.654*	SPGX0903	SCGX09T308	0,18 *0.007*	0,5 *0.020*
SD522-30-60-32R7	03080798	30,0 *1.181*	60,0 *2.362*	150,0 *5.906*	65,0 *2.559*	90,0 *3.543*	60,0 *2.362*	32,0 *1.260*	42,0 *1.654*	SPGX0903	SCGX09T308	0,12 *0.005*	0,5 *0.020*
SD522-31-62-32R7	03080801	31,0 *1.220*	62,0 *2.441*	152,0 *5.984*	67,0 *2.638*	92,0 *3.622*	60,0 *2.362*	32,0 *1.260*	42,0 *1.654*	SPGX0903	SCGX09T308	0,12 *0.005*	0,5 *0.020*
SD522-32-64-32R7	03080802	32,0 *1.260*	64,0 *2.520*	154,0 *6.063*	69,0 *2.717*	94,0 *3.701*	60,0 *2.362*	32,0 *1.260*	42,0 *1.654*	SPGX11T3	SCGX09T308	0,5 *0.020*	0,31 *0.012*
SD522-32-64-40R7	03080803	32,0 *1.260*	64,0 *2.520*	162,0 *6.378*	69,0 *2.717*	94,0 *3.701*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX11T3	SCGX09T308	0,5 *0.020*	0,31 *0.012*
SD522-33-66-32R7	03080805	33,0 *1.299*	66,0 *2.598*	156,0 *6.142*	71,0 *2.795*	96,0 *3.780*	60,0 *2.362*	32,0 *1.260*	42,0 *1.654*	SPGX11T3	SCGX09T308	0,5 *0.020*	0,46 *0.018*
SD522-33-66-40R7	03080806	33,0 *1.299*	66,0 *2.598*	164,0 *6.457*	71,0 *2.795*	96,0 *3.780*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX11T3	SCGX09T308	0,5 *0.020*	0,46 *0.018*
SD522-34-68-32R7	03080808	34,0 *1.339*	68,0 *2.677*	158,0 *6.220*	73,0 *2.874*	98,0 *3.858*	60,0 *2.362*	32,0 *1.260*	42,0 *1.654*	SPGX11T3	SCGX09T308	0,22 *0.009*	0,5 *0.020*
SD522-34-68-40R7	03080809	34,0 *1.339*	68,0 *2.677*	166,0 *6.535*	73,0 *2.874*	98,0 *3.858*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX11T3	SCGX09T308	0,22 *0.009*	0,5 *0.020*
SD522-35-70-32R7	03080810	35,0 *1.378*	70,0 *2.756*	160,0 *6.299*	75,0 *2.953*	100,0 *3.937*	60,0 *2.362*	32,0 *1.260*	42,0 *1.654*	SPGX11T3	SCGX11T308	0,22 *0.009*	0,5 *0.020*
SD522-35-70-40R7	03080811	35,0 *1.378*	70,0 *2.756*	168,0 *6.614*	75,0 *2.953*	100,0 *3.937*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX11T3	SCGX11T308	0,22 *0.009*	0,5 *0.020*
SD522-36-72-32R7	03080813	36,0 *1.417*	72,0 *2.835*	162,0 *6.378*	77,0 *3.031*	102,0 *4.016*	60,0 *2.362*	32,0 *1.260*	42,0 *1.654*	SPGX11T3	SCGX11T308	0,09 *0.004*	0,5 *0.020*
SD522-36-72-40R7	03080814	36,0 *1.417*	72,0 *2.835*	170,0 *6.693*	77,0 *3.031*	102,0 *4.016*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX11T3	SCGX11T308	0,09 *0.004*	0,5 *0.020*
SD522-37-74-32R7	03080816	37,0 *1.457*	74,0 *2.913*	164,0 *6.457*	79,0 *3.110*	104,0 *4.094*	60,0 *2.362*	32,0 *1.260*	42,0 *1.654*	SPGX11T3	SCGX11T308	0,09 *0.004*	0,5 *0.020*
SD522-37-74-40R7	03080817	37,0 *1.457*	74,0 *2.913*	172,0 *6.772*	79,0 *3.110*	104,0 *4.094*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX11T3	SCGX11T308	0,09 *0.004*	0,5 *0.020*
SD522-38-76-32R7	03080818	38,0 *1.496*	76,0 *2.992*	166,0 *6.535*	81,0 *3.189*	106,0 *4.173*	60,0 *2.362*	32,0 *1.260*	42,0 *1.654*	SPGX12T3	SCGX11T308	0,5 *0.020*	0,5 *0.020*
SD522-38-76-40R7	03080819	38,0 *1.496*	76,0 *2.992*	174,0 *6.850*	81,0 *3.189*	106,0 *4.173*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX12T3	SCGX11T308	0,5 *0.020*	0,5 *0.020*
SD522-39-78-32R7	03080821	39,0 *1.535*	78,0 *3.071*	168,0 *6.614*	83,0 *3.268*	108,0 *4.252*	60,0 *2.362*	32,0 *1.260*	42,0 *1.654*	SPGX12T3	SCGX11T308	0,39 *0.015*	0,5 *0.020*
SD522-39-78-40R7	03080822	39,0 *1.535*	78,0 *3.071*	176,0 *6.929*	83,0 *3.268*	108,0 *4.252*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX12T3	SCGX11T308	0,39 *0.015*	0,5 *0.020*
SD522-40-80-32R7	03080823	40,0 *1.575*	80,0 *3.150*	170,0 *6.693*	85,0 *3.346*	110,0 *4.331*	60,0 *2.362*	32,0 *1.260*	50,0 *1.969*	SPGX12T3	SCGX11T308	0,19 *0.007*	0,5 *0.020*
SD522-40-80-40R7	03080824	40,0 *1.575*	80,0 *3.150*	178,0 *7.008*	85,0 *3.346*	110,0 *4.331*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX12T3	SCGX11T308	0,19 *0.007*	0,5 *0.020*
SD522-41-82-40R7	03080826	41,0 *1.614*	82,0 *3.228*	180,0 *7.087*	87,0 *3.425*	112,0 *4.409*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX12T3	SCGX120408	0,19 *0.007*	0,5 *0.020*
SD522-42-84-40R7	03080828	42,0 *1.654*	84,0 *3.307*	182,0 *7.165*	89,0 *3.504*	114,0 *4.488*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX12T3	SCGX120408	0,19 *0.007*	0,5 *0.020*
SD522-43-86-40R7	03080830	43,0 *1.693*	86,0 *3.386*	184,0 *7.244*	91,0 *3.583*	116,0 *4.567*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX12T3	SCGX120408	0,05 *0.002*	0,5 *0.020*

Designation	Item number	DC	LU	OAL	LUX	LFS	LS	DMM	DF	Insert		Radial adjustment	
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	Center insert	Periph insert	mm - *Inch -*	mm + *Inch +*
SD522-44-88-40R7	03080832	44,0 *1.732*	88,0 *3.465*	186,0 *7.323*	93,0 *3.661*	118,0 *4.646*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX1504	SCGX120408	0,5 *0.020*	0,41 *0.016*
SD522-45-90-40R7	03080834	45,0 *1.772*	90,0 *3.543*	188,0 *7.402*	95,0 *3.740*	120,0 *4.724*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX1504	SCGX150512	0,5 *0.020*	0,41 *0.016*
SD522-46-92-40R7	03080835	46,0 *1.811*	92,0 *3.622*	190,0 *7.480*	97,0 *3.819*	122,0 *4.803*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX1504	SCGX150512	0,5 *0.020*	0,5 *0.020*
SD522-47-94-40R7	03080836	47,0 *1.850*	94,0 *3.701*	192,0 *7.559*	99,0 *3.898*	124,0 *4.882*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX1504	SCGX150512	0,5 *0.020*	0,5 *0.020*
SD522-48-96-40R7	03080837	48,0 *1.890*	96,0 *3.780*	194,0 *7.638*	101,0 *3.976*	126,0 *4.961*	68,0 *2.677*	40,0 *1.575*	59,35 *2.337*	SPGX1504	SCGX150512	0,45 *0.018*	0,5 *0.020*
SD522-49-98-40R7	03080838	49,0 *1.929*	98,0 *3.858*	196,0 *7.717*	103,0 *4.055*	128,0 *5.039*	68,0 *2.677*	40,0 *1.575*	59,35 *2.337*	SPGX1504	SCGX150512	0,2 *0.008*	0,5 *0.020*
SD522-50-100-40R7	03080839	50,0 *1.969*	100,0 *3.937*	198,0 *7.795*	105,0 *4.134*	130,0 *5.118*	68,0 *2.677*	40,0 *1.575*	59,35 *2.337*	SPGX1504	SCGX150512	0,2 *0.008*	0,5 *0.020*
SD522-51-102-40R7	03080840	51,0 *2.008*	102,0 *4.016*	200,0 *7.874*	107,0 *4.213*	132,0 *5.197*	68,0 *2.677*	40,0 *1.575*	59,35 *2.337*	SPGX1504	SCGX150512	0,2 *0.008*	0,5 *0.020*
SD522-52-104-40R7	03080841	52,0 *2.047*	104,0 *4.094*	202,0 *7.953*	109,0 *4.291*	134,0 *5.276*	68,0 *2.677*	40,0 *1.575*	59,35 *2.337*	SPGX1904	SCGX150512	0,5 *0.020*	0,42 *0.017*
SD522-53-106-40R7	03080842	53,0 *2.087*	106,0 *4.173*	204,0 *8.031*	111,0 *4.370*	136,0 *5.354*	68,0 *2.677*	40,0 *1.575*	59,35 *2.337*	SPGX1904	SCGX150512	0,5 *0.020*	0,42 *0.017*
SD522-54-108-40R7	03080843	54,0 *2.126*	108,0 *4.252*	206,0 *8.110*	113,0 *4.449*	138,0 *5.433*	68,0 *2.677*	40,0 *1.575*	59,35 *2.337*	SPGX1904	SCGX150512	0,5 *0.020*	0,5 *0.020*
SD522-55-110-40R7	03080844	55,0 *2.165*	110,0 *4.331*	208,0 *8.189*	115,0 *4.528*	140,0 *5.512*	68,0 *2.677*	40,0 *1.575*	59,35 *2.337*	SPGX1904	SCGX150512	0,5 *0.020*	0,5 *0.020*
SD522-56-112-40R7	03080845	56,0 *2.205*	112,0 *4.409*	210,0 *8.268*	117,0 *4.606*	142,0 *5.591*	68,0 *2.677*	40,0 *1.575*	59,35 *2.337*	SPGX1904	SCGX150512	0,5 *0.020*	0,5 *0.020*
SD522-57-114-40R7	03080846	57,0 *2.244*	114,0 *4.488*	212,0 *8.346*	119,0 *4.685*	144,0 *5.669*	68,0 *2.677*	40,0 *1.575*	59,35 *2.337*	SPGX1904	SCGX150512	0,39 *0.015*	0,5 *0.020*
SD522-58-116-40R7	03080847	58,0 *2.283*	116,0 *4.567*	214,0 *8.425*	121,0 *4.764*	146,0 *5.748*	68,0 *2.677*	40,0 *1.575*	63,0 *2.480*	SPGX1904	SCGX150512	0,09 *0.004*	0,5 *0.020*
SD522-59-118-40R7	03080848	59,0 *2.323*	118,0 *4.646*	216,0 *8.504*	123,0 *4.843*	148,0 *5.827*	68,0 *2.677*	40,0 *1.575*	63,0 *2.480*	SPGX1904	SCGX150512	0,09 *0.004*	0,5 *0.020*

Spare Parts, included in delivery

For drill dia. (mm)	Insert screw		Insert key
			
	Center insert	Periph insert	
15,00-17,45	C02245-T07P	C02245-T07P	T07P-2
17,46-19,49	C02205-T07P	C02245-T07P	T07P-2
19,50-21,24	C02205-T07P	C02205-T07P	T07P-2
21,25-22,49	C02506-T08P	C02506-T08P	T08P-2
22,50-25,49	C02507-T08P	C03007-T08P	T08P-2
25,50-28,49	C03007-T09P	C03007-T09P	T09P-2
28,50-31,49	C03007-T09P	C03009-T09P	T09P-2
31,50-40,49	C03508-T15P	C03508-T15P	T15P-2D
40,50-43,24	C03508-T15P	C05012-T15P	T15P-2D
43,25-59,00	C04011-T15P	C05012-T15P	T15P-2D

Accessories

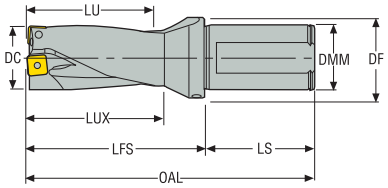
For drill dia. (mm)	Torque wrench*	Replacement blade	Torque value
			
15,00-17,45	T00-07P09	T00-07P	0,9 Nm
17,46-19,49	T00-07P09	T00-07P	0,9 Nm
19,50-21,24	T00-07P09	T00-07P	0,9 Nm
21,25-22,49	T00-08P12	T00-08P	1,2 Nm
22,50-25,49	T00-08P12	T00-08P	1,2 Nm
25,50-28,49	T00-09P20	T00-09P	2,0 Nm
28,50-31,49	T00-09P20	T00-09P	2,0 Nm
31,50-40,49	T00-15P30	T00-15P	3,0 Nm
40,50-43,24	T00-15P30	T00-15P	3,0 Nm
43,25-59,00	T00-15P30	T00-15P	3,0 Nm

*Including blade.

SD522

Drilling depth ~ 2 X D – Inch





- ISO 9766 shank, R7
- Internal coolant
- For insert information see page(s) 297-303
- For cutting data see page(s) 304, 305
- For intermediate diameters see the MyDesign software.

Designation	Item number	DC	LU	OAL	LUX	LFS	LS	DMM	DF	Insert		Radial adjustment	
		Inch	*Inch*	*Inch*	*Inch*	*Inch*	*Inch*	*Inch*	*Inch*	Center insert	Periph insert	*Inch -*	*Inch +*
SD522-0594-119-1000R7	03080704	*0.594*	*1.190*	*4.621*	*1.387*	*2.371*	*2.250*	*1.000*	*1.378*	SPGX0502	SCGX050204	*0.008*	*0.013*
SD522-0625-125-1000R7	03080705	*0.625*	*1.250*	*4.681*	*1.447*	*2.431*	*2.250*	*1.000*	*1.378*	SPGX0502	SCGX050204	*0.005*	*0.015*
SD522-0656-131-1000R7	03080707	*0.656*	*1.310*	*4.741*	*1.507*	*2.491*	*2.250*	*1.000*	*1.378*	SPGX0502	SCGX050204	*0.002*	*0.019*
SD522-0687-137-1000R7	03080709	*0.687*	*1.370*	*4.801*	*1.567*	*2.551*	*2.250*	*1.000*	*1.378*	SPGX0502	SCGX050204	*0*	*0.020*
SD522-0709-142-1000R7	03080710	*0.709*	*1.420*	*4.851*	*1.617*	*2.601*	*2.250*	*1.000*	*1.378*	SPGX0602	SCGX050204	*0.013*	*0.008*
SD522-0750-150-1000R7	03080712	*0.750*	*1.500*	*4.931*	*1.697*	*2.681*	*2.250*	*1.000*	*1.378*	SPGX0602	SCGX050204	*0.004*	*0.017*
SD522-0766-153-1000R7	03080713	*0.766*	*1.530*	*4.961*	*1.727*	*2.711*	*2.250*	*1.000*	*1.378*	SPGX0602	SCGX050204	*0.001*	*0.020*
SD522-0787-157-1000R7	03080714	*0.787*	*1.570*	*5.001*	*1.767*	*2.751*	*2.250*	*1.000*	*1.378*	SPGX0602	SCGX060204	*0.003*	*0.018*
SD522-0812-162-1000R7	03080715	*0.812*	*1.620*	*5.051*	*1.817*	*2.801*	*2.250*	*1.000*	*1.378*	SPGX0602	SCGX060204	*0.001*	*0.020*
SD522-0827-165-1000R7	03080717	*0.827*	*1.650*	*5.081*	*1.847*	*2.831*	*2.250*	*1.000*	*1.378*	SPGX0602	SCGX060204	*0*	*0.020*
SD522-0875-175-1000R7	03080718	*0.875*	*1.750*	*5.181*	*1.947*	*2.931*	*2.250*	*1.000*	*1.378*	SPGX0703	SCGX060204	*0.015*	*0.020*
SD522-0906-181-1000R7	03080720	*0.906*	*1.810*	*5.241*	*2.007*	*2.991*	*2.250*	*1.000*	*1.378*	SPGX0703	SCGX070308	*0.013*	*0.020*
SD522-0922-184-1000R7	03080721	*0.922*	*1.840*	*5.271*	*2.037*	*3.021*	*2.250*	*1.000*	*1.378*	SPGX0703	SCGX070308	*0.010*	*0.020*
SD522-0937-187-1000R7	03080722	*0.937*	*1.870*	*5.301*	*2.067*	*3.051*	*2.250*	*1.000*	*1.378*	SPGX0703	SCGX070308	*0.004*	*0.020*
SD522-0984-197-1250R7	03080724	*0.984*	*1.970*	*5.526*	*2.167*	*3.151*	*2.375*	*1.250*	*1.654*	SPGX0703	SCGX070308	*0.004*	*0.020*
SD522-1000-200-1250R7	03080725	*1.000*	*2.000*	*5.556*	*2.197*	*3.181*	*2.375*	*1.250*	*1.654*	SPGX0703	SCGX070308	*0.004*	*0.020*
SD522-1032-206-1250R7	03080727	*1.032*	*2.060*	*5.616*	*2.257*	*3.241*	*2.375*	*1.250*	*1.654*	SPGX0903	SCGX070308	*0.020*	*0.004*
SD522-1062-212-1250R7	03080728	*1.062*	*2.120*	*5.676*	*2.317*	*3.301*	*2.375*	*1.250*	*1.654*	SPGX0903	SCGX070308	*0.020*	*0.010*
SD522-1125-225-1250R7	03080730	*1.125*	*2.250*	*5.806*	*2.447*	*3.431*	*2.375*	*1.250*	*1.654*	SPGX0903	SCGX09T308	*0.008*	*0.020*
SD522-1187-237-1250R7	03080732	*1.187*	*2.370*	*5.926*	*2.567*	*3.551*	*2.375*	*1.250*	*1.654*	SPGX0903	SCGX09T308	*0.005*	*0.020*
SD522-1250-250-1500R7	03080735	*1.250*	*2.500*	*6.306*	*2.697*	*3.681*	*2.625*	*1.500*	*1.969*	SPGX11T3	SCGX09T308	*0.020*	*0.011*
SD522-1312-262-1500R7	03080736	*1.312*	*2.620*	*6.426*	*2.817*	*3.801*	*2.625*	*1.500*	*1.969*	SPGX11T3	SCGX09T308	*0.020*	*0.020*
SD522-1375-275-1500R7	03080737	*1.375*	*2.750*	*6.556*	*2.947*	*3.931*	*2.625*	*1.500*	*1.969*	SPGX11T3	SCGX11T308	*0.009*	*0.020*
SD522-1437-287-1500R7	03080739	*1.437*	*2.870*	*6.676*	*3.067*	*4.051*	*2.625*	*1.500*	*1.969*	SPGX11T3	SCGX11T308	*0.004*	*0.020*
SD522-1500-300-1500R7	03080743	*1.500*	*3.000*	*6.806*	*3.197*	*4.181*	*2.625*	*1.500*	*1.969*	SPGX12T3	SCGX11T308	*0.020*	*0.020*
SD522-1625-325-1500R7	03080748	*1.625*	*3.250*	*7.056*	*3.447*	*4.431*	*2.625*	*1.500*	*1.969*	SPGX12T3	SCGX120408	*0.007*	*0.020*
SD522-1750-350-1500R7	03080756	*1.750*	*3.500*	*7.306*	*3.697*	*4.681*	*2.625*	*1.500*	*1.969*	SPGX1504	SCGX120408	*0.020*	*0.016*
SD522-1875-375-1500R7	03080763	*1.875*	*3.750*	*7.556*	*3.947*	*4.931*	*2.625*	*1.500*	*1.969*	SPGX1504	SCGX150512	*0.020*	*0.020*
SD522-2000-400-1500R7	03080769	*2.000*	*4.000*	*7.806*	*4.197*	*5.181*	*2.625*	*1.500*	*2.337*	SPGX1504	SCGX150512	*0.008*	*0.020*
SD522-2125-425-1500R7	03080773	*2.125*	*4.250*	*8.056*	*4.447*	*5.431*	*2.625*	*1.500*	*2.337*	SPGX1904	SCGX150512	*0.020*	*0.020*
SD522-2250-450-1500R7	03080779	*2.250*	*4.500*	*8.306*	*4.697*	*5.681*	*2.625*	*1.500*	*2.337*	SPGX1904	SCGX150512	*0.013*	*0.020*
SD522-2375-475-1500R7	03080783	*2.375*	*4.750*	*8.556*	*4.947*	*5.931*	*2.625*	*1.500*	*2.480*	SPGX1904	SCGX150512	*0.004*	*0.020*

Spare Parts, included in delivery

For drill dia. (inch)	Insert screw		Insert key
			
	Center insert	Periph insert	
0.594-0.687	C02245-T07P	C02245-T07P	T07P-2
0.709-0.766	C02205-T07P	C02245-T07P	T07P-2
0.787	C02205-T07P	C02205-T07P	T07P-2
0.812-0.827	C02205-T07P	C02205-T07P	T07P-2
0.875	C02506-T08P	C02506-T08P	T08P-2
0.906-1.000	C02507-T08P	C03007-T08P	T08P-2
1.032-1.062	C03007-T09P	C03007-T09P	T09P-2
1.125-1.187	C03007-T09P	C03009-T09P	T09P-2
1.250-1.500	C03508-T15P	C03508-T15P	T15P-2D
1.625	C03508-T15P	C05012-T15P	T15P-2D
1.750-2.375	C04011-T15P	C05012-T15P	T15P-2D

Accessories

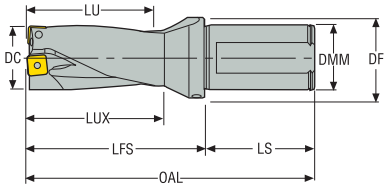
For drill dia. (inch)	Torque wrench*	Replacement blade	Torque value
			
0.594-0.687	T00-07P09	T00-07P	8 in/lbs
0.709-0.766	T00-07P09	T00-07P	8 in/lbs
0.787	T00-07P09	T00-07P	8 in/lbs
0.812-0.827	T00-07P09	T00-07P	8 in/lbs
0.875	T00-08P12	T00-08P	10.6 in/lbs
0.906-1.000	T00-08P12	T00-08P	10.6 in/lbs
1.032-1.062	T00-09P20	T00-09P	17.7 in/lbs
1.125-1.187	T00-09P20	T00-09P	17.7 in/lbs
1.250-1.500	T00-15P30	T00-15P	26.6 in/lbs
1.625	T00-15P30	T00-15P	26.6 in/lbs
1.750-2.375	T00-15P30	T00-15P	26.6 in/lbs

*Including blade.

SD522

Drilling depth ~ 2 X D – Inch

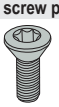




- ISO 9766 shank, R7-C
- Internal coolant
- For insert information see page(s) 297-303
- For cutting data see page(s) 304-305
- For intermediate diameters see the MyDesign software.
- For stationary applications

Designation	Item number	DC	LU	OAL	LUX	LFS	LS	DMM	DF	Insert		Radial adjustment	
		Inch	*Inch*	*Inch*	*Inch*	*Inch*	*Inch*	*Inch*	*Inch*	Center insert	Periph insert	*Inch -*	*Inch +*
SD522-0625-125-1000R7-C	03080706	*0.625*	*1.250*	*5.378*	*1.447*	*2.628*	*2.750*	*1.000*	*1.378*	SPGX0502	SCGX050204	*0.005*	*0.015*
SD522-0687-137-1000R7-C	03080708	*0.687*	*1.370*	*5.498*	*1.567*	*2.748*	*2.750*	*1.000*	*1.378*	SPGX0502	SCGX050204	*0*	*0.020*
SD522-0750-150-1000R7-C	03080711	*0.750*	*1.500*	*5.628*	*1.697*	*2.878*	*2.750*	*1.000*	*1.378*	SPGX0602	SCGX050204	*0.004*	*0.017*
SD522-0812-162-1000R7-C	03080716	*0.812*	*1.620*	*5.748*	*1.817*	*2.998*	*2.750*	*1.000*	*1.378*	SPGX0602	SCGX060204	*0.001*	*0.020*
SD522-0875-175-1000R7-C	03080719	*0.875*	*1.750*	*5.878*	*1.947*	*3.128*	*2.750*	*1.000*	*1.378*	SPGX0703	SCGX060204	*0.015*	*0.020*
SD522-0937-187-1000R7-C	03080723	*0.937*	*1.870*	*5.998*	*2.067*	*3.248*	*2.750*	*1.000*	*1.378*	SPGX0703	SCGX070308	*0.004*	*0.020*
SD522-1000-200-1250R7-C	03080726	*1.000*	*2.000*	*6.128*	*2.197*	*3.378*	*2.750*	*1.250*	*1.654*	SPGX0703	SCGX070308	*0.004*	*0.020*
SD522-1062-212-1250R7-C	03080729	*1.062*	*2.120*	*6.248*	*2.317*	*3.498*	*2.750*	*1.250*	*1.654*	SPGX0903	SCGX070308	*0.020*	*0.010*
SD522-1125-225-1250R7-C	03080731	*1.125*	*2.250*	*6.378*	*2.447*	*3.628*	*2.750*	*1.250*	*1.654*	SPGX0903	SCGX09T308	*0.008*	*0.020*
SD522-1187-237-1250R7-C	03080733	*1.187*	*2.370*	*6.498*	*2.567*	*3.748*	*2.750*	*1.250*	*1.654*	SPGX0903	SCGX09T308	*0.005*	*0.020*
SD522-1250-250-1500R7-C	03080734	*1.250*	*2.500*	*6.628*	*2.697*	*3.878*	*2.750*	*1.500*	*1.969*	SPGX11T3	SCGX09T308	*0.020*	*0.011*
SD522-1375-275-1500R7-C	03080738	*1.375*	*2.750*	*6.878*	*2.947*	*4.128*	*2.750*	*1.500*	*1.969*	SPGX11T3	SCGX11T308	*0.009*	*0.020*
SD522-1500-300-1500R7-C	03080742	*1.500*	*3.000*	*7.128*	*3.197*	*4.378*	*2.750*	*1.500*	*1.969*	SPGX12T3	SCGX11T308	*0.020*	*0.020*
SD522-1750-350-1500R7-C	03080757	*1.750*	*3.500*	*7.628*	*3.697*	*4.878*	*2.750*	*1.500*	*1.969*	SPGX1504	SCGX120408	*0.020*	*0.016*
SD522-2000-400-1500R7-C	03080770	*2.000*	*4.000*	*8.128*	*4.197*	*5.378*	*2.750*	*1.500*	*2.337*	SPGX1504	SCGX150512	*0.008*	*0.020*
SD522-2125-425-1500R7-C	03080774	*2.125*	*4.250*	*8.378*	*4.447*	*5.628*	*2.750*	*1.500*	*2.337*	SPGX1904	SCGX150512	*0.020*	*0.020*
SD522-2250-450-1500R7-C	03080780	*2.250*	*4.500*	*8.628*	*4.697*	*5.878*	*2.750*	*1.500*	*2.337*	SPGX1904	SCGX150512	*0.013*	*0.020*
SD522-2375-475-1500R7-C	03080784	*2.375*	*4.750*	*8.878*	*4.947*	*6.128*	*2.750*	*1.500*	*2.480*	SPGX1904	SCGX150512	*0.004*	*0.020*

Spare Parts, included in delivery

For drill dia. (inch)	Insert screw centre	Insert screw periph	Key	Plug
				
0.625	C02245-T07P	C02245-T07P	T07P-2	R1/4
0.687	C02245-T07P	C02245-T07P	T07P-2	R1/4
0.750	C02205-T07P	C02245-T07P	T07P-2	R1/4
0.812	C02205-T07P	C02205-T07P	T07P-2	R1/4
0.875	C02506-T08P	C02506-T08P	T08P-2	R1/4
0.937-1.000	C02507-T08P	C03007-T08P	T08P-2	R1/4
1.062	C03007-T09P	C03007-T09P	T09P-2	R1/4
1.125-1.187	C03007-T09P	C03009-T09P	T09P-2	R1/4
1.250-1.500	C03508-T15P	C03508-T15P	T15P-2D	R1/4
1.750-2.375	C04011-T15P	C05012-T15P	T15P-2D	R1/4

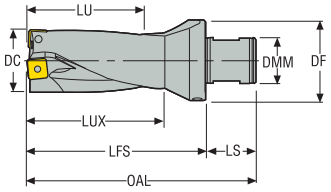
Accessories

For drill dia. (inch)	Hose adapter	Torque wrench
		
0.625	1310	T00-07P09
0.687	1310	T00-07P09
0.750	1310	T00-07P09
0.812	1310	T00-07P09
0.875	1310	T00-08P12
0.937-1.000	1310	T00-08P12
1.062	1310	T00-09P20
1.125-1.187	1310	T00-09P20
1.250-1.500	1310	T00-15P30
1.750-2.375	1310	T00-15P35

SD522

Drilling depth ~ 2 X D – Metric/Inch





- ABS 50 compatible shank, R2
- Internal coolant
- For insert information see page(s) 297-303
- For cutting data see page(s) 304, 305
- For intermediate diameters see the MyDesign software.

Designation	Item number	DC	LU	OAL	LUX	LFS	LS	DMM	DF	Insert		Radial adjustment	
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	Center insert	Periph insert	mm - *Inch -*	mm + *Inch +*
SD522-15-30-50R2	03081056	15,0 *0.591*	30,0 *1.181*	91,0 *3.583*	35,0 *1.378*	60,0 *2.362*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0502	SCGX050204	0,22 *0.009*	0,31 *0.012*
SD522-15.5-31-50R2	03081057	15,5 *0.610*	31,0 *1.220*	92,0 *3.622*	36,0 *1.417*	61,0 *2.402*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0502	SCGX050204	0,17 *0.007*	0,36 *0.014*
SD522-16-32-50R2	03080751	16,0 *0.630*	32,0 *1.260*	93,0 *3.661*	37,0 *1.457*	62,0 *2.441*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0502	SCGX050204	0,12 *0.005*	0,41 *0.016*
SD522-16.5-33-50R2	03081058	16,5 *0.650*	33,0 *1.299*	94,0 *3.701*	38,0 *1.496*	63,0 *2.480*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0502	SCGX050204	0,07 *0.003*	0,46 *0.018*
SD522-17-34-50R2	03081059	17,0 *0.669*	34,0 *1.339*	95,0 *3.740*	39,0 *1.535*	64,0 *2.520*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0502	SCGX050204	0,02 *0.001*	0,5 *0.020*
SD522-17.5-35-50R2	03081060	17,5 *0.689*	35,0 *1.378*	96,0 *3.780*	40,0 *1.575*	65,0 *2.559*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0602	SCGX050204	0,43 *0.017*	0,1 *0.004*
SD522-18-36-50R2	03080762	18,0 *0.709*	36,0 *1.417*	97,0 *3.819*	41,0 *1.614*	66,0 *2.598*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0602	SCGX050204	0,32 *0.013*	0,21 *0.008*
SD522-18.5-37-50R2	03081061	18,5 *0.728*	37,0 *1.457*	98,0 *3.858*	42,0 *1.654*	67,0 *2.638*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0602	SCGX050204	0,22 *0.009*	0,31 *0.012*
SD522-19-38-50R2	03080767	19,0 *0.748*	38,0 *1.496*	99,0 *3.898*	43,0 *1.693*	68,0 *2.677*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0602	SCGX050204	0,11 *0.004*	0,42 *0.017*
SD522-20-40-50R2	03080772	20,0 *0.787*	40,0 *1.575*	101,0 *3.976*	45,0 *1.772*	70,0 *2.756*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0602	SCGX060204	0,07 *0.003*	0,46 *0.018*
SD522-20.62-42-50R2	03080768	20,62 *0.812*	42,0 *1.654*	103,0 *4.055*	47,0 *1.850*	72,0 *2.835*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0602	SCGX060204	0,03 *0.001*	0,5 *0.020*
SD522-21-42-50R2	03081062	21,0 *0.827*	42,0 *1.654*	103,0 *4.055*	47,0 *1.850*	72,0 *2.835*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0602	SCGX060204	0,01 *0*	0,5 *0.020*
SD522-22-44-50R2	03080778	22,0 *0.866*	44,0 *1.732*	105,0 *4.134*	49,0 *1.929*	74,0 *2.913*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0703	SCGX060204	0,44 *0.017*	0,46 *0.018*
SD522-22.23-45-50R2	03080776	22,23 *0.875*	45,0 *1.772*	106,0 *4.173*	50,0 *1.969*	75,0 *2.953*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0703	SCGX060204	0,39 *0.015*	0,5 *0.020*
SD522-23-46-50R2	03080782	23,0 *0.906*	46,0 *1.811*	107,0 *4.213*	51,0 *2.008*	76,0 *2.992*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0703	SCGX070308	0,33 *0.013*	0,5 *0.020*
SD522-24-48-50R2	03080786	24,0 *0.945*	48,0 *1.890*	109,0 *4.291*	53,0 *2.087*	78,0 *3.071*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0703	SCGX070308	0,11 *0.004*	0,5 *0.020*
SD522-25-50-50R2	03080789	25,0 *0.984*	50,0 *1.969*	111,0 *4.370*	55,0 *2.165*	80,0 *3.150*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0703	SCGX070308	0,11 *0.004*	0,5 *0.020*
SD522-25.40-51-50R2	03080787	25,4 *1.000*	51,0 *2.008*	112,0 *4.409*	56,0 *2.205*	81,0 *3.189*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0703	SCGX070308	0,11 *0.004*	0,5 *0.020*
SD522-26-52-50R2	03080791	26,0 *1.024*	52,0 *2.047*	113,0 *4.449*	57,0 *2.244*	82,0 *3.228*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0903	SCGX070308	0,5 *0.020*	0,11 *0.004*
SD522-27-54-50R2	03080793	27,0 *1.063*	54,0 *2.126*	115,0 *4.528*	59,0 *2.323*	84,0 *3.307*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0903	SCGX070308	0,5 *0.020*	0,26 *0.010*
SD522-28-56-50R2	03081087	28,0 *1.102*	56,0 *2.205*	117,0 *4.606*	61,0 *2.402*	86,0 *3.386*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0903	SCGX070308	0,28 *0.011*	0,5 *0.020*
SD522-28.59-58-50R2	03080794	28,59 *1.126*	58,0 *2.283*	119,0 *4.685*	63,0 *2.480*	88,0 *3.465*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0903	SCGX09T308	0,21 *0.008*	0,5 *0.020*

Designation	Item number	DC	LU	OAL	LUX	LFS	LS	DMM	DF	Insert		Radial adjustment	
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	Center insert	Periph insert	mm - *Inch -*	mm + *Inch +*
SD522-29-58-50R2	03080797	29,0 *1.142*	58,0 *2.283*	119,0 *4.685*	63,0 *2.480*	88,0 *3.465*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0903	SCGX09T308	0,18 *0.007*	0,5 *0.020*
SD522-30-60-50R2	03080799	30,0 *1.181*	60,0 *2.362*	121,0 *4.764*	65,0 *2.559*	90,0 *3.543*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0903	SCGX09T308	0,12 *0.005*	0,5 *0.020*
SD522-31-62-50R2	03081063	31,0 *1.220*	62,0 *2.441*	123,0 *4.843*	67,0 *2.638*	92,0 *3.622*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0903	SCGX09T308	0,12 *0.005*	0,5 *0.020*
SD522-31.75-64-50R2	03080800	31,75 *1.250*	64,0 *2.520*	125,0 *4.921*	69,0 *2.717*	94,0 *3.701*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX11T3	SCGX09T308	0,5 *0.020*	0,28 *0.011*
SD522-32-64-50R2	03080804	32,0 *1.260*	64,0 *2.520*	125,0 *4.921*	69,0 *2.717*	94,0 *3.701*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX11T3	SCGX09T308	0,5 *0.020*	0,31 *0.012*
SD522-33-66-50R2	03080807	33,0 *1.299*	66,0 *2.598*	127,0 *5.000*	71,0 *2.795*	96,0 *3.780*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX11T3	SCGX09T308	0,5 *0.020*	0,46 *0.018*
SD522-34-68-50R2	03081064	34,0 *1.339*	68,0 *2.677*	129,0 *5.079*	73,0 *2.874*	98,0 *3.858*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX11T3	SCGX09T308	0,22 *0.009*	0,5 *0.020*
SD522-35-70-50R2	03080812	35,0 *1.378*	70,0 *2.756*	131,0 *5.157*	75,0 *2.953*	100,0 *3.937*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX11T3	SCGX11T308	0,22 *0.009*	0,5 *0.020*
SD522-36-72-50R2	03080815	36,0 *1.417*	72,0 *2.835*	133,0 *5.236*	77,0 *3.031*	102,0 *4.016*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX11T3	SCGX11T308	0,09 *0.004*	0,5 *0.020*
SD522-37-74-50R2	03081065	37,0 *1.457*	74,0 *2.913*	135,0 *5.315*	79,0 *3.110*	104,0 *4.094*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX11T3	SCGX11T308	0,09 *0.004*	0,5 *0.020*
SD522-38-76-50R2	03080820	38,0 *1.496*	76,0 *2.992*	137,0 *5.394*	81,0 *3.189*	106,0 *4.173*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX12T3	SCGX11T308	0,5 *0.020*	0,5 *0.020*
SD522-39-78-50R2	03081066	39,0 *1.535*	78,0 *3.071*	139,0 *5.472*	83,0 *3.268*	108,0 *4.252*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX12T3	SCGX11T308	0,39 *0.015*	0,5 *0.020*
SD522-40-80-50R2	03080825	40,0 *1.575*	80,0 *3.150*	141,0 *5.551*	85,0 *3.346*	110,0 *4.331*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX12T3	SCGX11T308	0,19 *0.007*	0,5 *0.020*
SD522-41-82-50R2	03080827	41,0 *1.614*	82,0 *3.228*	143,0 *5.630*	87,0 *3.425*	112,0 *4.409*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX12T3	SCGX120408	0,19 *0.007*	0,5 *0.020*
SD522-42-84-50R2	03080829	42,0 *1.654*	84,0 *3.307*	145,0 *5.709*	89,0 *3.504*	114,0 *4.488*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX12T3	SCGX120408	0,19 *0.007*	0,5 *0.020*
SD522-43-86-50R2	03081067	43,0 *1.693*	86,0 *3.386*	147,0 *5.787*	91,0 *3.583*	116,0 *4.567*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX12T3	SCGX120408	0,05 *0.002*	0,5 *0.020*
SD522-44.45-89-50R2	03080831	44,45 *1.750*	89,0 *3.504*	150,0 *5.906*	94,0 *3.701*	119,0 *4.685*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX1504	SCGX120408	0,5 *0.020*	0,41 *0.016*

Spare Parts, included in delivery

For drill dia. (mm)	Insert screw		Insert key
			
	Center insert	Periph insert	
15,00-17,45	C02245-T07P	C02245-T07P	T07P-2
17,46-19,49	C02205-T07P	C02245-T07P	T07P-2
19,50-21,24	C02205-T07P	C02205-T07P	T07P-2
21,25-22,49	C02506-T08P	C02506-T08P	T08P-2
22,50-25,49	C02507-T08P	C03007-T08P	T08P-2
25,50-28,49	C03007-T09P	C03007-T09P	T09P-2
28,50-31,49	C03007-T09P	C03009-T09P	T09P-2
31,50-40,49	C03508-T15P	C03508-T15P	T15P-2D
40,50-43,24	C03508-T15P	C05012-T15P	T15P-2D
43,25-59,00	C04011-T15P	C05012-T15P	T15P-2D

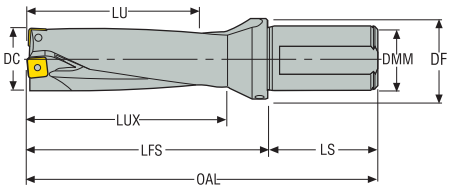
Accessories

For drill dia. (mm)	Torque wrench*	Replacement blade	Torque value
			
15,00-17,45	T00-07P09	T00-07P	0,9 Nm
17,46-19,49	T00-07P09	T00-07P	0,9 Nm
19,50-21,24	T00-07P09	T00-07P	0,9 Nm
21,25-22,49	T00-08P12	T00-08P	1,2 Nm
22,50-25,49	T00-08P12	T00-08P	1,2 Nm
25,50-28,49	T00-09P20	T00-09P	2,0 Nm
28,50-31,49	T00-09P20	T00-09P	2,0 Nm
31,50-40,49	T00-15P30	T00-15P	3,0 Nm
40,50-43,24	T00-15P30	T00-15P	3,0 Nm
43,25-59,00	T00-15P30	T00-15P	3,0 Nm

*Including blade.

SD523

Drilling depth ~ 3 x D – Metric/Inch





- ISO 9766 shank, -7
- Internal coolant
- For insert information see page(s) 297-303
- For cutting data see page(s) 306-307
- For intermediate diameters see the MyDesign software.

Designation	Item number	DC	LU	OAL	LUX	LFS	LS	DMM	DF	Insert		Radial adjustment	
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	Center insert	Periph insert	mm - *Inch -*	mm + *Inch +*
SD523-15-45-20R7	03080548	15,0 *0.591*	45,0 *1.772*	125,0 *4.921*	50,0 *1.969*	75,0 *2.953*	50,0 *1.969*	20,0 *0.787*	30,0 *1.181*	SPGX0502	SCGX050204	0,22 *0.009*	0,31 *0.012*
SD523-15-45-25R7	03080549	15,0 *0.591*	45,0 *1.772*	131,0 *5.157*	50,0 *1.969*	75,0 *2.953*	56,0 *2.205*	25,0 *0.984*	35,0 *1.378*	SPGX0502	SCGX050204	0,22 *0.009*	0,31 *0.012*
SD523-15.5-47-20R7	03080544	15,5 *0.610*	47,0 *1.850*	127,0 *5.000*	52,0 *2.047*	77,0 *3.031*	50,0 *1.969*	20,0 *0.787*	30,0 *1.181*	SPGX0502	SCGX050204	0,17 *0.007*	0,36 *0.014*
SD523-15.5-47-25R7	03080545	15,5 *0.610*	47,0 *1.850*	133,0 *5.236*	52,0 *2.047*	77,0 *3.031*	56,0 *2.205*	25,0 *0.984*	35,0 *1.378*	SPGX0502	SCGX050204	0,17 *0.007*	0,36 *0.014*
SD523-16-48-20R7	03080557	16,0 *0.630*	48,0 *1.890*	128,0 *5.039*	53,0 *2.087*	78,0 *3.071*	50,0 *1.969*	20,0 *0.787*	30,0 *1.181*	SPGX0502	SCGX050204	0,12 *0.005*	0,41 *0.016*
SD523-16-48-25R7	03080558	16,0 *0.630*	48,0 *1.890*	134,0 *5.276*	53,0 *2.087*	78,0 *3.071*	56,0 *2.205*	25,0 *0.984*	35,0 *1.378*	SPGX0502	SCGX050204	0,12 *0.005*	0,41 *0.016*
SD523-16.5-50-20R7	03080552	16,5 *0.650*	50,0 *1.969*	130,0 *5.118*	55,0 *2.165*	80,0 *3.150*	50,0 *1.969*	20,0 *0.787*	30,0 *1.181*	SPGX0502	SCGX050204	0,07 *0.003*	0,46 *0.018*
SD523-16.5-50-25R7	03080554	16,5 *0.650*	50,0 *1.969*	136,0 *5.354*	55,0 *2.165*	80,0 *3.150*	56,0 *2.205*	25,0 *0.984*	35,0 *1.378*	SPGX0502	SCGX050204	0,07 *0.003*	0,46 *0.018*
SD523-17-51-20R7	03080568	17,0 *0.669*	51,0 *2.008*	131,0 *5.157*	56,0 *2.205*	81,0 *3.189*	50,0 *1.969*	20,0 *0.787*	30,0 *1.181*	SPGX0502	SCGX050204	0,02 *0.001*	0,5 *0.020*
SD523-17-51-25R7	03080569	17,0 *0.669*	51,0 *2.008*	137,0 *5.394*	56,0 *2.205*	81,0 *3.189*	56,0 *2.205*	25,0 *0.984*	35,0 *1.378*	SPGX0502	SCGX050204	0,02 *0.001*	0,5 *0.020*
SD523-17.5-53-20R7	03080562	17,5 *0.689*	53,0 *2.087*	133,0 *5.236*	58,0 *2.283*	83,0 *3.268*	50,0 *1.969*	20,0 *0.787*	30,0 *1.181*	SPGX0602	SCGX050204	0,43 *0.017*	0,1 *0.004*
SD523-17.5-53-25R7	03080563	17,5 *0.689*	53,0 *2.087*	139,0 *5.472*	58,0 *2.283*	83,0 *3.268*	56,0 *2.205*	25,0 *0.984*	35,0 *1.378*	SPGX0602	SCGX050204	0,43 *0.017*	0,1 *0.004*
SD523-18-54-20R7	03080574	18,0 *0.709*	54,0 *2.126*	134,0 *5.276*	59,0 *2.323*	84,0 *3.307*	50,0 *1.969*	20,0 *0.787*	30,0 *1.181*	SPGX0602	SCGX050204	0,32 *0.013*	0,21 *0.008*
SD523-18-54-25R7	03080575	18,0 *0.709*	54,0 *2.126*	140,0 *5.512*	59,0 *2.323*	84,0 *3.307*	56,0 *2.205*	25,0 *0.984*	35,0 *1.378*	SPGX0602	SCGX050204	0,32 *0.013*	0,21 *0.008*
SD523-18.5-56-20R7	03080570	18,5 *0.728*	56,0 *2.205*	136,0 *5.354*	61,0 *2.402*	86,0 *3.386*	50,0 *1.969*	20,0 *0.787*	30,0 *1.181*	SPGX0602	SCGX050204	0,22 *0.009*	0,31 *0.012*
SD523-18.5-56-25R7	03080571	18,5 *0.728*	56,0 *2.205*	142,0 *5.591*	61,0 *2.402*	86,0 *3.386*	56,0 *2.205*	25,0 *0.984*	35,0 *1.378*	SPGX0602	SCGX050204	0,22 *0.009*	0,31 *0.012*
SD523-19-57-20R7	03080583	19,0 *0.748*	57,0 *2.244*	137,0 *5.394*	62,0 *2.441*	87,0 *3.425*	50,0 *1.969*	20,0 *0.787*	30,0 *1.181*	SPGX0602	SCGX050204	0,11 *0.004*	0,42 *0.017*
SD523-19-57-25R7	03080584	19,0 *0.748*	57,0 *2.244*	143,0 *5.630*	62,0 *2.441*	87,0 *3.425*	56,0 *2.205*	25,0 *0.984*	35,0 *1.378*	SPGX0602	SCGX050204	0,11 *0.004*	0,42 *0.017*
SD523-19.5-59-20R7	03080579	19,5 *0.768*	59,0 *2.323*	139,0 *5.472*	64,0 *2.520*	89,0 *3.504*	50,0 *1.969*	20,0 *0.787*	30,0 *1.181*	SPGX0602	SCGX060204	0,11 *0.004*	0,42 *0.017*
SD523-19.5-59-25R7	03080580	19,5 *0.768*	59,0 *2.323*	145,0 *5.709*	64,0 *2.520*	89,0 *3.504*	56,0 *2.205*	25,0 *0.984*	35,0 *1.378*	SPGX0602	SCGX060204	0,11 *0.004*	0,42 *0.017*
SD523-20-60-25R7	03080590	20,0 *0.787*	60,0 *2.362*	146,0 *5.748*	65,0 *2.559*	90,0 *3.543*	56,0 *2.205*	25,0 *0.984*	35,0 *1.378*	SPGX0602	SCGX060204	0,07 *0.003*	0,46 *0.018*
SD523-20.5-62-25R7	03080586	20,5 *0.807*	62,0 *2.441*	148,0 *5.827*	67,0 *2.638*	92,0 *3.622*	56,0 *2.205*	25,0 *0.984*	35,0 *1.378*	SPGX0602	SCGX060204	0,04 *0.002*	0,49 *0.019*

Designation	Item number	DC	LU	OAL	LUX	LFS	LS	DMM	DF	Insert		Radial adjustment	
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	Center insert	Periph insert	mm - *Inch -*	mm + *Inch +*
SD523-21-63-25R7	03080599	21,0 *0.827*	63,0 *2.480*	149,0 *5.866*	68,0 *2.677*	93,0 *3.661*	56,0 *2.205*	25,0 *0.984*	35,0 *1.378*	SPGX0602	SCGX060204	0,01 *0*	0,5 *0.020*
SD523-21.5-65-25R7	03080595	21,5 *0.846*	65,0 *2.559*	151,0 *5.945*	70,0 *2.756*	95,0 *3.740*	56,0 *2.205*	25,0 *0.984*	35,0 *1.378*	SPGX0703	SCGX060204	0,5 *0.020*	0,36 *0.014*
SD523-22-66-25R7	03080605	22,0 *0.866*	66,0 *2.598*	152,0 *5.984*	71,0 *2.795*	96,0 *3.780*	56,0 *2.205*	25,0 *0.984*	35,0 *1.378*	SPGX0703	SCGX060204	0,44 *0.017*	0,46 *0.018*
SD523-22.5-68-25R7	03080602	22,5 *0.886*	68,0 *2.677*	154,0 *6.063*	73,0 *2.874*	98,0 *3.858*	56,0 *2.205*	25,0 *0.984*	35,0 *1.378*	SPGX0703	SCGX070308	0,42 *0.017*	0,47 *0.019*
SD523-23-69-25R7	03080608	23,0 *0.906*	69,0 *2.717*	155,0 *6.102*	74,0 *2.913*	99,0 *3.898*	56,0 *2.205*	25,0 *0.984*	35,0 *1.378*	SPGX0703	SCGX070308	0,33 *0.013*	0,5 *0.020*
SD523-23.5-71-25R7	03080607	23,5 *0.925*	71,0 *2.795*	157,0 *6.181*	76,0 *2.992*	101,0 *3.976*	56,0 *2.205*	25,0 *0.984*	35,0 *1.378*	SPGX0703	SCGX070308	0,23 *0.009*	0,5 *0.020*
SD523-24-72-25R7	03080612	24,0 *0.945*	72,0 *2.835*	158,0 *6.220*	77,0 *3.031*	102,0 *4.016*	56,0 *2.205*	25,0 *0.984*	35,0 *1.378*	SPGX0703	SCGX070308	0,11 *0.004*	0,5 *0.020*
SD523-24.5-74-25R7	03080611	24,5 *0.965*	74,0 *2.913*	160,0 *6.299*	79,0 *3.110*	104,0 *4.094*	56,0 *2.205*	25,0 *0.984*	35,0 *1.378*	SPGX0703	SCGX070308	0,11 *0.004*	0,5 *0.020*
SD523-25-75-32R7	03080616	25,0 *0.984*	75,0 *2.953*	165,0 *6.496*	80,0 *3.150*	105,0 *4.134*	60,0 *2.362*	32,0 *1.260*	42,0 *1.654*	SPGX0703	SCGX070308	0,11 *0.004*	0,5 *0.020*
SD523-25.5-77-32R7	03080615	25,5 *1.004*	77,0 *3.031*	167,0 *6.575*	82,0 *3.228*	107,0 *4.213*	60,0 *2.362*	32,0 *1.260*	42,0 *1.654*	SPGX0903	SCGX070308	0,5 *0.020*	0,11 *0.004*
SD523-26-78-32R7	03080619	26,0 *1.024*	78,0 *3.071*	168,0 *6.614*	83,0 *3.268*	108,0 *4.252*	60,0 *2.362*	32,0 *1.260*	42,0 *1.654*	SPGX0903	SCGX070308	0,5 *0.020*	0,11 *0.004*
SD523-26.5-80-32R7	03080618	26,5 *1.043*	80,0 *3.150*	170,0 *6.693*	85,0 *3.346*	110,0 *4.331*	60,0 *2.362*	32,0 *1.260*	42,0 *1.654*	SPGX0903	SCGX070308	0,5 *0.020*	0,19 *0.007*
SD523-27-81-32R7	03080622	27,0 *1.063*	81,0 *3.189*	171,0 *6.732*	86,0 *3.386*	111,0 *4.370*	60,0 *2.362*	32,0 *1.260*	42,0 *1.654*	SPGX0903	SCGX070308	0,5 *0.020*	0,26 *0.010*
SD523-27.5-83-32R7	03080621	27,5 *1.083*	83,0 *3.268*	173,0 *6.811*	88,0 *3.465*	113,0 *4.449*	60,0 *2.362*	32,0 *1.260*	42,0 *1.654*	SPGX0903	SCGX070308	0,46 *0.018*	0,44 *0.017*
SD523-28-84-32R7	03080626	28,0 *1.102*	84,0 *3.307*	174,0 *6.850*	89,0 *3.504*	114,0 *4.488*	60,0 *2.362*	32,0 *1.260*	42,0 *1.654*	SPGX0903	SCGX070308	0,28 *0.011*	0,5 *0.020*
SD523-28.5-86-32R7	03080624	28,5 *1.122*	86,0 *3.386*	176,0 *6.929*	91,0 *3.583*	116,0 *4.567*	60,0 *2.362*	32,0 *1.260*	42,0 *1.654*	SPGX0903	SCGX09T308	0,21 *0.008*	0,5 *0.020*
SD523-29-87-32R7	03080629	29,0 *1.142*	87,0 *3.425*	177,0 *6.969*	92,0 *3.622*	117,0 *4.606*	60,0 *2.362*	32,0 *1.260*	42,0 *1.654*	SPGX0903	SCGX09T308	0,18 *0.007*	0,5 *0.020*
SD523-29.5-89-32R7	03080628	29,5 *1.161*	89,0 *3.504*	179,0 *7.047*	94,0 *3.701*	119,0 *4.685*	60,0 *2.362*	32,0 *1.260*	42,0 *1.654*	SPGX0903	SCGX09T308	0,15 *0.006*	0,5 *0.020*
SD523-30-90-32R7	03080632	30,0 *1.181*	90,0 *3.543*	180,0 *7.087*	95,0 *3.740*	120,0 *4.724*	60,0 *2.362*	32,0 *1.260*	42,0 *1.654*	SPGX0903	SCGX09T308	0,12 *0.005*	0,5 *0.020*
SD523-30.5-92-32R7	03080631	30,5 *1.201*	92,0 *3.622*	182,0 *7.165*	97,0 *3.819*	122,0 *4.803*	60,0 *2.362*	32,0 *1.260*	42,0 *1.654*	SPGX0903	SCGX09T308	0,12 *0.005*	0,5 *0.020*
SD523-31-93-32R7	03080636	31,0 *1.220*	93,0 *3.661*	183,0 *7.205*	98,0 *3.858*	123,0 *4.843*	60,0 *2.362*	32,0 *1.260*	42,0 *1.654*	SPGX0903	SCGX09T308	0,12 *0.005*	0,5 *0.020*
SD523-31.5-95-32R7	03080634	31,5 *1.240*	95,0 *3.740*	185,0 *7.283*	100,0 *3.937*	125,0 *4.921*	60,0 *2.362*	32,0 *1.260*	42,0 *1.654*	SPGX11T3	SCGX09T308	0,5 *0.020*	0,24 *0.009*
SD523-32-96-32R7	03080638	32,0 *1.260*	96,0 *3.780*	186,0 *7.323*	101,0 *3.976*	126,0 *4.961*	60,0 *2.362*	32,0 *1.260*	42,0 *1.654*	SPGX11T3	SCGX09T308	0,5 *0.020*	0,31 *0.012*
SD523-32-96-40R7	03080639	32,0 *1.260*	96,0 *3.780*	194,0 *7.638*	101,0 *3.976*	126,0 *4.961*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX11T3	SCGX09T308	0,5 *0.020*	0,31 *0.012*
SD523-33-99-32R7	03080641	33,0 *1.299*	99,0 *3.898*	189,0 *7.441*	104,0 *4.094*	129,0 *5.079*	60,0 *2.362*	32,0 *1.260*	42,0 *1.654*	SPGX11T3	SCGX09T308	0,5 *0.020*	0,46 *0.018*
SD523-33-99-40R7	03080642	33,0 *1.299*	99,0 *3.898*	197,0 *7.756*	104,0 *4.094*	129,0 *5.079*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX11T3	SCGX09T308	0,5 *0.020*	0,46 *0.018*
SD523-34-102-32R7	03080644	34,0 *1.339*	102,0 *4.016*	192,0 *7.559*	107,0 *4.213*	132,0 *5.197*	60,0 *2.362*	32,0 *1.260*	42,0 *1.654*	SPGX11T3	SCGX09T308	0,22 *0.009*	0,5 *0.020*
SD523-34-102-40R7	03080645	34,0 *1.339*	102,0 *4.016*	200,0 *7.874*	107,0 *4.213*	132,0 *5.197*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX11T3	SCGX09T308	0,22 *0.009*	0,5 *0.020*
SD523-35-105-32R7	03080648	35,0 *1.378*	105,0 *4.134*	195,0 *7.677*	110,0 *4.331*	135,0 *5.315*	60,0 *2.362*	32,0 *1.260*	42,0 *1.654*	SPGX11T3	SCGX11T308	0,22 *0.009*	0,5 *0.020*
SD523-35-105-40R7	03080649	35,0 *1.378*	105,0 *4.134*	203,0 *7.992*	110,0 *4.331*	135,0 *5.315*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX11T3	SCGX11T308	0,22 *0.009*	0,5 *0.020*
SD523-35.5-107-40R7	03080647	35,5 *1.398*	107,0 *4.213*	205,0 *8.071*	112,0 *4.409*	137,0 *5.394*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX11T3	SCGX11T308	0,09 *0.004*	0,5 *0.020*

Designation	Item number	DC	LU	OAL	LUX	LFS	LS	DMM	DF	Insert		Radial adjustment	
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	Center insert	Periph insert	mm - *Inch -*	mm + *Inch +*
SD523-36-108-32R7	03080651	36,0 *1.417*	108,0 *4.252*	198,0 *7.795*	113,0 *4.449*	138,0 *5.433*	60,0 *2.362*	32,0 *1.260*	42,0 *1.654*	SPGX11T3	SCGX11T308	0,09 *0.004*	0,5 *0.020*
SD523-36-108-40R7	03080652	36,0 *1.417*	108,0 *4.252*	206,0 *8.110*	113,0 *4.449*	138,0 *5.433*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX11T3	SCGX11T308	0,09 *0.004*	0,5 *0.020*
SD523-37-111-32R7	03080653	37,0 *1.457*	111,0 *4.370*	201,0 *7.913*	116,0 *4.567*	141,0 *5.551*	60,0 *2.362*	32,0 *1.260*	42,0 *1.654*	SPGX11T3	SCGX11T308	0,09 *0.004*	0,5 *0.020*
SD523-37-111-40R7	03080654	37,0 *1.457*	111,0 *4.370*	209,0 *8.228*	116,0 *4.567*	141,0 *5.551*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX11T3	SCGX11T308	0,09 *0.004*	0,5 *0.020*
SD523-38-114-32R7	03080655	38,0 *1.496*	114,0 *4.488*	204,0 *8.031*	119,0 *4.685*	144,0 *5.669*	60,0 *2.362*	32,0 *1.260*	42,0 *1.654*	SPGX12T3	SCGX11T308	0,5 *0.020*	0,5 *0.020*
SD523-38-114-40R7	03080656	38,0 *1.496*	114,0 *4.488*	212,0 *8.346*	119,0 *4.685*	144,0 *5.669*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX12T3	SCGX11T308	0,5 *0.020*	0,5 *0.020*
SD523-39-117-32R7	03080658	39,0 *1.535*	117,0 *4.606*	207,0 *8.150*	122,0 *4.803*	147,0 *5.787*	60,0 *2.362*	32,0 *1.260*	42,0 *1.654*	SPGX12T3	SCGX11T308	0,39 *0.015*	0,5 *0.020*
SD523-39-117-40R7	03080659	39,0 *1.535*	117,0 *4.606*	215,0 *8.465*	122,0 *4.803*	147,0 *5.787*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX12T3	SCGX11T308	0,39 *0.015*	0,5 *0.020*
SD523-40-120-32R7	03080661	40,0 *1.575*	120,0 *4.724*	210,0 *8.268*	125,0 *4.921*	150,0 *5.906*	60,0 *2.362*	32,0 *1.260*	50,0 *1.969*	SPGX12T3	SCGX11T308	0,19 *0.007*	0,5 *0.020*
SD523-40-120-40R7	03080662	40,0 *1.575*	120,0 *4.724*	218,0 *8.583*	125,0 *4.921*	150,0 *5.906*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX12T3	SCGX11T308	0,19 *0.007*	0,5 *0.020*
SD523-41-123-40R7	03080665	41,0 *1.614*	123,0 *4.843*	221,0 *8.701*	128,0 *5.039*	153,0 *6.024*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX12T3	SCGX120408	0,19 *0.007*	0,5 *0.020*
SD523-41.5-125-40R7	03080663	41,5 *1.634*	125,0 *4.921*	223,0 *8.780*	130,0 *5.118*	155,0 *6.102*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX12T3	SCGX120408	0,19 *0.007*	0,5 *0.020*
SD523-42-126-40R7	03080666	42,0 *1.654*	126,0 *4.961*	224,0 *8.819*	131,0 *5.157*	156,0 *6.142*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX12T3	SCGX120408	0,19 *0.007*	0,5 *0.020*
SD523-43-129-40R7	03080667	43,0 *1.693*	129,0 *5.079*	227,0 *8.937*	134,0 *5.276*	159,0 *6.260*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX12T3	SCGX120408	0,05 *0.002*	0,5 *0.020*
SD523-44-132-40R7	03080670	44,0 *1.732*	132,0 *5.197*	230,0 *9.055*	137,0 *5.394*	162,0 *6.378*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX1504	SCGX120408	0,5 *0.020*	0,41 *0.016*
SD523-44.5-134-40R7	03080669	44,5 *1.752*	134,0 *5.276*	232,0 *9.134*	139,0 *5.472*	164,0 *6.457*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX1504	SCGX150512	0,5 *0.020*	0,41 *0.016*
SD523-45-135-40R7	03080672	45,0 *1.772*	135,0 *5.315*	233,0 *9.173*	140,0 *5.512*	165,0 *6.496*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX1504	SCGX150512	0,5 *0.020*	0,41 *0.016*
SD523-46-138-40R7	03080673	46,0 *1.811*	138,0 *5.433*	236,0 *9.291*	143,0 *5.630*	168,0 *6.614*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX1504	SCGX150512	0,5 *0.020*	0,5 *0.020*
SD523-47-141-40R7	03080675	47,0 *1.850*	141,0 *5.551*	239,0 *9.409*	146,0 *5.748*	171,0 *6.732*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX1504	SCGX150512	0,5 *0.020*	0,5 *0.020*
SD523-47.5-143-40R7	03080674	47,5 *1.870*	143,0 *5.630*	241,0 *9.488*	148,0 *5.827*	173,0 *6.811*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX1504	SCGX150512	0,5 *0.020*	0,5 *0.020*
SD523-48-144-40R7	03080676	48,0 *1.890*	144,0 *5.669*	242,0 *9.528*	149,0 *5.866*	174,0 *6.850*	68,0 *2.677*	40,0 *1.575*	59,35 *2.337*	SPGX1504	SCGX150512	0,45 *0.018*	0,5 *0.020*
SD523-49-147-40R7	03080677	49,0 *1.929*	147,0 *5.787*	245,0 *9.646*	152,0 *5.984*	177,0 *6.969*	68,0 *2.677*	40,0 *1.575*	59,35 *2.337*	SPGX1504	SCGX150512	0,2 *0.008*	0,5 *0.020*
SD523-50-150-40R7	03080678	50,0 *1.969*	150,0 *5.906*	248,0 *9.764*	155,0 *6.102*	180,0 *7.087*	68,0 *2.677*	40,0 *1.575*	59,35 *2.337*	SPGX1504	SCGX150512	0,2 *0.008*	0,5 *0.020*
SD523-51-153-40R7	03080679	51,0 *2.008*	153,0 *6.024*	251,0 *9.882*	158,0 *6.220*	183,0 *7.205*	68,0 *2.677*	40,0 *1.575*	59,35 *2.337*	SPGX1504	SCGX150512	0,2 *0.008*	0,5 *0.020*
SD523-52-156-40R7	03080680	52,0 *2.047*	156,0 *6.142*	254,0 *10.000*	161,0 *6.339*	186,0 *7.323*	68,0 *2.677*	40,0 *1.575*	59,35 *2.337*	SPGX1904	SCGX150512	0,5 *0.020*	0,42 *0.017*
SD523-53-159-40R7	03080681	53,0 *2.087*	159,0 *6.260*	257,0 *10.118*	164,0 *6.457*	189,0 *7.441*	68,0 *2.677*	40,0 *1.575*	59,35 *2.337*	SPGX1904	SCGX150512	0,5 *0.020*	0,42 *0.017*
SD523-54-162-40R7	03080682	54,0 *2.126*	162,0 *6.378*	260,0 *10.236*	167,0 *6.575*	192,0 *7.559*	68,0 *2.677*	40,0 *1.575*	59,35 *2.337*	SPGX1904	SCGX150512	0,5 *0.020*	0,5 *0.020*
SD523-55-165-40R7	03080683	55,0 *2.165*	165,0 *6.496*	263,0 *10.354*	170,0 *6.693*	195,0 *7.677*	68,0 *2.677*	40,0 *1.575*	59,35 *2.337*	SPGX1904	SCGX150512	0,5 *0.020*	0,5 *0.020*
SD523-56-168-40R7	03080684	56,0 *2.205*	168,0 *6.614*	266,0 *10.472*	173,0 *6.811*	198,0 *7.795*	68,0 *2.677*	40,0 *1.575*	59,35 *2.337*	SPGX1904	SCGX150512	0,5 *0.020*	0,5 *0.020*
SD523-57-171-40R7	03080685	57,0 *2.244*	171,0 *6.732*	269,0 *10.591*	176,0 *6.929*	201,0 *7.913*	68,0 *2.677*	40,0 *1.575*	59,35 *2.337*	SPGX1904	SCGX150512	0,39 *0.015*	0,5 *0.020*

Designation	Item number	DC	LU	OAL	LUX	LFS	LS	DMM	DF	Insert		Radial adjustment	
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	Center insert	Periph insert	mm - *Inch -*	mm + *Inch +*
SD523-58-174-40R7	03080686	58,0 *2.283*	174,0 *6.850*	272,0 *10.709*	179,0 *7.047*	204,0 *8.031*	68,0 *2.677*	40,0 *1.575*	63,0 *2.480*	SPGX1904	SCGX150512	0,09 *0.004*	0,5 *0.020*
SD523-59-177-40R7	03080687	59,0 *2.323*	177,0 *6.969*	275,0 *10.827*	182,0 *7.165*	207,0 *8.150*	68,0 *2.677*	40,0 *1.575*	63,0 *2.480*	SPGX1904	SCGX150512	0,09 *0.004*	0,5 *0.020*

Spare Parts, included in delivery

For drill dia. (mm)	Insert screw		Insert key
			
	Center insert	Periph insert	
15,00-17,45	C02245-T07P	C02245-T07P	T07P-2
17,46-19,49	C02205-T07P	C02245-T07P	T07P-2
19,50-21,24	C02205-T07P	C02205-T07P	T07P-2
21,25-22,49	C02506-T08P	C02506-T08P	T08P-2
22,50-25,49	C02507-T08P	C03007-T08P	T08P-2
25,50-28,49	C03007-T09P	C03007-T09P	T09P-2
28,50-31,49	C03007-T09P	C03009-T09P	T09P-2
31,50-40,49	C03508-T15P	C03508-T15P	T15P-2D
40,50-43,24	C03508-T15P	C05012-T15P	T15P-2D
43,25-59,00	C04011-T15P	C05012-T15P	T15P-2D

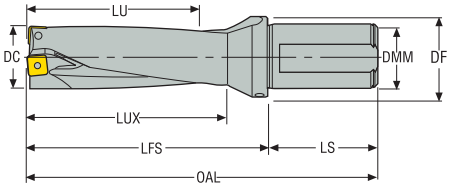
Accessories

For drill dia. (mm)	Torque wrench*	Replacement blade	Torque value
			
15,00-17,45	T00-07P09	T00-07P	0,9 Nm
17,46-19,49	T00-07P09	T00-07P	0,9 Nm
19,50-21,24	T00-07P09	T00-07P	0,9 Nm
21,25-22,49	T00-08P12	T00-08P	1,2 Nm
22,50-25,49	T00-08P12	T00-08P	1,2 Nm
25,50-28,49	T00-09P20	T00-09P	2,0 Nm
28,50-31,49	T00-09P20	T00-09P	2,0 Nm
31,50-40,49	T00-15P30	T00-15P	3,0 Nm
40,50-43,24	T00-15P30	T00-15P	3,0 Nm
43,25-59,00	T00-15P30	T00-15P	3,0 Nm

*Including blade.

SD523

Drilling depth ~ 3 x D – Inch





- ISO 9766 shank, -7
- Internal coolant
- For insert information see page(s) 297-303
- For cutting data see page(s) 306-307
- For intermediate diameters see the MyDesign software.

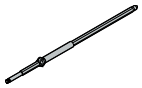
Designation	Item number	DC	LU	OAL	LUX	LFS	LS	DMM	DF	Insert		Radial adjustment	
		Inch	Inch	Inch	Inch	Inch	Inch	Inch	Inch	Center insert	Periph insert	Inch -	Inch +
SD523-0562-169-1000R7	03080485	0.562	1.686	5.117	1.883	2.867	2.250	1.000	1.378	SPGX0502	SCGX050204	0.011	0.009
SD523-0594-178-1000R7	03080486	0.594	1.780	5.211	1.977	2.961	2.250	1.000	1.378	SPGX0502	SCGX050204	0.008	0.013
SD523-0625-188-1000R7	03080488	0.625	1.880	5.311	2.077	3.061	2.250	1.000	1.378	SPGX0502	SCGX050204	0.005	0.015
SD523-0656-197-1000R7	03080490	0.656	1.970	5.401	2.167	3.151	2.250	1.000	1.378	SPGX0502	SCGX050204	0.002	0.019
SD523-0687-206-1000R7	03080493	0.687	2.030	5.461	2.227	3.211	2.250	1.000	1.378	SPGX0502	SCGX050204	0	0.020
SD523-0709-213-1000R7	03080494	0.709	2.130	5.561	2.327	3.311	2.250	1.000	1.378	SPGX0602	SCGX050204	0.013	0.008
SD523-0750-225-1000R7	03080497	0.750	2.250	5.681	2.447	3.431	2.250	1.000	1.378	SPGX0602	SCGX050204	0.004	0.017
SD523-0766-230-1000R7	03080499	0.766	2.300	5.731	2.497	3.481	2.250	1.000	1.378	SPGX0602	SCGX050204	0.001	0.020
SD523-0787-236-1000R7	03080501	0.787	2.360	5.791	2.557	3.541	2.250	1.000	1.378	SPGX0602	SCGX060204	0.003	0.018
SD523-0812-244-1000R7	03080503	0.812	2.440	5.871	2.637	3.621	2.250	1.000	1.378	SPGX0602	SCGX060204	0.001	0.020
SD523-0827-248-1000R7	03080505	0.827	2.480	5.911	2.677	3.661	2.250	1.000	1.378	SPGX0602	SCGX060204	0	0.020
SD523-0875-263-1000R7	03080507	0.875	2.630	6.061	2.827	3.811	2.250	1.000	1.378	SPGX0703	SCGX060204	0.015	0.020
SD523-0906-272-1000R7	03080509	0.906	2.720	6.151	2.917	3.901	2.250	1.000	1.378	SPGX0703	SCGX070308	0.013	0.020
SD523-0922-276-1000R7	03080512	0.922	2.760	6.191	2.957	3.941	2.250	1.000	1.378	SPGX0703	SCGX070308	0.010	0.020
SD523-0937-281-1000R7	03080514	0.937	2.810	6.241	3.007	3.991	2.250	1.000	1.378	SPGX0703	SCGX070308	0.004	0.020
SD523-0984-295-1250R7	03080516	0.984	2.950	6.506	3.147	4.131	2.375	1.250	1.654	SPGX0703	SCGX070308	0.004	0.020
SD523-1000-300-1250R7	03080518	1.000	3.000	6.556	3.197	4.181	2.375	1.250	1.654	SPGX0703	SCGX070308	0.004	0.020
SD523-1032-310-1250R7	03080521	1.032	3.100	6.656	3.297	4.281	2.375	1.250	1.654	SPGX0903	SCGX070308	0.020	0.004
SD523-1062-319-1250R7	03080522	1.062	3.190	6.746	3.387	4.371	2.375	1.250	1.654	SPGX0903	SCGX070308	0.020	0.010
SD523-1109-332-1250R7	03080525	1.109	3.320	6.876	3.517	4.501	2.375	1.250	1.654	SPGX0903	SCGX070308	0.009	0.020
SD523-1125-338-1250R7	03080526	1.125	3.380	6.936	3.577	4.561	2.375	1.250	1.654	SPGX0903	SCGX09T308	0.008	0.020
SD523-1172-351-1250R7	03080528	1.172	3.510	7.066	3.707	4.691	2.375	1.250	1.654	SPGX0903	SCGX09T308	0.005	0.020
SD523-1187-356-1250R7	03080530	1.187	3.560	7.116	3.757	4.741	2.375	1.250	1.654	SPGX0903	SCGX09T308	0.005	0.020
SD523-1250-375-1500R7	03080533	1.250	3.750	7.556	3.947	4.931	2.625	1.500	1.969	SPGX11T3	SCGX09T308	0.020	0.011
SD523-1312-394-1500R7	03080535	1.312	3.940	7.746	4.137	5.121	2.625	1.500	1.969	SPGX11T3	SCGX09T308	0.020	0.020
SD523-1344-403-1500R7	03080537	1.344	4.030	7.836	4.227	5.211	2.625	1.500	1.969	SPGX11T3	SCGX09T308	0.006	0.020
SD523-1375-413-1500R7	03080539	1.375	4.130	7.936	4.327	5.311	2.625	1.500	1.969	SPGX11T3	SCGX11T308	0.009	0.020
SD523-1422-426-1500R7	03080541	1.422	4.260	8.066	4.457	5.441	2.625	1.500	1.969	SPGX11T3	SCGX11T308	0.004	0.020
SD523-1437-431-1500R7	03080542	1.437	4.310	8.116	4.507	5.491	2.625	1.500	1.969	SPGX11T3	SCGX11T308	0.004	0.020
SD523-1500-450-1500R7	03080547	1.500	4.500	8.306	4.697	5.681	2.625	1.500	1.969	SPGX12T3	SCGX11T308	0.020	0.020
SD523-1562-469-1500R7	03080550	1.562	4.690	8.496	4.887	5.871	2.625	1.500	1.969	SPGX12T3	SCGX11T308	0.010	0.020
SD523-1625-488-1500R7	03080555	1.625	4.880	8.686	5.077	6.061	2.625	1.500	1.969	SPGX12T3	SCGX120408	0.007	0.020
SD523-1687-506-1500R7	03080560	1.687	5.060	8.866	5.257	6.241	2.625	1.500	1.969	SPGX12T3	SCGX120408	0.004	0.020
SD523-1750-525-1500R7	03080565	1.750	5.250	9.056	5.447	6.431	2.625	1.500	1.969	SPGX1504	SCGX120408	0.020	0.016
SD523-1812-544-1500R7	03080572	1.812	5.440	9.246	5.637	6.621	2.625	1.500	1.969	SPGX1504	SCGX150512	0.020	0.020
SD523-1875-563-1500R7	03080577	1.875	5.630	9.436	5.827	6.811	2.625	1.500	1.969	SPGX1504	SCGX150512	0.020	0.020

Designation	Item number	DC	LU	OAL	LUX	LFS	LS	DMM	DF	Insert		Radial adjustment	
		Inch	*Inch*	*Inch*	*Inch*	*Inch*	*Inch*	*Inch*	*Inch*	Center insert	Periph insert	*Inch -*	*Inch +*
SD523-1937-581-1500R7	03080581	*1.937*	*5.810*	*9.616*	*6.007*	*6.991*	*2.625*	*1.500*	*2.337*	SPGX1504	SCGX150512	*0.008*	*0.020*
SD523-2000-600-1500R7	03080588	*2.000*	*6.000*	*9.806*	*6.197*	*7.181*	*2.625*	*1.500*	*2.337*	SPGX1504	SCGX150512	*0.008*	*0.020*
SD523-2062-619-1500R7	03080593	*2.062*	*6.190*	*9.996*	*6.387*	*7.371*	*2.625*	*1.500*	*2.337*	SPGX1904	SCGX150512	*0.020*	*0.017*
SD523-2125-638-1500R7	03080596	*2.125*	*6.380*	*10.186*	*6.577*	*7.561*	*2.625*	*1.500*	*2.337*	SPGX1904	SCGX150512	*0.020*	*0.020*
SD523-2250-675-1500R7	03080603	*2.250*	*6.750*	*10.556*	*6.947*	*7.931*	*2.625*	*1.500*	*2.337*	SPGX1904	SCGX150512	*0.013*	*0.020*
SD523-2375-713-1500R7	03080609	*2.375*	*7.130*	*10.936*	*7.327*	*8.311*	*2.625*	*1.500*	*2.480*	SPGX1904	SCGX150512	*0.004*	*0.020*

Spare Parts, included in delivery

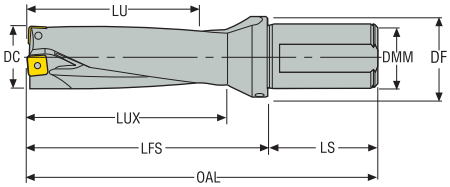
For drill dia. (inch)	Insert screw centre	Insert screw periph	Key
			
0.562-0.687	C02245-T07P	C02245-T07P	T07P-2
0.709-0.766	C02205-T07P	C02245-T07P	T07P-2
0.787-0.827	C02205-T07P	C02205-T07P	T07P-2
0.875	C02506-T08P	C02506-T08P	T08P-2
0.906	C02507-T08P	C03007-T08P	T08P-2
0.922	C02507-T08P	C03007-T08P	T08P-2
0.937-1.000	C02507-T08P	C03007-T08P	T08P-2
1.032-1.109	C03007-T09P	C03007-T09P	T09P-2
1.125-1.187	C03007-T09P	C03009-T09P	T09P-2
1.250-1.562	C03508-T15P	C03508-T15P	T15P-2D
1.625-1.687	C03508-T15P	C05012-T15P	T15P-2D
1.750-2.375	C04011-T15P	C05012-T15P	T15P-2D

Accessories

For drill dia. (inch)	Replacement blade	Torque wrench
		
0.562-0.687	T00-07P	T00-07P09
0.709-0.766	–	T00-07P09
0.787-0.827	–	T00-07P09
0.875	–	T00-08P12
0.906	–	T00-08P12
0.922	–	T00-08P12
0.937-1.000	–	T00-08P12
1.032-1.109	–	T00-09P20
1.125-1.187	–	T00-09P20
1.250-1.562	–	T00-15P30
1.625-1.687	–	T00-15P30
1.750-2.375	–	T00-15P35

SD523

Drilling depth ~ 3 x D – Inch





- ISO 9766 shank, R7-C
- Internal coolant
- For insert information see page(s) 297-303
- For cutting data see page(s) 306-307
- For intermediate diameters see the MyDesign software.
- For stationary applications

Designation	Item number	DC	LU	OAL	LUX	LFS	LS	DMM	DF	Insert		Radial adjustment	
		Inch	Inch	Inch	Inch	Inch	Inch	Inch	Inch	Center insert	Periph insert	Inch -	Inch +
SD523-0594-178-1000R7-C	03080487	0.594	1.780	5.908	1.977	3.158	2.750	1.000	1.378	SPGX0502	SCGX050204	0.008	0.013
SD523-0625-188-1000R7-C	03080489	0.625	1.880	6.008	2.077	3.258	2.750	1.000	1.378	SPGX0502	SCGX050204	0.005	0.015
SD523-0656-197-1000R7-C	03080491	0.656	1.970	6.098	2.167	3.348	2.750	1.000	1.378	SPGX0502	SCGX050204	0.002	0.019
SD523-0687-206-1000R7-C	03080492	0.687	2.060	6.188	2.257	3.438	2.750	1.000	1.378	SPGX0502	SCGX050204	0	0.020
SD523-0709-213-1000R7-C	03080495	0.709	2.130	6.258	2.327	3.508	2.750	1.000	1.378	SPGX0602	SCGX050204	0.013	0.008
SD523-0750-225-1000R7-C	03080496	0.750	2.250	6.378	2.447	3.628	2.750	1.000	1.378	SPGX0602	SCGX050204	0.004	0.017
SD523-0766-230-1000R7-C	03080500	0.766	2.300	6.428	2.497	3.678	2.750	1.000	1.378	SPGX0602	SCGX050204	0.001	0.020
SD523-0787-236-1000R7-C	03080502	0.787	2.360	6.488	2.557	3.738	2.750	1.000	1.378	SPGX0602	SCGX060204	0.003	0.018
SD523-0812-244-1000R7-C	03080504	0.812	2.440	6.568	2.637	3.818	2.750	1.000	1.378	SPGX0602	SCGX060204	0.001	0.020
SD523-0827-248-1000R7-C	03080506	0.827	2.480	6.608	2.677	3.858	2.750	1.000	1.378	SPGX0602	SCGX060204	0	0.020
SD523-0875-263-1000R7-C	03080508	0.875	2.630	6.758	2.827	4.008	2.750	1.000	1.378	SPGX0703	SCGX060204	0.015	0.020
SD523-0906-272-1000R7-C	03080511	0.906	2.720	6.848	2.917	4.098	2.750	1.000	1.378	SPGX0703	SCGX070308	0.013	0.020
SD523-0922-276-1000R7-C	03080513	0.922	2.760	6.888	2.957	4.138	2.750	1.000	1.378	SPGX0703	SCGX070308	0.010	0.020
SD523-0937-281-1000R7-C	03080515	0.937	2.810	6.938	3.007	4.188	2.750	1.000	1.378	SPGX0703	SCGX070308	0.004	0.020
SD523-0984-295-1250R7-C	03080517	0.984	2.950	7.078	3.147	4.328	2.750	1.250	1.654	SPGX0703	SCGX070308	0.004	0.020
SD523-1000-300-1250R7-C	03080519	1.000	3.000	7.128	3.197	4.378	2.750	1.250	1.654	SPGX0703	SCGX070308	0.004	0.020
SD523-1032-310-1250R7-C	03080520	1.032	3.100	7.228	3.297	4.478	2.750	1.250	1.654	SPGX0903	SCGX070308	0.020	0.004
SD523-1062-319-1250R7-C	03080523	1.062	3.190	7.318	3.387	4.568	2.750	1.250	1.654	SPGX0903	SCGX070308	0.020	0.010
SD523-1109-332-1250R7-C	03080524	1.109	3.320	7.448	3.517	4.698	2.750	1.250	1.654	SPGX0903	SCGX070308	0.009	0.020
SD523-1125-338-1250R7-C	03080527	1.125	3.380	7.508	3.577	4.758	2.750	1.250	1.654	SPGX0903	SCGX09T308	0.008	0.020
SD523-1172-351-1250R7-C	03080529	1.172	3.510	7.638	3.707	4.888	2.750	1.250	1.654	SPGX0903	SCGX09T308	0.005	0.020
SD523-1187-356-1250R7-C	03080531	1.187	3.560	7.688	3.757	4.938	2.750	1.250	1.654	SPGX0903	SCGX09T308	0.005	0.020
SD523-1250-375-1500R7-C	03080532	1.250	3.750	7.878	3.947	5.128	2.750	1.500	1.969	SPGX11T3	SCGX09T308	0.020	0.011
SD523-1312-394-1500R7-C	03080536	1.312	3.940	8.068	4.137	5.318	2.750	1.500	1.969	SPGX11T3	SCGX09T308	0.020	0.020
SD523-1344-403-1500R7-C	03080538	1.344	4.030	8.158	4.227	5.408	2.750	1.500	1.969	SPGX11T3	SCGX09T308	0.006	0.020
SD523-1375-413-1500R7-C	03080540	1.375	4.130	8.258	4.327	5.508	2.750	1.500	1.969	SPGX11T3	SCGX11T308	0.009	0.020
SD523-1422-426-1500R7-C	03080900	1.422	4.260	8.388	4.457	5.638	2.750	1.500	1.969	SPGX11T3	SCGX11T308	0.004	0.020
SD523-1437-431-1500R7-C	03080543	1.437	4.310	8.438	4.507	5.688	2.750	1.500	1.969	SPGX11T3	SCGX11T308	0.004	0.020
SD523-1500-450-1500R7-C	03080546	1.500	4.500	8.628	4.697	5.878	2.750	1.500	1.969	SPGX12T3	SCGX11T308	0.020	0.020
SD523-1562-469-1500R7-C	03080551	1.562	4.690	8.818	4.887	6.068	2.750	1.500	1.969	SPGX12T3	SCGX11T308	0.010	0.020
SD523-1625-488-1500R7-C	03080556	1.625	4.880	9.008	5.077	6.258	2.750	1.500	1.969	SPGX12T3	SCGX120408	0.007	0.020
SD523-1687-506-1500R7-C	03080561	1.687	5.060	9.188	5.257	6.438	2.750	1.500	1.969	SPGX12T3	SCGX120408	0.004	0.020
SD523-1750-525-1500R7-C	03080566	1.750	5.250	9.378	5.447	6.628	2.750	1.500	1.969	SPGX1504	SCGX120408	0.020	0.016
SD523-1812-544-1500R7-C	03080573	1.812	5.440	9.568	5.637	6.818	2.750	1.500	1.969	SPGX1504	SCGX150512	0.020	0.020
SD523-1875-563-1500R7-C	03080578	1.875	5.630	9.758	5.827	7.008	2.750	1.500	1.969	SPGX1504	SCGX150512	0.020	0.020

Designation	Item number	DC	LU	OAL	LUX	LFS	LS	DMM	DF	Insert		Radial adjustment	
		Inch	*Inch*	*Inch*	*Inch*	*Inch*	*Inch*	*Inch*	*Inch*	Center insert	Periph insert	*Inch -*	*Inch +*
SD523-1937-581-1500R7-C	03080582	*1.937*	*5.810*	*9.938*	*6.007*	*7.188*	*2.750*	*1.500*	*2.337*	SPGX1504	SCGX150512	*0.008*	*0.020*
SD523-2000-600-1500R7-C	03080589	*2.000*	*6.000*	*10.128*	*6.197*	*7.378*	*2.750*	*1.500*	*2.337*	SPGX1504	SCGX150512	*0.008*	*0.020*
SD523-2125-638-1500R7-C	03080598	*2.125*	*6.380*	*10.508*	*6.577*	*7.758*	*2.750*	*1.500*	*2.337*	SPGX1904	SCGX150512	*0.020*	*0.020*
SD523-2250-675-1500R7-C	03080604	*2.250*	*6.750*	*10.878*	*6.947*	*8.128*	*2.750*	*1.500*	*2.337*	SPGX1904	SCGX150512	*0.013*	*0.020*
SD523-2375-713-1500R7-C	03080610	*2.375*	*7.130*	*11.258*	*7.327*	*8.508*	*2.750*	*1.500*	*2.480*	SPGX1904	SCGX150512	*0.004*	*0.020*

Spare Parts, included in delivery

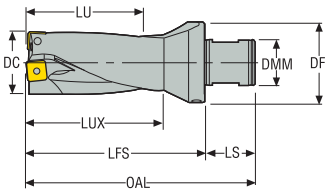
For drill dia. (inch)	Insert screw centre	Insert screw periph	Key	Plug
				
0.594-0.687	C02245-T07P	C02245-T07P	T07P-2	R1/4
0.709-0.766	C02205-T07P	C02245-T07P	T07P-2	R1/4
0.787-0.827	C02205-T07P	C02205-T07P	T07P-2	R1/4
0.875	C02506-T08P	C02506-T08P	T08P-2	R1/4
0.906-0.922	C02507-T08P	C03007-T08P	T08P-2	R1/4
0.906-0.922	C02506-T08P	C03007-T08P	T08P-2	R1/4
0.937-1.000	C02507-T08P	C03007-T08P	T08P-2	R1/4
1.032-1.109	C03007-T09P	–	T09P-2	R1/4
1.125-1.187	C03007-T09P	C03009-T09P	T09P-2	R1/4
1.250-1.562	C03508-T15P	–	T15P-2D	R1/4
1.625-1.687	C03508-T15P	C05012-T15P	T15P-2D	R1/4
1.750-2.375	C04011-T15P	C05012-T15P	T15P-2D	R1/4

Accessories

For drill dia. (inch)	Hose adapter	Torque wrench
		
0.594-0.687	1310	T00-07P09
0.709-0.766	1310	T00-07P09
0.787-0.827	1310	T00-07P09
0.875	1310	T00-08P12
0.906-0.922	1310	T00-08P12
0.937-1.000	1310	T00-08P12
1.032-1.109	1310	T00-09P20
1.125-1.187	1310	T00-09P20
1.250-1.562	1310	T00-15P30
1.625-1.687	1310	T00-15P30
1.750-2.375	1310	T00-15P35

SD523

Drilling depth ~ 3 x D – Metric/Inch





- ABS 50 compatible shank, -2
- Internal coolant
- For insert information see page(s) 297-303
- For cutting data see page(s) 306-307
- For intermediate diameters see the MyDesign software.

Designation	Item number	DC	LU	OAL	LUX	LFS	LS	DMM	DF	Insert		Radial adjustment	
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	Center insert	Periph insert	mm - *Inch -*	mm + *Inch +*
SD523-15-45-50R2	03080864	15,0 *0.591*	45,0 *1.772*	106,0 *4.173*	50,0 *1.969*	75,0 *2.953*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0502	SCGX050204	0,22 *0.009*	0,31 *0.012*
SD523-15.5-47-50R2	03080865	15,5 *0.610*	47,0 *1.850*	108,0 *4.252*	52,0 *2.047*	77,0 *3.031*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0502	SCGX050204	0,17 *0.007*	0,36 *0.014*
SD523-16-48-50R2	03080559	16,0 *0.630*	48,0 *1.890*	109,0 *4.291*	53,0 *2.087*	78,0 *3.071*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0502	SCGX050204	0,12 *0.005*	0,41 *0.016*
SD523-16.5-50-50R2	03080866	16,5 *0.650*	50,0 *1.969*	111,0 *4.370*	55,0 *2.165*	80,0 *3.150*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0502	SCGX050204	0,07 *0.003*	0,46 *0.018*
SD523-17-51-50R2	03080867	17,0 *0.669*	51,0 *2.008*	112,0 *4.409*	56,0 *2.205*	81,0 *3.189*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0502	SCGX050204	0,02 *0.001*	0,5 *0.020*
SD523-17.5-53-50R2	03080564	17,5 *0.689*	53,0 *2.087*	114,0 *4.488*	58,0 *2.283*	83,0 *3.268*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0602	SCGX050204	0,43 *0.017*	0,1 *0.004*
SD523-18-54-50R2	03080576	18,0 *0.709*	54,0 *2.126*	115,0 *4.528*	59,0 *2.323*	84,0 *3.307*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0602	SCGX050204	0,32 *0.013*	0,21 *0.008*
SD523-18.5-56-50R2	03080868	18,5 *0.728*	56,0 *2.205*	117,0 *4.606*	61,0 *2.402*	86,0 *3.386*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0602	SCGX050204	0,22 *0.009*	0,31 *0.012*
SD523-19-57-50R2	03080585	19,0 *0.748*	57,0 *2.244*	118,0 *4.646*	62,0 *2.441*	87,0 *3.425*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0602	SCGX050204	0,11 *0.004*	0,42 *0.017*
SD523-20-60-50R2	03080591	20,0 *0.787*	60,0 *2.362*	121,0 *4.764*	65,0 *2.559*	90,0 *3.543*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0602	SCGX060204	0,07 *0.003*	0,46 *0.018*
SD523-20.62-62-50R2	03080587	20,62 *0.812*	62,0 *2.441*	123,0 *4.843*	67,0 *2.638*	92,0 *3.622*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0602	SCGX060204	0,03 *0.001*	0,5 *0.020*
SD523-21-63-50R2	03080600	21,0 *0.827*	63,0 *2.480*	124,0 *4.882*	68,0 *2.677*	93,0 *3.661*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0602	SCGX060204	0,01 *0*	0,5 *0.020*
SD523-22-66-50R2	03080606	22,0 *0.866*	66,0 *2.598*	127,0 *5.000*	71,0 *2.795*	96,0 *3.780*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0703	SCGX060204	0,44 *0.017*	0,46 *0.018*
SD523-22.23-67-50R2	03080601	22,23 *0.875*	67,0 *2.638*	128,0 *5.039*	72,0 *2.835*	97,0 *3.819*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0703	SCGX060204	0,39 *0.015*	0,5 *0.020*
SD523-23-69-50R2	03080869	23,0 *0.906*	69,0 *2.717*	130,0 *5.118*	74,0 *2.913*	99,0 *3.898*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0703	SCGX070308	0,33 *0.013*	0,5 *0.020*
SD523-24-72-50R2	03080613	24,0 *0.945*	72,0 *2.835*	133,0 *5.236*	77,0 *3.031*	102,0 *4.016*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0703	SCGX070308	0,11 *0.004*	0,5 *0.020*
SD523-25-75-50R2	03080617	25,0 *0.984*	75,0 *2.953*	136,0 *5.354*	80,0 *3.150*	105,0 *4.134*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0703	SCGX070308	0,11 *0.004*	0,5 *0.020*
SD523-25.40-77-50R2	03080614	25,4 *1.000*	77,0 *3.031*	138,0 *5.433*	82,0 *3.228*	107,0 *4.213*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0703	SCGX070308	0,11 *0.004*	0,5 *0.020*
SD523-26-78-50R2	03080620	26,0 *1.024*	78,0 *3.071*	139,0 *5.472*	83,0 *3.268*	108,0 *4.252*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0903	SCGX070308	0,5 *0.020*	0,11 *0.004*
SD523-27-81-50R2	03080623	27,0 *1.063*	81,0 *3.189*	142,0 *5.591*	86,0 *3.386*	111,0 *4.370*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0903	SCGX070308	0,5 *0.020*	0,26 *0.010*
SD523-28-84-50R2	03080627	28,0 *1.102*	84,0 *3.307*	145,0 *5.709*	89,0 *3.504*	114,0 *4.488*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0903	SCGX070308	0,28 *0.011*	0,5 *0.020*
SD523-28.59-86-50R2	03080625	28,59 *1.126*	86,0 *3.386*	147,0 *5.787*	91,0 *3.583*	116,0 *4.567*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0903	SCGX09T308	0,21 *0.008*	0,5 *0.020*

Designation	Item number	DC	LU	OAL	LUX	LFS	LS	DMM	DF	Insert		Radial adjustment	
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	Center insert	Periph insert	mm - *Inch -*	mm + *Inch +*
SD523-29-87-50R2	03080630	29,0 *1.142*	87,0 *3.425*	148,0 *5.827*	92,0 *3.622*	117,0 *4.606*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0903	SCGX09T308	0,18 *0.007*	0,5 *0.020*
SD523-30-90-50R2	03080633	30,0 *1.181*	90,0 *3.543*	151,0 *5.945*	95,0 *3.740*	120,0 *4.724*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0903	SCGX09T308	0,12 *0.005*	0,5 *0.020*
SD523-31-93-50R2	03080637	31,0 *1.220*	93,0 *3.661*	154,0 *6.063*	98,0 *3.858*	123,0 *4.843*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0903	SCGX09T308	0,12 *0.005*	0,5 *0.020*
SD523-31.75-96-50R2	03080635	31,75 *1.250*	96,0 *3.780*	157,0 *6.181*	101,0 *3.976*	126,0 *4.961*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX11T3	SCGX09T308	0,5 *0.020*	0,28 *0.011*
SD523-32-96-50R2	03080640	32,0 *1.260*	96,0 *3.780*	157,0 *6.181*	101,0 *3.976*	126,0 *4.961*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX11T3	SCGX09T308	0,5 *0.020*	0,31 *0.012*
SD523-33-99-50R2	03080643	33,0 *1.299*	99,0 *3.898*	160,0 *6.299*	104,0 *4.094*	129,0 *5.079*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX11T3	SCGX09T308	0,5 *0.020*	0,46 *0.018*
SD523-34-102-50R2	03080646	34,0 *1.339*	102,0 *4.016*	163,0 *6.417*	107,0 *4.213*	132,0 *5.197*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX11T3	SCGX09T308	0,22 *0.009*	0,5 *0.020*
SD523-35-105-50R2	03080650	35,0 *1.378*	105,0 *4.134*	166,0 *6.535*	110,0 *4.331*	135,0 *5.315*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX11T3	SCGX11T308	0,22 *0.009*	0,5 *0.020*
SD523-36-108-50R2	03080870	36,0 *1.417*	108,0 *4.252*	169,0 *6.654*	113,0 *4.449*	138,0 *5.433*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX11T3	SCGX11T308	0,09 *0.004*	0,5 *0.020*
SD523-37-111-50R2	03080871	37,0 *1.457*	111,0 *4.370*	172,0 *6.772*	116,0 *4.567*	141,0 *5.551*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX11T3	SCGX11T308	0,09 *0.004*	0,5 *0.020*
SD523-38-114-50R2	03080657	38,0 *1.496*	114,0 *4.488*	175,0 *6.890*	119,0 *4.685*	144,0 *5.669*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX12T3	SCGX11T308	0,5 *0.020*	0,5 *0.020*
SD523-39-117-50R2	03080660	39,0 *1.535*	117,0 *4.606*	178,0 *7.008*	122,0 *4.803*	147,0 *5.787*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX12T3	SCGX11T308	0,39 *0.015*	0,5 *0.020*
SD523-40-120-50R2	03080872	40,0 *1.575*	120,0 *4.724*	181,0 *7.126*	125,0 *4.921*	150,0 *5.906*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX12T3	SCGX11T308	0,19 *0.007*	0,5 *0.020*
SD523-41-123-50R2	03080873	41,0 *1.614*	123,0 *4.843*	184,0 *7.244*	128,0 *5.039*	153,0 *6.024*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX12T3	SCGX120408	0,19 *0.007*	0,5 *0.020*
SD523-42-126-50R2	03080874	42,0 *1.654*	126,0 *4.961*	187,0 *7.362*	131,0 *5.157*	156,0 *6.142*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX12T3	SCGX120408	0,19 *0.007*	0,5 *0.020*
SD523-43-129-50R2	03080875	43,0 *1.693*	129,0 *5.079*	190,0 *7.480*	134,0 *5.276*	159,0 *6.260*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX12T3	SCGX120408	0,05 *0.002*	0,5 *0.020*
SD523-44-132-50R2	03080671	44,0 *1.732*	132,0 *5.197*	193,0 *7.598*	137,0 *5.394*	162,0 *6.378*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX1504	SCGX120408	0,5 *0.020*	0,41 *0.016*
SD523-44.45-134-50R2	03080668	44,45 *1.750*	134,0 *5.276*	195,0 *7.677*	139,0 *5.472*	164,0 *6.457*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX1504	SCGX120408	0,5 *0.020*	0,41 *0.016*

Spare Parts, included in delivery

For drill dia. (mm)	Insert screw		Insert key
			
	Center insert	Periph insert	
15,00-17,45	C02245-T07P	C02245-T07P	T07P-2
17,46-19,49	C02205-T07P	C02245-T07P	T07P-2
19,50-21,24	C02205-T07P	C02205-T07P	T07P-2
21,25-22,49	C02506-T08P	C02506-T08P	T08P-2
22,50-25,49	C02507-T08P	C03007-T08P	T08P-2
25,50-28,49	C03007-T09P	C03007-T09P	T09P-2
28,50-31,49	C03007-T09P	C03009-T09P	T09P-2
31,50-40,49	C03508-T15P	C03508-T15P	T15P-2D
40,50-43,24	C03508-T15P	C05012-T15P	T15P-2D
43,25-59,00	C04011-T15P	C05012-T15P	T15P-2D

Accessories

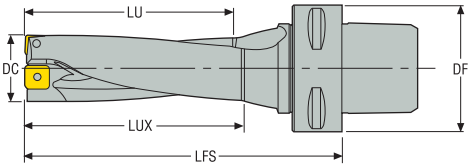
For drill dia. (mm)	Torque wrench*	Replacement blade	Torque value
			
15,00-17,45	T00-07P09	T00-07P	0,9 Nm
17,46-19,49	T00-07P09	T00-07P	0,9 Nm
19,50-21,24	T00-07P09	T00-07P	0,9 Nm
21,25-22,49	T00-08P12	T00-08P	1,2 Nm
22,50-25,49	T00-08P12	T00-08P	1,2 Nm
25,50-28,49	T00-09P20	T00-09P	2,0 Nm
28,50-31,49	T00-09P20	T00-09P	2,0 Nm
31,50-40,49	T00-15P30	T00-15P	3,0 Nm
40,50-43,24	T00-15P30	T00-15P	3,0 Nm
43,25-59,00	T00-15P30	T00-15P	3,0 Nm

*Including blade.

SD523

Drilling depth ~ 3 x D – Metric/Inch





- Seco-Capto™ C4 shank
- Internal coolant
- For insert information see page(s) 297-303
- For cutting data see page(s) 306-307
- For intermediate diameters see the MyDesign software.

Designation	Item number	DC	LU	LUX	LFS	DF	Insert		Radial adjustment	
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	Center insert	Periph insert	mm - *Inch -*	mm + *Inch +*
SD523-15-45-C4	03080920	15,0 *0.591*	45,0 *1.772*	50,0 *1.969*	82,0 *3.228*	40,0 *1.575*	SPGX0502	SCGX050204	0,22 *0.009*	0,31 *0.012*
SD523-15.5-47-C4	03080921	15,5 *0.610*	47,0 *1.850*	52,0 *2.047*	84,0 *3.307*	40,0 *1.575*	SPGX0502	SCGX050204	0,17 *0.007*	0,36 *0.014*
SD523-16-48-C4	03080922	16,0 *0.630*	48,0 *1.890*	53,0 *2.087*	86,0 *3.386*	40,0 *1.575*	SPGX0502	SCGX050204	0,12 *0.005*	0,41 *0.016*
SD523-16.5-50-C4	03080923	16,5 *0.650*	50,0 *1.969*	55,0 *2.165*	88,0 *3.465*	40,0 *1.575*	SPGX0502	SCGX050204	0,07 *0.003*	0,46 *0.018*
SD523-17-51-C4	03080925	17,0 *0.669*	51,0 *2.008*	56,0 *2.205*	89,0 *3.504*	40,0 *1.575*	SPGX0502	SCGX050204	0,02 *0.001*	0,5 *0.020*
SD523-17.5-53-C4	03080926	17,5 *0.689*	53,0 *2.087*	58,0 *2.283*	92,0 *3.622*	40,0 *1.575*	SPGX0602	SCGX050204	0,43 *0.017*	0,1 *0.004*
SD523-18-54-C4	03080927	18,0 *0.709*	54,0 *2.126*	59,0 *2.323*	93,0 *3.661*	40,0 *1.575*	SPGX0602	SCGX050204	0,32 *0.013*	0,21 *0.008*
SD523-18.5-56-C4	03080928	18,5 *0.728*	56,0 *2.205*	61,0 *2.402*	95,0 *3.740*	40,0 *1.575*	SPGX0602	SCGX050204	0,22 *0.009*	0,31 *0.012*
SD523-19-57-C4	03080929	19,0 *0.748*	57,0 *2.244*	62,0 *2.441*	96,0 *3.780*	40,0 *1.575*	SPGX0602	SCGX050204	0,11 *0.004*	0,42 *0.017*
SD523-20-60-C4	03080930	20,0 *0.787*	60,0 *2.362*	65,0 *2.559*	101,0 *3.976*	40,0 *1.575*	SPGX0602	SCGX060204	0,07 *0.003*	0,46 *0.018*
SD523-20.62-62-C4	03081006	20,62 *0.812*	62,0 *2.441*	67,0 *2.638*	103,0 *4.055*	40,0 *1.575*	SPGX0602	SCGX060204	0,03 *0.001*	0,5 *0.020*
SD523-21-63-C4	03080931	21,0 *0.827*	63,0 *2.480*	68,0 *2.677*	104,0 *4.094*	40,0 *1.575*	SPGX0602	SCGX060204	0,01 *0*	0,5 *0.020*
SD523-22-66-C4	03080932	22,0 *0.866*	66,0 *2.598*	71,0 *2.795*	107,0 *4.213*	40,0 *1.575*	SPGX0703	SCGX060204	0,44 *0.017*	0,46 *0.018*
SD523-22.23-67-C4	03081008	22,23 *0.875*	67,0 *2.638*	72,0 *2.835*	108,0 *4.252*	40,0 *1.575*	SPGX0703	SCGX060204	0,39 *0.015*	0,5 *0.020*
SD523-23-69-C4	03080933	23,0 *0.906*	69,0 *2.717*	74,0 *2.913*	111,0 *4.370*	40,0 *1.575*	SPGX0703	SCGX070308	0,33 *0.013*	0,5 *0.020*
SD523-24-72-C4	03080934	24,0 *0.945*	72,0 *2.835*	77,0 *3.031*	115,0 *4.528*	40,0 *1.575*	SPGX0703	SCGX070308	0,11 *0.004*	0,5 *0.020*
SD523-25-75-C4	03080935	25,0 *0.984*	75,0 *2.953*	80,0 *3.150*	119,0 *4.685*	40,0 *1.575*	SPGX0703	SCGX070308	0,11 *0.004*	0,5 *0.020*
SD523-25.4-77-C4	03081009	25,4 *1.000*	77,0 *3.031*	82,0 *3.228*	121,0 *4.764*	40,0 *1.575*	SPGX0703	SCGX070308	0,11 *0.004*	0,5 *0.020*
SD523-26-78-C4	03080936	26,0 *1.024*	78,0 *3.071*	83,0 *3.268*	122,0 *4.803*	40,0 *1.575*	SPGX0903	SCGX070308	0,5 *0.020*	0,11 *0.004*
SD523-27-81-C4	03080937	27,0 *1.063*	81,0 *3.189*	86,0 *3.386*	125,0 *4.921*	40,0 *1.575*	SPGX0903	SCGX070308	0,5 *0.020*	0,26 *0.010*
SD523-28-84-C4	03080938	28,0 *1.102*	84,0 *3.307*	89,0 *3.504*	129,0 *5.079*	40,0 *1.575*	SPGX0903	SCGX070308	0,28 *0.011*	0,5 *0.020*
SD523-28.59-86-C4	03081010	28,59 *1.126*	86,0 *3.386*	91,0 *3.583*	131,0 *5.157*	40,0 *1.575*	SPGX0903	SCGX09T308	0,21 *0.008*	0,5 *0.020*

Designation	Item number	DC	LU	LUX	LFS	DF	Insert		Radial adjustment	
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	Center insert	Periph insert	mm - *Inch -*	mm + *Inch +*
SD523-29-87-C4	03080939	29,0 *1.142*	87,0 *3.425*	92,0 *3.622*	132,0 *5.197*	40,0 *1.575*	SPGX0903	SCGX09T308	0,18 *0.007*	0,5 *0.020*
SD523-30-90-C4	03080940	30,0 *1.181*	90,0 *3.543*	95,0 *3.740*	135,0 *5.315*	40,0 *1.575*	SPGX0903	SCGX09T308	0,12 *0.005*	0,5 *0.020*

Spare Parts, included in delivery

For drill dia. (mm)	Insert screw		Insert key
			
	Center insert	Periph insert	
15,00-17,45	C02245-T07P	C02245-T07P	T07P-2
17,46-19,49	C02205-T07P	C02245-T07P	T07P-2
19,50-21,24	C02205-T07P	C02205-T07P	T07P-2
21,25-22,49	C02506-T08P	C02506-T08P	T08P-2
22,50-25,49	C02507-T08P	C03007-T08P	T08P-2
25,50-28,49	C03007-T09P	C03007-T09P	T09P-2
28,50-31,49	C03007-T09P	C03009-T09P	T09P-2
31,50-40,49	C03508-T15P	C03508-T15P	T15P-2D
40,50-43,24	C03508-T15P	C05012-T15P	T15P-2D
43,25-59,00	C04011-T15P	C05012-T15P	T15P-2D

Accessories

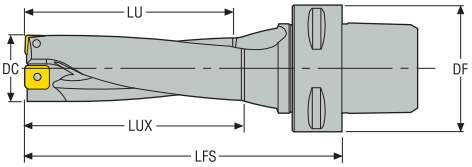
For drill dia. (mm)	Torque wrench*	Replacement blade	Torque value
			
15,00-17,45	T00-07P09	T00-07P	0,9 Nm
17,46-19,49	T00-07P09	T00-07P	0,9 Nm
19,50-21,24	T00-07P09	T00-07P	0,9 Nm
21,25-22,49	T00-08P12	T00-08P	1,2 Nm
22,50-25,49	T00-08P12	T00-08P	1,2 Nm
25,50-28,49	T00-09P20	T00-09P	2,0 Nm
28,50-31,49	T00-09P20	T00-09P	2,0 Nm
31,50-40,49	T00-15P30	T00-15P	3,0 Nm
40,50-43,24	T00-15P30	T00-15P	3,0 Nm
43,25-59,00	T00-15P30	T00-15P	3,0 Nm

*Including blade.

SD523

Drilling depth ~ 3 x D – Metric/Inch





- Seco-Capto™ C5 shank
- Internal coolant
- For insert information see page(s) 297-303
- For cutting data see page(s) 306-307
- For intermediate diameters see the MyDesign software.

Designation	Item number	DC	LU	LUX	LFS	DF	Insert		Radial adjustment	
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	Center insert	Periph insert	mm - *Inch -*	mm + *Inch +*
SD523-15-45-C5	03080941	15,0 *0.591*	45,0 *1.772*	50,0 *1.969*	82,0 *3.228*	50,0 *1.969*	SPGX0502	SCGX050204	0,22 *0.009*	0,31 *0.012*
SD523-15.5-47-C5	03080942	15,5 *0.610*	47,0 *1.850*	52,0 *2.047*	84,0 *3.307*	50,0 *1.969*	SPGX0502	SCGX050204	0,17 *0.007*	0,36 *0.014*
SD523-16-48-C5	03080943	16,0 *0.630*	48,0 *1.890*	53,0 *2.087*	86,0 *3.386*	50,0 *1.969*	SPGX0502	SCGX050204	0,12 *0.005*	0,41 *0.016*
SD523-16.5-50-C5	03080944	16,5 *0.650*	50,0 *1.969*	55,0 *2.165*	88,0 *3.465*	50,0 *1.969*	SPGX0502	SCGX050204	0,07 *0.003*	0,46 *0.018*
SD523-17-51-C5	03080945	17,0 *0.669*	51,0 *2.008*	56,0 *2.205*	89,0 *3.504*	50,0 *1.969*	SPGX0502	SCGX050204	0,02 *0.001*	0,5 *0.020*
SD523-17.5-53-C5	03080946	17,5 *0.689*	53,0 *2.087*	58,0 *2.283*	92,0 *3.622*	50,0 *1.969*	SPGX0602	SCGX050204	0,43 *0.017*	0,1 *0.004*
SD523-18-54-C5	03080947	18,0 *0.709*	54,0 *2.126*	59,0 *2.323*	93,0 *3.661*	50,0 *1.969*	SPGX0602	SCGX050204	0,32 *0.013*	0,21 *0.008*
SD523-18.5-56-C5	03080948	18,5 *0.728*	56,0 *2.205*	61,0 *2.402*	95,0 *3.740*	50,0 *1.969*	SPGX0602	SCGX050204	0,22 *0.009*	0,31 *0.012*
SD523-19-57-C5	03080949	19,0 *0.748*	57,0 *2.244*	62,0 *2.441*	96,0 *3.780*	50,0 *1.969*	SPGX0602	SCGX050204	0,11 *0.004*	0,42 *0.017*
SD523-20-60-C5	03080950	20,0 *0.787*	60,0 *2.362*	65,0 *2.559*	101,0 *3.976*	50,0 *1.969*	SPGX0602	SCGX060204	0,07 *0.003*	0,46 *0.018*
SD523-20.62-62-C5	03081001	20,62 *0.812*	62,0 *2.441*	67,0 *2.638*	103,0 *4.055*	50,0 *1.969*	SPGX0602	SCGX060204	0,03 *0.001*	0,5 *0.020*
SD523-21-63-C5	03080951	21,0 *0.827*	63,0 *2.480*	68,0 *2.677*	104,0 *4.094*	50,0 *1.969*	SPGX0602	SCGX060204	0,01 *0*	0,5 *0.020*
SD523-22-66-C5	03080952	22,0 *0.866*	66,0 *2.598*	71,0 *2.795*	107,0 *4.213*	50,0 *1.969*	SPGX0703	SCGX060204	0,44 *0.017*	0,46 *0.018*
SD523-22.23-67-C5	03081002	22,23 *0.875*	67,0 *2.638*	72,0 *2.835*	108,0 *4.252*	50,0 *1.969*	SPGX0703	SCGX060204	0,39 *0.015*	0,5 *0.020*
SD523-23-69-C5	03080953	23,0 *0.906*	69,0 *2.717*	74,0 *2.913*	111,0 *4.370*	50,0 *1.969*	SPGX0703	SCGX070308	0,33 *0.013*	0,5 *0.020*
SD523-24-72-C5	03080954	24,0 *0.945*	72,0 *2.835*	77,0 *3.031*	115,0 *4.528*	50,0 *1.969*	SPGX0703	SCGX070308	0,11 *0.004*	0,5 *0.020*
SD523-25-75-C5	03080955	25,0 *0.984*	75,0 *2.953*	80,0 *3.150*	119,0 *4.685*	50,0 *1.969*	SPGX0703	SCGX070308	0,11 *0.004*	0,5 *0.020*
SD523-25.4-77-C5	03081003	25,4 *1.000*	77,0 *3.031*	82,0 *3.228*	121,0 *4.764*	50,0 *1.969*	SPGX0703	SCGX070308	0,11 *0.004*	0,5 *0.020*
SD523-26-78-C5	03080956	26,0 *1.024*	78,0 *3.071*	83,0 *3.268*	122,0 *4.803*	50,0 *1.969*	SPGX0903	SCGX070308	0,5 *0.020*	0,11 *0.004*
SD523-27-81-C5	03080957	27,0 *1.063*	81,0 *3.189*	86,0 *3.386*	125,0 *4.921*	50,0 *1.969*	SPGX0903	SCGX070308	0,5 *0.020*	0,26 *0.010*
SD523-28-84-C5	03080958	28,0 *1.102*	84,0 *3.307*	89,0 *3.504*	129,0 *5.079*	50,0 *1.969*	SPGX0903	SCGX070308	0,28 *0.011*	0,5 *0.020*
SD523-28.59-86-C5	03081004	28,59 *1.126*	86,0 *3.386*	91,0 *3.583*	131,0 *5.157*	50,0 *1.969*	SPGX0903	SCGX09T308	0,21 *0.008*	0,5 *0.020*

Designation	Item number	DC	LU	LUX	LFS	DF	Insert		Radial adjustment	
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	Center insert	Periph insert	mm - *Inch -*	mm + *Inch +*
SD523-29-87-C5	03080959	29,0 *1.142*	87,0 *3.425*	92,0 *3.622*	132,0 *5.197*	50,0 *1.969*	SPGX0903	SCGX09T308	0,18 *0.007*	0,5 *0.020*
SD523-30-90-C5	03080960	30,0 *1.181*	90,0 *3.543*	95,0 *3.740*	135,0 *5.315*	50,0 *1.969*	SPGX0903	SCGX09T308	0,12 *0.005*	0,5 *0.020*
SD523-31-93-C5	03080961	31,0 *1.220*	93,0 *3.661*	98,0 *3.858*	138,0 *5.433*	50,0 *1.969*	SPGX0903	SCGX09T308	0,12 *0.005*	0,5 *0.020*
SD523-31.75-96-C5	03081005	31,75 *1.250*	96,0 *3.780*	101,0 *3.976*	142,0 *5.591*	50,0 *1.969*	SPGX11T3	SCGX09T308	0,5 *0.020*	0,28 *0.011*
SD523-32-96-C5	03080962	32,0 *1.260*	96,0 *3.780*	101,0 *3.976*	142,0 *5.591*	50,0 *1.969*	SPGX11T3	SCGX09T308	0,5 *0.020*	0,31 *0.012*
SD523-33-99-C5	03080963	33,0 *1.299*	99,0 *3.898*	104,0 *4.094*	145,0 *5.709*	50,0 *1.969*	SPGX11T3	SCGX09T308	0,5 *0.020*	0,46 *0.018*
SD523-34-102-C5	03080964	34,0 *1.339*	102,0 *4.016*	107,0 *4.213*	148,0 *5.827*	50,0 *1.969*	SPGX11T3	SCGX09T308	0,22 *0.009*	0,5 *0.020*
SD523-35-105-C5	03080965	35,0 *1.378*	105,0 *4.134*	110,0 *4.331*	151,0 *5.945*	50,0 *1.969*	SPGX11T3	SCGX11T308	0,22 *0.009*	0,5 *0.020*
SD523-36-108-C5	03080966	36,0 *1.417*	108,0 *4.252*	113,0 *4.449*	154,0 *6.063*	50,0 *1.969*	SPGX11T3	SCGX11T308	0,09 *0.004*	0,5 *0.020*
SD523-37-111-C5	03080967	37,0 *1.457*	111,0 *4.370*	116,0 *4.567*	157,0 *6.181*	50,0 *1.969*	SPGX11T3	SCGX11T308	0,09 *0.004*	0,5 *0.020*
SD523-38-114-C5	03080968	38,0 *1.496*	114,0 *4.488*	119,0 *4.685*	160,0 *6.299*	50,0 *1.969*	SPGX12T3	SCGX11T308	0,5 *0.020*	0,5 *0.020*
SD523-39-117-C5	03080969	39,0 *1.535*	117,0 *4.606*	122,0 *4.803*	163,0 *6.417*	50,0 *1.969*	SPGX12T3	SCGX11T308	0,39 *0.015*	0,5 *0.020*
SD523-40-120-C5	03080970	40,0 *1.575*	120,0 *4.724*	125,0 *4.921*	166,0 *6.535*	50,0 *1.969*	SPGX12T3	SCGX11T308	0,19 *0.007*	0,5 *0.020*

Spare Parts, included in delivery

For drill dia. (mm)	Insert screw		Insert key
			
	Center insert	Periph insert	
15,00-17,45	C02245-T07P	C02245-T07P	T07P-2
17,46-19,49	C02205-T07P	C02245-T07P	T07P-2
19,50-21,24	C02205-T07P	C02205-T07P	T07P-2
21,25-22,49	C02506-T08P	C02506-T08P	T08P-2
22,50-25,49	C02507-T08P	C03007-T08P	T08P-2
25,50-28,49	C03007-T09P	C03007-T09P	T09P-2
28,50-31,49	C03007-T09P	C03009-T09P	T09P-2
31,50-40,49	C03508-T15P	C03508-T15P	T15P-2D
40,50-43,24	C03508-T15P	C05012-T15P	T15P-2D
43,25-59,00	C04011-T15P	C05012-T15P	T15P-2D

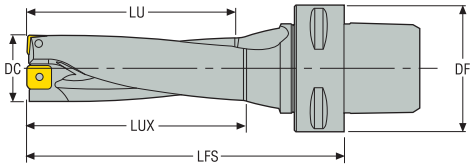
Accessories

For drill dia. (mm)	Torque wrench*	Replacement blade	Torque value
			
15,00-17,45	T00-07P09	T00-07P	0,9 Nm
17,46-19,49	T00-07P09	T00-07P	0,9 Nm
19,50-21,24	T00-07P09	T00-07P	0,9 Nm
21,25-22,49	T00-08P12	T00-08P	1,2 Nm
22,50-25,49	T00-08P12	T00-08P	1,2 Nm
25,50-28,49	T00-09P20	T00-09P	2,0 Nm
28,50-31,49	T00-09P20	T00-09P	2,0 Nm
31,50-40,49	T00-15P30	T00-15P	3,0 Nm
40,50-43,24	T00-15P30	T00-15P	3,0 Nm
43,25-59,00	T00-15P30	T00-15P	3,0 Nm

*Including blade.

SD523

Drilling depth ~ 3 x D – Metric/Inch





- Seco-Capto™ C6 shank
- Internal coolant
- For insert information see page(s) 297-303
- For cutting data see page(s) 306-307
- For intermediate diameters see the MyDesign software.

Designation	Item number	DC	LU	LUX	LFS	DF	Insert		Radial adjustment	
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	Center insert	Periph insert	mm - *Inch -*	mm + *Inch +*
SD523-15-45-C6	03080971	15,0 *0.591*	45,0 *1.772*	50,0 *1.969*	84,0 *3.307*	63,0 *2.480*	SPGX0502	SCGX050204	0,22 *0.009*	0,31 *0.012*
SD523-15.5-47-C6	03080972	15,5 *0.610*	47,0 *1.850*	52,0 *2.047*	86,0 *3.386*	63,0 *2.480*	SPGX0502	SCGX050204	0,17 *0.007*	0,36 *0.014*
SD523-16-48-C6	03080973	16,0 *0.630*	48,0 *1.890*	53,0 *2.087*	88,0 *3.465*	63,0 *2.480*	SPGX0502	SCGX050204	0,12 *0.005*	0,41 *0.016*
SD523-16.5-50-C6	03080974	16,5 *0.650*	50,0 *1.969*	55,0 *2.165*	90,0 *3.543*	63,0 *2.480*	SPGX0502	SCGX050204	0,07 *0.003*	0,46 *0.018*
SD523-17-51-C6	03080975	17,0 *0.669*	51,0 *2.008*	56,0 *2.205*	91,0 *3.583*	63,0 *2.480*	SPGX0502	SCGX050204	0,02 *0.001*	0,5 *0.020*
SD523-17.5-53-C6	03080976	17,5 *0.689*	53,0 *2.087*	58,0 *2.283*	94,0 *3.701*	63,0 *2.480*	SPGX0602	SCGX050204	0,43 *0.017*	0,1 *0.004*
SD523-18-54-C6	03080977	18,0 *0.709*	54,0 *2.126*	59,0 *2.323*	95,0 *3.740*	63,0 *2.480*	SPGX0602	SCGX050204	0,32 *0.013*	0,21 *0.008*
SD523-18.5-56-C6	03080978	18,5 *0.728*	56,0 *2.205*	61,0 *2.402*	97,0 *3.819*	63,0 *2.480*	SPGX0602	SCGX050204	0,22 *0.009*	0,31 *0.012*
SD523-19-57-C6	03080979	19,0 *0.748*	57,0 *2.244*	62,0 *2.441*	98,0 *3.858*	63,0 *2.480*	SPGX0602	SCGX050204	0,11 *0.004*	0,42 *0.017*
SD523-20-60-C6	03080980	20,0 *0.787*	60,0 *2.362*	65,0 *2.559*	103,0 *4.055*	63,0 *2.480*	SPGX0602	SCGX060204	0,07 *0.003*	0,46 *0.018*
SD523-20.62-62-C6	03081011	20,62 *0.812*	62,0 *2.441*	67,0 *2.638*	105,0 *4.134*	63,0 *2.480*	SPGX0602	SCGX060204	0,03 *0.001*	0,5 *0.020*
SD523-21-63-C6	03080981	21,0 *0.827*	63,0 *2.480*	68,0 *2.677*	106,0 *4.173*	63,0 *2.480*	SPGX0602	SCGX060204	0,01 *0*	0,5 *0.020*
SD523-22-66-C6	03080982	22,0 *0.866*	66,0 *2.598*	71,0 *2.795*	109,0 *4.291*	63,0 *2.480*	SPGX0703	SCGX060204	0,44 *0.017*	0,46 *0.018*
SD523-22.23-67-C6	03081012	22,23 *0.875*	67,0 *2.638*	72,0 *2.835*	110,0 *4.331*	63,0 *2.480*	SPGX0703	SCGX060204	0,39 *0.015*	0,5 *0.020*
SD523-23-69-C6	03080983	23,0 *0.906*	69,0 *2.717*	74,0 *2.913*	113,0 *4.449*	63,0 *2.480*	SPGX0703	SCGX070308	0,33 *0.013*	0,5 *0.020*
SD523-24-72-C6	03080984	24,0 *0.945*	72,0 *2.835*	77,0 *3.031*	117,0 *4.606*	63,0 *2.480*	SPGX0703	SCGX070308	0,11 *0.004*	0,5 *0.020*
SD523-25-75-C6	03080985	25,0 *0.984*	75,0 *2.953*	80,0 *3.150*	121,0 *4.764*	63,0 *2.480*	SPGX0703	SCGX070308	0,11 *0.004*	0,5 *0.020*
SD523-25.4-77-C6	03081013	25,4 *1.000*	77,0 *3.031*	82,0 *3.228*	123,0 *4.843*	63,0 *2.480*	SPGX0703	SCGX070308	0,11 *0.004*	0,5 *0.020*
SD523-26-78-C6	03080986	26,0 *1.024*	78,0 *3.071*	83,0 *3.268*	124,0 *4.882*	63,0 *2.480*	SPGX0903	SCGX070308	0,5 *0.020*	0,11 *0.004*
SD523-27-81-C6	03080987	27,0 *1.063*	81,0 *3.189*	86,0 *3.386*	127,0 *5.000*	63,0 *2.480*	SPGX0903	SCGX070308	0,5 *0.020*	0,26 *0.010*
SD523-28-84-C6	03080988	28,0 *1.102*	84,0 *3.307*	89,0 *3.504*	131,0 *5.157*	63,0 *2.480*	SPGX0903	SCGX070308	0,28 *0.011*	0,5 *0.020*
SD523-28.59-86-C6	03081014	28,59 *1.126*	86,0 *3.386*	91,0 *3.583*	133,0 *5.236*	63,0 *2.480*	SPGX0903	SCGX09T308	0,21 *0.008*	0,5 *0.020*

Designation	Item number	DC	LU	LUX	LFS	DF	Insert		Radial adjustment	
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	Center insert	Periph insert	mm - *Inch -*	mm + *Inch +*
SD523-29-87-C6	03080989	29,0 *1.142*	87,0 *3.425*	92,0 *3.622*	134,0 *5.276*	63,0 *2.480*	SPGX0903	SCGX09T308	0,18 *0.007*	0,5 *0.020*
SD523-30-90-C6	03080990	30,0 *1.181*	90,0 *3.543*	95,0 *3.740*	137,0 *5.394*	63,0 *2.480*	SPGX0903	SCGX09T308	0,12 *0.005*	0,5 *0.020*
SD523-31-93-C6	03080991	31,0 *1.220*	93,0 *3.661*	98,0 *3.858*	140,0 *5.512*	63,0 *2.480*	SPGX0903	SCGX09T308	0,12 *0.005*	0,5 *0.020*
SD523-31.75-96-C6	03081015	31,75 *1.250*	96,0 *3.780*	101,0 *3.976*	144,0 *5.669*	63,0 *2.480*	SPGX11T3	SCGX09T308	0,5 *0.020*	0,28 *0.011*
SD523-32-96-C6	03080992	32,0 *1.260*	96,0 *3.780*	101,0 *3.976*	144,0 *5.669*	63,0 *2.480*	SPGX11T3	SCGX09T308	0,5 *0.020*	0,31 *0.012*
SD523-33-99-C6	03080993	33,0 *1.299*	99,0 *3.898*	104,0 *4.094*	147,0 *5.787*	63,0 *2.480*	SPGX11T3	SCGX09T308	0,5 *0.020*	0,46 *0.018*
SD523-34-102-C6	03080994	34,0 *1.339*	102,0 *4.016*	107,0 *4.213*	150,0 *5.906*	63,0 *2.480*	SPGX11T3	SCGX09T308	0,22 *0.009*	0,5 *0.020*
SD523-35-105-C6	03080995	35,0 *1.378*	105,0 *4.134*	110,0 *4.331*	153,0 *6.024*	63,0 *2.480*	SPGX11T3	SCGX11T308	0,22 *0.009*	0,5 *0.020*
SD523-36-108-C6	03080996	36,0 *1.417*	108,0 *4.252*	113,0 *4.449*	156,0 *6.142*	63,0 *2.480*	SPGX11T3	SCGX11T308	0,09 *0.004*	0,5 *0.020*
SD523-37-111-C6	03080997	37,0 *1.457*	111,0 *4.370*	116,0 *4.567*	159,0 *6.260*	63,0 *2.480*	SPGX11T3	SCGX11T308	0,09 *0.004*	0,5 *0.020*
SD523-38-114-C6	03080998	38,0 *1.496*	114,0 *4.488*	119,0 *4.685*	162,0 *6.378*	63,0 *2.480*	SPGX12T3	SCGX11T308	0,5 *0.020*	0,5 *0.020*
SD523-39-117-C6	03080999	39,0 *1.535*	117,0 *4.606*	122,0 *4.803*	165,0 *6.496*	63,0 *2.480*	SPGX12T3	SCGX11T308	0,39 *0.015*	0,5 *0.020*
SD523-40-120-C6	03081000	40,0 *1.575*	120,0 *4.724*	125,0 *4.921*	168,0 *6.614*	63,0 *2.480*	SPGX12T3	SCGX11T308	0,19 *0.007*	0,5 *0.020*

Spare Parts, included in delivery

For drill dia. (mm)	Insert screw		Insert key
			
	Center insert	Periph insert	
15,00-17,45	C02245-T07P	C02245-T07P	T07P-2
17,46-19,49	C02205-T07P	C02245-T07P	T07P-2
19,50-21,24	C02205-T07P	C02205-T07P	T07P-2
21,25-22,49	C02506-T08P	C02506-T08P	T08P-2
22,50-25,49	C02507-T08P	C03007-T08P	T08P-2
25,50-28,49	C03007-T09P	C03007-T09P	T09P-2
28,50-31,49	C03007-T09P	C03009-T09P	T09P-2
31,50-40,49	C03508-T15P	C03508-T15P	T15P-2D
40,50-43,24	C03508-T15P	C05012-T15P	T15P-2D
43,25-59,00	C04011-T15P	C05012-T15P	T15P-2D

Accessories

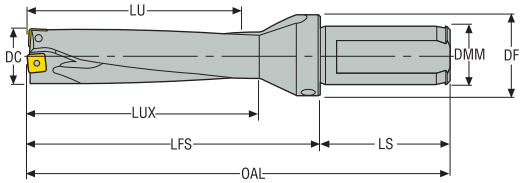
For drill dia. (mm)	Torque wrench*	Replacement blade	Torque value
			
15,00-17,45	T00-07P09	T00-07P	0,9 Nm
17,46-19,49	T00-07P09	T00-07P	0,9 Nm
19,50-21,24	T00-07P09	T00-07P	0,9 Nm
21,25-22,49	T00-08P12	T00-08P	1,2 Nm
22,50-25,49	T00-08P12	T00-08P	1,2 Nm
25,50-28,49	T00-09P20	T00-09P	2,0 Nm
28,50-31,49	T00-09P20	T00-09P	2,0 Nm
31,50-40,49	T00-15P30	T00-15P	3,0 Nm
40,50-43,24	T00-15P30	T00-15P	3,0 Nm
43,25-59,00	T00-15P30	T00-15P	3,0 Nm

*Including blade.

SD524

Drilling depth ~ 4 x D – Metric/Inch





- ISO 9766 shank, -7
- Internal coolant
- For insert information see page(s) 297-303
- For cutting data see page(s) 308, 309
- For intermediate diameters see the MyDesign software.

Designation	Item number	DC	LU	OAL	LUX	LFS	LS	DMM	DF	Insert	
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	Center insert	Periph insert
SD524-17-68-25R7	03080330	17,0 *0.669*	68,0 *2.677*	154,0 *6.063*	73,0 *2.874*	98,0 *3.858*	56,0 *2.205*	25,0 *0.984*	35,0 *1.378*	SPGX0502	SCGX050204
SD524-17.5-70-25R7	03080326	17,5 *0.689*	70,0 *2.756*	156,0 *6.142*	75,0 *2.953*	100,0 *3.937*	56,0 *2.205*	25,0 *0.984*	35,0 *1.378*	SPGX0602	SCGX050204
SD524-18-72-25R7	03080333	18,0 *0.709*	72,0 *2.835*	158,0 *6.220*	77,0 *3.031*	102,0 *4.016*	56,0 *2.205*	25,0 *0.984*	35,0 *1.378*	SPGX0602	SCGX050204
SD524-18.5-74-25R7	03080331	18,5 *0.728*	74,0 *2.913*	160,0 *6.299*	79,0 *3.110*	104,0 *4.094*	56,0 *2.205*	25,0 *0.984*	35,0 *1.378*	SPGX0602	SCGX050204
SD524-19-76-25R7	03080336	19,0 *0.748*	76,0 *2.992*	162,0 *6.378*	81,0 *3.189*	106,0 *4.173*	56,0 *2.205*	25,0 *0.984*	35,0 *1.378*	SPGX0602	SCGX050204
SD524-20-80-25R7	03080340	20,0 *0.787*	80,0 *3.150*	166,0 *6.535*	85,0 *3.346*	110,0 *4.331*	56,0 *2.205*	25,0 *0.984*	35,0 *1.378*	SPGX0602	SCGX060204
SD524-21-84-25R7	03080344	21,0 *0.827*	84,0 *3.307*	170,0 *6.693*	89,0 *3.504*	114,0 *4.488*	56,0 *2.205*	25,0 *0.984*	35,0 *1.378*	SPGX0602	SCGX060204
SD524-22-88-25R7	03080348	22,0 *0.866*	88,0 *3.465*	174,0 *6.850*	93,0 *3.661*	118,0 *4.646*	56,0 *2.205*	25,0 *0.984*	35,0 *1.378*	SPGX0703	SCGX060204
SD524-23-92-25R7	03080351	23,0 *0.906*	92,0 *3.622*	178,0 *7.008*	97,0 *3.819*	122,0 *4.803*	56,0 *2.205*	25,0 *0.984*	35,0 *1.378*	SPGX0703	SCGX070308
SD524-24-96-25R7	03080352	24,0 *0.945*	96,0 *3.780*	182,0 *7.165*	101,0 *3.976*	126,0 *4.961*	56,0 *2.205*	25,0 *0.984*	35,0 *1.378*	SPGX0703	SCGX070308
SD524-25-100-32R7	03080353	25,0 *0.984*	100,0 *3.937*	190,0 *7.480*	105,0 *4.134*	130,0 *5.118*	60,0 *2.362*	32,0 *1.260*	42,0 *1.654*	SPGX0703	SCGX070308
SD524-26-104-32R7	03080354	26,0 *1.024*	104,0 *4.094*	194,0 *7.638*	109,0 *4.291*	134,0 *5.276*	60,0 *2.362*	32,0 *1.260*	42,0 *1.654*	SPGX0903	SCGX070308
SD524-27-108-32R7	03080355	27,0 *1.063*	108,0 *4.252*	198,0 *7.795*	113,0 *4.449*	138,0 *5.433*	60,0 *2.362*	32,0 *1.260*	42,0 *1.654*	SPGX0903	SCGX070308
SD524-28-112-32R7	03080356	28,0 *1.102*	112,0 *4.409*	202,0 *7.953*	117,0 *4.606*	142,0 *5.591*	60,0 *2.362*	32,0 *1.260*	42,0 *1.654*	SPGX0903	SCGX070308
SD524-29-116-32R7	03080357	29,0 *1.142*	116,0 *4.567*	206,0 *8.110*	121,0 *4.764*	146,0 *5.748*	60,0 *2.362*	32,0 *1.260*	42,0 *1.654*	SPGX0903	SCGX09T308
SD524-30-120-32R7	03080358	30,0 *1.181*	120,0 *4.724*	210,0 *8.268*	125,0 *4.921*	150,0 *5.906*	60,0 *2.362*	32,0 *1.260*	42,0 *1.654*	SPGX0903	SCGX09T308
SD524-31-124-32R7	03080360	31,0 *1.220*	124,0 *4.882*	214,0 *8.425*	129,0 *5.079*	154,0 *6.063*	60,0 *2.362*	32,0 *1.260*	42,0 *1.654*	SPGX0903	SCGX09T308
SD524-32-128-40R7	03080361	32,0 *1.260*	128,0 *5.039*	226,0 *8.898*	133,0 *5.236*	158,0 *6.220*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX11T3	SCGX09T308
SD524-33-132-40R7	03080362	33,0 *1.299*	132,0 *5.197*	230,0 *9.055*	137,0 *5.394*	162,0 *6.378*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX11T3	SCGX09T308
SD524-34-136-40R7	03080363	34,0 *1.339*	136,0 *5.354*	234,0 *9.213*	141,0 *5.551*	166,0 *6.535*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX11T3	SCGX09T308
SD524-35-140-40R7	03080364	35,0 *1.378*	140,0 *5.512*	238,0 *9.370*	145,0 *5.709*	170,0 *6.693*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX11T3	SCGX11T308
SD524-36-144-40R7	03080365	36,0 *1.417*	144,0 *5.669*	242,0 *9.528*	149,0 *5.866*	174,0 *6.850*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX11T3	SCGX11T308

Designation	Item number	DC	LU	OAL	LUX	LFS	LS	DMM	DF	Insert	
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	Center insert	Periph insert
SD524-37-148-40R7	03080366	37,0 *1.457*	148,0 *5.827*	246,0 *9.685*	153,0 *6.024*	178,0 *7.008*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX11T3	SCGX11T308
SD524-38-152-40R7	03080367	38,0 *1.496*	152,0 *5.984*	250,0 *9.843*	157,0 *6.181*	182,0 *7.165*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX12T3	SCGX11T308
SD524-39-156-40R7	03080368	39,0 *1.535*	156,0 *6.142*	254,0 *10.000*	161,0 *6.339*	186,0 *7.323*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX12T3	SCGX11T308
SD524-40-160-40R7	03080369	40,0 *1.575*	160,0 *6.299*	258,0 *10.157*	165,0 *6.496*	190,0 *7.480*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX12T3	SCGX11T308
SD524-41-164-40R7	03080370	41,0 *1.614*	164,0 *6.457*	262,0 *10.315*	169,0 *6.654*	194,0 *7.638*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX12T3	SCGX120408
SD524-42-168-40R7	03080371	42,0 *1.654*	168,0 *6.614*	266,0 *10.472*	173,0 *6.811*	198,0 *7.795*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX12T3	SCGX120408
SD524-43-172-40R7	03080372	43,0 *1.693*	172,0 *6.772*	270,0 *10.630*	177,0 *6.969*	202,0 *7.953*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX12T3	SCGX120408
SD524-44-176-40R7	03080373	44,0 *1.732*	176,0 *6.929*	274,0 *10.787*	181,0 *7.126*	206,0 *8.110*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX1504	SCGX120408
SD524-45-180-40R7	03080374	45,0 *1.772*	180,0 *7.087*	278,0 *10.945*	185,0 *7.283*	210,0 *8.268*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX1504	SCGX150512
SD524-46-184-40R7	03080375	46,0 *1.811*	184,0 *7.244*	282,0 *11.102*	189,0 *7.441*	214,0 *8.425*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX1504	SCGX150512
SD524-47-188-40R7	03080376	47,0 *1.850*	188,0 *7.402*	286,0 *11.260*	193,0 *7.598*	218,0 *8.583*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX1504	SCGX150512
SD524-48-192-40R7	03080377	48,0 *1.890*	192,0 *7.559*	290,0 *11.417*	197,0 *7.756*	222,0 *8.740*	68,0 *2.677*	40,0 *1.575*	59,35 *2.337*	SPGX1504	SCGX150512
SD524-49-196-40R7	03080378	49,0 *1.929*	196,0 *7.717*	294,0 *11.575*	201,0 *7.913*	226,0 *8.898*	68,0 *2.677*	40,0 *1.575*	59,35 *2.337*	SPGX1504	SCGX150512
SD524-50-200-40R7	03080379	50,0 *1.969*	200,0 *7.874*	298,0 *11.732*	205,0 *8.071*	230,0 *9.055*	68,0 *2.677*	40,0 *1.575*	59,35 *2.337*	SPGX1504	SCGX150512
SD524-51-204-40R7	03080380	51,0 *2.008*	204,0 *8.031*	302,0 *11.890*	209,0 *8.228*	234,0 *9.213*	68,0 *2.677*	40,0 *1.575*	59,35 *2.337*	SPGX1504	SCGX150512
SD524-52-208-40R7	03080381	52,0 *2.047*	208,0 *8.189*	306,0 *12.047*	213,0 *8.386*	238,0 *9.370*	68,0 *2.677*	40,0 *1.575*	59,35 *2.337*	SPGX1904	SCGX150512
SD524-53-212-40R7	03080382	53,0 *2.087*	212,0 *8.346*	310,0 *12.205*	217,0 *8.543*	242,0 *9.528*	68,0 *2.677*	40,0 *1.575*	59,35 *2.337*	SPGX1904	SCGX150512
SD524-54-216-40R7	03080383	54,0 *2.126*	216,0 *8.504*	314,0 *12.362*	221,0 *8.701*	246,0 *9.685*	68,0 *2.677*	40,0 *1.575*	59,35 *2.337*	SPGX1904	SCGX150512
SD524-55-220-40R7	03080384	55,0 *2.165*	220,0 *8.661*	318,0 *12.520*	225,0 *8.858*	250,0 *9.843*	68,0 *2.677*	40,0 *1.575*	59,35 *2.337*	SPGX1904	SCGX150512
SD524-56-224-40R7	03080385	56,0 *2.205*	224,0 *8.819*	322,0 *12.677*	229,0 *9.016*	254,0 *10.000*	68,0 *2.677*	40,0 *1.575*	59,35 *2.337*	SPGX1904	SCGX150512
SD524-57-228-40R7	03080386	57,0 *2.244*	228,0 *8.976*	326,0 *12.835*	233,0 *9.173*	258,0 *10.157*	68,0 *2.677*	40,0 *1.575*	59,35 *2.337*	SPGX1904	SCGX150512
SD524-58-232-40R7	03080387	58,0 *2.283*	232,0 *9.134*	330,0 *12.992*	237,0 *9.331*	262,0 *10.315*	68,0 *2.677*	40,0 *1.575*	63,0 *2.480*	SPGX1904	SCGX150512
SD524-59-236-40R7	03080388	59,0 *2.323*	236,0 *9.291*	334,0 *13.150*	241,0 *9.488*	266,0 *10.472*	68,0 *2.677*	40,0 *1.575*	63,0 *2.480*	SPGX1904	SCGX150512

Spare Parts, included in delivery

For drill dia. (mm)	Insert screw		Insert key
			
	Center insert	Periph insert	
15,00-17,45	C02245-T07P	C02245-T07P	T07P-2
17,46-19,49	C02205-T07P	C02245-T07P	T07P-2
19,50-21,24	C02205-T07P	C02205-T07P	T07P-2
21,25-22,49	C02506-T08P	C02506-T08P	T08P-2
22,50-25,49	C02507-T08P	C03007-T08P	T08P-2
25,50-28,49	C03007-T09P	C03007-T09P	T09P-2
28,50-31,49	C03007-T09P	C03009-T09P	T09P-2
31,50-40,49	C03508-T15P	C03508-T15P	T15P-2D
40,50-43,24	C03508-T15P	C05012-T15P	T15P-2D
43,25-59,00	C04011-T15P	C05012-T15P	T15P-2D

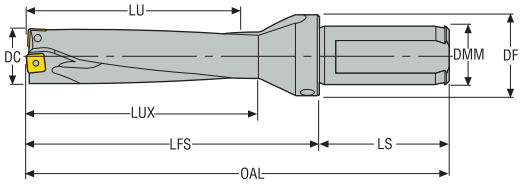
Accessories

For drill dia. (mm)	Torque wrench*	Replacement blade	Torque value
			
15,00-17,45	T00-07P09	T00-07P	0,9 Nm
17,46-19,49	T00-07P09	T00-07P	0,9 Nm
19,50-21,24	T00-07P09	T00-07P	0,9 Nm
21,25-22,49	T00-08P12	T00-08P	1,2 Nm
22,50-25,49	T00-08P12	T00-08P	1,2 Nm
25,50-28,49	T00-09P20	T00-09P	2,0 Nm
28,50-31,49	T00-09P20	T00-09P	2,0 Nm
31,50-40,49	T00-15P30	T00-15P	3,0 Nm
40,50-43,24	T00-15P30	T00-15P	3,0 Nm
43,25-59,00	T00-15P30	T00-15P	3,0 Nm

*Including blade.

SD524

Drilling depth ~ 4 x D – Inch





- ISO 9766 shank, R7
- Internal coolant
- For insert information see page(s) 297-303
- For cutting data see page(s) 308, 309
- For intermediate diameters see the MyDesign software.

Designation	Item number	DC	LU	OAL	LUX	LFS	LS	DMM	DF	Insert	
		Inch	Inch	Inch	Inch	Inch	Inch	Inch	Inch	Center insert	Periph insert
SD524-0594-238-1000R7	03080280	0.594	2.380	5.811	2.577	3.561	2.250	1.000	1.378	SPGX0502	SCGX050204
SD524-0625-250-1000R7	03080281	0.625	2.500	5.931	2.697	3.681	2.250	1.000	1.378	SPGX0502	SCGX050204
SD524-0656-262-1000R7	03080283	0.656	2.620	6.051	2.817	3.801	2.250	1.000	1.378	SPGX0502	SCGX050204
SD524-0687-275-1000R7	03080285	0.687	2.750	6.181	2.947	3.931	2.250	1.000	1.378	SPGX0502	SCGX050204
SD524-0709-284-1000R7	03080286	0.709	2.840	6.271	3.037	4.021	2.250	1.000	1.378	SPGX0602	SCGX050204
SD524-0750-300-1000R7	03080288	0.750	3.000	6.431	3.197	4.181	2.250	1.000	1.378	SPGX0602	SCGX050204
SD524-0766-306-1000R7	03080289	0.766	3.060	6.491	3.257	4.241	2.250	1.000	1.378	SPGX0602	SCGX050204
SD524-0787-315-1000R7	03080290	0.787	3.150	6.581	3.347	4.331	2.250	1.000	1.378	SPGX0602	SCGX060204
SD524-0812-325-1000R7	03080292	0.812	3.250	6.681	3.447	4.431	2.250	1.000	1.378	SPGX0602	SCGX060204
SD524-0827-331-1000R7	03080294	0.827	3.310	6.741	3.507	4.491	2.250	1.000	1.378	SPGX0602	SCGX060204
SD524-0875-350-1000R7	03080295	0.875	3.500	6.931	3.697	4.681	2.250	1.000	1.378	SPGX0703	SCGX060204
SD524-0906-362-1000R7	03080297	0.906	3.620	7.051	3.817	4.801	2.250	1.000	1.378	SPGX0703	SCGX070308
SD524-0922-369-1000R7	03080298	0.922	3.690	7.121	3.887	4.871	2.250	1.000	1.378	SPGX0703	SCGX070308
SD524-0937-375-1000R7	03080299	0.937	3.750	7.181	3.947	4.931	2.250	1.000	1.378	SPGX0703	SCGX070308
SD524-0984-394-1250R7	03080301	0.984	3.940	7.496	4.137	5.121	2.375	1.250	1.654	SPGX0703	SCGX070308
SD524-1000-400-1250R7	03080302	1.000	4.000	7.556	4.197	5.181	2.375	1.250	1.654	SPGX0703	SCGX070308
SD524-1032-413-1250R7	03080304	1.032	4.130	7.686	4.327	5.311	2.375	1.250	1.654	SPGX0903	SCGX070308
SD524-1062-425-1250R7	03080305	1.062	4.250	7.806	4.447	5.431	2.375	1.250	1.654	SPGX0903	SCGX070308
SD524-1109-443-1250R7	03080307	1.109	4.430	7.986	4.627	5.611	2.375	1.250	1.654	SPGX0903	SCGX070308
SD524-1125-450-1250R7	03080308	1.125	4.500	8.056	4.697	5.681	2.375	1.250	1.654	SPGX0903	SCGX09T308
SD524-1172-469-1250R7	03080310	1.172	4.690	8.246	4.887	5.871	2.375	1.250	1.654	SPGX0903	SCGX09T308
SD524-1187-475-1250R7	03080311	1.187	4.750	8.306	4.947	5.931	2.375	1.250	1.654	SPGX0903	SCGX09T308
SD524-1250-500-1500R7	03080314	1.250	5.000	8.806	5.197	6.181	2.625	1.500	1.969	SPGX11T3	SCGX09T308
SD524-1312-525-1500R7	03080315	1.312	5.250	9.056	5.447	6.431	2.625	1.500	1.969	SPGX11T3	SCGX09T308
SD524-1344-538-1500R7	03080317	1.344	5.380	9.186	5.577	6.561	2.625	1.500	1.969	SPGX11T3	SCGX09T308
SD524-1375-550-1500R7	03080318	1.375	5.500	9.306	5.697	6.681	2.625	1.500	1.969	SPGX11T3	SCGX11T308
SD524-1437-575-1500R7	03080320	1.437	5.750	9.556	5.947	6.931	2.625	1.500	1.969	SPGX11T3	SCGX11T308
SD524-1500-600-1500R7	03080322	1.500	6.000	9.806	6.197	7.181	2.625	1.500	1.969	SPGX12T3	SCGX11T308
SD524-1562-625-1500R7	03080323	1.562	6.250	10.056	6.447	7.431	2.625	1.500	1.969	SPGX12T3	SCGX11T308
SD524-1625-650-1500R7	03080324	1.625	6.500	10.306	6.697	7.681	2.625	1.500	1.969	SPGX12T3	SCGX120408
SD524-1687-675-1500R7	03080325	1.687	6.750	10.556	6.947	7.931	2.625	1.500	1.969	SPGX12T3	SCGX120408
SD524-1750-700-1500R7	03080328	1.750	7.000	10.806	7.197	8.181	2.625	1.500	1.969	SPGX1504	SCGX120408
SD524-1812-725-1500R7	03080332	1.812	7.250	11.056	7.447	8.431	2.625	1.500	1.969	SPGX1504	SCGX150512
SD524-1875-750-1500R7	03080334	1.875	7.500	11.306	7.697	8.681	2.625	1.500	1.969	SPGX1504	SCGX150512
SD524-1937-775-1500R7	03080335	1.937	7.750	11.556	7.947	8.931	2.625	1.500	2.337	SPGX1504	SCGX150512
SD524-2000-800-1500R7	03080337	2.000	8.000	11.806	8.197	9.181	2.625	1.500	2.337	SPGX1504	SCGX150512

Designation	Item number	DC	LU	OAL	LUX	LFS	LS	DMM	DF	Insert	
		Inch	*Inch*	*Inch*	*Inch*	*Inch*	*Inch*	*Inch*	*Inch*	Center insert	Periph insert
SD524-2062-825-1500R7	03080339	*2.062*	*8.250*	*12.056*	*8.447*	*9.431*	*2.625*	*1.500*	*2.337*	SPGX1904	SCGX150512
SD524-2125-850-1500R7	03080342	*2.125*	*8.500*	*12.306*	*8.697*	*9.681*	*2.625*	*1.500*	*2.337*	SPGX1904	SCGX150512
SD524-2250-900-1500R7	03080346	*2.250*	*9.000*	*12.806*	*9.197*	*10.181*	*2.625*	*1.500*	*2.337*	SPGX1904	SCGX150512
SD524-2375-950-1500R7	03080349	*2.375*	*9.500*	*13.306*	*9.697*	*10.681*	*2.625*	*1.500*	*2.480*	SPGX1904	SCGX150512

Spare Parts, included in delivery

For drill dia. (inch)	Insert screw centre	Insert screw periph	Key
			
0.594-0.687	C02245-T07P	C02245-T07P	T07P-2
0.709-0.766	C02205-T07P	C02245-T07P	T07P-2
0.787-0.827	C02205-T07P	C02205-T07P	T07P-2
0.875-0.905	C02506-T08P	C02506-T08P	T08P-2
0.906-1.000	C02507-T08P	C03007-T08P	T08P-2
1.032-1.109	C03007-T09P	C03007-T09P	T09P-2
1.125-1.187	C03007-T09P	C03009-T09P	T09P-2
1.250-1.562	C03508-T15P	C03508-T15P	T15P-2D
1.625-1.687	C03508-T15P	C05012-T15P	T15P-2D
1.750-2.375	C04011-T15P	C05012-T15P	T15P-2D

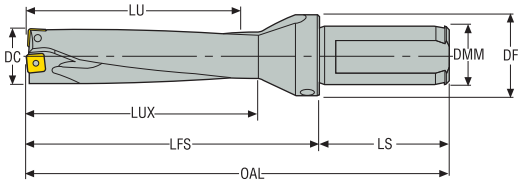
Accessories

For drill dia. (inch)	Torque wrench
	
0.594-0.687	T00-07P09
0.709-0.766	T00-07P09
0.787-0.827	T00-07P09
0.875-0.905	T00-08P12
0.906-1.000	T00-08P12
1.032-1.109	T00-09P20
1.125-1.187	T00-09P20
1.250-1.562	T00-15P30
1.625-1.687	T00-15P30
1.750-2.375	T00-15P35

Torque wrench including blade.

SD524

Drilling depth ~ 4 x D – Inch

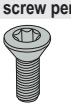




- ISO 9766 shank, R7-C
- Internal coolant
- For insert information see page(s) 297-303
- For cutting data see page(s) 308, 309
- For intermediate diameters see the MyDesign software.
- For stationary applications

Designation	Item number	DC	LU	OAL	LUX	LFS	LS	DMM	DF	Insert	
		Inch	*Inch*	*Inch*	*Inch*	*Inch*	*Inch*	*Inch*	*Inch*	Center insert	Periph insert
SD524-0625-250-1000R7-C	03080282	*0.625*	*2.500*	*6.628*	*2.697*	*3.878*	*2.750*	*1.000*	*1.378*	SPGX0502	SCGX050204
SD524-0687-275-1000R7-C	03080284	*0.687*	*2.750*	*6.878*	*2.947*	*4.128*	*2.750*	*1.000*	*1.378*	SCGX0502	SCGX050204
SD524-0750-300-1000R7-C	03080287	*0.750*	*3.000*	*7.128*	*3.197*	*4.378*	*2.750*	*1.000*	*1.378*	SPGX0602	SCGX050204
SD524-0812-325-1000R7-C	03080293	*0.812*	*3.250*	*7.378*	*3.447*	*4.628*	*2.750*	*1.000*	*1.378*	SPGX0602	SCGX060204
SD524-0875-350-1000R7-C	03080296	*0.875*	*3.500*	*7.628*	*3.697*	*4.878*	*2.750*	*1.000*	*1.378*	SPGX0703	SCGX060204
SD524-0937-375-1000R7-C	03080300	*0.937*	*3.750*	*7.878*	*3.947*	*5.128*	*2.750*	*1.000*	*1.378*	SPGX0703	SCGX070308
SD524-1000-400-1250R7-C	03080303	*1.000*	*4.000*	*8.128*	*4.197*	*5.378*	*2.750*	*1.250*	*1.654*	SPGX0703	SCGX070308
SD524-1062-425-1250R7-C	03080306	*1.062*	*4.250*	*8.378*	*4.447*	*5.628*	*2.750*	*1.250*	*1.654*	SPGX0903	SCGX070308
SD524-1125-450-1250R7-C	03080309	*1.125*	*4.500*	*8.628*	*4.697*	*5.878*	*2.750*	*1.250*	*1.654*	SPGX0903	SCGX09T308
SD524-1187-475-1250R7-C	03080312	*1.187*	*4.750*	*8.878*	*4.947*	*6.128*	*2.750*	*1.250*	*1.654*	SPGX0903	SCGX09T308
SD524-1250-500-1500R7-C	03080313	*1.250*	*5.000*	*9.128*	*5.197*	*6.378*	*2.750*	*1.500*	*1.969*	SPGX11T3	SCGX09T308
SD524-1312-525-1500R7-C	03080316	*1.312*	*5.250*	*9.378*	*5.447*	*6.628*	*2.750*	*1.500*	*1.969*	SPGX11T3	SCGX09T308
SD524-1375-550-1500R7-C	03080319	*1.375*	*5.500*	*9.628*	*5.697*	*6.878*	*2.750*	*1.500*	*1.969*	SPGX11T3	SCGX11T308
SD524-1500-600-1500R7-C	03080321	*1.500*	*6.000*	*10.128*	*6.197*	*7.378*	*2.750*	*1.500*	*1.969*	SPGX12T3	SCGX11T308
SD524-1750-700-1500R7-C	03080329	*1.750*	*7.000*	*11.128*	*7.197*	*8.378*	*2.750*	*1.500*	*1.969*	SPGX1504	SCGX120408
SD524-2000-800-1500R7-C	03080338	*2.000*	*8.000*	*12.128*	*8.197*	*9.378*	*2.750*	*1.500*	*2.337*	SPGX1504	SCGX150512
SD524-2125-850-1500R7-C	03080343	*2.125*	*8.500*	*12.628*	*8.697*	*9.878*	*2.750*	*1.500*	*2.337*	SPGX1904	SCGX150512
SD524-2250-900-1500R7-C	03080347	*2.250*	*9.000*	*13.128*	*9.197*	*10.378*	*2.750*	*1.500*	*2.337*	SPGX1904	SCGX150512
SD524-2375-950-1500R7-C	03080350	*2.375*	*9.500*	*13.628*	*9.697*	*10.878*	*2.750*	*1.500*	*2.480*	SPGX1904	SCGX150512

Spare Parts, included in delivery

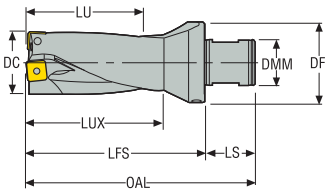
For drill dia. (inch)	Insert screw centre	Insert screw periph	Key	Plug
				
0.625-0.687	C02245-T07P	C02245-T07P	T07P-2	R1/4
0.750	C02205-T07P	C02245-T07P	T07P-2	R1/4
0.812	C02205-T07P	C02205-T07P	T07P-2	R1/4
0.875	C02506-T08P	C02506-T08P	T08P-2	R1/4
0.937-1.000	C02507-T08P	C03007-T08P	T08P-2	R1/4
1.062	C03007-T09P	C03007-T09P	T09P-2	R1/4
1.125-1.187	C03007-T09P	C03009-T09P	T09P-2	R1/4
1.250-1.375	C03508-T15P	C03508-T15P	T15P-2D	R1/4
1.750-2.375	C04011-T15P	C05012-T15P	T15P-2D	R1/4

Accessories

For drill dia. (inch)	Hose adapter	Torque wrench
		
0.625-0.687	1310	T00-07P09
0.750	1310	T00-07P09
0.812	1310	T00-07P09
0.875	1310	T00-08P12
0.937-1.000	1310	T00-08P12
1.062	1310	T00-09P20
1.125-1.187	1310	T00-09P20
1.250-1.375	1310	T00-15P30
1.750-2.375	1310	T00-15P35

SD524

Drilling depth ~ 4 x D – Metric/Inch





- ABS 50 compatible shank, -2
- Internal coolant
- For insert information see page(s) 297-303
- For cutting data see page(s) 308, 309
- For intermediate diameters see the MyDesign software.

Designation	Item number	DC	LU	OAL	LUX	LFS	LS	DMM	DF	Insert	
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	Center insert	Periph insert
SD524-17-68-50R2	03080208	17,0 *0.669*	68,0 *2.677*	129,0 *5.079*	73,0 *2.874*	98,0 *3.858*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0502	SCGX050204
SD524-17.5-70-50R2	03080327	17,5 *0.689*	70,0 *2.756*	131,0 *5.157*	75,0 *2.953*	100,0 *3.937*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0602	SCGX050204
SD524-18-72-50R2	03080209	18,0 *0.709*	72,0 *2.835*	133,0 *5.236*	77,0 *3.031*	102,0 *4.016*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0602	SCGX050204
SD524-18.5-74-50R2	03080210	18,5 *0.728*	74,0 *2.913*	135,0 *5.315*	79,0 *3.110*	104,0 *4.094*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0602	SCGX050204
SD524-19-76-50R2	03080422	19,0 *0.748*	76,0 *2.992*	137,0 *5.394*	81,0 *3.189*	106,0 *4.173*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0602	SCGX050204
SD524-20-80-50R2	03080341	20,0 *0.787*	80,0 *3.150*	141,0 *5.551*	85,0 *3.346*	110,0 *4.331*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0602	SCGX060204
SD524-20.62-83-50R2	03080215	20,62 *0.812*	83,0 *3.268*	144,0 *5.669*	88,0 *3.465*	113,0 *4.449*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0602	SCGX060204
SD524-21-84-50R2	03080345	21,0 *0.827*	84,0 *3.307*	145,0 *5.709*	89,0 *3.504*	114,0 *4.488*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0602	SCGX060204
SD524-22-88-50R2	03080193	22,0 *0.866*	88,0 *3.465*	149,0 *5.866*	93,0 *3.661*	118,0 *4.646*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0703	SCGX060204
SD524-22.23-89-50R2	03080216	22,23 *0.875*	89,0 *3.504*	150,0 *5.906*	94,0 *3.701*	119,0 *4.685*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0703	SCGX060204
SD524-23-92-50R2	03080194	23,0 *0.906*	92,0 *3.622*	153,0 *6.024*	97,0 *3.819*	122,0 *4.803*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0703	SCGX070308
SD524-24-96-50R2	03080195	24,0 *0.945*	96,0 *3.780*	157,0 *6.181*	101,0 *3.976*	126,0 *4.961*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0703	SCGX070308
SD524-25-100-50R2	03080196	25,0 *0.984*	100,0 *3.937*	161,0 *6.339*	105,0 *4.134*	130,0 *5.118*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0703	SCGX070308
SD524-25.4-102-50R2	03080217	25,4 *1.000*	102,0 *4.016*	163,0 *6.417*	107,0 *4.213*	132,0 *5.197*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0703	SCGX070308
SD524-26-104-50R2	03080423	26,0 *1.024*	104,0 *4.094*	165,0 *6.496*	109,0 *4.291*	134,0 *5.276*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0903	SCGX070308
SD524-27-108-50R2	03080197	27,0 *1.063*	108,0 *4.252*	169,0 *6.654*	113,0 *4.449*	138,0 *5.433*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0903	SCGX070308
SD524-28-112-50R2	03080424	28,0 *1.102*	112,0 *4.409*	173,0 *6.811*	117,0 *4.606*	142,0 *5.591*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0903	SCGX070308
SD524-28.59-115-50R2	03080218	28,59 *1.126*	115,0 *4.528*	176,0 *6.929*	120,0 *4.724*	145,0 *5.709*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0903	SCGX070308
SD524-29-116-50R2	03080198	29,0 *1.142*	116,0 *4.567*	177,0 *6.969*	121,0 *4.764*	146,0 *5.748*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0903	SCGX09T308
SD524-30-120-50R2	03080199	30,0 *1.181*	120,0 *4.724*	181,0 *7.126*	125,0 *4.921*	150,0 *5.906*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0903	SCGX09T308
SD524-31-124-50R2	03080200	31,0 *1.220*	124,0 *4.882*	185,0 *7.283*	129,0 *5.079*	154,0 *6.063*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX0903	SCGX09T308
SD524-31.75-127-50R2	03080359	31,75 *1.250*	127,0 *5.000*	188,0 *7.402*	132,0 *5.197*	157,0 *6.181*	31,0 *1.220*	50,0 *1.969*	50,0 *1.969*	SPGX11T3	SCGX09T308

Designation	Item number	DC	LU	OAL	LUX	LFS	LS	DMM	DF	Insert	
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	Center insert	Periph insert
SD524-32-128-50R2	03080425	32,0 *1.260*	128,0 *5.039*	189,0 *7.441*	133,0 *5.236*	158,0 *6.220*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX11T3	SCGX09T308
SD524-33-132-50R2	03080201	33,0 *1.299*	132,0 *5.197*	193,0 *7.598*	137,0 *5.394*	162,0 *6.378*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX11T3	SCGX09T308
SD524-34-136-50R2	03080207	34,0 *1.339*	136,0 *5.354*	197,0 *7.756*	141,0 *5.551*	166,0 *6.535*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX11T3	SCGX09T308
SD524-35-140-50R2	03080202	35,0 *1.378*	140,0 *5.512*	201,0 *7.913*	145,0 *5.709*	170,0 *6.693*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX11T3	SCGX11T308
SD524-36-144-50R2	03080203	36,0 *1.417*	144,0 *5.669*	205,0 *8.071*	149,0 *5.866*	174,0 *6.850*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX11T3	SCGX11T308
SD524-37-148-50R2	03080204	37,0 *1.457*	148,0 *5.827*	209,0 *8.228*	153,0 *6.024*	178,0 *7.008*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX11T3	SCGX11T308
SD524-38-152-50R2	03080426	38,0 *1.496*	152,0 *5.984*	213,0 *8.386*	157,0 *6.181*	182,0 *7.165*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX12T3	SCGX11T308
SD524-39-156-50R2	03080205	39,0 *1.535*	156,0 *6.142*	217,0 *8.543*	161,0 *6.339*	186,0 *7.323*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX12T3	SCGX11T308
SD524-40-160-50R2	03080206	40,0 *1.575*	160,0 *6.299*	221,0 *8.701*	165,0 *6.496*	190,0 *7.480*	31,0 *1.220*	28,0 *1.102*	50,0 *1.969*	SPGX12T3	SCGX11T308

Spare Parts, included in delivery

For drill dia. (mm)	Insert screw		Insert key
			
	Center insert	Periph insert	
15,00-17,45	C02245-T07P	C02245-T07P	T07P-2
17,46-19,49	C02205-T07P	C02245-T07P	T07P-2
19,50-21,24	C02205-T07P	C02205-T07P	T07P-2
21,25-22,49	C02506-T08P	C02506-T08P	T08P-2
22,50-25,49	C02507-T08P	C03007-T08P	T08P-2
25,50-28,49	C03007-T09P	C03007-T09P	T09P-2
28,50-31,49	C03007-T09P	C03009-T09P	T09P-2
31,50-40,49	C03508-T15P	C03508-T15P	T15P-2D
40,50-43,24	C03508-T15P	C05012-T15P	T15P-2D
43,25-59,00	C04011-T15P	C05012-T15P	T15P-2D

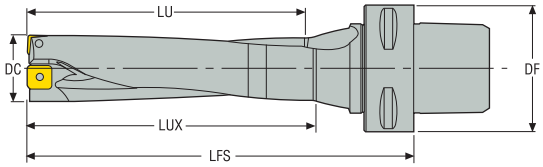
Accessories

For drill dia. (mm)	Torque wrench*	Replacement blade	Torque value
			
15,00-17,45	T00-07P09	T00-07P	0,9 Nm
17,46-19,49	T00-07P09	T00-07P	0,9 Nm
19,50-21,24	T00-07P09	T00-07P	0,9 Nm
21,25-22,49	T00-08P12	T00-08P	1,2 Nm
22,50-25,49	T00-08P12	T00-08P	1,2 Nm
25,50-28,49	T00-09P20	T00-09P	2,0 Nm
28,50-31,49	T00-09P20	T00-09P	2,0 Nm
31,50-40,49	T00-15P30	T00-15P	3,0 Nm
40,50-43,24	T00-15P30	T00-15P	3,0 Nm
43,25-59,00	T00-15P30	T00-15P	3,0 Nm

*Including blade.

SD524

Drilling depth ~ 4 x D – Metric/Inch





- Seco-Capto™ C4 shank
- Internal coolant
- For insert information see page(s) 297-303
- For cutting data see page(s) 308, 309
- For intermediate diameters see the MyDesign software.

Designation	Item number	DC	LU	LUX	LFS	DF	Insert	
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	Center insert	Periph insert
SD524-17-68-C4	03080219	17,0 *0.669*	68,0 *2.677*	73,0 *2.874*	106,0 *4.173*	40,0 *1.575*	SPGX0502	SCGX050204
SD524-17.5-70-C4	03080220	17,5 *0.689*	70,0 *2.756*	75,0 *2.953*	109,0 *4.291*	40,0 *1.575*	SPGX0602	SCGX050204
SD524-18-72-C4	03080221	18,0 *0.709*	72,0 *2.835*	77,0 *3.031*	111,0 *4.370*	40,0 *1.575*	SPGX0602	SCGX050204
SD524-18.5-74-C4	03080222	18,5 *0.728*	74,0 *2.913*	79,0 *3.110*	113,0 *4.449*	40,0 *1.575*	SPGX0602	SCGX050204
SD524-19-76-C4	03080223	19,0 *0.748*	76,0 *2.992*	81,0 *3.189*	115,0 *4.528*	40,0 *1.575*	SPGX0602	SCGX050204
SD524-20-80-C4	03080224	20,0 *0.787*	80,0 *3.150*	85,0 *3.346*	121,0 *4.764*	40,0 *1.575*	SPGX0602	SCGX060204
SD524-20.62-83-C4	03080413	20,62 *0.812*	83,0 *3.268*	88,0 *3.465*	124,0 *4.882*	40,0 *1.575*	SPGX0602	SCGX060204
SD524-21-84-C4	03080225	21,0 *0.827*	84,0 *3.307*	89,0 *3.504*	125,0 *4.921*	40,0 *1.575*	SPGX0602	SCGX060204
SD524-22-88-C4	03080226	22,0 *0.866*	88,0 *3.465*	93,0 *3.661*	129,0 *5.079*	40,0 *1.575*	SPGX0703	SCGX060204
SD524-22.23-89-C4	03080414	22,23 *0.875*	89,0 *3.504*	94,0 *3.701*	130,0 *5.118*	40,0 *1.575*	SPGX0703	SCGX060204
SD524-23-92-C4	03080227	23,0 *0.906*	92,0 *3.622*	97,0 *3.819*	134,0 *5.276*	40,0 *1.575*	SPGX0703	SCGX070308
SD524-24-96-C4	03080228	24,0 *0.945*	96,0 *3.780*	101,0 *3.976*	139,0 *5.472*	40,0 *1.575*	SPGX0703	SCGX070308
SD524-25-100-C4	03080229	25,0 *0.984*	100,0 *3.937*	105,0 *4.134*	144,0 *5.669*	40,0 *1.575*	SPGX0703	SCGX070308
SD524-25.4-102-C4	03080415	25,4 *1.000*	102,0 *4.016*	107,0 *4.213*	146,0 *5.748*	40,0 *1.575*	SPGX0703	SCGX070308
SD524-26-104-C4	03080230	26,0 *1.024*	104,0 *4.094*	109,0 *4.291*	148,0 *5.827*	40,0 *1.575*	SPGX0903	SCGX070308
SD524-27-108-C4	03080231	27,0 *1.063*	108,0 *4.252*	113,0 *4.449*	152,0 *5.984*	40,0 *1.575*	SPGX0903	SCGX070308
SD524-28-112-C4	03080232	28,0 *1.102*	112,0 *4.409*	117,0 *4.606*	157,0 *6.181*	40,0 *1.575*	SPGX0903	SCGX070308
SD524-28.59-115-C4	03080416	28,59 *1.126*	115,0 *4.528*	120,0 *4.724*	160,0 *6.299*	40,0 *1.575*	SPGX0903	SCGX070308
SD524-29-116-C4	03080233	29,0 *1.142*	116,0 *4.567*	121,0 *4.764*	161,0 *6.339*	40,0 *1.575*	SPGX0903	SCGX09T308
SD524-30-120-C4	03080234	30,0 *1.181*	120,0 *4.724*	125,0 *4.921*	165,0 *6.496*	40,0 *1.575*	SPGX0903	SCGX09T308

Spare Parts, included in delivery

For drill dia. (mm)	Insert screw		Insert key
			
	Center insert	Periph insert	
15,00-17,45	C02245-T07P	C02245-T07P	T07P-2
17,46-19,49	C02205-T07P	C02245-T07P	T07P-2
19,50-21,24	C02205-T07P	C02205-T07P	T07P-2
21,25-22,49	C02506-T08P	C02506-T08P	T08P-2
22,50-25,49	C02507-T08P	C03007-T08P	T08P-2
25,50-28,49	C03007-T09P	C03007-T09P	T09P-2
28,50-31,49	C03007-T09P	C03009-T09P	T09P-2
31,50-40,49	C03508-T15P	C03508-T15P	T15P-2D
40,50-43,24	C03508-T15P	C05012-T15P	T15P-2D
43,25-59,00	C04011-T15P	C05012-T15P	T15P-2D

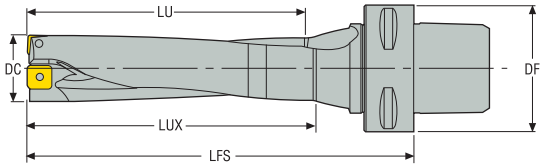
Accessories

For drill dia. (mm)	Torque wrench*	Replacement blade	Torque value
			
15,00-17,45	T00-07P09	T00-07P	0,9 Nm
17,46-19,49	T00-07P09	T00-07P	0,9 Nm
19,50-21,24	T00-07P09	T00-07P	0,9 Nm
21,25-22,49	T00-08P12	T00-08P	1,2 Nm
22,50-25,49	T00-08P12	T00-08P	1,2 Nm
25,50-28,49	T00-09P20	T00-09P	2,0 Nm
28,50-31,49	T00-09P20	T00-09P	2,0 Nm
31,50-40,49	T00-15P30	T00-15P	3,0 Nm
40,50-43,24	T00-15P30	T00-15P	3,0 Nm
43,25-59,00	T00-15P30	T00-15P	3,0 Nm

*Including blade.

SD524

Drilling depth ~ 4 x D – Metric/Inch





- Seco-Capto™ C5 shank
- Internal coolant
- For insert information see page(s) 297-303
- For cutting data see page(s) 308, 309
- For intermediate diameters see the MyDesign software.

Designation	Item number	DC	LU	LUX	LFS	DF	Insert	
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	Center insert	Periph insert
SD524-17-68-C5	03080235	17,0 *0.669*	68,0 *2.677*	73,0 *2.874*	106,0 *4.173*	50,0 *1.969*	SPGX0502	SCGX050204
SD524-17.5-70-C5	03080237	17,5 *0.689*	70,0 *2.756*	75,0 *2.953*	109,0 *4.291*	50,0 *1.969*	SPGX0602	SCGX050204
SD524-18-72-C5	03080238	18,0 *0.709*	72,0 *2.835*	77,0 *3.031*	111,0 *4.370*	50,0 *1.969*	SPGX0602	SCGX050204
SD524-18.5-74-C5	03080239	18,5 *0.728*	74,0 *2.913*	79,0 *3.110*	113,0 *4.449*	50,0 *1.969*	SPGX0602	SCGX050204
SD524-19-76-C5	03080240	19,0 *0.748*	76,0 *2.992*	81,0 *3.189*	115,0 *4.528*	50,0 *1.969*	SPGX0602	SCGX050204
SD524-20-80-C5	03080241	20,0 *0.787*	80,0 *3.150*	85,0 *3.346*	121,0 *4.764*	50,0 *1.969*	SPGX0602	SCGX060204
SD524-20.62-83-C5	03080408	20,62 *0.812*	83,0 *3.268*	88,0 *3.465*	124,0 *4.882*	50,0 *1.969*	SPGX0602	SCGX060204
SD524-21-84-C5	03080242	21,0 *0.827*	84,0 *3.307*	89,0 *3.504*	125,0 *4.921*	50,0 *1.969*	SPGX0602	SCGX060204
SD524-22-88-C5	03080243	22,0 *0.866*	88,0 *3.465*	93,0 *3.661*	129,0 *5.079*	50,0 *1.969*	SPGX0703	SCGX060204
SD524-22.23-89-C5	03080409	22,23 *0.875*	89,0 *3.504*	94,0 *3.701*	130,0 *5.118*	50,0 *1.969*	SPGX0703	SCGX060204
SD524-23-92-C5	03080244	23,0 *0.906*	92,0 *3.622*	97,0 *3.819*	134,0 *5.276*	50,0 *1.969*	SPGX0703	SCGX070308
SD524-24-96-C5	03080245	24,0 *0.945*	96,0 *3.780*	101,0 *3.976*	139,0 *5.472*	50,0 *1.969*	SPGX0703	SCGX070308
SD524-25-100-C5	03080246	25,0 *0.984*	100,0 *3.937*	105,0 *4.134*	144,0 *5.669*	50,0 *1.969*	SPGX0703	SCGX070308
SD524-25.4-102-C5	03080410	25,4 *1.000*	102,0 *4.016*	107,0 *4.213*	146,0 *5.748*	50,0 *1.969*	SPGX0703	SCGX070308
SD524-26-104-C5	03080247	26,0 *1.024*	104,0 *4.094*	109,0 *4.291*	148,0 *5.827*	50,0 *1.969*	SPGX0903	SCGX070308
SD524-27-108-C5	03080248	27,0 *1.063*	108,0 *4.252*	113,0 *4.449*	152,0 *5.984*	50,0 *1.969*	SPGX0903	SCGX070308
SD524-28-112-C5	03080249	28,0 *1.102*	112,0 *4.409*	117,0 *4.606*	157,0 *6.181*	50,0 *1.969*	SPGX0903	SCGX070308
SD524-28.59-115-C5	03080411	28,59 *1.126*	115,0 *4.528*	120,0 *4.724*	160,0 *6.299*	50,0 *1.969*	SPGX0903	SCGX070308
SD524-29-116-C5	03080250	29,0 *1.142*	116,0 *4.567*	121,0 *4.764*	161,0 *6.339*	50,0 *1.969*	SPGX0903	SCGX09T308
SD524-30-120-C5	03080251	30,0 *1.181*	120,0 *4.724*	125,0 *4.921*	165,0 *6.496*	50,0 *1.969*	SPGX0903	SCGX09T308
SD524-31-124-C5	03080252	31,0 *1.220*	124,0 *4.882*	129,0 *5.079*	169,0 *6.654*	50,0 *1.969*	SPGX0903	SCGX09T308
SD524-31.75-127-C5	03080412	31,75 *1.250*	127,0 *5.000*	132,0 *5.197*	173,0 *6.811*	50,0 *1.969*	SPGX11T3	SCGX09T308

Designation	Item number	DC	LU	LUX	LFS	DF	Insert	
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	Center insert	Periph insert
SD524-32-128-C5	03080253	32,0 *1.260*	128,0 *5.039*	133,0 *5.236*	174,0 *6.850*	50,0 *1.969*	SPGX11T3	SCGX09T308
SD524-33-132-C5	03080254	33,0 *1.299*	132,0 *5.197*	137,0 *5.394*	178,0 *7.008*	50,0 *1.969*	SPGX11T3	SCGX09T308
SD524-34-136-C5	03080255	34,0 *1.339*	136,0 *5.354*	141,0 *5.551*	182,0 *7.165*	50,0 *1.969*	SPGX11T3	SCGX09T308
SD524-35-140-C5	03080256	35,0 *1.378*	140,0 *5.512*	145,0 *5.709*	186,0 *7.323*	50,0 *1.969*	SPGX11T3	SCGX11T308
SD524-36-144-C5	03080257	36,0 *1.417*	144,0 *5.669*	149,0 *5.866*	190,0 *7.480*	50,0 *1.969*	SPGX11T3	SCGX11T308
SD524-37-148-C5	03080258	37,0 *1.457*	148,0 *5.827*	153,0 *6.024*	194,0 *7.638*	50,0 *1.969*	SPGX11T3	SCGX11T308
SD524-38-152-C5	03080259	38,0 *1.496*	152,0 *5.984*	157,0 *6.181*	198,0 *7.795*	50,0 *1.969*	SPGX12T3	SCGX11T308
SD524-39-156-C5	03080260	39,0 *1.535*	156,0 *6.142*	161,0 *6.339*	202,0 *7.953*	50,0 *1.969*	SPGX12T3	SCGX11T308
SD524-40-160-C5	03080261	40,0 *1.575*	160,0 *6.299*	165,0 *6.496*	206,0 *8.110*	50,0 *1.969*	SPGX12T3	SCGX11T308

Spare Parts, included in delivery

For drill dia. (mm)	Insert screw		Insert key
			
	Center insert	Periph insert	
15,00-17,45	C02245-T07P	C02245-T07P	T07P-2
17,46-19,49	C02205-T07P	C02245-T07P	T07P-2
19,50-21,24	C02205-T07P	C02205-T07P	T07P-2
21,25-22,49	C02506-T08P	C02506-T08P	T08P-2
22,50-25,49	C02507-T08P	C03007-T08P	T08P-2
25,50-28,49	C03007-T09P	C03007-T09P	T09P-2
28,50-31,49	C03007-T09P	C03009-T09P	T09P-2
31,50-40,49	C03508-T15P	C03508-T15P	T15P-2D
40,50-43,24	C03508-T15P	C05012-T15P	T15P-2D
43,25-59,00	C04011-T15P	C05012-T15P	T15P-2D

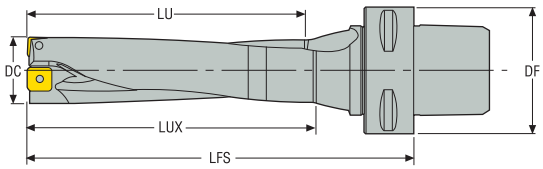
Accessories

For drill dia. (mm)	Torque wrench*	Replacement blade	Torque value
			
15,00-17,45	T00-07P09	T00-07P	0,9 Nm
17,46-19,49	T00-07P09	T00-07P	0,9 Nm
19,50-21,24	T00-07P09	T00-07P	0,9 Nm
21,25-22,49	T00-08P12	T00-08P	1,2 Nm
22,50-25,49	T00-08P12	T00-08P	1,2 Nm
25,50-28,49	T00-09P20	T00-09P	2,0 Nm
28,50-31,49	T00-09P20	T00-09P	2,0 Nm
31,50-40,49	T00-15P30	T00-15P	3,0 Nm
40,50-43,24	T00-15P30	T00-15P	3,0 Nm
43,25-59,00	T00-15P30	T00-15P	3,0 Nm

*Including blade.

SD524

Drilling depth ~ 4 x D – Metric/Inch





- Seco-Capto™ C6 shank
- Internal coolant
- For insert information see page(s) 297-303
- For cutting data see page(s) 308, 309
- For intermediate diameters see the MyDesign software.

Designation	Item number	DC	LU	LUX	LFS	DF	Insert	
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	Center insert	Periph insert
SD524-17-68-C6	03080262	17,0 *0.669*	68,0 *2.677*	73,0 *2.874*	108,0 *4.252*	63,0 *2.480*	SPGX0502	SCGX050204
SD524-17.5-70-C6	03080263	17,5 *0.689*	70,0 *2.756*	75,0 *2.953*	111,0 *4.370*	63,0 *2.480*	SPGX0602	SCGX050204
SD524-18-72-C6	03080265	18,0 *0.709*	72,0 *2.835*	77,0 *3.031*	113,0 *4.449*	63,0 *2.480*	SPGX0602	SCGX050204
SD524-18.5-74-C6	03080266	18,5 *0.728*	74,0 *2.913*	79,0 *3.110*	115,0 *4.528*	63,0 *2.480*	SPGX0602	SCGX050204
SD524-19-76-C6	03080267	19,0 *0.748*	76,0 *2.992*	81,0 *3.189*	117,0 *4.606*	63,0 *2.480*	SPGX0602	SCGX050204
SD524-20-80-C6	03080268	20,0 *0.787*	80,0 *3.150*	85,0 *3.346*	123,0 *4.843*	63,0 *2.480*	SPGX0602	SCGX060204
SD524-20.62-83-C6	03080417	20,62 *0.812*	83,0 *3.268*	88,0 *3.465*	126,0 *4.961*	63,0 *2.480*	SPGX0602	SCGX060204
SD524-21-84-C6	03080269	21,0 *0.827*	84,0 *3.307*	89,0 *3.504*	127,0 *5.000*	63,0 *2.480*	SPGX0602	SCGX060204
SD524-22-88-C6	03080270	22,0 *0.866*	88,0 *3.465*	93,0 *3.661*	131,0 *5.157*	63,0 *2.480*	SPGX0703	SCGX060204
SD524-22.23-89-C6	03080418	22,23 *0.875*	89,0 *3.504*	94,0 *3.701*	132,0 *5.197*	63,0 *2.480*	SPGX0703	SCGX060204
SD524-23-92-C6	03080271	23,0 *0.906*	92,0 *3.622*	97,0 *3.819*	136,0 *5.354*	63,0 *2.480*	SPGX0703	SCGX070308
SD524-24-96-C6	03080272	24,0 *0.945*	96,0 *3.780*	101,0 *3.976*	141,0 *5.551*	63,0 *2.480*	SPGX0703	SCGX070308
SD524-25-100-C6	03080392	25,0 *0.984*	100,0 *3.937*	105,0 *4.134*	146,0 *5.748*	63,0 *2.480*	SPGX0703	SCGX070308
SD524-25.4-102-C6	03080419	25,4 *1.000*	102,0 *4.016*	107,0 *4.213*	148,0 *5.827*	63,0 *2.480*	SPGX0703	SCGX070308
SD524-26-104-C6	03080393	26,0 *1.024*	104,0 *4.094*	109,0 *4.291*	150,0 *5.906*	63,0 *2.480*	SPGX0903	SCGX070308
SD524-27-108-C6	03080394	27,0 *1.063*	108,0 *4.252*	113,0 *4.449*	154,0 *6.063*	63,0 *2.480*	SPGX0903	SCGX070308
SD524-28-112-C6	03080395	28,0 *1.102*	112,0 *4.409*	117,0 *4.606*	159,0 *6.260*	63,0 *2.480*	SPGX0903	SCGX070308
SD524-28.59-115-C6	03080420	28,59 *1.126*	115,0 *4.528*	120,0 *4.724*	162,0 *6.378*	63,0 *2.480*	SPGX0903	SCGX070308
SD524-29-116-C6	03080396	29,0 *1.142*	116,0 *4.567*	121,0 *4.764*	163,0 *6.417*	63,0 *2.480*	SPGX0903	SCGX09T308
SD524-30-120-C6	03080397	30,0 *1.181*	120,0 *4.724*	125,0 *4.921*	167,0 *6.575*	63,0 *2.480*	SPGX0903	SCGX09T308
SD524-31-124-C6	03080398	31,0 *1.220*	124,0 *4.882*	129,0 *5.079*	171,0 *6.732*	63,0 *2.480*	SPGX0903	SCGX09T308
SD524-31.75-127-C6	03080421	31,75 *1.250*	127,0 *5.000*	132,0 *5.197*	175,0 *6.890*	63,0 *2.480*	SPGX0903	SCGX09T308

Designation	Item number	DC	LU	LUX	LFS	DF	Insert	
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	Center insert	Periph insert
SD524-32-128-C6	03080399	32,0 *1.260*	128,0 *5.039*	133,0 *5.236*	176,0 *6.929*	63,0 *2.480*	SPGX11T3	SCGX09T308
SD524-33-132-C6	03080400	33,0 *1.299*	132,0 *5.197*	137,0 *5.394*	180,0 *7.087*	63,0 *2.480*	SPGX11T3	SCGX09T308
SD524-34-136-C6	03080401	34,0 *1.339*	136,0 *5.354*	141,0 *5.551*	184,0 *7.244*	63,0 *2.480*	SPGX11T3	SCGX09T308
SD524-35-140-C6	03080402	35,0 *1.378*	140,0 *5.512*	145,0 *5.709*	188,0 *7.402*	63,0 *2.480*	SPGX11T3	SCGX11T308
SD524-36-144-C6	03080403	36,0 *1.417*	144,0 *5.669*	149,0 *5.866*	192,0 *7.559*	63,0 *2.480*	SPGX11T3	SCGX11T308
SD524-37-148-C6	03080404	37,0 *1.457*	148,0 *5.827*	153,0 *6.024*	196,0 *7.717*	63,0 *2.480*	SPGX11T3	SCGX11T308
SD524-38-152-C6	03080405	38,0 *1.496*	152,0 *5.984*	157,0 *6.181*	200,0 *7.874*	63,0 *2.480*	SPGX12T3	SCGX11T308
SD524-39-156-C6	03080406	39,0 *1.535*	156,0 *6.142*	161,0 *6.339*	204,0 *8.031*	63,0 *2.480*	SPGX12T3	SCGX11T308
SD524-40-160-C6	03080407	40,0 *1.575*	160,0 *6.299*	165,0 *6.496*	208,0 *8.189*	63,0 *2.480*	SPGX12T3	SCGX11T308

Spare Parts, included in delivery

For drill dia. (mm)	Insert screw		Insert key
			
	Center insert	Periph insert	
15,00-17,45	C02245-T07P	C02245-T07P	T07P-2
17,46-19,49	C02205-T07P	C02245-T07P	T07P-2
19,50-21,24	C02205-T07P	C02205-T07P	T07P-2
21,25-22,49	C02506-T08P	C02506-T08P	T08P-2
22,50-25,49	C02507-T08P	C03007-T08P	T08P-2
25,50-28,49	C03007-T09P	C03007-T09P	T09P-2
28,50-31,49	C03007-T09P	C03009-T09P	T09P-2
31,50-40,49	C03508-T15P	C03508-T15P	T15P-2D
40,50-43,24	C03508-T15P	C05012-T15P	T15P-2D
43,25-59,00	C04011-T15P	C05012-T15P	T15P-2D

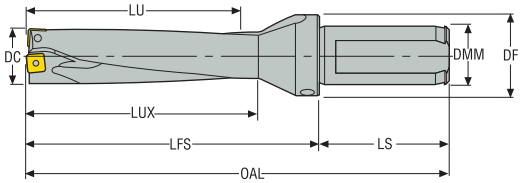
Accessories

For drill dia. (mm)	Torque wrench*	Replacement blade	Torque value
			
15,00-17,45	T00-07P09	T00-07P	0,9 Nm
17,46-19,49	T00-07P09	T00-07P	0,9 Nm
19,50-21,24	T00-07P09	T00-07P	0,9 Nm
21,25-22,49	T00-08P12	T00-08P	1,2 Nm
22,50-25,49	T00-08P12	T00-08P	1,2 Nm
25,50-28,49	T00-09P20	T00-09P	2,0 Nm
28,50-31,49	T00-09P20	T00-09P	2,0 Nm
31,50-40,49	T00-15P30	T00-15P	3,0 Nm
40,50-43,24	T00-15P30	T00-15P	3,0 Nm
43,25-59,00	T00-15P30	T00-15P	3,0 Nm

*Including blade.

SD525

Drilling depth ~ 5 x D – Metric/Inch





- ISO 9766 shank, -7
- Internal coolant
- For insert information see page(s) 297-303
- For cutting data see page(s) 310, 311
- For intermediate diameters see the MyDesign software.

Designation	Item number	DC	LU	OAL	LUX	LFS	LS	DMM	DF	Insert	
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	Center insert	Periph insert
SD525-19-95-25R7	03079580	19,0 *0.748*	95,0 *3.740*	181,0 *7.126*	100,0 *3.937*	125,0 *4.921*	56,0 *2.205*	25,0 *0.984*	35,0 *1.378*	SPGX0602	SCGX050204
SD525-20-100-25R7	03079582	20,0 *0.787*	100,0 *3.937*	186,0 *7.323*	105,0 *4.134*	130,0 *5.118*	56,0 *2.205*	25,0 *0.984*	35,0 *1.378*	SPGX0602	SCGX060204
SD525-21-105-25R7	03079583	21,0 *0.827*	105,0 *4.134*	191,0 *7.520*	110,0 *4.331*	135,0 *5.315*	56,0 *2.205*	25,0 *0.984*	35,0 *1.378*	SPGX0602	SCGX060204
SD525-22-110-25R7	03079584	22,0 *0.866*	110,0 *4.331*	196,0 *7.717*	115,0 *4.528*	140,0 *5.512*	56,0 *2.205*	25,0 *0.984*	35,0 *1.378*	SPGX0703	SCGX060204
SD525-23-115-25R7	03079585	23,0 *0.906*	115,0 *4.528*	201,0 *7.913*	120,0 *4.724*	145,0 *5.709*	56,0 *2.205*	25,0 *0.984*	35,0 *1.378*	SPGX0703	SCGX070308
SD525-24-120-25R7	03079586	24,0 *0.945*	120,0 *4.724*	206,0 *8.110*	125,0 *4.921*	150,0 *5.906*	56,0 *2.205*	25,0 *0.984*	35,0 *1.378*	SPGX0703	SCGX070308
SD525-25-125-32R7	03079587	25,0 *0.984*	125,0 *4.921*	215,0 *8.465*	130,0 *5.118*	155,0 *6.102*	60,0 *2.362*	32,0 *1.260*	42,0 *1.654*	SPGX0703	SCGX070308
SD525-26-130-32R7	03079588	26,0 *1.024*	130,0 *5.118*	220,0 *8.661*	135,0 *5.315*	160,0 *6.299*	60,0 *2.362*	32,0 *1.260*	42,0 *1.654*	SPGX0903	SCGX070308
SD525-27-135-32R7	03079589	27,0 *1.063*	135,0 *5.315*	225,0 *8.858*	140,0 *5.512*	165,0 *6.496*	60,0 *2.362*	32,0 *1.260*	42,0 *1.654*	SPGX0903	SCGX070308
SD525-28-140-32R7	03079590	28,0 *1.102*	140,0 *5.512*	230,0 *9.055*	145,0 *5.709*	170,0 *6.693*	60,0 *2.362*	32,0 *1.260*	42,0 *1.654*	SPGX0903	SCGX070308
SD525-29-145-32R7	03079591	29,0 *1.142*	145,0 *5.709*	235,0 *9.252*	150,0 *5.906*	175,0 *6.890*	60,0 *2.362*	32,0 *1.260*	42,0 *1.654*	SPGX0903	SCGX09T308
SD525-30-150-32R7	03079592	30,0 *1.181*	150,0 *5.906*	240,0 *9.449*	155,0 *6.102*	180,0 *7.087*	60,0 *2.362*	32,0 *1.260*	42,0 *1.654*	SPGX0903	SCGX09T308
SD525-31-155-32R7	03079593	31,0 *1.220*	155,0 *6.102*	245,0 *9.646*	160,0 *6.299*	185,0 *7.283*	60,0 *2.362*	32,0 *1.260*	42,0 *1.654*	SPGX0903	SCGX09T308
SD525-32-160-40R7	03079595	32,0 *1.260*	160,0 *6.299*	258,0 *10.157*	165,0 *6.496*	190,0 *7.480*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX11T3	SCGX09T308
SD525-33-165-40R7	03079596	33,0 *1.299*	165,0 *6.496*	263,0 *10.354*	170,0 *6.693*	195,0 *7.677*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX11T3	SCGX09T308
SD525-34-170-40R7	03079597	34,0 *1.339*	170,0 *6.693*	268,0 *10.551*	175,0 *6.890*	200,0 *7.874*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX11T3	SCGX09T308
SD525-35-175-40R7	03079598	35,0 *1.378*	175,0 *6.890*	273,0 *10.748*	180,0 *7.087*	205,0 *8.071*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX11T3	SCGX11T308
SD525-36-180-40R7	03079599	36,0 *1.417*	180,0 *7.087*	278,0 *10.945*	185,0 *7.283*	210,0 *8.268*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX11T3	SCGX11T308
SD525-37-185-40R7	03079600	37,0 *1.457*	185,0 *7.283*	283,0 *11.142*	190,0 *7.480*	215,0 *8.465*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX11T3	SCGX11T308
SD525-38-190-40R7	03079601	38,0 *1.496*	190,0 *7.480*	288,0 *11.339*	195,0 *7.677*	220,0 *8.661*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX12T3	SCGX11T308
SD525-39-195-40R7	03079602	39,0 *1.535*	195,0 *7.677*	293,0 *11.535*	200,0 *7.874*	225,0 *8.858*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX12T3	SCGX11T308
SD525-40-200-40R7	03079603	40,0 *1.575*	200,0 *7.874*	298,0 *11.732*	205,0 *8.071*	230,0 *9.055*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX12T3	SCGX11T308

Designation	Item number	DC	LU	OAL	LUX	LFS	LS	DMM	DF	Insert	
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	Center insert	Periph insert
SD525-41-205-40R7	03079604	41,0 *1.614*	205,0 *8.071*	303,0 *11.929*	210,0 *8.268*	235,0 *9.252*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX12T3	SCGX120408
SD525-42-210-40R7	03079605	42,0 *1.654*	210,0 *8.268*	308,0 *12.126*	215,0 *8.465*	240,0 *9.449*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX12T3	SCGX120408
SD525-43-215-40R7	03079606	43,0 *1.693*	215,0 *8.465*	313,0 *12.323*	220,0 *8.661*	245,0 *9.646*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX12T3	SCGX120408
SD525-44-220-40R7	03079607	44,0 *1.732*	220,0 *8.661*	318,0 *12.520*	225,0 *8.858*	250,0 *9.843*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX1504	SCGX120408
SD525-45-225-40R7	03079608	45,0 *1.772*	225,0 *8.858*	323,0 *12.717*	230,0 *9.055*	255,0 *10.039*	68,0 *2.677*	40,0 *1.575*	50,0 *1.969*	SPGX1504	SCGX150512

Spare Parts, included in delivery

For drill dia. (mm)	Insert screw		Insert key
			
	Center insert	Periph insert	
15,00-17,45	C02245-T07P	C02245-T07P	T07P-2
17,46-19,49	C02205-T07P	C02245-T07P	T07P-2
19,50-21,24	C02205-T07P	C02205-T07P	T07P-2
21,25-22,49	C02506-T08P	C02506-T08P	T08P-2
22,50-25,49	C02507-T08P	C03007-T08P	T08P-2
25,50-28,49	C03007-T09P	C03007-T09P	T09P-2
28,50-31,49	C03007-T09P	C03009-T09P	T09P-2
31,50-40,49	C03508-T15P	C03508-T15P	T15P-2D
40,50-43,24	C03508-T15P	C05012-T15P	T15P-2D
43,25-59,00	C04011-T15P	C05012-T15P	T15P-2D

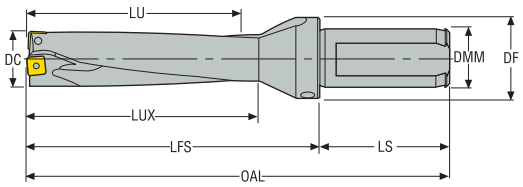
Accessories

For drill dia. (mm)	Torque wrench*	Replacement blade	Torque value
			
15,00-17,45	T00-07P09	T00-07P	0,9 Nm
17,46-19,49	T00-07P09	T00-07P	0,9 Nm
19,50-21,24	T00-07P09	T00-07P	0,9 Nm
21,25-22,49	T00-08P12	T00-08P	1,2 Nm
22,50-25,49	T00-08P12	T00-08P	1,2 Nm
25,50-28,49	T00-09P20	T00-09P	2,0 Nm
28,50-31,49	T00-09P20	T00-09P	2,0 Nm
31,50-40,49	T00-15P30	T00-15P	3,0 Nm
40,50-43,24	T00-15P30	T00-15P	3,0 Nm
43,25-59,00	T00-15P30	T00-15P	3,0 Nm

*Including blade.

SD525

Drilling depth ~ 5 x D – Inch





- ISO 9766 shank, -7
- Internal coolant
- For insert information see page(s) 297-303
- For cutting data see page(s) 310, 311
- For intermediate diameters see the MyDesign software.

Designation	Item number	DC	LU	OAL	LUX	LFS	LS	DMM	DF	Insert	
		Inch	*Inch*	*Inch*	*Inch*	*Inch*	*Inch*	*Inch*	*Inch*	Center insert	Periph insert
SD525-0750-375-1000R7	03079565	*0.750*	*3.750*	*7.181*	*3.947*	*4.931*	*2.250*	*1.000*	*1.378*	SPGX0602	SCGX050204
SD525-0812-406-1000R7	03079566	*0.812*	*4.060*	*7.491*	*4.257*	*5.241*	*2.250*	*1.000*	*1.378*	SPGX0602	SCGX060204
SD525-0875-438-1000R7	03079567	*0.875*	*4.380*	*7.811*	*4.577*	*5.561*	*2.250*	*1.000*	*1.378*	SPGX0703	SCGX060204
SD525-0937-469-1000R7	03079568	*0.937*	*4.690*	*8.121*	*4.887*	*5.871*	*2.250*	*1.000*	*1.378*	SPGX0703	SCGX070308
SD525-1000-500-1250R7	03079569	*1.000*	*5.000*	*8.556*	*5.197*	*6.181*	*2.375*	*1.250*	*1.654*	SPGX0703	SCGX070308
SD525-1062-531-1250R7	03079570	*1.062*	*5.310*	*8.866*	*5.507*	*6.491*	*2.375*	*1.250*	*1.654*	SPGX0903	SCGX070308
SD525-1125-563-1250R7	03079571	*1.125*	*5.630*	*9.186*	*5.827*	*6.811*	*2.375*	*1.250*	*1.654*	SPGX0903	SCGX09T308
SD525-1187-594-1250R7	03079572	*1.187*	*5.940*	*9.496*	*6.137*	*7.121*	*2.375*	*1.250*	*1.654*	SPGX0903	SCGX09T308
SD525-1250-625-1500R7	03079573	*1.250*	*6.250*	*10.056*	*6.447*	*7.431*	*2.625*	*1.500*	*1.969*	SPGX11T3	SCGX09T308
SD525-1375-687-1500R7	03079574	*1.375*	*6.870*	*10.676*	*7.067*	*8.051*	*2.625*	*1.500*	*1.969*	SPGX11T3	SCGX11T308
SD525-1500-750-1500R7	03079575	*1.500*	*7.500*	*11.306*	*7.697*	*8.681*	*2.625*	*1.500*	*1.969*	SPGX12T3	SCGX11T308
SD525-1625-812-1500R7	03079576	*1.625*	*8.120*	*11.926*	*8.317*	*9.301*	*2.625*	*1.500*	*1.969*	SPGX12T3	SCGX120408
SD525-1750-875-1500R7	03079577	*1.750*	*8.750*	*12.556*	*8.947*	*9.931*	*2.625*	*1.500*	*1.969*	SPGX1504	SCGX120408
SD525-1875-937-1500R7	03079578	*1.875*	*9.370*	*13.176*	*9.567*	*10.551*	*2.625*	*1.500*	*1.969*	SPGX1504	SCGX150512
SD525-1937-968-1500R7	03079579	*1.937*	*9.680*	*13.486*	*9.877*	*10.861*	*2.625*	*1.500*	*2.337*	SPGX1504	SCGX150512
SD525-2000-1000-1500R7	03079581	*2.000*	*10.000*	*13.806*	*10.197*	*11.181*	*2.625*	*1.500*	*2.337*	SPGX1504	SCGX150512

Spare Parts, included in delivery

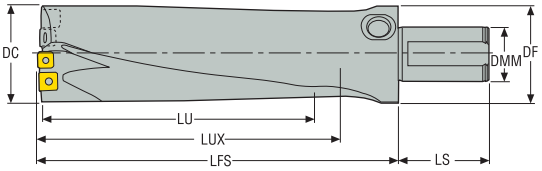
Accessories

For drill dia. (inch)	Insert screw centre	Insert screw periph	Key	Torque wrench
				
0.750	C02205-T07P	C02245-T07P	T07P-2	T00-07P09
0.812	C02205-T07P	C02205-T07P	T07P-2	T00-07P09
0.875	C02506-T08P	C02506-T08P	T08P-2	T00-08P12
0.937-1.000	C02507-T08P	C03007-T08P	T08P-2	T00-08P12
1.062	C03007-T09P	C03007-T09P	T09P-2	T00-09P20
1.125-1.187	C03007-T09P	C03009-T09P	T09P-2	T00-09P20
1.250-1.500	C03508-T15P	C03508-T15P	T15P-2D	T00-15P30
1.625	C03508-T15P	C05012-T15P	T15P-2D	T00-15P30
1.750-2.000	C04011-T15P	C05012-T15P	T15P-2D	T00-15P35

SD542

Drilling depth ~ 2,5 X D – Metric





- ISO 9766 shank, -7
- Internal coolant
- For insert information see page(s) 297-303
- For cutting data see page(s) 312, 313
- For intermediate diameters see the MyDesign software.

Designation	Item number	DC	LU	LUX	LFS	LS	DMM	DF	Insert	
		mm	mm	mm	mm	mm	mm	mm	Center insert	Periph insert
SD542-60-150-40R7	02590456	60,0	150,0	156,0	201,5	68,0	40,0	79,0	SPGX0903-C1	SCGX09T308..
SD542-65-162.5-40R7	02590457	65,0	162,5	169,5	214,0	68,0	40,0	79,0	SPGX11T3-C1	SCGX09T308..
SD542-70-175-40R7	02590458	70,0	175,0	182,5	226,5	68,0	40,0	79,0	SPGX11T3-C1	SCGX120408..
SD542-75-187.5-50R7	02590459	75,0	187,5	196,0	239,0	78,0	50,0	79,0	SPGX11T3-C1	SCGX120408..
SD542-80-200-50R7	02590460	80,0	200,0	210,0	251,5	78,0	50,0	79,0	SPGX12T3-C1	SCGX120408..
SD542-85-212.5-50R7	02590461	85,0	212,5	221,0	264,0	78,0	50,0	89,0	SPGX12T3-C1	SCGX120408..

Spare Parts, included in delivery

For drill dia. (mm)	Insert screw		Insert key	Plug	Hose adapter
					
	Center insert	Periph insert			
60,00-64,99	C03007-T09P	C03009-T09P	T09P-2	R3/8	R3/8-HA
65,00-68,99	C03508-T15P	C03508-T15P	T15P-2D	R3/8	R3/8-HA
69,00-86,99	C03508-T15P	C05012-T15P	T15P-2D	R3/8	R3/8-HA

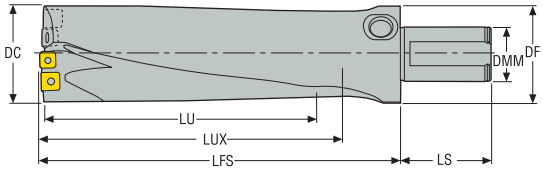
Accessories

For drill dia. (mm)	Torque wrench*	Replacement blade	Torque value
			
15,00-17,45	T00-09P20	T00-09P	3,0 Nm
17,46-19,49	T00-15P30	T00-15P	3,0 Nm
19,50-21,24	T00-15P30	T00-15P	3,0 Nm

*Including blade.

SD542

Drilling depth ~ 2.5 X D – Inch





- ISO 9766 shank, -7
- Internal coolant
- For insert information see page(s) 297-303
- For cutting data see page(s) 312, 313
- For intermediate diameters see the MyDesign software.

Designation	Item number	DC	LU	LUX	LFS	LS	DMM	DF	Insert	
		Inch	*Inch*	*Inch*	*Inch*	*Inch*	*Inch*	*Inch*	Center insert	Periph insert
SD542-2250-563-1500R7	02602085	*2.250*	*5.630*	*5.800*	*7.000*	*4.500*	*1.500*	*3.110*	SPGX 0903-C1	SCGX 09T308..
SD542-2500-625-1500R7	02602087	*2.500*	*6.250*	*6.520*	*8.280*	*4.500*	*1.500*	*3.110*	SPGX 0903-C1	SCGX 09T308..
SD542-2750-688-1500R7	02602088	*2.750*	*6.880*	*7.190*	*8.900*	*4.500*	*1.500*	*3.110*	SPGX 11T3-C1	SCGX 120408..
SD542-3000-750-2000R7	02602089	*3.000*	*7.500*	*7.860*	*9.530*	*4.500*	*2.000*	*3.110*	SPGX 11T3-C1	SCGX 120408..
SD542-3250-813-2500R7	02602090	*3.250*	*8.130*	*8.460*	*10.150*	*4.500*	*2.500*	*3.500*	SPGX 12T3-C1	SCGX 120408..
SD542-3500-875-2500R7	02602091	*3.500*	*8.750*	*9.140*	*10.780*	*4.500*	*2.500*	*3.500*	SPGX 1504-C1	SCGX 120408..

Spare Parts, included in delivery

For drill dia. (mm)	Insert screw		Insert key	Plug	Hose adapter
					
	Center insert	Periph insert			
60,00-64,99	C03007-T09P	C03009-T09P	T09P-2	R3/8	R3/8-HA
65,00-68,99	C03508-T15P	C03508-T15P	T15P-2D	R3/8	R3/8-HA
69,00-86,99	C03508-T15P	C05012-T15P	T15P-2D	R3/8	R3/8-HA

Accessories

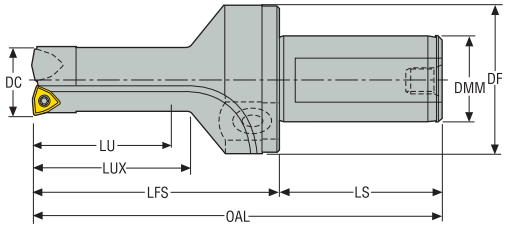
For drill dia. (mm)	Torque wrench*	Replacement blade	Torque value
			
15,00-17,45	T00-09P20	T00-09P	3,0 Nm
17,46-19,49	T00-15P30	T00-15P	3,0 Nm
19,50-21,24	T00-15P30	T00-15P	3,0 Nm

*Including blade.

SD572

Drilling depth ~ 2 X D – Metric





- ISO 9766 shank, -7
- Internal coolant
- For insert information see page(s) 297-303
- For cutting data see page(s) 314-315
- For intermediate diameters see the MyDesign software.

Designation	Item number	Hole dia min-max	DC	LU	LUX	LFS	LS	DMM	DF	Insert	
		mm	mm	mm	mm	mm	mm	mm	mm	Center insert	Periph insert
SD572-15-30-25R7	02595777	14,8 -18	15,0	30,0	35,0	65,0	56,0	25,0	42,0	WCMX030208-86	WCMX030208..
SD572-16-32-25R7	02595778	15,8 -18	16,0	32,0	37,0	67,0	56,0	25,0	42,0	WCMX030208-86	WCMX030208..
SD572-17-34-25R7	02595779	16,8 -19	17,0	34,0	39,0	69,0	56,0	25,0	42,0	WCMX030208-86	WCMX030208..
SD572-19-38-25R7	02595780	18,8 -22	19,0	38,0	43,0	73,0	56,0	25,0	42,0	WCMX040208-86	WCMX030208..
SD572-22-44-25R7	02595781	21,8 -27	22,0	44,0	49,0	79,0	56,0	25,0	42,0	WCMX050308-86	WCMX040208..
SD572-27-54-32R7	02595783	26,8 -33	27,0	54,0	59,0	89,0	60,0	32,0	50,0	WCMX06T308-86	WCMX050308..
SD572-33-66-40R7	02595784	32,8 -41	33,0	66,0	71,0	101,0	68,0	40,0	59,0	WCMX080412-86	WCMX06T308..
SD572-41-82-40R7	02595785	40,8 -47	41,0	82,0	87,0	117,0	68,0	40,0	59,0	WCMX080412-86	WCMX080412..
SD572-47-94-40R7	02595786	46,8 -52	47,0	94,0	99,0	129,0	68,0	40,0	59,0	WCMX080412-86	WCMX080412..

Spare Parts, included in delivery

For drill dia. (mm)	Insert screw		Insert key	Plug	Hose adapter
					
	Center insert	Periph insert			
15,00-20,50	C02205-T07P	C02205-T07P	T07P-2	R1/4	1310
20,51-24,50	C03007-T08P	C02506-T08P	T08P-2	R1/4	1310
24,51-32,50	C03508-T15P	C03007-T08P	T08P-2, T15P-2D	R1/4	1310
32,51-36,50	C03508-T15P	C03508-T15P	T15P-2D	R1/4	1310
36,51-59,00	C04011-T15P	C04011-T15P	T15P-2D	R1/4	1310

Accessories

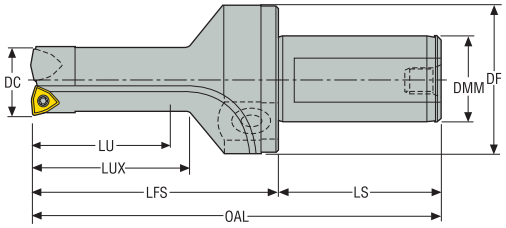
For drill dia. (mm)	Torque wrench*	Replacement blade	Torque value
			
15,00-20,50	T00-07P09	T00-07P	0,9 Nm
20,51-24,50	T00-08P12	T00-08P	1,2 Nm
24,51-32,50	T00-08P12	T00-08P	1,2 Nm
32,51-36,50	T00-15P30	T00-15P	3,0 Nm
36,51-59,00	T00-15P30	T00-15P	3,0 Nm

*Including blade.

SD572

Drilling depth ~ 2 X D – Inch





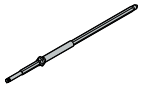
- ISO 9766 shank, -7
- Internal coolant
- For insert information see page(s) 297-303
- For cutting data see page(s) 314-315
- For intermediate diameters see the MyDesign software.

Designation	Item number	Hole dia. min-max	DC	LU	LUX	LFS	DF	Insert	
		Inch	*Inch*	*Inch*	*Inch*	*Inch*	*Inch*	Center insert	Periph insert
SD572-0591-118-1000R7	02602128	0.591-0.709	*0.591*	*1.182*	*1.379*	*2,56*	*1,775*	WCMX030208-86	WCMX 030208..
SD572-0669-134-1000R7	02602129	0.669-0.748	*0.669*	*1.338*	*1.535*	*2,716*	*1,775*	WCMX030208-86	WCMX 030208..
SD572-0748-150-1000R7	02602131	0.748-0.866	*0.748*	*1.496*	*1.69*	*2,874*	*1,775*	WCMX040208-86	WCMX 030208..
SD572-0866-173-1000R7	02602132	0.866-1.062	*0.866*	*1.732*	*1.929*	*3,11*	*1,775*	WCMX050308-86	WCMX 040208..
SD572-1062-212-1250R7	02602133	1.062-1.299	*1.062*	*2.124*	*2.321*	*3,502*	*2,165*	WCMX06T308-86	WCMX 050308..
SD572-1299-260-1500R7	02602134	1.299-1.614	*1.299*	*2.598*	*2.795*	*3,976*	*2,303*	WCMX080412-86	WCMX 06T308..
SD572-1614-322-1500R7	02602135	1.614-1.850	*1.614*	*3.228*	*3.425*	*4,606*	*2,303*	WCMX080412-86	WCMX 080412..
SD572-1850-370-1500R7	02602136	1.850-2.047	*1.85*	*3.7*	*3.7*	*5,078*	*2,303*	WCMX080412-86	WCMX 080412..

Spare Parts, included in delivery

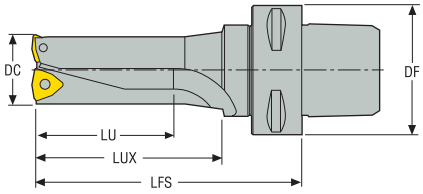
For drill dia. (inch)	Hose adapter	Insert key	Insert screw centre	Insert screw periph	Key (Flag)	Screw
						
0.591-0.748	1310	T07P-2	C02205-T07P	C02245-T07P	C02245-T07P	R1/4
0.866	1310	T08P-2	C02506-T08P	C03007-T08P	–	R1/4
1.062	1310	T08P-2	C03508-T15P	C03007-T08P	T15P-2D	R1/4
1.299	1310	T15P-2D	C03508-T15P	C02506-T08P	C02506-T08P	R1/4
1.614-1.850	1310	T15P-2D	C04011-T15P	C04011-T15P	–	R1/4

Accessories

For drill dia. (inch)	Replacement blade	Torque key
		
0.591-0.748	–	T00-07P09
0.866	–	T00-08P12
1.062	T00-15P	T00-15P30
1.299	–	T00-15P30
1.614-1.850	–	T00-15P30

SD572

Drilling depth ~ 2 X D – Metric





- Seco-Capto™ C5 shank
- Internal coolant
- For insert information see page(s) 297-303
- For cutting data see page(s) 314-315
- For intermediate diameters see the MyDesign software.

Designation	Item number	Hole dia min-max	DC	LU	LUX	LFS	DF	Insert	
		mm	mm	mm	mm	mm	mm	Center insert	Periph insert
SD572-15-30-C5	02595831	14,8 -18	15,0	30,0	35,0	85,0	50,0	WCMX030208-86	WCMX030208..
SD572-16-32-C5	02595832	15,8 -18	16,0	32,0	37,0	87,0	50,0	WCMX030208-86	WCMX030208..
SD572-17-34-C5	02595833	16,8 -19	17,0	34,0	39,0	89,0	50,0	WCMX030208-86	WCMX030208..
SD572-19-38-C5	02595834	18,8 -22	19,0	38,0	43,0	93,0	50,0	WCMX040208-86	WCMX030208..
SD572-22-44-C5	02595835	21,8 -27	22,0	44,0	49,0	99,0	50,0	WCMX050308-86	WCMX040208..
SD572-27-54-C5	02595836	26,8 -33	27,0	54,0	59,0	109,0	50,0	WCMX06T308-86	WCMX050308..
SD572-33-66-C5	02595837	32,8 -41	33,0	66,0	71,0	121,0	50,0	WCMX080412-86	WCMX06T308..
SD572-41-82-C5	02595838	40,8 -47	41,0	82,0	87,0	157,0	50,0	WCMX080412-86	WCMX080412..
SD572-47-94-C5	02595839	46,8 -52	47,0	94,0	99,0	169,0	50,0	WCMX080412-86	WCMX080412..

Spare Parts, included in delivery

For drill dia. (mm)	Insert screw		Insert key	Plug	Hose adapter
					
	Center insert	Periph insert			
15,00-20,50	C02205-T07P	C02205-T07P	T07P-2	R1/4	1310
20,51-24,50	C03007-T08P	C02506-T08P	T08P-2	R1/4	1310
24,51-32,50	C03508-T15P	C03007-T08P	T08P-2, T15P-2D	R1/4	1310
32,51-36,50	C03508-T15P	C03508-T15P	T15P-2D	R1/4	1310
36,51-59,00	C04011-T15P	C04011-T15P	T15P-2D	R1/4	1310

Accessories

For drill dia. (mm)	Torque wrench*	Replacement blade	Torque value
			
15,00-20,50	T00-07P09	T00-07P	0,9 Nm
20,51-24,50	T00-08P12	T00-08P	1,2 Nm
24,51-32,50	T00-08P12	T00-08P	1,2 Nm
32,51-36,50	T00-15P30	T00-15P	3,0 Nm
36,51-59,00	T00-15P30	T00-15P	3,0 Nm

*Including blade.



Perfomax® SD602

Seco's Perfomax® SD602 is a modular drill head system specifically designed for deep hole applications that require large diameters drilled safely and efficiently.

- DP3000 grade inserts provide the toughness needed to optimize Perfomax® SD602.
- The grade allows for high feeds and speeds.
- High flexibility by using extensions to reach the required drilling depth.

Code keys

Drilling bodies

Type of drill SD602: Pilot drill and cartridge	Possible drill diameter 89 - Lower diameter 90 - Upper diameter	Flange diameter	Shank type
SD602	89/90	50	RG



Pilot drill

	Drill diameter		Drill diameter	
SD601	1	–	10	– R
	0 = Solid carbide 1 = HSS			Right-hand rotation



(Pilot drill has to be purchased separately)

Cassette

	Insert size SCGX07 SCGX09 SCGX12 SCGX15			
SD600	C	–	07	– N
	C = Center P = Periphery			N = Nominal diameter



-N



-U

Kit

	Periphery					
SD602	1	–	P	– 07	–	N
	0 = incl 2 pads (< ∅ 135 mm) 1 = incl 4 pads (> ∅ 135 mm)			Insert size SCGX07 SCGX09 SCGX12 SCGX15		N – Nominal diameter U – Lower diameter



-N



-U

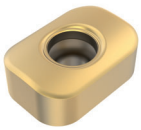
Note: Please select nominal (-N) or lower (-U) diameter spare parts kit “D” on page 291 to complete drill body assembly. Kit “D” must be ordered separately.

Inch

SD602	– 3500	– RG

Pad

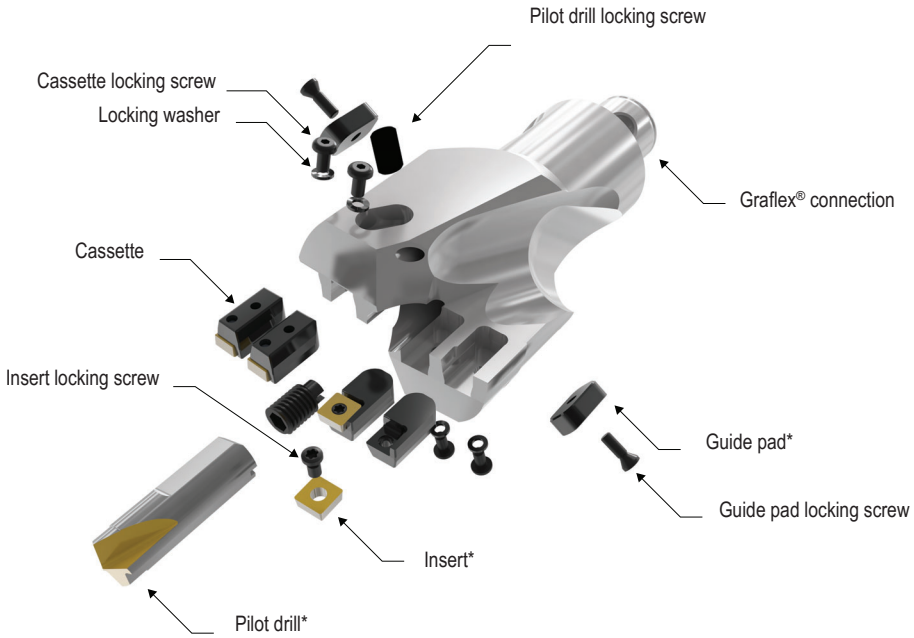
PAD	– L20R25	-N	
			N = Nominal diameter





Modular drill head assembly

SD602-59/60-40RG





Example: Diameter 59; SD602-59-40RG
Use kit: SD6020-P07*



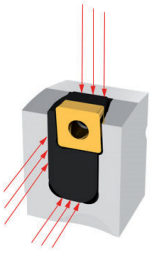
Example: Diameter 60; SD602-60-40RG
Use kit: SD6020-P07-N*

Mounting instruction

- Tighten the cassette locking screw
- Mount the inserts
- Mount the pilot drill and fix it to the bottom of the hole if you need to extend the pilot drill use the adjusting screw
- Mount the extensions

Mounting of cartridge and guide pad

- Mount the cassette
- Make sure that there are no air gaps between the cassette and the walls
- Tighten the cassette locking screw with the torque key:
  SD600-x-07: 3 Nm
  SD600-x-09: 3 Nm
  SD600-x-12: 8 Nm
  SD600-x-15: 8 Nm
- Mount the guide pad
- Tighten the pad locking screw

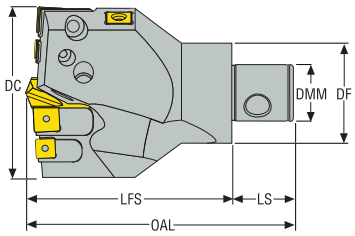


*** Not included in delivery.** Periph kit, pilot drill and inserts needs to be ordered seperately.

SD602

Modular drill head – Metric/Inch





- Internal coolant
- For insert information see page(s) 297-303
- For cutting data see page(s) 316-317
- Adjustable length pilot drill

Designation	Item number	Graflex size	Capacity DCN	DCX	OAL	LFS	LS	DF	DMM	Weight	Insert
			mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*	
SD602-59/60-40RG	02846688	G4	59,0 *2.323*	60,0 *2.362*	129,0 *5.079*	105,0 *4.134*	24,0 *0.945*	40,0 *1.575*	22,0 *0.866*	1,0 *2.200*	SCGX07
SD602-69/70-40RG	02846689	G4	69,0 *2.717*	70,0 *2.756*	129,0 *5.079*	105,0 *4.134*	24,0 *0.945*	40,0 *1.575*	22,0 *0.866*	1,2 *2.650*	SCGX09
SD602-79/80-50RG	02846690	G5	79,0 *3.110*	80,0 *3.150*	160,0 *6.299*	130,0 *5.118*	30,0 *1.181*	50,0 *1.969*	28,0 *1.102*	1,9 *4.190*	SCGX09
SD602-89/90-50RG	02846691	G5	89,0 *3.504*	90,0 *3.543*	160,0 *6.299*	130,0 *5.118*	30,0 *1.181*	50,0 *1.969*	28,0 *1.102*	2,0 *4.410*	SCGX09/12
SD602-99/100-63RG	02846692	G6	99,0 *3.898*	100,0 *3.937*	185,0 *7.283*	145,0 *5.709*	40,0 *1.575*	63,0 *2.480*	36,0 *1.417*	3,3 *7.280*	SCGX12
SD602-119/120-63RG	02846693	G6	119,0 *4.685*	120,0 *4.724*	185,0 *7.283*	145,0 *5.709*	40,0 *1.575*	63,0 *2.480*	36,0 *1.417*	3,5 *7.720*	SCGX15
SD602-139/140-90RG	02846694	G7	139,0 *5.472*	140,0 *5.512*	210,0 *8.268*	160,0 *6.299*	50,0 *1.969*	90,0 *3.543*	46,0 *1.811*	6,1 *13.450*	SCGX12
SD602-159/160-90RG	02846695	G7	159,0 *6.260*	160,0 *6.299*	210,0 *8.268*	160,0 *6.299*	50,0 *1.969*	90,0 *3.543*	46,0 *1.811*	7,0 *15.430*	SCGX12/15
SD602-2500-40RG	02846698	G4	62,5 *2.461*	63,5 *2.500*	129,0 *5.079*	105,0 *4.134*	24,0 *0.945*	40,0 *1.575*	22,0 *0.866*	1,0 *2.200*	SCGX07
SD602-2750-40RG	02846699	G4	68,85 *2.711*	69,85 *2.750*	129,0 *5.079*	105,0 *4.134*	24,0 *0.945*	40,0 *1.575*	22,0 *0.866*	1,1 *2.430*	SCGX07/09
SD602-3000-40RG	02846700	G4	75,2 *2.961*	76,2 *3.000*	129,0 *5.079*	105,0 *4.134*	24,0 *0.945*	40,0 *1.575*	22,0 *0.866*	1,3 *2.870*	SCGX09
SD602-3250-50RG	02846701	G5	81,55 *3.211*	82,55 *3.250*	160,0 *6.299*	130,0 *5.118*	30,0 *1.181*	50,0 *1.969*	28,0 *1.102*	1,8 *3.970*	SCGX09/12
SD602-3500-50RG	02846702	G5	87,9 *3.461*	88,9 *3.500*	160,0 *6.299*	130,0 *5.118*	30,0 *1.181*	50,0 *1.969*	28,0 *1.102*	2,1 *4.630*	SCGX09/12
SD602-4000-63RG	02846703	G6	100,6 *3.961*	101,6 *4.000*	185,0 *7.283*	145,0 *5.709*	40,0 *1.575*	63,0 *2.480*	36,0 *1.417*	3,2 *7.050*	SCGX12

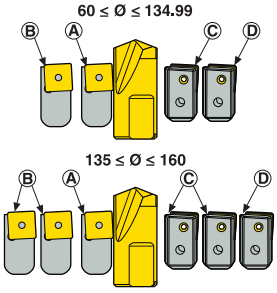
Spare Parts, included in delivery

Cassette	Cassette	Cassette screw	Washer	Insert screw	Insert key	Guide pad*	Guide pad*	Pad screw
								
SD600-C-07	SD600-P-07-N	K6S4x8	LW0408	C03007-T09P	T09P-2, T15P-2D	PAD-L20R25	PAD-L20R25-N	C04014-T15P
SD600-C-09	SD600-P-09-N	K6S4x8	LW0408	C03508-T15P	T15P-2D	PAD-L20R25	PAD-L20R25-N	C04014-T15P
SD600-C-12	SD600-P-12-N	K6S6x10	LW0611	C05012-T15P	T15P-2D	PAD-L20R25	PAD-L20R25-N	C04014-T15P
SD600-C-15	SD600-P-15-N	K6S6x12	LW0611	C05012-T15P	T15P-2D	PAD-L20R25	PAD-L20R25-N	C04014-T15P

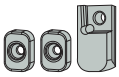
*Not included in delivery

SD602

Modular drill head



Spare Parts, included in delivery

Designation	For drill dia. (mm)	For drill dia. (inch)	Pilot screw	Adjusting screw	Cassette (A)	Cassette (B)	Cassette (C)	Periph kit* (D)	Pilot drill* x=0 Solid carbide x=1 HSS
									
SD602-59/60-40RG	59	2.323	P6SS 8X8	19TLR0816	SD600-C-07	SD600-C-07	SD600-P-07	SD6020-P-07-U	SD601x-10-R
SD602-59/60-40RG	60	2.362	P6SS 8X8	19TLR0816	SD600-C-07	SD600-C-07	SD600-P-07	SD6020-P-07-N	SD601x-10-R
SD602-2500-40RG	62,5	2.461	P6SS 8X8	19TLR0816	SD600-C-07	SD600-C-07	SD600-P-07	SD6020-P-07-U	SD601x-10-R
SD602-2500-40RG	63,5	2.500	P6SS 8X8	19TLR0816	SD600-C-07	SD600-C-07	SD600-P-07	SD6020-P-07-N	SD601x-10-R
SD602-2750-40RG	68,85	2.711	P6SS 8X8	19TLR0816	SD600-C-09	SD600-C-07	SD600-P-07	SD6020-P-07-U	SD601x-10-R
SD602-2750-40RG	69,85	2.750	P6SS 8X8	19TLR0816	SD600-C-09	SD600-C-07	SD600-P-07	SD6020-P-07-N	SD601x-10-R
SD602-69/70-40RG	69	2.717	P6SS 8X8	19TLR0816	SD600-C-09	SD600-C-09	SD600-P-09	SD6020-P-09-U	SD601x-10-R
SD602-69/70-40RG	70	2.756	P6SS 8X8	19TLR0816	SD600-C-09	SD600-C-09	SD600-P-09	SD6020-P-09-N	SD601x-10-R
SD602-3000-40RG	75,2	2.961	P6SS 10X10	19TLR1016	SD600-C-09	SD600-C-09	SD600-P-09	SD6020-P-09-U	SD601x-15-R
SD602-3000-40RG	76,2	3.000	P6SS 10X10	19TLR1016	SD600-C-09	SD600-C-09	SD600-P-09	SD6020-P-09-N	SD601x-15-R
SD602-79/80-50RG	79	3.110	P6SS 10X10	19TLR1016	SD600-C-09	SD600-C-09	SD600-P-09	SD6020-P-09-U	SD601x-15-R
SD602-79/80-50RG	80	3.150	P6SS 10X10	19TLR1016	SD600-C-09	SD600-C-09	SD600-P-09	SD6020-P-09-N	SD601x-15-R
SD602-3250-50RG	81,55	3.211	P6SS 10X10	19TLR1016	SD600-C-12	SD600-C-09	SD600-P-09	SD6020-P-09-U	SD601x-15-R
SD602-3250-50RG	82,55	3.250	P6SS 10X10	19TLR1016	SD600-C-12	SD600-C-09	SD600-P-09	SD6020-P-09-N	SD601x-15-R
SD602-3500-50RG	87,9	3.461	P6SS 10X10	19TLR1016	SD600-C-12	SD600-C-09	SD600-P-09	SD6020-P-12-U	SD601x-15-R
SD602-3500-50RG	88,9	3.500	P6SS 10X10	19TLR1016	SD600-C-12	SD600-C-09	SD600-P-09	SD6020-P-12-N	SD601x-15-R
SD602-89/90-50RG	89	3.504	P6SS 10X10	19TLR1016	SD600-C-12	SD600-C-09	SD600-P-09	SD6020-P-12-U	SD601x-15-R
SD602-89/90-50RG	90	3.543	P6SS 10X10	19TLR1016	SD600-C-12	SD600-C-09	SD600-P-09	SD6020-P-12-N	SD601x-15-R
SD602-99/100-63RG	99	3.898	P6SS 10X10	19TLR1016	SD600-C-12	SD600-C-12	SD600-P-12	SD6020-P-12-U	SD601x-15-R
SD602-99/100-63RG	100	3.937	P6SS 10X10	19TLR1016	SD600-C-12	SD600-C-12	SD600-P-12	SD6020-P-12-N	SD601x-15-R
SD602-4000-63RG	100,6	3.961	P6SS 10X10	19TLR1016	SD600-C-12	SD600-C-12	SD600-P-12	SD6020-P-12-U	SD601x-15-R
SD602-4000-63RG	101,6	4.000	P6SS 10X10	19TLR1016	SD600-C-12	SD600-C-12	SD600-P-12	SD6020-P-12-N	SD601x-15-R
SD602-119/120-63RG	119	4.685	P6SS 10X10	19TLR1016	SD600-C-15	SD600-C-15	SD600-P-15	SD6020-P-15-U	SD601x-15-R
SD602-119/120-63RG	120	4.724	P6SS 10X10	19TLR1016	SD600-C-15	SD600-C-15	SD600-P-15	SD6020-P-15-N	SD601x-15-R
SD602-139/140-90RG	139	5.472	P6SS 12X12	19TLR1216	SD600-C-12	SD600-C-12	SD600-P-12	SD6021-P-12-U	SD601x-25-R
SD602-139/140-90RG	140	5.512	P6SS 12X12	19TLR1216	SD600-C-12	SD600-C-12	SD600-P-12	SD6021-P-12-N	SD601x-25-R
SD602-159/160-90RG	159	6.260	P6SS 12X12	19TLR1216	SD600-C-15	SD600-C-12	SD600-P-12	SD6021-P-15-U	SD601x-25-R
SD602-159/160-90RG	160	6.299	P6SS 12X12	19TLR1216	SD600-C-15	SD600-C-12	SD600-P-12	SD6021-P-15-N	SD601x-25-R

*Not included in delivery. Periph kit, U-undersize, N-nominal.

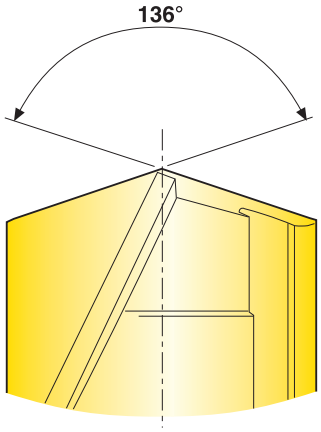
For insert size see page 297-303

Regrinding instructions for SD602

Specifications:
Proposed specification of diamond wheels:
Conical clearance: Wheel shape12A2 Grit size D54 (picture 1).
Gashing: Wheel shape 1A1 or 1V1 Grit size D64-D46 (picture 2-3).
Corner chamfer: Wheel shape 1A1 or 12A2 (picture 1).
Edge treatment: grinding K-land or brushing (picture 2).

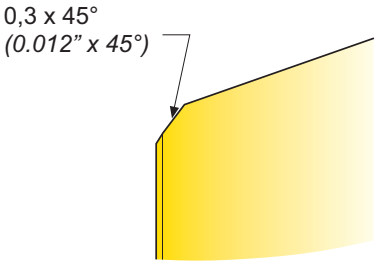
Important:
- The cutting edges must be uniform and have the same size of edge preparation.
- The edge preparation must be applied on the whole length of the cutting edges.

1. **Point angle**

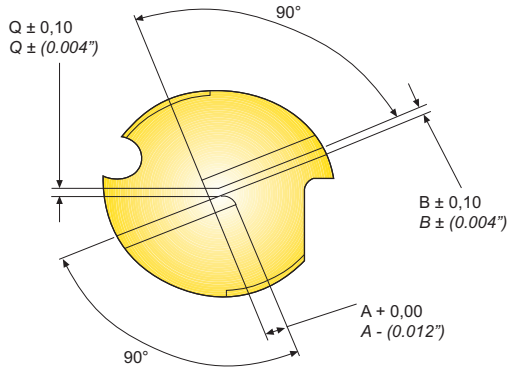


Edge preparation 0-0,1 mm *(0-.004")* x 20°. Drill point conical relief 10°.

2. **Corner chamfer**



3.

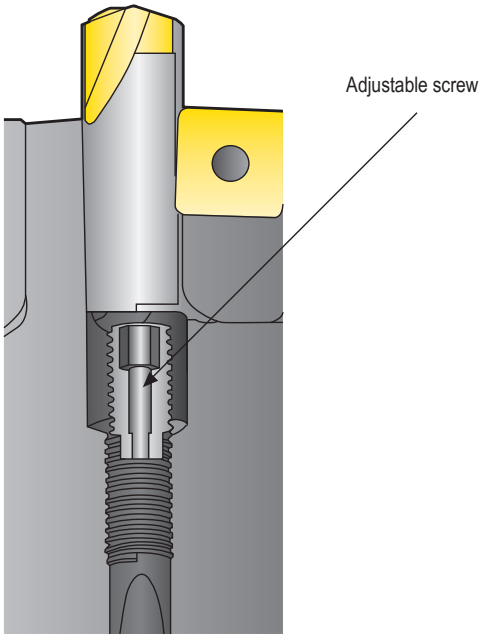


4.

Diameter	Dimensions in mm (*inch*)			
	A	B	C	Minimum length
10 mm	1,5 *(0.059)*	0,5 *(0.020)*	0,57 *(0.022)*	38 *(1.496)*
15 mm	1,5 *(0.059)*	0,6 *(0.024)*	0,68 *(0.027)*	45 *(1.772)*
25 mm	1,5 *(0.059)*	1,4 *(0.055)*	1,6 *(0.063)*	57 *(2.244)*

Modular drill head assembly

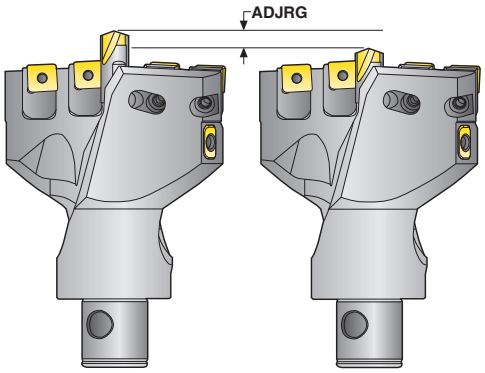
Feature: Adjustable pilot drill



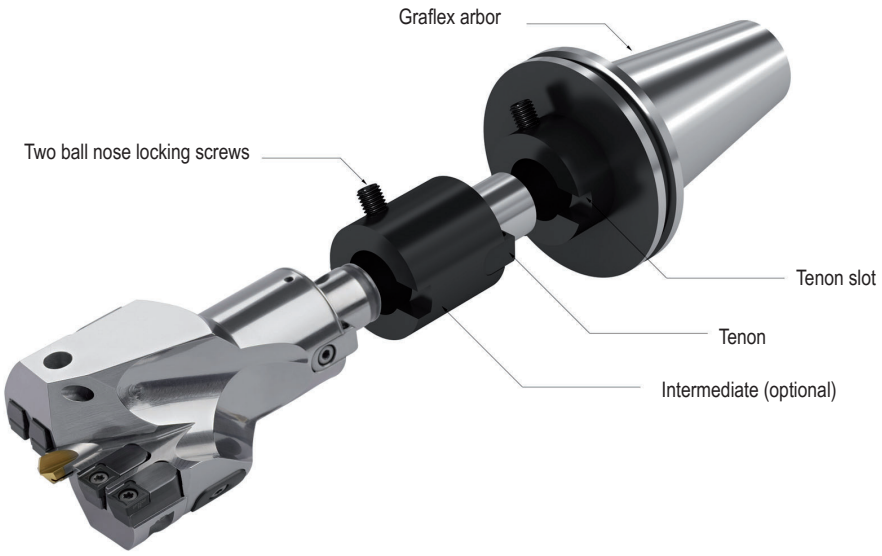
Drill	Adjustable length distance ADJRG	
	mm	*inch*
SD602-59/60-40RG	3,0	*0.118*
SD602-69/70-40RG	3,0	*0.118*
SD602-79/80-50RG	5,0	*0.197*
SD602-89/90-50RG	5,0	*0.197*
SD602-99/100-63RG	5,0	*0.197*
SD602-119/120-63RG	5,0	*0.197*
SD602-139/140-90RG	5,0	*0.197*
SD602-159/160-90RG	5,0	*0.197*
SD602-2500-40RG	3,0	*0.118*
SD602-2750-40RG	3,0	*0.118*
SD602-3000-40RG	5,0	*0.197*
SD602-3250-50RG	5,0	*0.197*
SD602-3500-50RG	5,0	*0.197*
SD602-4000-63RG	5,0	*0.197*

Feature: Adjustable length distance

Benefits: Same setting length after regrinding of pilot drill.
Possibility to adjust the pilot drill overhang.
With drill depths > 5 x D it is recommended to adjust it 5 mm (*0.197*") further out.
Recommendation: In case of re-entering the hole the pilot drill should be adjusted 3 mm (*0.118*") further out from its original position to ensure a better centering.

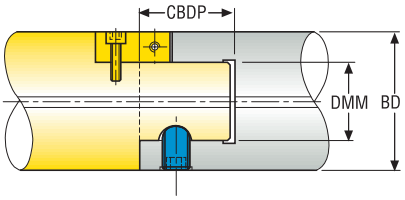


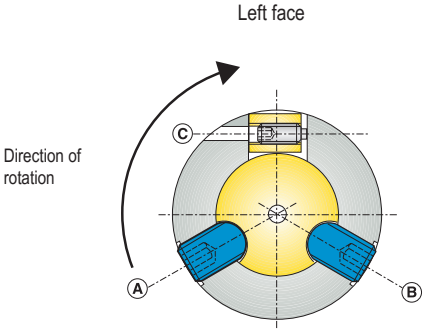
Modular drill head assembly



Mounting instruction

1. Clean the parts to be assembled and apply thin oxidation protection film.
2. Assemble the parts ensuring that the left face of the tenon contacts the left face of the tenon slot.
3. Lightly tighten screw A (drill heads needs to be moved back and forth to find the lowest point for screw A).
4. Lightly tighten screw B.
5. 'Torque' the blocking screw C.
6. 'Torque' screw A.
7. 'Torque' screw B.
8. Double check the blocking screw tightening.



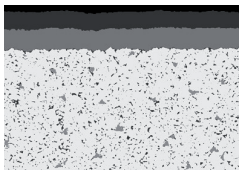
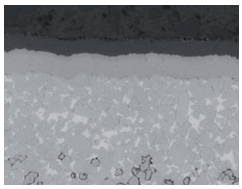
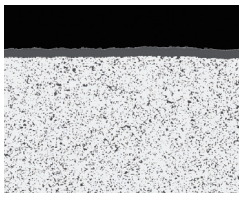


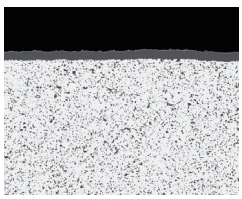
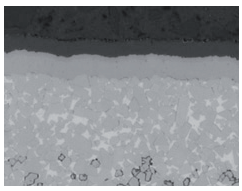
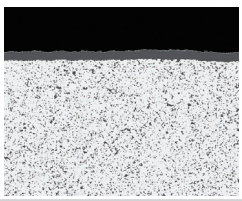
Graflex size	DMM mm (*inch*)	BD mm (*inch*)	CBDP mm (*inch*)	Recommended Graflex connection locking torques	
				Ball nose screws (A) & (B)	Tenon blocking screw (C)
4	22 *(0.866)*	40 *(1.575)*	24 *(0.945)*	20 Nm *(14.7 ft/lbs)*	0.7 Nm *(0.5 ft/lbs)*
5	28 *(1.102)*	50 *(1.969)*	30 *(1.181)*	25 Nm *(18.4 ft/lbs)*	2 Nm *(1.5 ft/lbs)*
6	36 *(1.417)*	63 *(2.480)*	40 *(1.575)*	35 Nm *(25.8 ft/lbs)*	4 Nm *(2.9 ft/lbs)*
7	46 *(1.811)*	90 *(3.543)*	50 *(1.969)*	60 Nm *(44.2 ft/lbs)*	8 Nm *(5.9 ft/lbs)*

Insert grade

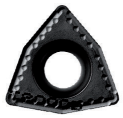
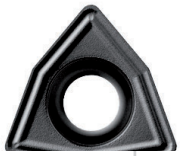
Features:
- 4 cutting edges per insert
- Strong square inserts

Benefits:
- Economy
- Reliability
- Performance
- Low cost per hole

Peripheral insert		
DP2000		DURATOMIC® coating technology Optimized grade for steel and cast iron machining For machining with very high cutting speeds A unique combination of superior edge toughness and a thick wear resistant coating Ti(C,N) + Al_2O_3 DURATOMIC®
DP3000		DURATOMIC® coating technology Universal grade Superior wear resistance and edge toughness Tough grade for maximum application security Ti(C,N) + Al_2O_3 DURATOMIC® Gradient substrate
DS2050		Optimized grade for Titanium, super alloys and difficult stainless steel PVD coated TiAlN + NbN
T250D		First choice in hardened steel and in high Si content aluminum Sharp cutting edge through micrograin substrate and pvd coating (TiAl)N + TiN

Center insert		
T400D		First choice Tough center insert grade for maximum application security PVD coated (Ti, Al)N + TiN
DP3000		DURATOMIC® coating technology Universal grade Superior wear resistance and edge toughness Tough grade for maximum application security Ti(C,N) + Al_2O_3 DURATOMIC® Gradient substrate
DS4050		Optimized grade for Titanium, super alloys and difficult stainless steel PVD coated TiAlN + NbN

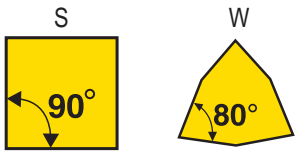
Geometries

SCGX-P1	SCGX-P2	SCGX-MP	SPGX-C1	SPGX-MC	WCMX-85	WCMX-86
						

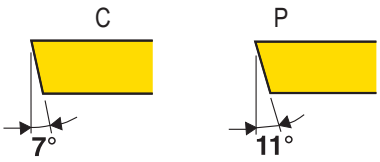


S	C	G	X	06	02	04	-	P1
1	2	3	4	5	6	7		10

1. Insert shape



2. Insert side clearance angle



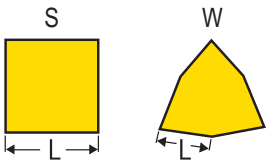
4. Type

X=Special

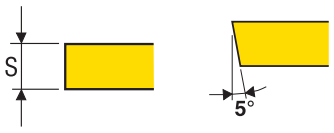
3. Tolerances

	Tolerance +/- mm (*inch*)			For IC dimension in mm (*inch*)								
Tol. class	m	S	IC	5,556 (0.2187)	6,35 (0.2500)	7,937 (0.3125)	7,94 (0.3126)	9,525 (0.3750)	11,509 (0.4531)	12,7 (0.5000)	15,875 (0.6250)	19,05 (0.7500)
G	0,025 (0.001)	0,13 (0.005)	0,025 (0.001)	•	•	•		•	•	•	•	•
M	0,013 (0.005)	0,13 (0.005)	0,05 (0.002)	•	•		•	•	•	•	•	•
M	0,013 (0.005)	0,13 (0.005)	0,08 (0.003)							•		

5. Cutting edge length



6. Thickness



02 = 2,38 mm *(0.094")*
03 = 3,18 mm *(0.125")*
T3 = 3,97 mm *(0.156")*

04 = 4,76 mm *(0.187")*
05 = 5,56 mm *(0.219")*

7. Insert with corner chamfers/nose radius



nose radius

04 = 0,4 mm *(0.016")*
08 = 0,8 mm *(0.031")*
12 = 1,2 mm *(0.047")*
etc.

10. Internal designation

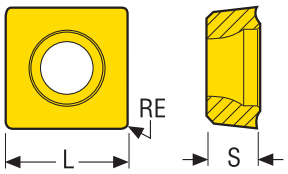
e.g. chipbreaker designation

P1 = xx
P2 = xx
85 = xx
86 = xx

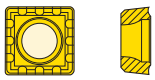
Indexable inserts – Peripherial insert, type P1*

for SD522, SD523, SD524, SD525, SD542, SD602

Tolerances:
L = ±0,025 (0.001")
S = ±0,13 (0.005")
RE = ±0,1 (0.004")



SCGX-P1

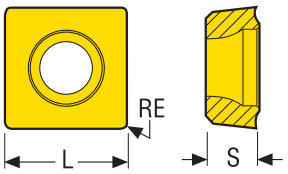


Designation	Inserts	L	S	RE	Grades		
		mm *Inch*	mm *Inch*	mm *Inch*	T250D	DP2000	DP3000
SCGX060204-P1	SCGX-P1	6,35 *0,25*	2,381 *0,094*	0,4 *0,016*	00059712	02590849	02807362
SCGX070308-P1	SCGX-P1	7,938 *0,313*	3,18 *0,125*	0,8 *0,031*	00059713	02590850	02807363
SCGX09T308-P1	SCGX-P1	9,525 *0,375*	3,969 *0,156*	0,8 *0,031*	00059714	02590851	02807364
SCGX11T308-P1	SCGX-P1	11,509 *0,453*	3,97 *0,156*	0,8 *0,031*	03136962	03136963	03136964
SCGX120408-P1	SCGX-P1	12,7 *0,5*	4,762 *0,187*	0,8 *0,031*	00059715	02590852	02807365
SCGX150512-P1	SCGX-P1	15,875 *0,625*	5,556 *0,219*	1,2 *0,047*	00059716	02590853	02807366

*Chipbreaker for low feed rates and for good surface finish in all materials

Indexable inserts – Peripherial insert, type P2**

for SD522, SD523, SD524, SD525, SD542, SD602



Tolerances:
L = ±0,025 (0.001")
S = ±0,13 (0.005")
RE = ±0,1 (0.004")

SCGX-P2



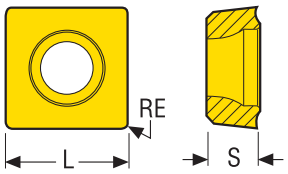
Designation	Inserts	L	S	RE	Grades		
		mm *Inch*	mm *Inch*	mm *Inch*	T250D	DP2000	DP3000
SCGX050204-P2	SCGX-P2	5,556 *0,219*	2,38 *0,094*	0,4 *0,016*	00059711	02590854	02807356
SCGX060204-P2	SCGX-P2	6,35 *0,25*	2,38 *0,094*	0,4 *0,016*	02526803	02590855	02807357
SCGX070308-P2	SCGX-P2	7,937 *0,312*	3,18 *0,125*	0,8 *0,031*	02526787	02590856	02807358
SCGX09T308-P2	SCGX-P2	9,525 *0,375*	3,97 *0,156*	0,8 *0,031*	02794476	02590857	02807359
SCGX11T308-P2	SCGX-P2	11,509 *0,453*	3,97 *0,156*	0,8 *0,031*	03097760	03097761	03097762
SCGX120408-P2	SCGX-P2	12,7 *0,5*	4,76 *0,187*	0,8 *0,031*	02794477	02590858	02807360
SCGX150512-P2	SCGX-P2	15,875 *0,625*	5,56 *0,219*	1,2 *0,047*	02794478	02590859	02807361

**Chipbreaker for high feed rates in steel, stainless steel and cast iron

Indexable inserts – Peripherial insert, for type MP

for SD522, SD523, SD524, SD525, SD542, SD602

Tolerances:
L = ±0,025 (0.001")
S = ±0,13 (0.005")
RE = ±0,1 (0.004")



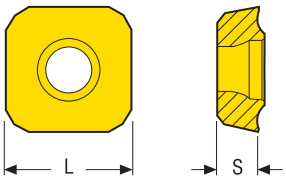
SCGX-MP



Designation	Inserts	L	S	RE	Grades
		mm *Inch*	mm *Inch*	mm *Inch*	**DS2050**
SCGX050204-MP	SCGX-MP	5,56 *0,219*	2,38 *0,094*	0,4 *0,016*	03134312
SCGX060204-MP	SCGX-MP	6,35 *0,25*	6,35 *0,25*	0,4 *0,016*	03134313
SCGX070308-MP	SCGX-MP	7,94 *0,313*	3,18 *0,125*	0,8 *0,031*	03134314
SCGX09T308-MP	SCGX-MP	9,525 *0,375*	3,97 *0,156*	0,8 *0,031*	03134315
SCGX11T308-MP	SCGX-MP	11,509 *0,453*	3,97 *0,156*	0,8 *0,031*	03134316
SCGX120408-MP	SCGX-MP	12,7 *0,5*	4,76 *0,187*	0,8 *0,031*	03134317
SCGX150512-MP	SCGX-MP	15,875 *0,625*	5,56 *0,219*	1,2 *0,047*	03134318

Indexable inserts – Centre insert, type C1

for SD522, SD523, SD524, SD525, SD542



Tolerances:
L = ±0,025 (0.001")
S = ±0,13 (0.005")

SPGX-C1

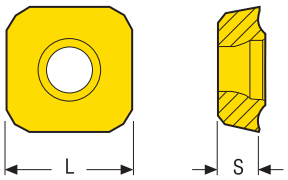


Designation	Inserts	L	S	Grades	
		mm *Inch*	mm *Inch*	**T400D**	**DP3000**
SPGX0502-C1	SPGX-C1	5,556 *0,219*	2,38 *0,094*	74077370	02807367
SPGX0602-C1	SPGX-C1	6,35 *0,25*	2,38 *0,094*	74077371	02807368
SPGX0703-C1	SPGX-C1	7,937 *0,312*	3,18 *0,125*	74077372	02807369
SPGX0903-C1	SPGX-C1	9,525 *0,375*	3,18 *0,125*	74077373	02807370
SPGX11T3-C1	SPGX-C1	11,509 *0,453*	3,97 *0,156*	74077374	02807371
SPGX12T3-C1	SPGX-C1	12,7 *0,5*	3,97 *0,156*	74077375	02807372
SPGX1504-C1	SPGX-C1	15,875 *0,625*	4,76 *0,187*	74077376	02807373
SPGX1904-C1	SPGX-C1	19,05 *0,75*	4,76 *0,187*	74077377	02807374

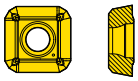
Indexable inserts – Centre insert, type MC

for SD522, SD523, SD524, SD525, SD542

Tolerances:
L = ±0,025 (0.001")
S = ±0,13 (0.005")



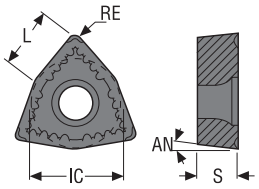
SPGX-MC



Designation	Inserts	L	S	Grades
		mm *Inch*	mm *Inch*	**DS4050**
SPGX0502-MC	SPGX-MC	5,56 *0,219*	2,38 *0,094*	03134319
SPGX0602-MC	SPGX-MC	6,35 *0,25*	2,38 *0,094*	03134320
SPGX0703-MC	SPGX-MC	7,94 *0,313*	3,18 *0,125*	03134321
SPGX0903-MC	SPGX-MC	9,525 *0,375*	3,18 *0,125*	03134322
SPGX11T3-MC	SPGX-MC	11,509 *0,453*	3,97 *0,156*	03134323
SPGX12T3-MC	SPGX-MC	12,7 *0,5*	3,97 *0,156*	03134324
SPGX1504-MC	SPGX-MC	15,875 *0,625*	4,76 *0,187*	03134325
SPGX1904-MC	SPGX-MC	19,05 *0,75*	4,76 *0,187*	03134326

Indexable inserts – Peripherial insert, type 85*

for SD572



Tolerances:
S = ±0,13 (0.005")
RE = ±0,1 (0.004")

WCMX-85



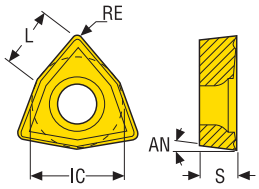
Designation	Inserts	IC	L	S	RE	Grades
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	**DP3000**
WCMX040208-85	WCMX-85	6,35 *0,25*	3,99 *0,157*	2,38 *0,094*	0,8 *0,031*	02807375
WCMX050308-85	WCMX-85	7,94 *0,313*	5,07 *0,2*	3,18 *0,125*	0,8 *0,031*	02807376
WCMX06T308-85	WCMX-85	9,525 *0,375*	6,14 *0,242*	3,97 *0,156*	0,8 *0,031*	02807377
WCMX080412-85	WCMX-85	12,7 *0,5*	8,14 *0,32*	4,76 *0,187*	1,2 *0,047*	02807378

**Chipbreaker for high feed rates in steel, stainless steel and cast iron

Indexable inserts – Center insert & Peripherial insert, type 86**

for SD572

Tolerances:
S = ±0,13 (0.005")
RE = ±0,1 (0.004")



WCMX-86



Designation	Inserts	IC	L	S	RE	Grades		
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	**T400D**	**DP2000**	**DP3000**
WCMX030208-86	WCMX-86	5,556 *0,219*	3,46 *0,136*	2,38 *0,094*	0,8 *0,031*	02506629	02899808	02807379
WCMX040208-86	WCMX-86	6,35 *0,25*	3,99 *0,157*	2,38 *0,094*	0,8 *0,031*	02506638	02899809	02807380
WCMX050308-86	WCMX-86	7,94 *0,313*	5,07 *0,2*	3,18 *0,125*	0,8 *0,031*	02506640	02899810	02807381
WCMX06T308-86	WCMX-86	9,525 *0,375*	6,14 *0,242*	3,97 *0,156*	0,8 *0,031*	02506645	02899811	02807382
WCMX080412-86	WCMX-86	12,7 *0,5*	8,14 *0,32*	4,76 *0,187*	1,2 *0,047*	02506646	02899812	02807383

**Chipbreaker for high feed rates in steel, stainless steel and cast iron

SD522 ∅ 15-60 mm / *0.590-2.375 inch*

SMG		f							v_c
		Ø 15,00-19,49 *Ø 0.590-0.767*	Ø 19,50-22,49 *Ø 0.768-0.885*	Ø 22,50-28,49 *Ø 0.886-1.121*	Ø 28,50-34,49 *Ø 1.122-1.357*	Ø 34,50-40,49 *Ø1.358-1.593*	Ø 40,49-44,49 *Ø 1.594-1.751*	Ø 44,50-59,99 *Ø 1.752-2.375*	
P1	P1 DP2000	0,060	0,070	0,085	0,095	0,11	0,12	0,13	460
	P1 DP2000	*0.0024*	*0.0028*	*0.0034*	*0.0038*	*0.0044*	*0.0048*	*0.0050*	*1500*
P2	P1 DP2000	0,060	0,070	0,085	0,10	0,11	0,12	0,13	450
	P1 DP2000	*0.0024*	*0.0028*	*0.0034*	*0.0040*	*0.0044*	*0.0048*	*0.0050*	*1475*
P3	P2 DP3000	0,12	0,14	0,17	0,19	0,22	0,22	0,26	345
	P2 DP3000	*0.0048*	*0.0055*	*0.0065*	*0.0075*	*0.0085*	*0.0085*	*0.010*	*1125*
P4	P2 DP3000	0,12	0,13	0,16	0,19	0,22	0,22	0,25	220
	P2 DP3000	*0.0048*	*0.0050*	*0.0065*	*0.0075*	*0.0085*	*0.0085*	*0.010*	*720*
P5	P2 DP3000	0,11	0,13	0,16	0,18	0,20	0,22	0,25	210
	P2 DP3000	*0.0044*	*0.0050*	*0.0065*	*0.0070*	*0.0080*	*0.0085*	*0.010*	*690*
P6	P2 DP3000	0,11	0,13	0,16	0,18	0,20	0,22	0,25	235
	P2 DP3000	*0.0044*	*0.0050*	*0.0065*	*0.0070*	*0.0080*	*0.0085*	*0.010*	*770*
P7	P2 DP3000	0,11	0,13	0,16	0,18	0,20	0,22	0,25	225
	P2 DP3000	*0.0044*	*0.0050*	*0.0065*	*0.0070*	*0.0080*	*0.0085*	*0.010*	*740*
P8	P2 DP3000	0,12	0,14	0,17	0,19	0,22	0,22	0,26	210
	P2 DP3000	*0.0048*	*0.0055*	*0.0065*	*0.0075*	*0.0085*	*0.0085*	*0.010*	*690*
P11	P2 DP3000	0,11	0,13	0,16	0,18	0,20	0,22	0,25	215
	P2 DP3000	*0.0044*	*0.0050*	*0.0065*	*0.0070*	*0.0080*	*0.0085*	*0.010*	*710*
P12	P2 DP3000	0,075	0,090	0,11	0,12	0,14	0,15	0,17	130
	P2 DP3000	*0.0030*	*0.0036*	*0.0044*	*0.0048*	*0.0055*	*0.0060*	*0.0065*	*425*
M1	P2 DP3000	0,085	0,10	0,12	0,14	0,16	0,17	0,19	260
	P2 DP3000	*0.0034*	*0.0040*	*0.0048*	*0.0055*	*0.0065*	*0.0065*	*0.0075*	*850*
M2	P2 DP3000	0,080	0,090	0,11	0,13	0,14	0,15	0,17	210
	P2 DP3000	*0.0032*	*0.0036*	*0.0044*	*0.0050*	*0.0055*	*0.0060*	*0.0065*	*690*
M3	MP DS2050	0,065	0,075	0,090	0,10	0,12	0,13	0,14	160
	MP DS2050	*0.0026*	*0.0030*	*0.0036*	*0.0040*	*0.0048*	*0.0050*	*0.0055*	*520*
M4	MP DS2050	0,055	0,065	0,080	0,090	0,10	0,11	0,12	140
	MP DS2050	*0.0022*	*0.0026*	*0.0032*	*0.0036*	*0.0040*	*0.0044*	*0.0048*	*460*
M5	MP DS2050	0,055	0,065	0,080	0,090	0,10	0,11	0,12	115
	MP DS2050	*0.0022*	*0.0026*	*0.0032*	*0.0036*	*0.0040*	*0.0044*	*0.0048*	*375*
K1	P2 DP2000	0,12	0,14	0,17	0,20	0,22	0,24	0,26	250
	P2 DP2000	*0.0048*	*0.0055*	*0.0065*	*0.0080*	*0.0085*	*0.0095*	*0.010*	*820*
K2	P2 DP2000	0,11	0,13	0,16	0,18	0,20	0,22	0,24	215
	P2 DP2000	*0.0044*	*0.0050*	*0.0065*	*0.0070*	*0.0080*	*0.0085*	*0.0095*	*710*
K3	P2 DP2000	0,11	0,13	0,16	0,18	0,20	0,22	0,24	185
	P2 DP2000	*0.0044*	*0.0050*	*0.0065*	*0.0070*	*0.0080*	*0.0085*	*0.0095*	*610*
K4	P2 DP2000	0,11	0,13	0,16	0,18	0,20	0,22	0,24	175
	P2 DP2000	*0.0044*	*0.0050*	*0.0065*	*0.0070*	*0.0080*	*0.0085*	*0.0095*	*570*
K5	P2 DP2000	0,10	0,11	0,14	0,16	0,18	0,19	0,22	105
	P2 DP2000	*0.0040*	*0.0044*	*0.0055*	*0.0065*	*0.0070*	*0.0075*	*0.0085*	*345*
N1	P1 T250D	0,12	0,14	0,17	0,20	0,22	0,24	0,26	365
	P1 T250D	*0.0048*	*0.0055*	*0.0065*	*0.0080*	*0.0085*	*0.0095*	*0.010*	*1200*
N2	P1 T250D	0,12	0,14	0,17	0,20	0,22	0,24	0,26	235
	P1 T250D	*0.0048*	*0.0055*	*0.0065*	*0.0080*	*0.0085*	*0.0095*	*0.010*	*770*
N3	P1 T250D	0,12	0,14	0,17	0,20	0,22	0,24	0,26	155
	P1 T250D	*0.0048*	*0.0055*	*0.0065*	*0.0080*	*0.0085*	*0.0095*	*0.010*	*510*
N11	P1 T250D	0,12	0,14	0,17	0,20	0,22	0,24	0,26	310
	P1 T250D	*0.0048*	*0.0055*	*0.0065*	*0.0080*	*0.0085*	*0.0095*	*0.010*	*1025*
S1	MP DS2050	0,090	0,11	0,13	0,15	0,17	0,18	0,20	60
	MP DS2050	*0.0036*	*0.0044*	*0.0050*	*0.0060*	*0.0065*	*0.0070*	*0.0080*	*195*
S2	MP DS2050	0,090	0,11	0,13	0,15	0,17	0,18	0,20	48
	MP DS2050	*0.0036*	*0.0044*	*0.0050*	*0.0060*	*0.0065*	*0.0070*	*0.0080*	*155*
S3	MP DS2050	0,085	0,10	0,12	0,14	0,16	0,17	0,19	41
	MP DS2050	*0.0034*	*0.0040*	*0.0048*	*0.0055*	*0.0065*	*0.0065*	*0.0075*	*135*
S11	MP DS2050	0,11	0,12	0,15	0,17	0,19	0,20	0,24	85
	MP DS2050	*0.0044*	*0.0048*	*0.0060*	*0.0065*	*0.0075*	*0.0080*	*0.0095*	*280*
S12	MP DS2050	0,11	0,12	0,15	0,17	0,19	0,20	0,24	65
	MP DS2050	*0.0044*	*0.0048*	*0.0060*	*0.0065*	*0.0075*	*0.0080*	*0.0095*	*215*
S13	MP DS2050	0,090	0,11	0,13	0,15	0,17	0,18	0,20	50
	MP DS2050	*0.0036*	*0.0044*	*0.0050*	*0.0060*	*0.0065*	*0.0070*	*0.0080*	*165*
H3	P1 T250D	0,050	0,060	0,070	0,080	0,095	0,10	0,11	70
	P1 T250D	*0.0020*	*0.0024*	*0.0028*	*0.0032*	*0.0038*	*0.0040*	*0.0044*	*230*
H5	P1 T250D	0,075	0,090	0,11	0,12	0,14	0,15	0,17	130
	P1 T250D	*0.0030*	*0.0036*	*0.0044*	*0.0048*	*0.0055*	*0.0060*	*0.0065*	*425*
H7	P1 T250D	0,050	0,060	0,070	0,080	0,095	0,10	0,11	70
	P1 T250D	*0.0020*	*0.0024*	*0.0028*	*0.0032*	*0.0038*	*0.0040*	*0.0044*	*230*
H8	P1 T250D	0,060	0,070	0,085	0,095	0,11	0,11	0,13	130
	P1 T250D	*0.0024*	*0.0028*	*0.0034*	*0.0038*	*0.0044*	*0.0044*	*0.0050*	*425*
H11	P1 T250D	0,075	0,090	0,11	0,12	0,14	0,15	0,17	165
	P1 T250D	*0.0030*	*0.0036*	*0.0044*	*0.0048*	*0.0055*	*0.0060*	*0.0065*	*540*
H12	P1 T250D	0,060	0,070	0,085	0,095	0,11	0,11	0,13	150
	P1 T250D	*0.0024*	*0.0028*	*0.0034*	*0.0038*	*0.0044*	*0.0044*	*0.0050*	*490*
H21	P1 T250D	0,060	0,070	0,085	0,095	0,11	0,11	0,13	130
	P1 T250D	*0.0024*	*0.0028*	*0.0034*	*0.0038*	*0.0044*	*0.0044*	*0.0050*	*425*

SMG = Seco material group f = mm/rev (IPR) v_c = m/min (sf/min) All cutting data are start values

SD522 Cutting speed

SMG	v_c			
	DP2000	DP3000	T250D	DS2050
P1	460 *1500*	415 *1350*	315 *1025*	415 *1350*
P2	450 *1475*	405 *1325*	305 *1000*	405 *1325*
P3	385 *1275*	345 *1125*	265 *870*	345 *1125*
P4	285 *940*	220 *720*	140 *460*	— —
P5	270 *890*	210 *690*	135 *445*	— —
P6	305 *1000*	235 *770*	150 *490*	— —
P7	285 *940*	225 *740*	140 *460*	— —
P8	270 *890*	210 *690*	135 *445*	— —
P11	280 *920*	215 *710*	140 *460*	— —
P12	165 *540*	130 *425*	80 *260*	— —
M1	— —	260 *850*	160 *520*	— —
M2	— —	210 *690*	130 *425*	— —
M3	— —	160 *520*	100 *330*	160 *520*
M4	— —	120 *395*	75 *245*	140 *460*
M5	— —	100 *330*	60 *195*	115 *375*
K1	250 *820*	235 *770*	— —	— —
K2	215 *710*	205 *670*	— —	— —
K3	185 *610*	175 *570*	— —	— —
K4	175 *570*	165 *540*	— —	— —
K5	105 *345*	100 *330*	— —	— —
N1	— —	420 *1375*	365 *1200*	365 *1200*
N2	— —	270 *890*	235 *770*	235 *770*
N3	— —	180 *590*	155 *510*	155 *510*
N11	— —	350 *1150*	310 *1025*	310 *1025*
S1	— —	— —	40 *130*	60 *195*
S2	— —	— —	30 *100*	48 *155*
S3	— —	— —	30 *100*	41 *135*
S11	— —	— —	80 *260*	85 *280*
S12	— —	— —	60 *195*	65 *215*
S13	— —	— —	46 *150*	50 *165*
H3	— —	70 *230*	70 *230*	— —
H5	— —	130 *425*	130 *425*	— —
H7	— —	70 *230*	70 *230*	— —
H8	— —	130 *425*	130 *425*	— —
H11	— —	165 *540*	165 *540*	— —
H12	— —	75 *245*	150 *490*	— —
H21	— —	130 *425*	130 *425*	— —

SMG = Seco material group V_c = m/min (sf/min) All cutting data are start values

SD523 ∅ 15-60 mm / *0.590-2.375 inch*

SMG		f							v_c
		Ø 15,00-19,49 *Ø 0.590-0.767*	Ø 19,50-22,49 *Ø 0.768-0.885*	Ø 22,50-28,49 *Ø 0.886-1.121*	Ø 28,50-34,49 *Ø 1.122-1.357*	Ø 34,50-40,49 *Ø1.358-1.593*	Ø 40,49-44,49 *Ø 1.594-1.751*	Ø 44,50-59,99 *Ø 1.752-2.375*	
P1	P1 DP2000	0,060	0,070	0,085	0,095	0,11	0,12	0,13	415
	P1 DP2000	*0.0024*	*0.0028*	*0.0034*	*0.0038*	*0.0044*	*0.0048*	*0.0050*	*1350*
P2	P1 DP2000	0,060	0,070	0,085	0,10	0,11	0,12	0,13	405
	P1 DP2000	*0.0024*	*0.0028*	*0.0034*	*0.0040*	*0.0044*	*0.0048*	*0.0050*	*1325*
P3	P2 DP3000	0,12	0,14	0,17	0,19	0,22	0,22	0,26	310
	P2 DP3000	*0.0048*	*0.0055*	*0.0065*	*0.0075*	*0.0085*	*0.0085*	*0.010*	*1025*
P4	P2 DP3000	0,12	0,13	0,16	0,19	0,22	0,22	0,25	190
	P2 DP3000	*0.0048*	*0.0050*	*0.0065*	*0.0075*	*0.0085*	*0.0085*	*0.010*	*620*
P5	P2 DP3000	0,11	0,13	0,16	0,18	0,20	0,22	0,25	180
	P2 DP3000	*0.0044*	*0.0050*	*0.0065*	*0.0070*	*0.0080*	*0.0085*	*0.010*	*590*
P6	P2 DP3000	0,11	0,13	0,16	0,18	0,20	0,22	0,25	200
	P2 DP3000	*0.0044*	*0.0050*	*0.0065*	*0.0070*	*0.0080*	*0.0085*	*0.010*	*660*
P7	P2 DP3000	0,11	0,13	0,16	0,18	0,20	0,22	0,25	190
	P2 DP3000	*0.0044*	*0.0050*	*0.0065*	*0.0070*	*0.0080*	*0.0085*	*0.010*	*620*
P8	P2 DP3000	0,12	0,14	0,17	0,19	0,22	0,22	0,26	180
	P2 DP3000	*0.0048*	*0.0055*	*0.0065*	*0.0075*	*0.0085*	*0.0085*	*0.010*	*590*
P11	P2 DP3000	0,11	0,13	0,16	0,18	0,20	0,22	0,25	185
	P2 DP3000	*0.0044*	*0.0050*	*0.0065*	*0.0070*	*0.0080*	*0.0085*	*0.010*	*610*
P12	P2 DP3000	0,075	0,090	0,11	0,12	0,14	0,15	0,17	110
	P2 DP3000	*0.0030*	*0.0036*	*0.0044*	*0.0048*	*0.0055*	*0.0060*	*0.0065*	*360*
M1	P2 DP3000	0,085	0,10	0,12	0,14	0,16	0,17	0,19	245
	P2 DP3000	*0.0034*	*0.0040*	*0.0048*	*0.0055*	*0.0065*	*0.0065*	*0.0075*	*800*
M2	P2 DP3000	0,080	0,090	0,11	0,13	0,14	0,15	0,17	195
	P2 DP3000	*0.0032*	*0.0036*	*0.0044*	*0.0050*	*0.0055*	*0.0060*	*0.0065*	*640*
M3	MP DS2050	0,065	0,075	0,090	0,10	0,12	0,13	0,14	150
	MP DS2050	*0.0026*	*0.0030*	*0.0036*	*0.0040*	*0.0048*	*0.0050*	*0.0055*	*490*
M4	MP DS2050	0,055	0,065	0,080	0,090	0,10	0,11	0,12	120
	MP DS2050	*0.0022*	*0.0026*	*0.0032*	*0.0036*	*0.0040*	*0.0044*	*0.0048*	*395*
M5	MP DS2050	0,055	0,065	0,080	0,090	0,10	0,11	0,12	100
	MP DS2050	*0.0022*	*0.0026*	*0.0032*	*0.0036*	*0.0040*	*0.0044*	*0.0048*	*330*
K1	P2 DP2000	0,12	0,14	0,17	0,20	0,22	0,24	0,26	225
	P2 DP2000	*0.0048*	*0.0055*	*0.0065*	*0.0080*	*0.0085*	*0.0095*	*0.010*	*740*
K2	P2 DP2000	0,11	0,13	0,16	0,18	0,20	0,22	0,24	195
	P2 DP2000	*0.0044*	*0.0050*	*0.0065*	*0.0070*	*0.0080*	*0.0085*	*0.0095*	*640*
K3	P2 DP2000	0,11	0,13	0,16	0,18	0,20	0,22	0,24	165
	P2 DP2000	*0.0044*	*0.0050*	*0.0065*	*0.0070*	*0.0080*	*0.0085*	*0.0095*	*540*
K4	P2 DP2000	0,11	0,13	0,16	0,18	0,20	0,22	0,24	160
	P2 DP2000	*0.0044*	*0.0050*	*0.0065*	*0.0070*	*0.0080*	*0.0085*	*0.0095*	*520*
K5	P2 DP2000	0,10	0,11	0,14	0,16	0,18	0,19	0,22	95
	P2 DP2000	*0.0040*	*0.0044*	*0.0055*	*0.0065*	*0.0070*	*0.0075*	*0.0085*	*310*
N1	P1 T250D	0,12	0,14	0,17	0,20	0,22	0,24	0,26	310
	P1 T250D	*0.0048*	*0.0055*	*0.0065*	*0.0080*	*0.0085*	*0.0095*	*0.010*	*1025*
N2	P1 T250D	0,12	0,14	0,17	0,20	0,22	0,24	0,26	200
	P1 T250D	*0.0048*	*0.0055*	*0.0065*	*0.0080*	*0.0085*	*0.0095*	*0.010*	*660*
N3	P1 T250D	0,12	0,14	0,17	0,20	0,22	0,24	0,26	135
	P1 T250D	*0.0048*	*0.0055*	*0.0065*	*0.0080*	*0.0085*	*0.0095*	*0.010*	*445*
N11	P1 T250D	0,12	0,14	0,17	0,20	0,22	0,24	0,26	260
	P1 T250D	*0.0048*	*0.0055*	*0.0065*	*0.0080*	*0.0085*	*0.0095*	*0.010*	*850*
S1	MP DS2050	0,090	0,11	0,13	0,15	0,17	0,18	0,20	55
	MP DS2050	*0.0036*	*0.0044*	*0.0050*	*0.0060*	*0.0065*	*0.0070*	*0.0080*	*180*
S2	MP DS2050	0,090	0,11	0,13	0,15	0,17	0,18	0,20	43
	MP DS2050	*0.0036*	*0.0044*	*0.0050*	*0.0060*	*0.0065*	*0.0070*	*0.0080*	*140*
S3	MP DS2050	0,085	0,10	0,12	0,14	0,16	0,17	0,19	37
	MP DS2050	*0.0034*	*0.0040*	*0.0048*	*0.0055*	*0.0065*	*0.0065*	*0.0075*	*120*
S11	MP DS2050	0,11	0,12	0,15	0,17	0,19	0,20	0,24	75
	MP DS2050	*0.0044*	*0.0048*	*0.0060*	*0.0065*	*0.0075*	*0.0080*	*0.0095*	*245*
S12	MP DS2050	0,11	0,12	0,15	0,17	0,19	0,20	0,24	60
	MP DS2050	*0.0044*	*0.0048*	*0.0060*	*0.0065*	*0.0075*	*0.0080*	*0.0095*	*195*
S13	MP DS2050	0,090	0,11	0,13	0,15	0,17	0,18	0,20	45
	MP DS2050	*0.0036*	*0.0044*	*0.0050*	*0.0060*	*0.0065*	*0.0070*	*0.0080*	*150*
H3	P1 T250D	0,050	0,060	0,070	0,080	0,095	0,10	0,11	60
	P1 T250D	*0.0020*	*0.0024*	*0.0028*	*0.0032*	*0.0038*	*0.0040*	*0.0044*	*195*
H5	P1 T250D	0,075	0,090	0,11	0,12	0,14	0,15	0,17	110
	P1 T250D	*0.0030*	*0.0036*	*0.0044*	*0.0048*	*0.0055*	*0.0060*	*0.0065*	*360*
H7	P1 T250D	0,050	0,060	0,070	0,080	0,095	0,10	0,11	60
	P1 T250D	*0.0020*	*0.0024*	*0.0028*	*0.0032*	*0.0038*	*0.0040*	*0.0044*	*195*
H8	P1 T250D	0,060	0,070	0,085	0,095	0,11	0,11	0,13	110
	P1 T250D	*0.0024*	*0.0028*	*0.0034*	*0.0038*	*0.0044*	*0.0044*	*0.0050*	*360*
H11	P1 T250D	0,075	0,090	0,11	0,12	0,14	0,15	0,17	140
	P1 T250D	*0.0030*	*0.0036*	*0.0044*	*0.0048*	*0.0055*	*0.0060*	*0.0065*	*460*
H12	P1 T250D	0,060	0,070	0,085	0,095	0,11	0,11	0,13	130
	P1 T250D	*0.0024*	*0.0028*	*0.0034*	*0.0038*	*0.0044*	*0.0044*	*0.0050*	*425*
H21	P1 T250D	0,060	0,070	0,085	0,095	0,11	0,11	0,13	110
	P1 T250D	*0.0024*	*0.0028*	*0.0034*	*0.0038*	*0.0044*	*0.0044*	*0.0050*	*360*

SMG = Seco material group f = mm/rev (IPR) v_c = m/min (sf/min) All cutting data are start values

SD523 Cutting speed

SMG	v_c			
	DP2000	DP3000	T250D	DS2050
P1	415 *1350*	370 *1225*	265 *870*	370 *1225*
P2	405 *1325*	360 *1175*	260 *850*	360 *1175*
P3	345 *1125*	310 *1025*	225 *740*	310 *1025*
P4	230 *750*	190 *620*	120 *395*	— —
P5	220 *720*	180 *590*	115 *375*	— —
P6	250 *820*	200 *660*	130 *425*	— —
P7	235 *770*	190 *620*	120 *395*	— —
P8	220 *720*	180 *590*	115 *375*	— —
P11	225 *740*	185 *610*	115 *375*	— —
P12	135 *445*	110 *360*	70 *230*	— —
M1	— —	245 *800*	135 *445*	— —
M2	— —	195 *640*	110 *360*	— —
M3	— —	150 *490*	85 *280*	150 *490*
M4	— —	115 *375*	65 *215*	120 *395*
M5	— —	95 *310*	55 *180*	100 *330*
K1	225 *740*	215 *710*	— —	— —
K2	195 *640*	185 *610*	— —	— —
K3	165 *540*	160 *520*	— —	— —
K4	160 *520*	150 *490*	— —	— —
K5	95 *310*	90 *295*	— —	— —
N1	— —	360 *1175*	310 *1025*	310 *1025*
N2	— —	230 *750*	200 *660*	200 *660*
N3	— —	155 *510*	135 *445*	135 *445*
N11	— —	300 *980*	260 *850*	260 *850*
S1	— —	— —	34 *110*	55 *180*
S2	— —	— —	25 *80*	43 *140*
S3	— —	— —	25 *80*	37 *120*
S11	— —	— —	65 *215*	75 *245*
S12	— —	— —	50 *165*	60 *195*
S13	— —	— —	39 *130*	45 *150*
H3	— —	60 *195*	60 *195*	— —
H5	— —	115 *375*	110 *360*	— —
H7	— —	60 *195*	60 *195*	— —
H8	— —	115 *375*	110 *360*	— —
H11	— —	145 *475*	140 *460*	— —
H12	— —	65 *215*	130 *425*	— —
H21	— —	115 *375*	110 *360*	— —

SMG = Seco material group V_c = m/min (sf/min) All cutting data are start values

SD524 ∅ 17-60 mm / *0.590-2.375 inch*

SMG		f							v_c
		Ø 15,00-19,49 *Ø 0.590-0.767*	Ø 19,50-22,49 *Ø 0.768-0.885*	Ø 22,50-28,49 *Ø 0.886-1.121*	Ø 28,50-34,49 *Ø 1.122-1.357*	Ø 34,50-40,49 *Ø1.358-1.593*	Ø 40,49-44,49 *Ø 1.594-1.751*	Ø 44,50-59,99 *Ø 1.752-2.375*	
P1	P1 DP2000	0,060	0,070	0,085	0,095	0,11	0,12	0,13	380
	P1 DP2000	*0.0024*	*0.0028*	*0.0034*	*0.0038*	*0.0044*	*0.0048*	*0.0050*	*1250*
P2	P1 DP2000	0,060	0,070	0,085	0,10	0,11	0,12	0,13	370
	P1 DP2000	*0.0024*	*0.0028*	*0.0034*	*0.0040*	*0.0044*	*0.0048*	*0.0050*	*1225*
P3	P2 DP3000	0,12	0,14	0,17	0,19	0,22	0,22	0,26	285
	P2 DP3000	*0.0048*	*0.0055*	*0.0065*	*0.0075*	*0.0085*	*0.0085*	*0.010*	*940*
P4	P2 DP3000	0,12	0,13	0,16	0,19	0,22	0,22	0,25	165
	P2 DP3000	*0.0048*	*0.0050*	*0.0065*	*0.0075*	*0.0085*	*0.0085*	*0.010*	*540*
P5	P2 DP3000	0,11	0,13	0,16	0,18	0,20	0,22	0,25	160
	P2 DP3000	*0.0044*	*0.0050*	*0.0065*	*0.0070*	*0.0080*	*0.0085*	*0.010*	*520*
P6	P2 DP3000	0,11	0,13	0,16	0,18	0,20	0,22	0,25	180
	P2 DP3000	*0.0044*	*0.0050*	*0.0065*	*0.0070*	*0.0080*	*0.0085*	*0.010*	*590*
P7	P2 DP3000	0,11	0,13	0,16	0,18	0,20	0,22	0,25	170
	P2 DP3000	*0.0044*	*0.0050*	*0.0065*	*0.0070*	*0.0080*	*0.0085*	*0.010*	*560*
P8	P2 DP3000	0,12	0,14	0,17	0,19	0,22	0,22	0,26	160
	P2 DP3000	*0.0048*	*0.0055*	*0.0065*	*0.0075*	*0.0085*	*0.0085*	*0.010*	*520*
P11	P2 DP3000	0,11	0,13	0,16	0,18	0,20	0,22	0,25	165
	P2 DP3000	*0.0044*	*0.0050*	*0.0065*	*0.0070*	*0.0080*	*0.0085*	*0.010*	*540*
P12	P2 DP3000	0,075	0,090	0,11	0,12	0,14	0,15	0,17	95
	P2 DP3000	*0.0030*	*0.0036*	*0.0044*	*0.0048*	*0.0055*	*0.0060*	*0.0065*	*310*
M1	P2 DP3000	0,085	0,10	0,12	0,14	0,16	0,17	0,19	235
	P2 DP3000	*0.0034*	*0.0040*	*0.0048*	*0.0055*	*0.0065*	*0.0065*	*0.0075*	*770*
M2	P2 DP3000	0,080	0,090	0,11	0,13	0,14	0,15	0,17	190
	P2 DP3000	*0.0032*	*0.0036*	*0.0044*	*0.0050*	*0.0055*	*0.0060*	*0.0065*	*620*
M3	MP DS2050	0,065	0,075	0,090	0,10	0,12	0,13	0,14	145
	MP DS2050	*0.0026*	*0.0030*	*0.0036*	*0.0040*	*0.0048*	*0.0050*	*0.0055*	*475*
M4	MP DS2050	0,055	0,065	0,080	0,090	0,10	0,11	0,12	105
	MP DS2050	*0.0022*	*0.0026*	*0.0032*	*0.0036*	*0.0040*	*0.0044*	*0.0048*	*345*
M5	MP DS2050	0,055	0,065	0,080	0,090	0,10	0,11	0,12	90
	MP DS2050	*0.0022*	*0.0026*	*0.0032*	*0.0036*	*0.0040*	*0.0044*	*0.0048*	*295*
K1	P2 DP2000	0,12	0,14	0,17	0,20	0,22	0,24	0,26	210
	P2 DP2000	*0.0048*	*0.0055*	*0.0065*	*0.0080*	*0.0085*	*0.0095*	*0.010*	*690*
K2	P2 DP2000	0,11	0,13	0,16	0,18	0,20	0,22	0,24	180
	P2 DP2000	*0.0044*	*0.0050*	*0.0065*	*0.0070*	*0.0080*	*0.0085*	*0.0095*	*590*
K3	P2 DP2000	0,11	0,13	0,16	0,18	0,20	0,22	0,24	155
	P2 DP2000	*0.0044*	*0.0050*	*0.0065*	*0.0070*	*0.0080*	*0.0085*	*0.0095*	*510*
K4	P2 DP2000	0,11	0,13	0,16	0,18	0,20	0,22	0,24	145
	P2 DP2000	*0.0044*	*0.0050*	*0.0065*	*0.0070*	*0.0080*	*0.0085*	*0.0095*	*475*
K5	P2 DP2000	0,10	0,11	0,14	0,16	0,18	0,19	0,22	85
	P2 DP2000	*0.0040*	*0.0044*	*0.0055*	*0.0065*	*0.0070*	*0.0075*	*0.0085*	*280*
N1	P1 T250D	0,12	0,14	0,17	0,20	0,22	0,24	0,26	270
	P1 T250D	*0.0048*	*0.0055*	*0.0065*	*0.0080*	*0.0085*	*0.0095*	*0.010*	*890*
N2	P1 T250D	0,12	0,14	0,17	0,20	0,22	0,24	0,26	175
	P1 T250D	*0.0048*	*0.0055*	*0.0065*	*0.0080*	*0.0085*	*0.0095*	*0.010*	*570*
N3	P1 T250D	0,12	0,14	0,17	0,20	0,22	0,24	0,26	115
	P1 T250D	*0.0048*	*0.0055*	*0.0065*	*0.0080*	*0.0085*	*0.0095*	*0.010*	*375*
N11	P1 T250D	0,12	0,14	0,17	0,20	0,22	0,24	0,26	230
	P1 T250D	*0.0048*	*0.0055*	*0.0065*	*0.0080*	*0.0085*	*0.0095*	*0.010*	*750*
S1	MP DS2050	0,090	0,11	0,13	0,15	0,17	0,18	0,20	48
	MP DS2050	*0.0036*	*0.0044*	*0.0050*	*0.0060*	*0.0065*	*0.0070*	*0.0080*	*155*
S2	MP DS2050	0,090	0,11	0,13	0,15	0,17	0,18	0,20	39
	MP DS2050	*0.0036*	*0.0044*	*0.0050*	*0.0060*	*0.0065*	*0.0070*	*0.0080*	*130*
S3	MP DS2050	0,085	0,10	0,12	0,14	0,16	0,17	0,19	33
	MP DS2050	*0.0034*	*0.0040*	*0.0048*	*0.0055*	*0.0065*	*0.0065*	*0.0075*	*110*
S11	MP DS2050	0,11	0,12	0,15	0,17	0,19	0,20	0,24	70
	MP DS2050	*0.0044*	*0.0048*	*0.0060*	*0.0065*	*0.0075*	*0.0080*	*0.0095*	*230*
S12	MP DS2050	0,11	0,12	0,15	0,17	0,19	0,20	0,24	55
	MP DS2050	*0.0044*	*0.0048*	*0.0060*	*0.0065*	*0.0075*	*0.0080*	*0.0095*	*180*
S13	MP DS2050	0,090	0,11	0,13	0,15	0,17	0,18	0,20	41
	MP DS2050	*0.0036*	*0.0044*	*0.0050*	*0.0060*	*0.0065*	*0.0070*	*0.0080*	*135*
H3	P1 T250D	0,050	0,060	0,070	0,080	0,095	0,10	0,11	50
	P1 T250D	*0.0020*	*0.0024*	*0.0028*	*0.0032*	*0.0038*	*0.0040*	*0.0044*	*165*
H5	P1 T250D	0,075	0,090	0,11	0,12	0,14	0,15	0,17	95
	P1 T250D	*0.0030*	*0.0036*	*0.0044*	*0.0048*	*0.0055*	*0.0060*	*0.0065*	*310*
H7	P1 T250D	0,050	0,060	0,070	0,080	0,095	0,10	0,11	50
	P1 T250D	*0.0020*	*0.0024*	*0.0028*	*0.0032*	*0.0038*	*0.0040*	*0.0044*	*165*
H8	P1 T250D	0,060	0,070	0,085	0,095	0,11	0,11	0,13	95
	P1 T250D	*0.0024*	*0.0028*	*0.0034*	*0.0038*	*0.0044*	*0.0044*	*0.0050*	*310*
H11	P1 T250D	0,075	0,090	0,11	0,12	0,14	0,15	0,17	125
	P1 T250D	*0.0030*	*0.0036*	*0.0044*	*0.0048*	*0.0055*	*0.0060*	*0.0065*	*410*
H12	P1 T250D	0,060	0,070	0,085	0,095	0,11	0,11	0,13	110
	P1 T250D	*0.0024*	*0.0028*	*0.0034*	*0.0038*	*0.0044*	*0.0044*	*0.0050*	*360*
H21	P1 T250D	0,060	0,070	0,085	0,095	0,11	0,11	0,13	95
	P1 T250D	*0.0024*	*0.0028*	*0.0034*	*0.0038*	*0.0044*	*0.0044*	*0.0050*	*310*

SMG = Seco material group f = mm/rev (IPR) v_c = m/min (sf/min) All cutting data are start values

SD524 Cutting speed

SMG	v_c			
	DP2000	DP3000	T250D	DS2050
P1	380 *1250*	340 *1125*	230 *750*	340 *1125*
P2	370 *1225*	330 *1075*	225 *740*	330 *1075*
P3	320 *1050*	285 *940*	195 *640*	285 *940*
P4	195 *640*	165 *540*	105 *345*	— —
P5	185 *610*	160 *520*	100 *330*	— —
P6	210 *690*	180 *590*	110 *360*	— —
P7	195 *640*	170 *560*	105 *345*	— —
P8	185 *610*	160 *520*	100 *330*	— —
P11	190 *620*	165 *540*	100 *330*	— —
P12	110 *360*	95 *310*	60 *195*	— —
M1	— —	235 *770*	120 *395*	— —
M2	— —	190 *620*	95 *310*	— —
M3	— —	145 *475*	75 *245*	145 *475*
M4	— —	110 *360*	55 *180*	105 *345*
M5	— —	90 *295*	46 *150*	90 *295*
K1	210 *690*	200 *660*	— —	— —
K2	180 *590*	170 *560*	— —	— —
K3	155 *510*	145 *475*	— —	— —
K4	145 *475*	140 *460*	— —	— —
K5	85 *280*	85 *280*	— —	— —
N1	— —	315 *1025*	270 *890*	270 *890*
N2	— —	205 *670*	175 *570*	175 *570*
N3	— —	135 *445*	115 *375*	115 *375*
N11	— —	265 *870*	230 *750*	230 *750*
S1	— —	— —	29 *95*	48 *155*
S2	— —	— —	22 *70*	39 *130*
S3	— —	— —	22 *70*	33 *110*
S11	— —	— —	55 *180*	70 *230*
S12	— —	— —	44 *145*	55 *180*
S13	— —	— —	34 *110*	41 *135*
H3	— —	55 *180*	50 *165*	— —
H5	— —	100 *330*	95 *310*	— —
H7	— —	55 *180*	50 *165*	— —
H8	— —	100 *330*	95 *310*	— —
H11	— —	125 *410*	125 *410*	— —
H12	— —	55 *180*	110 *360*	— —
H21	— —	100 *330*	95 *310*	— —

SMG = Seco material group V_c = m/min (sf/min) All cutting data are start values

SD525 ∅ 19-45 mm / *0.768-2.000 inch*

SMG		f					v_c
		Ø 19,50-22,49 *Ø 0.768-0.885*	Ø 22,50-28,49 *Ø 0.886-1.121*	Ø 28,50-34,49 *Ø 1.122-1.357*	Ø 34,50-40,49 *Ø1.358-1.593*	Ø 40,49-45,00 *Ø 1.594-2.000*	
P1	P2 DP3000	0,070	0,085	0,095	0,11	0,12	320
	P2 DP3000	*0.0028*	*0.0034*	*0.0038*	*0.0044*	*0.0048*	*1050*
P2	P2 DP3000	0,070	0,085	0,10	0,11	0,12	310
	P2 DP3000	*0.0028*	*0.0034*	*0.0040*	*0.0044*	*0.0048*	*1025*
P3	P2 DP3000	0,14	0,17	0,19	0,22	0,22	265
	P2 DP3000	*0.0055*	*0.0065*	*0.0075*	*0.0085*	*0.0085*	*870*
P4	P2 DP3000	0,13	0,16	0,19	0,22	0,22	150
	P2 DP3000	*0.0050*	*0.0065*	*0.0075*	*0.0085*	*0.0085*	*490*
P5	P2 DP3000	0,13	0,16	0,18	0,20	0,22	140
	P2 DP3000	*0.0050*	*0.0065*	*0.0070*	*0.0080*	*0.0085*	*460*
P6	P2 DP3000	0,13	0,16	0,18	0,20	0,22	160
	P2 DP3000	*0.0050*	*0.0065*	*0.0070*	*0.0080*	*0.0085*	*520*
P7	P2 DP3000	0,13	0,16	0,18	0,20	0,22	150
	P2 DP3000	*0.0050*	*0.0065*	*0.0070*	*0.0080*	*0.0085*	*490*
P8	P2 DP3000	0,14	0,17	0,19	0,22	0,22	140
	P2 DP3000	*0.0055*	*0.0065*	*0.0075*	*0.0085*	*0.0085*	*460*
P11	P2 DP3000	0,13	0,16	0,18	0,20	0,22	145
	P2 DP3000	*0.0050*	*0.0065*	*0.0070*	*0.0080*	*0.0085*	*475*
P12	P2 DP3000	0,090	0,11	0,12	0,14	0,15	85
	P2 DP3000	*0.0036*	*0.0044*	*0.0048*	*0.0055*	*0.0060*	*280*
M1	P2 DP3000	0,10	0,12	0,14	0,16	0,17	225
	P2 DP3000	*0.0040*	*0.0048*	*0.0055*	*0.0065*	*0.0065*	*740*
M2	P2 DP3000	0,090	0,11	0,13	0,14	0,15	180
	P2 DP3000	*0.0036*	*0.0044*	*0.0050*	*0.0055*	*0.0060*	*590*
M3	MP DS2050	0,075	0,090	0,10	0,12	0,13	140
	MP DS2050	*0.0030*	*0.0036*	*0.0040*	*0.0048*	*0.0050*	*460*
M4	MP DS2050	0,065	0,080	0,090	0,10	0,11	95
	MP DS2050	*0.0026*	*0.0032*	*0.0036*	*0.0040*	*0.0044*	*310*
M5	MP DS2050	0,065	0,080	0,090	0,10	0,11	80
	MP DS2050	*0.0026*	*0.0032*	*0.0036*	*0.0040*	*0.0044*	*260*
K1	P2 DP3000	0,14	0,17	0,20	0,22	0,24	185
	P2 DP3000	*0.0055*	*0.0065*	*0.0080*	*0.0085*	*0.0095*	*610*
K2	P2 DP3000	0,13	0,16	0,18	0,20	0,22	160
	P2 DP3000	*0.0050*	*0.0065*	*0.0070*	*0.0080*	*0.0085*	*520*
K3	P2 DP3000	0,13	0,16	0,18	0,20	0,22	135
	P2 DP3000	*0.0050*	*0.0065*	*0.0070*	*0.0080*	*0.0085*	*445*
K4	P2 DP3000	0,13	0,16	0,18	0,20	0,22	130
	P2 DP3000	*0.0050*	*0.0065*	*0.0070*	*0.0080*	*0.0085*	*425*
K5	P2 DP3000	0,11	0,14	0,16	0,18	0,19	80
	P2 DP3000	*0.0044*	*0.0055*	*0.0065*	*0.0070*	*0.0075*	*260*
N1	P1 T250D	0,14	0,17	0,20	0,22	0,24	240
	P1 T250D	*0.0055*	*0.0065*	*0.0080*	*0.0085*	*0.0095*	*790*
N2	P1 T250D	0,14	0,17	0,20	0,22	0,24	155
	P1 T250D	*0.0055*	*0.0065*	*0.0080*	*0.0085*	*0.0095*	*510*
N3	P1 T250D	0,14	0,17	0,20	0,22	0,24	100
	P1 T250D	*0.0055*	*0.0065*	*0.0080*	*0.0085*	*0.0095*	*330*
N11	P1 T250D	0,14	0,17	0,20	0,22	0,24	200
	P1 T250D	*0.0055*	*0.0065*	*0.0080*	*0.0085*	*0.0095*	*660*
S1	MP DS2050	0,11	0,13	0,15	0,17	0,18	44
	MP DS2050	*0.0044*	*0.0050*	*0.0060*	*0.0065*	*0.0070*	*145*
S2	MP DS2050	0,11	0,13	0,15	0,17	0,18	36
	MP DS2050	*0.0044*	*0.0050*	*0.0060*	*0.0065*	*0.0070*	*120*
S3	MP DS2050	0,10	0,12	0,14	0,16	0,17	31
	MP DS2050	*0.0040*	*0.0048*	*0.0055*	*0.0065*	*0.0065*	*100*
S11	MP DS2050	0,12	0,15	0,17	0,19	0,20	65
	MP DS2050	*0.0048*	*0.0060*	*0.0065*	*0.0075*	*0.0080*	*215*
S12	MP DS2050	0,12	0,15	0,17	0,19	0,20	49
	MP DS2050	*0.0048*	*0.0060*	*0.0065*	*0.0075*	*0.0080*	*160*
S13	MP DS2050	0,11	0,13	0,15	0,17	0,18	38
	MP DS2050	*0.0044*	*0.0050*	*0.0060*	*0.0065*	*0.0070*	*125*
H3	P1 T250D	0,060	0,070	0,085	0,095	0,10	46
	P1 T250D	*0.0024*	*0.0028*	*0.0034*	*0.0038*	*0.0040*	*150*
H5	P1 T250D	0,090	0,11	0,12	0,14	0,15	85
	P1 T250D	*0.0036*	*0.0044*	*0.0048*	*0.0055*	*0.0060*	*280*
H7	P1 T250D	0,060	0,070	0,085	0,095	0,10	46
	P1 T250D	*0.0024*	*0.0028*	*0.0034*	*0.0038*	*0.0040*	*150*
H8	P1 T250D	0,070	0,085	0,095	0,11	0,11	85
	P1 T250D	*0.0028*	*0.0034*	*0.0038*	*0.0044*	*0.0044*	*280*
H11	P1 T250D	0,090	0,11	0,12	0,14	0,15	110
	P1 T250D	*0.0036*	*0.0044*	*0.0048*	*0.0055*	*0.0060*	*360*
H12	P1 T250D	0,070	0,085	0,095	0,11	0,11	100
	P1 T250D	*0.0028*	*0.0034*	*0.0038*	*0.0044*	*0.0044*	*330*
H21	P1 T250D	0,070	0,085	0,095	0,11	0,11	85
	P1 T250D	*0.0028*	*0.0034*	*0.0038*	*0.0044*	*0.0044*	*280*

SMG = Seco material group f = mm/rev (IPR) v_c = m/min (sf/min) All cutting data are start values

SD525 Cutting speed

SMG	v_c			
	DP2000	DP3000	T250D	DS2050
P1	355 *1175*	320 *1050*	205 *670*	320 *1050*
P2	345 *1125*	310 *1025*	200 *660*	310 *1025*
P3	295 *970*	265 *870*	170 *560*	265 *870*
P4	165 *540*	150 *490*	90 *295*	— —
P5	155 *510*	140 *460*	90 *295*	— —
P6	175 *570*	160 *520*	100 *330*	— —
P7	165 *540*	150 *490*	95 *310*	— —
P8	155 *510*	140 *460*	90 *295*	— —
P11	160 *520*	145 *475*	90 *295*	— —
P12	95 *310*	85 *280*	55 *180*	— —
M1	— —	225 *740*	105 *345*	— —
M2	— —	180 *590*	85 *280*	— —
M3	— —	140 *460*	65 *215*	140 *460*
M4	— —	105 *345*	49 *160*	95 *310*
M5	— —	85 *280*	41 *135*	80 *260*
K1	195 *640*	185 *610*	— —	— —
K2	170 *560*	160 *520*	— —	— —
K3	145 *475*	135 *445*	— —	— —
K4	140 *460*	130 *425*	— —	— —
K5	80 *260*	80 *260*	— —	— —
N1	— —	285 *940*	240 *790*	240 *790*
N2	— —	185 *610*	155 *510*	155 *510*
N3	— —	120 *395*	100 *330*	100 *330*
N11	— —	235 *770*	200 *660*	200 *660*
S1	— —	— —	26 *85*	44 *145*
S2	— —	— —	20 *65*	36 *120*
S3	— —	— —	20 *65*	31 *100*
S11	— —	— —	50 *165*	65 *215*
S12	— —	— —	39 *130*	49 *160*
S13	— —	— —	30 *100*	38 *125*
H3	— —	48 *155*	46 *150*	— —
H5	— —	90 *295*	85 *280*	— —
H7	— —	48 *155*	46 *150*	— —
H8	— —	90 *295*	85 *280*	— —
H11	— —	115 *375*	110 *360*	— —
H12	— —	50 *165*	100 *330*	— —
H21	— —	90 *295*	85 *280*	— —

SMG = Seco material group V_c = m/min (sf/min) All cutting data are start values

SD542 ∅ 60-85 mm / *2.250-3.500 inch*

SMG		f		v_c
		Ø 60,00-65,00 *Ø 2.250-2.559*	Ø 70,00-85,00 *Ø 2.750-3.500*	
P1	P2 DP3000 *P2 DP3000*	0,095 *0.0038*	0,12 *0.0048*	390 *1275*
P2	P2 DP3000 *P2 DP3000*	0,10 *0.0040*	0,12 *0.0048*	380 *1250*
P3	P2 DP3000 *P2 DP3000*	0,19 *0.0075*	0,22 *0.0085*	325 *1075*
P4	P2 DP3000 *P2 DP3000*	0,19 *0.0075*	0,22 *0.0085*	205 *670*
P5	P2 DP3000 *P2 DP3000*	0,18 *0.0070*	0,22 *0.0085*	195 *640*
P6	P2 DP3000 *P2 DP3000*	0,18 *0.0070*	0,22 *0.0085*	220 *720*
P7	P2 DP3000 *P2 DP3000*	0,18 *0.0070*	0,22 *0.0085*	205 *670*
P8	P2 DP3000 *P2 DP3000*	0,19 *0.0075*	0,22 *0.0085*	195 *640*
P11	P2 DP3000 *P2 DP3000*	0,18 *0.0070*	0,22 *0.0085*	200 *660*
P12	P2 DP3000 *P2 DP3000*	0,12 *0.0048*	0,15 *0.0060*	120 *395*
M1	P2 DP3000 *P2 DP3000*	0,14 *0.0055*	0,17 *0.0065*	250 *820*
M2	P2 DP3000 *P2 DP3000*	0,13 *0.0050*	0,15 *0.0060*	205 *670*
M3	P1 T250D *P1 T250D*	0,10 *0.0040*	0,12 *0.0048*	90 *295*
M4	P1 T250D *P1 T250D*	0,090 *0.0036*	0,11 *0.0044*	70 *230*
M5	P1 T250D *P1 T250D*	0,090 *0.0036*	0,11 *0.0044*	55 *180*
K1	P2 DP3000 *P2 DP3000*	0,20 *0.0080*	0,24 *0.0095*	225 *740*
K2	P2 DP3000 *P2 DP3000*	0,18 *0.0070*	0,22 *0.0085*	195 *640*
K3	P2 DP3000 *P2 DP3000*	0,18 *0.0070*	0,22 *0.0085*	165 *540*
K4	P2 DP3000 *P2 DP3000*	0,18 *0.0070*	0,22 *0.0085*	160 *520*
K5	P2 DP3000 *P2 DP3000*	0,16 *0.0065*	0,19 *0.0075*	95 *310*
N1	P1 T250D *P1 T250D*	0,20 *0.0080*	0,24 *0.0095*	335 *1100*
N2	P1 T250D *P1 T250D*	0,20 *0.0080*	0,24 *0.0095*	215 *710*
N3	P1 T250D *P1 T250D*	0,20 *0.0080*	0,24 *0.0095*	145 *475*
N11	P1 T250D *P1 T250D*	0,20 *0.0080*	0,24 *0.0095*	285 *940*
S1	MP DS2050 *MP DS2050*	0,15 *0.0060*	0,18 *0.0070*	55 *180*
S2	MP DS2050 *MP DS2050*	0,15 *0.0060*	0,18 *0.0070*	45 *150*
S3	MP DS2050 *MP DS2050*	0,14 *0.0055*	0,17 *0.0065*	39 *130*
S11	MP DS2050 *MP DS2050*	0,17 *0.0065*	0,20 *0.0080*	80 *260*
S12	MP DS2050 *MP DS2050*	0,17 *0.0065*	0,20 *0.0080*	60 *195*
S13	MP DS2050 *MP DS2050*	0,15 *0.0060*	0,18 *0.0070*	48 *155*
H3	P1 T250D *P1 T250D*	0,080 *0.0032*	0,10 *0.0040*	65 *215*
H5	P1 T250D *P1 T250D*	0,12 *0.0048*	0,15 *0.0060*	120 *395*
H7	P1 T250D *P1 T250D*	0,080 *0.0032*	0,10 *0.0040*	65 *215*
H8	P1 T250D *P1 T250D*	0,095 *0.0038*	0,11 *0.0044*	120 *395*
H11	P1 T250D *P1 T250D*	0,12 *0.0048*	0,15 *0.0060*	155 *510*
H12	P1 T250D *P1 T250D*	0,095 *0.0038*	0,11 *0.0044*	140 *460*
H21	P1 T250D *P1 T250D*	0,095 *0.0038*	0,11 *0.0044*	120 *395*

SMG = Seco material group f = mm/rev (IPR) v_c = m/min (sf/min) All cutting data are start values

SD542 Cutting speed

SMG	v_c			
	DP2000	DP3000	T250D	DS2050
P1	435 *1425*	390 *1275*	290 *950*	390 *1275*
P2	425 *1400*	380 *1250*	280 *920*	380 *1250*
P3	365 *1200*	325 *1075*	240 *790*	325 *1075*
P4	255 *840*	205 *670*	130 *425*	— —
P5	245 *800*	195 *640*	125 *410*	— —
P6	275 *900*	220 *720*	140 *460*	— —
P7	260 *850*	205 *670*	130 *425*	— —
P8	245 *800*	195 *640*	125 *410*	— —
P11	250 *820*	200 *660*	125 *410*	— —
P12	150 *490*	120 *395*	75 *245*	— —
M1	— —	250 *820*	150 *490*	— —
M2	— —	205 *670*	120 *395*	— —
M3	— —	155 *510*	90 *295*	155 *510*
M4	— —	115 *375*	70 *230*	130 *425*
M5	— —	95 *310*	55 *180*	105 *345*
K1	235 *770*	225 *740*	— —	— —
K2	205 *670*	195 *640*	— —	— —
K3	175 *570*	165 *540*	— —	— —
K4	165 *540*	160 *520*	— —	— —
K5	100 *330*	95 *310*	— —	— —
N1	— —	390 *1275*	335 *1100*	335 *1100*
N2	— —	250 *820*	215 *710*	215 *710*
N3	— —	165 *540*	145 *475*	145 *475*
N11	— —	325 *1075*	285 *940*	285 *940*
S1	— —	— —	37 *120*	55 *180*
S2	— —	— —	27 *90*	45 *150*
S3	— —	— —	27 *90*	39 *130*
S11	— —	— —	70 *230*	80 *260*
S12	— —	— —	55 *180*	60 *195*
S13	— —	— —	43 *140*	48 *155*
H3	— —	65 *215*	65 *215*	— —
H5	— —	120 *395*	120 *395*	— —
H7	— —	65 *215*	65 *215*	— —
H8	— —	120 *395*	120 *395*	— —
H11	— —	155 *510*	155 *510*	— —
H12	— —	70 *230*	140 *460*	— —
H21	— —	120 *395*	120 *395*	— —

SMG = Seco material group V_c = m/min (sf/min) All cutting data are start values

SD572 ∅ 15-52 mm / *0.590-2.0472 inch*

SMG		f						v_c
		Ø 15,00-17,00 *Ø 0.590-0.669*	Ø 18,00-20,00 *Ø 0.670-0.787*	Ø 21,00-24,00 *Ø 0.788-0.944*	Ø 25,00-32,00 *Ø 0.945-1.259*	Ø 33,00-36,00 *Ø 1.260-1.417*	Ø 37,00-52,00 *Ø 1.418-1.850*	
P1	85 DP3000	0,042	0,042	0,048	0,060	0,070	0,085	310
	85 DP3000	*0.0017*	*0.0017*	*0.0019*	*0.0024*	*0.0028*	*0.0034*	*1025*
P2	85 DP3000	0,042	0,042	0,050	0,060	0,070	0,085	305
	85 DP3000	*0.0017*	*0.0017*	*0.0020*	*0.0024*	*0.0028*	*0.0034*	*1000*
P3	86 DP3000	0,12	0,12	0,13	0,17	0,19	0,22	260
	86 DP3000	*0.0048*	*0.0048*	*0.0050*	*0.0065*	*0.0075*	*0.0085*	*850*
P4	86 DP3000	0,11	0,11	0,13	0,16	0,19	0,22	230
	86 DP3000	*0.0044*	*0.0044*	*0.0050*	*0.0065*	*0.0075*	*0.0085*	*750*
P5	86 DP3000	0,11	0,11	0,13	0,16	0,18	0,22	220
	86 DP3000	*0.0044*	*0.0044*	*0.0050*	*0.0065*	*0.0070*	*0.0085*	*720*
P6	86 DP3000	0,11	0,11	0,13	0,16	0,18	0,22	245
	86 DP3000	*0.0044*	*0.0044*	*0.0050*	*0.0065*	*0.0070*	*0.0085*	*800*
P7	86 DP3000	0,11	0,11	0,13	0,16	0,18	0,22	235
	86 DP3000	*0.0044*	*0.0044*	*0.0050*	*0.0065*	*0.0070*	*0.0085*	*770*
P8	86 DP3000	0,12	0,12	0,13	0,17	0,19	0,22	220
	86 DP3000	*0.0048*	*0.0048*	*0.0050*	*0.0065*	*0.0075*	*0.0085*	*720*
P11	86 DP3000	0,11	0,11	0,13	0,16	0,18	0,22	225
	86 DP3000	*0.0044*	*0.0044*	*0.0050*	*0.0065*	*0.0070*	*0.0085*	*740*
P12	86 DP3000	0,075	0,075	0,085	0,11	0,12	0,15	135
	86 DP3000	*0.0030*	*0.0030*	*0.0034*	*0.0044*	*0.0048*	*0.0060*	*445*
M1	86 DP3000	0,075	0,075	0,085	0,11	0,12	0,15	235
	86 DP3000	*0.0030*	*0.0030*	*0.0034*	*0.0044*	*0.0048*	*0.0060*	*770*
M2	86 DP3000	0,070	0,070	0,080	0,10	0,11	0,14	190
	86 DP3000	*0.0028*	*0.0028*	*0.0032*	*0.0040*	*0.0044*	*0.0055*	*620*
M3	85 DP3000	0,034	0,034	0,040	0,048	0,055	0,070	145
	85 DP3000	*0.0013*	*0.0013*	*0.0016*	*0.0019*	*0.0022*	*0.0028*	*475*
M4	85 DP3000	0,030	0,030	0,034	0,042	0,050	0,060	110
	85 DP3000	*0.0012*	*0.0012*	*0.0013*	*0.0017*	*0.0020*	*0.0024*	*360*
M5	85 DP3000	0,030	0,030	0,034	0,042	0,050	0,060	90
	85 DP3000	*0.0012*	*0.0012*	*0.0013*	*0.0017*	*0.0020*	*0.0024*	*295*
K1	86 DP3000	0,12	0,12	0,14	0,17	0,20	0,24	180
	86 DP3000	*0.0048*	*0.0048*	*0.0055*	*0.0065*	*0.0080*	*0.0095*	*590*
K2	86 DP3000	0,11	0,11	0,13	0,16	0,18	0,22	155
	86 DP3000	*0.0044*	*0.0044*	*0.0050*	*0.0065*	*0.0070*	*0.0085*	*510*
K3	86 DP3000	0,11	0,11	0,13	0,16	0,18	0,22	130
	86 DP3000	*0.0044*	*0.0044*	*0.0050*	*0.0065*	*0.0070*	*0.0085*	*425*
K4	86 DP3000	0,11	0,11	0,13	0,16	0,18	0,22	125
	86 DP3000	*0.0044*	*0.0044*	*0.0050*	*0.0065*	*0.0070*	*0.0085*	*410*
K5	86 DP3000	0,10	0,10	0,11	0,14	0,16	0,19	75
	86 DP3000	*0.0040*	*0.0040*	*0.0044*	*0.0055*	*0.0065*	*0.0075*	*245*
S1	85 DP3000	0,055	0,055	0,060	0,075	0,090	0,11	40
	85 DP3000	*0.0022*	*0.0022*	*0.0024*	*0.0030*	*0.0036*	*0.0044*	*130*
S2	85 DP3000	0,055	0,055	0,060	0,075	0,090	0,11	30
	85 DP3000	*0.0022*	*0.0022*	*0.0024*	*0.0030*	*0.0036*	*0.0044*	*100*
S3	85 DP3000	0,050	0,050	0,060	0,070	0,085	0,10	30
	85 DP3000	*0.0020*	*0.0020*	*0.0024*	*0.0028*	*0.0034*	*0.0040*	*100*
S11	85 DP3000	0,060	0,060	0,070	0,090	0,10	0,12	80
	85 DP3000	*0.0024*	*0.0024*	*0.0028*	*0.0036*	*0.0040*	*0.0048*	*260*
S12	85 DP3000	0,060	0,060	0,070	0,090	0,10	0,12	60
	85 DP3000	*0.0024*	*0.0024*	*0.0028*	*0.0036*	*0.0040*	*0.0048*	*195*
S13	85 DP3000	0,055	0,055	0,060	0,075	0,090	0,11	47
	85 DP3000	*0.0022*	*0.0022*	*0.0024*	*0.0030*	*0.0036*	*0.0044*	*155*
H3	86 DP3000	0,050	0,050	0,060	0,070	0,085	0,10	80
	86 DP3000	*0.0020*	*0.0020*	*0.0024*	*0.0028*	*0.0034*	*0.0040*	*260*
H5	86 DP3000	0,075	0,075	0,085	0,11	0,12	0,15	150
	86 DP3000	*0.0030*	*0.0030*	*0.0034*	*0.0044*	*0.0048*	*0.0060*	*490*
H7	86 DP3000	0,050	0,050	0,060	0,070	0,085	0,10	80
	86 DP3000	*0.0020*	*0.0020*	*0.0024*	*0.0028*	*0.0034*	*0.0040*	*260*
H8	86 DP3000	0,060	0,060	0,065	0,085	0,095	0,11	150
	86 DP3000	*0.0024*	*0.0024*	*0.0026*	*0.0034*	*0.0038*	*0.0044*	*490*
H11	86 DP3000	0,075	0,075	0,085	0,11	0,12	0,15	195
	86 DP3000	*0.0030*	*0.0030*	*0.0034*	*0.0044*	*0.0048*	*0.0060*	*640*
H12	86 DP3000	0,060	0,060	0,065	0,085	0,095	0,11	80
	86 DP3000	*0.0024*	*0.0024*	*0.0026*	*0.0034*	*0.0038*	*0.0044*	*260*
H21	86 DP3000	0,060	0,060	0,065	0,085	0,095	0,11	150
	86 DP3000	*0.0024*	*0.0024*	*0.0026*	*0.0034*	*0.0038*	*0.0044*	*490*

SMG = Seco material group f = mm/rev (IPR) v_c = m/min (sf/min) All cutting data are start values

SD572 Cutting speed

SMG	v_c
	DP2000
P1	375 *1225*
P2	365 *1200*
P3	315 *1025*
P4	280 *920*
P5	265 *870*
P6	300 *980*
P7	280 *920*
P8	265 *870*
P11	275 *900*
P12	160 *520*
M1	285 *940*
M2	230 *750*
M3	175 *570*
M4	130 *425*
M5	110 *360*
K1	215 *710*
K2	185 *610*
K3	160 *520*
K4	150 *490*
K5	90 *295*
S1	— —
S2	— —
S3	— —
S11	— —
S12	— —
S13	— —
H3	80 *260*
H5	150 *490*
H7	80 *260*
H8	150 *490*
H11	195 *640*
H12	95 *310*
H21	150 *490*

SMG = Seco material group V_c = m/min (sf/min) All cutting data are start values

SD602 ∅ 60-160 mm / *2.362-6.300 inch*

SMG		f					v_c
		Ø 60,00-69,99 *Ø 2.362-2.755*	Ø 70,00-91,99 *Ø 2.756-3.621*	Ø 92,00-110,99 *Ø 3.622-4.369*	Ø 111,00-134,99 *Ø 4.370-4.314*	Ø 135,00-160,00 *Ø 4.315-6.300*	
P1	P2 DP3000 *P2 DP3000*	0,085 *0.0034*	0,095 *0.0038*	0,12 *0.0048*	0,13 *0.0050*	0,12 *0.0048*	295 *970*
P2	P2 DP3000 *P2 DP3000*	0,085 *0.0034*	0,10 *0.0040*	0,12 *0.0048*	0,13 *0.0050*	0,12 *0.0048*	285 *940*
P3	P2 DP3000 *P2 DP3000*	0,17 *0.0065*	0,19 *0.0075*	0,22 *0.0085*	0,26 *0.010*	0,22 *0.0085*	245 *800*
P4	P2 DP3000 *P2 DP3000*	0,16 *0.0065*	0,19 *0.0075*	0,22 *0.0085*	0,25 *0.010*	0,22 *0.0085*	130 *425*
P5	P2 DP3000 *P2 DP3000*	0,16 *0.0065*	0,18 *0.0070*	0,22 *0.0085*	0,25 *0.010*	0,22 *0.0085*	125 *410*
P6	P2 DP3000 *P2 DP3000*	0,16 *0.0065*	0,18 *0.0070*	0,22 *0.0085*	0,25 *0.010*	0,22 *0.0085*	140 *460*
P7	P2 DP3000 *P2 DP3000*	0,16 *0.0065*	0,18 *0.0070*	0,22 *0.0085*	0,25 *0.010*	0,22 *0.0085*	135 *445*
P8	P2 DP3000 *P2 DP3000*	0,17 *0.0065*	0,19 *0.0075*	0,22 *0.0085*	0,26 *0.010*	0,22 *0.0085*	125 *410*
P11	P2 DP3000 *P2 DP3000*	0,16 *0.0065*	0,18 *0.0070*	0,22 *0.0085*	0,25 *0.010*	0,22 *0.0085*	130 *425*
P12	P2 DP3000 *P2 DP3000*	0,11 *0.0044*	0,12 *0.0048*	0,15 *0.0060*	0,17 *0.0065*	0,15 *0.0060*	75 *245*
M1	P2 DP3000 *P2 DP3000*	0,12 *0.0048*	0,14 *0.0055*	0,17 *0.0065*	0,19 *0.0075*	0,17 *0.0065*	215 *710*
M2	P2 DP3000 *P2 DP3000*	0,11 *0.0044*	0,13 *0.0050*	0,15 *0.0060*	0,17 *0.0065*	0,15 *0.0060*	175 *570*
M3	P1 DP3000 *P1 DP3000*	0,090 *0.0036*	0,10 *0.0040*	0,12 *0.0048*	0,14 *0.0055*	0,12 *0.0048*	135 *445*
M4	P1 DP3000 *P1 DP3000*	0,075 *0.0030*	0,090 *0.0036*	0,11 *0.0044*	0,12 *0.0048*	0,11 *0.0044*	100 *330*
M5	P1 DP3000 *P1 DP3000*	0,075 *0.0030*	0,090 *0.0036*	0,11 *0.0044*	0,12 *0.0048*	0,11 *0.0044*	85 *280*
K1	P2 DP3000 *P2 DP3000*	0,17 *0.0065*	0,20 *0.0080*	0,24 *0.0095*	0,26 *0.010*	0,24 *0.0095*	175 *570*
K2	P2 DP3000 *P2 DP3000*	0,16 *0.0065*	0,18 *0.0070*	0,22 *0.0085*	0,24 *0.0095*	0,22 *0.0085*	150 *490*
K3	P2 DP3000 *P2 DP3000*	0,16 *0.0065*	0,18 *0.0070*	0,22 *0.0085*	0,24 *0.0095*	0,22 *0.0085*	130 *425*
K4	P2 DP3000 *P2 DP3000*	0,16 *0.0065*	0,18 *0.0070*	0,22 *0.0085*	0,24 *0.0095*	0,22 *0.0085*	120 *395*
K5	P2 DP3000 *P2 DP3000*	0,14 *0.0055*	0,16 *0.0065*	0,19 *0.0075*	0,22 *0.0085*	0,19 *0.0075*	75 *245*
H3	P2 DP3000 *P2 DP3000*	0,070 *0.0028*	0,080 *0.0032*	0,10 *0.0040*	0,11 *0.0044*	0,10 *0.0040*	42 *140*
H5	P2 DP3000 *P2 DP3000*	0,11 *0.0044*	0,12 *0.0048*	0,15 *0.0060*	0,17 *0.0065*	0,15 *0.0060*	80 *260*
H7	P2 DP3000 *P2 DP3000*	0,070 *0.0028*	0,080 *0.0032*	0,10 *0.0040*	0,11 *0.0044*	0,10 *0.0040*	42 *140*
H8	P2 DP3000 *P2 DP3000*	0,085 *0.0034*	0,095 *0.0038*	0,11 *0.0044*	0,13 *0.0050*	0,11 *0.0044*	80 *260*
H11	P2 DP3000 *P2 DP3000*	0,11 *0.0044*	0,12 *0.0048*	0,15 *0.0060*	0,17 *0.0065*	0,15 *0.0060*	100 *330*
H12	P2 DP3000 *P2 DP3000*	0,085 *0.0034*	0,095 *0.0038*	0,11 *0.0044*	0,13 *0.0050*	0,11 *0.0044*	45 *150*
H21	P2 DP3000 *P2 DP3000*	0,085 *0.0034*	0,095 *0.0038*	0,11 *0.0044*	0,13 *0.0050*	0,11 *0.0044*	80 *260*

SMG = Seco material group f = mm/rev (IPR) v_c = m/min (sf/min) All cutting data are start values

SD602 Cutting speed

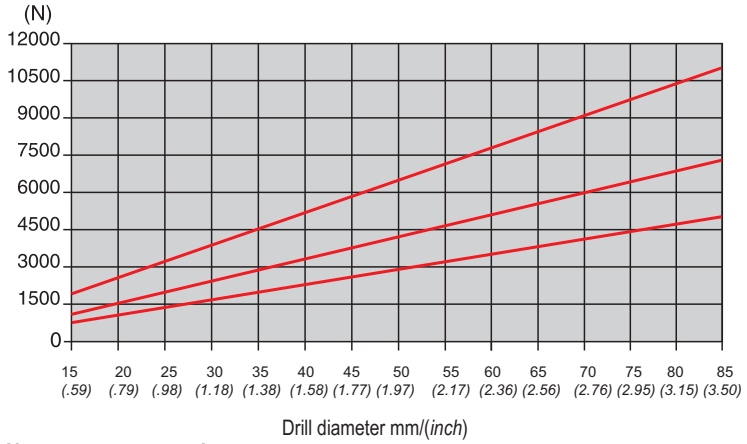
SMG	v_c	
	T250D	DS2050
P1	180 *590*	295 *970*
P2	175 *570*	285 *940*
P3	150 *490*	245 *800*
P4	80 *260*	— —
P5	75 *245*	— —
P6	85 *280*	— —
P7	80 *260*	— —
P8	75 *245*	— —
P11	80 *260*	— —
P12	46 *150*	— —
M1	90 *295*	— —
M2	75 *245*	— —
M3	55 *180*	135 *445*
M4	43 *140*	85 *280*
M5	36 *120*	70 *230*
K1	— —	— —
K2	— —	— —
K3	— —	— —
K4	— —	— —
K5	— —	— —
H3	40 *130*	— —
H5	75 *245*	— —
H7	40 *130*	— —
H8	75 *245*	— —
H11	95 *310*	— —
H12	85 *280*	— —
H21	75 *245*	— —

SMG = Seco material group V_c = m/min (sf/min) All cutting data are start values

Machining data SD522, SD523, SD524, SD525, SD542 and SD572 - Power consumption, coolant volume requirement and force graphs

The values in the graphs vary with e.g. cutting data, material, efficiency of the machine and tool wear.
The graphs below are valid for Seco Material Group (SMG) P5-P6 and cutting speed 200 m/min (*655 sf/min*).

Feed force

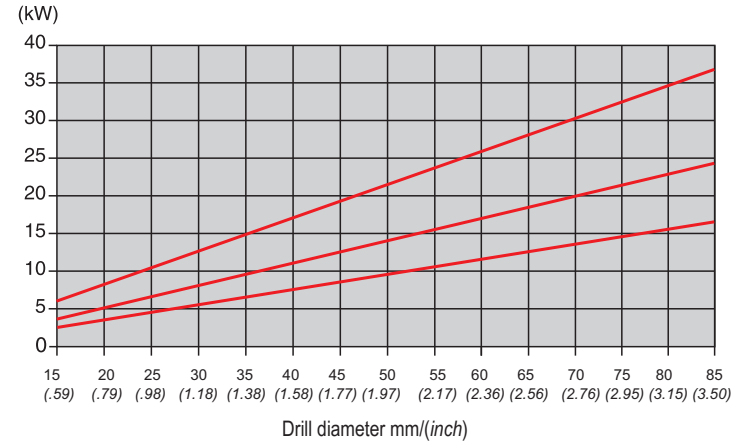


f = 0,18 mm/rev
(f = 0.007 inch/rev)

f = 0,12 mm/rev
(f = 0.005 inch/rev)

f = 0,08 mm/rev
(f = 0.003 inch/rev)

Net power consumption

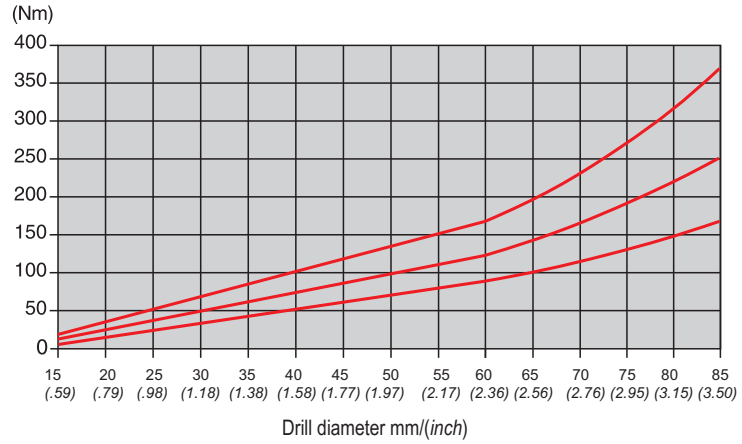


f = 0,18 mm/rev
(f = 0.007 inch/rev)

f = 0,12 mm/rev
(f = 0.005 inch/rev)

f = 0,08 mm/rev
(f = 0.003 inch/rev)

Drilling torque



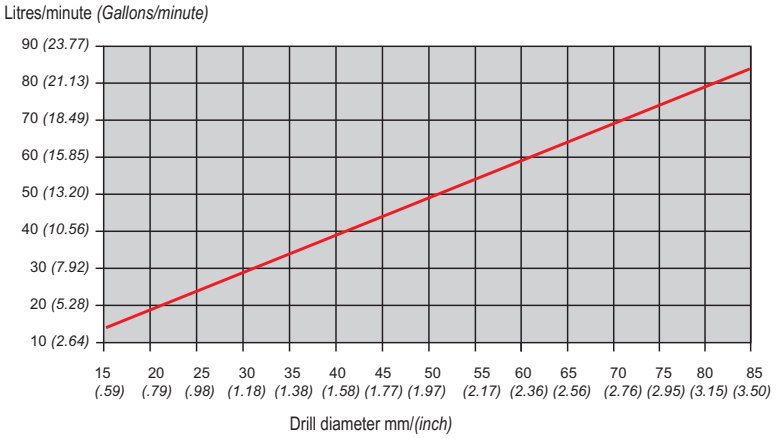
f = 0,18 mm/rev
(f = 0.007 inch/rev)

f = 0,12 mm/rev
(f = 0.005 inch/rev)

f = 0,08 mm/rev
(f = 0.003 inch/rev)

Machining data

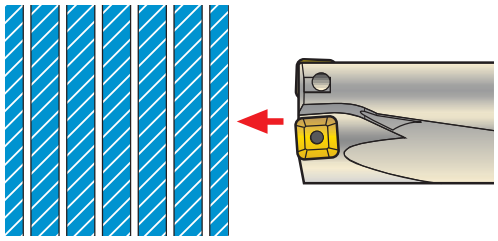
Coolant volume requirement



Coolant pressure requirement

Recommended pressure bar *(PSI)*			
	Drill diameter mm (*inch*)		
Drilling depth	15–25 *(0.591-0.984)*	> 25–40 *> 0.984-1.575*	> 40 *> 1.575*
< 3 x D	6 *(87)*	4,5 *(65)*	3 *(44)*
≥ 3 x D	12 *(174)*	9 *(130)*	6 *(87)*

Drilling of stacked materials



Drilling of stacked materials with no air gaps between the layers, max 0,2 mm *(0.008")*, can be done with SD522 2 x D, SD523 3 x D and the SD542 2.5 x D and the SD542 2.5 x D drill. The component must be securely fixed so no flexing occurs when breaking through each layer.

Cutting data and insert recommendations for drilling of stacked materials

	Insert geometry	Carbide grade
Center insert	SPGX-C1	T400D
Periph insert	SCGX-P2	DP3000

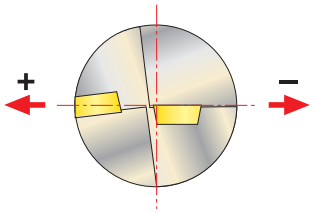
Cutting speed: See recommendations for DP3000 carbide grade
Feed / rev: See recommendations for P2 geometry

If a problem occurs when breaking through each layer, reduce the fed / rev by 30-50 %.

Caution!
The disc produced when the drill breaks through can be ejected at high speed when using the drill as a stationary tool, (rotating workpiece).
It is most important to ensure that the machine is adequately guarded to ensure operator safety.

Set up

Hole diameter adjustment and set-up recommendation
The insert drills can be displaced off-center to achieve a smaller or larger hole diameter than the actual drill.
For measurement see 'Radial adjustment' in the tool data table in the catalogue pages.



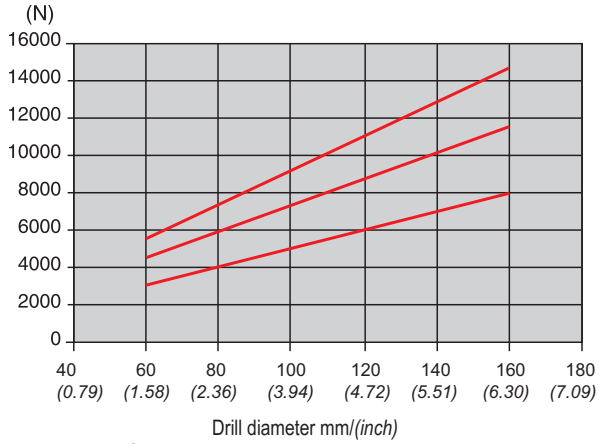
Rotating
Seco's adjustable holder is recommended for precision hole diameter IT10 setting when using SD522 and SD523, 3 x D as rotating drills.

Stationary
When mounting the drill make sure the cutting edges are parallel with the guide ways of the cross slide and that the drill center line and workpiece center line align. To achieve a larger hole diameter, displace the drill so that the periphery insert moves away from the workpiece center line.

Machining data SD602 - Power consumption, coolant volume requirement and force graphs

The values in the graphs vary with e.g., cutting data, material, with a machine efficiency of 80%.
The graphs below are valid for SMG P5-P6 and cutting speed 200 m/min *(655 sf/min)*.

Feed force

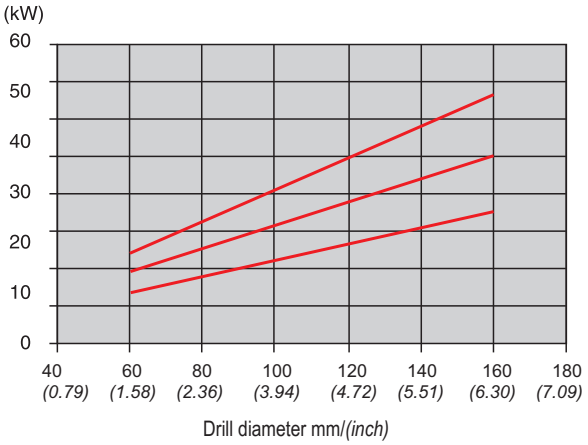


f = 0,18 mm/rev
(f = 0.007 inch/rev)

f = 0,12 mm/rev
(f = 0.005 inch/rev)

f = 0,08 mm/rev
(f = 0.003 inch/rev)

Net power consumption

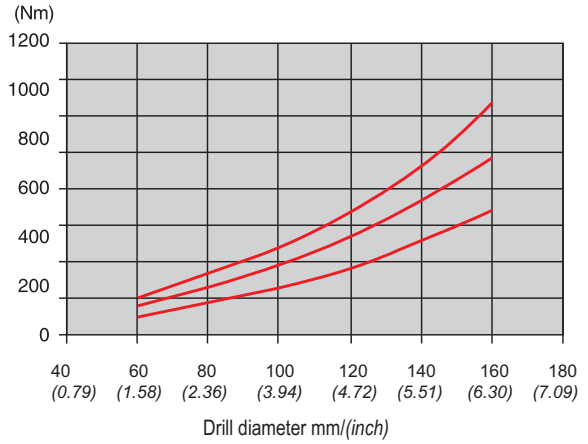


f = 0,18 mm/rev
(f = 0.007 inch/rev)

f = 0,12 mm/rev
(f = 0.005 inch/rev)

f = 0,08 mm/rev
(f = 0.003 inch/rev)

Drilling torque



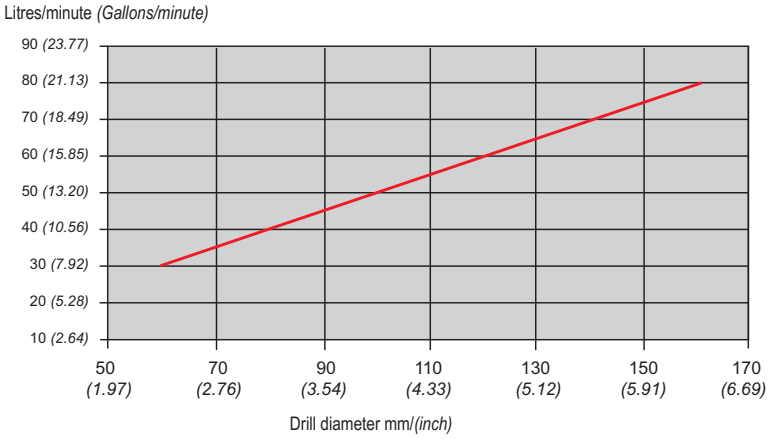
f = 0,18 mm/rev
(f = 0.007 inch/rev)

f = 0,12 mm/rev
(f = 0.005 inch/rev)

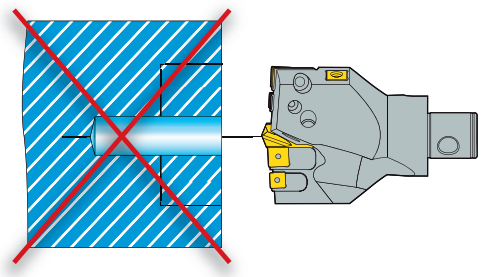
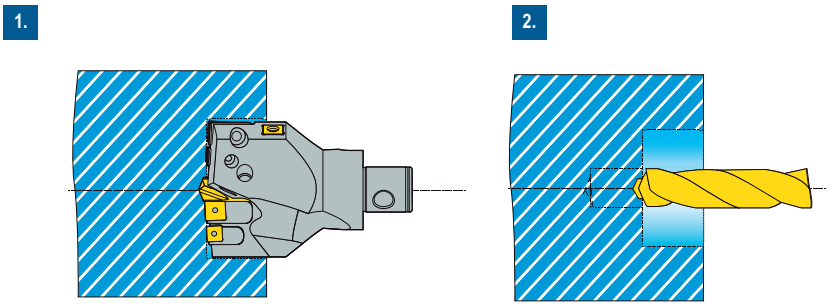
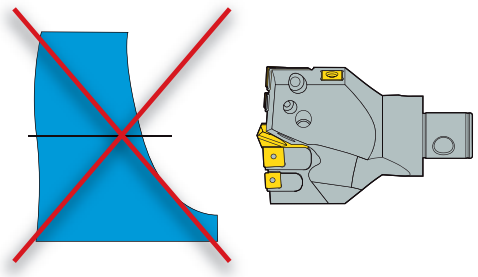
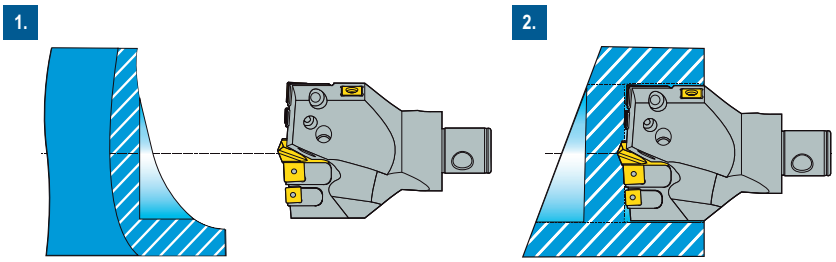
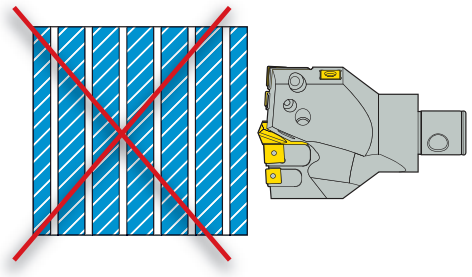
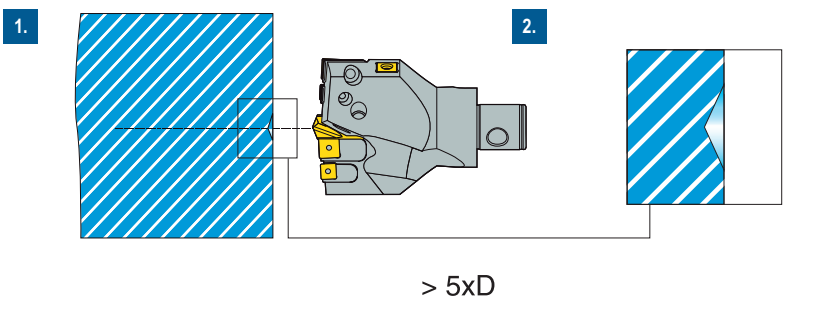
f = 0,08 mm/rev
(f = 0.003 inch/rev)

Machining data SD602

Coolant volume requirement



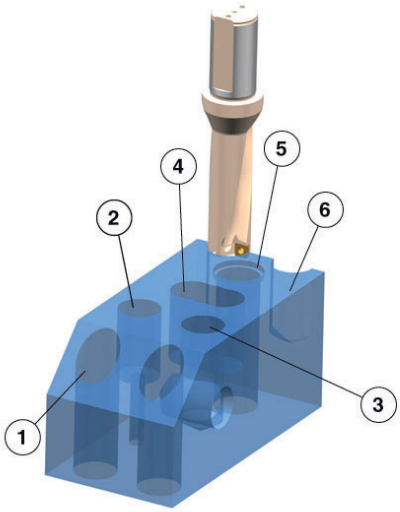
Methods

Not recommended	Solution
	
	
	

Versatility

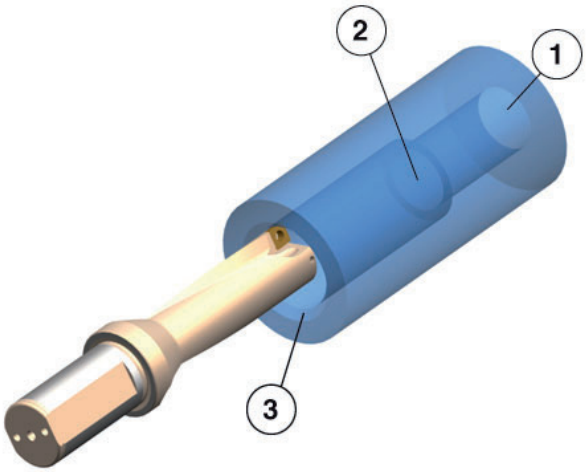
Applications

1. Hole with angled entrance
2. Boring
3. Drilling across an existing hole
4. Drilling and plunging
5. Drilling and milling countersink by circular interpolation
6. Plunging



Multiple choice in non rotating operations

1. Drilling
2. Boring / Conical hole
3. Chamfering



Recommendations

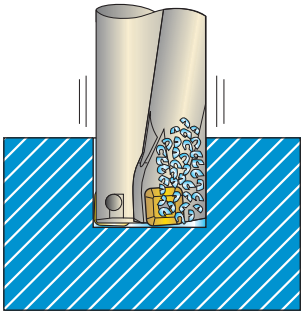
- 2 x D and 3 x D drills (SD522, SD523)
- Reduce the feed ~ 50% when the drill is not fully engaged
- Use grade DP3000
- Use -P2 chipbreaker

Troubleshooting

Vibrations

Applications

- Check mounting of drill
- Check mounting of workpiece
- Increase feed. If a very soft material, reduce feed and increase speed
- Reduce the cutting speed



Insufficient torque

- Reduce feed
- Choose a geometry with harder chipbreaking for lower feeds

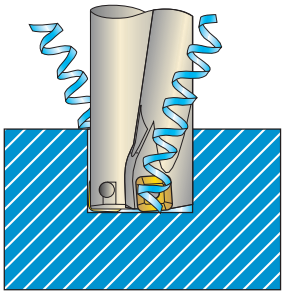
Insufficient power

- Reduce cutting speed
- Reduce feed
- Choose a geometry with harder chipbreaking for lower feeds (SCGX-P1)

Chip jamming problems

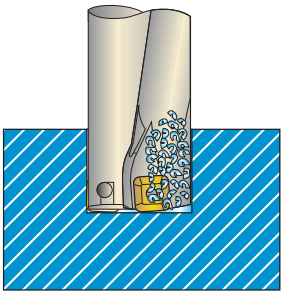
Chip jamming problems due to long chips

- Increase feed. If a very soft material, reduce feed and increase speed
- Choose a geometry with harder chipbreaking for lower feeds (SCGX-P1)



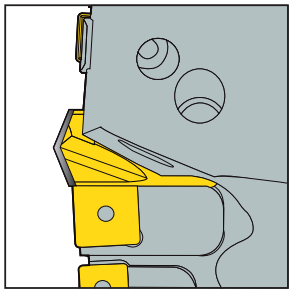
Chip jamming problems despite short chips

- Increase coolant pressure / volume
- Reduce cutting speed



Rapid flank wear on pilot drill

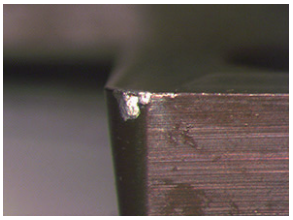
- Reduce the cutting speed
- Increase coolant concentration



Tool life problems

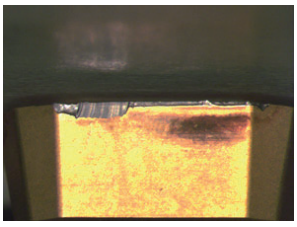
Chipping of periphery insert

- Reduce entrance feed
- Choose a tougher grade
- Choose a geometry with softer chipbreaking for higher feeds (SCGX-P2)
- Reduce feed
- Reduce cutting speed



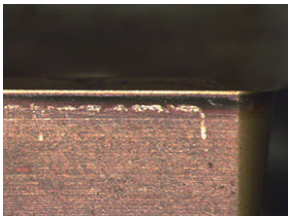
Chipping of center insert

- Check mounting of drill
- Check mounting of workpiece
- Reduce entrance feed
- Increase feed
- Reduce cutting speed

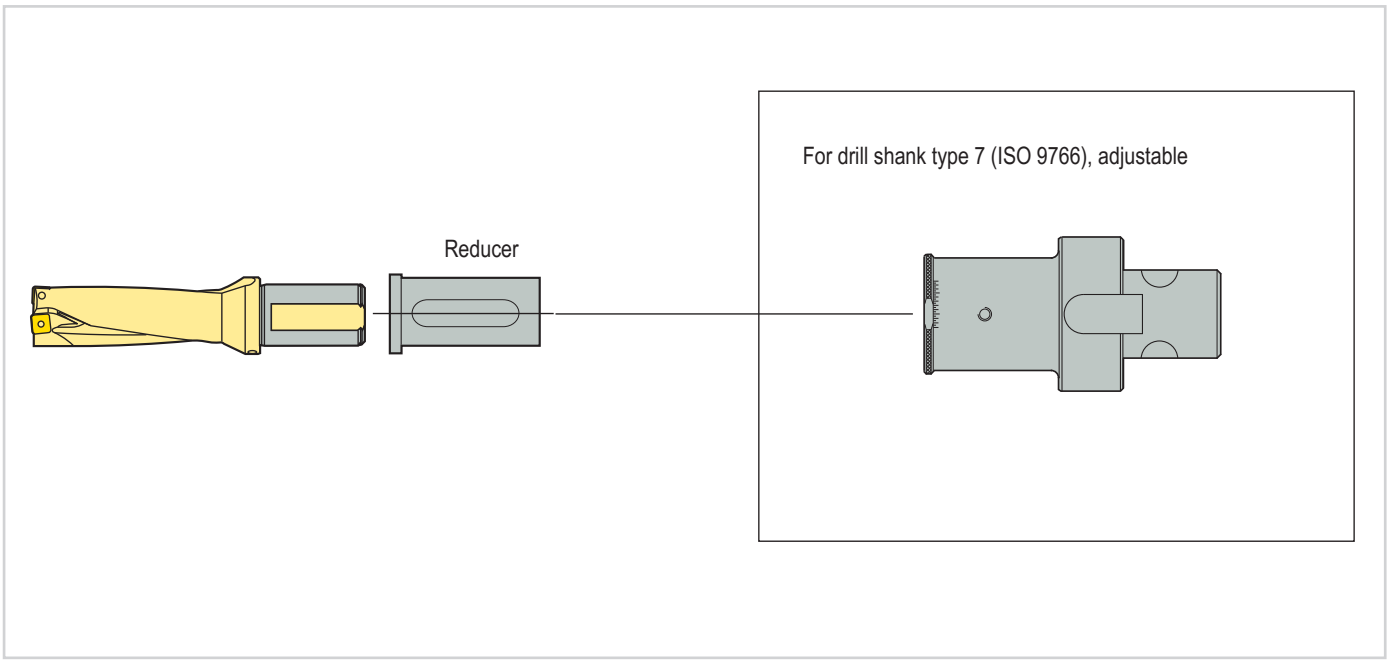


Rapid flank wear on periphery insert

- Reduce cutting speed
- Increase coolant pressure volume
- Choose a more wear resistant grade

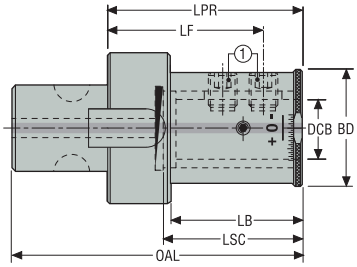


Adjustable holders for drills



ADH 6101 – Adjustable drill holders, for type 7 drill shanks

Graflex®



1. Locking screw



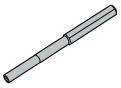
- For Perfomax® drills
- Adjustable from -0,3 mm to +0,8

Designation	Item number	Machine side Graflex shank size	Workpiece side For drill shank type	DCB	OAL	LPR	BD	LF	LB	LSC	Weight	Balancing
				mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*	
BM061610025	02422113	G6	R7	25,0 *0.984*	110,0 *4.331*	70,0 *2.756*	49,0 *1.929*	55,0 *2.165*	54,0 *2.126*	54,0 *2.126*	1,12 *2.470*	PB
BM061610032	02422114	G6	R7	32,0 *1.260*	125,0 *4.921*	85,0 *3.346*	71,0 *2.795*	70,0 *2.756*	66,0 *2.598*	60,5 *2.382*	2,1 *4.630*	PB
BM061610040	02422115	G6	R7	40,0 *1.575*	125,0 *4.921*	85,0 *3.346*	81,0 *3.189*	70,0 *2.756*	66,0 *2.598*	60,5 *2.382*	2,4 *5.290*	PB
BM061610125	02422116	G6	R7	25,4 *1.000*	110,0 *4.331*	70,0 *2.756*	49,0 *1.929*	55,0 *2.165*	54,0 *2.126*	54,5 *2.146*	1,11 *2.450*	PB
BM061610138	02422118	G6	R7	38,1 *1.500*	125,0 *4.921*	85,0 *3.346*	81,0 *3.189*	70,0 *2.756*	66,0 *2.598*	60,5 *2.382*	2,45 *5.400*	PB

Spare Parts, included in delivery

For DCB	Locking screw	Tenon
		
25/0.984	950AF1210014	90M61
32/1.260	–	90M61
40/1.575	–	90M61
25,4/1.000	950AF1210014	90M61
38,1/1.500	–	90M61

Accessories

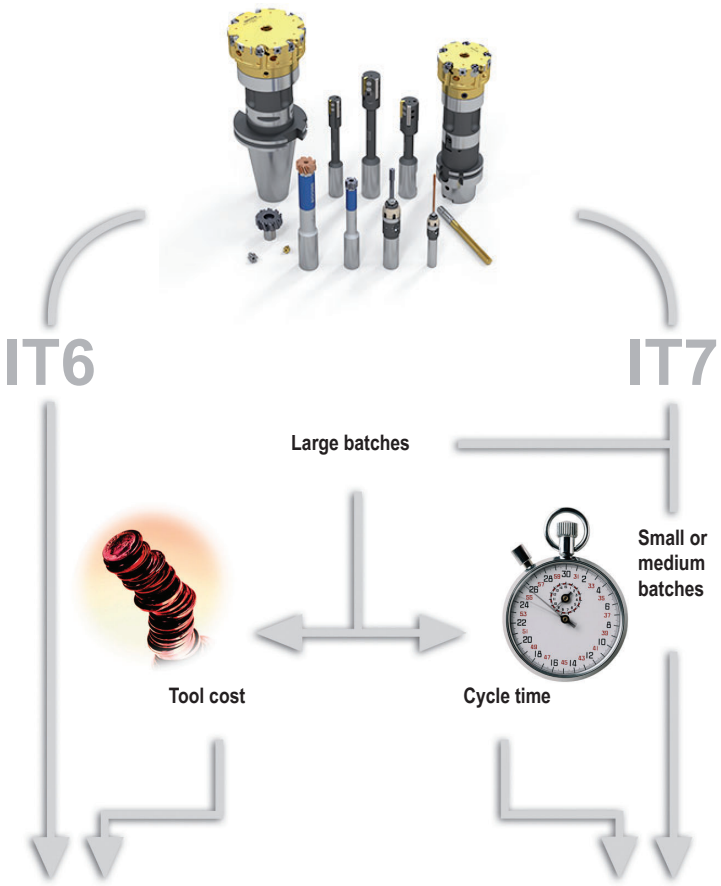
For DCB	Key	Key (T-handle)
		
25/0.984	H6B-H6.0L	DOUBLE-T
32/1.260	H6B-H6.0L	DOUBLE-T
40/1.575	H6B-H6.0L	DOUBLE-T
25,4/1.000	H6B-H6.0L	DOUBLE-T
38,1/1.500	–	–

PB=Pre-balanced by design (see Balancing Guide page in Tooling Systems catalogue for more details)

Multi-cut or indexable insert – Choosing the best solution

Quality, performance and tool cost, all these objectives can be met. The choice of a reaming tool depends on hole tolerance, production quantity and cycle time. Seco Holemaking systems can meet these demands.
With Precimaster, Bifix, Xfix and Nanofix reamers Seco can solve all problems related to reaming operations.

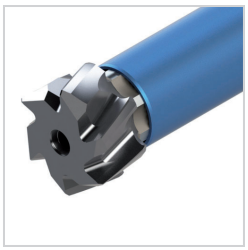
The chart below helps you to choose the ideal reaming tool



Bifix®



Precimaster™ Plus



Xfix™



Nanofix™ / Nanojet



Range overview

	∅ Range	Reaming depth	Hole ∅ tolerance	Intermediate diameter	Surface finish
Precimaster™ Plus  Page(s) 328-367	7,75-60,500 mm *(0.3051-2.3818")*	~ 2-10 x D	IT 6-7-8	Yes, available through My Design	R_a 0,2-1,2 µm *(R_a 7.87-47.2 µin)*
Nanofix™  Page(s) 368-401	2,970-12,050 mm *(0.1169-0.4744")*	~ 5-12 x D	IT 7	Yes, available through My Design	R_a 0,2-1,2 µm *(R_a 7.87-47.2 µin)*
Nanojet  Page(s) 402-422	1,461-9,960 mm *(0.057-0.392")*	~ 4-7 x D	IT 7	Yes, available through My Design	R_a 0,2-1,2 µm *(R_a 7.87-47.2 µin)*
Bifix®  Page(s) 423-449	5,900-60,500 mm *(0.2323-2.3819")*	~ 2-7 x D	IT 6-7	Yes, available through My Design	R_a 0,2-0,8 µm *(R_a 7.87-31.5 µin)*
Xfix™  Page(s) 450-490	39,500-154,500 mm *(1.5551-6.0827")*	~ 2,5-6,5 x D	IT 6	Yes, available through My Design	R_a 0,8-1,6 µm *(R_a 31-63 µin)*



Precimaster™ Plus

Precimaster™ Plus is a modular reamer system that boosts reaming speed, stability and versatility for more precise, cost-effective hole production.

- The system features an innovative high-precision connection, solid-carbide disposable heads as well as common holders for blind and through-hole applications
- Enables tolerances held between 15 and 25 microns and surface finishes of R_a 0.4 to R_a 0.8 µm (RMS 15 to 35 micro/inch)

Precimaster™ Plus – Range overview

	∅ Range	Reaming depth	Hole ∅ tolerance	Intermediate diameter	Surface finish
PMX5 / PMX6 / PMX8 	7,75-60 mm *(0.3051-2.3622")*	~ 2-3 x D	IT 6-7-8	Yes, available through My Design	R_a 0,2-1,2 µm *(R_a 7.87-47.2 µin)*
PMX5 / PMX6 / PMX8 	7,75-60 mm *(0.3051-2.3622")*	~ 4-5 x D	IT 6-7-8	Yes, available through My Design	R_a 0,2-1,2 µm *(R_a 7.87-47.2 µin)*
PMX5 / PMX6 / PMX8 	7,75-60 mm *(0.3051-2.3622")*	~ 8-10 x D	IT 6-7-8	Yes, available through My Design	R_a 0,2-1,2 µm *(R_a 7.87-47.2 µin)*

Code keys

Precimaster Plus toolholders are suitable for both blind and through holes.

Tool shank

PMX08	–	08200	–	20	–	N	1

- PMX08: Reamer body size
- 08200: Max reaming depth
- N: Neutral
- 20: Cyl. shank diameter
- 1: Type of shank
  1. Cylindrical
  DIN1835



Head

PMX6	–	18H7	–	EB45	–	RX2000

- PMX6: Head type
- 18H7: Hole dia and hole tolerance
- EB45: Entrance geometry
- RX2000: Carbide grade



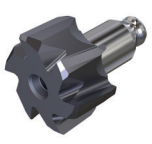
PMX6

Head intermediate diameter

PMX5	–	15.515 P7 0.6108”/0.6115”	–	EB845	–	RX2000

- PMX5: Head type
- 15.515 P7 / 0.6108”/0.6115”: Hole dia and hole tolerance
- EB845: Entrance geometry
- RX2000: Carbide grade

PMX4: RH helical flutes design, suitable for blind bores only.
PMX5: Straight flutes design, suitable for blind and through bores.
PMX6: LH helical flutes design, suitable for through bores only.
PMX8: Straight flutes expandable, suitable for blind and through bores
Left hand flute design improves the action of pushing the chips forward.
Right hand fllute design improves the action of evacuating the chips forward.
See Precimaster Plus head choice page 337.



PMX4



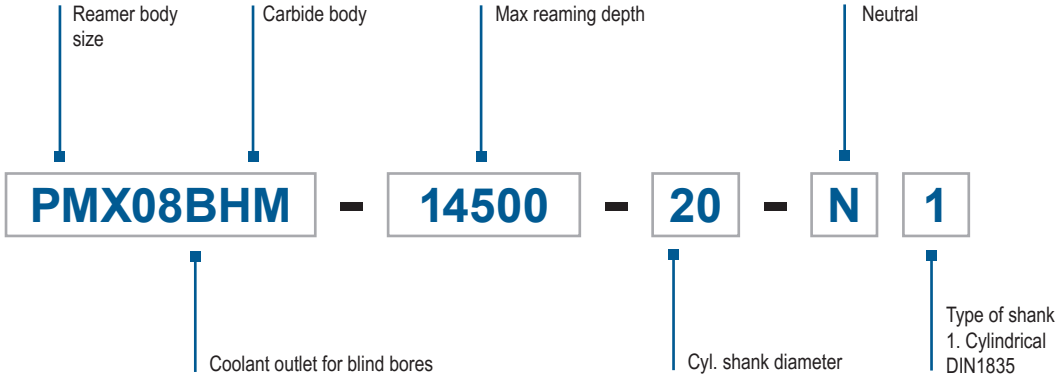
PMX5



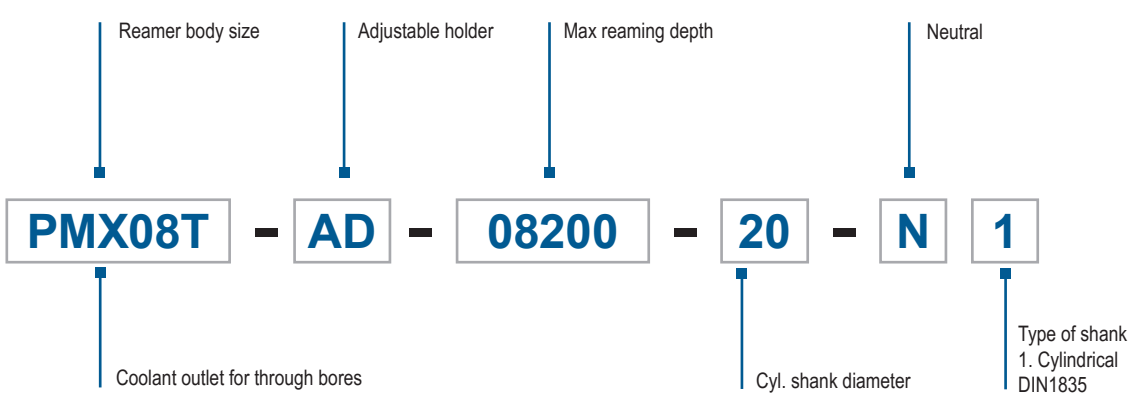
PMX8

Code keys

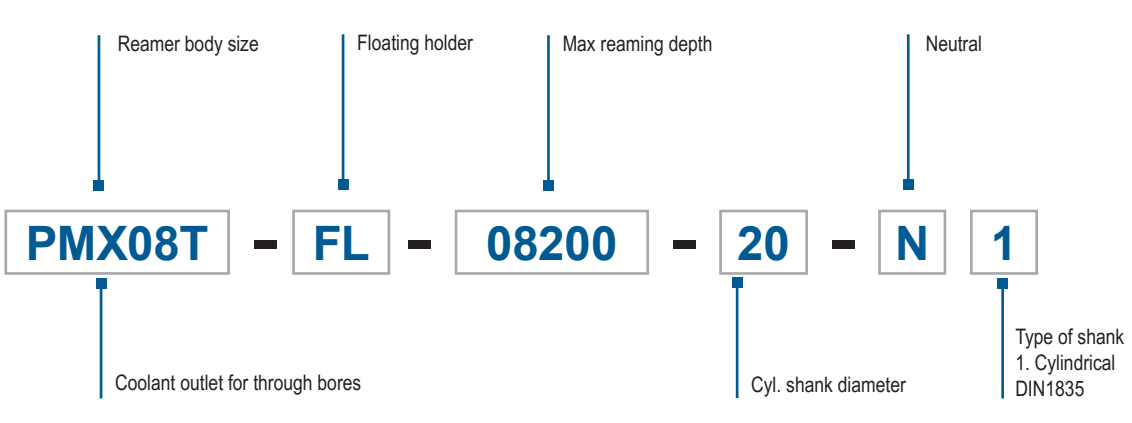
Precimaster Plus toolholders are suitable for both blind and through holes.







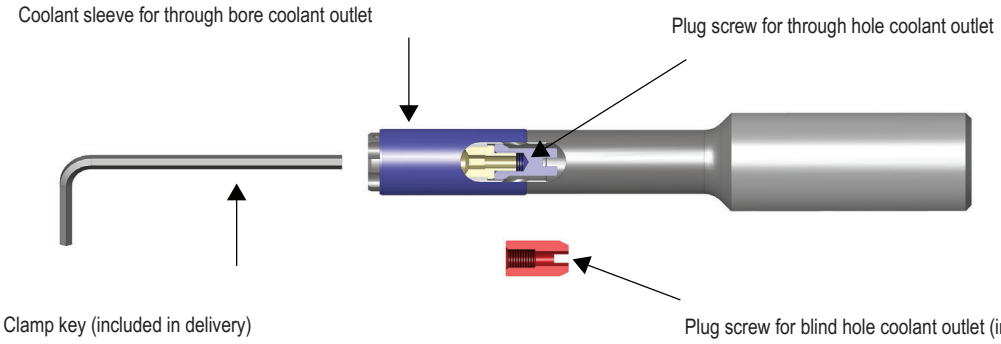






Coolant set-up

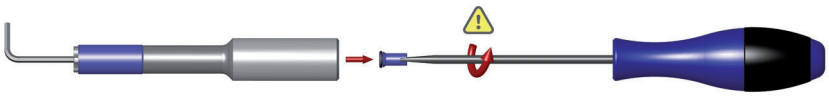
Coolant outlet set-up procedure: Spare parts description



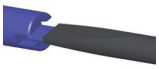
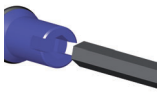
Coolant outlet set-up procedure: Blind bores coolant outlet set-up

1.

Remove plug screw for through bore (blue)
Note: plug screws are LH screw

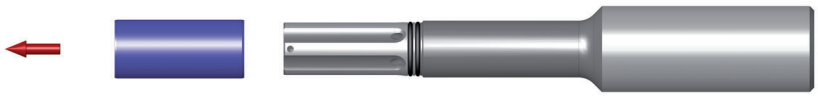


Use flat screw driver OR allen key,
recommended hand-tool sizes as per table

Body size	Flat blade screw driver size mm	Flat blade screw driver size *inch*	Allen Key size mm	Allen Key size *inch*
				
PMX05	1,2 x 4 x 120	*0.05 x 0.16 x 4.72*	2 x 120	*0.08 x 4.72*
PMX06	1,0 x 5,5 x 150	*0.04 x 0.22 x 5.9*	2,5 x 150	*0.10 x 5.9*
PMX08	1,2 x 6,5 x 200	*0.05 x 0.26 x 7.87*	3 x 200	*0.12 x 7.87*
PMX12	1,2 x 8 x 200	*0.05 x 0.31 x 6.89*	5 x 200	*0.2 x 6.89*

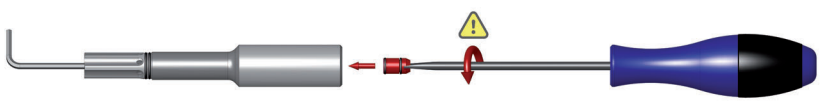
2.

Remove coolant sleeve



3.

Mount plug screw for blind bores (red)
Note: plug screws are LH screw



Head mounting

1.

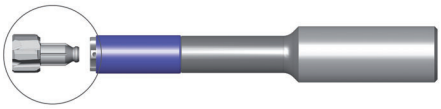
Make sure head geometry is suitable with coolant style



PMX5/PMX8



PMX6



Through bores



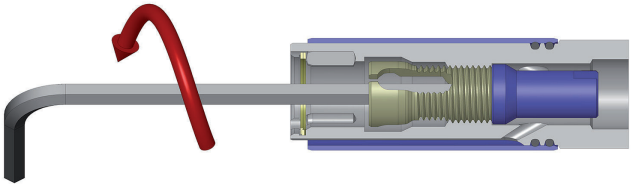
PMX5/PMX8



Blind bores

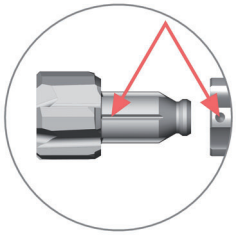
2.

Position clamp before head mounting

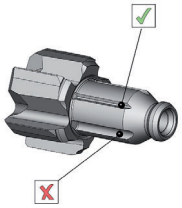


3.

Align index groove with red dot on body



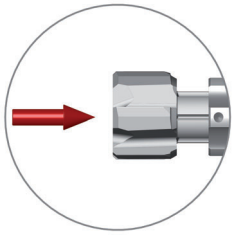
Small Groove



Large Grooves

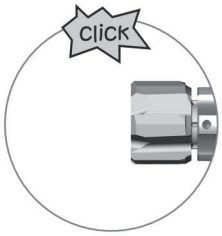
4.

Place head into body



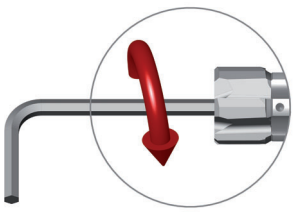
5.

Push head inside body until “click” is achieved



6.

Clamp head using allen key

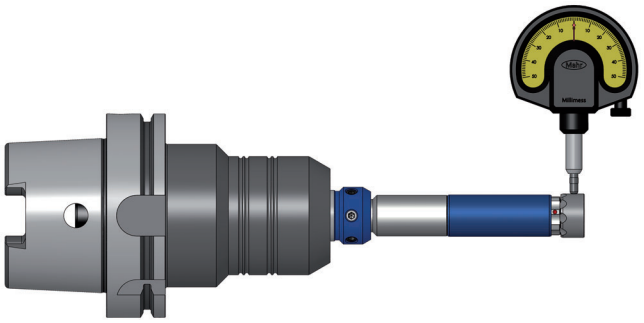


PMX Shank Size	Recommended clamping torque
PMX05	0,5 Nm
PMX06	0,9 Nm
PMX08	1,2 Nm
PMX12	2,0 Nm
PMX16	5,0 Nm

Set up – Run-out

Rotating tool

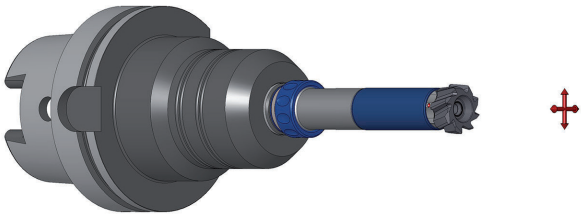
Max recommended run-out: 10-15 µm *(393.7008-590.5512 µin)*.
Hydraulic chuck , Shrinkfit, holder or precision collet holder is recommended.
For best run-out control, we recommend to use Precimaster Plus PMX-AD adjustable adapters, see page(s) 350-351.



Static tool

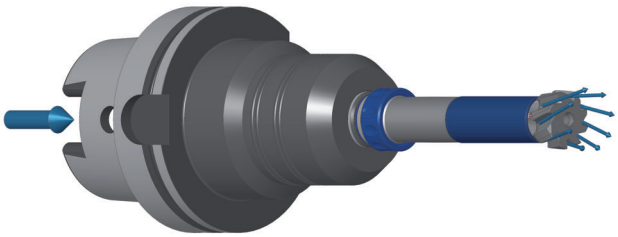
Use Precimaster Plus floating holders PMX - FL, see page(s) 352-353.

Floating holders allow reamer self-centering in pre-bore.



Coolant requirements

To reach maximum tool life and hole quality, the following coolant requirements should be observed.
Coolant through the tool is recommended.
External coolant supply can be used if reaming depth < 2 x D.
Quality soluble oil with 40 % minimum mineral oil.
Neat oil recommended for stainless steel.
Concentration minimum 6–8 %.
Filtration 30–50 µm *(1200-2000 µin)*.
Volume min 0,5 l/min/mm *(3.35 gal/min/inch)* in tool diameter.
(Ex: Reamer ∅ 10, min volume is 5 l/min *(1.3 gal/min)*.

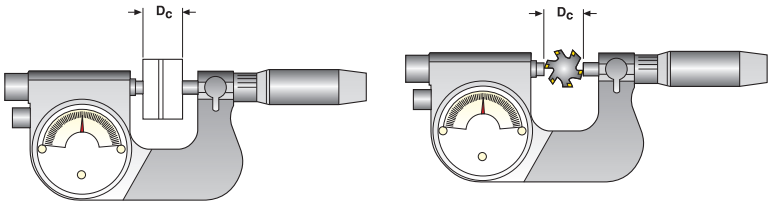


Diameter measurement

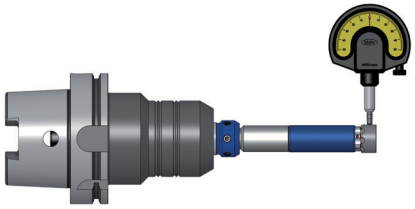
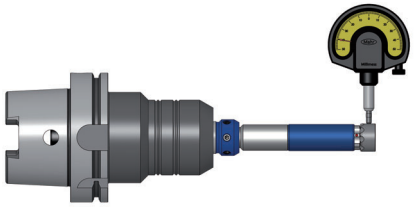
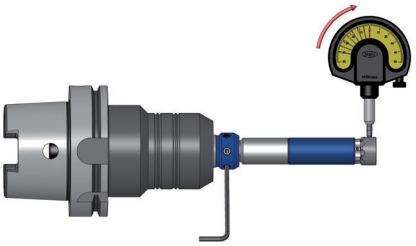
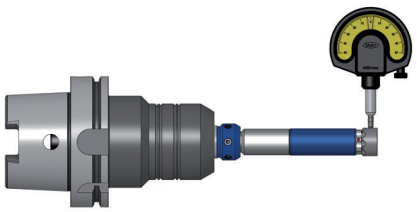
Gauge clock micrometer prior to ∅ measurement.

Important
Precimaster reamers have differential pitch between the teeth.
When measuring the diameter, make sure that you have 2 teeth 180° opposite.

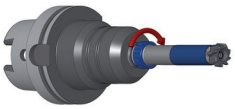
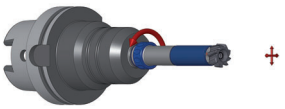
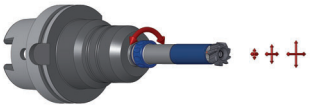
Use clock micrometer and measuring blocks for gauging.



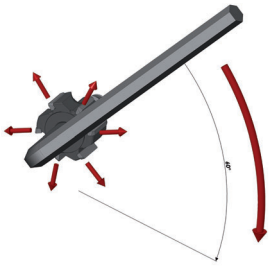
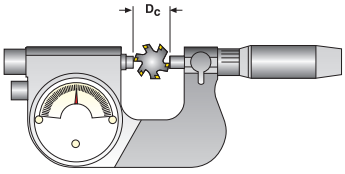
Adjustable shanks set-up:

1. Mount setting master (supplied with adjustable holder). Mount tool in the spindle. **2.** Set-up clock as shown.		
3. Rotate tool manually till lowest point is reached.		
4. Proceed to run-out compensation using adjusting screws. Direction as shown with arrows. **5.** Check run-out and repeat compensation if necessary.		
6. When maximum run-out is less than 5 µm *(197 µin)*, secure adjusting screws clamping to avoid loosing adjustment		

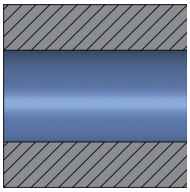
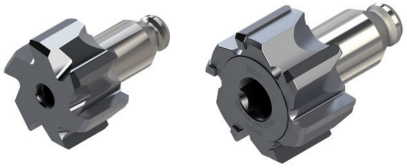
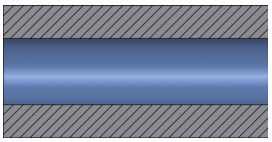
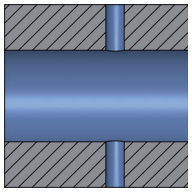
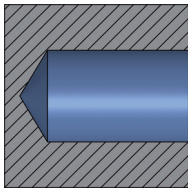
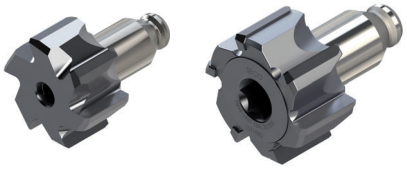
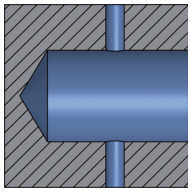
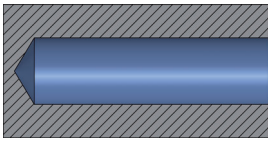
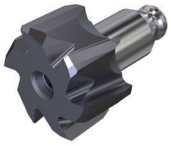
Floating shanks set-up:

1. Completely lock floating shank turning adjusting ring clockwise.	
2. Open floating shank 2 or 3 clicks turning adjusting ring anti-clockwise.	
3. Proceed to further floating value adjustment if necessary. Too much floating value can create unstable conditions at bore entry. Too few floating value can create vibrations and tapered bore.	

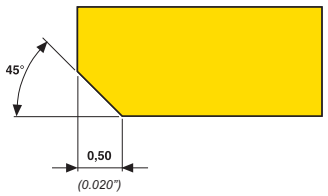
Expandable reamer wear compensation

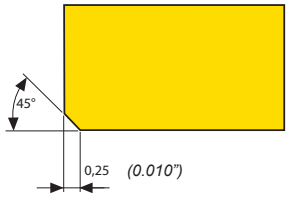
1. Use hexagonal allen key to compensate tool Ø wearing (60° increments = approximately 0.005 µm *(0.197 µin)* compensation on Ø)	
2. Check Ø dimension after expansion using clock micrometer	

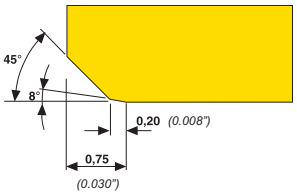
Head choice

Workpiece	Diameter to ream ∅ 8-60 mm *(0.3150-2.3622")*	
Short through hole < 3 x D 	**PMX5 / PMX8** 	
Long through hole > 3 x D 	**PMX6** For through bore application, toolholder coolant outlet must be set for through holes: see coolant set-up pages. 	
Crossing hole 		
Blind hole 	**PMX5 / PMX8** For blind bore application, toolholder coolant outlet must be set for blind holes: see coolant set-up pages 	
Blind and crossing hole 		
Blind hole > 3x D 	**PMX4** For blind bore difficult application, toolholder coolant outlet must be set for blind holes: see coolant set-up pages. 	

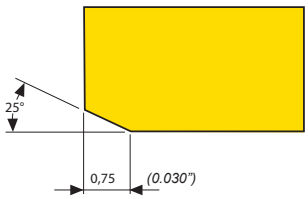
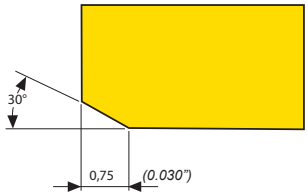
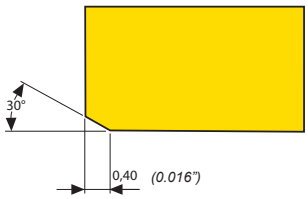
Geometry choice – Applications

Lead geometry - EB45	
Chip control ++ Surface finish+++ R_a 0,8 - 1,2 µm *(Surface finish+++ R_a 31 - 47 µin)* Versatile	

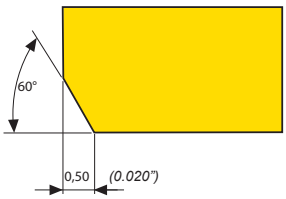
Lead geometry - EBS45	
Chip control +++ Surface Finish + R_a 0,8- 1,2 µm *(Surface Finish + R_a 31- 47 µin)* Short EB45	

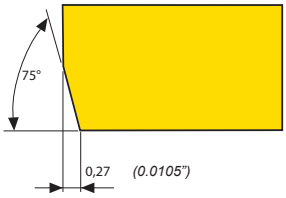
Lead geometry - EB845	
Chip control ++ Surface finish+++ R_a 0,2 - 0,8 µm *(Surface finish+++ R_a 8 - 31 µin)*	

Geometry choice – Applications

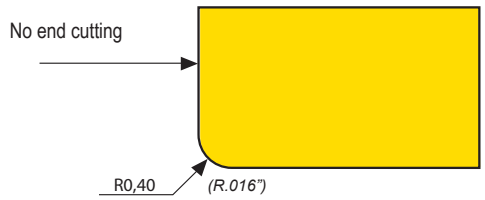
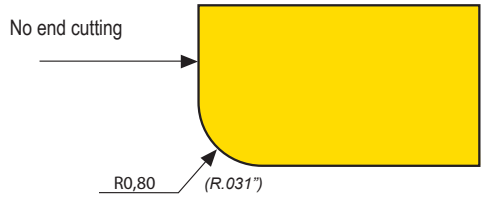
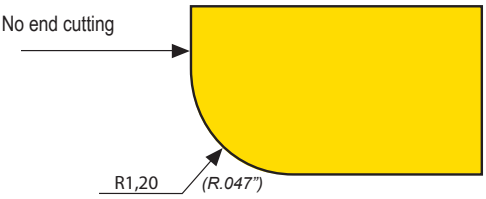
Lead geometry - EB25	
Feed performance +++ Surface finish ++ R_a 0,4 - 0,8 µm *(Surface Finish ++ R_a 16 - 31 µin)* Chip control +	
Lead geometry - EB30	
Feed performance +++ Surface Finish ++ R_a 0,4 - 0,8 µm *(Surface Finish ++ R_a 16 - 31 µin)* Chip control +	
Lead geometry - EBS30	
Feed performance +++ Surface finish ++ R_a 0,4 - 0,8 µm *(Surface Finish ++ R_a 16 - 31 µin)* Chip control + Short EB30	

Geometry choice – Applications

Lead geometry - EB60	
Feed performance + Surface Finish ++ R_a 0,8 - 1,2 µm *(Surface Finish ++ R_a 31-47 µin)* Chip control ++	

Lead geometry - EB75	
Feed performance + Surface Finish ++ R_a 0,8 - 1,2 µm *(Surface Finish ++ R_a 31-47 µin)* Chip control ++	

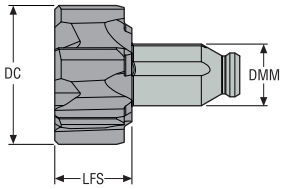
Geometry choice – Applications

Lead geometry - RE040	
Feed performance ++ Surface Finish ++ R_a 0,4 - 0,8 µm *(Surface Finish ++ R_a 16 - 31 µin)* Chip control +	
Lead geometry - RE080	
Feed performance ++ Surface Finish ++ R_a 0,4 - 0,8 µm *(Surface Finish ++ R_a 16 - 31 µin)* Chip control +	
Lead geometry - RE120	
Feed performance ++ Surface Finish ++ R_a 0,4 - 0,8 µm *(Surface Finish ++ R_a 16 - 31 µin)* Chip control + Available from Ø 14 mm *(0.551")*	

Grades		
	**RX2000**	**Coated** High performance coated grade suitable for all materials.
	**CP20**	**Coated** A versatile coated grade suitable for most materials, except aluminum. TiN
	**H15**	**Uncoated** A tough micrograin grade for all materials. Suitable for fine-reaming operations due to edge sharpness.
	**CF**	**Cermet** A wear resistant grade for performance optimization in steel.
	**RX1500**	**Coated Cermet** A resistant coated grade for performance optimization in steel and cast iron.
	**RN2010**	**Uncoated** A sub-micrograin uncoated grade with optimized geometries for N-materials (non ferrous).
	**RM2020**	**Coated** A tough coated grade suitable for fine reaming operation with optimized geometries for M materials.
	**RM2090**	**Coated** A wear resistant coated grade with specific geometries for M materials. Optimization in M materials.
	**RK2050**	**Coated** A tough coated grade suitable for fine reaming operation with optimized geometries for K materials.
	**RK1550**	**Coated Cermet** A wear resistant coated grade with specific geometries for K materials. Optimization in K materials.
	**RS2090**	**Coated** A wear resistant coated grade with specific geometries for S materials. Optimization in S materials.

Heads for through and blind holes

∅ 8-32 mm / *0.315-1.260”*





- For choice of geometry, please see page(s) 338-341
- For cutting data see page(s) 360-367

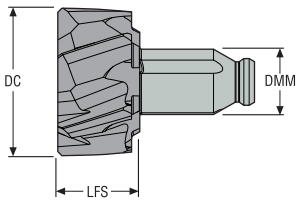
Designation	Item number	DC	Drill size*		LFS	DMM	Body size	Geometries			Grades				
		mm	mm		mm	mm		EB45	EB845	EB30	H15	CP20	RX2000	CF	RX1500
PMX5-8H7-EB45	03123158	8,0	7,8/7,9	6	6,0	4,5	PMX05-xx	■	□	□	□	□	■	–	–
PMX5-9H7-EB45	03123159	9,0	8,8/8,9	6	6,0	4,5	PMX05-xx	■	□	□	□	□	■	–	–
PMX5-10H7-EB30	10020602	10,0	9,8/9,9	6	7,0	6,0	PMX06-xx	□	□	■	□	□	■	□	□
PMX6-10H7-EB45	02965863	10,0	9,8/9,9	6	7,0	6,0	PMX06-xx	■	□	□	□	□	■	□	□
PMX5-11H7-EB45	02925754	11,0	10,8/10,9	6	7,0	6,0	PMX06-xx	■	□	□	□	□	■	□	□
PMX5-12H7-EB30	10019482	12,0	11,8/11,908	6	7,0	6,0	PMX06-xx	□	□	■	□	□	■	□	□
PMX5-12H7-EB45	02925755	12,0	11,8/11,908	6	7,0	6,0	PMX06-xx	■	□	□	□	□	■	□	□
PMX5-13H7-EB30	10019483	13,0	12,8/12,9	6	7,0	6,0	PMX06-xx	□	□	■	□	□	■	□	□
PMX5-13H7-EB45	02925756	13,0	12,8/12,9	6	7,0	6,0	PMX06-xx	■	□	□	□	□	■	□	□
PMX5-14H7-EB30	10019484	14,0	13,8/13,891	6	7,0	6,0	PMX06-xx	□	□	■	□	□	■	□	□
PMX5-14H7-EB45	02925757	14,0	13,8/13,891	6	7,0	6,0	PMX06-xx	■	□	□	□	□	■	□	□
PMX5-15H7-EB30	10019485	15,0	14,8/14,9	6	10,0	8,0	PMX08-xx	□	□	■	□	□	■	□	□
PMX5-15H7-EB45	02925758	15,0	14,8/14,9	6	10,0	8,0	PMX08-xx	■	□	□	□	□	■	□	□
PMX5-16H7-EB30	10019486	16,0	15,8/15,9	6	10,0	8,0	PMX08-xx	□	□	■	□	□	■	□	□
PMX5-16H7-EB45	02925759	16,0	15,8/15,9	6	10,0	8,0	PMX08-xx	■	□	□	□	□	■	□	□
PMX5-17H7-EB30	10019487	17,0	16,8/16,9	6	10,0	8,0	PMX08-xx	□	□	■	□	□	■	□	□
PMX5-17H7-EB45	02925760	17,0	16,8/16,9	6	10,0	8,0	PMX08-xx	■	□	□	□	□	■	□	□
PMX5-18H7-EB30	10019488	18,0	17,8/17,9	6	10,0	8,0	PMX08-xx	□	□	■	□	□	■	□	□
PMX5-18H7-EB45	02925761	18,0	17,8/17,9	6	10,0	8,0	PMX08-xx	■	□	□	□	□	■	□	□
PMX5-19H7-EB30	10019489	19,0	18,8/18,9	6	10,0	8,0	PMX08-xx	□	□	■	□	□	■	□	□
PMX5-19H7-EB45	02925762	19,0	18,8/18,9	6	10,0	8,0	PMX08-xx	■	□	□	□	□	■	□	□
PMX5-20H7-EB30	10020603	20,0	19,8/19,9	6	10,0	8,0	PMX08-xx	□	□	■	□	□	■	□	□
PMX5-20H7-EB45	02925763	20,0	19,8/19,9	6	10,0	8,0	PMX08-xx	■	□	□	□	□	■	□	□
PMX5-21H7-EB45	02925764	21,0	20,8/20,9	6	10,0	8,0	PMX08-xx	■	□	□	□	□	■	□	□
PMX5-22H7-EB30	10020604	22,0	21,8/21,9	8	12,0	12,0	PMX12-xx	□	□	■	□	□	■	□	□
PMX5-22H7-EB45	02925765	22,0	21,8/21,9	8	12,0	12,0	PMX12-xx	■	□	□	□	□	■	□	□
PMX5-23H7-EB30	10019490	23,0	22,8/22,9	8	12,0	12,0	PMX12-xx	□	□	■	□	□	■	□	□
PMX5-23H7-EB45	02925766	23,0	22,8/22,9	8	12,0	12,0	PMX12-xx	■	□	□	□	□	■	□	□
PMX5-24H7-EB30	10019491	24,0	23,813/23,9	8	12,0	12,0	PMX12-xx	□	□	■	□	□	■	□	□
PMX5-24H7-EB45	02925767	24,0	23,813/23,9	8	12,0	12,0	PMX12-xx	■	□	□	□	□	■	□	□
PMX5-25H7-EB30	10019492	25,0	24,8/24,9	8	12,0	12,0	PMX12-xx	□	□	■	□	□	■	□	□
PMX5-25H7-EB45	02925768	25,0	24,8/24,9	8	12,0	12,0	PMX12-xx	■	□	□	□	□	■	□	□
PMX5-26H7-EB30	10019493	26,0	25,8/25,9	8	12,0	12,0	PMX12-xx	□	□	■	□	□	■	□	□
PMX5-26H7-EB45	02925769	26,0	25,8/25,9	8	12,0	12,0	PMX12-xx	■	□	□	□	□	■	□	□
PMX5-27H7-EB45	02925770	27,0	26,8/26,9	8	12,0	12,0	PMX12-xx	■	□	□	□	□	■	□	□
PMX5-28H7-EB30	10019494	28,0	26,8/26,9	8	12,0	12,0	PMX12-xx	□	□	■	□	□	■	□	□

Designation	Item number	DC	Drill size*		LFS	DMM	Body size	Geometries			Grades				
		mm	mm		mm	mm		EB45	EB845	EB30	H15	CP20	RX2000	CF	RX1500
PMX5-28H7-EB45	02925771	28,0	27,8/27,9	8	12,0	12,0	PMX12-xx	■	□	□	□	□	■	□	□
PMX5-29H7-EB45	02925772	29,0	28,8/28,9	8	12,0	12,0	PMX12-xx	■	□	□	□	□	■	□	□
PMX5-30H7-EB30	10019495	30,0	29,8/29,9	8	12,0	12,0	PMX12-xx	□	□	■	□	□	■	□	□
PMX5-30H7-EB45	02925773	30,0	29,8/29,9	8	12,0	12,0	PMX12-xx	■	□	□	□	□	■	□	□
PMX5-32H7-EB30	10019496	32,0	31,8/31,9	8	12,0	12,0	PMX12-xx	□	□	■	□	□	■	□	□
PMX5-32H7-EB45	02925775	32,0	31,8/31,9	8	12,0	12,0	PMX12-xx	■	□	□	□	□	■	□	□

*For further information on which drill to use and how to use it see page(s) 8
■ **Stock standard.** □ **Non stock standard.**

Heads for through holes

∅ 8-32 mm / *0.315-1.260”*





- For choice of geometry, please see page(s) 338-341
- For cutting data see page(s) 360-367

Designation	Item number	DC	Drill size*		LFS	DMM	Body size	Geometries			Grades				
		mm	mm		mm	mm		EB45	EB845	EB30	H15	CP20	RX2000	CF	RX1500
PMX6-8H7-EB45	03123161	8,0	7,8/7,9	6	6,0	4,5	PMX05-xx	■	□	□	□	□	■	–	–
PMX6-9H7-EB45	03123162	9,0	8,8/8,9	6	6,0	4,5	PMX05-xx	■	□	□	□	□	■	–	–
PMX6-10H7-EB45	02965863	10,0	9,8/9,9	6	7,0	6,0	PMX06-xx	■	□	□	□	□	■	□	□
PMX6-11H7-EB45	02925776	11,0	10,8/10,9	6	7,0	6,0	PMX06-xx	■	□	□	□	□	■	□	□
PMX6-12H7-EB45	02925777	12,0	11,8/11,908	6	7,0	6,0	PMX06-xx	■	□	□	□	□	■	□	□
PMX6-13H7-EB45	02925778	13,0	12,8/12,9	6	7,0	6,0	PMX06-xx	■	□	□	□	□	■	□	□
PMX6-14H7-EB45	02925779	14,0	13,8/13,891	6	7,0	6,0	PMX06-xx	■	□	□	□	□	■	□	□
PMX6-15H7-EB45	02925780	15,0	14,8/14,9	6	10,0	8,0	PMX08-xx	■	□	□	□	□	■	□	□
PMX6-16H7-EB45	02925781	16,0	15,8/15,9	6	10,0	8,0	PMX08-xx	■	□	□	□	□	■	□	□
PMX6-17H7-EB45	02925782	17,0	16,8/16,9	6	10,0	8,0	PMX08-xx	■	□	□	□	□	■	□	□
PMX6-18H7-EB45	02925783	18,0	17,8/17,9	6	10,0	8,0	PMX08-xx	■	□	□	□	□	■	□	□
PMX6-19H7-EB45	02925784	19,0	18,8/18,9	6	10,0	8,0	PMX08-xx	■	□	□	□	□	■	□	□
PMX6-20H7-EB45	02925785	20,0	19,8/19,9	6	10,0	8,0	PMX08-xx	■	□	□	□	□	■	□	□
PMX6-21H7-EB45	02925786	21,0	20,8/20,9	6	10,0	8,0	PMX08-xx	■	□	□	□	□	■	□	□
PMX6-22H7-EB45	02925030	22,0	21,8/21,9	8	12,0	12,0	PMX12-xx	■	□	□	□	□	■	□	□
PMX6-23H7-EB45	02925031	23,0	22,8/22,9	8	12,0	12,0	PMX12-xx	■	□	□	□	□	■	□	□
PMX6-24H7-EB45	02925032	24,0	23,813/23,9	8	12,0	12,0	PMX12-xx	■	□	□	□	□	■	□	□
PMX6-25H7-EB45	02925033	25,0	24,8/24,9	8	12,0	12,0	PMX12-xx	■	□	□	□	□	■	□	□
PMX6-26H7-EB45	02925034	26,0	25,8/25,9	8	12,0	12,0	PMX12-xx	■	□	□	□	□	■	□	□
PMX6-27H7-EB45	02925035	27,0	26,8/26,9	8	12,0	12,0	PMX12-xx	■	□	□	□	□	■	□	□
PMX6-28H7-EB45	02925036	28,0	27,8/27,9	8	12,0	12,0	PMX12-xx	■	□	□	□	□	■	□	□
PMX6-29H7-EB45	02925037	29,0	28,8/28,9	8	12,0	12,0	PMX12-xx	■	□	□	□	□	■	□	□
PMX6-30H7-EB45	02925038	30,0	29,8/29,9	8	12,0	12,0	PMX12-xx	■	□	□	□	□	■	□	□
PMX6-31H7-EB45	02925039	31,0	30,8/30,9	8	12,0	12,0	PMX12-xx	■	□	□	□	□	■	□	□
PMX6-32H7-EB45	02925040	32,0	31,8/31,9	8	12,0	12,0	PMX12-xx	■	□	□	□	□	■	□	□

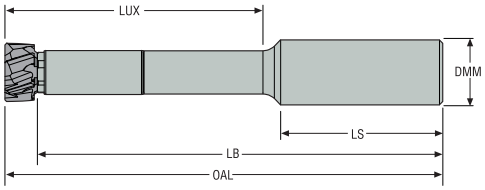
*For further information on which drill to use and how to use it see page(s) 8

■ **Stock standard.** □ **Non stock standard.**

Shanks for through and blind holes

∅ 7,75-60,500 mm / *0.305-2.381”*

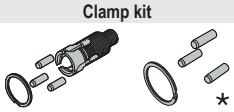
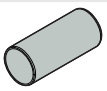
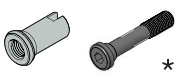




- For choice of geometry, please see page(s) 338-341
- For cutting data see page(s) 360-367

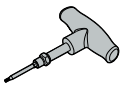
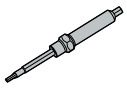
Designation	Item number	Tool holder material	DC	OAL	LB	LS	LUX	DMM
			mm	mm	mm	mm	mm	mm
PMX05-02800-10N1	03123012	Steel	7,75 - 9,9	69,0	63,0	40,0	28,0	10,0
PMX05-04100-10N1	02929923	Steel	7,75 - 9,9	84,0	78,0	40,0	41,0	10,0
PMX05-10000-10N1	03123013	Steel	7,75 - 9,9	143,0	137,0	40,0	100,0	10,0
PMX06-03700-12N1	02925828	Steel	9,901 - 14,499	84,0	77,0	45,0	37,0	12,0
PMX06-05700-12N1	02925829	Steel	9,901 - 14,499	104,0	97,0	45,0	57,0	12,0
PMX06-12000-12N1	02925830	Steel	9,901 - 14,499	167,0	160,0	45,0	120,0	12,0
PMX06HM-12000-12N1	02925831	Carbide	9,901 - 14,499	167,0	160,0	45,0	120,0	12,0
PMX08-04600-20N1	02925832	Steel	14,5 - 21,499	99,0	89,0	50,0	46,0	20,0
PMX08-08200-20N1	02925833	Steel	14,5 - 21,499	135,0	125,0	50,0	82,0	20,0
PMX08-14500-20N1	02925834	Steel	14,5 - 21,499	198,0	188,0	50,0	145,0	20,0
PMX08HM-14500-20N1	02925835	Carbide	14,5 - 21,499	198,0	188,0	50,0	145,0	20,0
PMX12-06800-25N1	02925836	Steel	21,5 - 32,499	127,0	115,0	56,0	68,0	25,0
PMX12-10400-25N1	02925837	Steel	21,5 - 32,499	163,0	151,0	56,0	104,0	25,0
PMX12-17000-25N1	02925838	Steel	21,5 - 32,499	229,0	217,0	56,0	170,0	25,0
PMX12HM-17000-25N1	02925839	Carbide	21,5 - 32,499	229,0	217,0	56,0	170,0	25,0
PMX16-06300-32N1	02925840	Steel	32,5 - 60,5	124,0	110,0	60,0	63,0	32,0
PMX16-12700-32N1	02925841	Steel	32,5 - 60,5	188,0	174,0	60,0	127,0	32,0
PMX16-17000-32N1	02925842	Steel	32,5 - 60,5	231,0	217,0	60,0	170,0	32,0
PMX16HM-17000-32N1	02925843	Carbide	32,5 - 60,5	231,0	217,0	61,0	170,0	32,0

Spare Parts, included in delivery

For shank	For ∅ (mm)	Clamp key	Clamp kit	Coolant kit	Plug screw, blind bore	Plug screw, through bore
						
PMX05	7,75-9,900	1.5SMS795	PMX05-CLKI	RT05-KI	SB05	ST05
PMX06	9,901-14,499	2SMS795	PMX06-CLKI	RT06-KI	SB06	ST06
PMX08	14,5-21,499	2.5SMS795	PMX08-CLKI	RT08-KI	SB08	ST08
PMX12	21,5-32,499	4SMS795	PMX12-CLKI	RT12-KI	SB12	ST12
PMX16	32,5-60	5SMS795	PMX16-CLKI	–	SB16	ST16

* Spare parts for PMX16 bodies only. For PMX16, plug screws are also used for clamping.

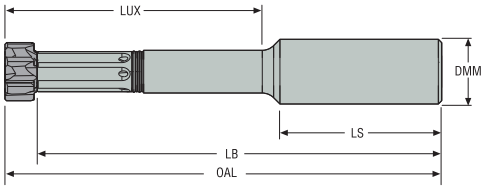
Accessories

For ∅ (mm)	Shank Size	Item number	Torque key	Item number	Replacement blade	Item number	Torque key	Item number	Replacement blade	Torque value
										
7,750-9,900	PMX05	03178196	H00-1505-27	03178237	H00-1.5-27	–	–	–	–	0,5 Nm
9,901-14,499	PMX06	03178197	H00-2009-33	03178238	H00-2.0-33	–	–	–	–	0,9 Nm
14,500-21,499	PMX08	03178199	H00-2512-40	03178240	H00-2.5-40	–	–	–	–	1,2 Nm
21,500-32,499	PMX12	03178201	H00-4020-60	03178242	H00-4.0-60	–	–	–	–	2,0 Nm
32,500-60,500	PMX16	–	–	–	–	03271887	H00T-5050	02506761	H00T-5,0	5,0 Nm

Shanks for blind holes

∅ 7,75-60,500 mm / *0.305-2.381”*

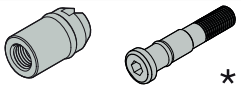




- For choice of geometry, please see page(s) 338-341
- For cutting data see page(s) 360-367

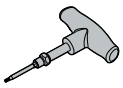
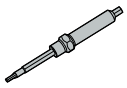
Designation	Item number	Tool holder material	DC	OAL	LB	LS	LUX	DMM
			mm	mm	mm	mm	mm	mm
PMX05B-02800-10N1	03144322	Steel	7,75 - 9,9	69,0	63,0	40,0	28,0	10,0
PMX05B-04100-10N1	03144323	Steel	7,75 - 9,9	84,0	78,0	40,0	41,0	10,0
PMX05B-10000-10N1	03144324	Steel	7,75 - 9,9	143,0	137,0	40,0	100,0	10,0
PMX06B-03700-12N1	03075433	Steel	9,901 - 14,499	84,0	77,0	45,0	37,0	12,0
PMX06B-05700-12N1	03075434	Steel	9,901 - 14,499	104,0	97,0	45,0	57,0	12,0
PMX06B-12000-12N1	03075435	Steel	9,901 - 14,499	167,0	160,0	45,0	120,0	12,0
PMX06BHM-12000-12N1	03075436	Carbide	9,901 - 14,499	167,0	160,0	45,0	120,0	12,0
PMX08B-04600-20N1	03075437	Steel	14,5 - 21,499	99,0	89,0	50,0	46,0	20,0
PMX08B-08200-20N1	03075438	Steel	14,5 - 21,499	135,0	125,0	50,0	82,0	20,0
PMX08B-14500-20N1	03075439	Steel	14,5 - 21,499	198,0	188,0	50,0	145,0	20,0
PMX08BHM-14500-20N1	03075440	Carbide	14,5 - 21,499	198,0	188,0	50,0	145,0	20,0
PMX12B-06800-25N1	03075441	Steel	21,5 - 32,499	127,0	115,0	56,0	68,0	25,0
PMX12B-10400-25N1	03075442	Steel	21,5 - 32,499	163,0	151,0	56,0	104,0	25,0
PMX12B-17000-25N1	03075443	Steel	21,5 - 32,499	229,0	217,0	56,0	170,0	25,0
PMX12BHM-17000-25N1	03075444	Carbide	21,5 - 32,499	229,0	217,0	56,0	170,0	25,0
PMX16B-06300-32N1	03075445	Steel	32,5 - 60,5	124,0	110,0	61,0	63,0	32,0
PMX16B-12700-32N1	03075446	Steel	32,5 - 60,5	188,0	174,0	61,0	127,0	32,0
PMX16B-17000-32N1	03075447	Steel	32,5 - 60,5	231,0	217,0	61,0	170,0	32,0
PMX16BHM-17000-32N1	03075448	Carbide	32,5 - 60,5	231,0	217,0	61,0	170,0	32,0

Spare Parts, included in delivery

For shank	For ∅ (mm)	Clamp key	Clamp kit	Plug screw, blind bore
			 *	 *
PMX05B	7,75-9,900	1.5SMS795	PMX05-CLKI	SB05
PMX06B	9,901-14,499	2SMS795	PMX06-CLKI	SB06
PMX08B	14,500-21,499	2.5SMS795	PMX08-CLKI	SB08
PMX12B	21,500-32,499	4SMS795	PMX12-CLKI	SB12
PMX16B	32,500-60,000	5SMS795	PMX16-CLKI	SB16

* Spare parts for PMX16 bodies only. For PMX16, plug screws are also used for clamping.

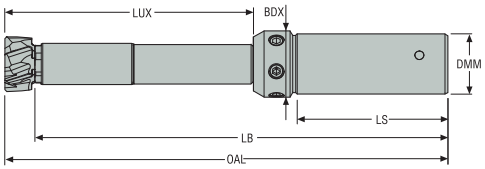
Accessories

For ∅ (mm)	Shank Size	Item number	Torque key	Item number	Replacement blade	Item number	Torque key	Item number	Replacement blade	Torque value
										
7,750-9,900	PMX05	03178196	H00-1505-27	03178237	H00-1.5-27	–	–	–	–	0,5 Nm
9,901-14,499	PMX06	03178197	H00-2009-33	03178238	H00-2.0-33	–	–	–	–	0,9 Nm
14,500-21,499	PMX08	03178199	H00-2512-40	03178240	H00-2.5-40	–	–	–	–	1,2 Nm
21,500-32,499	PMX12	03178201	H00-4020-60	03178242	H00-4.0-60	–	–	–	–	2,0 Nm
32,500-60,500	PMX16	–	–	–	–	03271887	H00T-5050	02506761	H00T-5,0	5,0 Nm

Adjustable shanks for through holes

∅ 7,75-60,500 mm / *0.305-2.381”*

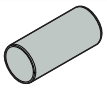




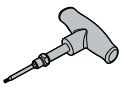
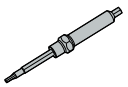
- For choice of geometry, please see page(s) 338-341
- For cutting data see page(s) 360-367

Designation	Item number	DC	OAL	LB	LS	LUX	DMM
		mm	mm	mm	mm	mm	mm
PMX05T-AD-04100-16N1	03271918	7,75 - 9,9	102,0	96,0	48,0	41,0	16,0
PMX06T-AD-05700-16N1	03002833	9,901 - 14,499	117,0	110,0	48,0	57,0	16,0
PMX08T-AD-08200-20N1	03002835	14,5 - 21,499	147,0	137,0	50,0	82,0	20,0
PMX12T-AD-10400-25N1	03002837	21,5 - 32,499	179,0	167,0	56,0	104,0	25,0
PMX16T-AD-12700-32N1	03002839	32,5 - 60,5	214,0	200,0	60,0	127,0	32,0

Spare Parts, included in delivery

For shank	For ∅ (mm)	Clamp key	Coolant ring	Setting key	Setting Master	Setting screw
						
PMX05T	7,750-9,900	1.5SMS795	RT05-KI	2SMS795	PMX05-MSTR	HCM4X4X0.5/ISO4026
PMX06T	9,901-14,499	2SMS795	RT06-KI	–	PMX06-MSTR	HCM4X4X0.5/ISO4026
PMX08T	14,50-21,499	2.5SMS795	RT08-KI	–	PMX08-MSTR	HCM5X5X0.5/ISO4026
PMX12T	21,50-32,499	4SMS795	RT12-KI	3SMS795	PMX12-MSTR	HCM6X6X0.75/ISO4026
PMX16T	32,50-60,000	5SMS795	–	3SMS795	–	HCM6X6X0.75/ISO4026

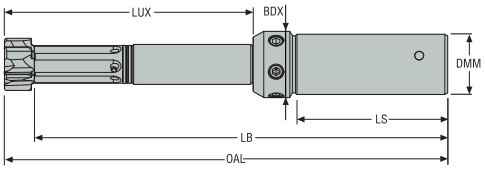
Accessories

For ∅ (mm)	Shank Size	Item number	Torque key	Item number	Replacement blade	Item number	Torque key	Item number	Replacement blade	Torque value
										
7,750-9,900	PMX05	03178196	H00-1505-27	03178237	H00-1.5-27	–	–	–	–	0,5 Nm
9,901-14,499	PMX06	03178197	H00-2009-33	03178238	H00-2.0-33	–	–	–	–	0,9 Nm
14,500-21,499	PMX08	03178199	H00-2512-40	03178240	H00-2.5-40	–	–	–	–	1,2 Nm
21,500-32,499	PMX12	03178201	H00-4020-60	03178242	H00-4.0-60	–	–	–	–	2,0 Nm
32,500-60,500	PMX16	–	–	–	–	03271887	H00T-5050	02506761	H00T-5,0	5,0 Nm

Note: Repair clamp kit PMxx-CLKI are not suitable for PMX FL & AD type

Adjustable shanks for blind holes

∅ 7,75-60,500 mm / *0.305-2.381”*





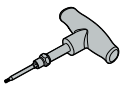
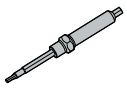
- For choice of geometry, please see page(s) 338-341
- For cutting data see page(s) 360-367

Designation	Item number	DC	OAL	LB	LS	LUX	DMM
		mm	mm	mm	mm	mm	mm
PMX05B-AD-04100-16N1	03271919	7,75 - 9,9	102,0	96,0	48,0	41,0	16,0
PMX06B-AD-05700-16N1	03002834	9,901 - 14,499	117,0	110,0	48,0	57,0	16,0
PMX08B-AD-08200-20N1	03002836	14,5 - 21,499	147,0	137,0	50,0	82,0	20,0
PMX12B-AD-10400-25N1	03002838	21,5 - 32,499	179,0	167,0	56,0	104,0	25,0
PMX16B-AD-12700-32N1	03002840	32,5 - 60,5	214,0	200,0	60,0	127,0	32,0

Spare Parts, included in delivery

For shank	For ∅ (mm)	Clamp key	Setting key	Setting Master	Setting screw
					
PMX05B	7,750-9,900	1.5SMS795	2SMS795	PMX05-MSTR	HCM4X4X0.5/ISO4026
PMX06B	9,901-14,499	2SMS795	–	PMX06-MSTR	HCM4X4X0.5/ISO4026
PMX08B	14,50-21,499	2.5SMS795	–	PMX08-MSTR	HCM5X5X0.5/ISO4026
PMX12B	21,50-32,499	4SMS795	3SMS795	PMX12-MSTR	HCM6X6X0.75/ISO4026
PMX16B	32,50-60,000	5SMS795	3SMS795	–	HCM6X6X0.75/ISO4026

Accessories

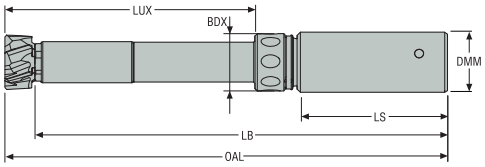
For ∅ (mm)	Shank Size	Item number	Torque key	Item number	Replacement blade	Item number	Torque key	Item number	Replacement blade	Torque value
										
7,750-9,900	PMX05	03178196	H00-1505-27	03178237	H00-1.5-27	–	–	–	–	0,5 Nm
9,901-14,499	PMX06	03178197	H00-2009-33	03178238	H00-2.0-33	–	–	–	–	0,9 Nm
14,500-21,499	PMX08	03178199	H00-2512-40	03178240	H00-2.5-40	–	–	–	–	1,2 Nm
21,500-32,499	PMX12	03178201	H00-4020-60	03178242	H00-4.0-60	–	–	–	–	2,0 Nm
32,500-60,500	PMX16	–	–	–	–	03271887	H00T-5050	02506761	H00T-5,0	5,0 Nm

Note: Repair clamp kit PMxx-CLKI are not suitable for PMX FL & AD type

Floating shanks for through holes

∅ 7,75-60,500 mm / *0.305-2.381”*

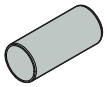




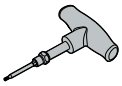
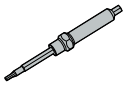
- For choice of geometry, please see page(s) 338-341
- For cutting data see page(s) 360-367

Designation	Item number	DC	OAL	LB	LS	LUX	DMM
		mm	mm	mm	mm	mm	mm
PMX05T-FL-04100-16N1	03197751	7,75 - 9,9	102,0	96,0	48,0	41,0	16,0
PMX06T-FL-05700-16N1	03002825	9,901 - 14,499	117,0	110,0	48,0	57,0	16,0
PMX08T-FL-08200-20N1	03002827	14,5 - 21,499	147,0	137,0	50,0	82,0	20,0
PMX12T-FL-10400-25N1	03002829	21,5 - 32,499	179,0	167,0	56,0	104,0	25,0
PMX16T-FL-12700-32N1	03002831	32,5 - 60,5	214,0	200,0	60,0	127,0	32,0

Spare Parts, included in delivery

For shank	For ∅ (mm)	Clamp key	Coolant ring
			
PMX05T	7,750-9,900	1.5SMS795	RT05-KI
PMX06T	9,901-14,499	2SMS795	RT06-KI
PMX08T	14,50-21,499	2.5SMS795	RT08-KI
PMX12T	21,50-32,499	4SMS795	RT12-KI
PMX16T	32,50-60,000	5SMS795	–

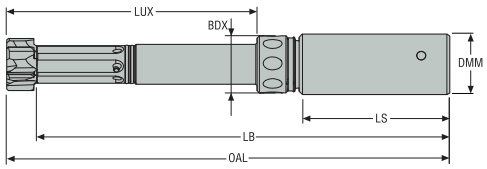
Accessories

For ∅ (mm)	Shank Size	Item number	Torque key	Item number	Replacement blade	Item number	Torque key	Item number	Replacement blade	Torque value
										
7,750-9,900	PMX05	03178196	H00-1505-27	03178237	H00-1.5-27	–	–	–	–	0,5 Nm
9,901-14,499	PMX06	03178197	H00-2009-33	03178238	H00-2.0-33	–	–	–	–	0,9 Nm
14,500-21,499	PMX08	03178199	H00-2512-40	03178240	H00-2.5-40	–	–	–	–	1,2 Nm
21,500-32,499	PMX12	03178201	H00-4020-60	03178242	H00-4.0-60	–	–	–	–	2,0 Nm
32,500-60,500	PMX16	–	–	–	–	03271887	H00T-5050	02506761	H00T-5,0	5,0 Nm

Note: Repair clamp kit PMxx-CLKI are not suitable for PMX FL & AD type

Floating shanks for blind holes

∅ 7,75-60,500 mm / *0.305-2.381”*





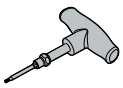
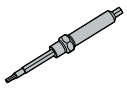
- For choice of geometry, please see page(s) 338-341
- For cutting data see page(s) 360-367

Designation	Item number	DC	OAL	LB	LS	LUX	DMM
		mm	mm	mm	mm	mm	mm
PMX05B-FL-04100-16N1	03271916	7,75 - 9,9	102,0	96,0	48,0	41,0	16,0
PMX06B-FL-05700-16N1	03002826	9,901 - 14,499	117,0	110,0	48,0	57,0	16,0
PMX08B-FL-08200-20N1	03002828	14,5 - 21,499	147,0	137,0	50,0	82,0	20,0
PMX12B-FL-10400-25N1	03002830	21,5 - 32,499	179,0	167,0	56,0	104,0	25,0
PMX16B-FL-12700-32N1	03002832	32,5 - 60,5	214,0	200,0	60,0	127,0	32,0

Spare Parts, included in delivery

For shank	For ∅ (mm)	Clamp key
		
PMX05B	7,750-9,900	1.5SMS795
PMX06B	9,901-14,499	2SMS795
PMX08B	14,50-21,499	2.5SMS795
PMX12B	21,50-32,499	4SMS795
PMX16B	32,50-60,500	5SMS795

Accessories

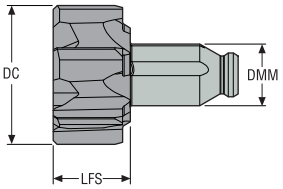
For ∅ (mm)	Shank Size	Item number	Torque key	Item number	Replacement blade	Item number	Torque key	Item number	Replacement blade	Torque value
										
7,750-9,900	PMX05	03178196	H00-1505-27	03178237	H00-1.5-27	–	–	–	–	0,5 Nm
9,901-14,499	PMX06	03178197	H00-2009-33	03178238	H00-2.0-33	–	–	–	–	0,9 Nm
14,500-21,499	PMX08	03178199	H00-2512-40	03178240	H00-2.5-40	–	–	–	–	1,2 Nm
21,500-32,499	PMX12	03178201	H00-4020-60	03178242	H00-4.0-60	–	–	–	–	2,0 Nm
32,500-60,500	PMX16	–	–	–	–	03271887	H00T-5050	02506761	H00T-5,0	5,0 Nm

Note: Repair clamp kit PMxx-CLKI are not suitable for PMX FL & AD type

Heads for through and blind holes, Custom design

∅ 7,75-60,500 mm / *0.305-2.381”*





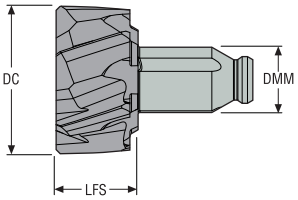
• For choice of geometry, please see page(s) 338-341
• For cutting data see page(s) 360-367

Designation	DCN	DCX	LFS	DMM		Body size	Geometries	Grades									
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*				H15	CP20	RX2000	RK2050	RK1550	CF	RX1500	RN2010	RM2020	RM2090	RS2090
PMX5-7.75-XX-XXXX	7,75 *0.305*	9,9 *0.390*	6,0 *0.236*	4,5 *0.177*	6	PMX05-xx	EB45 EB845 EB30	□	□	□	□	□	–	–	□	□	□	□
PMX5-10.0-XX-XXXX	9,901 *0.390*	14,499 *0.571*	7,0 *0.276*	6,0 *0.236*	6	PMX06-xx	EB45 EB845 EB30	□	□	□	□	□	□	□	□	□	□	□
PMX5-14.5-XX-XXXX	14,5 *0.571*	21,499 *0.846*	10,0 *0.394*	8,0 *0.315*	6	PMX08-xx	EB45 EB845 EB30	□	□	□	□	□	□	□	□	□	□	□
PMX5-21.5-XX-XXXX	21,5 *0.846*	32,499 *1.279*	12,0 *0.472*	12,0 *0.472*	8	PMX12-XX	EB45 EB845 EB30	□	□	□	□	□	□	□	□	□	□	□
PMX5-32.5-XX-XXXX	32,5 *1.280*	60,5 *2.382*	14,0 *0.551*	16,0 *0.630*	10	PMX16-xx	EB45 EB845 EB30	□	□	□	□	□	□	□	□	□	□	□

□= Non stock standard.
Note: When ordering Precimaster Plus reamers for intermediate diameters, please state diameter and tolerance of hole to be reamed.
Ordering example: PMX5-16.515 P7-EB45 RM2020. PMX6-16.515 P7-EB45 RM2020.

Heads for through holes, Custom design

∅ 7,75-60,500 mm / *0.305-2.381”*





- For choice of geometry, please see page(s) 338-341
- For cutting data see page(s) 360-367

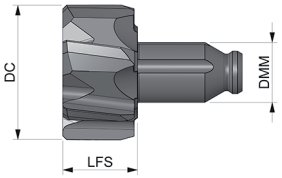
Designation	DCN	DCX	LFS	DMM		Body size	Geometries	Grades										
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*				H15	CP20	RX2000	RK2050	RK1550	CF	RX1500	RN2010	RM2020	RM2090	RS2090
PMX6-7.75-XX-XXXX	7,75 *0.305*	9,9 *0.390*	6,0 *0.236*	4,5 *0.177*	6	PMX05-xx	EB45 EB845 EB30	□	□	□	□	□	–	–	□	□	□	□
PMX6-10.0-XX-XXXX	9,901 *0.390*	14,499 *0.571*	7,0 *0.276*	6,0 *0.236*	6	PMX06-xx	EB45 EB845 EB30	□	□	□	□	□	□	□	□	□	□	□
PMX6-14.5-XX-XXXX	14,5 *0.571*	21,499 *0.846*	10,0 *0.394*	8,0 *0.315*	6	PMX08-xx	EB45 EB845 EB30	□	□	□	□	□	□	□	□	□	□	□
PMX6-21.5-XX-XXXX	21,5 *0.846*	32,499 *1.279*	12,0 *0.472*	12,0 *0.472*	8	PMX12-XX	EB45 EB845 EB30	□	□	□	□	□	□	□	□	□	□	□
PMX6-32.5-XX-XXXX	32,5 *1.280*	60,5 *2.382*	14,0 *0.551*	16,0 *0.630*	10	PMX16-xx	EB45 EB845 EB30	□	□	□	□	□	□	□	□	□	□	□

□= Non stock standard.
Note: When ordering Precimaster Plus reamers for intermediate diameters, please state diameter and tolerance of hole to be reamed.
Ordering example: PMX6-16.515 P7-EB45 RM2020.

Heads for blind holes, Custom design

∅ 7,75-60,500 mm / *0.305-2.381”*





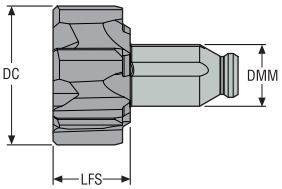
• For choice of geometry, please see page(s) 338-341
• For cutting data see page(s) 360-367

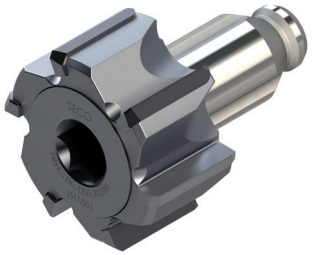
Designation	DCN	DCX	LFS	DMM		Body size	Geometries	Grades									
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*				H15	CP20	RX2000	RK2050	RK1550	CF	RX1500	RN2010	RM2020	RM2090	RS2090
PMX4-7.75-XX-XXXX	7,75 *0.305*	9,9 *0.390*	6,0 *0.236*	4,5 *0.177*	6	PMX05-xx	EB45 EB84 EB30	□	□	□	□	□	–	–	□	□	□	□
PMX4-10.0-XX-XXXX	9,901 *0.390*	14,499 *0.571*	7,0 *0.276*	6,0 *0.236*	6	PMX06-xx	EB45 EB84 EB30	□	□	□	□	□	□	□	□	□	□	□
PMX4-14.5-XX-XXXX	14,5 *0.571*	21,499 *0.846*	10,0 *0.394*	8,0 *0.315*	6	PMX08-xx	EB45 EB84 EB30	□	□	□	□	□	□	□	□	□	□	□
PMX4-21.5-XX-XXXX	21,5 *0.846*	32,499 *1.279*	12,0 *0.472*	12,0 *0.472*	8	PMX12-xx	EB45 EB84 EB30	□	□	□	□	□	□	□	□	□	□	□
PMX4-32.5-XX-XXXX	32,5 *1.280*	60,5 *2.382*	14,0 *0.551*	16,0 *0.630*	10	PMX16-xx	EB45 EB84 EB30	□	□	□	□	□	□	□	□	□	□	□

□= Non stock standard.
Note: When ordering Precimaster Plus reamers for intermediate diameters, please state diameter and tolerance of hole to be reamed.
Ordering example: PMX4-16.515 P7-EB45 RM2020.

Expandable heads for through and blind holes

∅ 10,00-32,500 mm / *0.393-1.279”*





- For choice of geometry, please see page(s) 338-341
- For cutting data see page(s) 360-367

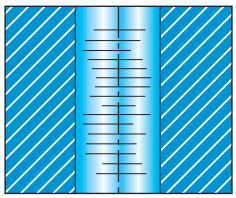
Designation	DCN	DCX	LFS	DMM		Body size	Geometries	Grades										
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*				H15	CP20	RX2000	RK2050	RK1550	CF	RX1500	RN2010	RM2020	RM2090	RS2090
PMX8-10.0-XX-XXXX	10,0 *0.394*	14,499 *0.571*	7,0 *0.276*	6,0 *0.236*	6	PMX06-xx	EB45 EB845 EB30	□	□	□	□	□	□	□	□	□	□	□
PMX8-14.5-XX-XXXX	14,5 *0.571*	21,499 *0.846*	10,0 *0.394*	8,0 *0.315*	6	PMX08-xx	EB45 EB845 EB30	□	□	□	□	□	□	□	□	□	□	□
PMX8-21.5-XX-XXXX	21,5 *0.846*	32,499 *1.279*	12,0 *0.472*	12,0 *0.472*	8	PMX12-xx	EB45 EB845 EB30	□	□	□	□	□	□	□	□	□	□	□

□= **Non stock standard.**
Note: When ordering Precimaster Plus reamers for intermediate diameters, please state diameter and tolerance of hole to be reamed.
Ordering example: PMX8-16.515 P7-EB45 RM2020.

Troubleshooting

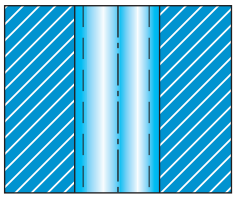
Poor surface finish

- Check material allowance
- Improve coolant conditions (outlet type, pressure, quality)
- Reduce feed rate



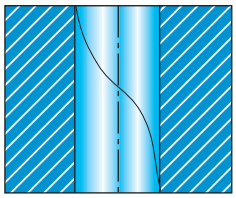
Too large diameter

- Improve centering (part/tool)



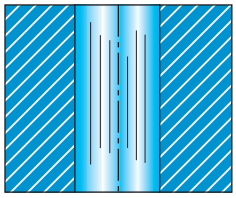
Retraction marks

- Improve coolant conditions (outlet type, pressure, quality)
- Improve centering (part/tool)
- Reduce feed-out speed



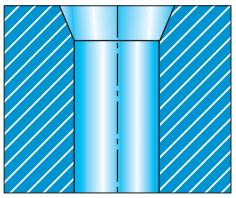
Facets

- Improve centering (part/tool)
- Check material allowance



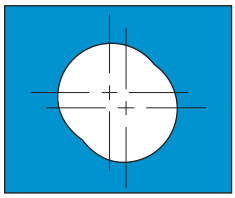
Tapered entry

- Reduce feed rate
- Improve centering (part/tool)
- Reduce radial run-out



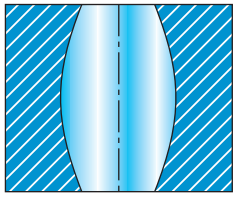
Off center/Ovality

- Improve clamping (workpiece deformation)
- Check material allowance
- Improve centering (part/tool



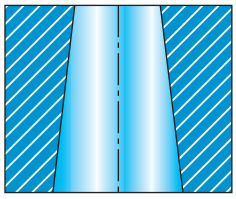
Deformed hole

- Improve clamping (workpiece deformation)



Tapered hole

- Improve centering (part/tool)



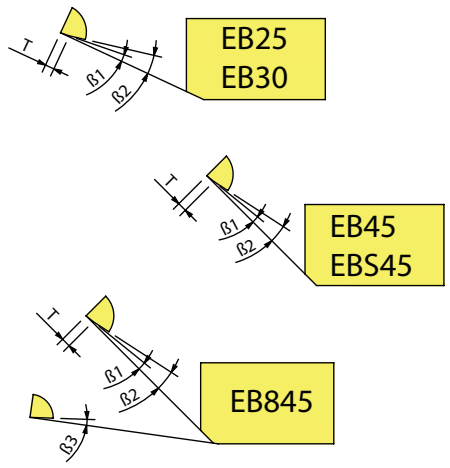
Regrinding instructions

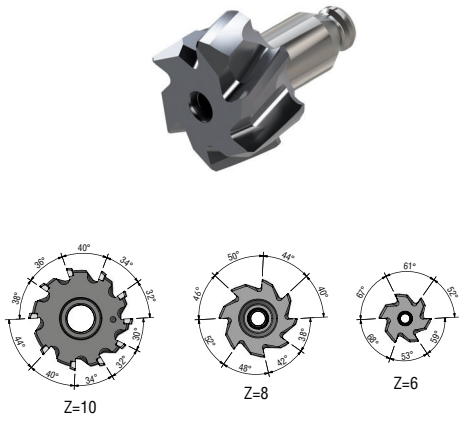
Specifications

Diamond grinding wheel
Grain size:
D6 – For first clearance angle (β1–β3)
D64 – For second clearance angle (β2)

Important:

Regrinding reduces reamer diameter
Recoating may produce oversized diameter
Max run-out on lead chamfers 10 µm *(394 µin)*





∅ **Precimaster Plus mm** *(inch)*	β_1	β_2	β_3	**T mm** *(inch)*
7,75–9,999 *(0.3151–0.3937)*	8°	18°	8°	0,20 *(0.008)*
10,00–14,499 *(0.3937–0.5708)*	8°	18°	8°	0,20 *(0.008)*
14,500–21,499 *(0.5709–0.8464)*	8°	18°	8°	0,20 *(0.008)*
21,500–32,499 *(0.8465–1.2795)*	8°	18°	8°	0,25 *(0.010)*
32,500–60,499 *(1.2795–2.3819)*	8°	15°	8°	0,30 *(0.012)*

Cutting data – PM Plus... -EB45 metric

SMG		a_p (∅)		f			v_c										
		z=6	z=8 z=10	z=6	z=8	z=10	H15	CP20	RX2000	RK2050	CF	RX1500	RK1550	RN2010	RM2020	RM2090	RS2090
P1	PMXxx ..6 ..8 -EB45	0,10 -0,20	0,10 -0,30	0,30 -0,90	0,40 -1,20	0,50 -1,50	25 (15-30)	60 (30-100)	80 (30-150)	-	180 (90-200)	220 (120-300)	-	-	-	-	-
P2	PMXxx ..6 ..8 -EB45	0,10 -0,20	0,10 -0,30	0,30 -0,90	0,40 -1,20	0,50 -1,50	25 (15-30)	60 (30-100)	80 (30-150)	-	180 (90-200)	220 (120-300)	-	-	-	-	-
P3	PMXxx ..6 ..8 -EB45	0,10 -0,20	0,10 -0,30	0,30 -0,90	0,40 -1,20	0,50 -1,50	25 (15-30)	60 (30-100)	80 (30-150)	-	180 (90-200)	220 (120-300)	-	-	-	-	-
P4	PMXxx ..6 ..8 -EB45	0,10 -0,20	0,10 -0,30	0,20 -0,70	0,30 -1,00	0,40 -1,20	20 (10-25)	50 (30-80)	60 (30-120)	-	120 (80-150)	180 (90-200)	-	-	-	-	-
P5	PMXxx ..6 ..8 -EB45	0,10 -0,20	0,10 -0,30	0,20 -0,70	0,30 -1,00	0,40 -1,20	20 (10-25)	50 (30-80)	60 (30-120)	-	120 (80-150)	180 (90-200)	-	-	-	-	-
P6	PMXxx ..6 ..8 -EB45	0,10 -0,20	0,10 -0,30	0,20 -0,70	0,30 -1,00	0,40 -1,20	20 (10-25)	50 (30-80)	60 (30-120)	-	120 (80-150)	180 (90-200)	-	-	-	-	-
P7	PMXxx ..6 ..8 -EB45	0,10 -0,20	0,10 -0,30	0,20 -0,70	0,30 -1,00	0,40 -1,20	20 (10-25)	50 (30-80)	60 (30-120)	-	120 (80-150)	180 (90-200)	-	-	-	-	-
P8	PMXxx ..6 ..8 -EB45	0,10 -0,20	0,10 -0,30	0,20 -0,70	0,30 -1,00	0,40 -1,20	15 (10-20)	35 (20-60)	40 (20-80)	-	80 (60-120)	120 (80-180)	-	-	-	-	-
P11	PMXxx ..6 ..8 -EB45	0,10 -0,20	0,10 -0,30	0,20 -0,70	0,30 -1,00	0,40 -1,20	15 (10-20)	35 (20-60)	40 (20-80)	-	80 (60-120)	120 (80-180)	-	-	-	-	-
P12	PMXxx ..6 ..8 -EB45	0,10 -0,20	0,10 -0,30	0,20 -0,70	0,30 -1,00	0,40 -1,20	12 (8-15)	25 (15-45)	30 (15-65)	-	65 (45-95)	95 (65-145)	-	-	-	-	-
M1	PMXxx ..6 ..8 -EB45	0,08 -0,15	0,10 -0,20	0,20 -0,60	0,30 -0,80	0,40 -1,00	12 (9-15)	25 (15-45)	35 (20-70)	-	-	-	-	-	25 (15-40)	40 (25-80)	-
M2	PMXxx ..6 ..8 -EB45	0,08 -0,15	0,10 -0,20	0,20 -0,60	0,30 -0,80	0,40 -1,00	-	25 (15-45)	35 (20-70)	-	-	-	-	-	25 (15-40)	40 (25-80)	-
M3	PMXxx ..6 ..8 -EB45	0,08 -0,15	0,10 -0,20	0,20 -0,60	0,30 -0,80	0,40 -1,00	-	25 (15-45)	35 (20-70)	-	-	-	-	-	25 (15-40)	40 (25-80)	-
M4	PMXxx ..6 ..8 -EB45	0,08 -0,15	0,10 -0,20	0,20 -0,60	0,30 -0,80	0,40 -1,00	-	20 (10-30)	25 (15-50)	-	-	-	-	-	20 (10-30)	30 (20-60)	-
M5	PMXxx ..6 ..8 -EB45	0,08 -0,15	0,10 -0,20	0,20 -0,60	0,30 -0,80	0,40 -1,00	-	20 (10-30)	25 (15-50)	-	-	-	-	-	20 (10-30)	30 (20-60)	-
K1	PMXxx ..6 ..8 -EB45	0,10 -0,20	0,10 -0,25	0,30 -0,90	0,40 -1,20	0,50 -1,50	25 (15-30)	60 (40-100)	80 (30-150)	90 (35-170)	-	220 (120-300)	245 (135-335)	-	-	-	-
K2	PMXxx ..6 ..8 -EB45	0,10 -0,20	0,10 -0,25	0,30 -0,90	0,40 -1,20	0,50 -1,50	-	25 (20-40)	40 (30-70)	45 (35-80)	-	80 (50-100)	90 (55-110)	-	-	-	-
K3	PMXxx ..6 ..8 -EB45	0,10 -0,20	0,10 -0,25	0,30 -0,90	0,40 -1,20	0,50 -1,50	25 (15-30)	60 (40-100)	80 (30-150)	90 (35-170)	-	220 (120-300)	245 (135-335)	-	-	-	-
K4	PMXxx ..6 ..8 -EB45	0,10 -0,20	0,10 -0,25	0,30 -0,90	0,40 -1,20	0,50 -1,50	25 (15-30)	45 (30-70)	70 (40-120)	80 (45-135)	100 (70-150)	150 (80-200)	170 (90-225)	-	-	-	-
K5	PMXxx ..6 ..8 -EB45	0,10 -0,20	0,10 -0,25	0,30 -0,90	0,40 -1,20	0,50 -1,50	25 (15-30)	45 (30-70)	70 (40-120)	80 (45-135)	100 (70-150)	150 (80-200)	170 (90-225)	-	-	-	-
K6	PMXxx ..6 ..8 -EB45	0,10 -0,20	0,10 -0,25	0,30 -0,90	0,40 -1,20	0,50 -1,50	-	60 (40-100)	80 (30-150)	90 (35-170)	-	220 (120-300)	245 (135-335)	-	-	-	-
K7	PMXxx ..6 ..8 -EB45	0,10 -0,20	0,10 -0,25	0,30 -0,90	0,40 -1,20	0,50 -1,50	-	60 (40-100)	80 (30-150)	90 (35-170)	-	220 (120-300)	245 (135-335)	-	-	-	-
N1	PMXxx ..6 ..8 -EB45	0,10 -0,20	0,10 -0,30	0,30 -0,90	0,40 -1,20	0,50 -1,50	50 (30-100)	-	80 (30-150)	-	-	-	-	50 (30-100)	-	-	-
N2	PMXxx ..6 ..8 -EB45	0,10 -0,20	0,10 -0,30	0,30 -0,90	0,40 -1,20	0,50 -1,50	50 (30-100)	-	80 (30-150)	-	-	-	-	50 (30-100)	-	-	-
N3	PMXxx ..6 ..8 -EB45	0,10 -0,20	0,10 -0,30	0,30 -0,90	0,40 -1,20	0,50 -1,50	50 (30-100)	-	80 (30-150)	-	-	-	-	50 (30-100)	-	-	-
N11	PMXxx ..6 ..8 -EB45	0,10 -0,20	0,10 -0,30	0,30 -0,90	0,40 -1,20	0,50 -1,50	50 (30-100)	-	80 (30-150)	-	-	-	-	50 (30-100)	-	-	-
S1	PMXxx ..6 ..8 -EB45	0,08 -0,15	0,10 -0,15	0,20 -0,60	0,30 -0,80	0,40 -1,00	-	20 (10-25)	20 (10-25)	-	-	-	-	-	-	-	25 (12-30)
S2	PMXxx ..6 ..8 -EB45	0,08 -0,15	0,10 -0,15	0,20 -0,60	0,30 -0,80	0,40 -1,00	-	20 (10-25)	20 (10-25)	-	-	-	-	-	-	-	25 (12-30)
S3	PMXxx ..6 ..8 -EB45	0,08 -0,15	0,10 -0,15	0,20 -0,60	0,30 -0,80	0,40 -1,00	-	20 (10-25)	20 (10-25)	-	-	-	-	-	-	-	25 (12-30)
S11	PMXxx ..6 ..8 -EB45	0,08 -0,15	0,10 -0,15	0,20 -0,60	0,30 -0,80	0,40 -1,00	20 (15-30)	30 (15-40)	40 (20-50)	-	-	-	-	-	-	-	50 (25-65)
S12	PMXxx ..6 ..8 -EB45	0,08 -0,15	0,10 -0,15	0,20 -0,60	0,30 -0,80	0,40 -1,00	20 (15-30)	30 (15-40)	40 (20-50)	-	-	-	-	-	-	-	50 (25-65)
S13	PMXxx ..6 ..8 -EB45	0,08 -0,15	0,10 -0,15	0,20 -0,60	0,30 -0,80	0,40 -1,00	20 (15-30)	30 (15-40)	40 (20-50)	-	-	-	-	-	-	-	50 (25-65)

The table continues on next page.

Cutting data – PM Plus... -EB45 metric

SMG		a_p (∅)		f			v_c										
		z=6	z=8 z=10	z=6	z=8	z=10	H15	CP20	RX2000	RK2050	CF	RX1500	RK1550	RN2010	RM2020	RM2090	RS2090
H3	PMXxx ..6 ..8 -EB45	0,08 -0,15	0,10 -0,15	0,20 -0,40	0,30 -0,60	0,40 -0,75	-	-	10 (8-15)	-	-	-	-	-	-	-	-
H5	PMXxx ..6 ..8 -EB45	0,08 -0,15	0,10 -0,15	0,20 -0,40	0,30 -0,60	0,40 -0,75	-	-	10 (8-15)	-	-	-	-	-	-	-	-
H7	PMXxx ..6 ..8 -EB45	0,08 -0,15	0,10 -0,15	0,20 -0,40	0,30 -0,60	0,40 -0,75	-	-	10 (8-15)	-	-	-	-	-	-	-	-
H8	PMXxx ..6 ..8 -EB45	0,08 -0,15	0,10 -0,15	0,20 -0,40	0,30 -0,60	0,40 -0,75	-	-	10 (8-15)	-	-	-	-	-	-	-	-
H11	PMXxx ..6 ..8 -EB45	0,08 -0,15	0,10 -0,15	0,20 -0,40	0,30 -0,60	0,40 -0,75	-	-	10 (8-15)	-	-	-	-	-	-	-	-
H12	PMXxx ..6 ..8 -EB45	0,08 -0,15	0,10 -0,15	0,20 -0,40	0,30 -0,60	0,40 -0,75	-	-	10 (8-15)	-	-	-	-	-	-	-	-
H21	PMXxx ..6 ..8 -EB45	0,08 -0,15	0,10 -0,15	0,20 -0,40	0,30 -0,60	0,40 -0,75	-	-	10 (8-15)	-	-	-	-	-	-	-	-
H31	PMXxx ..6 ..8 -EB45	0,08 -0,15	0,10 -0,15	0,20 -0,40	0,30 -0,60	0,40 -0,75	-	-	10 (8-15)	-	-	-	-	-	-	-	-
PM1	PMXxx ..6 ..8 -EB45	0,10- 0,20	0,10 -0,30	0,30 -0,90	0,40 -1,20	0,50 -1,50	-	50 (30-80)	70 (40-100)	-	-	-	-	-	-	-	-
PM2	PMXxx ..6 ..8 -EB45	0,10- 0,20	0,10 -0,30	0,30 -0,90	0,40 -1,20	0,50 -1,50	-	50 (30-80)	70 (40-100)	-	-	-	-	-	-	-	-
PM3	PMXxx ..6 ..8 -EB45	0,10- 0,20	0,10 -0,30	0,30 -0,90	0,40 -1,20	0,50 -1,50	-	50 (30-80)	70 (40-100)	-	-	-	-	-	-	-	-
TS1	PMXxx ..6 ..8 -EB45	0,10 -0,15	0,10 -0,20	0,30 -0,90	0,40 -1,20	0,50 -1,50	20 (15-25)	-	40 (20-60)	-	-	-	-	-	-	-	-
TS2	PMXxx ..6 ..8 -EB45	0,10 -0,15	0,10 -0,20	0,30 -0,90	0,40 -1,20	0,50 -1,50	20 (15-25)	-	40 (20-60)	-	-	-	-	-	-	-	-
TS3	PMXxx ..6 ..8 -EB45	0,10 -0,15	0,10 -0,20	0,30 -0,90	0,40 -1,20	0,50 -1,50	20 (15-25)	-	40 (20-60)	-	-	-	-	-	-	-	-
TS4	PMXxx ..6 ..8 -EB45	0,10 -0,15	0,10 -0,20	0,30 -0,90	0,40 -1,20	0,50 -1,50	20 (15-25)	-	40 (20-60)	-	-	-	-	-	-	-	-
TP1	PMXxx ..6 ..8 -EB45	0,10 -0,15	0,10 -0,20	0,30 -0,90	0,40 -1,20	0,50 -1,50	20 (15-25)	-	40 (20-60)	-	-	-	-	-	-	-	-
TP2	PMXxx ..6 ..8 -EB45	0,10 -0,15	0,10 -0,20	0,30 -0,90	0,40 -1,20	0,50 -1,50	20 (15-25)	-	40 (20-60)	-	-	-	-	-	-	-	-
TP3	PMXxx ..6 ..8 -EB45	0,10 -0,15	0,10 -0,20	0,30 -0,90	0,40 -1,20	0,50 -1,50	20 (15-25)	-	40 (20-60)	-	-	-	-	-	-	-	-
TP4	PMXxx ..6 ..8 -EB45	0,10 -0,15	0,10 -0,20	0,30 -0,90	0,40 -1,20	0,50 -1,50	20 (15-25)	-	40 (20-60)	-	-	-	-	-	-	-	-
GR1	PMXxx ..6 ..8 -EB45	0,10 -0,30	0,10 -0,40	0,30 -0,90	0,40 -1,20	0,50 -1,50	40 (80-20)	-	60 (30-120)	-	-	-	-	-	-	-	-

SMG = Seco material group
a_p = mm
f = mm/rev
v_c= m/min
All cutting data are start values

Cutting data – PM Plus...-EB45 *inch*

SMG		a_p (∅)		f			v_c										
		z=6	z=8 z=10	z=6	z=8	z=10	H15	CP20	RX2000	RK2050	CF	RX1500	RK1550	RN2010	RM2020	RM2090	RS2090
P1	PMXxx ..6 ..8 -EB45	.004 -.008	.004 -.012	.012 -.035	.016 -.047	.020 -.059	80 (50-100)	195 (100-330)	260 (100-490)	–	590 (295-655)	720 (395-985)	–	–	–	–	–
P2	PMXxx ..6 ..8 -EB45	.004 -.008	.004 -.012	.012 -.035	.016 -.047	.020 -.059	80 (50-100)	195 (100-330)	260 (100-490)	–	590 (295-655)	720 (395-985)	–	–	–	–	–
P3	PMXxx ..6 ..8 -EB45	.004 -.008	.004 -.012	.012 -.035	.016 -.047	.020 -.059	80 (50-100)	195 (100-330)	260 (100-490)	–	590 (295-655)	720 (395-985)	–	–	–	–	–
P4	PMXxx ..6 ..8 -EB45	.004 -.008	.004 -.012	.008 -.028	.012 -.039	.016 -.047	65 (35-80)	165 (100-260)	195 (100-395)	–	395 (260-490)	590 (295-655)	–	–	–	–	–
P5	PMXxx ..6 ..8 -EB45	.004 -.008	.004 -.012	.008 -.028	.012 -.039	.016 -.047	65 (35-80)	165 (100-260)	195 (100-395)	–	395 (260-490)	590 (295-655)	–	–	–	–	–
P6	PMXxx ..6 ..8 -EB45	.004 -.008	.004 -.012	.008 -.028	.012 -.039	.016 -.047	65 (35-80)	165 (100-260)	195 (100-395)	–	395 (260-490)	590 (295-655)	–	–	–	–	–
P7	PMXxx ..6 ..8 -EB45	.004 -.008	.004 -.012	.008 -.028	.012 -.039	.016 -.047	65 (35-80)	165 (100-260)	195 (100-395)	–	395 (260-490)	590 (295-655)	–	–	–	–	–
P8	PMXxx ..6 ..8 -EB45	.004 -.008	.004 -.012	.008 -.028	.012 -.039	.016 -.047	50 (35-65)	115 (65-195)	130 (65-260)	–	260 (195-395)	395 (260-590)	–	–	–	–	–
P11	PMXxx ..6 ..8 -EB45	.004 -.008	.004 -.012	.008 -.028	.012 -.039	.016 -.047	50 (35-65)	115 (65-195)	130 (65-260)	–	260 (195-395)	395 (260-590)	–	–	–	–	–
P12	PMXxx ..6 ..8 -EB45	.004 -.008	.004 -.008	.008 -.028	.012 -.039	.016 -.047	40 (25-50)	80 (50-130)	100 (50-215)	–	215 (150-315)	315 (215-480)	–	–	–	–	–
M1	PMXxx ..6 ..8 -EB45	.003 -.006	.004 -.008	.008 -.024	.012 -.031	.016 -.039	40 (30-50)	80 (50-130)	115 (65-230)	–	–	–	–	–	80 (50-130)	130 (80-260)	–
M2	PMXxx ..6 ..8 -EB45	.003 -.006	.004 -.008	.008 -.024	.012 -.031	.016 -.039	–	80 (50-130)	115 (65-230)	–	–	–	–	–	80 (50-130)	130 (80-260)	–
M3	PMXxx ..6 ..8 -EB45	.003 -.006	.004 -.008	.008 -.024	.012 -.031	.016 -.039	–	80 (50-130)	115 (65-230)	–	–	–	–	–	80 (50-130)	130 (80-260)	–
M4	PMXxx ..6 ..8 -EB45	.003 -.006	.004 -.008	.008 -.024	.012 -.031	.016 -.039	–	65 (35-100)	80 (50-165)	–	–	–	–	–	65 (35-100)	100 (65-195)	–
M5	PMXxx ..6 ..8 -EB45	.003 -.006	.004 -.008	.008 -.024	.012 -.031	.016 -.039	–	65 (35-100)	80 (50-165)	–	–	–	–	–	65 (35-100)	100 (65-195)	–
K1	PMXxx ..6 ..8 -EB45	.004 -.008	.004 -.010	.012 -.035	.016 -.047	.020 -.059	80 (50-100)	195 (130-330)	260 (100-490)	290 (110-550)	–	720 (395-985)	805 (440-1105)	–	–	–	–
K2	PMXxx ..6 ..8 -EB45	.004 -.008	.004 -.010	.012 -.035	.016 -.047	.020 -.059	–	80 (65-130)	130 (100-230)	145 (110-260)	–	260 (165-330)	290 (185-370)	–	–	–	–
K3	PMXxx ..6 ..8 -EB45	.004 -.008	.004 -.010	.012 -.035	.016 -.047	.020 -.059	80 (50-100)	195 (130-330)	260 (100-490)	290 (110-550)	–	720 (395-985)	805 (440-1105)	–	–	–	–
K4	PMXxx ..6 ..8 -EB45	.004 -.008	.004 -.010	.012 -.035	.016 -.047	.020 -.059	80 (50-100)	150 (100-230)	230 (130-395)	260 (145-440)	330 (230-490)	490 (260-655)	550 (290-735)	–	–	–	–
K5	PMXxx ..6 ..8 -EB45	.004 -.008	.004 -.010	.012 -.035	.016 -.047	.020 -.059	80 (50-100)	150 (100-230)	230 (130-395)	260 (145-440)	330 (230-490)	490 (260-655)	550 (290-735)	–	–	–	–
K6	PMXxx ..6 ..8 -EB45	.004 -.008	.004 -.010	.012 -.035	.016 -.047	.020 -.059	–	195 (130-330)	260 (100-490)	290 (110-550)	–	720 (395-985)	805 (440-1105)	–	–	–	–
K7	PMXxx ..6 ..8 -EB45	.004 -.008	.004 -.010	.012 -.035	.016 -.047	.020 -.059	–	195 (130-330)	260 (100-490)	290 (110-550)	–	720 (395-985)	805 (440-1105)	–	–	–	–
N1	PMXxx ..6 ..8 -EB45	.004 -.008	.004 -.012	.012 -.035	.016 -.047	.020 -.059	165 (100-330)	–	260 (100-490)	–	–	–	–	165 (100-330)	–	–	–
N2	PMXxx ..6 ..8 -EB45	.004 -.008	.004 -.012	.012 -.035	.016 -.047	.020 -.059	165 (100-330)	–	260 (100-490)	–	–	–	–	165 (100-330)	–	–	–
N3	PMXxx ..6 ..8 -EB45	.004 -.008	.004 -.012	.012 -.035	.016 -.047	.020 -.059	165 (100-330)	–	260 (100-490)	–	–	–	–	165 (100-330)	–	–	–
N11	PMXxx ..6 ..8 -EB45	.004 -.008	.004 -.012	.012 -.035	.016 -.047	.020 -.059	165 (100-330)	–	260 (100-490)	–	–	–	–	165 (100-330)	–	–	–
S1	PMXxx ..6 ..8 -EB45	.003 -.006	.004 -.006	.008 -.024	.012 -.031	.016 -.039	–	65 (35-80)	65 (35-80)	–	–	–	–	–	–	–	80 (40-100)
S2	PMXxx ..6 ..8 -EB45	.003 -.006	.004 -.006	.008 -.024	.012 -.031	.016 -.039	–	65 (35-80)	65 (35-80)	–	–	–	–	–	–	–	80 (40-100)
S3	PMXxx ..6 ..8 -EB45	.003 -.006	.004 -.006	.008 -.024	.012 -.031	.016 -.039	–	65 (35-80)	65 (35-80)	–	–	–	–	–	–	–	80 (40-100)
S11	PMXxx ..6 ..8 -EB45	.003 -.006	.004 -.006	.008 -.024	.012 -.031	.016 -.039	65 (50-100)	100 (50-130)	130 (65-165)	–	–	–	–	–	–	–	165 (80-215)
S12	PMXxx ..6 ..8 -EB45	.003 -.006	.004 -.006	.008 -.024	.012 -.031	.016 -.039	65 (50-100)	100 (50-130)	130 (65-165)	–	–	–	–	–	–	–	165 (80-215)
S13	PMXxx ..6 ..8 -EB45	.003 -.006	.004 -.006	.008 -.024	.012 -.031	.016 -.039	65 (50-100)	100 (50-130)	130 (65-165)	–	–	–	–	–	–	–	165 (80-215)

The table continues on next page.

Cutting data – PM Plus...-EB45 *inch*

SMG		a_p (∅)		f			v_c										
		z=6	z=8 z=10	z=6	z=8	z=10	H15	CP20	RX2000	RK2050	CF	RX1500	RK1550	RN2010	RM2020	RM2090	RS2090
H5	*PMXxx ..6 ..8 -EB45*	.003 -.006	.004 -.006	.008 -.016	.012 -.024	.016 -.030	–	–	35 (25-50)	–	–	–	–	-	-	-	-
H7	*PMXxx ..6 ..8 -EB45*	.003 -.006	.004 -.006	.008 -.016	.012 -.024	.016 -.030	–	–	35 (25-50)	–	–	–	–	-	-	-	-
H8	*PMXxx ..6 ..8 -EB45*	.003 -.006	.004 -.006	.008 -.016	.012 -.024	.016 -.030	–	–	35 (25-50)	–	–	–	–	-	-	-	-
H11	*PMXxx ..6 ..8 -EB45*	.003 -.006	.004 -.006	.008 -.016	.012 -.024	.016 -.030	–	–	35 (25-50)	–	–	–	–	-	-	-	-
H12	*PMXxx ..6 ..8 -EB45*	.003 -.006	.004 -.006	.008 -.016	.012 -.024	.016 -.030	–	–	35 (25-50)	–	–	–	–	-	-	-	-
H21	*PMXxx ..6 ..8 -EB45*	.003 -.006	.004 -.006	.008 -.016	.012 -.024	.016 -.030	–	–	35 (25-50)	–	–	–	–	-	-	-	-
H31	*PMXxx ..6 ..8 -EB45*	.003 -.006	.004 -.006	.008 -.016	.012 -.024	.016 -.030	–	–	35 (25-50)	–	–	–	–	-	-	-	-
PM1	*PMXxx ..6 ..8 -EB45*	.004 -.008	.004 -.012	.012 -.035	.016 -.047	.020 -.059	–	165 (100-260)	230 (130-330)	–	–	–	–	-	-	-	-
PM2	*PMXxx ..6 ..8 -EB45*	.004 -.008	.004 -.012	.012 -.035	.016 -.047	.020 -.059	–	165 (100-260)	230 (130-330)	–	–	–	–	-	-	-	-
PM3	*PMXxx ..6 ..8 -EB45*	.004 -.008	.004 -.012	.012 -.035	.016 -.047	.020 -.059	–	165 (100-260)	230 (130-330)	–	–	–	–	-	-	-	-
TS1	*PMXxx ..6 ..8 -EB45*	.004 -.006	.004 -.008	.012 -.035	.016 -.047	.020 -.059	65 (50-80)	–	130 (65-195)	–	–	–	–	-	-	-	-
TS2	*PMXxx ..6 ..8 -EB45*	.004 -.006	.004 -.008	.012 -.035	.016 -.047	.020 -.059	65 (50-80)	–	130 (65-195)	–	–	–	–	-	-	-	-
TS3	*PMXxx ..6 ..8 -EB45*	.004 -.006	.004 -.008	.012 -.035	.016 -.047	.020 -.059	65 (50-80)	–	130 (65-195)	–	–	–	–	-	-	-	-
TS4	*PMXxx ..6 ..8 -EB45*	.004 -.006	.004 -.008	.012 -.035	.016 -.047	.020 -.059	65 (50-80)	–	130 (65-195)	–	–	–	–	-	-	-	-
TP1	*PMXxx ..6 ..8 -EB45*	.004 -.006	.004 -.008	.012 -.035	.016 -.047	.020 -.059	65 (50-80)	–	130 (65-195)	–	–	–	–	-	-	-	-
TP2	*PMXxx ..6 ..8 -EB45*	.004 -.006	.004 -.008	.012 -.035	.016 -.047	.020 -.059	65 (50-80)	–	130 (65-195)	–	–	–	–	-	-	-	-
TP3	*PMXxx ..6 ..8 -EB45*	.004 -.006	.004 -.008	.012 -.035	.016 -.047	.020 -.059	65 (50-80)	–	130 (65-195)	–	–	–	–	-	-	-	-
TP4	*PMXxx ..6 ..8 -EB45*	.004 -.006	.004 -.008	.012 -.035	.016 -.047	.020 -.059	65 (50-80)	–	130 (65-195)	–	–	–	–	-	-	-	-
GR1	*PMXxx ..6 ..8 -EB45*	.004 -.012	.004 -.016	.012 -.035	.016 -.047	.020 -.059	130 (260-65)	–	195 (100-395)	–	–	–	–	-	-	-	-

SMG = Seco material group
a_p = *inch*
f = in/rev
v_c= sf/min
All cutting data are start values

Cutting data – PM Plus...-EB845 metric

SMG		a_p (∅)		f			v_c									
		z=6	z=8 z=10	z=6	z=8	z=10	H15	CP20	RX2000	RK2050	CF	RX1500	RK1550	RM2020	RM2090	RS2090
P3	PMXxx ..6 ..8 -EB845	0,10 -0,20	0,10 -0,30	0,30 -0,90	0,40 -1,20	0,50 -1,50	25 (15-30)	60 (30-100)	80 (30-150)	–	180 (90-200)	220 (120-300)	–	–	–	–
P4	PMXxx ..6 ..8 -EB845	0,10 -0,20	0,10 -0,30	0,20 -0,70	0,30 -1,00	0,40 -1,20	20 (10-25)	50 (30-80)	60 (30-120)	–	120 (80-150)	180 (90-200)	–	–	–	–
P5	PMXxx ..6 ..8 -EB845	0,10 -0,20	0,10 -0,30	0,20 -0,70	0,30 -1,00	0,40 -1,20	20 (10-25)	50 (30-80)	60 (30-120)	–	120 (80-150)	180 (90-200)	–	–	–	–
P6	PMXxx ..6 ..8 -EB845	0,10 -0,20	0,10 -0,30	0,20 -0,70	0,30 -1,00	0,40 -1,20	20 (10-25)	50 (30-80)	60 (30-120)	–	120 (80-150)	180 (90-200)	–	–	–	–
P7	PMXxx ..6 ..8 -EB845	0,10 -0,20	0,10 -0,30	0,20 -0,70	0,30 -1,00	0,40 -1,20	20 (10-25)	50 (30-80)	60 (30-120)	–	120 (80-150)	180 (90-200)	–	–	–	–
P8	PMXxx ..6 ..8 -EB845	0,10 -0,20	0,10 -0,30	0,20 -0,70	0,30 -1,00	0,40 -1,20	15 (10-20)	35 (20-60)	40 (20-80)	–	80 (60-120)	120 (80-180)	–	–	–	–
P11	PMXxx ..6 ..8 -EB845	0,10 -0,20	0,10 -0,30	0,20 -0,70	0,30 -1,00	0,40 -1,20	15 (10-20)	35 (20-60)	40 (20-80)	–	80 (60-120)	120 (80-180)	–	–	–	–
P12	PMXxx ..6 ..8 -EB845	0,10 -0,20	0,10 -0,30	0,20 -0,70	0,30 -1,00	0,40 -1,20	12 (8-15)	25 (15-45)	30 (15-65)	–	65 (45-95)	95 (65-145)	–	–	–	–
M1	PMXxx ..6 ..8 -EB845	0,08 -0,15	0,10 -0,20	0,20 -0,60	0,30 -0,80	0,40 -1,00	12 (9-15)	25 (15-45)	35 (20-70)	–	–	–	–	25 (15-40)	35 (20-70)	–
M2	PMXxx ..6 ..8 -EB845	0,08 -0,15	0,10 -0,20	0,20 -0,60	0,30 -0,80	0,40 -1,00	–	25 (15-45)	35 (20-70)	–	–	–	–	25 (15-40)	35 (20-70)	–
M3	PMXxx ..6 ..8 -EB845	0,08 -0,15	0,10 -0,20	0,20 -0,60	0,30 -0,80	0,40 -1,00	–	25 (15-45)	35 (20-70)	–	–	–	–	25 (15-40)	35 (20-70)	–
M4	PMXxx ..6 ..8 -EB845	0,08 -0,15	0,10 -0,20	0,20 -0,60	0,30 -0,80	0,40 -1,00	–	20 (10-30)	25 (15-50)	–	–	–	–	20 (10-30)	25 (15-50)	–
M5	PMXxx ..6 ..8 -EB845	0,08 -0,15	0,10 -0,20	0,20 -0,60	0,30 -0,80	0,40 -1,00	–	20 (10-30)	25 (15-50)	–	–	–	–	20 (10-30)	25 (15-50)	–
K1	PMXxx ..6 ..8 -EB845	0,10 -0,20	0,10 -0,25	0,30 -0,90	0,40 -1,20	0,50 -1,50	25 (15-30)	60 (40-100)	80 (30-150)	90 (35-170)	–	220 (120-300)	245 (135-335)	–	–	–
K2	PMXxx ..6 ..8 -EB845	0,10 -0,20	0,10 -0,25	0,30 -0,90	0,40 -1,20	0,50 -1,50	–	25 (20-40)	40 (30-70)	45 (35-80)	–	80 (50-100)	90 (55-110)	–	–	–
K3	PMXxx ..6 ..8 -EB845	0,10 -0,20	0,10 -0,25	0,30 -0,90	0,40 -1,20	0,50 -1,50	25 (15-30)	60 (40-100)	80 (30-150)	90 (35-170)	–	220 (120-300)	245 (135-335)	–	–	–
K4	PMXxx ..6 ..8 -EB845	0,10 -0,20	0,10 -0,25	0,30 -0,90	0,40 -1,20	0,50 -1,50	25 (15-30)	45 (30-70)	70 (40-120)	80 (45-135)	100 (70-150)	150 (80-200)	170 (90-225)	–	–	–
K5	PMXxx ..6 ..8 -EB845	0,10 -0,20	0,10 -0,25	0,30 -0,90	0,40 -1,20	0,50 -1,50	25 (15-30)	45 (30-70)	70 (40-120)	80 (45-135)	100 (70-150)	150 (80-200)	170 (90-225)	–	–	–
K6	PMXxx ..6 ..8 -EB845	0,10 -0,20	0,10 -0,25	0,30 -0,90	0,40 -1,20	0,50 -1,50	–	60 (40-100)	80 (30-150)	90 (35-170)	–	220 (120-300)	245 (135-335)	–	–	–
K7	PMXxx ..6 ..8 -EB845	0,10 -0,20	0,10 -0,25	0,30 -0,90	0,40 -1,20	0,50 -1,50	–	60 (40-100)	80 (30-150)	90 (35-170)	–	220 (120-300)	245 (135-335)	–	–	–
S1	PMXxx ..6 ..8 -EB845	0,08 -0,15	0,10 -0,15	0,20 -0,60	0,30 -0,80	0,40 -1,00	–	20 (10-25)	20 (10-25)	–	–	–	–	–	–	25 (12-30)
S2	PMXxx ..6 ..8 -EB845	0,08 -0,15	0,10 -0,15	0,20 -0,60	0,30 -0,80	0,40 -1,00	–	20 (10-25)	20 (10-25)	–	–	–	–	–	–	25 (12-30)
S3	PMXxx ..6 ..8 -EB845	0,08 -0,15	0,10 -0,15	0,20 -0,60	0,30 -0,80	0,40 -1,00	–	20 (10-25)	20 (10-25)	–	–	–	–	–	–	25 (12-30)
S11	PMXxx ..6 ..8 -EB845	0,08 -0,15	0,10 -0,15	0,20 -0,60	0,30 -0,80	0,40 -1,00	20 (15-30)	30 (15-40)	40 (20-50)	–	–	–	–	–	–	50 (25-65)
S12	PMXxx ..6 ..8 -EB845	0,08 -0,15	0,10 -0,15	0,20 -0,60	0,30 -0,80	0,40 -1,00	20 (15-30)	30 (15-40)	40 (20-50)	–	–	–	–	–	–	50 (25-65)
S13	PMXxx ..6 ..8 -EB845	0,08 -0,15	0,10 -0,15	0,20 -0,60	0,30 -0,80	0,40 -1,00	20 (15-30)	30 (15-40)	40 (20-50)	–	–	–	–	–	–	50 (25-65)
H3	PMXxx ..6 ..8 -EB845	0,08 -0,15	0,10 -0,15	0,20 -0,40	0,30 -0,60	0,40 -0,75	–	–	10 (8-15)	–	–	–	–	–	–	–
H5	PMXxx ..6 ..8 -EB845	0,08 -0,15	0,10 -0,15	0,20 -0,40	0,30 -0,60	0,40 -0,75	–	–	10 (8-15)	–	–	–	–	–	–	–
H7	PMXxx ..6 ..8 -EB845	0,08 -0,15	0,10 -0,15	0,20 -0,40	0,30 -0,60	0,40 -0,75	–	–	10 (8-15)	–	–	–	–	–	–	–
H8	PMXxx ..6 ..8 -EB845	0,08 -0,15	0,10 -0,15	0,20 -0,40	0,30 -0,60	0,40 -0,75	–	–	10 (8-15)	–	–	–	–	–	–	–
H11	PMXxx ..6 ..8 -EB845	0,08 -0,15	0,10 -0,15	0,20 -0,40	0,30 -0,60	0,40 -0,75	–	–	10 (8-15)	–	–	–	–	–	–	–
H12	PMXxx ..6 ..8 -EB845	0,08 -0,15	0,10 -0,15	0,20 -0,40	0,30 -0,60	0,40 -0,75	–	–	10 (8-15)	–	–	–	–	–	–	–
H21	PMXxx ..6 ..8 -EB845	0,08 -0,15	0,10 -0,15	0,20 -0,40	0,30 -0,60	0,40 -0,75	–	–	10 (8-15)	–	–	–	–	–	–	–
H31	PMXxx ..6 ..8 -EB845	0,08 -0,15	0,10 -0,15	0,20 -0,40	0,30 -0,60	0,40 -0,75	–	–	10 (8-15)	–	–	–	–	–	–	–
PM1	PMXxx ..6 ..8 -EB845	0,10- 0,20	0,10 -0,30	0,30 -0,90	0,40 -1,20	0,50 -1,50	–	50 (30-80)	70 (40-100)	–	–	–	–	–	–	–
PM2	PMXxx ..6 ..8 -EB845	0,10- 0,20	0,10 -0,30	0,30 -0,90	0,40 -1,20	0,50 -1,50	–	50 (30-80)	70 (40-100)	–	–	–	–	–	–	–
PM3	PMXxx ..6 ..8 -EB845	0,10- 0,20	0,10 -0,30	0,30 -0,90	0,40 -1,20	0,50 -1,50	–	50 (30-80)	70 (40-100)	–	–	–	–	–	–	–

SMG = Seco material group
a_p = mm
f = mm/rev
v_c= m/min
All cutting data are start values

Cutting data – PM Plus...-EB845 *inch*

SMG		a_p (∅)		f			v_c									
		z=6	z=8 z=10	z=6	z=8	z=10	H15	CP20	RX2000	RK2050	CF	RX1500	RK1550	RM2020	RM2090	RS2090
P3	PMXxx ..6 ..8 -EB45	.004 -.008	.004 -.012	.012 -.035	.016 -.047	.020 -.059	80 (50-100)	195 (100-330)	260 (100-490)	–	590 (295-655)	720 (395-985)	–	–	–	–
P4	PMXxx ..6 ..8 -EB45	.004 -.008	.004 -.012	.008 -.028	.012 -.039	.016 -.047	65 (35-80)	165 (100-260)	195 (100-395)	–	395 (260-490)	590 (295-655)	–	–	–	–
P5	PMXxx ..6 ..8 -EB45	.004 -.008	.004 -.012	.008 -.028	.012 -.039	.016 -.047	65 (35-80)	165 (100-260)	195 (100-395)	–	395 (260-490)	590 (295-655)	–	–	–	–
P6	PMXxx ..6 ..8 -EB45	.004 -.008	.004 -.012	.008 -.028	.012 -.039	.016 -.047	65 (35-80)	165 (100-260)	195 (100-395)	–	395 (260-490)	590 (295-655)	–	–	–	–
P7	PMXxx ..6 ..8 -EB45	.004 -.008	.004 -.012	.008 -.028	.012 -.039	.016 -.047	65 (35-80)	165 (100-260)	195 (100-395)	–	395 (260-490)	590 (295-655)	–	–	–	–
P8	PMXxx ..6 ..8 -EB45	.004 -.008	.004 -.012	.008 -.028	.012 -.039	.016 -.047	50 (35-65)	115 (65-195)	130 (65-260)	–	260 (195-395)	395 (260-590)	–	–	–	–
P11	PMXxx ..6 ..8 -EB45	.004 -.008	.004 -.012	.008 -.028	.012 -.039	.016 -.047	50 (35-65)	115 (65-195)	130 (65-260)	–	260 (195-395)	395 (260-590)	–	–	–	–
P12	PMXxx ..6 ..8 -EB45	.004 -.008	.004 -.012	.008 -.028	.012 -.039	.016 -.047	40 (25-50)	80 (50-130)	100 (50-215)	–	215 (150-315)	315 (215-480)	–	–		
M1	PMXxx ..6 ..8 -EB45	.003 -.006	.004 -.008	.008 -.024	.012 -.031	.016 -.039	40 (30-50)	80 (50-130)	115 (65-230)	–	–	–	–	80 (50-130)	115 (65-230)	–
M2	PMXxx ..6 ..8 -EB45	.003 -.006	.004 -.008	.008 -.024	.012 -.031	.016 -.039	–	80 (50-130)	115 (65-230)	–	–	–	–	80 (50-130)	115 (65-230)	–
M3	PMXxx ..6 ..8 -EB45	.003 -.006	.004 -.008	.008 -.024	.012 -.031	.016 -.039	–	80 (50-130)	115 (65-230)	–	–	–	–	80 (50-130)	115 (65-230)	–
M4	PMXxx ..6 ..8 -EB45	.003 -.006	.004 -.008	.008 -.024	.012 -.031	.016 -.039	–	65 (35-100)	80 (50-165)	–	–	–	–	65 (35-100)	80 (50-165)	–
M5	PMXxx ..6 ..8 -EB45	.003 -.006	.004 -.008	.008 -.024	.012 -.031	.016 -.039	–	65 (35-100)	80 (50-165)	–	–	–	–	65 (35-100)	80 (50-165)	–
K1	PMXxx ..6 ..8 -EB45	.004 -.008	.004 -.010	.012 -.035	.016 -.047	.020 -.059	80 (50-100)	195 (130-330)	260 (100-490)	290 (110-550)	–	720 (395-985)	805 (440-1105)	–	–	–
K2	PMXxx ..6 ..8 -EB45	.004 -.008	.004 -.010	.012 -.035	.016 -.047	.020 -.059	–	80 (65-130)	130 (100-230)	145 (110-260)	–	260 (165-330)	290 (185-370)	–	–	–
K3	PMXxx ..6 ..8 -EB45	.004 -.008	.004 -.010	.012 -.035	.016 -.047	.020 -.059	80 (50-100)	195 (130-330)	260 (100-490)	290 (110-550)	–	720 (395-985)	805 (440-1105)	–	–	–
K4	PMXxx ..6 ..8 -EB45	.004 -.008	.004 -.010	.012 -.035	.016 -.047	.020 -.059	80 (50-100)	150 (100-230)	230 (130-395)	260 (145-440)	330 (230-490)	490 (260-655)	550 (290-735)	–	–	–
K5	PMXxx ..6 ..8 -EB45	.004 -.008	.004 -.010	.012 -.035	.016 -.047	.020 -.059	80 (50-100)	150 (100-230)	230 (130-395)	260 (145-440)	330 (230-490)	490 (260-655)	550 (290-735)	–	–	–
K6	PMXxx ..6 ..8 -EB45	.004 -.008	.004 -.010	.012 -.035	.016 -.047	.020 -.059	–	195 (130-330)	260 (100-490)	290 (110-550)	–	720 (395-985)	805 (440-1105)	–	–	–
K7	PMXxx ..6 ..8 -EB45	.004 -.008	.004 -.010	.012 -.035	.016 -.047	.020 -.059	–	195 (130-330)	260 (100-490)	290 (110-550)	–	720 (395-985)	805 (440-1105)	–	–	-
S1	PMXxx ..6 ..8 -EB45	.003 -.006	.004 -.006	.008 -.024	.012 -.031	.016 -.039	–	65 (35-80)	65 (35-80)	–	–	–	–	–	–	80 (40-100)
S2	PMXxx ..6 ..8 -EB45	.003 -.006	.004 -.006	.008 -.024	.012 -.031	.016 -.039	–	65 (35-80)	65 (35-80)	–	–	–	–	–	–	80 (40-100)
S3	PMXxx ..6 ..8 -EB45	.003 -.006	.004 -.006	.008 -.024	.012 -.031	.016 -.039	–	65 (35-80)	65 (35-80)	–	–	–	–	–	–	80 (40-100)
S11	PMXxx ..6 ..8 -EB45	.003 -.006	.004 -.006	.008 -.024	.012 -.031	.016 -.039	65 (50-100)	100 (50-130)	130 (65-165)	–	–	–	–	–	–	165 (80-215)
S12	PMXxx ..6 ..8 -EB45	.003 -.006	.004 -.006	.008 -.024	.012 -.031	.016 -.039	65 (50-100)	100 (50-130)	130 (65-165)	–	–	–	–	–	–	165 (80-215)
S13	PMXxx ..6 ..8 -EB45	.003 -.006	.004 -.006	.008 -.024	.012 -.031	.016 -.039	65 (50-100)	100 (50-130)	130 (65-165)	–	–	–	–	–	–	165 (80-215)
H3	PMXxx ..6 ..8 -EB45	.003 -.006	.004 -.006	.008 -.016	.012 -.024	.016 -.030	–	–	35 (25-50)	–	–	–	–	–	–	–
H5	PMXxx ..6 ..8 -EB45	.003 -.006	.004 -.006	.008 -.016	.012 -.024	.016 -.030	–	–	35 (25-50)	–	–	–	–	–	–	–
H7	PMXxx ..6 ..8 -EB45	.003 -.006	.004 -.006	.008 -.016	.012 -.024	.016 -.030	–	–	35 (25-50)	–	–	–	–	–	–	–
H8	PMXxx ..6 ..8 -EB45	.003 -.006	.004 -.006	.008 -.016	.012 -.024	.016 -.030	–	–	35 (25-50)	–	–	–	–	–	–	–
H11	PMXxx ..6 ..8 -EB45	.003 -.006	.004 -.006	.008 -.016	.012 -.024	.016 -.030	–	–	35 (25-50)	–	–	–	–	–	–	–
H12	PMXxx ..6 ..8 -EB45	.003 -.006	.004 -.006	.008 -.016	.012 -.024	.016 -.030	–	–	35 (25-50)	–	–	–	–	–	–	–
H21	PMXxx ..6 ..8 -EB45	.003 -.006	.004 -.006	.008 -.016	.012 -.024	.016 -.030	–	–	35 (25-50)	–	–	–	–	–	–	–
H31	PMXxx ..6 ..8 -EB45	.003 -.006	.004 -.006	.008 -.016	.012 -.024	.016 -.030	–	–	35 (25-50)	–	–	–	–	–	–	–
PM1	PMXxx ..6 ..8 -EB45	.004 -.008	.004 -.012	.012 -.035	.016 -.047	.020 -.059	–	165 (100-260)	230 (130-330)	–	–	–	–	–	–	–
PM2	PMXxx ..6 ..8 -EB45	.004 -.008	.004 -.012	.012 -.035	.016 -.047	.020 -.059	–	165 (100-260)	230 (130-330)	–	–	–	–	–	–	–
PM3	PMXxx ..6 ..8 -EB45	.004 -.008	.004 -.012	.012 -.035	.016 -.047	.020 -.059	–	165 (100-260)	230 (130-330)	–	–	–	–	–	–	–

SMG = Seco material group
a_p = *inch*
f = in/rev
v_c= sf/min
All cutting data are start values

Cutting data – Plus... -EB25/EB30 metric

SMG		a_p (∅)		f			v_c						
		z=6	z=8 z=10	z=6	z=8	z=10	H15	CP20	RX2000	RK2050	CF	RX1500	RK1550
P1	PMXxx ..6 ..8 -EB25/EB30	0,10-0,20	0,10-0,30	0,80-1,80	1,00-2,40	1,20-3,00	25 (15-30)	60 (30-100)	80 (30-150)	–	180 (90-200)	220 (120-300)	–
P2	PMXxx ..6 ..8 -EB25/EB30	0,10-0,20	0,10-0,30	0,80-1,80	1,00-2,40	1,20-3,00	25 (15-30)	60 (30-100)	80 (30-150)	–	180 (90-200)	220 (120-300)	–
P3	PMXxx ..6 ..8 -EB25/EB30	0,10-0,20	0,10-0,30	0,80-1,80	1,00-2,40	1,20-3,00	25 (15-30)	60 (30-100)	80 (30-150)	–	180 (90-200)	220 (120-300)	–
P4	PMXxx ..6 ..8 -EB25/EB30	0,10-0,20	0,10-0,30	0,80-1,80	1,00-2,40	1,20-3,00	20 (10-25)	50 (30-80)	60 (30-120)	–	120 (80-150)	180 (90-200)	–
P5	PMXxx ..6 ..8 -EB25/EB30	0,10-0,20	0,10-0,30	0,80-1,80	1,00-2,40	1,20-3,00	20 (10-25)	50 (30-80)	60 (30-120)	–	120 (80-150)	180 (90-200)	–
P6	PMXxx ..6 ..8 -EB25/EB30	0,10-0,20	0,10-0,30	0,80-1,80	1,00-2,40	1,20-3,00	20 (10-25)	50 (30-80)	60 (30-120)	–	120 (80-150)	180 (90-200)	–
P7	PMXxx ..6 ..8 -EB25/EB30	0,10-0,20	0,10-0,30	0,80-1,80	1,00-2,40	1,20-3,00	20 (10-25)	50 (30-80)	60 (30-120)	–	120 (80-150)	180 (90-200)	–
M1	PMXxx ..6 ..8 -EB25/EB30	0,08-0,15	0,10-0,20	0,80-1,20	1,00-2,00	1,20-2,50	–	25 (15-40)	35 (20-70)	–	–	–	–
K1	PMXxx ..6 ..8 -EB25/EB30	0,10-0,20	0,10-0,25	0,80-2,20	1,00-2,80	1,20-3,50	25 (15-30)	60 (40-100)	80 (30-150)	90 (35-170)	–	220 (120-300)	245 (135-335)
K2	PMXxx ..6 ..8 -EB25/EB30	0,10-0,20	0,10-0,25	0,80-1,80	1,00-2,40	1,20-3,00	–	25 (20-40)	40 (30-70)	45 (35-80)	–	80 (50-100)	90 (55-110)
K3	PMXxx ..6 ..8 -EB25/EB30	0,10-0,20	0,10-0,25	0,80-2,20	1,00-2,80	1,20-3,50	25 (15-30)	60 (40-100)	80 (30-150)	90 (35-170)	–	220 (120-300)	245 (135-335)
K4	PMXxx ..6 ..8 -EB25/EB30	0,10-0,20	0,10-0,25	0,80-2,20	1,00-2,80	1,20-3,50	25 (15-30)	45 (30-70)	70 (40-120)	80 (45-135)	100 (70-150)	150 (80-200)	170 (90-225)
K5	PMXxx ..6 ..8 -EB25/EB30	0,10-0,20	0,10-0,25	0,80-2,20	1,00-2,80	1,20-3,50	25 (15-30)	45 (30-70)	70 (40-120)	80 (45-135)	100 (70-150)	150 (80-200)	170 (90-225)
K6	PMXxx ..6 ..8 -EB25/EB30	0,10-0,20	0,10-0,25	0,80-1,80	1,00-2,40	1,20-3,00	–	60 (40-100)	80 (30-150)	90 (35-170)	–	220 (120-300)	245 (135-335)
K7	PMXxx ..6 ..8 -EB25/EB30	0,10-0,20	0,10-0,25	0,80-1,80	1,00-2,40	1,20-3,00	–	60 (40-100)	80 (30-150)	90 (35-170)	–	220 (120-300)	245 (135-335)
N1	PMXxx ..6 ..8 -EB25/EB30	0,10-0,20	0,10-0,30	0,80-2,20	1,00-2,80	1,20-3,50	50 (30-100)	–	–	–	–	–	–
N2	PMXxx ..6 ..8 -EB25/EB30	0,10-0,20	0,10-0,30	0,80-2,20	1,00-2,80	1,20-3,50	50 (30-100)	–	–	–	–	–	–
N3	PMXxx ..6 ..8 -EB25/EB30	0,10-0,20	0,10-0,30	0,80-2,20	1,00-2,80	1,20-3,50	50 (30-100)	–	–	–	–	–	–
N11	PMXxx ..6 ..8 -EB25/EB30	0,10-0,20	0,10-0,30	0,80-2,20	1,00-2,80	1,20-3,50	50 (30-100)	–	–	–	–	–	–
PM1	PMXxx ..6 ..8 -EB25/EB30	0,10-0,20	0,10-0,30	0,50-1,80	0,80-2,00	1,00-2,50	–	50 (30-80)	70 (40-100)	–	–	–	–
PM2	PMXxx ..6 ..8 -EB25/EB30	0,10-0,20	0,10-0,30	0,50-1,80	0,80-2,00	1,00-2,50	–	50 (30-80)	70 (40-100)	–	–	–	–
PM3	PMXxx ..6 ..8 -EB25/EB30	0,10-0,20	0,10-0,30	0,50-1,80	0,80-2,00	1,00-2,50	–	50 (30-80)	70 (40-100)	–	–	–	–

SMG = Seco material group
a_p = mm
f = mm/rev
v_c= m/min
All cutting data are start values

Cutting data – PM Plus... -EB25/EB30 *inch*

SMG		a_p (∅)		f			v_c						
		z=6	z=8 z=10	z=6	z=8	z=10	H15	CP20	RX2000	RK2050	CF	RX1500	RK1550
P1	*PMXxx ..6 ..8 -EB25/EB30*	*.004 –.008*	*.004 –.012*	*.031 –.071*	*.039 –.094*	*.047-.118*	*80 (50-100)*	*195 (100-330)*	*260 (100-490)*	*–*	*590 (295-655)*	*720 (395-985)*	*–*
P2	*PMXxx ..6 ..8 -EB25/EB30*	*.004 –.008*	*.004 –.012*	*.031 –.071*	*.039 –.094*	*.047-.118*	*80 (50-100)*	*195 (100-330)*	*260 (100-490)*	*–*	*590 (295-655)*	*720 (395-985)*	*–*
P3	*PMXxx ..6 ..8 -EB25/EB30*	*.004 –.008*	*.004 –.012*	*.031 –.071*	*.039 –.094*	*.047-.118*	*80 (50-100)*	*195 (100-330)*	*260 (100-490)*	*–*	*590 (295-655)*	*720 (395-985)*	*–*
P4	*PMXxx ..6 ..8 -EB25/EB30*	*.004 –.008*	*.004 –.012*	*.031 –.071*	*.039 –.094*	*.047-.118*	*65 (35-80)*	*165 (100-260)*	*195 (100-395)*	*–*	*395 (260-490)*	*590 (295-655)*	*–*
P5	*PMXxx ..6 ..8 -EB25/EB30*	*.004 –.008*	*.004 –.012*	*.031 –.071*	*.039 –.094*	*.047-.118*	*65 (35-80)*	*165 (100-260)*	*195 (100-395)*	*–*	*395 (260-490)*	*590 (295-655)*	*–*
P6	*PMXxx ..6 ..8 -EB25/EB30*	*.004 –.008*	*.004 –.012*	*.031 –.071*	*.039 –.094*	*.047-.118*	*65 (35-80)*	*165 (100-260)*	*195 (100-395)*	*–*	*395 (260-490)*	*590 (295-655)*	*–*
P7	*PMXxx ..6 ..8 -EB25/EB30*	*.004 –.008*	*.004 –.012*	*.031 –.071*	*.039 –.094*	*.047-.118*	*65 (35-80)*	*165 (100-260)*	*195 (100-395)*	*–*	*395 (260-490)*	*590 (295-655)*	*–*
M1	*PMXxx ..6 ..8 -EB25/EB30*	*.003 –.006*	*.004 –.008*	*.031 –.047*	*.039 –.079*	*.039-.098*	*–*	*80 (50-130)*	*115 (65-230)*	*–*	*–*	*–*	*–*
K1	*PMXxx ..6 ..8 -EB25/EB30*	*.004 –.008*	*.004 –.010*	*.031 –.087*	*.039 –.110*	*.047-.138*	*80 (50-100)*	*195 (130-330)*	*260 (100-490)*	*290 (110-550)*	*–*	*720 (395-985)*	*805 (440-1105)*
K2	*PMXxx ..6 ..8 -EB25/EB30*	*.004 –.008*	*.004 –.010*	*.031 –.071*	*.039 –.094*	*.047-.118*	*–*	*80 (65-130)*	*130 (100-230)*	*145 (110-260)*	*–*	*260 (165-330)*	*290 (185-370)*
K3	*PMXxx ..6 ..8 -EB25/EB30*	*.004 –.008*	*.004 –.010*	*.031 –.087*	*.039 –.110*	*.047-.138*	*80 (50-100)*	*195 (130-330)*	*260 (100-490)*	*290 (110-550)*	*–*	*720 (395-985)*	*805 (440-1105)*
K4	*PMXxx ..6 ..8 -EB25/EB30*	*.004 –.008*	*.004 –.010*	*.031 –.087*	*.039 –.110*	*.047-.138*	*80 (50-100)*	*150 (100-230)*	*230 (130-395)*	*260 (145-440)*	*330 (230-490)*	*490 (260-655)*	*550 (290-735)*
K5	*PMXxx ..6 ..8 -EB25/EB30*	*.004 –.008*	*.004 –.010*	*.031 –.087*	*.039 –.110*	*.047-.138*	*80 (50-100)*	*150 (100-230)*	*230 (130-395)*	*260 (145-440)*	*330 (230-490)*	*490 (260-655)*	*550 (290-735)*
K6	*PMXxx ..6 ..8 -EB25/EB30*	*.004 –.008*	*.004 –.010*	*.031 –.071*	*.039 –.094*	*.047-.118*	*–*	*195 (130-330)*	*260 (100-490)*	*290 (110-550)*	*–*	*720 (395-985)*	*805 (440-1105)*
K7	*PMXxx ..6 ..8 -EB25/EB30*	*.004 –.008*	*.004 –.010*	*.031 –.071*	*.039 –.094*	*.047-.118*	*–*	*195 (130-330)*	*260 (100-490)*	*290 (110-550)*	*–*	*720 (395-985)*	*805 (440-1105)*
N1	*PMXxx ..6 ..8 -EB25/EB30*	*.004 –.008*	*.004 –.012*	*.031 –.087*	*.039 –.110*	*.047-.138*	*165 (100-330)*	*–*	*–*	*–*	*–*	*–*	*–*
N2	*PMXxx ..6 ..8 -EB25/EB30*	*.004 –.008*	*.004 –.012*	*.031 –.087*	*.039 –.110*	*.047-.138*	*165 (100-330)*	*–*	*–*	*–*	*–*	*–*	*–*
N3	*PMXxx ..6 ..8 -EB25/EB30*	*.004 –.008*	*.004 –.012*	*.031 –.087*	*.039 –.110*	*.047-.138*	*165 (100-330)*	*–*	*–*	*–*	*–*	*–*	*–*
N11	*PMXxx ..6 ..8 -EB25/EB30*	*.004 –.008*	*.004 –.012*	*.031 –.087*	*.039 –.110*	*.047-.138*	*165 (100-330)*	*–*	*–*	*–*	*–*	*–*	*–*
PM1	*PMXxx ..6 ..8 -EB25/EB30*	*.004 –.008*	*.004 –.012*	*.020 –.071*	*.031 –.079*	*.039-.098*	*–*	*165 (100-260)*	*230 (130-330)*	*–*	*–*	*–*	*–*
PM2	*PMXxx ..6 ..8 -EB25/EB30*	*.004 –.008*	*.004 –.012*	*.020 –.071*	*.031 –.079*	*.039-.098*	*–*	*165 (100-260)*	*230 (130-330)*	*–*	*–*	*–*	*–*
PM3	*PMXxx ..6 ..8 -EB25/EB30*	*.004 –.008*	*.004 –.012*	*.020 –.071*	*.031 –.079*	*.039-.098*	*–*	*165 (100-260)*	*230 (130-330)*	*–*	*–*	*–*	*–*

SMG = Seco material group
a_p = *inch*
f = in/rev
v_c= sf/min
All cutting data are start values



Nanofix™

Nanofix™ Solid Carbide Reamers are designed for small diameters from 2.97 to 12.05 mm (.117” - .474”).

- Internal coolant with simple adjustable system so the outlet style can be set for either through or blind bore, depending on application
- Enables tolerances held between 10 and 15 µm (.0004-.0006”)
- Eight available geometries: EB45, EBS45, EB845, EB25, EB30, EBS30, EB60 and EB75

Range overview

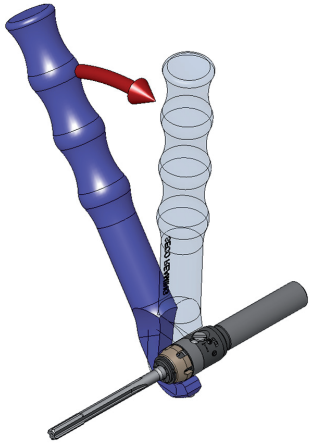
	∅ Range	Reaming depth	Hole ∅ tolerance	Intermediate diameter	Surface finish
Nanofix™ 	2,97-12,05 mm *(0.1169-0.4744")*	5-12 x D	IT 7	Yes, available through My Design	R_a 0,2-1,2 µm *(R_a 7.87-47.2 µin)*

Nanofix™ is a Seco solid carbide reamer programme dedicated for small ∅ from 2,97 to 12,05 mm *(0.1169 to 0.4744")*.
Design includes a unique patented Quick-fit clamping system that will allow it to hold the entire diameter range with only 2 tool holders .
Tool holders have internal coolant with a simple adjustable system so the outlet style can be set for either through or blind bore, depending on application.

Quick-fit

Quick-fit

Quick and easy tool change.
Accurate repositioning in run-out and length.



2 Quick-fit sizes to cover the complete diameter range

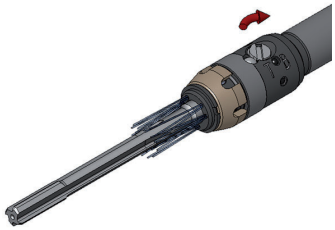


Quick-fit ∅ 10 mm for
∅ 6,051-12,050 mm
(∅ 0.2382-0.4744")



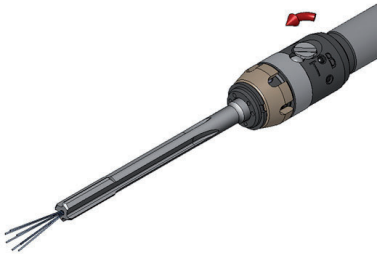
Quick-fit ∅ 6 mm for
∅ 2,97-6,050 mm
(∅ 0.1169-0.2382")

Same tool for blind or through hole application



through

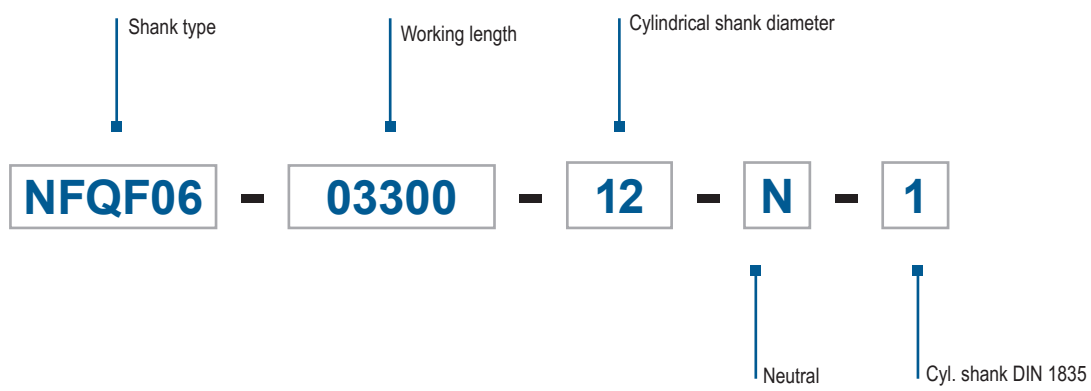
Turn coolant style adjusting screw by 1/4 of a revolution to change coolant outlet from through to blind and vice-versa.



blind

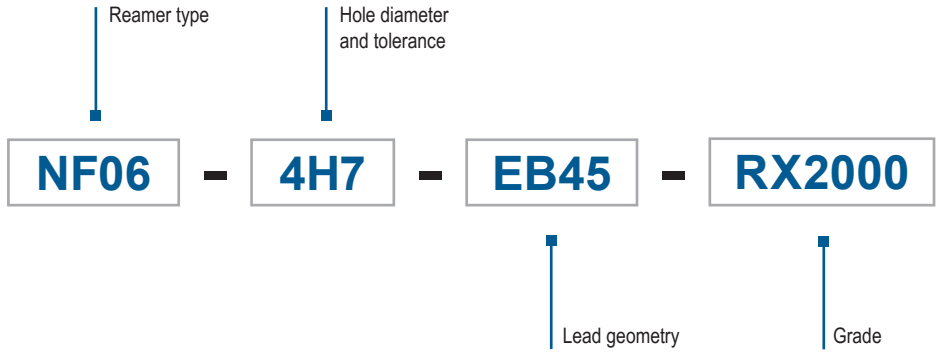
Code keys

Shanks



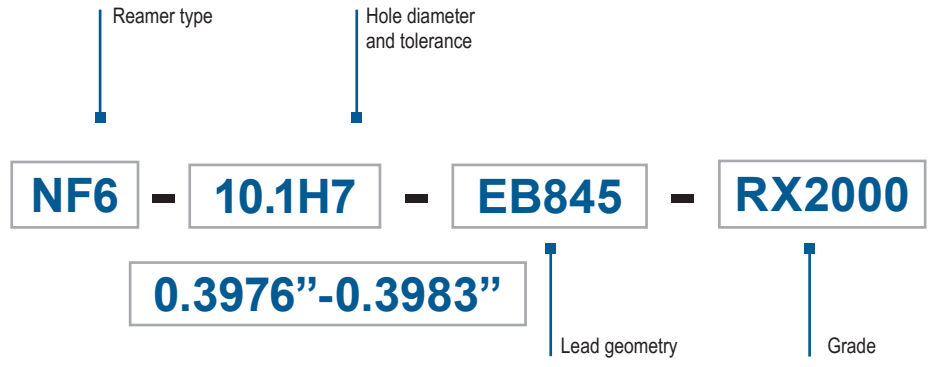


Reamers





Intermediate diameter reamers





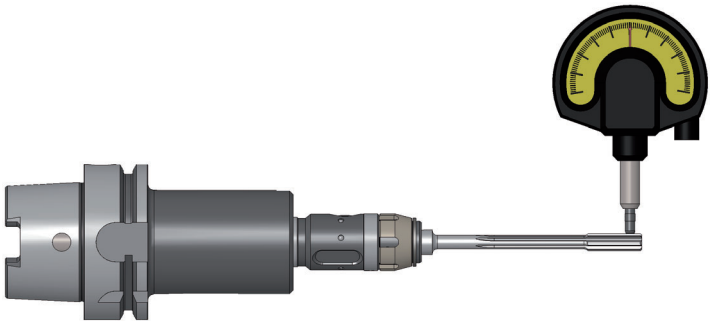
NF06/NF10/NS06/NS10: straight flutes design, suitable for through and blind holes.
NF4/NS4: RH helical flutes design, suitable for blind bores only.
NF6/NS6: LH helical flutes design, suitable for through bores only.
Left hand flute design improves the action of pushing the chips forward.
Right hand flute design improves the action of evacuating the chips backward.
See Nanofix flutes geometries choice on page(s) 373.

Run-out

Rotating tool

Max. run-out recommended: 5 µm *(197 µin)*.
Precision holder is recommended : Hydraulic chuck, D-type collet chuck or 5672 collet chuck.

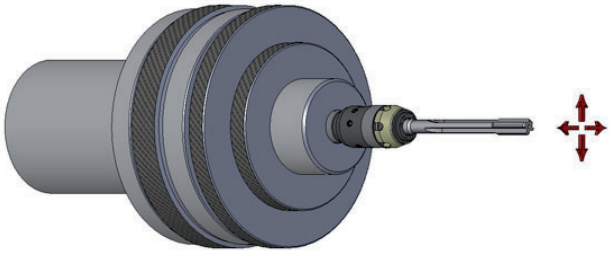
Note: due to coolant outlet adjustment sealing o-ring, the use of a Shrinkfit holder is not recommended.



Static tool

Use a Seco floating holder, see page 505-509.

Floating holders allow reamer self-centering in pre-bore.



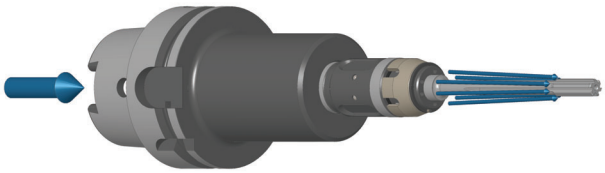
Coolant requirements

To reach maximum tool life and hole quality, the following coolant requirements should be observed.

Coolant through the tool is recommended.
External coolant supply can be used with cutting condition reduced by 75%.

Soluble oil with 40% minimum mineral oil.
Neat oil recommended for stainless steel.

Concentration minimum 6–8%.
Filtration 30–50 µm *(1181-1969 µin)*.
Volume min 0,5 l/min/mm *(0.13 gal/min/inch)* in tool diameter
(Ex: Reamer ∅10, min volume is 5 l/min *(1.3 gal/min)*.

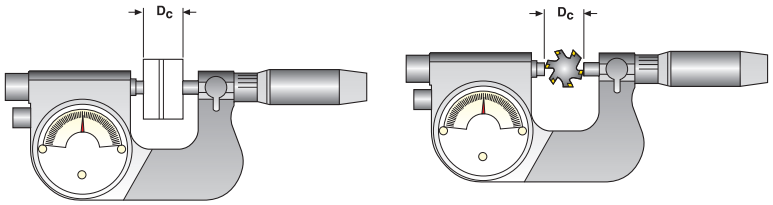


Diameter measurement

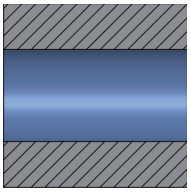
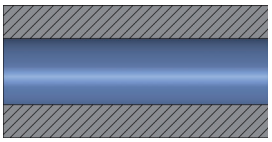
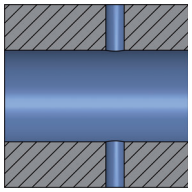
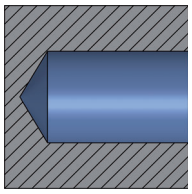
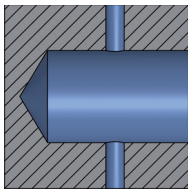
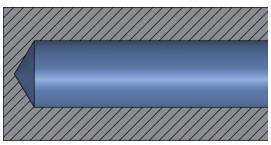
Gauge clock micrometer prior to ∅ measurement.

Important!
Nanofix reamers have differential pitch on teeth.
When measuring the diameter, make sure that you have 2 teeth 180° opposite.

Use clock micrometer and measuring blocks for gauging.



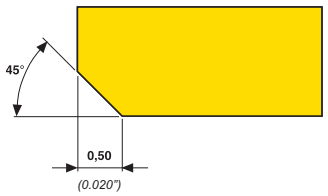
Flute geometry choice

Workpiece	Diameter to ream ∅ 2,97-12,50 mm *(0.1169-0.4744")*	
Short through hole < 3 x D 	**Straight flutes** NF06 NS06 NF10 NS10	
Long through hole > 3 x D 	**LH helical flutes** NF6 NS6	
Crossing hole 		
Blind hole 	**Straight flutes** NF06 NS06 NF10 NS10	
Blind and crossing hole 		
Blind hole > 3x D 	**RH helical flutes** NF4 NS4	

Geometry choice – Applications

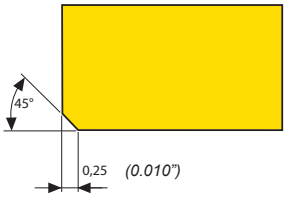
Lead geometry - EB45

Chip control ++
Surface finish+++ R_a 0,8 - 1,2 µm
(Surface finish+++ R_a 31 - 47 µin)
Versatile



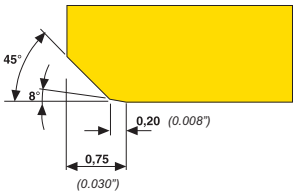
Lead geometry - EBS45

Chip control +++
Surface Finish + R_a 0,8- 1,2 µm
(Surface Finish + R_a 31- 47 µin)
Short EB45

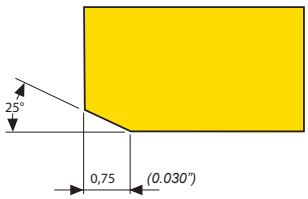
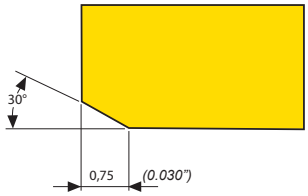
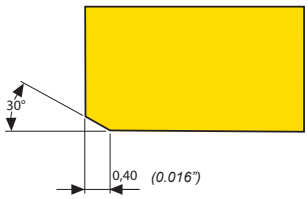


Lead geometry - EB845

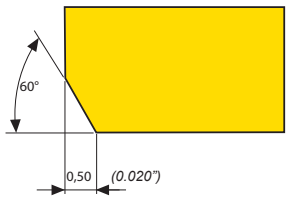
Chip control ++
Surface finish+++ R_a 0,2 - 0,8 µm
(Surface finish+++ R_a 8 - 31 µin)

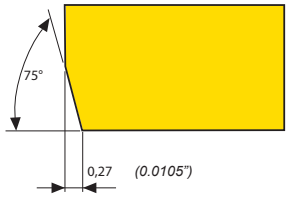


Geometry choice – Applications

Lead geometry - EB25	
Feed performance +++ Surface finish ++ R_a 0,4 - 0,8 µm *(Surface Finish ++ R_a 16 - 31 µin)* Chip control +	
Lead geometry - EB30	
Feed performance +++ Surface Finish ++ R_a 0,4 - 0,8 µm *(Surface Finish ++ R_a 16 - 31 µin)* Chip control +	
Lead geometry - EBS30	
Feed performance +++ Surface finish ++ R_a 0,4 - 0,8 µm *(Surface Finish ++ R_a 16 - 31 µin)* Chip control + Short EB30	

Geometry choice – Applications

Lead geometry - EB60	
Feed performance + Surface Finish ++ R_a 0,8 - 1,2 µm *(Surface Finish ++ R_a 31 - 47 µin)* Chip control ++	

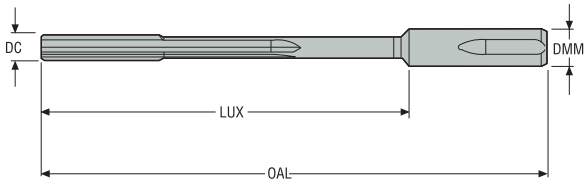
Lead geometry - EB75	
Feed performance + Surface Finish ++ R_a 0,8 - 1,2 µm *(Surface Finish ++ R_a 31-47 µin)* Chip control ++	

Grades		
	**RX2000**	**Coated** High performance coated grade suitable for all materials.
	**CP20**	**Coated** A versatile coated grade suitable for most materials, except aluminum. TiN
	**H15**	**Uncoated** A tough micrograin grade for all materials. Suitable for fine-reaming operations due to edge sharpness.
	**RN2010**	**Uncoated** A sub-micrograin uncoated grade with optimized geometries for N-materials (non ferrous).
	**RM2020**	**Coated** A tough coated grade suitable for fine reaming operation with optimized geometries for M materials.
	**RM2090**	**Coated** A wear resistant coated grade with specific geometries for M materials. Optimization in M materials.
	**RK2050**	**Coated** A tough coated grade suitable for fine reaming operation with optimized geometries for K materials.
	**RS2090**	**Coated** A wear resistant coated grade with specific geometries for S materials. Optimization in S materials.

Reamer for blind and through holes

∅ 2,97-12,05 mm / *0.116-0.474”*





Designation	Item number	DC	Hole dia min-max		LUX	DMM	OAL		Geometries			Grades		
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		EB45	EB845	EB30	RX2000	RK2050	H15
NF06-2.98H7-EB45	02728853	2,98 *0.1173*	2,98 *0.1173*	2,99 *0.1177*	40,0 *1.5750*	6,0 *0.2360*	60,0 *2.3620*	4	■	□	□	■	□	□
NF06-2.99H7-EB45	02728854	2,99 *0.1177*	2,99 *0.1177*	3,0 *0.1181*	40,0 *1.5750*	6,0 *0.2360*	60,0 *2.3620*	4	■	□	□	■	□	□
NF06-3H7-EB45	02728858	3,0 *0.1181*	3,0 *0.1181*	3,01 *0.1185*	40,0 *1.5750*	6,0 *0.2360*	60,0 *2.3620*	4	■	□	□	■	□	□
NF06-3.01H7-EB45	02728860	3,01 *0.1185*	3,01 *0.1185*	3,022 *0.1190*	40,0 *1.5750*	6,0 *0.2360*	60,0 *2.3620*	4	■	□	□	■	□	□
NF06-3.02H7-EB45	02728862	3,02 *0.1189*	3,02 *0.1189*	3,032 *0.1194*	40,0 *1.5750*	6,0 *0.2360*	60,0 *2.3620*	4	■	□	□	■	□	□
NF06-3.03H7-EB45	02728864	3,03 *0.1193*	3,03 *0.1193*	3,042 *0.1198*	40,0 *1.5750*	6,0 *0.2360*	60,0 *2.3620*	4	■	□	□	■	□	□
NF06-3.04H7-EB45	02728865	3,04 *0.1197*	3,04 *0.1197*	3,052 *0.1202*	40,0 *1.5750*	6,0 *0.2360*	60,0 *2.3620*	4	■	□	□	■	□	□
NF06-3.05H7-EB45	02728866	3,05 *0.1201*	3,05 *0.1201*	3,062 *0.1206*	40,0 *1.5750*	6,0 *0.2360*	60,0 *2.3620*	4	■	□	□	■	□	□
NF06-3.167H7-EB45	02761485	3,167 *0.1247*	3,167 *0.1247*	3,179 *0.1252*	60,0 *2.3620*	6,0 *0.2360*	80,0 *3.1500*	4	■	□	□	■	□	□
NF06-3.175H7-EB45	02761489	3,175 *0.1250*	3,175 *0.1250*	3,187 *0.1255*	60,0 *2.3620*	6,0 *0.2360*	80,0 *3.1500*	4	■	□	□	■	□	□
NF06-3.5H7-EB45	02728868	3,5 *0.1378*	3,5 *0.1378*	3,512 *0.1383*	60,0 *2.3620*	6,0 *0.2360*	80,0 *3.1500*	4	■	□	□	■	□	□
NF06-3.51H7-EB45	02728869	3,51 *0.1382*	3,51 *0.1382*	3,522 *0.1387*	60,0 *2.3620*	6,0 *0.2360*	80,0 *3.1500*	4	■	□	□	■	□	□
NF06-3.97H7-EB45	02728871	3,97 *0.1563*	3,97 *0.1563*	3,982 *0.1568*	60,0 *2.3620*	6,0 *0.2360*	80,0 *3.1500*	4	■	□	□	■	□	□
NF06-3.98H7-EB45	02728872	3,98 *0.1567*	3,98 *0.1567*	3,992 *0.1572*	60,0 *2.3620*	6,0 *0.2360*	80,0 *3.1500*	4	■	□	□	■	□	□
NF06-3.99H7-EB45	02728873	3,99 *0.1571*	3,99 *0.1571*	4,002 *0.1576*	60,0 *2.3620*	6,0 *0.2360*	80,0 *3.1500*	4	■	□	□	■	□	□
NF06-4H7-EB45	02728874	4,0 *0.1575*	4,0 *0.1575*	4,012 *0.1580*	60,0 *2.3620*	6,0 *0.2360*	80,0 *3.1500*	4	■	□	□	■	□	□
NF06-4.01H7-EB45	02728875	4,01 *0.1579*	4,01 *0.1579*	4,022 *0.1583*	60,0 *2.3620*	6,0 *0.2360*	80,0 *3.1500*	4	■	□	□	■	□	□
NF06-4.02H7-EB45	02728876	4,02 *0.1583*	4,02 *0.1583*	4,032 *0.1587*	60,0 *2.3620*	6,0 *0.2360*	80,0 *3.1500*	4	■	□	□	■	□	□
NF06-4.04H7-EB45	02728879	4,04 *0.1591*	4,04 *0.1591*	4,052 *0.1595*	60,0 *2.3620*	6,0 *0.2360*	80,0 *3.1500*	4	■	□	□	■	□	□
NF06-4.05H7-EB45	02728880	4,05 *0.1594*	4,05 *0.1594*	4,062 *0.1599*	60,0 *2.3620*	6,0 *0.2360*	80,0 *3.1500*	4	■	□	□	■	□	□
NF06-4.5H7-EB45	02728881	4,5 *0.1772*	4,5 *0.1772*	4,512 *0.1776*	60,0 *2.3620*	6,0 *0.2360*	80,0 *3.1500*	4	■	□	□	■	□	□
NF06-4.750H7-EB45	02761490	4,75 *0.1870*	4,75 *0.1870*	4,762 *0.1875*	60,0 *2.3620*	6,0 *0.2360*	80,0 *3.1500*	4	■	□	□	■	□	□
NF06-4.762H7-EB45	02761494	4,762 *0.1875*	4,762 *0.1875*	4,774 *0.1880*	60,0 *2.3620*	6,0 *0.2360*	80,0 *3.1500*	4	■	□	□	■	□	□

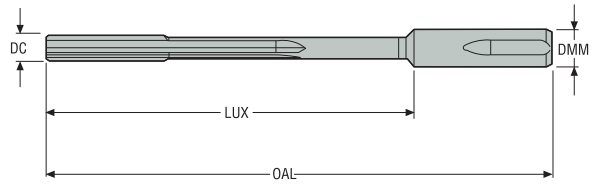
Designation	Item number	DC	Hole dia min-max		LUX	DMM	OAL		Geometries			Grades		
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		EB45	EB845	EB30	RX2000	RK2050	H15
NF06-4.97H7-EB45	02728882	4,97 *0.1957*	4,97 *0.1957*	4,982 *0.1961*	60,0 *2.3620*	6,0 *0.2360*	80,0 *3.1500*	4	■	□	□	■	□	□
NF06-4.98H7-EB45	02728883	4,98 *0.1961*	4,98 *0.1961*	4,992 *0.1965*	60,0 *2.3620*	6,0 *0.2360*	80,0 *3.1500*	4	■	□	□	■	□	□
NF06-4.99H7-EB45	02728884	4,99 *0.1965*	4,99 *0.1965*	5,002 *0.1969*	60,0 *2.3620*	6,0 *0.2360*	80,0 *3.1500*	4	■	□	□	■	□	□
NF06-5H7-EB45	02728927	5,0 *0.1969*	5,0 *0.1969*	5,012 *0.1973*	60,0 *2.3620*	6,0 *0.2360*	80,0 *3.1500*	4	■	□	□	■	□	□
NF06-5.01H7-EB45	02728928	5,01 *0.1972*	5,01 *0.1972*	5,022 *0.1977*	60,0 *2.3620*	6,0 *0.2360*	80,0 *3.1500*	4	■	□	□	■	□	□
NF06-5.02H7-EB45	02728929	5,02 *0.1976*	5,02 *0.1976*	5,032 *0.1981*	60,0 *2.3620*	6,0 *0.2360*	80,0 *3.1500*	4	■	□	□	■	□	□
NF06-5.03H7-EB45	02728930	5,03 *0.1980*	5,03 *0.1980*	5,042 *0.1985*	60,0 *2.3620*	6,0 *0.2360*	80,0 *3.1500*	4	■	□	□	■	□	□
NF06-5.05H7-EB45	02728932	5,05 *0.1988*	5,05 *0.1988*	5,062 *0.1993*	60,0 *2.3620*	6,0 *0.2360*	80,0 *3.1500*	4	■	□	□	■	□	□
NF06-5.5H7-EB45	02728933	5,5 *0.2165*	5,5 *0.2165*	5,512 *0.2170*	60,0 *2.3620*	6,0 *0.2360*	80,0 *3.1500*	4	■	□	□	■	□	□
NF06-5.97H7-EB45	02728934	5,97 *0.2350*	5,97 *0.2350*	5,982 *0.2355*	60,0 *2.3620*	6,0 *0.2360*	80,0 *3.1500*	4	■	□	□	■	□	□
NF06-5.98H7-EB45	02728935	5,98 *0.2354*	5,98 *0.2354*	5,992 *0.2359*	60,0 *2.3620*	6,0 *0.2360*	80,0 *3.1500*	4	■	□	□	■	□	□
NF06-5.99H7-EB45	02728936	5,99 *0.2358*	5,99 *0.2358*	6,002 *0.2363*	60,0 *2.3620*	6,0 *0.2360*	80,0 *3.1500*	4	■	□	□	■	□	□
NF06-6H7-EB45	02728937	6,0 *0.2362*	6,0 *0.2362*	6,015 *0.2368*	60,0 *2.3620*	6,0 *0.2360*	80,0 *3.1500*	4	■	□	□	■	□	□
NF06-6.01H7-EB45	02728938	6,01 *0.2366*	6,01 *0.2366*	6,025 *0.2372*	60,0 *2.3620*	6,0 *0.2360*	80,0 *3.1500*	4	■	□	□	■	□	□
NF06-6.02H7-EB45	02728939	6,02 *0.2370*	6,02 *0.2370*	6,035 *0.2376*	60,0 *2.3620*	6,0 *0.2360*	80,0 *3.1500*	4	■	□	□	■	□	□
NF06-6.03H7-EB45	02728940	6,03 *0.2374*	6,03 *0.2374*	6,045 *0.2380*	60,0 *2.3620*	6,0 *0.2360*	80,0 *3.1500*	4	■	□	□	■	□	□
NF06-6.04H7-EB45	02728941	6,04 *0.2378*	6,04 *0.2378*	6,055 *0.2384*	60,0 *2.3620*	6,0 *0.2360*	80,0 *3.1500*	4	■	□	□	■	□	□
NF06-6.05H7-EB45	02728942	6,05 *0.2382*	6,05 *0.2382*	6,065 *0.2388*	60,0 *2.3620*	6,0 *0.2360*	80,0 *3.1500*	4	■	□	□	■	□	□
NF10-6.334H7-EB45	02761987	6,334 *0.2494*	6,33 *0.2492*	6,345 *0.2498*	83,0 *3.2680*	10,0 *0.3940*	115,0 *4.5280*	6	■	□	□	■	□	□
NF10-6.350H7-EB45	02762016	6,35 *0.2500*	6,35 *0.2500*	6,365 *0.2506*	83,0 *3.2680*	10,0 *0.3940*	115,0 *4.5280*	6	■	□	□	■	□	□
NF10-6.3754H7-EB45	02762017	6,375 *0.2510*	6,375 *0.2510*	6,39 *0.2516*	83,0 *3.2680*	10,0 *0.3940*	115,0 *4.5280*	6	■	□	□	■	□	□
NF10-6.5H7-EB45	02728943	6,5 *0.2559*	6,5 *0.2559*	6,515 *0.2565*	83,0 *3.2680*	10,0 *0.3940*	115,0 *4.5280*	6	■	□	□	■	□	□
NF10-6.98H7-EB45	02728947	6,98 *0.2748*	6,98 *0.2748*	6,995 *0.2754*	83,0 *3.2680*	10,0 *0.3940*	115,0 *4.5280*	6	■	□	□	■	□	□
NF10-7H7-EB45	02728949	7,0 *0.2756*	7,0 *0.2756*	7,015 *0.2762*	83,0 *3.2680*	10,0 *0.3940*	115,0 *4.5280*	6	■	□	□	■	□	□
NF10-7.01H7-EB45	02728950	7,01 *0.2760*	7,01 *0.2760*	7,025 *0.2766*	83,0 *3.2680*	10,0 *0.3940*	115,0 *4.5280*	6	■	□	□	■	□	□
NF10-7.02H7-EB45	02728951	7,02 *0.2764*	7,02 *0.2764*	7,035 *0.2770*	83,0 *3.2680*	10,0 *0.3940*	115,0 *4.5280*	6	■	□	□	■	□	□
NF10-7.05H7-EB45	02728954	7,05 *0.2776*	7,05 *0.2776*	7,065 *0.2781*	83,0 *3.2680*	10,0 *0.3940*	115,0 *4.5280*	6	■	□	□	■	□	□
NF10-7.5H7-EB45	02728955	7,5 *0.2953*	7,5 *0.2953*	7,515 *0.2959*	83,0 *3.2680*	10,0 *0.3940*	115,0 *4.5280*	6	■	□	□	■	□	□
NF10-7.9375H7-EB45	02762018	7,9375 *0.3125*	7,937 *0.3125*	7,952 *0.3131*	83,0 *3.2680*	10,0 *0.3940*	115,0 *4.5280*	6	■	□	□	■	□	□
NF10-7.97H7-EB45	02728956	7,97 *0.3138*	7,97 *0.3138*	7,985 *0.3144*	83,0 *3.2680*	10,0 *0.3940*	115,0 *4.5280*	6	■	□	□	■	□	□

Designation	Item number	DC	Hole dia min-max		LUX	DMM	OAL		Geometries			Grades		
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		EB45	EB845	EB30	RX2000	RK2050	H15
NF10-7.98H7-EB45	02728957	7,98 *0.3142*	7,98 *0.3142*	7,995 *0.3148*	83,0 *3.2680*	10,0 *0.3940*	115,0 *4.5280*	6	■	□	□	■	□	□
NF10-7.99H7-EB45	02728958	7,99 *0.3146*	7,99 *0.3146*	8,005 *0.3152*	83,0 *3.2680*	10,0 *0.3940*	115,0 *4.5280*	6	■	□	□	■	□	□
NF10-8H7-EB45	02728959	8,0 *0.3150*	8,0 *0.3150*	8,015 *0.3156*	83,0 *3.2680*	10,0 *0.3940*	115,0 *4.5280*	6	■	□	□	■	□	□
NF10-8.01H7-EB45	02728960	8,01 *0.3154*	8,01 *0.3154*	8,025 *0.3159*	83,0 *3.2680*	10,0 *0.3940*	115,0 *4.5280*	6	■	□	□	■	□	□
NF10-8.02H7-EB45	02728961	8,02 *0.3157*	8,02 *0.3157*	8,035 *0.3163*	83,0 *3.2680*	10,0 *0.3940*	115,0 *4.5280*	6	■	□	□	■	□	□
NF10-8.03H7-EB45	02728962	8,03 *0.3161*	8,03 *0.3161*	8,045 *0.3167*	83,0 *3.2680*	10,0 *0.3940*	115,0 *4.5280*	6	■	□	□	■	□	□
NF10-8.04H7-EB45	02728963	8,04 *0.3165*	8,04 *0.3165*	8,055 *0.3171*	83,0 *3.2680*	10,0 *0.3940*	115,0 *4.5280*	6	■	□	□	■	□	□
NF10-8.05H7-EB45	02728964	8,05 *0.3169*	8,05 *0.3169*	8,065 *0.3175*	83,0 *3.2680*	10,0 *0.3940*	115,0 *4.5280*	6	■	□	□	■	□	□
NF10-8.5H7-EB45	02728965	8,5 *0.3346*	8,5 *0.3346*	8,515 *0.3352*	93,0 *3.6610*	10,0 *0.3940*	125,0 *4.9210*	6	■	□	□	■	□	□
NF10-9H7-EB45	02728974	9,0 *0.3543*	9,0 *0.3543*	9,015 *0.3549*	93,0 *3.6610*	10,0 *0.3940*	125,0 *4.9210*	6	■	□	□	■	□	□
NF10-9.01H7-EB45	02728975	9,01 *0.3547*	9,01 *0.3547*	9,025 *0.3553*	93,0 *3.6610*	10,0 *0.3940*	125,0 *4.9210*	6	■	□	□	■	□	□
NF10-9.05H7-EB45	02728979	9,05 *0.3563*	9,05 *0.3563*	9,065 *0.3569*	93,0 *3.6610*	10,0 *0.3940*	125,0 *4.9210*	6	■	□	□	■	□	□
NF10-9.5H7-EB45	02728980	9,5 *0.3740*	9,5 *0.3740*	9,515 *0.3746*	93,0 *3.6610*	10,0 *0.3940*	125,0 *4.9210*	6	■	□	□	■	□	□
NF10-9.5250H7-EB45	02762020	9,525 *0.3750*	9,525 *0.3750*	9,54 *0.3756*	93,0 *3.6610*	10,0 *0.3940*	125,0 *4.9210*	6	■	□	□	■	□	□
NF10-9.97H7-EB45	02728981	9,97 *0.3925*	9,97 *0.3925*	9,985 *0.3931*	93,0 *3.6610*	10,0 *0.3940*	125,0 *4.9210*	6	■	□	□	■	□	□
NF10-9.98H7-EB45	02728982	9,98 *0.3929*	9,98 *0.3929*	9,995 *0.3935*	93,0 *3.6610*	10,0 *0.3940*	125,0 *4.9210*	6	■	□	□	■	□	□
NF10-9.99H7-EB45	02728983	9,99 *0.3933*	9,99 *0.3933*	10,005 *0.3939*	93,0 *3.6610*	10,0 *0.3940*	125,0 *4.9210*	6	■	□	□	■	□	□
NF10-10H7-EB45	02728986	10,0 *0.3937*	10,0 *0.3937*	10,015 *0.3943*	93,0 *3.6610*	10,0 *0.3940*	125,0 *4.9210*	6	■	□	□	■	□	□
NF10-11H7-EB45	02728997	11,0 *0.4331*	11,0 *0.4331*	11,018 *0.4338*	114,0 *4.4880*	10,0 *0.3940*	145,0 *5.7090*	6	■	□	□	■	□	□
NF10-12H7-EB45	02729011	12,0 *0.4724*	12,0 *0.4724*	12,018 *0.4731*	114,0 *4.4880*	10,0 *0.3940*	145,0 *5.7090*	6	■	□	□	■	□	□

■ **Stock standard.** □ **Non stock standard.**
Note: When ordering Nanofix reamers for intermediate diameters, please state diameter and tolerance of hole to be reamed.
Ordering example: NF10-10.187/10.213-EB845, RX2000.

Intermediate diameter

Straight flutes, long version, for through & blind bores





- For choice of geometry, please see page(s) 374-376
- For cutting data see page(s) 393-400

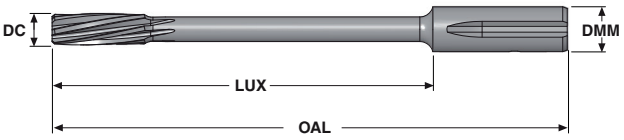
Designation	DCN	DCX	LUX	DMM	OAL		Body size	Geometries	Grades						
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*				H15	RK2050	RX2000	RN2010	RM2020	RM2090	RS2090
NF06-2.970-XX-XXXX	2,97 *0.117*	3,05 *0.120*	40,0 *0.120*	6,0 *0.236*	60,0 *2.362*	4	NFQF06-xx	EB45 EB845 EB30	☐	☐	☐	☐	☐	☐	☐
NF06-3.051-XX-XXXX	3,051 *0.120*	6,05 *0.238*	60,0 *0.238*	6,0 *0.236*	80,0 *3.150*	4	NFQF06-xx	EB45 EB845 EB30	☐	☐	☐	☐	☐	☐	☐
NF10-6.051-XX-XXXX	6,051 *0.238*	8,05 *0.317*	83,0 *0.317*	10,0 *0.394*	115,0 *4.528*	6	NFQF10-xx	EB45 EB845 EB30	☐	☐	☐	☐	☐	☐	☐
NF10-8.051-XX-XXXX	8,051 *0.317*	10,05 *0.396*	93,0 *0.396*	10,0 *0.394*	125,0 *4.921*	6	NFQF10-xx	EB45 EB845 EB30	☐	☐	☐	☐	☐	☐	☐
NF10-10.051-XX-XXXX	10,051 *0.396*	12,05 *0.474*	114,0 *0.474*	10,0 *0.394*	145,0 *5.709*	6	NFQF10-xx	EB45 EB845 EB30	☐	☐	☐	☐	☐	☐	☐

☐ **= Non stock standard.**
Note: When ordering Nanofix reamers for intermediate diameters, please state diameter and tolerance of hole to be reamed.
Ordering example: NF06-5.187/5.213-EB845, RX2000.

Intermediate diameter

LH helical flutes, long version, for through bores





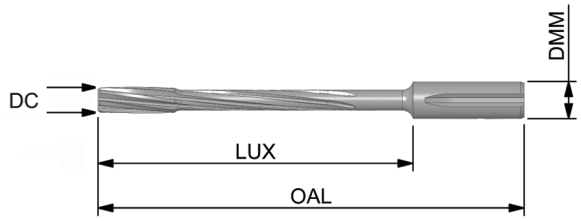
- For choice of geometry, please see page(s) 374-376
- For cutting data see page(s) 393-400

Designation	DCN	DCX	LUX	DMM	OAL		Body size	Geometries	Grades						
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*				H15	RK2050	RX2000	RN2010	RM2020	RM2090	RS2090
NF6-2.970-XX-XXXX	2,97 *0.117*	3,05 *0.120*	40,0 *1.575*	6,0 *0.236*	60,0 *2.362*	4	NFQF06-xx	EB45 EB845 EB30	☐	☐	☐	☐	☐	☐	☐
NF6-3.051-XX-XXXX	3,051 *0.120*	6,05 *0.238*	60,0 *2.362*	6,0 *0.236*	80,0 *3.150*	4	NFQF06-xx	EB45 EB845 EB30	☐	☐	☐	☐	☐	☐	☐
NF6-6.051-XX-XXXX	6,051 *0.238*	8,05 *0.317*	83,0 *3.268*	10,0 *0.394*	115,0 *4.528*	6	NFQF10-xx	EB45 EB845 EB30	☐	☐	☐	☐	☐	☐	☐
NF6-8.051-XX-XXXX	8,051 *0.317*	10,05 *0.396*	93,0 *3.661*	10,0 *0.394*	125,0 *4.921*	6	NFQF10-xx	EB45 EB845 EB30	☐	☐	☐	☐	☐	☐	☐
NF6-10.051-XX-XXXX	10,051 *0.396*	12,05 *0.474*	114,0 *4.488*	10,0 *0.394*	145,0 *5.709*	6	NFQF10-xx	EB45 EB845 EB30	☐	☐	☐	☐	☐	☐	☐

☐ **= Non stock standard.**
Note: When ordering Nanofix reamers for intermediate diameters, please state diameter and tolerance of hole to be reamed.
Ordering example: NF6-5.187/5.213-EB845, RX2000.

Intermediate diameter

RH helical flutes, long version, for blind bores





- For choice of geometry, please see page(s) 374-376
- For cutting data see page(s) 393-400

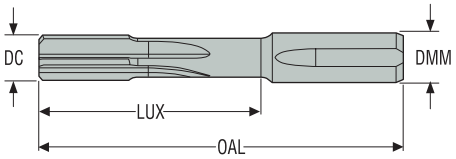
Designation	DCN	DCX	LUX	DMM	OAL		Body size	Geometries	Grades						
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*				H15	RK2050	RX2000	RN2010	RM2020	RM2090	RS2090
NF4-2.970-XX-XXXX	2,97 *0.117*	3,05 *0.120*	40,0 *1.575*	6,0 *0.236*	60,0 *2.362*	4	NFQF06-xx	EB45 EB845	☐	☐	☐	☐	☐	☐	☐
NF4-3.051-XX-XXXX	3,051 *0.120*	6,05 *0.238*	60,0 *2.362*	6,0 *0.236*	80,0 *3.150*	4	NFQF06-xx	EB45 EB845	☐	☐	☐	☐	☐	☐	☐
NF4-4.051-XX-XXXX	6,051 *0.238*	8,05 *0.317*	83,0 *3.268*	10,0 *0.394*	115,0 *4.528*	6	NFQF10-xx	EB45 EB845	☐	☐	☐	☐	☐	☐	☐
NF4-8.051-XX-XXXX	8,051 *0.317*	10,05 *0.396*	93,0 *3.661*	10,0 *0.394*	125,0 *4.921*	6	NFQF10-xx	EB45 EB845	☐	☐	☐	☐	☐	☐	☐
NF4-10.051-XX-XXXX	10,051 *0.396*	12,05 *0.474*	114,0 *4.488*	10,0 *0.394*	145,0 *5.709*	6	NFQF10-xx	EB45 EB845	☐	☐	☐	☐	☐	☐	☐

☐ **= Non stock standard.**
Note: When ordering Nanofix reamers for intermediate diameters, please state diameter and tolerance of hole to be reamed.
Ordering example: NF4-10.187/10.213-EB845, RX2000.

Reamer for blind and through holes – short version

∅ 2,97-12,05 mm / *0.116-0.474”*





Designation	Item number	DC	Hole dia min-max		LUX	DMM	OAL		Geometries			Grades		
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		EB45	EB845	EB30	RX2000	RK2050	H15
NS06-2.97H7-EB...	–	2,97 *0.1169*	2,97 *0.1169*	2,98 *0.1173*	25,0 *0.9840*	6,0 *0.2360*	45,0 *1.7720*	4	□	□	□	□	□	□
NS06-2.98H7-EB...	–	2,98 *0.1173*	2,98 *0.1173*	2,99 *0.1177*	25,0 *0.9840*	6,0 *0.2360*	45,0 *1.7720*	4	□	□	□	□	□	□
NS06-2.99H7-EB...	–	2,99 *0.1177*	2,99 *0.1177*	3,00 *0.1181*	25,0 *0.9840*	6,0 *0.2360*	45,0 *1.7720*	4	□	□	□	□	□	□
NS06-3.00H7-EB...	–	3,0 *0.1181*	3,00 *0.1181*	3,01 *0.1185*	25,0 *0.9840*	6,0 *0.2360*	45,0 *1.7720*	4	□	□	□	□	□	□
NS06-3H7-EB30	10019456	3,0 *0.1181*	3,01 *0.1185*	3,00 *0.1181*	25,0 *0.9840*	6,0 *0.2360*	45,0 *1.7720*	4	□	□	■	■	□	□
NS06-3.01H7-EB...	–	3,01 *0.1185*	3,01 *0.1185*	3,02 *0.1190*	25,0 *0.9840*	6,0 *0.2360*	45,0 *1.7720*	4	□	□	□	□	□	□
NS06-3.02H7-EB...	–	3,02 *0.1189*	3,02 *0.1189*	3,03 *0.1194*	25,0 *0.9840*	6,0 *0.2360*	45,0 *1.7720*	4	□	□	□	□	□	□
NS06-3.03H7-EB...	–	3,03 *0.1193*	3,03 *0.1193*	3,04 *0.1198*	25,0 *0.9840*	6,0 *0.2360*	45,0 *1.7720*	4	□	□	□	□	□	□
NS06-3.04H7-EB...	–	3,04 *0.1197*	3,04 *0.1197*	3,05 *0.1202*	25,0 *0.9840*	6,0 *0.2360*	45,0 *1.7720*	4	□	□	□	□	□	□
NS06-3.05H7-EB...	–	3,05 *0.1201*	3,05 *0.1201*	3,06 *0.1206*	25,0 *0.9840*	6,0 *0.2360*	45,0 *1.7720*	4	□	□	□	□	□	□
NS06-3.167H7-EB...	–	3,167 *0.1247*	3,18 *0.1252*	3,17 *0.1247*	30,0 *1.1810*	6,0 *0.2360*	50,0 *1.9690*	4	□	□	□	□	□	□
NS06-3.175H7-EB...	–	3,175 *0.1250*	3,18 *0.1250*	3,19 *0.1255*	30,0 *1.1810*	6,0 *0.2360*	50,0 *1.9690*	4	□	□	□	□	□	□
NS06-3.49H7-EB...	–	3,49 *0.1374*	3,49 *0.1374*	3,50 *0.1379*	30,0 *1.1810*	6,0 *0.2360*	50,0 *1.9690*	4	□	□	□	□	□	□
NS06-3.50H7-EB...	–	3,5 *0.1378*	3,50 *0.1378*	3,51 *0.1383*	30,0 *1.1810*	6,0 *0.2360*	50,0 *1.9690*	4	□	□	□	□	□	□
NS06-3.51H7-EB...	–	3,51 *0.1382*	3,51 *0.1382*	3,52 *0.1387*	30,0 *1.1810*	6,0 *0.2360*	50,0 *1.9690*	4	□	□	□	□	□	□
NS06-3.52H7-EB...	–	3,52 *0.1386*	3,52 *0.1386*	3,53 *0.1391*	30,0 *1.1810*	6,0 *0.2360*	50,0 *1.9690*	4	□	□	□	□	□	□
NS06-3.97H7-EB...	–	3,97 *0.1563*	3,97 *0.1563*	3,98 *0.1568*	30,0 *1.1810*	6,0 *0.2360*	50,0 *1.9690*	4	□	□	□	□	□	□
NS06-3.98H7-EB...	–	3,98 *0.1567*	3,98 *0.1567*	3,99 *0.1572*	30,0 *1.1810*	6,0 *0.2360*	50,0 *1.9690*	4	□	□	□	□	□	□
NS06-3.99H7-EB...	–	3,99 *0.1571*	3,99 *0.1571*	4,00 *0.1576*	30,0 *1.1810*	6,0 *0.2360*	50,0 *1.9690*	4	□	□	□	□	□	□
NS06-4.00H7-EB...	–	4,0 *0.1575*	4,00 *0.1575*	4,01 *0.1580*	30,0 *1.1810*	6,0 *0.2360*	50,0 *1.9690*	4	□	□	□	□	□	□
NS06-4H7-EB30	10019457	4,0 *0.1575*	4,01 *0.1580*	4,00 *0.1575*	30,0 *1.1810*	6,0 *0.2360*	50,0 *1.9690*	4	□	□	■	■	□	□
NS06-4.01H7-EB...	–	4,01 *0.1579*	4,01 *0.1579*	4,02 *0.1583*	30,0 *1.1810*	6,0 *0.2360*	50,0 *1.9690*	4	□	□	□	□	□	□
NS06-4.02H7-EB...	–	4,02 *0.1583*	4,02 *0.1583*	4,03 *0.1587*	30,0 *1.1810*	6,0 *0.2360*	50,0 *1.9690*	4	□	□	□	□	□	□

Designation	Item number	DC	Hole dia min-max		LUX	DMM	OAL		Geometries			Grades		
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		EB45	EB845	EB30	RX2000	RK2050	H15
NS06-4.03H7-EB...	–	4,03 *0.1587*	4,03 *0.1587*	4,04 *0.1591*	30,0 *1.1810*	6,0 *0.2360*	50,0 *1.9690*	4	□	□	□	□	□	□
NS06-4.04H7-EB...	–	4,04 *0.1591*	4,04 *0.1591*	4,05 *0.1595*	30,0 *1.1810*	6,0 *0.2360*	50,0 *1.9690*	4	□	□	□	□	□	□
NS06-4.05H7-EB...	–	4,05 *0.1594*	4,05 *0.1594*	4,06 *0.1599*	30,0 *1.1810*	6,0 *0.2360*	50,0 *1.9690*	4	□	□	□	□	□	□
NS06-4.50H7-EB...	–	4,5 *0.1772*	4,50 *0.1772*	4,51 *0.1776*	30,0 *1.1810*	6,0 *0.2360*	50,0 *1.9690*	4	□	□	□	□	□	□
NS06-4.750H7-EB...	–	4,75 *0.1870*	4,75 *0.1870*	4,76 *0.1875*	30,0 *1.1810*	6,0 *0.2360*	50,0 *1.9690*	4	□	□	□	□	□	□
NS06-4.750H7-EB30	10019458	4,75 *0.1870*	4,76 *0.1875*	4,75 *0.1870*	30,0 *1.1810*	6,0 *0.2360*	50,0 *1.9690*	4	□	□	■	■	□	□
NS06-4.762H7-EB...	–	4,762 *0.1875*	4,76 *0.1875*	4,77 *0.1880*	30,0 *1.1810*	6,0 *0.2360*	50,0 *1.9690*	4	□	□	□	□	□	□
NS06-4.97H7-EB...	–	4,97 *0.1957*	4,97 *0.1957*	4,98 *0.1961*	30,0 *1.1810*	6,0 *0.2360*	50,0 *1.9690*	4	□	□	□	□	□	□
NS06-4.98H7-EB...	–	4,98 *0.1961*	4,98 *0.1961*	4,99 *0.1965*	30,0 *1.1810*	6,0 *0.2360*	50,0 *1.9690*	4	□	□	□	□	□	□
NS06-4.99H7-EB...	–	4,99 *0.1965*	4,99 *0.1965*	5,00 *0.1969*	30,0 *1.1810*	6,0 *0.2360*	50,0 *1.9690*	4	□	□	□	□	□	□
NS06-5.00H7-EB...	–	5,0 *0.1969*	5,00 *0.1969*	5,01 *0.1973*	30,0 *1.1810*	6,0 *0.2360*	50,0 *1.9690*	4	□	□	□	□	□	□
NS06-5H7-EB30	10019459	5,0 *0.1969*	5,01 *0.1973*	5,00 *0.1969*	30,0 *1.1810*	6,0 *0.2360*	50,0 *1.9690*	4	□	□	■	■	□	□
NS06-5.01H7-EB...	–	5,01 *0.1972*	5,01 *0.1972*	5,02 *0.1977*	30,0 *1.1810*	6,0 *0.2360*	50,0 *1.9690*	4	□	□	□	□	□	□
NS06-5.02H7-EB...	–	5,02 *0.1976*	5,02 *0.1976*	5,03 *0.1981*	30,0 *1.1810*	6,0 *0.2360*	50,0 *1.9690*	4	□	□	□	□	□	□
NS06-5.03H7-EB...	–	5,03 *0.1980*	5,03 *0.1980*	5,04 *0.1985*	30,0 *1.1810*	6,0 *0.2360*	50,0 *1.9690*	4	□	□	□	□	□	□
NS06-5.04H7-EB...	–	5,04 *0.1984*	5,04 *0.1984*	5,05 *0.1989*	30,0 *1.1810*	6,0 *0.2360*	50,0 *1.9690*	4	□	□	□	□	□	□
NS06-5.05H7-EB...	–	5,05 *0.1988*	5,05 *0.1988*	5,06 *0.1993*	30,0 *1.1810*	6,0 *0.2360*	50,0 *1.9690*	4	□	□	□	□	□	□
NS06-5.50H7-EB...	–	5,5 *0.2165*	5,50 *0.2165*	5,51 *0.2170*	30,0 *1.1810*	6,0 *0.2360*	50,0 *1.9690*	4	□	□	□	□	□	□
NS06-5.97H7-EB...	–	5,97 *0.2350*	5,97 *0.2350*	5,98 *0.2355*	31,0 *1.2200*	6,0 *0.2360*	50,0 *1.9690*	4	□	□	□	□	□	□
NS06-5.98H7-EB...	–	5,98 *0.2354*	5,98 *0.2354*	5,99 *0.2359*	31,0 *1.2200*	6,0 *0.2360*	50,0 *1.9690*	4	□	□	□	□	□	□
NS06-5.99H7-EB...	–	5,99 *0.2358*	5,99 *0.2358*	6,00 *0.2363*	31,0 *1.2200*	6,0 *0.2360*	50,0 *1.9690*	4	□	□	□	□	□	□
NS06-6.00H7-EB...	–	6,0 *0.2362*	6,00 *0.2362*	6,01 *0.2367*	31,0 *1.2200*	6,0 *0.2360*	50,0 *1.9690*	4	□	□	□	□	□	□
NS06-6H7-EB30	10019460	6,0 *0.2362*	6,01 *0.2367*	6,00 *0.2362*	31,0 *1.2200*	6,0 *0.2360*	50,0 *1.9690*	4	□	□	■	■	□	□
NS06-6.01H7-EB...	–	6,01 *0.2366*	6,01 *0.2366*	6,03 *0.2372*	31,0 *1.2200*	6,0 *0.2360*	50,0 *1.9690*	4	□	□	□	□	□	□
NS06-6.02H7-EB...	–	6,02 *0.2370*	6,02 *0.2370*	6,04 *0.2376*	31,0 *1.2200*	6,0 *0.2360*	50,0 *1.9690*	4	□	□	□	□	□	□
NS06-6.03H7-EB...	–	6,03 *0.2374*	6,03 *0.2374*	6,05 *0.2380*	31,0 *1.2200*	6,0 *0.2360*	50,0 *1.9690*	4	□	□	□	□	□	□
NS06-6.04H7-EB...	–	6,04 *0.2378*	6,04 *0.2378*	6,06 *0.2384*	31,0 *1.2200*	6,0 *0.2360*	50,0 *1.9690*	4	□	□	□	□	□	□
NS06-6.05H7-EB...	–	6,05 *0.2382*	6,05 *0.2382*	6,07 *0.2388*	31,0 *1.2200*	6,0 *0.2360*	50,0 *1.9690*	4	□	□	□	□	□	□
NS10-6.334H7-EB...	–	6,334 *0.2494*	6,33 *0.2494*	6,35 *0.2500*	46,0 *1.8110*	10,0 *0.3940*	78,0 *3.0710*	6	□	□	□	□	□	□
NS10-6.334H7-EB30	10019461	6,334 *0.2494*	6,35 *0.2500*	6,33 *0.2494*	46,0 *1.8110*	10,0 *0.3940*	78,0 *3.0710*	4	□	□	■	■	□	□

Designation	Item number	DC	Hole dia min-max		LUX	DMM	OAL		Geometries			Grades		
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		EB45	EB845	EB30	RX2000	RK2050	H15
NS10-6.350H7-EB...	–	6,35 *0.2500*	6,35 *0.2500*	6,37 *0.2506*	46,0 *1.8110*	10,0 *0.3940*	78,0 *3.0710*	6	□	□	□	□	□	□
NS10-6.375H7-EB...	–	6,375 *0.2510*	6,38 *0.2510*	6,39 *0.2516*	46,0 *1.8110*	10,0 *0.3940*	78,0 *3.0710*	6	□	□	□	□	□	□
NS10-6.3754H7-EB30	10019462	6,375 *0.2510*	6,39 *0.2516*	6,38 *0.2510*	46,0 *1.8110*	10,0 *0.3940*	78,0 *3.0710*	4	□	□	■	■	□	□
NS10-6.5H7-EB...	–	6,5 *0.2559*	6,50 *0.2559*	6,52 *0.2565*	46,0 *1.8110*	10,0 *0.3940*	78,0 *3.0710*	6	□	□	□	□	□	□
NS10-6.97H7-EB...	–	6,97 *0.2744*	6,97 *0.2744*	6,99 *0.2750*	46,0 *1.8110*	10,0 *0.3940*	78,0 *3.0710*	6	□	□	□	□	□	□
NS10-6.98H7-EB...	–	6,98 *0.2748*	6,98 *0.2748*	7,00 *0.2754*	46,0 *1.8110*	10,0 *0.3940*	78,0 *3.0710*	6	□	□	□	□	□	□
NS10-6.99H7-EB...	–	6,99 *0.2752*	6,99 *0.2752*	7,01 *0.2758*	46,0 *1.8110*	10,0 *0.3940*	78,0 *3.0710*	6	□	□	□	□	□	□
NS10-7.00H7-EB...	–	7,0 *0.2756*	7,00 *0.2756*	7,02 *0.2762*	46,0 *1.8110*	10,0 *0.3940*	78,0 *3.0710*	6	□	□	□	□	□	□
NS10-7H7-EB30	10019463	7,0 *0.2756*	7,02 *0.2762*	7,00 *0.2756*	46,0 *1.8110*	10,0 *0.3940*	78,0 *3.0710*	4	□	□	■	■	□	□
NS10-7.01H7-EB...	–	7,01 *0.2760*	7,01 *0.2760*	7,03 *0.2766*	46,0 *1.8110*	10,0 *0.3940*	78,0 *3.0710*	6	□	□	□	□	□	□
NS10-7.02H7-EB...	–	7,02 *0.2764*	7,02 *0.2764*	7,04 *0.2770*	46,0 *1.8110*	10,0 *0.3940*	78,0 *3.0710*	6	□	□	□	□	□	□
NS10-7.03H7-EB...	–	7,03 *0.2768*	7,03 *0.2768*	7,05 *0.2774*	46,0 *1.8110*	10,0 *0.3940*	78,0 *3.0710*	6	□	□	□	□	□	□
NS10-7.04H7-EB...	–	7,04 *0.2772*	7,04 *0.2772*	7,06 *0.2778*	46,0 *1.8110*	10,0 *0.3940*	78,0 *3.0710*	6	□	□	□	□	□	□
NS10-7.05H7-EB...	–	7,05 *0.2776*	7,05 *0.2776*	7,07 *0.2781*	46,0 *1.8110*	10,0 *0.3940*	78,0 *3.0710*	6	□	□	□	□	□	□
NS10-7.50H7-EB...	–	7,5 *0.2953*	7,50 *0.2953*	7,52 *0.2959*	46,0 *1.8110*	10,0 *0.3940*	78,0 *3.0710*	6	□	□	□	□	□	□
NS10-7.9375H7-EB...	–	7,9375 *0.3125*	7,94 *0.3125*	7,95 *0.3131*	46,0 *1.8110*	10,0 *0.3940*	78,0 *3.0710*	6	□	□	□	□	□	□
NS10-7.97H7-EB...	–	7,97 *0.3138*	7,97 *0.3138*	7,99 *0.3144*	46,0 *1.8110*	10,0 *0.3940*	78,0 *3.0710*	6	□	□	□	□	□	□
NS10-7.98H7-EB...	–	7,98 *0.3142*	7,98 *0.3142*	8,00 *0.3148*	46,0 *1.8110*	10,0 *0.3940*	78,0 *3.0710*	6	□	□	□	□	□	□
NS10-7.99H7-EB...	–	7,99 *0.3146*	7,99 *0.3146*	8,01 *0.3152*	46,0 *1.8110*	10,0 *0.3940*	78,0 *3.0710*	6	□	□	□	□	□	□
NS10-8.00H7-EB...	–	8,0 *0.3150*	8,00 *0.3150*	8,02 *0.3156*	46,0 *1.8110*	10,0 *0.3940*	78,0 *3.0710*	6	□	□	□	□	□	□
NS10-8H7-EB30	10019464	8,0 *0.3150*	8,02 *0.3156*	8,00 *0.3150*	46,0 *1.8110*	10,0 *0.3940*	78,0 *3.0710*	4	□	□	■	■	□	□
NS10-8.01H7-EB...	–	8,01 *0.3154*	8,01 *0.3154*	8,03 *0.3159*	46,0 *1.8110*	10,0 *0.3940*	78,0 *3.0710*	6	□	□	□	□	□	□
NS10-8.02H7-EB...	–	8,02 *0.3157*	8,02 *0.3157*	8,04 *0.3163*	46,0 *1.8110*	10,0 *0.3940*	78,0 *3.0710*	6	□	□	□	□	□	□
NS10-8.03H7-EB...	–	8,03 *0.3161*	8,03 *0.3161*	8,05 *0.3167*	46,0 *1.8110*	10,0 *0.3940*	78,0 *3.0710*	6	□	□	□	□	□	□
NS10-8.04H7-EB...	–	8,04 *0.3165*	8,04 *0.3165*	8,06 *0.3171*	46,0 *1.8110*	10,0 *0.3940*	78,0 *3.0710*	6	□	□	□	□	□	□
NS10-8.05H7-EB...	–	8,05 *0.3169*	8,05 *0.3169*	8,07 *0.3175*	46,0 *1.8110*	10,0 *0.3940*	78,0 *3.0710*	6	□	□	□	□	□	□
NS10-8.50H7-EB...	–	8,5 *0.3346*	8,50 *0.3346*	8,52 *0.3352*	46,0 *1.8110*	10,0 *0.3940*	78,0 *3.0710*	6	□	□	□	□	□	□
NS10-8.97H7-EB...	–	8,97 *0.3531*	8,97 *0.3531*	8,99 *0.3537*	46,0 *1.8110*	10,0 *0.3940*	78,0 *3.0710*	6	□	□	□	□	□	□
NS10-8.98H7-EB...	–	8,98 *0.3535*	8,98 *0.3535*	9,00 *0.3541*	46,0 *1.8110*	10,0 *0.3940*	78,0 *3.0710*	6	□	□	□	□	□	□
NS10-8.99H7-EB...	–	8,99 *0.3539*	8,99 *0.3539*	9,01 *0.3545*	46,0 *1.8110*	10,0 *0.3940*	78,0 *3.0710*	6	□	□	□	□	□	□

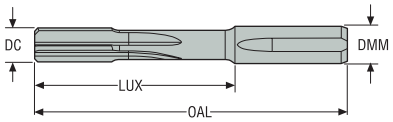
Designation	Item number	DC	Hole dia min-max		LUX	DMM	OAL		Geometries			Grades		
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		EB45	EB845	EB30	RX2000	RK2050	H15
NS10-9.00H7-EB...	–	9,0 *0.3543*	9,00 *0.3543*	9,02 *0.3549*	46,0 *1.8110*	10,0 *0.3940*	78,0 *3.0710*	6	☐	☐	☐	☐	☐	☐
NS10-9H7-EB30	10019465	9,0 *0.3543*	9,02 *0.3549*	9,00 *0.3543*	46,0 *1.8110*	10,0 *0.3940*	78,0 *3.0710*	4	☐	☐	■	■	☐	☐
NS10-9.01H7-EB...	–	9,01 *0.3547*	9,01 *0.3547*	9,03 *0.3553*	46,0 *1.8110*	10,0 *0.3940*	78,0 *3.0710*	6	☐	☐	☐	☐	☐	☐
NS10-9.02H7-EB...	–	9,02 *0.3551*	9,02 *0.3551*	9,04 *0.3557*	46,0 *1.8110*	10,0 *0.3940*	78,0 *3.0710*	6	☐	☐	☐	☐	☐	☐
NS10-9.03H7-EB...	–	9,03 *0.3555*	9,03 *0.3555*	9,05 *0.3561*	46,0 *1.8110*	10,0 *0.3940*	78,0 *3.0710*	6	☐	☐	☐	☐	☐	☐
NS10-9.04H7-EB...	–	9,04 *0.3559*	9,04 *0.3559*	9,06 *0.3565*	46,0 *1.8110*	10,0 *0.3940*	78,0 *3.0710*	6	☐	☐	☐	☐	☐	☐
NS10-9.05H7-EB...	–	9,05 *0.3563*	9,05 *0.3563*	9,07 *0.3569*	46,0 *1.8110*	10,0 *0.3940*	78,0 *3.0710*	6	☐	☐	☐	☐	☐	☐
NS10-9.50H7-EB...	–	9,5 *0.3740*	9,50 *0.3740*	9,52 *0.3746*	46,0 *1.8110*	10,0 *0.3940*	78,0 *3.0710*	6	☐	☐	☐	☐	☐	☐
NS10-9.5123H7-EB...	–	9,5123 *0.3745*	9,51 *0.3745*	9,53 *0.3751*	46,0 *1.8110*	10,0 *0.3940*	78,0 *3.0710*	6	☐	☐	☐	☐	☐	☐
NS10-9.5250H7-EB...	–	9,525 *0.3750*	9,53 *0.3750*	9,54 *0.3756*	46,0 *1.8110*	10,0 *0.3940*	78,0 *3.0710*	6	☐	☐	☐	☐	☐	☐
NS10-9.525H7-EB30	10019466	9,525 *0.3750*	9,54 *0.3756*	9,53 *0.3750*	46,0 *1.8110*	10,0 *0.3940*	78,0 *3.0710*	4	☐	☐	■	■	☐	☐
NS10-9.97H7-EB...	–	9,97 *0.3925*	9,97 *0.3925*	9,99 *0.3931*	46,0 *1.8110*	10,0 *0.3940*	78,0 *3.0710*	6	☐	☐	☐	☐	☐	☐
NS10-9.98H7-EB...	–	9,98 *0.3929*	9,98 *0.3929*	10,00 *0.3935*	46,0 *1.8110*	10,0 *0.3940*	78,0 *3.0710*	6	☐	☐	☐	☐	☐	☐
NS10-9.99H7-EB...	–	9,99 *0.3933*	9,99 *0.3933*	10,01 *0.3939*	46,0 *1.8110*	10,0 *0.3940*	78,0 *3.0710*	6	☐	☐	☐	☐	☐	☐
NS10-10.00H7-EB...	–	10,0 *0.3937*	10,00 *0.3937*	10,02 *0.3943*	46,0 *1.8110*	10,0 *0.3940*	78,0 *3.0710*	6	☐	☐	☐	☐	☐	☐
NS10-10H7-EB30	10019467	10,0 *0.3937*	10,02 *0.3943*	10,00 *0.3937*	46,0 *1.8110*	10,0 *0.3940*	78,0 *3.0710*	4	☐	☐	■	■	☐	☐
NS10-10.01H7-EB...	–	10,01 *0.3941*	10,01 *0.3941*	10,03 *0.3948*	46,0 *1.8110*	10,0 *0.3940*	78,0 *3.0710*	6	☐	☐	☐	☐	☐	☐
NS10-10.02H7-EB...	–	10,02 *0.3945*	10,02 *0.3945*	10,04 *0.3952*	46,0 *1.8110*	10,0 *0.3940*	78,0 *3.0710*	6	☐	☐	☐	☐	☐	☐
NS10-10.03H7-EB...	–	10,03 *0.3949*	10,03 *0.3949*	10,05 *0.3956*	46,0 *1.8110*	10,0 *0.3940*	78,0 *3.0710*	6	☐	☐	☐	☐	☐	☐
NS10-10.04H7-EB...	–	10,04 *0.3953*	10,04 *0.3953*	10,06 *0.3960*	46,0 *1.8110*	10,0 *0.3940*	78,0 *3.0710*	6	☐	☐	☐	☐	☐	☐
NS10-10.05H7-EB...	–	10,05 *0.3957*	10,05 *0.3957*	10,07 *0.3964*	46,0 *1.8110*	10,0 *0.3940*	78,0 *3.0710*	6	☐	☐	☐	☐	☐	☐
NS10-10.50H7-EB...	–	10,5 *0.4134*	10,50 *0.4134*	10,52 *0.4141*	57,0 *2.2440*	10,0 *0.3940*	88,0 *3.4650*	6	☐	☐	☐	☐	☐	☐
NS10-10.97H7-EB...	–	10,97 *0.4319*	10,97 *0.4319*	10,99 *0.4326*	57,0 *2.2440*	10,0 *0.3940*	88,0 *3.4650*	6	☐	☐	☐	☐	☐	☐
NS10-10.98H7-EB...	–	10,98 *0.4323*	10,98 *0.4323*	11,00 *0.4330*	57,0 *2.2440*	10,0 *0.3940*	88,0 *3.4650*	6	☐	☐	☐	☐	☐	☐
NS10-10.99H7-EB...	–	10,99 *0.4327*	10,99 *0.4327*	11,01 *0.4334*	57,0 *2.2440*	10,0 *0.3940*	88,0 *3.4650*	6	☐	☐	☐	☐	☐	☐
NS10-11.00H7-EB...	–	11,0 *0.4331*	11,00 *0.4331*	11,02 *0.4338*	57,0 *2.2440*	10,0 *0.3940*	88,0 *3.4650*	6	☐	☐	☐	☐	☐	☐
NS10-11.01H7-EB...	–	11,01 *0.4335*	11,01 *0.4335*	11,03 *0.4342*	57,0 *2.2440*	10,0 *0.3940*	88,0 *3.4650*	6	☐	☐	☐	☐	☐	☐
NS10-11.02H7-EB...	–	11,02 *0.4339*	11,02 *0.4339*	11,04 *0.4346*	57,0 *2.2440*	10,0 *0.3940*	88,0 *3.4650*	6	☐	☐	☐	☐	☐	☐
NS10-11.03H7-EB...	–	11,03 *0.4343*	11,03 *0.4343*	11,05 *0.4350*	57,0 *2.2440*	10,0 *0.3940*	88,0 *3.4650*	6	☐	☐	☐	☐	☐	☐
NS10-11.04H7-EB...	–	11,04 *0.4346*	11,04 *0.4346*	11,06 *0.4354*	57,0 *2.2440*	10,0 *0.3940*	88,0 *3.4650*	6	☐	☐	☐	☐	☐	☐

Designation	Item number	DC	Hole dia min-max		LUX	DMM	OAL		Geometries			Grades		
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		EB45	EB845	EB30	RX2000	RK2050	H15
NS10-11.05H7-EB...	–	11,05 *0.4350*	11,05 *0.4350*	11,07 *0.4357*	57,0 *2.2440*	10,0 *0.3940*	88,0 *3.4650*	6	☐	☐	☐	☐	☐	☐
NS10-11.112H7-EB...	–	11,112 *0.4375*	11,11 *0.4375*	11,13 *0.4382*	57,0 *2.2440*	10,0 *0.3940*	88,0 *3.4650*	6	☐	☐	☐	☐	☐	☐
NS10-11.50H7-EB...	–	11,5 *0.4528*	11,50 *0.4528*	11,52 *0.4535*	57,0 *2.2440*	10,0 *0.3940*	88,0 *3.4650*	6	☐	☐	☐	☐	☐	☐
NS10-11.97H7-EB...	–	11,97 *0.4713*	11,97 *0.4713*	11,99 *0.4720*	57,0 *2.2440*	10,0 *0.3940*	88,0 *3.4650*	6	☐	☐	☐	☐	☐	☐
NS10-11.98H7-EB...	–	11,98 *0.4717*	11,98 *0.4717*	12,00 *0.4724*	57,0 *2.2440*	10,0 *0.3940*	88,0 *3.4650*	6	☐	☐	☐	☐	☐	☐
NS10-11.99H7-EB...	–	11,99 *0.4720*	11,99 *0.4720*	12,01 *0.4728*	57,0 *2.2440*	10,0 *0.3940*	88,0 *3.4650*	6	☐	☐	☐	☐	☐	☐
NS10-12.00H7-EB...	–	12,0 *0.4724*	12,00 *0.4724*	12,02 *0.4731*	57,0 *2.2440*	10,0 *0.3940*	88,0 *3.4650*	6	☐	☐	☐	☐	☐	☐
NS10-12H7-EB30	10019468	12,0 *0.4724*	12,02 *0.4731*	12,00 *0.4724*	57,0 *2.2440*	10,0 *0.3940*	88,0 *3.4650*	4	☐	☐	■	■	☐	☐
NS10-12.01H7-EB...	–	12,01 *0.4728*	12,01 *0.4728*	12,03 *0.4735*	57,0 *2.2440*	10,0 *0.3940*	88,0 *3.4650*	6	☐	☐	☐	☐	☐	☐
NS10-12.02H7-EB...	–	12,02 *0.4732*	12,02 *0.4732*	12,04 *0.4739*	57,0 *2.2440*	10,0 *0.3940*	88,0 *3.4650*	6	☐	☐	☐	☐	☐	☐
NS10-12.03H7-EB...	–	12,03 *0.4736*	12,03 *0.4736*	12,05 *0.4743*	57,0 *2.2440*	10,0 *0.3940*	88,0 *3.4650*	6	☐	☐	☐	☐	☐	☐
NS10-12.04H7-EB...	–	12,04 *0.4740*	12,04 *0.4740*	12,06 *0.4747*	57,0 *2.2440*	10,0 *0.3940*	88,0 *3.4650*	6	☐	☐	☐	☐	☐	☐
NS10-12.05H7-EB...	–	12,05 *0.4744*	12,05 *0.4744*	12,07 *0.4751*	57,0 *2.2440*	10,0 *0.3940*	88,0 *3.4650*	6	☐	☐	☐	☐	☐	☐

■ **Stock standard.** ☐ **Non stock standard.**
Note: When ordering Nanofix reamers for intermediate diameters, please state diameter and tolerance of hole to be reamed.
Ordering example: NS10-10.187/10.213-EB845, RX2000.

Intermediate diameter

Straight flutes, short version, for through & blind bores





- For choice of geometry, please see page(s) 374-376
- For cutting data see page(s) 393-400

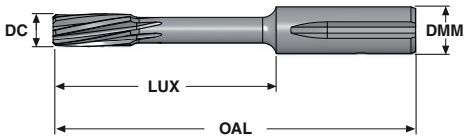
Designation	DCN	DCX	LUX	DMM	OAL		Body size	Geometries	Grades						
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*				H15	RK2050	RX2000	RN2010	RM2020	RM2090	RS2090
NS06-2.970-XX-XXXX	2,97 *0.117*	3,05 *0.120*	25,0 *0.120*	6,0 *0.236*	45,0 *1.772*	4	NFQF06-xx	EB45 EB845 EB30	☐	☐	☐	☐	☐	☐	☐
NS06-3.051-XX-XXXX	3,051 *0.120*	6,05 *0.238*	30,0 *0.238*	6,0 *0.236*	50,0 *1.969*	4	NFQF06-xx	EB45 EB845 EB30	☐	☐	☐	☐	☐	☐	☐
NS10-6.051-XX-XXXX	6,051 *0.238*	10,05 *0.396*	46,0 *0.396*	10,0 *0.394*	78,0 *3.071*	6	NFQF10-xx	EB45 EB845 EB30	☐	☐	☐	☐	☐	☐	☐
NS10-10.051-XX-XXXX	10,051 *0.396*	12,05 *0.474*	57,0 *0.474*	10,0 *0.394*	88,0 *3.465*	6	NFQF10-xx	EB45 EB845 EB30	☐	☐	☐	☐	☐	☐	☐

☐ **= Non stock standard.**
Note: When ordering Nanofix reamers for intermediate diameters, please state diameter and tolerance of hole to be reamed.
Ordering example: NS06-5.187/5.213-EB845, RX2000.

Intermediate diameter

LH helical flutes, short version, for through bores





- For cutting data see page(s) 395-400
- For choice of geometry, please see page(s) 374-376

Designation	DCN	DCX	LUX	DMM	OAL		Body size	Geometries	Grades						
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*				H15	RK2050	RX2000	RN2010	RM2020	RM2090	RS2090
NS6-2.970-XX-XXXX	2,97 *0.117*	3,05 *0.120*	25,0 *0.984*	6,0 *0.236*	45,0 *1.772*	4	NFQF06-xx	EB45 EB845 EB30	☐	☐	☐	☐	☐	☐	☐
NS6-3.051-XX-XXXX	3,051 *0.120*	6,05 *0.238*	30,0 *1.181*	6,0 *0.236*	50,0 *1.969*	4	NFQF06-xx	EB45 EB845 EB30	☐	☐	☐	☐	☐	☐	☐
NS6-6.051-XX-XXXX	6,051 *0.238*	8,05 *0.317*	46,0 *1.811*	10,0 *0.394*	78,0 *3.071*	6	NFQF10-xx	EB45 EB845 EB30	☐	☐	☐	☐	☐	☐	☐
NS6-10.051-XX-XXXX	10,051 *0.396*	12,05 *0.474*	57,0 *2.244*	10,0 *0.394*	88,0 *3.465*	6	NFQF10-xx	EB45 EB845 EB30	☐	☐	☐	☐	☐	☐	☐

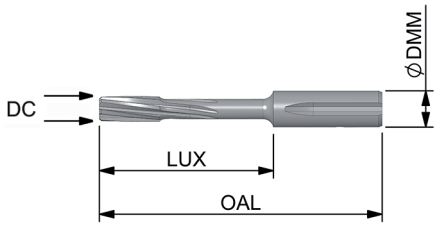
☐ **= Non stock standard.**

Note: When ordering Nanofix reamers for intermediate diameters, please state diameter and tolerance of hole to be reamed.

Ordering example: NS6-5.187/5.213-EB845, RX2000.

Intermediate diameter

RH helical flutes, short version, for blind bores





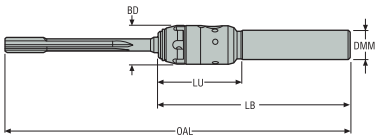
- For choice of geometry, please see page(s) 374-376
- For cutting data see page(s) 393-400

Designation	DCN	DCX	LUX	DMM	OAL		Body size	Geometries	Grades						
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*				H15	RK2050	RX2000	RN2010	RM2020	RM2090	RS2090
NS4-2.970-XX-XXXX	2,97 *0.117*	3,05 *0.120*	25,0 *0.984*	6,0 *0.236*	45,0 *1.772*	4	NFQF06-xx	EB45 EB845	☐	☐	☐	☐	☐	☐	☐
NS4-3.051-XX-XXXX	3,051 *0.120*	6,05 *0.238*	30,0 *1.181*	6,0 *0.236*	50,0 *1.969*	4	NFQF06-xx	EB45 EB845	☐	☐	☐	☐	☐	☐	☐
NS4-4.051-XX-XXXX	6,051 *0.238*	8,05 *0.317*	46,0 *1.811*	10,0 *0.394*	78,0 *3.071*	6	NFQF10-xx	EB45 EB845	☐	☐	☐	☐	☐	☐	☐
NS4-10.051-XX-XXXX	10,051 *0.396*	12,05 *0.474*	57,0 *2.244*	10,0 *0.394*	88,0 *3.465*	6	NFQF10-xx	EB45 EB845	☐	☐	☐	☐	☐	☐	☐

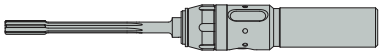
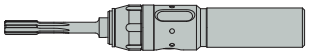
☐ **= Non stock standard.**
Note: When ordering Nanofix reamers for intermediate diameters, please state diameter and tolerance of hole to be reamed.
Ordering example: NS4-10.187/10.213-EB845, RX2000.

Nanofix tool holder

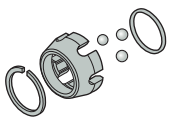




Designation	Item number	DC	DMM	BD	LU	LB
		mm	mm	mm	mm	mm
NFQF06-03700-10N1	02729036	2,97-6,05	10,0	16,0	37,0	80,0
NFQF06-03300-12N1	02729037	2,97-6,05	12,0	16,0	35,0	80,0
NFQF06-03000-16N1	02729041	2,97-6,05	16,0	16,0	30,0	80,0
NFQF10-05200-12N1	02729044	6,051-12,05	12,0	23,0	52,0	100,0
NFQF10-04900-16N1	02729045	6,051-12,05	16,0	23,0	49,0	100,0
NFQF10-04700-20N1	02729046	6,051-12,05	20,0	23,0	47,0	100,0

	Standard length	Short length
		
DC	**OAL**	**OAL**
2,970-3,050 mm *(0.1169-0.1200")*	124,5 mm *(4.902")*	109,5 mm *(4.311")*
3,051-6,050 mm *(0.1201-0.2382")*	144,5 mm *(5.689")*	113,5 mm *(4.469")*
6,051-8,050 mm *(0.2383-0.3169")*	189,5 mm *(7.461")*	149,5 mm *(5.886")*
8,051-10,050 mm *(0.3170-0.3956")*	199,5 mm *(7.854")*	152,5 mm *(6.004")*
10,051-12,050 mm *(0.3957-0.4744")*	219,5 mm *(8.642")*	162,5 mm *(6.398")*

Spare Parts, included in delivery

DC	Spare Clamping Kit	Key
		
2,97-6,050	NF06-CLKI	CLC06KEY
6,051-12,050	NF10-CLKI	CLC10KEY

Spare clamping kit for Nanofix holders includes:
- 1 clamping nut
- 1 axial stop spring ring
- 3 clamping balls (dia 3,5 mm for size NF06 & dia 5 mm for size NF10)
- 1 fool-proof ball (dia 3 mm for size NF06 & dia 4 mm for size NF10)
- 1 o-ring

Note: fool-proof ball not shown on above view.

Cutting data – NF/NS...-EB45 metric

SMG		a_p (∅)		f		v_c							
		z=4	z=6	z=4	z=6	H15	CP20	RX2000	RK2050	RN2010	RM2020	RM2090	RS2090
P1	NF/NS-EB45	0,10-0,15	0,1-0,20	0,10-0,30	0,20-0,60	25 (15-30)	60 (30-100)	80 (30-150)	-	–	–	–	–
P2	NF/NS-EB45	0,10-0,15	0,1-0,20	0,10-0,30	0,20-0,60	25 (15-30)	60 (30-100)	80 (30-150)	-	–	–	–	–
P3	NF/NS-EB45	0,10-0,15	0,1-0,20	0,10-0,30	0,20-0,60	25 (15-30)	60 (30-100)	80 (30-150)	-	–	–	–	–
P4	NF/NS-EB45	0,10-0,15	0,1-0,20	0,10-0,20	0,20-0,50	20 (10-25)	50 (30-80)	60 (30-120)	-	–	–	–	–
P5	NF/NS-EB45	0,10-0,15	0,1-0,20	0,10-0,20	0,20-0,50	20 (10-25)	50 (30-80)	60 (30-120)	-	–	–	–	–
P6	NF/NS-EB45	0,10-0,15	0,1-0,20	0,10-0,20	0,20-0,50	20 (10-25)	50 (30-80)	60 (30-120)	-	–	–	–	–
P7	NF/NS-EB45	0,10-0,15	0,1-0,20	0,10-0,20	0,20-0,50	20 (10-25)	50 (30-80)	60 (30-120)	-	–	–	–	–
P8	NF/NS-EB45	0,10-0,15	0,1-0,20	0,10-0,20	0,20-0,50	15 (10-20)	35 (20-60)	40 (20-80)	-	–	–	–	–
P11	NF/NS-EB45	0,10-0,15	0,1-0,20	0,10-0,20	0,20-0,50	15 (10-20)	35 (20-60)	40 (20-80)	-	–	–	–	–
P12	NF/NS-EB45	0,10-0,15	0,1-0,20	0,10-0,20	0,20-0,50	12 (8-15)	25 (15-45)	30 (15-65)	-	–	–	–	–
M1	NF/NS-EB45	0,08-0,15	0,10-0,15	0,10-0,20	0,20-0,50	12 (9-15)	25 (15-40)	35 (20-60)	-	–	25 (15-40)	40 (20-60)	–
M2	NF/NS-EB45	0,08-0,15	0,10-0,15	0,10-0,20	0,20-0,50	–	25 (15-40)	35 (20-60)	-	–	25 (15-40)	40 (20-60)	–
M3	NF/NS-EB45	0,08-0,15	0,10-0,15	0,10-0,20	0,20-0,50	–	25 (15-40)	35 (20-60)	-	–	25 (15-40)	40 (20-60)	–
M4	NF/NS-EB45	0,08-0,15	0,10-0,15	0,10-0,20	0,20-0,50	–	20 (10-30)	25 (15-40)	-	–	25 (10-30)	30 (15-40)	–
M5	NF/NS-EB45	0,08-0,15	0,10-0,15	0,10-0,20	0,20-0,50	–	20 (10-30)	25 (15-40)	-	–	25 (10-30)	30 (15-40)	–
K1	NF/NS-EB45	0,10-0,20	0,10-0,25	0,10-0,30	0,20-0,60	25 (15-30)	60 (40-100)	80 (30-150)	90 (35-170)	–	–	–	–
K2	NF/NS-EB45	0,10-0,20	0,10-0,25	0,10-0,30	0,20-0,60	–	25 (20-40)	40 (30-70)	45 (35-80)	–	–	–	–
K3	NF/NS-EB45	0,10-0,20	0,10-0,25	0,10-0,30	0,20-0,60	25 (15-30)	60 (40-100)	80 (30-150)	90 (35-170)	–	–	–	–
K4	NF/NS-EB45	0,10-0,20	0,10-0,25	0,10-0,30	0,20-0,60	25 (15-30)	45 (30-70)	70 (40-120)	80 (45-135)	–	–	–	–
K5	NF/NS-EB45	0,10-0,20	0,10-0,25	0,10-0,30	0,20-0,60	25 (15-30)	45 (30-70)	70 (40-120)	80 (45-135)	–	–	–	–
K6	NF/NS-EB45	0,10-0,20	0,10-0,25	0,10-0,30	0,20-0,60	–	60 (40-100)	80 (30-150)	90 (35-170)	–	–	–	–
K7	NF/NS-EB45	0,10-0,20	0,10-0,25	0,10-0,30	0,20-0,60	–	60 (40-100)	80 (30-150)	90 (35-170)	–	–	–	–
N1	NF/NS-EB45	0,10-0,20	0,10-0,30	0,10-0,30	0,20-0,60	50 (20-80)	-	80 (30-150)	-	50 (20-80)	–	–	–
N2	NF/NS-EB45	0,10-0,20	0,10-0,30	0,10-0,30	0,20-0,60	50 (20-80)	-	80 (30-150)	-	50 (20-80)	–	–	–
N3	NF/NS-EB45	0,10-0,20	0,10-0,30	0,10-0,30	0,20-0,60	50 (20-80)	-	80 (30-150)	-	50 (20-80)	–	–	–
N4	NF/NS-EB45	0,10-0,20	0,10-0,30	0,10-0,30	0,20-0,60	50 (20-80)	-	80 (30-150)	-	50 (20-80)	–	–	–
S1	NF/NS-EB45	0,08-0,15	0,10-0,15	0,10-0,20	0,20-0,30	–	15 (8-20)	20 (10-25)	-	–	–	–	20 (10-25)
S2	NF/NS-EB45	0,08-0,15	0,10-0,15	0,10-0,20	0,20-0,30	–	15 (8-20)	20 (10-25)	-	–	–	–	20 (10-25)
S3	NF/NS-EB45	0,08-0,15	0,10-0,15	0,10-0,20	0,20-0,30	–	15 (8-20)	20 (10-25)	-	–	–	–	25 (10-25)
S11	NF/NS-EB45	0,08-0,15	0,10-0,15	0,10-0,20	0,20-0,30	20 (15-30)	30 (15-40)	40 (20-50)	-	–	–	–	30 (20-50)
S12	NF/NS-EB45	0,08-0,15	0,10-0,15	0,10-0,20	0,20-0,30	20 (15-30)	30 (15-40)	40 (20-50)	-	–	–	–	30 (20-50)
S13	NF/NS-EB45	0,08-0,15	0,10-0,15	0,10-0,20	0,20-0,30	20 (15-30)	30 (15-40)	40 (20-50)	-	–	–	–	30 (20-50)

The table continues on next page.

Cutting data – NF/NS...-EB45 metric

SMG		a_p (∅)		f		v_c							
		z=4	z=6	z=4	z=6	H15	CP20	RX2000	RK2050	RN2010	RM2020	RM2090	RS2090
H3	NF/NS-EB45	0,08-0,15	0,10-0,15	0,10-0,20	0,20-0,30	–	–	10 (8-15)	–	–	–	–	–
H5	NF/NS-EB45	0,08-0,15	0,10-0,15	0,10-0,20	0,20-0,30	–	–	10 (8-15)	–	–	–	–	–
H7	NF/NS-EB45	0,08-0,15	0,10-0,15	0,10-0,20	0,20-0,30	–	–	10 (8-15)	–	–	–	–	–
H8	NF/NS-EB45	0,08-0,15	0,10-0,15	0,10-0,20	0,20-0,30	–	–	10 (8-15)	–	–	–	–	–
H11	NF/NS-EB45	0,08-0,15	0,10-0,15	0,10-0,20	0,20-0,30	–	–	10 (8-15)	–	–	–	–	–
H12	NF/NS-EB45	0,08-0,15	0,10-0,15	0,10-0,20	0,20-0,30	–	–	10 (8-15)	–	–	–	–	–
H21	NF/NS-EB45	0,08-0,15	0,10-0,15	0,10-0,20	0,20-0,30	–	–	10 (8-15)	–	–	–	–	–
H31	NF/NS-EB45	0,08-0,15	0,10-0,15	0,10-0,20	0,20-0,30	–	–	10 (8-15)	–	–	–	–	–
PM1	NF/NS-EB45	0,10-0,15	0,1-0,20	0,10-0,20	0,20-0,50	–	50 (30-80)	70 (40-100)	–	–	–	–	–
PM2	NF/NS-EB45	0,10-0,15	0,1-0,20	0,10-0,20	0,20-0,50	–	50 (30-80)	70 (40-100)	–	–	–	–	–
PM3	NF/NS-EB45	0,10-0,15	0,1-0,20	0,10-0,20	0,20-0,50	–	50 (30-80)	70 (40-100)	–	–	–	–	–
TS1	NF/NS-EB45	0,10-0,15	0,1-0,20	0,10-0,30	0,20-0,60	20 (15-25)	–	40 (20-60)	–	–	–	–	–
TS2	NF/NS-EB45	0,10-0,15	0,1-0,20	0,10-0,30	0,20-0,60	20 (15-25)	–	40 (20-60)	–	–	–	–	–
TS3	NF/NS-EB45	0,10-0,15	0,1-0,20	0,10-0,30	0,20-0,60	20 (15-25)	–	40 (20-60)	–	–	–	–	–
TS4	NF/NS-EB45	0,10-0,15	0,1-0,20	0,10-0,30	0,20-0,60	20 (15-25)	–	40 (20-60)	–	–	–	–	–
TP1	NF/NS-EB45	0,10-0,15	0,1-0,20	0,10-0,30	0,20-0,60	20 (15-25)	–	40 (20-60)	–	–	–	–	–
TP2	NF/NS-EB45	0,10-0,15	0,1-0,20	0,10-0,30	0,20-0,60	20 (15-25)	–	40 (20-60)	–	–	–	–	–
TP3	NF/NS-EB45	0,10-0,15	0,1-0,20	0,10-0,30	0,20-0,60	20 (15-25)	–	40 (20-60)	–	–	–	–	–
TP4	NF/NS-EB45	0,10-0,15	0,1-0,20	0,10-0,30	0,20-0,60	20 (15-25)	–	40 (20-60)	–	–	–	–	–
GR1	NF/NS-EB45	0,10-0,15	0,1-0,20	0,10-0,30	0,20-0,60	40 (80-20)	–	60 (30-120)	–	–	–	–	–

SMG = Seco material group
a_p = mm
f = mm/rev
v_c= m/min
All cutting data are start values

Cutting data – NF/NS...-EB45 *inch*

SMG		a_p (∅)		f		v_c							
		z=4	z=6	z=4	z=6	H15	CP20	RX2000	RK2050	RN2010	RM2020	RM2090	RS2090
P1	NF/NS-EB45	0.004-0.006	0.004-0.008	0.004-0.012	0.008-0.024	80 (50-100)	195 (100-330)	260 (100-490)	–	–	–	–	–
P2	NF/NS-EB45	0.004-0.006	0.004-0.008	0.004-0.012	0.008-0.024	80 (50-100)	195 (100-330)	260 (100-490)	–	–	–	–	–
P3	NF/NS-EB45	0.004-0.006	0.004-0.008	0.004-0.012	0.008-0.024	80 (50-100)	195 (100-330)	260 (100-490)	–	–	–	–	–
P4	NF/NS-EB45	0.004-0.006	0.004-0.008	0.004-0.008	0.008-0.020	65 (35-80)	165 (100-260)	195 (100-395)	–	–	–	–	–
P5	NF/NS-EB45	0.004-0.006	0.004-0.008	0.004-0.008	0.008-0.020	65 (35-80)	165 (100-260)	195 (100-395)	–	–	–	–	–
P6	NF/NS-EB45	0.004-0.006	0.004-0.008	0.004-0.008	0.008-0.020	65 (35-80)	165 (100-260)	195 (100-395)	–	–	–	–	–
P7	NF/NS-EB45	0.004-0.006	0.004-0.008	0.004-0.008	0.008-0.020	65 (35-80)	165 (100-260)	195 (100-395)	–	–	–	–	–
P8	NF/NS-EB45	0.004-0.006	0.004-0.008	0.004-0.008	0.008-0.020	50 (35-65)	115 (65-195)	130 (65-260)	–	–	–	–	–
P11	NF/NS-EB45	0.004-0.006	0.004-0.008	0.004-0.008	0.008-0.020	50 (35-65)	115 (65-195)	130 (65-260)	–	–	–	–	–
P12	NF/NS-EB45	0.004-0.006	0.004-0.008	0.004-0.008	0.008-0.020	40 (25-50)	80 (50-150)	100 (50-215)	–	–	–	–	–
M1	NF/NS-EB45	0.003-0.006	0.004-0.006	0.004-0.008	0.008-0.020	40 (30-50)	80 (50-130)	115 (65-195)	–	–	80 (50-130)	130 (65-195)	–
M2	NF/NS-EB45	0.003-0.006	0.004-0.006	0.004-0.008	0.008-0.020	–	80 (50-130)	115 (65-195)	–	–	80 (50-130)	130 (65-195)	–
M3	NF/NS-EB45	0.003-0.006	0.004-0.006	0.004-0.008	0.008-0.020	–	80 (50-130)	115 (65-195)	–	–	80 (50-130)	130 (65-195)	–
M4	NF/NS-EB45	0.003-0.006	0.004-0.006	0.004-0.008	0.008-0.020	–	65 (35-100)	80 (50-130)	–	–	65 (35-100)	100 (50-130)	–
M5	NF/NS-EB45	0.003-0.006	0.004-0.006	0.004-0.008	0.008-0.020	–	65 (35-100)	80 (50-130)	–	–	65 (35-100)	100 (50-130)	–
K1	NF/NS-EB45	0.004-0.008	0.004-0.010	0.004-0.012	0.008-0.024	80 (50-100)	195 (130-330)	260 (100-490)	290 (110-550)	–	–	–	–
K2	NF/NS-EB45	0.004-0.008	0.004-0.010	0.004-0.012	0.008-0.024	–	80 (65-130)	130 (100-230)	145 (110-260)	–	–	–	–
K3	NF/NS-EB45	0.004-0.008	0.004-0.010	0.004-0.012	0.008-0.024	80 (50-100)	195 (130-330)	260 (100-490)	290 (110-550)	–	–	–	–
K4	NF/NS-EB45	0.004-0.008	0.004-0.010	0.004-0.012	0.008-0.024	80 (50-100)	150 (100-230)	230 (130-395)	260 (145-440)	–	–	–	–
K5	NF/NS-EB45	0.004-0.008	0.004-0.010	0.004-0.012	0.008-0.024	80 (50-100)	150 (100-230)	230 (130-395)	260 (145-440)	–	–	–	–
K6	NF/NS-EB45	0.004-0.008	0.004-0.010	0.004-0.012	0.008-0.024	–	195 (130-330)	260 (100-490)	290 (110-550)	–	–	–	–
K7	NF/NS-EB45	0.004-0.008	0.004-0.010	0.004-0.012	0.008-0.024	–	195 (130-330)	260 (100-490)	290 (110-550)	–	–	–	–
N1	NF/NS-EB45	0.004-0.787	0.004-0.012	0.004-0.012	0.008-0.024	165 (65-260)	–	260 (100-490)	–	165 (65-260)	–	–	–
N2	NF/NS-EB45	0.004-0.787	0.004-0.012	0.004-0.012	0.008-0.024	165 (65-260)	–	260 (100-490)	–	165 (65-260)	–	–	–
N3	NF/NS-EB45	0.004-0.787	0.004-0.012	0.004-0.012	0.008-0.024	165 (65-260)	–	260 (100-490)	–	165 (65-260)	–	–	–
N4	NF/NS-EB45	0.004-0.787	0.004-0.012	0.004-0.012	0.008-0.024	165 (65-260)	–	260 (100-490)	–	165 (65-260)	–	–	–
S1	NF/NS-EB45	0.003-0.006	0.004-0.006	0.004-0.008	0.008-0.012	–	50 (25-65)	65 (35-80)	–	–	–	–	65 (35-80)
S2	NF/NS-EB45	0.003-0.006	0.004-0.006	0.004-0.008	0.008-0.012	–	50 (25-65)	65 (35-80)	–	–	–	–	65 (35-80)
S3	NF/NS-EB45	0.003-0.006	0.004-0.006	0.004-0.008	0.008-0.012	–	50 (25-65)	65 (35-80)	–	–	–	–	80 (35-80)
S11	NF/NS-EB45	0.003-0.006	0.004-0.006	0.004-0.008	0.008-0.012	65 (50-100)	100 (50-130)	130 (65-165)	–	–	–	–	100 (65-165)
S12	NF/NS-EB45	0.003-0.006	0.004-0.006	0.004-0.008	0.008-0.012	65 (50-100)	100 (50-130)	130 (65-165)	–	–	–	–	100 (65-165)
S13	NF/NS-EB45	0.003-0.006	0.004-0.006	0.004-0.008	0.008-0.012	65 (50-100)	100 (50-130)	130 (65-165)	–	–	–	–	100 (65-165)

The table continues on next page.

Cutting data – NF/NS...-EB45 *inch*

SMG		a_p (∅)		f		v_c							
		z=4	z=6	z=4	z=6	H15	CP20	RX2000	RK2050	RN2010	RM2020	RM2090	RS2090
H3	*NF/NS-EB45*	*0.003-0.006*	*0.004-0.006*	*0.004-0.008*	*0.008-0.012*	–	–	*35 (25-50)*	–	–	–	–	–
H5	*NF/NS-EB45*	*0.003-0.006*	*0.004-0.006*	*0.004-0.008*	*0.008-0.012*	–	–	*35 (25-50)*	–	–	–	–	–
H7	*NF/NS-EB45*	*0.003-0.006*	*0.004-0.006*	*0.004-0.008*	*0.008-0.012*	–	–	*35 (25-50)*	–	–	–	–	–
H8	*NF/NS-EB45*	*0.003-0.006*	*0.004-0.006*	*0.004-0.008*	*0.008-0.012*	–	–	*35 (25-50)*	–	–	–	–	–
H11	*NF/NS-EB45*	*0.003-0.006*	*0.004-0.006*	*0.004-0.008*	*0.008-0.012*	–	–	*35 (25-50)*	–	–	–	–	–
H12	*NF/NS-EB45*	*0.003-0.006*	*0.004-0.006*	*0.004-0.008*	*0.008-0.012*	–	–	*35 (25-50)*	–	–	–	–	–
H21	*NF/NS-EB45*	*0.003-0.006*	*0.004-0.006*	*0.004-0.008*	*0.008-0.012*	–	–	*35 (25-50)*	–	–	–	–	–
H31	*NF/NS-EB45*	*0.003-0.006*	*0.004-0.006*	*0.004-0.008*	*0.008-0.012*	–	–	*35 (25-50)*	–	–	–	–	–
PM1	*NF/NS-EB45*	*0.004-0.006*	*0.004-0.008*	*0.004-0.008*	*0.008-0.020*	–	*165 (100-260)*	*230 (130-350)*	–	–	–	–	–
PM2	*NF/NS-EB45*	*0.004-0.006*	*0.004-0.008*	*0.004-0.008*	*0.008-0.020*	–	*165 (100-260)*	*230 (130-350)*	–	–	–	–	–
PM3	*NF/NS-EB45*	*0.004-0.006*	*0.004-0.008*	*0.004-0.008*	*0.008-0.020*	–	*165 (100-260)*	*230 (130-350)*	–	–	–	–	–
TS1	*NF/NS-EB45*	*0.004-0.006*	*0.004-0.008*	*0.004-0.012*	*0.008-0.024*	*65 (50-80)*	–	*130 (65-195)*	–	–	–	–	–
TS2	*NF/NS-EB45*	*0.004-0.006*	*0.004-0.008*	*0.004-0.012*	*0.008-0.024*	*65 (50-80)*	–	*130 (65-195)*	–	–	–	–	–
TS3	*NF/NS-EB45*	*0.004-0.006*	*0.004-0.008*	*0.004-0.012*	*0.008-0.024*	*65 (50-80)*	–	*130 (65-195)*	–	–	–	–	–
TS4	*NF/NS-EB45*	*0.004-0.006*	*0.004-0.008*	*0.004-0.012*	*0.008-0.024*	*65 (50-80)*	–	*130 (65-195)*	–	–	–	–	–
TP1	*NF/NS-EB45*	*0.004-0.006*	*0.004-0.008*	*0.004-0.012*	*0.008-0.024*	*65 (50-80)*	–	*130 (65-195)*	–	–	–	–	–
TP2	*NF/NS-EB45*	*0.004-0.006*	*0.004-0.008*	*0.004-0.012*	*0.008-0.024*	*65 (50-80)*	–	*130 (65-195)*	–	–	–	–	–
TP3	*NF/NS-EB45*	*0.004-0.006*	*0.004-0.008*	*0.004-0.012*	*0.008-0.024*	*65 (50-80)*	–	*130 (65-195)*	–	–	–	–	–
TP4	*NF/NS-EB45*	*0.004-0.006*	*0.004-0.008*	*0.004-0.012*	*0.008-0.024*	*65 (50-80)*	–	*130 (65-195)*	–	–	–	–	–
GR1	*NF/NS-EB45*	*0.004-0.006*	*0.004-0.008*	*0.004-0.012*	*0.008-0.024*	*130 (65-260)*	–	*195 (100-395)*	–	–	–	–	–

SMG = Seco material group
a_p = *inch*
f = in/rev
v_c= sf/min
All cutting data are start values

Cutting data – NF/NS...-EB845 metric

SMG		a_p (∅)		f		v_c						
		z=4	z=6	z=4	z=6	H15	CP20	RX2000	RK2050	RM2020	RM2090	RS2090
P3	NF/NS-EB845	0,10 -0,15	0,1 -0,20	0,10 -0,30	0,20 -0,60	–	60 (30-100)	80 (30-150)	–	–	–	-
P4	NF/NS-EB845	0,10 -0,15	0,1 -0,20	0,10 -0,20	0,20 -0,50	–	50 (30-80)	60 (30-120)	–	–	–	-
P5	NF/NS-EB845	0,10 -0,15	0,1 -0,20	0,10 -0,20	0,20 -0,50	20 (10-25)	50 (30-80)	60 (30-120)	–	–	–	-
P6	NF/NS-EB845	0,10 -0,15	0,1 -0,20	0,10 -0,20	0,20 -0,50	20 (10-25)	50 (30-80)	60 (30-120)	–	–	–	-
P7	NF/NS-EB845	0,10 -0,15	0,1 -0,20	0,10 -0,20	0,20 -0,50	20 (10-25)	50 (30-80)	60 (30-120)	–	–	–	-
P8	NF/NS-EB845	0,10 -0,15	0,1 -0,20	0,10 -0,20	0,20 -0,50	15 (10-20)	35 (20-60)	40 (20-80)	–	–	–	-
P11	NF/NS-EB845	0,10 -0,15	0,1 -0,20	0,10 -0,20	0,20 -0,50	15 (10-20)	35 (20-60)	40 (20-80)	–	–	–	-
P12	NF/NS-EB845	0,10 -0,15	0,1 -0,20	0,10 -0,20	0,20 -0,50	12 (8-15)	25 (15-45)	30 (15-65)	–	–	–	-
M1	NF/NS-EB845	0,08 -0,15	0,10 -0,15	0,10 -0,20	0,20 -0,50	12 (9-15)	25 (15-45)	35 (20-60)	–	25 (15-40)	40 (20-60)	-
M2	NF/NS-EB845	0,08 -0,15	0,10 -0,15	0,10 -0,20	0,20 -0,50	–	25 (15-45)	35 (20-60)	–	25 (15-40)	40 (20-60)	-
M3	NF/NS-EB845	0,08 -0,15	0,10 -0,15	0,10 -0,20	0,20 -0,50	–	25 (15-45)	35 (20-60)	–	25 (15-40)	40 (20-60)	-
M4	NF/NS-EB845	0,08 -0,15	0,10 -0,15	0,10 -0,20	0,20 -0,50	–	20 (10-30)	25 (15-40)	–	25 (10-30)	30 (15-40)	-
M5	NF/NS-EB845	0,08 -0,15	0,10 -0,15	0,10 -0,20	0,20 -0,50	–	20 (10-30)	25 (15-40)	–	25 (10-30)	30 (15-40)	-
K1	NF/NS-EB845	0,10 -0,20	0,10 -0,25	0,10 -0,30	0,20 -0,60	25 (15-30)	60 (40-100)	80 (30-150)	90 (35-170)	–	–	
K2	NF/NS-EB845	0,10 -0,20	0,10 -0,25	0,10 -0,30	0,20 -0,60	–	25 (20-40)	40 (30-70)	45 (35-80)	–	–	
K3	NF/NS-EB845	0,10 -0,20	0,10 -0,25	0,10 -0,30	0,20 -0,60	25 (15-30)	60 (40-100)	80 (30-150)	90 (35-170)	–	–	
K4	NF/NS-EB845	0,10 -0,20	0,10 -0,25	0,10 -0,30	0,20 -0,60	25 (15-30)	45 (30-70)	70 (40-120)	80 (30-150)	–	–	
K5	NF/NS-EB845	0,10 -0,20	0,10 -0,25	0,10 -0,30	0,20 -0,60	25 (15-30)	45 (30-70)	70 (40-120)	80 (45-135)	–	–	
K6	NF/NS-EB845	0,10 -0,20	0,10 -0,25	0,10 -0,30	0,20 -0,60	–	60 (40-100)	80 (30-150)	90 (35-170)	–	–	
K7	NF/NS-EB845	0,10 -0,20	0,10 -0,25	0,10 -0,30	0,20 -0,60	–	60 (40-100)	80 (30-150)	90 (35-170)	–	–	-
S1	NF/NS-EB845	0,08 -0,15	0,10 -0,15	0,10 -0,20	0,20- 0,30	–	15 (8-20)	20 (10-25)	–	–	–	20 (10-25)
S2	NF/NS-EB845	0,08 -0,15	0,10 -0,15	0,10 -0,20	0,20- 0,30	–	15 (8-20)	20 (10-25)	–	–	–	20 (10-25)
S3	NF/NS-EB845	0,08 -0,15	0,10 -0,15	0,10 -0,20	0,20- 0,30	–	15 (8-20)	20 (10-25)	–	–	–	25 (10-25)
S11	NF/NS-EB845	0,08 -0,15	0,10 -0,15	0,10 -0,20	0,20- 0,30	20 (15-30)	30 (15-40)	40 (20-50)	–	–	–	30 (20-50)
S12	NF/NS-EB845	0,08 -0,15	0,10 -0,15	0,10 -0,20	0,20- 0,30	20 (15-30)	30 (15-40)	40 (20-50)	–	–	–	30 (20-50)
S13	NF/NS-EB845	0,08 -0,15	0,10 -0,15	0,10 -0,20	0,20- 0,30	20 (15-30)	30 (15-40)	40 (20-50)	–	–	–	30 (20-50)
H3	NF/NS-EB845	0,08 -0,15	0,10 -0,15	0,10 -0,20	0,20- 0,30	–	–	10 (8-15)	–	–	–	-
H5	NF/NS-EB845	0,08 -0,15	0,10 -0,15	0,10 -0,20	0,20- 0,30	–	–	10 (8-15)	–	–	–	-
H7	NF/NS-EB845	0,08 -0,15	0,10 -0,15	0,10 -0,20	0,20- 0,30	–	–	10 (8-15)	–	–	–	-
H8	NF/NS-EB845	0,08 -0,15	0,10 -0,15	0,10 -0,20	0,20- 0,30	–	–	10 (8-15)	–	–	–	-
H11	NF/NS-EB845	0,08 -0,15	0,10 -0,15	0,10 -0,20	0,20- 0,30	–	–	10 (8-15)	–	–	–	-
H12	NF/NS-EB845	0,08 -0,15	0,10 -0,15	0,10 -0,20	0,20- 0,30	–	–	10 (8-15)	–	–	–	-
H21	NF/NS-EB845	0,08 -0,15	0,10 -0,15	0,10 -0,20	0,20- 0,30	–	–	10 (8-15)	–	–	–	-
H31	NF/NS-EB845	0,08 -0,15	0,10 -0,15	0,10 -0,20	0,20- 0,30	–	–	10 (8-15)	–	–	–	-
PM1	NF/NS-EB845	0,10 -0,15	0,1 -0,20	0,10 -0,20	0,20 -0,50	–	50 (30-80)	70 (40-100)	–	–	–	-
PM2	NF/NS-EB845	0,10 -0,15	0,1 -0,20	0,10 -0,20	0,20 -0,50	–	50 (30-80)	70 (40-100)	–	–	–	-
PM3	NF/NS-EB845	0,10 -0,15	0,1 -0,20	0,10 -0,20	0,20 -0,50	–	50 (30-80)	70 (40-100)	–	–	–	-

SMG = Seco material group
a_p = mm
f = mm/rev
v_c= m/min
All cutting data are start values

Cutting data – NF/NS...-EB845 *inch*

SMG		a_p (∅)		f		v_c						
		z=4	z=6	z=4	z=6	H15	CP20	RX2000	RK2050	RM2020	RM2090	RS2090
P3	NF/NS-EB845	0.004 –0.006	0.004 –0.008	0.004 –0.012	0.008 –0.024	–	195 (100-330)	260 (100-490)	–	–	–	-
P4	NF/NS-EB845	0.004 –0.006	0.004 –0.008	0.004 –0.008	0.008 –0.020	–	165 (100-260)	195 (100-395)	–	–	–	-
P5	NF/NS-EB845	0.004 –0.006	0.004 –0.008	0.004 –0.008	0.008 –0.020	65 (35-80)	165 (100-260)	195 (100-395)	–	–	–	-
P6	NF/NS-EB845	0.004 –0.006	0.004 –0.008	0.004 –0.008	0.008 –0.020	65 (35-80)	165 (100-260)	195 (100-395)	–	–	–	-
P7	NF/NS-EB845	0.004 –0.006	0.004 –0.008	0.004 –0.008	0.008 –0.020	65 (35-80)	165 (100-260)	195 (100-395)	–	–	–	-
P8	NF/NS-EB845	0.004 –0.006	0.004 –0.008	0.004 –0.008	0.008 –0.020	50 (35-65)	115 (65-195)	130 (65-260)	–	–	–	-
P11	NF/NS-EB845	0.004 –0.006	0.004 –0.008	0.004 –0.008	0.008 –0.020	50 (35-65)	115 (65-195)	130 (65-260)	–	–	–	-
P12	NF/NS-EB845	0.004 –0.006	0.004 –0.008	0.004 –0.008	0.008 –0.020	40 (25-50)	80 (50-150)	100 (50-125)	–	–	–	–
M1	NF/NS-EB845	0.003 -0.006	0.004 –0.006	0.004 –0.008	0.008 -0.02	40 (30-50)	80 (50-150)	115 (65-200)	–	80 (50-130)	130 (65-195)	-
M2	NF/NS-EB845	0.003 -0.006	0.004 –0.006	0.004 –0.008	0.008 -0.02	–	80 (50-150)	115 (65-200)	–	80 (50-130)	130 (65-195)	-
M3	NF/NS-EB845	0.003 -0.006	0.004 –0.006	0.004 –0.008	0.008 -0.02	–	80 (50-150)	115 (65-200)	–	80 (50-130)	130 (65-195)	-
M4	NF/NS-EB845	0.003 -0.006	0.004 –0.006	0.004 –0.008	0.008 -0.02	–	65 (30-100)	80 (50-135)	–	80 (35-100)	100 (50-130)	-
M5	NF/NS-EB845	0.003 -0.006	0.004 –0.006	0.004 –0.008	0.008 -0.02	–	65 (30-100)	80 (50-135)	–	80 (35-100)	100 (50-130)	-
K1	NF/NS-EB845	0.004 –0.008	0.004 –0.010	0.004 –0.012	0.008 –0.024	80 (50-100)	195 (130-330)	260 (100-490)	290 (110-550)	–	–	
K2	NF/NS-EB845	0.004 –0.008	0.004 –0.010	0.004 –0.012	0.008 –0.024	–	80 (65-130)	130 (100-230)	145 (110-260)	–	–	
K3	NF/NS-EB845	0.004 –0.008	0.004 –0.010	0.004 –0.012	0.008 –0.024	80 (50-100)	195 (130-330)	260 (100-490)	290 (110-550)	–	–	
K4	NF/NS-EB845	0.004 –0.008	0.004 –0.010	0.004 –0.012	0.008 –0.024	80 (50-100)	150 (100-330)	230 (130-395)	260 (145-440)	–	–	
K5	NF/NS-EB845	0.004 –0.008	0.004 –0.010	0.004 –0.012	0.008 –0.024	80 (50-100)	150 (100-330)	230 (130-395)	260 (145-440)	–	–	
K6	NF/NS-EB845	0.004 –0.008	0.004 –0.010	0.004 –0.012	0.008 –0.024	–	195 (130-330)	260 (100-490)	290 (110-550)	–	–	
K7	NF/NS-EB845	0.004 –0.008	0.004 –0.010	0.004 –0.012	0.008 –0.024	–	195 (130-330)	260 (100-490)	290 (110-550)	–	–	-
S1	NF/NS-EB845	0.003 –0.006	0.004 –0.006	0.004 –0.008	0.008 –0.012	–	50 (25-65)	65 (35-80)	–	–	–	65 (35-80)
S2	NF/NS-EB845	0.003 –0.006	0.004 –0.006	0.004 –0.008	0.008 –0.012	–	50 (25-65)	65 (35-80)	–	–	–	65 (35-80)
S3	NF/NS-EB845	0.003 –0.006	0.004 –0.006	0.004 –0.008	0.008 –0.012	–	50 (25-65)	65 (35-80)	–	–	–	65 (35-80)
S11	NF/NS-EB845	0.003 –0.006	0.004 –0.006	0.004 –0.008	0.008 –0.012	65 (50-100)	100 (50-130)	130 (65-165)	–	–	–	100 (65-165)
S12	NF/NS-EB845	0.003 –0.006	0.004 –0.006	0.004 –0.008	0.008 –0.012	65 (50-100)	100 (50-130)	130 (65-165)	–	–	–	100 (65-165)
S13	NF/NS-EB845	0.003 –0.006	0.004 –0.006	0.004 –0.008	0.008 –0.012	65 (50-100)	100 (50-130)	130 (65-165)	–	–	–	100 (65-165)
H3	NF/NS-EB845	0.003 –0.006	0.004 –0.006	0.004 –0.008	0.008 –0.012	–	–	35 (25-50)	–	–	–	-
H5	NF/NS-EB845	0.003 –0.006	0.004 –0.006	0.004 –0.008	0.008 –0.012	–	–	35 (25-50)	–	–	–	-
H7	NF/NS-EB845	0.003 –0.006	0.004 –0.006	0.004 –0.008	0.008 –0.012	–	–	35 (25-50)	–	–	–	-
H8	NF/NS-EB845	0.003 –0.006	0.004 –0.006	0.004 –0.008	0.008 –0.012	–	–	35 (25-50)	–	–	–	-
H11	NF/NS-EB845	0.003 –0.006	0.004 –0.006	0.004 –0.008	0.008 –0.012	–	–	35 (25-50)	–	–	–	-
H12	NF/NS-EB845	0.003 –0.006	0.004 –0.006	0.004 –0.008	0.008 –0.012	–	–	35 (25-50)	–	–	–	-
H21	NF/NS-EB845	0.003 –0.006	0.004 –0.006	0.004 –0.008	0.008 –0.012	–	–	35 (25-50)	–	–	–	-
H31	NF/NS-EB845	0.003 –0.006	0.004 –0.006	0.004 –0.008	0.008 –0.012	–	–	35 (25-50)	–	–	–	-
PM1	NF/NS-EB845	0.004 –0.006	0.004 –0.008	0.004 –0.008	0.008 –0.020	–	165 (100-260)	230 (130-350)	–	–	–	-
PM2	NF/NS-EB845	0.004 –0.006	0.004 –0.008	0.004 –0.008	0.008 –0.020	–	165 (100-260)	230 (130-350)	–	–	–	-
PM3	NF/NS-EB845	0.004 –0.006	0.004 –0.008	0.004 –0.008	0.008 –0.020	–	165 (100-260)	230 (130-350)	–	–	–	-

SMG = Seco material group
a_p = *inch*
f = in/rev
v_c= sf/min
All cutting data are start values

Cutting data – NF/NS...-EB25/EB30 metric

SMG		a_p (∅)		f		v_c			
		z=4	z=6	z=4	z=6	H15	CP20	RX2000	RK2050
P1	NF/NS-EB25/EB30	0,10-0,15	0,1-0,20	0,3-0,9	0,5-1,2	25 (15-30)	60 (30-100)	80 (30-150)	–
P2	NF/NS-EB25/EB30	0,10-0,15	0,1-0,20	0,3-0,9	0,5-1,2	25 (15-30)	60 (30-100)	80 (30-150)	–
P3	NF/NS-EB25/EB30	0,10-0,15	0,1-0,20	0,3-0,9	0,5-1,2	25 (15-30)	60 (30-100)	80 (30-150)	–
P4	NF/NS-EB25/EB30	0,10-0,15	0,1-0,20	0,3-0,7	0,5-1	20 (10-25)	50 (30-80)	60 (30-120)	–
P5	NF/NS-EB25/EB30	0,10-0,15	0,1-0,20	0,3-0,7	0,5-1	20 (10-25)	50 (30-80)	60 (30-120)	–
P6	NF/NS-EB25/EB30	0,10-0,15	0,1-0,20	0,3-0,7	0,5-1	20 (10-25)	50 (30-80)	60 (30-120)	–
P7	NF/NS-EB25/EB30	0,10-0,15	0,1-0,20	0,3-0,7	0,5-1	20 (10-25)	50 (30-80)	60 (30-120)	–
M1	NF/NS-EB25/EB30	0,08-0,15	0,10-0,15	0,3-0,7	0,5-1	–	25 (15-40)	35 (20-60)	–
K1	NF/NS-EB25/EB30	0,10-0,20	0,10-0,25	0,3-0,9	0,5-1,2	25 (15-30)	60 (40-100)	80 (30-150)	90 (35-170)
K2	NF/NS-EB25/EB30	0,10-0,20	0,10-0,25	0,3-0,9	0,5-1,2	–	25 (20-40)	40 (30-70)	45 (35-80)
K3	NF/NS-EB25/EB30	0,10-0,20	0,10-0,25	0,3-0,9	0,5-1,2	25 (15-30)	60 (40-100)	80 (30-150)	90 (35-170)
K4	NF/NS-EB25/EB30	0,10-0,20	0,10-0,25	0,3-0,9	0,5-1,2	25 (15-30)	45 (30-70)	70 (40-120)	80 (45-135)
K5	NF/NS-EB25/EB30	0,10-0,20	0,10-0,25	0,3-0,9	0,5-1,2	25 (15-30)	45 (30-70)	70 (40-120)	80 (45-135)
K6	NF/NS-EB25/EB30	0,10-0,20	0,10-0,25	0,3-0,9	0,5-1,2	–	60 (40-100)	80 (30-150)	90 (35-170)
K7	NF/NS-EB25/EB30	0,10-0,20	0,10-0,25	0,3-0,9	0,5-1,2	–	60 (40-100)	80 (30-150)	90 (35-170)
N1	NF/NS-EB25/EB30	0,10-0,20	0,10-0,30	0,3-0,9	0,5-1,2	50 (20-80)	–	–	–
N2	NF/NS-EB25/EB30	0,10-0,20	0,10-0,30	0,3-0,9	0,5-1,2	50 (20-80)	–	–	–
N3	NF/NS-EB25/EB30	0,10-0,20	0,10-0,30	0,3-0,9	0,5-1,2	50 (20-80)	–	–	–
N11	NF/NS-EB25/EB30	0,10-0,20	0,10-0,30	0,3-0,9	0,5-1,2	50 (20-80)	–	–	–
PM1	NF/NS-EB25/EB30	0,10-0,15	0,1-0,20	0,3-0,9	0,5-1,2	–	50 (30-80)	70 (40-100)	–
PM2	NF/NS-EB25/EB30	0,10-0,15	0,1-0,20	0,3-0,9	0,5-1,2	–	50 (30-80)	70 (40-100)	–
PM3	NF/NS-EB25/EB30	0,10-0,15	0,1-0,20	0,3-0,9	0,5-1,2	–	50 (30-80)	70 (40-100)	–

SMG = Seco material group
a_p = mm
f = mm/rev
v_c= m/min
All cutting data are start values

Cutting data – NF/NS...-EB25/EB30 *inch*

SMG		a_p (∅)		f		v_c			
		z=4	z=6	z=4	z=6	H15	CP20	RX2000	RK2050
P1	NF/NS-EB25/EB30	0.004–0.006	0.004–0.008	0.012–0.035	0.020–0.047	80 (50-100)	195 (100-330)	260 (100-490)	–
P2	NF/NS-EB25/EB30	0.004–0.006	0.004–0.008	0.012–0.035	0.020–0.047	80 (50-100)	195 (100-330)	260 (100-490)	–
P3	NF/NS-EB25/EB30	0.004–0.006	0.004–0.008	0.012–0.035	0.020–0.047	80 (50-100)	195 (100-330)	260 (100-490)	–
P4	NF/NS-EB25/EB30	0.004–0.006	0.004–0.008	0.012–0.028	0.020–0.039	65 (35-80)	165 (100-265)	195 (100-395)	–
P5	NF/NS-EB25/EB30	0.004–0.006	0.004–0.008	0.012–0.028	0.020–0.039	65 (35-80)	165 (100-265)	195 (100-395)	–
P6	NF/NS-EB25/EB30	0.004–0.006	0.004–0.008	0.012–0.028	0.020–0.039	65 (35-80)	165 (100-265)	195 (100-395)	–
P7	NF/NS-EB25/EB30	0.004–0.006	0.004–0.008	0.012–0.028	0.020–0.039	65 (35-80)	165 (100-265)	195 (100-395)	–
M1	NF/NS-EB25/EB30	0.003–0.006	0.004–0.006	0.012–0.028	0.020–0.039	–	80 (50-130)	115 (65-195)	–
K1	NF/NS-EB25/EB30	0.004–0.008	0.004–0.010	0.012–0.035	0.020–0.047	80 (50-100)	195 (130-330)	260 (100-490)	290 (110-550)
K2	NF/NS-EB25/EB30	0.004–0.008	0.004–0.010	0.012–0.035	0.020–0.047	–	80 (65-130)	130 (100-230)	145 (110-260)
K3	NF/NS-EB25/EB30	0.004–0.008	0.004–0.010	0.012–0.035	0.020–0.047	80 (50-100)	195 (130-330)	260 (100-490)	290 (110-550)
K4	NF/NS-EB25/EB30	0.004–0.008	0.004–0.010	0.012–0.035	0.020–0.047	80 (50-100)	150 (100-230)	230 (130-395)	260 (145-440)
K5	NF/NS-EB25/EB30	0.004–0.008	0.004–0.010	0.012–0.035	0.020–0.047	80 (50-100)	150 (100-230)	230 (130-395)	260 (145-440)
K6	NF/NS-EB25/EB30	0.004–0.008	0.004–0.010	0.012–0.035	0.020–0.047	–	195 (130-330)	260 (100-490)	290 (110-550)
K7	NF/NS-EB25/EB30	0.004–0.008	0.004–0.010	0.012–0.035	0.020–0.047	–	195 (130-330)	260 (100-490)	290 (110-550)
N1	NF/NS-EB25/EB30	0.004–0.787	0.004–0.012	0.012–0.035	0.020–0.047	165 (65-265)	–	–	–
N2	NF/NS-EB25/EB30	0.004–0.787	0.004–0.012	0.012–0.035	0.020–0.047	165 (65-265)	–	–	–
N3	NF/NS-EB25/EB30	0.004–0.787	0.004–0.012	0.012–0.035	0.020–0.047	165 (65-265)	–	–	–
N11	NF/NS-EB25/EB30	0.004–0.787	0.004–0.012	0.012–0.035	0.020–0.047	165 (65-265)	–	–	–
PM1	NF/NS-EB25/EB30	0.004–0.006	0.004–0.008	0.012–0.035	0.020–0.047	–	165 (100-265)	230 (130-330)	–
PM2	NF/NS-EB25/EB30	0.004–0.006	0.004–0.008	0.012–0.035	0.020–0.047	–	165 (100-265)	230 (130-330)	–
PM3	NF/NS-EB25/EB30	0.004–0.006	0.004–0.008	0.012–0.035	0.020–0.047	–	165 (100-265)	230 (130-330)	–

SMG = Seco material group
a_p = *inch*
f = in/rev
v_c= sf/min
All cutting data are start values

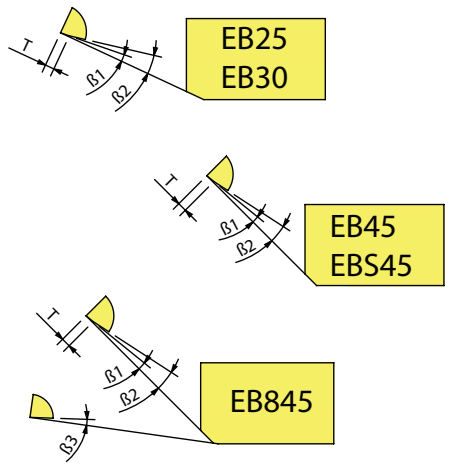
Regrinding instructions

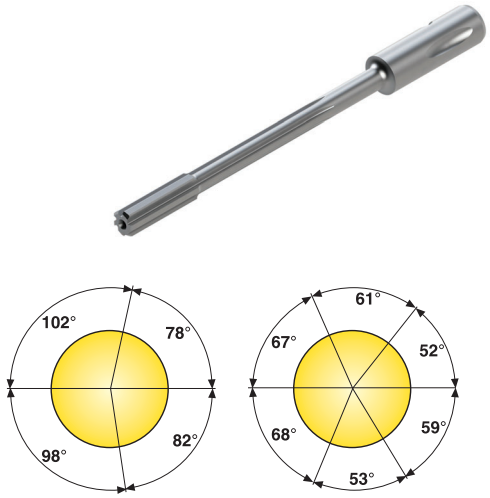
Specifications

Diamond grinding wheel
Grain size:
D6 for 1st clearance angle (β1 - β3)
D64 for 2nd clearance angle (β2)

Important

Regrinding reduces reamer diameter.
Recoating may produce oversized diameter.
Max run-out on lead chamfers 10 µm *(394 µin)*.





Nanofix ∅ mm *(inch)*	β_1	β_2	β_3	T mm *(inch)*
2,97-9,99 *(0.117-0.393)*	8°	18°	8°	0,15 *(0.006)*
10,00-12,050 *(0.394-0.474)*	8°	18°	8°	0,20 *(0.008)*



Nanojet

Nanojet solid carbide reamers are designed for small diameters from 1,461 to 9,960 mm (.057” - .392”).

- Powerful innovative coolant outlet
- Enables tolerances held between 10 and 15 µm (.0004” - .0006”)
- Eight available geometries: EB45, EBS45, EB845, EB25, EB30, EBS30, EB60 and EB75

Range overview

	∅ Range	Reaming depth	Hole ∅ tolerance	Intermediate diameter	Surface finish
Nanojet 	1,461-9,960 mm *(0.057-0.392")*	~ 4-7 x D	IT 7	Yes, available through My Design	R_a 0,2-1,2 µm *(R_a 7.87-47.2 µin)*

Nanojet is a solid carbide reamer dedicated for small diameters from 1,461 to 9,960 mm (.057" - .392).
Design includes an innovative peripherical coolant outlet delivering coolant diretly into the flutes in an optimized and powerful manner.

Code keys

Reamers

Reamer type | Hole diameter and tolerance

N5TS – **4H7** – **EB45** – **RX2000**

Lead geometry | Grade



Intermediate diameter reamers

Reamer type | Hole diameter and tolerance

N5BS – **2.5 P7** – **EB30** – **RK2050**

0.0984”-0.0989”

Lead geometry | Grade



N5TS: straight flutes design, suitable for through holes.
N5BS: straight flutes design, suitable for blind holes.

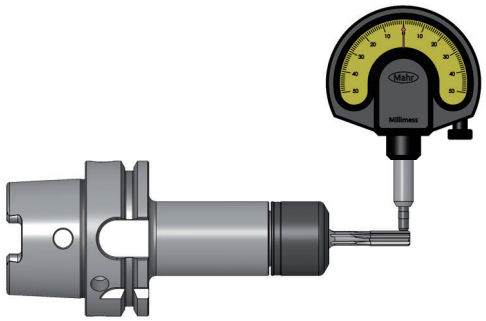
See Nanojet flutes geometries choice on page(s) 406.

Run-out

Rotating tool

Max. run-out recommended: 5 µm *(197 µin)*.
Precision holder is recommended : Hydraulic chuck, D-type collet chuck or 5672 collet chuck.

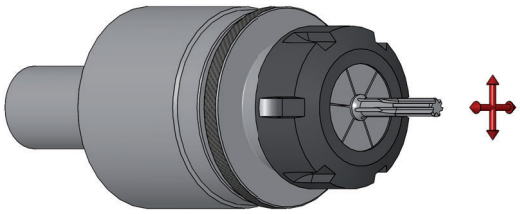
Note: due to coolant outlet adjustment sealing o-ring, the use of a Shrinkfit holder is not recommended.



Static tool

Use a Seco floating holder, see page 505-509.

Floating holders allow reamer self-centering in pre-bore.



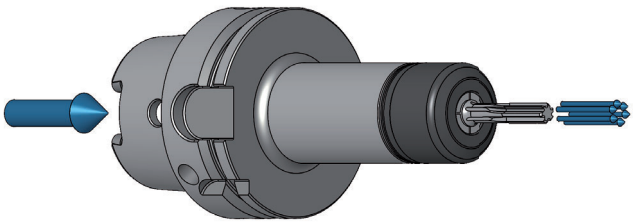
Coolant requirements

To reach maximum tool life and hole quality, the following coolant requirements should be observed.

Coolant through the tool is recommended.
External coolant supply can be used with cutting condition reduced by 75%.

Soluble oil with 40% minimum mineral oil.
Neat oil recommended for stainless steel.

Concentration minimum 6–8%.
Filtration 30–50 µm *(1181-1969 µin)*.
Volume min 0,5 l/min/mm *(0.13 gal/min/inch)* in tool diameter
(Ex: Reamer ∅10, min volume is 5 l/min *(1.3 gal/min)*.

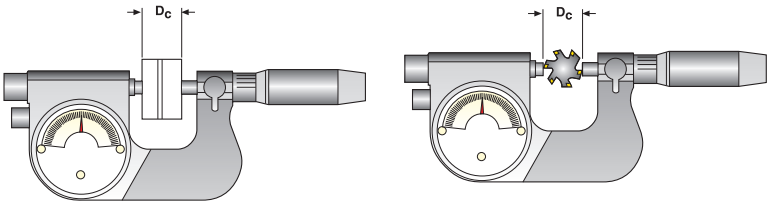


Diameter measurement

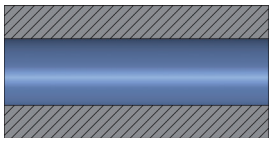
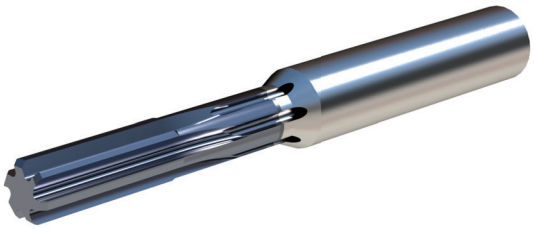
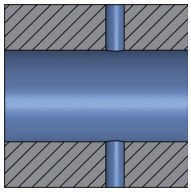
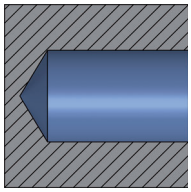
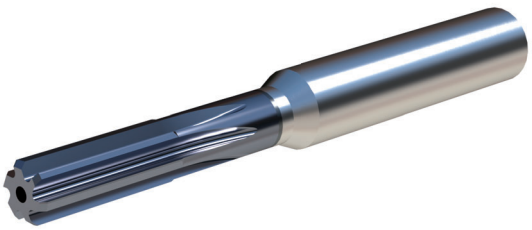
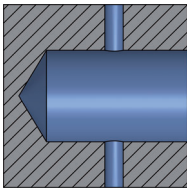
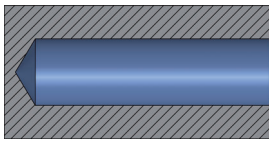
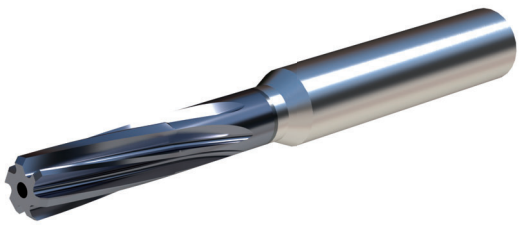
Gauge clock micrometer prior to ∅ measurement.

Important!
Nanojet reamers have differential pitch on teeth.
When measuring the diameter, make sure that you have 2 teeth 180° opposite.

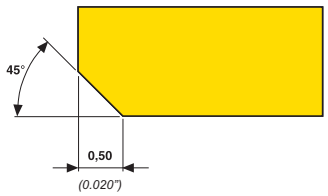
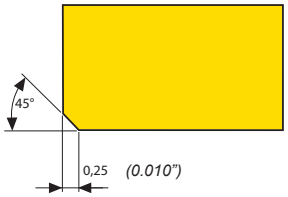
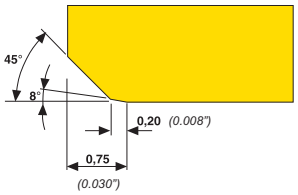
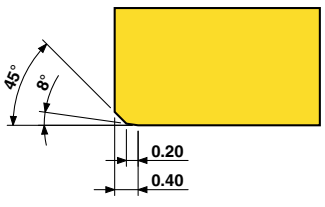
Use clock micrometer and measuring blocks for gauging.



Flute geometry choice

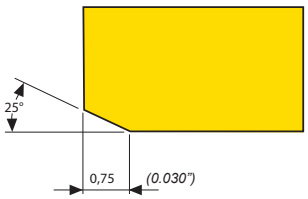
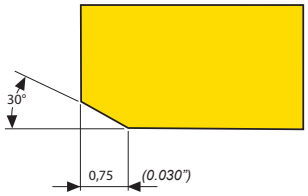
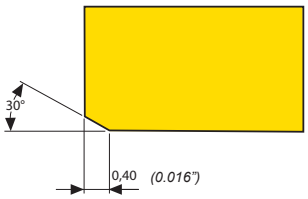
Workpiece	Diameter to ream ∅ 1,461-9,960 mm *(0.057-0.392")*	
Through holes 	**Straight flutes** N5T	
Through and crossing holes 		
Blind hole 	**Straight flutes** N5B	
Blind and crossing hole 		
Blind hole > 3 x D 	**RH helical flutes** N4B	

Geometry choice – Applications

Lead geometry - EB45	
Chip control ++ Surface finish+++ R_a 0,8 - 1,2 µm *(Surface finish+++ R_a 31 - 47 µin)* Versatile	
Lead geometry - EBS45	
Chip control +++ Surface Finish + R_a 0,8- 1,2 µm *(Surface Finish + R_a 31- 47 µin)* Short EB45	
Lead geometry - EB845	
Chip control ++ Surface finish+++ R_a 0,2 - 0,8 µm *(Surface finish+++ R_a 8 - 31 µin)*	
Lead geometry - EBS845	
Chip control ++ Surface finish+++ R_a 0,2 - 0,8 µm *(Surface finish+++ R_a 8 - 31 µin)*	

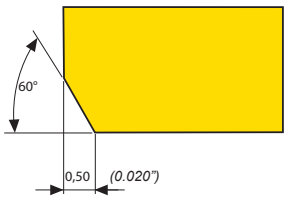
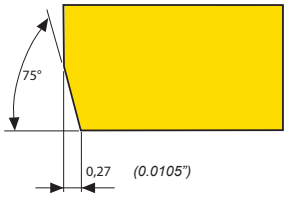
Note: for small diameter lead geometry length dimensions may be slightly smaller than above.

Geometry choice – Applications

Lead geometry - EB25	
Feed performance +++ Surface finish ++ R_a 0,4 - 0,8 µm *(Surface Finish ++ R_a 16 - 31 µin)* Chip control +	
Lead geometry - EB30	
Feed performance +++ Surface Finish ++ R_a 0,4 - 0,8 µm *(Surface Finish ++ R_a 16 - 31 µin)* Chip control +	
Lead geometry - EBS30	
Feed performance +++ Surface finish ++ R_a 0,4 - 0,8 µm *(Surface Finish ++ R_a 16 - 31 µin)* Chip control + Short EB30	

Note: for small diameter lead geometry length dimensions may be slightly smaller than above.

Geometry choice – Applications

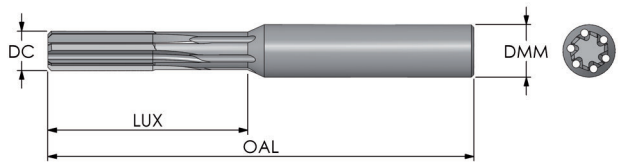
Lead geometry - EB60	
Feed performance + Surface Finish ++ R_a 0,8 - 1,2 µm *(Surface Finish ++ R_a 31 - 47 µin)* Chip control ++	
Lead geometry - EB75	
Feed performance + Surface Finish ++ R_a 0,8 - 1,2 µm *(Surface Finish ++ R_a 31-47 µin)* Chip control ++	

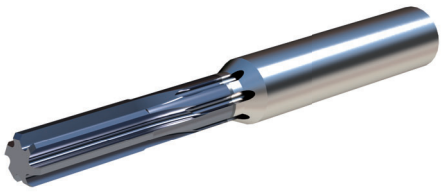
Note: for small diameter lead geometry length dimensions may be slightly smaller than above.

Grades		
	**RX2000**	**Coated** High performance coated grade suitable for all materials.
	**CP20**	**Coated** A versatile coated grade suitable for most materials, except aluminum. TiN
	**H15**	**Uncoated** A tough micrograin grade for all materials. Suitable for fine-reaming operations due to edge sharpness.
	**RN2010**	**Uncoated** A sub-micrograin uncoated grade with optimized geometries for N-materials (non ferrous).
	**RM2020**	**Coated** A tough coated grade suitable for fine reaming operation with optimized geometries for M materials.
	**RM2090**	**Coated** A wear resistant coated grade with specific geometries for M materials. Optimization in M materials.
	**RK2050**	**Coated** A tough coated grade suitable for fine reaming operation with optimized geometries for K materials.
	**RS2090**	**Coated** A wear resistant coated grade with specific geometries for S materials. Optimization in S materials.

Reamer for through holes

∅ 2-9 mm / *0.0787-0.3150”*





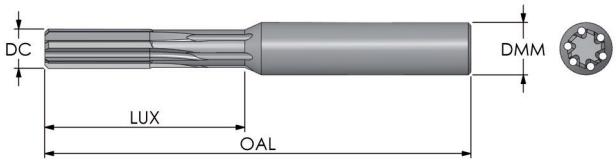
Designation	Item number	DC	Hole dia min-max		LUX	OAL	DMM		Geometries			Grades		
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*		EB45	EB845	EB30	RX2000	RK2050	H15
N5TS-2H7-EB45	10238500	2,0 *0.0787*	2,0 *0.0787*	2,01 *0.0791*	12,0 *0.4720*	50,0 *1.9690*	3,0 *0.1180*	4	■	□	□	■	□	□
N5TS-3H7-EB45	10238501	3,0 *0.1181*	3,0 *0.1181*	3,01 *0.1185*	21,0 *0.8270*	50,0 *1.9690*	4,0 *0.1570*	4	■	□	□	■	□	□
N5TS-4H7-EB45	10238502	4,0 *0.1575*	4,0 *0.1575*	4,012 *0.1580*	28,0 *1.1020*	55,0 *2.1650*	5,0 *0.1970*	4	■	□	□	■	□	□
N5TS-5H7-EB45	10238503	5,0 *0.1969*	5,0 *0.1969*	5,012 *0.1973*	28,0 *1.1020*	55,0 *2.1650*	6,0 *0.2360*	4	■	□	□	■	□	□
N5TS-6H7-EB45	10238504	6,0 *0.2362*	6,0 *0.2362*	6,015 *0.2368*	30,0 *1.1810*	65,0 *2.5590*	8,0 *0.3150*	6	■	□	□	■	□	□
N5TS-6.35H7-EB45	10238506	6,35 *0.2500*	6,35 *0.2500*	6,365 *0.2506*	30,0 *1.1810*	65,0 *2.5590*	8,0 *0.3150*	6	■	□	□	■	□	□
N5TS-8H7-EB45	10238505	8,0 *0.3150*	8,0 *0.3150*	8,015 *0.3156*	40,0 *1.5750*	75,0 *2.9530*	10,0 *0.3940*	6	■	□	□	■	□	□

■ **Stock standard.** □ **Non stock standard.**

Reamer for through holes – Intermediate diameter

Straight flute, short version – ∅ 1,461-9,960 mm / 0.057- 0.392”





- For choice of geometry, please see page(s) 407-409
- For cutting data see page(s) 414-421

Designation	DCN	DCX	LUX	DMM	OAL		Geometries	Grades						
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			H15	RK2050	RX2000	RN2010	RM2020	RM2090	RS2090
N5TS-1.461-XX.XXX	1,461 *0.058*	2,2 *0.087*	12,0 *0.087*	3,0 *0.118*	50,0 *1.969*	4	EB45 EB845 EB30 EB60...	☐	☐	☐	☐	☐	☐	☐
N5TS-2.201-XX.XXX	2,201 *0.087*	2,96 *0.117*	17,0 *0.117*	3,0 *0.118*	50,0 *1.969*	4	EB45 EB845 EB30 EB60...	☐	☐	☐	☐	☐	☐	☐
N5TS-2.961-XX.XXX	2,961 *0.117*	3,46 *0.136*	21,0 *0.136*	4,0 *0.157*	50,0 *1.969*	4	EB45 EB845 EB30 EB60...	☐	☐	☐	☐	☐	☐	☐
N5TS-3.461-XX.XXX	3,461 *0.136*	3,96 *0.156*	23,0 *0.156*	4,0 *0.157*	50,0 *1.969*	4	EB45 EB845 EB30 EB60...	☐	☐	☐	☐	☐	☐	☐
N5TS-3.961-XX.XXX	3,961 *0.156*	4,96 *0.195*	28,0 *0.195*	5,0 *0.197*	55,0 *2.165*	4	EB45 EB845 EB30 EB60...	☐	☐	☐	☐	☐	☐	☐
N5TS-4.961-XX.XXX	4,961 *0.195*	5,96 *0.235*	28,0 *0.235*	6,0 *0.236*	55,0 *2.165*	4	EB45 EB845 EB30 EB60...	☐	☐	☐	☐	☐	☐	☐
N5TS-5.961-XX.XXX	5,961 *0.235*	6,96 *0.274*	30,0 *0.274*	8,0 *0.315*	65,0 *2.559*	6	EB45 EB845 EB30 EB60...	☐	☐	☐	☐	☐	☐	☐
N5TS-6.961-XX.XXX	6,961 *0.274*	7,96 *0.313*	31,0 *0.313*	8,0 *0.315*	65,0 *2.559*	–	EB45 EB845 EB30 EB60...	☐	☐	☐	☐	☐	☐	☐
N5TS-7.961-XX.XXX	7,961 *0.313*	9,96 *0.392*	40,0 *0.392*	10,0 *0.394*	75,0 *2.953*	6	EB45 EB845 EB30 EB60...	☐	☐	☐	☐	☐	☐	☐

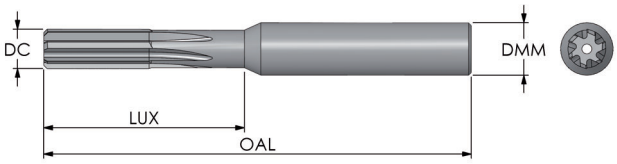
☐ = Non stock standard. Subject to change refer to current price- and stock-list

Note: When ordering Nanojet reamers for intermediate diameters, please state diameter and tolerance of hole to be reamed.

Ordering example: N5TS-2,5 R7-EBS45, RS2090

Reamer for blind holes – Intermediate diameter

Straight flute, short version – ∅ 1,461-9,960 mm / 0.057- 0.392”





- For choice of geometry, please see page(s) 407-409
- For cutting data see page(s) 414-421

Designation	DCN	DCX	LUX	DMM	OAL		Geometries	Grades						
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			H15	RK2050	RX2000	RN2010	RM2020	RM2090	RS2090
N5BS-1.461-XX.XXX	1,461 *0.058*	2,2 *0.087*	12,0 *0.087*	3,0 *0.118*	50,0 *1.969*	4	EB45 EB845 EB30 EB60...	☐	☐	☐	☐	☐	☐	☐
N5BS-2.201-XX.XXX	2,201 *0.087*	2,96 *0.117*	17,0 *0.117*	3,0 *0.118*	50,0 *1.969*	4	EB45 EB845 EB30 EB60...	☐	☐	☐	☐	☐	☐	☐
N5BS-2.961-XX.XXX	2,961 *0.117*	3,46 *0.136*	21,0 *0.136*	4,0 *0.157*	50,0 *1.969*	4	EB45 EB845 EB30 EB60...	☐	☐	☐	☐	☐	☐	☐
N5BS-3.461-XX.XXX	3,461 *0.136*	3,96 *0.156*	23,0 *0.156*	4,0 *0.157*	50,0 *1.969*	4	EB45 EB845 EB30 EB60...	☐	☐	☐	☐	☐	☐	☐
N5BS-3.961-XX.XXX	3,961 *0.156*	4,96 *0.195*	28,0 *0.195*	5,0 *0.197*	55,0 *2.165*	4	EB45 EB845 EB30 EB60...	☐	☐	☐	☐	☐	☐	☐
N5BS-4.961-XX.XXX	4,961 *0.195*	5,96 *0.235*	28,0 *0.235*	6,0 *0.236*	55,0 *2.165*	4	EB45 EB845 EB30 EB60...	☐	☐	☐	☐	☐	☐	☐
N5BS-5.961-XX.XXX	5,961 *0.235*	6,96 *0.274*	30,0 *0.274*	8,0 *0.315*	65,0 *2.559*	6	EB45 EB845 EB30 EB60...	☐	☐	☐	☐	☐	☐	☐
N5BS-6.961-XX.XXX	6,961 *0.274*	7,96 *0.313*	31,0 *0.313*	8,0 *0.315*	65,0 *2.559*	–	EB45 EB845 EB30 EB60...	☐	☐	☐	☐	☐	☐	☐
N5BS-7.961-XX.XXX	7,961 *0.313*	9,96 *0.392*	40,0 *0.392*	10,0 *0.394*	75,0 *2.953*	6	EB45 EB845 EB30 EB60...	☐	☐	☐	☐	☐	☐	☐

☐ **= Non stock standard. Subject to change refer to current price- and stock-list**
Note: When ordering Nanojet reamers for intermediate diameters, please state diameter and tolerance of hole to be reamed.
Ordering example: N5BS-8,084/8, 100-EB30, RK2050

Cutting data – N5TS/N5BS...-EB45 metric

SMG		a_p (∅)		f		v_c							
		z=4	z=6	z=4	z=6	H15	CP20	RX2000	RK2050	RN2010	RM2020	RM2090	RS2090
P1	NF/NS-EB45	0,10-0,15	0,1-0,20	0,10-0,30	0,20-0,60	25 (15-30)	60 (30-100)	80 (30-150)	-	–	–	–	–
P2	NF/NS-EB45	0,10-0,15	0,1-0,20	0,10-0,30	0,20-0,60	25 (15-30)	60 (30-100)	80 (30-150)	-	–	–	–	–
P3	NF/NS-EB45	0,10-0,15	0,1-0,20	0,10-0,30	0,20-0,60	25 (15-30)	60 (30-100)	80 (30-150)	-	–	–	–	–
P4	NF/NS-EB45	0,10-0,15	0,1-0,20	0,10-0,20	0,20-0,50	20 (10-25)	50 (30-80)	60 (30-120)	-	–	–	–	–
P5	NF/NS-EB45	0,10-0,15	0,1-0,20	0,10-0,20	0,20-0,50	20 (10-25)	50 (30-80)	60 (30-120)	-	–	–	–	–
P6	NF/NS-EB45	0,10-0,15	0,1-0,20	0,10-0,20	0,20-0,50	20 (10-25)	50 (30-80)	60 (30-120)	-	–	–	–	–
P7	NF/NS-EB45	0,10-0,15	0,1-0,20	0,10-0,20	0,20-0,50	20 (10-25)	50 (30-80)	60 (30-120)	-	–	–	–	–
P8	NF/NS-EB45	0,10-0,15	0,1-0,20	0,10-0,20	0,20-0,50	15 (10-20)	35 (20-60)	40 (20-80)	-	–	–	–	–
P11	NF/NS-EB45	0,10-0,15	0,1-0,20	0,10-0,20	0,20-0,50	15 (10-20)	35 (20-60)	40 (20-80)	-	–	–	–	–
P12	NF/NS-EB45	0,10-0,15	0,1-0,20	0,10-0,20	0,20-0,50	12 (8-15)	25 (15-45)	30 (15-65)	-	–	–	–	–
M1	NF/NS-EB45	0,08-0,15	0,10-0,15	0,10-0,20	0,20-0,50	12 (9-15)	25 (15-40)	35 (20-60)	-	–	25 (15-40)	40 (20-60)	–
M2	NF/NS-EB45	0,08-0,15	0,10-0,15	0,10-0,20	0,20-0,50	–	25 (15-40)	35 (20-60)	-	–	25 (15-40)	40 (20-60)	–
M3	NF/NS-EB45	0,08-0,15	0,10-0,15	0,10-0,20	0,20-0,50	–	25 (15-40)	35 (20-60)	-	–	25 (15-40)	40 (20-60)	–
M4	NF/NS-EB45	0,08-0,15	0,10-0,15	0,10-0,20	0,20-0,50	–	20 (10-30)	25 (15-40)	-	–	25 (10-30)	30 (15-40)	–
M5	NF/NS-EB45	0,08-0,15	0,10-0,15	0,10-0,20	0,20-0,50	–	20 (10-30)	25 (15-40)	-	–	25 (10-30)	30 (15-40)	–
K1	NF/NS-EB45	0,10-0,20	0,10-0,25	0,10-0,30	0,20-0,60	25 (15-30)	60 (40-100)	80 (30-150)	90 (35-170)	–	–	–	–
K2	NF/NS-EB45	0,10-0,20	0,10-0,25	0,10-0,30	0,20-0,60	–	25 (20-40)	40 (30-70)	45 (35-80)	–	–	–	–
K3	NF/NS-EB45	0,10-0,20	0,10-0,25	0,10-0,30	0,20-0,60	25 (15-30)	60 (40-100)	80 (30-150)	90 (35-170)	–	–	–	–
K4	NF/NS-EB45	0,10-0,20	0,10-0,25	0,10-0,30	0,20-0,60	25 (15-30)	45 (30-70)	70 (40-120)	80 (45-135)	–	–	–	–
K5	NF/NS-EB45	0,10-0,20	0,10-0,25	0,10-0,30	0,20-0,60	25 (15-30)	45 (30-70)	70 (40-120)	80 (45-135)	–	–	–	–
K6	NF/NS-EB45	0,10-0,20	0,10-0,25	0,10-0,30	0,20-0,60	–	60 (40-100)	80 (30-150)	90 (35-170)	–	–	–	–
K7	NF/NS-EB45	0,10-0,20	0,10-0,25	0,10-0,30	0,20-0,60	–	60 (40-100)	80 (30-150)	90 (35-170)	–	–	–	–
N1	NF/NS-EB45	0,10-0,20	0,10-0,30	0,10-0,30	0,20-0,60	50 (20-80)	-	80 (30-150)	-	50 (20-80)	–	–	–
N2	NF/NS-EB45	0,10-0,20	0,10-0,30	0,10-0,30	0,20-0,60	50 (20-80)	-	80 (30-150)	-	50 (20-80)	–	–	–
N3	NF/NS-EB45	0,10-0,20	0,10-0,30	0,10-0,30	0,20-0,60	50 (20-80)	-	80 (30-150)	-	50 (20-80)	–	–	–
N4	NF/NS-EB45	0,10-0,20	0,10-0,30	0,10-0,30	0,20-0,60	50 (20-80)	-	80 (30-150)	-	50 (20-80)	–	–	–
S1	NF/NS-EB45	0,08-0,15	0,10-0,15	0,10-0,20	0,20-0,30	–	15 (8-20)	20 (10-25)	-	–	–	–	20 (10-25)
S2	NF/NS-EB45	0,08-0,15	0,10-0,15	0,10-0,20	0,20-0,30	–	15 (8-20)	20 (10-25)	-	–	–	–	20 (10-25)
S3	NF/NS-EB45	0,08-0,15	0,10-0,15	0,10-0,20	0,20-0,30	–	15 (8-20)	20 (10-25)	-	–	–	–	25 (10-25)
S11	NF/NS-EB45	0,08-0,15	0,10-0,15	0,10-0,20	0,20-0,30	20 (15-30)	30 (15-40)	40 (20-50)	-	–	–	–	30 (20-50)
S12	NF/NS-EB45	0,08-0,15	0,10-0,15	0,10-0,20	0,20-0,30	20 (15-30)	30 (15-40)	40 (20-50)	-	–	–	–	30 (20-50)
S13	NF/NS-EB45	0,08-0,15	0,10-0,15	0,10-0,20	0,20-0,30	20 (15-30)	30 (15-40)	40 (20-50)	-	–	–	–	30 (20-50)

The table continues on next page.

Cutting data – N5TS/N5BS...-EB45 metric

SMG		a_p (∅)		f		v_c							
		z=4	z=6	z=4	z=6	H15	CP20	RX2000	RK2050	RN2010	RM2020	RM2090	RS2090
H3	NF/NS-EB45	0,08-0,15	0,10-0,15	0,10-0,20	0,20-0,30	–	–	10 (8-15)	–	–	–	–	–
H5	NF/NS-EB45	0,08-0,15	0,10-0,15	0,10-0,20	0,20-0,30	–	–	10 (8-15)	–	–	–	–	–
H7	NF/NS-EB45	0,08-0,15	0,10-0,15	0,10-0,20	0,20-0,30	–	–	10 (8-15)	–	–	–	–	–
H8	NF/NS-EB45	0,08-0,15	0,10-0,15	0,10-0,20	0,20-0,30	–	–	10 (8-15)	–	–	–	–	–
H11	NF/NS-EB45	0,08-0,15	0,10-0,15	0,10-0,20	0,20-0,30	–	–	10 (8-15)	–	–	–	–	–
H12	NF/NS-EB45	0,08-0,15	0,10-0,15	0,10-0,20	0,20-0,30	–	–	10 (8-15)	–	–	–	–	–
H21	NF/NS-EB45	0,08-0,15	0,10-0,15	0,10-0,20	0,20-0,30	–	–	10 (8-15)	–	–	–	–	–
H31	NF/NS-EB45	0,08-0,15	0,10-0,15	0,10-0,20	0,20-0,30	–	–	10 (8-15)	–	–	–	–	–
PM1	NF/NS-EB45	0,10-0,15	0,1-0,20	0,10-0,20	0,20-0,50	–	50 (30-80)	70 (40-100)	–	–	–	–	–
PM2	NF/NS-EB45	0,10-0,15	0,1-0,20	0,10-0,20	0,20-0,50	–	50 (30-80)	70 (40-100)	–	–	–	–	–
PM3	NF/NS-EB45	0,10-0,15	0,1-0,20	0,10-0,20	0,20-0,50	–	50 (30-80)	70 (40-100)	–	–	–	–	–
TS1	NF/NS-EB45	0,10-0,15	0,1-0,20	0,10-0,30	0,20-0,60	20 (15-25)	–	40 (20-60)	–	–	–	–	–
TS2	NF/NS-EB45	0,10-0,15	0,1-0,20	0,10-0,30	0,20-0,60	20 (15-25)	–	40 (20-60)	–	–	–	–	–
TS3	NF/NS-EB45	0,10-0,15	0,1-0,20	0,10-0,30	0,20-0,60	20 (15-25)	–	40 (20-60)	–	–	–	–	–
TS4	NF/NS-EB45	0,10-0,15	0,1-0,20	0,10-0,30	0,20-0,60	20 (15-25)	–	40 (20-60)	–	–	–	–	–
TP1	NF/NS-EB45	0,10-0,15	0,1-0,20	0,10-0,30	0,20-0,60	20 (15-25)	–	40 (20-60)	–	–	–	–	–
TP2	NF/NS-EB45	0,10-0,15	0,1-0,20	0,10-0,30	0,20-0,60	20 (15-25)	–	40 (20-60)	–	–	–	–	–
TP3	NF/NS-EB45	0,10-0,15	0,1-0,20	0,10-0,30	0,20-0,60	20 (15-25)	–	40 (20-60)	–	–	–	–	–
TP4	NF/NS-EB45	0,10-0,15	0,1-0,20	0,10-0,30	0,20-0,60	20 (15-25)	–	40 (20-60)	–	–	–	–	–
GR1	NF/NS-EB45	0,10-0,15	0,1-0,20	0,10-0,30	0,20-0,60	40 (80-20)	–	60 (30-120)	–	–	–	–	–

SMG = Seco material group
a_p = mm
f = mm/rev
v_c= m/min
All cutting data are start values

Cutting data – N5TS/N5BS...-EB45 *inch*

SMG		a_p (∅)		f		v_c							
		z=4	z=6	z=4	z=6	H15	CP20	RX2000	RK2050	RN2010	RM2020	RM2090	RS2090
P1	NF/NS-EB45	0.004-0.006	0.004-0.008	0.004-0.012	0.008-0.024	80 (50-100)	195 (100-330)	260 (100-490)	–	–	–	–	–
P2	NF/NS-EB45	0.004-0.006	0.004-0.008	0.004-0.012	0.008-0.024	80 (50-100)	195 (100-330)	260 (100-490)	–	–	–	–	–
P3	NF/NS-EB45	0.004-0.006	0.004-0.008	0.004-0.012	0.008-0.024	80 (50-100)	195 (100-330)	260 (100-490)	–	–	–	–	–
P4	NF/NS-EB45	0.004-0.006	0.004-0.008	0.004-0.008	0.008-0.020	65 (35-80)	165 (100-260)	195 (100-395)	–	–	–	–	–
P5	NF/NS-EB45	0.004-0.006	0.004-0.008	0.004-0.008	0.008-0.020	65 (35-80)	165 (100-260)	195 (100-395)	–	–	–	–	–
P6	NF/NS-EB45	0.004-0.006	0.004-0.008	0.004-0.008	0.008-0.020	65 (35-80)	165 (100-260)	195 (100-395)	–	–	–	–	–
P7	NF/NS-EB45	0.004-0.006	0.004-0.008	0.004-0.008	0.008-0.020	65 (35-80)	165 (100-260)	195 (100-395)	–	–	–	–	–
P8	NF/NS-EB45	0.004-0.006	0.004-0.008	0.004-0.008	0.008-0.020	50 (35-65)	115 (65-195)	130 (65-260)	–	–	–	–	–
P11	NF/NS-EB45	0.004-0.006	0.004-0.008	0.004-0.008	0.008-0.020	50 (35-65)	115 (65-195)	130 (65-260)	–	–	–	–	–
P12	NF/NS-EB45	0.004-0.006	0.004-0.008	0.004-0.008	0.008-0.020	40 (25-50)	80 (50-150)	100 (50-215)	–	–	–	–	–
M1	NF/NS-EB45	0.003-0.006	0.004-0.006	0.004-0.008	0.008-0.020	40 (30-50)	80 (50-130)	115 (65-195)	–	–	80 (50-130)	130 (65-195)	–
M2	NF/NS-EB45	0.003-0.006	0.004-0.006	0.004-0.008	0.008-0.020	–	80 (50-130)	115 (65-195)	–	–	80 (50-130)	130 (65-195)	–
M3	NF/NS-EB45	0.003-0.006	0.004-0.006	0.004-0.008	0.008-0.020	–	80 (50-130)	115 (65-195)	–	–	80 (50-130)	130 (65-195)	–
M4	NF/NS-EB45	0.003-0.006	0.004-0.006	0.004-0.008	0.008-0.020	–	65 (35-100)	80 (50-130)	–	–	65 (35-100)	100 (50-130)	–
M5	NF/NS-EB45	0.003-0.006	0.004-0.006	0.004-0.008	0.008-0.020	–	65 (35-100)	80 (50-130)	–	–	65 (35-100)	100 (50-130)	–
K1	NF/NS-EB45	0.004-0.008	0.004-0.010	0.004-0.012	0.008-0.024	80 (50-100)	195 (130-330)	260 (100-490)	290 (110-550)	–	–	–	–
K2	NF/NS-EB45	0.004-0.008	0.004-0.010	0.004-0.012	0.008-0.024	–	80 (65-130)	130 (100-230)	145 (110-260)	–	–	–	–
K3	NF/NS-EB45	0.004-0.008	0.004-0.010	0.004-0.012	0.008-0.024	80 (50-100)	195 (130-330)	260 (100-490)	290 (110-550)	–	–	–	–
K4	NF/NS-EB45	0.004-0.008	0.004-0.010	0.004-0.012	0.008-0.024	80 (50-100)	150 (100-230)	230 (130-395)	260 (145-440)	–	–	–	–
K5	NF/NS-EB45	0.004-0.008	0.004-0.010	0.004-0.012	0.008-0.024	80 (50-100)	150 (100-230)	230 (130-395)	260 (145-440)	–	–	–	–
K6	NF/NS-EB45	0.004-0.008	0.004-0.010	0.004-0.012	0.008-0.024	–	195 (130-330)	260 (100-490)	290 (110-550)	–	–	–	–
K7	NF/NS-EB45	0.004-0.008	0.004-0.010	0.004-0.012	0.008-0.024	–	195 (130-330)	260 (100-490)	290 (110-550)	–	–	–	–
N1	NF/NS-EB45	0.004-0.787	0.004-0.012	0.004-0.012	0.008-0.024	165 (65-260)	–	260 (100-490)	–	165 (65-260)	–	–	–
N2	NF/NS-EB45	0.004-0.787	0.004-0.012	0.004-0.012	0.008-0.024	165 (65-260)	–	260 (100-490)	–	165 (65-260)	–	–	–
N3	NF/NS-EB45	0.004-0.787	0.004-0.012	0.004-0.012	0.008-0.024	165 (65-260)	–	260 (100-490)	–	165 (65-260)	–	–	–
N4	NF/NS-EB45	0.004-0.787	0.004-0.012	0.004-0.012	0.008-0.024	165 (65-260)	–	260 (100-490)	–	165 (65-260)	–	–	–
S1	NF/NS-EB45	0.003-0.006	0.004-0.006	0.004-0.008	0.008-0.012	–	50 (25-65)	65 (35-80)	–	–	–	–	65 (35-80)
S2	NF/NS-EB45	0.003-0.006	0.004-0.006	0.004-0.008	0.008-0.012	–	50 (25-65)	65 (35-80)	–	–	–	–	65 (35-80)
S3	NF/NS-EB45	0.003-0.006	0.004-0.006	0.004-0.008	0.008-0.012	–	50 (25-65)	65 (35-80)	–	–	–	–	80 (35-80)
S11	NF/NS-EB45	0.003-0.006	0.004-0.006	0.004-0.008	0.008-0.012	65 (50-100)	100 (50-130)	130 (65-165)	–	–	–	–	100 (65-165)
S12	NF/NS-EB45	0.003-0.006	0.004-0.006	0.004-0.008	0.008-0.012	65 (50-100)	100 (50-130)	130 (65-165)	–	–	–	–	100 (65-165)
S13	NF/NS-EB45	0.003-0.006	0.004-0.006	0.004-0.008	0.008-0.012	65 (50-100)	100 (50-130)	130 (65-165)	–	–	–	–	100 (65-165)

The table continues on next page.

Cutting data – N5TS/N5BS...-EB45 *inch*

SMG		a_p (∅)		f		v_c							
		z=4	z=6	z=4	z=6	H15	CP20	RX2000	RK2050	RN2010	RM2020	RM2090	RS2090
H3	*NF/NS-EB45*	*0.003-0.006*	*0.004-0.006*	*0.004-0.008*	*0.008-0.012*	–	–	*35 (25-50)*	–	–	–	–	–
H5	*NF/NS-EB45*	*0.003-0.006*	*0.004-0.006*	*0.004-0.008*	*0.008-0.012*	–	–	*35 (25-50)*	–	–	–	–	–
H7	*NF/NS-EB45*	*0.003-0.006*	*0.004-0.006*	*0.004-0.008*	*0.008-0.012*	–	–	*35 (25-50)*	–	–	–	–	–
H8	*NF/NS-EB45*	*0.003-0.006*	*0.004-0.006*	*0.004-0.008*	*0.008-0.012*	–	–	*35 (25-50)*	–	–	–	–	–
H11	*NF/NS-EB45*	*0.003-0.006*	*0.004-0.006*	*0.004-0.008*	*0.008-0.012*	–	–	*35 (25-50)*	–	–	–	–	–
H12	*NF/NS-EB45*	*0.003-0.006*	*0.004-0.006*	*0.004-0.008*	*0.008-0.012*	–	–	*35 (25-50)*	–	–	–	–	–
H21	*NF/NS-EB45*	*0.003-0.006*	*0.004-0.006*	*0.004-0.008*	*0.008-0.012*	–	–	*35 (25-50)*	–	–	–	–	–
H31	*NF/NS-EB45*	*0.003-0.006*	*0.004-0.006*	*0.004-0.008*	*0.008-0.012*	–	–	*35 (25-50)*	–	–	–	–	–
PM1	*NF/NS-EB45*	*0.004-0.006*	*0.004-0.008*	*0.004-0.008*	*0.008-0.020*	–	*165 (100-260)*	*230 (130-350)*	–	–	–	–	–
PM2	*NF/NS-EB45*	*0.004-0.006*	*0.004-0.008*	*0.004-0.008*	*0.008-0.020*	–	*165 (100-260)*	*230 (130-350)*	–	–	–	–	–
PM3	*NF/NS-EB45*	*0.004-0.006*	*0.004-0.008*	*0.004-0.008*	*0.008-0.020*	–	*165 (100-260)*	*230 (130-350)*	–	–	–	–	–
TS1	*NF/NS-EB45*	*0.004-0.006*	*0.004-0.008*	*0.004-0.012*	*0.008-0.024*	*65 (50-80)*	–	*130 (65-195)*	–	–	–	–	–
TS2	*NF/NS-EB45*	*0.004-0.006*	*0.004-0.008*	*0.004-0.012*	*0.008-0.024*	*65 (50-80)*	–	*130 (65-195)*	–	–	–	–	–
TS3	*NF/NS-EB45*	*0.004-0.006*	*0.004-0.008*	*0.004-0.012*	*0.008-0.024*	*65 (50-80)*	–	*130 (65-195)*	–	–	–	–	–
TS4	*NF/NS-EB45*	*0.004-0.006*	*0.004-0.008*	*0.004-0.012*	*0.008-0.024*	*65 (50-80)*	–	*130 (65-195)*	–	–	–	–	–
TP1	*NF/NS-EB45*	*0.004-0.006*	*0.004-0.008*	*0.004-0.012*	*0.008-0.024*	*65 (50-80)*	–	*130 (65-195)*	–	–	–	–	–
TP2	*NF/NS-EB45*	*0.004-0.006*	*0.004-0.008*	*0.004-0.012*	*0.008-0.024*	*65 (50-80)*	–	*130 (65-195)*	–	–	–	–	–
TP3	*NF/NS-EB45*	*0.004-0.006*	*0.004-0.008*	*0.004-0.012*	*0.008-0.024*	*65 (50-80)*	–	*130 (65-195)*	–	–	–	–	–
TP4	*NF/NS-EB45*	*0.004-0.006*	*0.004-0.008*	*0.004-0.012*	*0.008-0.024*	*65 (50-80)*	–	*130 (65-195)*	–	–	–	–	–
GR1	*NF/NS-EB45*	*0.004-0.006*	*0.004-0.008*	*0.004-0.012*	*0.008-0.024*	*130 (65-260)*	–	*195 (100-395)*	–	–	–	–	–

SMG = Seco material group
a_p = *inch*
f = in/rev
v_c= sf/min
All cutting data are start values

Cutting data – N5TS/N5BS...-EB845 metric

SMG		a_p (∅)		f		v_c						
		z=4	z=6	z=4	z=6	H15	CP20	RX2000	RK2050	RM2020	RM2090	RS2090
P3	NF/NS-EB845	0,10 -0,15	0,1 -0,20	0,10 -0,30	0,20 -0,60	–	60 (30-100)	80 (30-150)	–	–	–	-
P4	NF/NS-EB845	0,10 -0,15	0,1 -0,20	0,10 -0,20	0,20 -0,50	–	50 (30-80)	60 (30-120)	–	–	–	-
P5	NF/NS-EB845	0,10 -0,15	0,1 -0,20	0,10 -0,20	0,20 -0,50	20 (10-25)	50 (30-80)	60 (30-120)	–	–	–	-
P6	NF/NS-EB845	0,10 -0,15	0,1 -0,20	0,10 -0,20	0,20 -0,50	20 (10-25)	50 (30-80)	60 (30-120)	–	–	–	-
P7	NF/NS-EB845	0,10 -0,15	0,1 -0,20	0,10 -0,20	0,20 -0,50	20 (10-25)	50 (30-80)	60 (30-120)	–	–	–	-
P8	NF/NS-EB845	0,10 -0,15	0,1 -0,20	0,10 -0,20	0,20 -0,50	15 (10-20)	35 (20-60)	40 (20-80)	–	–	–	-
P11	NF/NS-EB845	0,10 -0,15	0,1 -0,20	0,10 -0,20	0,20 -0,50	15 (10-20)	35 (20-60)	40 (20-80)	–	–	–	-
P12	NF/NS-EB845	0,10 -0,15	0,1 -0,20	0,10 -0,20	0,20 -0,50	12 (8-15)	25 (15-45)	30 (15-65)	–	–	–	-
M1	NF/NS-EB845	0,08 -0,15	0,10 -0,15	0,10 -0,20	0,20 -0,50	12 (9-15)	25 (15-45)	35 (20-60)	–	25 (15-40)	40 (20-60)	-
M2	NF/NS-EB845	0,08 -0,15	0,10 -0,15	0,10 -0,20	0,20 -0,50	–	25 (15-45)	35 (20-60)	–	25 (15-40)	40 (20-60)	-
M3	NF/NS-EB845	0,08 -0,15	0,10 -0,15	0,10 -0,20	0,20 -0,50	–	25 (15-45)	35 (20-60)	–	25 (15-40)	40 (20-60)	-
M4	NF/NS-EB845	0,08 -0,15	0,10 -0,15	0,10 -0,20	0,20 -0,50	–	20 (10-30)	25 (15-40)	–	25 (10-30)	30 (15-40)	-
M5	NF/NS-EB845	0,08 -0,15	0,10 -0,15	0,10 -0,20	0,20 -0,50	–	20 (10-30)	25 (15-40)	–	25 (10-30)	30 (15-40)	-
K1	NF/NS-EB845	0,10 -0,20	0,10 -0,25	0,10 -0,30	0,20 -0,60	25 (15-30)	60 (40-100)	80 (30-150)	90 (35-170)	–	–	
K2	NF/NS-EB845	0,10 -0,20	0,10 -0,25	0,10 -0,30	0,20 -0,60	–	25 (20-40)	40 (30-70)	45 (35-80)	–	–	
K3	NF/NS-EB845	0,10 -0,20	0,10 -0,25	0,10 -0,30	0,20 -0,60	25 (15-30)	60 (40-100)	80 (30-150)	90 (35-170)	–	–	
K4	NF/NS-EB845	0,10 -0,20	0,10 -0,25	0,10 -0,30	0,20 -0,60	25 (15-30)	45 (30-70)	70 (40-120)	80 (30-150)	–	–	
K5	NF/NS-EB845	0,10 -0,20	0,10 -0,25	0,10 -0,30	0,20 -0,60	25 (15-30)	45 (30-70)	70 (40-120)	80 (45-135)	–	–	
K6	NF/NS-EB845	0,10 -0,20	0,10 -0,25	0,10 -0,30	0,20 -0,60	–	60 (40-100)	80 (30-150)	90 (35-170)	–	–	
K7	NF/NS-EB845	0,10 -0,20	0,10 -0,25	0,10 -0,30	0,20 -0,60	–	60 (40-100)	80 (30-150)	90 (35-170)	–	–	-
S1	NF/NS-EB845	0,08 -0,15	0,10 -0,15	0,10 -0,20	0,20- 0,30	–	15 (8-20)	20 (10-25)	–	–	–	20 (10-25)
S2	NF/NS-EB845	0,08 -0,15	0,10 -0,15	0,10 -0,20	0,20- 0,30	–	15 (8-20)	20 (10-25)	–	–	–	20 (10-25)
S3	NF/NS-EB845	0,08 -0,15	0,10 -0,15	0,10 -0,20	0,20- 0,30	–	15 (8-20)	20 (10-25)	–	–	–	25 (10-25)
S11	NF/NS-EB845	0,08 -0,15	0,10 -0,15	0,10 -0,20	0,20- 0,30	20 (15-30)	30 (15-40)	40 (20-50)	–	–	–	30 (20-50)
S12	NF/NS-EB845	0,08 -0,15	0,10 -0,15	0,10 -0,20	0,20- 0,30	20 (15-30)	30 (15-40)	40 (20-50)	–	–	–	30 (20-50)
S13	NF/NS-EB845	0,08 -0,15	0,10 -0,15	0,10 -0,20	0,20- 0,30	20 (15-30)	30 (15-40)	40 (20-50)	–	–	–	30 (20-50)
H3	NF/NS-EB845	0,08 -0,15	0,10 -0,15	0,10 -0,20	0,20- 0,30	–	–	10 (8-15)	–	–	–	-
H5	NF/NS-EB845	0,08 -0,15	0,10 -0,15	0,10 -0,20	0,20- 0,30	–	–	10 (8-15)	–	–	–	-
H7	NF/NS-EB845	0,08 -0,15	0,10 -0,15	0,10 -0,20	0,20- 0,30	–	–	10 (8-15)	–	–	–	-
H8	NF/NS-EB845	0,08 -0,15	0,10 -0,15	0,10 -0,20	0,20- 0,30	–	–	10 (8-15)	–	–	–	-
H11	NF/NS-EB845	0,08 -0,15	0,10 -0,15	0,10 -0,20	0,20- 0,30	–	–	10 (8-15)	–	–	–	-
H12	NF/NS-EB845	0,08 -0,15	0,10 -0,15	0,10 -0,20	0,20- 0,30	–	–	10 (8-15)	–	–	–	-
H21	NF/NS-EB845	0,08 -0,15	0,10 -0,15	0,10 -0,20	0,20- 0,30	–	–	10 (8-15)	–	–	–	-
H31	NF/NS-EB845	0,08 -0,15	0,10 -0,15	0,10 -0,20	0,20- 0,30	–	–	10 (8-15)	–	–	–	-
PM1	NF/NS-EB845	0,10 -0,15	0,1 -0,20	0,10 -0,20	0,20 -0,50	–	50 (30-80)	70 (40-100)	–	–	–	-
PM2	NF/NS-EB845	0,10 -0,15	0,1 -0,20	0,10 -0,20	0,20 -0,50	–	50 (30-80)	70 (40-100)	–	–	–	-
PM3	NF/NS-EB845	0,10 -0,15	0,1 -0,20	0,10 -0,20	0,20 -0,50	–	50 (30-80)	70 (40-100)	–	–	–	-

SMG = Seco material group
a_p = mm
f = mm/rev
v_c= m/min
All cutting data are start values

Cutting data – N5TS/N5BS...-EB845 *inch*

SMG		a_p (∅)		f		v_c						
		z=4	z=6	z=4	z=6	H15	CP20	RX2000	RK2050	RM2020	RM2090	RS2090
P3	NF/NS-EB845	0.004 –0.006	0.004 –0.008	0.004 –0.012	0.008 –0.024	–	195 (100-330)	260 (100-490)	–	–	–	-
P4	NF/NS-EB845	0.004 –0.006	0.004 –0.008	0.004 –0.008	0.008 –0.020	–	165 (100-260)	195 (100-395)	–	–	–	-
P5	NF/NS-EB845	0.004 –0.006	0.004 –0.008	0.004 –0.008	0.008 –0.020	65 (35-80)	165 (100-260)	195 (100-395)	–	–	–	-
P6	NF/NS-EB845	0.004 –0.006	0.004 –0.008	0.004 –0.008	0.008 –0.020	65 (35-80)	165 (100-260)	195 (100-395)	–	–	–	-
P7	NF/NS-EB845	0.004 –0.006	0.004 –0.008	0.004 –0.008	0.008 –0.020	65 (35-80)	165 (100-260)	195 (100-395)	–	–	–	-
P8	NF/NS-EB845	0.004 –0.006	0.004 –0.008	0.004 –0.008	0.008 –0.020	50 (35-65)	115 (65-195)	130 (65-260)	–	–	–	-
P11	NF/NS-EB845	0.004 –0.006	0.004 –0.008	0.004 –0.008	0.008 –0.020	50 (35-65)	115 (65-195)	130 (65-260)	–	–	–	-
P12	NF/NS-EB845	0.004 –0.006	0.004 –0.008	0.004 –0.008	0.008 –0.020	40 (25-50)	80 (50-150)	100 (50-125)	–	–	–	–
M1	NF/NS-EB845	0.003 -0.006	0.004 –0.006	0.004 –0.008	0.008 -0.02	40 (30-50)	80 (50-150)	115 (65-200)	–	80 (50-130)	130 (65-195)	-
M2	NF/NS-EB845	0.003 -0.006	0.004 –0.006	0.004 –0.008	0.008 -0.02	–	80 (50-150)	115 (65-200)	–	80 (50-130)	130 (65-195)	-
M3	NF/NS-EB845	0.003 -0.006	0.004 –0.006	0.004 –0.008	0.008 -0.02	–	80 (50-150)	115 (65-200)	–	80 (50-130)	130 (65-195)	-
M4	NF/NS-EB845	0.003 -0.006	0.004 –0.006	0.004 –0.008	0.008 -0.02	–	65 (30-100)	80 (50-135)	–	80 (35-100)	100 (50-130)	-
M5	NF/NS-EB845	0.003 -0.006	0.004 –0.006	0.004 –0.008	0.008 -0.02	–	65 (30-100)	80 (50-135)	–	80 (35-100)	100 (50-130)	-
K1	NF/NS-EB845	0.004 –0.008	0.004 –0.010	0.004 –0.012	0.008 –0.024	80 (50-100)	195 (130-330)	260 (100-490)	290 (110-550)	–	–	
K2	NF/NS-EB845	0.004 –0.008	0.004 –0.010	0.004 –0.012	0.008 –0.024	–	80 (65-130)	130 (100-230)	145 (110-260)	–	–	
K3	NF/NS-EB845	0.004 –0.008	0.004 –0.010	0.004 –0.012	0.008 –0.024	80 (50-100)	195 (130-330)	260 (100-490)	290 (110-550)	–	–	
K4	NF/NS-EB845	0.004 –0.008	0.004 –0.010	0.004 –0.012	0.008 –0.024	80 (50-100)	150 (100-330)	230 (130-395)	260 (145-440)	–	–	
K5	NF/NS-EB845	0.004 –0.008	0.004 –0.010	0.004 –0.012	0.008 –0.024	80 (50-100)	150 (100-330)	230 (130-395)	260 (145-440)	–	–	
K6	NF/NS-EB845	0.004 –0.008	0.004 –0.010	0.004 –0.012	0.008 –0.024	–	195 (130-330)	260 (100-490)	290 (110-550)	–	–	
K7	NF/NS-EB845	0.004 –0.008	0.004 –0.010	0.004 –0.012	0.008 –0.024	–	195 (130-330)	260 (100-490)	290 (110-550)	–	–	-
S1	NF/NS-EB845	0.003 –0.006	0.004 –0.006	0.004 –0.008	0.008 –0.012	–	50 (25-65)	65 (35-80)	–	–	–	65 (35-80)
S2	NF/NS-EB845	0.003 –0.006	0.004 –0.006	0.004 –0.008	0.008 –0.012	–	50 (25-65)	65 (35-80)	–	–	–	65 (35-80)
S3	NF/NS-EB845	0.003 –0.006	0.004 –0.006	0.004 –0.008	0.008 –0.012	–	50 (25-65)	65 (35-80)	–	–	–	65 (35-80)
S11	NF/NS-EB845	0.003 –0.006	0.004 –0.006	0.004 –0.008	0.008 –0.012	65 (50-100)	100 (50-130)	130 (65-165)	–	–	–	100 (65-165)
S12	NF/NS-EB845	0.003 –0.006	0.004 –0.006	0.004 –0.008	0.008 –0.012	65 (50-100)	100 (50-130)	130 (65-165)	–	–	–	100 (65-165)
S13	NF/NS-EB845	0.003 –0.006	0.004 –0.006	0.004 –0.008	0.008 –0.012	65 (50-100)	100 (50-130)	130 (65-165)	–	–	–	100 (65-165)
H3	NF/NS-EB845	0.003 –0.006	0.004 –0.006	0.004 –0.008	0.008 –0.012	–	–	35 (25-50)	–	–	–	-
H5	NF/NS-EB845	0.003 –0.006	0.004 –0.006	0.004 –0.008	0.008 –0.012	–	–	35 (25-50)	–	–	–	-
H7	NF/NS-EB845	0.003 –0.006	0.004 –0.006	0.004 –0.008	0.008 –0.012	–	–	35 (25-50)	–	–	–	-
H8	NF/NS-EB845	0.003 –0.006	0.004 –0.006	0.004 –0.008	0.008 –0.012	–	–	35 (25-50)	–	–	–	-
H11	NF/NS-EB845	0.003 –0.006	0.004 –0.006	0.004 –0.008	0.008 –0.012	–	–	35 (25-50)	–	–	–	-
H12	NF/NS-EB845	0.003 –0.006	0.004 –0.006	0.004 –0.008	0.008 –0.012	–	–	35 (25-50)	–	–	–	-
H21	NF/NS-EB845	0.003 –0.006	0.004 –0.006	0.004 –0.008	0.008 –0.012	–	–	35 (25-50)	–	–	–	-
H31	NF/NS-EB845	0.003 –0.006	0.004 –0.006	0.004 –0.008	0.008 –0.012	–	–	35 (25-50)	–	–	–	-
PM1	NF/NS-EB845	0.004 –0.006	0.004 –0.008	0.004 –0.008	0.008 –0.020	–	165 (100-260)	230 (130-350)	–	–	–	-
PM2	NF/NS-EB845	0.004 –0.006	0.004 –0.008	0.004 –0.008	0.008 –0.020	–	165 (100-260)	230 (130-350)	–	–	–	-
PM3	NF/NS-EB845	0.004 –0.006	0.004 –0.008	0.004 –0.008	0.008 –0.020	–	165 (100-260)	230 (130-350)	–	–	–	-

SMG = Seco material group
a_p = *inch*
f = in/rev
v_c= sf/min
All cutting data are start values

Cutting data – N5TS/N5BS...-EB25/EB30 metric

SMG		a_p (∅)		f		v_c			
		z=4	z=6	z=4	z=6	H15	CP20	RX2000	RK2050
P1	NF/NS-EB25/EB30	0,10-0,15	0,1-0,20	0,3-0,9	0,5-1,2	25 (15-30)	60 (30-100)	80 (30-150)	–
P2	NF/NS-EB25/EB30	0,10-0,15	0,1-0,20	0,3-0,9	0,5-1,2	25 (15-30)	60 (30-100)	80 (30-150)	–
P3	NF/NS-EB25/EB30	0,10-0,15	0,1-0,20	0,3-0,9	0,5-1,2	25 (15-30)	60 (30-100)	80 (30-150)	–
P4	NF/NS-EB25/EB30	0,10-0,15	0,1-0,20	0,3-0,7	0,5-1	20 (10-25)	50 (30-80)	60 (30-120)	–
P5	NF/NS-EB25/EB30	0,10-0,15	0,1-0,20	0,3-0,7	0,5-1	20 (10-25)	50 (30-80)	60 (30-120)	–
P6	NF/NS-EB25/EB30	0,10-0,15	0,1-0,20	0,3-0,7	0,5-1	20 (10-25)	50 (30-80)	60 (30-120)	–
P7	NF/NS-EB25/EB30	0,10-0,15	0,1-0,20	0,3-0,7	0,5-1	20 (10-25)	50 (30-80)	60 (30-120)	–
M1	NF/NS-EB25/EB30	0,08-0,15	0,10-0,15	0,3-0,7	0,5-1	–	25 (15-40)	35 (20-60)	–
K1	NF/NS-EB25/EB30	0,10-0,20	0,10-0,25	0,3-0,9	0,5-1,2	25 (15-30)	60 (40-100)	80 (30-150)	90 (35-170)
K2	NF/NS-EB25/EB30	0,10-0,20	0,10-0,25	0,3-0,9	0,5-1,2	–	25 (20-40)	40 (30-70)	45 (35-80)
K3	NF/NS-EB25/EB30	0,10-0,20	0,10-0,25	0,3-0,9	0,5-1,2	25 (15-30)	60 (40-100)	80 (30-150)	90 (35-170)
K4	NF/NS-EB25/EB30	0,10-0,20	0,10-0,25	0,3-0,9	0,5-1,2	25 (15-30)	45 (30-70)	70 (40-120)	80 (45-135)
K5	NF/NS-EB25/EB30	0,10-0,20	0,10-0,25	0,3-0,9	0,5-1,2	25 (15-30)	45 (30-70)	70 (40-120)	80 (45-135)
K6	NF/NS-EB25/EB30	0,10-0,20	0,10-0,25	0,3-0,9	0,5-1,2	–	60 (40-100)	80 (30-150)	90 (35-170)
K7	NF/NS-EB25/EB30	0,10-0,20	0,10-0,25	0,3-0,9	0,5-1,2	–	60 (40-100)	80 (30-150)	90 (35-170)
N1	NF/NS-EB25/EB30	0,10-0,20	0,10-0,30	0,3-0,9	0,5-1,2	50 (20-80)	–	–	–
N2	NF/NS-EB25/EB30	0,10-0,20	0,10-0,30	0,3-0,9	0,5-1,2	50 (20-80)	–	–	–
N3	NF/NS-EB25/EB30	0,10-0,20	0,10-0,30	0,3-0,9	0,5-1,2	50 (20-80)	–	–	–
N11	NF/NS-EB25/EB30	0,10-0,20	0,10-0,30	0,3-0,9	0,5-1,2	50 (20-80)	–	–	–
PM1	NF/NS-EB25/EB30	0,10-0,15	0,1-0,20	0,3-0,9	0,5-1,2	–	50 (30-80)	70 (40-100)	–
PM2	NF/NS-EB25/EB30	0,10-0,15	0,1-0,20	0,3-0,9	0,5-1,2	–	50 (30-80)	70 (40-100)	–
PM3	NF/NS-EB25/EB30	0,10-0,15	0,1-0,20	0,3-0,9	0,5-1,2	–	50 (30-80)	70 (40-100)	–

SMG = Seco material group
a_p = mm
f = mm/rev
v_c= m/min
All cutting data are start values

Cutting data – N5TS/N5BS…-EB25/EB30 *inch*

SMG		a_p (∅)		f		v_c			
		z=4	z=6	z=4	z=6	H15	CP20	RX2000	RK2050
P1	NF/NS-EB25/EB30	0.004–0.006	0.004–0.008	0.012–0.035	0.020–0.047	80 (50-100)	195 (100-330)	260 (100-490)	–
P2	NF/NS-EB25/EB30	0.004–0.006	0.004–0.008	0.012–0.035	0.020–0.047	80 (50-100)	195 (100-330)	260 (100-490)	–
P3	NF/NS-EB25/EB30	0.004–0.006	0.004–0.008	0.012–0.035	0.020–0.047	80 (50-100)	195 (100-330)	260 (100-490)	–
P4	NF/NS-EB25/EB30	0.004–0.006	0.004–0.008	0.012–0.028	0.020–0.039	65 (35-80)	165 (100-265)	195 (100-395)	–
P5	NF/NS-EB25/EB30	0.004–0.006	0.004–0.008	0.012–0.028	0.020–0.039	65 (35-80)	165 (100-265)	195 (100-395)	–
P6	NF/NS-EB25/EB30	0.004–0.006	0.004–0.008	0.012–0.028	0.020–0.039	65 (35-80)	165 (100-265)	195 (100-395)	–
P7	NF/NS-EB25/EB30	0.004–0.006	0.004–0.008	0.012–0.028	0.020–0.039	65 (35-80)	165 (100-265)	195 (100-395)	–
M1	NF/NS-EB25/EB30	0.003–0.006	0.004–0.006	0.012–0.028	0.020–0.039	–	80 (50-130)	115 (65-195)	–
K1	NF/NS-EB25/EB30	0.004–0.008	0.004–0.010	0.012–0.035	0.020–0.047	80 (50-100)	195 (130-330)	260 (100-490)	290 (110-550)
K2	NF/NS-EB25/EB30	0.004–0.008	0.004–0.010	0.012–0.035	0.020–0.047	–	80 (65-130)	130 (100-230)	145 (110-260)
K3	NF/NS-EB25/EB30	0.004–0.008	0.004–0.010	0.012–0.035	0.020–0.047	80 (50-100)	195 (130-330)	260 (100-490)	290 (110-550)
K4	NF/NS-EB25/EB30	0.004–0.008	0.004–0.010	0.012–0.035	0.020–0.047	80 (50-100)	150 (100-230)	230 (130-395)	260 (145-440)
K5	NF/NS-EB25/EB30	0.004–0.008	0.004–0.010	0.012–0.035	0.020–0.047	80 (50-100)	150 (100-230)	230 (130-395)	260 (145-440)
K6	NF/NS-EB25/EB30	0.004–0.008	0.004–0.010	0.012–0.035	0.020–0.047	–	195 (130-330)	260 (100-490)	290 (110-550)
K7	NF/NS-EB25/EB30	0.004–0.008	0.004–0.010	0.012–0.035	0.020–0.047	–	195 (130-330)	260 (100-490)	290 (110-550)
N1	NF/NS-EB25/EB30	0.004–0.787	0.004–0.012	0.012–0.035	0.020–0.047	165 (65-265)	–	–	–
N2	NF/NS-EB25/EB30	0.004–0.787	0.004–0.012	0.012–0.035	0.020–0.047	165 (65-265)	–	–	–
N3	NF/NS-EB25/EB30	0.004–0.787	0.004–0.012	0.012–0.035	0.020–0.047	165 (65-265)	–	–	–
N11	NF/NS-EB25/EB30	0.004–0.787	0.004–0.012	0.012–0.035	0.020–0.047	165 (65-265)	–	–	–
PM1	NF/NS-EB25/EB30	0.004–0.006	0.004–0.008	0.012–0.035	0.020–0.047	–	165 (100-265)	230 (130-330)	–
PM2	NF/NS-EB25/EB30	0.004–0.006	0.004–0.008	0.012–0.035	0.020–0.047	–	165 (100-265)	230 (130-330)	–
PM3	NF/NS-EB25/EB30	0.004–0.006	0.004–0.008	0.012–0.035	0.020–0.047	–	165 (100-265)	230 (130-330)	–

SMG = Seco material group
a_p = *inch*
f = in/rev
v_c= sf/min
All cutting data are start values

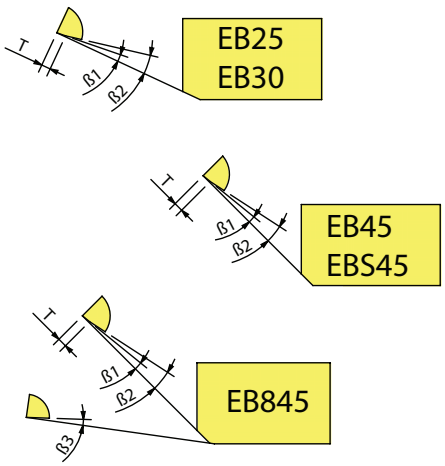
Regrinding instructions

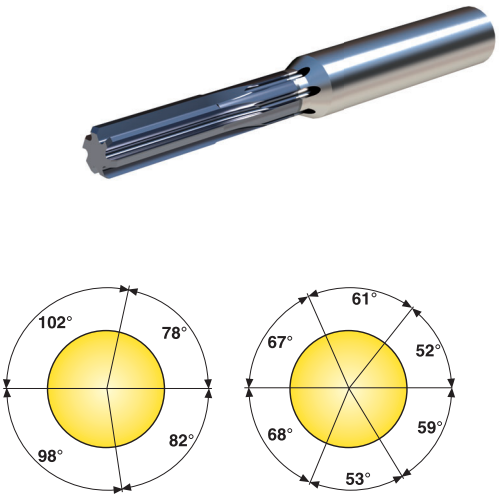
Specifications

Diamond grinding wheel
Grain size:
D6 for 1st clearance angle (β1 - β3)
D64 for 2nd clearance angle (β2)

Important

Regrinding reduces reamer diameter.
Recoating may produce oversized diameter.
Max run-out on lead chamfers 10 µm *(394 µin)*.





Nanojet ∅ mm *(inch)*	β_1	β_2	β_3	T mm *(inch)*
1,461-2,460 *(0.0575-0.0968")*	8°	21°	8°	0,10 *(0.004")*
2,461-2,960 *(0.0969-0.1165")*	8°	18°	8°	0,10 *(0.004")*
2,961-9,960 *(0.1166-0.3921")*	8°	18°	8°	0,15 *(0.006")*



Bifix®

Bifix® indexable blade reamers bring high-precision performance to all workpiece material groups

- Enables tolerances held between 8 and 16µm and a surface finish of Ra 0.25 (RMS 12 micro/inch)
- Indexable blades feature two cutting edges per blade
- Three cermet guide pads and an accurate adjusting system

Range overview

	∅ Range	Reaming depth	Hole ∅ tolerance	Intermediate diameter	Surface finish
SR80 For through holes 	6,875-60,500 mm *(0.2707-2.3819")*	5-7 x D	IT 6	Yes, available through My Design	R_a 0,2-0,8 µm *(R_a 8-31 µin)*
SR81 For blind holes 	7,875-60,500 mm *(0.3100-2.3819")*	5-7 x D	IT 6-7	Yes, available through My Design	R_a 0,2-0,8 µm *(R_a 8-31 µin)*
SR82 For blind holes short version 	7,875-60,500 mm *(0.3100-2.3819")*	3-5 x D	IT 6-7	Yes, available through My Design	R_a 0,2-0,8 µm *(R_a 8-31 µin)*

Code keys

Reamers

Reamer type:
Type 80: Through hole
Type 81: Blind hole
Type 82: Blind hole, short version



Reamer type:
Type 80: Through hole
Type 81: Blind hole
Type 82: Blind hole, short version

Hole diameter and tolerance

Type of lead geometry
EN1, EN2, EN3

SR80 - **16.85 P6** - **EN1** - **R** - **9**

0.6624”-0.6628”

Shank type: (to be stated when requested style is not standard)
SR80 and SR81: R1 without flat is standard
SR82: R9 with flat is standard

Blades

Important:
The reamer and the blade must have the same lead geometry.

Blade size:
P0, P1, P2, P4

Cutting rake angle:
0°, 6°, 12°

P2 - **EN1** - **06** - **CP20**

Type of lead geometry
EN1, EN2, EN3

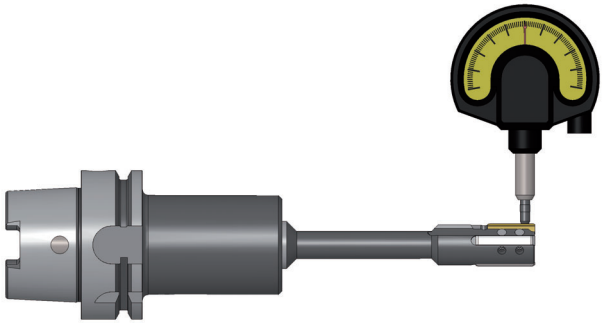
Carbide grade:
CP20, H15

Set up and machining data

Rotating tool

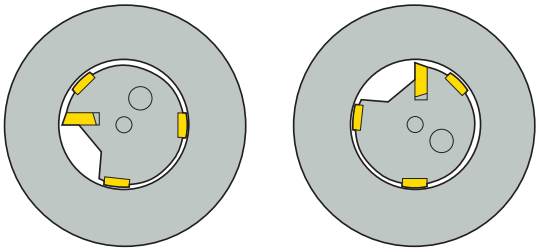
Max. run-out recommended: 0,02 mm *(0.0008")*.
Precision holder is recommended : Hydraulic chuck, D-type collet chuck, 5672 collet chuck or shrink-fit.

Stationary tool
Use a Seco floating holder, see page 505-509.



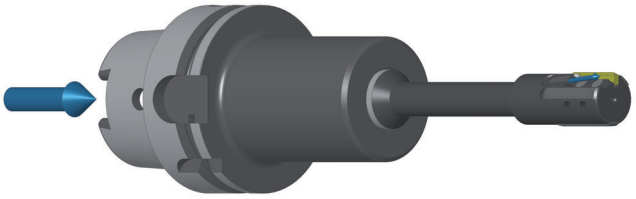
For optimal chip evacuation

Recommended blade orientation for static tools (see drawing, view from front of tools).



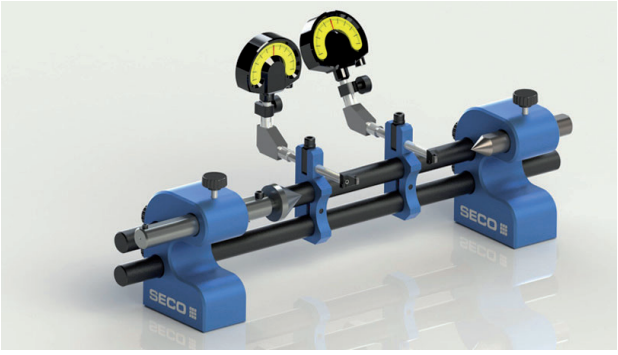
Coolant requirements

To reach maximum tool life and hole quality, the following coolant requirements should be observed.
Coolant through the tool is recommended. External coolant supply can be used if reaming depth < 2 x D.
Quality soluble oil with 40% minimum mineral oil. Neat oil recommended for stainless steel.
Filtration 30–50 µm *(1200-2000 µin)*.
Volume min 0,5 l/min/mm *(3.35 gal/min/inch)* in tool diameter.
Ex: Reamer ∅ 10, min volume is 5 l/min *(1.3 gal/min)*.



Setting fixture

SF-60200-C160C190: Part No. 02885396
- Horizontal stand
- First choice for Ø smaller than 60 mm *(2.362")*
- 2 clocks
- Maximum tool Ø: 60,5 mm *(2.382")*
- Maximum tool length: 200 mm *(7.784")*



Geometry choice – Blades

Note that reamer and blade must have the same lead geometry.

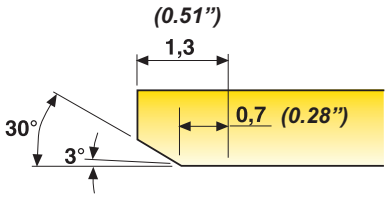
Grade and rake angle
Use the tables on page(s) 702-708 to classify the workpiece material into SMG.

Use the cutting data recommendation table on page 438-446 to choose grade and rake angle.

The blade programme is on page(s) 436, 437.

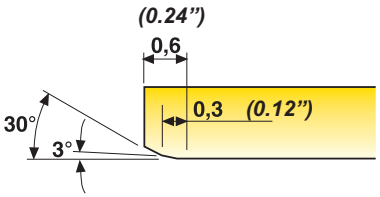
EN1 – Application

Maximum machining allowance on ∅ 0,5 mm *(0.020")*
Surface Finish + R_a 0,3 - 0,8 µm
(Surface Finish + R_a 12 - 31 µin)



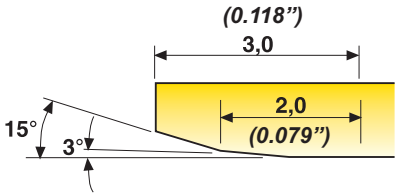
EN2 – Short lead

Maximum machining allowance on ∅ 0,3 mm *(0.012")*
Surface Finish + R_a 0,4 - 1,2 µm
(Surface Finish + R_a 16 - 47 µin)
Maximum feed rate 0,2 mm/rev *(0.008" in/rev)*.
Only to be used when a short lead is required
Designed with end cutting



EN3 – Extreme surface finish

Maximum machining allowance on ∅ 0,5 mm *(0.020")*
Surface Finish + R_a 0,2 - 0,6 µm
(Surface Finish + R_a 8 - 24 µin)
Suitable for all materials except aluminium
To be used when R_a should be < 0,3–0,4 µm *(12-16 µin)*



Optimization / Grades

Use the blade selection table to choose alternative blades for higher productivity or better security

Blade selection

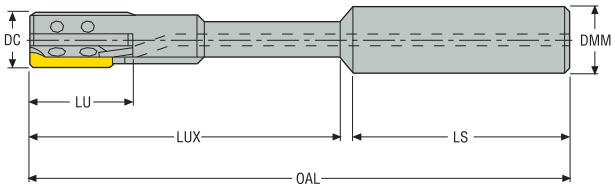
Blade size	Steel	Stainless steel	Cast iron	Non-ferrous	Aluminium	Wear resistance ⟷ Toughness			Designation	
						Productivity	Versatility	Security	Blade	Grade
P0, P1, P2, P4										
			•	•				X	Pxx-ENx-00	H15
	•		•		•			X	Pxx-ENx-06	H15
		•		•	•			X	Pxx-ENx-12	H15
	•					X			Pxx-ENx-00	CP20
	•		•				X		Pxx-ENx-06	CP20
	•	•					X		Pxx-ENx-12	CP20
	•		•			X			Pxx-ENx-00	CP15
	•		•			X			Pxx-ENx-06	CP15
	•	•		•	•	X			Pxx-ENx-12	CP15

Grades

	**CP15**	**Coated** A wear-resistant coated grade alternative to CP20. For optimization in cast iron and steels. Also suitable for non-ferrous. Ti(C, N)
	**CP20**	**Coated** A versatile coated grade suitable for most materials, except aluminum. TiN
	**H15**	**Uncoated** A tough micrograin grade for all materials. Suitable for fine-reaming operations due to edge sharpness.

For through holes ∅ 7H6-26H6

Shank type R1, cylindrical without flat, SR80





- Blade information on page(s) 436, 437
- Internal through coolant
- For cutting data see page(s) 438-446

Designation	DC	OAL	LS	LUX	LU	DMM	Blade size
	mm	mm	mm	mm	mm	mm	
SR80-7H6-EN1	7	105	40	63	25	10	P0-EN1-xx
SR80-8H6-EN1	8	115	40	73	25	10	P0-EN1-xx
SR80-9H6-EN1	9	115	40	73	25	10	P1-EN1-xx
SR80-10H6-EN1	10	115	40	74	25	10	P1-EN1-xx
SR80-11H6-EN1	11	133	48	81	25	16	P1-EN1-xx
SR80-12H6-EN1	12	133	48	81	25	16	P1-EN1-xx
SR80-13H6-EN1	13	133	48	81	25	16	P2-EN1-xx
SR80-14H6-EN1	14	133	48	81	25	16	P2-EN1-xx
SR80-15H6-EN1	15	133	48	82	25	16	P2-EN1-xx
SR80-16H6-EN1	16	133	48	82	25	16	P2-EN1-xx
SR80-17H6-EN1	17	155	50	100	25	20	P2-EN1-xx
SR80-18H6-EN1	18	155	50	100	25	20	P2-EN1-xx
SR80-19H6-EN1	19	155	50	100	25	20	P2-EN1-xx
SR80-20H6-EN1	20	155	50	100	30	20	P4-EN1-xx
SR80-21H6-EN1	21	191	56	128	30	25	P4-EN1-xx
SR80-22H6-EN1	22	191	56	129	30	25	P4-EN1-xx
SR80-23H6-EN1	23	191	56	129	30	25	P4-EN1-xx
SR80-24H6-EN1	24	191	56	129	30	25	P4-EN1-xx
SR80-25H6-EN1	25	191	56	129	30	25	P4-EN1-xx
SR80-26H6-EN1	26	191	56	129	30	25	P4-EN1-xx

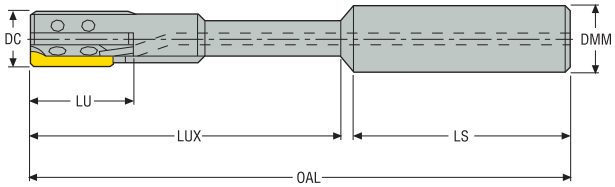
Spare Parts, included in delivery

For ∅ (mm)	Adjusting screw	Clamp	Clamp screw	Setting key	Support ball	Torque key	Torque value
							
7-8	SH2020	SR-B0	LH2040	0.9SMS795	BB1.5	-	-
9	SH2025	SR-B1	LH2540	1.3SMS795	BB2.0	H00-1305	0,5 Nm
10-12	SH2525	SR-B2	LH2540	1.3SMS795	BB2.0	H00-1305	0,5 Nm
13-19	SH2540	SR-B3	LH3050	1.5SMS795	BB2.5	H00-1509	0,9 Nm
20-60	SH3060	SR-B5	LH4010	2SMS795	BB3.0	H00-2020	2,0 Nm

For through holes ∅ 27H6–60H6

Shank type R1, cylindrical without flat, SR80





- Blade information on page(s) 436, 437
- Internal through coolant
- For cutting data see page(s) 438-446

Designation	DC	OAL	LS	LUX	LU	DMM	Blade size
	mm	mm	mm	mm	mm	mm	
SR80-27H6-EN1	27	221	56	159	30	25	P4-EN1-xx
SR80-28H6-EN1	28	221	56	159	30	25	P4-EN1-xx
SR80-29H6-EN1	29	221	56	159	30	25	P4-EN1-xx
SR80-30H6-EN1	30	221	56	159	30	25	P4-EN1-xx
SR80-31H6-EN1	31	221	56	160	30	25	P4-EN1-xx
SR80-32H6-EN1	32	221	56	160	30	25	P4-EN1-xx
SR80-34H6-EN1	34	226	56	165	30	25	P4-EN1-xx
SR80-35H6-EN1	35	226	56	165	30	25	P4-EN1-xx
SR80-36H6-EN1	36	226	56	166	30	25	P4-EN1-xx
SR80-38H6-EN1	38	226	56	166	30	25	P4-EN1-xx
SR80-40H6-EN1	40	226	56	166	30	25	P4-EN1-xx
SR80-42H6-EN1	42	226	56	167	30	25	P4-EN1-xx
SR80-44H6-EN1	44	226	56	167	30	25	P4-EN1-xx
SR80-48H6-EN1	48	226	56	168	30	25	P4-EN1-xx
SR80-50H6-EN1	50	226	56	168	30	25	P4-EN1-xx
SR80-52H6-EN1	52	226	56	169	30	25	P4-EN1-xx
SR80-54H6-EN1	54	226	56	169	30	25	P4-EN1-xx
SR80-58H6-EN1	58	226	56	169	30	25	P4-EN1-xx
SR80-60H6-EN1	60	226	56	169	30	25	P4-EN1-xx

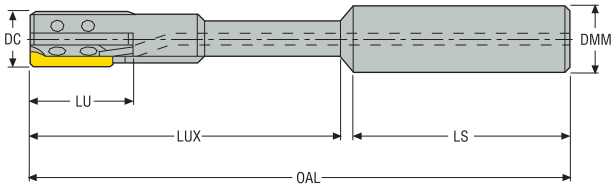
Spare Parts, included in delivery

For ∅ (mm)	Adjusting screw	Clamp	Clamp screw	Setting key	Support ball	Torque key	Torque value
							
20-60	SH4060	SR-B5	LH4010	2SMS795	BB3.0	H00-2020	2,0 Nm

Torque key is delivered with driving blade

For through holes – Intermediate diameter

Shank type R1, cylindrical without flat, SR80





- Blade information on page(s) 436, 437
- Important! Reamer and blade must have the same lead geometry
- For choice of lead geometry EN1, EN2 or EN3 see page(s) 427
- For cutting data see page(s) 438-446

Designation	DC	OAL	LS	LUX	LU	DMM	Blade size
	mm	mm	mm	mm	mm	mm	
SR80-6.875-XX-XXXX-EN	6,875 - 7,874	105,0	40,0	63,0	15,0	10,0	P0-EN-xx
SR80-7.875-XX-XXXX-EN	7,875 - 8,749	115,0	40,0	73,0	25,0	10,0	P0-EN-xx
SR80-8.750-XX-XXXX-EN	8,75 - 9,749	115,0	40,0	73,0	25,0	10,0	P1-EN-xx
SR80-9.750-XX-XXXX-EN	9,75 - 10,749	115,0	40,0	73,0	25,0	10,0	P1-EN-xx
SR80-10.750-XX-XXXX-EN	10,75 - 12,749	133,0	48,0	81,0	25,0	16,0	P1-EN-xx
SR80-12.750-XX-XXXX-EN	12,75 - 16,749	133,0	48,0	81,0	25,0	16,0	P2-EN-xx
SR80-16.750-XX-XXXX-EN	16,75 - 19,499	155,0	50,0	100,0	25,0	20,0	P2-EN-xx
SR80-19.500-XX-XXXX-EN	19,5 - 20,499	155,0	50,0	100,0	30,0	20,0	P4-EN-xx
SR80-20.500-XX-XXXX-EN	20,5 - 26,499	191,0	56,0	129,0	30,0	25,0	P4-EN-xx
SR80-26.500-XX-XXXX-EN	26,5 - 32,499	221,0	56,0	160,0	30,0	25,0	P4-EN-xx
SR80-32.500-XX-XXXX-EN	32,5 - 38,499	226,0	56,0	165,0	30,0	25,0	P4-EN-xx
SR80-38.500-XX-XXXX-EN	38,5 - 40,499	226,0	56,0	166,0	30,0	25,0	P4-EN-xx
SR80-40.500-XX-XXXX-EN	40,5 - 44,499	226,0	56,0	167,0	30,0	25,0	P4-EN-xx
SR80-44.500-XX-XXXX-EN	44,5 - 50,499	226,0	56,0	168,0	30,0	25,0	P4-EN-xx
SR80-50.500-XX-XXXX-EN	50,5 - 60,5	226,0	56,0	169,0	30,0	25,0	P4-EN-xx

Spare Parts, included in delivery

Accessories

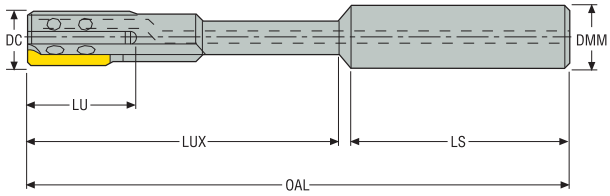
For ∅ (mm)	Adjusting screw	Clamp	Clamp screw	Setting key	Support ball	Torque key
						
6,875-8,749	SH2020	SR-B0	LH2040	0.9SMS795	BB1.5	–
8,750-9,749	SH2525	SR-B1	LH2540	1.3SMS795	BB2.0	H00-1305
9,750-12,749	SH2525	SR-B2	LH2540	1.3SMS795	BB2.0	H00-1305
12,750-19,499	SH3040	SR-B3	LH3050	1.5SMS795	BB2.0	H00-1509
19,500-60,500	SH4060	SR-B5	LH4010	2SMS795	BB3.0	H00-2020

Torque key is delivered with driving blade
Note! When ordering reamers for intermediate diameter, please state: ∅ and tolerance of bore to be reamed, lead geometry (EN1, EN2 or EN3).
Ordering example: SR80-11.50 H7-EN2, P1-EN2-06, CP20.

For blind holes ∅ 8H6-26H6

Shank type R1, cylindrical without flat, SR81





- Blade information on page(s) 436, 437
- Internal through coolant
- For cutting data see page(s) 438-446

Designation	DC	OAL	LS	LUX	LU	DMM	Blade size
	mm	mm	mm	mm	mm	mm	
SR81-8H6-EN1	8	115	40	73	25	10	P0-EN1-xx
SR81-9H6-EN1	9	115	40	73	25	10	P1-EN1-xx
SR81-11H6-EN1	11	133	48	81	25	16	P1-EN1-xx
SR81-13H6-EN1	13	133	48	81	25	16	P2-EN1-xx
SR81-14H6-EN1	14	133	48	81	25	16	P2-EN1-xx
SR81-15H6-EN1	15	133	48	82	25	16	P2-EN1-xx
SR81-16H6-EN1	16	133	48	82	25	16	P2-EN1-xx
SR81-17H6-EN1	17	155	50	100	25	20	P2-EN1-xx
SR81-18H6-EN1	18	155	50	100	25	20	P2-EN1-xx
SR81-19H6-EN1	19	155	50	100	25	20	P2-EN1-xx
SR81-20H6-EN1	20	155	50	100	30	20	P4-EN1-xx
SR81-21H6-EN1	21	191	56	128	30	25	P4-EN1-xx
SR81-22H6-EN1	22	191	56	129	30	25	P4-EN1-xx
SR81-23H6-EN1	23	191	56	129	30	25	P4-EN1-xx
SR81-25H6-EN1	25	191	56	129	30	25	P4-EN1-xx
SR81-26H6-EN1	26	191	56	129	30	25	P4-EN1-xx

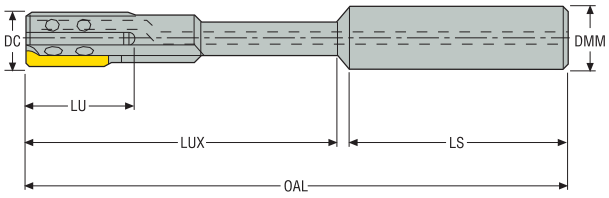
Spare Parts, included in delivery

For ∅ (mm)	Adjusting screw	Clamp	Clamp screw	Setting key	Support ball	Torque key	Torque value
							
8	SH2020	SR-B0	LH2040	0.9SMS795	BB1.5	-	-
9	SH2525	SR-B1	LH2540	1.3SMS795	BB2.0	H00-1305	0,5 Nm
10-12	SH2525	SR-B2	LH2540	1.3SMS795	BB2.0	H00-1305	0,5 Nm
13-19	SH3040	SR-B3	LH3050	1.5SMS795	BB2.5	H00-1509	0,9 Nm
20-60	SH4060	SR-B5	LH4010	2SMS795	BB3.0	H00-2020	2,0 Nm

Torque key is delivered with driving blade

For blind holes ∅ 27H6–60H6

Shank type R1, cylindrical without flat, SR81





- Blade information on page(s) 436, 437
- Internal through coolant
- For cutting data see page(s) 438-446

Designation	DC	OAL	LS	LUX	LU	DMM	Blade size
	mm	mm	mm	mm	mm	mm	
SR81-27H6-EN1	27	221	56	159	30	25	P4-EN1-xx
SR81-28H6-EN1	28	221	56	159	30	25	P4-EN1-xx
SR81-29H6-EN1	29	221	56	159	30	25	P4-EN1-xx
SR81-30H6-EN1	30	221	56	159	30	25	P4-EN1-xx
SR81-31H6-EN1	31	221	56	160	30	25	P4-EN1-xx
SR81-32H6-EN1	32	221	56	160	30	25	P4-EN1-xx
SR81-34H6-EN1	34	226	56	165	30	25	P4-EN1-xx
SR81-35H6-EN1	35	226	56	165	30	25	P4-EN1-xx
SR81-36H6-EN1	36	226	56	166	30	25	P4-EN1-xx
SR81-38H6-EN1	38	226	56	166	30	25	P4-EN1-xx
SR81-40H6-EN1	40	226	56	166	30	25	P4-EN1-xx
SR81-42H6-EN1	42	226	56	167	30	25	P4-EN1-xx
SR81-44H6-EN1	44	226	56	167	30	25	P4-EN1-xx
SR81-48H6-EN1	48	226	56	168	30	25	P4-EN1-xx
SR81-50H6-EN1	50	226	56	168	30	25	P4-EN1-xx
SR81-52H6-EN1	52	226	56	169	30	25	P4-EN1-xx
SR81-54H6-EN1	54	226	56	169	30	25	P4-EN1-xx
SR81-58H6-EN1	58	226	56	169	30	25	P4-EN1-xx
SR81-60H6-EN1	60	226	56	169	30	25	P4-EN1-xx

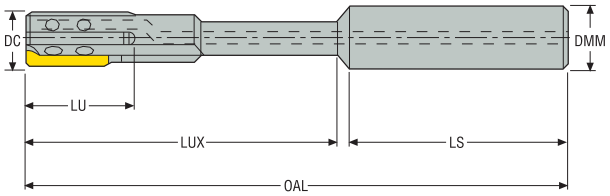
Spare Parts, included in delivery

For ∅ (mm)	Adjusting screw	Clamp	Clamp screw	Setting key	Support ball	Torque key	Torque value
							
20-60	SH4060	SR-B5	LH4010	2SMS795	BB3.0	H00-2020	2,0 Nm

For blind holes – Intermediate diameter

Shank type R1, cylindrical without flat, SR81





- Blade information on page(s) 436, 437
- Important! Reamer and blade must have the same lead geometry
- For choice of lead geometry EN1, EN2 or EN3 see page(s) 427
- For cutting data see page(s) 438-446

Designation	DC	OAL	LS	LUX	LU	DMM	Blade size
	mm	mm	mm	mm	mm	mm	
SR81-7.875-XX-XXXX-EN	7,875 - 8,749	115,0	40,0	73,0	25,0	10,0	P0-EN-xx
SR81-8.750-XX-XXXX-EN	8,75 - 9,749	115,0	40,0	73,0	25,0	10,0	P1-EN-xx
SR81-9.750-XX-XXXX-EN	9,75 - 10,749	115,0	40,0	73,0	25,0	10,0	P1-EN-xx
SR81-10.750-XX-XXXX-EN	10,75 - 12,749	133,0	48,0	81,0	25,0	16,0	P1-EN-xx
SR81-12.750-XX-XXXX-EN	12,75 - 16,749	133,0	48,0	81,0	25,0	16,0	P2-EN-xx
SR81-16.750-XX-XXXX-EN	16,75 - 19,499	155,0	50,0	100,0	25,0	20,0	P2-EN-xx
SR81-19.500-XX-XXXX-EN	19,5 - 20,499	155,0	50,0	100,0	30,0	20,0	P4-EN-xx
SR81-20.500-XX-XXXX-EN	20,5 - 26,499	191,0	56,0	129,0	30,0	25,0	P4-EN-xx
SR81-26.500-XX-XXXX-EN	26,5 - 32,499	221,0	56,0	160,0	30,0	25,0	P4-EN-xx
SR81-32.500-XX-XXXX-EN	32,5 - 38,499	226,0	56,0	165,0	30,0	25,0	P4-EN-xx
SR81-38.500-XX-XXXX-EN	38,5 - 40,499	226,0	56,0	166,0	30,0	25,0	P4-EN-xx
SR81-40.500-XX-XXXX-EN	40,5 - 44,499	226,0	56,0	167,0	30,0	25,0	P4-EN-xx
SR81-44.500-XX-XXXX-EN	44,5 - 50,499	226,0	56,0	168,0	30,0	25,0	P4-EN-xx
SR81-50.500-XX-XXXX-EN	50,5 - 60,5	226,0	56,0	169,0	30,0	25,0	P4-EN-xx

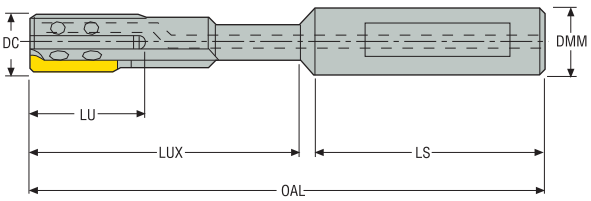
Spare Parts, included in delivery

Accessories

For ∅ (mm)	Adjusting screw	Clamp	Clamp screw	Setting key	Support ball	Torque key
						
9,75-12,749	SH2525	SR-B2	LH2540	1.3SMS795	BB2.0	H00-1305
12,75-19,499	SH3040	SR-B3	LH3050	1.5SMS795	BB2.5	H00-1509
19,5-60,5	SH4060	SR-B5	LH4010	2SMS795	BB3.0	H00-2020
7,875-8,749	SH2020	SR-B0	LH2040	0.9SMS795	BB1.5	–
8,75-9,749	SH2525	SR-B1	LH2540	1.3SMS795	BB2.0	H00-1305

Torque key is delivered with driving blade
Note! When ordering reamers for intermediate diameter, please state: ∅ and tolerance of bore to be reamed, lead geometry (EN1, EN2 or EN3).
Ordering example: SR81-11.50 H7-EN2, P1-EN2-06, CP20.

For blind holes – Short range for turning applications



Shank type R9, cylindrical with flat, SR82



- Blade information on page(s) 436, 437
- Important! Reamer and blade must have the same lead geometry
- For choice of lead geometry EN1, EN2 or EN3 see page(s) 427
- For cutting data see page(s) 438-446

Designation	DC	OAL	LS	LUX	LU	DMM	Blade size
	mm	mm	mm	mm	mm	mm	
SR82-7.875-XX-XXXX-EN	7,875 - 8,749	95,0	40,0	53,0	25,0	10,0	P0-EN-xx
SR82-8.750-XX-XXXX-EN	8,75 - 9,749	95,0	40,0	53,0	25,0	10,0	P1-EN-xx
SR82-9.750-XX-XXXX-EN	9,75 - 10,749	95,0	40,0	53,0	25,0	10,0	P1-EN-xx
SR82-10.750-XX-XXXX-EN	10,75 - 12,749	113,0	40,0	61,0	25,0	16,0	P1-EN-xx
SR82-12.750-XX-XXXX-EN	12,75 - 16,749	113,0	48,0	61,0	25,0	16,0	P2-EN-xx
SR82-16.750-XX-XXXX-EN	16,75 - 19,499	113,0	48,0	60,0	25,0	20,0	P2-EN-xx
SR82-19.500-XX-XXXX-EN	19,5 - 20,499	115,0	50,0	60,0	30,0	20,0	P4-EN-xx
SR82-20.500-XX-XXXX-EN	20,5 - 32,499	115,0	50,0	89,0	30,0	25,0	P4-EN-xx
SR82-32.500-XX-XXXX-EN	32,5 - 36,499	151,0	56,0	105,0	30,0	25,0	P4-EN-xx
SR82-36.500-XX-XXXX-EN	36,5 - 40,499	166,0	56,0	106,0	30,0	25,0	P4-EN-xx
SR82-40.500-XX-XXXX-EN	40,5 - 44,499	166,0	56,0	107,0	30,0	25,0	P4-EN-xx
SR82-44.500-XX-XXXX-EN	44,5 - 50,499	166,0	56,0	108,0	30,0	25,0	P4-EN-xx
SR82-50.500-XX-XXXX-EN	50,5 - 60,5	166,0	56,0	109,0	30,0	25,0	P4-EN-xx

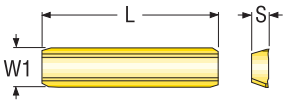
Spare Parts, included in delivery

Accessories

For ∅ (mm)	Adjusting screw	Clamp	Clamp screw	Setting key	Support ball	Torque key
						
9,75-12,749	SH2525	SR-B2	LH2540	1.3SMS795	BB2.0	H00-1305
12,75-19,499	SH3040	SR-B3	LH3050	1.5SMS795	BB2.5	H00-1509
19,5-60,5	SH4060	SR-B5	LH4010	2SMS795	BB3.0	H00-2020
7,875-8,749	SH2020	SR-B0	LH2040	0.9SMS795	BB1.5	–
8,75-9,749	SH2525	SR-B1	LH2540	1.3SMS795	BB2.0	H00-1305

Torque key is delivered with driving blade
Note! When ordering reamers for intermediate diameter, please state: ∅ and tolerance of bore to be reamed, lead geometry (EN1, EN2 or EN3).
Ordering example: SR82-11.50 H7EN2, P1-EN2-06, CP20.

P0-P4 Blades



Designation	Insert	L	S	W1	Grades	
		mm *Inch*	mm *Inch*	mm *Inch*	H15	CP20
P0-EN1-0	P0	20 *0.787*	1,2 *0.047*	2,5 *0.098*	00098229	00098244
P0-EN1-06	P0	20 *0.787*	1,2 *0.047*	2,5 *0.098*	00091786	00091762
P0-EN1-12	P0	20 *0.787*	1,2 *0.047*	2,5 *0.098*	00097299	00091971
P0-EN2-0	P0	20 *0.787*	1,2 *0.047*	2,5 *0.098*	00098234	00098249
P0-EN2-06	P0	20 *0.787*	1,2 *0.047*	2,5 *0.098*	00098160	00098170
P0-EN2-12	P0	20 *0.787*	1,2 *0.047*	2,5 *0.098*	00098165	00098175
P0-EN3-0	P0	20 *0.787*	1,2 *0.047*	2,5 *0.098*	00098239	00098254
P0-EN3-06	P0	20 *0.787*	1,2 *0.047*	2,5 *0.098*	00098185	00098195
P0-EN3-12	P0	20 *0.787*	1,2 *0.047*	2,5 *0.098*	00098190	00098200
P1-EN1-0	P1	20 *0.787*	1,5 *0.059*	3,0 *0.118*	00098230	00098245
P1-EN1-06	P1	20 *0.787*	1,5 *0.059*	3,0 *0.118*	00091787	00091764
P1-EN1-12	P1	20 *0.787*	1,5 *0.059*	3,0 *0.118*	00097300	00091972
P1-EN2-0	P1	20 *0.787*	1,5 *0.059*	3,0 *0.118*	00098235	00098250
P1-EN2-06	P1	20 *0.787*	1,5 *0.059*	3,0 *0.118*	00098161	00098171
P1-EN2-12	P1	20 *0.787*	1,5 *0.059*	3,0 *0.118*	00098166	00098176
P1-EN3-0	P1	20 *0.787*	1,5 *0.059*	3,0 *0.118*	00098240	00098255
P1-EN3-06	P1	20 *0.787*	1,5 *0.059*	3,0 *0.118*	00098186	00094702
P1-EN3-12	P1	20 *0.787*	1,5 *0.059*	3,0 *0.118*	00098191	00098201
P2-EN1-0	P2	20 *0.787*	2,0 *0.079*	4,5 *0.177*	00098231	00098246
P2-EN1-06	P2	20 *0.787*	2,0 *0.079*	4,5 *0.177*	00091788	00091765
P2-EN1-12	P2	20 *0.787*	2,0 *0.079*	4,5 *0.177*	00097301	00091973
P2-EN2-0	P2	20 *0.787*	2,0 *0.079*	4,5 *0.177*	00098236	00098251
P2-EN2-06	P2	20 *0.787*	2,0 *0.079*	4,5 *0.177*	00098162	00098172
P2-EN2-12	P2	20 *0.787*	2,0 *0.079*	4,5 *0.177*	00098167	00098177
P2-EN3-0	P2	20 *0.787*	2,0 *0.079*	4,5 *0.177*	00098241	00098256

Designation	Insert	L	S	W1	Grades	
		mm *Inch*	mm *Inch*	mm *Inch*	H15	CP20
P2-EN3-06	P2	20 *0.787*	2,0 *0.079*	4,5 *0.177*	00098187	00098197
P2-EN3-12	P2	20 *0.787*	2,0 *0.079*	4,5 *0.177*	00098192	00098202
P4-EN1-0	P4	25,0 *0.984*	2,3 *0.091*	7,0 *0.276*	00098232	00098247
P4-EN1-06	P4	25,0 *0.984*	2,3 *0.091*	7,0 *0.276*	00091789	00091766
P4-EN1-12	P4	25,0 *0.984*	2,3 *0.091*	7,0 *0.276*	00098128	00091974
P4-EN2-0	P4	25,0 *0.984*	2,3 *0.091*	7,0 *0.276*	00098237	00098252
P4-EN2-06	P4	25,0 *0.984*	2,3 *0.091*	7,0 *0.276*	00098163	00098173
P4-EN2-12	P4	25,0 *0.984*	2,3 *0.091*	7,0 *0.276*	00098168	00098178
P4-EN3-0	P4	25,0 *0.984*	2,3 *0.091*	7,0 *0.276*	00098242	00098257
P4-EN3-06	P4	25,0 *0.984*	2,3 *0.091*	7,0 *0.276*	00098188	00098198
P4-EN3-12	P4	25,0 *0.984*	2,3 *0.091*	7,0 *0.276*	00098193	00098203

Cutting data – Pxx-EN1/EN2-00 metric

SMG		a_p (∅)		f	v_c	
		Ø < 9	Ø ≥ 9		CP20	CP15
P5	Pxx-EN1/EN2-00	0,10-0,15	0,10-0,20	0,10-0,30	40 (30-50)	–
P6	Pxx-EN1/EN2-00	0,10-0,15	0,10-0,20	0,10-0,30	40 (30-50)	–
P7	Pxx-EN1/EN2-00	0,10-0,15	0,10-0,20	0,10-0,30	40 (30-50)	–
K1	Pxx-EN1/EN2-00	0,10-0,20	0,10-0,30	0,10-0,30	90 (80-100)	120 (80-150)
K2	Pxx-EN1/EN2-00	0,10-0,20	0,10-0,30	0,10-0,30	35 (25-50)	50 (25-70)
K3	Pxx-EN1/EN2-00	0,10-0,20	0,10-0,30	0,10-0,30	90 (80-100)	120 (80-150)
K4	Pxx-EN1/EN2-00	0,10-0,20	0,10-0,30	0,10-0,30	70 (60-80)	90 (80-100)
K5	Pxx-EN1/EN2-00	0,10-0,20	0,10-0,30	0,10-0,30	70 (60-80)	90 (80-100)
K6	Pxx-EN1/EN2-00	0,10-0,20	0,10-0,30	0,10-0,30	90 (80-100)	120 (80-150)
K7	Pxx-EN1/EN2-00	0,10-0,20	0,10-0,30	0,10-0,30	90 (80-100)	120 (80-150)
PM1	Pxx-EN1/EN2-00	0,10-0,20	0,10-0,30	0,10-0,30	50 (25-70)	–
PM2	Pxx-EN1/EN2-00	0,10-0,20	0,10-0,30	0,10-0,30	50 (25-70)	–
PM3	Pxx-EN1/EN2-00	0,10-0,20	0,10-0,30	0,10-0,30	50 (25-70)	–

SMG = Seco material group
a_p = mm
f = mm/rev
v_c= m/min
All cutting data are start values

Cutting data – Pxx-EN1/EN2-00 *inch*

SMG		a_p (∅)		f	v_c	
		Ø < 9	Ø ≥ 9		CP20	CP15
P5	*Pxx-EN1/EN2-00*	*0.004–0.006*	*0.004–0.008*	*0.004–0.012*	*130 (100-165)*	–
P6	*Pxx-EN1/EN2-00*	*0.004–0.006*	*0.004–0.008*	*0.004–0.012*	*130 (100-165)*	–
P7	*Pxx-EN1/EN2-00*	*0.004–0.006*	*0.004–0.008*	*0.004–0.012*	*130 (100-165)*	–
K1	*Pxx-EN1/EN2-00*	*0.004–0.008*	*0.004–0.012*	*0.004–0.012*	*295 (260-330)*	*395 (260-490)*
K2	*Pxx-EN1/EN2-00*	*0.004–0.008*	*0.004–0.012*	*0.004–0.012*	*115 (80-165)*	*165 (80-230)*
K3	*Pxx-EN1/EN2-00*	*0.004–0.008*	*0.004–0.012*	*0.004–0.012*	*295 (260-330)*	*395 (260-490)*
K4	*Pxx-EN1/EN2-00*	*0.004–0.008*	*0.004–0.012*	*0.004–0.012*	*230 (195-260)*	*295 (260-330)*
K5	*Pxx-EN1/EN2-00*	*0.004–0.008*	*0.004–0.012*	*0.004–0.012*	*230 (195-260)*	*295 (260-330)*
K6	*Pxx-EN1/EN2-00*	*0.004–0.008*	*0.004–0.012*	*0.004–0.012*	*295 (260-330)*	*395 (260-490)*
K7	*Pxx-EN1/EN2-00*	*0.004–0.008*	*0.004–0.012*	*0.004–0.012*	*295 (260-330)*	*395 (260-490)*
PM1	*Pxx-EN1/EN2-00*	*0.004–0.008*	*0.004–0.012*	*0.004–0.012*	*165 (80-230)*	–
PM2	*Pxx-EN1/EN2-00*	*0.004–0.008*	*0.004–0.012*	*0.004–0.012*	*165 (80-230)*	–
PM3	*Pxx-EN1/EN2-00*	*0.004–0.008*	*0.004–0.012*	*0.004–0.012*	*165 (80-230)*	–

SMG = Seco material group
a_p = *inch*
f = in/rev
v_c= sf/min
All cutting data are start values

Cutting data – Pxx-EN1/EN2-06 metric

SMG		a_p (∅)		f	v_c		
		Ø < 9	Ø ≥ 9		H15	CP20	CP15
P1	Pxx-EN1/EN2-06	0,10-0,15	0,10-0,20	0,10-0,30	40 (30-60)	105 (90-120)	120 (90-150)
P2	Pxx-EN1/EN2-06	0,10-0,15	0,10-0,20	0,10-0,30	40 (30-60)	105 (90-120)	120 (90-150)
P3	Pxx-EN1/EN2-06	0,10-0,15	0,10-0,20	0,10-0,30	40 (30-60)	105 (90-120)	120 (90-150)
P4	Pxx-EN1/EN2-06	0,10-0,15	0,10-0,20	0,10-0,30	35 (25-40)	60 (40-70)	80 (60-100)
P5	Pxx-EN1/EN2-06	0,10-0,15	0,10-0,20	0,10-0,30	35 (25-40)	60 (40-70)	80 (60-100)
P6	Pxx-EN1/EN2-06	0,10-0,15	0,10-0,20	0,10-0,30	35 (25-40)	60 (40-70)	80 (60-100)
P7	Pxx-EN1/EN2-06	0,10-0,15	0,10-0,20	0,10-0,30	35 (25-40)	60 (40-70)	80 (60-100)
P8	Pxx-EN1/EN2-06	0,10-0,15	0,10-0,20	0,10-0,30	30 (25-40)	50 (30-60)	60 (40-70)
P11	Pxx-EN1/EN2-06	0,10-0,15	0,10-0,20	0,10-0,30	30 (25-40)	50 (30-60)	60 (40-70)
P12	Pxx-EN1/EN2-06	0,10-0,15	0,10-0,20	0,10-0,30	25 (20-30)	40 (25-45)	45 (30-55)
M1	Pxx-EN1/EN2-06	0,10-0,15	0,10-0,20	0,10-0,30	25 (20-30)	35 (25-40)	35 (25-40)
M2	Pxx-EN1/EN2-06	0,10-0,15	0,10-0,20	0,10-0,30	25 (20-30)	35 (25-40)	35 (25-40)
M3	Pxx-EN1/EN2-06	0,10-0,15	0,10-0,20	0,10-0,30	25 (20-30)	35 (25-40)	35 (25-40)
M4	Pxx-EN1/EN2-06	0,10-0,15	0,10-0,20	0,10-0,30	20 (15-30)	30 (25-40)	30 (25-40)
M5	Pxx-EN1/EN2-06	0,10-0,15	0,10-0,20	0,10-0,30	20 (15-30)	30 (25-40)	30 (25-40)
K1	Pxx-EN1/EN2-06	0,10-0,20	0,10-0,30	0,10-0,30	-	90 (80-100)	120 (80-150)
K2	Pxx-EN1/EN2-06	0,10-0,20	0,10-0,30	0,10-0,30	-	35 (25-50)	50 (25-70)
K3	Pxx-EN1/EN2-06	0,10-0,20	0,10-0,30	0,10-0,30	-	90 (80-100)	120 (80-150)
K4	Pxx-EN1/EN2-06	0,10-0,20	0,10-0,30	0,10-0,30	-	70 (60-80)	90 (80-100)
K5	Pxx-EN1/EN2-06	0,10-0,20	0,10-0,30	0,10-0,30	-	70 (60-80)	90 (80-100)
K6	Pxx-EN1/EN2-06	0,10-0,20	0,10-0,30	0,10-0,30	-	90 (80-100)	120 (80-150)
K7	Pxx-EN1/EN2-06	0,10-0,20	0,10-0,30	0,10-0,30	-	90 (80-100)	120 (80-150)
N11	Pxx-EN1/EN2-06	0,10-0,30	0,20-0,50	0,10-0,30	65 (50-150)	90 (70-150)	-
S1	Pxx-EN1/EN2-06	0,10-0,15	0,10-0,20	0,10-0,30	-	25 (15-30)	-
S2	Pxx-EN1/EN2-06	0,10-0,15	0,10-0,20	0,10-0,30	-	25 (15-30)	-
S3	Pxx-EN1/EN2-06	0,10-0,15	0,10-0,20	0,10-0,30	-	25 (15-30)	-
PM1	Pxx-EN1/EN2-06	0,10-0,20	0,10-0,30	0,10-0,30	-	50 (25-70)	-
PM2	Pxx-EN1/EN2-06	0,10-0,20	0,10-0,30	0,10-0,30	-	50 (25-70)	-
PM3	Pxx-EN1/EN2-06	0,10-0,20	0,10-0,30	0,10-0,30	-	50 (25-70)	-

SMG = Seco material group
a_p = mm
f = mm/rev
v_c= m/min
All cutting data are start values

Cutting data – Pxx-EN1/EN2-06 *inch*

SMG		a_p (∅)		f	v_c		
		Ø < 9	Ø ≥ 9		H15	CP20	CP15
P1	*Pxx-EN1/EN2-06*	*0.004–0.006*	*0.004–0.008*	*0.004–0.012*	*130 (100-195)*	*345 (295-395)*	*395 (295-490)*
P2	*Pxx-EN1/EN2-06*	*0.004–0.006*	*0.004–0.008*	*0.004–0.012*	*130 (100-195)*	*345 (295-395)*	*395 (295-490)*
P3	*Pxx-EN1/EN2-06*	*0.004–0.006*	*0.004–0.008*	*0.004–0.012*	*130 (100-195)*	*345 (295-395)*	*395 (295-490)*
P4	*Pxx-EN1/EN2-06*	*0.004–0.006*	*0.004–0.008*	*0.004–0.012*	*115 (80-130)*	*195 (130-230)*	*260 (195-330)*
P5	*Pxx-EN1/EN2-06*	*0.004–0.006*	*0.004–0.008*	*0.004–0.012*	*115 (80-130)*	*195 (130-230)*	*260 (195-330)*
P6	*Pxx-EN1/EN2-06*	*0.004–0.006*	*0.004–0.008*	*0.004–0.012*	*115 (80-130)*	*195 (130-230)*	*260 (195-330)*
P7	*Pxx-EN1/EN2-06*	*0.004–0.006*	*0.004–0.008*	*0.004–0.012*	*115 (80-130)*	*195 (130-230)*	*260 (195-330)*
P8	*Pxx-EN1/EN2-06*	*0.004–0.006*	*0.004–0.008*	*0.004–0.012*	*100 (80-130)*	*165 (100-195)*	*195 (130-230)*
P11	*Pxx-EN1/EN2-06*	*0.004–0.006*	*0.004–0.008*	*0.004–0.012*	*100 (80-130)*	*165 (100-195)*	*195 (130-230)*
P12	*Pxx-EN1/EN2-06*	*0.004–0.006*	*0.004–0.008*	*0.004–0.012*	*80 (65-100)*	*130 (80-150)*	*150 (100-180)*
M1	*Pxx-EN1/EN2-06*	*0.004–0.006*	*0.004–0.008*	*0.004–0.012*	*80 (65-100)*	*115 (80-130)*	*115 (80-130)*
M2	*Pxx-EN1/EN2-06*	*0.004–0.006*	*0.004–0.008*	*0.004–0.012*	*80 (65-100)*	*115 (80-130)*	*115 (80-130)*
M3	*Pxx-EN1/EN2-06*	*0.004–0.006*	*0.004–0.008*	*0.004–0.012*	*80 (65-100)*	*115 (80-130)*	*115 (80-130)*
M4	*Pxx-EN1/EN2-06*	*0.004–0.006*	*0.004–0.008*	*0.004–0.012*	*65 (50-100)*	*100 (80-130)*	*100 (80-130)*
M5	*Pxx-EN1/EN2-06*	*0.004–0.006*	*0.004–0.008*	*0.004–0.012*	*65 (50-100)*	*100 (80-130)*	*100 (80-130)*
K1	*Pxx-EN1/EN2-06*	*0.004–0.008*	*0.004–0.012*	*0.004–0.012*	–	*295 (260-330)*	*395 (260-490)*
K2	*Pxx-EN1/EN2-06*	*0.004–0.008*	*0.004–0.012*	*0.004–0.012*	–	*115 (80-165)*	*165 (80-230)*
K3	*Pxx-EN1/EN2-06*	*0.004–0.008*	*0.004–0.012*	*0.004–0.012*	–	*295 (260-330)*	*395 (260-490)*
K4	*Pxx-EN1/EN2-06*	*0.004–0.008*	*0.004–0.012*	*0.004–0.012*	–	*230 (195-260)*	*295 (260-330)*
K5	*Pxx-EN1/EN2-06*	*0.004–0.008*	*0.004–0.012*	*0.004–0.012*	–	*230 (195-260)*	*295 (260-330)*
K6	*Pxx-EN1/EN2-06*	*0.004–0.012*	*0.008–0.020*	*0.004–0.012*	*215 (165-150)*	*295 (230-490)*	–
K7	*Pxx-EN1/EN2-06*	*0.004–0.012*	*0.008–0.020*	*0.004–0.012*	*215 (165-150)*	*295 (230-490)*	–
N11	*Pxx-EN1/EN2-06*	*0.004–0.012*	*0.008–0.020*	*0.004–0.012*	*215 (165-150)*	*295 (230-490)*	–
S1	*Pxx-EN1/EN2-06*	*0.004–0.006*	*0.004–0.008*	*0.004–0.012*	–	*80 (50-100)*	–
S2	*Pxx-EN1/EN2-06*	*0.004–0.006*	*0.004–0.008*	*0.004–0.012*	–	*80 (50-100)*	–
S3	*Pxx-EN1/EN2-06*	*0.004–0.006*	*0.004–0.008*	*0.004–0.012*	–	*80 (50-100)*	–
PM1	*Pxx-EN1/EN2-06*	*0.004–0.008*	*0.004–0.012*	*0.004–0.012*	–	*165 (80-230)*	–
PM2	*Pxx-EN1/EN2-06*	*0.004–0.008*	*0.004–0.012*	*0.004–0.012*	–	*165 (80-230)*	–
PM3	*Pxx-EN1/EN2-06*	*0.004–0.008*	*0.004–0.012*	*0.004–0.012*	–	*165 (80-230)*	–

SMG = Seco material group
a_p = *inch*
f = in/rev
v_c= sf/min
All cutting data are start values

Cutting data – Pxx-EN1/EN2-12 metric

SMG		a_p (∅)		f	v_c		
		Ø < 9	Ø ≥ 9		H15	CP20	CP15
P1	Pxx-EN1/EN2-12	0,10-0,15	0,10-0,20	0,10-0,30	40 (30-60)	105 (90-120)	120 (90-150)
P2	Pxx-EN1/EN2-12	0,10-0,15	0,10-0,20	0,10-0,30	40 (30-60)	105 (90-120)	120 (90-150)
P3	Pxx-EN1/EN2-12	0,10-0,15	0,10-0,20	0,10-0,30	40 (30-60)	105 (90-120)	120 (90-150)
P4	Pxx-EN1/EN2-12	0,10-0,15	0,10-0,20	0,10-0,30	35 (25-40)	60 (40-70)	80 (60-100)
P5	Pxx-EN1/EN2-12	0,10-0,15	0,10-0,20	0,10-0,30	35 (25-40)	60 (40-70)	80 (60-100)
P6	Pxx-EN1/EN2-12	0,10-0,15	0,10-0,20	0,10-0,30	35 (25-40)	60 (40-70)	80 (60-100)
P7	Pxx-EN1/EN2-12	0,10-0,15	0,10-0,20	0,10-0,30	35 (25-40)	60 (40-70)	80 (60-100)
P8	Pxx-EN1/EN2-12	0,10-0,15	0,10-0,20	0,10-0,30	30 (25-40)	50 (30-60)	60 (40-70)
P11	Pxx-EN1/EN2-12	0,10-0,15	0,10-0,20	0,10-0,30	30 (25-40)	50 (30-60)	60 (40-70)
P12	Pxx-EN1/EN2-12	0,10-0,15	0,10-0,20	0,10-0,30	25 (20-30)	40 (25-45)	45 (30-55)
M1	Pxx-EN1/EN2-12	0,10-0,15	0,10-0,20	0,10-0,30	25 (20-30)	35 (25-40)	35 (25-40)
M2	Pxx-EN1/EN2-12	0,10-0,15	0,10-0,20	0,10-0,30	25 (20-30)	35 (25-40)	35 (25-40)
M3	Pxx-EN1/EN2-12	0,10-0,15	0,10-0,20	0,10-0,30	25 (20-30)	35 (25-40)	35 (25-40)
M4	Pxx-EN1/EN2-12	0,10-0,15	0,10-0,20	0,10-0,30	20 (15-30)	30 (25-40)	30 (25-40)
M5	Pxx-EN1/EN2-12	0,10-0,15	0,10-0,20	0,10-0,30	20 (15-30)	30 (25-40)	30 (25-40)
K1	Pxx-EN1/EN2-12	0,10-0,20	0,10-0,30	0,10-0,30	–	90 (80-100)	–
K3	Pxx-EN1/EN2-12	0,10-0,20	0,10-0,30	0,10-0,30	–	90 (80-100)	–
K4	Pxx-EN1/EN2-12	0,10-0,20	0,10-0,30	0,10-0,30	–	70 (60-80)	–
K5	Pxx-EN1/EN2-12	0,10-0,20	0,10-0,30	0,10-0,30	–	70 (60-80)	–
N11	Pxx-EN1/EN2-12	0,10-0,30	0,20-0,50	0,10-0,30	65 (50-150)	90 (70-150)	–
S1	Pxx-EN1/EN2-12	0,10-0,15	0,10-0,20	0,10-0,30	–	25 (15-30)	–
S2	Pxx-EN1/EN2-12	0,10-0,15	0,10-0,20	0,10-0,30	–	25 (15-30)	–
S3	Pxx-EN1/EN2-12	0,10-0,15	0,10-0,20	0,10-0,30	–	25 (15-30)	–
PM1	Pxx-EN1/EN2-12	0,10-0,20	0,10-0,30	0,10-0,30	–	50 (25-70)	–
PM2	Pxx-EN1/EN2-12	0,10-0,20	0,10-0,30	0,10-0,30	–	50 (25-70)	–
PM3	Pxx-EN1/EN2-12	0,10-0,20	0,10-0,30	0,10-0,30	–	50 (25-70)	–

SMG = Seco material group
a_p = mm
f = mm/rev
v_c= m/min
All cutting data are start values

Cutting data – Pxx-EN1/EN2-12 *inch*

SMG		a_p (∅)		f	v_c		
		Ø < 9	Ø ≥ 9		H15	CP20	CP15
P1	*Pxx-EN1/EN2-12*	*0.004–0.006*	*0.004–0.008*	*0.004–0.012*	*130 (100-195)*	*345 (295-395)*	*395 (295-490)*
P2	*Pxx-EN1/EN2-12*	*0.004–0.006*	*0.004–0.008*	*0.004–0.012*	*130 (100-195)*	*345 (295-395)*	*395 (295-490)*
P3	*Pxx-EN1/EN2-12*	*0.004–0.006*	*0.004–0.008*	*0.004–0.012*	*130 (100-195)*	*345 (295-395)*	*395 (295-490)*
P4	*Pxx-EN1/EN2-12*	*0.004–0.006*	*0.004–0.008*	*0.004–0.012*	*115 (80-130)*	*195 (130-230)*	*260 (195-330)*
P5	*Pxx-EN1/EN2-12*	*0.004–0.006*	*0.004–0.008*	*0.004–0.012*	*115 (80-130)*	*195 (130-230)*	*260 (195-330)*
P6	*Pxx-EN1/EN2-12*	*0.004–0.006*	*0.004–0.008*	*0.004–0.012*	*115 (80-130)*	*195 (130-230)*	*260 (195-330)*
P7	*Pxx-EN1/EN2-12*	*0.004–0.006*	*0.004–0.008*	*0.004–0.012*	*115 (80-130)*	*195 (130-230)*	*260 (195-330)*
P8	*Pxx-EN1/EN2-12*	*0.004–0.006*	*0.004–0.008*	*0.004–0.012*	*100 (80-130)*	*165 (100-195)*	*195 (130-230)*
P11	*Pxx-EN1/EN2-12*	*0.004–0.006*	*0.004–0.008*	*0.004–0.012*	*100 (80-130)*	*165 (100-195)*	*195 (130-230)*
P12	*Pxx-EN1/EN2-12*	*0.004–0.006*	*0.004–0.008*	*0.004–0.012*	*80 (65-100)*	*130 (80-150)*	*150 (100-180)*
M1	*Pxx-EN1/EN2-12*	*0.004–0.006*	*0.004–0.008*	*0.004–0.012*	*80 (65-100)*	*115 (80-130)*	*115 (80-130)*
M2	*Pxx-EN1/EN2-12*	*0.004–0.006*	*0.004–0.008*	*0.004–0.012*	*80 (65-100)*	*115 (80-130)*	*115 (80-130)*
M3	*Pxx-EN1/EN2-12*	*0.004–0.006*	*0.004–0.008*	*0.004–0.012*	*80 (65-100)*	*115 (80-130)*	*115 (80-130)*
M4	*Pxx-EN1/EN2-12*	*0.004–0.006*	*0.004–0.008*	*0.004–0.012*	*65 (50-100)*	*100 (80-130)*	*100 (80-130)*
M5	*Pxx-EN1/EN2-12*	*0.004–0.006*	*0.004–0.008*	*0.004–0.012*	*65 (50-100)*	*100 (80-130)*	*100 (80-130)*
K1	*Pxx-EN1/EN2-12*	*0.004–0.008*	*0.004–0.012*	*0.004–0.012*	–	*295 (260-330)*	–
K3	*Pxx-EN1/EN2-12*	*0.004–0.008*	*0.004–0.012*	*0.004–0.012*	–	*295 (260-330)*	–
K4	*Pxx-EN1/EN2-12*	*0.004–0.008*	*0.004–0.012*	*0.004–0.012*	–	*230 (195-260)*	–
K5	*Pxx-EN1/EN2-12*	*0.004–0.008*	*0.004–0.012*	*0.004–0.012*	–	*230 (195-260)*	–
N11	*Pxx-EN1/EN2-12*	*0.004–0.012*	*0.008–0.020*	*0.004–0.012*	*215 (165-490)*	*295 (230-490)*	–
S1	*Pxx-EN1/EN2-12*	*0.004–0.006*	*0.004–0.008*	*0.004–0.012*	–	*80 (50-100)*	–
S2	*Pxx-EN1/EN2-12*	*0.004–0.006*	*0.004–0.008*	*0.004–0.012*	–	*80 (50-100)*	–
S3	*Pxx-EN1/EN2-12*	*0.004–0.006*	*0.004–0.008*	*0.004–0.012*	–	*80 (50-100)*	–
PM1	*Pxx-EN1/EN2-12*	*0.004–0.008*	*0.004–0.012*	*0.004–0.012*	–	*165 (80-230)*	–
PM2	*Pxx-EN1/EN2-12*	*0.004–0.008*	*0.004–0.012*	*0.004–0.012*	–	*165 (80-230)*	–
PM3	*Pxx-EN1/EN2-12*	*0.004–0.008*	*0.004–0.012*	*0.004–0.012*	–	*165 (80-230)*	–

SMG = Seco material group
a_p = *inch*
f = in/rev
v_c= sf/min
All cutting data are start values

Cutting data – Pxx-EN3-00 metric

SMG		a_p (∅)		f	v_c	
		Ø < 9	Ø ≥ 9		CP20	CP15
P5	Pxx-EN3-00	0,10-0,15	0,10-0,20	0,10-0,30	40 (30-50)	-
P6	Pxx-EN3-00	0,10-0,15	0,10-0,20	0,10-0,30	40 (30-50)	-
P7	Pxx-EN3-00	0,10-0,15	0,10-0,20	0,10-0,30	40 (30-50)	-
K1	Pxx-EN3-00	0,10-0,20	0,10-0,30	0,10-0,30	90 (80-100)	120 (80-150)
K2	Pxx-EN3-00	0,10-0,20	0,10-0,30	0,10-0,30	35 (25-50)	50 (25-70)
K3	Pxx-EN3-00	0,10-0,20	0,10-0,30	0,10-0,30	90 (80-100)	120 (80-150)
K4	Pxx-EN3-00	0,10-0,20	0,10-0,30	0,10-0,30	70 (60-80)	90 (80-100)
K5	Pxx-EN3-00	0,10-0,20	0,10-0,30	0,10-0,30	70 (60-80)	90 (80-100)
K6	Pxx-EN3-00	0,10-0,20	0,10-0,30	0,10-0,30	90 (80-100)	120 (80-150)
K7	Pxx-EN3-00	0,10-0,20	0,10-0,30	0,10-0,30	90 (80-100)	120 (80-150)
PM1	Pxx-EN3-00	0,10-0,20	0,10-0,30	0,10-0,30	50 (25-70)	-
PM2	Pxx-EN3-00	0,10-0,20	0,10-0,30	0,10-0,30	50 (25-70)	-
PM3	Pxx-EN3-00	0,10-0,20	0,10-0,30	0,10-0,30	50 (25-70)	-

SMG = Seco material group
a_p = mm
f = mm/rev
v_c= m/min
All cutting data are start values

Cutting data – Pxx-EN3-00 *inch*

SMG		a_p (∅)		f	v_c	
		Ø < 9	Ø ≥ 9		CP20	CP15
P5	*Pxx-EN3-00*	*0.004–0.006*	*0.004–0.008*	*0.004–0.012*	*130 (100-165)*	–
P6	*Pxx-EN3-00*	*0.004–0.006*	*0.004–0.008*	*0.004–0.012*	*130 (100-165)*	–
P7	*Pxx-EN3-00*	*0.004–0.006*	*0.004–0.008*	*0.004–0.012*	*130 (100-165)*	–
K1	*Pxx-EN3-00*	*0.004–0.008*	*0.004–0.012*	*0.004–0.012*	*295 (260-330)*	*395 (260-490)*
K2	*Pxx-EN3-00*	*0.004–0.008*	*0.004–0.012*	*0.004–0.012*	*115 (80-165)*	*165 (80-230)*
K3	*Pxx-EN3-00*	*0.004–0.008*	*0.004–0.012*	*0.004–0.012*	*295 (260-330)*	*395 (260-490)*
K4	*Pxx-EN3-00*	*0.004–0.008*	*0.004–0.012*	*0.004–0.012*	*230 (195-260)*	*295 (260-330)*
K5	*Pxx-EN3-00*	*0.004–0.008*	*0.004–0.012*	*0.004–0.012*	*230 (195-260)*	*295 (260-330)*
K6	*Pxx-EN3-00*	*0.004–0.008*	*0.004–0.012*	*0.004–0.012*	*295 (260-330)*	*395 (260-490)*
K7	*Pxx-EN3-00*	*0.004–0.008*	*0.004–0.012*	*0.004–0.012*	*295 (260-330)*	*395 (260-490)*
PM1	*Pxx-EN3-00*	*0.004–0.008*	*0.004–0.012*	*0.004–0.012*	*165 (80-230)*	–
PM2	*Pxx-EN3-00*	*0.004–0.008*	*0.004–0.012*	*0.004–0.012*	*165 (80-230)*	–
PM3	*Pxx-EN3-00*	*0.004–0.008*	*0.004–0.012*	*0.004–0.012*	*165 (80-230)*	–

SMG = Seco material group
a_p = *inch*
f = in/rev
v_c= sf/min
All cutting data are start values

Cutting data – Pxx-EN3-06 metric

SMG		a_p (∅)		f	v_c		
		Ø < 9	Ø ≥ 9		H15	CP20	CP15
P1	Pxx-EN3-06	0,10-0,15	0,10-0,20	0,10-0,30	40 (30-60)	105 (90-120)	120 (90-150)
P2	Pxx-EN3-06	0,10-0,15	0,10-0,20	0,10-0,30	40 (30-60)	105 (90-120)	120 (90-150)
P3	Pxx-EN3-06	0,10-0,15	0,10-0,20	0,10-0,30	40 (30-60)	105 (90-120)	120 (90-150)
P4	Pxx-EN3-06	0,10-0,15	0,10-0,20	0,10-0,30	35 (25-40)	60 (40-70)	80 (60-100)
P5	Pxx-EN3-06	0,10-0,15	0,10-0,20	0,10-0,30	35 (25-40)	60 (40-70)	80 (60-100)
P6	Pxx-EN3-06	0,10-0,15	0,10-0,20	0,10-0,30	35 (25-40)	60 (40-70)	80 (60-100)
P7	Pxx-EN3-06	0,10-0,15	0,10-0,20	0,10-0,30	35 (25-40)	60 (40-70)	80 (60-100)
P8	Pxx-EN3-06	0,10-0,15	0,10-0,20	0,10-0,30	30 (25-40)	50 (30-60)	60 (40-70)
P11	Pxx-EN3-06	0,10-0,15	0,10-0,20	0,10-0,30	30 (25-40)	50 (30-60)	60 (40-70)
P12	Pxx-EN3-06	0,10-0,15	0,10-0,20	0,10-0,30	25 (20-30)	40 (25-45)	45 (30-55)
M1	Pxx-EN3-06	0,10-0,15	0,10-0,20	0,10-0,30	-	-	35 (25-40)
M2	Pxx-EN3-06	0,10-0,15	0,10-0,20	0,10-0,30	-	-	35 (25-40)
M3	Pxx-EN3-06	0,10-0,15	0,10-0,20	0,10-0,30	-	-	35 (25-40)
M4	Pxx-EN3-06	0,10-0,15	0,10-0,20	0,10-0,30	-	-	30 (25-40)
M5	Pxx-EN3-06	0,10-0,15	0,10-0,20	0,10-0,30	-	-	30 (25-40)
K1	Pxx-EN3-06	0,10-0,20	0,10-0,30	0,10-0,30	-	90 (80-100)	120 (80-150)
K2	Pxx-EN3-06	0,10-0,20	0,10-0,30	0,10-0,30	-	35 (25-50)	50 (25-70)
K3	Pxx-EN3-06	0,10-0,20	0,10-0,30	0,10-0,30	-	90 (80-100)	120 (80-150)
K4	Pxx-EN3-06	0,10-0,20	0,10-0,30	0,10-0,30	-	70 (60-80)	90 (80-100)
K5	Pxx-EN3-06	0,10-0,20	0,10-0,30	0,10-0,30	-	70 (60-80)	90 (80-100)
K6	Pxx-EN3-06	0,10-0,20	0,10-0,30	0,10-0,30	-	90 (80-100)	120 (80-150)
K7	Pxx-EN3-06	0,10-0,20	0,10-0,30	0,10-0,30	-	90 (80-100)	120 (80-150)
PM1	Pxx-EN3-06	0,10-0,20	0,10-0,30	0,10-0,30	-	50 (25-70)	-
PM2	Pxx-EN3-06	0,10-0,20	0,10-0,30	0,10-0,30	-	50 (25-70)	-
PM3	Pxx-EN3-06	0,10-0,20	0,10-0,30	0,10-0,30	-	50 (25-70)	-

SMG = Seco material group
a_p = mm
f = mm/rev
v_c= m/min
All cutting data are start values

Cutting data – Pxx-E3-06 *inch*

SMG		a_p (∅)		f	v_c		
		Ø < 9	Ø ≥ 9		H15	CP20	CP15
P1	Pxx-EN3-06	0.004–0.006	0.004–0.008	0.004–0.012	130 (100-195)	345 (295-395)	395 (295-490)
P2	Pxx-EN3-06	0.004–0.006	0.004–0.008	0.004–0.012	130 (100-195)	345 (295-395)	395 (295-490)
P3	Pxx-EN3-06	0.004–0.006	0.004–0.008	0.004–0.012	130 (100-195)	345 (295-395)	395 (295-490)
P4	Pxx-EN3-06	0.004–0.006	0.004–0.008	0.004–0.012	115 (80-130)	195 (130-230)	260 (195-330)
P5	Pxx-EN3-06	0.004–0.006	0.004–0.008	0.004–0.012	115 (80-130)	195 (130-230)	260 (195-330)
P6	Pxx-EN3-06	0.004–0.006	0.004–0.008	0.004–0.012	115 (80-130)	195 (130-230)	260 (195-330)
P7	Pxx-EN3-06	0.004–0.006	0.004–0.008	0.004–0.012	115 (80-130)	195 (130-230)	260 (195-330)
P8	Pxx-EN3-06	0.004–0.006	0.004–0.008	0.004–0.012	100 (80-130)	165 (100-195)	195 (130-230)
P11	Pxx-EN3-06	0.004–0.006	0.004–0.008	0.004–0.012	100 (80-130)	165 (100-195)	195 (130-230)
P12	Pxx-EN3-06	0.004–0.006	0.004–0.008	0.004–0.012	80 (65-100)	130 (80-150)	150 (100-180)
M1	Pxx-EN3-06	0.004–0.006	0.004–0.008	0.004–0.012	–	–	115 (80-130)
M2	Pxx-EN3-06	0.004–0.006	0.004–0.008	0.004–0.012	–	–	115 (80-130)
M3	Pxx-EN3-06	0.004–0.006	0.004–0.008	0.004–0.012	–	–	115 (80-130)
M4	Pxx-EN3-06	0.004–0.006	0.004–0.008	0.004–0.012	–	–	100 (80-130)
M5	Pxx-EN3-06	0.004–0.006	0.004–0.008	0.004–0.012	–	–	100 (80-130)
K1	Pxx-EN3-06	0.004–0.008	0.004–0.012	0.004–0.012	–	295 (260-330)	395 (260-490)
K2	Pxx-EN3-06	0.004–0.008	0.004–0.012	0.004–0.012	–	115 (80-165)	165 (80-230)
K3	Pxx-EN3-06	0.004–0.008	0.004–0.012	0.004–0.012	–	295 (260-330)	395 (260-490)
K4	Pxx-EN3-06	0.004–0.008	0.004–0.012	0.004–0.012	–	230 (195-260)	295 (260-330)
K5	Pxx-EN3-06	0.004–0.008	0.004–0.012	0.004–0.012	–	230 (195-260)	295 (260-330)
K6	Pxx-EN3-06	0.004–0.008	0.004–0.012	0.004–0.012	–	295 (260-330)	395 (260-490)
K7	Pxx-EN3-06	0.004–0.008	0.004–0.012	0.004–0.012	–	295 (260-330)	395 (260-490)
PM1	Pxx-EN3-06	0.004–0.008	0.004–0.012	0.004–0.012	–	165 (80-230)	–
PM2	Pxx-EN3-06	0.004–0.008	0.004–0.012	0.004–0.012	–	165 (80-230)	–
PM3	Pxx-EN3-06	0.004–0.008	0.004–0.012	0.004–0.012	–	165 (80-230)	–

SMG = Seco material group
a_p = *inch*
f = in/rev
v_c= sf/min
All cutting data are start values

Cutting data – Pxx-EN3-12 metric

SMG		a_p (∅)		f	v_c		
		Ø < 9	Ø ≥ 9		H15	CP20	CP15
P1	Pxx-EN3-12	0,10-0,15	0,10-0,20	0,10-0,30	40 (30-60)	105 (90-120)	120 (90-150)
P2	Pxx-EN3-12	0,10-0,15	0,10-0,20	0,10-0,30	40 (30-60)	105 (90-120)	120 (90-150)
P3	Pxx-EN3-12	0,10-0,15	0,10-0,20	0,10-0,30	40 (30-60)	105 (90-120)	120 (90-150)
P4	Pxx-EN3-12	0,10-0,15	0,10-0,20	0,10-0,30	35 (25-40)	60 (40-70)	80 (60-100)
P5	Pxx-EN3-12	0,10-0,15	0,10-0,20	0,10-0,30	35 (25-40)	60 (40-70)	80 (60-100)
P6	Pxx-EN3-12	0,10-0,15	0,10-0,20	0,10-0,30	35 (25-40)	60 (40-70)	80 (60-100)
P7	Pxx-EN3-12	0,10-0,15	0,10-0,20	0,10-0,30	35 (25-40)	60 (40-70)	80 (60-100)
P8	Pxx-EN3-12	0,10-0,15	0,10-0,20	0,10-0,30	30 (25-40)	50 (30-60)	60 (40-70)
P11	Pxx-EN3-12	0,10-0,15	0,10-0,20	0,10-0,30	30 (25-40)	50 (30-60)	60 (40-70)
P12	Pxx-EN3-12	0,10-0,15	0,10-0,20	0,10-0,30	25 (20-30)	40 (25-45)	45 (30-55)
K1	Pxx-EN3-12	0,10-0,20	0,10-0,30	0,10-0,30	-	90 (80-100)	-
K3	Pxx-EN3-12	0,10-0,20	0,10-0,30	0,10-0,30	-	90 (80-100)	-
K4	Pxx-EN3-12	0,10-0,20	0,10-0,30	0,10-0,30	-	70 (60-80)	-
K5	Pxx-EN3-12	0,10-0,20	0,10-0,30	0,10-0,30	-	70 (60-80)	-
PM1	Pxx-EN3-12	0,10-0,20	0,10-0,30	0,10-0,30	-	50 (25-70)	-
PM2	Pxx-EN3-12	0,10-0,20	0,10-0,30	0,10-0,30	-	50 (25-70)	-
PM3	Pxx-EN3-12	0,10-0,20	0,10-0,30	0,10-0,30	-	50 (25-70)	-

SMG = Seco material group
a_p = mm
f = mm/rev
v_c= m/min
All cutting data are start values

Cutting data – Pxx-EN3-12 *inch*

SMG		a_p (∅)		f	v_c		
		Ø < 9	Ø ≥ 9		H15	CP20	CP15
P1	*Pxx-EN3-12*	*0.004–0.006*	*0.004–0.008*	*0.004–0.012*	*130 (100-195)*	*345 (295-395)*	*395 (295-490)*
P2	*Pxx-EN3-12*	*0.004–0.006*	*0.004–0.008*	*0.004–0.012*	*130 (100-195)*	*345 (295-395)*	*395 (295-490)*
P3	*Pxx-EN3-12*	*0.004–0.006*	*0.004–0.008*	*0.004–0.012*	*130 (100-195)*	*345 (295-395)*	*395 (295-490)*
P4	*Pxx-EN3-12*	*0.004–0.006*	*0.004–0.008*	*0.004–0.012*	*115 (80-130)*	*195 (130-230)*	*260 (195-330)*
P5	*Pxx-EN3-12*	*0.004–0.006*	*0.004–0.008*	*0.004–0.012*	*115 (80-130)*	*195 (130-230)*	*260 (195-330)*
P6	*Pxx-EN3-12*	*0.004–0.006*	*0.004–0.008*	*0.004–0.012*	*115 (80-130)*	*195 (130-230)*	*260 (195-330)*
P7	*Pxx-EN3-12*	*0.004–0.006*	*0.004–0.008*	*0.004–0.012*	*115 (80-130)*	*195 (130-230)*	*260 (195-330)*
P8	*Pxx-EN3-12*	*0.004–0.006*	*0.004–0.008*	*0.004–0.012*	*100 (80-130)*	*165 (100-195)*	*195 (130-230)*
P11	*Pxx-EN3-12*	*0.004–0.006*	*0.004–0.008*	*0.004–0.012*	*100 (80-130)*	*165 (100-195)*	*195 (130-230)*
P12	*Pxx-EN3-12*	*0.004–0.006*	*0.004–0.008*	*0.004–0.012*	*80 (65-100)*	*130 (80-150)*	*150 (100-180)*
K1	*Pxx-EN3-12*	*0.004–0.008*	*0.004–0.012*	*0.004–0.012*	–	*295 (260-330)*	–
K3	*Pxx-EN3-12*	*0.004–0.008*	*0.004–0.012*	*0.004–0.012*	–	*295 (260-330)*	–
K4	*Pxx-EN3-12*	*0.004–0.008*	*0.004–0.012*	*0.004–0.012*	–	*230 (195-260)*	–
K5	*Pxx-EN3-12*	*0.004–0.008*	*0.004–0.012*	*0.004–0.012*	–	*230 (195-260)*	–
PM1	*Pxx-EN3-12*	*0.004–0.008*	*0.004–0.012*	*0.004–0.012*	–	*165 (80-230)*	–
PM2	*Pxx-EN3-12*	*0.004–0.008*	*0.004–0.012*	*0.004–0.012*	–	*165 (80-230)*	–
PM3	*Pxx-EN3-12*	*0.004–0.008*	*0.004–0.012*	*0.004–0.012*	–	*165 (80-230)*	–

SMG = Seco material group
a_p = *inch*
f = in/rev
v_c= sf/min
All cutting data are start values

Adjustment instructions

1.		Loosen the two adjustment screws (7) by a 1/4 turn.
2.		Loosen the two clamping screws (5).
3.		Clean the blade seat thoroughly then, index the used blade (2) edge or replace it.
4.		Firmly push the blade against the axial end stop and the adjustment balls (6).
5.		Tighten the clamping screws carefully. (Hold the key at its shortest end for correct torque).
6.		Set the µm clock to zero using the cylindrical rear end of guiding pads (3).

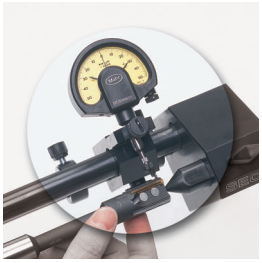
Adjustment instructions

7.



Set the rear end of the blade to a diameter so that a back taper of 0,01 mm/10 mm *(0.0004" per every 0.394")* blade length is achieved (see figure 2).

8.



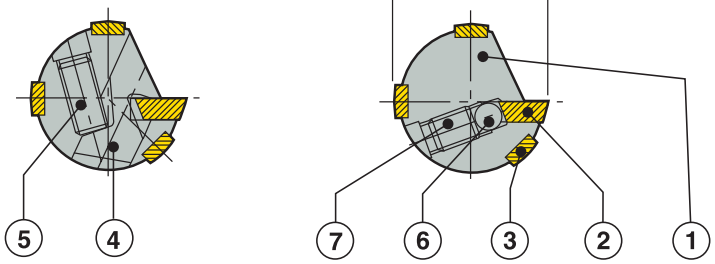
Set the µm clock to zero using the cylindrical front end of guiding pads (3).

9.



Set the front end of the blade to 0,02 mm or 0,015 mm *(0.0008" or 0.0006")* above the guide pads (3) clock A, see figure 1.
Check again back taper value (steps 6 and 7) clock B.

10.



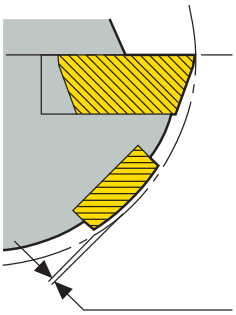


figure 1

0,015 mm (∅ ≤ 10 mm)
0,020 mm (∅ >10 mm)
Clock A value for ∅ setting

0,0006" (∅ ≤ 0.394")
0,0008" (∅ > 0.394")
Clock A value for ∅ setting

Note: If the required diameter is exceeded during adjustment, start again from the beginning to eliminate backlash on adjustment screws.

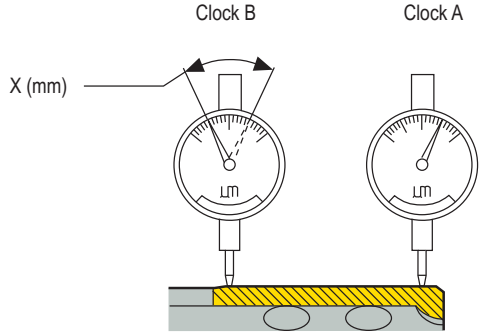


figure 2

- Clock unit = 1 µm *(39 µin)*
- Front and rear clock values valid when set zero on adjacent pad
- Rear clock values calculated on back taper of 1 µm/mm *(0.00004")* of blade

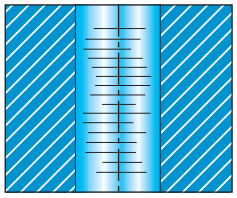
Setting chart

Diameter range mm *(inch)*	Blade size	Front Clock A	Rear Clock B
6,875-8,749 *(0.271-0.344")*	P0	+15	-5
8,750-10,000 *(0.344-0.394")*	P1	+15	-5
10,001-12,749 *(0.394-0.502")*	P1	+20	0
12,750-19,499 *(0.502-0.768")*	P2	+20	0
19,500-60,500 *(0.768-2.382")*	P4	+20	0

Troubleshooting

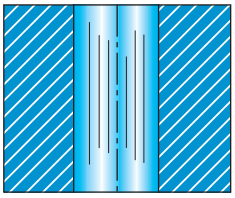
Poor surface finish

- Check material allowances
- Improve coolant conditions (outlet type, pressure, quality)
- Reduce feed rate
- Change blade (wrong lead geometry or wrong rake angle)
- Check axial position of blade



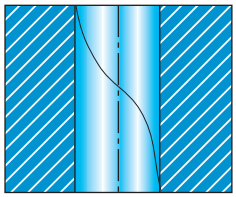
Facets

- Improve centering (part/tool)
- Increase back taper



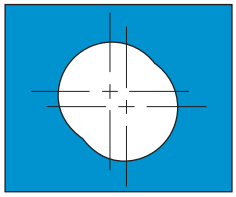
Retraction marks

- Improve coolant conditions (outlet type, pressure, quality)
- Improve centering (part/tool)
- Increase back taper



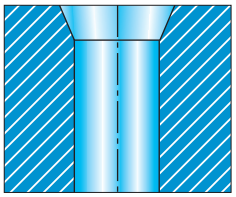
Off center/Ovality

- Improve clamping (workpiece deformation)
- Check material allowance
- Improve centering (part/tool)
- Check axial position of blade



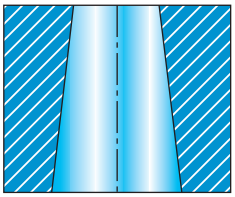
Tapered entry

- Reduce feed rate
- Improve centering (part/tool)
- Check back taper
- Reduce radial run-out



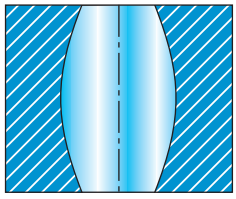
Tapered hole

- Improve centering (part/tool)
- Check back taper



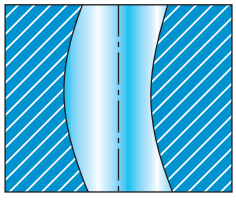
Deformed hole

- Improve clamping (workpiece deformation)



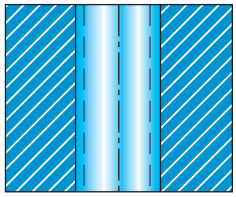
Curved hole

- Change blade (wrong lead geometry)
- Check axial position of blade



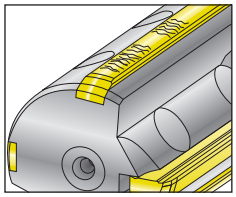
Too large diameter

- Improve centering (part/tool)
- Adjust diameter (too large)



Adhesion to pads

- Improve coolant conditions (outlet type, pressure, quality)
- Adjust diameter (too small)





Xfix™

Xfix™ large-diameter, multi-tooth reamers are all about bringing the highest possible performance and precision to hole production.

- Hole depths up to 6,5xD within a diameter of 9.5 – 154.5 mm (2.03”- 6.083”)
- Quick and easy to adjust, only one screw per tooth is required to set diameter
- Accurate adjusting system to achieve tight tolerances between 16 to 25 μm (.0006”-.0010”)
- Inserts that have either four or eight numbered edges

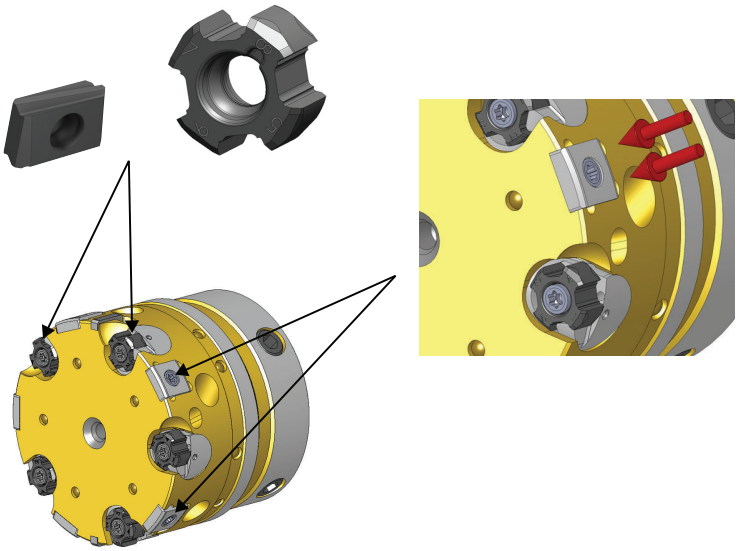
Range overview

	∅ Range	Reaming depth	Hole ∅ tolerance	Intermediate diameter	Surface finish
Xfix™ 	39,500-154,500 mm *(1.5551-6.0827")*	2,5-6,5 x D	IT 6	Yes, available through My Design	R_a 0,8-1,2 µm *(R_a 31-47 µin)*

Xfix™ is a specially developed Seco Reaming programme, dedicated for large ∅ 39,5 – 154,5 mm *(1.555" – 6.083")*.
Design includes adjustable and indexable inserts to achieve IT 6 accurate tolerance, as well as a built in adjustable run-out adapter to guarantee component quality.
Multi-teeth construction and patented pre-loaded guiding pads offering maximum stability and productivity for large ∅ reaming operations.

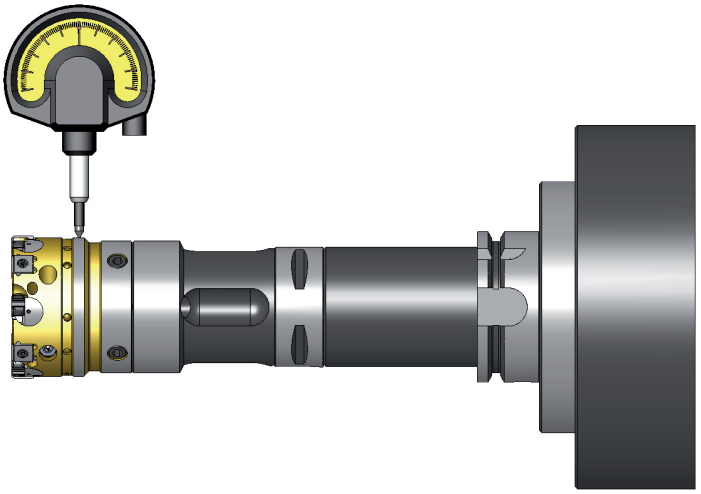
Feature details

- 4 or 8 cutting edges for optimisation in all materials
- Stable clamping system
- Easy adjustment with 1 adjusting screw for easy setting
- Grade and geometry choice for different applications

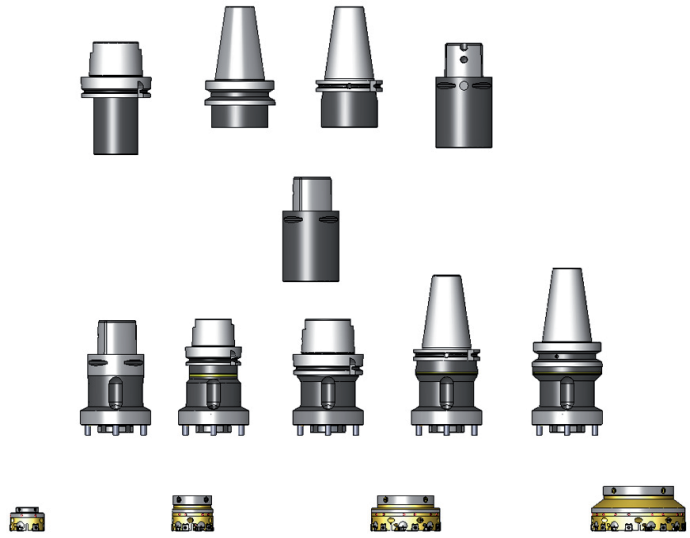


- Patented pre-loaded guiding pads system for application stability
- Pads lubrication for performance and safety

- Integrated adjustable adapter for perfect run-out control



- Shanks and extension program from Seco Tooling Systems catalog offer maximum modularity



Code keys

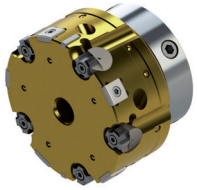
Adapters

Flange size	Length	Shank type
HF55	088	C5



Standard heads

Head type	Diameter and tolerance	Number of teeth	Flange size D
HF85	60H6	05	55



Heads Intermediate

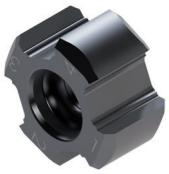
Head type	Diameter and tolerance	Number of teeth	Flange size D
HF85	65.2G7	05	55

Head type information:

- HF85 , through bore, short chipping material
- HF85B, blind bore, short chipping material
- HF86, through bore, all material
- HF86B, blind bore, all material

Inserts

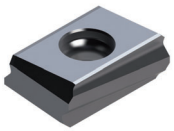
Insert size	Lead geometry	Rake angle	Grade
RNAX1005	EB45	03	RX2000



RNAX insert for HF85 and HF 85B Xfix heads

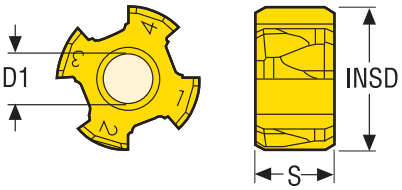
Inserts

Insert size	Lead geometry	Rake angle	Grade
LNEG	EB45	06	RX2000



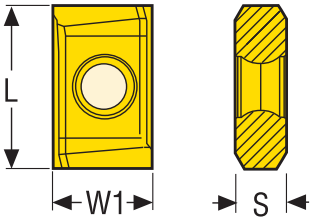
LNEG inserts for HF86 and HF86B Xfix heads

RNAX



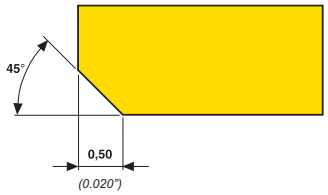
Designation	Inserts	INSD	S	D1	Grades		Rake angle
		mm *Inch*	mm *Inch*	mm *Inch*	RX1500	RX2000	
RNAX1005-EB1570-03	RNAX	10,0 *0,394*	5,5 *0,217*	3,5 *0,138*	02687601	02687603	3 °
RNAX1005-EB45-03	RNAX	10,0 *0,394*	5,5 *0,217*	3,5 *0,138*	02687600	02688608	3 °
RNAX1005-EB845-03	RNAX	10,0 *0,394*	5,5 *0,217*	3,5 *0,138*	02687593	02688606	3 °

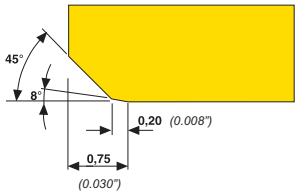
LNEG

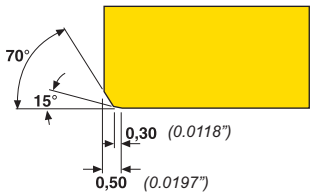


Designation	Inserts	L	S	W1	Grades			Rake angle
		mm *Inch*	mm *Inch*	mm *Inch*	RX1500	RX2000	CF	
LNEG1003-EB45-03	LNEG	10,0 *0,394*	3,5 *0,138*	6,35 *0,25*		02781311		3 °
LNEG1003-EB45-06	LNEG	10,0 *0,394*	3,5 *0,138*	6,35 *0,25*	02904277	02781313	02904276	6 °
LNEG1003-EB845-03	LNEG	10,0 *0,394*	3,5 *0,138*	6,35 *0,25*		02781314		3 °
LNEG1003-EB845-06	LNEG	10,0 *0,394*	3,5 *0,138*	6,35 *0,25*		02781315		6 °

Lead geometry

Lead Geometry EB45 – Application	
Chip control +++ Surface Finish + R_a 1,2 - 2 µm *(Surface Finish + R_a 0.047 - 0.0787 µin)* First choice geometry	

Lead Geometry EB845 – Application	
Chip control ++ Surface Finish +++ R_a 0,4 - 1,2 µm *(Surface Finish +++ R_a 0.0157 - 0,047 µin)*	

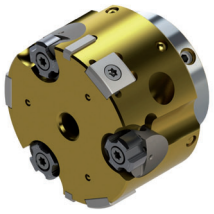
Lead Geometry EB1570 – Application	
Chip control ++ Surface Finish ++ R_a 0,8 - 1,6 µm *(Surface Finish ++ R_a 0.031 - 0.0630 µin)* Stability for long reach application +++	

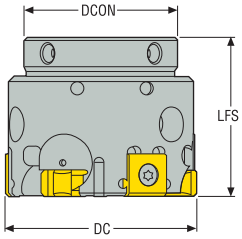
Grades

Grades		
	**RX1500**	**Coated Cermet** A resistant coated grade for performance optimization in steel and cast iron.
	**RX2000**	**Coated** High performance coated grade suitable for all materials.
	**CF**	**Cermet** A wear resistant grade for performance optimization in steel.

HF85

Heads for RNAX inserts, through bore ∅ 39,5-59,499 mm / *1.555-2.342”*





- For inserts, grades and geometries see page(s) 454-455
- For cutting data see page(s) 480-487

Designation	DCN	DCX	LFS	DCON	Weight		Insert
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*		
HF85-39.5/44.499-03-32	39,5 *1.555*	44,499 *1.752*	33,0 *1.299*	32,0 *1.260*	0,41 *0.900*	3	RNAX1005...
HF85-44.5/49.499-03-32	44,5 *1.752*	49,499 *1.949*	33,0 *1.299*	32,0 *1.260*	0,51 *1.120*	3	RNAX1005...
HF85-49.5/54.499-03-32	49,5 *1.949*	54,499 *2.146*	33,0 *1.299*	32,0 *1.260*	0,62 *1.370*	3	RNAX1005...
HF85-54.5/59.499-03-32	54,5 *2.146*	59,499 *2.342*	33,0 *1.299*	32,0 *1.260*	0,74 *1.630*	3	RNAX1005...

Spare Parts, included in delivery

For head	Adjusting screw	Cartridge	Clamp screw	Insert screw	Key (Flag)	Setting key	Wedge clamp
							
HF85 03-32	SH4075S	CARTCYHF16	LDH4010	C03010-T09P	H2.0-2D	2SMS795	B6027

Accessories

For head	Torque key	Torx driver for insert/holder locking screw
		
HF85 03-32	H00-2020	T00-09P20

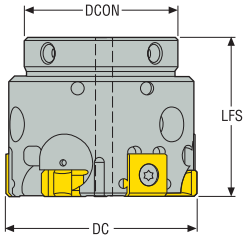
Note
Torque driver H00-2020 for clamp screws

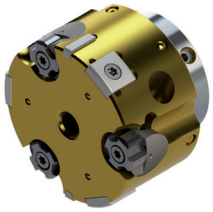
Torque driver T00-09P20 for insert screws

Torque value T00-09P20: 2 Nm.
Torque value H00-2020: 2 Nm.

HF85B

Heads for RNAX inserts, blind bore ∅ 39,5-59,499 mm / *1.555-2.342”*





- For inserts, grades and geometries see page(s) 454-455
- For cutting data see page(s) 480-487

Designation	DCN	DCX	LFS	DCON	Weight		Insert
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*		
HF85B-39.5/44.499-03-32	39,5 *1.555*	44,499 *1.752*	33,0 *1.299*	32,0 *1.260*	0,41 *0.900*	3	RNAX1005...
HF85B-44.5/49.499-03-32	44,5 *1.752*	49,499 *1.949*	33,0 *1.299*	32,0 *1.260*	0,51 *1.120*	3	RNAX1005...
HF85B-49.5/54.499-03-32	49,5 *1.949*	54,499 *2.146*	33,0 *1.299*	32,0 *1.260*	0,62 *1.370*	3	RNAX1005...
HF85B-54.5/59.499-03-32	54,5 *2.146*	59,499 *2.342*	33,0 *1.299*	32,0 *1.260*	0,74 *1.630*	3	RNAX1005...

Spare Parts, included in delivery

For head	Adjusting screw	Cartridge	Clamp screw	Insert screw	Key (Flag)	Setting key	Wedge clamp
							
HF85B 03-32	SH4075S	CARTCYHF16B	LDH4010	C03010-T09P	H2.0-2D	2SMS795	B6027

Accessories

For head	Torque key	Torx driver for insert/holder locking screw
		
HF85B 03-32	H00-2020	T00-09P20

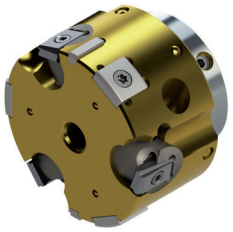
Note
Torque driver H00-2020 for clamp screws

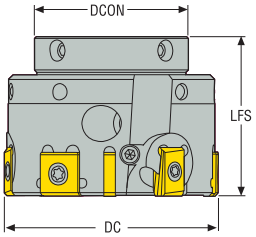
Torque driver T00-09P20 for insert screws

Torque value T00-09P20: 2 Nm.
Torque value H00-2020: 2 Nm.

HF86

Heads for LNEG inserts, through bore ∅ 39,5-59,499 mm / *1.555-2.342"*





- For inserts, grades and geometries see page(s) 454-455
- For cutting data see page(s) 480-487

Designation	DCN	DCX	LFS	DCON	Weight		Insert
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*		
HF86-39.5/44.499-03-32	39,5 *1.555*	44,499 *1.752*	33,0 *1.299*	32,0 *1.260*	0,41 *0.900*	3	LNEG1003...
HF86-44.5/49.499-03-32	44,5 *1.752*	49,499 *1.949*	33,0 *1.299*	32,0 *1.260*	0,51 *1.120*	3	LNEG1003...
HF86-49.5/54.499-03-32	49,5 *1.949*	54,499 *2.146*	33,0 *1.299*	32,0 *1.260*	0,62 *1.370*	3	LNEG1003...
HF86-54.5/59.499-03-32	54,5 *2.146*	59,499 *2.342*	33,0 *1.299*	32,0 *1.260*	0,74 *1.630*	3	LNEG1003...

Spare Parts, included in delivery

For head	Adjusting screw	Cartridge	Clamp screw	Insert screw	Key (Flag)	Setting key	Wedge clamp
							
HF86 03-32	SH4075S	CARTCYLN16	LDH4010	C02506-T07P	H2.0-2D	2SMS795	B6027

Accessories

For head	Torque key	Torx driver for insert/holder locking screw
		
HF86 03-32	H00-2020	T00-07P09

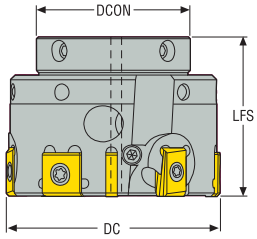
Note
Torque driver H00-2020 for clamp screws

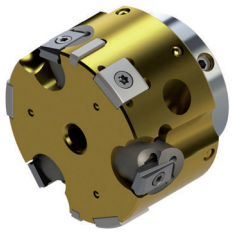
Torque driver T00-07P09 for insert screws

Torque value T00-07P09: 0,9 Nm.
Torque value H00-2020: 2 Nm.

HF86B

Heads for LNEG inserts, blind bore ∅ 39,5-59,499 mm / *1.555-2.342”*





- For inserts, grades and geometries see page(s) 454-455
- For cutting data see page(s) 480-487

Designation	DCN	DCX	LFS	DCON	Weight		Insert
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*		
HF86B-39.5/44.499-03-32	39,5 *1.555*	44,499 *1.752*	33,0 *1.299*	32,0 *1.260*	0,41 *0.900*	3	LNEG1003...
HF86B-44.5/49.499-03-32	44,5 *1.752*	49,499 *1.949*	33,0 *1.299*	32,0 *1.260*	0,51 *1.120*	3	LNEG1003...
HF86B-49.5/54.499-03-32	49,5 *1.949*	54,499 *2.146*	33,0 *1.299*	32,0 *1.260*	0,62 *1.370*	3	LNEG1003...
HF86B-54.5/59.499-03-32	54,5 *2.146*	59,499 *2.342*	33,0 *1.299*	32,0 *1.260*	0,74 *1.630*	3	LNEG1003...

Spare Parts, included in delivery

For head	Adjusting screw	Cartridge	Clamp screw	Insert screw	Key (Flag)	Setting key	Wedge clamp
							
HF86B 03-32	SH4075S	CARTCYLN16B	LDH4010	C02506-T07P	H2.0-2D	2SMS795	B6027

Accessories

For head	Torque key	Torx driver for insert/holder locking screw
		
HF86B 03-32	H00-2020	T00-07P09

Note
Torque driver H00-2020 for clamp screws

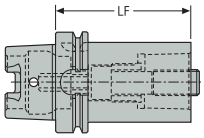
Torque driver T00-07P09 for insert screws

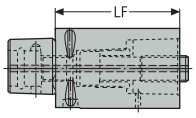
Torque value T00-07P09: 0,9 Nm.
Torque value H00-2020: 2 Nm.

HF32

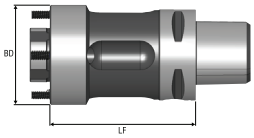
Seco-Capto™ shank for ∅ 39,5-59,499 mm



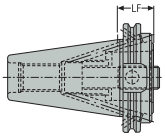




Extension



Reamer holder



Shank

Designation Reamer holders	Item number	LF min	LF max	Taper	BD	Weight
		mm	mm	mm	mm	kg
HF32-050-C3	02688610	–	50	C3	32	0,3
HF32...HSKA63	–	65	245	HSK-A63	32	0,0
HF32...HSKA80	–	100	209	HSK-A80	32	0,0
HF32...HSKA100	–	70	245	HSK-A100	32	0,0
HF32...DIN40ADB	–	60	252	DIN40ADB	32	0,0
HF32...DIN50ADB	–	60	317	DIN50ADB	32	0,0
HF32...BT40ADB	–	65	252	BT40ADB	32	0,0
HF32...BT50ADB	–	75	317	BT50ADB	32	0,0

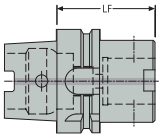
Shanks and extensions for HF32-050-C3 (see Seco Tooling Systems for more details).

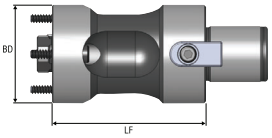
Designation Shank	Item number	LF	Taper	Seco-Capto size	Weight
		mm			kg
HA10-C3-032-080	10197961	80	HSK-A100	C3	2,5
HA06-C4-040-080	10197964	80	HSK-A63	C4	1,1
C3-390B.140-40030	02924104	30	DIN40	C3	0,8
C3-390B.55-40030	02925959	30	BT40	C3	1,0
C3-390B.55-40060	02925960	60	BT40	C3	1,1
C3-390B.140-50030	02924106	30	DIN50	C3	2,6
C3-390B.140-50060	02924107	60	DIN50	C3	2,7
C3-390B.58-50040	02925961	40	BT50	C3	3,5
C3-390B.58-50070	02925962	70	BT50	C3	3,7

Designation Extension	Item number	LF	Taper	Seco-Capto size	Weight
		mm			kg
C3-391.01-32060A	75039884	–	C3	C3	0,4
C3-391.01-32080A	00090847	–	C3	C3	0,5
C4-391.02-32055A	75039889	–	C4	C3	0,42
C4-391.02-32070A	02535687	–	C4	C3	0,56
C5-391.02-32060A	75039890	–	C5	C3	0,7
C6-391.02-32070A	75039892	–	C6	C3	1,1

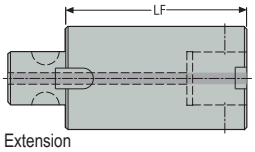
HF32

Graflex® shank for ∅ 39,5-59,499 mm

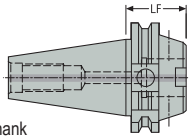




Reamer holder



Extension



Shank



Designation Reamer holders	Item number	LF min	LF max	Taper	BD	Weight
		mm	mm		mm	kg
HF32-050-G3	02698870	–	50	G3	32	0,4
HF32...HSKA63	–	65	245	HSK-A63	32	0,0
HF32...HSKA80	–	100	209	HSK-A80	32	0,0
HF32...HSKA100	–	70	245	HSK-A100	32	0,0
HF32...DIN40ADB	–	60	252	DIN40ADB	32	0,0
HF32...DIN50ADB	–	60	317	DIN50ADB	32	0,0
HF32...BT40ADB	–	65	252	BT40ADB	32	0,0
HF32...BT50ADB	–	75	317	BT50ADB	32	0,0

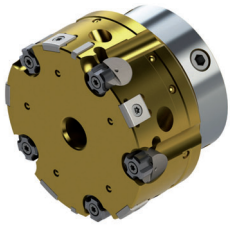
Shanks and extensions for HF32-050-G3 (see Seco Tooling Systems for more details).

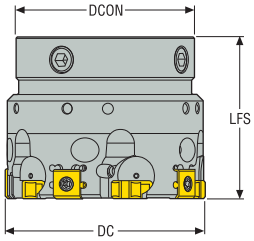
Designation Shank	Item number	LF	Taper	Graflex size	Weight
		mm			kg
EM93044011850	00086918	50	HSK-A63	G3	0,73
EM93064011855	00086925	55	HSK-A100	G3	2,2
EM34694011835	02420097	35	DIN40	G3	1,0
EM346940118100	02503298	100	DIN40	G3	1,22
EM34144011840	02503366	40	BT40	G3	1,07
EM341440118100	02503367	100	BT40	G3	1,31
EM34714011835	02503307	35	DIN50	G3	2,67
EM34164011845	02503376	45	BT50	G3	3,6
EM341640118120	02503377	120	BT50	G3	4,0

Designation Extension	Item number	LF	Taper	Graflex size	Weight
		mm			kg
M402330	00056758	–	G3	G3	0,3
M402331	75056759	–	G3	G3	0,4

HF85

Heads for RNAX inserts, through bore ∅ 59,5-84,499 mm / *2.343-3.327”*





- For inserts, grades and geometries see page(s) 454-455
- For cutting data see page(s) 480-487

Designation	DCN	DCX	LFS	DCON	Weight		Insert
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*		
HF85-59.5/64.499-05-55	59,5 *2.343*	64,499 *2.539*	50,0 *1.969*	55,0 *2.165*	1,3 *2.870*	5	RNAX1005...
HF85-64.5/69.499-05-55	64,5 *2.539*	69,499 *2.736*	50,0 *1.969*	55,0 *2.165*	1,5 *3.310*	5	RNAX1005...
HF85-69.5/74.499-05-55	69,5 *2.736*	74,499 *2.933*	50,0 *1.969*	55,0 *2.165*	1,75 *3.860*	5	RNAX1005...
HF85-74.5/79.499-05-55	74,5 *2.933*	79,499 *3.130*	50,0 *1.969*	55,0 *2.165*	2,0 *4.410*	5	RNAX1005...
HF85-79.5/84.499-05-55	79,5 *3.130*	84,499 *3.327*	50,0 *1.969*	55,0 *2.165*	2,2 *4.850*	5	RNAX1005...

Spare Parts, included in delivery

For head	Adjusting screw	Cartridge	Clamp screw	Insert screw	Key (Flag)	Setting key	Wedge clamp
							
HF85 05-55	SH4075S	CARTCYHF20	LDH4012	C03010-T09P	H2.0-2D	4SMS795	B6027

Accessories

For head	Torque key	Torx driver for insert/holder locking screw
		
HF85 05-55	H00-2020	T00-09P20

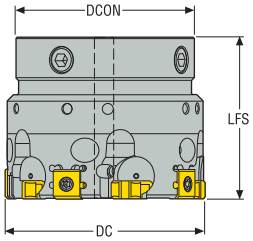
Note
Torque driver H00-2020 for clamp screws

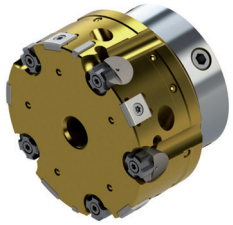
Torque driver T00-09P20 for insert screws

Torque value T00-09P20: 2 Nm.
Torque value H00-2020: 2 Nm.

HF85B

Heads for RNAX inserts, blind bore ∅ 59,5-84,499 mm / *2.343-3.327”*





- For inserts, grades and geometries see page(s) 454-455
- For cutting data see page(s) 480-487

Designation	DCN	DCX	LFS	DCON	Weight		Insert
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*		
HF85B-59.5/64.499-05-55	59,5 *2.343*	64,499 *2.539*	50,0 *1.969*	55,0 *2.165*	1,3 *2.870*	5	RNAX1005...
HF85B-64.5/69.499-05-55	64,5 *2.539*	69,499 *2.736*	50,0 *1.969*	55,0 *2.165*	1,5 *3.310*	5	RNAX1005...
HF85B-69.5/74.499-05-55	69,5 *2.736*	74,499 *2.933*	50,0 *1.969*	55,0 *2.165*	1,75 *3.860*	5	RNAX1005...
HF85B-74.5/79.499-05-55	74,5 *2.933*	79,499 *3.130*	50,0 *1.969*	55,0 *2.165*	2,0 *4.410*	5	RNAX1005...
HF85B-79.5/84.499-05-55	79,5 *3.130*	84,499 *3.327*	50,0 *1.969*	55,0 *2.165*	2,2 *4.850*	5	RNAX1005...

Spare Parts, included in delivery

For head	Adjusting screw	Cartridge	Clamp screw	Insert screw	Key (Flag)	Setting key	Wedge clamp
							
HF85B 05-55	SH4075S	CARTCYHF20B	LDH4012	C03010-T09P	H2.0-2D	2SMS795	B6027

Accessories

For head	Torque key	Torx driver for insert/holder locking screw
		
HF85B 05-55	H00-2020	T00-09P20

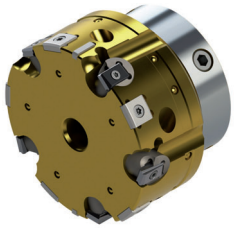
Note
Torque driver H00-2020 for clamp screws

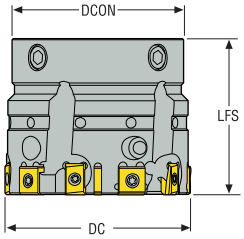
Torque driver T00-09P20 for insert screws

Torque value T00-09P20: 2 Nm.
Torque value H00-2020: 2 Nm.

HF86

Heads for LNEG inserts, through bore ∅ 59,5-84,499 mm / *2.343-3.327”*





- For inserts, grades and geometries see page(s) 454-455
- For cutting data see page(s) 480-487

Designation	DCN	DCX	LFS	DCON	Weight		Insert
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*		
HF86-59.5-64.499-05-55	59,5 *2.343*	64,499 *2.539*	50,0 *1.969*	55,0 *2.165*	1,3 *2.870*	5	LNEG1003...
HF86-64.5-69.499-05-55	64,5 *2.539*	69,499 *2.736*	50,0 *1.969*	55,0 *2.165*	1,5 *3.310*	5	LNEG1003...
HF86-69.5-74.499-05-55	69,5 *2.736*	74,499 *2.933*	50,0 *1.969*	55,0 *2.165*	1,75 *3.860*	5	LNEG1003...
HF86-74.5-79.499-05-55	74,5 *2.933*	94,499 *3.720*	50,0 *1.969*	55,0 *2.165*	2,0 *4.410*	5	LNEG1003...
HF86-79.5-84.499-05-55	79,5 *3.130*	84,499 *3.327*	50,0 *1.969*	55,0 *2.165*	2,2 *4.850*	5	LNEG1003...

Spare Parts, included in delivery

For head	Adjusting screw	Cartridge	Clamp screw	Insert screw	Key (Flag)	Setting key	Wedge clamp
							
HF86 05-55	SH4075S	CARTCYLN20	LDH4010	C02506-T07P	H2.0-2D	2SMS795	B6027

Accessories

For head	Torque key	Torx driver for insert/holder locking screw
		
HF86 05-55	H00-2020	T00-07P09

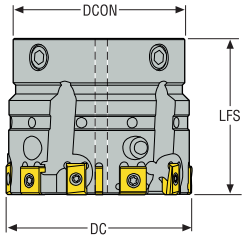
Note
Torque driver H00-2020 for clamp screws

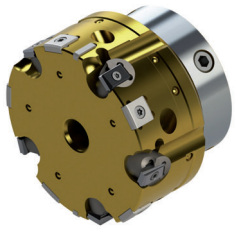
Torque driver T00-07P09 for insert screws

Torque value T00-07P09: 0,9 Nm.
Torque value H00-2020: 2 Nm.

HF86B

Heads for LNEG inserts, blind bore ∅ 59,5-84,499 mm / *2.343-3.327”*





- For inserts, grades and geometries see page(s) 454-455
- For cutting data see page(s) 480-487

Designation	DCN	DCX	LFS	DCON	Weight		Insert
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*		
HF86B-59.5/64.499-05-55	59,5 *2.343*	64,499 *2.539*	50,0 *1.969*	55,0 *2.165*	1,3 *2.870*	5	LNEG1003...
HF86B-64.5/69.499-05-55	64,5 *2.539*	69,499 *2.736*	50,0 *1.969*	55,0 *2.165*	1,5 *3.310*	5	LNEG1003...
HF86B-69.5/74.499-05-55	69,5 *2.736*	74,499 *2.933*	50,0 *1.969*	55,0 *2.165*	1,75 *3.860*	5	LNEG1003...
HF86B-74.5/79.499-05-55	74,5 *2.933*	79,499 *3.130*	50,0 *1.969*	55,0 *2.165*	2,0 *4.410*	5	LNEG1003...
HF86B-79.5/84.499-05-55	79,5 *3.130*	84,499 *3.327*	50,0 *1.969*	55,0 *2.165*	2,2 *4.850*	5	LNEG1003...

Spare Parts, included in delivery

For head	Adjusting screw	Cartridge	Clamp screw	Insert screw	Key (Flag)	Setting key	Wedge clamp
							
HF86B 05-55	SH4075S	CARTCYLN20B	LDH4010	C02506-T07P	H2.0-2D	2SMS795	B6027

Accessories

For head	Torque key	Torx driver for insert/holder locking screw
		
HF86B 05-55	H00-2020	T00-07P09

Note
Torque driver H00-2020 for clamp screws

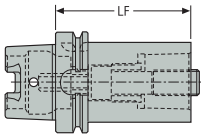
Torque driver T00-07P09 for insert screws

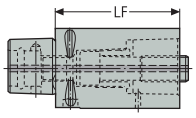
Torque value T00-07P09: 0,9 Nm.
Torque value H00-2020: 2 Nm.

HF55

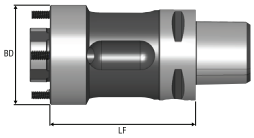
Seco-Capto™ shank for ∅ 59,5-84,499 mm



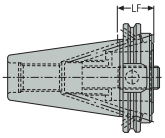




Extension



Reamer holder



Shank

Designation Reamer holders	Item number	LF min	LF max	Taper	BD	Weight
		mm	mm		mm	kg
HF55-080-C5	02688647	–	80	C5	55	1,3
HF55...HSKA63	–	80	239	HSK-A63	55	0,0
HF55...HSKA80	–	100	239	HSK-A80	55	0,0
HF55...HSKA100	–	100	239	HSK-A100	55	0,0
HF55...DIN40ADB	–	80	239	DIN40ADB	55	0,0
HF55...DIN50ADB	–	80	304	DIN50ADB	55	0,0
HF55...BT40ADB	–	80	239	BT40ADB	55	0,0
HF55...BT50ADB	–	80	304	BT50ADB	55	0,0

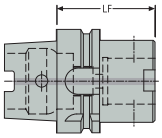
Shanks and extensions for HF55-080-C5 (see Seco Tooling Systems for more details).

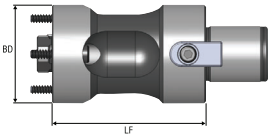
Designation Shank	Item number	LF	Taper	Seco-Capto size	Weight
		mm			kg
HA10-C4-040-090	10197963	90	HSK-A100	C4	2,5
HA06-C5-050-090	10197966	90	HSK-A63	C5	3,1
C5-390B.140-40040	02924112	40	DIN40	C5	0,9
C5-390B.140-40080	02924113	80	DIN40	C5	1,5
C5-390B.55-40050	02925967	50	BT40	C5	1,1
C5-390B.55-40090	02925968	90	BT40	C5	1,7
C5-390B.140-50030	02924114	30	DIN50	C5	2,6
C5-390B.140-50070	02924115	70	DIN50	C5	3,1
C5-390B.58-50040	02925969	40	BT50	C5	3,5
C5-390B.58-50080	02925970	80	BT50	C5	3,9

Designation Extension	Item number	LF	Taper	Seco-Capto size	Weight
		mm			kg
C5-391.01-50080A	75039886	–	C5	C5	1,1
C5-391.01-50100A	00004773	–	C5	C5	1,39
C6-391.02-50080A	75039894	–	C6	C5	1,5
C6-391.02-50110A	02207400	–	C6	C5	2,2
C8-391.02-50080B	03080011	–	C8	C5	2,4

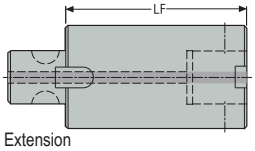
HF55

Graflex® shank for ∅ 59,5-84,499 mm

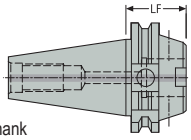




Reamer holder



Extension



Shank



Designation Reamer holders	Item number	LF min	LF max	Taper	BD	Weight
		mm	mm		mm	kg
HF55-080-G5	02698871	–	80	G5	55	1,3
HF55...HSKA63	–	80	239	HSK-A63	55	0,0
HF55...HSKA80	–	100	239	HSK-A80	55	0,0
HF55...HSKA100	–	100	239	HSK-A100	55	0,0
HF55...DIN40ADB	–	80	239	DIN40ADB	55	0,0
HF55...DIN50ADB	–	80	304	DIN50ADB	55	0,0
HF55...BT40ADB	–	80	239	BT40ADB	55	0,0
HF55...BT50ADB	–	80	304	BT50ADB	55	0,0

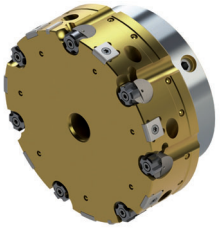
Shanks and extensions for HF55-080-G5 (see Seco Tooling Systems for more details).

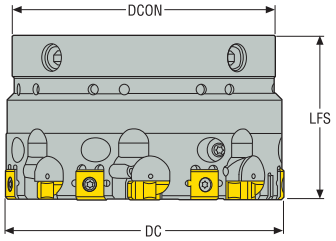
Designation Shank	Item number	LF	Taper	Graflex size	Weight
		mm			kg
EM93044012860	00086920	60	HSK-A63	G5	1,0
EM930440128100	00086921	100	HSK-A63	G5	1,6
EM930440128140	00086922	140	HSK-A63	G5	2,18
EM93064012865	00086927	65	HSK-A100	G5	2,37
EM930640128110	00086928	110	HSK-A100	G5	3,1
EM930640128150	00086929	150	HSK-A100	G5	3,7
EM34694012840	02458421	40	DIN40	G5	1,0
EM34694012880	02503301	80	DIN40	G5	1,5
EM346940128120	02503302	120	DIN40	G5	2,1
EM34144012845	02457989	45	BT40	G5	1,2
EM34144012880	02503371	80	BT40	G5	1,6
EM341440128120	02503372	120	BT40	G5	2,2
EM34714012840	02503312	40	DIN50	G5	2,75
EM341640128100	02503381	100	BT50	G5	4,3
EM34164012855	02503380	55	BT50	G5	4,0
EM341640128140	02503382	140	BT50	G5	4,9

Designation Extension	Item number	LF	Taper	Graflex size	Weight
		mm			kg
M402550	00056762	–	G5	G5	0,8
M402551	00056763	–	G5	G5	1,2
M402552	00056764	–	G5	G5	1,5

HF85

Heads for RNAX inserts, through bore ∅ 84,5-119,499 mm / *3.327-4.705”*





- For inserts, grades and geometries see page(s) 454-455
- For cutting data see page(s) 480-487

Designation	DCN	DCX	LFS	DCON	Weight		Insert
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*		
HF85-84.5/89.499-07-80	84,5 *3.327*	89,499 *3.524*	50,0 *1.969*	80,0 *3.150*	1,68 *3.700*	7	RNAX1005...
HF85-89.5/94.499-07-80	89,5 *3.524*	94,499 *3.720*	50,0 *1.969*	80,0 *3.150*	1,85 *4.080*	7	RNAX1005...
HF85-94.5/99.499-07-80	94,5 *3.720*	99,499 *3.917*	50,0 *1.969*	80,0 *3.150*	2,02 *4.450*	7	RNAX1005...
HF85-99.5/104.499-07-80	99,5 *3.917*	104,499 *4.114*	50,0 *1.969*	80,0 *3.150*	2,2 *4.850*	7	RNAX1005...
HF85-104.5/109.499-07-80	104,5 *4.114*	109,499 *4.311*	50,0 *1.969*	80,0 *3.150*	2,4 *5.290*	7	RNAX1005...
HF85-109.5/114.499-07-80	109,5 *4.311*	114,499 *4.508*	50,0 *1.969*	80,0 *3.150*	2,61 *5.750*	7	RNAX1005...
HF85-114.5/119.499-07-80	114,5 *4.508*	119,499 *4.705*	50,0 *1.969*	80,0 *3.150*	2,82 *6.220*	7	RNAX1005...

Spare Parts, included in delivery

For head	Adjusting screw	Cartridge	Clamp screw	Insert screw	Key (Flag)	Setting key	Wedge clamp
							
HF85 07-80	SH4075S	CARTCYHF20	LDH4012	C03010-T09P	H2.0-2D	4SMS795	B6027

Accessories

For head	Torque key	Torx driver for insert/holder locking screw
		
HF85 07-80	H00-2020	T00-09P20

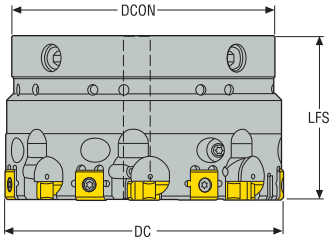
Note
Torque driver H00-2020 for clamp screws

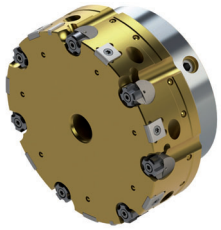
Torque driver T00-09P20 for insert screws

Torque value T00-09P20: 2 Nm.
Torque value H00-2020: 2 Nm.

HF85B

Heads for RNAX inserts, blind bore ∅ 84,5-119,499 mm / *3.327-4.705”*





- For inserts, grades and geometries see page(s) 454-455
- For cutting data see page(s) 480-487

Designation	DCN	DCX	LFS	DCON	Weight		Insert
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*		
HF85B-84.5/89.499-07-80	84,5 *3.327*	89,499 *3.524*	50,0 *1.969*	80,0 *3.150*	1,68 *3.700*	7	RNAX1005...
HF85B-89.5/94.499-07-80	89,5 *3.524*	94,499 *3.720*	50,0 *1.969*	80,0 *3.150*	1,85 *4.080*	7	RNAX1005...
HF85B-94.5/99.499-07-80	94,5 *3.720*	99,499 *3.917*	50,0 *1.969*	80,0 *3.150*	2,02 *4.450*	7	RNAX1005...
HF85B-99.5/104.499-07-80	99,5 *3.917*	104,499 *4.114*	50,0 *1.969*	80,0 *3.150*	2,2 *4.850*	7	RNAX1005...
HF85B-104.5/109.499-07-80	104,5 *4.114*	109,499 *4.311*	50,0 *1.969*	80,0 *3.150*	2,4 *5.290*	7	RNAX1005...
HF85B-109.5/114.499-07-80	109,5 *4.311*	114,499 *4.508*	50,0 *1.969*	80,0 *3.150*	2,61 *5.750*	7	RNAX1005...
HF85B-114.5/119.499-07-80	114,5 *4.508*	119,499 *4.705*	50,0 *1.969*	80,0 *3.150*	2,82 *6.220*	7	RNAX1005...

Spare Parts, included in delivery

For head	Adjusting screw	Cartridge	Clamp screw	Insert screw	Key (Flag)	Setting key	Wedge clamp
							
HF85B 07-80	SH4075S	CARTCYHF20B	LDH4010	C03010-T09P	H2.0-2D	2SMS795	B6027

Accessories

For head	Torque key	Torx driver for insert/holder locking screw
		
HF85B 07-80	H00-2020	T00-09P20

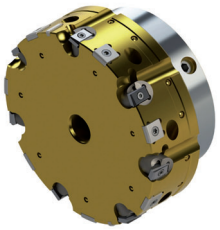
Note
Torque driver H00-2020 for clamp screws

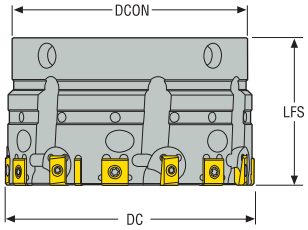
Torque driver T00-09P20 for insert screws

Torque value T00-09P20: 2 Nm.
Torque value H00-2020: 2 Nm.

HF86

Heads for LNEG inserts, through bore ∅ 84,5-119,499 mm / *3.327-4.705”*





- For inserts, grades and geometries see page(s) 454-455
- For cutting data see page(s) 480-487

Designation	DCN	DCX	LFS	DCON	Weight		Insert
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*		
HF86-84.5/89.499-07-80	84,5 *3.327*	89,499 *3.524*	50,0 *1.969*	80,0 *3.150*	1,68 *3.700*	7	LNEG1003...
HF86-89.5/94.499-07-80	89,5 *3.524*	94,499 *3.720*	50,0 *1.969*	80,0 *3.150*	1,85 *4.080*	7	LNEG1003...
HF86-94.5/99.499-07-80	94,5 *3.720*	99,499 *3.917*	50,0 *1.969*	80,0 *3.150*	2,02 *4.450*	7	LNEG1003...
HF86-99.5/104.499-07-80	99,5 *3.917*	104,499 *4.114*	50,0 *1.969*	80,0 *3.150*	2,2 *4.850*	7	LNEG1003...
HF86-104.5/109.499-07-80	104,5 *4.114*	109,499 *4.311*	50,0 *1.969*	80,0 *3.150*	2,4 *5.290*	7	LNEG1003...
HF86-109.5/114.499-07-80	109,5 *4.311*	114,499 *4.508*	50,0 *1.969*	80,0 *3.150*	2,61 *5.750*	7	LNEG1003...
HF86-114.5/119.499-07-80	114,5 *4.508*	119,499 *4.705*	50,0 *1.969*	80,0 *3.150*	2,82 *6.220*	7	LNEG1003...

Spare Parts, included in delivery

For head	Adjusting screw	Cartridge	Clamp screw	Insert screw	Key (Flag)	Setting key	Wedge clamp
							
HF86 07-80	SH4075S	CARTCYLN20	LDH4010	C02506-T07P	H2.0-2D	2SMS795	B6027

Accessories

For head	Torque key	Torx driver for insert/holder locking screw
		
HF86 07-80	H00-2020	T00-07P09

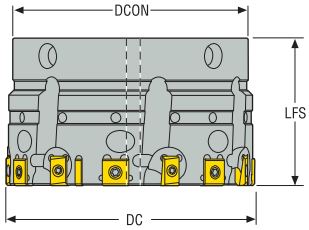
Note
Torque driver H00-2020 for clamp screws

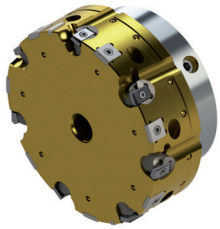
Torque driver T00-07P09 for insert screws

Torque value T00-07P09: 0,9 Nm.
Torque value H00-2020: 2 Nm.

HF86B

Heads for LNEG inserts, blind bore ∅ 84,5-119,499 mm / *3.327-4.705”*





- For inserts, grades and geometries see page(s) 454-455
- For cutting data see page(s) 480-487

Designation	DCN	DCX	LFS	DCON	Weight		Insert
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*		
HF86B-84.5/89.499-07-80	84,5 *3.327*	89,499 *3.524*	50,0 *1.969*	80,0 *3.150*	1,68 *3.700*	7	LNEG1003...
HF86B-89.5/94.499-07-80	89,5 *3.524*	94,499 *3.720*	50,0 *1.969*	80,0 *3.150*	1,85 *4.080*	7	LNEG1003...
HF86B-94.5/99.499-07-80	94,5 *3.720*	99,499 *3.917*	50,0 *1.969*	80,0 *3.150*	2,02 *4.450*	7	LNEG1003...
HF86B-99.5/104.499-07-80	99,5 *3.917*	104,499 *4.114*	50,0 *1.969*	80,0 *3.150*	2,2 *4.850*	7	LNEG1003...
HF86B-104.5/109.499-07-80	104,5 *4.114*	109,499 *4.311*	50,0 *1.969*	80,0 *3.150*	2,4 *5.290*	7	LNEG1003...
HF86B-109.5/114.499-07-80	109,5 *4.311*	114,499 *4.508*	50,0 *1.969*	80,0 *3.150*	2,61 *5.750*	7	LNEG1003...
HF86B-114.5/119.499-07-80	114,5 *4.508*	119,499 *4.705*	50,0 *1.969*	80,0 *3.150*	2,82 *6.220*	7	LNEG1003...

Spare Parts, included in delivery

For head	Adjusting screw	Cartridge	Clamp screw	Insert screw	Key (Flag)	Setting key	Wedge clamp
							
HF86B	SH4075S	CARTCYLN20B	LDH4010	C02506-T07P	H2.0-2D	2SMS795	B6027

Accessories

For head	Torque key	Torx driver for insert/holder locking screw
		
HF86B	H00-2020	T00-07P09

Note
Torque driver H00-2020 for clamp screws

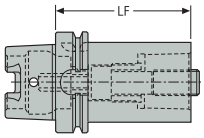
Torque driver T00-07P09 for insert screws

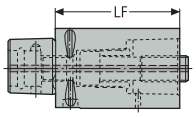
Torque value T00-07P09: 0,9 Nm.
Torque value H00-2020: 2 Nm.

HF80

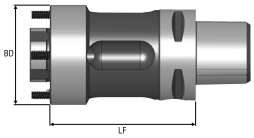
Seco-Capto™ shank for ∅ 84,5-119,499 mm



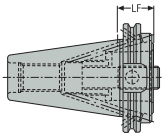




Extension



Reamer holder



Shank

Designation Reamer holders	Item number	LF min	LF max	Taper	BD	Weight
		mm	mm		mm	kg
HF80-080-C6	02688648	–	80	C6	80	2,6
HF80...HSKA80	–	100	239	HSK-A80	80	0,0
HF80...HSKA100	–	100	239	HSK-A100	80	0,0
HF80...DIN50ADB	–	80	304	DIN50ADB	80	0,0
HF80...BT50ADB	–	80	304	BT50ADB	80	0,0

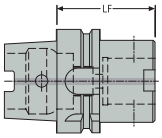
Shanks and extensions for HF80-080-C6 (see Seco Tooling Systems for more details).

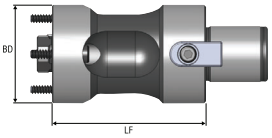
Designation Shank	Item number	LF	Taper	Seco-Capto size	Weight
		mm			kg
HA10-C6-063-110	10197967	110	HSK-A100	C6	3,8
C6-390B.140-40085	02924116	85	DIN40	C6	1,8
C6-390B.140-50030	02924117	30	DIN50	C6	2,4
C6-390B.140-50080	02924118	80	DIN50	C6	3,6
C6-390B.55-40075	02925971	75	BT40	C6	1,7
C6-390B.58-50100	02925973	100	BT50	C6	4,6
C6-390B.58-50050	02925972	50	BT50	C6	3,4

Designation Extension	Item number	LF	Taper	Seco-Capto size	Weight
		mm			kg
C6-391.01-63100A	75039887	–	C6	C6	2,2
C6-391.01-63140A	00004840	–	C6	C6	3,2
C6-391.01-63060	02300834	–	C6	C6	1,3

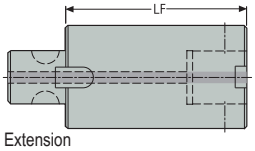
HF80

Graflex® shank for ∅ 84,5-119,499 mm

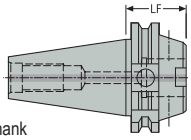




Reamer holder



Extension



Shank



Designation Reamer holders	Item number	LF min	LF max	Taper	BD	Weight
		mm	mm		mm	kg
HF80-080-G6	02698873	–	80	G6	80	2,6
HF80...HSKA80	–	100	239	HSK-A80	80	0,0
HF80...HSKA100	–	100	239	HSK-A100	80	0,0
HF80...DIN50ADB	–	80	304	DIN50ADB	80	0,0
HF80...BT50ADB	–	80	304	BT50ADB	80	0,0

Shanks and extensions for HF80-080-G6 (see Seco Tooling Systems for more details).

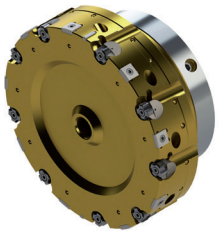
Designation Shank	Item number	LF	Taper	Graflex size	Weight
		mm			kg
EM93044013670	00086923	70	HSK-A63	G6	1,3
EM930440136120	00086924	120	HSK-A63	G6	2,38
EM930640136120	00086931	120	HSK-A100	G6	3,9
EM930640136160	00086932	160	HSK-A100	G6	4,8
EM34694013660	02503303	60	DIN40	G6	1,3
EM346940136120	02503304	120	DIN40	G6	2,7
EM34144013650	02503373	50	BT40	G6	1,2
EM341440136120	02503374	120	BT40	G6	2,8
EM34714013645	02503317	45	DIN50	G6	2,9
EM347140136100	02503318	100	DIN50	G6	4,1
EM347140136140	02503319	140	DIN50	G6	5,1
EM34164013663	02503383	63	BT50	G6	4,3
EM341640136100	02503384	100	BT50	G6	4,7
EM341640136140	02503385	140	BT50	G6	5,6

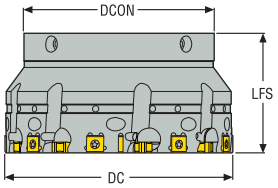
Shanks and extensions for HF32-050-G3 (see Seco Tooling Systems for more details).

Designation Extension	Item number	LF	Taper	Graflex size	Weight
		mm			kg
M402660	00056765	–	G6	G6	1,4
M402661	00056766	–	G6	G6	2,2
M402662	00056767	–	G6	G6	2,9

HF85

Heads for RNAX inserts, through bore ∅ 119,5-154,499 mm / *4.705-6.083”*





- For inserts, grades and geometries see page(s) 454-455
- For cutting data see page(s) 480-487

Designation	DCN	DCX	LFS	DCON	Weight		Insert
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*		
HF85-119.5/124.499-09-100	119,5 *4.705*	124,499 *4.902*	63,0 *2.480*	100,0 *3.937*	3,89 *8.580*	9	RNAX1005...
HF85-124.5/129.499-09-100	124,5 *4.902*	129,499 *5.098*	63,0 *2.480*	100,0 *3.937*	4,15 *9.150*	9	RNAX1005...
HF85-129.5/134.499-09-100	129,5 *5.098*	134,499 *5.295*	63,0 *2.480*	100,0 *3.937*	4,42 *9.740*	9	RNAX1005...
HF85-134.5/139.499-09-100	134,5 *5.295*	139,499 *5.492*	63,0 *2.480*	100,0 *3.937*	4,7 *10.360*	9	RNAX1005...
HF85-139.5/144.499-09-100	139,5 *5.492*	144,499 *5.689*	63,0 *2.480*	100,0 *3.937*	4,99 *11.000*	9	RNAX1005...
HF85-144.5/149.499-09-100	144,5 *5.689*	149,499 *5.886*	63,0 *2.480*	100,0 *3.937*	5,29 *11.660*	9	RNAX1005...
HF85-149.5/154.499-09-100	149,5 *5.886*	154,499 *6.083*	63,0 *2.480*	100,0 *3.937*	5,6 *12.350*	9	RNAX1005...

Spare Parts, included in delivery

For head	Adjusting screw	Cartridge	Clamp screw	Insert screw	Key (Flag)	Setting key	Wedge clamp
							
HF85 09-100	SH4075S	CARTCYHF20	LDH4012	C03010-T09P	H2.0-2D	4SMS795	B6027

Accessories

For head	Torque key	Torx driver for insert/holder locking screw
		
HF85 09-100	H00-2020	T00-09P20

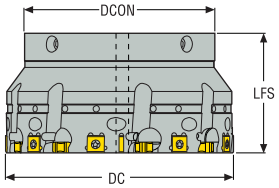
Note
Torque driver H00-2020 for clamp screws

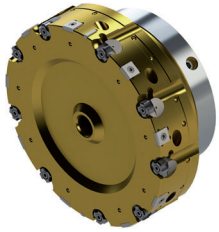
Torque driver T00-09P20 for insert screws

Torque value T00-09P20: 2 Nm.
Torque value H00-2020: 2 Nm.

HF85B

Heads for RNAX inserts, blind bore ∅ 119,5-154,499 mm / *4.705-6.083”*





- For inserts, grades and geometries see page(s) 454-455
- For cutting data see page(s) 480-487

Designation	DCN	DCX	LFS	DCON	Weight		Insert
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*		
HF85B-119.5/124.499-09-100	119,5 *4.705*	124,499 *4.902*	63,0 *2.480*	100,0 *3.937*	3,89 *8.580*	9	RNAX1005...
HF85B-124.5/129.499-09-100	124,5 *4.902*	129,499 *5.098*	63,0 *2.480*	100,0 *3.937*	4,15 *9.150*	9	RNAX1005...
HF85B-134.5/139.499-09-100	134,5 *5.295*	139,499 *5.492*	63,0 *2.480*	100,0 *3.937*	4,7 *10.360*	9	RNAX1005...
HF85B-139.5/144.499-09-100	139,5 *5.492*	144,499 *5.689*	63,0 *2.480*	100,0 *3.937*	4,99 *11.000*	9	RNAX1005...
HF85B-144.5/149.499-09-100	144,5 *5.689*	149,499 *5.886*	63,0 *2.480*	100,0 *3.937*	5,29 *11.660*	9	RNAX1005...
HF85B-149.5/154.499-09-100	149,5 *5.886*	154,499 *6.083*	63,0 *2.480*	100,0 *3.937*	5,6 *12.350*	9	RNAX1005...

Spare Parts, included in delivery

For head	Adjusting screw	Cartridge	Clamp screw	Insert screw	Key (Flag)	Setting key	Wedge clamp
							
HF85B 09-100	SH4075S	CARTCYHF20B	LDH4012	C03010-T09P	H2.0-2D	2SMS795	B6027

Accessories

For head	Torque key	Torx driver for insert/holder locking screw
		
HF85B 09-100	H00-2020	T00-09P20

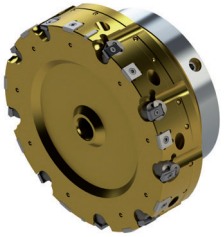
Note
Torque driver H00-2020 for clamp screws

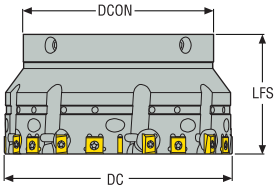
Torque driver T00-09P20 for insert screws

Torque value T00-09P20: 2 Nm.
Torque value H00-2020: 2 Nm.

HF86

Heads for LNEG inserts, through bore ∅ 119,5-154,499 mm / *4.705-6.083”*





- For inserts, grades and geometries see page(s) 454-455
- For cutting data see page(s) 480-487

Designation	DCN	DCX	LFS	DCON	Weight		Insert
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*		
HF86-119.5/124.499-09-100	119,5 *4.705*	124,499 *4.902*	63,0 *2.480*	100,0 *3.937*	3,89 *8.580*	9	LNEG1003...
HF86-124.5/129.499-09-100	124,5 *4.902*	129,499 *5.098*	63,0 *2.480*	100,0 *3.937*	4,15 *9.150*	9	LNEG1003...
HF86-129.5/134.499-09-100	129,5 *5.098*	134,499 *5.295*	63,0 *2.480*	100,0 *3.937*	4,42 *9.740*	9	LNEG1003...
HF86-134.5/139.499-09-100	134,5 *5.295*	139,499 *5.492*	63,0 *2.480*	100,0 *3.937*	4,7 *10.360*	9	LNEG1003...
HF86-139.5/144.499-09-100	139,5 *5.492*	144,499 *5.689*	63,0 *2.480*	100,0 *3.937*	4,99 *11.000*	9	LNEG1003...
HF86-144.5/149.499-09-100	144,5 *5.689*	149,499 *5.886*	63,0 *2.480*	100,0 *3.937*	5,29 *11.660*	9	LNEG1003...
HF86-149.5/154.499-09-100	149,5 *5.886*	154,499 *6.083*	63,0 *2.480*	100,0 *3.937*	5,6 *12.350*	9	LNEG1003...

Spare Parts, included in delivery

For head	Adjusting screw	Cartridge	Clamp screw	Insert screw	Key (Flag)	Setting key	Wedge clamp
							
HF86 09-100	SH4075S	CARTCYHF20	LDH4010	C02506-T07P	H2.0-2D	2SMS795	B6027

Accessories

For head	Torque key	Torx driver for insert/holder locking screw
		
HF86 09-100	H00-2020	T00-07P09

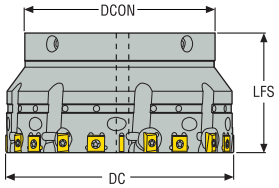
Note
Torque driver H00-2020 for clamp screws

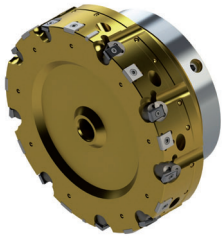
Torque driver T00-07P09 for insert screws

Torque value
T00-07P09: 0,9 Nm.
Torque value H00-2020: 2 Nm.

HF86B

Heads for LNEG inserts, blind bore ∅ 119,5-154,499 mm / *4.705-6.083”*





- For inserts, grades and geometries see page(s) 454-455
- For cutting data see page(s) 480-487

Designation	DCN	DCX	LFS	DCON	Weight		Insert
	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*		
HF86B-119.5/124.499-09-100	119,5 *4.705*	124,499 *4.902*	63,0 *2.480*	100,0 *3.937*	3,89 *8.580*	9	LNEG1003...
HF86B-124.5/129.499-09-100	124,5 *4.902*	129,499 *5.098*	63,0 *2.480*	100,0 *3.937*	4,15 *9.150*	9	LNEG1003...
HF86B-129.5/134.499-09-100	129,5 *5.098*	134,499 *5.295*	63,0 *2.480*	100,0 *3.937*	4,42 *9.740*	9	LNEG1003...
HF86B-134.5/139.499-09-100	134,5 *5.295*	139,499 *5.492*	63,0 *2.480*	100,0 *3.937*	4,7 *10.360*	9	LNEG1003...
HF86B-139.5/144.499-09-100	139,5 *5.492*	144,499 *5.689*	63,0 *2.480*	100,0 *3.937*	4,99 *11.000*	9	LNEG1003...
HF86B-144.5/149.499-09-100	144,5 *5.689*	149,499 *5.886*	63,0 *2.480*	100,0 *3.937*	5,29 *11.660*	9	LNEG1003...
HF86B-149.5/154.499-09-100	149,5 *5.886*	154,499 *6.083*	63,0 *2.480*	100,0 *3.937*	5,6 *12.350*	9	LNEG1003...

Spare Parts, included in delivery

For head	Adjusting screw	Cartridge	Clamp screw	Insert screw	Key (Flag)	Setting key	Wedge clamp
							
HF86B 09-100	SH4075S	CARTCYLN20B	LDH4010	C02506-T07P	H2.0-2D	2SMS795	B6027

Accessories

For head	Torque key	Torx driver for insert/holder locking screw
		
HF86B 09-100	H00-2020	T00-07P09

Note
Torque driver H00-2020 for clamp screws

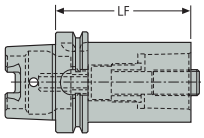
Torque driver T00-07P09 for insert screws

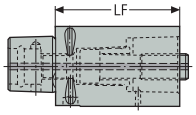
Torque value T00-07P09: 0,9 Nm.
Torque value H00-2020: 2 Nm.

HF100

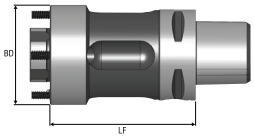
Seco-Capto™ shank for ∅ 119,5-154,499 mm



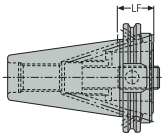




Extension



Reamer holder



Shank

Designation Reamer holders	Item number	LF min	LF max	Taper	BD	Weight
		mm	mm		mm	kg
HF100-100-C8	02688649	–	100	C8	100	4,9
HF100...HSKA80	–	100	238	HSK-A80	100	0,0
HF100...HSKA100	–	100	238	HSK-A100	100	0,0
HF100...DIN50ADB	–	100	238	DIN50ADB	100	0,0
HF100...BT50ADB	–	100	238	BT50ADB	100	0,0

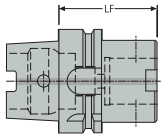
Shanks and extensions for HF100-100-C8 (see Seco Tooling Systems for more details).

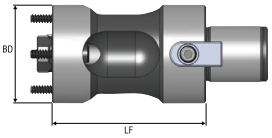
Designation Shank	Item number	LF	Taper	Seco-Capto size	Weight
		mm			kg
HA10-C8-080-120	10197968	120	HSK-A100	C8	4,1
C8-390B.140-50070	02924119	70	DIN50	C8	3,7
C8-390B.140-50120	02924120	120	DIN50	C8	5,6
C8-390B.58-50070	02925974	70	BT50	C8	4,0
C8-390B.58-50120	02925975	120	BT50	C8	5,9

Designation Extension	Item number	LF	Taper	Seco-Capto size	Weight
		mm			kg
C8-391.01-80100A	75039888	–	C8	C8	3,6
C8-391.01-80125A	00004841	–	C8	C8	4,7

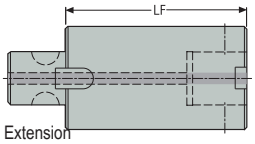
HF100

Graflex® shank for ∅ 119,5-154,499 mm

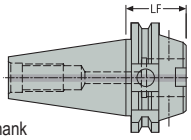




Reamer holder



Extension



Shank



Designation Reamer holders	Item number	LF min	LF max	Taper	BD	Weight
		mm	mm		mm	kg
HF100-100-G7	02698874	–	100	G7	100	5,2
HF100...HSKA80	–	100	238	HSK-A80	100	0,0
HF100...HSKA100	–	100	238	HSK-A100	100	0,0
HF100...DIN50ADB	–	100	238	DIN50ADB	100	0,0
HF100...BT50ADB	–	100	238	BT50ADB	100	0,0

Shanks and extensions for HF100-100-G7 (see Seco Tooling Systems for more details).

Designation Shank	Item number	LF	Taper	Graflex size	Weight
		mm			kg
EM93064014685	00074385	85	HSK-A100	G7	4,0
EM930640146160	00086933	160	HSK-A100	G7	7,67
EM34714014650	02503320	50	DIN50	G7	3,3
EM347140146120	02503321	120	DIN50	G7	6,5
EM347140146200	02503324	200	DIN50	G7	10,4
EM34164014665	02503386	65	BT50	G7	4,4
EM341640146120	02503387	120	BT50	G7	6,9
EM341640146200	02503388	200	BT50	G7	10,7

Designation Extension	Item number	LF	Taper	Graflex size	Weight
		mm			kg
M402770	00056768	–	G7	G7	2,9
M402771	00056769	–	G7	G7	4,4
M402772	00056770	–	G7	G7	5,8

Cutting data – LNEG...-EB45 metric

SMG		a_p (∅)	f				v_c		
			z=3	z=5	z=7	z=9	RX2000	CF	RX1500
P1	LNEG1003-EB45	0,15-0,25	0,15-0,45	0,25-0,75	0,25-1,05	0,45-1,35	120 (80-200)	180 (120-250)	220 (120-300)
P2	LNEG1003-EB45	0,15-0,25	0,15-0,45	0,25-0,75	0,25-1,05	0,45-1,35	120 (80-200)	180 (120-250)	220 (120-300)
P3	LNEG1003-EB45	0,15-0,25	0,15-0,45	0,25-0,75	0,25-1,05	0,45-1,35	120 (80-200)	180 (120-250)	220 (120-300)
P4	LNEG1003-EB45	0,15-0,25	0,15-0,45	0,25-0,75	0,25-1,05	0,45-1,35	60 (40-120)	80 (60-150)	100 (80-200)
P5	LNEG1003-EB45	0,15-0,25	0,15-0,45	0,25-0,75	0,25-1,05	0,45-1,35	60 (40-120)	80 (60-150)	100 (80-200)
P6	LNEG1003-EB45	0,15-0,25	0,15-0,45	0,25-0,75	0,25-1,05	0,45-1,35	60 (40-120)	80 (60-150)	100 (80-200)
P7	LNEG1003-EB45	0,15-0,25	0,15-0,45	0,25-0,75	0,25-1,05	0,45-1,35	60 (40-120)	80 (60-150)	100 (80-200)
P8	LNEG1003-EB45	0,15-0,25	0,15-0,45	0,25-0,75	0,25-1,05	0,45-1,35	40 (30-70)	60 (50-100)	80 (60-120)
P11	LNEG1003-EB45	0,15-0,25	0,15-0,45	0,25-0,75	0,25-1,05	0,45-1,35	40 (30-70)	60 (50-100)	80 (60-120)
P12	LNEG1003-EB45	0,15-0,25	0,15-0,45	0,25-0,75	0,25-1,05	0,45-1,35	30 (25-55)	45 (40-80)	65 (45-95)
M1	LNEG1003-EB45	0,10-0,20	0,15-0,30	0,25-0,50	0,35-0,70	0,45-0,90	35 (25-60)	-	-
M2	LNEG1003-EB45	0,10-0,20	0,15-0,30	0,25-0,50	0,35-0,70	0,45-0,90	35 (25-60)	-	-
M3	LNEG1003-EB45	0,10-0,20	0,15-0,30	0,25-0,50	0,35-0,70	0,45-0,90	35 (25-60)	-	-
M4	LNEG1003-EB45	0,10-0,20	0,15-0,30	0,25-0,50	0,35-0,70	0,45-0,90	25 (20-50)	-	-
M5	LNEG1003-EB45	0,10-0,20	0,15-0,30	0,25-0,50	0,35-0,70	0,45-0,90	25 (20-50)	-	-
K1	LNEG1003-EB45	0,20-0,50	0,15-0,45	0,25-0,75	0,25-1,05	0,45-1,35	100 (60-200)	-	220 (150-300)
K2	LNEG1003-EB45	0,20-0,50	0,15-0,45	0,25-0,75	0,25-1,05	0,45-1,35	50 (35-80)	-	70 (50-120)
K3	LNEG1003-EB45	0,20-0,50	0,15-0,45	0,25-0,75	0,25-1,05	0,45-1,35	100 (60-200)	-	220 (150-300)
K4	LNEG1003-EB45	0,20-0,50	0,15-0,45	0,25-0,75	0,25-1,05	0,45-1,35	70 (50-120)	100 (60-120)	150 (110-200)
K5	LNEG1003-EB45	0,20-0,50	0,15-0,45	0,25-0,75	0,25-1,05	0,45-1,35	70 (50-120)	100 (60-120)	150 (110-200)
K6	LNEG1003-EB45	0,20-0,50	0,15-0,45	0,25-0,75	0,25-1,05	0,45-1,35	100 (60-200)	-	220 (150-300)
K7	LNEG1003-EB45	0,20-0,50	0,15-0,45	0,25-0,75	0,25-1,05	0,45-1,35	100 (60-200)	-	220 (150-300)
H3	LNEG1003-EB45	0,10-0,20	0,1-0,25	0,15-0,40	0,25-0,5	0,30-0,7	20 (10-30)	-	-
H5	LNEG1003-EB45	0,10-0,20	0,1-0,25	0,15-0,40	0,25-0,5	0,30-0,7	20 (10-30)	-	-
H7	LNEG1003-EB45	0,10-0,20	0,1-0,25	0,15-0,40	0,25-0,5	0,30-0,7	20 (10-30)	-	-
H8	LNEG1003-EB45	0,10-0,20	0,1-0,25	0,15-0,40	0,25-0,5	0,30-0,7	20 (10-30)	-	-
H11	LNEG1003-EB45	0,10-0,20	0,1-0,25	0,15-0,40	0,25-0,5	0,30-0,7	20 (10-30)	-	-
H12	LNEG1003-EB45	0,10-0,20	0,1-0,25	0,15-0,40	0,25-0,5	0,30-0,7	20 (10-30)	-	-
H21	LNEG1003-EB45	0,10-0,20	0,1-0,25	0,15-0,40	0,25-0,5	0,30-0,7	20 (10-30)	-	-
H31	LNEG1003-EB45	0,10-0,20	0,1-0,25	0,15-0,40	0,25-0,5	0,30-0,7	20 (10-30)	-	-

SMG = Seco material group
a_p = mm
f = mm/rev
v_c= m/min
All cutting data are start values

Cutting data – LNEG...-EB45 *inch*

SMG		a_p (∅)	f				v_c		
			z=3	z=5	z=7	z=9	RX2000	CF	RX1500
P1	LNEG1003-EB45	0.006–0.010	0.006–0.018	0.010–0.030	0.010–0.041	0.018–0.053	395 (260-655)	590 (395-820)	720 (395-985)
P2	LNEG1003-EB45	0.006–0.010	0.006–0.018	0.010–0.030	0.010–0.041	0.018–0.053	395 (260-655)	590 (395-820)	720 (395-985)
P3	LNEG1003-EB45	0.006–0.010	0.006–0.018	0.010–0.030	0.010–0.041	0.018–0.053	395 (260-655)	590 (395-820)	720 (395-985)
P4	LNEG1003-EB45	0.006–0.010	0.006–0.018	0.010–0.030	0.010–0.041	0.018–0.053	195 (130-395)	260 (195-490)	330 (260-655)
P5	LNEG1003-EB45	0.006–0.010	0.006–0.018	0.010–0.030	0.010–0.041	0.018–0.053	195 (130-395)	260 (195-490)	330 (260-655)
P6	LNEG1003-EB45	0.006–0.010	0.006–0.018	0.010–0.030	0.010–0.041	0.018–0.053	195 (130-395)	260 (195-490)	330 (260-655)
P7	LNEG1003-EB45	0.006–0.010	0.006–0.018	0.010–0.030	0.010–0.041	0.018–0.053	195 (130-395)	260 (195-490)	330 (260-655)
P8	LNEG1003-EB45	0.006–0.010	0.006–0.018	0.010–0.030	0.010–0.041	0.018–0.053	130 (100-230)	195 (165-330)	260 (195-395)
P11	LNEG1003-EB45	0.006–0.010	0.006–0.018	0.010–0.030	0.010–0.041	0.018–0.053	130 (100-230)	195 (165-330)	260 (195-395)
P12	LNEG1003-EB45	0.006–0.010	0.006–0.018	0.010–0.030	0.010–0.041	0.010-0.053	100 (85-185)	150 (135-265)	215 (150-315)
M1	LNEG1003-EB45	0.004–0.008	0.006–0.012	0.010–0.020	0.014–0.028	0.018–0.035	115 (80-195)	–	–
M2	LNEG1003-EB45	0.004–0.008	0.006–0.012	0.010–0.020	0.014–0.028	0.018–0.035	115 (80-195)	–	–
M3	LNEG1003-EB45	0.004–0.008	0.006–0.012	0.010–0.020	0.014–0.028	0.018–0.035	115 (80-195)	–	–
M4	LNEG1003-EB45	0.004–0.008	0.006–0.012	0.010–0.020	0.014–0.028	0.018–0.035	80 (65-165)	–	–
M5	LNEG1003-EB45	0.004–0.008	0.006–0.012	0.010–0.020	0.014–0.028	0.018–0.035	80 (65-165)	–	–
K1	LNEG1003-EB45	0.008–0.020	0.006–0.018	0.010–0.030	0.010–0.041	0.018–0.053	330 (195-655)	–	720 (490-985)
K2	LNEG1003-EB45	0.008–0.020	0.006–0.018	0.010–0.030	0.010–0.041	0.018–0.053	165 (115-260)	–	230 (165-395)
K3	LNEG1003-EB45	0.008–0.020	0.006–0.018	0.010–0.030	0.010–0.041	0.018–0.053	330 (195-655)	–	720 (490-985)
K4	LNEG1003-EB45	0.008–0.020	0.006–0.018	0.010–0.030	0.010–0.041	0.018–0.053	230 (165-395)	330 (195-395)	490 (360-655)
K5	LNEG1003-EB45	0.008–0.020	0.006–0.018	0.010–0.030	0.010–0.041	0.018–0.053	230 (165-395)	330 (195-395)	490 (360-655)
K6	LNEG1003-EB45	0.008–0.020	0.006–0.018	0.010–0.030	0.010–0.041	0.018–0.053	330 (195-655)	–	720 (490-985)
K7	LNEG1003-EB45	0.008–0.020	0.006–0.018	0.010–0.030	0.010–0.041	0.018–0.053	330 (195-655)	–	720 (490-985)
H3	LNEG1003-EB45	0.004–0.008	0.004–0.010	0.006–0.016	0.010–0.020	0.012–0.028	65 (35-100)	–	–
H5	LNEG1003-EB45	0.004–0.008	0.004–0.010	0.006–0.016	0.010–0.020	0.012–0.028	65 (35-100)	–	–
H7	LNEG1003-EB45	0.004–0.008	0.004–0.010	0.006–0.016	0.010–0.020	0.012–0.028	65 (35-100)	–	–
H8	LNEG1003-EB45	0.004–0.008	0.004–0.010	0.006–0.016	0.010–0.020	0.012–0.028	65 (35-100)	–	–
H11	LNEG1003-EB45	0.004–0.008	0.004–0.010	0.006–0.016	0.010–0.020	0.012–0.028	65 (35-100)	–	–
H12	LNEG1003-EB45	0.004–0.008	0.004–0.010	0.006–0.016	0.010–0.020	0.012–0.028	65 (35-100)	–	–
H21	LNEG1003-EB45	0.004–0.008	0.004–0.010	0.006–0.016	0.010–0.020	0.012–0.028	65 (35-100)	–	–
H31	LNEG1003-EB45	0.004–0.008	0.004–0.010	0.006–0.016	0.010–0.020	0.012–0.028	65 (35-100)	–	–

SMG = Seco material group
a_p = *inch*
f = in/rev
v_c= sf/min
All cutting data are start values

Cutting data – LNEG...-EB845 metric

SMG		a_p (∅)	f				v_c
			z=3	z=5	z=7	z=9	RX2000
P1	LNEG1003-EB845	0,15-0,25	0,15-0,60	0,25-1	0,35-1,4	0,45-1,80	120 (80-200)
P2	LNEG1003-EB845	0,15-0,25	0,15-0,60	0,25-1	0,35-1,4	0,45-1,80	120 (80-200)
P3	LNEG1003-EB845	0,15-0,25	0,15-0,60	0,25-1	0,35-1,4	0,45-1,80	120 (80-200)
P4	LNEG1003-EB845	0,15-0,25	0,15-0,60	0,25-1	0,35-1,4	0,45-1,80	60 (40-120)
P5	LNEG1003-EB845	0,15-0,25	0,15-0,60	0,25-1	0,35-1,4	0,45-1,80	60 (40-120)
P6	LNEG1003-EB845	0,15-0,25	0,15-0,60	0,25-1	0,35-1,4	0,45-1,80	60 (40-120)
P7	LNEG1003-EB845	0,15-0,25	0,15-0,60	0,25-1	0,35-1,4	0,45-1,80	60 (40-120)
P8	LNEG1003-EB845	0,15-0,25	0,15-0,60	0,25-1	0,35-1,4	0,45-1,80	40 (30-70)
P11	LNEG1003-EB845	0,15-0,25	0,15-0,60	0,25-1	0,35-1,4	0,45-1,80	40 (30-70)
P12	LNEG1003-EB845	0,15-0,25	0,15-0,60	0,25-1	0,35-1,4	0,45-1,80	30 (25-55)
M1	LNEG1003-EB845	0,10-0,20	0,15-0,45	0,25-0,75	0,25-1,05	0,45-1,35	35 (25-60)
M2	LNEG1003-EB845	0,10-0,20	0,15-0,45	0,25-0,75	0,25-1,05	0,45-1,35	35 (25-60)
M3	LNEG1003-EB845	0,10-0,20	0,15-0,45	0,25-0,75	0,25-1,05	0,45-1,35	35 (25-60)
M4	LNEG1003-EB845	0,10-0,20	0,15-0,45	0,25-0,75	0,25-1,05	0,45-1,35	25 (20-50)
M5	LNEG1003-EB845	0,10-0,20	0,15-0,45	0,25-0,75	0,25-1,05	0,45-1,35	25 (20-50)
K1	LNEG1003-EB845	0,20-0,50	0,15-0,60	0,25-1	0,35-1,4	0,45-1,80	100 (60-200)
K2	LNEG1003-EB845	0,20-0,50	0,15-0,60	0,25-1	0,35-1,4	0,45-1,80	50 (35-80)
K3	LNEG1003-EB845	0,20-0,50	0,15-0,60	0,25-1	0,35-1,4	0,45-1,80	100 (60-200)
K4	LNEG1003-EB845	0,20-0,50	0,15-0,60	0,25-1	0,35-1,4	0,45-1,80	70 (50-120)
K5	LNEG1003-EB845	0,20-0,50	0,15-0,60	0,25-1	0,35-1,4	0,45-1,80	70 (50-120)
K6	LNEG1003-EB845	0,20-0,50	0,15-0,60	0,25-1	0,35-1,4	0,45-1,80	100 (60-200)
K7	LNEG1003-EB845	0,20-0,50	0,15-0,60	0,25-1	0,35-1,4	0,45-1,80	100 (60-200)

SMG = Seco material group
a_p = mm
f = mm/rev
v_c= m/min
All cutting data are start values

Cutting data – LNEG...-EB845 *inch*

SMG		a_p (∅)	f				v_c
			z=3	z=5	z=7	z=9	RX2000
P1	LNEG1003-EB845	0.006–0.010	0.006–0.024	0.010–0.039	0.014–0.055	0.018–0.071	395 (260-655)
P2	LNEG1003-EB845	0.006–0.010	0.006–0.024	0.010–0.039	0.014–0.055	0.018–0.071	395 (260-655)
P3	LNEG1003-EB845	0.006–0.010	0.006–0.024	0.010–0.039	0.014–0.055	0.018–0.071	395 (260-655)
P4	LNEG1003-EB845	0.006–0.010	0.006–0.024	0.010–0.039	0.014–0.055	0.018–0.071	195 (130-395)
P5	LNEG1003-EB845	0.006–0.010	0.006–0.024	0.010–0.039	0.014–0.055	0.018–0.071	195 (130-395)
P6	LNEG1003-EB845	0.006–0.010	0.006–0.024	0.010–0.039	0.014–0.055	0.018–0.071	195 (130-395)
P7	LNEG1003-EB845	0.006–0.010	0.006–0.024	0.010–0.039	0.014–0.055	0.018–0.071	195 (130-395)
P8	LNEG1003-EB845	0.006–0.010	0.006–0.024	0.010–0.039	0.014–0.055	0.018–0.071	130 (100-230)
P11	LNEG1003-EB845	0.006–0.010	0.006–0.024	0.010–0.039	0.014–0.055	0.018–0.071	130 (100-230)
P12	LNEG1003-EB845	0.006–0.010	0.006–0.024	0.010–0.039	0.014–0.055	0.018–0.071	100 (85-185)
M1	LNEG1003-EB845	0.004–0.008	0.006–0.018	0.010–0.030	0.010–0.041	0.018–0.053	115 (80-195)
M2	LNEG1003-EB845	0.004–0.008	0.006–0.018	0.010–0.030	0.010–0.041	0.018–0.053	115 (80-195)
M3	LNEG1003-EB845	0.004–0.008	0.006–0.018	0.010–0.030	0.010–0.041	0.018–0.053	115 (80-195)
M4	LNEG1003-EB845	0.004–0.008	0.006–0.018	0.010–0.030	0.010–0.041	0.018–0.053	80 (65-165)
M5	LNEG1003-EB845	0.004–0.008	0.006–0.018	0.010–0.030	0.010–0.041	0.018–0.053	80 (65-165)
K1	LNEG1003-EB845	0.008–0.020	0.006–0.024	0.010–0.039	0.014–0.055	0.018–0.071	330 (195-655)
K2	LNEG1003-EB845	0.008–0.020	0.006–0.024	0.010–0.039	0.014–0.055	0.018–0.071	165 (115-260)
K3	LNEG1003-EB845	0.008–0.020	0.006–0.024	0.010–0.039	0.014–0.055	0.018–0.071	330 (195-655)
K4	LNEG1003-EB845	0.008–0.020	0.006–0.024	0.010–0.039	0.014–0.055	0.018–0.071	230 (165-395)
K5	LNEG1003-EB845	0.008–0.020	0.006–0.024	0.010–0.039	0.014–0.055	0.018–0.071	230 (165-395)
K6	LNEG1003-EB845	0.008–0.020	0.006–0.024	0.010–0.039	0.014–0.055	0.018–0.071	330 (195-655)
K7	LNEG1003-EB845	0.008–0.020	0.006–0.024	0.010–0.039	0.014–0.055	0.018–0.071	330 (195-655)

SMG = Seco material group
a_p = *inch*
f = in/rev
v_c= sf/min
All cutting data are start values

Cutting data – LNEG...-EB1570 metric

SMG		a_p (∅)	f				v_c
			z=3	z=5	z=7	z=9	RX2000
P4	LNEG1005-EB1570	0,15-0,25	0,15-0,45	0,25-0,75	0,25-1,05	0,45-1,35	60 (40-120)
P5	LNEG1005-EB1570	0,15-0,25	0,15-0,45	0,25-0,75	0,25-1,05	0,45-1,35	60 (40-120)
P6	LNEG1005-EB1570	0,15-0,25	0,15-0,45	0,25-0,75	0,25-1,05	0,45-1,35	60 (40-120)
P7	LNEG1005-EB1570	0,15-0,25	0,15-0,45	0,25-0,75	0,25-1,05	0,45-1,35	60 (40-120)
P8	LNEG1005-EB1570	0,15-0,25	0,15-0,45	0,25-0,75	0,25-1,05	0,45-1,35	40 (30-70)
P11	LNEG1005-EB1570	0,15-0,25	0,15-0,45	0,25-0,75	0,25-1,05	0,45-1,35	40 (30-70)
P12	LNEG1005-EB1570	0,15-0,25	0,15-0,45	0,25-0,75	0,25-1,05	0,45-1,35	30 (25-55)
K1	LNEG1005-EB1570	0,20-0,50	0,15-0,45	0,25-0,75	0,25-1,05	0,45-1,35	100 (60-200)
K2	LNEG1005-EB1570	0,20-0,50	0,15-0,45	0,25-0,75	0,25-1,05	0,45-1,35	50 (35-80)
K3	LNEG1005-EB1570	0,20-0,50	0,15-0,45	0,25-0,75	0,25-1,05	0,45-1,35	100 (60-200)
K4	LNEG1005-EB1570	0,20-0,50	0,15-0,45	0,25-0,75	0,25-1,05	0,45-1,35	70 (50-120)
K5	LNEG1005-EB1570	0,20-0,50	0,15-0,45	0,25-0,75	0,25-1,05	0,45-1,35	70 (50-120)
K6	LNEG1005-EB1570	0,20-0,50	0,15-0,45	0,25-0,75	0,25-1,05	0,45-1,35	100 (60-200)
K7	LNEG1005-EB1570	0,20-0,50	0,15-0,45	0,25-0,75	0,25-1,05	0,45-1,35	100 (60-200)

SMG = Seco material group
a_p = mm
f = mm/rev
v_c= m/min
All cutting data are start values

Cutting data – LNEG...-EB1570 *inch*

SMG		a_p (∅)	f				v_c
			z=3	z=5	z=7	z=9	RX2000
P4	*LNEG1005-EB1570*	*0.006–0.010*	*0.006–0.018*	*0.010–0.030*	*0.010–0.041*	*0.018–0.053*	*195 (130–395)*
P5	*LNEG1005-EB1570*	*0.006–0.010*	*0.006–0.018*	*0.010–0.030*	*0.010–0.041*	*0.018–0.053*	*195 (130–395)*
P6	*LNEG1005-EB1570*	*0.006–0.010*	*0.006–0.018*	*0.010–0.030*	*0.010–0.041*	*0.018–0.053*	*195 (130–395)*
P7	*LNEG1005-EB1570*	*0.006–0.010*	*0.006–0.018*	*0.010–0.030*	*0.010–0.041*	*0.018–0.053*	*195 (130–395)*
P8	*LNEG1005-EB1570*	*0.006–0.010*	*0.006–0.018*	*0.010–0.030*	*0.010–0.041*	*0.018–0.053*	*130 (100–230)*
P11	*LNEG1005-EB1570*	*0.006–0.010*	*0.006–0.018*	*0.010–0.030*	*0.010–0.041*	*0.018–0.053*	*130 (100–230)*
P12	*LNEG1005-EB1570*	*0.006–0.010*	*0.006–0.018*	*0.010–0.030*	*0.010–0.041*	*0.018–0.053*	*100 (85–185)*
K1	*LNEG1005-EB1570*	*0.008–0.020*	*0.006–0.018*	*0.010–0.030*	*0.010–0.041*	*0.018–0.053*	*330 (195–655)*
K2	*LNEG1005-EB1570*	*0.008–0.020*	*0.006–0.018*	*0.010–0.030*	*0.010–0.041*	*0.018–0.053*	*165 (115–260)*
K3	*LNEG1005-EB1570*	*0.008–0.020*	*0.006–0.018*	*0.010–0.030*	*0.010–0.041*	*0.018–0.053*	*330 (195–655)*
K4	*LNEG1005-EB1570*	*0.008–0.020*	*0.006–0.018*	*0.010–0.030*	*0.010–0.041*	*0.018–0.053*	*230 (165–395)*
K5	*LNEG1005-EB1570*	*0.008–0.020*	*0.006–0.018*	*0.010–0.030*	*0.010–0.041*	*0.018–0.053*	*230 (165–395)*
K6	*LNEG1005-EB1570*	*0.008–0.020*	*0.006–0.018*	*0.010–0.030*	*0.010–0.041*	*0.018–0.053*	*330 (195–655)*
K7	*LNEG1005-EB1570*	*0.008–0.020*	*0.006–0.018*	*0.010–0.030*	*0.010–0.041*	*0.018–0.053*	*330 (195–655)*

SMG = Seco material group
a_p = *inch*
f = in/rev
v_c= sf/min
All cutting data are start values

Cutting data – RNAX...-EB45 metric

SMG		a_p (∅)	f				v_c	
			z=3	z=5	z=6	z=9	RX2000	RX1500
K1	RNAX1005-EB45	0,20-0,50	0,15-0,45	0,25-0,75	0,25-1,05	0,45-1,35	100 (60-200)	220 (150-300)
K2	RNAX1005-EB45	0,20-0,50	0,15-0,45	0,25-0,75	0,25-1,05	0,45-1,35	50 (35-80)	70 (50-120)
K3	RNAX1005-EB45	0,20-0,50	0,15-0,45	0,25-0,75	0,25-1,05	0,45-1,35	100 (60-200)	220 (150-300)
K4	RNAX1005-EB45	0,20-0,50	0,15-0,45	0,25-0,75	0,25-1,05	0,45-1,35	70 (50-120)	150 (110-200)
K5	RNAX1005-EB45	0,20-0,50	0,15-0,45	0,25-0,75	0,25-1,05	0,45-1,35	70 (50-120)	150 (110-200)
K6	RNAX1005-EB45	0,20-0,50	0,15-0,45	0,25-0,75	0,25-1,05	0,45-1,35	100 (60-200)	220 (150-300)
K7	RNAX1005-EB45	0,20-0,50	0,15-0,45	0,25-0,75	0,25-1,05	0,45-1,35	100 (60-200)	220 (150-300)

SMG = Seco material group
a_p = mm
f = mm/rev
v_c= m/min
All cutting data are start values

Cutting data – RNAX...-EB45 *inch*

SMG		a_p (∅)	f				v_c	
			z=3	z=5	z=6	z=9	RX2000	RX1500
K1	*RNAX1005-EB45*	*0.008–0.020*	*0.006–0.018*	*0.010–0.030*	*0.010–0.041*	*0.018–0.053*	*330 (195-655)*	*720 (490-985)*
K2	*RNAX1005-EB45*	*0.008–0.020*	*0.006–0.018*	*0.010–0.030*	*0.010–0.041*	*0.018–0.053*	*165 (115-260)*	*230 (165-395)*
K3	*RNAX1005-EB45*	*0.008–0.020*	*0.006–0.018*	*0.010–0.030*	*0.010–0.041*	*0.018–0.053*	*330 (195-655)*	*720 (490-985)*
K4	*RNAX1005-EB45*	*0.008–0.020*	*0.006–0.018*	*0.010–0.030*	*0.010–0.041*	*0.018–0.053*	*230 (165-395)*	*490 (360-655)*
K5	*RNAX1005-EB45*	*0.008–0.020*	*0.006–0.018*	*0.010–0.030*	*0.010–0.041*	*0.018–0.053*	*230 (165-395)*	*490 (360-655)*
K6	*RNAX1005-EB45*	*0.008–0.020*	*0.006–0.018*	*0.010–0.030*	*0.010–0.041*	*0.018–0.053*	*330 (195-655)*	*720 (490-985)*
K7	*RNAX1005-EB45*	*0.008–0.020*	*0.006–0.018*	*0.010–0.030*	*0.010–0.041*	*0.018–0.053*	*330 (195-655)*	*720 (490-985)*

SMG = Seco material group
a_p = *inch*
f = in/rev
v_c= sf/min
All cutting data are start values

Cutting data – RNAX...-EB845 metric

SMG		a_p (∅)	f				v_c	
			z=3	z=5	z=6	z=9	RX2000	RX1500
K1	RNAX1005-EB845	0,20-0,50	0,15-0,60	0,25-1	0,35-1,4	0,45-1,80	100 (60-200)	220 (150-300)
K2	RNAX1005-EB845	0,20-0,50	0,15-0,60	0,25-1	0,35-1,4	0,45-1,80	50 (35-80)	70 (50-120)
K3	RNAX1005-EB845	0,20-0,50	0,15-0,60	0,25-1	0,35-1,4	0,45-1,80	100 (60-200)	220 (150-300)
K4	RNAX1005-EB845	0,20-0,50	0,15-0,60	0,25-1	0,35-1,4	0,45-1,80	70 (50-120)	150 (110-200)
K5	RNAX1005-EB845	0,20-0,50	0,15-0,60	0,25-1	0,35-1,4	0,45-1,80	70 (50-120)	150 (110-200)
K6	RNAX1005-EB845	0,20-0,50	0,15-0,60	0,25-1	0,35-1,4	0,45-1,80	100 (60-200)	220 (150-300)
K7	RNAX1005-EB845	0,20-0,50	0,15-0,60	0,25-1	0,35-1,4	0,45-1,80	100 (60-200)	220 (150-300)

SMG = Seco material group
a_p = mm
f = mm/rev
v_c= m/min
All cutting data are start values

Cutting data – RNAX...-EB845 *inch*

SMG		a_p (∅)	f				v_c	
			z=3	z=5	z=6	z=9	RX2000	RX1500
K1	*RNAX1005-EB845*	*0.008–0.020*	*0.006–0.024*	*0.010–0.039*	*0.014–0.055*	*0.018–0.071*	*330 (195-655)*	*720 (490-985)*
K2	*RNAX1005-EB845*	*0.008–0.020*	*0.006–0.024*	*0.010–0.039*	*0.014–0.055*	*0.018–0.071*	*165 (115-260)*	*230 (165-395)*
K3	*RNAX1005-EB845*	*0.008–0.020*	*0.006–0.024*	*0.010–0.039*	*0.014–0.055*	*0.018–0.071*	*330 (195-655)*	*720 (490-985)*
K4	*RNAX1005-EB845*	*0.008–0.020*	*0.006–0.024*	*0.010–0.039*	*0.014–0.055*	*0.018–0.071*	*230 (165-395)*	*490 (360-655)*
K5	*RNAX1005-EB845*	*0.008–0.020*	*0.006–0.024*	*0.010–0.039*	*0.014–0.055*	*0.018–0.071*	*230 (165-395)*	*490 (360-655)*
K6	*RNAX1005-EB845*	*0.008–0.020*	*0.006–0.024*	*0.010–0.039*	*0.014–0.055*	*0.018–0.071*	*330 (195-655)*	*720 (490-985)*
K7	*RNAX1005-EB845*	*0.008–0.020*	*0.006–0.024*	*0.010–0.039*	*0.014–0.055*	*0.018–0.071*	*330 (195-655)*	*720 (490-985)*

SMG = Seco material group
a_p = *inch*
f = in/rev
v_c= sf/min
All cutting data are start values

Cutting data – RNAX...-EB1570 metric

SMG		a_p (∅)	f				v_c	
			z=3	z=5	z=6	z=9	RX2000	RX1500
K1	RNAX1005-EB1570	0,20-0,50	0,15-0,45	0,25-0,75	0,25-1,05	0,45-1,35	100 (60-200)	220 (150-300)
K2	RNAX1005-EB1570	0,20-0,50	0,15-0,45	0,25-0,75	0,25-1,05	0,45-1,35	50 (35-80)	70 (50-120)
K3	RNAX1005-EB1570	0,20-0,50	0,15-0,45	0,25-0,75	0,25-1,05	0,45-1,35	100 (60-200)	220 (150-300)
K4	RNAX1005-EB1570	0,20-0,50	0,15-0,45	0,25-0,75	0,25-1,05	0,45-1,35	70 (50-120)	150 (110-200)
K5	RNAX1005-EB1570	0,20-0,50	0,15-0,45	0,25-0,75	0,25-1,05	0,45-1,35	70 (50-120)	150 (110-200)
K6	RNAX1005-EB1570	0,20-0,50	0,15-0,45	0,25-0,75	0,25-1,05	0,45-1,35	100 (60-200)	220 (150-300)
K7	RNAX1005-EB1570	0,20-0,50	0,15-0,45	0,25-0,75	0,25-1,05	0,45-1,35	100 (60-200)	220 (150-300)

SMG = Seco material group
a_p = mm
f = mm/rev
v_c= m/min
All cutting data are start values

Cutting data – RNAX...-EB1570 *inch*

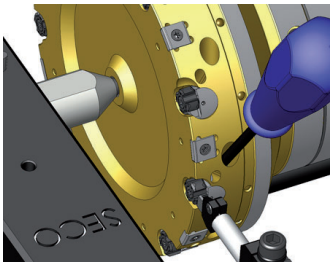
SMG		a_p (∅)	f				v_c	
			z=3	z=5	z=6	z=9	RX2000	RX1500
K1	*RNAX1005-EB1570*	*0.008–0.020*	*0.006–0.018*	*0.010–0.030*	*0.010–0.041*	*0.018–0.053*	*330 (195-655)*	*720 (490- 985)*
K2	*RNAX1005-EB1570*	*0.008–0.020*	*0.006–0.018*	*0.010–0.030*	*0.010–0.041*	*0.018–0.053*	*165 (115-260)*	*230 (165- 395)*
K3	*RNAX1005-EB1570*	*0.008–0.020*	*0.006–0.018*	*0.010–0.030*	*0.010–0.041*	*0.018–0.053*	*330 (195-655)*	*720 (490- 985)*
K4	*RNAX1005-EB1570*	*0.008–0.020*	*0.006–0.018*	*0.010–0.030*	*0.010–0.041*	*0.018–0.053*	*230 (165-395)*	*490 (360- 655)*
K5	*RNAX1005-EB1570*	*0.008–0.020*	*0.006–0.018*	*0.010–0.030*	*0.010–0.041*	*0.018–0.053*	*230 (165-395)*	*490 (360- 655)*
K6	*RNAX1005-EB1570*	*0.008–0.020*	*0.006–0.018*	*0.010–0.030*	*0.010–0.041*	*0.018–0.053*	*330 (195-655)*	*720 (490- 985)*
K7	*RNAX1005-EB1570*	*0.008–0.020*	*0.006–0.018*	*0.010–0.030*	*0.010–0.041*	*0.018–0.053*	*330 (195-655)*	*720 (490- 985)*

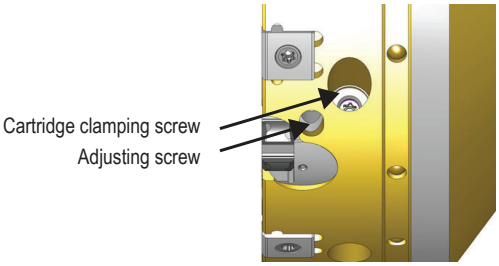
SMG = Seco material group
a_p = *inch*
f = in/rev
v_c= sf/min
All cutting data are start values

Adjusting instructions

1.

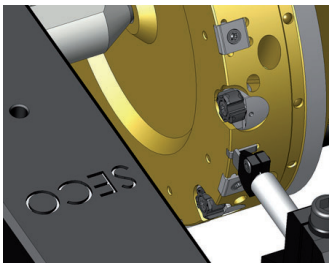
- Loosen cartridge clamping screw.
- Index or replace insert.
- Unclamp adjusting screw by 1/4 of a turn and push cartridge back.
- Gently re-clamp cartridge clamping screw 0,5 Nm approx *(4.4 in/lbs)*.

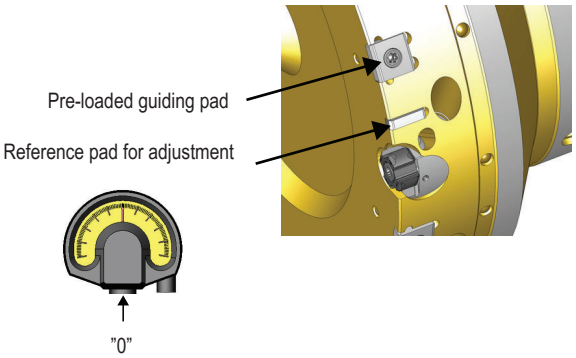




2.

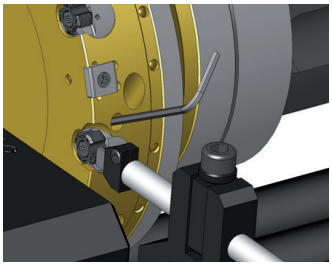
- Set clock to “zero” on reference pad.
- Make sure measuring point is positioned after the lead angle.

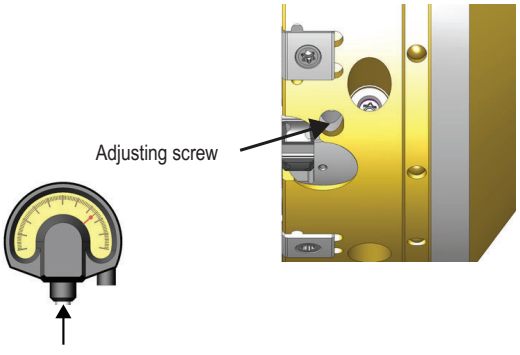




3.

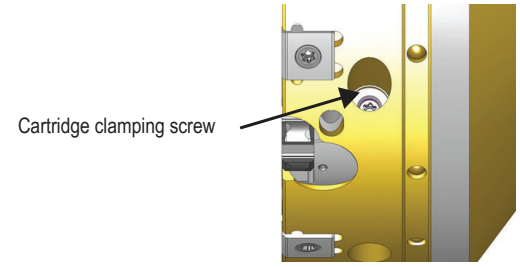
- Set insert 0,025 mm *(0.001“)* above reference pad using adjusting screw.
- Repeat adjusting process for all inserts.





4.

- Final clamp cartridge clamping screw 2 Nm *(17.7 in/lbs)*.



Note: If the required diameter is exceeded during adjustment, start again from the beginning to eliminate backlash on adjustment screws.

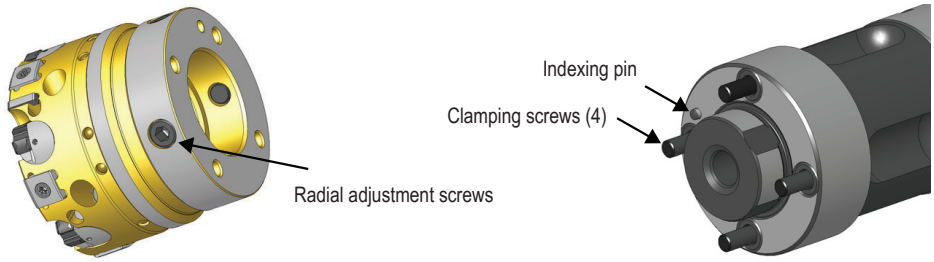
Adjusting instructions, adapter

1.

Assembly

- Thoroughly clean flange contact surface.
- Loosen 4 radial adjusting screws so they do not interfere for assembly.
- Put reaming head onto adapter (indexing pin) and tighten the 4 clamping screws.

Assembly (drawing 1)

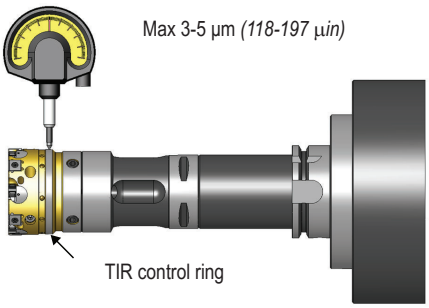


2.

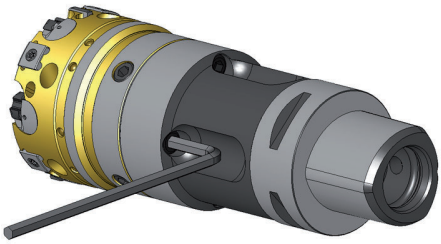
Setting

- Mount tool in the machine spindle.
- Place µm clock as shown in (drawing 2).
- Unlock spindle so it can rotate freely by hand.
- Start run-out correction using 4 adjusting screws (drawing 3).
- Max run-out 5 µm *(197 µin)*.
- When run-out values get lower than 10 µm *(394 µin)*, proceed to final clamping (drawing 1) see clamping torque table for torque recommended values.

Setting operation in the machine spindle (drawing 2)



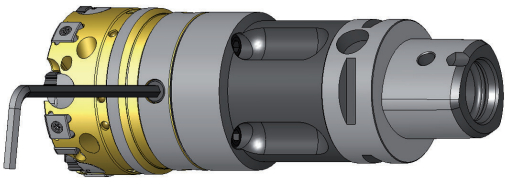
Clamping screws (drawing 3)



3.

- Finalize run-out adjustment, max 5 µm *(max 197 µin)*.

Radial adjusting screws (drawing 4)



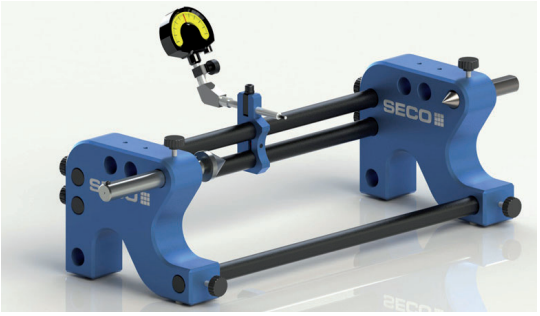
Clamping torque table

Diameter mm	*Diameter inch*	Adapter size	Clamping screw	Clamping torque Nm	*Clamping torque in/lbs*
39,5-59,499	*1.555-2.342*	HF32	CHC M3 x 16	2,7	*24*
59,5-84,499	*2.342-3.372*	HF55	CHC M5 x 25	5,7	*50*
84,5-119,499	*3.372-4.705*	HF80	CHC M6 x 25	9,8	*87*
119,5-154,499	*4.705-6.083*	HF100	CHC M8 x 30	24	*212*

Setting fixture – Single clock

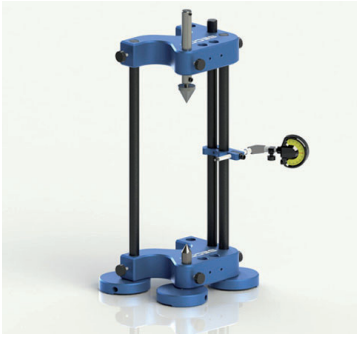
SF-210340-C160: Ordering and Part No. 02885391

- Horizontal stand
- First choice for Xfix reamers
- 1 clock
- Maximum tool Ø: 210 mm *(8.268")*
- Maximum tool length: 340 mm *(13.386")*
- Included in delivery: additional Ø 57 mm *(2.244")* spring center for HSK 63/80/100 and Capto C8 SSC5700 Part No. 02208620



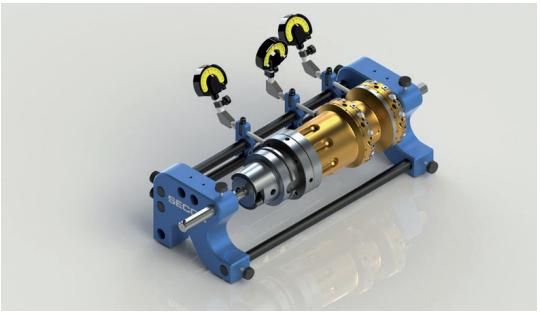
SF-210290V-C160: Ordering and Part No. 02885392

- Vertical stand
- First choice for Xfix reamers
- Maximum tool Ø: 210 mm *(8.268")*
- Maximum tool length: 290 mm *(11.417")*
- Included in delivery: additional Ø 57 mm *(2.244")* spring center for HSK 63/80/100 and Capto C8 SSC5700 Part No. 02208620



Setting fixture – Multiple clocks

Possibilities for multi-clock set up, refer to setting fixture chapter page 510-515 for more details



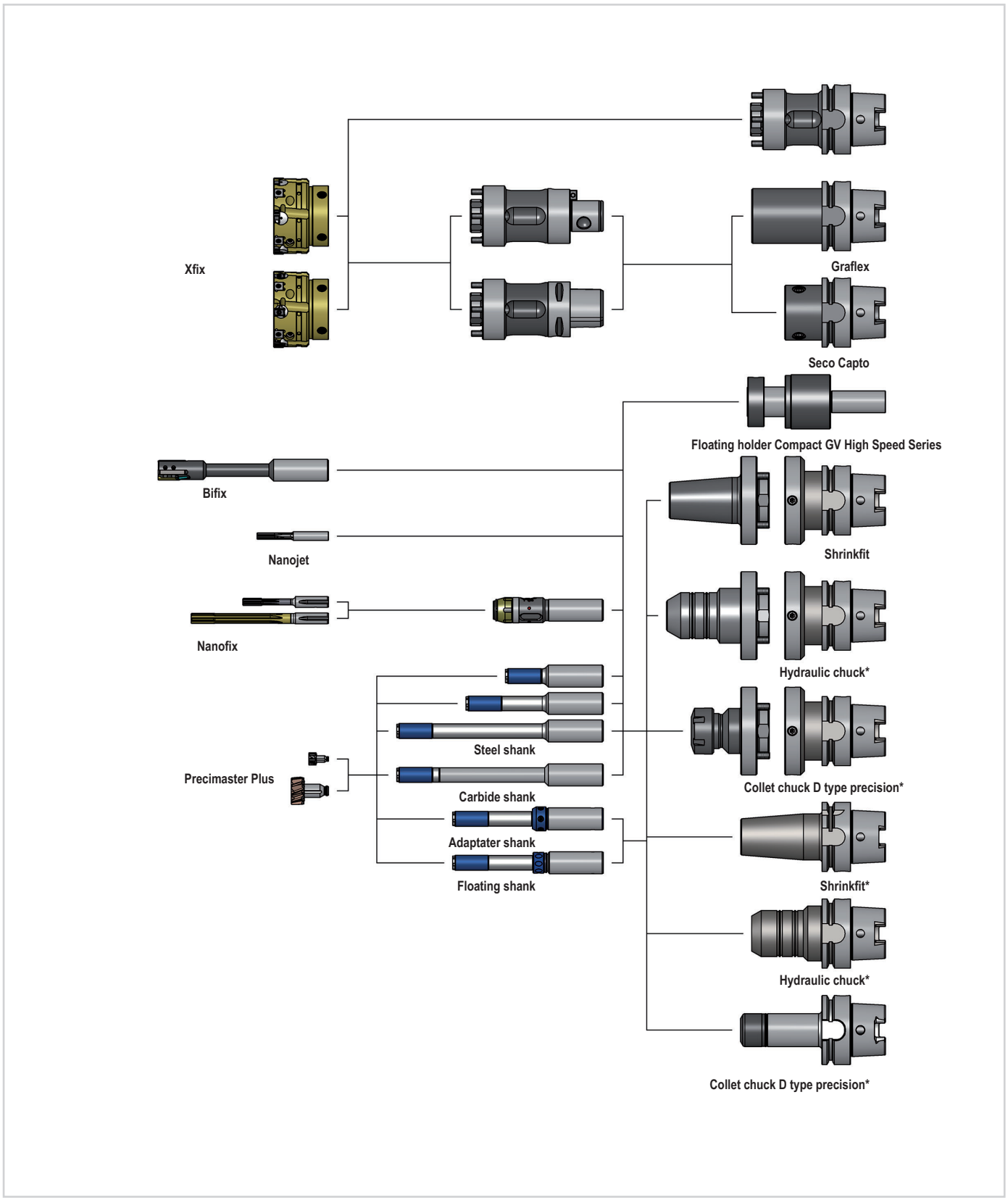
Tooling overview



Diameter mm	*Diameter inch*	Max dia/ length ratio
39,5-59,499	*1.555-2.342*	6,5 x D
59,5-84,499	*2.342-3.372*	4,5 x D
84,5-119,499	*3.372-4.705*	3,3 x D
119,5-154,499	*4.705-6.083*	2,5 x D

Note: For diameters > 100 mm *(3.937")* or L > 3 x D check max tool weight acceptable in the machine.

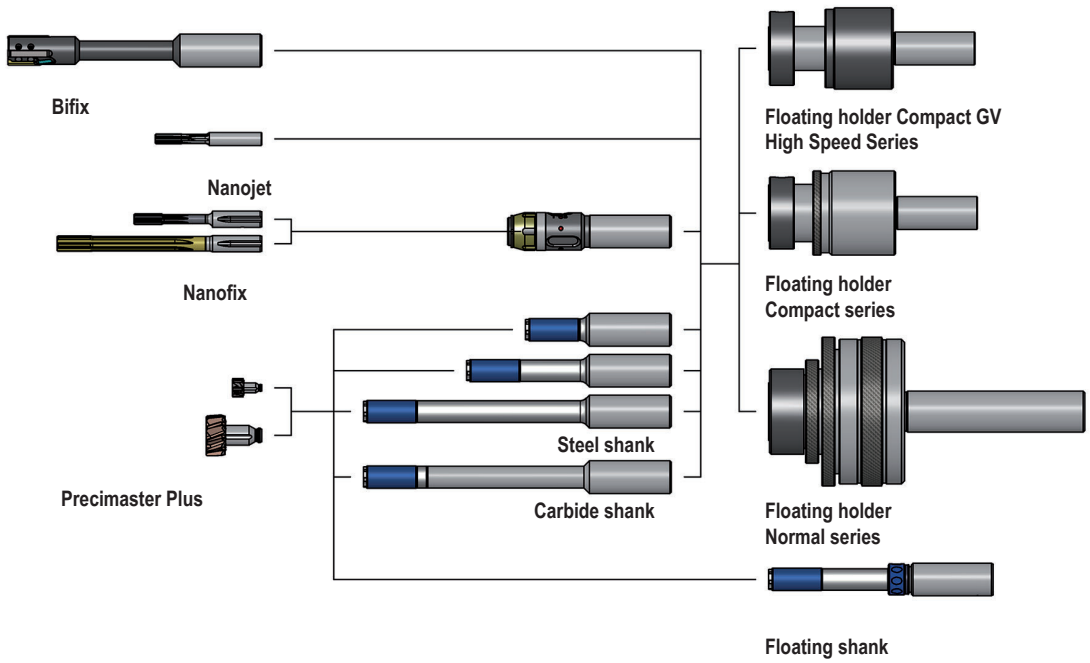
Rotating applications



*See catalog TOOLING SYSTEMS

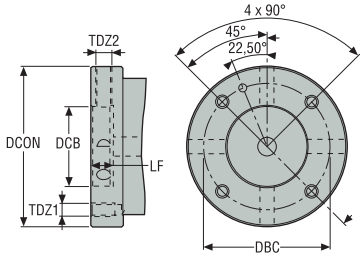
Best performance achieved with rigid mounting (Hydraulic chuck, D type or Shrinkfit)

Static applications



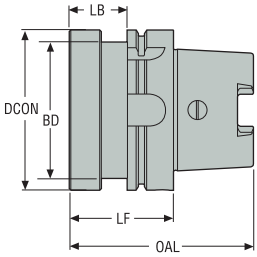
Flange dimension





DCON	DBC +/- 0,1	DCB F8	LF	TDZ1	TDZ2
60	44	30	12	M5	M8x1
70	53	35	12	M6	M8x1
80	63	40	12	M6	M8x1
100	79	50	14	M8	M10x1
117	96	60	14	M8	M10x1
140	119	80	14	M10	M10x1

Back end HSK-A





- Note: Coolant tube and screws included in delivery

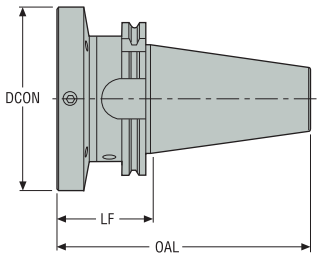
Designation	Item number	Taper	DCON	BD	LB	LF	OAL	Weight
			mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*
SAH-23405100001	02836663	HSK-A 100	60,0 *2.362*	60,0 *2.362*	26,0 *1.024*	55,0 *2.165*	105,0 *4.134*	2,5 *5.510*
SAH-23405100002	02836665	HSK-A 100	80,0 *3.150*	80,0 *3.150*	26,0 *1.024*	55,0 *2.165*	105,0 *4.134*	2,9 *6.390*
SAH-23405100003	02836666	HSK-A 100	100,0 *3.937*	85,0 *3.346*	36,0 *1.417*	65,0 *2.559*	115,0 *4.528*	3,5 *7.720*
SAH-23405100007	02836664	HSK-A 100	70,0 *2.756*	70,0 *2.756*	26,0 *1.024*	55,0 *2.165*	105,0 *4.134*	2,8 *6.170*
SAH-2340550001	02836566	HSK-A 50	60,0 *2.362*	42,0 *1.654*	34,0 *1.339*	60,0 *2.362*	85,0 *3.346*	0,95 *2.090*
SAH-2340563001	02836574	HSK-A 63	60,0 *2.362*	53,0 *2.087*	34,0 *1.339*	60,0 *2.362*	92,0 *3.622*	1,2 *2.650*
SAH-2340563002	02836576	HSK-A 63	80,0 *3.150*	53,0 *2.087*	34,0 *1.339*	60,0 *2.362*	92,0 *3.622*	1,4 *3.090*
SAH-2340563003	02836575	HSK-A 63	70,0 *2.756*	53,0 *2.087*	34,0 *1.339*	60,0 *2.362*	92,0 *3.622*	1,3 *2.870*
SAH-2340563004	02836577	HSK-A 63	100,0 *3.937*	53,0 *2.087*	39,0 *1.535*	65,0 *2.559*	97,0 *3.819*	1,95 *4.300*
SAH-2340580001	02836655	HSK-A 80	60,0 *2.362*	60,0 *2.362*	24,0 *0.945*	50,0 *1.969*	90,0 *3.543*	1,4 *3.090*
SAH-2340580002	02836658	HSK-A 80	80,0 *3.150*	67,0 *2.638*	34,0 *1.339*	60,0 *2.362*	100,0 *3.937*	1,6 *3.530*
SAH-2340580003	02836657	HSK-A 80	70,0 *2.756*	67,0 *2.638*	34,0 *1.339*	60,0 *2.362*	100,0 *3.937*	1,5 *3.310*
SAH-2340580004	02836660	HSK-A 80	100,0 *3.937*	67,0 *2.638*	39,0 *1.535*	65,0 *2.559*	105,0 *4.134*	2,2 *4.850*

Spare Parts, included in delivery

For DCON	Clamp screw	Adjusting screw
		
60	CHCM5X20/ISO4762	HCM8X12X1/ISO4028
70	CHCM6X20/ISO4762	HCM8X16X1/ISO4028
80	CHCM6X25/ISO4762	HCM8X16X1/ISO4028
100	CHCM8X25/ISO4762	HCM10X20X1/ISO4028

Back end DIN 69871





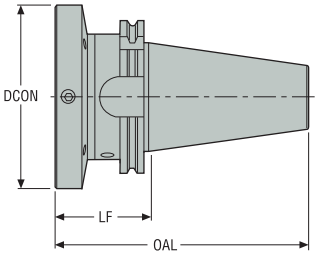
- Note: Screws included in delivery

Designation	Item number	Taper	DCON	LF	OAL	Weight
			mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*
SAH-2340640201	02836683	DIN40 ADB	60,0 *2.362*	50,0 *1.969*	118,4 *4.661*	1,3 *2.870*
SAH-2340640202	02836685	DIN40 ADB	80,0 *3.150*	55,0 *2.165*	123,4 *4.858*	1,7 *3.750*
SAH-2340640203	02836686	DIN40 ADB	100,0 *3.937*	60,0 *2.362*	128,4 *5.055*	2,3 *5.070*
SAH-2340650201	02836687	DIN50 ADB	60,0 *2.362*	50,0 *1.969*	151,8 *5.976*	3,1 *6.830*
SAH-2340650202	02836690	DIN50 ADB	80,0 *3.150*	50,0 *1.969*	151,8 *5.976*	3,5 *7.720*
SAH-2340650203	02836691	DIN50 ADB	100,0 *3.937*	60,0 *2.362*	161,8 *6.370*	4,3 *9.480*

Spare Parts, included in delivery

For DCON	Clamp screw	Adjusting screw
		
60	CHCM5X20/ISO4762	HCM8X12X1/ISO4028
80	CHCM6X25/ISO4762	HCM8X16X1/ISO4028
100	CHCM8X25/ISO4762	HCM10X20X1/ISO4028

Back end ANSI CAT





- Note: Screws included in delivery
- Pull-stud thread imperial

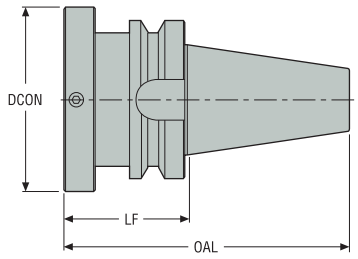
Designation	Item number	Taper	DCON	LF	OAL	Weight
			mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*
SAH-2784940201	02836698	CAT 40	60,0 *2.362*	50,0 *1.969*	118,4 *4.661*	1,1 *2.430*
SAH-2784940202	02836702	CAT 40	80,0 *3.150*	60,0 *2.362*	128,4 *5.055*	1,8 *3.970*
SAH-2784940203	02836704	CAT 40	100,0 *3.937*	60,0 *2.362*	128,4 *5.055*	2,3 *5.070*
SAH-2784950201	02836707	CAT 50	60,0 *2.362*	50,0 *1.969*	151,8 *5.976*	3,1 *6.830*
SAH-2784950202	02836709	CAT 50	80,0 *3.150*	60,0 *2.362*	161,8 *6.370*	3,4 *7.500*
SAH-2784950203	02836710	CAT 50	100,0 *3.937*	80,0 *3.150*	181,8 *7.157*	5,5 *12.130*

Spare Parts, included in delivery

For DCON	Clamp screw	Adjusting screw
		
60	CHCM5X20/ISO4762	HCM8X12X1/ISO4028
80	CHCM6X25/ISO4762	HCM8X16X1/ISO4028
100	CHCM8X25/ISO4762	HCM10X20X1/ISO4028

Back end BT





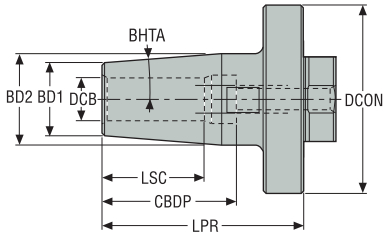
- Note: Screws included in delivery

Designation	Item number	Taper	DCON	LF	OAL	Weight
			mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*
SAH-2340740001	02836717	BT40 ADB	60,0 *2.362*	55,0 *2.165*	120,4 *4.740*	1,4 *3.090*
SAH-2340740002	02836719	BT40 ADB	80,0 *3.150*	65,0 *2.559*	130,4 *5.134*	2,0 *4.410*
SAH-2340740003	02836721	BT40 ADB	100,0 *3.937*	60,0 *2.362*	125,4 *4.937*	2,7 *5.950*
SAH-2340740004	02836718	BT40 ADB	70,0 *2.756*	55,0 *2.165*	120,4 *4.740*	1,5 *3.310*
SAH-2340750001	02836724	BT50 ADB	60,0 *2.362*	70,0 *2.756*	171,8 *6.764*	4,2 *9.260*
SAH-2340750002	02836725	BT50 ADB	70,0 *2.756*	70,0 *2.756*	171,8 *6.764*	4,4 *9.700*
SAH-2340750003	02836726	BT50 ADB	80,0 *3.150*	70,0 *2.756*	171,8 *6.764*	4,6 *10.140*
SAH-2340750004	02836727	BT50 ADB	100,0 *3.937*	70,0 *2.756*	171,8 *6.764*	5,1 *11.240*

Spare Parts, included in delivery

For DCON	Clamp screw	Adjusting screw
		
60	CHCM5X20/ISO4762	HCM8X12X1/ISO4028
70	CHCM6X20/ISO4762	HCM8X16X1/ISO4028
80	CHCM6X25/ISO4762	HCM8X16X1/ISO4028
100	CHCM8X25/ISO4762	HCM10X20X1/ISO4028

Front end Shrinkfit





- Note: Adjusting screws included in delivery

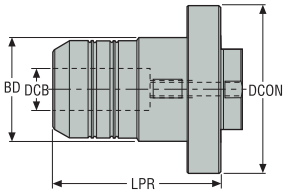
Designation	Item number	DCON	BD2	BD1	DCB	LSC	CBDP	LPR	Weight	BHTA°
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*	
SAH-2341012238	02836737	60,0 *2.362*	32,0 *1.260*	24,0 *0.945*	12,0 *0.472*	34,0 *1.339*	47,5 *1.870*	70,0 *2.756*	0,52 *1.150*	4.5
SAH-2341016241	02836741	70,0 *2.756*	34,0 *1.339*	27,0 *1.063*	16,0 *0.630*	39,0 *1.535*	50,5 *1.988*	75,0 *2.953*	0,7 *1.540*	4.5
SAH-2341020251	02836742	80,0 *3.150*	42,0 *1.654*	33,0 *1.299*	20,0 *0.787*	41,0 *1.614*	52,5 *2.067*	80,0 *3.150*	1,0 *2.200*	4.5
SAH-2341025260	02836743	100,0 *3.937*	53,0 *2.087*	44,0 *1.732*	25,0 *0.984*	47,0 *1.850*	58,5 *2.303*	80,0 *3.150*	2,2 *4.850*	4.5
SAH-2341032261	02836744	100,0 *3.937*	53,0 *2.087*	44,0 *1.732*	32,0 *1.260*	51,0 *2.008*	62,5 *2.461*	80,0 *3.150*	2,5 *5.510*	4.5

Spare Parts, included in delivery

For DCON	Adjusting screw
	
60	HCM6X12/ISO4028
70	HCM6X16/ISO4028
80	HCM6X16/ISO4028
100	HCM8X12X1/ISO4028

Front end hydraulic chuck





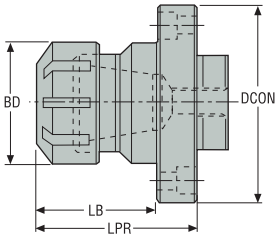
- Note: Adjusting screws included in delivery

Designation	Item number	DCON	BD	DCB	LPR	Weight
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*
SAH-2341112255	02836752	80,0 *3.150*	32,0 *1.260*	12,0 *0.472*	77,5 *3.051*	1,1 *2.430*
SAH-2341112259	02836757	100,0 *3.937*	32,0 *1.260*	12,0 *0.472*	90,0 *3.543*	1,9 *4.190*
SAH-2341116253	02836749	70,0 *2.756*	38,0 *1.496*	16,0 *0.630*	50,0 *1.969*	0,75 *1.650*
SAH-2341116256	02836754	80,0 *3.150*	38,0 *1.496*	16,0 *0.630*	82,5 *3.248*	1,2 *2.650*
SAH-2341120257	02836755	80,0 *3.150*	42,0 *1.654*	20,0 *0.787*	82,5 *3.248*	1,3 *2.870*
SAH-2341125258	02836756	80,0 *3.150*	50,0 *1.969*	25,0 *0.984*	90,0 *3.543*	1,7 *3.750*
SAH-2341125260	02836758	100,0 *3.937*	50,0 *1.969*	25,0 *0.984*	100,0 *3.937*	2,8 *6.170*
SAH-2341132261	02836759	100,0 *3.937*	60,0 *2.362*	32,0 *1.260*	103,0 *4.055*	2,9 *6.390*

Spare Parts, included in delivery

For DCON	Adjusting screw
	
70	HCM6X16/ISO4028
80	HCM6X16/ISO4028
100	HCM8X12X1/ISO4028

Front end ER collet chuck





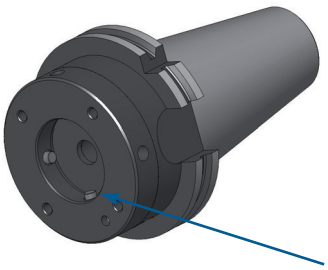
- Note: Adjusting screws included in delivery

Designation	Item number	Size	DCON	BD	LB	LPR	Weight
			mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*
SAH-23412ER25254	02836762	ER25	80,0 *3.150*	42,0 *1.654*	45,0 *1.772*	60,0 *2.362*	1,0 *2.200*
SAH-23412ER32255	02836763	ER32	80,0 *3.150*	50,0 *1.969*	45,0 *1.772*	60,0 *2.362*	1,2 *2.650*
SAH-23412ER40256	02836764	ER40	100,0 *3.937*	63,0 *2.480*	50,0 *1.969*	70,0 *2.756*	1,6 *3.530*

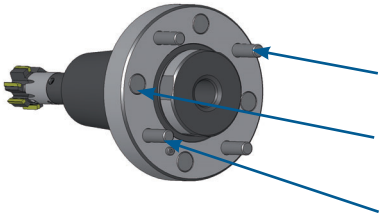
Spare Parts, included in delivery

For DCON	Adjusting screw
	
80	HCM6X16/ISO4028
100	HCM8X12X1/ISO4028

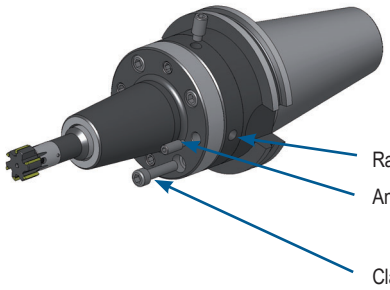
Assembly instructions



- Clean contact surface
- Make sure radial adjusting screws are not interfering with the assembly



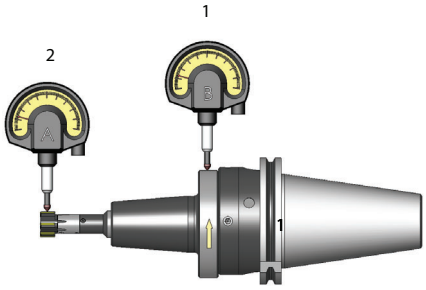
- Make sure angular adjusting screws are not interfering with the assembly



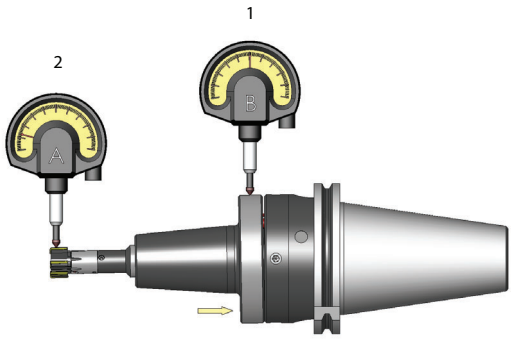
- Proceed to assembly and gently pre-clamp clamping screws (x4)

Adjusting instructions

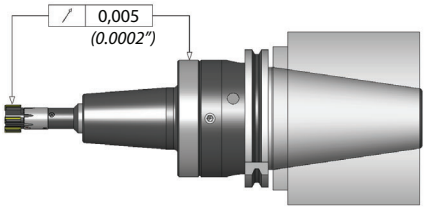
- Mount tool in the machine spindle
- Set up clock 1 as shown (clock 2 not needed at this stage)
- Rotate tool manually until lowest point is reached
- Proceed to radial run-out compensation as shown with arrow
- Check and repeat compensation if necessary



- Set up clock 2 as shown
- Rotate tool manually until lowest point is reached
- Proceed to radial run-out compensation as shown with arrow
- Check and repeat compensation if necessary



- When finished with adjustment, run-out <5 µm *(197 µin)*, finalize clamping to secure assembly
- Adjustable adapter can be pre-set away from the machine using any tool pre-setting device available in the workshop
- Final adjusting must always be made in the machine spindle
- Micron clock must be used. It is acceptable to use one clock for both operations



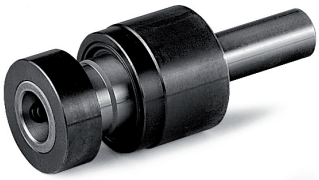
Range overview

The use of a Seco floating holder is recommended

- When run-out exceeds 0.02 mm *(0.0008")*
- For stationary tools

Compact GV high speed series

- First choice for rotating tools
- No adjustment required (factory preset)
- Rotation up to 3000 RPM depending on application
- Suitable for static applications



Compact series

- First choice for stationary tools
- Radial adjustment only
- Suitable for rotating applications – 800 RPM max



Normal series

- When both angular and radial correction is required
- Suitable for rotating applications – 800 RPM max

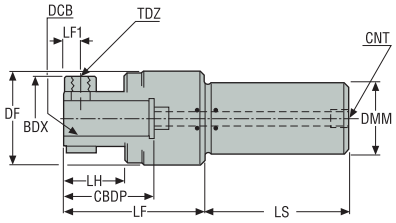


All floating holders for through coolant.
2 types of coolant induction available.

JJL: side inlet
JJ: through shank

Users manual included in delivery.

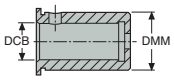
Compact GV high speed series





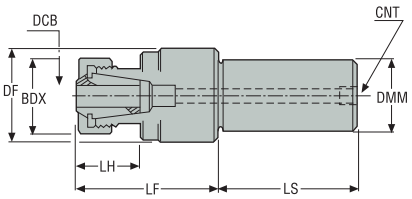
Designation	Item number	DCB	DMM	LF	LS	DF	BDX	LH	CBDP	CNT	LF1	TDZ	ADJRG	Weight
		mm	mm	mm	mm	mm	mm	mm	mm		mm		mm	kg
SFH-GV11019JJ	00088959	10,0	19,05	47,5	40,0	33,0	30,0	11,5	25,0	1/8	5,5	M6	0,2	0,7
SFH-GV11020JJ	00088945	10,0	20,0	47,5	40,0	33,0	30,0	11,5	25,0	1/8	5,5	M6	0,2	0,8
SFH-GV21619JJ	00076815	16,0	19,05	66,0	50,0	49,5	39,0	24,5	40,0	1/8	8,0	M8	0,2	0,8
SFH-GV21620JJ	00072133	16,0	20,0	66,0	50,0	49,5	39,0	24,5	40,0	1/8	8,0	M8	0,2	0,8
SFH-GV22019JJ	00076827	20,0	19,05	76,0	50,0	49,5	45,0	34,5	50,0	1/8	8,0	M8	0,2	0,8
SFH-GV22020JJ	00072134	20,0	20,0	76,0	50,0	49,5	45,0	34,5	50,0	1/8	8,0	M8	0,2	0,8
SFH-GV32525JJ	00076828	25,0	25,4	89,0	60,0	62,0	52,0	43,5	60,0	1/4	11,0	M10	0,3	1,4
SFH-GV32525MJJ	00072135	25,0	25,0	89,0	60,0	62,0	52,0	43,5	60,0	1/4	11,0	M10	0,3	1,4
SFH-GV325425JJ	00088960	25,4	25,4	89,0	60,0	62,0	52,0	43,5	60,0	1/4	11,0	M10	0,3	1,4
SFH-GV43232JJ	02602671	32,0	32,0	90,0	80,0	72,0	60,0	34,0	60,0	3/8	9,0	M10	0,3	2,2

Accessories

Designation	Reduction ring	
		
	DCB	DMM
SRR-BR11016	10	16
SRR-BR11216	12	16
SRR-BR11220	12	20
SRR-BR21620	16	20
SRR-BR31625	16	25
SRR-BR32025	20	25
SRR-GV42532	25	32

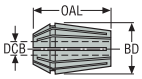
Compact GV high speed series with collet chuck





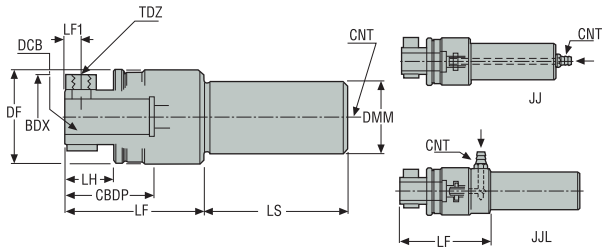
Designation	Item number	CZC	DMM	LF	LS	DF	BDX	LH	CNT	ADJRG	Weight
			mm	mm	mm	mm	mm	mm		mm	kg
SFH-GV3BC25MJJ	00088946	ER32	25,0	80,0	60,0	62,0	50,0	35,0	1/4	0,3	1,3
SFH-GV3BC25JJ	00088961	ER32	25,4	80,0	60,0	62,0	50,0	35,0	1/4	0,3	1,3
SFH-GV4BC31JJ	00088962	ER40	31,75	94,0	80,0	72,0	63,0	39,0	3/8	0,3	0,7
SFH-GV4BC32JJ	00088947	ER40	32,0	94,0	80,0	72,0	63,0	39,0	3/8	0,3	2,4

Accessories

Designation	Size	Collet*			Size	Spanner*
						
		DCB	BD	OAL		
58803210	ER32	10	33	40	ER32	03B587532
58803212	ER32	12	33	40	-	-
58803213	ER32	13	33	40	-	-
58803216	ER32	16	33	40	-	-
58803220	ER32	20	33	40	-	-
58804016	ER40	16	41	46	ER40	03B537540
58804020	ER40	20	41	46	-	-
58804025	ER40	25	41	46	-	-
58804026	ER40	26	41	46	-	-

*Collet and wrenches are not delivered with chucks.

Compact series

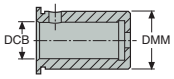




Designation	Item number	DCB	DMM	LF	LS	DF	BDX	LH	CBDP	CNT	LF1	TDZ	ADJRG	Weight
		mm	mm	mm	mm	mm	mm	mm	mm		mm		mm	kg
SFH-C01019JJ	00088963	10,0	19,05	44,5	40,0	38,5	30,0	11,0	25,0	1/8	6,0	M6	1,0	0,575
SFH-C21619CJJ	00076829	16,0	19,05	67,5	50,0	51,5	34,0	17,0	40,0	1/4	8,0	M6	1,5	0,97
SFH-C22019JJL	00088966	20,0	19,05	97,0	70,0	51,5	44,0	27,0	50,0	1/4	8,0	M8	1,5	1,1
SFH-C22019CJJ	00076830	20,0	19,05	77,5	50,0	51,5	44,0	27,0	50,0	1/4	8,0	M8	1,5	0,97
SFH-C01020JJ	00088948	10,0	20,0	44,5	40,0	38,5	30,0	11,0	25,0	1/8	6,0	M6	1,0	0,59
SFH-C21620CJJ	00072142	16,0	20,0	67,5	50,0	51,5	34,0	17,0	40,0	1/4	8,0	M6	1,5	0,97
SFH-C22020CJJ	00072145	20,0	20,0	77,5	50,0	51,5	44,0	27,0	50,0	1/4	8,0	M8	1,5	1,0
SFH-C22020JJL	00088951	20,0	20,0	97,0	60,0	51,5	44,0	27,0	50,0	1/4	8,0	M8	1,5	1,1
SFH-C32525JJ	00076846	25,0	25,4	90,0	110,0	59,5	50,0	31,0	60,0	3/8	11,0	M8	1,5	1,7
SFH-C32525JJL	00088967	25,0	25,4	125,0	70,0	59,5	50,0	31,0	60,0	3/8	11,0	M8	1,5	1,98
SFH-C32525MJJ	00072149	25,0	25,0	90,0	110,0	59,5	50,0	31,0	60,0	3/8	11,0	M8	1,5	1,6

Accessories

Designation	Reduction ring

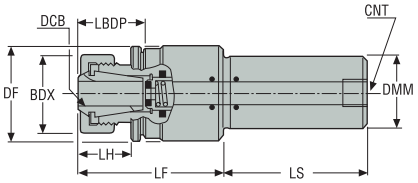


	DCB	DMM
SRR-BR11016	10	16
SRR-BR11216	12	16
SRR-BR11220	12	20
SRR-BR21620	16	20
SRR-BR31625	16	25
SRR-BR32025	20	25

Hose adapter is not included in delivery.

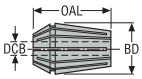
Compact series with collet chuck





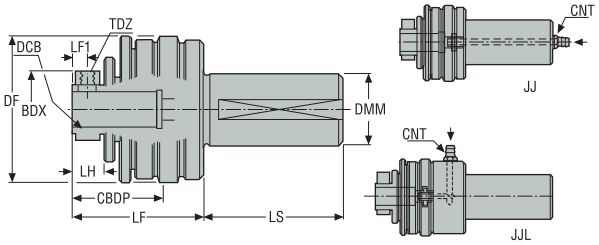
Designation	Item number	CZC	DMM	LF	LS	DF	BDX	CBDP	LH	CNT	ADJRG	Weight
			mm	mm	mm	mm	mm	mm	mm		mm	kg
SFH-C65BC25MCJJ	00088953	ER32	25,0	94,0	50,0	64,5	50,0	42,0	33,0	3/8	1,5	1,7
SFH-C65BC25CJJ	00088968	ER32	25,4	94,0	50,0	64,5	50,0	42,0	33,0	3/8	1,5	1,7

Accessories

Designation	Size	Collet*			Size	Spanner*
						
		DCB	BD	OAL		
58803210	ER32	10	33	40	ER32	03B587532
58803212	ER32	12	33	40	-	-
58803213	ER32	13	33	40	-	-
58803216	ER32	16	33	40	-	-
58803220	ER32	20	33	40	-	-
58804016	ER40	16	41	46	ER40	03B537540
58804020	ER40	20	41	46	-	-
58804025	ER40	25	41	46	-	-
58804026	ER40	26	41	46	-	-

*Collets and wrenches are not delivered with chucks.

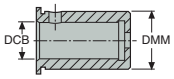
Normal series





Designation	Item number	DCB	DMM	LF	LS	DF	BDX	LH	CBDP	CNT	LF1	TDZ	ADJRG	ANADJ	Weight
		mm	mm	mm	mm	mm	mm	mm	mm		mm		mm		kg
SFH-11619JJ	00088969	16,0	19,05	64,0	50,0	62,0	34,0	16,0	40,0	1/4	8,0	M6	1,5	1,0 °	0,9
SFH-11619JJL	00088970	16,0	19,05	81,0	40,0	62,0	34,0	16,0	40,0	1/4	8,0	M6	1,5	1,0 °	1,32
SFH-11620JJ	00088954	16,0	20,0	64,0	50,0	62,0	34,0	16,0	40,0	1/4	8,0	M6	1,5	1,0 °	0,95
SFH-11620JJL	00088955	16,0	20,0	81,0	40,0	62,0	34,0	16,0	40,0	1/4	8,0	M6	1,5	1,0 °	1,34
SFH-22025JJ	00088971	20,0	25,4	74,0	65,0	82,0	44,0	16,0	50,0	3/8	8,0	M8	1,5	1,0 °	1,9
SFH-22025JJL	00088972	20,0	25,4	98,0	70,0	82,0	44,0	16,0	50,0	1/4	8,0	M8	1,5	1,0 °	2,2
SFH-22025MJJ	00088956	20,0	25,0	74,0	65,0	82,0	44,0	16,0	50,0	3/8	8,0	M8	1,5	1,0 °	1,9
SFH-32525JJ	00088973	25,0	25,4	82,5	110,0	91,0	52,0	22,0	60,0	3/8	11,0	M8	2,0	1,0 °	2,5
SFH-32525MJJ	00088958	25,0	25,0	82,5	110,0	91,0	52,0	22,0	60,0	3/8	11,0	M8	2,0	1,0 °	2,5

Accessories

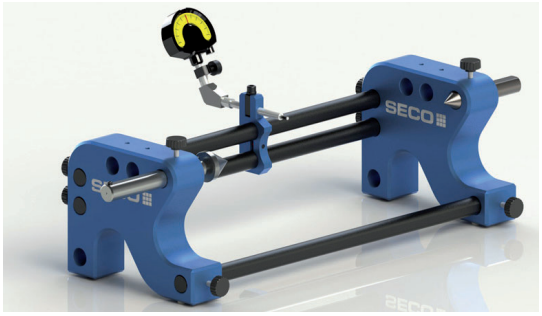
Designation	Reduction ring	
		
	DCB	DMM
SRR-BR11016	10	16
SRR-BR11216	12	16
SRR-BR11220	12	20
SRR-BR21620	16	20
SRR-BR31625	16	25
SRR-BR32025	20	25

Hose adapter is not included in delivery.

Setting fixture – Single clock

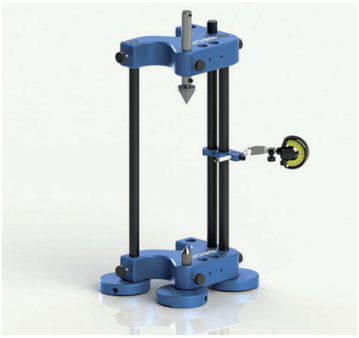
SF-210340-C160: Ordering and Part No. 02885391

- Horizontal stand
- First choice for Xfix reamers
- 1 clock
- Maximum tool Ø: 210 mm *(8.268")*
- Maximum tool length: 340 mm *(13.386")*
- Included in delivery: additional Ø 57 mm *(2.224")* spring center for HSK 63/80/100 & Capto C8 SSC5700 Part No. 02208620



SF-210290V-C160: Ordering and Part No. 02885392

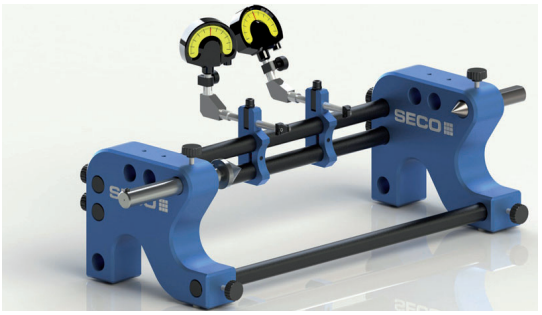
- Vertical stand
- First choice for Xfix reamers
- Maximum tool Ø: 210 mm *(8.268")*
- Maximum tool length: 290 mm *(11.417")*
- Included in delivery: additional Ø 57 mm *(2.224")* spring center for HSK 63/80/100 & Capto C8 SSC5700 Part No. 02208620



Setting fixture – Dual clock

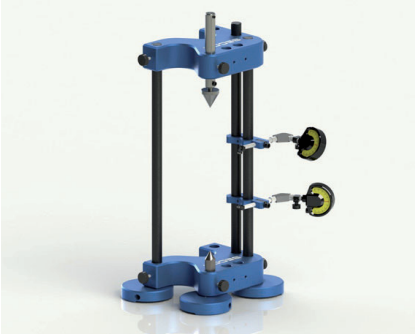
SF-210340-C160C190: Ordering and Part No. 02885393

- Horizontal stand
- First choice for Bifix reamers
- 2 clocks
- Maximum tool Ø: 210 mm *(8.268")*
- Maximum tool length: 340 mm *(13.386")*
- Included in delivery: additional Ø 57 mm *(2.224")* spring center for HSK 63/80/100 & Capto C8 SSC5700 Part No. 02208620 delivery



SF-210290V-C160C190: Ordering and Part No. 02885394

- Vertical stand
- First choice for Bifix reamers
- 2 clocks
- Maximum tool Ø: 210 mm *(8.268")*
- Maximum tool length: 290 mm *(11.417")*
- Included in delivery: additional Ø 57 mm *(2.224")* spring center for HSK 63/80/100 & Capto C8 SSC5700 Part No. 02208620

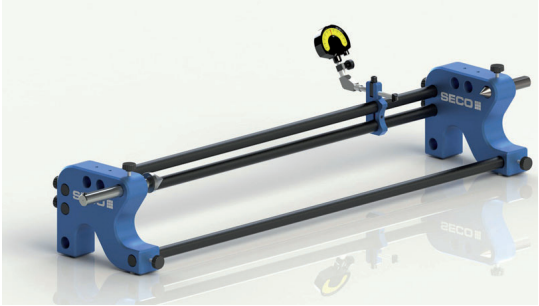


For ordering information, contact your local Seco Tools representative.

Setting fixture – Single clock large capacity

SF-210740-C160: Ordering and Part No. 02885385

- Horizontal stand
- First choice for Xfix reamers
- 1 clock
- Maximum tool Ø: 210 mm *(8.268")*
- Maximum tool length: 740 mm *(29.134")*
- Included in delivery: additional Ø 57 mm *(2.224")* spring center for HSK 63/80/100 & Capto C8 SSC5700 Part No. 02208620



SF-210690V-C160: Ordering and Part No. 02885387

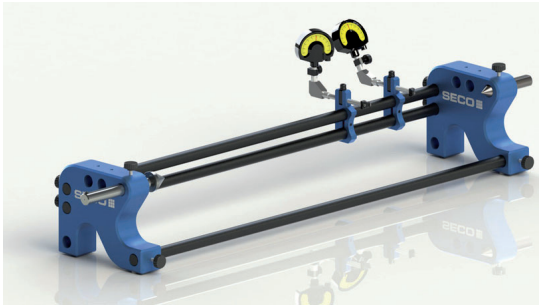
- Vertical stand
- First choice for Xfix reamers
- Maximum tool Ø: 210 mm *(8.268")*
- Maximum tool length: 690 mm *(27.165")*
- Included in delivery: additional Ø 57 mm *(2.224")* spring center for HSK 63/80/100 & Capto C8 SSC5700 Part No. 02208620



Setting fixture – Dual clock large capacity

SF-210740-C160C190: Ordering and Part No. 02885388

- Horizontal stand
- First choice for Bifix reamers
- 2 clocks
- Maximum tool Ø: 210 mm *(8.268")*
- Maximum tool length: 740 mm *(29.134")*
- Included in delivery: additional Ø 57 mm *(2.224")* spring center for HSK 63/80/100 & Capto C8 SSC5700 Part No. 02208620delivery



SF-210690V-C160C190: Ordering and Part No. 02885390

- Vertical stand
- First choice for Bifix reamers
- 2 clocks
- Maximum tool Ø: 210 mm *(8.268")*
- Maximum tool length: 690 mm *(27.165")*
- Included in delivery: additional Ø 57 mm *(2.224")* spring center for HSK 63/80/100 & Capto C8 SSC5700 Part No. 02208620

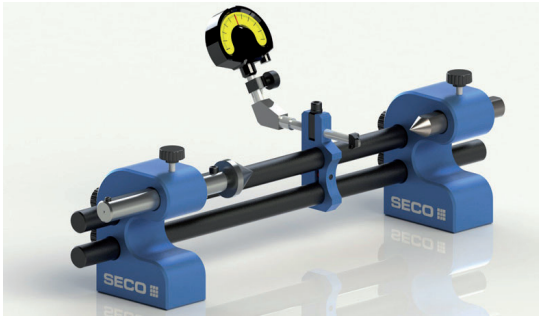


For ordering information, contact your local Seco Tools representative.

Setting fixture – Compact

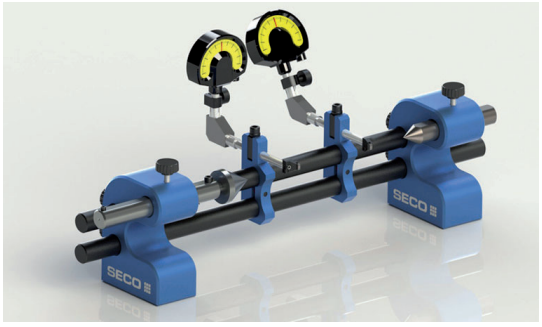
SF-60200-C160: Ordering and Part No. 02885395

- Horizontal stand
- First choice for Ø smaller than 60 mm *(2.362")*
- 1 clock
- Maximum tool Ø: 60,5 mm *(82.382")*
- Maximum tool length: 200 mm *(7.874")*



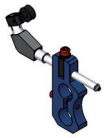
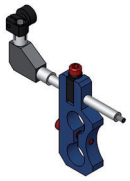
SF-60200-C160C190: Ordering and Part No. 02885396

- Horizontal stand
- First choice for Ø smaller than 60 mm *(2.362")*
- 2 clocks
- Maximum tool Ø: 60,5 mm *(82.382")*
- Maximum tool length: 200 mm *(7.874")*

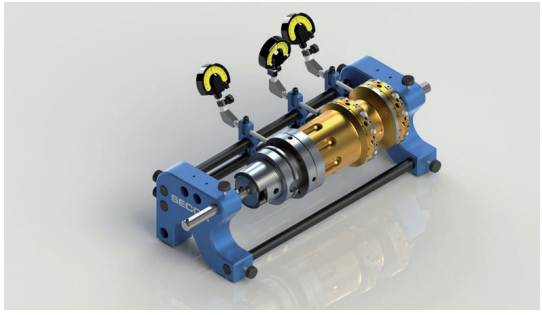
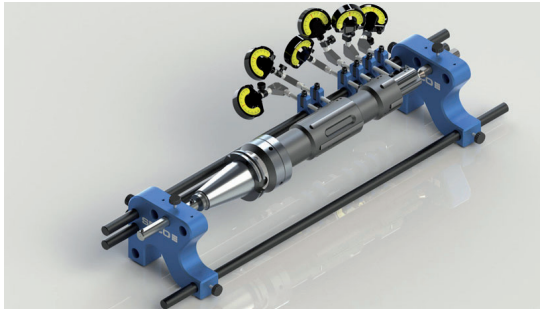


For ordering information, contact your local Seco Tools representative.

Additional measuring arms

	**SFB-60: Ordering and Part No. 02208619** • Measuring arm 60° • Dial gauge included in delivery • Measuring point not included, see page 514
	**SFB-60 WC: Ordering and Part No. 02885754** • Measuring arm 60° • Dial gauge not included in delivery • Measuring point not included, see page 514
	**SFB-90: Ordering and Part No. 02208622** • Measuring arm 90° • Dial gauge included in delivery • Measuring point not included, see page 514
	**SFB-90 WC: Ordering and Part No. 02885755** • Measuring arm 90° • Dial gauge not included in delivery • Measuring point not included, see page 514
	**DG-1: Ordering and Part No. 75079579** • Dial gauge, 1 µm *(39 µin)*

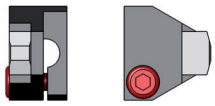
Examples of multi clocks setting fixture assembly

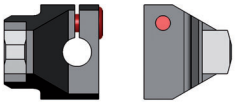
Accessories



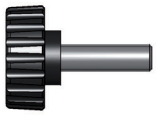
SMES-406: Ordering and Part No. 02819156
- Measuring point for Xfix reamers
- Ø 4mm *(0.157")*
- Carbide tipped



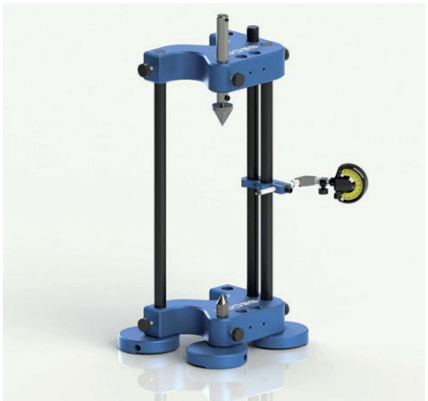
SMES-900: Ordering and Part No. 02208610
- Measuring point for Bifix reamers
- Carbide tipped



SMES-909:Ordering and Part No. 02980090
- Measuring point for Bifix reamers
- Carbide tipped
- 9 mm *(0.354")* offset



SFHS-20: Ordering and Part No. 02884025
- Hand-screw
- Suitable for the entire setting fixture range



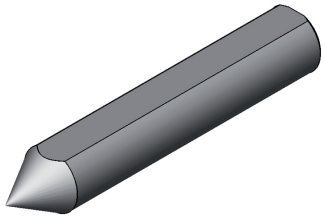


SFVST- 100: Ordering and Part No. 02884026
- Steel stand (set of 3)
- Ø 100 mm *(3.937")*
- Suitable to convert horizontal setting fixture to vertical position

Centre points

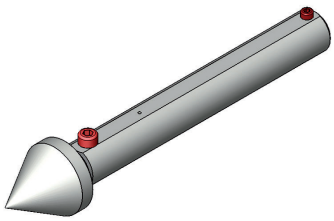
SFC-2000HM: Ordering and Part No. 02884023

- Solid carbide fixed center point
- Ø 20 mm *(0.787")*
- Suitable for Xfix and Bifix range standard and special
- To be used at front end of the tool



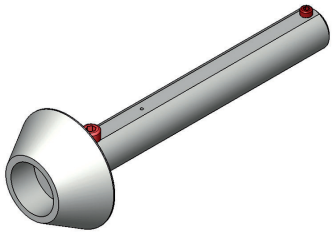
SSC-3400: Ordering and Part No. 02208617

- Spring center point
- Ø 34 mm *(1.339")*
- Suitable for Xfix and Bifix range standard and special
- To be used at back end of the tool
- Not suitable for HSK63/80/100 and capto C8



SSC5700: Ordering and Part No. 02208620

- Spring center point
- Truncated Ø 57 mm *(2.244")*
- Suitable for Xfix and Bifix range standard and special
- To be used at back end of the tool
- Suitable for HSK63/80/100 and capto C8



Overview

Graflex® and Seco-Capto™

Graflex® and Seco-Capto™ arbors, extensions and reducers to build boring bars




- Boring bars assemblies can be rapidly built together to the closest required needs, either by using the Graflex or the Seco-Capto modular systems including a wide range of arbors and intermediaries.
- Both systems offer a rigid and precise connection to be used for roughing applications or finishing holes.
- The modules can also receive a large number of tool holders like collet chucks, hydro chucks etc. (see Tooling systems catalog).

Page(s) 518-577, 578

RB750 boring heads, rough boring

Twin cutting heads, with insert holders coupling mechanism




- High metal removal, precise hole geometry and hole position
- Both symmetrical and staggered settings
- Simultaneous adjustment by an insert holders coupling mechanism
- With Graflex® or Seco-Capto™ connections

Ø range 18 to 205 mm
(0.709 to 8.071")

IT 9/10

Page(s) 589, 590-596

RB 610 boring heads, rough boring

Twin cutting heads





- High metal removal, precise hole geometry and hole position
- Both symmetrical and staggered settings
- With Graflex® connection for Graflex® modular system
- With GL or BA connection for Steadyline® vibration damping bars

Ø range 28 mm to 116 mm
(1.102 to 4.567")

IT 9/10

Page(s) 602-605

FB 760 boring heads, Axiabore™ type, fine boring

Fine boring heads, with axial tools




- Micrometer adjustment for hole precision up to IT5
- High tool rigidity for precise hole geometry and position
- Nanobore™ head for smaller diameters
- Axialibrabore™ and - Axialibrabore™ Plus - are fine balanceable, HSM suitable
- Multi-purpose adapter (MPA) for larger boring diameters, OD-overturning and grooving
- With Graflex® or Seco-Capto™ connections

Ø range 0,3 to 108 mm
(0.012 to 4.252")

+ OD-overturning and face grooving

IT 5/6

Page(s) 614-629

Overview

FB 620, FB 780 and FB 790 boring heads, radial type

Fine boring heads, with radial insert holder





- Micrometer adjustment for hole precision up to IT5
- Precise hole geometry and position
- A790 Libraflex® heads are fine balanceable, HSM suitable insert holder clamping for highest reliability
- Long bores achievable, using carbide extensions (up to 7xD) or Steadyline® bars (up to 10xD)
- Also for chamfering and back-boring
- With Graflex® or Seco-Capto™ connections for modular systems
- With GL or BA connection for Steadyline® vibration damping bars

Ø range 15 to 205 mm
(0.591 to 8.071")

IT 5/6

Page(s) 648, 649-657

Bridge bars and Jumbo boring heads

For rough and fine boring large diameters



- Boring blocks available for rough and fine boring, OD-overturning and back-boring
- Strong design for high metal removal in rough boring
- Micrometric adjustment for fine boring
- Optimized boring block design and Jumbo Bridge bars made from high tensile aluminum for high speeds
- To be fitted onto milling cutter holders, flange mounting type

Ø range 204 to 3205 mm
(8.031-126.181")

IT 5/6 (fine boring) or 9/10 (rough boring)
+ OD-overturning

IT6

Page(s) 659-676

Inserts for boring



- For boring applications in all materials
- High toughness for rough boring
- Positive geometries for fine boring
- Grades selected for long life

Page(s) 678-690

Graflex® or Seco-Capto™ modular holding system



- The boring heads have a Graflex® or a Seco-Capto™ machine side connection shank enabling a full range of boring depths and diameters
- Select the required Graflex® or Seco-Capto™ arbors and intermediates from the TOOLING SYSTEMS catalog (HSK, DIN, BT, ANSI-CAT, Seco-Capto™)
- Graflex® connections spare parts for boring heads are shown in that chapter

Page(s) 691-693

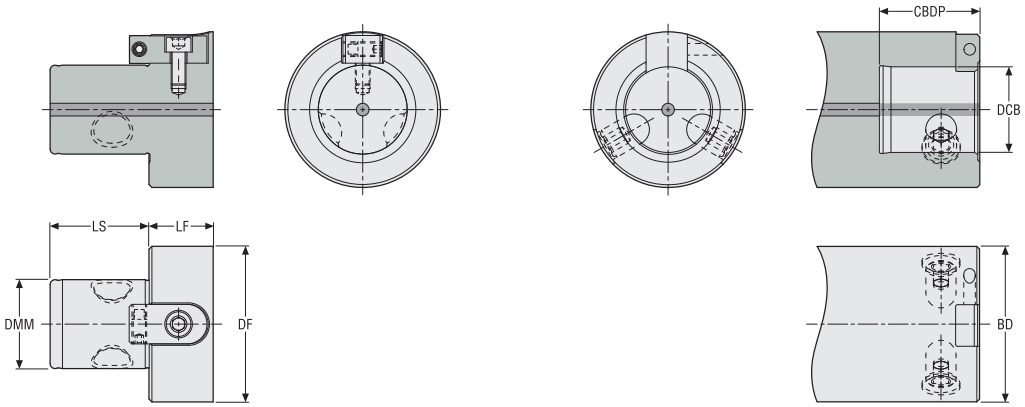


Graflex®

Graflex® assemblies include arbors, intermediates, tool holders and boring heads that can be rapidly built together when they are needed. Suitable for milling, drilling, tapping, reaming and boring, Graflex® modules offer tooling of variable lengths and diameters and can be fitted on all types of machines simply by substituting the Graflex® basic arbor.

- Excellent connection rigidity
- Wide range of modules offer high flexibility
- Through coolant possibilities

Graflex®, norm dimensions



Machine side catalogue designation	Hole for RFID carrier*	DF	DMM	LS	LF
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*
G0	No	16 *0.630*	8 *0.315*	12 *0.472*	8 *0.315*
G1	No	20 *0.787*	11 *0.433*	13 *0.512*	9,5 *0.374*
G2	No	25 *0.984*	14 *0.551*	16 *0.630*	11 *0.433*
G3	No	32 *1.260*	18 *0.709*	20 *0.787*	14 *0.551*
G4	No	40 *1.575*	22 *0.866*	24 *0.945*	17 *0.669*
G5	No	50 *1.969*	28 *1.102*	30 *1.181*	20 *0.787*
G6	No	63 *2.480*	36 *1.417*	40 *1.575*	26 *1.024*
G7	No	90 *3.543*	46 *1.811*	50 *1.969*	26 *1.024*

Workpiece side catalogue designation	Hole for RFID carrier*	CBDP	DCB	BD
		mm *Inch*	mm *Inch*	mm *Inch*
G0	No	16 *0.630*	8 *0.315*	12 *0.472*
G1	No	20 *0.787*	11 *0.433*	13 *0.512*
G2	No	25 *0.984*	14 *0.551*	16 *0.630*
G3	No	32 *1.260*	18 *0.709*	20 *0.787*
G4	No	40 *1.575*	22 *0.866*	24 *0.945*
G5	No	50 *1.969*	28 *1.102*	30 *1.181*
G6	No	63 *2.480*	36 *1.417*	40 *1.575*
G7	No	90 *3.543*	46 *1.811*	50 *1.969*

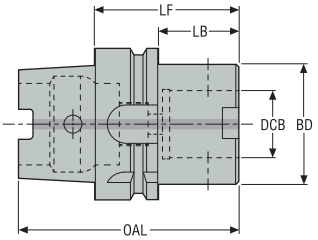
Note: These machine side and workpiece side dimensions are applied to all the holders shown in the product pages.

* No hole for RFID carriers

G 401 – Graflex® arbors

HSK-A/ ISO12164-1-HSK-A

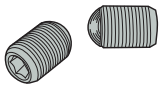




- For HSK sealing plugs, coolant tubes and tube spanners, see page(s) 547

Designation	Item number	CTMS	CTWS	DCB	LF	LB	BD	OAL	RFID hole	Balancing	Weight
				mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			kg *lbs*
EM93034012870	00086917	HSK-A50	G5	28,0 *1.102*	70,0 *2.756*	44,0 *1.732*	50,0 *1.969*	95,0 *3.740*	1	PB	0,9 *1.980*
EM93044011445	02469722	HSK-A63	G2	14,0 *0.551*	45,0 *1.772*	19,0 *0.748*	25,0 *0.984*	77,0 *3.031*	1	G6.3	0,69 *1.520*
EM93044011850	00086918	HSK-A63	G3	18,0 *0.709*	50,0 *1.969*	24,0 *0.945*	32,0 *1.260*	82,0 *3.228*	1	G6.3	0,73 *1.610*
EM93044012255	00088217	HSK-A63	G4	22,0 *0.866*	55,0 *2.165*	29,0 *1.142*	40,0 *1.575*	87,0 *3.425*	1	G6.3	0,9 *1.980*
EM93044012860	00086920	HSK-A63	G5	28,0 *1.102*	60,0 *2.362*	34,0 *1.339*	50,0 *1.969*	92,0 *3.622*	1	PB	1,0 *2.200*
EM930440128100	00086921	HSK-A63	G5	28,0 *1.102*	100,0 *3.937*	74,0 *2.913*	50,0 *1.969*	132,0 *5.197*	1	PB	1,6 *3.530*
EM930440128140	00086922	HSK-A63	G5	28,0 *1.102*	140,0 *5.512*	114,0 *4.488*	50,0 *1.969*	172,0 *6.772*	1	PB	2,18 *4.810*
EM93044013670	00086923	HSK-A63	G6	36,0 *1.417*	70,0 *2.756*	44,0 *1.732*	63,0 *2.480*	102,0 *4.016*	1	PB	1,3 *2.870*
EM930440136120	00086924	HSK-A63	G6	36,0 *1.417*	120,0 *4.724*	94,0 *3.701*	63,0 *2.480*	152,0 *5.984*	1	PB	2,38 *5.250*
EM93064011855	00086925	HSK-A100	G3	18,0 *0.709*	55,0 *2.165*	26,0 *1.024*	32,0 *1.260*	105,0 *4.134*	1	G6.3	2,2 *4.850*
EM93064012260	00086926	HSK-A100	G4	22,0 *0.866*	60,0 *2.362*	31,0 *1.220*	40,0 *1.575*	110,0 *4.331*	1	G6.3	2,3 *5.070*
EM93064012865	00086927	HSK-A100	G5	28,0 *1.102*	65,0 *2.559*	36,0 *1.417*	50,0 *1.969*	115,0 *4.528*	1	PB	2,37 *5.220*
EM930640128110	00086928	HSK-A100	G5	28,0 *1.102*	110,0 *4.331*	81,0 *3.189*	50,0 *1.969*	160,0 *6.299*	1	PB	3,1 *6.830*
EM930640128150	00086929	HSK-A100	G5	28,0 *1.102*	150,0 *5.906*	121,0 *4.764*	50,0 *1.969*	200,0 *7.874*	1	PB	3,7 *8.160*
EM93064013675	00083432	HSK-A100	G6	36,0 *1.417*	75,0 *2.953*	46,0 *1.811*	63,0 *2.480*	125,0 *4.921*	1	PB	2,8 *6.170*
EM930640136120	00086931	HSK-A100	G6	36,0 *1.417*	120,0 *4.724*	91,0 *3.583*	63,0 *2.480*	170,0 *6.693*	1	PB	3,9 *8.600*
EM930640136160	00086932	HSK-A100	G6	36,0 *1.417*	160,0 *6.299*	131,0 *5.157*	63,0 *2.480*	210,0 *8.268*	1	PB	4,8 *10.580*
EM93064014685	00074385	HSK-A100	G7	46,0 *1.811*	85,0 *3.346*	56,0 *2.205*	90,0 *3.543*	135,0 *5.315*	1	PB	4,0 *8.820*
EM930640146160	00086933	HSK-A100	G7	46,0 *1.811*	160,0 *6.299*	131,0 *5.157*	90,0 *3.543*	210,0 *8.268*	1	PB	7,67 *16.910*
HSKA125-G6-120	03229653	HSK-A125	G6	36,0 *1.417*	120,0 *4.724*	91,0 *3.583*	63,0 *2.480*	183,0 *7.205*	1	PB	5,1 *11.240*
HSKA125-G7-120	03229654	HSK-A125	G7	46,0 *1.811*	120,0 *4.724*	91,0 *3.583*	90,0 *3.543*	183,0 *7.205*	1	PB	7,1 *15.650*

Spare Parts, included in delivery

For size	Assembly screw
	
G2	90F2
G3	90F3
G4	90F4
G5	90F5
G6	90F6
G7	90F7

Accessories

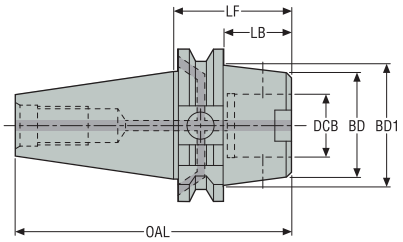
For size	Locking key
	
G2	03H025
G3	03H03
G4	03H04
G5	03H05
G6	03H06
G7	03H10

G 401 – Graflex® arbors

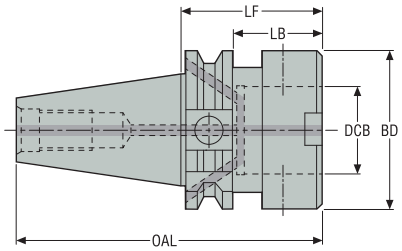
SA/SK/DIN 69871-ADB



Design 1



Design 2



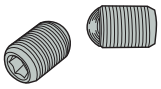
Designation	Item number	CTMS	CTWS	DCB	LF	LB	BD1	OAL	Design	RFID hole	Balan-cing	Weight
				mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*				kg *lbs*
EM34694011190	02503292	DIN40 ADB	G1	11,0 *0.433*	90,0 *3.543*	70,9 *2.791*	–	158,4 *6.236*	2	1	G6.3	1,0 *2.200*
EM34694011435	02469729	DIN40 ADB	G2	14,0 *0.551*	35,0 *1.378*	15,9 *0.626*	–	103,4 *4.071*	2	1	G6.3	0,83 *1.830*
EM34694011490	02503293	DIN40 ADB	G2	14,0 *0.551*	90,0 *3.543*	70,9 *2.791*	–	158,4 *6.236*	2	1	G6.3	1,1 *2.430*
EM34694011835	02420097	DIN40 ADB	G3	18,0 *0.709*	35,0 *1.378*	15,9 *0.626*	50,0 *1.969*	103,4 *4.071*	1	1	G6.3	1,0 *2.200*
EM346940118100	02503298	DIN40 ADB	G3	18,0 *0.709*	100,0 *3.937*	80,9 *3.185*	–	168,4 *6.630*	2	1	G6.3	1,22 *2.690*
EM34694012235	02503299	DIN40 ADB	G4	22,0 *0.866*	35,0 *1.378*	15,9 *0.626*	50,0 *1.969*	103,4 *4.071*	1	1	G6.3	0,92 *2.030*
EM346940122100	02503300	DIN40 ADB	G4	22,0 *0.866*	100,0 *3.937*	80,9 *3.185*	–	168,4 *6.630*	2	1	G6.3	1,5 *3.310*
EM34694012840	02458421	DIN40 ADB	G5	28,0 *1.102*	40,0 *1.575*	20,9 *0.823*	–	108,4 *4.268*	2	1	PB	1,0 *2.200*
EM34694012880	02503301	DIN40 ADB	G5	28,0 *1.102*	80,0 *3.150*	60,9 *2.398*	–	148,4 *5.843*	2	1	PB	1,5 *3.310*
EM346940128120	02503302	DIN40 ADB	G5	28,0 *1.102*	120,0 *4.724*	100,9 *3.972*	–	188,4 *7.417*	2	1	PB	2,1 *4.630*
EM34694013660	02503303	DIN40 ADB	G6	36,0 *1.417*	60,0 *2.362*	40,9 *1.610*	–	128,4 *5.055*	2	1	PB	1,3 *2.870*
EM346940136120	02503304	DIN40 ADB	G6	36,0 *1.417*	120,0 *4.724*	100,9 *3.972*	–	188,4 *7.417*	2	1	PB	2,7 *5.950*
EM347140114100	02503306	DIN50 ADB	G2	14,0 *0.551*	100,0 *3.937*	80,9 *3.185*	–	201,7 *7.941*	2	1	G6.3	2,9 *6.390*
EM34714011835	02503307	DIN50 ADB	G3	18,0 *0.709*	35,0 *1.378*	15,9 *0.626*	–	136,7 *5.382*	2	1	G6.3	2,67 *5.890*
EM347140118110	02503308	DIN50 ADB	G3	18,0 *0.709*	110,0 *4.331*	90,9 *3.579*	–	211,7 *8.335*	2	1	G6.3	3,1 *6.830*
EM34714012235	02503309	DIN50 ADB	G4	22,0 *0.866*	35,0 *1.378*	15,9 *0.626*	80,0 *3.150*	136,7 *5.382*	1	1	G6.3	2,88 *6.350*
EM347140122120	02503311	DIN50 ADB	G4	22,0 *0.866*	120,0 *4.724*	100,9 *3.972*	–	221,7 *8.728*	2	1	G6.3	3,4 *7.500*
EM34714012840	02503312	DIN50 ADB	G5	28,0 *1.102*	40,0 *1.575*	20,9 *0.823*	–	141,7 *5.579*	2	1	PB	2,75 *6.060*
EM347140128100	02503315	DIN50 ADB	G5	28,0 *1.102*	100,0 *3.937*	80,9 *3.185*	–	201,7 *7.941*	2	1	PB	3,56 *7.850*
EM347140128140	02503316	DIN50 ADB	G5	28,0 *1.102*	140,0 *5.512*	120,9 *4.760*	–	241,7 *9.516*	2	1	PB	4,08 *8.990*
EM34714013645	02503317	DIN50 ADB	G6	36,0 *1.417*	45,0 *1.772*	25,9 *1.020*	–	146,7 *5.776*	2	1	PB	2,9 *6.390*
EM347140136100	02503318	DIN50 ADB	G6	36,0 *1.417*	100,0 *3.937*	80,9 *3.185*	–	201,7 *7.941*	2	1	PB	4,1 *9.040*
EM347140136140	02503319	DIN50 ADB	G6	36,0 *1.417*	140,0 *5.512*	120,9 *4.760*	–	241,7 *9.516*	2	1	PB	5,1 *11.240*

Designation	Item number	CTMS	CTWS	DCB	LF	LB	BD1	OAL	Design	RFID hole	Balan-cing	Weight
				mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*				kg *lbs*
EM34714014650	02503320	DIN50 ADB	G7	46,0 *1.811*	50,0 *1.969*	30,9 *1.217*	–	151,7 *5.972*	2	1	PB	3,3 *7.280*
EM347140146120	02503321	DIN50 ADB	G7	46,0 *1.811*	120,0 *4.724*	100,9 *3.972*	–	221,7 *8.728*	2	1	PB	6,5 *14.330*
EM347140146200	02503324	DIN50 ADB	G7	46,0 *1.811*	200,0 *7.874*	180,9 *7.122*	–	301,7 *11.878*	2	1	PB	10,4 *22.930*

Accessories

For size	Locking key
	
DIN40/ G1	03H02
DIN40/ G2	03H025
DIN40/ G3	03H03
DIN40/ G4	03H04
DIN40/ G5	03H05
DIN40/ G6	03H06
DIN50/ G2	03H025
DIN50/ G3	03H03
DIN50/ G4	03H04
DIN50/ G5	03H05
DIN50/ G6	03H06
EM34714014650	03H10
DIN50/ G7	03H10

Spare Parts, included in delivery

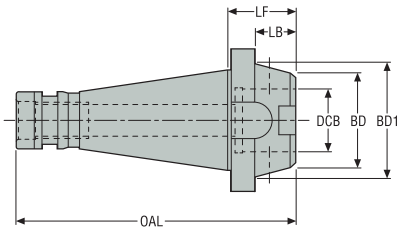
For size	Assembly screw	Sealing Screws
		
DIN40/ G1	90F1	950A0406
DIN40/ G2	90F2	950A0406
DIN40/ G3	90F3	950A0406
DIN40/ G4	90F4	950A0406
DIN40/ G5	90F5	950A0406
DIN40/ G6	90F6	950A0406
DIN50/ G2	90F2	950A0606
DIN50/ G3	90F3	950A0606
DIN50/ G4	90F4	950A0606
DIN50/ G5	90F5	950A0606
DIN50/ G6	90F6	950A0606
DIN50/ G7	90F7	950A0606
EM34714014650	90F71	950A0606

G 401 – Graflex® arbors

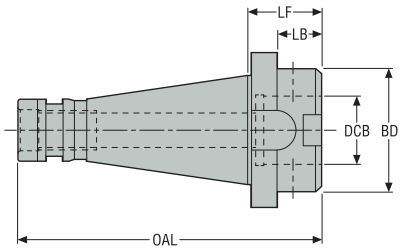
DIN 2080



Design 1



Design 2

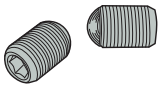


Designation	Item number	CTMS	CTWS	DCB	LF	LB	BD1	BD	OAL	Design	RFID hole	Balan-cing	Weight
				mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*				kg *lbs*
EM00404013650	00076707	DIN(2080)40	G6	36,0 *1.417*	50,0 *1.969*	0,0 –	–	63,0 *2.480*	143,4 *5.646*	2	0	PB	1,3 *2.870*
EM00504012835	00076710	DIN(2080)50	G5	28,0 *1.102*	35,0 *1.378*	19,8 *0.780*	78,0 *3.071*	50,0 *1.969*	161,8 *6.370*	1	0	PB	2,94 *6.480*
EM00504013640	00076714	DIN(2080)50	G6	36,0 *1.417*	40,0 *1.575*	24,8 *0.976*	–	63,0 *2.480*	166,8 *6.567*	2	0	PB	2,9 *6.390*
EM00504014645	00076718	DIN(2080)50	G7	46,0 *1.811*	45,0 *1.772*	29,8 *1.173*	–	90,0 *3.543*	171,8 *6.764*	2	0	PB	3,34 *7.360*

Accessories

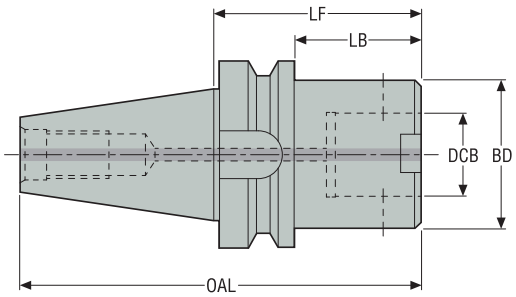
For size	Locking key
	
G6	03H06
G5	03H05
G7	03H10

Spare Parts, included in delivery

For size	Assembly screw
	
G5	90F5
G6	90F6
G7	90F7

G 401 – Graflex® arbors

BT JIS B 6339-AD



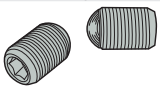


Designation	Item number	CTMS	CTWS	DCB	LF	LB	BD	OAL	RFID hole	Balan-cing	Weight
				mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			kg *lbs*
EM40404011835	00056699	BT30 AD	G3	18,0 *0.709*	35,0 *1.378*	13,0 *0.512*	32,0 *1.260*	83,4 *3.283*	0	G6.3	0,5 *1.100*
EM40404012850	00056705	BT30 AD	G5	28,0 *1.102*	50,0 *1.969*	25,0 *0.984*	50,0 *1.969*	98,4 *3.874*	0	PB	0,7 *1.540*

Accessories

For size	Locking key
	
EM40404011835	03H03
EM40404012850	03H05

Spare Parts, included in delivery

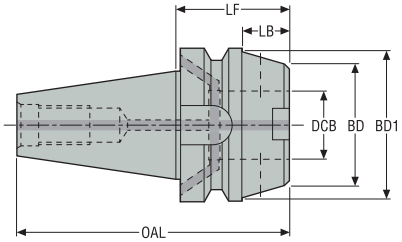
For size	Assembly screw
	
EM40404011835	90F3
EM40404012850	90F5

G 401 – Graflex® arbors

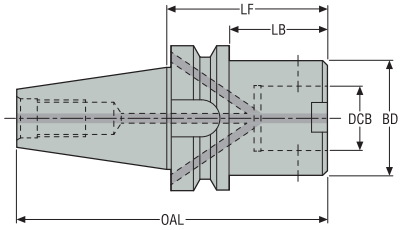
BT JIS B 6339-ADB



Design 1



Design 2



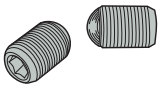
Designation	Item number	CTMS	CTWS	DCB	LF	LB	BD1	BD	OAL	Design	RFID hole	Balan-cing	Weight
				mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*				kg *lbs*
EM34144011190	02503364	BT40 ADB	G1	11,0 *0.433*	90,0 *3.543*	63,0 *2.480*	–	20,0 *0.787*	155,4 *6.118*	2	1	G6.3	1,1 *2.430*
EM34144011440	02469725	BT40 ADB	G2	14,0 *0.551*	40,0 *1.575*	13,0 *0.512*	–	25,0 *0.984*	105,4 *4.150*	2	1	G6.3	0,98 *2.160*
EM34144011490	02503365	BT40 ADB	G2	14,0 *0.551*	90,0 *3.543*	63,0 *2.480*	–	25,0 *0.984*	155,4 *6.118*	2	1	G6.3	1,2 *2.650*
EM34144011840	02503366	BT40 ADB	G3	18,0 *0.709*	40,0 *1.575*	13,0 *0.512*	62,0 *2.441*	32,0 *1.260*	105,4 *4.150*	1	1	G6.3	1,07 *2.360*
EM341440118100	02503367	BT40 ADB	G3	18,0 *0.709*	100,0 *3.937*	73,0 *2.874*	–	32,0 *1.260*	165,4 *6.512*	2	1	G6.3	1,31 *2.890*
EM34144012245	02503368	BT40 ADB	G4	22,0 *0.866*	45,0 *1.772*	18,0 *0.709*	62,0 *2.441*	40,0 *1.575*	110,4 *4.346*	1	1	G6.3	1,2 *2.650*
EM341440122100	02503370	BT40 ADB	G4	22,0 *0.866*	100,0 *3.937*	73,0 *2.874*	–	40,0 *1.575*	165,4 *6.512*	2	1	G6.3	1,6 *3.530*
EM34144012845	02457989	BT40 ADB	G5	28,0 *1.102*	45,0 *1.772*	18,0 *0.709*	62,0 *2.441*	50,0 *1.969*	110,4 *4.346*	1	1	PB	1,2 *2.650*
EM34144012880	02503371	BT40 ADB	G5	28,0 *1.102*	80,0 *3.150*	53,0 *2.087*	–	50,0 *1.969*	145,4 *5.724*	2	1	PB	1,6 *3.530*
EM341440128120	02503372	BT40 ADB	G5	28,0 *1.102*	120,0 *4.724*	93,0 *3.661*	–	50,0 *1.969*	185,4 *7.299*	2	1	PB	2,2 *4.850*
EM34144013650	02503373	BT40 ADB	G6	36,0 *1.417*	50,0 *1.969*	0,0 –	–	63,0 *2.480*	115,4 *4.543*	2	0	PB	1,2 *2.650*
EM341440136120	02503374	BT40 ADB	G6	36,0 *1.417*	120,0 *4.724*	0,0 –	–	63,0 *2.480*	185,4 *7.299*	2	1	PB	2,8 *6.170*
EM341640114110	02503375	BT50 ADB	G2	14,0 *0.551*	110,0 *4.331*	72,0 *2.835*	–	25,0 *0.984*	211,8 *8.339*	2	1	G6.3	3,8 *8.380*
EM34164011845	02503376	BT50 ADB	G3	18,0 *0.709*	45,0 *1.772*	7,0 *0.276*	70,0 *2.756*	32,0 *1.260*	146,8 *5.780*	1	1	G6.3	3,6 *7.940*
EM341640118120	02503377	BT50 ADB	G3	18,0 *0.709*	120,0 *4.724*	82,0 *3.228*	–	32,0 *1.260*	221,8 *8.732*	2	1	G6.3	4,0 *8.820*
EM34164012250	02503378	BT50 ADB	G4	22,0 *0.866*	50,0 *1.969*	12,0 *0.472*	70,0 *2.756*	40,0 *1.575*	151,8 *5.976*	1	1	G6.3	3,7 *8.160*
EM341640122140	02503379	BT50 ADB	G4	22,0 *0.866*	140,0 *5.512*	102,0 *4.016*	–	40,0 *1.575*	241,8 *9.520*	2	1	G6.3	4,4 *9.700*
EM34164012855	02503380	BT50 ADB	G5	28,0 *1.102*	55,0 *2.165*	17,0 *0.669*	98,0 *3.858*	50,0 *1.969*	156,8 *6.173*	1	1	PB	4,0 *8.820*
EM341640128100	02503381	BT50 ADB	G5	28,0 *1.102*	100,0 *3.937*	62,0 *2.441*	–	50,0 *1.969*	201,8 *7.945*	2	1	PB	4,3 *9.480*
EM341640128140	02503382	BT50 ADB	G5	28,0 *1.102*	140,0 *5.512*	102,0 *4.016*	–	50,0 *1.969*	241,8 *9.520*	2	1	PB	4,9 *10.800*
EM34164013663	02503383	BT50 ADB	G6	36,0 *1.417*	63,0 *2.480*	25,0 *0.984*	98,0 *3.858*	63,0 *2.480*	164,8 *6.488*	1	1	PB	4,3 *9.480*
EM341640136100	02503384	BT50 ADB	G6	36,0 *1.417*	100,0 *3.937*	62,0 *2.441*	–	63,0 *2.480*	201,8 *7.945*	2	1	PB	4,7 *10.360*
EM341640136140	02503385	BT50 ADB	G6	36,0 *1.417*	140,0 *5.512*	102,0 *4.016*	–	63,0 *2.480*	241,8 *9.520*	2	1	PB	5,6 *12.350*

Designation	Item number	CTMS	CTWS	DCB	LF	LB	BD1	BD	OAL	Design	RFID hole	Balan-cing	Weight
				mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*				kg *lbs*
EM34164014665	02503386	BT50 ADB	G7	46,0 *1.811*	65,0 *2.559*	27,0 *1.063*	98,0 *3.858*	90,0 *3.543*	166,8 *6.567*	1	1	PB	4,4 *9.700*
EM341640146120	02503387	BT50 ADB	G7	46,0 *1.811*	120,0 *4.724*	82,0 *3.228*	–	90,0 *3.543*	221,8 *8.732*	2	1	PB	6,9 *15.210*
EM341640146200	02503388	BT50 ADB	G7	46,0 *1.811*	200,0 *7.874*	162,0 *6.378*	–	90,0 *3.543*	301,8 *11.882*	2	1	PB	10,7 *23.590*

Accessories

For size	Locking key
	
BT40/ G1	03H02
BT40/ G2	03H025
BT40/ G3	03H03
BT40/ G4	03H04
BT40/ G5	03H05
BT40/ G6	03H06
BT50/ G2	03H025
BT50/ G3	03H03
BT50/ G4	03H04
BT50/ G5	03H05
BT50/ G6	03H06
BT50/ G7	03H10

Spare Parts, included in delivery

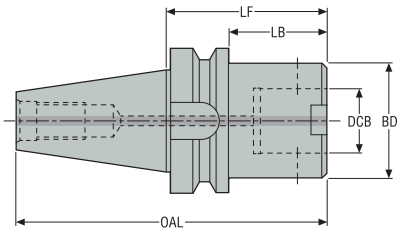
For size	Assembly screw	Sealing Screws
		
BT40/ G1	90F1	950A0406
BT40/ G2	90F2	950A0406
BT40/ G3	90F3	950A0406
BT40/ G4	90F4	950A0406
BT40/ G5	90F5	950A0406
BT40/ G6	90F6	950A0406
BT50/ G2	90F2	950A0606
BT50/ G3	90F3	950A0606
BT50/ G4	90F4	950A0606
BT50/ G5	90F5	950A0606
BT50/ G6	90F6	950A0606
BT50/ G7	90F7	950A0606

G 401 – Graflex® arbors

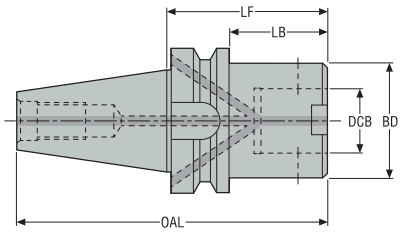
BT Taper-Face-AD/ADB



Design 1



Design 2

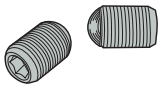


Designation	Item number	CTMS	CTWS	DCB	LF	LB	BD	OAL	Design	RFID hole	Balan-cing	Weight
				mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*				kg *lbs*
EM40024011850	02998757	BT30 TF AD	G3	18,0 *0.709*	50,0 *1.969*	28,0 *1.102*	32,0 *1.260*	98,4 *3.874*	1	0	G6.3	0,6 *1.320*
EM40024012250	02998758	BT30 TF AD	G4	22,0 *0.866*	50,0 *1.969*	28,0 *1.102*	40,0 *1.575*	98,4 *3.874*	1	0	G6.3	0,6 *1.320*
EM321440122100	02998754	BT40 TF ADB	G4	22,0 *0.866*	100,0 *3.937*	73,0 *2.874*	40,0 *1.575*	165,4 *6.512*	2	1	G6.3	1,6 *3.530*
EM321440128120	02926006	BT40 TF ADB	G5	28,0 *1.102*	120,0 *4.724*	93,0 *3.661*	50,0 *1.969*	185,4 *7.299*	2	1	PB	2,2 *4.850*
EM321440136120	02998755	BT40 TF ADB	G6	36,0 *1.417*	120,0 *4.724*	93,0 *3.661*	63,0 *2.480*	185,4 *7.299*	2	1	PB	2,8 *6.170*
EM321640128140	02998756	BT50 TF ADB	G5	28,0 *1.102*	140,0 *5.512*	102,0 *4.016*	50,0 *1.969*	241,8 *9.520*	2	1	PB	4,9 *10.800*
EM321640136140	02926009	BT50 TF ADB	G6	36,0 *1.417*	140,0 *5.512*	102,0 *4.016*	63,0 *2.480*	241,8 *9.520*	2	1	PB	5,6 *12.350*
EM321640146200	02926010	BT50 TF ADB	G7	46,0 *1.811*	200,0 *7.874*	162,0 *6.378*	90,0 *3.543*	301,8 *11.882*	2	1	PB	10,8 *23.810*

Accessories

For	Locking key
	
EM40024011850	03H03
EM40024012250	03H04
EM321440122100	03H04
EM321440128120	03H05
EM321440136120	03H06
EM321640128140	03H05
EM321640136140	03H06
EM321640146200	03H10

Spare Parts, included in delivery

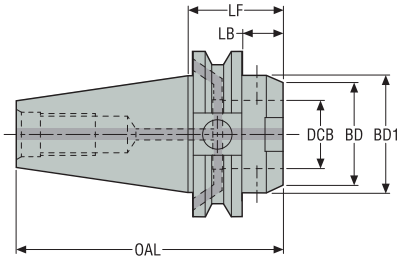
For	Assembly screw	Sealing Screws
		
EM40024011850	90F3	–
EM40024012250	90F4	–
EM321440122100	90F4	950A0406
EM321440128120	90F5	950A0406
EM321440136120	90F6	950A0406
EM321640128140	90F5	950A0606
EM321640136140	90F6	950A0606
EM321640146200	90F7	950A0606

G 401 – Graflex® arbors

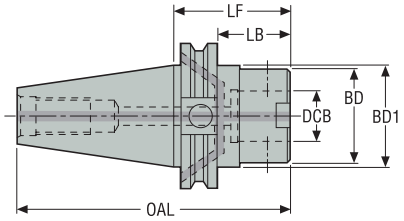
CAT / ASME B5.50-1994-ADB



Design 1



Design 2

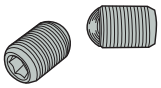


Designation	Item number	CTMS	CTWS	DCB	LF	LB	BD1	BD	OAL	Design	RFID hole	Balan-cing	Weight
				Inch	*Inch*	*Inch*	*Inch*	*Inch*	*Inch*				lbs
EM25024011435	02469734	CAT40 ADB	G2	0.551	1.380	0.630	1.750	0.984	4.070	1	1	G6.3	2.120
EM25024011835	00056660	CAT40 ADB	G3	0.709	1.380	0.630	1.750	1.260	4.070	1	1	G6.3	2.200
EM25024012235	00056661	CAT40 ADB	G4	0.866	1.380	0.630	1.750	1.575	4.070	1	1	G6.3	1.980
EM25024012840	00056663	CAT40 ADB	G5	1.102	1.570	0.820	1.750	1.969	4.270	2	1	PB	1.980
EM250240128100	00056662	CAT40 ADB	G5	1.102	3.940	3.190	1.750	1.969	7.420	2	1	PB	3.970
EM25024013660	00056665	CAT40 ADB	G6	1.417	2.360	1.610	1.750	2.480	5.060	2	1	PB	2.870
EM25044011835	00056666	CAT50 ADB	G3	0.709	1.380	0.630	2.750	1.260	5.380	1	1	G6.3	6.720
EM25044012235	00056667	CAT50 ADB	G4	0.866	1.380	0.630	2.750	1.575	5.380	1	1	G6.3	6.610
EM25044012840	00056669	CAT50 ADB	G5	1.102	1.570	0.820	2.750	1.969	5.580	2	1	PB	6.610
EM250440128100	00056668	CAT50 ADB	G5	1.102	3.940	3.190	2.750	1.969	7.940	2	1	PB	8.380
EM25044013645	00056671	CAT50 ADB	G6	1.417	1.770	1.020	2.750	2.480	5.780	1	1	PB	6.610
EM250440136120	00056670	CAT50 ADB	G6	1.417	4.720	3.970	2.750	2.480	9.520	1	1	PB	10.360
EM25044014665	00056675	CAT50 ADB	G7	1.811	2.560	1.810	2.750	3.543	5.970	2	1	PB	8.380
EM250440146120	00056673	CAT50 ADB	G7	1.811	4.720	3.970	2.750	3.543	8.730	2	1	PB	13.890
EM250440146200	00056674	CAT50 ADB	G7	1.811	7.870	7.120	2.750	3.543	11.880	2	1	PB	22.270

Accessories

For size	Locking key
	
CAT40/ G2	03H025
CAT40/ G3	03H03
CAT40/ G4	03H04
CAT40/ G5	03H05
CAT40/ G6	03H06
CAT50/ G3	03H03
CAT50/ G4	03H04
CAT50/ G5	03H05
CAT50/ G6	03H06
CAT50/ G7	03H10

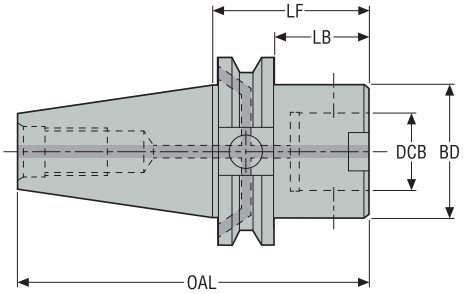
Spare Parts, included in delivery

For size	Assembly screw	Sealing Screws
		
CAT40/ G2	90F2	950A0406
CAT40/ G3	90F3	950A0406
CAT40/ G4	90F4	950A0406
CAT40/ G5	90F5	950A0406
CAT40/ G6	90F6	950A0406
CAT50/ G3	90F3	950A0606
CAT50/ G4	90F4	950A0606
CAT50/ G5	90F5	950A0606
CAT50/ G6	90F6	950A0606
CAT50/ G7	90F7	950A0606

G 401 – Graflex® arbors

CAT TF / ASME B5.50-2009-ADB



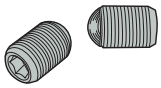


Designation	Item number	CTMS	CTWS	DCB	LF	LB	BD	OAL	Design	RFID hole	Balan-cing	Weight
				Inch	*Inch*	*Inch*	*Inch*	*Inch*				lbs
EM26424011880	02998750	CAT40 TF ADB	G3	0.709	3.150	2.398	1.260	5.843	2	1	G6.3	2.650
EM26424012280	02998751	CAT40 TF ADB	G4	0.866	3.150	2.398	1.575	5.843	2	1	G6.3	3.090
EM264240128100	02998752	CAT40 TF ADB	G5	1.102	3.937	3.185	1.969	6.630	2	1	PB	4.190
EM264240136100	02998753	CAT40 TF ADB	G6	1.417	3.937	3.185	2.480	6.630	2	1	PB	5.290
EM264440122100	02964322	CAT50 TF ADB	G4	0.866	3.937	3.185	1.575	7.943	2	1	G6.3	7.280
EM264440128100	02964323	CAT50 TF ADB	G5	1.102	3.937	3.185	1.969	7.943	2	1	PB	7.940
EM264440136120	02926850	CAT50 TF ADB	G6	1.417	4.724	3.972	2.480	8.732	1	1	PB	10.140
EM264440146200	02926851	CAT50 TF ADB	G7	1.811	7.874	7.122	3.543	11.880	2	1	PB	22.710

Accessories

For size	Locking key
	
EM26424011880	03H03
EM26424012280	03H04
EM264240128100	03H05
EM264240136100	03H06
EM264440122100	03H04
EM264440128100	03H05
EM264440136120	03H06
EM264440146200	03H10

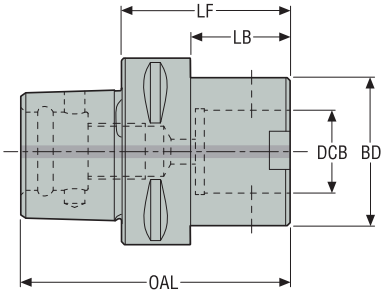
Spare Parts, included in delivery

For size	Assembly screw	Sealing Screws
		
EM26424011880	90F3	950A0406
EM26424012280	90F4	950A0406
EM264240128100	90F5	950A0406
EM264240136100	90F6	950A0406
EM264440122100	90F4	950A0606
EM264440128100	90F5	950A0606
EM264440136120	90F6	950A0606
EM264440146200	90F7	950A0606

G 401 – Graflex® adapters

Seco-Capto™



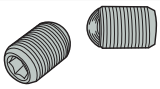


Designation	Item number	CTMS	CTWS	DCB	LF	LB	BD	OAL	RFID hole	Balan-cing	Weight
				mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			kg *lbs*
C3-391.0401-08025	02532939	C3	G0	8,0 *0.315*	25,0 *0.984*	7,0 *0.276*	16,0 *0.630*	44,0 *1.732*	0	G6.3	0,2 *0.440*
C3-391.0401-11025	02532940	C3	G1	11,0 *0.433*	25,0 *0.984*	7,0 *0.276*	20,0 *0.787*	44,0 *1.732*	0	G6.3	0,14 *0.310*
C3-391.0401-14025	02532941	C3	G2	14,0 *0.551*	25,0 *0.984*	7,0 *0.276*	25,0 *0.984*	44,0 *1.732*	0	G6.3	0,2 *0.440*
C3-391.0401-18030	02532942	C3	G3	18,0 *0.709*	30,0 *1.181*	0,0 –	32,0 *1.260*	49,0 *1.929*	0	G6.3	0,16 *0.350*
C4-391.0401-18035	02532943	C4	G3	18,0 *0.709*	35,0 *1.378*	12,0 *0.472*	32,0 *1.260*	59,0 *2.323*	0	G6.3	0,4 *0.880*
C4-391.0401-22035	02532944	C4	G4	22,0 *0.866*	35,0 *1.378*	0,0 –	40,0 *1.575*	59,0 *2.323*	0	G6.3	0,31 *0.680*
C5-391.0401-14030	02532945	C5	G2	14,0 *0.551*	30,0 *1.181*	7,0 *0.276*	25,0 *0.984*	60,0 *2.362*	1	G6.3	0,47 *1.040*
C5-391.0401-18035	02532947	C5	G3	18,0 *0.709*	35,0 *1.378*	12,0 *0.472*	32,0 *1.260*	65,0 *2.559*	1	G6.3	0,5 *1.100*
C5-391.0401-22035	02532948	C5	G4	22,0 *0.866*	35,0 *1.378*	12,0 *0.472*	40,0 *1.575*	65,0 *2.559*	1	G6.3	0,5 *1.100*
C5-391.0401-28045	02532949	C5	G5	28,0 *1.102*	45,0 *1.772*	22,0 *0.866*	50,0 *1.969*	75,0 *2.953*	1	PB	0,64 *1.410*
C6-391.0401-18035	02532950	C6	G3	18,0 *0.709*	35,0 *1.378*	10,0 *0.394*	32,0 *1.260*	73,0 *2.874*	1	G6.3	0,9 *1.980*
C6-391.0401-22040	02532951	C6	G4	22,0 *0.866*	40,0 *1.575*	15,0 *0.591*	40,0 *1.575*	78,0 *3.071*	1	G6.3	0,9 *1.980*
C6-391.0401-28050	02532952	C6	G5	28,0 *1.102*	50,0 *1.969*	25,0 *0.984*	50,0 *1.969*	88,0 *3.465*	1	PB	1,1 *2.430*
C6-391.0401-36055	02532953	C6	G6	36,0 *1.417*	55,0 *2.165*	0,0 –	63,0 *2.480*	93,0 *3.661*	1	PB	1,2 *2.650*
C8-391.0401-28050	02532954	C8	G5	28,0 *1.102*	50,0 *1.969*	17,0 *0.669*	50,0 *1.969*	98,0 *3.858*	1	PB	2,0 *4.410*
C8-391.0401-36055	02532955	C8	G6	36,0 *1.417*	55,0 *2.165*	22,0 *0.866*	63,0 *2.480*	103,0 *4.055*	1	PB	2,1 *4.630*
C8-391.0401-46065	02532956	C8	G7	46,0 *1.811*	65,0 *2.559*	35,0 *1.378*	90,0 *3.543*	113,0 *4.449*	1	PB	2,71 *5.970*

Accessories

For size	Locking key
	
G0	03H02
G1	03H02
G2	03H025
G3	03H03
G4	03H04
G5	03H05
G6	03H06
G7	03H10

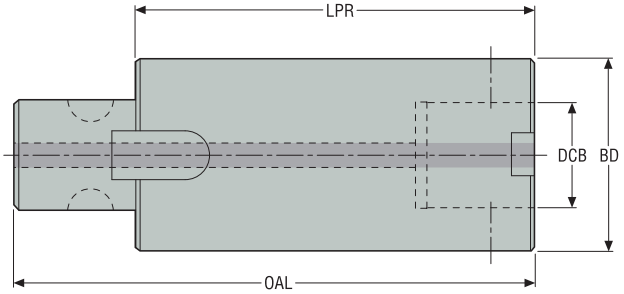
Spare Parts, included in delivery

For size	Assembly screw
	
G0	90F0
G1	90F1
G2	90F2
G3	90F3
G4	90F4
G5	90F5
G6	90F6
G7	90F7

G 402 – Graflex® extensions

Graflex®





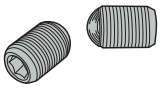
Designation	Item number	CTMS	CTWS	LPR	DCB	BD	OAL	RFID hole	Balancing	Weight
				mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			kg *lbs*
M402000	00056752	G0	G0	30,0 *1.181*	8,0 *0.315*	16,0 *0.630*	42,0 *1.654*	0	PB	0,1 *0.220*
M402001	00056753	G0	G0	50,0 *1.969*	8,0 *0.315*	16,0 *0.630*	62,0 *2.441*	0	PB	0,1 *0.220*
M402110	00056754	G1	G1	30,0 *1.181*	11,0 *0.433*	20,0 *0.787*	43,0 *1.693*	0	PB	0,1 *0.220*
M402111	00056755	G1	G1	50,0 *1.969*	11,0 *0.433*	20,0 *0.787*	63,0 *2.480*	0	PB	0,2 *0.440*
M402220	00056756	G2	G2	30,0 *1.181*	14,0 *0.551*	25,0 *0.984*	46,0 *1.811*	0	PB	0,2 *0.440*
M402221	00056757	G2	G2	50,0 *1.969*	14,0 *0.551*	25,0 *0.984*	66,0 *2.598*	0	PB	0,2 *0.440*
M402330	00056758	G3	G3	40,0 *1.575*	18,0 *0.709*	32,0 *1.260*	60,0 *2.362*	0	PB	0,3 *0.660*
M402331	75056759	G3	G3	60,0 *2.362*	18,0 *0.709*	32,0 *1.260*	80,0 *3.150*	0	PB	0,4 *0.880*
M402440	00056760	G4	G4	40,0 *1.575*	22,0 *0.866*	40,0 *1.575*	64,0 *2.520*	0	PB	0,4 *0.880*
M402441	00056761	G4	G4	60,0 *2.362*	22,0 *0.866*	40,0 *1.575*	84,0 *3.307*	0	PB	0,6 *1.320*
M402444	02786252	G4	G4	200,0 *7.874*	22,0 *0.866*	40,0 *1.575*	224,0 *8.819*	0	PB	1,95 *4.300*
M402550	00056762	G5	G5	50,0 *1.969*	28,0 *1.102*	50,0 *1.969*	80,0 *3.150*	0	PB	0,8 *1.760*
M402551	00056763	G5	G5	75,0 *2.953*	28,0 *1.102*	50,0 *1.969*	105,0 *4.134*	0	PB	1,2 *2.650*
M402552	00056764	G5	G5	100,0 *3.937*	28,0 *1.102*	50,0 *1.969*	130,0 *5.118*	0	PB	1,5 *3.310*
M402554	02786254	G5	G5	250,0 *9.843*	28,0 *1.102*	50,0 *1.969*	280,0 *11.024*	0	PB	3,8 *8.380*
M402660	00056765	G6	G6	60,0 *2.362*	36,0 *1.417*	63,0 *2.480*	100,0 *3.937*	0	PB	1,4 *3.090*
M402661	00056766	G6	G6	90,0 *3.543*	36,0 *1.417*	63,0 *2.480*	130,0 *5.118*	0	PB	2,2 *4.850*
M402662	00056767	G6	G6	120,0 *4.724*	36,0 *1.417*	63,0 *2.480*	160,0 *6.299*	0	PB	2,9 *6.390*
M402664	02786255	G6	G6	300,0 *11.811*	36,0 *1.417*	63,0 *2.480*	340,0 *13.386*	0	PB	7,2 *15.870*
M402770	00056768	G7	G7	60,0 *2.362*	46,0 *1.811*	90,0 *3.543*	110,0 *4.331*	0	-	2,9 *6.390*
M402771	00056769	G7	G7	90,0 *3.543*	46,0 *1.811*	90,0 *3.543*	140,0 *5.512*	0	-	4,4 *9.700*

Designation	Item number	CTMS	CTWS	LPR	DCB	BD	OAL	RFID hole	Balan-cing	Weight
				mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			kg *lbs*
M402772	00056770	G7	G7	120,0 *4.724*	46,0 *1.811*	90,0 *3.543*	170,0 *6.693*	0	-	5,8 *12.790*
M402774	02786257	G7	G7	300,0 *11.811*	46,0 *1.811*	90,0 *3.543*	350,0 *13.780*	0	-	14,6 *32.190*

Accessories

For size	Locking key
	
G0	03H02
G1	03H02
G2	03H025
G3	03H03
G4	03H04
G5	03H05
G6	03H06
G7	03H10

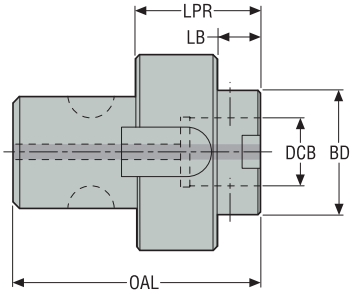
Spare Parts, included in delivery

For size	Assembly screw	Tenon
		
G0	90F0	90M0
G1	90F1	90M1
G2	90F2	90M2
G3	90F3	90M3
G4	90F4	90M4
G5	90F5	90M5
G6	90F6	90M6
G7	90F7	90M7

G 403 – Graflex® reducers

Graflex®



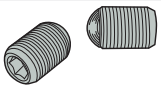


Designation	Item number	CTMS	CTWS	LPR	LB	DCB	BD	OAL	RFID hole	Balan-cing	Weight
				mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			kg *lbs*
M40310	00056771	G1	G0	30,0 *1.181*	22,0 *0.866*	8,0 *0.315*	16,0 *0.630*	43,0 *1.693*	0	PB	0,1 *0.220*
M40320	00056772	G2	G0	30,0 *1.181*	19,0 *0.748*	8,0 *0.315*	16,0 *0.630*	46,0 *1.811*	0	PB	0,1 *0.220*
M40321	00056773	G2	G1	30,0 *1.181*	19,0 *0.748*	11,0 *0.433*	20,0 *0.787*	46,0 *1.811*	0	PB	0,1 *0.220*
M40330	00056774	G3	G0	30,0 *1.181*	16,0 *0.630*	8,0 *0.315*	16,0 *0.630*	50,0 *1.969*	0	PB	0,2 *0.440*
M40331	00056775	G3	G1	30,0 *1.181*	16,0 *0.630*	11,0 *0.433*	20,0 *0.787*	50,0 *1.969*	0	PB	0,15 *0.330*
M40332	00056776	G3	G2	30,0 *1.181*	16,0 *0.630*	14,0 *0.551*	25,0 *0.984*	50,0 *1.969*	0	PB	0,2 *0.440*
M40341	00056778	G4	G1	30,0 *1.181*	13,0 *0.512*	11,0 *0.433*	20,0 *0.787*	54,0 *2.126*	0	PB	0,25 *0.550*
M40342	00056779	G4	G2	30,0 *1.181*	13,0 *0.512*	14,0 *0.551*	25,0 *0.984*	54,0 *2.126*	0	PB	0,3 *0.660*
M40343	00056780	G4	G3	30,0 *1.181*	13,0 *0.512*	18,0 *0.709*	32,0 *1.260*	54,0 *2.126*	0	PB	0,3 *0.660*
M40350	00056781	G5	G0	40,0 *1.575*	20,0 *0.787*	8,0 *0.315*	16,0 *0.630*	70,0 *2.756*	0	PB	0,47 *1.040*
M40351	00056783	G5	G1	40,0 *1.575*	20,0 *0.787*	11,0 *0.433*	20,0 *0.787*	70,0 *2.756*	0	PB	0,5 *1.100*
M40352	00056785	G5	G2	40,0 *1.575*	20,0 *0.787*	14,0 *0.551*	25,0 *0.984*	70,0 *2.756*	0	PB	0,5 *1.100*
M40353	00056787	G5	G3	40,0 *1.575*	20,0 *0.787*	18,0 *0.709*	32,0 *1.260*	70,0 *2.756*	0	PB	0,6 *1.320*
M40354	00056789	G5	G4	40,0 *1.575*	20,0 *0.787*	22,0 *0.866*	40,0 *1.575*	70,0 *2.756*	0	PB	0,6 *1.320*
M40363	00056797	G6	G3	40,0 *1.575*	14,0 *0.551*	18,0 *0.709*	32,0 *1.260*	80,0 *3.150*	0	PB	1,0 *2.200*
M40364	00056799	G6	G4	40,0 *1.575*	14,0 *0.551*	22,0 *0.866*	40,0 *1.575*	80,0 *3.150*	0	PB	1,0 *2.200*
M40365	00056807	G6	G5	45,0 *1.772*	19,0 *0.748*	28,0 *1.102*	50,0 *1.969*	85,0 *3.346*	0	PB	1,1 *2.430*
M40375	00056811	G7	G5	50,0 *1.969*	24,0 *0.945*	28,0 *1.102*	50,0 *1.969*	100,0 *3.937*	0	-	2,1 *4.630*
M40376	00056812	G7	G6	55,0 *2.165*	29,0 *1.142*	36,0 *1.417*	63,0 *2.480*	105,0 *4.134*	0	-	2,3 *5.070*

Accessories

For size	Locking key
	
M40310	03H02
M40320	03H02
M40321	03H02
M40330	03H02
M40331	03H02
M40332	03H025
M40341	03H02
M40342	03H025
M40343	03H03
M40350	03H02
M40351	03H02
M40352	03H025
M40353	03H03
M40354	03H04
M40363	03H03
M40364	03H04
M40365	03H05
M40375	03H05
M40376	03H06

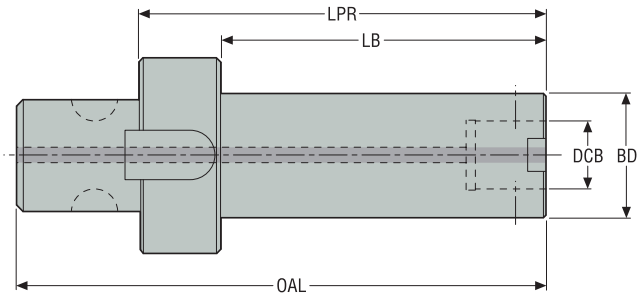
Spare Parts, included in delivery

For size	Assembly screw	Tenon
		
M40310	90F0	90M1
M40320	90F0	90M2
M40321	90F1	90M2
M40330	90F0	90M3
M40331	90F1	90M3
M40332	90F2	90M3
M40341	90F1	90M4
M40342	90F2	90M4
M40343	90F3	90M4
M40350	90F0	90M5
M40351	90F1	90M5
M40352	90F2	90M5
M40353	90F3	90M5
M40354	90F4	90M5
M40363	90F3	90M6
M40364	90F4	90M6
M40365	90F5	90M6
M40375	90F5	90M7
M40376	90F6	90M7

G 403 – Graflex® long reducers

Graflex®



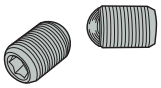


Designation	Item number	CTMS	CTWS	LPR	LB	DCB	BD	OAL	RFID hole	Balan-cing	Weight
				mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			kg *lbs*
M40350070	00056782	G5	G0	70,0 *2.756*	50,0 *1.969*	8,0 *0.315*	16,0 *0.630*	100,0 *3.937*	0	PB	0,6 *1.320*
M40351080	00056784	G5	G1	80,0 *3.150*	60,0 *2.362*	11,0 *0.433*	20,0 *0.787*	110,0 *4.331*	0	PB	0,6 *1.320*
M40352100	00056786	G5	G2	100,0 *3.937*	80,0 *3.150*	14,0 *0.551*	25,0 *0.984*	130,0 *5.118*	0	PB	0,8 *1.760*
M40353120	00056788	G5	G3	120,0 *4.724*	100,0 *3.937*	18,0 *0.709*	32,0 *1.260*	150,0 *5.906*	0	PB	1,02 *2.250*
M40354150	00056790	G5	G4	150,0 *5.906*	130,0 *5.118*	22,0 *0.866*	40,0 *1.575*	180,0 *7.087*	0	PB	1,7 *3.750*
M40361090	00056794	G6	G1	90,0 *3.543*	64,0 *2.520*	11,0 *0.433*	20,0 *0.787*	130,0 *5.118*	0	PB	1,08 *2.380*
M40362110	00056796	G6	G2	110,0 *4.331*	84,0 *3.307*	14,0 *0.551*	25,0 *0.984*	150,0 *5.906*	0	PB	1,3 *2.870*
M40363120	00056798	G6	G3	120,0 *4.724*	94,0 *3.701*	18,0 *0.709*	32,0 *1.260*	160,0 *6.299*	0	PB	1,5 *3.310*
M40364150	00056800	G6	G4	150,0 *5.906*	124,0 *4.882*	22,0 *0.866*	40,0 *1.575*	190,0 *7.480*	0	PB	2,1 *4.630*
M40365190	00056808	G6	G5	190,0 *7.480*	164,0 *6.457*	28,0 *1.102*	50,0 *1.969*	230,0 *9.055*	0	PB	3,3 *7.280*

Accessories

For size	Locking key
	
M40350070	03H02
M40351080	03H02
M40352100	03H025
M40353120	03H03
M40354150	03H04
M40361090	03H02
M40362110	03H025
M40363120	03H03
M40364150	03H04
M40365190	03H05

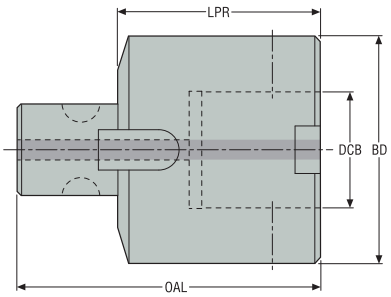
Spare Parts, included in delivery

For size	Assembly screw	Tenon
		
M40350070	90F0	90M5
M40351080	90F1	90M5
M40352100	90F2	90M5
M40353120	90F3	90M5
M40354150	90F4	90M5
M40361090	90F1	90M6
M40362110	90F2	90M6
M40363120	90F3	90M6
M40364150	90F4	90M6
M40365190	90F5	90M6

G 403 – Graflex® enlargers

Graflex®



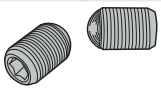


Designation	Item number	CTMS	CTWS	LPR	DCB	BD	OAL	RFID hole	Balan-cing	Weight
				mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			kg *lbs*
M40356	00056791	G5	G6	55,0 *2.165*	36,0 *1.417*	63,0 *2.480*	85,0 *3.346*	0	PB	1,1 *2.430*
M40367	00056810	G6	G7	80,0 *3.150*	46,0 *1.811*	90,0 *3.543*	120,0 *4.724*	0	PB	3,5 *7.720*

Accessories

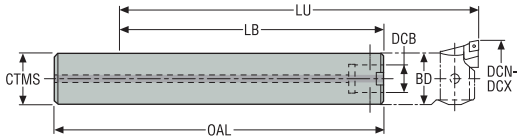
For	Locking key
	
M40356	03H06
M40367	03H10

Spare Parts, included in delivery

For	Assembly screw	Tenon
		
M40356	90F6	90M5
M40367	90F7	90M6

G 401 – Graflex® arbors, steel

Cylindrical

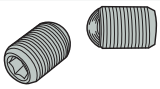




- Suitable for fine boring length up to LU with fitted boring head type A780 or A790
- Cylindrical machine side shank CTMS with tolerance h5, compatible with Shrinkfit holders

Designation	Item number	CTMS	CTWS	DCB	DCN	DCX	OAL	BD	LU	LB	RFID hole	Balan-cing	Weight
				mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			kg *lbs*
M4011408	00086938	14	G0	8,0 *0.315*	15,0 *0.591*	18,5 *0.728*	120,0 *4.724*	14,0 *0.551*	110,0 *4.331*	75,0 *2.953*	0	G6.3	0,2 *0.440*
M4011608	00086935	16	G0	8,0 *0.315*	18,0 *0.709*	23,5 *0.925*	150,0 *5.906*	16,0 *0.630*	137,0 *5.394*	102,0 *4.016*	0	G6.3	0,3 *0.660*
M4012011	00086936	20	G1	11,0 *0.433*	23,0 *0.906*	31,0 *1.220*	150,0 *5.906*	20,0 *0.787*	140,0 *5.512*	100,0 *3.937*	0	G6.3	0,33 *0.730*
M4012514	00086937	25	G2	14,0 *0.551*	30,0 *1.181*	40,0 *1.575*	150,0 *5.906*	25,0 *0.984*	139,0 *5.472*	93,0 *3.661*	0	G6.3	0,6 *1.320*
M4013218	00086939	32	G3	18,0 *0.709*	39,0 *1.535*	51,0 *2.008*	150,0 *5.906*	32,0 *1.260*	155,0 *6.102*	90,0 *3.543*	0	G6.3	0,9 *1.980*

Spare Parts, included in delivery

For	Assembly screw
	
M4011408	90F01
M4011608	90F0
M4012011	90F1
M4012514	90F2
M4013218	90F3

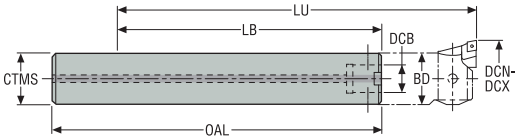
Accessories

For	Locking key
	
M4011408	03H025
M4011608	03H02
M4012011	03H02
M4012514	03H025
M4013218	03H03

G 401 – Graflex® arbors, steel

Cylindrical

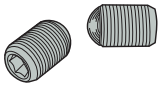




- Suitable for fine boring length up to LU with fitted boring head type A780 or A790
- Cylindrical machine side shank CTMS with tolerance h5, compatible with Shrinkfit holders

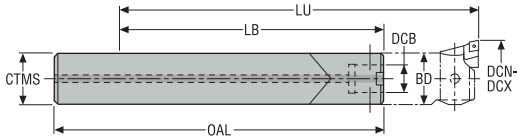
Designation	Item number	CTMS	CTWS	DCB	DCN	DCX	OAL	BD	LU	LB	RFID hole	Balan-cing	Weight
		Inch		*Inch*	*Inch*	*Inch*	*Inch*	*Inch*	*Inch*	*Inch*			lbs
M40107511	00056741	0.750	G1	0.433	0.906	1.220	5.906	0.827	5.510	3.906	0	G6.3	0.660

Spare Parts, included in delivery

For	Assembly screw	Locking key
		
M40107511	90F1	03H02

G 401 – Graflex® arbors, carbide

Cylindrical

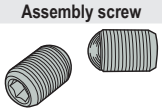




- Suitable for fine boring length up to LU with fitted boring head type A780 or A790
- CTMS tolerance h5

Designation	Item number	CTMS	CTWS	DCB	DCN	DCX	OAL	BD	LU	LB	RFID hole	Balan-cing	Weight
				mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			kg *lbs*
M4011408C	00073004	14	G0	8,0 *0.315*	15,0 *0.591*	18,5 *0.728*	152,0 *5.984*	14,0 *0.551*	140,0 *5.512*	105,0 *4.134*	0	G6.3	0,3 *0.660*
M4011608C	00056747	16	G0	8,0 *0.315*	18,0 *0.709*	23,5 *0.925*	175,0 *6.890*	16,0 *0.630*	160,0 *6.299*	125,0 *4.921*	0	G6.3	0,5 *1.100*
M4012011C	00056749	20	G1	11,0 *0.433*	23,0 *0.906*	31,0 *1.220*	212,0 *8.346*	20,0 *0.787*	200,0 *7.874*	160,0 *6.299*	0	G6.3	0,9 *1.980*
M4012514C	00056750	25	G2	14,0 *0.551*	30,0 *1.181*	40,0 *1.575*	262,0 *10.315*	25,0 *0.984*	250,0 *9.843*	204,0 *8.031*	0	G6.3	1,71 *3.770*
M4013218C	00056751	32	G3	18,0 *0.709*	39,0 *1.535*	51,0 *2.008*	317,0 *12.480*	32,0 *1.260*	320,0 *12.598*	255,0 *10.039*	0	G6.3	3,44 *7.580*

Spare Parts, included in delivery

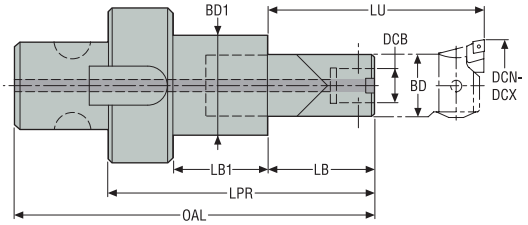
For	Assembly screw
	
M4011408C	90F01
M4011608C	90F0
M4012011C	90F1
M4012514C	90F2
M4013218C	90F3

Accessories

For	Locking key
	
M4011408C	03H025
M4011608C	03H02
M4012011C	03H02
M4012514C	03H025
M4013218C	03H03

G 403 – Graflex® extra long reducers, carbide

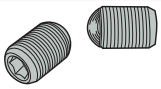




- The extension section is manufactured from carbide
- Suitable for fine boring length up to LU with fitted boring head type A780 or A790

Designation	Item number	CTMS	CTWS	DCB	DCN	DCX	LPR	LU	BD	BD1	LB1	LB	OAL	RFID hole	Balan-cing	Weight
				mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			kg *lbs*
M40350C150	00057604	G5	G0	8,0 *0.315*	18,0 *0.709*	23,5 *0.925*	150,0 *5.906*	130,0 *5.118*	16,0 *0.630*	32,0 *0.630*	35,0 *1.378*	95,0 *3.740*	180,0 *7.087*	0	PB	1,0 *2.200*
M40351C180	00056943	G5	G1	11,0 *0.433*	23,0 *0.906*	31,0 *1.220*	180,0 *7.087*	160,0 *6.299*	20,0 *0.787*	36,0 *0.787*	40,0 *1.575*	120,0 *4.724*	210,0 *8.268*	0	PB	1,4 *3.090*
M40352C220	00057605	G5	G2	14,0 *0.551*	30,0 *1.181*	40,0 *1.575*	220,0 *8.661*	200,0 *7.874*	25,0 *0.984*	41,0 *0.984*	45,0 *1.772*	155,0 *6.102*	250,0 *9.843*	0	PB	2,01 *4.430*

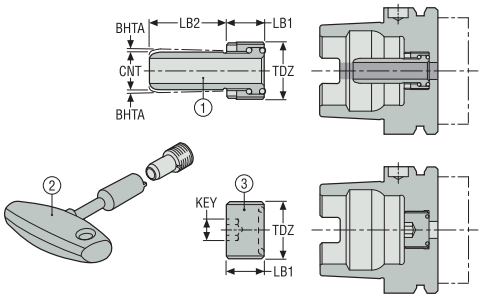
Spare Parts, included in delivery

For	Assembly screw	Tenon
		
M40350C150	90F0	90M5
M40351C180	90F1	90M5
M40352C220	90F2	90M5

Accessories

For	Locking key
	
M40350C150	03H02
M40351C180	03H02
M40352C220	03H025

HSK coolant tubes, tube spanners and sealing plugs





- HSK-A to Seco-Capto holders are delivered with a specific coolant tube available as spare parts and need a specific coolant tube spanner, see product page(s) 554, 555-556, 557

Description	Designation	Item number	For holders HSK A and E	LB1	LB2	KEY	CNT	TDZ	BHTA°
				mm *Inch*	mm *Inch*	mm *Inch*	mm		
Coolant tubes (1)	20E9301	00088814	HSK-A32 & HSK-E32	5,5 *0.217*	20,5 *0.807*	–	6	M10x1	1,0
	20E9302	00088815	HSK-A40 & HSK-E40	7,5 *0.295*	22,0 *0.866*	–	8	M12x1	1,0
	20E9303	00086740	HSK-A50 & HSK-E50	9,5 *0.374*	23,5 *0.925*	–	6	M16x1	1,0
	20E9304	00086741	HSK-A63 & HSK-E63	11,5 *0.453*	25,0 *0.984*	–	8	M18x1	1,0
	20E9306	00086742	HSK-A100 & HSK-E100	15,5 *0.610*	28,5 *1.122*	–	6	M24x1,5	1,0
	20E9307	00088816	HSK-A125	17,5 *0.689*	30,5 *1.201*	–	18	M30x1.5	1,0
Coolant tube spanners (2)	03E9301	00088811	HSK-A32 & HSK-E32	–	–	–	–	–	–
	03E9302	00088812	HSK-A40 & HSK-E40	–	–	–	–	–	–
	03E9303	00069969	HSK-A50 & HSK-E50	–	–	–	–	–	–
	03E9304	00069970	HSK-A63 & HSK-E63	–	–	–	–	–	–
	03E9305	00032296	HSK-A80 & HSK-E80	–	–	–	–	–	–
	03E9306	00084012	HSK-A100 & HSK-E100	–	–	–	–	–	–
	5680094-07	03248614	HSK-A125	–	–	–	–	–	–
Sealing plugs (3)	02E9301	00031588	HSK-A32 & HSK-E32	5,0 *0.197*	–	3,0 *0.118*	–	M10x1	–
	02E9302	00031593	HSK-A40 & HSK-E40	7,0 *0.276*	–	4,0 *0.157*	–	M12x1	–
	02E9303	00001002	HSK-A50 & HSK-E50	9,0 *0.354*	–	5,0 *0.197*	–	M16x1	–
	02E9304	00010101	HSK-A63 & HSK-E63	11,0 *0.433*	–	6,0 *0.236*	–	M18x1	–
	02E9306	00014002	HSK-A100 & HSK-E100	15,0 *0.591*	–	10,0 *0.394*	–	M24x1,5	–
	02E9307	00033649	HSK-A125	17,0 *0.669*	–	12,0 *0.472*	–	M30x1.5	–



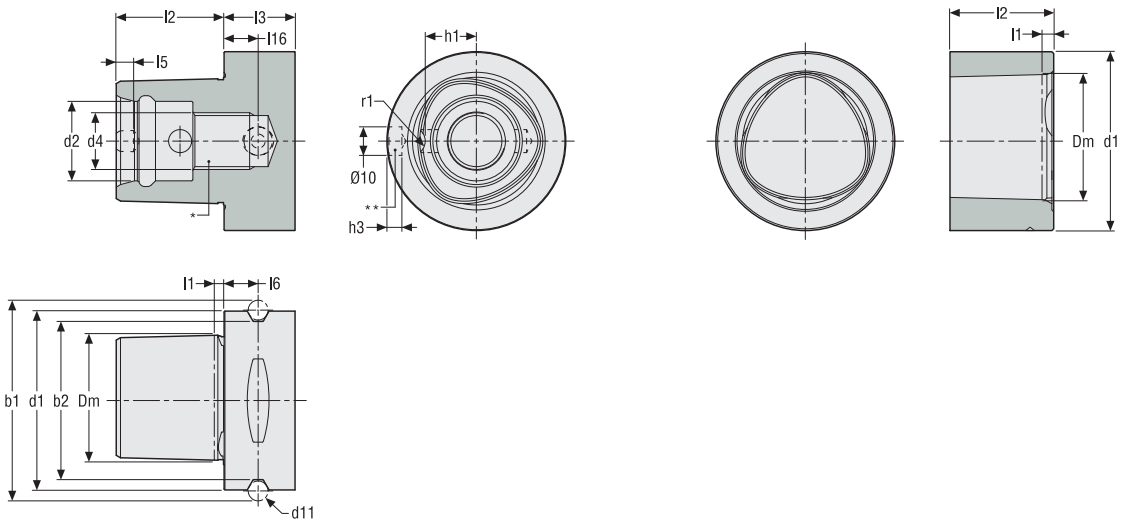
Seco-Capto™

Seco-Capto™ is a leading quick-change modular tooling system for quick setup and replacement of cutting edge holders. The Seco-Capto™ modular tooling range uses Polygonal Shank Coupling (PSC) in accordance with ISO 26623 and features a self-locking taper joint.

- Tool holders range, such as Shrinkfit, collet chuck and shell mill
- Seco-Capto™ basic arbors with HSK, DIN, BT connections
- Seco-Capto™ cassette for greater reliability and insert clamping

Seco-Capto™, norm dimensions

ISO 26623-1-PSC/ ISO 26623-2-PSC



Machine side catalogue designation	Hole for RFID carrier**	d_1	d_2	d_4	d_{11}	Dm	b_1	b_2	l_1	l_2	$l_{3\ min}$	l_5	l_6	l_{16}	h_1	h_3	r_1
		mm *Inch*	mm *Inch*		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*
C3	No**	32 *1.260*	15 *0.591*	M12	5 *0.197*	22 *0.866*	39 *1.535*	28,3 *1.114*	2,5 *0.098*	19 *0.748*	15 *0.591*	3,2 *0.126*	6 *0.236*	9 *0.354*	9 *0.354*	5,4 *0.213*	3 *0.118*
C4	No**	40 *1.575*	18 *0.709*	M14	5 *0.197*	28 *1.102*	46 *1.811*	35,3 *1.390*	2,5 *0.098*	24 *0.945*	20 *0.787*	4 *0.157*	8 *0.315*	12 *0.472*	11 *0.433*	5,2 *0.205*	3 *0.118*
C5	**	50 *1.969*	21 *0.827*	M16	7 *0.276*	35 *1.378*	59,3 *2.335*	44,4 *1.748*	3 *0.118*	30 *1.181*	20 *0.787*	5,3 *0.209*	10 *0.394*	12 *0.472*	14 *0.551*	5,1 *0.201*	4 *0.157*
C6	**	63 *2.480*	28 *1.102*	M20	7 *0.276*	44 *1.732*	70,7 *2.783*	55,8 *2.197*	3 *0.118*	38 *1.496*	22 *0.866*	6,2 *0.244*	12 *0.472*	12 *0.472*	18 *0.709*	5 *0.197*	5 *0.197*
C8	**	80 *3.150*	32 *1.260*	M20	7 *0.276*	55 *2.165*	86 *3.386*	71,1 *2.799*	3 *0.118*	48 *1.890*	30 *1.181*	8 *0.315*	12 *0.472*	12 *0.472*	22,2 *0.874*	4,9 *0.193*	6 *0.236*

Workpiece side catalogue designation	Hole for RFID carrier**	$d_{1\ min}$	d_3	Dm	l_1	l_2	l_3	l_4
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*
C3	No	32 *1.260*	2 *0.079*	22 *0.866*	2,3 *0.091*	18,4 *0.724*	16,5 *0.650*	9,4 *0.370*
C4	No	40 *1.575*	2,5 *0.098*	28 *1.102*	2,3 *0.091*	23,4 *0.921*	21 *0.827*	11,5 *0.453*
C5	No	50 *1.969*	3 *0.118*	35 *1.378*	2,8 *0.110*	29,4 *1.157*	26 *1.024*	14,5 *0.571*
C6	**	63 *2.480*	4 *0.157*	44 *1.732*	2,8 *0.110*	37,4 *1.472*	33,5 *1.319*	18,5 *0.728*
C8	**	80 *3.150*	5 *0.197*	55 *2.165*	2,8 *0.110*	47,4 *1.866*	43 *1.693*	22,8 *0.898*

Note: These machine side and workpiece side dimensions are applied to all the holders shown in the product pages.

* The Seco-Capto™ machine side of short extensions can only be hold by spindles with segment clamping (not with center bolt clamping). The Seco-Capto™ machine side of short reducers can only be hold by spindles with segment clamping (not with center bolt clamping).

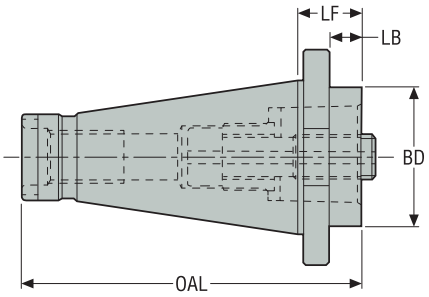
** In order to know if a hole for RFID carrier exists, see 'RFID hole' column in Product pages: 1= hole for RFID carrier available, if required a carrier can be fitted on request, please enquire.

0= hole for RFID carrier not available, if required hole can be machined and a carrier can be fitted on request, please enquire.

C 00 – DIN 2080 to Seco-Capto™ holders – ISO 26623-2

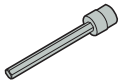
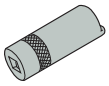
DIN 2080



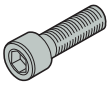


Designation	Item number	CTMS	CTWS	LF	LB	BD	OAL	RFID hole	Balan-cing	Weight
				mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			kg *lbs*
C3-390.00-40030	75039844	DIN(2080)40	C3	30,0 *1.181*	18,4 *0.724*	32,0 *1.260*	123,4 *4.858*	0	-	0,9 *1.980*
C4-390.00-40030	75039848	DIN(2080)40	C4	30,0 *1.181*	18,4 *0.724*	40,0 *1.575*	123,4 *4.858*	0	-	1,0 *2.200*
C4-390.00-40060	75039849	DIN(2080)40	C4	60,0 *2.362*	48,4 *1.906*	40,0 *1.575*	153,4 *6.039*	0	-	1,08 *2.380*
C5-390.00-40030	75039852	DIN(2080)40	C5	30,0 *1.181*	18,4 *0.724*	50,0 *1.969*	123,4 *4.858*	0	-	0,81 *1.790*
C6-390.00-40075	00048158	DIN(2080)40	C6	75,0 *2.953*	0,0 –	63,0 *2.480*	168,4 *6.630*	0	-	1,82 *4.010*
C3-390.00-50030	75039846	DIN(2080)50	C3	30,0 *1.181*	14,8 *0.583*	32,0 *1.260*	156,8 *6.173*	0	-	2,5 *5.510*
C3-390.00-50060	75039847	DIN(2080)50	C3	60,0 *2.362*	44,8 *1.764*	32,0 *1.260*	186,8 *7.354*	0	-	2,5 *5.510*
C4-390.00-50030	75039850	DIN(2080)50	C4	30,0 *1.181*	14,8 *0.583*	40,0 *1.575*	156,8 *6.173*	0	-	2,5 *5.510*
C4-390.00-50060	75039851	DIN(2080)50	C4	60,0 *2.362*	44,8 *1.764*	40,0 *1.575*	186,8 *7.354*	0	-	2,5 *5.510*
C5-390.00-50030	75039854	DIN(2080)50	C5	30,0 *1.181*	14,8 *0.583*	50,0 *1.969*	156,8 *6.173*	0	-	2,62 *5.780*
C5-390.00-50070	75039855	DIN(2080)50	C5	70,0 *2.756*	54,8 *2.157*	50,0 *1.969*	196,8 *7.748*	0	-	3,29 *7.250*
C6-390.00-50030	75039856	DIN(2080)50	C6	30,0 *1.181*	14,8 *0.583*	63,0 *2.480*	156,8 *6.173*	0	-	2,56 *5.640*
C6-390.00-50080	75039857	DIN(2080)50	C6	80,0 *3.150*	64,8 *2.551*	63,0 *2.480*	206,8 *8.142*	0	-	3,27 *7.210*
C8-390.00-50070	75039858	DIN(2080)50	C8	70,0 *2.756*	54,8 *2.157*	80,0 *3.150*	196,8 *7.748*	0	-	3,8 *8.380*
C8-390.00-50120	75039859	DIN(2080)50	C8	120,0 *4.724*	104,8 *4.126*	80,0 *3.150*	246,8 *9.717*	0	–	5,6 *12.350*

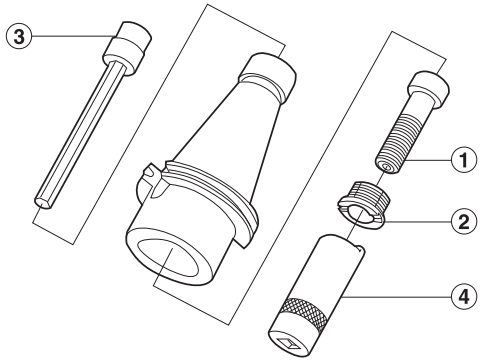
Accessories

For	Extension key	Spanner
		
C3	5680015-05	5680065-13
C4	5680015-05	5680065-10
C5	5680015-01	5680065-11
C6-400	5680015-01	5680065-12
C6-500	5680015-02	5680065-12
C8	5680015-02	5680065-12

Spare Parts, included in delivery

For	Centre screw	Retaining nut
		
C3	5512063-10	5512091-04
C4	5512063-07	5512091-03
C5	5512063-08	5512091-01
C6-400	5512063-13	5512091-02
C6-500	5512063-09	5512091-02
C8	5512063-09	5512091-02

Accessories / Spare Parts



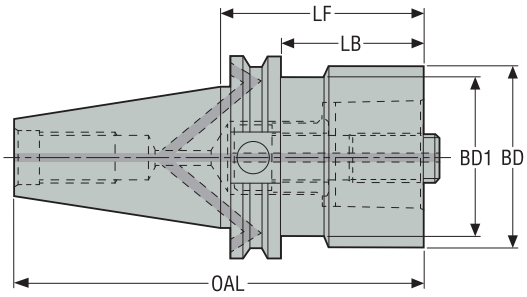
Accessories:
3 = Extension key
4 = Spanner

Spare parts:
1 = Center screw
2 = Retaining nut

C 55/58 – CAT to Seco-Capto™ holders

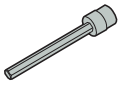
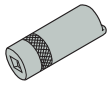
CAT / ASME B5.50-2009-ADB



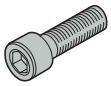


Designation	Item number	CTMS	CTWS	LF	LB	BD	BD1	OAL	Design	RFID hole	Balan-cing	Weight
				Inch	*Inch*	*Inch*	*Inch*	*Inch*				lbs
C3-A390B.45-40060	02925929	CAT40 ADB	C3	2.362	1.610	1.260	1.260	5.055	2	0	PB	2.200
C4-A390B.45-40030	02925932	CAT40 ADB	C4	1.181	0.429	1.575	1.575	3.874	2	0	PB	1.980
C4-A390B.45-40060	02925933	CAT40 ADB	C4	2.362	1.610	1.575	1.575	5.055	2	0	PB	2.430
C5-A390B.45-40040	02925935	CAT40 ADB	C5	1.575	0.823	1.969	1.969	4.268	2	0	PB	2.200
C5-A390B.45-40080	02925936	CAT40 ADB	C5	3.150	2.398	1.969	1.969	5.843	2	0	PB	3.310
C6-A390B.45-40085	02925939	CAT40 ADB	C6	3.346	1.378	2.480	2.480	6.039	2	0	PB	4.190
C3-A390B.45-50030	02925930	CAT50 ADB	C3	1.181	0.429	1.260	1.260	5.185	2	0	PB	6.390
C3-A390B.45-50060	02925931	CAT50 ADB	C3	2.362	1.610	1.260	1.260	6.366	2	0	PB	5.970
C4-A390B.45-50030	02925948	CAT50 ADB	C4	1.181	0.429	1.575	1.575	5.185	2	0	PB	5.780
C4-A390B.45-50060	02925934	CAT50 ADB	C4	2.362	1.610	1.969	1.575	6.366	2	0	PB	6.610
C5-A390B.45-50030	02925937	CAT50 ADB	C5	1.181	0.429	1.969	1.969	5.185	2	0	PB	5.290
C5-A390B.45-50070	02925938	CAT50 ADB	C5	2.756	2.004	1.969	1.969	6.760	2	0	PB	6.830
C6-A390B.45-50030	02925940	CAT50 ADB	C6	1.181	0.429	2.480	2.480	5.185	2	0	PB	5.510
C6-A390B.45-50080	02925941	CAT50 ADB	C6	3.150	2.398	2.480	2.480	7.154	2	0	PB	7.940
C8-A390B.45-50070	02925942	CAT50 ADB	C8	2.756	2.004	3.150	3.150	6.760	2	0	PB	8.160
C8-A390B.45-50120	02925943	CAT50 ADB	C8	4.724	3.972	3.150	3.150	8.728	2	0	PB	12.350

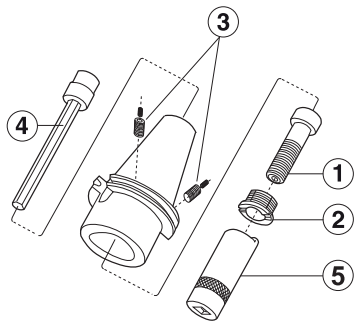
Accessories

For size	Extension key	Spanner
		
CAT40/ C3	5680015-05	5680065-13
CAT40/ C4	5680015-05	5680065-10
CAT40/ C5	5680015-01	5680065-11
CAT40/ C6	5680015-01	5680065-12
CAT50/ C3	5680015-05	5680065-13
CAT50/ C4-50030	5680015-05	5680065-10
CAT50/ C4-50060	5680015-05	5680065-10
CAT50/ C5	5680015-01	5680065-11
CAT50/ C6	5680015-02	5680065-12
CAT50/ C8	5680015-02	5680065-12

Spare Parts, included in delivery

For size	Centre screw	Plug	Retaining nut
		 1x	
CAT40/ C3	5512063-10	564301701	5512091-04
CAT40/ C4	5512063-07	564301701	5512091-03
CAT40/ C5	5512063-08	564301701	5512091-01
CAT40/ C6	5512063-13	564301701	5512091-02
CAT50/ C3	5512063-10	564301702	5512091-04
CAT50/ C4-50030	5512063-07	564301701	5512091-03
CAT50/ C4-50060	5512063-07	564301702	5512091-03
CAT50/ C5	5512063-08	564301702	5512091-01
CAT50/ C6	5512063-09	564301702	5512091-02
CAT50/ C8	5512063-09	564301702	5512091-02

Accessories / Spare Parts



Accessories:
4 = Extension key
5 = Spanner

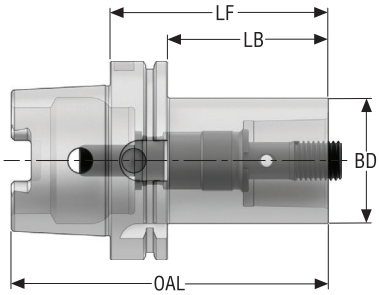
Spare parts:
1 = Center screw
2 = Retaining nut
3 = Plugs (dowels)

C 410 – HSK-A to Seco-Capto™ holders – ISO 26623-2

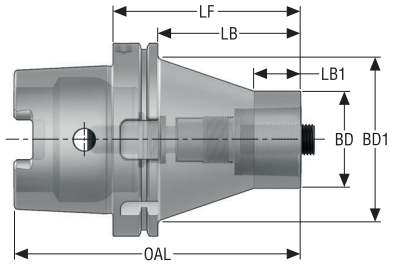
HSK-A/ ISO12164-1-HSK-A



Design 1

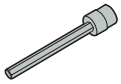
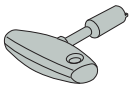
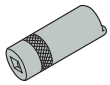


Design 2

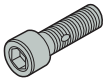
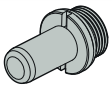


Designation	Item number	CTMS	CTWS	LF	LB	LB1	BD	BD1	OAL	Design	RFID hole	Balancing	Weight
				mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*				kg *lbs*
HA10-C3-032-080	10197961	HSK-A100	C3	80,0 *3.150*	51,0 *2.008*	–	32,0 *1.260*	–	130,0 *5.118*	1	1	PB	2,5 *5.510*
HA06-C3-032-075	10197962	HSK-A63	C3	75,0 *2.953*	49,0 *1.929*	–	32,0 *1.260*	–	107,0 *4.213*	1	1	PB	0,9 *1.980*
HA10-C4-040-090	10197963	HSK-A100	C4	90,0 *3.543*	61,0 *2.402*	–	40,0 *1.575*	–	140,0 *5.512*	1	1	PB	2,5 *5.510*
HA06-C4-040-080	10197964	HSK-A63	C4	80,0 *3.150*	54,0 *2.126*	–	40,0 *1.575*	–	112,0 *4.409*	1	1	PB	1,1 *2.430*
HA10-C5-050-100	10197965	HSK-A100	C5	100,0 *3.937*	71,0 *2.795*	–	50,0 *1.969*	–	150,0 *5.906*	1	1	PB	2,9 *6.390*
HA06-C5-050-090	10197966	HSK-A63	C5	90,0 *3.543*	64,0 *2.520*	–	50,0 *1.969*	–	122,0 *4.803*	1	1	PB	3,1 *6.830*
HA10-C6-063-110	10197967	HSK-A100	C6	110,0 *4.331*	81,0 *3.189*	–	63,0 *2.480*	–	160,0 *6.299*	1	1	PB	3,8 *8.380*
HA10-C8-080-120	10197968	HSK-A100	C8	120,0 *4.724*	91,0 *3.583*	–	80,0 *3.150*	–	170,0 *6.693*	1	1	PB	4,1 *9.040*
HSKA125-C6-120	03229625	HSK-A125	C6	120,0 *4.724*	91,0 *3.583*	–	63,0 *2.480*	–	183,0 *7.205*	1	1	PB	5,2 *11.460*
HSKA125-C6-120-V	03229626	HSK-A125	C6	120,0 *4.724*	91,0 *3.583*	30,0 *1.181*	63,0 *2.480*	108,0 *4.252*	183,0 *7.205*	2	1	PB	6,4 *14.110*
HSKA125-C8-130	03229627	HSK-A125	C8	130,0 *5.118*	101,0 *3.976*	–	80,0 *3.150*	–	193,0 *7.598*	1	1	PB	6,5 *14.330*
HSKA125-C8-130-V	03229628	HSK-A125	C8	130,0 *5.118*	101,0 *3.976*	30,0 *1.181*	80,0 *3.150*	105,0 *4.134*	193,0 *7.598*	2	1	PB	7,8 *17.200*

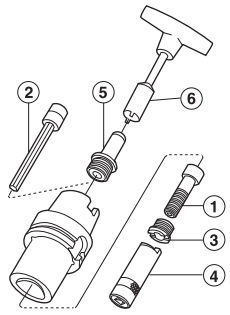
Accessories

For	Extension key	Key	Spanner
			
HA10-C3-032-080	5680015-05	5680094-06	5680065-13
HA06-C3-032-075	5680015-05	5680094-04	5680065-13
HA10-C4-040-090	5680015-05	5680094-06	5680065-10
HA06-C4-040-080	5680015-05	5680094-04	5680065-10
HA10-C5-050-100	5680015-01	5680094-06	5680065-11
HA06-C5-050-090	5680015-01	5680094-04	5680065-11
HA10-C6-063-110	5680015-02	5680094-06	5680065-12
HA10-C8-080-120	5680015-02	5680094-06	5680065-12
HSKA125-C6-120	5680015-02	5680094-07	5680065-12
HSKA125-C6-120-V	5680015-02	5680094-07	5680065-12
HSKA125-C8-130	5680015-02	5680094-07	5680065-12
HSKA125-C8-130-V	5680015-02	5680094-07	5680065-12

Spare Parts, included in delivery

For	Centre screw	Coolant tube	Retaining nut
			
HA06-C3-032-075	5512067-01	5692020-04	5512091-04
HA06-C4-040-080	5512067-02	5692020-04	5512091-03
HA06-C5-050-090	5512067-03	5692020-04	5512091-01
HA10-C3-032-080	5512067-01	5692020-06	5512091-04
HA10-C4-040-090	5512067-02	5692020-06	5512091-03
HA10-C5-050-100	5512067-03	5692020-06	5512091-01
HA10-C6-063-110	5512067-04	5692020-06	5512091-02
HA10-C8-080-120	5512067-04	5692020-06	5512091-02
HSKA125-C6-120	5512063-09	5692020-07	5512091-02
HSKA125-C6-120-V	5512063-09	5692020-07	5512091-02
HSKA125-C8-130	5512063-09	5692020-07	5512091-02
HSKA125-C8-130-V	5512063-09	5692020-07	5512091-02

Accessories / Spare Parts



Accessories:
2 = Extension key
4 = Spanner
6 = Key for coolant tube

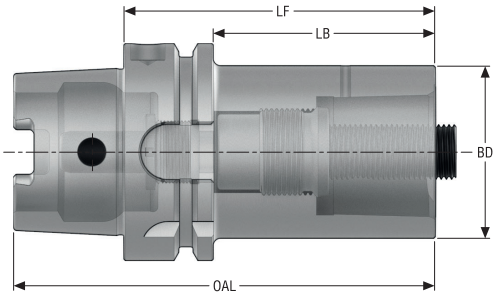
Spare parts:
1 = Center screw
3 = Retaining nut
5 = Coolant tube*

*A specific coolant tube is delivered together with each HSK-A to Seco-Capto™ holder

C 411 – HSK-T to Seco-Capto™ holders – ISO 26623-2

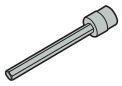
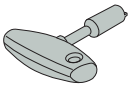
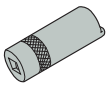
HSK-T/ ISO12164-3-HSK-T



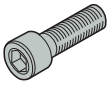
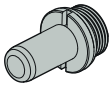


Designation	Item number	CTMS	CTWS	LF	LB	BD	OAL	RFID hole	Balan-cing	Weight
				mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			kg *lbs*
C4-390.411-63080	02786511	HSK-T63	C4	80,0 *3.150*	54,0 *2.126*	40,0 *1.575*	112,0 *4.409*	1	-	1,1 *2.430*
C5-390.411-63090	02786520	HSK-T63	C5	90,0 *3.543*	64,0 *2.520*	50,0 *1.969*	122,0 *4.803*	1	-	1,5 *3.310*
C4-390.411-100090	02786519	HSK-T100	C4	90,0 *3.543*	61,0 *2.402*	40,0 *1.575*	140,0 *5.512*	1	-	2,6 *5.730*
C5-390.411-100100	02786521	HSK-T100	C5	100,0 *3.937*	71,0 *2.795*	50,0 *1.969*	150,0 *5.906*	1	-	3,0 *6.610*
C6-390.411-100110	02786522	HSK-T100	C6	110,0 *4.331*	81,0 *3.189*	63,0 *2.480*	160,0 *6.299*	1	-	3,6 *7.940*
C8-390.411-100120	02786523	HSK-T100	C8	120,0 *4.724*	91,0 *3.583*	80,0 *3.150*	170,0 *6.693*	1	-	4,8 *10.580*

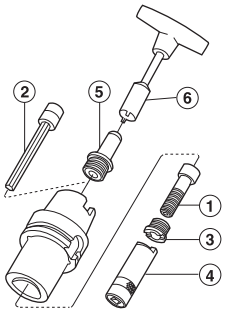
Accessories

For	Extension key	Key	Spanner
			
C4-390.411-63080	5680015-05	5680094-04	5680065-10
C5-390.411-63090	5680015-01	5680094-04	5680065-11
C4-390.411-100090	5680015-05	5680094-06	5680065-10
C5-390.411-100100	5680015-01	5680094-06	5680065-11
C6-390.411-100110	5680015-02	5680094-06	5680065-12
C8-390.411-100120	5680015-02	5680094-06	5680065-12

Spare Parts, included in delivery

For	Centre screw	Coolant tube	Retaining nut
			
C4-390.411-100090	5512063-07	20E9306	5512091-03
C4-390.411-63080	5512063-07	5692020-04	5512091-03
C5-390.411-100100	5512063-08	20E9306	5512091-01
C5-390.411-63090	5512063-08	5692020-04	5512091-01
C6-390.411-100110	5512063-09	5692020-06	5512091-02
C8-390.411-100120	5512063-09	5692020-06	5512091-02

Accessories / Spare Parts



Accessories:
2 = Extension key
4 = Spanner
6 = Key for coolant tube

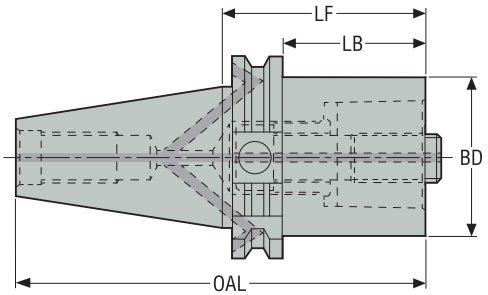
Spare parts:
1 = Center screw
3 = Retaining nut
5 = Coolant tube*

*A specific coolant tube is delivered together with each HSK-A to Seco-Capto™ holder

C 140 – DIN to Seco-Capto™ holders – ISO 26623-2

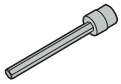
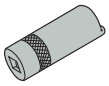
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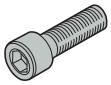


Designation	Item number	CTMS	CTWS	LF	LB	BD	OAL	RFID hole	Balancing	Weight
				mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			kg *lbs*
C3-390B.140-40030	02924104	DIN40 ADB	C3	30,0 *1.181*	10,9 *0.429*	32,0 *1.260*	98,4 *3.874*	0	PB	0,8 *1.760*
C3-390B.140-40060	02924105	DIN40 ADB	C3	60,0 *2.362*	40,9 *1.610*	32,0 *1.260*	128,4 *5.055*	0	PB	0,9 *1.980*
C4-390B.140-40030	02924108	DIN40 ADB	C4	30,0 *1.181*	10,9 *0.429*	40,0 *1.575*	98,4 *3.874*	0	PB	0,8 *1.760*
C4-390B.140-40060	02924109	DIN40 ADB	C4	60,0 *2.362*	40,9 *1.610*	40,0 *1.575*	128,4 *5.055*	0	PB	1,1 *2.430*
C5-390B.140-40040	02924112	DIN40 ADB	C5	40,0 *1.575*	20,9 *0.823*	50,0 *1.969*	108,4 *4.268*	0	PB	0,9 *1.980*
C5-390B.140-40080	02924113	DIN40 ADB	C5	80,0 *3.150*	60,9 *2.398*	50,0 *1.969*	148,4 *5.843*	0	PB	1,5 *3.310*
C6-390B.140-40085	02924116	DIN40 ADB	C6	85,0 *3.346*	65,9 *2.594*	63,0 *2.480*	153,4 *6.039*	0	PB	1,8 *3.970*
C3-390B.140-50030	02924106	DIN50 ADB	C3	30,0 *1.181*	10,9 *0.429*	32,0 *1.260*	131,7 *5.185*	0	PB	2,6 *5.730*
C3-390B.140-50060	02924107	DIN50 ADB	C3	60,0 *2.362*	40,9 *1.610*	32,0 *1.260*	161,7 *6.366*	0	PB	2,7 *5.950*
C4-390B.140-50030	02924110	DIN50 ADB	C4	30,0 *1.181*	10,9 *0.429*	40,0 *1.575*	131,7 *5.185*	0	PB	2,6 *5.730*
C4-390B.140-50060	02924111	DIN50 ADB	C4	60,0 *2.362*	40,9 *1.610*	40,0 *1.575*	161,7 *6.366*	0	PB	2,8 *6.170*
C5-390B.140-50030	02924114	DIN50 ADB	C5	30,0 *1.181*	10,9 *0.429*	50,0 *1.969*	131,7 *5.185*	0	PB	2,6 *5.730*
C5-390B.140-50070	02924115	DIN50 ADB	C5	70,0 *2.756*	50,9 *2.004*	50,0 *1.969*	171,7 *6.760*	0	PB	3,1 *6.830*
C6-390B.140-50030	02924117	DIN50 ADB	C6	30,0 *1.181*	10,9 *0.429*	63,0 *2.480*	131,7 *5.185*	0	PB	2,4 *5.290*
C6-390B.140-50080	02924118	DIN50 ADB	C6	80,0 *3.150*	60,9 *2.398*	63,0 *2.480*	181,7 *7.154*	0	PB	3,6 *7.940*
C8-390B.140-50070	02924119	DIN50 ADB	C8	70,0 *2.756*	50,9 *2.004*	80,0 *3.150*	171,7 *6.760*	0	PB	3,7 *8.160*
C8-390B.140-50120	02924120	DIN50 ADB	C8	120,0 *4.724*	100,9 *3.972*	80,0 *3.150*	221,7 *8.728*	0	PB	5,6 *12.350*

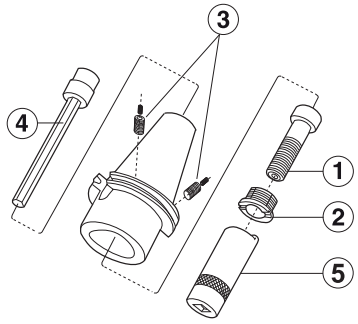
Accessories

For	Extension key	Spanner
		
C3-400	5680015-05	5680065-13
C4-400	5680015-05	5680065-10
C5-400	5680015-01	5680065-11
C6-400	5680015-01	5680065-12
C3-500	5680015-05	5680065-13
C4-500	5680015-05	5680065-10
C5-500	5680015-01	5680065-11
C6-500	5680015-02	5680065-12
C8	5680015-02	5680065-12

Spare Parts, included in delivery

For	Centre screw	Plug	Retaining nut
			
C3-400	5512063-10	564301701	5512091-04
C3-500	5512063-10	564301702	5512091-04
C4-400	5512063-07	564301701	5512091-03
C4-500	5512063-07	564301702	5512091-03
C5-400	5512063-08	564301701	5512091-01
C5-500	5512063-08	564301702	5512091-01
C6-400	5512063-13	564301701	5512091-02
C6-500	5512063-09	564301702	5512091-02
C8	5512063-09	564301702	5512091-02

Accessories / Spare Parts



Accessories:
4 = Extension key
5 = Spanner

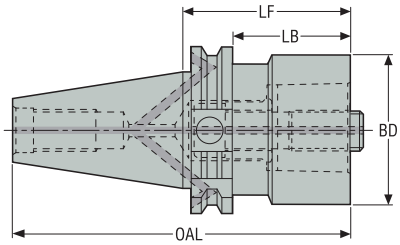
Spare parts:
1 = Center screw
2 = Retaining nut
3 = Plugs (dowels)

C 5191 – Seco-Capto™, basic holders – ISO 26623-2

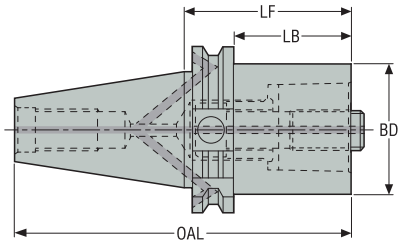
DIN Taper-Face-ADB



Design 1

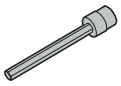
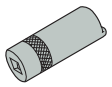


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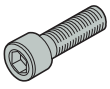


Designation	Item number	CTMS	CTWS	LF	LB	BD	OAL	Design	RFID hole	Balan-cing	Weight
				mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*				kg *lbs*
E316951915050	03030258	DIN40 TF ADB	C5	50,0 *1.969*	30,9 *1.217*	50,0 *1.969*	118,4 *4.661*	2	1	PB	1,1 *2.430*
E317151915070	03030264	DIN50 TF ADB	C5	70,0 *2.756*	50,9 *2.004*	50,0 *1.969*	171,7 *6.760*	2	1	PB	3,1 *6.830*
E317151916350	03030262	DIN50 TF ADB	C6	50,0 *1.969*	30,9 *1.217*	63,0 *2.480*	151,7 *5.972*	2	0	-	2,9 *6.390*
E3171519163100	03030265	DIN50 TF ADB	C6	100,0 *3.937*	80,9 *3.185*	63,0 *2.480*	201,7 *7.941*	2	1	PB	4,0 *8.820*
E317151918070	03030263	DIN50 TF ADB	C8	70,0 *2.756*	50,9 *2.004*	80,0 *3.150*	171,7 *6.760*	2	0	-	3,9 *8.600*
E3171519180120	03030266	DIN50 TF ADB	C8	120,0 *4.724*	100,9 *3.972*	80,0 *3.150*	221,7 *8.728*	2	0	-	5,6 *12.350*

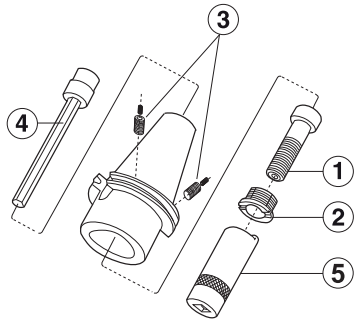
Accessories

For	Extension key	Spanner
		
DIN40 TF/ C5	5680015-01	5680065-11
DIN50 TF/ C5	5680015-01	5680065-11
DIN50 TF/ C6-C8	5680015-02	5680065-12

Spare Parts, included in delivery

For	Centre screw	Plug	Retaining nut
			
DIN40 TF/ C5	5512063-08	564301701	5512091-01
DIN50 TF/ C5	5512063-08	564301702	5512091-01
DIN50 TF/ C6-C8	5512063-09	564301702	5512091-02

Accessories / Spare Parts



Accessories:
4 = Extension key
5 = Spanner

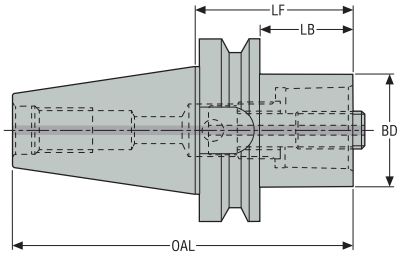
Spare parts:
1 = Center screw
2 = Retaining nut
3 = Plugs (dowels)

C 55/58 – BT to Seco-Capto™ holders – ISO 26623-2

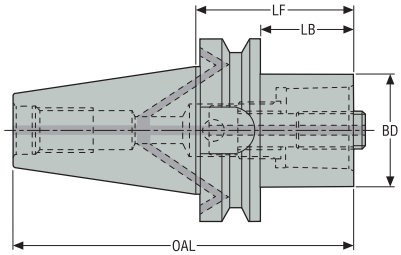
BT



Design 1

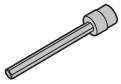
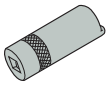


Design 2

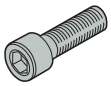


Designation	Item number	CTMS	CTWS	LF	LB	BD	OAL	Design	RFID hole	Balan-cing	Weight
				mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*				kg *lbs*
C3-390.55-30030	75039807	BT30 AD	C3	30,0 *1.181*	8,0 *0.315*	32,0 *1.260*	78,4 *3.087*	1	0	PB	0,53 *1.170*
C3-390.55-30060	75039808	BT30 AD	C3	60,0 *2.362*	38,0 *1.496*	32,0 *1.260*	108,4 *4.268*	1	0	PB	0,73 *1.610*
C3-390B.55-40030	02925959	BT40 ADB	C3	30,0 *1.181*	3,0 *0.118*	32,0 *1.260*	95,4 *3.756*	2	0	PB	1,0 *2.200*
C3-390B.55-40060	02925960	BT40 ADB	C3	60,0 *2.362*	33,0 *1.299*	32,0 *1.260*	125,4 *4.937*	2	0	PB	1,1 *2.430*
C4-390B.55-40030	02925963	BT40 ADB	C4	30,0 *1.181*	3,0 *0.118*	40,0 *1.575*	95,4 *3.756*	2	0	PB	0,9 *1.980*
C4-390B.55-40060	02925964	BT40 ADB	C4	60,0 *2.362*	33,0 *1.299*	40,0 *1.575*	125,4 *4.937*	2	0	PB	1,2 *2.650*
C5-390B.55-40050	02925967	BT40 ADB	C5	50,0 *1.969*	23,0 *0.906*	50,0 *1.969*	115,4 *4.543*	2	0	PB	1,1 *2.430*
C5-390B.55-40090	02925968	BT40 ADB	C5	90,0 *3.543*	63,0 *2.480*	50,0 *1.969*	155,4 *6.118*	2	0	PB	1,7 *3.750*
C6-390B.55-40075	02925971	BT40 ADB	C6	75,0 *2.953*	54,6 *2.150*	63,0 *2.480*	140,4 *5.528*	2	0	PB	1,7 *3.750*
C3-390B.58-50040	02925961	BT50 ADB	C3	40,0 *1.575*	2,0 *0.079*	32,0 *1.260*	141,8 *5.583*	2	0	PB	3,5 *7.720*
C3-390B.58-50070	02925962	BT50 ADB	C3	70,0 *2.756*	32,0 *1.260*	32,0 *1.260*	171,8 *6.764*	2	0	PB	3,7 *8.160*
C4-390B.58-50040	02925965	BT50 ADB	C4	40,0 *1.575*	2,0 *0.079*	40,0 *1.575*	141,8 *5.583*	2	0	PB	3,5 *7.720*
C4-390B.58-50070	02925966	BT50 ADB	C4	70,0 *2.756*	32,0 *1.260*	40,0 *1.575*	171,8 *6.764*	2	0	PB	3,8 *8.380*
C5-390B.58-50040	02925969	BT50 ADB	C5	40,0 *1.575*	2,0 *0.079*	50,0 *1.969*	141,8 *5.583*	2	0	PB	3,5 *7.720*
C5-390B.58-50080	02925970	BT50 ADB	C5	80,0 *3.150*	42,0 *1.654*	50,0 *1.969*	181,8 *7.157*	2	0	PB	3,9 *8.600*
C6-390B.58-50050	02925972	BT50 ADB	C6	50,0 *1.969*	12,0 *0.472*	63,0 *2.480*	151,8 *5.976*	2	0	PB	3,4 *7.500*
C6-390B.58-50100	02925973	BT50 ADB	C6	100,0 *3.937*	62,0 *2.441*	63,0 *2.480*	201,8 *7.945*	2	0	PB	4,6 *10.140*
C8-390B.58-50070	02925974	BT50 ADB	C8	70,0 *2.756*	32,0 *1.260*	80,0 *3.150*	171,8 *6.764*	2	0	PB	4,0 *8.820*
C8-390B.58-50120	02925975	BT50 ADB	C8	120,0 *4.724*	82,0 *3.228*	80,0 *3.150*	221,8 *8.732*	2	0	PB	5,9 *13.010*

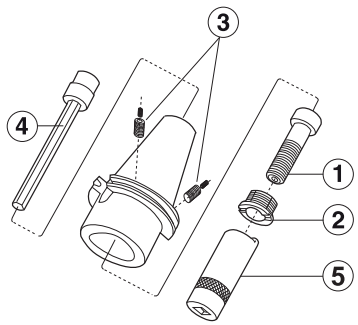
Accessories

For	Extension key	Spanner
		
C3-390.55	5680015-05	5680065-13
C3-390B.55	5680015-05	5680065-13
C4-390B.55	5680015-05	5680065-10
C5-390B.55	5680015-01	5680065-11
C6-390B.55	5680015-01	5680065-12
C3-390B.58	5680015-05	5680065-13
C4-390B.58	5680015-05	5680065-10
C5-390B.58	5680015-01	5680065-11
C6-390B.58	5680015-02	5680065-12
C8	5680015-02	5680065-12

Spare Parts, included in delivery

For	Centre screw	Plug	Retaining nut
			
C3-390.55	5512063-10	–	5512091-04
C3-390B.55	5512063-10	564301701	5512091-04
C3-390B.58	5512063-10	564301702	5512091-04
C4-390B.55	5512063-07	564301701	5512091-03
C4-390B.58	5512063-07	564301702	5512091-03
C5-390B.55	5512063-08	564301701	5512091-01
C5-390B.58	5512063-08	564301702	5512091-01
C6-390B.55	5512063-13	564301701	5512091-02
C6-390B.58	5512063-09	564301702	5512091-02
C8	5512063-09	564301702	5512091-02

Accessories / Spare Parts



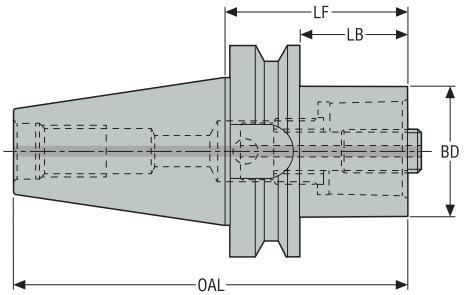
Accessories:
4 = Extension key
5 = Spanner

Spare parts:
1 = Center screw
2 = Retaining nut
3 = Plugs (dowels)

C 605 – BT Mazak to Seco-Capto™ holders – ISO 26623-2

BT Mazak

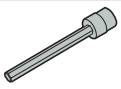
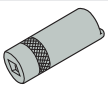




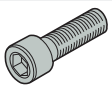
- Mazak design means 90° rotated Seco-Capto™ polygon compared to classic BT basic holders
- For Mazak e-machines

Designation	Item number	CTMS	CTWS	LF	LB	BD	OAL	RFID hole	Balan-cing	Weight
				mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*			kg *lbs*
C5-390.605-40030	02606358	BT40 AD Mazak	C5	30,0 *1.181*	3,0 *0.118*	50,0 *1.969*	95,4 *3.756*	0	-	1,1 *2.430*
C6-390.605-50040	02606354	BT50 AD Mazak	C6	40,0 *1.575*	2,0 *0.079*	63,0 *2.480*	141,8 *5.583*	0	-	3,3 *7.280*
C8-390.605-50070	02646032	BT50 AD Mazak	C8	70,0 *2.756*	70,0 *2.756*	80,0 *3.150*	171,8 *6.764*	0	-	4,0 *8.820*

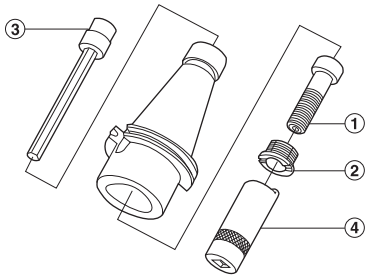
Accessories

For size	Extension key	Spanner
		
C5	5680015-01	5680065-11
C6	5680015-02	5680065-12
C8	5680015-02	5680065-12

Spare Parts, included in delivery

For size	Centre screw	Retaining nut
		
C5	5512063-08	5512091-01
C6	5512063-09	5512091-02
C8	5512063-09	5512091-02

Accessories / Spare Parts



Accessories:
3 = Extension key
4 = Spanner

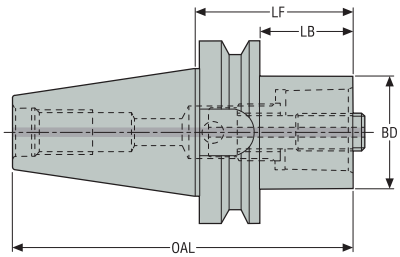
Spare parts:
1 = Center screw
2 = Retaining nut

C 5191 – Seco-Capto™, basic holders – ISO 26623-2

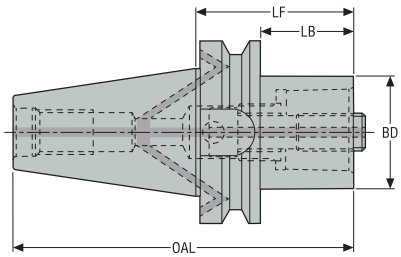
BT Taper-Face-AD/ADB



Design 1

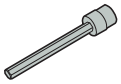
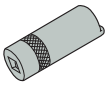


Design 2

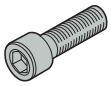


Designation	Item number	CTMS	CTWS	LF	LB	BD	OAL	Design	RFID hole	Balan-cing	Weight
				mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*				kg *lbs*
E400251913240	03030234	BT30 TF AD	C3	40,0 *1.575*	22,0 *0.866*	32,0 *1.260*	88,4 *3.480*	1	1	PB	0,454 *1.000*
E400251914060	03030235	BT30 TF AD	C4	60,0 *2.362*	22,0 *0.866*	40,0 *1.575*	108,4 *4.268*	1	1	PB	0,7 *1.540*
E311451914040	03030236	BT40 TF ADB	C4	40,0 *1.575*	13,0 *0.512*	40,0 *1.575*	105,4 *4.150*	2	0	PB	1,1 *2.430*
E311451915050	03030237	BT40 TF ADB	C5	50,0 *1.969*	23,0 *0.906*	50,0 *1.969*	115,4 *4.543*	2	0	PB	1,2 *2.650*
E311451916375	03030238	BT40 TF ADB	C6	75,0 *2.953*	48,0 *1.890*	63,0 *2.480*	140,4 *5.528*	2	0	PB	1,7 *3.750*
E311651914040	03030239	BT50 TF ADB	C4	40,0 *1.575*	2,0 *0.079*	50,0 *1.969*	141,8 *5.583*	2	1	PB	3,5 *7.720*
E311651915040	03030240	BT50 TF ADB	C5	40,0 *1.575*	2,0 *0.079*	50,0 *1.969*	141,8 *5.583*	2	0	PB	3,4 *7.500*
E311651916350	03030241	BT50 TF ADB	C6	50,0 *1.969*	12,0 *0.472*	63,0 *2.480*	151,8 *5.976*	2	0	PB	3,5 *7.720*
E3116519163100	03030242	BT50 TF ADB	C6	100,0 *3.937*	62,0 *2.441*	63,0 *2.480*	201,8 *7.945*	2	0	PB	4,8 *10.580*
E311651918070	03030243	BT50 TF ADB	C8	70,0 *2.756*	32,0 *1.260*	80,0 *3.150*	171,8 *6.764*	2	0	PB	4,2 *9.260*
E3116519180120	03030244	BT50 TF ADB	C8	120,0 *4.724*	82,0 *3.228*	80,0 *3.150*	121,8 *4.795*	2	1	PB	5,9 *13.010*

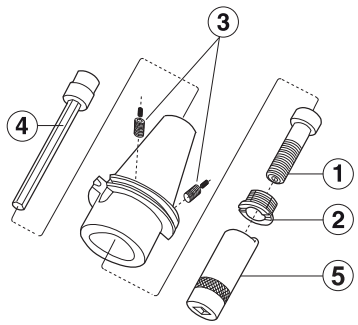
Accessories

For Taper/ size	Extension key	Spanner
		
BT30 TF/ C3	5680015-05	5680065-13
BT30 TF/ C4	5680015-05	5680065-10
BT40 TF/ C4	5680015-05	5680065-10
BT40 TF/ C5	5680015-01	5680065-11
BT40 TF/ C6	5680015-01	5680065-12
BT50 TF/ C4	5680015-05	5680065-10
BT50 TF/ C5	5680015-01	5680065-11
BT50 TF/ C6-C8	5680015-02	5680065-12

Spare Parts, included in delivery

For Taper/ size	Centre screw	Plug	Retaining nut
		 1x	
BT30 TF/ C3	5512063-10	–	5512091-04
BT30 TF/ C4	5512063-07	–	5512091-03
BT40 TF/ C4	5512063-07	564301701	5512091-03
BT40 TF/ C5	5512063-08	564301701	5512091-01
BT40 TF/ C6	5512063-13	564301701	5512091-02
BT50 TF/ C4	5512063-07	564301702	5512091-03
BT50 TF/ C5	5512063-08	564301702	5512091-01
BT50 TF/ C6-C8	5512063-09	564301702	5512091-02

Accessories / Spare Parts



Accessories:
4 = Extension key
5 = Spanner

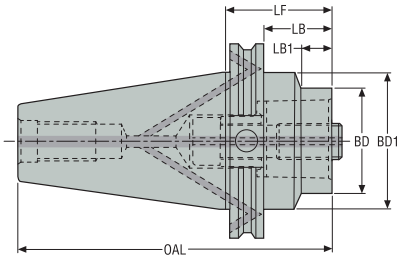
Spare parts:
1 = Center screw
2 = Retaining nut
3 = Plugs (dowels)

C 5191 – Seco-Capto™, basic holders

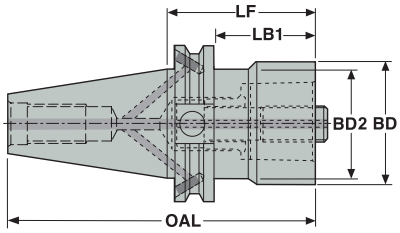
CAT TF / ASME B5.50-1994-ADB



Design 1

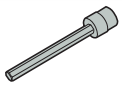
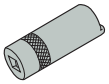


Design 2

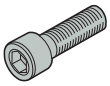


Designation	Item number	CTMS	CTWS	LF	LB	LB1	BD	BD1	OAL	Design	RFID hole	Balan-cing	Weight
				Inch	*Inch*	*Inch*	*Inch*	*Inch*	*Inch*				lbs
E234251915050	03030247	CAT40 TF ADB	C5	1.969	1.220	1.220	1.969	1.750	4.660	2	1	PB	2.250
E234451914040	03030249	CAT50 TF ADB	C4	1.575	0.090	0.090	1.575	2.750	5.580	1	1	PB	6.830
E234451915040	03030250	CAT50 TF ADB	C5	1.575	0.090	0.090	1.969	2.750	5.580	1	0	-	6.610
E234451916340	03030251	CAT50 TF ADB	C6	1.575	0.120	0.120	2.480	2.750	5.580	1	0	-	6.170
E234451916390	03030252	CAT50 TF ADB	C6	3.543	2.085	2.085	2.480	2.750	7.543	1	0	-	8.600
E2344519180100	03030253	CAT50 TF ADB	C8	3.937	3.185	3.185	3.150	2.750	7.937	2	1	PB	10.140

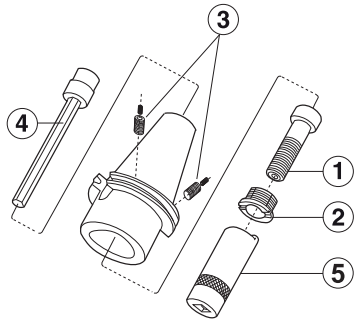
Accessories

For Taper/ size	Extension key	Spanner
		
CAT40/ C5	5680015-01	5680065-11
CAT50/ C4	5680015-05	5680065-10
CAT50/ C5	5680015-01	5680065-11
CAT50/ C6	5680015-02	5680065-12
CAT50/ C8	5680015-02	5680065-12

Spare Parts, included in delivery

For Taper/ size	Centre screw	Plug	Retaining nut
		 1x	
CAT40/ C5	5512063-08	564301701	5512091-01
CAT50/ C4	5512063-07	564301702	5512091-03
CAT50/ C5	5512063-08	564301702	5512091-01
CAT50/ C6	5512063-09	564301702	5512091-02
CAT50/ C8	5512063-09	564301702	5512091-02

Accessories / Spare Parts



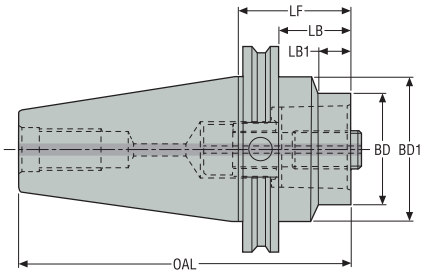
Accessories:
4 = Extension key
5 = Spanner

Spare parts:
1 = Center screw
2 = Retaining nut
3 = Plugs (dowels)

C 5191 – Seco-Capto™, basic holders

CAT TF Mazak™ e-machine and Mori Seiki NT™ -Series

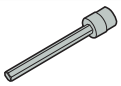
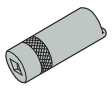




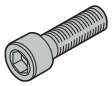
- 90° rotated polygon for precision tool tip control

Designation	Item number	CTMS	CTWS	LF	LB	LB1	BD	BD1	OAL	Design	RFID hole	Balan-cing	Weight
				Inch	*Inch*	*Inch*	*Inch*	*Inch*	*Inch*				lbs
E947451916350	03030255	CAT50 TF AD Mazak	C6	1.969	0.510	0.510	2.480	2.750	5.960	1	0	PB	6.830

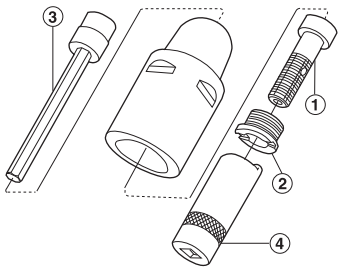
Accessories

For size	Extension key	Spanner
		
E947451916350	5680015-02	5680065-12

Spare Parts, included in delivery

For size	Centre screw	Retaining nut
		
E947451916350	5512063-09	5512091-02

Accessories / Spare Parts

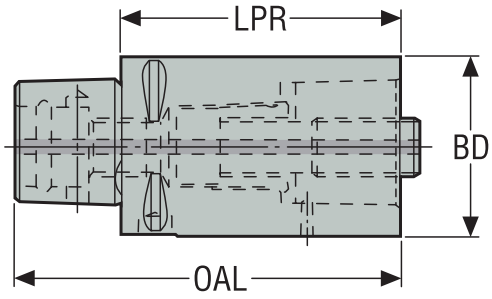


Accessories:
3 = Extension key
4 = Retaining nut spanner

Spare parts:
1 = Center screw
2 = Retaining nut

C 01 – Seco-Capto™, extensions

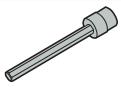
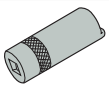
ISO 26623-1



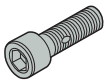


Designation	Item number	CTMS	CTWS	LPR	BD	OAL	RFID hole	Balan-cing	Weight
				mm *Inch*	mm *Inch*	mm *Inch*			kg *lbs*
C3-391.01-32060A	75039884	C3	C3	60,0 *2.362*	32,0 *1.260*	79,0 *3.110*	0	-	0,4 *0.880*
C3-391.01-32080A	00090847	C3	C3	80,0 *3.150*	32,0 *1.260*	99,0 *3.898*	0	-	0,5 *1.100*
C4-391.01-40060A	75039885	C4	C4	60,0 *2.362*	40,0 *1.575*	84,0 *3.307*	0	-	0,6 *1.320*
C4-391.01-40080A	02207391	C4	C4	80,0 *3.150*	40,0 *1.575*	104,0 *4.094*	0	-	0,71 *1.570*
C5-391.01-50080A	75039886	C5	C5	80,0 *3.150*	50,0 *1.969*	110,0 *4.331*	0	-	1,1 *2.430*
C5-391.01-50100A	00004773	C5	C5	100,0 *3.937*	50,0 *1.969*	130,0 *5.118*	0	-	1,39 *3.060*
C6-391.01-63100A	75039887	C6	C6	100,0 *3.937*	63,0 *2.480*	138,0 *5.433*	0	-	2,2 *4.850*
C6-391.01-63140A	00004840	C6	C6	140,0 *5.512*	63,0 *2.480*	178,0 *7.008*	0	-	3,2 *7.050*
C8-391.01-80100A	75039888	C8	C8	100,0 *3.937*	80,0 *3.150*	148,0 *5.827*	0	-	3,6 *7.940*
C8-391.01-80125A	00004841	C8	C8	125,0 *4.921*	80,0 *3.150*	173,0 *6.811*	0	-	4,7 *10.360*

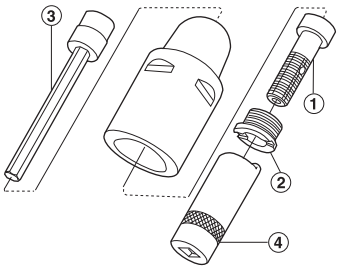
Accessories

For size	Extension key	Spanner
		
C3	5680015-05	5680065-13
C4	5680015-05	5680065-10
C5	5680015-01	5680065-11
C6	5680015-02	5680065-12
C8	5680015-02	5680065-12

Spare Parts, included in delivery

For size	Centre screw	Retaining nut
		
C3	5512067-01	5512091-04
C4	5512067-02	5512091-03
C5	5512067-03	5512091-01
C6	5512067-04	5512091-02
C8	5512067-04	5512091-02

Accessories / Spare Parts



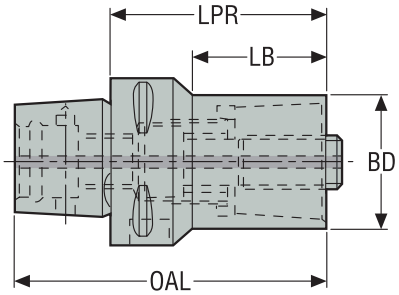
Accessories:
3 = Extension key
4 = Retaining nut spanner

Spare parts:
1 = Center screw
2 = Retaining nut

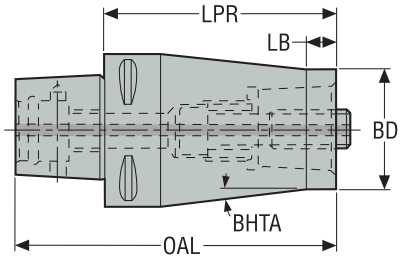
C 02 – Seco-Capto™, reducers

ISO 26623-1

Design 1



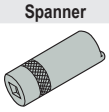
Design 2



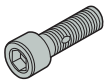


Designation	Item number	CTMS	CTWS	LPR	LB	BD	OAL	Design	BHTA°	RFID hole	Balancing	Weight
				mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*					kg *lbs*
C4-391.02-32055A	75039889	C4	C3	55,0 *2.165*	31,0 *1.220*	32,0 *1.260*	79,0 *3.110*	1	–	0	-	0,42 *0.930*
C4-391.02-32070A	02535687	C4	C3	70,0 *2.756*	–	32,0 *1.260*	94,0 *3.701*	2	6,0	0	-	0,56 *1.230*
C5-391.02-32060A	75039890	C5	C3	60,0 *2.362*	34,8 *1.370*	32,0 *1.260*	90,0 *3.543*	1	–	0	-	0,7 *1.540*
C5-391.02-40065A	75039891	C5	C4	65,0 *2.559*	40,0 *1.575*	40,0 *1.575*	95,0 *3.740*	1	–	0	-	0,8 *1.760*
C6-391.02-32070A	75039892	C6	C3	70,0 *2.756*	39,0 *1.535*	32,0 *1.260*	108,0 *4.252*	1	–	0	-	1,1 *2.430*
C6-391.02-40080A	75039893	C6	C4	80,0 *3.150*	51,4 *2.024*	40,0 *1.575*	118,0 *4.646*	1	–	0	-	1,2 *2.650*
C6-391.02-50080A	75039894	C6	C5	80,0 *3.150*	51,5 *2.028*	50,0 *1.969*	118,0 *4.646*	1	–	0	-	1,5 *3.310*
C6-391.02-50110A	02207400	C6	C5	110,0 *4.331*	12,0 *0.472*	50,0 *1.969*	148,0 *5.827*	2	4,5	0	-	2,2 *4.850*
C8-391.02-32060B	03080008	C8	C3	60,0 *2.362*	20,7 *0.815*	32,0 *1.260*	108,0 *4.252*	1	–	0	-	2,0 *4.410*
C8-391.02-40070B	03080009	C8	C4	70,0 *2.756*	31,4 *1.236*	40,0 *1.575*	118,0 *4.646*	1	–	0	-	2,1 *4.630*
C8-391.02-50080B	03080011	C8	C5	80,0 *3.150*	42,8 *1.685*	50,0 *1.969*	128,0 *5.039*	1	–	0	-	2,4 *5.290*
C8-391.02-63080B	02527212	C8	C6	80,0 *3.150*	44,5 *1.752*	63,0 *2.480*	128,0 *5.039*	1	–	0	-	2,6 *5.730*
C8-391.02-63120A	02207176	C8	C6	120,0 *4.724*	12,0 *0.472*	63,0 *2.480*	168,0 *6.614*	2	6,0	0	-	4,1 *9.040*

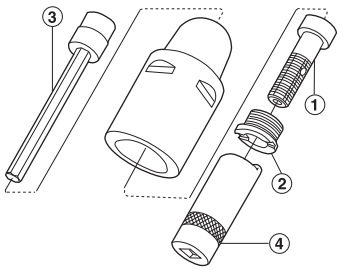
Accessories

For size	Extension key	Spanner
		
C...-32	5680015-05	5680065-13
C...-40	5680015-05	5680065-10
C...-50	5680015-01	5680065-11
C...-63	5680015-02	5680065-12

Spare Parts, included in delivery

For size	Centre screw	Retaining nut
		
C...-32	5512067-01	5512091-04
C...-40	5512067-02	5512091-03
C...-50	5512067-03	5512091-01
C...-63	5512067-04	5512091-02

Accessories / Spare Parts

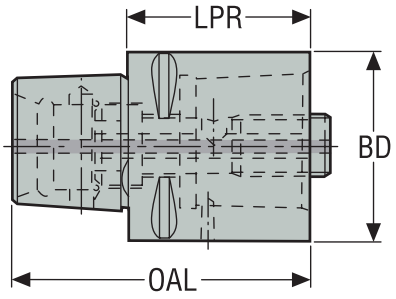


Accessories:
3 = Extension key
4 = Retaining nut spanner

Spare parts:
1 = Center screw
2 = Retaining nut

C01 Seco-Capto ™ extensions, short version, for segment clamping only

ISO 26623-1

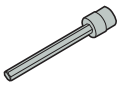




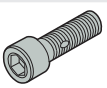
- The Seco-Capto™ machine side of short extensions can only be hold by spindles with segment clamping (not with center bolt clamping)

Designation	Item number	CTMS	CTWS	LPR	BD	OAL	RFID hole	Balan-cing	Weight
				mm *Inch*	mm *Inch*	mm *Inch*			kg *lbs*
C3-391.01-32035	02535685	C3	C3	35,0 *1.378*	32,0 *1.260*	54,0 *2.126*	0	-	0,3 *0.660*
C4-391.01-40040	02535686	C4	C4	40,0 *1.575*	40,0 *1.575*	64,0 *2.520*	0	-	0,4 *0.880*
C5-391.01-50050	02484934	C5	C5	50,0 *1.969*	50,0 *1.969*	80,0 *3.150*	0	-	0,7 *1.540*
C6-391.01-63060	02300834	C6	C6	60,0 *2.362*	63,0 *2.480*	98,0 *3.858*	0	-	1,3 *2.870*
C8-391.01-80065	02417041	C8	C8	65,0 *2.559*	80,0 *3.150*	113,0 *4.449*	0	-	2,4 *5.290*

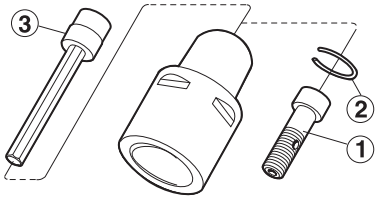
Accessories

For	Extension key
	
C3-391.01-32035	5680015-05
C4-391.01-40040	5680015-05
C5-391.01-50050	5680015-05
C6-391.01-63060	5680015-02
C8-391.01-80065	5680015-02

Spare Parts, included in delivery

For	Centre screw	Circlip
		
C3-391.01-32035	5512068-01	5545040-02
C4-391.01-40040	5512068-02	5545040-03
C5-391.01-50050	5512068-03	5545040-07
C6-391.01-63060	5512068-04	5545040-08
C8-391.01-80065	5512068-05	5545040-08

Accessories / Spare Parts

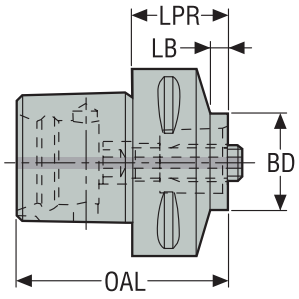


Accessories:
3 = Extension key

Spare parts:
1 = Center screw
2 = Circlip

C02 Seco-Capto™ reducers, short version, for segment clamping only

ISO 26623-1

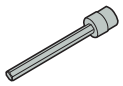




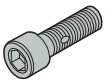
- The Seco-Capto™ machine side of short reducers can only be hold by spindles with segment clamping (not with center bolt clamping)
- * With 180° offset Machine side vs Workpiece side

Designation	Item number	CTMS	CTWS	LPR	LB	BD	OAL	*	RFID hole	Balancing	Weight
				mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*				kg *lbs*
C5-391.02-32033A	03080025	C5	C3	33,0 *1.299*	5,0 *0.197*	32,0 *1.260*	63,0 *2.480*	–	0	PB	0,6 *1.320*
C5-391.02-40040A	03079983	C5	C4	40,0 *1.575*	15,0 *0.591*	40,0 *1.575*	70,0 *2.756*	–	0	-	0,6 *1.320*
C6-391.02-32032	02535690	C6	C3	32,0 *1.260*	6,0 *0.236*	32,0 *1.260*	70,0 *2.756*	–	0	-	0,85 *1.870*
C6-391.02-40040	02459467	C6	C4	40,0 *1.575*	11,0 *0.433*	40,0 *1.575*	78,0 *3.071*	–	0	-	0,9 *1.980*
C6-391.02-50050A	03080019	C6	C5	50,0 *1.969*	20,0 *0.787*	50,0 *1.969*	88,0 *3.465*	–	0	-	1,1 *2.430*
C8-391.02-50045A	03080010	C8	C5	45,0 *1.772*	5,0 *0.197*	50,0 *1.969*	93,0 *3.661*	–	0	-	2,0 *4.410*
C8-391.02-63055A	03080012	C8	C6	55,0 *2.165*	15,0 *0.591*	63,0 *2.480*	103,0 *4.055*	–	0	-	2,1 *4.630*
C8-391.02R-63055A	03080030	C8	C6	55,0 *2.165*	15,0 *0.591*	63,0 *2.480*	103,0 *4.055*	*	0	-	1,9 *4.190*

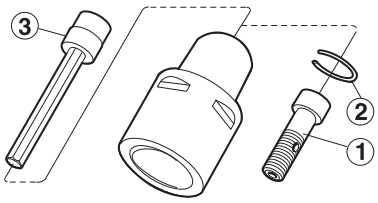
Accessories

For	Extension key
	
C5-391.02-32033A	5680015-05
C5-391.02-40040A	5680015-05
C6-391.02-32032	5680015-05
C6-391.02-40040	5680015-05
C6-391.02-50050A	5680015-01
C8-391.02-50045A	5680015-01
C8-391.02-63055A	5680015-02
C8-391.02R-63055A	5680015-02

Spare Parts, included in delivery

For	Centre screw	Circlip
		
C5-391.02-32033A	5512068-01	5545040-02
C5-391.02-40040A	5512068-06	5545040-07
C6-391.02-32032	5512068-01	5545040-02
C6-391.02-40040	5512068-02	5545040-03
C6-391.02-50050A	5512068-07	5545040-08
C8-391.02-50045A	5512068-08	5545040-08
C8-391.02-63055A	5512068-05	5545040-08
C8-391.02R-63055A	5512068-05	5545040-08

Accessories / Spare Parts

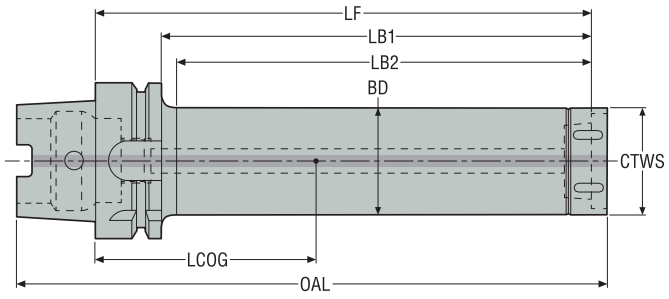


Accessories:
3 = Extension key

Spare parts:
1 = Center screw
2 = Circlip

GL – Steadyline®, HSK-T/A GL holders

Body diameters 25, 32, 40 and 50 mm / *0.984, 1.260, 1.575 and 1.969 inch*

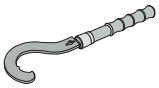




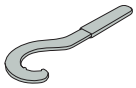
- With dynamic damping, ready to use
- With through coolant
- * Max. RPM only when used in rotating boring

Designation	Item number	CTMS HSK-T/A	CTWS GL size	BD	LF	LB1	LB2	OAL	LCOG	Max. RPM*	RFID hole	Balancing	Weight
				mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*				kg *lbs*
HSKTA63-GL25-130-K	03214283	HSK-T/A63	GL25	25,0 *0.984*	130,0 *5.118*	104,0 *4.094*	101,0 *3.976*	166,5 *6.555*	37,0 *1.457*	0	1	PB	1,4 *3.090*
HSKTA63-GL25-180-K	03214284	HSK-T/A63	GL25	25,0 *0.984*	180,0 *7.087*	154,0 *6.063*	151,0 *5.945*	216,5 *8.524*	57,7 *2.272*	0	1	PB	1,5 *3.310*
HSKTA63-GL25-230-K	03214285	HSK-T/A63	GL25	25,0 *0.984*	230,0 *9.055*	204,0 *8.031*	201,0 *7.913*	266,5 *10.492*	80,3 *3.161*	0	1	PB	1,5 *3.310*
E9374-D32-160-GL32	03029521	HSK-T/A63	GL32	32,0 *1.260*	160,0 *6.299*	134,0 *5.276*	128,0 *5.039*	197,4 *7.772*	58,92 *2.320*	0	1	PB	1,6 *3.530*
E9374-D32-224-GL32	03029522	HSK-T/A63	GL32	32,0 *1.260*	224,0 *8.819*	198,0 *7.795*	192,0 *7.559*	261,4 *10.291*	90,22 *3.552*	0	1	PB	2,0 *4.410*
E9374-D40-208-GL40	03029523	HSK-T/A63	GL40	40,0 *1.575*	208,0 *8.189*	182,0 *7.165*	176,0 *6.929*	246,4 *9.701*	92,78 *3.653*	0	1	PB	2,7 *5.950*
E9374-D40-288-GL40	03029524	HSK-T/A63	GL40	40,0 *1.575*	288,0 *11.339*	262,0 *10.315*	256,0 *10.079*	326,4 *12.850*	134,37 *5.290*	0	1	PB	3,5 *7.720*
E9374-D50-268-GL50	03029525	HSK-T/A63	GL50	50,0 *1.969*	268,0 *10.551*	242,0 *9.528*	240,5 *9.469*	307,4 *12.102*	131,8 *5.189*	0	1	PB	4,8 *10.580*
E9374-D50-368-GL50	03029526	HSK-T/A63	GL50	50,0 *1.969*	368,0 *14.488*	342,0 *13.465*	340,5 *13.406*	407,4 *16.039*	184,79 *7.275*	0	1	PB	6,4 *14.110*
E9376-D32-160-GL32	03029527	HSK-T/A100	GL32	32,0 *1.260*	160,0 *6.299*	131,0 *5.157*	125,0 *4.921*	215,4 *8.480*	32,87 *1.294*	0	1	PB	3,0 *6.610*
E9376-D32-224-GL32	03029528	HSK-T/A100	GL32	32,0 *1.260*	224,0 *8.819*	195,0 *7.677*	189,0 *7.441*	279,4 *11.000*	54,97 *2.164*	0	1	PB	3,4 *7.500*
E9376-D32-288-GL32	03029529	HSK-T/A100	GL32	32,0 *1.260*	288,0 *11.339*	259,0 *10.197*	253,0 *9.961*	343,4 *13.520*	80,51 *3.170*	0	1	PB	3,8 *8.380*
E9376-D40-208-GL40	03029530	HSK-T/A100	GL40	40,0 *1.575*	208,0 *8.189*	179,0 *7.047*	173,0 *6.811*	264,4 *10.409*	62,83 *2.474*	0	1	PB	4,1 *9.040*
E9376-D40-288-GL40	03029531	HSK-T/A100	GL40	40,0 *1.575*	288,0 *11.339*	259,0 *10.197*	253,0 *9.961*	344,4 *13.559*	98,31 *3.870*	0	1	PB	4,9 *10.800*
E9376-D40-368-GL40	03029532	HSK-T/A100	GL40	40,0 *1.575*	368,0 *14.488*	339,0 *13.346*	333,0 *13.110*	424,4 *16.709*	139,77 *5.503*	0	1	PB	5,8 *12.790*
E9376-D50-268-GL50	03029533	HSK-T/A100	GL50	50,0 *1.969*	268,0 *10.551*	239,0 *9.409*	234,0 *9.213*	325,4 *12.811*	104,26 *4.105*	0	1	PB	6,2 *13.670*
E9376-D50-368-GL50	03029534	HSK-T/A100	GL50	50,0 *1.969*	368,0 *14.488*	339,0 *13.346*	334,0 *13.150*	425,4 *16.748*	154,26 *6.073*	0	1	PB	7,8 *17.200*
E9376-D50-468-GL50	03029535	HSK-T/A100	GL50	50,0 *1.969*	468,0 *18.425*	439,0 *17.283*	434,0 *17.087*	525,4 *20.685*	211,61 *8.331*	0	1	PB	9,7 *21.380*

Accessories

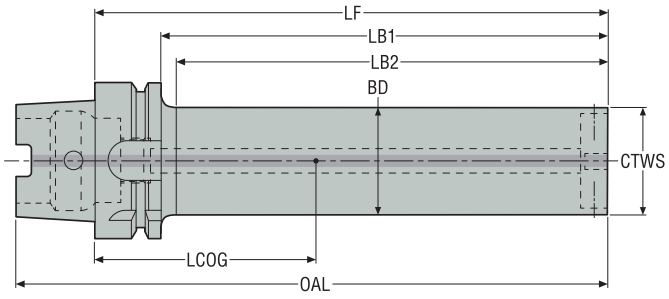
For size	Replaceable end	Torque key
		
GL25	–	–
GL32	SL00-32	SL00-32.250
GL40	SL00-40	SL00-40.350
GL50	SL00-50	SL00-50.550

Spare Parts, included in delivery

For size	Locking key
	
GL25	SL25
GL32	SL32
GL40	SL40
GL50	SL50

BA – Steadyline®, HSK T/A-BA holders

Body diameters 60 and 80 mm / *2.362 and 3.150 inch*





- With dynamic damping, ready to use
- To hold BA to GL adapters with GL turning heads
- With through coolant
- * Max. RPM only when used in rotating boring

Designation	Item number	CTMS HSK-T/A size	CTWS BA connection	BD	LF	LB1	LB2	OAL	LCOG	Max. RPM*	RFID hole	Balancing	Weight
				mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*				kg *lbs*
E9376-D60-301-BA060	03062828	HSK-T/A100	BA060	60,0 *2.362*	301,0 *11.850*	272,0 *10.709*	267,0 *10.512*	351,0 *13.819*	133,05 *5.238*	4000	1	PB	8,9 *19.620*
E9376-D60-421-BA060	03062829	HSK-T/A100	BA060	60,0 *2.362*	421,0 *16.575*	392,0 *15.433*	387,0 *15.236*	471,0 *18.543*	197,17 *7.763*	0	1	PB	11,8 *26.010*
E9376-D60-541-BA060	03062830	HSK-T/A100	BA060	60,0 *2.362*	541,0 *21.299*	512,0 *20.157*	507,0 *19.961*	591,0 *23.268*	260,56 *10.258*	0	1	PB	14,5 *31.970*
E9376-D80-421-BA080	03064109	HSK-T/A100	BA080	80,0 *3.150*	421,0 *16.575*	392,0 *15.433*	387,0 *15.236*	471,0 *18.543*	209,68 *8.255*	0	1	PB	19,4 *42.770*
E9376-D80-581-BA080	03064111	HSK-T/A100	BA080	80,0 *3.150*	581,0 *22.874*	552,0 *21.732*	547,0 *21.535*	631,0 *24.843*	295,45 *11.632*	0	1	PB	26,2 *57.760*

Accessories

For size	Locking key
	
BA060	03H04
BA080	03H05

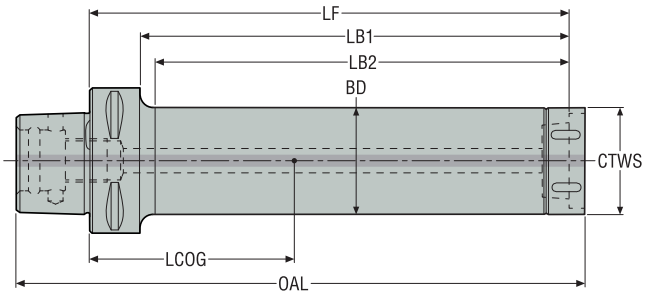
Spare Parts, included in delivery

For size	Locking screw
	
BA060	90FQ4
BA080	90FQ52

GL – Steadyline®, GL holders

Body diameters 25, 32, 40 and 50 mm / *0.984, 1.260, 1.575 and 1.969 inch*



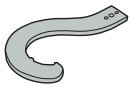
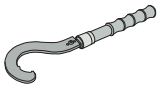


- With dynamic damping, ready to use
- With through coolant
- * Max. RPM only when used in rotating boring

Designation	Item number	CTMS Seco-Capto™ size	CTWS GL size	BD	LF	LB1	LB2	OAL	LCOG	Max. RPM*	RFID hole	Balancing	Weight
				mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*				kg *lbs*
C4-D25-130-GL25	03214272	C4	GL25	25,0 *0.984*	130,0 *5.118*	110,0 *4.331*	107,0 *4.213*	158,5 *6.240*	51,8 *2.039*	0	0	PB	1,0 *2.200*
C4-D25-180-GL25	03214273	C4	GL25	25,0 *0.984*	180,0 *7.087*	160,0 *6.299*	157,0 *6.181*	208,5 *8.209*	77,2 *3.039*	0	0	PB	1,2 *2.650*
C4-D32-160-GL32	02807837	C4	GL32	32,0 *1.260*	160,0 *6.299*	140,0 *5.512*	137,0 *5.394*	189,4 *7.457*	74,73 *2.942*	0	0	PB	1,4 *3.090*
C4-D32-224-GL32	02807838	C4	GL32	32,0 *1.260*	224,0 *8.819*	204,0 *8.031*	201,0 *7.913*	253,4 *9.976*	109,16 *4.298*	0	0	PB	1,7 *3.750*
C5-D25-130-GL25	03214274	C5	GL25	25,0 *0.984*	130,0 *5.118*	110,0 *4.331*	107,0 *4.213*	164,5 *6.476*	41,8 *1.646*	0	1	PB	1,1 *2.430*
C5-D25-180-GL25	03214275	C5	GL25	25,0 *0.984*	180,0 *7.087*	160,0 *6.299*	157,0 *6.181*	214,5 *8.445*	65,1 *2.563*	0	1	PB	1,3 *2.870*
C5-D25-230-GL25	03214276	C5	GL25	25,0 *0.984*	230,0 *9.055*	210,0 *8.268*	207,0 *8.150*	264,5 *10.413*	89,8 *3.535*	0	1	PB	1,5 *3.310*
C5-D32-160-GL32	02807840	C5	GL32	32,0 *1.260*	160,0 *6.299*	140,0 *5.512*	136,0 *5.354*	195,4 *7.693*	65,15 *2.565*	0	1	PB	1,6 *3.530*
C5-D32-224-GL32	02807841	C5	GL32	32,0 *1.260*	224,0 *8.819*	204,0 *8.031*	200,0 *7.874*	259,4 *10.213*	98,47 *3.877*	0	1	PB	2,0 *4.410*
C5-D32-288-GL32	02807842	C5	GL32	32,0 *1.260*	288,0 *11.339*	268,0 *10.551*	264,0 *10.394*	323,4 *12.732*	133,61 *5.260*	0	1	PB	2,2 *4.850*
C5-D40-208-GL40	02807843	C5	GL40	40,0 *1.575*	208,0 *8.189*	188,0 *7.402*	184,0 *7.244*	244,4 *9.622*	98,32 *3.871*	0	1	PB	2,8 *6.170*
C5-D40-288-GL40	02807844	C5	GL40	40,0 *1.575*	288,0 *11.339*	268,0 *10.551*	264,0 *10.394*	324,4 *12.772*	140,88 *5.546*	0	1	PB	3,3 *7.280*
C6-D25-130-GL25	03214277	C6	GL25	25,0 *0.984*	130,0 *5.118*	105,0 *4.134*	102,0 *4.016*	172,5 *6.791*	30,4 *1.197*	0	1	PB	1,6 *3.530*
C6-D25-180-GL25	03214278	C6	GL25	25,0 *0.984*	180,0 *7.087*	155,0 *6.102*	152,0 *5.984*	222,5 *8.760*	49,3 *1.941*	0	1	PB	1,5 *3.310*
C6-D25-230-GL25	03214279	C6	GL25	25,0 *0.984*	230,0 *9.055*	205,0 *8.071*	202,0 *7.953*	272,5 *10.728*	70,2 *2.764*	0	1	PB	1,7 *3.750*
C6-D32-160-GL32	02807846	C6	GL32	32,0 *1.260*	160,0 *6.299*	135,0 *5.315*	129,0 *5.079*	203,4 *8.008*	52,06 *2.050*	0	1	PB	1,8 *3.970*
C6-D32-224-GL32	02807847	C6	GL32	32,0 *1.260*	224,0 *8.819*	199,0 *7.835*	193,0 *7.598*	267,4 *10.528*	82,17 *3.235*	0	1	PB	2,2 *4.850*
C6-D32-288-GL32	02807848	C6	GL32	32,0 *1.260*	288,0 *11.339*	263,0 *10.354*	257,0 *10.118*	331,4 *13.047*	114,87 *4.522*	0	1	PB	2,6 *5.730*

Designation	Item number	CTMS Seco-Capto™ size	CTWS GL size	BD	LF	LB1	LB2	OAL	LCOG	Max. RPM*	RFID hole	Balancing	Weight
				mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*				kg *lbs*
C6-D40-208-GL40	02807849	C6	GL40	40,0 *1.575*	208,0 *8.189*	183,0 *7.205*	177,0 *6.969*	252,4 *9.937*	86,42 *3.402*	0	1	PB	2,9 *6.390*
C6-D40-288-GL40	02807850	C6	GL40	40,0 *1.575*	288,0 *11.339*	263,0 *10.354*	257,0 *10.118*	332,4 *13.087*	127,5 *5.020*	0	1	PB	3,7 *8.160*
C6-D40-368-GL40	02807851	C6	GL40	40,0 *1.575*	368,0 *14.488*	343,0 *13.504*	337,0 *13.268*	412,4 *16.236*	173,14 *6.817*	0	1	PB	4,6 *10.140*
C6-D50-268-GL50	02807852	C6	GL50	50,0 *1.969*	268,0 *10.551*	243,0 *9.567*	238,0 *9.370*	313,4 *12.339*	126,6 *4.984*	0	1	PB	5,4 *11.900*
C6-D50-368-GL50	02807853	C6	GL50	50,0 *1.969*	368,0 *14.488*	343,0 *13.504*	338,0 *13.307*	413,4 *16.276*	179,44 *7.065*	0	1	PB	6,6 *14.550*
C6-D50-468-GL50	02807854	C6	GL50	50,0 *1.969*	468,0 *18.425*	443,0 *17.441*	438,0 *17.244*	513,4 *20.213*	238,49 *9.389*	0	1	PB	8,5 *18.740*
C8-D32-224-GL32	03029356	C8	GL32	32,0 *1.260*	224,0 *8.819*	191,0 *7.520*	181,0 *7.126*	277,5 *10.925*	58,17 *2.290*	0	1	PB	3,2 *7.050*
C8-D32-288-GL32	03029357	C8	GL32	32,0 *1.260*	288,0 *11.339*	255,0 *10.039*	245,0 *9.646*	341,5 *13.445*	84,7 *3.335*	0	1	PB	3,6 *7.940*
C8-D40-288-GL40	03029358	C8	GL40	40,0 *1.575*	288,0 *11.339*	255,0 *10.039*	245,0 *9.646*	341,5 *13.445*	102,14 *4.021*	0	1	PB	4,7 *10.360*
C8-D40-368-GL40	03029359	C8	GL40	40,0 *1.575*	368,0 *14.488*	335,0 *13.189*	325,0 *12.795*	422,5 *16.634*	144,04 *5.671*	0	1	PB	5,6 *12.350*
C8-D50-268-GL50	03029360	C8	GL50	50,0 *1.969*	268,0 *10.551*	235,0 *9.252*	225,0 *8.858*	323,4 *12.732*	107,59 *4.236*	0	1	PB	5,9 *13.010*
C8-D50-368-GL50	03029361	C8	GL50	50,0 *1.969*	368,0 *14.488*	335,0 *13.189*	325,0 *12.795*	423,4 *16.669*	158,08 *6.224*	0	1	PB	7,5 *16.530*
C8-D50-468-GL50	03029362	C8	GL50	50,0 *1.969*	468,0 *18.425*	435,0 *17.126*	425,0 *16.732*	523,4 *20.606*	215,6 *8.488*	0	1	PB	9,4 *20.720*

Accessories

For size	Replaceable end	Torque key
		
GL25	–	–
GL32	SL00-32	SL00-32.250
GL40	SL00-40	SL00-40.350
GL50	SL00-50	SL00-50.550

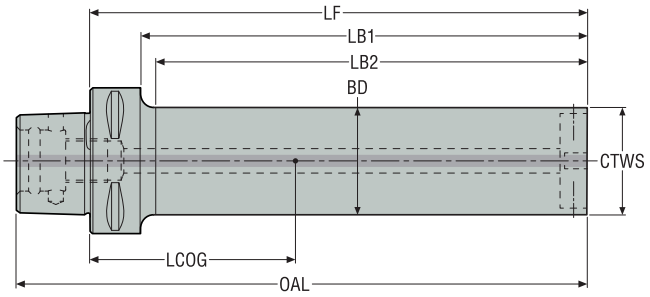
Spare Parts, included in delivery

For size	Locking key
	
GL25	SL25
GL32	SL32
GL40	SL40
GL50	SL50

BA – Steadyline®, BA holders

Body diameters 60 and 80 mm / *2.362 and 3.150 inch*





- With dynamic damping, ready to use
- To hold BA to GL adapters with GL turning heads
- With through coolant
- * Max. RPM only when used in rotating boring

Designation	Item number	CTMS Seco-Capto™ size	CTWS BA size	BD	LF	LB1	LB2	OAL	LCOG	Max. RPM*	RFID hole	Balancing	Weight
				mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*				kg *lbs*
C6-D60-301-BA060	03062831	C6	BA060	60,0 *2.362*	301,0 *11.850*	276,0 *10.866*	273,0 *10.748*	339,0 *13.346*	151,74 *5.974*	4000	1	PB	7,8 *17.200*
C6-D60-421-BA060	03062832	C6	BA060	60,0 *2.362*	421,0 *16.575*	396,0 *15.591*	393,0 *15.472*	459,0 *18.071*	218,63 *8.607*	3000	1	PB	10,6 *23.370*
C8-D60-301-BA060	03062833	C8	BA060	60,0 *2.362*	301,0 *11.850*	268,0 *10.551*	263,0 *10.354*	349,0 *13.740*	137,04 *5.395*	4000	1	PB	8,6 *18.960*
C8-D60-421-BA060	03062834	C8	BA060	60,0 *2.362*	421,0 *16.575*	388,0 *15.276*	383,0 *15.079*	469,0 *18.465*	202,5 *7.972*	3000	1	PB	11,4 *25.130*
C8-D60-541-BA060	03062835	C8	BA060	60,0 *2.362*	541,0 *21.299*	508,0 *20.000*	503,0 *19.803*	589,0 *23.189*	266,78 *10.503*	2000	1	PB	14,0 *30.860*
C8-D80-421-BA080	03065829	C8	BA080	80,0 *3.150*	421,0 *16.575*	388,0 *15.276*	383,0 *15.079*	469,0 *18.465*	213,89 *8.421*	3000	1	PB	18,8 *41.450*
C8-D80-581-BA080	03065830	C8	BA080	80,0 *3.150*	581,0 *22.874*	548,0 *21.575*	543,0 *21.378*	629,0 *24.764*	300,38 *11.826*	2000	1	PB	25,1 *55.340*

Accessories

For size	Locking key
	
BA060	03H04
BA080	03H05

Spare Parts, included in delivery

For size	Locking screw
	
BA060	90FQ4
BA080	90FQ52

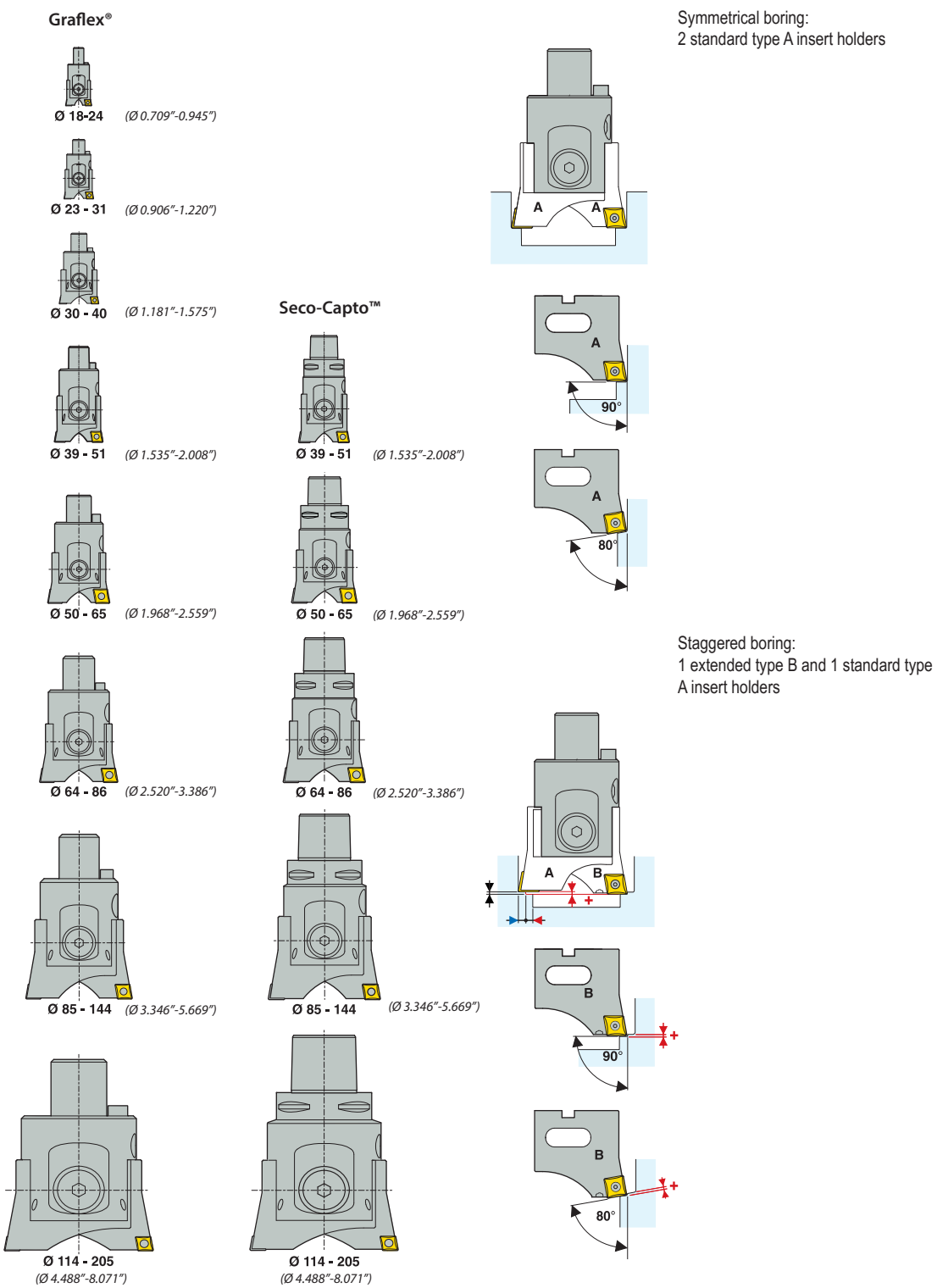


Rough boring

Seco's range of rough boring products maximize material removal rates and accuracy through strong, highly rigid performance. Designed for symmetrical and staggered designs. Steadyline™ vibration damping solutions complete the range to deliver even greater levels of stability for the machining of deep cavities, where long tool overhangs are needed.

- RB 750 rough boring heads offer the highest possible rough boring performance
- RB 610 rough boring heads are short, simple, robust boring heads for roughing operations

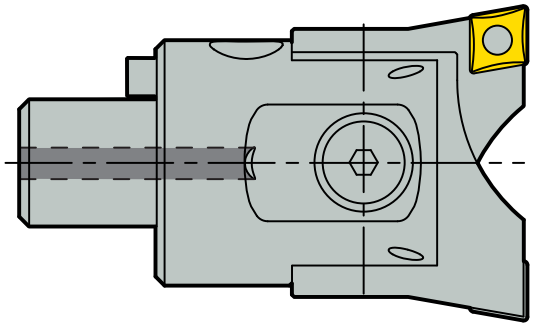
Overview Rough boring heads



Features

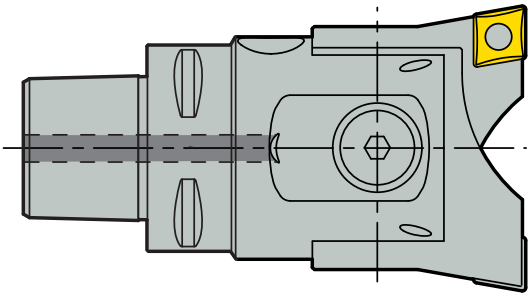
Graflex® rough boring heads

- Ø 18 to 205 mm *(0.709-8.071")*
- 8 rough boring heads RB 750 with Graflex® connection for bores Ø 18 to 205 mm *(0.709-8.071")*



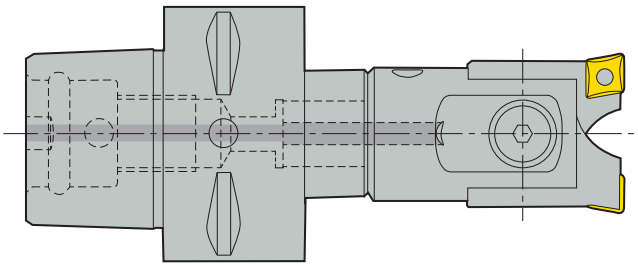
Seco-Capto™ rough boring heads

- **Note:** The minimum bore size of the smallest Capto™ rough boring head is Ø 39 mm *(1.535")* with the smallest available Capto™ C3 connection.
- For Ø 18 to 40 mm *(0.709-1.575")* use Graflex® boring heads with connection sizes G0 to G2 in conjunction with the appropriate Capto™/Graflex® adaptor.



Seco-Capto™ rough boring heads

- **Note:** Features, Instructions (insert holder fitting, diameter setting, back boring instructions, troubleshooting, recommended machining conditions, maximum speeds), suitable insert holders and suitable inserts are similar for both types of RB 750 rough boring heads of similar boring capacity size, regardless of connection type.
- Modular assemblies and cutting conditions Seco-Capto™ and Graflex® adapters and modular extensions: please see the Tooling Systems catalog.

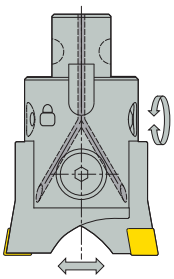


Features

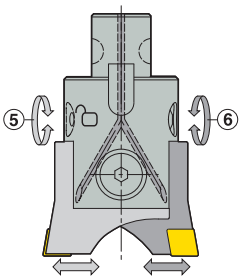
A rough boring head assembly is a combination of 1 body (head) and 2 insert holders.

Simultaneous or independent adjustments of the insert holders are possible:

Simultaneous adjustment by the insert holders coupling mechanism (no coupling mechanism in the smallest head Ø 18 to 24 mm *(0.709-0.9445")*. Each adjusting screw moves both insert holders simultaneously (they are gear coupled). Diameter adjustment is possible without a presetter (1 increment = 0,1 mm *(0.004")* on the diameter). Independent adjustment is also possible: disengage the coupling mechanism so that each adjusting screw acts only on its insert holder.



Simultaneous adjustment



Independant adjustment

Symmetrical boring:

Symmetrical boring means both cutting edges are set on the same diameter: It requires two identical type A standard insert holders (with identical lead angle).

Staggered boring:

Staggered boring means one cutting edge is offset as a leading cutting edge operating on a smaller diameter than the second edge set on the diameter to be realised: It requires one type A standard insert holder and one type B extended insert holder, achieving the required (+) axial offset.

90° or 80° lead angle insert holders

A75…CC… and A75…CP… insert holders have a 90° lead angle for rhombic inserts: mostly suitable for blind holes and requiring less spindle torque.
A75…SC… insert holders have an 80° lead angle for square inserts: mostly suitable for through holes and heavy duty. Angular orientation of the cutting edges according to ISO.

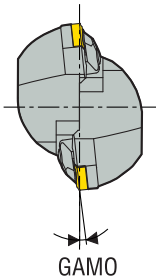
CC, CP, SC or CN type insert holders

A750...CC..., A750...CP... and A750...SC... insert holders are with 0° rake angle (GAMO) and 0° inclination angle (LAMS).

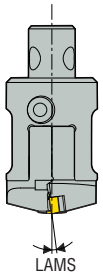
A750...CN... insert holders are with -6° rake angle (GAMO) and -6° inclination angle (LAMS), allowing use of 'negative' CNMM inserts and particularly multi-edges CNMG inserts with 4 cutting edges.

In this case, it is particularly important to select the recommended CN inserts and to respect the recommended cutting data (see page 682).

Using other inserts, e.g. with smaller effective cutting angle, and/or incorrect cutting data, could result in high cutting stresses and machine / workpiece damage.



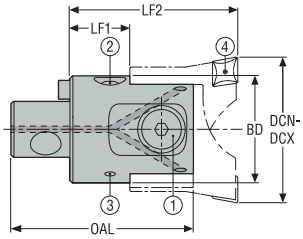
GAMO



LAMS

RB750

Graflex®





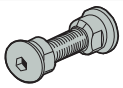
1. Assembly screw
2. Adjusting screw
3. Locking screw of coupling mechanism
4. Insert screw

- Symmetrical and staggered boring is possible
- Simultaneous adjustment by insert holders coupling mechanism

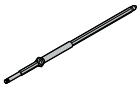
Designation	Item number	Machine side Graflex size	Workpiece side Capacity DCN-DCX Ø		OAL	LF1	LF2	BD	Weight	Simultaneous adjustment mode		Independent adjustment mode		Max. RPM
			mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*	Yes	No	Yes	No	
A75000	00026687	G0	18,0 *0.709*	24,0 *0.945*	38,0 *1.496*	12,5 *0.492*	35,0 *1.378*	16,5 *0.650*	0,1 *0.220*		■	■		15000
A75010	00026688	G1	23,0 *0.906*	31,0 *1.220*	42,5 *1.673*	13,5 *0.531*	40,0 *1.575*	21,5 *0.846*	0,1 *0.220*	■		■		12000
A75020	00026689	G2	30,0 *1.181*	40,0 *1.575*	51,0 *2.008*	16,0 *0.630*	46,0 *1.811*	27,0 *1.063*	0,2 *0.440*	■		■		9500
A75030	00026690	G3	39,0 *1.535*	51,0 *2.008*	69,0 *2.717*	24,0 *0.945*	65,0 *2.559*	35,0 *1.378*	0,3 *0.660*	■		■		7500
A75040	00026691	G4	50,0 *1.969*	65,0 *2.559*	78,0 *3.071*	27,0 *1.063*	72,0 *2.835*	43,0 *1.693*	0,6 *1.320*	■		■		5700
A75050	00026692	G5	64,0 *2.520*	86,0 *3.386*	92,0 *3.622*	30,0 *1.181*	82,0 *3.228*	54,0 *2.126*	0,9 *1.980*	■		■		4500
A75060	00026693	G6	85,0 *3.346*	144,0 *5.669*	119,0 *4.685*	37,0 *1.457*	105,0 *4.134*	70,0 *2.756*	1,8 *3.970*	■		■		3500
A75070	00026694	G7	114,0 *4.488*	205,0 *8.071*	143,0 *5.630*	39,0 *1.535*	120,0 *4.724*	95,0 *3.740*	3,7 *8.160*	■		■		2500

Insert holders have to be ordered separately, see page(s) 592-596
Note, weight is without insert holder

Spare Parts, included in delivery

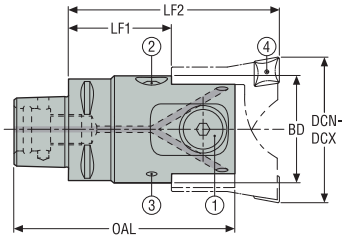
For head	Assembly screw	Tenon
		
A75000	90A75000	90M0
A75010	90A75010	90M11
A75020	90A75020	90M21
A75030	90A75030	90M31
A75040	90A75040	90M41
A75050	90A75050	90M51
A75060	90A75060	90M61
A75070	90A75070	90M71

Accessories

For head	Clamp key	Driving key	Insert key	Key (T-handle)	Setting key
					
A75000	03HL03	–	H4B-T07P	DOUBLE-T	H1.5-2D
A75010	03HL03	H4B-T06P	H4B-T07P	DOUBLE-T	H1.5-2D
A75020	03HL04	H4B-T07P	–	DOUBLE-T	H2.0-2D
A75030	03HL05	H4B-T08P	–	DOUBLE-T	H2.0-2D
A75040	03HL05	H4B-T09P	–	DOUBLE-T	H2.5-2D
A75050	03HL06	–	–	DOUBLE-T	03M03C
A75060	03HL08	–	–	DOUBLE-T	–
A75070	03HL10	H4B-T15P	H4B-T15PL	DOUBLE-T	–

RB750

Seco-Capto™



1. Assembly screw
2. Adjusting screw
3. Locking screw of coupling mechanism
4. Insert screw

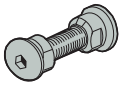


- Symmetrical and staggered boring is possible
- Simultaneous adjustment by insert holders coupling mechanism

Designation	Item number	Machine side Capto size	Workpiece side Capacity DCN-DCX Ø		OAL	LF1	LF2	BD	Weight	Simultaneous adjustment mode		Independent adjustment mode		Max. RPM
			mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*	Yes	No	Yes	No	
C3-391.0750-30	02809726	C3	39,0 *1.535*	51,0 *2.008*	73,0 *2.874*	29,0 *1.142*	70,0 *2.756*	35,0 *1.378*	0,3 *0.660*	■		■		7500
C4-391.0750-40	02809728	C4	50,0 *1.969*	65,0 *2.559*	88,0 *3.465*	37,0 *1.457*	82,0 *3.228*	43,0 *1.693*	0,6 *1.320*	■		■		5700
C5-391.0750-50	02809733	C5	64,0 *2.520*	86,0 *3.386*	102,0 *4.016*	40,0 *1.575*	92,0 *3.622*	54,0 *2.126*	1,1 *2.430*	■		■		4500
C6-391.0750-60	02809735	C6	85,0 *3.346*	144,0 *5.669*	129,0 *5.079*	49,0 *1.929*	117,0 *4.606*	70,0 *2.756*	1,9 *4.190*	■		■		3500
C8-391.0750-70	02809736	C8	114,0 *4.488*	205,0 *8.071*	159,0 *6.260*	57,0 *2.244*	138,0 *5.433*	95,0 *3.740*	4,1 *9.040*	■		■		2500

Insert holders have to be ordered separately, see page(s) 592-596
Note, weight is without insert holder

Spare Parts, included in delivery

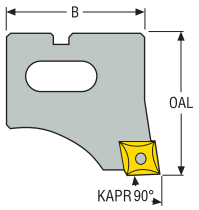
For head	Assembly screw
	
C3-...-30	90A75030
C4-...-40	90A75040
C5-...-50	90A75050
C6-...-60	90A75060
C8-...-70	90A75070

Accessories

For head	Clamp key	Driving key	Key (T-handle)	Setting key
				
C3-...-30	03HL05	H4B-T08P	DOUBLE-T	H2.0-2D
C4-...-40	03HL05	H4B-T09P	DOUBLE-T	H2.5-2D
C5-...-50	03HL06	–	DOUBLE-T	03M03C
C6-...-60	03HL08	–	DOUBLE-T	–
C8-...-70	03HL10	–	DOUBLE-T	–

Insert holders 90° for CC.. and CP.. inserts





- For fitting onto heads RB 750
- Symmetrical boring requires two standard type A insert holders
- Staggered boring requires one standard type A and one extended type B insert holders

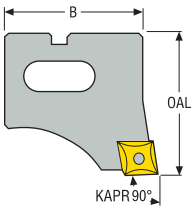
Designation	Item number	Insert holders type	For head	Capacity DCN-DCX ∅		OAL	B	Weight	KRINS°	Suitable insert size
				mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*		
A75000CP0590	00026695	Standard type A	RB 75000	18,0 *0.709*	24,0 *0.945*	22,5 *0.886*	16,5 *0.650*	0,1 *0.220*	90	CP...0502...
A75010CC0690	00026696	Standard type A	RB 75010	23,0 *0.906*	31,0 *1.220*	26,5 *1.043*	21,5 *0.846*	0,1 *0.220*	90	CC...0602...
A75020CC0690	00026697	Standard type A	RB 75020	30,0 *1.181*	40,0 *1.575*	30,0 *1.181*	27,0 *1.063*	0,04 *0.090*	90	CC...0602...
A75030CC0990	00026698	Standard type A	RB 75030	39,0 *1.535*	51,0 *2.008*	41,0 *1.614*	35,0 *1.378*	0,1 *0.220*	90	CC...09T3...
A75040CC1290	00026699	Standard type A	RB 75040	50,0 *1.969*	65,0 *2.559*	45,0 *1.772*	43,0 *1.693*	0,2 *0.440*	90	CC...1204...
A75050CC1290	00026700	Standard type A	RB 75050	64,0 *2.520*	86,0 *3.386*	52,0 *2.047*	54,0 *2.126*	0,3 *0.660*	90	CC...1204...
A75060CC1290	00026701	Standard type A	RB 75060	85,0 *3.346*	115,0 *4.528*	68,0 *2.677*	70,0 *2.756*	0,6 *1.320*	90	CC...1204...
A75060CC1690	00030763	Standard type A	RB 75060	85,0 *3.346*	115,0 *4.528*	68,0 *2.677*	70,0 *2.756*	0,6 *1.320*	90	CC...1605...
A75065CC1290	00026702	Standard type A	RB 75060	114,0 *4.488*	144,0 *5.669*	68,0 *2.677*	100,0 *3.937*	0,9 *1.980*	90	CC...1204...
A75065CC1690	00030765	Standard type A	RB 75060	114,0 *4.488*	144,0 *5.669*	68,0 *2.677*	100,0 *3.937*	0,9 *1.980*	90	CC...1605...
A75070CC1290	00026703	Standard type A	RB 75070	114,0 *4.488*	160,0 *6.299*	81,0 *3.189*	95,0 *3.740*	1,3 *2.870*	90	CC...1204...
A75070CC1690	00030766	Standard type A	RB 75070	114,0 *4.488*	160,0 *6.299*	81,0 *3.189*	95,0 *3.740*	1,2 *2.650*	90	CC...1605...
A75075CC1290	00026704	Standard type A	RB 75070	159,0 *6.260*	205,0 *8.071*	81,0 *3.189*	141,0 *5.551*	2,0 *4.410*	90	CC...1204...
A75075CC1690	00030771	Standard type A	RB 75070	159,0 *6.260*	205,0 *8.071*	81,0 *3.189*	141,0 *5.551*	2,0 *4.410*	90	CC...1605...

Spare Parts, included in delivery

For insert size	Insert key	Key (T-handle)	Screw
			
CP...0502...	H4B-T07P	DOUBLE-T	C02245-T07P
CC...0602...	H4B-T07P	DOUBLE-T	C02504-T07P
CC...09T3...	H4B-T15P	DOUBLE-T	C04008-T15P
CC...1204...	H4B-T15P	DOUBLE-T	C05012-T15P
CC...1605...	H4B-T15P	DOUBLE-T	C05012-T15P

For rough boring recommended inserts, see page(s) 682

Insert holders 90° for CC.. and CP.. inserts





- For fitting onto heads RB 750
- Symmetrical boring requires two standard type A insert holders
- Staggered boring requires one standard type A and one extended type B insert holders

Designation	Item number	Insert holders type	For head	Capacity DCN-DCX ∅		OAL	B	Weight	KRINS°	Suitable insert size
				mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*		
A75001CP0590	00026705	Extended type B	RB 75000	18,0 *0.709*	24,0 *0.945*	22,8 *0.898*	16,5 *0.650*	0,1 *0.220*	90	CP...0502...
A75011CC0690	00026706	Extended type B	RB 75010	23,0 *0.906*	31,0 *1.220*	26,85 *1.057*	21,5 *0.846*	0,1 *0.220*	90	CC...0602...
A75021CC0690	00026707	Extended type B	RB 75020	30,0 *1.181*	40,0 *1.575*	30,35 *1.195*	27,0 *1.063*	0,1 *0.220*	90	CC...0602...
A75031CC0990	00026708	Extended type B	RB 75030	39,0 *1.535*	51,0 *2.008*	41,4 *1.630*	35,0 *1.378*	0,1 *0.220*	90	CC...09T3...
A75041CC1290	00026709	Extended type B	RB 75040	50,0 *1.969*	65,0 *2.559*	46,5 *1.831*	43,0 *1.693*	0,2 *0.440*	90	CC...1204...
A75051CC1290	00026710	Extended type B	RB 75050	64,0 *2.520*	86,0 *3.386*	52,6 *2.071*	54,0 *2.126*	0,25 *0.550*	90	CC...1204...
A75061CC1290	00026711	Extended type B	RB 75060	85,0 *3.346*	115,0 *4.528*	68,6 *2.701*	70,0 *2.756*	0,55 *1.210*	90	CC...1204...
A75061CC1690	00030774	Extended type B	RB 75060	85,0 *3.346*	115,0 *4.528*	68,6 *2.701*	70,0 *2.756*	0,6 *1.320*	90	CC...1605...
A75066CC1290	00026712	Extended type B	RB 75060	114,0 *4.488*	144,0 *5.669*	68,6 *2.701*	100,0 *3.937*	1,0 *2.200*	90	CC...1204...
A75066CC1690	00030775	Extended type B	RB 75060	114,0 *4.488*	144,0 *5.669*	68,6 *2.701*	100,0 *3.937*	0,91 *2.010*	90	CC...1605...
A75071CC1290	00026713	Extended type B	RB 75070	114,0 *4.488*	160,0 *6.299*	81,6 *3.213*	95,0 *3.740*	1,2 *2.650*	90	CC...1204...
A75071CC1690	00030776	Extended type B	RB 75070	114,0 *4.488*	160,0 *6.299*	81,6 *3.213*	95,0 *3.740*	1,16 *2.560*	90	CC...1605...
A75076CC1290	00026714	Extended type B	RB 75070	159,0 *6.260*	205,0 *8.071*	81,6 *3.213*	141,0 *5.551*	2,0 *4.410*	90	CC...1204...
A75076CC1690	00030778	Extended type B	RB 75070	159,0 *6.260*	205,0 *8.071*	81,6 *3.213*	141,0 *5.551*	0,9 *1.980*	90	CC...1605...

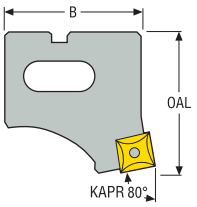
Spare Parts, included in delivery

For insert size	Key	Key (T-handle)	Screw
			
CP...0502...	H4B-T07P	DOUBLE-T	C02245-T07P
CC...0602...	H4B-T07P	DOUBLE-T	C02504-T07P
CC...09T3...	–	DOUBLE-T	C04008-T15P
CC...1204...	–	DOUBLE-T	C05012-T15P
CC...1605...	–	DOUBLE-T	C05012-T15P

For rough boring recommended inserts, see page(s) 682

Insert holders 80° for SC.. inserts





- For fitting onto heads RB 750
- Symmetrical boring requires two standard type A insert holders
- Staggered boring requires one standard type A and one extended type B insert holders

Designation	Item number	Insert holders type	For head	Capacity DCN-DCX ∅		OAL	B	Weight	KRINS°	Suitable insert size
				mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*		
A75000SC0580	00026715	Standard type A	RB 75000	18,0 *0.709*	24,0 *0.945*	22,5 *0.886*	16,5 *0.650*	0,1 *0.220*	80	SC...0502...
A75010SC0680	00026716	Standard type A	RB 75010	23,0 *0.906*	31,0 *1.220*	26,5 *1.043*	21,5 *0.846*	0,1 *0.220*	80	SC...0602...
A75020SC0680	00026717	Standard type A	RB 75020	30,0 *1.181*	40,0 *1.575*	30,0 *1.181*	27,0 *1.063*	0,1 *0.220*	80	SC...0602...
A75030SC0980	00026718	Standard type A	RB 75030	39,0 *1.535*	51,0 *2.008*	41,0 *1.614*	35,0 *1.378*	0,1 *0.220*	80	SC...09T3...
A75040SC1280	00026719	Standard type A	RB 75040	50,0 *1.969*	65,0 *2.559*	45,0 *1.772*	43,0 *1.693*	0,2 *0.440*	80	SC...1204...
A75050SC1280	00051986	Standard type A	RB 75050	64,0 *2.520*	86,0 *3.386*	52,0 *2.047*	54,0 *2.126*	0,25 *0.550*	80	SC...1204...
A75060SC1280	00052207	Standard type A	RB 75060	85,0 *3.346*	115,0 *4.528*	68,0 *2.677*	70,0 *2.756*	0,56 *1.230*	80	SC...1204...
A75060SC1580	00039863	Standard type A	RB 75060	85,0 *3.346*	115,0 *4.528*	68,0 *2.677*	70,0 *2.756*	0,56 *1.230*	80	SC...1505...
A75065SC1280	00051989	Standard type A	RB 75060	114,0 *4.488*	144,0 *5.669*	68,0 *2.677*	100,0 *3.937*	1,0 *2.200*	80	SC...1204...
A75065SC1580	00039865	Standard type A	RB 75060	114,0 *4.488*	144,0 *5.669*	68,0 *2.677*	100,0 *3.937*	1,0 *2.200*	80	SC...1505...
A75070SC1280	00026723	Standard type A	RB 75070	114,0 *4.488*	160,0 *6.299*	81,4 *3.205*	95,0 *3.740*	1,2 *2.650*	80	SC...1204...
A75070SC1580	00039867	Standard type A	RB 75070	114,0 *4.488*	160,0 *6.299*	81,4 *3.205*	95,0 *3.740*	1,18 *2.600*	80	SC...1505...
A75075SC1280	00026724	Standard type A	RB 75070	159,0 *6.260*	205,0 *8.071*	81,4 *3.205*	141,0 *5.551*	2,2 *4.850*	80	SC...1204...
A75075SC1580	00039869	Standard type A	RB 75070	159,0 *6.260*	205,0 *8.071*	81,4 *3.205*	141,0 *5.551*	2,1 *4.630*	80	SC...1505...
A75001SC0580	00092946	Extended type B	RB 75000	18,0 *0.709*	24,0 *0.945*	23,2 *0.913*	16,5 *0.650*	0,01 *0.020*	80	SC...0502...
A75011SC0680	00092947	Extended type B	RB 75010	23,0 *0.906*	31,0 *1.220*	27,3 *1.075*	21,5 *0.846*	0,02 *0.040*	80	SC...0602...
A75021SC0680	00092948	Extended type B	RB 75020	30,0 *1.181*	40,0 *1.575*	30,9 *1.217*	27,0 *1.063*	0,04 *0.090*	80	SC...0602...
A75031SC0980	00092949	Extended type B	RB 75030	39,0 *1.535*	51,0 *2.008*	42,2 *1.661*	35,0 *1.378*	0,08 *0.180*	80	SC...09T3...
A75041SC1280	00092961	Extended type B	RB 75040	50,0 *1.969*	65,0 *2.559*	46,4 *1.827*	43,0 *1.693*	0,2 *0.440*	80	SC...1204...
A75051SC1280	00092962	Extended type B	RB 75050	64,0 *2.520*	86,0 *3.386*	53,7 *2.114*	54,0 *2.126*	0,3 *0.660*	80	SC...1204...
A75061SC1580	00039864	Extended type B	RB 75060	85,0 *3.346*	115,0 *4.528*	70,3 *2.768*	70,0 *2.756*	0,57 *1.260*	80	SC...1505...
A75061SC1280	00092963	Extended type B	RB 75060	85,0 *3.346*	115,0 *4.528*	69,8 *2.748*	70,0 *2.756*	0,57 *1.260*	80	SC...1204...

Designation	Item number	Insert holders type	For head	Capacity DCN-DCX ∅		OAL	B	Weight	KRINS°	Suitable insert size
				mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*		
A75066SC1280	00092964	Extended type B	RB 75060	114,0 *4.488*	144,0 *5.669*	69,8 *2.748*	100,0 *3.937*	0,96 *2.120*	80	SC...1204...
A75066SC1580	00039866	Extended type B	RB 75060	114,0 *4.488*	144,0 *5.669*	70,3 *2.768*	100,0 *3.937*	0,96 *2.120*	80	SC...1505...
A75071SC1280	00092965	Extended type B	RB 75070	114,0 *4.488*	160,0 *6.299*	82,8 *3.260*	95,0 *3.740*	1,2 *2.650*	80	SC...1204...
A75071SC1580	00039868	Extended type B	RB 75070	114,0 *4.488*	160,0 *6.299*	83,3 *3.280*	95,0 *3.740*	1,21 *2.670*	80	SC...1505...
A75076SC1280	00092968	Extended type B	RB 75070	159,0 *6.260*	205,0 *8.071*	82,8 *3.260*	141,0 *5.551*	2,16 *4.760*	80	SC...1204...
A75076SC1580	00039870	Extended type B	RB 75070	159,0 *6.260*	205,0 *8.071*	83,3 *3.280*	141,0 *5.551*	2,14 *4.720*	80	SC...1505...

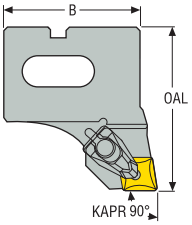
Spare Parts, included in delivery

For insert size	Key	Key (T-handle)	Screw
			
SC...0502...	H4B-T07P	DOUBLE-T	C02245-T07P
SC...0602...	H4B-T07P	DOUBLE-T	C02504-T07P
SC...09T3...	–	DOUBLE-T	C04008-T15P
SC...1204...	–	DOUBLE-T	C05012-T15P
SC...1505...	–	DOUBLE-T	C05012-T15P
SC...09T3...	–	DOUBLE-T	C04008-T15P
SC...1204...	–	DOUBLE-T	C05012-T15P

For rough boring recommended inserts, see page(s) 682

Insert holders 90° for CN.. inserts

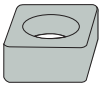




- For fitting onto heads RB 750
- Symmetrical boring requires two standard type A insert holders (Type B extended insert holders for CN.. inserts not available)
- GAMO = Rake angle = - 6°
- LAMS = Inclination angle = - 6°

Designation	Item number	Insert holders type	For head	Capacity DCN-DCX ∅		OAL	B	Weight	KRINS°	Suitable insert size
				mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*		
A75050CN1290	02786307	Standard type A	RB 75050	64,0 *2.520*	86,0 *3.386*	63,0 *2.480*	55,0 *2.165*	0,4 *0.880*	90	CN...1204...
A75060CN1290	02786308	Standard type A	RB 75060	85,0 *3.346*	115,0 *4.528*	68,0 *2.677*	69,5 *2.736*	0,6 *1.320*	90	CN...1204...
A75065CN1290	02786309	Standard type A	RB 75060	114,0 *4.488*	144,0 *5.669*	68,0 *2.677*	99,5 *3.917*	0,9 *1.980*	90	CN...1204...
A75070CN1290	02786310	Standard type A	RB 75070	114,0 *4.488*	160,0 *6.299*	85,0 *3.346*	95,0 *3.740*	1,2 *2.650*	90	CN...1204...
A75075CN1290	02786311	Standard type A	RB 75070	159,0 *6.260*	205,0 *8.071*	85,0 *3.346*	140,0 *5.512*	2,03 *4.480*	90	CN...1204...

Spare Parts, included in delivery

For insert size	Anvil screw	Clamp kit	Insert shim	Key (T-handle)
				
CN...1204...	CSC6312-T15P	CD12-S12	UCN120612	DOUBLE-T

For rough boring recommended inserts, see page(s) 682

Instructions
Recommended machining conditions

Spindle power:

As rough boring requires high machine power, we recommend to check that the machine is suitable. Staggered boring is a solution to reduce the power needs, as the feed is divided by two for the same total depth of cut, compared to symmetrical setting.
Optimum performance is obtained with through coolant (higher machining data, better surface finish, better chip evacuation, longer insert life).

For detailed user instructions, please refer to the operating instructions supplied as part of the delivery content of the boring heads and with the Steadyline® bars.
These operating instructions can also be downloaded from www.secotools.com.

Maximum speeds for rough boring heads

Head	Capacity ∅ mm	*Capacity ∅ inch*	Max. RPM	Implied max cutting speed v_c at min. Cap. m/min *(sf/min)*	Implied max cutting speed v_c at max. Cap. m/min *(sf/min)*
Rough boring heads (with two identical insert holders set symmetrically), with Graflex® connection					
A75000	18-24	*0.709-0.945*	15000	848 *(2782)*	1131 *(3711)*
A75010	23-31	*0.906-1.220*	12000	867 *(2844)*	1169 *(3835)*
A75020	30-40	*1.181-1.575*	9500	895 *(2936)*	1194 *(3917)*
A75030	39-51	*1.535-2.008*	7500	919 *(3015)*	1202 *(3944)*
A75040	50-65	*1.969-2.559*	5700	895 *(2936)*	1164 *(3819)*
A75050	64-86	*2.520-3.386*	4500	905 *(2969)*	1216 *(3990)*
A75060	85-115	*3.346-4.528*	3500	935 *(3068)*	1264 *(4147)*
A75060	114-144	*4.488-5.669*	2700	967 *(3173)*	1221 *(4006)*
A75070	114-160	*4.488-6.299*	2500	895 *(2936)*	1257 *(4124)*
A75070	159-205	*6.260-8.071*	2000	999 *(3278)*	1288 *(4226)*
Rough boring heads (with two identical insert holders set symmetrically), with Seco-Capto™ connection					
C3-391.0750-30	39-51	*1.535-2.008*	7500	919 *(3015)*	1202 *(3944)*
C4-391.0750-40	50-65	*1.969-2.559*	5700	895 *(2936)*	1164 *(3819)*
C5-391.0750-50	64-86	*2.520-3.386*	4500	905 *(2969)*	1216 *(3990)*
C6-391.0750-60	85-115	*3.346-4.528*	3500	935 *(3068)*	1264 *(4147)*
C6-391.0750-60	114-144	*4.488-5.669*	2700	967 *(3173)*	1221 *(4006)*
C8-391.0750-70	114-160	*4.488-6.299*	2500	895 *(2936)*	1257 *(4124)*
C8-391.0750-70	159-205	*6.260-8.071*	2000	999 *(3278)*	1288 *(4226)*

Note: The maximum speeds are related to the boring head's mechanical design and balancing quality. Speeds inside these limits have to be chosen in regard to the other machining conditions, e.g. work-piece material, cutting edge (insert), tooling length, machine spindle. At speeds from approx. 8000 RPM and above, the basic holders and the extensions/reducers should be fine balanced.

Troubleshooting instructions

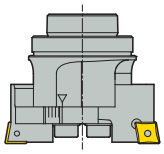
Problem	Possible cause	Solution
Poor chip control	Feed rate too low	Increase feed rate
	Excessive DOC	Use staggered method
Chatter & Vibrations	Excessive speed	Reduce cutting speed, not feed
	Extreme L/D ratio	Shorten tool to increase stiffness
		Increase holding arbor's and intermediate's OD
		Use Steadyline bar
		Use carbide or heavy metal extensions
	Too large insert radius	Use insert with smaller radius
	Unstable workpiece	Improve fixture and clamping support
	Lead angle κ is 80°	Change to κ=90°, type CC insert
Insert chipping or breaking	Wrong insert	Change to tougher grade of insert
		Use larger radius if available
	Severe interrupted cut	Decrease speed, decrease feed
	Chips packing and re-cutting	Check for boring bar/bore diameter clearance
		Improve chip control, increase feed
Poor tool life	Wrong insert	Change to higher wear resistant grade
	Excessive cutting speed	Reduce speed
	Insert chipping	Check DOC and feed rate
	Too low coolant pressure	Increase coolant pressure
Chips not evacuating	Boring assembly to large	Reduce to a smaller head with extended insert holders when possible
	Excessive DOC	Use staggered method; prefer CC.. instead of CN.. inserts (particularly when using the boring head at its small diameters).
	Inadequate space below bore	Set the workpiece higher onto the table
	Poor chip control	See above
Insufficient machine power	Excessive feed rate	Reduce feed (not less then 25% of insert radius)
	Excessive DOC	Use staggered method
	Low machine power	RPM in area of low spindle torque: increase speed
		RPM in area of gear change: adjust RPM
		Change insert to higher rake angle (to HSS in extreme cases)
		Reduce DOC
Excessive hole exit burr	Excessive feed rate	Reduce feed
	CC type insert holders 90°	Use 80° square insert holder
	Cutting forces too high	Reduce DOC
		Reduce insert radius

RB 610 Rough boring heads – Overview

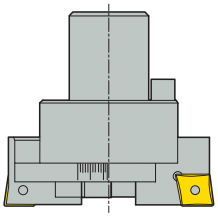
Graflex® connection

GL connection

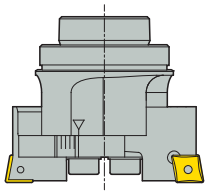
BA connection



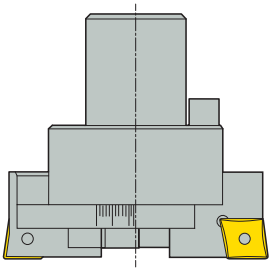
Ø 28–37 mm *(Ø 1.102–1.457")*



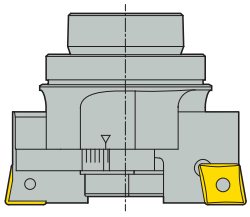
Ø 39–51 mm *(Ø 1.535–2.008")*



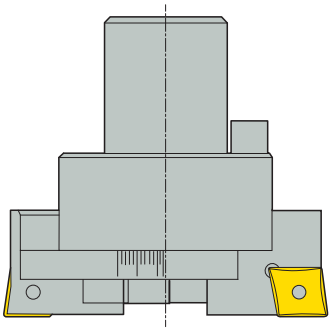
Ø 36–46 mm *(Ø 1.417–1.811")*



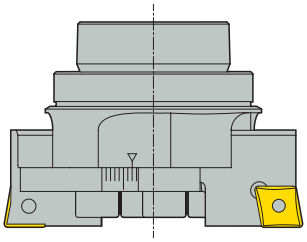
Ø 50–65 mm *(Ø 1.969–2.559")*



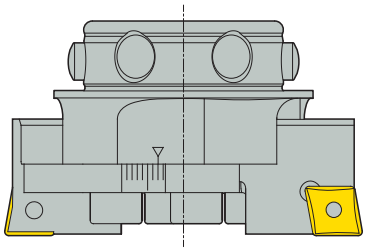
Ø 45–56 mm *(Ø 1.772–2.205")*



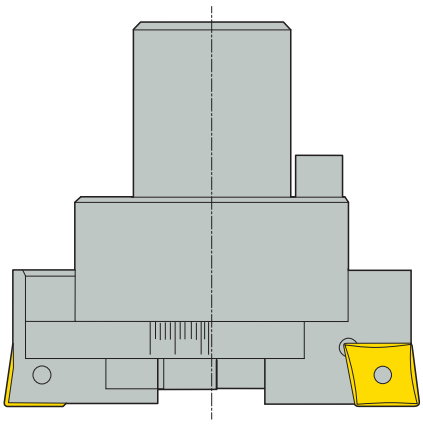
Ø 64–86 mm *(Ø 2.520–3.386")*



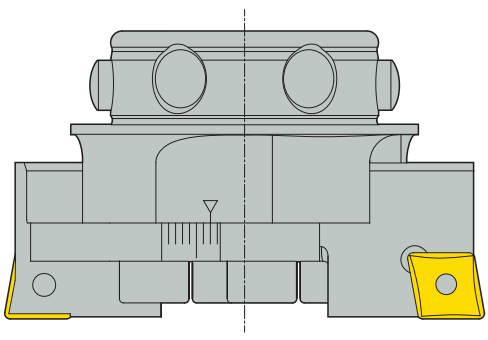
Ø 55–69 mm *(Ø 2.165–2.717")*



Ø 66–88 mm *(Ø 2.598–3.465")*



Ø 85–115 mm *(Ø 3.346–4.528")*



Ø 86–116 mm *(Ø 3.386–4.567")*

RB 610 Rough boring heads – Guide

Features

- A rough boring head assembly is a combination of 1 body (head) and 2 insert holders
- Achieving geometrical hole precision starting from cast, flame cut or drilled hole
- Minimised unbalance thanks to a symmetrical design

Compact

- Short body to maximise the rigidity of the boring assembly and to deliver the best damping performances when used on Steadyline® turning and boring bars
- Reduced weight for fast tool changing and spindle acceleration

Intuitive and fast setting

- Each insert holder features its push and pull setting mechanism allowing easy and fast setting of the diameter, using a pre-setter
- Diameter scales roughly visualise the insert holders positions

Insert holders

- A610…CC… insert holders achieve a 90° lead angle for rhombic inserts, 0° rake angle and 0° inclination angle
- The insert holders are suitable for both RB 610 Graflex® and RB 610 GL heads

Productivity

- High rigidity resulting from a tight fitting of the insert holders into the head's body, and large clamping screws
- Possibility to take a depth of cut ap up to half of the insert's width, maximising the chip removal rate and allowing a total exploitation of the inserts
- Staggered boring using a shim (part of heads delivery contents) to offset one insert holder in order to increase or to split the radial depth of cut
- Through coolant delivery directed towards the cutting edges

Product range

- RB 610 rough boring heads are available with Graflex® machine side connection, for conventional boring operations up to 6xD overhangs
- RB 610 rough boring heads with GL and BA machine side connections are designed for longer overhangs with vibration damping Steadyline® assemblies.

RB 610 Graflex®



- Graflex®: 4 compact rough boring heads for Ø 39–115 mm *(Ø 1.535–4.528 ")*
- The flexible Graflex® modular System allows to build up optimal boring assemblies from Graflex® adapters, intermediate modules and boring heads

RB 610 GL and BA, for Steadyline® vibration damping bars



GL



BA

- GL: 4 short and compact rough boring heads, for Ø 28–69 mm *(Ø 1.102–2.717 ")*
- BA: 2 short and compact rough boring heads, for Ø 66–116 mm *(Ø 2.598-4.567")*
- Particularly adapted to the Steadyline® turning and boring bars. Boring performances, when used on long Steadyline® bars, are similar to non-damped shorter assemblies (<6xD).

RB 610 Rough boring heads – Guide

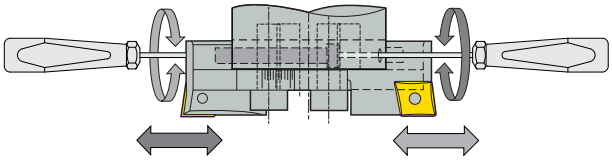
Setting symmetrical boring:

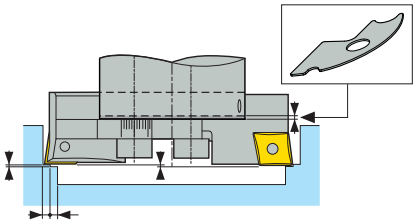
Symmetrical boring means both cutting edges are set on the same diameter and same height.

Setting staggered boring:

Staggered boring means one cutting edge is offset as a leading cutting edge (entering the bore first), operating on a smaller diameter than the second edge set on the diameter to be realized: It requires a shim (part of the head delivery content) to be fitted between the boring head's body and one insert holder to achieve the (+) axial offset, see table below.

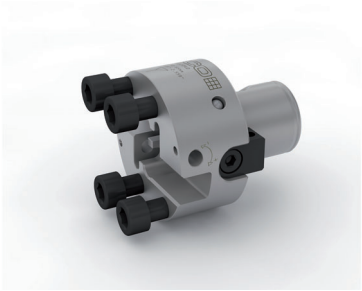
Shim Part No.	Thickness (mm)	*Thickness (inch)*
AU6101003	0,2	*0.008*
AU6103003	0,4	*0.016*
AU6104003	0,5	*0.020*
AU6105003	0,6	*0.024*
AU6106003	0,6	*0.024*

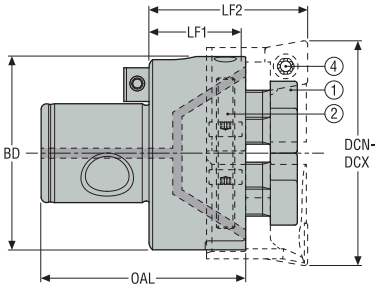




RB610

Graflex®





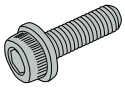
- Symmetrical and staggered boring modes are possible
- Individual insert holder adjusting mechanism
- Internal coolant supply towards cutting edge

1. Assembly screw and clamp key
2 & 4. Insert key for diameter setting and insert screw clamping

Designation	Item number	Machine side Graflex size	Workpiece side Capacity DCN-DCX Ø		OAL	LF1	LF2	BD	Weight	Max. RPM*
			mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*	
A61030	02904453	G3	39,0 *1.535*	51,0 *2.008*	43,5 *1.713*	23,5 *0.925*	36,4 *1.433*	34,0 *1.339*	0,18 *0.400*	7500
A61040	02904454	G4	50,0 *1.969*	65,0 *2.559*	45,5 *1.791*	21,5 *0.846*	35,3 *1.390*	43,0 *1.693*	0,4 *0.880*	5700
A61050	02904455	G5	64,0 *2.520*	86,0 *3.386*	55,0 *2.165*	25,0 *0.984*	42,3 *1.665*	54,0 *2.126*	0,7 *1.540*	4500
A61060	02904457	G6	85,0 *3.346*	115,0 *4.528*	69,0 *2.717*	29,0 *1.142*	47,8 *1.882*	63,0 *2.480*	1,0 *2.200*	3500

Insert holders have to be ordered separately, see page(s) 605
* Additional information about max RPM, see Instruction pages. Note, weight is without insert holder

Spare Parts, included in delivery

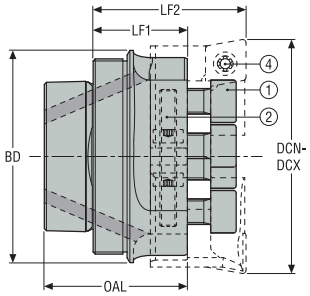
For head	Assembly screw	Shim, staggered boring	Tenon
			
A61030	950DC0616	AU6103003	90M31
A61040	950D0616	AU6104003	90M41
A61050	950D0820	AU6105003	90M51
A61060	950D0822	AU6106003	90M61

Accessories

For head	Clamp key	Key (T-handle)
		
A61030	03HL05	DOUBLE-T
A61040	03HL05	DOUBLE-T
A61050	03HL06	DOUBLE-T
A61060	03HL06	DOUBLE-T

RB610 Compact

GL





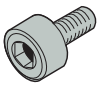
1. Assembly screw and clamp key
2 & 4. Insert key for diameter setting and insert screw clamping

- Designed for GL25, GL32, GL40 and GL50 Steadyline® turning and boring bars
- Symmetrical and staggered boring modes are possible
- Individual insert holder adjusting mechanism
- Internal coolant supply towards cutting edge

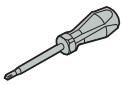
Designation	Item number	Machine side GL size	Workpiece side Capacity DCN-DCX Ø		OAL	LF1	LF2	BD	Weight	Max. RPM*
			mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*	
GL25-RB610-10	03307854	GL25	28,0 *1.102*	37,0 *1.457*	21,7 *0.854*	16,2 *0.638*	25,0 *0.984*	25,0 *0.984*	0,1 *0.220*	9500
GL32-0610-20	02904458	GL32	36,0 *1.417*	46,0 *1.811*	27,6 *1.087*	21,1 *0.831*	32,0 *1.260*	32,0 *1.260*	0,2 *0.440*	7500
GL40-0610-30	02904459	GL40	45,0 *1.772*	56,0 *2.205*	31,6 *1.244*	22,1 *0.870*	35,0 *1.378*	40,0 *1.575*	0,3 *0.660*	5700
GL50-0610-40	02904460	GL50	55,0 *2.165*	69,0 *2.717*	33,7 *1.327*	22,2 *0.874*	36,0 *1.417*	50,0 *1.969*	0,3 *0.660*	4500

Insert holders have to be ordered separately, see page(s) 605
* Additional information about max RPM, see Instruction pages. Note, weight is without insert holder

Spare Parts, included in delivery

For head	Assembly screw	Shim, staggered boring
		
GL25-0610-10	950D0410	AU6101003
GL32-0610-20	950DC0412	AU6102003
GL40-0610-30	950DC0616	AU6103003
GL50-0610-40	950D0616	AU6104003

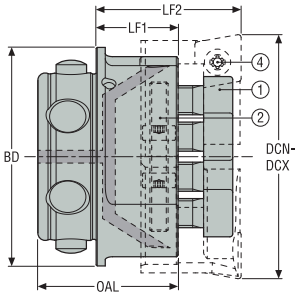
Accessories

For head	Clamp key	Insert key	Key (T-handle)
			
GL25-0610-10	03HL03	T07P-3	–
GL32-0610-20	03HL03	H4B-T07P	DOUBLE-T
GL40-0610-30	03HL05	–	DOUBLE-T
GL50-0610-40	03HL05	–	DOUBLE-T

RB610

BA





- Designed for BA60 and BA80 Steadyline® turning and boring bars
- Symmetrical and staggered boring modes are possible
- Individual insert holder adjusting mechanism
- Internal coolant supply towards cutting edge

1. Assembly screw and clamp key
2 & 4. Insert key for diameter setting and insert screw clamping

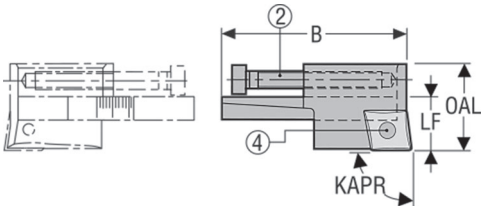
Designation	Item number	Machine side BA size	Workpiece side Capacity DCN-DCX Ø		OAL	LF1	LF2	BD	Weight	Max. RPM*
			mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*	
BA060-RB610-50	03204092	BA060	66,0 *2.598*	88,0 *3.465*	38,5 *1.516*	22,5 *0.886*	39,8 *1.567*	60,0 *2.362*	0,7 *1.540*	4000
BA080-RB610-60	03204093	BA080	86,0 *3.386*	116,0 *4.567*	44,5 *1.752*	22,5 *0.886*	41,3 *1.626*	80,0 *3.150*	1,2 *2.650*	3000

Insert holders have to be ordered separately, see page(s) 605
* Additional information about max RPM, see Instruction pages. Note, weight is without insert holder

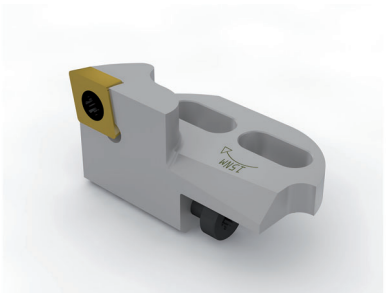
Spare Parts, included in delivery

For head	Clamp key	Clamp screw	Key (T-handle)	Shim, staggered boring
				
BA060-RB610-50	03HL06	950D0820	DOUBLE-T	AU6105003
BA080-RB610-60	03HL06	950D0822	DOUBLE-T	AU6106003

Insert holders



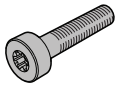
2. Setting screw
4. Insert screw



- Suitable for boring heads RB 610 with Graflex®, GL or BA connection

Designation	Item number	For boring head	Workpiece side Capacity DCN-DCX Ø		OAL	LF	B	Weight
			mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*
A61010CC0690	03307856	RB 61010	28,0 *1.102*	37,0 *1.457*	15,1 *0.594*	8,8 *0.346*	21,75 *0.856*	0,1 *0.220*
A61020CC0690	02971268	RB 61020	36,0 *1.417*	46,0 *1.811*	17,6 *0.693*	10,9 *0.429*	26,0 *1.024*	0,1 *0.220*
A61030CC0990	02904461	RB 61030	39,0 *1.535*	56,0 *2.205*	21,6 *0.850*	12,9 *0.508*	33,0 *1.299*	0,1 *0.220*
A61040CC0990	02904462	RB 61040	50,0 *1.969*	69,0 *2.717*	22,5 *0.886*	13,8 *0.543*	43,8 *1.724*	0,1 *0.220*
A61050CC1290	02904463	RB 61050	64,0 *2.520*	86,0 *3.386*	27,5 *1.083*	17,3 *0.681*	57,4 *2.260*	0,2 *0.440*
A61060CC1290	02904464	RB 61060	85,0 *3.346*	115,0 *4.528*	30,5 *1.201*	18,8 *0.740*	75,0 *2.953*	0,2 *0.440*

Spare Parts, included in delivery

For insert holder	Insert screw	Setting screw
		
A61010CC0690	C02504-T07P	–
A61020CC0690	C02504-T07P	19A61020
A61030CC0990	C04008-T15P	19A61030
A61040CC0990	C04008-T15P	19A61040
A61050CC1290	C05012-T15P	19A61050
A61060CC1290	C05012-T15P	19A61060

For rough boring recommended inserts, see page(s) 682
Note: A key for insert screw clamping is part of RB 610 heads delivery contents.

RB 610 Rough boring heads – Instructions

Recommended tightening torques. Maximum feed per rev. when staggered.

RB 610 boring heads size	30	40	50	60
Tightening torque of clamp screws for insert holders clamping (Nm)	2 x 25	4 x 25	4 x 40	4 x 40
f Max. feed rate when staggered boring mm/rev *(in/rev)*	0,4 *(0.016 “)*	0,5 *(0.020 “)*	0,6 *(0.024 “)*	0,6 *(0.024 “)*

Recommended machining conditions Spindle power:

As rough boring requires high machine power, we recommend to check that the machine is suitable. Staggered boring is a solution to reduce the power needs, as the feed is divided by two for the same total depth of cut, compared to symmetrical setting. Optimum performance is obtained with through coolant (higher machining data, better surface finish, better chip evacuation, longer insert life).

For detailed user instructions, please refer to the operating instructions supplied as part of the delivery content of the boring heads and with the Steadyline® bars. These operating instructions can also be downloaded from www.secotools.com.

Maximum speeds for RB 610 rough boring heads

NOTE! The maximum speeds shown in boring heads Product pages are related to the boring head’s mechanical design and balancing quality.

Speeds inside these limits have to be chosen in regard to the other machining conditions, e.g. workpiece material, cutting edge (insert), tooling length, machine spindle.

By boring applications with Steadyline® bars, make sure not to overpass the max. RPM of the bars : See the Operating instructions supplied with the Steadyline® turning and boring bars.



Fine boring

Covering a wide range of hole sizes and materials, Seco's fine boring product families allow for precision adjustments within microns, achieve surface finishes of Ra <1 (RMS 44 micro/inch) and deliver bores within IT5 tolerances. With a consistent focus on precision and rigidity, these products make it easy to maintain even the strictest of part specifications. Steadyline™ vibration damping solutions complete the range to deliver even greater levels of stability for the machining of deep cavities, where long tool overhangs are needed.

- FB 760 Axiabore Digital and Analog boring heads are designed for precision and surface finish on small diameters
- Our range of Axiabore™ fine boring heads now also includes the Digital version, which makes the operator's life easier and reduces the frequency of human errors. The Digital version helps easier and faster set-ups with good process reliability and efficiency in fine boring on high-tolerance parts
- FB 620/780/790 radial fine boring heads are designed to deliver the best bore geometries on larger diameters (up to 205 mm)

Overview



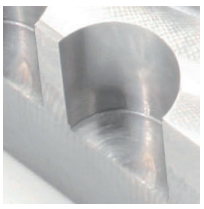




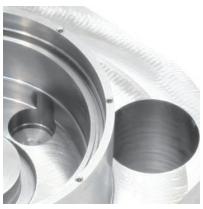
OD-overturning



Grooving

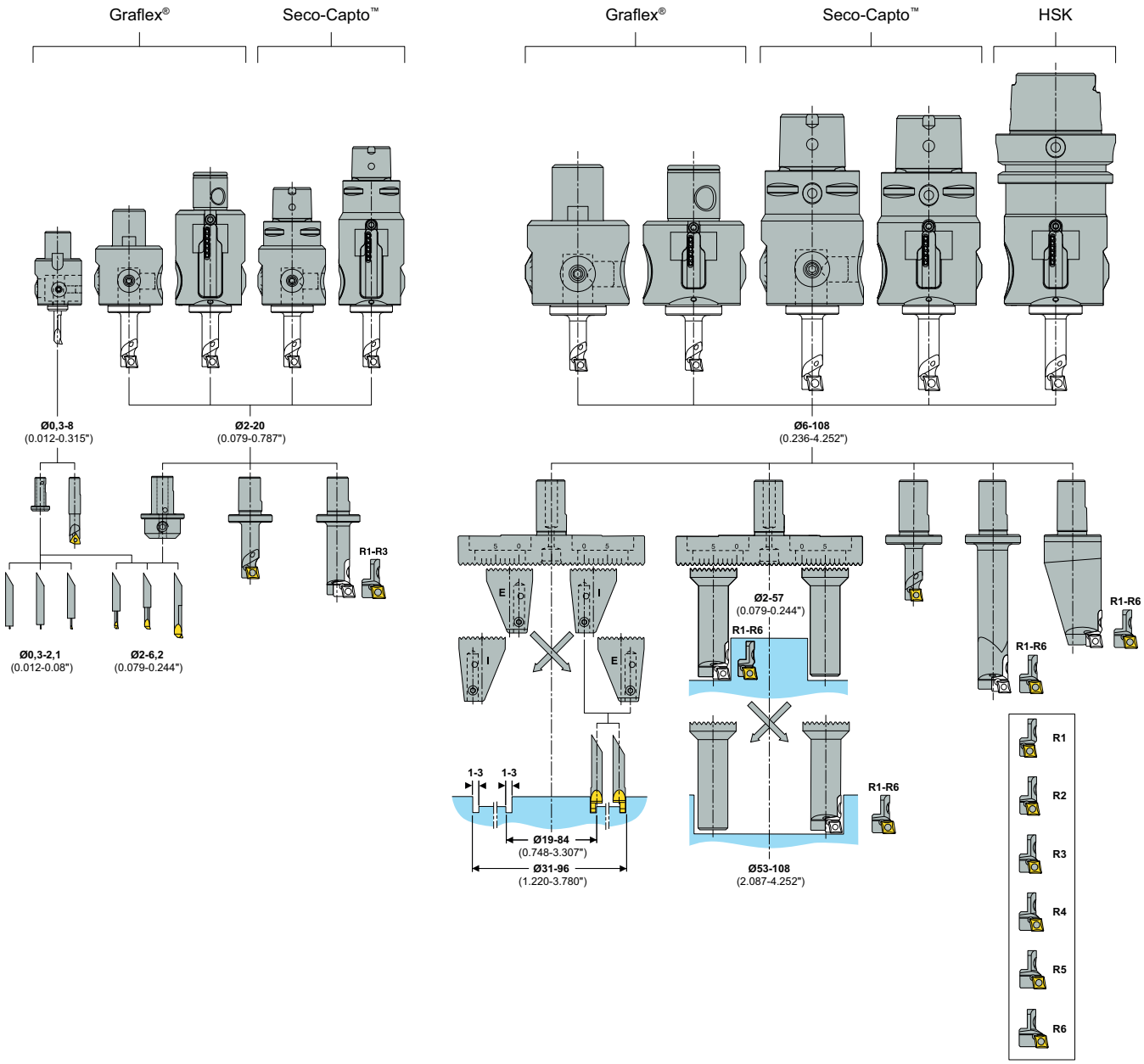


Interrupted cut boring



Boring

Overview


Graflex®
Seco-Capto™
Graflex®
Seco-Capto™
HSK
Ø0,3-8
(0.012-0.315")
Ø2-20
(0.079-0.787")
Ø6-108
(0.236-4.252")
R1-R3
Ø0,3-2,1
(0.012-0.08")
Ø2-6,2
(0.079-0.244")
E
I
Ø2-57
(0.079-0.244")
R1-R6
R1-R6
R1-R6
1-3
1-3
Ø19-84
(0.748-3.307")
Ø31-96
(1.220-3.780")
R1-R6
Ø53-108
(2.087-4.252")
R1
R2
R3
R4
R5
R6

Digital fine boring heads Axial type

The digital Axial fine boring heads provide excellent results for boring operation (IT5 achievable). It replaces the use of an analogic vernier by a removable, universal digital display: when the vernier of a conventional, analogic boring head is not always easy to use for diameter adjustment on the machine, the large display screen of the FB 760 D series allows comfortable and reliable diameter adjustments.

The FB 760 D series revolutions the boring philosophy, as it eliminates the need of a presetter: all the presetting and adjusting operations are made directly on the machine, using the universal digital display controller.

Boring tools
Boring tools, solid carbide shank Ø 4 mm for the smallest diameters Ø 2–108 mm (Ø 0.079”–4.252”), lead angle 98°. The tools have an angled machine side for cutting-edge orientation according to ISO.

Storage box
The Digital display come with a unique and sustainable packaging box.



Features

Universal digital display, for FB 760 D fine boring heads
The universal digital display controller can be used for any number of boring heads. Featuring a large display screen, can be used in mm or inch value.

The universal digital display has been designed to make your life easy:

- Wide display screen to facilitate the reading - resolution of 1 µm.
- An intuitive and easy-to-use system, easy to switch between.
- Self-holding controller: once it has been connected to the boring head, the controller remains in place and lets the operator free to use both hands to perform the diameter setting.
- One universal digital display for any number of boring heads. Delivered with a USB wire, the universal digital display can be power charged on the USB port of your machine or computer.

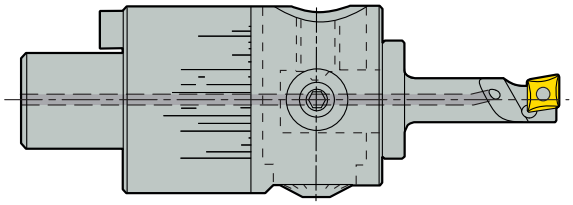


Axiabore™ type fine boring heads for bores Ø 0,3-108 mm *(0.012-4.252")*

Axiabore™ type head selection	Capacity ∅ mm	*Capacity Ø inch*	HSM/ Max speeds	Digital	Balanceable	Hole geometry	Cost effective
Nanobore™ (size 1)	0,3-8	*0.012–0.315"*	30000 RPM			■■	■■
Axiabore™ (size 2)	2-20	*0.079–0.787"*	12000 RPM			■	■■
Digital Axiabore™ (size 2)	2-20	*0.079–0.787"*	12000 RPM	✓		■	■■
Axiabore™ Plus (size 3)	6-108	*0.236–4.252"*	8000* RPM or 1000 m/min			■	■■■
Digital Axiabore™ Plus (size 3)	6-108	*0.236–4.252"*	8000* RPM or 1000 m/min	✓		■	■■■
Axialibrabore™ Plus (size 3)	6-108	*0.236–4.252"*	20000* RPM or 1500 m/min		✓	■■	■

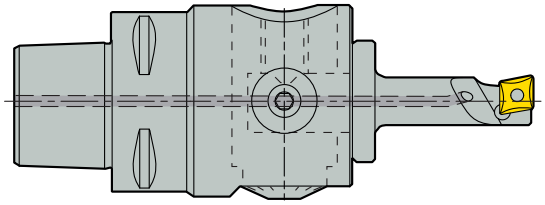
* Max 5000 RPM when using MPA.

5 Axiabore™ type heads exists with Graflex®, Seco-Capto™ and HSK-A connection



Nanobore™ (size 1)
Axiabore™ (size 2)
Digital Axiabore™ (size 2)
Axiabore™ Plus (size 3)
Digital Axiabore™ Plus (size 3)
Axialibrabore™ Plus (size 3)

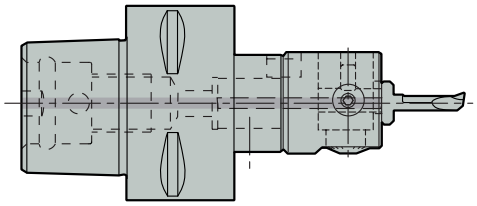
2 Axiabore™ fine boring heads FB 760 with Seco-Capto™ connection for bores: Ø 2–108 mm *(0.079–4.252")*



Axiabore™ – C3-391.0760-02
Axiabore™ Plus – C5-391.0760-03
Digital Axiabore™ – C3-391.FB760-02-D
Digital Axiabore™ Plus – C5-391.FB760-03-D

NOTE! The minimum bore size of the smallest Seco-Capto™ fine boring head is Ø 2 mm *(0.079")* with the smallest available Seco-Capto™ C3 connection. For Ø 0,3-8 mm *(0.012-0.315")* use Nanobore™ head with connection size G2 in conjunction with the appropriate Seco-Capto™/Graflex® adapter.

Seco-Capto™ adapter and Graflex® head: Ø 0,3–8 mm *(0.012–0.315")*



Graflex® and Seco-Capto™ adapters and modular extensions: please see the Tooling Systems catalog.

NOTE! Features, instructions (tool fitting procedure, diameter setting, MPA assembly procedure, maximum speeds, recommended cutting speeds, troubleshooting), suitable tools and insert holders are similar for both types of 760 fine boring heads of similar boring capacity size, regardless of connection type.

Digital display for digital fine boring heads



Boring tools

Note! In the Product pages, it is clearly mentioned which tools are suitable for which heads.

Boring tools, solid carbide shank Ø 4 mm *(Ø 0.1574")* for the smallest diameters Ø 0,3–6,2 mm *(Ø 0.012–0.244")*, lead angle 98°. Require reduction bushes to fit into Nanobore™ and Axia(libra)bore™ heads. The tools have an angled machine side for cutting edge orientation according to ISO.

Boring bars, insert type shanks Ø 6, 12 or 16 mm *(Ø 0.236, 0.472, 0.630")* for Ø 6–13 mm *(Ø 0.236–0.512")*, 'steel' type for short tools, 'carbide' type for long tools. For WB..0301.. or CC..0602.. inserts and 90° lead angle. Direct fitting into the heads. The locking flat achieves a cutting edge orientation according to ISO.



Boring bars, modular composed of a 'shank' and an 'insert holder' for Ø 13–63 mm *(Ø 0.512–2.480")*. Shanks Ø 12 or 16 mm *(Ø 0.472, 0.630")* in 'steel' for short, 'carbide' for long and 'Lightweight / aluminium' for the largest diameters. Direct fitting into the heads.

Six insert holders for CC..0602.. inserts and 90° lead angle, compatible with all shanks to build up a wide boring capacity on a common shank.



Multi-purpose adapter (MPA)

MPA for boring and OD-overturning, as well as face grooving on the - Axiabore™ Plus - head. The MPA and tools have a serrated interface, for precise orientation and positioning increments 2,5 mm on diameter *(0.098")*. Directional through coolant nozzle included.

Select the components to build up an MPA type tool on the MPA tool selection charts. See assembly details in the Instructions chapter.

Set up a Boring or OD-overturning assembly.
Boring and OD-overturning assemblies use the same shank equipped with an insert holder, and a counterweight. Boring assembly: Select the appropriate insert holder to be assembled onto the boring/OD-overturning shank, using the selection chart 'Boring with MPA' (part of following Product pages).



OD–overturning assembly: Select the appropriate insert holder to be assembled onto the boring/OD-overturning shank, using the selection chart 'OD-overturning with MPA' (part of following Product pages). See assembly details in the Instructions chapter.

Building a grooving assembly

A grooving assembly requires:

- A pair of grooving tool holders (one E='External' and one I='Internal')
- One grooving tool 'against Spigot' or 'against Bore'.When the groove is not against a spigot wall nor against a bore wall, both tool types are suitable. See the selection charts 'Grooving tool for grooving with MPA'



Features

Nanobore™ head, Part No. A76001



Ultra small head for fine boring Ø 0,3–8 mm *(Ø 0.012–0.315")*:
External diameter 25 mm *(0.984")*, length 25 mm *(0.984")*, with Graflex® connection size G2, tool fitting Ø 6 mm *(Ø 0.236")*.
Operating speeds up to 30 000 RPM allows performance machining of very small diameters.

The reduction bush 6–4 mm *(0.236–0.157")* with orientation flat and pin for fitting the solid boring tools is part of the head delivery content.

Diameter setting resolution: 2,5 µm *(0,0001")*

Axiabore™ head, Part No. A76002





Small heads for fine boring Ø 2–20 mm *(Ø 0.079–0.787")*:
External diameter 36,5 mm *(1.401")*, length 32 mm *(1.260")*, with Graflex® connection size G3 and Seco-Capto™ connection size C3, tool fitting Ø 12 mm *(Ø 0.472")*. These heads sizes are optimised for difficult-to-access bores.

The reduction bush 12-4 mm *(0.472–0.157")* with orientation flat and pin for fitting the solid boring tools is part of the head delivery content.

NOTE! Smaller tools from Nanobore™ 0,3–2,1 mm *(0.012–0.083")* can also be fitted, but the machining speed will be limited to 12000 RPM: Nanobore® head should be preferred.

Diameter setting resolution: 2,5 µm *(0,0001")* on diameter for analog heads, 1 µm *(0,00004")* on diameter for digital heads

Axiabore™ Plus - head, Part No. A76003 and C5-391.0760-03







Multi-purpose heads for fine boring Ø 6–108 mm *(Ø 0.236–4.252")*, OD-overturning Ø 2–57 mm *(Ø 0.079–2.244")* and grooving Ø 19–96 mm *(Ø 0.748–3.780")*:
External diameter 54 mm *(Ø 2.126")*, length 45 mm *(Ø 1.772")*, with Graflex® connection size 5 and Seco-Capto™ connection size 5, tool fitting Ø 16 mm *(Ø 0.630")*.
Suitable tools: all tools with shank Ø 16 mm *(Ø 0.630")*, for direct fitting into the heads.

This head has also been designed to be equipped with the MPA (multi-purpose adapter), to perform large diameter fine boring, OD–overturning and face grooving.

Diameter setting resolution: 2,5 µm *(0,0001")* on diameter for analog heads, 1 µm *(0,00004")* on diameter for digital heads

Axialibrabore™ Plus - head, Part No. A76013



Balanceable head for fine boring Ø 6–33 mm *(Ø 0.236–1.299")*:
Same features as the - Axiabore™ Plus - head, but with fine balancing body length 65 mm *(2.559")*.
With Graflex® connection size G5.
Fine balanceable heads allow higher speeds up to 20 000 RPM or 1500 m/min (whichever is reached first without exceeding either of them), improve the hole geometry and reduce the machine spindle stress.
'LibraOne' balancing is performed by setting the graduated balancing ring in line with the mark on the boring head (balancing code of the tool used, and the diameter to be bored). No chart needed.
Fine balancing is only possible for the smallest boring tools Ø 6–33 mm *(Ø 0.236–1.299")*.

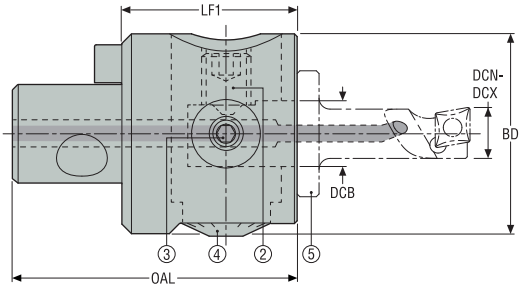
NOTE! If using a larger 'Alu', or a 'MPA' tool from the - Axiabore™ Plus - onto the - Axialibrabore™ Plus - head, fine balancing is not possible and the balancing ring should be set in the head's pre-balancing position (depending on the operation to be performed, see Instructions chapter).
The maximum speed becomes the same as for the - Axiabore™ Plus.

Diameter setting resolution: 2,5 µm *(0,0001")*

FB 760 – Axiabore™ type heads, not balanceable

Graflex®





- With micrometric adjusting (increment 0,01 mm and vernier 2,5 µm, on the diameter)
- Axiabore™ Plus – allows boring, as well as OD-overturning and face grooving

3. Locking screw
4. Micrometric adjusting screw
2. Assembly screw
5. Tool

Designation	Item number	Machine side Graflex size	Workpiece side Capacity DCN-DCX Ø		OAL	LF1	BD	DCB	Weight	*	Max operating speed**	
			mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*		Max. RPM**	Max. m/min**
A76001	02462575	G2	0,3 *0.012*	8,0 *0.315*	41,0 *1.614*	25,0 *0.984*	25,0 *0.984*	6,0 *0.236*	0,2 *0.440*	–	30000	1500
A76002	02594930	G3	2,0 *0.079*	20,0 *0.787*	52,0 *2.047*	32,0 *1.260*	36,5 *1.437*	12,0 *0.472*	0,4 *0.880*	–	12000	1500
A76003	02594935	G5	6,0 *0.236*	108,0 *4.252*	75,0 *2.953*	45,0 *1.772*	54,0 *2.126*	16,0 *0.630*	0,9 *1.980*	*	8000	1000

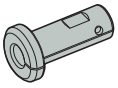
Note, weight is without insert holder

For tools, see page(s) 621-623

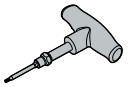
*Capacities - Axiabore™ Plus - head for boring 6-108 mm *(0.236-4.252")* , OD-overturning 2-57 mm *(0.079-2.244")*, face grooving 19-96 mm *(0.748-3.780")*.
*Max 5000 RPM when using MPA.

**Maximum speed, whichever is reached first without exceeding either of them.

Spare Parts, included in delivery

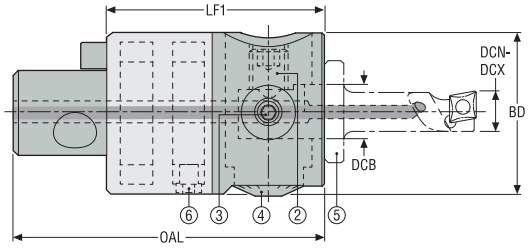
For head	Assembly screw	Key	Key (T-handle)	Locking screw	Reduction bush	Sealing Screws	Tenon
							
A76001	–	H4B-H2.0	DOUBLE-T	19M4001A	05A7600604	950A0406	90M21
A76002	AU7601212	03M03C	–	19A71030	05A7601204	–	90M3A
A76003	AU7601312	H6B-H4.0L	DOUBLE-T	19A71008125	–	–	90M5A

Accessories

For head	Torque key for balancing ring locking screws	Torque key for locking and assembly screws
		
A76001	–	H00-2009
A76002	–	H00-3030
A76003	H00T-4060	–

FB 760 – Axiabore™ type heads, balanceable

Graflex®



6. Locking screw 2
3. Locking screw 1
4. Micrometric adjusting screw
2. Assembly screw
5. Tool



- LibraOne built-in balancing system based on a single balancing setting ring
- With micrometric adjusting (increment 0,01 mm and vernier 2,5 µm, on the diameter)

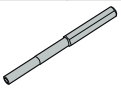
Designation	Item number	Machine side Graflex size	Workpiece side Capacity DCN-DCX Ø		OAL	LF1	BD	DCB	Weight	*	Max operating speed**	
			mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*		Max. RPM**	Max. m/min**
A76013	02594943	G5	6,0 *0.236*	33,0 *1.299*	95,0 *3.740*	65,0 *2.559*	54,0 *2.126*	16,0 *0.630*	1,2 *2.650*	*	20000	1500

Note, weight is without insert holder

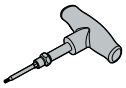
For tools, see page(s) 621-623

*Capacities – Axialibrabore™ Plus - head, with balancing.
**Maximum speed, whichever is reached first without exceeding either of them.

Spare Parts, included in delivery

For head	Assembly screw	Key	Key (T-handle)	Locking screw 1	Locking screw 2	Tenon
						
A76013	AU7601312	H6B-H4.0L	DOUBLE-T	19A71008125	AU7601318	90M5A1

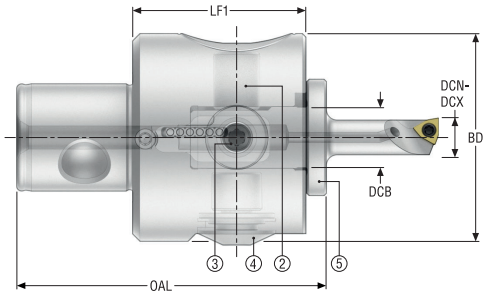
Accessories

For head	Torque key for balancing ring locking screws	Torque key for locking and assembly screws
		
A76013	H00-4020-60	H00T-4060

FB 760 D Digital Axiabore type heads, not balanceable

Graflex®





- Compatible with digital display to see the vernier scale increment on the wide display (digital display to be ordered separetly)
- Axiabore™ Plus – allows boring, as well as OD-overturning and face grooving

3. Clamp
4. Micrometric adjusting screw
2. Assembly screw
5. Tool

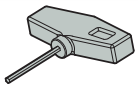
Designation	Item number	Machine side Graflex size	Workpiece side Capacity DCN-DCX Ø		OAL	LF1	BD	DCB	Weight	Max operating speed**	
			mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*	Max. RPM**	Max. m/min**
G3-FB760-02-D	10215570	G3	2,0 *0.079*	20,0 *0.787*	70,0 *2.756*	50,0 *1.969*	36,5 *1.437*	12,0 *0.472*	0,5 *1.100*	12000	1500
G5-FB760-03-D	10215571	G5	6,0 *0.236*	108,0 *4.252*	75,0 *2.953*	45,0 *1.772*	54,0 *2.126*	16,0 *0.630*	0,9 *1.980*	8000	1000

Note, weight is without insert holder

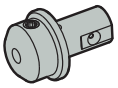
**Maximum speed, whichever is reached first without exceeding either of them.

Insert holders and universal digital display controller have to be ordered separately, see next pages.

Spare Parts, included in delivery

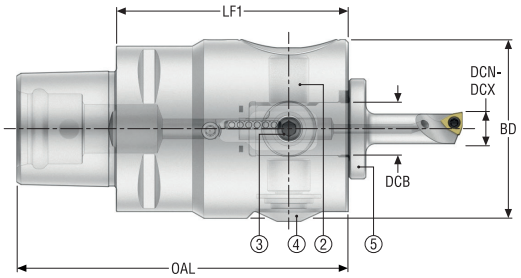
For	Assembly screw	Key	Key (T-handle)	Locking screw
				
G3	AU7601212	03M03C	–	19A71030
G5	AU7601312	H6B-H4.0L	DOUBLE-T	19A71008125

Accessories

For	Reduction bush	Torque key
		
G3	05A7601204	H00-3030
G5	–	H00-3030

FB 760 D Digital Axiabore type heads

Seco-Capto™





3. Clamp
4. Micrometric adjusting screw
2. Assembly screw
5. Tool

- Compatible with digital display to see the vernier scale increment on the wide display (digital display to be ordered separetly)
- Axiabore™ Plus – allows boring, as well as OD-overturning and face grooving

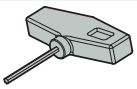
Designation	Item number	Machine side Capto size	Workpiece side Capacity DCN-DCX Ø		OAL	LF1	BD	DCB	Weight	Max operating speed**	
			mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*	Max. RPM**	Max. m/min**
C3-391.FB760-02-D	10215575	C3	2,0 *0.079*	20,0 *0.787*	89,0 *3.504*	70,0 *2.756*	36,5 *1.437*	12,0 *0.472*	0,5 *1.100*	12000	1500
C5-391.FB760-03-D	10215576	C5	6,0 *0.236*	108,0 *4.252*	100,0 *3.937*	70,0 *2.756*	54,0 *2.126*	16,0 *0.630*	1,3 *2.870*	8000	1000

Note, weight is without insert holder

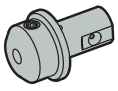
**Maximum speed, whichever is reached first without exceeding either of them.

Insert holders and universal digital display controller have to be ordered separately, see next pages.

Spare Parts, included in delivery

For	Assembly screw	Key	Key (T-handle)	Locking screw
				
C3	AU7601212	03M03C	–	19A71030
C5	AU7601312	H6B-H4.0L	DOUBLE-T	19A71008125

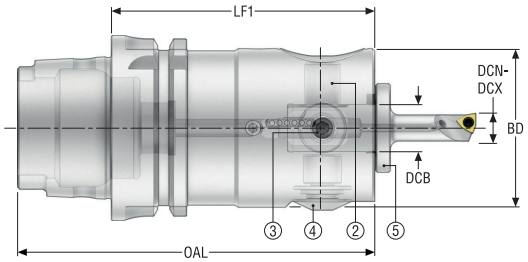
Accessories

For	Reduction bush	Torque key
		
C3	05A7601204	H00-3030
C5	–	H00-3030

FB 760 – Axiabore™ type heads

HSK-A





- Compatible with digital display to see the vernier scale increment on the wide display (digital display to be ordered separetly)
- Axiabore™ Plus – allows boring, as well as OD-overturning and face grooving

3. Clamp
4. Micrometric adjusting screw
2. Assembly screw
5. Tool

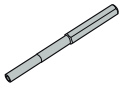
Designation	Item number	Machine side Graflex size	Workpiece side Capacity DCN-DCX Ø		OAL	LF1	BD	DCB	Weight	Max operating speed**	
			mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*	Max. RPM**	Max. m/min**
HSKA63-FB760-03-D	10215578	HSK-A63	6,0 *0.236*	108,0 *4.252*	122,0 *4.803*	90,0 *3.543*	54,0 *2.126*	16,0 *0.630*	1,8 *3.970*	8000	1000

Note, weight is without insert holder

**Maximum speed, whichever is reached first without exceeding either of them.

Insert holders and universal digital display controller have to be ordered separately, see next pages.

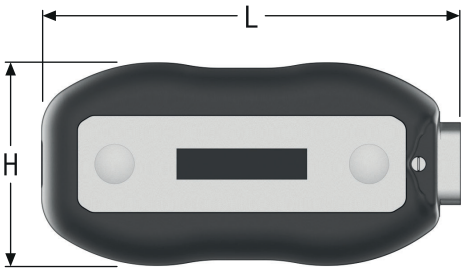
Spare Parts, included in delivery

For	Assembly screw	Key	Key (T-handle)	Locking screw
				
HSKA	AU7601312	H6B-H4.0L	DOUBLE-T	19A71008125

Accessories

For	Torque key
	
HSKA	H00-3030

Digital display for Digital boring heads





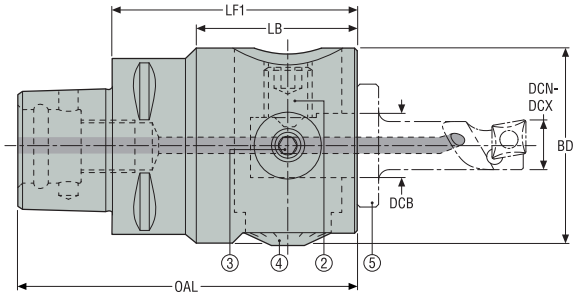
- Digital display for digital fine boring heads
- One digital display can be used for all Seco digital boring heads
- Diameter setting in mm or inch is possible
- Reversible display with magnet for better grip when mounted on digital boring head during setup
- Rechargeable, disposable battery inside

Designation	Item number	L	H	Weight
		mm *Inch*	mm *Inch*	kg *lbs*
990FBDD01	10215579	74,25 *2.92*	36 *1.42*	0,2 *0.008*

FB 760 – Axiabore™ type heads

Seco-Capto™





- With micrometric adjusting (increment 0,01 mm and vernier 2,5 µm, on the diameter)
- Axiabore™ Plus – allows boring, as well as OD-overturning and face grooving

3. Clamp
4. Micrometric adjusting screw
2. Assembly screw
5. Tool

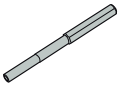
Designation	Item number	Machine side Capto size	Workpiece side Capacity DCN-DCX Ø		OAL	LF1	LB	BD	DCB	Weight	*	Max operating speed**	
			mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*		Max. RPM**	Max. m/min**
C5-391.0760-03	02822777	C5	6,0 *0.236*	108,0 *4.252*	95,0 *3.740*	65,0 *2.559*	44,0 *1.732*	54,0 *2.126*	16,0 *0.630*	1,2 *2.650*	*	8000	1500

Note, weight is without insert holder

For tools, see page(s) 621-623

*Max 5000 RPM when using MPA.
**Capacities - Axiabore™ Plus - head for boring 6-108 mm *(0.236-4.252")* , OD-overturning 2-57 mm *(0.079-2.244")*, face grooving 19-96 mm *(0.748-3.780")*.

Spare Parts, included in delivery

For head	Assembly screw	Key	Key (T-handle)	Locking screw
				
C5-...-03	AU7601312	H6B-H4.0L	DOUBLE-T	19A71008125

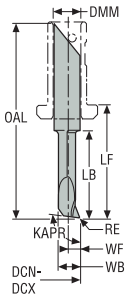
Accessories

Torque key for locking and assembly screws

H00-3030

Boring tools, solid carbide

for FB 760 heads





- Suitable for both Digital and Analog boring heads
- KAPR 98°
- Cutting edge orientation ISO
- Coolant along the tool
- Tool material: Solid carbide*

Designation	Item number	For head	Capacity DCN-DCX ∅ mm***		OAL	LB	LF	DMM	WB	WF	RE	Recommended cutting data** a_p	Recommended cutting data** f	Weight	Balancing code
			mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*	
A761402	02462579	FB 76001	0,3 *0.012*	0,6 *0.024*	30,7 *1.209*	1,2 *0.047*	15,5 *0.610*	4,0 *0.157*	0,25 *0.010*	0,1 *0.004*	0,0 –	0,02 *0.001*	0,01 *0*	0,01 *0.020*	–
A761412	02462581	FB 76001	0,5 *0.020*	1,1 *0.043*	30,7 *1.209*	2,0 *0.079*	15,5 *0.610*	4,0 *0.157*	0,45 *0.018*	0,2 *0.008*	0,0 –	0,02 *0.001*	0,01 *0*	0,1 *0.220*	–
A761422	02462583	FB 76001	1,0 *0.039*	2,1 *0.083*	30,7 *1.209*	5,0 *0.197*	15,5 *0.610*	4,0 *0.157*	0,95 *0.037*	0,45 *0.018*	0,1 *0.004*	0,03 *0.001*	0,02 *0.001*	0,1 *0.220*	–
A761432	02462584	FB 76001/02/12	2,0 *0.079*	3,2 *0.126*	30,7 *1.209*	8,0 *0.315*	15,5 *0.610*	4,0 *0.157*	1,8 *0.071*	0,88 *0.035*	0,1 *0.004*	0,05 *0.002*	0,02 *0.001*	0,1 *0.220*	E13
A761442	02462586	FB 76001/02/12	3,0 *0.118*	4,7 *0.185*	30,7 *1.209*	10,0 *0.394*	15,5 *0.610*	4,0 *0.157*	2,75 *0.108*	1,35 *0.053*	0,15 *0.006*	0,06 *0.002*	0,03 *0.001*	0,1 *0.220*	E14
A761452	02462587	FB 76001/02/12	4,5 *0.177*	6,2 *0.244*	35,7 *1.406*	15,0 *0.591*	20,5 *0.807*	4,0 *0.157*	3,95 *0.156*	1,95 *0.077*	0,15 *0.006*	0,08 *0.003*	0,03 *0.001*	0,1 *0.220*	E15

*These tools with shank dia 4 mm require the use of a reduction bush, delivered with the suitable heads and kits.

** For cutting speeds, see page(s) 686-689

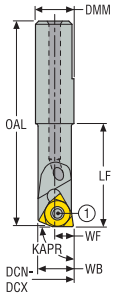
***+0,1 mm complementary capacity achievable.

Boring bars, insert type

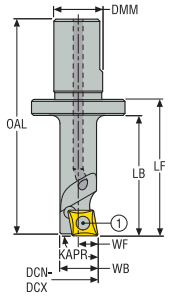
for FB 760 heads



A



B



1 = Insert screw

- Suitable for both Digital and Analog boring heads
- Cutting edge orientation ISO
- Through coolant
- Only two insert sizes for all tools
- Tool material * = Steel, indexable insert type
- Tool material ** = Carbide, indexable insert type
- KAPR 90°

Designation	Item number	Tool material	For head	** Capacity DCN-DCX ∅		OAL	LB	LF	DMM	WB	WF	Weight	Design	Suitable insert size	Balancing code
				mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*			
A762001	02462590	*	FB 76001	6,0 *0.236*	8,0 *0.315*	31,7 *1.248*	0,0 –	16,0 *0.630*	6,0 *0.236*	5,5 *0.217*	2,9 *0.114*	0,1 *0.220*	A	WB...0301..	–
A762002	02594947	*	FB 76002/12	6,0 *0.236*	8,0 *0.315*	39,7 *1.563*	16,0 *0.630*	20,0 *0.787*	12,0 *0.472*	5,5 *0.217*	2,9 *0.114*	0,1 *0.220*	B	WB...0301..	S21
A762003	02594967	*	FB 76003/13	6,0 *0.236*	8,0 *0.315*	50,2 *1.976*	16,0 *0.630*	21,0 *0.827*	16,0 *0.630*	5,5 *0.217*	2,9 *0.114*	0,1 *0.220*	B	WB...0301..	S31
A763002	02594948	*	FB 76002/12	8,0 *0.315*	10,0 *0.394*	45,7 *1.799*	22,0 *0.866*	26,0 *1.024*	12,0 *0.472*	7,4 *0.291*	3,9 *0.154*	0,1 *0.220*	B	WB...0301..	S22
A763003	02594968	*	FB 76003/13	8,0 *0.315*	10,0 *0.394*	56,2 *2.213*	22,0 *0.866*	27,0 *1.063*	16,0 *0.630*	7,4 *0.291*	3,9 *0.154*	0,1 *0.220*	B	WB...0301..	S32
A765002	02594957	*	FB 76002/12	10,0 *0.394*	13,0 *0.512*	53,5 *2.106*	30,0 *1.181*	34,0 *1.339*	12,0 *0.472*	9,35 *0.368*	4,8 *0.189*	0,1 *0.220*	B	CC...0602..	S23
A765003	02594969	*	FB 76003/13	10,0 *0.394*	13,0 *0.512*	64,0 *2.520*	30,0 *1.181*	35,0 *1.378*	16,0 *0.630*	9,35 *0.368*	4,8 *0.189*	0,1 *0.220*	B	CC...0602..	S33
A762201	02462591	**	FB 76001	6,0 *0.236*	8,0 *0.315*	41,7 *1.642*	0,0 –	26,0 *1.024*	6,0 *0.236*	5,5 *0.217*	2,9 *0.114*	0,1 *0.220*	A	WB...0301..	–
A762202	02594958	**	FB 76002/12	6,0 *0.236*	8,0 *0.315*	50,7 *1.996*	27,0 *1.063*	31,0 *1.220*	12,0 *0.472*	5,5 *0.217*	2,9 *0.114*	0,1 *0.220*	B	WB...0301..	E21
A762203	02594970	**	FB 76003/13	6,0 *0.236*	8,0 *0.315*	61,2 *2.409*	27,0 *1.063*	32,0 *1.260*	16,0 *0.630*	5,5 *0.217*	2,9 *0.114*	0,2 *0.440*	B	WB...0301..	E31
A763202	02594961	**	FB 76002/12	8,0 *0.315*	10,0 *0.394*	60,7 *2.390*	37,0 *1.457*	41,0 *1.614*	12,0 *0.472*	7,4 *0.291*	3,9 *0.154*	0,1 *0.220*	B	WB...0301..	E22
A763203	02594971	**	FB 76003/13	8,0 *0.315*	10,0 *0.394*	71,2 *2.803*	37,0 *1.457*	42,0 *1.654*	16,0 *0.630*	7,4 *0.291*	3,9 *0.154*	0,2 *0.440*	B	WB...0301..	E32
A765202	02594962	**	FB 76002/12	10,0 *0.394*	13,0 *0.512*	78,5 *3.091*	55,0 *2.165*	59,0 *2.323*	12,0 *0.472*	9,35 *0.368*	4,8 *0.189*	0,1 *0.220*	B	CC...0602..	E23
A765203	02594972	**	FB 76003/13	10,0 *0.394*	13,0 *0.512*	89,0 *3.504*	55,0 *2.165*	60,0 *2.362*	16,0 *0.630*	9,35 *0.368*	4,8 *0.189*	0,2 *0.440*	B	CC...0602..	E33

**+0,2 mm complementary capacity achievable.

Spare Parts, included in delivery

For insert size	Insert screw
	
WB...0301..	C02035-T06P
CC...0602..	C02504-T07P

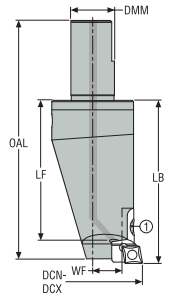
Accessories

Insert key	Key (T-handle)
	
H4B-T06P	DOUBLE-T
H4B-T07P	DOUBLE-T

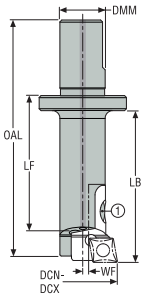
Boring shanks, for modular fine boring bars

for FB 760 heads

B



A



1 = Locking screw



- Several capacities achievable by interchangeable insert holders
- Shank types 'steel' for short bars, 'carbide' for long bars, 'aluminium' for large bars
- Through coolant

Designation	Item number	Modular boring shank type	For head	** Capacity DCN-DCX ∅		***	OAL	LB	LF	DMM	WF	Weight	Design
				mm *Inch*	mm *Inch*		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*	
A760S20	02594963	Steel	FB 76002/12	13,0 *0.512*	20,0 *0.787*		62,5 *2.461*	40,0 *1.575*	34,0 *1.339*	12,0 *0.472*	1,4 *0.055*	0,1 *0.220*	A
A760S30	02594973	Steel	FB 76003/13	13,0 *0.512*	18,0 *0.709*		73,0 *2.874*	40,0 *1.575*	35,0 *1.378*	16,0 *0.630*	1,4 *0.055*	0,1 *0.220*	A
A760S31	02594974	Steel	FB 76003/13	18,0 *0.709*	33,0 *1.299*		83,0 *3.268*	50,0 *1.969*	45,0 *1.772*	16,0 *0.630*	3,9 *0.154*	0,1 *0.220*	A
A760E20	02594964	Carbide	FB 76002/12	13,0 *0.512*	20,0 *0.787*		82,5 *3.248*	60,0 *2.362*	54,0 *2.126*	12,0 *0.472*	1,4 *0.055*	0,2 *0.440*	A
A760E30	02594965	Carbide	FB 76003/13	13,0 *0.512*	18,0 *0.709*		103,0 *4.055*	70,0 *2.756*	65,0 *2.559*	16,0 *0.630*	1,4 *0.055*	0,2 *0.440*	A
A760E31	02594966	Carbide	FB 76003/13	18,0 *0.709*	33,0 *1.299*		113,0 *4.449*	80,0 *3.150*	75,0 *2.953*	16,0 *0.630*	3,9 *0.154*	0,3 *0.660*	A
A760A32	02594977	Aluminium	FB 76003/13	33,0 *1.299*	48,0 *1.890*	***	88,0 *3.465*	60,0 *2.362*	50,0 *1.969*	16,0 *0.630*	11,5 *0.453*	0,2 *0.440*	B
A760A33	02594978	Aluminium	FB 76003/13	48,0 *1.890*	63,0 *2.480*	***	108,0 *4.252*	80,0 *3.150*	70,0 *2.756*	16,0 *0.630*	19,0 *0.748*	0,4 *0.880*	B

Note, weight is without insert holder.

**+0,2 mm complementary capacity achievable.
*** When used on A760 13, no fine balancing possible. Select the required shank and insert holder(s) combination(s) using the selection chart on page(s) 625.

Spare Parts, included in delivery

For head	Locking screw
	
A76002/12	C04008-T15P
A76003/13	C04008-T15P
A76003	C04008-T15P

Accessories

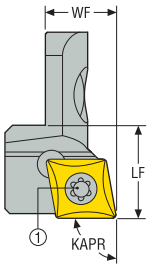
Key (T-handle)

DOUBLE-T
DOUBLE-T
DOUBLE-T

Insert holders, for modular fine boring bars

for FB 760 heads





1 = Insert screw

- Single fitting size suitable for all boring (and OD-overturning) shanks
- One insert size for all insert holders

Designation	Item number	LF	WF*	Weight	Suitable insert size	KRINS°
		mm *Inch*	mm *Inch*	kg *lbs*		
A765R1	02594979	10,0 *0.394*	4,95 *0.195*	0,1 *0.220*	CC..0602..	90
A765R2	02594983	10,0 *0.394*	6,2 *0.244*	0,1 *0.220*	CC..0602..	90
A765R3	02594984	10,0 *0.394*	7,45 *0.293*	0,1 *0.220*	CC..0602..	90
A765R4	02594987	10,0 *0.394*	8,7 *0.343*	0,1 *0.220*	CC..0602..	90
A765R5	02594989	10,0 *0.394*	9,97 *0.393*	0,1 *0.220*	CC..0602..	90
A765R6	02594990	10,0 *0.394*	11,2 *0.441*	0,1 *0.220*	CC..0602..	90

*WF when fitted with insert type CC..060204.
Select the required shank and insert holder(s) combination(s) using the selection chart on page(s) 625.

Spare Parts, included in delivery

For insert size	Insert screw
	
CC...0602...	C02504-T07P

Accessories

Insert key	Key (T-handle)
	
H4B-T07P	DOUBLE-T

Selection chart:
Boring tools and insert holders suitable for FB 760 heads

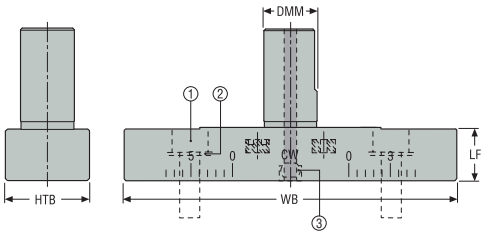
For head	Boring capacity DCN-DCX ∅ mm	*inch*	Boring length LB mm	*inch*	Designation Boring tool	Insert holder	DMM mm	*inch*	Suitable insert size	Tool type
A760 01	0,3-0,6	*0.012-0.024*	1,2	*0.047*	A761402	–	4	*0.157*	–	Solid carbide
	0,5-1,1	*0.020-0.043*	2	*0.078*	A761412	–	4	*0.157*	–	Solid carbide
	1-2,1	*0.039-0.083*	-	-	A761422	–	4	*0.157*	–	Solid carbide
	2-3,2	*0.079-0.126*	8	*0.315*	A761432	–	4	*0.157*	–	Solid carbide
	3-4,7	*0.118-0.185*	10	*0.394*	A761442	–	4	*0.157*	–	Solid carbide
	4,5-6,2	*0.177-0.244*	15	*0.591*	A761452	–	4	*0.157*	–	Solid carbide
	6-8	*0.236-0.315*	16	*0.630*	A762001	–	6	*0.236*	WB..0301..	Steel, inserts type
	6-8	*0.236-0.315*	26	*1.024*	A762201	–	6	*0.236*	WB..0301..	Carbide, inserts type
A760 02/ A760 12	2-3,2	*0.079-0.126*	8	*0.315*	A761432	–	4	*0.157*	–	Solid carbide
	3-4,7	*0.118-0.185*	10	*0.394*	A761442	–	4	*0.157*	–	Solid carbide
	4,5-6,2	*0.177-0.244*	15	*0.591*	A761452	–	4	*0.157*	–	Solid carbide
	6-8	*0.236-0.315*	16	*0.630*	A762002	–	12	*0.472*	WB..0301..	Steel, inserts type
	6-8	*0.236-0.315*	27	*1.063*	A762202	–	12	*0.472*	WB..0301..	Carbide, inserts type
	8-10	*0.315-0.394*	22	*0.866*	A763002	–	12	*0.472*	WB..0301..	Steel, inserts type
	8-10	*0.315-0.394*	37	*1.457*	A763202	–	12	*0.472*	WB..0301..	Carbide, inserts type
	10-13	*0.394-0.512*	30	*1.181*	A765002	–	12	*0.472*	CC..0602..	Steel, inserts type
	10-13	*0.394-0.512*	55	*2.165*	A765202	–	12	*0.472*	CC..0602..	Carbide, inserts type
	13-15,5	*0.512-0.610*	40	*1.575*	A760S20	A765R1	12	*0.472*	CC..0602..	Steel shank with insert holder
	13-15,5	*0.512-0.610*	60	*2.362*	A760E20	A765R1	12	*0.472*	CC..0602..	Carbide shank with insert holder
	15,5-18	*0.610-0.709*	40	*1.575*	A760S20	A765R2	12	*0.472*	CC..0602..	Steel shank with insert holder
	15,5-18	*0.610-0.709*	60	*2.362*	A760E20	A765R2	12	*0.472*	CC..0602..	Carbide shank with insert holder
	18-20	*0.709-0.787*	40	*1.575*	A760S20	A765R3	12	*0.472*	CC..0602..	Steel shank with insert holder
	18-20	*0.709-0.787*	60	*2.362*	A760E20	A765R3	12	*0.472*	CC..0602..	Carbide shank with insert holder
A760 03/ A760 13	6-8	*0.236-0.315*	16	*0.630*	A762003	–	16	*0.630*	WB..0301..	Steel, inserts type
	6-8	*0.236-0.315*	32	*1.260*	A762203	–	16	*0.630*	WB..0301..	Carbide, inserts type
	8-10	*0.315-0.394*	22	*0.866*	A763003	–	16	*0.630*	WB..0301..	Steel, inserts type
	8-10	*0.315-0.394*	37	*1.457*	A763203	–	16	*0.630*	WB..0301..	Carbide, inserts type
	10-13	*0.394-0.512*	30	*1.181*	A765003	–	16	*0.630*	CC..0602..	Steel, inserts type
	10-13	*0.394-0.512*	55	*2.165*	A765203	–	16	*0.630*	CC..0602..	Carbide, inserts type
	13-15,5	*0.512-0.610*	40	*1.575*	A760S30	A765R1	16	*0.630*	CC..0602..	Steel shank with insert holder
	13-15,5	*0.512-0.610*	70	*2.756*	A760E30	A765R1	16	*0.630*	CC..0602..	Carbide shank with insert holder
	15,5-18	*0.610-0.709*	40	*1.575*	A760S30	A765R2	16	*0.630*	CC..0602..	Steel shank with insert holder
	15,5-18	*0.610-0.709*	70	*2.756*	A760E30	A765R2	16	*0.630*	CC..0602..	Carbide shank with insert holder
	18-20,5	*0.709-0.807*	50	*1.969*	A760S31	A765R1	16	*0.630*	CC..0602..	Steel shank with insert holder
	18-20,5	*0.709-0.807*	80	*3.150*	A760E31	A765R1	16	*0.630*	CC..0602..	Carbide shank with insert holder
	20,5-23	*0.807-0.906*	50	*1.969*	A760S31	A765R2	16	*0.630*	CC..0602..	Steel shank with insert holder
	20,5-23	*0.807-0.906*	80	*3.150*	A760E31	A765R2	16	*0.630*	CC..0602..	Carbide shank with insert holder
	23-25,5	*0.906-1.00*	50	*1.969*	A760S31	A765R3	16	*0.630*	CC..0602..	Steel shank with insert holder
	23-25,5	*0.906-1.00*	80	*3.150*	A760E31	A765R3	16	*0.630*	CC..0602..	Carbide shank with insert holder
	25,5-28	*1.004-1.102*	50	*1.969*	A760S31	A765R4	16	*0.630*	CC..0602..	Steel shank with insert holder
	25,5-28	*1.004-1.102*	80	*3.150*	A760E31	A765R4	16	*0.630*	CC..0602..	Carbide shank with insert holder
	28-30,5	*1.102-1.201*	50	*1.969*	A760S31	A765R5	16	*0.630*	CC..0602..	Steel shank with insert holder
	28-30,5	*1.102-1.201*	80	*3.150*	A760E31	A765R5	16	*0.630*	CC..0602..	Carbide shank with insert holder
	30,5-33	*1.201-1.299*	50	*1.969*	A760S31	A765R6	16	*0.630*	CC..0602..	Steel shank with insert holder
	30,5-33	*1.201-1.299*	80	*3.150*	A760E31	A765R6	16	*0.630*	CC..0602..	Carbide shank with insert holder
	33-35,5*	*1.299-1.398**	60	*2.362*	A760A32	A765R1	16	*0.630*	CC..0602..	Aluminium shank with insert holder
	35,5-38*	*1.299-1.496**	60	*2.362*	A760A32	A765R2	16	*0.630*	CC..0602..	Aluminium shank with insert holder
	38-40,5*	*1.496-1.594**	60	*2.362*	A760A32	A765R3	16	*0.630*	CC..0602..	Aluminium shank with insert holder
	40,5-43*	*1.594-1.693**	60	*2.362*	A760A32	A765R4	16	*0.630*	CC..0602..	Aluminium shank with insert holder
	43-45,5*	*1.693-1.791**	60	*2.362*	A760A32	A765R5	16	*0.630*	CC..0602..	Aluminium shank with insert holder
	45,5-48*	*1.791-1.890**	60	*2.362*	A760A32	A765R6	16	*0.630*	CC..0602..	Aluminium shank with insert holder
	48-50,5*	*1.890-1.988**	80	*3.150*	A760A33	A765R1	16	*0.630*	CC..0602..	Aluminium shank with insert holder
	50,5-53*	*1.988-2.087**	80	*3.150*	A760A33	A765R2	16	*0.630*	CC..0602..	Aluminium shank with insert holder
	53-55,5*	*2.087-2.185**	80	*3.150*	A760A33	A765R3	16	*0.630*	CC..0602..	Aluminium shank with insert holder
	55,5-58*	*2.185-2.283**	80	*3.150*	A760A33	A765R4	16	*0.630*	CC..0602..	Aluminium shank with insert holder
	58-60,5*	*2.283-2.382**	80	*3.150*	A760A33	A765R5	16	*0.630*	CC..0602..	Aluminium shank with insert holder
	60,5-63*	*2.382-2.480**	80	*3.150*	A760A33	A765R6	16	*0.630*	CC..0602..	Aluminium shank with insert holder

For larger diameters, see Multi-purpose adapter (MPA) section.
* When used on A760 13, no fine balancing possible.

Multi-purpose adapter (MPA)

for FB 760 heads



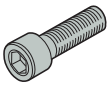


- Suitable for both Digital and Analog Axiabore™ Plus – A760 03 head only*
- Designed to hold a shank and a counterweight (for boring or OD-overturning) or two grooving tool holders (for face grooving)
- Through coolant with an adjustable nozzle (3)

1. Assembly screw
2. Washer
3. Adjustable nozzle

Designation	Item number	Capacity DCN-DCX ∅ For boring		For OD-overturning		For grooving		HTB	LF	DMM	WB	Weight
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*
BDA16BS25100	02595014	53,0 *2.087*	108,0 *4.252*	2,0 *0.079*	57,0 *2.244*	31,0 *1.220*	96,0 *3.780*	25,0 *0.984*	16,0 *0.630*	16,0 *0.630*	100,0 *3.937*	0,3 *0.660*

Spare Parts, included in delivery

For	Assembly screw	Washer
		
BDA16BS25100	950D0618	940ZC06

*When used on an - Axialibrabore™ Plus - A760 13 head, no fine balancing possible, see page(s) 613
Select the required components to realise boring, OD-overturning or grooving assemblies, using following page(s) 630-641

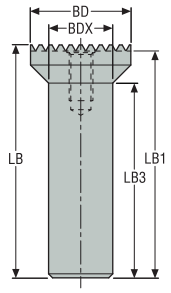
Accessories

For head	Clamp key
	
BDA16BS25100	03HL05

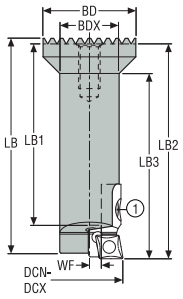
Shank & counterweight, for boring or OD-overturning on a MPA

for FB 760 heads

B



A



1. Assembly screw



- For fitting onto the MPA
- Shank can be used for boring or OD-overturning
- Takes the same insert holders as the modular boring shanks

Designation	Item number	Type	** Capacity DCN-DCX ∅ For boring		For OD-overturning		LB	LB1	LB2	LB3	WF	BDX	BD	Weight	Design
			mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*	
BAS25MH1660	02595019	Shank*	53,0 *2.087*	108,0 *4.252*	2,0 *0.079*	57,0 *2.244*	58,5 *2.303*	48,5 *1.909*	58,5 *2.303*	50,0 *1.969*	4,0 *0.157*	16,0 *0.630*	25,0 *0.984*	0,1 *0.220*	A
BAS25CW1660	02595016	Counter-weight	53,0 *2.087*	108,0 *4.252*	2,0 *0.079*	57,0 *2.244*	58,0 *2.283*	56,6 *2.228*	–	48,5 *1.909*	–	16,0 *0.630*	25,0 *0.984*	0,2 *0.440*	B

*Insert holders to be ordered separately, see page(s) 624

**Capacities in boring and OD-overturning are related to the selected insert holder and the setting position of the shanks using the 'Insert holders for boring or OD-overturning selection chart' on page(s) 630-641

Spare Parts, included in delivery

For	Assembly screw
	
BAS25MH1660	C04008-T15P
BAS25CW1660	–

Accessories

Key (T-handle)

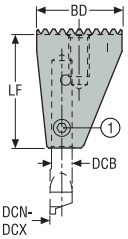
DOUBLE-T
–

Grooving tool holders, for face grooving on a MPA

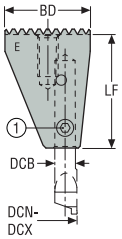
for FB 760 heads



I



E



1. Locking screw

- For fitting onto the MPA
- A grooving tool holder is used either to hold a grooving tool, or to act as a counterweight

Designation	Item number	Type	* Capacity DCN-DCX ∅		DCB	LF	BD	Weight	Design
			mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*	
BAS25FGI35	02595021	Grooving tool holder I (internal)*	19,0 *0.748*	76,0 *2.992*	6,0 *0.236*	35,0 *1.378*	25,0 *0.984*	0,1 *0.220*	I (Internal)
BAS25FGE35	02595020	Grooving tool holder E (external)*	39,0 *1.535*	96,0 *3.780*	6,0 *0.236*	35,0 *1.378*	25,0 *0.984*	0,1 *0.220*	E (External)

*Grooving tools to be ordered separately, see page(s) 629

* Capacity in grooving is related to the selected grooving tool, the setting position and orientation of the grooving tool holder, using the ' Grooving tool against spigot (or against bore) selection charts' see page(s) 630-641

Spare Parts, included in delivery

For	Locking screw
	
BAS25FGI35	950L0607T15P
BAS25FGE35	950L0607T15P

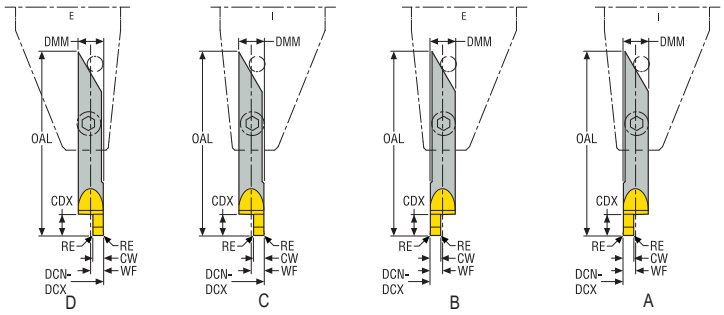
Accessories

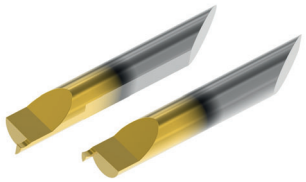
Key (T-handle)

DOUBLE-T
DOUBLE-T

Grooving tools

for FB 760 heads





- Can be used for either 'external' or 'internal' grooving tool holders, depending on capacity

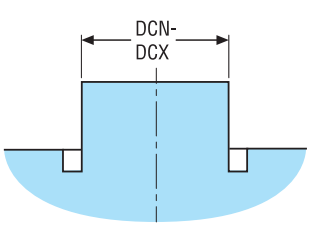
Designation	Item number	Type	* Capacity DCN-DCX ∅ Design A		Design B		Design C		Design D		OAL	CW	RE	DMM	WF	Groove max. **	Weight
			mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*
AFG0629101582	02595028	Against spigot	19,0 *0.748*	64,0 *2.520*	39,0 *1.535*	84,0 *3.307*	–	–	–	–	42,0 *1.654*	1,0 *0.039*	0,15 *0.006*	6,0 *0.236*	2,95 *0.116*	2,0 *0.079*	0,07 *0.150*
AFG0629151582	02595029	Against spigot	19,0 *0.748*	64,0 *2.520*	39,0 *1.535*	84,0 *3.307*	–	–	–	–	42,0 *1.654*	1,5 *0.059*	0,15 *0.006*	6,0 *0.236*	2,95 *0.116*	3,0 *0.118*	0,07 *0.150*
AFG0629201582	02595031	Against spigot	19,0 *0.748*	64,0 *2.520*	39,0 *1.535*	84,0 *3.307*	–	–	–	–	42,0 *1.654*	2,0 *0.079*	0,15 *0.006*	6,0 *0.236*	2,95 *0.116*	5,0 *0.197*	0,1 *0.220*
AFG0629251582	02595032	Against spigot	19,0 *0.748*	64,0 *2.520*	39,0 *1.535*	84,0 *3.307*	–	–	–	–	42,0 *1.654*	2,5 *0.098*	0,15 *0.006*	6,0 *0.236*	2,95 *0.116*	5,0 *0.197*	0,1 *0.220*
AFG0629301582	02595033	Against spigot	19,0 *0.748*	64,0 *2.520*	39,0 *1.535*	84,0 *3.307*	–	–	–	–	42,0 *1.654*	3,0 *0.118*	0,15 *0.006*	6,0 *0.236*	2,95 *0.116*	6,0 *0.236*	0,1 *0.220*
AFG0629101581	02595022	Against bore	–	–	–	–	31,0 *1.220*	76,0 *2.992*	51,0 *2.008*	96,0 *3.780*	42,0 *1.654*	1,0 *0.039*	0,15 *0.006*	6,0 *0.236*	2,95 *0.116*	2,0 *0.079*	0,1 *0.220*
AFG0629151581	02595023	Against bore	–	–	–	–	31,0 *1.220*	76,0 *2.992*	51,0 *2.008*	96,0 *3.780*	42,0 *1.654*	1,5 *0.059*	0,15 *0.006*	6,0 *0.236*	2,95 *0.116*	3,0 *0.118*	0,07 *0.150*
AFG0629201581	02595024	Against bore	–	–	–	–	31,0 *1.220*	76,0 *2.992*	51,0 *2.008*	96,0 *3.780*	42,0 *1.654*	2,0 *0.079*	0,15 *0.006*	6,0 *0.236*	2,95 *0.116*	4,0 *0.157*	0,1 *0.220*
AFG0629251581	02595026	Against bore	–	–	–	–	31,0 *1.220*	76,0 *2.992*	51,0 *2.008*	96,0 *3.780*	42,0 *1.654*	2,5 *0.098*	0,15 *0.006*	6,0 *0.236*	2,95 *0.116*	5,0 *0.197*	0,1 *0.220*
AFG0629301581	02595027	Against bore	–	–	–	–	31,0 *1.220*	76,0 *2.992*	51,0 *2.008*	96,0 *3.780*	42,0 *1.654*	3,0 *0.118*	0,15 *0.006*	6,0 *0.236*	2,95 *0.116*	6,0 *0.236*	0,1 *0.220*

* Capacity in grooving is related to the selected grooving tool, the setting position and orientation of the grooving tool holder, using the ' Grooving tool against spigot (or against bore) selection charts' see page(s) 630-641

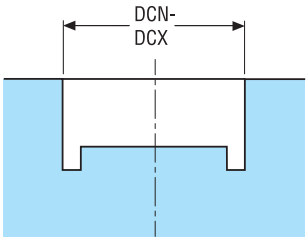
** Groove max. depth CDX

Spare Parts, included in delivery

Grooving tool -against spigot-

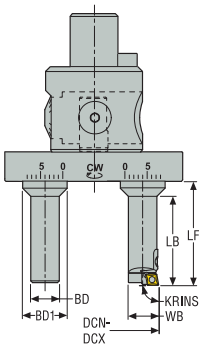


Grooving tool -against bore-



Metric Selection chart:
Boring tools and insert holders suitable for FB 760 heads

Select a suitable insert holder and note the shank position on the MPA to obtain the required bore capacity.
Note: A boring assembly requires:
- an - Axiabore™ Plus - head (A760 03)
- a MPA (BDA16BS25100)
- a shank (BAS25MH1660)
- a counterweight (BAS25CW1660).
- an insert holder (A765R.) to be selected in the chart
- an insert

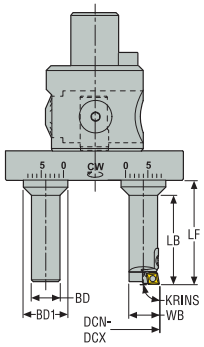


Capacity DCN-DCX ∅ mm*	Insert holder Designation	Shank position	Dimensions in mm					Lead angle KRINS°	Suitable insert size
			BD	BD1	LF	LB	WB		
53-55,5	A765 R1	0	16	25	58,5	50	17	90°	CC..0602..
55,5-58	A765 R2	0	16	25	58,5	50	18,2	90°	CC..0602..
58-60,5	A765 R1	1	16	25	58,5	50	17	90°	CC..0602..
	A765 R3	0	16	25	58,5	50	19,5	90°	CC..0602..
60,5-63	A765 R2	1	16	25	58,5	50	18,2	90°	CC..0602..
	A765 R4	0	16	25	58,5	50	20,7	90°	CC..0602..
63-65,5	A765 R1	2	16	25	58,5	50	17	90°	CC..0602..
	A765 R3	1	16	25	58,5	50	19,5	90°	CC..0602..
	A765 R5	0	16	25	58,5	50	22	90°	CC..0602..
65,5-68	A765 R2	2	16	25	58,5	50	18,2	90°	CC..0602..
	A765 R4	1	16	25	58,5	50	20,7	90°	CC..0602..
	A765 R6	0	16	25	58,5	50	23,3	90°	CC..0602..
68-70,5	A765 R1	3	16	25	58,5	50	17	90°	CC..0602..
	A765 R3	2	16	25	58,5	50	19,5	90°	CC..0602..
	A765 R5	1	16	25	58,5	50	22	90°	CC..0602..
70,5-73	A765 R2	3	16	25	58,5	50	18,2	90°	CC..0602..
	A765 R4	2	16	25	58,5	50	20,7	90°	CC..0602..
	A765 R6	1	16	25	58,5	50	23,2	90°	CC..0602..
73-75,5	A765 R1	4	16	25	58,5	50	17	90°	CC..0602..
	A765 R3	3	16	25	58,5	50	19,5	90°	CC..0602..
	A765 R5	2	16	25	58,5	50	22	90°	CC..0602..
75,5-78	A765 R2	4	16	25	58,5	50	18,2	90°	CC..0602..
	A765 R4	3	16	25	58,5	50	20,7	90°	CC..0602..
	A765 R6	2	16	25	58,5	50	23,2	90°	CC..0602..
78-80,5	A765 R1	5	16	25	58,5	50	17	90°	CC..0602..
	A765 R3	4	16	25	58,5	50	19,5	90°	CC..0602..
	A765 R5	3	16	25	58,5	50	22	90°	CC..0602..
80,5-83	A765 R2	5	16	25	58,5	50	18,2	90°	CC..0602..
	A765 R4	4	16	25	58,5	50	20,7	90°	CC..0602..
	A765 R6	3	16	25	58,5	50	23,2	90°	CC..0602..
83-85,5	A765 R1	6	16	25	58,5	50	17	90°	CC..0602..
	A765 R3	5	16	25	58,5	50	19,5	90°	CC..0602..
	A765 R5	4	16	25	58,5	50	22	90°	CC..0602..
85,5-88	A765 R2	6	16	25	58,5	50	18,2	90°	CC..0602..
	A765 R4	5	16	25	58,5	50	20,7	90°	CC..0602..
	A765 R6	4	16	25	58,5	50	23,2	90°	CC..0602..
88-90,5	A765 R1	7	16	25	58,5	50	17	90°	CC..0602..
	A765 R3	6	16	25	58,5	50	19,5	90°	CC..0602..
	A765 R5	5	16	25	58,5	50	22	90°	CC..0602..
90,5-93	A765 R2	7	16	25	58,5	50	18,2	90°	CC..0602..
	A765 R4	6	16	25	58,5	50	20,7	90°	CC..0602..
	A765 R6	5	16	25	58,5	50	23,2	90°	CC..0602..
93-95,5	A765 R1	8	16	25	58,5	50	17	90°	CC..0602..
	A765 R3	7	16	25	58,5	50	19,5	90°	CC..0602..
	A765 R5	6	16	25	58,5	50	22	90°	CC..0602..
95,5-98	A765 R2	8	16	25	58,5	50	18,2	90°	CC..0602..
	A765 R4	7	16	25	58,5	50	20,7	90°	CC..0602..
	A765 R6	6	16	25	58,5	50	23,2	90°	CC..0602..
98-100,5	A765 R3	8	16	25	58,5	50	19,5	90°	CC..0602..
	A765 R5	7	16	25	58,5	50	22	90°	CC..0602..
100,5-103	A765 R4	8	16	25	58,5	50	20,7	90°	CC..0602..
	A765 R6	7	16	25	58,5	50	23,2	90°	CC..0602..
103-105,5	A765 R5	8	16	25	58,5	50	22	90°	CC..0602..
105,5-108	A765 R6	8	16	25	58,5	50	23,2	90°	CC..0602..

* +0,2 mm *(0.008")* complementary capacity achievable.
Detailed description of insert holders, see page(s) 624

Inch Selection chart:
Boring tools and insert holders suitable for FB 760 heads

Select a suitable insert holder and note the shank position on the MPA to obtain the required bore capacity.
Note: A boring assembly requires:
- an - Axiabore™ Plus - head (A760 03)
- a MPA (BDA16BS25100)
- a shank (BAS25MH1660)
- a counterweight (BAS25CW1660).
- an insert holder (A765R.) to be selected in the chart
- an insert

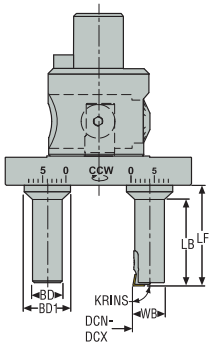


Capacity DCN-DCX ∅ inch*	Insert holder Designation	Shank position	Dimensions in inch					Lead angle KRINS°	Suitable insert size
			BD	BD1	LF	LB	WB		
2.087-2.185	A765 R1	0	*0.630*	*0.984*	*2.303*	*1.969*	*0.669*	90°	CC..0602..
2.185-2.283	A765 R2	0	*0.630*	*0.984*	*2.303*	*1.969*	*0.717*	90°	CC..0602..
2.283-2.382	A765 R1	1	*0.630*	*0.984*	*2.303*	*1.969*	*0.669*	90°	CC..0602..
	A765 R3	0	*0.630*	*0.984*	*2.303*	*1.969*	*0.768*	90°	CC..0602..
2.382-2.480	A765 R2	1	*0.630*	*0.984*	*2.303*	*1.969*	*0.717*	90°	CC..0602..
	A765 R4	0	*0.630*	*0.984*	*2.303*	*1.969*	*0.815*	90°	CC..0602..
2.480-2.579	A765 R1	2	*0.630*	*0.984*	*2.303*	*1.969*	*0.669*	90°	CC..0602..
	A765 R3	1	*0.630*	*0.984*	*2.303*	*1.969*	*0.768*	90°	CC..0602..
	A765 R5	0	*0.630*	*0.984*	*2.303*	*1.969*	*0.866*	90°	CC..0602..
2.579-2.677	A765 R2	2	*0.630*	*0.984*	*2.303*	*1.969*	*0.717*	90°	CC..0602..
	A765 R4	1	*0.630*	*0.984*	*2.303*	*1.969*	*0.815*	90°	CC..0602..
	A765 R6	0	*0.630*	*0.984*	*2.303*	*1.969*	*0.917*	90°	CC..0602..
2.677-2.776	A765 R1	3	*0.630*	*0.984*	*2.303*	*1.969*	*0.669*	90°	CC..0602..
	A765 R3	2	*0.630*	*0.984*	*2.303*	*1.969*	*0.768*	90°	CC..0602..
	A765 R5	1	*0.630*	*0.984*	*2.303*	*1.969*	*0.866*	90°	CC..0602..
2.776-2.874	A765 R2	3	*0.630*	*0.984*	*2.303*	*1.969*	*0.717*	90°	CC..0602..
	A765 R4	2	*0.630*	*0.984*	*2.303*	*1.969*	*0.815*	90°	CC..0602..
	A765 R6	1	*0.630*	*0.984*	*2.303*	*1.969*	*0.913*	90°	CC..0602..
2.874-2.972	A765 R1	4	*0.630*	*0.984*	*2.303*	*1.969*	*0.669*	90°	CC..0602..
	A765 R3	3	*0.630*	*0.984*	*2.303*	*1.969*	*0.768*	90°	CC..0602..
	A765 R5	2	*0.630*	*0.984*	*2.303*	*1.969*	*0.866*	90°	CC..0602..
2.972-3.071	A765 R2	4	*0.630*	*0.984*	*2.303*	*1.969*	*0.717*	90°	CC..0602..
	A765 R4	3	*0.630*	*0.984*	*2.303*	*1.969*	*0.815*	90°	CC..0602..
	A765 R6	2	*0.630*	*0.984*	*2.303*	*1.969*	*0.913*	90°	CC..0602..
3.071-3.169	A765 R1	5	*0.630*	*0.984*	*2.303*	*1.969*	*0.669*	90°	CC..0602..
	A765 R3	4	*0.630*	*0.984*	*2.303*	*1.969*	*0.768*	90°	CC..0602..
	A765 R5	3	*0.630*	*0.984*	*2.303*	*1.969*	*0.866*	90°	CC..0602..
3.169-3.268	A765 R2	5	*0.630*	*0.984*	*2.303*	*1.969*	*0.717*	90°	CC..0602..
	A765 R4	4	*0.630*	*0.984*	*2.303*	*1.969*	*0.815*	90°	CC..0602..
	A765 R6	3	*0.630*	*0.984*	*2.303*	*1.969*	*0.913*	90°	CC..0602..
3.268-3.366	A765 R1	6	*0.630*	*0.984*	*2.303*	*1.969*	*0.669*	90°	CC..0602..
	A765 R3	5	*0.630*	*0.984*	*2.303*	*1.969*	*0.768*	90°	CC..0602..
	A765 R5	4	*0.630*	*0.984*	*2.303*	*1.969*	*0.866*	90°	CC..0602..
3.366-3.465	A765 R2	6	*0.630*	*0.984*	*2.303*	*1.969*	*0.717*	90°	CC..0602..
	A765 R4	5	*0.630*	*0.984*	*2.303*	*1.969*	*0.815*	90°	CC..0602..
	A765 R6	4	*0.630*	*0.984*	*2.303*	*1.969*	*0.913*	90°	CC..0602..
3.465-3.563	A765 R1	7	*0.630*	*0.984*	*2.303*	*1.969*	*0.669*	90°	CC..0602..
	A765 R3	6	*0.630*	*0.984*	*2.303*	*1.969*	*0.768*	90°	CC..0602..
	A765 R5	5	*0.630*	*0.984*	*2.303*	*1.969*	*0.866*	90°	CC..0602..
3.563-3.661	A765 R2	7	*0.630*	*0.984*	*2.303*	*1.969*	*0.717*	90°	CC..0602..
	A765 R4	6	*0.630*	*0.984*	*2.303*	*1.969*	*0.815*	90°	CC..0602..
	A765 R6	5	*0.630*	*0.984*	*2.303*	*1.969*	*0.913*	90°	CC..0602..
3.661-3.760	A765 R1	8	*0.630*	*0.984*	*2.303*	*1.969*	*0.669*	90°	CC..0602..
	A765 R3	7	*0.630*	*0.984*	*2.303*	*1.969*	*0.768*	90°	CC..0602..
	A765 R5	6	*0.630*	*0.984*	*2.303*	*1.969*	*0.866*	90°	CC..0602..
3.760-3.858	A765 R2	8	*0.630*	*0.984*	*2.303*	*1.969*	*0.717*	90°	CC..0602..
	A765 R4	7	*0.630*	*0.984*	*2.303*	*1.969*	*0.815*	90°	CC..0602..
	A765 R6	6	*0.630*	*0.984*	*2.303*	*1.969*	*0.913*	90°	CC..0602..
3.858-3.957	A765 R3	8	*0.630*	*0.984*	*2.303*	*1.969*	*0.768*	90°	CC..0602..
	A765 R5	7	*0.630*	*0.984*	*2.303*	*1.969*	*0.866*	90°	CC..0602..
3.957-4.055	A765 R4	8	*0.630*	*0.984*	*2.303*	*1.969*	*0.815*	90°	CC..0602..
	A765 R6	7	*0.630*	*0.984*	*2.303*	*1.969*	*0.913*	90°	CC..0602..
4.055-4.154	A765 R5	8	*0.630*	*0.984*	*2.303*	*1.969*	*0.866*	90°	CC..0602..
4.154-4.252	A765 R6	8	*0.630*	*0.984*	*2.303*	*1.969*	*0.913*	90°	CC..0602..

* +0,2 mm *(0.008")* complementary capacity achievable.
Detailed description of insert holders, see page(s) 624

Metric Selection chart:
Insert holders for OD-overturning with MPA, for FB 760 heads

Select a suitable insert holder and note the shank position on the MPA to obtain the required bore capacity.
Note: A OD-overturning assembly requires:
- an - Axiabore™ Plus - head (A760 03)
- a MPA (BDA16BS25100)
- a shank (BAS25MH1660)
- a counterweight (BAS25CW1660).
- an insert holder (A765R.) to be selected in the chart
- an insert

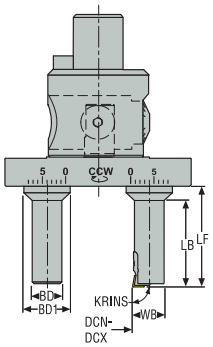


Capacity DCN-DCX ∅ mm*	Insert holder Designation	Shank position	Dimensions in mm					Lead angle KRINS°	Suitable insert size
			BD	BD1	LF	LB	WB		
2-4,5	A765 R6	0	16	25	58,5	50	23,2	90°	CC..0602..
4,5-7	A765 R5	0	16	25	58,5	50	22	90°	CC..0602..
7-9,5	A765 R6	1	16	25	58,5	50	23,2	90°	CC..0602..
	A765 R4	0	16	25	58,5	50	20,7	90°	CC..0602..
9,5-12	A765 R5	1	16	25	58,5	50	22	90°	CC..0602..
	A765 R3	0	16	25	58,5	50	19,5	90°	CC..0602..
12-14,5	A765 R6	2	16	25	58,5	50	23,2	90°	CC..0602..
	A765 R4	1	16	25	58,5	50	20,7	90°	CC..0602..
	A765 R2	0	16	25	58,5	50	18,2	90°	CC..0602..
14,5-17	A765 R5	2	16	25	58,5	50	22	90°	CC..0602..
	A765 R3	1	16	25	58,5	50	19,5	90°	CC..0602..
	A765 R1	0	16	25	58,5	50	17	90°	CC..0602..
17-19,5	A765 R6	3	16	25	58,5	50	23,2	90°	CC..0602..
	A765 R4	2	16	25	58,5	50	20,7	90°	CC..0602..
	A765 R2	1	16	25	58,5	50	18,2	90°	CC..0602..
19,5-22	A765 R5	3	16	25	58,5	50	22	90°	CC..0602..
	A765 R3	2	16	25	58,5	50	19,5	90°	CC..0602..
	A765 R1	1	16	25	58,5	50	17	90°	CC..0602..
22-24,5	A765 R6	4	16	25	58,5	50	23,2	90°	CC..0602..
	A765 R4	3	16	25	58,5	50	20,7	90°	CC..0602..
	A765 R2	2	16	25	58,5	50	18,2	90°	CC..0602..
24,5-27	A765 R5	4	16	25	58,5	50	22	90°	CC..0602..
	A765 R3	3	16	25	58,5	50	19,5	90°	CC..0602..
	A765 R1	2	16	25	58,5	50	17	90°	CC..0602..
27-29,5	A765 R6	5	16	25	58,5	50	23,2	90°	CC..0602..
	A765 R4	4	16	25	58,5	50	20,7	90°	CC..0602..
	A765 R2	3	16	25	58,5	50	18,2	90°	CC..0602..
29,5-32	A765 R5	5	16	25	58,5	50	22	90°	CC..0602..
	A765 R3	4	16	25	58,5	50	19,5	90°	CC..0602..
	A765 R1	3	16	25	58,5	50	17	90°	CC..0602..
32-34,5	A765 R6	6	16	25	58,5	50	23,2	90°	CC..0602..
	A765 R4	5	16	25	58,5	50	20,7	90°	CC..0602..
	A765 R2	4	16	25	58,5	50	18,2	90°	CC..0602..
34,5-37	A765 R5	6	16	25	58,5	50	22	90°	CC..0602..
	A765 R3	5	16	25	58,5	50	19,5	90°	CC..0602..
	A765 R1	4	16	25	58,5	50	17	90°	CC..0602..
37-39,5	A765 R6	7	16	25	58,5	50	23,2	90°	CC..0602..
	A765 R4	6	16	25	58,5	50	20,7	90°	CC..0602..
	A765 R2	5	16	25	58,5	50	18,2	90°	CC..0602..
39,5-42	A765 R5	7	16	25	58,5	50	22	90°	CC..0602..
	A765 R3	6	16	25	58,5	50	19,5	90°	CC..0602..
	A765 R1	5	16	25	58,5	50	17	90°	CC..0602..
42-44,5	A765 R6	8	16	25	58,5	50	23,2	90°	CC..0602..
	A765 R4	7	16	25	58,5	50	20,7	90°	CC..0602..
	A765 R2	6	16	25	58,5	50	18,2	90°	CC..0602..
44,5-47	A765 R5	8	16	25	58,5	50	22	90°	CC..0602..
	A765 R3	7	16	25	58,5	50	19,5	90°	CC..0602..
	A765 R1	6	16	25	58,5	50	17	90°	CC..0602..
47-49,5	A765 R4	8	16	25	58,5	50	20,7	90°	CC..0602..
	A765 R2	7	16	25	58,5	50	18,2	90°	CC..0602..
49,5-52	A765 R3	8	16	25	58,5	50	19,5	90°	CC..0602..
	A765 R1	7	16	25	58,5	50	17	90°	CC..0602..
52-54,5	A765 R2	8	16	25	58,5	50	18,2	90°	CC..0602..
54,5-57	A765 R1	8	16	25	58,5	50	17	90°	CC..0602..

* +0,2 mm *(0.008")* complementary capacity achievable.
Detailed description of insert holders, see page(s) 624

Inch Selection chart:
Insert holders for OD-overturning with MPA, for FB 760 heads

Select a suitable insert holder and note the shank position on the MPA to obtain the required bore capacity.
Note: A OD-overturning assembly requires:
- an - Axiabore™ Plus - head (A760 03)
- a MPA (BDA16BS25100)
- a shank (BAS25MH1660)
- a counterweight (BAS25CW1660).
- an insert holder (A765R.) to be selected in the chart
- an insert

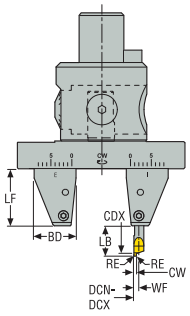


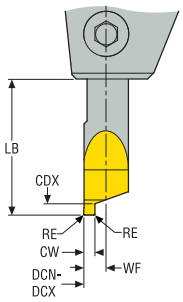
Capacity DCN-DCX ∅ inch*	Insert holder Designation	Shank position	Dimensions in inch					Lead angle KRINS°	Suitable insert size
			BD	BD1	LF	LB	WB		
0.079-0.177	A765 R6	0	*0.630*	*0.984*	*2.303*	*1.969*	*0.913*	90°	CC..0602..
0.177-0.276	A765 R5	0	*0.630*	*0.984*	*2.303*	*1.969*	*0.866*	90°	CC..0602..
0.276-0.374	A765 R6	1	*0.630*	*0.984*	*2.303*	*1.969*	*0.913*	90°	CC..0602..
	A765 R4	0	*0.630*	*0.984*	*2.303*	*1.969*	*0.815*	90°	CC..0602..
0.374-0.472	A765 R5	1	*0.630*	*0.984*	*2.303*	*1.969*	*0.866*	90°	CC..0602..
	A765 R3	0	*0.630*	*0.984*	*2.303*	*1.969*	*0.768*	90°	CC..0602..
0.472-0.571	A765 R6	2	*0.630*	*0.984*	*2.303*	*1.969*	*0.913*	90°	CC..0602..
	A765 R4	1	*0.630*	*0.984*	*2.303*	*1.969*	*0.815*	90°	CC..0602..
	A765 R2	0	*0.630*	*0.984*	*2.303*	*1.969*	*0.717*	90°	CC..0602..
0.571-0.669	A765 R5	2	*0.630*	*0.984*	*2.303*	*1.969*	*0.866*	90°	CC..0602..
	A765 R3	1	*0.630*	*0.984*	*2.303*	*1.969*	*0.768*	90°	CC..0602..
	A765 R1	0	*0.630*	*0.984*	*2.303*	*1.969*	*0.669*	90°	CC..0602..
0.669-0.768	A765 R6	3	*0.630*	*0.984*	*2.303*	*1.969*	*0.913*	90°	CC..0602..
	A765 R4	2	*0.630*	*0.984*	*2.303*	*1.969*	*0.815*	90°	CC..0602..
	A765 R2	1	*0.630*	*0.984*	*2.303*	*1.969*	*0.717*	90°	CC..0602..
0.768-0.866	A765 R5	3	*0.630*	*0.984*	*2.303*	*1.969*	*0.866*	90°	CC..0602..
	A765 R3	2	*0.630*	*0.984*	*2.303*	*1.969*	*0.768*	90°	CC..0602..
	A765 R1	1	*0.630*	*0.984*	*2.303*	*1.969*	*0.669*	90°	CC..0602..
0.866-0.965	A765 R6	4	*0.630*	*0.984*	*2.303*	*1.969*	*0.913*	90°	CC..0602..
	A765 R4	3	*0.630*	*0.984*	*2.303*	*1.969*	*0.815*	90°	CC..0602..
	A765 R2	2	*0.630*	*0.984*	*2.303*	*1.969*	*0.717*	90°	CC..0602..
0.965-1.063	A765 R5	4	*0.630*	*0.984*	*2.303*	*1.969*	*0.866*	90°	CC..0602..
	A765 R3	3	*0.630*	*0.984*	*2.303*	*1.969*	*0.768*	90°	CC..0602..
	A765 R1	2	*0.630*	*0.984*	*2.303*	*1.969*	*0.669*	90°	CC..0602..
1.063-1.161	A765 R6	5	*0.630*	*0.984*	*2.303*	*1.969*	*0.913*	90°	CC..0602..
	A765 R4	4	*0.630*	*0.984*	*2.303*	*1.969*	*0.815*	90°	CC..0602..
	A765 R2	3	*0.630*	*0.984*	*2.303*	*1.969*	*0.717*	90°	CC..0602..
1.161-1.260	A765 R5	5	*0.630*	*0.984*	*2.303*	*1.969*	*0.866*	90°	CC..0602..
	A765 R3	4	*0.630*	*0.984*	*2.303*	*1.969*	*0.768*	90°	CC..0602..
	A765 R1	3	*0.630*	*0.984*	*2.303*	*1.969*	*0.669*	90°	CC..0602..
1.260-1.358	A765 R6	6	*0.630*	*0.984*	*2.303*	*1.969*	*0.913*	90°	CC..0602..
	A765 R4	5	*0.630*	*0.984*	*2.303*	*1.969*	*0.815*	90°	CC..0602..
	A765 R2	4	*0.630*	*0.984*	*2.303*	*1.969*	*0.717*	90°	CC..0602..
1.358-1.457	A765 R5	6	*0.630*	*0.984*	*2.303*	*1.969*	*0.866*	90°	CC..0602..
	A765 R3	5	*0.630*	*0.984*	*2.303*	*1.969*	*0.768*	90°	CC..0602..
	A765 R1	4	*0.630*	*0.984*	*2.303*	*1.969*	*0.669*	90°	CC..0602..
1.457-1.555	A765 R6	7	*0.630*	*0.984*	*2.303*	*1.969*	*0.913*	90°	CC..0602..
	A765 R4	6	*0.630*	*0.984*	*2.303*	*1.969*	*0.815*	90°	CC..0602..
	A765 R2	5	*0.630*	*0.984*	*2.303*	*1.969*	*0.717*	90°	CC..0602..
1.555-1.654	A765 R5	7	*0.630*	*0.984*	*2.303*	*1.969*	*0.866*	90°	CC..0602..
	A765 R3	6	*0.630*	*0.984*	*2.303*	*1.969*	*0.768*	90°	CC..0602..
	A765 R1	5	*0.630*	*0.984*	*2.303*	*1.969*	*0.669*	90°	CC..0602..
1.654-1.654	A765 R6	8	*0.630*	*0.984*	*2.303*	*1.969*	*0.913*	90°	CC..0602..
	A765 R4	7	*0.630*	*0.984*	*2.303*	*1.969*	*0.815*	90°	CC..0602..
	A765 R2	6	*0.630*	*0.984*	*2.303*	*1.969*	*0.717*	90°	CC..0602..
1.654-1.850	A765 R5	8	*0.630*	*0.984*	*2.303*	*1.969*	*0.866*	90°	CC..0602..
	A765 R3	7	*0.630*	*0.984*	*2.303*	*1.969*	*0.768*	90°	CC..0602..
	A765 R1	6	*0.630*	*0.984*	*2.303*	*1.969*	*0.669*	90°	CC..0602..
1.850-1.949	A765 R4	8	*0.630*	*0.984*	*2.303*	*1.969*	*0.815*	90°	CC..0602..
	A765 R2	7	*0.630*	*0.984*	*2.303*	*1.969*	*0.717*	90°	CC..0602..
1.949-2.047	A765 R3	8	*0.630*	*0.984*	*2.303*	*1.969*	*0.768*	90°	CC..0602..
	A765 R1	7	*0.630*	*0.984*	*2.303*	*1.969*	*0.669*	90°	CC..0602..
2.047-2.146	A765 R2	8	*0.630*	*0.984*	*2.303*	*1.969*	*0.717*	90°	CC..0602..
2.146-2.244	A765 R1	8	*0.630*	*0.984*	*2.303*	*1.969*	*0.669*	90°	CC..0602..

* +0,2 mm *(0.008")* complementary capacity achievable.
Detailed description of insert holders, see page(s) 624

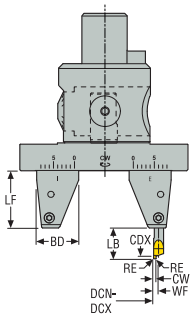
Metric Selection chart:
Grooving tool -against spigot- for grooving with MPA, for FB 760 heads

Assembly case 1

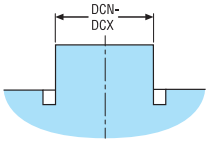




Assembly case 2



Select the suitable grooving tool, and note the grooving tool holder position on the MPA to obtain the required groove capacity.



Note: An -against spigot- grooving assembly requires:

- an - Axiabore™ Plus - head (A760 03)
- a MPA (BDA16BS25100)
- an I (internal position) and an E (external position) grooving tool holder (BAS25FGI35 and BAS25FGE35) to either hold a grooving tool or act as a counterweight (see setting position in the chart)
- an -against spigot- grooving tool (AFG...82) to be selected from the chart, related to groove width and diameter.

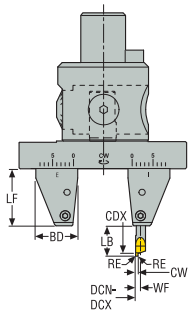
Capacity DCN-DCX ∅ mm*	Against spigot grooving tool Designation	Grooving toolholder position**	Design	Dimensions in mm BD	CW	LF	LB	WF	RE	Groove max. depth CDX
19-24	AFG0629 10 1582	0-I	1	25	1	34	18	2,95	0,15	2,0
24-29		1-I	1	25	1	34	18	2,95	0,15	2,0
29-34		2-I	1	25	1	34	18	2,95	0,15	2,0
34-39		3-I	1	25	1	34	18	2,95	0,15	2,0
39-44		**0-E** / 4-I	1/2	25	1	34	18	2,95	0,15	2,0
44-49		**1-E** / 5-I	1/2	25	1	34	18	2,95	0,15	2,0
49-54		**2-E** / 6-I	1/2	25	1	34	18	2,95	0,15	2,0
54-59		**3-E** / 7-I	1/2	25	1	34	18	2,95	0,15	2,0
59-64		**4-E** / 8-I	1/2	25	1	34	18	2,95	0,15	2,0
64-69		5-E	2	25	1	34	18	2,95	0,15	2,0
69-74		6-E	2	25	1	34	18	2,95	0,15	2,0
74-79		7-E	2	25	1	34	18	2,95	0,15	2,0
79-84		8-E	2	25	1	34	18	2,95	0,15	2,0
19-24	AFG0629 15 1582	0-I	1	25	1,5	34	18	2,95	0,15	3,0
24-29		1-I	1	25	1,5	34	18	2,95	0,15	3,0
29-34		2-I	1	25	1,5	34	18	2,95	0,15	3,0
34-39		3-I	1	25	1,5	34	18	2,95	0,15	3,0
39-44		**0-E** / 4-I	1/2	25	1,5	34	18	2,95	0,15	3,0
44-49		**1-E** / 5-I	1/2	25	1,5	34	18	2,95	0,15	3,0
49-54		**2-E** / 6-I	1/2	25	1,5	34	18	2,95	0,15	3,0
54-59		**3-E** / 7-I	1/2	25	1,5	34	18	2,95	0,15	3,0
59-64		**4-E** / 8-I	1/2	25	1,5	34	18	2,95	0,15	3,0
64-69		5-E	2	25	1,5	34	18	2,95	0,15	3,0
69-74		6-E	2	25	1,5	34	18	2,95	0,15	3,0
74-79		7-E	2	25	1,5	34	18	2,95	0,15	3,0
79-84		8-E	2	25	1,5	34	18	2,95	0,15	3,0
19-24	AFG0629 20 1582	0-I	1	25	2	34	18	2,95	0,15	4,0
24-29		1-I	1	25	2	34	18	2,95	0,15	4,0
29-34		2-I	1	25	2	34	18	2,95	0,15	4,0
34-39		3-I	1	25	2	34	18	2,95	0,15	4,0
39-44		**0-E** / 4-I	1/2	25	2	34	18	2,95	0,15	4,0
44-49		**1-E** / 5-I	1/2	25	2	34	18	2,95	0,15	4,0
49-54		**2-E** / 6-I	1/2	25	2	34	18	2,95	0,15	4,0
54-59		**3-E** / 7-I	1/2	25	2	34	18	2,95	0,15	4,0
59-64		**4-E** / 8-I	1/2	25	2	34	18	2,95	0,15	4,0
64-69		5-E	2	25	2	34	18	2,95	0,15	4,0
69-74		6-E	2	25	2	34	18	2,95	0,15	4,0
74-79		7-E	2	25	2	34	18	2,95	0,15	4,0
79-84		8-E	2	25	2	34	18	2,95	0,15	4,0

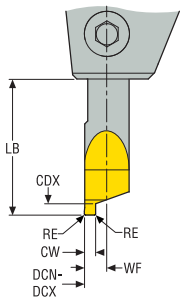
* +0,2 mm *(0.008")* complementary capacity achievable. ** Recommended values in **bold**.

Detailed description of the grooving tools, see page(s) 629

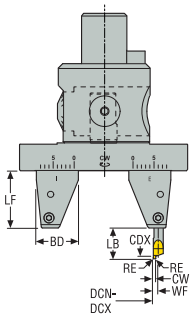
Metric Selection chart:
Grooving tool -against spigot- for grooving with MPA, for FB 760 heads

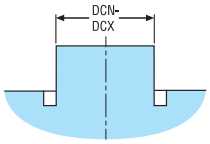
Assembly case 1





Assembly case 2



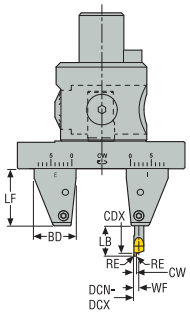
	Capacity DCN-DCX ∅ mm*	Against spigot grooving tool Designation	Grooving toolholder position**	Design	Dimensions in mm BD	CW	LF	LB	WF	RE	Groove max. depth CDX
Select the suitable grooving tool, and note the grooving tool holder position on the MPA to obtain the required groove capacity.	19-24	AFG0629 25 1582	0-I	1	25	2,5	34	18	2,95	0,15	5,0
	24-29		1-I	1	25	2,5	34	18	2,95	0,15	5,0
	29-34		2-I	1	25	2,5	34	18	2,95	0,15	5,0
	34-39		3-I	1	25	2,5	34	18	2,95	0,15	5,0
	39-44		**0-E** / 4-I	1/2	25	2,5	34	18	2,95	0,15	5,0
	44-49		**1-E** / 5-I	1/2	25	2,5	34	18	2,95	0,15	5,0
	49-54		**2-E** / 6-I	1/2	25	2,5	34	18	2,95	0,15	5,0
	54-59		**3-E** / 7-I	1/2	25	2,5	34	18	2,95	0,15	5,0
	59-64		**4-E** / 8-I	1/2	25	2,5	34	18	2,95	0,15	5,0
	64-69		5-E	2	25	2,5	34	18	2,95	0,15	5,0
	69-74		6-E	2	25	2,5	34	18	2,95	0,15	5,0
	74-79		7-E	2	25	2,5	34	18	2,95	0,15	5,0
	79-84		8-E	2	25	2,5	34	18	2,95	0,15	5,0
Note: An -against spigot- grooving assembly requires:	19-24	AFG0629 30 1582	0-I	1	25	3	34	18	2,95	0,15	6,0
• an - Axiabore™ Plus - head (A760 03)	24-29		1-I	1	25	3	34	18	2,95	0,15	6,0
• a MPA (BDA16BS25100)	29-34		2-I	1	25	3	34	18	2,95	0,15	6,0
• an I (internal position) and an E (external position) grooving tool holder (BAS25FGI35 and BAS25FGE35) to either hold a grooving tool or act as a counterweight (see setting position in the chart)	34-39		3-I	1	25	3	34	18	2,95	0,15	6,0
	39-44		**0-E** / 4-I	1/2	25	3	34	18	2,95	0,15	6,0
	44-49		**1-E** / 5-I	1/2	25	3	34	18	2,95	0,15	6,0
• an -against spigot- grooving tool (AFG...82) to be selected from the chart, related to groove width and diameter.	49-54		**2-E** / 6-I	1/2	25	3	34	18	2,95	0,15	6,0
	54-59		**3-E** / 7-I	1/2	25	3	34	18	2,95	0,15	6,0
	59-64		**4-E** / 8-I	1/2	25	3	34	18	2,95	0,15	6,0
	64-69		5-E	2	25	3	34	18	2,95	0,15	6,0
	69-74		6-E	2	25	3	34	18	2,95	0,15	6,0
	74-79		7-E	2	25	3	34	18	2,95	0,15	6,0
	79-84		8-E	2	25	3	34	18	2,95	0,15	6,0

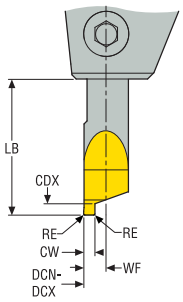
* +0,2 mm *(0.008")* complementary capacity achievable. ** Recommended values in **bold**.

Detailed description of the grooving tools, see page(s) 629

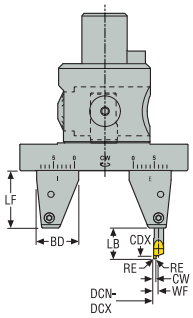
Inch Selection chart:
Grooving tool -against spigot- for grooving with MPA, for FB 760 heads

Assembly case 1

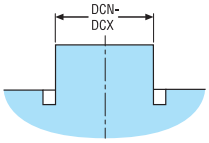




Assembly case 2



Select the suitable grooving tool, and note the grooving tool holder position on the MPA to obtain the required groove capacity.



Note: An -against spigot- grooving assembly requires:

- an - Axiabore™ Plus - head (A760 03)
- a MPA (BDA16BS25100)
- an I (internal position) and an E (external position) grooving tool holder (BAS25FGI35 and BAS25FGE35) to either hold a grooving tool or act as a counterweight (see setting position in the chart)
- an -against spigot- grooving tool (AFG...82) to be selected from the chart, related to groove width and diameter.

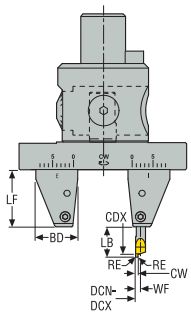
Capacity DCN-DCX ∅ inch*	Against spigot grooving tool Designation	Grooving toolholder position**	Design	Dimensions in inch						Groove max. depth CDX
				BD	CW	LF	LB	WF	RE	
0.748-0.945	AFG0629 10 1582	0-I	1	*0.984*	*0.0394*	*1.339*	*0.709*	*0.116*	*0.006*	0.079
0.945-1.142		1-I	1	*0.984*	*0.0394*	*1.339*	*0.709*	*0.116*	*0.006*	0.079
1.142-1.339		2-I	1	*0.984*	*0.0394*	*1.339*	*0.709*	*0.116*	*0.006*	0.079
1.339-1.535		3-I	1	*0.984*	*0.0394*	*1.339*	*0.709*	*0.116*	*0.006*	0.079
1.535-1.732		**0-E** / 4-I	1/2	*0.984*	*0.0394*	*1.339*	*0.709*	*0.116*	*0.006*	0.079
1.732-1.929		**1-E** / 5-I	1/2	*0.984*	*0.0394*	*1.339*	*0.709*	*0.116*	*0.006*	0.079
1.929-2.126		**2-E** / 6-I	1/2	*0.984*	*0.0394*	*1.339*	*0.709*	*0.116*	*0.006*	0.079
2.126-2.323		**3-E** / 7-I	1/2	*0.984*	*0.0394*	*1.339*	*0.709*	*0.116*	*0.006*	0.079
2.323-2.520		**4-E** / 8-I	1/2	*0.984*	*0.0394*	*1.339*	*0.709*	*0.116*	*0.006*	0.079
2.520-2.717		5-E	2	*0.984*	*0.0394*	*1.339*	*0.709*	*0.116*	*0.006*	0.079
2.717-2.913		6-E	2	*0.984*	*0.0394*	*1.339*	*0.709*	*0.116*	*0.006*	0.079
2.913-3.110		7-E	2	*0.984*	*0.0394*	*1.339*	*0.709*	*0.116*	*0.006*	0.079
3.110-3.307		8-E	2	*0.984*	*0.0394*	*1.339*	*0.709*	*0.116*	*0.006*	0.079
0.748-0.945	AFG0629 15 1582	0-I	1	*0.984*	*0.0591*	*1.339*	*0.709*	*0.116*	*0.006*	0.118
0.945-1.142		1-I	1	*0.984*	*0.0591*	*1.339*	*0.709*	*0.116*	*0.006*	0.118
1.142-1.339		2-I	1	*0.984*	*0.0591*	*1.339*	*0.709*	*0.116*	*0.006*	0.118
1.339-1.535		3-I	1	*0.984*	*0.0591*	*1.339*	*0.709*	*0.116*	*0.006*	0.118
1.535-1.732		**0-E** / 4-I	1/2	*0.984*	*0.0591*	*1.339*	*0.709*	*0.116*	*0.006*	0.118
1.732-1.929		**1-E** / 5-I	1/2	*0.984*	*0.0591*	*1.339*	*0.709*	*0.116*	*0.006*	0.118
1.929-2.126		**2-E** / 6-I	1/2	*0.984*	*0.0591*	*1.339*	*0.709*	*0.116*	*0.006*	0.118
2.126-2.323		**3-E** / 7-I	1/2	*0.984*	*0.0591*	*1.339*	*0.709*	*0.116*	*0.006*	0.118
2.323-2.520		**4-E** / 8-I	1/2	*0.984*	*0.0591*	*1.339*	*0.709*	*0.116*	*0.006*	0.118
2.520-2.717		5-E	2	*0.984*	*0.0591*	*1.339*	*0.709*	*0.116*	*0.006*	0.118
2.717-2.913		6-E	2	*0.984*	*0.0591*	*1.339*	*0.709*	*0.116*	*0.006*	0.118
2.913-3.110		7-E	2	*0.984*	*0.0591*	*1.339*	*0.709*	*0.116*	*0.006*	0.118
3.110-3.307		8-E	2	*0.984*	*0.0591*	*1.339*	*0.709*	*0.116*	*0.006*	0.118
0.748-0.945	AFG0629 20 1582	0-I	1	*0.984*	*0.0787*	*1.339*	*0.709*	*0.116*	*0.006*	0.157
0.945-1.142		1-I	1	*0.984*	*0.0787*	*1.339*	*0.709*	*0.116*	*0.006*	0.157
1.142-1.339		2-I	1	*0.984*	*0.0787*	*1.339*	*0.709*	*0.116*	*0.006*	0.157
1.339-1.535		3-I	1	*0.984*	*0.0787*	*1.339*	*0.709*	*0.116*	*0.006*	0.157
1.535-1.732		**0-E** / 4-I	1/2	*0.984*	*0.0787*	*1.339*	*0.709*	*0.116*	*0.006*	0.157
1.732-1.929		**1-E** / 5-I	1/2	*0.984*	*0.0787*	*1.339*	*0.709*	*0.116*	*0.006*	0.157
1.929-2.126		**2-E** / 6-I	1/2	*0.984*	*0.0787*	*1.339*	*0.709*	*0.116*	*0.006*	0.157
2.126-2.323		**3-E** / 7-I	1/2	*0.984*	*0.0787*	*1.339*	*0.709*	*0.116*	*0.006*	0.157
2.323-2.520		**4-E** / 8-I	1/2	*0.984*	*0.0787*	*1.339*	*0.709*	*0.116*	*0.006*	0.157
2.520-2.717		5-E	2	*0.984*	*0.0787*	*1.339*	*0.709*	*0.116*	*0.006*	0.157
2.717-2.913		6-E	2	*0.984*	*0.0787*	*1.339*	*0.709*	*0.116*	*0.006*	0.157
2.913-3.110		7-E	2	*0.984*	*0.0787*	*1.339*	*0.709*	*0.116*	*0.006*	0.157
3.110-3.307		8-E	2	*0.984*	*0.0787*	*1.339*	*0.709*	*0.116*	*0.006*	0.157

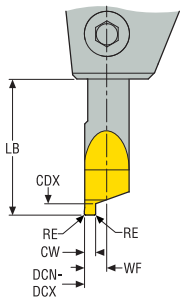
* +0,2 mm *(0.008")* complementary capacity achievable. ** Recommended values in **bold**.

Detailed description of the grooving tools, see page(s) 629

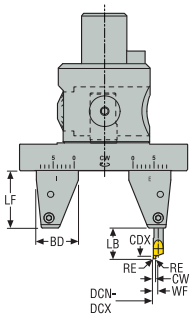
Inch Selection chart:
Grooving tool -against spigot- for grooving with MPA, for FB 760 heads

Assembly case 1

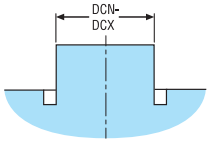




Assembly case 2



	Capacity DCN-DCX ∅ inch*	Against spigot grooving tool Designation	Grooving toolholder position**	Design	Dimensions in inch						Groove max. depth CDX
					BD	CW	LF	LB	WF	RE	
Select the suitable grooving tool, and note the grooving tool holder position on the MPA to obtain the required groove capacity.	*0.748-0.945*	AFG0629 25 1582	0-I	1	*0.984*	*0.0984*	*1.339*	*0.709*	*0.116*	*0.006*	0.197
	0.945-1.142		1-I	1	*0.984*	*0.0984*	*1.339*	*0.709*	*0.116*	*0.006*	0.197
	1.142-1.339		2-I	1	*0.984*	*0.0984*	*1.339*	*0.709*	*0.116*	*0.006*	0.197
	1.339-1.535		3-I	1	*0.984*	*0.0984*	*1.339*	*0.709*	*0.116*	*0.006*	0.197
	1.535-1.732		**0-E** / 4-I	1/2	*0.984*	*0.0984*	*1.339*	*0.709*	*0.116*	*0.006*	0.197
	1.732-1.929		**1-E** / 5-I	1/2	*0.984*	*0.0984*	*1.339*	*0.709*	*0.116*	*0.006*	0.197
	1.929-2.126		**2-E** / 6-I	1/2	*0.984*	*0.0984*	*1.339*	*0.709*	*0.116*	*0.006*	0.197
	2.126-2.323		**3-E** / 7-I	1/2	*0.984*	*0.0984*	*1.339*	*0.709*	*0.116*	*0.006*	0.197
	2.323-2.520		**4-E** / 8-I	1/2	*0.984*	*0.0984*	*1.339*	*0.709*	*0.116*	*0.006*	0.197
	2.520-2.717		5-E	2	*0.984*	*0.0984*	*1.339*	*0.709*	*0.116*	*0.006*	0.197
	2.717-2.913		6-E	2	*0.984*	*0.0984*	*1.339*	*0.709*	*0.116*	*0.006*	0.197
	2.913-3.110		7-E	2	*0.984*	*0.0984*	*1.339*	*0.709*	*0.116*	*0.006*	0.197
	3.110-3.307		8-E	2	*0.984*	*0.0984*	*1.339*	*0.709*	*0.116*	*0.006*	0.197
Note: An -against spigot- grooving assembly requires:	*0.748-0.945*	AFG0629 30 1582	0-I	1	*0.984*	*0.1181*	*1.339*	*0.709*	*0.116*	*0.006*	0.236
• an - Axiabore™ Plus - head (A760 03)	*0.945-1.142*		1-I	1	*0.984*	*0.1181*	*1.339*	*0.709*	*0.116*	*0.006*	0.236
• a MPA (BDA16BS25100)	*1.142-1.339*		2-I	1	*0.984*	*0.1181*	*1.339*	*0.709*	*0.116*	*0.006*	0.236
• an I (internal position) and an E (external position) grooving tool holder (BAS25FGI35 and BAS25FGE35) to either hold a grooving tool or act as a counterweight (see setting position in the chart)	*1.339-1.535*		3-I	1	*0.984*	*0.1181*	*1.339*	*0.709*	*0.116*	*0.006*	0.236
	1.535-1.732		**0-E** / 4-I	1/2	*0.984*	*0.1181*	*1.339*	*0.709*	*0.116*	*0.006*	0.236
	1.732-1.929		**1-E** / 5-I	1/2	*0.984*	*0.1181*	*1.339*	*0.709*	*0.116*	*0.006*	0.236
• an -against spigot- grooving tool (AFG...82) to be selected from the chart, related to groove width and diameter.	*1.929-2.126*		**2-E** / 6-I	1/2	*0.984*	*0.1181*	*1.339*	*0.709*	*0.116*	*0.006*	0.236
	2.126-2.323		**3-E** / 7-I	1/2	*0.984*	*0.1181*	*1.339*	*0.709*	*0.116*	*0.006*	0.236
	2.323-2.520		**4-E** / 8-I	1/2	*0.984*	*0.1181*	*1.339*	*0.709*	*0.116*	*0.006*	0.236
	2.520-2.717		5-E	2	*0.984*	*0.1181*	*1.339*	*0.709*	*0.116*	*0.006*	0.236
	2.717-2.913		6-E	2	*0.984*	*0.1181*	*1.339*	*0.709*	*0.116*	*0.006*	0.236
	2.913-3.110		7-E	2	*0.984*	*0.1181*	*1.339*	*0.709*	*0.116*	*0.006*	0.236
	3.110-3.307		8-E	2	*0.984*	*0.1181*	*1.339*	*0.709*	*0.116*	*0.006*	0.236

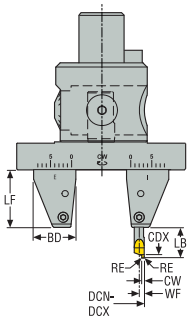


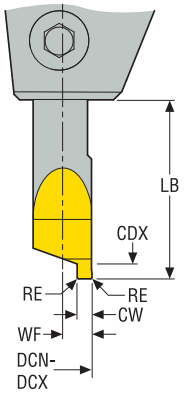
* +0,2 mm *(0.008")* complementary capacity achievable. ** Recommended values in **bold**.

Detailed description of the grooving tools, see page(s) 629

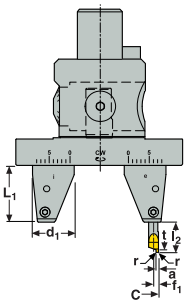
Metric Selection chart:
Grooving tool -against bore- for grooving with MPA, for FB 760 heads

Assembly case 3

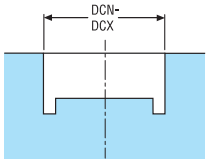




Assembly case 4



Select the suitable grooving tool, and note the grooving tool holder position on the MPA to obtain the required groove capacity.



Note : An -against bore- grooving assembly requires:

- an - Axiabore™ Plus - head (A760 03)
- a MPA (BDA16BS25100)
- an I (internal position) and an E (external position) grooving tool holder (BAS25FGI35 and BAS25FGE35) to either hold a grooving tool or act as a counterweight (see setting position in the chart)
- an -against bore- grooving tool (AFG...81) to be selected from the chart, related to groove width and diameter.

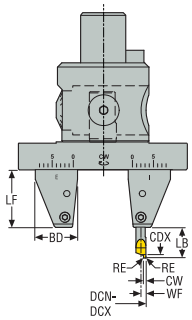
Capacity DCN-DCX ∅ mm*	Against bore grooving tool Designation	Grooving toolholder position**	Design	Dimensions in mm						Groove max. depth CDX
				BD	CW	LF	LB	WF	RE	
31-36	AFG0629 10 1581	0-I	3	25	1	34	18	2,95	0,15	2,0
36-41		1-I	3	25	1	34	18	2,95	0,15	2,0
41-46		2-I	3	25	1	34	18	2,95	0,15	2,0
46-51		3-I	3	25	1	34	18	2,95	0,15	2,0
51-56		**0-E** / 4-I	3/4	25	1	34	18	2,95	0,15	2,0
56-61		**1-E** / 5-I	3/4	25	1	34	18	2,95	0,15	2,0
61-66		**2-E** / 6-I	3/4	25	1	34	18	2,95	0,15	2,0
66-71		**3-E** / 7-I	3/4	25	1	34	18	2,95	0,15	2,0
71-76		**4-E** / 8-I	3/4	25	1	34	18	2,95	0,15	2,0
76-81		5-E	4	25	1	34	18	2,95	0,15	2,0
81-86		6-E	4	25	1	34	18	2,95	0,15	2,0
86-91		7-E	4	25	1	34	18	2,95	0,15	2,0
91-96		8-E	4	25	1	34	18	2,95	0,15	2,0
31-36	AFG0629 15 1581	0-I	3	25	1,5	34	18	2,95	0,15	3,0
39-41		1-I	3	25	1,5	34	18	2,95	0,15	3,0
41-46		2-I	3	25	1,5	34	18	2,95	0,15	3,0
46-51		3-I	3	25	1,5	34	18	2,95	0,15	3,0
51-56		**0-E** / 4-I	3/4	25	1,5	34	18	2,95	0,15	3,0
56-61		**1-E** / 5-I	3/4	25	1,5	34	18	2,95	0,15	3,0
61-66		**2-E** / 6-I	3/4	25	1,5	34	18	2,95	0,15	3,0
66-71		**3-E** / 7-I	3/4	25	1,5	34	18	2,95	0,15	3,0
71-76		**4-E** / 8-I	3/4	25	1,5	34	18	2,95	0,15	3,0
76-81		5-E	4	25	1,5	34	18	2,95	0,15	3,0
81-86		6-E	4	25	1,5	34	18	2,95	0,15	3,0
86-91		7-E	4	25	1,5	34	18	2,95	0,15	3,0
91-96		8-E	4	25	1,5	34	18	2,95	0,15	3,0
31-36	AFG0629 20 1581	0-I	3	25	2	34	18	2,95	0,15	4,0
39-41		1-I	3	25	2	34	18	2,95	0,15	4,0
41-46		2-I	3	25	2	34	18	2,95	0,15	4,0
46-51		3-I	3	25	2	34	18	2,95	0,15	4,0
51-56		**0-E** / 4-I	3/4	25	2	34	18	2,95	0,15	4,0
56-61		**1-E** / 5-I	3/4	25	2	34	18	2,95	0,15	4,0
61-66		**2-E** / 6-I	3/4	25	2	34	18	2,95	0,15	4,0
66-71		**3-E** / 7-I	3/4	25	2	34	18	2,95	0,15	4,0
71-76		**4-E** / 8-I	3/4	25	2	34	18	2,95	0,15	4,0
76-81		5-E	4	25	2	34	18	2,95	0,15	4,0
81-86		6-E	4	25	2	34	18	2,95	0,15	4,0
86-91		7-E	4	25	2	34	18	2,95	0,15	4,0
91-96		8-E	4	25	2	34	18	2,95	0,15	4,0

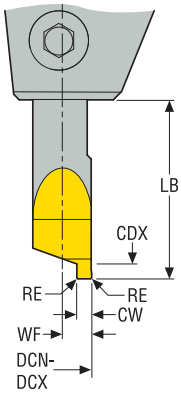
* +0,2 mm *(0.008")* complementary capacity achievable. ** Recommended values in **bold**.

Detailed description of the grooving tools, see page(s) 629

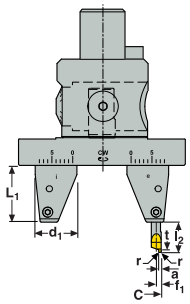
Metric Selection chart:
Grooving tool -against bore- for grooving with MPA, for FB 760 heads

Assembly case 3

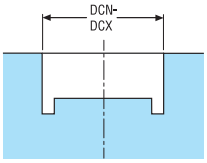




Assembly case 4



	Capacity DCN-DCX ∅ mm*	Against bore grooving tool Designation	Grooving toolholder position**	Design	Dimensions in mm BD	CW	LF	LB	WF	RE	Groove max. depth CDX
Select the suitable grooving tool, and note the grooving tool holder position on the MPA to obtain the required groove capacity.	31-36	AFG0629 25 1581	0-I	3	25	2,5	34	18	2,95	0,15	5,0
	36-41		1-I	3	25	2,5	34	18	2,95	0,15	5,0
	41-46		2-I	3	25	2,5	34	18	2,95	0,15	5,0
	46-51		3-I	3	25	2,5	34	18	2,95	0,15	5,0
	51-56		**0-E** / 4-I	3/4	25	2,5	34	18	2,95	0,15	5,0
	56-61		**1-E** / 5-I	3/4	25	2,5	34	18	2,95	0,15	5,0
	61-66		**2-E** / 6-I	3/4	25	2,5	34	18	2,95	0,15	5,0
	66-71		**3-E** / 7-I	3/4	25	2,5	34	18	2,95	0,15	5,0
	71-76		**4-E** / 8-I	3/4	25	2,5	34	18	2,95	0,15	5,0
	76-81		5-E	4	25	2,5	34	18	2,95	0,15	5,0
	81-86		6-E	4	25	2,5	34	18	2,95	0,15	5,0
	86-91		7-E	4	25	2,5	34	18	2,95	0,15	5,0
	91-96		8-E	4	25	2,5	34	18	2,95	0,15	5,0
Note : An -against bore- grooving assembly requires:	31-36	AFG0629 30 1581	0-I	3	25	3	34	18	2,95	0,15	6,0
• an - Axiabore™ Plus - head (A760 03)	39-41		1-I	3	25	3	34	18	2,95	0,15	6,0
• a MPA (BDA16BS25100)	41-46		2-I	3	25	3	34	18	2,95	0,15	6,0
• an I (internal position) and an E (external position) grooving tool holder (BAS25FGI35 and BAS25FGE35) to either hold a grooving tool or act as a counterweight (see setting position in the chart)	46-51		3-I	3	25	3	34	18	2,95	0,15	6,0
	51-56		**0-E** / 4-I	3/4	25	3	34	18	2,95	0,15	6,0
	56-61		**1-E** / 5-I	3/4	25	3	34	18	2,95	0,15	6,0
• an -against bore- grooving tool (AFG...81) to be selected from the chart, related to groove width and diameter.	61-66		**2-E** / 6-I	3/4	25	3	34	18	2,95	0,15	6,0
	66-71		**3-E** / 7-I	3/4	25	3	34	18	2,95	0,15	6,0
	71-76		**4-E** / 8-I	3/4	25	3	34	18	2,95	0,15	6,0
	76-81		5-E	4	25	3	34	18	2,95	0,15	6,0
	81-86		6-E	4	25	3	34	18	2,95	0,15	6,0
	86-91		7-E	4	25	3	34	18	2,95	0,15	6,0
	91-96		8-E	4	25	3	34	18	2,95	0,15	6,0

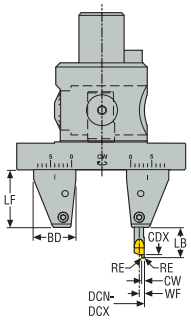


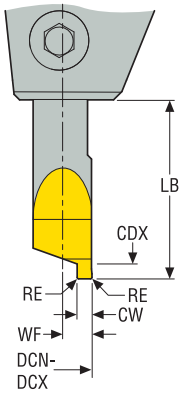
* +0,2 mm *(0.008")* complementary capacity achievable. ** Recommended values in **bold**.

Detailed description of the grooving tools, see page(s) 629

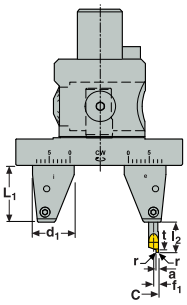
Inch Selection chart:
Grooving tool -against bore- for grooving with MPA, for FB 760 heads

Assembly case 3

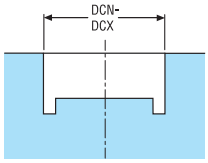




Assembly case 4



Select the suitable grooving tool, and note the grooving tool holder position on the MPA to obtain the required groove capacity.



Note : An -against bore- grooving assembly requires:

- an - Axiabore™ Plus - head (A760 03)
- a MPA (BDA16BS25100)
- an I (internal position) and an E (external position) grooving tool holder (BAS25FGI35 and BAS25FGE35) to either hold a grooving tool or act as a counterweight (see setting position in the chart)
- an -against bore- grooving tool (AFG...81) to be selected from the chart, related to groove width and diameter.

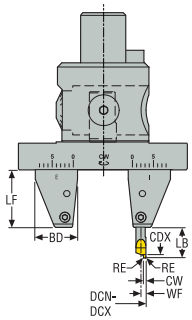
Capacity DCN-DCX ∅ inch*	Against bore grooving tool Designation	Grooving toolholder position**	Design	Dimensions in inch						Groove max. depth CDX
				BD	CW	LF	LB	WF	RE	
1.220-1.417	AFG0629 10 1581	0-I	3	*0.984*	*0.0394*	*1.339*	*0.709*	*0.116*	*0.006*	0.079
1.417-1.614		1-I	3	*0.984*	*0.0394*	*1.339*	*0.709*	*0.116*	*0.006*	0.079
1.614-1.811		2-I	3	*0.984*	*0.0394*	*1.339*	*0.709*	*0.116*	*0.006*	0.079
1.811-2.008		3-I	3	*0.984*	*0.0394*	*1.339*	*0.709*	*0.116*	*0.006*	0.079
2.008-2.205		**0-E** / 4-I	3/4	*0.984*	*0.0394*	*1.339*	*0.709*	*0.116*	*0.006*	0.079
2.205-2.402		**1-E** / 5-I	3/4	*0.984*	*0.0394*	*1.339*	*0.709*	*0.116*	*0.006*	0.079
2.402-2.598		**2-E** / 6-I	3/4	*0.984*	*0.0394*	*1.339*	*0.709*	*0.116*	*0.006*	0.079
2.598-2.795		**3-E** / 7-I	3/4	*0.984*	*0.0394*	*1.339*	*0.709*	*0.116*	*0.006*	0.079
2.795-2.992		**4-E** / 8-I	3/4	*0.984*	*0.0394*	*1.339*	*0.709*	*0.116*	*0.006*	0.079
2.992-3.189		5-E	4	*0.984*	*0.0394*	*1.339*	*0.709*	*0.116*	*0.006*	0.079
3.189-3.386		6-E	4	*0.984*	*0.0394*	*1.339*	*0.709*	*0.116*	*0.006*	0.079
3.386-3.583		7-E	4	*0.984*	*0.0394*	*1.339*	*0.709*	*0.116*	*0.006*	0.079
3.583-3.780		8-E	4	*0.984*	*0.0394*	*1.339*	*0.709*	*0.116*	*0.006*	0.079
1.220-1.417	AFG0629 15 1581	0-I	3	*0.984*	*0.0591*	*1.339*	*0.709*	*0.116*	*0.006*	0.118
1.417-1.614		1-I	3	*0.984*	*0.0591*	*1.339*	*0.709*	*0.116*	*0.006*	0.118
1.614-1.811		2-I	3	*0.984*	*0.0591*	*1.339*	*0.709*	*0.116*	*0.006*	0.118
1.811-2.008		3-I	3	*0.984*	*0.0591*	*1.339*	*0.709*	*0.116*	*0.006*	0.118
2.008-2.205		**0-E** / 4-I	3/4	*0.984*	*0.0591*	*1.339*	*0.709*	*0.116*	*0.006*	0.118
2.205-2.402		**1-E** / 5-I	3/4	*0.984*	*0.0591*	*1.339*	*0.709*	*0.116*	*0.006*	0.118
2.402-2.598		**2-E** / 6-I	3/4	*0.984*	*0.0591*	*1.339*	*0.709*	*0.116*	*0.006*	0.118
2.598-2.795		**3-E** / 7-I	3/4	*0.984*	*0.0591*	*1.339*	*0.709*	*0.116*	*0.006*	0.118
2.795-2.992		**4-E** / 8-I	3/4	*0.984*	*0.0591*	*1.339*	*0.709*	*0.116*	*0.006*	0.118
2.992-3.189		5-E	4	*0.984*	*0.0591*	*1.339*	*0.709*	*0.116*	*0.006*	0.118
3.189-3.386		6-E	4	*0.984*	*0.0591*	*1.339*	*0.709*	*0.116*	*0.006*	0.118
3.386-3.583		7-E	4	*0.984*	*0.0591*	*1.339*	*0.709*	*0.116*	*0.006*	0.118
3.583-3.780		8-E	4	*0.984*	*0.0591*	*1.339*	*0.709*	*0.116*	*0.006*	0.118
1.220-1.417	AFG0629 20 1581	0-I	3	*0.984*	*0.0787*	*1.339*	*0.709*	*0.116*	*0.006*	0.157
1.417-1.614		1-I	3	*0.984*	*0.0787*	*1.339*	*0.709*	*0.116*	*0.006*	0.157
1.614-1.811		2-I	3	*0.984*	*0.0787*	*1.339*	*0.709*	*0.116*	*0.006*	0.157
1.811-2.008		3-I	3	*0.984*	*0.0787*	*1.339*	*0.709*	*0.116*	*0.006*	0.157
2.008-2.205		**0-E** / 4-I	3/4	*0.984*	*0.0787*	*1.339*	*0.709*	*0.116*	*0.006*	0.157
2.205-2.402		**1-E** / 5-I	3/4	*0.984*	*0.0787*	*1.339*	*0.709*	*0.116*	*0.006*	0.157
2.402-2.598		**2-E** / 6-I	3/4	*0.984*	*0.0787*	*1.339*	*0.709*	*0.116*	*0.006*	0.157
2.598-2.795		**3-E** / 7-I	3/4	*0.984*	*0.0787*	*1.339*	*0.709*	*0.116*	*0.006*	0.157
2.795-2.992		**4-E** / 8-I	3/4	*0.984*	*0.0787*	*1.339*	*0.709*	*0.116*	*0.006*	0.157
2.992-3.189		5-E	4	*0.984*	*0.0787*	*1.339*	*0.709*	*0.116*	*0.006*	0.157
3.189-3.386		6-E	4	*0.984*	*0.0787*	*1.339*	*0.709*	*0.116*	*0.006*	0.157
3.386-3.583		7-E	4	*0.984*	*0.0787*	*1.339*	*0.709*	*0.116*	*0.006*	0.157
3.583-3.780		8-E	4	*0.984*	*0.0787*	*1.339*	*0.709*	*0.116*	*0.006*	0.157

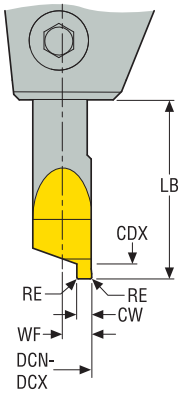
* +0,2 mm *(0.008")* complementary capacity achievable. ** Recommended values in **bold**.

Detailed description of the grooving tools, see page(s) 629

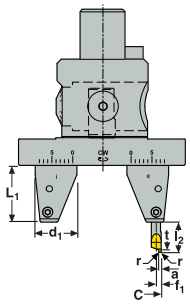
Inch Selection chart:
Grooving tool -against bore- for grooving with MPA, for FB 760 heads

Assembly case 3

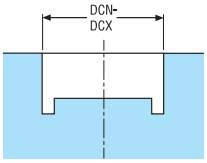




Assembly case 4



	Capacity DCN-DCX ∅ inch*	Against bore grooving tool Designation	Grooving toolholder position**	Design	Dimensions in inch						Groove max. depth CDX
					BD	CW	LF	LB	WF	RE	
Select the suitable grooving tool, and note the grooving tool holder position on the MPA to obtain the required groove capacity.	*1.220-1.417*	AFG0629 25 1581	0-I	3	*0.984*	*0.0984*	*1.339*	*0.709*	*0.116*	*0.006*	0.197
	1.417-1.614		1-I	3	*0.984*	*0.0984*	*1.339*	*0.709*	*0.116*	*0.006*	0.197
	1.614-1.811		2-I	3	*0.984*	*0.0984*	*1.339*	*0.709*	*0.116*	*0.006*	0.197
	1.811-2.008		3-I	3	*0.984*	*0.0984*	*1.339*	*0.709*	*0.116*	*0.006*	0.197
	2.008-2.205		**0-E** / 4-I	3/4	*0.984*	*0.0984*	*1.339*	*0.709*	*0.116*	*0.006*	0.197
	2.205-2.402		**1-E** / 5-I	3/4	*0.984*	*0.0984*	*1.339*	*0.709*	*0.116*	*0.006*	0.197
	2.402-2.598		**2-E** / 6-I	3/4	*0.984*	*0.0984*	*1.339*	*0.709*	*0.116*	*0.006*	0.197
	2.598-2.795		**3-E** / 7-I	3/4	*0.984*	*0.0984*	*1.339*	*0.709*	*0.116*	*0.006*	0.197
	2.795-2.992		**4-E** / 8-I	3/4	*0.984*	*0.0984*	*1.339*	*0.709*	*0.116*	*0.006*	0.197
	2.992-3.189		5-E	4	*0.984*	*0.0984*	*1.339*	*0.709*	*0.116*	*0.006*	0.197
	3.189-3.386		6-E	4	*0.984*	*0.0984*	*1.339*	*0.709*	*0.116*	*0.006*	0.197
	3.386-3.583		7-E	4	*0.984*	*0.0984*	*1.339*	*0.709*	*0.116*	*0.006*	0.197
	3.583-3.780		8-E	4	*0.984*	*0.0984*	*1.339*	*0.709*	*0.116*	*0.006*	0.197
Note : An -against bore- grooving assembly requires:	*1.220-1.417*	AFG0629 30 1581	0-I	3	*0.984*	*0.1181*	*1.339*	*0.709*	*0.116*	*0.006*	0.236
• an - Axiabore™ Plus - head (A760 03)	*1.417-1.614*		1-I	3	*0.984*	*0.1181*	*1.339*	*0.709*	*0.116*	*0.006*	0.236
• a MPA (BDA16BS25100)	*1.614-1.811*		2-I	3	*0.984*	*0.1181*	*1.339*	*0.709*	*0.116*	*0.006*	0.236
• an I (internal position) and an E (external position) grooving tool holder (BAS25FGI35 and BAS25FGE35) to either hold a grooving tool or act as a counterweight (see setting position in the chart)	*1.811-2.008*		3-I	3	*0.984*	*0.1181*	*1.339*	*0.709*	*0.116*	*0.006*	0.236
	2.008-2.205		**0-E** / 4-I	3/4	*0.984*	*0.1181*	*1.339*	*0.709*	*0.116*	*0.006*	0.236
	2.205-2.402		**1-E** / 5-I	3/4	*0.984*	*0.1181*	*1.339*	*0.709*	*0.116*	*0.006*	0.236
• an -against bore- grooving tool (AFG...81) to be selected from the chart, related to groove width and diameter.	*2.402-2.598*		**2-E** / 6-I	3/4	*0.984*	*0.1181*	*1.339*	*0.709*	*0.116*	*0.006*	0.236
	2.598-2.795		**3-E** / 7-I	3/4	*0.984*	*0.1181*	*1.339*	*0.709*	*0.116*	*0.006*	0.236
	2.795-2.992		**4-E** / 8-I	3/4	*0.984*	*0.1181*	*1.339*	*0.709*	*0.116*	*0.006*	0.236
	2.992-3.189		5-E	4	*0.984*	*0.1181*	*1.339*	*0.709*	*0.116*	*0.006*	0.236
	3.189-3.386		6-E	4	*0.984*	*0.1181*	*1.339*	*0.709*	*0.116*	*0.006*	0.236
	3.386-3.583		7-E	4	*0.984*	*0.1181*	*1.339*	*0.709*	*0.116*	*0.006*	0.236
	3.583-3.780		8-E	4	*0.984*	*0.1181*	*1.339*	*0.709*	*0.116*	*0.006*	0.236



* +0,2 mm *(0.008")* complementary capacity achievable. ** Recommended values in **bold**.

Detailed description of the grooving tools, see page(s) 629

Instructions
Maximum speeds for Axiabore™ type heads

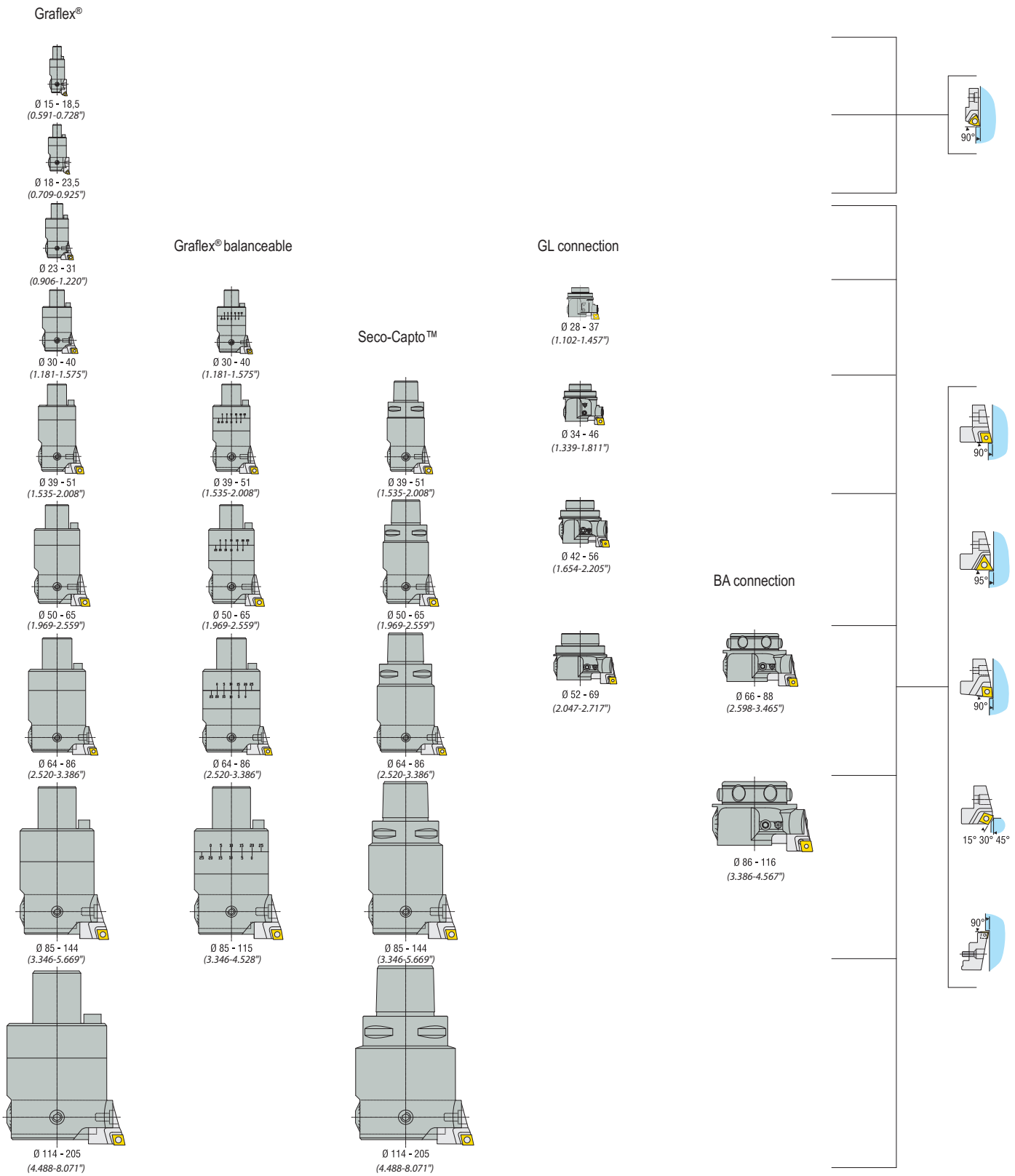
For further application details refer to the operating instructions supplied with the boring heads and with the GL bars.					
Head	**Capacity ∅ mm** *(inch)*	**Max. RPM with tool (RPM)**	**Max. RPM with MPA (RPM)**	**Max. cutting speed v_c at min. Cap. m/min** *(sf/min)*	**Max. cutting speed v_c at max. Cap. m/min** *(sf/min)*
Axiabore™ type with Graflex® connection					
A76001	0,3-8 *(0.0118-0.315)*	30000	–	28* *(92*)*	754* *(2474*)*
A76002	2-20 *(0.0787-0.787)*	12000	–	75* *(246*)*	754* *(2474*)*
A76003	6-108 *(0.236-4.25)*	8000**	5000	151* *(495*)*	1000*** *(3281***)*
A76013	6-33 *(0.236-1.30)*	20000**	5000	377* *(1237*)*	1500*** *(4921***)*
Axiabore™ type with Seco-Capto™ connection					
C5-391.0760-03	6-108 *(0.236-4.25)*	8000*	5000	151* *(495*)*	1000** *(3281**)*

Note: The maximum speeds are related to the boring head's mechanical design and balancing quality. Speeds inside these limits have to be chosen in regard to the other machining conditions, e.g. workpiece material, cutting edge (tools and inserts), tooling length, machine spindle. At speeds from approx. 8000 RPM and above, the holding arbors and intermediates should be fine balanced. Using balanceable heads and fine balanced holders improves the tool life and the boring performances even at lower speeds.
* Implied max. cutting speed with max. RPM.
** Not reachable with all tools, see ***.
*** Max. cutting speed not to be exceeded

Troubleshooting instructions (also valid for Radial type fine boring heads)

Problem	Possible cause	Solution
Poor tool life	Wrong insert grade	Change to more wear resistant grade
	Excessive cutting speed	Reduce cutting speed
	Excessive DOC	Decrease DOC
Chatter & Vibrations	Excessive cutting speed	Reduce cutting speed
	High L/D ratio	Shorten tool to increase stiffness
		Use stronger boring tool
		Use Steadyline bar
		Use carbide or heavy metal extensions
	Wrong insert	Reduce nose radius of insert
		Use ground geometry inserts
	Incorrect stock allowance	Change pre-hole diameter
Poor hole diameter tolerance & repeatability	Inaccurate tool changes	Worn and damaged tool shank: replace
		Clean spindle and tool shank
	Variation of stock allowance	Add semi-finishing boring step
	Low spindle stability	Use sharper ground geometry inserts
Poor roundness	Excessive boring tool imbalance	Check the spindle runout
		Change to LIBRAFLEX® boring head
		Check balance ring setting
		Reduce speed
	Excessive cutting forces	Check stock allowance and feed rate
	Insufficient workpiece clamping	Check for uniform workpiece clamping
	Workpiece non-symmetrical	Reduce cutting forces, change to ground insert
		Increase cutting speed, reduce feed
Poor positional tolerance	Original bore misaligned	Add a semi-finishing boring step
	Excessive DOC	Decrease DOC, make two passes
Poor surface finish	Wrong insert radius	Use larger insert radius
	Excessive feed rate	Reduce feed to be max. 30% of insert nose radius
	Poor chip evacuation	Apply through coolant
		Change insert to higher rake angle (HSS: please enquire)
		Check DOC
Tapered bore	Premature tool wear	Change to more wear resistant grade
		Modify cutting speed
		Increase coolant flow

Overview


Graflex®
Ø 15 - 18,5
(0.591-0.728")
Ø 18 - 23,5
(0.709-0.925")
Ø 23 - 31
(0.906-1.220")
Ø 30 - 40
(1.181-1.575")
Ø 39 - 51
(1.535-2.008")
Ø 50 - 65
(1.969-2.559")
Ø 64 - 86
(2.520-3.386")
Ø 85 - 144
(3.346-5.669")
Ø 114 - 205
(4.488-8.071")
Graflex® balanceable
Ø 30 - 40
(1.181-1.575")
Ø 39 - 51
(1.535-2.008")
Ø 50 - 65
(1.969-2.559")
Ø 64 - 86
(2.520-3.386")
Ø 85 - 115
(3.346-4.528")
Seco-Capto™
Ø 39 - 51
(1.535-2.008")
Ø 50 - 65
(1.969-2.559")
Ø 64 - 86
(2.520-3.386")
Ø 85 - 144
(3.346-5.669")
Ø 114 - 205
(4.488-8.071")
GL connection
Ø 28 - 37
(1.102-1.457")
Ø 34 - 46
(1.339-1.811")
Ø 42 - 56
(1.654-2.205")
Ø 52 - 69
(2.047-2.717")
BA connection
Ø 66 - 88
(2.598-3.465")
Ø 86 - 116
(3.386-4.567")
90°
90°
95°
90°
15° 30° 45°
90°

Fine boring heads – Guide

Features

A radial type fine boring head is an assembly of a body (head) and an insert holder. FB 620, FB 780 and FB 790 radial, fine boring heads feature:

Product range

Seco offers a variety of radial fine boring heads to fulfill all your needs with the most suitable solution:

FB 620, FB 780 and FB 790 radial, fine boring heads



- Micrometric adjustment: Insert holder setting mechanism with a micrometric adjusting screw, 1 increment = 0,01 mm *(0.0004")* on the diameter and a vernier scale, resolution of 2,5 µm *(98.4 µin)* on the diameter
- The precision of the mechanism guarantees repeatable accuracy
- Angular orientation of the cutting edge according to DIN 69871/ISO 7388 for SA and ISO 12164 for HSK
- Coolant through the head directed towards the cutting edge
- FB 780 and FB 620 boring heads are pre-balanced on median diameter setting. FB 790 are balanceable, for optimized performance.

Note: Features, Instructions (insert holder fitting, diameter setting, back boring instructions, troubleshooting, recommended machining conditions, maximum speeds), suitable insert holders and suitable inserts are identical for all types of FB 620, FB 780 and FB 790 fine boring heads of similar boring capacity size, regardless of their machine side connection types.

FB 620 Fine boring heads, radial types, for Steadyline® vibration damping bars



GL



BA

- 4 fine boring heads with GL machine side connection for fine boring Ø 27–69 mm *(Ø 1.102–2.717")*
- 2 fine boring heads with BA machine side connection for fine boring Ø 66–116 mm *(Ø 2.598–4.567")*

Their compact design achieves best damping performances when used on Steadyline® GL turning and boring bars.

FB 780 Fine boring heads, radial types

9 precision boring heads with Graflex® machine side connection for fine boring ∅ 15-205 mm *(Ø 0.591–8.071")* using radially fitted insert holders.

5 precision boring heads with Seco-Capto™ machine side connection for fine boring Ø 39–205 mm *(Ø 1.535–8.071")*.

Seco-Capto™ adapter and Graflex® head: ∅ 15-40 mm *(Ø 0.591– 1.575")*.

Note: The minimum bore size of the smallest Seco-Capto™ fine boring head is ∅ 39 mm *(Ø 1.535")* with the smallest available Seco-Capto™ C3 connection. For ∅ 15-40 mm *(Ø 0.591–1.575")* use Graflex® boring heads with connection sizes G0 to G2 in conjunction with the appropriate Seco-Capto™/Graflex® adaptor. This offers also boring length modularity when using additional Graflex® extensions.

Note: Features, Instructions (insert holder fitting, diameter setting, back boring instructions, troubleshooting, recommended machining conditions, maximum speeds), suitable insert holders and suitable inserts are similar for both types of FB 780 fine boring heads of similar boring capacity size, regardless of connection type.

FB 790 Balanceable fine boring heads, radial type

5 balanceable 'Libraflex®' boring heads with Graflex® machine side connection for fine boring ∅ 30-115 mm *(Ø 1.181–4.528")*, at high speeds, up to 1500 m/min *(4921 sf/min)*, using radially fitted insert holders.

Balancing reduces spindle stress, cutting parameters can be optimized, better machining qualities are achieved even at conventional speeds.

Balancing is performed by setting both graduated rings in accordance with the diameter to be bored (no chart needed).



Features

Insert holders

A radial type fine boring head is an assembly of a body (head) and an insert holder.

The wide range of fine boring, chamfering and back boring insert holders are suitable for FB 620, FB 780 and FB 790 fine boring heads, radial types.

Fine boring insert holders

FBIH 782: lead angle 90° for WB inserts
FBIH 724: lead angle 90° for TC inserts
FBIH 725: lead angle 90° for CC inserts
FBIH 726: lead angle 95° for CC inserts

Note: 95° lead angle insert holders should be used to avoid face contact when boring up a shoulder.

Chamfering insert holders, ∅ 23 to 160 mm *(Ø 0.906–6.299")*

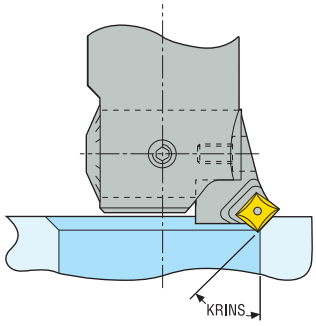
FBIH 729: available with a 15°, 30° or 45° lead angle for CC inserts.

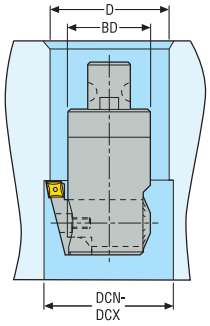
Libraflex® balancing can also be achieved when using chamfering insert holders.

Back-boring insert holders, ∅ 26,5 to 164 mm *(Ø 1.043–6.457")*

FBIH A789: lead angle 90° for WB and CC inserts.

Libraflex® balancing is not possible when using back-boring insert holders. In this case, the highest unbalance reduction is obtained when both balancing rings are set on their largest graduation.

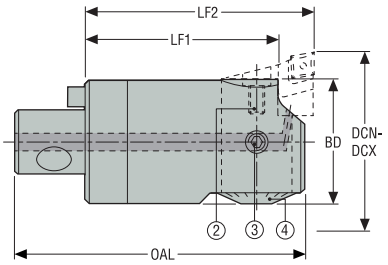




FB780

Graflex®





- With micrometric adjusting (increment 0,01 mm and vernier 2,5 µm, on the diameter)

2. Assembly screw
3. Locking screw
4. Micrometric adjusting screw

Designation	Item number	Machine side Graflex size	Workpiece side Capacity DCN-DCX Ø		OAL	LF1	LF2	BD	Weight	Insert holder size
			mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*	
A78008	00056632	G0	15,0 *0.591*	18,5 *0.728*	44,0 *1.732*	27,5 *1.083*	35,0 *1.378*	14,0 *0.551*	0,1 *0.220*	09
A78009	00056633	G0	18,0 *0.709*	23,5 *0.925*	44,0 *1.732*	27,5 *1.083*	35,0 *1.378*	17,0 *0.669*	0,1 *0.220*	09
A78010	00072991	G1	23,0 *0.906*	31,0 *1.220*	51,5 *2.028*	32,5 *1.280*	40,0 *1.575*	21,5 *0.846*	0,2 *0.440*	10
A78020	00072992	G2	30,0 *1.181*	40,0 *1.575*	59,5 *2.343*	37,5 *1.476*	45,0 *1.772*	27,0 *1.063*	0,22 *0.490*	20
A78030	00072993	G3	39,0 *1.535*	51,0 *2.008*	82,0 *3.228*	54,5 *2.146*	65,0 *2.559*	35,0 *1.378*	0,6 *1.320*	30
A78040	00072995	G4	50,0 *1.969*	65,0 *2.559*	93,0 *3.661*	61,5 *2.421*	72,0 *2.835*	43,0 *1.693*	0,9 *1.980*	40
A78050	00072996	G5	64,0 *2.520*	86,0 *3.386*	109,0 *4.291*	71,5 *2.815*	82,0 *3.228*	54,0 *2.126*	1,6 *3.530*	50
A78060	00056551	G6	85,0 *3.346*	144,0 *5.669*	140,0 *5.512*	88,5 *3.484*	105,0 *4.134*	70,0 *2.756*	3,2 *7.050*	*60/65*
A78070	00056552	G7	114,0 *4.488*	205,0 *8.071*	160,0 *6.299*	98,5 *3.878*	115,0 *4.528*	95,0 *3.740*	6,4 *14.110*	*70/75*

Insert holders have to be ordered separately, see page(s) 654, 655-657
Note, weight is without insert holder

Spare Parts, included in delivery

For	Assembly screw	Key	Key (T-handle)	Locking screw	Tenon
					
A78008	960D30050S	H4B-H2.0	DOUBLE-T	19A7100403	–
A78009	–	H4B-H2.0	DOUBLE-T	19A71000	90M0
A78010	19TB0305	H4B-H2.0	DOUBLE-T	19A71000	90M1
A78020	19TB0305	–	H4B-H2.0	950L0406	90M2
A78030	19TB04075	03M03C	–	950L0608	90M3
A78040	19TB04075	03M03C	–	950L0612	90M4
A78050	950D0410	03M03C	–	950L0616	90M5
A78060	950D0612	H6B-H5.0L	DOUBLE-T	950L1016	90M6
A78070	950D0616	H6B-H5.0L	DOUBLE-T	950L1030	90M7

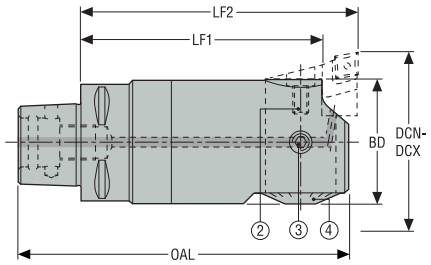
Accessories

For	Torque key for locking and assembly screws
	
A78008	H00-2009
A78009	H00-2009
A78010	H00-2009
A78020	H00-2009
A78030	H00-3030
A78040	H00-3030
A78050	H00-3030
A78060	H00T-50100
A78070	H00T-50100

FB780

Seco-Capto™





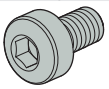
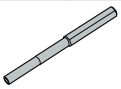
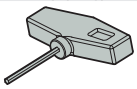
- With micrometric adjusting (increment 0,01 mm and vernier 2,5 µm, on the diameter)

2. Assembly screw
3. Locking screw
4. Micrometric adjusting screw

Designation	Item number	Machine side Capto size	Workpiece side Capacity DCN-DCX Ø		OAL	LF1	LF2	BD	Weight	Insert holder size
			mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*	
C3-391.0780-30	02809740	C3	39,0 *1.535*	51,0 *2.008*	86,0 *3.386*	59,5 *2.343*	70,0 *2.756*	35,0 *1.378*	0,6 *1.320*	30
C4-391.0780-40	02809742	C4	50,0 *1.969*	65,0 *2.559*	103,0 *4.055*	71,5 *2.815*	82,0 *3.228*	43,0 *1.693*	1,0 *2.200*	40
C5-391.0780-50	02809744	C5	64,0 *2.520*	86,0 *3.386*	119,0 *4.685*	81,5 *3.209*	92,0 *3.622*	54,0 *2.126*	1,7 *3.750*	50
C6-391.0780-60	02809745	C6	85,0 *3.346*	144,0 *5.669*	150,0 *5.906*	100,5 *3.957*	117,0 *4.606*	70,0 *2.756*	3,3 *7.280*	60
C8-391.0780-70	02809747	C8	114,0 *4.488*	205,0 *8.071*	181,0 *7.126*	121,5 *4.783*	138,0 *5.433*	95,0 *3.740*	7,1 *15.650*	70

Insert holders have to be ordered separately, see page(s) 654, 655-657
Note, weight is without insert holder

Spare Parts, included in delivery

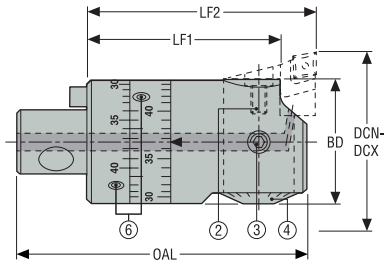
For	Assembly screw	Key	Key (Flag)	Key (T-handle)	Locking screw
					
C3-391.0780-30	19TB04075	–	03M03C	–	950L0608
C4-391.0780-40	19TB04075	–	03M03C	–	950L0612
C5-391.0780-50	950D0410	–	03M03C	–	950L0616
C6-391.0780-60	950D0612	H6B-H5.0L	–	DOUBLE-T	950L0616
C8-391.0780-70	950D0616	H6B-H5.0L	–	DOUBLE-T	950L1030

Accessories

For	Torque key for locking and assembly screws
	
C3-391.0780-30	H00-3030
C4-391.0780-40	H00-3030
C5-391.0780-50	H00-3030
C6-391.0780-60	H00T-50100
C8-391.0780-70	H00T-50100

FB790 Libraflex® balanceable

Graflex®





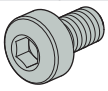
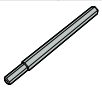
6. Locking screw 2
2. Assembly screw
3. Locking screw 1
4. Micrometric adjusting screw

- With micrometric adjusting (increment 0,01 mm and vernier 2,5 µm, on the diameter)
- Balancing by setting both rings in accordance with the diameter to be bored
- For speeds v_c up to 1 495 m/min and more, see page(s) 658

Designation	Item number	Machine side Graflex size	Workpiece side Capacity DCN-DCX Ø		OAL	LF1	LF2	BD	Weight	Insert holder size
			mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*	
A79020	00055932	G2	30,0 *1.181*	40,0 *1.575*	59,5 *2.343*	37,5 *1.476*	45,0 *1.772*	27,0 *1.063*	0,3 *0.660*	20
A79030	00056005	G3	39,0 *1.535*	51,0 *2.008*	82,0 *3.228*	54,5 *2.146*	65,0 *2.559*	35,0 *1.378*	0,5 *1.100*	30
A79040	00056006	G4	50,0 *1.969*	65,0 *2.559*	93,0 *3.661*	61,5 *2.421*	72,0 *2.835*	43,0 *1.693*	0,9 *1.980*	40
A79050	00056007	G5	64,0 *2.520*	86,0 *3.386*	109,0 *4.291*	71,5 *2.815*	82,0 *3.228*	54,0 *2.126*	1,5 *3.310*	50
A79060	00001451	G6	85,0 *3.346*	115,0 *4.528*	140,0 *5.512*	88,5 *3.484*	105,0 *4.134*	70,0 *2.756*	3,0 *6.610*	60

Insert holders have to be ordered separately, see page(s) 654, 655-657
Note, weight is without insert holder

Spare Parts, included in delivery

For head	Assembly screw	Key	Key (T-handle)	Locking screw 1	Locking screw 2	Tenon
						
A79020	19TB0305	H4B-H2.0	DOUBLE-T	950L0406	960D30045S	90M2
A79030	19TB04075	03M03C	–	950L0608	AU7901030	90M3
A79040	19TB04075	03M03C	–	950L0612	AU7901040	90M4
A79050	950D0410	03M03C	–	950L0616	AU7901050	90M51
A79060	950D0612	H6B-H5.0L	DOUBLE-T	950L1016	AU7901060	90M6

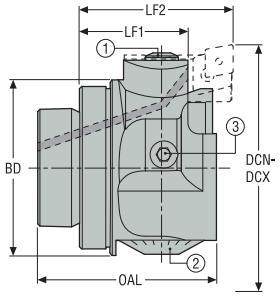
Accessories

For head	Torque key for balancing ring locking screws	Torque key for locking and assembly screws
		
A79020	–	H00-2009
A79030	H00-3020	H00-3030
A79040	H00-3020	H00-3030
A79050	H00-3020	H00-3030
A79060	H00T-5050	H00T-50100

FB 620 GL – Fine boring heads

compact, with GL connection





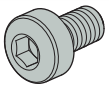
- Designed for GL25, GL32, GL40 and GL50 Steadyline® turning and boring bars
- Internal coolant supply towards cutting edge
- With micrometric adjusting (increment 0,01 mm and vernier 2,5 µm, on the diameter)

1. Assembly screw
2. Micrometric adjusting screw
3. Locking screw

Designation	Item number	Machine side GL size	Workpiece side Capacity DCN-DCX Ø		OAL	LF1	LF2	BD	Weight	Max. RPM**
			mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*	
GL25-FB620-10	03307855	GL25	27,0 *1.063*	35,0 *1.378*	29,5 *1.161*	17,7 *0.697*	28,0 *1.102*	25,0 *0.984*	0,2 *0.440*	9000
GL32-0620-20	02904469	GL32	34,0 *1.339*	46,0 *1.811*	35,2 *1.386*	23,75 *0.935*	32,1 *1.264*	32,0 *1.260*	0,2 *0.440*	7000
GL40-0620-30	02904470	GL40	42,0 *1.654*	56,0 *2.205*	40,7 *1.602*	24,75 *0.974*	35,1 *1.382*	40,0 *1.575*	0,3 *0.660*	5600
GL50-0620-40	02904471	GL50	52,0 *2.047*	69,0 *2.717*	43,7 *1.720*	25,75 *1.014*	36,1 *1.421*	50,0 *1.969*	0,4 *0.880*	4800

Insert holders have to be ordered separately, see page(s) 654, 655-657
** Additional information about max RPM, see Instruction pages.
Note, weight is without insert holder

Spare Parts, included in delivery

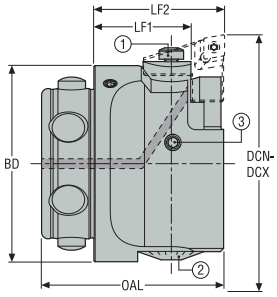
For head	Assembly screw	Clamp key	Key (T-handle)	Locking screw
				
GL25-FB620-10	19TB0305	H2.0-2D	–	19A71000
GL32-0620-20	19TB0305	H4B-H2.0	DOUBLE-T	950L0406
GL40-0620-30	19TB04075	03M03C	–	950L0608
GL50-0620-40	19TB04075	03M03C	–	950L0608

Accessories

For head	Torque key for locking and assembly screws
	
GL25-FB620-10	–
GL32-0620-20	H00-2009
GL40-0620-30	H00-3030
GL50-0620-40	H00-3030

FB 620 BA – Fine boring heads

with BA connection



1. Assembly screw
2. Micrometric adjusting screw
3. Locking screw

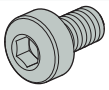
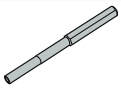
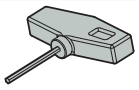


- Designed for BA60 and BA80 Steadyline® turning and boring bars
- Internal coolant supply towards cutting edge
- With micrometric adjusting (increment 0,01 mm and vernier 2,5 µm, on the diameter)

Designation	Item number	Machine side BA size	Workpiece side Capacity DCN-DCX Ø		OAL	LF1	LF2	BD	Weight	Max. RPM**
			mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*	
BA060-FB620-50	03204094	BA060	65,0 *2.559*	87,0 *3.425*	55,7 *2.193*	29,7 *1.169*	40,0 *1.575*	60,0 *2.362*	0,7 *1.540*	4000
BA080-FB620-60	03204095	BA080	85,0 *3.346*	115,0 *4.528*	58,2 *2.291*	26,7 *1.051*	41,2 *1.622*	80,0 *3.150*	1,2 *2.650*	3000

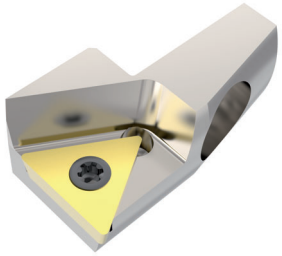
Insert holders have to be ordered separately, see page(s) 606
** Additional information about max RPM, see Instruction pages.
Note, weight is without insert holder

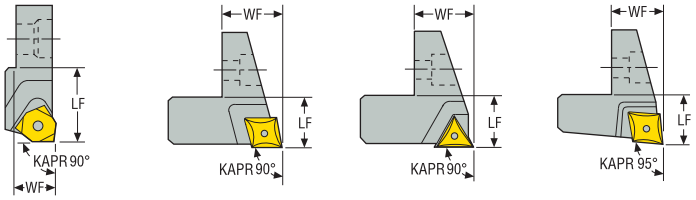
Spare Parts, included in delivery

For head	Assembly screw	Key	Key (Flag)	Key (T-handle)	Locking screw
					
BA060-FB620-50	19TB04075	–	03M03C	–	950L0608
BA080-FB620-60	950D0514	H6B-H5.0L	–	DOUBLE-T	950L0608

Insert holder

for fine boring heads FB 620 / 780 / 790





A B C D

- Suitable for radial boring heads FB 620/ 780/ 790
- **The precision balancing of FB A790 heads is not possible when using the large insert holders.

Designation	Item number	Insert holders type	Capacity DCN-DCX ∅		LF	WF	Weight	For boring head	KRINS°	**	Insert holder size	Suitable insert size	Design
			mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*						
A78209	00056634	90° for WB inserts	15,0 *0.591*	23,5 *0.925*	7,2 *0.283*	4,0 *0.157*	0,1 *0.220*	FB 78008 / FB 78009	90	–	09	WB...0301...	A
A72510	00056580	90° for CC inserts	23,0 *0.906*	31,0 *1.220*	10,3 *0.406*	4,5 *0.177*	0,1 *0.220*	FB 78010 / FB62010	90	–	10	CC...0602...	B
A72520	00056581	90° for CC inserts	30,0 *1.181*	46,0 *1.811*	8,3 *0.327*	5,0 *0.197*	0,1 *0.220*	FB 78020 / FB 79020 / FB 62020	90	–	20	CC...0602...	B
A72530	00056582	90° for CC inserts	39,0 *1.535*	56,0 *2.205*	10,3 *0.406*	8,0 *0.315*	0,1 *0.220*	FB 78030 / FB 79030 / FB 62030	90	–	30	CC...0602...	B
A72540	00056583	90° for CC inserts	50,0 *1.969*	69,0 *2.717*	10,3 *0.406*	9,5 *0.374*	0,1 *0.220*	FB 78040 / FB 79040 / FB 62040	90	–	40	CC...0602...	B
A72550	00056584	90° for CC inserts	64,0 *2.520*	86,0 *3.386*	10,3 *0.406*	12,5 *0.492*	0,1 *0.220*	FB 78050 / FB 79050 / FB 62050	90	–	50	CC...0602...	B
A7256A	02689978	90° for CC inserts	85,0 *3.346*	115,0 *4.528*	14,5 *0.571*	18,5 *0.728*	0,2 *0.440*	BA080-FB620-60	90	–	6A	CC...09T3...	B
A72560	00056585	90° for CC inserts	85,0 *3.346*	115,0 *4.528*	16,5 *0.650*	18,9 *0.744*	0,2 *0.440*	FB 78060 / FB 79060 / FB 731S500	90	–	60	CC...09T3...	B
A72565	00056587	90° for CC inserts	114,0 *4.488*	144,0 *5.669*	16,5 *0.650*	33,7 *1.327*	0,2 *0.440*	FB 78060 / FB 79060 / FB 731S500	90	**	65	CC...09T3...	B
A72570	00056588	90° for CC inserts	114,0 *4.488*	160,0 *6.299*	16,5 *0.650*	18,9 *0.744*	0,2 *0.440*	FB 78070	90	–	70	CC...09T3...	B
A72575	00056589	90° for CC inserts	159,0 *6.260*	205,0 *8.071*	16,5 *0.650*	41,7 *1.642*	0,2 *0.440*	FB 78070	90	–	75	CC...09T3...	B
A72430	00056572	90° for TC inserts	39,0 *1.535*	56,0 *2.205*	10,3 *0.406*	7,9 *0.311*	0,1 *0.220*	FB 78030 / FB 79030 / FB 62030	90	–	30	TC...1102...	C
A72440	00056573	90° for TC inserts	50,0 *1.969*	69,0 *2.717*	10,3 *0.406*	9,4 *0.370*	0,1 *0.220*	FB 78040 / FB 79040 / FB 62040	90	–	40	TC...1102...	C
A72450	00056574	90° for TC inserts	64,0 *2.520*	86,0 *3.386*	10,3 *0.406*	12,4 *0.488*	0,1 *0.220*	FB 78050 / FB 79050 / FB 62050	90	–	50	TC...1102...	C
A72460	00056575	90° for TC inserts	85,0 *3.346*	115,0 *4.528*	16,3 *0.642*	18,9 *0.744*	0,2 *0.440*	FB 78060 / FB 79060 / FB 731S500	90	–	60	TC...1102...	C
A72465	00056577	90° for TC inserts	114,0 *4.488*	144,0 *5.669*	16,5 *0.650*	33,7 *1.327*	0,2 *0.440*	FB 78060 / FB 79060 / FB 731S500	90	**	65	TC...1102...	C
A72470	00056578	90° for TC inserts	114,0 *4.488*	160,0 *6.299*	16,3 *0.642*	18,9 *0.744*	0,2 *0.440*	FB 78070	90	–	70	TC...1102...	C
A72475	00056579	90° for TC inserts	159,0 *6.260*	205,0 *8.071*	16,5 *0.650*	41,7 *1.642*	0,2 *0.440*	FB 78070	90	–	75	TC...1102...	C
A72610	00056590	95° for CC inserts	23,0 *0.906*	31,0 *1.220*	10,3 *0.406*	4,5 *0.177*	0,1 *0.220*	FB 78010	95	–	10	CC...0602...	D
A72620	00056591	95° for CC inserts	30,0 *1.181*	46,0 *1.811*	8,3 *0.327*	5,0 *0.197*	0,1 *0.220*	FB 78020 / FB 79020 / FB 62020	95	–	20	CC...0602...	D
A72630	00056592	95° for CC inserts	39,0 *1.535*	56,0 *2.205*	10,3 *0.406*	8,0 *0.315*	0,1 *0.220*	FB 78030 / FB 79030 / FB 62030	95	–	30	CC...0602...	D
A72640	00056593	95° for CC inserts	50,0 *1.969*	69,0 *2.717*	10,3 *0.406*	9,5 *0.374*	0,1 *0.220*	FB 78040 / FB 79040/ FB 62040	95	–	40	CC...0602...	D

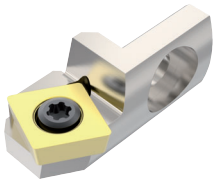
Designation	Item number	Insert holders type	Capacity DCN-DCX ∅		LF	WF	Weight	For boring head	KRINS°	**	Insert holder size	Suitable insert size	Design
			mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*						
A72650	00056594	95° for CC inserts	64,0 *2.520*	86,0 *3.386*	10,3 *0.406*	12,5 *0.492*	0,1 *0.220*	FB 78050 / FB 79050 / FB 62050	95	–	50	CC...0602...	D
A72660	00056595	95° for CC inserts	85,0 *3.346*	115,0 *4.528*	16,5 *0.650*	18,9 *0.744*	0,2 *0.440*	FB 78060 / FB 79060 / FB 731S500	95	–	60	CC...09T3...	D
A72665	00056597	95° for CC inserts	114,0 *4.488*	144,0 *5.669*	16,5 *0.650*	33,7 *1.327*	0,2 *0.440*	FB 78060 / FB 79060 / FB 731S500	95	**	65	CC...09T3...	D
A72670	00056598	95° for CC inserts	114,0 *4.488*	160,0 *6.299*	16,5 *0.650*	18,9 *0.744*	0,2 *0.440*	FB 78070	95	–	70	CC...09T3...	D
A72675	00056599	95° for CC inserts	159,0 *6.260*	205,0 *8.071*	16,5 *0.650*	41,7 *1.642*	0,2 *0.440*	FB 78070	95	–	75	CC...09T3...	D

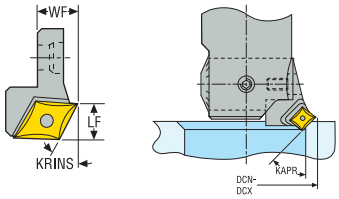
Spare Parts, included in delivery

For insert size	Insert key	Insert screw	Key (T-handle)
			
WB...0301...	H4B-T06P	C02035-T06P	DOUBLE-T
CC...0602...	H4B-T07P	C02504-T07P	DOUBLE-T
CC...09T3...	H4B-T15P	C04008-T15P	DOUBLE-T
TC...1102...	H4B-T07P	C02504-T07P	DOUBLE-T

Chamfering insert holders

for fine boring heads FB 620 / 780 / 790





- Suitable for radial boring heads FB 620/ 780/ 790

Designation	Item number	For boring head	Insert holder size	Capacity DCN-DCX ∅		LF	WF	Weight	KRINS°	Suitable insert size
				mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*		
A72910CC0630	00086885	FB 78010	10	23,0 *0.906*	31,0 *1.220*	10,8 *0.425*	4,5 *0.177*	0,1 *0.220*	30	CC...0602...
A72920CC0630	00086888	FB 78020 / FB 79020/ GL32-0620-20	20	30,0 *1.181*	36,0 *1.417*	10,0 *0.394*	4,9 *0.193*	0,1 *0.220*	30	CC...0602...
A72930CC0630	00086891	FB 78030 / FB 79030 / FB 62030	30	39,0 *1.535*	56,0 *2.205*	10,5 *0.413*	8,1 *0.319*	0,1 *0.220*	30	CC...0602...
A72940CC0630	00086894	FB 78040 / FB 79040 / FB 62040	40	50,0 *1.969*	69,0 *2.717*	10,5 *0.413*	9,5 *0.374*	0,1 *0.220*	30	CC...0602...
A72950CC0630	00086897	FB 78050 / FB 79050	50	64,0 *2.520*	86,0 *3.386*	10,5 *0.413*	12,5 *0.492*	0,1 *0.220*	30	CC...0602...
A72960CC0930	00086900	FB 78060 / FB 79060 / A731S500	60	85,0 *3.346*	115,0 *4.528*	16,5 *0.650*	19,1 *0.752*	0,08 *0.180*	30	CC...09T3...
A72970CC0930	00086903	FB 78070	70	114,0 *4.488*	160,0 *6.299*	16,4 *0.646*	18,8 *0.740*	0,09 *0.200*	30	CC...09T3...
A72910CC0645	00086886	FB 78010	10	23,0 *0.906*	31,0 *1.220*	11,5 *0.453*	4,5 *0.177*	0,01 *0.020*	45	CC...0602...
A72920CC0645	00086889	FB 78020 / FB 79020 / FB 62020	20	30,0 *1.181*	46,0 *1.811*	10,0 *0.394*	5,0 *0.197*	0,1 *0.220*	45	CC...0602...
A72930CC0645	00086892	FB 78030 / FB 79030 / FB 62030	30	39,0 *1.535*	56,0 *2.205*	10,5 *0.413*	8,1 *0.319*	0,1 *0.220*	45	CC...0602...
A72940CC0645	00086895	FB 78040 / FB 79040 / FB 62040	40	50,0 *1.969*	69,0 *2.717*	10,5 *0.413*	9,5 *0.374*	0,1 *0.220*	45	CC...0602...
A72950CC0645	00086898	FB 78050 / FB 79050	50	64,0 *2.520*	86,0 *3.386*	10,3 *0.406*	12,4 *0.488*	0,02 *0.040*	45	CC...0602...
A72960CC0945	00086901	FB 78060 / FB 79060 / A731S500	60	85,0 *3.346*	115,0 *4.528*	16,5 *0.650*	19,1 *0.752*	0,2 *0.440*	45	CC...09T3...
A72970CC0945	00086904	FB 78070	70	114,0 *4.488*	160,0 *6.299*	16,4 *0.646*	18,8 *0.740*	0,09 *0.200*	45	CC...09T3...

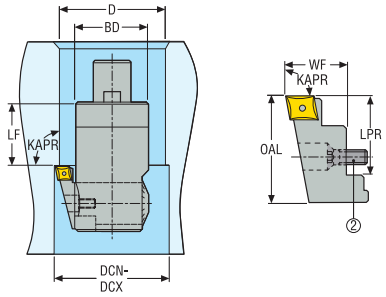
For spare insert screws and spare insert keys, see page(s) 690
**For capacity DC with Bridge bars and Jumbo Bridge bars, see page 666

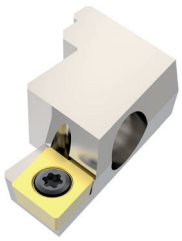
Spare Parts, included in delivery

For insert size	Insert key	Insert screw	Key (T-handle)
			
CC...0602...	H4B-T07P	C02504-T07P	DOUBLE-T
CC...09T3...	H4B-T15P	C04008-T15P	DOUBLE-T

Fine back boring insert holders

for fine boring heads FB 620 / 780 / 790





- Suitable for radial boring heads FB 620/ 780/ 790
- The precision balancing of FB 790 heads is not possible when using back-boring insert holders
- KRINS 90°
- Suitable insert size: CC...0602...

Designation	Item number	For head	Back-boring capacity DCN-DCX Ø		LF	BD	OAL	LPR	WF	Weight
			mm	*(Inch)*	mm *(Inch)*	mm *(Inch)*	mm *(Inch)*	mm *(Inch)*	mm *(Inch)*	kg *(lbs)*
A789X10CC0690	00086907	A78010 A78020 & A79020 GL32-0620-20	39,5-47,5 46-56 49,7-61,7	*(1.555-1.870)* *(1.811-2.205)* *(1.957-2.429)*	16,5 *(0.650)* 21,5 *(0.846)* 7,75 *(0.305)*	21,5 *(0.846)* 27 *(1.063)* 32 *(1.260)*	30,5 *(1.201)*	16,0 *(0.630)*	12,8 *(0.504)*	0,01 *(0.020)*
A789X30CC0690	00086910	A78030 & A79030 A78040 & A79040 A78050 & A79050 GL40-0620-30 GL50-0620-40	53-65 61-76 69-91 57,6-70,2 67,6-80,2	*(2.087-2.559)* *(2.402-2.992)* *(2.717-3.583)* *(2.268-2.764)* *(2.661-3.157)*	32 *(1.260)* 39 *(1.535)* 49 *(1.929)* 1,75 *(0.069)* 2,75 *(0.108)*	35 *(1.378)* 43 *(1.693)* 54 *(2.126)* 40 *(1.575)* 50 *(1.969)*	30,0 *(1.181)*	23,0 *(0.906)*	15,0 *(0.591)*	0,03 *(0.070)*
A789X60CC0690	00086909	A78060 & A79060	89-119 *	*(3.504-4.685 *)*	50 *(1.969)*	70 *(1.969)*	50,0 *(1.969)*	38,5 *(1.516)*	21,0 *(0.827)*	0,09 *(0.200)*
A789X70CC0690	00086911	A78070	118-164	*(4.646-6.457)*	60 *(2.362)*	95 *(2.362)*	50,0 *(1.969)*	38,5 *(1.516)*	21,0 *(0.827)*	0,1 *(0.220)*

*For Back-boring capacity DC with Bridge bars and Jumbo Bridge bars, see page 670
For spare insert screws and spare insert keys, see page(s) 690
The fine back boring insert holders delivery content includes a specific insert holder clamp screw, to be used instead the standard clamp screw delivered with the boring heads.

DCN/DCX mini = D+BD / 2 + 0,5 mm (0.02") from diameter 39,5 to 47,5 (1.555" to 1.870")
DCB/DCX mini = D+BD / 2 + 1 mm (0.039") from diameter 46 to 64 (1.811" to 2.520")

Spare Parts, included in delivery

For	Assembly screw	Insert screw	Key	Key (T-handle)
				
A789X10CC0690	950F0308	C02504-T07P	H4B-T07P	DOUBLE-T
A789X30CC0690	950F0410	C02504-T07P	H4B-T07P	DOUBLE-T
A789X60CC0690	–	C02504-T07P	H4B-T07P	DOUBLE-T
A789X70CC0690	–	C02504-T07P	H4B-T07P	DOUBLE-T

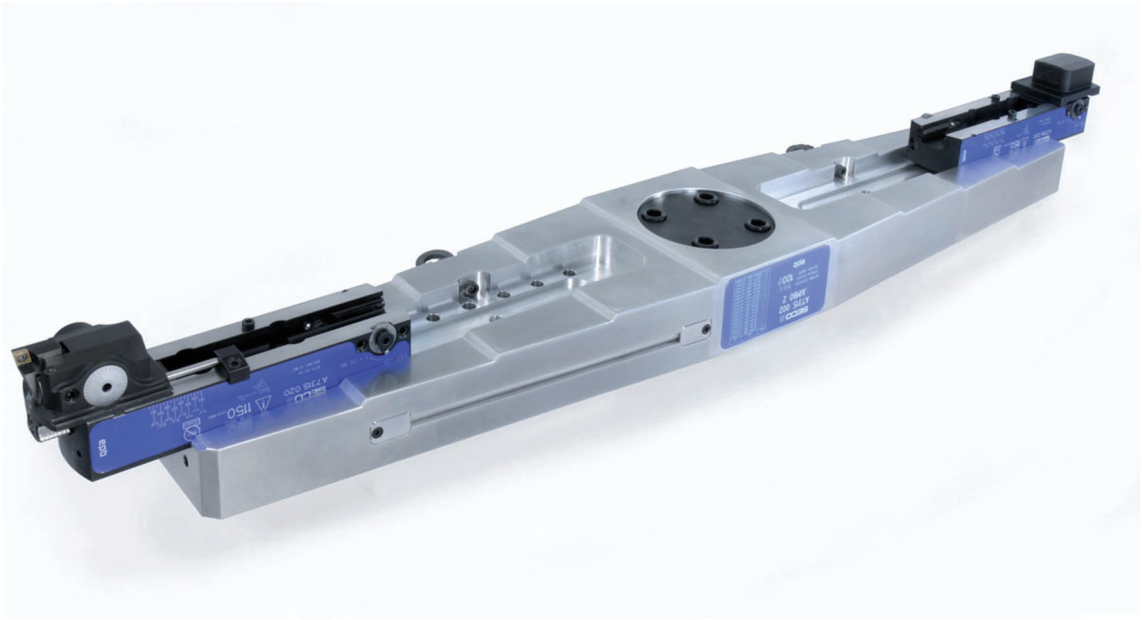
FB 780/ 790 Fine boring heads – Instructions

Recommended machining conditions
For further application details refer to the operating instructions supplied with the boring heads and with the GL bars.

Maximum speeds for fine boring heads, radial type
The maximum speeds shown in boring heads Product pages are related to the boring head's mechanical design and balancing quality. Speeds inside these limits have to be chosen in regard to the other machining conditions, e.g. workpiece material, cutting edge (insert), tooling length, machine spindle.
By boring applications with Steadyline® bars, make sure not to overpass the max. RPM of the bars: See the Operating instructions supplied with the Steadyline® bars.
Below max. RPM are for boring heads equipped with boring insert holders or chamfering insert holders. When using back boring insert holders on holders on FB 620, FB 790 or FB 780 heads type heads, use max. RPM for A780.. type, similar size.

Head	Capacity ∅ mm *(inch)*	Max. RPM	Implied max cutting speed v_c at min. Cap. m/min *(sf/min)*	Implied max cutting speed v_c at max. Cap. m/min *(sf/min)*
FB 620 Fine boring heads, with GL and BA machine side connection, for Steadyline® vibration damping turning and boring bars				
GL25-FB620-10	27-35 *(1.063-1.378)*	9000	760 *(2493)*	1000 *(3281)*
GL32-FB620-20	34-46 *(1.339-1.811)*	7000	748 *(2454)*	1012 *(3320)*
GL32-FB620-30	42-56 *(1.654-2.205)*	5600	739 *(2425)*	985 *(3232)*
GL32-FB620-40	52-69 *(2.047-2.717)*	4800	784 *(2572)*	1040 *(3412)*
BA060-FB620-50	66-88 *(2.598-3.465)*	4000	830 *(2723)*	1105 *(3625)*
BA080-FB620-60	86-116 *(3.386-4.567)*	3000	810 *(2657)*	1093 *(3586)*
FB 790 Fine boring heads, balanceable, with Graflex® connection				
A79020	30-40 *(1.181-1.575)*	16000	1508 *(4948)*	2011 *(6598)*
A79030	39-51 *(1.535-2.008)*	12250	1501 *(4925)*	1963 *(6440)*
A79040	50-65 *(1.969-2.559)*	10000	1571 *(5154)*	2042 *(6699)*
A79050	64-86 *(2.520-3.386)*	7500	1508 *(4948)*	2026 *(6647)*
A79060	85-115 *(3.346-4.528)*	5600	1495 *(4905)*	2023 *(6637)*
FB 780 Fine boring heads, with Graflex® connection				
A78008	15-18,5 *(0.591-0.728)*	16000	754 *(2474)*	930 *(3051)*
A78009	18-23,5 *(0.709-0.925)*	13000	735 *(2411)*	960 *(3150)*
A78010	23-31 *(0.906-1.220)*	10000	723 *(2372)*	974 *(3196)*
A78020	30-40 *(1.181-1.575)*	8000	754 *(2474)*	1005 *(3297)*
A78030	39-51 *(1.535-2.008)*	6000	735 *(2411)*	961 *(3153)*
A78040	50-65 *(1.969-2.559)*	5000	785 *(2575)*	1021 *(3350)*
A78050	64-86 *(2.520-3.386)*	3700	744 *(2441)*	1000 *(3281)*
A78060	85-115 *(3.346-4.528)*	2700	721 *(2365)*	975 *(3199)*
	114-144 *(4.488-5.669)*	2200	788 *(2585)*	995 *(3264)*
A78070	114-160 *(4.488-6.299)*	2000	716 *(2349)*	1005 *(3297)*
	159-205 *(6.260-8.071)*	1600	799 *(2621)*	1030 *(3379)*
FB 780 Fine boring heads, with Seco-Capto™ connection				
C3-391.0780-30	39-51 *(1.535-2.008)*	6000	735 *(2411)*	961 *(3153)*
C4-391.0780-40	50-65 *(1.969-2.559)*	5000	785 *(2575)*	1021 *(3350)*
C5-391.0780-50	64-86 *(2.520-3.386)*	3700	744 *(2441)*	1000 *(3281)*
C6-391.0780-60	85-115 *(3.346-4.528)*	2700	721 *(2365)*	975 *(3199)*
	114-144 *(4.488-5.669)*	2200	788 *(2585)*	995 *(3264)*
C8-391.0780-70	114-160 *(4.488-6.299)*	2000	716 *(2349)*	1005 *(3297)*
	159-205 *(6.260-8.071)*	1600	799 *(2621)*	1030 *(3379)*

Note: The maximum speeds are related to the boring head's mechanical design and balancing quality. Speeds inside these limits have to be chosen in regard to the other machining conditions, e.g. workpiece material, cutting edge (insert), tooling length, machine spindle. At speeds from approx. 8000 RPM and above, the basic holders and the extensions/reducers should be fine balanced.

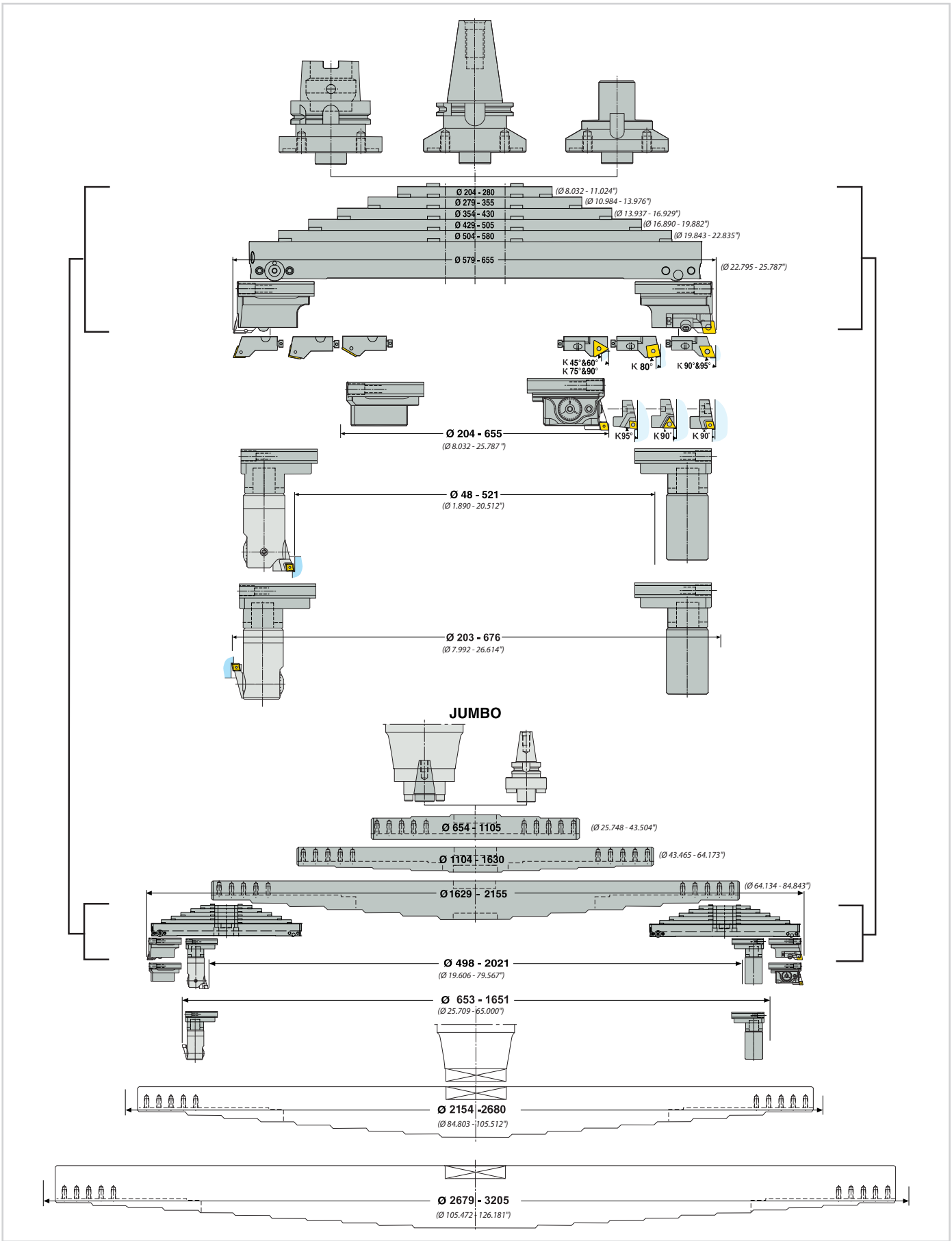


Bridge bars

Seco offers a complete range of Bridge Bars and Jumbo Bridge Bars for large diameter boring and overturning operations.

- Designed for maximum flexibility, Bridge Bars are available in a large range of diameters as standard products, covering a diameter range of 204 - 655 mm (8.03 - 25.78 inch)
- Seco Jumbo Bridge Bars are made of high tensile aluminum with steel interfaces, and cover the 654 - 2155 mm (25.75 - 84.843 inch) diameter range

Overview


Ø 204 - 280
Ø 279 - 355
Ø 354 - 430
Ø 429 - 505
Ø 504 - 580
Ø 579 - 655
(Ø 8.032 - 11.024")
(Ø 10.984 - 13.976")
(Ø 13.937 - 16.929")
(Ø 16.890 - 19.882")
(Ø 19.843 - 22.835")
(Ø 22.795 - 25.787")
K 45°&60°
K 75°&90°
K 80°
K 90°&95°
K95°
K90°
K 90°
Ø 204 - 655
(Ø 8.032 - 25.787 ")
Ø 48 - 521
(Ø 1.890 - 20.512")
Ø 203 - 676
(Ø 7.992 - 26.614")
JUMBO
Ø 654 - 1105
(Ø 25.748 - 43.504")
Ø 1104 - 1630
(Ø 43.465 - 64.173")
Ø1629 - 2155
(Ø 64.134 - 84.843")
Ø 498 - 2021
(Ø 19.606 - 79.567")
Ø 653 - 1651
(Ø 25.709 - 65.000")
Ø 2154 -2680
(Ø 84.803 - 105.512")
Ø 2679 - 3205
(Ø 105.472 - 126.181")

Features

5 Bridge bars for boring

Ø 654–3205 mm *(Ø 25.748–126.181")*, **also OD-overturning Ø 498–3071 mm** *(Ø 19.606–120.906")* **and back-boring Ø 653–3226 mm** *(Ø 25.709–127.008")*.

Jumbo Bridge bars made of high tensile aluminium with spindle steel interfaces, are designed to hold two classic Bridge bars in several positions.

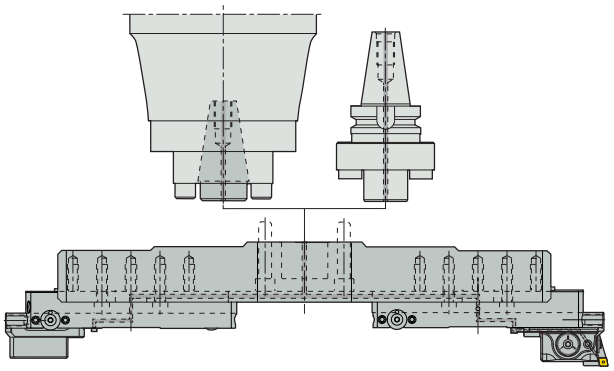
Sizes A731S001, 002, 003 are delivered with 4 locking screws to be fitted onto a milling cutter holder, flange mounting Type 569, spigot Ø 60 mm *(Ø 2.362")* - or to be fitted directly onto the machine spindle (DIN 2079/50 workpiece side), using the centering spigot shown in accessories. Jumbo Bridge bars are delivered with two lifting rings.

Sizes A731S004-...* and A731S005-...* are available on request, with standard or specific spindle fitting possibilities, according to the machine:

Capacity ∅ mm *(inch)*	Designation	Dimensions in mm (*inch*), see drawing on Product page							
		DCB	LF	HTB	LB	CBDP	WB	DCON	Weight
2154-2680 *(84.803-105.512")*	A731S004-...*	*	70 *(2.75591")*	300 *(11.811")*	160 *(6.29921")*	*	2140 *(84.25197")*	*	*
2679-3205 *(105.472-126.181")*	A731S005-...*	*	110 *(4.33071")*	400 *(15.748")*	200 *(7.87402")*	*	2665 *(104.9213")*	*	*

* Designation code and dimensions will be completed related to the spindle fitting type.

Main features Jumbo Bridge bars



The Jumbo Bridge bars 'S' feature through coolant channels to feed the coolant from the holder or the flange mount towards the two standard Bridge bars, and have a complementary locking screw of the standard Bridge bars.

Note! These new Jumbo Bridge bars 'S' can hold all classic Bridge bars (the new 'S', or the previous ones): when using the previous ones, the complementary clamping screw cannot be used. Through coolant to the cutting edge is only possible when using 'S' Jumbo Bridge bars and 'S' standard Bridge bars. In order to keep balance, do not mix new and previous standard Bridge Bars and blocks on the same Jumbo Bridge bar.

Features

6 Bridge bars for boring

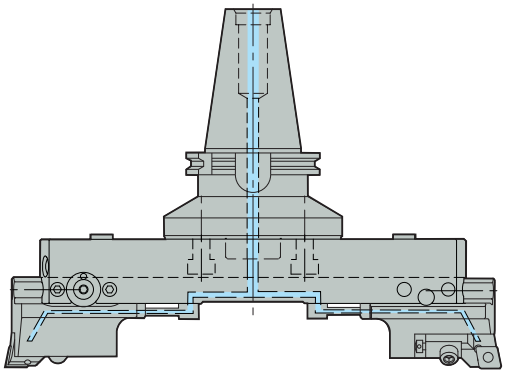
Ø 204–655 mm *(Ø 8.032–25.787")* **also OD-overturning Ø 48–521 mm** *Ø 1.890–20.512")* **and back-boring.**

Bridge bars have a machine side connection Ø 130 mm *(Ø 5.118")* for direct fitting onto arbors for Bridge bars (SA and HSK) or onto the Graflex® adapter.

When using the Graflex® adapter, extensions are possible as well as spindle flange clamping, see Graflex® modular system. Angular position of the Bridge bar every 30° onto the arbors or Graflex® adapter, for optimized magazine storage.

Bridge bars can hold rough, fine, counterweight or Graflex® boring blocks. The boring blocks are locked onto the Bridge bar by means of two cylinders actuated by three clamping screws: One of the clamping screws has a stop disc, which limits the block's sliding stroke inside its setting capacity and stops the block from sliding out of the Bridge bar. Precise and step free block sliding for diameter adjustment 38 mm *(Ø 1.496")* stroke on radius, using the block's adjusting screw which is linked to the retaining pin of the Bridge bar.

Coolant through the Bridge bars and the boring blocks, towards the cutting edges.



For the Bridge bar and Jumbo Bridge bar selection, related to the boring, OD-overturning or back-boring diameter to be produced, see Bridge bar selection charts, page(s) 665-670.

Max RPM, see page(s) 676.

Note! These Bridge bars (Part No. A731S 0_0) cannot hold previous types of boring blocks (Part No. A731 _00 -without S-).

Features

Rough boring block

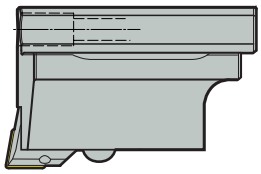
A large twin rough boring head requires two rough boring blocks, each equipped with a cartridge. Rough boring block through coolant, towards the cutting edge.

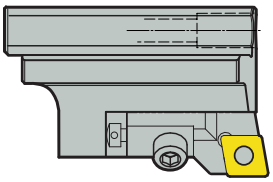
When using the Graflex® adapter, extensions are possible as well as spindle flange clamping, see Graflex® modular system.

Angular position of the Bridge bar every 30° onto the arbors or Graflex® adapter, for optimized magazine storage.

Bridge bars can hold rough, fine, counterweight or Graflex® boring blocks.

Cartridges





A large range of cartridges is available:

- Cartridges with 90° lead angle, recommended in most of the boring applications for a lower power consumption.
- Cartridges with 80° lead angle, recommended for through hole boring (and chamfering), particularly in cast iron to avoid exit failure. The power consumption is higher.
- Other cartridges with ISO5611/h1 = 16 mm *(0.629")* fitting interface are suitable.

NOTE! The two cartridges can be set on the same diameter (symmetrical boring) or in a staggered position (staggered boring). A cartridge raising corner shim is available as an accessory (Part No. 18LS0316). Assembling and setting procedures, see page(s) 665-670.

Fine boring block and counterweight block

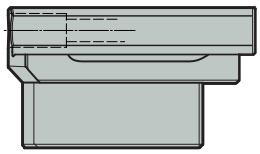
A large fine boring head requires one fine boring block equipped with an insert holder and one counterweight block.

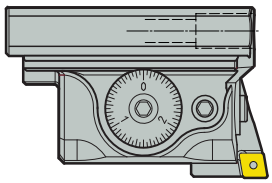
Diameter setting mechanism of the fine boring block with a micrometric setting screw (1 increment = 5 µm *(197 µin)* on the diameter).
The setting system is protected and lubricated for life.

The precision of the mechanism guarantees repeatable accuracy.
The diameter adjusting screw is located on the side of the block to offer easy access.

Fine boring block through coolant, towards the cutting edge.

Suitable fine boring insert holders A72460, A72560 or A72660





Suitable fine boring insert holders A72460, A72560 or A72660 have to be ordered separately: they are the same as on radial type fine boring heads, see page(s) 654, 655.

Assembling and setting procedures, see page(s) 665-670.

Features

Graflex® boring blocks, for OD-overturning or back-boring

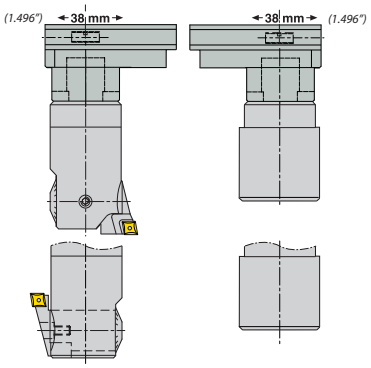
This block has a female Graflex® front connection size G5.

Any Graflex® boring head, special tool or standard Graflex® module size G5 can be mounted onto the Bridge bars, e.g. the drawing showing set-ups for OD-overturning or back-boring using two Graflex® boring blocks fitted with a Graflex® fine boring head A78050 with insert holder (e.g. A72550 for OD-turning) a OD-turning insert holder
(e.g. A789X30CC0690) and a Graflex® counterweight (e.g. Part No. BM050W78050).

Two positions of the Graflex® module are possible on the block, as it has 2x2 ball nose screw positions, and two tenon notches placed at 180°. Block and boring head through coolant, towards the cutting edge.

Assembling and setting procedures, see page(s) 665-670.

Graflex® boring blocks, for OD-overturning or back-boring



These boring blocks (Part No. A731S 400, A731S 500, A731S 600, A731S 40128) can also be fitted onto the previous type of Bridge bars (Part No. A731 0_0 -without S-).

Assembling and max. RPM instructions of the previous type of Bridge bars being valid.

In order to keep balance, do not mix new and previous blocks on the same Bridge bar.

NOTE! These new boring blocks can also be fitted onto the previous type of Bridge bars

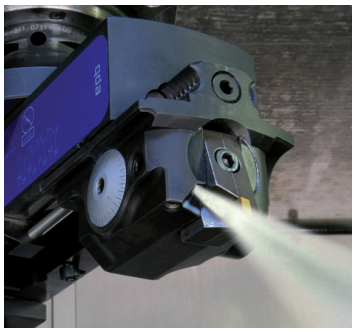
Advice for 'through coolant' accessories selection

Roughing (Bridge bar with 2 rough boring blocks):

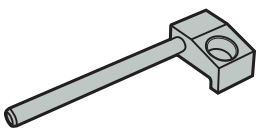
For directable coolant supply onto both cutting edges, use 2 coolant pipe connectors (Part No. AU731S00700), to be mounted onto the Bridge Bar, and 2 directable coolant supply nozzle sets (Part No. AU731S40700), to be mounted onto each rough boring block. For normal through coolant from the block's channel, use 2 coolant pipe connectors (Part No. AU731S00700), to be mounted onto the Bridge Bar.

Fine boring (Bridge bar with 1 fine boring block & 1 counterweight):

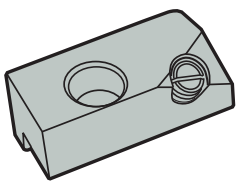
Use 1 coolant pipe connector (Part No. AU731S00700), to be mounted onto the Bridge Bar in order to connect the fine boring block. As the fine boring block originally features a coolant supply nozzles, directable coolant supply is directly obtained.
OD-overturning (e.g. Bridge bar with 2 Graflex® boring blocks equipped with one fine boring head and one counterweight): Use 1 coolant pipe connector (Part No. AU731S00700), to be mounted onto the Bridge bar in order to connect the Graflex® boring block with fitted boring head. Graflex® boring block's central coolant channel will feed coolant into the fitted boring head



Coolant pipe connector
(Part No. AU731S00700)



Directive coolant supply nozzle set
(Part No. AU731S40700)



NOTE! Allowable coolant pressure = 70 bars maximum.

Building Bridge bar boring assemblies

A rough boring assembly up to Ø 655 mm requires *(Ø 25.787")*: 1 Bridge bar (A731S 0_0) + 2 rough boring blocks (2x A731S 400) with 2 cartridges*.

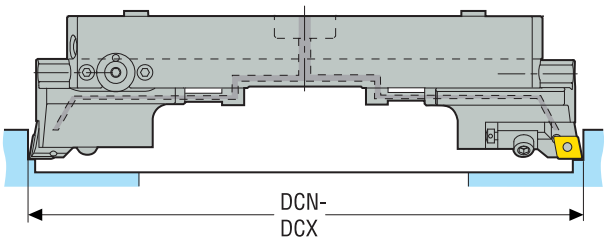


Fig. 1

A fine boring assembly up to Ø 655 mm requires *(Ø 25.787")*: 1 Bridge bar (A731S 0_0) + 1 fine boring block (A731S 500) with 1 fine boring insert holder size 60 + 1 counterweight block (A731S 600).**

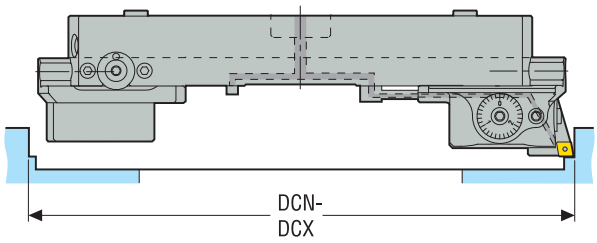


Fig. 2

A rough boring assembly up to Ø 3205 mm *(Ø 126.181")* requires: 1 Jumbo Bridge bar (A731S 00_) + 2 Bridge bars (A731S 0_0) + 2 rough boring blocks (2x A731S 400) with 2 cartridges*.

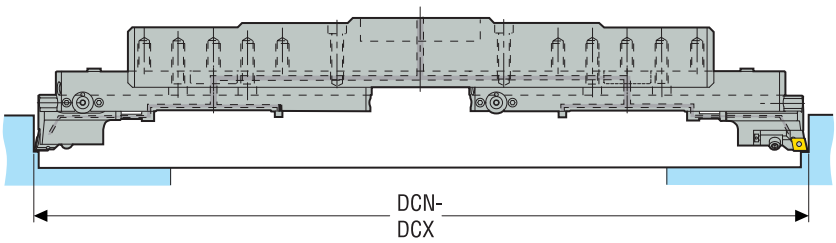


Fig. 3

A fine boring assembly up to Ø 3205 mm *(Ø 126.181")* requires: 1 Jumbo Bridge bar (A731S 00_) + 2 Bridge bars (A731S 0_0) + 1 fine boring block (A731S 500) with 1 fine boring insert holder size 60 + 1 counterweight block (A731S 600).**

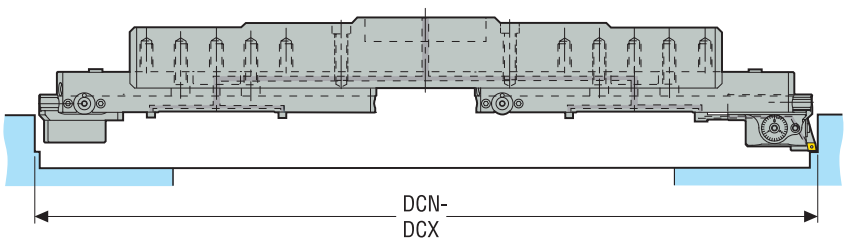


Fig. 4

* Cartridges to be ordered separately.
** Insert holders to be ordered separately.

Building Bridge bar boring assemblies:
Bridge bar(s) selection chart to build a required BORING diameter

For boring DCN-DCX ∅ mm	*For boring DCN-DCX ∅ inch*	Jumbo Bridge bar	Classic Bridge bar(s)	For rough boring		For fine boring	
					Fig.		Fig.
204-280	*8.031-11.024*	–	A731S 010	2x A731S 400 + 2 cartridges	1	A731S 500 + 1 insert holder + A731S 600	2
279-355	*10.984-13.976*	–	A731S 020				
354-430	*13.937-16.929*	–	A731S 030				
429-505	*16.890-19.882*	–	A731S 040				
504-580	*(19.843-22.835*	–	A731S 050				
579-655	*22.795-25.787*	–	A731S 060				
654-805	*25.748-31.693*	A731S 001	2x A731S 010	2x A731S 400 + 2 cartridges	3	A731S 500 + 1 insert holder + A731S 600	4
654-880	*25.748-34.646*		2x A731S 020				
804-955	*31.654-37.598*		2x A731S 030				
879-1030	*34.606-40.551*		2x A731S 040				
1029-1105	*40.512-43.504*		2x A731S 050				
1104-1255	*43.465-49.409*	A731S 002	2x A731S 010	2x A731S 400 + 2 cartridges	3	A731S 500 + 1 insert holder + A731S 600	4
1104-1330	*43.465-52.362*		2x A731S 020				
1179-1405	*46.417-55.315*		2x A731S 030				
1254-1480	*49.370-58.268*		2x A731S 040				
1329-1555	*52.323-61.220*		2x A731S 050				
1404-1630	*55.276-64.173*		2x A731S 060				
1629-1780	*64.134-70.079*	A731S 003	2x A731S 010	2x A731S 400 + 2 cartridges	3	A731S 500 + 1 insert holder + A731S 600	4
1629-1855	*64.134-73.031*		2x A731S 020				
1704-1930	*67.087-75.984*		2x A731S 030				
1779-2005	*70.039-78.937*		2x A731S 040				
1854-2080	*72.992-81.890*		2x A731S 050				
1929-2155	*75.945-84.843*		2x A731S 060				
2154-2305	*84.803-90.748*	A731S 004	2x A731S 010	2x A731S 400 + 2 cartridges	3	A731S 500 + 1 insert holder + A731S 600	4
2154-2380	*84.803-93.701*		2x A731S 020				
2229-2455	*87.756-96.654*		2x A731S 030				
2304-2530	*90.709-99.606*		2x A731S 040				
2379-2605	*93.661-105.512*		2x A731S 050				
2454-2680	*96.614-105.512*		2x A731S 060				
2679-2830	*105.472-111.417*	A731S 005	2x A731S 010	2x A731S 400 + 2 cartridges	3	A731S 500 + 1 insert holder + A731S 600	4
2679-2905	*105.472-114.370*		2x A731S 020				
2754-2980	*108.425-117.323*		2x A731S 030				
2829-3055	*111.378-120.276*		2x A731S 040				
2904-3130	*114.331-123.228*		2x A731S 050				
2979-3205	*117.283-126.181*		2x A731S 060				

Building Bridge bar OD-overturning assemblies:

A fine OD-overturning assembly up to Ø 521 mm *(Ø 20.512")* requires: 1 Bridge bar (A731S 0_0) + 2 Graflex® blocks (2x A731S 40128) + e.g. 1 fine boring head (A780 50) with 1 fine boring insert holder size 60* + 1 counterweight (BM050W78050).

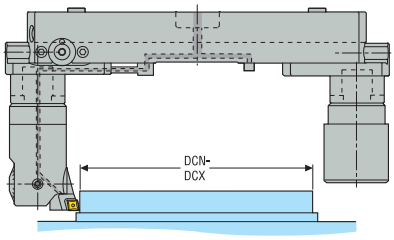


Fig. 1

A rough boring assembly up to Ø 3205 mm *(Ø 120.906")* requires: 1 Jumbo Bridge bar (A731S 00_) + 2 Bridge bars (A731S 0_0) + 2 rough boring blocks (2x A731S 400) with 2 cartridges*.

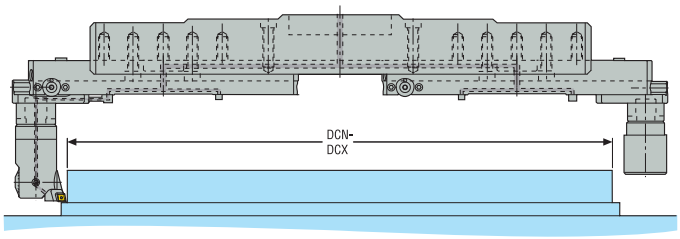


Fig. 2

* Insert holders to be ordered separately.

Building Bridge bar OD-overturning assemblies: Bridge bar(s) selection chart to build a required OD-overturning diameter

For OD-overturning DCN-DCX ∅ mm	*For OD-overturning* DCN-DCX *∅ inch*	Jumbo Bridge bar	Classic Bridge bar(s)	For fine OD-overturning	Fig.
48-146	*1.890-5.748*	–	A731S 010	2x A731S 40128 + 1x A780 50 + 1 insert holder + 1x BM050W78050	1
123-221	*4.843-8.701*	–	A731S 020		
198-296	*7.795-11.654*	–	A731S 030		
273-371	*10.748-14.606*	–	A731S 040		
348-446	*13.701-17.559*	–	A731S 050		
423-521	*16.654-20.512*	–	A731S 060		
498-671	*19.606-26.417*	A731S 001	2x A731S 010	2x A731S 40128 + 1x A780 50 + 1 insert holder + 1x BM050W78050	2
498-746	*19.606-29.370*		2x A731S 020		
648-821	*25.512-32.323*		2x A731S 030		
723-896	*28.465-35.276*		2x A731S 040		
873-971	*34.370-38.228*		2x A731S 050		
948-1121	*37.323-44.134*	A731S 002	2x A731S 010	2x A731S 40128 + 1x A780 50 + 1 insert holder + 1x BM050W78050	2
948-1196	*37.323-47.087*		2x A731S 020		
1098-1271	*43.228-50.039*		2x A731S 030		
1173-1346	*46.181-52.992*		2x A731S 040		
1323-1421	*52.087-55.945*		2x A731S 050		
1398-1496	*55.039-58.898*		2x A731S 060		
1473-1646	*57.992-64.803*	A731S 003	2x A731S 010	2x A731S 40128 + 1x A780 50 + 1 insert holder + 1x BM050W78050	2
1473-1721	*57.992-67.756*		2x A731S 020		
1623-1796	*63.898-70.709*		2x A731S 030		
1698-1871	*66.850-73.661*		2x A731S 040		
1848-1946	*72.756-76.614*		2x A731S 050		
1923-2021	*75.709-79.567*		2x A731S 060		
1998-2171	*78.661-85.472*	A731S 004	2x A731S 010	2x A731S 40128 + 1x A780 50 + 1 insert holder + 1x BM050W78050	2
1998-2246	*78.661-88.425*		2x A731S 020		
2148-2321	*84.567-91.378*		2x A731S 030		
2223-2396	*87.520-94.331*		2x A731S 040		
2373-2471	*93.425-97.283*		2x A731S 050		
2448-2546	*96.378-100.236*		2x A731S 060		
2523-2696	*99.331-106.142*	A731S 005	2x A731S 010	2x A731S 40128 + 1x A780 50 + 1 insert holder + 1x BM050W78050	2
2523-2771	*99.331-109.094*		2x A731S 020		
2973-2846	*117.047-112.047*		2x A731S 030		
2748-2921	*108.189-115.000*		2x A731S 040		
2898-2996	*114.094-117.953*		2x A731S 050		
2973-3071	*117.047-120.906*		2x A731S 060		

Building Bridge bar back-boring assemblies:

A fine back-boring assembly up to Ø 676 mm *(Ø 26.614")* requires: 1 Bridge bar (A731S 0_0) + 2 Graflex® blocks (2x A731S 40128) + e.g. 1 fine boring head (A780 50) with 1 back boring insert holder size 50* + 1 counterweight (BM050W78050).

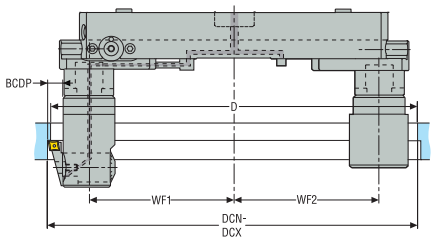


Fig. 1

A fine back-boring assembly up to Ø 3226 mm (Ø 127.008 “) requires: 1 Jumbo Bridge bar (A731S 00_) + 2 Bridge bars (A731S 0_0) + e.g. 1 fine boring head (A780 50) with 1 back boring insert holder size 50* + 1 counterweight (BM050W78050).

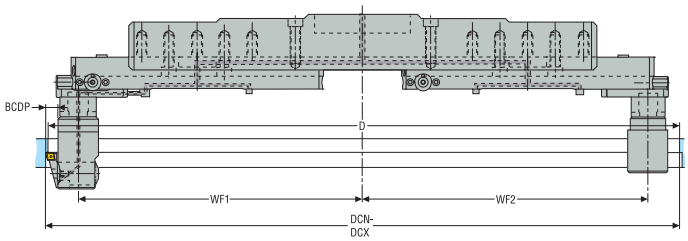


Fig. 2

* Insert holders to be ordered separately.

Determination of minimum access diameter (D min)

Balancing condition: WF1 = WF2

D min = DC + 5- BCDP

BCDP = distance between insert’s cutting edge and fitted boring head’s A78050 body (7,5 < BCDP < 18,5).

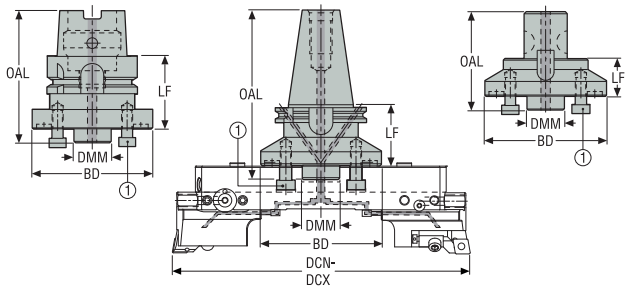
The two extreme cases:

Boring head A78050 set to capacity mini:	D min = DCN - 2,5
Boring head A78050 set to capacity maxi:	D min = DCX -13,5

Building Bridge bar back-boring assemblies: Bridge bar(s) selection chart to build a required BACK-BORING diameter

For back boring DCN-DCX ∅ mm	*For back boring DCN-DCX ∅ inch*	Jumbo Bridge bar	Classic Bridge bar(s)	For fine back-boring	Fig.
203-301	*7.992-11.850*	–	A731S 010	2x A731S 40128 + 1x A780 50 + 1 back boring insert holder + 1x BM050W78050	1
278-376	*10.945-14.803*	–	A731S 020		
353-451	*13.898-17.756*	–	A731S 030		
428-526	*16.850-20.709*	–	A731S 040		
503-601	*19.803-23.661*	–	A731S 050		
578-676	*22.756-26.614*	–	A731S 060		
653-826	*25.709-32.520*	A731S 001	2x A731S 010	2x A731S 40128 + 1x A780 50 + 1 back boring insert holder + 1x BM050W78050	2
653-901	*25.709-35.472*		2x A731S 020		
803-976	*31.614-38.425*		2x A731S 030		
878-1051	*34.567-41.378*		2x A731S 040		
1028-1126	*40.472-44.331*		2x A731S 050		
1103-1276	*43.425-50.236*	A731S 002	2x A731S 010	2x A731S 40128 + 1x A780 50 + 1 back boring insert holder + 1x BM050W78050	2
1103-1351	*43.425-53.189*		2x A731S 020		
1253-1426	*49.331-56.142*		2x A731S 030		
1328-1501	*52.283-59.094*		2x A731S 040		
1478-1576	*58.189-62.047*		2x A731S 050		
1553-1651	*61.142-65.000*		2x A731S 060		
1628-1801	*64.094-70.906*	A731S 003	2x A731S 010	2x A731S 40128 + 1x A780 50 + 1 back boring insert holder + 1x BM050W78050	2
1628-1876	*64.094-73.858*		2x A731S 020		
1778-1951	*70.000-76.811*		2x A731S 030		
1853-2026	*72.953-79.764*		2x A731S 040		
2003-2101	*78.858-82.717*		2x A731S 050		
2078-2176	*81.811-85.669*		2x A731S 060		
2153-2326	*84.764-91.575*	A731S 004	2x A731S 010	2x A731S 40128 + 1x A780 50 + 1 back boring insert holder + 1x BM050W78050	2
2153-2401	*84.764-94.528*		2x A731S 020		
2303-2476	*90.669-97.480*		2x A731S 030		
2378-2551	*93.622-100.433*		2x A731S 040		
2528-2626	*99.528-103.386*		2x A731S 050		
2603-2701	*102.480-106.339*		2x A731S 060		
2678-2851	*105.433-112.244*	A731S 005	2x A731S 010	2x A731S 40128 + 1x A780 50 + 1 back boring insert holder + 1x BM050W78050	2
2678-2926	*105.433-115.197*		2x A731S 020		
2828-3001	*111.339-118.150*		2x A731S 030		
2903-3076	*114.291-121.102*		2x A731S 040		
3053-3151	*120.197-124.055*		2x A731S 050		
3128-3226	*123.150-127.008*		2x A731S 060		

ABB 731 200 – Holders and adapter for Bridge bars



1. Adjusting screw

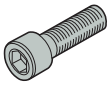


- HSK and SA holders for short assemblies
- Graflex® adapter for extended assemblies
- Angular position of the Bridge bar every 30°
- Delivered with a spigot sealing o'ring ∅ 58×3 mm

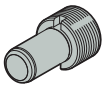
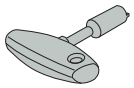
Designation	Item number	Machine side connection	Size	Workpiece side Capacity DCN-DCX Ø		OAL	LF	BD	DMM	Weight
				mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*
E3471731200	02503392	DIN 69871-ADB	DIN50 ADB	204,0 *8.031*	655,0 *25.787*	166,75 *6.565*	65,0 *2.559*	130,0 *5.118*	40,0 *1.575*	5,9 *13.010*
E3416731200	02503393	BT JIS B 6339-ADB	BT50 ADB	204,0 *8.031*	655,0 *25.787*	166,75 *6.565*	65,0 *2.559*	130,0 *5.118*	40,0 *1.575*	5,64 *12.430*
E9306731200	02417268	ISO 12164-1/ DIN69893-A	HSK-A100	204,0 *8.031*	655,0 *25.787*	115,0 *4.528*	65,0 *2.559*	130,0 *5.118*	40,0 *1.575*	5,0 *11.020*
A731200	00056616	GRAFLEX	G7	204,0 *8.031*	655,0 *25.787*	90,0 *3.543*	40,0 *1.575*	130,0 *5.118*	40,0 *1.575*	4,0 *8.820*

Tightening torque 80 Nm. For application details, refer to the operating instructions supplied with the Bridge bars and Boring blocks.

Spare Parts, included in delivery

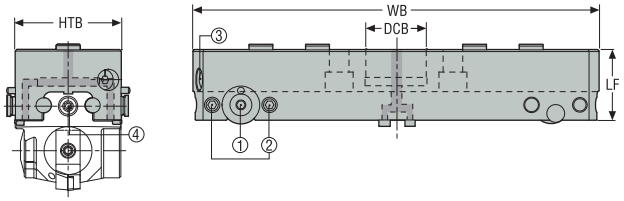
For	Assembly screw	Key	Sealing Screws	Tenon
				
E3471731200	950D1230	10SMS795	950A0606	–
E3416731200	950D1230	10SMS795	950A0606	–
E9306731200	950D1230	10SMS795	–	–
A731200	950D1230	10SMS795	–	90M7

Accessories

For	Coolant tube	Sealing plugs	Spanner
			
E3471731200	–	–	–
E3416731200	–	–	–
E9306731200	20E9306	02E9306	03E9306
A731200	–	–	–

BB 731S0x0 – Bridge bars





- Coolant through the Bridge bar

1. Locking screw with stop disc
2. Locking screw
3. Retaining pin
4. Diameter setting screw

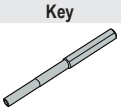
Designation	Item number	Workpiece side Capacity DCN-DCX Ø		HTB	WB	DCB	LF	Weight
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*
A731S010	02753664	204,0 *8.031*	280,0 *11.024*	70,0 *2.756*	195,0 *7.677*	40,0 *1.575*	47,0 *1.850*	3,6 *7.940*
A731S020	02753668	279,0 *10.984*	355,0 *13.976*	70,0 *2.756*	269,0 *10.591*	40,0 *1.575*	47,0 *1.850*	5,0 *11.020*
A731S030	02753670	354,0 *13.937*	430,0 *16.929*	70,0 *2.756*	344,0 *13.543*	40,0 *1.575*	47,0 *1.850*	6,5 *14.330*
A731S040	02753673	429,0 *16.890*	505,0 *19.882*	70,0 *2.756*	419,0 *16.496*	40,0 *1.575*	47,0 *1.850*	7,9 *17.420*
A731S050	02753675	504,0 *19.843*	580,0 *22.835*	70,0 *2.756*	494,0 *19.449*	40,0 *1.575*	47,0 *1.850*	10,5 *23.150*
A731S060	02753677	579,0 *22.795*	655,0 *25.787*	70,0 *2.756*	569,0 *22.402*	40,0 *1.575*	47,0 *1.850*	12,3 *27.120*

Tightening torque 20 Nm of the locking screws (2) and locking screw with stop disc (1).
Before diameter setting, make sure retaining pin is engaged. For application details, refer to the operating instructions supplied with the Bridge bars and boring blocks.
Max RPM, see page(s) 676 *For OD-overturning capacities, see Guide page(s) 667-668
For larger diameters, see Jumbo Bridge bars on page(s) 673

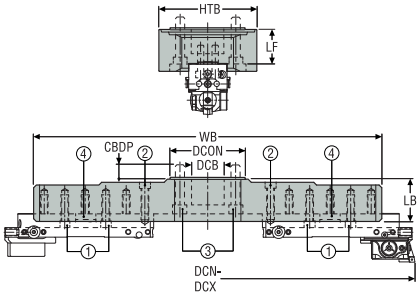
Spare Parts, included in delivery

For	Locking screw
	
A731S010-60	19A71060

Accessories

For	Key	Key (T-handle)	Locking key
			
A731S010-60	H6B-H5.0L	DOUBLE-T	03HL05

JBB 731S00 – Jumbo Bridge bars



1. Assembly screw
2. Locking screw
3. Fixing screw
4. Sealing plug

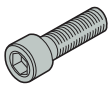
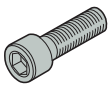
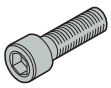


- Jumbo Bridge bars are designed to hold two classic Bridge bars in several positions
- Through coolant Jumbo Bridge bars

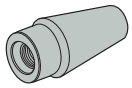
Designation	Item number	Workpiece side Capacity DCN-DCX Ø		HTB	LF	WB	DCON	DCB	CBDP	LB	Weight	**
		mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*	
A731S001	02828506	654,0 *25.748*	1105,0 *43.504*	180,0 *7.087*	63,0 *2.480*	640,0 *25.197*	135,0 *5.315*	60,0 *2.362*	24,0 *0.945*	77,0 *3.031*	20,25 *44.640*	–
A731S002	02828516	1104,0 *43.465*	1630,0 *64.173*	200,0 *7.874*	50,0 *1.969*	1090,0 *42.913*	135,0 *5.315*	60,0 *2.362*	24,0 *0.945*	80,0 *3.150*	34,5 *76.060*	–
A731S003	02904383	1629,0 *64.134*	2155,0 *84.843*	200,0 *7.874*	50,0 *1.969*	1615,0 *63.583*	135,0 *5.315*	60,0 *2.362*	24,0 *0.945*	80,0 *3.150*	67,0 *147.710*	**

Boring, OD-overturning and back-boring capacities for Jumbo and Bridge bars combinations, see Guide page(s) 665-670
**Larger sizes A731S004-... (∅ 2154-2680 mm) and A731S005-... (∅ 2679-3205 mm) available on request, see Guide page(s) 661

Spare Parts, included in delivery

For DCN-DCX	Assembly screw	Fixing screw	Lever screw	Locking screw	O-ring	Sealing plugs
						
654-1105	950D1240	950D1670	90AS03	950D1250	90JT02	AU731S01100
1104-1630	950D1240	950D1680	90AS03	950D1250	90JT02	AU731S01100
1629-2155	950D1240	950D16120	90AS03	950D1250	90JT02	AU731S01100

Accessories

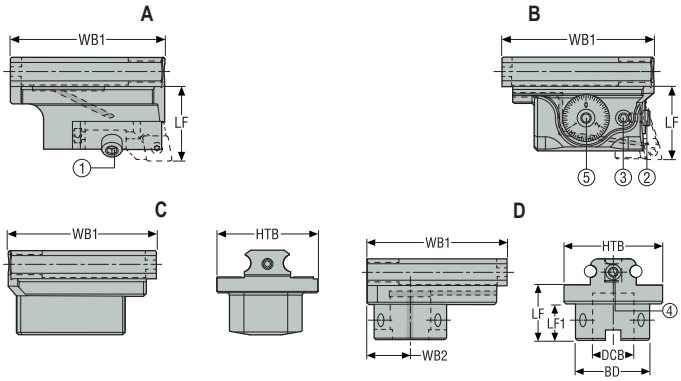
Centering spigot

E447153960
E447153960
E447153960

Set of O-ring seals contains 6 O-ring seals ∅ 6 mm (0.236") for the coolant channels and 1 O-ring seal ∅ 60 mm (2.362") for the holding bore of Jumbo Bridge bars.

BBB 731S0xx – for boring blocks and Jumbo bridge bars



- For fitting onto Bridge bars
- Coolant through the rough, fine and Graflex boring blocks



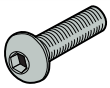
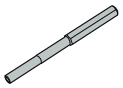
1. Assembly screw
5. Micrometric adjusting screw
3. Locking screw

2. Assembly screw
4. Diameter setting screw

Designation	Item number	Type of boring block	Workpiece side Capacity DCN-DCX Ø		DCB	BD	WB1	WB2	LF	LF1	HTB	Weight	Design
			mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*	
A731S400	02753679	Rough boring block*	204,0 *8.031*	2155,0 *84.843*	–	–	97,0 *3.819*	–	47,0 *1.850*	–	70,0 *2.756*	1,4 *3.090*	A
A731S500	02753680	Fine boring block**	204,0 *8.031*	2155,0 *84.843*	–	–	97,0 *3.819*	–	47,0 *1.850*	–	70,0 *2.756*	1,5 *3.310*	B
A731S600	02753682	Counterweight	204,0 *8.031*	2155,0 *84.843*	–	–	97,0 *3.819*	–	–	–	70,0 *2.756*	1,6 *3.530*	C
A731S40128	02753687	Graflex size G5***	48,0 *1.890*	2021,0 *79.567*	28,0 *1.102*	50,0 *1.969*	97,0 *3.819*	30,0 *1.181*	36,0 *1.417*	25,0 *0.984*	70,0 *2.756*	1,0 *2.200*	D

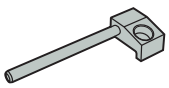
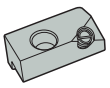
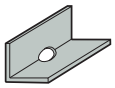
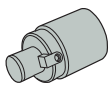
* Cartridges to be ordered separately, see page(s) 675
** Fine boring insert holders size 60 to be ordered separately, see page 654, 655
*** When using boring head A78050, use the counterweight mass BM050W78050, see Accessories below.

Spare Parts, included in delivery

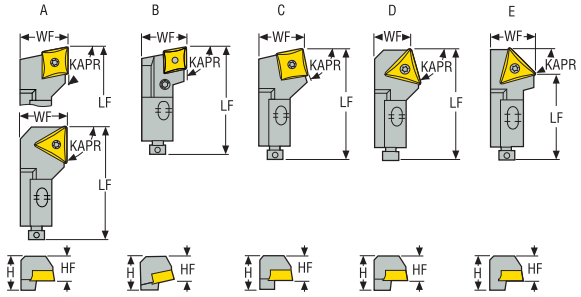
For	Assembly screw	Barrel locking screw	Key	Key (T-handle)	Locking key	O-ring
						
A731S400	950CB0830	–	H6B-H5.0L	DOUBLE-T	–	90JT01
A731S500	950D0612	950L1016	H6B-H5.0L	DOUBLE-T	–	90JT01
A731S600	–	–	H6B-H5.0L	DOUBLE-T	–	–
A731S40128	90F5	–	H6B-H5.0L	DOUBLE-T	03H05	90JT01

Set of O-ring seals contains 6 O-ring seals ∅ 6 mm (0.236") for the coolant channels and 1 O-ring seal ∅ 60 mm (2.362") for the holding bore of Jumbo Bridge bars.

Accessories

For	Connection pipe	Coolant kit	Corner shim	Counterweight
				
A731S400	AU731S00700	AU731S40700	18LS0316	–
A731S500	AU731S00700	–	–	–
A731S600	–	–	–	–
A731S40128	AU731S00700	–	–	BM050W78050

Cartridges, for Bridge bars rough boring block A731S400





- For fitting onto the rough boring block

Designation	Item number	KAPR°	LF	WF	H	HF	Weight	Suitable insert size	Design
			mm *Inch*	mm *Inch*	mm *Inch*	mm *Inch*	kg *lbs*		
SCGCL16CA-16	00039871	90	55,0 *2.165*	25,0 *0.984*	20,0 *0.787*	16,0 *0.630*	0,1 *0.220*	CC..16..	A
STGCL16CA-16	00009197	90	63,0 *2.480*	24,96 *0.983*	25,0 *0.984*	16,0 *0.630*	0,2 *0.440*	TC..16T3..	A
STGCL16CA-22	02600181	90	55,0 *2.165*	25,0 *0.984*	20,0 *0.787*	16,0 *0.630*	0,2 *0.440*	TC..2204..	A
PCGNL16CA-12	02484356	90	63,0 *2.480*	25,0 *0.984*	25,0 *0.984*	16,0 *0.630*	0,2 *0.440*	CN..12..	B
SSRCL16CA-15	00039872	75	63,0 *2.480*	25,0 *0.984*	20,0 *0.787*	16,0 *0.630*	0,2 *0.440*	SC..15..	C
STRCL16CA-16	00008750	75	63,0 *2.480*	24,96 *0.983*	25,0 *0.984*	16,0 *0.630*	0,2 *0.440*	TC..16T3..	D
STRCL16CA-22	02585320	75	63,0 *2.480*	25,0 *0.984*	20,0 *0.787*	16,0 *0.630*	0,2 *0.440*	TC..2204..	D
STTCL16CA-16	00009194	60	63,0 *2.480*	14,96 *0.589*	25,0 *0.984*	16,0 *0.630*	0,2 *0.440*	TC..16T3..	D
STSCL16CA-16	00009193	45	53,0 *2.087*	24,96 *0.983*	25,0 *0.984*	16,0 *0.630*	0,2 *0.440*	TC..16T3..	E

Spare parts for cartridges; see catalog Turning

Recommended machining conditions

Best performances are obtained with through coolant (higher machining data, better surface finish, better chip evacuation).

Rough boring depends on the priorities: higher feed or larger chip removal use symmetrical setting of the cartridges (most common method, double feed compared to staggered setting), or staggered setting (double depth of cut).
In fine boring in steel, with good conditions, we recommend to use Cermet inserts, for high speeds and long life.

For detailed user instructions, please refer to the operating instructions supplied as part of the delivery content of the boring heads and with the Steadyline® bars. These operating instructions can also be downloaded from www.secotools.com.

Troubleshooting

Please refer to troubleshooting advice, in rough boring chapter page 598, or fine boring chapter page 643.

Maximum speeds for Bridge bars

Due to the large sizes of Bridge bar boring heads, unsuitable RPM programming could cause unpredictable damage.
Below max. RPM are for present Bridge bar boring assemblies using present Bridge bar types (Part No. A731S 0_0) rough boring, fine boring and counterweight boring blocks (Part No. A731S _00) and Jumbo Bridge bar (Part No. A731 00_). For other assemblies, please contact your local Seco representative.

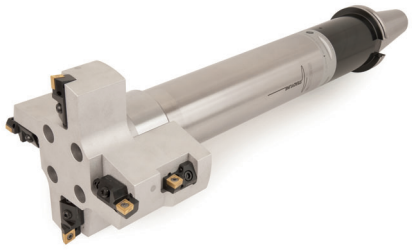
NOTE! when using present boring blocks (Part No. A731S 400, A731S 500, A731S 600, A731S 40128) onto previous type Bridge bars (Part No.A731 0_0 -without S-), the max RPM to consider are the ones recommended for the previous type Bridge Bars. To maintain balance,do not mix new and previous blocks on the same Bridge bar.

Head based on	Capacity ∅ mm *(inch)*	Max. RPM	Implied max cutting speed v_c at min. Cap. m/min *(sf/min)*	Implied max cutting speed v_c at max. Cap. m/min *(sf/min)*
Bridge bar boring heads (with two boring blocks set symmetrically)				
A731S010	204-280 *(8.0315-11.0236")*	1600	1025 *(3363)*	1407 *(4616)*
A731S020	279-355 *(10.9843-13.9764")*	1150	1007 *(3304)*	1282 *(4206)*
A731S030	354-430 *(13.937-16.9291")*	900	1000 *(3281)*	1215 *(3986)*
A731S040	429-505 *(16.8898-19.8819")*	750	1010 *(3314)*	1189 *(3901)*
A731S050	504-580 *(19.8425-22.8346")*	650	1029 *(3376)*	1184 *(3885)*
A731S060	579-655 *(22.7953-25.7874")*	550	1000 *(3281)*	1131 *(3711)*
Jumbo Bridge bars (with two identical Bridge bars and boring blocks set symmetrically)				
A731S001	654-1105 *(25.748-43.50394")*	170	349 *(1145)*	590 *(1936)*
A731S002	1104-1630 *(43.46457-64.17323")*	100	346 *(1135)*	512 *(1680)*
A731S003	1629-2155 *(64.13386-84.84252")*	70	358 *(1175)*	473 *(1552)*
A731S004	2154-2680 *(84.80315-105.5118")*	50	358 *(1175)*	420 *(1378)*
A731S005	2679-3205 *(105.4724-126.1811")*	40	336 *(1102)*	402 *(1319)*

Note: The maximum speeds are related to the boring head's mechanical design and balancing quality. Speeds inside these limits have to be chosen in regard to the other machining conditions, e.g. workpiece material, cutting edge (insert), tooling length, machine spindle.

Custom made boring solutions

Seco Tools Tooling Systems has a strong experience in the design of custom made solutions for boring operations:



- Steadyline® vibration damping rough and fine boring solutions,
- Multi-edge boring bars,
- Special extensions with guiding pads, for long overhang operations,
- Combined bars for drilling, boring, chamfering, reaming, threading operations...

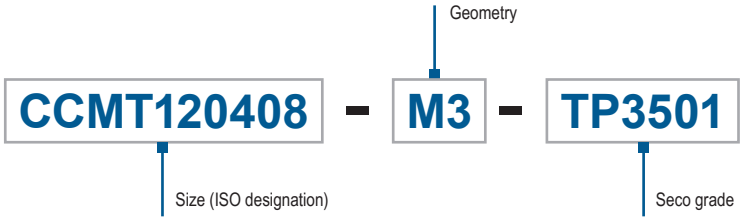
Please contact your local Seco representatives for more information.

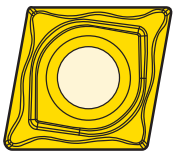
A selection of inserts for boring

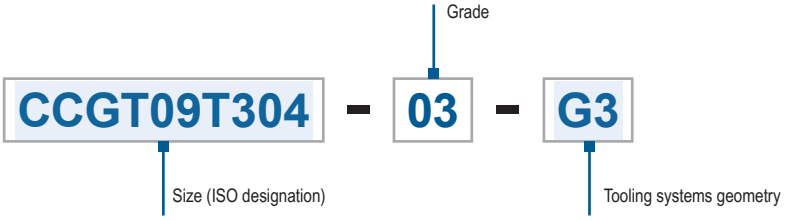
This is a selection of inserts from the total Seco range, which are particularly suitable for boring. The selected insert sizes are those suitable for the range of boring heads.
Inserts for rough boring have high toughness to guarantee high metal removal and positive geometries to minimise spindle torque requirement.

Inserts for fine boring have positive geometries and sharp edge wear resistant grades for accurate control of the bore tolerance, geometry and surface finish.

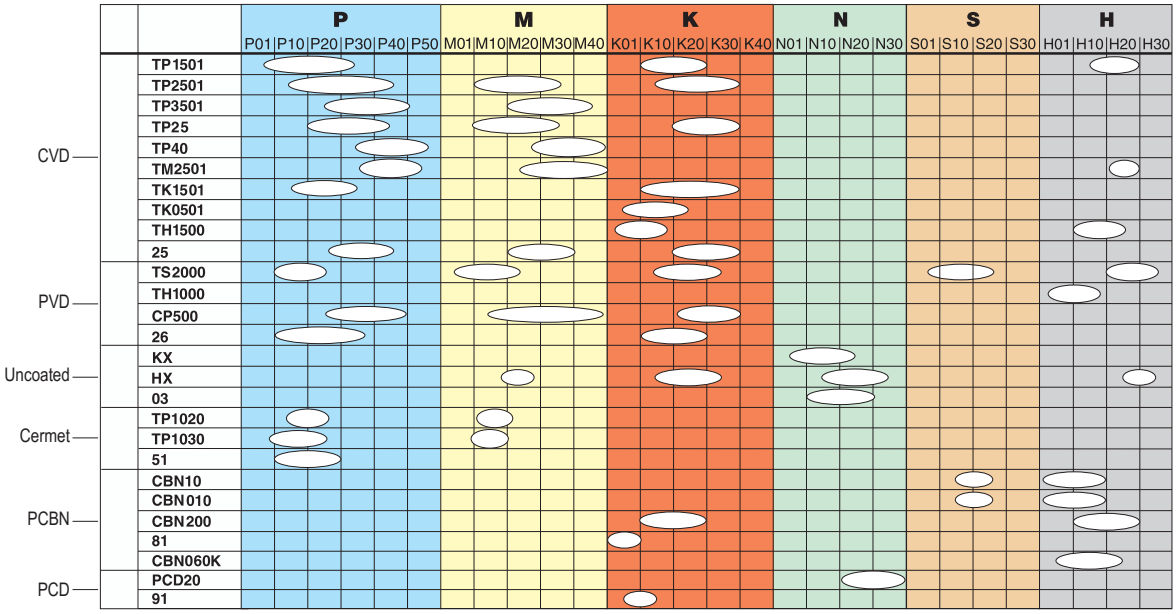
Code keys, examples



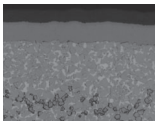
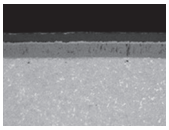
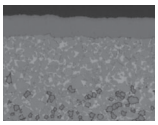
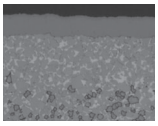
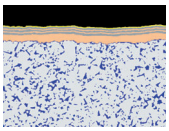
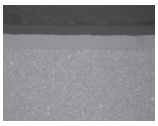
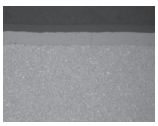
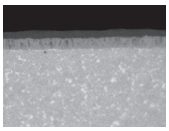
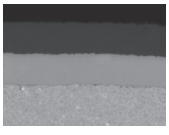




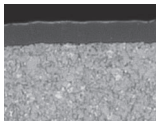
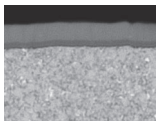
Insert grades for boring – ISO workpiece material classification



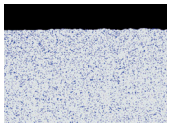
CVD coated grades recommended for boring

TP1501		**Duratomic®** technology coated grade. Highly heat and wear resistant grade extremely well suited for productive general turning of steels and a useful backup in other material groups. Ti(C,N) + Al_2O_3 + ...
TP25		Universal grade for high versatile performance over a wide range of applications in steels, stainless steels and cast irons. Trustworthy alternative at limited cutting speeds or high surface finish requirements. Ti(C,N) + Al_2O_3 + Used Edge Detection (Chrome)
TP2501		**Duratomic®** technology coated grade. Designed with high wear resistance and edge strength applicable in a wide range of turning applications in steels as well as many stainless steels and cast irons. Ti(C,N) + Al_2O_3 + ...
TP3501		TP3501 is intended for boring operations where the primary demand is toughness and reliability in machining steels and stainless steels. Ti(C,N) + Al_2O_3 DURATOMIC®
TP40		TP40 is the basic grade for turning in the P40 range. Very tough grade for demanding operations on steel castings and forging, and on all types of stainless steel. TiC/Ti(C,N) + TiN
TK0501		**Duratomic®** technology coated grade. A extremely wear resistant optimized grade choice for machining of grey cast iron and easier ductile cast irons. Ti(C,N) + Al_2O_3 + Used Edge Detection (Chrome)
TK1501		**Duratomic®** technology coated grade. A highly wear resistant grade for cast irons in general as well as in steels. The grade is particularly capable in machining of ductile (nodular) cast irons also in more demanding setups and interrupted cuts. Ti(C,N) + Al_2O_3 + Used Edge Detection (Chrome)
TM2501		Duratomic® grade. A highly capable grade for austenitic stainless steel turning with combinations of high resistance and superior edge toughness. First choice in austenitic stainless steel turning. Complements in steel turning with heavy intermittent cuts. Ti(C,N) + Al_2O_3 + Used Edge Detection (Chrome)
TH1500		DURATOMIC® technology coated grade. An extremetly hard super micrograin grade intended for machining of partly hardened steels and provide an alternative for cast iron finishing. Ti(C,N) + Al_2O_3
25		Universal grade. The grade is intended for a wide range of boring applications in steel, stainless steel and cast iron. Good combination of wear resistance and toughness. Ti (C, N) + Al2O3.

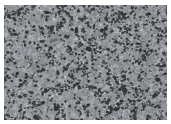
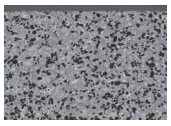
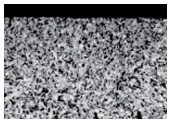
PVD coated grades recommended for boring

TS2000		Hard micrograin principally intended for finishing operations in superalloys and titanium alloys. Also performs well in finishing operations on stainless steel. (Ti,Al)N + TiN
CP500 & 26G6		A very tough micrograin intended for finishing and medium roughing of stainless steel. Can handle intermittent cutting operations very well. CP500 is also an alternative for aluminium alloys. (Ti,Al)N + TiN
TH1000		Very hard supermicrograin grade intended for partly hardened steel components as well as generally workpiece materials such as superalloys and due to remarkable edge toughness it also provides high performance in interupted cuts and hard-surface removal.

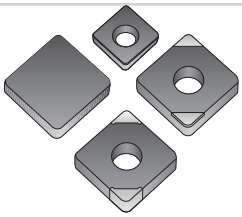
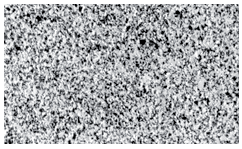
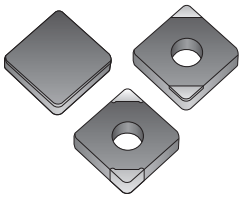
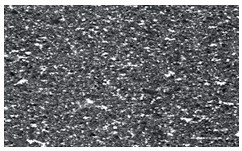
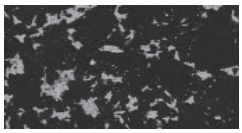
Uncoated grades recommended for boring

KX & 03G3		Micrograin intended for machining aluminum and other non-ferrous materials.
HX		Universal uncoated grade intended for machining of cast iron and hardened steels useful also in non-ferrous materials.

Cermet recommended for boring

TP1020		Cermet with very high wear resistance intended for highest surface finish requirements with predictability and control in steel and stainless steel.
TP1030		PVD-coated Cermet with very high wear resistance intended for high surface finish and productivity requirements with predictability in steel and stainless steel mainly. Ti-Al-Si-N nanolaminate coating.
51G1		Cermet with very high wear resistance. Intended for finishing operations on steels, in which strict demands are made on surface finish.

CBN and PCD grades recommended for boring

CBN010		Format: Solid, full-face brazed layer and brazed tips (single and double sided). Composition: 50% CBN content grade with an average grain size of 2 µm and a TiC ceramic binder. Coating: No coating.
CBN10 & 81B1		CBN, Cubic boron nitride grade, for light continuous to moderate interrupted cuts. Intended for fine boring in hardened steel and in superalloys.
CBN060K		Format: Solid & brazed tips (single & double sided). Composition: 60% cBN content grade with an average grain size of 1-2 µm and a TiCN ceramic binder. Coating: (Ti, Al, Si)N coating.
CBN200		Format: Full-face layer and brazed tips (single sided). Composition: 85% cBN content grade with an average grain size of 2 µm and a Co-W-Al ceramic binder. Coating: No coating.
PCD20 & 91J3		PCD, polycrystalline diamond, for boring in aluminium and Al-alloys, copper, brass, bronze and synthetic materials.

Inserts, recommended for rough boring, with cutting data

Designation	Uncoated Ground flank and pressed chipbreaker			Coated Pressed chipbreaker					Coated Ground flank direct chipbreaker, left hand cutting	Depth of cut a_p mm *(inch)*	Feed per tooth f mm *(inch)*
	KX	HX	03D3	TP2501	TP3501	TP40	25C4	TK1501	CP500		
CPGT050204			02434654							2 *(0.079)*	0,08-0,2 *(0.0031-0.0079)*
CCMT060204-F1				02960857	03095430	00008505		03062942	00096854	2 *(0.079)*	0,1-0,22 *(0.0039-0.0087)*
CCMT060204-F2		74011732				74018652				2 *(0.079)*	0,1-0,22 *(0.0039-0.0087)*
CCGT060204L-UX									02497631	2 *(0.079)*	0,1-0,22 *(0.0039-0.0087)*
CCGT060204F-AL	00015710									2 *(0.079)*	0,1-0,22 *(0.0039-0.0087)*
CCMT060204-M3				02960858	03095431			03062944		2 *(0.079)*	0,1-0,22 *(0.0039-0.0087)*
CCMT09T308-F1				02960861	03095443	00008518		03063857	00096858	2,5 *(0.098)*	0,1-0,3 *(0.0039-0.0118)*
CCMT09T308-MF2				02956309	03095446				02754822	2,5 *(0.098)*	0,1-0,3 *(0.0039-0.0118)*
CCGT09T304L-UX									02497640	2,5 *(0.098)*	0,1-0,3 *(0.0039-0.0118)*
CCGT09T308F-AL	00015754									2,5 *(0.098)*	0,1-0,3 *(0.0039-0.0118)*
CCMT120408-F1				02960854	03095449			03062626		4 *(0.157)*	0,15-0,4 *(0.0059-0.0157)*
CCMT120408-MF2				02956311	03095452					4 *(0.157)*	0,15-0,4 *(0.0059-0.0157)*
CCGT120408L-UX									02610062	4 *(0.157)*	0,15-0,4 *(0.0059-0.0157)*
CCGT120408F-AL	00015790									5 *(0.197)*	0,15-0,4 *(0.0059-0.0157)*
SCMT060204-M3				02960423	03096621					2,5 *(0.098)*	0,1-0,22 *(0.0039-0.0087)*
SCMT09T308-F1				02960396	03096625			03062629	00099708	2,5 *(0.098)*	0,1-0,3 *(0.0039-0.0118)*
SCMT09T308-MF2				02956318	03096627				02755042	2,5 *(0.098)*	0,1-0,3 *(0.0039-0.0118)*
SCMT120408-F1				02960397	03096630				00099804	4 *(0.157)*	0,15-0,4 *(0.0059-0.0055)*
SCMT120408-M3				02960429	03096631			03063990		4 *(0.157)*	0,15-0,4 *(0.0059-0.0055)*
TCMT16T308-F1				02960408	03096643				00091357	5 *(0.197)*	0,15-0,4 *(0.0059-0.0055)*
TCMT16T308-MF2				02956323	03096645				02755046	5 *(0.197)*	0,15-0,4 *(0.0059-0.0055)*
TCGT16T308F-AL	00015875									4 *(0.157)*	0,15-0,4 *(0.0059-0.0055)*
SCMT150512-F2						74007348				7 *(0.276)*	0,2-0,5 *(0.0079-0.0197)*

For recommended cutting speeds, see pages 686-689

CN.. inserts, recommended for rough boring (double sided)

Designation	Coated Pressed chipbreaker				Depth of cut a_p mm *(inch)*	Feed per tooth f mm *(inch)*
	TP3500	TP40	TM2501	TP25		
CNMG120408-M3			03275990	03275989	4,5 *(0.177)*	0,25-0,35 *(0.00984-0.01378)*
CNMG120408-MF3		74030598	03275999	03275998	4,5 *(0.177)*	0,25-0,35 *(0.00984-0.01378)*
CNMG120408-MF4			03273904		4,5 *(0.177)*	0,25-0,35 *(0.00984-0.01378)*
CNMG120408-MF1			03275995		4,5 *(0.177)*	0,25-0,35 *(0.00984-0.01378)*
CNMG120408-MR7		74017309	03276001		4,5 *(0.177)*	0,25-0,35 *(0.00984-0.01378)*

For recommended cutting speeds, see pages 686-689

Inserts, recommended for fine boring, with cutting data

Designation	Coated							Cermet			Depth of cut a_p mm *(inch)*	Feed per tooth f mm *(inch)*
	TP1501	TS2000	TK1501	CP500	26G6	TH1000	TH1500	51G1	TP1020	TP1030		
CCGT060200								00083915			0,01-0,3 *(0.000394-0.01181)*	0,03-0,15 *(0.0011811-0.0059055)*
CCGT0602005-F1				02430287							0,01-0,3 *(0.000394-0.01181)*	0,03-0,15 *(0.0011811-0.0059055)*
CCGT060201-F1				02430307							0,01-0,3 *(0.000394-0.01181)*	0,03-0,15 *(0.0011811-0.0059055)*
CCGT060202					00039546			00096634			0,01-0,3 *(0.000394-0.01181)*	0,03-0,15 *(0.0011811-0.0059055)*
CCGT060204					00081826			00048334			0,01-0,3 *(0.000394-0.01181)*	0,03-0,15 *(0.0011811-0.0059055)*
CCGT060204L-UX				02497631							2 *(0.079)*	0,1-0,22 *(0.0039-0.0087)*
CCMT060202-F1	02960383	02614299		00096853					02754786	02754435	0,01-0,3 *(0.000394-0.01181)*	0,03-0,15 *(0.0011811-0.0059055)*
CCMT060204-F1	02960856	02615873	03062942	00096854		02825858			02754791	02754792	2 *(0.079)*	0,1-0,22 *(0.0039-0.0087)*
CCMW060202F-L1											0,01-0,3 *(0.000394-0.01181)*	0,03-0,15 *(0.0011811-0.0059055)*
CCMW060204F-L1											0,01-0,3 *(0.000394-0.01181)*	0,03-0,15 *(0.0011811-0.0059055)*
CCGW060202S-01020-LF											0,01-0,3 *(0.000394-0.01181)*	0,03-0,15 *(0.0011811-0.0059055)*
CCGW060204S-01020-LF											0,01-0,3 *(0.000394-0.01181)*	0,03-0,15 *(0.0011811-0.0059055)*
CCGW060204E-L1-B											0,01-0,3 *(0.000394-0.01181)*	0,03-0,15 *(0.0011811-0.0059055)*
CCGT09T301-F1				02430311							0,01-0,3 *(0.000394-0.01181)*	0,03-0,15 *(0.0011811-0.0059055)*
CCGT09T302					00048337			00048339			0,01-0,3 *(0.000394-0.01181)*	0,03-0,15 *(0.0011811-0.0059055)*
CCGT09T304					00077338			00048344			0,01-0,3 *(0.000394-0.01181)*	0,03-0,15 *(0.0011811-0.0059055)*
CCGT09T304L-UX				02497640							2,5 *(0.098)*	0,1-0,3 *(0.0039-0.0118)*
CCMT09T302-F1	02960837			00096856					02754805	02754806	0,01-0,3 *(0.000394-0.01181)*	0,03-0,15 *(0.0011811-0.0059055)*
CCMT09T304-F1	02960844	02615874	03063856	00096857		02731806			02754811	02754812	0,01-0,3 *(0.000394-0.01181)*	0,03-0,15 *(0.0011811-0.0059055)*
CCMT09T308-F1	02960853	02615876	03063857	00096858		02731807				02754821	2,5 *(0.098)*	0,1-0,3 *(0.0039-0.0118)*
CCMW09T304F-L1											0,01-0,3 *(0.000394-0.01181)*	0,03-0,15 *(0.0011811-0.0059055)*
CCMW09T308F-L1											0,01-0,3 *(0.000394-0.01181)*	0,03-0,15 *(0.0011811-0.0059055)*
CCGW09T304E-L1-B											0,01-0,3 *(0.000394-0.01181)*	0,03-0,15 *(0.0011811-0.0059055)*
CCGW09T308E-L1-B											0,01-0,3 *(0.000394-0.01181)*	0,03-0,15 *(0.0011811-0.0059055)*
CCGW09T304S-01020-LF											0,01-0,3 *(0.000394-0.01181)*	0,03-0,15 *(0.0011811-0.0059055)*
CCGW09T308S-01020-LF											0,01-0,3 *(0.000394-0.01181)*	0,03-0,15 *(0.0011811-0.0059055)*
TCGT110204								00000721			0,01-0,3 *(0.000394-0.01181)*	0,03-0,15 *(0.0011811-0.0059055)*
TCGT110201-F1				02430376							0,01-0,3 *(0.000394-0.01181)*	0,03-0,15 *(0.0011811-0.0059055)*
TCMT110202-F1				02430419							0,01-0,3 *(0.000394-0.01181)*	0,03-0,15 *(0.0011811-0.0059055)*
TCMT110204-F1	02960401			02430421							0,01-0,3 *(0.000394-0.01181)*	0,03-0,15 *(0.0011811-0.0059055)*
TCMT110208-F1	02960403			00098986							0,01-0,3 *(0.000394-0.01181)*	0,03-0,15 *(0.0011811-0.0059055)*
TCGW110204E-L1-C											0,01-0,3 *(0.000394-0.01181)*	0,03-0,15 *(0.0011811-0.0059055)*
TCGW110208E-L1-C											0,01-0,3 *(0.000394-0.01181)*	0,03-0,15 *(0.0011811-0.0059055)*
TCGW110204S-01020-LF											0,01-0,3 *(0.000394-0.01181)*	0,03-0,15 *(0.0011811-0.0059055)*
TCGW110208S-01020-LF											0,01-0,3 *(0.000394-0.01181)*	0,03-0,15 *(0.0011811-0.0059055)*
TCMW110204F-L1											0,01-0,3 *(0.000394-0.01181)*	0,03-0,15 *(0.0011811-0.0059055)*
WBGT030100								00083089			0,01-0,3 *(0.000394-0.01181)*	0,03-0,15 *(0.0011811-0.0059055)*
WBGT030102								00091845			0,01-0,3 *(0.000394-0.01181)*	0,03-0,15 *(0.0011811-0.0059055)*
WBGT030102L				02416632							0,01-0,3 *(0.000394-0.01181)*	0,03-0,15 *(0.0011811-0.0059055)*
WBGW030102											0,01-0,3 *(0.000394-0.01181)*	0,03-0,15 *(0.0011811-0.0059055)*

The table continues on next page.

For recommended cutting speeds, see pages 686-689

Inserts, recommended for fine boring, with cutting data

Designation	CBN				PCD		Depth of cut a_p mm *(inch)*	Feed per tooth f mm *(inch)*
	CBN010	CBN060K	CBN200	81B1	PCD20	91J3		
CCGT060200							0,01-0,3 *(0.000394-0.01181)*	0,03-0,15 *(0.0011811-0.0059055)*
CCGT0602005-F1							0,01-0,3 *(0.000394-0.01181)*	0,03-0,15 *(0.0011811-0.0059055)*
CCGT060201-F1							0,01-0,3 *(0.000394-0.01181)*	0,03-0,15 *(0.0011811-0.0059055)*
CCGT060202							0,01-0,3 *(0.000394-0.01181)*	0,03-0,15 *(0.0011811-0.0059055)*
CCGT060204							0,01-0,3 *(0.000394-0.01181)*	0,03-0,15 *(0.0011811-0.0059055)*
CCGT060204L-UX							2 *(0.079)*	0,1-0,22 *(0.0039-0.0087)*
CCMT060202-F1							0,01-0,3 *(0.000394-0.01181)*	0,03-0,15 *(0.0011811-0.0059055)*
CCMT060204-F1							2 *(0.079)*	0,1-0,22 *(0.0039-0.0087)*
CCMW060202F-L1					00089760		0,01-0,3 *(0.000394-0.01181)*	0,03-0,15 *(0.0011811-0.0059055)*
CCMW060204F-L1					00005684		0,01-0,3 *(0.000394-0.01181)*	0,03-0,15 *(0.0011811-0.0059055)*
CCGW060202S-01020-LF			02464698				0,01-0,3 *(0.000394-0.01181)*	0,03-0,15 *(0.0011811-0.0059055)*
CCGW060204S-01020-LF	02916281		02464699				0,01-0,3 *(0.000394-0.01181)*	0,03-0,15 *(0.0011811-0.0059055)*
CCGW060204E-L1-B	02843086	02776337	02649599				0,01-0,3 *(0.000394-0.01181)*	0,03-0,15 *(0.0011811-0.0059055)*
CCGT09T301-F1							0,01-0,3 *(0.000394-0.01181)*	0,03-0,15 *(0.0011811-0.0059055)*
CCGT09T302							0,01-0,3 *(0.000394-0.01181)*	0,03-0,15 *(0.0011811-0.0059055)*
CCGT09T304							0,01-0,3 *(0.000394-0.01181)*	0,03-0,15 *(0.0011811-0.0059055)*
CCGT09T304L-UX							2,5 *(0.098)*	0,1-0,3 *(0.0039-0.0118)*
CCMT09T302-F1							0,01-0,3 *(0.000394-0.01181)*	0,03-0,15 *(0.0011811-0.0059055)*
CCMT09T304-F1							0,01-0,3 *(0.000394-0.01181)*	0,03-0,15 *(0.0011811-0.0059055)*
CCMT09T308-F1							2,5 *(0.098)*	0,1-0,3 *(0.0039-0.0118)*
CCMW09T304F-L1					00005686		0,01-0,3 *(0.000394-0.01181)*	0,03-0,15 *(0.0011811-0.0059055)*
CCMW09T308F-L1					00095357		0,01-0,3 *(0.000394-0.01181)*	0,03-0,15 *(0.0011811-0.0059055)*
CCGW09T304E-L1-B	02843126	02776338	02649607				0,01-0,3 *(0.000394-0.01181)*	0,03-0,15 *(0.0011811-0.0059055)*
CCGW09T308E-L1-B	02937148		02649608				0,01-0,3 *(0.000394-0.01181)*	0,03-0,15 *(0.0011811-0.0059055)*
CCGW09T304S-01020-LF	02916282		02464702				0,01-0,3 *(0.000394-0.01181)*	0,03-0,15 *(0.0011811-0.0059055)*
CCGW09T308S-01020-LF			02464703				0,01-0,3 *(0.000394-0.01181)*	0,03-0,15 *(0.0011811-0.0059055)*
TCGT110204							0,01-0,3 *(0.000394-0.01181)*	0,03-0,15 *(0.0011811-0.0059055)*
TCGT110201-F1							0,01-0,3 *(0.000394-0.01181)*	0,03-0,15 *(0.0011811-0.0059055)*
TCMT110202-F1							0,01-0,3 *(0.000394-0.01181)*	0,03-0,15 *(0.0011811-0.0059055)*
TCMT110204-F1							0,01-0,3 *(0.000394-0.01181)*	0,03-0,15 *(0.0011811-0.0059055)*
TCMT110208-F1							0,01-0,3 *(0.000394-0.01181)*	0,03-0,15 *(0.0011811-0.0059055)*
TCGW110204E-L1-C	02848657	02776346					0,01-0,3 *(0.000394-0.01181)*	0,03-0,15 *(0.0011811-0.0059055)*
TCGW110208E-L1-C	02848792						0,01-0,3 *(0.000394-0.01181)*	0,03-0,15 *(0.0011811-0.0059055)*
TCGW110204S-01020-LF			02464742				0,01-0,3 *(0.000394-0.01181)*	0,03-0,15 *(0.0011811-0.0059055)*
TCGW110208S-01020-LF			02464744				0,01-0,3 *(0.000394-0.01181)*	0,03-0,15 *(0.0011811-0.0059055)*
TCMW110204F-L1					00005689		0,01-0,3 *(0.000394-0.01181)*	0,03-0,15 *(0.0011811-0.0059055)*
WBGT030100							0,01-0,3 *(0.000394-0.01181)*	0,03-0,15 *(0.0011811-0.0059055)*
WBGT030102							0,01-0,3 *(0.000394-0.01181)*	0,03-0,15 *(0.0011811-0.0059055)*
WBGT030102L							0,01-0,3 *(0.000394-0.01181)*	0,03-0,15 *(0.0011811-0.0059055)*
WBGW030102				00096761		00096763	0,01-0,3 *(0.000394-0.01181)*	0,03-0,15 *(0.0011811-0.0059055)*

For recommended cutting speeds, see pages 686-689

Recommended cutting speeds for boring (related to workpiece material and insert grade) – metric

SMG	v_c (m/min)										
	KX & HX	03	TP40	TP1501	TP2501	TP3501	TK0501	TK1501	TH1000	TH1500	CP500
P1			60-180	60-350	60-250	60-230					80-200
P2			60-180	60-350	60-250	60-230					80-200
P3			60-180	60-350	60-250	60-230					80-200
P4			60-180	60-350	60-250	60-230					80-200
P5			60-150	60-300	60-250	60-230					80-200
P6			60-140	60-300	60-230	60-200					80-180
P7			60-140	60-300	60-230	60-200					80-160
P8			60-120	60-250	60-230	60-200					80-130
P11			60-120	60-300	60-250	60-200					80-180
M1			60-130	100-200	60-200	60-200					60-160
M2			60-130	100-200	60-200	60-200					60-160
M3			60-120	100-180	60-200	60-200					60-150
M4			60-110	100-180	60-190	60-190					60-150
M5			60-110	100-180	60-180	60-180					60-150
K1			60-140	100-250		60-180	60-230	60-230			60-160
K2			60-140	100-250		60-180	60-230	60-230			60-160
K3			60-140	100-250		60-180	60-230	60-230			60-160
K4			60-140	100-250		60-180	60-200	60-200			60-160
K5			60-140	100-250		60-180	60-200	60-200			60-160
K6			60-130	100-250		60-180	60-200	60-200			60-160
K7			60-130	100-250		60-180	60-200	60-200			60-160
N1	150-800	150-800									150-800
N2	150-800	150-800									150-800
N3	150-500	150-500									150-500
N11	150-400	150-400									150-400
S1	20-50	20-50									20-50
S2	20-50	20-50									20-50
S3	20-50	20-50									20-50
S11	20-50	20-50									20-50
S12	20-50	20-50									20-50
S13	20-50	20-50									20-50
H3									50-150	50-150	
H5									50-140	50-140	
H7									50-150	50-150	
H8									30-130	30-130	
H11									30-120	30-120	
H12									30-120	30-120	
H21											
H31											

SMG = Seco material group V_c = m/min (sf/min) All cutting data are start values

Recommended cutting speeds for boring (related to workpiece material and insert grade) – *Inch*

SMG	v_c *(sf/min)*										
	KX & HX	03	TP40	TP1501	TP2501	TP3501	TK0501	TK1501	TH1000	TH1500	CP500
P1			197-591	197-1148	197-820	197-755					262-656
P2			197-591	197-1148	197-820	197-755					262-656
P3			197-591	197-1148	197-820	197-755					262-656
P4			197-591	197-1148	197-820	197-755					262-656
P5			197-492	197-984	197-820	197-755					262-656
P6			197-459	197-984	197-755	197-656					262-591
P7			197-459	197-984	197-755	197-656					262-525
P8			197-394	197-820	197-755	197-656					262-427
P11			197-394	197-984	197-820	197-656					262-591
M1			197-427	328-656	197-656	197-656					197-525
M2			197-427	328-656	197-656	197-656					197-525
M3			197-394	328-591	197-656	197-656					197-492
M4			197-361	328-591	197-623	197-623					197-492
M5			197-361	328-591	197-591	197-591					197-492
K1			197-459	328-820		197-591	197-755	197-755			197-525
K2			197-459	328-820		197-591	197-755	197-755			197-525
K3			197-459	328-820		197-591	197-755	197-755			197-525
K4			197-459	328-820		197-591	197-656	197-656			197-525
K5			197-459	328-820		197-591	197-656	197-656			197-525
K6			197-427	328-820		197-591	197-656	197-656			197-525
K7			197-427	328-820		197-591	197-656	197-656			197-525
N1	492-2625	492-2625									492-2625
N2	492-2625	492-2625									492-2625
N3	492-1640	492-1640									492-1640
N11	492-1312	492-1312									492-1312
S1	66-164	66-164									66-164
S2	66-164	66-164									66-164
S3	66-164	66-164									66-164
S11	66-164	66-164									66-164
S12	66-164	66-164									66-164
S13	66-164	66-164									66-164
H3									164-492	164-492	
H5									164-459	164-459	
H7									164-492	164-492	
H8									98-427	98-427	
H11									98-394	98-394	
H12									98-394	98-394	
H21											
H31											

SMG = Seco material group V_c = m/min (sf/min) All cutting data are start values

Recommended cutting speeds for boring (related to workpiece material and insert grade) – metric

SMG	v_c (m/min)												
	26	25	TS2000	TP1020	TP1030	51	CBN10/ CBN010	81	CBN200	82	PCD20	91	Axiabore
P1	80-200	60-180		100-350	100-350	100-350							80-250
P2	80-200	60-180		100-350	100-350	100-350							80-250
P3	80-200	60-180		100-350	100-350	100-350							80-250
P4	80-200	60-180		100-350	100-350	100-350							80-250
P5	80-200	60-180		100-350	100-350	100-350							70-230
P6	80-180	60-160		100-300	100-300	100-300							70-230
P7	80-160	60-160		100-250	100-250	100-250							70-230
P8	80-130	60-130		100-250	100-250	100-250							70-200
P11	80-180	60-150		100-300	100-300	100-300							70-200
M1	60-160	60-140	60-200	80-200	80-200	80-200							60-200
M2	60-160	60-140	60-200	80-200	80-200	80-200							60-200
M3	60-150	60-130	60-200	80-200	80-200	80-200							60-180
M4	60-150	60-120	60-180	80-180	80-180	80-180							60-170
M5	60-150	60-120	60-180	80-180	80-180	80-180							60-170
K1	60-160	60-160		100-250	100-250	100-250			300-1000	300-1000			60-150
K2	60-160	60-160		100-250	100-250	100-250			300-1000	300-1000			60-150
K3	60-160	60-160		100-250	100-250	100-250			300-1000	300-1000			60-150
K4	60-160	60-160		100-250	100-250	100-250			300-1000	300-1000			60-130
K5	60-160	60-160		100-250	100-250	100-250							50-100
K6	60-160	60-160		100-180	100-180	100-180							50-100
K7	60-160	60-160		100-180	100-180	100-180							50-100
N1	150-800										300-1500	300-1500	200-800
N2	150-800										300-1500	300-1500	200-800
N3	150-500										200-800	200-800	200-800
N11	150-400										180-800	180-800	200-800
S1	20-50		20-80										20-60
S2	20-50		20-80										20-60
S3	20-50		20-80										60-50
S11	20-50		20-80										20-50
S12	20-50		20-80										20-50
S13	20-50		20-80										20-50
H3							80-180	80-180					
H5							80-200	80-200					
H7							80-150	80-150					
H8							80-150	80-150					
H11													
H12													
H21													
H31													

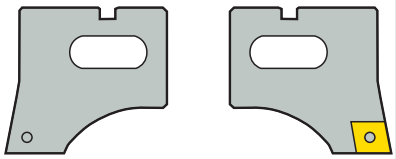
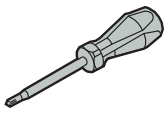
SMG = Seco material group V_c = m/min (sf/min) All cutting data are start values

Recommended cutting speeds for boring (related to workpiece material and insert grade) – *Inch*

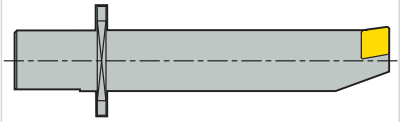
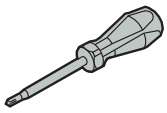
SMG	v_c *(sf/min)*												
	26	25	TS2000	TP1020	TP1030	51	CBN10/ CBN010	81	CBN200	82	PCD20	91	Axiabore
P1	*262-656*	*197-591*		*328-1148*	*328-1148*	*328-1148*							*262-820*
P2	*262-656*	*197-591*		*328-1148*	*328-1148*	*328-1148*							*262-820*
P3	*262-656*	*197-591*		*328-1148*	*328-1148*	*328-1148*							*262-820*
P4	*262-656*	*197-591*		*328-1148*	*328-1148*	*328-1148*							*262-820*
P5	*262-656*	*197-591*		*328-1148*	*328-1148*	*328-1148*							*230-755*
P6	*262-591*	*197-525*		*328-984*	*328-984*	*328-984*							*230-755*
P7	*262-525*	*197-525*		*328-820*	*328-820*	*328-820*							*230-755*
P8	*262-427*	*197-427*		*328-820*	*328-820*	*328-820*							*230-656*
P11	*262-591*	*197-492*		*328-984*	*328-984*	*328-984*							*230-656*
M1	*197-525*	*197-459*	*197-656*	*262-656*	*262-656*	*262-656*							*197-656*
M2	*197-525*	*197-459*	*197-656*	*262-656*	*262-656*	*262-656*							*197-656*
M3	*197-492*	*197-427*	*197-656*	*262-656*	*262-656*	*262-656*							*197-591*
M4	*197-492*	*197-394*	*197-591*	*262-591*	*262-591*	*262-591*							*197-558*
M5	*197-492*	*197-394*	*197-591*	*262-591*	*262-591*	*262-591*							*197-558*
K1	*197-525*	*197-525*		*328-820*	*328-820*	*328-820*			*984-3281*	*984-3281*			*197-492*
K2	*197-525*	*197-525*		*328-820*	*328-820*	*328-820*			*984-3281*	*984-3281*			*197-492*
K3	*197-525*	*197-525*		*328-820*	*328-820*	*328-820*			*984-3281*	*984-3281*			*197-492*
K4	*197-525*	*197-525*		*328-820*	*328-820*	*328-820*			*984-3281*	*984-3281*			*197-427*
K5	*197-525*	*197-525*		*328-820*	*328-820*	*328-820*							*164-328*
K6	*197-525*	*197-525*		*328-591*	*328-591*	*328-591*							*164-328*
K7	*197-525*	*197-525*		*328-591*	*328-591*	*328-591*							*164-328*
N1	*492-2625*										*984-4921*	*984-4921*	*656-2625*
N2	*492-2625*										*984-4921*	*984-4921*	*656-2625*
N3	*492-1640*										*656-2625*	*656-2625*	*656-2625*
N11	*492-1312*										*591-2625*	*591-2625*	*656-2625*
S1	*66-164*		*66-262*										*66-197*
S2	*66-164*		*66-262*										*66-197*
S3	*66-164*		*66-262*										*197-164*
S11	*66-164*		*66-262*										*66-164*
S12	*66-164*		*66-262*										*66-164*
S13	*66-164*		*66-262*										*66-164*
H3							*262-591*	*262-591*					
H5							*262-656*	*262-656*					
H7							*262-492*	*262-492*					
H8							*262-492*	*262-492*					
H11													
H12													
H21													
H31													

SMG = Seco material group V_c = m/min (sf/min) All cutting data are start values

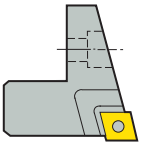
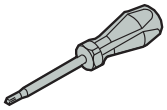
Insert locking keys and screws of all boring insert holders, tools and cartridges

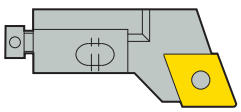
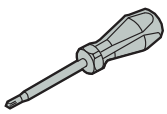
		Accessories		Spare Parts	
		Torx driver for insert locking screw*		Insert locking screw	
					
	For insert size	Designation	Torx Plus	Designation	Torx Plus
For rough boring insert holders	CP...0502	T07P-3	07	C02245-T07P	07
	CC...0602	T07P-3	07	C02504-T07P	07
	CC...09T3	T15P-3	15	C04008-T15P	15
	CC...1204	T15P-3	15	C05012-T15P	15
	CC...1605	T15P-3	15	C05012-T15P	15
	SC...0502	T07P-3	07	C02245-T07P	07
	SC...0602	T07P-3	07	C02504-T07P	07
	SC...09T3	T15P-3	15	C04008-T15P	15
	SC...1204	T15P-3	15	C05012-T15P	15
	SC...1505	T15P-3	15	C05012-T15P	15

* One Torx driver is delivered with each rough boring head.

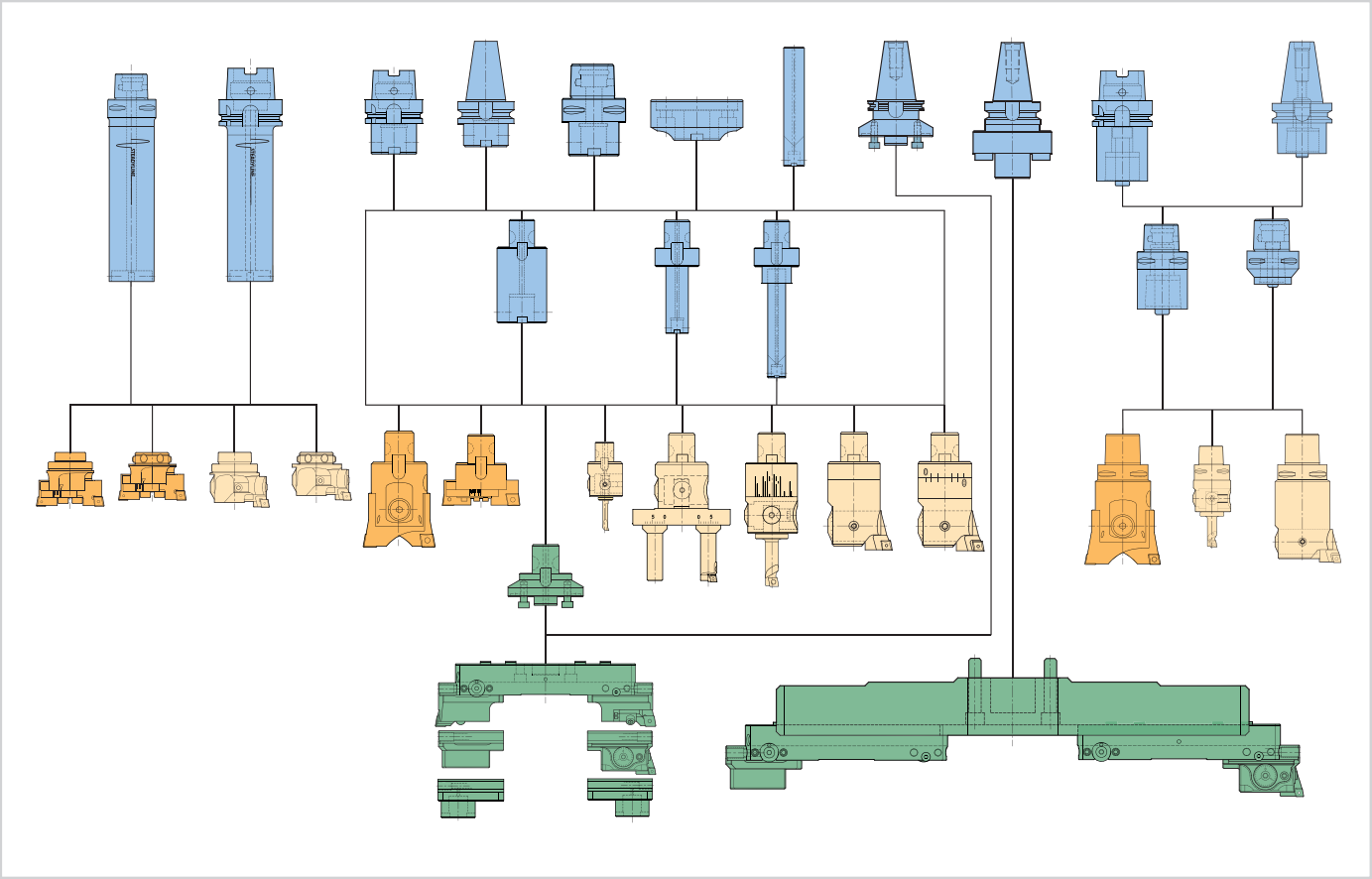
		Accessories		Spare Parts	
		Torx driver for insert locking screw*		Insert locking screw	
					
	For insert size	Designation	Torx Plus	Designation	Torx Plus
For Axiabore™ type tool	WB...0301...	T06P-3	06	C02035-T06P	06
	CC...0602...	T07P-3	07	C02504-T07P	07
	–	T15P-3	15	C04008-T15P	15

Spare parts for insert holders

		Spare Parts			
		Insert key		Insert screw	
					
	For insert size	Designation	Torx Plus	Designation	Torx Plus
For fine boring insert holders, chamfering insert holders and back boring insert holders	WB...0301...	T06P-2	06	C02035-T06P	06
	CC...0602...	T07P-3	07	C02504-T07P	07
	CC...09T3...	T15P-3	15	C04008-T15P	15
	TC...1102...	T07P-3	07	C02504-T07P	07

		Accessories		Spare Parts	
		Torx driver for insert locking screw*		Insert locking screw	
					
	For insert size	Designation	Torx Plus	Designation	Torx Plus
For cartridges	CC...16...	T15P-2	15	C05012-T15P	15
	SC...15...	T15P-2	15	C05012-T15P	15
	TC...16...	T15P-2	15	C03509-T15P	15
	TC...22...	T15P-2	15	C05012-T15P	15

Suitable holders for boring heads



The boring heads feature Graflex®, Seco-Capto™, GL or BA machine side connection

The boring heads can be used on any machine type, using the suitable Graflex® adapter, Seco-Capto™ adapter or Steadyline® vibration boring/turning bar.

Steadyline® vibration damping for boring operations
Boring heads with GL or BA machine side connections are designed to be mounted on Steadyline® boring/turning bars with HSK-T/A and Seco-Capto™ machine side connections. This allows to perform rough and fine boring operations with 6xD, 8xD and 10xD projections, in very stable conditions.

Modular Graflex® and Seco-Capto™ boring bars
All bore lengths up to 6xD can be reached by selecting the required Graflex® intermediates, e.g. the extra-long ones with extension section in carbide. Highest assembly rigidity is obtained by selecting the longest and widest arbor possible, then completing with smaller intermediates.

The Graflex® and Seco-Capto™ connections guarantees a unique orientation of the boring heads, achieving a cutting edge orientation according to ISO. The Graflex® modules are designed to be clamped together by the side.

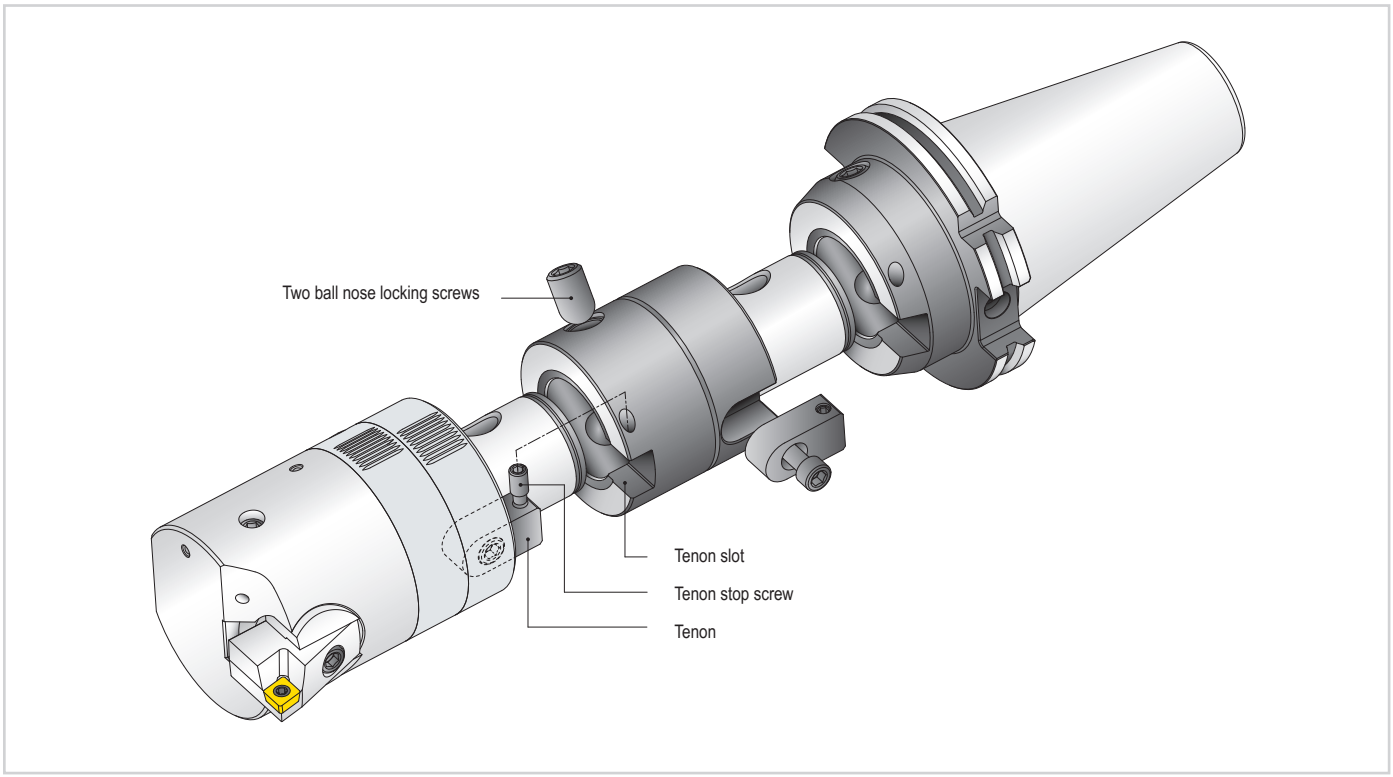
For boring heads with GL machine side connection for Steadyline®, select the shortest Steadyline® bar from the Tooling Systems catalog. These bar exist with HSK-T/A and Seco-Capto™ machine side connection. Other spindle types can be equipped, using the shortest Seco-Capto™ adapters.
For classic boring heads (steel), select the classic Graflex® and Seco-Capto™ arbors and intermediates from the Tooling Systems catalog.
For Bridge bars, see Graflex® adapters and direct holders page 671.

Note! Jumbo Bridge bars are designed to be held on milling cutter holders or to be fitted directly on a machine's spindle front.

Locking advice for Graflex® classic connection shanks G. on boring heads (using a tenon with stop screw).

For boring, no need to tighten the tenon's stop screw, as the connection's self locking action is allowed.
For rough boring in heavy duty, we recommend to apply the 'high value' torques for the Graflex® ball nose screws.

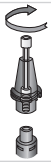
See also the detailed 'Graflex® connection assembly procedure' in the Tooling Systems catalog.



Locking advice for Seco-Capto™ connection shanks C. on boring heads: No specific advice. For boring heads, the general instructions are applicable, see below.

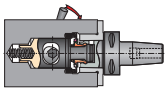
Tightening torques for Seco-Capto™ receivers connections with center bolt clamping (Basic Holders, Intermediates).

Seco-Capto Size	Centre bolt tightening torque (Nm)	Centre bolt tightening torque (ft/lbs)
C3	40-50	30-37
C4	50-60	37-44
C5	90-100	66-74
C6	160-180	118-133
C8	160-180	118-133



Tightening torques for Seco-Capto™ receivers connections with segment clamping, actuated by cam shaft side locking (Flange Mounts.)

Seco-Capto Size	Cam tightening torque (Nm)	Cam tightening torque (ft/lbs)
C3	35	26
C4	50	37
C5	70	52
C6	90	66
C8	130	96

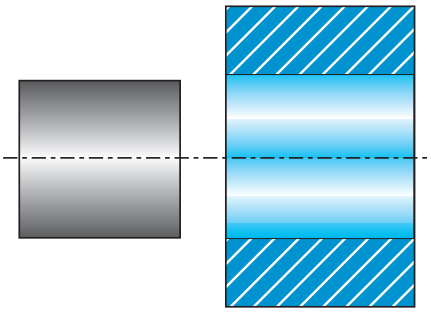


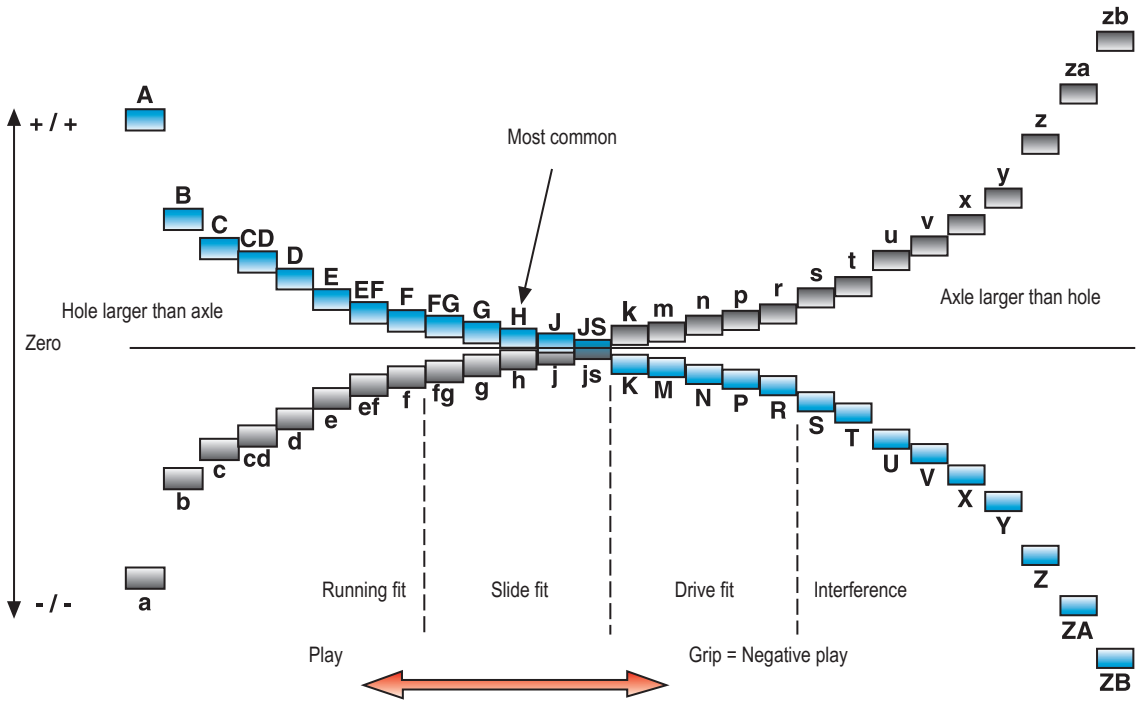
The Seco-Capto™ joint features a self-locking taper. Where the center bolt system is used, unscrew the centre bolt until the bolt head makes contact with the tool holder, causing the bolt to force the taper joint apart. When using the cam shaft side clamping system, over untightening of the cam will force the taper joint apart.

ISO Standard tolerance for hole and shaft – Axle tolerances

Axle tolerance position is denominated with **small letters**

Bore tolerance position is denominated with **CAPITAL LETTERS**





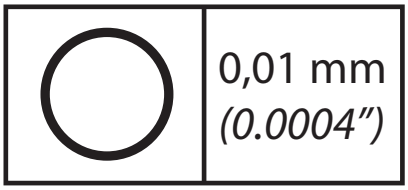
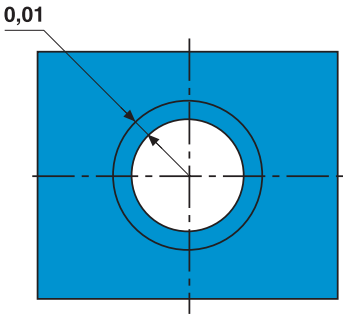
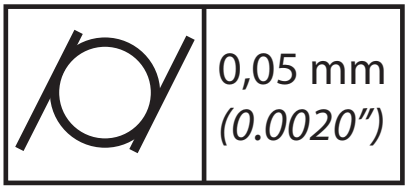
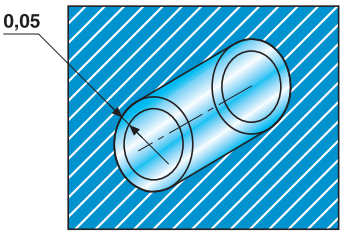
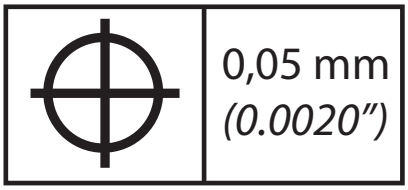
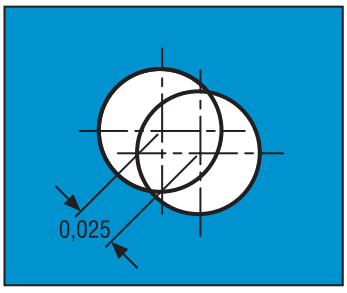
ISO tolerance table

ISO tolerances for holes (µm)													
Hole ∅ mm (inch)	D10	E9	F7	F8	G7	G9	H6	H7	H8	H9	H10	H11	H12
≤ 3 *(0.118")*	+60 +20	+39 +14	+16 +6	+20 +6	+12 +2	+27 +2	+6 0	+10 0	+14 0	+25 0	+40 0	+60 0	+100 0
3 ≥ 6 *(0.236")*	+78 +30	+50 +20	+22 +10	+28 +10	+16 +4	+34 +4	+8 0	+12 0	+18 0	+30 0	+48 0	+75 0	+120 0
6 ≥ 10 *(0.394")*	+98 +40	+61 +25	+28 +13	+35 +13	+20 +5	+41 +5	+9 0	+15 0	+22 0	+36 0	+58 0	+90 0	+150 0
10 ≥ 18 *(0.708")*	+120 +50	+75 +32	+34 +16	+43 +16	+24 +6	+49 +6	+11 0	+18 0	+27 0	+43 0	+70 0	+110 0	+180 0
18 ≥ 30 *(1.181")*	+149 +65	+92 +40	+41 +20	+53 +20	+28 +7	+59 +7	+13 0	+21 0	+33 0	+52 0	+84 0	+130 0	+210 0
30 ≥ 50 *(1.969")*	+180 +80	+112 +50	+50 +25	+64 +25	+34 +9	+71 +9	+16 0	+25 0	+39 0	+62 0	+100 0	+160 0	+250 0
50 ≥ 65 *(2.559")*	+220 +100	+134 +60	+60 +30	+76 +30	+40 +10	-	+19 0	+30 0	+46 0	+74 0	+120 0	+190 0	+300 0
65 ≥ 80 *(3.150")*													
80 ≥ 100 *(3.937")*	+260 +120	+159 +72	+71 +36	+90 +36	+47 +12	-	+22 0	+35 0	+54 0	+87 0	+140 0	+220 0	+350 0
100 ≥ 120 *(4.724")*													
120 ≥ 140 *(5.512")*	+305 +145	+185 +85	+83 +43	+106 +43	+54 +14	-	+25 0	+40 0	+63 0	+100 0	+160 0	+250 0	+400 0
140 ≥ 160 *(6.299")*													
160 ≥ 180 *(7.087")*													
180 ≥ 200 *(7.874")*	+355 +170	+215 +110	+96 +50	+122 +50	+61 +15	-	+29 0	+46 0	+72 0	+115 0	+185 0	+290 0	+460 0
200 ≥ 225 *(8.858")*													
225 ≥ 250 *(9.843")*													
250 ≥ 280 *(11.0236")*	+400 +190	+240 +110	+108 +56	+137 +56	+69 +17	-	+32 0	+52 0	+81 0	+130 0	210 0	+320 0	+520 0
280 ≥ 315 *(12.402")*													
315 ≥ 355 *(13.976")*	+440 +210	+265 +125	+119 +62	+151 +62	+75 +18	-	+36 0	+57 0	+89 0	+140 0	+230 0	+360 0	+570 0
355 ≥ 400 *(15.748")*													

ISO tolerance table

ISO tolerances for holes (µm)												
Hole ∅ mm (inch)	H13	JS7	JS9	K6	K7	M6	M7	N7	N9	P7	P9	R7
≤ 3 *(0.118")*	+140 0	+/-5	+/-12,5	0 -6	0 -10	-2 -8	-2 -12	-4 -14	-4 -29	-6 -16	-6 -31	-10 -20
3 ≥ 6 *(0.236")*	+180 0	+/-6	+/-15	+2 -6	+3 -9	-1 -9	0 -12	-4 -16	0 -30	-8 -20	-12 -42	-11 -23
6 ≥ 10 *(0.394")*	+220 0	+/-7,5	+/-18	+2 -7	+5 -10	-3 -12	0 -15	-4 -19	0 -36	-9 -24	-15 -51	-13 -28
10 ≥ 18 *(0.708")*	+270 0	+/-9	+/-21,5	+2 -9	+6 -12	-4 -15	0 -18	-5 -23	0 -43	-11 -29	-18 -61	-16 -34
18 ≥ 30 *(1.181")*	+330 0	+/-10,5	+/-26	+2 -11	+6 -15	-4 -17	0 -21	-7 -28	0 -52	-14 -35	-22 -74	-20 -41
30 ≥ 50 *(1.969")*	+390 0	+/-12,5	+/-31	+3 -13	+7 -18	-4 -20	0 -25	-8 -33	0 -62	-17 -42	-26 -88	-25 -50
50 ≥ 65 *(2.559")*	+460 0	+/-15	+/-37	+4 -15	+9 -21	-5 -24	0 -30	-9 -39	0 -74	-21 -51	-32 -106	-30 -62
65 ≥ 80 *(3.150")*												
80 ≥ 100 *(3.937")*	+260 +120	+159 +72	+71 +36	+90 +36	+47 +12	-	+22 0	+35 0	+54 0	+87 0	+140 0	+350 0
100 ≥ 120 *(4.724")*												
120 ≥ 140 *(5.512")*	+305 +145	+185 +85	+83 +43	+106 +43	+54 +14	-	+25 0	+40 0	+63 0	+100 0	+160 0	+400 0
140 ≥ 160 *(6.299")*												
160 ≥ 180 *(7.087")*												
180 ≥ 200 *(7.874")*	+355 +170	+215 +110	+96 +50	+122 +50	+61 +15	-	+29 0	+46 0	+72 0	+115 0	+185 0	+460 0
200 ≥ 225 *(8.858")*												
225 ≥ 250 *(9.843")*												
250 ≥ 280 *(11.0236")*	+400 +190	+240 +110	+108 +56	+137 +56	+69 +17	-	+32 0	+52 0	+81 0	+130 0	210 0	+520 0
280 ≥ 315 *(12.402")*												
315 ≥ 355 *(13.976")*	+440 +210	+265 +125	+119 +62	+151 +62	+75 +18	-	+36 0	+57 0	+89 0	+140 0	+230 0	+570 0
355 ≥ 400 *(15.748")*												

Geometrical tolerance

	Drawing symbol	Tolerance area
Circularity		
Cylindricity		
Positioning localisation		

Steels, ferritic and martensitic stainless steels

SMG	Description	Properties	Reference	$k_{c1.1}$	m_c
P1	Free-cutting steels	360 < R_m < 880	11 SMn30 R_m = 385 N/mm^2	1500	0,14
P2	Low-alloy ferritic steels, C < 0.25%wt Low-alloy weldable general structural steels	320 < R_m < 600	S235JRG2 R_m = 420 N/mm^2	1600	0,23
P3	Ferritic & ferritic/pearlitic steels, C < 0.25%wt Weldable general structural steels Case-hardening steels	430 < R_m < 610	16 MnCr 5 R_m = 550 N/mm^2	1800	0,14
P4	Low-alloy general structural steels, 0.25% < C < 0.67%wt Low-alloy Quench & Temper steels	520 < R_m < 1200	C 45E R_m = 660 N/mm^2	2000	0,15
P5	Structural steels, 0.25% < C < 0.67%wt Quench & Temper steels	550 < R_m < 1200	42 CrMo 4 R_m = 700 N/mm^2	2020	0,18
P6	Low-alloy through-hardening steels, C > 0.67%wt Low-alloy spring and bearing steels	520 < R_m < 1200	C 100S R_m = 600 N/mm^2	2100	0,17
P7	Through-hardening steels, C > 0.67%wt Spring and bearing steels	600 < R_m < 1200	100 Cr 6 R_m = 650 N/mm^2	2160	0,17
P8	Tool steels High Speed Steels (HSS)	600 < R_m < 1200	X 40 CrMoV 5 1 R_m = 700 N/mm^2	2400	0,20
P11	Ferritic & martensitic stainless steels	415 < R_m < 1200	X 20 Cr 13 R_m = 675 N/mm^2	2000	0,15
P12	Maraging and precipitation-hardening stainless steels	500 < R_m < 1200	X 5 CrNiCuNb 16 4 R_m = 1100 N/mm^2	2100	0,17

Free-cutting, austenitic and duplex stainless steels

SMG	Description	Properties	Reference	$k_{c1.1}$	m_c
M1	Free-cutting austenitic stainless steels		X 10 CrNiS 18 9	1700	0,14
M2	Low-alloy austenitic stainless steels		X 5 CrNi 18 10	1920	0,18
M3	Medium-alloy austenitic stainless steels		X 2 CrNiMo 18 14 3	2070	0,17
M4	High-alloy austenitic and duplex stainless steels		X 2 CrNiMoN 22 5 3	2230	0,16
M5	Difficult high-alloy austenitic and duplex stainless steels		X 2 CrNiMoN 25 7 4	2510	0,13

Cast irons

SMG	Description	Properties	Reference	$k_{c1.1}$	m_c
K1	Grey cast irons (GCI)		EN-GJL-250	930	0,32
K2	Compacted graphite irons (CGI)		EN-GJV-400	1000	0,35
K3	Malleable cast irons (MCI)		EN-GJMB-550-4	1050	0,37
K4	Nodular cast irons (SGI)		EN-GJS-500-7	1160	0,37
K5	Austempered ductile irons (ADI)		EN-GJS-1000-5		
K6	Austenitic lamellar cast irons		EN-GJLA-XNiCuCr15-6-2		
K7	Austenitic nodular cast irons		EN-GJSA-XNiMn23-4		

Non-ferrous metals

SMG	Description	Properties	Reference	$k_{c1.1}$	m_c
N1	Aluminium alloys, Si < 9%		AW-7075		
N2	Aluminium alloys, 9% < Si < 16%		AC-44200 Si = 12%		
N3	Aluminium alloys, Si >16%		AlSi17Cu5		
N11	Copper alloys		CW614N	740	0,26

Superalloys and titanium

SMG	Description	Properties	Reference	$k_{c1.1}$	m_c
S1	Iron-based superalloys		Discalloy		
S2	Cobalt-based superalloys		Stellite 21		
S3	Nickel-based superalloys		Inconel 718	2530	0,21
S11	Titanium, low alloyed, (α)		Ti		
S12	Titanium, medium alloyed, (α+β)		TiAl6V4	1500	0,24
S13	Titanium, high alloyed, (near β and β)		Ti10V2Fe3Al		

Hard materials

SMG	Description	Properties	Reference	$k_{c1.1}$	m_c
H3	Case-hardened steels	58 < HRC < 62	16 MnCr 5 60 HRC	2070	0,14
H5	Quenched & Tempered steels	38 < HRC < 56	42 CrMo 4 50 HRC	2320	0,18
H7	Quenched & Tempered steels Bearing steels	56 < HRC < 64	100 Cr 6 60 HRC	2480	0,17
H8	Tool steels High Speed Steels (HSS)	38 < HRC < 64	X 40 CrMoV 5 1 50 HRC	2750	0,20
H11	Martensitic stainless steels	38 < HRC < 50	X 20 Cr 13 45 HRC	2300	0,15
H12	Maraged and precipitation-hardened stainless steels	1200 < R_m < 1650	X 5 CrNiCuNb 16 4 R_m = 1450 N/mm^2	2410	0,17
H21	Manganese steels	23 < HRC < 64	X 120 Mn 12 50 HRC		
H31	White cast irons	50 < HRC < 64	EN-GJN-HV600(XCr11) 55 HRC		

Other difficult materials

SMG	Description	Properties	Reference	$k_{c1.1}$	m_c
PM1	Low-alloy PM-materials		F-0008 Fe-0.7C		
PM2	Medium-alloy PM-materials		FLC-4608 Fe2Cu1.8Ni 0.5Mo0.2Mn0.8C		
PM3	High-alloy PM-materials Exhaust valve seat materials, etc.				
HF1	Hardfacing alloys Welded or plasma-deposited iron-based alloys				
HF2	Hardfacing alloys Welded or plasma-deposited cobalt- and nickel-based alloys				
CC1	Sintered tungsten carbide		G50		

Plastics and Composites

SMG	Description	Properties	Reference	$k_{c1.1}$	m_c
TS1	Thermosetting polymers		Urea formaldehyde (UF)		
TS2	Thermosetting carbon-fibre composites		T300 T700 T800 HTA-S IMA - Epoxy (M21)...		
TS3	Thermosetting glass-fibre composites		Epoxy - HX..(42..)/E glass (7781...)...		
TS4	Thermosetting aramide-fibre composites		Kevlar 49		
TP1	Thermoplastic polymers		Polycarbonate (PC)		
TP2	Thermoplastic carbon-fibre composites		PPS/PEEK - T300..		
TP3	Thermoplastic glass-fibre composites		PPS/PEEK - E-glass or A-glass...		
TP4	Thermoplastic aramide-fibre composites				

Graphite

SMG	Description	Properties	Reference	$k_{c1.1}$	m_c
GR1	Graphite		R 8500		

SMG

SMG	EN	EN-Nr	W.-Nr	DIN	AFNOR	BS	UNI	JIS	SS	UNS
	11 SMn 30	1.0715	1.0715	9 SMn 28	S 250	230 M 07	CF 9 SMn 28	SUM 22	1912	G12130
	11 SMnPb 30	1.0718	1.0718	9 SMnPb 28	S 250 Pb		CF 9 SMnPb 28	SUM 22 L	1914	G12134
	10 S 20	1.0721	1.0721	10 S 20	10 F 1	210 M 15	CF 10 S 20			
			1.0722	10 SPb 20	10 PbF 2		CF 10 SPb 20			
P1	15 SMn 13	1.0725	1.0723	15 S 20		210 A 15		SUM 32	1922	
	35 S20	1.0726	1.0726	35 S 20	35 MF 4	212 M 36			1957	G11400
	46 S20	1.0727	1.0727	46 S 20	45 MF 4	212 M 44			1973	G11460
	11 SMn 37	1.0736	1.0736	9 SMn 36	S 300	240 M 07	CF 9 SMn 36			G12150
	11 SMn 37	1.0736	1.0736	9 SMn 36	S 300	240 M 07	CF 9 SMn 36			G12150
	S235JR	1.0037	1.0037	St 37-2	E 24-2		Fe 360 B	STKM 12 C	1311	
	S235JRG2	1.0038	1.0116	St 37-3	E 24-3, E 24-4	4360-40 C	Fe 360 D FF		1312, 1313	
	S275J2G3	1.0144	1.0144	St 44-3 N	E 28-3, E 28-4	4360-43 C	Fe 430 D FF	SM 41 C	1412, 1414	
	C 10	1.0301	1.0301	C 10	34 C 10, XC 10	045 M 10	C 10	S 10 C		G10100
P2			1.0401	C 15	37 C 12, XC 18	080 M 15	C 15, C 16		1350	G10170
	C22	1.0402	1.0402	C 22	C 20	050 A 20	C 20, C 21		1450	G10200
	S355JR	1.0570	1.0570	St 52-3	E 36-3, E 36-4	4360-50 C	Fe 510 B	SM 50 YA	2172, 2132	
	C 15R	1.1141	1.1141	Ck 15	XC 15, XC 18	080 M 15	C 15, C 16	S 15 C, S 15 CK	1370	G10170
			1.1158	Ck 25	XC 25	060 A 25	C 25	S 25 C		G10250
			1.2162	21 MnCr 5	20 NC 5			SCR 420 H		
	16 Mo 3	1.5415	1.5415	15 Mo 3	15 D 3	1501-240	16 Mo 3		2912	
			1.5423	16 Mo 5		1503-245-420	16 Mo 5	SB 450 M		G45200
	14 NiCr 14	1.5752	1.5752	14 NiCr 14	12 NC 15	655 M 13		SNC 815 (H)		G33106
			1.5919	15 CrNi 6	16 NC 6	S 107	16 CrNi 4			
	18 NiCrMo 7 6	1.6587	1.6587	18 CrNiMo 7 6	18 NCD 6	820 A 16	18 NiCrMo 7			
P3	16 MnCr 5	1.7131	1.7131	16 MnCr 5	16 MC 5	527 M 17	16 MnCr 5	SCR 415	2511	G51170
	16 MnCrS 5	1.7139	1.7139	16 MnCrS 5						
	20 MnCr 5	1.7147	1.7147	20 MnCr 5	20 MC 5		20 MnCr 5	SMnC 420 (H)		G51200
	20 MnCrS 5	1.7149	1.7149	20 MnCrS 5	20 MnCrS 5			SMnC 21 H		
	13 CrMo 4 5	1.7335	1.7335	13 CrMo 4 4	15 CD 3.5	1501-620 Gr. 27	14 CrMo 4 5		2216	
			1.7337	16 CrMo 4 4	15 CD 4.5	1501-620 Gr. 27	14 CrMo 4 5		2216	
	10 CrMo 9 10	1.7380	1.7380	10 CrMo 9 10	10 CD 9.10	1501-622 Gr. 31	12 CrMo 9 10		2218	J21890
	C35		1.0501	C 35	55 C 35	060 A 35	C 35		1550	G10350
	E 335	1.0503	1.0503	C 45	65 C 45	80 M 46	C 45	S 45 C	1650	G10430
	C40		1.0511	C 40	60 C 40	080 M 40	C 40	S 40 C		
	E 360	1.0070	1.0535	St 70-2	A 70-2		Fe 690		1655	
	C60	1.0601	1.0601	C 60	CC 55	080 A 62	C 60			G10600
P4			1.1157	40 Mn 4	35 M 5	150 M 36				G10390
	G 28 Mn6	1.1165	1.1165	30 Mn 5		120 M 36		SMn 1 H, SCMn 2		G13300
	C 35E	1.1181	1.1181	Ck 35	XC 38 H1	080 M 36	C 35	S 35 C	1572	G10340
	C 45E	1.1191	1.1191	Ck 45	XC 42	080 M 46	C 45	S 45 C	1672	G10420
	C 60E	1.1221	1.1221	Ck 60	XC 60	080 A 62	C 60	S 58 C	1665, 1678	G10640
			1.1740	C 60 W	Y3 55			SK 7		
	55 SiCr7	1.7100	1.0904	55 Si 7	55 S 7	250 A 53	55 Si 8		2085, 2090	
			1.2330	35 CrMo 4	34 CD 4	708 A 37	35 CrMo 4		2234	T51620
			1.2542	45 WCrV 7		BS 1	45 WCrV 8 KU		2710	T41901
		1.2714	1.2714	56 NiCrMoV 7		BH 224-5	56 NiCrMoV7-KU	SKT 4		T61206
			1.5121	46 MnSi 4						
			1.5710	36 NiCr 6	35 NC 6	640 A 35		SNC 236		
			1.5736	36 NiCr 10	35 NC 11		35 NiCr 9	SNC 631 (H)		
	36 CrNiMo 4		1.6511	36 CrNiMo 4	40 NCD 3	816 M 40	38 NiCrMo 4 (KB)			G98400
P5	34 CrNiMo 6	1.6582	1.6582	34 CrNiMo 6	35 NCD 6	817 M 40	35 NiCrMo 6 (KW)	SNCM 447	2541	G43400
	34 Cr 4	1.7033	1.7033	34 Cr 4	32 C 4	530 A 32	34 Cr 4 (KB)	SCR 430 (H)		G51320
	41 Cr 4	1.7035	1.7035	41 Cr 4	42 C 4	530 M 40	41 Cr 4	SCR 440 (H)		G51400
	25 CrMo 4	1.7218	1.7218	25 CrMo 4	25 CD 4 S	708 M 25	25 CrMo 4 (KB)	SCM 425	2225	G41300
	42 CrMo 4	1.7225	1.7225	42 CrMo 4	42 CD 4	708 M 40	42 CrMo 4	SCM 440 (H)	2244	G41400
	42 CrMo 4	1.7225	1.7225	42 CrMo 4	42 CD 4	708 M 40	42 CrMo 4	SCM 440 (H)	2244	G41400
			1.7361	32 CrMo 12	30 CD 12	722 M 24	32 CrMo 12		2240	
	50 CrV 4	1.8159	1.8159	50 CrV 4	50 CV 4	735 A 50	51 CrV 4	SUP 10	2230	H61500
	41 CrAlMo 7 10	1.8509	1.8509	41 CrAlMo 7	40 CAD 6.12	905 M 39	41 CrAlMo 7	SACM 645	2940	K24065
	C 67S	1.1231	1.1231	Ck 67	XC 68	060 A 67	C 70		1770	G10700
	C 100S	1.1274	1.1274	Ck 101		060 A 96		SUP 4	1870	G10950
P6	C 105U	1.1545	1.1545	C 105 W1	Y1 105		C 100 KU		1880	
			1.1645	C 105 W2	Y1 105		C 100 KU	SK 3		
			1.1663	C 125 W	Y2 120		C 120 KU	SK 2		

SMG

U.N.E./ I.H.A.	AISI / ASTM	GOST	ČSN	Misc. Brands	Condition	Structure
	1213				Annealed	
	12 L 13				Annealed	
	1108				Annealed	
	11 L 08				Annealed	
					Annealed	
	1140	40			Annealed	
	1146				Annealed	
	1215				Annealed	
	12 L 14				Annealed	
		16D			Annealed	
	A573 Grade 58	18kp	11 378		Annealed	
	A573 Grade 70	St14kP	11 448		Annealed	
	1010	10			Annealed	
F.1110	1015	15			Annealed	
	1020, 1023	20	12 024		Annealed	
		17G1S	11 523		Annealed	
F.1511	1015	15			Annealed	
F.1120	1025	25			Annealed	
					Annealed	
	A204 Grade A		15 020		Annealed	
	4520				Annealed	
	3310, 9314	20X2H4A	16 420		Annealed	
	4320		16 220		Annealed	
					Annealed	
F.1516	5115	12KHN2	14 220		Annealed	
		18HG			Annealed	
	5120	20KH	14 221		Annealed	
	5120 H	20KH			Annealed	
	A182-F11, A182-F12	12KHM	15 121		Annealed	
	A387 Grade 12 Cl. 2				Annealed	
F.155	A182-F22	12KH8	15 313		Annealed	
F.1130	1035	35	12 040		Annealed	
F.5110	1045	45	12 050		Annealed	
	1040	40	12 041		Annealed	
F.1150	1055	55			Annealed	
	1060	60	12 061		Annealed	
	1039	40G			Annealed	
	1330	30G2			Annealed	
F.1135	1035	35			Annealed	
F.1140	1045	45	12 050		Annealed	
F.1150	1064	60			Annealed	
	1060	60			Annealed	
F.144	9255	55S2			Annealed	
F.1250	4135	35KHM			Annealed	
F.5241	S1	5KHV2S			Annealed	
	L6	5KHNV			Annealed	
	5045				Annealed	
	3135				Quenched & Tempered	
	3435				Annealed	
	9840				Quenched & Tempered	
F.1280	4340	38H2N2MA	16 343		Annealed	
	5132	35KH			Quenched & Tempered	
	5140	40H	14 140		Quenched & Tempered	
F.1251	4130	20KHM	15 130		Quenched & Tempered	
F.1252	4142, 4140	38HM	15 142		Annealed	
F.1252	4142, 4140	38HM	15 142		Quenched & Tempered	
					Quenched & Tempered	
F.143	6150	50KHFA	15 260		Quenched & Tempered	
F.1740	A355 Cl. A				Annealed	
F.5103	1070	70			Annealed	
F.5117	1095				Annealed	
F.5118	W1	U10A			Annealed	
		U10			Annealed	
	W1	U13			Annealed	

SMG

SMG	EN	EN-Nr	W.-Nr	DIN	AFNOR	BS	UNI	JIS	SS	UNS
P7	107 CrV 3	1.2210	1.2210	115 CrV 3	100 C 3		107 CrV 3 KU			T61202
			1.2510	100 MnCrW 4	90 MWCV 5	BO 1	95 MnWCr 5 KU	SKS 3	2140	T31501
	90 MnCrV 8	1.2842	1.2842	90 MnCrV 8	90 MV 8	BO 2	90 MnVCr 8 KU			T31502
	100 Cr 6	1.3505	1.3505	100 Cr 6	100 C 6	534 A 99	100 Cr 6	SUJ 2	2258	G51986
P8	X 210 Cr 12	1.2080	1.2080	X 210 Cr 12	Z 200 C 12	BD 3	X 210 Cr 13 KU	SKD 1		T30403
			1.2343	X 38 CrMoV 5 1	Z 38 CDV 5	BH 11	X 37 CrMoV 5 1 KU	SKD 6		T20811
	X 40 CrMoV 5 1	1.2344	1.2344	X 40 CrMoV 5 1	Z 40 CDV 5	BH 13	X 40 CrMo 5 1 1 KU	SKD 61	2242	T20813
	X 100 CrMoV 5	1.2363	1.2363	X 100 CrMoV 5 1	Z 100 CDV 5	BA 2	X 100 CrMoV 5 1 KU	SKD 12	2260	T30102
			1.2365	X 32 CrMoV 3 3	32 DCV 28	BH 10	30 CrMoV 12 27 KU	SKD 7		T20810
			1.2436	X 210 CrW 12			X 215 CrW 12 1 KU	SKD 2	2312	
			1.2601	X 165 CrMoV 12			X 165 CrMoW 12 KU		2310	
			1.2713	55 NiCrMoV 6	55 NCDV 7			SKT 4		T61206
	HS 6-5-2-5	1.3243	1.3243	S 6-5-2-5	Z 85 WDKCV 06-05-05-04-02		HS 6-5-2-5	SKH 55	2723	
	HS 2-10-1-8	1.3247	1.3247	S 2-10-1-8	Z 110 DKCWV 09-08-04	BM 42	HS 2-9-1-8	SKH 51		T11342
	HS 18-1-2-5	1.3255	1.3255	S 18-1-2-5	Z 80 WKCV 18-05-04-01	BT 4	HS 18-1-1-5	SKH 3		T12004
	HS 6-5-2	1.3343	1.3343	S 6-5-2	Z 85 WDCV 06-05-04-02	BM 2	HS 6-5-2	SKH 9, SKH 51	2722	T11302
	HS 2-9-2	1.3348	1.3348	S 2-9-2	Z 100 DCWV 09-04-02-02		HS 2-9-2	SKH 58	2782	T11307
	HS 18-0-1	1.3355	1.3355	S 18-0-1	Z 80 WCV 18-04-01	BT 1	HS 18-0-1	SKH 2		T12001
P11	X 6 Cr 13	1.4000	1.4000	X 6 Cr 13	Z 6 C 12	403 S 17	X 6 Cr 13	SUS 403	2301	S41008
	X 12 Cr 13	1.4006	1.4006	X 10 Cr 13	Z 10 C 13	410 S 21	X 12 Cr 13	SUS 410	2302	S41000
	X 6 Cr 17	1.4016	1.4016	X 6 Cr 17	Z 8 C 17	430 S 15	X 8 Cr 17	SUS 430	2320	S43000
	X 20 Cr 13	1.4021	1.4021	X 20 Cr 13	Z 20 C 13	420 S 37	X 20 Cr 13	SUS 420 J 1	2303	S42000
	X 39 Cr 13	1.4031	1.4031	X 40 Cr 13	Z 40 C 14	420 S 45	X 40 Cr 14	SUS 420	2304	S40280
	X 70 CrMo 15	1.4109	1.4109	X 65 CrMo 14	Z 70 D 14			SUS 440 A		S44002
	X 90 CrMoV 18	1.4112	1.4112	X 90 CrMoV 18	Z 2 CND 18 05	409 S 19	X CrTi 12	SUS 440 B	2327	S44003
	X 105 CrMo 17	1.4125	1.4125	X 105 CrMo 17	Z 100 CD 17		X 105 CrMo 17	SUS 440 C		S44004
	X 3 CrNIMo 13 3	1.4313	1.4313	X 5 CrNi 13 4	Z 5 CN 13.4	425 C 11	X 6 CrNi 13 04	SCS 5	2385	S41500
	X 18 CrN 28	1.4749	1.4749	X 18 CrN 28	Z 18 C 25				2322	S44600
P12	X 6 NiCrTiMoV 25 15	1.4534	1.4534	X 3 CrNiMoAl 13 8 2						S13800
	X 4 CrNiCuNb 16 4	1.4540	1.4540	X 4 CrNiCuNb 16 4						S15500
		1.4540	1.4540	X 4 CrNiCuNb 16 4	Z 4 CNUNb 16.4 M					S15500
	X 4 CrNiCuNb 16 4	1.4540	1.4540	X 4 CrNiCuNb 16 4						S15500
	X 5 CrNiCuNb 16 4	1.4542	1.4542	X 5 CrNiCuNb 16 4				SUS 630		S17400
	X 5 CrNiCuNb 17 4	1.4548	1.4542	X 5 CrNiCuNb 17 4	Z 6 CNU 17.4			SCS 24, SUS 630		S17400
	X 7 CrNiAl 17 7	1.4564	1.4564	X 7 CrNiAl 17 7	Z 9 CAN 17.7	301 S 81	X 7 CrNiAl 17 7	SUS 631	2388	S17700
	X 2 NiCoMoTi 18 12 4	1.6356	1.6356	X 2 NiCoMoTi 18 12 4						K93160
	X 2 NiCoMoTi 18 9 5	1.6358	1.6358	X 2 NiCoMoTi 18 9 5	Z 2 NKD 19-09					K93120
	X 2 NiCoMo 18 9 5	1.6358	1.6358	X 2 NiCoMoTi 18 9 5	Z 2 NKD 19-09					K93120
	X 2 NiCoMo 18 8 5	1.6359	1.6359	X 2 NiCoMo 18 8 5		S 162				K92890
	X 2 NiCoMo 18 8 5	1.6359	1.6359	X 2 NiCoMo 18 8 5		S 162				K92890
M1	X 10 CrNiS 18 9	1.4305	1.4305	X 10 CrNiS 18 9	Z 10 CNF 18.09	303 S 31	X 10 CrNi 18 09	SUS 303	2346	S30300
M2	X 2 CrNi 19 11	1.4306	1.4306	X 2 CrNi 19 11	Z 2 CN 18.10	304 S 12	X 3 Cr Ni 18 11	SUS 304 L	2352	S30403
	X 5 CrNi 18 10	1.4301	1.4301	X 5 CrNi 18 10	Z 6 CN 18.09	304 S 31	X 5 CrNi 18 11	SUS 304	2333	S30400
	X 5 CrNiMo 17 12 2	1.4401	1.4401	X 5 CrNiMo 17 12 2	Z 3 CND 17.11.1	316 S 31	X 5 CrNiMo 17 12	SUS 316	2347	S31600
	X 6 CrNiNb 18 10	1.4550	1.4550	X 6 CrNiNb 18 10	Z 6 CNNb 18.10	347 S 31	X 6 CrNiNb 18 11	SUS 347	2338	S34700
	X 9 CrNi 18 8	1.4310	1.4310	X 12 CrNi 17 7	Z 12 CN 17.07	301 S 21	X 12 CrNi 17 07	SUS 301	(2331)	S30100
	X 12 CrNi 18 8	1.4300	1.4300	X 12 CrNi 18 8	Z 12 CN 18	302 S 25		SUS 302	2331	S30200
M3	X 2 CrNiMo 18 14 3	1.4435	1.4435	X 2 CrNiMo 18 14 3	Z 2 CND 17.13	316 S 12	X 2 CrNiMo 17 13 2	SCS 16, SUS 316 L	2353	S31603
	X 2 CrNiMoN 17 13 3	1.4429	1.4429	X 2 CrNiMoN 17 13 3	Z 2 CND 17.13 Az	316 S 62	X 2 CrNiMoN 17 13 3	SUS 316 LN	2375	S31653
	X 2 CrNiN 18 10	1.4311	1.4311	X 2 CrNiN 19 11	Z 2 CN 18 .10 Az	304 S 62	X 2 CrNiN 18 11	SUS 304 LN	2371	S30453
	X 3 CrNiMo 18 12 3	1.4466	1.4466	X 5 CrNi 18 15		317 S 16	X 5 CrNi 18 15	SUS 317	2366	S31700
	X 9 CrNiSiNCe 21 11 2	1.4835	1.4893	X 9 CrNiSiNCe 21 11 2		310 S 31			2368	S30815
	X 12 CrNi 25 21	1.4335	1.4335	X 12 CrNi 25 21	Z 12 CN 25.20	310 S 24	X 6 CrNi 26 20	SUH 310, SUS 310 S	2361	S31008
M4	X 2 CrNiMoN 22 5 3	1.4462	1.4462	X 2 CrNiMoN 22 5	Z 2 CND 22.05 Az	332 S 15	X 2 CrNiMoN 22 5		2377	S31803
	X 2 CrNiMoSi 19 5	1.4424	1.4417	X 2 CrNiMoSi 19 5	Z 2 CND 18.05.03				2376	S31500
	X 2 NiCrMoCu 25 20 5	1.4539	1.4539	X 2 NiCrMoCu 25 20 5	Z 2 NCDU 25 20	904 S 13			2562	N08904
	X 3 CrNiMo 27 5 2	1.4460	1.4460	X 4 CrNiMo 27 5 2	Z 3 CND 25.7 Az		X 3 CrNiMo 27 5 2	SUS 329 J 1	2324	S32900
	X 5 CrNiCuNb 16 4	1.4980	1.4943	X 4 NiCrTi 25 15	Z 6 NCTDV 25.15	HR 51		SUH 660	2570	S66286
M5	X 1 CrNiMoN 20 18 7	1.4547	1.4529	X 1 CrNiMoN 20 18 7	Z 1 CNDU 20.18.05 Az		X 1 CrNiMoN 20 18 7		2778	S31254
	X 1 CrNiMoN 25 22 8	1.4652	1.4652	X 2 CrNiMoN 25 22 7						S32654
	X 10 NiCrAlTi 32 20	1.4876	1.4876	X 10 NiCrAlTi 32 20	Z 10 NC 32.21			NCF 800		N08800
	X 2 CrNiMoN 25 7 4	1.4410	1.4410	X 2 CrNiMoN 25 7 4	Z 3 CND 25.07 Az		X 2 CrNiMoN 25 7 4		2328	S32750

SMG

U.N.E./ I.H.A.	AISI / ASTM	GOST	ČSN	Misc. Brands	Condition	Structure
F.520L	L2	11KHF			Annealed	
F.5220	O1	9KHVG			Annealed	
	O2	9G2F			Annealed	
F.5230	52100	SHKH15	14 109		Annealed	
F.5212	D3	KH12			Annealed	
	H11	4KH5MFS			Annealed	
F.5318	H13	4KH5MF1S			Annealed	
F.5227	A2	9KH5VF			Annealed	
	H10	3KH3M3F			Annealed	
F.5213		KH12			Annealed	
		KH12MF			Annealed	
F.520.S	L6	5KHNM			Annealed	
F.5613	M35	R6M5K5			Annealed	
	M42	R2AM9K5			Annealed	
	T4	R18K5F2			Annealed	
F.5603	M2	R6M5			Annealed	
	M7				Annealed	
	T1	R18			Annealed	
	403	08KH13			Annealed	Ferritic
F.3401	410, CA-15	12KH13, 08KH13			Annealed	Martensitic
F.3113	430	12KH17			Annealed	Ferritic
F.5261	420	20KH13	17 022		Annealed	Martensitic
F.3404	420	40KH13			Annealed	Martensitic
	440 A				Annealed	Martensitic
	440 B	95KH18			Annealed	Martensitic
	440 C	95KH18			Annealed	Martensitic
	A182 F6NM			F6NM	Annealed	Martensitic
	446	15KH28			Annealed	Ferritic
	XM-13			PH 13-8 Mo	Solution annealed	Austenitic
	XM-12			15-5 PH	H1150	Martensitic
	XM-12			15-5 PH	Solution annealed	Martensitic
	XM-12			15-5 PH	H1025	Martensitic
	SAE 630			17-4 PH	H1150	Martensitic
	630			17-4 PH	Solution annealed	Martensitic
	631	09KH17N7YU1		17-7 PH	Solution annealed	Austenitic/Ferritic
	AMS 6515			Marage 350	Solution annealed	Martensitic
	AMS 6521			Marage 300	Solution annealed	Martensitic
	AMS 6514			Marage 300, Vascomax C300	Solution annealed	Martensitic
	AMS 6512			Marage 250	Solution annealed	Martensitic
	AMS 6512			Marage 250, Vascomax C250	Solution annealed	Martensitic
F.3508	303	12KH19N9			Annealed	Austenitic
F.3504	304 L	03KH18N11			Annealed	Austenitic
F.3504	304	08KH18N10	17 240		Annealed	Austenitic
F.3534	316	08KH17H13M2T	17 346		Annealed	Austenitic
F.3524	347	08KH18N12B			Annealed	Austenitic
F.3517	301	07KH16N6			Annealed	Austenitic
	302	12KH18N9			Annealed	Austenitic
F.3533	(316 L)	03KH17N14M3	17 349		Annealed	Austenitic
	316 LN	03KH16N15M3			Annealed	Austenitic
F.3541	304 LN	03KH18N11			Annealed	Austenitic
	317	08KH17H15M3T			Annealed	Austenitic
				253 MA	Annealed	Austenitic
	310 S	12KH25N20			Annealed	Austenitic
	329 LN			SAF 2205	Annealed	Duplex
				3RE60	Annealed	Duplex
	904L				Annealed	Super austenitic
	329				Annealed	Duplex
	660			A286	Solution annealed	Austenitic
				254 SMO	Annealed	Super austenitic
				654 SMO	Annealed	Super austenitic
				Alloy 800	Annealed	Austenitic
	F 53			SAF 2507	Annealed	Super duplex

SMG

SMG	EN	EN-Nr	W.-Nr	DIN	AFNOR	BS	UNI	JIS	SS	UNS
	EN-GJL-150	0.6150	0.6150	GG-15	Ft 15 D	Grade 150	G15	FC 150	01 15-00	F11601
	EN-GJL-200	0.6200	0.6200	GG-20	Ft 20 D	Grade 220	G20	FC 200	01 20-00	F12101
K1	EN-GJL-250	0.6250	0.6250	GG-25	Ft 25 D	Grade 260	G25	FC 250	01 25-00	F12401
	EN-GJL-350	0.6350	0.6350	GG-35	Ft 35 D	Grade 350	G35	FC 350	01 35-00	F13502
	EN-GJL-215			GG-220 HB					02 19	
	EN-GJV-300			GJV-300						
	EN-GJV-350			GJV-350						
K2	EN-GJV-400			GJV-400						
	EN-GJV-450			GJV-450						
	EN-GJV-500			GJV-500						
K3	EN-GJMB-550-4	0.8155		GTS-55-04	P 540/5	P 540/5	P 55-04	PCMP55-04	08 54-00	F24130
	EN-GJS-350-22	0.7033	0.7033	GGG-35.3	FGS 370-17	Grade 350/22		FCD 350-22L	07 17-15	
	EN-GJS-400-15	0.7040	0.7040	GGG-40	FGS 400-12	Grade 420/12	GS 400-12	FCD 400-18L	07 17-02	F32800
K4	EN-GJS-400-18	0.7043	0.7043	GGG-40.3	FGS 370-17	Grade 370/17	GSO 42/17		07 17-12	F32800
	EN-GJS-500-7	0.7050	0.7050	GGG-50	FGS 500-7	Grade 500/7	GS 500-7	FCD 500-7	07 27-02	F33800
	EN-GJS-600-3	0.7060	0.7060	GGG-60	FGS 600-3	Grade 600/3	GS 600-3	FCD 600-3	07 32-03	F34100
	EN-GJS-700-2	0.7070	0.7070	GGG-70	FGS 700-2	Grade 700/2	GS 700-2	FCD 700-2	07 37-01	F34800
										ADI grade 5
	EN-GJS-1000-5			GJS-1000-5						ADI grade 2
K5	EN-GJS-1200-2			GJS-1200-2						ADI grade 3
	EN-GJS-1400-1			GJS-1400-1						ADI grade 4
	EN-GJS-800-8			GJS-800-8						ADI grade 1
	EN-GJLA-XNiCr 20-2	0.6660	0.6660	GGL-NiCr 20 2	FGL Ni20 Cr2	Grade F2			05 23-00	F41002
K6	EN-GJLA-XNiCr 30-3	0.6676	0.6676	GGL-NiCr 30 3	FGL Ni30 Cr3	Grade F3				F41004
	EN-GJLA-XNiCuCr 15-6-2	0.6655	0.6655	GGL-NiCuCr 15 6 2	FGL Ni15 Cu6 Cr2	Grade F1				F41000
	EN-GJSA-XNiMn 13-7	0.7652	0.7652	GGG-NiMn 13 7	FGS Ni13 Mn7	Grade S6			07 72-00	
	EN-GJSA-XNiCr 20-2	0.7660	0.7660	GGG-NiCr 20 2	FGS Ni20 Cr2	Grade S2				F43000
K7	EN-GJSA-XNiMn 23-4	0.7673	0.7673	GGG-NiMn 23 4	FGS Ni23 Mn4	Grade S2M				F43010
	EN-GJSA-XNiCr 30-3	0.7676	0.7676	GGG-NiCr 30 3	FGS Ni30 Cr3	Grade S3				F43003
	EN-GJSA-XNi 35	0.7683	0.7683	GGG-Ni 35	FGS Ni35					F43006
	AW-1050A	Al99.5	3.0255	Al99.5	A-5/1050A	1B		(A1050)	4007	AA1050A
	AW-2011	AlCuBiPb	3.1655	AlCuBiPb	A-U5PbBi/2011	FC1		A2011	4355	AA2011
	AW-2014	AlCuSiMn	3.1255	AlCuSiMn	A-U4SG/2014	H15			4338	AA2014
	AW-5005	AlMg1	3.3315	AlMg1	A-G0.6	N41			4106	AA5005
	AW-6060	AlMgSi0.5	3.3206	AlMgSi0.5	A-GS/6060	(H9)			4103	AA6060
	AW-6063	AlMgSi0.7	3.3210	AlMgSi0.7	A-GSUC/6061	(H10)		(A6063)	4104, 4107	AA6005
	AW-3103	AlMn1	3.0515	AlMn1		N3			4054	AA3103
N1	AW-3003	AlMn1Cu	3.0517	AlMn1Cu	A-M1/3003			A3003		AA3003
	AW-7020	AlZn4.5Mg1	3.4335	AlZn4.5Mg1	A-Z5G/7020	H17			4425	AA7020
	AW-7075		3.4365	AlZnMgCu1.5	A-Z5GU/7075	2L95/2L96		A7075		AA7075
	AC-42000		3.2341	G-AlSi5Mg	A-S7G	LM25	3599	AC 4C	4244	
	AC-46200	AlSi8Cu3(Si)	3.2161	G-AlSi8Cu3					4251	A13800
	MG-P-63	MgAl6Zn	3.5612	G-MgAl6Zn	G-A6-Z1	MAG-E-121				M11600
	MG-P-61	MgAl8Zn	3.5812	G-MgAl8Zn	(G-A7-Z1)					
	MN65120	MgSe3Zn2Zr1	3.5103	G-MgSe3Zn2Zr1	ZRE1	MAG6-TE				M12330
	AC-43400	AlSi10Mg(Fe)	3.2381	G-AlSi10Mg	A-S10G	LM9			4253	A13600
N2	AC-44200	AlSi12	3.2382	GD-AlSi12						
	AW-6082	AlMgSi1	3.2315	AlMgSi1	A-SGM0.7/6082	H30			4212	AA6082
N3		AlSi17Cu5						ADC14		
	CC331G		2.0940.01	CuAl10Fe	CuAl10Fe	AB1			5710	C95200
	CC333G		2.0975.01	CuAl10Ni	CuAl10Ni5Fe5	AB2			5716	C95500
		CuNi10Fe1Mn	2.0872	CuNi10Fe1Mn	CuNi10Fe1Mn	CN102			5667	C70600
				CuNi10Zn45						
		CW408J	2.0790	CuNi18Zn19Pb	CuNi18Zn19Pb1					C76300
	CW352H		2.1176	CuPb10Sn	CuSn10Pb10	LB2			5640	C93700
	CC480K		2.1050.01	CuSn10	CuSn10	CT1			5443	C90700
N11			2.1087	CuSn10Zn					5458	C90500
	CW452K	CuSn6	2.1020	CuSn6	CuSn6	PB103		C5191	5428	C51900
	CW502L	CuZn15	2.0240	CuZn15	CuZn15	CZ102		C2300	5112	C23000
	CW706R	CuZn28Sn1	2.0470	CuZn28Sn1	CuZn29Sn1				5220	C44300
	CW508L	CuZn37	2.0321	CuZn37	CuZn37	CZ108			5150	C27200
	CW717R	CuZn38Sn1	2.0530	CuZn38Sn1						C46400
	CW614N	CuZn39Pb3	2.0401	CuZn39Pb3	CuZn39Pb3	CZ121			5170	C38500
	CW612N	CuZn40Pb2	2.0402	CuZn40Pb2	CuZn39Pb2	CZ120			5168	C37800
	CW622N	CuZn44Pb2	2.0410	CuZn44Pb2		CZ104			5272	C68700

SMG

U.N.E./ I.H.A.	AISI / ASTM	GOST	ČSN	Misc. Brands	Condition	Structure
	A48 25 B	Sc 15	422 415			Grey cast iron (GCI)
	A48 30 B	Sc 20	422 420			Grey cast iron (GCI)
	A48 35 B	Sc 25	422 425			Grey cast iron (GCI)
	A48 50 B	Sc 35				Grey cast iron (GCI)
	G 3500					Grey cast iron (GCI)
	Grade 350					Compacted graphite iron (CGI)
	Grade 400					Compacted graphite iron (CGI)
	Grade 400-15					Compacted graphite iron (CGI)
	Grade 450					Compacted graphite iron (CGI)
	Grade 500					Compacted graphite iron (CGI)
	A220 60004				Tempered	Malleable cast iron (MCI)
						Nodular cast iron (SGI)
FGE 38-17	60-40-18	Vc 42-12	422 304			Nodular cast iron (SGI)
	60-40-18	Vc 42-12				Nodular cast iron (SGI)
FGE 50-7	A536, 80-55-06	Vc 50-2	422 305			Nodular cast iron (SGI)
FGE 60-2	A476, 80-60-03	Vc 60-2	422 306			Nodular cast iron (SGI)
FGE 70-2	A536, 100-70-03	Vc 70-2				Nodular cast iron (SGI)
	1600/1300/-					Austempered ductile iron (ADI)
	1050/700/7					Austempered ductile iron (ADI)
	1200/850/4					Austempered ductile iron (ADI)
	1400/1100/1					Austempered ductile iron (ADI)
	850/550/10					Austempered ductile iron (ADI)
	A436 Type 2			Ni-Resist 2		Austenitic lamellar cast iron
	A436 Type 3			Ni-Resist 3		Austenitic lamellar cast iron
	A436 Type 1			Ni-Resist 1		Austenitic lamellar cast iron
				Nodumag		Austenitic nodular cast iron
	A436 Type D-2			Ni-Resist D-2		Austenitic nodular cast iron
	A439 Type D-2M			Ni-Resist D-2M		Austenitic nodular cast iron
	A436 Type D-3			Ni-Resist D-3		Austenitic nodular cast iron
	A439 Type D-5			Ni-Resist D-5		Austenitic nodular cast iron
	B26					
	A380					
	AZ61A					
	AZ80A					
	AMS 4442					
	B85					
	A413.2					
	B390.0					
	CA952	BrA9ZH3L				
	CA955	BrA10ZH4N4L				
	CA937					
		BrOF6.5-0.15				
		L90				
		LOMsh70-1-0.05				
		LO60-1				
		LAMsh77-2-0.05				

SMG

SMG	EN	EN-Nr	W.-Nr	DIN	AFNOR	BS	UNI	JIS	SS	UNS
S1										
S2										
S3	NiMo30		2.4810							N10002
	NiMo16Cr15W		2.4819							N10276
	NiCr19Fe19Nb5Mo3		2.4668							N07718
			2.4669							N07750
	NiCr20TiAl		2.4631							N07080
	NiCr19Co18Mo4Ti3Al3									N07500
	NiCr20Co13Mo4Ti3Al		2.4654							N07001
S11			3.7024							
										R54620
S12										R56320
	TiAl6V4		3.7164							R56400
S13				TiV10Fe2Al3						
H3	16 MnCr 5	1.7131	1.7131	16 MnCr 5	16 MC 5	527 M 17	16 MnCr 5	SCR 415	2511	G51170
H5	C 67S	1.1231	1.1231	Ck 67	XC 68	060 A 67	C 70		1770	G10700
	C 75S	1.1248	1.1248	Ck 75	XC 75	060 A 78	C 75		1774, 1778	G10780
	C 100S	1.1274	1.1274	Ck 101		060 A 96		SUP 4	1870	G10950
	C 105U	1.1545	1.1545	C 105 W1	Y1 105		C 100 KU		1880	
			1.2550	60 WCrV 7	55 WC 20		55 WCrV 8 KU			
	55 Cr 3	1.7176	1.7176	55 Cr 3	55 C 3	527 A 60	55 Cr 3	SUP 9 (A)	2253	G51550
	42 CrMo 4	1.7225	1.7225	42 CrMo 4	42 CD 4	708 M 40	42 CrMo 4	SCM 440 (H)	2244	G41400
H7	107 CrV 3	1.2210	1.2210	115 CrV 3	100 C 3		107 CrV 3 KU			T61202
			1.2510	100 MnCrW 4	90 MWCV 5	BO 1	95 MnWCr 5 KU	SKS 3	2140	T31501
	90 MnCrV 8	1.2842	1.2842	90 MnCrV 8	90 MV 8	BO 2	90 MnVCr 8 KU			T31502
	100 Cr 6	1.3505	1.3505	100 Cr 6	100 C 6	534 A 99	100 Cr 6	SUJ 2	2258	G51986
H8	X 40 CrMoV 5 1	1.2344	1.2344	X 40 CrMoV 5 1	Z 40 CDV 5	BH 13	X 40 CrMo 5 1 1 KU	SKD 61	2242	T20813
	X 100 CrMoV 5	1.2363	1.2363	X 100 CrMoV 5 1	Z 100 CDV 5	BA 2	X 100 CrMoV 5 1 KU	SKD 12	2260	T30102
	X 155 CrVMo 12 1		1.2379	X 155 CrVMo 12 1	Z 160 CDV 12	BD 2	X 155 CrVMo 12 1 KU	SKD 11		T30402
			1.2436	X 210 CrW 12			X 215 CrW 12 1 KU	SKD 2	2312	
			1.2601	X 165 CrMoV 12			X 165 CrMoW 12 KU		2310	
			1.2713	55 NiCrMoV 6	55 NCDV 7			SKT 4		T61206
	HS 6-5-2-5	1.3243	1.3243	S 6-5-2-5	Z 85 WDKCV 06-05-05-04-02		HS 6-5-2-5	SKH 55	2723	
	HS 2-10-1-8	1.3247	1.3247	S 2-10-1-8	Z 110 DKCWV 09-08-	BM 42	HS 2-9-1-8	SKH 51		T11342
	HS 18-0-1	1.3355	1.3355	S 18-0-1	Z 80 WCV 18-04-01	BT 1	HS 18-0-1	SKH 2		T12001
H11	X 20 Cr 13	1.4021	1.4021	X 20 Cr 13	Z 20 C 13	420 S 37	X 20 Cr 13	SUS 420 J 1	2303	S42000
	X 70 CrMo 15	1.4109	1.4109	X 65 CrMo 14	Z 70 D 14			SUS 440 A		S44002
	X 90 CrMoV 18	1.4112	1.4112	X 90 CrMoV 18	Z 2 CND 18 05	409 S 19	X CrTi 12	SUS 440 B	2327	S44003
	X 105 CrMo 17	1.4125	1.4125	X 105 CrMo 17	Z 100 CD 17		X 105 CrMo 17	SUS 440 C		S44004
H12	X 4 CrNiCuNb 16 4	1.4540	1.4540	X 4 CrNiCuNb 16 4						S15500
	X 5 CrNiCuNb 16 4	1.4542	1.4542	X 5 CrNiCuNb 16 4				SUS 630		S17400
	X 5 CrNiCuNb 16 4	1.4542	1.4542	X 5 CrNiCuNb 16 4				SUS 630		S17400
	X 7 CrNiAl 17 7	1.4568	1.4568	X 7 CrNiAl 17 7	Z 9 CAN 17.7	301 S 81	X 7 CrNiAl 17 7	SUS 631	2388	S17700
	X 8 CrNiMoAl 15 7 5	1.4574	1.4574	X 8 CrNiMoAl 15 7 5						S15700
	X 6 NiCrTiMoV 25 15	1.4980	1.4943	X 4 NiCrTi 25 15	Z 6 NCTDV 25.15	HR 51		SUH 660	2570	S66286
	X 2 NiCoMo 18 8 5	1.6359	1.6359	X 2 NiCoMo 18 8 5		S 162				K92890
	X 2 NiCoMoTi 18 9 5	1.6358	1.6358	X 2 NiCoMoTi 18 9 5	Z 2 NKD 19-09					K93120
	X 2 NiCoMoTi 18 9 5	1.6358	1.6358	X 2 NiCoMoTi 18 9 5	Z 2 NKD 19-09					K93120
	X 2 NiCoMoTi 18 12 4	1.6356	1.6356	X 2 NiCoMoTi 18 12 4						K93160
H21	X 120 Mn 12	1.3401	1.3401	X 120 Mn 12	Z 120 M 12	BW 10		SC MnH 1	2183	
H31	EN-GJN-HV520	0.9620	0.9620	G-X330 NiCr 4 2	FB Ni4 Cr2 BC	Grade 2 A			05 12-00	F45001
	EN-GJN-HV550	0.9625	0.9625	G-X260 NiCr 4 2	FB Ni4 Cr2 HC	Grade 2 B			05 13-00	F45000
	EN-GJN-HV600(XCr11)	0.9630	0.9630	G-X300 CrNiSi 9 5 2	FB Cr9 Ni5	Grade 2 C, D, E			04 57-00	F45003

SMG

U.N.E./ I.H.A.	AISI / ASTM	GOST	ČSN	Misc. Brands	Condition	Structure
				Discalloy	Precipitation hardened	
				Haynes 25		
				Stellite 21		
				Hastelloy C		
		KHN65MV		Hastelloy C-276		
				IN 100		
				Inconel 718		
				Inconel X-750	Solution annealed	
				Nimonic 80A		
				René 41		
				Udimet 500		
				Waspalloy		
				Ti	Commercially pure	Ti (α)
	AMS 4919			Ti 6-2-4-2	Annealed	Ti (α)
	AMS 4943			Ti 3Al-2.5V (grd 9)	Annealed	Ti (α+β)
	AMS 4920, Grade 5	VT6		Ti 6Al-4V	Annealed	Ti (α+β)
	AMS 4986			Ti 10V-2Fe-3Al	Annealed	Ti (β)
F.1516	5115	12KHN2	14 220		Case hardened	
F.5103	1070	70			Quenched & Tempered	
F.5107	1078, 1080	75			Quenched & Tempered	
F.5117	1095				Quenched & Tempered	
F.5118	W1	U10A			Quenched & Tempered	
	S1	5KHV2SF			Quenched & Tempered	
	5155				Quenched & Tempered	
F.1252	4142, 4140	38HM	15 142		Quenched & Tempered	
F.520L	L2	11KHF			Quenched & Tempered	
F.5220	O1	9KHVG			Quenched & Tempered	
	O2	9G2F			Quenched & Tempered	
F.5230	52100	SHKH15	14 109		Quenched & Tempered	
F.5318	H13	4KH5MF1S			Quenched & Tempered	
F.5227	A2	9KH5VF			Quenched & Tempered	
F.5211	D2	KH12MF			Quenched & Tempered	
F.5213		KH12			Quenched & Tempered	
		KH12MF			Quenched & Tempered	
F.520.S	L6	5KHNM			Quenched & Tempered	
F.5613	M35	R6M5K5			Quenched & Tempered	
	M42	R2AM9K5			Quenched & Tempered	
	T1	R18			Quenched & Tempered	
F.5261	420	20KH13	17 022		Quenched & Tempered	Martensitic
	440 A				Quenched & Tempered	Martensitic
	440 B	95KH18			Quenched & Tempered	Martensitic
	440 C	95KH18			Quenched & Tempered	Martensitic
	XM-12			15-5 PH	H900	Martensitic
	SAE 630			17-4 PH	H1025	Martensitic
	SAE 630			17-4 PH	H900	Martensitic
	AMS 5528	09KH17N7YU1		17-7 PH	TH1050	Martensitic
	632			PH 15-7 Mo	TH1050	Martensitic
	660			A286	Precipitation hardened	Austenitic
	AMS 6512			Marage 250	Precipitation hardened	Martensitic
	AMS 6521			Marage 300	Precipitation hardened	Martensitic
	AMS 6521			Marage 300	Precipitation hardened	Martensitic
	AMS 6515			Marage 350	Precipitation hardened	Martensitic
	A128 Grade A			Hadfield		
	A532 IB (NiCr-LC			Ni-Hard 2		White cast iron
	A532 IA (NiCr-HC)			Ni-Hard 1		White cast iron
	A532 ID (Ni-HiCr)			Ni-Hard 4		White cast iron

Cemented carbide inserts and insert carriers

Cemented carbide inserts and cemented carbide insert carriers from Seco Tools are not included in the product range intended for the following requirements.
Nevertheless Seco Tools can make the following declaration.
These products meet all requirements in RoHS (Restriction of the use of certain Hazardous Substances in electrical and electronic equipment), WEEE (Waste Electrical & Electronic Equipment) and ELV (End of Life Vehicles) requirements.
Products do not contain mercury, lead, hexavalent chromium, cadmium, CFC, HCFC, flame retardants or solvents in concentrations that exceed specifications in the regulations.

Regrinding:
Wet or dry grinding can produce potentially hazardous dusts or mists that can irritate skin, eyes, nose, throat and result in lung damage or disease. To avoid injury use proper safety precautions and protective equipment.

Disposal:
Seco Tools will buy back used inserts and solid carbide tools for recycling. Inserts and solid carbide tools should be separated from other metal waste (steel, aluminium, copper etc).
All packing material is fully recyclable.

CBN and PCD inserts

Inserts from Seco Tools are not included in the product range intended for the following requirements. Nevertheless Seco Tools can make the following declaration.
This product meets all requirements in RoHS (Restriction of the use of certain Hazardous Substances in electrical and electronic equipment), WEEE (Waste Electrical & Electronic Equipment) and ELV (End of Life Vehicles) requirements.
Products do not contain mercury, lead, hexavalent chromium, cadmium, CFC, HCFC, flame retardants or solvents in concentrations that exceed specifications in the regulations.

Regrinding:
Wet or dry grinding can produce potentially hazardous dusts or mists that can irritate skin, eyes, nose, throat and result in lung damage or disease. To avoid injury use proper safety precautions and protective equipment.

Disposal:
Seco Tools will buy back used CBN- or PCD-tipped inserts for recycling. Inserts should be separated from other metal waste (steel, aluminium, copper etc). Solid CBN-inserts may be discarded as landfill waste.
All packing material is fully recyclable.

Black oxide insert carriers

Insert carriers from Seco Tools are not included in the product range intended for the following requirements. Nevertheless Seco Tools can make the following declaration.
This product meets all requirements in RoHS (Restriction of the use of certain Hazardous Substances in electrical and electronic equipment), WEEE (Waste Electrical & Electronic Equipment) and ELV (End of Life Vehicles) requirements.
Products do not contain mercury, lead, hexavalent chromium, cadmium, CFC, HCFC, flame retardants or solvents in concentrations that exceed specifications in the regulations.

Disposal:
Used insert carriers may be sent for recycling together with ordinary steel waste (swarf and discarded steel scrap) for recycling.
All packing material is fully recyclable.

Cermet inserts

Inserts from Seco Tools are not included in the product range intended for the following requirements. Nevertheless Seco Tools can make the following declaration.
This product meets all requirements in RoHS (Restriction of the use of certain Hazardous Substances in electrical and electronic equipment), WEEE (Waste Electrical & Electronic Equipment) and ELV (End of Life Vehicles) requirements.
Cermet grade C15M inserts do contain nickel and will leach nickel when in contact with the skin. Amount of leaching is higher than specified in norm SS-EN 1811 Reference test method for release of nickel from products intended to come into direct and prolonged contact with the skin. These norms are intended for products that are in direct and prolonged contact with the skin and are therefore not directly applicable for cermet inserts. Persons with known allergic reactions to nickel are advised to wear protective gloves when handling cermet inserts.

Regrinding:
Wet or dry grinding can produce potentially hazardous dusts or mists that can irritate skin, eyes, nose, throat and result in lung damage or disease. To avoid injury use proper safety precautions and protective equipment.

Disposal:
Used inserts may be recycled. Inserts should be separated from other metal waste (steel, aluminium, copper, etc) including cemented carbide inserts.
All packing material is fully recyclable.

Nickel coated insert carriers

Insert carriers from Seco Tools are not included in the product range intended for the following requirements. Nevertheless Seco Tools can make the following declaration.
This product meets all requirements in RoHS (Restriction of the use of certain Hazardous Substances in electrical and electronic equipment), WEEE (Waste Electrical & Electronic Equipment) and ELV (End of Life Vehicles) requirements.
Products do not contain mercury, lead, hexavalent chromium, cadmium, CFC, HCFC, flame retardants or solvents in concentrations that exceed specifications in the regulations.
Insert carriers do contain nickel and will leach nickel when in contact with the skin. Amount of leaching is not higher then norm SS-EN 1811 Reference test method for release of nickel from products intended to come into direct and prolonged contact with the skin.
These norms are intended for products that are in direct and prolonged contact with the skin and are therefore not directly applicable for insert carriers.
Persons with known allergic reactions to nickel are advised to wear protective gloves when handling nickel coated insert carriers.

Disposal:
Used tools maybe sent for recycling together with ordinary steel waste (swarf and discarded steel scrap) for recycling.
All packing material is fully recyclable.

Intentionally added alloying elements

Grade	Cemented carbide											Coating						
	W	Ti	Ta	Nb	Co	Cr	Ni	Mo	C	N	Ru	Ti	Al	C	N	O	Si	Nb
CP20	■				■				■			■			■			
CP200	■				■	■			■			■	■		■			
CP300	■	■	■	■	■				■			■	■		■			
CP500	■				■	■			■			■	■		■			
CP600	■				■	■			■			■	■		■			
C15M	■	■	■	■	■		■	■	■	■								
CF	■		■		■		■	■	■									
CM	■		■		■		■	■	■									
DP2000	■		■	■	■				■			■	■	■	■	■		
DP3000	■	■	■	■	■				■	■		■	■	■	■	■		
DS2050	■				■	■			■			■	■		■			■
DS4050	■				■	■			■			■	■		■			■
F15M	■				■	■			■			■	■		■			
F25M	■	■	■	■	■				■			■	■		■			
F30M	■				■	■			■			■	■		■			
F40M	■				■	■			■			■	■		■			
HX	■		■		■				■									
H02	■		■		■	■			■									
H15	■				■	■			■									
H25	■				■	■			■									
KX	■				■	■			■									
MH1000	■				■	■			■			■	■		■			
MK1500	■		■		■				■			■	■	■	■	■		
MK2050	■		■		■	■			■			■	■		■		■	
MM4500	■				■	■			■			■	■	■	■	■		
MP1501	■		■	■	■				■			■	■	■	■	■		
MP2050	■				■						■	■	■		■		■	
MP2501	■		■	■	■				■			■	■	■	■	■		
MP3000	■				■	■			■			■	■		■			
MP3501	■		■	■	■				■			■	■	■	■	■		
MS2500	■		■	■	■				■			■	■	■	■	■		
MS2050	■				■	■			■			■	■		■			■
RX1500	■		■		■		■	■	■			■	■		■			
RX2000	■		■		■	■			■			■	■		■			
RM2020	■				■				■			■						
RM2090	■				■	■			■			■	■				■	
RN2010	■				■	■			■									
RS2090	■				■	■			■			■	■				■	
T350M	■		■	■	■				■			■	■	■	■	■		
T25M	■		■	■	■				■			■		■	■			
TGH1050	■				■	■			■			■	■		■		■	
TGK1500	■		■		■				■			■	■	■	■	■		
TGP25	■	■	■	■	■				■			■	■	■	■	■		
TGP35	■		■	■	■				■			■	■	■	■	■		
TGP45	■		■	■	■				■			■	■	■	■	■		
TGS2050	■				■	■			■			■	■		■		■	
TH1000	■				■	■			■			■	■		■		■	
TH1500	■				■	■			■			■	■	■	■	■		
TK0501	■				■	■			■			■	■	■	■	■		
TK1501	■		■		■	■			■			■	■	■	■	■		
TM1501	■	■	■	■	■	■			■	■		■	■	■	■	■		
TM2000	■	■	■	■	■				■	■		■	■	■	■	■		
TM2501	■	■	■	■	■				■	■		■	■	■	■	■		
TM3501	■				■				■			■	■	■	■	■		
TM4000	■	■	■	■	■				■	■		■	■	■	■	■		
TP0501	■	■	■	■	■	■			■			■	■	■	■	■		
TP1020	■	■	■	■	■				■	■								
TP1030	■	■	■	■	■				■	■		■	■		■		■	
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TP2501	■	■	■	■	■	■			■	■		■	■	■	■	■		
TP3501	■	■	■	■	■				■	■		■	■	■	■	■		
TP40	■		■	■	■				■			■		■	■			
TS2000	■				■	■			■			■	■		■			
TS2050	■				■	■			■			■	■		■		■	
TS2500	■		■		■				■			■	■		■			
TTP2050	■				■	■			■			■	■		■		■	
T250D	■				■	■			■			■	■		■			
T400D	■				■	■			■			■	■		■			
T100R	■		■		■	■			■			■	■		■			
T60M	■	■	■	■	■				■			■	■		■			
883	■		■		■				■									
890	■				■	■			■									

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Seco

Catalog & technical guide 2024.1

Turning



Seco

At Seco, we make tools, tech, and solutions for the most advanced manufacturing challenges on Earth. From our founding in Fagersta Sweden, to today's global company, our business has always been made to measure, and built on trust.

Combining cutting-edge, precision tools with lasting, personal partnerships, we're a true people company helping our partners discover the future of the manufacturing industry.

We're proud to make for makers, invent for inventors, and partner with pioneers. Driving the future forward with our focus on innovation. In short - if the right tool for the job exists, we'll deliver it. If it doesn't, we'll create it.

We're proud to put sustainability at the heart of everything we do, challenging perceptions of our industry, changing the process of manufacturing, and playing our own small part in shaping a brighter looking future.

Made for Makers

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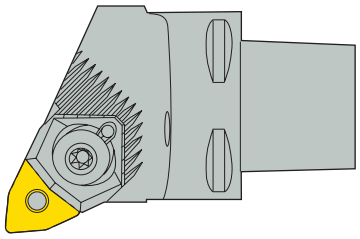
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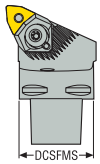
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Seco-Capto™ – External toolholders – Metric

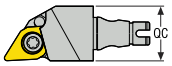


C4	-	P	W	L	N	R	-	27	050	-	06	-	
1		2	3	4	5	6		7	8		9		10

1. Seco-Capto™ and QC size



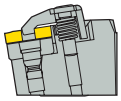
C3 = 32 mm / *1.260 inch*
C4 = 40 mm / *1.575 inch*
C5 = 50 mm / *1.969 inch*
C6 = 63 mm / *2.480 inch*
C8 = 80 mm / *3.150 inch*
C10 = 100 mm / *3.937 inch*



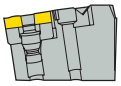
QC12 = 12 mm / *0.472 inch*
QC16 = 16 mm / *0.630 inch*

2. Insert clamping

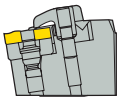
D Clamp/inserts with center hole



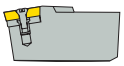
P Pin/Wedge or Lever



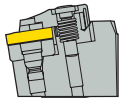
M Pin/Clamp



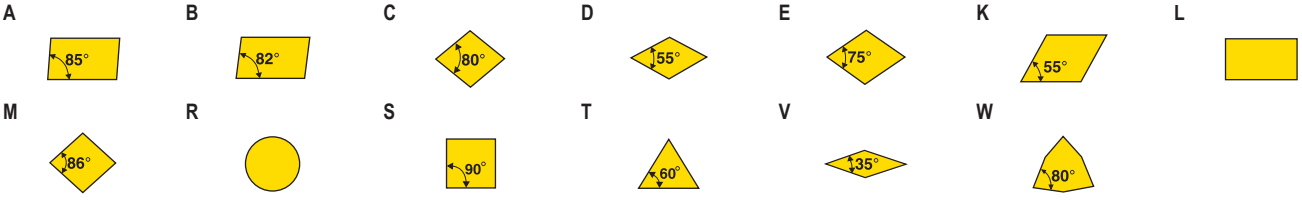
S Screw



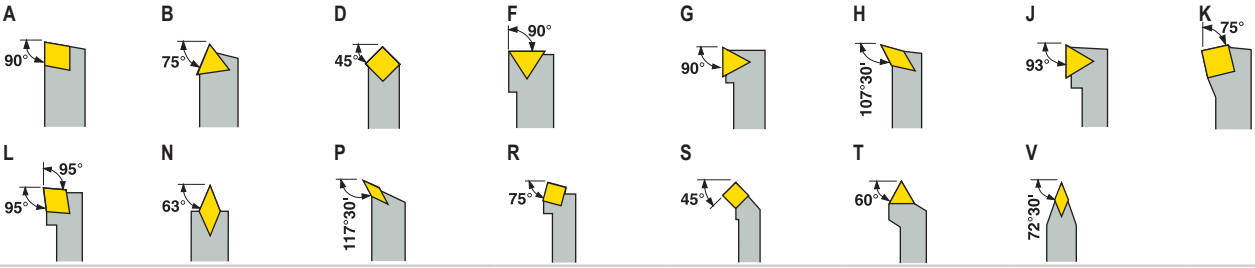
C Clamp



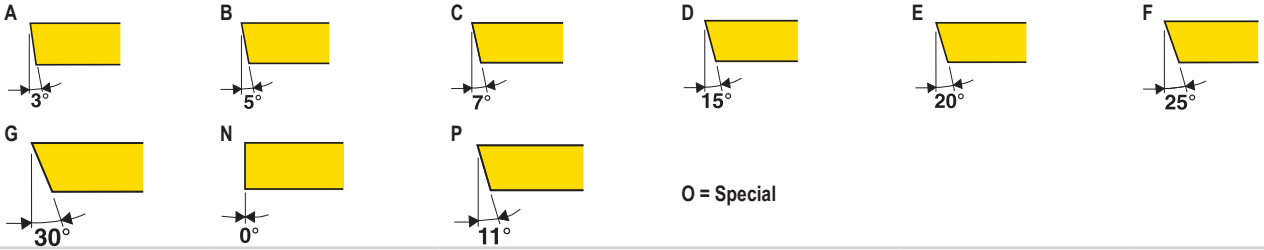
3. Insert shape



4. Tool type

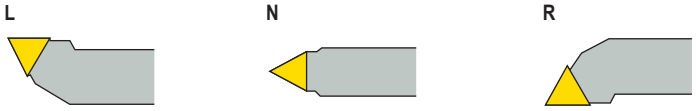


5. Insert side clearance angle

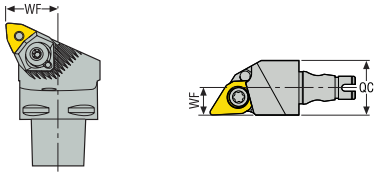


O = Special

6. Cutting direction



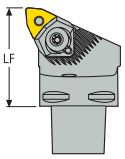
7. WF-dimension



22 = 22 mm / *0.866 inch*
27 = 27 mm / *1.063 inch*
35 = 35 mm / *1.378 inch*
45 = 45 mm / *1.772 inch*
etc.

QC12 = WF 6 mm / *0.240 inch*
QC16 = WF 8 mm / *0.315 inch*

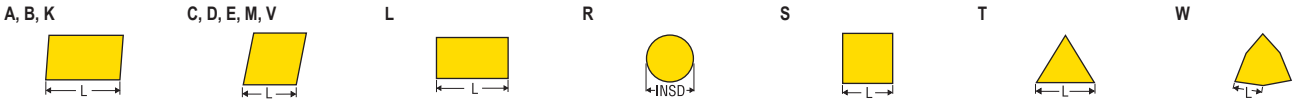
8. LF-dimension



040 = 40 mm / *1.575 inch*
042 = 42 mm / *1.654 inch*
044 = 44 mm / *1.732 inch*
050 = 50 mm / *1.969 inch*
060 = 60 mm / *2.362 inch*
etc.

N/A for QC toolholder

9. Cutting edge length

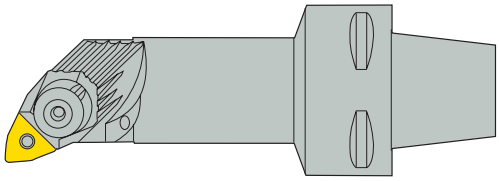


10. Internal designation

JET = Jetstream Tooling®
JETI/JETI2 = Jetstream Tooling® integrated coolant inlet
JETL = Jetstream Tooling® with P-lever clamp

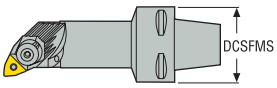
-PL = Plunging
X = Back boring

Seco-Capto™ – Internal toolholders and modular GL-turning heads – Metric

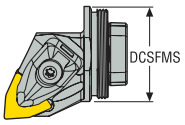


C4	P	W	L	N	R	-	13	080	-	06	-	
1	2	3	4	5	6		7	8		9		10

1. Seco-Capto™ and GL size



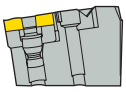
C3 = 32 mm / *1.260 inch*
C4 = 40 mm / *1.575 inch*
C5 = 50 mm / *1.969 inch*
C6 = 63 mm / *2.480 inch*
C8 = 80 mm / *3.150 inch*



GL25 = 25 mm / *0.984 inch*
GL32 = 32 mm / *1.260 inch*
GL40 = 40 mm / *1.575 inch*
GL50 = 50 mm / *1.969 inch*

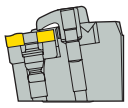
2. Insert clamping

P



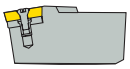
Pin/Wedge or Lever

M



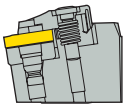
Pin/Clamp

S



Screw

C



Clamp

3. Insert shape

A



B



C



D



E



K



L



M



R



S



T



V

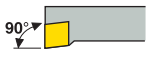


W

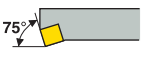


4. Tool type

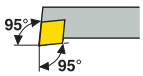
F



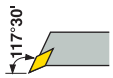
K



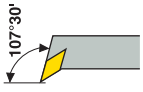
L



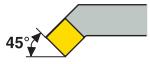
P



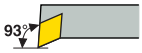
Q



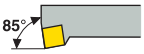
S



U

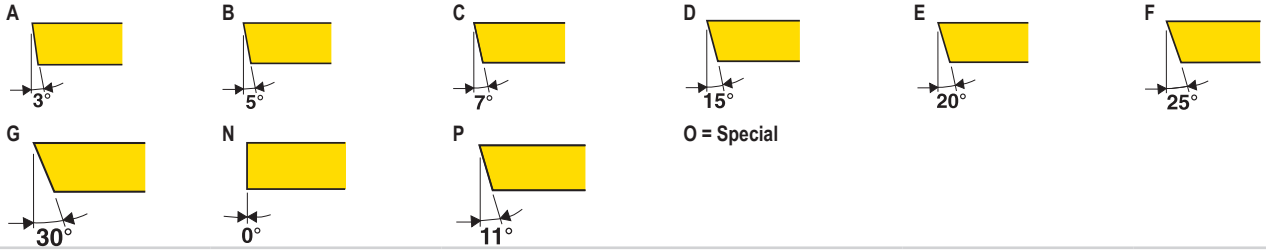


Y



X = Special

5. Insert side clearance angle

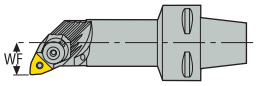


O = Special

6. Cutting direction

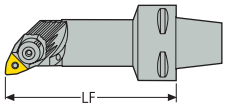


7. WF-dimension



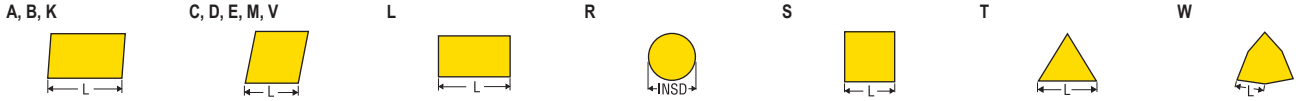
11 = 11 mm / *0.433 inch*
13 = 13 mm / *0.512 inch*
17 = 17 mm / *0.669 inch*
22 = 22 mm / *0.866 inch*
etc.

8. LF-dimension



064 = 64 mm / *2.520 inch*
065 = 65 mm / *2.559 inch*
070 = 70 mm / *2.756 inch*
075 = 75 mm / *2.953 inch*
etc.

9. Cutting edge length



10. Internal designation

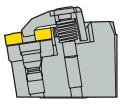
PL = Plunging
X = Back boring
JET = Jetstream Tooling®
JETI/JETI2 = Jetstream Tooling® integrated coolant inlet

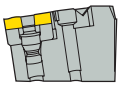
External toolholders – Metric (ISO)

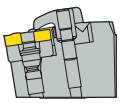


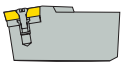
D	W	L	N	R	25	25	X	06	JETI
1	2	3	4	5	6	7	8	9	10

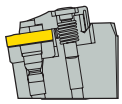
1. Insert clamping

D 
Clamp/inserts with center hole

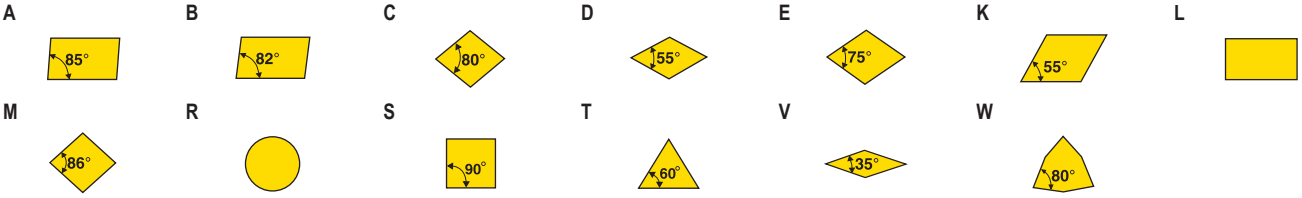
P 
Pin/Wedge or Lever

M 
Pin/Clamp

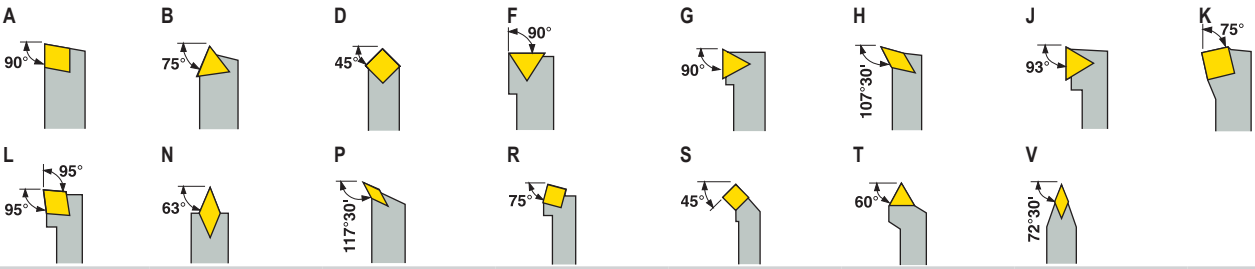
S 
Screw

C 
Clamp

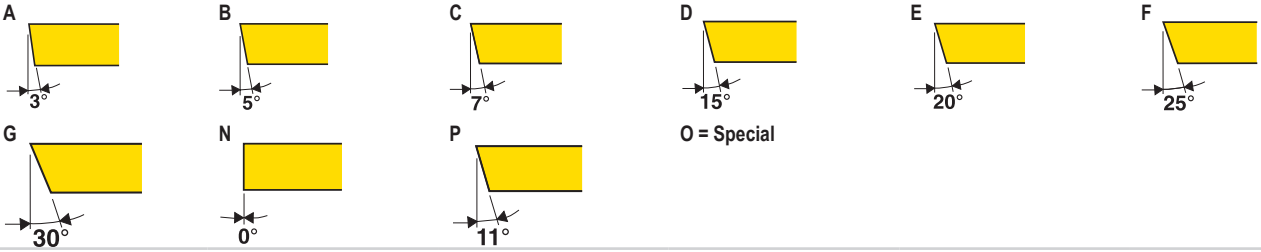
2. Insert shape



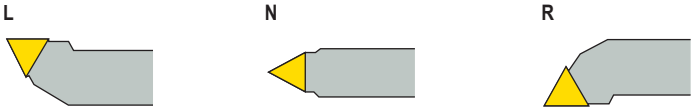
3. Tool type



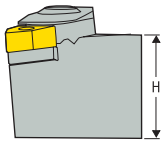
4. Insert side clearance angle



5. Cutting direction

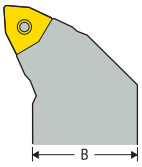


6. Shank height



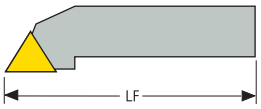
12 = 12 mm / *0.470 inch*
25 = 25 mm / *0.984 inch*
32 = 32 mm / *1.260 inch*
etc.

7. Shank width



12 = 12 mm / *0.470 inch*
25 = 25 mm / *0.984 inch*
32 = 32 mm / *1.260 inch*
etc.

8. Tool length



A = 32 mm / *1.260 inch*
C = 50 mm / *1.969 inch*
D = 60 mm / *2.362 inch*
E = 70 mm / *2.756 inch*
F = 80 mm / *3.150 inch*

H = 100 mm / *3.937 inch*
K = 125 mm / *4.921 inch*
M = 150 mm / *5.906 inch*
P = 170 mm / *6.693 inch*
R = 200 mm / *7.874 inch*

S = 250 mm / *9.843 inch*
T = 300 mm / *11.811 inch*
V = 400 mm / *15.748 inch*
X = Special

Standard length as above

9. Cutting edge length

A, B, K



C, D, E, M, V



L



R



S



T



W



10. Internal designation

JET = Jetstream Tooling®
JETI/JETI2 = Jetstream Tooling® integrated coolant inlet
JETL = Jetstream Tooling® with P-lever clamp

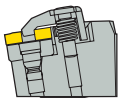
-PL = Plunging

External toolholders – Inch (ANSI)

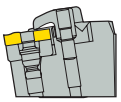


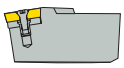
D	W	L	N	R		-	16	-	3	C	-	
1	2	3	4	5	6		7		8	9		10

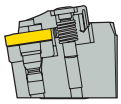
1. Insert clamping

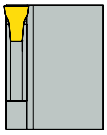
D 
Clamp/inserts with center hole

P 
Pin/Wedge or Lever

M 
Pin/Clamp

S 
Screw

C 
Clamp

T 
Tapered stem (Tee-lock)

2. Insert shape

A 

B 

C 

D 

E 

K 

L 

M 

R 

S 

T 

V 

W 

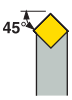
3. Tool type

A 

ANSI lead = 0°

B 

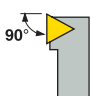
ANSI lead = 15°

D 

ANSI lead = 45°

F 

ANSI lead = 0°

G 

ANSI lead = 0°

H 

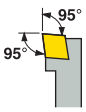
ANSI lead = -17°30'

J 

ANSI lead = -3°

K 

ANSI lead = 15°

L 

ANSI lead = -5°

N 

ANSI lead = 27°30'

P 

ANSI lead = -27°30'

R 

ANSI lead = 15°

S 

ANSI lead = 45°

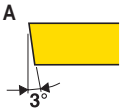
T 

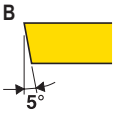
ANSI lead = 30°

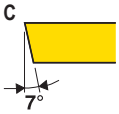
V 

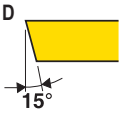
ANSI lead = 17°30'

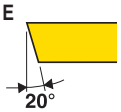
4. Insert side clearance angle

A 

B 

C 

D 

E 

F

G

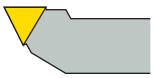
N

P

O = Special

5. Cutting direction

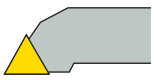
L



N



R



6. Pocket style

S = Single wall pocket construction
Full pocket construction when letter position is vacant

7. Toolholder shank size

For square shanks, the number represents the number of sixteenths of width and height. For rectangular shanks, the first digit represents the number of eighths of width and the second digit represents the number of quarters of height.

8. Insert size I.C.

Number of eights of I.C.

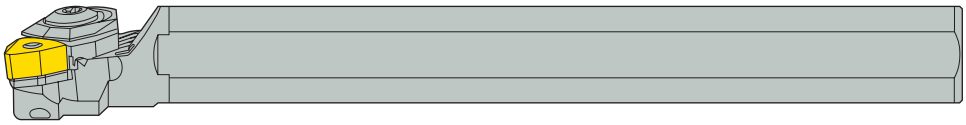
9. Qualified surface & length

A = Qualified back and end. 4" long
B = Qualified back and end. 4.5" long
C = Qualified back and end. 5" long
D = Qualified back and end. 6" long
E = Qualified back and end. 7" long
F = Qualified back and end. 8" long
J = Qualified back and end. 3.5" long
M = Qualified front and end. 4" long
N = Qualified front and end. 4.5" long
P = Qualified front and end. 5" long
R = Qualified front and end. 6" long
S = Qualified front and end. 7" long
T = Qualified front and end. 8" long
X = Special length

10. Internal designation

JET = Jetstream Tooling®
JETI/JETI2 = Jetstream Tooling® integrated coolant inlet
JETL = Jetstream Tooling® with P-lever clamp
-PL = Plunging

Internal toolholders – Metric (ISO)



A	20	Q	-	P	W	L	N	R	06	R
1	2	3		4	5	6	7	8	9	10

1. Toolholder type

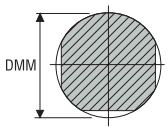
A = Steel with coolant passage

S = Solid steel

E = Solid carbide with brazed* cutting head and coolant passage

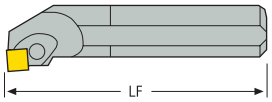
* Brazed or equivalent

2. Shank diameter



12 = 12 mm / *0.470 inch*
20 = 20 mm / *0.787 inch*
25 = 25 mm / *0.984 inch*
etc.

3. Tool length



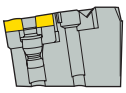
K = 125 mm / *4.921 inch*
L = 140 mm / *5.512 inch*
M = 150 mm / *5.906 inch*
N = 160 mm / *6.299 inch*
P = 170 mm / *6.693 inch*
Q = 180 mm / *7.087 inch*

Standard length as above

R = 200 mm / *7.874 inch*
S = 250 mm / *9.843 inch*
T = 300 mm / *11.811 inch*
U = 350 mm / *13.780 inch*
V = 400 mm / *15.748 inch*
X = 230 mm / *9.055 inch*

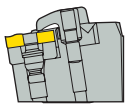
4. Insert clamping

P



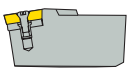
Pin/Wedge or Lever

M



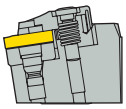
Pin/Clamp

S



Screw

C



Clamp

5. Insert shape

A



B



C



D



E



K



L



M



R



S



T



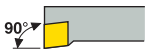
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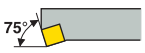


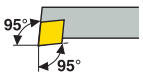
W

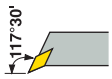


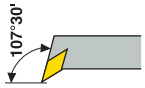
6. Tool type

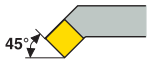
F 

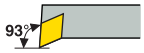
K 

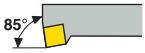
L 

P 

Q 

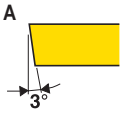
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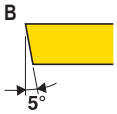
U 

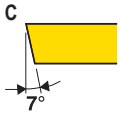
Y 

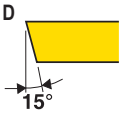
O = Special

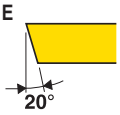
7. Insert side clearance angle

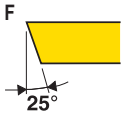
A 

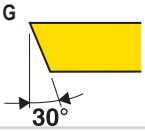
B 

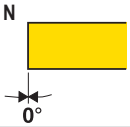
C 

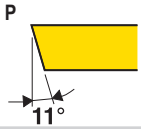
D 

E 

F 

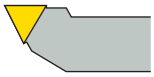
G 

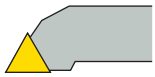
N 

P 

O = Special

8. Cutting direction

L 

R 

9. Cutting edge length

A, B, K 

C, D, E, M, V 

L 

R 

S 

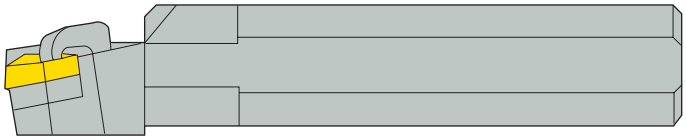
T 

W 

10. Internal designation

R = Round
W = Wedge clamping
PL = Plunging
X = Back boring

Internal toolholders – Inch (ANSI)



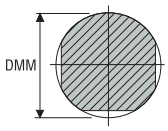
S	16		-	M	W	L	N	R	-	3
1	2	3		4	5	6	7	8		9

1. Toolholder type

A = Steel with coolant passage
C = Carbide
E = Solid carbide with brazed* cutting head and coolant passage
H = Heavy metal
J = Heavy metal with coolant hole
S = Solid steel

* Brazed or equivalent

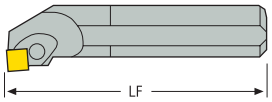
2. Shank diameter



Indicates bar diameter in sixteenths of an inch

Stepped bar shows smallest diameter first

3. Tool length

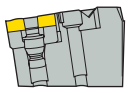


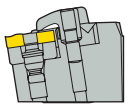
K = 125 mm / *4.921 inch*
L = 140 mm / *5.512 inch*
M = 150 mm / *5.906 inch*
N = 160 mm / *6.299 inch*
P = 170 mm / *6.693 inch*
Q = 180 mm / *7.087 inch*

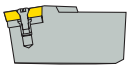
R = 200 mm / *7.874 inch*
S = 250 mm / *9.843 inch*
T = 300 mm / *11.811 inch*
U = 350 mm / *13.780 inch*
V = 400 mm / *15.748 inch*
X = 230 mm / *9.055 inch*

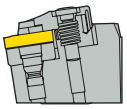
Standard length as above

4. Insert clamping

P

Pin/Wedge or Lever

M

Pin/Clamp

S

Screw

C

Clamp

5. Insert shape

A


B


C


D


E


K


L


M


R


S

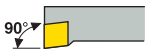

T


V


W

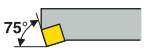

6. Tool type

F



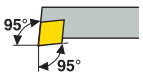
ANSI lead = 0°

K



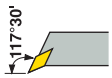
ANSI lead = 15°

L



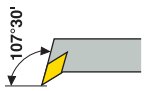
ANSI lead = -5°

P



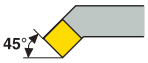
ANSI lead = -27°30'

Q



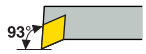
ANSI lead = -17°30'

S



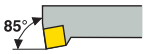
ANSI lead = 45°

U



ANSI lead = -3°

Y

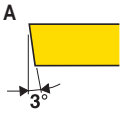


ANSI lead = 5°

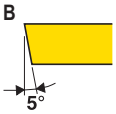
O = Special

7. Insert side clearance angle

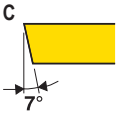
A



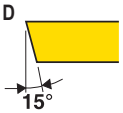
B



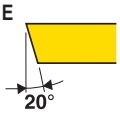
C



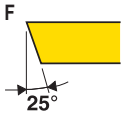
D



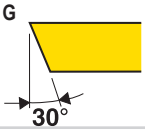
E



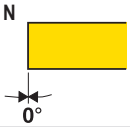
F



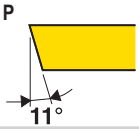
G



N



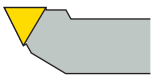
P



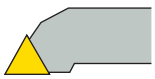
O = Special

8. Cutting direction

L



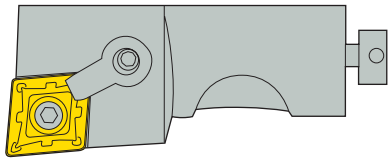
R



9. Insert size I.C.

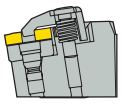
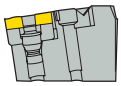
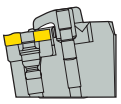
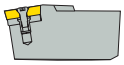
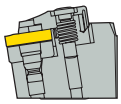
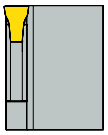
Number of eights of I.C.

Cartridges – Inch (ANSI)



M	C	L	N	R	-	16	C	A	-	12
1	2	3	4	5		6	7	8		9

1. Insert clamping

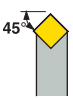
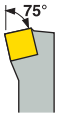
D	P	M	S	C	T
					
Clamp/inserts with center hole	Pin/Wedge or Lever	Pin/Clamp	Screw	Clamp	Tapered stem (Tee-lock)

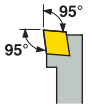
2. Insert shape

A	B	C	D	E	K	L
						

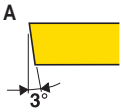
M	R	S	T	V	W
					

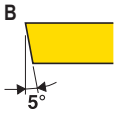
3. Tool type

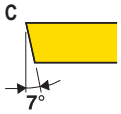
A	B	D	F	G	H	J	K
							
ANSI lead = 0°	ANSI lead = 15°	ANSI lead = 45°	ANSI lead = 0°	ANSI lead = 0°	ANSI lead = -17°30'	ANSI lead = -3°	ANSI lead = 15°

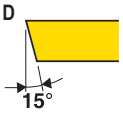
L	N	P	R	S	T	V
						
ANSI lead = -5°	ANSI lead = 27°30'	ANSI lead = -27°30'	ANSI lead = 15°	ANSI lead = 45°	ANSI lead = 30°	ANSI lead = 17°30'

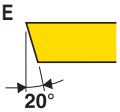
4. Insert side clearance angle

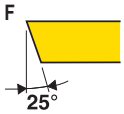
A 

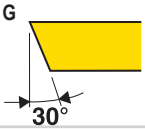
B 

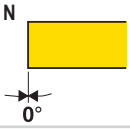
C 

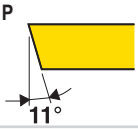
D 

E 

F 

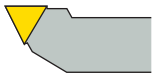
G 

N 

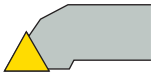
P 

O = Special

5. Cutting direction

L 

N 

R 

6. Cartridge cutting height

A Type = Length of cutting edge in millimeters

W, X & Z Type = Height in thousandths of an inch rounded (2) places

7. Thickness

C = Indicates cartridge

8. Cartridge type

A = Metric cartridge/metric components-metric hex wrench

W = Metric cartridge/metric components-Inch hex wrench

X = 90° mount cartridge

Z = Mini-cartridge

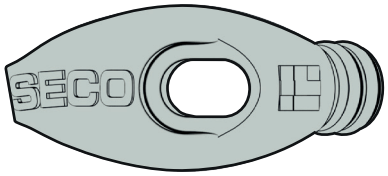
9. Insert type

A Type = Length of cutting edge in millimeters

W, X & Z Type = Insert I.C. in eighths of an inch

...JET = Jetstream Tooling®

Coolant clamps for toolholders and modular turning heads

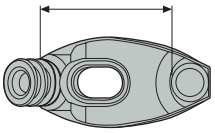


CP	14	U	20	S	-	2	R
1	2	3	4	5		6	7

1. Coolant clamp type

CN = Coolant clamp for negative inserts
CP = Coolant clamp for screw clamped inserts
CPL = Coolant clamp for screw clamped inserts, long pin
CX = Coolant clamp for custom clamping

2. Clamping length

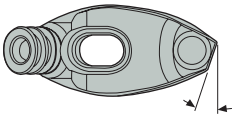


14 = 14 mm / *0.550 inch*
17 = 17 mm / *0.669 inch*
21 = 21 mm / *0.827 inch*

3. Hole diameter

U = 1,6 mm / *0.063 inch*
L = 2,2 mm / *0.085 inch*
X = Custom

4. Outlet angle



00 = 0°
10 = 10°
20 = 20°

5. Coolant clamp application type

S = Standard
R = Roughing
X = Custom

6. Number of holes

1, 2, 3 etc.

7. Orientation of outlet face

R = Right

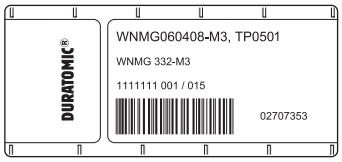


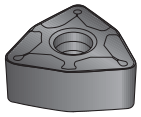
L = Left



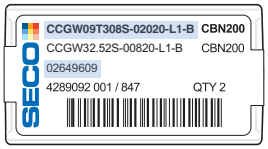
Otherwise neutral

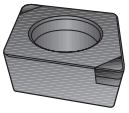
Insert series, Extract from ISO 1832 – Metric (ISO)





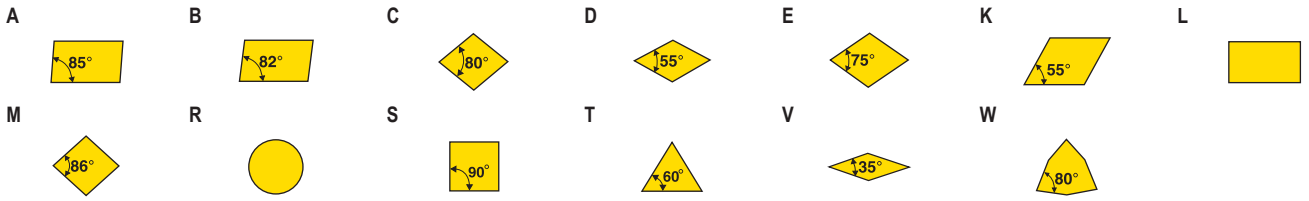
W	N	M	G	06	04	08	W	-	M3
1	2	3	4	5	6	7	8		12



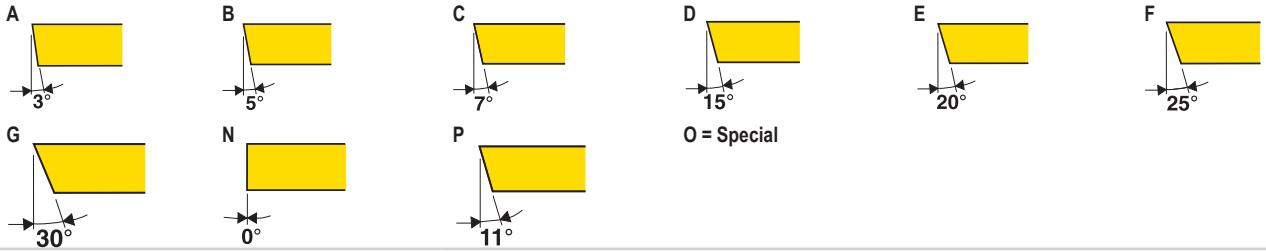


C	C	G	W	09	T3	08	S	-		-	02020	-	L1	-		-	B
1	2	3	4	5	6	7	8		9		10		11		12		13

1. Insert shape



2. Insert side clearance angle



3. Tolerances

Tolerance class	Tolerances: mm/*Inch*				For IC, dimension in mm/*Inch*												
	S mm	IC mm	S *Inch*	IC *Inch*	3,18* *0.125*	3,97	4,06	4,76 *0.187*	6,35 *0.250*	9,53 *0.375*	12,70 *0.500*	15,88 *0.625*	19,05 *0.750*	20,00	25,40 *1.000*	31,750 *1.250*	38,10 *1.500*
A	0,025	0,025	*0.0010*	*0.0010*	•			•	•	•	•	•	•	•	•	•	•
C	0,025	0,025	*0.0010*	*0.0010*	•	•	•	•	•	•	•	•	•	•	•	•	•
E	0,025	0,025	*0.0010*	*0.0010*	•			•	•	•	•	•	•	•	•	•	•
F	0,025	0,013	*0.0010*	*0.0005*	•			•	•	•	•	•	•	•	•	•	•
G	0,050*	0,025	*0.0020*	*0.0010*	•			•	•								
	0,130	0,025	*0.0051*	*0.0010*						•	•	•	•	•	•	•	•
H	0,025	0,013	*0.0010*	*0.0005*	•			•	•	•	•	•	•	•	•	•	•
J	0,025	0,050	*0.0010*	*0.0020*	•			•	•	•							
	0,025	0,080	*0.0010*	*0.0031*							•						
	0,025	0,100	*0.0010*	*0.0039*								•	•	•			
	0,025	0,130	*0.0010*	*0.0051*											•		
	0,025	0,150	*0.0010*	*0.0059*												•	•
K	0,025	0,050	*0.0010*	*0.0020*	•			•	•	•							
	0,025	0,080	*0.0010*	*0.0031*							•						
	0,025	0,100	*0.0010*	*0.0039*								•	•	•			
	0,025	0,130	*0.0010*	*0.0051*											•		
	0,025	0,150	*0.0010*	*0.0059*												•	•
M	0,050*	0,050	*0.0020*	*0.0020*	•			•	•								
	0,130	0,050	*0.0051*	*0.0020*						•							
	0,130	0,080	*0.0051*	*0.0031*							•						
	0,130	0,100	*0.0051*	*0.0039*								•	•	•			
	0,130	0,130	*0.0051*	*0.0051*											•		
	0,130	0,150	*0.0051*	*0.0059*												•	•
U	0,050*	0,080	*0.0020*	*0.0031*	•			•	•								
	0,130	0,080	*0.0051*	*0.0031*						•							
	0,130	0,130	*0.0051*	*0.0051*							•						
	0,130	0,180	*0.0051*	*0.0071*								•	•	•			
	0,130	0,250	*0.0051*	*0.0098*											•	•	•

* Not ISO

4. Fixing and/or chipbreaker

A



B



G



M



N



R



T



U



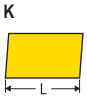
W



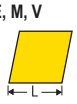
X = Special

5. Cutting edge length

A, B, K



C, D, E, M, V



L



R



S



T



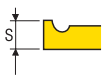
W



6. Thickness







01 = 1,59 mm / *0.063 inch*
T1 = 1,98 mm / *0.078 inch*
02 = 2,38 mm / *0.094 inch*
03 = 3,18 mm / *0.125 inch*

T3 = 3,97 mm / *0.156 inch*
04 = 4,76 mm / *0.187 inch*
05 = 5,56 mm / *0.219 inch*
06 = 6,35 mm / *0.250 inch*

07 = 7,94 mm / *0.313 inch*
08 = 8,00 mm / *0.315 inch*
09 = 9,52 mm / *0.375 inch*

7. Corner configuration

nose radius



ISO Code No.	Decimal value	ANSI Code No.	Decimal value	Fractional value
M0	Round	00	Round	Round
00	0,04 mm	X0	0.0015”	1/(64x10)
01	0,1 mm	0 (0.25)	0.004”	1/(64x4)
02	0,2 mm	0.5	0.008”	1/(64x2)
04	0,4 mm	1	0.016”	1/64
06	0,6 mm	1.5	0.020”	1/48
08	0,8 mm	2	0.031”	1/32
10	1,0 mm	2.5	0.040”	1/24
12	1,2 mm	3	0.047”	3/64
16	1,6 mm	4	0.062”	1/16
20	0,8 mm	5	0.078”	5/64
24	2,4 mm	6	0.094”	3/32
28	2,8 mm	7	0.109”	7/64
32	3,2 mm	8	0.125”	1/8
40	4,0 mm	10	0.156”	5/32

8. Cutting edge condition

F



E



T



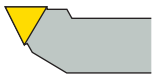
S



W = High feed inserts
Not mandatory information

9. Cutting direction

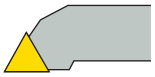
L



N



R



Not mandatory information

10. Internal designation

e.g. chipbreaker designation
F = Finishing
M = Medium
R = Roughing

e.g. edge designation
e.g. 01020 = 0,1 mm x 20°

Not mandatory information

11. Manufacturers option

Tip sizes:
L0
L1
L2
LF = full-face insert (sintered layer)

Not mandatory information

12. Internal designation

Turning
e.g. chipbreaker designation
F = Finishing
M = Medium
R = Roughing
WZ = Wiper (PCBN)
etc.

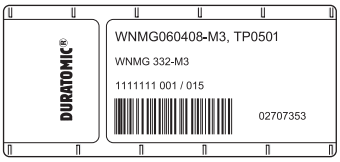
Not mandatory information

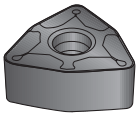
13. No. of tips

B = 2
C = 3
D = 4
U = 4 (double sided)
V = 6 (double sided)

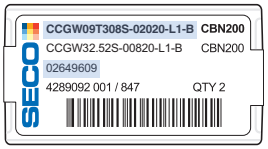
Not mandatory information

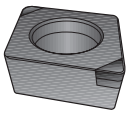
Insert series, Extract from ANSI B212 – Inch (ANSI)





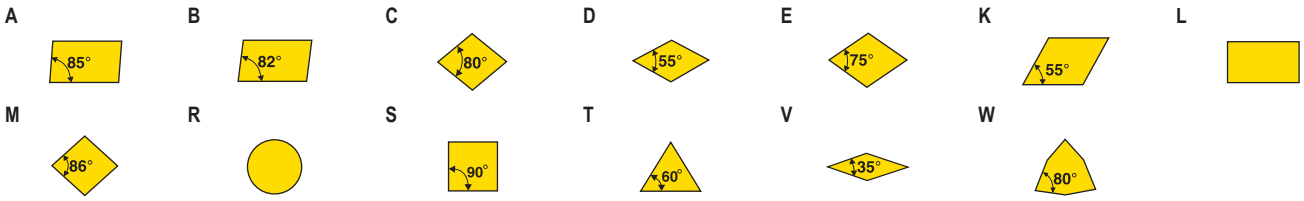
W	N	M	G	3	3	2		-	M3
1	2	3	4	5	6	7	8		9



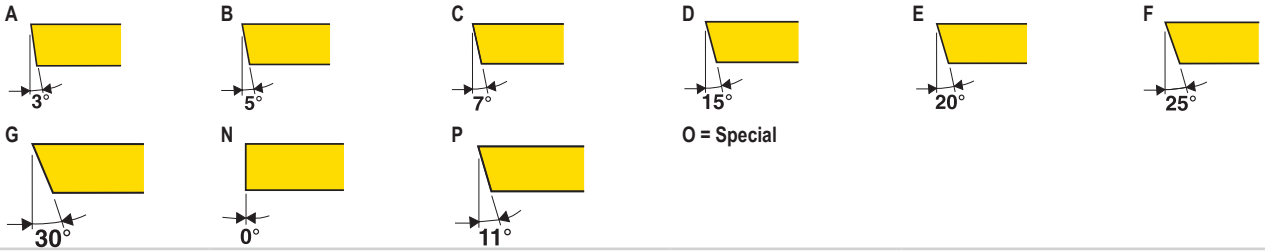


C	C	G	W	3	2.5	2	S	-		-	00820	-	L1	-		-	B
1	2	3	4	5	6	7	8		9		10		11		12		13

1. Insert shape



2. Insert side clearance angle



3. Tolerances

Tolerance class	Tolerances: mm/*In*				For IC, dimension in mm/*Inch*												
	S mm	IC mm	S *Inch*	IC *Inch*	3,18*	3,97	4,06	4,76	6,35	9,53	12,70	15,88	19,05	20,00	25,40	31,75	38,10
					0.125			*0.187*	*0.250*	*0.375*	*0.500*	*0.625*	*0.750*		*1.000*	*1.250*	*1.500*
A	0,025	0,025	*0.0010*	*0.0010*	•			•	•	•	•	•	•	•	•	•	•
C	0,025	0,025	*0.0010*	*0.0010*	•	•	•	•	•	•	•	•	•	•	•	•	•
E	0,025	0,025	*0.0010*	*0.0010*	•			•	•	•	•	•	•	•	•	•	•
F	0,025	0,013	*0.0010*	*0.0005*	•			•	•	•	•	•	•	•	•	•	•
G	0,050*	0,025	*0.0020*	*0.0010*	•			•	•								
	0,130	0,025	*0.0051*	*0.0010*						•	•	•	•	•	•	•	•
H	0,025	0,013	*0.0010*	*0.0005*	•			•	•	•	•	•	•	•	•	•	•
J	0,025	0,050	*0.0010*	*0.0020*	•			•	•	•							
	0,025	0,080	*0.0010*	*0.0031*							•						
	0,025	0,100	*0.0010*	*0.0039*								•	•	•			
	0,025	0,130	*0.0010*	*0.0051*											•		
	0,025	0,150	*0.0010*	*0.0059*												•	•
K	0,025	0,050	*0.0010*	*0.0020*	•			•	•	•							
	0,025	0,080	*0.0010*	*0.0031*							•						
	0,025	0,100	*0.0010*	*0.0039*								•	•	•			
	0,025	0,130	*0.0010*	*0.0051*											•		
	0,025	0,150	*0.0010*	*0.0059*												•	•
M	0,050*	0,050	*0.0020*	*0.0020*	•			•	•								
	0,130	0,050	*0.0051*	*0.0020*						•							
	0,130	0,080	*0.0051*	*0.0031*							•						
	0,130	0,100	*0.0051*	*0.0039*								•	•	•			
	0,130	0,130	*0.0051*	*0.0051*											•		
	0,130	0,150	*0.0051*	*0.0059*												•	•
U	0,050*	0,080	*0.0020*	*0.0031*	•			•	•								
	0,130	0,080	*0.0051*	*0.0031*						•							
	0,130	0,130	*0.0051*	*0.0051*							•						
	0,130	0,180	*0.0051*	*0.0071*								•	•	•			
	0,130	0,250	*0.0051*	*0.0098*											•	•	•

* Not ISO

4. Fixing and/or chipbreaker

A



B



G



M



N



R



T



U



W



X = Special

5. Size

For equal sided inserts I.C. in 1/8 ths of an inch

1/8	=	1	1/2	=	4
5/32	=	1.2	5/8	=	5
3/16	=	1.5	3/4	=	6
7/32	=	1.8	7/8	=	7
1/4	=	2	1	=	8
5/16	=	2.5	1 1/4	=	10
3/8	=	3			

Rectangle and parallelogram inserts require two digits:

1st Digit – Number of 1/8ths in width

2nd Digit – Number of 1/4ths in length

6. Thickness

Number of 1/32nds on inserts less than 1/4" I.C.

Number of 1/16ths on inserts 1/4" I.C. and over.

7. Corner configuration

nose radius



ANSI Code No.	Decimal value	Fractional value	ISO Code No.	Decimal value
00	Round	Round	M0	Round
X0	0.0015"	1/(64x10)	00	0,04 mm
0 (0.25)	0.004"	1/(64x4)	01	0,1 mm
0.5	0.008"	1/(64x2)	02	0,2 mm
1	0.016"	1/64	04	0,4 mm
1.5	0.020"	1/48	06	0,6 mm
2	0.031"	1/32	08	0,8 mm
2.5	0.040"	1/24	10	1,0 mm
3	0.047"	3/64	12	1,2 mm
4	0.062"	1/16	16	1,6 mm
5	0.078"	5/64	20	0,8 mm
6	0.094"	3/32	24	2,4 mm
7	0.109"	7/64	28	2,8 mm
8	0.125"	1/8	32	3,2 mm
10	0.156"	5/32	40	4,0 mm

8. Cutting edge condition

F **E** **T** **S**



W = High feed inserts
Not mandatory information

9. Manufacturers option

e.g. chipbreaker designation
F = Finishing
M = Medium
R = Roughing
1 = For low feed rates and easy conditions
2 = For high feed rates and rough conditions

Introduction to choose product

To choose turning products can be quite a comprehensive task if every single detail should be taken into account. Since we have chosen turning the sought shape is basically well-turned or using the technical term a rotational symmetric component.

The present section will focus on coated cemented carbide applications and there is a separate section for advanced materials applications such as PCBN, PCD and Ceramics, but there are of course topics general for turning.

First steps – the Secolor® principle

Seco has a long tradition to work in accordance with the principle attributed to Albert Einsten in the 1950´s: "Everything should be made as simple as possible, but not simpler". However, it should always be easy to be successful, but the more detailed the requirements, the more details need to be considered.

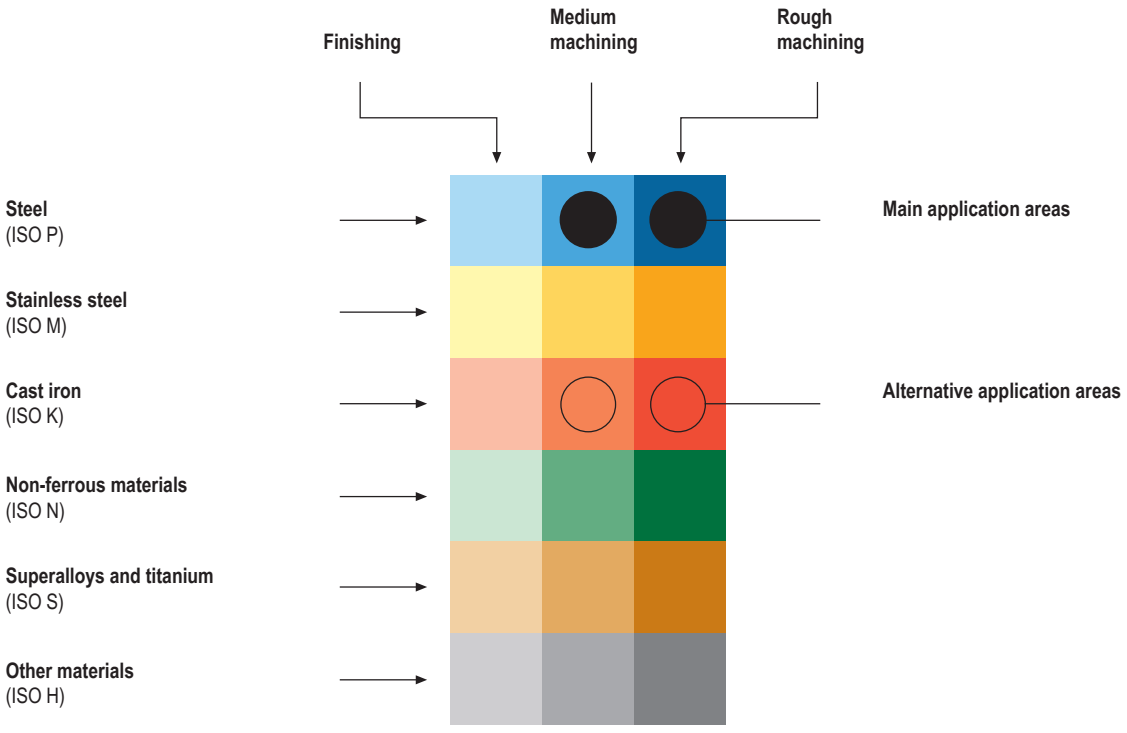
The intention of this "Choose Product" section is to show how easy the choice of a product can be and the starting point is how Seco always intends to make turning easy. However, depending on your insight and your actual conditions it is recommended you jump in the process to fit your specific needs.

One first point is considering the purpose of the turning operation, and that most often starts with considering the turning insert, which can be studied in a lot of detail, or as simple as possible to ensure a successful outcome.

Secolor® is a simple system used to present recommended application areas of a specific turning insert. It is based on a matrix with eighteen squares symbolizing workpiece materials under different states of machining, indicating the main application areas by black dots and alternative application areas as circles. It should also only be understood as a starting point as most skilled professional in machining in general and turning in particular do.

In the example below, the product is recommended for medium and rough turning of steel workpieces as it's main application area, and in machining of cast iron components as an alternative solution.

The objective is to eliminate waste, and this will become clearer as we go forward.



First steps – the insert shape & size

To choose turning products, one also needs to consider the purpose of the turning operation with its conditions, requirements and the degrees of freedom.

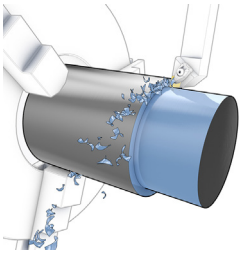
Now, the key points are

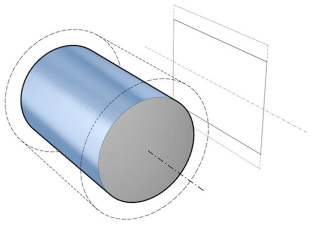
– How much stock is to be taken away?

– What does the pre-machined component look like?

– What does the drawing specify about the finished component?

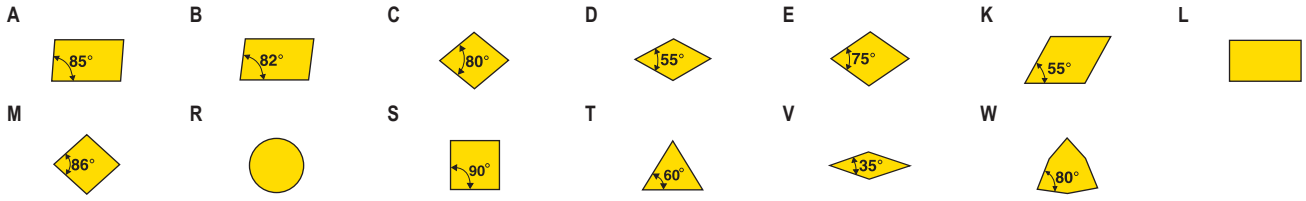
– And, last but not the least – What else needs to be taken into account?





Standards created in the 70's define the insert by using the first letter of its shape as the first letter of the nomenclature, see the first letter of the code key below. Note that not all shapes are commonly used for machining applications such as turning.

2. Insert shape



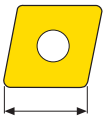
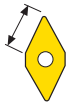
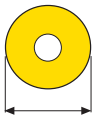
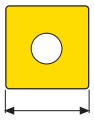
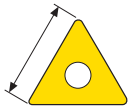
When choosing a common shape, for example a "C" shape with the 80° corner, the stock on a component (see the illustrations above) possible to remove is then depending on the size of the insert and its maximum depth of cut according to the table below.

Insert shape	Insert size	Maximum depth of cut a_p (mm)
		2 4 6 8 10 12 14 16 18 20 22 24 26 28
C	04	
	06	
	09	
	12	
	16	
	19	
	25	

In the above table the size of the inserts is indicated. If for example the stock is 4 mm and the idea is to cut it away in one (1) pass, it is recommended to use a "12" size "C" insert or bigger. On the next page a more complete set of relevant turning inserts are shown with their respective recommended ranges for depths of cut.

Insert shape and size

The application often determines what insert shape and size should be utilized

Insert shape		Insert size	Maximum depth of cut a_p (mm)
			2 4 6 8 10 12 14 16 18 20 22 24 26 28
C		04	
		06	
		09	
		12	
		16	
		19	
		25	
D		07	
		11	
		15	
R		06	
		08	
		10	
		12	
		15	
		16	
		19	
		20	
		25	
		32	
S		09	
		12	
		15	
		19	
		25	
		31	
		38	
T		06	
		11	
		16	
		22	
		27	
		33	
V		11	
		16	
		22	
W		06	
		08	

First steps – from insert to toolholder

It is obvious from the earlier table that for the same stock removal, there are several insert options based on their shapes and sizes.

Just briefly, look at the insert sketches below.

An "R" shape insert has no corner however has big strong radius, an "S" shape insert has strong and equal corners, a "C" shape insert has a corner that can make 90° shoulders, and a "V" shape insert has a weaker corner but deep reach for deep profiles.

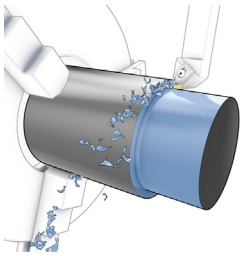
Now, the key points are

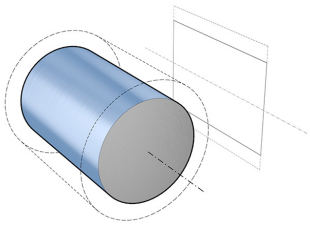
– How much stock is to be taken away?

– What does the pre-machined component look like?

– What does the drawing specify about the finished component?

– And, last but not the least – What else needs to be considered?





Look at the application sketches below, considering the two questions where to start and where to end. A rough first conclusion starting from below,

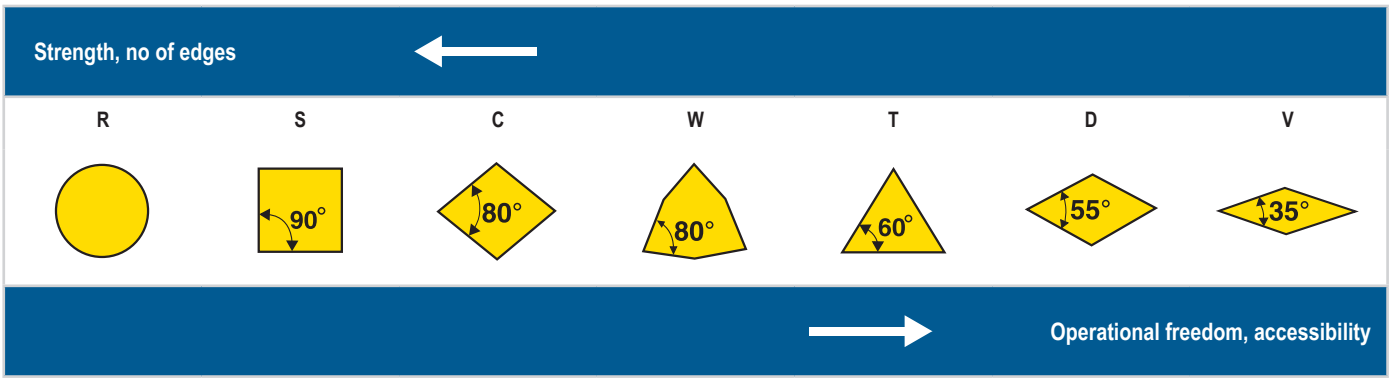
the"R" shape insert is perfect for slope profiles,

the"S" shape insert is perfect for straight feature surfaces,

the"C" shape insert is perfect for varying feature surfaces and

the"V"shape insert has a weaker corner but deep reach for deep features & profiles

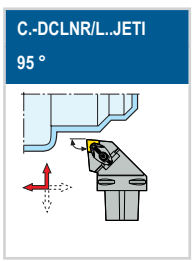
The chart below explains the different insert shapes with their relative strength, number of edges, operational freedom, and accessibility.



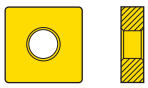
A second conclusion indicates the toolholder's importance to achieve the needed final part. The toolholder enables an insert to achieve a specific surface or profile. After focusing on the aspects of the toolholder there will be a comprehensive list of application toolholder guidance.

Inserts CN..





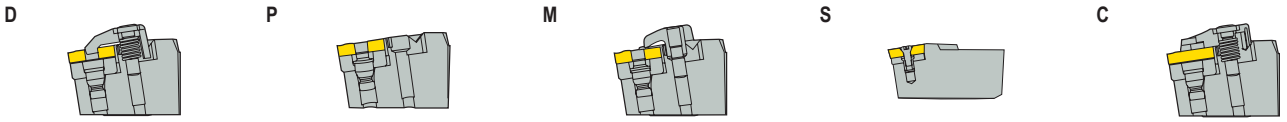
Inserts SN..





First steps – the toolholder

1. Insert clamping



In the pictures above a range of common toolholder solutions for insert clamping where Seco has chosen to mainly offer ”C”, ”D” and ”S”, but there are a number of options. On this page there will however be brief suggestions how to handle options with brief ”pros” and ”cons” on each, but it will be fully covered later in the Product Detail Guidance sections in the catalogue.

These letters denote the clamping style on a toolholder, and should not be mixed up with the earlier mentioned letters for the insert nomenclature.

Seco clamping designs can be summarized (see page 84 for more details on clamping) as follows

”C” clamping
– extremely rigid top clamp with pressure plate suited especially for advanced material inserts but also a number of cemented carbide inserts.

”D” clamping
– stable and rigid top clamp also re-appearing in the form of the Jetstream Tooling® JETI coolant clamp for for most applications with double sided inserts with a through hole.

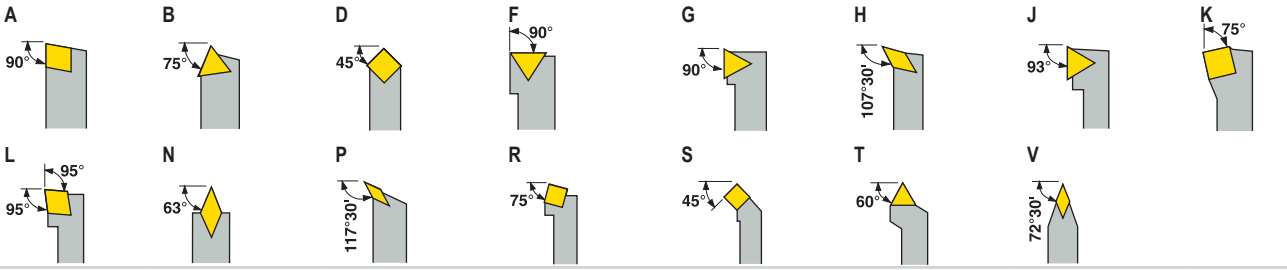
”M” clamping
– classic double security clamping with eccentric pin locking in hole, and complimented by a top clamp, still common in some areas for double sided inserts.

”P” clamping
– a group of several clamping designs avoiding interference in the chip space above double sided inserts with hole in different ways. It consists of, for example, toggle lever-clamping, wedge-clamping and excenter-pin clamping.

”S” clamping
– the most straight forward proven solution for screw-hole, often single sided inserts without interference in the chip space above the insert where the screw needs to be removed to exchange the insert.

First steps – code for toolholder application

3. Tool type



Now as seen earlier there are several demands and requirements on the generation of surfaces in turning. The above sketches on the codes for tool types give hint on the options connected to the position ”3” in the below code key for toolholders.



D	W	L	N	R	25	25	X	06	JETI
1	2	3	4	5	6	7	8	9	10

The options so far actually connect to the code keys of toolholders where

”Position 1” corresponds to the ”Clamping design”

”Position 2” corresponds to the ”Insert shape”

”Position 3” corresponds to the ”Tool type”

Please go back to the earlier comprehensive Code Key pages for detailed descriptions.

First steps – toolholder to machine

There are several connections to a standardized machine connection and this will be covered briefly here to connect to the code keys.

Please refer back to the earlier comprehensive Code Keys pages for detailed descriptions.

The most common classic toolholder connection for external application is a square connection and most often fixed with a set of screws. In the code key to the right that connection size is indicated with ”2525” in ”position 6” and” position 7”. In position 8, the length code “X” indiactes a non-standard length, and this will be found in the product pages.

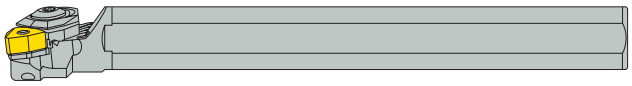
Note ANSI shank code relates to how many 16th of an inch, further detailed in the ANSI [inch] Code Key.



D	W	L	N	R	25	25	X	06	JETI
1	2	3	4	5	6	7	8	9	10

Going to internal applications the toolholder connections are similar and fixed with screws but in the standard the connection size is indicated in ”position 2” where ”20” in the example to the right means 20 mm. The length is represented in “position 3” in the letter “Q” corresponding to 180 mm (see the Code Key).

Note that a ANSI shank code A20-... corresponds to the number of 16th of an inch i.e. significantly bigger shank than the metric version. 20 on an ANSI description would represent 1.250” i.e. just about 32 mm in diameter..

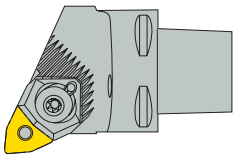


A	20	Q	-	P	W	L	N	R	06	R
1	2	3		4	5	6	7	8	9	10

However more modern machine connection standards such as Seco-Capto™ to the right, Seco-Capto™ uses the logic to start with the connections size i.e. the connection size ”C4” in ”position 1” in the code key to the right. The functional width and length are found in that order in “position 7” and “position 8” always measured in mm.

There are a number of interesting modular solutions available such as the GL-connection especially for stabilized internal applications and QC-connection for external applications in small part machining, but those are connected to machines with a back-end according to above e.g. Seco-Capto™ or square shank.

Please go back to the earlier comprehensive Code Keys pages 11-22 for detailed descriptions.



C4	-	P	W	L	N	R	-	27	050	-	06	-	
1		2	3	4	5	6		7	8		9		10

Seco-Capto™ – brief description

This, now standardized system, as per ISO26623 is a modular system for machines such as lathes introduced from the 1990´s for fast and efficient change of holders and inserts summarized as “quick-change”.

The main benefits are

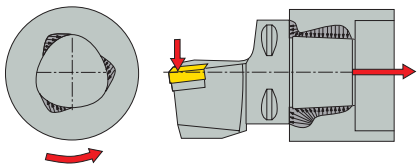
– Increased total productivity from the faster tools changes

– High precision, rigid, self-centering connection due to the strong conical polygon giving repeatability within microns

– Increased productivity since no need for cutting data adjustments due to the stable connection

– Reduced inventory of holders in a workshop due to same precise standardized machine side connection

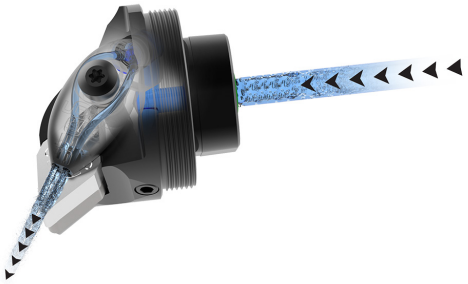
– Through-coolant means no separate coolant handling, which goes extremely well with Seco Jetstream Tooling solutions



Seco Jetstream Tooling® – brief introduction

This revolutionary innovation delivers high pressure coolant jet precisely to cutting zone – available in all Seco turning product areas.

The General ISO Turning Jetstream Tooling® toolholder to the right indicates yet another revolution using the leading JETI-coolant clamp designs.



The main benefits with Seco Jetstream Tooling® are

– Tool life improvement due to the high-pressure jet lifting chips away from the rake face

– Improved chip control in many applications especially when finishing

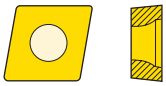
– Increased tool life due to the precise and undisturbed coolant delivery even at low pressures in nearly all component materials

Application overview

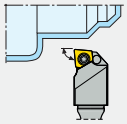
The following Application overview pages will provide a good insight of the usage of toolholders and inserts from an application perspective. It should also be said and recommended to look into the Seco Suggest or explore the opportunities directly on www.secotools.com/suggest at any webbrowser.

QC Toolholders

Inserts CC..

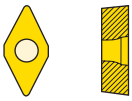


QC..-SCLCR/L..JET
95 °

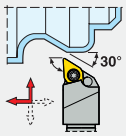


page(s) 154

Inserts DC..

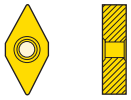


QC..-SDJCR/L..JET
93 °

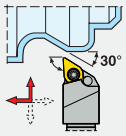


page(s) 155

Inserts DN..

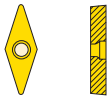


QC..-SDJNR/L..JET
93 °

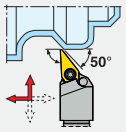


page(s) 156

Inserts VB../VC..

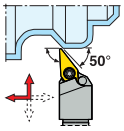


QC..-SVJBR/L..JET
93 °



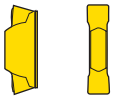
page(s) 157

QC..-SVJCR/L..JET
93 °

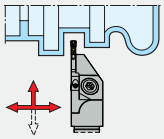


page(s) 158

Inserts LC..

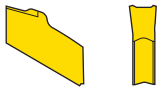


QC..-CFOR/L..RBJET
90 °

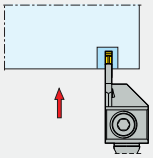


page(s) 159

Inserts 150.10..



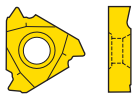
QC..-R/L150.10..JETI



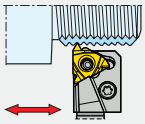
page(s) 160

Inserts ....

SnapTap threading



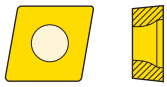
QC..-PER/L..HDJET



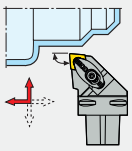
page(s) 161

Toolholders external, Seco-Capto™

Inserts CC..

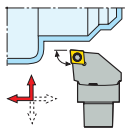


C.-DCLCR/L..JETI2
95 °



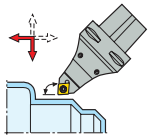
page(s) 162

C.-SCLCR/L
95 °



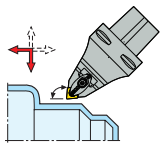
page(s) 208, 209

C.-SCMCN
95 °



page(s) 240

C.-DCMCN..JETI
95 °

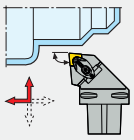


page(s) 230

Inserts CN..

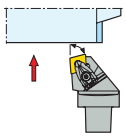


C.-DCLNR/L..JETI2
95 °



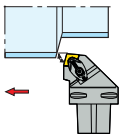
page(s) 163, 164

C.-DCKNR/L
75 °



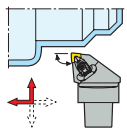
page(s) 178, 179

C.-DCRNR/L..JETI2
75 °



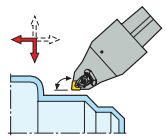
page(s) 165

C.-DCLNR/L
95 °



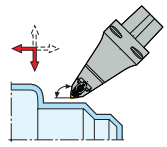
page(s) 180, 181

C.-DCMNN
95 °



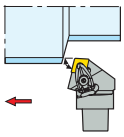
page(s) 236

C.-DCMNN..JETI
95 °



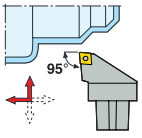
page(s) 231

C.-DCRNR/L
75 °



page(s) 182, 183

C.-PCLNR/L
95 °

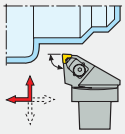


page(s) 203

Inserts CN.N

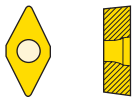


C.-CCLNR/L
95 °

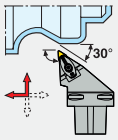


page(s) 220, 221

Inserts DC..

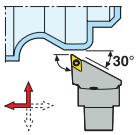


C.-DDJCR/L..JETI2
93 °



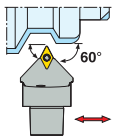
page(s) 166

C.-SDJCR/L
93 °



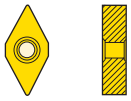
page(s) 210

C.-SDNCN
62,5 °

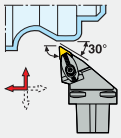


page(s) 211

Inserts DN..

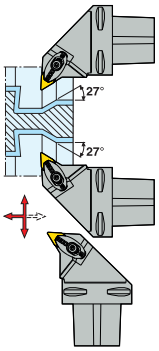


C.-DDJNR/L..JETI2
93 °



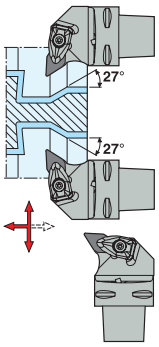
page(s) 167, 168

C.-DDUNR/L..JETI2
93 °



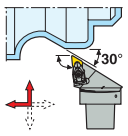
page(s) 169

C.-DDUNR/L
93 °



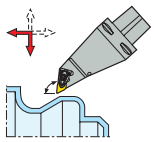
page(s) 187, 188

C.-DDJNR/L
93 °



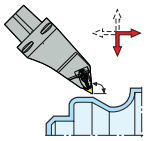
page(s) 184, 185

C.-DDMNL
93 °



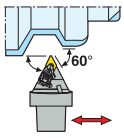
page(s) 237

C.-DDMNR/L..JETI
95 °



page(s) 232, 233

C.-DDNNN
62,5 °

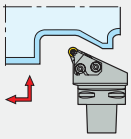


page(s) 186

Inserts RC..

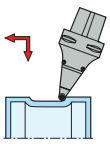


C.-SRSCR/L..JET
45 °



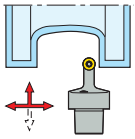
page(s) 177

C.-SRDCN
45 °



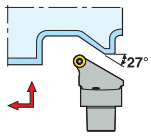
page(s) 241

C.-SRDCN-..A
45 °



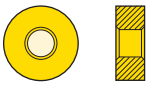
page(s) 212, 213

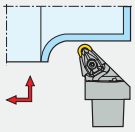
C.-SRSCR/L
45 °



page(s) 214, 215

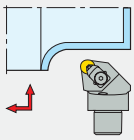
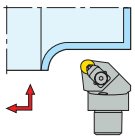
Inserts RN..



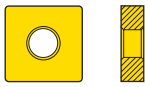
C.-DRSNR/L 45 °

page(s) 189

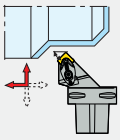
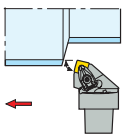
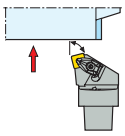
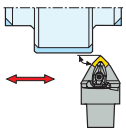
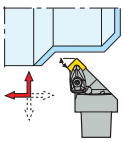
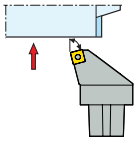
Inserts RN.N

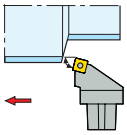


C.-CRSNR/L 45 °	C.-CRSNR/L-..C
	
page(s) 222, 223	page(s) 226

Inserts SN..

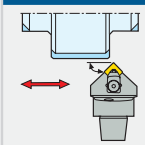


C.-DSSNR/L..JETI2 45 °	C.-DSRNR/L 75 °	C.-DSKNR/L 75 °	C.-DSDNN 45 °	C.-DSSNR/L 45 °	C.-PSKNR/L 75 °
					
page(s) 170	page(s) 193, 194	page(s) 192	page(s) 190, 191	page(s) 195, 196	page(s) 204

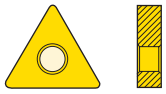
C.-PSRNR/L 75 °

page(s) 205

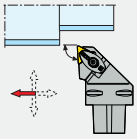
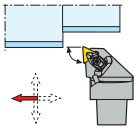
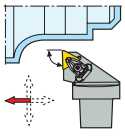
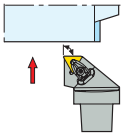
Inserts SN.N



C.-CSDNN 45 °

page(s) 224

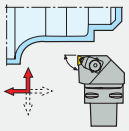
Inserts TN..



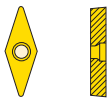
C.-DTJNR/L..JETI2 93 °	C.-DTJNR/L 93 °	C.-DTGNR/L 90 °	C.-DTFNR/L 91 °
			
page(s) 171	page(s) 199	page(s) 198	page(s) 197

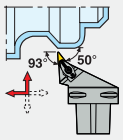
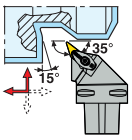
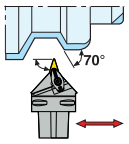
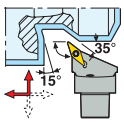
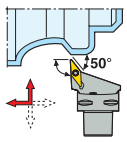
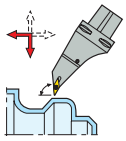
Inserts TN.N

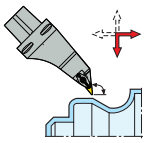
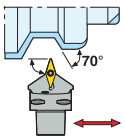


C.-CTJNR/L 93 °

page(s) 225

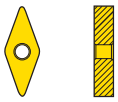
Inserts VB../VC..

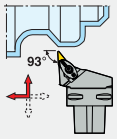
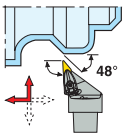
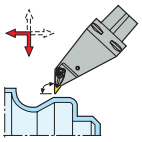
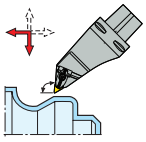


C.-DVJBR/L..JETI2 93 °	C.-DVHBR/L..JETI2 107,5 °	C.-DVVBN..JETI2 72,5 °	C.-SVHBR/L 107,5 °	C.-SVJBR/L 93 °	C.-SVMBL 95 °
					
page(s) 173	page(s) 172	page(s) 175	page(s) 216	page(s) 217, 218	page(s) 242

C.-DVMBR/L..JETI 95 °	C.-SVVBN 72,5 °
	
page(s) 234	page(s) 219

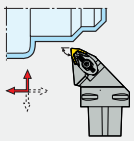
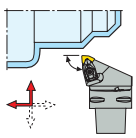
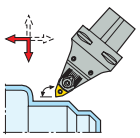
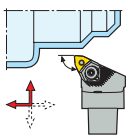
Inserts VN..



C.-DVJNR/L..JETI2 93 °	C.-DVJNR/L 93 °	C.-DVMNL 93 °	C.-DVMNL..JETI 95 °
			
page(s) 174	page(s) 200	page(s) 238	page(s) 235

Inserts WN..



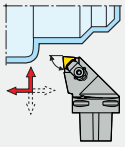
C.-DWLNR/L..JETI2 95 °	C.-DWLNR/L 95 °	C.-PWLNN 95 °	C.-PWLNR/L 95 °
			
page(s) 176	page(s) 201, 202	page(s) 239	page(s) 206, 207

Toolholders external, Seco-Capto™, cassettes

Inserts CN.N



CT..-CCLNX
95 °

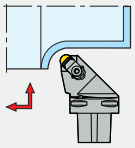


page(s) 228

Inserts RN.N



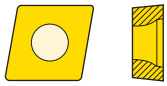
CT..-CRSNX
45 °



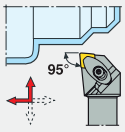
page(s) 229

Toolholders external

Inserts CC..

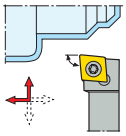


DCLCR/L..JETI
95 °



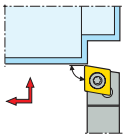
page(s) 244, 245, 246

SCLCR/L
95 °



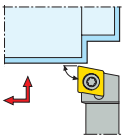
page(s) 337, 338, 339, 340

SCACR/L
90 °



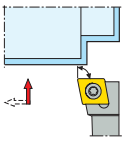
page(s) 331, 332

SCGCR/L
90 °



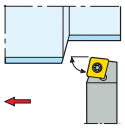
page(s) 335, 336

SCFCR/L
90 °



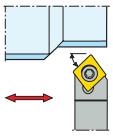
page(s) 334

SCBCR/L
75 °



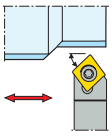
page(s) 333

SCDCR/L
45 °



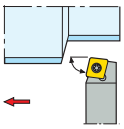
page(s) 334

SCMCN
90 °



page(s) 341

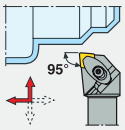
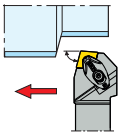
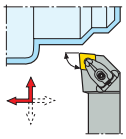
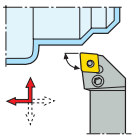
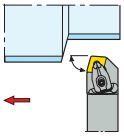
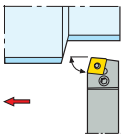
SCRCR/L
90 °

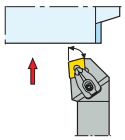
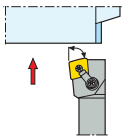
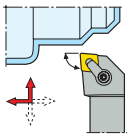
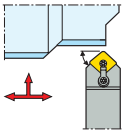
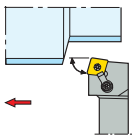


page(s) 342

Inserts CN..

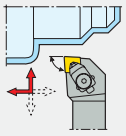
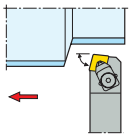
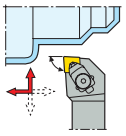


DCLNR/L...JETI 95 °	DCBNR/L...JETI 75 °	DCLNR/L 95 °	PCLNR/L 95 °	DCBNR/L 75 °	PCBNR/L 75 °
					
page(s) 247, 248	page(s) 243	page(s) 271, 272, 273, 274	page(s) 309, 310	page(s) 266, 267	page(s) 308

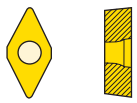
DCKNR/L 75 °	MCKNR/L 90 °	MCLNR/L 90 °	MCMNN 90 °	MCRNR/L 90 °
				
page(s) 268, 269, 270	page(s) 375	page(s) 376	page(s) 377	page(s) 378

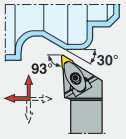
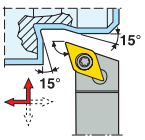
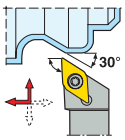
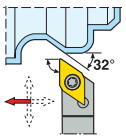
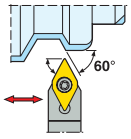
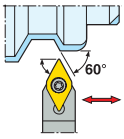
Inserts CN.N



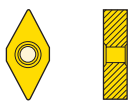
CCLNR/L 95 °	CCBNR/L 75 °	CCLNR/L-.C 95 °
		
page(s) 403, 404	page(s) 403, 404	page(s) 405

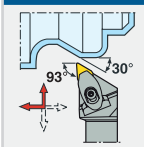
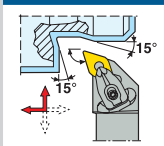
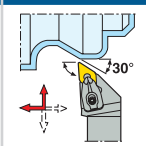
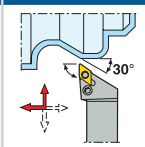
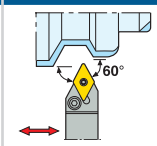
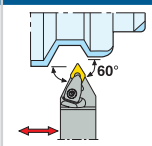
Inserts DC..

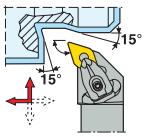
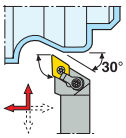


DDJCR/L...JETI 93 °	SDHCR/L 107,5 °	SDJCR/L 93 °	SDACR/L 90 °	SDNCN 62,5 °	SDPCN 90 °
					
page(s) 249, 250	page(s) 344, 345	page(s) 346, 347, 348, 349	page(s) 343	page(s) 350, 351	page(s) 352

Inserts DN..

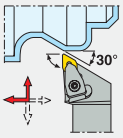
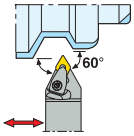


DDJNR/L...JETI 93 °	DDHNR/L 107,5 °	DDJNR/L 93 °	PDJNR/L 93 °	PDNNR/L 63 °	DDPNN 90 °
					
page(s) 251, 252, 253	page(s) 275, 276	page(s) 277, 278, 279, 280	page(s) 311, 312	page(s) 313, 314	page(s) 282

DDQNR/L 90 °	MDJNR/L 90 °
	
page(s) 283	page(s) 379

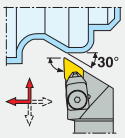
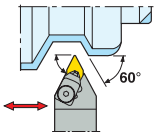
Inserts DN.A



DDJNR/L..-C 93 °	DDNNN..-C 62,5 °
	
page(s) 281	page(s) 281

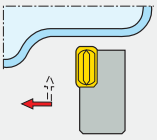
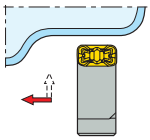
Inserts DN.N



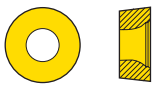
CDJNR/L 93 °	CDNNN 62,5 °
	
page(s) 406	page(s) 406

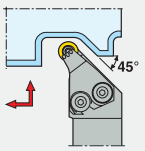
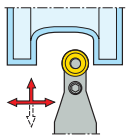
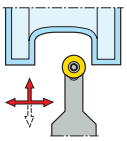
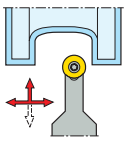
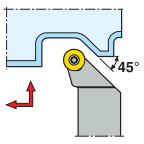
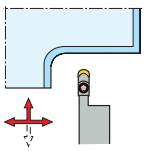
Inserts LNMX19/30

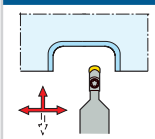
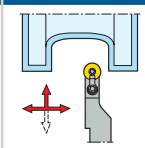
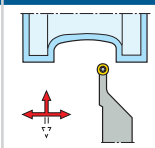
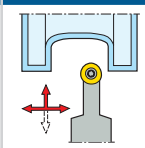


CT-PLANR/L (175.32) 90 °	CT-PLFNR/L 90 °
	
page(s) 538, 539	page(s) 540

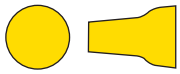
Inserts RC..

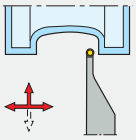
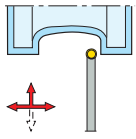
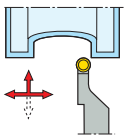
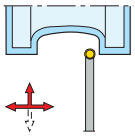


SRSCR/L..JET 45 °	PRDCN 45 °	SRDCN 45 °	SRDCN 90 °	SRSCR/L 45 °	CRDCR/L..C
					
page(s) 264, 265	page(s) 315	page(s) 353, 354	page(s) 355	page(s) 358, 359	page(s) 407

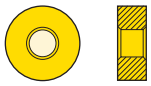
CRDCN...C	MRGOR/L 90 °	SRGCR/L 90 °	PROON 90 °
			
page(s) 407	page(s) 381	page(s) 356, 357	page(s) 316

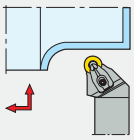
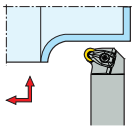
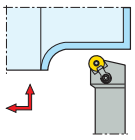
Inserts RCG.



TRAOR/L 90 °	TRDON 45 °	TRGOR/L 90 °	TROON 90 °
			
page(s) 400, 401	page(s) 400	page(s) 402	page(s) 401

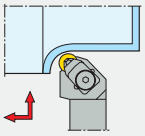
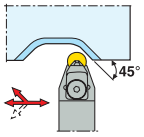
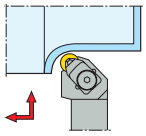
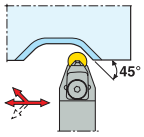
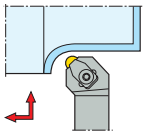
Inserts RN..



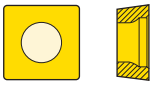
DRSNR/L 45 °	DRGNR/L 90 °	MRGNR/L 90 °
		
page(s) 285	page(s) 284	page(s) 380

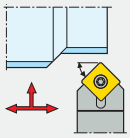
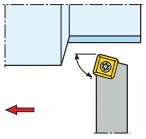
Inserts RN.N



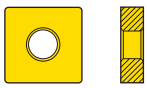
CRSNR/L 45 °	CRDNN 45 °	CRSNR/L..C	CRDNN..C	CRGNR/L 90 °
				
page(s) 410, 411	page(s) 408, 410, 411	page(s) 412	page(s) 412	page(s) 409

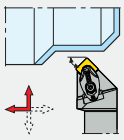
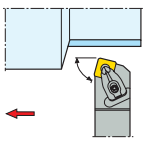
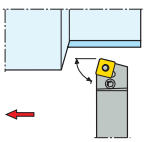
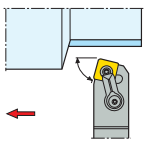
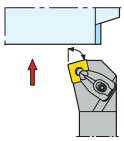
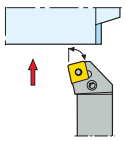
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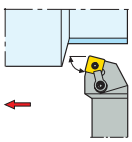
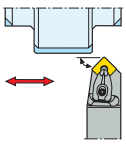
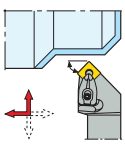
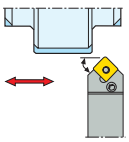
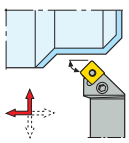
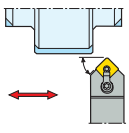


SSDCN 45 °	SSBCR/L 75 °
	
page(s) 360, 361	page(s) 362

Inserts SN..

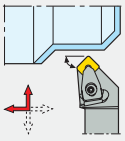


DSSNR/L..JETI 45 °	DSBNR/L 75 °	PSBNR/L 75 °	MSBNR/L 75 °	DSKNR/L 75 °	PSKNR/L 75 °
					
page(s) 254, 255	page(s) 286	page(s) 317, 318	page(s) 382	page(s) 289, 290	page(s) 319

MSRNR/L 75 °	DSDNN 45 °	DSSNR/L 45 °	PSDNN 45 °	PSSNR/L 45 °	MSDNN 90 °
					
page(s) 385, 386, 387	page(s) 287, 288	page(s) 291, 292, 293	page(s) 319	page(s) 320	page(s) 383, 384

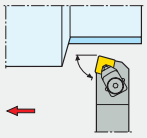
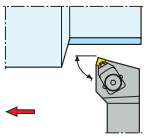
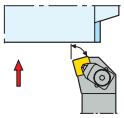
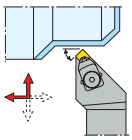
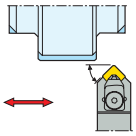
Inserts SN.A



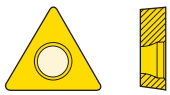
DSSNR/L..-C 45 °

page(s) 421

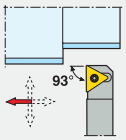
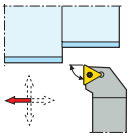
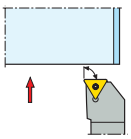
Inserts SN.N



CSBNR/L 75 °	CSRNR/L 75 °	CSKNR/L 75 °	CSSNR/L 45 °	CSDNN 45 °
				
page(s) 413	page(s) 413	page(s) 414	page(s) 416	page(s) 414, 415

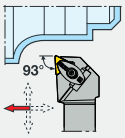
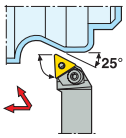
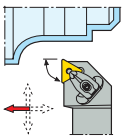
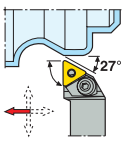
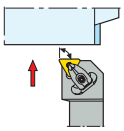
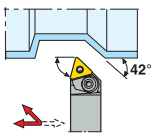
Inserts TC..

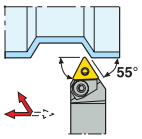
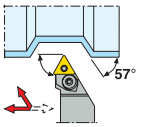
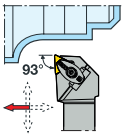
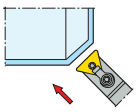
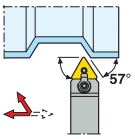
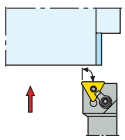


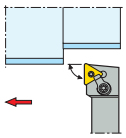
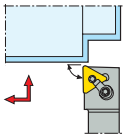
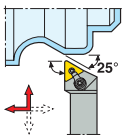
STJCR/L 93 °	STGCR/L 90 °	STFCR/L 90 °
		
page(s) 366	page(s) 363, 364, 365	page(s) 363, 364

Inserts TN..



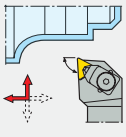
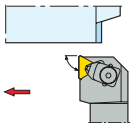
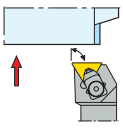
DTJNR/L..JETI 93 °	PTJNR/L 93 °	DTGNR/L 90 °	PTGNR/L 90 °	DTFNR/L 90 °	PTBNR/L 75 °
					
page(s) 256, 257	page(s) 326, 327	page(s) 296, 297	page(s) 324, 325	page(s) 294, 295	page(s) 322

PTNNR/L 63 °	PTTNR/L 60 °	DTJNR/L 90 °	MTCNN 90 °	MTENNS 90 °	MTFNR/L 90 °
					
page(s) 323	page(s) 328	page(s) 298	page(s) 388	page(s) 389	page(s) 390

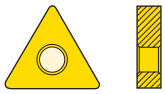
MTGNR/L 90 °	MTLNR/L 90 °	MTJNR/LS 90 °
		
page(s) 391	page(s) 394	page(s) 392, 393

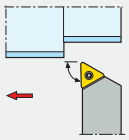
Inserts TN.N



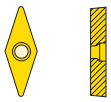
CTJNR/L 93 °	CTGNR/L..-PL 90 °	CTFNR/L 91 °
		
page(s) 418, 419	page(s) 417	page(s) 418, 419

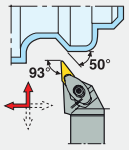
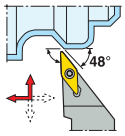
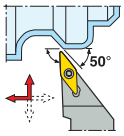
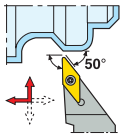
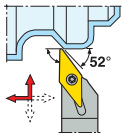
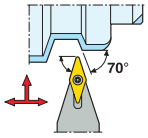
Inserts TP..



PTAPRS/LS 90 °

page(s) 321

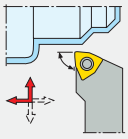
Inserts VB/VC..



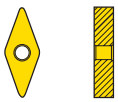
DVJBR/L...JETI 93 °	SVLBR/L 95 °	SVJBR/L 93 °	SVJCR/L 93 °	SVABR/L 90 °	SVVBN 72,5 °
					
page(s) 258, 259	page(s) 370, 371	page(s) 367, 368	page(s) 369	page(s) 369	page(s) 371, 372, 373

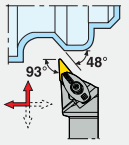
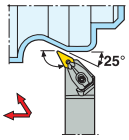
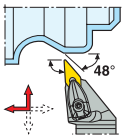
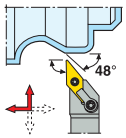
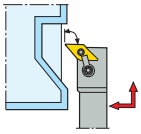
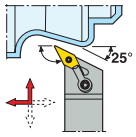
Inserts WC..



SWLCR/L 95 °

page(s) 374

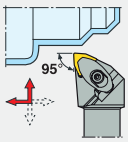
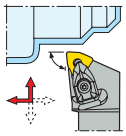
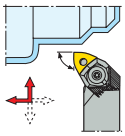
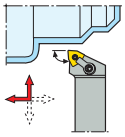
Inserts VN..



DVJNR/L..JETI 93 °	DVPNR/L 117,5 °	DVJNR/L 93 °	MVJNR/L 90 °	MVLNR/L 90 °	MVTNR/L 90 °
					
page(s) 260, 261	page(s) 302, 303	page(s) 299, 300, 301	page(s) 395	page(s) 396	page(s) 397

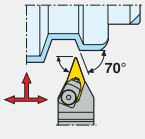
Inserts WN..



DWLNR/L..JETI 95 °	DWLNR/L 95 °	PWLNR/L 95 °	MWLNR/L 95 °
			
page(s) 262, 263	page(s) 304, 305, 306, 307	page(s) 329, 330	page(s) 398, 399

Inserts VN.A

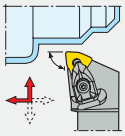


CVVNN 72,5 °

page(s) 420

Inserts WN.A



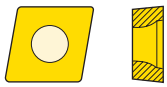
DWLNR/L..-C
95 °



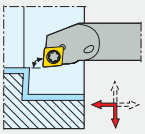
page(s) 422

Toolholders internal, Seco-Capto™

Inserts CC..



C.-SCLCR/L
95 °

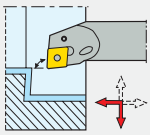


page(s) 432, 433

Inserts CN..

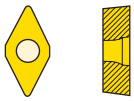


C.-PCLNR/L
95 °

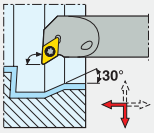


page(s) 423, 424

Inserts DC..

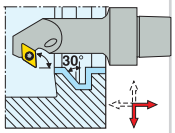


C.-SDUCR/L
93 °



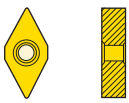
page(s) 436, 437

C.-SDUCR/L-..X
93 °

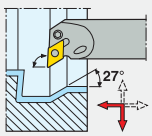


page(s) 438

Inserts DN..

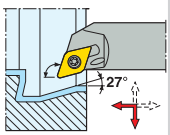


C.-PDUNR/L..-15
93 °



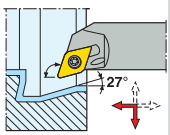
page(s) 425, 426

C.-PDQNR/L
107,5 °



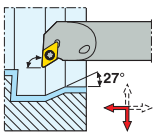
page(s) 434, 435

C.-SDQNR/L
107,5 °



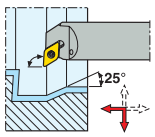
page(s) 434, 435

C4-S/PDUNR/L..-11
93 °



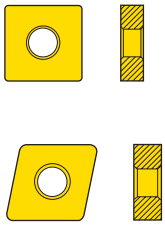
page(s) 439, 440

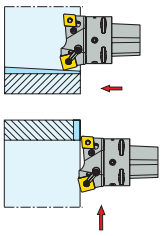
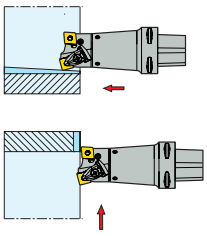
C5-S/PDUNR/L..-11
93 °



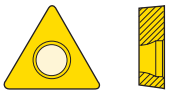
page(s) 439, 440

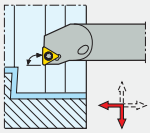
Inserts SN../CN..



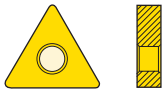
C.-MSKNR/L - PCLNR/L 75 °	C.-DSKNR/L - PCLNR/L 75 °
	
page(s) 446	page(s) 445

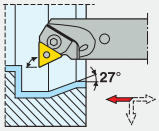
Inserts TC..



C.-STFCR/L 91 °

page(s) 441

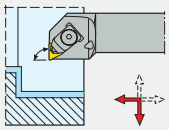
Inserts TN..



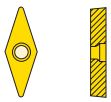
C.-PTFNR/L..-W 91 °

page(s) 427

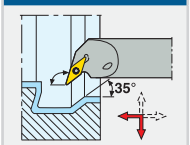
Inserts TN.N



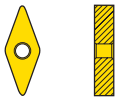
C.-CTUNR/L 93 °

page(s) 444

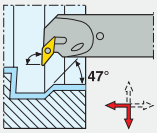
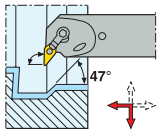
Inserts VB../VC..



C.-SVQBR/L 107,5 °

page(s) 442, 443

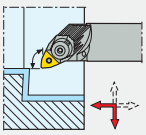
Inserts VN..



C.-PVUNR/L 93 °	C.-MVUNR/L 93 °
	
page(s) 428, 429	page(s) 428, 429

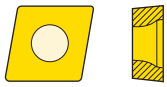
Inserts WN..

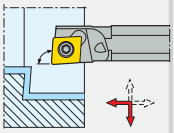
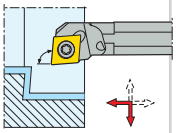
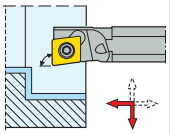
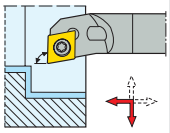
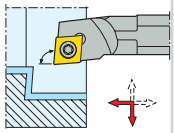


C.-PWLNR/L 95 °

page(s) 430, 431

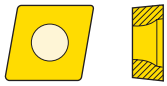
Toolholders internal

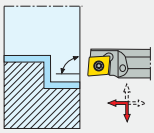
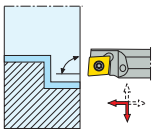
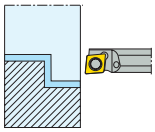
Inserts CC..



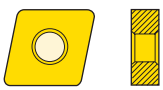
A..-SCLCR/L06 95 °	A..-SCLCR/L09 95 °	A..-SCFCR/L 91 °	E..-SCFCR/L 91 °	E..-SCLCR/L 95 °
				
page(s) 466, 467, 468, 469	page(s) 466, 467	page(s) 463, 464, 466, 467	page(s) 465	page(s) 470

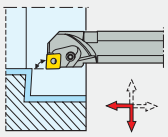
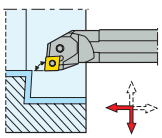
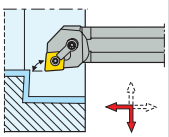
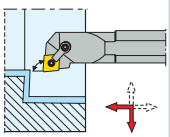
Inserts CD..



A..-SCFDR/L 91 °	A..-SCLDR/L 95 °	xx-SCLDR 90 °
		
page(s) 471	page(s) 471	page(s) 472

Inserts CN..

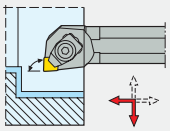


A..-PCLNR/L 95 °	S..-PCLNR/L 95 °	S..-MCLNR/L 95 °	A..-MCLNR/L 90 °
			
page(s) 449, 450	page(s) 451	page(s) 496, 497, 499	page(s) 498

Inserts CN.N

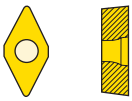


S..-CCLNR/L
95 °

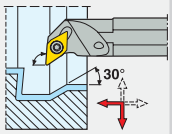


page(s) 515

Inserts DC..

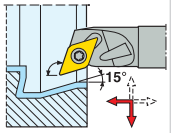


A..-SDUCR/L
93 °



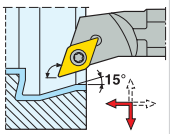
page(s) 478, 479, 481

A..-SDQCR/L
107,5 °



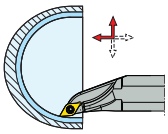
page(s) 473, 474, 481

S..-SDQCR/L
107,5 °



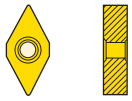
page(s) 475

S..-SDXCR/L
120 °

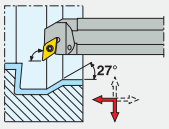


page(s) 485

Inserts DN..

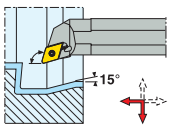


A..-SDUNR/L
93 °



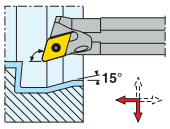
page(s) 480, 482

A..-PDQNR/L
107,5 °



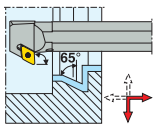
page(s) 476, 477

A..-SDQNR/L
107,5 °



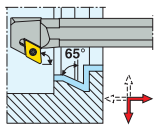
page(s) 476, 477

A..-PDYNR/L
95 °



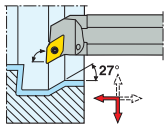
page(s) 484

A..-SDYNR/L
95 °



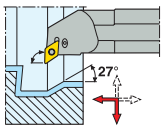
page(s) 484

A..-PDUNR/L
93 °



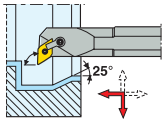
page(s) 452, 453

S..-PDUNR/L
93 °



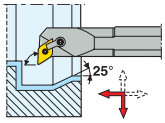
page(s) 454, 455

A..-MDUNR/L
90 °



page(s) 500

S..-MDUNR/L
90 °

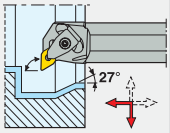


page(s) 501

Inserts DNMA



A..-DDUNR/L..-C
93 °

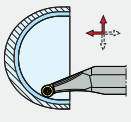


page(s) 520

Inserts RC..



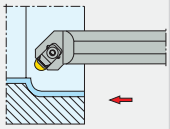
A..-SRXCR/L
90 °



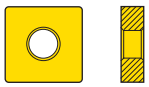
page(s) 485

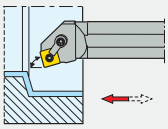
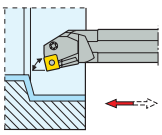
Inserts RN.N



S..-CRSNR/L 45 °

page(s) 516

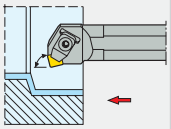
Inserts SN..



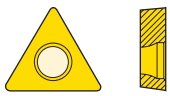
S..-MSKNR/L 75 °	S..-PSKNR/L 75 °
	
page(s) 502	page(s) 456

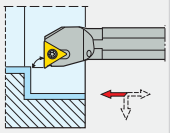
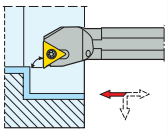
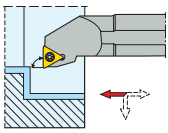
Inserts SN.N



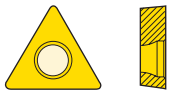
S..-CSKNR/L 75 °

page(s) 517

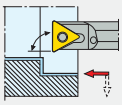
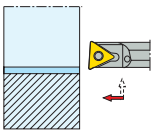
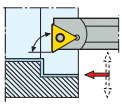
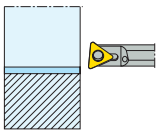
Inserts TC..



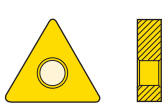
A..-STFCR/L 91 °	A..-STUCR/L 90 °	E..-STFCR/L 91 °
		
page(s) 486, 487, 488	page(s) 488	page(s) 489

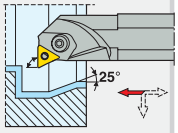
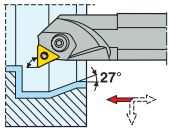
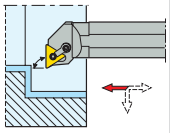
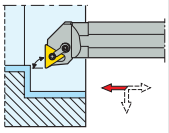
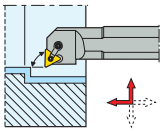
Inserts TD..



A..-STFDR/L 91 °	A..-STLDR/L 95 °	S..-STFDR/L 91 °	xx-STLDR 90 °
			
page(s) 490	page(s) 490	page(s) 491	page(s) 491

Inserts TN..

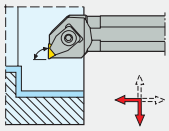


A..-PTFNR/L 91 °	A..-PTFNR/L 91 °	S..-MTFNR/L 91 °	A..-MTFNR/L 91 °	S..-MTUNR/L 90 °
				
page(s) 457, 458	page(s) 457, 458	page(s) 503, 505	page(s) 504	page(s) 506

Inserts TN.N



S..-CTUNR/L
93 °

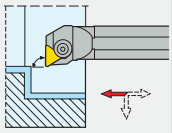


page(s) 519

Inserts TP..

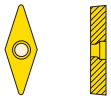


S..-CTFPR/L
91 °

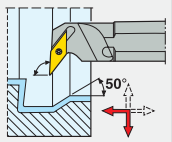


page(s) 506

Inserts VB..

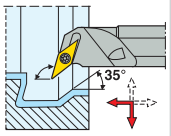


A..-SVUBR/L
93 °



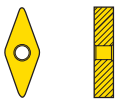
page(s) 492, 493, 494

A..-SVQBR/L
107,5 °

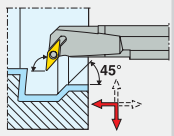


page(s) 492, 493, 494

Inserts VN..

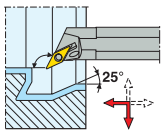


A..-PVLNR/L
95 °



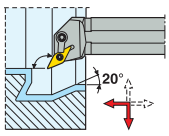
page(s) 459, 460

A..-PVPNR/L
117,5 °



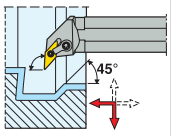
page(s) 459, 460

S..-MVPNR/L
117,5 °



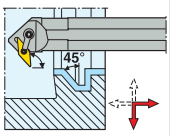
page(s) 507

S..-MVLNR/L
95 °



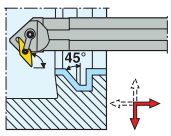
page(s) 507

S..-MVYNR/L
95 °



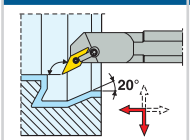
page(s) 510

A..-MVLNR/L
90 °



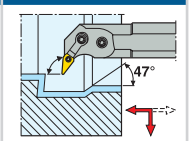
page(s) 508

A..-MVPNR/L
90 °



page(s) 508

A..-MVUNR/L
90 °

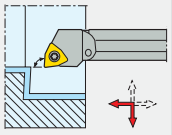


page(s) 509

Inserts WC..



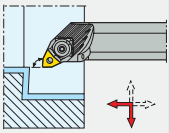
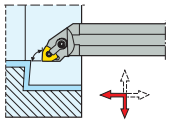
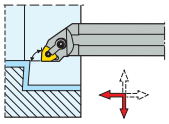
A..-SWLCR/L
95 °



page(s) 495

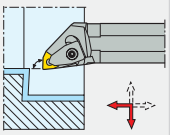
Inserts WN..



A..-PWLNR/L 95 °	S..-MWLNR/L 95 °	A..-MWLNR/L 90 °
		
page(s) 461, 462	page(s) 511, 513, 514	page(s) 512

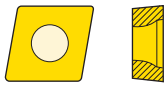
Inserts WN.A

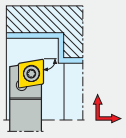
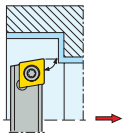
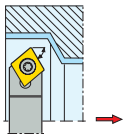
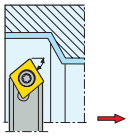
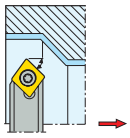


A..-DWLNR/L..-C 95 °

page(s) 447, 448

Toolholders for boring

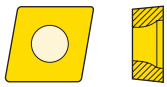
Inserts CC..

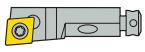
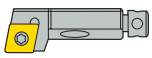
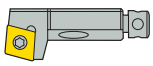
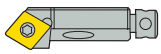
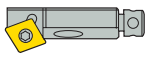


SCACL 90 °	S-SCACL 90 °	SCECL 60 °	S-SCECL 60 °	S-SCDCL 45 °
				
page(s) 521	page(s) 522	page(s) 521	page(s) 522	page(s) 523

Cartridges

Inserts CC..



SCFCR/L 90 °	SCLCR/L 95 °	SCGCR/L 90 °	SCRCR/L 75 °	SCTCR/L 60 °	SCWCR/L 60 °
					
page(s) 524, 525	page(s) 524, 525	page(s) 526	page(s) 527	page(s) 527	page(s) 524, 525

SCSCR/L 45 °

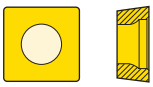
page(s) 526

Inserts CN..



MCFNR/L 90 °	MCLNR/L 90 °
	
page(s) 533	page(s) 533

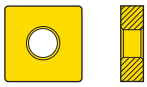
Inserts SC..

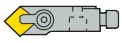


SSKCR/L 75 °

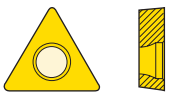
page(s) 528

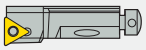
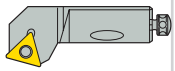
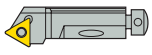
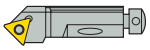
Inserts SN..



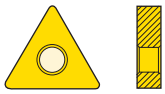
MSKNR/L 90 °	MSSNR/L 90 °	MSTNR/L 90 °
		
page(s) 534, 535	page(s) 534, 535	page(s) 535

Inserts TC..



STFCR/L 90 °	STGCR/L 90 °	STRCR/L 75 °	STTCR/L 60 °	STWCR/L 60 °	STSCR/L 45 °
					
page(s) 529, 530	page(s) 531, 532	page(s) 531, 532	page(s) 531, 532	page(s) 529, 530	page(s) 529, 530

Inserts TN..

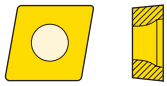


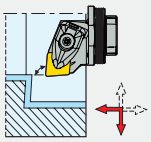
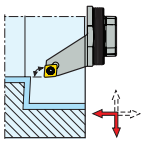
MTFNR/L 90 °

page(s) 536, 537

GL-heads internal

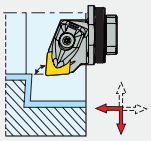
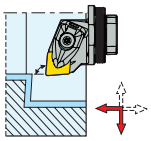
Inserts CC..



GL..-DCLCR/L..JET 95 °	GL..-SCLCR/L 95 °
	
page(s) 643	page(s) 656, 657, 658

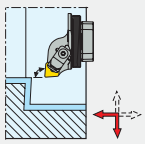
Inserts CN..



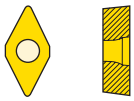
GL..-DCLNR/L..JET 95 °	GL..-DCLNR/L 95 °
	
page(s) 644	page(s) 651, 652

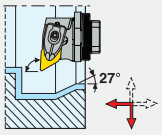
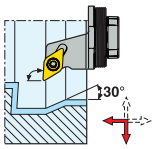
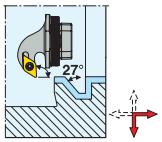
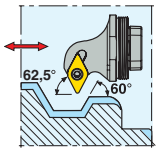
Inserts CN.N



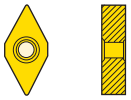
GL..-CCLNR/L 95 °

page(s) 673

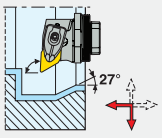
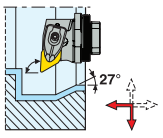
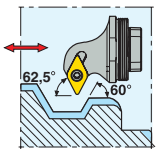
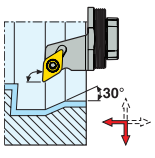
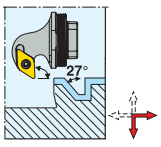
Inserts DC..



GL..-DDUCR/L..JET 93 °	GL..-SDUCR/L 93 °	GL..-SDUCR/L...X 93 °	GL..-SDXCR/L 62,5 °
			
page(s) 645	page(s) 659, 660	page(s) 661, 662	page(s) 665, 666

Inserts DN..

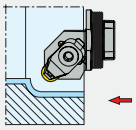


GL..-DDUNR/L..JET 93 °	GL..-DDUNR/L 93 °	GL..-SDXNR/L 62,5 °	GL..-SDUNR/L 93 °	GL..-SDUNR/L...X 93 °
				
page(s) 646, 647	page(s) 653	page(s) 667	page(s) 663	page(s) 664

Inserts RN.N

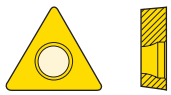


GL..-CRSNR/L
45 °

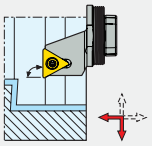


page(s) 674

Inserts TC..



GL..-STFCR/L
91 °

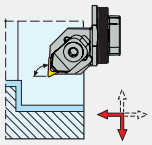


page(s) 668, 669

Inserts TN.N

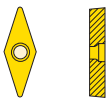


GL..-CTUNR/L
93 °

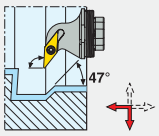


page(s) 675

Inserts VB..

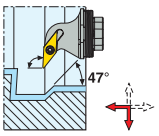


GL..-DVUBR/L..JET
93 °



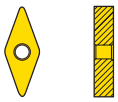
page(s) 648, 649

GL..-SVUBR/L
93 °

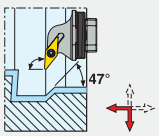


page(s) 670, 671

Inserts VN..

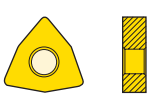


GL..-SVUNR/L
93 °

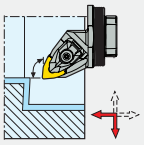


page(s) 672

Inserts WN..

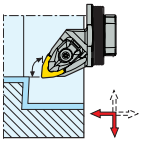


GL..-DWLNR/L..JET
95 °



page(s) 650

GL..-DWLNR/L
95 °



page(s) 654, 655

Chipbreaker application areas – positive inserts

The chart below is to visualize three critical design elements in one diagram for positive basic shape inserts.

The first element is seen on the left side of the diagram with the following letters and explanations

F = Finish turning

M = Medium turning

R = Rough turning

and combinations thereof, also indicated in the description of the chipbreaker.

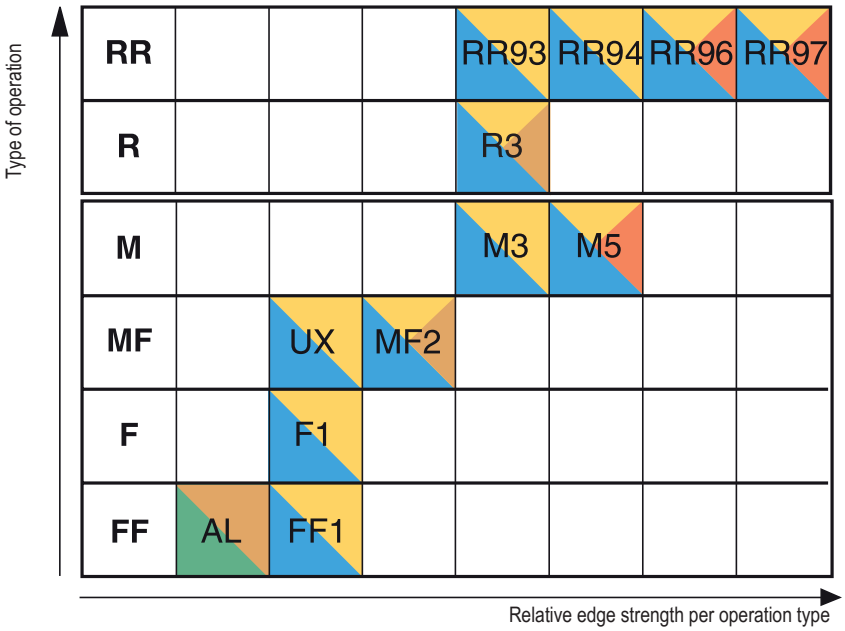
The second element is seen in the lower part of the diagram: A relative edge strength value, also indicated in the description of the chipbreaker.

The third element is the color code indicating the ISO workpiece material area as per the table and examples below and for each chipbreaker in the diagram further decribed below.

Indicative ISO classification of the grades

Steel **P**	All kinds of steel and cast steels except stainless steels with austenitic structure.	P01, P10, P20, P30, P40, P50
Stainless steel **M**	Stainless austenitic and austenitic/ferritic steel and cast steel.	M01, M10, M20, M30, M40
Cast iron **K**	Grey cast iron, cast iron with spheroidal graphite, malleable cast iron.	K01, K10, K20, K30, K40
Non-ferrous metals **N**	Aluminium and other nonferrous metals.	N01, N10, N20, N30
Superalloys and titanium **S**	Heat resistant special alloys based on iron, nickel and cobalt, titanium and titanium alloys.	S01, S10, S20, S30
Hard materials **H**	Hardened stel and cast iron materials, chilled cast iron.	H01, H10, H20, H30

Chipbreaker chart for positive basic shape inserts



ISO material group use, positive basic shape inserts

AL
Superalloys (ISO S)
Non-ferrous alloys (ISO N)

F1
Steel (ISO P)
Stainless steel (ISO M)

M5
Steel (ISO P)
Stainless steel (ISO M)
Cast iron (ISO K)

R3
Steel (ISO P)
Stainless steel (ISO M)
Superalloys (ISO S)

Chipbreaker application areas – negative inserts

The turning chipbreakers are designed to give the proper edge geometry for different application areas. The product designs are considering capability in chipbreaking, chipcontrol, edge toughness behavior, edge line integrity as well as the overall turning work to be done such as rough and finish turning for certain workpiece materials.

The idea with the chart below for negative basic shape inserts is to visualize three of these design elements in one diagram.

The first element is seen on the left side of the diagram with the letters

F = Finish turning

M = Medium turning

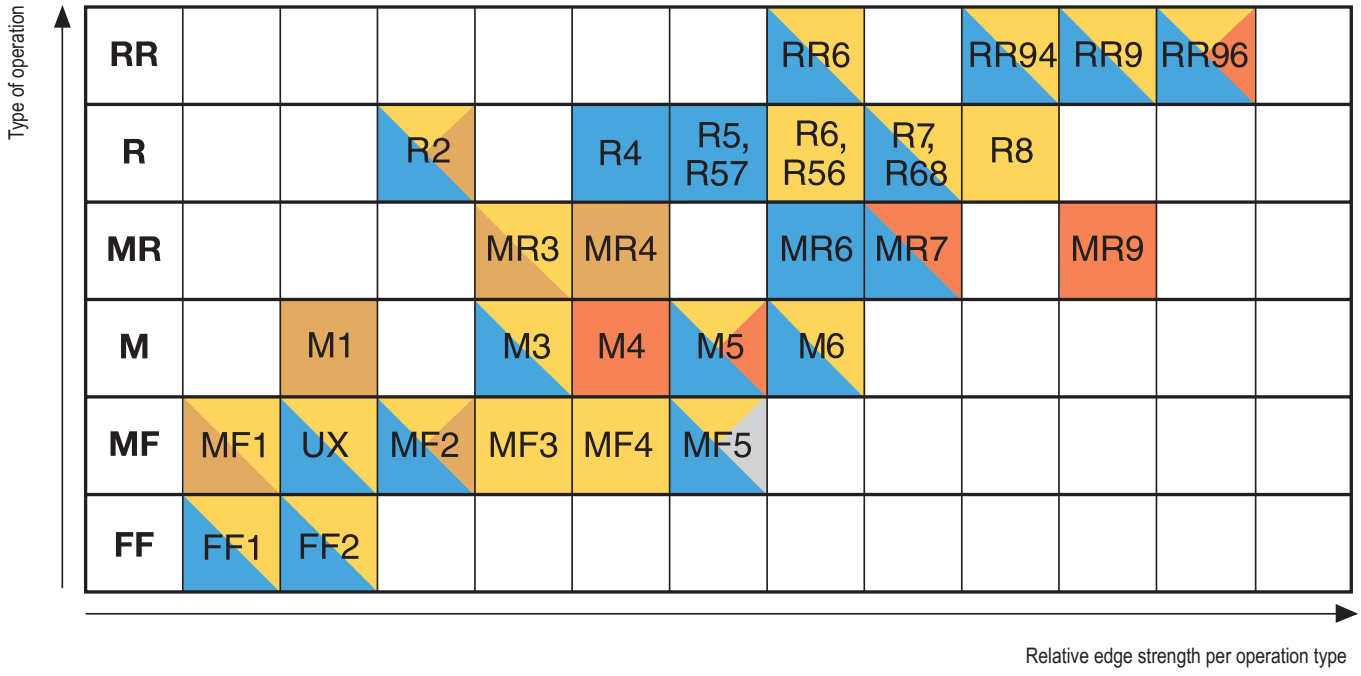
R = Rough turning

and combinations thereof also indicated in the description of the chipbreaker.

The second element is seen in the lower part of the diagram: A relative edge strength value, also indicated in the description of the chipbreaker.

The third element is the color code indicating the ISO workpiece material area as per the table on the previous page and examples below.

Chipbreaker chart for negative basic shape inserts



ISO material group use, negative basic shape inserts

MF1 — Stainless steel (ISO M)
Superalloys (ISO S)

MF2 — Steel (ISO P)
Stainless steel (ISO M)
Superalloys (ISO S)

MF4 — Stainless steel (ISO M)

MF5 — Steel (ISO P)
Stainless steel (ISO M)
Hardened steel (ISO H)

M1 — Superalloys (ISO S)

M5 — Steel (ISO P)
Stainless steel (ISO M)
Cast iron (ISO K)

MR7 — Steel (ISO P)
Cast iron (ISO K)

MR9 — Cast iron (ISO K)

R4 — Steel (ISO P)

High Feed Wiper inserts – brief introduction

For the turning professional with an ambition to have higher effectiveness and efficiency, especially when looking at chipbreakers and connecting back to insert shapes there is a need to mention High Feed Wiper inserts.

Seco High Feed Wiper Inserts offer either

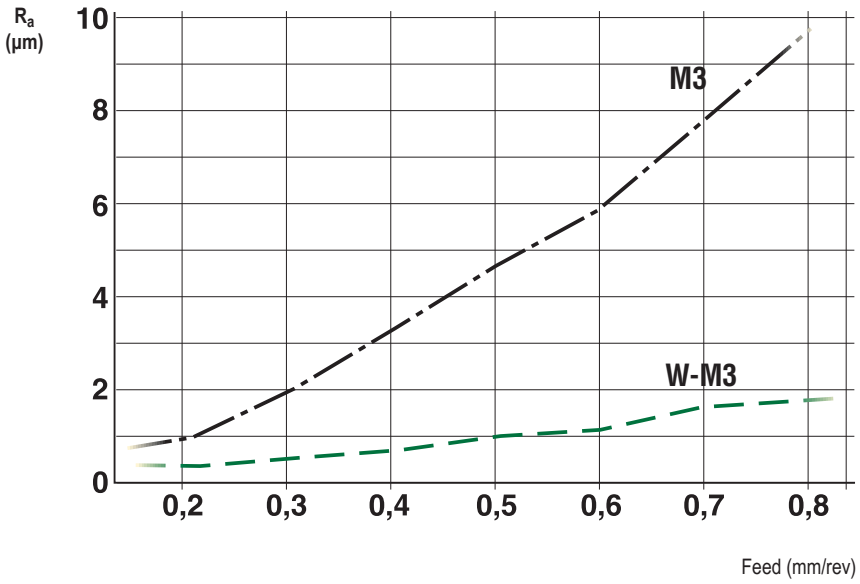
– Excellent surface finish and productivity at high feed rates

or

– Superior surface finish at normal feed rates

W	N	M	G	06	04	08	W	-	M3
1	2	3	4	5	6	7	8		12

Seco has a high feed wiper offering in inserts for most applications such as Advanced Materials and can for example be recognized by the ”W” in the edge property “position 8” in the ISO insert Code Key as indicated above.



The outcome from using a High Feed Wiper insert can actually even eliminate the need for a separate finishing cut, which is indicated and decribed below.

According to the diagram above Seco High Feed Wiper Inserts (in this case CNMG120408W-M3, TP2501) shows an outcome with superior surface finish in R_a (see Y-axis) achieved in steel turning compared to standard insert (in this case CNMG120408-M3, TP2501).

For clarity the conditions for the test were 1mm depth of cut and cutting speed adjusted according to recommendations depending of feed used in SMG P4 longitudinal steel turning. Further details can be found exploring for example the www.secotools.com (see follwing pages).

Searching Turning Tools

To complement this present catalogue there are several ways to connect to www.secotools.com which help you make the use of your tools from Seco.

The webpage of www.secotools.com contains several entries like "Search for anything" including direct Product Search as well as the sequencial route by clicking "Products" in the head-banner according to the below image, ending up in the view shown to the next page.

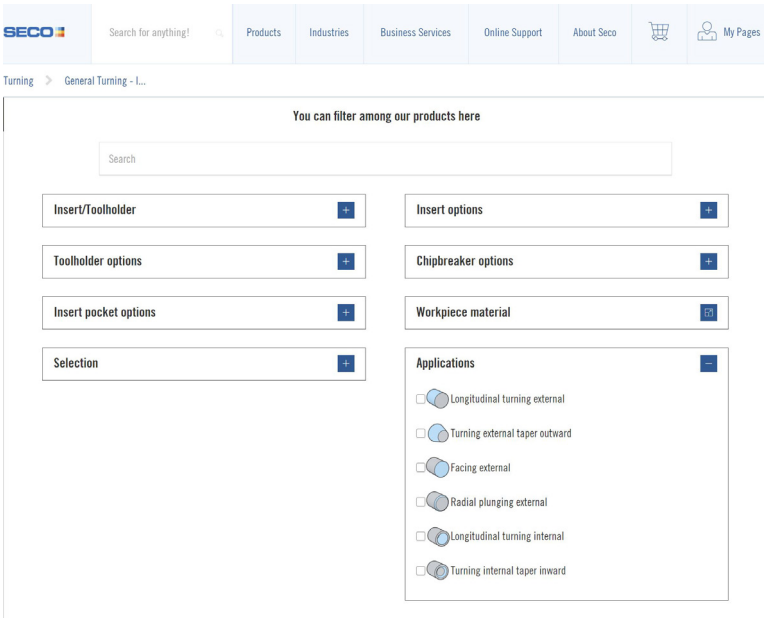
Under products you find overall applications and the Turning subgroups easily.

However, the "Search for anything" field in the heading gives instant access to many things available at www.secotools.com especially if you want to know more about the topic or tool you are looking for.

It is recommended to try yourself by reading the QR-code in the upper right corner on present page for easy access alternatively search by Designation, Item-number, Grade or Type in www.secotools.com in any webbrowser or download and use link functionality of the Seco Assistant application, available in the Google Playstore or Apple App-store.

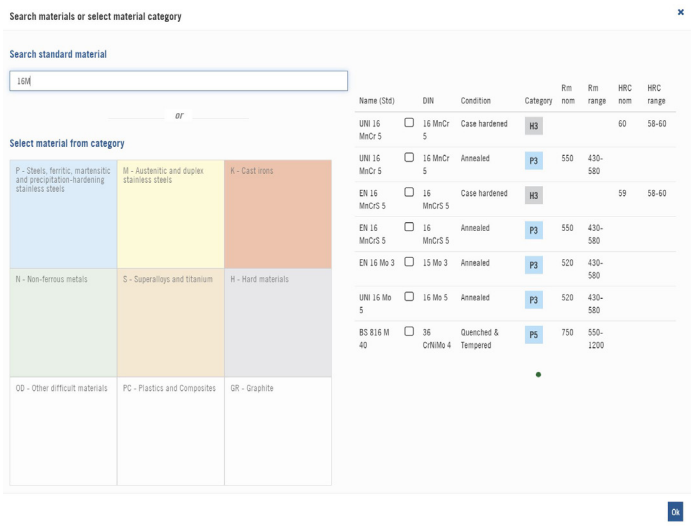


Searching using filter options

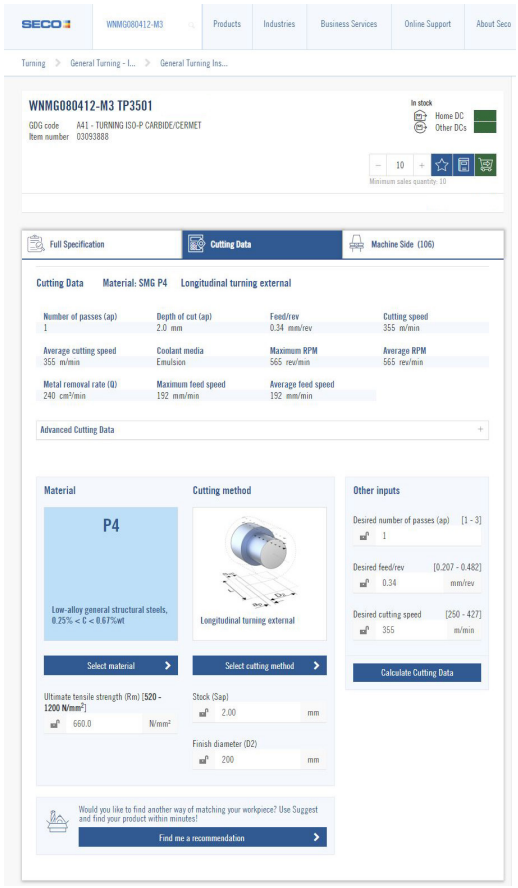


If a Turning subgroup is chosen such as General Turning – ISO (previous page) you enter a filtering view (above) where several options open up, principal application types and workpiece materials in addition to all available features on inserts, chipbreakers and toolholders.

There are opportunities to expand each filter section by pressing the right-most ”plus” as indicated above for the ”Application”-section of the filter.



Exploring cutting data recommendations



After filtering and choosing a specific product or directly product-searched an insert (in this case WNMG080412-M3,TP3501), the product specific information is accessed such as availability of stock and cutting data recommendations for the specific product (refer to the screenshot on the left).

However, there are many things to explore even when looking only at the cutting data view (lower left).

For example in the lower part of cutting data sheet there are options to refine the cutting data in order to get closer to any specific operation in particular. For example, the stock to be removed, number of passes estimated, or to adjust to the actual tensile strength of the steel. After you have made these changes, you can click on “Calculate Cutting Data”, and the cutting data view will be updated accordingly.

For the turning professional there is also an ”Advanced Cutting Data” section available when logged into MyPages.

This section will expand when clicking anywhere within the marked row.

Once you expand the “Advanced Cutting data, you will have access to change actual limitations such as ”RPM”, ”Machine Power” and ”Operation type – finishing” entering a surface finish requirement to come even closer to actual and specific application conditions.

Once again it is recommended that you try these yourself by reading the QR-code in the upper right corner for easy access alternatively search or type in directly www.secotools.com in a webbrowser.

If you are at the machine and not have access to a computer, you can find cutting data or machining calculators in the Seco Assistant app (see separate QR-code).

However also as indicated to the left there is further help for the turning professional to explore how to achieve maximum effectiveness and efficiency out of turning operations as long as you are logged in.

By further expanding into ”Cutting Data Graphs” the dynamic graphs for the specific insert selected (in this case WNMG080412-M3 / *WNMG433-M3*, TP3501) give further detail visualizing (however not limited to) the recommended use of the insert. Generally the graphs show ranges for the basic cutting data together with the current result and the applicable constraints.

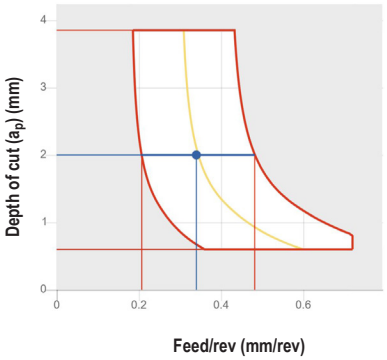
To the upper left there is a graph of the ”Working Range” indicating the recommended depth of cut and feed range.

In the center the ”Taylor-curve” diagram connects the estimated tool life and cutting speed recommendation for the chosen SMG category workpiece material and insert combination.

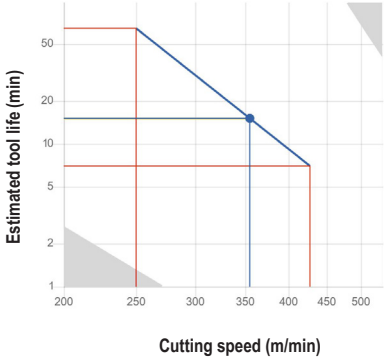
To the very right the ”Speed Range” graph indicates the relationship between recommeded speeds and feeds.

The turning professional should be aware that there are options to introduce contraints such as “Machine Power”, “RPM” and “Surface finish” in cutting data calculations. Consequently these kinds of constraints will then appear in graphs such as the below shown. It is highly recommended to try and explore how cutting calculations and cutting data graphs can provide insight and understanding for easier problem solving and during preparations of turning applications.

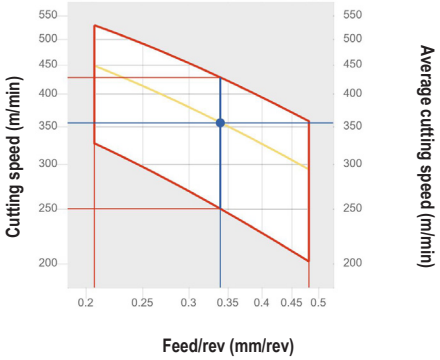
Working range $a_p(f)$



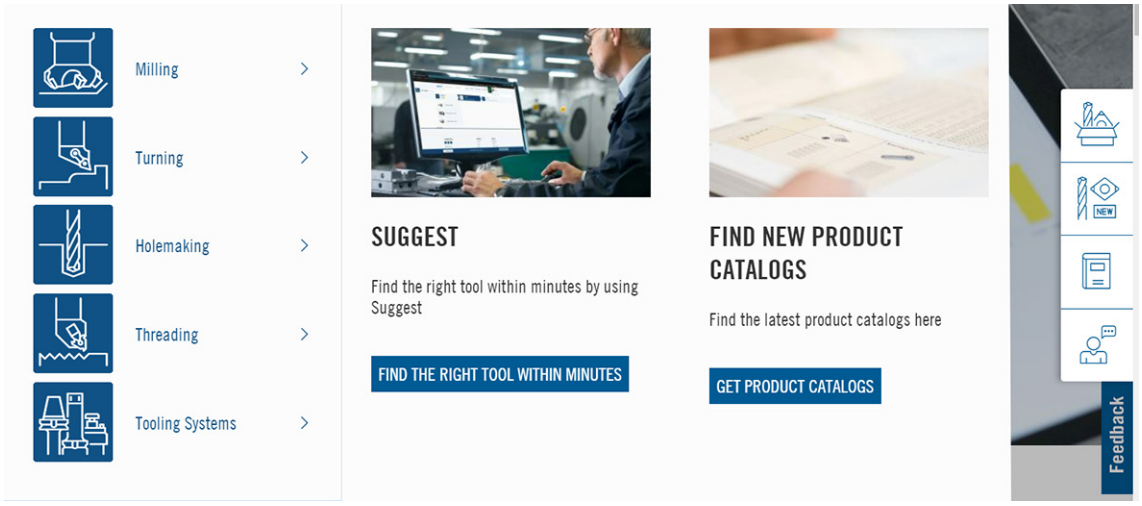
Taylor TL(v_c)



Speed range $v_c(f)$



Component based product recommendations



When starting from and considering a component instead of going directly to a turning product it is highly recommended that you use the Seco Suggest to search for tool recommendations based on principal components, applications and requirements. Below the entry view of Seco Suggest.

Please also note the four shortcut icons to the right of the screen shot above where Seco Suggest also can be accessed directly. Those are recommended to try yourself via reading the QR-code in the upper right corner for easy access by cell phone alternatively search or type in www.secotools.com as well as in your computer webbrowser or download and use this functionality in our new Seco Assistant application, available in the Google Playstore or Apple App-store.



Insert grades – Carbide

To say that the choice of a grade everytime is easy may be an exaggeration, but there are easy rules of thumb to be used using the diagram below as a starting point.

If you are looking for the first choice grade, you could follow this methodology:

1. Start from the type of workpiece material. For example, in the table below, for steel, the ISO-P grades are the first choice.

2. You should look for black application coverage areas below first which indicate grades first of all designed for the application area then white for the complementary areas.

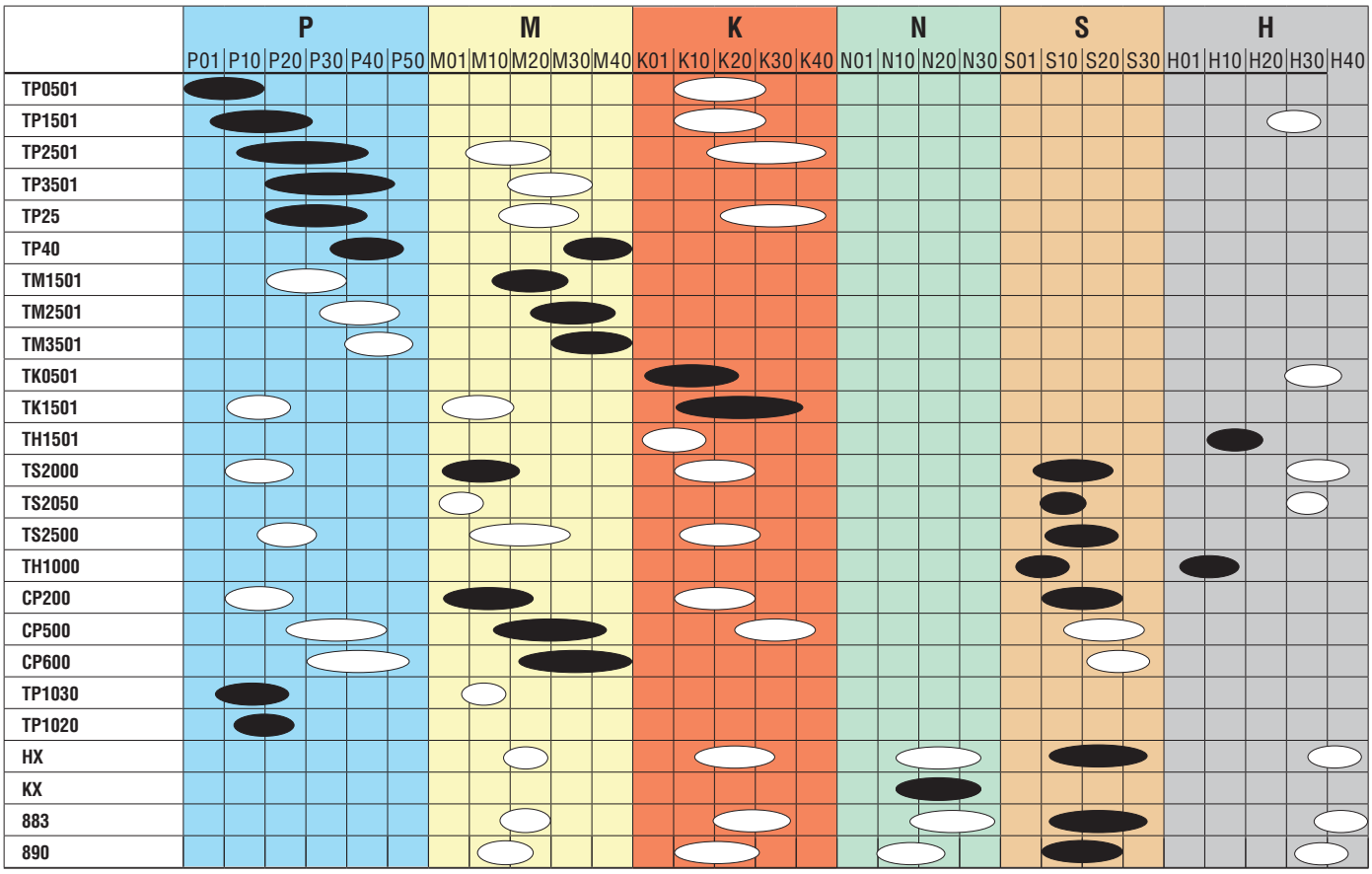
3. Then there are application divisions based on an ISO platfrom from center to i.e. for example P25 towards higher P35 which means tougher requirements and lower cutting speeds or P15 towards higher speeds or often higher surface requirements.

4. When one of the promising option chosen follow the row to the left i.e. if looking at medium turning with medium size inserts P25 the first choice would be Duratomic TP2501, but considering as high requirement on reliability but more versatility and less productivity focus the TP25 could be an option.

This is a straight-forward method giving a good first choice but there are several ways to address a skilled turning artesans' needs.

Indicative ISO classification of the grades

Steel **P**	All kinds of steel and cast steels except stainless steels with austenitic structure.	P01, P10, P20, P30, P40, P50
Stainless steel **M**	Stainless austenitic and austenitic/ferritic steel and cast steel.	M01, M10, M20, M30, M40
Cast iron **K**	Grey cast iron, cast iron with spheroidal graphite, malleable cast iron.	K01, K10, K20, K30, K40
Non-ferrous metals **N**	Aluminium and other nonferrous metals.	N01, N10, N20, N30
Superalloys and titanium **S**	Heat resistant special alloys based on iron, nickel and cobalt, titanium and titanium alloys.	S01, S10, S20, S30
Hard materials **H**	Hardened stel and cast iron materials, chilled cast iron.	H01, H10, H20, H30



The black areas in the chart indicate an insert's main ISO application groups and the white areas indicate other supplementary application groups.

An alternative would be to try finding a recommended solution in Seco systems yourself by reading the QR-code in the upper right corner for for easy access alternatively web-search or type in www.secotools.com/suggest in your webbrowser.

Introduction – PCBN

Polycrystalline Cubic Boron Nitride (PCBN) is a material which is sintered at extremely high pressure and high temperature into a wear-resistant material with properties close to those of diamond. Due to the hot hardness, oxidation resistance and fracture toughness of the material, inserts made of PCBN have excellent edge strength and long tool life when machining hard ferrous materials and pearlitic grey cast iron.

Secomax™ PCBN inserts are suitable for machining:

– Hardened steel (including hard-facing alloys)

– Pearlitic grey cast iron

– Chilled and white cast iron

– Manganese steel

– Cemented carbide

– Valve seat materials

– Powder Metallurgy (PM) alloys

– Nickel-based superalloys e.g. Inconel 718

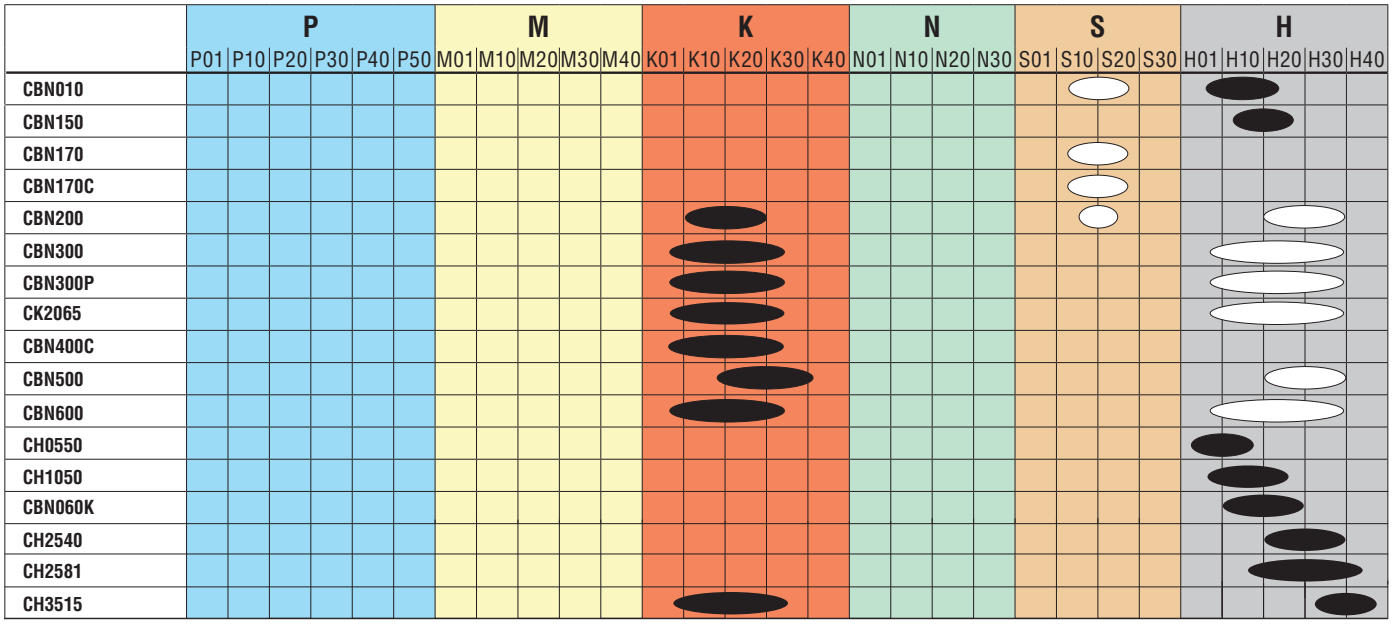
For more information including a comprehensive guide to understanding and applying PCBN successfully, please ask your sales representative for the Secomax™ PCBN, Technical Guide (available in English).

Insert grades – PCBN

The Secomax™ PCBN range of grades consists of both coated and uncoated grades.
The application areas for the Secomax™ grades are shown below.

Indicative ISO classification of the grades

Steel **P**	All kinds of steel and cast steels except stainless steels with austenitic structure.	P01, P10, P20, P30, P40, P50
Stainless steel **M**	Stainless austenitic and austenitic/ferritic steel and cast steel.	M01, M10, M20, M30, M40
Cast iron **K**	Grey cast iron, cast iron with spheroidal graphite, malleable cast iron.	K01, K10, K20, K30, K40
Non-ferrous metals **N**	Aluminium and other nonferrous metals.	N01, N10, N20, N30
Superalloys and titanium **S**	Heat resistant special alloys based on iron, nickel and cobalt, titanium and titanium alloys.	S01, S10, S20, S30
Hard materials **H**	Hardened stel and cast iron materials, chilled cast iron.	H01, H10, H20, H30



The black areas in the chart indicate an insert's main ISO application groups and the white areas indicate other supplementary application groups.

Introduction – PCD

Polycrystalline Diamond (PCD) is produced by sintering together carefully selected particles of diamond under conditions of high temperature and high pressure. PCD cutting tools combine the hardness, abrasion resistance and thermal conductivity of diamond with the toughness of tungsten carbide.

Secomax™ PCD inserts are suitable for machining non-ferrous metals and alloys, e.g.:

– Aluminium
– Copper
– Brass
– Bronze

It can also be used for other materials, e.g.:

– Composites (MMC, ...)
– Reinforced plastics
– Graphite
– Cemented/tungsten carbide
– Ceramics
– Titanium alloys

Indicative ISO classification of the grades

Steel **P**	All kinds of steel and cast steels except stainless steels with austenitic structure.	P01, P10, P20, P30, P40, P50
Stainless steel **M**	Stainless austenitic and austenitic/ferritic steel and cast steel.	M01, M10, M20, M30, M40
Cast iron **K**	Grey cast iron, cast iron with spheroidal graphite, malleable cast iron.	K01, K10, K20, K30, K40
Non-ferrous metals **N**	Aluminium and other nonferrous metals.	N01, N10, N20, N30
Superalloys and titanium **S**	Heat resistant special alloys based on iron, nickel and cobalt, titanium and titanium alloys.	S01, S10, S20, S30
Hard materials **H**	Hardened stel and cast iron materials, chilled cast iron.	H01, H10, H20, H30

	P						M					K					N				S				H				
	P01	P10	P20	P30	P40	P50	M01	M10	M20	M30	M40	K01	K10	K20	K30	K40	N01	N10	N20	N30	S01	S10	S20	S30	H01	H10	H20	H30	H40
PCD20																													
PCD30																													

Introduction – Ceramic

Secomax ceramics include a range of products developed to meet the manufacturing industries ever increasing demands on productivity and product performance.

The inserts are die-pressed and sintered by a HIP process using very fine and pure raw materials with fine microstructure to reach excellent material properties. All surfaces are then ground ensuring a product with superior dimensions and tolerances.

This comes together in a product with outstanding features:

– high thermal shock resistance

– optimised fracture toughness

– excellent wear resistance

– high product quality

Application areas

Heat resistant superalloys (HRSA) include a broad range of nickel, iron and cobalt based alloys developed specifically for applications demanding exceptional mechanical and chemical properties at elevated temperatures.

Seco ceramic inserts are intended for rough machining of nickel based heat resistant superalloys. The most common nickel based superalloy is Inconel 718, which is a precipitation hardenable nickel chromium alloy containing significant amounts of iron, niobium and molybdenum along with lesser amounts of aluminium and titanium.

Other common nickel based superalloy names are:

– Hastalloy

– Haynes (Waspaloy)

– MAR

– Nimonic

– Rene

– Udimet

Indicative ISO classification of the grades

Steel **P**	All kinds of steel and cast steels except stainless steels with austenitic structure.	P01, P10, P20, P30, P40, P50
Stainless steel **M**	Stainless austenitic and austenitic/ferritic steel and cast steel.	M01, M10, M20, M30, M40
Cast iron **K**	Grey cast iron, cast iron with spheroidal graphite, malleable cast iron.	K01, K10, K20, K30, K40
Non-ferrous metals **N**	Aluminium and other nonferrous metals.	N01, N10, N20, N30
Superalloys and titanium **S**	Heat resistant special alloys based on iron, nickel and cobalt, titanium and titanium alloys.	S01, S10, S20, S30
Hard materials **H**	Hardened stel and cast iron materials, chilled cast iron.	H01, H10, H20, H30

	P						M					K					N				S				H				
	P01	P10	P20	P30	P40	P50	M01	M10	M20	M30	M40	K01	K10	K20	K30	K40	N01	N10	N20	N30	S01	S10	S20	S30	H01	H10	H20	H30	H40
CS100																						●							
CS300																							●						
CW100																							●						

Turning problems & recommended solutions

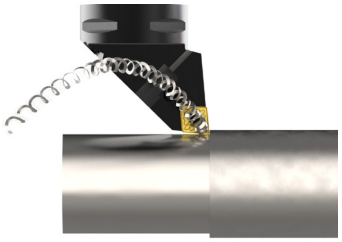
Search and install the Seco Assistant App on AppStore or GooglePlay. Please explore the app for example Utilities and connected to this page Tool Optimization under Turning. The Seco Assistant App provide a more complete list of recommended solution options.

Too long unstable chips (e.g. risks for tangling)

One of the main concerns even for the turning professional is the chipcontrol often concerning chipbreaking. Here is how to start:

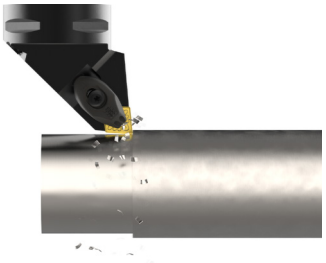
Too long unstable chips (e.g. risks for tangling)

1. Try increasing the feed rate and/or depth of cut
2. Change to a more suitable tighter chipbreaker. Use the chart on page(s) 60-61 and choose one below or to the left of the one in present use or search a recommended insert via www.secotools.com/suggest
3. Start the Seco Assistant app. Check under Utilities/Tool Optimization/Turning/Poor chip control for a more complete list of options.



Too hard-curled very short chips (e.g. risks for excess heat)

1. Try lowering the feed rate and/or depth of cut
2. Change to a more suitable open chipbreaker. Use the chart on page(s) 60-61 and choose one above or to the right of the one in present use or search a recommended insert via www.secotools.com/suggest
3. Start the Seco Assistant app. Check under Utilies/Tool Optimization/Turning/Hard chip control for a more complete list of options



Too much vibrations (e.g. risk marks and breakages)

1. Secure workpiece clamping and tools
2. Try changing cutting speed and/or feed
3. Reduce the depth of cut
4. Select a more easy-cutting chipbreaker. Use the chart on page(s) 60-61 and choose one often left of the present in use or search recommended products via www.secotools.com/suggest
5. Start the Seco Assistant app. Check under Utilies/Tool Optimization/Turning/Vibrations for a more complete list of options



Poor surface finish (e.g. risk not reaching requirements)

1. Reduce the feed rate
2. Increase cutting speed
3. Select a high-feed Wiper insert chipbreaker in accordance to the code key then use the product-search feature at www.secotools.com or search recommended products via www.secotools.com/suggest
4. Start the Seco Assistant app. Check under Utilies/Tool Optimization/Turning/Poor surface finish for a more complete list of options

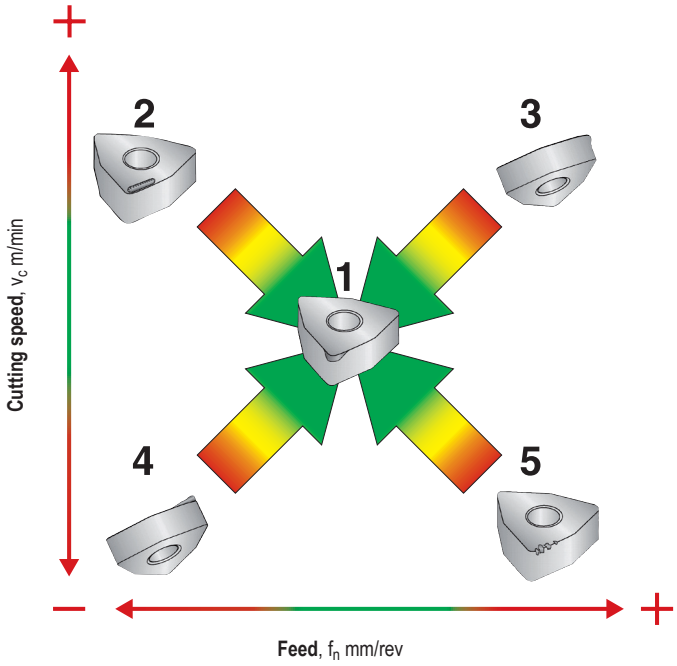


Optimization – Wear

When optimizing tool life for coated carbide grade inserts we ought to look at and consider wear behavior which to a high degree relates to the workpiece material and conditions for a turning application.

A general straight-forward method to achieve optimimum tool life could be described as the below chart as long as there are freedom to change cutting speed and feed rate. However it requires some insight in insert wear as in the picture indicated below, but most turning professionals have to consider that any severe wear process may end up with a fracture.

The diagram below should be read in the following way for example if you find plastic deformation as indicated in “3” you should reduce the feed and/or speed to have a stable flank wear as indicated in “1” to get long tool life.



1. Flank wear
2. Crater wear
3. Plastic deformation
4. Built-up edge
5. Chipping, Fracture

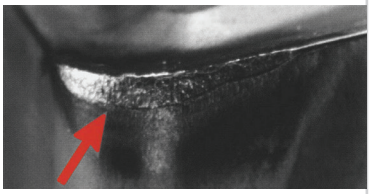
Insert wear and failure modes

When in need to go in more depth on the topic of wear of coated carbide insert and solve challenges based on wear processes the following collection will provide a comprehensive platform.

Please install the Seco Assistant App on AppStore or GooglePlay and explore the app under Utilities and Tool Optimization under Turning. Here you will find a more complete list of recommended solution options.

Normal flank wear

The normal flank wear, since it is uniform, predictable and dependable, is the most desirable wear mode.



Cause

Abrasive wear. Hard microscopic inclusions often of carbides at workpiece material surface in contact with insert cut into the insert. In some cases fractions of non-contained microscopic hard particles that cannot be retained in a matrix may tumble between surfaces in contact and also cut into the insert. An irregular flank wear that initially may look uniform, as well as too rapid though uniform flank wear, prematurely reaching a set target wear criterion, requires a corrective action in some form.

What to look for
– Relatively uniform abrasion along the cutting edge
– Non-uniform appearance may indicate influence of other wear modes (see other wear descriptions)
Note: Metal from the workpiece can be smeared over the cutting edge and can exaggerate the apparent size of the wear scar.

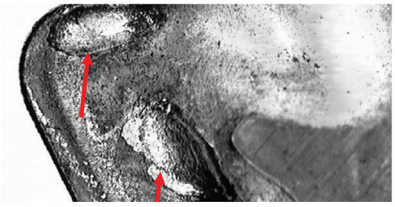
When to expect it
– In all materials, an insert will finally fail due to normal flank wear if it doesn't fail from something else first.

Corrective actions (to rapid flank wear)
– Select a more wear resistant, harder, or coated carbide grade
– Reduce the cutting speed (or RPM)
– Apply coolant correctly
– If possible, select insert with larger radius

Crater wear

Cause

A combination of chemical diffusion, decomposition and abrasive wear causes cratering. Classically, the heat from workpiece chips decomposes the tungsten carbide grains in the substrate, and carbon leaches into the chips (diffusion), creating a 'crater' on the top surface or rake face of the insert. The crater will eventually grow large enough to cause the insert to fail e.g. by chipping or rapid flank wear. Modern coating technology such as Duratomic® has reduced this wear mode drastically, but when trying to improve the productivity, using higher cutting data, it inevitably appears again.



What to look for
– Craters or pits on the top or the rake face of the inserts
– Chipbreaking may change to better or worse after cratering started

When to expect it
– Iron or titanium-based alloys

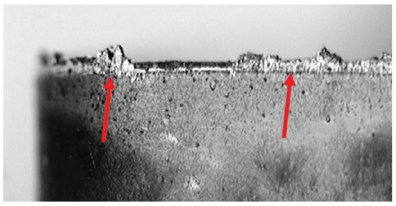
Corrective actions
– Use wear resistant grades and if needed try another grade with other coating design
Or reduce heat by…
– Using coolant
– Using a freer cutting geometry
– Reducing the cutting speed (or RPM)
– Changing feed rate

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Built-up edge

Cause

Material adhesion. Built-up edge (BUE) is a result of the workpiece material being pressure welded to the cutting edge. This could be an indicator of exit conditions from cutting in workpiece materials with high chemical affinity, high cutting forces/pressure, and locally insufficient temperature around the cutting zone. The wear mode itself could in some cases even be beneficial for tool life, but the consequence of built-up edge breaks off and allows chips to bring pieces of the insert with it or acting as an indicator of chipping, notching or other discontinuous wear modes, makes it important.



What to look for
– Shiny material on the top or flank of the insert edge
– Erratic changes in part size or surface finish

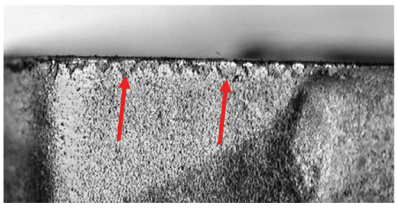
When to expect it
– High temp alloys and stainless steel and other workpiece materials appearing 'gummy'
– At relatively low speeds especially at limited cuts e.g. facing to center & parting-off and even more apparent in the centre of a drill

Corrective actions
– Change of grade to other coating designs may reduce built-up edge.
– Increase the cutting speed (or RPM) or increase the feed rate
– Try an insert with a sharper cutting edge geometry
– Apply coolant correctly or not at all; perhaps do another check on the emulsion concentration

Chipping

Cause

Mechanical instability or material adhesion. Chipping of the insert edge could be a result of vibrations in the work-piece or spindle. Larger hard inclusions in the material being cut and interrupted cuts may result in local stress concentrations that can cause chipping. In addition adhered material may cause a tensile stress that on removal can tear off parts of an insert.



What to look for
– Chipping along the edge of the insert

When to expect it
– Non-rigid set-ups (bad bearings, worn spindles, etc.)
– Demanding entrance and exit conditions
– Hard spots at well as soft spots in work materials
– Powder Metallurgically (PM) made materials

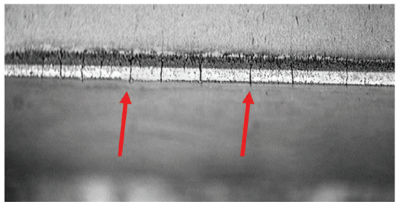
Corrective actions
– Ensure rigid machine tool setup
– Change over to tougher insert grade or stronger cutting edge geometry
– Reduce the feed rate
– In some cases, turn-off the coolant
– See also corrective actions for built-up edge

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Thermomechanical failure

Cause

A combination of thermal cycling (frequency changing the working temperature for the insert rapidly), thermal load (amount of heat), thermal shock (fast temperature change from warm to cold and the other way around in different zones), and mechanical shock (stress change from release to full load) causes thermo mechanical failure. Stress cracks form along the insert edge, eventually causing sections of carbide to pull out and appear to be chipping. Seen most commonly in milling.



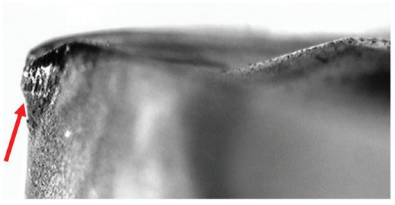
What to look for
– Multiple cracks perpendicular to cutting edge
– Irregular chipping on edges or wear spots on rake face

When to expect it
– Intermittent cuts e.g. facing over slots, but also tool paths when machining a large number of parts creating the thermal cycling or intermittence in coolant flow

Corrective Actions
– Apply coolant differently or not at all
– Select a tougher grade
– Reduce the cutting speed (or RPM) or reducing the feed rate
– Use a free-cutting geometry or chipbreaker to reduce heat

Edge deformation

Cause
Thermal overloading. Excessive heat causes the carbide binder (cobalt) to soften. It could come in combination with mechanical overloading where the pressure of the insert against the workpiece all in all making an insert edge deform partly or fully, eventually breaking off or leading to irregular flank wear.



What to look for
– Deformation at the cutting edge or excessive irregular flank wear
– The dimensions of the workpiece may change drastically

When to expect it
– High speed and/or high feed rates
– Hard steels or work-hardened surfaces
– High temperature superalloys or stainless steels

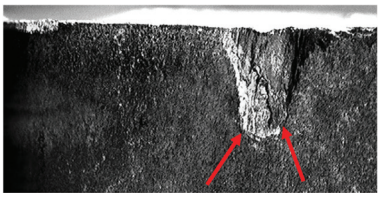
Corrective actions
– Apply coolant correctly
– Try a harder, more wear resistant grade
– Reduce cutting speed (or RPM) or reduce the feed rate
– Select an insert with other geometric features

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Notching

Cause

Combinations of local properties in workpiece materials and cutting conditions. Notching is often caused by the conditions at the surface of the workpiece e.g. surface hardening from previous cuts, forged or cast surfaces, or surface scale. This causes the insert to wear more rapidly in that part of the cutting zone. Local stress concentration can also lead to notching as a result of the compressive stress along the cutting edge and lack of the same behind the cutting edge – the insert is particularly affected at the depth of cut.



What to look for
– Notching or clusters of chippings for example at the depth of cut area on the insert
Note: The notch could be of two kinds; the smoother which indicate more chemical/abrasive interaction or the irregular more mechanical/adhesive extensive chipping.

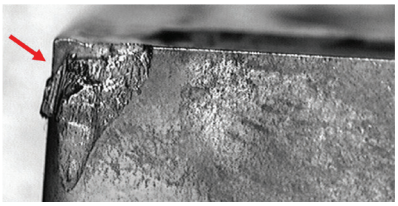
When to expect it
– Materials with surface scale or oxidation
– Work hardening materials
– Cast or other process affected surfaces

Corrective actions
– Vary the depth of cut
– Adjust the feed rate or increase cutting speed (Note: This will generate more flank wear)
– Select a tougher insert grade
– Exchange chipbreaker design drastically
– Prevent built-up edge

Mechanical fracture

Cause

Excessive load (also caused by other wear modes than finally) can cause mechanical fracture. Mechanical overload could of course cause the insert to break from the first moments in a cut to the exit or even after the release from cut. To be considered are also surrounding cutting conditions such as the conditions of the shim, workpiece clamping or machine condition.



What to look for
– Fracture of insert (e.g appearing as irregular flank wear often at the insert radius)
– Sudden increase of cutting force level

When to expect it
– Inhomogeneous workpieces e.g. with major inclusions, pores or design features that cause heavy impact or load release
– Unstable cutting conditions
– Low cutting data especially cutting speed

Corrective actions
– Reduce the feed rate or the depth of cut
– Increase speed
– Verify set-up rigidity
– Select a tougher insert grade or a more secure insert or cutting edge
– If possible reduce workpiece's inclusions and difficult geometrical features

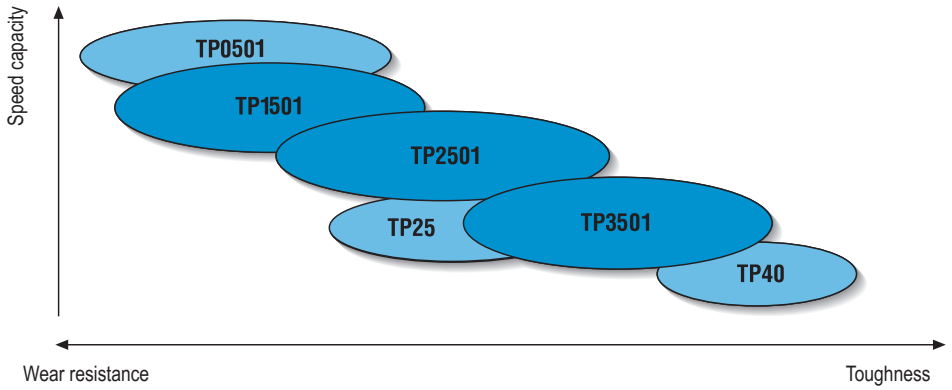
Optimisation – Grades

SecoAssistant App

However when considering wear there are limitations as well as property relations for each and between every grade even though Duratomic grades have redefined the actual opportunities considering productivity and tool life.

When looking a the simple coated cemented carbide grade overview for steel turning in the chart below, you can see that the TP2501 grade is placed in the center corresponding to the P25 application area referred earlier. However, in this chart, the speed capabilities of different grades and their wear properties are illustrated with more clarity.

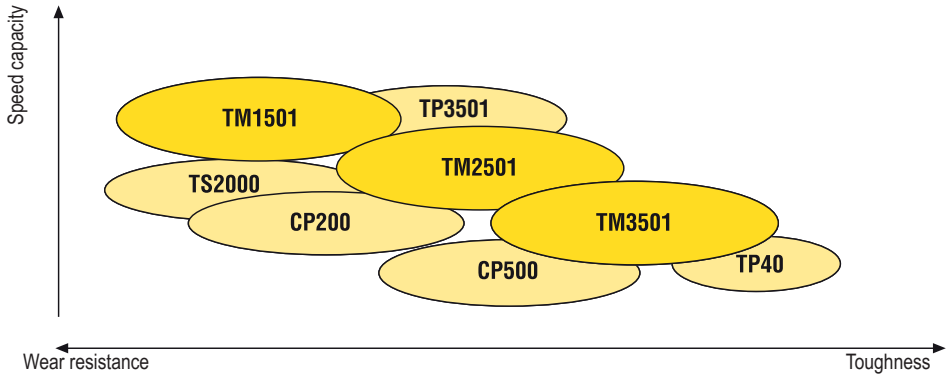
Steel



That means a chain of property relations could guide you towards a more insightful choice e.g. if you are after dry continuous steel turning TP0501 is a good choice, but lower speed medium turning application TP25 is better.

When instead, looking at the simple coated cemented carbide grade overview for stainless steel turning area below the number of grades introduced in the diagram have grown. However, the pattern where TM2501 is placed in the center, corresponding to the M25 application area can be recognized.

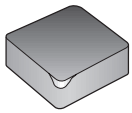
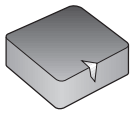
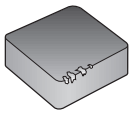
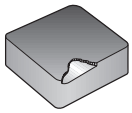
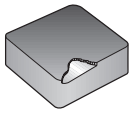
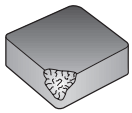
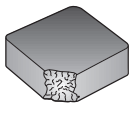
Stainless steel



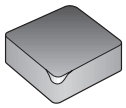
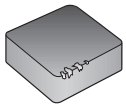
The well connected TM1501, TM2501 and TM3501 Duratomic grade chain covers applications in stainless steel turning, but also the thin PVD-coated TS2000, CP200 to CP500 complements the above high productivity CVD grades with reliability, but not at as high speeds as the Duratomic grades.

On the other hand TP3501 has been designed to have complementary properties to work well in stainless steels despite the grade was developed for steel turning.

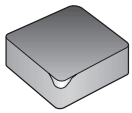
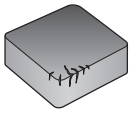
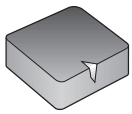
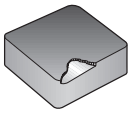
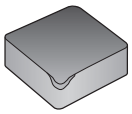
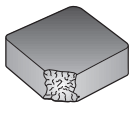
Troubleshooting – PCBN

Problem	Cause	Suggested action(s)
Flank wear 	• Not correct edge temperature	• Increase cutting speed • Increase feed rate • Increase depth of cut • Check cutting tool centre height • Check the ferrite content
Crater wear 	• Not correct edge temperature	• Decrease cutting speed • Decrease feed rate • Reduce chamfer angle • Use E edge preparation • Use coated insert • Use coolant (only in continuous cut)
Notch wear 	• Not correct edge temperature • Too high cutting forces	• Increase cutting speed • Decrease feed rate • Increase insert approach angle (preferably round inserts) • Vary the depth of cut • Use inserts with chamfered cutting edges
Edge chipping 	• Too high cutting forces	• Use inserts with chamfered cutting edges • Increase system rigidity • For interrupted cuts, chamfer the tool entry/exit slots and holes • Vary the cutting speed to eliminate vibrations
Edge flaking (continuous cut) 	• Too high cutting forces	• Increase cutting speed • Reduce feed rate • Use chamfered and honed cutting edges • Check cutting tool center height • Reduce insert approach angle
Edge flaking (interrupted cut) 	• Too high cutting forces	• Do not use coolant • Use chamfered and honed cutting edges • Reduce feed rate • Increase cutting speed • Check cutting tool centre height • Reduce insert approach angle
Edge breakage 	• Too high cutting forces	• Reduce depth of cut • Reduce cutting speed • Increase nose radius • Use chamfered and honed inserts • Check cutting tool center height
Insert breakage 	• Too high cutting forces	• Check insert seating • Check insert shim and insert clamp • Check cutting tool centre height

Troubleshooting – PCD

Problem	Cause	Suggested action(s)
Flank wear 	• Wrong grade • Presence of Fe/Ni/Co	• Change to coarser PCD grade • Check material composition • Reduce cutting speed • Use coolant
Built-up edge 	• Not correct edge temperature • Wrong grade	• Decrease or increase cutting speed • Choose a sharper insert • Change to a finer grade
Edge chipping 	• Poor rigidity • Wrong grade • Incorrect cutting data • High run-out	• Minimize vibrations • Change to a tougher grade • Change cutting data • Check set-up
Poor surface finish	• Wrong grade • Too high cutting data • Incorrect wiper position	• Change to a finer PCD grade • Reduce cutting speed and feed rate • Check wiper position
Flaking of workpiece	• To high depth of cut	• Decrease depth of cut • Add entry chamfer on component

Troubleshooting – Ceramics

Problem	Cause	Suggested action(s)
Flank wear 	• Excessive feed rate and cutting speed	• Reduce cutting speed • Use larger corner radius • Use high wear-resistant grade
Crater wear 	• Excessive feed rate and cutting speed	• Reduce cutting speed • Use smaller lead angle • Check edge geometry
Thermal cracking 	• Severe cycle of heating & cooling during cutting • Excessive feed rate and cutting speed	• Change to dry machining • Reduce cutting speed • Reduce feed rate
Notch wear 	• Excessive feed rate and cutting depth	• Reduce cutting depth • Reduce feed rate • Increase coolant supply
Edge flaking 	• Excessive feed rate • Separation of BUE • Weak cutting edge	• Check edge geometry • Increase stability of the system • Use larger lead angle
Plastic deformation 	• Excessive feed rate and cutting speed	• Reduce cutting speed • Reduce feed rate • Reduce cutting depth
Built-up edge 	• High affinity with workpiece • Low cutting speed	• Increase cutting speed • Increase feed rate • Use larger rake angle
Breakage 	• Excessive feed rate and cutting depth	• Reduce feed rate • Reduce cutting depth • Increase stability of the system

ISO attributes

ISO attribute	Explanation
AN	clearance angle major
B	shank width
BAWS	workpiece side body angle
BD	body diameter
BLQ	balance quality code
CDRX	cutting depth radial maximum
CDX	cutting depth maximum
CDXI	cutting depth maximum insert
CDXSH	cutting depth maximum shank
CF	spot chamfer
CNT	coolant entry thread size
CP	max coolant pressure
CTMS	connection text machine side
CTWS	connection text workpiece side
CUTDIA	work piece parting diameter maximum
CW	cutting width
D1	fixing hole diameter
DCB	connection bore diameter
DCB1	connection bore diameter 1
DCB2	connection bore diameter 2
DCINN	cutting diameter internal minimum
DCINN2	cutting diameter internal minimum 2
DCINN3	cutting diameter internal minimum 3
DCP	data chip provision
DCSFMS	contact surface diameter machine side
DF	flange diameter
DIX	tool changer interference diameter maximum
DMM	shank diameter
DUO	DUO Jetstream Tooling Duo, see page 85, 89, 98
EPSR	insert included angle
GAMO	rake angle orthogonal
H	shank height
HF	functional height
HRY	measure, Measure from ref. plane of mounting to bottom plane of unit in direction Y m
IC	inscribed circle diameter
INPLM	minimum initial plunge diameter
INPLX	initial plunge maximum
INSD	insert diameter
INSL	insert length
KCHL	corner chamfer angle left hand
KCHR	corner chamfer angle right hand
L	cutting edge length
LAMS	inclination angle
LB1	body length 1
LB2	body length 2
LCOG	length to center of gravity
LF	functional length
LF2	functional length_2
LFS	functional length secondary
LH	head length
LH2	head length 2
LIG	insert gauge length

ISO attribute	Explanation
LPR	protruding length
LS	shank length
LSC	clamping length
LU	usable length
OAH	overall height
OAL	overall length
OAW	overall width
PDX	profile distance ex
PSIRL	cutting edge angle major left hand
PSIRR	cutting edge angle major right hand
RADH	radial body height
RADW	radial body width
RE	corner radius
RETL	flank radius left hand
RETR	flank radius right hand
RoundedUpWeight	rounded up weight
RPMX	rotational speed maximum
S	insert thickness
TDZ	thread diameter size
TPI	threads per inch
W1	insert width
WF	functional width
WF2	functional width 2
WFS	functional width secondary

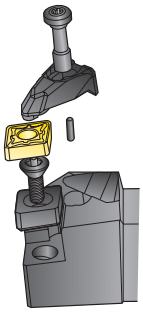
Toolholders, insert clamping principles

D Toolholder
First choice for general machining, external

– For negative basic shape inserts with hole

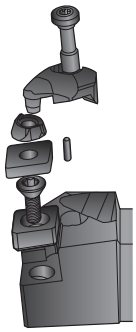
– Robust, stable locking arrangement

The insert is locked in position by means of a clamp which presses the insert into and down onto the fixed insert seat



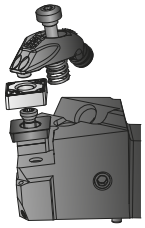
D.....-C Toolholder

– With pin and carbide pressure plate



D.....-JETI Toolholder

– With coolant clamp for Jetstream Tooling



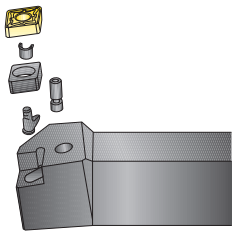
P Toolholder
A complement to the D Toolholder, external

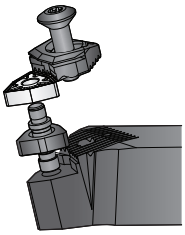
– For negative inserts with hole

– No clamp on the top, facilitates free chip flow

In the illustration when the clamping screw is tightened and the toggle lever secures the insert in the insert seat with a shim by a shim clip

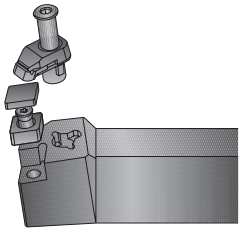
In the alternative design the clamping screw acts upon the wedge that pushes the insert towards the centre pin according to the illustration to the right





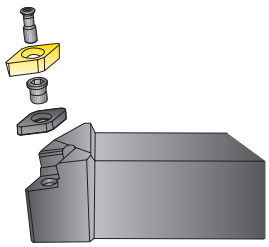
C Toolholder
Designed mainly for Seco PCBN inserts without hole

The insert is locked in position by means of a clamp, which is equipped with a carbide plate



S Toolholder
For external and internal turning with positive inserts

The insert is locked in position by a centre screw



Jetstream Tooling® – Introduction

Seco Jetstream Tooling® is a revolutionary solution to the problem of delivering coolant precisely to the cutting zone. It works by delivering a concentrated high pressure jet of coolant at high velocity straight to the optimum position close to the cutting edge. The jet lifts the chips away from rake face, improving chip control and tool life enabling increased cutting data. It is proven to show improvement in nearly all material groups and with a wide choice of coolant pressures.

Seco Jetstream Tooling® consists of holders for external turning, both square shanks, Parting-off blades and Seco-Capto™ backends. For internal turning, Jetstream Tooling® capability is being integrated to JET GL-Turning heads for Steadyline® and some internal turning bars with the help of the unique coolant clamps. It can be mounted and used on a large selection of machines. For general ISO turning coolant can either be supplied to the toolholder internally in the case of JETI or Seco-Capto™ toolholders or externally through a coolant hose.

The JETI product platform is developed with a compact assembly in mind. The JETI toolholders with integrated coolant channels eliminates the need for any external piping and connections that would otherwise obstruct machine movements in tight workspaces. Integrated channels in adapter and toolholder make it possible for coolant to reach the cutting edge directly from the adapter.

Hoses for external connection which is attached to one of the inlet positions of the toolholder allow the coolant supply to be connected to almost any position on the turret or tool block.

Seco Jetstream Tooling® Duo toolholders, feature both a rake face and flank face jet, that may provide even better chip control and significantly longer tool life.

Products are available for ISO turning with positive and negative inserts, as well as for Grooving and Parting-off. Note that it is up to the turning professional to make sure that all aspects of health and security are fulfilled.

Insert carrier	Maximum recommended coolant pressure	
	bar	psi
Square shank with hose	275	4000
GL-Head with Steadyline® bar – Cylindrical	200	3000
GL-Head with Steadyline® bar – HSK	100	1500
GL-Head with Steadyline® bar – Seco-Capto™	150	2000
Seco-Capto™	150	2000
JETI toolholders and blades	200	3000
Adapters	**Maximum recommended coolant pressure**	
	bar	**psi**
JETI Adapter with Seco-Capto™	150	2000
JETI Adapter with VDI	80	1100 (2000)
JETI Adapter with HSK-T	100	1500
JETI Adapter with Square shank	275	4000

When using toolholder together with an adapter the maximum coolant pressure is limited to the adapter's maximum coolant pressure.

Designation of Jetstream Tooling® holders follows ISO, see page(s) 11-16, 17-18.
Jetstream Tooling® for Grooving and Parting-off, see page(s) 681, 933, 963.



Coolant clamps

The unique 3D printed coolant clamps



The coolant clamp executes many functions. It provides a secure and fast clamping of the insert by virtue of the spring loaded design with a single screw. It directs and orients the high pressure coolant jets straight and close to the cutting edge. The manufacturing flexibility of the coolant clamp allows it to have an optimised coolant channel with different hole diameters.

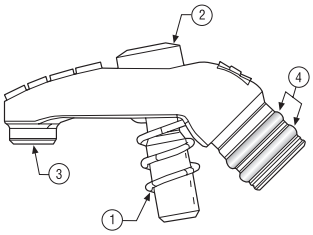
Selection includes standard, finishing and roughing coolant clamps with orientations neutral, right and left.

The horizontal orientation angles 0°, 10° and 20° are also available.

A major portion of the ordering code is laser marked on the coolant clamp.

The Jetstream Tooling coolant clamp is designed to have the coolant beam oriented as close as possible to the cutting point, this to get the best effect of the Jetstream coolant and to be able to break or redirect the chips. The APNOM value is a cutting depth indicator we recommend to stay below to get the intended performance.

Changing the insert



Simply loosen the spring loaded coolant clamp screw.

Change or index the insert. Ensure the coolant clamp pin and the double O-ring are well inside the fixing hole before tightening from the top.

Tighten the screw with recommended torque.

1. Spring
2. Clamp screw
3. Clamp pin
4. O-rings

Changing O-rings and screw



It is recommended that O-rings are checked regularly since the double O-rings are the coolant entry-point of the coolant clamps. When the O-rings are exchanged it is recommended to also make it a habit to exchange the screw to ensure pro-active high pressure operational safety.

After changing the O-rings, ensure that both the Coolant clamp pin & the O-rings are in the correct angle to the fixing hole position before tightening the screws, otherwise it may cause damage to the O-rings.

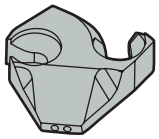
JET/ JETL inducer

Holders with this original Jetstream Tooling® innovation will step by step be discontinued however to support earlier investments the inducers will be available to the end of 2024.

Finishing inducer

The mounted Jetstream Tooling® Finishing Inducer gives a universally applicable coolant jet, which provides a well positioned coolant wedge from finishing to medium-roughing applications.

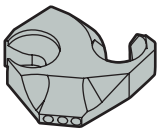
The inducers are marked with “-F” suffix.



Roughing inducer

As accessories there are Jetstream Tooling® Roughing Inducers available for easy exchange providing a more boosted coolant wedge for clearer roughing applications or for cases demanding more space for the chip flow.

The inducers are marked with “-R” suffix.



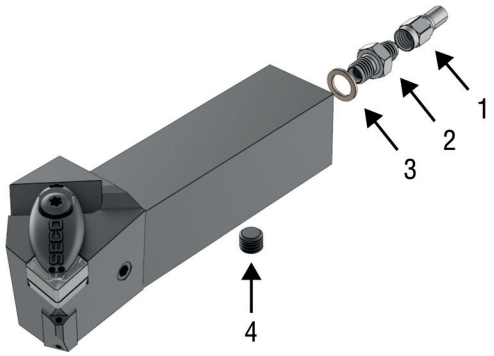
Changing the insert

Simply loosen both locking screws, and rotate the inducer clear of the insert. Check the condition of the tool, screws and O-ring and exchange regularly. Change or index the insert in the standard way before rotating the inducer back into position (make sure the inducer O-ring is still in place) and re-tighten the insert locking screw before locking the inducer.



Jetstream Tooling® Assembly instructions

JETI Assembly instructions with hoses

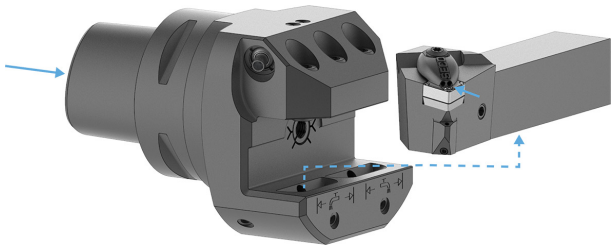


For personal safety, Jetstream Tooling® should only be used with the machine door in a fully closed position in accordance with general machine safety procedures. Please ensure that the coolant hose is located correctly and fully tightened with all seals in position. The unused coolant hose should have a blanking plug fitted.

For accessories, see page(s) 1026.

1. Coolant hose
2. 1/8" BSP Adapter
3. Copper washer
4. Plug

JETI Assembly instructions with adapter



To use the benefits of a JETI-holder there is a need to use toolholder adapter designed for JETI-connections. Maximum coolant pressure when using this feature is limited to the adapter's maximum coolant pressure.

Note: The unused coolant hole (from the back) should have a blanking plug fitted.

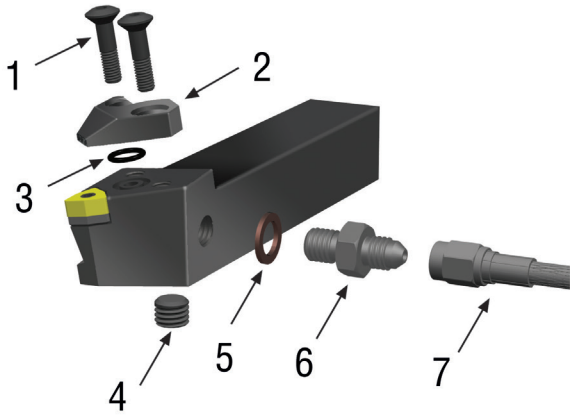
Jetstream Tooling® Assembly instructions

JET/ JETL Assembly instructions

Holders with this original Jetstream Tooling® innovation will step by step be discontinued however to support earlier investments the inducers will be available to the end of 2024.

For personal safety, Jetstream Tooling® should only be used with the machine door in a fully closed position in accordance with general machine safety procedures. Please ensure that the coolant hose is located correctly and fully tightened with all seals in position. The unused coolant hole should have a blanking plug fitted. Please note the maximum safe working pressures shown below.

The recommended torque for tightening the inducer locking screw 117.26-655 is 4 Nm, see page(s) 1028.



1. Locking screws (can be ordered separately)
2. Coolant inducer
3. Inducer 'O' ring
4. Blanking plug*
5. Copper washer
6. 1/8" BSP Adapter
7. Coolant hose

* Make sure the blanking plug is securely in position in the unused coolant hole prior to use.

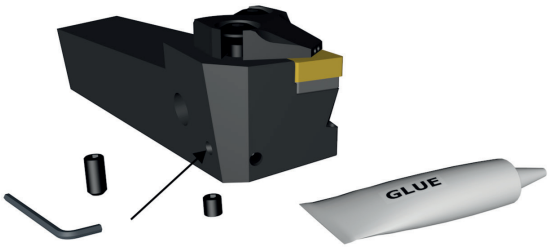
Maximum working pressures

Seco-Capto™ – 70 bar (1000 psi)

Square shank – 275 bar (4000 psi)

In the rare cases you need to shut off the Duo outlet underneath the insert, first remove the short screw in the side of the toolholder.

Then mount the long plugging screw P6SS4X8 (02885815) using suitable glue to seal the thread (e.g. Loctite® 270). Plugging the underneath outlet should be considered permanent and irreversible.



Replace the short screw here with the long screw to shut off underneath coolant

Seco-Capto™ – Introduction

Seco-Capto™ is a quick-change modular tooling system for quick set-up and replacement of the cutting edge.

Advantages

– Quick tool change, increases the available productive time.

– Flexible, same toolholder can be used in different machines which reduces the tool stock.

– Modular, building of tools with extension adapters reduces the tool stock.

– Rigid, no reduction of cutting data.

– Accurate, tapered polygon coupling produces a strong, self centering joint with repeatability within ±0,002 mm / *0.000078 inch*.

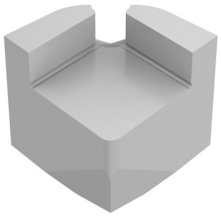
All toolholders have through holes for coolant.

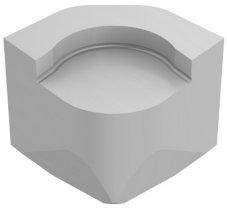
Seco-Capto™, Cassette holders for Advanced material

The replaceable cassette for PCBN and Ceramic inserts are made out of a special stainless steel with high hardness and high strength. This avoids damage to the pocket which is an otherwise normal occurrence in heavy roughing applications and will also protect the brittle insert.

The centering accuracy and repeatability of the cassette holder are as good as std Seco-Capto™ holders.







Advantages

– Flexibility and versatility by using different cassettes/ insert types in the same Capto unit will significantly reduce stock volume and net working capital.

– Cost savings as only pockets will need to be exchanged instead of entire holdes when insert pocket damages occur.

– Exceptional process reliability in applications with high risk of extensive tool wear.

Recommended tightening torques for the cassette and clamp

6 Nm

To apply the recommended tightening torque, we recommend to use torque spanners, available as accessories, see MN Tooling Systems catalogue.

Clamping units

The manual clamping units are available in different versions;

– VDI shaft, straight or angled.

– Shank type to use with external toolholders.

– Cylindrical type to use with internal toolholders.

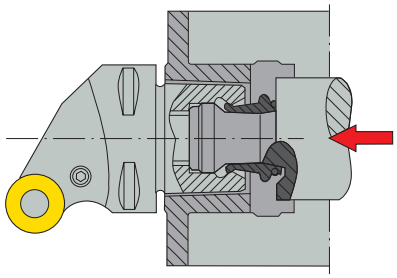
– Versions for special applications.

The unit is locked with a drawbar or screw from the back

Clamping units, please see page(s) 1010-1020.

Unclamped position

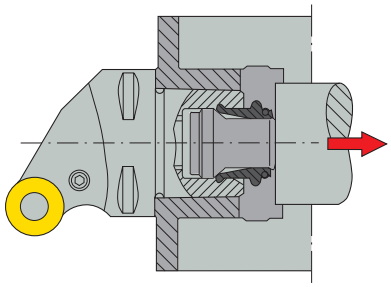
When the drawbar is pushed forward the diameter of the clamping segments decreases and the clamping segments are loosened from the cutting unit. The drawbar also pushes the cutting unit out from the joint.



Clamping segments

Clamped position

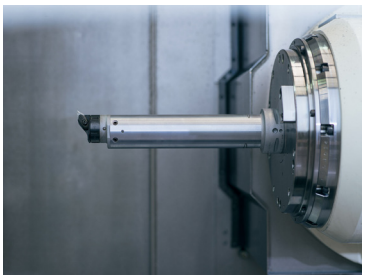
When the drawbar is pulled back, the diameter of the clamping segments expand and the cutting unit is pulled into position.



Clamping segments

Steadyline® vibration damping holders for turning and boring operations

Steadyline® for tool overhang challenges



Seco`s patented Steadyline® vibration damping holders may drastically improve the productivity of a turning assembly in application.

It allows the use of much higher cutting data, with quieter operation and optimum stability with the flexibility to optionally use same bars for turning and holemaking applications.

These boring bars are available in a range of:

– Body diameters

– Lengths

– Seco-Capto™, HSK-T/A and Cylindrical shank connections both in Metric & Inch Sizes.

– Exchangable GL-Heads for all diameters with intermediate BA-connection in some diameters

(The ranges are also indicated in the below Steadyline summary illustration see page 93)

The Picture to the right shows a Steadyline bar together with Jet GL-Turning head as mounted in machine.

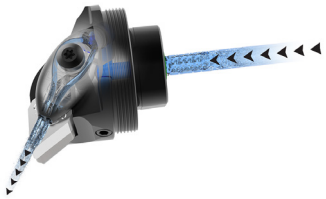
Benefits from increased productivity of unique GL-Turning Heads

Every aspect of Steadyline® holders has been designed with the consideration for increasing productivity, capacity and machining economy in tool overhang challenges. The design features of the patented unique GL-Turning heads preserve & enhance the Steadyline bars to perform & deliver maximum benefits. Every GL-head has precisely ground, taper quadrilobe based connection which can be accurately centered & grabbed firm to the Steadyline® bar using the fine pitch threaded clamping nut delivering:

– The centering accuracy and repeatability of the GL-Heads as good as Seco-Capto™ quick-change system.

– Designed for 0°/180° turning head orientation.

– Optimum damping strength through short and compact GL-Heads for Steadyline bars.



Advantages are:

– Efficient: Ensures a quick and firm connection and thus decreases the head changing time drastically and increases productivity.

– Flexible: The quadrilobe enables 180 degree orientation of the turning head and hence can be used as left & right hand tools depending on the machining system.

– Accurate: The taper quadrilobe coupling produces a strong self-centering connection with repeatability within ±0,002 mm at identical conditions.

– Modular: Building different types and styles of Steadyline® bars with suitable GL-Turning heads reduces the inventory.

– Enhances the damping function: The compact and short GL-turning heads are close to the Steadyline® damping mass.

– Jetstream Tooling® gives higher tool life, especially for superalloys and enhances chipbreaking.

– Operational safety: The coolant seal at the backend and the double O-rings of the coolant clamp ensures maximum operational safety up to 200 bars.



The Jet GL-Turning heads further strengthen the solution by integrating the Jetstream Tooling® benefits to the GL-Turning head and in turn to the Steadyline® bar. JET GL-Turning

heads use a multifunction coolant clamp for the successful outcome by

-Increasing productivity by increased parameters, surface finish, tool life and vibration free machining

– Reduce head changing down times & insert indexing down times thanks to the unique GL-Heads

– Achieving highly accurate parts with secured surface finish

– Increasing selection & less critical spares for maximized versatility

– Increasing flexibility by using same bars for turning and boring & same heads for 0°/180° turning head orientation

– Controlling wear, heat & chips with Jetstream Tooling®

– Increasing operational safety at high pressures



GL -Turning head range offer most applicable designs for internal turning.

– Jetstream tooling integrated “Jet GL heads” ∅32, ∅40 and ∅50.

– Standard GL Heads for ∅25, ∅32, ∅40 and ∅50.

– Jetstream tooling integrated GL- Grooving/Parting off heads ∅25, ∅32, ∅40 and ∅50.

– Jetstream tooling integrated GL- Threading heads ∅25, ∅32, ∅40 and ∅50.

Note: GL25-turning heads don´t offer Jetstream tooling integrated to reduce the deflections to the minimum.



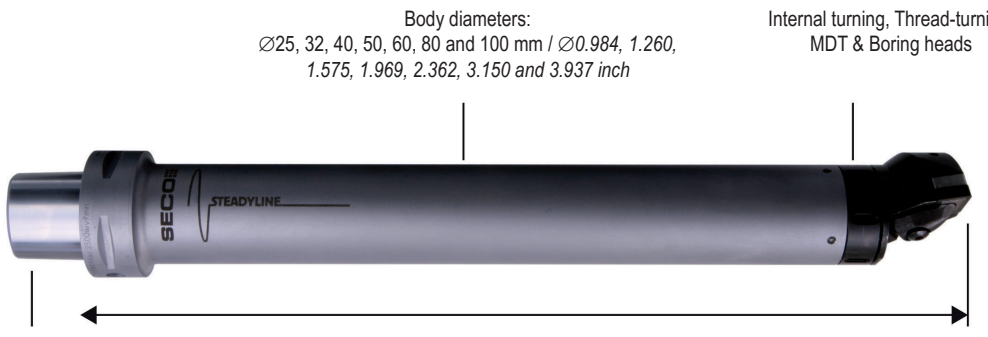
Detailed operating instructions are part of bars delivery content.

For details of GL-Turning Heads for Turning, and MDT, see page(s) 643-679.

For details of GL-Boring heads, see MN Holemaking catalogue.

Note: The Jet GL-Turning heads use a coolant clamp. See Coolant clamp page for more details regarding this in page(s) 86.

Steadyline turning product range summary



Product range and design

Steadyline body diameter	Machine side connections	Working length	BA Connection	GL-Heads	Jetstream Integration	GL-Head styles LH & RH	Inserts
∅25	C4, C5,C6 HSK-T/A63 ∅25, ∅25.4 (1”)	6xBD (Steel) 8xBD (Steel) 10xBD (Carbide reinforced)	–	GL25	–	SCLCx-09, SDUCx-07 & 11, SDXCx-11, SDUCx-11X, STFCx-11, SVUBx-11, SDUNx-11	CC09, DC07, DC11, TC11, VB11, DN11
∅32	C4, C5, C6,C8 HSK-T/A 63 HSK-T/A100 ∅32, ∅31.8 (1.25”)	6xBD (Steel) 8xBD (Steel) 10xBD (Steel)	–	GL32	–	SCLCx-06, 09 & 12, SDUCx-11, SDXCx-11, SDUCx-11X, SDXNx-11, SDUNx-11X, STFCx-16, SVUBx-16, SVUNx-13, DCLNx-12, DDUNx-11 & 15, DWLNx-06 & 08; CTUNx-11, CRSNx-09, CRSNx-09	CC06, CC09, CC12, DC11, TC16, CN12, DN11, VN13, WN06, WN08, TN11, RN09
					GL32..JET	DCLCx-09JET, DDUCx-11JET, DVUBx-16JET, DCLNx-12JET, DDUNx-11JET, DDUNx15JET, DWLNx-06 JET	CC09, DC11, VB16, CN12, DN11, DN15, WN06
∅40	C5, C6, C8 HSK-T/A 63 HSK-T/A100 ∅40, ∅38.1 (1.5”)	6xBD (Steel) 8xBD (Steel) 10xBD (Steel)	–	GL40	–	SCLCx-06, 09 &12, SDUCx-11, SDXCx-11, SDUCx-11X, SVUBx-16, DDUNx-11 & 15, STFCx-16, DCLNx-12, DWLNx-06 & 08	CC06, CC09, CC12, CN12, DC11, DN11, DN15, TC16, WN06, WN08
					GL40..JET	DCLCx-09JET, DDUCx-11JET, DVUBx-16JET, DCLNx-12 JET, DDUNx-11JET, DDUNx-15JET, DWLNx-06 JET	CC09, DC11, VB16, CN12, DN11, DN15, WN06
∅50	C6, C8 HSK-T/A 63 HSK-T/A100 ∅50, ∅50.8 (2”)	6xBD (Steel) 8xBD (Steel) 10xBD (Steel)	–	GL50	–	SCLCx-06, 09 & 12; SDUCx-11, SDXCx-11, SDUCx-11X, STFCx.16, SUBx-16, DCLNx-12, 16 & 19; DDUNx-15, DWLNx-06 & 08; CCLNx-12	CC06, CC09, CC12, DC11, TC16, CN12, CN16, CN19, DN15, WN06, WN08, CNMN12
∅60	C6, C8 HSK-T/A100 ∅60, ∅63,5 (2.5”)	6xBD (Steel) 8xBD (Steel) 10xBD (Steel)	BA60				
∅80	C8 HSK-T/A100 ∅80, ∅76.2 (3”)	6xBD (Steel) 8xBD (Steel) 10xBD (Steel)	BA80		GL50..JET	DCLCx-09JET, DDUCx-11JET, DVUBx-16JET,DCLNx-12JET, DDUNx-15JET, DWLNx-06JET	CC09, DC11, VB16, CN12, DN15, WN06
∅100	∅100, ∅101.6 (4”)	10xBD (Steel)	BA100				

Note: ∅ 25 Steadyline 10XBD bars have carbide re-in forced shank design for maximum stability.

Recommended tightening torques for GL connections

For GL workpiece side size	Recommended tightening torque
GL25	25 Nm / *221 In/Lbs.*
GL32	25 Nm / *221 In/Lbs.*
GL40	35 Nm / *310 In/Lbs.*
GL50	55 Nm / *487 In/Lbs.*

To apply the recommended tightening torque, we recommend to use torque spanners, available as Accessories, see MN Tooling systems catalogue.



BA-connection adaptor for GL-heads

BA-Connection allows making use of a wide range of GL50-Heads for Steadyline® bars ∅60, ∅80, ∅100 mm / *2.362, 3.150, 3.937 inch*.

Each BA-Connection is available in 2 radial offset sizes 'WF' to achieve 2 'f1' reaches, for flexibility over minimum bore diameter & chip space.



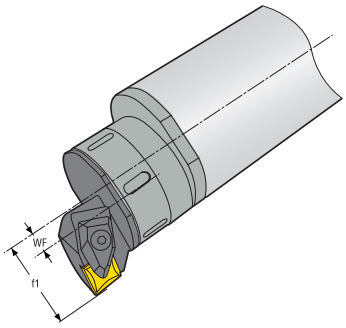


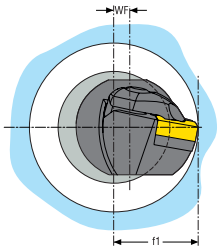
First choice: Wide offset WF providing a wider space.

Additional option: Mini offset WF when accessibility is limited.

Steadyline® BA-Connection with Seco-Capto™ and HSK-T/A machine side connections can also be used for rotating boring operations, when fitted.

For detailed information about BA to GL adapters, see page(s) 637-638.





Recommended tightening torques for BA connection screws

For BA workpiece side size	Kit of 4 locking screws	Recommended tightening torque
BA060	90FQ4	11 Nm / *97 In/Lbs.*
BA080	90FQ52	16 Nm / *142 In/Lbs.*
BA100	90FQ6	23 Nm / *204 In/Lbs.*

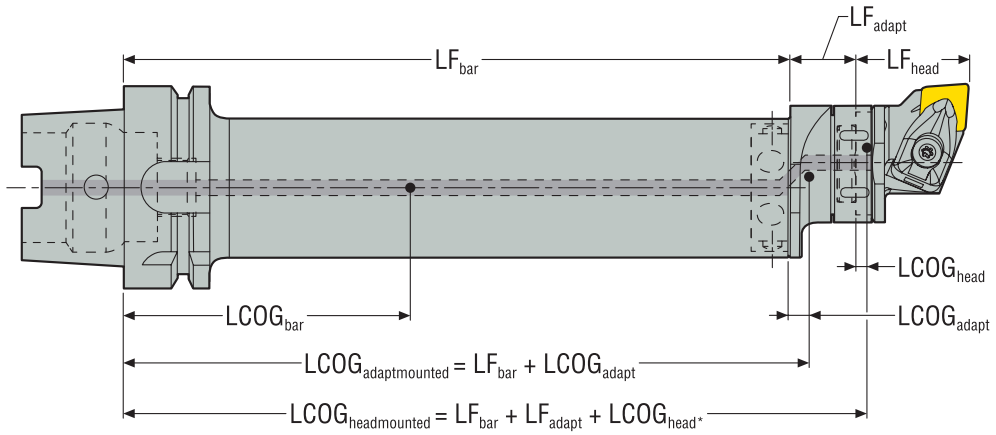
We recommend to use HC torque spanners, commonly available on the market.

Steadyline® bars clamping & in tool changers

The maximum swinging torque (T) of heavy, long assemblies must be taken into consideration when an automatic tool changers is used to move the bar in the machine.

As a first rough estimate comparing the needed swinging torque of a Steadyline® bar with a specific machine's automatic tool change torque limit, $T_{swinglimit}$, the following simplified formula can be used using only data from the Steadyline® bar in mind.

$$T_{simple} = g \times [\mathbf{LCOG}_{bar} * \mathbf{m}_{bar}] * 1.25 / 1000 \text{ Nm} < T_{swinglimit}$$



However, it is recommended to consider the swinging torque for the whole assembly by using the following formula.

$$T = \frac{g \times (\mathbf{LCOG}_{bar} * \mathbf{m}_{bar} + \mathbf{LCOG}_{adaptmounted} * \mathbf{m}_{adapt} + \mathbf{LCOG}_{headmounted} * \mathbf{m}_{head})}{1000}$$

T = Maximum swinging torque of the assembly in Nm
m = mass in kg
LF = functional lengths in mm
LCOG = Positions of the center of gravity in mm

Notes:
a) During tool change, the tool acceleration generates an additional force. It is strongly recommended to slow down the tool changing process if the tool weight or torque is close to the machine limits or to change the tool manually.
b) LCOG, LF and mass values are available in Product pages. If $LCOG_{adapt}$ / $LCOG_{head}$ is unknown, a good estimation can be obtained by replacing LCOG by respective ½ LF.

Machine clamping recommendations

Seco's first recommendation for clamping the bars onto the machines is to use bars with Seco-Capto™ machine side connections.

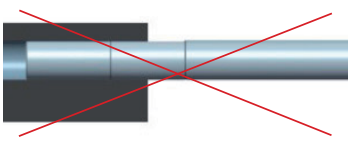
Second choice is the bars with HSK-T/A machine side connections, as both these solutions provide several benefits:

– Maximum stability thanks to the taper-face system and higher bending resistance

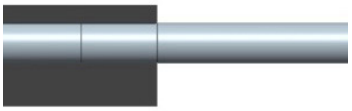
– High positioning accuracy of cutting edge, etc.

While using the third choice, the cylindrical bars, Seco strongly recommend to clamp on the marked cylindrical clamping area ensuring the full 4xD clamping lengths using split sleeves / boring holders.

NO



OK



4x∅

QC Modular Toolholder Introduction

QC Modular Toolholders provide small part machining companies access to benefits seen as given for larger lathes such as:

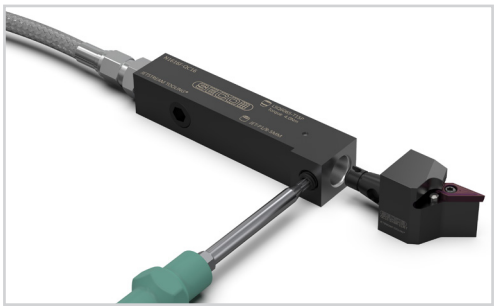
– Flexible and reduced down-time by fast QC modular head exchange.

– Precise QC modular interface allow for high repeatability

– Jetstream Tooling precise coolant delivery for improved chip control and long predictable tool life

– Multiple heads fit in same shank for greater versatility

Experience these proven solutions for all sliding head machines and see the recommended connections directly under spare parts of the shanks at www.secotools.com.



QC Shank adapter to JET-HOSE

Shank 1616 needs only a JET-Hose kit to be connected, all other sizes need also the JET-ADM8-1.0 adapter.

QC Shank adapter to JET-HOSE		QC Shanks
10001981	JET-ADM8-1.0	N03..., N05..., N10..., N12...
–	Included in JET-HOSE kit (JET-AD1/8BSP)	N16...

QC-shank JET-HOSE KITS

"...BB" in the description means Bolt-Bolt connections i.e. on each end of the hose there are threaded interfaces straight with the hose.

"...BS" in the description means Bolt-Swivel connections i.e. on one end there is a threaded interface straight with the hose and on the other there is a 90° interface with free rotation and a separate hollow bolt.

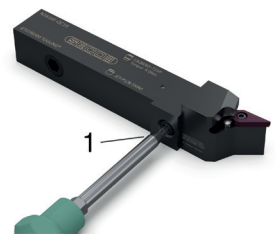
"...SS" in the description means Swivel-Swivel connections i.e. on each end there are 90° interfaces with free rotation and separate hollow bolts

QC-shank JET-HOSE KITS		Length mm / *inch*	QC Shank Adapter
02936673	JET-HOSE100BB	100 / *3.937*	N16... adapter included
02936674	JET-HOSE100BS	100 / *3.937*	N16... adapter included
02936675	JET-HOSE100SS	100 / *3.937*	N16... adapter included
02639688	JET-HOSE150BB	150 / *5.906*	N16... adapter included
02639668	JET-HOSE150BS	150 / *5.906*	N16... adapter included
02639663	JET-HOSE150SS	150 / *5.906*	N16... adapter included
02639689	JET-HOSE200BB	200 / *7.874*	N16... adapter included
02639682	JET-HOSE200BS	200 / *7.874*	N16... adapter included
02639664	JET-HOSE200SS	200 / *7.874*	N16... adapter included
02639691	JET-HOSE250BB	250 / *9.843*	N16... adapter included
02639684	JET-HOSE250BS	250 / *9.843*	N16... adapter included
02639665	JET-HOSE250SS	250 / *9.843*	N16... adapter included
02639693	JET-HOSE300BB	300 / *11.811*	N16... adapter included
02639686	JET-HOSE300BS	300 / *11.811*	N16... adapter included
02639667	JET-HOSE300SS	300 / *11.811*	N16... adapter included

QC Modular Assembly instructions

QC Modular Toolholder assembly instructions

Assembly the QC toolholder with one screw only, for precise and safe assembly between the head and shank we recommend using a torque of 4.0 Nm (Torque key T00-15P40), for all torque keys available see page(s) 1029.



1. Torque 4.0 Nm

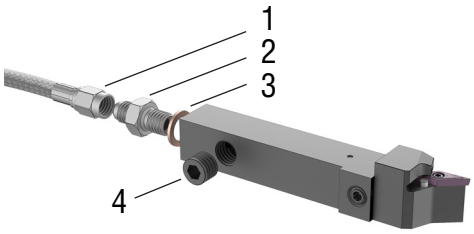
High Accuracy connection
– Twisting tolerance ± 5 µm (0.0002 inch)
– Repeatability tolerance ± 3 µm (0.0001 inch)

Jetstream Tooling® – Assembly instruction for hoses

For personal safety, Jetstream Tooling® should only be used with the machine door in a fully closed position in accordance with general machine safety procedures. Please ensure that the coolant hose is located correctly and fully tightened with all seals in position. The unused coolant hose should have a blanking plug fitted.

Hoses can be assembled from both the side as well as in the back of the shank. The thread to be use for hose connection various between different sizes, for 1616 shank the 1/8BSP thread are used and for the smaller shank sizes M8*1.0 thread.

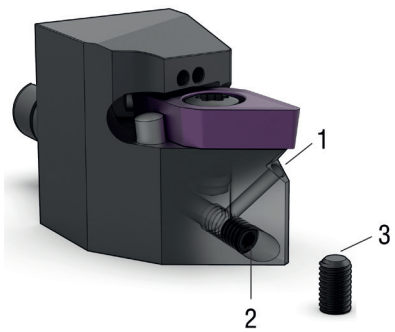
For accessories, see page(s) 1026.



1. Coolant hose
2. Hose adapter
3. Copper washer
4. Plug screw

Jetstream Tooling®Duo

Jetstream Tooling® Duo, available on a selection of cutting heads, adds a second coolant outlet from the clearance side. The second coolant outlet can be shut off if needed for specific applications for even more versatile machining or limitation in coolant supply. To shut off Duo coolant outlet, remove P6SS3X3G and change to the longer screw P6SS3X5 available as accessories. Important to also use suitable glue to seal the thread (e.g.Loctite® 270).



1. Duo Coolant
2. P6SS3X3G
3. P6SS3X5

Shims & shim screws for alternate use of DN.1506.. & DN.1504.. Inserts

Toolholder style	Insert	Insert (ANSI)	Shim	Shim (ANSI)	Shim GPN	Shim screw	Shim screw GPN
D-Clamp Toolholders Seco-Capto, GL-heads	DN..1506	DN..44	DDN150416	DDN434	02570509	C04008-T15P	02440234
	DN..1504	DN..43	DDN150616	DDN444	02570508	C04008-T15P	02440234
D-Clamp holders- C4-DDxxx-xx-15-04JETI & C6-DDxxx-xx-15-04JETI	DN..1504	DN..43	DDN150616	DDN444	02570508	C04011-T15P	00040421
	DN..1506	DN..44	DDN150416	DDN434	02570509	C04008-T15P	02440234
D- Clamp Inch holders- DDJxx-xx4x & DDJxx-xx4XJETI	DN..1504	DN..43	DDN150616	DDN444	02570508	C04011-T15P	00040421
	DN..1506	DN..44	DDN150416	DDN434	02570509	C04008-T15P	02440234
D- Clamp Inch holders -DDPxx-xx-4D & DDQxx-xx4D	DN..1504	DN..43	DDN150616	DDN444	02570509	C04008-T15P	00040421
	DN..1506	DN..44	DDN150416	DDN434	02570509	C04008-T15P	02440234
P- Clamp holders	DN..1506	DN..44	PDN150308	PDN422	00039784	LS0822	00039793
	DN..1504	DN..43	PDN150408		02897106	LS0822	00039793
P- Clamp holders C4, C5, C6-PDxxx-xx-15-04JETL	DN..1504	DN..43	PDN150408		02897106	LS0818	00039791
	DN..1506	DN..44	PDN150308	PDN422	00039784	LS0822	00039793
P-clamping bars Sxxx-PDxxx15	DN..1506	DN..44	PDN150308	PDN422	00039784	LS0822	00039793
	DN..1504	DN..43	PDN150408		02897106	LS0822	00039793
Wedge clamping bars, Axxx-PDxxx15	DN..1506	DN..44	PDD150312		74011470	WS2325-T25P	02483615
	DN..1504	DN..43	PDD150412		00084514	WS2325-T25P	02483615
Wedge clamp PDJR4032-15	DN..1506	DN..44	PDN150412		74011060	170.26-655	75009750
Inch holders MDxxx, Axx-MDxxx	DN..1506	DN..44	DSN423	DSN-423	74048118	C04008-T15P	02440234
	DN..1504	DN..43	DSN150412	DSN-433	74072198	C04008-T15P	02440234

Shims & shim screws for alternate use of WN.0804.. & WN.0806.. Inserts

Toolholder style	Insert	Insert (ANSI)	Shim	Shim (ANSI)	Shim GPN	Shim screw	Shim screw GPN
D-Clamp toolholders- Seco-Capto JETI,Seco-Capto, Shank toolholders JETI, Shank toolholders & GL-heads	WN..0804	WN..43.	DWN080416	DWN434	02570511	C04008-T15P	02440234
	WN..0806	DN..44	DWN080316	DWN424	02639481	C04008-T15P	02440234
D-Clamp toolholders- Inch	WN..0804	WN..43.	DWN080416	DWN434	02570511	C04008-T15P	02440234
	WN..0806	DN..44	DWN080316	DWN424	02639481	C04008-T15P	02440234
D- Clamp boring bars Axxx-DWxxx-C	WN..0804	WN..43.	DWD080316		02643406	C04008-T15P	02440234
P- Clamp toolholders-Wedge	WN..0804	WN..43.	WAE080412	WAE433	74027939	WS2325-T25P	02483615
	WN..0806	DN..44	WAE080312	WAE423	74037377	WS2325-T25P	02483615
P- Clamp toolholders-Seco-Capto Wedge Clamp	WN..0804	WN..43.	WAI080312	WAI423	74027940	WS2325-T25P	02483615
P- Clamp boring bars s Axxx-PW...08	WN..0804	WN..43.	WAI080312	WAI423	74027940	WS2325-T25P	02483615
M-clamp toolholders- MW...08	WN..0804	WN..43.	MWN080412	IWSN-433	74079689	LD6025-T15P	02483533
	WN..0806	DN..44	MWN080312	IWSN-423	74079690	LD6025-T15P	02483533
M-clamp boring bars Sxx-MW...-4, Sxxx-MW...08, A32-MW...-4	WN..0804	WN..43.	MWN080412	IWSN-433	74079689	NL46	00018595
	WN..0806	DN..44	MWN080312	IWSN-423	74079690	NL46L	00048120

Small diameter boring – Introduction

Seco offers a range of small diameter boring bars to machine holes as small as 5,5 mm / *0.216"*. Inserts are available in C and T shape.

The toolholders are available in steel and have the possibility for internal through coolant.

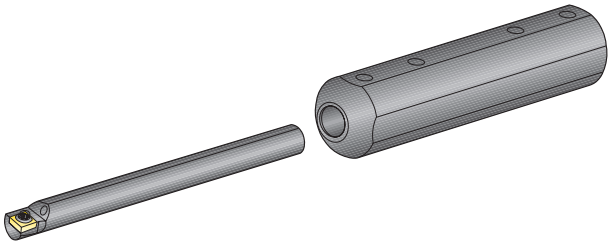
Set-up information

When positioned in the machine the insert will sit slightly above centre line. This is a design feature of the tool that compensates for the deflection and improves the machining operation.

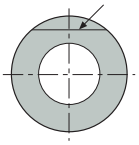
When setting the tool in the machine be sure to position it with the flat parallel and in the same plane as the bed of the machine.

The boring bars can be used with or without the cylindrical toolholder sleeve.

Please see page(s) 1009.



Position flat parallel with machine bed



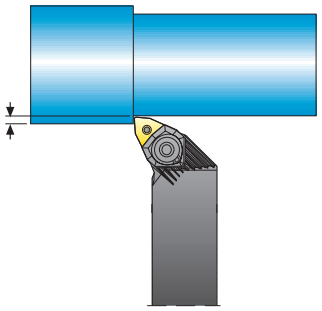
Cutting data, general

There are several opportunities to adjust and explore cutting data adjustments in www.secotools.com under the Cutting Data section especially when logging in since this unlock option not available as “Guest” For example explore cutting data directly by reading the QR-code.

Depth of cut

The maximum depth of cut that can be used depends on a number of factors. Machine power, stability, workpiece material, insert shape and size, nose radius, chipbreaker, grade and cutting edge angle.
Start with the insert size to get an indication and proceed with the recommendations for the chosen chipbreaker. This will give a suitable maximum depth of cut.

A rule of thumb could be that the minimum depth of cut should not be smaller than the nose radius.

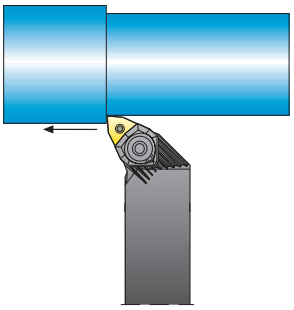


Feed rate

The maximum feed rate that can be used depends on a number of factors. Machine power, stability, workpiece material, insert shape and size, nose radius, chipbreaker, grade and cutting edge angle.
Another, very important factor is the required surface finish. Start by looking at the recommendations for the chosen chipbreaker. Then look in the surface finish table below to be sure that the required surface finish can be achieved.

The maximum feed rate should preferably be considerably smaller than the nose radius.

A too low feed rate can result in poor chipbreaking and tool life.



Surface finish

A large nose radius normally produces a better surface finish.
The table gives recommended maximum, theoretical, feed rates to achieve a specified R_a-value.
Always consider the possibility to use high feed inserts (Seco Wiper), for turning with high feed with retained surface finish.
For more information, see page(s) 62, 117-119, 130-131.

Note: The refined estimate R_a equation is based on work by J-E Ståhl and gives better surface estimates often indicating potential to increase feeds compared to other estimates.

Data according to refined estimate R_a equation

Surface finish R_a value (µm)	Nose radius, RE mm / *inch*					
	0,2 / *0.008*	**0,4** / *0.016*	**0,8** / *0.032*	**1,2** / *0.047*	**1,6**/ *0.063*	**2,4** / *0.094*
	Feed rate, f mm/ *inch* /rev					
0,6	0,06 / *0.0023*	0,08 / *0.0031*	0,12 / *0.0047*	0,14 / *0.0055*	0,17 / *0.007*	0,21 / *0.008*
1,6	0,10 / *0.0039*	0,14 / *0.0055*	0,20 / *0.008*	0.24 / *0.009*	0,28 / *0.011*	0,34 / *0.013*
3,2	0,14 / *0.0055*	0,20 / *0.008*	0,28 / *0.011*	0,34 / *0.013*	0,39 / *0.015*	0,48 / *0.019*
6,3	–	0,27 / *0.011*	0,39 / *0.015*	0,48 / *0.019*	0,55 / *0.022*	0,68 / *0.027*
8,0	–	–	0,44 / *0.017*	0,54 / *0.021*	0,63 / *0.025*	0,77 / *0.030*

Cutting data – Nomenclature and formulae

RPM	$n = \frac{v_c \cdot 1000}{\pi \cdot D_c}$	(rev/min)
Cutting speed	$v_c = \frac{n \cdot \pi \cdot D_c}{1000}$	(m/min)
Surface finish (arithmetic average deviation) Rough estimates	$R_a = \frac{f^2 \cdot 50}{RE}$	(µm)
	$R_a = \frac{R_t}{3,5}$	(µm)
Refined estimate	$R_a \approx 770 \cdot \left(1 - \frac{\frac{f}{2RE}}{\arcsin\left(\frac{f}{2RE}\right)}\right) \cdot RE(\mu m)$ Valid for: $f \leq 2\sqrt{a_p(2RE - a_p)} \leq 2RE$ see note and table in page(s) 102	
Surface finish total height of profile estimate	$R_t = k \cdot \frac{f^2 \cdot 1000}{8 \cdot RE}$	(µm)
Power demand estimate	$P_c = \frac{v_c \cdot f \cdot a_p}{25}$	(kW)
Metal removal rate	$Q = v_c \cdot f \cdot a_p$	(cm³/min)

a_p	=	Depth of cut	(mm)
DC	=	Workpiece diameter	(mm)
f	=	Feed rate	(mm/rev)
h	=	Chip thickness	(mm)
k	=	Constant 1,0 for steel and strainless steel 1,4 for cast iron	
n	=	RPM	(rev/min)
P_c	=	Power demand	(kW)
Q	=	Metal removal rate	(cm³/min)
R_a	=	Surface finish (arithmetic average deviation)	(µm)
RE	=	Nose radius	(mm)
R_t	=	Total height of profile surface	(µm)
v_c	=	Cutting speed	(m/min)

Cutting data, workpiece materials

In SMG classification of workpiece materials involves a specific material standard in a specific condition assigned as reference for easy and unabiguous adjustment of cutting data for any actual material compared to any Seco reference material. As examples the reference materials EN C45E for SMG P4 and EN 42 CrMo 4 for both SMG P5 and SMG H5 shown below in table 1 where the reference level material property is indicated. (A more complete extract can be found on SMG section starting page 1030.

SMG	Description	Properties	Reference
P4	Low-alloy general structural steels, 0.25% < C < 0.67%wt Low-alloy Quench & Temper steels	520 < R_m < 1200	C 45E R_m = 660 N/mm²
P5	Structural steels, 0.25% < C < 0.67%wt Quench & Temper steels	550 < R_m < 1200	42 CrMo 4 R_m = 700 N/mm²

SMG	Description	Properties	Reference
H5	Quenched & Tempered steels	38 < HRC < 56	42 CrMo 4 50 HRC

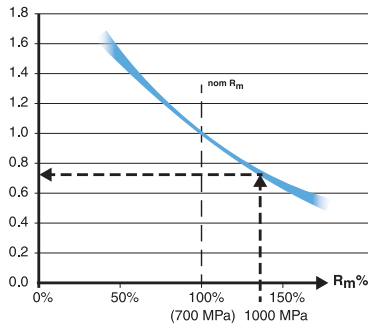
Focusing specifically on EN 42 CrMo 4 in annealed condition, the ultimate tensile strength R_m may typically vary between Rm = 630 N/mm² and R_m = 780 N/mm², which provide a reference level for SMG P5. In Quenched & Tempered condition, the ultimate tensile strength R_m may typically be between R_m = 900 N/mm² and R_m = 1100 N/mm² thus still belongs to SMG P5. However, if hardened above R_m = 1200 N/mm² it instead belongs to SMG H5.

SMG	EN	W.-Nr	AFNOR	BS	UNI	JIS	AISI / ASTM	GOST	Condition	R_{m_nom}	HRC_{nom}
P5	42 CrMo 4	1.1201	42 CD 4	708 M 40	42 CrMo 4	SCM 440 (H)	4142, 4140	38HM	Annealed	700	
	42 CrMo 4	1.1201	42 CD 4	708 M 40	42 CrMo 4	SCM 440 (H)	4142, 4140	38HM	Quenched & Tempered	1000	
H5	42 CrMo 4	1.1201	42 CD 4	708 M 40	42 CrMo 4	SCM 440 (H)	4142, 4140	38HM	Quenched & Tempered		45
	42 CrMo 4	1.1201	42 CD 4	708 M 40	42 CrMo 4	SCM 440 (H)	4142, 4140	38HM	Quenched & Tempered		50

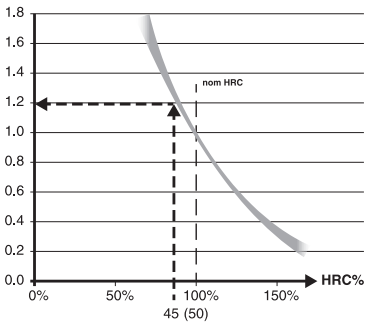
The EN 42CrMo4 quench & tempered steel could be used to illustrate the machinability dependence of materials' condition.

The graphs below indicate how speed recommendations for a nominal material conditions may be adjusted for relative R_m (left diagram valid for ISO-P) and for relative HRC (valid for ISO-H).

Speed recommendation based in material machining properties, steel



Speed recommendation based in material machining properties, hardened steel



To further illustrate how the SMG P5 nominal v_c can be adjusted to a more accurate recommended v_c we need ultimate tensile strength R_m data and in this case we use the EN 42 CrMo 4 quenched & tempered to R_m = 1000 N/mm² according to above table (bold blue arrows).

Assume that we find that the SMG P5 nominal v_c = 280 m/min / *918.64 sfm* for a certain product and machining.

Then, actual recommended v_c = 280 m/min x 0,75 = 210 m/min / v_c = *918.64 sfm x 0.75 = 688.98 sfm.*

Consequently in the SMG H5 the nominal v_c can be adjusted using the hardened EN 42 CrMo 4 at HRC 45 (smaller grey arrows).

Assume that the SMG H5 nominal v_c = 50 m/min / *164.04 sfm* for a certain product and machining using a coated cemented carbide tools then, actual recommended v_c = 50 m/min x 1,2 = 60 m/min.

Note that when using PCBN tools cutting data recommendation starts at page(s) 140.

For further workpiece material details please see page(s) 1030 and suggested cutting data at applicable pages.

For more convenient cutting data handling we recommend applicable tools in My Pages – on www.secotools.com

These cutting data compensations for steels are fully implemented at www.secotools.com in MyPages (see QR-code in the upper right corner).

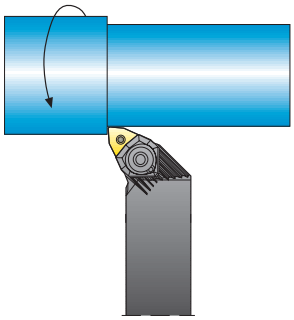
Cutting data

Cutting speed v_c (m/min)

In this section a recommended cutting speed is indicated under specified conditions and a selected SMG.

Use the tables beginning on page(s) 1030 to classify the workpiece material into a SMG.

In order to increase the accuracy towards the actual cutting conditions and requirements of the applications the recommendation is to use Seco MyPages, Suggest or explore www.secotools.com (see QR-code in the upper right corner).



KAPR = cutting edge angle (°) (from holder)

RE = nose radius (mm / *inch*)

a_p = depth of cut (mm / *inch*)

f = feed rate (mm/rev / *inch/rev*)

Representative insert: CCMT09T304-MF2 / *CCMT32.51-MF2*

Tool life = 15 min | a_p = 1 mm / *0.040 Inch* | Holder: SCLCL1212M09

SMG	TP1501 f			TP2501 f			TP3501 f			CP500 f			TM1501 f		
	0,15 *0.006*	0,2 *0.008*	0,25 *0.010*	0,15 *0.006*	0,2 *0.008*	0,25 *0.010*	0,15 *0.006*	0,2 *0.008*	0,25 *0.010*	0,15 *0.006*	0,2 *0.008*	0,25 *0.010*	0,15 *0.006*	0,2 *0.008*	0,25 *0.010*
P1	820 *2650*	750 *2450*	700 *2300*	680 *2225*	640 *2075*	600 *1975*	710 *2300*	640 *2075*	580 *1900*	295 *950*	265 *870*	250 *800*	530 *1750*	490 *1600*	450 *1475*
P2	790 *2600*	730 *2400*	680 *2225*	560 *1825*	580 *1900*	580 *1900*	690 *2225*	620 *2025*	570 *1825*	285 *940*	260 *850*	240 *790*	520 *1700*	475 *1550*	440 *1425*
P3	530 *1750*	530 *1750*	520 *1700*	580 *1900*	600 *1975*	590 *1925*	450 *1450*	420 *1375*	395 *1300*	245 *800*	225 *740*	210 *670*	445 *1450*	410 *1325*	380 *1225*
P4	600 *1975*	560 *1800*	520 *1675*	500 *1650*	470 *1550*	440 *1450*	520 *1700*	470 *1550*	430 *1400*	215 *710*	195 *640*	185 *590*	390 *1275*	360 *1175*	335 *1075*
P5	445 *1450*	445 *1450*	435 *1425*	410 *1350*	425 *1400*	425 *1375*	375 *1225*	355 *1150*	335 *1075*	205 *670*	190 *610*	175 *570*	375 *1225*	345 *1125*	320 *1025*
P6	640 *2100*	600 *1925*	550 *1800*	540 *1775*	500 *1650*	475 *1550*	560 *1825*	500 *1650*	460 *1500*	230 *750*	210 *690*	195 *640*	420 *1375*	385 *1275*	355 *1175*
P7	475 *1550*	475 *1550*	460 *1500*	370 *1225*	400 *1300*	410 *1350*	400 *1300*	375 *1225*	355 *1150*	220 *720*	200 *660*	185 *610*	395 *1300*	365 *1175*	335 *1100*
P8	445 *1450*	445 *1450*	435 *1425*	410 *1350*	425 *1400*	425 *1375*	375 *1225*	355 *1150*	335 *1075*	205 *670*	190 *610*	175 *570*	375 *1225*	345 *1125*	320 *1025*
P11	460 *1500*	460 *1500*	445 *1450*	280 *920*	310 *1025*	320 *1050*	285 *940*	295 *970*	285 *940*	275 *900*	235 *750*	200 *640*	310 *1025*	295 *950*	275 *900*
P12	270 *890*	270 *890*	265 *870*	165 *540*	180 *610*	190 *620*	170 *560*	175 *570*	170 *560*	125 *410*	115 *375*	105 *345*	185 *610*	175 *560*	160 *520*

Representative insert: CCMT09T304-MF2 / *CCMT32.51-MF2*

Tool life = 15 min | a_p = 1 mm / *0.040 Inch* | Holder: SCLCL1212M09

SMG	TP1030 f			TP1020 f			TP25 f		
	0,1 *0.004*	0,2 *0.008*	0,25 *0.01*	0,1 *0.004*	0,2 *0.008*	0,25 *0.01*	0,1 *0.004*	0,2 *0.008*	0,25 *0.01*
P1	560 *1800*	445 *1450*	400 *1300*	350 *1150*	235 *750*	200 *640*	600 *1975*	500 *1650*	465 *1525*
P2	540 *1775*	430 *1400*	390 *1275*	340 *1125*	230 *740*	195 *620*	580 *1900*	490 *1600*	455 *1475*
P3	465 *1525*	370 *1225*	335 *1075*	295 *950*	195 *640*	165 *540*	500 *1650*	420 *1375*	390 *1275*
P4	410 *1350*	325 *1075*	295 *950*	260 *840*	170 *560*	145 *475*	445 *1450*	370 *1225*	345 *1125*
P5	390 *1275*	310 *1025*	280 *920*	245 *800*	165 *540*	140 *460*	425 *1375*	355 *1150*	330 *1075*
P6	440 *1450*	350 *1150*	315 *1025*	280 *900*	185 *610*	155 *510*	475 *1550*	395 *1300*	370 *1200*
P7	415 *1350*	330 *1075*	300 *970*	260 *850*	175 *560*	150 *475*	450 *1450*	375 *1225*	350 *1125*
P8	390 *1275*	310 *1025*	280 *920*	245 *800*	165 *540*	140 *460*	425 *1375*	355 *1150*	330 *1075*
P11	270 *890*	190 *620*	165 *540*	245 *800*	170 *560*	145 *475*	285 *940*	280 *920*	265 *870*
P12	160 *520*	110 *360*	95 *310*	145 *475*	100 *330*	85 *280*	165 *560*	165 *540*	155 *510*

Representative insert: CNMG120408-M3 / *CNMG432-M3*

Tool life = 15 min | a_p = 2,5 mm / *0.100 Inch* | Holder: DCLNR2525M12-M

SMG	TP0501 f			TP1501 f			TP2501 f			TP3501 f			TP25 f		
	0,2 *0.008*	**0,3** *0.012*	**0,4** *0.016*	**0,2** *0.008*	**0,3** *0.012*	**0,4** *0.016*	**0,2** *0.008*	**0,3** *0.012*	**0,4** *0.016*	**0,2** *0.008*	**0,3** *0.012*	**0,4** *0.016*	**0,2** *0.008*	**0,3** *0.012*	**0,4** *0.016*
P1	780 *2550*	690 *2275*	610 *1975*	690 *2275*	590 *1900*	510 *1675*	590 *1925*	510 *1675*	450 *1450*	580 *1900*	480 *1550*	410 *1325*	465 *1500*	395 *1275*	345 *1125*
P2	760 *2500*	670 *2200*	590 *1925*	680 *2200*	570 *1875*	495 *1625*	560 *1800*	520 *1675*	460 *1500*	570 *1825*	465 *1525*	400 *1300*	450 *1475*	385 *1250*	335 *1100*
P3	620 *2025*	590 *1900*	510 *1675*	500 *1650*	450 *1475*	400 *1300*	570 *1875*	530 *1700*	465 *1525*	390 *1275*	340 *1100*	300 *970*	390 *1275*	330 *1075*	290 *950*
P4	580 *1875*	510 *1675*	450 *1450*	510 *1675*	435 *1400*	375 *1225*	435 *1425*	375 *1225*	330 *1075*	430 *1400*	355 *1150*	300 *980*	340 *1125*	290 *950*	255 *840*
P5	520 *1700*	495 *1600*	435 *1400*	420 *1375*	380 *1250*	335 *1075*	405 *1325*	375 *1225*	330 *1075*	325 *1075*	285 *940*	250 *820*	325 *1075*	280 *900*	245 *790*
P6	620 *2025*	550 *1775*	480 *1575*	550 *1800*	465 *1500*	405 *1300*	465 *1525*	405 *1300*	355 *1175*	460 *1500*	380 *1225*	325 *1050*	365 *1200*	310 *1025*	275 *890*
P7	550 *1800*	520 *1700*	460 *1500*	445 *1450*	405 *1300*	355 *1150*	390 *1275*	380 *1250*	350 *1125*	345 *1125*	300 *980*	265 *870*	345 *1125*	295 *950*	260 *840*
P8	520 *1700*	495 *1600*	435 *1400*	420 *1375*	380 *1250*	335 *1075*	405 *1325*	375 *1225*	330 *1075*	325 *1075*	285 *940*	250 *820*	325 *1075*	280 *900*	245 *790*
P11	540 *1775*	510 *1650*	445 *1450*	435 *1425*	390 *1275*	345 *1125*	300 *980*	295 *970*	270 *870*	275 *900*	240 *790*	200 *660*	265 *870*	230 *740*	195 *640*
P12	315 *1025*	300 *980*	265 *850*	255 *840*	230 *750*	205 *660*	175 *590*	175 *570*	160 *510*	165 *540*	145 *460*	120 *395*	155 *510*	135 *445*	115 *375*

Representative insert: CNMG190616-MR7 / *CNMG644-MR7*

Tool life = 15 min | a_p = 6 mm / *0.240 Inch* | Holder: DCLNR4040R19-M

SMG	TP0501 f			TP1501 f			TP2501 f			TP3501 f			TP25 f			TP40 f		
	0,4 *0.016*	**0,55** *0.022*	**0,7** *0.028*	**0,4** *0.016*	**0,55** *0.022*	**0,7** *0.028*	**0,4** *0.016*	**0,55** *0.022*	**0,7** *0.028*	**0,4** *0.016*	**0,55** *0.022*	**0,7** *0.028*	**0,4** *0.016*	**0,55** *0.022*	**0,7** *0.028*	**0,4** *0.016*	**0,55** *0.022*	**0,7** *0.028*
P1	590 *1900*	480 *1550*	400 *1300*	490 *1600*	405 *1300*	340 *1125*	435 *1400*	365 *1175*	315 *1025*	390 *1275*	315 *1025*	265 *850*	335 *1075*	280 *900*	240 *790*	235 *750*	190 *610*	155 *510*
P2	570 *1875*	465 *1500*	385 *1250*	480 *1550*	395 *1275*	335 *1075*	440 *1425*	350 *1125*	285 *920*	380 *1225*	305 *1000*	255 *840*	325 *1050*	270 *890*	235 *770*	230 *740*	185 *590*	155 *490*
P3	490 *1600*	375 *1225*	290 *940*	385 *1250*	310 *1000*	250 *820*	450 *1450*	355 *1150*	285 *920*	290 *940*	245 *790*	210 *690*	280 *900*	235 *750*	200 *660*	195 *640*	155 *510*	130 *425*
P4	430 *1400*	355 *1150*	295 *950*	360 *1175*	295 *970*	250 *820*	320 *1050*	270 *870*	230 *750*	290 *940*	230 *750*	195 *620*	245 *800*	205 *670*	180 *570*	170 *560*	140 *445*	115 *375*
P5	415 *1350*	315 *1025*	245 *790*	320 *1050*	260 *840*	210 *690*	315 *1025*	245 *800*	195 *620*	245 *790*	205 *670*	175 *570*	235 *770*	195 *640*	170 *560*	165 *540*	130 *425*	110 *360*
P6	465 *1500*	380 *1225*	315 *1025*	390 *1275*	320 *1025*	270 *890*	345 *1125*	290 *940*	250 *800*	310 *1000*	250 *800*	210 *670*	265 *850*	220 *720*	190 *620*	185 *610*	150 *475*	125 *410*
P7	435 *1425*	335 *1075*	260 *840*	340 *1125*	275 *890*	225 *720*	335 *1100*	275 *900*	225 *740*	260 *840*	215 *710*	190 *610*	250 *800*	210 *670*	180 *590*	175 *570*	140 *460*	115 *375*
P8	415 *1350*	315 *1025*	245 *790*	320 *1050*	260 *840*	210 *690*	315 *1025*	245 *800*	195 *620*	245 *790*	205 *670*	175 *570*	235 *770*	195 *640*	170 *560*	165 *540*	130 *425*	110 *360*
P11	425 *1375*	325 *1050*	250 *800*	330 *1075*	265 *870*	220 *710*	260 *840*	210 *670*	165 *540*	190 *620*	140 *445*	100 *330*	185 *610*	145 *475*	120 *375*	100 *330*	85 *280*	75 *245*
P12	250 *820*	190 *620*	150 *475*	195 *640*	155 *510*	130 *410*	155 *490*	125 *395*	100 *310*	110 *360*	80 *260*	60 *195*	110 *360*	85 *280*	70 *230*	60 *195*	50 *165*	46 *150*

Representative insert: CNMG120408-MF2 / *CNMG432-MF2*

Tool life = 15 min | a_p = 1,5 mm / *0.060 Inch* | Holder: DCLNR2525M12-M

SMG	TH1000 f		
	0,1 *0.004*	**0,25** *0.010*	**0,4** *0.016*
H3	90 *295*	70 *230*	55 *180*
H5	170 *560*	125 *410*	100 *330*
H7	90 *295*	70 *230*	55 *180*
H8	170 *560*	125 *410*	100 *330*
H11	215 *710*	160 *520*	130 *410*
H12	200 *660*	150 *475*	115 *375*
H21	170 *560*	125 *410*	100 *330*

Representative insert: CCMT09T308-MF2 / *CCMT32.52-MF2*

Tool life = 10 min | a_p = 1 mm / *0.040 Inch* | Holder: C4-SCLCR-13080-09

SMG	TM1501 f			TM2501 f			TM3501 f			CP500 f			TP25 f		
	0,1 *0.004*	**0,2** *0.008*	**0,3** *0.012*	**0,1** *0.004*	**0,2** *0.008*	**0,3** *0.012*	**0,1** *0.004*	**0,2** *0.008*	**0,3** *0.012*	**0,1** *0.004*	**0,2** *0.008*	**0,3** *0.012*	**0,1** *0.004*	**0,2** *0.008*	**0,3** *0.012*
P4	485 *1575*	415 *1350*	365 *1175*	— —	— —	— —	— —	— —	— —	280 *900*	225 *740*	195 *640*	495 *1600*	425 *1375*	375 *1225*
M1	400 *1300*	380 *1250*	345 *1125*	400 *1300*	335 *1100*	290 *940*	395 *1300*	335 *1075*	285 *940*	430 *1400*	335 *1075*	255 *820*	335 *1100*	355 *1150*	325 *1075*
M2	325 *1075*	310 *1025*	275 *900*	325 *1050*	270 *890*	235 *750*	320 *1050*	270 *890*	230 *750*	350 *1125*	270 *890*	205 *660*	270 *890*	285 *940*	265 *850*
M3	245 *800*	235 *770*	210 *690*	245 *800*	205 *670*	180 *570*	245 *800*	205 *670*	175 *570*	265 *870*	205 *670*	155 *510*	205 *670*	215 *710*	200 *660*
M4	— —	— —	— —	175 *570*	160 *520*	155 *510*	200 *640*	180 *590*	160 *520*	200 *660*	155 *510*	115 *375*	135 *445*	125 *410*	120 *375*
M5	— —	— —	— —	145 *475*	135 *445*	130 *410*	165 *540*	150 *490*	130 *425*	165 *540*	130 *410*	95 *310*	115 *375*	105 *345*	100 *330*

Representative insert: CNMG120408-MF4 / *CNMG432-MF4*

Tool life = 10 min | a_p = 3 mm / *0.120 Inch* | Holder: DCLNL2020X12JETI

SMG	TM1501 f			TM2501 f			TM3501 f			CP500 f			TP25 f		
	0,2 *0.008*	**0,3** *0.012*	**0,4** *0.016*	**0,2** *0.008*	**0,3** *0.012*	**0,4** *0.016*	**0,2** *0.008*	**0,3** *0.012*	**0,4** *0.016*	**0,2** *0.008*	**0,3** *0.012*	**0,4** *0.016*	**0,2** *0.008*	**0,3** *0.012*	**0,4** *0.016*
P4	390 *1275*	330 *1075*	290 *940*	— —	— —	— —	— —	— —	— —	210 *690*	180 *590*	160 *520*	370 *1200*	315 *1025*	275 *900*
M1	370 *1200*	315 *1025*	270 *870*	315 *1025*	260 *840*	220 *720*	310 *1025*	255 *820*	215 *710*	285 *920*	195 *620*	140 *445*	320 *1025*	275 *890*	235 *750*
M2	300 *970*	255 *820*	215 *710*	255 *820*	210 *670*	180 *590*	250 *820*	205 *670*	175 *570*	230 *740*	155 *510*	115 *360*	255 *840*	220 *720*	190 *610*
M3	225 *740*	195 *620*	165 *540*	190 *620*	160 *520*	135 *445*	190 *620*	155 *510*	135 *425*	175 *570*	120 *395*	85 *280*	195 *640*	170 *540*	145 *460*
M4	— —	— —	— —	160 *520*	150 *490*	140 *460*	170 *560*	145 *475*	125 *410*	130 *425*	90 *295*	65 *215*	115 *375*	105 *345*	100 *330*
M5	— —	— —	— —	135 *445*	125 *410*	120 *395*	140 *460*	120 *395*	105 *345*	110 *360*	75 *245*	55 *180*	95 *310*	90 *295*	85 *280*

Representative insert: CCMT09T308-M5 / *CCMT32.52-M5*

Tool life = 15 min | a_p = 1 mm / *0.040 Inch* | Holder: C4-SCLCL-17090-09

SMG	TK0501 f			TK1501 f			TP1501 f			TP0501 f		
	0,2 *0.008*	**0,3** *0.012*	**0,4** *0.016*	**0,2** *0.008*	**0,3** *0.012*	**0,4** *0.016*	**0,2** *0.008*	**0,3** *0.012*	**0,4** *0.016*	**0,2** *0.008*	**0,3** *0.012*	**0,4** *0.016*
K1	600 *1975*	560 *1800*	520 *1700*	530 *1750*	475 *1550*	440 *1450*	455 *1500*	470 *1550*	460 *1500*	485 *1600*	495 *1625*	490 *1600*
K2	465 *1525*	435 *1425*	415 *1350*	455 *1475*	420 *1375*	400 *1300*	395 *1300*	405 *1325*	400 *1300*	420 *1375*	430 *1400*	425 *1400*
K3	395 *1275*	370 *1200*	350 *1150*	385 *1275*	355 *1175*	340 *1100*	335 *1100*	345 *1125*	340 *1125*	355 *1175*	365 *1200*	360 *1175*
K4	375 *1225*	350 *1150*	335 *1100*	365 *1200*	340 *1125*	325 *1050*	320 *1050*	330 *1075*	325 *1075*	340 *1125*	350 *1150*	345 *1125*
K5	225 *720*	210 *690*	200 *660*	220 *710*	205 *660*	190 *620*	190 *620*	195 *640*	195 *620*	200 *660*	205 *670*	205 *670*
K6	375 *1225*	345 *1125*	320 *1050*	325 *1075*	295 *970*	270 *890*	280 *920*	290 *950*	285 *940*	300 *980*	305 *1000*	305 *980*
K7	285 *940*	265 *870*	255 *840*	280 *920*	260 *850*	245 *800*	245 *800*	250 *820*	245 *800*	255 *850*	265 *870*	260 *850*

Representative insert: CNMG120412-MR7 / *CNMG433-MR7*

Tool life = 15 min | a_p = 3 mm / *0.120 Inch* | Holder: A40U-PCLNL12

SMG	TK0501 f			TK1501 f			TP1501 f			TP25 f		
	0,2 *0.008*	**0,35** *0.014*	**0,5** *0.020*	**0,2** *0.008*	**0,35** *0.014*	**0,5** *0.020*	**0,2** *0.008*	**0,35** *0.014*	**0,5** *0.020*	**0,2** *0.008*	**0,35** *0.014*	**0,5** *0.020*
P4	—	—	—	—	—	—	520	410	340	345	275	230
	—	—	—	—	—	—	*1700*	*1325*	*1100*	*1125*	*900*	*750*
K1	570	495	455	480	405	355	450	435	405	465	365	305
	1825	*1625*	*1475*	*1575*	*1300*	*1175*	*1475*	*1425*	*1300*	*1500*	*1200*	*1000*
K2	420	380	355	420	375	345	390	380	350	400	320	265
	1375	*1250*	*1150*	*1350*	*1225*	*1125*	*1275*	*1225*	*1150*	*1300*	*1025*	*870*
K3	355	320	300	355	315	290	330	320	295	340	270	225
	1175	*1050*	*980*	*1175*	*1025*	*950*	*1075*	*1050*	*970*	*1125*	*870*	*740*
K4	340	305	285	340	300	280	315	305	280	325	255	215
	1125	*1000*	*940*	*1100*	*980*	*900*	*1025*	*1000*	*920*	*1050*	*840*	*710*
K5	205	180	170	200	180	165	185	180	170	—	—	—
	660	*590*	*560*	*660*	*590*	*540*	*610*	*590*	*540*	—	—	—
K6	350	305	280	295	250	220	275	270	250	—	—	—
	1150	*1000*	*920*	*970*	*820*	*720*	*900*	*890*	*800*	—	—	—
K7	260	235	215	260	230	210	240	235	215	—	—	—
	850	*770*	*710*	*840*	*750*	*690*	*790*	*750*	*710*	—	—	—

Representative insert: CCGT060204F-AL / *CCGT21.51F-AL*

Tool life = 15 min | a_p = 1 mm / *0.040 Inch* | Holder: A10L-SCLCR06

SMG	KX f			CP500 f			TP25 f		
	0,1 *0.004*	**0,15** *0.006*	**0,2** *0.008*	**0,1** *0.004*	**0,15** *0.006*	**0,2** *0.008*	**0,1** *0.004*	**0,15** *0.006*	**0,2** *0.008*
P3	—	—	—	280	245	225	510	460	425
	—	—	—	*900*	*800*	*740*	*1675*	*1500*	*1375*
M3	—	—	—	235	200	170	205	210	205
	—	—	—	*770*	*660*	*540*	*670*	*690*	*670*
K3	—	—	—	265	230	205	435	395	365
	—	—	—	*870*	*750*	*670*	*1425*	*1300*	*1175*
N3	330	290	265	—	—	—	—	—	—
	1075	*950*	*870*	—	—	—	—	—	—
N11	375	335	305	215	190	170	—	—	—
	1225	*1075*	*980*	*690*	*620*	*560*	—	—	—
S3	—	—	—	27	24	22	—	—	—
	—	—	—	*90*	*80*	*70*	—	—	—

Representative insert: CCMT09T304-F1 / *CCMT32.51-F1*

Tool life = 10 min | a_p = 1 mm / *0.040 Inch* | Holder: C4-SCLCR-27050-09JET

SMG	TS2000 f			CP200 f			CP500 f		
	0,08 *0.003*	**0,15** *0.006*	**0,2** *0.008*	**0,08** *0.003*	**0,15** *0.006*	**0,2** *0.008*	**0,08** *0.003*	**0,15** *0.006*	**0,2** *0.008*
S1	90	70	60	48	40	36	42	35	32
	295	*215*	*180*	*160*	*130*	*120*	*140*	*115*	*100*
S2	70	55	47	39	32	29	36	30	27
	245	*180*	*150*	*130*	*105*	*95*	*120*	*100*	*90*
S3	60	47	40	33	28	25	31	26	24
	215	*155*	*130*	*110*	*90*	*80*	*105*	*85*	*80*
S11	130	100	85	70	60	55	—	—	—
	425	*310*	*280*	*230*	*195*	*165*	—	—	—
S12	100	75	65	55	44	41	—	—	—
	330	*245*	*215*	*180*	*145*	*130*	—	—	—
S13	75	60	50	41	34	31	—	—	—
	260	*195*	*160*	*140*	*110*	*100*	—	—	—

Representative insert: CNMG120408-MF1 / *CNMP432-MF1*

Tool life = 10 min | a_p = 1,5 mm / *0.060 Inch* | Holder: C6-DCLNR-45065-12JETI2

SMG	TS2000 f			CP200 f			890 f			CP500 f			TH1000 f		
	0,1 *0.004*	**0,2** *0.008*	**0,3** *0.012*	**0,1** *0.004*	**0,2** *0.008*	**0,3** *0.012*	**0,1** *0.004*	**0,2** *0.008*	**0,3** *0.012*	**0,1** *0.004*	**0,2** *0.008*	**0,3** *0.012*	**0,1** *0.004*	**0,2** *0.008*	**0,3** *0.012*
S1	80 *260*	55 *180*	43 *140*	44 *145*	35 *115*	31 *100*	40 *130*	33 *105*	28 *90*	38 *125*	31 *100*	27 *85*	105 *345*	75 *245*	55 *180*
S2	65 *215*	46 *150*	35 *115*	36 *115*	29 *90*	25 *80*	33 *105*	26 *85*	23 *75*	33 *110*	27 *90*	23 *75*	85 *280*	60 *195*	45 *150*
S3	55 *180*	39 *130*	30 *100*	31 *100*	25 *80*	21 *70*	28 *90*	23 *70*	20 *60*	29 *95*	23 *75*	20 *65*	75 *245*	50 *165*	39 *130*
S11	115 *375*	80 *260*	65 *195*	65 *215*	50 *165*	44 *145*	60 *195*	47 *155*	41 *130*	— —	— —	— —	150 *490*	105 *345*	80 *260*
S12	90 *295*	65 *195*	48 *155*	49 *160*	39 *130*	34 *110*	45 *150*	36 *120*	31 *100*	— —	— —	— —	115 *375*	80 *260*	65 *195*
S13	70 *230*	49 *155*	37 *120*	38 *125*	31 *100*	26 *85*	35 *115*	28 *90*	24 *80*	— —	— —	— —	90 *295*	65 *215*	49 *155*

Representative insert: CNMG120412-MR4 / *CNMG433-MR4*

Tool life = 10 min | a_p = 3 mm / *0.120 Inch* | Holder: C8-DCLNR-55080-12JETI2

SMG	TS2500 f			883 f		
	0,2 *0.008*	**0,3** *0.012*	**0,45** *0.018*	**0,2** *0.008*	**0,3** *0.012*	**0,45** *0.018*
S1	47 *155*	35 *115*	25 *80*	25 *80*	22 *70*	18 *60*
S2	38 *125*	29 *90*	21 *65*	20 *65*	17 *55*	15 *49*
S3	33 *110*	25 *80*	18 *55*	18 *55*	15 *49*	13 *43*
S11	70 *230*	50 *165*	37 *120*	36 *120*	31 *100*	26 *85*
S12	55 *165*	39 *130*	28 *90*	28 *90*	24 *80*	20 *65*
S13	41 *130*	31 *100*	22 *70*	22 *70*	19 *60*	16 *50*

Representative insert: LNMX191940-MR / *LNMX191940-MR*

Tool life = 60 min | a_p = 3 mm / *0.120 Inch* | Holder: CT-PLANL3223-19

SMG	TP0501 f (mm/r) (in/rev)			TP1501 f (mm/r) (in/rev)			TP25 f (mm/r) (in/rev)		
	0,5 *0.024*	**0,9** *0.035*	**1,3** *0.051*	**0,5** *0.024*	**0,9** *0.035*	**1,3** *0.051*	**0,5** *0.024*	**0,9** *0.035*	**1,3** *0.051*
P4	290 *840*	190 *620*	135 *445*	250 *720*	165 *540*	125 *410*	195 *570*	140 *460*	110 *360*

Representative insert: RCMX250700-R3 / *RCMX250700-R3*

Tool life = 60 min | a_p = 5 mm / *0.200 Inch* | Holder: PRDCN4040S25

SMG	TP0501 f (mm/r) (in/rev)			TP1501 f (mm/r) (in/rev)		
	0,6 *0.023*	**1** *0.039*	**1,4** *0.055*	**0,6** *0.023*	**1** *0.039*	**1,4** *0.055*
P4	315 *1050*	220 *740*	165 *540*	275 *920*	195 *640*	145 *475*

Representative insert: RCMX250700-RR93 / *RCMX250700-RR93*

Tool life = 45 min | a_p = 3 mm / *0.120 Inch* | Holder: PRDCN4040S25

SMG	TP0501 f (mm/r) (in/rev)			TP1501 f (mm/r) (in/rev)			TP2501 f (mm/r) (in/rev)			TP25 f (mm/r) (in/rev)		
	0,6 *0.023*	**0,9** *0.035*	**1,2** *0.047*	**0,6** *0.023*	**0,9** *0.035*	**1,2** *0.047*	**0,6** *0.023*	**0,9** *0.035*	**1,2** *0.047*	**0,6** *0.023*	**0,9** *0.035*	**1,2** *0.047*
P7	380 *1250*	315 *1025*	250 *820*	300 *1000*	245 *820*	205 *670*	280 *940*	250 *820*	210 *690*	190 *640*	165 *540*	145 *475*

Representative insert: SNMM250724-R7 / *SNMM856-R7*

Tool life = 45 min | a_p = 6 mm / *0.240 Inch* | Holder: PSBNR4040S25

SMG	TP0501 f (mm/r) (in/rev)			TP2501 f (mm/r) (in/rev)			TP3501 f (mm/r) (in/rev)			TP25 f (mm/r) (in/rev)			TP40 f (mm/r) (in/rev)		
	0,6 *0.020*	**0,9** *0.035*	**1,2** *0.047*	**0,6** *0.020*	**0,9** *0.035*	**1,2** *0.047*	**0,6** *0.020*	**0,9** *0.035*	**1,2** *0.047*	**0,6** *0.020*	**0,9** *0.035*	**1,2** *0.047*	**0,6** *0.020*	**0,9** *0.035*	**1,2** *0.047*
P4	225 *850*	155 *510*	115 *375*	200 *740*	155 *510*	125 *410*	185 *690*	130 *425*	100 *330*	160 *570*	120 *395*	100 *330*	105 *395*	75 *245*	55 *180*

Insert label and packaging

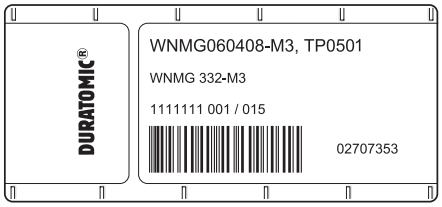
Inserts have to correspond to insert seat pocket on a toolholder and on the back of a insert box the insert code is written in accordance to ISO and ANSI standard. To simplify storage these codes also are added to one short side of the box.

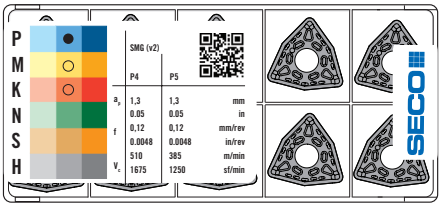
The back also holds information of the unique batch number and product number also available as bar code see to the right.

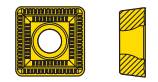
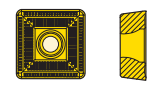
On on the front side of a general turning insert box the secolor code is present to the left (see page 32 for more clarity) and a first very general cutting data recommendation presented for two different workpiece materials categories according to the SMG classification in both metric and inch system.

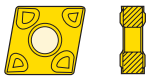
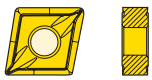
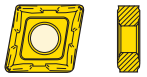
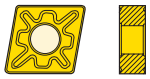
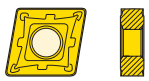
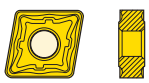
Note that the QR-code in the corner provides a direct link to the present product cutting data page to allow more precise cutting data recommendations based on the specific adjustments to actual application done at www.secotools.com webpage.

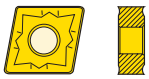
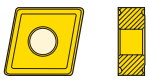
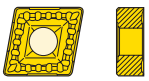
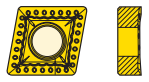
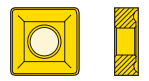
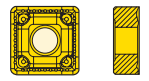
If you don't have access to a computer download the Seco Assistant application, available in the Google Playstore or Apple App-store. Then you can scan the barcode or QR-code and get instant access to product-information and many more functions.

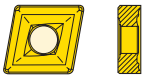
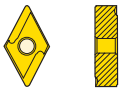




Chipbreaker program, positive basic shape inserts			
-AL			Chipbreaker for positive inserts. Intended for machining of aluminium alloys. The highly polished rake face and the very large rake angle ensure extremely light cutting action. Recommended machining range: f = 0,15–0,60 mm/rev, a_p = 0,5–4,0 mm. *(f = 0,006–0,024 in/rev, a_p = 0,020–0,160 in).*
-FF1			Chipbreaker for positive inserts. Used to achieve a very fine finish when turning slender steel and stainless steel components. Recommended machining range: f = 0,05-0,30 mm/rev, a_p = 0,2-2,0 mm. *(f = 0.002-0.012 in/rev, a_p = 0.008-0.080 inch.).*
-F1			Chipbreaker for positive inserts. Positive geometry with sharp cutting edge gives easy-cutting properties. Suitable for high feed rates at fine depths of cut in precision forgings and castings. Recommended machining range: f = 0,1-0,5 mm/rev, a_p = 0,2-3,0 mm. *(f = 0.004-0.020 in/rev, a_p = 0.008-0.120 in).* Machining in bar automatics, for instance: f = 0,08-0,25 mm/rev, a_p = 1-3 mm. *(f = 0.003-0.010 in/rev, a_p = 0.040-0.120 inch).*
-MF2			A versatile finishing to semi-finishing chipbreaker with light-cutting action for positive inserts. Suitable for a wide range of cuts in steel and stainless steel finishing applications including boring. Recommended machining range: f = 0,08–0,50 mm/rev, a_p = 0,15–3,00 mm. *(f = 0.003–0.020 in/rev, a_p = 0.006–0.120 inch).*
-M3			A reliable semi-finishing to medium roughing chipbreaker ensuring safe chip flow. Suitable for medium cuts in steel and stainless steels application including boring. Recommended machining range: f = 0,12–0,60 mm/rev, a_p = 0,2–4,0 mm. *(f = 0.005–0.024 in/rev, a_p = 0.008–0.160 inch).*
-M5			A highly reliable chipbreaker for positive inserts. Intended for medium-rough and rough machining of steels, stainless steels and cast iron. Combines high edge strength with comparatively low cutting forces. Safe action in interruptions and rough skin on parts also including boring. Recommended machining range: f = 0,15–0,60 mm/rev, a_p = 1–5 mm. *(f = 0.006–0.024 in/rev, a_p = 0.040–0.200 inch).*
-R3			Chipbreaker for large round inserts are for finishing and medium machining of difficult to machine materials from steel to superalloys also in large components such as railway wheels for enhanced difficult machine materials for enhanced chipbreaking and surface finish. Recommended machining range: f = 0,5–1,2 mm/rev, a_p = 1,5–5,0 mm. *(f = 0.020–0.047 in/rev, a_p = 0.060–0.200 inch).*
-RR93			Chipbreaker for large round inserts are for medium machining and roughing of railway wheels, large components. Recommended machining range: f = 0,6-1,5 mm/rev, a_p = 3,0-10,0 mm *(f = 0.024–0.060 in/rev, a_p = 0.120–0.400 inch).*
-RR94			Chipbreaker for large inserts intended for roughing of railway wheels. Recommended machining range: f = 0,6–1,5 mm/rev, a_p = 3,0–10,0 mm. *(f = 0.024–0.060 in/rev, a_p = 0.120–0.400 inch).*
-RR96			Chipbreaker for large inserts intended for machining of steel with high depth of cut and large feed rates. Recommended machining range: f = 0,6–2,2 mm/rev, a_p = 3,0–24,0 mm. *(f = 0.024–0.085 in/rev, a_p = 0.120–0.945 inch).*
-RR97			Chipbreaker for large inserts intended for machining of steel with high depth of cut and large feed rates. The –RR97 geometry is stronger than the –RR96. Recommended machining range: f = 0,8–2,2 mm/rev, a_p = 3,0–24,0 mm. *(f = 0.032–0.085 in/rev, a_p = 0.120–0.945 inch).*
-UX			Chipbreaker for positive inserts. Smooth and easy chip flow on finishing and medium roughing in steel and stainless steel. Well suited for slim components. Recommended machining range: f = 0,05–0,40 mm/rev, a_p = 0,5-4,0 mm. *(f = 0.002–0.016 in/rev, a_p =0.020-0.160 inch).*

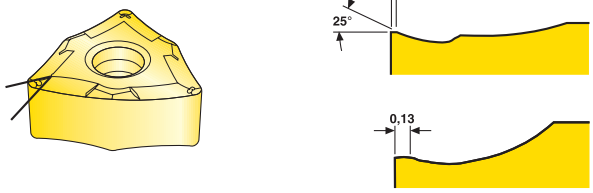
Chipbreaker program, negative basic shape inserts			
-FF1	FF1		Chipbreaker for negative inserts. Used to achieve a very fine finish when turning slender steel and stainless steel components. Recommended machining range: f = 0,08-0,30 mm/rev, a_p = 0,2-3,0 mm. *(f = 0.003-0.012 in/rev, a_p = 0.008-0.120 inch)*
-FF2	FF2		Chipbreaker for negative inserts. Intended for fine-finishing and semi-finishing of steels and stainless steels. The positive, tight chip groove offers light cutting action combined with superior chip forming. Recommended machining range: f = 0,08–0,30 mm/rev, a_p = 0,2–1,5 mm. *(f = 0.003–0.012 in/rev, a_p = 0.008–0.060 inch).*
-MF1	MF1		Chipbreaker intended for machining stainless steel, superalloys and titanium alloys. Type ..GG insert has a sharp, precision ground edge. Type ..MG insert has a lightly honed cutting edge for increased strength. MF1 is intended for use in semi-finishing and finishing applications. Recommended machining range: f = 0,08–0,30 mm/rev, a_p = 0,2–3,5 mm. *(f = 0.003–0.012 inch/rev, a_p = 0.008–0.140 inch).*
-MF2	MF2		First choice for finishing with negative inserts. Suitable for chip control at depths of cut down to 0,25 mm, provided that the feed rate is in excess of 0,25 mm/rev. Good capacity for medium rough machining. Recommended machining range: f = 0,10–0,40 mm/rev, a_p = 0,2–3,0 mm. *(f = 0.004–0.016 in/rev, a_p = 0.008–0.120 inch).*
-MF3	MF3		Chipbreaker with positive cutting rake angle intended for moderately difficult stainless steel. The MF3 is also intended for light roughing in relatively soft, "tacky" steel and difficult to machine stainless steel if the depth of cut is limited. MF3 can also be used for finishing of cast iron. Recommended machining range: f = 0,2–0,4 mm/rev, a_p = 1–4 mm. *(0.008–0.016 in/rev, a_p = 0.040–0.160 inch).*
-MF4	MF4		Chipbreaker intended for medium/finishing of stainless steel, very open and highly positive geometry. Recommended machining range: f = 0,15–0,50 mm/rev, a_p = 0,5–4,0 mm. *(f = 0.006–0.020 in/rev, a_p = 0.020–0.160 inch).*
-MF5	MF5		Chipbreaker intended for medium finishing of steel and stainless steel at high feeds. Very easy cutting and open geometry. Recommended machining range: f = 0,2–0,8 mm/rev, a_p = 0,2–2,7 mm. *(f = 0.008–0.032 in/rev, a_p = 0.008–0.100 inch).*
-M1	M1		Chipbreaker intended for superalloys and titanium alloys. It has a positive cutting rake angle which is slightly honed to increase the edge strength. Also available with a perfectly sharp edge (type ..GG insert). The M1 is intended for light roughing and for semi-finishing. Recommended machining range: f = 0,2–0,4 mm/rev, a_p = 1,5–5,0 mm. *(f = 0.008–0.016 in/rev, a_p = 0.060–0.200 inch).*
-M3	M3		First choice for medium-rough machining and also the most versatile Seco chipbreaker. In most cases, it is the only chipbreaker needed. Offers the best useful life and best chipbreaking in a wide range of cutting data and workpiece materials. Suitable for precision forged and cast workpieces (NNS or Near Net Shape workpieces) as regards both chip control and edge strength. Recommended machining range: f = 0,15-0,50 mm/rev, a_p = 0,5-5,0 mm. *(f = 0.006-0.020 in/rev, a_p = 0.020-0.200 inch).*
-M4	M4		Chipbreaker intended for cast iron. Positive rake angle with a narrow T-land gives low cutting forces. First choice for cast iron machining at high speeds. Recommended machining range: f = 0,1-0,7 mm/rev, a_p = 0,2-5,0 mm. *(f = 0.004-0.028 in/rev, a_p = 0.008-0.200 inch).*
-M5	M5		The choice for roughing by means of double-sided inserts. Intended for demanding operations at high feed rates in steel, stainless steel and cast iron. Combines high edge strength with comparatively low cutting forces. Recommended machining range: f = 0,3-0,7 mm/rev,a_p = 1,5-7,0 mm. *(f = 0.012-0.028 in/rev,a_p = 0.060-0.280 inch).*
-M6	M6		Strong double-sided chipbreaker, intended for semi-roughing and roughing of steel. A well-balanced design combining excellent chip control and relatively low cutting forces which provides reliable cutting action in both continuous as well as interrupted cuts. Well suited also for machining of ferritic and martensitic stainless steels. Recommended machining range: f = 0,2-0,8 mm/rev, a_p = 1,0-7,0 mm. *(f = 0.008-0.031 in/rev, a_p = 0.040-0.275 inch).*

Chipbreaker program, negative basic shape inserts			
-MR3	MR3		Chipbreaker with a positive cutting rake angle that reduces cutting forces and gives a very high edge strength. Intended for medium-rough and rough machining of superalloys, titanium alloys and stainless and hardened steel. Recommended machining range: f = 0,2–0,6 mm/rev, a_p = 1,5–7,0 mm. *(f = 0.008–0.024 in/rev, a_p = 0.060–0.280 inch).*
-MR4	MR4		The MR4 has a negative T-land, which gives extremely high edge strength. The chipbreaker is intended for more difficult machining applications on superalloys and titanium alloys, such as intermittent cuts and the machining of parts with raw surface. Recommended machining range: f = 0,15–0,50 mm/rev, a_p = 1,5–7,0 mm. *(f = 0.006–0.020 in/rev, a_p = 0.060–0.280 inch).*
-MR6	MR6		Chipbreaker for medium and medium roughing of steel. Very easy cutting and open geometry. Double and single-sided. Recommended machining range: f = 0,25–0,80 mm/rev, a_p= 0,9–5,0 mm. *(f = 0.010–0.032 in/rev, a_p= 0.035–0.200 inch).*
-MR7	MR7		The strongest chipbreaker for double-sided inserts. The MR7 is suitable for high feed rates and depths of cut that normally require a single-sided insert. The chipbreaker has a wide negative T land, which gives high edge strength. Recommended machining range: f = 0,35–0,90 mm/rev, a_p = 1,5–7,0 mm. *(f = 0.014–0.035 in/rev, a_p = 0.060–0.280 inch).*
-MR9	MR9		The strongest chipbreaker intended for cast iron. The negative chamfers makes it very suitable for high feeds in interupted cuts and still with very reliable action in cast irons. Recommended machining range: f = 0,2-1,0 mm/rev a_p = 1,0-12mm. *(f = 0.008–0.040 in/rev, a_p = 0.040–0.470 inch).*
-R4	R4		Chipbreaker for single-sided inserts. It has a positive cutting edge which gives low cutting forces. Recommended machining range: f = 0,2–0,6 mm/rev, a_p = 2–10 mm. *(f = 0.008–0.024 in/rev, a_p = 0.080–0.400 inch).*
-R5	R5, R57		Chipbreaker for single-sided inserts. Recommended for medium-roughing of steel. Recommended machining range: f = 0,3–1,0 mm/rev, a_p = 2–12 mm. *(f = 0.012–0.040 in/rev, a_p = 0.080–0.475 inch).*
-56 -R56	R6, R56		Chipbreaker with easy-cutting geometry for single-sided inserts. Intended for stainless steel machining applications. Recommended machining range: f = 0,4–0,8 mm/rev, a_p = 2–12 mm. *(f = 0.016–0.032 in/rev, a_p = 0.080–0.470 inch).*
-57 -R57	R5, R57		Chipbreaker for single-sided roughing inserts. Recommended for roughing operations on steel at high feed rates and high depth of cut. Recommended machining range: f = 0,45-1,10 mm/rev, a_p = 2-12 mm. *(f = 0.018–0.042 in/rev, a_p = 0.080–0.470 inch).*
-R6	R6, R56		Chipbreaker for single-sided inserts. Recommended for medium-roughing of stainless steel. Recommended machining range: f = 0,25–0,70 mm/rev, a_p = 2–10 mm. *(f = 0.010–0.028 in/rev, a_p = 0.080–0.400 inch).*
-R68	R7, R68		Chipbreaker for single sided insert. Recommended for heavy-roughing of steel. Recommended machining range: f = 0,4–1,4 mm/rev, a_p = 4–14 mm. *(f = 0.016–0.055 in/rev, a_p = 0.160–0.550 inch).*
-R7	R7, R68		A strong but easy-cutting chipbreaker for single sided inserts. The R7 is well suited for intermittent machining of both stainless and ordinary carbon steel. Recommended machining range: f = 0,4–1,6 mm/rev, a_p = 3–18 mm. *(f = 0.016–0.063 in/rev, a_p = 0.120–0.700 inch).*

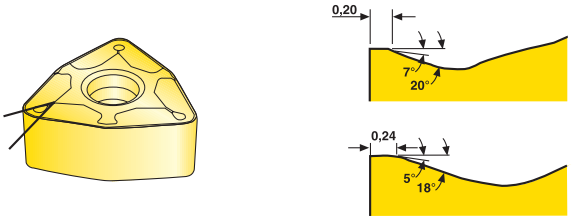
Chipbreaker program, negative basic shape inserts			
-R8	R8		A very strong chipbreaker for single-sided inserts. The R8 is intended for high feed rates when machining castings and forgings of austenitic stainless steel. Recommended machining range: f = 0,35–0,80 mm/rev, a_p = 2–12 mm. *(f = 0.014–0.032 in/rev, a_p = 0.080–0.470 inch).*
-RR6	RR6		A very easy-cutting chipbreaker for single-sided inserts. Recommended for roughing of stainless steel and steel. Recommended machining range: f = 0,3–1,0 mm/rev, a_p = 2–12 mm. *(f = 0.012–0.040 in/rev, a_p = 0.080–0.470 inch).*
-RR9	RR9		Extremely strong chipbreaker for single-sided negative inserts, for use at high feed rates. Suitable for difficult castings and forgings and for austenitic stainless steel. Recommended machining range: f = 0,5–1,2 mm/rev, a_p = 2,5–15,0 mm. *(f = 0.020–0.047 in/rev, a_p = 0.100–0.590 inch).*
-RR96	RR96		Heavy roughing chipbreaker for negative single-sided inserts for high parameters and chip control for all materials. Recommended machining range for LNMX50: f = 1,5–2,6 mm/rev, a_p = 12–36 mm. *(f = 0.060–0.100 in/rev, a_p = 0.470–1.415 inch).*
-UX	UX		Chipbreaker for negative inserts. Positive cutting rake with sharp edge. Low cutting force. Suitable for slim components. Recommended machining range: f = 0,2–0,4 mm/rev, a_p =1,0–6,0 mm. *(f = 0.008–0.016 in/rev, a_p =0.040–0.240 inch).*

Chipbreakers

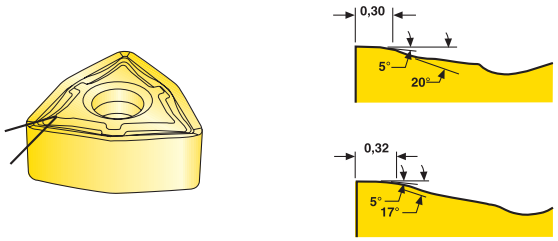
-MF2 – For finishing



-M3 – For general machining



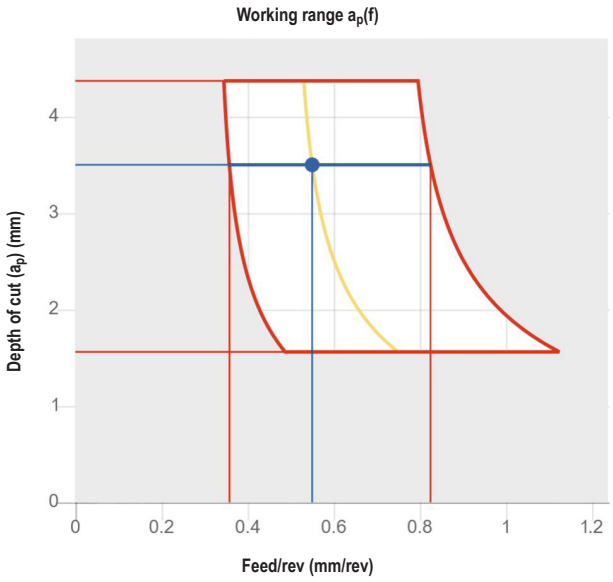
-M5 – For roughing



The design of a chipbreaker is made to give both good chipcontrol and additional functional benefits appropriate for the intended materials, applications and components.

Consequently a number of features on a specific insert differ to adapt to those needs for example as indicated in the drawings.

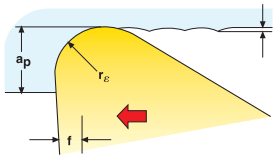
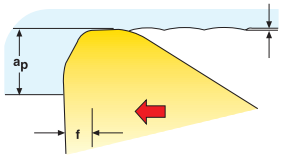
-MF2, -M3, -M5



For a certain insert and chipbreaker combination there is a recommended working range and depend on several aspects in insert design and of machining conditions such as component and path.

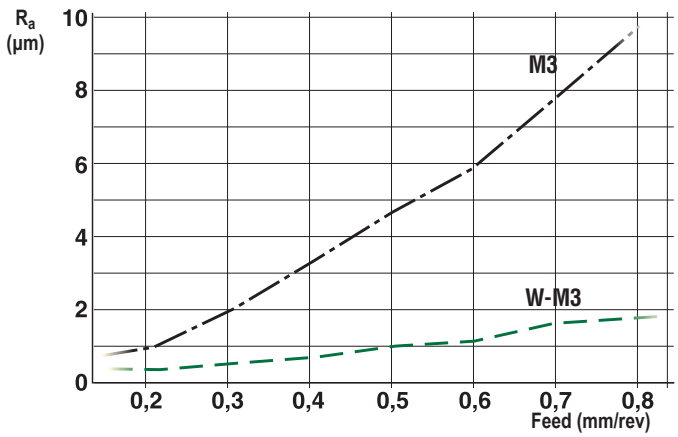
When logged in on www.secotools.com or Mypages specific cutting data graphs for general turning insert are available if Advanced Cutting Data section are expanded.

High Feed Wiper inserts

Standard insert geometry	High Feed Wiper insert geometry
	

Often comes the question how a High Feed Wiper can generate that significantly better surface finish at the same feed rate compared to standard insert.
When looking closer to the design of an insert edge regardless if either e.g. coated carbide or PCBN insert there are similarities.
Below diagrams show the Ra-value as a function of feed rate when using standard nose radius inserts and High Feed Wiper inserts.
Regardless of chipbreaker design and workpiece material there are solutions available corresponding to the need.

M3 = Standard -M3, W-M3 = Wiper -M3

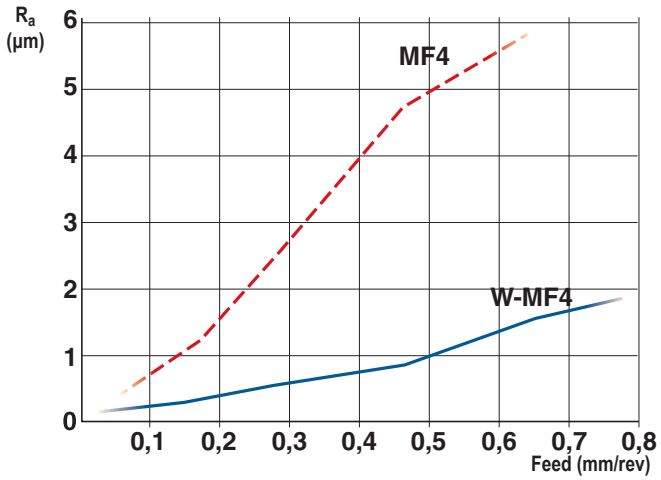


The diagram shows the superior surface finish in steel achieved with a Seco High Feed W-M3 wiper insert compared to a conventional insert.

CNMG120408W-M3 TP2501, a_p = 1 mm, cutting speed adjusted for feed, workpiece material: (steel) SMG P4.

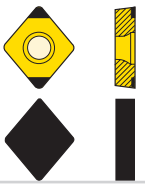
Note that opportunities to do the same surface finish comparison for each specific product and application when logged in on www.secotools.com under the Advanced Cutting Data section.

MF4 = Standard -MF4, W-MF4 = Wiper -MF4



When applying a Seco High Feed W-MF4 wiper insert in stainless steel the diagram shows the superior surface finish achieved compared to a conventional insert in stainless steel.

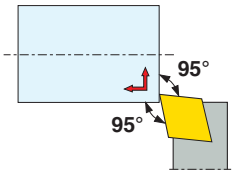
CNMG120408W-MF4 TM2501, a_p = 1 mm, cutting speed tool life adjusted for feed in SMG M2 (stainless steel).

Chipbreaker program, High Feed Wiper inserts			
W-F1	F1		A versatile chipbreaker for positive inserts. For finishing machining of steel, stainless steel and cast iron giving good surface finish. Suitable for high feed rates at small depths of cut. Recommended machining range: f = 0,05-0,50 mm/rev, a_p = 0,25-3,00 mm. *(f = 0.002–0.020 in/rev, a_p = 0.010–0.120 inch).*
W-FF2	FF2		Chipbreaker for high feed finishing of steel and stainless steel. Wide chip control range in finishing and generates a superior surface quality. Recommended machining range: f = 0,1-0,5 mm/rev, a_p = 0,2-1,5 mm. *(f = 0.004-0.020 in/rev, a_p = 0.008-0.060 inch).*
W-MF2	MF2		First choice for finishing with both positive and negative inserts. Chipbreaker suitable for finishing machining of steel, stainless steel and cast iron at high feed rates giving good surface finish. Recommended machining range: f = 0,05-0,60 mm/rev, a_p = 0,5-4,0 mm. *(f = 0.002-0.024 in/rev, a_p = 0.020-0.160 inch).*
W-MF4	MF4		Easy cutting action chipbreaker for high feed machining of stainless steel. Provides good surface finish in finishing operations and High Feed Wiper productivity in medium-roughing machining. Recommended machining range: f = 0,05-0,90 mm/rev, a_p= 0,2 - 6,0 mm. *(f = 0.002-0.035 in/rev, a_p= 0.008 - 0.240 inch).*
W-MF5	MF5		Chipbreaker intended for medium finishing of steel at high feed. The geometry is very open and highly positive and equipped with wiper radius. Recommended machining range: f = 0,2-0,8 mm/rev, a_p = 0,2-2,7 mm. *(f = 0.008-0.032 in/rev, a_p = 0.008-0.105 inch).*
W-M3	M3		Versatile chipbreaker in both positive and negative inserts for high feed finishing and medium-roughing machining of steel, stainless steel and cast iron. Operates in a wide application area. Gives a good surface finish even at high feeds. Recommended machining range: f = 0,2-0,9 mm/rev, a_p = 0,5-6,0 mm. *(f = 0.008-0.035 in/rev, a_p = 0.020-0.240 inch).*
W-M6	M6		Strong double-sided chipbreaker, intended for high-feed semi-roughing and roughing of steel. A well-balanced design combining excellent chip control and relatively low cutting forces which provides reliable cutting action in both continuous as well as interrupted cuts. Recommended machining range: f = 0,3-1,0 mm/rev, a_p = 1,0-7,0 mm. *(f = 0.012-0.040 in/rev, a_p = 0.040-0.275 inch).*
W-R4	R4		Chipbreaker for single sided inserts intended for high feed medium-roughing and rough machining of steel, stainless steel and cast iron. Gives a good surface finish even at high feeds. Low cutting forces. Recommended machining range: f = 0,3-1,0 mm/rev, a_p = 2,0-7,5 mm. *(f = 0.012-0.040 inch/rev, a_p = 0.080-0.295 inch).*
W-R7	R7, R68		A strong easy cutting chipbreaker for single sided inserts. Intended for the highest feeds when medium-roughing and roughing machining of steel, stainless steel and cast iron. Gives a good surface finish even at the higher feeds. Recommended machining range: f = 0,4-1,2 mm/rev, a_p = 2,0-9,5 mm. *(f = 0.016-0.048 in/rev, a_p = 0.080-0.375 inch).*
-WZ **-WZN** **-WZP** **-WS** **-WL**			Wiper geometries on PCBN inserts. Available in various insert styles in solid or brazed format. Developed for machining pearlitic grey cast iron and hardened steel. Gives a high quality surface finish at high feeds.

Operation guidelines

C- and W-basic shape High Feed Wiper inserts

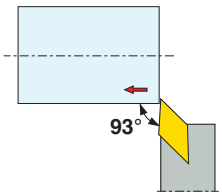
– The favourable surface finish results are lost, if the cutting edge angle diverges from 95°.
– Max diversion allowed: ±2°.
– Back-turning is NOT recommended.



On C-style High Feed inserts, except for PCBN inserts, the wiper geometry is also located on the 100° corner.
When using W-R4 or W-R7 chipbreaker use a toolholder with P- or M-type clamping.

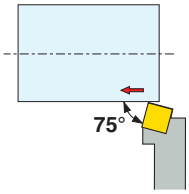
D- and T-basic shape High Feed Wiper inserts

– The favourable surface finish results are lost, if the cutting edge angle diverges from 93°.
– Max diversion allowed: ±2°.
– Back-turning is NOT recommended.



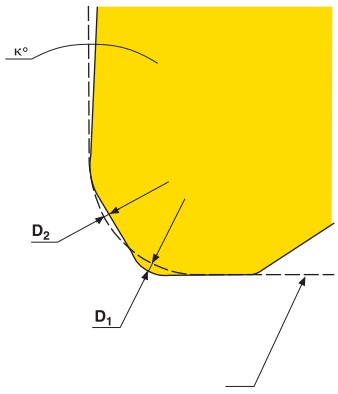
S-basic shape High Feed Wiper inserts

– S-style High Feed insert to be used in a toolholder with 75° setting angle. The favourable surface finish results are lost, if the cutting edge angle diverges from 75°. Max diversion allowed: ±2°.



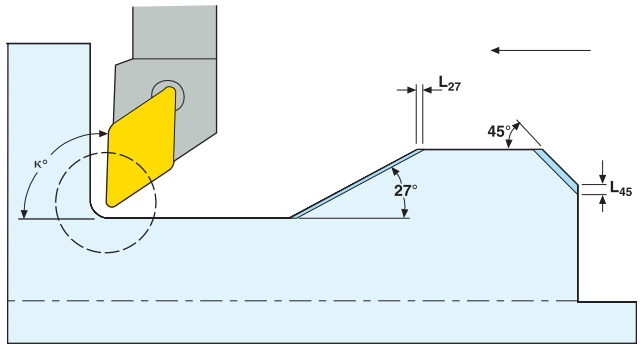
Copying with D- and T-style Wiper inserts

Since D- and T-style High Feed inserts not are designed within ISO-tolerances, an adjustment in the tool offset must be made.
A deviation from the nominal nose radius shape, will always occur (D1, D2) when going towards a corner.



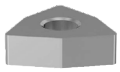
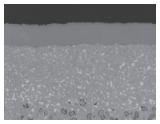
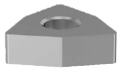
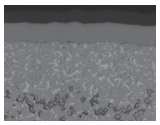
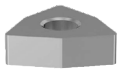
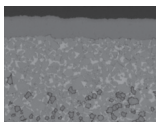
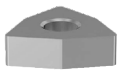
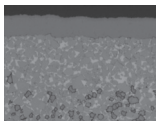
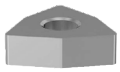
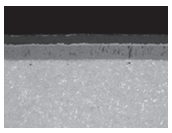
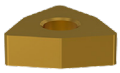
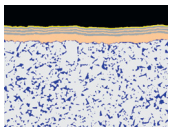
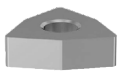
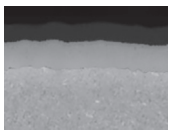
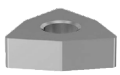
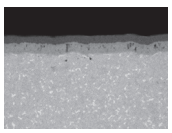
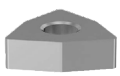
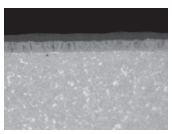
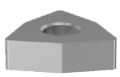
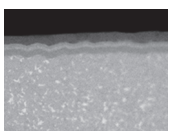
ISO-profile (Nominal nose radius)

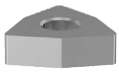
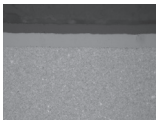
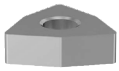
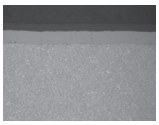
The High Feed geometry on a D-and T-style insert does not provide an exact corner radius.

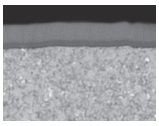
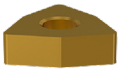
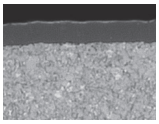
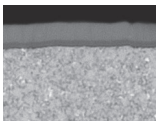
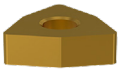
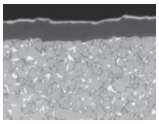
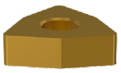
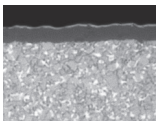
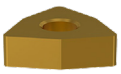
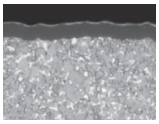
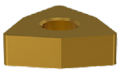
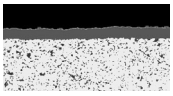


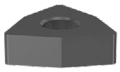
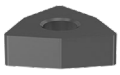
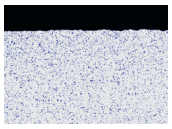
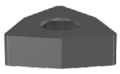
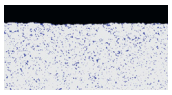
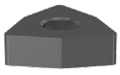
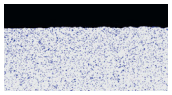
When copying with a D- or T-style High Feed insert, an adjustment must be made for dimensional deviations.

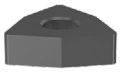
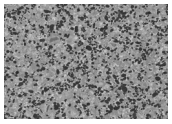
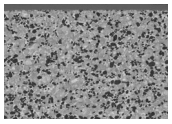
CVD Coated Grades

TP0501			Duratomic® grade. A grade with an extremely high degree of heat and wear resistance for many steel applications such as in alloy steels and especially capable under dry conditions. Also applicable for demanding applications in cast irons. Ti(C,N) + Al_2O_3 + Used Edge Detection (Chrome)
TP1501			Duratomic® grade. Highly heat and wear resistant grade extremely well suited for productive general turning of steels and a useful backup in other material groups. Ti(C,N) + Al_2O_3 + Used Edge Detection (Chrome)
TP2501			Duratomic® grade. Designed with high wear resistance and edge strength applicable in a wide range of turning applications in steels as well as many stainless steels and cast irons. Ti(C,N) + Al_2O_3 + Used Edge Detection (Chrome)
TP3501			Duratomic® grade. Enhanced edge toughness still with the characteristic high wear resistance intended for versatile performance in turning applications in steels as well as stainless steels especially including interrupted cuts. Ti(C,N) + Al_2O_3 + Used Edge Detection (Chrome)
TP25			Universal grade for high versatile performance over a wide range of applications in steels, stainless steels and cast irons. Trustworthy alternative at limited cutting speeds or high surface finish requirements. Ti(C,N) + Al_2O_3 + Used Edge Detection (Chrome)
TP40			Universal grade for a extremely secure performance in the most demanding application from steels, stainless steels to superalloys especially in castings and forgings. TiC/Ti(C,N) + TiN
TH1501			Duratomic® grade. An extremetly hard super micrograin grade intended for machining of partly hardened steels and provides an alternative for cast iron finishing. Ti(C,N) + Al_2O_3 + Used Edge Detection (Chrome)
TM1501			Duratomic® grade. Highly resistant and optimized grade for many continuous cut in stainless steel turning applications. Complements in mixes of steel and stainless steel turning. Ti(C,N) + Al_2O_3 + Used Edge Detection (Chrome)
TM2501			Duratomic® grade. A highly capable grade for austenitic stainless steel turning with combinations of high resistance and superior edge toughness. First choice in austenitic stainless steel turning. Complements in steel turning with heavy intermittent cuts. Ti(C,N) + Al_2O_3 + Used Edge Detection (Chrome)
TM3501			Duratomic® grade. First choice in duplex and more difficult-to-cut stainless steels and highly resistant to notch wear and chipping. Superior in finishing and in intermittent cuts in all stainless steel alloys. Versatile grade, covering a variety of stainless steel alloys and operations. Ti(C,N) + Al_2O_3 + Used Edge Detection (Chrome)

CVD Coated Grades			
TK0501			Duratomic® grade. A extremely wear resistant optimized grade choice for machining of grey cast iron and many ductile cast irons. Ti(C,N) + Al_2O_3 + Used Edge Detection (Chrome)
TK1501			Duratomic® grade. A highly wear resistant grade for cast irons in general as well as in steels. The grade is particularly capable in machining of ductile (nodular) cast irons also in more demanding setups and interrupted cuts. Ti(C,N) + Al_2O_3 + Used Edge Detection (Chrome)

PVD Coated Grades			
TH1000			Very hard supermicrograin grade intended for partly hardened steel components as well as general "hard-to-cut" workpiece materials such as superalloys and due to remarkable edge toughness it also provides high performance in interrupted cuts and hard-surface removal. Ti-Al-Si-N nanolaminate coating
TS2000			Hard micrograin wear resistant grade intended for finishing in superalloys and titanium as well as in many stainless steels. (Ti,Al)N + TiN
TS2050			Hard and wear resistant micrograin grade intended for finishing and semi-finishing of superalloys. Ti-Al-Si-N nanolaminate coating
TS2500			Relatively hard micrograin grade for machining of superalloys and titanium in roughing applications and due to its design also applicable in a wide range of materials such as stainless steels. (Ti,Al)N + TiN
CP200			Hard micrograin grade principally intended for finishing in superalloys and titanium. Also works well in stainless steels. (Ti, Al) N + TiN
CP500			Tough micrograin grade intended for finishing to medium-roughing of stainless steels but with wide applicability for example in steels and aluminium alloys. Especially suitable in intermittent cuts. (Ti,Al)N + TiN
CP600			Very tough micrograin grade intended for stainless steels and steels applicable but generally applicable when ever high edge toughness required e.g. more difficult interrupted cuts. (Ti,Al)N + TiN

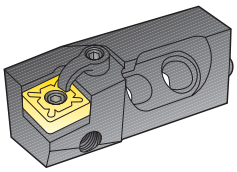
Uncoated Grades			
HX			Universal uncoated grade intended for machining of cast iron and hardened steels useful also in non-ferrous materials.
KX			Optimized micrograin grade intended for the machining of aluminium and other non-ferrous materials.
883			Relatively hard and still tough uncoated micrograin grade for machining of titanium in roughing applications and also suitable for superalloys.
890			High hardness uncoated micrograin grade maintaining good toughness intended for superalloys and titanium can also be applied in other materials.

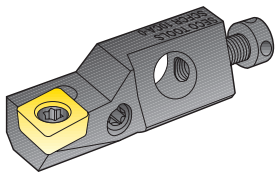
Cermet			
TP1020			High wear resistance cermet grade for highest surface finish with predictability, first of all, in steels and stainless steels.
TP1030			Coated highly wear resistant cermet grade for high surface finish and productivity requirements mainly used in steels and stainless steels. Ti-Al-Si-N nanolaminate coating.

Cartridges – Mounting information

Angular Mount Cartridges

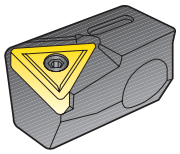
– Conform to ISO-ANSI standards
– Accomodate positive and negative rakes
– Use standard, interchangeable Seco seats and chipbreakers
– Fit any cat-head, boring bar or tool block
– now using ISO-ANSI cartridges
– Allow axial and radial adjustment
– Instant metric/inch conversion with simple substitution of components



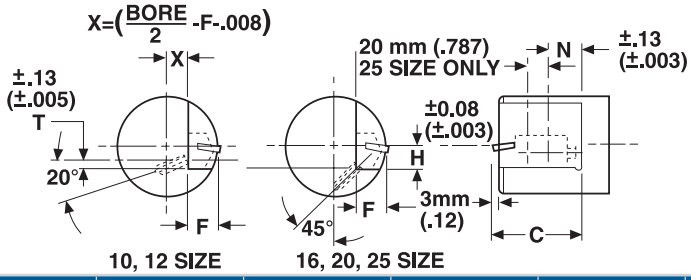


90° Mount Cartridges

– Provide close-tolerance machining with radial and axial adjustments of M and PC types



Mounting Information: ISO-ANSI, Angular Mount Cartridges



Cartridge size Metric Std.	Cartridge size Inch Std.	C mm/inch	F mm/inch	H mm/inch	T mm/inch	N mm/inch	Hold Down Screw Metric Std.	Hold Down Screw Inch Std.
10	39	50 / 1.968	14 / .551	10 / .394	5 / .196	20 / .787	M6 (Low Hd.)	1/4 (Low Hd.)
12	47	55 / 2.165	20 / .787	12 / .472	6 / .236	20 / .787	M6	1/4
16	63	63 / 2.480	24 / .945	16 / .630	–	25 / .984	M8	5/16
20	79	70 / 2.756	25 / .984	20 / .787	–	30 / 1.181	M8	5/16
25	98	100 / 3.937	32 / 1.260	25 / .984	–	30 / 1.181	M10 (2)	3/8 (2)

Cartridge Reference Guide

Cartridges are stocked with metric parts as standard.
Components with inch drives are available as optional spare parts.
See substitution charts below.

Lock Pins Metric (standard)	Lock Pins Inch (optional)	Clamp Screws Metric (standard)	Clamp Screws Inch (optional)	Rad. Adj. Screws Metric (standard)	Rad. Adj. Screws Inch (optional)
NLM-23	NLC-23	XNSM-0515	XNSC-0515	SASM-0406	SASC-0406
NLM-33	NLC-33	XNSM-0620	XNSC-0620	SASM-0412	SASC-0412
NLM-34L	NLC-34L	XNSM-0825	XNSC-0825	SASM-0516	SASC-0516
NLM-43	NLC-43			SASM-0620	SASC-0620
NLM-46S	NLC-46S			SASM-0820	SASC-0820
NLM-54	NLC-54				
NLM-58	NLC-58				
NLM-68	NLC-68				

Railway wheels – Introduction

Turning – New railway wheels

The product range consists of:

– Inserts for finish machining RCMT-R3 and RCMX-R3 geometries
– Inserts for rough machining RR93, H-RR93 & RR94 geometries
– Inserts for heavy roughing at high feed rate RR97 geometry
– Solid PRDCN toolholders up to 50x50 shank
– Seco-Capto™ custom made toolholders

R3

Stong geometries for finishing and semi finishing at high feet rates



RCMX-R3



RCMT-R3

Feed recommendation: 0,5-1,2 mm/rev / *0.002-0.047 in/rev*
D.O.C. recommendation: a_p < 5 mm / *0.197 inch*

RR94, RR93

Stong geometries for medium machining and roughing at high feet rates



RCMX-RR94



RCMX-RR93



RCMX-H-RR93

Feed recommendation: 0,6-1,4 mm/rev / *0.024-0.055 in/rev*
D.O.C. recommendation: a_p < 12 mm / *0.472 inch*

RCMX-RR97

Strong geometries for machining at high feed rates.



Feed recommendation: 0,6-1,5 mm/rev / *0.024-0.059 in/rev*
D.O.C. recommendation: a_p < 15 mm / *0.591 inch*

SNMM-R7

For roughing operations at high feed rates and large depth of cut.



Feed recommendation: 0,6-1,2 mm/rev / *0.024-0.047 in/rev*
D.O.C. recommendation: a_p < 15 mm / *0.591 inch*

R3, RR93 geometries with the chipbreaker grooves and bumps improves the chipbreaking.
Seco dedicated Duratomic® grades improves the performance.

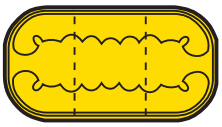
Railway wheel re-turning

The product range consists of:

– Inserts for finish machining MF and R2 geometries
– Inserts for medium rough machining RR94 geometry
– Inserts for rough machining MR and RR97 geometries
– Edge strength order R2-MF-RR94-MR-RR97
– Cassettes for railway wheel re-turning RWRT

LNMX-MF

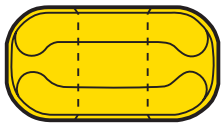
For re-machining at small depth of cut. (Normally used when machining with an under floor lathe.)



Feed recommendation: 0,4-1,0 mm/rev / *0.016-0.039 in/rev*
D.O.C. recommendation: ap < 10 mm / *0.394 inch*

LNMX-MR

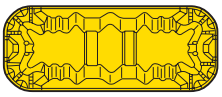
Basic choice for re-machining.



Feed recommendation: 0,6-2,0 mm/rev / *0.024-0.079 in/rev*
D.O.C. recommendation: ap < 15 mm / *0.591 inch*

LNMX-R2

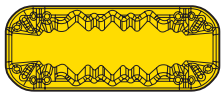
R2 – for less worn out, soft wheels for best chip control.



Feed recommendation: 0,40-1,10 mm/rev / *0.016-0.043 in/rev*
D.O.C. recommendation: ap = 2-5 mm / *0.079-0.197 inch*

LNMX-RR94

RR94 – for the moderately damaged wheels.



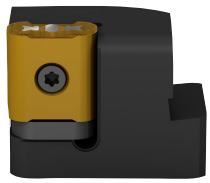
D.O.C. and feed recommendation:
LNMX19, ap = 2-5 mm / *0.079-0.197 inch*; f = 0,45-1,40 mm/rev / *0.018-0.055 in/rev*
LNMX30, ap = 2-10 mm / *0.079-0.394 inch*; f = 0,55-1,80 mm/rev / *0.022-0.071 in/rev*

Cassettes for railway wheel re-turning RWRT

Standard products

CT-PLANR/L (R/L175.32)

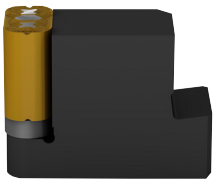
Pin clamped cassettes for LNMX19 and LNMX30



Right-hand version shown

CT-PLFNR/L (R/L177.32-3219-19)

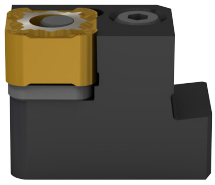
Pin clamped cassettes for LNMX19 and LNMX30



Right-hand version shown

CT-PSANR/L

Lever clamped cassettes for SNMX1911



Right-hand version shown

The cassettes are equipped with carbide shims for insert support and cassette protection.
The toolholders for these cassettes are machine specific. The combination cassettes are also machine specific. Some of them are offered as specials.

Selection of insert format – PCBN

Insert grades – PCBN

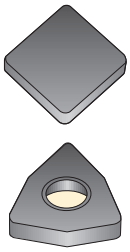
Uncoated:

CBN010
CBN150
CBN170
CBN200
CBN300
CBN500
CBN600

PVD coated grades:

CH0550
CH1050
CBN060K
CH2540
CH2581
CH3515
CBN300P
CK2065
CBN400C

Solid insert



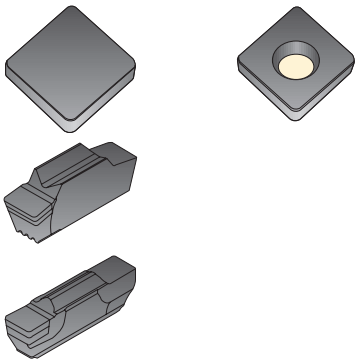
According to the geometry, two sides can be used.

Grades:
CH0550, CBN060K, CH2540, CBN300P, CK2065, CBN400C, CBN010, CBN150, CBN170, CBN200, CBN300, CBN500, CBN600, CH1050, CH2581

Toolholder styles:
D, P, C and M

CBN060K and CBN300 are also, in some geometries, available with hole.

Sintered layer insert -LF



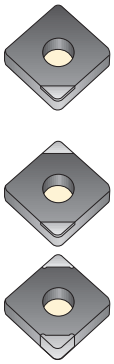
CBN layer sintered on to carbide. One side is usable.

Grades:
CBN060K, CH3515, CBN010, CBN200

Toolholder styles:
S, C and M

MDT
Grades:
CBN010, CBN170, CBN200

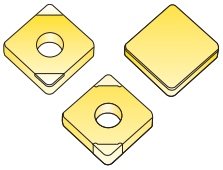
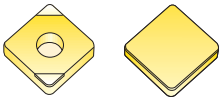
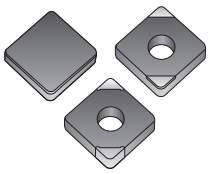
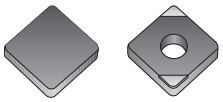
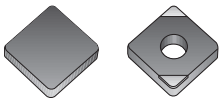
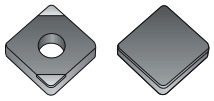
Brazed tip insert -L1 (single and double sided) and -L2

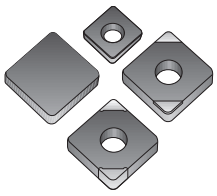
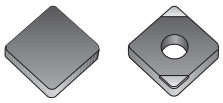
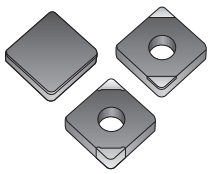
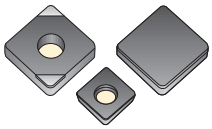
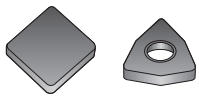


CBN brazed onto standard carbide inserts.

Grades:
CH0550, CBN060K, CH2540, CH3515, CBN010, CBN150, CBN170, CBN200, CH1050, CH2581

Toolholder styles:
D, P, S and M

PCBN grades, coated		
CH0550		Format: Solid & brazed tips (single & double sided). Composition: 40% cBN bi-modal grain size distribution with average grain size of 3 µm and a TiCN ceramic binder. Coating: (Ti, Al, Cr)N coating
CH1050		Format: Solid & brazed tips (single sided). Composition: 55% cBN average grain size 2 µm and TiCN ceramic binder Coating: (Ti, Al, Cr)N coating
CBN060K		Format: Solid & brazed tips (single & double sided). Composition: 60% cBN content grade with an average grain size of 1-2 µm and a TiCN ceramic binder. Coating: (Ti, Al, Si)N coating.
CH2540		Format: Solid & brazed tips (single sided). Composition: 65% cBN bi-modal grain size distribution with average grain size of 6 µm and a TiCN ceramic binder. Coating: (Ti, Si)N coating.
CH2581		Format: Solid & brazed tips (single sided). Composition: 75% cBN average grain size 3-4 µm and TiCN ceramic binder. Coating: TiAlN coating.
CH3515		Format: Full-face layer & brazed tips (single sided). Composition: 90% cBN average grain size of 4 µm and a AlN ceramic binder. Coating: (Ti, Al)N coating.
CBN300P		Format: Solid. Composition: 90% cBN content grade with an average grain size of 22 µm and a Al ceramic binder. Coating: (Ti, Al)N coating.
CK2065		Format: Solid Composition: 90% cBN content grade with an average grain size of 22 µm and a Al ceramic binder. Coating: Wear detection coating
CBN400C		Format: Solid. Composition: 90% cBN content grade with an average grain size of 3-6 µm and a Al ceramic binder. Coating: (Ti, Si)N coating.

PCBN grades, uncoated		
CBN010		Format: Solid, full-face layer and brazed tips (single & double sided). Composition: 50% cBN content grade with an average grain size of 2 µm and a TiC ceramic binder. Coating: No coating.
CBN150		Format: Solid and brazed tips (single sided). Composition: 45% cBN content grade with an average grain size of < 1 µm and a TiCN ceramic binder. Coating: No coating.
CBN170		Format: Solid and brazed tips (single & double sided). Composition: 65% cBN content grade with an average grain size of 2 µm and a TiCN+SiCw ceramic binder. Coating: No coating.
CBN200		Format: Full-face layer and brazed tips (single sided). Composition: 85% cBN content grade with an average grain size of 2 µm and a Co-W-Al ceramic binder. Coating: No coating.
CBN200		Format: Solid. Composition: 90% cBN content grade with an average grain size of 3-6 µm and a Al ceramic binder. Coating: No coating.
CBN300		Format: Solid. Composition: 90% cBN content grade with an average grain size of 22 µm and a Al ceramic binder. Coating: No coating.
CBN500		Format: Solid. Composition: 90% cBN content grade with an average grain size of 15 µm and a Al ceramic binder. Coating: No coating.
CBN600		Format: Solid. Composition: 90% cBN content grade with multi modal grain size and Al ceramic binding. Coating: No coating.

PCBN High Feed Wiper inserts – Introduction

The surface finish in a turning operation is affected by a great number of factors. Two of the most important factors are feed rate and the size of the corner radius. A relation commonly used in industry when choosing relevant cutting data regarding feed and surface finish, is that R_a roughly can be said to increase with the square of the feed rate and decrease with increased size of the corner radius. At least this was the case before the development of wiper geometries designed for high feed finishing, which is now gaining popularity in the metalworking industry. Wiper geometries changed this relationship with the capability to generate high surface finishes even at higher feed rates.

Seco High Feed Wiper inserts combine the high feed capability and high quality surface finish given by large round inserts and the low cutting forces and flexibility permitted by sharp pointed inserts. This can be achieved by the fact that the main part of the radial cutting force is generated by the main cutting edge. By transferring a small part of the round insert edges into the straight cutting edges of the pointed insert, an insert design adjusted for high feed machining producing superior surface finish is achieved.

General hints

– Use a High Feed Wiper insert to increase the feed without sacrificing surface finish, relative to conventional insert geometries.

– Use a High Feed Wiper insert to eliminate grinding operations. In many cases it is possible to obtain surface finishes and dimensional tolerances previously only possible with a final grinding operation.

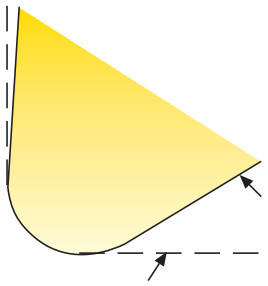
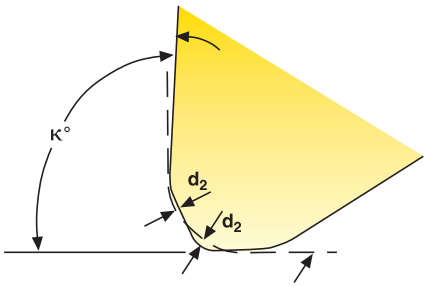
Seco has four different types of wiper geometries designed for optimum performance in different applications:

– Conventional wiper	-WZ
– Crossbill™ wiper	-L-WZ and -R-WZ
– Helix™ wiper	-WZN and -WZP
– Long/short wiper	-WL/-WS

Conventional PCBN High Feed Wiper inserts

A conventional High Feed Wiper insert consists of a large radius added to the insert outside the nose radius. This wiper segment is added on both sides of the nose radius, allowing for turning left or right.

The Seco range of conventional High Feed Wiper products include all commonly used inserts shapes.

Standard insert	PCBN High Feed Wiper insert
	
Standard insert-profile (Nominal nose radius)	Standard insert-profile (Nominal nose radius)

Seco Crossbill™ High Feed Wiper insert

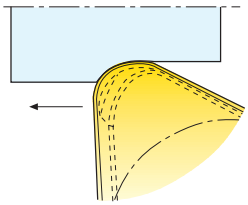
A deviation from the normal radius shape will always occur when a standard wiper geometry is used to machine towards a corner/face.

The Crossbill High Feed Wiper insert gives the opportunity to produce a radius without deviation from the normal shape and without losing the advantages from a standard High Feed Wiper insert.

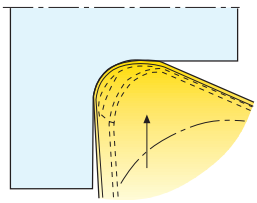
The Seco Crossbill™ High Feed Wiper inserts are available in PCBN grade CBN010 and CBN060K.

Design/Function

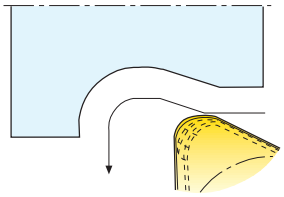
Axial turning (full wiper effect)



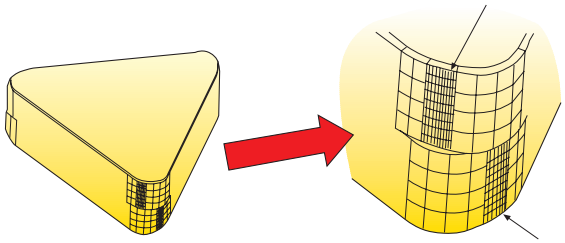
Facing (no wiper effect)



Copying (no deviation forming a radius)



Right-hand version



Wiper segment

Wiper segment

Seco Helix™ High Feed Wiper insert

Our unique patented, Helix™ High Feed Wiper concept is designed for optimization in finish machining. It has a wiper on both sides of the corner radii (as the standard) but the protection chamfer is twisted from negative to positive or from positive to negative depending on the application.

It is available in grade CH0550, CBN060K and CBN010.

Design/Function

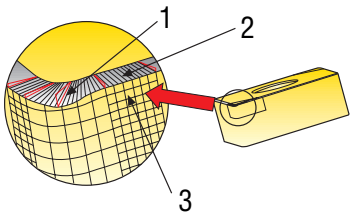
The following considerations apply when selecting the appropriate geometry:

Positive Wiper, WZP

– Reducing vibrations in weak set-ups

– Lower radial cutting forces

– Used where standard wiper cannot be used



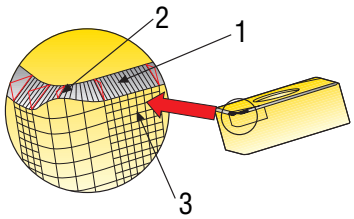
1. Big angle
2. Small angle
3. Wiper section

Negative Wiper, WZN

– Longer tool life

– Reducing vibrations in stable set-ups

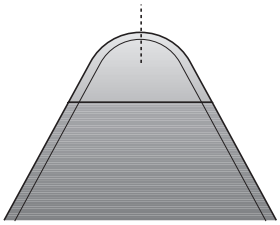
– Increasing compressive stresses

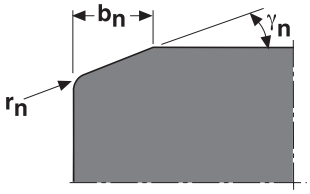


1. Big angle
2. Small angle
3. Wiper section

PCBN – Edge preparation

Edge preparation





b_n = Chamfer width
γ_n = Chamfer angle
r_n = Hone radius

Geometry recommendations

Strong cutting edge geometries are always preferred.
– Negative cutting geometry
– Chamfered cutting edge
– Large nose radius

Sharp positive cutting edge geometry can be advantageous when:
– Finishing of small hardened bores without interruptions
– Finishing of unstable components without interruptions
– Finishing of pearlitic grey cast iron

PCBN – Geometry

Edge preparation		
E	=	Honed
E25	=	Extra honed, intended for Nickel-based superalloys
S	=	Chamfered and honed
S25	=	Chamfered and extra honed intended for PM material
WZ	=	High Feed (Wiper) geometry
WZP	=	High Feed (Wiper) geometry Positive
WZN	=	High Feed (Wiper) geometry Negative
WL	=	High Feed (Wiper) geometry
WS	=	High Feed (Wiper) geometry

Design		
LF	=	Complete top layer (full faced)
B	=	Brazed tips (single sided), Insert geometry C, D and V
C	=	Brazed tips (single sided), Insert geometry T and W
D	=	Brazed tips (single sided), Insert geometry S
U	=	Brazed tips (double sided), Insert geometry C, D and V
V	=	Brazed tips (double sided), Insert geometry T and W

Chamfer size and angle Solid CBN inserts		
CH0550	=	0,15 mm x 25°
CH1050	=	0,15 mm x 25°
CBN060K	=	0,15 mm x 25°
CH2540	=	0,15 mm x 25°
CH2581	=	0,15 mm x 25°
CK2065	=	0,20 mm x 20°
CBN400C	=	0,20 mm x 20°
CBN010	=	0,10 mm x 20°
CBN150	=	0,15 mm x 25°
CBN200	=	0,20 mm x 20°
CBN300	=	0,20 mm x 20°
CBN500	=	0,20 mm x 20°
CBN600	=	0,20 mm x 20°
S-04015	=	0,40 mm x 15°
X-05015	=	0,50 mm x 15°

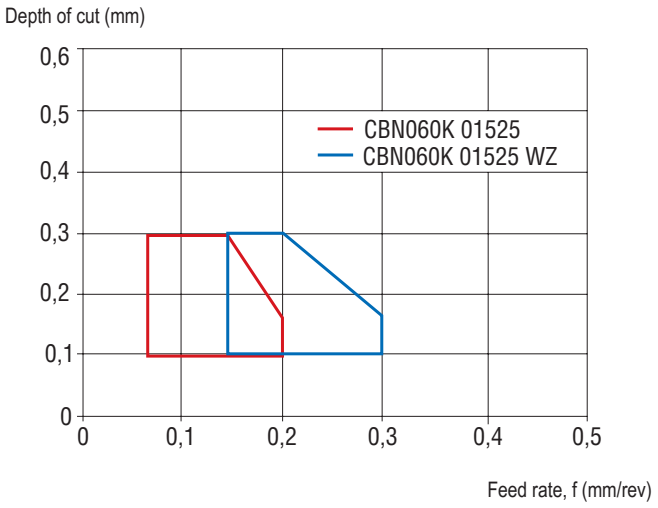
Chamfer size and angle Brazed & full faced CBN inserts			
CH0550, CH1050	L1	=	0,15 mm x 25°
CBN060K	L1	=	0,10 mm x 15°
	L1	=	0,15 mm x 25°
	L1	=	0,20 mm x 35°
CH2540, CH2581	L1	=	0,15 mm x 25°
CH3515	L1	=	0,05 mm x 40°
	L1	=	0,20 mm x 20°
	LF	=	0,20 mm x 20°
CBN010	L1	=	0,10 mm x 20°
	L2	=	0,20 mm x 20°
	LF	=	0,10 mm x 20°
	LF-MDT	=	0,10 mm x 25°
CBN200	L1	=	0,20 mm x 20° (L1-WZ = 0,10mm x 20°)
	L2	=	0,20 mm x 20°
	LF	=	0,20 mm x 20°
	LF-MDT	=	0,10 mm x 25°
	X4	=	0,10 mm x 20°
CBN150	L1	=	0,15 mm x 25° (positive C-lock inserts, 0,10 mm x 20°)
	LF	=	0,15 mm x 25°

PCBN Chipbreaker inserts

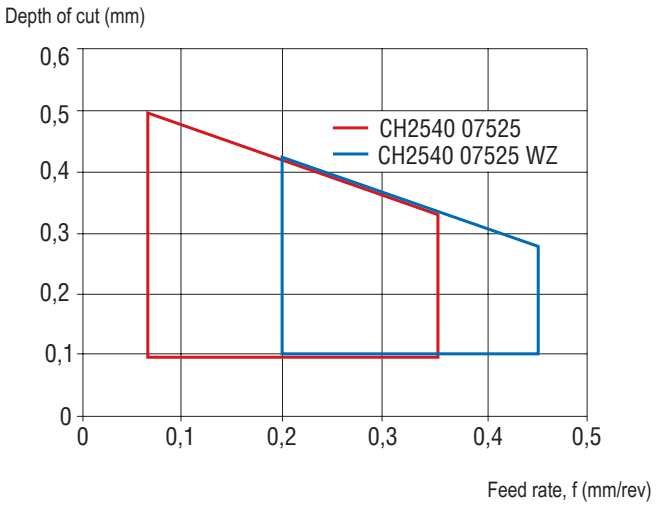
The laser machined chipbreaker comes in two different styles, one for low and one for high feed applications. The non-wiper Secomax™ chipbreaker insert makes it possible to have good chip control when low feed rates are used. The wiper Secomax™ chipbreaker insert provides improved chip control when using high feed rates.

Secomax PCBN, non-wiper and wiper chipbreaker inserts

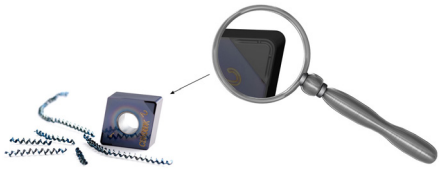
Application area grade CBN060K



Application area grade CH2540



Laser machining provides several benefi ts over conventional production technologies such as grinding. Laser technology meets the highest requirements regarding dimensional accuracy, geometrical precision and surface quality for the machining of complex, three-dimensional geometries. These advantages and possibilities have led to a complex formed chipbreaker with “bumps” that would have been impossible to produce with any other production technology.



Plunge Turning

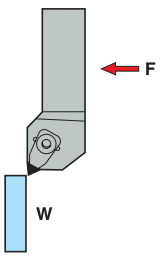
The vast majority of heat treated components in the metalworking industry are machined to their final geometrical form after hardening.

Seco have developed a method in hard turning, the Seco patented Plunge Turning.

The plunging process consists of an orthogonal cut, using the solid CBN010, CBN150, CBN060K, CH0550, CH1050, CH2540, CH2581.

Using the Plunge Turning method gives two great advantages compared to conventional hard turning, reduction in cutting time (up to 90%) and improved surface integrity.

Conventional Turning



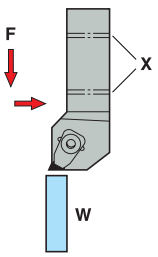
F = Feed direction
W = Workpiece

Cutting time 5 seconds

General cutting data recommendation for Plunge Turning is v_c = 200-400 m/min / *656-1312 sfm* and f = 0,04 mm/rev / *0.0016 in/rev*.

To avoid the cutting edge profile affecting surface finish, complete the operation with a small axial movement.

Plunge Turning



F = Feed direction
W = Workpiece
X = Set screws

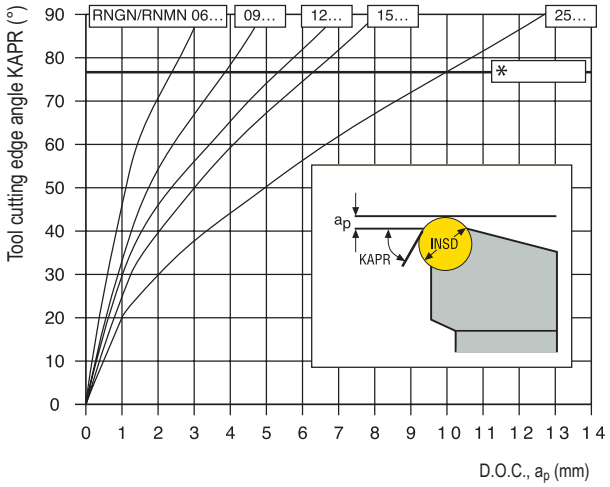
Cutting time 0,5 seconds

In addition to the introduction of the Plunge Turning method there are also some standard toolholders. These toolholders have set screws which give the possibility to adjust the toolholder to an exact setting angle. The toolholders have a designation ending with – PL, and are available for inserts in sizes T..11 and T..16.

Maximum depth of cut recommendations

Round inserts

Round inserts



* = KAPR limited
The tool cutting edge angle is limited to 75° resulting in maximum depth of cut (a_p).

Max. D.O.C. a_p mm / *inch*	Number of usable cutting edges/side at 80% utilization		
	R...06	R...09	R...12
0,10 / *0.0039*	20	24	–
0,15 / *0.0059*	16	20	23
0,20 / *0.008*	14	17	20
0,25 / *0.010*	12	15	18
0,30 / *0.012*	11	14	16
0,40 / *0.016*	10	12	14
0,50 / *0.020*	8	10	12
0,80 / *0.032*	7	8	10
1,00 / *0.040*	6	7	9
1,20 / *0.047*	5	7	8
1,50 / *0.060*	5	6	7
1,80 / *0.071*	4	5	6
2,00 / *0.080*	4	5	6
2,50 / *0.098*	3	4	5
3,00 / *0.120*	3	4	5
3,50 / *0.140*	–	4	4
4,00 / *0.160*	–	3	4
4,50 / *0.177*	–	–	4
5,00 / *0.200*	–	–	3

Other inserts

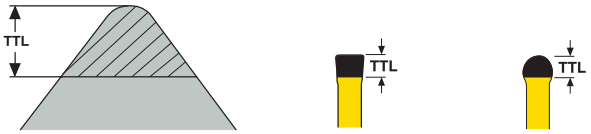
Type	Grade	Depth of cut a_p mm / *inch*
L1	CH0550	0,5 / 0.02
	CH1050	0,5 / 0.02
	CBN060K	0,5 / 0.02
	CH2540	0,5 / 0.02
	CH2581	1,0 / 0.04
	CH3515	1,0 / 0.04
	CBN170	0,5 / 0.02
	CBN010	0,5 / 0.02
	CBN150	0,5 / 0.02
	CBN200	1,0 / 0.04
L2	CBN010	0,5 / 0.02
LF	CBN010	0,5 / 0.02
	CBN150	0,5 / 0.02
	CBN200	30% of cutting edge length
	CH3515	30% of cutting edge length
Solid	CH0550	0,5 / 0.02
	CH1050	0,5 / 0.02
	CBN060K	0,5 / 0.02
	CH2540	0,5 / 0.02
	CH2581	1,0 / 0.04
	CBN010	0,5 / 0.02
	CBN150	0,5 / 0.02
	CK2065	30% of cutting edge length
	CBN200	30% of cutting edge length
	CBN300	30% of cutting edge length
	CBN400C	30% of cutting edge length
	CBN500	30% of cutting edge length
	CBN600	30% of cutting edge length

MDT Type		Grade	Max. D.O.C. a_p mm / *inch*
	-LF	CBN010	0,5 / 0.02
		CBN170	0,5 / 0.02
		CBN200	0,5 / 0.02
	M0-LF	CBN010	1,5 / 0.06
		CBN170	1,5 / 0.06
		CBN200	1,5 / 0.06

True tip length (TTL) in mm / *inch* per nose radius (RE) and tip type

Insert shape	Nose angle	RE = 0,2 / *0.008*		RE = 0,4 / *0.016*		RE = 0,8 / *0.032*		RE = 1,2 / *0.047*		RE = 1,6 / *0.063*		RE = 2,0 / *0.080*	
		L1	L2	L1	L2	L1	L2	L1	L2	L1	L2	L1	L2
C	80°	–	–	2,7 / *0.106*	–	2,4 / *0.094*	–	2,2 / *0.085*	–	–	–	–	–
D	55°	3,5 / *0.140*	–	3,2 / *0.126*	–	2,7 / *0.106*	–	2,2 / *0.085*	–	–	–	–	–
S	90°	–	–	–	–	2,2 / *0.085*	–	–	–	–	–	–	–
T	60°	–	–	2,6 / *0.100*	–	2,2 / *0.085*	–	1,8 / *0.071*	–	1,4 / *0.055*	–	1,8 / *0.071*	–
V	35°	4,4 / *0.173*	–	3,7 / *0.146*	5,1 / *0.201*	2,8 / *0.110*	4,2 / *0.165*	–	–	–	–	–	–
W	80°	–	–	–	–	2,2 / *0.085*	–	1,9 / *0.075*	–	–	–	–	–

MDT size	..-LF	..M0-LF
LC..13..	2,3 / *0.091*	2,4 / *0.094*
LC..1304..	2,4 / *0.094*	2,4 / *0.094*
LC 1603..	2,5 / *0.098*	2,5 / *0.098*
LC 1604..	2,5 / *0.098*	3,1 /*0.122*
LC 1605..	2,8 / *0.110*	3,0 / *0.120*
LC 1606..	3,2 / *0.126*	3,0 / *0.120*



PCBN, SMG

Cast Irons

SMG	Description	Reference	Recommendations
K1	Grey cast irons (GCI)	EN-GJL-250	First choice in dry machining: CBN300. Universal option: CBN600. First choice when coolant is used: CBN200. First choice for finish machining: CBN400C. Adjust the depth of cut to get under the casting skin and blow holes.
K4	Nodular cast irons (SGI)	EN-GJS-500-7	First choice for finish machining: CBN010.

Superalloys and Titanium

SMG	Description	Reference	Recommendations
S1	Iron-based superalloys	Discalloy	First choice for finish machining: CBN010 with E25 edge preparation. Use coolant.
S2	Cobalt-based superalloys	Stellite 21	First choice for finish machining: CBN010 with E25 edge preparation. Use coolant.
S3	Nickel-based superalloys	Inconel 718	PCBN tools can be used on Inconel 718 with following properties. Solution annealed + age hardened Direct age hardened Hardness 32 – 44 Hrc First choice for finish machining: CBN170. Use coolant.

Hard Materials

SMG	Description	Reference	Recommendations
H3	Case-hardened steels	16 MnCr 5 60 HRC	Dry machining is preferable. Coolant can be used. The chips should be fully annealed and brittle. First choice for finish machining: CH0550/CH1050. Universal grade for finish machining: CBN010. For high surface finish requirements, use CBN150/ CH1050. **In interrupted machining:** Moderate interruptions, use CBN060K/CBN010/CH2540. Aggressive interruptions, use CH2581/CH3515/CBN150. Reduce the feed rate. Machine without coolant. If possible, chamfer any sharp edges of the workpiece before machining.
H7	Quenched & Tempered steels Bearing steels	100 Cr 6 60 HRC	Dry machining is preferable. Coolant can be used. The chips should be fully annealed and brittle. First choice for finish machining: CBN060K/CH1050. Universal grade for finish machining: CBN010. For rough machining, use CBN200/CBN300. For high surface finish requirements, use CH1050. **In interrupted machining:** Moderate interruptions, use CBN060K/CBN010/CH2540. Aggressive interruptions, use CH2581/CH3515/CBN150. Reduce the feed rate. Machine without coolant. If possible, chamfer any sharp edges of the workpiece before machining.
H8	Tool steels High Speed Steels (HSS)	X 40 CrMoV 5 1 50 HRC	First choice for finish machining: CBN010. First choice for rough machining: CBN200. Interrupted machining of high speed steels can not be done.
H11	Martensitic stainless steels	X 20 Cr 13 45 HRC	First choice for finish machining: CBN010. First choice for rough machining: CBN300. **In interrupted machining:** Moderate interruptions, use CBN010. Aggressive interruptions, use CH2540/CH3515/CBN150.
H21	Manganese steels	X 120 Mn 12 50 HRC	First choice CBN300. When a tougher grade is needed use CBN500. Use chamfered inserts. Use stable toolholder and rigid clamping of the workpiece. Machine without coolant. Chamfer workpiece edges first.
H31	White cast irons	EN-GJN-HV600(XCr11) 55 HRC	Use CBN500 or when centerlock inserts are used CBN200. Universal option: CBN600. Adjust the depth of cut to get under the casting skin and blow holes. Dry machining is preferable.

Other Difficult Materials

SMG	Description	Reference	Recommendations
PM1	Low-alloy PM-materials	F-0008 Fe-0.7C	PCBN tools can be used on PM parts as soft as 25 HRC. The critical parameter is particle hardness, when the particle hardness exceeds 50 HRC, PCBN is useful, no matter what the bulk hardness is. First choice CBN200. Second choice CH3515. For rough machining CBN300 is an alternative. Use chamfered inserts, S25 edge preparation. Do not use coolant for interrupted cut.
PM2	Medium-alloy PM-materials	FLC-4608 Fe2Cu1.8Ni 0.5Mo0.2Mn0.8C	PCBN tools can be used on PM parts as soft as 25 HRC. The critical parameter is particle hardness, when the particle hardness exceeds 50 HRC, PCBN is useful, no matter what the bulk hardness is. First choice CBN200. Second choice CH3515. For rough machining CBN300 is an alternative. Use chamfered inserts, S25 edge preparation. Do not use coolant for interrupted cut.
PM3	High-alloy PM-materials Exhaust valve seat materials, etc.		First choice CBN150. Second choice CBN010. Use positive inserts. Use chamfered and honed edges for longer tool life. Use honed edges when tight tolerances are required. Machining can be carried out either with or without coolant.
HF1	Hardfacing alloys Welded or plasma-deposited iron-based alloys		Cr-based alloys – Hardness <60 HRC. Co-based alloys – Hardness >35 HRC. Ni-based alloys – Hardness >35 HRC. Fe-based alloys – Hardness >35 HRC. First choice for finish machining: CBN010. First choice for rough machining: CBN500, or when centerlock inserts are used: CBN200. Use round inserts if possible. Use chamfered inserts. Adjust the depth of cut to get under the welding skin and blow holes. Dry machining is preferable. Remove any weld spatter before machining.
HF2	Hardfacing alloys Welded or plasma-deposited cobalt- and nickel-based alloys		Cr-based alloys – Hardness <60 HRC. Co-based alloys – Hardness >35 HRC. Ni-based alloys – Hardness >35 HRC. Fe-based alloys – Hardness >35 HRC. First choice for finish machining: CBN010. First choice for rough machining: CBN500, or when centerlock inserts are used: CBN200. Use round inserts if possible. Use chamfered inserts. Adjust the depth of cut to get under the welding skin and blow holes. Dry machining is preferable. Remove any weld spatter before machining.
CC1	Sintered tungsten carbide	G50	Sintered tungsten carbide with a Co content >17%. **Basic conditions:** Use CBN300. When a tougher grade is needed use CBN500. Use round inserts. Use chamfered inserts. Machining with coolant is preferable. Chamfer the workpiece at entry and exit.

PCBN, Finishing a_p < 0,5 mm / *0.020 Inch*

SMG	CH0550		CH1050		CBN060K		CH2540		CH2581		CH3515	
	v_c	f	v_c	f	v_c	f	v_c	f	v_c	f	v_c	f
K1	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	500 — 1000 *1700 — 3200*	0,10 — 0,60 *0.00394 — 0.0236*
K4	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —
H3	110 — 300 *370 — 980*	0,050 — 0,30 *0.00197 — 0.0118*	110 — 250 *370 — 820*	0,050 — 0,35 *0.00197 — 0.0137*	110 — 250 *370 — 820*	0,050 — 0,35 *0.00197 — 0.0137*	120 — 230 *400 — 750*	0,050 — 0,35 *0.00197 — 0.0137*	120 — 230 *400 — 750*	0,050 — 0,35 *0.00197 — 0.0137*	91 — 200 *300 — 650*	0,050 — 0,35 *0.00197 — 0.0137*
H5	110 — 250 *370 — 820*	0,050 — 0,30 *0.00197 — 0.0118*	110 — 220 *370 — 720*	0,050 — 0,35 *0.00197 — 0.0137*	110 — 220 *370 — 720*	0,050 — 0,35 *0.00197 — 0.0137*	120 — 200 *400 — 650*	0,050 — 0,35 *0.00197 — 0.0137*	120 — 200 *400 — 650*	0,050 — 0,35 *0.00197 — 0.0137*	91 — 180 *300 — 590*	0,050 — 0,35 *0.00197 — 0.0137*
H7	110 — 230 *370 — 750*	0,050 — 0,30 *0.00197 — 0.0118*	110 — 200 *370 — 650*	0,050 — 0,35 *0.00197 — 0.0137*	110 — 200 *370 — 650*	0,050 — 0,35 *0.00197 — 0.0137*	120 — 180 *400 — 590*	0,050 — 0,35 *0.00197 — 0.0137*	120 — 180 *400 — 590*	0,050 — 0,35 *0.00197 — 0.0137*	91 — 170 *300 — 550*	0,050 — 0,35 *0.00197 — 0.0137*
H8	91 — 180 *300 — 590*	0,050 — 0,30 *0.00197 — 0.0118*	81 — 170 *270 — 550*	0,050 — 0,35 *0.00197 — 0.0137*	81 — 170 *270 — 550*	0,050 — 0,35 *0.00197 — 0.0137*	91 — 160 *300 — 520*	0,050 — 0,35 *0.00197 — 0.0137*	91 — 160 *300 — 520*	0,050 — 0,35 *0.00197 — 0.0137*	71 — 150 *240 — 490*	0,050 — 0,35 *0.00197 — 0.0137*
H11	81 — 170 *270 — 550*	0,050 — 0,30 *0.00197 — 0.0118*	71 — 160 *240 — 520*	0,050 — 0,35 *0.00197 — 0.0137*	71 — 160 *240 — 520*	0,050 — 0,35 *0.00197 — 0.0137*	81 — 150 *270 — 490*	0,050 — 0,35 *0.00197 — 0.0137*	81 — 150 *270 — 490*	0,050 — 0,35 *0.00197 — 0.0137*	— —	— —
PM1	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	100 — 250 *330 — 820*	0,050 — 0,30 *0.00197 — 0.0118*
PM2	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	100 — 220 *330 — 720*	0,050 — 0,30 *0.00197 — 0.0118*
PM3	100 — 170 *330 — 550*	0,050 — 0,15 *0.00197 — 0.00590*	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —
HF1	— —	— —	— —	— —	— —	— —	50 — 150 *170 — 490*	0,050 — 0,20 *0.00197 — 0.00787*	50 — 150 *170 — 490*	0,050 — 0,20 *0.00197 — 0.00787*	— —	— —
HF2	— —	— —	— —	— —	— —	— —	100 — 200 *330 — 650*	0,050 — 0,20 *0.00197 — 0.00787*	100 — 200 *330 — 650*	0,050 — 0,20 *0.00197 — 0.00787*	— —	— —

PCBN, Finishing a_p < 0,5 mm / *0.020 Inch*

SMG	CBN010		CBN150		CBN170		CBN200	
	v_c	f	v_c	f	v_c	f	v_c	f
K1	— —	— —	— —	— —	— —	— —	500 — 1000 *1700 — 3200*	0,10 — 0,60 *0.00394 — 0.0236*
K4	140 — 240 *460 — 780*	0,050 — 0,20 *0.00197 — 0.00787*	140 — 240 *460 — 780*	0,050 — 0,20 *0.00197 — 0.00787*	— —	— —	— —	— —
S1	70 — 140 *230 — 450*	0,050 — 0,30 *0.00197 — 0.0118*	— —	— —	120 — 220 *400 — 720*	0,050 — 0,25 *0.00197 — 0.00984*	— —	— —
S2	— —	— —	— —	— —	— —	— —	40 — 60 *140 — 190*	0,050 — 0,15 *0.00197 — 0.00590*
S3	100 — 240 *330 — 780*	0,050 — 0,25 *0.00197 — 0.00984*	— —	— —	120 — 280 *400 — 910*	0,050 — 0,25 *0.00197 — 0.00984*	— —	— —
H3	80 — 200 *270 — 650*	0,050 — 0,35 *0.00197 — 0.0137*	70 — 180 *230 — 590*	0,050 — 0,35 *0.00197 — 0.0137*	— —	— —	— —	— —
H5	80 — 190 *270 — 620*	0,050 — 0,35 *0.00197 — 0.0137*	70 — 170 *230 — 550*	0,050 — 0,35 *0.00197 — 0.0137*	— —	— —	— —	— —
H7	80 — 180 *270 — 590*	0,050 — 0,35 *0.00197 — 0.0137*	70 — 160 *230 — 520*	0,050 — 0,35 *0.00197 — 0.0137*	— —	— —	— —	— —
H8	70 — 170 *230 — 550*	0,050 — 0,35 *0.00197 — 0.0137*	60 — 150 *200 — 490*	0,050 — 0,35 *0.00197 — 0.0137*	— —	— —	— —	— —
H11	70 — 160 *230 — 520*	0,050 — 0,35 *0.00197 — 0.0137*	60 — 140 *200 — 450*	0,050 — 0,35 *0.00197 — 0.0137*	— —	— —	— —	— —
PM1	— —	— —	— —	— —	— —	— —	100 — 220 *330 — 720*	0,050 — 0,30 *0.00197 — 0.0118*
PM2	— —	— —	— —	— —	— —	— —	90 — 200 *300 — 650*	0,050 — 0,30 *0.00197 — 0.0118*
PM3	80 — 170 *270 — 550*	0,050 — 0,15 *0.00197 — 0.00590*	80 — 150 *270 — 490*	0,050 — 0,15 *0.00197 — 0.00590*	— —	— —	— —	— —
HF1	50 — 150 *170 — 490*	0,050 — 0,25 *0.00197 — 0.00984*	50 — 130 *170 — 420*	0,050 — 0,25 *0.00197 — 0.00984*	— —	— —	100 — 170 *330 — 550*	0,050 — 0,30 *0.00197 — 0.0118*
HF2	60 — 190 *200 — 620*	0,050 — 0,25 *0.00197 — 0.00984*	60 — 170 *200 — 550*	0,050 — 0,25 *0.00197 — 0.00984*	— —	— —	170 — 250 *560 — 820*	0,050 — 0,30 *0.00197 — 0.0118*

PCBN, Finishing a_p < 0,5 mm / *0.020 Inch*

SMG	CBN300		CBN400C		CBN500		CBN600		CK2065	
	v_c	f	v_c	f	v_c	f	v_c	f	v_c	f
K1	500 — 1700 *1700 — 5500*	0,10 — 0,60 *0.00394 — 0.0236*	500 — 1800 *1700 — 5900*	0,10 — 0,60 *0.00394 — 0.0236*	500 — 1500 *1700 — 4900*	0,10 — 0,60 *0.00394 — 0.0236*	500 — 1300 *1700 — 4200*	0,10 — 0,60 *0.00394 — 0.0236*	500 — 1700 *1700 — 5500*	0,10 — 0,60 *0.00394 — 0.0236*
H21	130 — 250 *430 — 820*	0,10 — 0,60 *0.00394 — 0.0236*	— —	— —	150 — 270 *500 — 880*	0,10 — 0,60 *0.00394 — 0.0236*	120 — 220 *400 — 720*	0,10 — 0,60 *0.00394 — 0.0236*	130 — 250 *430 — 820*	0,10 — 0,60 *0.00394 — 0.0236*
H31	80 — 200 *270 — 650*	0,10 — 0,60 *0.00394 — 0.0236*	— —	— —	80 — 220 *270 — 720*	0,10 — 0,60 *0.00394 — 0.0236*	80 — 180 *270 — 590*	0,10 — 0,60 *0.00394 — 0.0236*	80 — 200 *270 — 650*	0,10 — 0,60 *0.00394 — 0.0236*
HF1	— —	— —	— —	— —	100 — 220 *330 — 720*	0,050 — 0,30 *0.00197 — 0.0118*	— —	— —	— —	— —
HF2	— —	— —	— —	— —	170 — 270 *560 — 880*	0,050 — 0,30 *0.00197 — 0.0118*	— —	— —	— —	— —
CC1	20 — 40 *66 — 130*	0,050 — 0,20 *0.00197 — 0.00787*	— —	— —	— —	— —	20 — 40 *66 — 130*	0,050 — 0,20 *0.00197 — 0.00787*	20 — 40 *66 — 130*	0,050 — 0,20 *0.00197 — 0.00787*

PCBN, Roughing a_p 0,5 – 3,0 mm / *0.020 – 0.120 Inch*

SMG	CBN200		CBN300		CBN500		CBN600		CK2065	
	v_c	f	v_c	f	v_c	f	v_c	f	v_c	f
K1	500 — 1000 *1700 — 3200*	0,20 — 0,65 *0.00788 — 0.0255*	500 — 1500 *1700 — 4900*	0,20 — 0,70 *0.00788 — 0.0275*	500 — 1200 *1700 — 3900*	0,20 — 0,70 *0.00788 — 0.0275*	500 — 1200 *1700 — 3900*	0,20 — 0,70 *0.00788 — 0.0275*	500 — 1500 *1700 — 4900*	0,20 — 0,70 *0.00788 — 0.0275*
H7	70 — 150 *230 — 490*	0,10 — 0,50 *0.00394 — 0.0196*	90 — 180 *300 — 590*	0,10 — 0,50 *0.00394 — 0.0196*	90 — 180 *300 — 590*	0,10 — 0,60 *0.00394 — 0.0236*	70 — 150 *230 — 490*	0,10 — 0,55 *0.00394 — 0.0216*	90 — 180 *300 — 590*	0,10 — 0,50 *0.00394 — 0.0196*
H8	50 — 130 *170 — 420*	0,10 — 0,50 *0.00394 — 0.0196*	90 — 180 *300 — 590*	0,10 — 0,50 *0.00394 — 0.0196*	50 — 150 *170 — 490*	0,10 — 0,60 *0.00394 — 0.0236*	50 — 130 *170 — 420*	0,10 — 0,55 *0.00394 — 0.0216*	90 — 180 *300 — 590*	0,10 — 0,50 *0.00394 — 0.0196*
H21	— —	— —	130 — 230 *430 — 750*	0,10 — 0,60 *0.00394 — 0.0236*	150 — 250 *500 — 820*	0,10 — 0,60 *0.00394 — 0.0236*	120 — 200 *400 — 650*	0,10 — 0,60 *0.00394 — 0.0236*	130 — 230 *430 — 750*	0,10 — 0,60 *0.00394 — 0.0236*
H31	— —	— —	80 — 180 *270 — 590*	0,10 — 0,60 *0.00394 — 0.0236*	80 — 200 *270 — 650*	0,10 — 0,60 *0.00394 — 0.0236*	80 — 160 *270 — 520*	0,10 — 0,60 *0.00394 — 0.0236*	80 — 180 *270 — 590*	0,10 — 0,60 *0.00394 — 0.0236*
PM1	100 — 200 *330 — 650*	0,10 — 0,30 *0.00394 — 0.0118*	100 — 220 *330 — 720*	0,10 — 0,30 *0.00394 — 0.0118*	— —	— —	100 — 220 *330 — 720*	0,10 — 0,30 *0.00394 — 0.0118*	100 — 220 *330 — 720*	0,10 — 0,30 *0.00394 — 0.0118*
PM2	90 — 180 *300 — 590*	0,10 — 0,30 *0.00394 — 0.0118*	100 — 200 *330 — 650*	0,10 — 0,30 *0.00394 — 0.0118*	— —	— —	100 — 200 *330 — 650*	0,10 — 0,30 *0.00394 — 0.0118*	100 — 200 *330 — 650*	0,10 — 0,30 *0.00394 — 0.0118*
HF1	100 — 150 *330 — 490*	0,10 — 0,30 *0.00394 — 0.0118*	— —	— —	100 — 200 *330 — 650*	0,10 — 0,60 *0.00394 — 0.0236*	— —	— —	— —	— —
HF2	170 — 230 *560 — 750*	0,10 — 0,30 *0.00394 — 0.0118*	— —	— —	170 — 250 *560 — 820*	0,10 — 0,60 *0.00394 — 0.0236*	— —	— —	— —	— —
CC1	— —	— —	20 — 30 *66 — 98*	0,050 — 0,20 *0.00197 — 0.00787*	— —	— —	20 — 30 *66 — 98*	0,050 — 0,20 *0.00197 — 0.00787*	20 — 30 *66 — 98*	0,050 — 0,20 *0.00197 — 0.00787*

PCBN, Plunging

SMG	CH0550		CBN060K		CH2540		CBN010	
	v_c	f	v_c	f	v_c	f	v_c	f
K1	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—
H3	180 — 330 *600 — 1000*	0,0300 — 0,13 *0.00119 — 0.0051*	170 — 300 *560 — 980*	0,0300 — 0,13 *0.00119 — 0.0051*	170 — 280 *560 — 910*	0,0300 — 0,13 *0.00119 — 0.0051*	160 — 320 *530 — 1000*	0,0300 — 0,13 *0.00119 — 0.0051*
H5	180 — 310 *600 — 1000*	0,0300 — 0,13 *0.00119 — 0.0051*	170 — 280 *560 — 910*	0,0300 — 0,13 *0.00119 — 0.0051*	170 — 260 *560 — 850*	0,0300 — 0,13 *0.00119 — 0.0051*	160 — 300 *530 — 980*	0,0300 — 0,13 *0.00119 — 0.0051*
H7	180 — 280 *600 — 910*	0,0300 — 0,13 *0.00119 — 0.0051*	170 — 260 *560 — 850*	0,0300 — 0,13 *0.00119 — 0.0051*	170 — 240 *560 — 780*	0,0300 — 0,13 *0.00119 — 0.0051*	160 — 370 *530 — 1200*	0,0300 — 0,13 *0.00119 — 0.0051*
H8	150 — 200 *500 — 650*	0,0300 — 0,13 *0.00119 — 0.0051*	140 — 230 *460 — 750*	0,0300 — 0,13 *0.00119 — 0.0051*	140 — 210 *460 — 680*	0,0300 — 0,13 *0.00119 — 0.0051*	130 — 200 *430 — 650*	0,0300 — 0,13 *0.00119 — 0.0051*
H11	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—
H21	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—
H31	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—
PM1	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—
PM2	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—
PM3	130 — 260 *430 — 850*	0,0300 — 0,13 *0.00119 — 0.0051*	—	—	—	—	110 — 230 *370 — 750*	0,0300 — 0,13 *0.00119 — 0.0051*
	—	—	—	—	—	—	—	—
HF1	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—
HF2	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—
CC1	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—

PCBN, Plunging

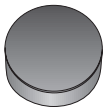
SMG	CBN200	
	v_c	f
K1	—	—
	—	—
S1	—	—
	—	—
S2	—	—
	—	—
S3	—	—
	—	—
H3	—	—
	—	—
H5	—	—
	—	—
H7	—	—
	—	—
H8	—	—
	—	—
H11	—	—
	—	—
H21	—	—
	—	—
H31	—	—
	—	—
PM1	200 — 350 *660 — 1100*	0,0300 — 0,13 *0.00119 — 0.0051*
PM2	150 — 300 *500 — 980*	0,0300 — 0,13 *0.00119 — 0.0051*
PM3	—	—
	—	—
HF1	—	—
	—	—
HF2	—	—
	—	—
CC1	—	—
	—	—

PCBN, Grooving

SMG	CBN010		CBN170		CBN200	
	v_c	f	v_c	f	v_c	f
K1	— —	— —	— —	— —	500 — 1000 *1700 — 3200*	0,0300 — 0,15 *0.00119 — 0.00590*
S1	70 — 140 *230 — 450*	0,0300 — 0,15 *0.00119 — 0.00590*	120 — 220 *400 — 720*	0,0300 — 0,15 *0.00119 — 0.00590*	— —	— —
S2	— —	— —	— —	— —	40 — 60 *140 — 190*	0,0300 — 0,15 *0.00119 — 0.00590*
S3	100 — 240 *330 — 780*	0,0300 — 0,15 *0.00119 — 0.00590*	120 — 280 *400 — 910*	0,0300 — 0,15 *0.00119 — 0.00590*	— —	— —
H3	80 — 200 *270 — 650*	0,0300 — 0,15 *0.00119 — 0.00590*	— —	— —	— —	— —
H5	80 — 190 *270 — 620*	0,0300 — 0,15 *0.00119 — 0.00590*	— —	— —	— —	— —
H7	80 — 180 *270 — 590*	0,0300 — 0,15 *0.00119 — 0.00590*	— —	— —	— —	— —
H8	70 — 170 *230 — 550*	0,0300 — 0,15 *0.00119 — 0.00590*	— —	— —	— —	— —
H11	70 — 160 *230 — 520*	0,0300 — 0,15 *0.00119 — 0.00590*	— —	— —	— —	— —
H21	— —	— —	— —	— —	— —	— —
H31	— —	— —	— —	— —	80 — 220 *270 — 720*	0,0300 — 0,15 *0.00119 — 0.00590*
PM1	— —	— —	— —	— —	100 — 180 *330 — 590*	0,0300 — 0,15 *0.00119 — 0.00590*
PM2	— —	— —	— —	— —	90 — 160 *300 — 520*	0,0300 — 0,15 *0.00119 — 0.00590*
PM3	— —	— —	— —	— —	— —	— —
HF1	— —	— —	— —	— —	100 — 170 *330 — 550*	0,0300 — 0,15 *0.00119 — 0.00590*
HF2	— —	— —	— —	— —	170 — 250 *560 — 820*	0,0300 — 0,15 *0.00119 — 0.00590*

Selection of insert format – PCD

Sintered layer -LF

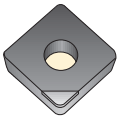


PCD sintered on carbide.
All cutting edges on one side are usable.

Grade:
PCD30

Toolholder style:
C

Brazed tip insert -L1

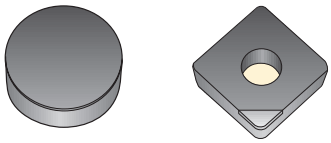
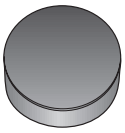


PCD brazed on to standard carbide inserts.

Grades:
PCD20, PCD30

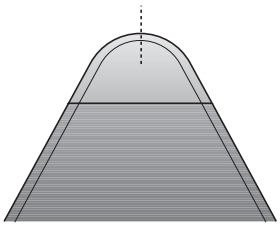
Toolholder styles:
D, P, M and C

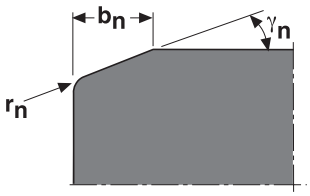
PCD grades, uncoated

PCD20		Format: Full-face sintered layer and brazed tips (single sided). Composition: Grade with an average grain size of 10 µm and a Co binder. Coating: No coating.
PCD30		Format: Full-face sintered layer (single sided). Composition: Grade with an average grain size of 25 µm and a Co binder. Coating: No coating.

PCD – Edge preparation

Edge preparation





b_n = Chamfer width
γ_n = Chamfer angle
r_n = Hone radius

Geometry recommendations	Edge preparation
A sharp cutting edge is always recommended.	F = Sharp cutting edge

PCD, SMG

Non Ferrous Metals

SMG	Description	Reference	Recommendations
N1	Aluminium alloys, Si < 9%	AW-7075	First choice for finish and rough machining: PCD20.
N2	Aluminium alloys, 9% < Si < 16%	AC-44200 Si = 12%	First choice for finish and rough machining: PCD20.
N3	Aluminium alloys, Si >16%	AlSi17Cu5	First choice for finish and rough machining: PCD30.
N11	Copper alloys	CW614N	First choice for finish and rough machining: PCD20.

Other Difficult Materials

SMG	Description	Reference	Recommendations
CC1	Sintered tungsten carbide	G50	First choice for finish machining: PCD30.

Plastics and Composites

SMG	Description	Reference	Recommendations
TS1	Thermosetting polymers	Urea formaldehyde (UF)	First choice for finish and rough machining: PCD20.
TS2	Thermosetting carbon-fibre composites	T300 T700 T800 HTA-S IMA - Epoxy (M21)...	First choice for finish and rough machining: PCD20.
TS3	Thermosetting glass-fibre composites	Epoxy - HX..(42..)/E glass (7781...)...	First choice for finish and rough machining: PCD20.
TS4	Thermosetting aramide-fibre composites	Kevlar 49	First choice for finish and rough machining: PCD20.
TP1	Thermoplastic polymers	Polycarbonate (PC)	First choice for finish and rough machining: PCD20.
TP2	Thermoplastic carbon-fibre composites	PPS/PEEK - T300..	First choice for finish and rough machining: PCD20.
TP3	Thermoplastic glass-fibre composites	PPS/PEEK - E-glass or A-glass...	First choice for finish and rough machining: PCD20.
TP4	Thermoplastic aramide-fibre composites		First choice for finish and rough machining: PCD20.

Graphites

SMG	Description	Reference	Recommendations
GR1	Graphite	R 8500	First choice for finish- and rough machining: PCD20.

PCD, Roughing a_p 0,5 – 3,0 mm / *0.020 – 0.120 Inch*

SMG	PCD20		PCD30		PCD30M	
	v_c	f	v_c	f	v_c	f
N1	600 — 3500 *2000 — 11400*	0,050 — 0,30 *0.00197 — 0.0118*	— —	— —	— —	— —
N2	450 — 2500 *1500 — 8200*	0,050 — 0,20 *0.00197 — 0.00787*	— —	— —	— —	— —
N3	300 — 1000 *990 — 3200*	0,050 — 0,10 *0.00197 — 0.00393*	300 — 1000 *990 — 3200*	0,10 — 0,40 *0.00394 — 0.0157*	300 — 1000 *990 — 3200*	0,10 — 0,40 *0.00394 — 0.0157*
N11	600 — 1200 *2000 — 3900*	0,10 — 0,50 *0.00394 — 0.0196*	600 — 1200 *2000 — 3900*	0,10 — 0,50 *0.00394 — 0.0196*	600 — 1200 *2000 — 3900*	0,10 — 0,50 *0.00394 — 0.0196*
TS1	100 — 1500 *330 — 4900*	0,10 — 0,40 *0.00394 — 0.0157*	— —	— —	— —	— —
TS2	400 — 800 *1400 — 2600*	0,10 — 0,20 *0.00394 — 0.00787*	400 — 800 *1400 — 2600*	0,10 — 0,20 *0.00394 — 0.00787*	400 — 800 *1400 — 2600*	0,10 — 0,20 *0.00394 — 0.00787*
TS3	100 — 800 *330 — 2600*	0,050 — 0,20 *0.00197 — 0.00787*	100 — 800 *330 — 2600*	0,050 — 0,20 *0.00197 — 0.00787*	100 — 800 *330 — 2600*	0,050 — 0,20 *0.00197 — 0.00787*
TS4	400 — 800 *1400 — 2600*	0,10 — 0,20 *0.00394 — 0.00787*	400 — 800 *1400 — 2600*	0,10 — 0,20 *0.00394 — 0.00787*	400 — 800 *1400 — 2600*	0,10 — 0,20 *0.00394 — 0.00787*
TP1	100 — 1500 *330 — 4900*	0,10 — 0,40 *0.00394 — 0.0157*	— —	— —	— —	— —
TP2	400 — 800 *1400 — 2600*	0,10 — 0,20 *0.00394 — 0.00787*	400 — 800 *1400 — 2600*	0,10 — 0,20 *0.00394 — 0.00787*	400 — 800 *1400 — 2600*	0,10 — 0,20 *0.00394 — 0.00787*
TP3	100 — 800 *330 — 2600*	0,050 — 0,20 *0.00197 — 0.00787*	100 — 800 *330 — 2600*	0,050 — 0,20 *0.00197 — 0.00787*	100 — 800 *330 — 2600*	0,050 — 0,20 *0.00197 — 0.00787*
TP4	400 — 800 *1400 — 2600*	0,10 — 0,20 *0.00394 — 0.00787*	400 — 800 *1400 — 2600*	0,10 — 0,20 *0.00394 — 0.00787*	400 — 800 *1400 — 2600*	0,10 — 0,20 *0.00394 — 0.00787*
GR1	100 — 1500 *330 — 4900*	0,10 — 0,20 *0.00394 — 0.00787*	— —	— —	— —	— —

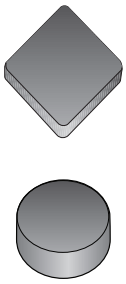
PCD, Finishing a_p < 0,5 mm / *0.020 Inch*

SMG	PCD20		PCD30		PCD30M	
	v_c	f	v_c	f	v_c	f
N1	600 — 3500 *2000 — 11400*	0,050 — 0,30 *0.00197 — 0.0118*	— —	— —	— —	— —
N2	450 — 2500 *1500 — 8200*	0,050 — 0,20 *0.00197 — 0.00787*	— —	— —	— —	— —
N3	300 — 1000 *990 — 3200*	0,050 — 0,10 *0.00197 — 0.00393*	300 — 1000 *990 — 3200*	0,10 — 0,40 *0.00394 — 0.0157*	300 — 1000 *990 — 3200*	0,10 — 0,40 *0.00394 — 0.0157*
N11	600 — 1200 *2000 — 3900*	0,10 — 0,50 *0.00394 — 0.0196*	600 — 1200 *2000 — 3900*	0,10 — 0,50 *0.00394 — 0.0196*	600 — 1200 *2000 — 3900*	0,10 — 0,50 *0.00394 — 0.0196*
CC1	— —	— —	10 — 20 *33 — 65*	0,050 — 0,15 *0.00197 — 0.00590*	10 — 20 *33 — 65*	0,050 — 0,15 *0.00197 — 0.00590*
TS1	100 — 1500 *330 — 4900*	0,10 — 0,40 *0.00394 — 0.0157*	— —	— —	— —	— —
TS2	400 — 800 *1400 — 2600*	0,10 — 0,20 *0.00394 — 0.00787*	400 — 800 *1400 — 2600*	0,10 — 0,20 *0.00394 — 0.00787*	400 — 800 *1400 — 2600*	0,10 — 0,20 *0.00394 — 0.00787*
TS3	100 — 800 *330 — 2600*	0,050 — 0,20 *0.00197 — 0.00787*	100 — 800 *330 — 2600*	0,050 — 0,20 *0.00197 — 0.00787*	100 — 800 *330 — 2600*	0,050 — 0,20 *0.00197 — 0.00787*
TS4	400 — 800 *1400 — 2600*	0,10 — 0,20 *0.00394 — 0.00787*	400 — 800 *1400 — 2600*	0,10 — 0,20 *0.00394 — 0.00787*	400 — 800 *1400 — 2600*	0,10 — 0,20 *0.00394 — 0.00787*
TP1	100 — 1500 *330 — 4900*	0,10 — 0,40 *0.00394 — 0.0157*	— —	— —	— —	— —
TP2	400 — 800 *1400 — 2600*	0,10 — 0,20 *0.00394 — 0.00787*	400 — 800 *1400 — 2600*	0,10 — 0,20 *0.00394 — 0.00787*	400 — 800 *1400 — 2600*	0,10 — 0,20 *0.00394 — 0.00787*
TP3	100 — 800 *330 — 2600*	0,050 — 0,20 *0.00197 — 0.00787*	100 — 800 *330 — 2600*	0,050 — 0,20 *0.00197 — 0.00787*	100 — 800 *330 — 2600*	0,050 — 0,20 *0.00197 — 0.00787*
TP4	400 — 800 *1400 — 2600*	0,10 — 0,20 *0.00394 — 0.00787*	400 — 800 *1400 — 2600*	0,10 — 0,20 *0.00394 — 0.00787*	400 — 800 *1400 — 2600*	0,10 — 0,20 *0.00394 — 0.00787*
GR1	100 — 1500 *330 — 4900*	0,10 — 0,20 *0.00394 — 0.00787*	— —	— —	— —	— —

Selection of insert format – Ceramic

Ceramic inserts are only available in solid format.

Solid insert

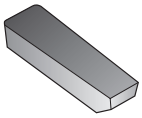


According to the geometry, two sides can be used.

Grade:
CS100, CS300, CW100

Toolholder style:
C

Solid insert

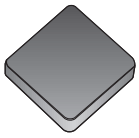
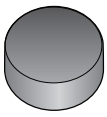
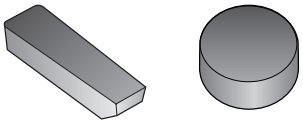


According to the geometry, one edge can be used.

Grade:
CW100

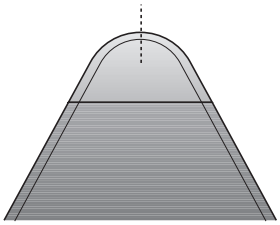
Toolholder style:
CFxx

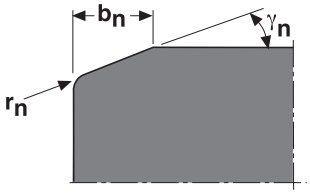
Ceramic grades, uncoated

CS100		Format: Solid. Composition: Sialon (Si, Al, O, N) ceramic grade. Coating: No coating.
CS300		Format: Solid. Composition: Sialon (Si, Al, O, N) ceramic grade. Coating: No coating.
CW100		Format: Solid. Composition: Aluminium oxide (Al_2O_3) + SiC-whisker reinforced ceramic grade. Coating: No coating.

Ceramics – Edge peparation

Edge preparation





b_n = Chamfer width
γ_n = Chamfer angle
r_n = Hone radius

Geometry recommendations	Edge preparation	Chamfer size and angle
Strong cutting edge geometries are always preferred. – Negative cutting geometry – Chamfered cutting edge – Large nose radius	S = Chamfered and honed T = Chamfered, no honing E = Honed	CS100 = T or S = 0,10 mm x 20° CS300 = T = 0,10 mm x 20° CW100 = Honed or T = 0,10 mm x 20°

Ceramics, SMG

Superalloys

SMG	Description	Reference	Recommendations
S1	Iron-based superalloys	Discalloy	First choice for rough machining: CS100 First choice for grooving: CW100 Use coolant
S2	Cobalt-based superalloys	Stellite 21	First choice for rough machining: CS100 First choice for grooving: CW100 Use coolant
S3	Nickel-based superalloys	Inconel 718	First choice for rough machining: CS100 First choice for grooving: CW100 Use coolant

Ceramic, Roughing a_p 0,5 – 3,0 mm / *0.020 – 0.120 Inch* – Cutting data and application area for CS100 is also applicable for CS300

SMG	CS100		CW100	
	v_c	f	v_c	f
S1	150 — 300 *500 — 980*	0,10 — 0,40 *0.00394 — 0.0157*	150 — 300 *500 — 980*	0,10 — 0,40 *0.00394 — 0.0157*
S2	150 — 300 *500 — 980*	0,10 — 0,40 *0.00394 — 0.0157*	150 — 300 *500 — 980*	0,10 — 0,40 *0.00394 — 0.0157*
S3	150 — 300 *500 — 980*	0,10 — 0,40 *0.00394 — 0.0157*	150 — 300 *500 — 980*	0,10 — 0,40 *0.00394 — 0.0157*

Ceramic, Grooving

SMG	CW100	
	v_c	f
S1	150 — 300 *500 — 980*	0,050 — 0,10 *0.00197 — 0.00393*
S2	150 — 300 *500 — 980*	0,050 — 0,10 *0.00197 — 0.00393*
S3	150 — 300 *500 — 980*	0,050 — 0,10 *0.00197 — 0.00393*



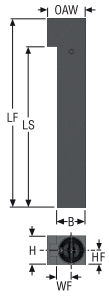
General ISO Turning holders for general turning machining

Seco offers a wide product range of ISO Turning holders. Jetstream Tooling® toolholders deliver coolant effectively through the toolholder to the optimum position close to the cutting edge. This improves chip control by lifting the chip away from the rake face and reducing the heat load, enabling longer tool life and drastically increasing cutting data to be applied. A comprehensive range of insert types, shapes and sizes are available.

- D Toolholder, first choice for stable clamping in general machining
- P Toolholder, complement reliable clamping in general machining e.g. more chip space required
- C Toolholder, designed mainly for SECO PCBN and Ceramic inserts without hole
- S Toolholder, first choice mainly for smaller inserts in general machining

Toolholders for QC-heads – Metric

N..F-QC





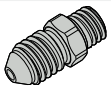
- Neutral version shown
- For QC heads program, see page(s) 154-161
- For more information on Jetstream Tooling® and accessories, see page(s) 38, 85-89, 1026
- For ISO attribute explanation, see page 82

Designation	Item number	CTWS	H	B	OAW	WF	HF	LF	LS	Weight
			mm	mm	mm	mm	mm	mm	mm	kg
N1010F-QC12	03280749	QC12	10	11	16,0	6,0	5,0	80,0	68,0	0,1
N1012F-QC12	10125184	QC12	10	12	16,0	6,0	5,0	80,0	68,0	0,1
N1212F-QC12	03280750	QC12	12	12	16,0	6,0	6,0	80,0	68,0	0,1

Spare Parts, included in delivery

For size	Locking screw	Plug	Torque key
			
N1010/N1212	LSQ6065-T15P	JET-M8X1.0	–
N1012	LSQ6065-T15P	JET-M8X1.0	T00-15P40

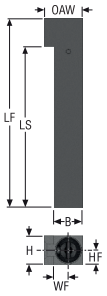
Accessories

For size	Coolant adapter	Insert clamping torque	Replacement blade	Torque key
				
N1010/N1212	JET-ADM8-1.0	4.0NM	T00-15P	T00-15P40
N1012	–	–	–	–

Toolholders for QC-heads
– Metric / *Inch*



N..F-QC



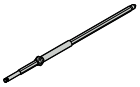
- Neutral version shown
- For QC heads program, see page(s) 154-161
- For more information on Jetstream Tooling® and accessories, see page(s) 38, 85-89, 1026
- This metric denomination corresponds to a N065F-QC16 or ANSI size 10 shank
- For ISO attribute explanation, see page 82

Designation	Item number	CTWS	H	B	OAW	WF	HF	LF	LS	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	kg *lbs*
N1616F-QC16	03280751	QC16	16 *0.630*	16 *0.630*	18,0 *0.709*	8,0 *0.315*	8,0 *0.315*	80,0 *3.150*	68,0 *2.677*	0,2 *0.440*

Spare Parts, included in delivery

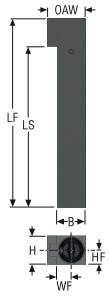
For size	Locking screw	Plug
		
N1616F	LSQ6065-T15P	JET-P1/8-5MM

Accessories

For size	Insert clamping torque	Replacement blade	Torque key
			
N1616F	4.0NM	T00-15P	T00-15P40

Toolholders for QC-heads – Inch

N..F-QC





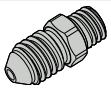
- Neutral version shown
- For QC heads program, see page(s) 154-161
- For more information on Jetstream Tooling® and accessories, see page(s) 38, 85-89, 1026
- For ISO attribute explanation, see page 82

Designation	Item number	CTWS	H	B	OAW	WF	HF	LF	LS	Weight
			inch	inch	inch	inch	inch	inch	inch	lbs
N0375F-QC12	03280752	QC12	0.375	0.424	0.630	0.236	0.187	3.150	2.677	0.220
N0472-0375F-QC12	10125245	QC12	0.375	0.472	0.630	0.236	0.187	3.150	2.677	0.220
N050F-QC12	03280753	QC12	0.500	0.486	0.644	0.236	0.264	3.150	2.677	0.220

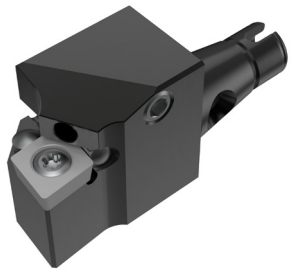
Spare Parts, included in delivery

For size	Locking screw	Plug	Torque key
			
N0375F/N050F	LSQ6065-T15P	JET-M8X1.0	–
N0472	LSQ6065-T15P	JET-UNF5/16	T00-15P40

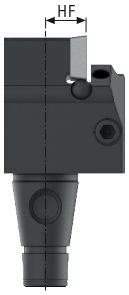
Accessories

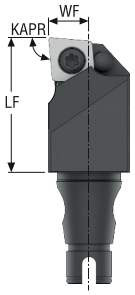
For size	Coolant adapter	Insert clamping torque	Replacement blade	Torque key
				
N0375F/N050F	JET-ADM8-1.0	4.0NM	T00-15P	T00-15P40
N0472	–	–	–	–

QC-SCLCR/L-JET – ISO Turning, QC-heads for inserts CCGT, CCGW, CCGX, CCMT, CCMW – **Metric** / *Inch*

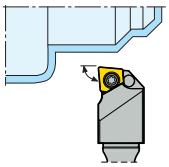


QC-SCLCR/L-JET





KAPR = 95,0 °



CTWS



- Right-hand version shown
- For inserts program, see page(s) 542, 543, 544, 545, 591, 592, 616
- For holder code key, see page(s) 11-12
- For more information on Jetstream Tooling® and accessories, see page(s) 38, 85-89, 1026
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	Duo	WF	LF	HF	CP	KAPR°	GAMO°	LAMS°	Weight	CTWS
				mm *inch*	mm *inch*	mm *inch*	bar *psi*				kg *lbs*	
QC12-SCLCR-06JET	03280836	QC12	–	6,0 *0.234*	20 *0.787*	6,0 *0.235*	200,0 *2900.8*	95,0	0,0	0,0	0,3 *0.660*	CC..0602.. *CC..21.5.*
QC12-SCLCL-06JET	03280839	QC12	–	6,0 *0.234*	20 *0.787*	6,0 *0.235*	200,0 *2900.8*	95,0	0,0	0,0	0,3 *0.660*	CC..0602.. *CC..21.5.*
QC12-SCLCR-09JET	03280754	QC12	–	6,0 *0.234*	22 *0.866*	6,0 *0.235*	200,0 *2900.8*	95,0	0,0	0,0	0,1 *0.220*	CC..09T3.. *CC..32.5.*
QC12-SCLCL-09JET	03280755	QC12	–	6,0 *0.234*	22 *0.866*	6,0 *0.235*	200,0 *2900.8*	95,0	0,0	0,0	0,1 *0.220*	CC..09T3.. *CC..32.5.*
QC16-SCLCR-09JET	03280756	QC16	Yes	8,0 *0.313*	24 *0.945*	7,9 *0.311*	200,0 *2900.8*	95,0	0,0	0,0	0,1 *0.220*	CC..09T3.. *CC..32.5.*
QC16-SCLCL-09JET	03280757	QC16	Yes	8,0 *0.313*	24 *0.945*	7,9 *0.311*	200,0 *2900.8*	95,0	0,0	0,0	0,1 *0.220*	CC..09T3.. *CC..32.5.*

Spare Parts, included in delivery

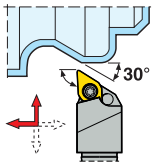
For size	Insert key	Insert screw
		
..-06	T07P-2	C02506-T07P
..-09	T15P-2	C04008-T15P

Accessories

For size	Insert clamping torque	Mounting fixture	Torque key
			
..-06	0.9NM	SECO-MF7075-QC	T00-07P09
..-09	3.5NM	SECO-MF7075-QC	T00-15P35

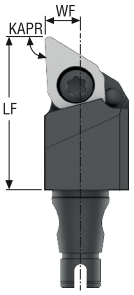
QC-SDJCR/L-JET – ISO Turning, QC-heads for inserts DCGT, DCGW, DCMT, DCMW, DCMX – Metric / *Inch*

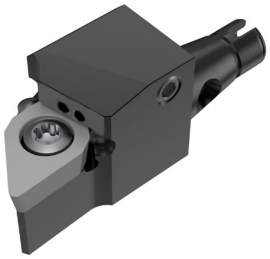
KAPR = 93,0 °



QC-SDJCR/L-JET







CTWS



- Right-hand version shown
- For inserts program, see page(s) 553, 554, 555, 596, 617
- For holder code key, see page(s) 11-12
- For more information on Jetstream Tooling® and accessories, see page(s) 38, 85-89, 1026
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	Duo	WF	LF	HF	CP	KAPR°	GAMO°	LAMS°	Weight	CTWS
				mm *inch*	mm *inch*	mm *inch*	bar *psi*				kg *lbs*	
QC12-SDJCR-07JET	03280758	QC12	–	6,0 *0.234*	22 *0.866*	6,0 *0.235*	200,0 *2900.8*	93,0	0,0	0,0	0,1 *0.220*	DC..0702.. *DC..21.5.*
QC12-SDJCL-07JET	03280759	QC12	–	6,0 *0.234*	22 *0.866*	6,0 *0.235*	200,0 *2900.8*	93,0	0,0	0,0	0,1 *0.220*	DC..0702.. *DC..21.5.*
QC12-SDJCR-11JET	03280760	QC12	–	6,0 *0.234*	26 *1.024*	6,0 *0.235*	200,0 *2900.8*	93,0	0,0	0,0	0,1 *0.220*	DC..11T3.. *DC..32.5.*
QC12-SDJCL-11JET	03280761	QC12	–	6,0 *0.234*	26 *1.024*	6,0 *0.235*	200,0 *2900.8*	93,0	0,0	0,0	0,1 *0.220*	DC..11T3.. *DC..32.5.*
QC16-SDJCR-11JET	03280762	QC16	Yes	8,0 *0.313*	26 *1.024*	7,9 *0.311*	200,0 *2900.8*	93,0	0,0	0,0	0,1 *0.220*	DC..11T3.. *DC..32.5.*
QC16-SDJCL-11JET	03280763	QC16	Yes	8,0 *0.313*	26 *1.024*	7,9 *0.311*	200,0 *2900.8*	93,0	0,0	0,0	0,3 *0.660*	DC..11T3.. *DC..32.5.*

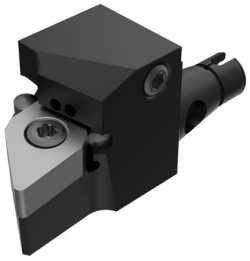
Spare Parts, included in delivery

For size	Insert key	Insert screw
		
..-07	T07P-2	C02506-T07P
..-11	T15P-2	C04008-T15P

Accessories

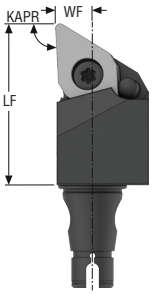
For size	Insert clamping torque	Mounting fixture	Torque key
			
..-07	0.9NM	SECO-MF7075-QC	T00-07P09
..-11	3.5NM	SECO-MF7075-QC	T00-15P35

QC-SDJNR/L-JET – ISO Turning, QC-heads for inserts DNMU – **Metric** / *Inch*

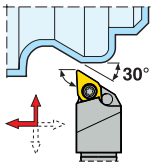


QC-SDJNR/L-JET





KAPR = 93,0 °



CTWS



- Right-hand version shown
- For inserts program, see page(s) 556, 557, 558, 559
- For holder code key, see page(s) 11-12
- For more information on Jetstream Tooling® and accessories, see page(s) 38, 85-89, 1026
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	WF	LF	HF	CP	KAPR°	GAMO°	LAMS°	Weight	CTWS
			mm *inch*	mm *inch*	mm *inch*	bar *psi*				kg *lbs*	
QC12-SDJNR-11JET	10050648	QC12	6,0 *0.234*	26 *1.024*	6,0 *0.235*	200,0 *2900.8*	93,0	-6,0	-6,0	0,1 *0.220*	DNMU1104.. *DNMU33.*
QC12-SDJNL-11JET	10050647	QC12	6,0 *0.234*	26 *1.024*	6,0 *0.235*	200,0 *2900.8*	93,0	-6,0	-6,0	0,1 *0.220*	DNMU1104.. *DNMU33.*
QC16-SDJNR-11JET	10050652	QC16	8,0 *0.313*	26 *1.024*	7,9 *0.311*	200,0 *2900.8*	93,0	-6,0	-6,0	0,1 *0.220*	DNMU1104.. *DNMU33.*
QC16-SDJNL-11JET	10050651	QC16	8,0 *0.313*	26 *1.024*	7,9 *0.311*	200,0 *2900.8*	93,0	-6,0	-6,0	0,1 *0.220*	DNMU1104.. *DNMU33.*

Spare Parts, included in delivery

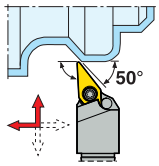
For size	Insert key	Insert screw
		
..-11	T09P-2	C03511-T09P

Accessories

For size	Insert clamping torque	Mounting fixture	Torque key
			
..-11	2.0NM	SECO-MF7075-QC	T00-09P20

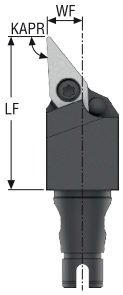
QC-SVJBR/L-JET – ISO Turning, QC-heads for inserts VBGT, VBMT – Metric / *Inch*

KAPR = 93,0 °



QC-SVJBR/L-JET







CTWS



- Right-hand version shown
- For inserts program, see page(s) 582, 583, 612, 619
- For holder code key, see page(s) 11-12
- For more information on Jetstream Tooling® and accessories, see page(s) 38, 85-89, 1026
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	WF	LF	HF	CP	KAPR°	GAMO°	LAMS°	Weight	CTWS
			mm *inch*	mm *inch*	mm *inch*	bar *psi*				kg *lbs*	
QC12-SVJBR-11JET	03280764	QC12	6,0 *0.234*	26 *1.024*	6,0 *0.235*	200,0 *2900.8*	93,0	0,0	0,0	0,1 *0.220*	VB..1102.. *VB..21.5.*
QC12-SVJBL-11JET	03280765	QC12	6,0 *0.234*	26 *1.024*	6,0 *0.235*	200,0 *2900.8*	93,0	0,0	0,0	0,1 *0.220*	VB..1102.. *VB..21.5.*
QC16-SVJBR-11JET	03280766	QC16	8,0 *0.313*	26 *1.024*	7,9 *0.311*	200,0 *2900.8*	93,0	0,0	0,0	0,1 *0.220*	VB..1102.. *VB..21.5.*
QC16-SVJBL-11JET	03280767	QC16	8,0 *0.313*	26 *1.024*	7,9 *0.311*	200,0 *2900.8*	93,0	0,0	0,0	0,1 *0.220*	VB..1102.. *VB..21.5.*

Spare Parts, included in delivery

For size	Insert key	Insert screw
		
..-11	T07P-2	C02506-T07P

Accessories

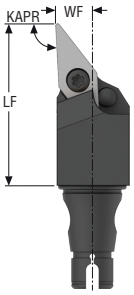
For size	Insert clamping torque	Mounting fixture	Torque key
			
..-11	0.9NM	SECO-MF7075-QC	T00-07P09

QC-SVJCR/L-JET – ISO Turning, QC-heads for inserts VCGT
– **Metric** / *Inch*

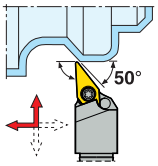


QC-SVJCR/L-JET





KAPR = 93,0 °



CTWS



- Right-hand version shown
- For inserts program, see page(s) 583
- For holder code key, see page(s) 11-12
- For more information on Jetstream Tooling® and accessories, see page(s) 38, 85-89, 1026
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	WF	LF	HF	CP	KAPR°	GAMO°	LAMS°	Weight	CTWS
			mm *inch*	mm *inch*	mm *inch*	bar *psi*				kg *lbs*	
QC12-SVJCR-11JET	10050650	QC12	6,0 *0.234*	26 *1.024*	6,0 *0.235*	200,0 *2900.8*	93,0	0,0	0,0	0,1 *0.220*	VC..1103.. *VC..22.*
QC12-SVJCL-11JET	10050649	QC12	6,0 *0.234*	26 *1.024*	6,0 *0.235*	200,0 *2900.8*	93,0	0,0	0,0	0,1 *0.220*	VC..1103.. *VC..22.*
QC16-SVJCR-11JET	10050654	QC16	8,0 *0.313*	26 *1.024*	7,9 *0.311*	200,0 *2900.8*	93,0	0,0	0,0	0,1 *0.220*	VC..1103.. *VC..22.*
QC16-SVJCL-11JET	10050653	QC16	8,0 *0.313*	26 *1.024*	7,9 *0.311*	200,0 *2900.8*	93,0	0,0	0,0	0,1 *0.220*	VC..1103.. *VC..22.*

Spare Parts, included in delivery

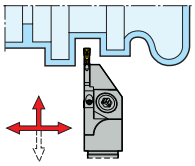
For size	Insert key	Insert screw
		
..-11	T07P-2	C02506-T07P

Accessories

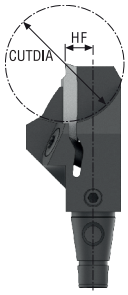
For size	Insert clamping torque	Mounting fixture	Torque key
			
..-11	0.9NM	SECO-MF7075-QC	T00-07P09

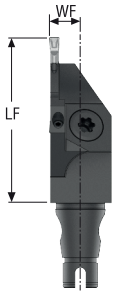
QC-CFOR/L-JET – MDT, QC-heads for inserts LCMF
– Metric / *Inch*

KAPR = 90,0 °



QC-CFOR/L-JET







CTWS



- Right-hand version shown
- For inserts program, see page(s) 857
- For holder code key, see page(s) 11-12
- For more information on Jetstream Tooling® and accessories, see page(s) 38, 85-89, 1026
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	WF	LF	HF	CUTDIA	CP	KAPR°	Weight	CTWS
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	bar *psi*		kg *lbs*	
QC12-CFOR-1902RBJET	03280768	QC12	6,0 *0.236*	32 *1.260*	6,0 *0.235*	25,4 *1.000*	200,0 *2900.8*	90,0	0,1 *0.220*	LC..1902..
QC12-CFOL-1902RBJET	03280769	QC12	6,0 *0.236*	32 *1.260*	6,0 *0.235*	25,4 *1.000*	200,0 *2900.8*	90,0	0,1 *0.220*	LC..1902..
QC16-CFOR-1902RBJET	03280770	QC16	8,0 *0.315*	32 *1.260*	7,9 *0.311*	25,4 *1.000*	200,0 *2900.8*	90,0	0,1 *0.220*	LC..1902..
QC16-CFOL-1902RBJET	03280771	QC16	8,0 *0.315*	32 *1.260*	7,9 *0.311*	25,4 *1.000*	200,0 *2900.8*	90,0	0,1 *0.220*	LC..1902..

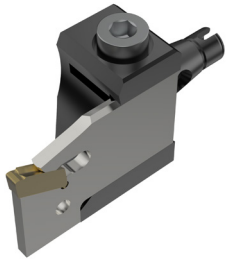
Spare Parts, included in delivery

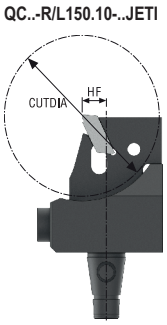
For size	Clamp key	Clamp screw
		
..-19	T15P-2	L85012-T15P

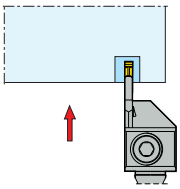
Accessories

For size	Insert clamping torque	Mounting fixture	Torque key
			
..-19	5.0NM	SECO-MF7075-QC	T00-15P50

QC..-R/L150.10-..JETI – Parting-off, QC-heads for 150.10A-15 blades – **Metric** / *Inch*



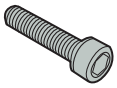
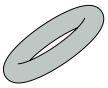




- Right-hand version shown
- For inserts program, see page(s) 960, 961
- For blades program, see page(s) 944
- For holder code key, see page(s) 11-12
- For more information on Jetstream Tooling® and accessories, see page(s) 38, 85-89, 1026
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	LF	HF	CUTDIA	CP	Weight	CTWS
			mm *inch*	mm *inch*	mm *inch*	bar *psi*	kg *lbs*	
QC12-R150.10-15JETI	03280777	QC12	34,2 *1.346*	6,0 *0.236*	–	200,0 *2900.8*	0,1 *0.220*	Blade-15
QC12-L150.10-15JETI	03280776	QC12	34,2 *1.346*	6,0 *0.236*	–	200,0 *2900.8*	0,1 *0.220*	Blade-15
QC16-R150.10-15JETI	03280779	QC16	34,2 *1.346*	8,0 *0.315*	–	200,0 *2900.8*	0,1 *0.220*	Blade-15
QC16-L150.10-15JETI	03280778	QC16	34,2 *1.346*	8,0 *0.315*	–	200,0 *2900.8*	0,1 *0.220*	Blade-15

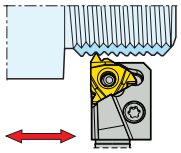
Spare Parts, included in delivery

For size	Clamp key	Clamp screw	O-ring
			
..-15	4SMS795	MC6S5X18	ORING-4X1.5

Accessories

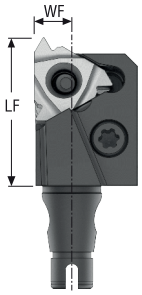
For size	Mounting fixture
	
..-15	SECO-MF7075-QC

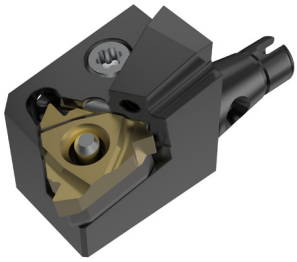
QC..-PER/L-HDJET – Thread turning, QC-heads for S-inserts – Metric / *Inch*



QC..-PER/L-HDJET







CTWS



- Right-hand version shown
- For inserts programme, see MN Threading catalogue
- For holder code key, see page(s) 11-12
- For more information on Jetstream Tooling® and accessories, see page(s) 38, 85-89, 1026
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	WF	LF	HF	CP	Weight	CTWS
			mm *inch*	mm *inch*	mm *inch*	bar *psi*	kg *lbs*	
QC12-PER-16HDJET	03280772	QC12	6,0 *0.236*	25 *0.984*	6,0 *0.235*	200,0 *2900.8*	0,1 *0.220*	16ER
QC12-PEL-16HDJET	03280773	QC12	6,0 *0.236*	25 *0.984*	6,0 *0.235*	200,0 *2900.8*	0,1 *0.220*	16EL
QC16-PER-16HDJET	03280774	QC16	8,0 *0.315*	25 *0.984*	7,9 *0.311*	200,0 *2900.8*	0,1 *0.220*	16ER
QC16-PEL-16HDJET	03280775	QC16	8,0 *0.315*	25 *0.984*	7,9 *0.311*	200,0 *2900.8*	0,1 *0.220*	16EL

Spare Parts, included in delivery

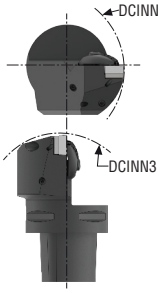
For size	Insert lever	Insert shim (S)	Lever key	Lever screw	Shim pin
					
..-16	PP3712	GXA16-1	T15P-2	LS0612-T15P	AC4625

Accessories

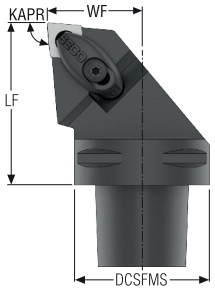
For size	Insert clamping torque	Insert shim (M)	Insert shim (S) 1	Insert shim (S) 2	Insert shim (S) 3	Insert shim (S) 4	Insert shim (S) 5	Insert shim (S) 6	Mounting fixture	Torque key
										
..-16	3.0NM	MXA16-1	GXA16-0	GXA16-2	GXA16-3	GXA16-4	GXA16-99	GXA16-98	SECO-MF7075-QC	T00-15P30

C.-DCLCR/L...JETI2 – Toolholders for inserts CCGT, CCGW, CCGX, CCMT, CCMW – **Metric** / *Inch*

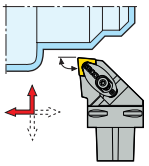




C.-DCLCR/L...JETI



KAPR = 95,0 °



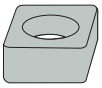
CTWS



- Right-hand version shown
- For inserts program, see page(s) 542, 543, 544, 545, 591, 592, 616
- For holder code key, see page(s) 11-12
- For more information on Jetstream Tooling® and accessories, see page(s) 38, 85-89, 1026
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	Duo	DCSFMS	WF	LF	DCINN	DCINN3	CP	KAPR°	GAMO°	LAMS°	Weight	CTWS
				mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	bar *psi*				kg *lbs*	
C4-DCLCR-27050-09JETI2	10070157	C4	–	40,0 *1.575*	27,0 *1.063*	50,0 *1.969*	65,0 *2.559*	120,0 *4.724*	150,0 *2175.6*	95,0	0,0	0,0	0,4 *0.880*	CC..09T3.. *CC..32.5.*
C4-DCLCL-27050-09JETI2	10070155	C4	–	40,0 *1.575*	27,0 *1.063*	50,0 *1.969*	65,0 *2.559*	120,0 *4.724*	150,0 *2175.6*	95,0	0,0	0,0	0,4 *0.880*	CC..09T3.. *CC..32.5.*
C4-DCLCR-27050-12JETI2	10070158	C4	–	40,0 *1.575*	27,0 *1.063*	50,0 *1.969*	100,0 *3.937*	140,0 *5.512*	150,0 *2175.6*	95,0	0,0	0,0	0,4 *0.880*	CC..1204.. *CC..43.*
C4-DCLCL-27050-12JETI2	10070156	C4	–	40,0 *1.575*	27,0 *1.063*	50,0 *1.969*	100,0 *3.937*	140,0 *5.512*	150,0 *2175.6*	95,0	0,0	0,0	0,4 *0.880*	CC..1204.. *CC..43.*
C5-DCLCR-35060-12JETI2	10070186	C5	–	50,0 *1.969*	35,0 *1.378*	60,0 *2.362*	95,0 *3.740*	140,0 *5.512*	150,0 *2175.6*	95,0	0,0	0,0	0,8 *1.760*	CC..1204.. *CC..43.*
C5-DCLCL-35060-12JETI2	10070185	C5	–	50,0 *1.969*	35,0 *1.378*	60,0 *2.362*	95,0 *3.740*	140,0 *5.512*	150,0 *2175.6*	95,0	0,0	0,0	0,4 *0.880*	CC..1204.. *CC..43.*
C6-DCLCR-45065-12JETI2	10070215	C6	–	63,0 *2.480*	45,0 *1.772*	65,0 *2.559*	100,0 *3.937*	160,0 *6.299*	150,0 *2175.6*	95,0	0,0	0,0	1,2 *2.650*	CC..1204.. *CC..43.*
C6-DCLCL-45065-12JETI2	10070214	C6	–	63,0 *2.480*	45,0 *1.772*	65,0 *2.559*	100,0 *3.937*	160,0 *6.299*	150,0 *2175.6*	95,0	0,0	0,0	1,2 *2.650*	CC..1204.. *CC..43.*

Spare Parts, included in delivery

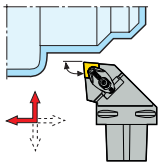
For size	Clamp key	Clamp screw	Coolant kit	Insert shim	Plug screw	Shim screw	Spring
							
..-09	T09P-2	L84017-T09P	CP14U00S-2-SET	–	–	–	S5808
C4-DCLCR-..-12	T15P-2	L85021-T15P	CP17U00S-2-SET	123.19-621	P6SS3X3G	CA5008	S7111
..-12	T15P-2	L85021-T15P	CP17U00S-2-SET	123.19-621	–	CA5008	S7111

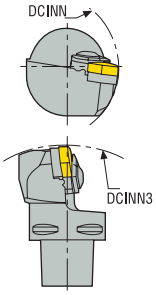
Accessories

For size	Coolant kit R-Roughing	Duo coolant plug screw	Insert clamping torque	Shim key	Torque key
					
..-09	CP14L00R-2-SET	P6SS4X8	2.0NM	–	T00-09P20
C4-DCLCR-..-12	CP17L00R-2-SET	P6SS3X5	3.5NM	5SMS795	T00-15P35
..-12	CP17L00R-2-SET	P6SS4X8	3.5NM	5SMS795	T00-15P35

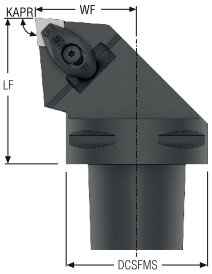
C.-DCLNR/L...JETI2 – Toolholders for inserts CNGA, CNGG, CNMA, CNMG, CNMM – Metric / *Inch*

KAPR = 95,0 °





C.-DCLNR/L...JETI





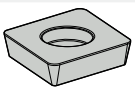
CTWS



- Right-hand version shown
- For inserts program, see page(s) 546, 547, 548, 549, 550, 551, 593, 594
- For holder code key, see page(s) 11-12
- For more information on Jetstream Tooling® and accessories, see page(s) 38, 85-89, 1026
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	Duo	DCSFMS	WF	LF	DCINN	DCINN3	CP	KAPR°	GAMO°	LAMS°	Weight	CTWS
				mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	bar *psi*				kg *lbs*	
C4-DCLNR-27050-12JETI2	10070160	C4	–	40,0 *1.575*	27,0 *1.063*	50,0 *1.969*	75,0 *2.953*	160,0 *6.299*	150,0 *2175.6*	95,0	-6,0	-6,0	0,4 *0.880*	CN..1204.. *CN..43.*
C4-DCLNL-27050-12JETI2	10070159	C4	–	40,0 *1.575*	27,0 *1.063*	50,0 *1.969*	75,0 *2.953*	160,0 *6.299*	150,0 *2175.6*	95,0	-6,0	-6,0	0,4 *0.880*	CN..1204.. *CN..43.*
C5-DCLNR-35060-12JETI2	10070189	C5	–	50,0 *1.969*	35,0 *1.378*	60,0 *2.362*	85,0 *3.346*	120,0 *4.724*	150,0 *2175.6*	95,0	-6,0	-6,0	0,8 *1.760*	CN..1204.. *CN..43.*
C5-DCLNL-35060-12JETI2	10070187	C5	–	50,0 *1.969*	35,0 *1.378*	60,0 *2.362*	85,0 *3.346*	120,0 *4.724*	150,0 *2175.6*	95,0	-6,0	-6,0	0,8 *1.760*	CN..1204.. *CN..43.*
C5-DCLNR-35060-16JETI2	10070190	C5	–	50,0 *1.969*	35,0 *1.378*	60,0 *2.362*	120,0 *4.724*	150,0 *5.906*	150,0 *2175.6*	95,0	-6,0	-6,0	0,8 *1.760*	CN..1606.. *CN..54.*
C5-DCLNL-35060-16JETI2	10070188	C5	–	50,0 *1.969*	35,0 *1.378*	60,0 *2.362*	120,0 *4.724*	150,0 *5.906*	150,0 *2175.6*	95,0	-6,0	-6,0	0,8 *1.760*	CN..1606.. *CN..54.*
C6-DCLNR-45065-12JETI2	10070281	C6	–	63,0 *2.480*	45,0 *1.772*	65,0 *2.559*	100,0 *3.937*	160,0 *6.299*	150,0 *2175.6*	95,0	-6,0	-6,0	1,3 *2.870*	CN..1204.. *CN..43.*
C6-DCLNL-45065-12JETI2	10070279	C6	–	63,0 *2.480*	45,0 *1.772*	65,0 *2.559*	100,0 *3.937*	160,0 *6.299*	150,0 *2175.6*	95,0	-6,0	-6,0	1,4 *3.090*	CN..1204.. *CN..43.*
C6-DCLNR-45065-16JETI2	10070282	C6	–	63,0 *2.480*	45,0 *1.772*	65,0 *2.559*	120,0 *4.724*	150,0 *5.906*	150,0 *2175.6*	95,0	-6,0	-6,0	1,5 *3.310*	CN..1606.. *CN..54.*
C6-DCLNL-45065-16JETI2	10070280	C6	–	63,0 *2.480*	45,0 *1.772*	65,0 *2.559*	120,0 *4.724*	150,0 *5.906*	150,0 *2175.6*	95,0	-6,0	-6,0	1,3 *2.870*	CN..1606.. *CN..54.*
C8-DCLNR-55080-12JETI2	10070315	C8	–	80,0 *3.150*	55,0 *2.165*	80,0 *3.150*	110,0 *4.331*	150,0 *5.906*	150,0 *2175.6*	95,0	-6,0	-6,0	2,6 *5.730*	CN..1204.. *CN..43.*
C8-DCLNL-55080-12JETI2	10070310	C8	–	80,0 *3.150*	55,0 *2.165*	80,0 *3.150*	110,0 *4.331*	150,0 *5.906*	150,0 *2175.6*	95,0	-6,0	-6,0	2,6 *5.730*	CN..1204.. *CN..43.*
C8-DCLNR-55080-16JETI2	10070316	C8	–	80,0 *3.150*	55,0 *2.165*	80,0 *3.150*	120,0 *4.724*	150,0 *5.906*	150,0 *2175.6*	95,0	-6,0	-6,0	2,6 *5.730*	CN..1606.. *CN..54.*
C8-DCLNL-55080-16JETI2	10070314	C8	–	80,0 *3.150*	55,0 *2.165*	80,0 *3.150*	120,0 *4.724*	150,0 *5.906*	150,0 *2175.6*	95,0	-6,0	-6,0	2,6 *5.730*	CN..1606.. *CN..54.*

Spare Parts, included in delivery

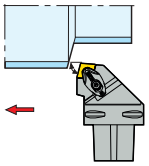
For size	Clamp key	Clamp screw	Coolant kit	Insert shim	Plug screw	Shim screw	Spring
							
..-12	T15P-2	L85021-T15P	CN17L00R-2-SET	DCO120310	–	C04008-T15P	S7111
C4-DCLNL..-12	T15P-2	L85021-T15P	CN17L00R-2-SET	DCO120310	P6SS3X3G	C04008-T15P	S7111
..-16	T15P-2	L85021-T15P	CN21L00R-2-SET	DCN160616	–	C05010-T20P	S7111

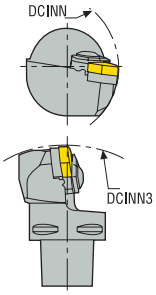
Accessories

For size	Coolant kit S-Standard	Coolant kit X-Roughing2	Duo coolant plug screw	Insert clamping torque	Shim key	Torque key
						
..-12	CN17U00S-2-SET	CN17L00X-2-SET	P6SS4X8	3.5NM	–	T00-15P35
C4-DCLNL..-12	CN17U00S-2-SET	CN17L00X-2-SET	P6SS3X5	3.5NM	–	T00-15P35
..-16	CN21U00S-2-SET	CN21L00X-2-SET	P6SS4X8	3.5NM	T20P-2D	T00-15P35

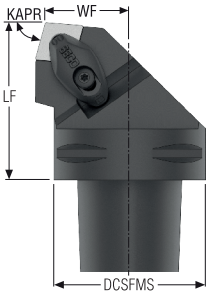
C.-DCRNR/L...JETI2 – Toolholders for inserts CNMA, CNMG, CNMM – Metric / *Inch*

KAPR = 75,0 °





C.-DCRNR/L...JETI





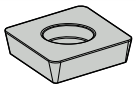
CTWS



- Right-hand version shown
- For inserts program, see page(s) 546, 547, 548, 549, 550, 551
- For holder code key, see page(s) 11-12
- For more information on Jetstream Tooling® and accessories, see page(s) 38, 85-89, 1026
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	Duo	DCSFMS	WF	LF	DCINN	DCINN3	CP	KAPR°	GAMO°	LAMS°	Weight	CTWS
				mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	bar *psi*				kg *lbs*	
C6-DCRNR-35065-16JETI2	10070284	C6	–	63,0 *2.480*	35,0 *1.378*	65,0 *2.559*	150,0 *5.906*	150,0 *5.906*	150,0 *2175.6*	75,0	-6,0	-6,0	1,3 *2.870*	CN..1606.. *CN..54.*
C6-DCRNL-35065-16JETI2	10070283	C6	–	63,0 *2.480*	35,0 *1.378*	65,0 *2.559*	150,0 *5.906*	150,0 *5.906*	150,0 *2175.6*	75,0	-6,0	-6,0	1,3 *2.870*	CN..1606.. *CN..54.*

Spare Parts, included in delivery

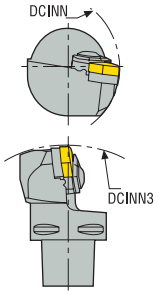
For size	Clamp key	Clamp screw	Coolant kit	Insert shim	Shim screw	Spring
						
..-16	T15P-2	L85021-T15P	CN21L00R-2-SET	DCN160616	C05010-T20P	S7111

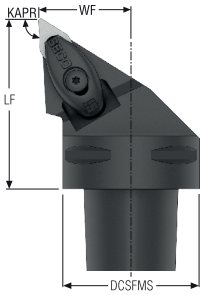
Accessories

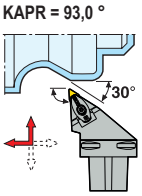
For size	Coolant kit S-Standard	Coolant kit X-Roughing2	Duo coolant plug screw	Insert clamping torque	Shim key	Torque key
						
..-16	CN21U00S-2-SET	CN21L00X-2-SET	P6SS4X8	3.5NM	T20P-2D	T00-15P35

C.-DDJCR/L...JETI2 – Toolholders for inserts DCGT, DCGW, DCMT, DCMW, DCMX – **Metric** / *Inch*









CTWS



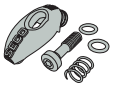
- Right-hand version shown
- For inserts program, see page(s) 553, 554, 555, 596, 617
- For holder code key, see page(s) 11-12
- For more information on Jetstream Tooling® and accessories, see page(s) 38, 85-89, 1026
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	Duo	DCSFMS	WF	LF	DCINN	DCINN3	CP	KAPR°	GAMO°	LAMS°	Weight	CTWS
				mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	bar *psi*				kg *lbs*	
C4-DDJCR-27050-11JETI2	10070162	C4	–	40,0 *1.575*	27,0 *1.063*	50,0 *1.969*	95,0 *3.740*	100,0 *3.937*	150,0 *2175.6*	93,0	0,0	0,0	0,4 *0.880*	DC..11T3.. *DC..32.5.*
C4-DDJCL-27050-11JETI2	10070161	C4	–	40,0 *1.575*	27,0 *1.063*	50,0 *1.969*	95,0 *3.740*	100,0 *3.937*	150,0 *2175.6*	93,0	0,0	0,0	0,4 *0.880*	DC..11T3.. *DC..32.5.*
C5-DDJCR-35060-11JETI2	10070192	C5	–	50,0 *1.969*	35,0 *1.378*	60,0 *2.362*	85,0 *3.346*	100,0 *3.937*	150,0 *2175.6*	93,0	0,0	0,0	0,7 *1.540*	DC..11T3.. *DC..32.5.*
C5-DDJCL-35060-11JETI2	10070191	C5	–	50,0 *1.969*	35,0 *1.378*	60,0 *2.362*	85,0 *3.346*	100,0 *3.937*	150,0 *2175.6*	93,0	0,0	0,0	0,7 *1.540*	DC..11T3.. *DC..32.5.*
C6-DDJCR-45065-11JETI2	10070287	C6	–	63,0 *2.480*	45,0 *1.772*	65,0 *2.559*	100,0 *3.937*	120,0 *4.724*	150,0 *2175.6*	93,0	0,0	0,0	1,1 *2.430*	DC..11T3.. *DC..32.5.*
C6-DDJCL-45065-11JETI2	10070286	C6	–	63,0 *2.480*	45,0 *1.772*	65,0 *2.559*	100,0 *3.937*	120,0 *4.724*	150,0 *2175.6*	93,0	0,0	0,0	1,1 *2.430*	DC..11T3.. *DC..32.5.*

Spare Parts, included in delivery

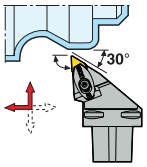
For size	Clamp key	Clamp screw	Coolant kit	Insert shim	Shim screw	Spring
						
..-11	T09P-2	L84017-T09P	CP14U00S-2-SET	126.19-620	C94006-T15P	S5808

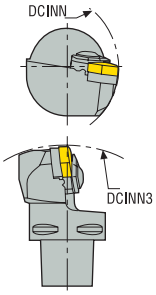
Accessories

For size	Coolant kit R-Roughing	Duo coolant plug screw	Insert clamping torque	Shim key	Torque key
					
..-11	CP14L00R-2-SET	P6SS4X8	2.0NM	T15P-2	T00-09P20

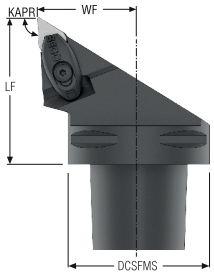
C.-DDJNR/L...JETI2 – Toolholders for inserts DNGA, DNGG, DNGM, DNMA, DNMG, DNMM, DNMU, DNMX – Metric / *Inch*

KAPR = 93,0 °





C.-DDJNR/L...JETI





CTWS



- Right-hand version shown
- For inserts program, see page(s) 556, 557, 558, 559, 597, 598
- For holder code key, see page(s) 11-12
- For more information on Jetstream Tooling® and accessories, see page(s) 38, 85-89, 1026
- * Use the right shim & the right screw for the selected insert. For details, see page 99
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	Duo	DCSFMS	WF	LF	DCINN	DCINN3	CP	KAPR°	GAMO°	LAMS°	Weight	CTWS
				mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	bar *psi*				kg *lbs*	
C4-DDJNR-27050-11JETI2	10070166	C4	–	40,0 *1.575*	27,0 *1.063*	50,0 *1.969*	70,0 *2.756*	100,0 *3.937*	150,0 *2175.6*	93,0	-6,0	-6,0	0,4 *0.880*	DNMU1104.. *DNMU33.*
C4-DDJNL-27050-11JETI2	10070163	C4	–	40,0 *1.575*	27,0 *1.063*	50,0 *1.969*	70,0 *2.756*	100,0 *3.937*	150,0 *2175.6*	93,0	-6,0	-6,0	0,4 *0.880*	DNMU1104.. *DNMU33.*
C4-DDJNR-27055-15-04JETI2	10070167	C4	–	40,0 *1.575*	27,0 *1.063*	55,0 *2.165*	100,0 *3.937*	100,0 *3.937*	150,0 *2175.6*	93,0	-6,0	-6,0	0,4 *0.880*	DN..1504-DN..1506* *DN..43-DN..44**
C4-DDJNL-27055-15-04JETI2	10070164	C4	–	40,0 *1.575*	27,0 *1.063*	55,0 *2.165*	100,0 *3.937*	100,0 *3.937*	150,0 *2175.6*	93,0	-6,0	-6,0	0,4 *0.880*	DN..1504-DN..1506* *DN..43-DN..44**
C4-DDJNR-27055-15JETI2	10070169	C4	–	40,0 *1.575*	27,0 *1.063*	55,0 *2.165*	100,0 *3.937*	100,0 *3.937*	150,0 *2175.6*	93,0	-6,0	-6,0	0,4 *0.880*	DN..1504-DN..1506* *DN..43-DN..44**
C4-DDJNL-27055-15JETI2	10070165	C4	–	40,0 *1.575*	27,0 *1.063*	55,0 *2.165*	100,0 *3.937*	100,0 *3.937*	150,0 *2175.6*	93,0	-6,0	-6,0	0,4 *0.880*	DN..1504-DN..1506* *DN..43-DN..44**
C5-DDJNR-35060-11JETI2	10070196	C5	–	50,0 *1.969*	35,0 *1.378*	60,0 *2.362*	70,0 *2.756*	100,0 *3.937*	150,0 *2175.6*	93,0	-6,0	-6,0	0,7 *1.540*	DNMU1104.. *DNMU33.*
C5-DDJNL-35060-11JETI2	10070193	C5	–	50,0 *1.969*	35,0 *1.378*	60,0 *2.362*	70,0 *2.756*	100,0 *3.937*	150,0 *2175.6*	93,0	-6,0	-6,0	0,7 *1.540*	DNMU1104.. *DNMU33.*
C5-DDJNR-35060-15-04JETI2	10070197	C5	–	50,0 *1.969*	35,0 *1.378*	60,0 *2.362*	100,0 *3.937*	120,0 *4.724*	150,0 *2175.6*	93,0	-6,0	-6,0	0,7 *1.540*	DN..1504-DN..1506* *DN..43-DN..44**
C5-DDJNL-35060-15-04JETI2	10070194	C5	–	50,0 *1.969*	35,0 *1.378*	60,0 *2.362*	100,0 *3.937*	120,0 *4.724*	150,0 *2175.6*	93,0	-6,0	-6,0	0,7 *1.540*	DN..1504-DN..1506* *DN..43-DN..44**
C5-DDJNR-35060-15JETI2	10070198	C5	–	50,0 *1.969*	35,0 *1.378*	60,0 *2.362*	100,0 *3.937*	120,0 *4.724*	150,0 *2175.6*	93,0	-6,0	-6,0	0,8 *1.760*	DN..1504-DN..1506* *DN..43-DN..44**
C5-DDJNL-35060-15JETI2	10070195	C5	–	50,0 *1.969*	35,0 *1.378*	60,0 *2.362*	100,0 *3.937*	120,0 *4.724*	150,0 *2175.6*	93,0	-6,0	-6,0	0,7 *1.540*	DN..1504-DN..1506* *DN..43-DN..44**
C6-DDJNR-45065-15-04JETI2	10070290	C6	–	63,0 *2.480*	45,0 *1.772*	65,0 *2.559*	100,0 *3.937*	120,0 *4.724*	150,0 *2175.6*	93,0	-6,0	-6,0	1,1 *2.430*	DN..1504-DN..1506* *DN..43-DN..44**
C6-DDJNL-45065-15-04JETI2	10070288	C6	–	63,0 *2.480*	45,0 *1.772*	65,0 *2.559*	100,0 *3.937*	120,0 *4.724*	150,0 *2175.6*	93,0	-6,0	-6,0	1,1 *2.430*	DN..1504-DN..1506* *DN..43-DN..44**
C6-DDJNR-45065-15JETI2	10070291	C6	–	63,0 *2.480*	45,0 *1.772*	65,0 *2.559*	100,0 *3.937*	120,0 *4.724*	150,0 *2175.6*	93,0	-6,0	-6,0	1,1 *2.430*	DN..1504-DN..1506* *DN..43-DN..44**
C6-DDJNL-45065-15JETI2	10070289	C6	–	63,0 *2.480*	45,0 *1.772*	65,0 *2.559*	100,0 *3.937*	120,0 *4.724*	150,0 *2175.6*	93,0	-6,0	-6,0	1,1 *2.430*	DN..1504-DN..1506* *DN..43-DN..44**
C8-DDJNR-55080-15JETI2	10070318	C8	–	80,0 *3.150*	55,0 *2.165*	80,0 *3.150*	110,0 *4.331*	140,0 *5.512*	150,0 *2175.6*	93,0	-6,0	-6,0	2,3 *5.070*	DN..1504-DN..1506* *DN..43-DN..44**
C8-DDJNL-55080-15JETI2	10070317	C8	–	80,0 *3.150*	55,0 *2.165*	80,0 *3.150*	110,0 *4.331*	140,0 *5.512*	150,0 *2175.6*	93,0	-6,0	-6,0	2,3 *5.070*	DN..1504-DN..1506* *DN..43-DN..44**

Spare Parts, included in delivery

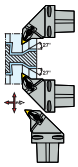
For size	Clamp key	Clamp screw	Coolant kit	Insert shim	Plug screw	Shim/clamp key	Shim screw	Spring
								
R..-11	T09P-2	L84017-T09P	CX14U10S-2R-SET	DDN110310	–	–	C03007-T09P	S5808
L..-11	T09P-2	L84017-T09P	CX14U10S-2L-SET	DDN110310	–	–	C03007-T09P	S5808
C4, C6-R..-15-04	T15P-2	L85021-T15P	CN17U10S-2R-SET	DDN150616	–	–	C04011-T15P	S7111
C4, C6-L..-15-04	T15P-2	L85021-T15P	CN17U10S-2L-SET	DDN150616	–	–	C04011-T15P	S7111
R..-15	T15P-2	L85021-T15P	CN17U10S-2R-SET	DDN150416	–	–	C04008-T15P	S7111
L..-15	T15P-2	L85021-T15P	CN17U10S-2L-SET	DDN150416	–	–	C04008-T15P	S7111
R..-11	–	L84017-T10P	CX14U10S-2R-SET	DDN110310	P6SS4X4	T10P-2	C03007-T09P	S5808
L..-11	–	L84017-T10P	CX14U10S-2L-SET	DDN110310	P6SS4X4	T10P-2	C03007-T09P	S5808
C5-.R..-15-04	T15P-2	L85021-T15P	CN17U10S-2R-SET	DDN150616	–	–	C04008-T15P	S7111
C5-L..-15-04	T15P-2	L85021-T15P	CN17U10S-2L-SET	DDN150616	–	–	C04008-T15P	S7111

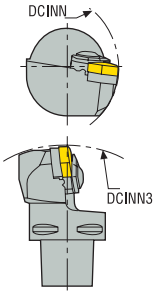
Accessories

For size	Coolant kit R-Roughing	Duo coolant plug screw	Insert clamping torque	Torque key
				
R..-11	–	P6SS4X8	2.0NM	T00-09P20
L..-11	–	P6SS4X8	2.0NM	T00-09P20
C4, C6-R..-15-04	CN17L10R-2R-SET	P6SS4X8	3.5NM	T00-15P35
C4, C6-L..-15-04	CN17L10R-2L-SET	P6SS4X8	3.5NM	T00-15P35
R..-15	CN17L10R-2R-SET	P6SS4X8	3.5NM	T00-15P35
L..-15	CN17L10R-2L-SET	P6SS4X8	3.5NM	T00-15P35
C5-.R..-15-04	CN17L10R-2R-SET	P6SS4X8	3.5NM	T00-15P35
C5-L..-15-04	CN17L10R-2L-SET	P6SS4X8	3.5NM	T00-15P35

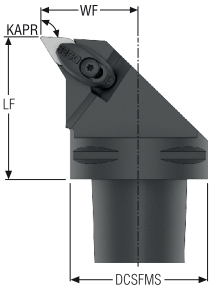
C.-DDUNR/L...JETI2 – Toolholders for inserts DNGA, DNGM, DNMA, DNMG, DNMM, DNMX – Metric / *Inch*

KAPR = 93,0 °





C.-DDUNR/L...JETI





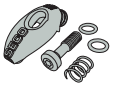
CTWS



- Right-hand version shown
- For inserts program, see page(s) 556, 557, 558, 559, 597, 598
- For holder code key, see page(s) 11-12
- For more information on Jetstream Tooling® and accessories, see page(s) 38, 85-89, 1026
- * Use the right shim & the right screw for the selected insert. For details, see page 99
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	Duo	DCSFMS	WF	LF	DCINN	DCINN3	CP	KAPR°	GAMO°	LAMS°	Weight	CTWS
				mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	bar *psi*				kg *lbs*	
C6-DDUNR-45065-15JETI2	10070293	C6	–	63,0 *2.480*	45,0 *1.772*	65,0 *2.559*	95,0 *3.740*	140,0 *5.512*	150,0 *2175.6*	93,0	-6,0	-7,0	1,3 *2.870*	DN..1504-DN..1506* *DN..43-DN..44**
C6-DDUNL-45065-15JETI2	10070292	C6	–	63,0 *2.480*	45,0 *1.772*	65,0 *2.559*	95,0 *3.740*	140,0 *5.512*	150,0 *2175.6*	93,0	-6,0	-7,0	1,3 *2.870*	DN..1504-DN..1506* *DN..43-DN..44**
C8-DDUNR-55080-15JETI2	10070320	C8	–	80,0 *3.150*	55,0 *2.165*	80,0 *3.150*	100,0 *3.937*	140,0 *5.512*	150,0 *2175.6*	93,0	-6,0	-7,0	2,5 *5.510*	DN..1504-DN..1506* *DN..43-DN..44**
C8-DDUNL-55080-15JETI2	10070319	C8	–	80,0 *3.150*	55,0 *2.165*	80,0 *3.150*	100,0 *3.937*	140,0 *5.512*	150,0 *2175.6*	93,0	-6,0	-7,0	2,5 *5.510*	DN..1504-DN..1506* *DN..43-DN..44**

Spare Parts, included in delivery

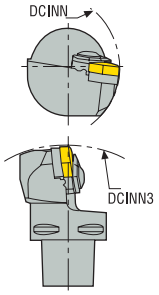
For size	Clamp key	Clamp screw	Coolant kit	Insert shim	Shim screw	Spring
						
..-15	T15P-2	L85021-T15P	CN17U00S-2-SET	DDN150416	C04008-T15P	S7111

Accessories

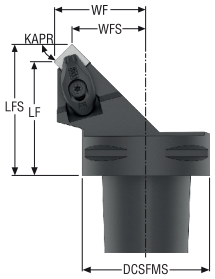
For size	Coolant kit R-Roughing	Coolant kit X-Roughing2	Duo coolant plug screw	Insert clamping torque	Torque key
					
..-15	CN17L00R-2-SET	CN17L00X-2-SET	P6SS4X8	3.5NM	T00-15P35

C.-DSSNR/L...JETI2 – Toolholders for inserts SNGA, SNMA, SNMG, SNMM – **Metric** / *Inch*

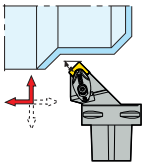




C.-DSSNR/L...JETI



KAPR = 45,0 °



CTWS



- Right-hand version shown
- For inserts program, see page(s) 567, 568, 569, 570, 603
- For holder code key, see page(s) 11-12
- For more information on Jetstream Tooling® and accessories, see page(s) 38, 85-89, 1026
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	Duo	DCSFMS	WF	WFS	LF	LFS	DCINN	DCINN3	CP	KAPR°	GAMO°	LAMS°	Weight	CTWS
				mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	bar *psi*				kg *lbs*	
C4-DSSNR-27048-12JETI2	10070171	C4	–	40,0 *1.575*	27,0 *1.063*	19,1 *0.752*	48,0 *1.890*	55,9 *2.201*	95,0 *3.740*	150,0 *5.906*	150,0 *2175.6*	45,0	-8,0	0,0	0,5 *1.100*	SN..1204.. *SN..43.*
C4-DSSNL-27048-12JETI2	10070170	C4	–	40,0 *1.575*	27,0 *1.063*	19,1 *0.752*	48,0 *1.890*	55,9 *2.201*	95,0 *3.740*	150,0 *5.906*	150,0 *2175.6*	45,0	-8,0	0,0	0,5 *1.100*	SN..1204.. *SN..43.*
C5-DSSNR-35052-12JETI2	10070200	C5	–	50,0 *1.969*	35,0 *1.378*	26,67 *1.050*	52,0 *2.047*	59,86 *2.357*	95,0 *3.740*	130,0 *5.118*	150,0 *2175.6*	45,0	-8,0	0,0	0,7 *1.540*	SN..1204.. *SN..43.*
C5-DSSNL-35052-12JETI2	10070199	C5	–	50,0 *1.969*	35,0 *1.378*	26,67 *1.050*	52,0 *2.047*	59,86 *2.357*	95,0 *3.740*	130,0 *5.118*	150,0 *2175.6*	45,0	-8,0	0,0	0,7 *1.540*	SN..1204.. *SN..43.*
C6-DSSNR-45056-12JETI2	10070296	C6	–	63,0 *2.480*	45,0 *1.772*	36,68 *1.444*	56,0 *2.205*	64,3 *2.531*	100,0 *3.937*	140,0 *5.512*	150,0 *2175.6*	45,0	-8,0	0,0	1,1 *2.430*	SN..1204.. *SN..43.*
C6-DSSNL-45056-12JETI2	10070294	C6	–	63,0 *2.480*	45,0 *1.772*	36,68 *1.444*	56,0 *2.205*	64,3 *2.531*	100,0 *3.937*	140,0 *5.512*	150,0 *2175.6*	45,0	-8,0	0,0	1,1 *2.430*	SN..1204.. *SN..43.*
C6-DSSNR-45056-15JETI2	10070297	C6	–	63,0 *2.480*	45,0 *1.772*	34,27 *1.349*	56,0 *2.205*	66,73 *2.627*	100,0 *3.937*	140,0 *5.512*	150,0 *2175.6*	45,0	-8,0	0,0	1,1 *2.430*	SN..1506.. *SN..54.*
C6-DSSNL-45056-15JETI2	10070295	C6	–	63,0 *2.480*	45,0 *1.772*	34,27 *1.349*	56,0 *2.205*	66,73 *2.627*	100,0 *3.937*	140,0 *5.512*	150,0 *2175.6*	45,0	-8,0	0,0	1,3 *2.870*	SN..1506.. *SN..54.*
C8-DSSNR-55080-12JETI2	10070322	C8	–	80,0 *3.150*	55,0 *2.165*	47,1 *1.854*	80,0 *3.150*	87,4 *3.441*	110,0 *4.331*	150,0 *5.906*	150,0 *2175.6*	45,0	-8,0	0,0	2,5 *5.510*	SN..1204.. *SN..43.*
C8-DSSNL-55080-12JETI2	10070321	C8	–	80,0 *3.150*	55,0 *2.165*	47,1 *1.854*	80,0 *3.150*	87,4 *3.441*	110,0 *4.331*	150,0 *5.906*	150,0 *2175.6*	45,0	-8,0	0,0	2,4 *5.290*	SN..1204.. *SN..43.*

Spare Parts, included in delivery

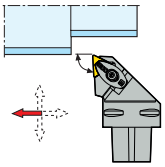
For size	Clamp key	Clamp screw	Coolant kit	Insert shim	Shim screw	Spring
						
..-12	T15P-2	L85021-T15P	CN17L00R-2-SET	DSN120616	C04008-T15P	S7111
..-15	T15P-2	L85021-T15P	CN21L00R-2-SET	DSN150624	C05010-T20P	S7111

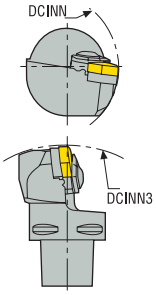
Accessories

For size	Coolant kit S-Standard	Coolant kit X-Roughing2	Duo coolant plug screw	Insert clamping torque	Shim key	Torque key
						
..-12	CN17U00S-2-SET	CN17L00X-2-SET	P6SS4X8	3.5NM	–	T00-15P35
..-15	CN21U00S-2-SET	CN21L00X-2-SET	P6SS4X8	3.5NM	T20P-2D	T00-15P35

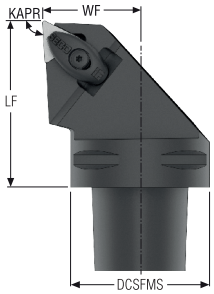
C.-DTJNR/L...JETI2 – Toolholders for inserts TNGA, TNMA, TNMG, TNMM, TNMX – Metric / *Inch*

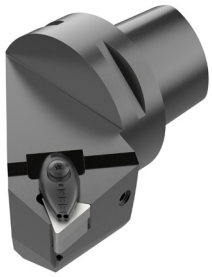
KAPR = 93,0 °





C.-DTJNR/L...JETI





CTWS



- Right-hand version shown
- For inserts program, see page(s) 574, 575, 576, 577, 608, 611
- For holder code key, see page(s) 11-12
- For more information on Jetstream Tooling® and accessories, see page(s) 38, 85-89, 1026
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	Duo	DCSFMS mm *inch*	WF mm *inch*	LF mm *inch*	DCINN mm *inch*	DCINN3 mm *inch*	CP bar *psi*	KAPR°	GAMO°	LAMS°	Weight kg *lbs*	CTWS
C4-DTJNR-27050-16JETI2	10070173	C4	–	40,0 *1.575*	27,0 *1.063*	50,0 *1.969*	90,0 *3.543*	150,0 *5.906*	150,0 *2175.6*	93,0	-6,0	-6,0	0,4 *0.880*	TN..1604.. *TN..33.*
C4-DTJNL-27050-16JETI2	10070172	C4	–	40,0 *1.575*	27,0 *1.063*	50,0 *1.969*	90,0 *3.543*	150,0 *5.906*	150,0 *2175.6*	93,0	-6,0	-6,0	0,4 *0.880*	TN..1604.. *TN..33.*
C5-DTJNR-35060-16JETI2	10070202	C5	–	50,0 *1.969*	35,0 *1.378*	60,0 *2.362*	100,0 *3.937*	150,0 *5.906*	150,0 *2175.6*	93,0	-6,0	-6,0	0,8 *1.760*	TN..1604.. *TN..33.*
C5-DTJNL-35060-16JETI2	10070201	C5	–	50,0 *1.969*	35,0 *1.378*	60,0 *2.362*	100,0 *3.937*	150,0 *5.906*	150,0 *2175.6*	93,0	-6,0	-6,0	0,8 *1.760*	TN..1604.. *TN..33.*
C6-DTJNR-45065-16JETI2	10070299	C6	–	63,0 *2.480*	45,0 *1.772*	65,0 *2.559*	100,0 *3.937*	150,0 *5.906*	150,0 *2175.6*	93,0	-6,0	-6,0	1,4 *3.090*	TN..1604.. *TN..33.*
C6-DTJNL-45065-16JETI2	10070298	C6	–	63,0 *2.480*	45,0 *1.772*	65,0 *2.559*	100,0 *3.937*	150,0 *5.906*	150,0 *2175.6*	93,0	-6,0	-6,0	1,4 *3.090*	TN..1604.. *TN..33.*

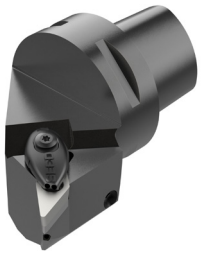
Spare Parts, included in delivery

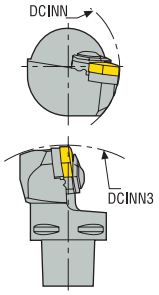
For size	Clamp key	Clamp screw	Coolant kit	Insert shim	Plug screw	Shim/clamp key	Shim screw	Spring
C4-..R	T09P-2	L84017-T09P	CN14U10S-2L-SET	DTN160616	P6SS3X3G	–	C03007-T09P	S5808
C4-..L	T09P-2	L84017-T09P	CN14U10S-2R-SET	DTN160616	P6SS3X3G	–	C03007-T09P	S5808
C5-..R	–	L84017-T10P	CN14U10S-2L-SET	DTN160616	P6SS4X4	T10P-2	C03007-T09P	S5808
C5-..L, C6-..L	–	L84017-T10P	CN14U10S-2R-SET	DTN160616	P6SS4X4	T10P-2	C03007-T09P	S5808
C6-..R	–	L84017-T10P	CN14U10S-2L-SET	DTN160616	P6SS4X4	T10P-2	C03007-T09P	S7111

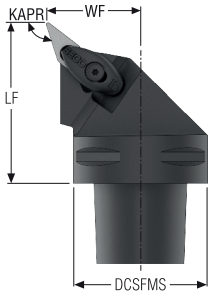
Accessories

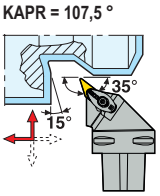
For size	Duo coolant plug screw	Insert clamping torque	Torque key
C4	P6SS3X5	2.0NM	T00-09P20
C5, C6	P6SS4X8	2.0NM	T00-09P20

C.-DVHBR/L...JETI2 – Toolholders for inserts VBMT, VBGT, VBGW, VBMW, VCGT – **Metric** / *Inch*









CTWS



- Right-hand version shown
- For inserts program, see page(s) 582, 583, 612, 619
- For holder code key, see page(s) 11-12
- For more information on Jetstream Tooling® and accessories, see page(s) 38, 85-89, 1026
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	Duo	DCSFMS	WF	LF	DCINN	DCINN3	CP	KAPR°	GAMO°	LAMS°	Weight	CTWS
				mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	bar *psi*				kg *lbs*	
C4-DVHBR-27050-16JETI2	10070175	C4	–	40,0 *1.575*	27,0 *1.063*	50,0 *1.969*	90,0 *3.543*	95,0 *3.740*	150,0 *2175.6*	107,5	0,0	0,0	0,4 *0.880*	VB..1604-VC..1604 *VB..33.-VC..33.*
C4-DVHBL-27050-16JETI2	10070174	C4	–	40,0 *1.575*	27,0 *1.063*	50,0 *1.969*	90,0 *3.543*	95,0 *3.740*	150,0 *2175.6*	107,5	0,0	0,0	0,4 *0.880*	VB..1604-VC..1604 *VB..33.-VC..33.*
C5-DVHBR-35060-16JETI2	10070204	C5	–	50,0 *1.969*	35,0 *1.378*	60,0 *2.362*	90,0 *3.543*	100,0 *3.937*	150,0 *2175.6*	107,5	0,0	0,0	0,7 *1.540*	VB..1604-VC..1604 *VB..33.-VC..33.*
C5-DVHBL-35060-16JETI2	10070203	C5	–	50,0 *1.969*	35,0 *1.378*	60,0 *2.362*	90,0 *3.543*	100,0 *3.937*	150,0 *2175.6*	107,5	0,0	0,0	0,7 *1.540*	VB..1604-VC..1604 *VB..33.-VC..33.*
C6-DVHBR-45065-16JETI2	10070301	C6	–	63,0 *2.480*	45,0 *1.772*	65,0 *2.559*	90,0 *3.543*	120,0 *4.724*	150,0 *2175.6*	107,5	0,0	0,0	1,2 *2.650*	VB..1604-VC..1604 *VB..33.-VC..33.*
C6-DVHBL-45065-16JETI2	10070300	C6	–	63,0 *2.480*	45,0 *1.772*	65,0 *2.559*	90,0 *3.543*	120,0 *4.724*	150,0 *2175.6*	107,5	0,0	0,0	1,2 *2.650*	VB..1604-VC..1604 *VB..33.-VC..33.*

Spare Parts, included in delivery

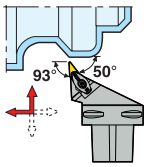
For size	Clamp key	Clamp screw	Coolant kit	Insert shim	Plug screw	Shim screw	Spring
C4-..R	T09P-2	L84017-T09P	CP14U20S-2L-SET	171.19-621	–	C94006-T15P	S5808
C4-..L	T09P-2	L84017-T09P	CP14U20S-2R-SET	171.19-621	–	C94006-T15P	S5808
C5, C6-..R	T09P-2	L84017-T09P	CP14U20S-2L-SET	171.19-621	P6SS3X3G	C94006-T15P	S5808
C5, C6-..L	T09P-2	L84017-T09P	CP14U20S-2R-SET	171.19-621	P6SS3X3G	C94006-T15P	S5808

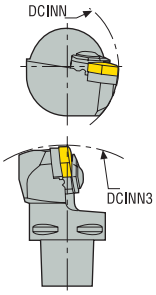
Accessories

For size	Duo coolant plug screw	Insert clamping torque	Shim key	Torque key
C4	P6SS4X8	2.0NM	T15P-2	T00-09P20
C5, C6	P6SS3X5	2.0NM	T15P-2	T00-09P20

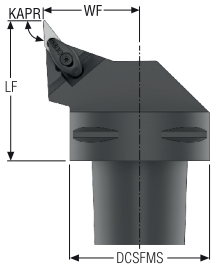
C.-DVJBR/L...JETI2 – Toolholders for inserts VBMT, VBGT, VBGW, VBMW, VCGT – Metric / *Inch*

KAPR = 93,0 °





C.-DVJBR/L...JETI





CTWS



- Right-hand version shown
- For inserts program, see page(s) 582, 583, 583, 612, 619
- For holder code key, see page(s) 11-12
- For more information on Jetstream Tooling® and accessories, see page(s) 38, 85-89, 1026
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	Duo	DCSFMS	WF	LF	DCINN	DCINN3	CP	KAPR°	GAMO°	LAMS°	Weight	CTWS
				mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	bar *psi*				kg *lbs*	
C4-DVJBR-27055-16JETI2	10070177	C4	–	40,0 *1.575*	27,0 *1.063*	55,0 *2.165*	95,0 *3.740*	85,0 *3.346*	150,0 *2175.6*	93,0	0,0	0,0	0,4 *0.880*	VB..1604-VC..1604 *VB..33.-VC..33.*
C4-DVJBL-27055-16JETI2	10070176	C4	–	40,0 *1.575*	27,0 *1.063*	55,0 *2.165*	95,0 *3.740*	85,0 *3.346*	150,0 *2175.6*	93,0	0,0	0,0	0,4 *0.880*	VB..1604-VC..1604 *VB..33.-VC..33.*
C5-DVJBR-35060-16JETI2	10070206	C5	–	50,0 *1.969*	35,0 *1.378*	60,0 *2.362*	95,0 *3.740*	100,0 *3.937*	150,0 *2175.6*	93,0	0,0	0,0	0,7 *1.540*	VB..1604-VC..1604 *VB..33.-VC..33.*
C5-DVJBL-35060-16JETI2	10070205	C5	–	50,0 *1.969*	35,0 *1.378*	60,0 *2.362*	95,0 *3.740*	100,0 *3.937*	150,0 *2175.6*	93,0	0,0	0,0	0,7 *1.540*	VB..1604-VC..1604 *VB..33.-VC..33.*
C6-DVJBR-45065-16JETI2	10070304	C6	–	63,0 *2.480*	45,0 *1.772*	65,0 *2.559*	100,0 *3.937*	120,0 *4.724*	150,0 *2175.6*	93,0	0,0	0,0	1,1 *2.430*	VB..1604-VC..1604 *VB..33.-VC..33.*
C6-DVJBL-45065-16JETI2	10070303	C6	–	63,0 *2.480*	45,0 *1.772*	65,0 *2.559*	100,0 *3.937*	120,0 *4.724*	150,0 *2175.6*	93,0	0,0	0,0	1,1 *2.430*	VB..1604-VC..1604 *VB..33.-VC..33.*
C8-DVJBR-55080-16JETI2	10070324	C8	–	80,0 *3.150*	55,0 *2.165*	80,0 *3.150*	110,0 *4.331*	140,0 *5.512*	150,0 *2175.6*	93,0	0,0	0,0	2,6 *5.730*	VB..1604-VC..1604 *VB..33.-VC..33.*
C8-DVJBL-55080-16JETI2	10070323	C8	–	80,0 *3.150*	55,0 *2.165*	80,0 *3.150*	110,0 *4.331*	140,0 *5.512*	150,0 *2175.6*	93,0	0,0	0,0	2,6 *5.730*	VB..1604-VC..1604 *VB..33.-VC..33.*

Spare Parts, included in delivery

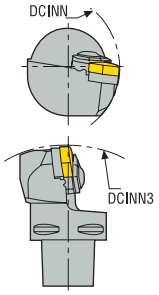
For size	Clamp key	Clamp screw	Coolant kit	Insert shim	Plug screw	Shim screw	Spring
C4-..R	T09P-2	L84017-T09P	CP14U20S-2L-SET	171.19-621	–	C94006-T15P	S5808
C4-..L	T09P-2	L84017-T09P	CP14U20S-2R-SET	171.19-621	–	C94006-T15P	S5808
C5, C6, C8-..R	T09P-2	L84017-T09P	CP14U20S-2L-SET	171.19-621	P6SS3X3G	C94006-T15P	S5808
C5, C6, C8-..L	T09P-2	L84017-T09P	CP14U20S-2R-SET	171.19-621	P6SS3X3G	C94006-T15P	S5808

Accessories

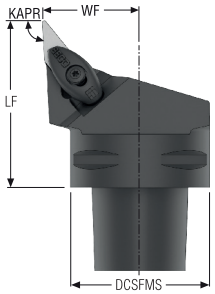
For size	Duo coolant plug screw	Insert clamping torque	Shim key	Torque key
C4	P6SS4X8	2.0NM	T15P-2	T00-09P20
C5, C6, C8	P6SS3X5	2.0NM	T15P-2	T00-09P20

C.-DVJNR/L...JETI2 – Toolholders for inserts VNGA, VNGG, VNGM, VNMA, VNMG – **Metric** / *Inch*

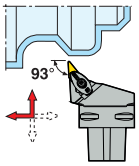




C.-DVJNR/L...JETI



KAPR = 93,0 °



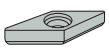
CTWS



- Right-hand version shown
- For inserts program, see page(s) 584, 585, 613
- For holder code key, see page(s) 11-12
- For more information on Jetstream Tooling® and accessories, see page(s) 38, 85-89, 1026
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	Duo	DCSFMS	WF	LF	DCINN	DCINN3	CP	KAPR°	GAMO°	LAMS°	Weight	CTWS
				mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	bar *psi*				kg *lbs*	
C4-DVJNR-27060-16JETI2	10070179	C4	–	40,0 *1.575*	27,0 *1.063*	60,0 *2.362*	65,0 *2.559*	95,0 *3.740*	150,0 *2175.6*	93,0	-4,5	-13,5	0,5 *1.100*	VN..1604.. *VN..33.*
C4-DVJNL-27060-16JETI2	10070178	C4	–	40,0 *1.575*	27,0 *1.063*	60,0 *2.362*	65,0 *2.559*	95,0 *3.740*	150,0 *2175.6*	93,0	-4,5	-13,5	0,5 *1.100*	VN..1604.. *VN..33.*
C5-DVJNR-35060-16JETI2	10070208	C5	–	50,0 *1.969*	35,0 *1.378*	60,0 *2.362*	85,0 *3.346*	100,0 *3.937*	150,0 *2175.6*	93,0	-4,5	-13,5	0,7 *1.540*	VN..1604.. *VN..33.*
C5-DVJNL-35060-16JETI2	10070207	C5	–	50,0 *1.969*	35,0 *1.378*	60,0 *2.362*	85,0 *3.346*	100,0 *3.937*	150,0 *2175.6*	93,0	-4,5	-13,5	0,8 *1.760*	VN..1604.. *VN..33.*
C6-DVJNR-45065-16JETI2	10070306	C6	–	63,0 *2.480*	45,0 *1.772*	65,0 *2.559*	100,0 *3.937*	120,0 *4.724*	150,0 *2175.6*	93,0	-4,5	-13,5	1,2 *2.650*	VN..1604.. *VN..33.*
C6-DVJNL-45065-16JETI2	10070305	C6	–	63,0 *2.480*	45,0 *1.772*	65,0 *2.559*	100,0 *3.937*	120,0 *4.724*	150,0 *2175.6*	93,0	-4,5	-13,5	1,2 *2.650*	VN..1604.. *VN..33.*

Spare Parts, included in delivery

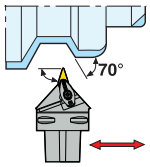
For size	Clamp key	Clamp screw	Coolant kit	Coolant kit S-Standard	Insert shim	Plug screw	Shim screw	Spring
								
C4, C5..-R	T09P-2	L84017-T09P	CN14U20S-2L-SET	–	171.19-620	P6SS3X3G	C94006-T15P	S5808
C4, C5..-L	T09P-2	L84017-T09P	CN14U20S-2R-SET	–	171.19-620	P6SS3X3G	C94006-T15P	S5808
C6..-R	T09P-2	L84017-T09P	–	CN14U20S-2L-SET	171.19-620	P6SS3X3G	C94006-T15P	S5808
C6..-L	T09P-2	L84017-T09P	–	CN14U20S-2R-SET	171.19-620	P6SS3X3G	C94006-T15P	S5808

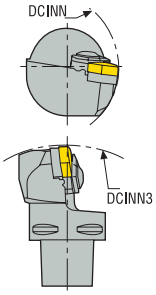
Accessories

For size	Duo coolant plug screw	Insert clamping torque	Shim key	Torque key
				
C4, C5, C6	P6SS3X5	2.0NM	T15P-2	T00-09P20

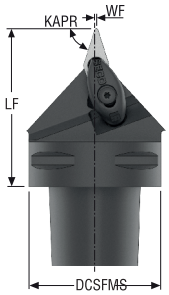
C.-DVVBN...JETI2 – Toolholders for inserts VBMT, VBGT, VBGW, VBMW, VCGT – Metric / *Inch*

KAPR = 72,5 °





C.-DVVBN...JETI





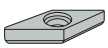
CTWS



- Neutral version shown
- For inserts program, see page(s) 582, 583, 583, 612, 619
- For holder code key, see page(s) 11-12
- For more information on Jetstream Tooling® and accessories, see page(s) 38, 85-89, 1026
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	Duo	DCSFMS	WF	LF	DCINN	DCINN3	CP	KAPR°	GAMO°	LAMS°	Weight	CTWS
				mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	bar *psi*				kg *lbs*	
C4-DVVBN-00055-16JETI2	10070184	C4	–	40,0 *1.575*	0,6 *0.024*	55,0 *2.165*	–	100,0 *3.937*	150,0 *2175.6*	72,5	0,0	0,0	0,4 *0.880*	VB..1604-VC..1604 *VB..33.-VC..33.*
C5-DVVBN-00060-16JETI2	10070213	C5	–	50,0 *1.969*	0,6 *0.024*	60,0 *2.362*	–	100,0 *3.937*	150,0 *2175.6*	72,5	0,0	0,0	0,6 *1.320*	VB..1604-VC..1604 *VB..33.-VC..33.*
C6-DVVBN-00065-16JETI2	10070309	C6	–	63,0 *2.480*	0,6 *0.024*	65,0 *2.559*	–	120,0 *4.724*	150,0 *2175.6*	72,5	0,0	0,0	1,1 *2.430*	VB..1604-VC..1604 *VB..33.-VC..33.*

Spare Parts, included in delivery

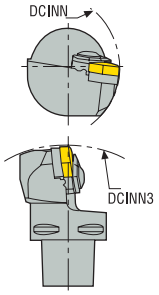
For size	Clamp key	Clamp screw	Coolant kit	Insert shim	Plug screw	Shim screw	Spring
							
C4	T09P-2	L84017-T09P	CP14U20S-2L-SET	171.19-621	–	C94006-T15P	S5808
C5, C6	T09P-2	L84017-T09P	CP14U20S-2L-SET	171.19-621	P6SS3X3G	C94006-T15P	S5808

Accessories

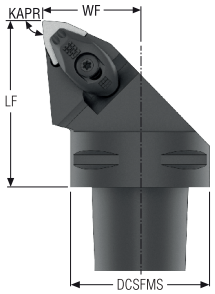
For size	Duo coolant plug screw	Insert clamping torque	Shim key	Torque key
				
C4	P6SS4X8	2.0NM	T15P-2	T00-09P20
C5, C6	P6SS3X5	2.0NM	T15P-2	T00-09P20

C.-DWLNR/L...JETI2 – Toolholders for inserts WNGA, WNGG, WNMA, WNMG, WNMM – **Metric** / *Inch*

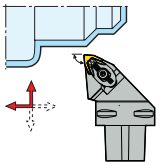




C.-DWLNR/L...JETI



KAPR = 95,0 °



CTWS



- Right-hand version shown
- For inserts program, see page(s) 586, 587, 588, 589, 614
- For holder code key, see page(s) 11-12
- For more information on Jetstream Tooling® and accessories, see page(s) 38, 85-89, 1026
- * Use the right shim & the right screw for the selected insert. For details, see page 100
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	Duo	DCSFMS mm *inch*	WF mm *inch*	LF mm *inch*	DCINN mm *inch*	DCINN3 mm *inch*	CP bar *psi*	KAPR°	GAMO°	LAMS°	Weight kg *lbs*	CTWS
C4-DWLNR-27050-06JETI2	10070182	C4	–	40,0 *1.575*	27,0 *1.063*	50,0 *1.969*	60,0 *2.362*	120,0 *4.724*	150,0 *2175.6*	95,0	-6,0	-6,0	0,4 *0.880*	WN..0604.. *WN..33.*
C4-DWLNL-27050-06JETI2	10070180	C4	–	40,0 *1.575*	27,0 *1.063*	50,0 *1.969*	60,0 *2.362*	120,0 *4.724*	150,0 *2175.6*	95,0	-6,0	-6,0	0,4 *0.880*	WN..0604.. *WN..33.*
C4-DWLNR-27050-08JETI2	10070183	C4	–	40,0 *1.575*	27,0 *1.063*	50,0 *1.969*	75,0 *2.953*	140,0 *5.512*	150,0 *2175.6*	95,0	-6,0	-6,0	0,5 *1.100*	WN..0804-WN..0806* *WN..43-WN..44**
C4-DWLNL-27050-08JETI2	10070181	C4	–	40,0 *1.575*	27,0 *1.063*	50,0 *1.969*	75,0 *2.953*	140,0 *5.512*	150,0 *2175.6*	95,0	-6,0	-6,0	0,5 *1.100*	WN..0804-WN..0806* *WN..43-WN..44**
C5-DWLNR-35060-06JETI2	10070211	C5	–	50,0 *1.969*	35,0 *1.378*	60,0 *2.362*	85,0 *3.346*	130,0 *5.118*	150,0 *2175.6*	95,0	-6,0	-6,0	0,8 *1.760*	WN..0604.. *WN..33.*
C5-DWLNL-35060-06JETI2	10070209	C5	–	50,0 *1.969*	35,0 *1.378*	60,0 *2.362*	85,0 *3.346*	130,0 *5.118*	150,0 *2175.6*	95,0	-6,0	-6,0	0,8 *1.760*	WN..0604.. *WN..33.*
C5-DWLNR-35060-08JETI2	10070212	C5	–	50,0 *1.969*	35,0 *1.378*	60,0 *2.362*	85,0 *3.346*	130,0 *5.118*	150,0 *2175.6*	95,0	-6,0	-6,0	0,8 *1.760*	WN..0804-WN..0806* *WN..43-WN..44**
C5-DWLNL-35060-08JETI2	10070210	C5	–	50,0 *1.969*	35,0 *1.378*	60,0 *2.362*	85,0 *3.346*	130,0 *5.118*	150,0 *2175.6*	95,0	-6,0	-6,0	0,8 *1.760*	WN..0804-WN..0806* *WN..43-WN..44**
C6-DWLNR-45065-08JETI2	10070308	C6	–	63,0 *2.480*	45,0 *1.772*	65,0 *2.559*	100,0 *3.937*	120,0 *4.724*	150,0 *2175.6*	95,0	-6,0	-6,0	1,3 *2.870*	WN..0804-WN..0806* *WN..43-WN..44**
C6-DWLNL-45065-08JETI2	10070307	C6	–	63,0 *2.480*	45,0 *1.772*	65,0 *2.559*	100,0 *3.937*	120,0 *4.724*	150,0 *2175.6*	95,0	-6,0	-6,0	1,3 *2.870*	WN..0804-WN..0806* *WN..43-WN..44**

Spare Parts, included in delivery

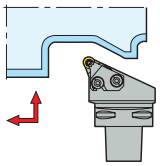
For size	Clamp key	Clamp screw	Coolant kit	Insert shim	Plug screw	Shim/clamp key	Shim screw	Spring
								
..-06	–	L84017-T10P	CN14L00R-2-SET	DWN060310	P6SS4X4	T10P-2	C03007-T09P	S5808
..-08	T15P-2	L85021-T15P	CN17L00R-2-SET	DWN080416	–	–	C04008-T15P	S7111

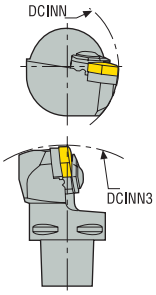
Accessories

For size	Coolant kit S-Standard	Coolant kit X-Roughing2	Duo coolant plug screw	Insert clamping torque	Torque key
					
..-06	CN14U00S-2-SET	CN14L00X-2-SET	P6SS4X8	2.0NM	T00-09P20
..-08	CN17U00S-2-SET	CN17L00X-2-SET	P6SS4X8	3.5NM	T00-15P35

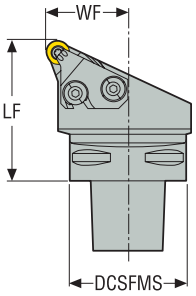
C.-SRSCR/L...JET – Toolholders for inserts RCMT – Metric / *Inch*

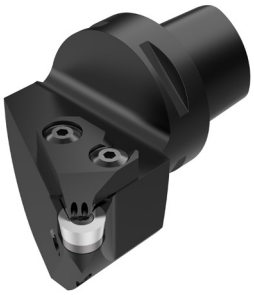
C.-SRSCR/L...JET
KAPR = 45,0 °





C.-SRSCR/L...JET





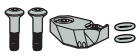
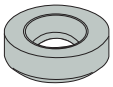
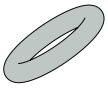
CTWS



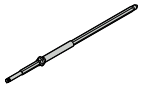
- Right-hand version shown
- For inserts program, see page(s) 562, 563
- For holder code key, see page(s) 11-12
- For more information on Jetstream Tooling® and accessories, see page(s) 38, 85-89, 1026
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	Duo	DCSFMS	WF	LF	DCINN	DCINN3	CP	KAPR°	GAMO°	LAMS°	Weight	CTWS
				mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	bar *psi*				kg *lbs*	
C5-SRSCR-35060-12JET	02603183	C5	–	50,0 *1.969*	35,0 *1.378*	60,0 *2.362*	95,0 *3.740*	165,0 *6.496*	150,0 *2175.6*	45,0	0,0	0,0	0,8 *1.760*	RC..1204M0 *RC..43M0*
C5-SRSCL-35060-12JET	02603184	C5	–	50,0 *1.969*	35,0 *1.378*	60,0 *2.362*	95,0 *3.740*	165,0 *6.496*	150,0 *2175.6*	45,0	0,0	0,0	0,8 *1.760*	RC..1204M0 *RC..43M0*
C6-SRSCR-45065-12JET	02603187	C6	–	63,0 *2.480*	45,0 *1.772*	65,0 *2.559*	121,0 *4.764*	165,0 *6.496*	150,0 *2175.6*	45,0	0,0	0,0	1,2 *2.650*	RC..1204M0 *RC..43M0*
C6-SRSCL-45065-12JET	02603188	C6	–	63,0 *2.480*	45,0 *1.772*	65,0 *2.559*	121,0 *4.764*	165,0 *6.496*	150,0 *2175.6*	45,0	0,0	0,0	1,2 *2.650*	RC..1204M0 *RC..43M0*

Spare Parts, included in delivery

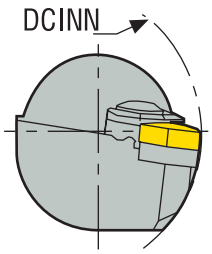
For size	Inducer kit	Inducer screw	Insert/inducer key	Insert screw	Insert shim	O-ring	Shim screw
							
C5, C6-..R	JET-CIKR00RB-KIT	117.26-655	3SMS795/T15P	C03510-T15P	111.19-621	ORING-6.07X1.78	CA3510
C5, C6-..L	JET-CIKR00LB-KIT	117.26-655	3SMS795/T15P	C03510-T15P	111.19-621	ORING-6.07X1.78	CA3510

Accessories

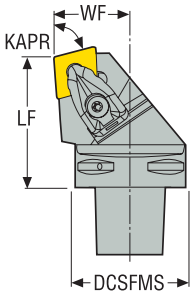
For size	Insert clamping torque	Replacement blade	Shim key	Torque key
				
C5, C6	3.0NM	T00-15P	9/64SMS875	T00-15P30

C.-DCKNR/L...-M – Toolholders for inserts CNGA, CNGG, CNMA, CNMG, CNMM – **Metric** / *Inch*

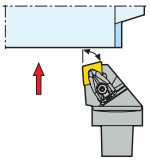




C.-DCKNR/L...-M



C.-DCKNR/L, -M
KAPR = 75,0 °



CTWS



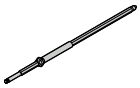
- Right-hand version shown
- For inserts program, see page(s) 546, 547, 548, 549, 550, 551, 593, 594
- For holder code key, see page(s) 11-12
- Shim DCN120416 for insert CN..1206.., to be ordered separately
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	DCSFMS	WF	LF	DCINN	DCINN3	KAPR°	GAMO°	LAMS°	Weight	CTWS
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*				kg *lbs*	
C4-DCKNR-27050-12-M	02587878	C4	40,0 *1.575*	27,0 *1.063*	50,0 *1.969*	110,0 *4.331*	110,0 *4.331*	75,0	-6,0	-6,0	0,5 *1.100*	CN..1204.. *CN..43.*
C4-DCKNL-27050-12-M	02587879	C4	40,0 *1.575*	27,0 *1.063*	50,0 *1.969*	110,0 *4.331*	110,0 *4.331*	75,0	-6,0	-6,0	0,5 *1.100*	CN..1204.. *CN..43.*
C5-DCKNR-35060-12-M	02587884	C5	50,0 *1.969*	35,0 *1.378*	60,0 *2.362*	110,0 *4.331*	110,0 *4.331*	75,0	-6,0	-6,0	0,9 *1.980*	CN..1204.. *CN..43.*
C5-DCKNL-35060-12-M	02587885	C5	50,0 *1.969*	35,0 *1.378*	60,0 *2.362*	110,0 *4.331*	110,0 *4.331*	75,0	-6,0	-6,0	0,9 *1.980*	CN..1204.. *CN..43.*
C5-DCKNR-35060-16-M	02587886	C5	50,0 *1.969*	35,0 *1.378*	60,0 *2.362*	125,0 *4.921*	125,0 *4.921*	75,0	-6,0	-6,0	0,9 *1.980*	CN..1606.. *CN..54.*
C5-DCKNL-35060-16-M	02587887	C5	50,0 *1.969*	35,0 *1.378*	60,0 *2.362*	125,0 *4.921*	125,0 *4.921*	75,0	-6,0	-6,0	0,8 *1.760*	CN..1606.. *CN..54.*
C5-DCKNR-35060-19-M	02587888	C5	50,0 *1.969*	35,0 *1.378*	60,0 *2.362*	95,0 *3.740*	95,0 *3.740*	75,0	-6,0	-6,0	0,8 *1.760*	CN..1906.. *CN..64.*
C5-DCKNL-35060-19-M	02587889	C5	50,0 *1.969*	35,0 *1.378*	60,0 *2.362*	95,0 *3.740*	95,0 *3.740*	75,0	-6,0	-6,0	0,8 *1.760*	CN..1906.. *CN..64.*
C6-DCKNR-45065-12-M	02587890	C6	63,0 *2.480*	45,0 *1.772*	65,0 *2.559*	110,0 *4.331*	110,0 *4.331*	75,0	-6,0	-6,0	1,5 *3.310*	CN..1204.. *CN..43.*
C6-DCKNL-45065-12-M	02587891	C6	63,0 *2.480*	45,0 *1.772*	65,0 *2.559*	110,0 *4.331*	110,0 *4.331*	75,0	-6,0	-6,0	1,4 *3.090*	CN..1204.. *CN..43.*
C6-DCKNR-45065-16-M	02587892	C6	63,0 *2.480*	45,0 *1.772*	65,0 *2.559*	125,0 *4.921*	125,0 *4.921*	75,0	-6,0	-6,0	1,5 *3.310*	CN..1606.. *CN..54.*
C6-DCKNL-45065-16-M	02587893	C6	63,0 *2.480*	45,0 *1.772*	65,0 *2.559*	125,0 *4.921*	125,0 *4.921*	75,0	-6,0	-6,0	1,4 *3.090*	CN..1606.. *CN..54.*

Spare Parts, included in delivery

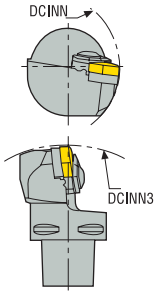
For size	Clamp pin	Clamp screw	Coolant nozzle	Floating wedge clamp	Insert shim	Shim/clamp key	Shim screw	Spring
C4..-12	FP2012	L85021-T15P	CN6	CD12-S	DCN120616	T15P-2	C04008-T15P	S6912
C5..-12	FP2012	L85021-T15P	CN7	CD12-S	DCN120616	T15P-2	C04008-T15P	S6912
C5, C6..-16	FP2012	L86026-T20P	CN7	CD16-S	DCN160616	T20P-7L	C05010-T20P	S7010
C5..-19	FP2012	L86026-T20P	CN6	CD19-S	DCN190416	T20P-7L	C05010-T20P	S7010
C6..-12	FP2012	L85021-T15P	CN7	CD12-S	DCN120616	T15P-2	C04008-T15P	S6912

Accessories

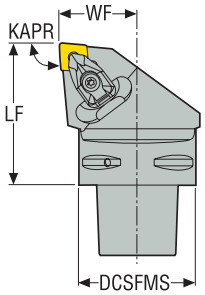
For size	Clamp kit	Insert clamping torque	Replacement blade	Torque key
				
C4..-12	CD12-S12	3.5NM	T00-15P	T00-15P35
C5..-12	CD12-S12	3.5NM	T00-15P	T00-15P35
C5, C6..-16	CD16-S16	6.0NM	T00T-20P	T00T-20P60
C5..-19	CD19-S19	6.0NM	T00T-20P	T00T-20P60
C6..-12	CD12-S12	3.5NM	T00-15P	T00-15P35

C.-DCLNR/L...-M, C.-DCLNR/L – Toolholders for inserts CNGA, CNGG, CNMA, CNMG, CNMM – **Metric** / *Inch*

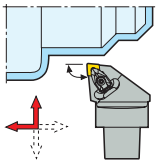




C.-DCLNR/L..-M



C.-DCLNR/L, -M
KAPR = 95,0 °



CTWS

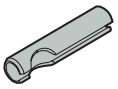
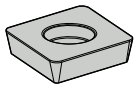


- Right-hand version shown
- For inserts program, see page(s) 546, 547, 548, 549, 550, 551, 593, 594
- For holder code key, see page(s) 11-12
- Shim DCN120416 for insert CN..1206.., to be ordered separately
- For ISO attribute explanation, see page 82

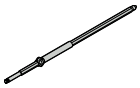
Designation	Item number	CTMS	DCSFMS	WF	LF	DCINN	DCINN3	KAPR°	GAMO°	LAMS°	Weight	CTWS
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*				kg *lbs*	
C4-DCLNR-27050-12-M	02587838	C4	40,0 *1.575*	27,0 *1.063*	50,0 *1.969*	110,0 *4.331*	140,0 *5.512*	95,0	-6,0	-6,0	0,5 *1.100*	CN..1204.. *CN..43.*
C4-DCLNL-27050-12-M	02587839	C4	40,0 *1.575*	27,0 *1.063*	50,0 *1.969*	110,0 *4.331*	140,0 *5.512*	95,0	-6,0	-6,0	0,4 *0.880*	CN..1204.. *CN..43.*
C4-DCLNR-27055-16-M	02587840	C4	40,0 *1.575*	27,0 *1.063*	55,0 *2.165*	125,0 *4.921*	155,0 *6.102*	95,0	-6,0	-6,0	0,5 *1.100*	CN..1606.. *CN..54.*
C4-DCLNL-27055-16-M	02587841	C4	40,0 *1.575*	27,0 *1.063*	55,0 *2.165*	125,0 *4.921*	155,0 *6.102*	95,0	-6,0	-6,0	0,5 *1.100*	CN..1606.. *CN..54.*
C5-DCLNR-35060-12-M	02587844	C5	50,0 *1.969*	35,0 *1.378*	60,0 *2.362*	110,0 *4.331*	165,0 *6.496*	95,0	-6,0	-6,0	0,8 *1.760*	CN..1204.. *CN..43.*
C5-DCLNL-35060-12-M	02587845	C5	50,0 *1.969*	35,0 *1.378*	60,0 *2.362*	110,0 *4.331*	165,0 *6.496*	95,0	-6,0	-6,0	0,8 *1.760*	CN..1204.. *CN..43.*
C5-DCLNR-35060-16-M	02587846	C5	50,0 *1.969*	35,0 *1.378*	60,0 *2.362*	125,0 *4.921*	165,0 *6.496*	95,0	-6,0	-6,0	0,8 *1.760*	CN..1606.. *CN..54.*
C5-DCLNL-35060-16-M	02587847	C5	50,0 *1.969*	35,0 *1.378*	60,0 *2.362*	125,0 *4.921*	165,0 *6.496*	95,0	-6,0	-6,0	0,8 *1.760*	CN..1606.. *CN..54.*
C5-DCLNR-35060-19-M	02587848	C5	50,0 *1.969*	35,0 *1.378*	60,0 *2.362*	80,0 *3.150*	165,0 *6.496*	95,0	-6,0	-6,0	0,8 *1.760*	CN..1906.. *CN..64.*
C5-DCLNL-35060-19-M	02587849	C5	50,0 *1.969*	35,0 *1.378*	60,0 *2.362*	80,0 *3.150*	165,0 *6.496*	95,0	-6,0	-6,0	0,8 *1.760*	CN..1906.. *CN..64.*
C6-DCLNR-45065-12-M	02587850	C6	63,0 *2.480*	45,0 *1.772*	65,0 *2.559*	110,0 *4.331*	190,0 *7.480*	95,0	-6,0	-6,0	1,3 *2.870*	CN..1204.. *CN..43.*
C6-DCLNL-45065-12-M	02587851	C6	63,0 *2.480*	45,0 *1.772*	65,0 *2.559*	110,0 *4.331*	190,0 *7.480*	95,0	-6,0	-6,0	1,3 *2.870*	CN..1204.. *CN..43.*
C6-DCLNR-45065-16-M	02587852	C6	63,0 *2.480*	45,0 *1.772*	65,0 *2.559*	125,0 *4.921*	190,0 *7.480*	95,0	-6,0	-6,0	1,3 *2.870*	CN..1606.. *CN..54.*
C6-DCLNL-45065-16-M	02587853	C6	63,0 *2.480*	45,0 *1.772*	65,0 *2.559*	125,0 *4.921*	190,0 *7.480*	95,0	-6,0	-6,0	1,3 *2.870*	CN..1606.. *CN..54.*
C6-DCLNR-45065-19-M	02587854	C6	63,0 *2.480*	45,0 *1.772*	65,0 *2.559*	81,0 *3.189*	190,0 *7.480*	95,0	-6,0	-6,0	1,3 *2.870*	CN..1906.. *CN..64.*
C6-DCLNL-45065-19-M	02587855	C6	63,0 *2.480*	45,0 *1.772*	65,0 *2.559*	81,0 *3.189*	190,0 *7.480*	95,0	-6,0	-6,0	1,3 *2.870*	CN..1906.. *CN..64.*
C8-DCLNR-55080-16	02417033	C8	80,0 *3.150*	55,0 *2.165*	80,0 *3.150*	125,0 *4.921*	150,0 *5.906*	95,0	-6,0	-6,0	2,5 *5.510*	CN..1606.. *CN..54.*
C8-DCLNL-55080-16	02417031	C8	80,0 *3.150*	55,0 *2.165*	80,0 *3.150*	125,0 *4.921*	150,0 *5.906*	95,0	-6,0	-6,0	2,5 *5.510*	CN..1606.. *CN..54.*

Designation	Item number	CTMS	DCSFMS	WF	LF	DCINN	DCINN3	KAPR°	GAMO°	LAMS°	Weight	CTWS
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*				kg *lbs*	
C8-DCLNR-55080-19	00024776	C8	80,0 *3.150*	55,0 *2.165*	80,0 *3.150*	100,0 *3.937*	250,0 *9.843*	95,0	-6,0	-6,0	2,5 *5.510*	CN..1906.. *CN..64.*
C8-DCLNL-55080-19	02417036	C8	80,0 *3.150*	55,0 *2.165*	80,0 *3.150*	100,0 *3.937*	250,0 *9.843*	95,0	-6,0	-6,0	2,6 *5.730*	CN..1906.. *CN..64.*

Spare Parts, included in delivery

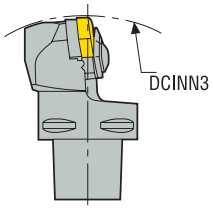
For size	Clamp pin	Clamp screw	Coolant nozzle	Floating wedge clamp	Insert shim	Shim/clamp key	Shim screw	Spring
								
..-12	FP2012	L85021-T15P	CN3	CD12-S	DCN120616	T15P-2	C04008-T15P	S6912
..-16	FP2012	L86026-T20P	CN3	CD16-S	DCN160616	T20P-7L	C05010-T20P	S7010
..-19	FP2012	L86026-T20P	CN3	CD19-S	DCN190416	T20P-7L	C05010-T20P	S7010

Accessories

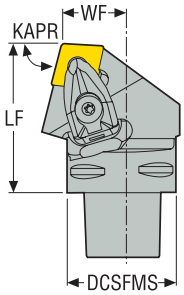
For size	Clamp kit	Insert clamping torque	Replacement blade	Torque key
				
..-12	CD12-S12	3.5NM	T00-15P	T00-15P35
..-16	CD16-S16	6.0NM	T00T-20P	T00T-20P60
..-19	CD19-S19	6.0NM	T00T-20P	T00T-20P60

C.-DCRNR/L...-M, C.-DCRNR/L – Toolholders for inserts CNGA, CNGG, CNMA, CNMG, CNMM – **Metric** / *Inch*

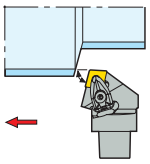




C.-DCRNR/L..-M



C.-DCRNR/L, -M
KAPR = 75,0 °



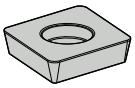
CTWS



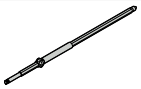
- Right-hand version shown
- For inserts program, see page(s) 546, 547, 548, 549, 550, 551, 593, 594
- For holder code key, see page(s) 11-12
- Shim DCN120416 for insert CN..1206.., to be ordered separately
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	DCSFMS	WF	LF	DCINN	DCINN3	KAPR°	GAMO°	LAMS°	Weight	CTWS
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*				kg *lbs*	
C4-DCRNR-22050-12-M	02587858	C4	40,0 *1.575*	22,0 *0.866*	50,0 *1.969*	140,0 *5.512*	140,0 *5.512*	75,0	-6,0	-6,0	0,4 *0.880*	CN..1204.. *CN..43.*
C4-DCRNL-22050-12-M	02587859	C4	40,0 *1.575*	22,0 *0.866*	50,0 *1.969*	140,0 *5.512*	140,0 *5.512*	75,0	-6,0	-6,0	0,4 *0.880*	CN..1204.. *CN..43.*
C4-DCRNR-22055-16-M	02587860	C4	40,0 *1.575*	22,0 *0.866*	55,0 *2.165*	165,0 *6.496*	165,0 *6.496*	75,0	-6,0	-6,0	0,5 *1.100*	CN..1606.. *CN..54.*
C4-DCRNL-22055-16-M	02587861	C4	40,0 *1.575*	22,0 *0.866*	55,0 *2.165*	165,0 *6.496*	165,0 *6.496*	75,0	-6,0	-6,0	0,5 *1.100*	CN..1606.. *CN..54.*
C5-DCRNR-27060-12-M	02587864	C5	50,0 *1.969*	27,0 *1.063*	60,0 *2.362*	165,0 *6.496*	165,0 *6.496*	75,0	-6,0	-6,0	0,8 *1.760*	CN..1204.. *CN..43.*
C5-DCRNL-27060-12-M	02587865	C5	50,0 *1.969*	27,0 *1.063*	60,0 *2.362*	165,0 *6.496*	165,0 *6.496*	75,0	-6,0	-6,0	0,8 *1.760*	CN..1204.. *CN..43.*
C5-DCRNR-27060-16-M	02587866	C5	50,0 *1.969*	27,0 *1.063*	60,0 *2.362*	165,0 *6.496*	165,0 *6.496*	75,0	-6,0	-6,0	0,8 *1.760*	CN..1606.. *CN..54.*
C5-DCRNL-27060-16-M	02587867	C5	50,0 *1.969*	27,0 *1.063*	60,0 *2.362*	165,0 *6.496*	165,0 *6.496*	75,0	-6,0	-6,0	0,8 *1.760*	CN..1606.. *CN..54.*
C6-DCRNR-35065-12-M	02587870	C6	63,0 *2.480*	35,0 *1.378*	65,0 *2.559*	190,0 *7.480*	190,0 *7.480*	75,0	-6,0	-6,0	1,2 *2.650*	CN..1204.. *CN..43.*
C6-DCRNL-35065-12-M	02587871	C6	63,0 *2.480*	35,0 *1.378*	65,0 *2.559*	190,0 *7.480*	190,0 *7.480*	75,0	-6,0	-6,0	1,2 *2.650*	CN..1204.. *CN..43.*
C6-DCRNR-35065-16-M	02587872	C6	63,0 *2.480*	35,0 *1.378*	65,0 *2.559*	190,0 *7.480*	190,0 *7.480*	75,0	-6,0	-6,0	1,3 *2.870*	CN..1606.. *CN..54.*
C6-DCRNL-35065-16-M	02587873	C6	63,0 *2.480*	35,0 *1.378*	65,0 *2.559*	190,0 *7.480*	190,0 *7.480*	75,0	-6,0	-6,0	1,2 *2.650*	CN..1606.. *CN..54.*
C6-DCRNR-35065-19-M	02587874	C6	63,0 *2.480*	35,0 *1.378*	65,0 *2.559*	190,0 *7.480*	190,0 *7.480*	75,0	-6,0	-6,0	1,3 *2.870*	CN..1906.. *CN..64.*
C6-DCRNL-35065-19-M	02587875	C6	63,0 *2.480*	35,0 *1.378*	65,0 *2.559*	190,0 *7.480*	190,0 *7.480*	75,0	-6,0	-6,0	1,3 *2.870*	CN..1906.. *CN..64.*
C8-DCRNR-55080-19	00024777	C8	80,0 *3.150*	55,0 *2.165*	80,0 *3.150*	250,0 *9.843*	250,0 *9.843*	75,0	-6,0	-6,0	2,7 *5.950*	CN..1906.. *CN..64.*
C8-DCRNL-55080-19	02546532	C8	80,0 *3.150*	55,0 *2.165*	80,0 *3.150*	250,0 *9.843*	250,0 *9.843*	75,0	-6,0	-6,0	2,6 *5.730*	CN..1906.. *CN..64.*

Spare Parts, included in delivery

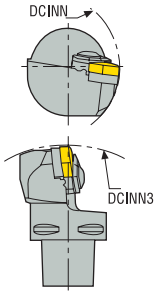
For size	Clamp pin	Clamp screw	Coolant nozzle	Floating wedge clamp	Insert shim	Shim/clamp key	Shim screw	Spring
								
C4..-12	FP2012	L85021-T15P	CN6	CD12-S	DCN120616	T15P-2	C04008-T15P	S6912
C4..-16	FP2012	L86026-T20P	CN6	CD16-S	DCN160616	T20P-7L	C05010-T20P	S7010
C5, C6..-12	FP2012	L85021-T15P	CN3	CD12-S	DCN120616	T15P-2	C04008-T15P	S6912
C5, C6..-16	FP2012	L86026-T20P	CN3	CD16-S	DCN160616	T20P-7L	C05010-T20P	S7010
C6, C8..-19	FP2012	L86026-T20P	CN3	CD19-S	DCN190416	T20P-7L	C05010-T20P	S7010

Accessories

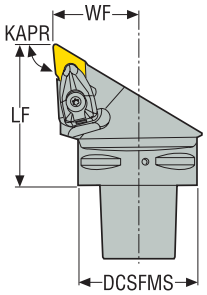
For size	Clamp kit	Insert clamping torque	Replacement blade	Torque key
				
C4..-12	CD12-S12	3.5NM	T00-15P	T00-15P35
C4..-16	CD16-S16	6.0NM	T00T-20P	T00T-20P60
C5, C6..-12	CD12-S12	3.5NM	T00-15P	T00-15P35
C5, C6..-16	CD16-S16	6.0NM	T00T-20P	T00T-20P60
C6, C8..-19	CD19-S19	6.0NM	T00T-20P	T00T-20P60

C.-DDJNR/L...-M, C.-DDJNR/L – Toolholders for inserts DNGA, DNGG, DNGM, DNMA, DNMG, DNMM, DNMX – **Metric** / *Inch*

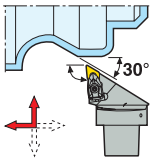




C.-DDJNR/L, ..-M



C.-DDJNR/L, -M
KAPR = 93,0 °



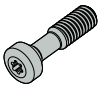
CTWS



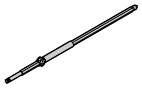
- Right-hand version shown
- For inserts program, see page(s) 556, 557, 558, 559, 597, 598
- For holder code key, see page(s) 11-12
- * Use the right shim & the right screw for the selected insert. For details, see page 99
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	DCSFMS	WF	LF	DCINN	DCINN3	KAPR°	GAMO°	LAMS°	Weight	CTWS
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*				kg *lbs*	
C4-DDJNR-27050-11-M	02587896	C4	40,0 *1.575*	27,0 *1.063*	50,0 *1.969*	60,0 *2.362*	140,0 *5.512*	93,0	-6,0	-7,0	0,4 *0.880*	DNMU1104.. *DNMU33.*
C4-DDJNL-27050-11-M	02587897	C4	40,0 *1.575*	27,0 *1.063*	50,0 *1.969*	60,0 *2.362*	140,0 *5.512*	93,0	-6,0	-7,0	0,1 *0.220*	DNMU1104.. *DNMU33.*
C4-DDJNR-27055-15-M	02587902	C4	40,0 *1.575*	27,0 *1.063*	55,0 *2.165*	110,0 *4.331*	145,0 *5.709*	93,0	-6,0	-7,0	0,4 *0.880*	DN..1504-DN..1506* *DN..43-DN..44**
C4-DDJNL-27055-15-M	02587903	C4	40,0 *1.575*	27,0 *1.063*	55,0 *2.165*	110,0 *4.331*	145,0 *5.709*	93,0	-6,0	-7,0	0,4 *0.880*	DN..1504-DN..1506* *DN..43-DN..44**
C5-DDJNR-35060-11-M	02587898	C5	50,0 *1.969*	35,0 *1.378*	60,0 *2.362*	65,0 *2.559*	165,0 *6.496*	93,0	-6,0	-7,0	0,7 *1.540*	DNMU1104.. *DNMU33.*
C5-DDJNL-35060-11-M	02587899	C5	50,0 *1.969*	35,0 *1.378*	60,0 *2.362*	65,0 *2.559*	165,0 *6.496*	93,0	-6,0	-7,0	0,7 *1.540*	DNMU1104.. *DNMU33.*
C5-DDJNR-35060-15-M	02587904	C5	50,0 *1.969*	35,0 *1.378*	60,0 *2.362*	110,0 *4.331*	165,0 *6.496*	93,0	-6,0	-7,0	0,7 *1.540*	DN..1504-DN..1506* *DN..43-DN..44**
C5-DDJNL-35060-15-M	02587905	C5	50,0 *1.969*	35,0 *1.378*	60,0 *2.362*	110,0 *4.331*	165,0 *6.496*	93,0	-6,0	-7,0	0,7 *1.540*	DN..1504-DN..1506* *DN..43-DN..44**
C6-DDJNR-45065-11-M	02587900	C6	63,0 *2.480*	45,0 *1.772*	65,0 *2.559*	81,0 *3.189*	190,0 *7.480*	93,0	-6,0	-7,0	1,2 *2.650*	DNMU1104.. *DNMU33.*
C6-DDJNL-45065-11-M	02587901	C6	63,0 *2.480*	45,0 *1.772*	65,0 *2.559*	81,0 *3.189*	190,0 *7.480*	93,0	-6,0	-7,0	1,2 *2.650*	DNMU1104.. *DNMU33.*
C6-DDJNR-45065-15-M	02587906	C6	63,0 *2.480*	45,0 *1.772*	65,0 *2.559*	110,0 *4.331*	190,0 *7.480*	93,0	-6,0	-7,0	1,2 *2.650*	DN..1504-DN..1506* *DN..43-DN..44**
C6-DDJNL-45065-15-M	02587907	C6	63,0 *2.480*	45,0 *1.772*	65,0 *2.559*	110,0 *4.331*	190,0 *7.480*	93,0	-6,0	-7,0	1,2 *2.650*	DN..1504-DN..1506* *DN..43-DN..44**
C8-DDJNR-55080-15	02417037	C8	80,0 *3.150*	55,0 *2.165*	80,0 *3.150*	110,0 *4.331*	250,0 *9.843*	93,0	-6,0	-7,0	2,2 *4.850*	DN..1504-DN..1506* *DN..43-DN..44**
C8-DDJNR-55080-15-04	02642325	C8	80,0 *3.150*	55,0 *2.165*	80,0 *3.150*	110,0 *4.331*	250,0 *9.843*	93,0	-6,0	-7,0	2,4 *5.290*	DN..1504-DN..1506* *DN..43-DN..44**
C8-DDJNL-55080-15	02417038	C8	80,0 *3.150*	55,0 *2.165*	80,0 *3.150*	110,0 *4.331*	250,0 *9.843*	93,0	-6,0	-7,0	2,2 *4.850*	DN..1504-DN..1506* *DN..43-DN..44**

Spare Parts, included in delivery

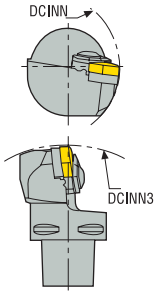
For size	Clamp for DNMU11	Clamp pin	Clamp screw	Coolant nozzle	Floating wedge clamp	Insert shim	Plug screw	Shim/clamp key	Shim screw	Spring
										
C4, C5, C6..-11	CD11XP	FP1508	L84017-T10P	CN6	–	DDN110310	–	T10P-2	C03007-T09P	S5608
C4..-15	–	FP2012	L85021-T15P	CN6	CD12-S	DDN150416	–	T15P-2	C04008-T15P	S6912
C4, C5, C6..-11	CD11XP	FP1508	L84017-T10P	CN6	–	DDN110310	P6SS4X4	T10P-2	C03007-T09P	S5608
C5..-15	–	FP2012	L85021-T15P	CN3	CD12-S	DDN150416	–	T15P-2	C04008-T15P	S6912
C6..-15	–	FP2012	L85021-T15P	CN7	CD12-S	DDN150416	–	T15P-2	C04008-T15P	S6912
C8..-15	–	FP2012	L85021-T15P	CN8	CD12-S	DDN150416	–	T15P-2	C04008-T15P	S6912
C8..R-15-04	–	FP2012	L85021-T15P	–	CD12-S	DDN150616	–	T15P-2	–	S6912

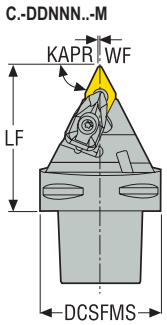
Accessories

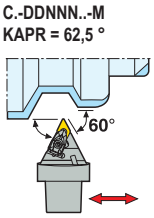
For size	Clamp for DNMG11	Clamp for DNMU11	Clamp kit	Insert clamping torque	Replacement blade	Torque key
						
C4, C5, C6..-11	CD09-S09	CD11XP-SET	–	2.0NM	T00-09P	T00-09P20
C4..-15	–	–	CD12-S12	3.5NM	T00-15P	T00-15P35
C5..-15	–	–	CD12-S12	3.5NM	T00-15P	T00-15P35
C6..-15	–	–	CD12-S12	3.5NM	T00-15P	T00-15P35
C8..-15	–	–	CD12-S12	3.5NM	T00-15P	T00-15P35
C8..R-15-04	–	–	CD12-S12	3.5NM	T00-15P	T00-15P35

C.-DDNNN...-M – Toolholders for inserts DNGA, DNGG, DNGM, DNMA, DNMG, DNMM – **Metric** / *Inch*









CTWS



- Neutral version shown
- For inserts program, see page(s) 556, 557, 558, 559, 597, 598
- For holder code key, see page(s) 11-12
- * Use the right shim & the right screw for the selected insert. For details, see page 99
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	DCSFMS	WF	LF	DCINN	DCINN3	KAPR°	GAMO°	LAMS°	Weight	CTWS
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*				kg *lbs*	
C4-DDNNN-00050-11-M	02587914	C4	40,0 *1.575*	0,5 *0.020*	50,0 *1.969*	–	140,0 *5.512*	62,5	-5,0	-9,0	0,4 *0.880*	DNMU1104.. *DNMU33.*
C4-DDNNN-00055-15-M	02587917	C4	40,0 *1.575*	0,5 *0.020*	55,0 *2.165*	–	145,0 *5.709*	62,5	-5,0	-9,0	0,4 *0.880*	DN..1504-DN..1506* *DN..43-DN..44**
C5-DDNNN-00060-15-M	02587918	C5	50,0 *1.969*	0,5 *0.020*	60,0 *2.362*	–	165,0 *6.496*	62,5	-5,0	-9,0	0,6 *1.320*	DN..1504-DN..1506* *DN..43-DN..44**
C6-DDNNN-00065-11-M	02587916	C6	63,0 *2.480*	0,5 *0.020*	65,0 *2.559*	–	190,0 *7.480*	62,5	-5,0	-9,0	1,0 *2.200*	DNMU1104.. *DNMU33.*
C6-DDNNN-00065-15-M	02587919	C6	63,0 *2.480*	0,5 *0.020*	65,0 *2.559*	–	190,0 *7.480*	62,5	-5,0	-9,0	1,0 *2.200*	DN..1504-DN..1506* *DN..43-DN..44**

Spare Parts, included in delivery

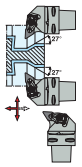
For size	Clamp for DNMU11	Clamp pin	Clamp screw	Coolant nozzle	Floating wedge clamp	Insert shim	Plug screw	Shim/clamp key	Shim screw	Spring
C4, C6..-11	CD11XP	FP1508	L84017-T10P	CN6	–	DDN110310	–	T10P-2	C03007-T09P	S5608
C4..-15	–	FP2012	L85021-T15P	CN6	CD12-S	DDN150416	–	T15P-2	C04008-T15P	S6912
C5, C6..-15	–	FP2012	L85021-T15P	CN3	CD12-S	DDN150416	–	T15P-2	C04008-T15P	S6912
C4, C6..-11	CD11XP	FP1508	L84017-T10P	CN6	–	DDN110310	P6SS4X4	T10P-2	C03007-T09P	S5608

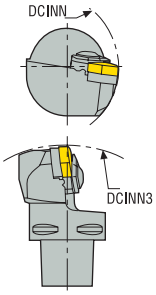
Accessories

For size	Clamp for DNMG11	Clamp for DNMU11	Clamp kit	Insert clamping torque	Replacement blade	Torque key
C4, C6..-11	CD09-S09	CD11XP-SET	–	2.0NM	T00-09P	T00-09P20
C4..-15	–	–	CD12-S12	3.5NM	T00-15P	T00-15P35
C5, C6..-15	–	–	CD12-S12	3.5NM	T00-15P	T00-15P35

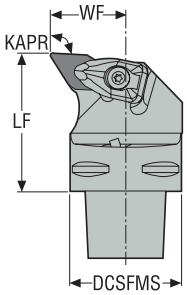
C.-DDUNR/L – Toolholders for inserts DNGA, DNGG, DNGM, DNMA, DNMG, DNMM, DNMX – Metric / *Inch*

C.-DDUNR/L
KAPR = 93,0 °





C.-DDUNR/L





CTWS



- Right-hand version shown
- For inserts program, see page(s) 556, 557, 558, 559, 597, 598
- For holder code key, see page(s) 11-12
- * Use the right shim & the right screw for the selected insert. For details, see page 99
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	DCSFMS	WF	LF	DCINN	DCINN3	KAPR°	GAMO°	LAMS°	Weight	CTWS
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*				kg *lbs*	
C4-DDUNR-27050-15	02611291	C4	40,0 *1.575*	27,0 *1.063*	50,0 *1.969*	110,0 *4.331*	140,0 *5.512*	93,0	-6,0	-7,0	0,4 *0.880*	DN..1504-DN..1506* *DN..43-DN..44**
C4-DDUNR-27050-15-04	02640737	C4	40,0 *1.575*	27,0 *1.063*	50,0 *1.969*	110,0 *4.331*	140,0 *5.512*	93,0	-6,0	-7,0	0,5 *1.100*	DN..1504-DN..1506* *DN..43-DN..44**
C4-DDUNL-27050-15	02631210	C4	40,0 *1.575*	27,0 *1.063*	50,0 *1.969*	110,0 *4.331*	140,0 *5.512*	93,0	-6,0	-7,0	0,5 *1.100*	DN..1504-DN..1506* *DN..43-DN..44**
C4-DDUNL-27050-15-04	02640738	C4	40,0 *1.575*	27,0 *1.063*	50,0 *1.969*	110,0 *4.331*	140,0 *5.512*	93,0	-6,0	-7,0	0,4 *0.880*	DN..1504-DN..1506* *DN..43-DN..44**
C5-DDUNR-35060-15	02611233	C5	50,0 *1.969*	35,0 *1.378*	60,0 *2.362*	110,0 *4.331*	165,0 *6.496*	93,0	-6,0	-7,0	0,8 *1.760*	DN..1504-DN..1506* *DN..43-DN..44**
C5-DDUNL-35060-15	02510294	C5	50,0 *1.969*	35,0 *1.378*	60,0 *2.362*	110,0 *4.331*	165,0 *6.496*	93,0	-6,0	-7,0	0,8 *1.760*	DN..1504-DN..1506* *DN..43-DN..44**
C6-DDUNR-45065-15	02506920	C6	63,0 *2.480*	45,0 *1.772*	65,0 *2.559*	110,0 *4.331*	190,0 *7.480*	93,0	-6,0	-7,0	1,4 *3.090*	DN..1504-DN..1506* *DN..43-DN..44**
C6-DDUNR-45065-15-04	02640744	C6	63,0 *2.480*	45,0 *1.772*	65,0 *2.559*	110,0 *4.331*	190,0 *7.480*	93,0	-6,0	-7,0	1,3 *2.870*	DN..1504-DN..1506* *DN..43-DN..44**
C6-DDUNL-45065-15	02540058	C6	63,0 *2.480*	45,0 *1.772*	65,0 *2.559*	110,0 *4.331*	190,0 *7.480*	93,0	-6,0	-7,0	1,4 *3.090*	DN..1504-DN..1506* *DN..43-DN..44**
C6-DDUNL-45065-15-04	02640745	C6	63,0 *2.480*	45,0 *1.772*	65,0 *2.559*	110,0 *4.331*	190,0 *7.480*	93,0	-6,0	-7,0	1,3 *2.870*	DN..1504-DN..1506* *DN..43-DN..44**
C8-DDUNR-55080-15	02578445	C8	80,0 *3.150*	55,0 *2.165*	80,0 *3.150*	110,0 *4.331*	250,0 *9.843*	93,0	-6,0	-7,0	2,6 *5.730*	DN..1504-DN..1506* *DN..43-DN..44**
C8-DDUNR-55080-15-04	02640746	C8	80,0 *3.150*	55,0 *2.165*	80,0 *3.150*	110,0 *4.331*	250,0 *9.843*	93,0	-6,0	-7,0	2,6 *5.730*	DN..1504-DN..1506* *DN..43-DN..44**
C8-DDUNL-55080-15	02599256	C8	80,0 *3.150*	55,0 *2.165*	80,0 *3.150*	110,0 *4.331*	250,0 *9.843*	93,0	-6,0	-7,0	2,6 *5.730*	DN..1504-DN..1506* *DN..43-DN..44**

Spare Parts, included in delivery

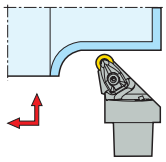
For size	Clamp pin	Clamp screw	Coolant nozzle	Floating wedge clamp	Insert shim	Shim/clamp key	Shim screw	Spring
								
C4	FP2012	L85021-T15P	CN7	CD12-S	DDN150416	T15P-2	C04008-T15P	S6912
C4..-04	FP2012	L85021-T15P	CN7	CD12-S	DDN150616	T15P-2	C04008-T15P	S6912
C5	FP2012	L85021-T15P	CN7	CD12-S	DDN150416	T15P-2	C04008-T15P	S6912
C6	FP2012	L85021-T15P	CN8	CD12-S	DDN150416	T15P-2	C04008-T15P	S6912
C6..-04	FP2012	L85021-T15P	CN8	CD12-S	DDN150616	T15P-2	C04008-T15P	S6912
C8	FP2012	L85021-T15P	CN8	CD12-S	DDN150416	T15P-2	C04008-T15P	S6912
C8..-04	FP2012	L85021-T15P	CN8	CD12-S	DDN150616	T15P-2	C04008-T15P	S6912

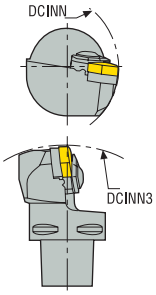
Accessories

For size	Clamp kit	Insert clamping torque	Replacement blade	Torque key
				
C4	CD12-S12	3.5NM	T00-15P	T00-15P35
C4..-04	CD12-S12	3.5NM	T00-15P	T00-15P35
C5	CD12-S12	3.5NM	T00-15P	T00-15P35
C6	CD12-S12	3.5NM	T00-15P	T00-15P35
C6..-04	CD12-S12	3.5NM	T00-15P	T00-15P35
C8	CD12-S12	3.5NM	T00-15P	T00-15P35
C8..-04	CD12-S12	3.5NM	T00-15P	T00-15P35

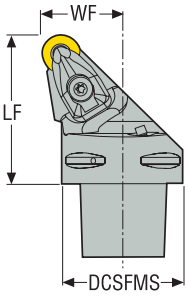
C.-DRSNR/L...-M – Toolholders for inserts RNMA, RNMG – Metric / *Inch*

C.-DRSNR/L..-M
KAPR = 45,0 °





C.-DRSNR/L..-M





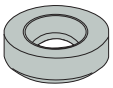
CTWS



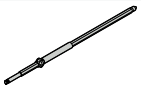
- Right-hand version shown
- For inserts program, see page(s) 564
- For holder code key, see page(s) 11-12
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	DCSFMS	WF	LF	DCINN	DCINN3	KAPR°	GAMO°	LAMS°	Weight	CTWS
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*				kg *lbs*	
C4-DRSNR-27050-12-M	02587923	C4	40,0 *1.575*	27,0 *1.063*	50,0 *1.969*	110,0 *4.331*	140,0 *5.512*	45,0	-6,0	-6,0	0,4 *0.880*	RN..1204.. *RN..43.*
C4-DRSNL-27050-12-M	02587924	C4	40,0 *1.575*	27,0 *1.063*	50,0 *1.969*	110,0 *4.331*	140,0 *5.512*	45,0	-6,0	-6,0	0,4 *0.880*	RN..1204.. *RN..43.*
C6-DRSNR-45065-19-M	02587931	C6	63,0 *2.480*	45,0 *1.772*	65,0 *2.559*	121,0 *4.764*	165,0 *6.496*	45,0	-6,0	-6,0	1,4 *3.090*	RN..1906.. *RN..64.*
C6-DRSNL-45065-19-M	02587932	C6	63,0 *2.480*	45,0 *1.772*	65,0 *2.559*	121,0 *4.764*	165,0 *6.496*	45,0	-6,0	-6,0	1,4 *3.090*	RN..1906.. *RN..64.*

Spare Parts, included in delivery

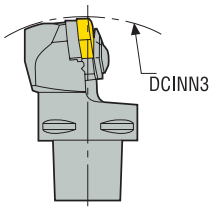
For size	Clamp pin	Clamp screw	Coolant nozzle	Floating wedge clamp	Insert shim	Shim/clamp key	Shim screw	Spring
								
C4	FP2012	L85021-T15P	CN6	CD12-S	DRN120600	T15P-2	C04008-T15P	S6912
C6	FP2012	L86026-T20P	CN6	CD19-S	DRN190600	T20P-7L	C05010-T20P	S7010

Accessories

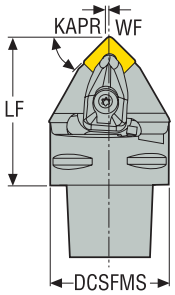
For size	Clamp kit	Insert clamping torque	Replacement blade	Torque key
				
C4	CD12-S12	3.5NM	T00-15P	T00-15P35
C6	CD19-S19	6.0NM	T00T-20P	T00T-20P60

C.-DSDNN...-M – Toolholders for inserts SNGA, SNMA, SNMG, SNMM – **Metric** / *Inch*

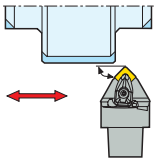




C.-DSDNN..-M



C.-DSDNN..-M
KAPR = 45,0 °



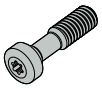
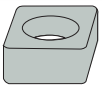
CTWS



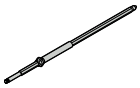
- Neutral version shown
- For inserts program, see page(s) 567, 568, 569, 570, 603
- For holder code key, see page(s) 11-12
- Shim DSN120416 for insert SN..1206.., to be ordered separately
- Shim DSN190640 for insert SN..190624.., to be ordered separately
- Shim DSN250424 for insert SN..2509.., to be ordered separately
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	DCSFMS	WF	LF	DCINN	DCINN3	KAPR°	GAMO°	LAMS°	Weight	CTWS
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*				kg *lbs*	
C4-DSDNN-00050-09-M	02587973	C4	40,0 *1.575*	0,3 *0.012*	50,0 *1.969*	165,0 *6.496*	165,0 *6.496*	45,0	-6,0	-6,0	0,4 *0.880*	SN..0903.. *SN..32.*
C4-DSDNN-00055-15-M	02587975	C4	40,0 *1.575*	0,5 *0.020*	55,0 *2.165*	165,0 *6.496*	165,0 *6.496*	45,0	-6,0	-6,0	0,5 *1.100*	SN..1506.. *SN..54.*
C5-DSDNN-00060-12-M	02587977	C5	50,0 *1.969*	0,3 *0.012*	60,0 *2.362*	165,0 *6.496*	165,0 *6.496*	45,0	-6,0	-6,0	0,7 *1.540*	SN..1204.. *SN..43.*
C5-DSDNN-00060-15-M	02587978	C5	50,0 *1.969*	0,5 *0.020*	60,0 *2.362*	165,0 *6.496*	165,0 *6.496*	45,0	-6,0	-6,0	0,7 *1.540*	SN..1506.. *SN..54.*
C6-DSDNN-00065-12-M	02587980	C6	63,0 *2.480*	0,3 *0.012*	65,0 *2.559*	190,0 *7.480*	190,0 *7.480*	45,0	-6,0	-6,0	1,5 *3.310*	SN..1204.. *SN..43.*
C6-DSDNN-00070-19-M	02587982	C6	63,0 *2.480*	0,5 *0.020*	70,0 *2.756*	195,0 *7.677*	195,0 *7.677*	45,0	-6,0	-6,0	1,2 *2.650*	SN..1906.. *SN..64.*

Spare Parts, included in delivery

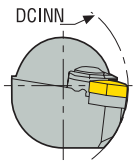
For size	Clamp pin	Clamp screw	Coolant nozzle	Floating wedge clamp	Insert shim	Plug screw	Shim/clamp key	Shim screw	Spring
									
C4..-09	FP1508	L84017-T10P	CN6	CD09-S	DSN090310	P6SS4X4	T10P-2	C03007-T09P	S5608
C4..-15	FP2012	L86026-T20P	CN6	CD16-S	DSN150624	–	T20P-7L	C05010-T20P	S7010
C5, C6..-12	FP2012	L85021-T15P	CN3	CD12-S	DSN120616	–	T15P-2	C04008-T15P	S6912
C5, C6..-15	FP2012	L86026-T20P	CN3	CD16-S	DSN150624	–	T20P-7L	C05010-T20P	S7010
C6..-19	FP2012	L86026-T20P	CN3	CD19-S	DSN190624	–	T20P-7L	C05010-T20P	S7010

Accessories

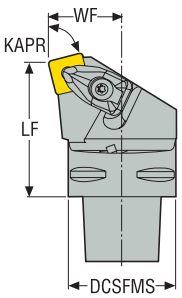
For size	Clamp kit	Insert clamping torque	Replacement blade	Torque key
				
C4..-09	CD09-S09	2.0NM	T00-09P	T00-09P20
C4..-15	CD16-S16	6.0NM	T00T-20P	T00T-20P60
C5, C6..-12	CD12-S12	3.5NM	T00-15P	T00-15P35
C5, C6..-15	CD16-S16	6.0NM	T00T-20P	T00T-20P60
C6..-19	CD19-S19	6.0NM	T00T-20P	T00T-20P60

C.-DSKNR/L...-M, C.-DSKNR/L – Toolholders for inserts SNGA, SNMA, SNMG, SNMM – Metric / *Inch*

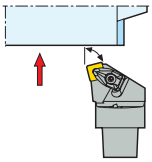




C.-DSKNR/L, ..-M



C.-DSKNR/L, ..-M
KAPR = 75,0 °



CTWS



- Right-hand version shown
- For inserts program, see page(s) 567, 568, 569, 570, 603
- For holder code key, see page(s) 11-12
- Shim DSN120416 for insert SN..1206.., to be ordered separately
- Shim DSN190640 for insert SN..190624.., to be ordered separately
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	DCSFMS	WF	LF	DCINN	DCINN3	KAPR°	GAMO°	LAMS°	Weight	CTWS
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*				kg *lbs*	
C4-DSKNR-27050-12-M	02587985	C4	40,0 *1.575*	27,0 *1.063*	50,0 *1.969*	110,0 *4.331*	110,0 *4.331*	75,0	-6,0	-6,0	0,5 *1.100*	SN..1204.. *SN..43.*
C4-DSKNL-27050-12-M	02587986	C4	40,0 *1.575*	27,0 *1.063*	50,0 *1.969*	110,0 *4.331*	110,0 *4.331*	75,0	-6,0	-6,0	0,5 *1.100*	SN..1204.. *SN..43.*
C6-DSKNR-45065-19-M	02588001	C6	63,0 *2.480*	45,0 *1.772*	65,0 *2.559*	125,0 *4.921*	125,0 *4.921*	75,0	-6,0	-6,0	1,3 *2.870*	SN..1906.. *SN..64.*
C6-DSKNL-45065-19-M	02588002	C6	63,0 *2.480*	45,0 *1.772*	65,0 *2.559*	125,0 *4.921*	125,0 *4.921*	75,0	-6,0	-6,0	1,3 *2.870*	SN..1906.. *SN..64.*
C8-DSKNR-55080-19	02597490	C8	80,0 *3.150*	55,0 *2.165*	80,0 *3.150*	125,0 *4.921*	125,0 *4.921*	75,0	-6,0	-6,0	2,6 *5.730*	SN..1906.. *SN..64.*
C8-DSKNL-55080-19	02597074	C8	80,0 *3.150*	55,0 *2.165*	80,0 *3.150*	125,0 *4.921*	125,0 *4.921*	75,0	-6,0	-6,0	2,5 *5.510*	SN..1906.. *SN..64.*

Spare Parts, included in delivery

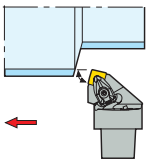
For size	Clamp pin	Clamp screw	Coolant nozzle	Floating wedge clamp	Insert shim	Shim/clamp key	Shim screw	Spring
C4	FP2012	L85021-T15P	CN6	CD12-S	DSN120616	T15P-2	C04008-T15P	S6912
C6	FP2012	L86026-T20P	CN7	CD19-S	DSN190624	T20P-7L	C05010-T20P	S7010
C8	FP2012	L86026-T20P	CN8	CD19-S	DSN190624	T20P-7L	C05010-T20P	S7010

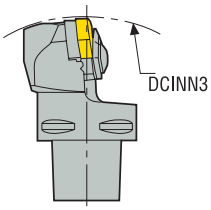
Accessories

For size	Clamp kit	Insert clamping torque	Replacement blade	Torque key
C4	CD12-S12	3.5NM	T00-15P	T00-15P35
C6	CD19-S19	6.0NM	T00T-20P	T00T-20P60
C8	CD19-S19	6.0NM	T00T-20P	T00T-20P60

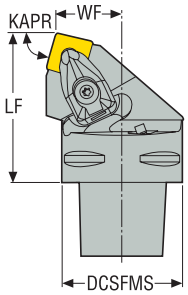
C.-DSRNR/L...-M, C.-DSRNR/L – Toolholders for inserts SNGA, SNMA, SNMG, SNMM – Metric / *Inch*

C.-DSRNR/L, ..-M
KAPR = 75,0 °





C.-DSRNR/L, ..-M





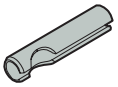
CTWS



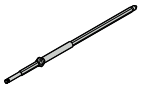
- Right-hand version shown
- For inserts program, see page(s) 567, 568, 569, 570, 603
- For holder code key, see page(s) 11-12
- Shim DSN120416 for insert SN..1206.., to be ordered separately
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	DCSFMS	WF	LF	DCINN	DCINN3	KAPR°	GAMO°	LAMS°	Weight	CTWS
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*				kg *lbs*	
C4-DSRNR-22050-12-M	02587935	C4	40,0 *1.575*	22,0 *0.866*	50,0 *1.969*	140,0 *5.512*	140,0 *5.512*	75,0	-6,0	-6,0	0,4 *0.880*	SN..1204.. *SN..43.*
C4-DSRNL-22050-12-M	02587936	C4	40,0 *1.575*	22,0 *0.866*	50,0 *1.969*	140,0 *5.512*	140,0 *5.512*	75,0	-6,0	-6,0	0,4 *0.880*	SN..1204.. *SN..43.*
C4-DSRNR-22055-15-M	02587937	C4	40,0 *1.575*	22,0 *0.866*	55,0 *2.165*	165,0 *6.496*	165,0 *6.496*	75,0	-6,0	-6,0	0,5 *1.100*	SN..1506.. *SN..54.*
C5-DSRNR-27060-12-M	02587941	C5	50,0 *1.969*	27,0 *1.063*	60,0 *2.362*	165,0 *6.496*	165,0 *6.496*	75,0	-6,0	-6,0	0,7 *1.540*	SN..1204.. *SN..43.*
C5-DSRNL-27060-12-M	02587942	C5	50,0 *1.969*	27,0 *1.063*	60,0 *2.362*	165,0 *6.496*	165,0 *6.496*	75,0	-6,0	-6,0	0,7 *1.540*	SN..1204.. *SN..43.*
C6-DSRNR-35065-15-M	02587949	C6	63,0 *2.480*	35,0 *1.378*	65,0 *2.559*	190,0 *7.480*	190,0 *7.480*	75,0	-6,0	-6,0	1,2 *2.650*	SN..1506.. *SN..54.*
C6-DSRNL-35065-15-M	02587950	C6	63,0 *2.480*	35,0 *1.378*	65,0 *2.559*	190,0 *7.480*	190,0 *7.480*	75,0	-6,0	-6,0	1,2 *2.650*	SN..1506.. *SN..54.*
C8-DSRNR-45080-19	02619061	C8	80,0 *3.150*	45,0 *1.772*	80,0 *3.150*	250,0 *9.843*	250,0 *9.843*	75,0	-6,0	-6,0	2,4 *5.290*	SN..1906.. *SN..64.*
C8-DSRNL-45080-19	02619062	C8	80,0 *3.150*	45,0 *1.772*	80,0 *3.150*	250,0 *9.843*	250,0 *9.843*	75,0	-6,0	-6,0	2,4 *5.290*	SN..1906.. *SN..64.*

Spare Parts, included in delivery

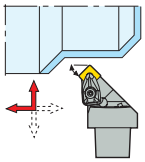
For size	Clamp pin	Clamp screw	Coolant nozzle	Floating wedge clamp	Insert shim	Shim/clamp key	Shim screw	Spring
								
-12	FP2012	L85021-T15P	CN3	CD12-S	DSN120616	T15P-2	C04008-T15P	S6912
C4..-15	FP2012	L86026-T20P	CN6	CD16-S	DSN150624	T20P-7L	C05010-T20P	S7010
C6..-15	FP2012	L86026-T20P	CN3	CD16-S	DSN150624	T20P-7L	C05010-T20P	S7010
-19	FP2012	L86026-T20P	CN3	CD19-S	DSN190624	T20P-7	C05010-T20P	S7010

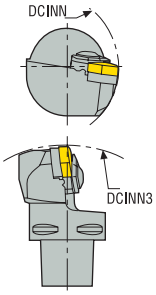
Accessories

For size	Clamp kit	Insert clamping torque	Replacement blade	Torque key
				
-12	CD12-S12	3.5NM	T00-15P	T00-15P35
C4..-15	CD16-S16	6.0NM	T00T-20P	T00T-20P60
C6..-15	CD16-S16	6.0NM	T00T-20P	T00T-20P60
-19	CD19-S19	6.0NM	T00T-20P	T00T-20P60

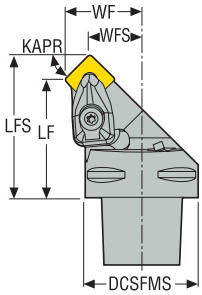
C.-DSSNR/L...-M – Toolholders for inserts SNGA, SNMA, SNMG, SNMM – Metric / *Inch*

C.-DSSNR/L..-M
KAPR = 45,0 °





C.-DSSNR/L..-M





CTWS



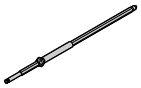
- Right-hand version shown
- For inserts program, see page(s) 567, 568, 569, 570, 603
- For holder code key, see page(s) 11-12
- Shim DSN120416 for insert SN..1206.., to be ordered separately
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	DCSFMS	WF	WFS	LF	LFS	DCINN	DCINN3	KAPR°	GAMO°	LAMS°	Weight	CTWS
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*				kg *lbs*	
C4-DSSNR-27042-12-M	02587955	C4	40,0 *1.575*	27,0 *1.063*	18,7 *0.736*	42,0 *1.654*	50,3 *1.980*	110,0 *4.331*	140,0 *5.512*	45,0	-8,0	0,0	0,4 *0.880*	SN..1204.. *SN..43.*
C4-DSSNL-27042-12-M	02587956	C4	40,0 *1.575*	27,0 *1.063*	18,7 *0.736*	42,0 *1.654*	50,3 *1.980*	110,0 *4.331*	140,0 *5.512*	45,0	-8,0	0,0	0,4 *0.880*	SN..1204.. *SN..43.*
C5-DSSNR-35052-12-M	02587961	C5	50,0 *1.969*	35,0 *1.378*	26,7 *1.051*	52,0 *2.047*	60,3 *2.374*	110,0 *4.331*	165,0 *6.496*	45,0	-8,0	0,0	0,7 *1.540*	SN..1204.. *SN..43.*
C5-DSSNL-35052-12-M	02587962	C5	50,0 *1.969*	35,0 *1.378*	26,7 *1.051*	52,0 *2.047*	60,3 *2.374*	110,0 *4.331*	165,0 *6.496*	45,0	-8,0	0,0	0,7 *1.540*	SN..1204.. *SN..43.*
C5-DSSNR-35050-15-M	02587963	C5	50,0 *1.969*	35,0 *1.378*	24,8 *0.976*	50,0 *1.969*	60,2 *2.370*	125,0 *4.921*	165,0 *6.496*	45,0	-8,0	0,0	0,6 *1.320*	SN..1506.. *SN..54.*
C5-DSSNL-35050-15-M	02587964	C5	50,0 *1.969*	35,0 *1.378*	24,8 *0.976*	50,0 *1.969*	60,2 *2.370*	125,0 *4.921*	165,0 *6.496*	45,0	-8,0	0,0	0,6 *1.320*	SN..1506.. *SN..54.*
C6-DSSNR-45056-12-M	02587967	C6	63,0 *2.480*	45,0 *1.772*	36,7 *1.445*	56,0 *2.205*	64,3 *2.531*	110,0 *4.331*	190,0 *7.480*	45,0	-8,0	0,0	1,1 *2.430*	SN..1204.. *SN..43.*
C6-DSSNL-45056-12-M	02587968	C6	63,0 *2.480*	45,0 *1.772*	36,7 *1.445*	56,0 *2.205*	64,3 *2.531*	110,0 *4.331*	190,0 *7.480*	45,0	-8,0	0,0	1,1 *2.430*	SN..1204.. *SN..43.*
C6-DSSNR-45052-19-M	02587971	C6	63,0 *2.480*	45,0 *1.772*	32,5 *1.280*	52,0 *2.047*	64,5 *2.539*	125,0 *4.921*	190,0 *7.480*	45,0	-8,0	0,0	1,1 *2.430*	SN..1906.. *SN..64.*
C6-DSSNL-45052-19-M	02587972	C6	63,0 *2.480*	45,0 *1.772*	32,5 *1.280*	52,0 *2.047*	64,5 *2.539*	125,0 *4.921*	190,0 *7.480*	45,0	-8,0	0,0	1,1 *2.430*	SN..1906.. *SN..64.*
C8-DSSNR-55070-25-09	02640505	C8	80,0 *3.150*	55,0 *2.165*	38,5 *1.516*	70,0 *2.756*	86,5 *3.406*	150,0 *5.906*	256,0 *10.079*	45,0	-8,0	0,0	2,3 *5.070*	SN..2509.. *SN..86.*

Spare Parts, included in delivery

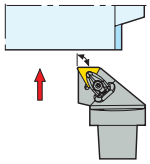
For size	Clamp kit	Clamp pin	Clamp screw	Coolant nozzle	Floating wedge clamp	Insert shim	Shim/clamp key	Shim screw	Spring
									
..-15	–	FP2012	L86026-T20P	CN7	CD16-S	DSN150624	T20P-7L	C05010-T20P	S7010
..-19	–	FP2012	L86026-T20P	CN7	CD19-S	DSN190624	T20P-7L	C05010-T20P	S7010
..-25	CD25-S25	–	–	–	–	DSN250424	T25P-7	C06012-T25P	–
C4..-12	–	FP2012	L85021-T15P	CN6	CD12-S	DSN120616	T15P-2	C04008-T15P	S6912
C5..-12	–	FP2012	L85021-T15P	CN7	CD12-S	DSN120616	T15P-2	C04008-T15P	S6912
C6..-12	–	FP2012	L85021-T15P	CN3	CD12-S	DSN120616	T15P-2	C04008-T15P	S6912

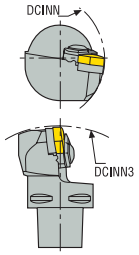
Accessories

For size	Clamp kit	Insert clamping torque	Replacement blade	Torque key
				
..-15	CD16-S16	6.0NM	T00T-20P	T00T-20P60
..-19	CD19-S19	6.0NM	T00T-20P	T00T-20P60
..-25	–	–	–	–
C4..-12	CD12-S12	3.5NM	T00-15P	T00-15P35
C5..-12	CD12-S12	3.5NM	T00-15P	T00-15P35
C6..-12	CD12-S12	3.5NM	T00-15P	T00-15P35

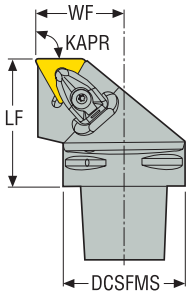
C.-DTFNR/L...-M – Toolholders for inserts TNGA, TNMA, TNMG, TNMM – Metric / *Inch*

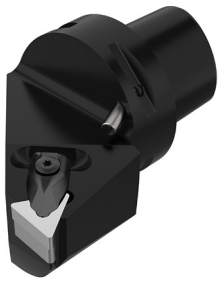
C.-DTFNR..-M
KAPR = 91,0 °





C.-DTFNR/L..-M





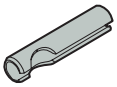
CTWS



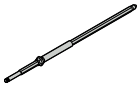
- Right-hand version shown
- For inserts program, see page(s) 574, 575, 576, 577, 608
- For holder code key, see page(s) 11-12
- Shim DTN220640 for insert TN..220432.., to be ordered separately
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	DCSFMS	WF	LF	DCINN	DCINN3	KAPR°	GAMO°	LAMS°	Weight	CTWS
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*				kg *lbs*	
C4-DTFNR-27050-16-M	02588029	C4	40,0 *1.575*	27,0 *1.063*	50,0 *1.969*	110,0 *4.331*	140,0 *5.512*	91,0	-6,0	-6,0	0,4 *0.880*	TN..1604.. *TN..33.*
C4-DTFNL-27050-16-M	02588030	C4	40,0 *1.575*	27,0 *1.063*	50,0 *1.969*	110,0 *4.331*	140,0 *5.512*	91,0	-6,0	-6,0	0,4 *0.880*	TN..1604.. *TN..33.*
C5-DTFNR-35060-16-M	02588033	C5	50,0 *1.969*	35,0 *1.378*	60,0 *2.362*	110,0 *4.331*	165,0 *6.496*	91,0	-6,0	-6,0	0,8 *1.760*	TN..1604.. *TN..33.*
C5-DTFNL-35060-16-M	02588034	C5	50,0 *1.969*	35,0 *1.378*	60,0 *2.362*	110,0 *4.331*	165,0 *6.496*	91,0	-6,0	-6,0	0,8 *1.760*	TN..1604.. *TN..33.*

Spare Parts, included in delivery

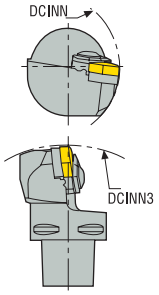
For size	Clamp pin	Clamp screw	Coolant nozzle	Floating wedge clamp	Insert shim	Shim/clamp key	Shim screw	Spring
								
..-16	FP1508	L84017-T09P	CN3	CD09-S	DTN160616	T09P-2	C03007-T09P	S5608

Accessories

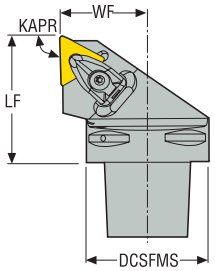
For size	Clamp kit	Insert clamping torque	Replacement blade	Torque key
				
..-16	CD09-S09	2.0NM	T00-09P	T00-09P20

C.-DTGNR/L...-M – Toolholders for inserts TNGA, TNMA, TNMG, TNMM – Metric / *Inch*

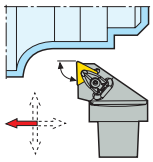




C.-DTGNR/L..-M



C.-DTGNR/L..-M
KAPR = 90,0 °



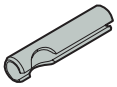
CTWS



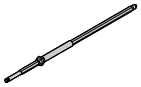
- Right-hand version shown
- For inserts program, see page(s) 574, 575, 576, 577, 608
- For holder code key, see page(s) 11-12
- Shim DTN220640 for insert TN..220432.., to be ordered separately
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	DCSFMS	WF	LF	DCINN	DCINN3	KAPR°	GAMO°	LAMS°	Weight	CTWS
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*				kg *lbs*	
C4-DTGNR-27050-22-M	02588017	C4	40,0 *1.575*	27,0 *1.063*	50,0 *1.969*	110,0 *4.331*	140,0 *5.512*	90,0	-6,0	-6,0	0,5 *1.100*	TN..2204.. *TN..43.*
C4-DTGNL-27050-22-M	02588018	C4	40,0 *1.575*	27,0 *1.063*	50,0 *1.969*	110,0 *4.331*	140,0 *5.512*	90,0	-6,0	-6,0	0,5 *1.100*	TN..2204.. *TN..43.*

Spare Parts, included in delivery

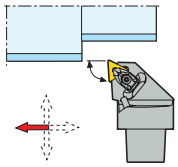
For size	Clamp pin	Clamp screw	Coolant nozzle	Floating wedge clamp	Insert shim	Shim/clamp key	Shim screw	Spring
								
C4	FP2012	L85021-T15P	CN3	CD12-S	DTN220616	T15P-2	C04008-T15P	S6912

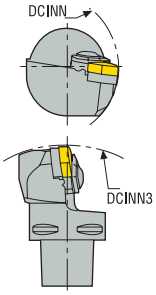
Accessories

For size	Clamp kit	Insert clamping torque	Replacement blade	Torque key
				
C4	CD12-S12	3.5NM	T00-15P	T00-15P35

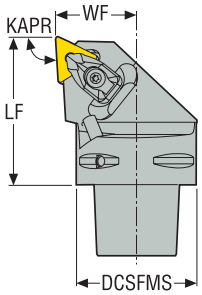
C.-DTJNR/L...-M – Toolholders for inserts TNGA, TNMA, TNMG, TNMM, TNMX – Metric / *Inch*

C.-DTJNR/L..-M
KAPR = 93,0 °





C.-DTJNR/L..-M





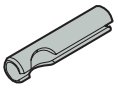
CTWS



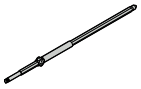
- Right-hand version shown
- For inserts program, see page(s) 574, 575, 576, 577, 608, 611
- For holder code key, see page(s) 11-12
- Shim DTN220640 for insert TN..220432.., to be ordered separately
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	DCSFMS	WF	LF	DCINN	DCINN3	KAPR°	GAMO°	LAMS°	Weight	CTWS
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*				kg *lbs*	
C4-DTJNR-27050-16-M	02588003	C4	40,0 *1.575*	27,0 *1.063*	50,0 *1.969*	110,0 *4.331*	140,0 *5.512*	93,0	-6,0	-6,0	0,5 *1.100*	TN..1604.. *TN..33.*
C4-DTJNL-27050-16-M	02588004	C4	40,0 *1.575*	27,0 *1.063*	50,0 *1.969*	110,0 *4.331*	140,0 *5.512*	93,0	-6,0	-6,0	0,5 *1.100*	TN..1604.. *TN..33.*
C5-DTJNR-35060-16-M	02588007	C5	50,0 *1.969*	35,0 *1.378*	60,0 *2.362*	110,0 *4.331*	165,0 *6.496*	93,0	-6,0	-6,0	0,8 *1.760*	TN..1604.. *TN..33.*
C5-DTJNL-35060-16-M	02588008	C5	50,0 *1.969*	35,0 *1.378*	60,0 *2.362*	110,0 *4.331*	165,0 *6.496*	93,0	-6,0	-6,0	0,8 *1.760*	TN..1604.. *TN..33.*
C5-DTJNR-35060-22-M	02588009	C5	50,0 *1.969*	35,0 *1.378*	60,0 *2.362*	110,0 *4.331*	165,0 *6.496*	93,0	-6,0	-6,0	0,8 *1.760*	TN..2204.. *TN..43.*
C5-DTJNL-35060-22-M	02588010	C5	50,0 *1.969*	35,0 *1.378*	60,0 *2.362*	110,0 *4.331*	165,0 *6.496*	93,0	-6,0	-6,0	0,8 *1.760*	TN..2204.. *TN..43.*
C6-DTJNR-45065-16-M	02588011	C6	63,0 *2.480*	45,0 *1.772*	65,0 *2.559*	110,0 *4.331*	190,0 *7.480*	93,0	-6,0	-6,0	1,3 *2.870*	TN..1604.. *TN..33.*
C6-DTJNL-45065-16-M	02588012	C6	63,0 *2.480*	45,0 *1.772*	65,0 *2.559*	110,0 *4.331*	190,0 *7.480*	93,0	-6,0	-6,0	1,3 *2.870*	TN..1604.. *TN..33.*

Spare Parts, included in delivery

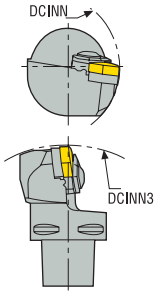
For size	Clamp pin	Clamp screw	Coolant nozzle	Floating wedge clamp	Insert shim	Shim/clamp key	Shim screw	Spring
								
..-16	FP1508	L84017-T09P	CN3	CD09-S	DTN160616	T09P-2	C03007-T09P	S5608
..-22	FP2012	L85021-T15P	CN3	CD12-S	DTN220616	T15P-2	C04008-T15P	S6912

Accessories

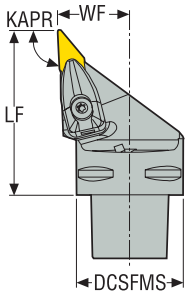
For size	Clamp kit	Insert clamping torque	Replacement blade	Torque key
				
..-16	CD09-S09	2.0NM	T00-09P	T00-09P20
..-22	CD12-S12	3.5NM	T00-15P	T00-15P35

C.-DVJNR/L – Toolholders for inserts VNGA, VNGG, VNGM, VNMA, VNMG, VNMU – **Metric** / *Inch*

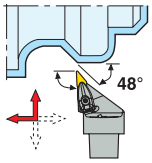




C.-DVJNR/L



C.-DVJNR/L
KAPR = 93,0 °



CTWS



- Right-hand version shown
- For inserts program, see page(s) 584, 585, 613
- For holder code key, see page(s) 11-12
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	DCSFMS	WF	LF	DCINN	DCINN3	KAPR°	GAMO°	LAMS°	Weight	CTWS
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*				kg *lbs*	
C4-DVJNR-27062-16	02588047	C4	40,0 *1.575*	27,0 *1.063*	62,0 *2.441*	65,0 *2.559*	152,0 *5.984*	93,0	-4,0	-13,0	0,5 *1.100*	VN..1604.. *VN..33.*
C4-DVJNL-27062-16	02588048	C4	40,0 *1.575*	27,0 *1.063*	62,0 *2.441*	65,0 *2.559*	152,0 *5.984*	93,0	-4,0	-13,0	0,5 *1.100*	VN..1604.. *VN..33.*
C5-DVJNR-35065-16	02588049	C5	50,0 *1.969*	35,0 *1.378*	65,0 *2.559*	65,0 *2.559*	170,0 *6.693*	93,0	-4,0	-13,0	0,7 *1.540*	VN..1604.. *VN..33.*
C5-DVJNL-35065-16	02588050	C5	50,0 *1.969*	35,0 *1.378*	65,0 *2.559*	65,0 *2.559*	170,0 *6.693*	93,0	-4,0	-13,0	0,7 *1.540*	VN..1604.. *VN..33.*
C6-DVJNR-45065-16	02588051	C6	63,0 *2.480*	45,0 *1.772*	65,0 *2.559*	81,0 *3.189*	190,0 *7.480*	93,0	-4,0	-13,0	1,1 *2.430*	VN..1604.. *VN..33.*
C6-DVJNL-45065-16	02588052	C6	63,0 *2.480*	45,0 *1.772*	65,0 *2.559*	81,0 *3.189*	190,0 *7.480*	93,0	-4,0	-13,0	1,1 *2.430*	VN..1604.. *VN..33.*

Spare Parts, included in delivery

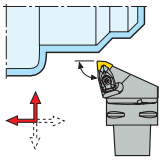
For size	Clamp pin	Clamp screw	Coolant nozzle	Floating wedge clamp	Insert shim	Shim/clamp key	Shim screw	Spring
C4	FP2012	L85021-T15P	CN6	CD19-S-V16	DVN160310	T15P-2	C03508-T15P	S6912
C5, C6	FP2012	L85021-T15P	CN7	CD19-S-V16	DVN160310	T15P-2	C03508-T15P	S6912

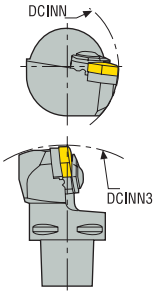
Accessories

For size	Clamp kit	Insert clamping torque	Replacement blade	Torque key
C4	CD19-V16	3.5NM	T00-15P	T00-15P35
C5, C6	CD19-V16	3.5NM	T00-15P	T00-15P35

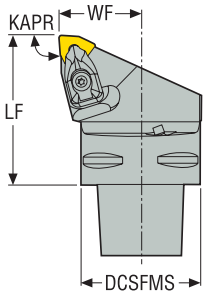
C.-DWLNR/L – Toolholders for inserts WNGA, WNGG, WNMA, WNMG, WNMM – Metric / *Inch*

C.-DWLNR/L
KAPR = 95,0 °





C.-DWLNR/L





CTWS



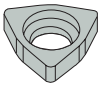
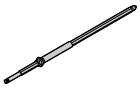
- Right-hand version shown
- For inserts program, see page(s) 586, 587, 588, 589, 614
- For holder code key, see page(s) 11-12
- * Use the right shim & the right screw for the selected insert. For details, see page 100
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	DCSFMS	WF	LF	DCINN	DCINN3	KAPR°	GAMO°	LAMS°	Weight	CTWS
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*				kg *lbs*	
C4-DWLNR-27050-06	02588053	C4	40,0 *1.575*	27,0 *1.063*	50,0 *1.969*	60,0 *2.362*	140,0 *5.512*	95,0	-6,0	-6,0	0,4 *0.880*	WN..0604.. *WN..33.*
C4-DWLNL-27050-06	02588054	C4	40,0 *1.575*	27,0 *1.063*	50,0 *1.969*	60,0 *2.362*	140,0 *5.512*	95,0	-6,0	-6,0	0,4 *0.880*	WN..0604.. *WN..33.*
C4-DWLNR-27050-08	02588055	C4	40,0 *1.575*	27,0 *1.063*	50,0 *1.969*	110,0 *4.331*	140,0 *5.512*	95,0	-6,0	-6,0	0,4 *0.880*	WN..0804-WN..0806* *WN..43-WN..44**
C4-DWLNL-27050-08	02588056	C4	40,0 *1.575*	27,0 *1.063*	50,0 *1.969*	110,0 *4.331*	140,0 *5.512*	95,0	-6,0	-6,0	0,4 *0.880*	WN..0804-WN..0806* *WN..43-WN..44**
C5-DWLNR-35060-06	02588057	C5	50,0 *1.969*	35,0 *1.378*	60,0 *2.362*	65,0 *2.559*	165,0 *6.496*	95,0	-6,0	-6,0	0,5 *1.100*	WN..0604.. *WN..33.*
C5-DWLNL-35060-06	02588058	C5	50,0 *1.969*	35,0 *1.378*	60,0 *2.362*	65,0 *2.559*	165,0 *6.496*	95,0	-6,0	-6,0	0,5 *1.100*	WN..0604.. *WN..33.*
C5-DWLNR-35060-08	02588059	C5	50,0 *1.969*	35,0 *1.378*	60,0 *2.362*	110,0 *4.331*	165,0 *6.496*	95,0	-6,0	-6,0	0,8 *1.760*	WN..0804-WN..0806* *WN..43-WN..44**
C5-DWLNL-35060-08	02588060	C5	50,0 *1.969*	35,0 *1.378*	60,0 *2.362*	110,0 *4.331*	165,0 *6.496*	95,0	-6,0	-6,0	0,7 *1.540*	WN..0804-WN..0806* *WN..43-WN..44**
C6-DWLNR-45065-06	02588061	C6	63,0 *2.480*	45,0 *1.772*	65,0 *2.559*	81,0 *3.189*	190,0 *7.480*	95,0	-6,0	-6,0	1,3 *2.870*	WN..0604.. *WN..33.*
C6-DWLNL-45065-06	02588062	C6	63,0 *2.480*	45,0 *1.772*	65,0 *2.559*	81,0 *3.189*	190,0 *7.480*	95,0	-6,0	-6,0	1,3 *2.870*	WN..0604.. *WN..33.*
C6-DWLNR-45065-08	02588063	C6	63,0 *2.480*	45,0 *1.772*	65,0 *2.559*	110,0 *4.331*	190,0 *7.480*	95,0	-6,0	-6,0	1,3 *2.870*	WN..0804-WN..0806* *WN..43-WN..44**
C6-DWLNL-45065-08	02588064	C6	63,0 *2.480*	45,0 *1.772*	65,0 *2.559*	110,0 *4.331*	190,0 *7.480*	95,0	-6,0	-6,0	1,3 *2.870*	WN..0804-WN..0806* *WN..43-WN..44**

Spare Parts, included in delivery

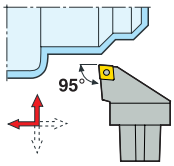
For size	Clamp pin	Clamp screw	Coolant nozzle	Floating wedge clamp	Insert shim	Shim/clamp key	Shim screw	Spring
C4..-06	FP1508	L84017-T09P	CN6	CD09-S	DWN060310	T09P-2	C03007-T09P	S5608
C4..-08	FP2012	L85021-T15P	CN6	CD12-S	DWN080416	T15P-2	C04008-T15P	S6912
C5, C6..-06	FP1508	L84017-T09P	CN3	CD09-S	DWN060310	T09P-2	C03007-T09P	S5608
C5, C6..-08	FP2012	L85021-T15P	CN3	CD12-S	DWN080416	T15P-2	C04008-T15P	S6912

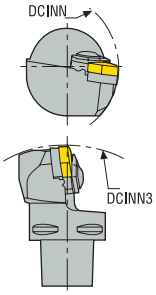
Accessories

For size	Clamp kit	Insert clamping torque	Insert shim	Replacement blade	Torque key
					
C4..-06	CD09-S09	2.0NM	–	T00-09P	T00-09P20
C4..-08	CD12-S12	3.5NM	DWN080316	T00-15P	T00-15P35
C5, C6..-06	CD09-S09	2.0NM	–	T00-09P	T00-09P20
C5, C6..-08	CD12-S12	3.5NM	DWN080316	T00-15P	T00-15P35

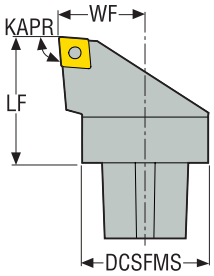
C.-PCLNR/L – Toolholders for inserts CNGA, CNGG, CNMA, CNMG, CNMM – Metric / *Inch*

C.-PCLNR/L
KAPR = 95,0 °





C.-PCLNR/L





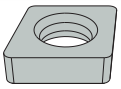
CTWS



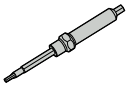
- Right-hand version shown
- For inserts program, see page(s) 546, 547, 548, 549, 550, 551, 593, 594
- For holder code key, see page(s) 11-12
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	DCSFMS mm *inch*	WF mm *inch*	LF mm *inch*	DCINN mm *inch*	DCINN3 mm *inch*	KAPR°	GAMO°	LAMS°	Weight kg *lbs*	CTWS
C5-PCLNR-35060-16	02617872	C5	50,0 *1.969*	35,0 *1.378*	60,0 *2.362*	100,0 *3.937*	150,0 *5.906*	95,0	-6,0	-6,0	0,8 *1.760*	CN..1606.. *CN..54.*
C5-PCLNL-35060-16	02902843	C5	50,0 *1.969*	35,0 *1.378*	60,0 *2.362*	100,0 *3.937*	150,0 *5.906*	95,0	-6,0	-6,0	0,8 *1.760*	CN..1606.. *CN..54.*
C6-PCLNR-45065-16	00045792	C6	63,0 *2.480*	45,0 *1.772*	65,0 *2.559*	120,0 *4.724*	200,0 *7.874*	95,0	-6,0	-6,0	1,5 *3.310*	CN..1606.. *CN..54.*
C6-PCLNL-45065-16	00070115	C6	63,0 *2.480*	45,0 *1.772*	65,0 *2.559*	120,0 *4.724*	200,0 *7.874*	95,0	-6,0	-6,0	1,3 *2.870*	CN..1606.. *CN..54.*
C6-PCLNR-45065-19	02452428	C6	63,0 *2.480*	45,0 *1.772*	65,0 *2.559*	120,0 *4.724*	200,0 *7.874*	95,0	-6,0	-6,0	1,5 *3.310*	CN..1906.. *CN..64.*
C6-PCLNL-45065-19	02466284	C6	63,0 *2.480*	45,0 *1.772*	65,0 *2.559*	120,0 *4.724*	200,0 *7.874*	95,0	-6,0	-6,0	1,3 *2.870*	CN..1906.. *CN..64.*
C8-PCLNR-55080-19	02207793	C8	80,0 *3.150*	55,0 *2.165*	80,0 *3.150*	120,0 *4.724*	220,0 *8.661*	95,0	-6,0	-6,0	2,5 *5.510*	CN..1906.. *CN..64.*
C8-PCLNL-55080-19	02527457	C8	80,0 *3.150*	55,0 *2.165*	80,0 *3.150*	120,0 *4.724*	220,0 *8.661*	95,0	-6,0	-6,0	2,5 *5.510*	CN..1906.. *CN..64.*

Spare Parts, included in delivery

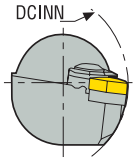
For size	Coolant nozzle	Insert lever	Insert shim	Lever key	Lever screw	Punch	Shim pin
							
..-16	CN7	PP6017	PCN160412	3SMS795	LS0820	MP1519	RP8286
C6..-19	CN7	PP7521	PCN190416	4SMS795	LS1027	MP1519	RP9811
C8..-19	CN8	PP7521	PCN190416	4SMS795	LS1027	MP1519	RP9811

Accessories

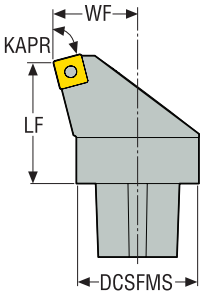
For size	Insert clamping torque	Replacement blade	Torque key
			
..-16	–	–	–
C6..-19	5.0NM	H00T-4.0	H00T-4050
C8..-19	5.0NM	H00T-4.0	H00T-4050

C.-PSKNR/L – Toolholders for inserts SNMA, SNMG, SNMM – **Metric** / *Inch*

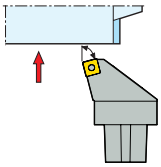




C.-PSKNR/L



C.-PSKNR/L
KAPR = 75,0 °



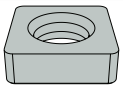
CTWS



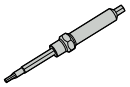
- Right-hand version shown
- For inserts program, see page(s) 567, 568, 569, 570
- For holder code key, see page(s) 11-12
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	DCSFMS	WF	LF	DCINN	DCINN3	KAPR°	GAMO°	LAMS°	Weight	CTWS
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*				kg *lbs*	
C6-PSKNR-45065-19	02722448	C6	63,0 *2.480*	45,0 *1.772*	65,0 *2.559*	100,0 *3.937*	–	75,0	-6,0	-6,0	1,4 *3.090*	SN..1906.. *SN..64.*
C6-PSKNL-45065-19	02722449	C6	60,0 *2.362*	45,0 *1.772*	65,0 *2.559*	100,0 *3.937*	–	75,0	-6,0	-6,0	1,4 *3.090*	SN..1906.. *SN..64.*
C8-PSKNR-55080-25	02527456	C8	80,0 *3.150*	55,0 *2.165*	80,0 *3.150*	180,0 *7.087*	–	75,0	-6,0	-6,0	2,8 *6.170*	SN..2507.. *SN..85.*
C8-PSKNL-55080-25	02559645	C8	80,0 *3.150*	55,0 *2.165*	80,0 *3.150*	180,0 *7.087*	–	75,0	-6,0	-6,0	3,3 *7.280*	SN..2507.. *SN..85.*

Spare Parts, included in delivery

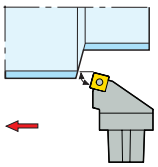
For size	Coolant nozzle	Insert lever	Insert shim	Lever key	Lever screw	Punch	Shim pin
							
C6	CN7	PP7521	PSN190412	4SMS795	LS1027	MP1519	RP9811
C8	CN8	PP1325	PSN250624	5SMS795	LS1236	MP25	RP1312

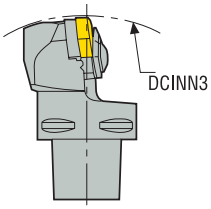
Accessories

For size	Insert clamping torque	Replacement blade	Torque key
			
C6	5.0NM	H00T-4.0	H00T-4050
C8	5.0NM	H00T-5.0	H00T-5050

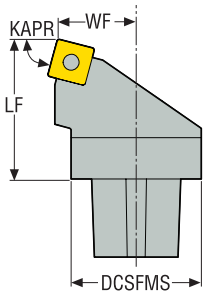
C.-PSRNR/L – Toolholders for inserts SNMA, SNMG, SNMM – Metric / *Inch*

C.-PSRNR/L
KAPR = 75,0 °





C.-PSRNR/L





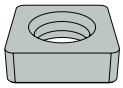
CTWS



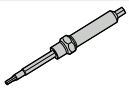
- Right-hand version shown
- For inserts program, see page(s) 567, 568, 569, 570
- For holder code key, see page(s) 11-12
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	DCSFMS	WF	LF	DCINN	DCINN3	KAPR°	GAMO°	LAMS°	Weight	CTWS
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*				kg *lbs*	
C5-PSRNR-27060-19	02547736	C5	50,0 *1.969*	27,0 *1.063*	60,0 *2.362*	–	130,0 *5.118*	75,0	-6,0	-6,0	0,9 *1.980*	SN..1906.. *SN..64.*
C5-PSRNL-27060-19	02547737	C5	50,0 *1.969*	27,0 *1.063*	60,0 *2.362*	–	130,0 *5.118*	75,0	-6,0	-6,0	0,7 *1.540*	SN..1906.. *SN..64.*
C6-PSRNR-35065-19	02684139	C6	63,0 *2.480*	35,0 *1.378*	65,0 *2.559*	–	160,0 *6.299*	75,0	-6,0	-6,0	1,4 *3.090*	SN..1906.. *SN..64.*
C6-PSRNL-35065-19	02684140	C6	63,0 *2.480*	35,0 *1.378*	65,0 *2.559*	–	160,0 *6.299*	75,0	-6,0	-6,0	1,4 *3.090*	SN..1906.. *SN..64.*
C8-PSRNR-45080-25	02559638	C8	80,0 *3.150*	45,0 *1.772*	80,0 *3.150*	–	220,0 *8.661*	75,0	-6,0	-6,0	2,4 *5.290*	SN..2507.. *SN..85.*
C8-PSRNL-45080-25	02630987	C8	80,0 *3.150*	45,0 *1.772*	80,0 *3.150*	–	220,0 *8.661*	75,0	-6,0	-6,0	2,4 *5.290*	SN..2507.. *SN..85.*

Spare Parts, included in delivery

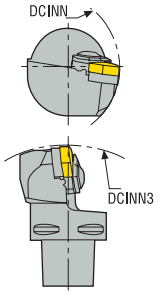
For size	Coolant nozzle	Insert lever	Insert shim	Lever key	Lever screw	Punch	Shim pin
							
C5, C6	CN7	PP7521	PSN190412	4SMS795	LS1027	MP1519	RP9811
C8	CN8	PP1325	PSN250624	5SMS795	LS1236	MP25	RP1312

Accessories

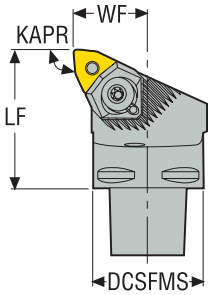
For size	Insert clamping torque	Replacement blade	Torque key
			
C5, C6	5.0NM	H00T-4.0	H00T-4050
C8	5.0NM	H00T-5.0	H00T-5050

C.-PWLNR/L – Toolholders for inserts WNGA, WNGG, WNMA, WNMG, WNMM – Metric / *Inch*

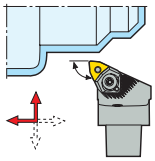




C.-PWLNR/L



C.-PWLNR/L
KAPR = 95,0 °



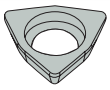
CTWS



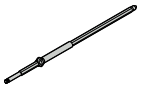
- Right-hand version shown
- For inserts program, see page(s) 586, 587, 588, 589, 614
- For holder code key, see page(s) 11-12
- Wedge WNW08 for insert WNMM08.., to be ordered separately
- * Use the right shim & the right screw for the selected insert. For details, see page 100
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	DCSFMS	WF	LF	DCINN	DCINN3	KAPR°	GAMO°	LAMS°	Weight	CTWS
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*				kg *lbs*	
C4-PWLNR-27050-06	75257218	C4	40,0 *1.575*	27,0 *1.063*	50,0 *1.969*	75,0 *2.953*	165,0 *6.496*	95,0	-6,0	-6,0	0,4 *0.880*	WN..0604.. *WN..33.*
C4-PWLNL-27050-06	00092036	C4	40,0 *1.575*	27,0 *1.063*	50,0 *1.969*	75,0 *2.953*	165,0 *6.496*	95,0	-6,0	-6,0	0,4 *0.880*	WN..0604.. *WN..33.*
C4-PWLNR-27050-08	00092037	C4	40,0 *1.575*	27,0 *1.063*	50,0 *1.969*	75,0 *2.953*	165,0 *6.496*	95,0	-6,0	-6,0	0,5 *1.100*	WN..0804.. *WN..43.*
C4-PWLNL-27050-08	75069455	C4	40,0 *1.575*	27,0 *1.063*	50,0 *1.969*	75,0 *2.953*	165,0 *6.496*	95,0	-6,0	-6,0	0,5 *1.100*	WN..0804.. *WN..43.*
C5-PWLNR-35060-06	00092039	C5	50,0 *1.969*	35,0 *1.378*	60,0 *2.362*	95,0 *3.740*	165,0 *6.496*	95,0	-6,0	-6,0	0,8 *1.760*	WN..0604.. *WN..33.*
C5-PWLNL-35060-06	00089504	C5	50,0 *1.969*	35,0 *1.378*	60,0 *2.362*	95,0 *3.740*	165,0 *6.496*	95,0	-6,0	-6,0	0,8 *1.760*	WN..0604.. *WN..33.*
C5-PWLNR-35060-08	75675111	C5	50,0 *1.969*	35,0 *1.378*	60,0 *2.362*	95,0 *3.740*	165,0 *6.496*	95,0	-6,0	-6,0	0,8 *1.760*	WN..0804.. *WN..43.*
C5-PWLNL-35060-08	75675112	C5	50,0 *1.969*	35,0 *1.378*	60,0 *2.362*	95,0 *3.740*	165,0 *6.496*	95,0	-6,0	-6,0	0,8 *1.760*	WN..0804.. *WN..43.*
C6-PWLNR-45065-08	00012511	C6	63,0 *2.480*	45,0 *1.772*	65,0 *2.559*	121,0 *4.764*	165,0 *6.496*	95,0	-6,0	-6,0	1,3 *2.870*	WN..0804.. *WN..43.*
C6-PWLNL-45065-08	00012512	C6	63,0 *2.480*	45,0 *1.772*	65,0 *2.559*	121,0 *4.764*	165,0 *6.496*	95,0	-6,0	-6,0	1,3 *2.870*	WN..0804.. *WN..43.*

Spare Parts, included in delivery

For size	Coolant nozzle	Insert shim	Setting screw	Shim pin	Wedge clamp	Wedge key	Wedge screw
							
C4..-06	CN6	WAE060312	L82511-T07P	PP2109-T09P	WNW06HD	T20P-7	WS1920-T20P
C4..-08	CN6	WAE080412	L82511-T07P	PP2015-1-T15P	WNW08HD	T25P-7	WS2325-T25P
C5..-06	CN7	WAE060312	L82511-T07P	PP2109-T09P	WNW06HD	T20P-7	WS1920-T20P
C5..-08	CN6	WAE080412	L82511-T07P	PP2015-1-T15P	WNW08HD	T25P-7	WS2325-T25P
C6..-08	CN8	WAE080412	L82511-T07P	PP2015-1-T15P	WNW08HD	T25P-7	WS2325-T25P

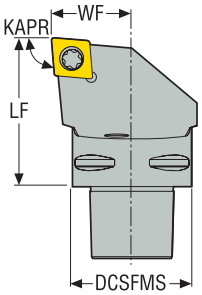
Accessories

For size	Insert clamping torque	Replacement blade	Shim key	Torque key
				
C4..-06	3.5NM	T00-20P	T09P-2	T00-20P35
C4..-08	5.0NM	T00T-25P	T15P-2	T00T-25P50
C5..-06	3.5NM	T00-20P	T09P-2	T00-20P35
C5..-08	5.0NM	T00T-25P	T15P-2	T00T-25P50
C6..-08	5.0NM	T00T-25P	T15P-2	T00T-25P50

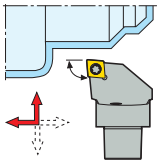
C.-SCLCR/L – Toolholders for inserts CCGT, CCGW, CCMT, CCMW – **Metric** / *Inch*



C.-SCLCR/L



C.-SCLCR/L
KAPR = 95,0 °



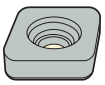
CTWS



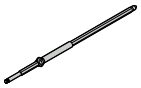
- Right-hand version shown
- For inserts program, see page(s) 542, 543, 544, 545, 591, 592, 615, 616
- For holder code key, see page(s) 11-12
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	DCSFMS	WF	LF	DCINN	DCINN3	KAPR°	GAMO°	LAMS°	Weight	CTWS
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*				kg *lbs*	
C3-SCLCR-22040-09	00094076	C3	32,0 *1.260*	22,0 *0.866*	40,0 *1.575*	–	–	95,0	0,0	0,0	0,3 *0.660*	CC..09T3.. *CC..32.5.*
C3-SCLCL-22040-09	00094065	C3	32,0 *1.260*	22,0 *0.866*	40,0 *1.575*	–	–	95,0	0,0	0,0	0,3 *0.660*	CC..09T3.. *CC..32.5.*
C4-SCLCR-27050-09	00083466	C4	40,0 *1.575*	27,0 *1.063*	50,0 *1.969*	75,0 *2.953*	165,0 *6.496*	95,0	0,0	0,0	0,5 *1.100*	CC..09T3.. *CC..32.5.*
C4-SCLCL-27050-09	75069013	C4	40,0 *1.575*	27,0 *1.063*	50,0 *1.969*	75,0 *2.953*	165,0 *6.496*	95,0	0,0	0,0	0,5 *1.100*	CC..09T3.. *CC..32.5.*
C4-SCLCR-27050-12	00094168	C4	40,0 *1.575*	27,0 *1.063*	50,0 *1.969*	75,0 *2.953*	165,0 *6.496*	95,0	0,0	0,0	0,5 *1.100*	CC..1204.. *CC..43.*
C4-SCLCL-27050-12	00094163	C4	40,0 *1.575*	27,0 *1.063*	50,0 *1.969*	75,0 *2.953*	165,0 *6.496*	95,0	0,0	0,0	0,5 *1.100*	CC..1204.. *CC..43.*
C5-SCLCR-35060-09	00094277	C5	50,0 *1.969*	35,0 *1.378*	60,0 *2.362*	95,0 *3.740*	165,0 *6.496*	95,0	0,0	0,0	0,8 *1.760*	CC..09T3.. *CC..32.5.*
C5-SCLCL-35060-09	00094261	C5	50,0 *1.969*	35,0 *1.378*	60,0 *2.362*	95,0 *3.740*	165,0 *6.496*	95,0	0,0	0,0	0,8 *1.760*	CC..09T3.. *CC..32.5.*
C5-SCLCR-35060-12	00094278	C5	50,0 *1.969*	35,0 *1.378*	60,0 *2.362*	95,0 *3.740*	165,0 *6.496*	95,0	0,0	0,0	0,7 *1.540*	CC..1204.. *CC..43.*
C5-SCLCL-35060-12	00094265	C5	50,0 *1.969*	35,0 *1.378*	60,0 *2.362*	95,0 *3.740*	165,0 *6.496*	95,0	0,0	0,0	0,7 *1.540*	CC..1204.. *CC..43.*
C6-SCLCR-45065-12	00094313	C6	63,0 *2.480*	45,0 *1.772*	65,0 *2.559*	121,0 *4.764*	165,0 *6.496*	95,0	0,0	0,0	1,2 *2.650*	CC..1204.. *CC..43.*
C6-SCLCL-45065-12	00094311	C6	63,0 *2.480*	45,0 *1.772*	65,0 *2.559*	121,0 *4.764*	165,0 *6.496*	95,0	0,0	0,0	1,4 *3.090*	CC..1204.. *CC..43.*

Spare Parts, included in delivery

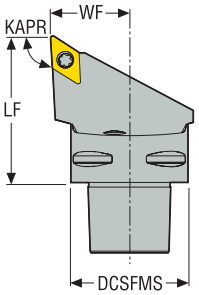
For size	Coolant nozzle	Insert key	Insert screw	Insert shim	Shim screw
					
C3, C4..-09	CN6	T15P-2	C03512-T15P	SCN090308	CA3507
C3, C4..-12	CN6	T15P-2	C04014-T15P	SCN12T308	CA4010
C5, C6..-09	CN7	T15P-2	C03512-T15P	SCN090308	CA3507
C5, C6..-12	CN7	T15P-2	C04014-T15P	SCN12T308	CA4010

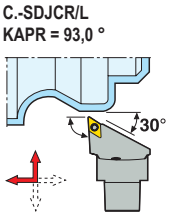
Accessories

For size	Insert clamping torque	Replacement blade	Shim key	Torque key
				
C3, C4..-09	3.0NM	T00-15P	9/64SMS875	T00-15P30
C3, C4..-12	3.5NM	T00-15P	4SMS795	T00-15P35
C5, C6..-09	3.0NM	T00-15P	9/64SMS875	T00-15P30
C5, C6..-12	3.5NM	T00-15P	4SMS795	T00-15P35

C.-SDJCR/L – Toolholders for inserts DCGT, DCMT, DCMW, DCMX – **Metric** / *Inch*







CTWS



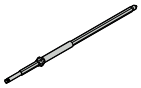
- Right-hand version shown
- For inserts program, see page(s) 553, 554, 555, 617
- For holder code key, see page(s) 11-12
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	DCSFMS	WF	LF	DCINN	DCINN3	KAPR°	GAMO°	LAMS°	Weight	CTWS
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*				kg *lbs*	
C3-SDJCR-22040-11	00091724	C3	32,0 *1.260*	22,0 *0.866*	40,0 *1.575*	121,0 *4.764*	165,0 *6.496*	93,0	0,0	0,0	0,3 *0.660*	DC..11T3.. *DC..32.5.*
C3-SDJCL-22040-11	00091725	C3	32,0 *1.260*	22,0 *0.866*	40,0 *1.575*	121,0 *4.764*	165,0 *6.496*	93,0	0,0	0,0	0,3 *0.660*	DC..11T3.. *DC..32.5.*
C4-SDJCR-27050-11	75080768	C4	40,0 *1.575*	27,0 *1.063*	50,0 *1.969*	75,0 *2.953*	165,0 *6.496*	93,0	0,0	0,0	0,4 *0.880*	DC..11T3.. *DC..32.5.*
C4-SDJCL-27050-11	00084487	C4	40,0 *1.575*	27,0 *1.063*	50,0 *1.969*	75,0 *2.953*	165,0 *6.496*	93,0	0,0	0,0	0,4 *0.880*	DC..11T3.. *DC..32.5.*
C5-SDJCR-35060-11	00094282	C5	50,0 *1.969*	35,0 *1.378*	60,0 *2.362*	95,0 *3.740*	165,0 *6.496*	93,0	0,0	0,0	0,7 *1.540*	DC..11T3.. *DC..32.5.*
C5-SDJCL-35060-11	00094281	C5	50,0 *1.969*	35,0 *1.378*	60,0 *2.362*	95,0 *3.740*	165,0 *6.496*	93,0	0,0	0,0	0,7 *1.540*	DC..11T3.. *DC..32.5.*
C6-SDJCR-45065-11	00023659	C6	63,0 *2.480*	45,0 *1.772*	65,0 *2.559*	121,0 *4.764*	165,0 *6.496*	93,0	0,0	0,0	1,1 *2.430*	DC..11T3.. *DC..32.5.*
C6-SDJCL-45065-11	00023658	C6	63,0 *2.480*	45,0 *1.772*	65,0 *2.559*	121,0 *4.764*	165,0 *6.496*	93,0	0,0	0,0	1,1 *2.430*	DC..11T3.. *DC..32.5.*

Spare Parts, included in delivery

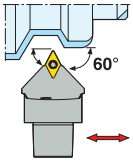
For size	Coolant nozzle	Insert key	Insert screw	Insert shim	Shim screw
					
C3, C4..-11	CN6	T15P-2	C03512-T15P	126.19-620	CA3507
C5, C6..-11	CN7	T15P-2	C03512-T15P	126.19-620	CA3507

Accessories

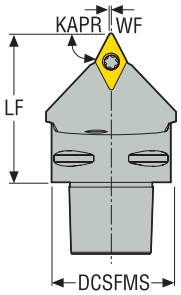
For size	Insert clamping torque	Replacement blade	Shim key	Torque key
				
C3, C4..-11	3.0NM	T00-15P	9/64SMS875	T00-15P30
C5, C6..-11	3.0NM	T00-15P	9/64SMS875	T00-15P30

C.-SDNCN – Toolholders for inserts DCGT, DCMT, DCMW – Metric / *Inch*

C.-SDNCN
KAPR = 62,5 °



C.-SDNCN





CTWS



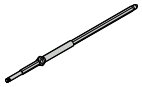
- Neutral version shown
- For inserts program, see page(s) 553, 554, 555, 617
- For holder code key, see page(s) 11-12
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	DCSFMS	WF	LF	DCINN	DCINN3	KAPR°	GAMO°	LAMS°	Weight	CTWS
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*				kg *lbs*	
C4-SDNCN-00050-11	00083467	C4	40,0 *1.575*	0,5 *0.020*	50,0 *1.969*	–	165,0 *6.496*	62,5	0,0	0,0	0,4 *0.880*	DC..11T3.. *DC..32.5.*
C5-SDNCN-00060-11	00094283	C5	50,0 *1.969*	0,5 *0.020*	60,0 *2.362*	–	165,0 *6.496*	62,5	0,0	0,0	0,6 *1.320*	DC..11T3.. *DC..32.5.*

Spare Parts, included in delivery

For size	Coolant nozzle	Insert key	Insert screw	Insert shim	Shim screw
					
C4	CN6	T15P-2	C03512-T15P	126.19-620	CA3507
C5	CN7	T15P-2	C03512-T15P	126.19-620	CA3507

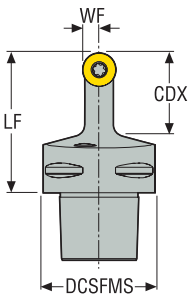
Accessories

For size	Insert clamping torque	Replacement blade	Shim key	Torque key
				
C4	3.0NM	T00-15P	9/64SMS875	T00-15P30
C5	3.0NM	T00-15P	9/64SMS875	T00-15P30

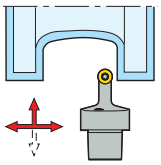
C.-SRDCN – Toolholders for inserts RCMT
– Metric / *Inch*



C.-SRDCN-..A



C.-SRDCN-..A
KAPR = 45,0 °



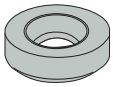
CTWS



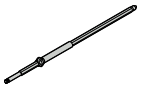
- Neutral version shown
- For inserts program, see page(s) 562, 563
- For holder code key, see page(s) 11-12
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	DCSFMS	WF	LF	CDX	DCINN3	KAPR°	GAMO°	LAMS°	Weight	CTWS
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*				kg *lbs*	
C4-SRDCN-00050-12A	00094192	C4	40,0 *1.575*	6,0 *0.236*	50,0 *1.969*	28,0 *1.102*	165,0 *6.496*	45,0	0,0	0,0	0,3 *0.660*	RC..1204M0 *RC..43M0*
C5-SRDCN-00060-06A	00094341	C5	50,0 *1.969*	3,0 *0.118*	60,0 *2.362*	12,0 *0.472*	165,0 *6.496*	45,0	0,0	0,0	0,7 *1.540*	RCMT0602..
C5-SRDCN-00060-08A	00094342	C5	50,0 *1.969*	4,0 *0.157*	60,0 *2.362*	16,0 *0.630*	165,0 *6.496*	45,0	0,0	0,0	0,7 *1.540*	RC..0803..
C5-SRDCN-00060-10A	00094229	C5	50,0 *1.969*	5,0 *0.197*	60,0 *2.362*	25,0 *0.984*	165,0 *6.496*	45,0	0,0	0,0	0,6 *1.320*	RC..10T3..
C5-SRDCN-00060-12A	00094344	C5	50,0 *1.969*	6,0 *0.236*	60,0 *2.362*	28,0 *1.102*	165,0 *6.496*	45,0	0,0	0,0	0,4 *0.880*	RC..1204M0 *RC..43M0*
C5-SRDCN-00060-16A	00094345	C5	50,0 *1.969*	8,0 *0.315*	60,0 *2.362*	35,0 *1.378*	165,0 *6.496*	45,0	0,0	0,0	0,6 *1.320*	RC..1606..
C6-SRDCN-00065-10A	00094314	C6	63,0 *2.480*	5,0 *0.197*	65,0 *2.559*	25,0 *0.984*	165,0 *6.496*	45,0	0,0	0,0	1,0 *2.200*	RC..10T3..
C6-SRDCN-00065-12A	00094315	C6	63,0 *2.480*	6,0 *0.236*	65,0 *2.559*	28,0 *1.102*	165,0 *6.496*	45,0	0,0	0,0	0,9 *1.980*	RC..1204M0 *RC..43M0*
C6-SRDCN-00065-16A	00094317	C6	63,0 *2.480*	8,0 *0.315*	65,0 *2.559*	35,0 *1.378*	165,0 *6.496*	45,0	0,0	0,0	1,0 *2.200*	RC..1606..

Spare Parts, included in delivery

For size	Coolant nozzle	Insert key	Insert screw	Insert shim	Shim screw
					
C4..-12	CN6	T15P-2	C03512-T15P	111.19-621	CA3507
..-06	CN7	T07P-2	C02506-T07P	–	–
..-08	CN7	T09P-2	C03007-T09P	–	–
..-10	CN7	T15P-2	C03510-T15P	111.19-620	CA3507
C5, C6..-12	CN7	T15P-2	C03512-T15P	111.19-621	CA3507
..-16	CN7	T20P-7	C05018-T20P	SRN160400	CA5010

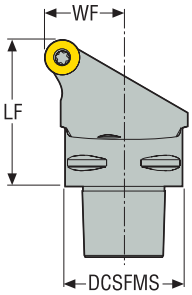
Accessories

For size	Insert clamping torque	Replacement blade	Shim key	Torque key
				
C4..-12	3.0NM	T00-15P	9/64SMS875	T00-15P30
..-06	0.9NM	T00-07P	–	T00-07P09
..-08	2.0NM	T00-09P	–	T00-09P20
..-10	3.0NM	T00-15P	9/64SMS875	T00-15P30
C5, C6..-12	3.0NM	T00-15P	9/64SMS875	T00-15P30
..-16	5.0NM	T00-20P	5SMS795	T00-20P50

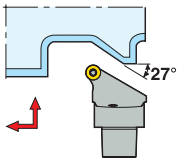
C.-SRSCR/L – Toolholders for inserts RCMT
– Metric / *Inch*



C.-SRSCR/L



C.-SRSCR/L
KAPR = 45,0 °



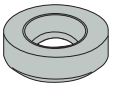
CTWS



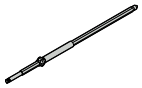
- Right-hand version shown
- For inserts program, see page(s) 562, 563
- For holder code key, see page(s) 11-12
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	DCSFMS	WF	LF	DCINN	DCINN3	KAPR°	GAMO°	LAMS°	Weight	CTWS
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*				kg *lbs*	
C5-SRSCR-35060-06	00094353	C5	50,0 *1.969*	35,0 *1.378*	60,0 *2.362*	95,0 *3.740*	165,0 *6.496*	45,0	0,0	0,0	0,7 *1.540*	RCMT0602..
C5-SRSCL-35060-06	00094347	C5	50,0 *1.969*	35,0 *1.378*	60,0 *2.362*	95,0 *3.740*	165,0 *6.496*	45,0	0,0	0,0	0,6 *1.320*	RCMT0602..
C5-SRSCR-35060-08	00094354	C5	50,0 *1.969*	35,0 *1.378*	60,0 *2.362*	95,0 *3.740*	165,0 *6.496*	45,0	0,0	0,0	0,7 *1.540*	RC..0803..
C5-SRSCL-35060-08	00094348	C5	50,0 *1.969*	35,0 *1.378*	60,0 *2.362*	95,0 *3.740*	165,0 *6.496*	45,0	0,0	0,0	0,7 *1.540*	RC..0803..
C5-SRSCR-35060-10	00094355	C5	50,0 *1.969*	35,0 *1.378*	60,0 *2.362*	95,0 *3.740*	165,0 *6.496*	45,0	0,0	0,0	0,7 *1.540*	RC..10T3..
C5-SRSCL-35060-10	00094349	C5	50,0 *1.969*	35,0 *1.378*	60,0 *2.362*	95,0 *3.740*	165,0 *6.496*	45,0	0,0	0,0	0,6 *1.320*	RC..10T3..
C5-SRSCR-35060-12	00094356	C5	50,0 *1.969*	35,0 *1.378*	60,0 *2.362*	95,0 *3.740*	165,0 *6.496*	45,0	0,0	0,0	0,6 *1.320*	RC..1204M0 *RC..43M0*
C5-SRSCL-35060-12	00094350	C5	50,0 *1.969*	35,0 *1.378*	60,0 *2.362*	95,0 *3.740*	165,0 *6.496*	45,0	0,0	0,0	0,8 *1.760*	RC..1204M0 *RC..43M0*
C5-SRSCR-35060-16	00094357	C5	50,0 *1.969*	35,0 *1.378*	60,0 *2.362*	140,0 *5.512*	165,0 *6.496*	45,0	0,0	0,0	0,8 *1.760*	RC..1606..
C5-SRSCL-35060-16	00094351	C5	50,0 *1.969*	35,0 *1.378*	60,0 *2.362*	140,0 *5.512*	165,0 *6.496*	45,0	0,0	0,0	0,8 *1.760*	RC..1606..
C6-SRSCR-45065-10	00094323	C6	63,0 *2.480*	45,0 *1.772*	65,0 *2.559*	121,0 *4.764*	165,0 *6.496*	45,0	0,0	0,0	1,2 *2.650*	RC..10T3..
C6-SRSCL-45065-10	00094319	C6	63,0 *2.480*	45,0 *1.772*	65,0 *2.559*	121,0 *4.764*	165,0 *6.496*	45,0	0,0	0,0	1,2 *2.650*	RC..10T3..
C6-SRSCR-45065-12	00094324	C6	63,0 *2.480*	45,0 *1.772*	65,0 *2.559*	121,0 *4.764*	165,0 *6.496*	45,0	0,0	0,0	1,1 *2.430*	RC..1204M0 *RC..43M0*
C6-SRSCL-45065-12	00094320	C6	63,0 *2.480*	45,0 *1.772*	65,0 *2.559*	121,0 *4.764*	165,0 *6.496*	45,0	0,0	0,0	1,1 *2.430*	RC..1204M0 *RC..43M0*
C6-SRSCR-45065-16	00094325	C6	63,0 *2.480*	45,0 *1.772*	65,0 *2.559*	140,0 *5.512*	165,0 *6.496*	45,0	0,0	0,0	1,1 *2.430*	RC..1606..
C6-SRSCL-45065-16	00094321	C6	63,0 *2.480*	45,0 *1.772*	65,0 *2.559*	140,0 *5.512*	165,0 *6.496*	45,0	0,0	0,0	1,1 *2.430*	RC..1606..
C6-SRSCR-45065-20	00094326	C6	63,0 *2.480*	45,0 *1.772*	65,0 *2.559*	–	–	45,0	0,0	0,0	1,1 *2.430*	RC..2006..
C6-SRSCL-45065-20	00094322	C6	63,0 *2.480*	45,0 *1.772*	65,0 *2.559*	–	–	45,0	0,0	0,0	1,3 *2.870*	RC..2006..

Spare Parts, included in delivery

For size	Coolant nozzle	Insert key	Insert screw	Insert shim	Shim screw
					
..-06	CN7	T07P-2	C02506-T07P	–	–
..-08	CN7	T09P-2	C03007-T09P	–	–
..-10	CN7	T15P-2	C03510-T15P	111.19-620	CA3507
..-12	CN7	T15P-2	C03512-T15P	111.19-621	CA3507
..-16	CN7	T20P-7	C05013-T20P	SRN160400	CA5010
..-20	–	T25P-7	C06018-T25P	5322110-04	–

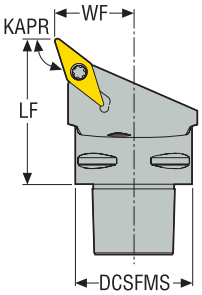
Accessories

For size	Insert clamping torque	Replacement blade	Shim key	Torque key
				
..-06	0.9NM	T00-07P	–	T00-07P09
..-08	2.0NM	T00-09P	–	T00-09P20
..-10	3.0NM	T00-15P	9/64SMS875	T00-15P30
..-12	3.0NM	T00-15P	9/64SMS875	T00-15P30
..-16	5.0NM	T00-20P	5SMS795	T00-20P50
..-20	8.0NM	T00T-25P	–	T00T-25P80

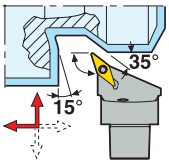
C.-SVHBR/L – Toolholders for inserts VBGT, VBGW, VBMT, VBMW, VCGT
– Metric / *Inch*



C.-SVHBR/L



C.-SVHBR/L
KAPR = 107,5 °



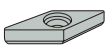
CTWS



- Right-hand version shown
- For inserts program, see page(s) 582, 583, 583, 612, 619
- For holder code key, see page(s) 11-12
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	DCSFMS	WF	LF	DCINN	DCINN3	KAPR°	GAMO°	LAMS°	Weight	CTWS
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*				kg *lbs*	
C4-SVHBR-27050-11	00094226	C4	40,0 *1.575*	27,0 *1.063*	50,0 *1.969*	–	–	107,5	0,0	0,0	0,4 *0.880*	VB..1102.. *VB..21.5.*
C4-SVHBL-27050-11	00094224	C4	40,0 *1.575*	27,0 *1.063*	50,0 *1.969*	–	–	107,5	0,0	0,0	0,4 *0.880*	VB..1102.. *VB..21.5.*
C4-SVHBR-27050-16	75065644	C4	40,0 *1.575*	27,0 *1.063*	50,0 *1.969*	95,0 *3.740*	165,0 *6.496*	107,5	0,0	0,0	0,4 *0.880*	VB..1604-VC..1604 *VB..33.-VC..33.*
C4-SVHBL-27050-16	00094225	C4	40,0 *1.575*	27,0 *1.063*	50,0 *1.969*	95,0 *3.740*	165,0 *6.496*	107,5	0,0	0,0	0,4 *0.880*	VB..1604-VC..1604 *VB..33.-VC..33.*
C5-SVHBR-35060-16	00094386	C5	50,0 *1.969*	35,0 *1.378*	60,0 *2.362*	95,0 *3.740*	165,0 *6.496*	107,5	0,0	0,0	0,6 *1.320*	VB..1604-VC..1604 *VB..33.-VC..33.*
C5-SVHBL-35060-16	00094384	C5	50,0 *1.969*	35,0 *1.378*	60,0 *2.362*	95,0 *3.740*	165,0 *6.496*	107,5	0,0	0,0	0,6 *1.320*	VB..1604-VC..1604 *VB..33.-VC..33.*
C6-SVHBR-45065-16	00094330	C6	63,0 *2.480*	45,0 *1.772*	65,0 *2.559*	95,0 *3.740*	165,0 *6.496*	107,5	0,0	0,0	1,1 *2.430*	VB..1604-VC..1604 *VB..33.-VC..33.*
C6-SVHBL-45065-16	00094329	C6	63,0 *2.480*	45,0 *1.772*	65,0 *2.559*	95,0 *3.740*	165,0 *6.496*	107,5	0,0	0,0	1,1 *2.430*	VB..1604-VC..1604 *VB..33.-VC..33.*

Spare Parts, included in delivery

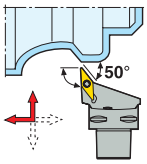
For size	Coolant nozzle	Insert key	Insert screw	Insert shim	Shim screw
					
C4, C5..-11	CN7	T07P-2	C02506-T07P	–	–
C4..-16	CN6	T15P-2	C03512-T15P	171.19-620	CA3507
C5, C6..-16	CN7	T15P-2	C03512-T15P	171.19-620	CA3507

Accessories

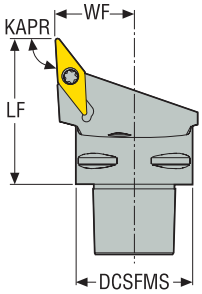
For size	Insert clamping torque	Replacement blade	Shim key	Torque key
				
C4, C5..-11	0.9NM	T00-07P	–	T00-07P09
C4..-16	3.0NM	T00-15P	9/64SMS875	T00-15P30
C5, C6..-16	3.0NM	T00-15P	9/64SMS875	T00-15P30

C.-SVJBR/L – Toolholders for inserts VBGT, VBGW, VBMT, VBMW, VCGT – Metric / *Inch*

C.-SVJBR/L
KAPR = 93,0 °



C.-SVJBR/L





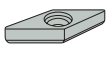
CTWS



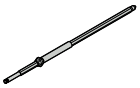
- Right-hand version shown
- For inserts program, see page(s) 582, 583, 583, 612, 619
- For holder code key, see page(s) 11-12
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	DCSFMS	WF	LF	DCINN	DCINN3	KAPR°	GAMO°	LAMS°	Weight	CTWS
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*				kg *lbs*	
C3-SVJBR-22040-11	00094146	C3	32,0 *1.260*	22,0 *0.866*	40,0 *1.575*	170,0 *6.693*	165,0 *6.496*	93,0	0,0	0,0	0,2 *0.440*	VB..1102.. *VB..21.5.*
C3-SVJBL-22040-11	00094145	C3	32,0 *1.260*	22,0 *0.866*	40,0 *1.575*	170,0 *6.693*	165,0 *6.496*	93,0	0,0	0,0	0,2 *0.440*	VB..1102.. *VB..21.5.*
C4-SVJBR-27050-11	00094230	C4	40,0 *1.575*	27,0 *1.063*	50,0 *1.969*	220,0 *8.661*	200,0 *7.874*	93,0	0,0	0,0	0,4 *0.880*	VB..1102.. *VB..21.5.*
C4-SVJBL-27050-11	00094227	C4	40,0 *1.575*	27,0 *1.063*	50,0 *1.969*	220,0 *8.661*	200,0 *7.874*	93,0	0,0	0,0	0,4 *0.880*	VB..1102.. *VB..21.5.*
C4-SVJBR-27050-16	75069318	C4	40,0 *1.575*	27,0 *1.063*	50,0 *1.969*	75,0 *2.953*	165,0 *6.496*	93,0	0,0	0,0	0,4 *0.880*	VB..1604-VC..1604 *VB..33.-VC..33.*
C4-SVJBL-27050-16	75068368	C4	40,0 *1.575*	27,0 *1.063*	50,0 *1.969*	75,0 *2.953*	165,0 *6.496*	93,0	0,0	0,0	0,4 *0.880*	VB..1604-VC..1604 *VB..33.-VC..33.*
C5-SVJBR-35060-16	75029329	C5	50,0 *1.969*	35,0 *1.378*	60,0 *2.362*	95,0 *3.740*	165,0 *6.496*	93,0	0,0	0,0	0,6 *1.320*	VB..1604-VC..1604 *VB..33.-VC..33.*
C5-SVJBL-35060-16	00094388	C5	50,0 *1.969*	35,0 *1.378*	60,0 *2.362*	95,0 *3.740*	165,0 *6.496*	93,0	0,0	0,0	0,6 *1.320*	VB..1604-VC..1604 *VB..33.-VC..33.*
C6-SVJBR-45065-16	00094332	C6	63,0 *2.480*	45,0 *1.772*	65,0 *2.559*	121,0 *4.764*	165,0 *6.496*	93,0	0,0	0,0	1,1 *2.430*	VB..1604-VC..1604 *VB..33.-VC..33.*
C6-SVJBL-45065-16	00094331	C6	63,0 *2.480*	45,0 *1.772*	65,0 *2.559*	121,0 *4.764*	165,0 *6.496*	93,0	0,0	0,0	1,1 *2.430*	VB..1604-VC..1604 *VB..33.-VC..33.*

Spare Parts, included in delivery

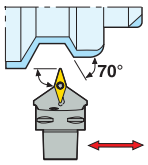
For size	Coolant nozzle	Insert key	Insert screw	Insert shim	Shim screw
					
C3..-11	CN6	T07P-2	C02506-T07P	–	–
C4, C5..-11	CN7	T07P-2	C02506-T07P	–	–
C4..-16	CN6	T15P-2	C03512-T15P	171.19-620	CA3507
C5, C6..-16	CN7	T15P-2	C03512-T15P	171.19-620	CA3507

Accessories

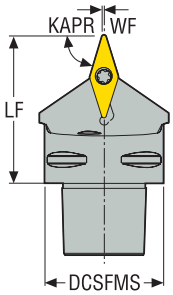
For size	Insert clamping torque 	Replacement blade 	Shim key 	Torque key 
C3..-11	0.9NM	T00-07P	–	T00-07P09
C4, C5..-11	0.9NM	T00-07P	–	T00-07P09
C4..-16	3.0NM	T00-15P	9/64SMS875	T00-15P30
C5, C6..-16	3.0NM	T00-15P	9/64SMS875	T00-15P30

C.-SVVBN – Toolholders for inserts VBGT, VBGW, VBMT, VBMW, VCGT – Metric / *Inch*

C.-SVVBN
KAPR = 72,5 °



C.-SVVBN





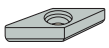
CTWS



- Neutral version shown
- For inserts program, see page(s) 582, 583, 583, 612, 619
- For holder code key, see page(s) 11-12
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	DCSFMS	WF	LF	DCINN	DCINN3	KAPR°	GAMO°	LAMS°	Weight	CTWS
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*				kg *lbs*	
C4-SVVBN-00050-16	75069505	C4	40,0 *1.575*	0,6 *0.024*	50,0 *1.969*	–	165,0 *6.496*	72,5	0,0	0,0	0,3 *0.660*	VB..1604-VC..1604 *VB..33.-VC..33.*
C5-SVVBN-00060-16	00094309	C5	50,0 *1.969*	0,6 *0.024*	60,0 *2.362*	–	165,0 *6.496*	72,5	0,0	0,0	0,6 *1.320*	VB..1604-VC..1604 *VB..33.-VC..33.*
C6-SVVBN-00065-16	00094339	C6	63,0 *2.480*	0,6 *0.024*	65,0 *2.559*	–	165,0 *6.496*	72,5	0,0	0,0	0,9 *1.980*	VB..1604-VC..1604 *VB..33.-VC..33.*

Spare Parts, included in delivery

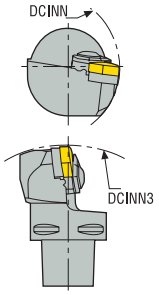
For size	Coolant nozzle	Insert key	Insert screw	Insert shim	Shim screw
					
C4	CN6	T15P-2	C03512-T15P	171.19-620	CA3507
C5	CN7	T15P-2	C03512-T15P	171.19-620	CA3507
C6	CN7	T15P-2	C03512-T15P	171.19-620	CA3507

Accessories

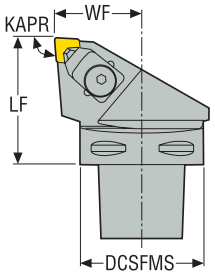
For size	Insert clamping torque	Replacement blade	Shim key	Torque key
				
C4	3.0NM	T00-15P	9/64SMS875	T00-15P30
C5	3.0NM	T00-15P	9/64SMS875	T00-15P30
C6	3.0NM	T00-15P	9/64SMS875	T00-15P30

C.-CCLNR/L – Toolholders for PCBN inserts CNGN, CNMN – **Metric** / *Inch*

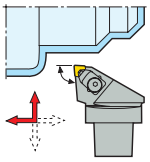




C.-CCLNR/L



C.-CCLNR/L
KAPR = 95,0 °



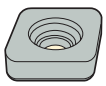
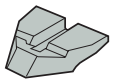
CTWS



- Right-hand version shown
- For inserts program, see page(s) 595, 620
- For holder code key, see page(s) 11-12
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	DCSFMS	WF	LF	DCINN	DCINN3	KAPR°	GAMO°	LAMS°	Weight	CTWS
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*				kg *lbs*	
C4-CCLNR-27050-09	00042706	C4	40,0 *1.575*	27,0 *1.063*	50,0 *1.969*	75,0 *2.953*	165,0 *6.496*	95,0	-6,0	-6,0	0,5 *1.100*	CN.N0903.. *CN.N32.*
C4-CCLNR-27050-12	00042743	C4	40,0 *1.575*	27,0 *1.063*	50,0 *1.969*	75,0 *2.953*	165,0 *6.496*	95,0	-6,0	-6,0	0,5 *1.100*	CN..1204.. *CN..43.*
C4-CCLNL-27050-12	00042707	C4	40,0 *1.575*	27,0 *1.063*	50,0 *1.969*	75,0 *2.953*	165,0 *6.496*	95,0	-6,0	-6,0	0,5 *1.100*	CN..1204.. *CN..43.*
C5-CCLNR-35060-09	00042745	C5	50,0 *1.969*	35,0 *1.378*	60,0 *2.362*	95,0 *3.740*	165,0 *6.496*	95,0	-6,0	-6,0	0,8 *1.760*	CN.N0903.. *CN.N32.*
C5-CCLNL-35060-09	00042744	C5	50,0 *1.969*	35,0 *1.378*	60,0 *2.362*	95,0 *3.740*	165,0 *6.496*	95,0	-6,0	-6,0	0,8 *1.760*	CN.N0903.. *CN.N32.*
C5-CCLNR-35060-12	00042747	C5	50,0 *1.969*	35,0 *1.378*	60,0 *2.362*	95,0 *3.740*	165,0 *6.496*	95,0	-6,0	-6,0	0,8 *1.760*	CN..1204.. *CN..43.*
C5-CCLNL-35060-12	00042746	C5	50,0 *1.969*	35,0 *1.378*	60,0 *2.362*	95,0 *3.740*	165,0 *6.496*	95,0	-6,0	-6,0	0,8 *1.760*	CN..1204.. *CN..43.*
C6-CCLNR-45065-12	00042752	C6	63,0 *2.480*	45,0 *1.772*	65,0 *2.559*	121,0 *4.764*	165,0 *6.496*	95,0	-6,0	-6,0	1,4 *3.090*	CN..1204.. *CN..43.*
C6-CCLNL-45065-12	00042750	C6	63,0 *2.480*	45,0 *1.772*	65,0 *2.559*	121,0 *4.764*	165,0 *6.496*	95,0	-6,0	-6,0	1,4 *3.090*	CN..1204.. *CN..43.*

Spare Parts, included in delivery

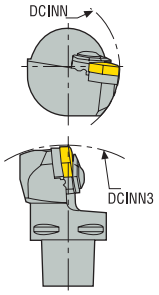
For size	Cantilever clamp	Clamp key	Coolant nozzle	Insert shim	Pressure plate	Shim screw
						
C4..-09	CC17P-09	4SMS795	CN6	CCN090412	P1311-09	174.10-652-T07P
C4..-12	CC17P	4SMS795	CN6	CCN120312	P1311	F94009-T09P
C5..-09	CC17P-09	4SMS795	CN8	CCN090412	P1311-09	174.10-652-T07P
C5, C6..-12	CC17P	4SMS795	CN8	CCN120312	P1311	F94009-T09P

Accessories

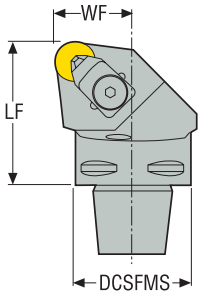
For size	Shim key
	
C4..-09	T07P-2
C4..-12	T09P-2
C5..-09	T07P-2
C5, C6..-12	T09P-2

C.-CRSNR/L – Toolholders for PCBN inserts RNGN, RNMN – Metric / *Inch*

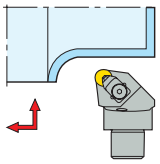




C.-CRSNR/L



C.-CRSNR/L
KAPR = 45,0 °



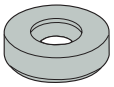
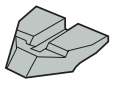
CTWS



- Right-hand version shown
- For inserts program, see page(s) 600, 618, 621
- For holder code key, see page(s) 11-12
- Shim 117.10-621 for insert RN.N1204.., to be ordered separately
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	DCSFMS	WF	LF	DCINN	DCINN3	KAPR°	GAMO°	LAMS°	Weight	CTWS
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*				kg *lbs*	
C4-CRSNR-27050-09	00042755	C4	40,0 *1.575*	27,0 *1.063*	50,0 *1.969*	75,0 *2.953*	165,0 *6.496*	45,0	0,0	-8,0	0,5 *1.100*	RN.N0903.. *RN.N32.*
C4-CRSNL-27050-09	00042754	C4	40,0 *1.575*	27,0 *1.063*	50,0 *1.969*	75,0 *2.953*	165,0 *6.496*	45,0	0,0	-8,0	0,5 *1.100*	RN.N0903.. *RN.N32.*
C4-CRSNR-27050-12	00042758	C4	40,0 *1.575*	27,0 *1.063*	50,0 *1.969*	75,0 *2.953*	165,0 *6.496*	45,0	0,0	-8,0	0,5 *1.100*	RN.N1203.. *RN.N42.*
C5-CRSNR-35060-09	00042762	C5	50,0 *1.969*	35,0 *1.378*	60,0 *2.362*	95,0 *3.740*	165,0 *6.496*	45,0	0,0	-8,0	0,8 *1.760*	RN.N0903.. *RN.N32.*
C5-CRSNL-35060-09	00042761	C5	50,0 *1.969*	35,0 *1.378*	60,0 *2.362*	95,0 *3.740*	165,0 *6.496*	45,0	0,0	-8,0	0,8 *1.760*	RN.N0903.. *RN.N32.*
C5-CRSNR-35060-12	00042764	C5	50,0 *1.969*	35,0 *1.378*	60,0 *2.362*	95,0 *3.740*	165,0 *6.496*	45,0	0,0	-8,0	0,8 *1.760*	RN.N1203.. *RN.N42.*
C5-CRSNL-35060-12	00042763	C5	50,0 *1.969*	35,0 *1.378*	60,0 *2.362*	95,0 *3.740*	165,0 *6.496*	45,0	0,0	-8,0	0,8 *1.760*	RN.N1203.. *RN.N42.*
C6-CRSNR-45065-09	00042766	C6	63,0 *2.480*	45,0 *1.772*	65,0 *2.559*	121,0 *4.764*	165,0 *6.496*	45,0	0,0	-8,0	1,3 *2.870*	RN.N0903.. *RN.N32.*
C6-CRSNL-45065-09	00042765	C6	63,0 *2.480*	45,0 *1.772*	65,0 *2.559*	121,0 *4.764*	165,0 *6.496*	45,0	0,0	-8,0	1,3 *2.870*	RN.N0903.. *RN.N32.*
C6-CRSNR-45065-12	00042768	C6	63,0 *2.480*	45,0 *1.772*	65,0 *2.559*	121,0 *4.764*	165,0 *6.496*	45,0	0,0	-8,0	1,3 *2.870*	RN.N1203.. *RN.N42.*
C6-CRSNL-45065-12	00042767	C6	63,0 *2.480*	45,0 *1.772*	65,0 *2.559*	121,0 *4.764*	165,0 *6.496*	45,0	0,0	-8,0	1,3 *2.870*	RN.N1203.. *RN.N42.*

Spare Parts, included in delivery

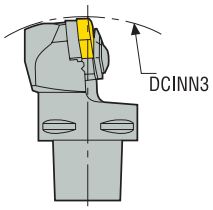
For size	Cantilever clamp	Clamp key	Coolant nozzle	Insert shim	Pressure plate	Shim screw
						
C4..-09	CC17P-09	4SMS795	CN6	117.10-620	P1311-09	174.10-652-T07P
C4..-12	CC17P	4SMS795	CN6	117.10-622	P1311	F94009-T09P
C5..-09	CC17P-09	4SMS795	CN7	117.10-620	P1311-09	174.10-652-T07P
C5..-12	CC17P	4SMS795	CN7	117.10-622	P1311	F94009-T09P
C6..-09	CC17P-09	4SMS795	CN8	117.10-620	P1311-09	174.10-652-T07P
C6..-12	CC17P	4SMS795	CN8	117.10-622	P1311	F94009-T09P

Accessories

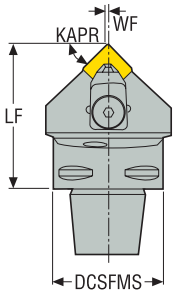
For size	Shim key
	
C4..-09	T07P-2
C4..-12	T09P-2
C5..-09	T07P-2
C5..-12	T09P-2
C6..-09	T07P-2
C6..-12	T09P-2

C.-CSDNN – Toolholders for PCBN inserts SNGN, SNMN, SNUN – **Metric** / *Inch*

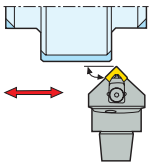




C.-CSDNN



C.-CSDNN
KAPR = 45,0 °

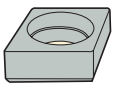
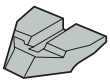


CTWS

- Neutral version shown
- For inserts program, see page(s) 604, 605
- For holder code key, see page(s) 11-12
- Shim 174.10-622 for insert SN.N1203.., to be ordered separately
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	DCSFMS	WF	LF	DCINN	DCINN3	KAPR°	GAMO°	LAMS°	Weight	CTWS
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*				kg *lbs*	
C5-CSDNN-00060-09	00042772	C5	50,0 *1.969*	0,3 *0.012*	60,0 *2.362*	165,0 *6.496*	165,0 *6.496*	45,0	-6,0	-6,0	0,7 *1.540*	SN..0903.. *SN..32.*
C5-CSDNN-00060-12	00042773	C5	50,0 *1.969*	0,3 *0.012*	60,0 *2.362*	165,0 *6.496*	165,0 *6.496*	45,0	-6,0	-6,0	0,7 *1.540*	SN..1204.. *SN..43.*
C6-CSDNN-00065-12	00042774	C6	63,0 *2.480*	0,3 *0.012*	65,0 *2.559*	165,0 *6.496*	165,0 *6.496*	45,0	-6,0	-6,0	1,1 *2.430*	SN..1204.. *SN..43.*

Spare Parts, included in delivery

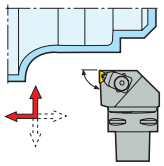
For size	Cantilever clamp	Clamp key	Coolant nozzle	Insert shim	Pressure plate	Shim screw
						
C5..-09	CC17P-09	4SMS795	CN6	CSN090412	P1311-09	174.10-652-T07P
C5..-12	CC20P	4SMS795	CN6	174.10-621	P1311	F94009-T09P
C6..-12	CC20P	4SMS795	CN6	174.10-621	P1311	F94009-T09P

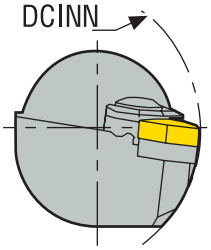
Accessories

For size	Shim key
	
C5..-09	T07P-2
C5..-12	T09P-2
C6..-12	T09P-2

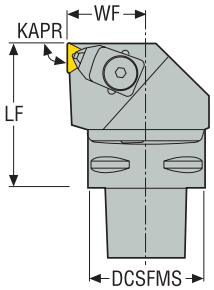
C.-CTJNR/L – Toolholders for PCBN inserts TNGN, TNGX, TNMN, TNMX – Metric / *Inch*

C.-CTJNR/L
KAPR = 93,0 °





C.-CTJNR/L





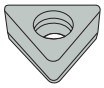
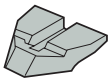
CTWS



- Right-hand version shown
- For inserts program, see page(s) 574, 575, 576, 577, 609
- For holder code key, see page(s) 11-12
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	DCSFMS	WF	LF	DCINN	DCINN3	KAPR°	GAMO°	LAMS°	Weight	CTWS
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*				kg *lbs*	
C4-CTJNR-27050-11	02545416	C4	40,0 *1.575*	27,0 *1.063*	50,0 *1.969*	75,0 *2.953*	75,0 *2.953*	93,0	-6,0	-6,0	0,5 *1.100*	TN..1103.. *TN..22.*
C4-CTJNL-27050-11	02508823	C4	40,0 *1.575*	27,0 *1.063*	50,0 *1.969*	75,0 *2.953*	75,0 *2.953*	93,0	-6,0	-6,0	0,5 *1.100*	TN..1103.. *TN..22.*
C5-CTJNL-35060-11	02595995	C5	50,0 *1.969*	35,0 *1.378*	60,0 *2.362*	95,0 *3.740*	95,0 *3.740*	93,0	-6,0	-6,0	1,0 *2.200*	TN..1103.. *TN..22.*

Spare Parts, included in delivery

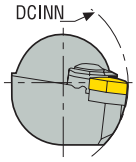
For size	Cantilever clamp	Clamp key	Coolant nozzle	Insert shim	Pressure plate	Shim screw
						
C4	CC17P-06	4SMS795	CN6	CTN110308	P1311-06	CS2507-T07P
C5	CC17P-06	4SMS795	CN8	CTN110308	P1311-06	CS2507-T07P

Accessories

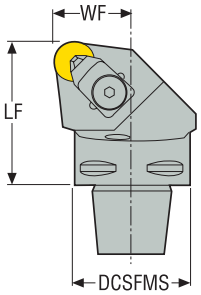
For size	Shim key
	
C4	T07P-2
C5	T07P-2

C.-CRSNR/L-..C – Toolholders for ceramic inserts RNGN – **Metric** / *Inch*

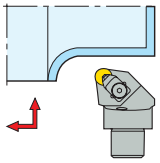




C.-CRSNR/L-..C



C.-CRSNR/L-..C
KAPR = 0,0 °



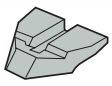
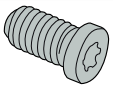
CTWS



- Right-hand version shown
- For inserts program, see page(s) 600, 618, 621
- For holder code key, see page(s) 11-12
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	DCSFMS	WF	LF	DCINN	DCINN3	KAPR°	GAMO°	LAMS°	Weight	CTWS
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*				kg *lbs*	
C5-CRSNR-35060-12C	02926924	C5	50,0 *1.969*	35,0 *1.378*	60,0 *2.362*	250,0 *9.843*	–	0,0	-6,0	-6,0	0,9 *1.980*	RN..1207.. *RN..45.*
C5-CRSNL-35060-12C	02926925	C5	50,0 *1.969*	35,0 *1.378*	60,0 *2.362*	250,0 *9.843*	–	0,0	-6,0	-6,0	0,9 *1.980*	RN..1207.. *RN..45.*
C6-CRSNR-45065-12C	02926926	C6	63,0 *2.480*	45,0 *1.772*	65,0 *2.559*	325,0 *12.795*	–	0,0	-6,0	-6,0	1,5 *3.310*	RN..1207.. *RN..45.*
C6-CRSNL-45065-12C	02926927	C6	63,0 *2.480*	45,0 *1.772*	65,0 *2.559*	325,0 *12.795*	–	0,0	-6,0	-6,0	1,4 *3.090*	RN..1207.. *RN..45.*

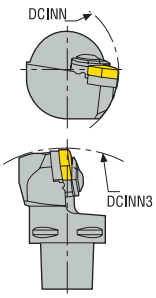
Spare Parts, included in delivery

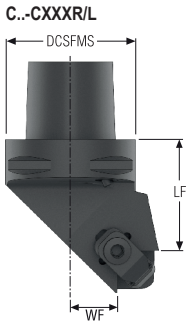
For size	Clamp	Clamp key	Coolant nozzle	Insert shim	Pressure plate	Shim key	Shim screw
							
C5	CC17P	4SMS795	CN2	CRN120400	P1311	T20P-2D	L85013-T20P
C6	CC17P	4SMS795	CN2	CRN120400	P1311	T20P-2D	L85013-T20P

Accessories

For size	Insert shim
	
C5	CRN120800
C6	CRN120800

C.-CXXXR/L – Toolholders for cassettes – Metric / *Inch*



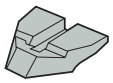




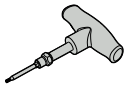
- Right-hand version shown
- For holder code key, see page(s) 11-12
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	DCSFMS	WF	LF	DCINN	DCINN3	GAMO°	LAMS°	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*			kg *lbs*
C5-CXXXR-35060-CT10	03300014	C5	50,0 *1.969*	18,0 *0.709*	43 *1.691*	95,0 *3.740*	170,0 *6.693*	-6,0	-6,0	0,7 *1.540*
C5-CXXXL-35060-CT10	03300009	C5	50,0 *1.969*	18,0 *0.709*	43 *1.691*	95,0 *3.740*	170,0 *6.693*	-6,0	-6,0	0,7 *1.540*
C6-CXXXR-45065-CT10	03300016	C6	63,0 *2.480*	28,0 *1.103*	48 *1.888*	120,0 *4.724*	180,0 *7.087*	-6,0	-6,0	1,3 *2.870*
C6-CXXXL-45065-CT10	03300015	C6	63,0 *2.480*	28,0 *1.103*	48 *1.888*	120,0 *4.724*	180,0 *7.087*	-6,0	-6,0	1,3 *2.870*

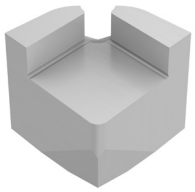
Spare Parts, included in delivery

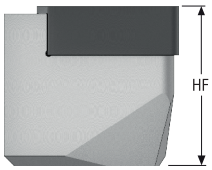
For size	Cassette screw	Clamp for insert size 12	Clamp key	Coolant nozzle	Key (L-style)	Pressure plate
						
C5	C05013-T20P	CC17P	4SMS795	CN6	T20P-7L	P1311
C6	C05013-T20P	CC17P	4SMS795	CN8	T20P-7L	P1311

Accessories

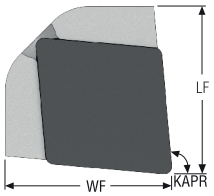
For size	Clamp for insert size 09	Insert clamping torque	Torque key
			
C5	CC20P	6.0NM	T00T-20P60
C6	CC20P	6.0NM	T00T-20P60

CT-CCLNX – Cassettes for Seco-Capto™ holders – **Metric** / *Inch*

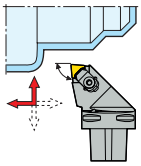




CT-CCLNX



KAPR = 95,0 °



CTWS

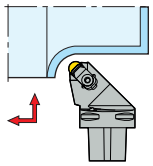


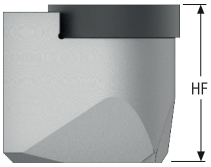
- For inserts program, see page(s) 595, 620
- For holder code key, see page(s) 11-12
- For ISO attribute explanation, see page 82

Designation	Item number	CT size	WF	LF	HF	KAPR°	Weight	CTWS
			mm *inch*	mm *inch*	mm *inch*		kg *lbs*	
CT10-CCLNX-0903 *CT10-CCLNX-32*	03300028	CT10	17,0 *0.669*	17 *0.669*	15,5 *0.611*	95,0	0,1 *0.220*	CN.N0903.. *CN.N32.*
CT10-CCLNX-1204 *CT10-CCLNX-43*	03300023	CT10	17,0 *0.669*	17 *0.669*	15,5 *0.611*	95,0	0,1 *0.220*	CN..1204.. *CN..43.*
CT10-CCLNX-1207 *CT10-CCLNX-45*	03300024	CT10	17,0 *0.669*	17 *0.669*	15,5 *0.611*	95,0	0,1 *0.220*	CN.N1207.. *CN.N45.*

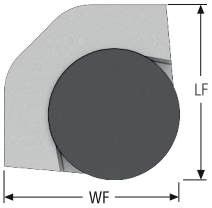
CT-CRSNX – Cassettes for Seco-Capto™ holders – Metric / *Inch*

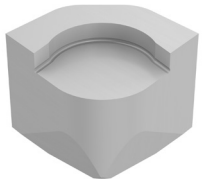
KAPR = 45,0 °





CT-CRSNX





CTWS

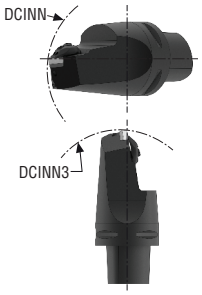


- For inserts program, see page(s) 600, 618, 621
- For holder code key, see page(s) 11-12
- For ISO attribute explanation, see page 82

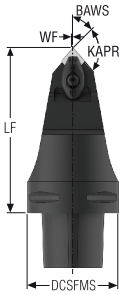
Designation	Item number	CT size	WF	LF	HF	KAPR°	Weight	CTWS
			mm *inch*	mm *inch*	mm *inch*		kg *lbs*	
CT10-CRSNX-0903 *CT10-CRSNX-32*	03300029	CT10	17,0 *0.669*	17 *0.669*	15,2 *0.598*	45,0	0,1 *0.220*	RN.N0903.. *RN.N32.*
CT10-CRSNX-1203 *CT10-CRSNX-42*	03300025	CT10	17,0 *0.669*	17 *0.669*	15,2 *0.598*	45,0	0,1 *0.220*	RN.N1203.. *RN.N42.*
CT10-CRSNX-1204 *CT10-CRSNX-43*	03300026	CT10	17,0 *0.669*	17 *0.669*	15,2 *0.598*	45,0	0,1 *0.220*	RN..1204.. *RN..43.*
CT10-CRSNX-1207 *CT10-CRSNX-45*	03300027	CT10	17,0 *0.669*	17 *0.669*	15,2 *0.598*	45,0	0,1 *0.220*	RN..1207.. *RN..45.*

C.-DCMCN...JETI – Toolholders for inserts CCGT, CCGW, CCMT, CCMW – **Metric** / *Inch*

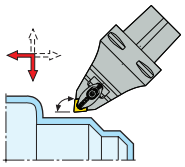




C.-DCMCN...JETI



KAPR = 95,0 °



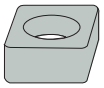
CTWS



- Neutral version shown
- For inserts program, see page(s) 542, 543, 544, 545, 591, 592, 615, 616
- For holder code key, see page(s) 11-12
- For more information on Jetstream Tooling® and accessories, see page(s) 38, 85-89, 1026
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	Duo	DCSFMS	WF	LF	DCINN	DCINN3	CP	KAPR°	GAMO°	LAMS°	Weight	CTWS
				mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	bar *psi*				kg *lbs*	
C6-DCMCN-00090-12JETI	10189798	C6	Yes	63,0 *2.480*	0,36 *0.014*	90,0 *3.543*	600,0 *23.622*	200,0 *7.874*	150,0 *2175.6*	95,0	0,0	0,0	1,5 *3.310*	CC..1204.. *CC..43.*

Spare Parts, included in delivery

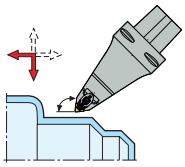
For size	Clamp key	Clamp screw	Coolant kit	Insert shim	Shim screw	Spring
						
DCMCN	T15P-2	L85021-T15P	CP17U00S-2-SET	123.19-621	CA5008	S7111

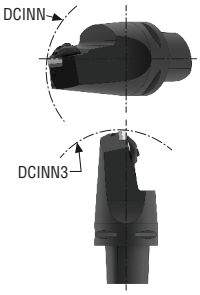
Accessories

For size	Coolant kit R-Roughing	Duo coolant plug screw	Insert clamping torque	Torque key
				
DCMCN	CP17L00R-2-SET	P6SS4X8	3.5NM	T00-15P35

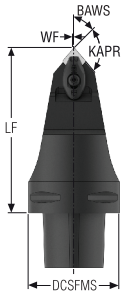
C.-DCMNN...JETI – Toolholders for inserts CNGA, CNGG, CNMA, CNMG, CNMM – **Metric** / *Inch*

KAPR = 95,0 °





C.-DCMNN...JETI





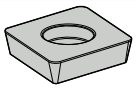
CTWS



- Neutral version shown
- For inserts program, see page(s) 546, 547, 548, 549, 550, 551, 593, 594
- For holder code key, see page(s) 11-12
- For more information on Jetstream Tooling® and accessories, see page(s) 38, 85-89, 1026
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	Duo	DCSFMS	WF	LF	DCINN	DCINN3	CP	KAPR°	GAMO°	LAMS°	Weight	CTWS
				mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	bar *psi*				kg *lbs*	
C5-DCMNN-00115-12JETI	10189784	C5	Yes	50,0 *1.969*	0,36 *0.014*	115,0 *4.528*	200,0 *7.874*	160,0 *6.299*	150,0 *2175.6*	95,0	-6,0	-6,0	1,2 *2.650*	CN..1204.. *CN..43.*
C6-DCMNN-00090-12JETI	10189799	C6	Yes	63,0 *2.480*	0,36 *0.014*	90,0 *3.543*	200,0 *7.874*	140,0 *5.512*	150,0 *2175.6*	95,0	-6,0	-6,0	1,4 *3.090*	CN..1204.. *CN..43.*
C6-DCMNN-00115-12JETI	10189800	C6	Yes	63,0 *2.480*	0,36 *0.014*	115,0 *4.528*	200,0 *7.874*	160,0 *6.299*	150,0 *2175.6*	95,0	-6,0	-6,0	1,9 *4.190*	CN..1204.. *CN..43.*
C8-DCMNN-00150-12JETI	10189792	C8	Yes	80,0 *3.150*	0,36 *0.014*	150,0 *5.906*	240,0 *9.449*	200,0 *7.874*	150,0 *2175.6*	95,0	-6,0	-6,0	4,0 *8.820*	CN..1204.. *CN..43.*
C8-DCMNN-00150-16JETI	10189806	C8	Yes	80,0 *3.150*	0,36 *0.014*	150,0 *5.906*	240,0 *9.449*	215,0 *8.465*	150,0 *2175.6*	95,0	-6,0	-6,0	4,1 *9.040*	CN..1606.. *CN..54.*

Spare Parts, included in delivery

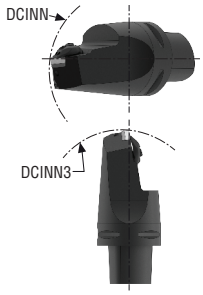
For size	Clamp key	Clamp screw	Coolant kit	Insert shim	Shim screw	Spring
						
...-16	T15P-2	L85021-T15P	CN21L00R-2-SET	DCN160616	C05010-T20P	S7111
...-12	T15P-2	L85021-T15P	CN17L00R-2-SET	DCO120310	C04008-T15P	S7111

Accessories

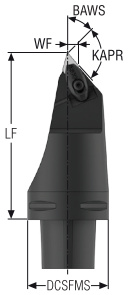
For size	Coolant kit S-Standard	Coolant kit X-Roughing2	Duo coolant plug screw	Insert clamping torque	Torque key
					
...-16	CN21U00S-2-SET	CN21L00X-2-SET	P6SS4X8	3.5NM	T00-15P35
...-12	CN17U00S-2-SET	CN17L00X-2-SET	P6SS4X8	3.5NM	T00-15P35

C.-DDMNR/L...JETI – Toolholders for inserts DNGA, DNGM, DNMA, DNMG, DNMM, DNMX – **Metric** / *Inch*

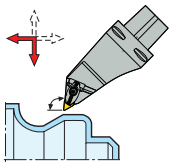




C.-DDMNR/L...JETI



KAPR = 95,0 °



CTWS



- Left-hand version shown
- For inserts program, see page(s) 556, 557, 558, 559, 597, 598
- For holder code key, see page(s) 11-12
- For more information on Jetstream Tooling® and accessories, see page(s) 38, 85-89, 1026
- * Use the right shim & the right screw for the selected insert. For details, see page 99
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	Duo	DCSFMS	WF	LF	DCINN	DCINN3	CP	KAPR°	GAMO°	LAMS°	Weight	CTWS
				mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	bar *psi*				kg *lbs*	
C5-DDMNL-00115-1504JETI	10189795	C5	Yes	50,0 *1.969*	0,0 –	115,0 *4.528*	125,0 *4.921*	150,0 *5.906*	150,0 *2175.6*	95,0	-6,0	-6,0	1,3 *2.870*	DN..1504-DN..1506* *DN..43-DN..44**
C5-DDMNL-00115-15JETI	10189796	C5	Yes	50,0 *1.969*	0,0 –	115,0 *4.528*	125,0 *4.921*	150,0 *5.906*	150,0 *2175.6*	95,0	-6,0	-6,0	1,3 *2.870*	DN..1504-DN..1506* *DN..43-DN..44**
C6-DDMNR-00130-1504JETI	10189803	C6	Yes	63,0 *2.480*	0,0 –	130,0 *5.118*	140,0 *5.512*	175,0 *6.890*	150,0 *2175.6*	95,0	-6,0	-6,0	2,1 *4.630*	DN..1504-DN..1506* *DN..43-DN..44**
C6-DDMNL-00130-1504JETI	10189801	C6	Yes	63,0 *2.480*	0,0 –	130,0 *5.118*	140,0 *5.512*	175,0 *6.890*	150,0 *2175.6*	95,0	-6,0	-6,0	2,1 *4.630*	DN..1504-DN..1506* *DN..43-DN..44**
C6-DDMNR-00130-15JETI	10189787	C6	Yes	63,0 *2.480*	0,0 –	130,0 *5.118*	140,0 *5.512*	175,0 *6.890*	150,0 *2175.6*	95,0	-6,0	-6,0	2,1 *4.630*	DN..1504-DN..1506* *DN..43-DN..44**
C6-DDMNL-00130-15JETI	10189785	C6	Yes	63,0 *2.480*	0,0 –	130,0 *5.118*	140,0 *5.512*	175,0 *6.890*	150,0 *2175.6*	95,0	-6,0	-6,0	2,1 *4.630*	DN..1504-DN..1506* *DN..43-DN..44**
C6-DDMNL-33120-1504JETI	10189802	C6	Yes	63,0 *2.480*	33,0 *1.299*	120,0 *4.724*	160,0 *6.299*	175,0 *6.890*	150,0 *2175.6*	95,0	-6,0	-6,0	2,1 *4.630*	DN..1504-DN..1506* *DN..43-DN..44**
C6-DDMNL-33120-15JETI	10189786	C6	Yes	63,0 *2.480*	33,0 *1.299*	120,0 *4.724*	175,0 *6.890*	175,0 *6.890*	150,0 *2175.6*	95,0	-6,0	-6,0	2,1 *4.630*	DN..1504-DN..1506* *DN..43-DN..44**
C8-DDMNL-00160-1504JETI	10189793	C8	Yes	80,0 *3.150*	0,0 –	160,0 *6.299*	175,0 *6.890*	220,0 *8.661*	150,0 *2175.6*	95,0	-6,0	-6,0	4,0 *8.820*	DN..1504-DN..1506* *DN..43-DN..44**
C8-DDMNL-00160-15JETI	10189804	C8	Yes	80,0 *3.150*	0,0 –	160,0 *6.299*	175,0 *6.890*	220,0 *8.661*	150,0 *2175.6*	95,0	-6,0	-6,0	4,0 *8.820*	DN..1504-DN..1506* *DN..43-DN..44**

Spare Parts, included in delivery

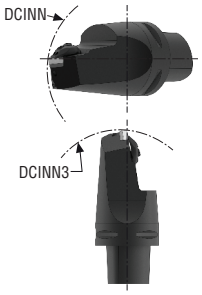
For size	Clamp key	Clamp screw	Coolant kit	Insert shim	Shim screw	Spring
DDMNR..-1504	T15P-2	L85021-T15P	CN17U10S-2R-SET	DDN150616	C04008-T15P	S7111
DDMNR..-15	T15P-2	L85021-T15P	CN17U10S-2R-SET	DDN150416	C04008-T15P	S7111
DDMNL..-1504	T15P-2	L85021-T15P	CN17U10S-2L-SET	DDN150616	C04008-T15P	S7111
DDMNL..-15	T15P-2	L85021-T15P	CN17U10S-2L-SET	DDN150416	C04008-T15P	S7111

Accessories

For size	Coolant kit R-Roughing	Duo coolant plug screw	Insert clamping torque	Torque key
				
DDMNR..-1504	CN17L10R-2R-SET	P6SS4X8	3.5NM	T00-15P35
DDMNR..-15	CN17L10R-2R-SET	P6SS4X8	3.5NM	T00-15P35
DDMNL..-1504	CN17L10R-2L-SET	P6SS4X8	3.5NM	T00-15P35
DDMNL..-15	CN17L10R-2L-SET	P6SS4X8	3.5NM	T00-15P35

C.-DVMBR/L...JETI – Toolholders for inserts VBMT, VBGT, VBGW, VBMW, VCGT – **Metric** / *Inch*

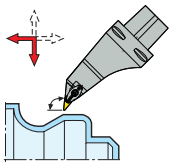




C.-DVMBR/L...JETI



KAPR = 95,0 °



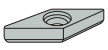
CTWS



- Left-hand version shown
- For inserts program, see page(s) 582, 583, 612, 619
- For holder code key, see page(s) 11-12
- For more information on Jetstream Tooling® and accessories, see page(s) 38, 85-89, 1026
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	Duo	DCSFMS	WF	LF	DCINN	DCINN3	CP	KAPR°	GAMO°	LAMS°	Weight	CTWS
				mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	bar *psi*				kg *lbs*	
C5-DVMBL-00115-16JETI	10189797	C5	Yes	50,0 *1.969*	0,0 –	115,0 *4.528*	125,0 *4.921*	150,0 *5.906*	150,0 *2175.6*	95,0	0,0	0,0	1,1 *2.430*	VB..1604-VC..1604 *VB..33.-VC..33.*
C6-DVMBR-00130-16JETI	10189790	C6	Yes	63,0 *2.480*	0,0 –	130,0 *5.118*	140,0 *5.512*	175,0 *6.890*	150,0 *2175.6*	95,0	0,0	0,0	1,8 *3.970*	VB..1604-VC..1604 *VB..33.-VC..33.*
C6-DVMBL-00130-16JETI	10189788	C6	Yes	63,0 *2.480*	0,0 –	130,0 *5.118*	140,0 *5.512*	175,0 *6.890*	150,0 *2175.6*	95,0	0,0	0,0	1,8 *3.970*	VB..1604-VC..1604 *VB..33.-VC..33.*
C6-DVMBL-33130-16JETI	10189789	C6	Yes	63,0 *2.480*	33,0 *1.299*	130,0 *5.118*	160,0 *6.299*	175,0 *6.890*	150,0 *2175.6*	95,0	0,0	0,0	2,3 *5.070*	VB..1604-VC..1604 *VB..33.-VC..33.*
C8-DVMBR-00160-16JETI	10189805	C8	Yes	80,0 *3.150*	0,0 –	160,0 *6.299*	170,0 *6.693*	215,0 *8.465*	150,0 *2175.6*	95,0	0,0	0,0	3,8 *8.380*	VB..1604-VC..1604 *VB..33.-VC..33.*
C8-DVMBL-00160-16JETI	10189794	C8	Yes	80,0 *3.150*	0,0 –	160,0 *6.299*	170,0 *6.693*	215,0 *8.465*	150,0 *2175.6*	95,0	0,0	0,0	3,8 *8.380*	VB..1604-VC..1604 *VB..33.-VC..33.*

Spare Parts, included in delivery

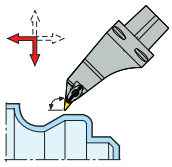
For size	Clamp key	Clamp screw	Coolant kit	Duo coolant plug screw	Insert shim	Shim screw	Spring
							
DVMBR	T10P-2	L84017-T10P	CP14U20S-2L-SET	P6SS3X3G	171.19-621	C94006-T15P	S5808
DVMBL	T10P-2	L84017-T10P	CP14U20S-2R-SET	P6SS3X3G	171.19-621	C94006-T15P	S5808

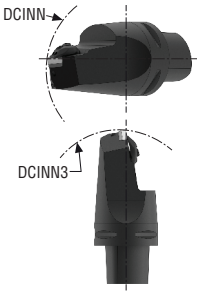
Accessories

For size	Duo coolant plug screw	Insert clamping torque	Shim key	Torque key
				
DVMBR	P6SS3X5	2.0NM	T15P-2	T00-10P20
DVMBL	P6SS3X5	2.0NM	T15P-2	T00-10P20

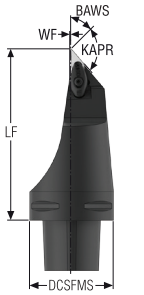
C.-DVMNR/L...JETI – Toolholders for inserts VNGA, VNGG, VNGM, VNMA, VNMG – Metric / *Inch*

KAPR = 95,0 °





C.-DVMNR/L...JETI





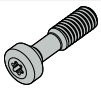
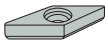
CTWS



- Left-hand version shown
- For inserts program, see page(s) 584, 585, 613
- For holder code key, see page(s) 11-12
- For more information on Jetstream Tooling® and accessories, see page(s) 38, 85-89, 1026
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	Duo	DCSFMS	WF	LF	DCINN	DCINN3	CP	KAPR°	GAMO°	LAMS°	Weight	CTWS
				mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	bar *psi*				kg *lbs*	
C6-DVMNL-00130-16JETI	10189791	C6	Yes	63,0 *2.480*	0,0 –	130,0 *5.118*	140,0 *5.512*	175,0 *6.890*	150,0 *2175.6*	95,0	-4,5	-13,5	1,9 *4.190*	VN..1604.. *VN..33.*

Spare Parts, included in delivery

For size	Clamp key	Clamp screw	Coolant kit	Duo coolant plug screw	Insert shim	Shim screw	Spring
							
DVMNL	T10P-2	L84017-T10P	CN14U20S-2R-SET	P6SS3X3G	171.19-620	C94006-T15P	S5808

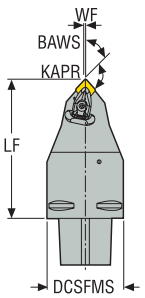
Accessories

For size	Duo coolant plug screw	Insert clamping torque	Shim key	Torque key
				
DVMNL	P6SS3X5	2.0NM	T15P-2	T00-10P20

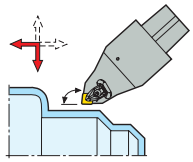
C.-DCMNN..-M – Toolholders for inserts CNGA, CNGG, CNMA, CNMG, CNMM – **Metric** / *Inch*



C.-DCMNN..-M



C.-DCMNN..-M
KAPR = 95,0 °



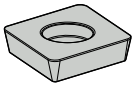
CTWS



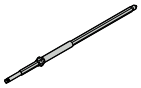
- Neutral version shown
- For inserts program, see page(s) 546, 547, 548, 549, 550, 551, 593, 594
- For holder code key, see page(s) 11-12
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	DCSFMS	WF	LF	KAPR°	BAWS°	GAMO°	LAMS°	Weight	CTWS
			mm *inch*	mm *inch*	mm *inch*					kg *lbs*	
C6-DCMNN-00090-12-M	02588065	C6	63,0 *2.480*	0,0 *0.0*	90 *3.543*	95,0	45,0	-6,0	-6,0	1,5 *3.310*	CN..1204.. *CN..43.*
C6-DCMNN-00115-12-M	02588066	C6	63,0 *2.480*	0,0 *0.0*	115 *4.528*	95,0	45,0	-6,0	-6,0	2,1 *4.630*	CN..1204.. *CN..43.*

Spare Parts, included in delivery

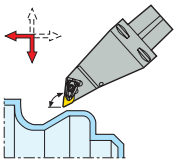
For size	Clamp pin	Clamp screw	Coolant nozzle	Floating wedge clamp	Insert shim	Shim/clamp key	Shim screw	Spring
								
00090-12	FP2012	L85021-T15P	CN6	CD12-S	DCN120616	T15P-2	C04008-T15P	S6912
00115-12	FP2012	L85021-T15P	CN8	CD12-S	DCN120616	T15P-2	C04008-T15P	S6912

Accessories

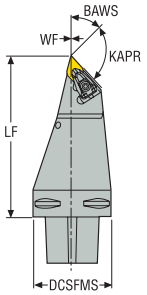
For size	Clamp kit	Insert clamping torque	Replacement blade	Torque key
				
00090-12	CD12-S12	3.5NM	T00-15P	T00-15P35
00115-12	CD12-S12	3.5NM	T00-15P	T00-15P35

C.-DDMNL – Toolholders for inserts DNGA, DNGG, DNGM, DNMA, DNMG, DNMM, DNMX – Metric / *Inch*

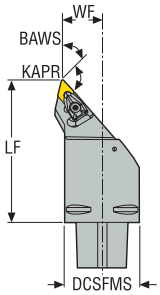
C.-DDMNL..-M
KAPR = 93,0 °



C.-DDMNL-00130..-M



C.-DDMNL-33120..-M





CTWS



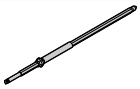
- Left-hand version shown
- For inserts program, see page(s) 556, 557, 558, 559, 597, 598
- For holder code key, see page(s) 11-12
- * Use the right shim & the right screw for the selected insert. For details, see page 99
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	DCSFMS	WF	LF	KAPR°	BAWS°	GAMO°	LAMS°	Weight	CTWS
			mm *inch*	mm *inch*	mm *inch*					kg *lbs*	
C6-DDMNL-00130-15-M	02588067	C6	63,0 *2.480*	0,0 *0.0*	130 *5.118*	93,0	45,0	-6,0	-6,0	2,4 *5.290*	DN..1504-DN..1506* *DN..43-DN..44**
C6-DDMNL-33120-15-M	02649370	C6	63,0 *2.480*	33,0 *1.299*	120 *4.724*	93,0	45,0	-6,0	-6,0	2,2 *4.850*	DN..1504-DN..1506* *DN..43-DN..44**

Spare Parts, included in delivery

For size	Clamp pin	Clamp screw	Coolant nozzle	Floating wedge clamp	Insert shim	Shim/clamp key	Shim screw	Spring
								
00130-15	FP2012	L85021-T15P	CN6	CD12-S	DDN150416	T15P-2	C04008-T15P	S6912
33120-15	FP2012	L85021-T15P	CN8	CD12-S	DDN150416	T15P-2	C04008-T15P	S6912

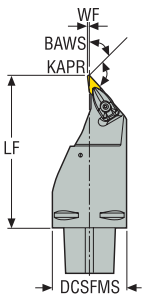
Accessories

For size	Clamp kit	Insert clamping torque	Replacement blade	Torque key
				
00130-15	CD12-S12	3.5NM	T00-15P	T00-15P35
33120-15	CD12-S12	3.5NM	T00-15P	T00-15P35

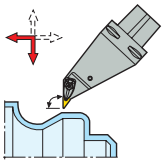
C.-DVMNL..-M – Toolholders for inserts VNGA, VNGG, VNGM, VNMA, VNMG – **Metric** / *Inch*



C.-DVMNL..-M



C.-DVMNL..-M
KAPR = 93,0 °



CTWS



- Left-hand version shown
- For inserts program, see page(s) 584, 585, 613
- For holder code key, see page(s) 11-12
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	DCSFMS	WF	LF	KAPR°	BAWS°	GAMO°	LAMS°	Weight	CTWS
			mm *inch*	mm *inch*	mm *inch*					kg *lbs*	
C6-DVMNL-00130-16-M	02588068	C6	63,0 *2.480*	0,0 *0.0*	130 *5.118*	93,0	45,0	-4,5	-13,5	2,2 *4.850*	VN..1604.. *VN..33.*

Spare Parts, included in delivery

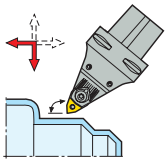
For size	Clamp pin	Clamp screw	Coolant nozzle	Floating wedge clamp	Insert shim	Shim/clamp key	Shim screw	Spring
								
...-16	FP2012	L85021-T15P	CN6	CD19-S-V16	DVN160310	T15P-2	C03508-T15P	S6912

Accessories

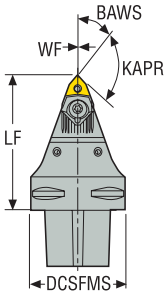
For size	Clamp kit	Insert clamping torque	Replacement blade	Torque key
				
...-16	CD19-V16	3.5NM	T00-15P	T00-15P35

C.-PWLNN – Toolholders for inserts WNGA, WNMA, WNMG, WNMM – Metric / *Inch*

C.-PWLNN
KAPR = 95,0 °



C.-PWLNN





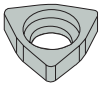
CTWS



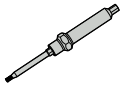
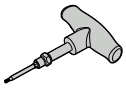
- Neutral version shown
- For inserts program, see page(s) 586, 587, 588, 589, 614
- For holder code key, see page(s) 11-12
- Wedge WNW08 for insert WNMM08.., to be ordered separately
- * Use the right shim & the right screw for the selected insert. For details, see page 100
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	DCSFMS	WF	LF	KAPR°	BAWS°	GAMO°	LAMS°	Weight	CTWS
			mm *inch*	mm *inch*	mm *inch*					kg *lbs*	
C6-PWLNN-00090-08	02509282	C6	63,0 *2.480*	0,0 *0.0*	90 *3.543*	95,0	45,0	-5,5	-6,5	1,4 *3.090*	WN..0804.. *WN..43.*

Spare Parts, included in delivery

For size	Coolant nozzle	Insert shim	Setting screw	Shim pin	Wedge clamp	Wedge key	Wedge screw
							
...-08	CN8	WAE080412	L82511-T07P	PP2015-1-T15P	WNW08HD	T25P-7	WS2325-T25P

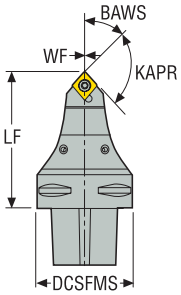
Accessories

For size	Insert clamping torque	Replacement blade	Shim key	Torque key
				
...-08	5.0NM	T00T-25P	T15P-2	T00T-25P50

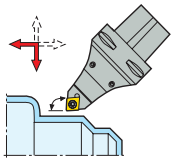
C.-SCMCN – Toolholders for inserts CCGT, CCGW, CCGX, CCMT, CCMW – **Metric** / *Inch*



C.-SCMCN



C.-SCMCN
KAPR = 95,0 °



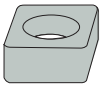
CTWS



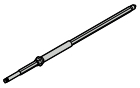
- Neutral version shown
- For inserts program, see page(s) 542, 543, 544, 545, 591, 592, 615, 616
- For holder code key, see page(s) 11-12
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	DCSFMS	WF	LF	KAPR°	BAWS°	GAMO°	LAMS°	Weight	CTWS
			mm *inch*	mm *inch*	mm *inch*					kg *lbs*	
C6-SCMCN-00090-12	02437226	C6	63,0 *2.480*	0,0 *0.0*	90 *3.543*	95,0	45,0	0,0	0,0	1,2 *2.650*	CC..1204.. *CC..43.*

Spare Parts, included in delivery

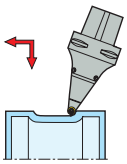
For size	Coolant nozzle	Insert key	Insert screw	Insert shim	Shim screw
					
...-12	CN8	T15P-2	C05012-T15P	123.19-621	CA5008

Accessories

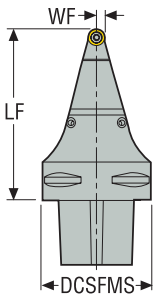
For size	Insert clamping torque	Replacement blade	Shim key	Torque key
				
...-12	5.0NM	T00-15P	5SMS795	T00-15P50

C.-SRDCN – Toolholders for inserts RCMT – Metric / *Inch*

C.-SRDCN
KAPR = 45,0 °



C.-SRDCN





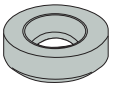
CTWS



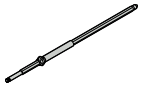
- Neutral version shown
- For inserts program, see page(s) 562, 563
- For holder code key, see page(s) 11-12
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	DCSFMS	WF	LF	KAPR°	BAWS°	GAMO°	LAMS°	Weight	CTWS
			mm *inch*	mm *inch*	mm *inch*					kg *lbs*	
C6-SRDCN-00100-10	02509285	C6	63,0 *2.480*	5,0 *0.197*	100 *3.937*	45,0	–	0,0	0,0	1,5 *3.310*	RC..10T3..
C6-SRDCN-00100-16	02509286	C6	63,0 *2.480*	8,0 *0.315*	100 *3.937*	45,0	–	0,0	0,0	1,5 *3.310*	RC..1606..

Spare Parts, included in delivery

For size	Coolant nozzle	Insert key	Insert screw	Insert shim	Shim screw
					
...-10	CN8	T15P-2	C03510-T15P	111.19-620	CA3510
...-16	CN8	T20P-7L	C05018-T20P	SRN16T3M0	CA5015

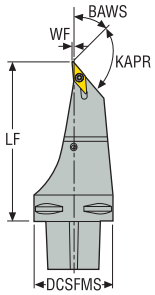
Accessories

For size	Insert clamping torque	Replacement blade	Shim key	Torque key
				
...-10	3.0NM	T00-15P	9/64SMS875	T00-15P30
...-16	5.0NM	T00-20P	5SMS795	T00-20P50

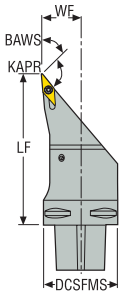
C.-SVMBL – Toolholders for inserts VBGT, VBGW, VBMT, VBMW, VCGT – **Metric** / *Inch*



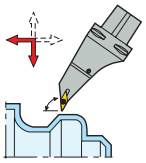
C.-SVMBL-00130



C.-SVMBL-33130



C.-SVMBL
KAPR = 95,0 °



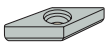
CTWS



- Left-hand version shown
- For inserts program, see page(s) 582, 583, 583, 612, 619
- For holder code key, see page(s) 11-12
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	DCSFMS	WF	LF	KAPR°	BAWS°	GAMO°	LAMS°	Weight	CTWS
			mm *inch*	mm *inch*	mm *inch*					kg *lbs*	
C6-SVMBL-00130-16	02509287	C6	63,0 *2.480*	1,1 *0.043*	130 *5.118*	95,0	45,0	0,0	0,0	1,8 *3.970*	VB..1604-VC..1604 *VB..33.-VC..33.*
C6-SVMBL-33130-16	02435740	C6	63,0 *2.480*	33,0 *1.299*	130 *5.118*	95,0	45,0	0,0	0,0	2,1 *4.630*	VB..1604-VC..1604 *VB..33.-VC..33.*

Spare Parts, included in delivery

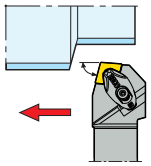
For size	Coolant nozzle	Insert key	Insert screw	Insert shim	Shim screw
					
...-16	CN8	T15P-2	C03512-T15P	171.19-620	CA3510

Accessories

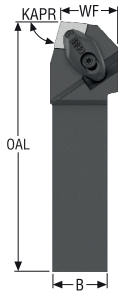
For size	Insert clamping torque	Replacement blade	Shim key	Torque key
				
...-16	3.0NM	T00-15P	9/64SMS875	T00-15P30

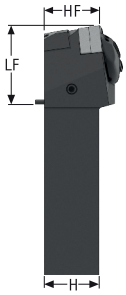
DCBNR/L...JETI – Toolholders for inserts CNMA, CNMG, CNMM – Metric

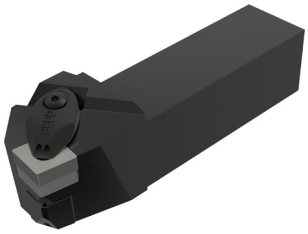
DCBNR/L...JETI
KAPR = 75,0 °



DCBNR/L...JETI







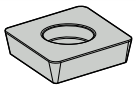
CTWS



- Right-hand version shown
- For inserts program, see page(s) 546, 547, 548, 549, 550, 551
- For suitable adapter, see page(s) 986-997
- For holder code key, see page(s) 15-16
- For more information on Jetstream Tooling® and accessories, see page(s) 38, 85-89, 1026
- For ISO attribute explanation, see page 82

Designation	Item number	Duo	H	B	OAL	LF	WF	HF	CP	KAPR°	GAMO°	LAMS°	Weight	CTWS
			mm	mm	mm	mm	mm	mm	bar				kg	
DCBNR3232X16JETI	03282306	Yes	32	32	145	46	27,0	32,0	200,0	75,0	-6,0	-6,0	1,2	CN..1606.. *CN..54.*
DCBNL3232X16JETI	03282305	Yes	32	32	145	46	27,0	32,0	200,0	75,0	-6,0	-6,0	1,2	CN..1606.. *CN..54.*

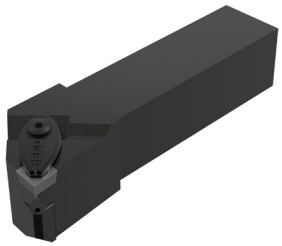
Spare Parts, included in delivery

For size	Clamp screw	Coolant kit	Insert shim	Plug	Plug screw	Shim/clamp key	Shim screw	Spring
								
...16	L85021-T15P	CN21L00R-2-SET	DCN160616	JET-P1/8-5MM	P6SS3X3G	T15P-2	C05010-T20P	S7111

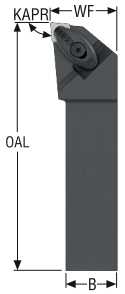
Accessories

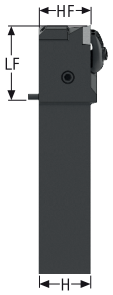
For size	Coolant kit S-Standard	Coolant kit X-Roughing2	Duo coolant plug screw	Insert clamping torque	Plug screw JETI	Shim key	Torque key
							
...16	CN21U00S-2-SET	CN21L00X-2-SET	P6SS3X5	3.5NM	P6SS6X6	T20P-2D	T00-15P35

DCLCR/L...JETI – Toolholders for inserts CCGT, CCGW, CCGX, CCMT, CCMW – Metric

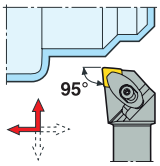


DCLCR/L...JETI





DCLCR/L...JETI
KAPR = 95,0 °



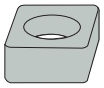
CTWS



- Right-hand version shown
- For inserts program, see page(s) 542, 543, 544, 545, 591, 592, 615, 616
- For suitable adapter, see page(s) 986-997
- For holder code key, see page(s) 15-16
- For more information on Jetstream Tooling® and accessories, see page(s) 38, 85-89, 1026
- For ISO attribute explanation, see page 82

Designation	Item number	Duo	H	B	OAL	LF	WF	HF	CP	KAPR°	GAMO°	LAMS°	Weight	CTWS
			mm	mm	mm	mm	mm	mm	bar				kg	
DCLCR2020X09JETI	03282310	Yes	20	20	100	36	27,0	20,0	200,0	95,0	0,0	0,0	0,4	CC..09T3.. *CC..32.5.*
DCLCR2525X09JETI	03282311	Yes	25	25	120	36	32,0	25,0	200,0	95,0	0,0	0,0	0,6	CC..09T3.. *CC..32.5.*
DCLCL2020X09JETI	03282307	Yes	20	20	100	36	27,0	20,0	200,0	95,0	0,0	0,0	0,4	CC..09T3.. *CC..32.5.*
DCLCL2525X09JETI	03282308	Yes	25	25	120	36	32,0	25,0	200,0	95,0	0,0	0,0	0,6	CC..09T3.. *CC..32.5.*
DCLCR2525X12JETI	03282312	Yes	25	25	120	36	32,2	25,0	200,0	95,0	0,0	0,0	0,7	CC..1204.. *CC..43.*
DCLCL2525X12JETI	03282309	Yes	25	25	120	36	32,2	25,0	200,0	95,0	0,0	0,0	0,7	CC..1204.. *CC..43.*

Spare Parts, included in delivery

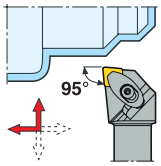
For size	Clamp key	Clamp screw	Coolant kit	Insert shim	Plug	Plug screw	Shim/clamp key	Shim screw	Spring
									
...09	T09P-2	L84017-T09P	CP14U00S-2-SET	–	JET-P1/8-5MM	P6SS3X3G	–	–	S5808
...12	–	L85021-T15P	CP17U00S-2-SET	123.19-621	JET-P1/8-5MM	P6SS3X3G	T15P-2	CA5008	S7111

Accessories

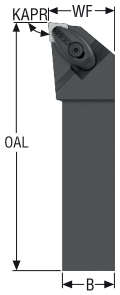
For size	Coolant kit R-Roughing	Duo coolant plug screw	Insert clamping torque	Plug screw JETI	Shim key	Torque key
						
...09	CP14L00R-2-SET	P6SS3X5	2.0NM	P6SS6X6	–	T00-09P20
...12	CP17L00R-2-SET	P6SS3X5	3.5NM	P6SS6X6	5SMS795	T00-15P35

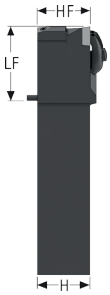
DCLCR/L...JETI – Toolholders for inserts CCGT, CCGW, CCGX, CCMT, CCMW – Inch

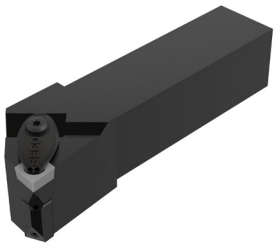
KAPR = 95,0 °



DCLCR/L...JETI







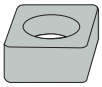
CTWS



- Right-hand version shown
- For inserts program, see page(s) 542, 543, 544, 545, 591, 592, 615, 616
- For suitable adapter, see page(s) 986-997
- For holder code key, see page(s) 17-18
- For more information on Jetstream Tooling® and accessories, see page(s) 38, 85-89, 1026
- For ISO attribute explanation, see page 82

Designation	Item number	Duo	H	B	OAL	LF	WF	HF	CP	KAPR°	GAMO°	LAMS°	Weight	CTWS
			inch	inch	inch	inch	inch	inch	psi				lbs	
DCLCR-12-3XJETI	03282256	Yes	0.750	0.750	3.740	1.220	1.059	0.750	2900.8	95,0	0,0	0,0	1.100	CC..09T3.. CC..32.5.
DCLCR-16-3XJETI	03282257	Yes	1.000	1.000	4.724	1.417	1.260	1.000	2900.8	95,0	0,0	0,0	1.320	CC..09T3.. CC..32.5.
DCLCL-12-3XJETI	03282253	Yes	0.750	0.750	3.740	1.220	1.059	0.750	2900.8	95,0	0,0	0,0	0.660	CC..09T3.. CC..32.5.
DCLCL-16-3XJETI	03282255	Yes	1.000	1.000	4.724	1.417	1.260	1.000	2900.8	95,0	0,0	0,0	1.320	CC..09T3.. CC..32.5.
DCLCR-12-4XJETI	03284736	Yes	0.750	0.750	4.173	1.654	1.059	0.750	2900.8	95,0	0,0	0,0	0.880	CC..1204.. CC..43.
DCLCR-20-4XJETI	03282258	Yes	1.250	1.250	5.472	1.575	1.500	1.250	2900.8	95,0	0,0	0,0	2.430	CC..1204.. CC..43.
DCLCL-12-4XJETI	03282254	Yes	0.750	0.750	4.173	1.654	1.059	0.750	2900.8	95,0	0,0	0,0	0.880	CC..1204.. CC..43.
DCLCL-20-4XJETI	03284737	Yes	1.250	1.250	5.472	1.575	1.500	1.250	2900.8	95,0	0,0	0,0	2.430	CC..1204.. CC..43.

Spare Parts, included in delivery

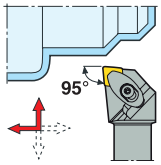
For size	Clamp key	Clamp screw	Coolant kit	Insert shim	Plug	Plug screw	Shim screw	Spring
								
..-12-3	T09P-2	L84017-T09P	CP14U00S-2-SET	–	JET-P1/8-5MM	P6SS3X3G	–	S5808
..-16-3	T09P-2	L84017-T09P	CP14U00S-2-SET	–	JET-P1/8-5MM	P6SS3X3G	–	S5808
..R-12-4	T15P-2	L85021-T15P	CP17U00S-2-SET	123.19-621	JET-P1/8-5MM	P6SS3X3G	CA5008	S7111
..R-20-4	T15P-2	L85021-T15P	CP17U00S-2-SET	123.19-621	JET-P1/8-5MM	P6SS3X3G	–	CA5008
..L-12-4	T15P-2	L85021-T15P	CP17U00S-2-SET	123.19-621	JET-P1/8-5MM	P6SS3X3G	CA5008	S7111
..L-20-4	T15P-2	L85021-T15P	CP17U00S-2-SET	123.19-621	JET-P1/8-5MM	P6SS3X3G	CA5008	S7111

Accessories

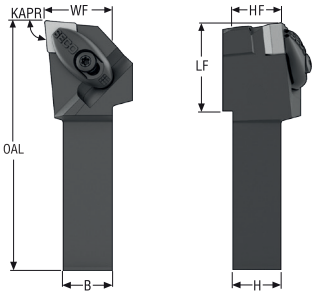
For size	Coolant kit R-Roughing	Duo coolant plug screw	Insert clamping torque	Plug screw JETI	Shim key	Torque key
						
..-12-3	CP14L00R-2-SET	P6SS3X5	2.0NM	P6SS6X6	–	T00-09P20
..-16-3	CP14L00R-2-SET	P6SS3X5	2.0NM	P6SS6X6	–	T00-09P20
..R-12-4	CP17L00R-2-SET	P6SS3X5	3.5NM	P6SS6X6	5SMS795	T00-15P35
..R-20-4	CP17L00R-2-SET	P6SS3X5	3.5NM	P6SS6X6	5SMS795	T00-15P35
..L-12-4	CP17L00R-2-SET	P6SS3X5	3.5NM	P6SS6X6	5SMS795	T00-15P35
..L-20-4	CP17L00R-2-SET	P6SS3X5	3.5NM	P6SS6X6	5SMS795	T00-15P35

DCLNR/L...JETI – Toolholders for inserts CNGA, CNGG, CNGM, CNMA, CNMG, CNMM – Metric

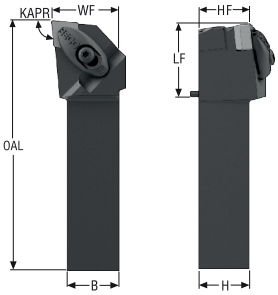
DCLNR/L...JETI
KAPR = 95,0 °

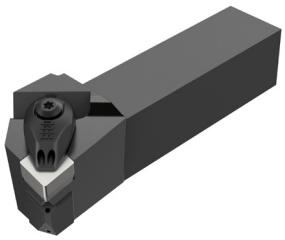


DCLNR/L2020...JETI



DCLNR/L2525/3232...JETI





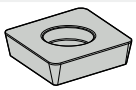
CTWS



- Right-hand version shown
- For inserts program, see page(s) 546, 547, 548, 549, 550, 551, 593, 594, 615
- For suitable adapter, see page(s) 986-997
- For holder code key, see page(s) 15-16
- For more information on Jetstream Tooling® and accessories, see page(s) 38, 85-89, 1026
- For ISO attribute explanation, see page 82

Designation	Item number	Duo	H	B	OAL	LF	WF	HF	CP	KAPR°	GAMO°	LAMS°	Weight	CTWS
			mm	mm	mm	mm	mm	mm	bar				kg	
DCLNR2020X12JETI	03213106	Yes	20	20	100	36	27,2	20,0	200,0	95,0	-6,0	-6,0	0,4	CN..1204.. *CN..43.*
DCLNR2525X12JETI	03213107	Yes	25	25	120	36	32,2	25,0	200,0	95,0	-6,0	-6,0	0,6	CN..1204.. *CN..43.*
DCLNR3232X12JETI	03282315	Yes	32	32	140	41	40,0	32,0	200,0	95,0	-6,0	-6,0	1,2	CN..1204.. *CN..43.*
DCLNL2020X12JETI	03213104	Yes	20	20	100	36	27,2	20,0	200,0	95,0	-6,0	-6,0	0,4	CN..1204.. *CN..43.*
DCLNL2525X12JETI	03213105	Yes	25	25	120	36	32,2	25,0	200,0	95,0	-6,0	-6,0	0,6	CN..1204.. *CN..43.*
DCLNL3232X12JETI	03282313	Yes	32	32	140	41	40,0	32,0	200,0	95,0	-6,0	-6,0	1,2	CN..1204.. *CN..43.*
DCLNR3232X16JETI	03282316	Yes	32	32	139	40	40,0	32,0	200,0	95,0	-6,0	-6,0	1,2	CN..1606.. *CN..54.*
DCLNL3232X16JETI	03282314	Yes	32	32	139	40	40,0	32,0	200,0	95,0	-6,0	-6,0	1,2	CN..1606.. *CN..54.*

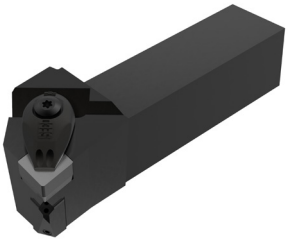
Spare Parts, included in delivery

For size	Clamp screw	Coolant kit	Insert shim	Plug	Plug screw	Shim/clamp key	Shim screw	Spring
								
20/25	L85021-T15P	CN17L00R-2-SET	DCO120310	JET-P1/8-5MM	P6SS3X3G	T15P-2	C04008-T15P	S7111
32...12	L85021-T15P	CN17L00R-2-SET	DCO120310	JET-P1/8-5MM	P6SS3X3G	T15P-2	C04008-T15P	S7111
32...16	L85021-T15P	CN21L00R-2-SET	DCN160616	JET-P1/8-5MM	P6SS3X3G	T15P-2	C05010-T20P	S7111

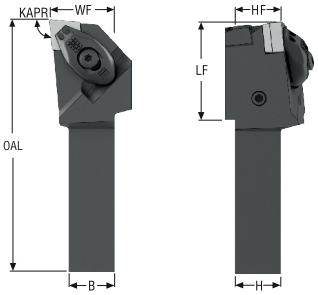
Accessories

For size	Coolant kit S-Standard	Coolant kit X-Roughing2	Duo coolant plug screw	Insert clamping torque	Plug screw JETI	Shim key	Torque key
							
20/25	CN17U00S-2-SET	CN17L00X-2-SET	P6SS3X5	3.5NM	P6SS6X6	–	T00-15P35
32...12	CN17U00S-2-SET	CN17L00X-2-SET	P6SS3X5	3.5NM	P6SS6X6	–	T00-15P35
32...16	CN21U00S-2-SET	CN21L00X-2-SET	P6SS3X5	3.5NM	P6SS6X6	T20P-2D	T00-15P35

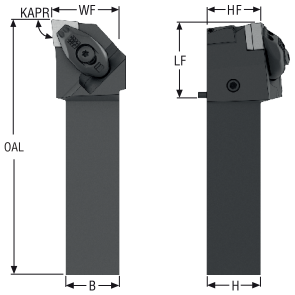
DCLNR/L...JETI – Toolholders for inserts CNGA, CNGG, CNGM, CNMA, CNMG, CNMM – Inch



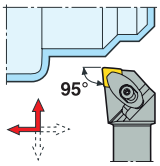
DCLNR/L0.75...JETI



DCLNR/L1.00/1.25...JETI



DCLNR/L...JETI
KAPR = 95,0 °



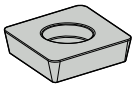
CTWS



- Right-hand version shown
- For inserts program, see page(s) 546, 547, 548, 549, 550, 551, 593, 594, 615
- For suitable adapter, see page(s) 986-997
- For holder code key, see page(s) 17-18
- For more information on Jetstream Tooling® and accessories, see page(s) 38, 85-89, 1026
- For ISO attribute explanation, see page 82

Designation	Item number	Duo	H	B	OAL	LF	WF	HF	CP	KAPR°	GAMO°	LAMS°	Weight	CTWS
			inch	inch	inch	inch	inch	inch	psi				lbs	
DCLNR-12-4XJETI	03282262	Yes	0.750	0.750	4.134	1.614	1.059	0.750	2900.8	95,0	-6,0	-6,0	0.880	CN..1204.. *CN..43.*
DCLNR-16-4XJETI	03282263	Yes	1.000	1.000	4.724	1.417	1.260	1.000	2900.8	95,0	-6,0	-6,0	1.540	CN..1204.. *CN..43.*
DCLNR-20-4XJETI	03282264	Yes	1.250	1.250	5.315	1.417	1.500	1.250	2900.8	95,0	-6,0	-6,0	1.540	CN..1204.. *CN..43.*
DCLNL-12-4XJETI	03282259	Yes	0.750	0.750	4.134	1.614	1.059	0.750	2900.8	95,0	-6,0	-6,0	0.880	CN..1204.. *CN..43.*
DCLNL-16-4XJETI	03282260	Yes	1.000	1.000	4.724	1.417	1.260	1.000	2900.8	95,0	-6,0	-6,0	1.540	CN..1204.. *CN..43.*
DCLNL-20-4XJETI	03282261	Yes	1.250	1.250	5.315	1.417	1.500	1.250	2900.8	95,0	-6,0	-6,0	2.430	CN..1204.. *CN..43.*

Spare Parts, included in delivery

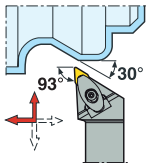
For size	Clamp screw	Coolant kit	Insert shim	Plug	Plug screw	Shim/clamp key	Shim screw	Spring
								
..-12-4	L85021-T15P	CN17L00R-2-SET	DCO120310	JET-P1/8-5MM	P6SS3X3G	T15P-2	C04008-T15P	S7111
..-16-4	L85021-T15P	CN17L00R-2-SET	DCO120310	JET-P1/8-5MM	P6SS3X3G	T15P-2	C04008-T15P	S7111
..-20-4	L85021-T15P	CN17L00R-2-SET	DCO120310	JET-P1/8-5MM	P6SS3X3G	T15P-2	C04008-T15P	S7111

Accessories

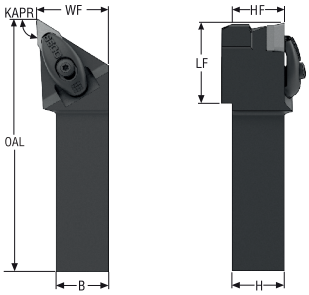
For size	Coolant kit S-Standard	Coolant kit X-Roughing2	Duo coolant plug screw	Insert clamping torque	Plug screw JETI	Torque key
						
..-12-4	CN17U00S-2-SET	CN17L00X-2-SET	P6SS3X5	3.5NM	P6SS6X6	T00-15P35
..-16-4	CN17U00S-2-SET	CN17L00X-2-SET	P6SS3X5	3.5NM	P6SS6X6	T00-15P35
..-20-4	CN17U00S-2-SET	CN17L00X-2-SET	P6SS3X5	3.5NM	P6SS6X6	T00-15P35

DDJCR/L...JETI – Toolholders for inserts DCGT, DCGW, DCMT, DCMW, DCMX – Metric

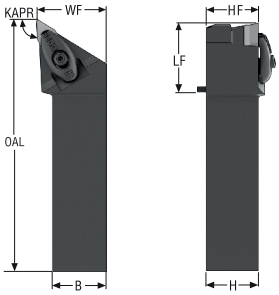
DDJCR/L...JETI
KAPR = 93,0 °



DDJCR/L2020...JETI



DDJCR/L2525...JETI





CTWS



- Right-hand version shown
- For inserts program, see page(s) 553, 554, 555, 596, 617
- For suitable adapter, see page(s) 986-997
- For holder code key, see page(s) 15-16
- For more information on Jetstream Tooling® and accessories, see page(s) 38, 85-89, 1026
- For ISO attribute explanation, see page 82

Designation	Item number	Duo	H	B	OAL	LF	WF	HF	CP	KAPR°	GAMO°	LAMS°	Weight	CTWS
			mm	mm	mm	mm	mm	mm	bar				kg	
DDJCR2020X11JETI	03213110	Yes	20	20	95	31	27,2	20,0	200,0	93,0	0,0	0,0	0,3	DC..11T3.. *DC..32.5.*
DDJCR2525X11JETI	03213111	Yes	25	25	117	33	32,2	25,0	200,0	93,0	0,0	0,0	0,6	DC..11T3.. *DC..32.5.*
DDJCL2020X11JETI	03213108	Yes	20	20	95	31	27,2	20,0	200,0	93,0	0,0	0,0	0,3	DC..11T3.. *DC..32.5.*
DDJCL2525X11JETI	03213109	Yes	25	25	117	33	32,2	25,0	200,0	93,0	0,0	0,0	0,6	DC..11T3.. *DC..32.5.*

Spare Parts, included in delivery

For size	Clamp key	Clamp screw	Coolant kit	Insert shim	Plug	Plug screw	Shim screw	Spring
								
...11	T09P-2	L84017-T09P	CP14U00S-2-SET	126.19-620	JET-P1/8-5MM	P6SS3X3G	C94006-T15P	S5808

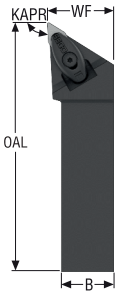
Accessories

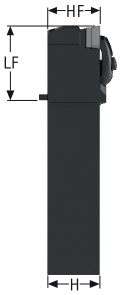
For size	Coolant kit R-Roughing	Duo coolant plug screw	Insert clamping torque	Plug screw JETI	Shim key	Torque key
						
...11	CP14L00R-2-SET	P6SS3X5	2.0NM	P6SS6X6	T15P-2	T00-09P20

DDJCR/L...JETI – Toolholders for inserts DCGT, DCGW, DCMT, DCMW, DCMX – Inch

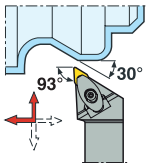


DDJCR/L...JETI





DDJCR/L...JETI
KAPR = 93,0 °



CTWS



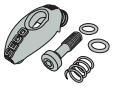
- Right-hand version shown
- For inserts program, see page(s) 553, 554, 555, 596, 617
- For suitable adapter, see page(s) 986-997
- For holder code key, see page(s) 17-18
- For more information on Jetstream Tooling® and accessories, see page(s) 38, 85-89, 1026
- For ISO attribute explanation, see page 82

Designation	Item number	Duo	H	B	OAL	LF	WF	HF	CP	KAPR°	GAMO°	LAMS°	Weight	CTWS
			inch	inch	inch	inch	inch	inch	psi				lbs	
DDJCR-12-3XJETI	03282267	Yes	0.750	0.750	3.740	1.220	1.051	0.750	2900.8	93,0	0,0	0,0	1.100	DC..11T3.. *DC..32.5.*
DDJCR-16-3XJETI	03282268	Yes	1.000	1.000	4.724	1.417	1.260	1.000	2900.8	93,0	0,0	0,0	1.320	DC..11T3.. *DC..32.5.*
DDJCL-12-3XJETI	03282265	Yes	0.750	0.750	3.740	1.220	1.051	0.750	2900.8	93,0	0,0	0,0	0.660	DC..11T3.. *DC..32.5.*
DDJCL-16-3XJETI	03282266	Yes	1.000	1.000	4.724	1.417	1.260	1.000	2900.8	93,0	0,0	0,0	1.320	DC..11T3.. *DC..32.5.*

Spare Parts, included in delivery

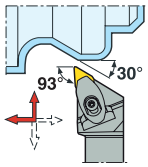
For size	Clamp key	Clamp screw	Coolant kit	Insert shim	Plug	Plug screw	Shim screw	Spring
								
..-12-3	T09P-2	L84017-T09P	CP14U00S-2-SET	126.19-620	JET-P1/8-5MM	P6SS3X3G	C94006-T15P	S5808
..-16-3	T09P-2	L84017-T09P	CP14U00S-2-SET	126.19-620	JET-P1/8-5MM	P6SS3X3G	C94006-T15P	S5808

Accessories

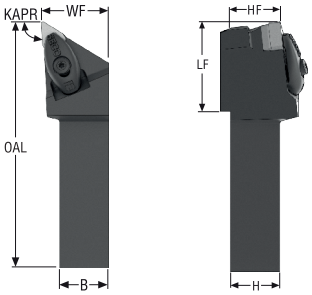
For size	Coolant kit R-Roughing	Duo coolant plug screw	Insert clamping torque	Plug screw JETI	Shim key	Torque key
						
..-12-3	CP14L00R-2-SET	P6SS3X5	2.0NM	P6SS6X6	T15P-2	T00-09P20
..-16-3	CP14L00R-2-SET	P6SS3X5	2.0NM	P6SS6X6	T15P-2	T00-09P20

DDJNR/L...JETI – Toolholders for inserts DNGA, DNGM, DNMA, DNMM, DNMU, DNMX – Metric

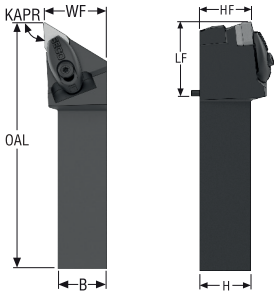
DDJNR/L...JETI
KAPR = 93,0 °



DDJNR/L2020...JETI



DDJNR/L2525/3232...JETI





CTWS



- Right-hand version shown
- For inserts program, see page(s) 556, 557, 558, 559, 597, 598
- For suitable adapter, see page(s) 986-997
- For holder code key, see page(s) 15-16
- For more information on Jetstream Tooling® and accessories, see page(s) 38, 85-89, 1026
- * Use the right shim & the right screw for the selected insert. For details, see page 99
- For ISO attribute explanation, see page 82

Designation	Item number	Duo	H	B	OAL	LF	WF	HF	CP	KAPR°	GAMO°	LAMS°	Weight	CTWS
			mm	mm	mm	mm	mm	mm	bar				kg	
DDJNR2020X11JETI	03213114	Yes	20	20	100	36	27,2	20,0	200,0	93,0	-6,0	-6,0	0,4	DNMU1104.. *DNMU33.*
DDJNR2525X11JETI	03213115	Yes	25	25	120	36	32,2	25,0	200,0	93,0	-6,0	-6,0	0,6	DNMU1104.. *DNMU33.*
DDJNL2020X11JETI	03213112	Yes	20	20	100	36	27,2	20,0	200,0	93,0	-6,0	-6,0	0,4	DNMU1104.. *DNMU33.*
DDJNL2525X11JETI	03213113	Yes	25	25	120	36	32,2	25,0	200,0	93,0	-6,0	-6,0	0,6	DNMU1104.. *DNMU33.*
DDJNR2020X15JETI	03213118	Yes	20	20	105	41	27,2	20,0	200,0	93,0	-6,0	-6,0	0,4	DN..1504-DN..1506* *DN..43-DN..44**
DDJNR2525X15JETI	03213119	Yes	25	25	127	43	32,2	25,0	200,0	93,0	-6,0	-6,0	0,6	DN..1504-DN..1506* *DN..43-DN..44**
DDJNR3232X15JETI	03282318	Yes	32	32	145	46	40,0	32,0	200,0	93,0	-6,0	-6,0	1,1	DN..1504-DN..1506* *DN..43-DN..44**
DDJNL2020X15JETI	03213116	Yes	20	20	105	41	27,2	20,0	200,0	93,0	-6,0	-6,0	0,4	DN..1504-DN..1506* *DN..43-DN..44**
DDJNL2525X15JETI	03213117	Yes	25	25	127	43	32,2	25,0	200,0	93,0	-6,0	-6,0	0,6	DN..1504-DN..1506* *DN..43-DN..44**
DDJNL3232X15JETI	03282317	Yes	32	32	145	46	40,0	32,0	200,0	93,0	-6,0	-6,0	1,1	DN..1504-DN..1506* *DN..43-DN..44**

Spare Parts, included in delivery

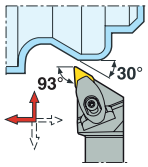
For size	Clamp screw	Coolant kit	Insert shim	Plug	Plug screw	Shim/clamp key	Shim screw	Spring
								
R-11	L84017-T09P	CX14U10S-2R-SET	DDN110310	JET-P1/8-5MM	P6SS3X3G	T09P-2	C03007-T09P	S5808
L-11	L84017-T09P	CX14U10S-2L-SET	DDN110310	JET-P1/8-5MM	P6SS3X3G	T09P-2	C03007-T09P	S5808
R-15	L85021-T15P	CN17U10S-2R-SET	DDN150416	JET-P1/8-5MM	P6SS3X3G	T15P-2	C04008-T15P	S7111
L-15	L85021-T15P	CN17U10S-2L-SET	DDN150416	JET-P1/8-5MM	P6SS3X3G	T15P-2	C04008-T15P	S7111

Accessories

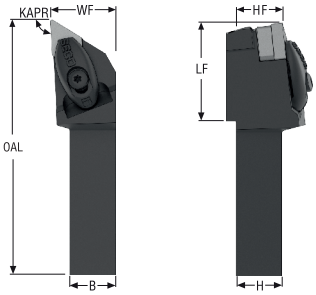
For size	Coolant kit R-Roughing	Duo coolant plug screw	Insert clamping torque	Plug screw JETI	Torque key
					
R-11	–	P6SS3X5	2.0NM	P6SS6X6	T00-09P20
L-11	–	P6SS3X5	2.0NM	P6SS6X6	T00-09P20
R-15	CN17L10R-2R-SET	P6SS3X5	3.5NM	P6SS6X6	T00-15P35
L-15	CN17L10R-2L-SET	P6SS3X5	3.5NM	P6SS6X6	T00-15P35

DDJNR/L...JETI – Toolholders for inserts DNGA, DNGM, DNMA, DNMM, DNMU, DNMX – Inch

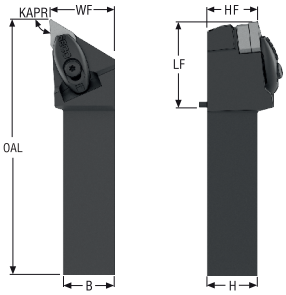
DDJNR/L...JETI
KAPR = 93,0 °



DDJNR/L0.75...JETI



DDJNR/L1.00/1.25...JETI





CTWS



- Right-hand version shown
- For inserts program, see page(s) 556, 557, 558, 559, 597, 598
- For suitable adapter, see page(s) 986-997
- For holder code key, see page(s) 17-18
- For more information on Jetstream Tooling® and accessories, see page(s) 38, 85-89, 1026
- * Use the right shim & the right screw for the selected insert. For details, see page 99
- For ISO attribute explanation, see page 82

Designation	Item number	Duo	H	B	OAL	LF	WF	HF	CP	KAPR°	GAMO°	LAMS°	Weight	CTWS
			inch	inch	inch	inch	inch	inch	psi				lbs	
DDJNR-12-4XJETI	03282272	Yes	0.750	0.750	4.134	1.614	1.059	0.750	2900.8	93,0	-6,0	-6,0	0.880	DN..1504-DN..1506* *DN..43-DN..44**
DDJNR-16-4XJETI	03282273	Yes	1.000	1.000	5.000	1.693	1.260	1.000	2900.8	93,0	-6,0	-6,0	1.540	DN..1504-DN..1506* *DN..43-DN..44**
DDJNR-20-4XJETI	03282274	Yes	1.250	1.250	5.709	1.811	1.500	1.250	2900.8	93,0	-6,0	-6,0	2.650	DN..1504-DN..1506* *DN..43-DN..44**
DDJNL-12-4XJETI	03282269	Yes	0.750	0.750	4.134	1.614	1.059	0.750	2900.8	93,0	-6,0	-6,0	0.880	DN..1504-DN..1506* *DN..43-DN..44**
DDJNL-16-4XJETI	03282270	Yes	1.000	1.000	5.000	1.693	1.260	1.000	2900.8	93,0	-6,0	-6,0	1.540	DN..1504-DN..1506* *DN..43-DN..44**
DDJNL-20-4XJETI	03282271	Yes	1.250	1.250	5.709	1.811	1.500	1.250	2900.8	93,0	-6,0	-6,0	2.430	DN..1504-DN..1506* *DN..43-DN..44**

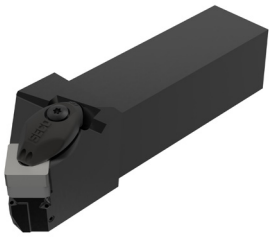
Spare Parts, included in delivery

For size	Clamp screw	Coolant kit	Insert shim	Plug	Plug screw	Shim/clamp key	Shim screw	Spring
								
..R-12/16-4	L85021-T15P	CN17U10S-2R-SET	DDN150616	JET-P1/8-5MM	P6SS3X3G	T15P-2	C04011-T15P	S7111
..-20-4	L85021-T15P	CN17U10S-2L-SET	DDN150616	JET-P1/8-5MM	P6SS3X3G	T15P-2	C04011-T15P	S7111
..L-12/16-4	L85021-T15P	CN17U10S-2L-SET	DDN150616	JET-P1/8-5MM	P6SS3X3G	T15P-2	C04011-T15P	S7111

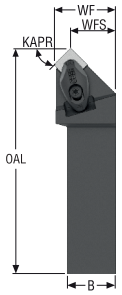
Accessories

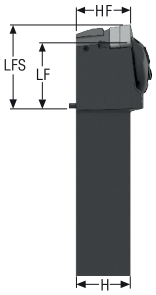
For size	Coolant kit R-Roughing	Duo coolant plug screw	Insert clamping torque	Plug screw JETI	Torque key
					
..R-12/16-4	CN17L10R-2R-SET	P6SS3X5	3.5NM	P6SS6X6	T00-15P35
..-20-4	CN17L10R-2L-SET	P6SS3X5	3.5NM	P6SS6X6	T00-15P35
..L-12/16-4	CN17L10R-2L-SET	P6SS3X5	3.5NM	P6SS6X6	T00-15P35

DSSNR/L...JETI – Toolholders for inserts SNGA, SNMA, SNMG, SNMM – Metric

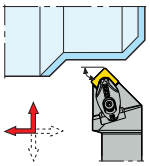


DSSNR/L...JETI





DSSNR/L...JETI
KAPR = 45,0 °



CTWS



- Right-hand version shown
- For inserts program, see page(s) 567, 568, 569, 570, 603
- For suitable adapter, see page(s) 986-997
- For holder code key, see page(s) 15-16
- For more information on Jetstream Tooling® and accessories, see page(s) 38, 85-89, 1026
- For ISO attribute explanation, see page 82

Designation	Item number	Duo	H	B	OAL	LF	LFS	WF	WFS	HF	CP	KAPR°	GAMO°	LAMS°	Weight	CTWS
			mm	mm	mm	mm	mm	mm	mm	mm	bar				kg	
DSSNR2525X12JETI	03282326	Yes	25	25	128	36	44	32,0	24,3	25,0	200,0	45,0	-8,0	0,0	0,7	SN..1204.. *SN..43.*
DSSNL2525X12JETI	03282323	Yes	25	25	128	36	44	32,0	24,3	25,0	200,0	45,0	-8,0	0,0	0,6	SN..1204.. *SN..43.*
DSSNR3232X15JETI	03282327	Yes	32	32	149	40	50	40,0	30,7	32,0	200,0	45,0	-8,0	0,0	1,2	SN..1506.. *SN..54.*
DSSNL3232X15JETI	03282325	Yes	32	32	149	40	50	40,0	30,7	32,0	200,0	45,0	-8,0	0,0	1,2	SN..1506.. *SN..54.*

Spare Parts, included in delivery

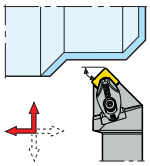
For size	Clamp key	Clamp screw	Coolant kit	Insert shim	Plug	Plug screw	Shim/clamp key	Shim screw	Spring
									
R-12	–	L85021-T15P	CN17L00R-2-SET	DSN120616	JET-P1/8-5MM	P6SS3X3G	T15P-2	C04008-T15P	S7111
L-12	–	L85021-T15P	CN17L00R-2-SET	DSN120616	JET-P1/8-5MM	P6SS3X3G	T15P-2	C04008-T15P	S7111
R-15	T15P-2	L85021-T15P	CN21L00R-2-SET	DSN150624	JET-P1/8-5MM	P6SS3X3G	–	C05010-T20P	S7111
L-15	T15P-2	L85021-T15P	CN21L00R-2-SET	DSN150624	JET-P1/8-5MM	P6SS3X3G	–	C05010-T20P	S7111

Accessories

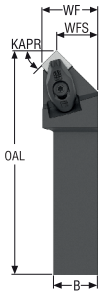
For size	Coolant kit S-Standard	Coolant kit X-Roughing2	Duo coolant plug screw	Insert clamping torque	Plug screw JETI	Shim key	Torque key
							
R-12	CN17U00S-2-SET	CN17L00X-2-SET	P6SS3X5	3.5NM	P6SS6X6	–	T00-15P35
L-12	CN17U00S-2-SET	CN17L00X-2-SET	P6SS3X5	3.5NM	P6SS6X6	–	T00-15P35
R-15	CN21U00S-2-SET	CN21L00X-2-SET	P6SS3X5	3.5NM	P6SS6X6	T20P-2D	T00-15P35
L-15	CN21U00S-2-SET	CN21L00X-2-SET	P6SS3X5	3.5NM	P6SS6X6	T20P-2D	T00-15P35

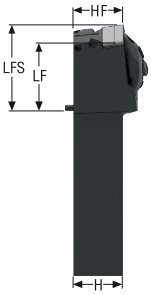
DSSNR/L...JETI – Toolholders for inserts SNGA, SNMA, SNMG, SNMM – Inch

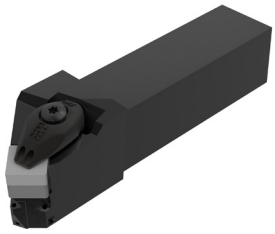
DSSNR/L...JETI
KAPR = 45,0 °



DSSNR/L...JETI







CTWS



- Right-hand version shown
- For inserts program, see page(s) 567, 568, 569, 570, 603
- For suitable adapter, see page(s) 986-997
- For holder code key, see page(s) 17-18
- For more information on Jetstream Tooling® and accessories, see page(s) 38, 85-89, 1026
- For ISO attribute explanation, see page 82

Designation	Item number	Duo	H	B	OAL	LF	LFS	WF	WFS	HF	CP	KAPR°	GAMO°	LAMS°	Weight	CTWS
			inch	inch	inch	inch	inch	inch	inch	inch	psi				lbs	
DSSNR-16-4XJETI	03282282	Yes	1.000	1.000	5.035	1.417	1.728	1.260	0.949	1.000	2900.8	45,0	-8,0	0,0	1.320	SN..1204.. *SN..43.*
DSSNL-16-4XJETI	03282281	Yes	1.000	1.000	5.035	1.417	1.728	1.260	0.949	1.000	2900.8	45,0	-8,0	0,0	1.540	SN..1204.. *SN..43.*

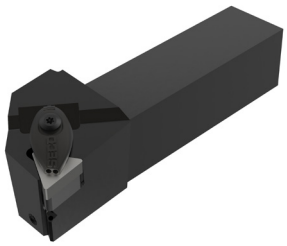
Spare Parts, included in delivery

For size	Clamp screw	Coolant kit	Insert shim	Plug	Plug screw	Shim/clamp key	Shim screw	Spring
								
..-16-4	L85021-T15P	CN17L00R-2-SET	DSN120616	JET-P1/8-5MM	P6SS3X3G	T15P-2	C04008-T15P	S7111

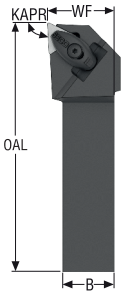
Accessories

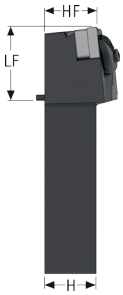
For size	Coolant kit S-Standard	Coolant kit X-Roughing2	Duo coolant plug screw	Insert clamping torque	Plug screw JETI	Torque key
						
..-16-4	CN17U00S-2-SET	CN17L00X-2-SET	P6SS3X5	3.5NM	P6SS6X6	T00-15P35

DTJNR/L...JETI – Toolholders for inserts TNGA, TNMA, TNMG, TNMM, TNMX – Metric

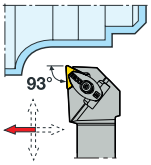


DTJNR/L...JETI





DTJNR/L...JETI
KAPR = 93,0 °



CTWS



- Right-hand version shown
- For inserts program, see page(s) 574, 575, 576, 577, 608, 611
- For suitable adapter, see page(s) 986-997
- For holder code key, see page(s) 15-16
- For more information on Jetstream Tooling® and accessories, see page(s) 38, 85-89, 1026
- For ISO attribute explanation, see page 82

Designation	Item number	Duo	H	B	OAL	LF	WF	HF	CP	KAPR°	GAMO°	LAMS°	Weight	CTWS
			mm	mm	mm	mm	mm	mm	bar				kg	
DTJNR2020X16JETI	03282330	Yes	20	20	95	31	27,0	20,0	200,0	93,0	-6,0	-6,0	0,4	TN..1604.. *TN..33.*
DTJNR2525X16JETI	03282331	Yes	25	25	120	36	32,0	25,0	200,0	93,0	-6,0	-6,0	0,7	TN..1604.. *TN..33.*
DTJNL2020X16JETI	03282328	Yes	20	20	95	31	27,0	20,0	200,0	93,0	-6,0	-6,0	0,4	TN..1604.. *TN..33.*
DTJNL2525X16JETI	03282329	Yes	25	25	120	36	32,0	25,0	200,0	93,0	-6,0	-6,0	0,7	TN..1604.. *TN..33.*

Spare Parts, included in delivery

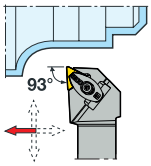
For size	Clamp screw	Coolant kit	Insert shim	Plug	Plug screw	Shim/clamp key	Shim screw	Spring
								
R-16	L84017-T09P	CN14U10S-2L-SET	DTN160616	JET-P1/8-5MM	P6SS3X3G	T09P-2	C03007-T09P	S5808
R-16	L84017-T10P	CN14U10S-2L-SET	DTN160616	JET-P1/8-5MM	P6SS4X4	T10P-2	C03007-T09P	S5808
L-16	L84017-T09P	CN14U10S-2R-SET	DTN160616	JET-P1/8-5MM	P6SS3X3G	T09P-2	C03007-T09P	S5808
L-16	L84017-T10P	CN14U10S-2R-SET	DTN160616	JET-P1/8-5MM	P6SS4X4	T10P-2	C03007-T09P	S5808

Accessories

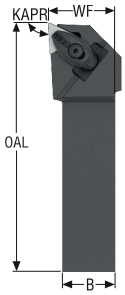
For size	Insert clamping torque	Plug screw	Plug screw JETI	Torque key
				
R-16	2.0NM	P6SS3X5	P6SS6X6	T00-09P20
L-16	2.0NM	P6SS3X5	P6SS6X6	T00-09P20

DTJNR/L...JETI – Toolholders for inserts TNGA, TNMA, TNMG, TNMM, TNMX – Inch

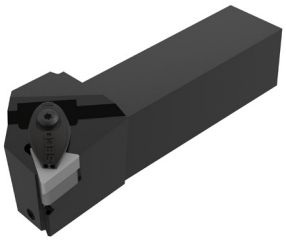
DTJNR/L...JETI
KAPR = 93,0 °



DTJNR/L...JETI







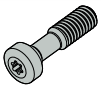
CTWS



- Right-hand version shown
- For inserts program, see page(s) 574, 575, 576, 577, 608, 611
- For suitable adapter, see page(s) 986-997
- For holder code key, see page(s) 17-18
- For more information on Jetstream Tooling® and accessories, see page(s) 38, 85-89, 1026
- For ISO attribute explanation, see page 82

Designation	Item number	Duo	H	B	OAL	LF	WF	HF	CP	KAPR°	GAMO°	LAMS°	Weight	CTWS
			inch	inch	inch	inch	inch	inch	psi				lbs	
DTJNR-16-3XJETI	03282284	Yes	1.000	1.000	4.724	1.417	1.260	1.000	2900.8	93,0	-6,0	-6,0	1.320	TN..1604.. *TN..33.*
DTJNL-16-3XJETI	03282283	Yes	1.000	1.000	4.724	1.417	1.260	1.000	2900.8	93,0	-6,0	-6,0	1.540	TN..1604.. *TN..33.*

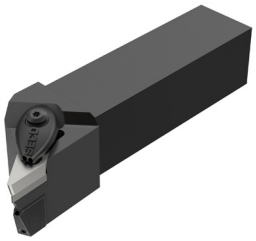
Spare Parts, included in delivery

For size	Clamp screw	Coolant kit	Insert shim	Plug	Plug screw	Shim/clamp key	Shim screw	Spring
								
..R-16-3	L84017-T10P	CN14U10S-2L-SET	DTN160616	JET-P1/8-5MM	P6SS4X4	T10P-2	C03007-T09P	S5808
..L-16-3	L84017-T10P	CN14U10S-2R-SET	DTN160616	JET-P1/8-5MM	P6SS4X4	T10P-2	C03007-T09P	S5808

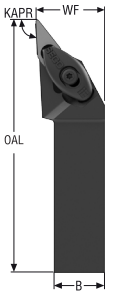
Accessories

For size	Duo coolant plug screw	Insert clamping torque	Plug screw JETI	Torque key
				
..R-16-3	P6SS3X5	2.0NM	P6SS6X6	T00-09P20
..L-16-3	P6SS3X5	2.0NM	P6SS6X6	T00-09P20

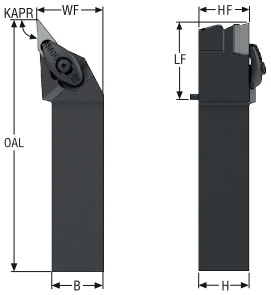
DVJBR/L...JETI – Toolholders for inserts VBGT, VBGW, VBMT, VBMW, VCGT – Metric



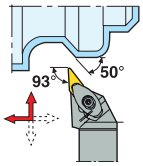
DVJBR/L2020...JETI



DVJBR/L2525/3232...JETI



DVJBR/L...JETI
KAPR = 93,0 °



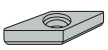
CTWS



- Right-hand version shown
- For inserts program, see page(s) 582, 583, 583, 612, 619
- For suitable adapter, see page(s) 986-997
- For holder code key, see page(s) 15-16
- For more information on Jetstream Tooling® and accessories, see page(s) 38, 85-89, 1026
- For ISO attribute explanation, see page 82

Designation	Item number	Duo	H	B	OAL	LF	WF	HF	CP	KAPR°	GAMO°	LAMS°	Weight	CTWS
			mm	mm	mm	mm	mm	mm	bar				kg	
DVJBR2020X16JETI	03213122	Yes	20	20	100	36	27,2	20,0	200,0	93,0	0,0	0,0	0,3	VB..1604-VC..1604 *VB..33.-VC..33.*
DVJBR2525X16JETI	03213123	Yes	25	25	122	38	32,2	25,0	200,0	93,0	0,0	0,0	0,6	VB..1604-VC..1604 *VB..33.-VC..33.*
DVJBR3232X16JETI	03282333	Yes	32	32	139	40	40,0	32,0	200,0	93,0	0,0	0,0	1,0	VB..1604-VC..1604 *VB..33.-VC..33.*
DVJBL2020X16JETI	03213120	Yes	20	20	100	36	27,2	20,0	200,0	93,0	0,0	0,0	0,3	VB..1604-VC..1604 *VB..33.-VC..33.*
DVJBL2525X16JETI	03213121	Yes	25	25	122	38	32,2	25,0	200,0	93,0	0,0	0,0	0,6	VB..1604-VC..1604 *VB..33.-VC..33.*
DVJBL3232X16JETI	03282332	Yes	32	32	139	40	40,0	32,0	200,0	93,0	0,0	0,0	1,0	VB..1604-VC..1604 *VB..33.-VC..33.*

Spare Parts, included in delivery

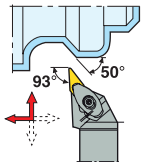
For size	Clamp key	Clamp screw	Coolant kit	Insert shim	Plug	Plug screw	Shim screw	Spring
								
DVJBR	T09P-2	L84017-T09P	CP14U20S-2L-SET	171.19-620	JET-P1/8-5MM	P6SS3X3G	C94006-T15P	S5808
DVJBL	T09P-2	L84017-T09P	CP14U20S-2R-SET	171.19-620	JET-P1/8-5MM	P6SS3X3G	C94006-T15P	S5808

Accessories

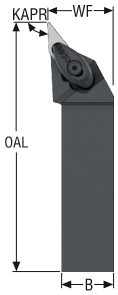
For size	Duo coolant plug screw	Insert clamping torque	Plug screw JETI	Shim key	Torque key
					
DVJBR	P6SS3X5	2.0NM	P6SS6X6	T15P-2	T00-09P20
DVJBL	P6SS3X5	2.0NM	P6SS6X6	T15P-2	T00-09P20

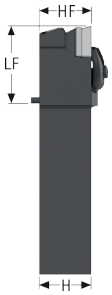
DVJBR/L...JETI – Toolholders for inserts VBGT, VBGW, VBMT, VBMW, VCGT – Inch

DVJBR/L...JETI
KAPR = 93,0 °



DVJBR/L...JETI







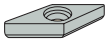
CTWS



- Right-hand version shown
- For inserts program, see page(s) 582, 583, 583, 612, 619
- For suitable adapter, see page(s) 986-997
- For holder code key, see page(s) 17-18
- For more information on Jetstream Tooling® and accessories, see page(s) 38, 85-89, 1026
- For ISO attribute explanation, see page 82

Designation	Item number	Duo	H	B	OAL	LF	WF	HF	CP	KAPR°	GAMO°	LAMS°	Weight	CTWS
			inch	inch	inch	inch	inch	inch	psi				lbs	
DVJBR-12-3XJETI	03282287	Yes	0.750	0.750	3.937	1.417	1.059	0.750	2900.8	93,0	0,0	0,0	0.660	VB..1604-VC..1604 *VB..33.-VC..33.*
DVJBR-16-3XJETI	03282288	Yes	1.000	1.000	4.803	1.496	1.260	1.000	2900.8	93,0	0,0	0,0	1.320	VB..1604-VC..1604 *VB..33.-VC..33.*
DVJBL-12-3XJETI	03282285	Yes	0.750	0.750	3.937	1.417	1.059	0.750	2900.8	93,0	0,0	0,0	0.660	VB..1604-VC..1604 *VB..33.-VC..33.*
DVJBL-16-3XJETI	03282286	Yes	1.000	1.000	4.803	1.496	1.260	1.000	2900.8	93,0	0,0	0,0	1.320	VB..1604-VC..1604 *VB..33.-VC..33.*

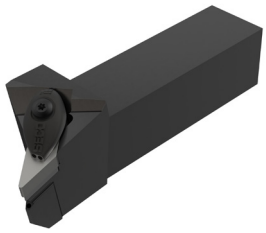
Spare Parts, included in delivery

For size	Clamp key	Clamp screw	Coolant kit	Insert shim	Plug	Plug screw	Shim screw	Spring
								
..R-12-3	T09P-2	L84017-T09P	CP14U20S-2L-SET	171.19-620	JET-P1/8-5MM	P6SS3X3G	C94006-T15P	S5808
..R-16-3	T09P-2	L84017-T09P	CP14U20S-2L-SET	171.19-620	JET-P1/8-5MM	P6SS3X3G	C94006-T15P	S5808
..L-12-3	T09P-2	L84017-T09P	CP14U20S-2R-SET	171.19-620	JET-P1/8-5MM	P6SS3X3G	C94006-T15P	S5808
..L-16-3	T09P-2	L84017-T09P	CP14U20S-2R-SET	171.19-620	JET-P1/8-5MM	P6SS3X3G	C94006-T15P	S5808

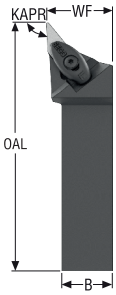
Accessories

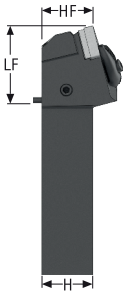
For size	Duo coolant plug screw	Insert clamping torque	Plug screw JETI	Shim key	Torque key
					
..R-12-3	P6SS3X5	2.0NM	P6SS6X6	T15P-2	T00-09P20
..R-16-3	P6SS3X5	2.0NM	P6SS6X6	T15P-2	T00-09P20
..L-12-3	P6SS3X5	2.0NM	P6SS6X6	T15P-2	T00-09P20
..L-16-3	P6SS3X5	2.0NM	P6SS6X6	T15P-2	T00-09P20

DVJNR/L...JETI – Toolholders for inserts VNGA, VNGG, VNGM, VNMA, VNMG – Metric

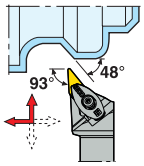


DVJNR/L...JETI





DVJNR/L...JETI
KAPR = 93,0 °



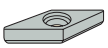
CTWS



- Right-hand version shown
- For inserts program, see page(s) 584, 585, 613
- For suitable adapter, see page(s) 986-997
- For holder code key, see page(s) 15-16
- For more information on Jetstream Tooling® and accessories, see page(s) 38, 85-89, 1026
- For ISO attribute explanation, see page 82

Designation	Item number	Duo	H	B	OAL	LF	WF	HF	CP	KAPR°	GAMO°	LAMS°	Weight	CTWS
			mm	mm	mm	mm	mm	mm	bar				kg	
DVJNR2020X16JETI	03282337	Yes	20	20	100	36	27,2	20,0	200,0	93,0	-4,5	-13,5	0,4	VN..1604.. *VN..33.*
DVJNR2525X16JETI	03282338	Yes	25	25	122	36	32,2	25,0	200,0	93,0	-4,5	-13,5	0,6	VN..1604.. *VN..33.*
DVJNL2020X16JETI	03282334	Yes	20	20	100	36	27,2	20,0	200,0	93,0	-4,5	-13,5	0,3	VN..1604.. *VN..33.*
DVJNL2525X16JETI	03282336	Yes	25	25	122	36	32,2	25,0	200,0	93,0	-4,5	-13,5	0,6	VN..1604.. *VN..33.*

Spare Parts, included in delivery

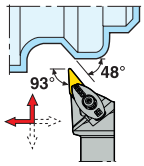
For size	Clamp key	Clamp screw	Coolant kit	Insert shim	Plug	Plug screw	Shim screw	Spring
								
R-16	T09P-2	L84017-T09P	CN14U20S-2L-SET	171.19-620	JET-P1/8-5MM	P6SS3X3G	C94006-T15P	S5808
L-16	T09P-2	L84017-T09P	CN14U20S-2R-SET	171.19-620	JET-P1/8-5MM	P6SS3X3G	C94006-T15P	S5808

Accessories

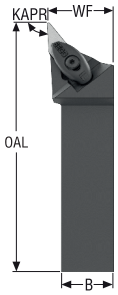
For size	Duo coolant plug screw	Insert clamping torque	Plug screw JETI	Shim key	Torque key
					
R-16	P6SS3X5	2.0NM	P6SS6X6	T15P-2	T00-09P20
L-16	P6SS3X5	2.0NM	P6SS6X6	T15P-2	T00-09P20

DVJNR/L...JETI – Toolholders for inserts VNGA, VNGG, VNGM, VNMA, VNMG – Inch

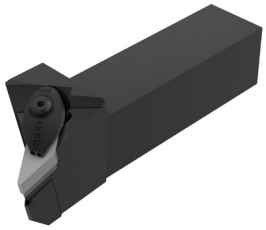
DVJNR/L...JETI
KAPR = 93,0 °



DVJNR/L...JETI







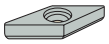
CTWS



- Right-hand version shown
- For inserts program, see page(s) 584, 585, 613
- For suitable adapter, see page(s) 986-997
- For holder code key, see page(s) 17-18
- For more information on Jetstream Tooling® and accessories, see page(s) 38, 85-89, 1026
- For ISO attribute explanation, see page 82

Designation	Item number	Duo	H	B	OAL	LF	WF	HF	CP	KAPR°	GAMO°	LAMS°	Weight	CTWS
			inch	inch	inch	inch	inch	inch	psi				lbs	
DVJNR-12-3XJETI	03282292	Yes	0.750	0.750	4.055	1.535	1.059	0.750	2900.8	93,0	-4,5	-13,5	0.880	VN..1604.. *VN..33.*
DVJNR-16-3XJETI	03282293	Yes	1.000	1.000	4.803	1.496	1.260	1.000	2900.8	93,0	-4,5	-13,5	1.320	VN..1604.. *VN..33.*
DVJNR-20-3XJETI	03282294	Yes	1.250	1.250	5.472	1.575	1.500	1.250	2900.8	93,0	-4,5	-13,5	2.200	VN..1604.. *VN..33.*
DVJNL-12-3XJETI	03282289	Yes	0.750	0.750	4.055	1.535	1.059	0.750	2900.8	93,0	-4,5	-13,5	0.660	VN..1604.. *VN..33.*
DVJNL-16-3XJETI	03282290	Yes	1.000	1.000	4.803	1.496	1.260	1.000	2900.8	93,0	-4,5	-13,5	1.100	VN..1604.. *VN..33.*
DVJNL-20-3XJETI	03282291	Yes	1.250	1.250	5.472	1.575	1.500	1.250	2900.8	93,0	-4,5	-13,5	2.200	VN..1604.. *VN..33.*

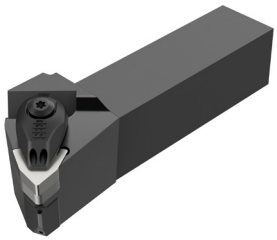
Spare Parts, included in delivery

For size	Clamp key	Clamp screw	Coolant kit	Insert shim	Plug	Plug screw	Shim screw	Spring
								
...R	T09P-2	L84017-T09P	CN14U20S-2L-SET	171.19-620	JET-P1/8-5MM	P6SS3X3G	C94006-T15P	S5808
...L-12	T09P-2	L84017-T09P	CN14U20S-2R-SET	171.19-620	JET-P1/8-5MM	P6SS3X3G	C94006-T15P	S5808
...L-16/ 20	T09P-2	L84017-T09P	CN14U20S-2R-SET	171.19-620	JET-P1/8-5MM	P6SS3X3G	C94006-T15P	S5808

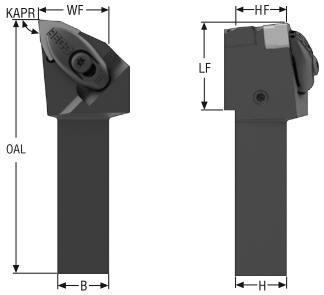
Accessories

For size	Duo coolant plug screw	Insert clamping torque	Plug screw JETI	Shim key	Torque key
					
...R	P6SS3X5	2.0NM	P6SS6X6	T15P-2	T00-09P20
...L-12	P6SS3X5	2.0NM	P6SS6X6	T15P-2	T00-09P20
...L-16/ 20	P6SS3X5	2.0NM	P6SS6X6	T15P-2	T00-09P20

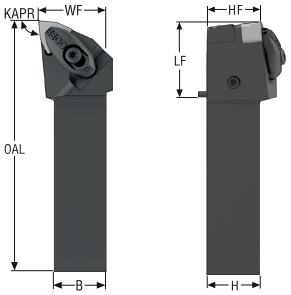
DWLNR/L...JETI – Toolholders for inserts WNGA, WNGG, WNMA, WNMG, WNMM – Metric



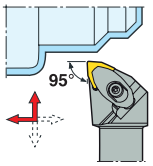
DWLNR/L2020...JETI



DWLNR/L2525/3232...JETI



DWLNR/L...JETI
KAPR = 95,0 °



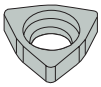
CTWS



- Right-hand version shown
- For inserts program, see page(s) 586, 587, 588, 589, 614
- For suitable adapter, see page(s) 986-997
- For holder code key, see page(s) 15-16
- For more information on Jetstream Tooling® and accessories, see page(s) 38, 85-89, 1026
- * Use the right shim & the right screw for the selected insert. For details, see page 100
- For ISO attribute explanation, see page 82

Designation	Item number	Duo	H	B	OAL	LF	WF	HF	CP	KAPR°	GAMO°	LAMS°	Weight	CTWS
			mm	mm	mm	mm	mm	mm	bar				kg	
DWLNR2020X06JETI	03213128	Yes	20	20	95	31	27,2	20,0	200,0	95,0	-6,0	-6,0	0,4	WN..0604.. *WN..33.*
DWLNR2525X06JETI	03213130	Yes	25	25	117	33	32,2	25,0	200,0	95,0	-6,0	-6,0	0,6	WN..0604.. *WN..33.*
DWLNL2020X06JETI	03213124	Yes	20	20	95	31	27,2	20,0	200,0	95,0	-6,0	-6,0	0,4	WN..0604.. *WN..33.*
DWLNL2525X06JETI	03213126	Yes	25	25	117	33	32,2	25,0	200,0	95,0	-6,0	-6,0	0,6	WN..0604.. *WN..33.*
DWLNR2020X08JETI	03213129	Yes	20	20	100	36	27,2	20,0	200,0	95,0	-6,0	-6,0	0,4	WN..0804-WN..0806* *WN..43-WN..44**
DWLNR2525X08JETI	03213131	Yes	25	25	120	36	32,2	25,0	200,0	95,0	-6,0	-6,0	0,6	WN..0804-WN..0806* *WN..43-WN..44**
DWLNR3232X08JETI	03282340	Yes	32	32	139	40	40,0	32,0	200,0	95,0	-6,0	-6,0	1,2	WN..0804-WN..0806* *WN..43-WN..44**
DWLNL2020X08JETI	03213125	Yes	20	20	100	36	27,2	20,0	200,0	95,0	-6,0	-6,0	0,4	WN..0804-WN..0806* *WN..43-WN..44**
DWLNL2525X08JETI	03213127	Yes	25	25	120	36	32,2	25,0	200,0	95,0	-6,0	-6,0	0,6	WN..0804-WN..0806* *WN..43-WN..44**
DWLNL3232X08JETI	03282339	Yes	32	32	139	40	40,0	32,0	200,0	95,0	-6,0	-6,0	1,1	WN..0804-WN..0806* *WN..43-WN..44**

Spare Parts, included in delivery

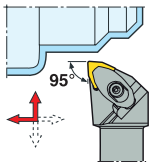
For size	Clamp screw	Coolant kit	Insert shim	Plug	Plug screw	Shim/clamp key	Shim screw	Spring
								
...06	L84017-T09P	CN14L00R-2-SET	DWN060310	JET-P1/8-5MM	P6SS3X3G	T09P-2	C03007-T09P	S5808
...08	L85021-T15P	CN17L00R-2-SET	DWN080416	JET-P1/8-5MM	P6SS3X3G	T15P-2	C04008-T15P	S7111

Accessories

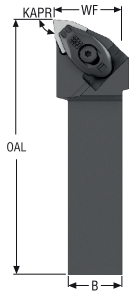
For size	Coolant kit S-Standard	Coolant kit X-Roughing2	Duo coolant plug screw	Insert clamping torque	Plug screw JETI	Torque key
						
...06	CN14U00S-2-SET	CN14L00X-2-SET	P6SS3X5	2.0NM	P6SS6X6	T00-09P20
...08	CN17U00S-2-SET	CN17L00X-2-SET	P6SS3X5	3.5NM	P6SS6X6	T00-15P35

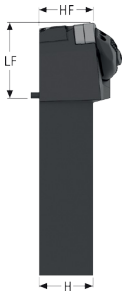
DWLNR/L...JETI – Toolholders for inserts WNGA, WNGG, WNMA, WNMG, WNMM – Inch

DWLNR/L...JETI
KAPR = 95,0 °



DWLNR/L...JETI







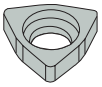
CTWS



- Right-hand version shown
- For inserts program, see page(s) 586, 587, 588, 589, 614
- For suitable adapter, see page(s) 986-997
- For holder code key, see page(s) 17-18
- For more information on Jetstream Tooling® and accessories, see page(s) 38, 85-89, 1026
- * Use the right shim & the right screw for the selected insert. For details, see page 100
- For ISO attribute explanation, see page 82

Designation	Item number	Duo	H	B	OAL	LF	WF	HF	CP	KAPR°	GAMO°	LAMS°	Weight	CTWS
			inch	inch	inch	inch	inch	inch	psi				lbs	
DWLNR-12-3XJETI	03282300	Yes	0.750	0.750	3.740	1.220	1.059	0.750	2900.8	95,0	-6,0	-6,0	1.320	WN..0604.. *WN..33.*
DWLNR-16-3XJETI	03282302	Yes	1.000	1.000	4.606	1.299	1.260	1.000	2900.8	95,0	-6,0	-6,0	1.320	WN..0604.. *WN..33.*
DWLNL-12-3XJETI	03282295	Yes	0.750	0.750	3.740	1.220	1.059	0.750	2900.8	95,0	-6,0	-6,0	1.100	WN..0604.. *WN..33.*
DWLNL-16-3XJETI	03282297	Yes	1.000	1.000	4.606	1.299	1.260	1.000	2900.8	95,0	-6,0	-6,0	1.320	WN..0604.. *WN..33.*
DWLNR-12-4XJETI	03282301	Yes	0.750	0.750	4.055	1.535	1.059	0.750	2900.8	95,0	-6,0	-6,0	1.320	WN..0804-WN..0806* *WN..43-WN..44**
DWLNR-16-4XJETI	03282303	Yes	1.000	1.000	4.724	1.417	1.260	1.000	2900.8	95,0	-6,0	-6,0	1.540	WN..0804-WN..0806* *WN..43-WN..44**
DWLNR-20-4XJETI	03282304	Yes	1.250	1.250	5.472	1.575	1.500	1.250	2900.8	95,0	-6,0	-6,0	1.540	WN..0804-WN..0806* *WN..43-WN..44**
DWLNL-12-4XJETI	03282296	Yes	0.750	0.750	4.055	1.535	1.059	0.750	2900.8	95,0	-6,0	-6,0	0.880	WN..0804-WN..0806* *WN..43-WN..44**
DWLNL-16-4XJETI	03282298	Yes	1.000	1.000	4.724	1.417	1.260	1.000	2900.8	95,0	-6,0	-6,0	1.540	WN..0804-WN..0806* *WN..43-WN..44**
DWLNL-20-4XJETI	03282299	Yes	1.250	1.250	5.472	1.575	1.500	1.250	2900.8	95,0	-6,0	-6,0	2.650	WN..0804-WN..0806* *WN..43-WN..44**

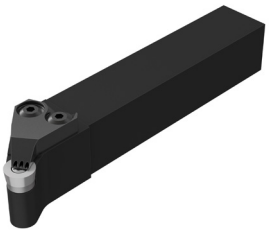
Spare Parts, included in delivery

For size	Clamp screw	Coolant kit	Insert shim	Plug	Plug screw	Shim/clamp key	Shim screw	Spring
								
..-3	L84017-T09P	CN14L00R-2-SET	DWN060310	JET-P1/8-5MM	P6SS3X3G	T09P-2	C03007-T09P	S5808
..-4	L85021-T15P	CN17L00R-2-SET	DWN080416	JET-P1/8-5MM	P6SS3X3G	T15P-2	C04008-T15P	S7111

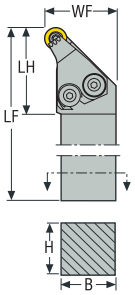
Accessories

For size	Coolant kit S-Standard	Coolant kit X-Roughing2	Duo coolant plug screw	Insert clamping torque	Plug screw JETI	Torque key
						
..-3	CN14U00S-2-SET	CN14L00X-2-SET	P6SS3X5	2.0NM	P6SS6X6	T00-09P20
..-4	CN17U00S-2-SET	CN17L00X-2-SET	P6SS3X5	3.5NM	P6SS6X6	T00-15P35

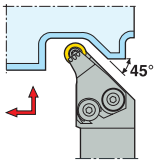
SRSCR/L...JET – Toolholders for inserts RCMT – Metric



SRSCR/L...JET



SRSCR/L...JET
KAPR = 45,0 °



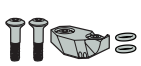
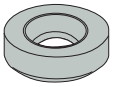
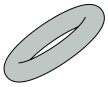
CTWS



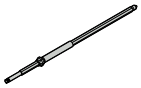
- Right-hand version shown
- For inserts program, see page(s) 562, 563
- For holder code key, see page(s) 15-16
- For more information on Jetstream Tooling® and accessories, see page(s) 38, 85-89, 1026
- For ISO attribute explanation, see page 82

Designation	Item number	Duo	H	B	LF	WF	CP	KAPR°	GAMO°	LAMS°	Weight	CTWS
			mm	mm	mm	mm	bar				kg	
SRSCR2525M12JET	02605862	–	25	25	150	32,0	275,0	45,0	0,0	0,0	0,8	RC..1204M0 *RC..43M0*
SRSCR3225P12JET	02605866	–	32	25	170	32,0	275,0	45,0	0,0	0,0	1,1	RC..1204M0 *RC..43M0*
SRSCL2525M12JET	02605863	–	25	25	150	32,0	275,0	45,0	0,0	0,0	0,8	RC..1204M0 *RC..43M0*
SRSCL3225P12JET	02605867	–	32	25	170	32,0	275,0	45,0	0,0	0,0	1,1	RC..1204M0 *RC..43M0*

Spare Parts, included in delivery

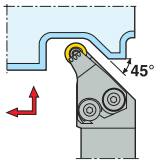
For size	Inducer kit	Inducer screw	Insert/inducer key	Insert screw	Insert shim	O-ring	Plug	Shim screw
								
..R..-12	JET-CIKR00RA-KIT	117.26-655	3SMS795/T15P	C03510-T15P	111.19-621	ORING-6.07X1.78	JET-P1/8-5MM	CA3510
..L..-12	JET-CIKR00LA-KIT	117.26-655	3SMS795/T15P	C03510-T15P	111.19-621	ORING-6.07X1.78	JET-P1/8-5MM	CA3510

Accessories

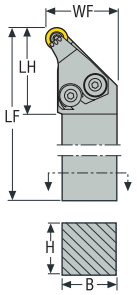
For size	Insert clamping torque	Replacement blade	Shim key	Torque key
				
..R..-12	3.0NM	T00-15P	9/64SMS875	T00-15P30
..L..-12	3.0NM	T00-15P	9/64SMS875	T00-15P30

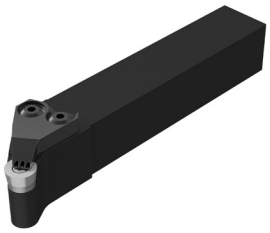
SRSCR/L...JET – Toolholders for inserts RCMT – Inch

SRSCR/L...JET
KAPR = 45,0 °



SRSCR/L...JET





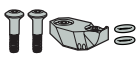
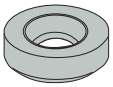
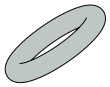
CTWS



- Right-hand version shown
- For inserts program, see page(s) 562, 563
- For holder code key, see page(s) 17-18
- For more information on Jetstream Tooling® and accessories, see page(s) 38, 85-89, 1026
- For ISO attribute explanation, see page 82

Designation	Item number	Duo	H	B	LF	WF	CP	KAPR°	GAMO°	LAMS°	Weight	CTWS
			inch	inch	inch	inch	psi				lbs	
SRSCR-12-10JET	02610684	–	0.750	0.750	4.500	1.122	3988.5	45,0	0,0	0,0	0.880	RC..10T3..
SRSCR-12-12JET	02610686	–	0.750	0.750	4.500	1.161	3988.5	45,0	0,0	0,0	1.100	RC..1204M0 *RC..43M0*
SRSCR-16-12JET	02610691	–	1.000	1.000	6.000	1.268	3988.5	45,0	0,0	0,0	1.760	RC..1204M0 *RC..43M0*
SRSCR-20-12JET	02610695	–	1.250	1.250	6.000	1.500	3988.5	45,0	0,0	0,0	2.650	RC..1204M0 *RC..43M0*
SRSCL-16-12JET	02610692	–	1.000	1.000	6.000	1.268	3988.5	45,0	0,0	0,0	1.760	RC..1204M0 *RC..43M0*
SRSCL-20-12JET	02610696	–	1.250	1.250	6.000	1.500	3988.5	45,0	0,0	0,0	2.650	RC..1204M0 *RC..43M0*

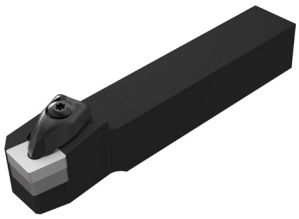
Spare Parts, included in delivery

For size	Inducer kit	Inducer screw	Insert/inducer key	Insert screw	Insert shim	O-ring	Plug	Shim screw
								
..R-12-10	JET-CIKR00RA-KIT	117.26-655	3SMS795/T15P	C03510-T15P	111.19-620	ORING-6.07X1.78	JET-P1/8-5MM	CA3510
..R-20/ 16/ 20-12	JET-CIKR00RA-KIT	117.26-655	3SMS795/T15P	C03510-T15P	111.19-621	ORING-6.07X1.78	JET-P1/8-5MM	CA3510
..L-16/ 20-12	JET-CIKR00LA-KIT	117.26-655	3SMS795/T15P	C03510-T15P	111.19-621	ORING-6.07X1.78	JET-P1/8-5MM	CA3510

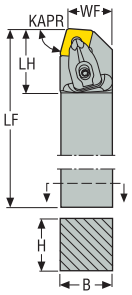
Accessories

For size	Insert clamping torque	Replacement blade	Shim key	Torque key
				
..R-12-10	3.0NM	T00-15P	9/64SMS875	T00-15P30
..R-20/ 16/ 20-12	3.0NM	T00-15P	9/64SMS875	T00-15P30
..L-16/ 20-12	3.0NM	T00-15P	9/64SMS875	T00-15P30

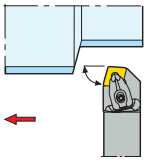
DCBNR/L – Toolholders for inserts CNGG, CNMA, CNMG, CNMM – Metric



DCBNR/L..-M



DCBNR/L..-M
KAPR = 75,0 °



CTWS



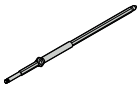
- Right-hand version shown
- For inserts program, see page(s) 546, 547, 548, 549, 550, 551
- For holder code key, see page(s) 15-16
- Shim DCN120416 for insert CN..1206.., to be ordered separately
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF	LH	KAPR°	GAMO°	LAMS°	Weight	CTWS
		mm	mm	mm	mm	mm				kg	
DCBNR2020K12-M	02588094	20	20	125	17,0	32,0	75,0	-6,0	-6,0	0,4	CN..1204.. *CN..43.*
DCBNR2525M12-M	02588095	25	25	150	22,0	31,0	75,0	-6,0	-6,0	0,8	CN..1204.. *CN..43.*
DCBNR3225P12-M	02588096	32	25	170	22,0	31,0	75,0	-6,0	-6,0	1,1	CN..1204.. *CN..43.*
DCBNL2020K12-M	02588097	20	20	125	17,0	32,0	75,0	-6,0	-6,0	0,4	CN..1204.. *CN..43.*
DCBNL2525M12-M	02588098	25	25	150	22,0	31,0	75,0	-6,0	-6,0	0,8	CN..1204.. *CN..43.*
DCBNL3225P12-M	02588099	32	25	170	22,0	31,0	75,0	-6,0	-6,0	1,1	CN..1204.. *CN..43.*
DCBNR2525M16-M	02588100	25	25	150	22,0	41,0	75,0	-6,0	-6,0	0,8	CN..1606.. *CN..54.*
DCBNR3225P16-M	02588101	32	25	170	22,0	42,0	75,0	-6,0	-6,0	1,1	CN..1606.. *CN..54.*
DCBNL2525M16-M	02588102	25	25	150	22,0	41,0	75,0	-6,0	-6,0	0,8	CN..1606.. *CN..54.*
DCBNL3225P16-M	02588103	32	25	170	22,0	42,0	75,0	-6,0	-6,0	1,1	CN..1606.. *CN..54.*
DCBNR3232P19-M	02588104	32	32	170	27,0	41,0	75,0	-6,0	-6,0	1,4	CN..1906.. *CN..64.*
DCBNR4040R19-M	02588105	40	40	200	35,0	42,0	75,0	-6,0	-6,0	2,4	CN..1906.. *CN..64.*
DCBNL3232P19-M	02588106	32	32	170	27,0	41,0	75,0	-6,0	-6,0	1,4	CN..1906.. *CN..64.*
DCBNL4040R19-M	02588107	40	40	200	35,0	42,0	75,0	-6,0	-6,0	2,5	CN..1906.. *CN..64.*

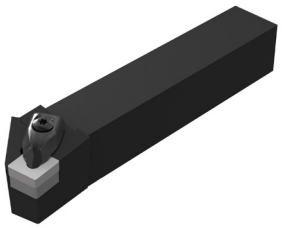
Spare Parts, included in delivery

For size	Clamp pin	Clamp screw	Floating wedge clamp	Insert shim	Shim/clamp key	Shim screw	Spring
...12	FP2012	L85021-T15P	CD12-S	DCN120616	T15P-7	C04008-T15P	S6912
...16	FP2012	L86026-T20P	CD16-S	DCN160616	T20P-7L	C05010-T20P	S7010
...19	FP2012	L86026-T20P	CD19-S	DCN190416	T20P-7L	C05010-T20P	S7010

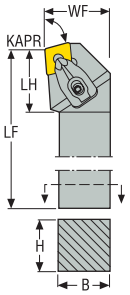
Accessories

For size	Clamp kit	Insert clamping torque	Replacement blade	Torque key
				
...12	CD12-S12	3.5NM	T00-15P	T00-15P35
...16	CD16-S16	6.0NM	T00T-20P	T00T-20P60
...19	CD19-S19	6.0NM	T00T-20P	T00T-20P60

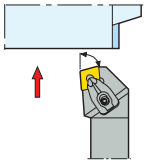
DCKNR/L – Toolholders for inserts CNGG, CNMA, CNMG, CNMM – Metric



DCKNR/L..-M



DCKNR/L..-M
KAPR = 75,0 °



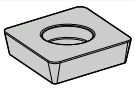
CTWS



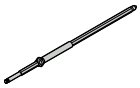
- Right-hand version shown
- For inserts program, see page(s) 546, 547, 548, 549, 550, 551
- For holder code key, see page(s) 15-16
- Shim DCN120416 for insert CN..1206.., to be ordered separately
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF	LH	KAPR°	GAMO°	LAMS°	Weight	CTWS
		mm	mm	mm	mm	mm				kg	
DCKNR2020K12-M	02588110	20	20	125	25,0	30,0	75,0	-6,0	-6,0	0,5	CN..1204.. *CN..43.*
DCKNR2525M12-M	02588111	25	25	150	32,0	31,0	75,0	-6,0	-6,0	0,8	CN..1204.. *CN..43.*
DCKNR3225P12-M	02588112	32	25	170	32,0	31,0	75,0	-6,0	-6,0	1,1	CN..1204.. *CN..43.*
DCKNL2020K12-M	02588113	20	20	125	25,0	30,0	75,0	-6,0	-6,0	0,5	CN..1204.. *CN..43.*
DCKNL2525M12-M	02588114	25	25	150	32,0	31,0	75,0	-6,0	-6,0	0,8	CN..1204.. *CN..43.*
DCKNL3225P12-M	02588115	32	25	170	32,0	31,0	75,0	-6,0	-6,0	1,1	CN..1204.. *CN..43.*
DCKNR2525M16-M	02588116	8	8	150	32,0	36,0	75,0	-6,0	-6,0	0,8	CN..1606.. *CN..54.*
DCKNR3225P16-M	02588117	8	8	170	32,0	36,0	75,0	-6,0	-6,0	1,2	CN..1606.. *CN..54.*
DCKNL2525M16-M	02588118	8	8	150	32,0	36,0	75,0	-6,0	-6,0	0,8	CN..1606.. *CN..54.*
DCKNL3225P16-M	02588119	8	8	170	32,0	36,0	75,0	-6,0	-6,0	1,2	CN..1606.. *CN..54.*
DCKNR3232P19-M	02588121	32	32	170	40,0	36,0	75,0	-6,0	-6,0	1,5	CN..1906.. *CN..64.*
DCKNL3232P19-M	02588123	32	32	170	40,0	36,0	75,0	-6,0	-6,0	1,5	CN..1906.. *CN..64.*

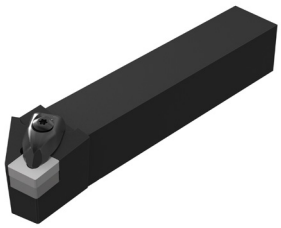
Spare Parts, included in delivery

For size	Clamp pin	Clamp screw	Floating wedge clamp	Insert shim	Shim/clamp key	Shim screw	Spring
							
...12	FP2012	L85021-T15P	CD12-S	DCN120616	T15P-7	C04008-T15P	S6912
...16	FP2012	L86026-T20P	CD16-S	DCN160616	T20P-7L	C05010-T20P	S7010
...19	FP2012	L86026-T20P	CD19-S	DCN190416	T20P-7L	C05010-T20P	S7010

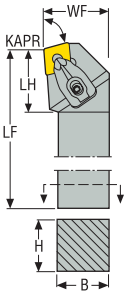
Accessories

For size	Clamp kit	Insert clamping torque	Replacement blade	Torque key
				
...12	CD12-S12	3.5NM	T00-15P	T00-15P35
...16	CD16-S16	6.0NM	T00T-20P	T00T-20P60
...19	CD19-S19	6.0NM	T00T-20P	T00T-20P60

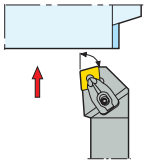
DCKNR/L – Toolholders for inserts CNGA, CNGP, CNMA, CNMG, CNMM, CNMP – Inch



DCKNR/L



DCKNR/L
KAPR = 75,0 °



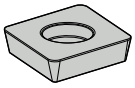
CTWS



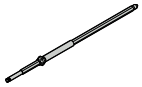
- Right-hand version shown
- For inserts program, see page(s) 546, 547, 548, 549, 550, 551, 593, 594
- For holder code key, see page(s) 17-18
- Shim DCN120416 for insert CN..1206.., to be ordered separately
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF	LH	KAPR°	GAMO°	LAMS°	Weight	CTWS
		inch	inch	inch	inch	inch				lbs	
DCKNR-16-4D	02565475	1.000	1.000	6.000	1.250	1.299	75,0	-6,0	-6,0	1.760	CN..1204.. *CN..43.*
DCKNR-20-4D	02565476	1.250	1.250	6.000	1.500	1.299	75,0	-6,0	-6,0	2.870	CN..1204.. *CN..43.*
DCKNL-16-4D	02565479	1.000	1.000	6.000	1.250	1.299	75,0	-6,0	-6,0	1.980	CN..1204.. *CN..43.*
DCKNL-20-4D	02565480	1.250	1.250	6.000	1.500	1.299	75,0	-6,0	-6,0	2.650	CN..1204.. *CN..43.*
DCKNR-16-5D	02565481	0.315	0.315	6.000	1.250	1.535	75,0	-6,0	-6,0	1.980	CN..1606.. *CN..54.*
DCKNL-16-5D	02565483	0.315	0.315	6.000	1.250	1.654	75,0	-6,0	-6,0	1.980	CN..1606.. *CN..54.*

Spare Parts, included in delivery

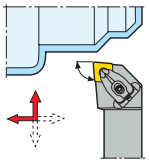
For size	Clamp pin	Clamp screw	Floating wedge clamp	Insert shim	Shim/clamp key	Shim screw	Spring
							
..-16-4	FP2012	L85021-T15P	CD12-S	DCN120616	T15P-7	C04008-T15P	S6912
..-20	FP2012	L85021-T15P	CD12-S	DCN120616	T15P-7	C04008-T15P	S6912
..-16-5	FP2012	L86026-T20P	CD16-S	DCN160616	T20P-7L	C05010-T20P	S7010

Accessories

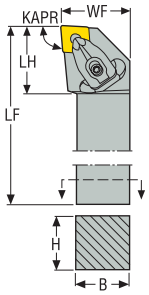
For size	Clamp kit	Insert clamping torque	Replacement blade	Torque key
				
..-16-4	CD12-S12	3.5NM	T00-15P	T00-15P35
..-20	CD12-S12	3.5NM	T00-15P	T00-15P35
..-16-5	CD16-S16	6.0NM	T00T-20P	T00T-20P60

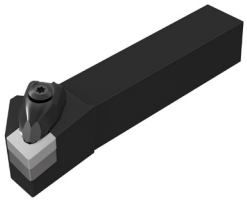
DCLNR/L – Toolholders for inserts CNGA, CNGG, CNMA, CNMG, CNMM – Metric

DCLNR/L..-M
KAPR = 95,0 °



DCLNR/L..-M





CTWS

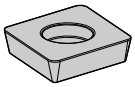


- Right-hand version shown
- For inserts program, see page(s) 546, 547, 548, 549, 550, 551, 593, 594
- For holder code key, see page(s) 15-16
- Shim DCN120416 for insert CN..1206.., to be ordered separately
- For ISO attribute explanation, see page 82

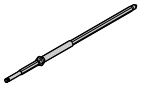
Designation	Item number	H	B	LF	WF	LH	KAPR°	GAMO°	LAMS°	Weight	CTWS
		mm	mm	mm	mm	mm				kg	
DCLNR1616H09-M	02587765	16	16	100	20,0	25,0	95,0	-6,0	-6,0	0,3	CN..0903.. *CN..32.*
DCLNR2020K09-M	02588069	20	20	125	25,0	23,0	95,0	-6,0	-6,0	0,4	CN..0903.. *CN..32.*
DCLNR2525M09-M	02588070	25	25	150	32,0	25,0	95,0	-6,0	-6,0	0,8	CN..0903.. *CN..32.*
DCLNL1616H09-M	02588071	16	16	100	20,0	25,0	95,0	-6,0	-6,0	0,3	CN..0903.. *CN..32.*
DCLNL2525M09-M	02588073	25	25	150	32,0	25,0	95,0	-6,0	-6,0	0,8	CN..0903.. *CN..32.*
DCLNL2020K09-M	02588072	20	20	125	25,0	23,0	95,0	-6,0	-6,0	0,4	CN..0903.. *CN..32.*
DCLNR2020K12-M	02588074	20	20	125	25,0	32,0	95,0	-6,0	-6,0	0,5	CN..1204.. *CN..43.*
DCLNR2525M12-M	02588075	25	25	150	32,0	32,0	95,0	-6,0	-6,0	0,8	CN..1204.. *CN..43.*
DCLNR3225P12-M	02588076	32	25	170	32,0	32,0	95,0	-6,0	-6,0	1,1	CN..1204.. *CN..43.*
DCLNR3232P12-M	02588077	32	32	170	40,0	32,0	95,0	-6,0	-6,0	1,4	CN..1204.. *CN..43.*
DCLNL2020K12-M	02588078	20	20	125	25,0	32,0	95,0	-6,0	-6,0	0,4	CN..1204.. *CN..43.*
DCLNL2525M12-M	02588079	25	25	150	32,0	32,0	95,0	-6,0	-6,0	0,8	CN..1204.. *CN..43.*
DCLNL3225P12-M	02588080	32	25	170	32,0	32,0	95,0	-6,0	-6,0	1,1	CN..1204.. *CN..43.*
DCLNL3232P12-M	02588081	32	32	170	40,0	32,0	95,0	-6,0	-6,0	1,4	CN..1204.. *CN..43.*
DCLNR2525M16-M	02588082	25	25	150	32,0	40,0	95,0	-6,0	-6,0	0,8	CN..1606.. *CN..54.*
DCLNR3225P16-M	02588083	32	25	170	32,0	42,0	95,0	-6,0	-6,0	1,1	CN..1606.. *CN..54.*
DCLNR3232P16-M	02588084	32	32	170	40,0	42,0	95,0	-6,0	-6,0	1,4	CN..1606.. *CN..54.*
DCLNL2525M16-M	02588085	25	25	150	32,0	40,0	95,0	-6,0	-6,0	0,8	CN..1606.. *CN..54.*
DCLNL3225P16-M	02588086	32	25	170	32,0	42,0	95,0	-6,0	-6,0	1,1	CN..1606.. *CN..54.*
DCLNL3232P16-M	02588087	32	32	170	40,0	42,0	95,0	-6,0	-6,0	1,4	CN..1606.. *CN..54.*
DCLNR3232P19-M	02588089	32	32	170	40,0	42,0	95,0	-6,0	-6,0	1,4	CN..1906.. *CN..64.*
DCLNR4040R19-M	02588090	40	40	200	50,0	40,0	95,0	-6,0	-6,0	2,4	CN..1906.. *CN..64.*

Designation	Item number	H	B	LF	WF	LH	KAPR°	GAMO°	LAMS°	Weight	CTWS
		mm	mm	mm	mm	mm				kg	
DCLNL3232P19-M	02588092	32	32	170	40,0	42,0	95,0	-6,0	-6,0	1,4	CN..1906.. *CN..64.*
DCLNL4040R19-M	02588093	40	40	200	50,0	40,0	95,0	-6,0	-6,0	2,5	CN..1906.. *CN..64.*

Spare Parts, included in delivery

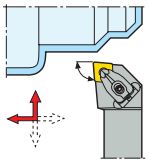
For size	Clamp pin	Clamp screw	Floating wedge clamp	Insert shim	Shim/clamp key	Shim screw	Spring
							
...09	FP1508	L84017-T09P	CD09-S	DCN090310	T09P-2	C03007-T09P	S5608
...09	FP1508	L84017-T10P	CD09-S	DCN090310	T10P-2	C03007-T09P	S5608
...12	FP2012	L85021-T15P	CD12-S	DCN120616	T15P-7	C04008-T15P	S6912
...16	FP2012	L86026-T20P	CD16-S	DCN160616	T20P-7L	C05010-T20P	S7010
...19	FP2012	L86026-T20P	CD19-S	DCN190416	T20P-7L	C05010-T20P	S7010

Accessories

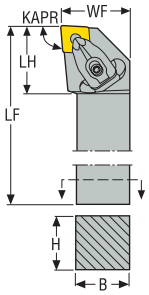
For size	Clamp kit	Insert clamping torque	Replacement blade	Torque key
				
...09	CD09-S09	2.0NM	T00-09P	T00-09P20
...12	CD12-S12	3.5NM	T00-15P	T00-15P35
...16	CD16-S16	6.0NM	T00T-20P	T00T-20P60
...19	CD19-S19	6.0NM	T00T-20P	T00T-20P60

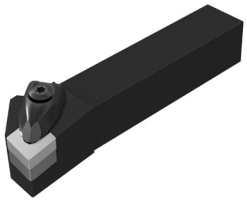
DCLNR/L – Toolholders for inserts CNGA, CNGP, CNMA, CNMG, CNMM, CNMP – Inch

DCLNR/L
KAPR = 95,0 °



DCLNR/L





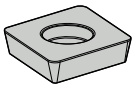
CTWS



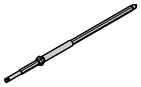
- Right-hand version shown
- For inserts program, see page(s) 546, 547, 548, 549, 550, 551, 593, 594
- For holder code key, see page(s) 17-18
- Shim DCN120416 for insert CN..1206.., to be ordered separately
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF	LH	KAPR°	GAMO°	LAMS°	Weight	CTWS
		inch	inch	inch	inch	inch				lbs	
DCLNR-12-4B	02564754	0.750	0.750	4.500	1.000	1.299	95,0	-6,0	-6,0	0.880	CN..1204.. *CN..43.*
DCLNR-16-4D	02569284	1.000	1.000	6.000	1.250	1.299	95,0	-6,0	-6,0	1.760	CN..1204.. *CN..43.*
DCLNR-20-4D	02588893	1.250	1.250	6.000	1.500	1.299	95,0	-6,0	-6,0	2.650	CN..1204.. *CN..43.*
DCLNR-24-4D	02565454	1.500	1.500	6.000	2.000	1.299	95,0	-6,0	-6,0	3.970	CN..1204.. *CN..43.*
DCLNL-12-4B	02565455	0.750	0.750	4.500	1.000	1.299	95,0	-6,0	-6,0	0.880	CN..1204.. *CN..43.*
DCLNL-16-4D	02569285	1.000	1.000	6.000	1.250	1.299	95,0	-6,0	-6,0	1.760	CN..1204.. *CN..43.*
DCLNL-20-4D	02565458	1.250	1.250	6.000	1.500	1.299	95,0	-6,0	-6,0	2.650	CN..1204.. *CN..43.*
DCLNL-24-4D	02565459	1.500	1.500	6.000	2.000	1.299	95,0	-6,0	-6,0	4.190	CN..1204.. *CN..43.*
DCLNR-16-5D	02565460	1.000	1.000	6.000	1.250	1.654	95,0	-6,0	-6,0	1.980	CN..1606.. *CN..54.*
DCLNR-20-5D	02565461	1.250	1.250	6.000	1.500	1.575	95,0	-6,0	-6,0	2.650	CN..1606.. *CN..54.*
DCLNL-16-5D	02565464	1.000	1.000	6.000	1.250	1.654	95,0	-6,0	-6,0	1.980	CN..1606.. *CN..54.*
DCLNL-20-5D	02565465	1.250	1.250	6.000	1.500	1.575	95,0	-6,0	-6,0	2.650	CN..1606.. *CN..54.*
DCLNR-20-6D	02565468	1.250	1.250	6.000	1.500	1.339	95,0	-6,0	-6,0	2.870	CN..1906.. *CN..64.*
DCLNR-24-6D	02565469	1.500	1.500	6.000	2.000	1.654	95,0	-6,0	-6,0	3.970	CN..1906.. *CN..64.*
DCLNL-20-6D	02565471	1.250	1.250	6.000	1.500	1.339	95,0	-6,0	-6,0	2.870	CN..1906.. *CN..64.*
DCLNL-24-6D	02565472	1.500	1.500	6.000	2.000	1.654	95,0	-6,0	-6,0	3.970	CN..1906.. *CN..64.*

Spare Parts, included in delivery

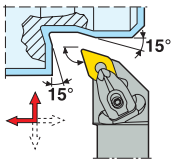
For size	Clamp pin	Clamp screw	Floating wedge clamp	Insert shim	Shim/clamp key	Shim screw	Spring
							
..-4	FP2012	L85021-T15P	CD12-S	DCN120616	T15P-7	C04008-T15P	S6912
..-5	FP2012	L86026-T20P	CD16-S	DCN160616	T20P-7L	C05010-T20P	S7010
..-6	FP2012	L86026-T20P	CD19-S	DCN190416	T20P-7L	C05010-T20P	S7010

Accessories

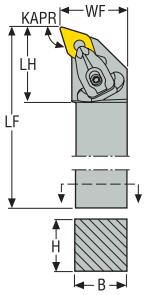
For size	Clamp kit	Insert clamping torque	Replacement blade	Torque key
				
..-4	CD12-S12	3.5NM	T00-15P	T00-15P35
..-5	CD16-S16	6.0NM	T00T-20P	T00T-20P60
..-6	CD19-S19	6.0NM	T00T-20P	T00T-20P60

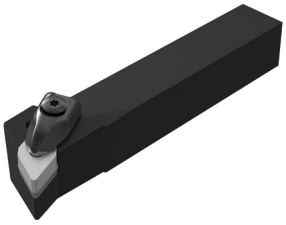
DDHNR/L – Toolholders for inserts DNGA, DNGG, DNGM, DNMA, DNMG, DNMM, DNMU, DNMX – Metric

DDHNR/L
KAPR = 107,5 °



DDHNR/L





CTWS



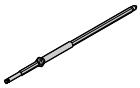
- Right-hand version shown
- For inserts program, see page(s) 556, 557, 558, 559, 597, 598
- For holder code key, see page(s) 15-16
- * Use the right shim & the right screw for the selected insert. For details, see page 99
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF	LH	KAPR°	GAMO°	LAMS°	Weight	CTWS
		mm	mm	mm	mm	mm				kg	
DDHNR1616H11	02588124	16	16	100	20,0	26,0	107,5	-6,0	-6,0	0,2	DNMU1104.. *DNMU33.*
DDHNR2020K11	02588125	20	20	125	25,0	26,0	107,5	-6,0	-6,0	0,4	DNMU1104.. *DNMU33.*
DDHNR2525M11	02588126	25	25	150	32,0	26,0	107,5	-6,0	-6,0	0,8	DNMU1104.. *DNMU33.*
DDHNL1616H11	02588127	16	16	100	20,0	26,0	107,5	-6,0	-6,0	0,3	DNMU1104.. *DNMU33.*
DDHNL2020K11	02588128	20	20	125	25,0	26,0	107,5	-6,0	-6,0	0,4	DNMU1104.. *DNMU33.*
DDHNL2525M11	02588129	25	25	150	32,0	26,0	107,5	-6,0	-6,0	0,8	DNMU1104.. *DNMU33.*
DDHNR2020K15	02588130	20	20	125	25,0	32,0	107,5	-6,0	-6,0	0,4	DN..1504-DN..1506* *DN..43-DN..44**
DDHNR2525M15	02588131	25	25	150	32,0	36,0	107,5	-6,0	-6,0	0,8	DN..1504-DN..1506* *DN..43-DN..44**
DDHNR3232P15	02588132	32	32	170	40,0	33,0	107,5	-6,0	-6,0	1,4	DN..1504-DN..1506* *DN..43-DN..44**
DDHNL2020K15	02588133	20	20	125	25,0	32,0	107,5	-6,0	-6,0	0,4	DN..1504-DN..1506* *DN..43-DN..44**
DDHNL2525M15	02588134	25	25	150	32,0	36,0	107,5	-6,0	-6,0	0,8	DN..1504-DN..1506* *DN..43-DN..44**
DDHNL3232P15	02588135	32	32	170	40,0	33,0	107,5	-6,0	-6,0	1,4	DN..1504-DN..1506* *DN..43-DN..44**

Spare Parts, included in delivery

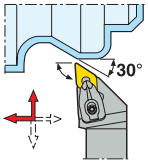
For size	Clamp for DNMU11	Clamp pin	Clamp screw	Floating wedge clamp	Insert shim	Shim/clamp key	Shim screw	Spring
								
...11	CD11XP	FP1508	L84017-T10P	–	DDN110310	T10P-2	C03007-T09P	S5608
...15	–	FP2012	L85021-T15P	CD12-S	DDN150416	T15P-7	C04008-T15P	S6912

Accessories

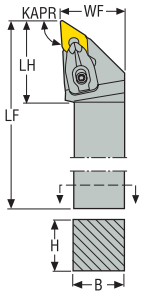
For size	Clamp for DNMG11	Clamp for DNMU11	Clamp kit	Insert clamping torque	Replacement blade	Torque key
						
...11	CD09-S09	CD11XP-SET	–	2.0NM	T00-09P	T00-09P20
...15	–	–	CD12-S12	3.5NM	T00-15P	T00-15P35

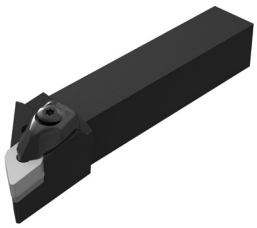
DDJNR/L – Toolholders for inserts DNGA, DNGG, DNGM, DNMA, DNMG, DNMM, DNMU, DNMX – Metric

DDJNR/L, ..-M
KAPR = 93,0 °



DDJNR/L, ..-M





CTWS



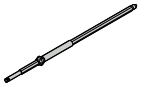
- Right-hand version shown
- For inserts program, see page(s) 556, 557, 558, 559, 597, 598
- For holder code key, see page(s) 15-16
- * Use the right shim & the right screw for the selected insert. For details, see page 99
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF	LH	KAPR°	GAMO°	LAMS°	Weight	CTWS
		mm	mm	mm	mm	mm				kg	
DDJNR1616H11	02588136	16	16	100	20,0	31,0	93,0	-6,0	-6,0	0,2	DNMU1104.. *DNMU33.*
DDJNR2020K11	02588137	20	20	125	25,0	31,0	93,0	-6,0	-6,0	0,4	DNMU1104.. *DNMU33.*
DDJNR2525M11	02588138	25	25	150	32,0	31,0	93,0	-6,0	-6,0	0,8	DNMU1104.. *DNMU33.*
DDJNR3225P11	02588139	32	25	170	32,0	31,0	93,0	-6,0	-6,0	1,1	DNMU1104.. *DNMU33.*
DDJNL1616H11	02588140	16	16	100	20,0	31,0	93,0	-6,0	-6,0	0,2	DNMU1104.. *DNMU33.*
DDJNL2020K11	02588141	20	20	125	25,0	31,0	93,0	-6,0	-6,0	0,4	DNMU1104.. *DNMU33.*
DDJNL2525M11	02588142	25	25	150	32,0	31,0	93,0	-6,0	-6,0	0,8	DNMU1104.. *DNMU33.*
DDJNL3225P11	02588143	32	25	170	32,0	31,0	93,0	-6,0	-6,0	1,1	DNMU1104.. *DNMU33.*
DDJNR2020K15-M	02588144	20	20	125	25,0	42,0	93,0	-6,0	-6,0	0,4	DN..1504-DN..1506* *DN..43-DN..44**
DDJNR2525M15-M	02588145	25	25	150	32,0	42,0	93,0	-6,0	-6,0	0,8	DN..1504-DN..1506* *DN..43-DN..44**
DDJNR3225P15-M	02588146	32	25	170	32,0	42,0	93,0	-6,0	-6,0	1,1	DN..1504-DN..1506* *DN..43-DN..44**
DDJNR3232P15-M	02588147	32	32	170	40,0	42,0	93,0	-6,0	-6,0	1,4	DN..1504-DN..1506* *DN..43-DN..44**
DDJNL2020K15-M	02588149	20	20	125	25,0	42,0	93,0	-6,0	-6,0	0,4	DN..1504-DN..1506* *DN..43-DN..44**
DDJNL2525M15-M	02588150	25	25	150	32,0	42,0	93,0	-6,0	-6,0	0,8	DN..1504-DN..1506* *DN..43-DN..44**
DDJNL3225P15-M	02588151	32	25	170	32,0	42,0	93,0	-6,0	-6,0	1,1	DN..1504-DN..1506* *DN..43-DN..44**
DDJNL3232P15-M	02588152	32	32	170	40,0	42,0	93,0	-6,0	-6,0	1,4	DN..1504-DN..1506* *DN..43-DN..44**

Spare Parts, included in delivery

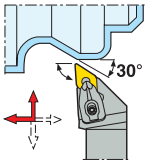
For size	Clamp for DNMU11	Clamp pin	Clamp screw	Floating wedge clamp	Insert shim	Shim/clamp key	Shim screw	Spring
								
...11	CD11XP	FP1508	L84017-T09P	–	DDN110310	T09P-2	C03007-T09P	S5608
...11	CD11XP	FP1508	L84017-T10P	–	DDN110310	T10P-2	C03007-T09P	S5608
...15	–	FP2012	L85021-T15P	CD12-S	DDN150416	T15P-7	C04008-T15P	S6912

Accessories

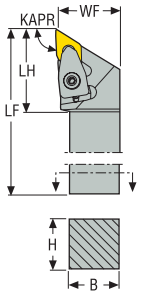
For size	Clamp for DNMG11	Clamp for DNMU11	Clamp kit	Insert clamping torque	Replacement blade	Torque key
						
...11	CD09-S09	CD11XP-SET	–	2.0NM	T00-09P	T00-09P20
...15	–	–	CD12-S12	3.5NM	T00-15P	T00-15P35

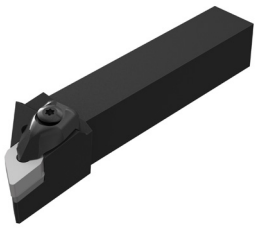
DDJNR/L – Toolholders for inserts DNGA, DNGM, DNGP, DNMA, DNMG, DNMP, DNMU, DNMX – Inch

KAPR = 93,0 °



DDJNR/L, ..-M





CTWS



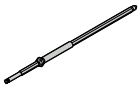
- Right-hand version shown
- For inserts program, see page(s) 556, 557, 558, 559, 597, 598
- For holder code key, see page(s) 17-18
- * Use the right shim & the right screw for the selected insert. For details, see page 99
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF	LH	KAPR°	GAMO°	LAMS°	Weight	CTWS
		inch	inch	inch	inch	inch				lbs	
DDJNR-10-3A	02565487	0.625	0.625	4.000	0.875	1.181	93,0	-6,0	-6,0	0.440	DNMU1104.. *DNMU33.*
DDJNR-12-3B	02565488	0.750	0.750	4.500	1.000	1.181	93,0	-6,0	-6,0	0.880	DNMU1104.. *DNMU33.*
DDJNR-16-3D	02565490	1.000	1.000	6.000	1.250	1.181	93,0	-6,0	-6,0	1.760	DNMU1104.. *DNMU33.*
DDJNL-10-3A	02565492	0.625	0.625	4.000	0.875	1.181	93,0	-6,0	-6,0	0.660	DNMU1104.. *DNMU33.*
DDJNL-12-3B	02565493	0.750	0.750	4.500	1.000	1.181	93,0	-6,0	-6,0	0.880	DNMU1104.. *DNMU33.*
DDJNL-16-3D	02565495	1.000	1.000	6.000	1.250	1.181	93,0	-6,0	-6,0	1.760	DNMU1104.. *DNMU33.*
DDJNR-12-4B	02565497	0.750	0.750	4.500	1.000	1.654	93,0	-6,0	-6,0	0.880	DN..1504-DN..1506* *DN..43-DN..44**
DDJNR-16-4D-M	02569288	1.000	1.000	6.000	1.250	1.654	93,0	-6,0	-6,0	1.760	DN..1504-DN..1506* *DN..43-DN..44**
DDJNR-20-4D	02565500	1.250	1.250	6.000	1.500	1.654	93,0	-6,0	-6,0	2.650	DN..1504-DN..1506* *DN..43-DN..44**
DDJNL-12-4B	02565502	0.750	0.750	4.500	1.000	1.654	93,0	-6,0	-6,0	0.880	DN..1504-DN..1506* *DN..43-DN..44**
DDJNL-16-4D-M	02569289	1.000	1.000	6.000	1.250	1.654	93,0	-6,0	-6,0	1.760	DN..1504-DN..1506* *DN..43-DN..44**
DDJNL-20-4D	02565505	1.250	1.250	6.000	1.500	1.654	93,0	-6,0	-6,0	2.650	DN..1504-DN..1506* *DN..43-DN..44**

Spare Parts, included in delivery

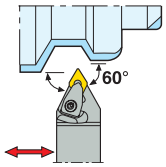
For size	Clamp for DNMU11	Clamp pin	Clamp screw	Floating wedge clamp	Insert shim	Shim/clamp key	Shim screw	Spring
								
..-3	CD11XP	FP1508	L84017-T10P	–	DDN110310	T10P-2	C03007-T09P	S5608
..-4	–	FP2012	L85021-T15P	CD12-S	DDN150616	T15P-7	C04011-T15P	S6912

Accessories

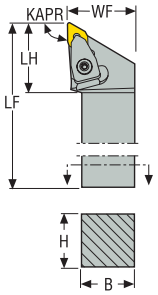
For size	Clamp for DNMG11	Clamp for DNMU11	Clamp kit	Insert clamping torque	Replacement blade	Torque key
						
..-3	CD09-S09	CD11XP-SET	–	2.0NM	T00-09P	T00-09P20
..-4	–	–	CD12-S12	3.5NM	T00-15P	T00-15P35

DDJNR/L, DDNNN – Toolholders for PCBN inserts DNMA – Metric

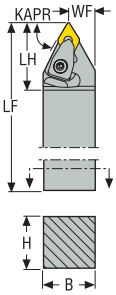
DDNNN..-C
KAPR = 62,5 °

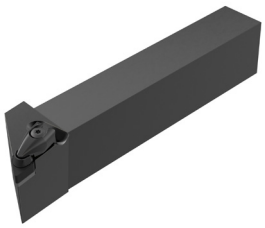


DDJNR/L..-C



DDNNN..-C





CTWS



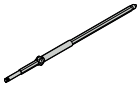
- DDJNR/L = Right-hand version shown
- DDNNN = Neutral version shown
- For inserts program, see page(s) 556, 557, 558, 559, 598
- For holder code key, see page(s) 15-16
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF	LH	KAPR°	GAMO°	LAMS°	Weight	CTWS
		mm	mm	mm	mm	mm				kg	
DDNNN3225P11-C	02598525	32	25	170	13,2	33,0	62,5	-9,0	-5,0	1,0	DNMA1104.. *DNMA33.*

Spare Parts, included in delivery

For size	Clamp pin	Clamp screw	Floating wedge clamp	Insert shim	Shim/clamp key	Shim screw	Spring
							
...11	FP1508	L84017-T09P	CC09P-D11	DDN110310	T09P-2	C03007-T09P	S5608

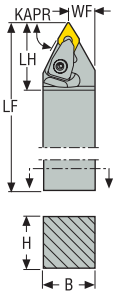
Accessories

For size	Clamp kit	Insert clamping torque	Replacement blade	Torque key
				
...11	CC09P-SET	2.0NM	T00-09P	T00-09P20

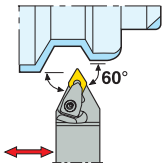
DDPNN – Toolholders for inserts DNGA, DNGM, DNGP, DNMA, DNMG, DNMP, DNMU – Inch



DDPNN



DDPNN
KAPR = 62,5 °



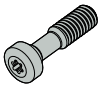
CTWS



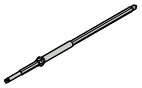
- Right-hand version shown
- For inserts program, see page(s) 556, 557, 558, 559, 597, 598
- For holder code key, see page(s) 17-18
- * Use the right shim & the right screw for the selected insert. For details, see page 99
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF	LH	KAPR°	GAMO°	LAMS°	Weight	CTWS
		inch	inch	inch	inch	inch				lbs	
DDPNN-16-3D	02565509	1.246	1.246	6.000	0.500	1.102	62,5	0,0	-10,0	1.760	DNMU1104.. *DNMU33.*
DDPNN-16-4D	02565512	1.000	1.000	6.000	0.500	1.693	62,5	0,0	-10,0	1.760	DN..1504-DN..1506* *DN..43-DN..44**
DDPNN-20-4D	02565513	1.250	1.250	6.000	0.625	1.693	62,5	0,0	-10,0	2.430	DN..1504-DN..1506* *DN..43-DN..44**

Spare Parts, included in delivery

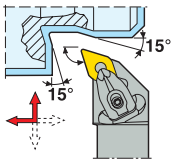
For size	Clamp for DNMU11	Clamp pin	Clamp screw	Floating wedge clamp	Insert shim	Shim/clamp key	Shim screw	Spring
								
..-3	CD11XP	FP1508	L84017-T10P	–	DDN110310	T10P-2	C03007-T09P	S5608
..-4	–	FP2012	L85021-T15P	CD12-S	DDN150616	T15P-7	C04008-T15P	S6912

Accessories

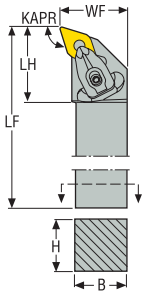
For size	Clamp for DNMG11	Clamp for DNMU11	Clamp kit	Insert clamping torque	Replacement blade	Torque key
						
..-3	CD09-S09	CD11XP-SET	–	2.0NM	T00-09P	T00-09P20
..-4	–	–	CD12-S12	3.5NM	T00-15P	T00-15P35

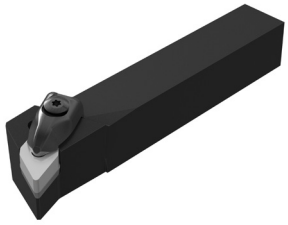
DDQNR/L – Toolholders for inserts DNGA, DNGM, DNGP, DNMA, DNMG, DNMP, DNMU, DNMX – Inch

DDQNR/L
KAPR = 107,5 °



DDQNR/L





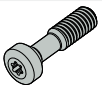
CTWS



- Right-hand version shown
- For inserts program, see page(s) 556, 557, 558, 559, 597, 598
- For holder code key, see page(s) 17-18
- * Use the right shim & the right screw for the selected insert. For details, see page 99
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF	LH	KAPR°	GAMO°	LAMS°	Weight	CTWS
		inch	inch	inch	inch	inch				lbs	
DDQNR-16-3D	02880410	1.000	1.000	6.000	1.250	1.181	107,5	-6,0	-6,0	1.760	DNMU1104.. *DNMU33.*
DDQNL-16-3D	02880408	1.000	1.000	6.000	1.250	1.181	107,5	-6,0	-6,0	1.760	DNMU1104.. *DNMU33.*
DDQNR-16-4D	02904201	1.000	1.000	6.000	1.260	1.378	107,5	-6,0	-6,0	1.760	DN..1504-DN..1506* *DN..43-DN..44**
DDQNL-16-4D	02904200	1.000	1.000	6.000	1.260	1.378	107,5	-6,0	-6,0	1.760	DN..1504-DN..1506* *DN..43-DN..44**

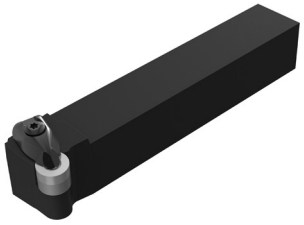
Spare Parts, included in delivery

For size	Clamp for DNMU11	Clamp pin	Clamp screw	Floating wedge clamp	Insert shim	Shim/clamp key	Shim screw	Spring
								
..-3	CD11XP	FP1508	L84017-T10P	–	DDN110310	T10P-2	C03007-T09P	S5608
..-4	–	FP2012	L85021-T15P	CD12-S	DDN150416	T15P-7	C04008-T15P	S6912

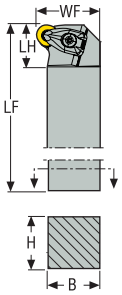
Accessories

For size	Clamp for DNMG11	Clamp for DNMU11	Clamp kit	Insert clamping torque	Replacement blade	Torque key
						
..-3	CD09-S09	CD11XP-SET	–	2.0NM	T00-09P	T00-09P20
..-4	–	–	CD12-S12	3.5NM	T00-15P	T00-15P35

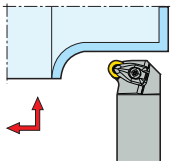
DRGNR/L – Toolholders for inserts RNM. – Inch



DRGNR/L



DRGNR/L
KAPR = 90,0 °



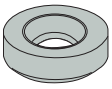
CTWS



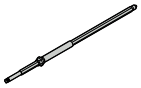
- Right-hand version shown
- For inserts program, see page(s) 564, 601
- For holder code key, see page(s) 17-18
- Shim DSN120416 for insert SN..1206.., to be ordered separately
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF	LH	KAPR°	GAMO°	LAMS°	Weight	CTWS
		inch	inch	inch	inch	inch				lbs	
DRGNR-16-4D	02565514	1.000	1.000	6.000	1.250	1.181	90,0	-6,0	-6,0	1.760	RN..1204.. *RN..43.*
DRGNL-16-4D	02565516	1.000	1.000	6.000	1.250	1.181	90,0	-6,0	-6,0	1.980	RN..1204.. *RN..43.*

Spare Parts, included in delivery

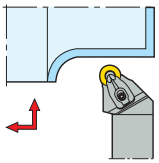
For size	Clamp pin	Clamp screw	Floating wedge clamp	Insert shim	Shim/clamp key	Shim screw	Spring
							
..-4	FP2012	L85021-T15P	CD12-S	DRN120600	T15P-7	C04008-T15P	S6912

Accessories

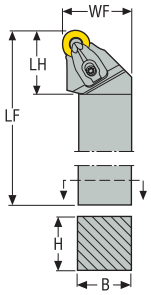
For size	Clamp kit	Insert clamping torque	Replacement blade	Torque key
				
..-4	CD12-S12	3.5NM	T00-15P	T00-15P35

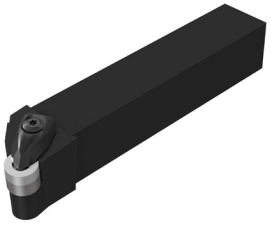
DRSNR/L..-M – Toolholders for inserts RNMA, RNMG – Metric

DRSNR/L..-M
KAPR = 45,0 °



DRSNR/L..-M





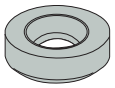
CTWS



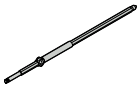
- Right-hand version shown
- For inserts program, see page(s) 564
- For holder code key, see page(s) 15-16
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF	LH	KAPR°	GAMO°	LAMS°	Weight	CTWS
		mm	mm	mm	mm	mm				kg	
DRSNR2525M12-M	02588153	25	25	150	32,0	30,0	45,0	-6,0	-6,0	0,8	RN..1204.. *RN..43.*
DRSNR3225P12-M	02588154	32	25	170	32,0	30,0	45,0	-6,0	-6,0	1,1	RN..1204.. *RN..43.*
DRSNL2525M12-M	02588155	25	25	150	32,0	30,0	45,0	-6,0	-6,0	0,8	RN..1204.. *RN..43.*
DRSNL3225P12-M	02588156	32	25	170	32,0	30,0	45,0	-6,0	-6,0	1,1	RN..1204.. *RN..43.*

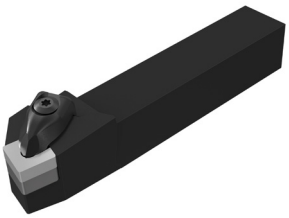
Spare Parts, included in delivery

For size	Clamp pin	Clamp screw	Floating wedge clamp	Insert shim	Shim/clamp key	Shim screw	Spring
							
...12	FP2012	L85021-T15P	CD12-S	DRN120600	T15P-7	C04008-T15P	S6912

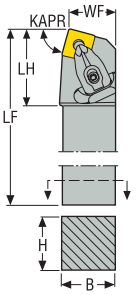
Accessories

For size	Clamp kit	Insert clamping torque	Replacement blade	Torque key
				
...12	CD12-S12	3.5NM	T00-15P	T00-15P35

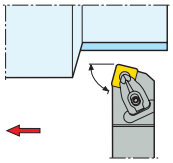
DSBNR/L..-M – Toolholders for inserts SNGA, SNMA, SNMG, SNMM – Metric



DSBNR/L..-M



DSBNR/L..-M
KAPR = 75,0 °



CTWS



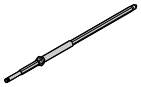
- Right-hand version shown
- For inserts program, see page(s) 567, 568, 569, 570, 603
- For holder code key, see page(s) 15-16
- Shim DSN120416 for insert SN..1206.., to be ordered separately
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF	LH	KAPR°	GAMO°	LAMS°	Weight	CTWS
		mm	mm	mm	mm	mm				kg	
DSBNR2020K12-M	02588157	20	20	125	17,0	37,0	75,0	-6,0	-6,0	0,5	SN..1204.. *SN..43.*
DSBNR2525M12-M	02588158	25	25	150	22,0	36,0	75,0	-6,0	-6,0	0,8	SN..1204.. *SN..43.*
DSBNL2020K12-M	02588159	20	20	125	17,0	37,0	75,0	-6,0	-6,0	0,5	SN..1204.. *SN..43.*
DSBNL2525M12-M	02588160	25	25	150	22,0	36,0	75,0	-6,0	-6,0	0,8	SN..1204.. *SN..43.*
DSBNR2525M15-M	02588161	25	25	150	22,0	41,0	75,0	-6,0	-6,0	0,8	SN..1506.. *SN..54.*
DSBNR3232P15-M	02588163	32	32	170	27,0	42,0	75,0	-6,0	-6,0	1,4	SN..1506.. *SN..54.*
DSBNL2525M15-M	02588164	25	25	150	22,0	41,0	75,0	-6,0	-6,0	0,8	SN..1506.. *SN..54.*
DSBNL3232P15-M	02588166	32	32	170	27,0	42,0	75,0	-6,0	-6,0	1,4	SN..1506.. *SN..54.*

Spare Parts, included in delivery

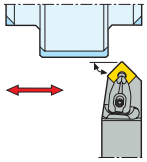
For size	Clamp pin	Clamp screw	Floating wedge clamp	Insert shim	Shim/clamp key	Shim screw	Spring
							
...12	FP2012	L85021-T15P	CD12-S	DSN120616	T15P-7	C04008-T15P	S6912
...15	FP2012	L86026-T20P	CD16-S	DSN150624	T20P-7L	C05010-T20P	S7010

Accessories

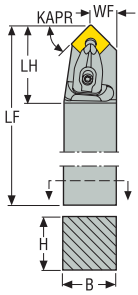
For size	Clamp kit	Insert clamping torque	Replacement blade	Torque key
				
...12	CD12-S12	3.5NM	T00-15P	T00-15P35
...15	CD16-S16	6.0NM	T00T-20P	T00T-20P60

DSDNN..-M – Toolholders for inserts SNGA, SNMA, SNMG, SNMM – Metric

DSDNN..-M
KAPR = 45,0 °



DSDNN..-M





CTWS



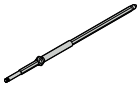
- Neutral version shown
- For inserts program, see page(s) 567, 568, 569, 570, 603
- For holder code key, see page(s) 15-16
- Shim DSN120416 for insert SN..1206.., to be ordered separately
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF	LH	KAPR°	GAMO°	LAMS°	Weight	CTWS
		mm	mm	mm	mm	mm				kg	
DSDNN2020K12-M	02588189	20	20	125	10,3	37,0	45,0	-6,0	-6,0	0,4	SN..1204.. *SN..43.*
DSDNN2525M12-M	02588190	25	25	150	12,8	36,0	45,0	-6,0	-6,0	0,7	SN..1204.. *SN..43.*
DSDNN3232P12-M	02588191	32	32	170	16,3	36,0	45,0	-6,0	-6,0	1,3	SN..1204.. *SN..43.*

Spare Parts, included in delivery

For size	Clamp pin	Clamp screw	Floating wedge clamp	Insert shim	Shim/clamp key	Shim screw	Spring
							
...12	FP2012	L85021-T15P	CD12-S	DSN120616	T15P-7	C04008-T15P	S6912

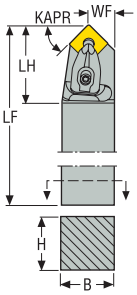
Accessories

For size	Clamp kit	Insert clamping torque	Replacement blade	Torque key
				
...12	CD12-S12	3.5NM	T00-15P	T00-15P35

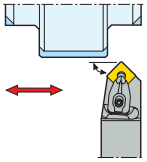
DSDNN – Toolholders for inserts SNGA, SNMA, SNMG, SNMM – Inch



DSDNN



DSDNN
KAPR = 45,0 °



CTWS



- Neutral version shown
- For inserts program, see page(s) 567, 568, 569, 570, 603
- For holder code key, see page(s) 17-18
- Shim DSN434 for insert SN..44., to be ordered separately
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	LFS	WF	LH	KAPR°	GAMO°	LAMS°	Weight	CTWS
		inch	inch	inch	inch	inch	inch				lbs	
DSDNN-12-4B	02904197	0.750	0.750	4.500	4.173	0.386	1.260	45,0	-6,0	-6,0	0.880	SN..1204.. *SN..43.*
DSDNN-16-4D	02904198	1.000	1.000	6.000	5.669	0.512	1.575	45,0	-6,0	-6,0	1.760	SN..1204.. *SN..43.*
DSDNN-20-4D	02904199	1.250	1.250	6.000	5.674	0.638	1.575	45,0	-6,0	-6,0	2.650	SN..1204.. *SN..43.*

Spare Parts, included in delivery

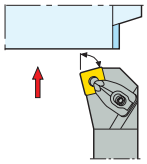
For size	Clamp pin	Clamp screw	Floating wedge clamp	Insert shim	Shim/clamp key	Shim screw	Spring
							
..-4	FP2012	L85021-T15P	CD12-S	DSN120616	T15P-7	C04008-T15P	S6912

Accessories

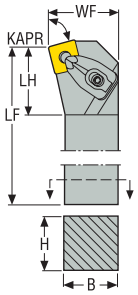
For size	Clamp kit	Insert clamping torque	Replacement blade	Torque key
				
..-4	CD12-S12	3.5NM	T00-15P	T00-15P35

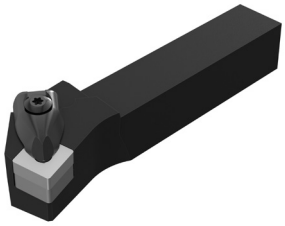
DSKNR/L..-M – Toolholders for inserts SNGA, SNMA, SNMG, SNMM – Metric

DSKNR/L..-M
KAPR = 75,0 °



DSKNR/L..-M





CTWS



- Right-hand version shown
- For inserts program, see page(s) 567, 568, 569, 570, 603
- For holder code key, see page(s) 15-16
- Shim DSN120416 for insert SN..1206.., to be ordered separately
- Shim DSN190640 for insert SNMM190624W-R7, to be ordered separately
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF	LH	KAPR°	GAMO°	LAMS°	Weight	CTWS
		mm	mm	mm	mm	mm				kg	
DSKNR2020K12-M	02588192	20	20	125	25,0	33,0	75,0	-6,0	-6,0	0,5	SN..1204.. *SN..43.*
DSKNR2525M12-M	02588193	25	25	150	32,0	33,0	75,0	-6,0	-6,0	0,8	SN..1204.. *SN..43.*
DSKNR3225P12-M	02588194	32	25	170	32,0	35,0	75,0	-6,0	-6,0	1,1	SN..1204.. *SN..43.*
DSKNL2020K12-M	02588195	20	20	125	25,0	33,0	75,0	-6,0	-6,0	0,5	SN..1204.. *SN..43.*
DSKNL2525M12-M	02588196	25	25	150	32,0	33,0	75,0	-6,0	-6,0	0,8	SN..1204.. *SN..43.*
DSKNL3225P12-M	02588197	32	25	170	32,0	35,0	75,0	-6,0	-6,0	1,1	SN..1204.. *SN..43.*
DSKNR3232P19-M	02588198	32	32	170	40,0	37,0	75,0	-6,0	-6,0	1,5	SN..1906.. *SN..64.*
DSKNL3232P19-M	02588199	32	32	170	40,0	37,0	75,0	-6,0	-6,0	1,5	SN..1906.. *SN..64.*

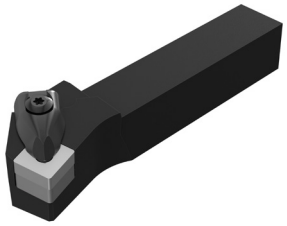
Spare Parts, included in delivery

For size	Clamp pin	Clamp screw	Floating wedge clamp	Insert shim	Shim/clamp key	Shim screw	Spring
							
...12	FP2012	L85021-T15P	CD12-S	DSN120616	T15P-7	C04008-T15P	S6912
...19	FP2012	L86026-T20P	CD19-S	DSN190624	T20P-7L	C05010-T20P	S7010

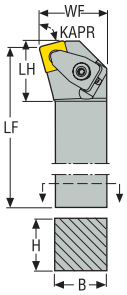
Accessories

For size	Clamp kit	Insert clamping torque	Replacement blade	Torque key
				
...12	CD12-S12	3.5NM	T00-15P	T00-15P35
...19	CD19-S19	6.0NM	T00T-20P	T00T-20P60

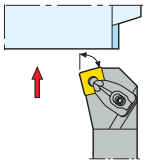
DSKNR/L – Toolholders for inserts SNGA, SNMA, SNMG, SNMM, SNMP – Inch



DSKNR/L



DSKNR/L
KAPR = 75,0 °



CTWS



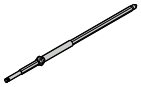
- Right-hand version shown
- For inserts program, see page(s) 567, 568, 569, 570, 603
- For holder code key, see page(s) 17-18
- Shim DSN434 for insert SN..44., to be ordered separately
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF	LH	KAPR°	GAMO°	LAMS°	Weight	CTWS
		inch	inch	inch	inch	inch				lbs	
DSKNR-12-4B	02565534	0.750	0.750	4.500	1.000	1.299	75,0	-6,0	-6,0	0.880	SN..1204.. *SN..43.*
DSKNR-16-4D	02565535	1.000	1.000	6.000	1.250	1.378	75,0	-6,0	-6,0	1.760	SN..1204.. *SN..43.*
DSKNL-12-4B	02565537	0.750	0.750	4.500	1.000	1.299	75,0	-6,0	-6,0	0.880	SN..1204.. *SN..43.*
DSKNL-16-4D	02565538	1.000	1.000	6.000	1.250	1.378	75,0	-6,0	-6,0	1.980	SN..1204.. *SN..43.*
DSKNR-16-5D	02565540	1.000	1.000	6.000	1.250	1.400	75,0	-6,0	-6,0	1.980	SN..1506.. *SN..54.*
DSKNL-16-5D	02565542	1.000	1.000	6.000	1.250	1.400	75,0	-6,0	-6,0	1.980	SN..1506.. *SN..54.*

Spare Parts, included in delivery

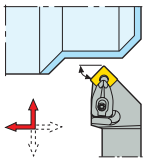
For size	Clamp pin	Clamp screw	Floating wedge clamp	Insert shim	Shim/clamp key	Shim screw	Spring
							
..-4	FP2012	L85021-T15P	CD12-S	DSN120616	T15P-7	C04008-T15P	S6912
..-5	FP2012	L86026-T20P	CD16-S	DSN150624	T20P-7L	C05010-T20P	S7010

Accessories

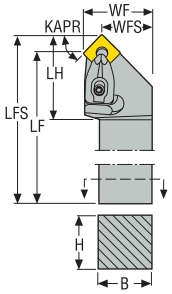
For size	Clamp kit	Insert clamping torque	Replacement blade	Torque key
				
..-4	CD12-S12	3.5NM	T00-15P	T00-15P35
..-5	CD16-S16	6.0NM	T00T-20P	T00T-20P60

DSSNR/L..-M – Toolholders for inserts SNGA, SNMA, SNMG, SNMM – Metric

DSSNR/L..-M
KAPR = 45,0 °



DSSNR/L..-M





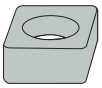
CTWS



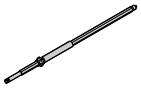
- Right-hand version shown
- For inserts program, see page(s) 567, 568, 569, 570, 603
- For holder code key, see page(s) 15-16
- Shim DSN120416 for insert SN..1206.., to be ordered separately
- Shim DSN190640 for insert SNMM190624W-R7, to be ordered separately
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	LFS	WF	WFS	LH	KAPR°	GAMO°	LAMS°	Weight	CTWS
		mm	mm	mm	mm	mm	mm	mm				kg	
DSSNR1616H09-M	02588167	16	16	101	107,1	20,0	14,1	32,0	45,0	-8,0	0,0	0,3	SN..0903.. *SN..32.*
DSSNR2020K09-M	02588168	20	20	125	132,1	25,0	19,1	32,0	45,0	-8,0	0,0	0,5	SN..0903.. *SN..32.*
DSSNR2525M09-M	02588169	25	25	150	157,1	32,0	26,1	32,0	45,0	-8,0	0,0	0,8	SN..0903.. *SN..32.*
DSSNL1616H09-M	02588170	16	16	101	107,1	20,0	14,1	32,0	45,0	-8,0	0,0	0,3	SN..0903.. *SN..32.*
DSSNR2020K12-M	02588173	20	20	125	134,3	25,0	16,9	39,0	45,0	-8,0	0,0	0,5	SN..1204.. *SN..43.*
DSSNR2525M12-M	02588174	25	25	150	159,3	32,0	23,9	39,0	45,0	-8,0	0,0	0,8	SN..1204.. *SN..43.*
DSSNR3225P12-M	02588175	32	25	170	179,3	32,0	23,9	39,0	45,0	-8,0	0,0	1,2	SN..1204.. *SN..43.*
DSSNL2020K12-M	02588176	20	20	125	134,3	25,0	16,9	39,0	45,0	-8,0	0,0	0,5	SN..1204.. *SN..43.*
DSSNL2525M12-M	02588177	25	25	150	159,3	32,0	23,9	39,0	45,0	-8,0	0,0	0,8	SN..1204.. *SN..43.*
DSSNL3225P12-M	02588178	32	25	170	179,3	32,0	23,9	39,0	45,0	-8,0	0,0	1,2	SN..1204.. *SN..43.*
DSSNR2525M15-M	02588179	25	25	150	161,2	32,0	22,0	41,0	45,0	-8,0	0,0	0,9	SN..1506.. *SN..54.*
DSSNR3232P15-M	02588181	32	32	171	181,2	40,0	29,6	42,0	45,0	-8,0	0,0	1,5	SN..1506.. *SN..54.*
DSSNL2525M15-M	02588182	25	25	150	161,2	32,0	22,0	41,0	45,0	-8,0	0,0	0,9	SN..1506.. *SN..54.*
DSSNL3232P15-M	02588184	32	32	171	181,2	40,0	29,6	42,0	45,0	-8,0	0,0	1,5	SN..1506.. *SN..54.*
DSSNR3232P19-M	02588185	32	32	171	181,2	40,0	30,0	46,0	45,0	-8,0	0,0	1,5	SN..1906.. *SN..64.*
DSSNR4040R19-M	02588186	40	40	201	213,5	50,0	31,7	46,0	45,0	-8,0	0,0	2,6	SN..1906.. *SN..64.*
DSSNL3232P19-M	02588187	32	32	171	181,2	40,0	30,0	46,0	45,0	-8,0	0,0	1,5	SN..1906.. *SN..64.*
DSSNL4040R19-M	02588188	40	40	201	213,5	50,0	31,7	46,0	45,0	-8,0	0,0	2,6	SN..1906.. *SN..64.*

Spare Parts, included in delivery

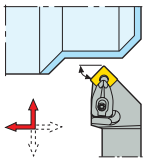
For size	Clamp pin	Clamp screw	Floating wedge clamp	Insert shim	Shim/clamp key	Shim screw	Spring
							
...09	FP1508	L84017-T09P	CD09-S	DSN090310	T09P-2	C03007-T09P	S5608
...09	FP1508	L84017-T10P	CD09-S	DSN090310	T10P-2	C03007-T09P	S5608
...12	FP2012	L85021-T15P	CD12-S	DSN120616	T15P-7	C04008-T15P	S6912
...15	FP2012	L86026-T20P	CD16-S	DSN150624	T20P-7L	C05010-T20P	S7010
...19	FP2012	L86026-T20P	CD19-S	DSN190624	T20P-7L	C05010-T20P	S7010

Accessories

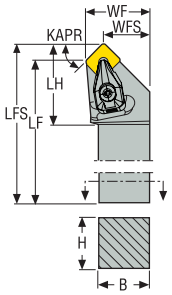
For size	Clamp kit	Insert clamping torque	Replacement blade	Torque key
				
...09	CD09-S09	2.0NM	T00-09P	T00-09P20
...12	CD12-S12	3.5NM	T00-15P	T00-15P35
...15	CD16-S16	6.0NM	T00T-20P	T00T-20P60
...19	CD19-S19	6.0NM	T00T-20P	T00T-20P60

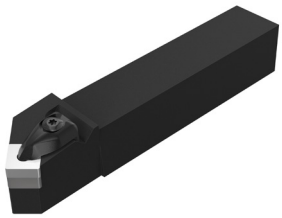
DSSNR/L – Toolholders for inserts SNGA, SNGN, SNMA, SNMG, SNMM, SNMN, SNMP – Inch

DSSNR/L
KAPR = 45,0 °



DSSNR/L





CTWS



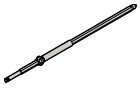
- Right-hand version shown
- For inserts program, see page(s) 567, 568, 569, 570, 603, 604
- For holder code key, see page(s) 17-18
- Shim DSN434 for insert SN..44., to be ordered separately
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	LFS	WF	WFS	LH	KAPR°	GAMO°	LAMS°	Weight	CTWS
		inch	inch	inch	inch	inch	inch	inch				lbs	
DSSNR-16-4D	02565549	1.000	1.000	5.996	5.669	0.750	1.078	1.575	45,0	-6,0	-6,0	1.760	SN..1204.. *SN..43.*

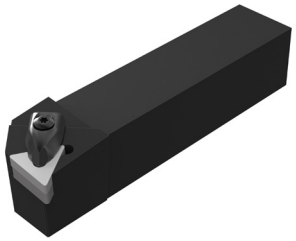
Spare Parts, included in delivery

For size	Clamp pin	Clamp screw	Floating wedge clamp	Insert shim	Shim/clamp key	Shim screw	Spring
							
..-4	FP2012	L85021-T15P	CD12-S	DSN120616	T15P-7	C04008-T15P	S6912

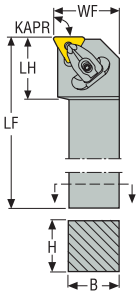
Accessories

For size	Clamp kit	Insert clamping torque	Replacement blade	Torque key
				
..-4	CD12-S12	3.5NM	T00-15P	T00-15P35

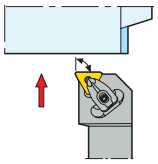
DTFNR/L..-M – Toolholders for inserts TNGA, TNMA, TNMG, TNMM – Metric



DTFNR/L..-M



DTFNR/L..-M
KAPR = 90,0 °



CTWS



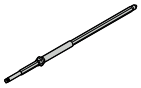
- Right-hand version shown
- For inserts program, see page(s) 574, 575, 576, 577, 608
- For holder code key, see page(s) 15-16
- Shim DTN220640 for insert TN..220432.., to be ordered separately
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF	LH	KAPR°	GAMO°	LAMS°	Weight	CTWS
		mm	mm	mm	mm	mm				kg	
DTFNR2020K16-M	02588210	8	8	152	31,75	30,0	90,0	-6,0	-6,0	0,4	TN..1604.. *TN..33.*
DTFNR2525M16-M	02588211	8	8	125	25,4	29,0	90,0	-6,0	-6,0	0,8	TN..1604.. *TN..33.*
DTFNR3225P16-M	02588212	20	20	125	25,4	29,0	90,0	-6,0	-6,0	1,2	TN..1604.. *TN..33.*
DTFNL2020K16-M	02588213	20	20	125	25,0	30,0	90,0	-6,0	-6,0	0,4	TN..1604.. *TN..33.*
DTFNL2525M16-M	02588214	8	8	125	25,4	29,0	90,0	-6,0	-6,0	0,8	TN..1604.. *TN..33.*
DTFNL3225P16-M	02588215	20	20	125	25,4	29,0	90,0	-6,0	-6,0	1,1	TN..1604.. *TN..33.*
DTFNR2525M22-M	02588216	25	25	150	32,0	30,0	90,0	-6,0	-6,0	0,8	TN..2204.. *TN..43.*
DTFNR3232P22-M	02588218	32	32	170	40,0	32,0	90,0	-6,0	-6,0	1,4	TN..2204.. *TN..43.*
DTFNL2525M22-M	02588219	25	25	150	32,0	30,0	90,0	-6,0	-6,0	0,8	TN..2204.. *TN..43.*
DTFNL3232P22-M	02588221	32	32	170	40,0	32,0	90,0	-6,0	-6,0	1,4	TN..2204.. *TN..43.*

Spare Parts, included in delivery

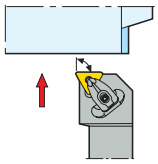
For size	Clamp pin	Clamp screw	Floating wedge clamp	Insert shim	Shim/clamp key	Shim screw	Spring
							
...16	FP1508	L84017-T09P	CD09-S	DTN160616	T09P-2	C03007-T09P	S5608
...16	FP1508	L84017-T10P	CD09-S	DTN160616	T10P-2	C03007-T09P	S5608
...22	FP2012	L85021-T15P	CD12-S	DTN220616	T15P-7	C04008-T15P	S6912

Accessories

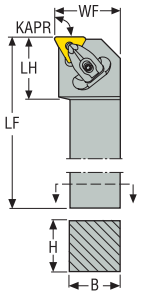
For size	Clamp kit	Insert clamping torque	Replacement blade	Torque key
				
...16	CD09-S09	2.0NM	T00-09P	T00-09P20
...22	CD12-S12	3.5NM	T00-15P	T00-15P35

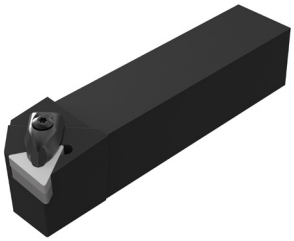
DTFNR/L – Toolholders for inserts TNGA, TNMA, TNMG, TNMM, TNMP – Inch

DTFNR/L
KAPR = 90,0 °



DTFNR/L





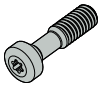
CTWS



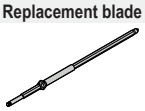
- Right-hand version shown
- For inserts program, see page(s) 574, 575, 576, 577, 608
- For holder code key, see page(s) 17-18
- Shim DTN220640 for insert TN..220432.., to be ordered separately
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF	LH	KAPR°	GAMO°	LAMS°	Weight	CTWS
		inch	inch	inch	inch	inch				lbs	
DTFNR-16-3D	02880414	0.315	0.315	4.921	1.000	1.142	90,0	-6,0	-6,0	1.760	TN..1604.. *TN..33.*
DTFNR-16-4D	02565878	1.000	1.000	6.000	1.250	1.378	90,0	-6,0	-6,0	1.760	TN..2204.. *TN..43.*
DTFNL-16-4D	02565880	1.000	1.000	6.000	1.250	1.378	90,0	-6,0	-6,0	1.760	TN..2204.. *TN..43.*
DTFNL-20-4D	02565882	1.250	1.250	6.000	1.500	1.378	90,0	-6,0	-6,0	2.650	TN..2204.. *TN..43.*

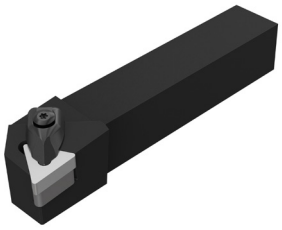
Spare Parts, included in delivery

For size	Clamp pin	Clamp screw	Floating wedge clamp	Insert shim	Shim/clamp key	Shim screw	Spring
							
..-3	FP1508	L84017-T10P	CD09-S	DTN160616	T10P-2	C03007-T09P	S5608
..-4	FP2012	L85021-T15P	CD12-S	DTN220616	T15P-7	C04008-T15P	S6912

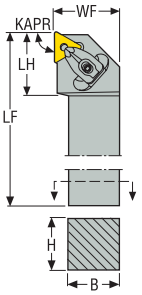
Accessories

For size	Clamp kit	Insert clamping torque	Replacement blade	Torque key
				
..-3	CD09-S09	2.0NM	T00-09P	T00-09P20
..-4	CD12-S12	3.5NM	T00-15P	T00-15P35

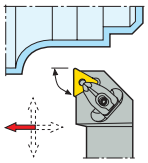
DTGNR/L..-M – Toolholders for inserts TNGA, TNMA, TNMG, TNMM – Metric



DTGNR/L..-M



DTGNR/L..-M
KAPR = 90,0 °



CTWS



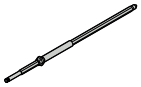
- Right-hand version shown
- For inserts program, see page(s) 574, 575, 576, 577, 608
- For holder code key, see page(s) 15-16
- Shim DTN220640 for insert TN..220432.., to be ordered separately
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF	LH	KAPR°	GAMO°	LAMS°	Weight	CTWS
		mm	mm	mm	mm	mm				kg	
DTGNR2020K16-M	02588200	20	20	125	25,0	29,0	90,0	-6,0	-6,0	0,5	TN..1604.. *TN..33.*
DTGNR2525M16-M	02588201	25	25	150	32,0	30,0	90,0	-6,0	-6,0	0,8	TN..1604.. *TN..33.*
DTGNL2020K16-M	02588202	20	20	125	25,0	29,0	90,0	-6,0	-6,0	0,5	TN..1604.. *TN..33.*
DTGNL2525M16-M	02588203	25	25	150	32,0	30,0	90,0	-6,0	-6,0	0,8	TN..1604.. *TN..33.*
DTGNR2525M22-M	02588204	25	25	150	32,0	31,0	90,0	-6,0	-6,0	0,8	TN..2204.. *TN..43.*
DTGNR3232P22-M	02588206	32	32	170	40,0	32,0	90,0	-6,0	-6,0	1,4	TN..2204.. *TN..43.*
DTGNL2525M22-M	02588207	25	25	150	32,0	31,0	90,0	-6,0	-6,0	0,8	TN..2204.. *TN..43.*
DTGNL3232P22-M	02588209	32	32	170	40,0	32,0	90,0	-6,0	-6,0	1,4	TN..2204.. *TN..43.*

Spare Parts, included in delivery

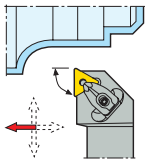
For size	Clamp pin	Clamp screw	Floating wedge clamp	Insert shim	Shim/clamp key	Shim screw	Spring
							
...16	FP1508	L84017-T09P	CD09-S	DTN160616	T09P-2	C03007-T09P	S5608
...16	FP1508	L84017-T10P	CD09-S	DTN160616	T10P-2	C03007-T09P	S5608
...22	FP2012	L85021-T15P	CD12-S	DTN220616	T15P-7	C04008-T15P	S6912

Accessories

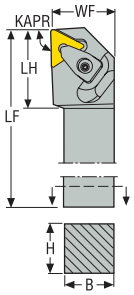
For size	Clamp kit	Insert clamping torque	Replacement blade	Torque key
				
...16	CD09-S09	2.0NM	T00-09P	T00-09P20
...22	CD12-S12	3.5NM	T00-15P	T00-15P35

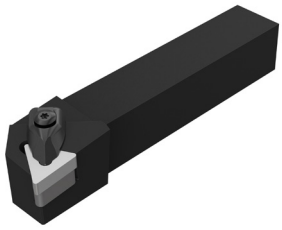
DTGNR/L – Toolholders for inserts TNGA, TNMA, TNMG, TNMM, TNMP – Inch

DTGNR/L
KAPR = 90,0 °



DTGNR/L





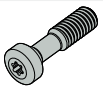
CTWS



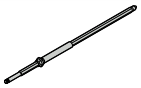
- Right-hand version shown
- For inserts program, see page(s) 574, 575, 576, 577, 608
- For holder code key, see page(s) 17-18
- Shim DTN220640 for insert TN..220432.., to be ordered separately
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF	LH	KAPR°	GAMO°	LAMS°	Weight	CTWS
		inch	inch	inch	inch	inch				lbs	
DTGNR-12-3B	02565562	0.750	0.750	4.500	1.000	1.181	90,0	-6,0	-6,0	0.880	TN..1604.. *TN..33.*
DTGNL-12-3B	02565564	0.750	0.750	4.500	1.000	1.181	90,0	-6,0	-6,0	0.880	TN..1604.. *TN..33.*
DTGNR-16-4D	02565566	1.000	1.000	6.000	1.250	1.378	90,0	-6,0	-6,0	1.760	TN..2204.. *TN..43.*
DTGNR-20-4D	02565567	1.250	1.250	6.000	1.500	1.378	90,0	-6,0	-6,0	2.870	TN..2204.. *TN..43.*
DTGNL-16-4D	02565568	1.000	1.000	6.000	1.250	1.378	90,0	-5,0	-6,0	1.980	TN..2204.. *TN..43.*

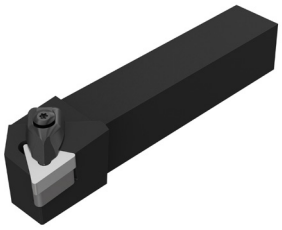
Spare Parts, included in delivery

For size	Clamp pin	Clamp screw	Floating wedge clamp	Insert shim	Shim/clamp key	Shim screw	Spring
							
..-3	FP1508	L84017-T10P	CD09-S	DTN160616	T10P-2	C03007-T09P	S5608
..-4	FP2012	L85021-T15P	CD12-S	DTN220616	T15P-7	C04008-T15P	S6912

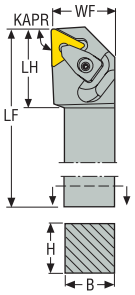
Accessories

For size	Clamp kit	Insert clamping torque	Replacement blade	Torque key
				
..-3	CD09-S09	2.0NM	T00-09P	T00-09P20
..-4	CD12-S12	3.5NM	T00-15P	T00-15P35

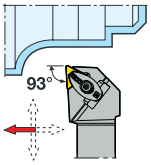
DTJNR/L – Toolholders for inserts TNGA, TNMA, TNMG, TNMM, TNMP, TNMX – Inch



DTJNR/L



DTJNR/L
KAPR = 93,0 °



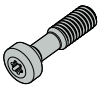
CTWS



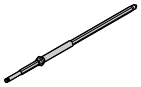
- Right-hand version shown
- For inserts program, see page(s) 574, 575, 576, 577, 608, 611
- For holder code key, see page(s) 17-18
- Shim DTN220640 for insert TN..220432.., to be ordered separately
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF	LH	KAPR°	GAMO°	LAMS°	Weight	CTWS
		inch	inch	inch	inch	inch				lbs	
DTJNR-12-3B	02565574	0.750	0.750	4.500	1.000	1.181	93,0	-6,0	-6,0	0.880	TN..1604.. *TN..33.*
DTJNR-16-3D	02565575	1.000	1.000	6.000	1.250	1.181	93,0	-6,0	-6,0	1.980	TN..1604.. *TN..33.*
DTJNL-12-3B	02565576	0.750	0.750	4.500	1.000	1.181	93,0	-6,0	-6,0	0.880	TN..1604.. *TN..33.*
DTJNL-16-3D	02565577	1.000	1.000	6.000	1.250	1.181	93,0	-6,0	-6,0	1.980	TN..1604.. *TN..33.*
DTJNR-16-4D	02565578	1.000	1.000	6.000	1.250	1.378	93,0	-6,0	-6,0	1.760	TN..2204.. *TN..43.*
DTJNR-20-4D	02565579	1.250	1.250	6.000	1.500	1.378	93,0	-6,0	-6,0	2.870	TN..2204.. *TN..43.*
DTJNL-16-4D	02565580	1.000	1.000	6.000	1.250	1.378	93,0	-6,0	-6,0	1.760	TN..2204.. *TN..43.*
DTJNL-20-4D	02565581	1.250	1.250	6.000	1.500	1.378	93,0	-6,0	-6,0	2.870	TN..2204.. *TN..43.*

Spare Parts, included in delivery

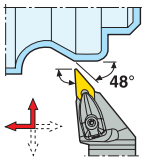
For size	Clamp pin	Clamp screw	Floating wedge clamp	Insert shim	Shim/clamp key	Shim screw	Spring
							
..-3	–	L84017-T10P	–	DTN160616	T10P-2	C03007-T09P	–
..-4	FP2012	L85021-T15P	CD12-S	DTN220616	T15P-7	C04008-T15P	S6912

Accessories

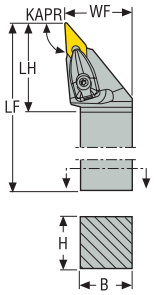
For size	Clamp kit	Insert clamping torque	Replacement blade	Torque key
				
..-3	CD09-S09	–	–	–
..-4	CD12-S12	3.5NM	T00-15P	T00-15P35

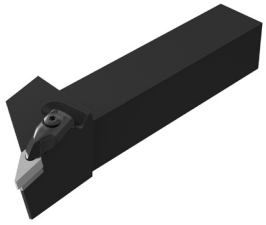
DVJNR/L – Toolholders for inserts VNGA, VNGG, VNGM, VNMA, VNMG, VNMU – Metric

DVJNR/L
KAPR = 93,0 °



DVJNR/L





CTWS



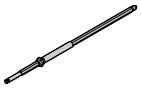
- Right-hand version shown
- For inserts program, see page(s) 584, 585, 613
- For holder code key, see page(s) 15-16
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF	LH	KAPR°	GAMO°	LAMS°	Weight	CTWS
		mm	mm	mm	mm	mm				kg	
DVJNR1616H13	02588228	8	8	100	20,0	42,0	93,0	-4,5	-13,5	0,3	VNMU1304.. *VNMU2.5.*
DVJNR2020K13	02564430	8	8	125	25,0	42,0	93,0	-4,5	-13,5	0,4	VNMU1304.. *VNMU2.5.*
DVJNR2525M13	02528621	8	8	150	32,0	42,0	93,0	-4,5	-13,5	0,8	VNMU1304.. *VNMU2.5.*
DVJNL1616H13	02588229	8	8	100	20,2	42,0	93,0	-4,5	-13,5	0,2	VNMU1304.. *VNMU2.5.*
DVJNL2020K13	02588230	8	8	125	25,0	42,0	93,0	-4,5	-13,5	0,4	VNMU1304.. *VNMU2.5.*
DVJNL2525M13	02588231	8	8	150	32,0	42,0	93,0	-4,5	-13,5	0,7	VNMU1304.. *VNMU2.5.*
DVJNR2020K16	02588232	20	20	125	25,0	41,0	93,0	-4,5	-13,5	0,5	VN..1604.. *VN..33.*
DVJNR2525M16	02588233	25	25	150	32,0	41,0	93,0	-4,5	-13,5	0,8	VN..1604.. *VN..33.*
DVJNR3225P16	02588234	32	25	170	32,0	41,0	93,0	-4,5	-13,5	1,0	VN..1604.. *VN..33.*
DVJNL2020K16	02588235	20	20	125	25,0	41,0	93,0	-4,5	-13,5	0,4	VN..1604.. *VN..33.*
DVJNL2525M16	02588236	25	25	150	32,0	41,0	93,0	-4,5	-13,5	0,8	VN..1604.. *VN..33.*
DVJNL3225P16	02576463	32	25	170	32,0	41,0	93,0	-4,5	-13,5	1,0	VN..1604.. *VN..33.*

Spare Parts, included in delivery

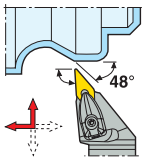
For size	Clamp pin	Clamp screw	Floating wedge clamp	Insert shim	Shim/clamp key	Shim screw	Spring
							
...13	FP1508	L84017-T09P	CD08-S	PVN130308	T09P-2	CS5008-T09P	S5608
...13	FP1508	L84017-T10P	CD08-S	PVN130308	T10P-2	CS5008-T09P	S5608
...16	FP2012	L85021-T15P	CD19-S-V16	DVN160310	T15P-7	C03508-T15P	S6912

Accessories

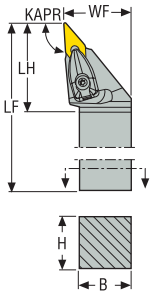
For size	Clamp kit	Insert clamping torque	Replacement blade	Torque key
				
...13	CD08-V13	2.0NM	T00-09P	T00-09P20
...16	CD19-V16	3.5NM	T00-15P	T00-15P35

DVJNR/L – Toolholders for inserts VNGA, VNGM, VNGP, VNMA, VNMG, VNMP, VNMU – Inch

DVJNR/L
KAPR = 93,0 °



DVJNR/L





CTWS



- Right-hand version shown
- For inserts program, see page(s) 584, 585, 613
- For holder code key, see page(s) 15-16
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF	LH	KAPR°	GAMO°	LAMS°	Weight	CTWS
		inch	inch	inch	inch	inch				lbs	
DVJNR-12-3B	02822861	0.750	0.750	4.500	1.000	1.772	93,0	-4,5	-13,5	0.880	VN..1604.. *VN..33.*
DVJNR-16-3C	02822863	1.000	1.000	5.000	1.250	1.772	93,0	-4,5	-13,5	1.320	VN..1604.. *VN..33.*
DVJNR-20-3D	02822866	0.750	0.750	4.500	1.000	1.772	93,0	-4,5	-13,5	2.430	VN..1604.. *VN..33.*
DVJNL-12-3B	02822862	0.750	0.750	4.500	1.000	1.772	93,0	-4,5	-13,5	0.880	VN..1604.. *VN..33.*
DVJNL-16-3C	02822864	1.000	1.000	5.000	1.250	1.772	93,0	-4,5	-13,5	1.320	VN..1604.. *VN..33.*
DVJNL-20-3D	02822867	1.250	1.250	6.000	1.500	1.654	93,0	-4,5	-13,5	2.430	VN..1604.. *VN..33.*

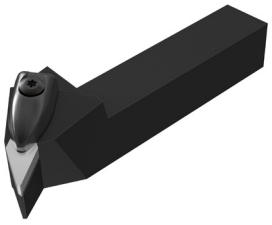
Spare Parts, included in delivery

For size	Clamp pin	Clamp screw	Floating wedge clamp	Insert shim	Shim/clamp key	Shim screw	Spring
							
..-3	FP2012	L85021-T15P	CD19-S-V16	DVN160310	T15P-7	C03508-T15P	S6912

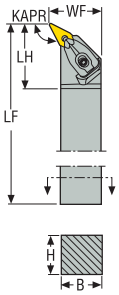
Accessories

For size	Clamp kit	Insert clamping torque	Replacement blade	Torque key
				
..-3	CD19-V16	3.5NM	T00-15P	T00-15P35

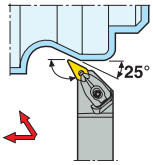
DVPNR/L – Toolholders for inserts VNGA, VNGG, VNGM, VNMA, VNMG – Metric



DVPNR/L



DVPNR/L
KAPR = 117,5 °



CTWS



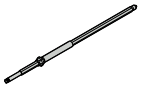
- Right-hand version shown
- For inserts program, see page(s) 584, 585, 613
- For holder code key, see page(s) 15-16
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF	LH	KAPR°	GAMO°	LAMS°	Weight	CTWS
		mm	mm	mm	mm	mm				kg	
DVPNR2020K16	02588222	20	20	125	25,0	42,0	117,5	-4,5	-13,5	0,5	VN..1604.. *VN..33.*
DVPNR2525M16	02588223	25	25	150	32,0	41,0	117,5	-4,5	-13,5	0,8	VN..1604.. *VN..33.*
DVPNR3232P16	02588224	32	32	170	40,0	41,0	117,5	-4,5	-13,5	1,4	VN..1604.. *VN..33.*
DVPNL2020K16	02588225	20	20	125	25,0	42,0	117,5	-4,5	-13,5	0,5	VN..1604.. *VN..33.*
DVPNL2525M16	02588226	25	25	150	32,0	41,0	117,5	-4,5	-13,5	0,8	VN..1604.. *VN..33.*
DVPNL3232P16	02588227	32	32	170	40,0	41,0	117,5	-4,5	-13,5	1,4	VN..1604.. *VN..33.*

Spare Parts, included in delivery

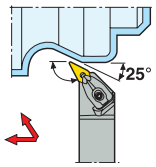
For size	Clamp pin	Clamp screw	Floating wedge clamp	Insert shim	Shim/clamp key	Shim screw	Spring
							
...16	FP2012	L85021-T15P	CD19-S-V16	DVN160310	T15P-7	C03508-T15P	S6912

Accessories

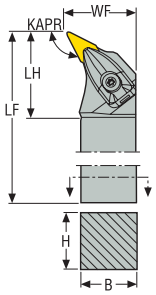
For size	Clamp kit	Insert clamping torque	Replacement blade	Torque key
				
...16	CD19-V16	3.5NM	T00-15P	T00-15P35

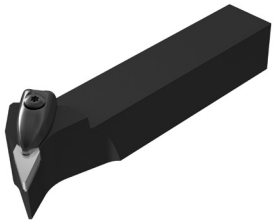
DVPNR/L – Toolholders for inserts VNGA, VNGM, VNGP, VNMA, VNMG, VNMP, VNMU – Inch

DVPNR/L
KAPR = 117,5 °



DVPNR/L





CTWS



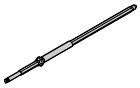
- Right-hand version shown
- For inserts program, see page(s) 584, 585, 613
- For holder code key, see page(s) 17-18
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF	LH	KAPR°	GAMO°	LAMS°	Weight	CTWS
		inch	inch	inch	inch	inch				lbs	
DVPNR-16-3D	02880417	0.996	0.996	6.000	1.250	1.772	117,5	-4,0	-12,5	1.760	VN..1604.. *VN..33.*
DVPNL-16-3D	02880415	0.996	0.996	6.000	1.250	1.772	117,5	-4,0	-12,5	1.760	VN..1604.. *VN..33.*

Spare Parts, included in delivery

For size	Clamp pin	Clamp screw	Floating wedge clamp	Insert shim	Shim/clamp key	Shim screw	Spring
							
..-3	FP2012	L85021-T15P	CD19-S-V16	DVN160310	T15P-7	C03508-T15P	S6912

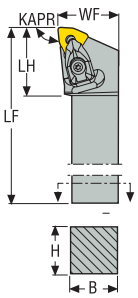
Accessories

For size	Clamp kit	Insert clamping torque	Replacement blade	Torque key
				
..-3	CD19-V16	3.5NM	T00-15P	T00-15P35

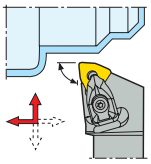
DWLNR/L – Toolholders for inserts WNGA, WNGG, WNMA, WNMG, WNMM – Metric



DWLNR/L



DWLNR/L
KAPR = 95,0 °



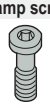
CTWS



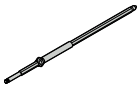
- Right-hand version shown
- For inserts program, see page(s) 586, 587, 588, 589, 614
- For holder code key, see page(s) 15-16
- * Use the right shim & the right screw for the selected insert. For details, see page 100
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF	LH	KAPR°	GAMO°	LAMS°	Weight	CTWS
		mm	mm	mm	mm	mm				kg	
DWLNR1616H06	02588237	16	16	100	20,0	31,0	95,0	-6,0	-6,0	0,3	WN..0604.. *WN..33.*
DWLNR2020K06	00038364	20	20	125	25,0	31,0	95,0	-6,0	-6,0	0,4	WN..0604.. *WN..33.*
DWLNR2525M06	00038365	25	25	150	32,0	30,0	95,0	-6,0	-6,0	0,8	WN..0604.. *WN..33.*
DWLNR3232P06	02588238	32	32	170	40,0	32,0	95,0	-6,0	-6,0	1,4	WN..0604.. *WN..33.*
DWLNL1616H06	02588239	16	16	100	20,0	31,0	95,0	-6,0	-6,0	0,3	WN..0604.. *WN..33.*
DWLNL2020K06	00038361	20	20	125	25,0	31,0	95,0	-6,0	-6,0	0,4	WN..0604.. *WN..33.*
DWLNL2525M06	00038362	25	25	150	32,0	30,0	95,0	-6,0	-6,0	0,8	WN..0604.. *WN..33.*
DWLNL3232P06	02588240	32	32	170	40,0	32,0	95,0	-6,0	-6,0	1,4	WN..0604.. *WN..33.*
DWLNR2020K08	02588241	20	20	125	25,0	31,0	95,0	-6,0	-6,0	0,5	WN..0804-WN..0806* *WN..43-WN..44**
DWLNR2525M08	00038372	25	25	150	32,0	35,0	95,0	-6,0	-6,0	0,8	WN..0804-WN..0806* *WN..43-WN..44**
DWLNR3232P08	00038374	32	32	170	40,0	35,0	95,0	-6,0	-6,0	1,4	WN..0804-WN..0806* *WN..43-WN..44**
DWLNL2020K08	02588242	20	20	125	25,0	31,0	95,0	-6,0	-6,0	0,4	WN..0804-WN..0806* *WN..43-WN..44**
DWLNL2525M08	00038368	25	25	150	32,0	35,0	95,0	-6,0	-6,0	0,8	WN..0804-WN..0806* *WN..43-WN..44**
DWLNL3232P08	00038370	32	32	170	40,0	35,0	95,0	-6,0	-6,0	1,4	WN..0804-WN..0806* *WN..43-WN..44**

Spare Parts, included in delivery

For size	Clamp pin	Clamp screw	Floating wedge clamp	Insert shim	Shim/clamp key	Shim screw	Spring
							
...06	FP1508	L84017-T09P	CD09-S	DWN060310	T09P-2	C03007-T09P	S5608
...06	FP1508	L84017-T10P	CD09-S	DWN060310	T10P-2	C03007-T09P	S5608
...08	FP2012	L85021-T15P	CD12-S	DWN080416	T15P-7	C04008-T15P	S6912

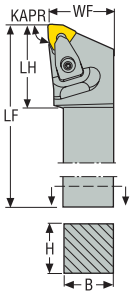
Accessories

For size	Clamp kit	Insert clamping torque	Replacement blade	Torque key
				
...06	CD09-S09	2.0NM	T00-09P	T00-09P20
...08	CD12-S12	3.5NM	T00-15P	T00-15P35

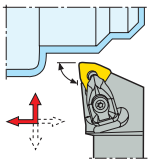
DWLNR/L – Toolholders for inserts WNGA, WNGP, WNMA, WNMG, WNMM, WNMP – Inch



DWLNR/L



DWLNR/L
KAPR = 95,0 °



CTWS



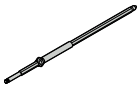
- Right-hand version shown
- For inserts program, see page(s) 586, 587, 588, 589, 614
- For holder code key, see page(s) 17-18
- * Use the right shim & the right screw for the selected insert. For details, see page 100
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF	LH	KAPR°	GAMO°	LAMS°	Weight	CTWS
		inch	inch	inch	inch	inch				lbs	
DWLNR-10-3B	02880420	0.625	0.625	4.500	0.875	1.181	95,0	-6,0	-6,0	0.660	WN..0604.. *WN..33.*
DWLNR-12-3B	02565594	0.750	0.750	4.500	1.000	1.260	95,0	-6,0	-6,0	0.880	WN..0604.. *WN..33.*
DWLNR-16-3D	02565596	1.000	1.000	6.000	1.250	1.260	95,0	-6,0	-6,0	1.760	WN..0604.. *WN..33.*
DWLNL-10-3B	02880419	0.625	0.625	4.500	0.875	1.181	95,0	-6,0	-6,0	0.660	WN..0604.. *WN..33.*
DWLNL-12-3B	02565598	0.750	0.750	4.500	1.000	1.260	95,0	-6,0	-6,0	0.880	WN..0604.. *WN..33.*
DWLNL-16-3D	02565600	1.000	1.000	6.000	1.250	1.260	95,0	-6,0	-6,0	1.760	WN..0604.. *WN..33.*
DWLNR-12-4B	02565602	0.750	0.750	4.500	1.000	1.378	95,0	-6,0	-6,0	0.880	WN..0804-WN..0806* *WN..43-WN..44**
DWLNR-16-4D	02569286	1.000	1.000	6.000	1.250	1.378	95,0	-6,0	-6,0	1.760	WN..0804-WN..0806* *WN..43-WN..44**
DWLNR-16-4D-C	02605007	1.000	1.000	6.000	1.250	1.378	95,0	-6,0	-6,0	1.760	WN..0804-WN..0806* *WN..43-WN..44**
DWLNR-20-4D	02565605	1.250	1.250	6.000	1.500	1.378	95,0	-6,0	-6,0	2.650	WN..0804-WN..0806* *WN..43-WN..44**
DWLNL-12-4B	02565606	0.750	0.750	4.500	1.000	1.378	95,0	-6,0	-6,0	0.880	WN..0804-WN..0806* *WN..43-WN..44**
DWLNL-16-4D	02569287	1.000	1.000	6.000	1.250	1.378	95,0	-6,0	-6,0	1.760	WN..0804-WN..0806* *WN..43-WN..44**
DWLNL-16-4D-C	02605010	1.000	1.000	6.000	1.250	1.378	95,0	-6,0	-6,0	1.760	WN..0804-WN..0806* *WN..43-WN..44**
DWLNL-20-4D	02565609	1.250	1.250	6.000	1.500	1.378	95,0	-6,0	-6,0	2.650	WN..0804-WN..0806* *WN..43-WN..44**

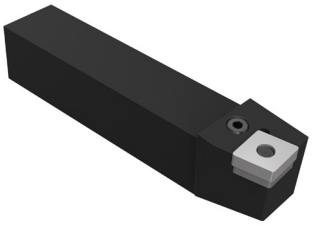
Spare Parts, included in delivery

For size	Clamp pin	Clamp screw	Floating wedge clamp	Insert shim	Shim/clamp key	Shim screw	Spring
							
..-3	FP1508	L84017-T10P	CD09-S	DWN060310	T10P-2	C03007-T09P	S5608
..-3	FP1508	L84017-T09P	CD09-S	DWN060310	T09P-2	C03007-T09P	S5608
..-4	FP2012	L85021-T15P	CD12-S	DWN080416	T15P-7	C04008-T15P	S6912

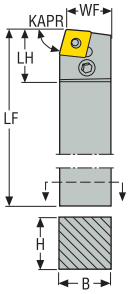
Accessories

For size	Clamp kit	Insert clamping torque	Replacement blade	Torque key
				
..-3	CD09-S09	2.0NM	T00-09P	T00-09P20
..-4	CD12-S12	3.5NM	T00-15P	T00-15P35

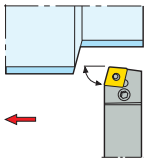
PCBNR/L – Toolholders for inserts CNGA, CNGG, CNMA, CNMG, CNMM – Metric



PCBNR/L



PCBNR/L
KAPR = 75,0 °



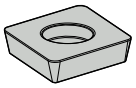
CTWS



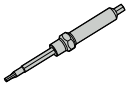
- Right-hand version shown
- For inserts program, see page(s) 546, 547, 548, 549, 550, 551, 593, 594
- For holder code key, see page(s) 15-16
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF	LH	KAPR°	GAMO°	LAMS°	Weight	CTWS
		mm	mm	mm	mm	mm				kg	
PCBNR2525M12	00038382	25	25	150	22,0	26,0	75,0	-6,0	-6,0	0,8	CN..1204.. *CN..43.*
PCBNL2525M12	00038383	25	25	150	22,0	26,0	75,0	-6,0	-6,0	0,8	CN..1204.. *CN..43.*
PCBNR3232P19	02583736	32	32	170	27,0	37,0	75,0	-6,0	-6,0	1,3	CN..1906.. *CN..64.*
PCBNR4040S19	02803939	40	40	250	35,0	38,0	75,0	-6,0	-6,0	3,1	CN..1906.. *CN..64.*
PCBNL3232P19	00734298	32	32	170	27,0	37,0	75,0	-6,0	-6,0	1,3	CN..1906.. *CN..64.*
PCBNL4040S19	02803940	40	40	250	35,0	38,0	75,0	-6,0	-6,0	3,0	CN..1906.. *CN..64.*

Spare Parts, included in delivery

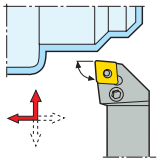
For size	Insert lever	Insert shim	Lever key	Lever screw	Punch	Shim pin
						
...12	PP4713	PCN120308	3SMS795	LS0818	MP0912	RP6757
...19	PP7521	PCN190416	4SMS795	LS1027	MP1519	RP9811

Accessories

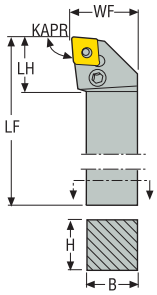
For size	Insert clamping torque	Replacement blade	Torque key
			
...12	–	–	–
...19	5.0NM	H00T-4.0	H00T-4050

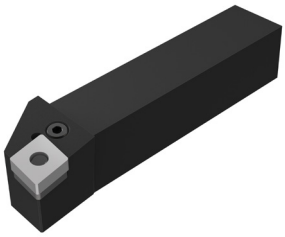
PCLNR/L – Toolholders for inserts CNGA, CNGG, CNMA, CNMG, CNMM – Metric

PCLNR/L
KAPR = 95,0 °



PCLNR/L





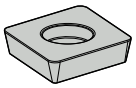
CTWS



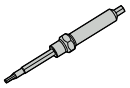
- Right-hand version shown
- For inserts program, see page(s) 546, 547, 548, 549, 550, 551, 593, 594
- For holder code key, see page(s) 15-16
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF	LH	KAPR°	GAMO°	LAMS°	Weight	CTWS
		mm	mm	mm	mm	mm				kg	
PCLNR2020K12	00038376	20	20	125	25,0	26,0	95,0	-6,0	-6,0	0,4	CN..1204.. *CN..43.*
PCLNR2525M12	00038377	25	25	150	32,0	26,0	95,0	-6,0	-6,0	0,8	CN..1204.. *CN..43.*
PCLNR3225P12	00038378	32	25	170	32,0	26,0	95,0	-6,0	-6,0	1,1	CN..1204.. *CN..43.*
PCLNL2020K12	00038379	20	20	125	25,0	26,0	95,0	-6,0	-6,0	0,4	CN..1204.. *CN..43.*
PCLNL2525M12	00038380	25	25	150	32,0	26,0	95,0	-6,0	-6,0	0,8	CN..1204.. *CN..43.*
PCLNL3225P12	00038381	32	25	170	32,0	26,0	95,0	-6,0	-6,0	1,1	CN..1204.. *CN..43.*
PCLNR2525M16	02903947	25	25	150	32,0	33,0	95,0	-6,0	-6,0	0,8	CN..1606.. *CN..54.*
PCLNR3232P16	02862002	32	32	170	40,0	33,0	95,0	-6,0	-6,0	1,4	CN..1606.. *CN..54.*
PCLNL2525M16	02903946	25	25	150	32,0	33,0	95,0	-6,0	-6,0	0,8	CN..1606.. *CN..54.*
PCLNL3232P16	02871184	32	32	170	40,0	33,0	95,0	-6,0	-6,0	1,4	CN..1606.. *CN..54.*
PCLNR3232P19	00734301	32	32	170	40,0	37,0	95,0	-6,0	-6,0	1,3	CN..1906.. *CN..64.*
PCLNR4040S19	02468695	40	40	250	50,0	38,0	95,0	-6,0	-6,0	1,5	CN..1906.. *CN..64.*
PCLNL3232P19	00734302	32	32	170	40,0	37,0	95,0	-6,0	-6,0	1,4	CN..1906.. *CN..64.*
PCLNL4040S19	02468696	40	40	250	50,0	38,0	95,0	-6,0	-6,0	3,1	CN..1906.. *CN..64.*
PCLNR4040S25	02450797	40	40	250	50,2	48,0	95,0	-6,0	-6,0	3,1	CN..2509.. *CN..86.*
PCLNL4040S25	02766744	40	40	250	50,2	48,0	95,0	-6,0	-6,0	3,1	CN..2509.. *CN..86.*

Spare Parts, included in delivery

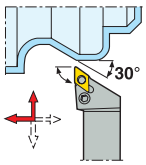
For size	Insert lever	Insert shim	Lever key	Lever screw	Punch	Shim pin
						
...12	PP4713	PCN120308	3SMS795	LS0818	MP0912	RP6757
...16	PP6017	PCN160412	3SMS795	LS0820	MP1519	RP8286
...19	PP7521	PCN190416	4SMS795	LS1027	MP1519	RP9811
...25	PP1325	PCN250620	5SMS795	LS1236	MP25	RP1312

Accessories

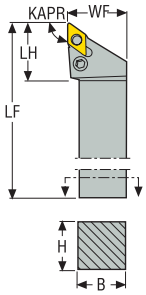
For size	Insert clamping torque	Replacement blade	Torque key
			
...12	–	–	–
...16	–	–	–
...19	5.0NM	H00T-4.0	H00T-4050
...25	5.0NM	H00T-5.0	H00T-5050

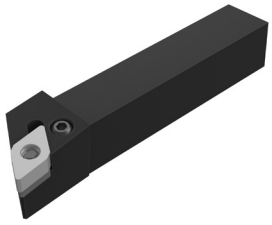
PDJNR/L – Toolholders for inserts DNGA, DNGG, DNGM, DNMA, DNMG, DNMM, DNMU, DNMX – Metric

PDJNR/L
KAPR = 93,0 °



PDJNR/L





CTWS



- Right-hand version shown
- For inserts program, see page(s) 556, 557, 558, 559, 311, 312, 598
- For holder code key, see page(s) 15-16
- * Use the right shim & the right screw for the selected insert. For details, see page 99
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF	LH	KAPR°	GAMO°	LAMS°	Weight	CTWS
		mm	mm	mm	mm	mm				kg	
PDJNR1616H11	00038384	16	16	100	20,0	24,0	93,0	-6,0	-6,0	0,3	DNMU1104.. *DNMU33.*
PDJNR2020K11	00038385	20	20	125	25,0	30,0	93,0	-6,0	-7,0	0,4	DNMU1104.. *DNMU33.*
PDJNR2525M11	00038386	25	25	150	32,0	30,0	93,0	-6,0	-7,0	0,8	DNMU1104.. *DNMU33.*
PDJNR3225P11	00038387	32	25	170	32,0	30,0	93,0	-6,0	-7,0	1,1	DNMU1104.. *DNMU33.*
PDJNL1616H11	00038388	16	16	100	20,0	24,0	93,0	-6,0	-6,0	0,2	DNMU1104.. *DNMU33.*
PDJNL2020K11	00038389	20	20	125	25,0	30,0	93,0	-6,0	-7,0	0,4	DNMU1104.. *DNMU33.*
PDJNL2525M11	00038390	25	25	150	32,0	30,0	93,0	-6,0	-7,0	0,8	DNMU1104.. *DNMU33.*
PDJNL3225P11	00038391	32	25	170	32,0	30,0	93,0	-6,0	-7,0	1,1	DNMU1104.. *DNMU33.*
PDJNR2020K15	00038392	20	20	125	25,0	36,0	93,0	-6,0	-7,0	0,4	DN..1504-DN..1506* *DN..43-DN..44**
PDJNR2525M15	00038393	25	25	150	32,0	36,0	93,0	-6,0	-7,0	0,8	DN..1504-DN..1506* *DN..43-DN..44**
PDJNR3225P15	00038394	32	25	170	32,0	36,0	93,0	-6,0	-7,0	1,1	DN..1504-DN..1506* *DN..43-DN..44**
PDJNL2020K15	00038395	20	20	125	25,0	36,0	93,0	-6,0	-7,0	0,4	DN..1504-DN..1506* *DN..43-DN..44**
PDJNL2525M15	00038396	25	25	150	32,0	36,0	93,0	-6,0	-7,0	0,8	DN..1504-DN..1506* *DN..43-DN..44**
PDJNL3225P15	00038397	32	25	170	32,0	36,0	93,0	-6,0	-7,0	1,1	DN..1504-DN..1506* *DN..43-DN..44**

Spare Parts, included in delivery

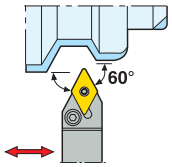
For size	Insert lever	Insert shim	Lever key	Lever screw	Punch	Shim pin
						
...11	PP3512	PDN110308	2.5SMS795	LS0616	MP0912	RP5153
...15	PP4716	PDN150308	3SMS795	LS0822	MP0912	RP6757

Accessories

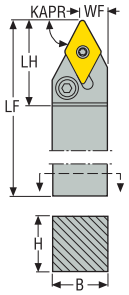
For size	Insert clamping torque	Torque key
		
...11	3.0NM	H00-2530
...15	–	–

PDNNR/L – Toolholders for inserts DNGA, DNGG, DNGM, DNMA, DNMG, DNMM, DNMU – Metric

PDNNR/L
KAPR = 63,0 °



PDNNR/L





CTWS



- Right-hand version shown
- For inserts program, see page(s) 556, 557, 558, 559, 597, 598
- For holder code key, see page(s) 15-16
- * Use the right shim & the right screw for the selected insert. For details, see page 99
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF	LH	KAPR°	GAMO°	LAMS°	Weight	CTWS
		mm	mm	mm	mm	mm				kg	
PDNNR1616H11	02411172	16	16	100	8,0	25,0	63,0	-6,0	-6,0	0,2	DNMU1104.. *DNMU33.*
PDNNR2020K11	75077811	20	20	125	10,0	25,0	63,0	-6,0	-6,0	0,4	DNMU1104.. *DNMU33.*
PDNNR2525M11	75077812	25	25	150	12,5	30,0	63,0	-6,0	-6,0	0,7	DNMU1104.. *DNMU33.*
PDNNL1616H11	02411173	16	16	100	8,0	25,0	63,0	-6,0	-6,0	0,3	DNMU1104.. *DNMU33.*
PDNNL2020K11	75079685	20	20	125	10,0	25,0	63,0	-6,0	-6,0	0,4	DNMU1104.. *DNMU33.*
PDNNL2525M11	75079686	25	25	150	12,5	30,0	63,0	-6,0	-6,0	0,7	DNMU1104.. *DNMU33.*
PDNNR2020K15	02411180	20	20	125	10,0	36,0	63,0	-6,0	-6,0	0,4	DN..1504-DN..1506* *DN..43-DN..44**
PDNNR2525M15	02411182	25	25	150	12,5	36,0	63,0	-6,0	-6,0	0,7	DN..1504-DN..1506* *DN..43-DN..44**
PDNNR3225P15	02411186	32	25	170	12,5	36,0	63,0	-6,0	-6,0	1,0	DN..1504-DN..1506* *DN..43-DN..44**
PDNNL2020K15	02411181	20	20	125	10,0	36,0	63,0	-6,0	-6,0	0,4	DN..1504-DN..1506* *DN..43-DN..44**
PDNNL2525M15	02411185	25	25	150	12,5	36,0	63,0	-6,0	-6,0	0,7	DN..1504-DN..1506* *DN..43-DN..44**
PDNNL3225P15	02411187	32	25	170	12,5	36,0	63,0	-6,0	-6,0	1,0	DN..1504-DN..1506* *DN..43-DN..44**

Spare Parts, included in delivery

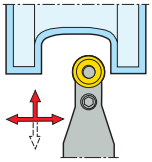
For size	Insert lever	Insert shim	Lever key	Lever screw	Punch	Shim pin
						
...11	PP3512	PDN110308	2.5SMS795	LS0616	MP0912	RP5153
...15	PP4716	PDN150308	3SMS795	LS0822	MP0912	RP6757

Accessories

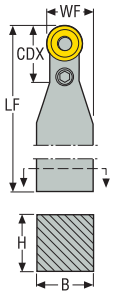
For size	Insert clamping torque	Torque key
		
...11	3.0NM	H00-2530
...15	–	–

PRDCN – Toolholders for inserts RCMX – Metric

PRDCN
KAPR = 45,0 °



PRDCN





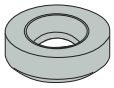
CTWS



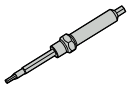
- Neutral version shown
- For inserts program, see page(s) 562, 563
- For holder code key, see page(s) 15-16
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF	CDX	KAPR°	GAMO°	LAMS°	Weight	CTWS
		mm	mm	mm	mm	mm				kg	
PRDCN3232P20	02751641	32	32	170	26,0	33,5	45,0	0,0	-8,0	1,2	RC..2006..
PRDCN4040S25	02674471	40	40	250	32,5	45,0	45,0	0,0	-8,0	2,9	RC..2507..
PRDCN5050T32	02616805	50	50	300	40,9	50,0	45,0	0,0	-8,0	5,3	RC..3209..

Spare Parts, included in delivery

For size	Insert lever	Insert shim	Lever key	Lever screw	Punch	Shim pin
						
...20	PP5620	PRN2004M0	3SMS795	LS0823	MP1519	RP8286
...25	PP6224	PRN2506M0	4SMS795	LS1030	MP1519	RP9811
...32	PP8030	PRN3206M0	5SMS795	LS1236	MP25	RP1312

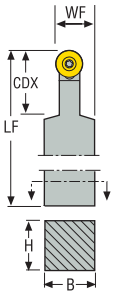
Accessories

For size	Insert clamping torque	Replacement blade	Torque key
			
...20	–	–	–
...25	5.0NM	H00T-4.0	H00T-4050
...32	–	–	–

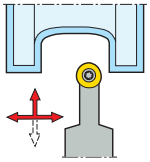
PROON – Toolholders for inserts RCMM – Inch



PROON



PROON
KAPR = 90,0 °



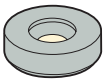
CTWS



- Neutral version shown
- For inserts program, see page(s) 562, 563
- For holder code key, see page(s) 17-18
- For ISO attribute explanation, see page 82

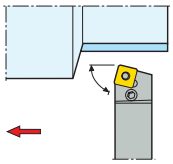
Designation	Item number	H	B	LF	WF	CDX	KAPR°	GAMO°	LAMS°	Weight	CTWS
		inch	inch	inch	inch	inch				lbs	
PROON-20-6	00015025	1.250	1.250	7.000	1.000	2.000	90,0	0,0	0,0	2.650	RC..1906 *RC..64*
PROON-20-8	00015030	1.250	1.250	10.000	1.125	2.500	90,0	0,0	0,0	4.190	RC..2506 *RC..84*
PROON-85-4	00015040	1.252	1.000	6.000	0.750	1.500	90,0	0,0	0,0	1.980	RC..120400 *RC..43*

Spare Parts, included in delivery

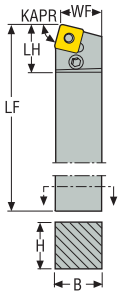
For size	Insert pin	Insert shim
		
..-6	PL-68	RS-63P
..-8	PL-68	RS-83P
..-4	PL-46	RS-43P

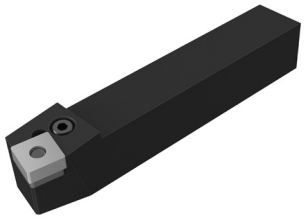
PSBNR/L – Toolholders for inserts SNGA, SNMA, SNMG, SNMM – Metric

PSBNR/L
KAPR = 75,0 °



PSBNR/L





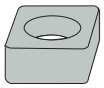
CTWS



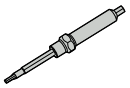
- Right-hand version shown
- For inserts program, see page(s) 567, 568, 569, 570, 603
- For holder code key, see page(s) 15-16
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF	LH	KAPR°	GAMO°	LAMS°	Weight	CTWS
		mm	mm	mm	mm	mm				kg	
PSBNR2020K12	00038404	20	20	125	20,3	26,0	75,0	-6,0	-6,0	0,4	SN..1204.. *SN..43.*
PSBNR2525M12	00038405	25	25	150	25,3	26,0	75,0	-6,0	-6,0	0,8	SN..1204.. *SN..43.*
PSBNR3225P12	00038406	32	25	170	25,3	26,0	75,0	-6,0	-6,0	1,1	SN..1204.. *SN..43.*
PSBNL2020K12	00038407	20	20	125	20,3	26,0	75,0	-6,0	-6,0	0,4	SN..1204.. *SN..43.*
PSBNL2525M12	00038408	25	25	150	25,3	26,0	75,0	-6,0	-6,0	0,8	SN..1204.. *SN..43.*
PSBNL3225P12	00038409	32	25	170	25,3	26,0	75,0	-6,0	-6,0	1,1	SN..1204.. *SN..43.*
PSBNR3232P19	02573597	32	32	170	27,0	37,0	75,0	-6,0	-6,0	1,3	SN..1906.. *SN..64.*
PSBNR4040S19	00045698	40	40	250	35,0	38,0	75,0	-6,0	-6,0	3,0	SN..1906.. *SN..64.*
PSBNL3232P19	02573603	32	32	170	27,0	37,0	75,0	-6,0	-6,0	1,5	SN..1906.. *SN..64.*
PSBNL4040S19	00045697	40	40	250	35,0	38,0	75,0	-6,0	-6,0	3,0	SN..1906.. *SN..64.*
PSBNR4040S25	02573594	40	40	250	35,2	48,0	75,0	-6,0	-6,0	3,1	SN..2507.. *SN..85.*
PSBNR5050S25	02415304	50	50	250	43,2	48,0	75,0	-6,0	-6,0	4,8	SN..2507.. *SN..85.*
PSBNL4040S25	02414516	40	40	250	35,2	48,0	75,0	-6,0	-6,0	3,1	SN..2507.. *SN..85.*
PSBNL5050S25	02415305	50	50	250	43,2	48,0	75,0	-6,0	-6,0	4,7	SN..2507.. *SN..85.*
PSBNR4040S2509	02785011	40	40	250	35,2	48,0	75,0	-6,0	-6,0	3,0	SN..2509.. *SN..86.*

Spare Parts, included in delivery

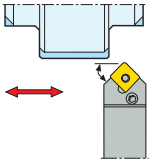
For size	Insert lever	Insert shim	Lever key	Lever screw	Punch	Shim pin
						
...12	PP4713	PSN120312	3SMS795	LS0818	MP0912	RP6757
...19	PP7521	PSN190412	4SMS795	LS1027	MP1519	RP9811
...25	PP1325	PSN250624	5SMS795	LS1236	MP25	RP1312
...2509	PP1325	PSN250624	5SMS795	LS1236	MP25	RP1312

Accessories

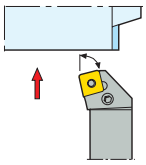
For size	Insert clamping torque 	Replacement blade 	Torque key 
...12	–	–	–
...19	5.0NM	H00T-4.0	H00T-4050
...25	5.0NM	H00T-5.0	H00T-5050
...2509	5.0NM	H00T-5.0	H00T-5050

PSDNN, PSKNR/L – Toolholders for inserts SNGA, SNMA, SNMG, SNMM – Metric

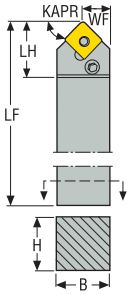
PSDNN
KAPR = 45,0 °



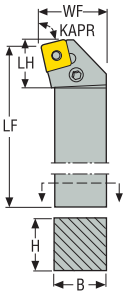
PSKNR/L
KAPR = 75,0 °



PSDNN



PSKNR/L





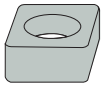
CTWS



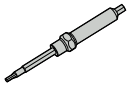
- PSDNN = Neutral version shown
- PSKNR/L = Right-hand version shown
- For inserts program, see page(s) 567, 568, 569, 570, 603
- For holder code key, see page(s) 15-16
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF	LH	KAPR°	GAMO°	LAMS°	Weight	CTWS
		mm	mm	mm	mm	mm				kg	
PSDNN2020K12	00038410	20	20	125	10,0	26,0	45,0	-7,0	-7,0	0,4	SN..1204.. *SN..43.*
PSDNN2525M12	00038411	25	25	150	12,5	26,0	45,0	-7,0	-7,0	0,7	SN..1204.. *SN..43.*
PSDNN3225P12	00038412	32	25	170	12,5	28,0	45,0	-7,0	-7,0	1,1	SN..1204.. *SN..43.*
PSDNN3232P19	00469420	32	32	170	16,0	40,0	45,0	-6,0	-6,0	1,3	SN..1906.. *SN..64.*
PSDNN4040S25	02414517	40	40	250	20,2	48,0	45,0	-6,0	-6,0	3,0	SN..2507.. *SN..85.*
PSKNR2020K12	00038413	20	20	125	25,0	23,0	75,0	-6,0	-6,0	0,5	SN..1204.. *SN..43.*
PSKNR2525M12	00038414	25	25	150	32,0	23,0	75,0	-6,0	-6,0	0,8	SN..1204.. *SN..43.*
PSKNL2020K12	00038416	20	20	125	25,0	23,0	75,0	-6,0	-6,0	0,4	SN..1204.. *SN..43.*
PSKNL2525M12	00038417	25	25	150	32,0	23,0	75,0	-6,0	-6,0	0,8	SN..1204.. *SN..43.*

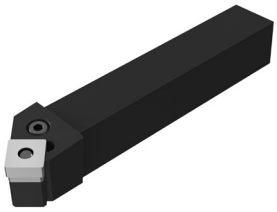
Spare Parts, included in delivery

For size	Insert lever	Insert shim	Lever key	Lever screw	Punch	Shim pin
						
...12	PP4713	PSN120312	3SMS795	LS0818	MP0912	RP6757
...19	PP7521	PSN190412	4SMS795	LS1027	MP1519	RP9811
...25	PP1325	PSN250624	5SMS795	LS1236	MP25	RP1312

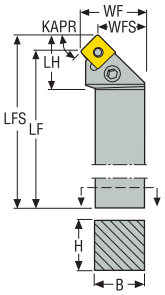
Accessories

For size	Insert clamping torque	Replacement blade	Torque key
			
...12	–	–	–
...19	5.0NM	H00T-4.0	H00T-4050
...25	5.0NM	H00T-5.0	H00T-5050

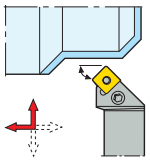
PSSNR/L – Toolholders for inserts SNGA, SNMA, SNMG, SNMM – Metric



PSSNR/L



PSSNR/L
KAPR = 45,0 °



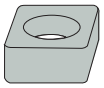
CTWS



- Right-hand version shown
- For inserts program, see page(s) 567, 568, 569, 570, 603
- For holder code key, see page(s) 15-16
- For ISO attribute explanation, see page 82

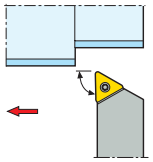
Designation	Item number	H	B	LF	LFS	WF	WFS	LH	KAPR°	GAMO°	LAMS°	Weight	CTWS
		mm	mm	mm	mm	mm	mm	mm				kg	
PSSNR2020K12	00038398	20	20	125	133,3	25,0	16,7	28,0	45,0	-8,0	0,0	0,5	SN..1204.. *SN..43.*
PSSNR2525M12	00038399	25	25	150	158,7	32,0	23,7	28,0	45,0	-8,0	0,0	0,8	SN..1204.. *SN..43.*
PSSNR3225P12	00038400	32	25	170	178,7	32,0	23,7	29,0	45,0	-8,0	0,0	1,1	SN..1204.. *SN..43.*
PSSNL2020K12	00038401	20	20	125	133,3	25,0	16,7	28,0	45,0	-8,0	0,0	0,5	SN..1204.. *SN..43.*
PSSNL2525M12	00038402	25	25	150	158,7	32,0	23,7	28,0	45,0	-8,0	0,0	0,8	SN..1204.. *SN..43.*
PSSNL3225P12	00038403	32	25	170	178,3	32,0	23,7	29,0	45,0	-8,0	0,0	1,1	SN..1204.. *SN..43.*

Spare Parts, included in delivery

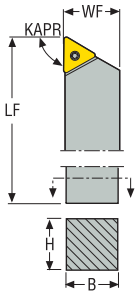
For size	Insert lever	Insert shim	Lever key	Lever screw	Punch	Shim pin
						
...12	PP4713	PSN120312	3SMS795	LS0818	MP0912	RP6757

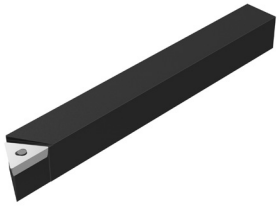
PTAPRS/LS – Toolholders for inserts TPMM – Inch

PTAPRS/LS
KAPR = 90,0 °



PTAPR/LS





CTWS



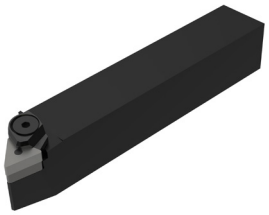
- Right-hand version shown
- For inserts program, see page(s) 579
- For holder code key, see page(s) 17-18
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF	KAPR°	GAMO°	LAMS°	Weight	CTWS
		inch	inch	inch	inch				lbs	
PTAPRS-8-2.5	00015715	0.500	0.500	4.500	0.512	90,0	5,0	0,0	0.440	TPMM1303.. *TPMM2.52.*
PTAPLS-8-2.5	00015720	0.500	0.500	4.500	0.512	90,0	5,0	0,0	0.440	TPMM1303.. *TPMM2.52.*

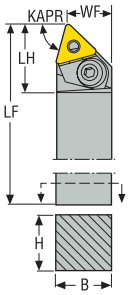
Spare Parts, included in delivery

For size	Insert pin
	
..-2.5	PL-2.53

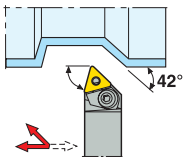
PTBNR/L – Toolholders for inserts TNGA, TNMA, TNMG, TNMM – Metric



PTBNR/L



PTBNR/L
KAPR = 75,0 °



CTWS



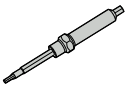
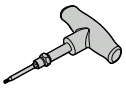
- Right-hand version shown
- For inserts program, see page(s) 574, 575, 576, 577, 608
- For holder code key, see page(s) 15-16
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF	LH	KAPR°	GAMO°	LAMS°	Weight	CTWS
		mm	mm	mm	mm	mm				kg	
PTBNR2525M16	00092429	25	25	150	22,0	26,0	75,0	-5,0	-6,0	0,7	TN..1604.. *TN..33.*
PTBNL2525M16	00092432	25	25	150	22,0	26,0	75,0	-5,0	-6,0	0,7	TN..1604.. *TN..33.*

Spare Parts, included in delivery

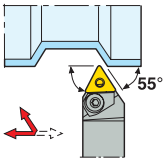
For size	Insert shim	Shim pin	Wedge clamp	Wedge key	Wedge screw
					
R...16	117.26-622	PP2009-T09P	110.26-641.1	3SMS795	117.26-655.1
L...16	117.26-622	PP2009-T09P	110.26-640.1	3SMS795	117.26-655.1

Accessories

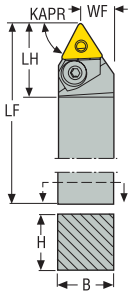
For size	Insert clamping torque	Replacement blade	Shim key	Torque key
				
R...16	5.0NM	H00T-3.0	T09P-2	H00T-3050
L...16	5.0NM	H00T-3.0	T09P-2	H00T-3050

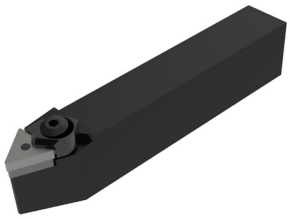
PTNNR/L – Toolholders for inserts TNGA, TNMA, TNMG, TNMM – Metric

PTNNR/L
KAPR = 63,0 °



PTNNR/L





CTWS



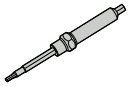
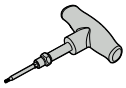
- Right-hand version shown
- For inserts program, see page(s) 574, 575, 576, 577, 608
- For holder code key, see page(s) 15-16
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF	LH	KAPR°	GAMO°	LAMS°	Weight	CTWS
		mm	mm	mm	mm	mm				kg	
PTNNR3225P16	00092433	32	25	170	13,0	28,0	63,0	-6,0	-5,0	1,0	TN..1604.. *TN..33.*
PTNNL3225P16	00092434	32	25	170	13,0	28,0	63,0	-6,0	-5,0	1,0	TN..1604.. *TN..33.*
PTNNR3225P22	00092435	32	25	170	13,0	34,0	63,0	-6,0	-5,0	1,0	TN..2204.. *TN..43.*
PTNNL3225P22	00092438	32	25	170	13,0	34,0	63,0	-6,0	-5,0	1,0	TN..2204.. *TN..43.*

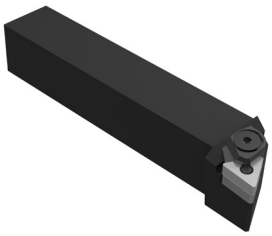
Spare Parts, included in delivery

For size	Insert shim	Shim pin	Wedge clamp	Wedge key	Wedge screw
					
R...16	117.26-622	PP2009-T09P	110.26-640.1	3SMS795	117.26-655.1
L...16	117.26-622	PP2009-T09P	110.26-641.1	3SMS795	117.26-655.1
R...22	170.26-624	PP2015-1-T15P	110.26-642.1	4SMS795	170.26-655
L...22	170.26-624	PP2015-1-T15P	110.26-643.1	4SMS795	170.26-655

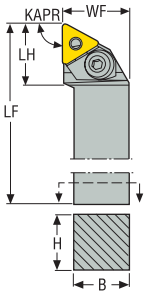
Accessories

For size	Insert clamping torque	Replacement blade	Shim key	Torque key
				
R...16	5.0NM	H00T-3.0	T09P-2	H00T-3050
L...16	5.0NM	H00T-3.0	T09P-2	H00T-3050
R...22	6.0NM	H00T-4.0	T15P-2	H00T-4060
L...22	6.0NM	H00T-4.0	T15P-2	H00T-4060

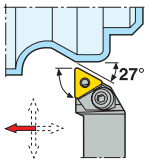
PTGNR/L, -..A – Toolholders for inserts TNGA, TNMA, TNMG, TNMM – Metric



PTGNR/L, -..A



PTGNR/L, -..A
KAPR = 90,0 °



CTWS



- Right-hand version shown
- For inserts program, see page(s) 574, 575, 576, 577, 608
- For holder code key, see page(s) 15-16
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF	LH	KAPR°	GAMO°	LAMS°	Weight	CTWS
		mm	mm	mm	mm	mm				kg	
PTGNR1616-11A	75011261	16	16	100	20,0	16,0	90,0	-5,0	-6,0	0,2	TN..1103.. *TN..22.*
PTGNL1616-11A	75011262	16	16	100	20,0	16,0	90,0	-5,0	-6,0	0,2	TN..1103.. *TN..22.*
PTGNR2020K16	00092181	20	20	125	25,0	23,0	90,0	-5,0	-6,0	0,4	TN..1604.. *TN..33.*
PTGNR2525M16	00092228	25	25	150	32,0	23,0	90,0	-5,0	-6,0	0,8	TN..1604.. *TN..33.*
PTGNR3225P16	00092319	32	25	170	32,0	23,0	90,0	-5,0	-6,0	1,1	TN..1604.. *TN..33.*
PTGNL2020K16	00092224	20	20	125	25,0	23,0	90,0	-5,0	-6,0	0,4	TN..1604.. *TN..33.*
PTGNL2525M16	00091326	25	25	150	32,0	23,0	90,0	-5,0	-6,0	0,8	TN..1604.. *TN..33.*
PTGNL3225P16	00092321	32	25	170	32,0	23,0	90,0	-5,0	-6,0	1,1	TN..1604.. *TN..33.*
PTGNR2525M22	00091446	25	25	150	32,0	29,0	90,0	-5,0	-6,0	0,8	TN..2204.. *TN..43.*
PTGNR3232P22	00092426	32	32	170	40,0	29,0	90,0	-5,0	-6,0	1,4	TN..2204.. *TN..43.*
PTGNL2525M22	00092413	25	25	150	32,0	29,0	90,0	-5,0	-6,0	0,8	TN..2204.. *TN..43.*
PTGNL3232P22	00092427	32	32	170	40,0	29,0	90,0	-5,0	-6,0	1,4	TN..2204.. *TN..43.*
PTGNR4040T27	75004457	40	40	300	50,0	38,0	90,0	-5,0	-6,0	3,7	TN..2706.. *TN..54.*
PTGNL4040T27	75004456	40	40	300	50,0	38,0	90,0	-5,0	-6,0	3,7	TN..2706.. *TN..54.*

Spare Parts, included in delivery

For size	Insert shim	Locking screw	Nut	Punch	Shim pin	Wedge clamp	Wedge key	Wedge screw
								
R...11	117.26-620	136.26-654	–	–	117.26-654	110.26-639	2.5SMS795	117.26-657
L...11	117.26-620	136.26-654	–	–	117.26-654	110.26-638	2.5SMS795	117.26-657
R20...16	117.26-622	–	–	–	PP2009-T09P	110.26-641.1	3SMS795	117.26-655
R25/32...16	117.26-622	–	–	–	PP2009-T09P	110.26-641.1	3SMS795	117.26-655.1
L20...16	117.26-622	–	–	–	PP2009-T09P	110.26-640.1	3SMS795	117.26-655
L25/32...16	117.26-622	–	–	–	PP2009-T09P	110.26-640.1	3SMS795	117.26-655.1
R...22	170.26-624	–	–	–	PP2015-1-T15P	110.26-643.1	4SMS795	170.26-655
L...22	170.26-624	–	–	–	PP2015-1-T15P	110.26-642.1	4SMS795	170.26-655
R...27	117.26-628	–	170.26-651	117.26-687	126.26-650	110.26-645	5SMS795	110.26-655
L...27	117.26-628	–	170.26-651	117.26-687	126.26-650	110.26-644	5SMS795	110.26-655

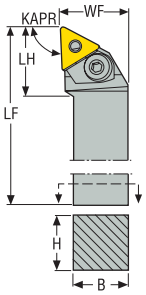
Accessories

For size	Insert clamping torque	Replacement blade	Shim key	Torque key
				
R...11	3.0NM	H00-2.5	2SMS795	H00-2530
L...11	3.0NM	H00-2.5	2SMS795	H00-2530
R20...16	5.0NM	H00T-3.0	T09P-2	H00T-3050
R25/32...16	5.0NM	H00T-3.0	T09P-2	H00T-3050
L20...16	5.0NM	H00T-3.0	T09P-2	H00T-3050
L25/32...16	5.0NM	H00T-3.0	T09P-2	H00T-3050
R...22	6.0NM	H00T-4.0	T15P-2	H00T-4060
L...22	6.0NM	H00T-4.0	T15P-2	H00T-4060
R...27	10.0NM	H00T-6.0	4SMS795	H00T-60100
L...27	10.0NM	H00T-6.0	4SMS795	H00T-60100

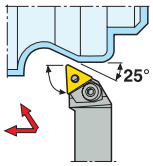
PTJNR/L – Toolholders for inserts TNGA, TNMA, TNMG, TNMM, TNMX – Metric



PTJNR/L



PTJNR/L
KAPR = 93,0 °



CTWS



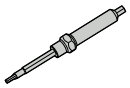
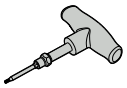
- Right-hand version shown
- For inserts program, see page(s) 574, 575, 576, 577, 608, 611
- For holder code key, see page(s) 15-16
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF	LH	KAPR°	GAMO°	LAMS°	Weight	CTWS
		mm	mm	mm	mm	mm				kg	
PTJNR2020K16	00092147	20	20	125	25,0	23,0	93,0	-5,0	-6,0	0,4	TN..1604.. *TN..33.*
PTJNR2525M16	00092153	25	25	150	32,0	23,0	93,0	-5,0	-6,0	0,8	TN..1604.. *TN..33.*
PTJNR3232P16	00092156	32	32	170	40,0	23,0	93,0	-5,0	-6,0	1,3	TN..1604.. *TN..33.*
PTJNL2020K16	00092149	20	20	125	25,0	23,0	93,0	-5,0	-6,0	0,4	TN..1604.. *TN..33.*
PTJNL2525M16	00092155	25	25	150	32,0	23,0	93,0	-5,0	-6,0	0,7	TN..1604.. *TN..33.*
PTJNL3232P16	00092159	32	32	170	40,0	23,0	93,0	-5,0	-6,0	1,3	TN..1604.. *TN..33.*
PTJNR2525M22	00092161	25	25	150	32,0	29,0	93,0	-5,0	-6,0	0,8	TN..2204.. *TN..43.*
PTJNR3232P22	00091023	32	32	170	40,0	29,0	93,0	-5,0	-6,0	1,4	TN..2204.. *TN..43.*
PTJNR4032R22	00092178	40	32	200	40,0	29,0	93,0	-5,0	-6,0	1,9	TN..2204.. *TN..43.*
PTJNL2525M22	00092162	25	25	150	32,0	29,0	93,0	-5,0	-6,0	0,8	TN..2204.. *TN..43.*
PTJNL3232P22	00092177	32	32	170	40,0	29,0	93,0	-5,0	-6,0	1,4	TN..2204.. *TN..43.*
PTJNL4032R22	00092179	40	32	200	40,0	29,0	93,0	-5,0	-6,0	1,9	TN..2204.. *TN..43.*

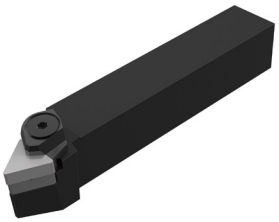
Spare Parts, included in delivery

For size	Insert shim	Shim pin	Wedge clamp	Wedge key	Wedge screw
					
R20...16	117.26-622	PP2009-T09P	110.26-641.1	3SMS795	117.26-655
R25/32...16	117.26-622	PP2009-T09P	110.26-641.1	3SMS795	117.26-655.1
L20...16	117.26-622	PP2009-T09P	110.26-640.1	3SMS795	117.26-655
L25/32...16	117.26-622	PP2009-T09P	110.26-640.1	3SMS795	117.26-655.1
R...22	170.26-624	PP2015-1-T15P	110.26-643.1	4SMS795	170.26-655
L...22	170.26-624	PP2015-1-T15P	110.26-642.1	4SMS795	170.26-655

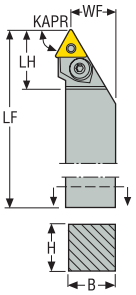
Accessories

For size	Insert clamping torque	Replacement blade	Shim key	Torque key
				
R20...16	5.0NM	H00T-3.0	T09P-2	H00T-3050
R25/32...16	5.0NM	H00T-3.0	T09P-2	H00T-3050
L20...16	5.0NM	H00T-3.0	T09P-2	H00T-3050
L25/32...16	5.0NM	H00T-3.0	T09P-2	H00T-3050
R...22	6.0NM	H00T-4.0	T15P-2	H00T-4060
L...22	6.0NM	H00T-4.0	T15P-2	H00T-4060

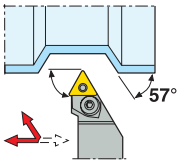
PTTNR/L – Toolholders for inserts TNGA, TNMA, TNMG, TNMM – Metric



PTTNR/L



PTTNR/L
KAPR = 60,0 °



CTWS



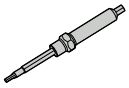
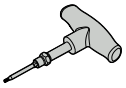
- Right-hand version shown
- For inserts program, see page(s) 574, 575, 576, 577, 608
- For holder code key, see page(s) 15-16
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF	LH	KAPR°	GAMO°	LAMS°	Weight	CTWS
		mm	mm	mm	mm	mm				kg	
PTTNR2020K16	00092439	20	20	125	17,0	28,0	60,0	-6,0	-5,0	0,4	TN..1604.. *TN..33.*
PTTNR2525M16	00092486	25	25	150	22,0	28,0	60,0	-6,0	-5,0	0,8	TN..1604.. *TN..33.*
PTTNL2020K16	00092473	20	20	125	17,0	28,0	60,0	-6,0	-5,0	0,4	TN..1604.. *TN..33.*
PTTNL2525M16	00092522	25	25	150	22,0	28,0	60,0	-6,0	-5,0	0,7	TN..1604.. *TN..33.*

Spare Parts, included in delivery

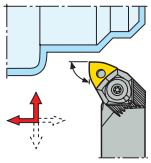
For size	Insert shim	Shim pin	Wedge clamp	Wedge key	Wedge screw
					
R20...16	117.26-622	PP2009-T09P	110.26-641.1	3SMS795	117.26-655
R25...16	117.26-622	PP2009-T09P	110.26-641.1	3SMS795	117.26-655.1
L20...16	117.26-622	PP2009-T09P	110.26-640.1	3SMS795	117.26-655
L25...16	117.26-622	PP2009-T09P	110.26-640.1	3SMS795	117.26-655.1

Accessories

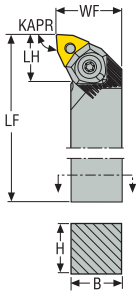
For size	Insert clamping torque	Replacement blade	Shim key	Torque key
				
R20...16	5.0NM	H00T-3.0	T09P-2	H00T-3050
R25...16	5.0NM	H00T-3.0	T09P-2	H00T-3050
L20...16	5.0NM	H00T-3.0	T09P-2	H00T-3050
L25...16	5.0NM	H00T-3.0	T09P-2	H00T-3050

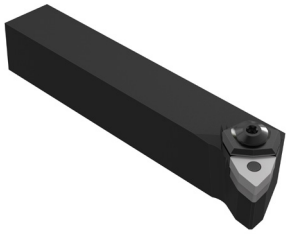
PWLNR/L – Toolholders for inserts WNGA, WNGG, WNMA, WNMG, WNMM – Metric

PWLNR/L
KAPR = 95,0 °



PWLNR/L





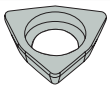
CTWS



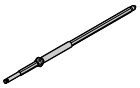
- Right-hand version shown
- For inserts program, see page(s) 586, 587, 588, 589, 614
- For holder code key, see page(s) 15-16
- * Use the right shim & the right screw for the selected insert. For details, see page 100
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF	LH	KAPR°	GAMO°	LAMS°	Weight	CTWS
		mm	mm	mm	mm	mm				kg	
PWLNR1616H06	75079504	16	16	100	20,0	21,0	95,0	-6,0	-6,0	0,3	WN..0604.. *WN..33.*
PWLNR2020K06	75028482	20	20	125	25,0	21,0	95,0	-6,0	-6,0	0,4	WN..0604.. *WN..33.*
PWLNR2525M06	75028231	25	25	150	32,0	21,0	95,0	-6,0	-6,0	0,8	WN..0604.. *WN..33.*
PWLNR3232P06	75036498	32	32	170	40,0	21,0	95,0	-6,0	-6,0	1,4	WN..0604.. *WN..33.*
PWLNL1616H06	75079505	16	16	100	20,0	21,0	95,0	-6,0	-6,0	0,2	WN..0604.. *WN..33.*
PWLNL2020K06	75028483	20	20	125	25,0	21,0	95,0	-6,0	-6,0	0,4	WN..0604.. *WN..33.*
PWLNL2525M06	75027880	25	25	150	32,0	21,0	95,0	-6,0	-6,0	0,8	WN..0604.. *WN..33.*
PWLNL3232P06	75036499	32	32	170	40,0	21,0	95,0	-6,0	-6,0	1,3	WN..0604.. *WN..33.*
PWLNR2020K08	75027855	20	20	125	25,0	27,0	95,0	-6,0	-6,0	0,4	WN..0804.. *WN..43.*
PWLNR2525M08	75027854	25	25	150	32,0	27,0	95,0	-6,0	-6,0	0,8	WN..0804.. *WN..43.*
PWLNR3232P08	75027852	32	32	170	40,0	27,0	95,0	-6,0	-6,0	1,3	WN..0804.. *WN..43.*
PWLNL2020K08	75027856	20	20	125	25,0	27,0	95,0	-6,0	-6,0	0,4	WN..0804.. *WN..43.*
PWLNL2525M08	75027465	25	25	150	32,0	27,0	95,0	-6,0	-6,0	0,8	WN..0804.. *WN..43.*
PWLNL3232P08	75027853	32	32	170	40,0	27,0	95,0	-6,0	-6,0	1,3	WN..0804.. *WN..43.*

Spare Parts, included in delivery

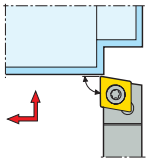
For size	Insert shim	Setting screw	Shim pin	Wedge clamp	Wedge key	Wedge screw
						
...H06	WAE060312	L82511-T07P	PP1409-T09P	WNW06HD	T20P-7	WS1920-T20P
...06	WAE060312	L82511-T07P	PP2109-T09P	WNW06HD	T20P-7	WS1920-T20P
...08	WAE080412	L82511-T07P	PP2015-1-T15P	WNW08HD	T25P-7	WS2325-T25P

Accessories

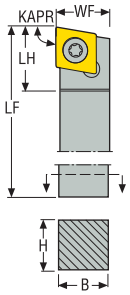
For size	Insert clamping torque	Replacement blade	Shim key	Torque key
				
...H06	3.5NM	T00-20P	T09P-2	T00-20P35
...06	3.5NM	T00-20P	T09P-2	T00-20P35
...08	5.0NM	T00T-25P	T15P-2	T00T-25P50

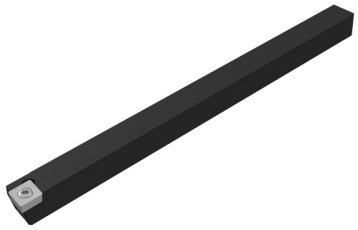
SCACR/L – Toolholders for inserts CCGT, CCGW, CCMT, CCMW – Metric

SCACR/L
KAPR = 90,0 °



SCACR/L





CTWS



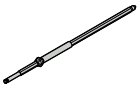
- Right-hand version shown
- For inserts program, see page(s) 542, 543, 544, 545, 591, 592, 615, 616
- For holder code key, see page(s) 15-16
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF	LH	KAPR°	GAMO°	LAMS°	Weight	CTWS
		mm	mm	mm	mm	mm				kg	
SCACR0808K06	00042836	8	8	125	8,7	9,0	90,0	0,0	0,0	0,1	CC..0602.. CC..21.5.
SCACR1010M06	00042837	10	10	150	10,7	9,0	90,0	0,0	0,0	0,2	CC..0602.. CC..21.5.
SCACR1212M06	02430771	12	12	150	12,7	9,0	90,0	0,0	0,0	0,2	CC..0602.. CC..21.5.
SCACL0808K06	75011227	8	8	125	8,7	9,0	90,0	0,0	0,0	0,1	CC..0602.. CC..21.5.
SCACL1010M06	75011228	10	10	150	10,7	9,0	90,0	0,0	0,0	0,2	CC..0602.. CC..21.5.
SCACL1212M06	02430823	12	12	150	12,7	9,0	90,0	0,0	0,0	0,2	CC..0602.. CC..21.5.
SCACR1212M09	00042839	12	12	150	12,7	13,0	90,0	0,0	0,0	0,2	CC..09T3.. CC..32.5.
SCACR1414M09	00042841	14	14	150	14,7	13,0	90,0	0,0	0,0	0,3	CC..09T3.. CC..32.5.
SCACR1616H09	02430826	16	16	100	16,7	21,0	90,0	0,0	0,0	0,3	CC..09T3.. CC..32.5.
SCACL1212M09	75011229	12	12	150	12,7	13,0	90,0	0,0	0,0	0,2	CC..09T3.. CC..32.5.
SCACL1414M09	75011230	14	14	150	14,7	13,0	90,0	0,0	0,0	0,3	CC..09T3.. CC..32.5.
SCACL1616H09	02430830	16	16	100	16,7	21,0	90,0	0,0	0,0	0,2	CC..09T3.. CC..32.5.

Spare Parts, included in delivery

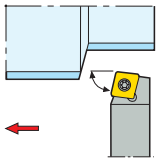
For size	Insert key	Insert screw
		
...06	T07P-2	C02506-T07P
...09	T15P-2	C04008-T15P

Accessories

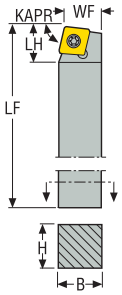
For size	Insert clamping torque	Replacement blade	Torque key
			
...06	0.9NM	T00-07P	T00-07P09
...09	3.5NM	T00-15P	T00-15P35

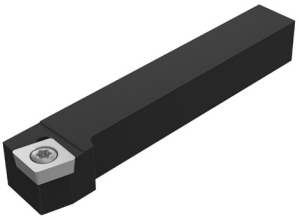
SCBCR/L – Toolholders for inserts CCGT, CCMT, CCGW..-LF – Metric

SCBCR/L
KAPR = 75,0 °



SCBCR/L





CTWS



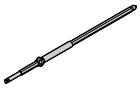
- Right-hand version shown
- For inserts program, see page(s) 542, 543, 544, 545, 591, 592, 615
- For holder code key, see page(s) 15-16
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF	LH	KAPR°	GAMO°	LAMS°	Weight	CTWS
		mm	mm	mm	mm	mm				kg	
SCBCR1616H09	02484500	16	16	100	13,0	12,0	75,0	0,0	0,0	0,3	CC..0903.. CC..32.
SCBCR2020K09	02484537	20	20	125	17,0	12,0	75,0	0,0	0,0	0,4	CC..0903.. CC..32.
SCBCL1616H09	02484534	16	16	100	13,0	12,0	75,0	0,0	0,0	0,2	CC..0903.. CC..32.
SCBCL2020K09	02484540	20	20	125	17,0	12,0	75,0	0,0	0,0	0,4	CC..0903.. CC..32.

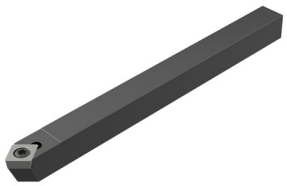
Spare Parts, included in delivery

For size	Insert key	Insert screw
		
...09	T15P-2	C04008-T15P

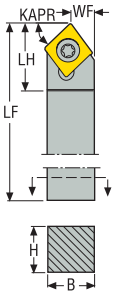
Accessories

For size	Insert clamping torque	Replacement blade	Torque key
			
...09	3.5NM	T00-15P	T00-15P35

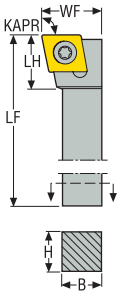
SCDCR/L, SCFCR/L – Toolholders for inserts CCGT, CCGW, CCMT, CCMW – Metric



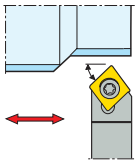
SCDCR/L



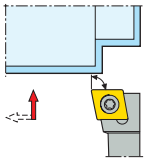
SCFCR/L



SCDCR/L
KAPR = 45,0 °



SCFCR/L
KAPR = 90,0 °



CTWS



- Right-hand version shown
- For inserts program, see page(s) 542, 543, 544, 545, 591, 592, 615, 616
- For holder code key, see page(s) 15-16
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF	LH	KAPR°	GAMO°	LAMS°	Weight	CTWS
		mm	mm	mm	mm	mm				kg	
SCDCR0808K06	02435799	8	8	125	4,2	11,0	45,0	0,0	0,0	0,1	CC..0602.. *CC..21.5.*
SCDCR1010M06	02435801	10	10	150	5,2	11,0	45,0	0,0	0,0	0,2	CC..0602.. *CC..21.5.*
SCDCL0808K06	02435800	8	8	125	4,2	11,0	45,0	0,0	0,0	0,1	CC..0602.. *CC..21.5.*
SCDCL1010M06	02201468	10	10	150	5,2	11,0	45,0	0,0	0,0	0,2	CC..0602.. *CC..21.5.*
SCDCR1212M09	02435816	12	12	150	6,2	21,0	45,0	0,0	0,0	0,2	CC..09T3.. *CC..32.5.*
SCDCR1414M09	02435819	14	14	150	7,2	21,0	45,0	0,0	0,0	0,3	CC..09T3.. *CC..32.5.*
SCDCL1212M09	02435818	12	12	150	6,2	21,0	45,0	0,0	0,0	0,2	CC..09T3.. *CC..32.5.*
SCDCL1414M09	02435821	14	14	150	7,2	21,0	45,0	0,0	0,0	0,3	CC..09T3.. *CC..32.5.*
SCFCR0808D06	75011627	8	8	60	10,0	9,0	90,0	0,0	0,0	0,1	CC..0602.. *CC..21.5.*
SCFCR1212F09	75011631	12	12	80	16,0	15,0	90,0	0,0	0,0	0,2	CC..09T3.. *CC..32.5.*
SCFCL1212F09	75011632	12	12	80	16,0	15,0	90,0	0,0	0,0	0,2	CC..09T3.. *CC..32.5.*

Spare Parts, included in delivery

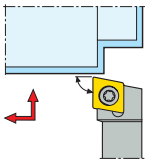
For size	Insert key	Insert screw
		
...06	T07P-2	C02506-T07P
...09	T15P-2	C04008-T15P

Accessories

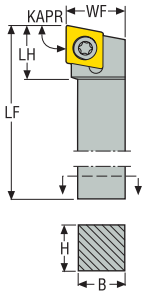
For size	Insert clamping torque	Replacement blade	Torque key
			
...06	0.9NM	T00-07P	T00-07P09
...09	3.5NM	T00-15P	T00-15P35

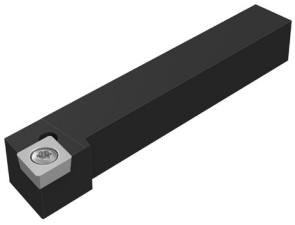
SCGCR/L – Toolholders for inserts CCGT, CCGW, CCMT, CCMW – Metric

SCGCR/L
KAPR = 90,0 °



SCGCR/L





CTWS



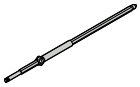
- Right-hand version shown
- For inserts program, see page(s) 542, 543, 544, 545, 591, 592, 615, 616
- For holder code key, see page(s) 15-16
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF	LH	KAPR°	GAMO°	LAMS°	Weight	CTWS
		mm	mm	mm	mm	mm				kg	
SCGCR0808D06	75011508	8	8	60	10,0	11,0	90,0	0,0	0,0	0,1	CC..0602.. *CC..21.5.*
SCGCR1010E06	75011510	10	10	70	12,0	11,0	90,0	0,0	0,0	0,1	CC..0602.. *CC..21.5.*
SCGCL1010E06	75011511	10	10	70	12,0	11,0	90,0	0,0	0,0	0,1	CC..0602.. *CC..21.5.*
SCGCR1212F09	75011512	12	12	80	16,0	15,0	90,0	0,0	0,0	0,2	CC..09T3.. *CC..32.5.*
SCGCL1212F09	75011513	12	12	80	16,0	15,0	90,0	0,0	0,0	0,2	CC..09T3.. *CC..32.5.*

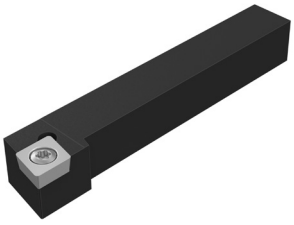
Spare Parts, included in delivery

For size	Insert key	Insert screw
		
...06	T07P-2	C02506-T07P
...09	T15P-2	C04008-T15P

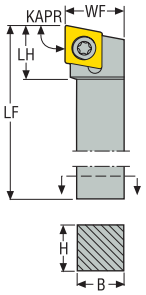
Accessories

For size	Insert clamping torque	Replacement blade	Torque key
			
...06	0.9NM	T00-07P	T00-07P09
...09	3.5NM	T00-15P	T00-15P35

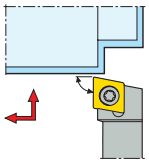
SCGCR/L – Toolholders for inserts CCGT, CCGW, CCMT, CCMW – Inch



SCGCR/L



SCGCR/L
KAPR = 90,0 °



CTWS



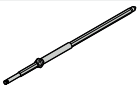
- Right-hand version shown
- For inserts program, see page(s) 542, 543, 544, 545, 591, 592, 615, 616
- For holder code key, see page(s) 17-18
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF	LH	KAPR°	GAMO°	LAMS°	Weight	CTWS
		inch	inch	inch	inch	inch				lbs	
SCGCR-8-3	00013326	0.500	0.500	3.500	0.625	0.620	90,0	0,0	0,0	0.440	CC..09T3.. *CC..32.5.*
SCGCL-8-3	00013327	0.500	0.500	3.500	0.625	0.620	90,0	0,0	0,0	0.440	CC..09T3.. *CC..32.5.*

Spare Parts, included in delivery

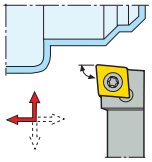
For size	Insert key	Insert screw
		
..-3	T15P-2	C04008-T15P

Accessories

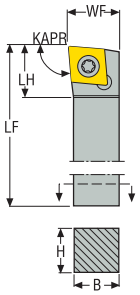
For size	Insert clamping torque	Replacement blade	Torque key
			
..-3	3.5NM	T00-15P	T00-15P35

SCLCR/L – Toolholders for inserts CCGT, CCGW, CCMT, CCMW – Metric

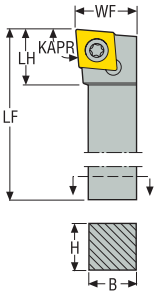
SCLCR/L
KAPR = 95,0 °

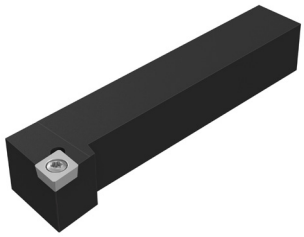


SCLCR/L



SCLCR/L..K09, ..K12





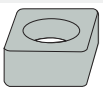
CTWS



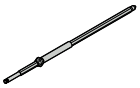
- Right-hand version shown
- For inserts program, see page(s) 542, 543, 544, 545, 591, 592, 615, 616
- For holder code key, see page(s) 15-16
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF	LH	KAPR°	GAMO°	LAMS°	Weight	CTWS
		mm	mm	mm	mm	mm				kg	
SCLCR0808K06	02435777	8	8	125	8,5	9,0	95,0	0,0	0,0	0,1	CC..0602.. *CC..21.5.*
SCLCR1010M06	02435793	10	10	150	10,5	9,0	95,0	0,0	0,0	0,2	CC..0602.. *CC..21.5.*
SCLCR1212M06	02430832	12	12	150	12,5	8,0	95,0	0,0	0,0	0,2	CC..0602.. *CC..21.5.*
SCLCL0808K06	02435781	8	8	125	8,5	9,0	95,0	0,0	0,0	0,1	CC..0602.. *CC..21.5.*
SCLCL1010M06	02435796	10	10	150	10,5	9,0	95,0	0,0	0,0	0,2	CC..0602.. *CC..21.5.*
SCLCL1212M06	02430836	12	12	150	12,5	8,0	95,0	0,0	0,0	0,2	CC..0602.. *CC..21.5.*
SCLCR1212M09	02435797	12	12	150	12,5	12,0	95,0	0,0	0,0	0,2	CC..09T3.. *CC..32.5.*
SCLCR1616H09	75011182	16	16	100	16,5	12,0	95,0	0,0	0,0	0,3	CC..09T3.. *CC..32.5.*
SCLCR2020K09	00092187	20	20	125	25,0	20,0	95,0	0,0	0,0	0,5	CC..09T3.. *CC..32.5.*
SCLCL1212M09	02435798	12	12	150	12,5	12,0	95,0	0,0	0,0	0,2	CC..09T3.. *CC..32.5.*
SCLCL1616H09	75011181	16	16	100	16,5	12,0	95,0	0,0	0,0	0,3	CC..09T3.. *CC..32.5.*
SCLCL2020K09	00092188	20	20	125	25,0	20,0	95,0	0,0	0,0	0,5	CC..09T3.. *CC..32.5.*
SCLCR2020K12	75011878	20	20	125	25,0	20,0	95,0	0,0	0,0	0,4	CC..1204.. *CC..43.*
SCLCL2020K12	75011879	20	20	125	25,0	20,0	95,0	0,0	0,0	0,4	CC..1204.. *CC..43.*

Spare Parts, included in delivery

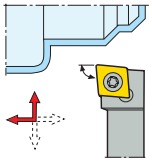
For size	Insert key	Insert screw	Insert shim	Shim screw
				
...06	T07P-2	C02506-T07P	–	–
...09	T15P-2	C04008-T15P	–	–
...12	T15P-2	C05012-T15P	123.19-621	CA5008

Accessories

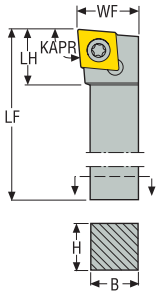
For size	Insert clamping torque 	Replacement blade 	Shim key 	Torque key 
...06	0.9NM	T00-07P	–	T00-07P09
...09	3.5NM	T00-15P	–	T00-15P35
...12	5.0NM	T00-15P	5SMS795	T00-15P50

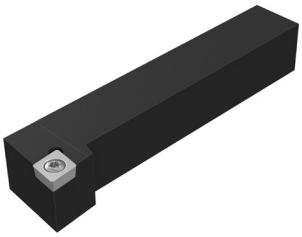
SCLCR/L – Toolholders for inserts CCGT, CCGW, CCMT, CCMW – Inch

SCLCR/L
KAPR = 95,0 °



SCLCR/L





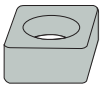
CTWS



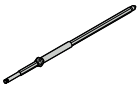
- Right-hand version shown
- For inserts program, see page(s) 542, 543, 544, 545, 591, 592, 615, 616
- For holder code key, see page(s) 17-18
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF	LH	KAPR°	GAMO°	LAMS°	Weight	CTWS
		inch	inch	inch	inch	inch				lbs	
SCLCR-6-2	00071951	0.375	0.375	2.500	0.500	0.480	95,0	0,0	0,0	0.220	CC..0602.. *CC..21.5.*
SCLCL-6-2	00071943	0.375	0.375	2.500	0.500	0.480	95,0	0,0	0,0	0.220	CC..0602.. *CC..21.5.*
SCLCR-8-3	00071949	0.500	0.500	3.500	0.625	0.670	95,0	0,0	0,0	0.440	CC..09T3.. *CC..32.5.*
SCLCR-10-3	00071955	0.625	0.625	4.000	0.750	0.690	95,0	0,0	0,0	0.440	CC..09T3.. *CC..32.5.*
SCLCR-12-3	00013336	0.750	0.750	4.500	1.000	0.690	95,0	0,0	0,0	0.880	CC..09T3.. *CC..32.5.*
SCLCR-16-3	00073924	1.000	1.000	6.000	1.250	0.670	95,0	0,0	0,0	1.760	CC..09T3.. *CC..32.5.*
SCLCL-8-3	00071945	0.500	0.500	3.500	0.625	0.670	95,0	0,0	0,0	0.440	CC..09T3.. *CC..32.5.*
SCLCL-10-3	00071931	0.625	0.625	4.000	0.750	0.690	95,0	0,0	0,0	0.660	CC..09T3.. *CC..32.5.*
SCLCL-12-3	00013337	0.750	0.750	4.500	1.000	0.690	95,0	0,0	0,0	0.880	CC..09T3.. *CC..32.5.*
SCLCL-16-3	00073925	1.000	1.000	6.000	1.252	0.670	95,0	0,0	0,0	1.760	CC..09T3.. *CC..32.5.*
SCLCR-16-4	00043250	1.000	1.000	6.000	1.250	0.780	95,0	0,0	0,0	1.540	CC..1204.. *CC..43.*
SCLCL-16-4	00043248	1.000	1.000	5.000	1.252	0.787	95,0	0,0	0,0	1.760	CC..1204.. *CC..43.*

Spare Parts, included in delivery

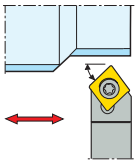
For size	Insert key	Insert screw	Insert shim	Shim screw
				
..-2	T07P-2	C02506-T07P	–	–
..-3	T15P-2	C04008-T15P	–	–
..-4	T15P-2	C05012-T15P	123.19-621	CA5008

Accessories

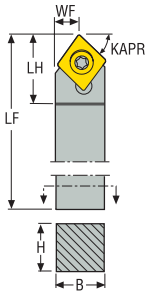
For size	Insert clamping torque 	Replacement blade 	Shim key 	Torque key 
..-2	0.9NM	T00-07P	–	T00-07P09
..-3	3.5NM	T00-15P	–	T00-15P35
..-4	5.0NM	T00-15P	5SMS795	T00-15P50

SCMCN – Toolholders for inserts CCGT, CCGW, CCMT, CCMW – Inch

SCMCN
KAPR = 50,0 °



SCMCN





CTWS



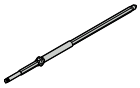
- Neutral version shown
- For inserts program, see page(s) 542, 543, 544, 545, 591, 592, 615, 616
- For holder code key, see page(s) 17-18
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF	LH	KAPR°	GAMO°	LAMS°	Weight	CTWS
		inch	inch	inch	inch	inch				lbs	
SCMCN-6-2	00013318	0.375	0.375	2.500	0.187	0.420	50,0	0,0	0,0	0.220	CC..0602.. *CC..21.5.*
SCMCN-8-3	00013319	0.500	0.500	3.500	0.264	0.610	50,0	0,0	0,0	0.440	CC..09T3.. *CC..32.5.*

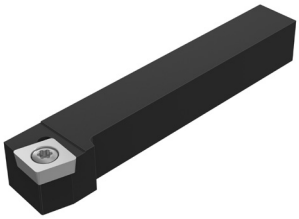
Spare Parts, included in delivery

For size	Insert key	Insert screw
		
..-2	T07P-2	C02506-T07P
..-3	T15P-2	C04008-T15P

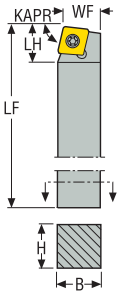
Accessories

For size	Insert clamping torque	Replacement blade	Torque key
			
..-2	0.9NM	T00-07P	T00-07P09
..-3	3.5NM	T00-15P	T00-15P35

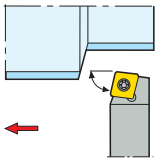
SCRCR/L – Toolholders for inserts CCGT, CCGW, CCMT – Inch



SCRCR/L



SCRCR
KAPR = 75,0 °



CTWS



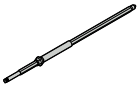
- Right-hand version shown
- For inserts program, see page(s) 542, 543, 544, 545, 591, 592, 615
- For holder code key, see page(s) 17-18
- Shim DSN120416 for insert SN..1206.., to be ordered separately
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF	LH	KAPR°	GAMO°	LAMS°	Weight	CTWS
		inch	inch	inch	inch	inch				lbs	
SCRCR-8-3	00013316	0.500	0.500	3.504	0.551	0.681	75,0	0,0	0,0	0.440	CC..09T3.. *CC..32.5.*

Spare Parts, included in delivery

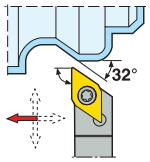
For size	Insert key	Insert screw
		
..-3	T15P-2	C04008-T15P

Accessories

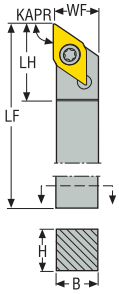
For size	Insert clamping torque	Replacement blade	Torque key
			
..-3	3.5NM	T00-15P	T00-15P35

SDACR/L – Toolholders for inserts DCGT, DCGW, DCMT, DCMW – Metric

SDACR/L
KAPR = 90,0 °



SDACR/L





CTWS



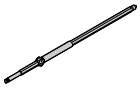
- Right-hand version shown
- For inserts program, see page(s) 553, 554, 555, 596, 617
- For holder code key, see page(s) 15-16
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF	LH	KAPR°	GAMO°	LAMS°	Weight	CTWS
		mm	mm	mm	mm	mm				kg	
SDACR0808K07	00042846	8	8	125	8,7	13,0	90,0	0,0	0,0	0,1	DC..0702.. *DC..21.5.*
SDACR1010M07	00069721	10	10	150	10,7	13,0	90,0	0,0	0,0	0,2	DC..0702.. *DC..21.5.*
SDACR1212M07	00079389	12	12	150	12,7	13,0	90,0	0,0	0,0	0,2	DC..0702.. *DC..21.5.*
SDACL0808K07	75011235	8	8	125	8,7	13,0	90,0	0,0	0,0	0,1	DC..0702.. *DC..21.5.*
SDACL1010M07	75011236	10	10	150	10,7	13,0	90,0	0,0	0,0	0,2	DC..0702.. *DC..21.5.*
SDACL1212M07	75011237	12	12	150	12,7	13,0	90,0	0,0	0,0	0,2	DC..0702.. *DC..21.5.*
SDACR1212M11	00042847	12	12	150	12,7	20,0	90,0	0,0	0,0	0,2	DC..11T3.. *DC..32.5.*
SDACR1414M11	00042849	14	14	150	14,7	20,0	90,0	0,0	0,0	0,3	DC..11T3.. *DC..32.5.*
SDACR1616H11	02430870	16	16	100	16,7	21,0	90,0	0,0	0,0	0,2	DC..11T3.. *DC..32.5.*
SDACL1212M11	75924226	12	12	150	12,7	20,0	90,0	0,0	0,0	0,2	DC..11T3.. *DC..32.5.*
SDACL1616H11	02430879	16	16	100	16,7	21,0	90,0	0,0	0,0	0,2	DC..11T3.. *DC..32.5.*

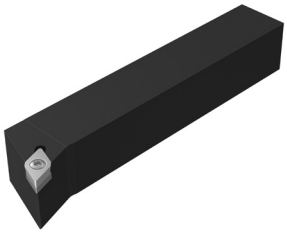
Spare Parts, included in delivery

For size	Insert key	Insert screw
		
...07	T07P-2	C02506-T07P
...11	T15P-2	C04008-T15P

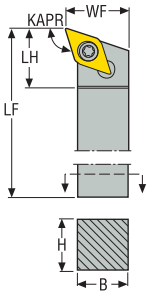
Accessories

For size	Insert clamping torque	Replacement blade	Torque key
			
...07	0.9NM	T00-07P	T00-07P09
...11	3.5NM	T00-15P	T00-15P35

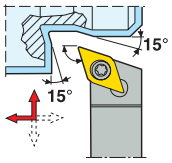
SDHCR/L – Toolholders for inserts DCGT, DCGW, DCMT, DCMW, DCMX – Metric



SDHCR/L



SDHCR/L
KAPR = 107,5 °



CTWS



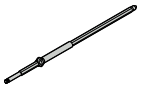
- Right-hand version shown
- For inserts program, see page(s) 553, 554, 555, 596, 617
- For holder code key, see page(s) 15-16
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF	LH	KAPR°	GAMO°	LAMS°	Weight	CTWS
		mm	mm	mm	mm	mm				kg	
SDHCR1010M07	02435836	10	10	150	12,0	14,0	107,5	0,0	0,0	0,2	DC..0702.. *DC..21.5.*
SDHCL1010M07	02435841	10	10	150	12,0	14,0	107,5	0,0	0,0	0,2	DC..0702.. *DC..21.5.*
SDHCR1212M11	02435848	12	12	150	16,0	21,0	107,5	0,0	0,0	0,2	DC..11T3.. *DC..32.5.*
SDHCR1616H11	75011422	16	16	100	20,0	20,0	107,5	0,0	0,0	0,3	DC..11T3.. *DC..32.5.*
SDHCR2020K11	75011696	20	20	125	25,0	20,0	107,5	0,0	0,0	0,4	DC..11T3.. *DC..32.5.*
SDHCR2525M11	00092189	25	25	150	32,0	20,0	107,5	0,0	0,0	0,8	DC..11T3.. *DC..32.5.*
SDHCL1212M11	02435849	12	12	150	16,0	21,0	107,5	0,0	0,0	0,2	DC..11T3.. *DC..32.5.*
SDHCL1616H11	75011423	16	16	100	20,0	20,0	107,5	0,0	0,0	0,3	DC..11T3.. *DC..32.5.*
SDHCL2020K11	75011697	20	20	125	25,0	20,0	107,5	0,0	0,0	0,4	DC..11T3.. *DC..32.5.*
SDHCL2525M11	00092190	25	25	150	32,0	20,0	107,5	0,0	0,0	0,8	DC..11T3.. *DC..32.5.*
SDHCR2525M15	75011713	25	25	150	32,0	25,0	107,5	0,0	0,0	0,8	DC..1504.. *DC..43.*
SDHCL2525M15	75011714	25	25	150	32,0	25,0	107,5	0,0	0,0	0,7	DC..1504.. *DC..43.*

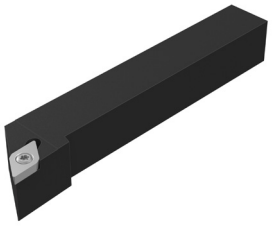
Spare Parts, included in delivery

For size	Insert key	Insert screw	Insert shim	Shim screw
				
...07	T07P-2	C02506-T07P	–	–
..12/16..11	T15P-2	C04008-T15P	–	–
..20/25..11	T15P-2	C03510-T15P	126.19-620	CA3510
...15	T15P-2	C04518-T15P	126.19-621	CA4512

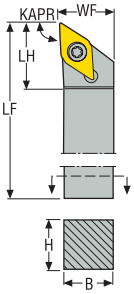
Accessories

For size	Insert clamping torque	Replacement blade	Shim key	Torque key
				
...07	0.9NM	T00-07P	–	T00-07P09
..12/16..11	3.5NM	T00-15P	–	T00-15P35
..20/25..11	3.0NM	T00-15P	9/64SMS875	T00-15P30
...15	5.0NM	T00-15P	5SMS795	T00-15P50

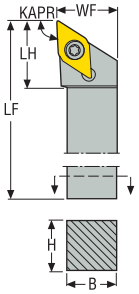
SDJCR/L – Toolholders for inserts DCGT, DCGW, DCMT, DCMW, DCMX – Metric



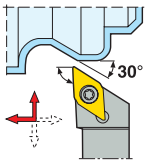
SDJCR/L..07, 1212M11, 1616H11



SDJCR/L



SDJCR/L
KAPR = 93,0 °



CTWS



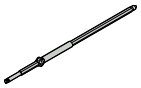
- Right-hand version shown
- For inserts program, see page(s) 553, 554, 555, 596, 617
- For holder code key, see page(s) 15-16
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF	LH	KAPR°	GAMO°	LAMS°	Weight	CTWS
		mm	mm	mm	mm	mm				kg	
SDJCR0808K07	02430880	8	8	125	8,5	13,0	93,0	0,0	0,0	0,1	DC..0702.. *DC..21.5.*
SDJCR1010M07	02435822	10	10	150	10,5	14,0	93,0	0,0	0,0	0,2	DC..0702.. *DC..21.5.*
SDJCR1212M07	02430896	12	12	150	12,5	13,0	93,0	0,0	0,0	0,2	DC..0702.. *DC..21.5.*
SDJCL0808K07	02430881	8	8	125	8,5	13,0	93,0	0,0	0,0	0,1	DC..0702.. *DC..21.5.*
SDJCL1010M07	02435824	10	10	150	10,5	14,0	93,0	0,0	0,0	0,2	DC..0702.. *DC..21.5.*
SDJCL1212M07	02430901	12	12	150	12,5	13,0	93,0	0,0	0,0	0,2	DC..0702.. *DC..21.5.*
SDJCR1212M11	02435826	12	12	150	12,5	20,0	93,0	0,0	0,0	0,2	DC..11T3.. *DC..32.5.*
SDJCR1616H11	75011180	16	16	100	16,5	20,0	93,0	0,0	0,0	0,2	DC..11T3.. *DC..32.5.*
SDJCR2020K11	75011274	20	20	125	25,0	20,0	93,0	0,0	0,0	0,4	DC..11T3.. *DC..32.5.*
SDJCR2525M11	00092199	25	25	150	32,0	25,0	93,0	0,0	0,0	0,8	DC..11T3.. *DC..32.5.*
SDJCL1212M11	02435827	12	12	150	12,5	20,0	93,0	0,0	0,0	0,2	DC..11T3.. *DC..32.5.*
SDJCL1616H11	75011179	16	16	100	16,5	20,0	93,0	0,0	0,0	0,3	DC..11T3.. *DC..32.5.*
SDJCL2020K11	75011275	20	20	125	25,0	20,0	93,0	0,0	0,0	0,4	DC..11T3.. *DC..32.5.*
SDJCL2525M11	00092200	25	25	150	32,0	25,0	93,0	0,0	0,0	0,8	DC..11T3.. *DC..32.5.*
SDJCR2525M15	75012040	25	25	150	32,0	28,0	93,0	0,0	0,0	0,7	DC..1504.. *DC..43.*
SDJCR3225P15	75012042	32	25	170	32,0	28,0	93,0	0,0	0,0	1,1	DC..1504.. *DC..43.*
SDJCL2525M15	75012041	25	25	150	32,0	28,0	93,0	0,0	0,0	0,7	DC..1504.. *DC..43.*
SDJCL3225P15	75012043	32	25	170	32,0	28,0	93,0	0,0	0,0	1,1	DC..1504.. *DC..43.*

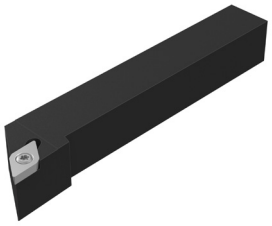
Spare Parts, included in delivery

For size	Insert key	Insert screw	Insert shim	Shim screw
				
...07	T07P-2	C02506-T07P	–	–
..12/16..11	T15P-2	C04008-T15P	–	–
..20/25..11	T15P-2	C03510-T15P	126.19-620	CA3510
...15	T15P-2	C04518-T15P	126.19-621	CA4512

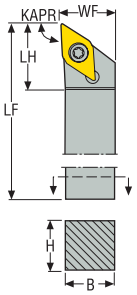
Accessories

For size	Insert clamping torque	Replacement blade	Shim key	Torque key
				
...07	0.9NM	T00-07P	–	T00-07P09
..12/16..11	3.5NM	T00-15P	–	T00-15P35
..20/25..11	3.0NM	T00-15P	9/64SMS875	T00-15P30
...15	5.0NM	T00-15P	5SMS795	T00-15P50

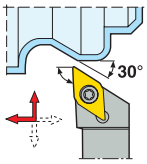
SDJCR/L – Toolholders for inserts DCGT, DCGW, DCMT, DCMW, DCMX – Inch



SDJCR/L



SDJCR/L
KAPR = 93,0 °



CTWS



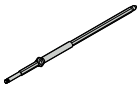
- Right-hand version shown
- For inserts program, see page(s) 553, 554, 555, 596, 617
- For holder code key, see page(s) 17-18
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF	LH	KAPR°	GAMO°	LAMS°	Weight	CTWS
		inch	inch	inch	inch	inch				lbs	
SDJCR-6-2	00071938	0.375	0.375	2.500	0.500	0.680	93,0	0,0	0,0	0.220	DC..0702.. *DC..21.5.*
SDJCR-8-2	00013341	0.500	0.500	3.500	0.625	0.680	93,0	0,0	0,0	0.440	DC..0702.. *DC..21.5.*
SDJCL-6-2	00071941	0.375	0.375	2.500	0.500	0.680	93,0	0,0	0,0	0.220	DC..0702.. *DC..21.5.*
SDJCL-8-2	00013342	0.500	0.500	3.500	0.625	0.680	93,0	0,0	0,0	0.440	DC..0702.. *DC..21.5.*
SDJCR-8-3	00071952	0.500	0.500	3.500	0.625	1.000	93,0	0,0	0,0	0.440	DC..11T3.. *DC..32.5.*
SDJCR-10-3	00071948	0.625	0.625	4.000	0.750	1.000	93,0	0,0	0,0	0.440	DC..11T3.. *DC..32.5.*
SDJCR-12-3	00043256	0.750	0.750	4.500	1.000	1.000	93,0	0,0	0,0	0.880	DC..11T3.. *DC..32.5.*
SDJCR-16-3	00073937	1.000	1.000	6.000	1.252	0.980	93,0	0,0	0,0	1.760	DC..11T3.. *DC..32.5.*
SDJCL-8-3	00071939	0.500	0.500	3.500	0.625	1.000	93,0	0,0	0,0	0.440	DC..11T3.. *DC..32.5.*
SDJCL-10-3	00071947	0.625	0.625	4.000	0.750	1.000	93,0	0,0	0,0	0.440	DC..11T3.. *DC..32.5.*
SDJCL-12-3	00043252	0.750	0.750	4.500	1.000	1.000	93,0	0,0	0,0	0.880	DC..11T3.. *DC..32.5.*
SDJCL-16-3	00073938	1.000	1.000	6.000	1.252	0.980	93,0	0,0	0,0	1.760	DC..11T3.. *DC..32.5.*

Spare Parts, included in delivery

For size	Insert key	Insert screw
		
..-2	T07P-2	C02506-T07P
..-3	T15P-2	C04008-T15P

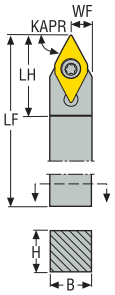
Accessories

For size	Insert clamping torque	Replacement blade	Torque key
			
..-2	0.9NM	T00-07P	T00-07P09
..-3	3.5NM	T00-15P	T00-15P35

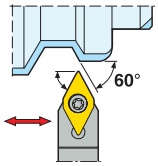
SDNCN – Toolholders for inserts DCGT, DCGW, DCMT, DCMW – Metric



SDNCN



SDNCN
KAPR = 62,5 °



CTWS



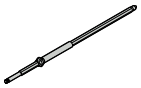
- Neutral version shown
- For inserts program, see page(s) 553, 554, 555, 596, 617
- For holder code key, see page(s) 15-16
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF	LH	KAPR°	GAMO°	LAMS°	Weight	CTWS
		mm	mm	mm	mm	mm				kg	
SDNCN0808K07	02435828	8	8	125	4,2	16,0	62,5	0,0	0,0	0,1	DC..0702.. *DC..21.5.*
SDNCN1010M07	02435831	10	10	150	5,2	21,0	62,5	0,0	0,0	0,2	DC..0702.. *DC..21.5.*
SDNCN1212M07	00092195	12	12	150	6,2	20,0	62,5	0,0	0,0	0,2	DC..0702.. *DC..21.5.*
SDNCN1212M11	00092196	12	12	150	6,2	23,0	62,5	0,0	0,0	0,2	DC..11T3.. *DC..32.5.*
SDNCN1414M11	00089908	14	14	150	7,2	23,0	62,5	0,0	0,0	0,3	DC..11T3.. *DC..32.5.*
SDNCN1616H11	75011788	16	16	100	8,2	22,0	62,5	0,0	0,0	0,2	DC..11T3.. *DC..32.5.*
SDNCN2020K11	00092197	20	20	125	10,2	22,0	62,5	0,0	0,0	0,4	DC..11T3.. *DC..32.5.*
SDNCN2525M11	00092198	25	25	150	12,7	23,0	62,5	0,0	0,0	0,7	DC..11T3.. *DC..32.5.*
SDNCN2020K15	75011885	20	20	125	10,2	29,0	62,5	0,0	0,0	0,4	DC..1504.. *DC..43.*

Spare Parts, included in delivery

For size	Insert key	Insert screw	Insert shim	Shim screw
...07	T07P-2	C02506-T07P	–	–
.12/14/16..11	T15P-2	C04008-T15P	–	–
.20/25..11	T15P-2	C03510-T15P	126.19-620	CA3510
...15	T15P-2	C04512-T15P	126.19-621	CA4508

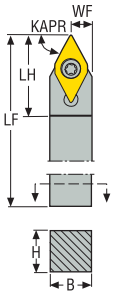
Accessories

For size	Insert clamping torque	Replacement blade	Shim key	Torque key
				
...07	0.9NM	T00-07P	–	T00-07P09
.12/14/16..11	3.5NM	T00-15P	–	T00-15P35
.20/25..11	3.0NM	T00-15P	9/64SMS875	T00-15P30
...15	5.0NM	T00-15P	5SMS795	T00-15P50

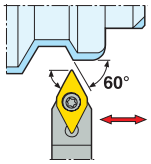
SDPCN – Toolholders for inserts DCGT, DCGW, DCMT, DCMW – Inch



SDPCN



SDPCN
KAPR = 62,5 °



CTWS



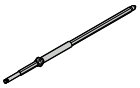
- Neutral version shown
- For inserts program, see page(s) 553, 554, 555, 596, 617
- For holder code key, see page(s) 17-18
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF	LH	KAPR°	GAMO°	LAMS°	Weight	CTWS
		inch	inch	inch	inch	inch				lbs	
SDPCN-16-3	00073942	1.000	1.000	5.996	0.500	0.860	62,5	0,0	0,0	1.760	DC..11T3.. *DC..32.5.*

Spare Parts, included in delivery

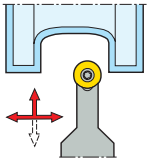
For size	Insert key	Insert screw
		
..-3	T15P-2	C04008-T15P

Accessories

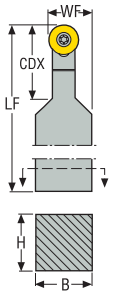
For size	Insert clamping torque	Replacement blade	Torque key
			
..-3	3.5NM	T00-15P	T00-15P35

SRDCN – Toolholders for inserts RCMT – Metric

SRDCN
KAPR = 45,0 °



SRDCN





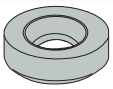
CTWS



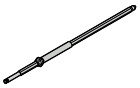
- Neutral version shown
- For inserts program, see page(s) 562, 563
- For holder code key, see page(s) 15-16
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF	CDX	KAPR°	GAMO°	LAMS°	Weight	CTWS
		mm	mm	mm	mm	mm				kg	
SRDCN1616H06	75011837	16	16	100	11,0	16,0	45,0	0,0	0,0	0,2	RCMT0602..
SRDCN2020K06	75011838	20	20	125	13,0	16,0	45,0	0,0	0,0	0,4	RCMT0602..
SRDCN2525M06	75011839	25	25	150	15,5	16,0	45,0	0,0	0,0	0,7	RCMT0602..
SRDCN1616H08	75011840	16	16	100	12,0	16,0	45,0	0,0	0,0	0,2	RC..0803..
SRDCN2020K08	75011841	20	20	125	14,0	20,0	45,0	0,0	0,0	0,4	RC..0803..
SRDCN2525M08	75011706	25	25	150	16,5	25,0	45,0	0,0	0,0	0,7	RC..0803..
SRDCN2020K10	75011842	20	20	125	15,0	20,0	45,0	0,0	0,0	0,4	RC..10T3..
SRDCN2525M10	75011843	25	25	150	17,5	25,0	45,0	0,0	0,0	0,7	RC..10T3..
SRDCN2525M12	75011844	25	25	150	18,5	25,0	45,0	0,0	0,0	0,7	RC..1204M0 *RC..43M0*
SRDCN3225P12	75011845	32	25	170	18,5	32,0	45,0	0,0	0,0	1,0	RC..1204M0 *RC..43M0*
SRDCN3225P16	75011846	32	25	170	20,5	32,0	45,0	0,0	0,0	1,0	RC..1606..

Spare Parts, included in delivery

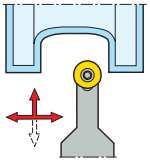
For size	Insert key	Insert screw	Insert shim	Shim screw
				
...06	T07P-2	C02506-T07P	–	–
...08	T09P-2	C03007-T09P	–	–
...10	T15P-2	C03510-T15P	111.19-620	CA3510
...12	T15P-2	C03512-T15P	111.19-621	CA3510
...16	T20P-7L	C05018-T20P	SRN16T3M0	CA5015

Accessories

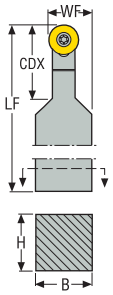
For size	Insert clamping torque	Replacement blade	Shim key	Torque key
				
...06	0.9NM	T00-07P	–	T00-07P09
...08	2.0NM	T00-09P	–	T00-09P20
...10	3.0NM	T00-15P	9/64SMS875	T00-15P30
...12	3.0NM	T00-15P	9/64SMS875	T00-15P30
...16	5.0NM	T00-20P	5SMS795	T00-20P50

SRDCN – Toolholders for inserts RCMT – Inch

SRDCN
KAPR = 90,0 °



SRDCN





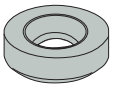
CTWS



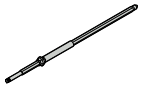
- Neutral version shown
- For inserts program, see page(s) 562, 563
- For holder code key, see page(s) 17-18
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF	CDX	KAPR°	GAMO°	LAMS°	Weight	CTWS
		inch	inch	inch	inch	inch				lbs	
SRDCN-10-06	00071932	0.625	0.625	4.000	0.532	0.630	90,0	0,0	0,0	0.660	RCMT0602..
SRDCN-12-08	00057603	0.750	0.750	5.000	0.431	0.787	90,0	0,0	0,0	0.880	RC..0803..
SRDCN-12-10	00071935	0.750	0.750	5.000	0.532	0.787	90,0	0,0	0,0	0.880	RC..10T3..
SRDCN-16-12	00071928	1.000	1.000	6.000	0.736	0.984	90,0	0,0	0,0	1.540	RC..1204M0 *RC..43M0*
SRDCN-85-12	00071953	1.250	1.000	7.000	0.736	0.984	90,0	0,0	0,0	2.430	RC..1204M0 *RC..43M0*

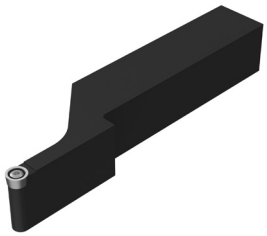
Spare Parts, included in delivery

For size	Insert key	Insert screw	Insert shim	Shim screw
				
..-06	T07P-2	C02506-T07P	–	–
..-08	T09P-2	C03007-T09P	–	–
..-10	T15P-2	C03510-T15P	111.19-620	CA3510
..-12	T15P-2	C03510-T15P	111.19-621	CA3510

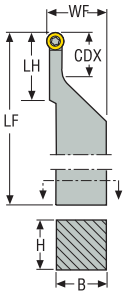
Accessories

For size	Insert clamping torque	Replacement blade	Shim key	Torque key
				
..-06	0.9NM	T00-07P	–	T00-07P09
..-08	2.0NM	T00-09P	–	T00-09P20
..-10	3.0NM	T00-15P	5SMS795	T00-15P30
..-12	3.0NM	T00-15P	9/64SMS875	T00-15P30

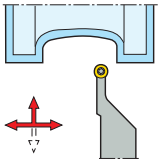
SRGCR/L – Toolholders for inserts RCMT – Inch



SRGCR/L



SRGCR/L
KAPR = 45,0 °



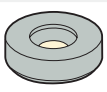
CTWS



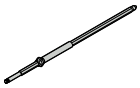
- Right-hand version shown
- For inserts program, see page(s) 562, 563
- For holder code key, see page(s) 17-18
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	LH	WF	CDX	KAPR°	GAMO°	LAMS°	Weight	CTWS
		inch	inch	inch	inch	inch	inch				lbs	
SRGCR-12-2	00013346	0.750	0.750	4.500	1.480	1.000	0.730	45,0	0,0	0,0	0.660	RCMT0603.. *RCMT22*
SRGCR-16-2	00013351	1.000	1.000	6.000	1.480	1.252	0.730	45,0	0,0	0,0	1.540	RCMT0603.. *RCMT22*
SRGCL-16-2	00013352	1.000	1.000	6.000	1.480	1.252	0.730	45,0	0,0	0,0	1.540	RCMT0603.. *RCMT22*
SRGCL-20-2	00013357	1.250	1.250	6.024	1.480	1.500	0.730	45,0	0,0	0,0	1.980	RCMT0603.. *RCMT22*
SRGCR-12-3	00013348	0.750	0.750	4.500	1.730	1.000	0.980	45,0	0,0	0,0	0.660	RC..09T3.. *RC..32.*
SRGCR-16-3	00013353	1.000	1.000	6.000	1.730	1.252	0.980	45,0	0,0	0,0	1.540	RC..09T3.. *RC..32.*
SRGCR-20-3	00013358	1.250	1.250	6.000	1.730	1.500	0.980	45,0	0,0	0,0	2.200	RC..09T3.. *RC..32.*
SRGCL-12-3	00013349	0.750	0.750	4.500	1.730	1.000	0.945	45,0	0,0	0,0	0.660	RC..09T3.. *RC..32.*
SRGCL-16-3	00013354	1.000	1.000	6.000	1.730	1.252	0.980	45,0	0,0	0,0	1.540	RC..09T3.. *RC..32.*
SRGCL-20-3	00013359	1.250	1.250	6.000	1.730	1.500	0.980	45,0	0,0	0,0	2.200	RC..09T3.. *RC..32.*
SRGCR-20-4	00013361	1.250	1.250	6.000	1.720	1.500	0.970	45,0	0,0	0,0	2.200	RC..120400 *RC..43*
SRGCL-20-4	00013362	1.250	1.250	6.000	1.720	1.500	0.945	45,0	0,0	0,0	2.430	RC..120400 *RC..43*

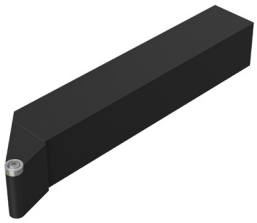
Spare Parts, included in delivery

For size	Insert key	Insert screw	Insert shim	Shim screw
				
..-2	T07P-2	C02506-T07P	–	–
..-3	TX-3.5	C03508-T15P	RS32C	SLS-35
..-4	T15P-2	C04011-T15P	RS43C	SLS-40

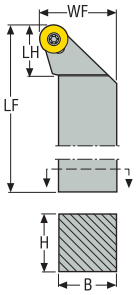
Accessories

For size	Insert clamping torque	Replacement blade	Torque key
			
..-2	0.9NM	T00-07P	T00-07P09
..-3	3.0NM	T00-15P	T00-15P30
..-4	3.5NM	T00-15P	T00-15P35

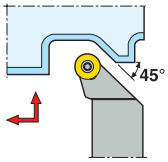
SRSCR/L – Toolholders for inserts RCMT – Metric



SRSCR/L



SRSCR/L
KAPR = 45,0 °



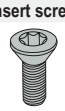
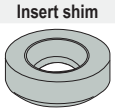
CTWS



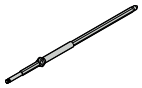
- Right-hand version shown
- For inserts program, see page(s) 562, 563
- For holder code key, see page(s) 15-16
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF	LH	KAPR°	GAMO°	LAMS°	Weight	CTWS
		mm	mm	mm	mm	mm				kg	
SRSCR2020K06	00092191	20	20	125	25,0	15,0	45,0	0,0	0,0	0,4	RCMT0602..
SRSCR2525M06	75011823	25	25	150	32,0	15,0	45,0	0,0	0,0	0,7	RCMT0602..
SRSCL2020K06	00092192	20	20	125	25,0	15,0	45,0	0,0	0,0	0,4	RCMT0602..
SRSCL2525M06	75011824	25	25	150	32,0	15,0	45,0	0,0	0,0	0,7	RCMT0602..
SRSCR2020K08	75011827	20	20	125	25,0	25,0	45,0	0,0	0,0	0,4	RC..0803..
SRSCR2525M08	75011704	25	25	150	32,0	25,0	45,0	0,0	0,0	0,7	RC..0803..
SRSCL2525M08	75011705	25	25	150	32,0	25,0	45,0	0,0	0,0	0,7	RC..0803..
SRSCR2020K10	75011829	20	20	125	25,0	17,0	45,0	0,0	0,0	0,4	RC..10T3..
SRSCR2525M10	75011933	25	25	150	32,0	20,0	45,0	0,0	0,0	0,7	RC..10T3..
SRSCL2020K10	75011830	20	20	125	25,0	17,0	45,0	0,0	0,0	0,4	RC..10T3..
SRSCL2525M10	75011934	25	25	150	32,0	20,0	45,0	0,0	0,0	0,7	RC..10T3..
SRSCR2525M12	75011831	25	25	150	32,0	23,0	45,0	0,0	0,0	0,7	RC..1204M0 *RC..43M0*
SRSCR3225P12	75011833	32	25	170	32,0	23,0	45,0	0,0	0,0	1,1	RC..1204M0 *RC..43M0*
SRSCL2525M12	75011832	25	25	150	32,0	23,0	45,0	0,0	0,0	0,7	RC..1204M0 *RC..43M0*
SRSCL3225P12	75011834	32	25	170	32,0	23,0	45,0	0,0	0,0	1,1	RC..1204M0 *RC..43M0*
SRSCR3225P16	75011835	32	25	170	32,0	25,0	45,0	0,0	0,0	1,1	RC..1606..
SRSCL3225P16	75011836	32	25	170	32,0	25,0	45,0	0,0	0,0	1,1	RC..1606..

Spare Parts, included in delivery

For size	Insert key	Insert screw	Insert shim	Shim screw
				
...06	T07P-2	C02506-T07P	–	–
...08	T09P-2	C03007-T09P	–	–
...10	T15P-2	C03510-T15P	111.19-620	CA3510
...12	T15P-2	C03512-T15P	111.19-621	CA3510
...16	T20P-7L	C05018-T20P	SRN16T3M0	CA5015

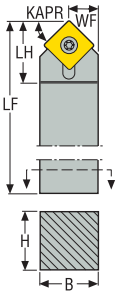
Accessories

For size	Insert clamping torque	Replacement blade	Shim key	Torque key
				
...06	0.9NM	T00-07P	–	T00-07P09
...08	2.0NM	T00-09P	–	T00-09P20
...10	3.0NM	T00-15P	9/64SMS875	T00-15P30
...12	3.0NM	T00-15P	9/64SMS875	T00-15P30
...16	5.0NM	T00-20P	5SMS795	T00-20P50

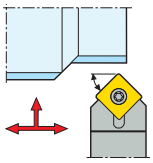
SSDCN – Toolholders for inserts SCGW, SCMT, SCMW – Metric



SSDCN



SSDCN
KAPR = 45,0 °



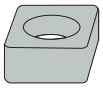
CTWS



- Neutral version shown
- For inserts program, see page(s) 565, 566, 602
- For holder code key, see page(s) 15-16
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF	LH	KAPR°	GAMO°	LAMS°	Weight	CTWS
		mm	mm	mm	mm	mm				kg	
SSDCN1212M09	00089909	12	12	150	6,2	23,0	45,0	0,0	0,0	0,2	SC..09T3.. *SC..32.5.*
SSDCN1616H09	75011882	16	16	100	8,2	26,0	45,0	0,0	0,0	0,3	SC..09T3.. *SC..32.5.*
SSDCN2020K09	00092193	20	20	125	10,2	22,0	45,0	0,0	0,0	0,4	SC..09T3.. *SC..32.5.*
SSDCN2525M09	00092194	25	25	150	12,7	23,0	45,0	0,0	0,0	0,8	SC..09T3.. *SC..32.5.*
SSDCN2020K12	75011883	20	20	125	10,2	22,0	45,0	0,0	0,0	0,4	SC..1204.. *SC..43.*
SSDCN2525M12	75011884	25	25	150	12,7	22,0	45,0	0,0	0,0	0,7	SC..1204.. *SC..43.*

Spare Parts, included in delivery

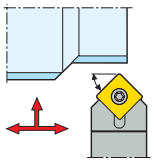
For size	Insert key	Insert screw	Insert shim	Shim screw
				
...09	T15P-2	C04008-T15P	–	–
...K12	T15P-2	C05012-T15P	110.19-621	CA5008
...M12	T20P-7L	C05018-T20P	110.19-621	CA5015

Accessories

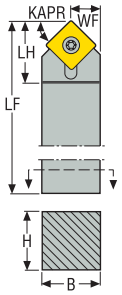
For size	Insert clamping torque	Replacement blade	Shim key	Torque key
				
...09	3.5NM	T00-15P	–	T00-15P35
...K12	5.0NM	T00-15P	5SMS795	T00-15P50
...M12	5.0NM	T00-20P	5SMS795	T00-20P50

SSDCN – Toolholders for inserts SCGW, SCMT, SCMW – Inch

SSDCN
KAPR = 45,0 °



SSDCN





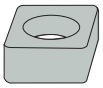
CTWS



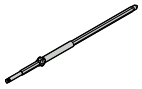
- Neutral version shown
- For inserts program, see page(s) 565, 566, 602
- For holder code key, see page(s) 17-18
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF	LH	KAPR°	GAMO°	LAMS°	Weight	CTWS
		inch	inch	inch	inch	inch				lbs	
SSDCN-8-3	00043262	0.500	0.500	3.500	0.250	0.630	45,0	0,0	0,0	0.440	SC..09T3.. *SC..32.5.*
SSDCN-10-3	00043259	0.625	0.625	4.000	0.312	0.630	45,0	0,0	0,0	0.440	SC..09T3.. *SC..32.5.*
SSDCN-12-4	00043260	0.750	0.750	4.500	0.375	0.810	45,0	0,0	0,0	0.880	SC..1204.. *SC..43.*

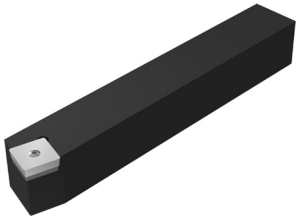
Spare Parts, included in delivery

For size	Insert key	Insert screw	Insert shim	Shim screw
				
..-3	T15P-2	C04008-T15P	–	–
..-4	T15P-2	C05012-T15P	110.19-621	CA5008

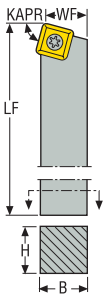
Accessories

For size	Insert clamping torque	Replacement blade	Shim key	Torque key
				
..-3	3.5NM	T00-15P	–	T00-15P35
..-4	5.0NM	T00-15P	5SMS795	T00-15P50

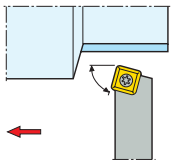
SSBCR/L – Toolholders for inserts SCMT – Metric



SSBCR/L



SSBCR/L
KAPR = 75,0 °



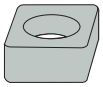
CTWS



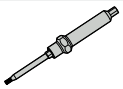
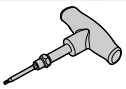
- Right-hand version shown
- For inserts program, see page(s) 565, 566
- For holder code key, see page(s) 15-16
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF	LH	KAPR°	GAMO°	LAMS°	Weight	CTWS
		mm	mm	mm	mm	mm				kg	
SSBCR5050T38	02785005	50	50	300	43,0	0,0	75,0	0,0	0,0	5,6	SC..3809.. *SC..126.*
SSBCR6060V38	02773272	60	60	400	53,0	0,0	75,0	0,0	0,0	10,9	SC..3809.. *SC..126.*

Spare Parts, included in delivery

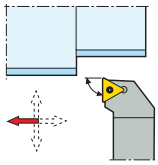
For size	Insert key	Insert screw	Insert shim	Shim screw
				
...38	T30P-7	C08020-T30P	112.19-624	CA8020

Accessories

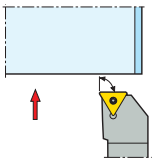
For size	Insert clamping torque	Replacement blade	Shim key	Torque key
				
...38	8.0NM	T00T-30P	5SMS795	T00T-30P80

STGCR/L, STFCR/L – Toolholders for inserts TCGT, TCGW, TCMT, TCMW – Metric

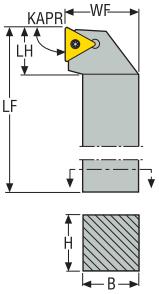
STGCR/L
KAPR = 90,0 °



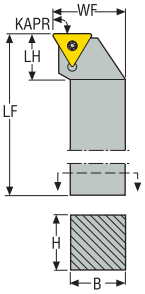
STFCR/L
KAPR = 90,0 °



STGCR/L



STFCR/L





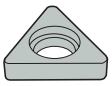
CTWS



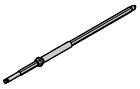
- Right-hand version shown
- For inserts program, see page(s) 571, 572, 607, 618
- For holder code key, see page(s) 15-16
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF	LH	KAPR°	GAMO°	LAMS°	Weight	CTWS
		mm	mm	mm	mm	mm				kg	
STGCR1212F11	75066181	12	12	80	16,0	17,0	90,0	0,0	0,0	0,1	TC..1102.. TC..21.5.
STGCR1616H11	75066183	16	16	100	20,0	17,0	90,0	0,0	0,0	0,3	TC..1102.. TC..21.5.
STGCL1212F11	75066182	12	12	80	16,0	17,0	90,0	0,0	0,0	0,1	TC..1102.. TC..21.5.
STGCL1616H11	75066184	16	16	100	20,0	17,0	90,0	0,0	0,0	0,3	TC..1102.. TC..21.5.
STGCR1616H16	75066197	16	16	100	20,0	25,0	90,0	0,0	0,0	0,2	TC..16T3.. TC..32.5.
STGCR2020K16	75066199	20	20	125	25,0	26,0	90,0	0,0	0,0	0,4	TC..16T3.. TC..32.5.
STGCR2525M16	75066201	25	25	150	32,0	27,0	90,0	0,0	0,0	0,8	TC..16T3.. TC..32.5.
STGCL1616H16	75066198	16	16	100	20,0	25,0	90,0	0,0	0,0	0,3	TC..16T3.. TC..32.5.
STGCL2020K16	75066200	20	20	125	25,0	26,0	90,0	0,0	0,0	0,4	TC..16T3.. TC..32.5.
STGCL2525M16	75066203	25	25	150	32,0	27,0	90,0	0,0	0,0	0,8	TC..16T3.. TC..32.5.
STFCR1212F11	75054888	12	12	80	16,0	16,0	90,0	0,0	0,0	0,1	TC..1102.. TC..21.5.
STFCR1616H11	75028230	16	16	100	20,0	16,0	90,0	0,0	0,0	0,2	TC..1102.. TC..21.5.
STFCL1212F11	75066245	12	12	80	16,0	16,0	90,0	0,0	0,0	0,1	TC..1102.. TC..21.5.
STFCL1616H11	75034423	16	16	100	20,0	16,0	90,0	0,0	0,0	0,3	TC..1102.. TC..21.5.
STFCR1616H16	75066191	16	16	100	20,0	22,0	90,0	0,0	0,0	0,3	TC..16T3.. TC..32.5.
STFCR2020K16	75066193	20	20	125	25,0	22,0	90,0	0,0	0,0	0,4	TC..16T3.. TC..32.5.
STFCR2525M16	75066195	25	25	150	32,0	24,0	90,0	0,0	0,0	0,8	TC..16T3.. TC..32.5.
STFCL1616H16	75066192	16	16	100	20,0	22,0	90,0	0,0	0,0	0,3	TC..16T3.. TC..32.5.
STFCL2020K16	75066194	20	20	125	25,0	22,0	90,0	0,0	0,0	0,4	TC..16T3.. TC..32.5.
STFCL2525M16	75066196	25	25	150	32,0	24,0	90,0	0,0	0,0	0,8	TC..16T3.. TC..32.5.

Spare Parts, included in delivery

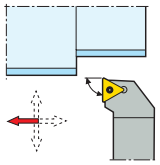
For size	Insert key	Insert screw	Insert shim	Shim screw
				
...11	T07P-2	C02506-T07P	–	–
...16	T15P-2	C03509-T15P	STN160312	CA3510

Accessories

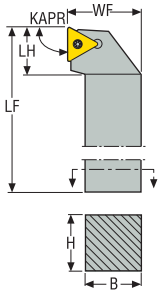
For size	Insert clamping torque	Replacement blade	Shim key	Torque key
				
...11	0.9NM	T00-07P	–	T00-07P09
...16	3.0NM	T00-15P	9/64SMS875	T00-15P30

STGCR/L – Toolholders for inserts TCGT, TCGW, TCMT, TCMW – Inch

STGCR/L
KAPR = 90,0 °



STGCR/L





CTWS



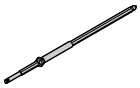
- Right-hand version shown
- For inserts program, see page(s) 571, 572, 607, 618
- For holder code key, see page(s) 17-18
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF	LH	KAPR°	GAMO°	LAMS°	Weight	CTWS
		inch	inch	inch	inch	inch				lbs	
STGCR-6-2	00013373	0.375	0.375	2.500	0.500	0.600	90,0	0,0	0,0	0.220	TC..1102.. *TC..21.5.*
STGCR-8-2	00013376	0.500	0.500	3.500	0.625	0.620	90,0	0,0	0,0	0.440	TC..1102.. *TC..21.5.*
STGCL-6-2	00013374	0.375	0.375	2.500	0.500	0.600	90,0	0,0	0,0	0.220	TC..1102.. *TC..21.5.*
STGCL-8-2	00013377	0.500	0.500	3.500	0.625	0.620	90,0	0,0	0,0	0.440	TC..1102.. *TC..21.5.*
STGCR-10-3	00013378	0.625	0.625	4.000	0.750	0.850	90,0	0,0	0,0	0.660	TC..16T3.. *TC..32.5.*
STGCL-10-3	00013379	0.625	0.625	4.000	0.750	0.850	90,0	0,0	0,0	0.440	TC..16T3.. *TC..32.5.*

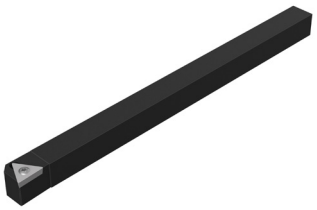
Spare Parts, included in delivery

For size	Insert key	Insert screw
		
..-2	T07P-2	C02506-T07P
..-3	T15P-2	C04008-T15P

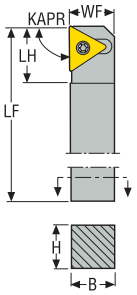
Accessories

For size	Insert clamping torque	Replacement blade	Torque key
			
..-2	0.9NM	T00-07P	T00-07P09
..-3	3.5NM	T00-15P	T00-15P35

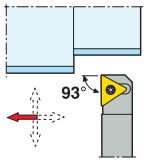
STJCR/L – Toolholders for inserts TCGT, TCGW, TCMT, TCMW – Metric



STJCR/L



STJCR/L
KAPR = 93,0 °



CTWS



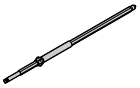
- Right-hand version shown
- For inserts program, see page(s) 571, 572, 607, 618
- For holder code key, see page(s) 15-16
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF	LH	KAPR°	GAMO°	LAMS°	Weight	CTWS
		mm	mm	mm	mm	mm				kg	
STJCR1010M11	02430911	10	10	150	10,0	13,0	93,0	0,0	0,0	0,2	TC..1102.. *TC..21.5.*
STJCR1212M11	02430917	12	12	150	12,0	13,0	93,0	0,0	0,0	0,2	TC..1102.. *TC..21.5.*
STJCR1616H11	02430921	16	16	100	16,0	13,0	93,0	0,0	0,0	0,3	TC..1102.. *TC..21.5.*
STJCL1010M11	02430914	10	10	150	10,0	13,0	93,0	0,0	0,0	0,2	TC..1102.. *TC..21.5.*
STJCL1212M11	02430920	12	12	150	12,0	13,0	93,0	0,0	0,0	0,2	TC..1102.. *TC..21.5.*
STJCL1616H11	02430932	16	16	100	16,0	13,0	93,0	0,0	0,0	0,2	TC..1102.. *TC..21.5.*

Spare Parts, included in delivery

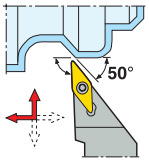
For size	Insert key	Insert screw
		
...11	T07P-2	C02506-T07P

Accessories

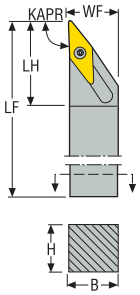
For size	Insert clamping torque	Replacement blade	Torque key
			
...11	0.9NM	T00-07P	T00-07P09

SVJBR/L – Toolholders for inserts VBGT, VBGW, VBMT, VBMW, VCGT – Metric

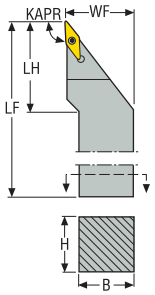
SVJBR/L
KAPR = 93,0 °

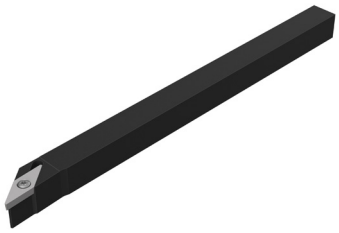


SVJBR/L



SVJBRL/..H11, ..K11, ..25M11





CTWS



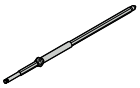
- Right-hand version shown
- For inserts program, see page(s) 582, 583, 583, 612, 619
- For holder code key, see page(s) 15-16
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF	LH	KAPR°	GAMO°	LAMS°	Weight	CTWS
		mm	mm	mm	mm	mm				kg	
SVJBR1010M11	02431006	10	10	150	10,0	20,0	93,0	0,0	0,0	0,2	VB..1102.. *VB..21.5.*
SVJBR1212M11	02439655	12	12	150	12,0	20,0	93,0	0,0	0,0	0,2	VB..1102.. *VB..21.5.*
SVJBR1616H11	75066240	16	16	100	20,0	27,0	93,0	0,0	0,0	0,2	VB..1102.. *VB..21.5.*
SVJBR2020K11	75066241	20	20	125	25,0	27,0	93,0	0,0	0,0	0,4	VB..1102.. *VB..21.5.*
SVJBR2525M11	75077182	25	25	150	32,0	42,0	93,0	0,0	0,0	0,7	VB..1102.. *VB..21.5.*
SVJBL1010M11	02431007	10	10	150	10,0	20,0	93,0	0,0	0,0	0,2	VB..1102.. *VB..21.5.*
SVJBL1212M11	02439658	12	12	150	12,0	20,0	93,0	0,0	0,0	0,2	VB..1102.. *VB..21.5.*
SVJBL1616H11	75065783	16	16	100	20,0	27,0	93,0	0,0	0,0	0,2	VB..1102.. *VB..21.5.*
SVJBL2020K11	75027877	20	20	125	25,0	27,0	93,0	0,0	0,0	0,4	VB..1102.. *VB..21.5.*
SVJBL2525M11	75077183	25	25	150	32,0	42,0	93,0	0,0	0,0	0,7	VB..1102.. *VB..21.5.*
SVJBR1212M16	02431016	12	12	150	12,5	30,0	93,0	0,0	0,0	0,2	VB..1604-VC..1604 *VB..33.-VC..33.*
SVJBR1616H16	02431021	16	16	100	16,5	30,0	93,0	0,0	0,0	0,2	VB..1604-VC..1604 *VB..33.-VC..33.*
SVJBL1212M16	02431020	12	12	150	12,0	30,0	93,0	0,0	0,0	0,2	VB..1604-VC..1604 *VB..33.-VC..33.*
SVJBL1616H16	02431024	16	16	100	16,0	30,0	93,0	0,0	0,0	0,2	VB..1604-VC..1604 *VB..33.-VC..33.*

Spare Parts, included in delivery

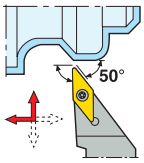
For size	Insert key	Insert screw
		
...11	T07P-2	C02506-T07P
...16	T15P-2	C03512-T15P

Accessories

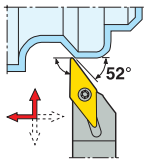
For size	Insert clamping torque	Replacement blade	Torque key
			
...11	0.9NM	T00-07P	T00-07P09
...16	3.0NM	T00-15P	T00-15P30

SVJCR/L, SVABR/L – Toolholders for inserts VBGT, VBGW, VBMT, VBMW, VCGT – Metric

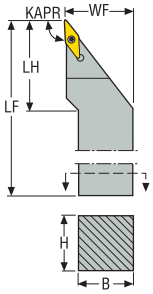
SVJCR/L
KAPR = 93,0 °



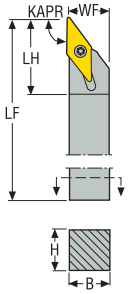
SVABR/L
KAPR = 90,0 °

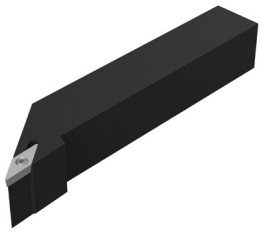


SVJCR/L



SVABR/L





CTWS



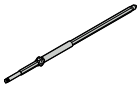
- Right-hand version shown
- For inserts program, see page(s) 582, 583, 583, 612, 619
- For holder code key, see page(s) 15-16
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF	LH	KAPR°	GAMO°	LAMS°	Weight	CTWS
		mm	mm	mm	mm	mm				kg	
SVJCR2020K11	02416717	20	20	125	25,0	25,0	93,0	0,0	0,0	0,4	VC..1103.. *VC..22.*
SVJCL2020K11	02416718	20	20	125	25,0	25,0	93,0	0,0	0,0	0,4	VC..1103.. *VC..22.*
SVABR1010M11	02430935	10	10	150	10,0	20,0	90,0	0,0	0,0	0,2	VB..1102.. *VB..21.5.*
SVABR1212M11	02430954	12	12	150	12,0	20,0	90,0	0,0	0,0	0,2	VB..1102.. *VB..21.5.*
SVABL1010M11	02430948	10	10	150	10,0	20,0	90,0	0,0	0,0	0,2	VB..1102.. *VB..21.5.*
SVABL1212M11	02430956	12	12	150	12,5	20,0	90,0	0,0	0,0	0,2	VB..1102.. *VB..21.5.*
SVABR1212M16	02431000	12	12	150	12,5	30,0	90,0	0,0	0,0	0,2	VB..1604-VC..1604 *VB..33.-VC..33.*
SVABR1616H16	02431002	16	16	100	16,0	30,0	90,0	0,0	0,0	0,2	VB..1604-VC..1604 *VB..33.-VC..33.*
SVABL1212M16	02431001	12	12	150	12,0	30,0	90,0	0,0	0,0	0,2	VB..1604-VC..1604 *VB..33.-VC..33.*
SVABL1616H16	02431003	16	16	100	16,0	30,0	90,0	0,0	0,0	0,2	VB..1604-VC..1604 *VB..33.-VC..33.*

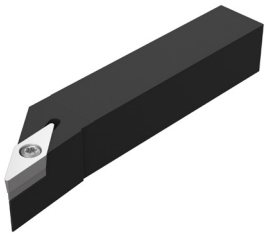
Spare Parts, included in delivery

For size	Insert key	Insert screw
		
...11	T07P-2	C02506-T07P
...16	T15P-2	C03510-T15P

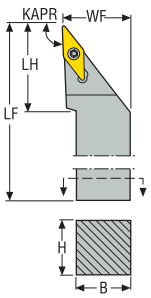
Accessories

For size	Insert clamping torque	Replacement blade	Torque key
			
...11	0.9NM	T00-07P	T00-07P09
...16	3.0NM	T00-15P	T00-15P30

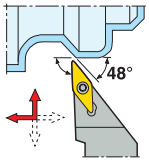
SVLBR/L – Toolholders for inserts VBGT, VBGW, VBMT, VBMW, VCGT – Metric



SVLBR/L



SVLBR/L
KAPR = 95,0 °



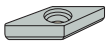
CTWS



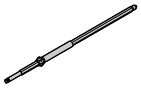
- Right-hand version shown
- For inserts program, see page(s) 582, 583, 583, 612, 619
- For holder code key, see page(s) 15-16
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF	LH	KAPR°	GAMO°	LAMS°	Weight	CTWS
		mm	mm	mm	mm	mm				kg	
SVLBR2020K16	75011715	20	20	125	25,0	40,0	95,0	0,0	0,0	0,4	VB..1604-VC..1604 *VB..33.-VC..33.*
SVLBR2525M16	75011717	25	25	150	32,0	40,0	95,0	0,0	0,0	0,7	VB..1604-VC..1604 *VB..33.-VC..33.*
SVLBR3225P16	75011719	32	25	170	32,0	40,0	95,0	0,0	0,0	1,0	VB..1604-VC..1604 *VB..33.-VC..33.*
SVLBL2020K16	75011716	20	20	125	25,0	40,0	95,0	0,0	0,0	0,4	VB..1604-VC..1604 *VB..33.-VC..33.*
SVLBL2525M16	75011718	25	25	150	32,0	40,0	95,0	0,0	0,0	0,7	VB..1604-VC..1604 *VB..33.-VC..33.*
SVLBL3225P16	75011720	32	25	170	32,0	40,0	95,0	0,0	0,0	1,0	VB..1604-VC..1604 *VB..33.-VC..33.*

Spare Parts, included in delivery

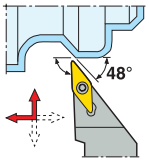
For size	Insert key	Insert screw	Insert shim	Shim screw
				
...16	T15P-2	C03512-T15P	171.19-620	CA3510

Accessories

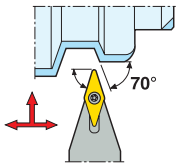
For size	Insert clamping torque	Replacement blade	Shim key	Torque key
				
...16	3.0NM	T00-15P	9/64SMS875	T00-15P30

SVLBR/L, SVVBN – Toolholders for inserts VBGT, VBGM, VBMT – Inch

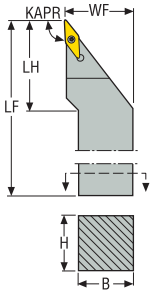
SVLBR/L
KAPR = 95,0 °



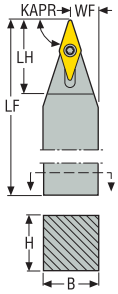
SVVBN
KAPR = 72,5 °

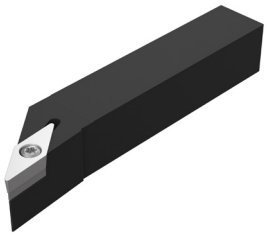


SVLBR/L



SVVBN





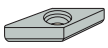
CTWS



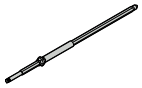
- SVLBR/L = Right-hand version shown
- SVVBN = Neutral version shown
- For inserts program, see page(s) 582, 583
- For holder code key, see page(s) 17-18
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF	LH	KAPR°	GAMO°	LAMS°	Weight	CTWS
		inch	inch	inch	inch	inch				lbs	
SVLBR-12-3	00071930	0.750	0.750	4.500	0.875	1.180	95,0	0,0	0,0	0.660	VB..1604-VC..1604 *VB..33.-VC..33.*
SVLBR-16-3	00071929	1.000	1.000	6.000	1.125	1.180	95,0	0,0	0,0	1.540	VB..1604-VC..1604 *VB..33.-VC..33.*
SVLBL-12-3	00071944	0.750	0.750	4.500	0.875	1.180	95,0	0,0	0,0	0.660	VB..1604-VC..1604 *VB..33.-VC..33.*
SVLBL-16-3	00071950	1.000	1.000	6.000	1.125	1.180	95,0	0,0	0,0	1.540	VB..1604-VC..1604 *VB..33.-VC..33.*
SVVBN-12-3	00071940	0.750	0.750	4.500	0.375	1.390	72,5	0,0	0,0	0.660	VB..1604-VC..1604 *VB..33.-VC..33.*
SVVBN-16-3	00071946	1.000	1.000	6.000	0.500	1.394	72,5	0,0	0,0	1.540	VB..1604-VC..1604 *VB..33.-VC..33.*

Spare Parts, included in delivery

For size	Insert key	Insert screw	Insert shim	Shim screw
				
..-3	T15P-2	C03510-T15P	171.19-620	CA3510

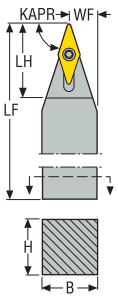
Accessories

For size	Insert clamping torque	Replacement blade	Shim key	Torque key
				
..-3	3.0NM	T00-15P	9/64SMS875	T00-15P30

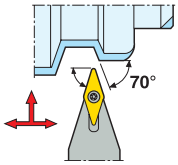
SVVBN – Toolholders for inserts VBGT, VBGW, VBMT, VBMW, VCGT – Metric



SVVBN



SVVBN
KAPR = 72,5 °



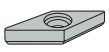
CTWS



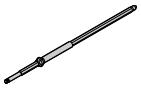
- Neutral version shown
- For inserts program, see page(s) 582, 583, 583, 612, 619
- For holder code key, see page(s) 15-16
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF	LH	KAPR°	GAMO°	LAMS°	Weight	CTWS
		mm	mm	mm	mm	mm				kg	
SVVBN1010M11	02431026	10	10	150	5,3	25,0	72,5	0,0	0,0	0,2	VB..1102.. *VB..21.5.*
SVVBN1212M11	02439659	12	12	150	6,3	25,0	72,5	0,0	0,0	0,2	VB..1102.. *VB..21.5.*
SVVBN1616H11	75077179	16	16	100	8,3	26,0	72,5	0,0	0,0	0,2	VB..1102.. *VB..21.5.*
SVVBN2020K11	75077180	20	20	125	10,3	26,0	72,5	0,0	0,0	0,4	VB..1102.. *VB..21.5.*
SVVBN2525M11	75077181	25	25	150	12,8	26,0	72,5	0,0	0,0	0,7	VB..1102.. *VB..21.5.*
SVVBN1212M16	02431027	12	12	150	6,3	30,0	72,5	0,0	0,0	0,2	VB..1604-VC..1604 *VB..33.-VC..33.*
SVVBN1616H16	02431029	16	16	100	8,3	30,0	72,5	0,0	0,0	0,2	VB..1604-VC..1604 *VB..33.-VC..33.*
SVVBN2020K16	75011514	20	20	125	10,6	35,0	72,5	0,0	0,0	0,4	VB..1604-VC..1604 *VB..33.-VC..33.*
SVVBN2525M16	75011515	25	25	150	13,1	35,0	72,5	0,0	0,0	0,7	VB..1604-VC..1604 *VB..33.-VC..33.*
SVVBN3225P16	75011516	32	25	170	13,1	35,0	72,5	0,0	0,0	1,0	VB..1604-VC..1604 *VB..33.-VC..33.*

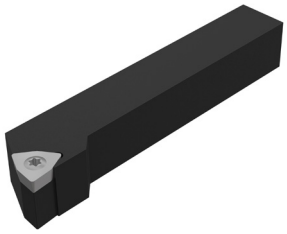
Spare Parts, included in delivery

For size	Insert key	Insert screw	Insert shim	Shim screw
				
...11	T07P-2	C02506-T07P	–	–
.1212M16	T15P-2	C03510-T15P	–	–
.1616H16	T15P-2	C03510-T15P	–	–
...16	T15P-2	C03512-T15P	171.19-620	CA3510

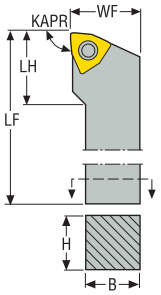
Accessories

For size	Insert clamping torque	Replacement blade	Shim key	Torque key
				
...11	0.9NM	T00-07P	–	T00-07P09
.1212M16	3.0NM	T00-15P	–	T00-15P30
.1616H16	3.0NM	T00-15P	–	T00-15P30
...16	3.0NM	T00-15P	9/64SMS875	T00-15P30

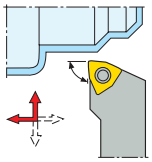
SWLCR/L – Toolholders for inserts WCMT – Metric



SWLCR/L



SWLCR/L
KAPR = 95,0 °



CTWS



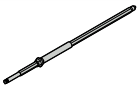
- Right-hand version shown
- For inserts program, see page(s) 585
- For holder code key, see page(s) 15-16
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF	LH	KAPR°	GAMO°	LAMS°	Weight	CTWS
		mm	mm	mm	mm	mm				kg	
SWLCR1616H06	75066173	16	16	100	20,0	20,0	95,0	0,0	0,0	0,2	WC..06T3.. *WC..32.5.*
SWLCR2020K06	75066175	20	20	125	25,0	21,0	95,0	0,0	0,0	0,4	WC..06T3.. *WC..32.5.*
SWLCL1616H06	75066174	16	16	100	20,0	20,0	95,0	0,0	0,0	0,2	WC..06T3.. *WC..32.5.*
SWLCL2020K06	75066176	20	20	125	25,0	21,0	95,0	0,0	0,0	0,4	WC..06T3.. *WC..32.5.*

Spare Parts, included in delivery

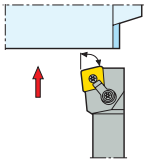
For size	Insert key	Insert screw
		
...06	T15P-2	C03510-T15P

Accessories

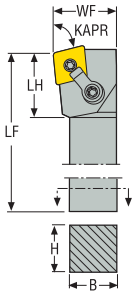
For size	Insert clamping torque	Replacement blade	Torque key
			
...06	3.0NM	T00-15P	T00-15P30

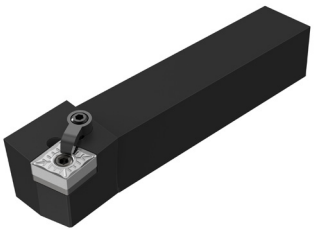
MCKNR/L – Toolholders for inserts CNGA, CNGP, CNMA, CNMG, CNMM, CNMP – Inch

MCKNR/L
KAPR = 75,0 °



MCKNR/L





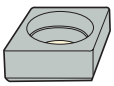
CTWS



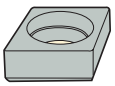
- Right-hand version shown
- For inserts program, see page(s) 546, 547, 548, 549, 550, 551, 593, 594
- For holder code key, see page(s) 17-18
- Shim CSN-642 for insert CN..63., to be ordered separately
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF	LH	KAPR°	GAMO°	LAMS°	Weight	CTWS
		inch	inch	inch	inch	inch				lbs	
MCKNR-20-6D	00012996	1.250	1.250	6.815	1.500	1.280	75,0	-6,0	-6,0	2.870	CN..1906.. *CN..64.*

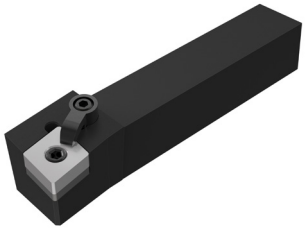
Spare Parts, included in delivery

For size	Cantilever clamp	Clamp screw	Insert pin	Insert shim
				
..-6	CL-12	XNS-510	NL-68	CSN190412

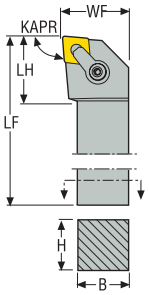
Accessories

For size	Insert shim
	
..-6	CSN190608

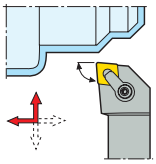
MCLNR/L – Toolholders for inserts CNGA, CNGN, CNGP, CNMA, CNMG, CNMM, CNMP – Inch



MCLNR/L



MCLNR/L
KAPR = 95,0 °



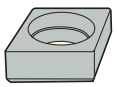
CTWS



- Right-hand version shown
- For inserts program, see page(s) 546, 547, 548, 549, 550, 551, 593, 594
- For holder code key, see page(s) 17-18
- For ISO attribute explanation, see page 82

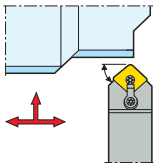
Designation	Item number	H	B	LF	WF	LH	KAPR°	GAMO°	LAMS°	Weight	CTWS
		inch	inch	inch	inch	inch				lbs	
MCLNR-16-6D	00012668	1.000	1.000	6.000	1.250	1.575	95,0	-6,0	-6,0	1.760	CN..1906.. *CN..64.*
MCLNR-24-6E	00013014	1.500	1.500	7.000	2.000	1.575	95,0	-6,0	-6,0	4.630	CN..1906.. *CN..64.*
MCLNL-16-6D	00012669	1.000	1.000	6.000	1.250	1.575	95,0	-6,0	-6,0	1.760	CN..1906.. *CN..64.*
MCLNL-24-6E	00013003	1.500	1.500	7.000	2.000	1.575	95,0	-6,0	-6,0	4.850	CN..1906.. *CN..64.*
MCLNR-24-8E	00013016	1.500	1.500	7.000	2.000	1.575	95,0	-6,0	-6,0	5.070	CN..2509.. *CN..86.*
MCLNL-24-8E	00013004	1.500	1.500	7.000	2.000	1.575	95,0	-6,0	-6,0	4.630	CN..2509.. *CN..86.*

Spare Parts, included in delivery

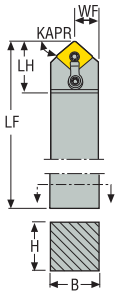
For size	Cantilever clamp	Clamp screw	Insert pin	Insert shim
				
..-6	CL-12	XNS-510	NL-68	CSN190412
..-8	CL-24	XNS-610	NL-810	CSN250624

MCMNN – Toolholders for inserts CNGP, CNMA, CNMG, CNMM, CNMN, CNMP – Inch

MCMNN
KAPR = 40,0 °



MCMNN





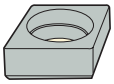
CTWS



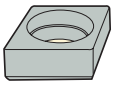
- Neutral version shown
- For inserts program, see page(s) 546, 547, 548, 549, 550, 551, 595
- For holder code key, see page(s) 17-18
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF	LH	KAPR°	GAMO°	LAMS°	Weight	CTWS
		inch	inch	inch	inch	inch				lbs	
MCMNN-16-4	00042505	1.000	1.000	6.000	0.500	1.202	40,0	0,0	-7,0	1.760	CN..1204.. *CN..43.*
MCMNN-20-6	00042506	1.250	1.250	7.000	0.625	1.660	40,0	0,0	-7,0	3.090	CN..1906.. *CN..64.*

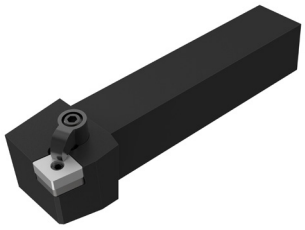
Spare Parts, included in delivery

For size	Cantilever clamp	Clamp screw	Insert pin	Insert shim
				
..-4	CL-20	XNS-48	NL-46	CSN120412
..-6	CL-12	XNS-510	NL-68	CSN190412

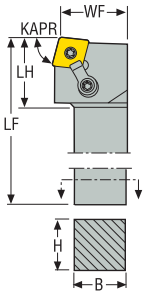
Accessories

For size	Anvil
	
..-4	–
..-6	CSN190608

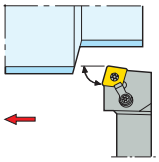
MCRNR/L – Toolholders for inserts CNGA, CNGN, CNGP, CNMA, CNMG, CNMM, CNMP – Inch



MCRNR/L



MCRNR/L
KAPR = 75,0 °



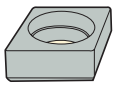
CTWS



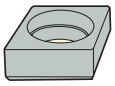
- Right-hand version shown
- For inserts program, see page(s) 546, 547, 548, 549, 550, 551, 593, 594
- For holder code key, see page(s) 17-18
- Shim CSN-642 for insert CN..63., to be ordered separately
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF	LH	KAPR°	GAMO°	LAMS°	Weight	CTWS
		inch	inch	inch	inch	inch				lbs	
MCRNR-16-4D	00013033	1.000	1.000	6.000	1.250	1.258	75,0	-6,0	-6,0	1.760	CN..1204.. *CN..43.*
MCRNL-16-4D	00012574	1.000	1.000	6.000	1.250	1.258	75,0	-6,0	-6,0	1.980	CN..1204.. *CN..43.*
MCRNR-20-6D	00013038	1.250	1.250	6.024	1.500	1.496	75,0	-6,0	-6,0	2.870	CN..1906.. *CN..64.*

Spare Parts, included in delivery

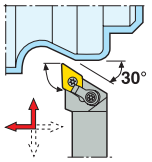
For size	Cantilever clamp	Clamp screw	Insert pin	Insert shim
				
..-4	CL-9	XNS-58	NL-46	CSN120412
..-6	CL-12	XNS-510	NL-68	CSN190412

Accessories

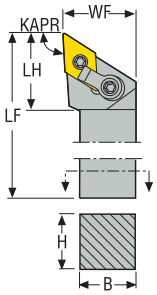
For size	Insert shim
	
..-4	–
..-6	CSN190608

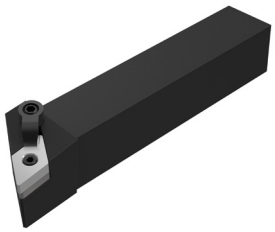
MDJNR/L – Toolholders for inserts DNGA, DNGM, DNGP, DNMA, DNMG, DNMP, DNMU, DNMX – Inch

MDJNR/L
KAPR = 93,0 °



MDJNR/L





CTWS



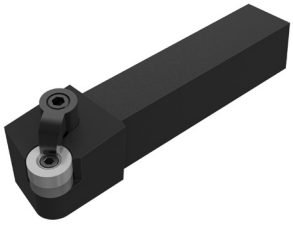
- Right-hand version shown
- For inserts program, see page(s) 556, 557, 558, 559, 597, 598
- For holder code key, see page(s) 17-18
- * Use the right shim & the right screw for the selected insert. For details, see page 99
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF	LH	KAPR°	GAMO°	LAMS°	Weight	CTWS
		inch	inch	inch	inch	inch				lbs	
MDJNR-16-4D	00012698	1.000	1.000	6.000	1.250	1.246	93,0	-6,0	-6,0	1.760	DN..1504.. *DN..43.*
MDJNR-24-4D	00012708	1.500	1.500	6.000	2.000	1.325	93,0	-6,0	-6,0	3.530	DN..1504.. *DN..43.*
MDJNL-16-4D	00012699	1.000	1.000	6.000	1.250	1.246	93,0	-6,0	-6,0	1.760	DN..1504.. *DN..43.*
MDJNL-24-4D	00012709	1.500	1.500	6.000	2.000	1.325	93,0	-6,0	-6,0	3.530	DN..1504.. *DN..43.*

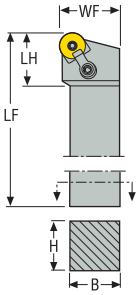
Spare Parts, included in delivery

For size	Cantilever clamp	Clamp screw	Insert pin	Insert shim
				
..-4	CL-20	XNS-48	NL-46	DSN150412

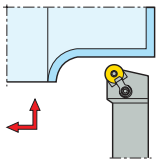
MRGNR/L – Toolholders for inserts RNGN, RNMA, RNMG, RNMN – Inch



MRGNR/L



MRGNR/L
KAPR = 90,0 °



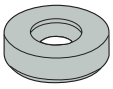
CTWS



- Right-hand version shown
- For inserts program, see page(s) 564, 600, 618, 621
- For holder code key, see page(s) 17-18
- Shim DSN120416 for insert SN..1206.., to be ordered separately
- For ISO attribute explanation, see page 82

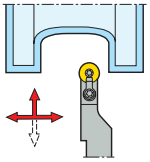
Designation	Item number	H	B	LF	WF	LH	KAPR°	GAMO°	LAMS°	Weight	CTWS
		inch	inch	inch	inch	inch				lbs	
MRGNR-12-4B	00013087	0.750	0.750	4.500	1.000	1.260	90,0	-6,0	-6,0	0.880	RN..1204.. *RN..43.*
MRGNL-12-4B	00013073	0.750	0.750	4.500	1.000	1.260	90,0	-6,0	-6,0	0.880	RN..1204.. *RN..43.*

Spare Parts, included in delivery

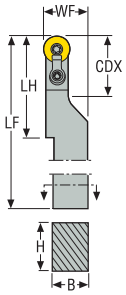
For size	Cantilever clamp	Clamp screw	Insert pin	Insert shim
				
..-4	CL-9	XNS-59	NL-46	RSN120400

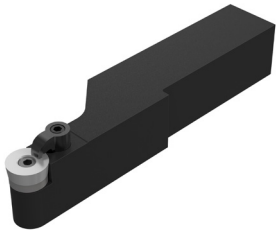
MRGOR/L – Toolholders for inserts RCMM – Inch

MRGOR/L
KAPR = 90,0 °



MRGOR/L





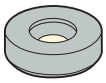
CTWS



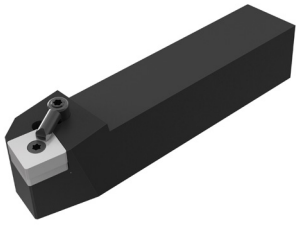
- Right-hand version shown
- For inserts program, see page(s) 562, 563
- For holder code key, see page(s) 17-18
- Shim DSN120416 for insert SN..1206.., to be ordered separately
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF	LH	CDX	KAPR°	GAMO°	LAMS°	Weight	CTWS
		inch	inch	inch	inch	inch	inch				lbs	
MRGOR-85-4D	00013107	1.250	1.000	6.000	1.250	2.338	1.000	90,0	0,0	0,0	1.760	RC..120400 *RC..43*
MRGOL-85-4D	00013103	1.250	1.000	6.000	1.250	2.338	1.000	90,0	0,0	0,0	1.760	RC..120400 *RC..43*
MRGOR-20-6E	00013104	1.250	1.250	7.000	1.500	3.530	1.750	90,0	0,0	0,0	2.650	RC..1906 *RC..64*
MRGOL-20-6E	00013101	1.250	1.250	7.000	1.500	3.530	1.750	90,0	0,0	0,0	2.650	RC..1906 *RC..64*
MRGOR-24-8E	00013106	1.500	1.500	7.000	2.287	2.010	2.000	90,0	0,0	0,0	3.970	RC..2506 *RC..84*
MRGOL-24-8E	00013102	1.500	1.500	7.000	2.287	2.010	2.000	90,0	0,0	0,0	3.970	RC..2506 *RC..84*

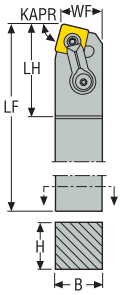
Spare Parts, included in delivery

For size	Cantilever clamp	Clamp screw	Insert pin	Insert shim
				
..-4	CL-6	XNS-36	PL-46	RSP120400
..-6	CL-9	XNS-58	PL-68	RSP190400
..-8	CL-12	XNS-58	PL-68	RS83P

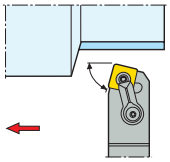
MSBNR/L – Toolholders for inserts SNMA, SNMG, SNMM – Metric



MSBNR/L



MSBNR/L
KAPR = 75,0 °



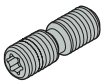
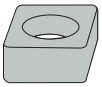
CTWS



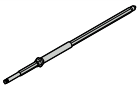
- Right-hand version shown
- For inserts program, see page(s) 567, 568, 569, 570
- For holder code key, see page(s) 15-16
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF	LH	KAPR°	GAMO°	LAMS°	Weight	CTWS
		mm	mm	mm	mm	mm				kg	
MSBNR3232P19	02464174	32	32	170	27,0	45,0	75,0	-6,0	-6,0	1,4	SN..1906.. *SN..64.*
MSBNR4040R19	02464204	40	40	200	35,0	45,0	75,0	-6,0	-6,0	2,4	SN..1906.. *SN..64.*
MSBNL3232P19	02464202	32	32	170	27,0	45,0	75,0	-6,0	-6,0	1,4	SN..1906.. *SN..64.*
MSBNL4040R19	02464206	40	40	200	35,0	45,0	75,0	-6,0	-6,0	2,4	SN..1906.. *SN..64.*

Spare Parts, included in delivery

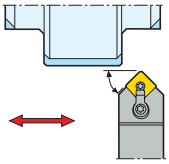
For size	Cantilever clamp	Clamp screw	Insert shim	Shim/clamp key	Shim pin
					
...19	MC22	LD6024-T20P	SSN190412	T20P-7L	MN1920-T20P

Accessories

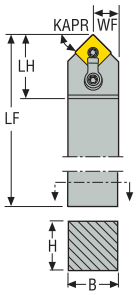
For size	Insert clamping torque	Replacement blade	Torque key
			
...19	3.0NM	T00-15P	T00-15P30

MSDNN – Toolholders for inserts SNGA, SNGN, SNMA, SNMG, SNMM, SNMN, SNMP – Inch

MSDNN
KAPR = 45,0 °



MSDNN





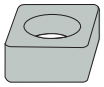
CTWS



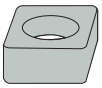
- Neutral version shown
- For inserts program, see page(s) 567, 568, 569, 570, 603, 604
- For holder code key, see page(s) 17-18
- Shim DSN120416 for insert SN..1206.., to be ordered separately
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF	LH	KAPR°	GAMO°	LAMS°	Weight	CTWS
		inch	inch	inch	inch	inch				lbs	
MSDNN-8-3	00013325	0.500	0.500	4.500	0.250	1.043	45,0	0,0	-7,0	0.440	SN..0903.. *SN..32.*
MSDNN-10-3	00013330	0.625	0.625	4.500	0.375	1.402	45,0	-6,0	-6,0	0.660	SN..0903.. *SN..32.*
MSDNN-12-4	00013340	0.750	0.750	6.000	0.375	1.402	45,0	-6,0	-6,0	1.100	SN..1204.. *SN..43.*
MSDNN-16-4	00013345	1.000	1.000	6.000	0.500	1.402	45,0	0,0	-7,0	1.760	SN..1204.. *SN..43.*
MSDNN-16-5	00013360	1.000	1.000	6.000	0.500	1.607	45,0	-6,0	-6,0	1.760	SN..1506.. *SN..54.*
MSDNN-20-5	00042536	1.250	1.250	7.000	0.625	1.607	45,0	-6,0	-6,0	3.090	SN..1506.. *SN..54.*
MSDNN-20-6	00013375	1.250	1.250	7.000	0.625	1.732	45,0	-6,0	-6,0	3.090	SN..1906.. *SN..64.*
MSDNN-24-6	00013390	1.500	1.500	7.000	0.750	1.732	45,0	-6,0	-6,0	4.190	SN..1906.. *SN..64.*
MSDNN-24-8	00042538	1.500	1.500	7.000	0.750	2.223	45,0	0,0	-8,0	4.190	SN..2509.. *SN..86.*

Spare Parts, included in delivery

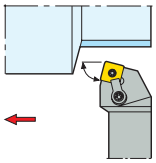
For size	Cantilever clamp	Clamp screw	Insert pin	Insert shim
				
..-3	CL-6	XNS-36	NL-34	SSN090308
..-4	CL-9	XNS-59	NL-46	SSN120412
..-5	CL-12	XNS-510	NL-58	SSN150412
..-6	CL-12	XNS-510	NL-68	SSN190412
..-8	CL-24	XNS-610	NL-810	SSN250616

Accessories

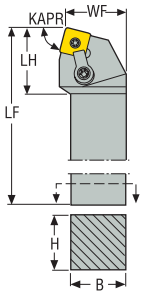
For size	Insert shim
	
..-3	–
..-4	–
..-5	–
..-6	SSN190612
..-8	–

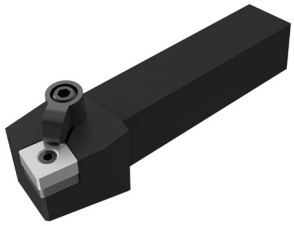
MSRNR – Toolholders for inserts SNMG, SNMM – Metric

MSRNR
KAPR = 75,0 °



MSRNR





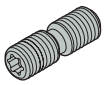
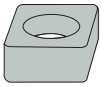
CTWS



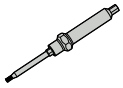
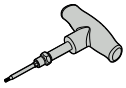
- Right-hand version shown
- For inserts program, see page(s) 567, 568, 569, 570
- For holder code key, see page(s) 15-16
- Shim SSN250616 for insert SN..2509.., to be ordered separately
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF	LH	KAPR°	GAMO°	LAMS°	Weight	CTWS
		mm	mm	mm	mm	mm				kg	
MSRNR5050T25	75000199	50	50	300	53,2	49,0	75,0	-6,0	-6,0	5,7	SN..2507.. *SN..85.*

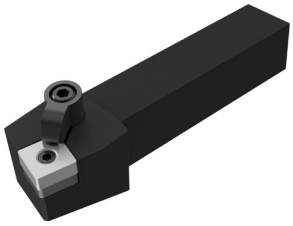
Spare Parts, included in delivery

For size	Clamp	Clamp screw	Insert shim	Key	Pin
					
...25	MC24	LD1035-T25P	SSN250716	T25P-7	MN2525-T25P

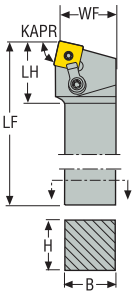
Accessories

For size	Insert clamping torque	Replacement blade	Shim screw	Torque key
				
...25	6.0NM	T00T-25P	CS1216	T00T-25P60

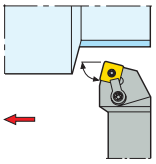
MSRNR/L – Toolholders for inserts SNGA, SNGN, SNMA, SNMG, SNMM, SNMN, SNMP – Inch



MSRNR/L



MSRNR/L
KAPR = 75,0 °



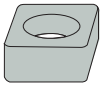
CTWS



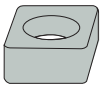
- Right-hand version shown
- For inserts program, see page(s) 567, 568, 569, 570, 603, 604
- For holder code key, see page(s) 17-18
- Shim SSN250616 for insert SN..2509.., to be ordered separately
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF	LH	KAPR°	GAMO°	LAMS°	Weight	CTWS
		inch	inch	inch	inch	inch				lbs	
MSRNR-12-4B	00012743	0.750	0.750	4.500	0.878	1.260	75,0	-6,0	-6,0	0.880	SN..1204.. *SN..43.*
MSRNR-16-4D	00012748	1.000	1.000	6.000	1.128	1.260	75,0	-6,0	-6,0	1.980	SN..1204.. *SN..43.*
MSRNL-12-4B	00012744	0.750	0.750	4.500	0.878	1.260	75,0	-6,0	-6,0	0.880	SN..1204.. *SN..43.*
MSRNL-16-4D	00012749	1.000	1.000	6.000	1.128	1.260	75,0	-6,0	-6,0	1.980	SN..1204.. *SN..43.*
MSRNR-20-5D	00012753	1.250	1.250	6.000	1.350	1.496	75,0	-6,0	-6,0	2.870	SN..1506.. *SN..54.*
MSRNL-16-5D	00071776	1.000	1.000	6.000	1.100	1.496	75,0	-6,0	-6,0	1.980	SN..1506.. *SN..54.*
MSRNL-20-5D	00012754	1.250	1.250	6.000	1.350	1.496	75,0	-6,0	-6,0	2.650	SN..1506.. *SN..54.*
MSRNR-20-6D	00012756	1.250	1.250	6.000	1.318	1.535	75,0	-6,0	-6,0	2.650	SN..1906.. *SN..64.*
MSRNR-24-6E	00013118	1.500	1.500	7.000	1.818	1.513	75,0	-6,0	-6,0	4.630	SN..1906.. *SN..64.*
MSRNL-20-6D	00012757	1.250	1.250	6.000	1.318	1.535	75,0	-6,0	-6,0	2.650	SN..1906.. *SN..64.*
MSRNL-24-6E	00013114	1.500	1.500	7.000	1.818	1.513	75,0	-6,0	-6,0	4.410	SN..1906.. *SN..64.*

Spare Parts, included in delivery

For size	Cantilever clamp	Clamp screw	Insert pin	Insert shim
				
..-4	CL-9	XNS-59	NL-46	SSN120412
..-5	CL-12	XNS-510	NL-58	SSN150412
..-6	CL-12	XNS-510	NL-68	SSN190412

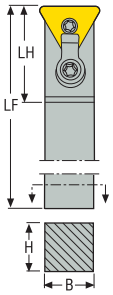
Accessories

For size	Insert shim
	
..-4	–
..-5	–
..-6	SSN190612

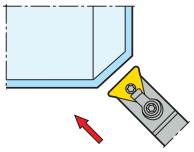
MTCNN – Toolholders for inserts TNGN, TNMA, TNMG, TNMM, TNMN, TNMP – Inch



MTCNN



MTCNN
KAPR = 90,0 °



CTWS



- Neutral version shown
- For inserts program, see page(s) 574, 575, 576, 577, 609, 610
- For holder code key, see page(s) 17-18
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF	LH	KAPR°	GAMO°	LAMS°	Weight	CTWS
		inch	inch	inch	inch	inch				lbs	
MTCNN-44-3	00013835	1.000	0.500	8.000	0.075	1.147	90,0	-7,0	0,0	1.100	TN..1604.. *TN..33.*
MTCNN-12-4	00013830	0.750	0.750	6.000	–	1.430	90,0	-7,0	0,0	1.100	TN..2204.. *TN..43.*
MTCNN-64-4	00013840	1.000	0.750	8.000	–	1.430	90,0	-7,0	0,0	1.760	TN..2204.. *TN..43.*

Spare Parts, included in delivery

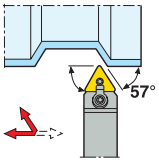
For size	Cantilever clamp	Clamp screw	Insert pin	Insert shim
				
..-3	CL-7	XNS-36	NL-34L	TSN160312
..-4	CL-12	XNS-510	NL-46	TSN220412

Accessories

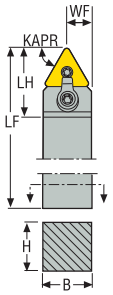
For size	Insert shim
	
..-3	TSN160412
..-4	TSNS220316

MTENNS – Toolholders for inserts TNGA, TNMA, TNMG, TNMM, TNMP – Inch

MTENNS
KAPR = 60,0 °



MTENNS





CTWS



- Neutral version shown
- For inserts program, see page(s) 574, 575, 576, 577, 608
- For holder code key, see page(s) 17-18
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF	LH	KAPR°	GAMO°	LAMS°	Weight	CTWS
		inch	inch	inch	inch	inch				lbs	
MTENNS-8-2	00013850	0.500	0.500	4.500	0.250	0.990	60,0	0,0	-10,0	0.440	TN..1103.. *TN..22.*
MTENNS-10-3	00013855	0.625	0.625	4.500	0.315	1.181	60,0	0,0	-10,0	0.660	TN..1604.. *TN..33.*
MTENNS-12-3	00013860	0.750	0.750	4.500	0.376	1.160	60,0	0,0	-10,0	0.660	TN..1604.. *TN..33.*
MTENNS-64-3	00013890	1.000	0.750	6.024	0.375	0.375	60,0	0,0	-10,0	1.320	TN..1604.. *TN..33.*
MTENNS-12-4	00013865	0.750	0.750	4.500	0.374	1.500	60,0	0,0	-10,0	0.880	TN..2204.. *TN..43.*
MTENNS-16-4	00013870	1.000	1.000	6.000	0.500	1.500	60,0	0,0	-10,0	1.540	TN..2204.. *TN..43.*
MTENNS-20-5	00013875	1.250	1.250	7.008	0.625	1.654	60,0	0,0	-10,0	3.090	TN..2706.. *TN..54.*
MTENNS-24-5	00013880	1.500	1.500	7.008	0.750	1.654	60,0	0,0	-10,0	3.090	TN..2706.. *TN..54.*
MTENNS-24-6	00013885	1.500	1.500	7.008	0.750	1.969	60,0	0,0	-10,0	4.410	TN..3309.. *TN..66.*

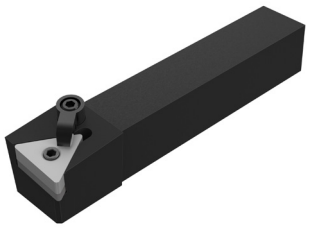
Spare Parts, included in delivery

For size	Cantilever clamp	Clamp screw	Insert pin	Insert shim
				
..-2	CL-6	XNS-36	NL-23	–
..-3	CL-6	XNS-36	NL-34L	TSN160312
..-4	CL-9	XNS-59	NL-46	TSN220412
..-5	CL-9	XNS-510	NL-58	TSN270412
..-6	CL-12	XNS-510	NL-68L	TSN330428

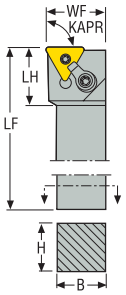
Accessories

For size	Insert shim
	
..-2, -4, -5, -6	–
..-3	TSN160412

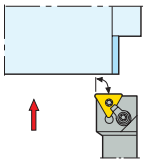
MTFNR/L – Toolholders for inserts TNGA, TNGN, TNMA, TNMG, TNMM, TNMN, TNMP – Inch



MTFNR/L



MTFNR/L
KAPR = 91,0 °



CTWS



- Right-hand version shown
- For inserts program, see page(s) 574, 575, 576, 577, 608, 609, 610
- For holder code key, see page(s) 17-18
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF	LH	KAPR°	GAMO°	LAMS°	Weight	CTWS
		inch	inch	inch	inch	inch				lbs	
MTFNR-10-3	00013930	0.984	0.625	4.500	0.875	0.930	91,0	-5,0	-5,0	0.660	TN..1604.. *TN..33.*
MTFNR-16-5D	00013144	1.000	1.000	6.000	1.250	1.457	91,0	-5,0	-6,0	1.980	TN..2706.. *TN..54.*

Spare Parts, included in delivery

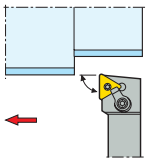
For size	Cantilever clamp	Clamp screw	Insert pin	Insert shim
				
..-3	CL-6	XNS-36	NL-34L	TSN160312
..-5	CL-12	XNS-510	NL-58	TSN270412

Accessories

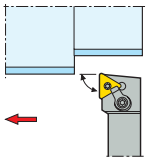
For size	Insert shim
	
..-3	TSN160412
..-5	–

MTGNR/L – Toolholders for inserts TNGA, TNGN, TNMA, TNMG, TNMM, TNMN, TNMP – Inch

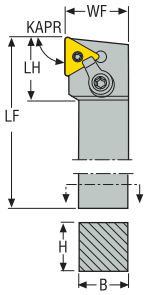
MTGNR/L
KAPR = 91,0 °

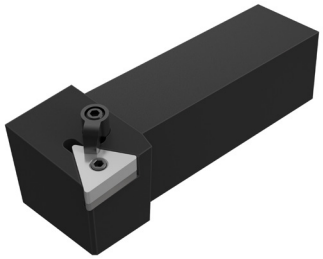


MTGNR/L
KAPR = 90,0 °



MTGNR/L





CTWS



- Right-hand version shown
- For inserts program, see page(s) 574, 575, 576, 577, 608, 609, 610
- For holder code key, see page(s) 17-18
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF	LH	KAPR°	GAMO°	LAMS°	Weight	CTWS
		inch	inch	inch	inch	inch				lbs	
MTGNR-8-2A	00014171	0.500	0.500	4.000	0.625	0.940	91,0	-5,0	-5,0	0.440	TN..1103.. *TN..22.*
MTGNL-8-2A	00014176	0.500	0.500	4.000	0.625	0.940	91,0	-5,0	-5,0	0.440	TN..1103.. *TN..22.*
MTGNR-10-3A	00013167	0.625	0.625	4.000	0.625	1.181	90,0	-5,0	-5,0	0.660	TN..1604.. *TN..33.*
MTGNL-10-3A	00013153	0.625	0.625	4.000	0.625	1.181	90,0	-5,0	-5,0	0.660	TN..1604.. *TN..33.*
MTGNR-24-5D	00012816	1.496	1.500	6.000	2.000	4.540	90,0	-5,0	-5,0	4.410	TN..2706.. *TN..54.*
MTGNL-24-5D	00012817	1.496	1.500	6.000	2.000	4.540	90,0	-5,0	-5,0	4.410	TN..2706.. *TN..54.*

Spare Parts, included in delivery

For size	Cantilever clamp	Clamp screw	Insert pin	Insert shim
				
..-2	CL-19	XNS-36	NL-23	–
..-3	CL-6	XNS-36	NL-34L	TSN160312
..-5	CL-9	XNS-510	NL-58	TSN270412

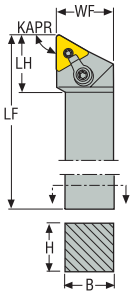
Accessories

For size	Insert shim
	
..-2	–
..-3	TSN160412
..-5	–

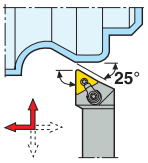
MTJNR/LS – Toolholders for inserts TNGA, TNMA, TNMG, TNMM, TNMP – Inch



MTJNR/LS



MTJNRS/LS
KAPR = 93,0 °



CTWS



- Right-hand version shown
- For inserts program, see page(s) 574, 575, 576, 577, 608
- For holder code key, see page(s) 17-18
- Shim ITSN333 for insert TN..32., to be ordered separately
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF	LH	KAPR°	GAMO°	LAMS°	Weight	CTWS
		inch	inch	inch	inch	inch				lbs	
MTJNRS-12-3	00040974	0.750	0.750	4.500	1.000	1.120	93,0	-5,0	-5,0	0.880	TN..1604.. *TN..33.*
MTJNLS-12-3	00040975	0.750	0.750	4.500	1.000	1.120	93,0	-5,0	-5,0	0.880	TN..1604.. *TN..33.*
MTJNRS-16-4D	00014440	1.000	1.000	6.000	1.250	1.190	93,0	-5,0	-5,0	1.760	TN..2204.. *TN..43.*
MTJNLS-16-4	00014445	1.000	1.000	6.000	1.250	1.190	93,0	-5,0	-5,0	1.980	TN..2204.. *TN..43.*
MTJNRS-20-5	00014450	1.250	1.252	7.008	1.500	1.441	93,0	-5,0	-5,0	3.090	TN..2706.. *TN..54.*
MTJNRS-24-5	00014460	1.500	1.500	7.008	2.000	1.441	93,0	-5,0	-5,0	5.070	TN..2706.. *TN..54.*
MTJNLS-20-5	00014455	1.250	1.252	7.008	1.500	1.441	93,0	-5,0	-5,0	3.090	TN..2706.. *TN..54.*
MTJNLS-24-5	00014465	1.500	1.500	7.008	2.000	1.441	93,0	-5,0	-5,0	4.630	TN..2706.. *TN..54.*
MTJNRS-24-6	00040978	1.500	1.500	7.008	2.000	1.669	93,0	-5,0	-5,0	4.630	TN..3309.. *TN..66.*
MTJNLS-24-6	00040979	1.500	1.500	7.008	2.000	1.669	93,0	-5,0	-5,0	4.630	TN..3309.. *TN..66.*

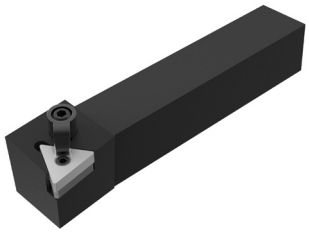
Spare Parts, included in delivery

For size	Cantilever clamp	Clamp screw	Insert pin	Insert shim
				
..-3	CL-6	XNS-36	NL-34L	TSN160312
..-4	CL-9	XNS-510	NL-46	TSN220412
..-5	CL-9	XNS-510	NL-58	TSN270412
..-6	CL-9	XNS-510	NL-68L	TSN330428

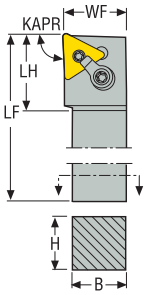
Accessories

For size	Insert shim
	
..-3	TSN160412
..-4	–
..-5	–
..-6	–

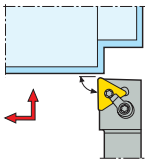
MTLNR/L – Toolholders for inserts TNGA, TNGN, TNMA, TNMG, TNMM, TNMN, TNMP – Inch



MTLNR/L



MTLNR/L
KAPR = 95,0 °



CTWS



- Right-hand version shown
- For inserts program, see page(s) 574, 575, 576, 577, 608, 609, 610
- For holder code key, see page(s) 17-18
- For ISO attribute explanation, see page 82

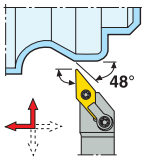
Designation	Item number	H	B	LF	WF	LH	KAPR°	GAMO°	LAMS°	Weight	CTWS
		inch	inch	inch	inch	inch				lbs	
MTLNR-16-4	00042542	1.000	1.000	6.000	1.250	1.299	95,0	-5,0	-5,0	1.760	TN..2204.. *TN..43.*
MTLNL-16-4	00042543	1.000	1.000	6.000	1.250	1.299	95,0	-5,0	-5,0	1.760	TN..2204.. *TN..43.*

Spare Parts, included in delivery

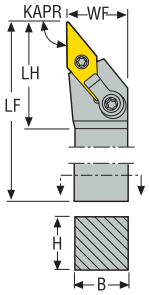
For size	Cantilever clamp	Clamp screw	Insert pin	Insert shim
				
..-4	CL-9	XNS-510	NL-46	TSNS220316

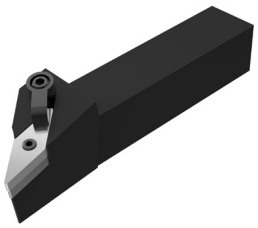
MVJNR/L – Toolholders for inserts VNGA, VNGM, VNGP, VNMA, VNMG, VNMP, VNMU – Inch

MVJNR/L
KAPR = 93,0 °



MVJNR/L





CTWS



- Right-hand version shown
- For inserts program, see page(s) 584, 585, 613
- For holder code key, see page(s) 17-18
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF	LH	KAPR°	GAMO°	LAMS°	Weight	CTWS
		inch	inch	inch	inch	inch				lbs	
MVJNR-16-3D	00071714	1.000	1.000	6.000	1.250	1.681	93,0	-4,0	-13,0	1.760	VN..1604.. *VN..33.*
MVJNL-16-3D	00071708	1.000	1.000	6.000	1.250	1.681	93,0	-4,0	-13,0	1.760	VN..1604.. *VN..33.*
MVJNR-16-4D	00012879	1.000	1.000	6.000	1.250	2.018	93,0	-4,0	-13,0	1.760	VN..2204.. *VN..43.*
MVJNR-20-4D	00012888	1.250	1.250	6.000	1.500	2.018	93,0	-4,0	-13,0	2.430	VN..2204.. *VN..43.*
MVJNL-16-4D	00012883	1.000	1.000	6.000	1.250	2.018	93,0	-4,0	-13,0	1.760	VN..2204.. *VN..43.*
MVJNL-20-4D	00012889	1.250	1.250	6.000	1.500	2.018	93,0	-4,0	-13,0	2.430	VN..2204.. *VN..43.*

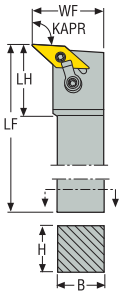
Spare Parts, included in delivery

For size	Cantilever clamp	Clamp screw	Insert pin	Insert shim
				
..-3	CL-30	XNS-510	NL-34L	VSN160316
..-4	CL-30	XNS-510	NL-46	VSN220412

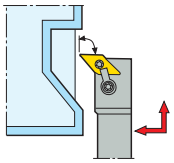
MVLNR/L – Toolholders for inserts VNGA, VNGM, VNGP, VNMA, VNMG, VNMP – Inch



MVLNR/L



MVLNR/L
KAPR = 95,0 °



CTWS



- Right-hand version shown
- For inserts program, see page(s) 584, 585, 613
- For holder code key, see page(s) 17-18
- For ISO attribute explanation, see page 82

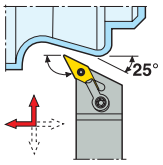
Designation	Item number	H	B	LF	WF	LH	KAPR°	GAMO°	LAMS°	Weight	CTWS
		inch	inch	inch	inch	inch				lbs	
MVLNR-16-4D	00013206	1.000	1.000	6.000	1.750	1.497	95,0	-4,0	-13,0	1.980	VN..2204.. *VN..43.*
MVLNR-20-4D	00013207	1.250	1.250	6.000	2.000	1.498	95,0	-4,0	-13,0	2.870	VN..2204.. *VN..43.*
MVLNL-16-4D	00013198	1.000	1.000	6.000	1.750	1.497	95,0	-4,0	-13,0	1.980	VN..2204.. *VN..43.*
MVLNL-20-4D	00013199	1.250	1.250	6.000	2.000	1.498	95,0	-4,0	-13,0	2.870	VN..2204.. *VN..43.*

Spare Parts, included in delivery

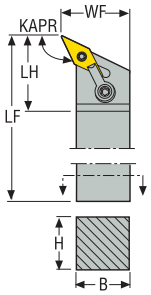
For size	Cantilever clamp	Clamp screw	Insert pin	Insert shim
				
..-4	CL-12	XNS-510	NL-46	VSN220412

MVTNR/L – Toolholders for inserts VNGA, VNGM, VNGP, VNMA, VNMG, VNMP – Inch

MVTNR/L
KAPR = 117,25 °



MVTNR/L





CTWS



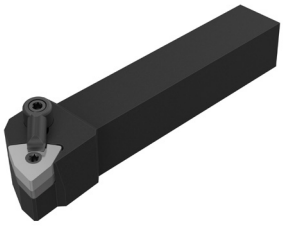
- Right-hand version shown
- For inserts program, see page(s) 584, 585, 613
- For holder code key, see page(s) 17-18
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF	LH	KAPR°	GAMO°	LAMS°	Weight	CTWS
		inch	inch	inch	inch	inch				lbs	
MVTNR-12-3B	00049604	0.750	0.750	4.500	1.000	1.737	117,25	-4,0	-13,0	0.880	VN..1604.. *VN..33.*
MVTNR-16-3D	00013222	1.000	1.000	6.000	1.250	1.800	117,25	-4,0	-13,0	1.760	VN..1604.. *VN..33.*
MVTNR-20-3D	00013223	1.250	1.250	6.000	1.500	1.737	117,25	-4,0	-13,0	2.870	VN..1604.. *VN..33.*
MVTNL-12-3B	00052353	0.750	0.750	4.500	1.000	1.737	117,25	-4,0	-13,0	0.880	VN..1604.. *VN..33.*
MVTNL-16-3D	00013214	1.000	1.000	6.000	1.250	1.800	117,25	-4,0	-13,0	1.760	VN..1604.. *VN..33.*
MVTNL-20-3D	00013216	1.250	1.250	6.000	1.500	1.737	117,25	-4,0	-13,0	2.650	VN..1604.. *VN..33.*

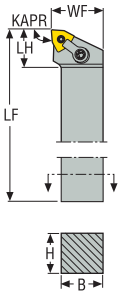
Spare Parts, included in delivery

For size	Cantilever clamp	Clamp screw	Insert pin	Insert shim
				
..-3	CL-30	XNS-510	NL-34L	VSN160316

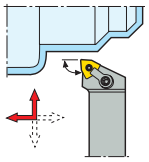
MWLNR/L – Toolholders for inserts WNGA, WNGG, WNMA, WNMG, WNMM – Metric



MWLNR/L



MWLNR/L
KAPR = 95,0 °



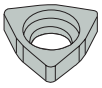
CTWS



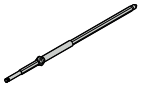
- Right-hand version shown
- For inserts program, see page(s) 586, 587, 588, 589, 614
- For holder code key, see page(s) 15-16
- * Use the right shim & the right screw for the selected insert. For details, see page 100
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF	LH	KAPR°	GAMO°	LAMS°	Weight	CTWS
		mm	mm	mm	mm	mm				kg	
MWLNR2020K08	75002232	20	20	125	25,0	31,0	95,0	-6,0	-6,0	0,4	WN..0804.. *WN..43.*
MWLNR2525M08	75002234	25	25	150	32,0	31,0	95,0	-6,0	-6,0	0,8	WN..0804.. *WN..43.*
MWLNR3232P08	75002236	32	32	170	40,0	31,0	95,0	-6,0	-6,0	1,4	WN..0804.. *WN..43.*
MWLNL2020K08	75002233	20	20	125	25,0	31,0	95,0	-6,0	-6,0	0,4	WN..0804.. *WN..43.*
MWLNL2525M08	75002235	25	25	150	32,0	31,0	95,0	-6,0	-6,0	0,8	WN..0804.. *WN..43.*
MWLNL3232P08	75002237	32	32	170	40,0	31,0	95,0	-6,0	-6,0	1,4	WN..0804.. *WN..43.*

Spare Parts, included in delivery

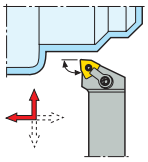
For size	Cantilever clamp	Clamp screw	Insert shim	Shim/clamp key	Shim pin
					
...08	MC21	LD6025-T15P	MWN080412	T15P-2	MN1215T-T15P

Accessories

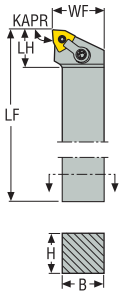
For size	Insert clamping torque	Plug	Replacement blade	Torque key
				
...08	3.0NM	P3	T00-15P	T00-15P30

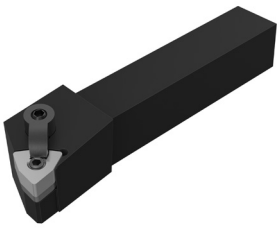
MWLNR/L – Toolholders for inserts WNGA, WNGP, WNMA, WNMG, WNMM, WNMP – Inch

MWLNR/L
KAPR = 95,0 °



MWLNR/L





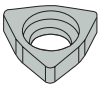
CTWS



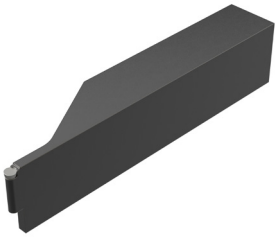
- Right-hand version shown
- For inserts program, see page(s) 586, 587, 588, 589, 614
- For holder code key, see page(s) 17-18
- Shim IWSN423 for insert WN..44., to be ordered separately
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF	LH	KAPR°	GAMO°	LAMS°	Weight	CTWS
		inch	inch	inch	inch	inch				lbs	
MWLNR-10-3A	75056399	0.625	0.625	4.000	0.875	1.102	95,0	-6,0	-6,0	0.440	WN..0604.. *WN..33.*
MWLNL-10-3A	75056400	0.625	0.625	4.000	0.875	1.102	95,0	-6,0	-6,0	0.440	WN..0604.. *WN..33.*

Spare Parts, included in delivery

For size	Cantilever clamp	Clamp screw	Insert pin	Insert shim
				
..-3	CL-6	XNS-36	NL-34L	IWSN060312

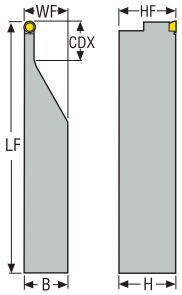
TRAOR/L, TRDON – Toolholders for inserts RCGS – **Metric** / *Inch*



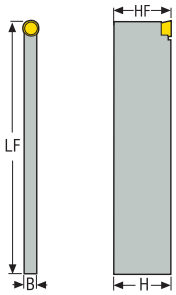
CTWS



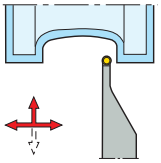
TRAOR/L



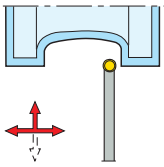
TRDON



TRAOR/L
KAPR = 90,0 °



TRDON
KAPR = 45,0 °

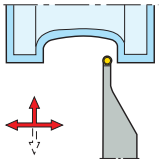


- TRAOR/L = Right-hand version shown
- TRDON = Neutral version shown
- For inserts program, see page(s) 561, 599
- For holder code key, see page(s) 15-16
- For ISO attribute explanation, see page 82

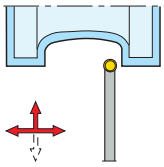
Designation	Item number	H	B	LF	WF	HF	CDX	KAPR°	GAMO°	LAMS°	Weight	CTWS
		mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*				kg *lbs*	
TRAOR3225-4.76	75071805	32 *1.260*	25 *0.984*	201 *7.913*	25,35 *0.998*	31,8 *1.252*	–	90,0	0,0	0,0	0,8 *1.760*	RCGS4.76 *RCGS1.5*
TRAOL3225-4.76	75071806	32 *1.260*	25 *0.984*	201 *7.913*	25,35 *0.998*	31,8 *1.252*	–	90,0	0,0	0,0	0,8 *1.760*	RCGS4.76 *RCGS1.5*
TRAOR3225-6.35	75071807	32 *1.260*	25 *0.984*	150 *5.906*	25,5 *1.004*	31,8 *1.252*	–	90,0	0,0	0,0	0,8 *1.760*	RCGS6.35 *RCGS2*
TRAOL3225-6.35	75071808	32 *1.260*	25 *0.984*	150 *5.906*	25,5 *1.004*	31,8 *1.252*	–	90,0	0,0	0,0	0,8 *1.760*	RCGS6.35 *RCGS2*
TRAOR3225-9.525	75036398	32 *1.260*	25 *0.984*	200 *7.874*	25,76 *1.014*	31,8 *1.252*	–	90,0	0,0	0,0	1,2 *2.650*	RCGS9.52 *RCGS3*
TRDON2004H4.76	75071812	20 *0.787*	4 *0.157*	100 *3.937*	4,38 *0.172*	19,8 *0.780*	3,7 *0.146*	45,0	0,0	0,0	0,1 *0.220*	RCGS4.76 *RCGS1.5*
TRDON2005H6.35	75071813	20 *0.787*	6 *0.217*	100 *3.937*	5,92 *0.233*	19,8 *0.780*	4,7 *0.185*	45,0	0,0	0,0	0,1 *0.220*	RCGS6.35 *RCGS2*

TRAOR/L, TROON – Toolholders for inserts RCGS – Inch

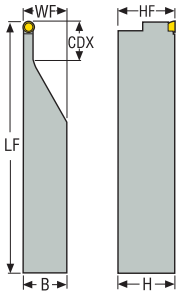
TRAOR/L
KAPR = 90,0 °



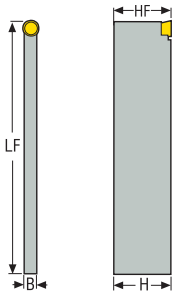
TROON
KAPR = 90,0 °

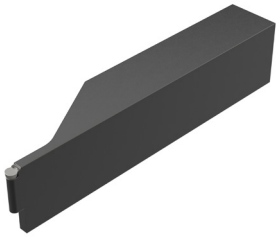


TRAOR/L



TROON





CTWS



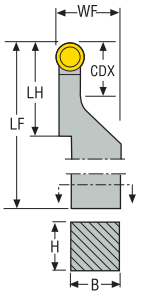
- TRAOR/L = Right-hand version shown
- TROON = Neutral version shown
- For inserts program, see page(s) 561, 599
- For holder code key, see page(s) 17-18
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF	HF	CDX	KAPR°	GAMO°	LAMS°	Weight	CTWS
		inch	inch	inch	inch	inch	inch				lbs	
TRAOR-85-1.5	00017945	1.250	1.000	6.000	1.014	1.250	–	90,0	0,0	0,0	1.760	RCGS4.76 *RCGS1.5*
TRAOL-85-1.5	75053455	1.250	1.000	6.000	1.014	1.250	–	90,0	0,0	0,0	1.760	RCGS4.76 *RCGS1.5*
TRAOR-85-2	00017950	1.250	1.000	6.000	1.020	1.250	–	90,0	0,0	0,0	1.760	RCGS6.35 *RCGS2*
TRAOL-85-2	00048374	1.250	1.000	6.000	1.020	1.250	–	90,0	0,0	0,0	1.980	RCGS6.35 *RCGS2*
TRAOR-85-3	00017955	1.250	1.000	8.031	1.030	1.250	–	90,0	0,0	0,0	2.430	RCGS9.52 *RCGS3*
TRAOL-85-3	00046228	1.250	1.000	8.031	1.030	1.250	–	90,0	0,0	0,0	2.430	RCGS9.52 *RCGS3*
TROON-153-1.5	00017975	0.750	0.156	4.000	–	0.750	0.150	90,0	0,0	0,0	0.220	RCGS4.76 *RCGS1.5*
TROON-23-2	00017980	0.750	0.218	4.000	–	1.252	0.189	90,0	0,0	0,0	0.220	RCGS6.35 *RCGS2*
TROON-34-3	00017985	1.000	0.312	4.000	–	1.000	0.295	90,0	0,0	0,0	0.440	RCGS9.52 *RCGS3*
TROON-45-4	00017990	1.250	0.433	4.000	–	1.250	0.374	90,0	0,0	0,0	0.660	RCGS12.7 *RCGS46*

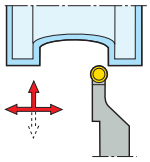
TRGOR/L – Toolholders for inserts RCGS – Inch



TRGOR/L



TRGOR/L
KAPR = 90,0 °



CTWS

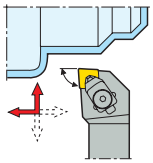


- Right-hand version shown
- For inserts program, see page(s) 561, 599
- For holder code key, see page(s) 17-18
- For ISO attribute explanation, see page 82

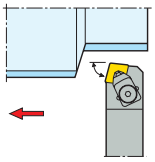
Designation	Item number	H	B	LF	WF	HF	CDX	KAPR°	GAMO°	LAMS°	Weight	CTWS
		inch	inch	inch	inch	inch	inch				lbs	
TRGOR-16-1.5	00041032	1.000	1.000	6.000	1.252	1.000	0.760	90,0	0,0	0,0	1.540	RCGS4.76 *RCGS1.5*
TRGOR-20-1.5	00041040	1.250	1.250	7.000	1.500	1.250	0.760	90,0	0,0	0,0	2.650	RCGS4.76 *RCGS1.5*
TRGOL-16-1.5	00041033	1.000	1.000	6.000	1.250	1.000	0.760	90,0	0,0	0,0	1.320	RCGS4.76 *RCGS1.5*
TRGOL-20-1.5	00041041	1.250	1.250	7.000	1.500	1.250	0.760	90,0	0,0	0,0	2.650	RCGS4.76 *RCGS1.5*
TRGOR-16-2	00041034	1.000	1.000	6.000	1.252	1.000	0.770	90,0	0,0	0,0	1.540	RCGS6.35 *RCGS2*
TRGOR-20-2	00041042	1.250	1.250	7.000	1.500	1.250	0.770	90,0	0,0	0,0	2.650	RCGS6.35 *RCGS2*
TRGOR-24-2	00047814	1.500	1.500	7.000	2.000	1.500	0.770	90,0	0,0	0,0	3.530	RCGS6.35 *RCGS2*
TRGOL-16-2	00041035	1.000	1.000	6.000	1.250	1.000	0.770	90,0	0,0	0,0	1.540	RCGS6.35 *RCGS2*
TRGOL-20-2	00041043	1.250	1.250	7.000	1.500	1.250	0.770	90,0	0,0	0,0	2.650	RCGS6.35 *RCGS2*
TRGOL-24-2	00047815	1.500	1.500	7.000	2.000	1.500	0.770	90,0	0,0	0,0	3.530	RCGS6.35 *RCGS2*
TRGOR-16-3	00041036	1.000	1.000	6.000	1.250	1.000	1.030	90,0	0,0	0,0	1.540	RCGS9.52 *RCGS3*
TRGOR-20-3	00041044	1.250	1.250	7.000	1.500	1.250	1.030	90,0	0,0	0,0	2.650	RCGS9.52 *RCGS3*
TRGOR-24-3	00047816	1.500	1.500	7.000	2.000	1.500	1.030	90,0	0,0	0,0	3.750	RCGS9.52 *RCGS3*
TRGOL-16-3	00041037	1.000	1.000	6.000	1.250	1.000	1.030	90,0	0,0	0,0	1.540	RCGS9.52 *RCGS3*
TRGOL-20-3	00041045	1.250	1.250	7.000	1.500	1.250	1.030	90,0	0,0	0,0	2.650	RCGS9.52 *RCGS3*
TRGOL-24-3	00047817	1.500	1.500	7.000	2.000	1.500	1.030	90,0	0,0	0,0	3.530	RCGS9.52 *RCGS3*
TRGOR-16-4	00041038	1.000	1.000	6.000	1.250	1.000	1.040	90,0	0,0	0,0	1.540	RCGS12.7 *RCGS46*
TRGOR-20-4	00041046	1.250	1.250	7.000	1.500	1.250	1.040	90,0	0,0	0,0	2.650	RCGS12.7 *RCGS46*
TRGOR-24-4	00041048	1.500	1.500	7.000	2.000	1.500	1.040	90,0	0,0	0,0	3.530	RCGS12.7 *RCGS46*
TRGOL-16-4	00041039	1.000	1.000	6.000	1.250	1.000	1.040	90,0	0,0	0,0	1.540	RCGS12.7 *RCGS46*
TRGOL-20-4	00041047	1.250	1.250	7.000	1.500	1.250	1.040	90,0	0,0	0,0	2.650	RCGS12.7 *RCGS46*
TRGOL-24-4	00041049	1.500	1.500	7.000	2.000	1.500	1.040	90,0	0,0	0,0	3.530	RCGS12.7 *RCGS46*

CCLNR/L, CCBNR/L – Toolholders for PCBN inserts CNGN, CNMN – Metric

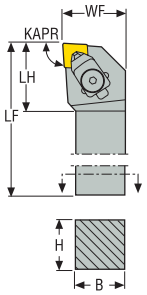
CCLNR/L
KAPR = 95,0 °



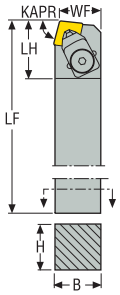
CCBNR/L
KAPR = 75,0 °

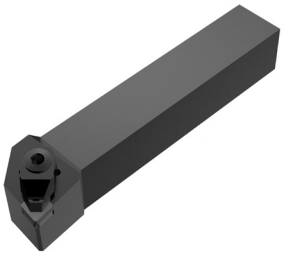


CCLNR/L



CCBNR/L





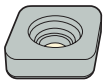
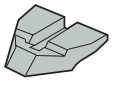
CTWS



- Right-hand version shown
- For inserts program, see page(s) 595, 620
- For holder code key, see page(s) 15-16
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF	LH	KAPR°	GAMO°	LAMS°	Weight	CTWS
		mm	mm	mm	mm	mm				kg	
CCLNR2525M09	00089173	25	25	150	32,0	27,0	95,0	-6,0	-6,0	0,8	CN.N0903.. *CN.N32.*
CCLNR3225P09	00089175	32	25	170	32,0	27,0	95,0	-6,0	-6,0	1,1	CN.N0903.. *CN.N32.*
CCLNL2525M09	00089174	25	25	150	32,0	27,0	95,0	-6,0	-6,0	0,8	CN.N0903.. *CN.N32.*
CCLNL3225P09	00089176	32	25	170	32,0	27,0	95,0	-6,0	-6,0	1,1	CN.N0903.. *CN.N32.*
CCLNR2525M12	00089177	25	25	150	32,0	34,0	95,0	-6,0	-6,0	0,8	CN..1204.. *CN..43.*
CCLNR3225P12	00089179	32	25	170	32,0	34,0	95,0	-6,0	-6,0	1,2	CN..1204.. *CN..43.*
CCLNL2525M12	00089178	25	25	150	32,0	34,0	95,0	-6,0	-6,0	0,8	CN..1204.. *CN..43.*
CCLNL3225P12	00089180	32	25	170	32,0	34,0	95,0	-6,0	-6,0	1,1	CN..1204.. *CN..43.*
CCBNR2525M09	00089181	25	25	150	22,0	30,0	75,0	-6,0	-6,0	0,8	CN.N0903.. *CN.N32.*
CCBNL2525M09	00089182	25	25	150	22,0	30,0	75,0	-6,0	-6,0	0,8	CN.N0903.. *CN.N32.*
CCBNR2525M12	00089185	25	25	150	22,0	34,0	75,0	-6,0	-6,0	0,8	CN..1204.. *CN..43.*
CCBNR3225P12	00089187	32	25	170	22,0	34,0	75,0	-6,0	-6,0	1,1	CN..1204.. *CN..43.*
CCBNL2525M12	00089186	25	25	150	22,0	34,0	75,0	-6,0	-6,0	0,8	CN..1204.. *CN..43.*

Spare Parts, included in delivery

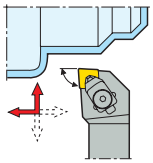
For size	Cantilever clamp	Clamp key	Insert shim	Pressure plate	Shim screw
					
...09	CC17P-09	4SMS795	CCN090412	P1311-09	174.10-652-T07P
...12	CC17P	4SMS795	CCN120312	P1311	F94009-T09P

Accessories

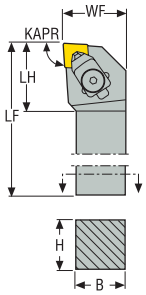
For size	Shim key
	
...09	T07P-2
...12	T09P-2

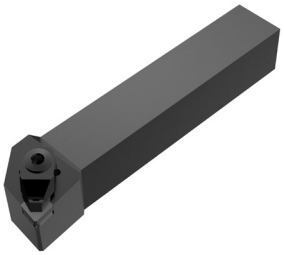
CCLNR/L-.C – Toolholders for ceramic inserts CNGN – Metric

CCLNR/L-.C
KAPR = 95,0 °



CCLNR/L-.C





CTWS



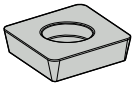
- Right-hand version shown
- For inserts program, see page(s) 620
- For holder code key, see page(s) 15-16
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF	LH	KAPR°	GAMO°	LAMS°	Weight	CTWS
		mm	mm	mm	mm	mm				kg	
CCLNR2525M12-4C	02926470	25	25	150	32,4	32,2	95,0	-6,0	-6,0	0,7	CN.N1207.. *CN.N45.*
CCLNL2525M12-4C	02926471	25	25	150	32,4	32,2	95,0	-6,0	-6,0	0,9	CN.N1207.. *CN.N45.*

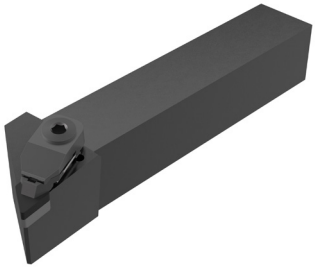
Spare Parts, included in delivery

For size	Clamp kit	Insert shim	Shim key	Shim screw
				
..-4C	CC12P-D12	DCN120316	T15P-2D	C04008-T15P

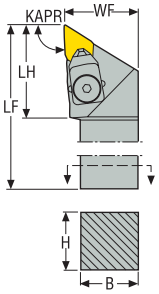
Accessories

For size	Insert shim
	
..-4C	DCN120616

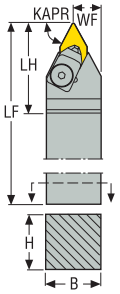
CDJNR/L, CDNNN – Toolholders for PCBN inserts DNGN, DNMN – Metric



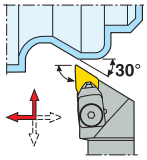
CDJNR/L



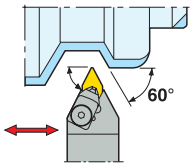
CDNNN



CDJNR/L
KAPR = 93,0 °



CDNNN
KAPR = 62,5 °

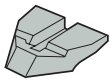


CTWS

- CDJNR/L = Right-hand version shown
- CDNNN = Neutral version shown
- For inserts program, see page(s) 598
- For holder code key, see page(s) 15-16
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF	LH	KAPR°	GAMO°	LAMS°	Weight	CTWS
		mm	mm	mm	mm	mm				kg	
CDJNR2525M11	00089189	20	25	150	32,0	34,0	93,0	-6,0	-6,0	0,8	DN.N1103.. *DN.N32.*
CDJNL2525M11	00089190	20	25	150	32,0	34,0	93,0	-6,0	-6,0	0,8	DN.N1103.. *DN.N32.*
CDNNN2525M11	00089193	25	25	150	13,2	30,0	62,5	-9,0	-5,0	0,7	DN.N1103.. *DN.N32.*

Spare Parts, included in delivery

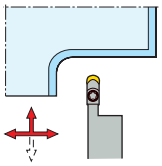
For size	Cantilever clamp	Clamp key	Insert shim	Pressure plate	Shim screw
					
...11	CC20P	4SMS795	CDN110412	P1311-09	174.10-652-T07P

Accessories

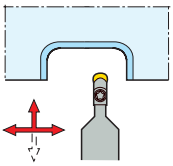
For size	Shim key
	
...11	T07P-2

CRDCR...C, CRDCN...C – Toolholders for ceramic inserts RCGX, RPGX – Metric

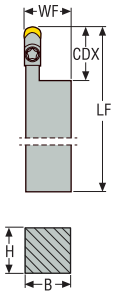
CRDCR/L...C
KAPR = 0,0 °



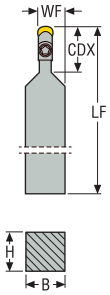
CRDCN...C
KAPR = 0,0 °



CRDCR/L...C



CRDCN...C



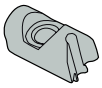
CTWS



- CRDCR...C = Right-hand version shown
- CRDCN...C = Neutral version shown
- For inserts program, see page(s) 620, 622
- For holder code key, see page(s) 15-16
- For information regarding clamp screw, contact your local Seco office
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF	LH	CDX	KAPR°	GAMO°	LAMS°	Weight	CTWS
		mm	mm	mm	mm	mm	mm				kg	
CRDCR3225P09C	02926480	32	25	170	25,98	29,0	29,5	0,0	0,0	0,0	0,9	R.GX0907.. *R.GX35.*
CRDCN3225P06C	02926478	32	25	170	15,6	–	19,4	0,0	0,0	0,0	0,9	RC..0606 *RC..24.*
CRDCN3225P09C	02926479	32	25	170	17,2	–	29,0	0,0	0,0	0,0	0,9	R.GX0907.. *R.GX35.*
CRDCN3225P12C	02926482	32	25	170	18,8	–	38,5	0,0	0,0	0,0	0,9	R.GX1207.. *R.GX45.*

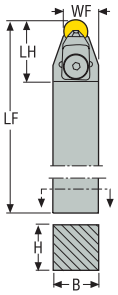
Spare Parts, included in delivery

For size	Clamp	Clamp key	Insert shim	Shim key
				
CRDCR...09C	CEN087	–	CN76.206	T10P-2D
CRDCN...06C	CEN055	T30P-7	CN52.190	2SMS795
CRDCN...09C	CEN087	–	CN76.206	T10P-2D
CRDCN...12C	CEN120	T30P-7	CN55.222	T25P-7

CRDNN – Toolholders for PCBN inserts RNGN, RNMN – Inch



CRDNN



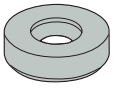
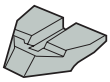
CTWS



- Neutral version shown
- For inserts program, see page(s) 600, 618, 621
- For holder code key, see page(s) 17-18
- Shim 117.10-621 for insert RN.N43.., to be ordered separately
- For ISO attribute explanation, see page 82

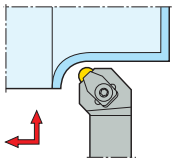
Designation	Item number	H	B	LF	WF	LH	KAPR°	GAMO°	LAMS°	Weight	CTWS
		inch	inch	inch	inch	inch				lbs	
CRDNN-16-2	00073874	1.000	1.000	6.000	0.750	1.270	45,0	0,0	-7,0	1.760	RN.N0603.. *RN.N22.*
CRDNN-20-3	00073878	1.250	1.250	6.000	0.875	1.197	45,0	0,0	-7,0	2.650	RN.N0903.. *RN.N32.*
CRDNN-20-4	00073880	1.250	1.250	6.000	0.875	1.693	45,0	0,0	-7,0	2.650	RN.N1203.. *RN.N42.*

Spare Parts, included in delivery

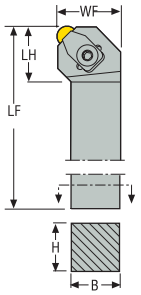
For size	Cantilever clamp	Clamp key	Insert shim	Pressure plate	Shim key	Shim screw
						
..-2	CC17P-06	4SMS795	CRN0603M0	P1311-06	T07P-2	CS2507-T07P
..-3	CC17P-09	4SMS795	117.10-620	P1311-09	T07P-2	174.10-652-T07P
..-4	CC17P	4SMS795	117.10-622	P1311	T09P-2	F94009-T09P

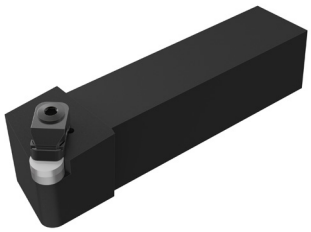
CRGNR/L – Toolholders for PCBN inserts RNGN, RNMN – Inch

CRGNR/L
KAPR = 90,0 °



CRGNR/L



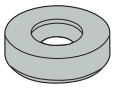
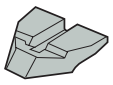


CTWS

- Right-hand version shown
- For inserts program, see page(s) 600, 617, 621
- For holder code key, see page(s) 17-18
- Shim 117.10-621 for insert RN.N43.., to be ordered separately
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF	LH	KAPR°	GAMO°	LAMS°	Weight	CTWS
		inch	inch	inch	inch	inch				lbs	
CRGNR-20-4	00073898	1.250	1.250	6.000	1.500	1.382	90,0	-5,0	-5,0	2.870	RN.N1203.. *RN.N42.*
CRGNL-20-4	00073909	1.250	1.250	6.000	1.500	1.382	90,0	-5,0	-5,0	2.870	RN.N1203.. *RN.N42.*

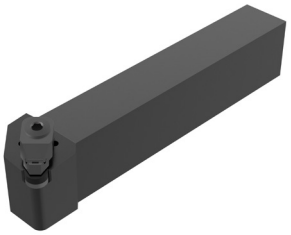
Spare Parts, included in delivery

For size	Cantilever clamp	Clamp key	Insert shim	Pressure plate	Shim screw
					
..-4	CC17P	4SMS795	117.10-622	P1311	F94009-T09P

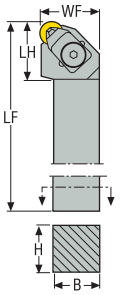
Accessories

For size	Shim key
	
..-4	T09P-2

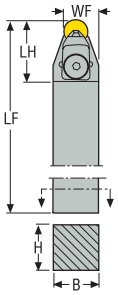
CRSNR/L, CRDNN – Toolholders for PCBN inserts RNGN, RNMN – Metric



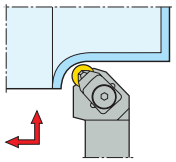
CRSNR/L



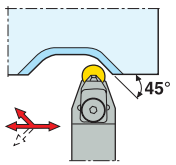
CRDNN



CRSNR/L
KAPR = 45,0 °



CRDNN
KAPR = 45,0 °



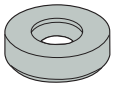
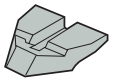
CTWS



- CRSNR/L = Right-hand version shown
- CRDNN = Neutral version shown
- For inserts program, see page(s) 600, 618, 621
- For holder code key, see page(s) 15-16
- Shim 117.10-621 for insert RN.N1204.., to be ordered separately
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF	LH	KAPR°	GAMO°	LAMS°	Weight	CTWS
		mm	mm	mm	mm	mm				kg	
CRSNR2525M06	75069238	25	25	150	32,0	27,0	45,0	-6,0	-6,0	0,8	RN.N0603.. *RN.N22.*
CRSNL2525M06	75069239	25	25	150	32,0	27,0	45,0	-6,0	-6,0	0,8	RN.N0603.. *RN.N22.*
CRSNR2525M09	00089195	25	25	150	32,0	29,0	45,0	-6,0	-6,0	0,8	RN.N0903.. *RN.N32.*
CRSNR3225P09	00089197	32	25	170	32,0	29,0	45,0	-6,0	-6,0	1,1	RN.N0903.. *RN.N32.*
CRSNR4040R09	02424441	40	40	200	50,0	29,0	45,0	-6,0	-6,0	2,5	RN.N0903.. *RN.N32.*
CRSNL2525M09	00089196	25	25	150	32,0	29,0	45,0	-6,0	-6,0	0,8	RN.N0903.. *RN.N32.*
CRSNL3225P09	00089198	32	25	170	32,0	29,0	45,0	-6,0	-6,0	1,1	RN.N0903.. *RN.N32.*
CRSNL4040R09	02424439	40	40	200	50,0	29,0	45,0	-6,0	-6,0	2,4	RN.N0903.. *RN.N32.*
CRSNR3225P12	00089199	32	25	170	32,0	30,0	45,0	-6,0	-6,0	1,1	RN.N1203.. *RN.N42.*
CRSNR4040R12	02424442	40	40	200	50,0	30,0	45,0	-6,0	-6,0	2,5	RN.N1203.. *RN.N42.*
CRSNL3225P12	00089200	32	25	170	32,0	30,0	45,0	-6,0	-6,0	1,1	RN.N1203.. *RN.N42.*
CRSNL4040R12	02424440	40	40	200	50,0	30,0	45,0	-6,0	-6,0	2,5	RN.N1203.. *RN.N42.*
CRDNN2525M06	75069237	25	25	150	15,5	29,0	45,0	0,0	-8,0	0,7	RN.N0603.. *RN.N22.*
CRDNN3225P09	00089201	32	25	170	17,0	31,0	45,0	0,0	-8,0	1,1	RN.N0903.. *RN.N32.*
CRDNN4040R09	02424437	40	40	200	24,8	31,0	45,0	0,0	-8,0	2,3	RN.N0903.. *RN.N32.*
CRDNN3225P12	00089202	32	25	170	18,5	36,0	45,0	0,0	-8,0	1,1	RN.N1203.. *RN.N42.*
CRDNN4040R12	02424438	40	40	200	26,3	36,0	45,0	0,0	-8,0	2,3	RN.N1203.. *RN.N42.*
CRDNN5040T12	75069265	50	40	300	26,3	36,0	45,0	0,0	-8,0	4,4	RN.N1203.. *RN.N42.*

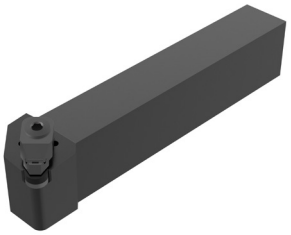
Spare Parts, included in delivery

For size	Cantilever clamp	Clamp key	Insert shim	Pressure plate	Shim screw
					
...06	CC17P-06	4SMS795	CRN0603M0	P1311-06	CS2507-T07P
...09	CC17P-09	4SMS795	117.10-620	P1311-09	174.10-652-T07P
...12	CC17P	4SMS795	117.10-622	P1311	F94009-T09P

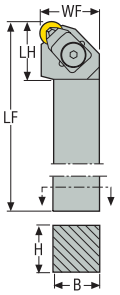
Accessories

For size	Shim key
	
...06	T07P-2
...09	T07P-2
...12	T09P-2

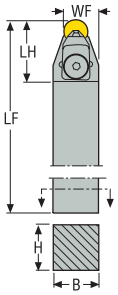
CRSNR/L...C, CRDNN...C – Toolholders for ceramic inserts RNGN – Metric



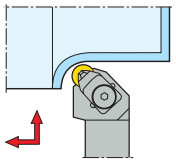
CRSNR/L...C



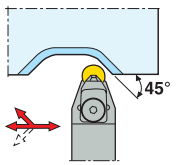
CRDNN...C



CRSNR/L...C
KAPR = 0,0 °



CRDNN...C
KAPR = 0,0 °

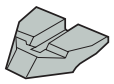
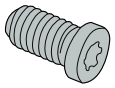


CTWS

- CRSNR/L...C = Right-hand version shown
- CRDNN...C = Neutral version shown
- For inserts program, see page(s) 600, 618, 621
- For holder code key, see page(s) 15-16
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF	LH	KAPR°	GAMO°	LAMS°	Weight	CTWS
		mm	mm	mm	mm	mm				kg	
CRSNR2525M12C	02926488	25	25	150	32,0	28,0	0,0	-6,0	-6,0	0,7	RN..1207.. *RN..45.*
CRSNR3225P12C	02926490	32	25	170	32,0	28,0	0,0	-6,0	-6,0	1,1	RN..1207.. *RN..45.*
CRSNL2525M12C	02926489	25	25	150	32,0	28,0	0,0	-6,0	-6,0	0,7	RN..1207.. *RN..45.*
CRSNL3225P12C	02926491	32	25	170	32,0	28,0	0,0	-6,0	-6,0	1,1	RN..1207.. *RN..45.*
CRDNN2525M12C	02926486	25	25	150	18,8	32,0	0,0	0,0	0,0	0,7	RN..1207.. *RN..45.*

Spare Parts, included in delivery

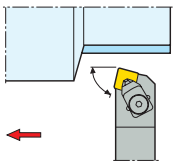
For size	Clamp	Clamp key	Insert shim	Pressure plate	Shim key	Shim screw
						
..12C	CC17P	4SMS795	CRN120400	P1311	T20P-2D	L85013-T20P

Accessories

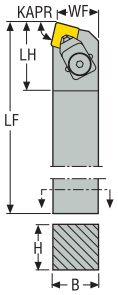
For size	Insert shim
	
..12C	CRN120800

CSBNR/L, CSRNR/L – Toolholders for PCBN inserts SNGN, SNMN, SNUN – Metric

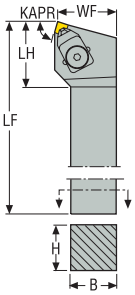
CSBNR/L
KAPR = 75,0 °

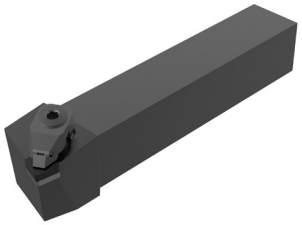


CSBNR/L



CSRNR/L



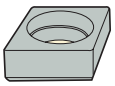
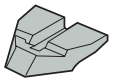


CTWS

- Right-hand version shown
- For inserts program, see page(s) 605
- For holder code key, see page(s) 15-16
- Shim 174.10-622 for insert SN.N1203.., to be ordered separately
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF	LH	KAPR°	GAMO°	LAMS°	Weight	CTWS
		mm	mm	mm	mm	mm				kg	
CSBNR2525M09	00089203	25	25	150	22,0	30,0	75,0	-6,0	-6,0	0,8	SN..0903.. *SN..32.*
CSBNR3225P09	00089206	32	25	170	22,0	30,0	75,0	-6,0	-6,0	1,1	SN..0903.. *SN..32.*
CSBNL2525M09	00089204	25	25	150	22,0	30,0	75,0	-6,0	-6,0	0,8	SN..0903.. *SN..32.*
CSBNR3225P12	00089207	32	25	170	22,0	35,0	75,0	-6,0	-6,0	1,1	SN..1204.. *SN..43.*
CSBNL3225P12	00089208	32	25	170	22,0	35,0	75,0	-6,0	-6,0	1,1	SN..1204.. *SN..43.*

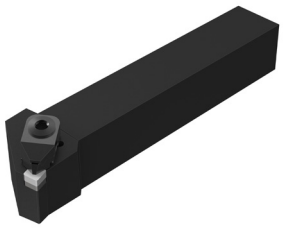
Spare Parts, included in delivery

For size	Cantilever clamp	Clamp key	Insert shim	Pressure plate	Shim screw
					
...09	CC17P-09	4SMS795	CSN090412	P1311-09	174.10-652-T07P
...P12	CC20P	4SMS795	174.10-621	P1311	F94009-T09P

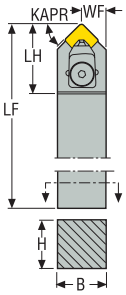
Accessories

For size	Shim key
	
...09	T07P-2
...P12	T09P-2

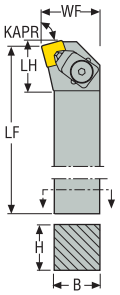
CSDNN, CSKNR/L – Toolholders for PCBN inserts SNGN, SNMN, SNUN – Metric



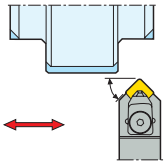
CSDNN



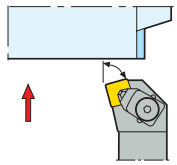
CSKNR/L



CSDNN
KAPR = 45,0 °



CSKNR/L
KAPR = 75,0 °

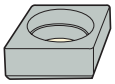
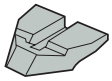


CTWS

- CSDNN = Neutral version shown
- CSKNR/L = Right-hand version shown
- For inserts program, see page(s) 604
- For holder code key, see page(s) 15-16
- Shim 174.10-622 for insert SN.N1203.., to be ordered separately
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF	LH	KAPR°	GAMO°	LAMS°	Weight	CTWS
		mm	mm	mm	mm	mm				kg	
CSDNN3225P09	00089209	32	25	170	13,0	33,0	45,0	-6,0	-6,0	1,1	SN..0903.. *SN..32.*
CSDNN3225P12	00089210	32	25	170	13,0	40,0	45,0	-6,0	-6,0	1,1	SN..1204.. *SN..43.*
CSDNN4040R12	02424446	40	40	200	20,3	40,0	45,0	-6,0	-6,0	2,4	SN..1204.. *SN..43.*
CSKNL2525M06	00005871	25	25	150	32,0	35,0	75,0	-6,0	-6,0	0,8	SN.N0603.. *SN.N22.*
CSKNR3225P12	00089211	32	25	170	32,0	36,0	75,0	-6,0	-6,0	1,2	SN..1204.. *SN..43.*
CSKNR4040R12	02424470	40	40	200	50,0	36,0	75,0	-6,0	-6,0	2,5	SN..1204.. *SN..43.*
CSKNL3225P12	00089212	32	25	170	32,0	36,0	75,0	-6,0	-6,0	1,2	SN..1204.. *SN..43.*

Spare Parts, included in delivery

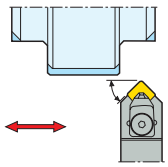
For size	Cantilever clamp	Clamp key	Insert shim	Pressure plate	Shim screw
					
...09	CC17P-09	4SMS795	CSN090412	P1311-09	174.10-652-T07P
...12	CC20P	4SMS795	174.10-621	P1311	F94009-T09P
...06	CC17P-06	4SMS795	CSN060308	P1311-06	CS2507-T07P

Accessories

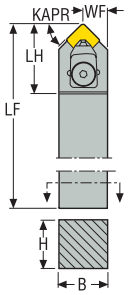
For size	Shim key
	
...09	T07P-2
...12	T09P-2
...06	T07P-2

CSDNN – Toolholders for PCBN inserts SNGN, SNMN – Inch

CSDNN
KAPR = 45,0 °



CSDNN



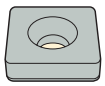
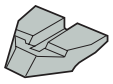


CTWS

- Neutral version shown
- For inserts program, see page(s) 604
- For holder code key, see page(s) 17-18
- Shim 174.10-622 for insert SN.N1203.., to be ordered separately
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF	LH	KAPR°	GAMO°	LAMS°	Weight	CTWS
		inch	inch	inch	inch	inch				lbs	
CSDNN-16-4	00073786	1.000	1.000	6.000	0.500	1.701	45,0	0,0	-7,0	1.760	SN..1204.. *SN..43.*

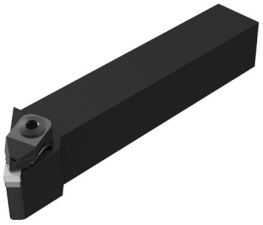
Spare Parts, included in delivery

For size	Cantilever clamp	Clamp key	Insert shim	Pressure plate	Shim screw
					
..-4	CC20P	4SMS795	174.10-622	P1311	F94009-T09P

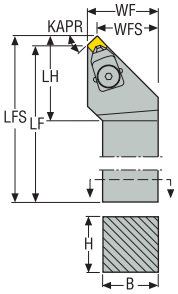
Accessories

For size	Shim key
	
..-4	T09P-2

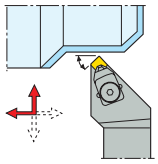
CSSNR/L – Toolholders for PCBN inserts SNGN, SNMN – Metric



CSSNR/L



CSSNR/L
KAPR = 45,0 °

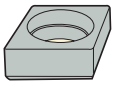
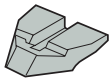


CTWS

- Right-hand version shown
- For inserts program, see page(s) 604
- For holder code key, see page(s) 15-16
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	LFS	WF	WFS	LH	KAPR°	GAMO°	LAMS°	Weight	CTWS
		mm	mm	mm	mm	mm	mm	mm				kg	
CSSNR2525M06	00005870	25	25	150	154,2	32,2	27,8	27,0	45,0	-7,0	0,0	0,8	SN.N0603.. *SN.N22.*
CSSNL2525M06	00005869	25	25	150	154,2	32,2	27,8	27,0	45,0	-7,0	0,0	0,8	SN.N0603.. *SN.N22.*

Spare Parts, included in delivery

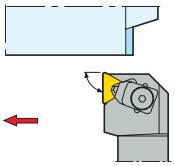
For size	Cantilever clamp	Clamp key	Insert shim	Pressure plate	Shim screw
					
...06	CC17P-06	4SMS795	CSN060308	P1311-06	CS2507-T07P

Accessories

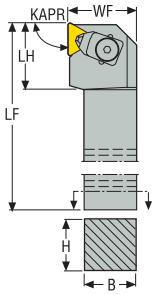
For size	Shim key
	
...06	T07P-2

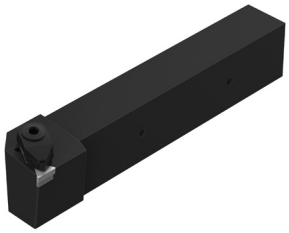
CTGNR/L..-PL – Toolholders for PCBN inserts TNGN, TNMN – Metric

CTGNR/L..-PL
KAPR = 90,0 °



CTGNR/L..-PL





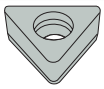
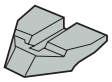
CTWS



- Right-hand version shown
- For inserts program, see page(s) 609, 610
- For holder code key, see page(s) 15-16
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF	LH	KAPR°	GAMO°	LAMS°	Weight	CTWS
		mm	mm	mm	mm	mm				kg	
CTGNR3225P11-PL	00042808	32	25	170	32,2	31,0	90,0	-8,0	0,0	1,2	TN..1103.. *TN..22.*
CTGNL3225P11-PL	00042809	32	25	170	32,2	31,0	90,0	-8,0	0,0	1,1	TN..1103.. *TN..22.*

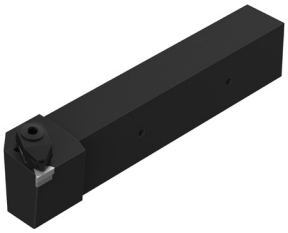
Spare Parts, included in delivery

For size	Cantilever clamp	Clamp key	Insert shim	Pressure plate	Setting screw	Shim screw
						
...11	CC17P-06	4SMS795	CTN110308	P1311-06	179.17-686	CS2507-T07P

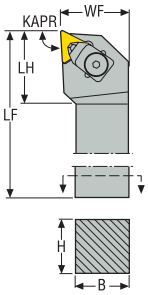
Accessories

For size	Shim key
	
...11	T07P-2

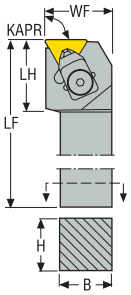
CTJNR/L, CTFNR/L – Toolholders for PCBN inserts TNGN, TNGX, TNMN, TNMX – Metric



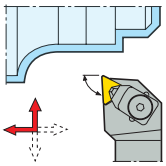
CTJNR/L



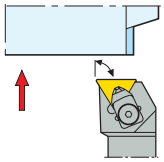
CTFNR/L



CTJNR/L
KAPR = 93,0 °



CTFNR/L
KAPR = 91,0 °



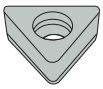
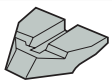
CTWS



- Right-hand version shown
- For inserts program, see page(s) 574, 575, 576, 577, 609
- For holder code key, see page(s) 15-16
- Shim CTN110312 for insert TN.N110312 and TNMX110308S-WZ, to be ordered separately
- Shim 175.10-622 for insert TNGN1603.., to be ordered separately
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF	LH	KAPR°	GAMO°	LAMS°	Weight	CTWS
		mm	mm	mm	mm	mm				kg	
CTJNR2525M11	75069262	25	25	150	32,2	23,0	93,0	-6,0	-6,0	0,8	TN..1103.. *TN..22.*
CTJNL2525M11	75069263	25	25	150	32,2	23,0	93,0	-6,0	-6,0	0,8	TN..1103.. *TN..22.*
CTJNR2525M16	00095796	25	25	150	32,2	35,0	93,0	-6,0	-6,0	0,8	TN.N1604.. *TN.N33.*
CTJNL2525M16	00095797	25	25	150	32,2	35,0	93,0	-6,0	-6,0	0,8	TN.N1604.. *TN.N33.*
CTFNR2525M11	75069266	25	25	150	32,2	29,3	91,0	-6,0	-6,0	0,8	TN..1103.. *TN..22.*
CTFNL2525M11	75069267	25	25	150	32,2	29,3	91,0	-6,0	-6,0	0,8	TN..1103.. *TN..22.*
CTFNR2525M16	00095792	25	25	150	32,2	35,0	91,0	-6,0	-6,0	0,9	TN.N1604.. *TN.N33.*

Spare Parts, included in delivery

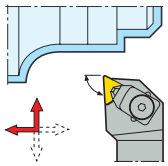
For size	Cantilever clamp	Clamp key	Insert shim	Pressure plate	Shim screw
					
...11	CC17P-06	4SMS795	CTN110308	P1311-06	CS2507-T07P
...16	CC17P-09	4SMS795	175.10-621	P1311-09	F94009-T09P

Accessories

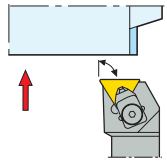
For size	Shim key
	
...11	T07P-2
...16	T09P-2

CTJNR/L, CTFNR/L – Toolholders for PCBN inserts TNGN, TNMN, TNMX – Inch

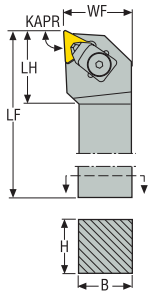
CTJNR/L
KAPR = 93,0 °



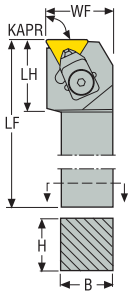
CTJNR/L
KAPR = 90,0 °

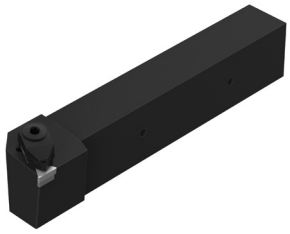


CTJNR/L



CTFNR/L





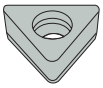
CTWS



- Right-hand version shown
- For inserts program, see page(s) 574, 575, 576, 577, 609, 610
- For holder code key, see page(s) 17-18
- TNMX insert for CTJNR/L toolholder KAPR = 93°
- Shim CTN110312 for insert TNMN223, to be ordered separately
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF	LH	KAPR°	GAMO°	LAMS°	Weight	CTWS
		inch	inch	inch	inch	inch				lbs	
CTJNR-16-2	00073868	1.000	1.000	6.000	1.250	1.181	93,0	-6,0	-6,0	1.760	TN..1103.. *TN..22.*
CTJNL-16-2	00073871	1.000	1.000	6.000	1.250	1.181	93,0	-6,0	-6,0	1.980	TN..1103.. *TN..22.*
CTFNR-16-2	00073861	1.000	1.000	6.024	1.252	1.181	90,0	-6,0	-6,0	1.980	TN..1103.. *TN..22.*
CTFNL-16-2	00073863	1.000	1.000	6.024	1.252	1.181	90,0	-6,0	-6,0	1.980	TN..1103.. *TN..22.*

Spare Parts, included in delivery

For size	Cantilever clamp	Clamp key	Insert shim	Shim screw
				
..-2	CC16	4SMS795	CTN110308	CS2507-T07P

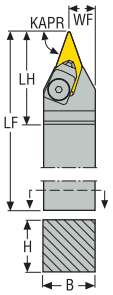
Accessories

For size	Shim key
	
..-2	T07P-2

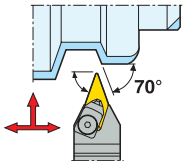
CVVNN – Toolholders for PCBN inserts VNGA, VNMA – Metric



CVVNN



CVVNN
KAPR = 72,5 °



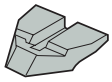
CTWS



- Neutral version shown
- For inserts program, see page(s) 584, 585, 613
- For holder code key, see page(s) 15-16
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF	LH	KAPR°	GAMO°	LAMS°	Weight	CTWS
		mm	mm	mm	mm	mm				kg	
CVVNN3225P16	00094012	32	25	170	13,1	42,0	72,5	-15,0	-5,0	1,0	VN..1604.. *VN..33.*

Spare Parts, included in delivery

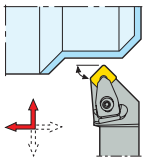
For size	Cantilever clamp	Clamp key	Insert shim	Pressure plate	Shim pin
					
...16	CC20P	4SMS795	VSN160316	P1311-09	MN0909L-T09P

Accessories

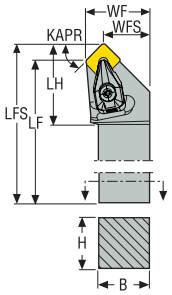
For size	Shim key
	
...16	T09P-2

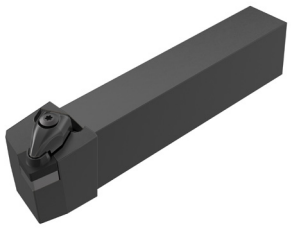
DSSNR/L..-C – Toolholders for PCBN inserts SNGA – Metric

DSSNR/L..-C
KAPR = 45,0 °



DSSNR/L..-C





CTWS

- Right-hand version shown
- For inserts program, see page(s) 603
- For holder code key, see page(s) 15-16
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	LFS	WF	WFS	LH	KAPR°	GAMO°	LAMS°	Weight	CTWS
		mm	mm	mm	mm	mm	mm	mm				kg	
DSSNR3225P12-C	02598529	32	25	170	179,1	32,0	23,9	39,0	45,0	-8,0	0,0	1,1	SN..1204.. *SN..43.*

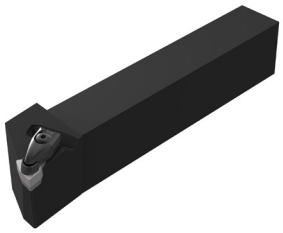
Spare Parts, included in delivery

For size	Clamp pin	Clamp screw	Floating wedge clamp	Insert shim	Shim/clamp key	Shim screw	Spring
...12	FP2012	L85021-T15P	CC12P-S12	DSN120616	T15P-2	C04008-T15P	S6912

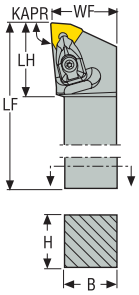
Accessories

For size	Clamp kit	Insert clamping torque	Replacement blade	Torque key
...12	CC12P-SET	3.5NM	T00-15P	T00-15P35

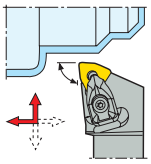
DWLNR/L..-C – Toolholders for PCBN inserts WNGA, WNMA – Metric



DWLNR/L..-C



DWLNR/L..-C
KAPR = 95,0 °



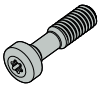
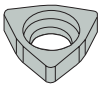
CTWS



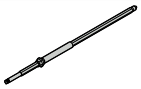
- Right-hand version shown
- For inserts program, see page(s) 586, 587, 588, 589, 614
- For holder code key, see page(s) 15-16
- * Use the right shim & the right screw for the selected insert. For details, see page 100
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF	LH	KAPR°	GAMO°	LAMS°	Weight	CTWS
		mm	mm	mm	mm	mm				kg	
DWLNR3225P06-C	02598535	32	25	170	32,0	32,0	95,0	-6,0	-6,0	1,1	WN..0604.. *WN..33.*
DWLNR3225P08-C	02598537	32	25	170	32,0	35,0	95,0	-6,0	-6,0	1,2	WN..0804-WN..0806* *WN..43-WN..44**

Spare Parts, included in delivery

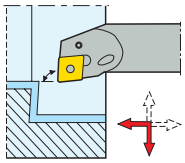
For size	Clamp pin	Clamp screw	Floating wedge clamp	Insert shim	Shim/clamp key	Shim screw	Spring
							
...06	FP1508	L84017-T10P	CC09P-D11	DWN060310	T10P-2	C03007-T09P	S5608
...08	FP2012	L85021-T15P	CC12P-S12	DWN080416	T15P-2	C04008-T15P	S6912

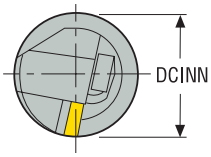
Accessories

For size	Clamp kit	Insert clamping torque	Replacement blade	Torque key
				
...06	CC09P-SET	2.0NM	T00-09P	T00-09P20
...08	CC12P-SET	3.5NM	T00-15P	T00-15P35

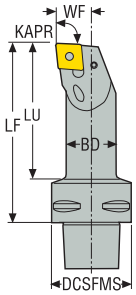
C.-PCLNR/L – Toolholders for inserts CNGG, CNGM, CNMA, CNMG, CNMM – Metric / *Inch*

C.-PCLNR/L
KAPR = 95,0 °





C.-PCLNR/L





CTWS

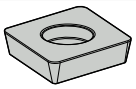


- Right-hand version shown
- For inserts program, see page(s) 546, 547, 548, 549, 550, 551, 615
- For holder code key, see page(s) 13-14
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	BD	DCSFMS	WF	LF	LU	DCINN	KAPR°	GAMO°	LAMS°	Weight	CTWS
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*				kg *lbs*	
C4-PCLNR-17090-12	00084497	C4	25,0 *0.984*	40,0 *1.575*	17,0 *0.669*	90,0 *3.543*	69,0 *2.717*	32,0 *1.260*	95,0	-6,0	-11,0	0,5 *1.100*	CN..1204.. *CN..43.*
C4-PCLNR-22110-12	00084499	C4	32,0 *1.260*	40,0 *1.575*	22,0 *0.866*	110,0 *4.331*	89,0 *3.504*	40,0 *1.575*	95,0	-6,0	-11,0	0,8 *1.760*	CN..1204.. *CN..43.*
C4-PCLNR-27080-12	00009356	C4	40,0 *1.575*	40,0 *1.575*	27,0 *1.063*	80,0 *3.150*	60,0 *2.362*	50,0 *1.969*	95,0	-6,0	-10,0	0,8 *1.760*	CN..1204.. *CN..43.*
C4-PCLNR-27120-12	00009358	C4	40,0 *1.575*	40,0 *1.575*	27,0 *1.063*	120,0 *4.724*	100,0 *3.937*	50,0 *1.969*	95,0	-6,0	-11,0	1,1 *2.430*	CN..1204.. *CN..43.*
C4-PCLNL-17090-12	00084498	C4	25,0 *0.984*	40,0 *1.575*	17,0 *0.669*	90,0 *3.543*	69,0 *2.717*	32,0 *1.260*	95,0	-6,0	-11,0	0,5 *1.100*	CN..1204.. *CN..43.*
C4-PCLNL-22110-12	00084500	C4	32,0 *1.260*	40,0 *1.575*	22,0 *0.866*	110,0 *4.331*	89,0 *3.504*	40,0 *1.575*	95,0	-6,0	-11,0	0,7 *1.540*	CN..1204.. *CN..43.*
C4-PCLNL-27080-12	02589999	C4	40,0 *1.575*	40,0 *1.575*	27,0 *1.063*	80,0 *3.150*	60,0 *2.362*	50,0 *1.969*	95,0	-6,0	-10,0	0,7 *1.540*	CN..1204.. *CN..43.*
C5-PCLNR-17090-12	02547669	C5	25,0 *0.984*	50,0 *1.969*	17,0 *0.669*	90,0 *3.543*	67,0 *2.638*	32,0 *1.260*	95,0	-6,0	-11,0	0,7 *1.540*	CN..1204.. *CN..43.*
C5-PCLNR-22110-12	00090698	C5	32,0 *1.260*	50,0 *1.969*	22,0 *0.866*	110,0 *4.331*	88,0 *3.465*	40,0 *1.575*	95,0	-6,0	-11,0	1,0 *2.200*	CN..1204.. *CN..43.*
C5-PCLNR-27140-12	00733878	C5	40,0 *1.575*	50,0 *1.969*	27,0 *1.063*	140,0 *5.512*	119,0 *4.685*	50,0 *1.969*	95,0	-6,0	-10,0	1,4 *3.090*	CN..1204.. *CN..43.*
C5-PCLNR-35100-12	00045797	C5	50,0 *1.969*	50,0 *1.969*	35,0 *1.378*	100,0 *3.937*	81,0 *3.189*	63,0 *2.480*	95,0	-6,0	-7,0	1,4 *3.090*	CN..1204.. *CN..43.*
C5-PCLNL-17090-12	00081759	C5	25,0 *0.984*	50,0 *1.969*	17,0 *0.669*	90,0 *3.543*	67,0 *2.638*	32,0 *1.260*	95,0	-6,0	-11,0	0,7 *1.540*	CN..1204.. *CN..43.*
C5-PCLNL-22110-12	00081760	C5	32,0 *1.260*	50,0 *1.969*	22,0 *0.866*	110,0 *4.331*	88,0 *3.465*	40,0 *1.575*	95,0	-6,0	-11,0	1,0 *2.200*	CN..1204.. *CN..43.*
C5-PCLNL-27140-12	00081761	C5	40,0 *1.575*	50,0 *1.969*	27,0 *1.063*	140,0 *5.512*	119,0 *4.685*	50,0 *1.969*	95,0	-6,0	-10,0	1,5 *3.310*	CN..1204.. *CN..43.*
C5-PCLNL-35100-12	00081762	C5	50,0 *1.969*	50,0 *1.969*	35,0 *1.378*	100,0 *3.937*	81,0 *3.189*	63,0 *2.480*	95,0	-6,0	-7,0	1,4 *3.090*	CN..1204.. *CN..43.*
C6-PCLNR-17100-12	02426133	C6	25,0 *0.984*	63,0 *2.480*	17,0 *0.669*	100,0 *3.937*	74,0 *2.913*	32,0 *1.260*	95,0	-6,0	-11,0	1,1 *2.430*	CN..1204.. *CN..43.*
C6-PCLNR-22110-12	00059036	C6	32,0 *1.260*	63,0 *2.480*	22,0 *0.866*	110,0 *4.331*	84,0 *3.307*	40,0 *1.575*	95,0	-6,0	-11,0	1,3 *2.870*	CN..1204.. *CN..43.*
C6-PCLNL-17100-12	02558994	C6	25,0 *0.984*	63,0 *2.480*	17,0 *0.669*	100,0 *3.937*	74,0 *2.913*	32,0 *1.260*	95,0	-6,0	-11,0	1,1 *2.430*	CN..1204.. *CN..43.*
C6-PCLNL-22110-12	00058823	C6	32,0 *1.260*	63,0 *2.480*	22,0 *0.866*	110,0 *4.331*	84,0 *3.307*	40,0 *1.575*	95,0	-6,0	-11,0	1,3 *2.870*	CN..1204.. *CN..43.*
C6-PCLNR-27140-16	02552832	C6	40,0 *1.575*	63,0 *2.480*	27,0 *1.063*	140,0 *5.512*	115,0 *4.528*	50,0 *1.969*	95,0	-6,0	-11,0	1,7 *3.750*	CN..1606.. *CN..54.*
C6-PCLNR-35175-16	02552836	C6	50,0 *1.969*	63,0 *2.480*	35,0 *1.378*	175,0 *6.890*	152,0 *5.984*	63,0 *2.480*	95,0	-6,0	-11,0	2,8 *6.170*	CN..1606.. *CN..54.*

Designation	Item number	CTMS	BD	DCSFMS	WF	LF	LU	DCINN	KAPR°	GAMO°	LAMS°	Weight	CTWS
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*				kg *lbs*	
C6-PCLNL-27140-16	00070126	C6	40,0 *1.575*	63,0 *2.480*	27,0 *1.063*	140,0 *5.512*	115,0 *4.528*	50,0 *1.969*	95,0	-6,0	-11,0	1,8 *3.970*	CN..1606.. *CN..54.*
C6-PCLNL-35175-16	00070128	C6	50,0 *1.969*	63,0 *2.480*	35,0 *1.378*	175,0 *6.890*	152,0 *5.984*	63,0 *2.480*	95,0	-6,0	-11,0	2,8 *6.170*	CN..1606.. *CN..54.*

Spare Parts, included in delivery

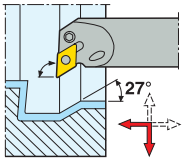
For size	Insert lever	Insert shim	Lever key	Lever screw	Punch	Shim pin
						
17090-12	PP4613	–	2.5SMS795	LS0613	–	–
-12	PP4713	PCN120308	3SMS795	LS0818	MP0912	RP6757
-17100-12	PP4613	–	2.5SMS795	LS0613	–	–
-22110-12	PP4713	PCN120308	3SMS795	LS0818	MP0912	RP6757
-16	PP7818	PCN160408	3SMS795	LS0820	MP0912	RP8286

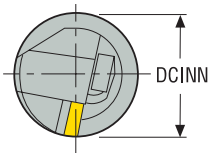
Accessories

For size	Insert clamping torque	Torque key
		
17090-12	3.0NM	H00-2530
-12	–	–
-17100-12	3.0NM	H00-2530
-22110-12	–	–
-16	–	–

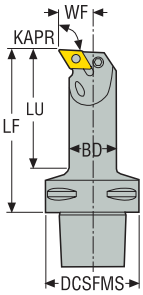
C.-PDUNR/L – Toolholders for inserts DNGA, DNGM, DNMA, DNMG, DNMM, DNMX – Metric / *Inch*

C.-PDUNR/L
KAPR = 93,0 °





C.-PDUNR/L





CTWS



- Right-hand version shown
- For inserts program, see page(s) 556, 557, 558, 559, 597, 598
- For holder code key, see page(s) 13-14
- * Use the right shim & the right screw for the selected insert. For details, see page 99
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	BD	DCSFMS	WF	LF	LU	DCINN	KAPR°	GAMO°	LAMS°	Weight	CTWS
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*				kg *lbs*	
C5-PDUNR-27140-15	00090967	C5	40,0 *1.575*	50,0 *1.969*	27,0 *1.063*	140,0 *5.512*	119,0 *4.685*	50,0 *1.969*	93,0	-6,0	-11,0	1,4 *3.090*	DN..1504-DN..1506* *DN..43-DN..44**
C5-PDUNR-35100-15	02510290	C5	50,0 *1.969*	50,0 *1.969*	35,0 *1.378*	100,0 *3.937*	81,0 *3.189*	63,0 *2.480*	93,0	-6,0	-10,0	1,4 *3.090*	DN..1504-DN..1506* *DN..43-DN..44**
C5-PDUNR-35150-15	00734071	C5	50,0 *1.969*	50,0 *1.969*	35,0 *1.378*	150,0 *5.906*	131,0 *5.157*	63,0 *2.480*	93,0	-6,0	-10,0	2,1 *4.630*	DN..1504-DN..1506* *DN..43-DN..44**
C5-PDUNL-27140-15	02507274	C5	40,0 *1.575*	50,0 *1.969*	27,0 *1.063*	140,0 *5.512*	119,0 *4.685*	50,0 *1.969*	93,0	-6,0	-11,0	1,5 *3.310*	DN..1504-DN..1506* *DN..43-DN..44**
C5-PDUNL-35100-15	02545481	C5	50,0 *1.969*	50,0 *1.969*	35,0 *1.378*	100,0 *3.937*	81,0 *3.189*	63,0 *2.480*	93,0	-6,0	-10,0	1,4 *3.090*	DN..1504-DN..1506* *DN..43-DN..44**
C5-PDUNL-35150-15	02541180	C5	50,0 *1.969*	50,0 *1.969*	35,0 *1.378*	150,0 *5.906*	131,0 *5.157*	63,0 *2.480*	93,0	-6,0	-10,0	2,1 *4.630*	DN..1504-DN..1506* *DN..43-DN..44**
C6-PDUNR-22110-15	02426139	C6	32,0 *1.260*	63,0 *2.480*	22,0 *0.866*	110,0 *4.331*	84,0 *3.307*	40,0 *1.575*	93,0	-6,0	-12,0	1,3 *2.870*	DN..1504-DN..1506* *DN..43-DN..44**
C6-PDUNR-27140-15	02207601	C6	40,0 *1.575*	63,0 *2.480*	27,0 *1.063*	140,0 *5.512*	115,0 *4.528*	50,0 *1.969*	93,0	-6,0	-11,0	1,8 *3.970*	DN..1504-DN..1506* *DN..43-DN..44**
C6-PDUNR-35175-15	02590043	C6	50,0 *1.969*	63,0 *2.480*	35,0 *1.378*	175,0 *6.890*	152,0 *5.984*	63,0 *2.480*	93,0	-6,0	-10,0	2,8 *6.170*	DN..1504-DN..1506* *DN..43-DN..44**
C6-PDUNL-22110-15	02590044	C6	32,0 *1.260*	63,0 *2.480*	22,0 *0.866*	110,0 *4.331*	84,0 *3.307*	40,0 *1.575*	93,0	-6,0	-12,0	1,3 *2.870*	DN..1504-DN..1506* *DN..43-DN..44**
C6-PDUNL-27140-15	02567151	C6	40,0 *1.575*	63,0 *2.480*	27,0 *1.063*	140,0 *5.512*	115,0 *4.528*	50,0 *1.969*	93,0	-6,0	-11,0	1,7 *3.750*	DN..1504-DN..1506* *DN..43-DN..44**
C6-PDUNL-35175-15	02492750	C6	50,0 *1.969*	63,0 *2.480*	35,0 *1.378*	175,0 *6.890*	152,0 *5.984*	63,0 *2.480*	93,0	-6,0	-10,0	2,8 *6.170*	DN..1504-DN..1506* *DN..43-DN..44**

Spare Parts, included in delivery

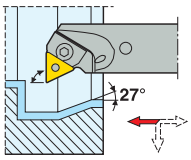
For size	Insert lever	Insert shim	Lever key	Lever screw	Punch	Shim pin
						
-15	PP4716	PDN150308	3SMS795	LS0822	MP0912	RP6757

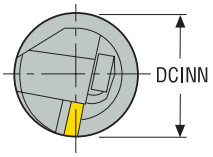
Accessories

For size	Insert shim
	
-15	PDN150408

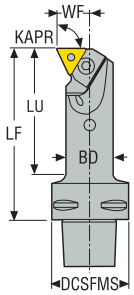
C.-PTFNR/L..-W – Toolholders for inserts TNGA, TNMA, TNMG, TNMM – Metric / *Inch*

C.-PTFNR/L..-W
KAPR = 91,0 °





C.-PTFNR/L..-W





CTWS



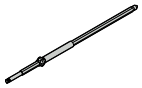
- Right-hand version shown
- For inserts program, see page(s) 574, 575, 576, 577, 608
- For holder code key, see page(s) 13-14
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	BD	DCSFMS	WF	LF	LU	DCINN	KAPR°	GAMO°	LAMS°	Weight	CTWS
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*				kg *lbs*	
C4-PTFNR-17090-16-W	02590007	C4	25,0 *0.984*	40,0 *1.575*	17,0 *0.669*	90,0 *3.543*	69,0 *2.717*	32,0 *1.260*	91,0	-6,0	-13,0	0,5 *1.100*	TN..1604.. *TN..33.*
C4-PTFNR-27120-16-W	02590009	C4	40,0 *1.575*	40,0 *1.575*	27,0 *1.063*	120,0 *4.724*	100,0 *3.937*	50,0 *1.969*	91,0	-6,0	-11,0	1,1 *2.430*	TN..1604.. *TN..33.*
C4-PTFNL-17090-16-W	02590004	C4	25,0 *0.984*	40,0 *1.575*	17,0 *0.669*	90,0 *3.543*	69,0 *2.717*	32,0 *1.260*	91,0	-6,0	-13,0	0,5 *1.100*	TN..1604.. *TN..33.*
C4-PTFNL-27120-16-W	02590006	C4	40,0 *1.575*	40,0 *1.575*	27,0 *1.063*	120,0 *4.724*	100,0 *3.937*	50,0 *1.969*	91,0	-6,0	-11,0	1,1 *2.430*	TN..1604.. *TN..33.*
C5-PTFNR-22110-16-W	02590027	C5	32,0 *1.260*	50,0 *1.969*	22,0 *0.866*	110,0 *4.331*	88,0 *3.465*	40,0 *1.575*	91,0	-6,0	-12,0	0,9 *1.980*	TN..1604.. *TN..33.*
C5-PTFNR-27140-16-W	02590028	C5	40,0 *1.575*	50,0 *1.969*	27,0 *1.063*	140,0 *5.512*	119,0 *4.685*	50,0 *1.969*	91,0	-6,0	-11,0	1,5 *3.310*	TN..1604.. *TN..33.*
C5-PTFNL-22110-16-W	02590031	C5	32,0 *1.260*	50,0 *1.969*	22,0 *0.866*	110,0 *4.331*	88,0 *3.465*	40,0 *1.575*	91,0	-6,0	-12,0	0,9 *1.980*	TN..1604.. *TN..33.*
C5-PTFNL-27140-16-W	02590032	C5	40,0 *1.575*	50,0 *1.969*	27,0 *1.063*	140,0 *5.512*	119,0 *4.685*	50,0 *1.969*	91,0	-6,0	-11,0	1,5 *3.310*	TN..1604.. *TN..33.*
C6-PTFNR-27140-16-W	02590046	C6	40,0 *1.575*	63,0 *2.480*	27,0 *1.063*	140,0 *5.512*	115,0 *4.528*	50,0 *1.969*	91,0	-6,0	-11,0	1,8 *3.970*	TN..1604.. *TN..33.*
C6-PTFNL-27140-16-W	02590050	C6	40,0 *1.575*	63,0 *2.480*	27,0 *1.063*	140,0 *5.512*	115,0 *4.528*	50,0 *1.969*	91,0	-6,0	-11,0	1,7 *3.750*	TN..1604.. *TN..33.*

Spare Parts, included in delivery

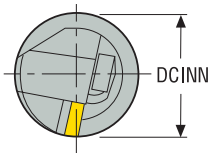
For size	Insert shim	Setting screw	Shim pin	Wedge clamp	Wedge key
					
-17...-16	–	F83060-T09P	PL1003	CP16-H31	3SMS795
-22/27...-16	PTN160308	F83060-T09P	PL1203	CP16-H3	3SMS795

Accessories

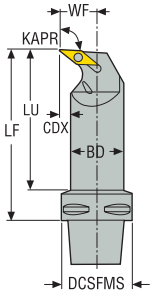
For size	Insert clamping torque	Replacement blade	Shim key	Torque key
				
-17...-16	2.0NM	T00-09P	T09P-2	T00-09P20
-22/27...-16	2.0NM	T00-09P	T09P-2	T00-09P20

C.-PVUNR/L, C.-MVUNR/L – Toolholders for inserts VNGA, VNGG, VNGM, VNMA, VNMG, VNMU – **Metric** / *Inch*

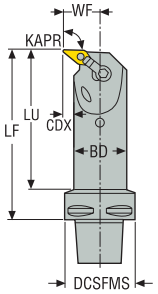




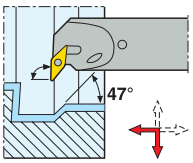
C.-PVUNR/L



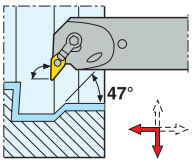
C.-MVUNR/L



C.-PVUNR/L
KAPR = 93,0 °



C.-MVUNR/L
KAPR = 93,0 °



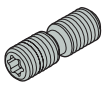
CTWS



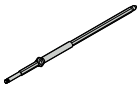
- Right-hand version shown
- For inserts program, see page(s) 584, 585, 613
- For holder code key, see page(s) 13-14
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	BD	DCSFMS	WF	LF	LU	CDX	DCINN	KAPR°	GAMO°	LAMS°	Weight	CTWS
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*				kg *lbs*	
C4-PVUNR-17090-13	00071983	C4	25,0 *0.984*	40,0 *1.575*	17,0 *0.669*	90,0 *3.543*	68,0 *2.677*	4,0 *0.157*	32,0 *1.260*	93,0	-5,0	-14,0	0,5 *1.100*	VNMU1304.. *VNMU2.5.*
C4-PVUNL-17090-13	00071980	C4	25,0 *0.984*	40,0 *1.575*	17,0 *0.669*	90,0 *3.543*	68,0 *2.677*	4,0 *0.157*	32,0 *1.260*	93,0	-5,0	-14,0	0,5 *1.100*	VNMU1304.. *VNMU2.5.*
C4-MVUNR-22110-16	00072631	C4	32,0 *1.260*	40,0 *1.575*	22,0 *0.866*	110,0 *4.331*	90,0 *3.543*	5,0 *0.197*	40,0 *1.575*	93,0	-5,0	-12,0	0,8 *1.760*	VN..1604.. *VN..33.*
C4-MVUNR-27120-16	00071985	C4	40,0 *1.575*	40,0 *1.575*	27,0 *1.063*	120,0 *4.724*	100,0 *3.937*	6,0 *0.236*	50,0 *1.969*	93,0	-5,0	-10,0	1,1 *2.430*	VN..1604.. *VN..33.*
C4-MVUNL-22110-16	00072638	C4	32,0 *1.260*	40,0 *1.575*	22,0 *0.866*	110,0 *4.331*	90,0 *3.543*	5,0 *0.197*	40,0 *1.575*	93,0	-5,0	-12,0	0,8 *1.760*	VN..1604.. *VN..33.*
C4-MVUNL-27120-16	00071981	C4	40,0 *1.575*	40,0 *1.575*	27,0 *1.063*	120,0 *4.724*	100,0 *3.937*	6,0 *0.236*	50,0 *1.969*	93,0	-5,0	-10,0	1,1 *2.430*	VN..1604.. *VN..33.*
C5-MVUNR-22110-16	00071991	C5	32,0 *1.260*	50,0 *1.969*	22,0 *0.866*	110,0 *4.331*	89,0 *3.504*	5,0 *0.197*	40,0 *1.575*	93,0	-5,0	-12,0	0,9 *1.980*	VN..1604.. *VN..33.*
C5-MVUNR-27140-16	00072664	C5	40,0 *1.575*	50,0 *1.969*	27,0 *1.063*	140,0 *5.512*	119,0 *4.685*	6,0 *0.236*	50,0 *1.969*	93,0	-5,0	-10,0	1,5 *3.310*	VN..1604.. *VN..33.*
C5-MVUNL-22110-16	00071989	C5	32,0 *1.260*	50,0 *1.969*	22,0 *0.866*	110,0 *4.331*	89,0 *3.504*	5,0 *0.197*	40,0 *1.575*	93,0	-5,0	-12,0	0,9 *1.980*	VN..1604.. *VN..33.*
C5-MVUNL-27140-16	00072679	C5	40,0 *1.575*	50,0 *1.969*	27,0 *1.063*	140,0 *5.512*	119,0 *4.685*	6,0 *0.236*	50,0 *1.969*	93,0	-5,0	-10,0	1,5 *3.310*	VN..1604.. *VN..33.*
C6-MVUNR-22120-16	00072035	C6	32,0 *1.260*	63,0 *2.480*	22,0 *0.866*	120,0 *4.724*	88,0 *3.465*	5,0 *0.197*	40,0 *1.575*	93,0	-5,0	-12,0	1,3 *2.870*	VN..1604.. *VN..33.*
C6-MVUNR-27145-16	00072036	C6	40,0 *1.575*	63,0 *2.480*	27,0 *1.063*	145,0 *5.709*	120,0 *4.724*	6,0 *0.236*	50,0 *1.969*	93,0	-5,0	-10,0	1,8 *3.970*	VN..1604.. *VN..33.*
C6-MVUNL-22120-16	00072033	C6	32,0 *1.260*	63,0 *2.480*	22,0 *0.866*	120,0 *4.724*	89,0 *3.504*	5,0 *0.197*	40,0 *1.575*	93,0	-5,0	-12,0	1,3 *2.870*	VN..1604.. *VN..33.*
C6-MVUNL-27145-16	00072034	C6	40,0 *1.575*	63,0 *2.480*	27,0 *1.063*	145,0 *5.709*	120,0 *4.724*	6,0 *0.236*	50,0 *1.969*	93,0	-5,0	-10,0	1,8 *3.970*	VN..1604.. *VN..33.*

Spare Parts, included in delivery

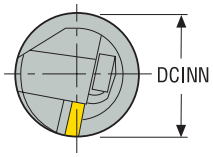
For size	Cantilever clamp	Clamp screw	Coolant nozzle	Insert key	Insert pin	Insert shim	Shim/clamp key	Shim pin
								
-13	–	–	CN6	T09P-2	PL1403-T09P	PVN130308	–	–
-16	MC20	LD6021-T09P	CN6	–	–	VSN160316	T09P-2	MN0909L-T09P

Accessories

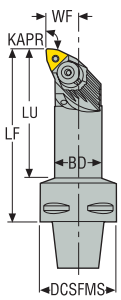
For size	Insert clamping torque	Replacement blade	Torque key
			
-13	–	–	–
-16	2.0NM	T00-09P	T00-09P20

C.-PWLNR/L – Toolholders for inserts WNGA, WNGG, WNMA, WNMG, WNMM – **Metric** / *Inch*

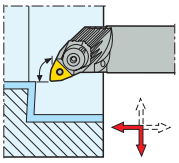




C.-PWLNR/L



C.-PWLNR/L
KAPR = 95,0 °



CTWS

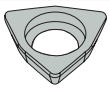


- Right-hand version shown
- For inserts program, see page(s) 586, 587, 588, 589, 614
- For holder code key, see page(s) 13-14
- * Use the right shim & the right screw for the selected insert. For details, see page 100
- For ISO attribute explanation, see page 82

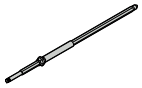
Designation	Item number	CTMS	BD	DCSFMS	WF	LF	LU	DCINN	KAPR°	GAMO°	LAMS°	Weight	CTWS
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*				kg *lbs*	
C4-PWLNR-13080-06	00012937	C4	20,0 *0.787*	40,0 *1.575*	13,0 *0.512*	80,0 *3.150*	57,0 *2.244*	25,0 *0.984*	95,0	-5,0	-11,0	0,4 *0.880*	WN..0604.. *WN..33.*
C4-PWLNR-17090-06	00092073	C4	25,0 *0.984*	40,0 *1.575*	17,0 *0.669*	90,0 *3.543*	68,0 *2.677*	32,0 *1.260*	95,0	-5,0	-12,0	0,5 *1.100*	WN..0604.. *WN..33.*
C4-PWLNR-22110-06	00092075	C4	32,0 *1.260*	40,0 *1.575*	22,0 *0.866*	110,0 *4.331*	89,0 *3.504*	40,0 *1.575*	95,0	-5,0	-12,0	0,7 *1.540*	WN..0604.. *WN..33.*
C4-PWLNL-13080-06	00012922	C4	20,0 *0.787*	40,0 *1.575*	13,0 *0.512*	80,0 *3.150*	57,0 *2.244*	25,0 *0.984*	95,0	-5,0	-11,0	0,4 *0.880*	WN..0604.. *WN..33.*
C4-PWLNL-17090-06	00092072	C4	25,0 *0.984*	40,0 *1.575*	17,0 *0.669*	90,0 *3.543*	68,0 *2.677*	32,0 *1.260*	95,0	-5,0	-12,0	0,5 *1.100*	WN..0604.. *WN..33.*
C4-PWLNR-22110-08	00092077	C4	32,0 *1.260*	40,0 *1.575*	22,0 *0.866*	110,0 *4.331*	89,0 *3.504*	40,0 *1.575*	95,0	-5,0	-11,0	0,7 *1.540*	WN..0804.. *WN..43.*
C4-PWLNR-27120-08	00071982	C4	40,0 *1.575*	40,0 *1.575*	27,0 *1.063*	120,0 *4.724*	100,0 *3.937*	50,0 *1.969*	95,0	-5,0	-8,0	1,0 *2.200*	WN..0804.. *WN..43.*
C4-PWLNL-22110-08	00092076	C4	32,0 *1.260*	40,0 *1.575*	22,0 *0.866*	110,0 *4.331*	89,0 *3.504*	40,0 *1.575*	95,0	-5,0	-11,0	0,7 *1.540*	WN..0804.. *WN..43.*
C4-PWLNL-27120-08	00071979	C4	40,0 *1.575*	40,0 *1.575*	27,0 *1.063*	120,0 *4.724*	100,0 *3.937*	50,0 *1.969*	95,0	-5,0	-8,0	1,0 *2.200*	WN..0804.. *WN..43.*
C5-PWLNR-13080-06	00072015	C5	20,0 *0.787*	50,0 *1.969*	13,0 *0.512*	80,0 *3.150*	56,0 *2.205*	25,0 *0.984*	95,0	-5,0	-11,0	0,6 *1.320*	WN..0604.. *WN..33.*
C5-PWLNR-17090-06	00092079	C5	25,0 *0.984*	50,0 *1.969*	17,0 *0.669*	90,0 *3.543*	67,0 *2.638*	32,0 *1.260*	95,0	-5,0	-12,0	0,7 *1.540*	WN..0604.. *WN..33.*
C5-PWLNR-22110-06	75094583	C5	32,0 *1.260*	50,0 *1.969*	22,0 *0.866*	110,0 *4.331*	88,0 *3.465*	40,0 *1.575*	95,0	-5,0	-12,0	0,9 *1.980*	WN..0604.. *WN..33.*
C5-PWLNL-13080-06	00071986	C5	20,0 *0.787*	50,0 *1.969*	13,0 *0.512*	80,0 *3.150*	56,0 *2.205*	25,0 *0.984*	95,0	-5,0	-11,0	0,6 *1.320*	WN..0604.. *WN..33.*
C5-PWLNL-17090-06	00092078	C5	25,0 *0.984*	50,0 *1.969*	17,0 *0.669*	90,0 *3.543*	67,0 *2.638*	32,0 *1.260*	95,0	-5,0	-12,0	0,7 *1.540*	WN..0604.. *WN..33.*
C5-PWLNL-22110-06	75094584	C5	32,0 *1.260*	50,0 *1.969*	22,0 *0.866*	110,0 *4.331*	88,0 *3.465*	40,0 *1.575*	95,0	-5,0	-12,0	0,9 *1.980*	WN..0604.. *WN..33.*
C5-PWLNR-22110-08	00092081	C5	32,0 *1.260*	50,0 *1.969*	22,0 *0.866*	110,0 *4.331*	88,0 *3.465*	40,0 *1.575*	95,0	-5,0	-11,0	0,9 *1.980*	WN..0804.. *WN..43.*
C5-PWLNR-27140-08	00094494	C5	40,0 *1.575*	50,0 *1.969*	27,0 *1.063*	140,0 *5.512*	119,0 *4.685*	50,0 *1.969*	95,0	-5,0	-11,0	1,4 *3.090*	WN..0804.. *WN..43.*
C5-PWLNL-22110-08	00092080	C5	32,0 *1.260*	50,0 *1.969*	22,0 *0.866*	110,0 *4.331*	88,0 *3.465*	40,0 *1.575*	95,0	-5,0	-11,0	0,9 *1.980*	WN..0804.. *WN..43.*
C5-PWLNL-27140-08	00094495	C5	40,0 *1.575*	50,0 *1.969*	27,0 *1.063*	140,0 *5.512*	119,0 *4.685*	50,0 *1.969*	95,0	-5,0	-11,0	1,4 *3.090*	WN..0804.. *WN..43.*
C6-PWLNR-27140-08	00072040	C6	40,0 *1.575*	63,0 *2.480*	27,0 *1.063*	140,0 *5.512*	115,0 *4.528*	50,0 *1.969*	95,0	-5,0	-8,0	1,7 *3.750*	WN..0804.. *WN..43.*
C6-PWLNR-35175-08	00072047	C6	50,0 *1.969*	63,0 *2.480*	35,0 *1.378*	175,0 *6.890*	152,0 *5.984*	63,0 *2.480*	95,0	-5,0	-10,0	2,6 *5.730*	WN..0804.. *WN..43.*

Designation	Item number	CTMS	BD	DCSFMS	WF	LF	LU	DCINN	KAPR°	GAMO°	LAMS°	Weight	CTWS
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*				kg *lbs*	
C6-PWLNL-27140-08	00045763	C6	40,0 *1.575*	63,0 *2.480*	27,0 *1.063*	140,0 *5.512*	115,0 *4.528*	50,0 *1.969*	95,0	-5,0	-8,0	2,7 *5.950*	WN..0804.. *WN..43.*
C6-PWLNL-35175-08	00072038	C6	50,0 *1.969*	63,0 *2.480*	35,0 *1.378*	175,0 *6.890*	152,0 *5.984*	63,0 *2.480*	95,0	-5,0	10,0	2,7 *5.950*	WN..0804.. *WN..43.*

Spare Parts, included in delivery

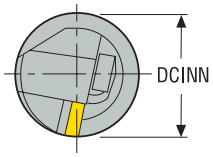
For size	Insert shim	Setting screw	Shim pin	Wedge clamp	Wedge key	Wedge screw
						
-13/17...-06	WAI060212	L82511-T07P	PP1209-T09P	WNW06HD	T20P-7	WS1920-T20P
-22...-06	WAE060312	L82511-T07P	PP1409-T09P	WNW06HD	T20P-7	WS1920-T20P
-08	WAI080312	L82511-T07P	PP1415-T15P	WNW08HD	T25P-7	WS2325-T25P
-1...-06	WAI060212	L82511-T07P	PP1209-T09P	WNW06HD	T20P-7	WS1920-T20P
-2...-06	WAE060312	L82511-T07P	PP1409-T09P	WNW06HD	T20P-7	WS1920-T20P

Accessories

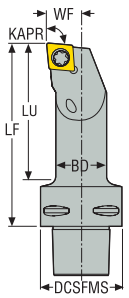
For size	Insert clamping torque	Replacement blade	Shim key	Torque key
				
-13/17...-06	3.5NM	T00-20P	T09P-2	T00-20P35
-22...-06	3.5NM	T00-20P	T09P-2	T00-20P35
-08	5.0NM	T00T-25P	T15P-2	T00T-25P50
-1...-06	3.5NM	T00-20P	T09P-2	T00-20P35
-2...-06	3.5NM	T00-20P	T09P-2	T00-20P35

C.-SCLCR/L – Toolholders for inserts CCGT, CCGW, CCGX, CCMT, CCMW – **Metric** / *Inch*

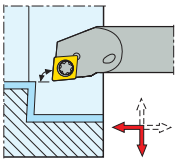




C.-SCLCR/L



C.-SCLCR/L
KAPR = 95,0 °



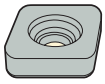
CTWS



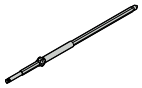
- Right-hand version shown
- For inserts program, see page(s) 542, 543, 544, 545, 591, 592, 615, 616
- For holder code key, see page(s) 13-14
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	BD	DCSFMS	WF	LF	LU	DCINN	KAPR°	GAMO°	LAMS°	Weight	CTWS
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*				kg *lbs*	
C3-SCLCR-11065-09	00094071	C3	16,0 *0.630*	32,0 *1.260*	11,0 *0.433*	65,0 *2.559*	48,0 *1.890*	20,0 *0.787*	95,0	0,0	-12,0	0,2 *0.440*	CC..09T3.. *CC..32.5.*
C3-SCLCL-11065-09	00094061	C3	16,0 *0.630*	32,0 *1.260*	11,0 *0.433*	65,0 *2.559*	48,0 *1.890*	20,0 *0.787*	95,0	0,0	-12,0	0,3 *0.660*	CC..09T3.. *CC..32.5.*
C4-SCLCR-11070-09	00084494	C4	16,0 *0.630*	40,0 *1.575*	11,0 *0.433*	70,0 *2.756*	47,0 *1.850*	20,0 *0.787*	95,0	0,0	-12,0	0,4 *0.880*	CC..09T3.. *CC..32.5.*
C4-SCLCR-13080-09	00084495	C4	20,0 *0.787*	40,0 *1.575*	13,0 *0.512*	80,0 *3.150*	57,0 *2.244*	25,0 *0.984*	95,0	0,0	-8,0	0,4 *0.880*	CC..09T3.. *CC..32.5.*
C4-SCLCR-17090-09	75069012	C4	25,0 *0.984*	40,0 *1.575*	17,0 *0.669*	90,0 *3.543*	68,0 *2.677*	32,0 *1.260*	95,0	0,0	-6,0	0,5 *1.100*	CC..09T3.. *CC..32.5.*
C4-SCLCL-11070-09	75065645	C4	16,0 *0.630*	40,0 *1.575*	11,0 *0.433*	70,0 *2.756*	47,0 *1.850*	20,0 *0.787*	95,0	0,0	-12,0	0,4 *0.880*	CC..09T3.. *CC..32.5.*
C4-SCLCL-13080-09	00084496	C4	20,0 *0.787*	40,0 *1.575*	13,0 *0.512*	80,0 *3.150*	57,0 *2.244*	25,0 *0.984*	95,0	0,0	-8,0	0,4 *0.880*	CC..09T3.. *CC..32.5.*
C4-SCLCL-17090-09	00094160	C4	25,0 *0.984*	40,0 *1.575*	17,0 *0.669*	90,0 *3.543*	68,0 *2.677*	32,0 *1.260*	95,0	0,0	-6,0	0,5 *1.100*	CC..09T3.. *CC..32.5.*
C4-SCLCR-22110-12	00094167	C4	32,0 *1.260*	40,0 *1.575*	22,0 *0.866*	110,0 *4.331*	89,0 *3.504*	40,0 *1.575*	95,0	0,0	-10,0	0,8 *1.760*	CC..1204.. *CC..43.*
C5-SCLCR-11070-09	00094268	C5	16,0 *0.630*	50,0 *1.969*	11,0 *0.433*	70,0 *2.756*	46,0 *1.811*	20,0 *0.787*	95,0	0,0	-12,0	0,5 *1.100*	CC..09T3.. *CC..32.5.*
C5-SCLCR-13080-09	00094270	C5	20,0 *0.787*	50,0 *1.969*	13,0 *0.512*	80,0 *3.150*	56,0 *2.205*	25,0 *0.984*	95,0	0,0	-8,0	0,6 *1.320*	CC..09T3.. *CC..32.5.*
C5-SCLCR-17090-09	00094271	C5	25,0 *0.984*	50,0 *1.969*	17,0 *0.669*	90,0 *3.543*	67,0 *2.638*	32,0 *1.260*	95,0	0,0	-6,0	0,7 *1.540*	CC..09T3.. *CC..32.5.*
C5-SCLCL-11070-09	00094249	C5	16,0 *0.630*	50,0 *1.969*	11,0 *0.433*	70,0 *2.756*	46,0 *1.811*	20,0 *0.787*	95,0	0,0	-12,0	0,6 *1.320*	CC..09T3.. *CC..32.5.*
C5-SCLCL-13080-09	00094253	C5	20,0 *0.787*	50,0 *1.969*	13,0 *0.512*	80,0 *3.150*	56,0 *2.205*	25,0 *0.984*	95,0	0,0	-8,0	0,6 *1.320*	CC..09T3.. *CC..32.5.*
C5-SCLCL-17090-09	00094255	C5	25,0 *0.984*	50,0 *1.969*	17,0 *0.669*	90,0 *3.543*	67,0 *2.638*	32,0 *1.260*	95,0	0,0	-6,0	0,7 *1.540*	CC..09T3.. *CC..32.5.*
C5-SCLCR-27140-12	00094275	C5	40,0 *1.575*	50,0 *1.969*	27,0 *1.063*	140,0 *5.512*	119,0 *4.685*	50,0 *1.969*	95,0	0,0	-8,0	1,5 *3.310*	CC..1204.. *CC..43.*
C5-SCLCL-27140-12	00094259	C5	40,0 *1.575*	50,0 *1.969*	27,0 *1.063*	140,0 *5.512*	119,0 *4.685*	50,0 *1.969*	95,0	0,0	-8,0	1,5 *3.310*	CC..1204.. *CC..43.*

Spare Parts, included in delivery

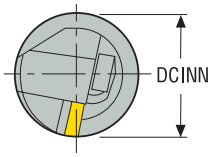
For size	Insert key	Insert screw	Insert shim	Shim screw
				
11065-09	T15P-2	C03508-T15P	–	–
11070-09	T15P-2	C03508-T15P	–	–
13080-09	T15P-2	C03508-T15P	–	–
17090-09	T15P-2	C03510-T15P	–	–
22110-12	T15P-2	C04014-T15P	SCN12T308	CA4010
27140-12	T15P-2	C04014-T15P	SCN12T308	CA4010

Accessories

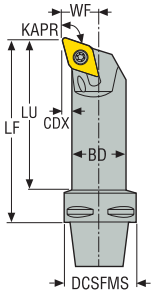
For size	Insert clamping torque	Replacement blade	Shim key	Torque key
				
11065-09	3.0NM	T00-15P	–	T00-15P30
11070-09	3.0NM	T00-15P	–	T00-15P30
13080-09	3.0NM	T00-15P	–	T00-15P30
17090-09	3.0NM	T00-15P	–	T00-15P30
22110-12	3.5NM	T00-15P	4SMS795	T00-15P35
27140-12	3.5NM	T00-15P	4SMS795	T00-15P35

C.-SDQNR/L, C.-PDQNR/L – Toolholders for inserts DNMA, DNMU – **Metric** / *Inch*

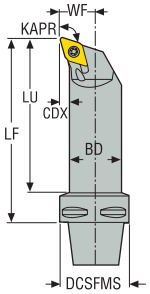




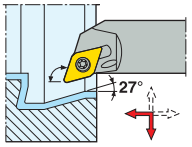
C.-SDQNR/L



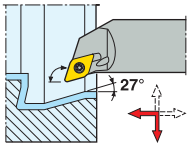
C.-PDQNR/L



C4-SD../PD..
KAPR = 107,5 °



C5-SD../PD..
KAPR = 107,5 °



CTWS



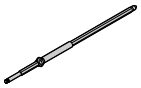
- Right-hand version shown
- For inserts program, see page(s) 556, 557, 558, 559, 598
- For holder code key, see page(s) 13-14
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	BD	DCSFMS	WF	LF	LU	CDX	DCINN	KAPR°	GAMO°	LAMS°	Weight	CTWS
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*				kg *lbs*	
C4-SDQNR-11065-11	00072404	C4	16,0 *0.630*	40,0 *1.575*	11,0 *0.433*	65,0 *2.559*	41,0 *1.614*	2,5 *0.098*	20,0 *0.787*	107,5	-5,0	-17,0	0,3 *0.660*	DNMU1104.. *DNMU33.*
C4-SDQNR-13080-11	00072447	C4	20,0 *0.787*	40,0 *1.575*	13,0 *0.512*	80,0 *3.150*	56,0 *2.205*	2,5 *0.098*	25,0 *0.984*	107,5	-5,0	-17,0	0,4 *0.880*	DNMU1104.. *DNMU33.*
C4-SDQNL-11065-11	00072441	C4	16,0 *0.630*	40,0 *1.575*	11,0 *0.433*	65,0 *2.559*	41,0 *1.614*	2,5 *0.098*	20,0 *0.787*	107,5	-5,0	-17,0	0,4 *0.880*	DNMU1104.. *DNMU33.*
C4-SDQNL-13080-11	00072454	C4	20,0 *0.787*	40,0 *1.575*	13,0 *0.512*	80,0 *3.150*	56,0 *2.205*	2,5 *0.098*	25,0 *0.984*	107,5	-5,0	-17,0	0,4 *0.880*	DNMU1104.. *DNMU33.*
C4-PDQNR-22110-11	00072510	C4	32,0 *1.260*	40,0 *1.575*	22,0 *0.866*	110,0 *4.331*	89,0 *3.504*	5,0 *0.197*	40,0 *1.575*	107,5	-5,0	-14,0	0,8 *1.760*	DNMU1104.. *DNMU33.*
C4-PDQNL-22110-11	00072512	C4	32,0 *1.260*	40,0 *1.575*	22,0 *0.866*	110,0 *4.331*	89,0 *3.504*	5,0 *0.197*	40,0 *1.575*	107,5	-5,0	-14,0	0,8 *1.760*	DNMU1104.. *DNMU33.*
C5-SDQNR-13080-11	00072455	C5	20,0 *0.787*	50,0 *1.969*	13,0 *0.512*	80,0 *3.150*	56,0 *2.205*	2,5 *0.098*	25,0 *0.984*	107,5	-5,0	-18,0	0,6 *1.320*	DNMU1104.. *DNMU33.*
C5-SDQNL-13080-11	00072462	C5	20,0 *0.787*	50,0 *1.969*	13,0 *0.512*	80,0 *3.150*	56,0 *2.205*	2,5 *0.098*	25,0 *0.984*	107,5	-5,0	-18,0	0,6 *1.320*	DNMU1104.. *DNMU33.*
C5-PDQNR-22110-11	00072546	C5	32,0 *1.260*	50,0 *1.969*	22,0 *0.866*	110,0 *4.331*	89,0 *3.504*	5,0 *0.197*	40,0 *1.575*	107,5	-5,0	-14,0	0,9 *1.980*	DNMU1104.. *DNMU33.*
C5-PDQNL-22110-11	00072557	C5	32,0 *1.260*	50,0 *1.969*	22,0 *0.866*	110,0 *4.331*	89,0 *3.504*	5,0 *0.197*	40,0 *1.575*	107,5	-5,0	-14,0	0,9 *1.980*	DNMU1104.. *DNMU33.*

Spare Parts, included in delivery

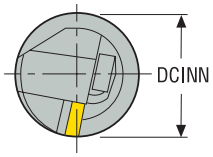
For size	Insert key	Insert pin	Insert screw	Insert shim	Shim screw
					
-11..	T09P-2	–	C03511-T09P	–	–
-13..	T09P-2	–	C03511-T09P	DAI110212	CA3507
-22..	T09P-2	PL1403-T09P	–	DAE110312	–

Accessories

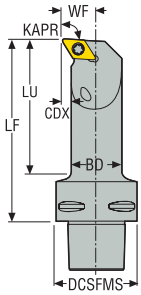
For size	Insert clamping torque	Replacement blade	Shim key	Torque key
				
-11..	2.0NM	T00-09P	–	T00-09P20
-13..	2.0NM	T00-09P	9/64SMS875	T00-09P20
-22..	–	–	–	–

C.-SDUCR/L – Toolholders for inserts DCGT, DCGW, DCMT, DCMW, DCMX – **Metric** / *Inch*

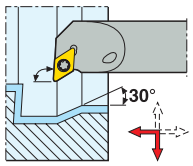




C.-SDUCR/L



C.-SDUCR/L
KAPR = 93,0 °



CTWS



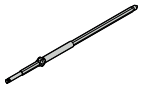
- Right-hand version shown
- For inserts program, see page(s) 553, 554, 555, 596, 617
- For holder code key, see page(s) 13-14
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	BD	DCSFMS	WF	LF	LU	CDX	DCINN	KAPR°	GAMO°	LAMS°	Weight	CTWS
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*				kg *lbs*	
C4-SDUCR-11070-07	00094180	C4	16,0 *0.630*	40,0 *1.575*	11,0 *0.433*	70,0 *2.756*	47,0 *1.850*	2,5 *0.098*	20,0 *0.787*	93,0	0,0	-8,0	0,4 *0.880*	DC..0702.. *DC..21.5.*
C4-SDUCL-11070-07	00094173	C4	16,0 *0.630*	40,0 *1.575*	11,0 *0.433*	70,0 *2.756*	47,0 *1.850*	2,5 *0.098*	20,0 *0.787*	93,0	0,0	-8,0	0,4 *0.880*	DC..0702.. *DC..21.5.*
C4-SDUCR-13080-11	75065648	C4	20,0 *0.787*	40,0 *1.575*	13,0 *0.512*	80,0 *3.150*	57,0 *2.244*	2,5 *0.098*	25,0 *0.984*	93,0	0,0	-8,0	0,4 *0.880*	DC..11T3.. *DC..32.5.*
C4-SDUCR-17090-11	00094182	C4	25,0 *0.984*	40,0 *1.575*	17,0 *0.669*	90,0 *3.543*	68,0 *2.677*	4,0 *0.157*	32,0 *1.260*	93,0	0,0	-6,0	0,5 *1.100*	DC..11T3.. *DC..32.5.*
C4-SDUCR-22110-11	00094184	C4	32,0 *1.260*	40,0 *1.575*	22,0 *0.866*	110,0 *4.331*	89,0 *3.504*	5,0 *0.197*	40,0 *1.575*	93,0	0,0	-6,0	0,8 *1.760*	DC..11T3.. *DC..32.5.*
C4-SDUCR-27080-11	00094185	C4	40,0 *1.575*	40,0 *1.575*	27,0 *1.063*	80,0 *3.150*	60,0 *2.362*	6,0 *0.236*	50,0 *1.969*	93,0	0,0	-6,0	0,7 *1.540*	DC..11T3.. *DC..32.5.*
C4-SDUCL-13080-11	75068289	C4	20,0 *0.787*	40,0 *1.575*	13,0 *0.512*	80,0 *3.150*	57,0 *2.244*	2,5 *0.098*	25,0 *0.984*	93,0	0,0	-8,0	0,4 *0.880*	DC..11T3.. *DC..32.5.*
C4-SDUCL-17090-11	00094176	C4	25,0 *0.984*	40,0 *1.575*	17,0 *0.669*	90,0 *3.543*	68,0 *2.677*	4,0 *0.157*	32,0 *1.260*	93,0	0,0	-6,0	0,5 *1.100*	DC..11T3.. *DC..32.5.*
C4-SDUCL-22110-11	00094178	C4	32,0 *1.260*	40,0 *1.575*	22,0 *0.866*	110,0 *4.331*	89,0 *3.504*	5,0 *0.197*	40,0 *1.575*	93,0	0,0	-6,0	0,8 *1.760*	DC..11T3.. *DC..32.5.*
C4-SDUCL-27080-11	00094179	C4	40,0 *1.575*	40,0 *1.575*	27,0 *1.063*	80,0 *3.150*	60,0 *2.362*	6,0 *0.236*	50,0 *1.969*	93,0	0,0	-6,0	0,7 *1.540*	DC..11T3.. *DC..32.5.*
C5-SDUCR-11070-07	00094291	C5	16,0 *0.630*	50,0 *1.969*	11,0 *0.433*	70,0 *2.756*	46,0 *1.811*	2,5 *0.098*	20,0 *0.787*	93,0	0,0	-8,0	0,5 *1.100*	DC..0702.. *DC..21.5.*
C5-SDUCL-11070-07	00094284	C5	16,0 *0.630*	50,0 *1.969*	11,0 *0.433*	70,0 *2.756*	46,0 *1.811*	2,5 *0.098*	20,0 *0.787*	93,0	0,0	-8,0	0,6 *1.320*	DC..0702.. *DC..21.5.*
C5-SDUCR-13080-11	00094293	C5	20,0 *0.787*	50,0 *1.969*	13,0 *0.512*	80,0 *3.150*	56,0 *2.205*	2,5 *0.098*	25,0 *0.984*	93,0	0,0	-8,0	0,6 *1.320*	DC..11T3.. *DC..32.5.*
C5-SDUCR-17090-11	00094295	C5	25,0 *0.984*	50,0 *1.969*	17,0 *0.669*	90,0 *3.543*	67,0 *2.638*	4,0 *0.157*	32,0 *1.260*	93,0	0,0	-6,0	0,7 *1.540*	DC..11T3.. *DC..32.5.*
C5-SDUCR-22110-11	00094297	C5	32,0 *1.260*	50,0 *1.969*	22,0 *0.866*	110,0 *4.331*	88,0 *3.465*	5,0 *0.197*	40,0 *1.575*	93,0	0,0	-6,0	0,9 *1.980*	DC..11T3.. *DC..32.5.*
C5-SDUCR-35100-11	00094298	C5	50,0 *1.969*	50,0 *1.969*	35,0 *1.378*	100,0 *3.937*	80,0 *3.150*	6,0 *0.236*	63,0 *2.480*	93,0	0,0	-4,0	1,4 *3.090*	DC..11T3.. *DC..32.5.*
C5-SDUCL-13080-11	00094285	C5	20,0 *0.787*	50,0 *1.969*	13,0 *0.512*	80,0 *3.150*	56,0 *2.205*	2,5 *0.098*	25,0 *0.984*	93,0	0,0	-8,0	0,6 *1.320*	DC..11T3.. *DC..32.5.*
C5-SDUCL-17090-11	00094287	C5	25,0 *0.984*	50,0 *1.969*	17,0 *0.669*	90,0 *3.543*	67,0 *2.638*	4,0 *0.157*	32,0 *1.260*	93,0	0,0	-6,0	0,7 *1.540*	DC..11T3.. *DC..32.5.*
C5-SDUCL-22110-11	00094289	C5	32,0 *1.260*	50,0 *1.969*	22,0 *0.866*	110,0 *4.331*	88,0 *3.465*	5,0 *0.197*	40,0 *1.575*	93,0	0,0	-6,0	0,9 *1.980*	DC..11T3.. *DC..32.5.*
C5-SDUCL-35100-11	00094290	C5	50,0 *1.969*	50,0 *1.969*	35,0 *1.378*	100,0 *3.937*	80,0 *3.150*	6,0 *0.236*	63,0 *2.480*	93,0	0,0	-4,0	1,4 *3.090*	DC..11T3.. *DC..32.5.*

Spare Parts, included in delivery

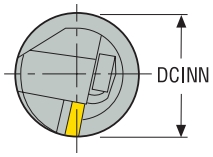
For size	Insert key	Insert screw	Insert shim	Shim screw
				
-07	T07P-2	C02506-T07P	–	–
-13...-11	T15P-2	C03508-T15P	–	–
-17...-11	T15P-2	C03510-T15P	–	–
-2...-11	T15P-2	C03512-T15P	126.19-620	CA3507
-22/35...-11	T15P-2	C03512-T15P	126.19-620	CA3507

Accessories

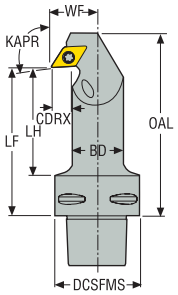
For size	Insert clamping torque	Replacement blade	Shim key	Torque key
				
-07	0.9NM	T00-07P	–	T00-07P09
-13...-11	3.0NM	T00-15P	–	T00-15P30
-17...-11	3.0NM	T00-15P	–	T00-15P30
-2...-11	3.0NM	T00-15P	9/64SMS875	T00-15P30
-22/35...-11	3.0NM	T00-15P	9/64SMS875	T00-15P30

C.-SDUCR/L-..X – Toolholders for inserts DCGT, DCGW, DCMT, DCMW – **Metric** / *Inch*

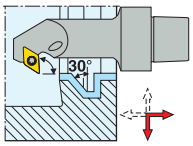




C.-SDUCR/L-..X



C.-SDUCR/L-..X
KAPR = 93,0 °



CTWS



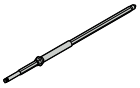
- Right-hand version shown
- For inserts program, see page(s) 553, 554, 555, 596, 617
- For holder code key, see page(s) 13-14
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	BD	DCSFMS	WF	LF	CDRX	OAL	DCINN	KAPR°	GAMO°	LAMS°	Weight	CTWS
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*				kg *lbs*	
C4-SDUCR-13070-07X	00089627	C4	16,0 *0.630*	40,0 *1.575*	13,0 *0.512*	70,0 *2.756*	4,0 *0.157*	81,0 *3.189*	22,0 *0.866*	93,0	0,0	-6,0	0,4 *0.880*	DC..0702.. *DC..21.5.*
C4-SDUCL-13070-07X	00094174	C4	16,0 *0.630*	40,0 *1.575*	13,0 *0.512*	70,0 *2.756*	4,0 *0.157*	81,0 *3.189*	22,0 *0.866*	93,0	0,0	-6,0	0,4 *0.880*	DC..0702.. *DC..21.5.*

Spare Parts, included in delivery

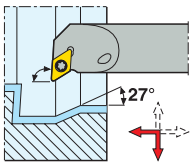
For size	Insert key	Insert screw
		
-07X	T07P-2	C02506-T07P

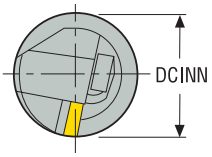
Accessories

For size	Insert clamping torque	Replacement blade	Torque key
			
-07X	0.9NM	T00-07P	T00-07P09

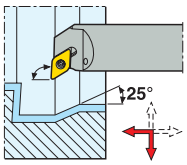
C.-SDUNR/L, C.-PDUNR/L – Toolholders for inserts DNMA, DNMU, DNMX – Metric / *Inch*

C4-SD../PD..
KAPR = 93,0 °

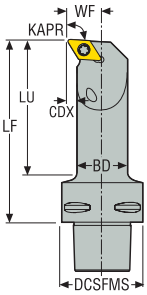




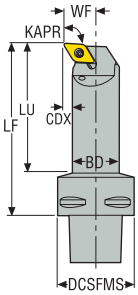
C5-SD../PD..
KAPR = 93,0 °



C.-SDUNR/L



C.-PDUNR/L





CTWS



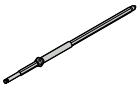
- Right-hand version shown
- For inserts program, see page(s) 556, 557, 558, 559, 598
- For holder code key, see page(s) 13-14
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	BD	DCSFMS	WF	LF	LU	CDX	DCINN	KAPR°	GAMO°	LAMS°	Weight	CTWS
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*				kg *lbs*	
C4-SDUNR-11065-11	00072369	C4	16,0 *0.630*	40,0 *1.575*	11,0 *0.433*	65,0 *2.559*	41,0 *1.614*	2,5 *0.098*	20,0 *0.787*	93,0	-5,0	-17,0	0,4 *0.880*	DNMU1104.. *DNMU33.*
C4-SDUNR-13080-11	00092041	C4	20,0 *0.787*	40,0 *1.575*	13,0 *0.512*	80,0 *3.150*	56,0 *2.205*	2,5 *0.098*	25,0 *0.984*	93,0	-5,0	-14,0	0,4 *0.880*	DNMU1104.. *DNMU33.*
C4-SDUNL-11065-11	00072396	C4	16,0 *0.630*	40,0 *1.575*	11,0 *0.433*	65,0 *2.559*	41,0 *1.614*	2,5 *0.098*	20,0 *0.787*	93,0	-5,0	-17,0	0,3 *0.660*	DNMU1104.. *DNMU33.*
C4-SDUNL-13080-11	00092040	C4	20,0 *0.787*	40,0 *1.575*	13,0 *0.512*	80,0 *3.150*	56,0 *2.205*	2,5 *0.098*	25,0 *0.984*	93,0	-5,0	-14,0	0,4 *0.880*	DNMU1104.. *DNMU33.*
C4-PDUNR-17090-11	00092043	C4	25,0 *0.984*	40,0 *1.575*	17,0 *0.669*	90,0 *3.543*	68,0 *2.677*	4,0 *0.157*	32,0 *1.260*	93,0	-5,0	-13,0	0,5 *1.100*	DNMU1104.. *DNMU33.*
C4-PDUNR-22110-11	00092045	C4	32,0 *1.260*	40,0 *1.575*	22,0 *0.866*	110,0 *4.331*	89,0 *3.504*	5,0 *0.197*	40,0 *1.575*	93,0	-5,0	-11,0	0,8 *1.760*	DNMU1104.. *DNMU33.*
C4-PDUNL-17090-11	00092042	C4	25,0 *0.984*	40,0 *1.575*	17,0 *0.669*	90,0 *3.543*	68,0 *2.677*	4,0 *0.157*	32,0 *1.260*	93,0	-5,0	-13,0	0,5 *1.100*	DNMU1104.. *DNMU33.*
C4-PDUNL-22110-11	00092044	C4	32,0 *1.260*	40,0 *1.575*	22,0 *0.866*	110,0 *4.331*	89,0 *3.504*	5,0 *0.197*	40,0 *1.575*	93,0	-5,0	-11,0	0,8 *1.760*	DNMU1104.. *DNMU33.*
C5-SDUNR-13080-11	00092047	C5	20,0 *0.787*	50,0 *1.969*	13,0 *0.512*	80,0 *3.150*	56,0 *2.205*	2,5 *0.098*	25,0 *0.984*	93,0	-5,0	-14,0	0,6 *1.320*	DNMU1104.. *DNMU33.*
C5-SDUNL-13080-11	00092046	C5	20,0 *0.787*	50,0 *1.969*	13,0 *0.512*	80,0 *3.150*	56,0 *2.205*	2,5 *0.098*	25,0 *0.984*	93,0	-5,0	-14,0	0,6 *1.320*	DNMU1104.. *DNMU33.*
C5-PDUNR-17090-11	00092049	C5	25,0 *0.984*	50,0 *1.969*	17,0 *0.669*	90,0 *3.543*	67,0 *2.638*	4,0 *0.157*	32,0 *1.260*	93,0	-5,0	-13,0	0,7 *1.540*	DNMU1104.. *DNMU33.*
C5-PDUNR-22110-11	00092051	C5	32,0 *1.260*	50,0 *1.969*	22,0 *0.866*	110,0 *4.331*	89,0 *3.504*	5,0 *0.197*	40,0 *1.575*	93,0	-5,0	-11,0	0,9 *1.980*	DNMU1104.. *DNMU33.*
C5-PDUNL-17090-11	00092048	C5	25,0 *0.984*	50,0 *1.969*	17,0 *0.669*	90,0 *3.543*	67,0 *2.638*	4,0 *0.157*	32,0 *1.260*	93,0	-5,0	-13,0	0,7 *1.540*	DNMU1104.. *DNMU33.*
C5-PDUNL-22110-11	00092050	C5	32,0 *1.260*	50,0 *1.969*	22,0 *0.866*	110,0 *4.331*	89,0 *3.504*	5,0 *0.197*	40,0 *1.575*	93,0	-5,0	-11,0	1,0 *2.200*	DNMU1104.. *DNMU33.*

Spare Parts, included in delivery

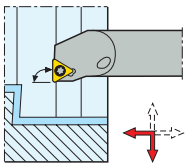
For size	Coolant nozzle	Insert key	Insert pin	Insert screw	Insert shim	Shim screw
						
-11...-11	–	T09P-2	–	C03511-T09P	–	–
-13...-11	–	T09P-2	–	C03511-T09P	DAI110212	CA3507
-17/22...-11	CN6	T09P-2	PL1403-T09P	–	DAE110312	–

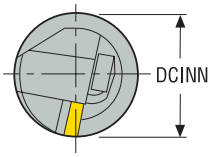
Accessories

For size	Insert clamping torque	Replacement blade	Shim key	Torque key
				
-11...-11	2.0NM	T00-09P	–	T00-09P20
-13...-11	2.0NM	T00-09P	9/64SMS875	T00-09P20
-17/22...-11	–	–	–	–

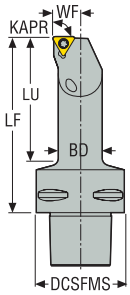
C.-STFCR/L – Toolholders for inserts TCGT, TCMT, TCMW – Metric / *Inch*

C.-STFCR/L
KAPR = 91,0 °





C.-STFCR/L





CTWS



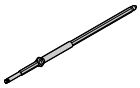
- Right-hand version shown
- For inserts program, see page(s) 571, 572, 618
- For holder code key, see page(s) 13-14
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	BD	DCSFMS	WF	LF	LU	DCINN	KAPR°	GAMO°	LAMS°	Weight	CTWS
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*				kg *lbs*	
C4-STFCR-11070-11	00084501	C4	16,0 *0.630*	40,0 *1.575*	11,0 *0.433*	70,0 *2.756*	47,0 *1.850*	20,0 *0.787*	91,0	0,0	-4,0	0,4 *0.880*	TC..1102.. *TC..21.5.*
C4-STFCL-11070-11	00084502	C4	16,0 *0.630*	40,0 *1.575*	11,0 *0.433*	70,0 *2.756*	47,0 *1.850*	20,0 *0.787*	91,0	0,0	-4,0	0,4 *0.880*	TC..1102.. *TC..21.5.*
C4-STFCL-13080-11	00084504	C4	20,0 *0.787*	40,0 *1.575*	13,0 *0.512*	80,0 *3.150*	57,0 *2.244*	25,0 *0.984*	91,0	0,0	-3,0	0,4 *0.880*	TC..1102.. *TC..21.5.*
C5-STFCR-11070-11	00094373	C5	16,0 *0.630*	50,0 *1.969*	11,0 *0.433*	70,0 *2.756*	46,0 *1.811*	40,0 *1.575*	91,0	0,0	-4,0	0,5 *1.100*	TC..1102.. *TC..21.5.*

Spare Parts, included in delivery

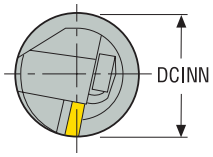
For size	Insert key	Insert screw
		
-11	T07P-2	C02506-T07P

Accessories

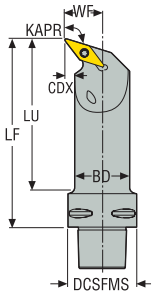
For size	Insert clamping torque	Replacement blade	Torque key
			
-11	0.9NM	T00-07P	T00-07P09

C.-SVQBR/L – Toolholders for inserts VBGW, VBMT, VBMW, VCGT – **Metric** / *Inch*

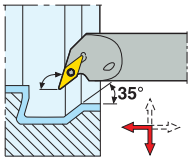




C.-SVQBR/L



C.-SVQBR/L
KAPR = 107,5 °



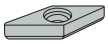
CTWS



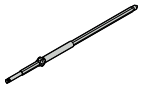
- Right-hand version shown
- For inserts program, see page(s) 582, 583, 583, 612, 619
- For holder code key, see page(s) 13-14
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	BD	DCSFMS	WF	LF	LU	CDX	DCINN	KAPR°	GAMO°	LAMS°	Weight	CTWS
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*				kg *lbs*	
C3-SVQBR-13070-11	00094153	C3	16,0 *0.630*	32,0 *1.260*	13,0 *0.512*	70,0 *2.756*	53,0 *2.087*	4,0 *0.157*	22,0 *0.866*	107,5	0,0	-7,0	0,2 *0.440*	VB..1102.. *VB..21.5.*
C3-SVQBL-13070-11	00094147	C3	16,0 *0.630*	32,0 *1.260*	13,0 *0.512*	70,0 *2.756*	53,0 *2.087*	4,0 *0.157*	22,0 *0.866*	107,5	0,0	-7,0	0,2 *0.440*	VB..1102.. *VB..21.5.*
C4-SVQBR-13070-11	00094239	C4	16,0 *0.630*	40,0 *1.575*	13,0 *0.512*	70,0 *2.756*	47,0 *1.850*	4,0 *0.157*	25,0 *0.984*	107,5	0,0	-7,0	0,3 *0.660*	VB..1102.. *VB..21.5.*
C4-SVQBL-13070-11	00094231	C4	16,0 *0.630*	40,0 *1.575*	13,0 *0.512*	70,0 *2.756*	47,0 *1.850*	4,0 *0.157*	25,0 *0.984*	107,5	0,0	-7,0	0,3 *0.660*	VB..1102.. *VB..21.5.*
C4-SVQBR-18090-16	00094243	C4	25,0 *0.984*	40,0 *1.575*	18,0 *0.709*	90,0 *3.543*	68,0 *2.677*	4,5 *0.177*	33,0 *1.299*	107,5	0,0	-6,0	0,5 *1.100*	VB..1604-VC..1604 *VB..33.-VC..33.*
C4-SVQBL-18090-16	00094233	C4	25,0 *0.984*	40,0 *1.575*	18,0 *0.709*	90,0 *3.543*	68,0 *2.677*	4,5 *0.177*	33,0 *1.299*	107,5	0,0	-6,0	0,5 *1.100*	VB..1604-VC..1604 *VB..33.-VC..33.*
C5-SVQBR-22110-16	00094303	C5	32,0 *1.260*	50,0 *1.969*	22,0 *0.866*	110,0 *4.331*	88,0 *3.465*	5,0 *0.197*	40,0 *1.575*	107,5	0,0	-8,0	0,9 *1.980*	VB..1604-VC..1604 *VB..33.-VC..33.*
C5-SVQBR-27140-16	00094305	C5	40,0 *1.575*	50,0 *1.969*	27,0 *1.063*	140,0 *5.512*	119,0 *4.685*	6,0 *0.236*	50,0 *1.969*	107,5	0,0	-8,0	1,4 *3.090*	VB..1604-VC..1604 *VB..33.-VC..33.*
C5-SVQBL-22110-16	00094672	C5	32,0 *1.260*	50,0 *1.969*	22,0 *0.866*	110,0 *4.331*	88,0 *3.465*	5,0 *0.197*	40,0 *1.575*	107,5	0,0	-8,0	0,9 *1.980*	VB..1604-VC..1604 *VB..33.-VC..33.*
C5-SVQBL-27140-16	00094673	C5	40,0 *1.575*	50,0 *1.969*	27,0 *1.063*	140,0 *5.512*	119,0 *4.685*	6,0 *0.236*	50,0 *1.969*	107,5	0,0	-8,0	1,4 *3.090*	VB..1604-VC..1604 *VB..33.-VC..33.*
C6-SVQBR-22120-16	00094336	C6	32,0 *1.260*	63,0 *2.480*	22,0 *0.866*	120,0 *4.724*	94,0 *3.701*	5,0 *0.197*	40,0 *1.575*	107,5	0,0	-8,0	1,3 *2.870*	VB..1604-VC..1604 *VB..33.-VC..33.*
C6-SVQBR-35175-16	00094338	C6	50,0 *1.969*	63,0 *2.480*	35,0 *1.378*	175,0 *6.890*	152,0 *5.984*	9,0 *0.354*	63,0 *2.480*	107,5	0,0	-8,0	2,6 *5.730*	VB..1604-VC..1604 *VB..33.-VC..33.*
C6-SVQBL-22120-16	00094333	C6	32,0 *1.260*	63,0 *2.480*	22,0 *0.866*	120,0 *4.724*	94,0 *3.701*	5,0 *0.197*	40,0 *1.575*	107,5	0,0	-8,0	1,3 *2.870*	VB..1604-VC..1604 *VB..33.-VC..33.*
C6-SVQBL-35175-16	00094335	C6	50,0 *1.969*	63,0 *2.480*	35,0 *1.378*	175,0 *6.890*	152,0 *5.984*	9,0 *0.354*	63,0 *2.480*	107,5	0,0	-8,0	2,7 *5.950*	VB..1604-VC..1604 *VB..33.-VC..33.*

Spare Parts, included in delivery

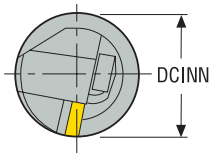
For size	Insert key	Insert screw	Insert shim	Shim screw
				
C3	T07P-2	C02506-T07P	–	–
C4-..13..-11	T07P-2	C02506-T07P	–	–
C4-..18..-16	T15P-2	C03510-T15P	–	–
C5-..-22..-16	T15P-2	C03512-T15P	171.19-620	CA3507
C5-..-27..-16	T15P-2	C03512-T15P	171.19-620	CA3507
C6	T15P-2	C03512-T15P	171.19-620	CA3507

Accessories

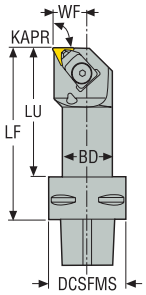
For size	Insert clamping torque	Replacement blade	Shim key	Torque key
				
C3	0.9NM	T00-07P	–	T00-07P09
C4-..13..-11	0.9NM	T00-07P	–	T00-07P09
C4-..18..-16	3.0NM	T00-15P	–	T00-15P30
C5-..-22..-16	3.0NM	T00-15P	9/64SMS875	T00-15P30
C5-..-27..-16	3.0NM	T00-15P	9/64SMS875	T00-15P30
C6	3.0NM	T00-15P	9/64SMS875	T00-15P30

C.-CTUNR/L – Toolholders for PCBN inserts TNGN, TNGX, TNMN, TNMX – **Metric** / *Inch*

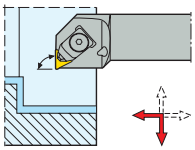




C.-CTUNR/L



C.-CTUNR/L
KAPR = 93,0 °



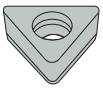
CTWS



- Right-hand version shown
- For inserts program, see page(s) 574, 575, 576, 577, 609
- For holder code key, see page(s) 13-14
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	BD	DCSFMS	WF	LF	LU	DCINN	KAPR°	GAMO°	LAMS°	Weight	CTWS
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*				kg *lbs*	
C4-CTUNL-17090-11	02595983	C4	25,0 *0.984*	40,0 *1.575*	17,0 *0.669*	90,0 *3.543*	68,0 *2.677*	32,0 *1.260*	93,0	-6,0	-12,0	0,5 *1.100*	TN..1103.. *TN..22.*
C5-CTUNL-22110-11	02595990	C5	32,0 *1.260*	50,0 *1.969*	22,0 *0.866*	110,0 *4.331*	89,0 *3.504*	40,0 *1.575*	93,0	-6,0	-12,0	1,0 *2.200*	TN..1103.. *TN..22.*
C6-CTUNR-22110-11	02595992	C6	32,0 *1.260*	63,0 *2.480*	22,0 *0.866*	110,0 *4.331*	89,0 *3.504*	40,0 *1.575*	93,0	-6,0	-12,0	1,3 *2.870*	TN..1103.. *TN..22.*
C6-CTUNL-22110-11	02595994	C6	32,0 *1.260*	63,0 *2.480*	22,0 *0.866*	110,0 *4.331*	89,0 *3.504*	40,0 *1.575*	93,0	-6,0	-12,0	1,3 *2.870*	TN..1103.. *TN..22.*

Spare Parts, included in delivery

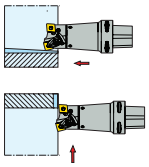
For size	Cantilever clamp	Clamp key	Coolant nozzle	Insert shim	Shim screw
					
-11	CC14	4SMS795	CN6	CTN110308	CS2507-T07P

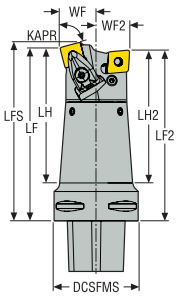
Accessories

For size	Shim key
	
-11	T07P-2

C.-DSKNR/L - PCLNR/L – Toolholders for inserts SNMA, SNMG, SNMM / CNMA, CNMG, CNMM – Metric / *Inch*

C.-DSKNR/L - PCLNR/L
KAPR = 75,0 °







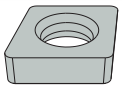
CTWS



- Right-hand version shown
- For inserts program, see page(s) 567, 568, 569, 570, 546, 547, 548, 549, 550, 551
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	DCSFMS	LF	LF2	LFS	LH	LH2	WF	WF2	KAPR°	GAMO°	LAMS°	Weight	CTWS
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*				kg *lbs*	
C6-DSKNR2713015-PCLNL2512816	03031406	C6	63,0 *2.480*	130 *5.118*	128,0 *5.039*	134,0 *5.276*	101,5 *3.996*	99,5 *3.917*	27,0 *1.063*	25,0 *0.984*	75,0	-5,0	-10,0	0,9 *1.980*	SN1506-CN1606 *SN..54-CN..54*
C6-DSKNL2713015-PCLNR2512816C	03032390	C6	63,0 *2.480*	130 *5.118*	128,0 *5.039*	134,0 *5.276*	101,5 *3.996*	99,5 *3.917*	27,0 *1.063*	25,0 *0.984*	75,0	-5,0	-10,0	2,3 *5.070*	SN1506-CN1606 *SN..54-CN..54*

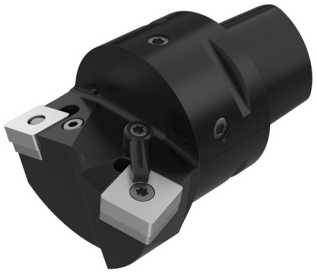
Spare Parts, included in delivery

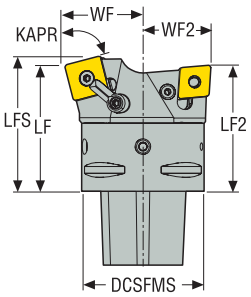
For size	Clamp	Clamp pin	Clamp screw	Insert shim	Lever pin	Lever screw	Plug	Shim pin	Shim screw	Spring
										
C6	CD16-S	FP2012	L86026-T20P	PCN160412	PP6017	LS0820	P6SS6X5G	RP8286	C05010-T20P	S7010

Accessories

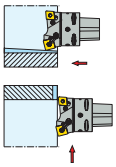
For size	Clamp kit	Key	Lever key
			
C6	CD16-S16	T20P-7L	3SMS795

C.-MSKNR/L - PCLNR/L – Toolholders for inserts SNMA, SNMG, SNMM / CNMA, CNMG, CNMM – **Metric** / *Inch*

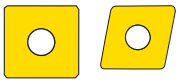




C.-MSKNR/L - PCLNR/L
KAPR = 75,0 °



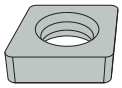
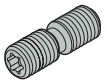
CTWS



- Right-hand version shown
- For inserts program, see page(s) 567, 568, 569, 570, 546, 547, 548, 549, 550, 551
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	DCSFMS	LF	LF2	LFS	WF	WF2	KAPR°	GAMO°	LAMS°	Weight	CTWS
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*				kg *lbs*	
C6-MSKNR4006519-PCLNL3506516	03032391	C6	63,0 *2.480*	65 *2.559*	65,0 *2.559*	69,8 *2.748*	40,0 *1.575*	35,0 *1.378*	75,0	-5,0	-10,0	0,7 *1.540*	SN1906-CN1606 *SN..64-CN..54*
C6-MSKNL4006519-PCLNR3506516C	03032405	C6	63,0 *2.480*	65 *2.559*	65,0 *2.559*	69,8 *2.748*	40,0 *1.575*	35,0 *1.378*	75,0	-5,0	-10,0	1,5 *3.310*	SN1906-CN1606 *SN..64-CN..54*
C8-MSKNR4508019-PCLNL4508016	03032403	C8	80,0 *3.150*	80 *3.150*	80,0 *3.150*	85,0 *3.346*	45,0 *1.772*	45,0 *1.772*	75,0	-5,0	-10,0	3,3 *7.280*	SN1906-CN1606 *SN..64-CN..54*
C8-MSKNL4508019-PCLNR4508016C	03031407	C8	80,0 *3.150*	80 *3.150*	80,0 *3.150*	85,0 *3.346*	45,0 *1.772*	45,0 *1.772*	75,0	-5,0	-10,0	3,1 *6.830*	SN1906-CN1606 *SN..64-CN..54*

Spare Parts, included in delivery

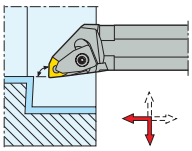
For size	Clamp	Coolant nozzle	Insert shim	Lever pin	Lever screw	Pin	Plug	Screw	Shim pin
									
C6/C8	MC22	CN6	SSN190412	PP6017	LS0820	MN1920-T20P	P6SS6X5G	LD6024-T20P	RP8286

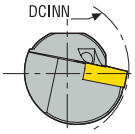
Accessories

For size	Key	Lever key
		
C6/C8	T20P-7L	3SMS795

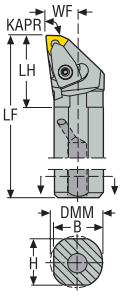
DWLNR/L..-C – Toolholders for PCBN inserts WNGA, WNMA – Metric

DWLNR/L..-C
KAPR = 95,0 °





DWLNR/L..-C





CTWS



- Right-hand version shown
- For inserts program, see page(s) 586, 587, 588, 589, 614
- For holder code key, see page(s) 19-20
- * Use the right shim & the right screw for the selected insert. For details, see page 100
- For ISO attribute explanation, see page 82

Designation	Item number	DMM	H	B	LF	WF	LH	DCINN	KAPR°	GAMO°	LAMS°	Weight	CTWS
		mm	mm	mm	mm	mm	mm	mm				kg	
A25R-DWLNR06-C	02598616	25,0	23	24	200	17,0	33,0	32,0	95,0	-5,0	-12,0	0,6	WN..0604.. *WN..33.*
A32S-DWLNL06-C	02598622	32,0	30	31	250	22,0	38,0	40,0	95,0	-5,0	-12,0	1,3	WN..0604.. *WN..33.*
A25R-DWLNR08-C	02598625	25,0	23	24	200	17,0	28,0	32,0	95,0	-5,0	-11,0	0,7	WN..0804-WN..0806* *WN..43-WN..44**
A32S-DWLNR08-C	02598628	32,0	30	31	250	22,0	40,0	40,0	95,0	-5,0	-11,0	1,4	WN..0804-WN..0806* *WN..43-WN..44**
A25R-DWLNL08-C	02598627	25,0	23	24	200	17,0	28,0	32,0	95,0	-5,0	-11,0	0,7	WN..0804-WN..0806* *WN..43-WN..44**
A32S-DWLNL08-C	02598629	32,0	30	31	250	22,0	40,0	40,0	95,0	-5,0	-11,0	1,3	WN..0804-WN..0806* *WN..43-WN..44**

Spare Parts, included in delivery

For size	Clamp pin	Clamp screw	Floating wedge clamp	Insert shim	Plug screw	Shim/clamp key	Shim screw	Spring
...06	FP1508	L84017-T09P	CC09P-D11	DWD060210	–	T09P-2	C03007-T09P	S5608
...06	FP1508	L84017-T10P	CC09P-D11	DWD060210	P6SS4X4	T10P-2	C03007-T09P	S5608
...08	FP2012	L85021-T15P	CC12P-S12	DWD080316	–	T15P-2	C04008-T15P	S6912

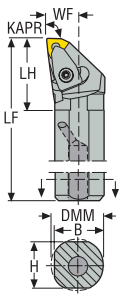
Accessories

For size	Clamp kit	Insert clamping torque	Replacement blade	Torque key
...06	CC09P-SET	2.0NM	T00-09P	T00-09P20
...08	CC12P-SET	3.5NM	T00-15P	T00-15P35

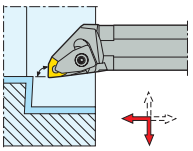
DWLNR/L – Toolholders for PCBN inserts WNGA, WNMA – Inch



DWLNR/L..-C



DWLNR/L..-C
KAPR = 95,0 °



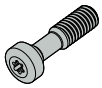
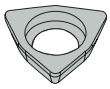
CTWS



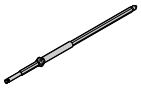
- Right-hand version shown
- For inserts program, see page(s) 586, 587, 588, 589, 614
- For holder code key, see page(s) 21-22
- For ISO attribute explanation, see page 82

Designation	Item number	DMM	H	B	LF	WF	LH	DCINN	KAPR°	GAMO°	LAMS°	Weight	CTWS
		inch	inch	inch	inch	inch	inch	inch				lbs	
A16-DWLNL-3-C	02605020	1.000	0.902	0.961	12.008	0.433	1.378	1.299	95,0	-5,0	-11,0	2.430	WN..0604.. *WN..33.*

Spare Parts, included in delivery

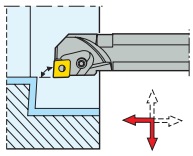
For size	Clamp pin	Clamp screw	Floating wedge clamp	Insert shim	Plug screw	Shim/clamp key	Shim screw	Spring
								
..-3	FP1508	L84017-T10P	CC09P-SET	DWD060210	P6SS4X4	T10P-2	C03007-T09P	S5608

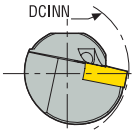
Accessories

For size	Clamp kit	Insert clamping torque	Replacement blade	Torque key
				
..-3	CC09P-D11	2.0NM	T00-09P	T00-09P20

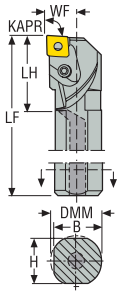
PCLNR/L – Toolholders for inserts CNGA, CNGG, CNMA, CNMG, CNMM – Metric

PCLNR/L
KAPR = 95,0 °





PCLNR/L





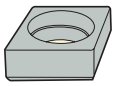
CTWS



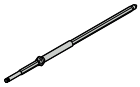
- Right-hand version shown
- For inserts program, see page(s) 546, 547, 548, 549, 550, 551, 593, 594
- For holder code key, see page(s) 19-20
- For ISO attribute explanation, see page 82

Designation	Item number	DMM	H	B	LF	WF	LH	DCINN	KAPR°	GAMO°	LAMS°	Weight	CTWS
		mm	mm	mm	mm	mm	mm	mm				kg	
A20R-PCLNR09	02516558	20,0	18	19	200	13,0	30,0	25,0	95,0	-6,0	-12,0	0,4	CN..0903.. *CN..32.*
A25S-PCLNR09	00092005	25,0	23	24	250	17,0	35,0	32,0	95,0	-6,0	-11,0	0,7	CN..0903.. *CN..32.*
A20R-PCLNL09	02516563	20,0	18	19	200	13,0	30,0	25,0	95,0	-6,0	-12,0	0,4	CN..0903.. *CN..32.*
A25S-PCLNL09	00092004	25,0	23	24	250	17,0	35,0	32,0	95,0	-6,0	-11,0	0,8	CN..0903.. *CN..32.*
A32T-PCLNR12	02516543	32,0	30	31	300	22,0	50,0	40,0	95,0	-6,0	-12,0	1,6	CN..1204.. *CN..43.*
A40U-PCLNR12	02516552	40,0	37	39	350	27,0	60,0	50,0	95,0	-6,0	-8,0	3,0	CN..1204.. *CN..43.*
A32T-PCLNL12	02436407	32,0	30	31	300	22,0	50,0	40,0	95,0	-6,0	-12,0	1,6	CN..1204.. *CN..43.*
A40U-PCLNL12	02436411	40,0	37	39	350	27,0	60,0	50,0	95,0	-6,0	-8,0	3,0	CN..1204.. *CN..43.*
A40U-PCLNR16	02516592	40,0	37	39	350	27,0	60,0	50,0	95,0	-6,0	-12,0	3,0	CN..1606.. *CN..54.*
A50V-PCLNR16	02516587	50,0	47	49	400	35,0	70,0	63,0	95,0	-6,0	-10,0	5,4	CN..1606.. *CN..54.*
A40U-PCLNL16	02516586	40,0	37	39	350	27,0	60,0	50,0	95,0	-6,0	-12,0	3,0	CN..1606.. *CN..54.*
A50V-PCLNL16	02516564	50,0	47	49	400	35,0	70,0	63,0	95,0	-6,0	-10,0	5,5	CN..1606.. *CN..54.*
A50V-PCLNR19	02516593	50,0	47	49	400	35,0	70,0	63,0	95,0	-6,0	-8,0	5,4	CN..1906.. *CN..64.*
A50V-PCLNL19	02516597	50,0	47	49	400	35,0	70,0	63,0	95,0	-6,0	-8,0	5,4	CN..1906.. *CN..64.*

Spare Parts, included in delivery

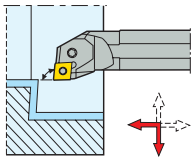
For size	Insert pin	Insert shim	Locking screw	Shim pin	Wedge clamp	Wedge key	Wedge screw
							
A20R-..R09	110.26-653	–	–	–	110.26-639	2.5SMS795	117.26-657
A25S-..R09	110.26-653	–	–	–	110.26-639	2.5SMS795	117.26-657
A20R-..L09	110.26-653	–	–	–	110.26-638	2.5SMS795	117.26-657
A25S-..L09	110.26-653	–	–	–	110.26-638	2.5SMS795	117.26-657
A32T-..R12	–	123.26-621	136.26-651	131.26-652	110.26-641	T20P-7	WS1620-T20P
A40U-..R12	–	123.26-621	136.26-651	131.26-652	110.26-641	3SMS795	117.26-655
A32T-..L12	–	123.26-621	136.26-651	131.26-652	110.26-640	T20P-7	WS1620-T20P
A40U-..L12	–	123.26-621	136.26-651	131.26-652	110.26-640	3SMS795	117.26-655
A40U-..R16	–	123.26-625	136.26-651	123.26-650	110.26-643.1	T25P-7	WS2325-T25P
A50V-..R16	–	123.26-625	136.26-651	123.26-650	110.26-643.5	T25P-7	WS2325-T25P
A40U-..L16	–	123.26-625	136.26-651	123.26-650	110.26-642.1	T25P-7	WS2325-T25P
A50V-..L16	–	123.26-625	136.26-651	123.26-650	110.26-642.5	T25P-7	WS2325-T25P
A50V-..R19	–	123.26-627	131.26-651	131.26-653	110.26-643	4SMS795	170.26-655
A50V-..L19	–	123.26-627	131.26-651	131.26-653	110.26-642	4SMS795	170.26-655

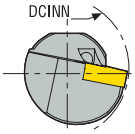
Accessories

For size	Insert clamping torque	Insert key	Locking key	Punch	Replacement blade	Torque key
						
A20R-..R09	3.0NM	2SMS795	–	–	–	H00-2530
A25S-..R09	3.0NM	2SMS795	–	–	–	H00-2530
A20R-..L09	3.0NM	2SMS795	–	–	–	H00-2530
A25S-..L09	3.0NM	2SMS795	–	–	–	H00-2530
A32T-..R12	3.5NM	–	3SMS795	117.26-687	T00-20P	T00-20P35
A40U-..R12	5.0NM	–	–	117.26-687	H00T-3.0	H00T-3050
A32T-..L12	3.5NM	–	3SMS795	117.26-687	T00-20P	T00-20P35
A40U-..L12	5.0NM	–	–	117.26-687	H00T-3.0	H00T-3050
A40U-..R16	5.0NM	–	3SMS795	117.26-687	T00T-25P	T00T-25P50
A50V-..R16	5.0NM	–	3SMS795	117.26-687	T00T-25P	T00T-25P50
A40U-..L16	5.0NM	–	3SMS795	117.26-687	T00T-25P	T00T-25P50
A50V-..L16	5.0NM	–	3SMS795	117.26-687	T00T-25P	T00T-25P50
A50V-..R19	6.0NM	–	–	117.26-687	H00T-4.0	H00T-4060
A50V-..L19	6.0NM	–	–	117.26-687	H00T-4.0	H00T-4060

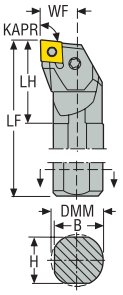
PCLNR/L – Toolholders for inserts CNGA, CNGG, CNGM, CNMA, CNMG, CNMM – Metric

PCLNR/L
KAPR = 95,0 °





PCLNR/L





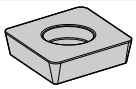
CTWS



- Right-hand version shown
- For inserts program, see page(s) 546, 547, 548, 549, 550, 551, 593, 594, 615
- For holder code key, see page(s) 19-20
- For ISO attribute explanation, see page 82

Designation	Item number	DMM	H	B	LF	WF	LH	DCINN	KAPR°	GAMO°	LAMS°	Weight	CTWS
		mm	mm	mm	mm	mm	mm	mm				kg	
S25T-PCLNR12	02411147	25,0	23	23	300	17,0	40,0	32,0	95,0	-6,0	-10,0	1,1	CN..1204.. *CN..43.*
S32U-PCLNR12	02411149	32,0	30	30	350	22,0	50,0	40,0	95,0	-6,0	-10,0	2,2	CN..1204.. *CN..43.*
S40V-PCLNR12	02411151	40,0	37	38	400	27,0	60,0	50,0	95,0	-6,0	-10,0	3,7	CN..1204.. *CN..43.*
S25T-PCLNL12	02411148	25,0	23	23	300	17,0	40,0	32,0	95,0	-6,0	-10,0	1,1	CN..1204.. *CN..43.*
S32U-PCLNL12	02411150	32,0	30	30	350	22,0	50,0	40,0	95,0	-6,0	-10,0	2,2	CN..1204.. *CN..43.*
S40V-PCLNL12	02411152	40,0	37	38	400	27,0	60,0	50,0	95,0	-6,0	-10,0	3,7	CN..1204.. *CN..43.*

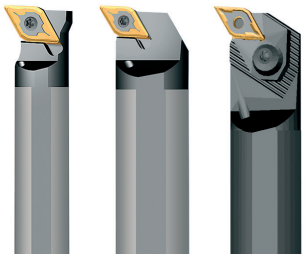
Spare Parts, included in delivery

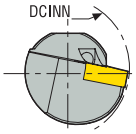
For size	Insert lever	Insert shim	Lever key	Lever screw	Punch	Shim pin
						
S25T-..12	PP4613	–	2.5SMS795	LS0613	–	–
S..U/V-..12	PP4713	PCN120308	3SMS795	LS0818	MP0912	RP6757

Accessories

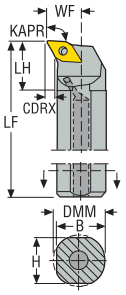
For size	Insert clamping torque	Torque key
		
S25T-..12	3.0NM	H00-2530
S..U/V-..12	–	–

PDUNR/L – Toolholders for inserts DNGA, DNGG, DNGM, DNMA, DNMG, DNMM, DNMU, DNMX – Metric

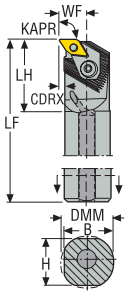




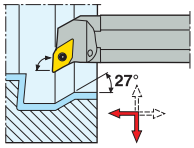
PDUNR/L-11



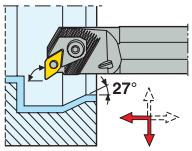
PDUNR/L-15



PDUNR/L-11
KAPR = 93,0 °



PDUNR/L-15
KAPR = 93,0 °



CTWS



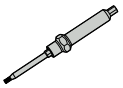
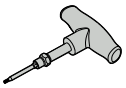
- Right-hand version shown
- For inserts program, see page(s) 556, 557, 558, 559, 597, 598
- For holder code key, see page(s) 19-20
- * Use the right shim & the right screw for the selected insert. For details, see page 99
- For ISO attribute explanation, see page 82

Designation	Item number	DMM	H	B	LF	WF	LH	CDRX	DCINN	KAPR°	GAMO°	LAMS°	Weight	CTWS
		mm	mm	mm	mm	mm	mm	mm	mm				kg	
A25R-PDUNR11	00083820	25,0	23	24	200	17,0	35,0	4,0	32,0	93,0	-5,0	-13,0	0,6	DNMU1104.. *DNMU33.*
A32S-PDUNR11	00083832	32,0	30	31	250	22,0	37,0	6,0	40,0	93,0	-5,0	-11,0	1,3	DNMU1104.. *DNMU33.*
A25R-PDUNL11	00083821	25,0	23	24	200	17,0	35,0	4,0	32,0	93,0	-5,0	-13,0	0,6	DNMU1104.. *DNMU33.*
A32S-PDUNL11	00083833	32,0	30	31	250	22,0	37,0	6,0	40,0	93,0	-5,0	-11,0	1,3	DNMU1104.. *DNMU33.*
A32T-PDUNR15	02516544	32,0	30	31	300	22,0	50,0	5,0	40,0	93,0	-6,0	-15,0	1,6	DN..1504.. *DN..43.*
A40U-PDUNR15	02516547	40,0	37	39	350	27,0	60,0	5,0	50,0	93,0	-6,0	-14,0	2,9	DN..1504.. *DN..43.*
A50V-PDUNR15	02516557	50,0	47	49	400	35,0	70,0	5,0	63,0	93,0	-6,0	-11,0	5,4	DN..1504.. *DN..43.*
A32T-PDUNL15	02516554	32,0	30	31	300	22,0	50,0	5,0	40,0	93,0	-6,0	-15,0	1,6	DN..1504.. *DN..43.*
A40U-PDUNL15	02516553	40,0	37	39	350	27,0	60,0	5,0	50,0	93,0	-6,0	-14,0	2,9	DN..1504.. *DN..43.*
A50V-PDUNL15	02516561	50,0	47	49	400	35,0	70,0	5,0	63,0	93,0	-6,0	-11,0	5,4	DN..1504.. *DN..43.*

Spare Parts, included in delivery

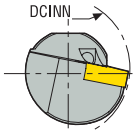
For size	Insert key	Insert pin	Insert shim	Locking screw	Shim pin	Wedge clamp	Wedge key	Wedge screw
A25R-11	T09P-2	PL1403-T09P	DAE110312	–	–	–	–	–
A32S-11	T09P-2	PL1403-T09P	DAE110312	–	–	–	–	–
A32T-R15	–	–	PDD150312	136.26-651	131.26-652	171.66-641	T25P-7	WS2325-T25P
A40U-R15	–	–	PDD150312	136.26-651	131.26-652	171.66-641	T25P-7	WS2325-T25P
A50V-R15	–	–	PDD150312	136.26-651	131.26-652	171.66-641	4SMS795	170.26-655
A32T-L15	–	–	PDD150312	136.26-651	131.26-652	171.66-640	T25P-7	WS2325-T25P
A40U-L15	–	–	PDD150312	136.26-651	131.26-652	171.66-640	T25P-7	WS2325-T25P
A50V-L15	–	–	PDD150312	136.26-651	131.26-652	171.66-640	4SMS795	170.26-655

Accessories

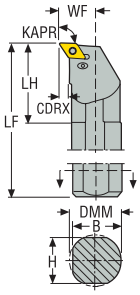
For size	Insert clamping torque	Locking key	Punch	Replacement blade	Torque key
					
A25R-11	–	–	–	–	–
A32S-11	–	–	–	–	–
A32T-R15	5.0NM	3SMS795	117.26-687	T00T-25P	T00T-25P50
A40U-R15	5.0NM	3SMS795	117.26-687	T00T-25P	T00T-25P50
A50V-R15	6.0NM	3SMS795	117.26-687	H00T-4.0	H00T-4060
A32T-L15	5.0NM	3SMS795	117.26-687	T00T-25P	T00T-25P50
A40U-L15	5.0NM	3SMS795	117.26-687	T00T-25P	T00T-25P50
A50V-L15	6.0NM	3SMS795	117.26-687	H00T-4.0	H00T-4060

PDUNR/L – Toolholders for inserts DNGA, DNGG, DNGM, DNMA, DNMG, DNMM, DNMU, DNMX – Metric

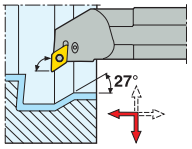




PDUNR/L



PDUNR/L
KAPR = 93,0 °



CTWS



- Right-hand version shown
- For inserts program, see page(s) 556, 557, 558, 559, 597, 598
- For holder code key, see page(s) 19-20
- * Use the right shim & the right screw for the selected insert. For details, see page 99
- For ISO attribute explanation, see page 82

Designation	Item number	DMM	H	B	LF	WF	LH	CDRX	DCINN	KAPR°	GAMO°	LAMS°	Weight	CTWS
		mm	mm	mm	mm	mm	mm	mm	mm				kg	
S25T-PDUNR11	02411153	25,0	23	23	300	17,0	45,0	4,5	32,0	93,0	-6,0	-13,0	1,1	DNMU1104.. *DNMU33.*
S32U-PDUNR11	02411155	32,0	30	30	350	22,0	50,0	6,0	40,0	93,0	-6,0	-11,0	2,1	DNMU1104.. *DNMU33.*
S25T-PDUNL11	02411154	25,0	23	23	300	17,0	45,0	4,5	32,0	93,0	-6,0	-13,0	1,1	DNMU1104.. *DNMU33.*
S32U-PDUNL11	02411156	32,0	30	30	350	22,0	50,0	6,0	40,0	93,0	-6,0	-11,0	2,1	DNMU1104.. *DNMU33.*
S32U-PDUNR15	02411157	32,0	30	30	350	22,0	50,0	6,0	40,0	93,0	-6,0	-13,0	2,1	DN..1504-DN..1506* *DN..43-DN..44**
S40V-PDUNR15	02411159	40,0	38	38	400	27,0	55,0	7,0	48,0	93,0	-6,0	-10,0	3,7	DN..1504-DN..1506* *DN..43-DN..44**
S50W-PDUNR15	02411161	50,0	47	49	450	35,0	70,0	10,0	61,0	93,0	-6,0	-10,0	6,4	DN..1504-DN..1506* *DN..43-DN..44**
S32U-PDUNL15	02411158	32,0	30	30	350	22,0	50,0	6,0	40,0	93,0	-6,0	-13,0	2,1	DN..1504-DN..1506* *DN..43-DN..44**
S40V-PDUNL15	02411160	40,0	38	38	400	27,0	55,0	7,0	48,0	93,0	-6,0	-10,0	3,7	DN..1504-DN..1506* *DN..43-DN..44**
S50W-PDUNL15	02207910	50,0	47	49	450	35,0	70,0	10,0	61,0	93,0	-6,0	-10,0	6,4	DN..1504-DN..1506* *DN..43-DN..44**

Spare Parts, included in delivery

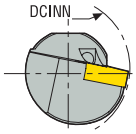
For size	Insert lever	Insert shim	Lever key	Lever screw	Punch	Shim pin
						
S25T-...11	PP3611	–	2SMS795	LS0512	–	–
S32U-...11	PP3512	PDN110308	2.5SMS795	LS0616	MP0912	RP5153
...15	PP4716	PDN150308	3SMS795	LS0822	MP0912	RP6757

Accessories

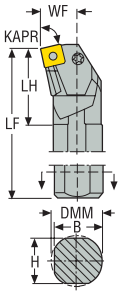
For size	Insert clamping torque	Replacement blade	Torque key
			
S25T-...11	2.0NM	H00-3.0	H00-3020
S32U-...11	3.0NM	–	H00-2530
...15	–	–	–

PSKNR/L – Toolholders for inserts SNGA, SNMA, SNMG, SNMM – Metric

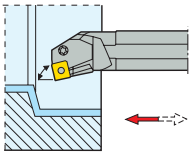




PSKNR/L



PSKNR/L
KAPR = 75,0 °



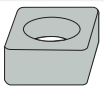
CTWS



- Right-hand version shown
- For inserts program, see page(s) 567, 568, 569, 570, 603
- For holder code key, see page(s) 19-20
- For ISO attribute explanation, see page 82

Designation	Item number	DMM	H	B	LF	WF	LH	DCINN	KAPR°	GAMO°	LAMS°	Weight	CTWS
		mm	mm	mm	mm	mm	mm	mm				kg	
S25T-PSKNR12	00734327	25,0	23	24	300	16,88	43,0	30,0	75,0	-6,0	-10,0	1,1	SN..1204.. *SN..43.*
S32U-PSKNR12	02411165	32,0	30	30	350	22,0	52,0	40,0	75,0	-6,0	-10,0	2,1	SN..1204.. *SN..43.*
S40V-PSKNR12	02411167	40,0	38	38	400	27,0	58,0	48,0	75,0	-6,0	-10,0	3,8	SN..1204.. *SN..43.*
S25T-PSKNL12	02411162	25,0	23	24	300	16,88	43,0	30,0	75,0	-6,0	-10,0	1,1	SN..1204.. *SN..43.*
S32U-PSKNL12	02411166	32,0	30	30	350	22,0	52,0	40,0	75,0	-6,0	-10,0	2,1	SN..1204.. *SN..43.*
S40V-PSKNL12	02411169	40,0	38	38	400	27,0	58,0	48,0	75,0	-6,0	-10,0	3,8	SN..1204.. *SN..43.*

Spare Parts, included in delivery

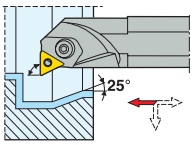
For size	Insert lever	Insert shim	Lever key	Lever screw	Punch	Shim pin
						
S25T-...12	PP4613	–	2.5SMS795	LS0613	–	–
S32U-...12	PP4713	PSN120312	3SMS795	LS0816	MP0912	RP6757
S40V-...12	PP4713	PSN120312	3SMS795	LS0816	MP0912	RP6757

Accessories

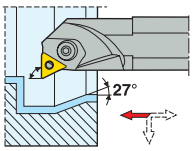
For size	Insert clamping torque	Torque key
		
S25T-...12	3.0NM	H00-2530
S32U-...12	–	–
S40V-...12	–	–

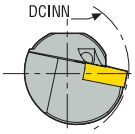
PTFNR/L – Toolholders for inserts TNGA, TNMA, TNMG, TNMM – Metric

PTFNR/L A20, A25
KAPR = 91,0 °

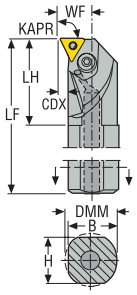


PTFNR/L A32, A40, A50
KAPR = 91,0 °





PTFNR/L





CTWS



- Right-hand version shown
- For inserts program, see page(s) 574, 575, 576, 577, 608
- For holder code key, see page(s) 19-20
- For ISO attribute explanation, see page 82

Designation	Item number	DMM	H	B	LF	WF	LH	CDX	DCINN	KAPR°	GAMO°	LAMS°	Weight	CTWS
		mm	mm	mm	mm	mm	mm	mm	mm				kg	
A20R-PTFNR11	00039881	20,0	18	19	200	13,0	32,0	2,5	25,0	91,0	-6,0	-12,0	0,4	TN..1103.. *TN..22.*
A20R-PTFNL11	00039883	20,0	18	19	200	13,0	32,0	2,5	25,0	91,0	-6,0	-12,0	0,4	TN..1103.. *TN..22.*
A20R-PTFNR16	00039884	20,0	18	19	200	13,0	30,0	2,5	25,0	91,0	-6,0	-15,0	0,4	TN..1604.. *TN..33.*
A25S-PTFNR16	00039889	25,0	23	24	250	17,0	35,0	4,0	32,0	91,0	-6,0	-13,0	0,8	TN..1604.. *TN..33.*
A20R-PTFNL16	00039888	20,0	18	19	200	13,0	30,0	2,5	25,0	91,0	-6,0	-15,0	0,4	TN..1604.. *TN..33.*
A25S-PTFNL16	00039890	25,0	23	24	250	17,0	35,0	4,0	32,0	91,0	-6,0	-13,0	0,7	TN..1604.. *TN..33.*
A32T-PTFNR16	02516533	32,0	30	31	300	22,0	50,0	3,5	40,0	91,0	-6,0	-10,0	1,5	TN..1604.. *TN..33.*
A40U-PTFNR16	02516545	40,0	37	39	350	27,0	60,0	5,0	50,0	91,0	-6,0	-10,0	3,0	TN..1604.. *TN..33.*
A32T-PTFNL16	00090740	32,0	30	31	300	22,0	50,0	3,5	40,0	91,0	-6,0	-10,0	1,6	TN..1604.. *TN..33.*
A40U-PTFNL16	02201285	40,0	37	39	350	27,0	60,0	5,0	50,0	91,0	-6,0	-10,0	2,9	TN..1604.. *TN..33.*
A40U-PTFNR22	02516551	40,0	37	39	350	27,0	60,0	5,0	50,0	91,0	-6,0	-10,0	2,9	TN..2204.. *TN..43.*
A50V-PTFNR22	00734093	50,0	47	49	400	35,0	70,0	7,0	63,0	91,0	-6,0	-8,0	5,3	TN..2204.. *TN..43.*
A40U-PTFNL22	00130162	40,0	37	39	350	27,0	60,0	5,0	50,0	91,0	-6,0	-10,0	2,9	TN..2204.. *TN..43.*
A50V-PTFNL22	02201283	50,0	47	49	400	35,0	70,0	7,0	63,0	91,0	-6,0	-8,0	5,3	TN..2204.. *TN..43.*

Spare Parts, included in delivery

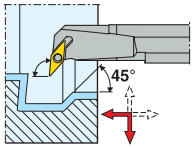
For size	Insert pin	Insert shim	Locking screw	Shim pin	Wedge/locking key	Wedge clamp	Wedge key	Wedge screw
...R11	118.26-650	–	–	–	–	110.26-638	2.5SMS795	117.26-657
...L11	118.26-650	–	–	–	–	110.26-639	2.5SMS795	117.26-657
A20R-...R16	136.26-653	–	–	–	–	110.26-640.1	T20P-7	WS1920-T20P
A25S-...R16	136.26-653	–	–	–	–	110.26-640.1	T20P-7	WS1920-T20P
A20R-...L16	136.26-653	–	–	–	–	110.26-641.1	T20P-7	WS1920-T20P
A25S-...L16	136.26-653	–	–	–	–	110.26-641.1	T20P-7	WS1920-T20P
A32T-...R16	–	136.26-621	136.26-651	136.26-650	3SMS795	110.26-640.1	–	117.26-655
A40U-...R16	–	136.26-621	136.26-651	136.26-650	3SMS795	110.26-640.1	–	117.26-655
A32T-...L16	–	136.26-621	136.26-651	136.26-650	3SMS795	110.26-641.1	–	117.26-655
A40U-...L16	–	136.26-621	136.26-651	136.26-650	3SMS795	110.26-641.1	–	117.26-655
A40U-...R22	–	136.26-624	136.26-651	136.26-652	–	110.26-642.1	4SMS795	170.26-655
A50V-...R22	–	136.26-624	136.26-651	136.26-652	–	110.26-642.1	4SMS795	170.26-655
A40U-...L22	–	136.26-624	136.26-651	136.26-652	–	110.26-643.1	4SMS795	170.26-655
A50V-...L22	–	136.26-624	136.26-651	136.26-652	–	110.26-643.1	4SMS795	170.26-655

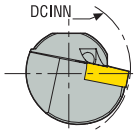
Accessories

For size	Insert clamping torque	Insert key	Punch	Replacement blade	Shim key	Torque key
...R11	3.0NM	2SMS795	–	–	–	H00-2530
...L11	3.0NM	2SMS795	–	–	–	H00-2530
A20R-...R16	3.5NM	2.5SMS795	–	T00-20P	–	T00-20P35
A25S-...R16	3.5NM	2.5SMS795	–	T00-20P	–	T00-20P35
A20R-...L16	3.5NM	2.5SMS795	–	T00-20P	–	T00-20P35
A25S-...L16	3.5NM	2.5SMS795	–	T00-20P	–	T00-20P35
A32T-...R16	5.0NM	–	117.26-686	H00T-3.0	–	H00T-3050
A40U-...R16	5.0NM	–	117.26-686	H00T-3.0	–	H00T-3050
A32T-...L16	5.0NM	–	117.26-686	H00T-3.0	–	H00T-3050
A40U-...L16	5.0NM	–	117.26-686	H00T-3.0	–	H00T-3050
A40U-...R22	6.0NM	–	117.26-687	H00T-4.0	3SMS795	H00T-4060
A50V-...R22	6.0NM	–	117.26-687	H00T-4.0	3SMS795	H00T-4060
A40U-...L22	6.0NM	–	117.26-687	H00T-4.0	3SMS795	H00T-4060
A50V-...L22	6.0NM	–	117.26-687	H00T-4.0	3SMS795	H00T-4060

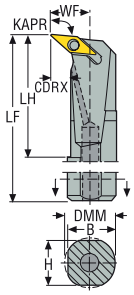
PVLNR/L, PVPNR/L – Toolholders for inserts VNMU – Metric

PVLNR/L
KAPR = 95,0 °

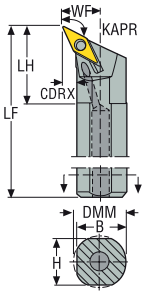




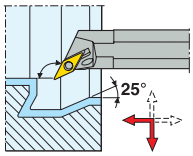
PVLNR/L



PVPNR/L



PVPNR/L
KAPR = 117,5 °





CTWS



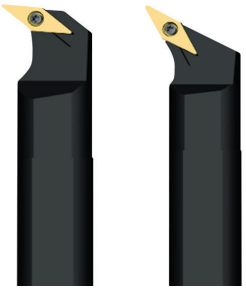
- Right-hand version shown
- For inserts program, see page(s) 584, 585
- For holder code key, see page(s) 19-20
- For ISO attribute explanation, see page 82

Designation	Item number	DMM	H	B	LF	WF	LH	CDX	DCINN	KAPR°	GAMO°	LAMS°	Weight	CTWS
		mm	mm	mm	mm	mm	mm	mm	mm				kg	
A25R-PVLNR13	00083566	25,0	23	24	200	18,0	57,0	9,5	32,0	95,0	-5,0	-14,0	0,6	VNMU1304.. *VNMU2.5.*
A32S-PVLNR13	00091720	32,0	30	31	250	23,0	50,0	6,5	40,0	95,0	-5,0	-14,0	1,3	VNMU1304.. *VNMU2.5.*
A25R-PVLNL13	00083568	25,0	23	24	200	18,0	57,0	9,5	32,0	95,0	-5,0	-14,0	0,6	VNMU1304.. *VNMU2.5.*
A32S-PVLNL13	00091721	32,0	30	31	250	23,0	50,0	6,5	40,0	95,0	-5,0	-14,0	1,3	VNMU1304.. *VNMU2.5.*
A25R-PVPNR13	00091722	25,0	23	24	200	17,0	34,0	4,0	32,0	117,5	-5,0	-19,0	0,7	VNMU1304.. *VNMU2.5.*
A32S-PVPNR13	00089737	32,0	30	31	250	22,0	35,0	5,5	40,0	117,5	-5,0	-15,5	1,3	VNMU1304.. *VNMU2.5.*
A25R-PVPNL13	00091723	25,0	23	24	200	17,0	34,0	4,0	32,0	117,5	-5,0	-19,0	0,7	VNMU1304.. *VNMU2.5.*
A32S-PVPNL13	00089738	32,0	30	31	250	22,0	35,0	5,5	40,0	117,5	-5,0	-15,5	1,3	VNMU1304.. *VNMU2.5.*

Spare Parts, included in delivery

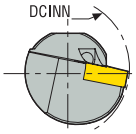
For size	Insert key	Insert pin	Insert shim
			
-..13	T09P-2	PL1403-T09P	PVN130308

PVLNR/L, PVPNR/L – Toolholders for inserts VNMU – Inch

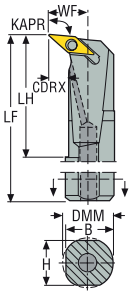


CTWS

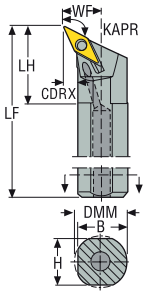




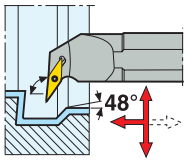
PVLNR/L



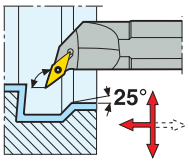
PVPNR/L



PVLNR/L
KAPR = 95,0 °



PVPNR/L
KAPR = 117,5 °



- Right-hand version shown
- For inserts program, see page(s) 584, 585
- For holder code key, see page(s) 21-22
- For ISO attribute explanation, see page 82

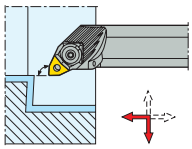
Designation	Item number	DMM	H	B	LF	WF	LH	CDRX	DCINN	KAPR°	GAMO°	LAMS°	Weight	CTWS
		inch	inch	inch	inch	inch	inch	inch	inch				lbs	
A16-PVLNR-2.5	00015229	1.000	0.866	0.906	12.000	0.640	1.000	0.150	1.200	95,0	-3,0	-12,0	2.200	VNMU1304.. *VNMU2.5.*
A16-PVPNR-2.5	00015234	1.000	0.866	0.906	12.000	0.750	1.098	0.260	1.300	117,5	-3,0	-12,0	2.200	VNMU1304.. *VNMU2.5.*
A16-PVPNL-2.5	00015235	1.000	0.866	0.906	12.000	0.750	1.098	0.260	1.300	117,5	-3,0	-12,0	2.200	VNMU1304.. *VNMU2.5.*

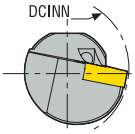
Spare Parts, included in delivery

For size	Insert key	Insert pin	Insert shim
			
..-2.5	T09P-2	PL1403-T09P	PVN130308

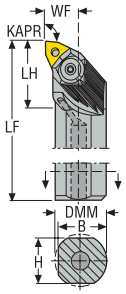
PWLNR/L – Toolholders for inserts WNGA, WNGG, WNMA, WNMG, WNMM – Metric

PWLNR/L
KAPR = 95,0 °





PWLNR/L





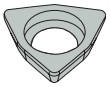
CTWS



- Right-hand version shown
- For inserts program, see page(s) 586, 587, 588, 589, 614
- For holder code key, see page(s) 19-20
- * Use the right shim & the right screw for the selected insert. For details, see page 100
- For ISO attribute explanation, see page 82

Designation	Item number	DMM	H	B	LF	WF	LH	DCINN	KAPR°	GAMO°	LAMS°	Weight	CTWS
		mm	mm	mm	mm	mm	mm	mm				kg	
A20Q-PWLNR06	75036892	20,0	18	19	180	13,0	27,0	25,0	95,0	-5,0	-14,0	0,4	WN..0604.. *WN..33.*
A25R-PWLNR06	75036894	25,0	23	24	200	17,0	30,0	32,0	95,0	-5,0	-12,0	0,7	WN..0604.. *WN..33.*
A32S-PWLNR06	75036896	32,0	30	31	250	22,0	31,0	40,0	95,0	-5,0	-12,0	1,3	WN..0604.. *WN..33.*
A40T-PWLNR06	75036898	40,0	37	39	300	27,0	40,0	50,0	95,0	-5,0	-12,0	2,5	WN..0604.. *WN..33.*
A20Q-PWLNL06	75036893	20,0	18	19	180	13,0	27,0	25,0	95,0	-5,0	-14,0	0,4	WN..0604.. *WN..33.*
A25R-PWLNL06	75036895	25,0	23	24	200	17,0	30,0	32,0	95,0	-5,0	-12,0	0,7	WN..0604.. *WN..33.*
A32S-PWLNL06	75036897	32,0	30	31	250	22,0	31,0	40,0	95,0	-5,0	-12,0	1,3	WN..0604.. *WN..33.*
A40T-PWLNL06	75036899	40,0	37	39	300	27,0	40,0	50,0	95,0	-5,0	-12,0	2,5	WN..0604.. *WN..33.*
A25R-PWLNR08	75065808	25,0	23	24	200	17,0	30,0	32,0	95,0	-5,0	-11,0	0,6	WN..0804.. *WN..43.*
A32S-PWLNR08	75065810	32,0	30	31	250	22,0	31,0	40,0	95,0	-5,0	-11,0	1,3	WN..0804.. *WN..43.*
A40T-PWLNR08	75065812	40,0	37	39	300	27,0	35,0	50,0	95,0	-5,0	-14,0	2,5	WN..0804.. *WN..43.*
A25R-PWLNL08	75065809	25,0	23	24	200	17,0	30,0	32,0	95,0	-5,0	-11,0	0,6	WN..0804.. *WN..43.*
A32S-PWLNL08	75065811	32,0	30	31	250	22,0	31,0	40,0	95,0	-5,0	-11,0	1,3	WN..0804.. *WN..43.*
A40T-PWLNL08	75065813	40,0	37	39	300	27,0	35,0	50,0	95,0	-5,0	-14,0	2,5	WN..0804.. *WN..43.*

Spare Parts, included in delivery

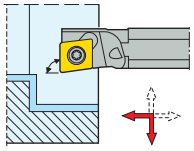
For size	Insert shim	Setting screw	Shim pin	Wedge clamp	Wedge key	Wedge screw
						
A20Q-...06	WAI060212	L82511-T07P	PP1209-T09P	WNW06HD	T20P-7	WS1620-T20P
A25R-...06	WAI060212	L82511-T07P	PP1209-T09P	WNW06HD	T20P-7	WS1920-T20P
A32S-...06	WAE060312	L82511-T07P	PP1409-T09P	WNW06HD	T20P-7	WS1920-T20P
A40T-...06	WAE060312	L82511-T07P	PP1409-T09P	WNW06HD	T20P-7	WS1920-T20P
A25R-...08	WAI080312	L82511-T07P	PP1415-T15P	WNW08HD	T25P-7	WS2325-T25P
A32S-...08	WAI080312	L82511-T07P	PP1415-T15P	WNW08HD	T25P-7	WS2325-T25P
A40T-...08	WAI080312	L82511-T07P	PP1415-T15P	WNW08HD	T25P-7	WS2325-T25P

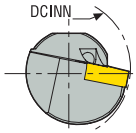
Accessories

For size	Insert clamping torque	Replacement blade	Shim key	Torque key
				
A20Q-...06	3.5NM	T00-20P	T09P-2	T00-20P35
A25R-...06	3.5NM	T00-20P	T09P-2	T00-20P35
A32S-...06	3.5NM	T00-20P	T09P-2	T00-20P35
A40T-...06	3.5NM	T00-20P	T09P-2	T00-20P35
A25R-...08	5.0NM	T00T-25P	T15P-2	T00T-25P50
A32S-...08	5.0NM	T00T-25P	T15P-2	T00T-25P50
A40T-...08	5.0NM	T00T-25P	T15P-2	T00T-25P50

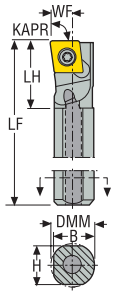
SCFCR/L – Toolholders for inserts CCGT, CCGW, CCMT, CCMW – Metric

SCFCR/L, ..-R
KAPR = 91,0 °

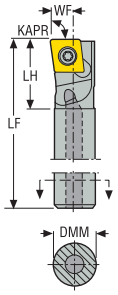




SCFCR/L



SCFCR/L..-R





CTWS



- Right-hand version shown
- For inserts program, see page(s) 542, 543, 544, 545, 591, 592, 615, 616
- For holder code key, see page(s) 19-20
- For ISO attribute explanation, see page 82

Designation	Item number	DMM	H	B	LF	WF	LH	DCINN	KAPR°	GAMO°	LAMS°	Weight	CTWS
		mm	mm	mm	mm	mm	mm	mm				kg	
A08K-SCFCR06	00093710	8,0	7	8	125	5,0	12,0	10,0	91,0	0,0	-11,0	0,1	CC..0602.. *CC..21.5.*
A08K-SCFCR06-R	02516556	8,0	–	–	125	5,0	12,0	10,0	91,0	0,0	-11,0	0,1	CC..0602.. *CC..21.5.*
A10L-SCFCR06	00093712	10,0	9	10	140	7,0	18,0	13,0	91,0	0,0	-11,0	0,1	CC..0602.. *CC..21.5.*
A10L-SCFCR06-R	02516568	10,0	–	–	140	7,0	18,0	13,0	91,0	0,0	-11,0	0,1	CC..0602.. *CC..21.5.*
A08K-SCFCL06	00093711	8,0	7	8	125	5,0	12,0	10,0	91,0	0,0	-11,0	0,1	CC..0602.. *CC..21.5.*
A08K-SCFCL06-R	02516589	8,0	–	–	125	5,0	12,0	10,0	91,0	0,0	-11,0	0,1	CC..0602.. *CC..21.5.*
A10L-SCFCL06	00093713	10,0	9	10	140	7,0	18,0	13,0	91,0	0,0	-11,0	0,1	CC..0602.. *CC..21.5.*
A10L-SCFCL06-R	02516595	10,0	–	–	140	7,0	18,0	13,0	91,0	0,0	-11,0	0,1	CC..0602.. *CC..21.5.*
A12N-SCFCR09	00093714	12,0	11	12	160	9,0	20,0	17,0	91,0	0,0	-11,0	0,2	CC..09T3.. *CC..32.5.*
A12N-SCFCR09-R	02516559	12,0	–	–	160	9,0	20,0	17,0	91,0	0,0	-11,0	0,2	CC..09T3.. *CC..32.5.*
A16Q-SCFCR09	00093716	16,0	15	16	180	11,0	22,0	22,0	91,0	0,0	-5,0	0,3	CC..09T3.. *CC..32.5.*
A16Q-SCFCR09-R	02516585	16,0	–	–	180	11,0	22,0	22,0	91,0	0,0	-5,0	0,4	CC..09T3.. *CC..32.5.*
A20R-SCFCR09	00093718	20,0	18	19	200	13,0	32,0	25,0	91,0	0,0	-5,0	0,4	CC..09T3.. *CC..32.5.*
A20R-SCFCR09-R	02516601	20,0	–	–	200	13,0	32,0	25,0	91,0	0,0	-5,0	0,4	CC..09T3.. *CC..32.5.*
A12N-SCFCL09	00093715	12,0	11	12	160	9,0	20,0	17,0	91,0	0,0	-11,0	0,2	CC..09T3.. *CC..32.5.*
A12N-SCFCL09-R	02516590	12,0	–	–	160	9,0	20,0	17,0	91,0	0,0	-11,0	0,2	CC..09T3.. *CC..32.5.*
A16Q-SCFCL09	00093717	16,0	15	16	180	11,0	22,0	22,0	91,0	0,0	-5,0	0,3	CC..09T3.. *CC..32.5.*
A16Q-SCFCL09-R	02516602	16,0	–	–	180	11,0	22,0	22,0	91,0	0,0	-5,0	0,3	CC..09T3.. *CC..32.5.*
A20R-SCFCL09	00093719	20,0	18	19	200	13,0	32,0	25,0	91,0	0,0	-5,0	0,4	CC..09T3.. *CC..32.5.*
A20R-SCFCL09-R	00734207	20,0	–	–	200	13,0	32,0	25,0	91,0	0,0	-5,0	0,4	CC..09T3.. *CC..32.5.*

Spare Parts, included in delivery

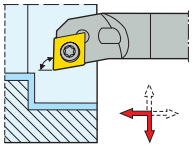
For size	Insert key	Insert screw
		
A08K-...06/R	T07P-2	C02505-T07P
A10L-...06/R	T07P-2	C02506-T07P
A12N-...09/R	T15P-2	C04008-T15P
A16Q-...09/R	T15P-2	C04008-T15P
A20R-...09/R	T15P-2	C04008-T15P

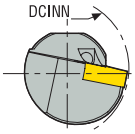
Accessories

For size	Insert clamping torque	Replacement blade	Torque key
			
A08K-...06/R	0.9NM	T00-07P	T00-07P09
A10L-...06/R	0.9NM	T00-07P	T00-07P09
A12N-...09/R	3.5NM	T00-15P	T00-15P35
A16Q-...09/R	3.5NM	T00-15P	T00-15P35
A20R-...09/R	3.5NM	T00-15P	T00-15P35

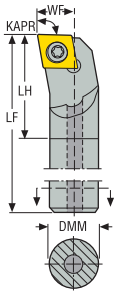
SCFCR/L – Toolholders for inserts CCGT, CCGW, CCMT, CCMW – Metric

E..-SCFCR/L..-R
KAPR = 91,0 °





E..-SCFCR/L..-R





CTWS



- Right-hand version shown
- For inserts program, see page(s) 542, 543, 544, 545, 591, 592, 615, 616
- For holder code key, see page(s) 19-20
- E = Solid carbide shank
- For ISO attribute explanation, see page 82

Designation	Item number	DMM	LF	WF	LH	DCINN	KAPR°	GAMO°	LAMS°	Weight	CTWS
		mm	mm	mm	mm	mm				kg	
E08K-SCFCR06-R	75011692	8,0	125	5,0	21,0	10,0	91,0	0,0	-11,0	0,1	CC..0602.. *CC..21.5.*
E10M-SCFCR06-R	75011690	10,0	150	7,0	27,0	13,0	91,0	0,0	-11,0	0,2	CC..0602.. *CC..21.5.*
E08K-SCFCL06-R	75011691	8,0	125	5,0	21,0	10,0	91,0	0,0	-11,0	0,1	CC..0602.. *CC..21.5.*
E10M-SCFCL06-R	75011689	10,0	150	7,0	27,0	13,0	91,0	0,0	-11,0	0,2	CC..0602.. *CC..21.5.*
E12R-SCFCR09-R	75011688	12,0	200	9,0	27,0	17,0	91,0	0,0	-11,0	0,3	CC..09T3.. *CC..32.5.*
E16X-SCFCR09-R	75011686	16,0	230	11,0	34,0	22,0	91,0	0,0	-5,0	0,6	CC..09T3.. *CC..32.5.*
E12R-SCFCL09-R	75011687	12,0	200	9,0	27,0	17,0	91,0	0,0	-11,0	0,3	CC..09T3.. *CC..32.5.*
E16X-SCFCL09-R	75011685	16,0	230	11,0	34,0	22,0	91,0	0,0	-5,0	0,6	CC..09T3.. *CC..32.5.*

Spare Parts, included in delivery

For size	Insert key	Insert screw
		
E08K-...06-R	T07P-2	C02505-T07P
E10M-...06-R	T07P-2	C02506-T07P
-...09-R	T15P-2	C04008-T15P

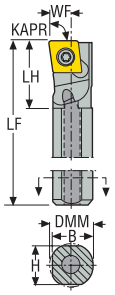
Accessories

For size	Insert clamping torque	Replacement blade	Torque key
			
E08K-...06-R	0.9NM	T00-07P	T00-07P09
E10M-...06-R	0.9NM	T00-07P	T00-07P09
-...09-R	3.5NM	T00-15P	T00-15P35

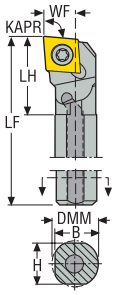
SCFCR/L, SCLCR/L – Toolholders for inserts CCGT, CCGW, CCMT, CCMW – Inch



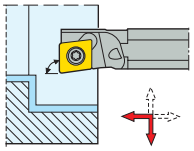
SCFCR/L



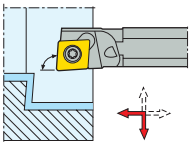
SCLCR/L



KAPR = 91,0 °



KAPR = 95,0 °



CTWS



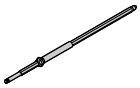
- Right-hand version shown
- For inserts program, see page(s) 542, 543, 544, 545, 591, 592, 615, 616
- For holder code key, see page(s) 21-22
- For ISO attribute explanation, see page 82

Designation	Item number	DMM	H	B	LF	WF	LH	DCINN	KAPR°	GAMO°	LAMS°	Weight	CTWS
		inch	inch	inch	inch	inch	inch	inch				lbs	
A06-SCFCR-2	02829665	0.315	0.906	0.945	6.000	0.252	0.402	0.508	91,0	0,0	-11,0	0.220	CC..0602.. *CC..21.5.*
A08-SCFCR-3	02829670	0.500	0.425	0.463	8.000	0.315	1.551	0.630	91,0	0,0	-11,0	0.440	CC..09T3.. *CC..32.5.*
A06-SCLCR-2	02829667	0.375	0.315	0.345	6.000	0.250	1.025	0.472	95,0	0,0	-10,7	0.220	CC..0602.. *CC..21.5.*
A08-SCLCR-2	02829673	0.500	0.425	0.463	6.000	0.312	1.550	0.571	95,0	0,0	-7,9	0.440	CC..0602.. *CC..21.5.*
A10-SCLCR-2	02829681	0.625	0.531	0.578	8.000	0.406	1.250	0.728	95,0	0,0	-5,34	0.660	CC..0602.. *CC..21.5.*
A06-SCLCL-2	02829666	0.375	0.315	0.345	6.000	0.250	1.025	0.472	95,0	0,0	-10,7	0.220	CC..0602.. *CC..21.5.*
A08-SCLCL-2	02829671	0.500	0.425	0.463	6.000	0.312	1.550	0.571	95,0	0,0	-7,9	0.440	CC..0602.. *CC..21.5.*
A10-SCLCL-2	02829679	0.625	0.531	0.578	8.000	0.406	1.250	0.728	95,0	0,0	-5,34	0.440	CC..0602.. *CC..21.5.*
A08-SCLCR-3	02829674	0.500	0.425	0.481	8.000	0.315	0.551	0.630	95,0	0,0	-11,0	0.440	CC..09T3.. *CC..32.5.*
A10-SCLCR-3	02829682	0.625	0.531	0.578	8.000	0.406	1.250	0.812	95,0	0,0	-8,7	0.660	CC..09T3.. *CC..32.5.*
A12-SCLCR-3	02829690	0.750	0.650	0.732	10.000	0.500	0.752	1.000	95,0	0,0	-10,0	1.100	CC..09T3.. *CC..32.5.*
A16-SCLCR-3	02829697	1.000	0.902	0.951	12.000	0.640	1.906	1.250	95,0	0,0	-3,84	2.200	CC..09T3.. *CC..32.5.*
A08-SCLCL-3	02829672	0.500	0.425	0.463	8.000	0.315	1.551	0.630	95,0	0,0	-11,0	0.440	CC..09T3.. *CC..32.5.*
A10-SCLCL-3	02829680	0.625	0.531	0.578	8.000	0.406	1.250	0.812	95,0	0,0	-8,7	0.660	CC..09T3.. *CC..32.5.*
A12-SCLCL-3	02829689	0.750	0.650	0.732	10.000	0.500	0.752	1.000	95,0	0,0	-6,3707	1.100	CC..09T3.. *CC..32.5.*
A16-SCLCL-3	02829696	1.000	0.902	0.951	12.000	0.640	1.906	1.250	95,0	0,0	-3,84	2.200	CC..09T3.. *CC..32.5.*

Spare Parts, included in delivery

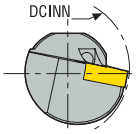
For size	Insert key	Insert screw
		
..-2	T07P-2	C02506-T07P
..-3	T15P-2	C04008-T15P

Accessories

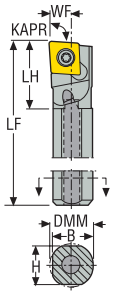
For size	Insert clamping torque	Replacement blade	Torque key
			
..-2	0.9NM	T00-07P	T00-07P09
..-3	3.5NM	T00-15P	T00-15P35

SCLCR/L – Toolholders for inserts CCGT, CCGW, CCGX, CCMT, CCMW – Metric

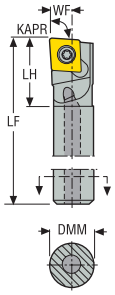




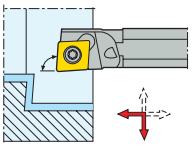
SCLCR/L



SCLCR/L..-R



SCLCR/L, .-R
KAPR = 95,0 °



CTWS



- Right-hand version shown
- For inserts program, see page(s) 542, 543, 544, 545, 591, 592, 615, 616
- For holder code key, see page(s) 19-20
- For ISO attribute explanation, see page 82

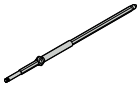
Designation	Item number	DMM	H	B	LF	WF	LH	DCINN	KAPR°	GAMO°	LAMS°	Weight	CTWS
		mm	mm	mm	mm	mm	mm	mm				kg	
A08K-SCLCR06	02413804	8,0	7	8	125	5,0	12,0	10,0	95,0	0,0	-11,0	0,1	CC..0602.. *CC..21.5.*
A08K-SCLCR06-R	02413806	8,0	–	–	125	5,0	12,0	10,0	95,0	0,0	-11,0	0,1	CC..0602.. *CC..21.5.*
A10L-SCLCR06	02413808	10,0	9	10	140	7,0	18,0	13,0	95,0	0,0	-11,0	0,1	CC..0602.. *CC..21.5.*
A10L-SCLCR06-R	02413809	10,0	–	–	140	7,0	18,0	13,0	95,0	0,0	-11,0	0,1	CC..0602.. *CC..21.5.*
A12N-SCLCR06	02413810	12,0	11	12	160	9,0	20,0	17,0	95,0	0,0	-11,0	0,2	CC..0602.. *CC..21.5.*
A16Q-SCLCR06	02413811	16,0	15	16	180	11,0	22,0	22,0	95,0	0,0	-5,0	0,3	CC..0602.. *CC..21.5.*
A08K-SCLCL06	02434528	8,0	7	8	125	5,0	12,0	10,0	95,0	0,0	-11,0	0,1	CC..0602.. *CC..21.5.*
A08K-SCLCL06-R	02434553	8,0	–	–	125	5,0	12,0	10,0	95,0	0,0	-11,0	0,1	CC..0602.. *CC..21.5.*
A10L-SCLCL06	02434560	10,0	9	10	140	7,0	18,0	13,0	95,0	0,0	-11,0	0,1	CC..0602.. *CC..21.5.*
A10L-SCLCL06-R	02434564	10,0	–	–	140	7,0	18,0	13,0	95,0	0,0	-11,0	0,1	CC..0602.. *CC..21.5.*
A12N-SCLCL06	02434566	12,0	11	12	160	9,0	20,0	17,0	95,0	0,0	-11,0	0,2	CC..0602.. *CC..21.5.*
A16Q-SCLCL06	02434568	16,0	15	16	180	11,0	22,0	22,0	95,0	0,0	-5,0	0,3	CC..0602.. *CC..21.5.*
A12N-SCLCR09	02413812	12,0	11	12	160	9,0	20,0	17,0	95,0	0,0	-11,0	0,2	CC..09T3.. *CC..32.5.*
A12N-SCLCR09-R	02413858	12,0	–	–	160	9,0	20,0	17,0	95,0	0,0	-11,0	0,2	CC..09T3.. *CC..32.5.*
A16Q-SCLCR09	02413859	16,0	15	16	180	11,0	22,0	22,0	95,0	0,0	-5,0	0,3	CC..09T3.. *CC..32.5.*
A16Q-SCLCR09-R	02413860	16,0	–	–	180	11,0	22,0	22,0	95,0	0,0	-5,0	0,3	CC..09T3.. *CC..32.5.*
A20R-SCLCR09	02413861	20,0	18	19	200	13,0	32,0	25,0	95,0	0,0	-5,0	0,4	CC..09T3.. *CC..32.5.*
A20R-SCLCR09-R	02413862	20,0	–	–	200	13,0	32,0	25,0	95,0	0,0	-5,0	0,5	CC..09T3.. *CC..32.5.*
A12N-SCLCL09	02434572	12,0	11	12	160	9,0	20,0	17,0	95,0	0,0	-11,0	0,2	CC..09T3.. *CC..32.5.*
A12N-SCLCL09-R	02434573	12,0	–	–	160	9,0	20,0	17,0	95,0	0,0	-11,0	0,2	CC..09T3.. *CC..32.5.*
A16Q-SCLCL09	02434574	16,0	15	16	180	11,0	22,0	22,0	95,0	0,0	-5,0	0,3	CC..09T3.. *CC..32.5.*
A16Q-SCLCL09-R	02434578	16,0	–	–	180	11,0	22,0	22,0	95,0	0,0	-5,0	0,3	CC..09T3.. *CC..32.5.*

Designation	Item number	DMM	H	B	LF	WF	LH	DCINN	KAPR°	GAMO°	LAMS°	Weight	CTWS
		mm	mm	mm	mm	mm	mm	mm				kg	
A20R-SCLCL09	02434581	20,0	18	19	200	13,0	32,0	25,0	95,0	0,0	-5,0	0,4	CC..09T3.. *CC..32.5.*
A20R-SCLCL09-R	02434584	20,0	–	–	200	13,0	32,0	25,0	95,0	0,0	-5,0	0,5	CC..09T3.. *CC..32.5.*

Spare Parts, included in delivery

For size	Insert key	Insert screw
		
A08K-..	T07P-2	C02505-T07P
A10L-..	T07P-2	C02505-T07P
A12N-..	T07P-2	C02506-T07P
A16Q-..	T07P-2	C02506-T07P
A12N-..	T15P-2	C04008-T15P
A16Q-..	T15P-2	C04008-T15P
A20R-..	T15P-2	C04008-T15P

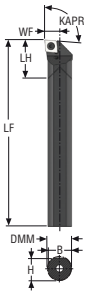
Accessories

For size	Insert clamping torque	Replacement blade	Torque key
			
A08K-..	0.9NM	T00-07P	T00-07P09
A10L-..	0.9NM	T00-07P	T00-07P09
A12N-..	0.9NM	T00-07P	T00-07P09
A16Q-..	0.9NM	T00-07P	T00-07P09
A12N-..	3.5NM	T00-15P	T00-15P35
A16Q-..	3.5NM	T00-15P	T00-15P35
A20R-..	3.5NM	T00-15P	T00-15P35

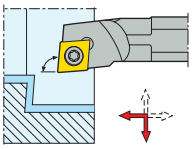
SCLCR/L – Toolholders for inserts CCGT, CCGW, CCMT, CCMW – Inch



SCLCR/L



SCLCR/L
KAPR = 95,0 °



CTWS



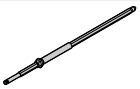
- Right-hand version shown
- For inserts program, see page(s) 542, 543, 544, 545, 591, 592, 615, 616
- For holder code key, see page(s) 21-22
- E = Solid carbide shank
- For ISO attribute explanation, see page 82

Designation	Item number	DMM	H	B	LF	WF	LH	DCINN	KAPR°	GAMO°	LAMS°	Weight	CTWS
		inch	inch	inch	inch	inch	inch	inch				lbs	
E06-SCLCR-2	00093165	0.375	0.315	0.350	6.000	0.250	1.063	0.500	95,0	0,0	-15,0	0.440	CC..0602.. *CC..21.5.*
E08-SCLCR-2	00093167	0.500	0.425	0.465	8.000	0.313	1.063	0.625	95,0	0,0	-9,0	0.880	CC..0602.. *CC..21.5.*
E10-SCLCR-2	00093179	0.625	0.579	0.579	10.000	0.406	1.339	0.812	95,0	0,0	-7,0	1.540	CC..0602.. *CC..21.5.*
E06-SCLCL-2	00093166	0.375	0.315	0.350	6.000	0.250	1.063	0.500	95,0	0,0	-15,0	0.440	CC..0602.. *CC..21.5.*
E08-SCLCL-2	00093178	0.500	0.425	0.465	8.000	0.313	1.063	0.625	95,0	0,0	-9,0	0.880	CC..0602.. *CC..21.5.*
E10-SCLCL-2	00093181	0.625	0.579	0.579	10.000	0.406	1.339	0.812	95,0	0,0	-7,0	1.540	CC..0602.. *CC..21.5.*
E12-SCLCR-3	00093183	0.750	0.704	0.704	10.000	0.500	1.457	1.000	95,0	0,0	-10,0	2.200	CC..09T3.. *CC..32.5.*
E12-SCLCL-3	00093184	0.750	0.704	0.704	10.000	0.500	0.984	1.000	95,0	0,0	-10,0	2.200	CC..09T3.. *CC..32.5.*

Spare Parts, included in delivery

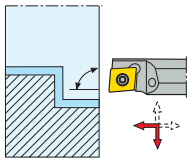
For size	Insert key	Insert screw
		
..-2	T07P-2	C02506-T07P
..-3	T15P-2	C04008-T15P

Accessories

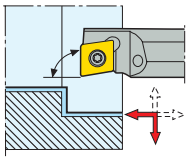
For size	Insert clamping torque	Replacement blade	Torque key
			
..-2	0.9NM	T00-07P	T00-07P09
..-3	3.5NM	T00-15P	T00-15P35

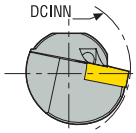
SCLDR/L, SCFDR/L – Toolholders for inserts CDCB – Metric

SCLDR/L
KAPR = 95,0 °

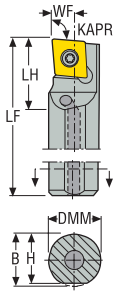


SCFDR/L
KAPR = 91,0 °

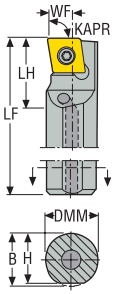




SCLDR/L



SCFDR/L







CTWS



- Right-hand version shown
- For inserts program, see page(s) 545
- For holder code key, see page(s) 19-20
- For ISO attribute explanation, see page 82

Designation	Item number	DMM	H	B	LF	WF	LH	DCINN	KAPR°	GAMO°	LAMS°	Weight	CTWS
		mm	mm	mm	mm	mm	mm	mm				kg	
A05D-SCLDR04	00054546	5,0	5	5	60	3,0	9,7	5,5	95,0	0,0	-12,0	0,1	CD..04T0.. *CD..1.21.2.*
A06E-SCLDR04	00054660	6,0	6	6	70	3,5	10,2	6,5	95,0	0,0	-12,0	0,1	CD..04T0.. *CD..1.21.2.*
A08F-SCLDR04	00054692	8,0	8	8	80	4,5	11,2	8,5	95,0	0,0	-8,0	0,1	CD..04T0.. *CD..1.21.2.*
A05D-SCLDL04	00054545	5,0	5	5	60	3,0	9,7	5,5	95,0	0,0	-12,0	0,1	CD..04T0.. *CD..1.21.2.*
A06E-SCLDL04	00054547	6,0	6	6	70	3,5	10,2	6,5	95,0	0,0	-12,0	0,1	CD..04T0.. *CD..1.21.2.*
A08F-SCLDL04	00054679	8,0	8	8	80	4,5	11,2	8,5	95,0	0,0	-8,0	0,1	CD..04T0.. *CD..1.21.2.*
A05D-SCFDR04	00054762	5,0	5	5	60	3,0	9,7	5,5	91,0	0,0	-12,0	0,1	CD..04T0.. *CD..1.21.2.*
A06E-SCFDR04	00054765	6,0	6	6	70	3,5	10,2	6,5	91,0	0,0	-12,0	0,1	CD..04T0.. *CD..1.21.2.*
A05D-SCFDL04	00054761	5,0	5	5	60	3,0	9,7	5,5	91,0	0,0	-12,0	0,1	CD..04T0.. *CD..1.21.2.*
A06E-SCFDL04	00054763	6,0	6	6	70	3,5	10,2	6,5	91,0	0,0	-12,0	0,1	CD..04T0.. *CD..1.21.2.*

Spare Parts, included in delivery

For size	Insert key	Insert screw
		
..04	T06P-2	C11804-T06P

Accessories

For size	Insert clamping torque	Replacement blade	Torque key
			
..04	0.5NM	T00-06P	T00-06P05

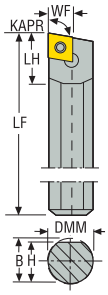
SCLDR/L – Toolholders for inserts CDCB – Inch

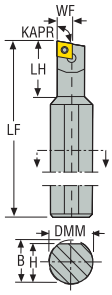


CTWS

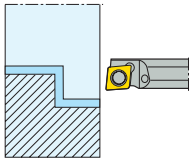


SCLDR/L





SCLDR/L
KAPR = 95,0 °



- Right-hand version shown
- For inserts program, see page(s) 545
- For holder code key, see page(s) 21-22
- Bar descriptions that begin with H denotes heavy metal construction.
- For ISO attribute explanation, see page 82

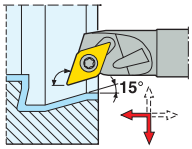
Designation	Item number	DMM	H	B	LF	WF	LH	DCINN	KAPR°	GAMO°	LAMS°	Weight	CTWS
		inch	inch	inch	inch	inch	inch	inch				lbs	
S03-SCLDR-1.2	00057644	0.187	0.177	0.187	2.500	0.101	0.526	0.180	95,0	0,0	-17,0	0.220	CD..04T0.. *CD..1.21.2.*
S04-SCLDR-1.2	00057646	0.250	0.235	0.250	3.000	0.140	–	0.265	95,0	0,0	-12,0	0.220	CD..04T0.. *CD..1.21.2.*
S04-SCLDL-1.2	00057647	0.250	0.235	0.250	3.000	0.141	–	0.265	95,0	0,0	-12,0	0.220	CD..04T0.. *CD..1.21.2.*
H03-SCLDR-1.2	00057648	0.187	0.177	0.187	4.000	0.110	0.394	0.204	95,0	0,0	-17,0	0.220	CD..04T0.. *CD..1.21.2.*
S0306-SCLDR-1.2	00057649	0.375	0.358	0.375	2.500	0.101	0.520	0.183	95,0	0,0	-12,0	0.220	CD..04T0.. *CD..1.21.2.*
S0406-SCLDR-1.2	00057650	0.375	0.358	0.358	2.500	0.152	1.250	0.277	95,0	0,0	-12,0	0.220	CD..04T0.. *CD..1.21.2.*
H0308-SCLDR-1.2	00057651	0.500	0.476	0.500	4.000	0.118	1.120	0.212	95,0	0,0	-17,0	0.440	CD..04T0.. *CD..1.21.2.*

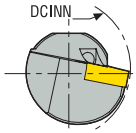
Spare Parts, included in delivery

For size	Insert screw
	
S03	CS110
S04/ H03	CS115

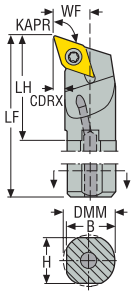
SDQCR/L – Toolholders for inserts DCGT, DCMT, DCMW – Metric

SDQCR/L, .-R
KAPR = 107,5 °

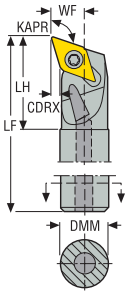




SDQCR/L



SDQCR/L..-R





CTWS



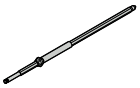
- Right-hand version shown
- For inserts program, see page(s) 553, 554, 555, 617
- For holder code key, see page(s) 19-20
- For ISO attribute explanation, see page 82

Designation	Item number	DMM	H	B	LF	WF	LH	CDRX	DCINN	KAPR°	GAMO°	LAMS°	Weight	CTWS
		mm	mm	mm	mm	mm	mm	mm	mm				kg	
A10L-SDQCR07-R	00093833	10,0	–	–	140	7,0	18,0	1,5	13,0	107,5	0,0	-11,0	0,1	DC..0702.. *DC..21.5.*
A12N-SDQCR07-R	00093835	12,0	–	–	160	9,0	20,0	2,5	17,0	107,5	0,0	-11,0	0,2	DC..0702.. *DC..21.5.*
A16Q-SDQCR07	00093837	16,0	15	16	180	11,0	22,0	2,5	22,0	107,5	0,0	-5,0	0,3	DC..0702.. *DC..21.5.*
A10L-SDQCL07-R	00093834	10,0	–	–	140	7,0	18,0	1,5	13,0	107,5	0,0	-11,0	0,1	DC..0702.. *DC..21.5.*
A12N-SDQCL07-R	00093836	12,0	–	–	160	9,0	20,0	2,5	17,0	107,5	0,0	-11,0	0,2	DC..0702.. *DC..21.5.*
A16Q-SDQCL07-R	00093838	16,0	–	–	180	11,0	22,0	2,5	22,0	107,5	0,0	-5,0	0,3	DC..0702.. *DC..21.5.*
A20R-SDQCR11	00093839	20,0	18	19	200	13,0	32,0	2,5	25,0	107,5	0,0	-5,0	0,4	DC..11T3.. *DC..32.5.*
A20R-SDQCL11-R	00093840	20,0	–	–	200	13,0	32,0	2,5	25,0	107,5	0,0	-5,0	0,4	DC..11T3.. *DC..32.5.*
A25S-SDQCR15	00030964	25,0	23	24	250	17,0	40,0	4,0	32,0	107,5	0,0	-5,0	0,8	DC..1504.. *DC..43.*
A25S-SDQCL15	00030965	25,0	23	24	250	17,0	40,0	4,0	32,0	107,5	0,0	-5,0	0,8	DC..1504.. *DC..43.*

Spare Parts, included in delivery

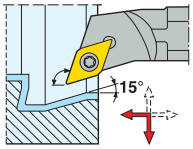
For size	Insert key	Insert screw
		
A10L-...07	T07P-2	C02506-T07P
A12N-...07/R	T07P-2	C02506-T07P
A16Q-...07/R	T07P-2	C02506-T07P
...11	T15P-2	C04008-T15P
...15	T15P-2	C04512-T15P

Accessories

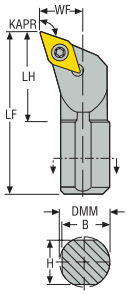
For size	Insert clamping torque 	Replacement blade 	Torque key 
A10L-...07	0.9NM	T00-07P	T00-07P09
A12N-...07/R	0.9NM	T00-07P	T00-07P09
A16Q-...07/R	0.9NM	T00-07P	T00-07P09
...11	3.5NM	T00-15P	T00-15P35
...15	5.0NM	T00-15P	T00-15P50

SDQCR/L – Toolholders for inserts DCGT, DCGW, DCMT, DCMW – Inch

SDQCR
KAPR = 107,5 °



SDQCR





CTWS



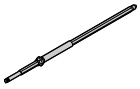
- Right-hand version shown
- For inserts program, see page(s) 553, 554, 555, 596, 617
- For holder code key, see page(s) 21-22
- For ISO attribute explanation, see page 82

Designation	Item number	DMM	H	B	LF	WF	LH	DCINN	KAPR°	GAMO°	LAMS°	Weight	CTWS
		inch	inch	inch	inch	inch	inch	inch				lbs	
S08-SDQCR-2	00073944	0.500	0.394	0.425	8.000	0.437	1.175	0.780	107,5	0,0	-11,0	0.660	DC..0702.. *DC..21.5.*

Spare Parts, included in delivery

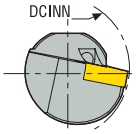
For size	Insert key	Insert screw
		
..-2	T07P-2	C02506-T07P

Accessories

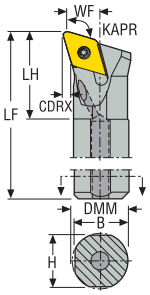
For size	Insert clamping torque	Replacement blade	Torque key
			
..-2	0.9NM	T00-07P	T00-07P09

SDQNR/L, PDQNR/L – Toolholders for inserts DNMA, DNMU – Metric

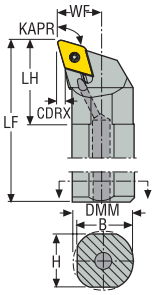




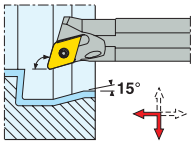
SDQNR/L



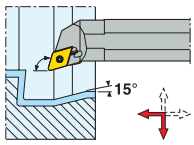
PDQNR/L



SDQNR/L
KAPR = 107,5 °



PDQNR/L
KAPR = 107,5 °



CTWS



- Right-hand version shown
- For inserts program, see page(s) 556, 557, 558, 559, 598
- For holder code key, see page(s) 19-20
- For ISO attribute explanation, see page 82

Designation	Item number	DMM	H	B	LF	WF	LH	CDRX	DCINN	KAPR°	GAMO°	LAMS°	Weight	CTWS
		mm	mm	mm	mm	mm	mm	mm	mm				kg	
A16M-SDQNR11	00083822	16,0	15	16	150	11,0	20,0	3,7	20,0	107,5	-5,0	-20,0	0,3	DNMU1104.. *DNMU33.*
A20Q-SDQNR11	75077819	20,0	18	19	180	13,0	30,0	4,2	25,0	107,5	-5,0	-18,0	0,4	DNMU1104.. *DNMU33.*
A16M-SDQNL11	00083824	16,0	15	16	150	11,0	20,0	3,7	20,0	107,5	-5,0	-20,0	0,3	DNMU1104.. *DNMU33.*
A20Q-SDQNL11	75077820	20,0	18	19	180	13,0	30,0	4,2	25,0	107,5	-5,0	-18,0	0,4	DNMU1104.. *DNMU33.*
A25R-PDQNR11	75077821	25,0	23	24	200	17,0	35,0	5,0	32,0	107,5	-5,0	-16,0	0,7	DNMU1104.. *DNMU33.*
A32S-PDQNR11	75077823	32,0	30	31	250	22,0	32,0	7,3	40,0	107,5	-5,0	-14,0	1,3	DNMU1104.. *DNMU33.*
A25R-PDQNL11	75077822	25,0	23	24	200	17,0	35,0	5,0	32,0	107,5	-5,0	-16,0	0,7	DNMU1104.. *DNMU33.*
A32S-PDQNL11	75079497	32,0	30	31	250	22,0	32,0	7,3	40,0	107,5	-5,0	-14,0	1,3	DNMU1104.. *DNMU33.*

Spare Parts, included in delivery

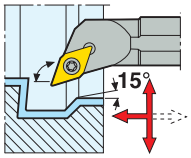
For size	Insert key	Insert pin	Insert screw	Insert shim	Shim screw
A16M-...11	T09P-2	–	C03511-T09P	–	–
A20Q-...11	T09P-2	–	C03511-T09P	DAI110212	CA3507
A25R-...11	T09P-2	PL1403-T09P	–	DAE110312	–
A32S-...11	T09P-2	PL1403-T09P	–	DAE110312	–

Accessories

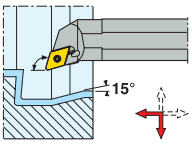
For size	Insert clamping torque	Replacement blade	Shim key	Torque key
A16M-...11	2.0NM	T00-09P	–	T00-09P20
A20Q-...11	2.0NM	T00-09P	9/64SMS875	T00-09P20
A25R-...11	–	–	–	–
A32S-...11	–	–	–	–

SDQNR/L, PDQNR/L – Toolholders for inserts DNMA, DNMG, DNMP, DNMU – Inch

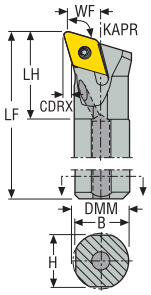
SDQNR
KAPR = 107,5 °



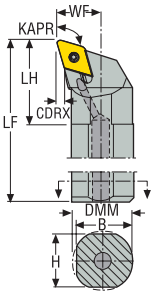
PDQNR
KAPR = 107,5 °



SDQNR/L



PDQNR/L





CTWS



- Right-hand version shown
- For inserts program, see page(s) 556, 557, 558, 559, 598
- For holder code key, see page(s) 21-22
- For ISO attribute explanation, see page 82

Designation	Item number	DMM	H	B	LF	WF	LH	CDRX	DCINN	KAPR°	GAMO°	LAMS°	Weight	CTWS
		inch	inch	inch	inch	inch	inch	inch	inch				lbs	
A12-SDQNR-3	00015216	0.750	0.709	0.728	10.000	0.562	1.839	0.142	0.980	107,5	-6,0	-14,0	1.540	DNMU1104.. *DNMU33.*
A16-PDQNR-3	00015218	1.000	0.866	0.933	12.000	0.750	1.921	0.173	1.299	107,5	-5,0	-12,0	2.430	DNMU1104.. *DNMU33.*

Spare Parts, included in delivery

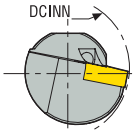
For size	Insert key	Insert pin	Insert screw	Insert shim	Key	Shim screw
12..-3	T09P-2	–	C03511-T09P	DAE110312	–	CA3507
16..-3	–	PL1403-T09P	–	DAE110312	T09P-2	–

Accessories

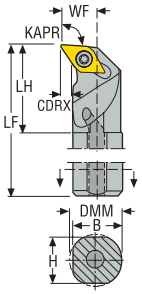
For size	Insert clamping torque	Key	Replacement blade	Torque key
12..-3	2.0NM	3.5SMS795	T00-09P	T00-09P20
16..-3	–	–	–	–

SDUCR/L – Toolholders for inserts DCGT, DCMT, DCMW, DCMX – Metric

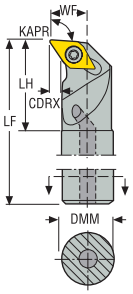




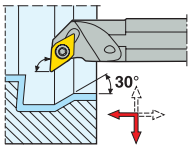
SDUCR/L



SDUCR/L..-R



SDUCR/L, .-R
KAPR = 93,0 °



CTWS



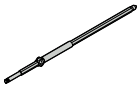
- Right-hand version shown
- For inserts program, see page(s) 553, 554, 555, 617
- For holder code key, see page(s) 19-20
- For ISO attribute explanation, see page 82

Designation	Item number	DMM	H	B	LF	WF	LH	CDRX	DCINN	KAPR°	GAMO°	LAMS°	Weight	CTWS
		mm	mm	mm	mm	mm	mm	mm	mm				kg	
A12N-SDUCR07	02516530	12,0	11	12	160	9,0	20,0	3,5	17,0	93,0	0,0	-11,0	0,2	DC..0702.. *DC..21.5.*
A12N-SDUCR07-R	00093821	12,0	–	–	160	9,0	20,0	3,5	17,0	93,0	0,0	-11,0	0,2	DC..0702.. *DC..21.5.*
A16Q-SDUCR07	75066214	16,0	15	16	180	11,0	22,0	2,5	22,0	93,0	0,0	-5,0	0,3	DC..0702.. *DC..21.5.*
A16Q-SDUCR07-R	00093825	16,0	–	–	180	11,0	22,0	3,5	22,0	93,0	0,0	-5,0	0,3	DC..0702.. *DC..21.5.*
A12N-SDUCL07	75066213	12,0	11	12	160	9,0	20,0	3,5	17,0	93,0	0,0	-11,0	0,2	DC..0702.. *DC..21.5.*
A12N-SDUCL07-R	00093822	12,0	–	–	160	9,0	20,0	3,5	17,0	93,0	0,0	-11,0	0,2	DC..0702.. *DC..21.5.*
A16Q-SDUCL07	75066215	16,0	15	16	180	11,0	22,0	3,5	22,0	93,0	0,0	-5,0	0,3	DC..0702.. *DC..21.5.*
A16Q-SDUCL07-R	00734206	16,0	–	–	180	11,0	22,0	3,5	22,0	93,0	0,0	-5,0	0,3	DC..0702.. *DC..21.5.*
A20R-SDUCR11	00734209	20,0	18	19	200	13,0	30,0	4,6	25,0	93,0	0,0	-5,0	0,4	DC..11T3.. *DC..32.5.*
A20R-SDUCR11-R	00093829	20,0	–	–	200	13,0	30,0	3,8	25,0	93,0	0,0	-5,0	0,4	DC..11T3.. *DC..32.5.*
A25S-SDUCR11	02516541	25,0	23	24	250	17,0	40,0	6,1	32,0	93,0	0,0	-5,0	0,8	DC..11T3.. *DC..32.5.*
A25S-SDUCR11-R	02516599	25,0	–	–	250	17,0	40,0	5,3	32,0	93,0	0,0	-5,0	0,9	DC..11T3.. *DC..32.5.*
A20R-SDUCL11	02516546	20,0	18	19	200	13,0	30,0	4,6	25,0	93,0	0,0	-5,0	0,4	DC..11T3.. *DC..32.5.*
A20R-SDUCL11-R	00093830	20,0	–	–	200	13,0	30,0	3,8	25,0	93,0	0,0	-5,0	0,4	DC..11T3.. *DC..32.5.*
A25S-SDUCL11	02516549	25,0	23	24	250	17,0	40,0	6,1	32,0	93,0	0,0	-5,0	0,8	DC..11T3.. *DC..32.5.*
A25S-SDUCL11-R	02516600	25,0	–	–	250	17,0	40,0	5,3	32,0	93,0	0,0	-5,0	0,9	DC..11T3.. *DC..32.5.*
A32T-SDUCR15	00030967	32,0	30	31	300	22,0	50,0	8,1	40,0	93,0	0,0	-5,0	1,6	DC..1504.. *DC..43.*
A32T-SDUCL15	00030968	32,0	30	31	300	22,0	50,0	8,1	40,0	93,0	0,0	-5,0	1,6	DC..1504.. *DC..43.*

Spare Parts, included in delivery

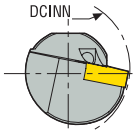
For size	Insert key	Insert screw
		
A12N-...07/R	T07P-2	C02506-T07P
A16Q-...07/R	T07P-2	C02506-T07P
A20R-...11/R	T15P-2	C04008-T15P
A25S-...11/R	T15P-2	C04008-T15P
A32T-...15/R	T15P-2	C04512-T15P

Accessories

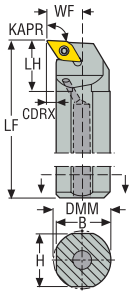
For size	Insert clamping torque	Replacement blade	Torque key
			
A12N-...07/R	0.9NM	T00-07P	T00-07P09
A16Q-...07/R	0.9NM	T00-07P	T00-07P09
A20R-...11/R	3.5NM	T00-15P	T00-15P35
A25S-...11/R	3.5NM	T00-15P	T00-15P35
A32T-...15/R	5.0NM	T00-15P	T00-15P50

SDUNR/L – Toolholders for inserts DNMA, DNMU, DNMX – Metric

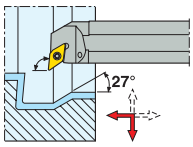




SDUNR/L



SDUNR/L
KAPR = 93,0 °



CTWS



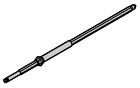
- Right-hand version shown
- For inserts program, see page(s) 556, 557, 558, 559, 598
- For holder code key, see page(s) 19-20
- For ISO attribute explanation, see page 82

Designation	Item number	DMM	H	B	LF	WF	LH	CDRX	DCINN	KAPR°	GAMO°	LAMS°	Weight	CTWS
		mm	mm	mm	mm	mm	mm	mm	mm				kg	
A16M-SDUNR11	00083816	16,0	15	16	150	11,0	20,0	4,0	20,0	93,0	-5,0	-17,0	0,3	DNMU1104.. *DNMU33.*
A20Q-SDUNR11	75066111	20,0	18	19	180	13,0	30,0	4,5	25,0	93,0	-5,0	-14,0	0,4	DNMU1104.. *DNMU33.*
A16M-SDUNL11	00083817	16,0	15	16	150	11,0	20,0	4,0	20,0	93,0	-5,0	-17,0	0,3	DNMU1104.. *DNMU33.*
A20Q-SDUNL11	75066112	20,0	18	19	180	13,0	30,0	4,5	25,0	93,0	-5,0	-14,0	0,4	DNMU1104.. *DNMU33.*

Spare Parts, included in delivery

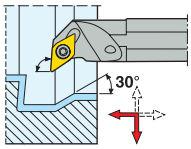
For size	Insert key	Insert screw	Insert shim	Shim screw
				
A16M-..11	T09P-2	C03511-T09P	–	–
A20Q-..11	T09P-2	C03511-T09P	DAI110212	CA3507

Accessories

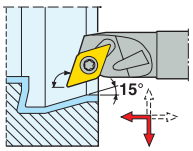
For size	Insert clamping torque	Replacement blade	Shim key	Torque key
				
A16M-..11	2.0NM	T00-09P	–	T00-09P20
A20Q-..11	2.0NM	T00-09P	9/64SMS875	T00-09P20

SDUCR/L, SDQCR/L – Toolholders for inserts DCGT, DCGW, DCMT, DCMW – Inch

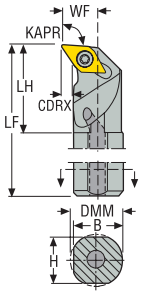
SDUCR/L
KAPR = 93,0 °



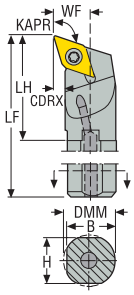
SDQCR/L
KAPR = 107,5 °



SDUCR/L



SDQCR/L





CTWS



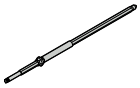
- Right-hand version shown
- For inserts program, see page(s) 553, 554, 555, 596, 617
- For holder code key, see page(s) 21-22
- For ISO attribute explanation, see page 82

Designation	Item number	DMM	H	B	LF	WF	LH	CDRX	DCINN	KAPR°	GAMO°	LAMS°	Weight	CTWS
		inch	inch	inch	inch	inch	inch	inch	inch				lbs	
A08-SDUCR-2	02829675	0.500	0.425	0.463	8.020	0.437	0.550	0.177	0.780	93,0	0,0	-11,0	0.440	DC..0702.. *DC..21.5.*
A10-SDUCR-2	02829685	0.500	0.425	0.463	8.000	0.500	1.250	0.177	1.000	93,0	0,0	-3,7	0.440	DC..0702.. *DC..21.5.*
A10-SDUCL-2	02829684	0.500	0.425	0.463	8.000	0.500	1.250	0.177	0.500	93,0	0,0	-3,7	0.440	DC..0702.. *DC..21.5.*
A12-SDUCR-3	02829693	0.750	0.902	0.957	12.000	0.750	0.906	0.319	1.125	93,0	0,0	-4,0	1.100	DC..11T3.. *DC..32.5.*
A16-SDUCR-3	02829700	1.000	0.902	0.957	12.000	0.750	1.906	0.319	1.500	93,0	0,0	-3,16	2.200	DC..11T3.. *DC..32.5.*
A12-SDUCL-3	02829692	0.750	0.650	0.707	10.000	0.625	1.750	0.319	1.125	93,0	0,0	-5,07	1.100	DC..11T3.. *DC..32.5.*
A16-SDUCL-3	02829699	1.000	0.902	0.957	12.000	0.750	1.906	0.319	1.500	93,0	0,0	-3,16	2.200	DC..11T3.. *DC..32.5.*
A10-SDQCR-2	02829683	0.625	0.535	0.578	10.000	0.500	0.625	0.197	0.840	107,5	0,0	-5,0	0.660	DC..0702.. *DC..21.5.*
A12-SDQCR-3	02829691	0.750	0.708	0.729	10.000	0.562	0.773	0.213	1.125	107,5	0,0	-5,95	0.880	DC..11T3.. *DC..32.5.*
A16-SDQCR-3	02829698	1.000	0.858	0.929	12.000	0.750	0.906	0.283	1.500	107,5	0,0	-3,27	2.200	DC..11T3.. *DC..32.5.*

Spare Parts, included in delivery

For size	Insert key	Insert screw
		
..-2	T07P-2	C02506-T07P
..-3	T15P-2	C04008-T15P

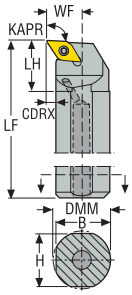
Accessories

For size	Insert clamping torque	Replacement blade	Torque key
			
..-2	0.9NM	T00-07P	T00-07P09
..-3	3.5NM	T00-15P	T00-15P35

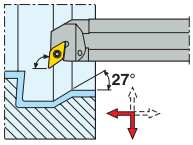
SDUNR/L – Toolholders for inserts DNMU – Inch



SDUNR/L



SDUNR
KAPR = 93,0 °



CTWS



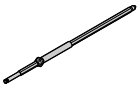
- Right-hand version shown
- For inserts program, see page(s) 556, 557, 558, 559
- For holder code key, see page(s) 21-22
- For ISO attribute explanation, see page 82

Designation	Item number	DMM	H	B	LF	WF	LH	CDRX	DCINN	KAPR°	GAMO°	LAMS°	Weight	CTWS
		inch	inch	inch	inch	inch	inch	inch	inch				lbs	
A10-SDUNR-3	00014820	0.625	0.532	0.602	10.000	0.500	1.598	0.260	0.850	93,0	-5,0	-14,0	0.880	DNMU1104.. *DNMU33.*
A12-SDUNR-3	00014822	0.750	0.709	0.728	10.000	0.562	1.799	0.236	0.980	93,0	-5,0	-14,0	1.540	DNMU1104.. *DNMU33.*

Spare Parts, included in delivery

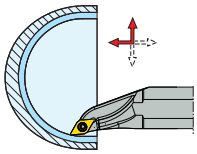
For size	Insert key	Insert screw	Insert shim	Shim screw
				
..10-3	T09P-2	C03511-T09P	–	–
..12-3	T09P-2	C03511-T09P	DAE110312	CA3507

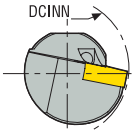
Accessories

For size	Insert clamping torque	Replacement blade	Shim key	Torque key
				
..10-3	2.0NM	T00-09P	–	T00-09P20
..12-3	2.0NM	T00-09P	3.5SMS795	T00-09P20

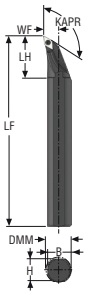
SDXCR/L – Toolholders for inserts DCGT, DCGW, DCMT, DCMW, DCMX – Metric

KAPR = 120,0 °





SDXCR/L





CTWS



- Right-hand version shown
- For inserts program, see page(s) 553, 554, 555, 596, 617
- For holder code key, see page(s) 19-20
- For ISO attribute explanation, see page 82

Designation	Item number	DMM	H	B	LF	WF	LH	DCINN	KAPR°	GAMO°	LAMS°	Weight	CTWS
		mm	mm	mm	mm	mm	mm	mm				kg	
A20M-SDXCR07	10102581	20,0	18	19	150	11,87	33,48	22,0	120,0	0,0	-3,0	0,3	DC..0702.. *DC..21.5.*
A20M-SDXCL07	10102580	20,0	18	19	150	11,87	33,48	22,0	120,0	0,0	-3,0	0,3	DC..0702.. *DC..21.5.*
A20R-SDXCR11	10102582	20,0	18	19	200	11,88	32,1	24,0	120,0	0,0	-3,0	0,4	DC..11T3.. *DC..32.5.*
A20R-SDXCL11	10102583	20,0	18	19	200	11,88	32,1	24,0	120,0	0,0	-3,0	0,4	DC..11T3.. *DC..32.5.*

Spare Parts, included in delivery

For size	Insert key	Insert screw
		
..-07	T07P-2	C02506-T07P
..-11	T15P-2	C04008-T15P

Accessories

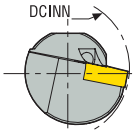
For size	Nozzle	Nozzle key
		
..-07	JET-CN03040020	1.5SMS795
..-11	JET-CN03040020	1.5SMS795

SDYNR/L, PDYNR/L – Toolholders for inserts DNMA, DNMU – Metric

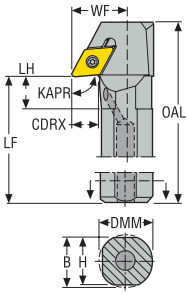


CTWS

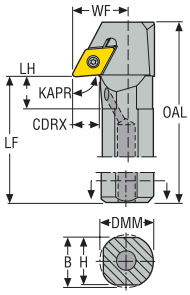




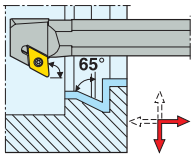
SDYNR/L



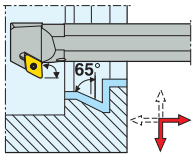
PDYNR/L



SDYNR/L
KAPR = 95,0 °



PDYNR/L
KAPR = 95,0 °



- Right-hand version shown
- For inserts program, see page(s) 556, 557, 558, 559, 598
- For holder code key, see page(s) 19-20
- For ISO attribute explanation, see page 82

Designation	Item number	DMM	H	B	OAL	LF	WF	LH	CDRX	DCINN	KAPR°	GAMO°	LAMS°	Weight	CTWS
		mm	mm	mm	mm	mm	mm	mm	mm	mm				kg	
A20Q-SDYNR11	75079498	20,0	18	19	200	180	20,0	15,0	10,9	40,0	95,0	-5,0	-14,0	0,5	DNMU1104.. *DNMU33.*
A20Q-SDYNL11	75079499	20,0	18	19	200	180	20,0	15,0	10,9	40,0	95,0	-5,0	-14,0	0,5	DNMU1104.. *DNMU33.*
A25R-PDYNR11	75079500	25,0	23	24	220	200	22,5	13,0	10,9	45,0	95,0	-5,0	-13,0	0,8	DNMU1104.. *DNMU33.*
A32S-PDYNR11	75079502	32,0	30	31	270	250	25,5	23,0	11,1	51,0	95,0	-5,0	-11,0	1,5	DNMU1104.. *DNMU33.*
A25R-PDYNL11	75079501	25,0	23	24	220	200	22,5	13,0	10,9	45,0	95,0	-5,0	-13,0	0,8	DNMU1104.. *DNMU33.*
A32S-PDYNL11	75079503	32,0	30	31	270	250	25,5	23,0	11,1	51,0	95,0	-5,0	-11,0	1,5	DNMU1104.. *DNMU33.*

Spare Parts, included in delivery

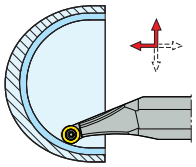
For size	Insert key	Insert pin	Insert screw	Insert shim	Shim screw
					
A20Q-...11	T09P-2	–	C03511-T09P	DAI110212	CA3507
A25R-...11	T09P-2	PL1403-T09P	–	DAE110312	–
A32S-...11	T09P-2	PL1403-T09P	–	DAE110312	–

Accessories

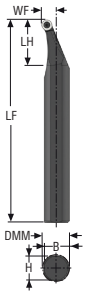
For size	Insert clamping torque	Replacement blade	Shim key	Torque key
				
A20Q-...11	2.0NM	T00-09P	9/64SMS875	T00-09P20
A25R-...11	–	–	–	–
A32S-...11	–	–	–	–

SRXCR/L – Toolholders for inserts RCMT – Metric

KAPR = 90,0 °



SRXCR/L





CTWS



- Right-hand version shown
- For inserts program, see page(s) 562, 563
- For holder code key, see page(s) 19-20
- For ISO attribute explanation, see page 82

Designation	Item number	DMM	H	B	LF	WF	LH	DCINN	KAPR°	GAMO°	LAMS°	Weight	CTWS
		mm	mm	mm	mm	mm	mm	mm				kg	
A20M-SRXCR08	10102584	20,0	18	19	150	10,88	33,04	32,0	90,0	0,0	0,0	0,3	RC..0803..
A20M-SRXCL08	10102586	20,0	18	19	150	10,88	33,04	32,0	90,0	0,0	0,0	0,3	RC..0803..

Spare Parts, included in delivery

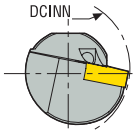
For size	Insert key	Insert screw
		
..08	T08P-2	C03007-T08P

Accessories

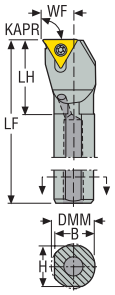
For size	Nozzle	Nozzle key
		
..08	JET-CN03040020	1.5SMS795

STFCR/L – Toolholders for inserts TCGT, TCMT, TCMW – Metric

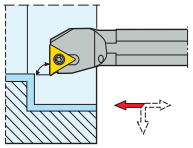




STFCR/L



STFCR/L
KAPR = 91,0 °



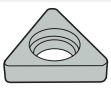
CTWS



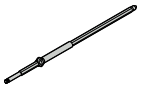
- Right-hand version shown
- For inserts program, see page(s) 571, 572, 618
- For holder code key, see page(s) 19-20
- For ISO attribute explanation, see page 82

Designation	Item number	DMM	H	B	LF	WF	LH	DCINN	KAPR°	GAMO°	LAMS°	Weight	CTWS
		mm	mm	mm	mm	mm	mm	mm				kg	
A12M-STFCR11	00093843	12,0	11	12	150	9,0	21,0	16,0	91,0	0,0	-10,0	0,2	TC..1102.. *TC..21.5.*
A16R-STFCR11	00093845	16,0	15	15	200	11,0	25,0	20,0	91,0	0,0	-6,0	0,3	TC..1102.. *TC..21.5.*
A20S-STFCR11	00093847	20,0	18	19	250	13,0	25,0	25,0	91,0	0,0	-3,0	0,5	TC..1102.. *TC..21.5.*
A12M-STFCL11	00093844	12,0	11	12	150	9,0	21,0	16,0	91,0	0,0	-10,0	0,2	TC..1102.. *TC..21.5.*
A16R-STFCL11	00093846	16,0	15	15	200	11,0	25,0	20,0	91,0	0,0	-6,0	0,3	TC..1102.. *TC..21.5.*
A20S-STFCL11	00093848	20,0	18	19	250	13,0	25,0	25,0	91,0	0,0	-3,0	0,5	TC..1102.. *TC..21.5.*
A25R-STFCR16	00093857	25,0	23	24	200	17,0	36,0	32,0	91,0	0,0	-6,0	0,7	TC..16T3.. *TC..32.5.*
A32S-STFCR16	00093859	32,0	30	31	250	22,0	42,0	40,0	91,0	0,0	-10,0	1,3	TC..16T3.. *TC..32.5.*
A40T-STFCR16	00093861	40,0	37	39	300	27,0	50,0	50,0	91,0	0,0	-8,0	2,6	TC..16T3.. *TC..32.5.*
A25R-STFCL16	00093858	25,0	23	24	200	17,0	36,0	32,0	91,0	0,0	-6,0	0,7	TC..16T3.. *TC..32.5.*
A32S-STFCL16	00093860	32,0	30	31	250	22,0	42,0	40,0	91,0	0,0	-10,0	1,3	TC..16T3.. *TC..32.5.*
A40T-STFCL16	00093862	40,0	37	39	300	27,0	50,0	50,0	91,0	0,0	-8,0	2,6	TC..16T3.. *TC..32.5.*

Spare Parts, included in delivery

For size	Insert key	Insert screw	Insert shim	Shim screw
				
A12M-...11	T07P-2	C02506-T07P	–	–
A16R-...11	T07P-2	C02506-T07P	–	–
A20S-...11	T07P-2	C02506-T07P	–	–
A25R-...16	T15P-2	C03509-T15P	–	–
A32S-...16	T15P-2	C03509-T15P	STN160312	CA3510
A40T-...16	T15P-2	C03509-T15P	STN160312	CA3510

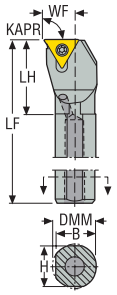
Accessories

For size	Insert clamping torque	Replacement blade	Shim key	Torque key
				
A12M-...11	0.9NM	T00-07P	–	T00-07P09
A16R-...11	0.9NM	T00-07P	–	T00-07P09
A20S-...11	0.9NM	T00-07P	–	T00-07P09
A25R-...16	3.0NM	T00-15P	–	T00-15P30
A32S-...16	3.0NM	T00-15P	9/64SMS875	T00-15P30
A40T-...16	3.0NM	T00-15P	9/64SMS875	T00-15P30

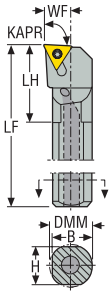
STFCR/L, STUCR/L – Toolholders for inserts TCMT, TCMW – Inch



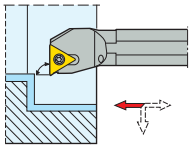
STFCR/L



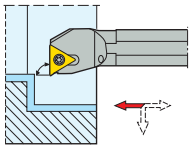
STUCR/L



STFCR/L
KAPR = 91,0 °



STUCR/L
KAPR = 93,0 °



CTWS



- Right-hand version shown
- For inserts program, see page(s) 571, 572, 618
- For holder code key, see page(s) 21-22
- For ISO attribute explanation, see page 82

Designation	Item number	DMM	H	B	LF	WF	LH	DCINN	KAPR°	GAMO°	LAMS°	Weight	CTWS
		inch	inch	inch	inch	inch	inch	inch				lbs	
A06-STFCR-2	02829668	0.375	0.315	0.345	6.000	0.250	1.400	0.512	91,0	0,0	-10,07	0.220	TC..1102.. *TC..21.5.*
A08-STFCR-2	02829676	0.500	0.425	0.463	6.000	0.312	1.550	0.625	91,0	0,0	-7,21	0.220	TC..1102.. *TC..21.5.*
A10-STFCR-2	02829686	0.625	0.531	0.578	8.000	0.406	1.250	0.812	91,0	0,0	-4,7	0.660	TC..1102.. *TC..21.5.*
A12-STFCR-2	02829694	0.750	0.650	0.707	10.000	0.500	0.750	1.000	91,0	0,0	-3,16	0.880	TC..1102.. *TC..21.5.*
A06-STUCR-2	02829669	0.375	0.532	0.579	6.000	0.406	0.625	0.500	93,0	0,0	-7,0	0.220	TC..1102.. *TC..21.5.*
A08-STUCR-2	02829678	0.500	0.532	0.579	8.000	0.406	0.625	0.625	93,0	0,0	-7,0	0.440	TC..1102.. *TC..21.5.*
A10-STUCR-2	02829688	0.625	0.532	0.579	10.000	0.406	0.625	0.812	93,0	0,0	-7,0	0.880	TC..1102.. *TC..21.5.*
A08-STUCL-2	02829677	0.500	0.532	0.579	8.000	0.406	0.625	0.630	93,0	0,0	-7,0	0.440	TC..1102.. *TC..21.5.*
A10-STUCL-2	02829687	0.625	0.532	0.579	10.000	0.406	0.625	0.812	93,0	0,0	-7,0	0.880	TC..1102.. *TC..21.5.*
A12-STUCR-3	02829695	0.750	0.708	0.729	10.000	0.500	0.750	1.000	93,0	0,0	-6,0	1.100	TC..16T3.. *TC..32.5.*
A16-STUCR-3	02829701	1.000	0.858	0.929	12.000	0.640	0.906	1.280	93,0	0,0	-4,0	2.200	TC..16T3.. *TC..32.5.*

Spare Parts, included in delivery

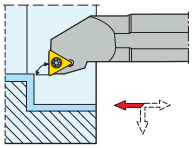
For size	Insert key	Insert screw
		
..-2	T07P-2	C02506-T07P
..-3	T15P-2	C04008-T15P

Accessories

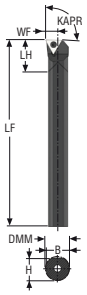
For size	Insert clamping torque	Replacement blade	Torque key
			
..-2	0.9NM	T00-07P	T00-07P09
..-3	3.5NM	T00-15P	T00-15P35

STFCR/L – Toolholders for inserts TCGT, TCGW, TCMT, TCMW – Inch

STFCR
KAPR = 91,0 °



STFCR/L





CTWS



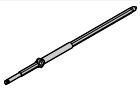
- Right-hand version shown
- For inserts program, see page(s) 571, 572, 607, 618
- For holder code key, see page(s) 21-22
- E = Solid carbide shank
- For ISO attribute explanation, see page 82

Designation	Item number	DMM	H	B	LF	WF	LH	DCINN	KAPR°	GAMO°	LAMS°	Weight	CTWS
		inch	inch	inch	inch	inch	inch	inch				lbs	
E06-STFCR-2	00093116	0.375	0.315	0.350	6.000	0.250	1.063	0.500	91,0	0,0	-15,0	0.440	TC..1102.. *TC..21.5.*
E08-STFCR-2	00093118	0.500	0.465	0.465	8.000	0.313	1.063	0.625	91,0	0,0	-9,0	0.880	TC..1102.. *TC..21.5.*

Spare Parts, included in delivery

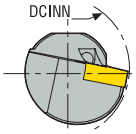
For size	Insert key	Insert screw
		
..-2	T07P-2	C02506-T07P

Accessories

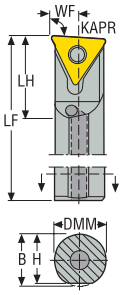
For size	Insert clamping torque	Replacement blade	Torque key
			
..-2	0.9NM	T00-07P	T00-07P09

STLDR/L, STFDR/L – Toolholders for inserts TDAB, TDCH – Metric

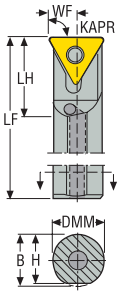




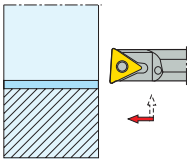
STLDR/L



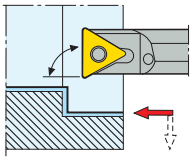
STFDR/L



STLDR/L
KAPR = 95,0 °



STFDR/L
KAPR = 91,0 °



CTWS



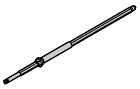
- Right-hand version shown
- For inserts program, see page(s) 573
- For holder code key, see page(s) 19-20
- For ISO attribute explanation, see page 82

Designation	Item number	DMM	H	B	LF	WF	LH	DCINN	KAPR°	GAMO°	LAMS°	Weight	CTWS
		mm	mm	mm	mm	mm	mm	mm				kg	
A05D-STLDR06	00054775	5,0	5	5	60	3,0	9,7	6,8	95,0	0,0	-12,0	0,1	TD..06T0.. *TD..1.21.5.*
A06E-STLDR06	00054777	6,0	6	6	70	3,5	10,2	7,2	95,0	0,0	-12,0	0,1	TD..06T0.. *TD..1.21.5.*
A08F-STLDR06	00054780	8,0	8	8	80	4,5	11,2	8,8	95,0	0,0	-8,0	0,1	TD..06T0.. *TD..1.21.5.*
A05D-STLDL06	00054768	5,0	5	5	60	3,0	9,7	6,8	95,0	0,0	-12,0	0,1	TD..06T0.. *TD..1.21.5.*
A06E-STLDL06	00054776	6,0	6	6	70	3,5	10,2	7,2	95,0	0,0	-12,0	0,1	TD..06T0.. *TD..1.21.5.*
A08F-STLDL06	00054778	8,0	8	8	80	4,5	11,2	8,8	95,0	0,0	-8,0	0,1	TD..06T0.. *TD..1.21.5.*
A05D-STFDR06	00054839	5,0	5	5	60	3,0	9,7	6,8	91,0	0,0	-12,0	0,1	TD..06T0.. *TD..1.21.5.*
A06E-STFDR06	00054841	6,0	6	6	70	3,5	10,2	7,2	91,0	0,0	-12,0	0,1	TD..06T0.. *TD..1.21.5.*
A08F-STFDR06	00054843	8,0	8	8	80	4,5	11,2	8,8	91,0	0,0	-8,0	0,1	TD..06T0.. *TD..1.21.5.*
A05D-STFDL06	00054810	5,0	5	5	60	3,0	9,7	6,8	91,0	0,0	-12,0	0,1	TD..06T0.. *TD..1.21.5.*
A06E-STFDL06	00054840	6,0	6	6	70	3,5	10,2	7,2	91,0	0,0	-12,0	0,1	TD..06T0.. *TD..1.21.5.*
A08F-STFDL06	00054842	8,0	8	8	80	4,5	11,2	8,8	91,0	0,0	-8,0	0,1	TD..06T0.. *TD..1.21.5.*

Spare Parts, included in delivery

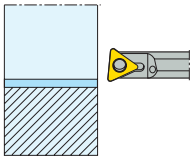
For size	Insert key	Insert screw
		
...06	T06P-2	C82204-T06P

Accessories

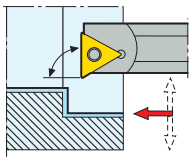
For size	Insert clamping torque	Replacement blade	Torque key
			
...06	0.5NM	T00-06P	T00-06P05

STLDR/L, STFDR/L – Toolholders for inserts TDAB, TDCH – Inch

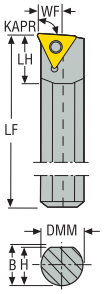
STLDR/L
KAPR = 95,0 °



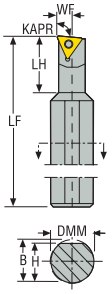
STFDR/L
KAPR = 90,0 °



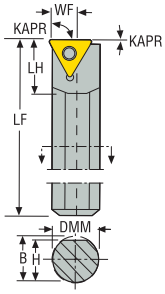
STLDR



XX408.STLDR



STFDR





CTWS



- Right-hand version shown
- For inserts program, see page(s) 573
- For holder code key, see page(s) 21-22
- Bar descriptions that begin with H denotes heavy metal construction.
- For ISO attribute explanation, see page 82

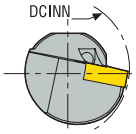
Designation	Item number	DMM	H	B	LF	WF	LH	DCINN	KAPR°	GAMO°	LAMS°	Weight	CTWS
		inch	inch	inch	inch	inch	inch	inch				lbs	
S04-STLDR-1.2	00057658	0.250	0.235	0.250	4.000	0.165	0.394	0.290	95,0	0,0	-12,0	0.220	TD..06T0.. *TD..1.21.5.*
S05-STLDR-1.2	00057659	0.312	0.295	0.295	4.000	0.194	–	0.350	95,0	0,0	-12,0	0.440	TD..06T0.. *TD..1.21.5.*
H04STLDR-1.2	00057661	0.250	0.235	0.250	4.000	0.165	0.394	0.290	95,0	0,0	-12,0	0.440	TD..06T0.. *TD..1.21.5.*
H05STLDR-1.2	00057662	0.312	0.295	0.313	6.000	0.194	0.394	0.350	95,0	0,0	-8,0	0.440	TD..06T0.. *TD..1.21.5.*
S0408-STLDR-1.2	00057664	0.500	0.480	0.480	3.250	0.175	1.250	0.300	95,0	0,0	-12,0	0.220	TD..06T0.. *TD..1.21.5.*
H0408STLDR-1.2	00057666	0.500	0.480	0.500	3.250	0.175	1.250	0.300	95,0	0,0	-12,0	0.440	TD..06T0.. *TD..1.21.5.*
S05-STFDR-1.2	00057667	0.313	0.295	0.295	4.000	0.194	–	0.350	90,0	0,0	-12,0	0.220	TD..1.21.5.

Spare Parts, included in delivery

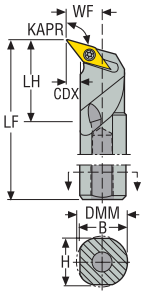
For size	Insert screw
	
..-1.2	CS120

SVQBR/L, SVUBR/L – Toolholders for inserts VBGT, VBGW, VBMT, VBMW, VCGT – Metric

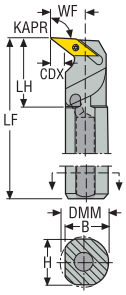




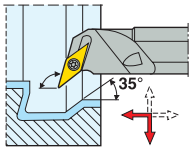
SVQBR/L



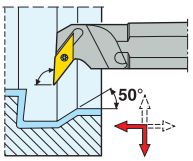
SVUBR/L



SVQBR/L
KAPR = 107,5 °



SVUBR/L
KAPR = 93,0 °



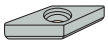
CTWS



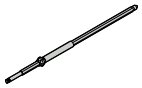
- Right-hand version shown
- For inserts program, see page(s) 582, 583, 583, 612, 619
- For holder code key, see page(s) 19-20
- For ISO attribute explanation, see page 82

Designation	Item number	DMM	H	B	LF	WF	LH	CDX	DCINN	KAPR°	GAMO°	LAMS°	Weight	CTWS
		mm	mm	mm	mm	mm	mm	mm	mm				kg	
A16R-SVQBR11	00093873	16,0	15	15	200	13,0	25,0	4,5	22,0	107,5	0,0	-7,0	0,3	VB..1102.. *VB..21.5.*
A20S-SVQBR11	00093875	20,0	18	19	250	15,0	25,0	4,5	27,0	107,5	0,0	-6,0	0,3	VB..1102.. *VB..21.5.*
A25T-SVQBR11	00093877	25,0	23	23	300	18,0	35,0	5,0	33,0	107,5	0,0	-4,0	1,0	VB..1102.. *VB..21.5.*
A16R-SVQBL11	00093874	16,0	15	15	200	13,0	25,0	4,5	22,0	107,5	0,0	-7,0	0,3	VB..1102.. *VB..21.5.*
A20S-SVQBL11	00093876	20,0	18	19	250	15,0	25,0	4,5	27,0	107,5	0,0	-6,0	0,5	VB..1102.. *VB..21.5.*
A25T-SVQBL11	00093878	25,0	23	23	300	18,0	35,0	5,0	33,0	107,5	0,0	-4,0	1,0	VB..1102.. *VB..21.5.*
A25S-SVQBR16	00030970	25,0	23	24	250	17,0	65,0	4,0	32,0	107,5	0,0	-8,0	0,8	VB..1604-VC..1604 *VB..33.-VC..33.*
A32T-SVQBR16	00030971	32,0	30	31	300	22,0	70,0	5,5	40,0	107,5	0,0	-8,0	1,6	VB..1604-VC..1604 *VB..33.-VC..33.*
A40U-SVQBR16	00030974	40,0	37	39	350	27,0	80,0	6,5	50,0	107,5	0,0	-8,0	2,9	VB..1604-VC..1604 *VB..33.-VC..33.*
A25S-SVQBL16	00030977	25,0	23	24	250	17,0	65,0	4,0	32,0	107,5	0,0	-8,0	0,8	VB..1604-VC..1604 *VB..33.-VC..33.*
A32T-SVQBL16	00030979	32,0	30	31	300	22,0	70,0	5,5	40,0	107,5	0,0	-8,0	1,5	VB..1604-VC..1604 *VB..33.-VC..33.*
A40U-SVQBL16	00030983	40,0	37	39	350	27,0	80,0	6,5	50,0	107,5	0,0	-8,0	2,9	VB..1604-VC..1604 *VB..33.-VC..33.*
A16R-SVUBR11	00093867	16,0	15	15	200	13,0	25,0	4,5	22,0	93,0	0,0	-7,0	0,3	VB..1102.. *VB..21.5.*
A20S-SVUBR11	00093869	20,0	18	19	250	15,0	25,0	4,5	27,0	93,0	0,0	-5,0	0,5	VB..1102.. *VB..21.5.*
A25T-SVUBR11	00093871	25,0	23	23	300	18,0	35,0	5,0	33,0	93,0	0,0	-3,0	1,0	VB..1102.. *VB..21.5.*
A16R-SVUBL11	00093868	16,0	15	15	200	13,0	25,0	4,5	22,0	93,0	0,0	-7,0	0,3	VB..1102.. *VB..21.5.*
A20S-SVUBL11	00093870	20,0	18	19	250	15,0	25,0	4,5	27,0	93,0	0,0	-5,0	0,5	VB..1102.. *VB..21.5.*
A25T-SVUBL11	00093872	25,0	23	23	300	18,0	35,0	5,0	33,0	93,0	0,0	-3,0	1,0	VB..1102.. *VB..21.5.*

Spare Parts, included in delivery

For size	Insert key	Insert screw	Insert shim	Shim screw
				
A16R-...11	T07P-2	C02506-T07P	–	–
A20S-...11	T07P-2	C02506-T07P	–	–
A25T-...11	T07P-2	C02506-T07P	–	–
A25S-...16	T15P-2	C03510-T15P	171.19-620	CA3507
A32T-...16	T15P-2	C03510-T15P	171.19-620	CA3507
A40U-...16	T15P-2	C03510-T15P	171.19-620	CA3507

Accessories

For size	Insert clamping torque	Replacement blade	Shim key	Torque key
				
A16R-...11	0.9NM	T00-07P	–	T00-07P09
A20S-...11	0.9NM	T00-07P	–	T00-07P09
A25T-...11	0.9NM	T00-07P	–	T00-07P09
A25S-...16	3.0NM	T00-15P	9/64SMS875	T00-15P30
A32T-...16	3.0NM	T00-15P	9/64SMS875	T00-15P30
A40U-...16	3.0NM	T00-15P	9/64SMS875	T00-15P30

SVQBR/L, SVUBR/L – Toolholders for inserts VBGT, VBMT – Inch

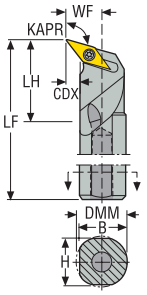


CTWS

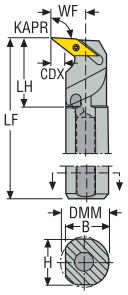


- Right-hand version shown
- For inserts program, see page(s) 582, 583
- For holder code key, see page(s) 21-22
- For ISO attribute explanation, see page 82

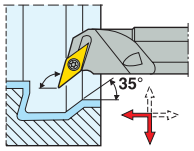
SVQBR/L



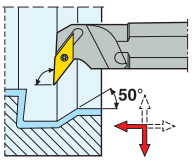
SVUBR/L



SVQBR
KAPR = 107,5 °



SVUBR/L
KAPR = 93,0 °



Designation	Item number	DMM	H	B	LF	WF	LH	CDX	DCINN	KAPR°	GAMO°	LAMS°	Weight	CTWS
		inch	inch	inch	inch	inch	inch	inch	inch				lbs	
A12-SVQBR-2	00002730	0.750	0.709	0.728	10.000	1.125	1.429	0.177	1.125	107,5	0,0	-5,0	1.320	VB..1102.. *VB..21.5.*
A10-SVUBR-2	00002696	0.625	0.532	0.602	10.000	0.840	1.240	0.177	0.840	93,0	0,0	-7,0	0.660	VB..1102.. *VB..21.5.*
A12-SVUBR-2	00002698	0.750	0.709	0.728	10.000	1.125	1.429	0.177	1.125	93,0	0,0	-5,0	1.100	VB..1102.. *VB..21.5.*
A16-SVUBR-2	00002725	1.000	0.866	0.933	12.000	1.500	1.921	0.177	1.500	93,0	0,0	-3,0	2.430	VB..1102.. *VB..21.5.*
A12-SVUBL-2	00002703	0.750	0.709	0.728	10.000	1.125	1.429	0.177	1.125	93,0	0,0	-5,0	1.320	VB..1102.. *VB..21.5.*

Spare Parts, included in delivery

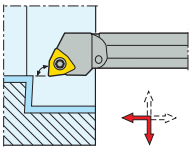
For size	Insert key	Insert screw
		
..-2	T07P-2	C02506-T07P

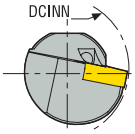
Accessories

For size	Insert clamping torque	Replacement blade	Torque key
			
..-2	0.9NM	T00-07P	T00-07P09

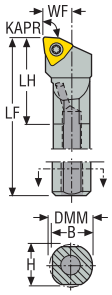
SWLCR/L – Toolholders for inserts WCMT – Metric

SWLCR/L
KAPR = 95,0 °





SWLCR/L





CTWS



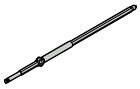
- Right-hand version shown
- For inserts program, see page(s) 585
- For holder code key, see page(s) 19-20
- For ISO attribute explanation, see page 82

Designation	Item number	DMM	H	B	LF	WF	LH	DCINN	KAPR°	GAMO°	LAMS°	Weight	CTWS
		mm	mm	mm	mm	mm	mm	mm				kg	
A16M-SWLCR06	75034418	16,0	15	16	150	11,0	21,0	20,0	95,0	0,0	-5,0	0,3	WC..06T3.. *WC..32.5.*
A20Q-SWLCR06	75055235	20,0	18	19	180	13,0	37,0	25,0	95,0	0,0	-5,0	0,4	WC..06T3.. *WC..32.5.*
A16M-SWLCL06	75034442	16,0	15	16	150	11,0	21,0	20,0	95,0	0,0	-5,0	0,3	WC..06T3.. *WC..32.5.*
A20Q-SWLCL06	75055236	20,0	18	19	180	13,0	37,0	25,0	95,0	0,0	-5,0	0,4	WC..06T3.. *WC..32.5.*

Spare Parts, included in delivery

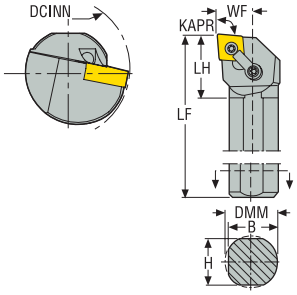
For size	Insert key	Insert screw
		
A16M-...06	T15P-2	C03508-T15P
A20Q-...06	T15P-2	C03508-T15P

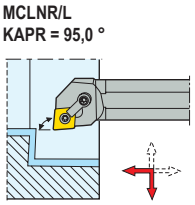
Accessories

For size	Insert clamping torque	Replacement blade	Torque key
			
A16M-...06	3.0NM	T00-15P	T00-15P30
A20Q-...06	3.0NM	T00-15P	T00-15P30

MCLNR/L – Toolholders for inserts CNGA, CNGG, CNMA, CNMG, CNMM, CNMN – Metric







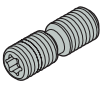
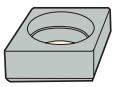
CTWS



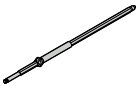
- Right-hand version shown
- For inserts program, see page(s) 546, 547, 548, 549, 550, 551, 593, 594
- For holder code key, see page(s) 19-20
- For ISO attribute explanation, see page 82

Designation	Item number	DMM	H	B	LF	WF	LH	DCINN	KAPR°	GAMO°	LAMS°	Weight	CTWS
		mm	mm	mm	mm	mm	mm	mm				kg	
S25S-MCLNR12	75002242	25,0	23	24	250	17,0	40,0	32,0	95,0	-5,0	-14,0	0,9	CN..1204.. *CN..43.*
S32T-MCLNR12	75002244	32,0	30	31	300	22,0	50,0	40,0	95,0	-5,0	-14,0	1,8	CN..1204.. *CN..43.*
S40U-MCLNR12	75071545	40,0	37	39	350	27,0	50,0	50,0	95,0	-5,0	-14,0	3,3	CN..1204.. *CN..43.*
S25S-MCLNL12	75002243	25,0	23	24	250	17,0	40,0	32,0	95,0	-5,0	-14,0	0,9	CN..1204.. *CN..43.*
S32T-MCLNL12	75002245	32,0	30	31	300	22,0	50,0	40,0	95,0	-5,0	-14,0	1,8	CN..1204.. *CN..43.*
S40U-MCLNL12	75002247	40,0	37	39	350	27,0	50,0	50,0	95,0	-5,0	-14,0	3,3	CN..1204.. *CN..43.*
S50V-MCLNR16	00018830	50,0	47	49	400	35,0	70,0	63,0	95,0	-5,0	-14,0	5,9	CN..1606.. *CN..54.*
S50V-MCLNL16	00018816	50,0	47	49	400	35,0	70,0	63,0	95,0	-5,0	-14,0	5,9	CN..1606.. *CN..54.*
S50V-MCLNR19	00018833	50,0	47	49	400	35,0	70,0	63,0	95,0	-5,0	-14,0	5,9	CN..1906.. *CN..64.*
S50V-MCLNL19	00018820	50,0	47	49	400	35,0	70,0	63,0	95,0	-5,0	-14,0	5,8	CN..1906.. *CN..64.*

Spare Parts, included in delivery

For size	Cantilever clamp	Clamp screw	Insert/Clamp key	Insert pin	Insert shim	Shim/clamp key	Shim pin
							
S25S-...12	MC20	LD6020-T15P	T15P-2	MN1215S-T15P	–	–	–
S32T-...12	MC20	LD6020-T15P	–	–	CSN120412	T15P-2	MN1215R-T15P
S40U-...12	MC20	LD6020-T15P	–	–	CSN120412	T15P-2	MN1215R-T15P
-...16	MC12	LD8030-T25P	–	–	CSN160412	T25P-7	MN1515-T15P
-...19	MC12	LD8030-T25P	–	–	CSN190412	T25P-7	MN1925-T25P

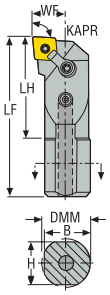
Accessories

For size	Insert clamping torque	Plug	Replacement blade	Shim key	Shim screw	Torque key
						
S25S-...12	3.0NM	P3	T00-15P	–	–	T00-15P30
S32T-...12	3.0NM	P3	T00-15P	–	CS6313-T15P	T00-15P30
S40U-...12	3.0NM	P3	T00-15P	–	CS6313-T15P	T00-15P30
-...16	6.0NM	P4	T00T-25P	T15P-2	CS8016-T15P	T00T-25P60
-...19	6.0NM	P4	T00T-25P	–	–	T00T-25P60

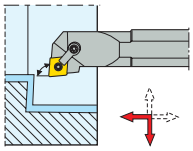
MCLNR/L – Toolholders for inserts CNGA, CNGP, CNMA, CNMG, CNMM, CNMN, CNMP – Inch



MCLNR/L



MCLNR/L
KAPR = 95,0 °



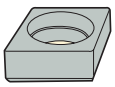
CTWS



- Right-hand version shown
- For inserts program, see page(s) 546, 547, 548, 549, 550, 551, 593, 594
- For holder code key, see page(s) 21-22
- For ISO attribute explanation, see page 82

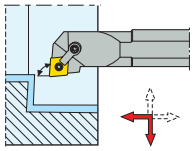
Designation	Item number	DMM	H	B	LF	WF	LH	DCINN	KAPR°	GAMO°	LAMS°	Weight	CTWS
		inch	inch	inch	inch	inch	inch	inch				lbs	
A16-MCLNR-4	00012116	1.000	0.921	0.961	12.000	0.640	1.260	1.280	95,0	-5,0	-14,0	2.430	CN..1204.. *CN..43.*
A20-MCLNR-4	00041050	1.250	1.171	1.211	14.000	0.765	2.134	1.530	95,0	-5,0	-14,0	4.410	CN..1204.. *CN..43.*
A24-MCLNR-4	00041052	1.500	0.902	1.461	14.000	0.890	2.224	1.780	95,0	-5,0	-12,0	6.170	CN..1204.. *CN..43.*
A32-MCLNR-4	00002683	2.000	1.882	1.941	16.000	1.281	2.413	2.559	95,0	-5,0	-12,0	13.450	CN..1204.. *CN..43.*
A16-MCLNL-4	00012112	1.000	0.921	0.961	12.000	0.640	1.496	1.280	95,0	-5,0	-14,0	2.200	CN..1204.. *CN..43.*
A20-MCLNL-4	00041051	1.250	1.171	1.211	14.000	0.765	2.134	1.530	95,0	-5,0	-14,0	4.410	CN..1204.. *CN..43.*
A24-MCLNL-4	00041053	1.500	0.902	1.461	14.000	0.890	2.224	1.780	95,0	-5,0	-12,0	6.390	CN..1204.. *CN..43.*
A32-MCLNL-4	00002684	2.000	1.882	1.941	16.000	1.281	2.413	2.559	95,0	-5,0	-12,0	13.230	CN..1204.. *CN..43.*
A32-MCLNR-5	00012118	2.000	1.882	1.941	16.000	1.281	2.413	2.559	95,0	-5,0	-12,0	13.450	CN..1606.. *CN..54.*
A32-MCLNL-5	00012114	2.000	1.882	1.941	16.000	1.281	2.413	2.559	95,0	-5,0	-12,0	13.230	CN..1606.. *CN..54.*

Spare Parts, included in delivery

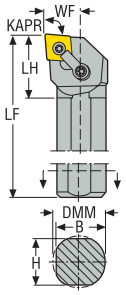
For size	Cantilever clamp	Clamp screw	Coolant port	Insert pin	Insert shim
					
16/ 20-4	CL-20	XNS-47	CP-0800	NL-44	–
24/ 32-4	CL-20	XNS-47	CP-0800	NL-46	CSN120408
32-5	CL-12	XNS-510	CP-0800	NL-58	CSN160412

MCLNR/L – Toolholders for inserts CNGA, CNGP, CNMA, CNMG, CNMM, CNMN, CNMP – Inch

MCLNR/L
KAPR = 95,0 °



MCLNR/L





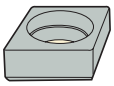
CTWS



- Right-hand version shown
- For inserts program, see page(s) 546, 547, 548, 549, 550, 551, 593, 594
- For holder code key, see page(s) 21-22
- For ISO attribute explanation, see page 82

Designation	Item number	DMM	H	B	LF	WF	LH	DCINN	KAPR°	GAMO°	LAMS°	Weight	CTWS
		inch	inch	inch	inch	inch	inch	inch				lbs	
S12-MCLNR-3	00043201	0.750	0.709	0.728	10.000	0.500	1.750	1.000	95,0	-5,0	-14,0	1.320	CN..0903.. *CN..32.*
S12-MCLNL-3	00043196	0.750	0.709	0.728	10.000	0.500	1.750	1.000	95,0	-5,0	-14,0	1.320	CN..0903.. *CN..32.*
S16-MCLNR-4	00043203	1.000	0.807	0.866	12.000	0.640	0.965	1.280	95,0	-5,0	-14,0	2.430	CN..1204.. *CN..43.*
S20-MCLNR-4	00043204	1.250	1.122	1.142	14.000	0.765	1.168	1.520	95,0	-5,0	-14,0	5.070	CN..1204.. *CN..43.*
S24-MCLNR-4	00043205	1.500	1.299	1.338	14.000	0.890	1.203	1.780	95,0	-5,0	-14,0	6.610	CN..1204.. *CN..43.*
S16-MCLNL-4	00043198	1.000	0.807	0.866	12.000	0.640	0.965	1.280	95,0	-5,0	-14,0	2.650	CN..1204.. *CN..43.*

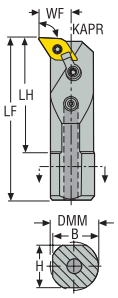
Spare Parts, included in delivery

For size	Cantilever clamp	Clamp screw	Insert pin	Insert shim
				
..-3	CL-7	XNS-35	NL-33	–
16-..R-4	CLM-20	XNS-47	NL-44	–
20-..R-4	CL-20	XNS-47	NL-44	–
24-..R-4	CL-20	XNS-47	NL-46	CSN120408
16-..L-4	CL-20	XNS-47	NL-44	–

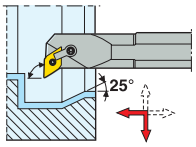
MDUNR/L – Toolholders for inserts DNGA, DNGM, DNGP, DNMA, DNMG, DNMM, DNMP – Inch



MDUNR/L



MDUNR/L
KAPR = 93,0 °



CTWS



- Right-hand version shown
- For inserts program, see page(s) 556, 557, 558, 559, 597, 598
- For holder code key, see page(s) 21-22
- * Use the right shim & the right screw for the selected insert. For details, see page 99
- For ISO attribute explanation, see page 82

Designation	Item number	DMM	H	B	LF	WF	LH	DCINN	KAPR°	GAMO°	LAMS°	Weight	CTWS
		inch	inch	inch	inch	inch	inch	inch				lbs	
A24-MDUNR-4	00041064	1.500	1.339	1.419	14.000	1.125	2.141	2.250	93,0	-5,0	-10,0	6.610	DN..1504.. *DN..43.*
A32-MDUNR-4	00043209	2.000	1.880	1.940	16.000	1.375	2.756	3.000	93,0	-5,0	-10,0	13.230	DN..1504.. *DN..43.*
A24-MDUNL-4	00041065	1.500	1.339	1.419	14.000	1.125	2.141	2.250	93,0	-5,0	-10,0	6.390	DN..1504.. *DN..43.*

Spare Parts, included in delivery

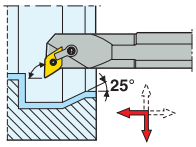
For size	Cantilever clamp	Clamp screw	Coolant port	Insert pin	Insert shim
					
24..-4	CL-12	XNS-59	CP-0800	NL-46	DSN150412
32..-4	CL-12	XNS-59	CP-0800	NL-46	DSN423

Accessories

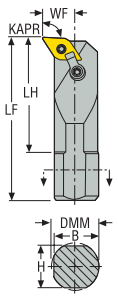
For size	Insert shim
	
24..-4	DSN423
32..-4	DSN150412

MDUNR/L – Toolholders for inserts DNGA, DNGM, DNGP, DNMA, DNMG, DNMM, DNMP, DNMU – Inch

MDUNR/L
KAPR = 93,0 °



MDUNR/L





CTWS



- Right-hand version shown
- For inserts program, see page(s) 556, 557, 558, 559, 597, 598
- For holder code key, see page(s) 21-22
- For ISO attribute explanation, see page 82

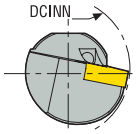
Designation	Item number	DMM	H	B	LF	WF	LH	DCINN	KAPR°	GAMO°	LAMS°	Weight	CTWS
		inch	inch	inch	inch	inch	inch	inch				lbs	
S16-MDUNR-3	75056416	1.000	0.846	0.866	12.000	0.750	0.906	1.300	93,0	-5,0	-14,0	2.650	DNMU1104.. *DNMU33.*
S12-MDUNL-3	75056415	0.750	0.689	0.708	10.000	0.562	0.800	0.980	93,0	-5,0	-14,0	1.320	DNMU1104.. *DNMU33.*

Spare Parts, included in delivery

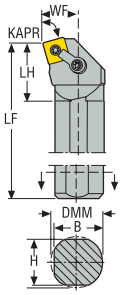
For size	Cantilever clamp	Clamp screw	Insert pin	Insert shim
				
16-..R-3	CL-20	XNS-46	NL-34L	DAE110312
12-..L-3	CL-6	XNS-36	NL-34L	DAE110312

MSKNR/L – Toolholders for inserts SNGA, SNGN, SNMA, SNMG, SNMM – Metric

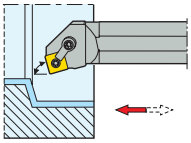




MSKNR/L



MSKNR/L
KAPR = 75,0 °



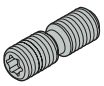
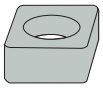
CTWS



- Right-hand version shown
- For inserts program, see page(s) 567, 568, 569, 570, 603, 604
- For holder code key, see page(s) 19-20
- For ISO attribute explanation, see page 82

Designation	Item number	DMM	H	B	LF	WF	LH	DCINN	KAPR°	GAMO°	LAMS°	Weight	CTWS
		mm	mm	mm	mm	mm	mm	mm				kg	
S32T-MSKNR12	75002262	32,0	30	31	300	22,0	50,0	40,0	75,0	-5,0	-13,0	1,8	SN..1204.. *SN..43.*
S40U-MSKNR12	75002264	40,0	37	39	350	27,0	60,0	50,0	75,0	-5,0	-12,0	3,3	SN..1204.. *SN..43.*
S32T-MSKNL12	75002263	32,0	30	31	300	22,0	50,0	40,0	75,0	-5,0	-13,0	1,8	SN..1204.. *SN..43.*
S40U-MSKNL12	75002265	40,0	37	39	350	27,0	60,0	50,0	75,0	-5,0	-12,0	3,3	SN..1204.. *SN..43.*
S50V-MSKNR15	00018835	50,0	47	49	400	35,0	55,0	63,0	75,0	-5,0	-12,0	5,9	SN..1506.. *SN..54.*
S50V-MSKNL15	00018834	50,0	47	49	400	35,0	55,0	63,0	75,0	-5,0	-12,0	5,9	SN..1506.. *SN..54.*

Spare Parts, included in delivery

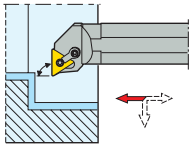
For size	Cantilever clamp	Clamp key	Clamp screw	Insert shim	Shim/clamp key	Shim pin
						
...12	MC20	–	LD6020-T15P	SSN120412	T15P-2	MN1215R-T15P
...15	MC12	T25P-7	LD8025-T25P	SSN150412	–	MN1515-T15P

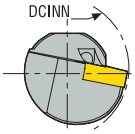
Accessories

For size	Insert clamping torque	Plug	Replacement blade	Shim key	Shim screw	Torque key
						
...12	3.0NM	P3	T00-15P	–	CS6313-T15P	T00-15P30
...15	6.0NM	P4	T00T-25P	T15P-2	CS8016-T15P	T00T-25P60

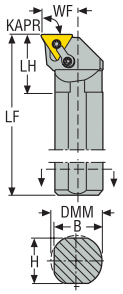
MTFNR/L – Toolholders for inserts TNGA, TNMA, TNMG, TNMM – Metric

MTFNR/L
KAPR = 91,0 °





MTFNR/L





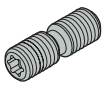
CTWS



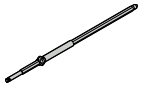
- Right-hand version shown
- For inserts program, see page(s) 574, 575, 576, 577, 608
- For holder code key, see page(s) 19-20
- Shim TSN160412 for insert TN..1603.., to be ordered separately
- For ISO attribute explanation, see page 82

Designation	Item number	DMM	H	B	LF	WF	LH	DCINN	KAPR°	GAMO°	LAMS°	Weight	CTWS
		mm	mm	mm	mm	mm	mm	mm				kg	
S32T-MTFNR16	75002272	32,0	30	31	300	22,0	50,0	40,0	91,0	-5,0	-14,0	1,8	TN..1604.. *TN..33.*
S32T-MTFNL16	75002273	32,0	30	31	300	22,0	50,0	40,0	91,0	-5,0	-14,0	1,8	TN..1604.. *TN..33.*

Spare Parts, included in delivery

For size	Cantilever clamp	Clamp screw	Insert shim	Shim/clamp key	Shim pin
					
...16	MC06	LD5020-T09P	TSN160312	T09P-2	MN0909L-T09P

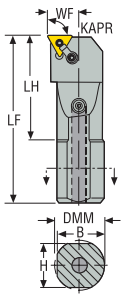
Accessories

For size	Insert clamping torque	Replacement blade	Shim screw	Torque key
				
...16	2.0NM	T00-09P	CS5008-T09P	T00-09P20

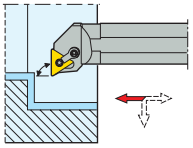
MTFNR/L – Toolholders for inserts TNGA, TNGN, TNMA, TNMG, TNMM, TNMN, TNMP – Inch



MTFNR/L



MTFNR/L
KAPR = 91,0 °



CTWS



- Right-hand version shown
- For inserts program, see page(s) 574, 575, 576, 577, 608, 610
- For holder code key, see page(s) 21-22
- For ISO attribute explanation, see page 82

Designation	Item number	DMM	H	B	LF	WF	LH	DCINN	KAPR°	GAMO°	LAMS°	Weight	CTWS
		inch	inch	inch	inch	inch	inch	inch				lbs	
A16-MTFNR-3	00041090	1.000	0.866	0.933	12.000	0.640	1.924	1.280	91,0	-5,0	-12,0	2.200	TN..1604.. *TN..33.*
A20-MTFNR-3	00041092	1.250	0.472	0.571	14.000	0.765	1.902	1.530	91,0	-5,0	-12,0	4.850	TN..1604.. *TN..33.*
A24-MTFNR-4	00041094	1.500	1.339	1.419	14.000	1.031	1.969	2.559	91,0	-5,0	-10,0	6.170	TN..2204.. *TN..43.*
A32-MTFNR-4	00041098	2.000	1.880	1.940	16.000	1.292	2.203	2.559	91,0	-5,0	-8,0	13.010	TN..2204.. *TN..43.*

Spare Parts, included in delivery

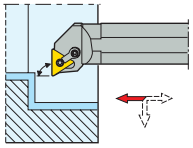
For size	Cantilever clamp	Clamp screw	Coolant port	Insert pin	Insert shim
					
..-3	CL-7	XNS-35	CP-0800	NL-33L	–
..-4	CL-9	XNS-59	CP-0800	NL-46	TSN220412

Accessories

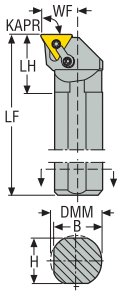
For size	Insert shim
	
..-3	–
..-4	TSNS220316

MTFNR/L – Toolholders for inserts TNGA, TNGN, TNMA, TNMG, TNMM, TNMN, TNMP – Inch

MTFNR/L
KAPR = 91,0 °



MTFNR/L





CTWS



- Right-hand version shown
- For inserts program, see page(s) 574, 575, 576, 577, 608, 609, 610
- For holder code key, see page(s) 21-22
- For ISO attribute explanation, see page 82

Designation	Item number	DMM	H	B	LF	WF	LH	DCINN	KAPR°	GAMO°	LAMS°	Weight	CTWS
		inch	inch	inch	inch	inch	inch	inch				lbs	
S12-MTFNR-3	00043212	0.750	0.650	0.707	10.000	0.500	1.750	1.000	91,0	-5,0	-14,0	1.320	TN..1604.. *TN..33.*
S16-MTFNR-3	00043214	1.000	0.846	0.866	12.000	0.640	0.906	1.280	91,0	-5,0	-13,0	2.650	TN..1604.. *TN..33.*

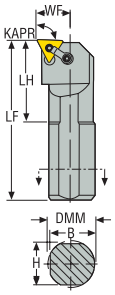
Spare Parts, included in delivery

For size	Cantilever clamp	Clamp screw	Insert pin
			
..-3	CL-7	XNS-35	NL-33L

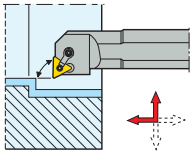
MTUNR/L – Toolholders for inserts TNGA, TNGN, TNMA, TNMG, TNMM, TNMN, TNMX – Inch



MTUNR/L



MTUNR/L
KAPR = 93,0 °



CTWS



- Right-hand version shown
- For inserts program, see page(s) 574, 575, 576, 577, 608, 609, 610
- For holder code key, see page(s) 21-22
- For ISO attribute explanation, see page 82

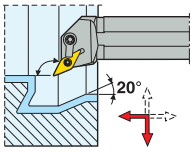
Designation	Item number	DMM	H	B	LF	WF	LH	DCINN	KAPR°	GAMO°	LAMS°	Weight	CTWS
		inch	inch	inch	inch	inch	inch	inch				lbs	
S20-MTUNR-3	00043220	1.250	1.142	1.205	14.016	0.765	2.122	1.530	93,0	-5,0	-11,0	5.070	TN..1603.. *TN..32.*

Spare Parts, included in delivery

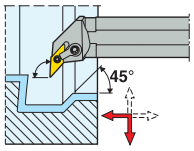
For size	Cantilever clamp	Clamp screw	Insert pin	Insert shim
				
..-3	CL-7	XNS-35	NL-34	TSN160312

MVPNR/L, MVLNR/L – Toolholders for inserts VNGA, VNGG, VNGM, VNMA, VNMG – Metric

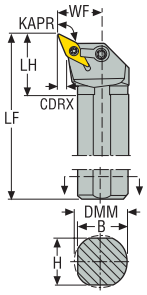
MVPNR/L
KAPR = 117,5 °



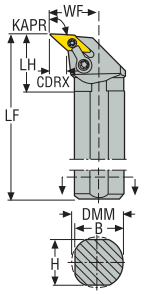
MVLNR/L
KAPR = 95,0 °



MVPNR/L



MVLNR/L





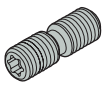
CTWS



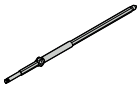
- Right-hand version shown
- For inserts program, see page(s) 584, 585, 613
- For holder code key, see page(s) 19-20
- For ISO attribute explanation, see page 82

Designation	Item number	DMM	H	B	LF	WF	LH	CDRX	DCINN	KAPR°	GAMO°	LAMS°	Weight	CTWS
		mm	mm	mm	mm	mm	mm	mm	mm				kg	
S32T-MVPNR16	75002282	32,0	30	31	300	27,0	50,0	10,0	46,0	117,5	-5,0	-12,0	1,8	VN..1604.. *VN..33.*
S32T-MVPNL16	75002283	32,0	30	31	300	27,0	50,0	10,0	46,0	117,5	-5,0	-12,0	1,8	VN..1604.. *VN..33.*
S32T-MVLNR16	75002280	32,0	30	31	300	30,0	50,0	13,0	48,0	95,0	-5,0	-12,0	1,8	VN..1604.. *VN..33.*
S32T-MVLNL16	75002281	32,0	30	31	300	30,0	50,0	13,0	48,0	95,0	-5,0	-12,0	1,8	VN..1604.. *VN..33.*

Spare Parts, included in delivery

For size	Cantilever clamp	Clamp screw	Insert shim	Shim/clamp key	Shim pin
					
...16	MC20	LD6021-T09P	VSN160316	T09P-2	MN0909L-T09P

Accessories

For size	Insert clamping torque	Replacement blade	Torque key
			
...16	2.0NM	T00-09P	T00-09P20

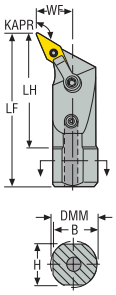
MVPNR/L, MVLNR/L – Toolholders for inserts VNGA, VNGM, VNGP, VNMA, VNMG, VNMN, VNMP – Inch



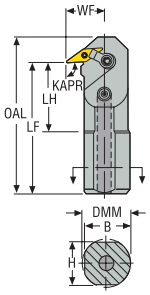
CTWS



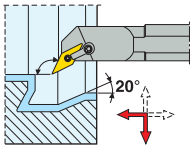
MVPNR/L



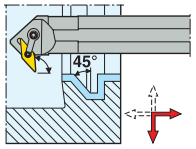
MVLNR/L



MVPNR/L
KAPR = 117,5 °



MVLNR/L
KAPR = 95,0 °



- Right-hand version shown
- For inserts program, see page(s) 584, 585, 613
- For holder code key, see page(s) 21-22
- For ISO attribute explanation, see page 82

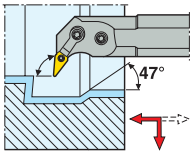
Designation	Item number	DMM	H	B	LF	OAL	WF	LH	DCINN	KAPR°	GAMO°	LAMS°	Weight	CTWS
		inch	inch	inch	inch	inch	inch	inch	inch				lbs	
A20-MVPNR-3	00041126	1.250	1.142	1.196	14.000	–	0.875	3.000	1.750	117,5	-5,0	-12,0	4.410	VN..1604.. *VN..33.*
A32-MVPNR-3	00041128	2.000	1.880	1.940	16.000	–	1.250	3.356	2.500	117,5	-5,0	-12,0	12.790	VN..1604.. *VN..33.*
A20-MVPNL-3	00041127	1.250	1.142	1.196	14.000	–	0.875	3.000	1.750	117,5	-5,0	-12,0	4.410	VN..1604.. *VN..33.*
A32-MVPNL-3	00041129	2.000	1.880	1.940	16.000	–	1.250	3.356	2.500	117,5	-5,0	-12,0	12.570	VN..1604.. *VN..33.*
A24-MVLNR-3	00041118	1.500	1.339	1.419	14.000	14.795	1.125	2.620	2.248	95,0	-5,0	-12,0	6.830	VN..1604.. *VN..33.*
A24-MVLNL-3	00041119	1.500	1.339	1.419	14.000	14.795	1.125	2.620	2.248	95,0	-5,0	-12,0	5.950	VN..1604.. *VN..33.*

Spare Parts, included in delivery

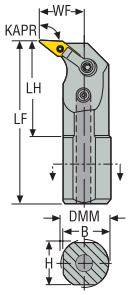
For size	Cantilever clamp	Clamp screw	Coolant port	Insert pin	Insert shim
					
MVPNR/L	CL-30	XNS-58	CP-0800	NL-34L	VSN160316
MVLNR/L	CL-20	XNS-47	CP-0800	NL-34L	VSN160316

MVUNR/L – Toolholders for inserts VNGA, VNGM, VNGP, VNMA, VNMG, VNMN, VNMP – Inch

MVUNR/L
KAPR = 93,0 °



MVUNR/L





CTWS



- Right-hand version shown
- For inserts program, see page(s) 584, 585, 613
- For holder code key, see page(s) 21-22
- For ISO attribute explanation, see page 82

Designation	Item number	DMM	H	B	LF	WF	LH	DCINN	KAPR°	GAMO°	LAMS°	Weight	CTWS
		inch	inch	inch	inch	inch	inch	inch				lbs	
A20-MVUNR-3	00041106	1.250	1.142	1.196	14.000	1.125	1.969	2.250	93,0	-5,0	-12,0	4.410	VN..1604.. *VN..33.*
A24-MVUNR-3	00041108	1.500	1.339	1.419	14.000	1.250	1.969	2.062	93,0	-5,0	-12,0	6.390	VN..1604.. *VN..33.*
A32-MVUNR-4	00041112	2.000	1.880	1.940	16.000	1.625	1.969	3.250	93,0	-5,0	-12,0	13.450	VN..2204.. *VN..43.*

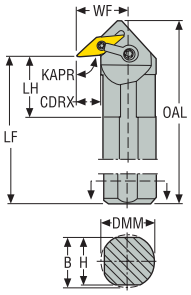
Spare Parts, included in delivery

For size	Cantilever clamp	Clamp screw	Coolant port	Insert pin	Insert shim
					
..-3	CL-30	XNS-510	CP-0800	NL-34L	VSN160316
..-4	CL-30	XNS-510	CP-0800	NL-46	VSN220412

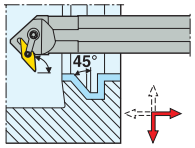
MVYNR/L – Toolholders for inserts VNGA, VNGG, VNGM, VNMA, VNMG – Metric



MVYNR/L



MVYNR/L
KAPR = 95,0 °



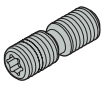
CTWS



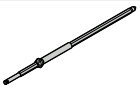
- Right-hand version shown
- For inserts program, see page(s) 584, 585, 613
- For holder code key, see page(s) 19-20
- For ISO attribute explanation, see page 82

Designation	Item number	DMM	H	B	OAL	LF	WF	LH	CDRX	DCINN	KAPR°	GAMO°	LAMS°	Weight	CTWS
		mm	mm	mm	mm	mm	mm	mm	mm	mm				kg	
S32T-MVYNR16	75002284	32,0	30	31	320	301	29,88	50,0	13,0	48,0	95,0	-5,0	-12,0	2,0	VN..1604.. *VN..33.*
S32T-MVYNL16	75002285	32,0	30	31	320	300	30,0	50,0	13,0	48,0	95,0	-5,0	-12,0	2,0	VN..1604.. *VN..33.*

Spare Parts, included in delivery

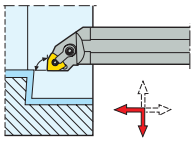
For size	Cantilever clamp	Clamp screw	Insert shim	Shim/clamp key	Shim pin
					
...16	MC20	LD6021-T09P	VSN160316	T09P-2	MN0909L-T09P

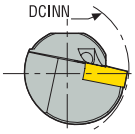
Accessories

For size	Insert clamping torque	Replacement blade	Torque key
			
...16	2.0NM	T00-09P	T00-09P20

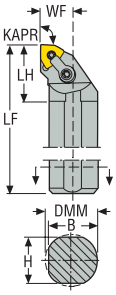
MWLNR/L – Toolholders for inserts WNGA, WNGG, WNMA, WNMG, WNMM – Metric

MWLNR/L
KAPR = 95,0 °





MWLNR/L





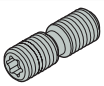
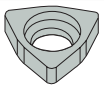
CTWS



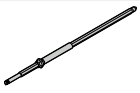
- Right-hand version shown
- For inserts program, see page(s) 586, 587, 588, 589, 614
- For holder code key, see page(s) 19-20
- * Use the right shim & the right screw for the selected insert. For details, see page 100
- For ISO attribute explanation, see page 82

Designation	Item number	DMM	H	B	LF	WF	LH	DCINN	KAPR°	GAMO°	LAMS°	Weight	CTWS
		mm	mm	mm	mm	mm	mm	mm				kg	
S25S-MWLNR08	75002963	25,0	23	24	250	17,0	40,0	32,0	95,0	-5,0	-11,0	0,9	WN..0804.. *WN..43.*
S32T-MWLNR08	75002965	32,0	30	31	300	22,0	50,0	40,0	95,0	-5,0	-14,0	1,8	WN..0804.. *WN..43.*
S40U-MWLNR08	75002967	40,0	37	39	350	27,0	50,0	50,0	95,0	-5,0	-12,0	3,2	WN..0804.. *WN..43.*
S25S-MWLNL08	75002964	25,0	23	24	250	17,0	40,0	32,0	95,0	-5,0	-11,0	0,9	WN..0804.. *WN..43.*
S32T-MWLNL08	75002966	32,0	30	31	300	22,0	50,0	40,0	95,0	-5,0	-14,0	1,8	WN..0804.. *WN..43.*
S40U-MWLNL08	75002968	40,0	37	39	350	27,0	50,0	50,0	95,0	-5,0	-12,0	3,2	WN..0804.. *WN..43.*

Spare Parts, included in delivery

For size	Cantilever clamp	Clamp screw	Insert/Clamp key	Insert pin	Insert shim	Shim/clamp key	Shim pin
							
S25S-...08	MC20	LD6020-T15P	T15P-2	MN1215S-T15P	–	–	–
S32T-...08	MC21	LD6025-T15P	–	–	MWN080412	T15P-2	MN1215T-T15P
S40U-...08	MC21	LD6025-T15P	–	–	MWN080412	T15P-2	MN1215T-T15P

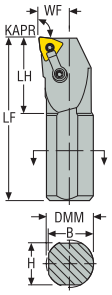
Accessories

For size	Insert clamping torque	Plug	Replacement blade	Torque key
				
S25S-...08	3.0NM	P3	T00-15P	T00-15P30
S32T-...08	3.0NM	P3	T00-15P	T00-15P30
S40U-...08	3.0NM	P3	T00-15P	T00-15P30

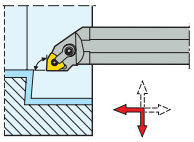
MWLNR/L – Toolholders for inserts WNGA, WNGP, WNMA, WNMG, WNMM, WNMP – Inch



MWLNR/L



MWLNR/L
KAPR = 95,0 °



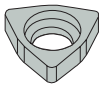
CTWS



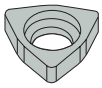
- Right-hand version shown
- For inserts program, see page(s) 586, 587, 588, 589, 614
- For holder code key, see page(s) 21-22
- * Use the right shim & the right screw for the selected insert. For details, see page 100
- For ISO attribute explanation, see page 82

Designation	Item number	DMM	H	B	LF	WF	LH	DCINN	KAPR°	GAMO°	LAMS°	Weight	CTWS
		inch	inch	inch	inch	inch	inch	inch				lbs	
A32-MWLNR-4	00014792	2.000	1.882	1.941	16.000	1.281	2.230	2.559	95,0	-5,0	-12,0	13.450	WN..0804.. *WN..43.*
A32-MWLNL-4	00014793	2.000	1.882	1.941	16.000	1.281	2.230	2.559	95,0	-5,0	-12,0	13.450	WN..0804.. *WN..43.*

Spare Parts, included in delivery

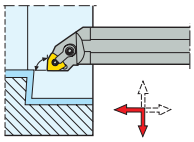
For size	Cantilever clamp	Clamp screw	Coolant port	Insert pin	Insert shim
					
..-4	CL-20	XNS-47	CP-0800	NL-46	MWN080412

Accessories

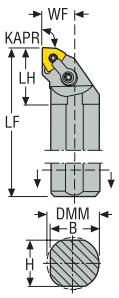
For size	Insert pin	Insert shim
		
..-4	NL-46L	IWSN-423

MWLNR/L – Toolholders for inserts WNGA, WNGP, WNMA, WNMG, WNMM, WNMP – Inch

MWLNR/L
KAPR = 95,0 °



MWLNR/L





CTWS



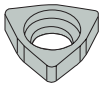
- Right-hand version shown
- For inserts program, see page(s) 586, 587, 588, 589, 614
- For holder code key, see page(s) 21-22
- * Use the right shim & the right screw for the selected insert. For details, see page 100
- For ISO attribute explanation, see page 82

Designation	Item number	DMM	H	B	LF	WF	LH	DCINN	KAPR°	GAMO°	LAMS°	Weight	CTWS
		inch	inch	inch	inch	inch	inch	inch				lbs	
S12-MWLNR-3	75051589	0.750	0.709	0.728	10.000	0.500	1.752	0.930	95,0	-5,0	-14,0	1.320	WN..0604.. *WN..33.*
S16-MWLNR-3	75051590	1.000	0.846	0.866	12.000	0.640	0.906	1.200	95,0	-5,0	-14,0	2.650	WN..0604.. *WN..33.*
S20-MWLNR-3	75051591	1.250	1.122	1.142	14.000	0.765	1.173	1.470	95,0	-5,0	-14,0	5.070	WN..0604.. *WN..33.*
S12-MWLNL-3	75051592	0.750	0.709	0.728	10.000	0.500	1.752	0.930	95,0	-5,0	-14,0	1.320	WN..0604.. *WN..33.*
S16-MWLNL-3	75051593	1.000	0.846	0.866	12.000	0.640	0.906	1.200	95,0	-5,0	-14,0	2.650	WN..0604.. *WN..33.*
S20-MWLNL-3	75051595	1.250	1.122	1.142	14.000	0.765	1.173	1.470	95,0	-5,0	-14,0	5.070	WN..0604.. *WN..33.*
S16-MWLNR-4	00043225	1.000	0.846	0.866	12.000	0.640	0.901	1.280	95,0	-5,0	-14,0	2.650	WN..0804.. *WN..43.*
S20-MWLNR-4	00043226	1.250	1.122	1.142	14.000	0.765	1.173	1.470	95,0	-5,0	-14,0	5.070	WN..0804.. *WN..43.*
S24-MWLNR-4	00043227	1.500	1.319	1.339	14.000	0.890	1.188	1.780	95,0	-5,0	-13,0	6.390	WN..0804.. *WN..43.*
S16-MWLNL-4	00043222	1.000	0.846	0.866	12.000	0.640	0.901	1.280	95,0	-5,0	-14,0	2.650	WN..0804.. *WN..43.*
S20-MWLNL-4	00043223	1.250	1.122	1.142	14.000	0.765	1.173	1.470	95,0	-5,0	-14,0	5.070	WN..0804.. *WN..43.*
S24-MWLNL-4	00043224	1.500	1.319	1.339	14.000	0.890	1.188	1.780	95,0	-5,0	-13,0	6.830	WN..0804.. *WN..43.*

Spare Parts, included in delivery

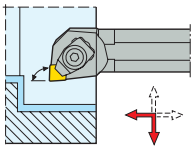
For size	Cantilever clamp	Clamp screw	Insert pin	Insert shim
				
12/ 16-3	CL-6	XNS-36	NL-33L	–
20-3	CL-6	XNS-36	NL-34L	WSN060312
16-4	XNS-47	CL-20	NL-44	–
20/ 24-4	CL-20	XNS-47	NL-46	MWN080412

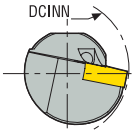
Accessories

For size	Insert pin	Insert shim
		
12/ 16-3	–	–
20-3	–	–
16-4	–	–
20/ 24-4	NL-46L	IWSN-423

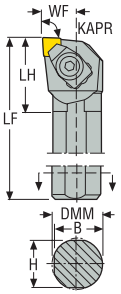
CCLNR/L – Toolholders for PCBN inserts CNMN – Metric

CCLNR/L
KAPR = 95,0 °





CCLNR/L





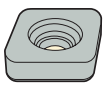
CTWS



- Right-hand version shown
- For inserts program, see page(s) 595
- For holder code key, see page(s) 19-20
- For ISO attribute explanation, see page 82

Designation	Item number	DMM	H	B	LF	WF	LH	DCINN	KAPR°	GAMO°	LAMS°	Weight	CTWS
		mm	mm	mm	mm	mm	mm	mm				kg	
S25R-CCLNR09	75069268	25,0	23	24	200	17,0	40,0	32,0	95,0	-6,0	-12,0	0,8	CN.N0903.. *CN.N32.*
S32S-CCLNR09	75069270	32,0	30	31	250	22,0	44,0	40,0	95,0	-6,0	-12,0	1,5	CN.N0903.. *CN.N32.*
S25R-CCLNL09	75069269	25,0	23	24	200	17,0	40,0	32,0	95,0	-6,0	-12,0	0,8	CN.N0903.. *CN.N32.*
S32S-CCLNL09	75069271	32,0	30	31	250	22,0	44,0	40,0	95,0	-6,0	-12,0	1,5	CN.N0903.. *CN.N32.*

Spare Parts, included in delivery

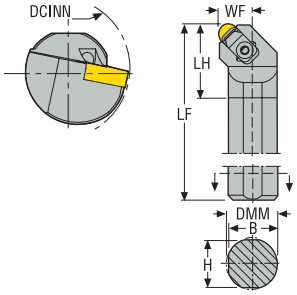
For size	Cantilever clamp	Clamp key	Insert shim	Shim screw
				
...09	CC14	4SMS795	CCN090316	174.10-652-T07P

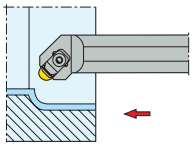
Accessories

For size	Shim key
	
...09	T07P-2

CRSNR/L – Toolholders for PCBN inserts RNGN, RNMN – Metric







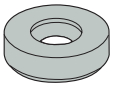
CTWS



- Right-hand version shown
- For inserts program, see page(s) 600, 618, 621
- For holder code key, see page(s) 19-20
- For ISO attribute explanation, see page 82

Designation	Item number	DMM	H	B	LF	WF	LH	DCINN	KAPR°	GAMO°	LAMS°	Weight	CTWS
		mm	mm	mm	mm	mm	mm	mm				kg	
S25R-CRSNR06	75069272	25,0	23	24	200	17,0	37,0	32,0	45,0	-6,0	-12,0	0,8	RN.N0603.. *RN.N22.*
S32S-CRSNR06	75069278	32,0	30	31	250	22,0	40,0	40,0	45,0	-6,0	-12,0	0,2	RN.N0603.. *RN.N22.*
S40T-CRSNR06	75069280	40,0	37	39	300	27,0	40,0	50,0	45,0	-6,0	-12,0	2,8	RN.N0603.. *RN.N22.*
S25R-CRSNL06	75069273	25,0	23	24	200	17,0	37,0	32,0	45,0	-6,0	-12,0	0,8	RN.N0603.. *RN.N22.*
S32S-CRSNL06	75069279	32,0	30	31	250	22,0	40,0	40,0	45,0	-6,0	-12,0	1,6	RN.N0603.. *RN.N22.*
S40T-CRSNL06	75069281	40,0	37	39	300	27,0	40,0	50,0	45,0	-6,0	-12,0	2,8	RN.N0603.. *RN.N22.*
S32S-CRSNR09	75069286	32,0	30	31	250	22,0	40,0	40,0	45,0	-6,0	-12,0	1,5	RN.N0903.. *RN.N32.*
S40T-CRSNR09	75069276	40,0	37	39	300	27,0	43,0	50,0	45,0	-6,0	-12,0	2,8	RN.N0903.. *RN.N32.*
S32S-CRSNL09	75069287	32,0	30	31	250	22,0	40,0	40,0	45,0	-6,0	-12,0	1,5	RN.N0903.. *RN.N32.*
S40T-CRSNL09	75069277	40,0	37	39	300	27,0	43,0	50,0	45,0	-6,0	-12,0	2,8	RN.N0903.. *RN.N32.*

Spare Parts, included in delivery

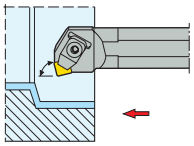
For size	Cantilever clamp	Clamp key	Insert shim	Shim screw
				
...06	CC14	4SMS795	CRN0603M0	CS2507-T07P
...09	CC16	4SMS795	117.10-620	174.10-652-T07P

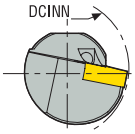
Accessories

For size	Shim key
	
...06	T07P-2
...09	T07P-2

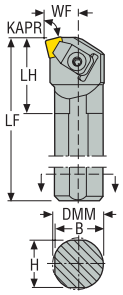
CSKNR/L – Toolholders for PCBN inserts SNGF, SNGN, SNMN – Metric

CSKNR/L
KAPR = 75,0 °





CSKNR/L



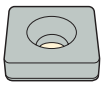


CTWS

- Right-hand version shown
- For inserts program, see page(s) 603
- For holder code key, see page(s) 19-20
- For ISO attribute explanation, see page 82

Designation	Item number	DMM	H	B	LF	WF	LH	DCINN	KAPR°	GAMO°	LAMS°	Weight	CTWS
		mm	mm	mm	mm	mm	mm	mm				kg	
S25R-CSKNR09	75069282	25,0	23	24	200	17,0	35,0	32,0	75,0	-6,0	-12,0	0,8	SN..0903.. *SN..32.*

Spare Parts, included in delivery

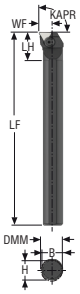
For size	Cantilever clamp	Clamp key	Insert shim	Shim screw
				
S25R-...09	CC14	4SMS795	174.10-620	174.10-652-T07P

Accessories

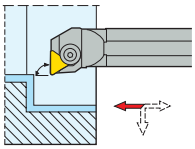
For size	Shim key
	
S25R-...09	T07P-2

CTFPR/L – Toolholders for inserts TPGN, TPMM, TPMR, TPUN – Metric





KAPR = 91,0 °



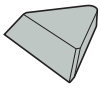
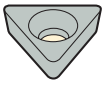
CTWS



- Right-hand version shown
- For inserts program, see page(s) 578, 578, 579, 580, 581, 611, 619
- For holder code key, see page(s) 19-20
- For ISO attribute explanation, see page 82

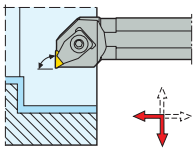
Designation	Item number	DMM	H	B	LF	WF	LH	DCINN	KAPR°	GAMO°	LAMS°	Weight	CTWS
		mm	mm	mm	mm	mm	mm	mm				kg	
S16Q-CTFPR11	75007394	16,0	14	15	180	11,0	40,0	20,0	91,0	5,0	0,0	0,3	TP..1103.. *TP..22.*
S20R-CTFPR16	75006033	20,0	18	19	200	13,0	50,0	25,0	91,0	5,0	0,0	0,5	TP..1603.. *TP..32.*
S25S-CTFPR16	75006035	25,0	22	24	250	17,0	65,0	32,0	91,0	5,0	0,0	0,9	TP..1603.. *TP..32.*
S32T-CTFPR16	75006037	32,0	29	31	300	22,0	70,0	40,0	91,0	5,0	0,0	1,8	TP..1603.. *TP..32.*
S40U-CTFPR22	75000255	40,0	34	37	350	27,0	80,0	50,0	91,0	5,0	0,0	3,2	TP..2204.. *TP..43.*

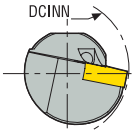
Spare Parts, included in delivery

For size	Chipbreaker	Clamp key	Clamp screw	Insert shim	Shim screw
					
S16Q	PT220	2.5SMS795	174.18-639	–	–
S20R	PT320	3SMS795	174.18-635	–	–
S25S	PT320	3SMS795	174.18-645	–	–
S32T	PT320	3SMS795	174.18-645	175.11-621	F94009-T09P
S40U	PT445	4SMS795	174.18-649	175.11-624	F94009-T09P

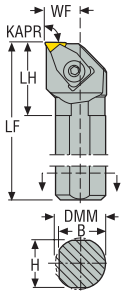
CTUNR/L – Toolholders for PCBN inserts TNGN, TNGX, TNMN, TNMX – Metric

CTUNR/L
KAPR = 93,0 °





CTUNR/L





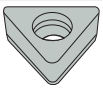
CTWS



- Right-hand version shown
- For inserts program, see page(s) 574, 575, 576, 577, 609
- For holder code key, see page(s) 19-20
- Shim CTN110312 for insert TN.N110312 and TNMX110308S-WZ, to be ordered separately
- For ISO attribute explanation, see page 82

Designation	Item number	DMM	H	B	LF	WF	LH	DCINN	KAPR°	GAMO°	LAMS°	Weight	CTWS
		mm	mm	mm	mm	mm	mm	mm				kg	
S25R-CTUNR11	75069290	25,0	23	24	200	17,0	40,0	32,0	93,0	-6,0	-10,0	0,8	TN..1103.. *TN..22.*
S32S-CTUNR11	75069292	32,0	30	31	250	22,0	40,0	40,0	93,0	-6,0	-10,0	1,5	TN..1103.. *TN..22.*
S25R-CTUNL11	75069291	25,0	23	24	200	17,0	40,0	32,0	93,0	-6,0	-10,0	0,8	TN..1103.. *TN..22.*
S32S-CTUNL11	75069293	32,0	30	31	250	22,0	40,0	40,0	93,0	-6,0	-10,0	1,5	TN..1103.. *TN..22.*

Spare Parts, included in delivery

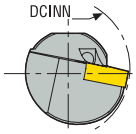
For size	Cantilever clamp	Clamp key	Insert shim	Shim screw
				
...11	CC14	4SMS795	CTN110308	CS2507-T07P

Accessories

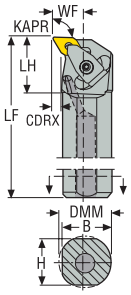
For size	Shim key
	
...11	T07P-2

DDUNR/L..-C – Toolholders for PCBN inserts DNMA – Metric

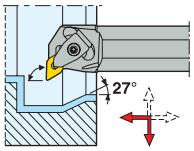




DDUNR/L..-C



DDUNR/L..-C
KAPR = 93,0 °



CTWS



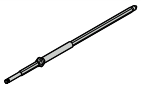
- Right-hand version shown
- For inserts program, see page(s) 556, 557, 558, 559, 598
- For holder code key, see page(s) 19-20
- For ISO attribute explanation, see page 82

Designation	Item number	DMM	H	B	LF	WF	LH	CDRX	DCINN	KAPR°	GAMO°	LAMS°	Weight	CTWS
		mm	mm	mm	mm	mm	mm	mm	mm				kg	
A25R-DDUNR11-C	02598549	25,0	23	24	200	17,0	27,0	4,0	32,0	93,0	-6,0	-13,0	0,7	DNMA1104.. *DNMA33.*
A25R-DDUNL11-C	02598552	25,0	23	24	200	17,0	27,0	4,0	32,0	93,0	-6,0	-13,0	0,7	DNMA1104.. *DNMA33.*
A32S-DDUNL11-C	02598613	32,0	30	31	250	22,0	31,0	6,0	40,0	93,0	-5,0	-11,0	1,4	DNMA1104.. *DNMA33.*

Spare Parts, included in delivery

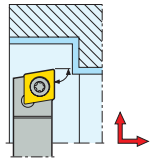
For size	Clamp pin	Clamp screw	Floating wedge clamp	Insert shim	Plug screw	Shim/clamp key	Shim screw	Spring
								
...11	FP1508	L84017-T09P	CC09P-D11	DDN110310	–	T09P-2	C03007-T09P	S5608
...11	FP1508	L84017-T10P	CC09P-D11	DDN110310	P6SS4X4	T10P-2	C03007-T09P	S5608

Accessories

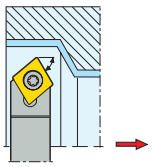
For size	Clamp kit	Insert clamping torque	Replacement blade	Torque key
				
...11	CC09P-SET	2.0NM	T00-09P	T00-09P20

SCACL, SCECL – Toolholders for inserts CCGT, CCGW, CCGX, CCMT, CCMW – Metric

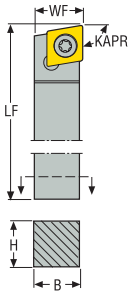
SCACL
KAPR = 90,0 °



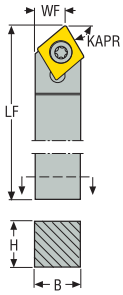
SCECL
KAPR = 60,0 °

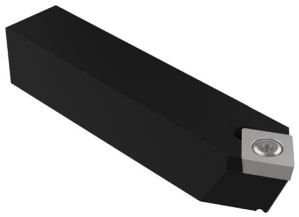


SCACL



SCECL





CTWS



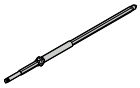
- Left-hand version shown
- For inserts program, see page(s) 542, 543, 544, 545, 591, 592, 615, 616
- For holder code key, see page(s) 15-16
- For ISO attribute explanation, see page 82

Designation	Item number	H	DMM	B	LF	WF	KAPR°	GAMO°	LAMS°	Weight	CTWS
		mm	mm	mm	mm	mm				kg	
SCACL1212D09	75011223	12	–	12	60	13,0	90,0	0,0	0,0	0,1	CC..09T3.. *CC..32.5.*
SCECL1010C06	75011225	10	–	10	50	6,2	60,0	0,0	0,0	0,1	CC..0602.. *CC..21.5.*

Spare Parts, included in delivery

For size	Insert key	Insert screw
		
...09	T15P-2	C04008-T15P
...06	T07P-2	C02506-T07P

Accessories

For size	Insert clamping torque	Replacement blade	Torque key
			
...09	3.5NM	T00-15P	T00-15P35
...06	0.9NM	T00-07P	T00-07P09

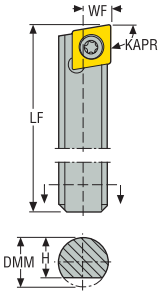
SCACL, SCECL – Toolholders for inserts CCGT, CCGW, CCMT, CCMW – Metric



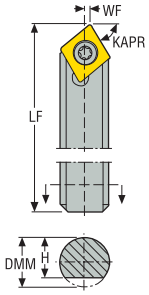
CTWS



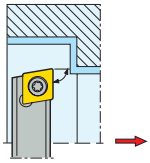
SCACL



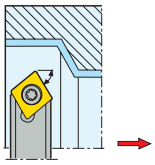
SCECL



SCACL
KAPR = 90,0 °



SCECL
KAPR = 60,0 °



- Left-hand version shown
- For inserts program, see page(s) 542, 543, 544, 545, 591, 592, 615, 616
- For holder code key, see page(s) 19-20
- For ISO attribute explanation, see page 82

Designation	Item number	H	DMM	B	LF	WF	KAPR°	GAMO°	LAMS°	Weight	CTWS
		mm	mm	mm	mm	mm				kg	
S08A-SCACL06	75011125	6	8,0	–	32	4,2	90,0	0,0	0,0	0,1	CC..0602.. *CC..21.5.*
S10C-SCACL06	75011127	8	10,0	–	50	5,2	90,0	0,0	0,0	0,1	CC..0602.. *CC..21.5.*
S12D-SCACL09	75011129	10	12,0	–	60	6,7	90,0	0,0	0,0	0,1	CC..09T3.. *CC..32.5.*
S08A-SCECL06	75011131	6	8,0	–	32	1,5	60,0	0,0	0,0	0,1	CC..0602.. *CC..21.5.*
S10C-SCECL06	75011133	8	10,0	–	50	2,4	60,0	0,0	0,0	0,1	CC..0602.. *CC..21.5.*
S12D-SCECL09	75011135	10	12,0	–	60	2,3	60,0	0,0	0,0	0,1	CC..09T3.. *CC..32.5.*

Spare Parts, included in delivery

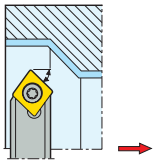
For size	Insert key	Insert screw
		
S08A-...06	T07P-2	C02505-T07P
S10C-...06	T07P-2	C02506-T07P
...09	T15P-2	C04008-T15P

Accessories

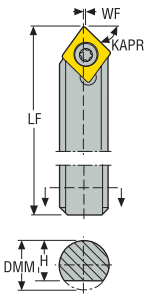
For size	Insert clamping torque	Replacement blade	Torque key
			
S08A-...06	0.9NM	T00-07P	T00-07P09
S10C-...06	0.9NM	T00-07P	T00-07P09
...09	3.5NM	T00-15P	T00-15P35

SCDCL – Toolholders for inserts CCGT, CCGW, CCMT, CCMW – Metric

SCDCL
KAPR = 45,0 °



SCDCL





CTWS



- Left-hand version shown
- For inserts program, see page(s) 542, 543, 544, 545, 591, 592, 615, 616
- For holder code key, see page(s) 19-20
- For ISO attribute explanation, see page 82

Designation	Item number	H	DMM	B	LF	WF	KAPR°	GAMO°	LAMS°	Weight	CTWS
		mm	mm	mm	mm	mm				kg	
S08A-SCDCL06	75011161	6	8,0	–	32	0,3	45,0	0,0	0,0	0,1	CC..0602.. *CC..21.5.*
S10C-SCDCL06	75011137	8	10,0	–	50	1,2	45,0	0,0	0,0	0,1	CC..0602.. *CC..21.5.*
S12D-SCDCL09	75011163	10	12,0	–	60	0,5	45,0	0,0	0,0	0,1	CC..09T3.. *CC..32.5.*

Spare Parts, included in delivery

For size	Insert key	Insert screw
		
S08A-...06	T07P-2	C02505-T07P
S10C-...06	T07P-2	C02506-T07P
...09	T15P-2	C04008-T15P

Accessories

For size	Insert clamping torque	Replacement blade	Torque key
			
S08A-...06	0.9NM	T00-07P	T00-07P09
S10C-...06	0.9NM	T00-07P	T00-07P09
...09	3.5NM	T00-15P	T00-15P35

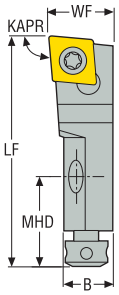
SCLCR/L, SCFCR/L, SCWCR/L – Cartridges for inserts CCGT, CCGW, CCGX, CCMT, CCMW – **Metric** / *Inch*



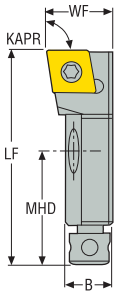
CTWS



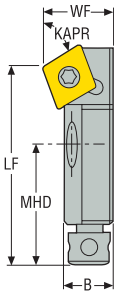
SCLCR/L

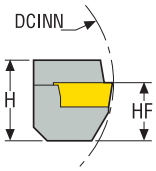


SCFCR/L



SCWCR/L





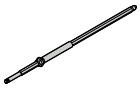
- Right-hand version shown
- For inserts program, see page(s) 542, 543, 544, 545, 591, 592, 615, 616
- For cartridge mounting information see page 123
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	MHD	WF	HF	DCINN	KAPR°	GAMO°	LAMS°	Weight	CTWS
		mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*				kg *lbs*	
SCLCR10CA-09	75011811	15 *0.591*	11 *0.433*	50 *1.969*	20 *0.787*	13,96 *0.550*	10,0 *0.394*	40,0 *1.575*	95,0	0,0	0,0	0,1 *0.220*	CC..09T3.. *CC..32.5.*
SCLCL10CA-09	00009143	15 *0.591*	11 *0.433*	50 *1.969*	20 *0.787*	13,96 *0.550*	10,0 *0.394*	40,0 *1.575*	95,0	0,0	0,0	0,1 *0.220*	CC..09T3.. *CC..32.5.*
SCLCR12CA-12	00013239	20 *0.787*	16 *0.630*	55 *2.165*	20 *0.787*	19,96 *0.786*	12,0 *0.472*	50,0 *1.969*	95,0	0,0	0,0	0,1 *0.220*	CC..1204.. *CC..43.*
SCLCL12CA-12	75606498	20 *0.787*	16 *0.630*	55 *2.165*	20 *0.787*	19,96 *0.786*	12,0 *0.472*	50,0 *1.969*	95,0	0,0	0,0	0,2 *0.440*	CC..1204.. *CC..43.*
SCFCR08CA-06	75029427	11 *0.433*	7 *0.276*	26 *1.024*	17 *0.669*	10,0 *0.394*	8,0 *0.315*	25,0 *0.984*	90,0	0,0	0,0	0,1 *0.220*	CC..0602.. *CC..21.5.*
SCFCL08CA-06	00008880	11 *0.433*	7 *0.276*	26 *1.024*	17 *0.669*	10,0 *0.394*	8,0 *0.315*	25,0 *0.984*	90,0	0,0	0,0	0,1 *0.220*	CC..0602.. *CC..21.5.*
SCFCR10CA-09	75011682	15 *0.591*	11 *0.433*	50 *1.969*	20 *0.787*	13,96 *0.550*	10,0 *0.394*	40,0 *1.575*	90,0	0,0	0,0	0,1 *0.220*	CC..09T3.. *CC..32.5.*
SCFCL10CA-09	75011810	15 *0.591*	11 *0.433*	50 *1.969*	20 *0.787*	13,96 *0.550*	10,0 *0.394*	40,0 *1.575*	90,0	0,0	0,0	0,1 *0.220*	CC..09T3.. *CC..32.5.*
SCFCR12CA-12	75011863	20 *0.787*	16 *0.630*	55 *2.165*	20 *0.787*	19,96 *0.786*	12,0 *0.472*	50,0 *1.969*	90,0	0,0	0,0	0,1 *0.220*	CC..1204.. *CC..43.*
SCFCL12CA-12	75011864	20 *0.787*	16 *0.630*	55 *2.165*	20 *0.787*	19,96 *0.786*	12,0 *0.472*	50,0 *1.969*	90,0	0,0	0,0	0,1 *0.220*	CC..1204.. *CC..43.*
SCWCL08CA-06	00008682	11 *0.433*	7 *0.276*	28 *1.102*	17 *0.669*	9,96 *0.392*	8,0 *0.315*	25,0 *0.984*	60,0	0,0	0,0	0,1 *0.220*	CC..0602.. *CC..21.5.*
SCWCR10CA-09	00008694	15 *0.591*	11 *0.433*	44 *1.732*	20 *0.787*	13,96 *0.550*	10,0 *0.394*	40,0 *1.575*	60,0	0,0	0,0	0,1 *0.220*	CC..09T3.. *CC..32.5.*
SCWCL10CA-09	00008698	15 *0.591*	11 *0.433*	44 *1.732*	20 *0.787*	13,96 *0.550*	10,0 *0.394*	40,0 *1.575*	60,0	0,0	0,0	0,1 *0.220*	CC..09T3.. *CC..32.5.*

Spare Parts, included in delivery

For size	Insert key	Insert screw	Locking screw	Setting screw (axial)	Setting screw (radial)
-09	T15P-2	C04008-T15P	179.17-696-T25P	179.17-680	179.17-686
-12	T20P-7	C05010-T20P	179.17-697-T25P	179.17-680	179.17-687
-06	T07P-2	C02505-T07P	179.17-698-T09P	179.17-683	179.17-684

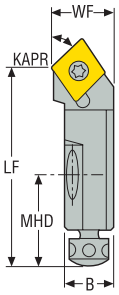
Accessories

For size	Insert clamping torque	Locking key	Replacement blade	Setting key	Torque key
					
-09	3.5NM	T25P-7	T00-15P	2SMS795	T00-15P35
-12	5.0NM	T25P-7	T00-20P	2SMS795	T00-20P50
-06	0.9NM	T09P-2	T00-07P	1.5SMS795	T00-07P09

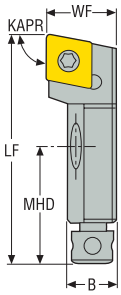
SCSCR/L, SCGCR/L – Cartridges for inserts CCGT, CCGW, CCGX, CCMT, CCMW – **Metric** / *Inch*

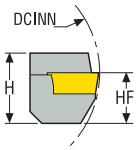


SCSCR/L



SCGCR/L





CTWS



- Right-hand version shown
- For inserts program, see page(s) 542, 543, 544, 545, 591, 592, 615, 616
- For cartridge mounting information see page 123
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	MHD	WF	HF	DCINN	KAPR°	GAMO°	LAMS°	Weight	CTWS
		mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*				kg *lbs*	
SCSCR08CA-06	00008677	11 *0.433*	7 *0.276*	28 *1.102*	17 *0.669*	9,96 *0.392*	8,0 *0.315*	25,0 *0.984*	45,0	0,0	0,0	0,1 *0.220*	CC..0602.. *CC..21.5.*
SCSCL08CA-06	00008877	11 *0.433*	7 *0.276*	28 *1.102*	17 *0.669*	9,96 *0.392*	8,0 *0.315*	25,0 *0.984*	45,0	0,0	0,0	0,1 *0.220*	CC..0602.. *CC..21.5.*
SCSCR10CA-09	00034179	15 *0.591*	11 *0.433*	44 *1.732*	20 *0.787*	13,96 *0.550*	10,0 *0.394*	40,0 *1.575*	45,0	0,0	0,0	0,1 *0.220*	CC..09T3.. *CC..32.5.*
SCSCR12CA-12	75011862	20 *0.787*	16 *0.630*	47 *1.850*	20 *0.787*	19,96 *0.786*	12,0 *0.472*	50,0 *1.969*	45,0	0,0	0,0	0,1 *0.220*	CC..1204.. *CC..43.*
SCGCR08CA-06	00009129	11 *0.433*	7 *0.276*	32 *1.260*	17 *0.669*	9,96 *0.392*	8,0 *0.315*	25,0 *0.984*	90,0	0,0	0,0	0,1 *0.220*	CC..0602.. *CC..21.5.*
SCGCL08CA-06	00008883	11 *0.433*	7 *0.276*	32 *1.260*	17 *0.669*	9,96 *0.392*	8,0 *0.315*	25,0 *0.984*	90,0	0,0	0,0	0,1 *0.220*	CC..0602.. *CC..21.5.*
SCGCR10CA-09	00009131	15 *0.591*	11 *0.433*	50 *1.969*	20 *0.787*	13,96 *0.550*	10,0 *0.394*	40,0 *1.575*	90,0	0,0	0,0	0,1 *0.220*	CC..09T3.. *CC..32.5.*
SCGCR12CA-12	75011860	20 *0.787*	16 *0.630*	55 *2.165*	20 *0.787*	19,96 *0.786*	12,0 *0.472*	50,0 *1.969*	90,0	0,0	0,0	0,1 *0.220*	CC..1204.. *CC..43.*
SCGCL12CA-12	00045802	20 *0.787*	16 *0.630*	55 *2.165*	20 *0.787*	19,96 *0.786*	12,0 *0.472*	50,0 *1.969*	90,0	0,0	0,0	0,1 *0.220*	CC..1204.. *CC..43.*

Spare Parts, included in delivery

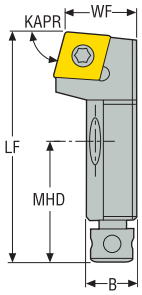
For size	Insert key	Insert screw	Locking screw	Setting screw (axial)	Setting screw (radial)
-06	T07P-2	C02505-T07P	179.17-698-T09P	179.17-683	179.17-684
-09	T15P-2	C04008-T15P	179.17-696-T25P	179.17-680	179.17-686
-12	T20P-7	C05010-T20P	179.17-697-T25P	179.17-680	179.17-687

Accessories

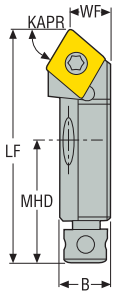
For size	Insert clamping torque	Locking key	Replacement blade	Setting key	Torque key
-06	0.9NM	T09P-2	T00-07P	1.5SMS795	T00-07P09
-09	3.5NM	T25P-7	T00-15P	2SMS795	T00-15P35
-12	5.0NM	T25P-7	T00-20P	2SMS795	T00-20P50

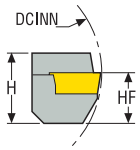
SCRCR/L, SCTCR/L – Cartridges for inserts CCGT, CCGW, CCGX, CCMT, CCMW – Metric / *Inch*

SCRCR/L



SCTCR/L







CTWS



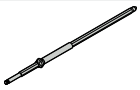
- Right-hand version shown
- For inserts program, see page(s) 542, 543, 544, 545, 591, 592, 615, 616
- For cartridge mounting information see page 123
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	MHD	WF	HF	DCINN	KAPR°	GAMO°	LAMS°	Weight	CTWS
		mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*				kg *lbs*	
SCRCR10CA-09	00008684	15 *0.591*	11 *0.433*	50 *1.969*	20 *0.787*	13,96 *0.550*	10,0 *0.394*	40,0 *1.575*	75,0	0,0	0,0	0,1 *0.220*	CC..09T3.. *CC..32.5.*
SCRCL10CA-09	00008685	15 *0.591*	11 *0.433*	50 *1.969*	20 *0.787*	13,96 *0.550*	10,0 *0.394*	40,0 *1.575*	75,0	0,0	0,0	0,1 *0.220*	CC..09T3.. *CC..32.5.*
SCTCR08CA-06	00008891	11 *0.433*	7 *0.276*	26 *1.024*	17 *0.669*	6,0 *0.236*	8,0 *0.315*	25,0 *0.984*	60,0	0,0	0,0	0,1 *0.220*	CC..0602.. *CC..21.5.*
SCTCR10CA-09	00034258	15 *0.591*	11 *0.433*	50 *1.969*	20 *0.787*	8,96 *0.353*	10,0 *0.394*	40,0 *1.575*	60,0	0,0	0,0	0,1 *0.220*	CC..09T3.. *CC..32.5.*
SCTCL10CA-09	00008689	15 *0.591*	11 *0.433*	50 *1.969*	20 *0.787*	8,96 *0.353*	10,0 *0.394*	40,0 *1.575*	60,0	0,0	0,0	0,1 *0.220*	CC..09T3.. *CC..32.5.*
SCTCR12CA-12	00008705	20 *0.787*	16 *0.630*	55 *2.165*	20 *0.787*	12,96 *0.510*	12,0 *0.472*	50,0 *1.969*	60,0	0,0	0,0	0,1 *0.220*	CC..1204.. *CC..43.*

Spare Parts, included in delivery

For size	Insert key	Insert screw	Locking screw	Setting screw (axial)	Setting screw (radial)
					
-09	T15P-2	C04008-T15P	179.17-696-T25P	179.17-680	179.17-686
-06	T07P-2	C02505-T07P	179.17-698-T09P	179.17-683	179.17-684
-12	T20P-7	C05010-T20P	179.17-697-T25P	179.17-680	179.17-687

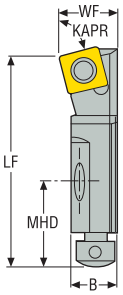
Accessories

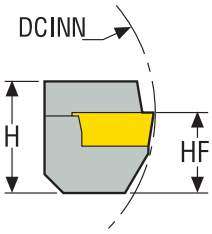
For size	Insert clamping torque	Locking key	Replacement blade	Setting key	Torque key
					
-09	3.5NM	T25P-7	T00-15P	2SMS795	T00-15P35
-06	0.9NM	T09P-2	T00-07P	1.5SMS795	T00-07P09
-12	5.0NM	T25P-7	T00-20P	2SMS795	T00-20P50

SSKCR/L – Cartridges for inserts SCGW, SCMT
– Metric / *Inch*



SSKCR/L





CTWS



- Right-hand version shown
- For inserts program, see page(s) 565, 566, 602
- For cartridge mounting information see page 123
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	MHD	WF	HF	DCINN	KAPR°	GAMO°	LAMS°	Weight	CTWS
		mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*				kg *lbs*	
SSKCR10CA-09	00009139	15 *0.591*	11 *0.433*	50 *1.969*	20 *0.787*	14,0 *0.551*	10,0 *0.394*	40,0 *1.575*	75,0	0,0	0,0	0,1 *0.220*	SC..09T3.. *SC..32.5.*
SSKCL10CA-09	75209709	15 *0.591*	11 *0.433*	50 *1.969*	20 *0.787*	14,0 *0.551*	10,0 *0.394*	40,0 *1.575*	75,0	0,0	0,0	0,1 *0.220*	SC..09T3.. *SC..32.5.*
SSKCR12CA-12	00009167	20 *0.787*	16 *0.630*	55 *2.165*	20 *0.787*	19,96 *0.786*	12,0 *0.472*	50,0 *1.969*	75,0	0,0	0,0	0,2 *0.440*	SC..1204.. *SC..43.*
SSKCR16CA-12	00009191	25 *0.984*	20 *0.787*	63 *2.480*	25 *0.984*	24,96 *0.983*	16,0 *0.630*	60,0 *2.362*	75,0	-4,0	0,0	0,2 *0.440*	SC..1204.. *SC..43.*

Spare Parts, included in delivery

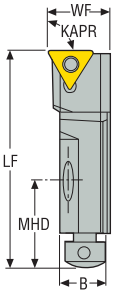
For size	Insert key	Insert screw	Insert shim	Locking screw	Setting screw (axial)	Setting screw (radial)	Shim screw
-09	T15P-2	C04008-T15P	–	179.17-696-T25P	179.17-680	179.17-686	–
.12..-12	T20P-7	C05010-T20P	–	179.17-697-T25P	179.17-680	179.17-687	–
.16..-12	T15P-2	C05012-T15P	110.19-621	179.17-693	179.17-680	179.17-685	CA5008

Accessories

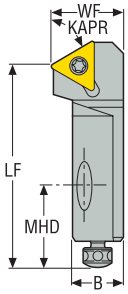
For size	Insert clamping torque	Locking key	Replacement blade	Setting key	Torque key
-09	3.5NM	T25P-7	T00-15P	2SMS795	T00-15P35
.12..-12	5.0NM	T25P-7	T00-20P	2SMS795	T00-20P50
.16..-12	5.0NM	5SMS795	T00-15P	2.5SMS795	T00-15P50

STFCR/L, STWCR/L, STSCR/L – Cartridges for inserts TCGT, TCMT, TCMW – Metric / *Inch*

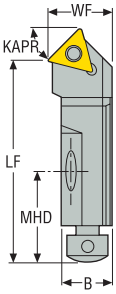
STFCR/L

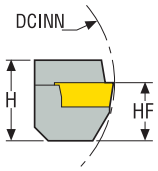


STWCR/L



STSCR/L







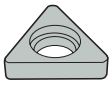
CTWS



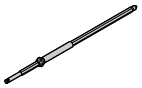
- Right-hand version shown
- For inserts program, see page(s) 571, 572, 618
- For cartridge mounting information see page 123
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	MHD	WF	HF	DCINN	KAPR°	GAMO°	LAMS°	Weight	CTWS
		mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*				kg *lbs*	
STFCR10CA-11	00009136	15 *0.591*	11 *0.433*	50 *1.969*	20 *0.787*	13,96 *0.550*	10,0 *0.394*	40,0 *1.575*	90,0	0,0	0,0	0,1 *0.220*	TC..1102.. *TC..21.5.*
STFCR12CA-11	00009166	20 *0.787*	16 *0.630*	55 *2.165*	20 *0.787*	19,96 *0.786*	12,0 *0.472*	50,0 *1.969*	90,0	0,0	0,0	0,1 *0.220*	TC..1102.. *TC..21.5.*
STFCL10CA-11	00009146	15 *0.591*	11 *0.433*	50 *1.969*	20 *0.787*	13,96 *0.550*	10,0 *0.394*	40,0 *1.575*	90,0	0,0	0,0	0,1 *0.220*	TC..1102.. *TC..21.5.*
STFCR16CA-16	00009184	25 *0.984*	20 *0.787*	63 *2.480*	25 *0.984*	25,0 *0.984*	16,0 *0.630*	60,0 *2.362*	90,0	-2,0	0,0	0,2 *0.440*	TC..16T3.. *TC..32.5.*
STFCL16CA-16	00009187	25 *0.984*	20 *0.787*	63 *2.480*	25 *0.984*	14,96 *0.589*	16,0 *0.630*	60,0 *2.362*	90,0	-2,0	0,0	0,2 *0.440*	TC..16T3.. *TC..32.5.*
STWCR16CA-16	00008753	25 *0.984*	20 *0.787*	53 *2.087*	25 *0.984*	24,96 *0.983*	16,0 *0.630*	60,0 *2.362*	60,0	0,0	0,0	0,2 *0.440*	TC..16T3.. *TC..32.5.*
STWCL16CA-16	00008754	25 *0.984*	20 *0.787*	53 *2.087*	25 *0.984*	24,96 *0.983*	16,0 *0.630*	60,0 *2.362*	60,0	0,0	0,0	0,2 *0.440*	TC..16T3.. *TC..32.5.*
STSCR10CA-11	00009140	15 *0.591*	11 *0.433*	44 *1.732*	20 *0.787*	14,0 *0.551*	10,0 *0.394*	40,0 *1.575*	45,0	0,0	0,0	0,1 *0.220*	TC..1102.. *TC..21.5.*
STSCL10CA-11	00009155	15 *0.591*	11 *0.433*	44 *1.732*	20 *0.787*	14,0 *0.551*	10,0 *0.394*	40,0 *1.575*	45,0	0,0	0,0	0,1 *0.220*	TC..1102.. *TC..21.5.*
STSCR12CA-16	00009171	20 *0.787*	16 *0.630*	47 *1.850*	20 *0.787*	19,96 *0.786*	12,0 *0.472*	50,0 *1.969*	45,0	0,0	0,0	0,2 *0.440*	TC..16T3.. *TC..32.5.*
STSCR16CA-16	00009192	25 *0.984*	20 *0.787*	53 *2.087*	25 *0.984*	24,96 *0.983*	16,0 *0.630*	60,0 *2.362*	45,0	-6,0	0,0	0,2 *0.440*	TC..16T3.. *TC..32.5.*
STSCL12CA-16	00009169	20 *0.787*	16 *0.630*	47 *1.850*	20 *0.787*	19,96 *0.786*	12,0 *0.472*	50,0 *1.969*	45,0	0,0	0,0	0,1 *0.220*	TC..16T3.. *TC..32.5.*
STSCL16CA-16	00009193	25 *0.984*	20 *0.787*	53 *2.087*	25 *0.984*	24,96 *0.983*	16,0 *0.630*	60,0 *2.362*	45,0	-6,0	0,0	0,2 *0.440*	TC..16T3.. *TC..32.5.*

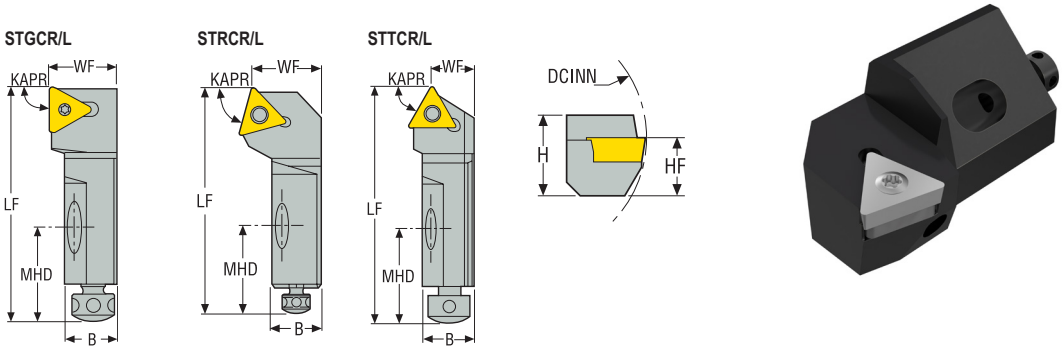
Spare Parts, included in delivery

For size	Insert key	Insert screw	Insert shim	Locking screw	Setting screw (axial)	Setting screw (radial)	Shim screw
							
..10..-11	T07P-2	C02506-T07P	–	179.17-696-T25P	179.17-680	179.17-686	–
..12..-11	T07P-2	C02506-T07P	–	179.17-697-T25P	179.17-680	179.17-687	–
..16..-16	T15P-2	C03509-T15P	STN160312	179.17-693	179.17-680	179.17-685	CA3510
..12..-16	T15P-2	C03509-T15P	–	179.17-697-T25P	179.17-680	179.17-687	–

Accessories

For size	Insert clamping torque	Locking key	Replacement blade	Setting key	Shim key	Torque key
						
..10..-11	0.9NM	T25P-7	T00-07P	2SMS795	–	T00-07P09
..12..-11	0.9NM	T25P-7	T00-07P	2SMS795	–	T00-07P09
..16..-16	3.0NM	5SMS795	T00-15P	2.5SMS795	9/64SMS875	T00-15P30
..12..-16	3.0NM	T25P-7	T00-15P	2SMS795	–	T00-15P30

STGCR/L, STRCR/L, STTCR/L – Cartridges for inserts TCGT, TCGW, TCMT, TCMW – Metric / *Inch*



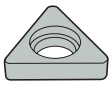
CTWS



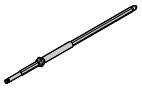
- Right-hand version shown
- For inserts program, see page(s) 571, 572, 607, 618
- For cartridge mounting information see page 123
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	MHD	WF	HF	DCINN	KAPR°	GAMO°	LAMS°	Weight	CTWS
		mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*				kg *lbs*	
STGCR12CA-16	00009175	20 *0.787*	16 *0.630*	55 *2.165*	20 *0.787*	19,96 *0.786*	12,0 *0.472*	50,0 *1.969*	90,0	0,0	0,0	0,1 *0.220*	TC..16T3.. *TC..32.5.*
STGCR16CA-16	00009196	25 *0.984*	20 *0.787*	63 *2.480*	25 *0.984*	24,96 *0.983*	16,0 *0.630*	60,0 *2.362*	90,0	-5,0	0,0	0,2 *0.440*	TC..16T3.. *TC..32.5.*
STGCL12CA-16	00009174	20 *0.787*	16 *0.630*	55 *2.165*	20 *0.787*	19,96 *0.786*	12,0 *0.472*	50,0 *1.969*	90,0	0,0	0,0	0,2 *0.440*	TC..16T3.. *TC..32.5.*
STGCL16CA-16	00009197	25 *0.984*	20 *0.787*	63 *2.480*	25 *0.984*	24,96 *0.983*	16,0 *0.630*	60,0 *2.362*	90,0	-5,0	0,0	0,2 *0.440*	TC..16T3.. *TC..32.5.*
STGCL16CA-22	02600181	20 *0.787*	18 *0.689*	55 *2.165*	25 *0.984*	25,0 *0.984*	16,0 *0.630*	50,0 *1.969*	90,0	0,0	0,0	0,2 *0.440*	TC..2204.. *TC..43.*
STRCR16CA-16	00008747	25 *0.984*	20 *0.787*	63 *2.480*	25 *0.984*	24,96 *0.983*	16,0 *0.630*	60,0 *2.362*	75,0	-5,0	0,0	0,2 *0.440*	TC..16T3.. *TC..32.5.*
STRCL16CA-16	00008750	25 *0.984*	20 *0.787*	63 *2.480*	25 *0.984*	24,96 *0.983*	16,0 *0.630*	60,0 *2.362*	75,0	-5,0	0,0	0,2 *0.440*	TC..16T3.. *TC..32.5.*
STRCL16CA-22	02585320	20 *0.787*	18 *0.689*	63 *2.480*	25 *0.984*	25,0 *0.984*	16,0 *0.630*	60,0 *2.362*	75,0	0,0	0,0	0,2 *0.440*	TC..2204.. *TC..43.*
STTCR12CA-16	00009172	20 *0.787*	16 *0.630*	55 *2.165*	20 *0.787*	12,96 *0.510*	12,0 *0.472*	50,0 *1.969*	60,0	0,0	0,0	0,2 *0.440*	TC..16T3.. *TC..32.5.*
STTCR16CA-16	00009195	25 *0.984*	20 *0.787*	63 *2.480*	25 *0.984*	14,96 *0.589*	16,0 *0.630*	60,0 *2.362*	60,0	-4,0	0,0	0,2 *0.440*	TC..16T3.. *TC..32.5.*
STTCL16CA-16	00009194	25 *0.984*	20 *0.787*	63 *2.480*	25 *0.984*	14,96 *0.589*	16,0 *0.630*	60,0 *2.362*	60,0	-4,0	0,0	0,2 *0.440*	TC..16T3.. *TC..32.5.*

Spare Parts, included in delivery

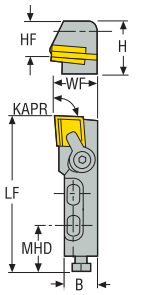
For size	Insert key	Insert screw	Insert shim	Locking screw	Setting screw (axial)	Setting screw (radial)	Shim screw
							
..12..-16	T15P-2	C03509-T15P	–	179.17-697-T25P	179.17-680	179.17-687	–
..16..-16	T15P-2	C03509-T15P	STN160312	179.17-693	179.17-680	179.17-685	CA3510
..16..-22	T15P-2	C05012-T15P	–	179.17-693	179.17-680	179.17-690-T15P	–

Accessories

For size	Insert clamping torque 	Locking key 	Replacement blade 	Setting key 	Shim key 	Torque key 
..12..-16	3.0NM	T25P-7	T00-15P	2SMS795	–	T00-15P30
..16..-16	3.0NM	5SMS795	T00-15P	2.5SMS795	9/64SMS875	T00-15P30
..16..-22	5.0NM	5SMS795	T00-15P	2SMS795	–	T00-15P50

MCLNR/L, MCFNR/L – Cartridges for inserts CNGA, CNGN, CNGP, CNMA, CNMG, CNMM, CNMN, CNMP – Inch

MCLNR/L / MCFNR/L





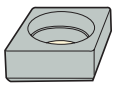
CTWS



- Right-hand version shown
- For inserts program, see page(s) 546, 547, 548, 549, 550, 551, 593, 594, 620
- For cartridge mounting information see page 123
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	MHD	WF	HF	DCINN	KAPR°	GAMO°	LAMS°	Weight	CTWS
		inch	inch	inch	inch	inch	inch	inch				lbs	
MCLNR12CA-12	00041850	0.787	0.551	2.165	0.787	0.787	0.472	1.969	95,0	-5,0	-10,0	0.220	CN..1204.. *CN..43.*
MCLNL-12CA-12	00054313	0.787	0.551	2.165	0.787	0.787	0.472	1.969	95,0	-5,0	-10,0	0.220	CN..1204.. *CN..43.*
MCLNR-25CA-19	00041853	1.378	0.945	3.937	1.181	1.260	0.984	3.937	95,0	-6,0	-9,0	1.100	CN..1906.. *CN..64.*
MCFNR-12CA-12	02506169	0.791	0.551	2.165	0.787	0.787	0.472	1.969	90,0	-5,0	-10,0	0.220	CN..1204.. *CN..43.*
MCFNR-16CA-12	02506171	0.984	0.709	2.480	0.984	0.984	0.630	2.362	90,0	-5,0	-10,0	0.220	CN..1204.. *CN..43.*

Spare Parts, included in delivery

For size	Cantilever clamp	Clamp screw	Insert pin	Insert shim	Setting screw (axial)	Setting screw (radial)
						
..12..-12	CLM-17	XNSM-0515	NLM-43	–	EASM-0510F	SASM-0412
..25..-19	CLM-12	XNSM-0825	NLM-68	CSN190412	EASM-0816F	SASM-0820
..16..-12	CLM-17	XNSM-0515	NLM-46S	CSN120412	EASM-0610F	SASM-0516

Accessories

For size	Shim screw
	
..12..-12	–
..25..-19	S-68M
..16..-12	S-46MS

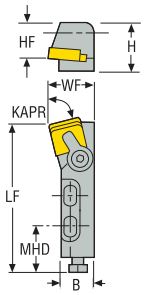
MSKNR, MSSNR – Cartridges for inserts SNGA, SNGN, SNMA, SNMG, SNMM, SNMN, SNMP – Inch



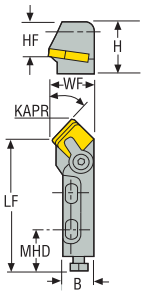
CTWS



MSKNR



MSSNR



- Right-hand version shown
- For inserts program, see page(s) 567, 568, 569, 570, 603, 604
- For cartridge mounting information see page 123
- For ISO attribute explanation, see page 82

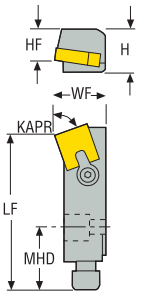
Designation	Item number	H	B	LF	MHD	WF	HF	DCINN	KAPR°	GAMO°	LAMS°	Weight	CTWS
		inch	inch	inch	inch	inch	inch	inch				lbs	
MSKNR12CA-12	00041855	0.787	0.551	2.165	0.787	0.787	0.472	1.969	75,0	-10,0	-5,0	0.220	SN..1204.. *SN..43.*
MSSNR12CA-12	00041865	0.787	0.551	2.177	0.787	0.787	0.472	1.969	45,0	-9,0	-9,0	0.220	SN..1204.. *SN..43.*

Spare Parts, included in delivery

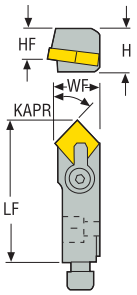
For size	Cantilever clamp	Clamp screw	Insert pin	Setting screw (axial)	Setting screw (radial)
					
..-12	CLM-6	XNSM-0515	NLM-43	EASM-0510F	SASM-0412

MSKNR, MSSNR, MSTNR – Cartridges for inserts SNGA, SNGN, SNMA, SNMG, SNMM, SNMN, SNMP – Inch

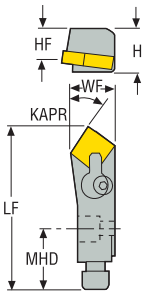
MSKNR



MSSNR



MSTNR





CTWS



- Right-hand version shown
- For inserts program, see page(s) 567, 568, 569, 570, 603, 604
- For cartridge mounting information see page 123
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	MHD	WF	HF	DCINN	KAPR°	GAMO°	LAMS°	Weight	CTWS
		inch	inch	inch	inch	inch	inch	inch				lbs	
MSKNR-41CX-3	00036450	0.563	0.441	1.969	0.840	0.531	0.406	1.500	15,0	-5,0	-8,0	0.220	SN..0903.. *SN..32.*
MSSNR-41CX-4	00036422	0.563	0.559	2.306	0.840	0.528	0.406	2.000	45,0	-8,0	-8,0	0.220	SN..1204.. *SN..43.*
MSTNR-41CX-3	00036470	0.563	0.441	1.969	0.840	0.531	0.406	1.500	30,0	-6,0	-10,0	0.220	SN..0903.. *SN..32.*
MSTNR-41CX-4	00054341	0.563	0.563	2.386	0.840	0.689	0.406	2.000	30,0	-6,0	-10,0	0.220	SN..1204.. *SN..43.*

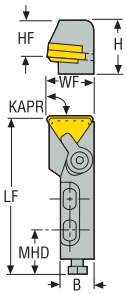
Spare Parts, included in delivery

For size	Cantilever clamp	Clamp screw	Insert pin	Setting screw (axial)	Setting screw (radial)
					
..-3	CL-5	XNS-35	NL-33	EAS-253	SC-605
..-4	CL-6	XNS-35	NL-43	EAS-253	SC-605

MTFNR/L – Cartridges for inserts TNGA, TNGN, TNMA, TNMG, TNMM, TNMN, TNMP – Inch



MTFNR/L



CTWS



- Right-hand version shown
- For inserts program, see page(s) 574, 575, 576, 577, 608, 609, 610
- For cartridge mounting information see page 123
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	MHD	WF	HF	DCINN	KAPR°	GAMO°	LAMS°	Weight	CTWS
		inch	inch	inch	inch	inch	inch	inch				lbs	
MTFNR12CA-16	00041880	0.787	0.551	2.165	0.787	0.787	0.472	1.969	90,0	-5,0	-10,0	0.220	TN..1603.. *TN..32.*
MTFNL12CA-16	00041771	0.787	0.551	2.165	0.787	0.787	0.472	1.969	90,0	-5,0	-10,0	0.220	TN..1603.. *TN..32.*
MTFNR20CA-22	00041882	1.181	0.709	2.756	1.181	0.984	0.787	2.756	90,0	-5,0	-10,0	0.440	TN..2204.. *TN..43.*

Spare Parts, included in delivery

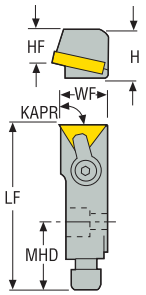
For size	Cantilever clamp	Clamp screw	Insert pin	Insert shim	Setting screw (axial)	Setting screw (radial)
						
..-16	CLM-17	XNSM-0515	NLM-33	–	EASM-0510F	SASM-0412
..-22	CLM-20	XNSM-0620	NLM-46	TSN220412	EASM-0610F	SASM-0516

Accessories

For size	Shim screw
	
..-16	–
..-22	S-46M

MTFNR/L – Cartridges for inserts TNGA, TNGN, TNMA, TNMG, TNMM, TNMN, TNMP – Inch

MTFNR/L





CTWS



- Right-hand version shown
- For inserts program, see page(s) 574, 575, 576, 577, 608, 609, 610
- For cartridge mounting information see page 123
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	MHD	WF	HF	DCINN	KAPR°	GAMO°	LAMS°	Weight	CTWS
		inch	inch	inch	inch	inch	inch	inch				lbs	
MTFNR-41CX-2	00036500	0.563	0.441	1.969	0.840	0.531	0.406	1.500	90,0	-5,0	-10,0	0.220	TN..1103.. *TN..22.*
MTFNR-41CX-3	00036502	0.563	0.559	1.969	0.840	0.685	0.406	2.000	90,0	-5,0	-8,0	0.220	TN..1604.. *TN..33.*

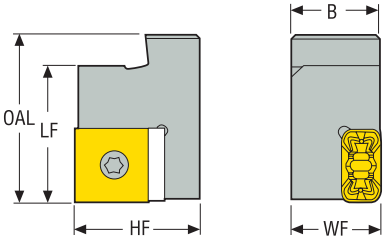
Spare Parts, included in delivery

For size	Cantilever clamp	Clamp screw	Insert pin	Setting screw (axial)	Setting screw (radial)
					
..-2	CL-5	XNS-35	NL-23	EAS-253	SC-605
..-3	CL-6	XNS-35	NL-33L	EAS-253	SC-605

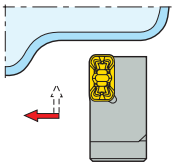
CT-PLANR/L – Toolholders/cassettes for inserts LNMX – **Metric** / *Inch*



CT-PLANR/L



CT-PLANR/L
KAPR = 90,0 °



CTWS

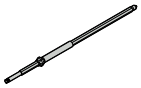
- Right-hand version shown
- For inserts program, see page(s) 559, 560
- CT-PLANR/L 3223-19 are updated version of R/L175.32-3223-19. They have better manufacturing tolerances. R/L175.32-3223-19 will be deleted from the program in future.
- For ISO attribute explanation, see page 82

Designation	Item number	HF	WF	B	LF	OAL	KAPR°	Weight	CTWS
		mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*		kg *lbs*	
CT-PLANR3223-19	02809911	32,0 *1.260*	23,0 *0.906*	23 *0.890*	35 *1.378*	42 *1.661*	90,0 °	0,2 *0.440*	LN..1919..
CT-PLANL3223-19	02809912	32,0 *1.260*	23,0 *0.906*	23 *0.890*	35 *1.378*	42 *1.661*	90,0 °	0,2 *0.440*	LN..1919..

Spare Parts, included in delivery

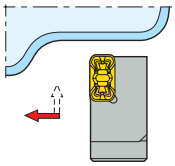
For size	Insert key	Insert screw	Insert shim	Shim screw
				
...-19	T15P-2	MN1515SL-T15P	LN190450	174.10-650.9-T07P

Accessories

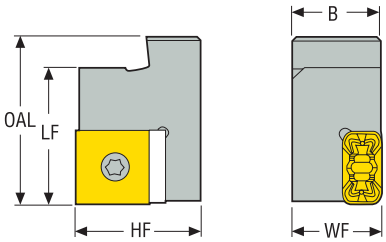
For size	Insert clamping torque	Replacement blade	Shim key	Torque key
				
...-19	3.0NM	T00-15P	T07P-2	T00-15P30

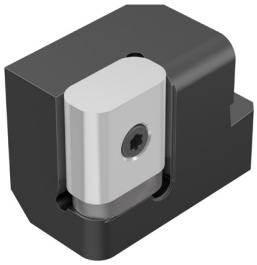
CT-PLANR/L – Toolholders/cassettes for inserts LNMX – Metric / *Inch*

CT-PLANR/L
KAPR = 90,0 °



R/L175.32





CTWS

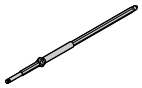
- Right-hand version shown
- For inserts program, see page(s) 559, 560
- CT-PLANR/L 3223-19 are updated version of R/L175.32-3223-19. They have better manufacturing tolerances. R/L175.32-3223-19 will be deleted from the program in future.
- For ISO attribute explanation, see page 82

Designation	Item number	HF	WF	B	LF	OAL	KAPR°	Weight	CTWS
		mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*		kg *lbs*	
R175.32-3223-30	00013035	32,0 *1.260*	23,0 *0.906*	23 *0.890*	35 *1.378*	42 *1.661*	90,0 °	0,2 *0.440*	LN..3019..
L175.32-3223-30	00013036	32,0 *1.260*	23,0 *0.906*	23 *0.890*	35 *1.378*	42 *1.661*	90,0 °	0,2 *0.440*	LN..3019..

Spare Parts, included in delivery

For size	Insert key	Insert screw	Insert shim	Shim screw
				
...-30	T15P-2	MN1515SL-T15P	LN300450	174.10-650.9-T07P

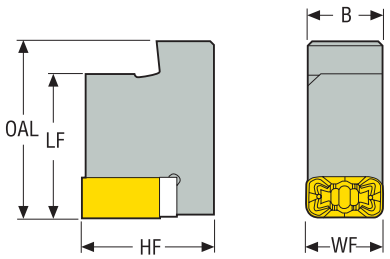
Accessories

For size	Insert clamping torque	Replacement blade	Shim key	Torque key
				
...-30	3.0NM	T00-15P	T07P-2	T00-15P30

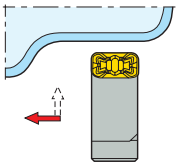
CT-PLFNR/L – Toolholders/cassettes for inserts LNMX – **Metric** / *Inch*



CT-PLFNR/L



CT-PLFNR/L
KAPR = 90,0 °



CTWS

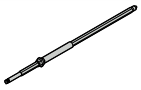
- Right-hand version shown
- For inserts program, see page(s) 559, 560
- For ISO attribute explanation, see page 82

Designation	Item number	HF	WF	B	LF	OAL	KAPR°	Weight	CTWS
		mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*		kg *lbs*	
CT-PLFNR3219-19	02809915	32,0 *1.260*	19,0 *0.748*	18 *0.719*	35 *1.378*	43 *1.693*	90,0 °	0,2 *0.440*	LN..1919..
CT-PLFNL3219-19	02809910	32,0 *1.260*	19,0 *0.748*	18 *0.719*	35 *1.378*	43 *1.693*	90,0 °	0,2 *0.440*	LN..1919..

Spare Parts, included in delivery

For size	Insert key	Insert screw	Insert shim	Shim screw
				
...-19	T15P-2	MN1515SL-T15P	LN190450	174.10-650.9-T07P

Accessories

For size	Insert clamping torque	Replacement blade	Shim key	Torque key
				
...-19	3.0NM	T00-15P	T07P-2	T00-15P30

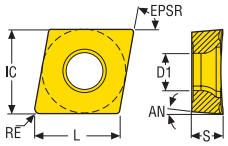


General Turning Inserts

Anything is possible when it comes to our broad selection of general turning grades and chipbreakers. Supporting inserts of different shapes, sizes and thicknesses, we developed each of these solutions with the same goal in mind: to boost the productivity and tool life in your turning applications. Covering all material groups, this comprehensive range allows you to achieve your goals in terms of material removal rates, tool life and surface finish.

- Duratomic® is an exclusive insert technology that brings an exceptional combination of wear resistance and edge toughness to a wide variety of Seco grades.
- Wide range of inserts grades to cover all workpiece material groups (SMG).
- Coated, uncoated cemented carbide and cermet grade inserts followed by Advanced material ceramic, cBN and diamond grade inserts.

CCGT, CCGX, CCMT



CCGT, CCGX
Tolerances:
IC = ±0,025/*0.001*
S = ±0,05/*0.002*
RE = (≥0,2/*0.008*) = ±0,1/*0.0039*
RE = (≤0,1/*0.004*) = ±0,025/*0.001*

CCMT
Tolerances:
IC = ±0,05/*0.002*
IC = ±0,08/*0.0031*
IC = ±0,10/*0.0039*
IC = ±0,13/*0.0051*
S = ±0,05/*0.002*
S = ±0,13/*0.0051*
RE = ±0,1/*0.0039*

Size:
06-09/*2-3*
12/*4*
16/*5*
25/*8*
06-09/*2-3*
12-25/*4-8*

* Right-hand version shown

For ISO attribute explanation, see page 82

CCGT-AL



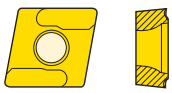
CCGT-F1



CCGT-MF2



CCGT-UX*



CCGX...W-F1



CCMT-FF1



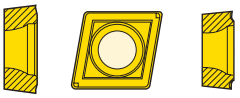
CCMT-F1



CCMT...W-F1



CCMT-F2



CCMT-MF2



CCMT...W-MF2



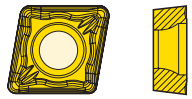
CCMT-M3



CCMT...W-M3



CCMT-M5



Designation	RE	IC	L	S	D1	EPSR°	AN°	Cemented Carbide and Cermet Grades																											
								Coated																				Uncoated				Cermet				
	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*			TP0501	TP1501	TP2501	TP3501	TP25	TP40	TM1501	TM2501	TM3501	TK0501	TK1501	TS2000	TS2050	TS2500	TH1000	TH1501	CP200	CP500	CP600	HX	KX	883	890	TP1030	TP1020
CCGT0602005-F1	0,05	6,35	6,5	2,38	2,9	80,0	7,0																	■								
CCGT21.50.0-F1	*0.002*	*0.250*	*0.256*	*0.094*	*0.114*																														
CCGT060201-F1	0,1	6,35	6,5	2,38	2,9	80,0	7,0																	■								
CCGT21.50-F1	*0.004*	*0.250*	*0.256*	*0.094*	*0.114*																														
CCGT060201-MF2	0,1	6,35	6,5	2,38	2,9	80,0	7,0													■				■								
CCGT21.50-MF2	*0.004*	*0.250*	*0.256*	*0.094*	*0.114*																														
CCGT060202F-AL	0,2	6,35	6,5	2,38	2,8	80,0	7,0													■								■							
CCGT21.50.5F-AL	*0.008*	*0.250*	*0.256*	*0.094*	*0.110*																														
CCGT060202-MF2	0,2	6,35	6,45	2,38	2,9	80,0	7,0													■															
CCGT21.50.5-MF2	*0.008*	*0.250*	*0.254*	*0.094*	*0.114*																														
CCGX060202W-F1	0,2	6,35	6,5	2,38	2,9	80,0	7,0			■		■																							
CCGX21.50.5W-F1	*0.008*	*0.250*	*0.256*	*0.094*	*0.114*																														
CCMT060202-F1	0,2	6,35	6,5	2,38	2,9	80,0	7,0		■	■	■		■		■				■					■	■							■	■		
CCMT21.50.5-F1	*0.008*	*0.250*	*0.256*	*0.094*	*0.114*																														
CCMT060202-F2	0,2	6,35	6,5	2,38	2,9	80,0	7,0						■														■								
CCMT21.50.5-F2	*0.008*	*0.250*	*0.256*	*0.094*	*0.114*																														
CCMT060202-FF1	0,2	6,35	6,5	2,38	2,9	80,0	7,0			■						■																			
CCMT21.50.5-FF1	*0.008*	*0.250*	*0.256*	*0.094*	*0.114*																														
CCMT060202-M3	0,2	6,35	6,5	2,38	2,9	80,0	7,0		■	■	■	■				■																			
CCMT21.50.5-M3	*0.008*	*0.250*	*0.256*	*0.094*	*0.114*																														
CCMT060202-MF2	0,2	6,35	6,5	2,38	2,9	80,0	7,0			■	■					■									■										
CCMT21.50.5-MF2	*0.008*	*0.250*	*0.256*	*0.094*	*0.114*																														
CCGT060204F-AL	0,4	6,35	6,5	2,38	2,8	80,0	7,0													■								■							
CCGT21.51F-AL	*0.016*	*0.250*	*0.256*	*0.094*	*0.110*																														
CCGT060204-F1	0,4	6,35	6,5	2,38	2,9	80,0	7,0																											■	
CCGT21.51-F1	*0.016*	*0.250*	*0.256*	*0.094*	*0.114*																														
CCGT060204-MF2	0,4	6,35	6,5	2,38	2,9	80,0	7,0													■					■										
CCGT21.51-MF2	*0.016*	*0.250*	*0.256*	*0.094*	*0.114*																														
CCGT060204R-UX	0,4	6,35	6,5	2,38	2,8	80,0	7,0																		■										
CCGT21.51R-UX	*0.016*	*0.250*	*0.256*	*0.094*	*0.110*																														
CCGT060204L-UX	0,4	6,35	6,5	2,38	2,8	80,0	7,0																		■										
CCGT21.51L-UX	*0.016*	*0.250*	*0.256*	*0.094*	*0.110*																														
CCMT060204-F1	0,4	6,35	6,5	2,38	2,9	80,0	7,0		■	■	■		■	■	■	■	■	■	■			■	■	■	■	■						■	■		
CCMT21.51-F1	*0.016*	*0.250*	*0.256*	*0.094*	*0.114*																														
CCMT060204W-F1	0,4	6,35	6,5	2,38	2,9	80,0	7,0			■																								■	
CCMT21.51W-F1	*0.016*	*0.250*	*0.256*	*0.094*	*0.114*																														
CCMT060204-F2	0,4	6,35	6,5	2,38	2,9	80,0	7,0						■														■								
CCMT21.51-F2	*0.016*	*0.250*	*0.256*	*0.094*	*0.114*																														
CCMT060204-FF1	0,4	6,35	6,5	2,38	2,9	80,0	7,0			■	■					■																			
CCMT21.51-FF1	*0.016*	*0.250*	*0.256*	*0.094*	*0.114*																														

Designation	RE	IC	L	S	D1	EPSR°	AN°	Cemented Carbide and Cermet Grades																												
								Coated																					Uncoated				Cermet				
	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*			TP0501	TP1501	TP2501	TP3501	TP25	TP40	TM1501	TM2501	TM3501	TK0501	TK1501	TS2000	TS2050	TS2500	TH1000	TH1501	CP200	CP500	CP600	HX	KX	883	890	TP1030	TP1020					
CCMT060204-M3 *CCMT21.51-M3*	0,4 *0.016*	6,35 *0.250*	6,5 *0.256*	2,38 *0.094*	2,9 *0.114*	80,0	7,0		■	■	■	■		■	■	■	■	■																		
CCMT060204-MF2 *CCMT21.51-MF2*	0,4 *0.016*	6,35 *0.250*	6,5 *0.256*	2,38 *0.094*	2,9 *0.114*	80,0	7,0		■	■	■			■		■								■					■						
CCMT060204W-MF2 *CCMT21.51W-MF2*	0,4 *0.016*	6,35 *0.250*	6,5 *0.256*	2,38 *0.094*	2,9 *0.114*	80,0	7,0								■									■											
CCMT060208-F1 *CCMT21.52-F1*	0,8 *0.031*	6,35 *0.250*	6,5 *0.256*	2,38 *0.094*	2,9 *0.114*	80,0	7,0			■	■		■		■									■					■						
CCMT060208-F2 *CCMT21.52-F2*	0,8 *0.031*	6,35 *0.250*	6,5 *0.256*	2,38 *0.094*	2,9 *0.114*	80,0	7,0						■													■									
CCMT060208-M3 *CCMT21.52-M3*	0,8 *0.031*	6,35 *0.250*	6,5 *0.256*	2,38 *0.094*	2,9 *0.114*	80,0	7,0			■	■	■			■	■		■																	
CCMT060208-MF2 *CCMT21.52-MF2*	0,8 *0.031*	6,35 *0.250*	6,5 *0.256*	2,38 *0.094*	2,9 *0.114*	80,0	7,0		■	■	■			■		■								■											
CCMT090304-M3 *CCMT321-M3*	0,4 *0.016*	9,525 *0.375*	9,67 *0.381*	3,18 *0.125*	4,5 *0.177*	80,0	7,0			■																									
CCGT09T3005-F1 *CCGT32.50.0-F1*	0,05 *0.002*	9,525 *0.375*	9,67 *0.381*	3,97 *0.156*	4,5 *0.177*	80,0	7,0													■															
CCGT09T301-F1 *CCGT32.50-F1*	0,1 *0.004*	9,525 *0.375*	9,7 *0.382*	3,97 *0.156*	4,5 *0.177*	80,0	7,0													■					■										
CCGT09T302F-AL *CCGT32.50.5F-AL*	0,2 *0.008*	9,525 *0.375*	9,7 *0.382*	3,97 *0.156*	4,4 *0.173*	80,0	7,0													■								■							
CCGT09T302-F1 *CCGT32.50.5-F1*	0,2 *0.008*	9,525 *0.375*	9,67 *0.381*	3,97 *0.156*	4,5 *0.177*	80,0	7,0													■															
CCMT09T302-F1 *CCMT32.50.5-F1*	0,2 *0.008*	9,525 *0.375*	9,7 *0.382*	3,97 *0.156*	4,5 *0.177*	80,0	7,0		■	■	■		■		■									■							■	■			
CCMT09T302-F2 *CCMT32.50.5-F2*	0,2 *0.008*	9,525 *0.375*	9,7 *0.382*	3,97 *0.156*	4,5 *0.177*	80,0	7,0																			■									
CCMT09T302-M3 *CCMT32.50.5-M3*	0,2 *0.008*	9,525 *0.375*	9,67 *0.381*	3,97 *0.156*	4,5 *0.177*	80,0	7,0			■		■																							
CCMT09T302-MF2 *CCMT32.50.5-MF2*	0,2 *0.008*	9,525 *0.375*	9,7 *0.382*	3,97 *0.156*	4,5 *0.177*	80,0	7,0			■						■									■										
CCGT09T304F-AL *CCGT32.51F-AL*	0,4 *0.016*	9,525 *0.375*	9,7 *0.382*	3,97 *0.156*	4,4 *0.173*	80,0	7,0													■								■							
CCGT09T304-F1 *CCGT32.51-F1*	0,4 *0.016*	9,525 *0.375*	9,7 *0.382*	3,97 *0.156*	4,5 *0.177*	80,0	7,0													■															■
CCGT09T304-MF2 *CCGT32.51-MF2*	0,4 *0.016*	9,525 *0.375*	9,7 *0.382*	3,97 *0.156*	4,5 *0.177*	80,0	7,0																		■										
CCGT09T304R-UX *CCGT32.51R-UX*	0,4 *0.016*	9,525 *0.375*	9,7 *0.382*	3,97 *0.156*	4,4 *0.173*	80,0	7,0																		■										
CCGT09T304L-UX *CCGT32.51L-UX*	0,4 *0.016*	9,525 *0.375*	9,7 *0.382*	3,97 *0.156*	4,4 *0.173*	80,0	7,0																		■										
CCMT09T304-F1 *CCMT32.51-F1*	0,4 *0.016*	9,525 *0.375*	9,7 *0.382*	3,97 *0.156*	4,5 *0.177*	80,0	7,0		■	■	■	■	■	■	■	■		■	■			■	■	■	■					■	■				
CCMT09T304W-F1 *CCMT32.51W-F1*	0,4 *0.016*	9,525 *0.375*	9,7 *0.382*	3,97 *0.156*	4,5 *0.177*	80,0	7,0		■	■																					■				
CCMT09T304-F2 *CCMT32.51-F2*	0,4 *0.016*	9,525 *0.375*	9,7 *0.382*	3,97 *0.156*	4,5 *0.177*	80,0	7,0						■						■					■			■								
CCMT09T304-FF1 *CCMT32.51-FF1*	0,4 *0.016*	9,525 *0.375*	9,7 *0.382*	3,97 *0.156*	4,5 *0.177*	80,0	7,0			■	■					■																			
CCMT09T304-M3 *CCMT32.51-M3*	0,4 *0.016*	9,525 *0.375*	9,7 *0.382*	3,97 *0.156*	4,5 *0.177*	80,0	7,0		■	■	■	■		■	■	■	■	■																	
CCMT09T304-M5 *CCMT32.51-M5*	0,4 *0.016*	9,525 *0.375*	9,7 *0.382*	3,97 *0.156*	4,5 *0.177*	80,0	7,0	■	■	■					■			■																	
CCMT09T304-MF2 *CCMT32.51-MF2*	0,4 *0.016*	9,525 *0.375*	9,7 *0.382*	3,97 *0.156*	4,5 *0.177*	80,0	7,0		■	■	■			■	■	■									■	■						■			
CCMT09T304W-MF2 *CCMT32.51W-MF2*	0,4 *0.016*	9,525 *0.375*	9,7 *0.382*	3,97 *0.156*	4,5 *0.177*	80,0	7,0		■	■					■										■										
CCGT09T308F-AL *CCGT32.52F-AL*	0,8 *0.031*	9,525 *0.375*	9,7 *0.382*	3,97 *0.156*	4,4 *0.173*	80,0	7,0																					■							

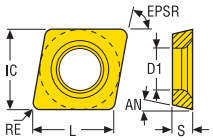
Designation	RE	IC	L	S	D1	EPSR°	AN°	Cemented Carbide and Cermet Grades																									
								Coated																				Uncoated				Cermet	
	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*			TP0501	TP1501	TP2501	TP3501	TP25	TP40	TM1501	TM2501	TM3501	TK0501	TK1501	TS2000	TS2050	TS2500	TH1000	TH1501	CP200	CP500	CP600	HX	KX	883	890	TP1030	TP1020
CCMT09T308-F1 *CCMT32.52-F1*	0,8 *0.031*	9,525 *0.375*	9,7 *0.382*	3,97 *0.156*	4,5 *0.177*	80,0	7,0		■	■	■	■	■	■	■	■	■	■	■			■	■	■	■					■	
CCMT09T308W-F1 *CCMT32.52W-F1*	0,8 *0.031*	9,525 *0.375*	9,7 *0.382*	3,97 *0.156*	4,5 *0.177*	80,0	7,0		■	■																				■	■
CCMT09T308-F2 *CCMT32.52-F2*	0,8 *0.031*	9,525 *0.375*	9,7 *0.382*	3,97 *0.156*	4,5 *0.177*	80,0	7,0						■													■					
CCMT09T308-FF1 *CCMT32.52-FF1*	0,8 *0.031*	9,525 *0.375*	9,67 *0.381*	3,97 *0.156*	4,5 *0.177*	80,0	7,0									■															
CCMT09T308-M3 *CCMT32.52-M3*	0,8 *0.031*	9,525 *0.375*	9,7 *0.382*	3,97 *0.156*	4,5 *0.177*	80,0	7,0		■	■	■	■		■	■	■	■	■													
CCMT09T308W-M3 *CCMT32.52W-M3*	0,8 *0.031*	9,525 *0.375*	9,67 *0.381*	3,97 *0.156*	4,5 *0.177*	80,0	7,0		■																						
CCMT09T308-M5 *CCMT32.52-M5*	0,8 *0.031*	9,525 *0.375*	9,7 *0.382*	3,97 *0.156*	4,5 *0.177*	80,0	7,0		■	■	■				■			■													
CCMT09T308-MF2 *CCMT32.52-MF2*	0,8 *0.031*	9,525 *0.375*	9,7 *0.382*	3,97 *0.156*	4,5 *0.177*	80,0	7,0		■	■	■			■	■	■									■						
CCMT09T308W-MF2 *CCMT32.52W-MF2*	0,8 *0.031*	9,525 *0.375*	9,7 *0.382*	3,97 *0.156*	4,5 *0.177*	80,0	7,0		■	■					■										■						
CCMT09T312-M3 *CCMT32.53-M3*	1,2 *0.047*	9,525 *0.375*	9,7 *0.382*	3,97 *0.156*	4,5 *0.177*	80,0	7,0		■	■	■																				
CCGT120404F-AL *CCGT431F-AL*	0,4 *0.016*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,5 *0.217*	80,0	7,0																				■				
CCMT120404-F1 *CCMT431-F1*	0,4 *0.016*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,6 *0.220*	80,0	7,0			■	■								■					■							
CCMT120404W-F1 *CCMT431W-F1*	0,4 *0.016*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,6 *0.220*	80,0	7,0			■																					
CCMT120404-F2 *CCMT431-F2*	0,4 *0.016*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,6 *0.220*	80,0	7,0																				■				
CCMT120404-M3 *CCMT431-M3*	0,4 *0.016*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,6 *0.220*	80,0	7,0		■	■	■	■						■													
CCGT120408F-AL *CCGT432F-AL*	0,8 *0.031*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,5 *0.217*	80,0	7,0																				■				
CCGT120408L-UX *CCGT432L-UX*	0,8 *0.031*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,5 *0.217*	80,0	7,0																		■						
CCMT120408-F1 *CCMT432-F1*	0,8 *0.031*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,6 *0.220*	80,0	7,0			■	■							■	■					■							
CCMT120408W-F1 *CCMT432W-F1*	0,8 *0.031*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,6 *0.220*	80,0	7,0			■																					
CCMT120408-F2 *CCMT432-F2*	0,8 *0.031*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,6 *0.220*	80,0	7,0						■														■				
CCMT120408-M3 *CCMT432-M3*	0,8 *0.031*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,6 *0.220*	80,0	7,0		■	■	■	■		■	■	■	■	■													
CCMT120408-M5 *CCMT432-M5*	0,8 *0.031*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,6 *0.220*	80,0	7,0		■	■	■				■		■	■													
CCMT120408-MF2 *CCMT432-MF2*	0,8 *0.031*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,6 *0.220*	80,0	7,0		■	■	■			■		■															
CCMT120412-F1 *CCMT433-F1*	1,2 *0.047*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,6 *0.220*	80,0	7,0			■																					
CCMT120412-M3 *CCMT433-M3*	1,2 *0.047*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,6 *0.220*	80,0	7,0		■	■	■					■		■													
CCMT120412-M5 *CCMT433-M5*	1,2 *0.047*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,6 *0.220*	80,0	7,0			■	■				■			■													
CCMT160508-M3 *CCMT53.52-M3*	0,8 *0.031*	15,875 *0.625*	16,12 *0.635*	5,56 *0.219*	5,6 *0.220*	80,0	7,0			■		■			■	■		■													
CCMT160508-M5 *CCMT53.52-M5*	0,8 *0.031*	15,875 *0.625*	16,12 *0.635*	5,56 *0.219*	5,6 *0.220*	80,0	7,0								■																
CCMT160512-M3 *CCMT53.53-M3*	1,2 *0.047*	15,875 *0.625*	16,12 *0.635*	5,56 *0.219*	5,6 *0.220*	80,0	7,0					■			■			■													
CCMT160512-M5 *CCMT53.53-M5*	1,2 *0.047*	15,875 *0.625*	16,1 *0.634*	5,56 *0.219*	5,6 *0.220*	80,0	7,0			■	■				■																

Designation	RE	IC	L	S	D1	EPSR°	AN°	Cemented Carbide and Cermet Grades																													
								Coated																					Uncoated				Cermet	
	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*			TP0501	TP1501	TP2501	TP3501	TP25	TP40	TM1501	TM2501	TM3501	TK0501	TK1501	TS2000	TS2050	TS2500	TH1000	TH1501	CP200	CP500	CP600	HX	KX	883	890	TP1030	TP1020
CCMT160516-M5 *CCMT53.54-M5*	1,6 *0.063*	15,875 *0.625*	16,1 *0.634*	5,56 *0.219*	5,6 *0.220*	80,0	7,0			■																								

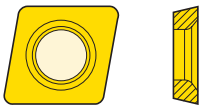
CDCB

For ISO attribute explanation, see page 82

Tolerances:
IC = ±0,025/*0.001*
S = ±0,025/*0.001*
RE = ±0,025/*0.001*

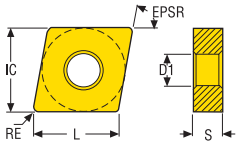


CDCB



Designation	RE	IC	L	S	D1	EPSR°	AN°	Cemented Carbide and Cermet Grades																													
								Coated																					Uncoated				Cermet	
	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*			TP0501	TP1501	TP2501	TP3501	TP25	TP40	TM1501	TM2501	TM3501	TK0501	TK1501	TS2000	TS2050	TS2500	TH1000	TH1501	CP200	CP500	CP600	HX	KX	883	890	TP1030	TP1020
CDCB04T0005 *CDCB1.21.20*	0,05 *0.002*	3,969 *0.156*	4,03 *0.159*	0,966 *0.038*	2,04 *0.080*	80,0	15,0																		■										
CDCB04T002 *CDCB1.21.20.5*	0,2 *0.008*	3,969 *0.156*	4,03 *0.159*	0,966 *0.038*	2,04 *0.080*	80,0	15,0														■				■			■						
CDCB04T004 *CDCB1.21.21*	0,4 *0.016*	3,969 *0.156*	4,03 *0.159*	0,966 *0.038*	2,04 *0.080*	80,0	15,0														■				■									

CNGG, CNMA, CNMG, CNMM

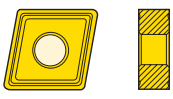


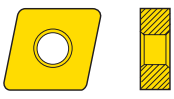
CNGG
Tolerances:
IC = ±0,025/*0.001*
S = ±0,13/*0.005*
RE = ±0,1/*0.004*

CNMA, CNMG, CNMM
Tolerances: Size:
IC = ±0,05/*0.002* 09/*3*
IC = ±0,08/*0.003* 12/*4*
IC = ±0,10/*0.004* 16-19/*5-6*
IC = ±0,13/*0.005* 25/*8*
S = ±0,13/*0.005*
RE = ±0,1/*0.004*

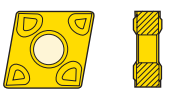
For ISO attribute explanation, see page 82

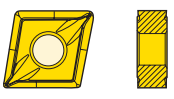
CNGG-MF1

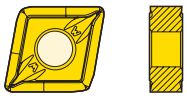

CNGG-M1


CNMA


CNMA-MR9

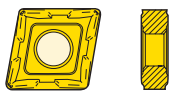

CNMG-FF1


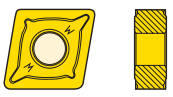
CNMG-FF2


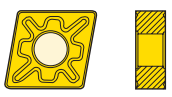
CNMG...W-FF2


CNMG-MF1

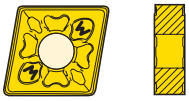

CNMG...W-MF1

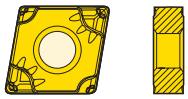

CNMG-MF2


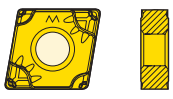
CNMG...W-MF2


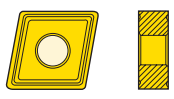
CNMG-MF3


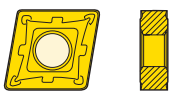
CNMG-MF4

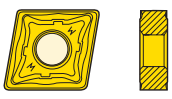

CNMG...W-MF4


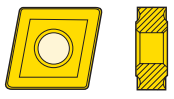
CNMG-MF5


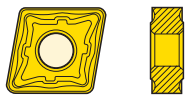
CNMG...W-MF5


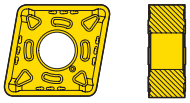
CNMG-M1


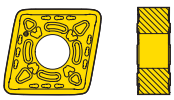
CNMG-M3


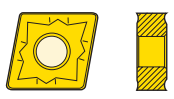
CNMG...W-M3


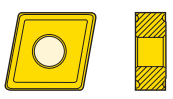
CNMG-M4


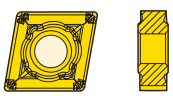
CNMG-M5


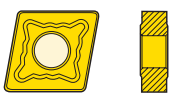
CNMG-M6


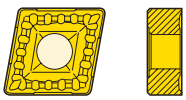
CNMG...W-M6


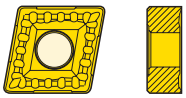
CNMG-MR3


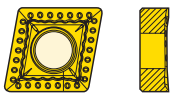
CNMG-MR4


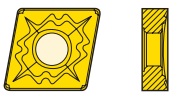
CNMG-MR6


CNMG-MR7


CNMM-R4


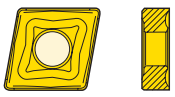
CNMM...W-R4


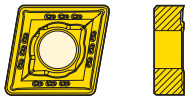
CNMM-R5


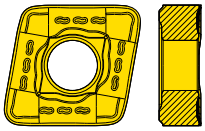
CNMM-R6


CNMM-R7


CNMM...W-R7


CNMM-R8


CNMM-RR6


CNMM...W-RR6


Designation	RE	IC	L	S	D1	EPSR°	AN°	Cemented Carbide and Cermet Grades																											
								Coated																					Uncoated				Cermet	
	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*			TP0501	TP1501	TP2501	TP3501	TP25	TP40	TM1501	TM2501	TM3501	TK0501	TK1501	TS2000	TS2050	TS2500	TH1000	TH1501	CP200	CP500	CP600	HX	KX	883	890	TP1030	TP1020
CNMG090304-M3 *CNMG321-M3*	0,4 *0.016*	9,525 *0.375*	9,7 *0.382*	3,18 *0.125*	3,81 *0.150*	80,0	0,0			■					■																			
CNMG090308-M3 *CNMG322-M3*	0,8 *0.031*	9,525 *0.375*	9,7 *0.382*	3,18 *0.125*	3,81 *0.150*	80,0	0,0			■					■																			
CNGG120401-MF1 *CNGP430-MF1*	0,1 *0.004*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,15 *0.203*	80,0	0,0												■					■										
CNGG120402-M1 *CNGP430.5-M1*	0,2 *0.008*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,15 *0.203*	80,0	0,0														■												
CNGG120402-MF1 *CNGP430.5-MF1*	0,2 *0.008*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,15 *0.203*	80,0	0,0												■					■	■					■				
CNMG120402-FF2 *CNMG430.5-FF2*	0,2 *0.008*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,15 *0.203*	80,0	0,0			■															■									
CNGG120404-M1 *CNGP431F-M1*	0,4 *0.016*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,15 *0.203*	80,0	0,0																					■					
CNGG120404-MF1 *CNGP431-MF1*	0,4 *0.016*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,15 *0.203*	80,0	0,0												■					■	■					■				
CNMA120404 *CNMA431*	0,4 *0.016*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,15 *0.203*	80,0	0,0										■																	

Designation	RE	IC	L	S	D1	EPSR°	AN°	Cemented Carbide and Cermet Grades																											
								Coated																					Uncoated				Cermet	
	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*			TP0501	TP1501	TP2501	TP3501	TP25	TP40	TM1501	TM2501	TM3501	TK0501	TK1501	TS2000	TS2050	TS2500	TH1000	TH1501	CP200	CP500	CP600	HX	KX	883	890	TP1030	TP1020
CNMG120404-FF1 *CNMG431-FF1*	0,4 *0.016*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,15 *0.203*	80,0	0,0			■						■																			
CNMG120404-FF2 *CNMG431-FF2*	0,4 *0.016*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,15 *0.203*	80,0	0,0			■														■						■			
CNMG120404W-FF2 *CNMG431W-FF2*	0,4 *0.016*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,15 *0.203*	80,0	0,0			■																								
CNMG120404-M1 *CNMP431-M1*	0,4 *0.016*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,15 *0.203*	80,0	0,0												■										■					
CNMG120404-M3 *CNMG431-M3*	0,4 *0.016*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,15 *0.203*	80,0	0,0			■	■	■	■		■	■									■									
CNMG120404-M5 *CNMG431-M5*	0,4 *0.016*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,15 *0.203*	80,0	0,0			■	■			■	■			■																
CNMG120404-MF1 *CNMP431-MF1*	0,4 *0.016*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,15 *0.203*	80,0	0,0							■	■	■			■			■		■	■					■				
CNMG120404W-MF1 *CNMG431W-MF1*	0,4 *0.016*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,15 *0.203*	80,0	0,0									■																		
CNMG120404-MF2 *CNMG431-MF2*	0,4 *0.016*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,15 *0.203*	80,0	0,0	■		■	■	■						■															■	
CNMG120404W-MF2 *CNMG431W-MF2*	0,4 *0.016*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,15 *0.203*	80,0	0,0		■																								
CNMG120404-MF3 *CNMG431-MF3*	0,4 *0.016*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,15 *0.203*	80,0	0,0				■																							
CNMG120404-MF4 *CNMG431-MF4*	0,4 *0.016*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,15 *0.203*	80,0	0,0							■	■	■			■		■				■									
CNMG120404W-MF4 *CNMG431W-MF4*	0,4 *0.016*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,15 *0.203*	80,0	0,0							■	■																			
CNMG120404-MR4 *CNMG431-MR4*	0,4 *0.016*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,15 *0.203*	80,0	0,0																						■				
CNGG120408-MF1 *CNGP432-MF1*	0,8 *0.031*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,15 *0.203*	80,0	0,0												■					■	■					■				
CNMA120408 *CNMA432*	0,8 *0.031*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,15 *0.203*	80,0	0,0										■	■																
CNMA120408-MR9 *CNMA432-MR9*	0,8 *0.031*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,15 *0.203*	80,0	0,0											■																
CNMG120408-FF1 *CNMG432-FF1*	0,8 *0.031*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,15 *0.203*	80,0	0,0									■																		
CNMG120408-FF2 *CNMG432-FF2*	0,8 *0.031*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,15 *0.203*	80,0	0,0		■	■																								
CNMG120408W-FF2 *CNMG432W-FF2*	0,8 *0.031*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,15 *0.203*	80,0	0,0		■	■																							■	
CNMG120408-M1 *CNMP432-M1*	0,8 *0.031*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,15 *0.203*	80,0	0,0														■								■				
CNMG120408-M3 *CNMG432-M3*	0,8 *0.031*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,15 *0.203*	80,0	0,0	■	■	■	■	■		■	■	■		■					■		■								
CNMG120408W-M3 *CNMG432W-M3*	0,8 *0.031*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,15 *0.203*	80,0	0,0	■	■	■								■																
CNMG120408-M4 *CNMG432-M4*	0,8 *0.031*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,15 *0.203*	80,0	0,0										■	■																
CNMG120408-M5 *CNMG432-M5*	0,8 *0.031*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,15 *0.203*	80,0	0,0	■	■	■	■	■	■	■	■		■	■				■												
CNMG120408-M6 *CNMG432-M6*	0,8 *0.031*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,15 *0.203*	80,0	0,0	■	■	■	■							■																
CNMG120408W-M6 *CNMG432W-M6*	0,8 *0.031*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,15 *0.203*	80,0	0,0			■																								
CNMG120408-MF1 *CNMP432-MF1*	0,8 *0.031*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,15 *0.203*	80,0	0,0							■	■	■			■			■		■	■					■				
CNMG120408W-MF1 *CNMG432W-MF1*	0,8 *0.031*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,15 *0.203*	80,0	0,0																		■									
CNMG120408-MF2 *CNMG432-MF2*	0,8 *0.031*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,15 *0.203*	80,0	0,0	■	■	■	■	■					■	■				■	■									■	

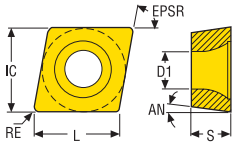
Designation	RE	IC	L	S	D1	EPSR°	AN°	Cemented Carbide and Cermet Grades																												
								Coated																							Uncoated				Cermet	
	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*			TP0501	TP1501	TP2501	TP3501	TP25	TP40	TM1501	TM2501	TM3501	TK0501	TK1501	TS2000	TS2050	TS2500	TH1000	TH1501	CP200	CP500	CP600	HX	KX	883	890	TP1030	TP1020
CNMG120408W-MF2 *CNMG432W-MF2*	0,8 *0.031*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,15 *0.203*	80,0	0,0	■	■	■								■																	
CNMG120408-MF3 *CNMG432-MF3*	0,8 *0.031*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,15 *0.203*	80,0	0,0				■	■	■		■	■		■																	
CNMG120408-MF4 *CNMG432-MF4*	0,8 *0.031*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,15 *0.203*	80,0	0,0			■	■			■	■	■			■		■				■										
CNMG120408W-MF4 *CNMG432W-MF4*	0,8 *0.031*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,15 *0.203*	80,0	0,0							■	■	■																			
CNMG120408-MF5 *CNMG432-MF5*	0,8 *0.031*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,15 *0.203*	80,0	0,0		■	■									■		■	■	■												
CNMG120408W-MF5 *CNMG432W-MF5*	0,8 *0.031*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,15 *0.203*	80,0	0,0		■	■							■					■	■												
CNMG120408-MR3 *CNMG432-MR3*	0,8 *0.031*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,15 *0.203*	80,0	0,0								■	■			■					■	■					■					
CNMG120408-MR4 *CNMG432-MR4*	0,8 *0.031*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,15 *0.203*	80,0	0,0														■								■					
CNMG120408-MR6 *CNMG432-MR6*	0,8 *0.031*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,15 *0.203*	80,0	0,0		■	■																								
CNMG120408-MR7 *CNMG432-MR7*	0,8 *0.031*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,15 *0.203*	80,0	0,0		■	■	■		■		■		■	■																
CNMM120408-R4 *CNMM432-R4*	0,8 *0.031*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,15 *0.203*	80,0	0,0		■	■	■	■																						
CNMM120408-R6 *CNMM432-R6*	0,8 *0.031*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,15 *0.203*	80,0	0,0			■	■																								
CNMA120412 *CNMA433*	1,2 *0.047*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,15 *0.203*	80,0	0,0										■	■																	
CNMA120412-MR9 *CNMA433-MR9*	1,2 *0.047*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,15 *0.203*	80,0	0,0										■	■																	
CNMG120412-M3 *CNMG433-M3*	1,2 *0.047*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,15 *0.203*	80,0	0,0	■	■	■	■	■		■	■	■									■										
CNMG120412W-M3 *CNMG433W-M3*	1,2 *0.047*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,15 *0.203*	80,0	0,0	■	■	■								■																	
CNMG120412-M4 *CNMG433-M4*	1,2 *0.047*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,15 *0.203*	80,0	0,0										■	■																	
CNMG120412-M5 *CNMG433-M5*	1,2 *0.047*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,15 *0.203*	80,0	0,0	■	■	■	■	■	■	■	■		■	■				■												
CNMG120412-M6 *CNMG433-M6*	1,2 *0.047*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,15 *0.203*	80,0	0,0	■	■	■	■																								
CNMG120412W-M6 *CNMG433W-M6*	1,2 *0.047*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,15 *0.203*	80,0	0,0		■	■																								
CNMG120412-MF2 *CNMG433-MF2*	1,2 *0.047*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,15 *0.203*	80,0	0,0	■	■	■												■	■												
CNMG120412-MF3 *CNMG433-MF3*	1,2 *0.047*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,15 *0.203*	80,0	0,0				■		■			■																			
CNMG120412-MF4 *CNMG433-MF4*	1,2 *0.047*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,15 *0.203*	80,0	0,0			■				■	■	■			■		■													
CNMG120412W-MF4 *CNMG433W-MF4*	1,2 *0.047*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,15 *0.203*	80,0	0,0								■	■																			
CNMG120412-MF5 *CNMG433-MF5*	1,2 *0.047*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,15 *0.203*	80,0	0,0	■	■	■									■			■	■												
CNMG120412-MR3 *CNMG433-MR3*	1,2 *0.047*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,15 *0.203*	80,0	0,0								■	■			■					■	■										
CNMG120412-MR4 *CNMG433-MR4*	1,2 *0.047*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,15 *0.203*	80,0	0,0														■								■					
CNMG120412-MR6 *CNMG433-MR6*	1,2 *0.047*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,15 *0.203*	80,0	0,0		■	■																								
CNMG120412-MR7 *CNMG433-MR7*	1,2 *0.047*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,15 *0.203*	80,0	0,0	■	■	■	■	■	■		■		■	■																
CNMM120412-R4 *CNMM433-R4*	1,2 *0.047*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,15 *0.203*	80,0	0,0	■	■	■	■		■																					

Designation	RE	IC	L	S	D1	EPSR°	AN°	Cemented Carbide and Cermet Grades																											
								Coated																				Uncoated				Cermet				
	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*			TP0501	TP1501	TP2501	TP3501	TP25	TP40	TM1501	TM2501	TM3501	TK0501	TK1501	TS2000	TS2050	TS2500	TH1000	TH1501	CP200	CP500	CP600	HX	KX	883	890	TP1030	TP1020				
CNMM120412W-R4 *CNMM433W-R4*	1,2 *0.047*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,15 *0.203*	80,0	0,0		■									■																	
CNMM120412-R6 *CNMM433-R6*	1,2 *0.047*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,15 *0.203*	80,0	0,0				■																							
CNMM120412-R8 *CNMM433-R8*	1,2 *0.047*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,15 *0.203*	80,0	0,0						■																					
CNMA120416 *CNMA434*	1,6 *0.063*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,15 *0.203*	80,0	0,0											■																	
CNMA120416-MR9 *CNMA434-MR9*	1,6 *0.063*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,15 *0.203*	80,0	0,0											■																	
CNMG120416-M3 *CNMG434-M3*	1,6 *0.063*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,15 *0.203*	80,0	0,0		■	■																									
CNMG120416-M5 *CNMG434-M5*	1,6 *0.063*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,15 *0.203*	80,0	0,0		■	■	■				■																				
CNMG120416-M6 *CNMG434-M6*	1,6 *0.063*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,15 *0.203*	80,0	0,0		■	■																									
CNMG120416-MF4 *CNMG434-MF4*	1,6 *0.063*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,15 *0.203*	80,0	0,0							■	■	■																			
CNMG120416-MR4 *CNMG434-MR4*	1,6 *0.063*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,15 *0.203*	80,0	0,0														■								■						
CNMG120416-MR7 *CNMG434-MR7*	1,6 *0.063*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,15 *0.203*	80,0	0,0		■	■	■						■	■																	
CNMM120416-R4 *CNMM434-R4*	1,6 *0.063*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,15 *0.203*	80,0	0,0		■	■																									
CNMA160608 *CNMA542*	0,8 *0.031*	15,875 *0.625*	16,1 *0.634*	6,35 *0.250*	6,35 *0.250*	80,0	0,0											■																	
CNMG160608-M1 *CNMP542-M1*	0,8 *0.031*	15,875 *0.625*	16,1 *0.634*	6,35 *0.250*	6,35 *0.250*	80,0	0,0																					■						
CNMG160608-M3 *CNMG542-M3*	0,8 *0.031*	15,875 *0.625*	16,1 *0.634*	6,35 *0.250*	6,35 *0.250*	80,0	0,0		■	■	■	■			■																				
CNMG160608-M5 *CNMG542-M5*	0,8 *0.031*	15,875 *0.625*	16,1 *0.634*	6,35 *0.250*	6,35 *0.250*	80,0	0,0		■	■	■				■			■																	
CNMG160608-M6 *CNMG542-M6*	0,8 *0.031*	15,875 *0.625*	16,1 *0.634*	6,35 *0.250*	6,35 *0.250*	80,0	0,0		■																									
CNMG160608-MF4 *CNMG542-MF4*	0,8 *0.031*	15,875 *0.625*	16,12 *0.635*	6,35 *0.250*	6,35 *0.250*	80,0	0,0							■	■	■																			
CNMG160608-MR4 *CNMG542-MR4*	0,8 *0.031*	15,875 *0.625*	16,1 *0.634*	6,35 *0.250*	6,35 *0.250*	80,0	0,0														■								■						
CNMG160608-MR7 *CNMG542-MR7*	0,8 *0.031*	15,875 *0.625*	16,1 *0.634*	6,35 *0.250*	6,35 *0.250*	80,0	0,0				■																								
CNMA160612 *CNMA543*	1,2 *0.047*	15,875 *0.625*	16,1 *0.634*	6,35 *0.250*	6,35 *0.250*	80,0	0,0										■	■																	
CNMA160612-MR9 *CNMA543-MR9*	1,2 *0.047*	15,875 *0.625*	16,12 *0.635*	6,35 *0.250*	6,35 *0.250*	80,0	0,0										■	■																	
CNMG160612-M3 *CNMG543-M3*	1,2 *0.047*	15,875 *0.625*	16,1 *0.634*	6,35 *0.250*	6,35 *0.250*	80,0	0,0	■	■	■	■	■			■	■																			
CNMG160612-M5 *CNMG543-M5*	1,2 *0.047*	15,875 *0.625*	16,1 *0.634*	6,35 *0.250*	6,35 *0.250*	80,0	0,0	■	■	■	■	■	■	■	■			■																	
CNMG160612-M6 *CNMG543-M6*	1,2 *0.047*	15,875 *0.625*	16,1 *0.634*	6,35 *0.250*	6,35 *0.250*	80,0	0,0	■	■	■	■							■																	
CNMG160612W-M6 *CNMG543W-M6*	1,2 *0.047*	15,875 *0.625*	16,1 *0.634*	6,35 *0.250*	6,35 *0.250*	80,0	0,0			■																									
CNMG160612-MF4 *CNMG543-MF4*	1,2 *0.047*	15,875 *0.625*	16,12 *0.635*	6,35 *0.250*	6,35 *0.250*	80,0	0,0							■	■	■																			
CNMG160612-MR4 *CNMG543-MR4*	1,2 *0.047*	15,875 *0.625*	16,1 *0.634*	6,35 *0.250*	6,35 *0.250*	80,0	0,0														■								■						
CNMG160612-MR7 *CNMG543-MR7*	1,2 *0.047*	15,875 *0.625*	16,1 *0.634*	6,35 *0.250*	6,35 *0.250*	80,0	0,0	■	■	■	■		■				■	■																	
CNMM160612-R4 *CNMM543-R4*	1,2 *0.047*	15,875 *0.625*	16,1 *0.634*	6,35 *0.250*	6,35 *0.250*	80,0	0,0	■	■	■	■	■																							

Designation	RE	IC	L	S	D1	EPSR°	AN°	Cemented Carbide and Cermet Grades																											
								Coated																					Uncoated				Cermet	
	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*			TP0501	TP1501	TP2501	TP3501	TP25	TP40	TM1501	TM2501	TM3501	TK0501	TK1501	TS2000	TS2050	TS2500	TH1000	TH1501	CP200	CP500	CP600	HX	KX	883	890	TP1030	TP1020
CNMM160612-R6 *CNMM543-R6*	1,2 *0.047*	15,875 *0.625*	16,1 *0.634*	6,35 *0.250*	6,35 *0.250*	80,0	0,0				■		■																			
CNMM160612-R7 *CNMM543-R7*	1,2 *0.047*	15,875 *0.625*	16,1 *0.634*	6,35 *0.250*	6,35 *0.250*	80,0	0,0				■																					
CNMM160612-RR6 *CNMM543-RR6*	1,2 *0.047*	15,875 *0.625*	16,12 *0.635*	6,35 *0.250*	6,35 *0.250*	80,0	0,0								■	■																
CNMA160616 *CNMA544*	1,6 *0.063*	15,875 *0.625*	16,1 *0.634*	6,35 *0.250*	6,35 *0.250*	80,0	0,0										■	■														
CNMA160616-MR9 *CNMA544-MR9*	1,6 *0.063*	15,875 *0.625*	16,12 *0.635*	6,35 *0.250*	6,35 *0.250*	80,0	0,0											■														
CNMG160616-M3 *CNMG544-M3*	1,6 *0.063*	15,875 *0.625*	16,1 *0.634*	6,35 *0.250*	6,35 *0.250*	80,0	0,0		■	■					■																	
CNMG160616-M5 *CNMG544-M5*	1,6 *0.063*	15,875 *0.625*	16,1 *0.634*	6,35 *0.250*	6,35 *0.250*	80,0	0,0	■	■	■	■	■	■	■	■			■														
CNMG160616-M6 *CNMG544-M6*	1,6 *0.063*	15,875 *0.625*	16,1 *0.634*	6,35 *0.250*	6,35 *0.250*	80,0	0,0	■	■	■	■							■														
CNMG160616W-M6 *CNMG544W-M6*	1,6 *0.063*	15,875 *0.625*	16,1 *0.634*	6,35 *0.250*	6,35 *0.250*	80,0	0,0		■																							
CNMG160616-MR7 *CNMG544-MR7*	1,6 *0.063*	15,875 *0.625*	16,1 *0.634*	6,35 *0.250*	6,35 *0.250*	80,0	0,0	■	■	■	■	■	■		■			■														
CNMM160616-R4 *CNMM544-R4*	1,6 *0.063*	15,875 *0.625*	16,1 *0.634*	6,35 *0.250*	6,35 *0.250*	80,0	0,0	■	■	■	■	■																				
CNMM160616-R5 *CNMM544-R5*	1,6 *0.063*	15,875 *0.625*	16,1 *0.634*	6,35 *0.250*	6,35 *0.250*	80,0	0,0		■																							
CNMM160616-R7 *CNMM544-R7*	1,6 *0.063*	15,875 *0.625*	16,1 *0.634*	6,35 *0.250*	6,35 *0.250*	80,0	0,0			■	■																					
CNMM160616-RR6 *CNMM544-RR6*	1,6 *0.063*	15,875 *0.625*	16,1 *0.634*	6,35 *0.250*	6,35 *0.250*	80,0	0,0		■	■					■	■																
CNMG160624-M6 *CNMG546-M6*	2,4 *0.094*	15,875 *0.625*	16,1 *0.634*	6,35 *0.250*	6,35 *0.250*	80,0	0,0				■																					
CNMG160624-MR7 *CNMG546-MR7*	2,4 *0.094*	15,875 *0.625*	16,1 *0.634*	6,35 *0.250*	6,35 *0.250*	80,0	0,0		■																							
CNMM160624-R7 *CNMM546-R7*	2,4 *0.094*	15,875 *0.625*	16,1 *0.634*	6,35 *0.250*	6,35 *0.250*	80,0	0,0	■																								
CNMG190608-M1 *CNMP642-M1*	0,8 *0.031*	19,05 *0.750*	19,3 *0.760*	6,35 *0.250*	7,92 *0.312*	80,0	0,0																					■				
CNMG190608-M3 *CNMG642-M3*	0,8 *0.031*	19,05 *0.750*	19,3 *0.760*	6,35 *0.250*	7,92 *0.312*	80,0	0,0		■	■	■	■				■																
CNMG190608-M5 *CNMG642-M5*	0,8 *0.031*	19,05 *0.750*	19,3 *0.760*	6,35 *0.250*	7,92 *0.312*	80,0	0,0		■	■	■		■		■																	
CNMG190608-MR7 *CNMG642-MR7*	0,8 *0.031*	19,05 *0.750*	19,3 *0.760*	6,35 *0.250*	7,92 *0.312*	80,0	0,0				■																					
CNMA190612 *CNMA643*	1,2 *0.047*	19,05 *0.750*	19,3 *0.760*	6,35 *0.250*	7,92 *0.312*	80,0	0,0										■	■														
CNMG190612-M1 *CNMP643-M1*	1,2 *0.047*	19,05 *0.750*	19,3 *0.760*	6,35 *0.250*	7,92 *0.312*	80,0	0,0																					■				
CNMG190612-M3 *CNMG643-M3*	1,2 *0.047*	19,05 *0.750*	19,3 *0.760*	6,35 *0.250*	7,92 *0.312*	80,0	0,0		■	■	■	■				■																
CNMG190612-M5 *CNMG643-M5*	1,2 *0.047*	19,05 *0.750*	19,3 *0.760*	6,35 *0.250*	7,92 *0.312*	80,0	0,0		■	■	■	■	■	■	■			■														
CNMG190612-M6 *CNMG643-M6*	1,2 *0.047*	19,05 *0.750*	19,3 *0.760*	6,35 *0.250*	7,92 *0.312*	80,0	0,0	■	■	■	■																					
CNMG190612-MF4 *CNMG643-MF4*	1,2 *0.047*	19,05 *0.750*	19,34 *0.761*	6,35 *0.250*	7,92 *0.312*	80,0	0,0							■	■	■																
CNMG190612-MR4 *CNMG643-MR4*	1,2 *0.047*	19,05 *0.750*	19,3 *0.760*	6,35 *0.250*	7,92 *0.312*	80,0	0,0														■								■			
CNMG190612-MR7 *CNMG643-MR7*	1,2 *0.047*	19,05 *0.750*	19,3 *0.760*	6,35 *0.250*	7,92 *0.312*	80,0	0,0	■	■	■	■	■	■		■			■														
CNMM190612-R4 *CNMM643-R4*	1,2 *0.047*	19,05 *0.750*	19,3 *0.760*	6,35 *0.250*	7,92 *0.312*	80,0	0,0	■	■	■	■	■																				

Designation	RE	IC	L	S	D1	EPSR°	AN°	Cemented Carbide and Cermet Grades																											
								Coated																				Uncoated				Cermet				
	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*			TP0501	TP1501	TP2501	TP3501	TP25	TP40	TM1501	TM2501	TM3501	TK0501	TK1501	TS2000	TS2050	TS2500	TH1000	TH1501	CP200	CP500	CP600	HX	KX	883	890	TP1030	TP1020				
CNMM190612-R6 *CNMM643-R6*	1,2 *0.047*	19,05 *0.750*	19,3 *0.760*	6,35 *0.250*	7,92 *0.312*	80,0	0,0				■		■																					
CNMM190612-R7 *CNMM643-R7*	1,2 *0.047*	19,05 *0.750*	19,3 *0.760*	6,35 *0.250*	7,92 *0.312*	80,0	0,0			■	■																						
CNMM190612-RR6 *CNMM643-RR6*	1,2 *0.047*	19,05 *0.750*	19,34 *0.761*	6,35 *0.250*	7,92 *0.312*	80,0	0,0								■																		
CNMA190616 *CNMA644*	1,6 *0.063*	19,05 *0.750*	19,3 *0.760*	6,35 *0.250*	7,92 *0.312*	80,0	0,0										■	■															
CNMG190616-M3 *CNMG644-M3*	1,6 *0.063*	19,05 *0.750*	19,3 *0.760*	6,35 *0.250*	7,92 *0.312*	80,0	0,0		■	■	■				■	■																	
CNMG190616-M5 *CNMG644-M5*	1,6 *0.063*	19,05 *0.750*	19,3 *0.760*	6,35 *0.250*	7,92 *0.312*	80,0	0,0		■	■	■	■	■	■	■			■															
CNMG190616-M6 *CNMG644-M6*	1,6 *0.063*	19,05 *0.750*	19,3 *0.760*	6,35 *0.250*	7,92 *0.312*	80,0	0,0	■	■		■																						
CNMG190616-MF4 *CNMG644-MF4*	1,6 *0.063*	19,05 *0.750*	19,34 *0.761*	6,35 *0.250*	7,92 *0.312*	80,0	0,0							■	■	■																	
CNMG190616-MR4 *CNMG644-MR4*	1,6 *0.063*	19,05 *0.750*	19,3 *0.760*	6,35 *0.250*	7,92 *0.312*	80,0	0,0																					■					
CNMG190616-MR7 *CNMG644-MR7*	1,6 *0.063*	19,05 *0.750*	19,3 *0.760*	6,35 *0.250*	7,92 *0.312*	80,0	0,0	■	■	■	■	■	■		■			■															
CNMM190616-R4 *CNMM644-R4*	1,6 *0.063*	19,05 *0.750*	19,3 *0.760*	6,35 *0.250*	7,92 *0.312*	80,0	0,0	■	■	■	■	■																					
CNMM190616-R5 *CNMM644-R5*	1,6 *0.063*	19,05 *0.750*	19,3 *0.760*	6,35 *0.250*	7,92 *0.312*	80,0	0,0	■																									
CNMM190616-R7 *CNMM644-R7*	1,6 *0.063*	19,05 *0.750*	19,3 *0.760*	6,35 *0.250*	7,92 *0.312*	80,0	0,0		■	■	■																						
CNMM190616W-R7 *CNMM644W-R7*	1,6 *0.063*	19,05 *0.750*	19,3 *0.760*	6,35 *0.250*	7,92 *0.312*	80,0	0,0		■	■	■																						
CNMM190616-R8 *CNMM644-R8*	1,6 *0.063*	19,05 *0.750*	19,3 *0.760*	6,35 *0.250*	7,92 *0.312*	80,0	0,0				■																						
CNMM190616-RR6 *CNMM644-RR6*	1,6 *0.063*	19,05 *0.750*	19,3 *0.760*	6,35 *0.250*	7,92 *0.312*	80,0	0,0			■	■			■	■																		
CNMG190624-M6 *CNMG646-M6*	2,4 *0.094*	19,05 *0.750*	19,3 *0.760*	6,35 *0.250*	7,92 *0.312*	80,0	0,0	■	■																								
CNMG190624-MR7 *CNMG646-MR7*	2,4 *0.094*	19,05 *0.750*	19,3 *0.760*	6,35 *0.250*	7,92 *0.312*	80,0	0,0		■	■		■																					
CNMM190624-R4 *CNMM646-R4*	2,4 *0.094*	19,05 *0.750*	19,3 *0.760*	6,35 *0.250*	7,92 *0.312*	80,0	0,0	■	■	■	■																						
CNMM190624-R5 *CNMM646-R5*	2,4 *0.094*	19,05 *0.750*	19,3 *0.760*	6,35 *0.250*	7,92 *0.312*	80,0	0,0	■																									
CNMM190624-R7 *CNMM646-R7*	2,4 *0.094*	19,05 *0.750*	19,3 *0.760*	6,35 *0.250*	7,92 *0.312*	80,0	0,0			■	■	■																					
CNMM190624W-R7 *CNMM646W-R7*	2,4 *0.094*	19,05 *0.750*	19,3 *0.760*	6,35 *0.250*	7,92 *0.312*	80,0	0,0	■	■	■		■																					
CNMM190624-RR6 *CNMM646-RR6*	2,4 *0.094*	19,05 *0.750*	19,34 *0.761*	6,35 *0.250*	7,92 *0.312*	80,0	0,0			■				■	■																		
CNMM190624W-RR6 *CNMM646W-RR6*	2,4 *0.094*	19,05 *0.750*	19,3 *0.760*	6,35 *0.250*	7,92 *0.312*	80,0	0,0					■																					
CNMG250924-MR4 *CNMG866-MR4*	2,4 *0.094*	25,4 *1.000*	25,8 *1.016*	9,52 *0.375*	9,12 *0.359*	80,0	0,0				■																						
CNMG250924-MR7 *CNMG866-MR7*	2,4 *0.094*	25,4 *1.000*	25,8 *1.016*	9,52 *0.375*	9,12 *0.359*	80,0	0,0			■	■	■																					

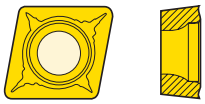
CPMT



Tolerances:
IC = ±0,05/*0.002*
S = ±0,13/*0.005*
RE = ±0,1/*0.004*

For ISO attribute explanation, see page 82

CPMT-F1



Designation	RE	IC	L	S	D1	EPSR°	AN°	Cemented Carbide and Cermet Grades																							
								Coated																			Uncoated				Cermet	
	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*			TP0501	TP1501	TP2501	TP3501	TP25	TP40	TM1501	TM2501	TM3501	TK0501	TK1501	TS2000	TS2050	TS2500	TH1000	TH1501	CP200	CP500	CP600	HX	KX	883	890	TP1030	TP1020
CPMT060201-F1 *CPMT21.50-F1*	0,1 *0.004*	6,35 *0.250*	6,5 *0.256*	2,38 *0.094*	2,9 *0.114*	80,0	11,0																■								
CPMT060202-F1 *CPMT21.50.5-F1*	0,2 *0.008*	6,35 *0.250*	6,5 *0.256*	2,38 *0.094*	2,9 *0.114*	80,0	11,0																■								
CPMT060204-F1 *CPMT21.51-F1*	0,4 *0.016*	6,35 *0.250*	6,5 *0.256*	2,38 *0.094*	2,9 *0.114*	80,0	11,0					■											■	■							
CPMT060208-F1 *CPMT21.52-F1*	0,8 *0.031*	6,35 *0.250*	6,45 *0.254*	2,38 *0.094*	2,9 *0.114*	80,0	11,0					■																			
CPMT09T301-F1 *CPMT32.50-F1*	0,1 *0.004*	9,525 *0.375*	9,7 *0.382*	3,97 *0.156*	4,5 *0.177*	80,0	11,0																■								
CPMT09T302-F1 *CPMT32.50.5-F1*	0,2 *0.008*	9,525 *0.375*	9,7 *0.382*	3,97 *0.156*	4,5 *0.177*	80,0	11,0																■								
CPMT09T304-F1 *CPMT32.51-F1*	0,4 *0.016*	9,525 *0.375*	9,7 *0.382*	3,97 *0.156*	4,5 *0.177*	80,0	11,0					■											■	■							
CPMT09T308-F1 *CPMT32.52-F1*	0,8 *0.031*	9,525 *0.375*	9,7 *0.382*	3,97 *0.156*	4,5 *0.177*	80,0	11,0					■												■							

DCGT, DCMT, DCMX

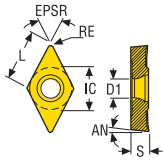
For ISO attribute explanation, see page 82

DCGT
Tolerances:
IC = ±0,025/*0.001*
S = ±0,05/*0.002*
RE (≥0,2/*0.008*) = ±0,1/*0.004*
RE (≤0,1/*0.004*) = ±0,025/*0.001*

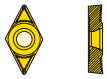
DCMT
Tolerances:
IC = ±0,05/*0.002*
IC = ±0,08/*0.003*
S = ±0,05/*0.002*
S = ±0,13/*0.005*
RE = ±0,1/*0.004*

Size:
07-11/2-3
15/4
07-11/2-3
15/4

DCMX
Tolerances:
IC = ±0,05/*0.002*
S = ±0,05/*0.002*
RE = ±0,1/*0.004*



DCGT-AL



DCGT-F1



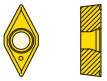
DCGT-MF2



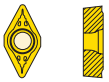
DCGT-M3



DCMT-FF1



DCMT-F1



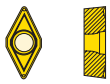
DCMT-F2



DCMT-MF2



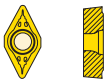
DCMT-M3



DCMT-M5



DCMX...W-F1

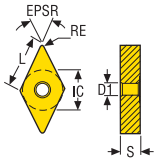


Designation	RE	IC	L	S	D1	EPSR°	AN°	Cemented Carbide and Cermet Grades																										
								Coated																					Uncoated				Cermet	
	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*			TP0501	TP1501	TP2501	TP3501	TP25	TP40	TM1501	TM2501	TM3501	TK0501	TK1501	TS2000	TS2050	TS2500	TH1000	TH1501	CP200	CP500	CP600	HX	KX	883	890	TP1030	TP1020
DCGT0702005F-AL *DCGT21.50.0F-AL*	0,05 *0.002*	6,35 *0.250*	7,755 *0.305*	2,38 *0.094*	2,8 *0.110*	55,0	7,0													■								■					
DCGT0702005-F1 *DCGT21.50.0-F1*	0,05 *0.002*	6,35 *0.250*	7,8 *0.307*	2,38 *0.094*	2,9 *0.114*	55,0	7,0																	■									
DCGT070201F-AL *DCGT21.50F-AL*	0,1 *0.004*	6,35 *0.250*	7,755 *0.305*	2,38 *0.094*	2,8 *0.110*	55,0	7,0													■								■					
DCGT070201-F1 *DCGT21.50-F1*	0,1 *0.004*	6,35 *0.250*	7,8 *0.307*	2,38 *0.094*	2,9 *0.114*	55,0	7,0																	■									
DCMT070202-F2 *DCMT21.50.5-F2*	0,2 *0.008*	6,35 *0.250*	7,8 *0.307*	2,38 *0.094*	2,9 *0.114*	55,0	7,0						■														■						
DCGT070202F-AL *DCGT21.50.5F-AL*	0,2 *0.008*	6,35 *0.250*	7,8 *0.307*	2,38 *0.094*	2,8 *0.110*	55,0	7,0													■								■					
DCGT070202-M3 *DCGT21.50.5-M3*	0,2 *0.008*	6,35 *0.250*	7,8 *0.307*	2,38 *0.094*	2,9 *0.114*	55,0	7,0																				■						
DCGT070202-MF2 *DCGT21.50.5-MF2*	0,2 *0.008*	6,35 *0.250*	7,75 *0.305*	2,38 *0.094*	2,9 *0.114*	55,0	7,0													■													
DCMT070202-F1 *DCMT21.50.5-F1*	0,2 *0.008*	6,35 *0.250*	7,8 *0.307*	2,38 *0.094*	2,9 *0.114*	55,0	7,0			■	■			■					■					■	■								
DCMT070202-M3 *DCMT21.50.5-M3*	0,2 *0.008*	6,35 *0.250*	7,8 *0.307*	2,38 *0.094*	2,9 *0.114*	55,0	7,0			■																							
DCMT070202-MF2 *DCMT21.50.5-MF2*	0,2 *0.008*	6,35 *0.250*	7,8 *0.307*	2,38 *0.094*	2,9 *0.114*	55,0	7,0									■									■							■	
DCMT070204-F2 *DCMT21.51-F2*	0,4 *0.016*	6,35 *0.250*	7,8 *0.307*	2,38 *0.094*	2,9 *0.114*	55,0	7,0						■														■						
DCGT070204F-AL *DCGT21.51F-AL*	0,4 *0.016*	6,35 *0.250*	7,8 *0.307*	2,38 *0.094*	2,8 *0.110*	55,0	7,0													■								■					
DCGT070204-M3 *DCGT21.51-M3*	0,2 *0.008*	6,35 *0.250*	7,8 *0.307*	2,38 *0.094*	2,9 *0.114*	55,0	7,0																				■						
DCMT070204-F1 *DCMT21.51-F1*	0,4 *0.016*	6,35 *0.250*	7,8 *0.307*	2,38 *0.094*	2,9 *0.114*	55,0	7,0		■	■	■	■		■	■				■					■	■						■		
DCMT070204-M3 *DCMT21.51-M3*	0,4 *0.016*	6,35 *0.250*	7,8 *0.307*	2,38 *0.094*	2,9 *0.114*	55,0	7,0		■	■	■	■		■		■																	
DCMT070204-MF2 *DCMT21.51-MF2*	0,4 *0.016*	6,35 *0.250*	7,8 *0.307*	2,38 *0.094*	2,9 *0.114*	55,0	7,0		■	■	■					■									■							■	
DCMT070208-F2 *DCMT21.52-F2*	0,8 *0.031*	6,35 *0.250*	7,8 *0.307*	2,38 *0.094*	2,9 *0.114*	55,0	7,0						■														■						
DCMT070208-F1 *DCMT21.52-F1*	0,8 *0.031*	6,35 *0.250*	7,8 *0.307*	2,38 *0.094*	2,9 *0.114*	55,0	7,0		■		■				■										■								
DCMT070208-M3 *DCMT21.52-M3*	0,8 *0.031*	6,35 *0.250*	7,8 *0.307*	2,38 *0.094*	2,9 *0.114*	55,0	7,0		■	■	■	■		■		■																	

Designation	RE	IC	L	S	D1	EPSR°	AN°	Cemented Carbide and Cermet Grades																									
								Coated																				Uncoated				Cermet	
	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*			TP0501	TP1501	TP2501	TP3501	TP25	TP40	TM1501	TM2501	TM3501	TK0501	TK1501	TS2000	TS2050	TS2500	TH1000	TH1501	CP200	CP500	CP600	HX	KX	883	890	TP1030	TP1020
DCMT070208-MF2 *DCMT21.52-MF2*	0,8 *0.031*	6,35 *0.250*	7,8 *0.307*	2,38 *0.094*	2,9 *0.114*	55,0	7,0				■					■																
DCGT11T301-F1 *DCGT32.50-F1*	0,1 *0.004*	9,525 *0.375*	11,6 *0.457*	3,97 *0.156*	4,5 *0.177*	55,0	7,0																	■								
DCGT11T301-MF2 *DCGT32.50-MF2*	0,1 *0.004*	9,525 *0.375*	11,6 *0.457*	3,97 *0.156*	4,5 *0.177*	55,0	7,0													■												
DCMT11T302-F2 *DCMT32.50.5-F2*	0,2 *0.008*	9,525 *0.375*	11,6 *0.457*	3,97 *0.156*	4,5 *0.177*	55,0	7,0																				■					
DCGT11T302F-AL *DCGT32.50.5F-AL*	0,2 *0.008*	9,525 *0.375*	11,6 *0.457*	3,97 *0.156*	4,4 *0.173*	55,0	7,0													■								■				
DCGT11T302-M3 *DCGT32.50.5-M3*	0,2 *0.008*	9,525 *0.375*	11,6 *0.457*	3,97 *0.156*	4,5 *0.177*	55,0	7,0																				■					
DCGT11T302-MF2 *DCGT32.50.5-MF2*	0,2 *0.008*	9,525 *0.375*	11,6 *0.457*	3,97 *0.156*	4,5 *0.177*	55,0	7,0													■												
DCMT11T302-F1 *DCMT32.50.5-F1*	0,2 *0.008*	9,525 *0.375*	11,6 *0.457*	3,97 *0.156*	4,5 *0.177*	55,0	7,0			■	■	■				■								■						■	■	
DCMT11T302-FF1 *DCMT32.50.5-FF1*	0,2 *0.008*	9,525 *0.375*	11,6 *0.457*	3,97 *0.156*	4,5 *0.177*	55,0	7,0			■						■																
DCMT11T302-M3 *DCMT32.50.5-M3*	0,2 *0.008*	9,525 *0.375*	11,6 *0.457*	3,97 *0.156*	4,5 *0.177*	55,0	7,0			■																						
DCMT11T302-MF2 *DCMT32.50.5-MF2*	0,2 *0.008*	9,525 *0.375*	11,6 *0.457*	3,97 *0.156*	4,5 *0.177*	55,0	7,0		■	■	■					■									■	■					■	
DCGT11T304F-AL *DCGT32.51F-AL*	0,4 *0.016*	9,525 *0.375*	11,6 *0.457*	3,97 *0.156*	4,4 *0.173*	55,0	7,0													■								■				
DCGT11T304-F1 *DCGT32.51-F1*	0,4 *0.016*	9,525 *0.375*	11,6 *0.457*	3,97 *0.156*	4,5 *0.177*	55,0	7,0													■												■
DCGT11T304-M3 *DCGT32.51-M3*	0,4 *0.016*	9,525 *0.375*	11,6 *0.457*	3,97 *0.156*	4,5 *0.177*	55,0	7,0																				■					
DCGT11T304-MF2 *DCGT32.51-MF2*	0,4 *0.016*	9,525 *0.375*	11,6 *0.457*	3,97 *0.156*	4,5 *0.177*	55,0	7,0													■					■							
DCMT11T304-F1 *DCMT32.51-F1*	0,4 *0.016*	9,525 *0.375*	11,6 *0.457*	3,97 *0.156*	4,5 *0.177*	55,0	7,0	■	■	■	■	■	■	■	■	■	■	■	■			■	■	■	■	■					■	■
DCMT11T304-F2 *DCMT32.51-F2*	0,4 *0.016*	9,525 *0.375*	11,6 *0.457*	3,97 *0.156*	4,5 *0.177*	55,0	7,0						■						■				■				■						
DCMT11T304-FF1 *DCMT32.51-FF1*	0,4 *0.016*	9,525 *0.375*	11,6 *0.457*	3,97 *0.156*	4,5 *0.177*	55,0	7,0			■	■					■																
DCMT11T304-M3 *DCMT32.51-M3*	0,4 *0.016*	9,525 *0.375*	11,6 *0.457*	3,97 *0.156*	4,5 *0.177*	55,0	7,0	■	■	■	■	■		■	■	■		■														
DCMT11T304-MF2 *DCMT32.51-MF2*	0,4 *0.016*	9,525 *0.375*	11,6 *0.457*	3,97 *0.156*	4,5 *0.177*	55,0	7,0	■	■	■	■			■	■	■									■						■	
DCMX11T304W-F1 *DCMX32.51W-F1*	0,4 *0.016*	9,525 *0.375*	11,6 *0.457*	3,97 *0.156*	4,5 *0.177*	55,0	7,0		■	■																					■	
DCMT11T308-F2 *DCMT32.52-F2*	0,8 *0.031*	9,525 *0.375*	11,6 *0.457*	3,97 *0.156*	4,5 *0.177*	55,0	7,0						■														■					
DCGT11T308F-AL *DCGT32.52F-AL*	0,8 *0.031*	9,525 *0.375*	11,6 *0.457*	3,97 *0.156*	4,4 *0.173*	55,0	7,0																					■				
DCGT11T308-F1 *DCGT32.52-F1*	0,8 *0.031*	9,525 *0.375*	11,6 *0.457*	3,969 *0.156*	4,5 *0.177*	55,0	7,0													■												
DCGT11T308-M3 *DCGT32.52-M3*	0,8 *0.031*	9,525 *0.375*	11,6 *0.457*	3,97 *0.156*	4,5 *0.177*	55,0	7,0																				■					
DCMT11T308-F1 *DCMT32.52-F1*	0,8 *0.031*	9,525 *0.375*	11,6 *0.457*	3,97 *0.156*	4,5 *0.177*	55,0	7,0	■	■	■	■	■		■	■		■	■	■			■	■	■	■						■	■
DCMT11T308-FF1 *DCMT32.52-FF1*	0,8 *0.031*	9,525 *0.375*	11,6 *0.457*	3,97 *0.156*	4,5 *0.177*	55,0	7,0			■	■					■																
DCMT11T308-M3 *DCMT32.52-M3*	0,8 *0.031*	9,525 *0.375*	11,6 *0.457*	3,97 *0.156*	4,5 *0.177*	55,0	7,0		■	■	■	■		■	■	■		■														
DCMT11T308-M5 *DCMT32.52-M5*	0,8 *0.031*	9,525 *0.375*	11,6 *0.457*	3,97 *0.156*	4,5 *0.177*	55,0	7,0		■	■	■				■																
DCMT11T308-MF2 *DCMT32.52-MF2*	0,8 *0.031*	9,525 *0.375*	11,6 *0.457*	3,97 *0.156*	4,5 *0.177*	55,0	7,0	■	■	■	■			■	■	■									■						■	

Designation	RE	IC	L	S	D1	EPSR°	AN°	Cemented Carbide and Cermet Grades																											
								Coated																					Uncoated				Cermet			
	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*			TP0501	TP1501	TP2501	TP3501	TP25	TP40	TM1501	TM2501	TM3501	TK0501	TK1501	TS2000	TS2050	TS2500	TH1000	TH1501	CP200	CP500	CP600	HX	KX	883	890	TP1030	TP1020				
DCMX11T308W-F1 *DCMX32.52W-F1*	0,8 *0.031*	9,525 *0.375*	11,6 *0.457*	3,97 *0.156*	4,5 *0.177*	55,0	7,0		■	■																					■			
DCMT11T312-F1 *DCMT32.53-F1*	1,2 *0.047*	9,525 *0.375*	11,6 *0.457*	3,97 *0.156*	4,5 *0.177*	55,0	7,0		■	■																								
DCMT11T312-M5 *DCMT32.53-M5*	1,2 *0.047*	9,525 *0.375*	11,6 *0.457*	3,97 *0.156*	4,5 *0.177*	55,0	7,0			■	■																								
DCMT11T312-MF2 *DCMT32.53-MF2*	1,2 *0.047*	9,525 *0.375*	11,6 *0.457*	3,97 *0.156*	4,5 *0.177*	55,0	7,0			■						■																			
DCMT150404-F2 *DCMT431-F2*	0,4 *0.016*	12,7 *0.500*	15,5 *0.610*	4,76 *0.187*	5,6 *0.220*	55,0	7,0																				■							
DCGT150404-M3 *DCGT431-M3*	0,4 *0.016*	12,7 *0.500*	15,5 *0.610*	4,76 *0.187*	5,6 *0.220*	55,0	7,0																				■							
DCMT150404-M3 *DCMT431-M3*	0,4 *0.016*	12,7 *0.500*	15,5 *0.610*	4,76 *0.187*	5,6 *0.220*	55,0	7,0		■	■	■	■				■																			
DCGT150408-M3 *DCGT150408-M3*	0,8 *0.031*	12,7 *0.500*	15,5 *0.610*	4,76 *0.187*	5,6 *0.220*	55,0	7,0																				■							
DCMT150408-F2 *DCMT432-F2*	0,8 *0.031*	12,7 *0.500*	15,5 *0.610*	4,76 *0.187*	5,6 *0.220*	55,0	7,0						■														■							
DCMT150408-M3 *DCMT432-M3*	0,8 *0.031*	12,7 *0.500*	15,5 *0.610*	4,76 *0.187*	5,6 *0.220*	55,0	7,0		■	■	■	■				■																			
DCMT150412-M3 *DCMT433-M3*	1,2 *0.047*	12,7 *0.500*	15,5 *0.610*	4,76 *0.187*	5,6 *0.220*	55,0	7,0		■	■	■																								

DNGG, DNGM, DNMA, DNMG, DNMM, DNMU, DNMX



DNGG, DNGM
Tolerances:
IC = ±0,025/*0.001*
S = ±0,13/*0.005*
RE = ±0,1/*0.004*

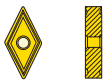
DNMA, DNMG, DNMM
Tolerances:
IC = ±0,08/*0.003*
S = ±0,13/*0.005*
RE = ±0,1/*0.004*

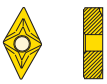
DNMU, DNMX
Tolerances:
IC = ±0,05/*0.002*
IC = ±0,08/*0.003*
S = ±0,13/*0.005*
RE = ±0,1/*0.004*

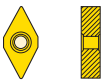
Size:
11/*3*
15/*4*

* Right-hand version shown

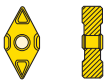
For ISO attribute explanation, see page 82

DNGG-M1


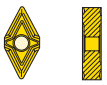
DNGM-MF1


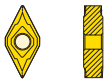
DNMA


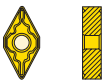
DNMA-MR9

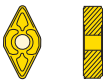

DNMG-FF1


DNMG-FF2


DNMG-MF1


DNMG-MF2


DNMG-MF3


DNMG-MF4


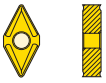
DNMG-MF5

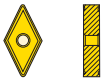

DNMG-M1


DNMG-M3

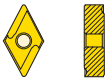

DNMG-M5


DNMG-M6


DNMG-MR3


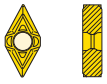
DNMG-MR4


DNMG-MR7


DNMG-UX*


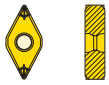
DNMM-R4


DNMU-FF2


DNMU-MF1


DNMU-MF2


DNMU-MF4


DNMU-MF5


DNMU-M3


DNMU-M5


DNMX...W-MF2


DNMX...W-MF4


DNMX...W-M3


Designation	RE	IC	L	S	D1	EPSR°	AN°	Cemented Carbide and Cermet Grades: Coated TP0501	TP1501	TP2501	TP3501	TP25	TP40	TM1501	TM2501	TM3501	TK0501	TK1501	TS2000	TS2050	TS2500	TH1000	TH1501	CP200	CP500	CP600	Uncoated HX	KX	883	890	Cermet TP1030	TP1020
	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*																											
DNMU110402-M3 *DNMU330.5-M3*	0,2 *0.008*	9,525 *0.375*	11,6 *0.457*	4,76 *0.187*	3,81 *0.150*	55,0	0,0		■	■	■					■															
DNMU110404-FF2 *DNMU331-FF2*	0,4 *0.016*	9,525 *0.375*	11,6 *0.457*	4,76 *0.187*	3,81 *0.150*	55,0	0,0		■	■	■													■						■	
DNMU110404-M3 *DNMU331-M3*	0,4 *0.016*	9,525 *0.375*	11,6 *0.457*	4,76 *0.187*	3,81 *0.150*	55,0	0,0		■	■	■	■			■	■		■				■									
DNMU110404-MF1 *DNMU331-MF1*	0,4 *0.016*	9,525 *0.375*	11,63 *0.458*	4,762 *0.187*	3,81 *0.150*	55,0	0,0							■	■	■									■						
DNMU110404-MF2 *DNMU331-MF2*	0,4 *0.016*	9,525 *0.375*	11,6 *0.457*	4,76 *0.187*	3,81 *0.150*	55,0	0,0	■	■	■	■	■					■					■								■	
DNMU110404-MF4 *DNMU331-MF4*	0,4 *0.016*	9,525 *0.375*	11,63 *0.458*	4,762 *0.187*	3,81 *0.150*	55,0	0,0							■	■	■															
DNMU110404-MF5 *DNMU331-MF5*	0,4 *0.016*	9,525 *0.375*	11,6 *0.457*	4,76 *0.187*	3,81 *0.150*	55,0	0,0			■																					
DNMX110404W-MF2 *DNMX331W-MF2*	0,4 *0.016*	9,525 *0.375*	11,6 *0.457*	4,76 *0.187*	3,81 *0.150*	55,0	0,0		■	■																					
DNMU110408-FF2 *DNMU332-FF2*	0,8 *0.031*	9,525 *0.375*	11,6 *0.457*	4,76 *0.187*	3,81 *0.150*	55,0	0,0		■	■	■													■						■	
DNMU110408-M3 *DNMU332-M3*	0,8 *0.031*	9,525 *0.375*	11,6 *0.457*	4,76 *0.187*	3,81 *0.150*	55,0	0,0	■	■	■	■	■			■	■		■				■	■									
DNMU110408-M5 *DNMU332-M5*	0,8 *0.031*	9,525 *0.375*	11,6 *0.457*	4,76 *0.187*	3,81 *0.150*	55,0	0,0		■									■													
DNMU110408-MF1 *DNMU332-MF1*	0,8 *0.031*	9,525 *0.375*	11,63 *0.458*	4,762 *0.187*	3,81 *0.150*	55,0	0,0							■	■	■															
DNMU110408-MF2 *DNMU332-MF2*	0,8 *0.031*	9,525 *0.375*	11,6 *0.457*	4,76 *0.187*	3,81 *0.150*	55,0	0,0	■	■	■	■	■					■	■				■									

Designation	RE	IC	L	S	D1	EPSR°	AN°	Cemented Carbide and Cermet Grades																													
								Coated																						Uncoated				Cermet					
	mm inch	mm inch	mm inch	mm inch	mm inch			TP0501	TP1501	TP2501	TP3501	TP25	TP40	TM1501	TM2501	TM3501	TK0501	TK1501	TS2000	TS2050	TS2500	TH1000	TH1501	CP200	CP500	CP600	HX	KX	883	890	TP1030	TP1020						
DNMU110408-MF4 *DNMU332-MF4*	0,8 *0.031*	9,525 *0.375*	11,63 *0.458*	4,762 *0.187*	3,81 *0.150*	55,0	0,0							■	■	■																					
DNMU110408-MF5 *DNMU332-MF5*	0,8 *0.031*	9,525 *0.375*	11,6 *0.457*	4,76 *0.187*	3,81 *0.150*	55,0	0,0			■																											
DNMX110408W-MF2 *DNMX332W-MF2*	0,8 *0.031*	9,525 *0.375*	11,6 *0.457*	4,76 *0.187*	3,81 *0.150*	55,0	0,0		■	■																											
DNMU110412-M3 *DNMU333-M3*	1,2 *0.047*	9,525 *0.375*	11,6 *0.457*	4,76 *0.187*	3,81 *0.150*	55,0	0,0	■	■									■																			
DNMU110412-M5 *DNMU333-M5*	1,2 *0.047*	9,525 *0.375*	11,6 *0.457*	4,76 *0.187*	3,81 *0.150*	55,0	0,0		■																											
DNMU110412-MF2 *DNMU333-MF2*	1,2 *0.047*	9,525 *0.375*	11,6 *0.457*	4,76 *0.187*	3,81 *0.150*	55,0	0,0			■																											
DNGG150402-M1 *DNGP430.5F-M1*	0,2 *0.008*	12,7 *0.500*	15,5 *0.610*	4,76 *0.187*	5,15 *0.203*	55,0	0,0																					■								
DNGG150404-M1 *DNGP431F-M1*	0,4 *0.016*	12,7 *0.500*	15,5 *0.610*	4,76 *0.187*	5,15 *0.203*	55,0	0,0																					■								
DNMG150404-FF2 *DNMG431-FF2*	0,4 *0.016*	12,7 *0.500*	15,5 *0.610*	4,76 *0.187*	5,15 *0.203*	55,0	0,0		■	■																											
DNMG150404-M3 *DNMG431-M3*	0,4 *0.016*	12,7 *0.500*	15,5 *0.610*	4,76 *0.187*	5,15 *0.203*	55,0	0,0		■	■	■	■						■																			
DNMG150404-M5 *DNMG431-M5*	0,4 *0.016*	12,7 *0.500*	15,5 *0.610*	4,76 *0.187*	5,15 *0.203*	55,0	0,0				■																										
DNMG150404-MF1 *DNMP431-MF1*	0,4 *0.016*	12,7 *0.500*	15,5 *0.610*	4,76 *0.187*	5,15 *0.203*	55,0	0,0												■			■		■						■							
DNMG150404-MF2 *DNMG431-MF2*	0,4 *0.016*	12,7 *0.500*	15,5 *0.610*	4,76 *0.187*	5,15 *0.203*	55,0	0,0		■	■	■																										
DNMG150404-MF3 *DNMG431-MF3*	0,4 *0.016*	12,7 *0.500*	15,5 *0.610*	4,76 *0.187*	5,15 *0.203*	55,0	0,0				■																										
DNMG150404-MF4 *DNMG431-MF4*	0,4 *0.016*	12,7 *0.500*	15,5 *0.610*	4,762 *0.187*	5,15 *0.203*	55,0	0,0								■	■																					
DNGG150408-M1 *DNGG432-M1*	0,8 *0.031*	12,7 *0.500*	15,5 *0.610*	4,76 *0.187*	5,15 *0.203*	55,0	0,0												■																		
DNGM150408-MF1 *DNGM432-MF1*	0,8 *0.031*	12,7 *0.500*	15,5 *0.610*	4,76 *0.187*	5,15 *0.203*	55,0	0,0																	■													
DNMA150408 *DNMA432*	0,8 *0.031*	12,7 *0.500*	15,5 *0.610*	4,76 *0.187*	5,15 *0.203*	55,0	0,0										■																				
DNMG150408-FF2 *DNMG432-FF2*	0,8 *0.031*	12,7 *0.500*	15,5 *0.610*	4,76 *0.187*	5,15 *0.203*	55,0	0,0	■	■	■	■																										
DNMG150408-M1 *DNMP432-M1*	0,8 *0.031*	12,7 *0.500*	15,5 *0.610*	4,76 *0.187*	5,15 *0.203*	55,0	0,0																					■								
DNMG150408-M3 *DNMG432-M3*	0,8 *0.031*	12,7 *0.500*	15,5 *0.610*	4,76 *0.187*	5,15 *0.203*	55,0	0,0	■	■	■	■	■			■	■		■							■											
DNMG150408-M5 *DNMG432-M5*	0,8 *0.031*	12,7 *0.500*	15,5 *0.610*	4,76 *0.187*	5,15 *0.203*	55,0	0,0	■	■	■	■			■	■			■																			
DNMG150408-M6 *DNMG432-M6*	0,8 *0.031*	12,7 *0.500*	15,5 *0.610*	4,76 *0.187*	5,15 *0.203*	55,0	0,0		■	■	■																										
DNMG150408-MF1 *DNMP432-MF1*	0,8 *0.031*	12,7 *0.500*	15,5 *0.610*	4,76 *0.187*	5,15 *0.203*	55,0	0,0												■			■		■						■							
DNMG150408-MF2 *DNMG432-MF2*	0,8 *0.031*	12,7 *0.500*	15,5 *0.610*	4,76 *0.187*	5,15 *0.203*	55,0	0,0	■	■	■	■											■															
DNMG150408-MF3 *DNMG432-MF3*	0,8 *0.031*	12,7 *0.500*	15,5 *0.610*	4,76 *0.187*	5,15 *0.203*	55,0	0,0				■																										
DNMG150408-MF4 *DNMG432-MF4*	0,8 *0.031*	12,7 *0.500*	15,5 *0.610*	4,762 *0.187*	5,15 *0.203*	55,0	0,0							■	■	■			■		■															
DNMG150408-MF5 *DNMG432-MF5*	0,8 *0.031*	12,7 *0.500*	15,5 *0.610*	4,76 *0.187*	5,15 *0.203*	55,0	0,0		■	■							■					■	■														
DNMG150408-MR3 *DNMG432-MR3*	0,8 *0.031*	12,7 *0.500*	15,5 *0.610*	4,76 *0.187*	5,15 *0.203*	55,0	0,0								■				■					■	■												
DNMG150408-MR4 *DNMG432-MR4*	0,8 *0.031*	12,7 *0.500*	15,5 *0.610*	4,76 *0.187*	5,15 *0.203*	55,0	0,0														■							■								

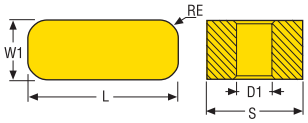
Designation	RE	IC	L	S	D1	EPSR°	AN°	Cemented Carbide and Cermet Grades																										
								Coated																					Uncoated				Cermet	
	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*			TP0501	TP1501	TP2501	TP3501	TP25	TP40	TM1501	TM2501	TM3501	TK0501	TK1501	TS2000	TS2050	TS2500	TH1000	TH1501	CP200	CP500	CP600	HX	KX	883	890	TP1030	TP1020
DNMX150408W-M3 *DNMX432W-M3*	0,8 *0.031*	12,7 *0.500*	15,5 *0.610*	4,762 *0.187*	5,15 *0.203*	55,0	0,0		■																							
DNMX150408W-MF4 *DNMX432W-MF4*	0,8 *0.031*	12,7 *0.500*	15,5 *0.610*	4,76 *0.187*	5,15 *0.203*	55,0	0,0							■																		
DNMA150412-MR9 *DNMA433-MR9*	1,2 *0.047*	12,7 *0.500*	15,5 *0.610*	4,76 *0.187*	5,15 *0.203*	55,0	0,0											■														
DNMG150412-M1 *DNMP433-M1*	1,2 *0.047*	12,7 *0.500*	15,5 *0.610*	4,76 *0.187*	5,15 *0.203*	55,0	0,0																					■				
DNMG150412-M3 *DNMG433-M3*	1,2 *0.047*	12,7 *0.500*	15,5 *0.610*	4,76 *0.187*	5,15 *0.203*	55,0	0,0	■	■	■	■	■						■														
DNMG150412-M5 *DNMG433-M5*	1,2 *0.047*	12,7 *0.500*	15,5 *0.610*	4,76 *0.187*	5,15 *0.203*	55,0	0,0		■	■	■																					
DNMG150412-M6 *DNMG433-M6*	1,2 *0.047*	12,7 *0.500*	15,5 *0.610*	4,76 *0.187*	5,15 *0.203*	55,0	0,0		■	■																						
DNMG150412-MF2 *DNMG433-MF2*	1,2 *0.047*	12,7 *0.500*	15,5 *0.610*	4,76 *0.187*	5,15 *0.203*	55,0	0,0			■																						
DNMG150412-MF4 *DNMG433-MF4*	1,2 *0.047*	12,7 *0.500*	15,5 *0.610*	4,76 *0.187*	5,15 *0.203*	55,0	0,0							■					■		■											
DNMG150412-MF5 *DNMG433-MF5*	1,2 *0.047*	12,7 *0.500*	15,5 *0.610*	4,76 *0.187*	5,15 *0.203*	55,0	0,0			■									■		■											
DNMG150412-MR3 *DNMG433-MR3*	1,2 *0.047*	12,7 *0.500*	15,5 *0.610*	4,76 *0.187*	5,15 *0.203*	55,0	0,0								■	■			■					■								
DNMG150604-FF1 *DNMG441-FF1*	0,4 *0.016*	12,7 *0.500*	15,5 *0.610*	6,35 *0.250*	5,15 *0.203*	55,0	0,0									■														■		
DNMG150604-FF2 *DNMG441-FF2*	0,4 *0.016*	12,7 *0.500*	15,5 *0.610*	6,35 *0.250*	5,15 *0.203*	55,0	0,0		■	■															■					■		
DNMG150604-M3 *DNMG441-M3*	0,4 *0.016*	12,7 *0.500*	15,5 *0.610*	6,35 *0.250*	5,15 *0.203*	55,0	0,0		■	■	■	■	■			■		■														
DNMG150604-M5 *DNMG441-M5*	0,4 *0.016*	12,7 *0.500*	15,5 *0.610*	6,35 *0.250*	5,15 *0.203*	55,0	0,0			■	■																					
DNMG150604-MF1 *DNMP441-MF1*	0,4 *0.016*	12,7 *0.500*	15,5 *0.610*	6,35 *0.250*	5,15 *0.203*	55,0	0,0							■	■	■			■			■		■	■				■			
DNMG150604-MF2 *DNMG441-MF2*	0,4 *0.016*	12,7 *0.500*	15,5 *0.610*	6,35 *0.250*	5,15 *0.203*	55,0	0,0		■	■	■	■																		■		
DNMG150604-MF3 *DNMG441-MF3*	0,4 *0.016*	12,7 *0.500*	15,5 *0.610*	6,35 *0.250*	5,15 *0.203*	55,0	0,0				■																					
DNMG150604-MF4 *DNMG441-MF4*	0,4 *0.016*	12,7 *0.500*	15,5 *0.610*	6,35 *0.250*	5,15 *0.203*	55,0	0,0							■	■	■																
DNMG150604L-UX *DNMG441L-UX*	0,4 *0.016*	12,7 *0.500*	15,5 *0.610*	6,35 *0.250*	5,16 *0.203*	55,0	0,0		■	■											■											
DNMG150604R-UX *DNMG441R-UX*	0,4 *0.016*	12,7 *0.500*	15,5 *0.610*	6,35 *0.250*	5,16 *0.203*	55,0	0,0		■	■											■											
DNMA150608 *DNMA442*	0,8 *0.031*	12,7 *0.500*	15,5 *0.610*	6,35 *0.250*	5,15 *0.203*	55,0	0,0										■															
DNMG150608-FF2 *DNMG442-FF2*	0,8 *0.031*	12,7 *0.500*	15,5 *0.610*	6,35 *0.250*	5,15 *0.203*	55,0	0,0	■	■	■																					■	
DNMG150608-M3 *DNMG442-M3*	0,8 *0.031*	12,7 *0.500*	15,5 *0.610*	6,35 *0.250*	5,15 *0.203*	55,0	0,0	■	■	■	■	■	■	■	■	■		■							■							
DNMG150608-M5 *DNMG442-M5*	0,8 *0.031*	12,7 *0.500*	15,5 *0.610*	6,35 *0.250*	5,15 *0.203*	55,0	0,0	■	■	■	■	■		■	■		■	■														
DNMG150608-M6 *DNMG442-M6*	0,8 *0.031*	12,7 *0.500*	15,5 *0.610*	6,35 *0.250*	5,15 *0.203*	55,0	0,0		■	■	■							■														
DNMG150608-MF1 *DNMP442-MF1*	0,8 *0.031*	12,7 *0.500*	15,5 *0.610*	6,35 *0.250*	5,15 *0.203*	55,0	0,0							■	■	■			■			■		■	■				■			
DNMG150608-MF2 *DNMG442-MF2*	0,8 *0.031*	12,7 *0.500*	15,5 *0.610*	6,35 *0.250*	5,15 *0.203*	55,0	0,0	■	■	■	■	■						■				■	■								■	
DNMG150608-MF3 *DNMG442-MF3*	0,8 *0.031*	12,7 *0.500*	15,5 *0.610*	6,35 *0.250*	5,15 *0.203*	55,0	0,0				■					■																
DNMG150608-MF4 *DNMG442-MF4*	0,8 *0.031*	12,7 *0.500*	15,5 *0.610*	6,35 *0.250*	5,15 *0.203*	55,0	0,0			■	■			■	■	■			■		■											

Designation	RE	IC	L	S	D1	EPSR°	AN°	Cemented Carbide and Cermet Grades																												
								Coated																					Uncoated				Cermet				
	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*			TP0501	TP1501	TP2501	TP3501	TP25	TP40	TM1501	TM2501	TM3501	TK0501	TK1501	TS2000	TS2050	TS2500	TH1000	TH1501	CP200	CP500	CP600	HX	KX	883	890	TP1030	TP1020					
DNMG150608-MF5 *DNMG442-MF5*	0,8 *0.031*	12,7 *0.500*	15,5 *0.610*	6,35 *0.250*	5,15 *0.203*	55,0	0,0	■	■	■							■					■	■													
DNMG150608-MR3 *DNMG442-MR3*	0,8 *0.031*	12,7 *0.500*	15,5 *0.610*	6,35 *0.250*	5,15 *0.203*	55,0	0,0								■	■			■					■	■											
DNMG150608-MR7 *DNMG442-MR7*	0,8 *0.031*	12,7 *0.500*	15,5 *0.610*	6,35 *0.250*	5,15 *0.203*	55,0	0,0		■				■																						
DNMG150608L-UX *DNMG442L-UX*	0,8 *0.031*	12,7 *0.500*	15,5 *0.610*	6,35 *0.250*	5,16 *0.203*	55,0	0,0		■	■		■									■														
DNMG150608R-UX *DNMG442R-UX*	0,8 *0.031*	12,7 *0.500*	15,5 *0.610*	6,35 *0.250*	5,16 *0.203*	55,0	0,0		■	■		■									■														
DNMM150608-R4 *DNMM442-R4*	0,8 *0.031*	12,7 *0.500*	15,5 *0.610*	6,35 *0.250*	5,15 *0.203*	55,0	0,0		■	■	■																								
DNMX150608W-M3 *DNMX442W-M3*	0,8 *0.031*	12,7 *0.500*	15,5 *0.610*	6,35 *0.250*	5,15 *0.203*	55,0	0,0	■	■																											
DNMX150608W-MF4 *DNMX442W-MF4*	0,8 *0.031*	12,7 *0.500*	15,5 *0.610*	6,35 *0.250*	5,15 *0.203*	55,0	0,0							■																						
DNMA150612 *DNMA443*	1,2 *0.047*	12,7 *0.500*	15,5 *0.610*	6,35 *0.250*	5,15 *0.203*	55,0	0,0										■																			
DNMA150612-MR9 *DNMA443-MR9*	1,2 *0.047*	12,7 *0.500*	15,5 *0.610*	6,35 *0.250*	5,15 *0.203*	55,0	0,0											■																		
DNMG150612-M3 *DNMG443-M3*	1,2 *0.047*	12,7 *0.500*	15,5 *0.610*	6,35 *0.250*	5,15 *0.203*	55,0	0,0	■	■	■	■	■	■	■	■	■		■							■										
DNMG150612-M5 *DNMG443-M5*	1,2 *0.047*	12,7 *0.500*	15,5 *0.610*	6,35 *0.250*	5,15 *0.203*	55,0	0,0	■	■	■	■	■		■	■		■	■																	
DNMG150612-M6 *DNMG443-M6*	1,2 *0.047*	12,7 *0.500*	15,5 *0.610*	6,35 *0.250*	5,15 *0.203*	55,0	0,0	■	■	■	■							■																	
DNMG150612-MF2 *DNMG443-MF2*	1,2 *0.047*	12,7 *0.500*	15,5 *0.610*	6,35 *0.250*	5,15 *0.203*	55,0	0,0	■	■	■		■						■				■	■												
DNMG150612-MF4 *DNMG443-MF4*	1,2 *0.047*	12,7 *0.500*	15,5 *0.610*	6,35 *0.250*	5,15 *0.203*	55,0	0,0							■	■	■			■		■														
DNMG150612-MF5 *DNMG443-MF5*	1,2 *0.047*	12,7 *0.500*	15,5 *0.610*	6,35 *0.250*	5,15 *0.203*	55,0	0,0	■	■	■												■	■												
DNMG150612-MR3 *DNMG443-MR3*	1,2 *0.047*	12,7 *0.500*	15,5 *0.610*	6,35 *0.250*	5,15 *0.203*	55,0	0,0								■	■									■										
DNMG150612-MR7 *DNMG443-MR7*	1,2 *0.047*	12,7 *0.500*	15,5 *0.610*	6,35 *0.250*	5,15 *0.203*	55,0	0,0	■	■		■							■																	
DNMM150612-R4 *DNMM443-R4*	1,2 *0.047*	12,7 *0.500*	15,5 *0.610*	6,35 *0.250*	5,15 *0.203*	55,0	0,0	■	■	■	■																								
DNMX150612W-M3 *DNMX443W-M3*	1,2 *0.047*	12,7 *0.500*	15,5 *0.610*	6,35 *0.250*	5,15 *0.203*	55,0	0,0	■	■																										
DNMG150616-M3 *DNMG444-M3*	1,6 *0.063*	12,7 *0.500*	15,5 *0.610*	6,35 *0.250*	5,15 *0.203*	55,0	0,0		■	■	■					■																			
DNMG150616-M5 *DNMG444-M5*	1,6 *0.063*	12,7 *0.500*	15,5 *0.610*	6,35 *0.250*	5,15 *0.203*	55,0	0,0	■	■	■	■				■																				
DNMG150616-M6 *DNMG444-M6*	1,6 *0.063*	12,7 *0.500*	15,5 *0.610*	6,35 *0.250*	5,15 *0.203*	55,0	0,0		■	■																									
DNMM150616-R4 *DNMM444-R4*	1,6 *0.063*	12,7 *0.500*	15,5 *0.610*	6,35 *0.250*	5,15 *0.203*	55,0	0,0	■	■	■																									
DNMG190608-M5 *DNMG542-M5*	0,8 *0.031*	15,875 *0.625*	19,4 *0.764*	6,35 *0.250*	6,35 *0.250*	55,0	0,0				■	■																								
DNMG190612-M5 *DNMG543-M6*	1,2 *0.047*	15,875 *0.625*	19,4 *0.764*	6,35 *0.250*	6,35 *0.250*	55,0	0,0				■																									
DNMG190612-MR4 *DNMG543-MR4*	1,2 *0.047*	15,875 *0.625*	19,386 *0.763*	6,35 *0.250*	6,35 *0.250*	55,0	0,0																					■							

LNMX

For ISO attribute explanation, see page 82

Tolerances:
W1 = ±0,13/*0.005*
L = ±0,15/*0.006*
S = ±0,15/*0.006*
RE = ±0,1/*0.004*



LNMX-MF



LNMX-MR



LNMX-R2



LNMX-RR94

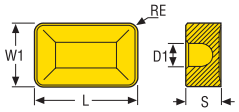


Designation	RE	IC	L	S	D1	EPSR°	AN°	Cemented Carbide and Cermet Grades																										
								Coated																					Uncoated				Cermet	
	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*			TP0501	TP1501	TP2501	TP3501	TP25	TP40	TM1501	TM2501	TM3501	TK0501	TK1501	TS2000	TS2050	TS2500	TH1000	TH1501	CP200	CP500	CP600	HX	KX	883	890	TP1030	TP1020
LNMX191940-MF *LNMX191940-MF*	4,0 *0.157*	10,0 *0.394*	19,05 *0.750*	19,05 *0.750*	6,35 *0.250*	90,0	0,0		■			■																				
LNMX191940-MR *LNMX191940-MR*	4,0 *0.157*	10,0 *0.394*	19,05 *0.750*	19,05 *0.750*	6,35 *0.250*	90,0	0,0	■	■			■																				
LNMX191940-R2 *LNMX191940-R2*	4,0 *0.157*	10,0 *0.394*	19,05 *0.750*	19,05 *0.750*	6,35 *0.250*	90,0	0,0		■																							
LNMX191940-RR94 *LNMX191940-RR94*	4,0 *0.157*	10,0 *0.394*	19,05 *0.750*	19,05 *0.750*	6,35 *0.250*	90,0	0,0	■	■			■																				
LNMX301940-MF *LNMX301940-MF*	4,0 *0.157*	12,0 *0.472*	30,0 *1.181*	19,05 *0.750*	6,35 *0.250*	90,0	0,0	■	■	■																						
LNMX301940-MR *LNMX301940-MR*	4,0 *0.157*	12,0 *0.472*	30,0 *1.181*	19,05 *0.750*	6,35 *0.250*	90,0	0,0			■																						
LNMX301940-R2 *LNMX301940-R2*	4,0 *0.157*	12,0 *0.472*	30,0 *1.181*	19,05 *0.750*	6,35 *0.250*	90,0	0,0	■	■																							
LNMX301940-RR94 *LNMX301940-RR94*	4,0 *0.157*	12,0 *0.472*	30,0 *1.181*	19,05 *0.750*	6,35 *0.250*	90,0	0,0	■																								

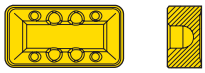
LNMX

For ISO attribute explanation, see page 82

Tolerances:
W1 = ±0,13/*0.005*
L = ±0,15/*0.006*
S = ±0,15/*0.006*
RE = ±0,1/*0.004*



LNMX-RR96

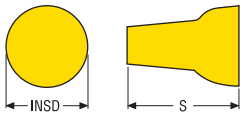


Designation	RE	IC	L	S	D1	EPSR°	AN°	Cemented Carbide and Cermet Grades																														
								Coated																							Uncoated				Cermet	
	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*			TP0501	TP1501	TP2501	TP3501	TP25	TP40	TM1501	TM2501	TM3501	TK0501	TK1501	TS2000	TS2050	TS2500	TH1000	TH1501	CP200	CP500	CP600	HX	KX	883	890	TP1030	TP1020
LNMX401432-RR96 *LNMX401432-RR96*	3,2 *0.126*	25,2 *0.992*	40,0 *1.575*	14,0 *0.551*	9,3 *0.366*	90,0	0,0		■	■																									

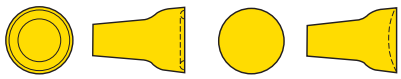
RCGS

For ISO attribute explanation, see page 82

Tolerances:
INSD = ±0,025/*0.001*
S = ±0,25/*0.010*

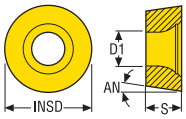


RCGS-46 **RCGS-PS**



Designation	INSD	S	EPSR°	AN°	Cemented Carbide and Cermet Grades																																	
					Coated																								Uncoated				Cermet					
	mm *inch*	mm *inch*			TP0501	TP1501	TP2501	TP3501	TP25	TP40	TM1501	TM2501	TM3501	TK0501	TK1501	TS2000	TS2050	TS2500	TH1000	TH1501	CP200	CP500	CP600	HX	KX	883	890	TP1030	TP1020
RCGS12.7-46 *RCGS4-46*	12,7 *0.500*	16,67 *0.656*	7,0													■		■			■					■	■		
RCGS12.7-PS *RCGS4F-PS*	12,7 *0.500*	16,67 *0.656*	7,0																							■			
RCGS4.76-46 *RCGS1.5-46*	4,76 *0.187*	6,35 *0.250*	7,0													■		■			■					■	■		
RCGS4.76-PS *RCGS1.5-PS*	4,76 *0.187*	6,35 *0.250*	7,0																		■					■			
RCGS6.35-46 *RCGS2-46*	6,35 *0.250*	9,13 *0.359*	7,0													■		■			■					■	■		
RCGS6.35-PS *RCGS2-PS*	6,35 *0.250*	9,13 *0.359*	7,0																		■					■	■		
RCGS9.525-46 *RCGS3-46*	9,525 *0.375*	13,1 *0.516*	7,0													■		■			■					■	■		
RCGS9.525-PS *RCGS3-PS*	9,525 *0.375*	13,1 *0.516*	7,0													■					■					■	■		

RCGT, RCMM, RCMT, RCMX



RCMM
Tolerances: Size:
INSD = ±0,08/*.003* 12-19/*4-6*
INSD = ±0,10/*.004* *25/8*
S = ±0,05/*.002*

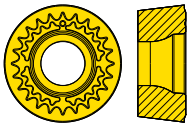
RCMT
Tolerances: Size:
INSD = ±0,05/*.002* 06-10/*2-10*
INSD = ±0,08/*.003* *12/4*
INSD = ±0,10/*.004* *16/16*
S = ±0,05/*.002* 06-10/*2-10*
S = ±0,13/*.005* 12-16/*4-16*

RCGT, RCMX
Tolerances: Size:
INSD = ±0,08/*.003* 10-20/*10-20*
INSD = ±0,10/*.004* 25-32/*25-32*
S = ±0,05/*.002* *10/10*
S = ±0,13/*.005* 12-32/*12-32*

Shape of clamping hole differ for RCMM, RCMT and RCMX see www.secotools.com

For ISO attribute explanation, see page 82

RCGT-MF2



RCMM-46



RCMT-F1



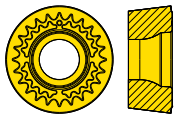
RCMT-F16



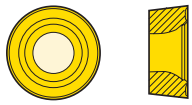
RCMT-F2



RCMT-MF2



RCMT-M3



RCMT-R3



RCMT-RR94



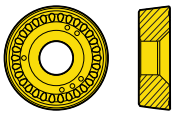
RCMX-R3



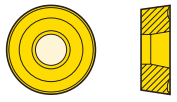
RCMX-RR93



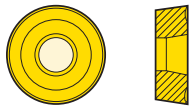
RCMX-H-RR93



RCMX-RR94



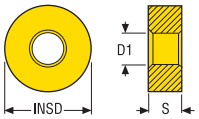
RCMX-RR97



Designation	INSD	S	D1	EPSR°	AN°	Cemented Carbide and Cermet Grades																									
						Coated																			Uncoated				Cermet	
	mm *inch*	mm *inch*	mm *inch*			TP0501	TP1501	TP2501	TP3501	TP25	TP40	TM1501	TM2501	TM3501	TK0501	TK1501	TS2000	TS2050	TS2500	TH1000	TH1501	CP200	CP500	CP600	HX	KX	883	890	TP1030	TP1020
RCMT0602M0-F1 *RCMT0602M0-F1*	6,0 *0.236*	2,38 *0.094*	2,9 *0.114*		7,0			■	■														■							
RCMT0602M0-F2 *RCMT0602M0-F2*	6,0 *0.236*	2,38 *0.094*	2,9 *0.114*		7,0												■								■					
RCMT0602M0-M3 *RCMT0602M0-M3*	6,0 *0.236*	2,38 *0.094*	2,9 *0.114*	0,0	7,0			■		■																				
RCMT060300-F16 *RCMT22-F16*	6,35 *0.250*	3,21 *0.126*	2,79 *0.110*		7,0					■																				
RCGT0803M0-MF2 *RCGT0803M0-MF2*	8,0 *0.315*	3,18 *0.125*	3,5 *0.138*		7,0													■					■			■				
RCMT0803M0-MF2 *RCMT0803M0-MF2*	8,0 *0.315*	3,18 *0.125*	3,5 *0.138*		7,0			■		■										■										
RCMT0803M0-F1 *RCMT0803M0-F1*	8,0 *0.315*	3,18 *0.125*	3,5 *0.138*	0,0	7,0			■	■	■										■			■							
RCMT0803M0-F2 *RCMT0803M0-F2*	8,0 *0.315*	3,18 *0.125*	3,5 *0.138*		7,0												■					■			■					
RCMT0803M0-M3 *RCMT0803M0-M3*	8,0 *0.315*	3,18 *0.125*	3,5 *0.138*	0,0	7,0		■	■	■	■						■														
RCMT09T300-F16 *RCMT32.5-F16*	9,525 *0.375*	3,97 *0.156*	3,9 *0.154*		7,0					■																				
RCMX100300-RR94 *RCMX100300-RR94*	10,0 *0.394*	3,18 *0.125*	3,6 *0.142*		7,0				■																					
RCGT10T3M0-MF2 *RCGT10T3M0-MF2*	10,0 *0.394*	3,97 *0.156*	4,5 *0.177*		7,0													■					■			■				
RCMT10T3M0-MF2 *RCMT10T3M0-MF2*	10,0 *0.394*	3,97 *0.156*	4,5 *0.177*		7,0		■	■	■	■		■								■										
RCMT10T3M0-F1 *RCMT10T3M0-F1*	10,0 *0.394*	3,97 *0.156*	4,5 *0.177*	0,0	7,0			■	■			■								■			■							
RCMT10T3M0-F2 *RCMT10T3M0-F2*	10,0 *0.394*	3,97 *0.156*	4,5 *0.177*		7,0						■						■								■					
RCMT10T3M0-M3 *RCMT10T3M0-M3*	10,0 *0.394*	3,97 *0.156*	4,5 *0.177*	0,0	7,0		■	■	■	■		■				■														
RCMT120400-F16 *RCMT43-F16*	12,7 *0.500*	4,76 *0.187*	4,5 *0.177*		7,0					■																				
RCMM120400-46 *RCMM43-46*	12,7 *0.500*	4,89 *0.193*	5,16 *0.203*		7,0					■																	■			
RCMX120400-RR94 *RCMX120400-RR94*	12,0 *0.472*	4,76 *0.187*	4,2 *0.165*		7,0			■	■																					

Designation	INSD	S	D1	EPSR°	AN°	Cemented Carbide and Cermet Grades																									
						Coated																				Uncoated				Cermet	
	mm *inch*	mm *inch*	mm *inch*			TP0501	TP1501	TP2501	TP3501	TP25	TP40	TM1501	TM2501	TM3501	TK0501	TK1501	TS2000	TS2050	TS2500	TH1000	TH1501	CP200	CP500	CP600	HX	KX	883	890	TP1030	TP1020
RCGT1204M0-MF2 *RCGT1204M0-MF2*	12,0 *0.472*	4,76 *0.187*	4,5 *0.177*		7,0																				■			
RCMT1204M0-MF2 *RCMT1204M0-MF2*	12,0 *0.472*	4,76 *0.187*	4,5 *0.177*		7,0		■	■	■	■		■				■		■		■			■						
RCMT1204M0-F1 *RCMT1204M0-F1*	12,0 *0.472*	4,76 *0.187*	4,5 *0.177*	0,0	7,0		■	■	■			■				■				■			■						
RCMT1204M0-F2 *RCMT1204M0-F2*	12,0 *0.472*	4,76 *0.187*	4,5 *0.177*		7,0						■						■							■					
RCMT1204M0-M3 *RCMT1204M0-M3*	12,0 *0.472*	4,76 *0.187*	4,5 *0.177*	0,0	7,0		■	■	■	■		■			■	■				■									
RCMT1204M0-RR94 *RCMT1204M0-RR94*	12,0 *0.472*	4,76 *0.187*	4,5 *0.177*		7,0				■																				
RCMX160600-RR94 *RCMX160600-RR94*	16,0 *0.630*	6,35 *0.250*	5,2 *0.205*		7,0		■	■	■																				
RCGT1606M0-MF2 *RCGT1606M0-MF2*	16,0 *0.630*	6,35 *0.250*	5,6 *0.220*		7,0		■	■	■									■					■			■			
RCMT1606M0-F1 *RCMT1606M0-F1*	16,0 *0.630*	6,35 *0.250*	5,6 *0.220*		7,0	■	■	■	■																				
RCMT1606M0-F2 *RCMT1606M0-F2*	16,0 *0.630*	6,35 *0.250*	5,6 *0.220*		7,0						■													■					
RCMT1606M0-M3 *RCMT1606M0-M3*	16,0 *0.630*	6,35 *0.250*	5,6 *0.220*	0,0	7,0	■	■	■	■	■																			
RCMM190600-46 *RCMM64-46*	19,05 *0.750*	6,35 *0.250*	7,95 *0.313*		7,0					■									■							■			
RCMX200600-R3 *RCMX200600-R3*	20,0 *0.787*	6,35 *0.250*	6,5 *0.256*		7,0	■	■	■																					
RCMX200600-RR93 *RCMX200600-RR93*	20,0 *0.787*	6,35 *0.250*	6,5 *0.256*	0,0	7,0	■	■	■		■																			
RCMX200600-RR94 *RCMX200600-RR94*	20,0 *0.787*	6,35 *0.250*	6,5 *0.256*		7,0				■																				
RCMT2006M0-R3 *RCMT2006M0-R3*	20,0 *0.787*	6,35 *0.250*	6,6 *0.260*		7,0			■										■											
RCMM250600-46 *RCMM84-46*	25,4 *1.000*	6,35 *0.250*	7,95 *0.313*		7,0																					■			
RCMX250700-R3 *RCMX250700-R3*	25,0 *0.984*	7,94 *0.313*	7,2 *0.283*		7,0	■	■	■																					
RCMX250700-RR93 *RCMX250700-RR93*	25,0 *0.984*	7,94 *0.313*	7,2 *0.283*	0,0	7,0	■	■			■																			
RCMX250700-RR94 *RCMX250700-RR94*	25,0 *0.984*	7,94 *0.313*	7,2 *0.283*		7,0				■																				
RCMX320900-R3 *RCMX320900-R3*	32,0 *1.260*	9,52 *0.375*	9,5 *0.374*		7,0			■																					
RCMX320900-RR93 *RCMX320900-RR93*	32,0 *1.260*	9,52 *0.375*	9,5 *0.374*	0,0	7,0	■	■			■																			
RCMX320900-H-RR93 *RCMX320900-H-RR93*	32,0 *1.260*	9,52 *0.375*	10,4 *0.409*		7,0		■	■																					
RCMX320900-RR94 *RCMX320900-RR94*	32,0 *1.260*	9,52 *0.375*	9,5 *0.374*		7,0	■		■	■																				
RCMX320900-RR97 *RCMX320900-RR97*	32,0 *1.260*	9,52 *0.375*	9,5 *0.374*		7,0	■																							

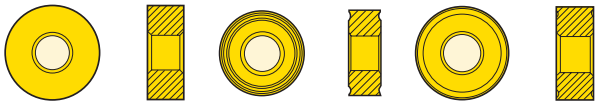
RNMA, RNMG



Tolerances: Size:
INSD = ±0,08/*0.003* 12/*4*
INSD = ±0,10/*0.004* 19/*6*
INSD = ±0,13/*0.005* 25/*8*
S = ±0,13/*0.005*

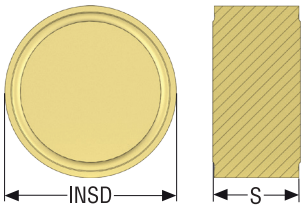
For ISO attribute explanation, see page 82

RNMA **RNMG-M3** **RNMG-MR4**

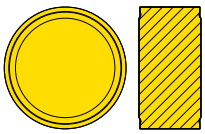


Designation	INSD	S	D1	EPSR°	AN°	Cemented Carbide and Cermet Grades																									
						Coated																				Uncoated				Cermet	
	mm *inch*	mm *inch*	mm *inch*			TP0501	TP1501	TP2501	TP3501	TP25	TP40	TM1501	TM2501	TM3501	TK0501	TK1501	TS2000	TS2050	TS2500	TH1000	TH1501	CP200	CP500	CP600	HX	KX	883	890	TP1030	TP1020
RNMA120400 *RNMA43*	12,7 *0.500*	4,76 *0.187*	5,15 *0.203*	0,0												■													
RNMG120400-M3 *RNMG43-M3*	12,7 *0.500*	4,76 *0.187*	5,15 *0.203*	0,0			■	■	■																				
RNMG120400-MR4 *RNMG43-MR4*	12,7 *0.500*	4,76 *0.187*	5,15 *0.203*	0,0															■							■			
RNMG190600-MR4 *RNMG64-MR4*	19,05 *0.750*	6,35 *0.250*	7,92 *0.312*	0,0															■							■			
RNMG250900-MR4 *RNMG86-MR4*	25,4 *1.000*	9,52 *0.375*	9,12 *0.359*	0,0															■							■			

RNMF



RNMF-MR7



Tolerances:
INSD = ±0,08/*0.003*
S = ±0,13/*0.005*

For ISO attribute explanation, see page 82

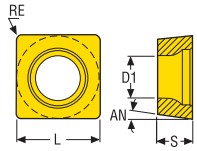
Designation	INSD	S	D1	EPSR°	AN°	Cemented Carbide and Cermet Grades																									
						Coated																				Uncoated				Cermet	
	mm *inch*	mm *inch*	mm *inch*			TP0501	TP1501	TP2501	TP3501	TP25	TP40	TM1501	TM2501	TM3501	TK0501	TK1501	TS2000	TS2050	TS2500	TH1000	TH1501	CP200	CP500	CP600	HX	KX	883	890	TP1030	TP1020
RNMF150700-MR7 *RNMF55-MR7*	15,875 *0.625*	8,067 *0.318*	0,0 –	0,0			■																						

SCMT

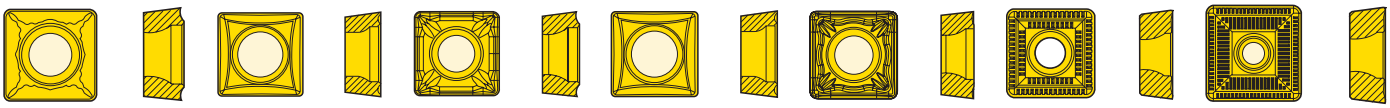
For ISO attribute explanation, see page 82

Tolerances:
L = ±0,05/*0.002*
L = ±0,08/*0.003*
L = ±0,13/*0.005*
L = ±0,15/*0.006*
S = ±0,05/*0.002*
S = ±0,13/*0.005*
S = ±0,15/*0.006*
RE = ±0,1/*0.004*

Size:
06-09/*2-3*
12/4
15-25/*5-8*
38/*12*
06-09/*2-3*
12-25/*4-8*
38/*12*



SCMT-F1 **SCMT-F2** **SCMT-MF2** **SCMT-M3** **SCMT-M5** **SCMT-RR96** **SCMT-RR97**



Designation	RE	L	S	D1	EPSR°	AN°	Cemented Carbide and Cermet Grades																									
							Coated																				Uncoated				Cermet	
	mm *inch*	mm *inch*	mm *inch*	mm *inch*			TP0501	TP1501	TP2501	TP3501	TP25	TP40	TM1501	TM2501	TM3501	TK0501	TK1501	TS2000	TS2050	TS2500	TH1000	TH1501	CP200	CP500	CP600	HX	KX	883	890	TP1030	TP1020
SCMT060204-F2 *SCMT21.51-F2*	0,4 *0.016*	6,35 *0.250*	2,38 *0.094*	2,9 *0.114*	90,0	7,0						■																			
SCMT060204-M3 *SCMT21.51-M3*	0,4 *0.016*	6,35 *0.250*	2,38 *0.094*	2,9 *0.114*	90,0	7,0			■	■	■				■																
SCMT070308-F2 *SCMT2.522-F2*	0,8 *0.031*	7,94 *0.313*	3,18 *0.125*	3,5 *0.138*	90,0	7,0						■																			
SCMT070308-M3 *SCMT2.522-M3*	0,8 *0.031*	7,94 *0.313*	3,18 *0.125*	3,5 *0.138*	90,0	7,0			■	■					■																
SCMT09T304-F1 *SCMT32.51-F1*	0,4 *0.016*	9,52 *0.375*	3,97 *0.156*	4,5 *0.177*	90,0	7,0			■	■														■							
SCMT09T304-F2 *SCMT32.51-F2*	0,4 *0.016*	9,52 *0.375*	3,97 *0.156*	4,5 *0.177*	90,0	7,0						■																			
SCMT09T304-M3 *SCMT32.51-M3*	0,4 *0.016*	9,52 *0.375*	3,97 *0.156*	4,5 *0.177*	90,0	7,0			■	■	■		■		■																
SCMT09T304-MF2 *SCMT32.51-MF2*	0,4 *0.016*	9,52 *0.375*	3,97 *0.156*	4,5 *0.177*	90,0	7,0			■						■																
SCMT09T308-F1 *SCMT32.52-F1*	0,8 *0.031*	9,52 *0.375*	3,97 *0.156*	4,5 *0.177*	90,0	7,0			■	■							■							■					■		
SCMT09T308-F2 *SCMT32.52-F2*	0,8 *0.031*	9,52 *0.375*	3,97 *0.156*	4,5 *0.177*	90,0	7,0						■																			
SCMT09T308-M3 *SCMT32.52-M3*	0,8 *0.031*	9,52 *0.375*	3,97 *0.156*	4,5 *0.177*	90,0	7,0		■	■	■	■		■		■	■	■														
SCMT09T308-M5 *SCMT32.52-M5*	0,8 *0.031*	9,52 *0.375*	3,97 *0.156*	4,5 *0.177*	90,0	7,0			■					■																	
SCMT09T308-MF2 *SCMT32.52-MF2*	0,8 *0.031*	9,52 *0.375*	3,97 *0.156*	4,5 *0.177*	90,0	7,0			■	■					■									■					■		
SCMT09T312-F1 *SCMT32.53-F1*	1,2 *0.047*	9,52 *0.375*	3,97 *0.156*	4,5 *0.177*	90,0	7,0				■																					
SCMT09T312-M5 *SCMT32.53-M5*	1,2 *0.047*	9,52 *0.375*	3,97 *0.156*	4,5 *0.177*	90,0	7,0				■																					
SCMT09T312-MF2 *SCMT32.53-MF2*	1,2 *0.047*	9,52 *0.375*	3,97 *0.156*	4,5 *0.177*	90,0	7,0				■					■																
SCMT120408-F1 *SCMT432-F1*	0,8 *0.031*	12,7 *0.500*	4,76 *0.187*	5,6 *0.220*	90,0	7,0			■	■			■											■							
SCMT120408-F2 *SCMT432-F2*	0,8 *0.031*	12,7 *0.500*	4,76 *0.187*	5,6 *0.220*	90,0	7,0						■																			
SCMT120408-M3 *SCMT432-M3*	0,8 *0.031*	12,7 *0.500*	4,76 *0.187*	5,6 *0.220*	90,0	7,0		■	■	■	■		■		■	■	■														
SCMT120408-M5 *SCMT432-M5*	0,8 *0.031*	12,7 *0.500*	4,76 *0.187*	5,6 *0.220*	90,0	7,0			■	■				■			■														
SCMT120408-MF2 *SCMT432-MF2*	0,8 *0.031*	12,7 *0.500*	4,76 *0.187*	5,6 *0.220*	90,0	7,0			■	■	■				■																
SCMT120412-F1 *SCMT433-F1*	1,2 *0.047*	12,7 *0.500*	4,76 *0.187*	5,6 *0.220*	90,0	7,0		■																■							

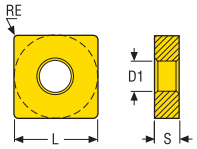
Designation	RE	L	S	D1	EPSR°	AN°	Cemented Carbide and Cermet Grades																											
							Coated																				Uncoated				Cermet	
	mm *inch*	mm *inch*	mm *inch*	mm *inch*			TP0501	TP1501	TP2501	TP3501	TP25	TP40	TM1501	TM2501	TM3501	TK0501	TK1501	TS2000	TS2050	TS2500	TH1000	TH1501	CP200	CP500	CP600	HX	KX	883	890	TP1030	TP1020
SCMT120412-M3 *SCMT433-M3*	1,2 *0.047*	12,7 *0.500*	4,76 *0.187*	5,6 *0.220*	90,0	7,0											■															
SCMT120412-MF2 *SCMT433-MF2*	1,2 *0.047*	12,7 *0.500*	4,76 *0.187*	5,6 *0.220*	90,0	7,0							■		■																	
SCMT150512-F2 *SCMT53.53-F2*	1,2 *0.047*	15,88 *0.625*	5,56 *0.219*	8,7 *0.343*	90,0	7,0						■																				
SCMT250924-RR97 *SCMT866-RR97*	2,4 *0.094*	25,4 *1.000*	9,52 *0.375*	8,7 *0.343*	90,0	7,0					■																					
SCMT380932-RR96 *SCMT1268-RR96*	2,4 *0.094*	25,4 *1.000*	9,52 *0.375*	8,7 *0.343*	90,0	7,0					■																					
SCMT380932-RR97 *SCMT1268-RR97*	3,2 *0.126*	38,1 *1.500*	9,52 *0.375*	8,7 *0.343*	90,0	7,0	■				■																					

SNMA, SNMG, SNMM

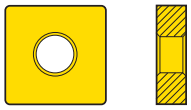
For ISO attribute explanation, see page 82

Tolerances:
L = ±0,05/*0.002*
L = ±0,08/*0.003*
L = ±0,10/*0.004*
L = ±0,13/*0.005*
S = ±0,13/*0.005*
RE = ±0,1/*0.004*

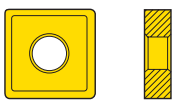
Size:
09/*3*
12/*4*
15-19/*5-6*
25/*8*



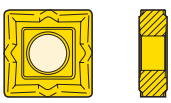
SNMA



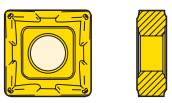
SNMA-MR9



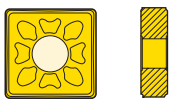
SNMG-MF1



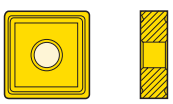
SNMG-MF2



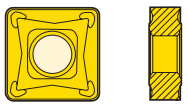
SNMG-MF4



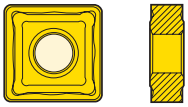
SNMG-M1



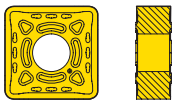
SNMG-M3



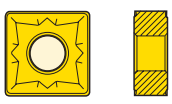
SNMG-M5



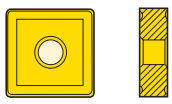
SNMG-M6



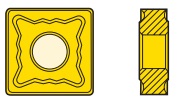
SNMG-MR3



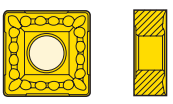
SNMG-MR4



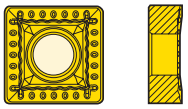
SNMG-MR7



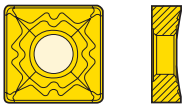
SNMM-R4



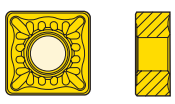
SNMM-R5



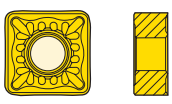
SNMM-R6



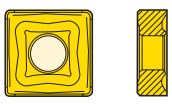
SNMM-R7



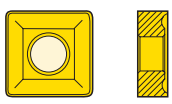
SNMM...W-R7



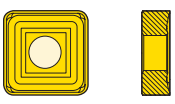
SNMM-R8



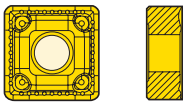
SNMM-R56



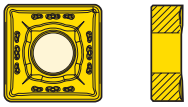
SNMM-R57



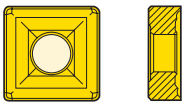
SNMM-R68



SNMM-RR6



SNMM-RR9



Designation	RE	L	S	D1	EPSR°	AN°	Cemented Carbide and Cermet Grades																													
							Coated																						Uncoated				Cermet	
	mm *inch*	mm *inch*	mm *inch*	mm *inch*			TP0501	TP1501	TP2501	TP3501	TP25	TP40	TM1501	TM2501	TM3501	TK0501	TK1501	TS2000	TS2050	TS2500	TH1000	TH1501	CP200	CP500	CP600	HX	KX	883	890	TP1030	TP1020
SNMG090304-MF2 *SNMG321-MF2*	0,4 *0.016*	9,525 *0.375*	3,18 *0.125*	3,81 *0.150*	90,0	0,0			■																							
SNMG090308-M5 *SNMG322-M5*	0,8 *0.031*	9,525 *0.375*	3,18 *0.125*	3,81 *0.150*	90,0	0,0			■	■																						
SNMG090308-MF2 *SNMG322-MF2*	0,8 *0.031*	9,525 *0.375*	3,18 *0.125*	3,81 *0.150*	90,0	0,0			■																							
SNMG120404-M3 *SNMG431-M3*	0,4 *0.016*	12,7 *0.500*	4,76 *0.187*	5,15 *0.203*	90,0	0,0			■	■																						
SNMA120408-MR9 *SNMA432-MR9*	0,8 *0.031*	12,7 *0.500*	4,76 *0.187*	5,15 *0.203*	90,0	0,0											■															
SNMA120408 *SNMA432*	0,8 *0.031*	12,7 *0.500*	4,76 *0.187*	5,15 *0.203*	90,0	0,0										■	■															
SNMG120408-M1 *SNMP432-M1*	0,8 *0.031*	12,7 *0.500*	4,76 *0.187*	5,15 *0.203*	90,0	0,0																					■					
SNMG120408-M3 *SNMG432-M3*	0,8 *0.031*	12,7 *0.500*	4,76 *0.187*	5,15 *0.203*	90,0	0,0		■	■	■	■	■			■		■							■								
SNMG120408-M5 *SNMG432-M5*	0,8 *0.031*	12,7 *0.500*	4,76 *0.187*	5,15 *0.203*	90,0	0,0			■	■	■	■	■	■			■				■											
SNMG120408-M6 *SNMG432-M6*	0,8 *0.031*	12,7 *0.500*	4,76 *0.187*	5,15 *0.203*	90,0	0,0		■	■	■																						
SNMG120408-MF1 *SNMP432-MF1*	0,8 *0.031*	12,7 *0.500*	4,76 *0.187*	5,15 *0.203*	90,0	0,0							■		■			■					■	■				■				
SNMG120408-MF2 *SNMG432-MF2*	0,8 *0.031*	12,7 *0.500*	4,762 *0.187*	5,15 *0.203*	90,0	0,0		■	■	■	■										■									■		
SNMG120408-MF4 *SNMG432-MF4*	0,8 *0.031*	12,7 *0.500*	4,76 *0.187*	5,15 *0.203*	90,0	0,0							■	■	■																	
SNMG120408-MR3 *SNMG432-MR3*	0,8 *0.031*	12,7 *0.500*	4,76 *0.187*	5,15 *0.203*	90,0	0,0								■	■			■					■	■								

Designation	RE	L	S	D1	EPSR°	AN°	Cemented Carbide and Cermet Grades																										
							Coated																				Uncoated				Cermet	
	mm *inch*	mm *inch*	mm *inch*	mm *inch*			TP0501	TP1501	TP2501	TP3501	TP25	TP40	TM1501	TM2501	TM3501	TK0501	TK1501	TS2000	TS2050	TS2500	TH1000	TH1501	CP200	CP500	CP600	HX	KX	883	890	TP1030	TP1020
SNMG120408-MR4 *SNMG432-MR4*	0,8 *0.031*	12,7 *0.500*	4,76 *0.187*	5,15 *0.203*	90,0	0,0														■								■				
SNMG120408-MR7 *SNMG432-MR7*	0,8 *0.031*	12,7 *0.500*	4,76 *0.187*	5,15 *0.203*	90,0	0,0			■	■		■		■																		
SNMM120408-R4 *SNMM432-R4*	0,8 *0.031*	12,7 *0.500*	4,76 *0.187*	5,15 *0.203*	90,0	0,0				■																						
SNMM120408-R6 *SNMM432-R6*	0,8 *0.031*	12,7 *0.500*	4,76 *0.187*	5,15 *0.203*	90,0	0,0						■																				
SNMA120412-MR9 *SNMA433-MR9*	1,2 *0.047*	12,7 *0.500*	4,76 *0.187*	5,15 *0.203*	90,0	0,0										■	■															
SNMA120412 *SNMA433*	1,2 *0.047*	12,7 *0.500*	4,76 *0.187*	5,15 *0.203*	90,0	0,0										■																
SNMG120412-M3 *SNMG433-M3*	1,2 *0.047*	12,7 *0.500*	4,76 *0.187*	5,15 *0.203*	90,0	0,0		■	■	■	■	■			■																	
SNMG120412-M5 *SNMG433-M5*	1,2 *0.047*	12,7 *0.500*	4,762 *0.187*	5,15 *0.203*	90,0	0,0		■	■	■		■	■	■			■				■											
SNMG120412-M6 *SNMG433-M6*	1,2 *0.047*	12,7 *0.500*	4,76 *0.187*	5,15 *0.203*	90,0	0,0		■																								
SNMG120412-MF1 *SNMP433-MF1*	1,2 *0.047*	12,7 *0.500*	4,76 *0.187*	5,15 *0.203*	90,0	0,0									■			■					■	■								
SNMG120412-MF2 *SNMG433-MF2*	1,2 *0.047*	12,7 *0.500*	4,76 *0.187*	5,15 *0.203*	90,0	0,0		■	■												■											
SNMG120412-MF4 *SNMG433-MF4*	1,2 *0.047*	12,7 *0.500*	4,76 *0.187*	5,15 *0.203*	90,0	0,0							■	■	■																	
SNMG120412-MR3 *SNMG433-MR3*	1,2 *0.047*	12,7 *0.500*	4,76 *0.187*	5,15 *0.203*	90,0	0,0								■	■			■						■								
SNMG120412-MR4 *SNMG433-MR4*	1,2 *0.047*	12,7 *0.500*	4,76 *0.187*	5,15 *0.203*	90,0	0,0														■								■				
SNMG120412-MR7 *SNMG433-MR7*	1,2 *0.047*	12,7 *0.500*	4,76 *0.187*	5,15 *0.203*	90,0	0,0			■	■							■															
SNMM120412-R4 *SNMM433-R4*	1,2 *0.047*	12,7 *0.500*	4,76 *0.187*	5,15 *0.203*	90,0	0,0				■																						
SNMA120416-MR9 *SNMA434-MR9*	1,6 *0.063*	12,7 *0.500*	4,76 *0.187*	5,15 *0.203*	90,0	0,0										■	■															
SNMA120416 *SNMA434*	1,6 *0.063*	12,7 *0.500*	4,76 *0.187*	5,15 *0.203*	90,0	0,0										■																
SNMG120416-M3 *SNMG434-M3*	1,6 *0.063*	12,7 *0.500*	4,76 *0.187*	5,15 *0.203*	90,0	0,0		■	■	■																						
SNMG120416-M5 *SNMG434-M5*	1,6 *0.063*	12,7 *0.500*	4,76 *0.187*	5,15 *0.203*	90,0	0,0		■	■	■				■																		
SNMG120416-M6 *SNMG434-M6*	1,6 *0.063*	12,7 *0.500*	4,76 *0.187*	5,15 *0.203*	90,0	0,0		■																								
SNMG120416-MR4 *SNMG434-MR4*	1,6 *0.063*	12,7 *0.500*	4,76 *0.187*	5,15 *0.203*	90,0	0,0														■								■				
SNMG120416-MR7 *SNMG434-MR7*	1,6 *0.063*	12,7 *0.500*	4,76 *0.187*	5,15 *0.203*	90,0	0,0			■																							
SNMG150608-M5 *SNMG542-M5*	0,8 *0.031*	15,875 *0.625*	6,35 *0.250*	6,35 *0.250*	90,0	0,0			■																							
SNMA150612 *SNMA543*	1,2 *0.047*	15,875 *0.625*	6,35 *0.250*	6,35 *0.250*	90,0	0,0											■															
SNMG150612-M3 *SNMG543-M3*	1,2 *0.047*	15,875 *0.625*	6,35 *0.250*	6,35 *0.250*	90,0	0,0		■	■																							
SNMG150612-M5 *SNMG543-M5*	1,2 *0.047*	15,875 *0.625*	6,35 *0.250*	6,35 *0.250*	90,0	0,0		■	■	■		■		■																		
SNMG150612-M6 *SNMG543-M6*	1,2 *0.047*	15,875 *0.625*	6,35 *0.250*	6,35 *0.250*	90,0	0,0		■	■																							
SNMG150612-MR4 *SNMG543-MR4*	1,2 *0.047*	15,875 *0.625*	6,35 *0.250*	6,35 *0.250*	90,0	0,0														■								■				
SNMG150612-MR7 *SNMG543-MR7*	1,2 *0.047*	15,875 *0.625*	6,35 *0.250*	6,35 *0.250*	90,0	0,0			■	■		■					■															

Designation	RE	L	S	D1	EPSR°	AN°	Cemented Carbide and Cermet Grades																											
							Coated																				Uncoated				Cermet	
	mm *inch*	mm *inch*	mm *inch*	mm *inch*			TP0501	TP1501	TP2501	TP3501	TP25	TP40	TM1501	TM2501	TM3501	TK0501	TK1501	TS2000	TS2050	TS2500	TH1000	TH1501	CP200	CP500	CP600	HX	KX	883	890	TP1030	TP1020
SNMM150612-R4 *SNMM543-R4*	1,2 *0.047*	15,875 *0.625*	6,35 *0.250*	6,35 *0.250*	90,0	0,0			■	■																						
SNMA150616-MR9 *SNMA544-MR9*	1,6 *0.063*	15,875 *0.625*	6,35 *0.250*	6,35 *0.250*	90,0	0,0										■	■															
SNMG150616-M5 *SNMG544-M5*	1,6 *0.063*	15,875 *0.625*	6,35 *0.250*	6,35 *0.250*	90,0	0,0	■	■	■	■	■	■		■																		
SNMG150616-M6 *SNMG544-M6*	1,6 *0.063*	15,875 *0.625*	6,35 *0.250*	6,35 *0.250*	90,0	0,0	■	■		■																						
SNMG150616-MR7 *SNMG544-MR7*	1,6 *0.063*	15,875 *0.625*	6,35 *0.250*	6,35 *0.250*	90,0	0,0			■								■															
SNMM150616-R4 *SNMM544-R4*	1,6 *0.063*	15,875 *0.625*	6,35 *0.250*	6,35 *0.250*	90,0	0,0	■		■																							
SNMM150624-R7 *SNMM546-R7*	2,4 *0.094*	15,875 *0.625*	6,35 *0.250*	6,35 *0.250*	90,0	0,0			■																							
SNMA190612 *SNMA643*	1,2 *0.047*	19,05 *0.750*	6,35 *0.250*	7,92 *0.312*	90,0	0,0										■																
SNMG190612-M3 *SNMG643-M3*	1,2 *0.047*	19,05 *0.750*	6,35 *0.250*	7,92 *0.312*	90,0	0,0			■	■																						
SNMG190612-M5 *SNMG643-M5*	1,2 *0.047*	19,05 *0.750*	6,35 *0.250*	7,92 *0.312*	90,0	0,0			■	■	■	■		■			■															
SNMG190612-M6 *SNMG643-M6*	1,2 *0.047*	19,05 *0.750*	6,35 *0.250*	7,92 *0.312*	90,0	0,0		■																								
SNMG190612-MR4 *SNMG643-MR4*	1,2 *0.047*	19,05 *0.750*	6,35 *0.250*	7,92 *0.312*	90,0	0,0														■								■				
SNMG190612-MR7 *SNMG643-MR7*	1,2 *0.047*	19,05 *0.750*	6,35 *0.250*	7,92 *0.312*	90,0	0,0			■	■		■		■																		
SNMM190612-R4 *SNMM643-R4*	1,2 *0.047*	19,05 *0.750*	6,35 *0.250*	7,92 *0.312*	90,0	0,0			■	■																						
SNMM190612-R6 *SNMM643-R6*	1,2 *0.047*	19,05 *0.750*	6,35 *0.250*	7,92 *0.312*	90,0	0,0				■		■																				
SNMM190612-R7 *SNMM643-R7*	1,2 *0.047*	19,05 *0.750*	6,35 *0.250*	7,92 *0.312*	90,0	0,0			■																							
SNMA190616 *SNMA644*	1,6 *0.063*	19,05 *0.750*	6,35 *0.250*	7,92 *0.312*	90,0	0,0										■	■															
SNMG190616-M3 *SNMG644-M3*	1,6 *0.063*	19,05 *0.750*	6,35 *0.250*	7,92 *0.312*	90,0	0,0			■																							
SNMG190616-M5 *SNMG644-M5*	1,6 *0.063*	19,05 *0.750*	6,35 *0.250*	7,92 *0.312*	90,0	0,0		■	■	■	■	■		■																		
SNMG190616-M6 *SNMG644-M6*	1,6 *0.063*	19,05 *0.750*	6,35 *0.250*	7,92 *0.312*	90,0	0,0	■	■																								
SNMG190616-MR3 *SNMG644-MR3*	1,6 *0.063*	19,05 *0.750*	6,35 *0.250*	7,92 *0.312*	90,0	0,0																	■	■								
SNMG190616-MR4 *SNMG644-MR4*	1,6 *0.063*	19,05 *0.750*	6,35 *0.250*	7,92 *0.312*	90,0	0,0																						■				
SNMG190616-MR7 *SNMG644-MR7*	1,6 *0.063*	19,05 *0.750*	6,35 *0.250*	7,92 *0.312*	90,0	0,0	■	■	■	■	■	■		■																		
SNMM190616-R4 *SNMM644-R4*	1,6 *0.063*	19,05 *0.750*	6,35 *0.250*	7,92 *0.312*	90,0	0,0		■	■	■		■																				
SNMM190616-R5 *SNMM644-R5*	1,6 *0.063*	19,05 *0.750*	6,35 *0.250*	7,92 *0.312*	90,0	0,0			■																							
SNMM190616-R56 *SNMM644-R56*	1,6 *0.063*	19,05 *0.750*	6,35 *0.250*	7,92 *0.312*	90,0	0,0				■																						
SNMM190616-R57 *SNMM644-R57*	1,6 *0.063*	19,05 *0.750*	6,35 *0.250*	7,92 *0.312*	90,0	0,0		■																								
SNMM190616-R6 *SNMM644-R6*	1,6 *0.063*	19,05 *0.750*	6,35 *0.250*	7,92 *0.312*	90,0	0,0				■																						
SNMM190616-R7 *SNMM644-R7*	1,6 *0.063*	19,05 *0.750*	6,35 *0.250*	7,92 *0.312*	90,0	0,0			■	■																						
SNMM190616W-R7 *SNMM644W-R7*	1,6 *0.063*	19,05 *0.750*	6,35 *0.250*	7,92 *0.312*	90,0	0,0			■																							

Designation	RE	L	S	D1	EPSR°	AN°	Cemented Carbide and Cermet Grades																											
							Coated																				Uncoated				Cermet	
	mm *inch*	mm *inch*	mm *inch*	mm *inch*			TP0501	TP1501	TP2501	TP3501	TP25	TP40	TM1501	TM2501	TM3501	TK0501	TK1501	TS2000	TS2050	TS2500	TH1000	TH1501	CP200	CP500	CP600	HX	KX	883	890	TP1030	TP1020
SNMM190616-R8 *SNMM643-R8*	1,6 *0.063*	19,05 *0.750*	6,35 *0.250*	7,92 *0.312*	90,0	0,0				■		■																			
SNMM190616-RR6 *SNMM643-RR6*	1,6 *0.063*	19,05 *0.750*	6,35 *0.250*	7,92 *0.312*	90,0	0,0				■				■																	
SNMM190616-RR9 *SNMM644-RR9*	1,6 *0.063*	19,05 *0.750*	6,35 *0.250*	7,92 *0.312*	90,0	0,0						■																			
SNMG190624-M6 *SNMG646-M6*	2,4 *0.094*	19,05 *0.750*	6,35 *0.250*	7,92 *0.312*	90,0	0,0				■																					
SNMG190624-MR7 *SNMG646-MR7*	2,4 *0.094*	19,05 *0.750*	6,35 *0.250*	7,92 *0.312*	90,0	0,0			■		■																				
SNMM190624-R4 *SNMM646-R4*	2,4 *0.094*	19,05 *0.750*	6,35 *0.250*	7,92 *0.312*	90,0	0,0	■		■	■	■																				
SNMM190624-R57 *SNMM646-R57*	2,4 *0.094*	19,05 *0.750*	6,35 *0.250*	7,92 *0.312*	90,0	0,0	■			■																					
SNMM190624-R7 *SNMM646-R7*	2,4 *0.094*	19,05 *0.750*	6,35 *0.250*	7,92 *0.312*	90,0	0,0			■	■	■																				
SNMM190624W-R7 *SNMM646W-R7*	2,4 *0.094*	19,05 *0.750*	6,35 *0.250*	7,92 *0.312*	90,0	0,0			■																						
SNMM190624-RR6 *SNMM646-RR6*	2,4 *0.094*	19,05 *0.750*	6,35 *0.250*	7,92 *0.312*	90,0	0,0			■					■																	
SNMM250724-R56 *SNMM856-R56*	2,4 *0.094*	25,4 *1.000*	7,94 *0.313*	9,12 *0.359*	90,0	0,0			■	■																					
SNMM250724-R57 *SNMM856-R57*	2,4 *0.094*	25,4 *1.000*	7,94 *0.313*	9,12 *0.359*	90,0	0,0				■	■																				
SNMM250724-R7 *SNMM856-R7*	2,4 *0.094*	25,4 *1.000*	7,94 *0.313*	9,12 *0.359*	90,0	0,0	■		■	■	■																				
SNMM250724-RR6 *SNMM856-RR6*	2,4 *0.094*	25,4 *1.000*	7,94 *0.313*	9,12 *0.359*	90,0	0,0			■		■		■	■																	
SNMM250724-RR9 *SNMM856-RR9*	2,4 *0.094*	25,4 *1.000*	7,94 *0.313*	9,12 *0.359*	90,0	0,0				■		■																			
SNMG250924-MR4 *SNMG866-MR4*	2,4 *0.094*	25,4 *1.000*	9,52 *0.375*	9,12 *0.359*	90,0	0,0																					■				
SNMG250924-MR7 *SNMG866-MR7*	2,4 *0.094*	25,4 *1.000*	9,52 *0.375*	9,12 *0.359*	90,0	0,0	■		■	■	■																				
SNMM250924-R68 *SNMM866-R68*	2,4 *0.094*	25,4 *1.000*	9,52 *0.375*	9,12 *0.359*	90,0	0,0	■		■					■																	
SNMM250924-R7 *SNMM866-R7*	2,4 *0.094*	25,4 *1.000*	9,52 *0.375*	9,12 *0.359*	90,0	0,0	■		■	■	■																				

TCGT, TCGX, TCMT, TCMX

* Right-hand version shown

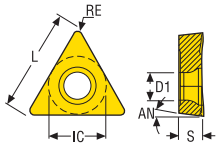
For ISO attribute explanation, see page 82

TCGT
Tolerances:
IC = ±0,025/*0.001*
S = ±0,05/*0.002*
RE (≥0,2/*0.008*) = ±0,1/*0.004*
RE (≤0,1/*0.004*) = ±0,025/*0.001*

TCGX
Tolerances:
IC = ±0,025/*0.001*
S = ±0,13/*0.005*
RE = ±0,1/*0.004*

TCMT, TCMX
Tolerances:
IC = ±0,05/*0.002*
IC = ±0,08/*0.003*
S = ±0,05/*0.002*
S = ±0,13/*0.005*
RE = ±0,1/*0.004*

Size:
11-16/*2-3*
22/*4*
11-16/*2-3*
22/*4*



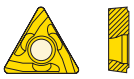
TCGT-AL



TCGT-F1



TCGT-UX*



TCMT-F1



TCMT-F2



TCMT-MF2



TCMT-M3



TCMT-M5



TCMX...W-F1



Designation	RE	IC	L	S	D1	EPSR°	AN°	Cemented Carbide and Cermet Grades																												
								Coated																					Uncoated				Cermet				
	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*			TP0501	TP1501	TP2501	TP3501	TP25	TP40	TM1501	TM2501	TM3501	TK0501	TK1501	TS2000	TS2050	TS2500	TH1000	TH1501	CP200	CP500	CP600	HX	KX	883	890	TP1030	TP1020					
TCGT090202F-AL *TCGT1.81.50.5F-AL*	0,2 *0.008*	5,56 *0.219*	9,63 *0.379*	2,38 *0.094*	2,5 *0.098*	60,0	7,0												■								■									
TCGT090204F-AL *TCGT1.81.51F-AL*	0,4 *0.016*	5,56 *0.219*	9,63 *0.379*	2,38 *0.094*	2,5 *0.098*	60,0	7,0												■								■									
TCGT110201-F1 *TCGT21.50-F1*	0,1 *0.004*	6,35 *0.250*	11,0 *0.433*	2,38 *0.094*	2,9 *0.114*	60,0	7,0																	■												
TCGT110202F-AL *TCGT21.50.5F-AL*	0,2 *0.008*	6,35 *0.250*	11,0 *0.433*	2,38 *0.094*	2,8 *0.110*	60,0	7,0												■								■									
TCGT110202R-UX *TCGT21.50.5R-UX*	0,2 *0.008*	6,35 *0.250*	11,0 *0.433*	2,38 *0.094*	2,8 *0.110*	60,0	7,0																	■												
TCGT110202L-UX *TCGT21.50.5L-UX*	0,2 *0.008*	6,35 *0.250*	11,0 *0.433*	2,38 *0.094*	2,8 *0.110*	60,0	7,0																	■												
TCMT110202-F1 *TCMT21.50.5-F1*	0,2 *0.008*	6,35 *0.250*	11,0 *0.433*	2,38 *0.094*	2,9 *0.114*	60,0	7,0				■		■											■												
TCGT110204F-AL *TCGT21.51F-AL*	0,4 *0.016*	6,35 *0.250*	11,0 *0.433*	2,38 *0.094*	2,8 *0.110*	60,0	7,0												■								■									
TCGT110204R-UX *TCGT21.51R-UX*	0,4 *0.016*	6,35 *0.250*	11,0 *0.433*	2,38 *0.094*	2,8 *0.110*	60,0	7,0									■								■												
TCGT110204L-UX *TCGT21.51L-UX*	0,4 *0.016*	6,35 *0.250*	11,0 *0.433*	2,38 *0.094*	2,8 *0.110*	60,0	7,0									■								■												
TCMT110204-F1 *TCMT21.51-F1*	0,4 *0.016*	6,35 *0.250*	11,0 *0.433*	2,38 *0.094*	2,9 *0.114*	60,0	7,0		■	■	■	■	■	■	■	■								■												
TCMT110204-MF2 *TCMT21.51-MF2*	0,4 *0.016*	6,35 *0.250*	11,0 *0.433*	2,38 *0.094*	2,9 *0.114*	60,0	7,0			■	■					■								■												
TCGT110208F-AL *TCGT21.52F-AL*	0,8 *0.031*	6,35 *0.250*	11,0 *0.433*	2,38 *0.094*	2,8 *0.110*	60,0	7,0																				■									
TCMT110208-F1 *TCMT21.52-F1*	0,8 *0.031*	6,35 *0.250*	11,0 *0.433*	2,38 *0.094*	2,9 *0.114*	60,0	7,0		■	■	■	■	■											■												
TCMT110208-MF2 *TCMT21.52-MF2*	0,8 *0.031*	6,35 *0.250*	11,0 *0.433*	2,38 *0.094*	2,9 *0.114*	60,0	7,0			■	■					■								■												
TCMT16T302-F1 *TCMT32.50.5-F1*	0,2 *0.008*	9,525 *0.375*	16,5 *0.650*	3,97 *0.156*	4,5 *0.177*	60,0	7,0				■				■																					
TCGT16T304F-AL *TCGT32.51F-AL*	0,4 *0.016*	9,525 *0.375*	16,5 *0.650*	3,97 *0.156*	4,4 *0.173*	60,0	7,0																				■									
TCMT16T304-F1 *TCMT32.51-F1*	0,4 *0.016*	9,525 *0.375*	16,5 *0.650*	3,97 *0.156*	4,5 *0.177*	60,0	7,0		■	■	■		■	■	■	■			■				■								■					
TCMT16T304-F2 *TCMT32.51-F2*	0,4 *0.016*	9,525 *0.375*	16,5 *0.650*	3,97 *0.156*	4,5 *0.177*	60,0	7,0																			■										
TCMT16T304-M3 *TCMT32.51-M3*	0,4 *0.016*	9,525 *0.375*	16,5 *0.650*	3,97 *0.156*	4,5 *0.177*	60,0	7,0		■	■	■	■						■																		

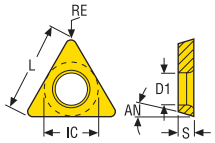
Designation	RE	IC	L	S	D1	EPSR°	AN°	Cemented Carbide and Cermet Grades																									
								Coated																				Uncoated				Cermet	
	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*			TP0501	TP1501	TP2501	TP3501	TP25	TP40	TM1501	TM2501	TM3501	TK0501	TK1501	TS2000	TS2050	TS2500	TH1000	TH1501	CP200	CP500	CP600	HX	KX	883	890	TP1030	TP1020
TCMT16T304-MF2 *TCMT32.51-MF2*	0,4 *0.016*	9,525 *0.375*	16,5 *0.650*	3,97 *0.156*	4,5 *0.177*	60,0	7,0			■	■					■									■							
TCGT16T308F-AL *TCGT32.52F-AL*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,97 *0.156*	4,4 *0.173*	60,0	7,0																					■				
TCMT16T308-F1 *TCMT32.52-F1*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,97 *0.156*	4,5 *0.177*	60,0	7,0		■	■	■	■		■	■				■						■							
TCMT16T308-F2 *TCMT32.52-F2*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,97 *0.156*	4,5 *0.177*	60,0	7,0						■													■					
TCMT16T308-M3 *TCMT32.52-M3*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,97 *0.156*	4,5 *0.177*	60,0	7,0		■	■	■	■		■		■	■	■													
TCMT16T308-M5 *TCMT32.52-M5*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,97 *0.156*	4,5 *0.177*	60,0	7,0	■		■	■		■		■			■													
TCMT16T308-MF2 *TCMT32.52-MF2*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,97 *0.156*	4,5 *0.177*	60,0	7,0			■	■					■									■							
TCMX16T308W-F1 *TCMX32.52W-F1*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,97 *0.156*	4,5 *0.177*	60,0	7,0		■	■																					
TCMT16T312-F1 *TCMT32.53-F1*	1,2 *0.047*	9,525 *0.375*	16,5 *0.650*	3,97 *0.156*	4,5 *0.177*	60,0	7,0		■		■																				
TCMT16T312-M5 *TCMT32.53-M5*	1,2 *0.047*	9,525 *0.375*	16,5 *0.650*	3,97 *0.156*	4,5 *0.177*	60,0	7,0			■	■							■													
TCMT220404-F2 *TCMT431-F2*	0,4 *0.016*	12,7 *0.500*	22,0 *0.866*	4,76 *0.187*	5,6 *0.220*	60,0	7,0																			■					
TCMT220408-M3 *TCMT432-M3*	0,8 *0.031*	12,7 *0.500*	22,0 *0.866*	4,76 *0.187*	5,6 *0.220*	60,0	7,0		■	■	■	■																			

TDAB, TDCH

* Right-hand version shown

For ISO attribute explanation, see page 82

Tolerances:
IC = ±0,025/*0.001*
S = ±0,025/*0.001*
RE = ±0,025/*0.001*



TDAB

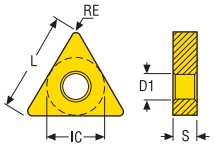


TDCH*



Designation	RE	IC	L	S	D1	EPSR°	AN°	Cemented Carbide and Cermet Grades																											
								Coated																					Uncoated				Cermet	
	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*			TP0501	TP1501	TP2501	TP3501	TP25	TP40	TM1501	TM2501	TM3501	TK0501	TK1501	TS2000	TS2050	TS2500	TH1000	TH1501	CP200	CP500	CP600	HX	KX	883	890	TP1030	TP1020
TDAB06T0005 *TDAB1.21.50*	0,05 *0.002*	4,064 *0.160*	6,8 *0.268*	1,194 *0.047*	2,36 *0.093*	60,0	15,0																	■								
TDAB06T002 *TDAB1.21.50.5*	0,2 *0.008*	4,064 *0.160*	6,8 *0.268*	1,194 *0.047*	2,36 *0.093*	60,0	15,0																	■								
TDCH06T002L *TDCH1.21.50.5L*	0,2 *0.008*	4,064 *0.160*	6,8 *0.268*	1,194 *0.047*	2,36 *0.093*	60,0	15,0																	■								
TDCH06T002R *TDCH1.21.50.5R*	0,2 *0.008*	4,064 *0.160*	6,8 *0.268*	1,194 *0.047*	2,36 *0.093*	60,0	15,0																	■								
TDAB06T004 *TDAB1.21.51*	0,4 *0.016*	4,064 *0.160*	6,8 *0.268*	1,194 *0.047*	2,36 *0.093*	60,0	15,0																	■								
TDCH06T004L *TDCH1.21.51L*	0,4 *0.016*	4,064 *0.160*	6,8 *0.268*	1,194 *0.047*	2,36 *0.093*	60,0	15,0																	■								
TDCH06T004R *TDCH1.21.51R*	0,4 *0.016*	4,064 *0.160*	6,8 *0.268*	1,194 *0.047*	2,36 *0.093*	60,0	15,0																	■								

TNMA, TNMG, TNMM, TNMX



Tolerances:
IC = ±0,05/*0.002*
IC = ±0,08/*0.003*
IC = ±0,10/*0.004*
S = ±0,13/*0.005*
RE = ±0,1/*0.004*

Size:
11-16/2-3
22/4
27-33/5-6

* Right-hand version shown

For ISO attribute explanation, see page 82

TNMA


TNMA-MR9


TNMG-FF1


TNMG-FF2


TNMG-MF1


TNMG-MF2


TNMG-MF3


TNMG-MF4


TNMG-MF5


TNMG-M1


TNMG-M3


TNMG-M4


TNMG-M5


TNMG-M6


TNMG-MR3


TNMG-MR4


TNMG-MR7


TNMG-UX*


TNMM-R4


TNMM-R6


TNMX...W-M3

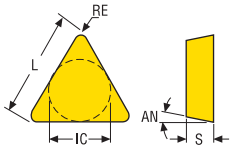

Designation	RE	IC	L	S	D1	EPSR°	AN°	Cemented Carbide and Cermet Grades: Coated																		Uncoated				Cermet	
	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*			TP0501	TP1501	TP2501	TP3501	TP25	TP40	TM1501	TM2501	TM3501	TK0501	TK1501	TS2000	TS2050	TS2500	TH1000	TH1501	CP200	CP500	CP600	HX	KX	883	890	TP1030	TP1020
TNMG110304-MF2 *TNMG221-MF2*	0,4 *0.016*	6,35 *0.250*	11,0 *0.433*	3,18 *0.125*	2,26 *0.089*	60,0	0,0			■																					
TNMG110304-MR4 *TNMG221-MR4*	0,4 *0.016*	6,35 *0.250*	11,0 *0.433*	3,18 *0.125*	2,26 *0.089*	60,0	0,0																					■			
TNMG160304-MR4 *TNMG321-MR4*	0,4 *0.016*	9,525 *0.375*	16,5 *0.650*	3,18 *0.125*	3,81 *0.150*	60,0	0,0																					■			
TNMG160308-M5 *TNMG322-M5*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,18 *0.125*	3,81 *0.150*	60,0	0,0				■		■																		
TNMG160308-MF3 *TNMG322-MF3*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,18 *0.125*	3,81 *0.150*	60,0	0,0				■																				
TNMG160308-MR4 *TNMG322-MR4*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,18 *0.125*	3,81 *0.150*	60,0	0,0																					■			
TNMG160404-FF1 *TNMG331-FF1*	0,4 *0.016*	9,525 *0.375*	16,5 *0.650*	4,76 *0.187*	3,81 *0.150*	60,0	0,0									■														■	
TNMG160404-FF2 *TNMG331-FF2*	0,4 *0.016*	9,525 *0.375*	16,5 *0.650*	4,76 *0.187*	3,81 *0.150*	60,0	0,0		■	■															■					■	
TNMG160404-M3 *TNMG331-M3*	0,4 *0.016*	9,525 *0.375*	16,5 *0.650*	4,76 *0.187*	3,81 *0.150*	60,0	0,0		■	■	■	■	■		■	■		■													
TNMG160404-M5 *TNMG331-M5*	0,4 *0.016*	9,525 *0.375*	16,5 *0.650*	4,76 *0.187*	3,81 *0.150*	60,0	0,0			■	■																				
TNMG160404-MF1 *TNMP331-MF1*	0,4 *0.016*	9,525 *0.375*	16,5 *0.650*	4,762 *0.187*	3,81 *0.150*	60,0	0,0							■	■	■			■					■							
TNMG160404-MF2 *TNMG331-MF2*	0,4 *0.016*	9,525 *0.375*	16,5 *0.650*	4,76 *0.187*	3,81 *0.150*	60,0	0,0		■	■	■	■																		■	■
TNMG160404-MF3 *TNMG331-MF3*	0,4 *0.016*	9,525 *0.375*	16,5 *0.650*	4,76 *0.187*	3,81 *0.150*	60,0	0,0				■																				
TNMG160404-MF4 *TNMG331-MF4*	0,4 *0.016*	9,525 *0.375*	16,5 *0.650*	4,76 *0.187*	3,81 *0.150*	60,0	0,0							■	■	■															
TNMG160404-MF5 *TNMG331-MF5*	0,4 *0.016*	9,525 *0.375*	16,5 *0.650*	4,76 *0.187*	3,81 *0.150*	60,0	0,0															■									
TNMG160404R-UX *TNMG331R-UX*	0,4 *0.016*	9,525 *0.375*	16,5 *0.650*	4,76 *0.187*	3,81 *0.150*	60,0	0,0			■											■										
TNMG160404L-UX *TNMG331L-UX*	0,4 *0.016*	9,525 *0.375*	16,5 *0.650*	4,76 *0.187*	3,81 *0.150*	60,0	0,0			■											■										

Designation	RE	IC	L	S	D1	EPSR°	AN°	Cemented Carbide and Cermet Grades																												
								Coated																					Uncoated				Cermet				
	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*			TP0501	TP1501	TP2501	TP3501	TP25	TP40	TM1501	TM2501	TM3501	TK0501	TK1501	TS2000	TS2050	TS2500	TH1000	TH1501	CP200	CP500	CP600	HX	KX	883	890	TP1030	TP1020					
TNMM160404-R6 *TNMM331-R6*	0,4 *0.016*	9,525 *0.375*	16,5 *0.650*	4,76 *0.187*	3,81 *0.150*	60,0	0,0				■																									
TNMA160408 *TNMA332*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	4,76 *0.187*	3,81 *0.150*	60,0	0,0										■	■																	
TNMG160408-FF1 *TNMG332-FF1*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	4,76 *0.187*	3,81 *0.150*	60,0	0,0		■	■						■																			
TNMG160408-FF2 *TNMG332-FF2*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	4,76 *0.187*	3,81 *0.150*	60,0	0,0		■	■																						■			
TNMG160408-M3 *TNMG332-M3*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	4,76 *0.187*	3,81 *0.150*	60,0	0,0	■	■	■	■	■	■		■	■									■										
TNMG160408-M4 *TNMG332-M4*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	4,76 *0.187*	3,81 *0.150*	60,0	0,0											■																	
TNMG160408-M5 *TNMG332-M5*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	4,76 *0.187*	3,81 *0.150*	60,0	0,0	■	■	■	■	■	■	■	■		■	■																	
TNMG160408-M6 *TNMG332-M6*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	4,76 *0.187*	3,81 *0.150*	60,0	0,0		■	■	■																								
TNMG160408-MF1 *TNMP332-MF1*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	4,76 *0.187*	3,81 *0.150*	60,0	0,0							■	■	■			■					■	■					■						
TNMG160408-MF2 *TNMG332-MF2*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	4,76 *0.187*	3,81 *0.150*	60,0	0,0	■	■	■	■	■										■											■			
TNMG160408-MF3 *TNMG332-MF3*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	4,76 *0.187*	3,81 *0.150*	60,0	0,0				■		■			■																			
TNMG160408-MF4 *TNMG332-MF4*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	4,76 *0.187*	3,81 *0.150*	60,0	0,0							■	■	■			■						■										
TNMG160408-MF5 *TNMG332-MF5*	0,8 *0.031*	9,525 *0.375*	16,498 *0.650*	4,76 *0.187*	3,81 *0.150*	60,0	0,0			■												■	■													
TNMG160408-MR4 *TNMG332-MR4*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	4,76 *0.187*	3,81 *0.150*	60,0	0,0														■							■							
TNMG160408-MR7 *TNMG332-MR7*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	4,76 *0.187*	3,81 *0.150*	60,0	0,0				■		■																						
TNMG160408R-UX *TNMG332R-UX*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	4,76 *0.187*	3,81 *0.150*	60,0	0,0			■											■														
TNMG160408L-UX *TNMG332L-UX*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	4,76 *0.187*	3,81 *0.150*	60,0	0,0			■																									
TNMM160408-R4 *TNMM332-R4*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	4,76 *0.187*	3,81 *0.150*	60,0	0,0			■	■																									
TNMM160408-R6 *TNMM332-R6*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	4,76 *0.187*	3,81 *0.150*	60,0	0,0						■																							
TNMX160408W-M3 *TNMX332W-M3*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	4,76 *0.187*	3,81 *0.150*	60,0	0,0		■	■																									
TNMA160412-MR9 *TNMA333-MR9*	1,2 *0.047*	9,525 *0.375*	16,5 *0.650*	4,76 *0.187*	3,81 *0.150*	60,0	0,0											■																	
TNMA160412 *TNMA333*	1,2 *0.047*	9,525 *0.375*	16,5 *0.650*	4,76 *0.187*	3,81 *0.150*	60,0	0,0										■	■																	
TNMG160412-M3 *TNMG333-M3*	1,2 *0.047*	9,525 *0.375*	16,5 *0.650*	4,76 *0.187*	3,81 *0.150*	60,0	0,0		■	■	■	■			■																				
TNMG160412-M5 *TNMG333-M5*	1,2 *0.047*	9,525 *0.375*	16,5 *0.650*	4,76 *0.187*	3,81 *0.150*	60,0	0,0	■	■	■	■							■																	
TNMG160412-M6 *TNMG333-M6*	1,2 *0.047*	9,525 *0.375*	16,5 *0.650*	4,76 *0.187*	3,81 *0.150*	60,0	0,0		■		■																								
TNMG160412-MF1 *TNMP333-MF1*	1,2 *0.047*	9,525 *0.375*	16,5 *0.650*	4,76 *0.187*	3,81 *0.150*	60,0	0,0												■					■	■										
TNMG160412-MF2 *TNMG333-MF2*	1,2 *0.047*	9,525 *0.375*	16,5 *0.650*	4,76 *0.187*	3,81 *0.150*	60,0	0,0		■	■												■													
TNMG160412-MF4 *TNMG333-MF4*	1,2 *0.047*	9,525 *0.375*	16,5 *0.650*	4,76 *0.187*	3,81 *0.150*	60,0	0,0							■	■	■																			
TNMG160412-MF5 *TNMG333-MF5*	1,2 *0.047*	9,525 *0.375*	16,5 *0.650*	4,76 *0.187*	3,81 *0.150*	60,0	0,0			■																									
TNMG160412-MR3 *TNMG333-MR3*	1,2 *0.047*	9,525 *0.375*	16,5 *0.650*	4,76 *0.187*	3,81 *0.150*	60,0	0,0																	■											

Designation	RE	IC	L	S	D1	EPSR°	AN°	Cemented Carbide and Cermet Grades																												
								Coated																							Uncoated				Cermet	
	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*			TP0501	TP1501	TP2501	TP3501	TP25	TP40	TM1501	TM2501	TM3501	TK0501	TK1501	TS2000	TS2050	TS2500	TH1000	TH1501	CP200	CP500	CP600	HX	KX	883	890	TP1030	TP1020
TNMG160412-MR7 *TNMG333-MR7*	1,2 *0.047*	9,525 *0.375*	16,5 *0.650*	4,76 *0.187*	3,81 *0.150*	60,0	0,0		■		■																						
TNMX160412W-M3 *TNMX333W-M3*	1,2 *0.047*	9,525 *0.375*	16,5 *0.650*	4,76 *0.187*	3,81 *0.150*	60,0	0,0		■																								
TNMA160416-MR9 *TNMA334-MR9*	1,6 *0.063*	9,525 *0.375*	16,5 *0.650*	4,76 *0.187*	3,81 *0.150*	60,0	0,0											■															
TNMA160416 *TNMA334*	1,6 *0.063*	9,525 *0.375*	16,5 *0.650*	4,76 *0.187*	3,81 *0.150*	60,0	0,0										■																
TNMG160416-M5 *TNMG334-M5*	1,6 *0.063*	9,525 *0.375*	16,5 *0.650*	4,76 *0.187*	3,81 *0.150*	60,0	0,0											■															
TNMG220404-M5 *TNMG431-M5*	0,4 *0.016*	12,7 *0.500*	22,0 *0.866*	4,76 *0.187*	5,15 *0.203*	60,0	0,0			■	■																						
TNMG220404-MF2 *TNMG431-MF2*	0,4 *0.016*	12,7 *0.500*	22,0 *0.866*	4,76 *0.187*	5,15 *0.203*	60,0	0,0			■																						
TNMG220404-MF3 *TNMG431-MF3*	0,4 *0.016*	12,7 *0.500*	22,0 *0.866*	4,76 *0.187*	5,15 *0.203*	60,0	0,0				■																						
TNMG220404-MR4 *TNMG431-MR4*	0,4 *0.016*	12,7 *0.500*	22,0 *0.866*	4,76 *0.187*	5,15 *0.203*	60,0	0,0																						■				
TNMA220408 *TNMA432*	0,8 *0.031*	12,7 *0.500*	22,0 *0.866*	4,76 *0.187*	5,15 *0.203*	60,0	0,0										■																
TNMG220408-M1 *TNMP432-M1*	0,8 *0.031*	12,7 *0.500*	22,0 *0.866*	4,76 *0.187*	5,15 *0.203*	60,0	0,0														■								■				
TNMG220408-M3 *TNMG432-M3*	0,8 *0.031*	12,7 *0.500*	22,0 *0.866*	4,76 *0.187*	5,15 *0.203*	60,0	0,0		■	■	■	■				■																	
TNMG220408-M5 *TNMG432-M5*	0,8 *0.031*	12,7 *0.500*	22,0 *0.866*	4,76 *0.187*	5,15 *0.203*	60,0	0,0	■	■	■	■	■	■		■			■															
TNMG220408-M6 *TNMG432-M6*	0,8 *0.031*	12,7 *0.500*	22,0 *0.866*	4,76 *0.187*	5,15 *0.203*	60,0	0,0		■		■																						
TNMG220408-MF2 *TNMG432-MF2*	0,8 *0.031*	12,7 *0.500*	22,0 *0.866*	4,76 *0.187*	5,15 *0.203*	60,0	0,0		■	■																							
TNMG220408-MF3 *TNMG432-MF3*	0,8 *0.031*	12,7 *0.500*	22,0 *0.866*	4,76 *0.187*	5,15 *0.203*	60,0	0,0				■																						
TNMG220408-MF4 *TNMG432-MF4*	0,8 *0.031*	12,7 *0.500*	22,0 *0.866*	4,76 *0.187*	5,15 *0.203*	60,0	0,0							■	■	■																	
TNMG220408-MR4 *TNMG432-MR4*	0,8 *0.031*	12,7 *0.500*	22,0 *0.866*	4,76 *0.187*	5,15 *0.203*	60,0	0,0														■								■				
TNMG220408-MR7 *TNMG432-MR7*	0,8 *0.031*	12,7 *0.500*	22,0 *0.866*	4,76 *0.187*	5,15 *0.203*	60,0	0,0				■		■																				
TNMM220408-R4 *TNMM432-R4*	0,8 *0.031*	12,7 *0.500*	22,0 *0.866*	4,76 *0.187*	5,15 *0.203*	60,0	0,0			■	■																						
TNMM220408-R6 *TNMM432-R6*	0,8 *0.031*	12,7 *0.500*	22,0 *0.866*	4,76 *0.187*	5,15 *0.203*	60,0	0,0						■																				
TNMA220412 *TNMA433*	1,2 *0.047*	12,7 *0.500*	22,0 *0.866*	4,76 *0.187*	5,15 *0.203*	60,0	0,0											■															
TNMG220412-M1 *TNMP433-M1*	1,2 *0.047*	12,7 *0.500*	22,0 *0.866*	4,76 *0.187*	5,15 *0.203*	60,0	0,0																						■				
TNMG220412-M3 *TNMG433-M3*	1,2 *0.047*	12,7 *0.500*	22,0 *0.866*	4,76 *0.187*	5,15 *0.203*	60,0	0,0		■	■	■					■																	
TNMG220412-M5 *TNMG433-M5*	1,2 *0.047*	12,7 *0.500*	22,0 *0.866*	4,76 *0.187*	5,15 *0.203*	60,0	0,0	■	■	■	■				■																		
TNMG220412-M6 *TNMG433-M6*	1,2 *0.047*	12,7 *0.500*	22,0 *0.866*	4,76 *0.187*	5,15 *0.203*	60,0	0,0	■	■																								
TNMG220412-MF4 *TNMG433-MF4*	1,2 *0.047*	12,7 *0.500*	22,0 *0.866*	4,76 *0.187*	5,15 *0.203*	60,0	0,0							■	■	■																	
TNMG220412-MR3 *TNMG433-MR3*	1,2 *0.047*	12,7 *0.500*	22,0 *0.866*	4,76 *0.187*	5,15 *0.203*	60,0	0,0																	■	■								
TNMG220412-MR4 *TNMG433-MR4*	1,2 *0.047*	12,7 *0.500*	22,0 *0.866*	4,76 *0.187*	5,15 *0.203*	60,0	0,0														■												
TNMG220412-MR7 *TNMG433-MR7*	1,2 *0.047*	12,7 *0.500*	22,0 *0.866*	4,76 *0.187*	5,15 *0.203*	60,0	0,0				■		■																				

Designation	RE	IC	L	S	D1	EPSR°	AN°	Cemented Carbide and Cermet Grades																											
								Coated																				Uncoated				Cermet				
	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*			TP0501	TP1501	TP2501	TP3501	TP25	TP40	TM1501	TM2501	TM3501	TK0501	TK1501	TS2000	TS2050	TS2500	TH1000	TH1501	CP200	CP500	CP600	HX	KX	883	890	TP1030	TP1020				
TNMM220412-R4 *TNMM433-R4*	1,2 *0.047*	12,7 *0.500*	22,0 *0.866*	4,76 *0.187*	5,15 *0.203*	60,0	0,0		■	■	■																							
TNMA220416 *TNMA434*	1,6 *0.063*	12,7 *0.500*	22,0 *0.866*	4,76 *0.187*	5,15 *0.203*	60,0	0,0										■																	
TNMG220416-M1 *TNMP434-M1*	1,6 *0.063*	12,7 *0.500*	22,0 *0.866*	4,76 *0.187*	5,15 *0.203*	60,0	0,0																					■					
TNMG220416-M5 *TNMG434-M5*	1,6 *0.063*	12,7 *0.500*	22,0 *0.866*	4,76 *0.187*	5,15 *0.203*	60,0	0,0		■	■	■		■		■																			
TNMG220416-MR4 *TNMG434-MR4*	1,6 *0.063*	12,7 *0.500*	22,0 *0.866*	4,76 *0.187*	5,15 *0.203*	60,0	0,0														■													
TNMM220416-R4 *TNMM434-R4*	1,6 *0.063*	12,7 *0.500*	22,0 *0.866*	4,76 *0.187*	5,15 *0.203*	60,0	0,0			■																							
TNMM220416-R6 *TNMM434-R6*	1,6 *0.063*	12,7 *0.500*	22,0 *0.866*	4,76 *0.187*	5,15 *0.203*	60,0	0,0				■																							
TNMG220432-MR4 *TNMG438-MR4*	3,2 *0.126*	12,7 *0.500*	22,0 *0.866*	4,76 *0.187*	5,15 *0.203*	60,0	0,0														■													
TNMG270608-M5 *TNMG542-M5*	0,8 *0.031*	15,875 *0.625*	27,5 *1.083*	6,35 *0.250*	6,35 *0.250*	60,0	0,0				■		■																					
TNMG270608-MR4 *TNMG542-MR4*	0,8 *0.031*	15,875 *0.625*	27,5 *1.083*	6,35 *0.250*	6,35 *0.250*	60,0	0,0																					■					
TNMG270612-M3 *TNMG543-M3*	1,2 *0.047*	15,875 *0.625*	27,5 *1.083*	6,35 *0.250*	6,35 *0.250*	60,0	0,0			■	■	■																						
TNMG270612-M5 *TNMG543-M5*	1,2 *0.047*	15,875 *0.625*	27,5 *1.083*	6,35 *0.250*	6,35 *0.250*	60,0	0,0		■	■	■	■	■		■																			
TNMG270612-M6 *TNMG543-M6*	1,2 *0.047*	15,875 *0.625*	27,5 *1.083*	6,35 *0.250*	6,35 *0.250*	60,0	0,0			■																							
TNMG270612-MR7 *TNMG543-MR7*	1,2 *0.047*	15,875 *0.625*	27,5 *1.083*	6,35 *0.250*	6,35 *0.250*	60,0	0,0			■	■																							
TNMG270616-M5 *TNMG544-M5*	1,6 *0.063*	15,875 *0.625*	27,5 *1.083*	6,35 *0.250*	6,35 *0.250*	60,0	0,0		■		■	■	■		■																			
TNMG270616-M6 *TNMG544-M6*	1,6 *0.063*	15,875 *0.625*	27,5 *1.083*	6,35 *0.250*	6,35 *0.250*	60,0	0,0		■																									
TNMG270616-MR4 *TNMG544-MR4*	1,6 *0.063*	15,875 *0.625*	27,5 *1.083*	6,35 *0.250*	6,35 *0.250*	60,0	0,0																					■					
TNMG270616-MR7 *TNMG544-MR7*	1,6 *0.063*	15,875 *0.625*	27,5 *1.083*	6,35 *0.250*	6,35 *0.250*	60,0	0,0			■	■																							
TNMG270632-MR4 *TNMG548-MR4*	3,2 *0.126*	15,875 *0.625*	27,5 *1.083*	6,35 *0.250*	6,35 *0.250*	60,0	0,0																					■					
TNMG330924-MR4 *TNMG666-MR4*	2,4 *0.094*	19,05 *0.750*	33,0 *1.299*	9,52 *0.375*	7,92 *0.312*	60,0	0,0																					■					
TNMG330924-MR7 *TNMG666-MR7*	2,4 *0.094*	19,05 *0.750*	33,0 *1.299*	9,52 *0.375*	7,92 *0.312*	60,0	0,0			■	■	■	■																					

TPGN



Tolerances:
IC = ±0,025/*0.001*
S = ±0,13/*0.005*
RE = ±0,1/*0.004*

For ISO attribute explanation, see page 82

TPGN

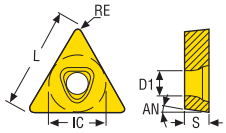


Designation	RE	IC	L	S	EPSR°	AN°	Cemented Carbide and Cermet Grades																									
							Coated																				Uncoated				Cermet	
	mm *inch*	mm *inch*	mm *inch*	mm *inch*			TP0501	TP1501	TP2501	TP3501	TP25	TP40	TM1501	TM2501	TM3501	TK0501	TK1501	TS2000	TS2050	TS2500	TH1000	TH1501	CP200	CP500	CP600	HX	KX	883	890	TP1030	TP1020
TPGN160302 *TPG320F*	0,2 *0.008*	9,52 *0.375*	16,5 *0.650*	3,18 *0.125*	60,0	11,0																					■			
TPGN160304 *TPG321F*	0,4 *0.016*	9,52 *0.375*	16,5 *0.650*	3,18 *0.125*	60,0	11,0																			■		■			
TPGN160304F *TPG321F*	0,4 *0.016*	9,52 *0.375*	16,5 *0.650*	3,18 *0.125*	60,0	11,0																						■		
TPGN160308 *TPG322F*	0,8 *0.031*	9,52 *0.375*	16,5 *0.650*	3,18 *0.125*	60,0	11,0																	■			■		■			
TPGN220404 *TPG431F*	0,4 *0.016*	12,7 *0.500*	22,0 *0.866*	4,76 *0.187*	60,0	11,0																						■		
TPGN220408 *TPG432F*	0,8 *0.031*	12,7 *0.500*	22,0 *0.866*	4,76 *0.187*	60,0	11,0																						■		
TPGN220412 *TPG433F*	1,2 *0.047*	12,7 *0.500*	22,0 *0.866*	4,76 *0.187*	60,0	11,0																						■		
TPGN220416 *TPG434F*	1,6 *0.063*	12,7 *0.500*	22,0 *0.866*	4,76 *0.187*	60,0	11,0																						■		

TPMM

For ISO attribute explanation, see page 82

Tolerances:
IC = ±0,05/*0.002*
S = ±0,13/*0.005*
RE = ±0,1/*0.004*

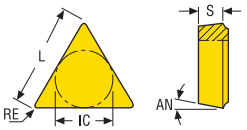


TPMM-46



Designation	RE	IC	L	S	D1	EPSR°	AN°	Cemented Carbide and Cermet Grades																												
								Coated																								Uncoated				Cermet	
	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*			TP0501	TP1501	TP2501	TP3501	TP25	TP40	TM1501	TM2501	TM3501	TK0501	TK1501	TS2000	TS2050	TS2500	TH1000	TH1501	CP200	CP500	CP600	HX	KX	883	890	TP1030	TP1020
TPMM160304-46 *TPMM321-46*	0,4 *0.016*	9,52 *0.375*	16,5 *0.650*	3,18 *0.125*	4,19 *0.165*	60,0	11,0																					■					
TPMM160308-46 *TPMM322-46*	0,8 *0.031*	9,52 *0.375*	16,5 *0.650*	3,18 *0.125*	4,19 *0.165*	60,0	11,0																					■					
TPMM160312-46 *TPMM323-46*	1,2 *0.047*	9,52 *0.375*	16,5 *0.650*	3,18 *0.125*	4,19 *0.165*	60,0	11,0																					■					
TPMM160316-46 *TPMM324-46*	1,6 *0.063*	9,52 *0.375*	16,5 *0.650*	3,18 *0.125*	4,19 *0.165*	60,0	11,0																					■					
TPMM220404-46 *TPMM431-46*	0,4 *0.016*	12,7 *0.500*	22,0 *0.866*	4,76 *0.187*	5,16 *0.203*	60,0	11,0																					■					
TPMM220408-46 *TPMM432-46*	0,8 *0.031*	12,7 *0.500*	22,0 *0.866*	4,76 *0.187*	5,16 *0.203*	60,0	11,0																					■					

TPMR



Tolerances:
IC = ±0,05/*0.002*
IC = ±0,08/*0.003*
S = ±0,13/*0.005*
RE = ±0,1/*0.004*

Size:
11-16/*2-3*
22/*4*

For ISO attribute explanation, see page 82

TPMR-F1 **TPMR-F2** **TPMR-M3**

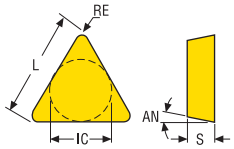


Designation	RE	IC	L	S	EPSR°	AN°	Cemented Carbide and Cermet Grades																										
							Coated																				Uncoated				Cermet	
	mm *inch*	mm *inch*	mm *inch*	mm *inch*			TP0501	TP1501	TP2501	TP3501	TP25	TP40	TM1501	TM2501	TM3501	TK0501	TK1501	TS2000	TS2050	TS2500	TH1000	TH1501	CP200	CP500	CP600	HX	KX	883	890	TP1030	TP1020
TPMR110304-F1 *TPMR221-F1*	0,4 *0.016*	6,35 *0.250*	11,0 *0.433*	3,18 *0.125*	60,0	11,0			■		■	■																				
TPMR110308-F1 *TPMR222-F1*	0,8 *0.031*	6,35 *0.250*	11,0 *0.433*	3,18 *0.125*	60,0	11,0			■																							
TPMR110308-F2 *TPMR222-F2*	0,8 *0.031*	6,35 *0.250*	11,0 *0.433*	3,18 *0.125*	60,0	11,0																	■									
TPMR160304-F1 *TPMR321-F1*	0,4 *0.016*	9,52 *0.375*	16,5 *0.650*	3,18 *0.125*	60,0	11,0		■	■		■	■		■																		
TPMR160304-M3 *TPMR321-M3*	0,4 *0.016*	9,525 *0.375*	16,5 *0.650*	3,18 *0.125*	60,0	11,0			■		■																					
TPMR160308-F1 *TPMR322-F1*	0,8 *0.031*	9,52 *0.375*	16,5 *0.650*	3,18 *0.125*	60,0	11,0		■	■		■	■		■																		
TPMR160308-F2 *TPMR322-F2*	0,8 *0.031*	9,52 *0.375*	16,5 *0.650*	3,18 *0.125*	60,0	11,0						■																				
TPMR160308-M3 *TPMR322-M3*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,18 *0.125*	60,0	11,0			■		■																					
TPMR220408-M3 *TPMR432-M3*	0,8 *0.031*	12,7 *0.500*	22,0 *0.866*	4,76 *0.187*	60,0	11,0			■																							
TPMR220412-M3 *TPMR433-M3*	1,2 *0.047*	12,7 *0.500*	22,0 *0.866*	4,76 *0.187*	60,0	11,0			■																							

TPUN

For ISO attribute explanation, see page 82

Tolerances:
IC = ±0,13/*0.005*
S = ±0,13/*0.005*
RE = ±0,1/*0.004*

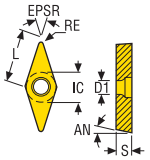


TPUN



Designation	RE	IC	L	S	EPSR°	AN°	Cemented Carbide and Cermet Grades																									
							Coated																				Uncoated				Cermet	
	mm *inch*	mm *inch*	mm *inch*	mm *inch*			TP0501	TP1501	TP2501	TP3501	TP25	TP40	TM1501	TM2501	TM3501	TK0501	TK1501	TS2000	TS2050	TS2500	TH1000	TH1501	CP200	CP500	CP600	HX	KX	883	890	TP1030	TP1020
TPUN110308 *TPU222*	0,8 *0.031*	6,35 *0.250*	11,0 *0.433*	3,18 *0.125*	60,0	11,0											■															
TPUN160304 *TPU321*	0,4 *0.016*	9,52 *0.375*	16,5 *0.650*	3,18 *0.125*	60,0	11,0			■	■							■									■						
TPUN160308 *TPU322*	0,8 *0.031*	9,52 *0.375*	16,5 *0.650*	3,18 *0.125*	60,0	11,0			■	■							■									■						
TPUN160312 *TPU323*	1,2 *0.047*	9,52 *0.375*	16,5 *0.650*	3,18 *0.125*	60,0	11,0											■															
TPUN220404 *TPU431*	0,4 *0.016*	12,7 *0.500*	22,0 *0.866*	4,76 *0.187*	60,0	11,0			■																							
TPUN220408 *TPU432*	0,8 *0.031*	12,7 *0.500*	22,0 *0.866*	4,76 *0.187*	60,0	11,0			■								■									■						
TPUN220412 *TPU433*	1,2 *0.047*	12,7 *0.500*	22,0 *0.866*	4,76 *0.187*	60,0	11,0			■																							

VBGT, VBMT



VBGT
Tolerances:
IC = ±0,025/*0.001*
S = ±0,05/*0.002*
RE = ±0,025/*0.001*

VBMT
Tolerances:
IC = ±0,05/*0.002*
S = ±0,05/*0.002*
RE = ±0,1/*0.004*

For ISO attribute explanation, see page 82

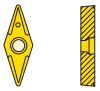
VBGT-F1



VBGT-MF2



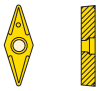
VBGT-M3



VBMT-F1



VBMT-F2



VBMT-MF2



VBMT-M3



VBMT-M5



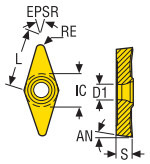
Designation	RE	IC	L	S	D1	EPSR°	AN°	Cemented Carbide and Cermet Grades																											
								Coated																					Uncoated				Cermet	
	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*			TP0501	TP1501	TP2501	TP3501	TP25	TP40	TM1501	TM2501	TM3501	TK0501	TK1501	TS2000	TS2050	TS2500	TH1000	TH1501	CP200	CP500	CP600	HX	KX	883	890	TP1030	TP1020
VBGT110201-F1 *VBGT21.50-F1*	0,1 *0.004*	6,35 *0.250*	11,07 *0.436*	2,38 *0.094*	2,9 *0.114*	35,0	5,0																	■								
VBGT110201-MF2 *VBGT21.50-MF2*	0,1 *0.004*	6,35 *0.250*	11,07 *0.436*	2,38 *0.094*	2,9 *0.114*	35,0	5,0													■												
VBGT110202-MF2 *VBGT21.50.5-MF2*	0,2 *0.008*	6,35 *0.250*	11,07 *0.436*	2,38 *0.094*	2,9 *0.114*	35,0	5,0													■												
VBMT110202-F1 *VBMT21.50.5-F1*	0,2 *0.008*	6,35 *0.250*	11,07 *0.436*	2,38 *0.094*	2,9 *0.114*	35,0	5,0			■	■													■						■		
VBMT110202-MF2 *VBMT21.50.5-MF2*	0,2 *0.008*	6,35 *0.250*	11,07 *0.436*	2,38 *0.094*	2,9 *0.114*	35,0	5,0									■								■								
VBGT110204-MF2 *VBGT21.51-MF2*	0,4 *0.016*	6,35 *0.250*	11,07 *0.436*	2,38 *0.094*	2,9 *0.114*	35,0	5,0													■												
VBMT110204-F1 *VBMT21.51-F1*	0,4 *0.016*	6,35 *0.250*	11,07 *0.436*	2,38 *0.094*	2,9 *0.114*	35,0	5,0			■	■	■												■						■	■	
VBMT110204-MF2 *VBMT21.51-MF2*	0,4 *0.016*	6,35 *0.250*	11,07 *0.436*	2,38 *0.094*	2,9 *0.114*	35,0	5,0		■	■						■								■	■							
VBMT110208-F1 *VBMT21.52-F1*	0,8 *0.031*	6,35 *0.250*	11,07 *0.436*	2,38 *0.094*	2,9 *0.114*	35,0	5,0			■	■	■												■								
VBMT110302-F1 *VBMT220.5-F1*	0,2 *0.008*	6,35 *0.250*	11,07 *0.436*	3,18 *0.125*	2,9 *0.114*	35,0	5,0			■	■					■								■								
VBMT110304-F1 *VBMT221-F1*	0,4 *0.016*	6,35 *0.250*	11,07 *0.436*	3,18 *0.125*	2,9 *0.114*	35,0	5,0			■	■					■								■								
VBMT110308-F1 *VBMT222-F1*	0,8 *0.031*	6,35 *0.250*	11,07 *0.436*	3,18 *0.125*	2,9 *0.114*	35,0	5,0			■						■								■								
VBGT160401-F1 *VBGT330-F1*	0,1 *0.004*	9,525 *0.375*	16,6 *0.654*	4,76 *0.187*	4,5 *0.177*	35,0	5,0																	■								
VBMT160402-F1 *VBMT330.5-F1*	0,2 *0.008*	9,525 *0.375*	16,61 *0.654*	4,76 *0.187*	4,5 *0.177*	35,0	5,0			■	■													■								
VBMT160402-MF2 *VBMT330.5-MF2*	0,2 *0.008*	9,525 *0.375*	16,61 *0.654*	4,76 *0.187*	4,5 *0.177*	35,0	5,0				■					■								■								
VBGT160404-F1 *VBGT331-F1*	0,4 *0.016*	9,525 *0.375*	16,6 *0.654*	4,76 *0.187*	4,5 *0.177*	35,0	5,0													■												
VBGT160404-M3 *VBGT331-M3*	0,4 *0.016*	9,525 *0.375*	16,6 *0.654*	4,76 *0.187*	4,5 *0.177*	35,0	5,0																				■					
VBMT160404-F1 *VBMT331-F1*	0,4 *0.016*	9,525 *0.375*	16,61 *0.654*	4,76 *0.187*	4,5 *0.177*	35,0	5,0		■	■	■	■		■	■				■			■		■	■					■	■	
VBMT160404-F2 *VBMT331-F2*	0,4 *0.016*	9,525 *0.375*	16,61 *0.654*	4,76 *0.187*	4,5 *0.177*	35,0	5,0					■															■					
VBMT160404-M3 *VBMT331-M3*	0,4 *0.016*	9,525 *0.375*	16,61 *0.654*	4,76 *0.187*	4,5 *0.177*	35,0	5,0		■	■	■	■		■	■	■	■	■														

Designation	RE	IC	L	S	D1	EPSR°	AN°	Cemented Carbide and Cermet Grades																									
								Coated																				Uncoated				Cermet	
	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*			TP0501	TP1501	TP2501	TP3501	TP25	TP40	TM1501	TM2501	TM3501	TK0501	TK1501	TS2000	TS2050	TS2500	TH1000	TH1501	CP200	CP500	CP600	HX	KX	883	890	TP1030	TP1020
VBMT160404-MF2 *VBMT331-MF2*	0,4 *0.016*	9,525 *0.375*	16,61 *0.654*	4,76 *0.187*	4,5 *0.177*	35,0	5,0	■	■	■	■				■	■									■					■	
VBGT160408-F1 *VBGT332-F1*	0,8 *0.031*	9,525 *0.375*	16,6 *0.654*	4,762 *0.187*	4,5 *0.177*	35,0	5,0													■											
VBGT160408-M3 *VBGT332-M3*	0,8 *0.031*	9,525 *0.375*	16,6 *0.654*	4,76 *0.187*	4,5 *0.177*	35,0	5,0																			■					
VBMT160408-F1 *VBMT332-F1*	0,8 *0.031*	9,525 *0.375*	16,61 *0.654*	4,76 *0.187*	4,5 *0.177*	35,0	5,0		■	■	■	■		■	■			■	■			■	■	■	■					■	■
VBMT160408-F2 *VBMT332-F2*	0,8 *0.031*	9,525 *0.375*	16,61 *0.654*	4,76 *0.187*	4,5 *0.177*	35,0	5,0						■						■					■			■					
VBMT160408-M3 *VBMT332-M3*	0,8 *0.031*	9,525 *0.375*	16,61 *0.654*	4,76 *0.187*	4,5 *0.177*	35,0	5,0		■	■	■	■		■	■	■		■													
VBMT160408-M5 *VBMT332-M5*	0,8 *0.031*	9,525 *0.375*	16,61 *0.654*	4,76 *0.187*	4,5 *0.177*	35,0	5,0		■	■	■		■		■			■													
VBMT160408-MF2 *VBMT332-MF2*	0,8 *0.031*	9,525 *0.375*	16,61 *0.654*	4,76 *0.187*	4,5 *0.177*	35,0	5,0	■	■	■	■				■	■									■					■	
VBMT160412-F1 *VBMT333-F1*	1,2 *0.047*	9,525 *0.375*	16,61 *0.654*	4,76 *0.187*	4,5 *0.177*	35,0	5,0		■	■	■	■		■								■									
VBMT160412-F2 *VBMT333-F2*	1,2 *0.047*	9,525 *0.375*	16,61 *0.654*	4,76 *0.187*	4,5 *0.177*	35,0	5,0						■																	
VBMT160412-M3 *VBMT333-M3*	1,2 *0.047*	9,525 *0.375*	16,61 *0.654*	4,76 *0.187*	4,5 *0.177*	35,0	5,0		■	■	■	■		■	■	■														
VBMT160412-MF2 *VBMT333-MF2*	1,2 *0.047*	9,525 *0.375*	16,61 *0.654*	4,76 *0.187*	4,5 *0.177*	35,0	5,0	■	■	■						■														

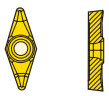
VCGT

For ISO attribute explanation, see page 82

Tolerances:
IC = ±0,025/*0.001*
S = ±0,05/*0.002*
RE = ±0,1/*0.004*

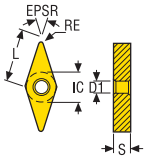


VCGT-AL



Designation	RE	IC	L	S	D1	EPSR°	AN°	Cemented Carbide and Cermet Grades																									
								Coated																				Uncoated				Cermet	
	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*			TP0501	TP1501	TP2501	TP3501	TP25	TP40	TM1501	TM2501	TM3501	TK0501	TK1501	TS2000	TS2050	TS2500	TH1000	TH1501	CP200	CP500	CP600	HX	KX	883	890	TP1030	TP1020
VCGT110302F-AL *VCGT220.5F-AL*	0,2 *0.008*	6,35 *0.250*	11,1 *0.437*	3,18 *0.125*	2,8 *0.110*	35,0	7,0													■								■				
VCGT110304F-AL *VCGT221F-AL*	0,4 *0.016*	6,35 *0.250*	11,1 *0.437*	3,18 *0.125*	2,8 *0.110*	35,0	7,0													■								■				
VCGT160402F-AL *VCGT330.5F-AL*	0,2 *0.008*	9,525 *0.375*	16,6 *0.654*	4,76 *0.187*	4,4 *0.173*	35,0	7,0													■								■				
VCGT160404F-AL *VCGT331F-AL*	0,4 *0.016*	9,525 *0.375*	16,6 *0.654*	4,76 *0.187*	4,4 *0.173*	35,0	7,0													■								■				
VCGT160408F-AL *VCGT332F-AL*	0,8 *0.031*	9,525 *0.375*	16,6 *0.654*	4,76 *0.187*	4,4 *0.173*	35,0	7,0																					■				
VCGT160412F-AL *VCGT333F-AL*	1,2 *0.047*	9,525 *0.375*	16,6 *0.654*	4,76 *0.187*	4,4 *0.173*	35,0	7,0																					■				

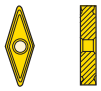
VNGG, VNGM, VNMA, VNMG, VNMU



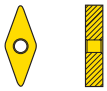
VNGG, VNGM
Tolerances:
IC = ±0,025/*0.001*
S = ±0,13/*0.005*
RE = ±0,1/*0.004*

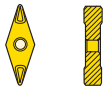
VNMA, VNMG, VNMU
Tolerances: Size:
IC = ±0,05/*0.002* 13-16/*2.5-3*
IC = ±0,08/*0.003* 22/*4*
S = ±0,13/*0.005*
RE = ±0,1/*0.004*

For ISO attribute explanation, see page 82

VNGG-M1


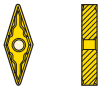
VNGM-MF1


VNMA


VNMG-FF1


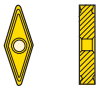
VNMG-FF2

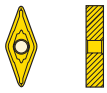

VNMG-MF2


VNMG-MF3


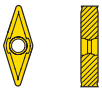
VNMG-MF4

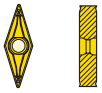

VNMG-MF5


VNMG-M1


VNMG-M3


VNMG-MR4


VNMU-MF2


VNMU-M3


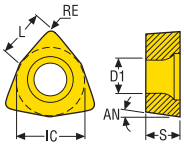
Designation	RE	IC	L	S	D1	EPSR°	AN°	Cemented Carbide and Cermet Grades																											
								Coated																				Uncoated				Cermet	
	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*			TP0501	TP1501	TP2501	TP3501	TP25	TP40	TM1501	TM2501	TM3501	TK0501	TK1501	TS2000	TS2050	TS2500	TH1000	TH1501	CP200	CP500	CP600	HX	KX	883	890	TP1030	TP1020
VNMU130404-M3 *VNMU2.531-M3*	0,4 *0.016*	7,937 *0.312*	13,8 *0.543*	4,76 *0.187*	3,81 *0.150*	35,0	0,0		■	■	■					■																
VNMU130404-MF2 *VNMU2.531-MF2*	0,4 *0.016*	7,937 *0.312*	13,8 *0.543*	4,76 *0.187*	3,81 *0.150*	35,0	0,0		■			■																				
VNMU130408-M3 *VNMU2.532-M3*	0,8 *0.031*	7,937 *0.312*	13,8 *0.543*	4,76 *0.187*	3,81 *0.150*	35,0	0,0		■	■	■					■			■													
VNMU130408-MF2 *VNMU2.532-MF2*	0,8 *0.031*	7,937 *0.312*	13,8 *0.543*	4,76 *0.187*	3,81 *0.150*	35,0	0,0		■			■																				
VNGG160402-M1 *VNGP330.5-M1*	0,2 *0.008*	9,525 *0.375*	16,6 *0.654*	4,76 *0.187*	3,81 *0.150*	35,0	0,0												■		■								■			
VNMG160402-FF2 *VNMG330.5-FF2*	0,2 *0.008*	9,525 *0.375*	16,6 *0.654*	4,76 *0.187*	3,81 *0.150*	35,0	0,0		■	■															■					■		
VNGG160404-M1 *VNGP331-M1*	0,4 *0.016*	9,525 *0.375*	16,6 *0.654*	4,76 *0.187*	3,81 *0.150*	35,0	0,0												■		■								■			
VNGM160404-MF1 *VNGM331F-MF1*	0,4 *0.016*	9,525 *0.375*	16,6 *0.654*	4,76 *0.187*	3,81 *0.150*	35,0	0,0												■					■	■					■			
VNMG160404-FF1 *VNMG331-FF1*	0,4 *0.016*	9,525 *0.375*	16,6 *0.654*	4,76 *0.187*	3,81 *0.150*	35,0	0,0		■							■																
VNMG160404-FF2 *VNMG331-FF2*	0,4 *0.016*	9,525 *0.375*	16,6 *0.654*	4,76 *0.187*	3,81 *0.150*	35,0	0,0		■	■															■					■		
VNMG160404-M1 *VNMP331-M1*	0,4 *0.016*	9,525 *0.375*	16,6 *0.654*	4,76 *0.187*	3,81 *0.150*	35,0	0,0														■								■			
VNMG160404-M3 *VNMG331-M3*	0,4 *0.016*	9,525 *0.375*	16,6 *0.654*	4,76 *0.187*	3,81 *0.150*	35,0	0,0		■	■	■	■			■			■														
VNMG160404-MF2 *VNMG331-MF2*	0,4 *0.016*	9,525 *0.375*	16,6 *0.654*	4,76 *0.187*	3,81 *0.150*	35,0	0,0		■	■	■																					
VNMG160404-MF3 *VNMG331-MF3*	0,4 *0.016*	9,525 *0.375*	16,6 *0.654*	4,76 *0.187*	3,81 *0.150*	35,0	0,0				■																					
VNMG160404-MF4 *VNMG331-MF4*	0,4 *0.016*	9,525 *0.375*	16,61 *0.654*	4,76 *0.187*	3,81 *0.150*	35,0	0,0							■	■	■			■		■											
VNGG160408-M1 *VNGP332-M1*	0,8 *0.031*	9,525 *0.375*	16,6 *0.654*	4,76 *0.187*	3,81 *0.150*	35,0	0,0												■		■								■			
VNGM160408-MF1 *VNGM332F-MF1*	0,8 *0.031*	9,525 *0.375*	16,6 *0.654*	4,76 *0.187*	3,81 *0.150*	35,0	0,0																	■	■					■		
VNMA160408 *VNMA332*	0,8 *0.031*	9,525 *0.375*	16,6 *0.654*	4,76 *0.187*	3,81 *0.150*	35,0	0,0											■														
VNMG160408-FF2 *VNMG332-FF2*	0,8 *0.031*	9,525 *0.375*	16,6 *0.654*	4,76 *0.187*	3,81 *0.150*	35,0	0,0		■	■	■																				■	
VNMG160408-M1 *VNMP332-M1*	0,8 *0.031*	9,525 *0.375*	16,6 *0.654*	4,76 *0.187*	3,81 *0.150*	35,0	0,0																					■			

Designation	RE	IC	L	S	D1	EPSR°	AN°	Cemented Carbide and Cermet Grades																											
								Coated																					Uncoated				Cermet	
	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*			TP0501	TP1501	TP2501	TP3501	TP25	TP40	TM1501	TM2501	TM3501	TK0501	TK1501	TS2000	TS2050	TS2500	TH1000	TH1501	CP200	CP500	CP600	HX	KX	883	890	TP1030	TP1020
VNMG160408-M3 *VNMG332-M3*	0,8 *0.031*	9,525 *0.375*	16,6 *0.654*	4,76 *0.187*	3,81 *0.150*	35,0	0,0	■	■	■	■	■			■			■																
VNMG160408-MF2 *VNMG332-MF2*	0,8 *0.031*	9,525 *0.375*	16,6 *0.654*	4,76 *0.187*	3,81 *0.150*	35,0	0,0	■	■	■	■																						
VNMG160408-MF3 *VNMG332-MF3*	0,8 *0.031*	9,525 *0.375*	16,6 *0.654*	4,76 *0.187*	3,81 *0.150*	35,0	0,0				■																						
VNMG160408-MF4 *VNMG332-MF4*	0,8 *0.031*	9,525 *0.375*	16,61 *0.654*	4,76 *0.187*	3,81 *0.150*	35,0	0,0							■	■	■			■		■												
VNMG160408-MF5 *VNMG332-MF5*	0,8 *0.031*	9,525 *0.375*	16,6 *0.654*	4,76 *0.187*	3,81 *0.150*	35,0	0,0															■											
VNMG160408-MR4 *VNMG332-MR4*	0,8 *0.031*	9,525 *0.375*	16,6 *0.654*	4,76 *0.187*	3,81 *0.150*	35,0	0,0														■								■				
VNMG160412-M3 *VNMG333-M3*	1,2 *0.047*	9,525 *0.375*	16,6 *0.654*	4,76 *0.187*	3,81 *0.150*	35,0	0,0	■	■		■	■						■															
VNMG160412-MF2 *VNMG333-MF2*	1,2 *0.047*	9,525 *0.375*	16,6 *0.654*	4,76 *0.187*	3,81 *0.150*	35,0	0,0		■	■																							
VNMG160412-MR4 *VNMG333-MR4*	1,2 *0.047*	9,525 *0.375*	16,6 *0.654*	4,76 *0.187*	3,81 *0.150*	35,0	0,0														■								■				
VNMG220404-MR4 *VNMG431-MR4*	0,4 *0.016*	12,7 *0.500*	22,0 *0.866*	4,76 *0.187*	5,918 *0.233*	35,0	0,0																						■				
VNGG220408-M1 *VNGP432F-M1-203*	0,8 *0.031*	12,7 *0.500*	22,0 *0.866*	4,76 *0.187*	5,15 *0.203*	35,0	0,0												■										■				
VNMG220408-MF3-203 *VNMG432-MF3-203*	0,8 *0.031*	12,7 *0.500*	22,14 *0.872*	4,89 *0.193*	5,16 *0.203*	35,0	0,0					■																					
VNMG220408-MR4-203 *VNMG432-MR4-203*	0,8 *0.031*	12,7 *0.500*	22,0 *0.866*	4,76 *0.187*	5,15 *0.203*	35,0	0,0					■																		■				
VNMG220408-MR4 *VNMG432-MR4*	0,8 *0.031*	12,7 *0.500*	22,0 *0.866*	4,76 *0.187*	5,15 *0.203*	35,0	0,0																						■				
VNMG220416-MR4 *VNMG434-MR4*	1,6 *0.063*	12,7 *0.500*	22,0 *0.866*	4,76 *0.187*	5,15 *0.203*	35,0	0,0																						■				

WCMT

For ISO attribute explanation, see page 82

Tolerances:
IC = ±0,05/*0.002*
S = ±0,05/*0.002*
RE = ±0,1/*0.004*

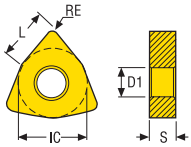


WCMT-F1



Designation	RE	IC	L	S	D1	EPSR°	AN°	Cemented Carbide and Cermet Grades																											
								Coated																					Uncoated				Cermet	
	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*			TP0501	TP1501	TP2501	TP3501	TP25	TP40	TM1501	TM2501	TM3501	TK0501	TK1501	TS2000	TS2050	TS2500	TH1000	TH1501	CP200	CP500	CP600	HX	KX	883	890	TP1030	TP1020
WCMT06T308-F1 *WCMT32.52-F1*	0,8 *0.031*	9,525 *0.375*	6,531 *0.257*	3,969 *0.156*	4,5 *0.177*	80,0	7,0			■	■					■									■									

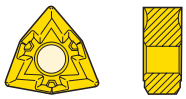
WNGG, WNMA, WNMG, WNMM

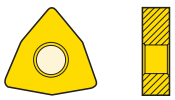


WNGG
Tolerances:
IC = ±0,025/*0.001*
S = ±0,13/*0.005*
RE = ±0,1/*0.004*

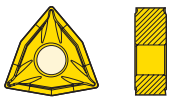
WNMA, WNMG, WNMM
Tolerances: Size:
IC = ±0,05/*0.002* 06/*3*
IC = ±0,08/*0.003* 08/*4*
S = ±0,13/*0.005*
RE = ±0,1/*0.004*

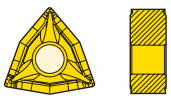
For ISO attribute explanation, see page 82

WNGG-MF1


WNMA


WNMA-MR9


WNMG-FF2


WNMG...W-FF2


WNMG-MF1

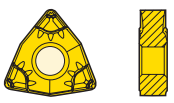

WNMG-MF2

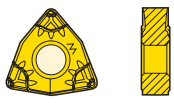

WNMG...W-MF2


WNMG-MF3


WNMG-MF4


WNMG...W-MF4

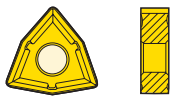

WNMG-MF5


WNMG...W-MF5


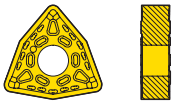
WNMG-M1

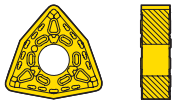

WNMG-M3

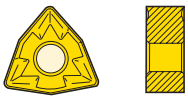

WNMG...W-M3

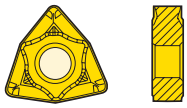

WNMG-M4


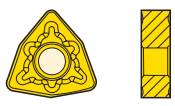
WNMG-M5


WNMG-M6


WNMG...W-M6


WNMG-MR3


WNMG-MR6


WNMG-MR7


WNMM-R6


Designation	RE	IC	L	S	D1	EPSR°	AN°	Cemented Carbide and Cermet Grades: Coated TP0501	TP1501	TP2501	TP3501	TP25	TP40	TM1501	TM2501	TM3501	TK0501	TK1501	TS2000	TS2050	TS2500	TH1000	TH1501	CP200	CP500	CP600	Uncoated HX	KX	883	890	Cermet TP1030	TP1020
	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*																												
WNGG060402-MF1 *WNGP330.5-MF1*	0,2 *0.008*	9,525 *0.375*	6,6 *0.260*	4,76 *0.187*	3,81 *0.150*	80,0	0,0												■					■	■					■		
WNMG060402-M3 *WNMG330.5-M3*	0,2 *0.008*	9,525 *0.375*	6,5 *0.256*	4,76 *0.187*	3,81 *0.150*	80,0	0,0			■																						
WNMG060404-FF2 *WNMG331-FF2*	0,4 *0.016*	9,525 *0.375*	6,5 *0.256*	4,76 *0.187*	3,81 *0.150*	80,0	0,0			■															■							
WNMG060404W-FF2 *WNMG331W-FF2*	0,4 *0.016*	9,525 *0.375*	6,5 *0.256*	4,76 *0.187*	3,81 *0.150*	80,0	0,0			■																						
WNMG060404-M3 *WNMG331-M3*	0,4 *0.016*	9,525 *0.375*	6,5 *0.256*	4,76 *0.187*	3,81 *0.150*	80,0	0,0		■	■	■	■				■																
WNMG060404-MF1 *WNMP331-MF1*	0,4 *0.016*	9,525 *0.375*	6,5 *0.256*	4,76 *0.187*	3,81 *0.150*	80,0	0,0								■	■			■					■	■					■		
WNMG060404-MF2 *WNMG331-MF2*	0,4 *0.016*	9,525 *0.375*	6,5 *0.256*	4,76 *0.187*	3,81 *0.150*	80,0	0,0		■	■	■	■																		■	
WNMG060404W-MF2 *WNMG331W-MF2*	0,4 *0.016*	9,525 *0.375*	6,5 *0.256*	4,76 *0.187*	3,81 *0.150*	80,0	0,0		■																					■	
WNMG060404-MF4 *WNMG331-MF4*	0,4 *0.016*	9,525 *0.375*	6,52 *0.257*	4,76 *0.187*	3,81 *0.150*	80,0	0,0							■	■	■																
WNMG060404-MF5 *WNMG331-MF5*	0,4 *0.016*	9,525 *0.375*	6,5 *0.256*	4,76 *0.187*	3,81 *0.150*	80,0	0,0			■																						
WNMA060408 *WNMA332*	0,8 *0.031*	9,525 *0.375*	6,5 *0.256*	4,76 *0.187*	3,81 *0.150*	80,0	0,0										■	■														
WNMG060408-FF2 *WNMG332-FF2*	0,8 *0.031*	9,525 *0.375*	6,5 *0.256*	4,76 *0.187*	3,81 *0.150*	80,0	0,0		■																						
WNMG060408W-FF2 *WNMG332W-FF2*	0,8 *0.031*	9,525 *0.375*	6,5 *0.256*	4,76 *0.187*	3,81 *0.150*	80,0	0,0			■																						
WNMG060408-M3 *WNMG332-M3*	0,8 *0.031*	9,525 *0.375*	6,5 *0.256*	4,76 *0.187*	3,81 *0.150*	80,0	0,0	■	■	■	■	■	■			■		■							■							

Designation	RE	IC	L	S	D1	EPSR°	AN°	Cemented Carbide and Cermet Grades																													
								Coated																						Uncoated				Cermet				
	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*			TP0501	TP1501	TP2501	TP3501	TP25	TP40	TM1501	TM2501	TM3501	TK0501	TK1501	TS2000	TS2050	TS2500	TH1000	TH1501	CP200	CP500	CP600	HX	KX	883	890	TP1030	TP1020					
WNMG060408W-M3 *WNMG332W-M3*	0,8 *0.031*	9,525 *0.375*	6,5 *0.256*	4,76 *0.187*	3,81 *0.150*	80,0	0,0		■	■																										
WNMG060408-M5 *WNMG332-M5*	0,8 *0.031*	9,525 *0.375*	6,5 *0.256*	4,76 *0.187*	3,81 *0.150*	80,0	0,0	■	■	■	■				■		■	■																		
WNMG060408-MF1 *WNMP332-MF1*	0,8 *0.031*	9,525 *0.375*	6,5 *0.256*	4,76 *0.187*	3,81 *0.150*	80,0	0,0							■	■				■					■	■					■							
WNMG060408-MF2 *WNMG332-MF2*	0,8 *0.031*	9,525 *0.375*	6,5 *0.256*	4,76 *0.187*	3,81 *0.150*	80,0	0,0		■	■	■	■										■									■					
WNMG060408W-MF2 *WNMG332W-MF2*	0,8 *0.031*	9,525 *0.375*	6,5 *0.256*	4,76 *0.187*	3,81 *0.150*	80,0	0,0		■	■																										
WNMG060408-MF3 *WNMG332-MF3*	0,8 *0.031*	9,525 *0.375*	6,5 *0.256*	4,76 *0.187*	3,81 *0.150*	80,0	0,0				■																										
WNMG060408-MF4 *WNMG332-MF4*	0,8 *0.031*	9,525 *0.375*	6,52 *0.257*	4,76 *0.187*	3,81 *0.150*	80,0	0,0			■				■	■	■									■											
WNMG060408W-MF4 *WNMG332W-MF4*	0,8 *0.031*	9,525 *0.375*	6,52 *0.257*	4,76 *0.187*	3,81 *0.150*	80,0	0,0							■	■	■																				
WNMG060408-MF5 *WNMG332-MF5*	0,8 *0.031*	9,525 *0.375*	6,5 *0.256*	4,76 *0.187*	3,81 *0.150*	80,0	0,0			■																										
WNMG060408W-MF5 *WNMG332W-MF5*	0,8 *0.031*	9,525 *0.375*	6,5 *0.256*	4,76 *0.187*	3,81 *0.150*	80,0	0,0		■	■																										
WNMG060408-MR3 *WNMG332-MR3*	0,8 *0.031*	9,525 *0.375*	6,5 *0.256*	4,76 *0.187*	3,81 *0.150*	80,0	0,0												■					■	■											
WNMA060412 *WNMA333*	1,2 *0.047*	9,525 *0.375*	6,5 *0.256*	4,76 *0.187*	3,81 *0.150*	80,0	0,0											■																		
WNMG060412-M3 *WNMG333-M3*	1,2 *0.047*	9,525 *0.375*	6,5 *0.256*	4,76 *0.187*	3,81 *0.150*	80,0	0,0		■	■	■					■																				
WNMG060412W-M3 *WNMG333W-M3*	1,2 *0.047*	9,525 *0.375*	6,5 *0.256*	4,76 *0.187*	3,81 *0.150*	80,0	0,0			■																										
WNMG060412-M5 *WNMG333-M5*	1,2 *0.047*	9,525 *0.375*	6,5 *0.256*	4,76 *0.187*	3,81 *0.150*	80,0	0,0	■		■	■				■			■																		
WNMG060412-MF1 *WNMP333-MF1*	1,2 *0.047*	9,525 *0.375*	6,5 *0.256*	4,76 *0.187*	3,81 *0.150*	80,0	0,0																	■												
WNMG060412-MF2 *WNMG333-MF2*	1,2 *0.047*	9,525 *0.375*	6,5 *0.256*	4,76 *0.187*	3,81 *0.150*	80,0	0,0			■																										
WNMG060412-MF4 *WNMG333-MF4*	1,2 *0.047*	9,525 *0.375*	6,52 *0.257*	4,76 *0.187*	3,81 *0.150*	80,0	0,0							■	■	■																				
WNMG060412-MF5 *WNMG333-MF5*	1,2 *0.047*	9,525 *0.375*	6,5 *0.256*	4,76 *0.187*	3,81 *0.150*	80,0	0,0		■																											
WNMG060412-MR3 *WNMG333-MR3*	1,2 *0.047*	9,525 *0.375*	6,5 *0.256*	4,76 *0.187*	3,81 *0.150*	80,0	0,0												■						■											
WNGG080401-MF1 *WNGP430-MF1*	0,1 *0.004*	12,7 *0.500*	8,7 *0.343*	4,76 *0.187*	5,15 *0.203*	80,0	0,0												■																	
WNGG080402-MF1 *WNGP430.5-MF1*	0,2 *0.008*	12,7 *0.500*	8,7 *0.343*	4,76 *0.187*	5,15 *0.203*	80,0	0,0												■																	
WNGG080404-MF1 *WNGP431-MF1*	0,4 *0.016*	12,7 *0.500*	8,7 *0.343*	4,76 *0.187*	5,15 *0.203*	80,0	0,0												■																	
WNMG080404-FF2 *WNMG431-FF2*	0,4 *0.016*	12,7 *0.500*	8,7 *0.343*	4,76 *0.187*	5,15 *0.203*	80,0	0,0		■	■																										
WNMG080404-M1 *WNMP431-M1*	0,4 *0.016*	12,7 *0.500*	8,7 *0.343*	4,76 *0.187*	5,15 *0.203*	80,0	0,0																					■							
WNMG080404-M3 *WNMG431-M3*	0,4 *0.016*	12,7 *0.500*	8,7 *0.343*	4,76 *0.187*	5,15 *0.203*	80,0	0,0		■	■	■	■				■		■							■											
WNMG080404-MF1 *WNMP431-MF1*	0,4 *0.016*	12,7 *0.500*	8,7 *0.343*	4,76 *0.187*	5,15 *0.203*	80,0	0,0							■	■	■			■			■		■												
WNMG080404-MF2 *WNMG431-MF2*	0,4 *0.016*	12,7 *0.500*	8,7 *0.343*	4,76 *0.187*	5,15 *0.203*	80,0	0,0		■	■																										
WNMG080404W-MF2 *WNMG431W-MF2*	0,4 *0.016*	12,7 *0.500*	8,7 *0.343*	4,76 *0.187*	5,15 *0.203*	80,0	0,0			■																										
WNMG080404-MF3 *WNMG431-MF3*	0,4 *0.016*	12,7 *0.500*	8,7 *0.343*	4,76 *0.187*	5,15 *0.203*	80,0	0,0						■			■																				

Designation	RE	IC	L	S	D1	EPSR°	AN°	Cemented Carbide and Cermet Grades																											
								Coated																					Uncoated				Cermet	
	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*			TP0501	TP1501	TP2501	TP3501	TP25	TP40	TM1501	TM2501	TM3501	TK0501	TK1501	TS2000	TS2050	TS2500	TH1000	TH1501	CP200	CP500	CP600	HX	KX	883	890	TP1030	TP1020
WNMG080404-MF4 *WNMG431-MF4*	0,4 *0.016*	12,7 *0.500*	8,69 *0.342*	4,76 *0.187*	5,15 *0.203*	80,0	0,0							■	■	■																			
WNGG080408-MF1 *WNGP432-MF1*	0,8 *0.031*	12,7 *0.500*	8,7 *0.343*	4,76 *0.187*	5,15 *0.203*	80,0	0,0												■					■										
WNMA080408-MR9 *WNMA432-MR9*	0,8 *0.031*	12,7 *0.500*	8,69 *0.342*	4,76 *0.187*	5,15 *0.203*	80,0	0,0											■																
WNMA080408 *WNMA432*	0,8 *0.031*	12,7 *0.500*	8,7 *0.343*	4,76 *0.187*	5,15 *0.203*	80,0	0,0										■	■																
WNMG080408-FF2 *WNMG432-FF2*	0,8 *0.031*	12,7 *0.500*	8,7 *0.343*	4,76 *0.187*	5,15 *0.203*	80,0	0,0		■	■																								
WNMG080408-M1 *WNMP432-M1*	0,8 *0.031*	12,7 *0.500*	8,7 *0.343*	4,76 *0.187*	5,15 *0.203*	80,0	0,0																						■					
WNMG080408-M3 *WNMG432-M3*	0,8 *0.031*	12,7 *0.500*	8,7 *0.343*	4,76 *0.187*	5,15 *0.203*	80,0	0,0	■	■	■	■	■	■	■	■	■		■							■									
WNMG080408W-M3 *WNMG432W-M3*	0,8 *0.031*	12,7 *0.500*	8,7 *0.343*	4,76 *0.187*	5,15 *0.203*	80,0	0,0	■	■	■								■																
WNMG080408-M4 *WNMG432-M4*	0,8 *0.031*	12,7 *0.500*	8,7 *0.343*	4,76 *0.187*	5,15 *0.203*	80,0	0,0											■																
WNMG080408-M5 *WNMG432-M5*	0,8 *0.031*	12,7 *0.500*	8,7 *0.343*	4,76 *0.187*	5,15 *0.203*	80,0	0,0	■	■	■	■	■	■	■	■		■	■					■											
WNMG080408-M6 *WNMG432-M6*	0,8 *0.031*	12,7 *0.500*	8,7 *0.343*	4,76 *0.187*	5,15 *0.203*	80,0	0,0	■	■	■	■							■																
WNMG080408W-M6 *WNMG432W-M6*	0,8 *0.031*	12,7 *0.500*	8,7 *0.343*	4,76 *0.187*	5,15 *0.203*	80,0	0,0		■		■																							
WNMG080408-MF1 *WNMP432-MF1*	0,8 *0.031*	12,7 *0.500*	8,7 *0.343*	4,76 *0.187*	5,15 *0.203*	80,0	0,0								■	■			■			■		■										
WNMG080408-MF2 *WNMG432-MF2*	0,8 *0.031*	12,7 *0.500*	8,7 *0.343*	4,76 *0.187*	5,15 *0.203*	80,0	0,0		■	■		■										■	■											
WNMG080408W-MF2 *WNMG432W-MF2*	0,8 *0.031*	12,7 *0.500*	8,7 *0.343*	4,76 *0.187*	5,15 *0.203*	80,0	0,0		■	■																								
WNMG080408-MF3 *WNMG432-MF3*	0,8 *0.031*	12,7 *0.500*	8,7 *0.343*	4,76 *0.187*	5,15 *0.203*	80,0	0,0				■		■		■	■																		
WNMG080408-MF4 *WNMG432-MF4*	0,8 *0.031*	12,7 *0.500*	8,7 *0.343*	4,76 *0.187*	5,15 *0.203*	80,0	0,0			■	■			■	■	■			■		■				■									
WNMG080408W-MF4 *WNMG432W-MF4*	0,8 *0.031*	12,7 *0.500*	8,69 *0.342*	4,76 *0.187*	5,15 *0.203*	80,0	0,0							■	■	■																		
WNMG080408-MF5 *WNMG432-MF5*	0,8 *0.031*	12,7 *0.500*	8,7 *0.343*	4,76 *0.187*	5,15 *0.203*	80,0	0,0	■	■	■									■		■	■	■											
WNMG080408W-MF5 *WNMG432W-MF5*	0,8 *0.031*	12,7 *0.500*	8,7 *0.343*	4,76 *0.187*	5,15 *0.203*	80,0	0,0		■	■																								
WNMG080408-MR6 *WNMG432-MR6*	0,8 *0.031*	12,7 *0.500*	8,7 *0.343*	4,76 *0.187*	5,15 *0.203*	80,0	0,0		■	■																								
WNMG080408-MR7 *WNMG432-MR7*	0,8 *0.031*	12,7 *0.500*	8,7 *0.343*	4,76 *0.187*	5,15 *0.203*	80,0	0,0			■	■	■						■																
WNMM080408-R6 *WNMM432-R6*	0,8 *0.031*	12,7 *0.500*	8,7 *0.343*	4,76 *0.187*	5,15 *0.203*	80,0	0,0				■																							
WNMA080412-MR9 *WNMA433-MR9*	1,2 *0.047*	12,7 *0.500*	8,69 *0.342*	4,76 *0.187*	5,15 *0.203*	80,0	0,0										■	■																
WNMA080412 *WNMA433*	1,2 *0.047*	12,7 *0.500*	8,7 *0.343*	4,76 *0.187*	5,15 *0.203*	80,0	0,0										■	■																
WNMG080412-M3 *WNMG433-M3*	1,2 *0.047*	12,7 *0.500*	8,7 *0.343*	4,76 *0.187*	5,15 *0.203*	80,0	0,0	■	■	■	■	■		■	■	■		■							■									
WNMG080412W-M3 *WNMG433W-M3*	1,2 *0.047*	12,7 *0.500*	8,7 *0.343*	4,76 *0.187*	5,15 *0.203*	80,0	0,0	■	■	■								■																
WNMG080412-M4 *WNMG433-M4*	1,2 *0.047*	12,7 *0.500*	8,7 *0.343*	4,76 *0.187*	5,15 *0.203*	80,0	0,0											■																
WNMG080412-M5 *WNMG433-M5*	1,2 *0.047*	12,7 *0.500*	8,7 *0.343*	4,76 *0.187*	5,15 *0.203*	80,0	0,0	■	■	■	■	■	■	■	■		■	■				■	■										
WNMG080412-M6 *WNMG433-M6*	1,2 *0.047*	12,7 *0.500*	8,7 *0.343*	4,76 *0.187*	5,15 *0.203*	80,0	0,0	■	■	■	■							■																

Designation	RE	IC	L	S	D1	EPSR°	AN°	Cemented Carbide and Cermet Grades																													
								Coated																						Uncoated					Cermet	
	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*			TP0501	TP1501	TP2501	TP3501	TP25	TP40	TM1501	TM2501	TM3501	TK0501	TK1501	TS2000	TS2050	TS2500	TH1000	TH1501	CP200	CP500	CP600	HX	KX	883	890	TP1030	TP1020
WNMG080412W-M6 *WNMG433W-M6*	1,2 *0.047*	12,7 *0.500*	8,7 *0.343*	4,76 *0.187*	5,15 *0.203*	80,0	0,0		■	■	■																							
WNMG080412-MF2 *WNMG433-MF2*	1,2 *0.047*	12,7 *0.500*	8,7 *0.343*	4,76 *0.187*	5,15 *0.203*	80,0	0,0		■													■											
WNMG080412-MF4 *WNMG433-MF4*	1,2 *0.047*	12,7 *0.500*	8,7 *0.343*	4,76 *0.187*	5,15 *0.203*	80,0	0,0			■				■	■	■			■		■												
WNMG080412W-MF4 *WNMG433W-MF4*	1,2 *0.047*	12,7 *0.500*	8,69 *0.342*	4,76 *0.187*	5,15 *0.203*	80,0	0,0								■	■																	
WNMG080412-MF5 *WNMG433-MF5*	1,2 *0.047*	12,7 *0.500*	8,7 *0.343*	4,76 *0.187*	5,15 *0.203*	80,0	0,0	■	■	■												■	■										
WNMG080412-MR6 *WNMG433-MR6*	1,2 *0.047*	12,7 *0.500*	8,7 *0.343*	4,76 *0.187*	5,15 *0.203*	80,0	0,0		■																								
WNMG080412-MR7 *WNMG433-MR7*	1,2 *0.047*	12,7 *0.500*	8,7 *0.343*	4,76 *0.187*	5,15 *0.203*	80,0	0,0		■	■	■	■			■		■	■															
WNMA080416 *WNMA434*	1,6 *0.063*	12,7 *0.500*	8,7 *0.343*	4,76 *0.187*	5,15 *0.203*	80,0	0,0											■															
WNMG080416-M3 *WNMG434-M3*	1,6 *0.063*	12,7 *0.500*	8,7 *0.343*	4,76 *0.187*	5,15 *0.203*	80,0	0,0			■																							
WNMG080416-M5 *WNMG434-M5*	1,6 *0.063*	12,7 *0.500*	8,7 *0.343*	4,76 *0.187*	5,15 *0.203*	80,0	0,0	■	■	■	■				■																		
WNMG080416-M6 *WNMG434-M6*	1,6 *0.063*	12,7 *0.500*	8,7 *0.343*	4,76 *0.187*	5,15 *0.203*	80,0	0,0	■	■	■																							
WNMG080416-MF5 *WNMG434-MF5*	1,6 *0.063*	12,7 *0.500*	8,7 *0.343*	4,76 *0.187*	5,15 *0.203*	80,0	0,0			■																							
WNMG080416-MR7 *WNMG434-MR7*	1,6 *0.063*	12,7 *0.500*	8,7 *0.343*	4,76 *0.187*	5,15 *0.203*	80,0	0,0		■	■	■																						
WNMG080612-M5 *WNMG443-M5*	1,2 *0.047*	12,7 *0.500*	8,7 *0.343*	6,35 *0.250*	5,15 *0.203*	80,0	0,0			■	■				■																		
WNMG080612-M6 *WNMG443-M6*	1,2 *0.047*	12,7 *0.500*	8,7 *0.343*	6,35 *0.250*	5,15 *0.203*	80,0	0,0		■																								
WNMG080616-M5 *WNMG444-M5*	1,6 *0.063*	12,7 *0.500*	8,7 *0.343*	6,35 *0.250*	5,15 *0.203*	80,0	0,0		■	■	■				■																		
WNMG080616-M6 *WNMG444-M6*	1,6 *0.063*	12,7 *0.500*	8,7 *0.343*	6,35 *0.250*	5,15 *0.203*	80,0	0,0		■																								



PCBN, PCD, Ceramics

Our team of advanced cutting materials experts is continuously looking for new ways to use PCBN, PCD and ceramics to develop Secomax™ cutting tools that bring exceptional productivity and tool life to the machining of difficult, highly abrasive materials.

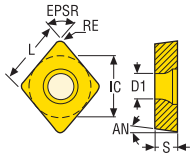
- PCBN (Polycrystalline Cubic Boron Nitride), advanced cutting materal.
- PCD (Polycrystalline Diamond), level of hardness that is comparable to natural diamond.
- Ceramics, we have three grades that offer optimized wear resistance and toughness.

CCGW

Tip sizes, see page(s) 136
Edge preparation, see page(s) 132

For ISO attribute explanation, see page 82

Tolerances:
IC = ±0,025/*0.001*
S = ±0,13/*0.005*
RE = ±0,1/*0.004*



CCGW...-B



CCGW...-LF



Designation	RE	IC	L	S	D1	EPSR°	AN°	Grades: Coated								Grades: Uncoated						
	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*			CH0550	CH1050	CBN060K	CH2540	CH2581	CH3515	CBN300P	CK2065	CBN400C	CBN010	CBN150	CBN170	CBN200	CBN300	CBN500	CBN600
CCGW060202S-01020-LF *CCGW21.50.5S-00420-LF*	0,2 *0.008*	6,35 *0.250*	6,5 *0.256*	2,38 *0.094*	2,9 *0.114*	80,0	7,0													■			
CCGW060204E-L1-B *CCGW21.51E-L1-B*	0,4 *0.016*	6,35 *0.250*	6,5 *0.256*	2,38 *0.094*	2,9 *0.114*	80,0	7,0			■							■			■			
CCGW060204S-01015-L1-B *CCGW21.51S-00415-L1-B*	0,4 *0.016*	6,35 *0.250*	6,5 *0.256*	2,38 *0.094*	2,9 *0.114*	80,0	7,0			■													
CCGW060204S-01020-L1-B *CCGW21.51S-00420-L1-B*	0,4 *0.016*	6,35 *0.250*	6,5 *0.256*	2,38 *0.094*	2,9 *0.114*	80,0	7,0										■						
CCGW060204S-01020-LF *CCGW21.51S-00420-LF*	0,4 *0.016*	6,35 *0.250*	6,5 *0.256*	2,38 *0.094*	2,9 *0.114*	80,0	7,0										■			■			
CCGW060204S-01525-L1-B *CCGW21.51S-00625-L1-B*	0,4 *0.016*	6,35 *0.250*	6,5 *0.256*	2,38 *0.094*	2,9 *0.114*	80,0	7,0	■		■													
CCGW060208E-L1-B *CCGW21.52E-L1-B*	0,8 *0.031*	6,35 *0.250*	6,5 *0.256*	2,38 *0.094*	2,9 *0.114*	80,0	7,0													■			
CCGW060208S-01015-L1-B *CCGW21.52S-00415-L1-B*	0,8 *0.031*	6,35 *0.250*	6,5 *0.256*	2,38 *0.094*	2,9 *0.114*	80,0	7,0			■													
CCGW060208S-01020-LF *CCGW21.52S-00420-LF*	0,8 *0.031*	6,35 *0.250*	6,5 *0.256*	2,38 *0.094*	2,9 *0.114*	80,0	7,0													■			
CCGW060208S-01525-L1-B *CCGW21.52S-00625-L1-B*	0,8 *0.031*	6,35 *0.250*	6,5 *0.256*	2,38 *0.094*	2,9 *0.114*	80,0	7,0				■	■											
CCGW060208S-02020-L1-B *CCGW21.52S-00820-L1-B*	0,8 *0.031*	6,35 *0.250*	6,5 *0.256*	2,38 *0.094*	2,9 *0.114*	80,0	7,0						■							■			
CCGW060208S-L1-WZP-B *CCGW21.52S-L1-WZP-B*	0,8 *0.031*	6,35 *0.250*	6,5 *0.256*	2,38 *0.094*	2,9 *0.114*	80,0	7,0	■		■													
CCGW09T304E-L1-B *CCGW32.51E-L1-B*	0,4 *0.016*	9,525 *0.375*	9,7 *0.382*	3,97 *0.156*	4,5 *0.177*	80,0	7,0			■							■			■			
CCGW09T304S-01015-L1-B *CCGW32.51S-00415-L1-B*	0,4 *0.016*	9,525 *0.375*	9,7 *0.382*	3,97 *0.156*	4,5 *0.177*	80,0	7,0			■													
CCGW09T304S-01020-L1-B *CCGW32.51S-00420-L1-B*	0,4 *0.016*	9,525 *0.375*	9,7 *0.382*	3,97 *0.156*	4,5 *0.177*	80,0	7,0										■						
CCGW09T304S-01020-LF *CCGW32.51S-00420-LF*	0,4 *0.016*	9,525 *0.375*	9,7 *0.382*	3,97 *0.156*	4,5 *0.177*	80,0	7,0										■			■			
CCGW09T304S-01525-L1-B *CCGW32.51S-00625-L1-B*	0,4 *0.016*	9,525 *0.375*	9,7 *0.382*	3,97 *0.156*	4,5 *0.177*	80,0	7,0			■													
CCGW09T304S-01525L1WZB *CCGW32.51S-00625-L1-WZ-B*	0,4 *0.016*	9,525 *0.375*	9,7 *0.382*	3,97 *0.156*	4,5 *0.177*	80,0	7,0			■													
CCGW09T304S25-02020-L1B *CCGW32.51S25-00820-L1-B*	0,4 *0.016*	9,525 *0.375*	9,7 *0.382*	3,97 *0.156*	4,5 *0.177*	80,0	7,0													■			
CCGW09T304S-L1-WZP-B *CCGW32.51S-L1-WZP-B*	0,4 *0.016*	9,525 *0.375*	9,7 *0.382*	3,97 *0.156*	4,5 *0.177*	80,0	7,0	■		■													
CCGW09T308E-L1-B *CCGW32.52E-L1-B*	0,8 *0.031*	9,525 *0.375*	9,7 *0.382*	3,97 *0.156*	4,5 *0.177*	80,0	7,0										■			■			
CCGW09T308S-01015-L1-B *CCGW32.52S-00415-L1-B*	0,8 *0.031*	9,525 *0.375*	9,7 *0.382*	3,97 *0.156*	4,5 *0.177*	80,0	7,0			■													
CCGW09T308S-01020-L1-B *CCGW32.52S-00420-L1-B*	0,8 *0.031*	9,525 *0.375*	9,7 *0.382*	3,97 *0.156*	4,5 *0.177*	80,0	7,0										■	■					

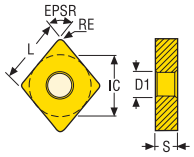
Designation	RE	IC	L	S	D1	EPSR°	AN°	Grades															
								Coated									Uncoated						
	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*			CH0550	CH1050	CBN060K	CH2540	CH2581	CH3515	CBN300P	CK2065	CBN400C	CBN010	CBN150	CBN170	CBN200	CBN300	CBN500	CBN600
CCGW09T308S-01020-LF *CCGW32.52S-00420-LF*	0,8 *0.031*	9,525 *0.375*	9,7 *0.382*	3,97 *0.156*	4,5 *0.177*	80,0	7,0													■			
CCGW09T308S-01525-L1-B *CCGW32.52S-00625-L1-B*	0,8 *0.031*	9,525 *0.375*	9,7 *0.382*	3,97 *0.156*	4,5 *0.177*	80,0	7,0		■	■	■	■											
CCGW09T308S-01525L1WZB *CCGW32.52S-00625-L1-WZ-B*	0,8 *0.031*	9,525 *0.375*	9,7 *0.382*	3,97 *0.156*	4,5 *0.177*	80,0	7,0			■													
CCGW09T308S-02020-L1-B *CCGW32.52S-00820-L1-B*	0,8 *0.031*	9,525 *0.375*	9,7 *0.382*	3,97 *0.156*	4,5 *0.177*	80,0	7,0						■							■			
CCGW09T308S25-02020-L1B *CCGW32.52S25-00820-L1-B*	0,8 *0.031*	9,525 *0.375*	9,7 *0.382*	3,97 *0.156*	4,5 *0.177*	80,0	7,0													■			
CCGW09T308S-L1-WZP-B *CCGW32.52S-L1-WZP-B*	0,8 *0.031*	9,525 *0.375*	9,7 *0.382*	3,97 *0.156*	4,5 *0.177*	80,0	7,0			■													
CCGW120404S-01020-L1-B *CCGW431S-00420-L1-B*	0,4 *0.016*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,6 *0.220*	80,0	7,0										■						
CCGW120408S-01020-L1-B *CCGW432S-00420-L1-B*	0,8 *0.031*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,6 *0.220*	80,0	7,0										■						
CCGW120408S-02020-L1-B *CCGW432S-00820-L1-B*	0,8 *0.031*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,6 *0.220*	80,0	7,0													■			

CNGA

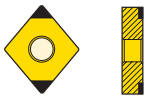
Tip sizes, see page(s) 136
Edge preparation, see page(s) 132

For ISO attribute explanation, see page 82

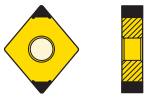
Tolerances:
IC = ±0,025/*0.001*
S = ±0,13/*0.005*
RE = ±0,1/*0.004*



CNGA...-B



CNGA...-U



Designation	RE	IC	L	S	D1	EPSR°	AN°	Grades: Coated								Grades: Uncoated						
	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*			CH0550	CH1050	CBN060K	CH2540	CH2581	CH3515	CBN300P	CK2065	CBN400C	CBN010	CBN150	CBN170	CBN200	CBN300	CBN500	CBN600
CNGA120404S-01015-L1-B *CNGA431S-00415-L1-B*	0,4 *0.016*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,15 *0.203*	80,0	0,0			■													
CNGA120404S-01020-L1-B *CNGA431S-00420-L1-B*	0,4 *0.016*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,15 *0.203*	80,0	0,0										■						
CNGA120404S-01525-L1-U *CNGA431S-00625-L1-U*	0,4 *0.016*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,15 *0.203*	80,0	0,0			■													
CNGA120404S-02020-L1-B *CNGA431S-00820-L1-B*	0,4 *0.016*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,15 *0.203*	80,0	0,0						■										
CNGA120404S-02020-L1WZB *CNGA431S-00820-L1-WZ-B*	0,4 *0.016*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,15 *0.203*	80,0	0,0						■										
CNGA120408E25-L1-U *CNGA432E25-L1-U*	0,8 *0.031*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,15 *0.203*	80,0	0,0												■				
CNGA120408E-L1-B *CNGA432E-L1-B*	0,8 *0.031*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,15 *0.203*	80,0	0,0													■			
CNGA120408S-01015-L1-B *CNGA432S-00415-L1-B*	0,8 *0.031*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,15 *0.203*	80,0	0,0			■													
CNGA120408S-01020-L1-B *CNGA432S-00420-L1-B*	0,8 *0.031*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,15 *0.203*	80,0	0,0										■						
CNGA120408S-01020-L1-U *CNGA432S-00420-L1-U*	0,8 *0.031*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,15 *0.203*	80,0	0,0										■						
CNGA120408S-01020-L1WZB *CNGA432S-00420-L1-WZ-B*	0,8 *0.031*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,15 *0.203*	80,0	0,0										■						
CNGA120408S-01020-L1WZU *CNGA432S-00420-L1-WZ-U*	0,8 *0.031*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,15 *0.203*	80,0	0,0										■						
CNGA120408S-01525-L1-B *CNGA432S-00625-L1-B*	0,8 *0.031*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,15 *0.203*	80,0	0,0	■		■	■	■	■					■					
CNGA120408S-01525-L1-U *CNGA432S-00625-L1-U*	0,8 *0.031*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,15 *0.203*	80,0	0,0			■													
CNGA120408S01525L1WLB *CNGA432S00625L1WLB*	0,8 *0.031*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,15 *0.203*	80,0	0,0			■													
CNGA120408S01525L1WSB *CNGA432S00625L1WSB*	0,8 *0.031*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,15 *0.203*	80,0	0,0			■													
CNGA120408S-01525L1WZB *CNGA432S-00625-L1-WZ-B*	0,8 *0.031*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,15 *0.203*	80,0	0,0	■	■	■	■	■											
CNGA120408S-01525-L1WZB *CNGA432S-00625-L1-WZ-B*	0,8 *0.031*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,15 *0.203*	80,0	0,0						■										
CNGA120408S-01525L1WZU *CNGA432S-00625-L1-WZ-U*	0,8 *0.031*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,15 *0.203*	80,0	0,0			■													
CNGA120408S-02020-L1-B *CNGA432S-00820-L1-B*	0,8 *0.031*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,15 *0.203*	80,0	0,0						■							■			
CNGA120408S25-02020-L1B *CNGA432S25-00820-L1-B*	0,8 *0.031*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,15 *0.203*	80,0	0,0													■			
CNGA120408S30-02035L1B *CNGA432S30-00835-L1-B*	0,8 *0.031*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,15 *0.203*	80,0	0,0			■													
CNGA120408S-L1-WZN-B *CNGA432S-L1-WZN-B*	0,8 *0.031*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,15 *0.203*	80,0	0,0			■													

Designation	RE	IC	L	S	D1	EPSR°	AN°	Grades														
								Coated								Uncoated						
	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*			CH0550	CH1050	CBN060K	CH2540	CH2581	CH3515	CBN300P	CK2065	CBN400C	CBN010	CBN150	CBN170	CBN200	CBN300	CBN500	CBN600
CNGA120408S-L1-WZN-U *CNGA432S-L1-WZN-U*	0,8 *0.031*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,15 *0.203*	80,0	0,0			■													
CNGA120408S-L1-WZP-B *CNGA432S-L1-WZP-B*	0,8 *0.031*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,15 *0.203*	80,0	0,0		■	■							■						
CNGA120412S-01020-L1-B *CNGA433S-00420-L1-B*	1,2 *0.047*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,15 *0.203*	80,0	0,0										■						
CNGA120412S-01525-L1-B *CNGA433S-00625-L1-B*	1,2 *0.047*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,15 *0.203*	80,0	0,0	■	■	■	■	■	■					■					
CNGA120412S-01525-L1-U *CNGA433S-00625-L1-U*	1,2 *0.047*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,15 *0.203*	80,0	0,0	■		■													
CNGA120412S-01525L1WZB *CNGA433S-00625-L1-WZ-B*	1,2 *0.047*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,15 *0.203*	80,0	0,0				■	■											
CNGA120412S-01525L1WZU *CNGA433S-00625-L1-WZ-U*	1,2 *0.047*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,15 *0.203*	80,0	0,0			■													
CNGA120412S-02020-L1-B *CNGA433S-00820-L1-B*	1,2 *0.047*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,15 *0.203*	80,0	0,0						■										
CNGA120412S30-02035L1B *CNGA433S30-00835-L1-B*	1,2 *0.047*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,15 *0.203*	80,0	0,0			■													

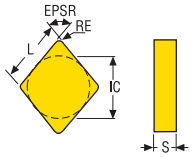
CNMN

Tip sizes, see page(s) 136
Edge preparation, see page(s) 132

For ISO attribute explanation, see page 82

Tolerances:
IC = ±0,05/*0.002*
IC = ±0,08/*0.003*
S = ±0,13/*0.005*
RE = ±0,1/*0.004*

Size:
09/*3*
12/*4*

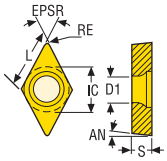


CNMN



Designation	RE	IC	L	S	EPSR°	AN°	Grades: Coated									Grades: Uncoated						
	mm *inch*	mm *inch*	mm *inch*	mm *inch*			CH0550	CH1050	CBN060K	CH2540	CH2581	CH3515	CBN300P	CK2065	CBN400C	CBN010	CBN150	CBN170	CBN200	CBN300	CBN500	CBN600
CNMN090308S *CNMN322S*	0,8 *0.031*	9,525 *0.375*	9,7 *0.382*	3,18 *0.125*	80,0	–														■		
CNMN090308S-02020 *CNMN322S-00820*	0,8 *0.031*	9,525 *0.375*	9,7 *0.382*	3,18 *0.125*	80,0	–									■						■	
CNMN090308S-02020P *CNMN322S-00820*	0,8 *0.031*	9,525 *0.375*	9,7 *0.382*	3,18 *0.125*	80,0	–																■
CNMN090312S *CNMN323S*	1,2 *0.047*	9,525 *0.375*	9,7 *0.382*	3,18 *0.125*	80,0	–														■		
CNMN090316S *CNMN324S*	1,6 *0.063*	9,525 *0.375*	9,7 *0.382*	3,18 *0.125*	80,0	–														■		
CNMN120408S-WZ *CNMN432S-WZ*	0,8 *0.031*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	80,0	0,0														■		
CNMN120412S *CNMN433S*	1,2 *0.047*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	80,0	–							■							■		
CNMN120412S-02020P *CNMN433S-00820P*	1,2 *0.047*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	80,0	–																■
CNMN120416S *CNMN434S*	1,6 *0.063*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	80,0	–														■		
CNMN120416S-02020P *CNMN434S-00820P*	1,6 *0.063*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	80,0	–																■

DCGW

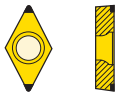


Tolerances:
IC = ±0,025/*0.001*
S = ±0,13/*0.005*
RE = ±0,1/*0.004*

Tip sizes, see page(s) 136
Edge preparation, see page(s) 132

For ISO attribute explanation, see page 82

DCGW...-B



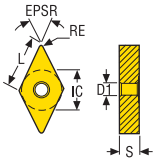
Designation	RE	IC	L	S	D1	EPSR°	AN°	Grades: Coated								Grades: Uncoated						
	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*			CH0550	CH1050	CBN060K	CH2540	CH2581	CH3515	CBN300P	CK2065	CBN400C	CBN010	CBN150	CBN170	CBN200	CBN300	CBN500	CBN600
DCGW070202S-01020-L1-B *DCGW21.50.5S-00420-L1-B*	0,2 *0.008*	6,35 *0.250*	7,8 *0.307*	2,38 *0.094*	2,9 *0.114*	55,0	7,0											■					
DCGW070202S-01525-L1-B *DCGW21.50.5S-00625-L1-B*	0,2 *0.008*	6,35 *0.250*	7,8 *0.307*	2,38 *0.094*	2,9 *0.114*	55,0	7,0				■												
DCGW070204E-L1-B *DCGW21.51E-L1-B*	0,4 *0.016*	6,35 *0.250*	7,8 *0.307*	2,38 *0.094*	2,9 *0.114*	55,0	7,0										■			■			
DCGW070204S-01020-L1-B *DCGW21.51S-00420-L1-B*	0,4 *0.016*	6,35 *0.250*	7,8 *0.307*	2,38 *0.094*	2,9 *0.114*	55,0	7,0										■	■					
DCGW070204S-01525-L1-B *DCGW21.51S-00625-L1-B*	0,4 *0.016*	6,35 *0.250*	7,8 *0.307*	2,38 *0.094*	2,9 *0.114*	55,0	7,0				■	■											
DCGW070204S-02020-L1-B *DCGW21.51S-00820-L1-B*	0,4 *0.016*	6,35 *0.250*	7,8 *0.307*	2,38 *0.094*	2,9 *0.114*	55,0	7,0													■			
DCGW070204S25-02020-L1B *DCGW21.51S25-00820-L1-B*	0,4 *0.016*	6,35 *0.250*	7,8 *0.307*	2,38 *0.094*	2,9 *0.114*	55,0	7,0													■			
DCGW070208S-02020-L1-B *DCGW21.52S-00820-L1-B*	0,8 *0.031*	6,35 *0.250*	7,8 *0.307*	2,38 *0.094*	2,9 *0.114*	55,0	7,0													■			
DCGW11T302E-L1-B *DCGW32.50E-L1-B*	0,2 *0.008*	9,525 *0.375*	11,6 *0.457*	3,97 *0.156*	4,5 *0.177*	55,0	7,0													■			
DCGW11T302S-01020-L1-B *DCGW32.50S-00420-L1-B*	0,2 *0.008*	9,525 *0.375*	11,6 *0.457*	3,97 *0.156*	4,5 *0.177*	55,0	7,0										■						
DCGW11T304E-L1-B *DCGW32.51E-L1-B*	0,4 *0.016*	9,525 *0.375*	11,6 *0.457*	3,97 *0.156*	4,5 *0.177*	55,0	7,0										■						
DCGW11T304S-01015-L1-B *DCGW32.51S-00415-L1-B*	0,4 *0.016*	9,525 *0.375*	11,6 *0.457*	3,97 *0.156*	4,5 *0.177*	55,0	7,0			■													
DCGW11T304S-01020-L1-B *DCGW32.51S-00420-L1-B*	0,4 *0.016*	9,525 *0.375*	11,6 *0.457*	3,97 *0.156*	4,5 *0.177*	55,0	7,0										■						
DCGW11T304S-01525-L1-B *DCGW32.51S-00625-L1-B*	0,4 *0.016*	9,525 *0.375*	11,6 *0.457*	3,97 *0.156*	4,5 *0.177*	55,0	7,0	■		■	■												
DCGW11T304S-02020-L1-B *DCGW32.51S-00820-L1-B*	0,4 *0.016*	9,525 *0.375*	11,6 *0.457*	3,97 *0.156*	4,5 *0.177*	55,0	7,0						■							■			
DCGW11T304S25-02020-L1B *DCGW32.51S25-00820-L1-B*	0,4 *0.016*	9,525 *0.375*	11,6 *0.457*	3,97 *0.156*	4,5 *0.177*	55,0	7,0													■			
DCGW11T308E25-L1-B *DCGW11T308E25-L1-B*	0,8 *0.031*	9,525 *0.375*	11,6 *0.457*	3,97 *0.156*	– –	55,0	7,0												■				
DCGW11T308E-L1-B *DCGW32.52E-L1-B*	0,8 *0.031*	9,525 *0.375*	11,6 *0.457*	3,97 *0.156*	4,5 *0.177*	55,0	7,0										■						
DCGW11T308S-01015-L1-B *DCGW32.52S-00415-L1-B*	0,8 *0.031*	9,525 *0.375*	11,63 *0.458*	3,97 *0.156*	4,5 *0.177*	55,0	7,0			■													
DCGW11T308S-01020-L1-B *DCGW32.52S-00420-L1-B*	0,8 *0.031*	9,525 *0.375*	11,6 *0.457*	3,97 *0.156*	4,5 *0.177*	55,0	7,0										■						
DCGW11T308S-01525-L1-B *DCGW32.52S-00625-L1-B*	0,8 *0.031*	9,525 *0.375*	11,6 *0.457*	3,97 *0.156*	4,5 *0.177*	55,0	7,0	■		■	■	■	■										
DCGW11T308S-02020-L1-B *DCGW32.52S-00820-L1-B*	0,8 *0.031*	9,525 *0.375*	11,6 *0.457*	3,97 *0.156*	4,5 *0.177*	55,0	7,0						■							■			
DCGW11T308S-L1-WZP-B *DCGW32.52S-L1-WZP-B*	0,8 *0.031*	9,525 *0.375*	11,63 *0.458*	3,97 *0.156*	4,5 *0.177*	55,0	7,0			■													

DNGA

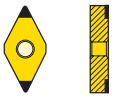
Tip sizes, see page(s) 136
Edge preparation, see page(s) 132

For ISO attribute explanation, see page 82

Tolerances:
IC = ±0,025/*0.001*
S = ±0,13/*0.005*
RE = ±0,1/*0.004*



DNGA...-B

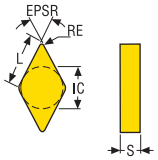


DNGA...-U



Designation	RE	IC	L	S	D1	EPSR°	AN°	Grades															
								Coated									Uncoated						
	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*			CH0550	CH1050	CBN060K	CH2540	CH2581	CH3515	CBN300P	CK2065	CBN400C	CBN010	CBN150	CBN170	CBN200	CBN300	CBN500	CBN600
DNGA150404S-01020-L1-B *DNGA431S-00420-L1-B*	0,4 *0.016*	12,7 *0.500*	15,0 *0.591*	4,76 *0.187*	5,15 *0.203*	55,0	–										■						
DNGA150408S-01015-L1-B *DNGA432S-00415-L1-B*	0,8 *0.031*	12,7 *0.500*	15,5 *0.610*	4,76 *0.187*	5,15 *0.203*	55,0	–			■													
DNGA150408S-01020-L1-B *DNGA432S-00420-L1-B*	0,8 *0.031*	12,7 *0.500*	15,0 *0.591*	4,76 *0.187*	5,15 *0.203*	55,0	–										■						
DNGA150408S-01525-L1-B *DNGA432S-00625-L1-B*	0,8 *0.031*	12,7 *0.500*	15,0 *0.591*	4,76 *0.187*	5,15 *0.203*	55,0	–		■	■	■	■	■										
DNGA150408S-01525-L1-U *DNGA432S-00625-L1-U*	0,8 *0.031*	12,7 *0.500*	15,0 *0.591*	4,76 *0.187*	5,15 *0.203*	55,0	–			■													
DNGA150408S-01525L1WZB *DNGA432S-00625-L1-WZ-B*	0,8 *0.031*	12,7 *0.500*	15,0 *0.591*	4,76 *0.187*	5,15 *0.203*	55,0	0,0	■	■														
DNGA150408S-02020-L1-B *DNGA432S-00820-L1-B*	0,8 *0.031*	12,7 *0.500*	15,0 *0.591*	4,76 *0.187*	5,15 *0.203*	55,0	–						■							■			
DNGA150408S30-02035L1B *DNGA432S30-00835-L1-B*	0,8 *0.031*	12,7 *0.500*	15,5 *0.610*	4,76 *0.187*	5,15 *0.203*	55,0	–			■													
DNGA150408S-L1-WZP-B *DNGA432S-L1-WZP-B*	0,8 *0.031*	12,7 *0.500*	15,5 *0.610*	4,76 *0.187*	5,15 *0.203*	55,0	0,0			■													
DNGA150412S-01525-L1-B *DNGA433S-00625-L1-B*	1,2 *0.047*	12,7 *0.500*	15,0 *0.591*	4,76 *0.187*	5,15 *0.203*	55,0	–				■	■											
DNGA150412S-02020-L1-B *DNGA433S-00820-L1-B*	1,2 *0.047*	12,7 *0.500*	15,0 *0.591*	4,76 *0.187*	5,15 *0.203*	55,0	–						■										
DNGA150604S-01020-L1-B *DNGA441S-00420-L1-B*	0,4 *0.016*	12,7 *0.500*	15,0 *0.591*	6,35 *0.250*	5,15 *0.203*	55,0	–										■						
DNGA150604S-01525-L1-U *DNGA441S-00625-L1-U*	0,4 *0.016*	12,7 *0.500*	15,0 *0.591*	6,35 *0.250*	5,15 *0.203*	55,0	–			■													
DNGA150608E25-L1-U *DNGA442E25-L1-U*	0,8 *0.031*	12,7 *0.500*	15,0 *0.591*	6,35 *0.250*	5,15 *0.203*	55,0	–												■				
DNGA150608S-01020-L1-B *DNGA442S-00420-L1-B*	0,8 *0.031*	12,7 *0.500*	15,0 *0.591*	6,35 *0.250*	5,15 *0.203*	55,0	–										■						
DNGA150608S01020L1WZ93B *DNGA442S-00420-L1-WZ-93-B*	0,8 *0.031*	12,7 *0.500*	15,0 *0.591*	6,35 *0.250*	5,15 *0.203*	55,0	0,0										■						
DNGA150608S-01525-L1-B *DNGA442S-00625-L1-B*	0,8 *0.031*	12,7 *0.500*	15,0 *0.591*	6,35 *0.250*	5,15 *0.203*	55,0	–	■		■	■	■						■					
DNGA150608S-01525-L1-U *DNGA442S-00625-L1-U*	0,8 *0.031*	12,7 *0.500*	15,0 *0.591*	6,35 *0.250*	5,15 *0.203*	55,0	–			■													
DNGA150608S-02020-L1-B *DNGA442S-00820-L1-B*	0,8 *0.031*	12,7 *0.500*	15,0 *0.591*	6,35 *0.250*	5,15 *0.203*	55,0	–													■			
DNGA150612S-01020-L1-B *DNGA443S-00420-L1-B*	1,2 *0.047*	12,7 *0.500*	15,0 *0.591*	6,35 *0.250*	5,15 *0.203*	55,0	–										■						
DNGA150612S-01525-L1-B *DNGA443S-00625-L1-B*	1,2 *0.047*	12,7 *0.500*	15,0 *0.591*	6,35 *0.250*	5,15 *0.203*	55,0	–				■	■	■										
DNGA150612S-01525-L1-U *DNGA443S-00625-L1-U*	1,2 *0.047*	12,7 *0.500*	15,0 *0.591*	6,35 *0.250*	5,15 *0.203*	55,0	–			■													

DNGN



Tolerances:
IC = ±0,025/*0.001*
S = ±0,13/*0.005*
RE = ±0,1/*0.004*

Tip sizes, see page(s) 136
Edge preparation, see page(s) 132

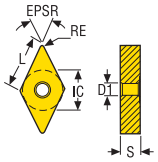
For ISO attribute explanation, see page 82

DNGN



Designation	RE	IC	L	S	EPSR°	AN°	Grades: Coated									Grades: Uncoated						
	mm *inch*	mm *inch*	mm *inch*	mm *inch*			CH0550	CH1050	CBN060K	CH2540	CH2581	CH3515	CBN300P	CK2065	CBN400C	CBN010	CBN150	CBN170	CBN200	CBN300	CBN500	CBN600
DNGN110312S-01020 *DNGN323S-00420*	1,2 *0.047*	9,525 *0.375*	11,6 *0.457*	3,18 *0.125*	55,0	–										■						

DNMA



Tolerances:
IC = ±0,05/*0.002*
S = ±0,13/*0.005*
RE = ±0,1/*0.004*

Tip sizes, see page(s) 136
Edge preparation, see page(s) 132

For ISO attribute explanation, see page 82

DNMA



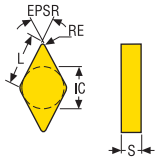
Designation	RE	IC	L	S	D1	EPSR°	AN°	Grades: Coated									Grades: Uncoated						
	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*			CH0550	CH1050	CBN060K	CH2540	CH2581	CH3515	CBN300P	CK2065	CBN400C	CBN010	CBN150	CBN170	CBN200	CBN300	CBN500	CBN600
DNMA110408S *DNMA332S*	0,8 *0.031*	9,52 *0.375*	11,6 *0.457*	4,76 *0.187*	3,81 *0.150*	55,0	–														■		

DNMN

Tip sizes, see page(s) 136
Edge preparation, see page(s) 132

For ISO attribute explanation, see page 82

Tolerances:
IC = ±0,05/*0.002*
S = ±0,13/*0.005*
RE = ±0,1/*0.004*



DNMN



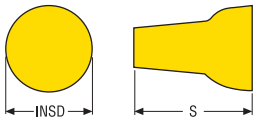
Designation	RE	IC	L	S	EPSR°	AN°	Grades														
							Coated									Uncoated					
	mm *inch*	mm *inch*	mm *inch*	mm *inch*			CH0550	CH1050	CBN060K	CH2540	CH2581	CH3515	CBN300P	CK2065	CBN400C	CBN010	CBN150	CBN170	CBN200	CBN300	CBN500	CBN600
DNMN110308S *DNMN322S*	0,8 *0.031*	9,525 *0.375*	11,6 *0.457*	3,18 *0.125*	55,0	–														■	

RCGS

Tip sizes, see page(s) 136
Edge preparation, see page(s) 132

For ISO attribute explanation, see page 82

Tolerances:
INSD = ±0,025/*0.001*
S = ±0,13/*0.005*

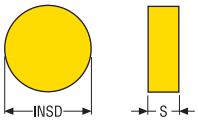


RCGS



Designation	INSD	S	EPSR°	AN°	Grades														
					Coated									Uncoated					
	mm *inch*	mm *inch*			CH0550	CH1050	CBN060K	CH2540	CH2581	CH3515	CBN300P	CK2065	CBN400C	CBN010	CBN150	CBN170	CBN200	CBN300	CBN500	CBN600
RCGS6.35S-02020-LF *RCGS2S-00820-LF*	6,35 *0.250*	9,13 *0.359*	–	14,0										■						

RNGN-LF



Tolerances:
INSD = ±0,025/*0.001*
S = ±0,13/*0.005*

Tip sizes, see page(s) 136
Edge preparation, see page(s) 132

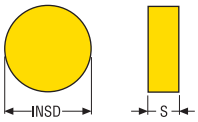
For ISO attribute explanation, see page 82

RNGN-LF



Designation	INSD	S	EPSR°	AN°	Grades															
					Coated									Uncoated						
	mm *inch*	mm *inch*			CH0550	CH1050	CBN060K	CH2540	CH2581	CH3515	CBN300P	CK2065	CBN400C	CBN010	CBN150	CBN170	CBN200	CBN300	CBN500	CBN600
RNGN060300S-02020-LF *RNGN22S-00820-LF*	6,35 *0.250*	3,18 *0.125*	–	–						■							■			
RNGN090300S-01525-LF *RNGN32S-00625-LF*	9,525 *0.375*	3,18 *0.125*	–	0,0						■										
RNGN090300S-02020-LF *RNGN32S-00820-LF*	9,52 *0.375*	3,18 *0.125*	–	0,0						■				■			■			
RNGN120400S-02020-LF *RNGN43S-00820-LF*	12,7 *0.500*	4,76 *0.187*	–	–													■			

RNGN



Tolerances:
INSD = ±0,025/*0.001*
S = ±0,13/*0.005*

Tip sizes, see page(s) 136
Edge preparation, see page(s) 132

For ISO attribute explanation, see page 82

RNGN



Designation	INSD	S	EPSR°	AN°	Grades															
					Coated									Uncoated						
	mm *inch*	mm *inch*			CH0550	CH1050	CBN060K	CH2540	CH2581	CH3515	CBN300P	CK2065	CBN400C	CBN010	CBN150	CBN170	CBN200	CBN300	CBN500	CBN600
RNGN060300E *RNGN22E*	6,35 *0.250*	3,18 *0.125*	–	–										■						
RNGN060300S-01020 *RNGN22S-00420*	6,35 *0.250*	3,18 *0.125*	–	–										■						
RNGN060300S-01525 *RNGN22S-00625*	6,35 *0.250*	3,18 *0.125*	–	0,0	■		■	■							■					
RNGN090300E25 *RNGN32E25*	9,52 *0.375*	3,18 *0.125*	–	–												■				
RNGN090300S-01020 *RNGN32S-00420*	9,52 *0.375*	3,18 *0.125*	–	–										■						
RNGN090300S-01525 *RNGN32S-00625*	9,52 *0.375*	3,18 *0.125*	–	0,0	■	■	■	■	■						■					
RNGN120300S-01020 *RNGN42S-00420*	12,7 *0.500*	3,18 *0.125*	–	–										■						
RNGN060300S *RNGN060300S*	6,35 *0.250*	3,18 *0.125*	–	–													■			
RNGN090300S *RNGN090300S*	9,52 *0.375*	3,18 *0.125*	–	–													■			

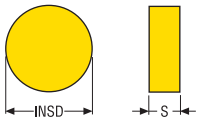
RNMN

Tip sizes, see page(s) 136
Edge preparation, see page(s) 132

For ISO attribute explanation, see page 82

Tolerances:
INSD = ±0,05/*0.002*
INSD = ±0,08/*0.003*
INSD = ±0,10/*0.004*
INSD = ±0,13/*0.005*
S = ±0,13/*0.005*

Size:
06-09/*2-3*
12/4
19/6
25/8

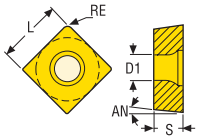


RNMN



Designation	INSD	S	EPSR°	AN°	Grades: Coated									Grades: Uncoated						
	mm *inch*	mm *inch*			CH0550	CH1050	CBN060K	CH2540	CH2581	CH3515	CBN300P	CK2065	CBN400C	CBN010	CBN150	CBN170	CBN200	CBN300	CBN500	CBN600
RNMN060300S *RNMN22S*	6,35 *0.250*	3,18 *0.125*	–	–							■							■		
RNMN060300S-02020P *RNMN22S-00820P*	6,35 *0.250*	3,18 *0.125*	–	–																■
RNMN090300E *RNMN32E*	9,52 *0.375*	3,18 *0.125*	–	–									■					■		
RNMN090300S *RNMN32S*	9,52 *0.375*	3,18 *0.125*	–	–							■							■		
RNMN090300S-02020 *RNMN32S-00820*	9,52 *0.375*	3,18 *0.125*	–	–									■						■	
RNMN090300S-02020P *RNMN32S-00820*	9,52 *0.375*	3,18 *0.125*	–	–																■
RNMN120300E *RNMN42E*	12,7 *0.500*	3,18 *0.125*	–	–														■		
RNMN120300S *RNMN42S*	12,7 *0.500*	3,18 *0.125*	–	–							■							■		
RNMN120300S-02020 *RNMN42S-00820*	12,7 *0.500*	3,18 *0.125*	–	–															■	
RNMN120300S-02020P *RNMN42S-00820P*	12,7 *0.500*	3,18 *0.125*	–	–																■
RNMN120400S *RNMN43S*	12,7 *0.500*	4,76 *0.187*	–	–							■							■		
RNMN120400S-02020 *RNMN43S-00820*	12,7 *0.500*	4,76 *0.187*	–	–															■	
RNMN120400S-02020P *RNMN43S-00820P*	12,7 *0.500*	4,76 *0.187*	–	–																■
RNMN120400S-04015 *RNMN43S-01515*	12,7 *0.500*	4,76 *0.187*	–	–														■	■	
RNMN120400S-04015P *RNMN43S-01515P*	12,7 *0.500*	4,76 *0.187*	–	–																■
RNMN120400X-05015 *RNMN43X-02015*	12,7 *0.500*	4,76 *0.187*	–	–															■	

SCGW



Tolerances:
L = ±0,025/*0.001*
S = ±0,13/*0.005*
RE = ±0,1/*0.004*

Tip sizes, see page(s) 136
Edge preparation, see page(s) 132

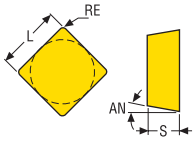
For ISO attribute explanation, see page 82

SCGW



Designation	RE	L	S	EPSR°	AN°	Grades															
						Coated									Uncoated						
	mm *inch*	mm *inch*	mm *inch*			CH0550	CH1050	CBN060K	CH2540	CH2581	CH3515	CBN300P	CK2065	CBN400C	CBN010	CBN150	CBN170	CBN200	CBN300	CBN500	CBN600
SCGW060208S-01020-LF *SCGW21.52S-00420-LF*	0,8 *0.031*	6,35 *0.250*	2,38 *0.094*	90,0	7,0													■			
SCGW09T304S-01020-LF *SCGW32.51S-00420-LF*	0,4 *0.016*	9,525 *0.375*	3,97 *0.156*	90,0	7,0													■			
SCGW09T308S-01020-LF *SCGW32.52S-00420-LF*	0,8 *0.031*	9,525 *0.375*	3,97 *0.156*	90,0	7,0													■			

SCMN



Tolerances:
L = ±0,05/*0.002*
S = ±0,13/*0.005*
RE = ±0,1/*0.004*

Tip sizes, see page(s) 136
Edge preparation, see page(s) 132

For ISO attribute explanation, see page 82

SCMN



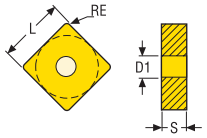
Designation	RE	L	S	EPSR°	AN°	Grades															
						Coated									Uncoated						
	mm *inch*	mm *inch*	mm *inch*			CH0550	CH1050	CBN060K	CH2540	CH2581	CH3515	CBN300P	CK2065	CBN400C	CBN010	CBN150	CBN170	CBN200	CBN300	CBN500	CBN600
SCMN090408S-WZ-85 *SCMN332S-WZ-85*	0,8 *0.031*	9,525 *0.375*	4,76 *0.187*	90,0	7,0														■		

SNGA

Tip sizes, see page(s) 136
Edge preparation, see page(s) 132

For ISO attribute explanation, see page 82

Tolerances:
L = ±0,025/*0.001*
S = ±0,13/*0.005*
RE = ±0,1/*0.004*



SNGA



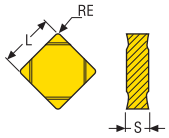
Designation	RE	L	S	D1	EPSR°	AN°	Grades																
							Coated									Uncoated							
	mm *inch*	mm *inch*	mm *inch*	mm *inch*			CH0550	CH1050	CBN060K	CH2540	CH2581	CH3515	CBN300P	CK2065	CBN400C	CBN010	CBN150	CBN170	CBN200	CBN300	CBN500	CBN600
SNGA120408S-02020-L1-D *SNGA432S-00820-L1-D*	0,8 *0.031*	12,7 *0.500*	4,76 *0.187*	5,15 *0.203*	90,0	–													■			

SNGF

Tip sizes, see page(s) 136
Edge preparation, see page(s) 132

For ISO attribute explanation, see page 82

Tolerances:
L = ±0,025/*0.001*
S = ±0,13/*0.005*
RE = ±0,1/*0.004*

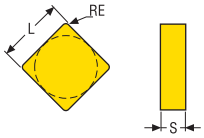


SNGF



Designation	RE	L	S	EPSR°	AN°	Grades																	
						Coated										Uncoated							
	mm *inch*	mm *inch*	mm *inch*			CH0550	CH1050	CBN060K	CH2540	CH2581	CH3515	CBN300P	CK2065	CBN400C	CBN010	CBN150	CBN170	CBN200	CBN300	CBN500	CBN600
SNGF090312E *SNGF323E*	1,2 *0.047*	9,525 *0.375*	3,18 *0.125*	90,0	–									■							

SNGN



Tolerances:
L = ±0,025/*0.001*
S = ±0,13/*0.005*
RE = ±0,1/*0.004*

Tip sizes, see page(s) 136
Edge preparation, see page(s) 132

For ISO attribute explanation, see page 82

SNGN



Designation	RE	L	S	EPSR°	AN°	Grades																
						Coated									Uncoated							
	mm *inch*	mm *inch*	mm *inch*			CH0550	CH1050	CBN060K	CH2540	CH2581	CH3515	CBN300P	CK2065	CBN400C	CBN010	CBN150	CBN170	CBN200	CBN300	CBN500	CBN600
SNGN060308S-01020 *SNGN222S-00420*	0,8 *0.031*	6,35 *0.250*	3,18 *0.125*	90,0	–										■						
SNGN090308S-01020 *SNGN322S-00420*	0,8 *0.031*	9,525 *0.375*	3,18 *0.125*	90,0	–										■						
SNGN090312S-01020 *SNGN323S-00420*	1,2 *0.047*	9,525 *0.375*	3,18 *0.125*	90,0	–										■						
SNGN090308E *SNGN090308E*	0,8 *0.031*	9,525 *0.375*	3,18 *0.125*	90,0	–													■			
SNGN090308S *SNGN090308S*	0,8 *0.031*	9,525 *0.375*	3,18 *0.125*	90,0	–													■			
SNGN090312S *SNGN090312S*	1,2 *0.047*	9,525 *0.375*	3,18 *0.125*	90,0	–													■			
SNGN090316S *SNGN090316S*	1,6 *0.063*	9,525 *0.375*	3,18 *0.125*	90,0	–													■			

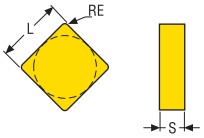
SNMN

Tip sizes, see page(s) 136
Edge preparation, see page(s) 132

For ISO attribute explanation, see page 82

Tolerances:
L = ±0,05/*0.002*
L = ±0,08/*0.003*
S = ±0,13/*0.005*
RE = ±0,1/*0.004*

Size:
06-09/*2-3*
12/*4*

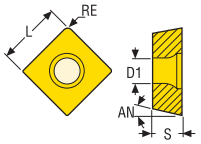


SNMN



Designation	RE	L	S	EPSR°	AN°	Grades														
						Coated									Uncoated					
	mm *inch*	mm *inch*	mm *inch*			CH0550	CH1050	CBN060K	CH2540	CH2581	CH3515	CBN300P	CK2065	CBN400C	CBN010	CBN150	CBN170	CBN200	CBN300	CBN500	CBN600
SNMN060308E *SNMN222E*	0,8 *0.031*	6,35 *0.250*	3,18 *0.125*	90,0	–									■						
SNMN060308S *SNMN222S*	0,8 *0.031*	6,35 *0.250*	3,18 *0.125*	90,0	–														■	
SNMN090308E *SNMN322E*	0,8 *0.031*	9,525 *0.375*	3,18 *0.125*	90,0	–														■	
SNMN090308S *SNMN322S*	0,8 *0.031*	9,525 *0.375*	3,18 *0.125*	90,0	–														■	
SNMN090308S-02020 *SNMN322S-00820*	0,8 *0.031*	9,525 *0.375*	3,18 *0.125*	90,0	–									■						
SNMN090312S *SNMN323S*	1,2 *0.047*	9,525 *0.375*	3,18 *0.125*	90,0	–							■							■	
SNMN090312S-02020P *SNMN323S-00820P*	1,2 *0.047*	9,525 *0.375*	3,18 *0.125*	90,0	–															■
SNMN090316S *SNMN324S*	1,6 *0.063*	9,525 *0.375*	3,18 *0.125*	90,0	–														■	
SNMN090416S *SNMN334S*	1,6 *0.063*	9,525 *0.375*	4,76 *0.187*	90,0	–														■	
SNMN120312S *SNMN423S*	1,2 *0.047*	12,7 *0.500*	3,18 *0.125*	90,0	–														■	
SNMN120408S-02020-WZ85 *SNMN432S-00820-WZ-85*	0,8 *0.031*	12,7 *0.500*	4,76 *0.187*	90,0	0,0									■						
SNMN120412S *SNMN433S*	1,2 *0.047*	12,7 *0.500*	4,76 *0.187*	90,0	–														■	
SNMN120412S-02020 *SNMN433S-00820*	1,2 *0.047*	12,7 *0.500*	4,76 *0.187*	90,0	–									■						
SNMN120416S *SNMN434S*	1,6 *0.063*	12,7 *0.500*	4,76 *0.187*	90,0	–														■	
SNMN120416S-02020 *SNMN434S-00820*	1,6 *0.063*	12,7 *0.500*	4,76 *0.187*	90,0	–															■
SNMN120416S-02020P *SNMN434S-00820P*	1,6 *0.063*	12,7 *0.500*	4,76 *0.187*	90,0	–															■

SPGW



Tolerances:
L = ±0,025/*0.001*
S = ±0,13/*0.005*
RE = ±0,1/*0.004*

Tip sizes, see page(s) 136
Edge preparation, see page(s) 132

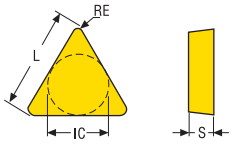
For ISO attribute explanation, see page 82

SPGW



Designation	RE	L	S	D1	EPSR°	AN°	Grades														
							Coated								Uncoated						
	mm *inch*	mm *inch*	mm *inch*	mm *inch*			CH0550	CH1050	CBN060K	CH2540	CH2581	CH3515	CBN300P	CK2065	CBN400C	CBN010	CBN150	CBN170	CBN200	CBN300	CBN500	CBN600
SPGW050302S-01020-LF *SPGW1.820.5S-00420-LF*	0,2 *0.008*	5,56 *0.219*	3,18 *0.125*	2,6 *0.102*	90,0	11,0													■			

TCGN



Tolerances:
IC = ±0,025/*0.001*
S = ±0,13/*0.005*
RE = ±0,1/*0.004*

Tip sizes, see page(s) 136
Edge preparation, see page(s) 132

For ISO attribute explanation, see page 82

TCGN



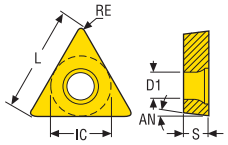
Designation	RE	IC	L	S	EPSR°	AN°	Grades														
							Coated								Uncoated						
	mm *inch*	mm *inch*	mm *inch*	mm *inch*			CH0550	CH1050	CBN060K	CH2540	CH2581	CH3515	CBN300P	CK2065	CBN400C	CBN010	CBN150	CBN170	CBN200	CBN300	CBN500	CBN600
TCGN060104E-LF *TCGN1.211E-LF*	0,4 *0.016*	3,96 *0.156*	5,5 *0.217*	1,59 *0.063*	60,0	7,0										■						

TCGW

Tip sizes, see page(s) 136
Edge preparation, see page(s) 132

For ISO attribute explanation, see page 82

Tolerances:
IC = ±0,025/*0.001*
S = ±0,13/*0.005*
RE = ±0,1/*0.004*



TCGW...-C

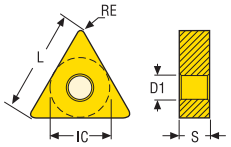


TCGW...-LF



Designation	RE	IC	L	S	D1	EPSR°	AN°	Grades															
								Coated									Uncoated						
	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*			CH0550	CH1050	CBN060K	CH2540	CH2581	CH3515	CBN300P	CK2065	CBN400C	CBN010	CBN150	CBN170	CBN200	CBN300	CBN500	CBN600
TCGW090204S-01020-LF *TCGW1.81.51S-00420-LF*	0,4 *0.016*	5,56 *0.219*	9,0 *0.354*	2,38 *0.094*	2,6 *0.102*	60,0	7,0										■			■			
TCGW110204E-L1-C *TCGW21.51E-L1-C*	0,4 *0.016*	6,35 *0.250*	11,0 *0.433*	2,38 *0.094*	2,9 *0.114*	60,0	7,0			■							■						
TCGW110204S-01020-L1-C *TCGW21.51S-00420-L1-C*	0,4 *0.016*	6,35 *0.250*	11,0 *0.433*	2,38 *0.094*	2,9 *0.114*	60,0	7,0										■						
TCGW110204S-01020-LF *TCGW21.51S-00420-LF*	0,4 *0.016*	6,35 *0.250*	11,0 *0.433*	2,38 *0.094*	2,9 *0.114*	60,0	7,0													■			
TCGW110204S-01525-L1-C *TCGW21.51S-00625-L1-C*	0,4 *0.016*	6,35 *0.250*	11,0 *0.433*	2,38 *0.094*	2,9 *0.114*	60,0	7,0			■													
TCGW110204S-02020-L1-C *TCGW21.51S-00820-L1-C*	0,4 *0.016*	6,35 *0.250*	11,0 *0.433*	2,38 *0.094*	2,9 *0.114*	60,0	7,0													■			
TCGW110208E-L1-C *TCGW21.52E-L1-C*	0,8 *0.031*	6,35 *0.250*	11,0 *0.433*	2,38 *0.094*	2,9 *0.114*	60,0	7,0										■						
TCGW110208S-01020-L1-C *TCGW21.52S-00420-L1-C*	0,8 *0.031*	6,35 *0.250*	11,0 *0.433*	2,38 *0.094*	2,9 *0.114*	60,0	7,0										■						
TCGW110208S-01020-LF *TCGW21.52S-00420-LF*	0,8 *0.031*	6,35 *0.250*	11,0 *0.433*	2,38 *0.094*	2,9 *0.114*	60,0	7,0													■			
TCGW110208S-01525-L1-C *TCGW21.52S-00625-L1-C*	0,8 *0.031*	6,35 *0.250*	11,0 *0.433*	2,38 *0.094*	2,9 *0.114*	60,0	7,0			■	■	■											
TCGW110208S-02020-L1-C *TCGW21.52S-00820-L1-C*	0,8 *0.031*	6,35 *0.250*	11,0 *0.433*	2,38 *0.094*	2,9 *0.114*	60,0	7,0													■			

TNGA



Tolerances:
IC = ±0,025/*0.001*
S = ±0,13/*0.005*
RE = ±0,1/*0.004*

Tip sizes, see page(s) 136
Edge preparation, see page(s) 132

For ISO attribute explanation, see page 82

TNGA...-C



TNGA...-V



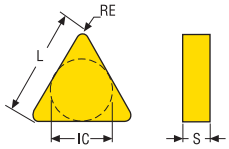
Designation	RE	IC	L	S	D1	EPSR°	AN°	Grades															
								Coated									Uncoated						
	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*			CH0550	CH1050	CBN060K	CH2540	CH2581	CH3515	CBN300P	CK2065	CBN400C	CBN010	CBN150	CBN170	CBN200	CBN300	CBN500	CBN600
TNGA160404S-01020-L1-C *TNGA331S-00420-L1-C*	0,4 *0.016*	9,525 *0.375*	16,5 *0.650*	4,76 *0.187*	3,81 *0.150*	60,0	–										■						
TNGA160408S-01020-L1-C *TNGA332S-00420-L1-C*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	4,76 *0.187*	3,81 *0.150*	60,0	–										■						
TNGA160408S-01525-L1-C *TNGA332S-00625-L1-C*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	4,76 *0.187*	3,81 *0.150*	60,0	–				■	■						■					
TNGA160408S-01525-L1-V *TNGA332S-00625-L1-V*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	4,76 *0.187*	3,81 *0.150*	60,0	–			■													
TNGA160408S-02020-L1-C *TNGA332S-00820-L1-C*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	4,76 *0.187*	3,81 *0.150*	60,0	–													■			
TNGA160416S-00540-L1-C *TNGA334S-00240-L1-C*	1,6 *0.063*	9,525 *0.375*	16,5 *0.650*	4,76 *0.187*	3,81 *0.150*	60,0	–						■										
TNGA160420S-00540-L1-C *TNGA335S-00240-L1-C*	2,0 *0.079*	9,525 *0.375*	16,5 *0.650*	4,76 *0.187*	3,81 *0.150*	60,0	–						■										

TNGN-LF

Tip sizes, see page(s) 136
Edge preparation, see page(s) 132

For ISO attribute explanation, see page 82

Tolerances:
IC = ±0,025/*0.001*
S = ±0,13/*0.005*
RE = ±0,1/*0.004*



TNGN



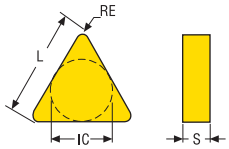
Designation	RE	IC	L	S	EPSR°	AN°	Grades														
							Coated									Uncoated					
	mm *inch*	mm *inch*	mm *inch*	mm *inch*			CH0550	CH1050	CBN060K	CH2540	CH2581	CH3515	CBN300P	CK2065	CBN400C	CBN010	CBN150	CBN170	CBN200	CBN300	CBN500	CBN600
TNGN110312S-01525-LF *TNGN110312S-01525-LF*	1,2 *0.047*	6,35 *0.250*	11,0 *0.433*	3,18 *0.125*	60,0	–						■									
TNGN110312S-02020-LF *TNGN223S-00820-LF*	1,2 *0.047*	6,35 *0.250*	11,0 *0.433*	3,18 *0.125*	60,0	–						■							■		

TNGN

Tip sizes, see page(s) 136
Edge preparation, see page(s) 132

For ISO attribute explanation, see page 82

Tolerances:
IC = ±0,025/*0.001*
S = ±0,13/*0.005*
RE = ±0,1/*0.004*

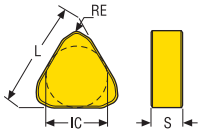


TNGN



Designation	RE	IC	L	S	EPSR°	AN°	Grades														
							Coated									Uncoated					
	mm *inch*	mm *inch*	mm *inch*	mm *inch*			CH0550	CH1050	CBN060K	CH2540	CH2581	CH3515	CBN300P	CK2065	CBN400C	CBN010	CBN150	CBN170	CBN200	CBN300	CBN500	CBN600
TNGN110304S-01020 *TNGN221S-00420*	0,4 *0.016*	6,35 *0.250*	11,0 *0.433*	3,18 *0.125*	60,0	–										■					
TNGN110304S-01525 *TNGN221S-00625*	0,4 *0.016*	6,35 *0.250*	11,0 *0.433*	3,18 *0.125*	60,0	–			■												
TNGN110308E25 *TNGN222E25*	0,8 *0.031*	6,35 *0.250*	11,0 *0.433*	3,18 *0.125*	60,0	–												■			
TNGN110308S-01020 *TNGN222S-00420*	0,8 *0.031*	6,35 *0.250*	11,0 *0.433*	3,18 *0.125*	60,0	–										■					
TNGN110308S-01525 *TNGN222S-00625*	0,8 *0.031*	6,35 *0.250*	11,0 *0.433*	3,18 *0.125*	60,0	–	■		■	■	■						■				
TNGN110312S-01020 *TNGN223S-00420*	1,2 *0.047*	6,35 *0.250*	11,0 *0.433*	3,18 *0.125*	60,0	–										■					
TNGN110312S-01525 *TNGN223S-00625*	1,2 *0.047*	6,35 *0.250*	11,0 *0.433*	3,18 *0.125*	60,0	–	■		■	■							■				
TNGN160304S-01020 *TNGN321S-00420*	0,4 *0.016*	9,525 *0.375*	16,5 *0.650*	3,18 *0.125*	60,0	–										■					

TNGX



Tolerances:
IC = ±0,025/*0.001*
S = ±0,13/*0.005*
RE = ±0,1/*0.004*

Tip sizes, see page(s) 136
Edge preparation, see page(s) 132

For ISO attribute explanation, see page 82

TNGX-...R/L-WZ Crossbill™

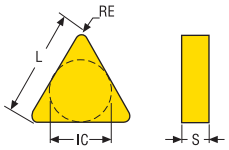


TNGX...-WZ



Designation	RE	IC	L	S	EPSR°	AN°	Grades														
							Coated									Uncoated					
	mm *inch*	mm *inch*	mm *inch*	mm *inch*			CH0550	CH1050	CBN060K	CH2540	CH2581	CH3515	CBN300P	CK2065	CBN400C	CBN010	CBN150	CBN170	CBN200	CBN300	CBN500	CBN600
TNGX110308S-01020-L-WZ *TNGX222S-00420-L-WZ*	0,8 *0.031*	6,35 *0.250*	11,0 *0.433*	3,18 *0.125*	60,0	0,0										■					
TNGX110308S-01020-R-WZ *TNGX222S-00420-R-WZ*	0,8 *0.031*	6,35 *0.250*	11,0 *0.433*	3,18 *0.125*	60,0	0,0										■					
TNGX110308S-01020-WZ *TNGX222S-00420-WZ*	0,8 *0.031*	6,35 *0.250*	11,0 *0.433*	3,18 *0.125*	60,0	0,0										■					
TNGX110308S-01525-WZ *TNGX222S-00625-WZ*	0,8 *0.031*	6,35 *0.250*	11,0 *0.433*	3,18 *0.125*	60,0	0,0		■	■								■					

TNMN



Tolerances:
IC = ±0,05/*0.002*
S = ±0,13/*0.005*
RE = ±0,1/*0.004*

Tip sizes, see page(s) 136
Edge preparation, see page(s) 132

For ISO attribute explanation, see page 82

TNMN



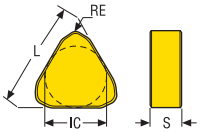
Designation	RE	IC	L	S	EPSR°	AN°	Grades														
							Coated									Uncoated					
	mm *inch*	mm *inch*	mm *inch*	mm *inch*			CH0550	CH1050	CBN060K	CH2540	CH2581	CH3515	CBN300P	CK2065	CBN400C	CBN010	CBN150	CBN170	CBN200	CBN300	CBN500	CBN600
TNMN110304S *TNMN221S*	0,4 *0.016*	6,35 *0.250*	11,0 *0.433*	3,18 *0.125*	60,0	–														■	
TNMN110308S *TNMN222S*	0,8 *0.031*	6,35 *0.250*	11,0 *0.433*	3,18 *0.125*	60,0	–							■							■	
TNMN110312E *TNMN223E*	1,2 *0.047*	6,35 *0.250*	11,0 *0.433*	3,18 *0.125*	60,0	–														■	
TNMN110312S *TNMN223S*	1,2 *0.047*	6,35 *0.250*	11,0 *0.433*	3,18 *0.125*	60,0	–														■	
TNMN160412S *TNMN333S*	1,2 *0.047*	9,525 *0.375*	16,5 *0.650*	4,76 *0.187*	60,0	–														■	

TNMX

Tip sizes, see page(s) 136
Edge preparation, see page(s) 132

For ISO attribute explanation, see page 82

Tolerances:
IC = ±0,05/*0.002*
S = ±0,13/*0.005*
RE = ±0,1/*0.004*



TNMX



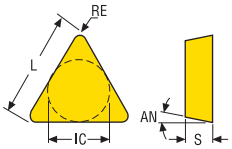
Designation	RE	IC	L	S	EPSR°	AN°	Grades														
							Coated									Uncoated					
	mm *inch*	mm *inch*	mm *inch*	mm *inch*			CH0550	CH1050	CBN060K	CH2540	CH2581	CH3515	CBN300P	CK2065	CBN400C	CBN010	CBN150	CBN170	CBN200	CBN300	CBN500	CBN600
TNMX110308S-WZ *TNMX222S-WZ*	0,8 *0.031*	6,35 *0.250*	11,0 *0.433*	3,18 *0.125*	60,0	0,0														■	

TPGN

Tip sizes, see page(s) 136
Edge preparation, see page(s) 132

For ISO attribute explanation, see page 82

Tolerances:
IC = ±0,025/*0.001*
S = ±0,13/*0.005*
RE = ±0,1/*0.004*

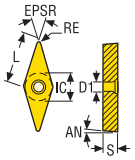


TPGN



Designation	RE	IC	L	S	EPSR°	AN°	Grades														
							Coated									Uncoated					
	mm *inch*	mm *inch*	mm *inch*	mm *inch*			CH0550	CH1050	CBN060K	CH2540	CH2581	CH3515	CBN300P	CK2065	CBN400C	CBN010	CBN150	CBN170	CBN200	CBN300	CBN500	CBN600
TPGN110308S-01020 *TPGN222S-00420*	0,8 *0.031*	6,35 *0.250*	11,0 *0.433*	3,18 *0.125*	60,0	11,0										■						

VBGW



Tolerances:
IC = ±0,025/*0.001*
S = ±0,13/*0.005*
RE = ±0,1/*0.004*

Tip sizes, see page(s) 136
Edge preparation, see page(s) 132

For ISO attribute explanation, see page 82

VBGW



VBGW...-B



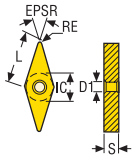
Designation	RE	IC	L	S	D1	EPSR°	AN°	Grades															
								Coated									Uncoated						
	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*			CH0550	CH1050	CBN060K	CH2540	CH2581	CH3515	CBN300P	CK2065	CBN400C	CBN010	CBN150	CBN170	CBN200	CBN300	CBN500	CBN600
VBGW160402S-01020-L1-B *VBGW330.5S-00420-L1-B*	0,2 *0.008*	9,525 *0.375*	16,0 *0.630*	4,76 *0.187*	4,5 *0.177*	35,0	5,0										■						
VBGW160402S-01525-L1-B *VBGW330.5S-00625-L1-B*	0,2 *0.008*	9,525 *0.375*	16,0 *0.630*	4,76 *0.187*	4,5 *0.177*	35,0	5,0				■												
VBGW160404S-01020-L1-B *VBGW331S-00420-L1-B*	0,4 *0.016*	9,525 *0.375*	16,0 *0.630*	4,76 *0.187*	4,5 *0.177*	35,0	5,0										■						
VBGW160404S-01525-L1-B *VBGW331S-00625-L1-B*	0,4 *0.016*	9,525 *0.375*	16,0 *0.630*	4,76 *0.187*	4,5 *0.177*	35,0	5,0	■		■	■							■					
VBGW160404S-02020-L2 *VBGW331S-00820-L2*	0,4 *0.016*	9,525 *0.375*	16,0 *0.630*	4,76 *0.187*	4,5 *0.177*	35,0	5,0										■						
VBGW160408E-L1-B *VBGW332E-L1-B*	0,8 *0.031*	9,525 *0.375*	16,0 *0.630*	4,76 *0.187*	4,5 *0.177*	35,0	5,0			■													
VBGW160408S-01020-L1-B *VBGW332S-00420-L1-B*	0,8 *0.031*	9,525 *0.375*	16,0 *0.630*	4,76 *0.187*	4,5 *0.177*	35,0	5,0										■						
VBGW160408S-01525-L1-B *VBGW332S-00625-L1-B*	0,8 *0.031*	9,525 *0.375*	16,0 *0.630*	4,76 *0.187*	4,5 *0.177*	35,0	5,0			■	■	■						■					

VNGA

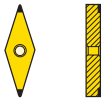
Tip sizes, see page(s) 136
Edge preparation, see page(s) 132

For ISO attribute explanation, see page 82

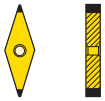
Tolerances:
IC = ±0,025/*0.001*
S = ±0,13/*0.005*
RE = ±0,1/*0.004*



VNGA...-B



VNGA...-U



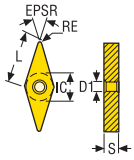
Designation	RE	IC	L	S	D1	EPSR°	AN°	Grades: Coated								Uncoated						
	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*			CH0550	CH1050	CBN060K	CH2540	CH2581	CH3515	CBN300P	CK2065	CBN400C	CBN010	CBN150	CBN170	CBN200	CBN300	CBN500	CBN600
VNGA160402S-01020-L1-B *VNGA330.5S-00420-L1-B*	0,2 *0.008*	9,525 *0.375*	16,0 *0.630*	4,76 *0.187*	3,81 *0.150*	35,0	–										■						
VNGA160402S-01525-L1-B *VNGA330.5S-00625-L1-B*	0,2 *0.008*	9,525 *0.375*	16,0 *0.630*	4,76 *0.187*	3,81 *0.150*	35,0	–				■												
VNGA160404S-01020-L1-B *VNGA331S-00420-L1-B*	0,4 *0.016*	9,525 *0.375*	16,0 *0.630*	4,76 *0.187*	3,81 *0.150*	35,0	–										■						
VNGA160404S-01525-L1-B *VNGA331S-00625-L1-B*	0,4 *0.016*	9,525 *0.375*	16,0 *0.630*	4,76 *0.187*	3,81 *0.150*	35,0	–				■												
VNGA160404S-01525-L1-U *VNGA331S-00625-L1-U*	0,4 *0.016*	9,525 *0.375*	16,0 *0.630*	4,76 *0.187*	3,81 *0.150*	35,0	–			■													
VNGA160404S-02020-L1-B *VNGA331S-00820-L1-B*	0,4 *0.016*	9,525 *0.375*	16,0 *0.630*	4,76 *0.187*	3,81 *0.150*	35,0	–													■			
VNGA160408S-01020-L1-B *VNGA332S-00420-L1-B*	0,8 *0.031*	9,525 *0.375*	16,0 *0.630*	4,76 *0.187*	3,81 *0.150*	35,0	–										■						
VNGA160408S-01525-L1-B *VNGA332S-00625-L1-B*	0,8 *0.031*	9,525 *0.375*	16,0 *0.630*	4,76 *0.187*	3,81 *0.150*	35,0	–				■	■						■					
VNGA160408S-01525-L1-U *VNGA332S-00625-L1-U*	0,8 *0.031*	9,525 *0.375*	16,0 *0.630*	4,76 *0.187*	3,81 *0.150*	35,0	–			■													
VNGA160408S-02020-L1-B *VNGA332S-00820-L1-B*	0,8 *0.031*	9,525 *0.375*	16,0 *0.630*	4,76 *0.187*	3,81 *0.150*	35,0	–						■								■		

VNMA

Tip sizes, see page(s) 136
Edge preparation, see page(s) 132

For ISO attribute explanation, see page 82

Tolerances:
IC = ±0,05/*0.002*
S = ±0,13/*0.005*
RE = ±0,1/*0.004*

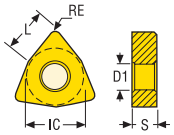


VNMA



Designation	RE	IC	L	S	D1	EPSR°	AN°	Grades: Coated								Uncoated						
	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*			CH0550	CH1050	CBN060K	CH2540	CH2581	CH3515	CBN300P	CK2065	CBN400C	CBN010	CBN150	CBN170	CBN200	CBN300	CBN500	CBN600
VNMA160416S *VNMA334S*	1,6 *0.063*	9,525 *0.375*	16,0 *0.630*	4,76 *0.187*	3,81 *0.150*	35,0	–														■		

WNGA



Tolerances:
IC = ±0,025/*0.001*
S = ±0,13/*0.005*
RE = ±0,1/*0.004*

Tip sizes, see page(s) 136
Edge preparation, see page(s) 132

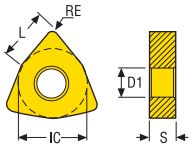
For ISO attribute explanation, see page 82

WNGA..-C **WNGA..-V**



Designation	RE	IC	L	S	D1	EPSR°	AN°	Grades														
								Coated									Uncoated					
	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*			CH0550	CH1050	CBN060K	CH2540	CH2581	CH3515	CBN300P	CK2065	CBN400C	CBN010	CBN150	CBN170	CBN200	CBN300	CBN500	CBN600
WNGA060408S-02020-L1-C *WNGA332S-00820-L1-C*	0,8 *0.031*	9,525 *0.375*	6,6 *0.260*	4,76 *0.187*	3,81 *0.150*	80,0	–													■		
WNGA080408S-01020-L1-C *WNGA432S-00420-L1-C*	0,8 *0.031*	12,7 *0.500*	8,7 *0.343*	4,76 *0.187*	5,15 *0.203*	80,0	–										■					
WNGA080408S-01020-L1WZC *WNGA432S-00420-L1-WZ-C*	0,8 *0.031*	12,7 *0.500*	8,7 *0.343*	4,76 *0.187*	5,15 *0.203*	80,0	0,0										■					
WNGA080408S-01525-L1-C *WNGA432S-00625-L1-C*	0,8 *0.031*	12,7 *0.500*	8,7 *0.343*	4,76 *0.187*	5,15 *0.203*	80,0	–				■											
WNGA080408S-01525-L1-V *WNGA432S-00625-L1-V*	0,8 *0.031*	12,7 *0.500*	8,7 *0.343*	4,76 *0.187*	5,15 *0.203*	80,0	–			■												
WNGA080408S-01525L1WZC *WNGA432S-00625-L1-WZ-C*	0,8 *0.031*	12,7 *0.500*	8,7 *0.343*	4,76 *0.187*	5,15 *0.203*	80,0	0,0				■											
WNGA080412S-01525L1WZV *WNGA433S-00625-L1-WZ-V*	1,2 *0.047*	12,7 *0.500*	8,7 *0.343*	4,76 *0.187*	5,15 *0.203*	80,0	0,0			■												

WNMA



Tolerances:
IC = ±0,08/*0.003*
S = ±0,13/*0.005*
RE = ±0,1/*0.004*

Tip sizes, see page(s) 136
Edge preparation, see page(s) 132

For ISO attribute explanation, see page 82

WNMA



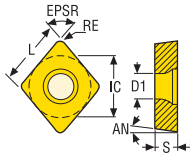
Designation	RE	IC	L	S	D1	EPSR°	AN°	Grades														
								Coated									Uncoated					
	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*			CH0550	CH1050	CBN060K	CH2540	CH2581	CH3515	CBN300P	CK2065	CBN400C	CBN010	CBN150	CBN170	CBN200	CBN300	CBN500	CBN600
WNMA060408S *WNMA332S*	0,8 *0.031*	9,52 *0.375*	6,6 *0.260*	4,76 *0.187*	3,81 *0.150*	80,0	–														■		

CCGT

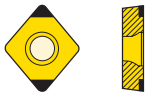
Tip sizes, see page(s) 136
Edge preparation, see page(s) 132

For ISO attribute explanation, see page 82

Tolerances:
IC = ±0,025/*0.001*
S = ±0,13/*0.005*
RE = ±0,1/*0.004*



CCGT...-B



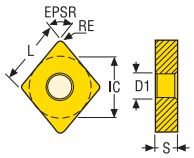
Designation	RE	IC	L	S	D1	EPSR°	AN°	Grades														
								Coated								Uncoated						
	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*			CH0550	CH1050	CBN060K	CH2540	CH2581	CH3515	CBN300P	CK2065	CBN400C	CBN010	CBN150	CBN170	CBN200	CBN300	CBN500	CBN600
CCGT09T304S-01525-L1-B *CCGT32.51S-00625-L1-B*	0,4 *0.016*	9,525 *0.375*	9,7 *0.382*	3,97 *0.156*	4,5 *0.177*	80,0	7,0			■												
CCGT09T304S-01525L1WZB *CCGT32.51S-00625-L1-WZ-B*	0,4 *0.016*	9,525 *0.375*	9,7 *0.382*	3,97 *0.156*	4,5 *0.177*	80,0	7,0			■												

CNGM

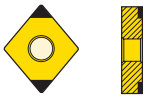
Tip sizes, see page(s) 136
Edge preparation, see page(s) 132

For ISO attribute explanation, see page 82

Tolerances:
IC = ±0,025/*0.001*
S = ±0,13/*0.005*
RE = ±0,1/*0.004*

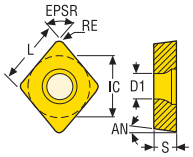


CNGM...-B



Designation	RE	IC	L	S	D1	EPSR°	AN°	Grades														
								Coated								Uncoated						
	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*			CH0550	CH1050	CBN060K	CH2540	CH2581	CH3515	CBN300P	CK2065	CBN400C	CBN010	CBN150	CBN170	CBN200	CBN300	CBN500	CBN600
CNGM120408S-01525-L1-B *CNGM432S-00625-L1-B*	0,8 *0.031*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,15 *0.203*	80,0	0,0			■												
CNGM120408S-01525L1WZB *CNGM432S-00625-L1-WZ-B*	0,8 *0.031*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,15 *0.203*	80,0	0,0			■												

CCMW



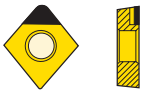
Tolerances:
IC = ±0,05/*0.002*
IC = ±0,08/*0.003*
S = ±0,13/*0.005*
RE = ±0,05/*0.002*

Size:
06-09/*2-3*
12/*4*

Tip sizes, see page(s) 136
Edge preparation, see page(s) 132

For ISO attribute explanation, see page 82

CCMW



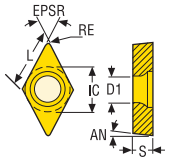
Designation	RE	IC	L	S	D1	EPSR°	AN°	Grades Uncoated		
	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*			PCD20	PCD30	PCD30M
CCMW060202F-L1 *CCMW21.50.5F-L1*	0,2 *0.008*	6,35 *0.250*	6,5 *0.256*	2,38 *0.094*	2,9 *0.114*	80,0	7,0	■		
CCMW060204F-L1 *CCMW21.51F-L1*	0,4 *0.016*	6,35 *0.250*	6,5 *0.256*	2,38 *0.094*	2,9 *0.114*	80,0	7,0	■	■	
CCMW060208F-L1 *CCMW21.52F-L1*	0,8 *0.031*	6,35 *0.250*	6,5 *0.256*	2,38 *0.094*	2,9 *0.114*	80,0	7,0	■		
CCMW060208F-L1-WZ *CCMW21.52F-L1-WZ*	0,8 *0.031*	6,35 *0.250*	6,5 *0.256*	2,38 *0.094*	2,9 *0.114*	80,0	7,0	■		
CCMW09T302F-L1 *CCMW32.50.5F-L1*	0,2 *0.008*	9,52 *0.375*	9,7 *0.382*	3,97 *0.156*	4,5 *0.177*	80,0	7,0	■		
CCMW09T304F-L1 *CCMW32.51F-L1*	0,4 *0.016*	9,52 *0.375*	9,7 *0.382*	3,97 *0.156*	4,5 *0.177*	80,0	7,0	■		
CCMW09T308F-L1 *CCMW32.52F-L1*	0,8 *0.031*	9,52 *0.375*	9,7 *0.382*	3,97 *0.156*	4,5 *0.177*	80,0	7,0	■		
CCMW120404F-L1 *CCMW431F-L1*	0,4 *0.016*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,6 *0.220*	80,0	7,0	■		
CCMW120408F-L1 *CCMW432F-L1*	0,8 *0.031*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	5,6 *0.220*	80,0	7,0	■		

DCMW

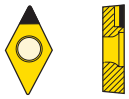
Tip sizes, see page(s) 136
Edge preparation, see page(s) 132

For ISO attribute explanation, see page 82

Tolerances:
IC = ±0,05/*0.002*
S = ±0,13/*0.005*
RE = ±0,05/*0.002*



DCMW



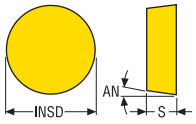
Designation	RE	IC	L	S	D1	EPSR°	AN°	Grades Uncoated		
	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*			PCD20	PCD30	PCD30M
DCMW070202F-L1 *DCMW21.50.5F-L1*	0,2 *0.008*	6,35 *0.250*	7,8 *0.307*	2,38 *0.094*	2,9 *0.114*	55,0	7,0	■		
DCMW070204F-L1 *DCMW21.51F-L1*	0,4 *0.016*	6,35 *0.250*	7,8 *0.307*	2,38 *0.094*	2,9 *0.114*	55,0	7,0	■		
DCMW11T302F-L1 *DCMW32.50.5F-L1*	0,2 *0.008*	9,52 *0.375*	11,6 *0.457*	3,97 *0.156*	4,5 *0.177*	55,0	7,0	■		
DCMW11T304F-L1 *DCMW32.51F-L1*	0,4 *0.016*	9,52 *0.375*	11,6 *0.457*	3,97 *0.156*	4,5 *0.177*	55,0	7,0	■		

RCGN

Tip sizes, see page(s) 136
Edge preparation, see page(s) 132

For ISO attribute explanation, see page 82

Tolerances:
INSD = ±0,025/*0.001*
S = ±0,13/*0.005*

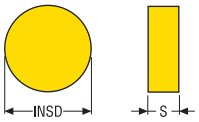


RCGN



Designation	INSD	S	EPSR°	AN°	Grades Uncoated		
	mm *inch*	mm *inch*			PCD20	PCD30	PCD30M
RCGN090300F-LF *RCGN32F-LF*	9,52 *0.375*	3,18 *0.125*	–	7,0	■		

RNGN



Tolerances:
INSD = ±0,025/*0.001*
S = ±0,13/*0.005*

Tip sizes, see page(s) 136
Edge preparation, see page(s) 132

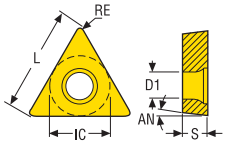
For ISO attribute explanation, see page 82

RNGN



Designation	INSD	S	EPSR°	AN°	Grades Uncoated		
	mm *inch*	mm *inch*			PCD20	PCD30	PCD30M
RNGN060300F-LF *RNGN22F-LF*	6,35 *0.250*	3,18 *0.125*	–	–			■
RNGN090300F-LF *RNGN32F-LF*	9,52 *0.375*	3,18 *0.125*	–	–	■	■	
RNGN120300F-LF *RNGN42F-LF*	12,7 *0.500*	3,18 *0.125*	–	–	■		

TCMW



Tolerances:
IC = ±0,05/*0.002*
S = ±0,13/*0.005*
RE = ±0,05/*0.002*

Tip sizes, see page(s) 136
Edge preparation, see page(s) 132

For ISO attribute explanation, see page 82

TCMW



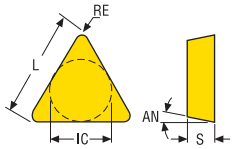
Designation	RE	IC	L	S	D1	EPSR°	AN°	Grades Uncoated		
	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*			PCD20	PCD30	PCD30M
TCMW110204F-L1 *TCMW21.51F-L1*	0,4 *0.016*	6,35 *0.250*	11,0 *0.433*	2,38 *0.094*	2,9 *0.114*	60,0	7,0	■		
TCMW16T304F-L1 *TCMW32.51F-L1*	0,4 *0.016*	9,52 *0.375*	16,5 *0.650*	3,97 *0.156*	4,5 *0.177*	60,0	7,0	■		

TPGN

Tip sizes, see page(s) 136
Edge preparation, see page(s) 132

For ISO attribute explanation, see page 82

Tolerances:
IC = ±0,025/*0.001*
S = ±0,13/*0.005*
RE = ±0,05/*0.002*



TPGN



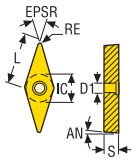
Designation	RE	IC	L	S	EPSR°	AN°	Grades Uncoated		
	mm *inch*	mm *inch*	mm *inch*	mm *inch*			PCD20	PCD30	PCD30M
TPGN160302F-L1 *TPGN320.5F-L1*	0,2 *0.008*	9,525 *0.375*	16,5 *0.650*	3,18 *0.125*	60,0	11,0	■		
TPGN160304F-L1 *TPGN321F-L1*	0,4 *0.016*	9,525 *0.375*	16,5 *0.650*	3,18 *0.125*	60,0	11,0	■		
TPGN160308F-L1 *TPGN322F-L1*	0,8 *0.031*	9,525 *0.375*	16,5 *0.650*	3,18 *0.125*	60,0	11,0	■		

VBMW

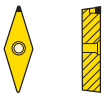
Tip sizes, see page(s) 136
Edge preparation, see page(s) 132

For ISO attribute explanation, see page 82

Tolerances:
IC = ±0,05/*0.002*
S = ±0,13/*0.005*
RE = ±0,05/*0.002*

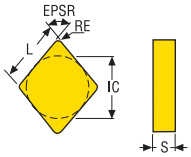


VBMW



Designation	RE	IC	L	S	D1	EPSR°	AN°	Grades Uncoated		
	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*			PCD20	PCD30	PCD30M
VBMW160402F-L1 *VBMW330.5F-L1*	0,2 *0.008*	9,52 *0.375*	16,0 *0.630*	4,76 *0.187*	4,5 *0.177*	35,0	5,0	■		
VBMW160404F-L1 *VBMW331F-L1*	0,4 *0.016*	9,52 *0.375*	16,0 *0.630*	4,76 *0.187*	4,5 *0.177*	35,0	5,0	■		

CNGN



Tolerances:
IC = ±0,025/*0.001*
S = ±0,13/*0.005*
RE = ±0,1/*0.004*

Edge preparation, see page(s) 132

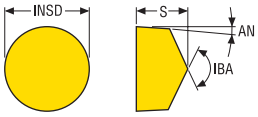
For ISO attribute explanation, see page 82

CNGN



Designation	RE	IC	L	S	EPSR°	AN°	Grades Uncoated		
	mm *inch*	mm *inch*	mm *inch*	mm *inch*			CS100	CS300	CW100
CNGN120408S-01020 *CNGN432S-00420*	0,8 *0.031*	12,7 *0.500*	12,9 *0.508*	4,76 *0.187*	80,0	–	■		
CNGN120708S-01020 *CNGN452S-00420*	0,8 *0.031*	12,7 *0.500*	12,9 *0.508*	7,94 *0.313*	80,0	–	■		
CNGN120712S-01020 *CNGN453S-00420*	1,2 *0.047*	12,7 *0.500*	12,9 *0.508*	7,94 *0.313*	80,0	–	■		

RCGX



Tolerances:
INSD = ±0,025/*0.001*
S = ±0,13/*0.005*

Edge preparation, see page(s) 132

For ISO attribute explanation, see page 82

RCGX



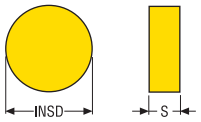
Designation	INSD	S	EPSR°	AN°	Grades Uncoated		
	mm *inch*	mm *inch*			CS100	CS300	CW100
RCGX060600E *RCGX240E*	6,35 *0.250*	6,35 *0.250*	–	–			■
RCGX060600T-01020 *RCGX24T-00420*	6,35 *0.250*	6,35 *0.250*	–	7,0	■		■
RCGX090700E *RCGX350E*	9,525 *0.375*	7,94 *0.313*	–	–			■
RCGX090700T-01020 *RCGX35T-00420*	9,525 *0.375*	7,94 *0.313*	–	7,0	■		■
RCGX120700E *RCGX450E*	12,7 *0.500*	7,94 *0.313*	–	–			■
RCGX120700S-01020 *RCGX45S-00420*	12,7 *0.500*	7,94 *0.313*	–	7,0	■		
RCGX120700T-01020 *RCGX450T-00420*	12,7 *0.500*	7,94 *0.313*	–	7,0	■		■

RNGN

Edge preparation, see page(s) 132

For ISO attribute explanation, see page 82

Tolerances:
INSD = ±0,025/*0.001*
S = ±0,13/*0.005*



RNGN



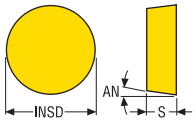
Designation	INSD	S	EPSR°	AN°	Grades Uncoated		
	mm *inch*	mm *inch*			CS100	CS300	CW100
RNGN120400S-01020 *RNGN43S-00420*	12,7 *0.500*	4,76 *0.187*	–	–	■		
RNGN120400T-01020 *RNGN43T-00420*	12,7 *0.500*	4,76 *0.187*	–	–	■	■	
RNGN120700E *RNGN450E*	12,7 *0.500*	7,94 *0.313*	–	–			■
RNGN120700S-01020 *RNGN45S-00420*	12,7 *0.500*	7,94 *0.313*	–	–	■		
RNGN120700T-01020 *RNGN45T-00420*	12,7 *0.500*	7,94 *0.313*	–	–	■	■	■

RPGN

Edge preparation, see page(s) 132

For ISO attribute explanation, see page 82

Tolerances:
INSD = ±0,025/*0.001*
S = ±0,13/*0.005*

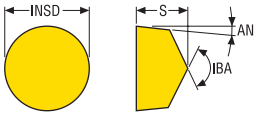


RPGN



Designation	INSD	S	EPSR°	AN°	Grades Uncoated		
	mm *inch*	mm *inch*			CS100	CS300	CW100
RPGN120400T-01020 *RPGN43T-00420*	12,7 *0.500*	4,76 *0.187*	–	–		■	

RPGX



Tolerances:
INSD = ±0,025/*0.001*
S = ±0,13/*0.005*

Edge preparation, see page(s) 132

For ISO attribute explanation, see page 82

RPGX



Designation	INSD	S	EPSR°	AN°	Grades Uncoated		
	mm *inch*	mm *inch*			CS100	CS300	CW100
RPGX090700T-01020 *RPGX35T-00420*	9,525 *0.375*	7,94 *0.313*	–	11,0	■		
RPGX120700S-01020 *RPGX45S-00420*	12,7 *0.500*	7,94 *0.313*	–	11,0	■		
RPGX120700T-01020 *RPGX45T-00420*	12,7 *0.500*	7,94 *0.313*	–	11,0	■		



Vibration-damping solutions

Steadyline®

Steadyline® is a modular anti-vibration tooling system consisting of dampened bars, providing an easily exchangeable head with the accurate and reliable GL interface. To add applicability, the bars are highly capable both for problem-free long-overhang internal turning as well as rotating boring applications.

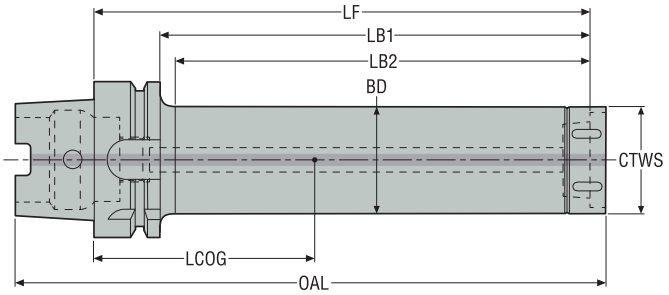
- Body diameters ∅25, ∅32, ∅40, ∅50, ∅60, ∅80, ∅100, ∅120, ∅150, ∅200 mm, ∅1.0”, ∅1.25”, ∅1.5”, ∅2.0”, ∅2.5”, ∅3.0” & ∅4.0”.
- Lengths 6XD, 8xD and 10xD.
- Seco-Capto™ C4, C5, C6, C8 connections, HSK-T/A 63, HSK-T/A 100.
- Cylindrical shanks-Both in Metric & Inch Sizes.

Modular GL-heads

Modular GL-heads for Steadyline® anti-vibration tooling are easily exchangeable toolholder heads with the accurate and reliable GL interface. GL turning heads are offered for problem-free long-overhang internal turning accommodating a comprehensive range of insert types, shapes and sizes for respective bar diameters.

GL – Steadyline®, HSK-T/A GL holders, body diameters 25, 32, 40 and 50 mm / *0.984, 1.260, 1.575 and 1.969 inch* – Metric / *Inch*

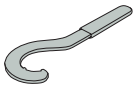




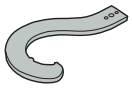
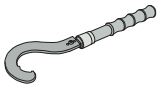
- With dynamic damping, ready to use
- For GL heads program, see page(s) 643-679
- With through coolant
- * Max. RPM only when used in rotating boring
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS HSK-T/A	CTWS GL size	BD	LF	LB1	LB2	OAL	LCOG	Max. RPM*	RFID hole	Balancing	Weight
				mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*				kg *lbs*
HSKTA63-GL25-130-K	03214283	HSK-T/A63	GL25	25,0 *0.984*	130,0 *5.118*	104,0 *4.094*	101,0 *3.976*	166,5 *6.555*	37,0 *1.457*	0	1	PB	1,4 *3.090*
HSKTA63-GL25-180-K	03214284	HSK-T/A63	GL25	25,0 *0.984*	180,0 *7.087*	154,0 *6.063*	151,0 *5.945*	216,5 *8.524*	57,7 *2.272*	0	1	PB	1,5 *3.310*
HSKTA63-GL25-230-K	03214285	HSK-T/A63	GL25	25,0 *0.984*	230,0 *9.055*	204,0 *8.031*	201,0 *7.913*	266,5 *10.492*	80,3 *3.161*	0	1	PB	1,5 *3.310*
E9374-D32-160-GL32	03029521	HSK-T/A63	GL32	32,0 *1.260*	160,0 *6.299*	134,0 *5.276*	128,0 *5.039*	197,4 *7.772*	58,92 *2.320*	0	1	PB	1,6 *3.530*
E9374-D32-224-GL32	03029522	HSK-T/A63	GL32	32,0 *1.260*	224,0 *8.819*	198,0 *7.795*	192,0 *7.559*	261,4 *10.291*	90,22 *3.552*	0	1	PB	2,0 *4.410*
E9374-D40-208-GL40	03029523	HSK-T/A63	GL40	40,0 *1.575*	208,0 *8.189*	182,0 *7.165*	176,0 *6.929*	246,4 *9.701*	92,78 *3.653*	0	1	PB	2,7 *5.950*
E9374-D40-288-GL40	03029524	HSK-T/A63	GL40	40,0 *1.575*	288,0 *11.339*	262,0 *10.315*	256,0 *10.079*	326,4 *12.850*	134,37 *5.290*	0	1	PB	3,5 *7.720*
E9374-D50-268-GL50	03029525	HSK-T/A63	GL50	50,0 *1.969*	268,0 *10.551*	242,0 *9.528*	240,5 *9.469*	307,4 *12.102*	131,8 *5.189*	0	1	PB	4,8 *10.580*
E9374-D50-368-GL50	03029526	HSK-T/A63	GL50	50,0 *1.969*	368,0 *14.488*	342,0 *13.465*	340,5 *13.406*	407,4 *16.039*	184,79 *7.275*	0	1	PB	6,4 *14.110*
E9376-D32-160-GL32	03029527	HSK-T/A100	GL32	32,0 *1.260*	160,0 *6.299*	131,0 *5.157*	125,0 *4.921*	215,4 *8.480*	32,87 *1.294*	0	1	PB	3,0 *6.610*
E9376-D32-224-GL32	03029528	HSK-T/A100	GL32	32,0 *1.260*	224,0 *8.819*	195,0 *7.677*	189,0 *7.441*	279,4 *11.000*	54,97 *2.164*	0	1	PB	3,4 *7.500*
E9376-D32-288-GL32	03029529	HSK-T/A100	GL32	32,0 *1.260*	288,0 *11.339*	259,0 *10.197*	253,0 *9.961*	343,4 *13.520*	80,51 *3.170*	0	1	PB	3,8 *8.380*
E9376-D40-208-GL40	03029530	HSK-T/A100	GL40	40,0 *1.575*	208,0 *8.189*	179,0 *7.047*	173,0 *6.811*	264,4 *10.409*	62,83 *2.474*	0	1	PB	4,1 *9.040*
E9376-D40-288-GL40	03029531	HSK-T/A100	GL40	40,0 *1.575*	288,0 *11.339*	259,0 *10.197*	253,0 *9.961*	344,4 *13.559*	98,31 *3.870*	0	1	PB	4,9 *10.800*
E9376-D40-368-GL40	03029532	HSK-T/A100	GL40	40,0 *1.575*	368,0 *14.488*	339,0 *13.346*	333,0 *13.110*	424,4 *16.709*	139,77 *5.503*	0	1	PB	5,8 *12.790*
E9376-D50-268-GL50	03029533	HSK-T/A100	GL50	50,0 *1.969*	268,0 *10.551*	239,0 *9.409*	234,0 *9.213*	325,4 *12.811*	104,26 *4.105*	0	1	PB	6,2 *13.670*
E9376-D50-368-GL50	03029534	HSK-T/A100	GL50	50,0 *1.969*	368,0 *14.488*	339,0 *13.346*	334,0 *13.150*	425,4 *16.748*	154,26 *6.073*	0	1	PB	7,8 *17.200*
E9376-D50-468-GL50	03029535	HSK-T/A100	GL50	50,0 *1.969*	468,0 *18.425*	439,0 *17.283*	434,0 *17.087*	525,4 *20.685*	211,61 *8.331*	0	1	PB	9,7 *21.380*

Spare Parts, included in delivery

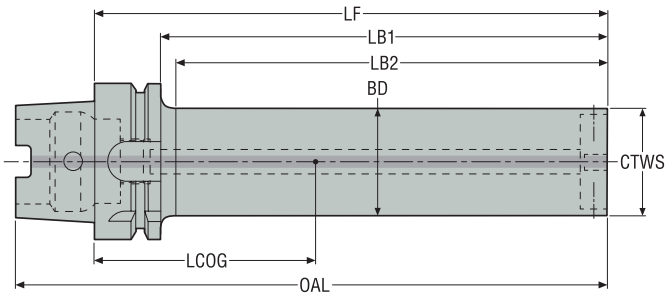
For size	Locking key
	
GL25	SL25
GL32	SL32
GL40	SL40
GL50	SL50

Accessories

For size	Replaceable end	Torque key
		
GL25	–	–
GL32	SL00-32	SL00-32.250
GL40	SL00-40	SL00-40.350
GL50	SL00-50	SL00-50.550

BA – Steadyline®, HSK T/A-BA holders
– Metric / *Inch*





- With dynamic damping, ready to use
- For GL heads program, see page(s) 643-679
- For BA-to-GL adapters program, see page 637
- To hold BA to GL adapters with GL turning heads
- With through coolant
- * Max. RPM only when used in rotating boring
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS HSK-T/A size	CTWS BA connection	BD	LF	LB1	LB2	OAL	LCOG	Max. RPM*	RFID hole	Balancing	Weight
				mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*				kg *lbs*
E9376-D60-301-BA060	03062828	HSK-T/A100	BA060	60,0 *2.362*	301,0 *11.850*	272,0 *10.709*	267,0 *10.512*	351,0 *13.819*	133,05 *5.238*	4000	1	PB	8,9 *19.620*
E9376-D60-421-BA060	03062829	HSK-T/A100	BA060	60,0 *2.362*	421,0 *16.575*	392,0 *15.433*	387,0 *15.236*	471,0 *18.543*	197,17 *7.763*	0	1	PB	11,8 *26.010*
E9376-D60-541-BA060	03062830	HSK-T/A100	BA060	60,0 *2.362*	541,0 *21.299*	512,0 *20.157*	507,0 *19.961*	591,0 *23.268*	260,56 *10.258*	0	1	PB	14,5 *31.970*
E9376-D80-421-BA080	03064109	HSK-T/A100	BA080	80,0 *3.150*	421,0 *16.575*	392,0 *15.433*	387,0 *15.236*	471,0 *18.543*	209,68 *8.255*	0	1	PB	19,4 *42.770*
E9376-D80-581-BA080	03064111	HSK-T/A100	BA080	80,0 *3.150*	581,0 *22.874*	552,0 *21.732*	547,0 *21.535*	631,0 *24.843*	295,45 *11.632*	0	1	PB	26,2 *57.760*

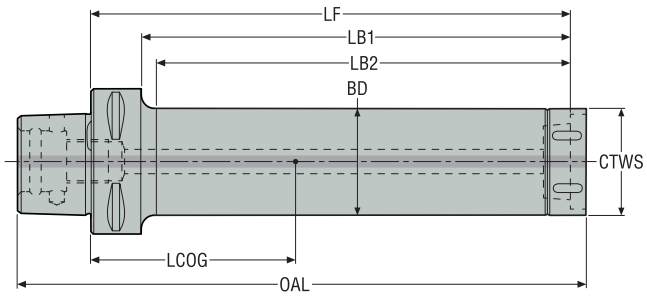
Spare Parts, included in delivery

For size	Locking screw
	
BA060	90FQ4
BA080	90FQ52

Accessories

For size	Locking key
	
BA060	03H04
BA080	03H05

GL – Steadyline®, GL holders, body diameters 25, 32, 40 and 50 mm / *0.984, 1.260, 1.575 and 1.969 inch* – Metric / *Inch*



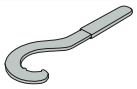


- With dynamic damping, ready to use
- For GL heads program, see page(s) 643-679
- With through coolant
- * Max. RPM only when used in rotating boring
- For ISO attribute explanation, see page 82

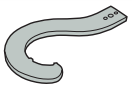
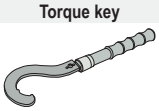
Designation	Item number	CTMS Seco-Capto™ size	CTWS GL size	BD	LF	LB1	LB2	OAL	LCOG	Max. RPM*	RFID hole	Balancing	Weight
				mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*				kg *lbs*
C4-D25-130-GL25	03214272	C4	GL25	25,0 *0.984*	130,0 *5.118*	110,0 *4.331*	107,0 *4.213*	158,5 *6.240*	51,8 *2.039*	0	0	PB	1,0 *2.200*
C4-D25-180-GL25	03214273	C4	GL25	25,0 *0.984*	180,0 *7.087*	160,0 *6.299*	157,0 *6.181*	208,5 *8.209*	77,2 *3.039*	0	0	PB	1,2 *2.650*
C4-D32-160-GL32	02807837	C4	GL32	32,0 *1.260*	160,0 *6.299*	140,0 *5.512*	137,0 *5.394*	189,4 *7.457*	74,73 *2.942*	0	0	PB	1,4 *3.090*
C4-D32-224-GL32	02807838	C4	GL32	32,0 *1.260*	224,0 *8.819*	204,0 *8.031*	201,0 *7.913*	253,4 *9.976*	109,16 *4.298*	0	0	PB	1,7 *3.750*
C5-D25-130-GL25	03214274	C5	GL25	25,0 *0.984*	130,0 *5.118*	110,0 *4.331*	107,0 *4.213*	164,5 *6.476*	41,8 *1.646*	0	1	PB	1,1 *2.430*
C5-D25-180-GL25	03214275	C5	GL25	25,0 *0.984*	180,0 *7.087*	160,0 *6.299*	157,0 *6.181*	214,5 *8.445*	65,1 *2.563*	0	1	PB	1,3 *2.870*
C5-D25-230-GL25	03214276	C5	GL25	25,0 *0.984*	230,0 *9.055*	210,0 *8.268*	207,0 *8.150*	264,5 *10.413*	89,8 *3.535*	0	1	PB	1,5 *3.310*
C5-D32-160-GL32	02807840	C5	GL32	32,0 *1.260*	160,0 *6.299*	140,0 *5.512*	136,0 *5.354*	195,4 *7.693*	65,15 *2.565*	0	1	PB	1,6 *3.530*
C5-D32-224-GL32	02807841	C5	GL32	32,0 *1.260*	224,0 *8.819*	204,0 *8.031*	200,0 *7.874*	259,4 *10.213*	98,47 *3.877*	0	1	PB	2,0 *4.410*
C5-D32-288-GL32	02807842	C5	GL32	32,0 *1.260*	288,0 *11.339*	268,0 *10.551*	264,0 *10.394*	323,4 *12.732*	133,61 *5.260*	0	1	PB	2,2 *4.850*
C5-D40-208-GL40	02807843	C5	GL40	40,0 *1.575*	208,0 *8.189*	188,0 *7.402*	184,0 *7.244*	244,4 *9.622*	98,32 *3.871*	0	1	PB	2,8 *6.170*
C5-D40-288-GL40	02807844	C5	GL40	40,0 *1.575*	288,0 *11.339*	268,0 *10.551*	264,0 *10.394*	324,4 *12.772*	140,88 *5.546*	0	1	PB	3,3 *7.280*
C6-D25-130-GL25	03214277	C6	GL25	25,0 *0.984*	130,0 *5.118*	105,0 *4.134*	102,0 *4.016*	172,5 *6.791*	30,4 *1.197*	0	1	PB	1,6 *3.530*
C6-D25-180-GL25	03214278	C6	GL25	25,0 *0.984*	180,0 *7.087*	155,0 *6.102*	152,0 *5.984*	222,5 *8.760*	49,3 *1.941*	0	1	PB	1,5 *3.310*
C6-D25-230-GL25	03214279	C6	GL25	25,0 *0.984*	230,0 *9.055*	205,0 *8.071*	202,0 *7.953*	272,5 *10.728*	70,2 *2.764*	0	1	PB	1,7 *3.750*
C6-D32-160-GL32	02807846	C6	GL32	32,0 *1.260*	160,0 *6.299*	135,0 *5.315*	129,0 *5.079*	203,4 *8.008*	52,06 *2.050*	0	1	PB	1,8 *3.970*
C6-D32-224-GL32	02807847	C6	GL32	32,0 *1.260*	224,0 *8.819*	199,0 *7.835*	193,0 *7.598*	267,4 *10.528*	82,17 *3.235*	0	1	PB	2,2 *4.850*
C6-D32-288-GL32	02807848	C6	GL32	32,0 *1.260*	288,0 *11.339*	263,0 *10.354*	257,0 *10.118*	331,4 *13.047*	114,87 *4.522*	0	1	PB	2,6 *5.730*

Designation	Item number	CTMS Seco-Capto™ size	CTWS GL size	BD	LF	LB1	LB2	OAL	LCOG	Max. RPM*	RFID hole	Balancing	Weight
				mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*				kg *lbs*
C6-D40-208-GL40	02807849	C6	GL40	40,0 *1.575*	208,0 *8.189*	183,0 *7.205*	177,0 *6.969*	252,4 *9.937*	86,42 *3.402*	0	1	PB	2,9 *6.390*
C6-D40-288-GL40	02807850	C6	GL40	40,0 *1.575*	288,0 *11.339*	263,0 *10.354*	257,0 *10.118*	332,4 *13.087*	127,5 *5.020*	0	1	PB	3,7 *8.160*
C6-D40-368-GL40	02807851	C6	GL40	40,0 *1.575*	368,0 *14.488*	343,0 *13.504*	337,0 *13.268*	412,4 *16.236*	173,14 *6.817*	0	1	PB	4,6 *10.140*
C6-D50-268-GL50	02807852	C6	GL50	50,0 *1.969*	268,0 *10.551*	243,0 *9.567*	238,0 *9.370*	313,4 *12.339*	126,6 *4.984*	0	1	PB	5,4 *11.900*
C6-D50-368-GL50	02807853	C6	GL50	50,0 *1.969*	368,0 *14.488*	343,0 *13.504*	338,0 *13.307*	413,4 *16.276*	179,44 *7.065*	0	1	PB	6,6 *14.550*
C6-D50-468-GL50	02807854	C6	GL50	50,0 *1.969*	468,0 *18.425*	443,0 *17.441*	438,0 *17.244*	513,4 *20.213*	238,49 *9.389*	0	1	PB	8,5 *18.740*
C8-D32-224-GL32	03029356	C8	GL32	32,0 *1.260*	224,0 *8.819*	191,0 *7.520*	181,0 *7.126*	277,5 *10.925*	58,17 *2.290*	0	1	PB	3,2 *7.050*
C8-D32-288-GL32	03029357	C8	GL32	32,0 *1.260*	288,0 *11.339*	255,0 *10.039*	245,0 *9.646*	341,5 *13.445*	84,7 *3.335*	0	1	PB	3,6 *7.940*
C8-D40-288-GL40	03029358	C8	GL40	40,0 *1.575*	288,0 *11.339*	255,0 *10.039*	245,0 *9.646*	341,5 *13.445*	102,14 *4.021*	0	1	PB	4,7 *10.360*
C8-D40-368-GL40	03029359	C8	GL40	40,0 *1.575*	368,0 *14.488*	335,0 *13.189*	325,0 *12.795*	422,5 *16.634*	144,04 *5.671*	0	1	PB	5,6 *12.350*
C8-D50-268-GL50	03029360	C8	GL50	50,0 *1.969*	268,0 *10.551*	235,0 *9.252*	225,0 *8.858*	323,4 *12.732*	107,59 *4.236*	0	1	PB	5,9 *13.010*
C8-D50-368-GL50	03029361	C8	GL50	50,0 *1.969*	368,0 *14.488*	335,0 *13.189*	325,0 *12.795*	423,4 *16.669*	158,08 *6.224*	0	1	PB	7,5 *16.530*
C8-D50-468-GL50	03029362	C8	GL50	50,0 *1.969*	468,0 *18.425*	435,0 *17.126*	425,0 *16.732*	523,4 *20.606*	215,6 *8.488*	0	1	PB	9,4 *20.720*

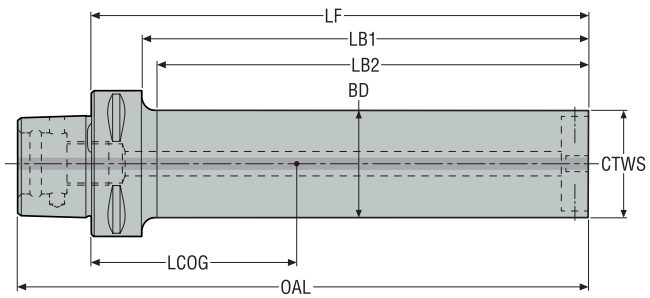
Spare Parts, included in delivery

For size	Locking key
	
GL25	SL25
GL32	SL32
GL40	SL40
GL50	SL50

Accessories

For size	Replaceable end	Torque key
		
GL25	–	–
GL32	SL00-32	SL00-32.250
GL40	SL00-40	SL00-40.350
GL50	SL00-50	SL00-50.550

BA – Steadyline®, BA holders, body diameters 60 and 80 mm / *2.362 and 3.150 inch* – Metric / *Inch*





- With dynamic damping, ready to use
- For GL heads program, see page(s) 643-679
- For BA-to-GL adapters program, see page 637
- To hold BA to GL adapters with GL turning heads
- With through coolant
- * Max. RPM only when used in rotating boring
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS Seco-Capto™ size	CTWS BA size	BD	LF	LB1	LB2	OAL	LCOG	Max. RPM*	RFID hole	Balancing	Weight
				mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*				kg *lbs*
C6-D60-301-BA060	03062831	C6	BA060	60,0 *2.362*	301,0 *11.850*	276,0 *10.866*	273,0 *10.748*	339,0 *13.346*	151,74 *5.974*	4000	1	PB	7,8 *17.200*
C6-D60-421-BA060	03062832	C6	BA060	60,0 *2.362*	421,0 *16.575*	396,0 *15.591*	393,0 *15.472*	459,0 *18.071*	218,63 *8.607*	3000	1	PB	10,6 *23.370*
C8-D60-301-BA060	03062833	C8	BA060	60,0 *2.362*	301,0 *11.850*	268,0 *10.551*	263,0 *10.354*	349,0 *13.740*	137,04 *5.395*	4000	1	PB	8,6 *18.960*
C8-D60-421-BA060	03062834	C8	BA060	60,0 *2.362*	421,0 *16.575*	388,0 *15.276*	383,0 *15.079*	469,0 *18.465*	202,5 *7.972*	3000	1	PB	11,4 *25.130*
C8-D60-541-BA060	03062835	C8	BA060	60,0 *2.362*	541,0 *21.299*	508,0 *20.000*	503,0 *19.803*	589,0 *23.189*	266,78 *10.503*	2000	1	PB	14,0 *30.860*
C8-D80-421-BA080	03065829	C8	BA080	80,0 *3.150*	421,0 *16.575*	388,0 *15.276*	383,0 *15.079*	469,0 *18.465*	213,89 *8.421*	3000	1	PB	18,8 *41.450*
C8-D80-581-BA080	03065830	C8	BA080	80,0 *3.150*	581,0 *22.874*	548,0 *21.575*	543,0 *21.378*	629,0 *24.764*	300,38 *11.826*	2000	1	PB	25,1 *55.340*

Spare Parts, included in delivery

For size	Locking screw
	
BA060	90FQ4
BA080	90FQ52

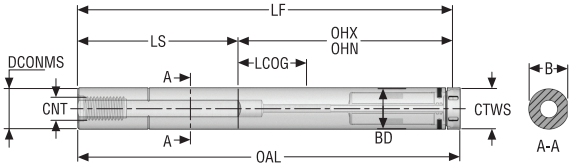
Accessories

For size	Locking key
	
BA060	03H04
BA080	03H05

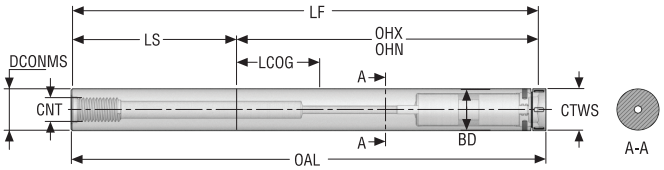
GL – Steadyline®, GL holders, body diameters 25, 32, 40 and 50 mm / *0.984, 1.260, 1.575 and 1.969 inch*, steel or carbide – Metric / *Inch*



Design 1



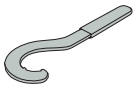
Design 2, without flat



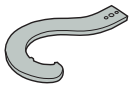
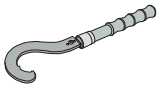
- With dynamic damping, ready to use
- For GL heads program, see page(s) 643-679
- With through coolant channel and coolant supply connecting thread
- Dxx...-CR holders feature carbide-reinforced bodies to increase the rigidity of small diameter bars with 10xD overhang
- For ISO attribute explanation, see page 82

Designation	Item number	DCONMS	CTWS GL size	BD	LS	LF	OAL	OHN	OHX	B	LCOG	CNT	Design	RFID hole	Weight
		mm *inch*		mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*				kg *lbs*
D25-130-GL25	03214280	25,0 *0.984*	GL25	25,0 *0.984*	100,0 *3.937*	230,0 *9.055*	234,5 *9.232*	130,0 *5.118*	130,0 *5.118*	24,0 *0.945*	25,5 *1.004*	G 1/4	1	0	1,1 *2.430*
D25-180-GL25	03214281	25,0 *0.984*	GL25	25,0 *0.984*	100,0 *3.937*	280,0 *11.024*	284,5 *11.201*	180,0 *7.087*	180,0 *7.087*	–	52,8 *2.079*	G 1/4	2	0	1,2 *2.650*
D25-230-GL25-CR	03214282	25,0 *0.984*	GL25	25,0 *0.984*	75,0 *2.953*	305,0 *12.008*	309,5 *12.185*	230,0 *9.055*	230,0 *9.055*	–	70,2 *2.764*	M8x1	2	0	2,0 *4.410*
D32-160-GL32	02807855	32,0 *1.260*	GL32	32,0 *1.260*	128,0 *5.039*	288,0 *11.339*	293,4 *11.551*	160,0 *6.299*	160,0 *6.299*	31,0 *1.220*	25,31 *0.996*	G 1/4	1	0	2,0 *4.410*
D32-224-GL32	02807856	32,0 *1.260*	GL32	32,0 *1.260*	128,0 *5.039*	352,0 *13.858*	357,4 *14.071*	224,0 *8.819*	224,0 *8.819*	31,0 *1.220*	60,23 *2.371*	G 1/4	1	0	2,3 *5.070*
D32-288-GL32-CR	03334786	32,0 *1.260*	GL32	32,0 *1.260*	96,0 *3.780*	384,0 *15.118*	389,4 *15.331*	288,0 *11.339*	288,0 *11.339*	–	84,3 *3.319*	M8x1	2	0	3,7 *8.160*
D40-208-GL40	02807858	40,0 *1.575*	GL40	40,0 *1.575*	160,0 *6.299*	368,0 *14.488*	374,4 *14.740*	208,0 *8.189*	208,0 *8.189*	38,5 *1.516*	35,56 *1.400*	G 1/4	1	0	3,8 *8.380*
D40-288-GL40	02807859	40,0 *1.575*	GL40	40,0 *1.575*	160,0 *6.299*	448,0 *17.638*	454,4 *17.890*	288,0 *11.339*	288,0 *11.339*	38,5 *1.516*	78,26 *3.081*	G 1/4	1	0	4,6 *10.140*
D40-368-GL40	02807860	40,0 *1.575*	GL40	40,0 *1.575*	160,0 *6.299*	528,0 *20.787*	534,4 *21.039*	368,0 *14.488*	368,0 *14.488*	–	124,33 *4.895*	G 1/4	2	0	5,5 *12.130*
D50-268-GL50	02807861	50,0 *1.969*	GL50	50,0 *1.969*	200,0 *7.874*	468,0 *18.425*	475,4 *18.717*	268,0 *10.551*	268,0 *10.551*	48,5 *1.909*	46,44 *1.828*	G 1/4	1	0	7,5 *16.530*
D50-368-GL50	02807862	50,0 *1.969*	GL50	50,0 *1.969*	200,0 *7.874*	568,0 *22.362*	575,4 *22.654*	368,0 *14.488*	368,0 *14.488*	48,5 *1.909*	99,02 *3.898*	G 1/4	1	0	9,1 *20.060*
D50-468-GL50	02807863	50,0 *1.969*	GL50	50,0 *1.969*	200,0 *7.874*	668,0 *26.299*	675,4 *26.591*	468,0 *18.425*	468,0 *18.425*	–	158,07 *6.223*	G 1/4	2	0	11,0 *24.250*

Spare Parts, included in delivery

For size	Coolant adapter	Locking key
		
GL25	–	SL25
GL25-CR	904JET08G1/4L	SL25
GL32	–	SL32
GL32-CR	904JET08G1/4L	SL32
GL40	–	SL40
GL50	–	SL50

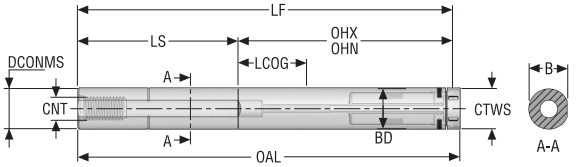
Accessories

For size	Replaceable end	Torque key
		
GL25	–	–
GL25-CR	–	–
GL32	SL00-32	SL00-32.250
GL32-CR	SL00-32	SL00-32.250
GL40	SL00-40	SL00-40.350
GL50	SL00-50	SL00-50.550

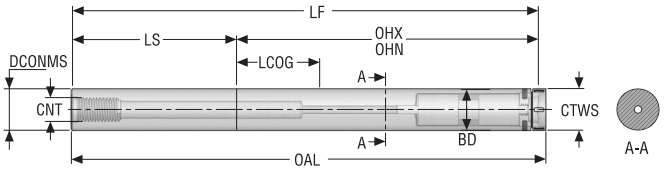
GL – Steadyline®, GL holders, body diameters 1.00, 1.25, 1.59 and 2.00 inch, steel or carbide – Inch



Design 1



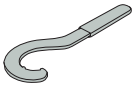
Design 2, without flat



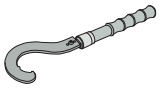
- With dynamic damping, ready to use
- For GL heads program, see page(s) 643-679
- With through coolant channel and coolant supply connecting thread
- Dxx...-CR holders feature carbide-reinforced bodies to increase the rigidity of small diameter bars with 10xD overhang
- For ISO attribute explanation, see page 82

Designation	Item number	DCONMS	CTWS GL size	BD	LS	LF	OAL	OHN	OHX	B	LCOG	CNT	Design	RFID hole	Weight
		inch		inch	inch	inch	inch	inch	inch	inch	inch				lbs
DA16-5.25-GL25	03214286	1.000	GL25	1.000	4.000	9.250	9.427	5.250	5.250	0.945	1.031	G 1/4	1	0	2.430
DA16-7.25-GL25	03214287	1.000	GL25	1.000	4.000	11.250	11.427	7.250	7.250	–	2.118	G 1/4	2	0	2.870
DA16-9.25-GL25-CR	03214288	1.000	GL25	1.000	3.000	12.252	12.429	9.252	9.252	–	2.819	M8x1	2	0	4.630
DA20-6.50-GL32	02807928	1.250	GL32	1.260	5.000	11.500	11.713	6.500	6.500	1.215	1.139	G 1/4	1	0	4.410
DA20-9.00-GL32	02807929	1.250	GL32	1.260	5.000	14.000	14.213	9.000	9.000	1.215	2.509	G 1/4	1	0	5.070
DA20-11.50-GL32-CR	03334787	1.250	GL32	1.250	3.750	15.250	15.463	11.500	11.500	–	3.429	M8x1	2	0	8.600
DA24-8.00-GL40	02807931	1.500	GL40	1.575	6.000	14.000	14.252	8.000	8.000	1.435	1.621	G 1/4	1	0	7.720
DA24-11.00-GL40	02807933	1.500	GL40	1.575	6.000	17.000	17.252	11.000	11.000	1.435	3.244	G 1/4	1	0	10.360
DA24-14.00-GL40	02807935	1.500	GL40	1.575	6.000	20.000	20.252	14.000	14.000	–	4.991	G 1/4	2	0	11.460
DA32-10.50-GL50	02807936	2.000	GL50	1.969	8.000	18.500	18.791	10.500	10.500	1.935	1.667	G 1/4	1	0	17.860
DA32-14.50-GL50	02807937	2.000	GL50	1.969	8.000	22.500	22.791	14.500	14.500	1.935	3.762	G 1/4	1	0	20.720
DA32-18.50-GL50	02807938	2.000	GL50	1.969	8.000	26.500	26.791	18.500	18.500	–	6.111	G 1/4	2	0	24.470

Spare Parts, included in delivery

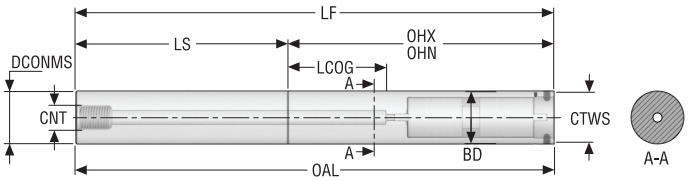
For size	Coolant adapter	Locking key
		
GL25	–	SL25
GL25-CR	904JET08G1/4L	SL25
GL32	–	SL32
GL32-CR	904JET08G1/4L	SL32
GL40	–	SL40
GL50	–	SL50

Accessories

For size	Replaceable end	Torque key
		
GL25	–	–
GL25-CR	–	–
GL32	SL00-32	SL00-32.250
GL32-CR	SL00-32	SL00-32.250
GL40	SL00-40	SL00-40.350
GL50	SL00-50	SL00-50.550

BA – Steadyline®, BA holders, body diameters 60, 80, 100, 120, 150, 200 mm / *2.362, 3.150, 3.937, 4.724, 5.906, 7.874 inch* – Metric / *Inch*

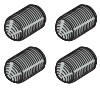




- With dynamic damping, ready to use
- For GL heads program, see page(s) 643-679
- For BA-to-GL adapters program, see page 637
- To hold BA to GL adapters with GL turning heads
- With through coolant
- For ISO attribute explanation, see page 82

Designation	Item number	DCONMS	CTWS GL size	BD	LS	LF	OAL	OHN	OHX	LCOG	CNT	RFID hole	Weight
		mm *inch*		mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*			kg *lbs*
D60-301-BA060	03062826	60,0 *2.362*	BA060	60,0 *2.362*	240,0 *9.449*	541,0 *21.299*	541,0 *21.299*	301,0 *11.850*	301,0 *11.850*	50,06 *1.971*	G 3/4	0	12,5 *27.560*
D60-541-BA060	03062827	60,0 *2.362*	BA060	60,0 *2.362*	240,0 *9.449*	781,0 *30.748*	781,0 *30.748*	541,0 *21.299*	541,0 *21.299*	179,12 *7.052*	G 3/4	0	18,1 *39.900*
D80-421-BA080	03062862	80,0 *3.150*	BA080	80,0 *3.150*	320,0 *12.598*	741,0 *29.173*	741,0 *29.173*	421,0 *16.575*	421,0 *16.575*	71,0 *2.795*	G 3/4	0	30,2 *66.580*
D80-741-BA080	03062863	80,0 *3.150*	BA080	80,0 *3.150*	320,0 *12.598*	1061,0 *41.772*	1061,0 *41.772*	741,0 *29.173*	741,0 *29.173*	241,55 *9.510*	G 3/4	0	43,4 *95.680*
D100-939-BA100	03139335	100,0 *3.937*	BA100	100,0 *3.937*	500,0 *19.685*	1439,0 *56.654*	1439,0 *56.654*	939,0 *36.969*	939,0 *36.969*	271,9 *10.705*	G 3/4	0	78,0 *171.960*
D120-1200-BA120	10144409	120,0 *4.724*	BA120	120,0 *4.724*	720,0 *28.346*	1920,0 *75.591*	1920,0 *75.591*	1200,0 *47.244*	1200,0 *47.244*	314,67 *12.389*	G 3/4	0	158,0 *348.330*
D150-1500-BA150	10144410	150,0 *5.906*	BA150	150,0 *5.906*	900,0 *35.433*	2400,0 *94.488*	2400,0 *94.488*	1500,0 *59.055*	1500,0 *59.055*	413,76 *16.290*	G 3/4	0	275,0 *606.270*
D200-2000-BA200	10144411	200,0 *7.874*	BA200	200,0 *7.874*	1200,0 *47.244*	3200,0 *125.984*	3200,0 *125.984*	2000,0 *78.740*	2000,0 *78.740*	517,5 *20.374*	G 3/4	0	654,0 *1441.820*

Spare Parts, included in delivery

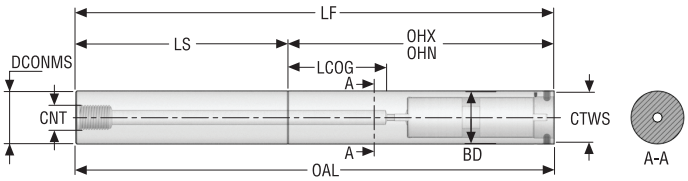
For size	Locking screw
	
BA060	90FQ4
BA080	90FQ52
BA100, 120, 150	90FQ6
BA200	–

Accessories

For size	Locking key
	
BA060	03H04
BA080	03H05
BA100, 120, 150	03H06
BA200	–

GL – Steadyline® turning, BA holders, body diameters 2.50, 3.00 and 4.00 inch – Inch





- With dynamic damping, ready to use
- For GL heads program, see page(s) 643-679
- For BA-to-GL adapters program, see page 637-638
- With through coolant channel and coolant supply connecting thread
- For ISO attribute explanation, see page 82

Designation	Item number	DCONMS	CTWS GL size	BD	LS	LF	OAL	OHN	OHX	LCOG	CNT	RFID hole	Weight
		inch		inch	inch	inch	inch	inch	inch	inch			lbs
DA40-12.50-BA06I	03064142	2.500	BA06I	2.500	10.000	22.500	22.500	12.500	12.500	1.960	G 3/4	0	31.310
DA40-22.50-BA06I	03064143	2.500	BA06I	2.500	10.000	32.500	32.500	22.500	22.500	7.290	G 3/4	0	46.740
DA48-15.50-BA08I	03064145	3.000	BA08I	3.000	12.000	27.500	27.500	15.500	15.500	2.600	G 3/4	0	57.540
DA48-27.50-BA08I	03064147	3.000	BA08I	3.000	12.000	39.500	39.500	27.500	27.500	9.050	G 3/4	0	83.110
DA64-37.50-BA100	03139336	4.000	BA100	4.000	20.000	57.500	57.500	37.500	37.500	10.750	G 3/4	0	191.800

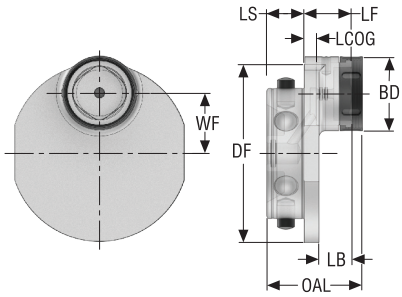
Spare Parts, included in delivery

For size	Locking screw
	
BA06I	90FQ4
BA08I	90FQ52
BA100	90FQ6

Accessories

For size	Locking key
	
BA06I	03H04
BA08I	03H05
BA100	03H06

BA – BA-to-GL adapters – Metric / *Inch*

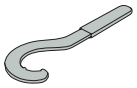




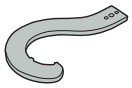
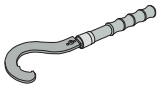
- For GL heads program, see page(s) 643-679
- To hold GL50 turning heads on Steadyline® BA holders
- With through coolant
- Each adapter size available with 2 radial offset sizes WF: when possible, preferably use the widest offset
- For ISO attribute explanation, see page 82

Designation	Item number	Machine side CTMS	Workpiece side GL size CTWS	WF	LF	DF	BD	LB	LS	OAL	LCOG	RFID hole	Weight
				mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*		kg *lbs*
BA060-05-27-GL50	03065832	BA060	GL50	5,0 *0.197*	27,0 *1.063*	60,0 *2.362*	50,0 *1.969*	21,5 *0.846*	16,0 *0.630*	50,4 *1.984*	5,82 *0.229*	0	0,6 *1.320*
BA060-10-27-GL50	03065833	BA060	GL50	10,0 *0.394*	27,0 *1.063*	60,0 *2.362*	50,0 *1.969*	21,5 *0.846*	16,0 *0.630*	50,4 *1.984*	5,79 *0.228*	0	0,6 *1.320*
BA080-15-27-GL50	03065834	BA080	GL50	15,0 *0.591*	27,0 *1.063*	80,0 *3.150*	50,0 *1.969*	21,5 *0.846*	22,0 *0.866*	56,4 *2.220*	1,42 *0.056*	0	1,2 *2.650*
BA080-23-27-GL50	03065835	BA080	GL50	23,0 *0.906*	27,0 *1.063*	80,0 *3.150*	50,0 *1.969*	21,5 *0.846*	22,0 *0.866*	56,4 *2.220*	1,42 *0.056*	0	0,9 *1.980*
BA100-28-29-GL50	03139337	BA100	GL50	28,0 *1.102*	29,0 *1.142*	100,0 *3.937*	50,0 *1.969*	21,5 *0.846*	25,0 *0.984*	61,4 *2.417*	-1,31 *-0.052*	0	1,9 *4.190*
BA100-38-29-GL50	03139338	BA100	GL50	38,0 *1.496*	29,0 *1.142*	100,0 *3.937*	50,0 *1.969*	21,5 *0.846*	25,0 *0.984*	61,4 *2.417*	-1,23 *-0.048*	0	1,5 *3.310*
BA120-40-32-GL50	10144674	BA120	GL50	40,0 *1.575*	32,0 *1.260*	120,0 *4.724*	50,0 *1.969*	21,5 *0.846*	25,0 *0.984*	64,4 *2.535*	0,09 *0.004*	0	2,2 *4.850*
BA150-55-32-GL50	10144412	BA150	GL50	55,0 *2.165*	32,0 *1.260*	150,0 *5.906*	50,0 *1.969*	21,5 *0.846*	25,0 *0.984*	64,4 *2.535*	-1,27 *-0.050*	0	3,3 *7.280*

Spare Parts, included in delivery

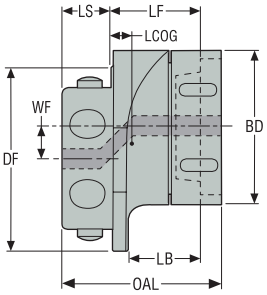
For size	Locking key
	
GL50	SL50

Accessories

For size	Replaceable end	Torque key
		
GL50	SL00-50	SL00-50.550

BA – BA-to-GL adapters – Inch





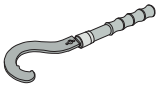
- For GL heads program, see page(s) 643-679
- To hold GL50 turning heads on Steadyline® BA holders
- With through coolant
- Each adapter size available with 2 radial offset sizes WF: when possible, preferably use the widest offset
- For ISO attribute explanation, see page 82

Designation	Item number	Machine side CTMS	Workpiece side GL size CTWS	WF	LF	DF	BD	LB	LS	OAL	LCOG	RFID hole	Weight
				inch	inch	inch	inch	inch	inch	inch	inch		lbs
BA06I-06.75-27-GL50	03065836	BA06I	GL50	0.266	1.063	2.500	1.969	0.846	0.630	1.984	0.227	0	2.200
BA06I-11.75-27-GL50	03065837	BA06I	GL50	0.463	1.063	2.500	1.969	0.846	0.630	1.984	0.226	0	2.200
BA08I-13.10-27-GL50	03065838	BA08I	GL50	0.516	1.063	3.000	1.969	0.846	0.866	2.220	0.054	0	1.980
BA08I-21.10-27-GL50	03065839	BA08I	GL50	0.831	1.063	3.000	1.969	0.846	0.866	2.220	0.055	0	2.870

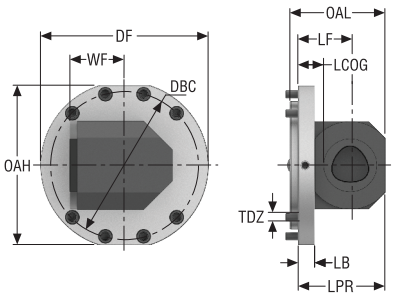
Spare Parts, included in delivery

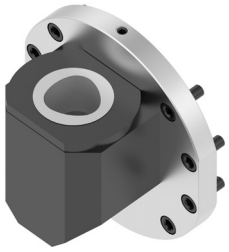
For size	Locking key
	
GL50	SL50

Accessories

For size	Replaceable end	Torque key
		
GL50	SL00-50	SL00-50.550

BA – BA-to-Seco-Capto™ – Metric / *Inch*

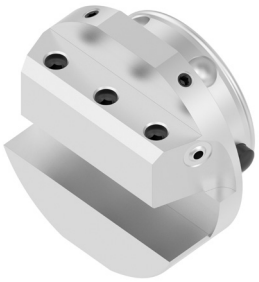


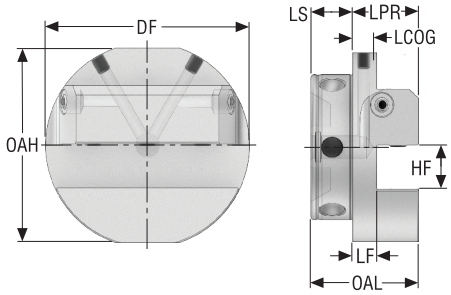


- Clamping force, see page 1014
- Spare Parts and Accessories, see page 1025
- For external Seco-Capto™ toolholders program, see page 162-227
- For ISO attribute explanation, see page 82

Designation	Item number	Machine side CTMS	Workpiece side CTWS	OAH	WF	DF	DBC	LF	LPR	LB	OAL	LCOG	TDZ	RFID hole	Weight
				mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*			kg *lbs*
BA200-90D-62-C6-R	10144413	BA200	C6	190,0 *7.480*	65,0 *2.559*	200,0 *7.874*	175,0 *6.890*	62,0 *2.441*	104,0 *4.094*	20,0 *0.787*	114,0 *4.488*	37,75 *1.486*	M10	0	13,0 *28.660*

BA – BA-to-Shank toolholders
– Metric / *Inch*





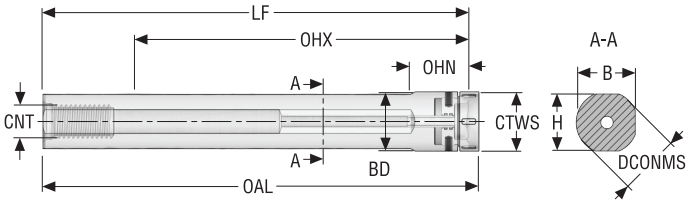
- For external toolholders program, see page 243-422
- For ISO attribute explanation, see page 82

Designation	Item number	Machine side CTMS	Workpiece side CTWS	OAH	DF	LF	LPR	LS	HF	OAL	LCOG	RFID hole	Weight
				mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*		kg *lbs*
BA120-90D-15-SQ2525	10144415	BA120	SHANK-25	114,0 *4.488*	120,0 *4.724*	15,0 *0.591*	40,0 *1.575*	25,0 *0.984*	25,0 *0.984*	65,0 *2.559*	9,05 *0.356*	0	3,3 *7.280*
BA150-90D-15-SQ2525	10144416	BA150	SHANK-25	140,0 *5.512*	150,0 *5.906*	15,0 *0.591*	40,0 *1.575*	25,0 *0.984*	25,0 *0.984*	65,0 *2.559*	8,59 *0.338*	0	5,3 *11.680*
BA200-90D-20-SQ3232	10144417	BA200	SHANK-32	190,0 *7.480*	200,0 *7.874*	20,0 *0.787*	52,0 *2.047*	10,0 *0.394*	32,0 *1.260*	62,0 *2.441*	19,2 *0.756*	0	8,7 *19.180*

Accessories

For	Locking key
	
BA120-90D-15-SQ2525	6SMS795
BA150-90D-15-SQ2525	6SMS795
BA200-90D-20-SQ3232	8SMS795

GL holders, body diameters 25, 32, 40 and 50 mm – Metric / *Inch*





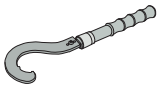
- Steel bars without damping
- With through coolant channel and coolant supply connecting thread
- For GL heads program, see page(s) 643-679
- For ISO attribute explanation, see page 82

Designation	Item number	DCONMS	CTWS	BD	LF	OAL	OHN	OHX	H	B	CNT	RFID hole	Weight
		mm *inch*		mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*			kg *lbs*
D25-A-80-GL25	10110387	25,0 *0.984*	GL25	25,0 *0.984*	180,0 *7.087*	184,5 *7.264*	24,5 *0.965*	80,0 *3.150*	23,0 *0.906*	24,0 *0.945*	G 1/4	0	0,8 *1.760*
D32-A-96-GL32	10110388	32,0 *1.260*	GL32	32,0 *1.260*	224,0 *8.819*	229,4 *9.031*	26,0 *1.024*	96,0 *3.780*	30,0 *1.181*	31,0 *1.220*	G 1/4	0	1,4 *3.090*
D40-A-128-GL40	10110389	40,0 *1.575*	GL40	40,0 *1.575*	288,0 *11.339*	294,4 *11.591*	30,0 *1.181*	128,0 *5.039*	37,0 *1.457*	38,5 *1.516*	G 1/4	0	2,6 *5.730*
D50-A-168-GL50	10110390	50,0 *1.969*	GL50	50,0 *1.969*	368,0 *14.488*	375,4 *14.780*	33,5 *1.319*	138,0 *5.433*	47,0 *1.850*	48,5 *1.909*	G 1/4	0	5,5 *12.130*

Spare Parts, included in delivery

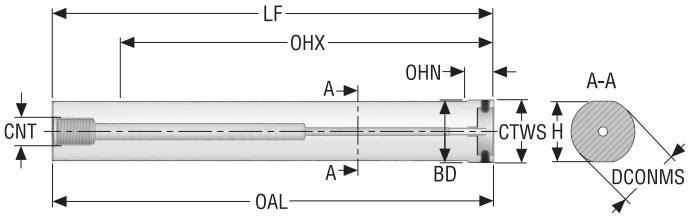
For size	Locking key
	
D25	SL25
D32	SL32
D40	SL40
D50	SL50

Accessories

For size	Replaceable end	Torque key
		
D25	–	–
D32	SL00-32	SL00-32.250
D40	SL00-40	SL00-40.350
D50	SL00-50	SL00-50.550

BA holders, body diameter 60 mm
– Metric / *Inch*

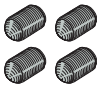




- Steel bars without damping
- With through coolant channel and coolant supply connecting thread
- For BA-to-GL adapters program, see page 637
- For GL heads program, see page(s) 643-679
- For ISO attribute explanation, see page 82

Designation	Item number	DCONMS	CTWS	BD	LF	OAL	OHN	OHX	H	CNT	RFID hole	Weight
		mm *inch*		mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*			kg *lbs*
D60-A-181-BA060	10110391	60,0 *2.362*	BA060	60,0 *2.362*	421,0 *16.575*	421,0 *16.575*	26,5 *1.043*	181,0 *7.126*	57,0 *2.244*	G 3/4	0	8,4 *18.520*

Spare Parts, included in delivery

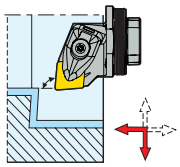
For size	Locking screw
	
D60	90FQ4

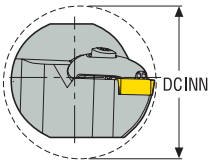
Accessories

For size	Locking key
	
D60	03H04

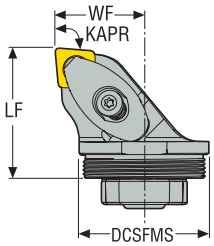
GL..-DCLCR/L – Toolholders for inserts CCGT, CCGW, CCMT, CCMW – Metric / *Inch*

GL..-DCLCR/L
KAPR = 95,0 °





GL..-DCLCR/L





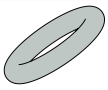
CTWS



- Right-hand version shown
- For inserts program, see page(s) 542, 543, 544, 545, 591, 592, 615, 616
- For damping holders program, see page(s) 624, 625-638
- For holder code key, see page(s) 13-14
- For coolant clamps code key, see page(s) 25
- For more information on Jetstream Tooling® and accessories, see page(s) 38, 85-89, 1026
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	DCSFMS	WF	LF	DCINN	CP	KAPR°	GAMO°	LAMS°	Weight	CTWS
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	bar *psi*				kg *lbs*	
GL32-DCLCR-22032-09JET	02994382	GL32	32,0 *1.260*	22,0 *0.866*	32 *1.260*	40,0 *1.575*	200,0 *2900.8*	95,0	0,0	-2,0	0,2 *0.440*	CC..09T3.. *CC..32.5.*
GL32-DCLCL-22032-09JET	02994379	GL32	32,0 *1.260*	22,0 *0.866*	32 *1.260*	40,0 *1.575*	200,0 *2900.8*	95,0	0,0	-2,0	0,2 *0.440*	CC..09T3.. *CC..32.5.*
GL40-DCLCR-27032-09JET	02994389	GL40	40,0 *1.575*	27,0 *1.063*	32 *1.260*	50,0 *1.969*	200,0 *2900.8*	95,0	0,0	-2,0	0,2 *0.440*	CC..09T3.. *CC..32.5.*
GL40-DCLCL-27032-09JET	02994386	GL40	40,0 *1.575*	27,0 *1.063*	32 *1.260*	50,0 *1.969*	200,0 *2900.8*	95,0	0,0	-2,0	0,2 *0.440*	CC..09T3.. *CC..32.5.*
GL50-DCLCR-32032-09JET	02994395	GL50	50,0 *1.969*	32,0 *1.260*	32 *1.260*	63,0 *2.480*	200,0 *2900.8*	95,0	0,0	-2,0	0,3 *0.660*	CC..09T3.. *CC..32.5.*
GL50-DCLCL-32032-09JET	02994392	GL50	50,0 *1.969*	32,0 *1.260*	32 *1.260*	63,0 *2.480*	200,0 *2900.8*	95,0	0,0	-2,0	0,3 *0.660*	CC..09T3.. *CC..32.5.*

Spare Parts, included in delivery

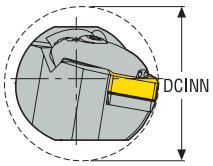
For size	Clamp screw	Coolant kit	Coolant seal	O-ring	Shim/clamp key	Spring
						
GL32	L84017-T10P	CP14U00S-2-SET	930RD13	O-RING-5.0X1.2	T10P-2	S5808
GL40	L84017-T10P	CP14U00S-2-SET	930RD13	O-RING-5.0X1.2	T10P-2	S5808
GL50	L84017-T10P	CP14U00S-2-SET	930RD13	O-RING-5.0X1.2	T10P-2	S5808

Accessories

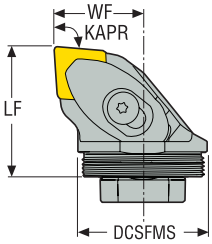
For size	Coolant kit R-Roughing	Insert clamping torque	Replacement blade	Torque key
				
GL32	CP14L00R-2-SET	2.0NM	T00-09P	T00-09P20
GL40	CP14L00R-2-SET	2.0NM	T00-09P	T00-09P20
GL50	CP14L00R-2-SET	2.0NM	T00-09P	T00-09P20

GL..-DCLNR/L – Toolholders for inserts CNGG, CNMA, CNMG, CNMM – **Metric** / *Inch*

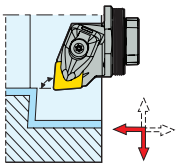




GL..-DCLNR/L



GL..-DCLNR/L
KAPR = 95,0 °



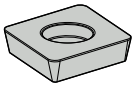
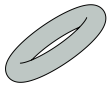
CTWS



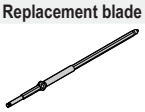
- Right-hand version shown
- For inserts program, see page(s) 546, 547, 548, 549, 550, 551
- For damping holders program, see page(s) 624, 625-638
- For holder code key, see page(s) 13-14
- For coolant clamps code key, see page(s) 25
- For more information on Jetstream Tooling® and accessories, see page(s) 38, 85-89, 1026
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	DCSFMS	WF	LF	DCINN	CP	KAPR°	GAMO°	LAMS°	Weight	CTWS
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	bar *psi*				kg *lbs*	
GL32-DCLNR-22032-12JET	02994325	GL32	32,0 *1.260*	22,0 *0.866*	32 *1.260*	40,0 *1.575*	200,0 *2900.8*	95,0	-6,0	-10,0	0,2 *0.440*	CN..1204.. *CN..43.*
GL32-DCLNL-22032-12JET	02994324	GL32	32,0 *1.260*	22,0 *0.866*	32 *1.260*	40,0 *1.575*	200,0 *2900.8*	95,0	-6,0	-10,0	0,2 *0.440*	CN..1204.. *CN..43.*
GL40-DCLNR-27032-12JET	02994341	GL40	40,0 *1.575*	27,0 *1.063*	32 *1.260*	50,0 *1.969*	200,0 *2900.8*	95,0	-6,0	-10,0	0,2 *0.440*	CN..1204.. *CN..43.*
GL40-DCLNL-27032-12JET	02994340	GL40	40,0 *1.575*	27,0 *1.063*	32 *1.260*	50,0 *1.969*	200,0 *2900.8*	95,0	-6,0	-10,0	0,2 *0.440*	CN..1204.. *CN..43.*
GL50-DCLNR-32032-12JET	02994354	GL50	50,0 *1.969*	32,0 *1.260*	32 *1.260*	63,0 *2.480*	200,0 *2900.8*	95,0	-6,0	-8,0	0,3 *0.660*	CN..1204.. *CN..43.*
GL50-DCLNL-32032-12JET	02994351	GL50	50,0 *1.969*	32,0 *1.260*	32 *1.260*	63,0 *2.480*	200,0 *2900.8*	95,0	-6,0	-8,0	0,3 *0.660*	CN..1204.. *CN..43.*

Spare Parts, included in delivery

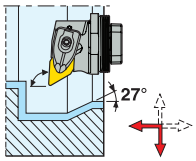
For size	Clamp screw	Coolant kit	Coolant seal	Insert shim	O-ring	Shim/clamp key	Shim screw	Spring
								
GL32	L85021-T15P	CN17L00R-2-SET	930RD13	DCO120310	O-RING-5.0X1.2	T15P-2	C04008-T15P	S7111
GL40	L85021-T15P	CN17L00R-2-SET	930RD13	DCO120310	O-RING-5.0X1.2	T15P-2	C04008-T15P	S7111
GL50	L85021-T15P	CN17L00R-2-SET	930RD13	DCO120310	O-RING-5.0X1.2	T15P-2	C04008-T15P	S7111

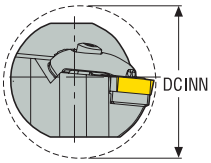
Accessories

For size	Coolant kit S-Standard	Coolant kit X-Roughing2	Insert clamping torque	Replacement blade	Torque key
					
GL32	CN17U00S-2-SET	CN17L00X-2-SET	3.5NM	T00-15P	T00-15P35
GL40	CN17U00S-2-SET	CN17L00X-2-SET	3.5NM	T00-15P	T00-15P35
GL50	CN17U00S-2-SET	CN17L00X-2-SET	3.5NM	T00-15P	T00-15P35

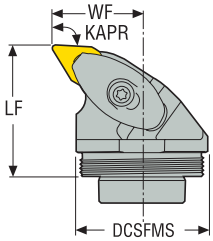
GL..-DDUCR/L – Toolholders for inserts DCGT, DCGW, DCMT, DCMW, DCMX – Metric / *Inch*

GL..-DDUCR/L
KAPR = 93,0 °





GL..-DDUCR/L





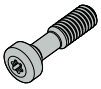
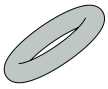
CTWS



- Right-hand version shown
- For inserts program, see page(s) 553, 554, 555, 596, 617
- For damping holders program, see page(s) 624, 625-638
- For holder code key, see page(s) 13-14
- For coolant clamps code key, see page(s) 25
- For more information on Jetstream Tooling® and accessories, see page(s) 38, 85-89, 1026
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	DCSFMS	WF	LF	DCINN	CP	KAPR°	GAMO°	LAMS°	Weight	CTWS
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	bar *psi*				kg *lbs*	
GL32-DDUCR-22032-11JET	02994499	GL32	32,0 *1.260*	22,0 *0.866*	32 *1.260*	40,0 *1.575*	200,0 *2900.8*	93,0	0,0	-5,0	0,2 *0.440*	DC..11T3.. *DC..32.5.*
GL32-DDUCL-22032-11JET	02994496	GL32	32,0 *1.260*	22,0 *0.866*	32 *1.260*	40,0 *1.575*	200,0 *2900.8*	93,0	0,0	-5,0	0,2 *0.440*	DC..11T3.. *DC..32.5.*
GL40-DDUCR-27032-11JET	02994556	GL40	40,0 *1.575*	27,0 *1.063*	32 *1.260*	50,0 *1.969*	200,0 *2900.8*	93,0	0,0	-5,0	0,2 *0.440*	DC..11T3.. *DC..32.5.*
GL40-DDUCL-27032-11JET	02994555	GL40	40,0 *1.575*	27,0 *1.063*	32 *1.260*	50,0 *1.969*	200,0 *2900.8*	93,0	0,0	-5,0	0,2 *0.440*	DC..11T3.. *DC..32.5.*
GL50-DDUCR-32032-11JET	02994558	GL50	50,0 *1.969*	32,0 *1.260*	32 *1.260*	63,0 *2.480*	200,0 *2900.8*	93,0	0,0	-5,0	0,3 *0.660*	DC..11T3.. *DC..32.5.*
GL50-DDUCL-32032-11JET	02994557	GL50	50,0 *1.969*	32,0 *1.260*	32 *1.260*	63,0 *2.480*	200,0 *2900.8*	93,0	0,0	-5,0	0,3 *0.660*	DC..11T3.. *DC..32.5.*

Spare Parts, included in delivery

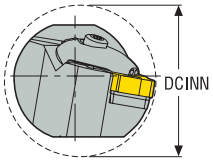
For size	Clamp screw	Coolant kit	Coolant seal	Insert shim	O-ring	Shim/clamp key	Shim screw	Spring
								
GL32	L84017-T10P	CP14U00S-2-SET	930RD13	126.19-620	O-RING-5.0X1.2	T10P-2	C94006-T15P	S5808
GL40	L84017-T10P	CP14U00S-2-SET	930RD13	126.19-620	O-RING-5.0X1.2	T10P-2	C94006-T15P	S5808
GL50	L84017-T10P	CP14U00S-2-SET	930RD13	126.19-620	O-RING-5.0X1.2	T10P-2	C94006-T15P	S5808

Accessories

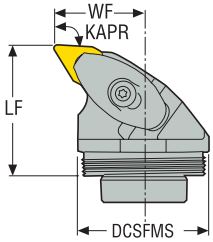
For size	Coolant kit R-Roughing	Insert clamping torque	Replacement blade	Shim key	Torque key
					
GL32	CP14L00R-2-SET	2.0NM	T00-09P	T15P-2	T00-09P20
GL40	CP14L00R-2-SET	2.0NM	T00-09P	T15P-2	T00-09P20
GL50	CP14L00R-2-SET	2.0NM	T00-09P	T15P-2	T00-09P20

GL..-DDUNR/L – Toolholders for inserts DNGG, DNGN, DNMA, DNMG, DNMM, DNMU, DNMX – **Metric** / *Inch*

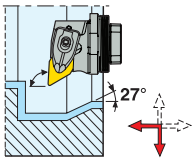




GL..-DDUNR/L



GL..-DDUNR/L
KAPR = 93,0 °

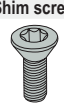


CTWS

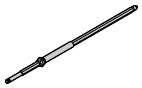
- Right-hand version shown
- For inserts program, see page(s) 556, 557, 558, 559, 598
- For damping holders program, see page(s) 624, 625-638
- For holder code key, see page(s) 13-14
- For coolant clamps code key, see page(s) 25
- For more information on Jetstream Tooling® and accessories, see page(s) 38, 85-89, 1026
- * Use the right shim & the right screw for the selected insert. For details, see page 99
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	DCSFMS	WF	LF	DCINN	CP	KAPR°	GAMO°	LAMS°	Weight	CTWS
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	bar *psi*				kg *lbs*	
GL32-DDUNR-22032-11JET	02994328	GL32	32,0 *1.260*	22,0 *0.866*	32 *1.260*	40,0 *1.575*	200,0 *2900.8*	93,0	-6,0	-10,0	0,2 *0.440*	DNMU1104.. *DNMU33.*
GL32-DDUNL-22032-11JET	02994326	GL32	32,0 *1.260*	22,0 *0.866*	32 *1.260*	40,0 *1.575*	200,0 *2900.8*	93,0	-6,0	-10,0	0,2 *0.440*	DNMU1104.. *DNMU33.*
GL32-DDUNR-22032-15JET	02994329	GL32	32,0 *1.260*	22,0 *0.866*	32 *1.260*	40,0 *1.575*	200,0 *2900.8*	93,0	-6,0	-14,0	0,2 *0.440*	DN..1504-DN..1506* *DN..43-DN..44**
GL32-DDUNL-22032-15JET	02994327	GL32	32,0 *1.260*	22,0 *0.866*	32 *1.260*	40,0 *1.575*	200,0 *2900.8*	93,0	-6,0	-14,0	0,2 *0.440*	DN..1504-DN..1506* *DN..43-DN..44**
GL40-DDUNR-27032-11JET	02994345	GL40	40,0 *1.575*	27,0 *1.063*	32 *1.260*	50,0 *1.969*	200,0 *2900.8*	93,0	-5,0	-10,0	0,2 *0.440*	DNMU1104.. *DNMU33.*
GL40-DDUNL-27032-11JET	02994342	GL40	40,0 *1.575*	27,0 *1.063*	32 *1.260*	50,0 *1.969*	200,0 *2900.8*	93,0	-5,0	-10,0	0,3 *0.660*	DNMU1104.. *DNMU33.*
GL40-DDUNR-27032-15JET	02994346	GL40	40,0 *1.575*	27,0 *1.063*	32 *1.260*	50,0 *1.969*	200,0 *2900.8*	93,0	-6,0	-14,0	0,2 *0.440*	DN..1504-DN..1506* *DN..43-DN..44**
GL40-DDUNL-27032-15JET	02994343	GL40	40,0 *1.575*	27,0 *1.063*	32 *1.260*	50,0 *1.969*	200,0 *2900.8*	93,0	-6,0	-14,0	0,3 *0.660*	DN..1504-DN..1506* *DN..43-DN..44**
GL50-DDUNR-32032-15JET	02994358	GL50	50,0 *1.969*	32,0 *1.260*	32 *1.260*	63,0 *2.480*	200,0 *2900.8*	93,0	-6,0	-14,0	0,4 *0.880*	DN..1504-DN..1506* *DN..43-DN..44**
GL50-DDUNL-32032-15JET	02994357	GL50	50,0 *1.969*	32,0 *1.260*	32 *1.260*	63,0 *2.480*	200,0 *2900.8*	93,0	-6,0	-14,0	0,4 *0.880*	DN..1504-DN..1506* *DN..43-DN..44**

Spare Parts, included in delivery

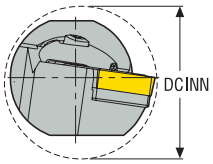
For size	Clamp screw	Coolant kit	Coolant seal	Insert shim	O-ring	Shim/clamp key	Shim screw	Spring
								
32-11	L84017-T10P	CX14U00S-2-SET	930RD13	DDN110310	O-RING-5.0X1.2	T10P-2	C03007-T09P	S5808
32R-15	L84017-T10P	CN14U10S-2R-SET	930RD13	DDN150416	O-RING-5.0X1.2	T10P-2	C04008-T15P	S5808
32L-15	L84017-T10P	CN14U10S-2L-SET	930RD13	DDN150416	O-RING-5.0X1.2	T10P-2	C04008-T15P	S5808
40-11	L84017-T10P	CX14U00S-2-SET	930RD13	DDN110310	O-RING-5.0X1.2	T10P-2	C03007-T09P	S5808
40-15	L85021-T15P	CN17U00S-2-SET	930RD13	DDN150416	O-RING-5.0X1.2	T15P-2	C04008-T15P	S7111
50-15	L85021-T15P	CN17U00S-2-SET	930RD13	DDN150416	O-RING-5.0X1.2	T15P-2	C04008-T15P	S7111

Accessories

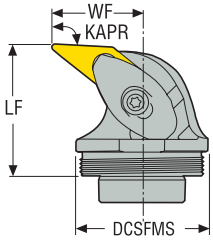
For size	Coolant kit R-Roughing	Coolant kit X-Roughing2	Insert clamping torque	Replacement blade	Shim key	Torque key
						
32-11	–	–	2.0NM	T00-09P	–	T00-09P20
32R-15	–	–	2.0NM	T00-09P	T15P-2	T00-09P20
32L-15	–	–	2.0NM	T00-09P	T15P-2	T00-09P20
40-11	–	–	2.0NM	T00-09P	–	T00-09P20
40-15	CN17L00R-2-SET	CN17L00X-2-SET	3.5NM	T00-15P	–	T00-15P35
50-15	CN17L00R-2-SET	CN17L00X-2-SET	3.5NM	T00-15P	–	T00-15P35

GL..-DVUBR/L – Toolholders for inserts VBGT, VBGW, VBMT, VBMW – **Metric** / *Inch*

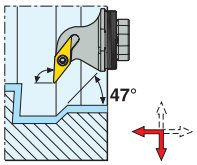




GL..-DVUBR/L



GL..-DVUBR/L
KAPR = 93,0 °

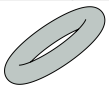


CTWS

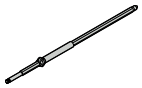
- Right-hand version shown
- For inserts program, see page(s) 582, 583, 612, 619
- For damping holders program, see page(s) 624, 625-638
- For holder code key, see page(s) 13-14
- For coolant clamps code key, see page(s) 25
- For more information on Jetstream Tooling® and accessories, see page(s) 38, 85-89, 1026
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	DCSFMS	WF	LF	DCINN	CP	KAPR°	GAMO°	LAMS°	Weight	CTWS
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	bar *psi*				kg *lbs*	
GL32-DVUBR-22032-16JET	02994507	GL32	32,0 *1.260*	22,0 *0.866*	32 *1.260*	40,0 *1.575*	200,0 *2900.8*	93,0	0,0	-8,0	0,2 *0.440*	VB..1604-VC..1604 *VB..33.-VC..33.*
GL32-DVUBL-22032-16JET	02994506	GL32	32,0 *1.260*	22,0 *0.866*	32 *1.260*	40,0 *1.575*	200,0 *2900.8*	93,0	0,0	-8,0	0,2 *0.440*	VB..1604-VC..1604 *VB..33.-VC..33.*
GL40-DVUBR-27032-16JET	02994515	GL40	40,0 *1.575*	27,0 *1.063*	32 *1.260*	50,0 *1.969*	200,0 *2900.8*	93,0	0,0	-8,0	0,2 *0.440*	VB..1604-VC..1604 *VB..33.-VC..33.*
GL40-DVUBL-27032-16JET	02994514	GL40	40,0 *1.575*	27,0 *1.063*	32 *1.260*	50,0 *1.969*	200,0 *2900.8*	93,0	0,0	-8,0	0,2 *0.440*	VB..1604-VC..1604 *VB..33.-VC..33.*
GL50-DVUBR-32032-16JET	02994522	GL50	50,0 *1.969*	32,0 *1.260*	32 *1.260*	63,0 *2.480*	200,0 *2900.8*	93,0	0,0	-8,0	0,3 *0.660*	VB..1604-VC..1604 *VB..33.-VC..33.*
GL50-DVUBL-32032-16JET	02994521	GL50	50,0 *1.969*	32,0 *1.260*	32 *1.260*	63,0 *2.480*	200,0 *2900.8*	93,0	0,0	-8,0	0,3 *0.660*	VB..1604-VC..1604 *VB..33.-VC..33.*

Spare Parts, included in delivery

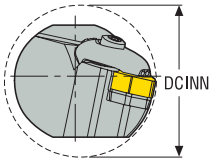
For size	Clamp screw	Coolant kit	Coolant seal	Insert shim	O-ring	Shim/clamp key	Shim screw	Spring
								
GL32..R	L84017-T10P	CP14U20S-2R-SET	930RD13	171.19-620	O-RING-5.0X1.2	T10P-2	C94006-T15P	S5808
GL32..L	L84017-T10P	CP14U20S-2L-SET	930RD13	171.19-620	O-RING-5.0X1.2	T10P-2	C94006-T15P	S5808
GL40..R	L84017-T10P	CP14U20S-2R-SET	930RD13	171.19-620	O-RING-5.0X1.2	T10P-2	C94006-T15P	S5808
GL40..L	L84017-T10P	CP14U20S-2L-SET	930RD13	171.19-620	O-RING-5.0X1.2	T10P-2	C94006-T15P	S5808
GL50..R	L84017-T10P	CP14U20S-2R-SET	930RD13	171.19-620	O-RING-5.0X1.2	T10P-2	C94006-T15P	S5808
GL50..L	L84017-T10P	CP14U20S-2L-SET	930RD13	171.19-620	O-RING-5.0X1.2	T10P-2	C94006-T15P	S5808

Accessories

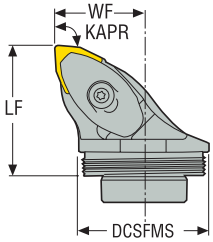
For size	Insert clamping torque	Replacement blade	Shim key	Torque key
				
GL32..R	2.0NM	T00-09P	T15P-2	T00-09P20
GL32..L	2.0NM	T00-09P	T15P-2	T00-09P20
GL40..R	2.0NM	T00-09P	T15P-2	T00-09P20
GL40..L	2.0NM	T00-09P	T15P-2	T00-09P20
GL50..R	2.0NM	T00-09P	T15P-2	T00-09P20
GL50..L	2.0NM	T00-09P	T15P-2	T00-09P20

GL..-DWLNR/L – Toolholders for inserts WNGG, WNMA, WNMG, WNMM – **Metric** / *Inch*

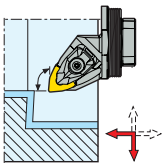




GL..-DWLNR/L



GL..-DWLNR/L
KAPR = 95,0 °



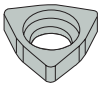
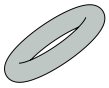
CTWS



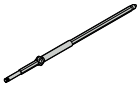
- Right-hand version shown
- For inserts program, see page(s) 586, 587, 588, 589, 614
- For damping holders program, see page(s) 624, 625-638
- For holder code key, see page(s) 13-14
- For coolant clamps code key, see page(s) 25
- For more information on Jetstream Tooling® and accessories, see page(s) 38, 85-89, 1026
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	DCSFMS	WF	LF	DCINN	CP	KAPR°	GAMO°	LAMS°	Weight	CTWS
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	bar *psi*				kg *lbs*	
GL32-DWLNR-22032-06JET	02994332	GL32	32,0 *1.260*	22,0 *0.866*	32 *1.260*	40,0 *1.575*	200,0 *2900.8*	95,0	-5,0	-12,0	0,2 *0.440*	WN..0604.. *WN..33.*
GL32-DWLNL-22032-06JET	02994330	GL32	32,0 *1.260*	22,0 *0.866*	32 *1.260*	40,0 *1.575*	200,0 *2900.8*	95,0	-5,0	-12,0	0,2 *0.440*	WN..0604.. *WN..33.*
GL40-DWLNR-27032-06JET	02994349	GL40	40,0 *1.575*	27,0 *1.063*	32 *1.260*	50,0 *1.969*	200,0 *2900.8*	95,0	-5,0	-12,0	0,2 *0.440*	WN..0604.. *WN..33.*
GL40-DWLNL-27032-06JET	02994347	GL40	40,0 *1.575*	27,0 *1.063*	32 *1.260*	50,0 *1.969*	200,0 *2900.8*	95,0	-5,0	-12,0	0,2 *0.440*	WN..0604.. *WN..33.*
GL50-DWLNR-32032-06JET	02994361	GL50	50,0 *1.969*	32,0 *1.260*	32 *1.260*	63,0 *2.480*	200,0 *2900.8*	95,0	-5,0	-12,0	0,3 *0.660*	WN..0604.. *WN..33.*
GL50-DWLNL-32032-06JET	02994359	GL50	50,0 *1.969*	32,0 *1.260*	32 *1.260*	63,0 *2.480*	200,0 *2900.8*	95,0	-5,0	-12,0	0,3 *0.660*	WN..0604.. *WN..33.*

Spare Parts, included in delivery

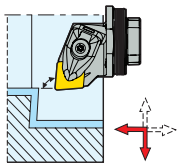
For size	Clamp screw	Coolant kit	Coolant seal	Insert shim	O-ring	Shim/clamp key	Shim screw	Spring
								
GL32	L84017-T10P	CN14L00R-2-SET	930RD13	DWN060310	O-RING-5.0X1.2	T10P-2	C03007-T09P	S5808
GL40	L84017-T10P	CN14L00R-2-SET	930RD13	DWN060310	O-RING-5.0X1.2	T10P-2	C03007-T09P	S5808
GL50	L84017-T10P	CN14L00R-2-SET	930RD13	DWN060310	O-RING-5.0X1.2	T10P-2	C03007-T09P	S5808

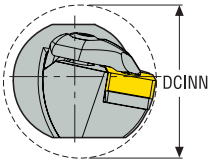
Accessories

For size	Coolant kit S-Standard	Coolant kit X-Roughing2	Insert clamping torque	Replacement blade	Torque key
					
GL32	CN14U00S-2-SET	CN14L00X-2-SET	2.0NM	T00-09P	T00-09P20
GL40	CN14U00S-2-SET	CN14L00X-2-SET	2.0NM	T00-09P	T00-09P20
GL50	CN14U00S-2-SET	CN14L00X-2-SET	2.0NM	T00-09P	T00-09P20

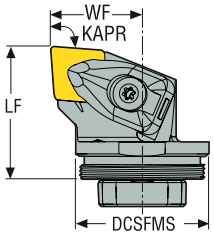
GL..-DCLNR/L – Toolholders for inserts CNGG, CNMA, CNMG, CNMM – Metric / *Inch*

GL..-DCLNR/L
KAPR = 95,0 °





GL..-DCLNR/L





CTWS



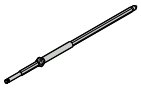
- Right-hand version shown
- For inserts program, see page(s) 546, 547, 548, 549, 550, 551
- For damping holders program, see page(s) 624, 625-638
- For holder code key, see page(s) 13-14
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	DCSFMS	WF	LF	DCINN	CP	KAPR°	GAMO°	LAMS°	Weight	CTWS
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	bar *psi*				kg *lbs*	
GL32-DCLNR-22032-12	02809539	GL32	32,0 *1.260*	22,0 *0.866*	32 *1.260*	40,0 *1.575*	200,0 *2900.8*	95,0	-6,0	-10,0	0,2 *0.440*	CN..1204.. *CN..43.*
GL32-DCLNL-22032-12	02809540	GL32	32,0 *1.260*	22,0 *0.866*	32 *1.260*	40,0 *1.575*	200,0 *2900.8*	95,0	-6,0	-10,0	0,2 *0.440*	CN..1204.. *CN..43.*
GL40-DCLNR-27032-12	02809477	GL40	40,0 *1.575*	27,0 *1.063*	32 *1.260*	50,0 *1.969*	200,0 *2900.8*	95,0	-6,0	-10,0	0,2 *0.440*	CN..1204.. *CN..43.*
GL40-DCLNL-27032-12	02809478	GL40	40,0 *1.575*	27,0 *1.063*	32 *1.260*	50,0 *1.969*	200,0 *2900.8*	95,0	-6,0	-10,0	0,2 *0.440*	CN..1204.. *CN..43.*
GL50-DCLNR-32032-12	02809517	GL50	50,0 *1.969*	32,0 *1.260*	32 *1.260*	63,0 *2.480*	200,0 *2900.8*	95,0	-6,0	-8,0	0,3 *0.660*	CN..1204.. *CN..43.*
GL50-DCLNL-32032-12	02809518	GL50	50,0 *1.969*	32,0 *1.260*	32 *1.260*	63,0 *2.480*	200,0 *2900.8*	95,0	-6,0	-8,0	0,3 *0.660*	CN..1204.. *CN..43.*
GL50-DCLNR-32037-16	02809519	GL50	50,0 *1.969*	32,0 *1.260*	37 *1.457*	63,0 *2.480*	200,0 *2900.8*	95,0	-5,0	-14,0	0,4 *0.880*	CN..1606.. *CN..54.*
GL50-DCLNL-32037-16	02809520	GL50	50,0 *1.969*	32,0 *1.260*	37 *1.457*	63,0 *2.480*	200,0 *2900.8*	95,0	-5,0	-14,0	0,4 *0.880*	CN..1606.. *CN..54.*
GL50-DCLNR-32040-19	02809521	GL50	50,0 *1.969*	32,0 *1.260*	40 *1.575*	63,0 *2.480*	200,0 *2900.8*	95,0	-5,0	-14,0	0,4 *0.880*	CN..1906.. *CN..64.*
GL50-DCLNL-32040-19	02809522	GL50	50,0 *1.969*	32,0 *1.260*	40 *1.575*	63,0 *2.480*	200,0 *2900.8*	95,0	-5,0	-14,0	0,4 *0.880*	CN..1906.. *CN..64.*

Spare Parts, included in delivery

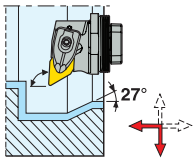
For size	Clamp pin	Clamp screw	Floating wedge clamp	Insert shim	Shim/clamp key	Shim screw	Spring
..-12	FP2012	L85021-T15P	CD12-S	DCO120310	T15P-2	C04008-T15P	S6912
..-16	FP2012	L86026-T20P	CD16-S	DCN160616	T20P-2D	C05010-T20P	S7010
..-19	FP2012	L86026-T20P	CD19-S	DCN190416	T20P-2D	C05010-T20P	S7010

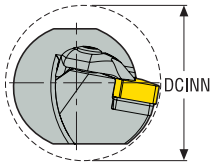
Accessories

For size	Clamp kit	Insert clamping torque	Replacement blade	Torque key
				
..-12	CD12-S12	3.5NM	T00-15P	T00-15P35
..-16	CD16-S16	6.0NM	T00T-20P	T00T-20P60
..-19	CD19-S19	6.0NM	T00T-20P	T00T-20P60

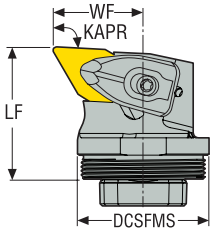
GL..-DDUNR/L – Toolholders for inserts DNGG, DNGM, DNMA, DNMG, DNMM, DNMU, DNMX – Metric / *Inch*

GL..-DDUNR/L
KAPR = 93,0 °





GL..-DDUNR/L





CTWS



- Right-hand version shown
- For inserts program, see page(s) 556, 557, 558, 559, 598
- For damping holders program, see page(s) 624, 625-638
- For holder code key, see page(s) 13-14
- * Use the right shim & the right screw for the selected insert. For details, see page 99
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	DCSFMS	WF	LF	DCINN	CP	KAPR°	GAMO°	LAMS°	Weight	CTWS
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	bar *psi*				kg *lbs*	
GL32-DDUNR-22032-11	02809541	GL32	32,0 *1.260*	22,0 *0.866*	32 *1.260*	40,0 *1.575*	200,0 *2900.8*	93,0	-6,0	-10,0	0,2 *0.440*	DNMU1104.. *DNMU33.*
GL32-DDUNL-22032-11	02809542	GL32	32,0 *1.260*	22,0 *0.866*	32 *1.260*	40,0 *1.575*	200,0 *2900.8*	93,0	-6,0	-10,0	0,2 *0.440*	DNMU1104.. *DNMU33.*
GL40-DDUNR-27032-11	02809479	GL40	40,0 *1.575*	27,0 *1.063*	32 *1.260*	50,0 *1.969*	200,0 *2900.8*	93,0	-5,0	-10,0	0,2 *0.440*	DNMU1104.. *DNMU33.*
GL40-DDUNL-27032-11	02809480	GL40	40,0 *1.575*	27,0 *1.063*	32 *1.260*	50,0 *1.969*	200,0 *2900.8*	93,0	-5,0	-10,0	0,2 *0.440*	DNMU1104.. *DNMU33.*
GL32-DDUNR-22032-15	02975022	GL32	32,0 *1.260*	21,88 *0.861*	32 *1.260*	40,0 *1.575*	200,0 *2900.8*	93,0	-6,0	-14,0	0,2 *0.440*	DN..1504-DN..1506* *DN..43-DN..44**
GL32-DDUNL-22032-15	02975023	GL32	32,0 *1.260*	21,88 *0.861*	32 *1.260*	40,0 *1.575*	200,0 *2900.8*	93,0	-6,0	-14,0	0,2 *0.440*	DN..1504-DN..1506* *DN..43-DN..44**
GL40-DDUNR-27032-15	02809481	GL40	40,0 *1.575*	27,0 *1.063*	32 *1.260*	50,0 *1.969*	200,0 *2900.8*	93,0	-6,0	-12,0	0,2 *0.440*	DN..1504-DN..1506* *DN..43-DN..44**
GL40-DDUNL-27032-15	02809482	GL40	40,0 *1.575*	27,0 *1.063*	32 *1.260*	50,0 *1.969*	200,0 *2900.8*	93,0	-6,0	-12,0	0,2 *0.440*	DN..1504-DN..1506* *DN..43-DN..44**
GL50-DDUNR-32032-15	02809523	GL50	50,0 *1.969*	32,0 *1.260*	32 *1.260*	63,0 *2.480*	200,0 *2900.8*	93,0	-6,0	-12,0	0,3 *0.660*	DN..1504-DN..1506* *DN..43-DN..44**
GL50-DDUNL-32032-15	02809524	GL50	50,0 *1.969*	32,0 *1.260*	32 *1.260*	63,0 *2.480*	200,0 *2900.8*	93,0	-6,0	-12,0	0,3 *0.660*	DN..1504-DN..1506* *DN..43-DN..44**

Spare Parts, included in delivery

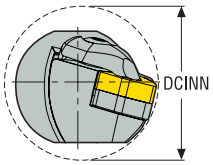
For size	Clamp for DNMU11	Clamp pin	Clamp screw	Floating wedge clamp	Insert shim	Shim/clamp key	Shim screw	Spring
..-11	CD11XP	FP1508	L84017-T10P	–	DDN110310	T10P-2	C03007-T09P	S5608
..-15	–	FP2012	L85021-T15P	CD12-S	DDN150416	T15P-2	C04008-T15P	S6912

Accessories

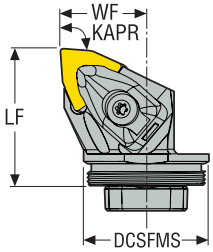
For size	Clamp for DNMG11	Clamp for DNMU11	Clamp kit	Insert clamping torque	Replacement blade	Torque key
..-11	CD09-S09	CD11XP-SET	–	2.0NM	T00-09P	T00-09P20
..-15	–	–	CD12-S12	3.5NM	T00-15P	T00-15P35

GL..-DWLNR/L – Toolholders for inserts WNGA, WNGG, WNMA, WNMG, WNMM – **Metric** / *Inch*

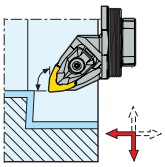




GL..-DWLNR/L



GL..-DWLNR/L
KAPR = 95,0 °



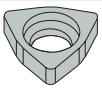
CTWS



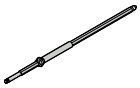
- Right-hand version shown
- For inserts program, see page(s) 586, 587, 588, 589, 614
- For damping holders program, see page(s) 624, 625-638
- For holder code key, see page(s) 13-14
- * Use the right shim & the right screw for the selected insert. For details, see page 99
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	DCSFMS	WF	LF	DCINN	CP	KAPR°	GAMO°	LAMS°	Weight	CTWS
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	bar *psi*				kg *lbs*	
GL32-DWLNR-22032-06	02809543	GL32	32,0 *1.260*	22,0 *0.866*	32 *1.260*	40,0 *1.575*	200,0 *2900.8*	95,0	-5,0	-12,0	0,2 *0.440*	WN..0604.. *WN..33.*
GL32-DWLNL-22032-06	02809544	GL32	32,0 *1.260*	22,0 *0.866*	32 *1.260*	40,0 *1.575*	200,0 *2900.8*	95,0	-5,0	-12,0	0,2 *0.440*	WN..0604.. *WN..33.*
GL32-DWLNR-22035-08	02809545	GL32	32,0 *1.260*	22,0 *0.866*	35 *1.378*	40,0 *1.575*	200,0 *2900.8*	95,0	-5,0	-14,0	0,2 *0.440*	WN..0804-WN..0806* *WN..43-WN..44**
GL32-DWLNL-22035-08	02809546	GL32	32,0 *1.260*	22,0 *0.866*	35 *1.378*	40,0 *1.575*	200,0 *2900.8*	95,0	-5,0	-14,0	0,2 *0.440*	WN..0804-WN..0806* *WN..43-WN..44**
GL40-DWLNR-27032-06	02809483	GL40	40,0 *1.575*	27,0 *1.063*	32 *1.260*	50,0 *1.969*	200,0 *2900.8*	95,0	-5,0	-12,0	0,2 *0.440*	WN..0604.. *WN..33.*
GL40-DWLNL-27032-06	02809484	GL40	40,0 *1.575*	27,0 *1.063*	32 *1.260*	50,0 *1.969*	200,0 *2900.8*	95,0	-5,0	-12,0	0,2 *0.440*	WN..0604.. *WN..33.*
GL40-DWLNR-27037-08	02809485	GL40	40,0 *1.575*	27,0 *1.063*	37 *1.457*	50,0 *1.969*	200,0 *2900.8*	95,0	-5,0	-12,0	0,2 *0.440*	WN..0804-WN..0806* *WN..43-WN..44**
GL40-DWLNL-27037-08	02809486	GL40	40,0 *1.575*	27,0 *1.063*	37 *1.457*	50,0 *1.969*	200,0 *2900.8*	95,0	-5,0	-12,0	0,3 *0.660*	WN..0804-WN..0806* *WN..43-WN..44**
GL50-DWLNL-32032-06	02809526	GL50	50,0 *1.969*	32,0 *1.260*	32 *1.260*	63,0 *2.480*	200,0 *2900.8*	95,0	-5,0	-12,0	0,3 *0.660*	WN..0604.. *WN..33.*
GL50-DWLNR-32038-08	02809527	GL50	50,0 *1.969*	32,0 *1.260*	38 *1.496*	63,0 *2.480*	200,0 *2900.8*	95,0	-5,0	-12,0	0,3 *0.660*	WN..0804-WN..0806* *WN..43-WN..44**
GL50-DWLNL-32038-08	02809528	GL50	50,0 *1.969*	32,0 *1.260*	38 *1.496*	63,0 *2.480*	200,0 *2900.8*	95,0	-5,0	-12,0	0,3 *0.660*	WN..0804-WN..0806* *WN..43-WN..44**

Spare Parts, included in delivery

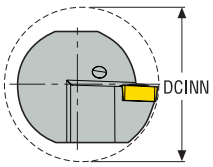
For size	Clamp pin	Clamp screw	Floating wedge clamp	Insert shim	Shim/clamp key	Shim screw	Spring
							
..-06	FP1508	L84017-T09P	CD09-S	DWN060310	T09P-2	C03007-T09P	S5608
..-08	FP2012	L85021-T15P	CD12-S	DWN080416	T15P-2	C04008-T15P	S6912

Accessories

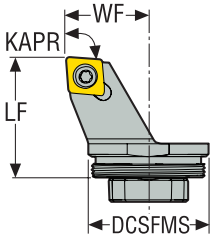
For size	Clamp kit	Insert clamping torque	Replacement blade	Torque key
				
..-06	CD09-S09	2.0NM	T00-09P	T00-09P20
..-08	CD12-S12	3.5NM	T00-15P	T00-15P35

GL..-SCLCR/L – Toolholders for inserts CCGT, CCGW, CCGX, CCMT, CCMW – Metric / *Inch*

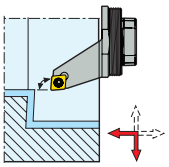




GL..-SCLCR/L



GL..-SCLCR/L
KAPR = 95,0 °



CTWS



- Right-hand version shown
- For inserts program, see page(s) 542, 543, 544, 545, 591, 592, 615, 616
- For damping holders program, see page(s) 624, 625-638
- For holder code key, see page(s) 13-14
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	DCSFMS	WF	LF	DCINN	CP	KAPR°	GAMO°	LAMS°	Weight	CTWS
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	bar *psi*				kg *lbs*	
GL25-SCLCR-17020-09	03211318	GL25	25,0 *0.984*	17,0 *0.669*	20 *0.787*	32,0 *1.260*	200,0 *2900.8*	95,0	0,0	-3,0	0,1 *0.220*	CC..09T3.. *CC..32.5.*
GL25-SCLCL-17020-09	03211319	GL25	25,0 *0.984*	17,0 *0.669*	20 *0.787*	32,0 *1.260*	200,0 *2900.8*	95,0	0,0	-3,0	0,1 *0.220*	CC..09T3.. *CC..32.5.*

Spare Parts, included in delivery

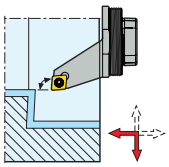
For size	Insert key	Insert screw
		
-09	T15P-2	C04008-T15P

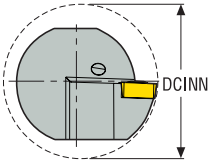
Accessories

For size	Insert clamping torque	Replacement blade	Torque key
			
-09	3.5NM	T00-15P	T00-15P35

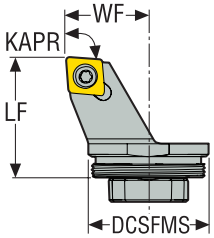
GL..-SCLCR/L – Toolholders for inserts CCGT, CCGW, CCGX, CCMT – Metric / *Inch*

GL..-SCLCR/L
KAPR = 95,0 °





GL..-SCLCR/L





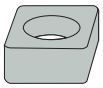
CTWS



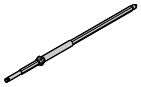
- Right-hand version shown
- For inserts program, see page(s) 542, 543, 544, 545, 591, 592, 615
- For damping holders program, see page(s) 624, 625-638
- For holder code key, see page(s) 13-14
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	DCSFMS	WF	LF	DCINN	CP	KAPR°	GAMO°	LAMS°	Weight	CTWS
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	bar *psi*				kg *lbs*	
GL32-SCLCR-22032-09	02809490	GL32	32,0 *1.260*	22,0 *0.866*	32 *1.260*	40,0 *1.575*	200,0 *2900.8*	95,0	0,0	-2,0	0,1 *0.220*	CC..09T3.. *CC..32.5.*
GL32-SCLCL-22032-09	02809491	GL32	32,0 *1.260*	22,0 *0.866*	32 *1.260*	40,0 *1.575*	200,0 *2900.8*	95,0	0,0	-2,0	0,1 *0.220*	CC..09T3.. *CC..32.5.*
GL32-SCLCR-22032-12	02809492	GL32	32,0 *1.260*	22,0 *0.866*	32 *1.260*	40,0 *1.575*	200,0 *2900.8*	95,0	0,0	-8,0	0,1 *0.220*	CC..1204.. *CC..43.*
GL32-SCLCL-22032-12	02809493	GL32	32,0 *1.260*	22,0 *0.866*	32 *1.260*	40,0 *1.575*	200,0 *2900.8*	95,0	0,0	-8,0	0,1 *0.220*	CC..1204.. *CC..43.*
GL40-SCLCR-27032-06	02809487	GL40	40,0 *1.575*	27,0 *1.063*	32 *1.260*	50,0 *1.969*	200,0 *2900.8*	95,0	0,0	-2,0	0,2 *0.440*	CC..0602.. *CC..21.5.*
GL40-SCLCL-27032-06	02809502	GL40	40,0 *1.575*	27,0 *1.063*	32 *1.260*	50,0 *1.969*	200,0 *2900.8*	95,0	0,0	-2,0	0,2 *0.440*	CC..0602.. *CC..21.5.*
GL40-SCLCR-27032-09	02809503	GL40	40,0 *1.575*	27,0 *1.063*	32 *1.260*	50,0 *1.969*	200,0 *2900.8*	95,0	0,0	-2,0	0,2 *0.440*	CC..09T3.. *CC..32.5.*
GL40-SCLCL-27032-09	02809504	GL40	40,0 *1.575*	27,0 *1.063*	32 *1.260*	50,0 *1.969*	200,0 *2900.8*	95,0	0,0	-2,0	0,2 *0.440*	CC..09T3.. *CC..32.5.*
GL40-SCLCR-27032-12	02809505	GL40	40,0 *1.575*	27,0 *1.063*	32 *1.260*	50,0 *1.969*	200,0 *2900.8*	95,0	0,0	-8,0	0,2 *0.440*	CC..1204.. *CC..43.*
GL40-SCLCL-27032-12	02809506	GL40	40,0 *1.575*	27,0 *1.063*	32 *1.260*	50,0 *1.969*	200,0 *2900.8*	95,0	0,0	-8,0	0,2 *0.440*	CC..1204.. *CC..43.*
GL50-SCLCR-32032-06	02809529	GL50	50,0 *1.969*	32,0 *1.260*	32 *1.260*	63,0 *2.480*	200,0 *2900.8*	95,0	0,0	-2,0	0,3 *0.660*	CC..0602.. *CC..21.5.*
GL50-SCLCL-32032-06	02809530	GL50	50,0 *1.969*	32,0 *1.260*	32 *1.260*	63,0 *2.480*	200,0 *2900.8*	95,0	0,0	-2,0	0,3 *0.660*	CC..0602.. *CC..21.5.*
GL50-SCLCR-32032-09	02809531	GL50	50,0 *1.969*	32,0 *1.260*	32 *1.260*	63,0 *2.480*	200,0 *2900.8*	95,0	0,0	-2,0	0,3 *0.660*	CC..09T3.. *CC..32.5.*
GL50-SCLCL-32032-09	02809532	GL50	50,0 *1.969*	32,0 *1.260*	32 *1.260*	63,0 *2.480*	200,0 *2900.8*	95,0	0,0	-2,0	0,3 *0.660*	CC..09T3.. *CC..32.5.*
GL50-SCLCR-32032-12	02809533	GL50	50,0 *1.969*	32,0 *1.260*	32 *1.260*	63,0 *2.480*	200,0 *2900.8*	95,0	0,0	-5,0	0,3 *0.660*	CC..1204.. *CC..43.*
GL50-SCLCL-32032-12	02809534	GL50	50,0 *1.969*	32,0 *1.260*	32 *1.260*	63,0 *2.480*	200,0 *2900.8*	95,0	0,0	-5,0	0,3 *0.660*	CC..1204.. *CC..43.*

Spare Parts, included in delivery

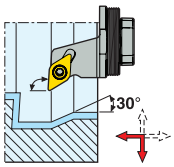
For size	Insert key	Insert screw	Insert shim	Shim screw
				
..-09	T15P-2	C04008-T15P	–	–
..-12	T15P-2	C05012-T15P	123.19-621	CA5008
..-06	T07P-2	C02506-T07P	–	–

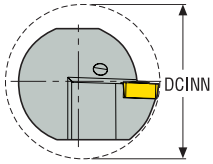
Accessories

For size	Insert clamping torque	Replacement blade	Shim key	Torque key
				
..-09	3.5NM	T00-15P	–	T00-15P35
..-12	5.0NM	T00-15P	5SMS795	T00-15P50
..-06	0.9NM	T00-07P	–	T00-07P09

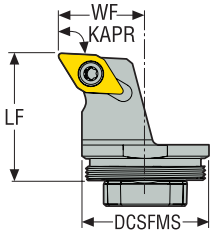
GL..-SDUCR/L – Toolholders for inserts DCGT, DCGW, DCMT, DCMW, DCMX – Metric / *Inch*

GL..-SDUCR/L
KAPR = 93,0 °





GL..-SDUCR/L





CTWS



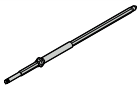
- Right-hand version shown
- For inserts program, see page(s) 553, 554, 555, 596, 617
- For damping holders program, see page(s) 624, 625-638
- For holder code key, see page(s) 13-14
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	DCSFMS	WF	LF	DCINN	CP	KAPR°	GAMO°	LAMS°	Weight	CTWS
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	bar *psi*				kg *lbs*	
GL25-SDUCR-17020-07	03211320	GL25	25,0 *0.984*	17,0 *0.669*	20 *0.787*	32,0 *1.260*	200,0 *2900.8*	93,0	0,0	-6,0	0,1 *0.220*	DC..0702.. *DC..21.5.*
GL25-SDUCL-17020-07	03211321	GL25	25,0 *0.984*	17,0 *0.669*	20 *0.787*	32,0 *1.260*	200,0 *2900.8*	93,0	0,0	-6,0	0,3 *0.660*	DC..0702.. *DC..21.5.*
GL25-SDUCR-17020-11	03211322	GL25	25,0 *0.984*	17,0 *0.669*	20 *0.787*	32,0 *1.260*	200,0 *2900.8*	93,0	0,0	-6,0	0,1 *0.220*	DC..11T3.. *DC..32.5.*
GL25-SDUCL-17020-11	03211323	GL25	25,0 *0.984*	17,0 *0.669*	20 *0.787*	32,0 *1.260*	200,0 *2900.8*	93,0	0,0	-6,0	0,1 *0.220*	DC..11T3.. *DC..32.5.*

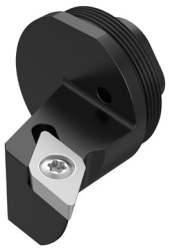
Spare Parts, included in delivery

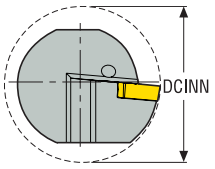
For size	Insert key	Insert screw
		
-07	T07P-2	C02506-T07P
-11	T15P-2	C04008-T15P

Accessories

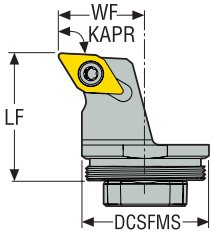
For size	Insert clamping torque	Replacement blade	Torque key
			
-07	0.9NM	T00-07P	T00-07P09
-11	3.5NM	T00-15P	T00-15P35

GL..-SDUCR/L – Toolholders for inserts DCGT, DCGW, DCMT, DCMX – **Metric** / *Inch*

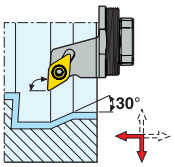




GL..-SDUCR/L



GL..-SDUCR/L
KAPR = 93,0 °



CTWS



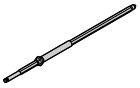
- Right-hand version shown
- For inserts program, see page(s) 553, 554, 555, 596
- For damping holders program, see page(s) 624, 625-638
- For holder code key, see page(s) 13-14
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	DCSFMS	WF	LF	DCINN	CP	KAPR°	GAMO°	LAMS°	Weight	CTWS
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	bar *psi*				kg *lbs*	
GL32-SDUCR-22032-11	02809494	GL32	32,0 *1.260*	22,0 *0.866*	32 *1.260*	40,0 *1.575*	200,0 *2900.8*	93,0	0,0	-5,0	0,1 *0.220*	DC..11T3.. *DC..32.5.*
GL32-SDUCL-22032-11	02809495	GL32	32,0 *1.260*	22,0 *0.866*	32 *1.260*	40,0 *1.575*	200,0 *2900.8*	93,0	0,0	-5,0	0,1 *0.220*	DC..11T3.. *DC..32.5.*
GL40-SDUCR-27032-11	02809507	GL40	40,0 *1.575*	27,0 *1.063*	32 *1.260*	50,0 *1.969*	200,0 *2900.8*	93,0	0,0	-5,0	0,2 *0.440*	DC..11T3.. *DC..32.5.*
GL40-SDUCL-27032-11	02809508	GL40	40,0 *1.575*	27,0 *1.063*	32 *1.260*	50,0 *1.969*	200,0 *2900.8*	93,0	0,0	-5,0	0,2 *0.440*	DC..11T3.. *DC..32.5.*
GL50-SDUCR-32032-11	02809535	GL50	50,0 *1.969*	32,0 *1.260*	32 *1.260*	63,0 *2.480*	200,0 *2900.8*	93,0	0,0	-5,0	0,3 *0.660*	DC..11T3.. *DC..32.5.*
GL50-SDUCL-32032-11	02809536	GL50	50,0 *1.969*	32,0 *1.260*	32 *1.260*	63,0 *2.480*	200,0 *2900.8*	93,0	0,0	-5,0	0,3 *0.660*	DC..11T3.. *DC..32.5.*

Spare Parts, included in delivery

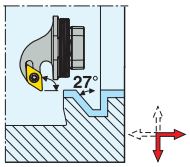
For size	Insert key	Insert screw
		
..-11	T15P-2	C04008-T15P

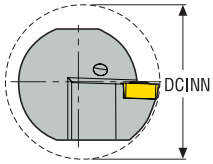
Accessories

For size	Insert clamping torque	Replacement blade	Torque key
			
..-11	3.5NM	T00-15P	T00-15P35

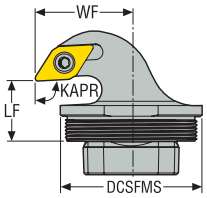
GL..-SDUCR/L-..X – Toolholders for inserts DCGT, DCGW, DCMT, DCMW, DCMX – Metric / *Inch*

GL..-SDUCR/L-..X
KAPR = 93,0 °





GL..-SDUCR/L-..X





CTWS



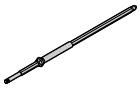
- Right-hand version shown
- For inserts program, see page(s) 553, 554, 555, 596, 617
- For damping holders program, see page(s) 624, 625-638
- For holder code key, see page(s) 13-14
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	DCSFMS	WF	LF	DCINN	CP	KAPR°	GAMO°	LAMS°	Weight	CTWS
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	bar *psi*				kg *lbs*	
GL25-SDUCR-17012-11X	03211326	GL25	25,0 *0.984*	17,0 *0.669*	12 *0.472*	32,0 *1.260*	200,0 *2900.8*	93,0	0,0	-6,0	0,1 *0.220*	DC..11T3.. *DC..32.5.*
GL25-SDUCL-17012-11X	03211327	GL25	25,0 *0.984*	17,0 *0.669*	12 *0.472*	32,0 *1.260*	200,0 *2900.8*	93,0	0,0	-6,0	0,1 *0.220*	DC..11T3.. *DC..32.5.*

Spare Parts, included in delivery

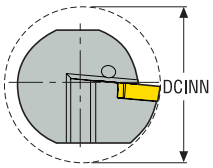
For size	Insert key	Insert screw
		
-11X	T15P-2	C04008-T15P

Accessories

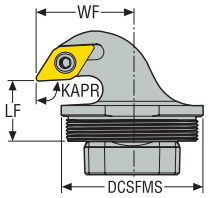
For size	Insert clamping torque	Replacement blade	Torque key
			
-11X	3.5NM	T00-15P	T00-15P35

GL..-SDUCR/L-..X – Toolholders for inserts DCGT, DCGW, DCMT, DCMW, DCMX – **Metric** / *Inch*

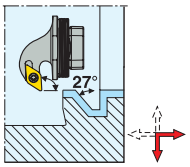




GL..-SDUCR/L-..X



GL..-SDUCR/L-..X
KAPR = 93,0 °



CTWS



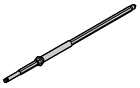
- Right-hand version shown
- For inserts program, see page(s) 553, 554, 555, 596, 617
- For damping holders program, see page(s) 624, 625-638
- For holder code key, see page(s) 13-14
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	DCSFMS	WF	LF	DCINN	CP	KAPR°	GAMO°	LAMS°	Weight	CTWS
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	bar *psi*				kg *lbs*	
GL32-SDUCR-22018-11X	02975005	GL32	32,0 *1.260*	21,88 *0.861*	18 *0.709*	40,0 *1.575*	200,0 *2900.8*	93,0	0,0	-5,0	0,2 *0.440*	DC..11T3.. *DC..32.5.*
GL32-SDUCL-22018-11X	02975006	GL32	32,0 *1.260*	21,88 *0.861*	18 *0.709*	40,0 *1.575*	200,0 *2900.8*	93,0	0,0	-5,0	0,2 *0.440*	DC..11T3.. *DC..32.5.*
GL40-SDUCR-27017-11X	02975007	GL40	40,0 *1.575*	26,88 *1.058*	17 *0.669*	50,0 *1.969*	200,0 *2900.8*	93,0	0,0	-5,0	0,2 *0.440*	DC..11T3.. *DC..32.5.*
GL40-SDUCL-27017-11X	02975008	GL40	40,0 *1.575*	26,88 *1.058*	17 *0.669*	50,0 *1.969*	200,0 *2900.8*	93,0	0,0	-5,0	0,2 *0.440*	DC..11T3.. *DC..32.5.*
GL50-SDUCR-32017-11X	02975009	GL50	50,0 *1.969*	32,0 *1.260*	17 *0.669*	63,0 *2.480*	200,0 *2900.8*	93,0	0,0	-5,0	0,3 *0.660*	DC..11T3.. *DC..32.5.*
GL50-SDUCL-32017-11X	02975010	GL50	50,0 *1.969*	32,0 *1.260*	17 *0.669*	63,0 *2.480*	200,0 *2900.8*	93,0	0,0	-5,0	0,3 *0.660*	DC..11T3.. *DC..32.5.*

Spare Parts, included in delivery

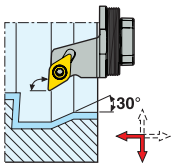
For size	Insert key	Insert screw
		
..-11	T15P-2	C04008-T15P

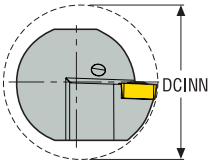
Accessories

For size	Insert clamping torque	Replacement blade	Torque key
			
..-11	3.5NM	T00-15P	T00-15P35

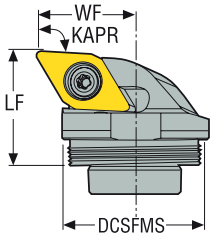
GL..-SDUNR/L – Toolholders for inserts DNMA, DNMU, DNMX – Metric / *Inch*

GL..-SDUNR/L
KAPR = 93,0 °





GL..-SDUNR/L





CTWS



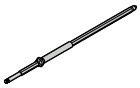
- Right-hand version shown
- For inserts program, see page(s) 556, 557, 558, 559, 598
- For damping holders program, see page(s) 624, 625-638
- For holder code key, see page(s) 13-14
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	DCSFMS	WF	LF	DCINN	CP	KAPR°	GAMO°	LAMS°	Weight	CTWS
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	bar *psi*				kg *lbs*	
GL25-SDUNR-17020-11	03211316	GL25	25,0 *0.984*	17,0 *0.669*	20 *0.787*	32,0 *1.260*	200,0 *2900.8*	93,0	-5,0	-13,0	0,1 *0.220*	DNMU1104.. *DNMU33.*
GL25-SDUNL-17020-11	03211317	GL25	25,0 *0.984*	17,0 *0.669*	20 *0.787*	32,0 *1.260*	200,0 *2900.8*	93,0	-5,0	-13,0	0,1 *0.220*	DNMU1104.. *DNMU33.*

Spare Parts, included in delivery

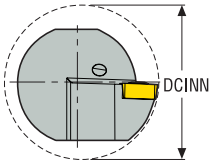
For size	Insert key	Insert screw
		
-11	T09P-2	C03511-T09P

Accessories

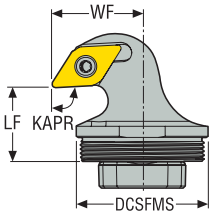
For size	Insert clamping torque	Replacement blade	Torque key
			
-11	2.0NM	T00-09P	T00-09P20

GL..-SDUNR/L..X – Toolholders for inserts DNMU, DNMX – **Metric** / *Inch*

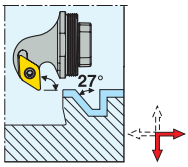




GL..-SDUNR/L-..X



KAPR = 93,0 °



CTWS



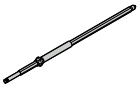
- Right-hand version shown
- For inserts program, see page(s) 556, 557, 558, 559
- For damping holders program, see page(s) 624, 625-638
- For holder code key, see page(s) 13-14
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	DCSFMS	WF	LF	DCINN	CP	KAPR°	GAMO°	LAMS°	Weight	CTWS
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	bar *psi*				kg *lbs*	
GL32-SDUNR-22018-11X	02975003	GL32	32,0 *1.260*	21,88 *0.861*	18 *0.709*	40,0 *1.575*	200,0 *2900.8*	93,0	-6,0	-10,0	0,2 *0.440*	DNMU1104.. *DNMU33.*
GL32-SDUNL-22018-11X	02975004	GL32	32,0 *1.260*	21,88 *0.861*	18 *0.709*	40,0 *1.575*	200,0 *2900.8*	93,0	-6,0	-10,0	0,2 *0.440*	DNMU1104.. *DNMU33.*

Spare Parts, included in delivery

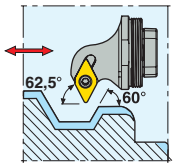
For size	Insert key	Insert screw
		
	T09P-2	C03511-T09P

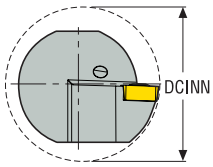
Accessories

For size	Insert clamping torque	Replacement blade	Torque key
			
	2.0NM	T00-09P	T00-09P20

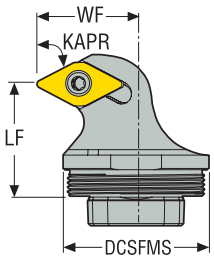
GL..-SDXCR/L – Toolholders for inserts DCGT, DCGW, DCMT, DCMW, DCMX – Metric / *Inch*

GL..-SDXCR/L
KAPR = 62,5 °





GL..-SDXCR/L





CTWS



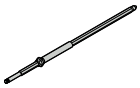
- Right-hand version shown
- For inserts program, see page(s) 553, 554, 555, 596, 617
- For damping holders program, see page(s) 624, 625-638
- For holder code key, see page(s) 13-14
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	DCSFMS	WF	LF	DCINN	CP	KAPR°	GAMO°	LAMS°	Weight	CTWS
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	bar *psi*				kg *lbs*	
GL25-SDXCR-17018-11	03211324	GL25	25,0 *0.984*	17,0 *0.669*	18 *0.709*	32,0 *1.260*	200,0 *2900.8*	62,5	0,0	-6,0	0,1 *0.220*	DC..11T3.. *DC..32.5.*
GL25-SDXCL-17018-11	03211325	GL25	25,0 *0.984*	17,0 *0.669*	18 *0.709*	32,0 *1.260*	200,0 *2900.8*	62,5	0,0	-6,0	0,1 *0.220*	DC..11T3.. *DC..32.5.*

Spare Parts, included in delivery

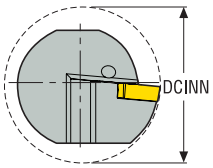
For size	Insert key	Insert screw
		
-11	T15P-2	C04008-T15P

Accessories

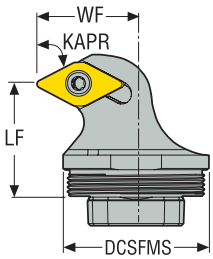
For size	Insert clamping torque	Replacement blade	Torque key
			
-11	3.5NM	T00-15P	T00-15P35

GL..-SDXCR/L – Toolholders for inserts DCGT, DCGW, DCMT, DCMW, DCMX – **Metric** / *Inch*

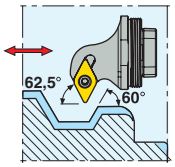




GL..-SDXCR/L



GL..-SDXCR/L
KAPR = 62,5 °



CTWS



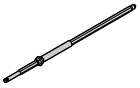
- Right-hand version shown
- For inserts program, see page(s) 553, 554, 555, 596, 617
- For damping holders program, see page(s) 624, 625-638
- For holder code key, see page(s) 13-14
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	DCSFMS	WF	LF	DCINN	CP	KAPR°	GAMO°	LAMS°	Weight	CTWS
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	bar *psi*				kg *lbs*	
GL32-SDXCR-22025-11	02975013	GL32	32,0 *1.260*	21,88 *0.861*	25 *0.984*	40,0 *1.575*	200,0 *2900.8*	62,5	0,0	-5,0	0,2 *0.440*	DC..11T3.. *DC..32.5.*
GL32-SDXCL-22025-11	02975014	GL32	32,0 *1.260*	21,88 *0.861*	25 *0.984*	40,0 *1.575*	200,0 *2900.8*	62,5	0,0	-5,0	0,2 *0.440*	DC..11T3.. *DC..32.5.*
GL40-SDXCR-27025-11	02975015	GL40	40,0 *1.575*	26,88 *1.058*	25 *0.984*	50,0 *1.969*	200,0 *2900.8*	62,5	0,0	-5,0	0,2 *0.440*	DC..11T3.. *DC..32.5.*
GL40-SDXCL-27025-11	02975016	GL40	40,0 *1.575*	26,88 *1.058*	25 *0.984*	50,0 *1.969*	200,0 *2900.8*	62,5	0,0	-5,0	0,2 *0.440*	DC..11T3.. *DC..32.5.*
GL50-SDXCR-32025-11	02975017	GL50	50,0 *1.969*	31,88 *1.255*	25 *0.984*	63,0 *2.480*	200,0 *2900.8*	62,5	0,0	-5,0	0,3 *0.660*	DC..11T3.. *DC..32.5.*
GL50-SDXCL-32025-11	02975018	GL50	50,0 *1.969*	31,88 *1.255*	25 *0.984*	63,0 *2.480*	200,0 *2900.8*	62,5	0,0	-5,0	0,3 *0.660*	DC..11T3.. *DC..32.5.*

Spare Parts, included in delivery

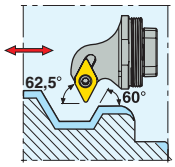
For size	Insert key	Insert screw
		
..-11	T15P-2	C04008-T15P

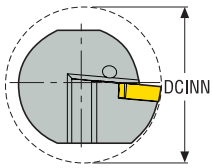
Accessories

For size	Insert clamping torque	Replacement blade	Torque key
			
..-11	3.5NM	T00-15P	T00-15P35

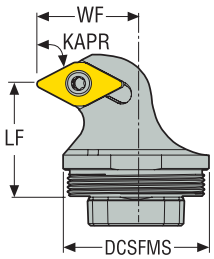
GL..-SDXNR/L – Toolholders for inserts DNMA, DNMU, DNMX – Metric / *Inch*

KAPR = 62,5 °





GL..-SDXCR/L





CTWS



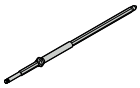
- Right-hand version shown
- For inserts program, see page(s) 556, 557, 558, 559, 598
- For damping holders program, see page(s) 624, 625-638
- For holder code key, see page(s) 13-14
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	DCSFMS	WF	LF	DCINN	CP	KAPR°	GAMO°	LAMS°	Weight	CTWS
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	bar *psi*				kg *lbs*	
GL32-SDXNR-22025-11	02975011	GL32	32,0 *1.260*	21,88 *0.861*	25 *0.984*	40,0 *1.575*	200,0 *2900.8*	62,5	0,0	-10,0	0,1 *0.220*	DNMU1104.. *DNMU33.*
GL32-SDXNL-22025-11	02975012	GL32	32,0 *1.260*	21,88 *0.861*	25 *0.984*	40,0 *1.575*	200,0 *2900.8*	62,5	0,0	-10,0	0,1 *0.220*	DNMU1104.. *DNMU33.*

Spare Parts, included in delivery

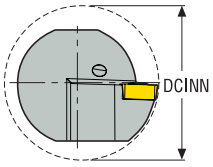
For size	Insert key	Insert screw
		
	T09P-2	C03511-T09P

Accessories

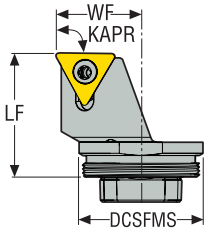
For size	Insert clamping torque	Replacement blade	Torque key
			
	2.0NM	T00-09P	T00-09P20

GL..-STFCR/L – Toolholders for inserts TCGT, TCGW, TCMT, TCMW – **Metric** / *Inch*

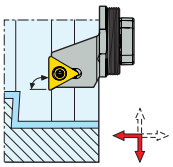




GL..-STFCR/L



GL..-STFCR/L
KAPR = 91,0 °



CTWS



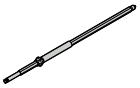
- Right-hand version shown
- For inserts program, see page(s) 571, 572, 607, 618
- For damping holders program, see page(s) 624, 625-638
- For holder code key, see page(s) 13-14
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	DCSFMS	WF	LF	DCINN	CP	KAPR°	GAMO°	LAMS°	Weight	CTWS
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	bar *psi*				kg *lbs*	
GL25-STFCR-17020-11	03211328	GL25	25,0 *0.984*	17,0 *0.669*	20 *0.787*	32,0 *1.260*	200,0 *2900.8*	91,0	0,0	-3,0	0,3 *0.660*	TC..1102.. *TC..21.5.*
GL25-STFCL-17020-11	03211329	GL25	25,0 *0.984*	17,0 *0.669*	20 *0.787*	32,0 *1.260*	200,0 *2900.8*	91,0	0,0	-3,0	0,1 *0.220*	TC..1102.. *TC..21.5.*

Spare Parts, included in delivery

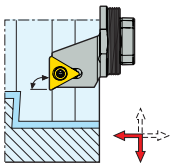
For size	Insert key	Insert screw
		
-11	T07P-2	C02506-T07P

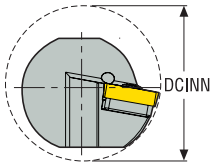
Accessories

For size	Insert clamping torque	Replacement blade	Torque key
			
-11	0.9NM	T00-07P	T00-07P09

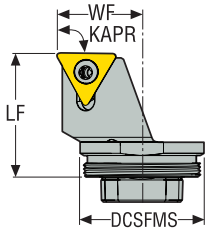
GL..-STFCR/L – Toolholders for inserts TCGT, TCGX, TCMT, TCMW, TCMX – Metric / *Inch*

GL..-STFCR/L
KAPR = 91,0 °





GL..-STFCR/L





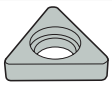
CTWS



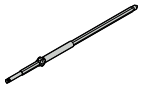
- Right-hand version shown
- For inserts program, see page(s) 571, 572, 610, 618
- For damping holders program, see page(s) 624, 625-638
- For holder code key, see page(s) 13-14
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	DCSFMS	WF	LF	DCINN	CP	KAPR°	GAMO°	LAMS°	Weight	CTWS
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	bar *psi*				kg *lbs*	
GL32-STFCR-22032-16	02809496	GL32	32,0 *1.260*	22,0 *0.866*	32 *1.260*	40,0 *1.575*	200,0 *2900.8*	91,0	0,0	-10,0	0,2 *0.440*	TC..16T3.. *TC..32.5.*
GL32-STFCL-22032-16	02809497	GL32	32,0 *1.260*	22,0 *0.866*	32 *1.260*	40,0 *1.575*	200,0 *2900.8*	91,0	0,0	-10,0	0,2 *0.440*	TC..16T3.. *TC..32.5.*
GL40-STFCR-27032-16	02809509	GL40	40,0 *1.575*	27,0 *1.063*	32 *1.260*	50,0 *1.969*	200,0 *2900.8*	91,0	0,0	-8,0	0,2 *0.440*	TC..16T3.. *TC..32.5.*
GL40-STFCL-27032-16	02809510	GL40	40,0 *1.575*	27,0 *1.063*	32 *1.260*	50,0 *1.969*	200,0 *2900.8*	91,0	0,0	-8,0	0,2 *0.440*	TC..16T3.. *TC..32.5.*
GL50-STFCR-32032-16	02809537	GL50	50,0 *1.969*	32,0 *1.260*	32 *1.260*	63,0 *2.480*	200,0 *2900.8*	91,0	0,0	-8,0	0,3 *0.660*	TC..16T3.. *TC..32.5.*
GL50-STFCL-32032-16	02809538	GL50	50,0 *1.969*	32,0 *1.260*	32 *1.260*	63,0 *2.480*	200,0 *2900.8*	91,0	0,0	-8,0	0,3 *0.660*	TC..16T3.. *TC..32.5.*

Spare Parts, included in delivery

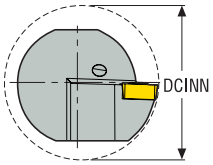
For size	Insert key	Insert screw	Insert shim	Shim screw
				
..-16	T15P-2	C03509-T15P	STN160312	CA3510

Accessories

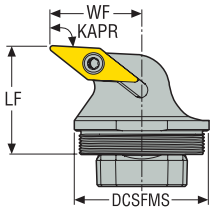
For size	Insert clamping torque	Replacement blade	Shim key	Torque key
				
..-16	3.0NM	T00-15P	9/64SMS875	T00-15P30

GL..-SVUBR/L – Toolholders for inserts VBGT, VBMT – **Metric** / *Inch*

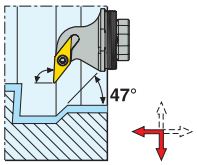




GL..-SVUBR/L



GL..-SVUBR/L
KAPR = 93,0 °



CTWS



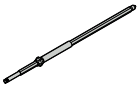
- Right-hand version shown
- For inserts program, see page(s) 582, 583
- For damping holders program, see page(s) 624, 625-638
- For holder code key, see page(s) 13-14
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	DCSFMS	WF	LF	DCINN	CP	KAPR°	GAMO°	LAMS°	Weight	CTWS
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	bar *psi*				kg *lbs*	
GL25-SVUBR-17020-11	03211330	GL25	25,0 *0.984*	17,0 *0.669*	20 *0.787*	32,0 *1.260*	200,0 *2900.8*	93,0	0,0	-4,0	0,3 *0.660*	VB..1102.. *VB..21.5.*
GL25-SVUBL-17020-11	03211331	GL25	25,0 *0.984*	17,0 *0.669*	20 *0.787*	32,0 *1.260*	200,0 *2900.8*	93,0	0,0	-4,0	0,1 *0.220*	VB..1102.. *VB..21.5.*

Spare Parts, included in delivery

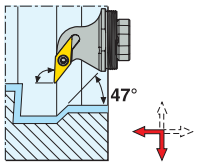
For size	Insert key	Insert screw
		
-11	T07P-2	C02506-T07P

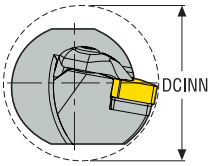
Accessories

For size	Insert clamping torque	Replacement blade	Torque key
			
-11	0.9NM	T00-07P	T00-07P09

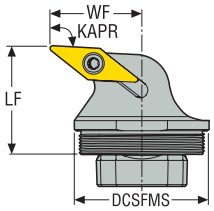
GL..-SVUBR/L – Toolholders for inserts VBGT, VBGW, VBMT, VBMW – Metric / *Inch*

GL..-SVUBR/L
KAPR = 93,0 °





GL..-SVUBR/L





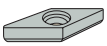
CTWS



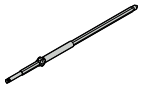
- Right-hand version shown
- For inserts program, see page(s) 582, 583, 612, 619
- For damping holders program, see page(s) 624, 625-638
- For holder code key, see page(s) 13-14
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	DCSFMS	WF	LF	DCINN	CP	KAPR°	GAMO°	LAMS°	Weight	CTWS
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	bar *psi*				kg *lbs*	
GL32-SVUBR-22032-16	02974997	GL32	32,0 *1.260*	22,0 *0.866*	32 *1.260*	40,0 *1.575*	200,0 *2900.8*	93,0	0,0	-3,0	0,2 *0.440*	VB..1604-VC..1604 *VB..33.-VC..33.*
GL32-SVUBL-22032-16	02974998	GL32	32,0 *1.260*	22,0 *0.866*	32 *1.260*	40,0 *1.575*	200,0 *2900.8*	93,0	0,0	-3,0	0,2 *0.440*	VB..1604-VC..1604 *VB..33.-VC..33.*
GL40-SVUBR-27032-16	02974999	GL40	40,0 *1.575*	26,88 *1.058*	32 *1.260*	50,0 *1.969*	200,0 *2900.8*	93,0	0,0	-3,0	0,2 *0.440*	VB..1604-VC..1604 *VB..33.-VC..33.*
GL40-SVUBL-27032-16	02975000	GL40	40,0 *1.575*	26,88 *1.058*	32 *1.260*	50,0 *1.969*	200,0 *2900.8*	93,0	0,0	-3,0	0,2 *0.440*	VB..1604-VC..1604 *VB..33.-VC..33.*
GL50-SVUBR-32032-16	02975001	GL50	50,0 *1.969*	31,88 *1.255*	32 *1.260*	63,0 *2.480*	200,0 *2900.8*	93,0	0,0	-3,0	0,3 *0.660*	VB..1604-VC..1604 *VB..33.-VC..33.*
GL50-SVUBL-32032-16	02975002	GL50	50,0 *1.969*	31,88 *1.255*	32 *1.260*	63,0 *2.480*	200,0 *2900.8*	93,0	0,0	-3,0	0,3 *0.660*	VB..1604-VC..1604 *VB..33.-VC..33.*

Spare Parts, included in delivery

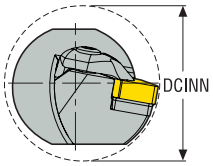
For size	Insert key	Insert screw	Insert shim	Shim screw
				
..-16	T15P-2	C03510-T15P	171.19-620	CA3507

Accessories

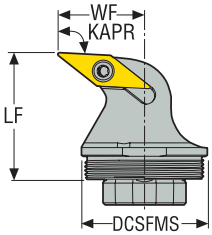
For size	Insert clamping torque	Replacement blade	Shim key	Torque key
				
..-16	3.0NM	T00-15P	9/64SMS875	T00-15P30

GL..-SVUNR/L – Toolholders for inserts VNMU – Metric / *Inch*

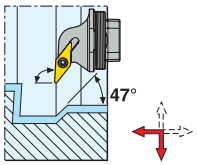




GL..-SVUNR/L



GL..-SVUNR/L
KAPR = 93,0 °



CTWS



- Right-hand version shown
- For inserts program, see page(s) 584, 585
- For damping holders program, see page(s) 624, 625-638
- For holder code key, see page(s) 13-14
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	DCSFMS	WF	LF	DCINN	CP	KAPR°	GAMO°	LAMS°	Weight	CTWS
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	bar *psi*				kg *lbs*	
GL32-SVUNR-22032-13	02974995	GL32	32,0 *1.260*	21,88 *0.861*	32 *1.260*	40,0 *1.575*	200,0 *2900.8*	93,0	-5,0	-12,0	0,2 *0.440*	VNMU1304.. *VNMU2.5.*
GL32-SVUNL-22032-13	02974996	GL32	32,0 *1.260*	21,88 *0.861*	32 *1.260*	40,0 *1.575*	200,0 *2900.8*	93,0	-5,0	-12,0	0,2 *0.440*	VNMU1304.. *VNMU2.5.*

Spare Parts, included in delivery

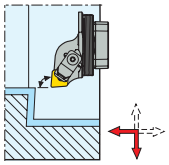
For size	Insert key	Insert screw	Insert shim	Shim screw
				
..-13	T09P-2	C03511-T09P	PVN130308	CA3507
..-13	T15P-2	C03512-T15P	PVN130308	CA3507

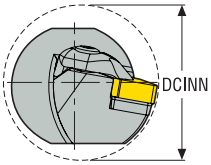
Accessories

For size	Insert clamping torque	Replacement blade	Torque key
			
..-13	2.0NM	T00-09P	T00-09P20
..-13	3.0NM	T00-15P	T00-15P30

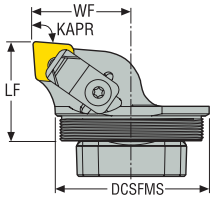
GL..-CCLNR/L – Toolholders for PCBN inserts CNMN – Metric / *Inch*

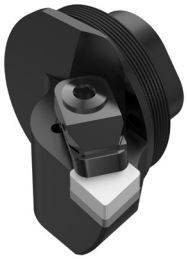
GL..-CCLNR/L
KAPR = 95,0 °





GL..-CCLNR/L





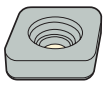
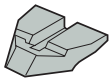
CTWS



- Right-hand version shown
- For inserts program, see page(s) 595
- For damping holders program, see page(s) 624, 625-638
- For holder code key, see page(s) 13-14
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	DCSFMS	WF	LF	DCINN	CP	KAPR°	GAMO°	LAMS°	Weight	CTWS
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	bar *psi*				kg *lbs*	
GL50-CCLNR-32032-12	02975024	GL50	50,0 *1.969*	31,88 *1.255*	32 *1.260*	63,0 *2.480*	200,0 *2900.8*	95,0	-6,0	-6,0	0,4 *0.880*	CN..1204.. *CN..43.*
GL50-CCLNL-32032-12	02975025	GL50	50,0 *1.969*	31,88 *1.255*	32 *1.260*	63,0 *2.480*	200,0 *2900.8*	95,0	-6,0	-6,0	0,4 *0.880*	CN..1204.. *CN..43.*

Spare Parts, included in delivery

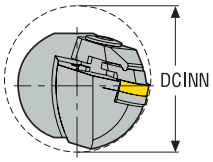
For size	Clamp	Clamp key	Insert shim	Pressure plate	Shim screw
					
..-12	CC17P	4SMS795	CCN120312	P1311	F94009-T09P

Accessories

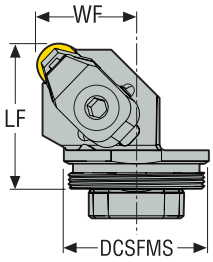
For size	Shim key
	
..-12	T09P-2

GL..-CRSNR/L – Toolholders for PCBN inserts RNGN-LF, RNGN, RNMN – **Metric** / *Inch*

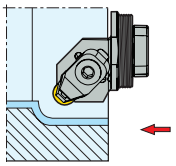




GL..-CRSNR/L



GL..-CRSNR/L
KAPR = 45,0 °



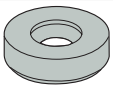
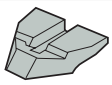
CTWS



- Right-hand version shown
- For inserts program, see page(s) 600, 601, 618, 621
- For damping holders program, see page(s) 624, 625-638
- For holder code key, see page(s) 13-14
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	DCSFMS	WF	LF	DCINN	CP	KAPR°	GAMO°	LAMS°	Weight	CTWS
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	bar *psi*				kg *lbs*	
GL32-CRSNR-22032-09	02809500	GL32	32,0 *1.260*	22,0 *0.866*	32 *1.260*	40,0 *1.575*	200,0 *2900.8*	45,0	-6,0	-12,0	0,2 *0.440*	RN.N0903.. *RN.N32.*
GL32-CRSNL-22032-09	02809501	GL32	32,0 *1.260*	22,0 *0.866*	32 *1.260*	40,0 *1.575*	200,0 *2900.8*	45,0	-6,0	-12,0	0,2 *0.440*	RN.N0903.. *RN.N32.*

Spare Parts, included in delivery

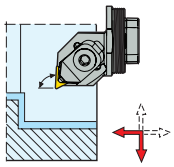
For size	Cantilever clamp	Clamp key	Insert shim	Pressure plate	Shim screw
					
..-09	CC17P-09	4SMS795	117.10-620	P1311-09	174.10-652-T07P

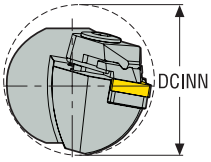
Accessories

For size	Shim key
	
..-09	T07P-2

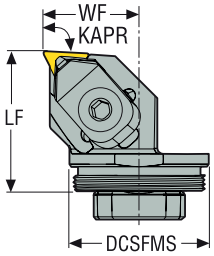
GL..-CTUNR/L – Toolholders for PCBN inserts TNGN-LF, TNGN, TNGX, TNMN, TNMX – Metric / *Inch*

GL..-CTUNR/L
KAPR = 93,0 °





GL..-CTUNR/L





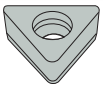
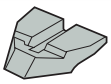
CTWS



- Right-hand version shown
- For inserts program, see page(s) 574, 575, 576, 577, 609
- For damping holders program, see page(s) 624, 625-638
- For holder code key, see page(s) 13-14
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	DCSFMS	WF	LF	DCINN	CP	KAPR°	GAMO°	LAMS°	Weight	CTWS
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	bar *psi*				kg *lbs*	
GL32-CTUNR-22032-11	02809498	GL32	32,0 *1.260*	22,0 *0.866*	32 *1.260*	40,0 *1.575*	200,0 *2900.8*	93,0	-6,0	-10,0	0,1 *0.220*	TN..1103.. *TN..22.*
GL32-CTUNL-22032-11	02809499	GL32	32,0 *1.260*	22,0 *0.866*	32 *1.260*	40,0 *1.575*	200,0 *2900.8*	93,0	-6,0	-10,0	0,2 *0.440*	TN..1103.. *TN..22.*

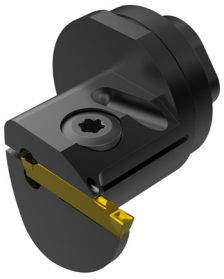
Spare Parts, included in delivery

For size	Cantilever clamp	Clamp key	Insert shim	Pressure plate	Shim screw
					
..-11	CC17P-06	4SMS795	CTN110308	P1311-06	CS2507-T07P

Accessories

For size	Shim key
	
..-11	T07P-2

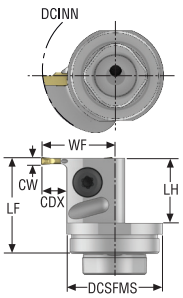
GL.-CGIR/L-..JET – Toolholders for inserts LCGF, LCGN, LCMF, LCMR – **Metric** / *Inch*



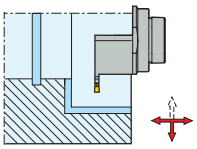
CTWS



GL.-CGIR/L-..JET



GL.-CGIR/L-..JET
KAPR = 0,0 °



- Right-hand version shown
- For inserts program, see page(s) 858-871, 873-874
- For damping holders program, see page(s) 624, 625-638
- For holder code key, see page(s) 700
- For more information on Jetstream Tooling® and accessories, see page(s) 38, 85-89, 1026
- For ISO attribute explanation, see page 82

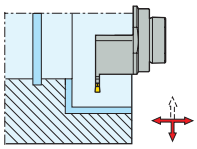
Designation	Item number	CTMS	DCSFMS	WF	LF	LH	CDX	DCINN	CP	Weight	CW	TQ	CTWS
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	bar *psi*	kg *lbs*	mm *inch*	Nm *In/Lbs.*	
GL25-CGIR-19025-1902JET	03212509	GL25	25,0 *0.984*	19,0 *0.748*	25 *0.984*	23,0 *0.906*	6,0 *0.236*	32,0 *1.260*	200,0 *2900.8*	0,1 *0.220*	2,0 *0.079*	5,0 *44.3*	LC..1902..
GL25-CGIL-19025-1902JET	03212510	GL25	25,0 *0.984*	19,0 *0.748*	25 *0.984*	23,0 *0.906*	6,0 *0.236*	32,0 *1.260*	200,0 *2900.8*	0,4 *0.880*	2,0 *0.079*	5,0 *44.3*	LC..1902..

Spare Parts, included in delivery

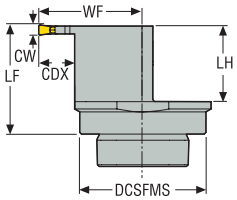
For size	Clamp key	Clamp screw
		
1902	T15P-7	L85011-T15P

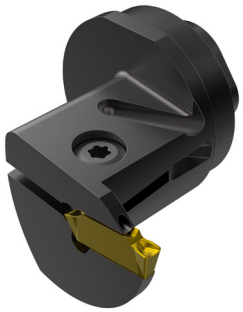
GL.-CGJR/L-..JET – Toolholders for inserts LCGF, LCGN, LCMF, LCMR – Metric / *Inch*

GL.-CGJR/L-..JET
KAPR = 0,0 °



GL.-CGJR/L-..JET





CTWS



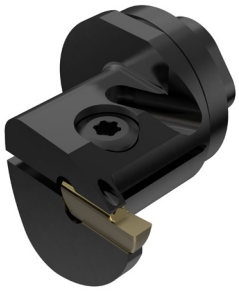
- Right-hand version shown
- For inserts program, see page(s) 858-871, 873-874
- For damping holders program, see page(s) 624, 625-638
- For holder code key, see page(s) 700
- For more information on Jetstream Tooling® and accessories, see page(s) 38, 85-89, 1026
- For ISO attribute explanation, see page 82

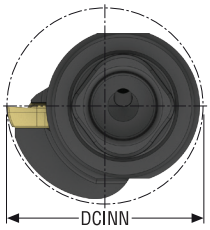
Designation	Item number	CTMS	DCSFMS	WF	LF	LH	CDX	DCINN	CP	Weight	CW	TQ	CTWS
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	bar *psi*	kg *lbs*	mm *inch*	Nm *In/Lbs.*	
GL32-CGJR-25032-1902JET	02947169	GL32	32,0 *1.260*	25,0 *0.984*	32 *1.260*	23,0 *0.906*	7,0 *0.276*	43,0 *1.693*	200,0 *2900.8*	0,2 *0.440*	2,0 *0.079*	5,0 *44.3*	LC..1902..
GL32-CGJL-25032-1902JET	02947170	GL32	32,0 *1.260*	25,0 *0.984*	32 *1.260*	23,0 *0.906*	7,0 *0.276*	43,0 *1.693*	200,0 *2900.8*	0,2 *0.440*	2,0 *0.079*	5,0 *44.3*	LC..1902..
GL40-CGJR-29032-1902JET	02947171	GL40	40,0 *1.575*	29,0 *1.142*	32 *1.260*	22,0 *0.866*	7,0 *0.276*	51,0 *2.008*	200,0 *2900.8*	0,2 *0.440*	2,0 *0.079*	5,0 *44.3*	LC..1902..
GL40-CGJL-29032-1902JET	02947172	GL40	40,0 *1.575*	29,0 *1.142*	32 *1.260*	22,0 *0.866*	7,0 *0.276*	51,0 *2.008*	200,0 *2900.8*	0,2 *0.440*	2,0 *0.079*	5,0 *44.3*	LC..1902..
GL50-CGJR-34032-1902JET	02947173	GL50	50,0 *1.969*	34,0 *1.339*	32 *1.260*	21,5 *0.846*	7,0 *0.276*	61,0 *2.402*	200,0 *2900.8*	0,3 *0.660*	2,0 *0.079*	5,0 *44.3*	LC..1902..
GL50-CGJL-34032-1902JET	02947174	GL50	50,0 *1.969*	34,0 *1.339*	32 *1.260*	21,5 *0.846*	7,0 *0.276*	61,0 *2.402*	200,0 *2900.8*	0,3 *0.660*	2,0 *0.079*	5,0 *44.3*	LC..1902..

Spare Parts, included in delivery

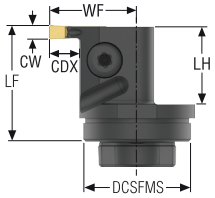
For size	Clamp key	Clamp screw	Screw
			
1902	T15P-2	L85011-T15P	P6SS3X5

GL.-CGGR/L-..JET – Toolholders for inserts LCGF, LCGN, LCMF, LCMR – **Metric** / *Inch*

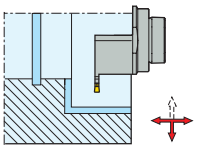




GL.-CGGR/L-..JET



GL.-CGGR/L-..JET
KAPR = 0,0 °



CTWS



- Right-hand version shown
- For inserts program, see page(s) 858-871, 873-874
- For damping holders program, see page(s) 624, 625-638
- For holder code key, see page(s) 700
- For more information on Jetstream Tooling® and accessories, see page(s) 38, 85-89, 1026
- For ISO attribute explanation, see page 82

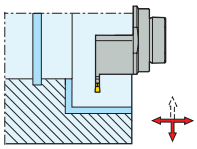
Designation	Item number	CTMS	DCSFMS	WF	LF	LH	CDX	DCINN	CP	Weight	CW	TQ	CTWS
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	bar *psi*	kg *lbs*	mm *inch*	Nm *In/Lbs.*	
GL25-CGGR-19025-1303JET	03212511	GL25	25,0 *0.984*	19,0 *0.748*	25 *0.984*	17,0 *0.669*	6,5 *0.256*	32,0 *1.260*	200,0 *2900.8*	0,1 *0.220*	3,0 *0.118*	5,0 *44.3*	LC..1303..
GL25-CGGL-19025-1303JET	03212512	GL25	25,0 *0.984*	19,0 *0.748*	25 *0.984*	17,0 *0.669*	6,5 *0.256*	32,0 *1.260*	200,0 *2900.8*	0,1 *0.220*	3,0 *0.118*	5,0 *44.3*	LC..1303..

Spare Parts, included in delivery

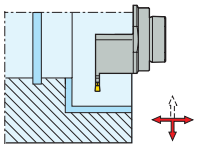
For size	Clamp key	Clamp screw
		
1303	T15P-2	L85011-T15P

GL.-CG.R/L-..JET – Toolholders for inserts LCGF, LCGN, LCMF, LCMR – Metric / *Inch*

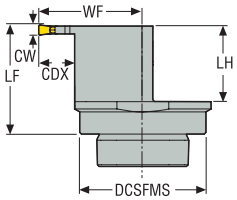
GL.-CGIR/L-..JET
KAPR = 0,0 °

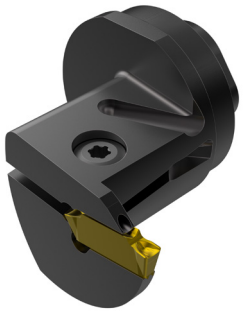


GL.-CGHR/L-..JET
KAPR = 0,0 °



GL.-CGIR/L-..JET





CTWS



- Right-hand version shown
- For inserts program, see page(s) 858-871, 873-874
- For damping holders program, see page(s) 624, 625-638
- For holder code key, see page(s) 700
- For more information on Jetstream Tooling® and accessories, see page(s) 38, 85-89, 1026
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	DCSFMS	WF	LF	LH	CDX	DCINN	CP	Weight	CW	TQ	CTWS
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	bar *psi*	kg *lbs*	mm *inch*	Nm *In/Lbs.*	
GL32-CGIR-26032-1603JET	02947175	GL32	32,0 *1.260*	26,5 *1.043*	32 *1.260*	23,0 *0.906*	9,0 *0.354*	44,0 *1.732*	200,0 *2900.8*	0,2 *0.440*	3,0 *0.118*	5,0 *44.3*	LC..1603..
GL32-CGIL-26032-1603JET	02947176	GL32	32,0 *1.260*	26,5 *1.043*	32 *1.260*	23,0 *0.906*	9,0 *0.354*	44,0 *1.732*	200,0 *2900.8*	0,2 *0.440*	3,0 *0.118*	5,0 *44.3*	LC..1603..
GL40-CGIR-30032-1603JET	02947177	GL40	40,0 *1.575*	30,5 *1.201*	32 *1.260*	22,5 *0.886*	9,0 *0.354*	52,0 *2.047*	200,0 *2900.8*	0,2 *0.440*	3,0 *0.118*	5,0 *44.3*	LC..1603..
GL40-CGIL-30032-1603JET	02947178	GL40	40,0 *1.575*	30,5 *1.201*	32 *1.260*	22,5 *0.886*	9,0 *0.354*	52,0 *2.047*	200,0 *2900.8*	0,2 *0.440*	3,0 *0.118*	5,0 *44.3*	LC..1603..
GL50-CGIR-35032-1603JET	02947179	GL50	50,0 *1.969*	35,5 *1.398*	32 *1.260*	21,5 *0.846*	9,0 *0.354*	62,0 *2.441*	200,0 *2900.8*	0,3 *0.660*	3,0 *0.118*	5,0 *44.3*	LC..1603..
GL50-CGIL-35032-1603JET	02947180	GL50	50,0 *1.969*	35,5 *1.398*	32 *1.260*	21,5 *0.846*	9,0 *0.354*	62,0 *2.441*	200,0 *2900.8*	0,3 *0.660*	3,0 *0.118*	5,0 *44.3*	LC..1603..
GL32-CGHR-27032-1604JET	02947181	GL32	32,0 *1.260*	27,5 *1.083*	32 *1.260*	23,0 *0.906*	10,0 *0.394*	45,0 *1.772*	200,0 *2900.8*	0,2 *0.440*	4,0 *0.157*	5,0 *44.3*	LC..1604..
GL32-CGHL-27032-1604JET	02947182	GL32	32,0 *1.260*	27,5 *1.083*	32 *1.260*	23,0 *0.906*	10,0 *0.394*	45,0 *1.772*	200,0 *2900.8*	0,2 *0.440*	4,0 *0.157*	5,0 *44.3*	LC..1604..
GL40-CGHR-31032-1604JET	02947183	GL40	40,0 *1.575*	31,5 *1.240*	32 *1.260*	22,5 *0.886*	10,0 *0.394*	53,0 *2.087*	200,0 *2900.8*	0,2 *0.440*	4,0 *0.157*	5,0 *44.3*	LC..1604..
GL40-CGHL-31032-1604JET	02947184	GL40	40,0 *1.575*	31,5 *1.240*	32 *1.260*	22,5 *0.886*	10,0 *0.394*	53,0 *2.087*	200,0 *2900.8*	0,2 *0.440*	4,0 *0.157*	5,0 *44.3*	LC..1604..
GL50-CGHR-36032-1604JET	02947185	GL50	50,0 *1.969*	36,5 *1.437*	32 *1.260*	21,5 *0.846*	10,0 *0.394*	63,0 *2.480*	200,0 *2900.8*	0,3 *0.660*	4,0 *0.157*	5,0 *44.3*	LC..1604..
GL50-CGHL-36032-1604JET	02947186	GL50	50,0 *1.969*	36,5 *1.437*	32 *1.260*	21,5 *0.846*	10,0 *0.394*	63,0 *2.480*	200,0 *2900.8*	0,3 *0.660*	4,0 *0.157*	5,0 *44.3*	LC..1604..

Spare Parts, included in delivery

For size	Clamp key	Clamp screw
		
1603	T15P-2	L85011-T15P
1604	T15P-2	L85011-T15P



MDT - Multi Directional Turning

The Seco MDT (Multi-Directional Turning) is universally suitable for a variety of applications including grooving, profiling, turning, parting-off, and threading. The unique Secoloc™ clamping delivers the best stability and safety in addition to high productivity and performance. Applications include turning parts with many different diameters, complicated profiles and grooves, replacing the need for several standard and special tools with a single Seco MDT.

- Unique insert clamping method for superb stability.
- MDT is available also in combination with Jetstream Tooling®, a high-pressure coolant system.

General information

The Seco MDT (Multi Directional Turning) system consists of holders and inserts for external radial, external axial and internal machining.

The system can be used for:

– Turning

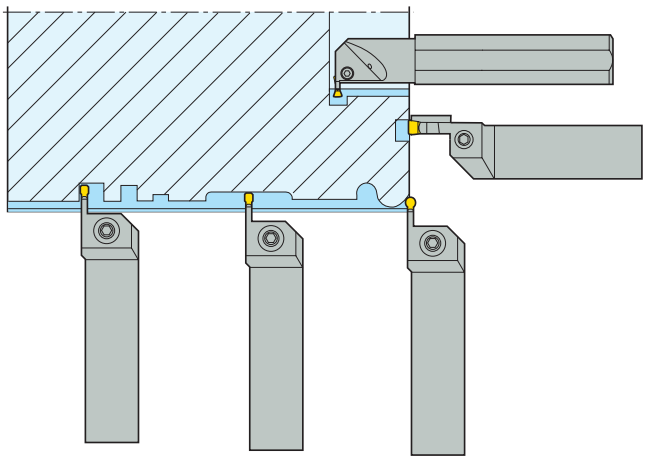
– Profiling

– Grooving

– Parting-off

– Threading

Suitable applications are turning of parts with many different diameters, complicated profiles and grooves. For complex parts of this type several standard and special tools can be replaced by one Seco MDT tool. Savings can be achieved through fewer tool changes and reduced tool stock.



Seco MDT has a unique insert clamping method – Secoloc™.

A combination of V-shaped top clamp and serrated contact surfaces between the underside of the insert and the toolholder offers superb stability.

The relatively long insert also increases the stability.

The excellent stability gives a number of benefits

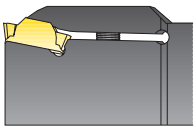
– Improved process safety

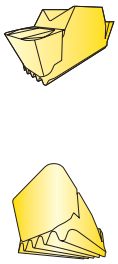
– Increased metal removal capacity/productivity

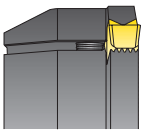
– Improved surface finish

– Reduced vibration risk

– Good repeatability (±0,03 mm)





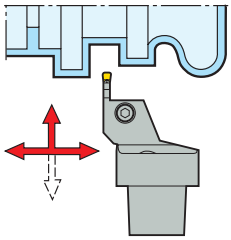


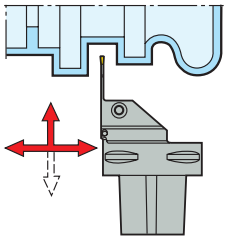
Seco Jetstream Tooling®

Seco Jetstream Tooling® holders feature a rake face coolant jet, that may provide even better chip control and significantly longer tool life. For more information on Jetstream Tooling® and accessories, please see page(s) 85-89 and 1026.



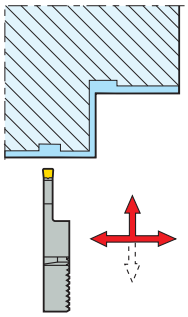
External holders, Seco-Capto™ – Metric / *Inch*

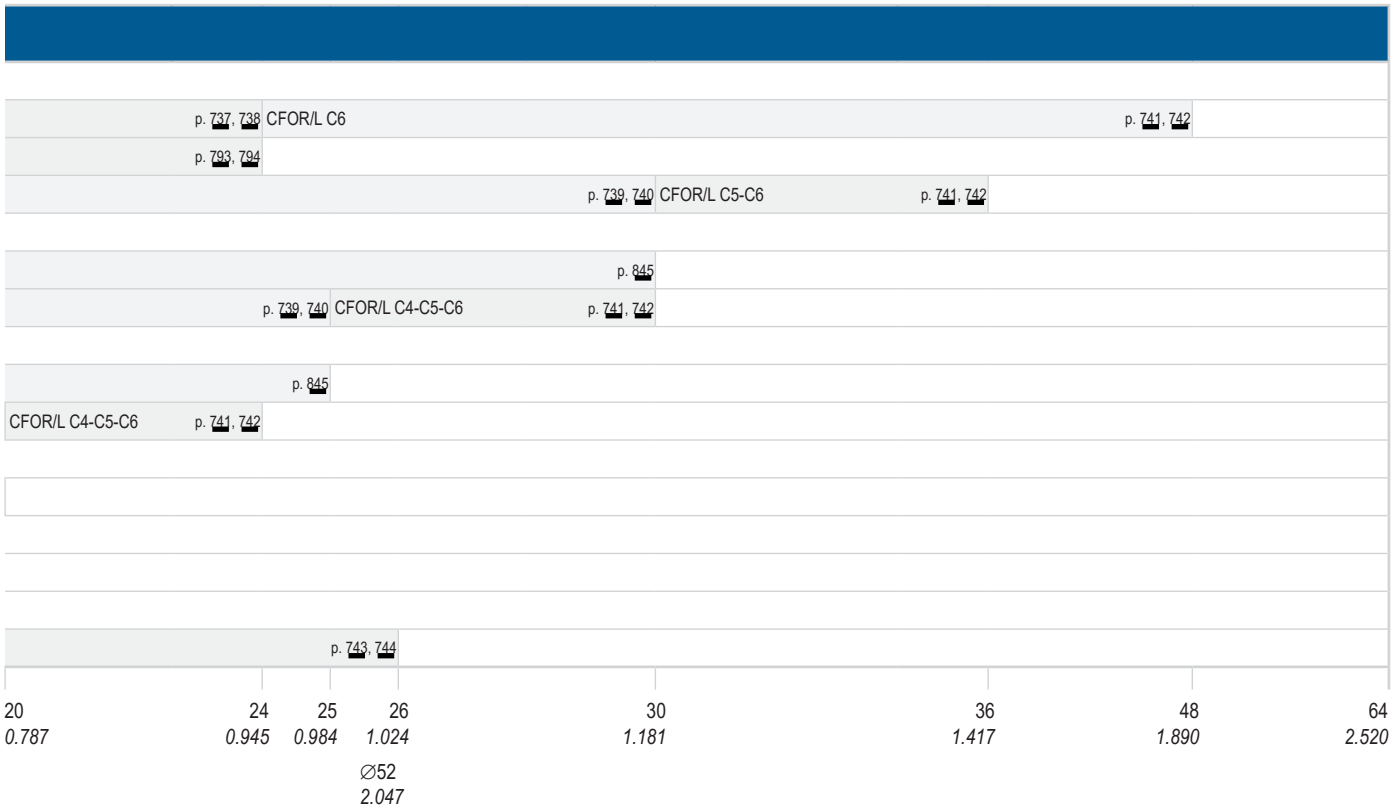




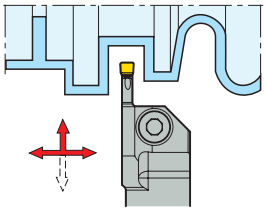
CW										
8 *0.315*	JETI	CFIR/L C6								
	non JET	CFIR/L C6								
6 *0.236*	JETI	CFIR/L C5-C6						p. 737, 738	CFMR/L C5-C6	
	non JET	CFIR/L C5-C6						p. 793, 794		
	modular	V21-CIR/L C4-C5-C6						p. 845	V21-CMR/L C4-C5-C6	
5 *0.197*	JETI	CFIR/L C4-C5-C6				p. 737, 738	CFMR/L C5-C6			
	non JET	CFIR/L C4-C5-C6				p. 793, 794				
	modular	V21-CIR/L C4-C5-C6				p. 845	V21-CMR/L C4-C5-C6			
4 *0.157*	JETI	CFIR/L C4-C5-C6	p. 737, 738	CFMR/L C4-C5-C6					p. 739, 740	
	non JET	CFIR/L C4-C5-C6	p. 793, 794							
	modular	V21-CIR/L C4-C5-C6	p. 845	V21-CMR/L C4-C5-C6					p. 845	
3 *0.118*	JETI	CFIR/L C4-C5-C6	p. 737, 738	CFMR/L C4-C5-C6	p. 739, 740	CFOR/L C4-C5-C6	p. 741, 742			
	non JET	CFIR/L C4-C5-C6	p. 793, 794							
	modular	V21-CIR/L C4-C5-C6	p. 845	V21-CMR/L C4-C5-C6	p. 845					
2 *0.079*	JETI	CFZR/L C4-C5-C6 *								
		CDX = 9 *0.354*		12 *0.472*		15 *0.591*		18 *0.709*		20 *0.787*

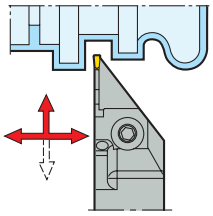
* Due to the design, grooving depth is limited to given ∅




p. 737, 738 CFOR/L C6
p. 741, 742
p. 793, 794
p. 739, 740 CFOR/L C5-C6
p. 741, 742
p. 845
p. 739, 740 CFOR/L C4-C5-C6
p. 741, 742
p. 845
CFOR/L C4-C5-C6
p. 741, 742
p. 743, 744
20
0.787
24
0.945
25
0.984
26
1.024
30
1.181
36
1.417
48
1.890
64
2.520
∅52
2.047

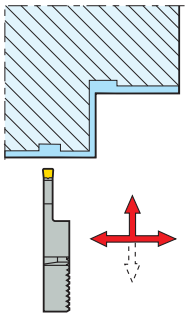
External holders – Metric

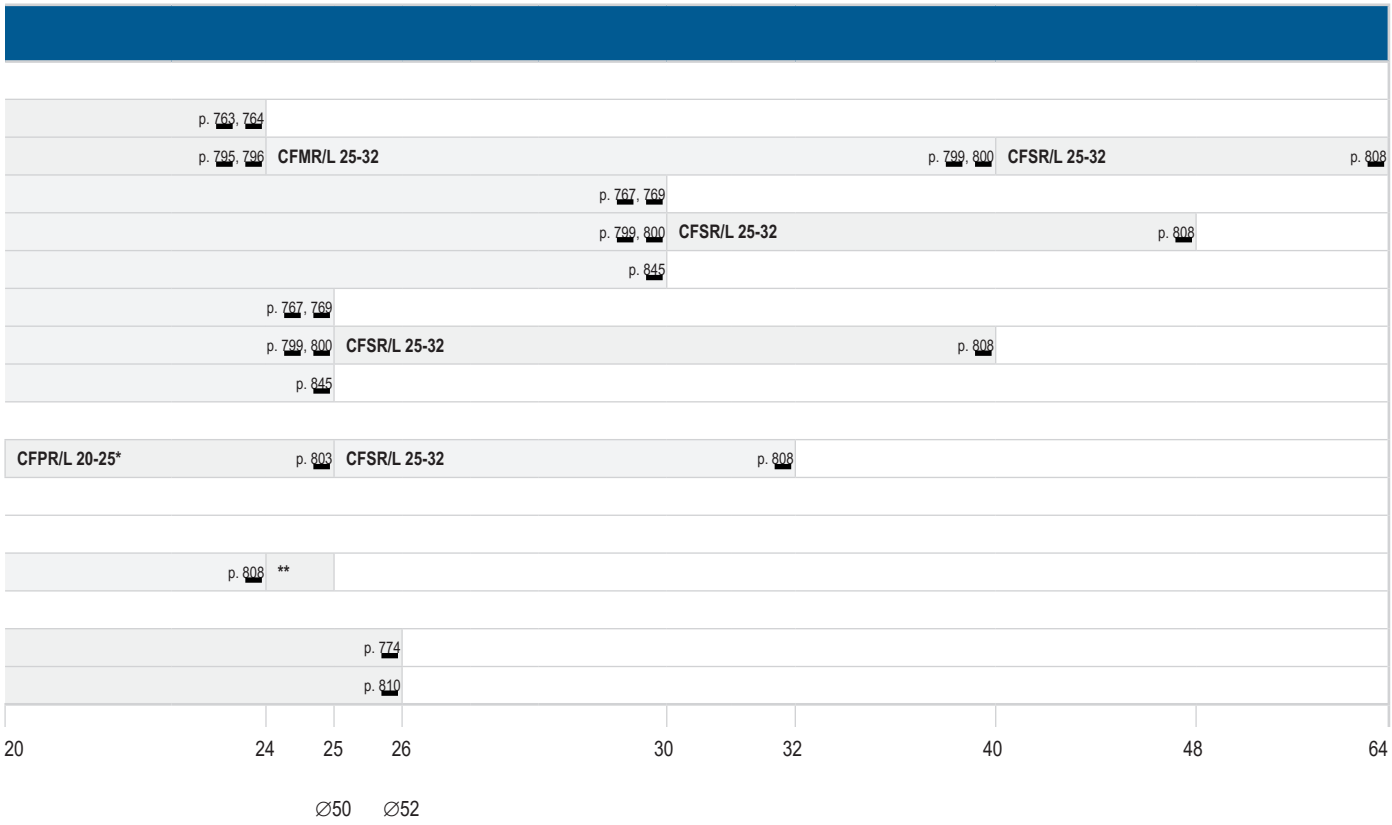




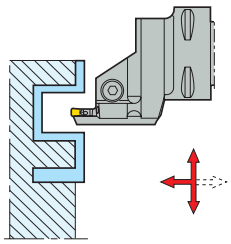
CW																				
8	JET	CFIR/L 25-32																		
	non JET	CFIR/L 25-32																		
6	JET	CFIR/L 20-25-32															p. 763, 764	CFMR/L 25-32		
	non JET	CFIR/L 20-25-32															p. 795, 796	CFMR/L 20-25-32		
	modular	V21-CIR/L 20-25-32															p. 845	V21-CMR/L 20-25-32		
5	JET	CFIR/L 20-25-32										p. 763, 764	CFMR/L 25-32							
	non JET	CFIR/L 20-25-32										p. 795, 796	CFMR/L 20-25-32							
	modular	V21-CIR/L 20-25-32										p. 845	V21-CMR/L 20-25-32							
4	JET	CFIR/L 20-25-32				p. 763, 764	CFMR/L 20-25-32											p. 767, 769			
	non JET	CFIR/L 12-16-20-25-32				p. 795, 796	CFMR/L 20-25-32											p. 799, 800			
	modular	V21-CIR/L 20-25-32				p. 845	V21-CMR/L 20-25-32											p. 845			
3	JET	CFIR/L 20-25-32	p. 763, 764	CFMR/L 20-25-32						p. 767, 769										
	non JET	CFIR/L 12-16-20-25-32	p. 795, 796	CFMR/L 20-25-32						p. 799, 800	CFOR/L 12*				p. 803	CFSR/L 25-32				
	modular	V21-CIR/L 20-25-32	p. 845	V21-CMR/L 20-25-32						p. 845										
2	JET	CFOR/L 12-16*					p. 770	CFSR/L 20*			p. 772	CFZR/L 20-25*								
	non JET	CFOR/L 12-16*					p. 806	CFSR/L 12-16*			p. 806	CFZR/L 16*								
		CDX = 9		12				15				18				20				
								∅25,4				∅33				∅37				

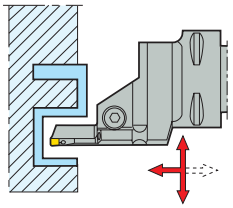
* Due to the design, grooving depth is limited to given ∅
** CFTR/L 16-20-25 ∅50/*1.969* – see p. 803



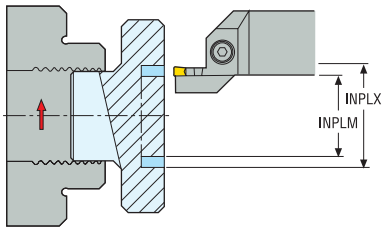

p. 763, 764
p. 795, 796
CFMR/L 25-32
p. 799, 800
CFSR/L 25-32
p. 808
p. 767, 769
p. 799, 800
CFSR/L 25-32
p. 808
p. 845
p. 767, 769
p. 799, 800
CFSR/L 25-32
p. 808
p. 845
CFPR/L 20-25*
p. 803
CFSR/L 25-32
p. 808
p. 808
**
p. 774
p. 810
20
24
25
26
30
32
40
48
64
∅50
∅52

Axial holders, Seco-Capto™ – Metric / *Inch*





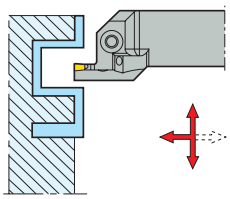
∅ of initial plunge INPLM-INPLX	CW	All Seco-Capto™ axial holders are JET			
		CDX = 9 *0.354*	12 *0.470*	15 *0.590*	18 *0.700*
200-500 *7.874-19.686*	**8** *0.315*	**CFIR/L C6**			
	6 *0.240*	**CFOR/L C5-C6**			
	5 *0.200*	**CFOR/L C4-C5-C6**			
	4 *0.160*	**CFOR/L C4-C5-C6**			
	3 *0.120*	**CFOR/L C4-C5-C6**			p. 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762
140-230 *5.512-9.055*	**8** *0.315*	**CFIR/L C6**			
	6 *0.240*	**CFIR/L C5-C6**			p. 746, 747, 748, 749, 750
	5 *0.200*	**CFIR/L C4-C5-C6**		p. 746, 747, 748, 749, 750	**CFOR/L C4-C5-C6**
	4 *0.160*	**CFIR/L C4-C5-C6**	p. 746, 747, 748, 749, 750	**CFOR/L C4-C5-C6**	
	3 *0.120*	**CFOR/L C4-C5-C6**			p. 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762
110-170 *4.331-6.693*	**8** *0.315*	**CFIR/L C6**			
	6 *0.240*	**CFIR/L C5-C6**			p. 746, 747, 748, 749, 750
	5 *0.200*	**CFIR/L C4-C5-C6**		p. 746, 747, 748, 749, 750	**CFOR/L C4-C5-C6**
	4 *0.160*	**CFIR/L C4-C5-C6**	p. 746, 747, 748, 749, 750	**CFOR/L C4-C5-C6**	
	3 *0.120*	**CFIR/L C4-C5-C6**	p. 746, 747, 748, 749, 750	**CFOR/L C4-C5-C6**	p. 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762
90-130 *3.543-5.118*	**8** *0.315*	**CFIR/L C6**			
	6 *0.240*	**CFIR/L C5-C6**			p. 746, 747, 748, 749, 750
	5 *0.200*	**CFIR/L C4-C5-C6**		p. 746, 747, 748, 749, 750	**CFOR/L C4-C5-C6**
	4 *0.160*	**CFIR/L C4-C5-C6**	p. 746, 747, 748, 749, 750	**CFOR/L C4-C5-C6**	
	3 *0.120*	**CFIR/L C4-C5-C6**	p. 746, 747, 748, 749, 750	**CFOR/L C4-C5-C6**	p. 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762
70-100 *2.756-3.937*	**6** *0.240*	**CFIR/L C5-C6**			p. 746, 747, 748, 749, 750
	5 *0.200*	**CFIR/L C4-C5-C6**		p. 746, 747, 748, 749, 750	**CFOR/L C4-C5-C6**
	4 *0.160*	**CFIR/L C4-C5-C6**	p. 746, 747, 748, 749, 750	**CFOR/L C4-C5-C6**	
	3 *0.120*	**CFIR/L C4-C5-C6**	p. 746, 747, 748, 749, 750	**CFOR/L C4-C5-C6**	p. 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762
55-80 *2.165-3.150*	**6** *0.240*	**CFIR/L C5-C6**			p. 746, 747, 748, 749, 750
	5 *0.200*	**CFIR/L C4-C5-C6**		p. 746, 747, 748, 749, 750	**CFOR/L C4-C5-C6**
	4 *0.160*	**CFIR/L C4-C5-C6**	p. 746, 747, 748, 749, 750	**CFOR/L C4-C5-C6**	
	3 *0.120*	**CFIR/L C4-C5-C6**	p. 746, 747, 748, 749, 750	**CFOR/L C4-C5-C6**	p. 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762

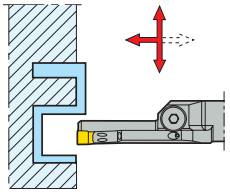


p. 746, 747, 748, 749, 750 CFOR/L C6 p. 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762
p. 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762
p. 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762
p. 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762
p. 746, 747, 748, 749, 750 CFOR/L C6 p. 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762
CFOR/L C5-C6 p. 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762
p. 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762
p. 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762
p. 746, 747, 748, 749, 750 CFOR/L C6 p. 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762
CFOR/L C5-C6 p. 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762
p. 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762
p. 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762
p. 746, 747, 748, 749, 750 CFOR/L C6 p. 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762
CFOR/L C5-C6 p. 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762
p. 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762
p. 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762
CFOR/L C5-C6 p. 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762
p. 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762
p. 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762
CFOR/L C5-C6 p. 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762
p. 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762
p. 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762

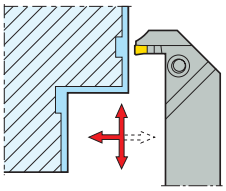
18 *0.700* | 24 *0.945* | 30 *1.180* | 36 *1.415* | 48 *1.890*

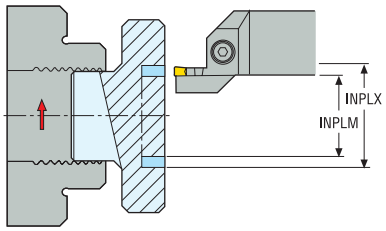
Axial holders – Metric





∅ of initial plunge INPLM-INPLX	CW				
200-500	8	CF(G)IR/L 32 / CFIR/L 32JET			
	6	CFOR/L 25JET			
	5	CFOR/L 25JET			
	4	CFOR/L 25JET			
	3	CFOR/L 25JET			p. 783, 784, 788, 789
140-230	8	CF(G)IR/L 32 / CFIR/L 32JET			
	6	CF(G)IR/L 25 / CFIR/L 25JET			p. 778, 779
	5	CF(G)IR/L 25 / CFIR/L 25JET		p. 778, 779	CFOR/L 25JET
	4	CF(G)IR/L 25 / CFIR/L 25JET	p. 778, 779, 812, 813	CFOR/L 25JET	
	3	CFOR/L 25JET			p. 783, 784, 788, 789
110-170	8	CF(G)IR/L 32 / CFIR/L 32JET			
	6	CF(G)IR/L 25 / CFIR/L 25JET			p. 778, 779, 812, 813
	5	CF(G)IR/L 25 / CFIR/L 25JET		p. 778, 779	CFOR/L 25JET
	4	CF(G)IR/L 25 / CFIR/L 25JET	p. 778, 779, 812, 813	CFOR/L 25JET	
	3	CF(G)IR/L 25 / CFIR/L 25JET	p. 778, 779, 812, 813	CFOR/L 25JET	p. 783, 784, 788, 789
90-130	8	CF(G)IR/L 32 / CFIR/L 32JET			
	6	CF(G)IR/L 25 / CFIR/L 25JET			p. 778, 779, 812, 813
	5	CF(G)IR/L 25 / CFIR/L 25JET		p. 778, 779	CFOR/L 25JET
	4	CF(G)IR/L 25 / CFIR/L 25JET	p. 778, 779, 812, 813	CFOR/L 25JET	
	3	CF(G)IR/L 25 / CFIR/L 25JET	p. 778, 779, 812, 813	CFOR/L 25JET	p. 783, 784, 788, 789
70-100	6	CF(G)IR/L 25 / CFIR/L 25JET			p. 778, 779, 812, 813
	5	CF(G)IR/L 25 / CFIR/L 25JET		p. 778, 779	CFOR/L 25JET
	4	CF(G)IR/L 25 / CFIR/L 25JET	p. 778, 779, 812, 813	CFOR/L 25JET	
	3	CF(G)IR/L 25 / CFIR/L 25JET	p. 778, 779, 812, 813	CFOR/L 25JET	p. 783, 784, 788, 789
55-80	6	CFIR/L 25JET			p. 776, 778, 779
	5	CFIR/L 25JET		p. 776, 778, 779	CFOR/L 25JET
	4	CFIR/L 25JET	p. 776, 778, 779	CFOR/L 25JET	
	3	CFIR/L 25JET	p. 776, 778, 779	CFOR/L 25JET	p. 783, 784, 788, 789
		CDX = 9	12	15	18

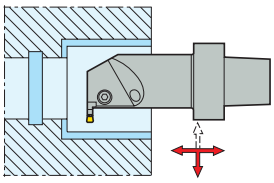


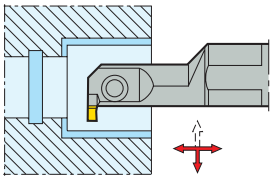


p. 780, 812, 813 CFOR/L 32JET p. 785, 790
p. 783, 784, 788, 789
p. 783, 784, 788, 789
p. 783, 784, 788, 789
p. 780, 812, 813 CFOR/L 32JET p. 785, 790
CFOR/L 25JET p. 783, 784, 788, 789
p. 783, 784, 788, 789
p. 783, 784, 788, 789
p. 780, 812, 813 CFOR/L 32JET p. 785, 790
CFOR/L 25JET p. 783, 784, 788, 789
p. 783, 784, 788, 789
p. 783, 784, 788, 789
p. 780, 812, 813 CFOR/L 32JET p. 785, 790
CFOR/L 25JET p. 783, 784, 788, 789
p. 783, 784, 788, 789
p. 783, 784, 788, 789
CFOR/L 25JET p. 783, 784, 788, 789
p. 783, 784, 788, 789
p. 783, 784, 788, 789
CFOR/L 25JET p. 783, 784, 788, 789
p. 783, 784, 788, 789
p. 783, 784, 788, 789

18 24 30 36 48

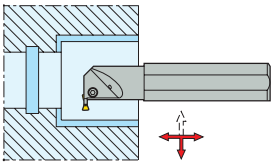
Internal holders, Seco-Capto – Metric / *Inch*, Bar – Metric

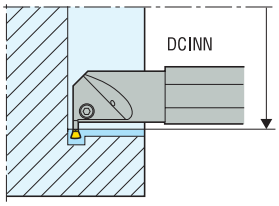




$DCINN_{min}$	CW	Shank type		
45 *1.772*	**6** *0.240*	**Seco-Capto**	**CGGR/L C5-C6**	
		Bar	**CGGR/L ∅40**	
	5 *0.200*	**Seco-Capto**	**CGGR/L C4-C5-C6**	
		Bar	**CGGR/L ∅40**	
	4 *0.160*	**Seco-Capto**	**CGGR/L C4-C5-C6**	
		Bar	**CGGR/L ∅40***	
	3 *0.120*	**Seco-Capto**	**CGGR/L C4-C5-C6**	p. 825, 826
		Bar	**CGGR/L ∅40**	p. 831
32 *1.260*	**6** *0.240*	**Seco-Capto**	**CGFR/L C5-C6**	
		Bar	**CGFR/L ∅32**	
	5 *0.200*	**Seco-Capto**	**CGFR/L C4-C5-C6**	
		Bar	**CGFR/L ∅32**	
	4 *0.160*	**Seco-Capto**	**CGGR/L C4-C5-C6**	
		Bar	**CGGR/L ∅32**	
	3 *0.120*	**Seco-Capto**	**CGIR/L C4-C5-C6**	
		Bar	**CGIR/L ∅32**	
25 *0.984*	**4** *0.160*	**Seco-Capto**	**CGFR/L C5-C6**	
		Bar	**CGFR/L ∅25**	
	3 *0.120*	**Seco-Capto**	**CGHR/L C5-C6**	
		Bar	**CGHR/L ∅25**	
	2 *0.080*	**Seco-Capto**	**CGJR/L C4-C5-C6**	
		Bar	**CGJR/L ∅25**	
20 *0.787*	**4** *0.160*	**Seco-Capto**	**CGFR/L C4-C5-C6**	p. 820, 821
		Bar	**CGFR/L ∅20**	p. 827
	3 *0.120*	**Seco-Capto**	**CGFR/L C4-C5-C6**	p. 820, 821
		Bar	**CGFR/L ∅20**	p. 827
	2 *0.080*	**Seco-Capto**	**CGHR/L C4-C5-C6**	p. 824
		Bar	**CGHR/L ∅20**	p. 833
16 *0.630*	**3** *0.120*	**Seco-Capto**	**CGER/L C4-C5-C6**	p. 820, 821
		Bar	**CGER/L ∅16**	p. 827

CDX = 3 *0.120* | 5,5 *0.217* | 6 *0.240*

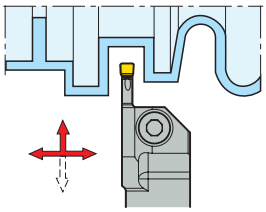


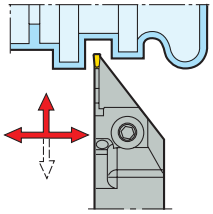


p. 825, 826		
p. 831		
p. 825, 826		
p. 831		
p. 825, 826		
p. 831		
p. 822, 823		
p. 829		
p. 822, 823		
p. 829		
p. 822, 823	CGHR/L C5-C6	p. 820, 821
p. 829	CGHR/L ∅32	p. 827
p. 822, 823	CGJR/L C5-C6	p. 820, 821
p. 829	CGJR/L ∅32	p. 827
p. 820, 821		
p. 827		
p. 820, 821		
p. 827		
p. 824		
p. 833		

6 *0.240* | 7,5 *0.295* | 8 *0.315* | 9 *0.354* | 10 *0.400* | 10,5 *0.413* | 12 *0.470*

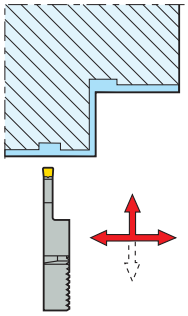
External holders – Inch

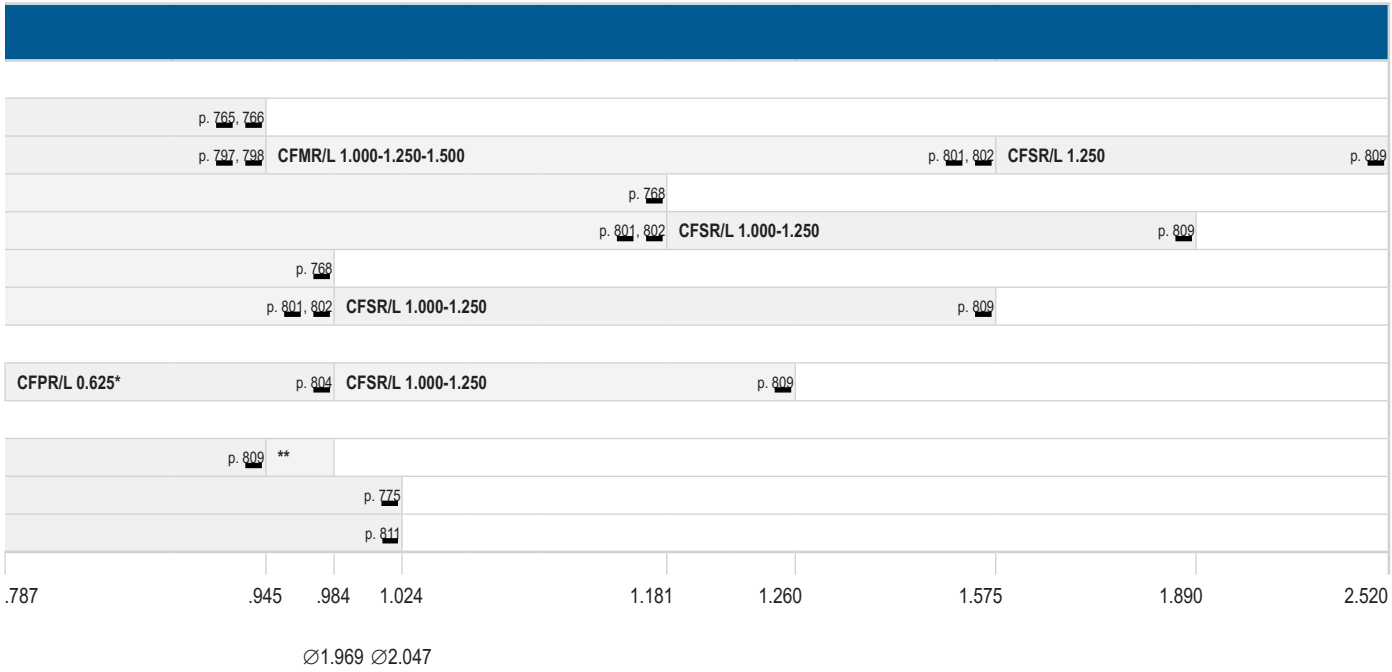




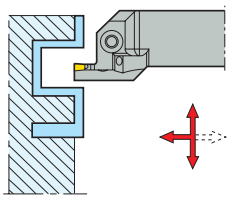
CW									
0.315	JET	CFIR/L 1.000-1.250							
	non JET	CFIR/L 1.000-1.250							
0.236	JET	CFIR/L 1.000-1.250					p. 765, 766	CFMR/L 1.000-1.250	
	non JET	CFIR/L 1.000-1.250					p. 797, 798	CFMR/L 1.000-1.250-1.500	
0.197	JET	CFIR/L 0.750-1.000-1.250			p. 765, 766	CFMR/L 1.000-1.250			
	non JET	CFIR/L 0.750-1.000-1.250			p. 797, 798	CFMR/L 1.000-1.250-1.500			
0.157	JET	CFIR/L 0.750-1.000-1.250	p. 765, 766	CFMR/L 0.750-1.000-1.250					p. 768
	non JET	CFIR/L 0.750-1.000-1.250	p. 797, 798	CFMR/L 0.750-1.000-1.250-1.500					p. 801, 802
0.118	JET	CFIR/L 0.750-1.000-1.250	p. 765, 766	CFMR/L 0.750-1.000-1.250	p. 768				
	non JET	CFIR/L 0.625-0.750-1.000-1.250	p. 797, 798	CFMR/L 0.750-1.000-1.250-1.500	p. 801, 802	CFSR/L 1.000-1.250			
0.079	JET	CFOR/L 0.500*	p. 771	CFSR/L 0.750*	p. 773	CFZR/L 0.750-1.000*			
	non JET	CFOR/L 0.500-0.625*	p. 807	CFSR/L 0.500-0.625*	p. 807	CFZR/L 0.625*			
CDX =		.354	.472	.591		.709		.787	
			∅1.000		∅1.299		∅1.457		

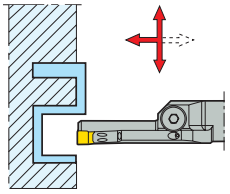
* Due to the design, grooving depth is limited to given ∅
** CFTR/L 0.750-1.000" - see p. 804



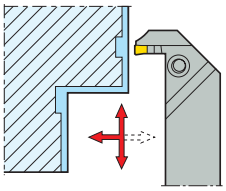

p. 765, 766
p. 797, 798
CFMR/L 1.000-1.250-1.500
p. 801, 802
CFSR/L 1.250
p. 809
p. 768
p. 801, 802
CFSR/L 1.000-1.250
p. 809
p. 768
p. 801, 802
CFSR/L 1.000-1.250
p. 809
CFPR/L 0.625*
p. 804
CFSR/L 1.000-1.250
p. 809
p. 809
**
p. 775
p. 811
.787
.945
.984
1.024
1.181
1.260
1.575
1.890
2.520
∅1.969
∅2.047

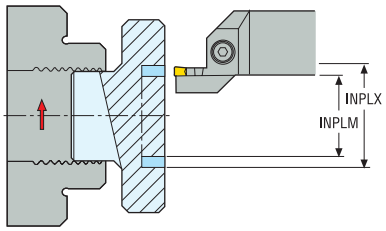
Axial holders – Inch





∅ of initial plunge INPLM-INPLX	CW				
7.874-19.685	.315	CF(G)IR/L 1.000 / CFIR/L 1.000-1.250JET			
	.236	CFOR/L 1.000JET			
	.197	CFOR/L 1.000JET			
	.157	CFOR/L 1.000JET			
	.118	CFOR/L 1.000JET			p. 791, 792
5.512-9.055	.315	CF(G)IR/L 1.000 / CFIR/L 1.000-1.250JET			
	.236	CF(G)IR/L 1.000 / CFIR/L 1.000JET			p. 781, 782, 814, 815, 818, 819
	.197	CF(G)IR/L 1.000 / CFIR/L 1.000JET		p. 781, 782, 814, 815	CFOR/L 1.000JET
	.157	CF(G)IR/L 1.000 / CFIR/L 1.000JET	p. 781, 782, 814, 815	CFOR/L 1.000JET	
	.118	CFOR/L 1.000JET			p. 791, 792
4.331-6.693	.315	CF(G)IR/L 1.000 / CFIR/L 1.000-1.250JET			
	.236	CF(G)IR/L 1.000 / CFIR/L 1.000JET			p. 781, 782, 814, 815, 818, 819
	.197	CF(G)IR/L 1.000 / CFIR/L 1.000JET		p. 781, 782, 814, 815	CFOR/L 1.000JET
	.157	CF(G)IR/L 1.000 / CFIR/L 1.000JET	p. 781, 782	CFOR/L 1.000JET	
	.118	CF(G)IR/L 1.000 / CFIR/L 1.000JET	p. 781, 782, 814, 815	CFOR/L 1.000JET	p. 791, 792
3.543-5.118	.315	CF(G)IR/L 1.000 / CFIR/L 1.000-1.250JET			
	.236	CF(G)IR/L 1.000 / CFIR/L 1.000JET			p. 781, 782, 814, 815, 818, 819
	.197	CF(G)IR/L 1.000 / CFIR/L 1.000JET		p. 781, 782, 814, 815	CFOR/L 1.000JET
	.157	CF(G)IR/L 1.000 / CFIR/L 1.000JET	p. 781, 782, 814, 815, 818, 819	CFOR/L 1.000JET	
	.118	CF(G)IR/L 1.000 / CFIR/L 1.000JET	p. 781, 782, 814, 815, 818, 819	CFOR/L 1.000JET	p. 791, 792
2.756-3.937	.236	CF(G)IR/L 1.000 / CFIR/L 1.0005JET			p. 781, 782, 814, 815
	.197	CF(G)IR/L 1.000 / CFIR/L 1.000JET		p. 781, 782, 814, 815	CFOR/L 1.000JET
	.157	CF(G)IR/L 1.000 / CFIR/L 1.000JET	p. 781, 782, 814, 815, 818, 819	CFOR/L 1.000JET	
	.118	CF(G)IR/L 1.000 / CFIR/L 1.000JET	p. 781, 782, 814, 815, 818, 819	CFOR/L 1.000JET	p. 791, 792
2.165-3.150	.236	CFIR/L 1.000JET			p. 777, 781, 782
	.197	CFIR/L 1.000JET		p. 777, 781, 782	CFOR/L 1.000JET
	.157	CFIR/L 1.000JET	p. 777, 781, 782	CFOR/L 1.000JET	
	.118	CFIR/L 1.000JET	p. 777, 781, 782	CFOR/L 1.000JET	p. 791, 792
		CDX = .354	.472	.591	.709

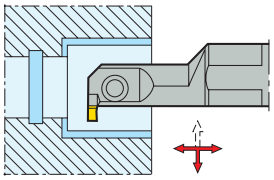




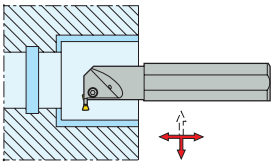
p. 781, 782, 814, 815, 818, 819 CFOR/L 1.250JET p. 786, 787, 791, 792
p. 791, 792
p. 791, 792
p. 786, 787, 791, 792
p. 781, 782, 814, 815, 818, 819 CFOR/L 1.250JET p. 786, 787, 791, 792
CFOR/L 1.000JET p. 791, 792
p. 791, 792
p. 786, 787, 791, 792
p. 781, 782, 814, 815, 818, 819 CFOR/L 1.250JET p. 786, 787, 791, 792
CFOR/L 1.000JET p. 791, 792
p. 791, 792
p. 786, 787, 791, 792
p. 781, 782, 814, 815, 818, 819 CFOR/L 1.250JET p. 786, 787, 791, 792
CFOR/L 1.000JET p. 791, 792
p. 791, 792
p. 786, 787, 791, 792
CFOR/L 1.000JET p. 791, 792
p. 791, 792
p. 786, 787, 791, 792
CFOR/L 1.000JET p. 791, 792
p. 791, 792
p. 786, 787, 791, 792

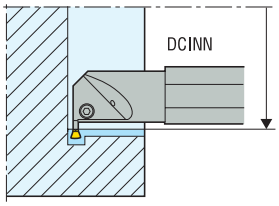
.709 .945 1.181 1.417 1.890

Internal holders – Inch



$DCINN_{min}$	CW	Shank type						
1.800	0.236	Bar	CGGR/L ∅1.500					
	0.197	Bar	CGGR/L ∅1.500					
	0.157	Bar	CGGR/L ∅1.500					
	0.118	Bar	CGGR/L ∅1.500					
1.260	0.236	Bar	CGFR/L ∅1.250					p. 830
	0.197	Bar	CGFR/L ∅1.250					p. 830
	0.157	Bar	CGGR/L ∅1.250					
	0.118	Bar	CGIR/L ∅1.250					
0.985	0.157	Bar	CGFR/L ∅1.000					p. 828
	0.118	Bar	CGHR/L ∅1.000					p. 828
	0.079	Bar	CGJR/L ∅1.000				p. 834	
0.790	0.157	Bar	CGFR/L ∅0.750			p. 828		
	0.118	Bar	CGFR/L ∅0.750			p. 828		
	0.079	Bar	CGHR/L ∅0.750		p. 834			
0.630	0.118	Bar	CGER/L ∅0.625	p. 828				
				CDX = .118	.197	.216	.276	.295

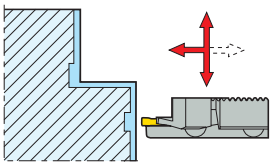


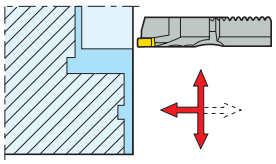


p. 832
p. 832
p. 832
p. 832
p. 830 CGHR/L ∅1.250 p. 828
p. 830 CGJR/L ∅1.250 p. 828

.295 .354 .394 .413 .440 .515

Axial modular blades – Metric





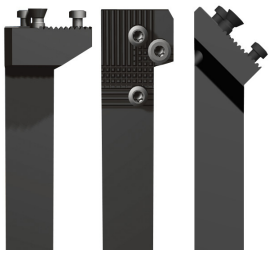
INPLM-INPLX	CW	
17-200	4	V21-CMR/L
26-100		V21-CIR/L
17-34		V21-CHR/L
17-200	3	V21-COR/L
33-76		V21-CKR/L
17-39		V21-CJR/L

p. 846, 847, 848, 849

CDX = 10,5 | 12 | 18 | 20

Holders for modular blades – Metric / *Inch*



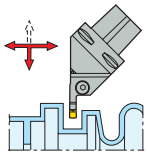






C4-C5-C6 p. 837, 838 | 20-25-32 / *0.750 - 1.000 - 1.250* p. 839, 840 | C4, C5, C6, ∅25-32-40 / *1.000 - 1.250 - 1.500* p. 841, 842, 844

External MTM holders – Metric / *Inch*

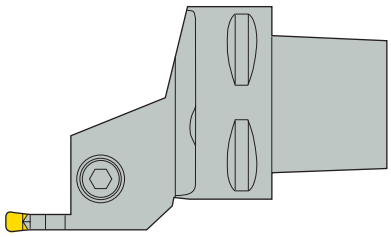


CW		
8 *0.315*	JETI	CDIR/L C6
6 *0.240*	JETI	CDIR/L C6
5 *0.200*	JETI	CDIR/L C6
4 *0.160*	JETI	CDIR/L C6
3 *0.120*	JETI	CDIR/L C6

p. 835, 836

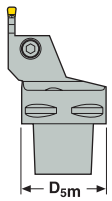
CDX = 9 *0.354* | 12 *0.470* | 15 *0.590* | 18 *0.700* | 24 *0.945*

Seco-Capto™ – External toolholders



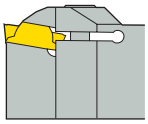
C4	C	F	I	R	-	27	050	-	03
1	2	3	4	5		6	7		8

1. Seco-Capto™ size



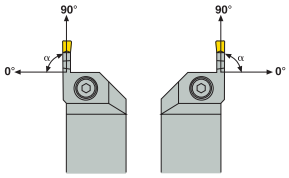
C3 = 32 mm
C4 = 40 mm
C5 = 50 mm
C6 = 63 mm

2. Insert clamping



C

3. Toolholder setting angle



α
G = 0°
R = 15°
T = 30°
S = 45°
W = 60°
K = 75°
F = 90°
B = 105°
E = 120°
D = 135°

4. Maximum grooving/turning depth

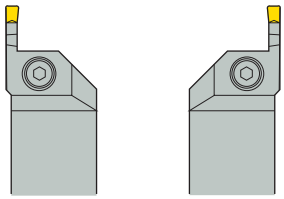


E = 1,0 x CW
F = 1,5 x CW
G = 2,0 x CW
H = 2,5 x CW
I = 3,0 x CW
J = 3,5 x CW
K = 4,0 x CW

L = 4,5 x CW
M = 5,0 x CW
N = 5,5 x CW
O = 6,0 x CW
S = 8,0 x CW
T = 8,5 x CW
Z = 12,5 x CW

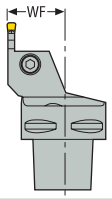
X = Special

5. Version



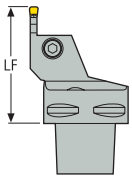
R L

6. WF-dimension



27 = 27 mm
35 = 35 mm
45 = 45 mm
etc.

7. LF-dimension



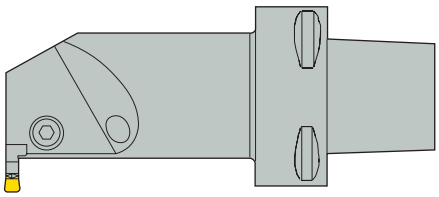
12 = 12 mm
16 = 16 mm
20 = 20 mm
etc.

8. Seat size



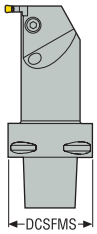
03	= 2,3 mm
04	= 3,1 mm
05	= 4,1 mm
06	= 5,1 mm
08	= 6,8 mm
1902	= 1,6 mm
2802	= 1,6 mm
etc.	

Seco-Capto™ – Internal toolholders and modular GL-turning heads

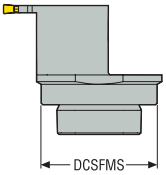


C4	C	G	G	R	-	25	090	-	03
1	2	3	4	5		6	7		8

1. Seco-Capto™ and GL size

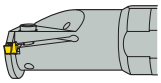


C3 = 32 mm
C4 = 40 mm
C5 = 50 mm
C6 = 63 mm



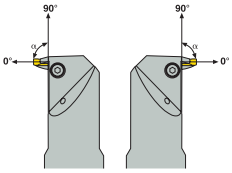
GL25 = 25 mm
GL32 = 32 mm
GL40 = 40 mm
GL50 = 50 mm

2. Insert clamping



C

3. Toolholder setting angle



α
G = 0°
R = 15°
T = 30°
S = 45°
W = 60°
K = 75°
F = 90°
B = 105°
E = 120°
D = 135°

4. Maximum grooving/turning depth

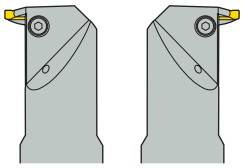


E = 1,0 x CW
F = 1,5 x CW
G = 2,0 x CW
H = 2,5 x CW
I = 3,0 x CW
J = 3,5 x CW
K = 4,0 x CW

L = 4,5 x CW
M = 5,0 x CW
N = 5,5 x CW
O = 6,0 x CW
S = 8,0 x CW
T = 8,5 x CW
Z = 12,5 x CW

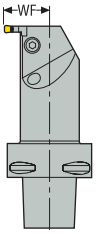
X = Special

5. Version



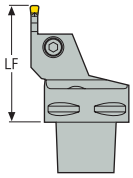
R L

6. WF-dimension



12 = 12 mm
16 = 16 mm
20 = 20 mm
etc.

7. LF-dimension



065 = 65 mm
075 = 75 mm
080 = 80 mm
etc.

8. Seat size



1303 = 2,4 mm
1304 = 3,4 mm
03, 1603 = 2,3 mm
04, 1604 = 3,1 mm
05, 1605 = 4,1 mm
06, 1606 = 5,1 mm
1902 = 1,6 mm
etc.

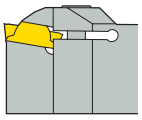
External toolholders



C	F	Z	R	20	20	M	2802	RB	JET
1	2	3	4	5	6	7	8	12	13

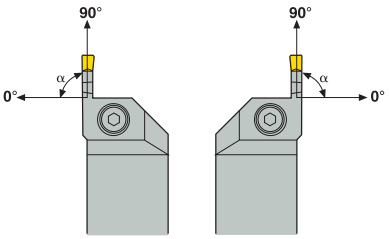
C	F	I	R	25	25	M	04	L	100	070
1	2	3	4	5	6	7	8	9	10	11

1. Insert clamping



Clamp

2. Toolholder setting angle



α
G = 0°
R = 15°
T = 30°
S = 45°
W = 60°
K = 75°
F = 90°
B = 105°
E = 120°
D = 135°

3. Maximum grooving/turning depth

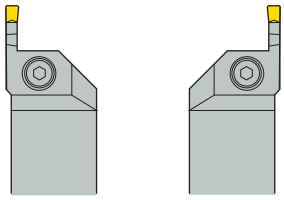


E = 1,0 x CW
F = 1,5 x CW
G = 2,0 x CW
H = 2,5 x CW
I = 3,0 x CW
J = 3,5 x CW
K = 4,0 x CW
L = 4,5 x CW

M = 5,0 x CW
N = 5,5 x CW
O = 6,0 x CW
P = 6,25 x CW
S = 8,0 x CW
T = 8,5 x CW
Z = 12,5 x CW

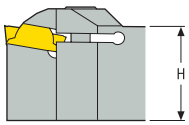
X = Special

4. Version



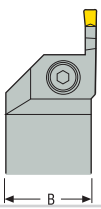
R L

5. Shank height



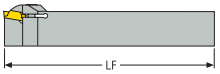
12 = 12 mm
16 = 16 mm
20 = 20 mm
etc.

6. Shank width



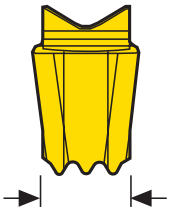
12 = 12 mm
16 = 16 mm
20 = 20 mm
etc.

7. Tool length



H = 100 mm
K = 125 mm
M = 150 mm
P = 170 mm
R = 200 mm

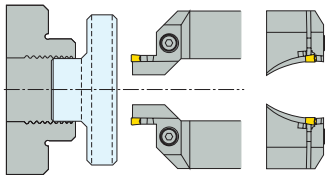
8. Seat size



Seat size

1303 = 2,4 mm
1304 = 3,4 mm
1603 = 2,3 mm
1604 = 3,1 mm
1605 = 4,1 mm
1606 = 5,1 mm
1902 = 1,6 mm
2802 = 1,6 mm
3008 = 6,8 mm
etc.

9. Tang curvature direction



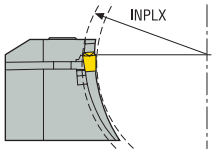
L

R

Additional information for axial machining

10. Maximum diameter

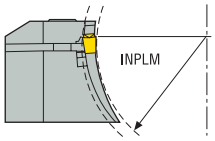
100 mm (INPLX)



Additional information for axial machining

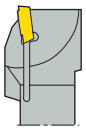
11. Minimum diameter

070 = 70 mm (INPLM)



Additional information for axial machining

12. Holder modification



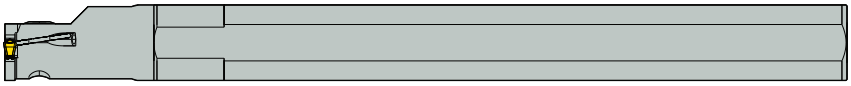
RB = Reinforced blade for specified diameter

13. Cooling system

JET = Jetstream Tooling®
JETI/JETI2 = Jetstream Tooling® integrated coolant inlet

Additional information for axial machining

Internal toolholders



A	20	R	-	C	G	F	R	1303
1	2	3		4	5	6	7	8

1. Toolholder type

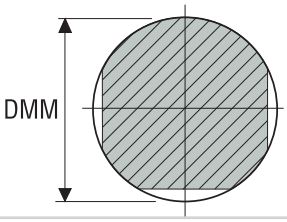
A = Steel with coolant passage

S = Solid steel

E = Solid carbide with brazed* cutting head and coolant passage

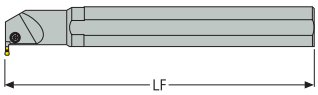
* Brazed or equivalent

2. Shank diameter



12 = 12 mm
20 = 20 mm
25 = 25 mm
etc.

3. Tool length

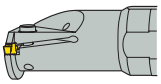


K = 125 mm
L = 140 mm
M = 150 mm
N = 160 mm
P = 170 mm

Q = 180 mm
R = 200 mm
S = 250 mm
T = 300 mm
U = 350 mm

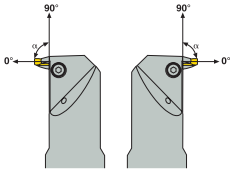
V = 400 mm

4. Insert clamping



C

5. Toolholder setting angle



α
G = 0°
R = 15°
T = 30°
S = 45°
W = 60°
K = 75°
F = 90°
B = 105°
E = 120°
D = 135°

6. Maximum grooving/turning depth

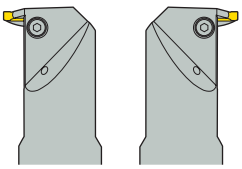


E = 1,0 x CW
F = 1,5 x CW
G = 2,0 x CW
H = 2,5 x CW
I = 3,0 x CW
J = 3,5 x CW
K = 4,0 x CW

L = 4,5 x CW
M = 5,0 x CW
N = 5,5 x CW
O = 6,0 x CW
S = 8,0 x CW
T = 8,5 x CW
Z = 12,5 x CW

X = Special

7. Version



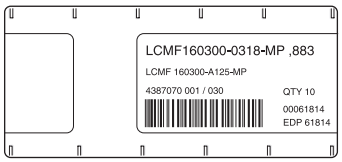
R L

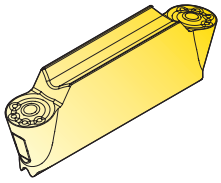
8. Seat size



1303 = 2,4 mm
1304 = 3,4 mm
1603 = 2,3 mm
1604 = 3,1 mm
1605 = 4,1 mm
1606 = 5,1 mm
1902 = 1,6 mm
2802 = 1,6 mm

Inserts





L	C	M	F	16	03	00	-	0318		-	MP
1	2	3	4	5	6	7		8	9		10

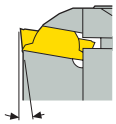
1. Shape

L



Rectangular

2. Front clearance angle



C = 7°

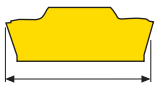
3. Tolerances

Tolerance class	Tolerances: mm/*in*			For insert width, CW mm					
				2	3	4	5	6	8
	CW	RE	LIG						
G	0,025/*0.001*	0,025/*0.001*	0,040/*0.0016*		•	•	•	•	•
M	0,050/*0.0020*	0,050/*0.0020*	0,080/*0.0032*	•	•	•	•	•	•

4. Insert type

R		Single ended with chipbreaker	N		Single ended without chipbreaker
F		Double ended with chipbreaker	A		Double ended without chipbreaker

5. Insert gauge length



6. Insert gauge width



Seat size

7. Corner radius



M0,00	= round
01	= 0,1 mm
02	= 0,2 mm
04	= 0,4 mm
08	= 0,8 mm

8. Insert width



0200 = 2,0 mm
0300 = 3,0 mm
0400 = 4,0 mm
0500 = 5,0 mm
etc.

9. Version

R



L



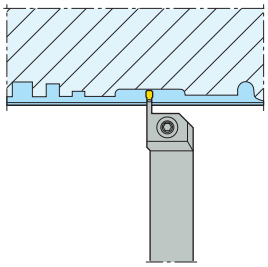
10. Insert type code, for further information please see page(s) 710

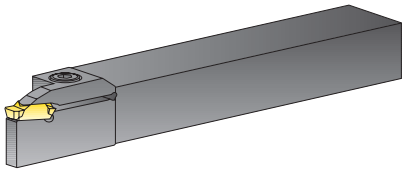
FT	= Chipbreaker for fine turning	FG	= For lock rings
FTR/L	= Right or left hand version with a specified setting angle, for parting-off	DY	= For dynamic O-rings
MT	= Chipbreaker for medium turning	ST	= For static O-rings
MG	= Chipbreaker for medium grooving	D76	= For thread undercuts
MC	= Chipbreaker for medium cut-off	R	= For radius
MCR/L	= Right or left hand version with a specified setting angle, for parting-off	A55/A60 G55/G60 ISO	= For threading
GG	= Chipbreaker for medium grooving		
GS	= Chipbreaker for fine grooving		
MP	= Chipbreaker for medium profiling		
RP	= Chipbreaker for fine and medium profiling		

Toolholders

CFIR/L – Basic choice

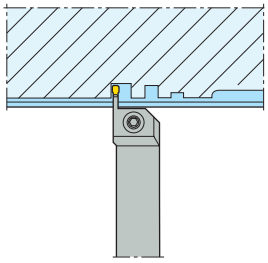
- For external turning, profiling and grooving
- Maximum working depth 3 x the insert width (can be limited by double ended inserts)
- Size 16 – For general machining
- Size 30 – For heavy machining

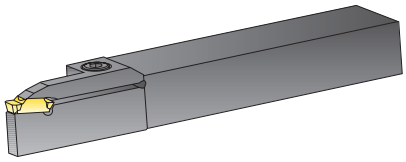




CFMR/L – Long reach

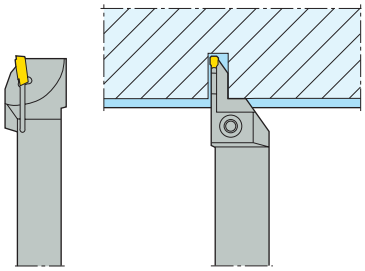
- For external turning, profiling and grooving
- Maximum working depth 5 x the insert width
- Single ended inserts should be used (CFMR/L, CFSR/L)
- Size 16 – For general machining
- Size 28 – For general machining
- Size 30 – For heavy machining

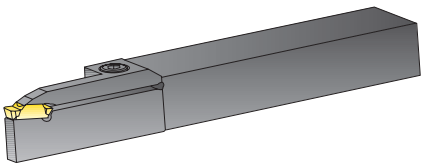




CFOR/L, CFPR/L, CFSR/L, CFTR/L, CFZR/L – Extra long reach, 6 x insert width up to 12,5 x insert width

- For grooving and parting-off
- Single ended inserts should be used (CFOR/L, CFPR/L, CFTR/L)
- Size 16 – For general machining
- Size 19 – For small part machining
- Size 28 – For general machining

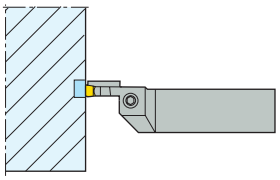


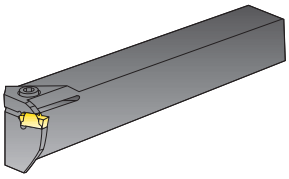


CGIR/L, CFIR/L, CFOR/L – Axial machining

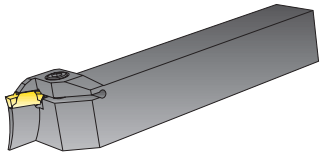
- For axial turning, profiling and grooving
- Maximum working depth 3-6 x the insert width (can be limited by double ended inserts).
- These toolholders demand that the first cut must be made between two specified diameters (see code key)
- Size 16 – For general machining
- Size 30 – For heavy machining

CGIR





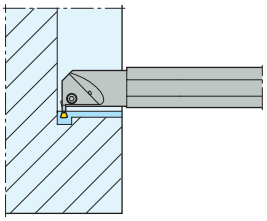
CFIL

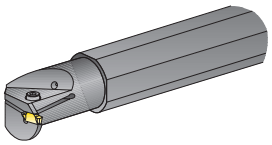


CG.IR/L – Internal machining

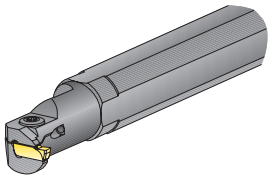
- For internal turning, profiling and grooving
- Maximum working depth 1–3,5 x the insert width for size 13
- Maximum working depth 3 x the insert width for size 16
- Maximum working depth 2,5–3,5 x the insert width for size 19
- For through coolant supply
- Size 13 – For machining in small bore sizes
- Size 16 – For general machining
- Size 19 – For machining in small bore size

MDT16



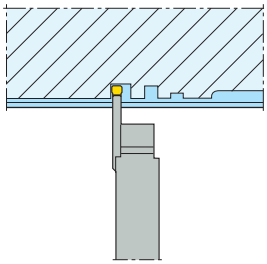


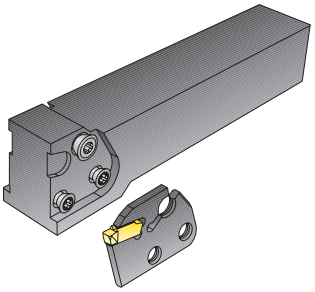
MDT13



Single ended blades

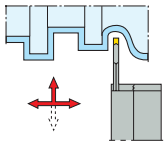
- Holder with both right and left hand blade mounting available
- Size 16 – For general machining





Double ended blades

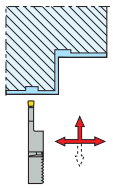
- To be used in standard 150.10 toolblocks
- Size 16 – For parting-off

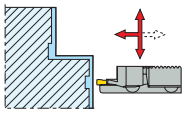


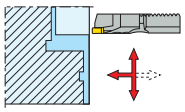


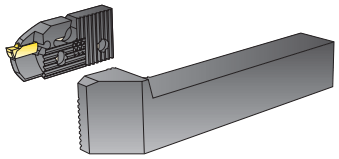
Modular holders, axial/radial

- For axial turning, profiling and grooving
- Maximum working depth 3-6 x the insert width (can be limited by double ended inserts).
- These toolholders demand that the first cut must be made between two specified diameters (see code key)
- Size 16 – For general machining
- Size 30 – For heavy machining









MDT – Inserts

LCMF – Basic choice

Double ended
Economy (cutting edges at both ends)
Size 13 – For machining in small bore sizes and axial machining at small diameters
Size 16 – For general machining
Size 19 – For small part machining
Size 28 – For general machining
Size 30 – For heavy machining

MDT13



MDT16
MDT30



MDT19
MDT28



LCMR

Single ended
Flexibility
Reach (full length clearance)
Size 13 – For machining in small bore sizes and axial machining at small diameters
Size 16 – For general machining
Size 30 – For heavy machining

MDT13



MDT16
MDT30



LCG.

Special applications
Standard and (customer specified) tailor made profiles
Double or single ended
With or without chipbreaker

Size 13 – For machining in small bore sizes and axial machining at small diameters
Size 16 – For general machining
Size 30 – For heavy machining



FT (Fine Turning)

For fine turning

For deep grooving



FT 19 and 28 (Fine Turning)

For parting-off

For deep grooving



MT (Medium Turning)

For medium turning

For shallow grooving



MG (Medium Grooving)

For medium turning

For deep grooving

For parting-off



MC (Medium Cut-off)

For parting-off tubes and small diameter workpieces

For deep grooving



GG (Grooving Ground)

Ground chipgroove

For medium grooving, complement to FT for precision grooves



GS (Grooving Sharp)

Sharp edge

For fine grooving in non-ferrous materials/ superalloys

Precision grooves



A55/A60, G55/G60, ISO

For threading applications



MP (Medium Profiling)

For medium profiling

For medium turning

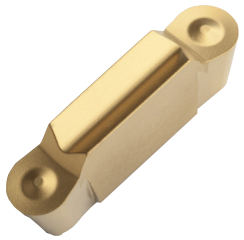


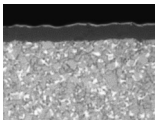
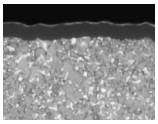
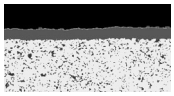
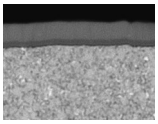
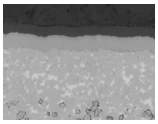
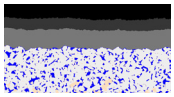
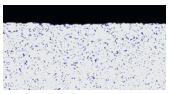
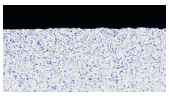
RP (Round Profiling)

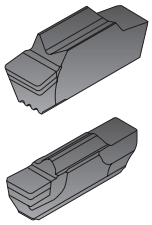
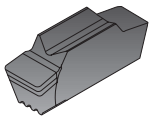
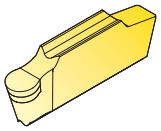
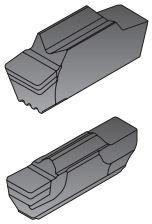
For fine and medium profiling, turning and grooving

Sharp periphery ground edges

For superalloys, titanium alloys and non-ferrous materials



Grades		
CP200		PVD-coated, hard micrograin grade with great wear resistance, intended for grooving, parting-off and profiling of superalloys, titanium alloys and hardened steels. A more wear resistant alternative to grade 890. (Ti,Al)N + TiN
CP500		Tough versatile PVD-coated micrograin grade intended for grooving in a variety of workpiece materials. Universal choice. (Ti,Al)N + TiN
CP600		Very tough PVD-coated fine-grain grade intended for deep grooving and parting-off at low to moderate cutting speeds. Well-suited in deep grooving and in interrupted cuts. Tougher alternative to CP500. (Ti,Al)N + TiN
TGH1050		Very hard supermicrograin grade intended for partly hardened steel components as well as generally workpiece materials such as superalloys and cast-iron and due to remarkable edge toughness it also provides high performance in interrupted cuts and hard-surface removal. Ti-Al-Si-N nanolaminate coating
TGK1500		Wear-resistant, hard Duratomic® CVD-coated grade intended for grooving and profiling of grey cast iron and nodular cast iron. $Ti(C,N) + Al_2O_3$
TGP25		A wear-resistant Duratomic® CVD-coated grade intended for grooving, turning and profiling of steels at high cutting speeds. $Ti(C,N) + Al_2O_3$
883		Uncoated, hard grade intended for grooving, parting-off and profiling of superalloys, titanium alloys, hardened steels and non-ferrous materials.
890		Uncoated, very hard micrograin grade intended for grooving and profiling of superalloys, titanium alloys, hardened steels and non-ferrous materials. More wear resistant alternative to grade 883.

Grades, PCBN	
CBN010 	Single-ended inserts with brazed tip, intended for hardened steels and Ni-based superalloys. Composition: 50% cBN content grade with an average grain size of 2 µm and a TiC ceramic binder. Coating: No coating.
CBN170 	Single-ended inserts with brazed tip, intended for Ni-based superalloys. Composition: 65% cBN content grade with an average grain size of 2 µm and a TiCN+SiCw ceramic binder. Coating: No coating.
CBN170C 	Single-ended inserts with brazed tip, intended for Ni-based superalloys. Composition: 65% cBN content grade with an average grain size of 2 µm and a TiCN+SiCw ceramic binder. Coating: (Ti,Si)N
CBN200 	Single-ended inserts with brazed tip, intended for perlitic cast iron and hardened steels. Composition: 90% cBN content grade with an average grain size of 3-6 µm and a Al ceramic binder. Coating: No coating.

Application recommendations

Easy conditions: pre-machined surface, shallow grooves etc.
Difficult conditions: raw surface, deep grooves etc.

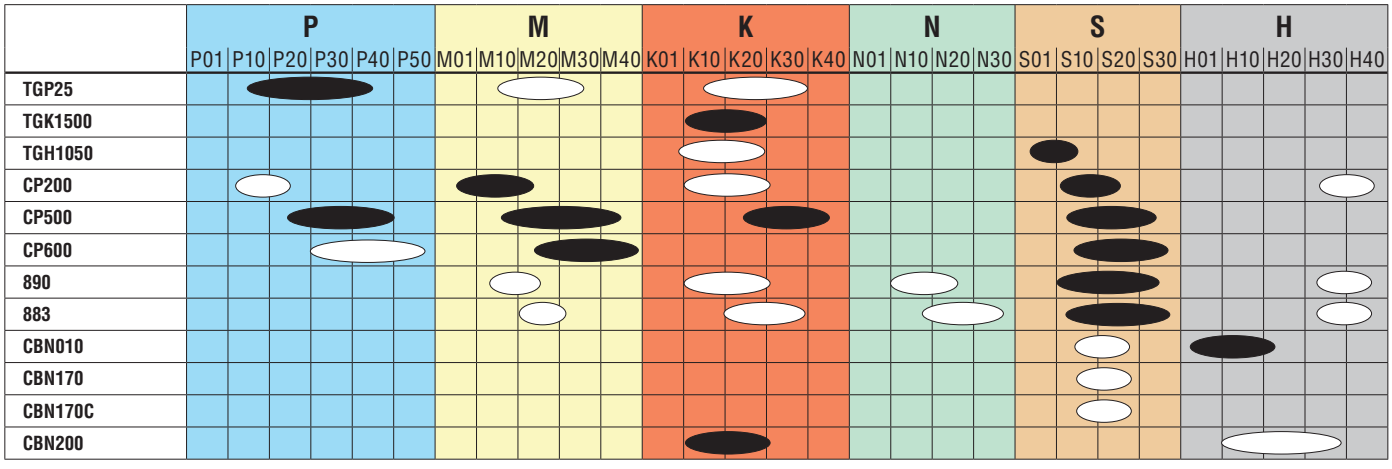
To centre		Tube	
Easy conditions	Difficult conditions	Easy conditions	Difficult conditions
FT TGP25	MC CP600	MT TGP25	MT TGP25
FT CP500	MC CP600	MT TGP25	MT TGP25
MT TGK1500	MT CP500	MT TGK1500	MT TGP25
MT 883	MT CP500	MT 883	MT CP500
MT 883	MT CP500	MT 883	MT CP500
S-LF CBN 10 CBN 010	S-LF CBN200	S-LF CBN 10 CBN010	S-LF CBN200

MDT Grades – Secolor

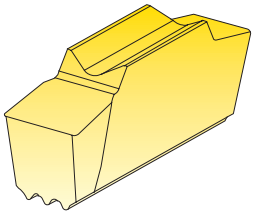
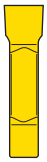
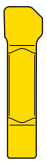
The chart below shows application areas for grades available in the MDT system.
The black areas in the chart indicate a grade's main ISO application groups and the white areas indicate other supplementary application groups.

Indicative ISO classification of the grades

Steel **P**	All kinds of steel and cast steels except stainless steels with austenitic structure.	P01, P10, P20, P30, P40, P50
Stainless steel **M**	Stainless austenitic and austenitic/ferritic steel and cast steel.	M01, M10, M20, M30, M40
Cast iron **K**	Grey cast iron, cast iron with spheroidal graphite, malleable cast iron.	K01, K10, K20, K30, K40
Non-ferrous metals **N**	Aluminium and other nonferrous metals.	N01, N10, N20, N30
Superalloys and titanium **S**	Heat resistant special alloys based on iron, nickel and cobalt, titanium and titanium alloys.	S01, S10, S20, S30
Hard materials **H**	Hardened stel and cast iron materials, chilled cast iron.	H01, H10, H20, H30



Inserts for standard grooves

Standard programme				
Double-ended LCGA (MDT13) Single-ended LCGN (MDT16)				
FG **– For locking rings**	**DY** **– For dynamic O-rings**	**R** **– For full radius grooving**	**D76** **– For thread undercuts**	**ST** **– For static O-rings**
				

Remember to check the toolholder clearance before using these inserts.

Principles

Principles

During turning the axial forces deflect the tool generating a necessary trailing edge clearance angle.

This angle depends on

– Feed

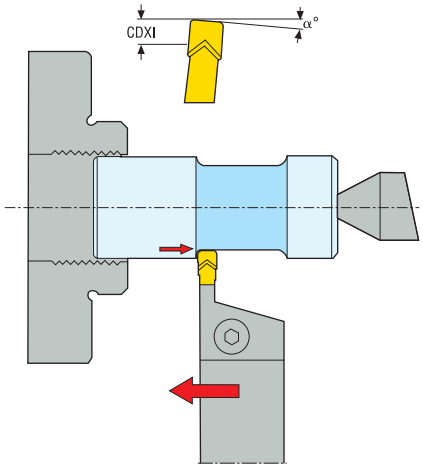
– Depth of cut

– Tool overhang

– Insert width

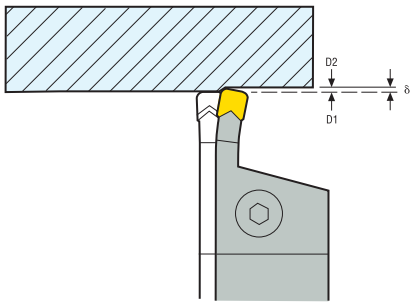
– Cutting speed

– Workpiece material



The deflection arising during turning causes a minor change of the actual tool length. This influences the received diameter on the workpiece.

The exact amount can be figured by running a test piece. First make a groove and then a turning operation to the same diameter with the selected cutting data. Compare the two different diameters and use the formula to calculate a compensation measure.



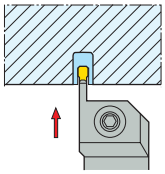
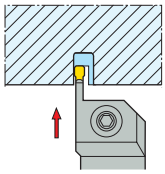
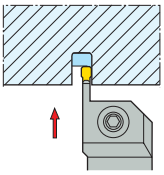
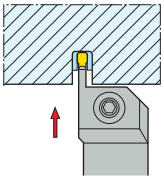
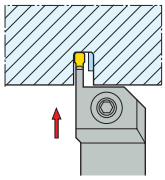
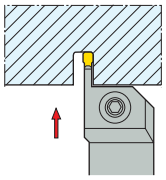
$$\delta = \frac{D1 - D2}{2}$$

Technical tips

Use the following technical tips for a favourable cutting process considering chipbreaking, cutting forces and tool life.

Machining a deep groove

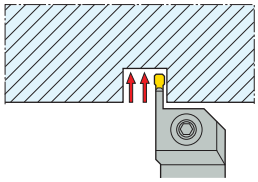
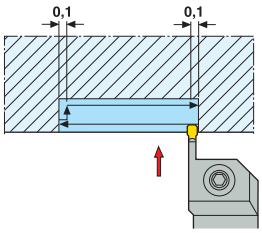
– Make a central groove to half of the total depth.
– Make infeeds at both sides to the same depth.
– Machine a central groove to full depth.
– Make infeeds at both sides to the full depth.
– Always outfeed, do not rapid traverse.

Roughing a recess

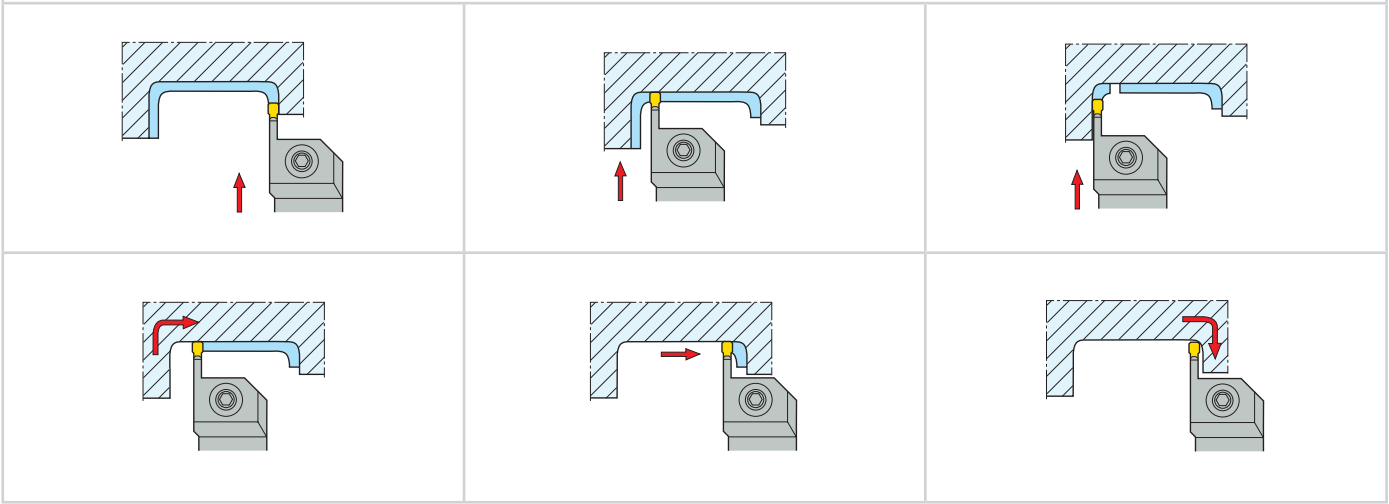
If the depth is larger than the width
– Use successive infeeds to required diameter.
– Increment a distance of the insert width – 2 x the insert corner radius to get a flat bottom surface.
– Always outfeed, do not use rapid traverse.

If the width is larger than the depth.
– Start with an infeed at one end.
– Use successive alternating turning with infeeds at the end.
– Release the tool deflection after turning before infeeding (reverse feed and reposition the insert before infeed – 0,1 mm).

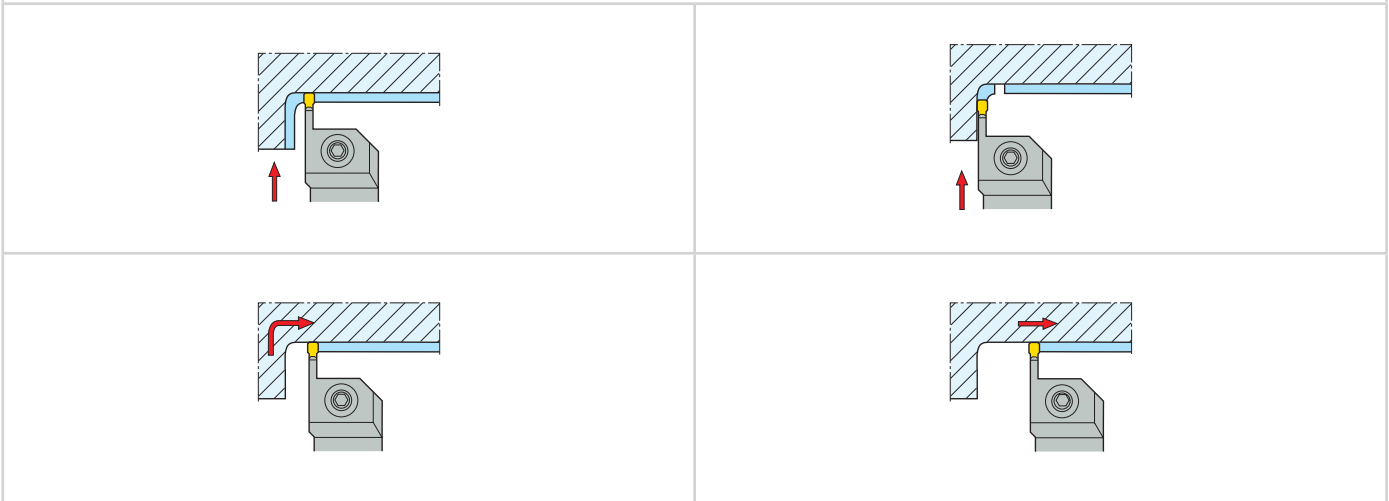
Finishing a recess with corner radius or chamfer

– Machine the face down to the end point of the radius or chamfer.
– Make a groove to the required depth at the end point of the radius or chamfer.
– Machine down to the end point of the radius or chamfer.
– Machine the radius or chamfer.
– Machine the diameter until the end point of the radius or chamfer is reached (remember to compensate for the deflection).
– Machine the radius or chamfer.



Machining a large corner radius or chamfer

– Make a groove to the required depth at the end point of the radius or chamfer.
– Machine the face down to the end point of the radius or chamfer.
– Machine the radius or chamfer.
– Continue with turning starting from the groove (remember to compensate for the deflection).



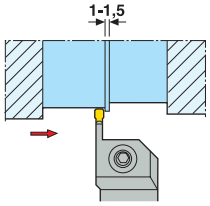
Eliminating a hanging ring

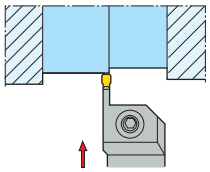
Turning towards the end of a component or towards a recess sometimes produces a hanging ring.

To avoid this

– Stop the turning operation 1,0–1,5 mm before the end of the component or the recess.

– Plunge down to the turned diameter.

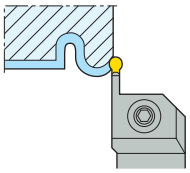




Profiling with round inserts

– The cutting depth should be maximum 0,4 x the insert diameter.

– There is no requirement to generate a trailing edge clearance angle as the geometry will provide that.



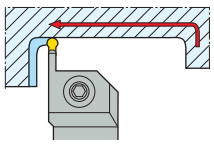
Roughing a recess with round inserts

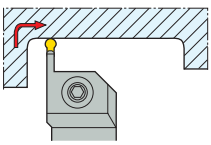
– Machine the face down to the end point of the radius or chamfer.

– Track around the radius.

– Turn to the end point of the radius or chamfer on the other side.

– Machine down the other side and track around the radius or chamfer.

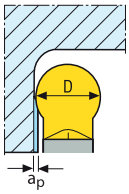


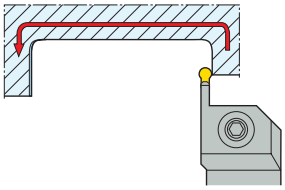


Finishing a recess with round inserts

– Make the cut in one continuous movement.
– Notice the maximum cutting depth allowed during outfeeding (see table).

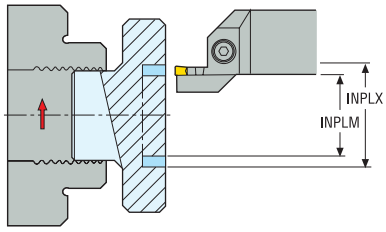
D mm	a_p mm
2	0,12
3	0,15
4	0,20
5	0,22
6	0,25
8, 10	0,40

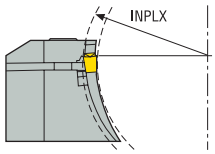


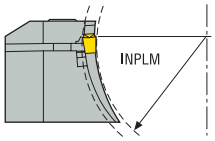


Axial machining

– In axial grooving operations the tool must be adapted to the radius of the groove.
– The toolholder code tells the maximum and minimum diameters that can be handled (see code key).
– The diameter measured on the outside of the blade (INPLX) determines the largest diameter of initial plunge.
– The diameter measured on the inside of the blade (INPLM) determines the smallest diameter of initial plunge.
– This applies to the initial groove only. Changing to turning means no general restrictions besides collision risk if machining towards centre.

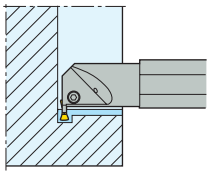






Internal machining

– Generally the same technique as for external machining should be used.
– In blind holes problems can occur with chip evacuation. To avoid that start with making a groove at the inner wall and turn towards the outside.

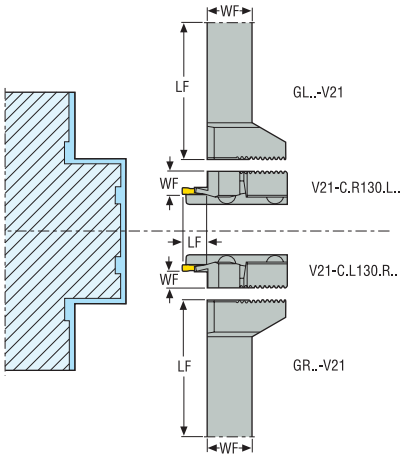


Modular holders

Calculation of dimensions after mounting

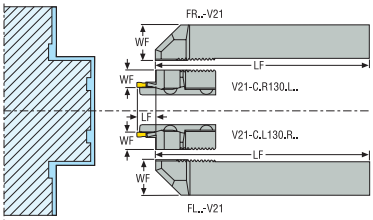
Example, left hand version (L):
– Blade holder G**L** (alternative Seco-Capto™ G**L**).
– Blade type V21-C.**R**130.**L**..
LF = LF holder + WF blade
WF = WF holder + LF blade

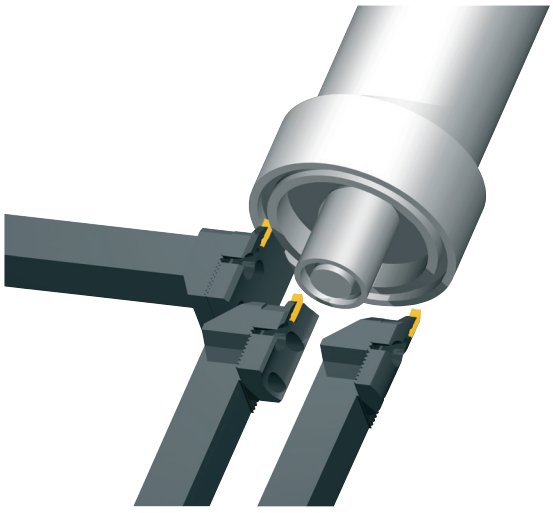
Example, right hand version (R):
– Blade holder G**R** (alternative Seco-Capto™ G**R**).
– Blade type V21-C.**L**130.**R**..
LF = LF holder + WF blade
WF = WF holder + LF blade



Example, right hand version (R):
– Blade holder F**R** (alternative Seco-Capto™ F**R**).
– Blade type V21-C.**R**130.**L**..
LF = LF holder + LF blade
WF = WF holder + WF blade

Example, left hand version (L):
– Blade holder F**L** (alternative Seco-Capto™ F**L**).
– Blade type V21-C.**L**130.**R**..
LF = LF holder + LF blade
WF = WF holder + WF blade





Calculation of dimensions after mounting

Example, left hand version (L):

– Blade holder F**L** (alternative Seco-Capto™ F**L**).

– Blade type V21-C.**L**130.**L**..

LF = LF holder + LF blade

WF = WF holder + WF blade

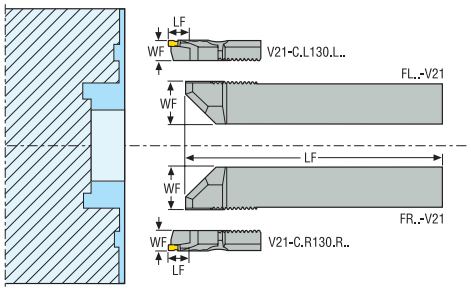
Example, right hand version (R):

– Blade holder F**R** (alternative Seco-Capto™ F**R**).

– Blade type V21-C.**R**130.**R**..

LF = LF holder + LF blade

WF = WF holder + WF blade



Example, left hand version (L):

– Blade holder A..F**L** (alternative Seco-Capto™ A..F**L**).

– Blade type V21-C.**L**130.**L**..

LF = LF holder + LF blade

WF = WF holder + WF blade

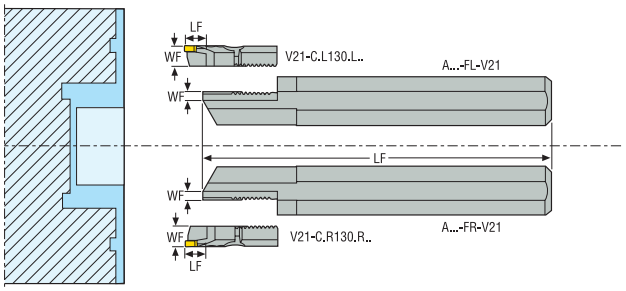
Example, right hand version (R):

– Blade holder A..F**R** (alternative Seco-Capto™ A..F**R**).

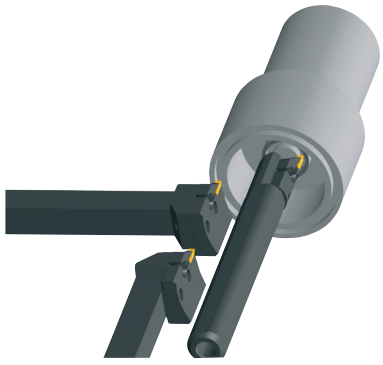
– Blade type V21-C.**R**130.**R**..

LF = LF holder + LF blade

WF = WF holder + WF blade



Bars A25R-F... can enter a minimum diameter DCINN ≥ 25 mm.
Bars A32S-F... can enter a minimum diameter DCINN ≥ 32 mm.



Calculation of dimensions after mounting

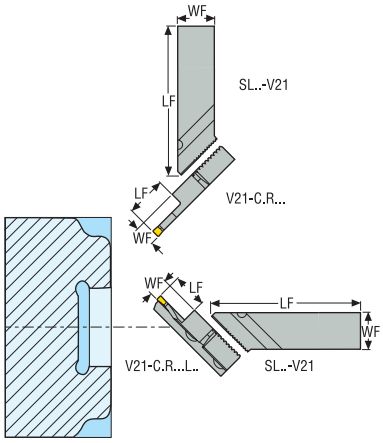
Example, left hand version (L):

– Blade holder S**L** (alternative Seco-Capto™ S**L**).

– Blade type V21-C.**R**....or V21-C.**R**....**L**..

LF = LF holder + 0,71 x (WF blade + LF blade)

WF = WF holder + 0,71 x (LF blade - WF blade)



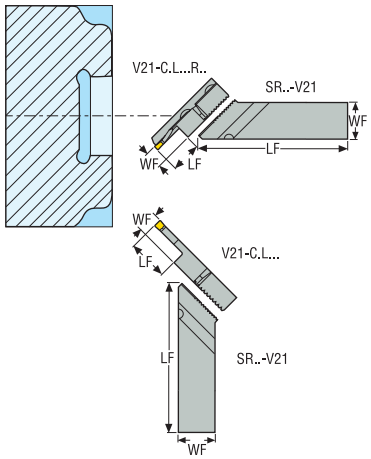
Example, right hand version (R):

– Blade holder S**R** (alternative Seco-Capto™ S**R**).

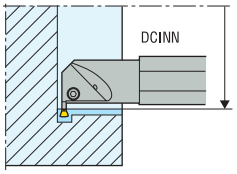
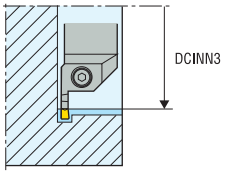
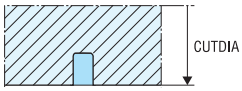
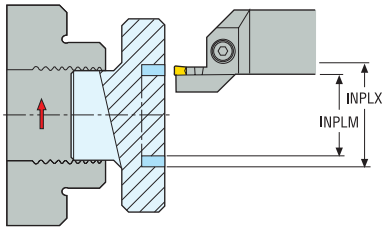
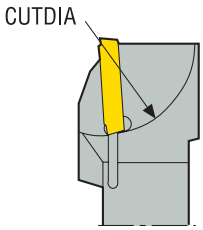
– Blade type V21-C.**L**....or V21-C.**L**....**R**..

LF = LF holder + 0,71 x (WF blade + LF blade)

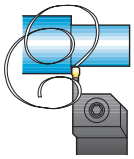
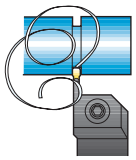
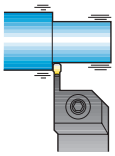
WF = WF holder + 0,71 x (LF blade - WF blade)



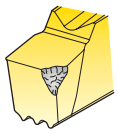
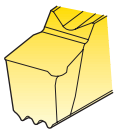
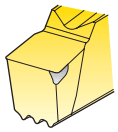
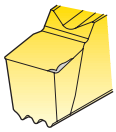
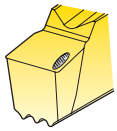
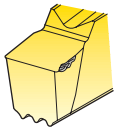
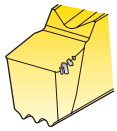
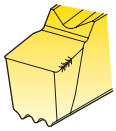
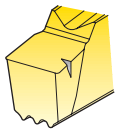
Dimensions relevant for toolholder use

DCINN	DCINN3
	
CUTDIA	**INPLM/INPLX**
	
CUTDIA ..RB	
	

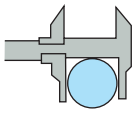
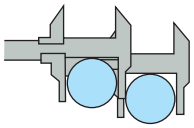
Machining problems

Machining problems	
Chipbreaking problems/ turning 	Increase feed rate or cutting depth. Use narrower insert with smaller radius.
Chipbreaking problems/ grooving 	Reduce the cutting speed. Increase the feed rate. Use interrupted feed.
Vibrations 	Change the cutting speed. Increase the feed rate. Reduce the cutting depth. Improve the stability of the tool and workpiece. Select an insert with smaller radius.

Tool life problems

Tool life problems			
Breakage 	Reduce the feed rate. Reduce the cutting depth. Select a tougher grade. Select an insert with larger radius.	Plastic deformation 	Reduce the cutting speed. Reduce the feed rate. Use coolant. Select a more wear resistant grade. Select an insert with larger radius.
Rapid flank wear 	Reduce the cutting speed.	Built-up edge 	Increase the cutting speed. Increase the feed rate. Do not use coolant.
Rapid crater wear 	Reduce the cutting speed. Reduce the feed rate. Use coolant. Select a more wear resistant grade.	Chip hammering 	Change the feed rate. Change the cutting depth.
Chipping 	Increase the cutting speed. Reduce the feed rate. Select a tougher grade.	Comb cracks 	Reduce the cutting speed. Reduce the feed rate. Use abundant coolant flow or no coolant at all.
Notch wear 	Reduce the cutting speed. Reduce the feed rate.		

Workpiece out of tolerance

Workpiece out of tolerance			
Poor surface finish 	Reduce the feed rate. Increase the cutting speed. Reduce the cutting depth. Use coolant. Improve the stability of the tool and workpiece.	Inaccurate square facing 	Final facing should be made as radial machining from outside to centre.
Diameter out of tolerance 	Check the tool length compensation measure. Reduce the cutting speed. Select a more wear resistant grade.	Repeatability problems 	Keep machining conditions constant. Check the insert wear.
Diameter variation 	After grooving the tool must be retracted in accordance with the compensation measurement before proceeding with turning. Keep machining conditions constant during turning operation.		

Working depths

These working depths can be limited when using double ended inserts because of their design.

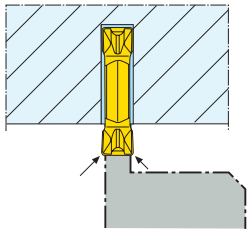
L...13 = CDXI max 11

L...16 = CDXI max 14

L...19 = CDXI max 16

L...28 = CDXI max 26

L...30 = CDXI max 28



Torque values for clamping screws

Screw	Nm	
L85011-T15P	5,0	Torque keys, please see page(s) 1028-1029.
L85012-T15P	5,0	
L86015-T20P	6,0	
MC6S4..	4,0	
MC6S5..	6,0	
TCEI04..	3,5	
TCEI05..	6,0	
TCEI06..	8,0	
TCEI08..	10,0	
TCEI10..	15,0	

General recommendations

– Use medium to high feeds for general grooving.
– Use medium to low feeds for precision grooving.
– Always use reverse feed instead of rapid traverse out of grooves.
– Do not use too low cutting depths and feed rates for finishing and semi-finishing turning operations.
– The appropriate deflection must be achieved. Minimum cutting depths and feed rates are shown in the table below.
– When profiling with round inserts do not use cutting depths over 0,4 x the insert diameter.
– Lower the cutting data when using holders with reach CDX ≥5 x CW because the extra length makes them deflect more.
– Maximum overhang with CGGR/L holders should be 3 x the tool diameter.

Minimum cutting depth (a_p) and feed rate (f)

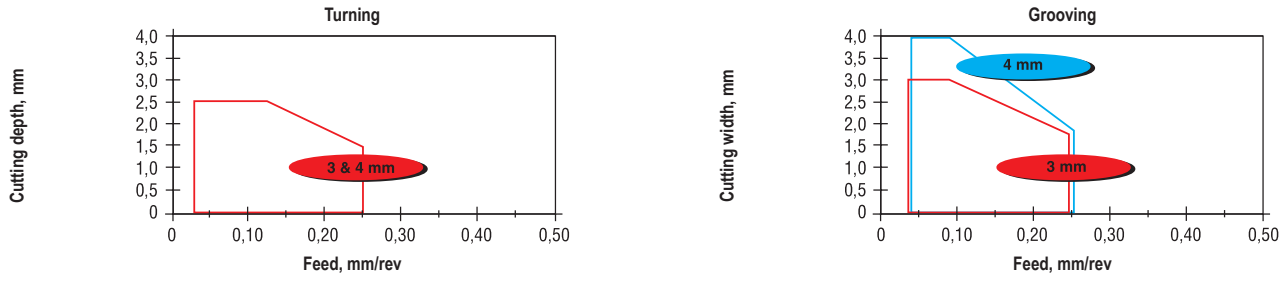
Inserts	Min a_p (mm)	Min f (mm)	Inserts	Min a_p (mm)	Min f (mm)
2-FT	0,15	0,04	5-FT	0,5	0,09
3-FT	0,3	0,05	5-MT	0,5	0,18
3-MT	0,3	0,10	5-MG	0,5	0,10
3-MG	0,5	0,05	5-MC	0,5	0,05
3-MC	0,5	0,05	6-FT	0,6	0,10
4-FT	0,4	0,08	6-MT	0,6	0,20
4-MT	0,4	0,15	6-MG	0,6	0,10
4-MG	0,5	0,10	6-MC	0,5	0,10
4-MC	0,5	0,05	8-FT	0,7	0,25

Cutting depth and feed rate recommendations

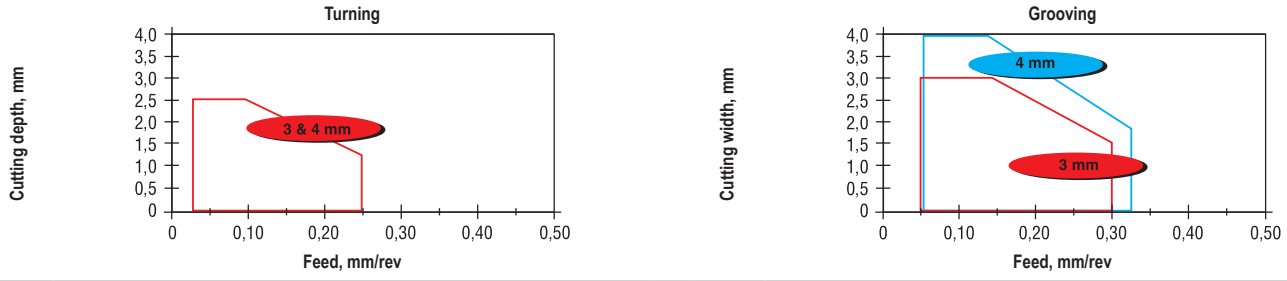
MDT 13

Recommended cutting depths and feed rates for the different insert geometries are found in the charts below.

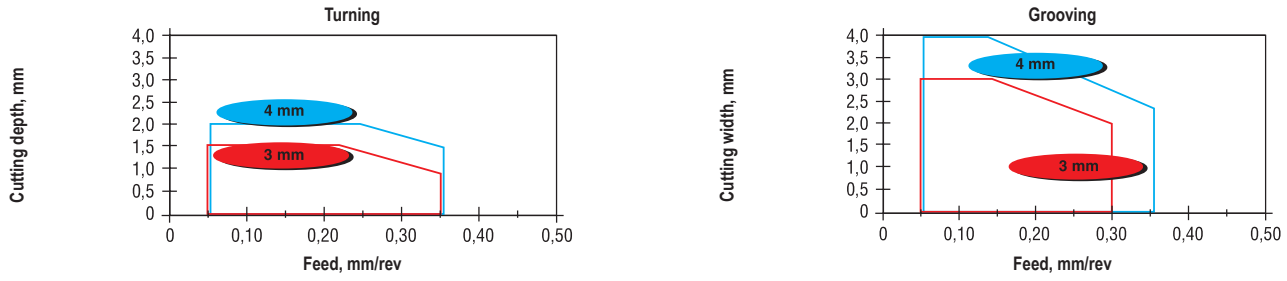
Geometry -FT



Geometry -MC



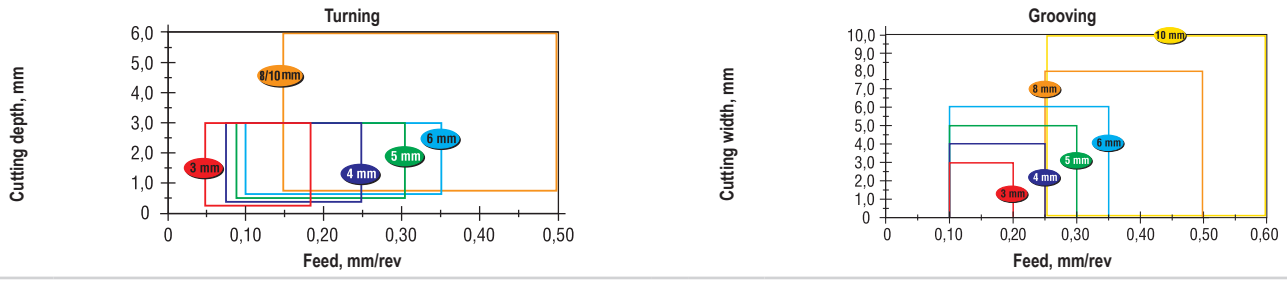
Geometry -MP



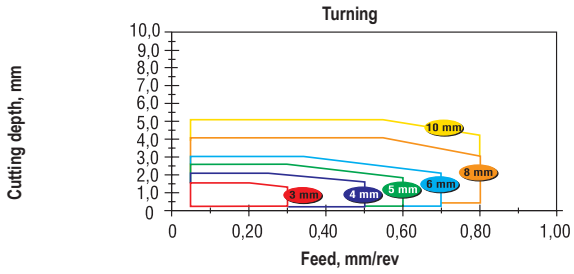
MDT 16 and 30

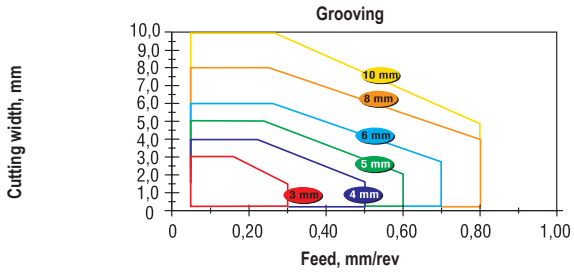
Recommended cutting depths and feed rates for the different insert geometries are found in the charts below.

Geometry -FT

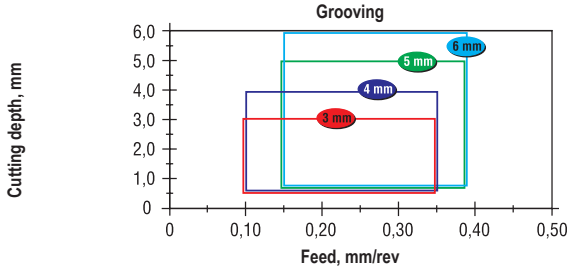


LCGF..-RP

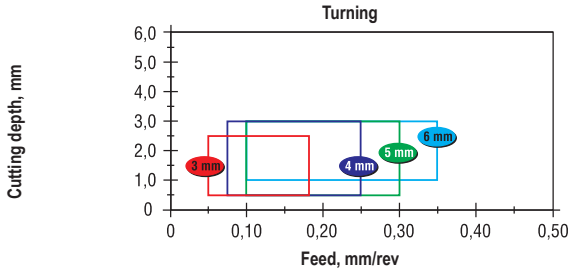


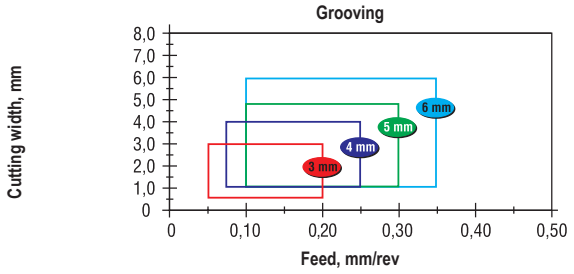


Geometry -MC

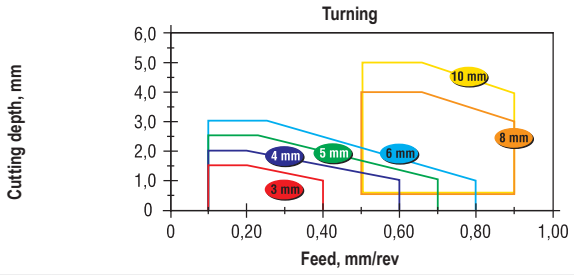


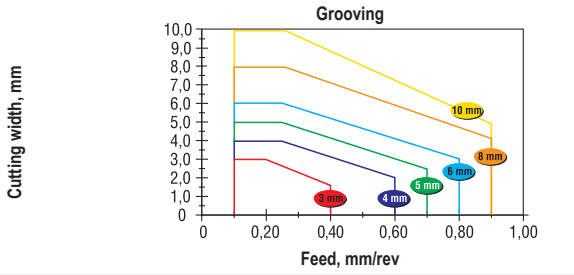
Geometry -MG



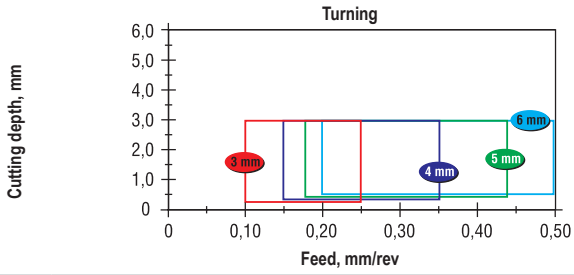


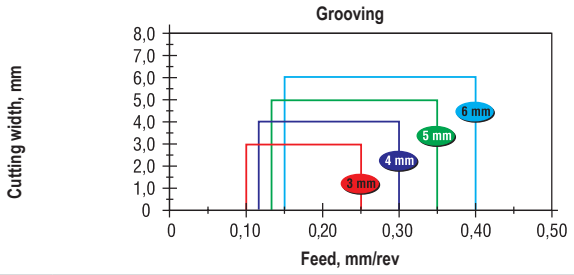
Geometry -MP





Geometry -MT

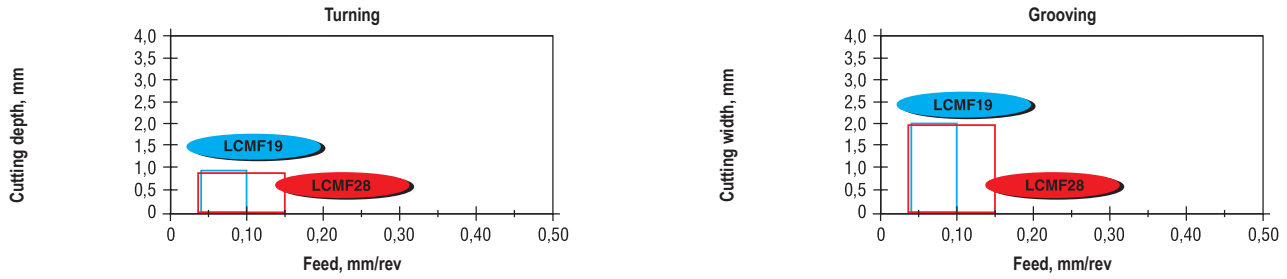




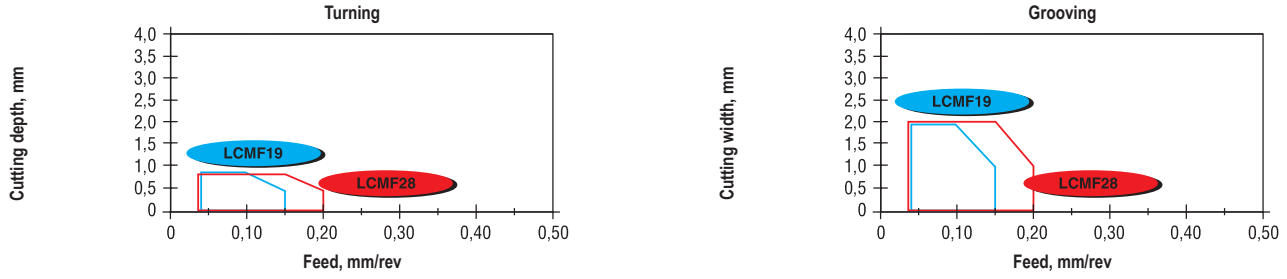
MDT 19 and 28

Recommended cutting depths and feed rates for the different insert geometries are found in the charts below.

LCMF..-FT



LCMF..-MP



Grade CP500

SMG		CW = 2 *CW = 0.079*		CW = 3 *CW = 0.118*		CW = 4 *CW = 0.157*		CW = 5-6 *CW = 0.197-0.236*		CW = 8-10 *CW = 0.315-0.394*	
		f	v_c	f	v_c	f	v_c	f	v_c	f	v_c
P1	-FT CP500	0,085 *0.0034*	235 *770*	0,16 *0.0065*	185 *610*	0,19 *0.0075*	175 *570*	0,26 *0.010*	150 *490*	0,36 *0.014*	130 *425*
P2	-FT CP500	0,085 *0.0034*	230 *750*	0,16 *0.0065*	180 *590*	0,19 *0.0075*	170 *560*	0,26 *0.010*	145 *475*	0,36 *0.014*	125 *410*
P3	-FT CP500	0,085 *0.0034*	200 *660*	0,15 *0.0060*	160 *520*	0,18 *0.0070*	150 *490*	0,25 *0.010*	130 *425*	0,34 *0.013*	110 *360*
P4	-FT CP500	0,080 *0.0032*	175 *570*	0,15 *0.0060*	140 *460*	0,18 *0.0070*	130 *425*	0,24 *0.0095*	115 *375*	0,34 *0.013*	100 *330*
P5	-FT CP500	0,080 *0.0032*	170 *560*	0,14 *0.0055*	140 *460*	0,18 *0.0070*	125 *410*	0,24 *0.0095*	110 *360*	0,34 *0.013*	95 *310*
P6	-FT CP500	0,080 *0.0032*	190 *620*	0,14 *0.0055*	155 *510*	0,17 *0.0065*	145 *475*	0,24 *0.0095*	125 *410*	0,32 *0.013*	110 *360*
P7	-FT CP500	0,080 *0.0032*	180 *590*	0,14 *0.0055*	145 *475*	0,17 *0.0065*	135 *445*	0,24 *0.0095*	115 *375*	0,32 *0.013*	100 *330*
P8	-FT CP500	0,085 *0.0034*	165 *540*	0,15 *0.0060*	135 *445*	0,18 *0.0070*	125 *410*	0,25 *0.010*	110 *360*	0,34 *0.013*	95 *310*
P11	-FT CP500	0,080 *0.0032*	175 *570*	0,14 *0.0055*	140 *460*	0,17 *0.0065*	130 *425*	0,24 *0.0095*	115 *375*	0,32 *0.013*	100 *330*
P12	-FT CP500	0,055 *0.0022*	115 *375*	0,10 *0.0040*	95 *310*	0,12 *0.0048*	85 *280*	0,16 *0.0065*	80 *260*	0,22 *0.0085*	70 *230*
M1	-FT CP500	0,085 *0.0034*	265 *870*	0,16 *0.0065*	200 *660*	0,19 *0.0075*	170 *560*	0,26 *0.010*	125 *410*	0,36 *0.014*	80 *260*
M2	-FT CP500	0,080 *0.0032*	215 *710*	0,14 *0.0055*	175 *570*	0,18 *0.0070*	145 *475*	0,24 *0.0095*	110 *360*	0,34 *0.013*	70 *230*
M3	-FT CP500	0,065 *0.0026*	165 *540*	0,12 *0.0048*	145 *475*	0,14 *0.0055*	130 *425*	0,19 *0.0075*	100 *330*	0,26 *0.010*	75 *245*
M4	-FT CP500	0,055 *0.0022*	120 *395*	0,10 *0.0040*	115 *375*	0,12 *0.0048*	105 *345*	0,17 *0.0065*	85 *280*	0,24 *0.0095*	60 *195*
M5	-FT CP500	0,055 *0.0022*	100 *330*	0,10 *0.0040*	95 *310*	0,12 *0.0048*	90 *295*	0,17 *0.0065*	70 *230*	0,24 *0.0095*	50 *165*
K1	-FT CP500	0,085 *0.0034*	215 *710*	0,16 *0.0065*	165 *540*	0,19 *0.0075*	150 *490*	0,26 *0.010*	135 *445*	0,36 *0.014*	115 *375*
K2	-FT CP500	0,080 *0.0032*	190 *620*	0,14 *0.0055*	145 *475*	0,18 *0.0070*	125 *410*	0,24 *0.0095*	105 *345*	0,34 *0.013*	85 *280*
K3	-FT CP500	0,080 *0.0032*	160 *520*	0,14 *0.0055*	120 *395*	0,18 *0.0070*	105 *345*	0,24 *0.0095*	90 *295*	0,34 *0.013*	70 *230*
K4	-FT CP500	0,080 *0.0032*	150 *490*	0,14 *0.0055*	115 *375*	0,18 *0.0070*	100 *330*	0,24 *0.0095*	85 *280*	0,34 *0.013*	70 *230*
K5	-FT CP500	0,070 *0.0028*	95 *310*	0,13 *0.0050*	70 *230*	0,16 *0.0065*	65 *215*	0,22 *0.0085*	55 *180*	0,30 *0.012*	44 *145*
K6	-FT CP500	0,080 *0.0032*	135 *445*	0,14 *0.0055*	105 *345*	0,18 *0.0070*	95 *310*	0,24 *0.0095*	85 *280*	0,34 *0.013*	75 *245*
K7	-FT CP500	0,070 *0.0028*	120 *395*	0,13 *0.0050*	90 *295*	0,16 *0.0065*	80 *260*	0,22 *0.0085*	70 *230*	0,30 *0.012*	55 *180*
N11	-FT CP500	0,11 *0.0044*	140 *460*	0,20 *0.0080*	110 *360*	0,25 *0.010*	100 *330*	0,34 *0.013*	85 *280*	0,46 *0.018*	75 *245*
S1	-FT CP500	0,055 *0.0022*	29 *95*	0,10 *0.0040*	24 *80*	0,12 *0.0048*	22 *70*	0,17 *0.0065*	20 *65*	0,24 *0.0095*	17 *55*
S2	-FT CP500	0,055 *0.0022*	25 *80*	0,10 *0.0040*	21 *70*	0,12 *0.0048*	19 *60*	0,17 *0.0065*	17 *55*	0,24 *0.0095*	15 *49*
S3	-FT CP500	0,050 *0.0020*	22 *70*	0,095 *0.0038*	18 *60*	0,11 *0.0044*	17 *55*	0,15 *0.0060*	15 *49*	0,22 *0.0085*	13 *43*

Grade TGP25

SMG		CW = 3 *CW = 0.118*		CW = 4 *CW = 0.157*		CW = 5 *CW = 0.197*		CW = 6 *CW = 0.236*		CW = 8-10 *CW = 0.315-0.394*	
		f	v_c	f	v_c	f	v_c	f	v_c	f	v_c
P1	-FT TGP25	0,16 *0.0065*	380 *1250*	0,19 *0.0075*	345 *1125*	0,24 *0.0095*	300 *980*	0,26 *0.010*	285 *940*	0,36 *0.014*	225 *740*
P2	-FT TGP25	0,16 *0.0065*	370 *1225*	0,19 *0.0075*	335 *1100*	0,24 *0.0095*	290 *950*	0,26 *0.010*	275 *900*	0,36 *0.014*	220 *720*
P3	-FT TGP25	0,15 *0.0060*	270 *890*	0,18 *0.0070*	245 *800*	0,22 *0.0085*	225 *740*	0,25 *0.010*	215 *710*	0,34 *0.013*	185 *610*
P4	-FT TGP25	0,15 *0.0060*	290 *950*	0,18 *0.0070*	260 *850*	0,22 *0.0085*	230 *750*	0,24 *0.0095*	220 *720*	0,34 *0.013*	175 *570*
P5	-FT TGP25	0,14 *0.0055*	230 *750*	0,18 *0.0070*	210 *690*	0,22 *0.0085*	190 *620*	0,24 *0.0095*	180 *590*	0,34 *0.013*	155 *510*
P6	-FT TGP25	0,14 *0.0055*	320 *1050*	0,17 *0.0065*	290 *950*	0,22 *0.0085*	250 *820*	0,24 *0.0095*	235 *770*	0,32 *0.013*	190 *620*
P7	-FT TGP25	0,14 *0.0055*	245 *800*	0,17 *0.0065*	225 *740*	0,22 *0.0085*	200 *660*	0,24 *0.0095*	195 *640*	0,32 *0.013*	170 *560*
P8	-FT TGP25	0,15 *0.0060*	225 *740*	0,18 *0.0070*	210 *690*	0,22 *0.0085*	190 *620*	0,25 *0.010*	180 *590*	0,34 *0.013*	155 *510*
P11	-FT TGP25	0,14 *0.0055*	235 *770*	0,17 *0.0065*	220 *720*	0,22 *0.0085*	195 *640*	0,24 *0.0095*	190 *620*	0,32 *0.013*	165 *540*
P12	-FT TGP25	0,10 *0.0040*	155 *510*	0,12 *0.0048*	145 *475*	0,15 *0.0060*	135 *445*	0,16 *0.0065*	130 *425*	0,22 *0.0085*	115 *375*
M1	-MC TGP25	0,16 *0.0065*	290 *950*	0,19 *0.0075*	265 *870*	0,24 *0.0095*	225 *740*	0,26 *0.010*	205 *670*	0,36 *0.014*	145 *475*
M2	-MC TGP25	0,14 *0.0055*	240 *790*	0,18 *0.0070*	220 *720*	0,22 *0.0085*	190 *620*	0,24 *0.0095*	180 *590*	0,34 *0.013*	125 *410*
M3	-MC TGP25	0,12 *0.0048*	185 *610*	0,14 *0.0055*	180 *590*	0,17 *0.0065*	170 *560*	0,19 *0.0075*	160 *520*	0,26 *0.010*	125 *410*
M4	-MC TGP25	0,10 *0.0040*	140 *460*	0,12 *0.0048*	140 *460*	0,15 *0.0060*	135 *445*	0,17 *0.0065*	125 *410*	0,24 *0.0095*	100 *330*
K1	-MT TGP25	0,18 *0.0070*	260 *850*	0,22 *0.0085*	230 *750*	0,25 *0.010*	215 *710*	0,28 *0.011*	200 *660*	0,38 *0.015*	160 *520*
K2	-MT TGP25	0,16 *0.0065*	175 *570*	0,19 *0.0075*	165 *540*	0,24 *0.0095*	150 *490*	0,25 *0.010*	145 *475*	0,34 *0.013*	125 *410*
K3	-MT TGP25	0,16 *0.0065*	150 *490*	0,19 *0.0075*	140 *460*	0,24 *0.0095*	125 *410*	0,25 *0.010*	125 *410*	0,34 *0.013*	105 *345*
K4	-MT TGP25	0,16 *0.0065*	140 *460*	0,19 *0.0075*	135 *445*	0,24 *0.0095*	120 *395*	0,25 *0.010*	120 *395*	0,34 *0.013*	105 *345*
K5	-MT TGP25	0,15 *0.0060*	85 *280*	0,18 *0.0070*	80 *260*	0,20 *0.0080*	75 *245*	0,22 *0.0085*	75 *245*	0,30 *0.012*	65 *215*
K6	-MT TGP25	0,16 *0.0065*	165 *540*	0,19 *0.0075*	155 *510*	0,24 *0.0095*	135 *445*	0,25 *0.010*	130 *425*	0,34 *0.013*	105 *345*
K7	-MT TGP25	0,15 *0.0060*	110 *360*	0,18 *0.0070*	105 *345*	0,20 *0.0080*	100 *330*	0,22 *0.0085*	95 *310*	0,30 *0.012*	85 *280*

Grade CP600

SMG		CW = 3 *CW = 0.118*		CW = 4 *CW = 0.157*		CW = 5 *CW = 0.197*		CW = 6 *CW = 0.236*	
		f	v_c	f	v_c	f	v_c	f	v_c
P1	-MC CP600	0,090 *0.0036*	215 *710*	0,18 *0.0070*	165 *540*	0,20 *0.0080*	155 *510*	0,22 *0.0085*	150 *490*
P2	-MC CP600	0,090 *0.0036*	210 *690*	0,18 *0.0070*	160 *520*	0,22 *0.0085*	145 *475*	0,24 *0.0095*	140 *460*
P3	-MC CP600	0,085 *0.0034*	185 *610*	0,17 *0.0065*	140 *460*	0,20 *0.0080*	130 *425*	0,22 *0.0085*	125 *410*
P4	-MC CP600	0,085 *0.0034*	160 *520*	0,17 *0.0065*	125 *410*	0,20 *0.0080*	115 *375*	0,22 *0.0085*	110 *360*
P5	-MC CP600	0,085 *0.0034*	155 *510*	0,16 *0.0065*	120 *395*	0,19 *0.0075*	110 *360*	0,22 *0.0085*	105 *345*
P6	-MC CP600	0,085 *0.0034*	175 *570*	0,16 *0.0065*	135 *445*	0,19 *0.0075*	125 *410*	0,22 *0.0085*	120 *395*
P7	-MC CP600	0,085 *0.0034*	165 *540*	0,16 *0.0065*	130 *425*	0,19 *0.0075*	120 *395*	0,22 *0.0085*	110 *360*
P8	-MC CP600	0,085 *0.0034*	155 *510*	0,17 *0.0065*	120 *395*	0,20 *0.0080*	110 *360*	0,22 *0.0085*	105 *345*
P11	-MC CP600	0,085 *0.0034*	160 *520*	0,16 *0.0065*	125 *410*	0,19 *0.0075*	115 *375*	0,22 *0.0085*	110 *360*
P12	-MC CP600	0,055 *0.0022*	105 *345*	0,11 *0.0044*	85 *280*	0,13 *0.0050*	80 *260*	0,14 *0.0055*	75 *245*
M1	-MC CP600	0,090 *0.0036*	245 *800*	0,18 *0.0070*	165 *540*	0,22 *0.0085*	135 *445*	0,24 *0.0095*	125 *410*
M2	-MC CP600	0,085 *0.0034*	200 *660*	0,16 *0.0065*	145 *475*	0,19 *0.0075*	125 *410*	0,22 *0.0085*	110 *360*
M3	-MC CP600	0,065 *0.0026*	155 *510*	0,13 *0.0050*	125 *410*	0,15 *0.0060*	115 *375*	0,17 *0.0065*	105 *345*
M4	-MC CP600	0,060 *0.0024*	115 *375*	0,11 *0.0044*	100 *330*	0,14 *0.0055*	90 *295*	0,15 *0.0060*	85 *280*
M5	-MC CP600	0,060 *0.0024*	95 *310*	0,11 *0.0044*	85 *280*	0,14 *0.0055*	75 *245*	0,15 *0.0060*	70 *230*
K1	-MC CP600	0,090 *0.0036*	195 *640*	0,18 *0.0070*	145 *475*	0,22 *0.0085*	135 *445*	0,24 *0.0095*	130 *425*
K2	-MC CP600	0,085 *0.0034*	170 *560*	0,16 *0.0065*	125 *410*	0,19 *0.0075*	115 *375*	0,22 *0.0085*	105 *345*
K3	-MC CP600	0,085 *0.0034*	145 *475*	0,16 *0.0065*	105 *345*	0,19 *0.0075*	95 *310*	0,22 *0.0085*	90 *295*
K4	-MC CP600	0,085 *0.0034*	140 *460*	0,16 *0.0065*	100 *330*	0,19 *0.0075*	90 *295*	0,22 *0.0085*	85 *280*
K5	-MC CP600	0,075 *0.0030*	85 *280*	0,15 *0.0060*	60 *195*	0,17 *0.0065*	55 *180*	0,19 *0.0075*	55 *180*
K6	-MC CP600	0,085 *0.0034*	120 *395*	0,16 *0.0065*	95 *310*	0,19 *0.0075*	85 *280*	0,22 *0.0085*	80 *260*
K7	-MC CP600	0,075 *0.0030*	110 *360*	0,15 *0.0060*	80 *260*	0,17 *0.0065*	75 *245*	0,19 *0.0075*	70 *230*
N11	-MC CP600	0,12 *0.0048*	130 *425*	0,22 *0.0085*	100 *330*	0,28 *0.011*	90 *295*	0,30 *0.012*	85 *280*
S1	-MC CP600	0,060 *0.0024*	26 *85*	0,11 *0.0044*	21 *70*	0,14 *0.0055*	20 *65*	0,15 *0.0060*	19 *60*
S2	-MC CP600	0,060 *0.0024*	23 *75*	0,11 *0.0044*	19 *60*	0,14 *0.0055*	17 *55*	0,15 *0.0060*	16 *50*
S3	-MC CP600	0,055 *0.0022*	20 *65*	0,11 *0.0044*	16 *50*	0,13 *0.0050*	15 *49*	0,14 *0.0055*	15 *49*

Grade CP600

SMG		CW = 2 *CW = 0.079*	
		f	v_c
P1	-FT CP600	0,085 *0.0034*	210 *690*
P2	-FT CP600	0,090 *0.0036*	200 *660*
P3	-FT CP600	0,085 *0.0034*	175 *570*
P4	-FT CP600	0,080 *0.0032*	160 *520*
P5	-FT CP600	0,080 *0.0032*	150 *490*
P6	-FT CP600	0,080 *0.0032*	170 *560*
P7	-FT CP600	0,080 *0.0032*	160 *520*
P8	-FT CP600	0,085 *0.0034*	150 *490*
P11	-FT CP600	0,080 *0.0032*	155 *510*
P12	-FT CP600	0,055 *0.0022*	100 *330*
M1	-FT CP600	0,090 *0.0036*	240 *790*
M2	-FT CP600	0,080 *0.0032*	195 *640*
M3	-FT CP600	0,065 *0.0026*	155 *510*
M4	-FT CP600	0,055 *0.0022*	115 *375*
M5	-FT CP600	0,055 *0.0022*	95 *310*
K1	-FT CP600	0,090 *0.0036*	185 *610*
K2	-FT CP600	0,080 *0.0032*	165 *540*
K3	-FT CP600	0,080 *0.0032*	140 *460*
K4	-FT CP600	0,080 *0.0032*	135 *445*
K5	-FT CP600	0,070 *0.0028*	85 *280*
K6	-FT CP600	0,080 *0.0032*	120 *395*
K7	-FT CP600	0,070 *0.0028*	105 *345*
N11	-FT CP600	0,11 *0.0044*	125 *410*
S1	-FT CP600	0,055 *0.0022*	26 *85*
S2	-FT CP600	0,055 *0.0022*	22 *70*
S3	-FT CP600	0,055 *0.0022*	19 *60*

Grade TGH1050

SMG		CW = 3 *CW = 0.118*		CW = 4 *CW = 0.157*		CW = 5 *CW = 0.197*		CW = 6 *CW = 0.236*	
		f	v_c	f	v_c	f	v_c	f	v_c
H3	-MP TGH1050	0,070 *0.0028*	48 *155*	0,080 *0.0032*	47 *155*	0,085 *0.0034*	47 *155*	0,085 *0.0034*	47 *155*
H5	-MP TGH1050	0,11 *0.0044*	85 *280*	0,12 *0.0048*	85 *280*	0,13 *0.0050*	80 *260*	0,13 *0.0050*	80 *260*
H7	-MP TGH1050	0,070 *0.0028*	48 *155*	0,080 *0.0032*	47 *155*	0,085 *0.0034*	47 *155*	0,085 *0.0034*	47 *155*
H8	-MP TGH1050	0,080 *0.0032*	90 *295*	0,090 *0.0036*	85 *280*	0,095 *0.0038*	85 *280*	0,10 *0.0040*	85 *280*
H11	-MP TGH1050	0,11 *0.0044*	110 *360*	0,12 *0.0048*	105 *345*	0,13 *0.0050*	105 *345*	0,13 *0.0050*	105 *345*
H12	-MP TGH1050	0,080 *0.0032*	100 *330*	0,090 *0.0036*	100 *330*	0,095 *0.0038*	100 *330*	0,10 *0.0040*	100 *330*
H21	-MP TGH1050	0,080 *0.0032*	90 *295*	0,090 *0.0036*	85 *280*	0,095 *0.0038*	85 *280*	0,10 *0.0040*	85 *280*
H31	-MP TGH1050	0,070 *0.0028*	65 *215*	0,080 *0.0032*	65 *215*	0,085 *0.0034*	65 *215*	0,085 *0.0034*	65 *215*

Grade TGK1500

SMG		CW = 2 *CW = 0.079*		CW = 3 *CW = 0.118*		CW = 4 *CW = 0.157*		CW = 5 *CW = 0.197*		CW = 6-8 *CW = 0.236-0.315*	
		f	v_c	f	v_c	f	v_c	f	v_c	f	v_c
K1	-MT, -FT TGK1500	0,10 *0.0040*	295 *970*	0,18 *0.0070*	230 *750*	0,22 *0.0085*	205 *670*	0,26 *0.010*	185 *610*	0,30 *0.012*	165 *540*
K2	-MT, -FT TGK1500	0,095 *0.0038*	180 *590*	0,16 *0.0065*	155 *510*	0,20 *0.0080*	145 *475*	0,24 *0.0095*	135 *445*	0,28 *0.011*	125 *410*
K3	-MT, -FT TGK1500	0,095 *0.0038*	150 *490*	0,16 *0.0065*	130 *425*	0,20 *0.0080*	120 *395*	0,24 *0.0095*	110 *360*	0,28 *0.011*	105 *345*
K4	-MT, -FT TGK1500	0,095 *0.0038*	145 *475*	0,16 *0.0065*	125 *410*	0,20 *0.0080*	115 *375*	0,24 *0.0095*	105 *345*	0,28 *0.011*	100 *330*
K5	-MT, -FT TGK1500	0,085 *0.0034*	90 *295*	0,15 *0.0060*	75 *245*	0,19 *0.0075*	70 *230*	0,22 *0.0085*	65 *215*	0,25 *0.010*	60 *195*
K6	-MT, -FT TGK1500	0,095 *0.0038*	180 *590*	0,16 *0.0065*	150 *490*	0,20 *0.0080*	130 *425*	0,24 *0.0095*	120 *395*	0,28 *0.011*	105 *345*
K7	-MT, -FT TGK1500	0,085 *0.0034*	110 *360*	0,15 *0.0060*	95 *310*	0,19 *0.0075*	90 *295*	0,22 *0.0085*	85 *280*	0,25 *0.010*	80 *260*

Grade 883

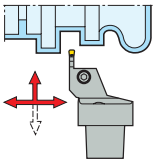
SMG		CW = 3 *CW = 0.118*		CW = 4 *CW = 0.157*		CW = 5 *CW = 0.197*		CW = 6 *CW = 0.236*		CW = 8-10 *CW = 0.315-0.394*	
		f	v_c	f	v_c	f	v_c	f	v_c	f	v_c
K1	-MT 883, 890	0,19 *0.0075*	95 *310*	0,22 *0.0085*	90 *295*	0,26 *0.010*	80 *260*	0,28 *0.011*	80 *260*	0,38 *0.015*	65 *215*
K2	-MT 883, 890	0,17 *0.0065*	85 *280*	0,20 *0.0080*	80 *260*	0,24 *0.0095*	75 *245*	0,25 *0.010*	70 *230*	0,34 *0.013*	60 *195*
K3	-MT 883, 890	0,17 *0.0065*	70 *230*	0,20 *0.0080*	65 *215*	0,24 *0.0095*	60 *195*	0,25 *0.010*	60 *195*	0,34 *0.013*	50 *165*
K4	-MT 883, 890	0,17 *0.0065*	70 *230*	0,20 *0.0080*	65 *215*	0,24 *0.0095*	60 *195*	0,25 *0.010*	55 *180*	0,34 *0.013*	49 *160*
K5	-MT 883, 890	0,15 *0.0060*	43 *140*	0,18 *0.0070*	40 *130*	0,20 *0.0080*	37 *120*	0,22 *0.0085*	36 *120*	0,30 *0.012*	31 *100*
K6	-MT 883, 890	0,17 *0.0065*	60 *195*	0,20 *0.0080*	55 *180*	0,24 *0.0095*	50 *165*	0,25 *0.010*	50 *165*	0,34 *0.013*	43 *140*
K7	-MT 883, 890	0,15 *0.0060*	55 *180*	0,18 *0.0070*	50 *165*	0,20 *0.0080*	48 *155*	0,22 *0.0085*	46 *150*	0,30 *0.012*	40 *130*
N1	-MT 883, 890	0,24 *0.0095*	275 *900*	0,28 *0.011*	255 *840*	0,32 *0.013*	235 *770*	0,36 *0.014*	220 *720*	0,48 *0.019*	190 *620*
N2	-MT 883, 890	0,24 *0.0095*	220 *720*	0,28 *0.011*	205 *670*	0,32 *0.013*	190 *620*	0,36 *0.014*	180 *590*	0,48 *0.019*	155 *510*
N3	-MT 883, 890	0,24 *0.0095*	145 *475*	0,28 *0.011*	135 *445*	0,32 *0.013*	125 *410*	0,36 *0.014*	120 *395*	0,48 *0.019*	100 *330*
N11	-MT 883, 890	0,24 *0.0095*	170 *560*	0,28 *0.011*	155 *510*	0,32 *0.013*	145 *475*	0,36 *0.014*	135 *445*	0,48 *0.019*	115 *375*
S1	-MT 883, 890	0,12 *0.0048*	19 *60*	0,14 *0.0055*	18 *60*	0,16 *0.0065*	17 *55*	0,18 *0.0070*	16 *50*	0,24 *0.0095*	14 *46*
S2	-MT 883, 890	0,12 *0.0048*	15 *49*	0,14 *0.0055*	14 *46*	0,16 *0.0065*	14 *46*	0,18 *0.0070*	13 *43*	0,24 *0.0095*	11 *36*
S3	-MT 883, 890	0,11 *0.0044*	14 *46*	0,13 *0.0050*	13 *43*	0,15 *0.0060*	12 *39*	0,17 *0.0065*	11 *36*	0,22 *0.0085*	10 *33*
S11	-MT 883, 890	0,13 *0.0050*	27 *90*	0,16 *0.0065*	25 *80*	0,19 *0.0075*	23 *75*	0,20 *0.0080*	22 *70*	0,28 *0.011*	19 *60*
S12	-MT 883, 890	0,13 *0.0050*	21 *70*	0,16 *0.0065*	19 *60*	0,19 *0.0075*	18 *60*	0,20 *0.0080*	17 *55*	0,28 *0.011*	15 *49*
S13	-MT 883, 890	0,12 *0.0048*	16 *50*	0,14 *0.0055*	15 *49*	0,16 *0.0065*	15 *49*	0,18 *0.0070*	14 *46*	0,24 *0.0095*	12 *39*
H5	-MT 883, 890	0,11 *0.0044*	33 *110*	0,13 *0.0050*	31 *100*	0,16 *0.0065*	28 *90*	0,17 *0.0065*	28 *90*	0,24 *0.0095*	24 *80*

Grade CP200

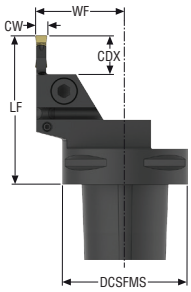
SMG		CW = 3 *CW = 0.118*		CW = 4 *CW = 0.157*		CW = 5 *CW = 0.197*		CW = 6 *CW = 0.236*		CW = 8 *CW = 0.315*	
		f	v_c	f	v_c	f	v_c	f	v_c	f	v_c
M1	-FT CP200	0,16 *0.0065*	210 *690*	0,19 *0.0075*	180 *590*	0,24 *0.0095*	145 *475*	0,26 *0.010*	130 *425*	0,36 *0.014*	85 *280*
M2	-FT CP200	0,14 *0.0055*	185 *610*	0,18 *0.0070*	155 *510*	0,22 *0.0085*	125 *410*	0,24 *0.0095*	115 *375*	0,32 *0.013*	80 *260*
M3	-FT CP200	0,12 *0.0048*	150 *490*	0,14 *0.0055*	135 *445*	0,17 *0.0065*	120 *395*	0,19 *0.0075*	110 *360*	0,26 *0.010*	75 *245*
M4	-FT CP200	0,10 *0.0040*	120 *395*	0,12 *0.0048*	110 *360*	0,15 *0.0060*	95 *310*	0,17 *0.0065*	90 *295*	0,22 *0.0085*	70 *230*
M5	-FT CP200	0,10 *0.0040*	100 *330*	0,12 *0.0048*	95 *310*	0,15 *0.0060*	80 *260*	0,17 *0.0065*	75 *245*	0,22 *0.0085*	55 *180*
S1	-FT CP200	0,10 *0.0040*	28 *90*	0,12 *0.0048*	26 *85*	0,15 *0.0060*	24 *80*	0,17 *0.0065*	23 *75*	0,22 *0.0085*	20 *65*
S2	-FT CP200	0,10 *0.0040*	22 *70*	0,12 *0.0048*	21 *70*	0,15 *0.0060*	19 *60*	0,17 *0.0065*	18 *60*	0,22 *0.0085*	16 *50*
S3	-FT CP200	0,095 *0.0038*	19 *60*	0,11 *0.0044*	18 *60*	0,14 *0.0055*	17 *55*	0,15 *0.0060*	16 *50*	0,20 *0.0080*	15 *49*
S11	-FT CP200	0,12 *0.0048*	38 *125*	0,14 *0.0055*	35 *115*	0,17 *0.0065*	33 *110*	0,19 *0.0075*	31 *100*	0,26 *0.010*	27 *90*
S12	-FT CP200	0,12 *0.0048*	29 *95*	0,14 *0.0055*	27 *90*	0,17 *0.0065*	25 *80*	0,19 *0.0075*	24 *80*	0,26 *0.010*	21 *70*
S13	-FT CP200	0,10 *0.0040*	24 *80*	0,12 *0.0048*	22 *70*	0,15 *0.0060*	20 *65*	0,17 *0.0065*	19 *60*	0,22 *0.0085*	17 *55*

C.-CFIR/L...JETI – Toolholders for inserts LCGF, LCGN, LCMF, LCMR – Metric / *Inch*

C.-CFIR/L
KAPR = 90,0 °



C.-CFIR/L...JETI





CTWS



- Right-hand version shown
- For inserts program, see page(s) 858-871, 873-874
- For holder code key, see page(s) 699
- For more information on Jetstream Tooling® and accessories, see page(s) 38, 85-89, 1026
- Max depth of cut for double-sided LCGF/LCMF16.. = 14 mm / *0.551 inch*, LCGF/LCMF30.. = 28 mm / *1.102 inch*
- CW = indicative Cutting Width, may vary depending on the chosen insert
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	DCSFMS	WF	LF	CDX	DCINN3	CP	Weight	CW	TQ	CTWS
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	bar *psi*	kg *lbs*	mm *inch*	Nm *In/Lbs.*	
C4-CFIR-27060-03JETI	03331345	C4	40,0 *1.575*	27,0 *1.063*	60 *2.362*	9,0 *0.354*	195,0 *7.677*	150,0 *2175.6*	0,5 *1.100*	3,0 *0.118*	6,0 *53.1*	LC..1603..
C4-CFIL-27060-03JETI	03331342	C4	40,0 *1.575*	27,0 *1.063*	60 *2.362*	9,0 *0.354*	195,0 *7.677*	150,0 *2175.6*	0,5 *1.100*	3,0 *0.118*	6,0 *53.1*	LC..1603..
C4-CFIR-27060-04JETI	03331346	C4	40,0 *1.575*	27,0 *1.063*	60 *2.362*	12,0 *0.472*	195,0 *7.677*	150,0 *2175.6*	0,5 *1.100*	4,0 *0.157*	8,0 *70.8*	LC..1604..
C4-CFIL-27060-04JETI	03331343	C4	40,0 *1.575*	27,0 *1.063*	60 *2.362*	12,0 *0.472*	195,0 *7.677*	150,0 *2175.6*	0,5 *1.100*	4,0 *0.157*	8,0 *70.8*	LC..1604..
C4-CFIR-27065-05JETI	03331347	C4	40,0 *1.575*	27,0 *1.063*	65 *2.559*	16,5 *0.650*	195,0 *7.677*	150,0 *2175.6*	0,5 *1.100*	5,0 *0.197*	8,0 *70.8*	LC..1605..
C4-CFIL-27065-05JETI	03331344	C4	40,0 *1.575*	27,0 *1.063*	65 *2.559*	16,5 *0.650*	195,0 *7.677*	150,0 *2175.6*	0,5 *1.100*	5,0 *0.197*	8,0 *70.8*	LC..1605..
C5-CFIR-35060-03JETI	03331368	C5	50,0 *1.969*	35,0 *1.378*	60 *2.362*	9,0 *0.354*	195,0 *7.677*	150,0 *2175.6*	0,7 *1.540*	3,0 *0.118*	6,0 *53.1*	LC..1603..
C5-CFIL-35060-03JETI	03331364	C5	50,0 *1.969*	35,0 *1.378*	60 *2.362*	9,0 *0.354*	195,0 *7.677*	150,0 *2175.6*	0,7 *1.540*	3,0 *0.118*	6,0 *53.1*	LC..1603..
C5-CFIR-35065-04JETI	03331369	C5	50,0 *1.969*	35,0 *1.378*	65 *2.559*	12,0 *0.472*	195,0 *7.677*	150,0 *2175.6*	0,7 *1.540*	4,0 *0.157*	8,0 *70.8*	LC..1604..
C5-CFIL-35065-04JETI	03331365	C5	50,0 *1.969*	35,0 *1.378*	65 *2.559*	12,0 *0.472*	195,0 *7.677*	150,0 *2175.6*	0,7 *1.540*	4,0 *0.157*	8,0 *70.8*	LC..1604..
C5-CFIR-35065-05JETI	03331370	C5	50,0 *1.969*	35,0 *1.378*	65 *2.559*	15,0 *0.591*	195,0 *7.677*	150,0 *2175.6*	0,7 *1.540*	5,0 *0.197*	8,0 *70.8*	LC..1605..
C5-CFIL-35065-05JETI	03331366	C5	50,0 *1.969*	35,0 *1.378*	65 *2.559*	15,0 *0.591*	195,0 *7.677*	150,0 *2175.6*	0,6 *1.320*	5,0 *0.197*	8,0 *70.8*	LC..1605..
C5-CFIR-35075-06JETI	03331371	C5	50,0 *1.969*	35,0 *1.378*	75 *2.953*	18,0 *0.709*	195,0 *7.677*	150,0 *2175.6*	0,8 *1.760*	6,0 *0.236*	6,0 *53.1*	LC..1606..
C5-CFIL-35075-06JETI	03331367	C5	50,0 *1.969*	35,0 *1.378*	75 *2.953*	18,0 *0.709*	195,0 *7.677*	150,0 *2175.6*	0,8 *1.760*	6,0 *0.236*	6,0 *53.1*	LC..1606..
C6-CFIR-45065-03JETI	03331397	C6	63,0 *2.480*	45,0 *1.772*	65 *2.559*	9,0 *0.354*	195,0 *7.677*	150,0 *2175.6*	1,1 *2.430*	3,0 *0.118*	6,0 *53.1*	LC..1603..
C6-CFIL-45065-03JETI	03331392	C6	63,0 *2.480*	45,0 *1.772*	65 *2.559*	9,0 *0.354*	195,0 *7.677*	150,0 *2175.6*	1,1 *2.430*	3,0 *0.118*	6,0 *53.1*	LC..1603..
C6-CFIR-45065-04JETI	03331398	C6	63,0 *2.480*	45,0 *1.772*	65 *2.559*	12,0 *0.472*	195,0 *7.677*	150,0 *2175.6*	1,0 *2.200*	4,0 *0.157*	8,0 *70.8*	LC..1604..
C6-CFIL-45065-04JETI	03331393	C6	63,0 *2.480*	45,0 *1.772*	65 *2.559*	12,0 *0.472*	195,0 *7.677*	150,0 *2175.6*	1,0 *2.200*	4,0 *0.157*	8,0 *70.8*	LC..1604..

Designation	Item number	CTMS	DCSFMS	WF	LF	CDX	DCINN3	CP	Weight	CW	TQ	CTWS
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	bar *psi*	kg *lbs*	mm *inch*	Nm *In/Lbs.*	
C6-CFIR-45070-05JETI	03331399	C6	63,0 *2.480*	45,0 *1.772*	70 *2.756*	15,0 *0.591*	195,0 *7.677*	150,0 *2175.6*	1,1 *2.430*	5,0 *0.197*	8,0 *70.8*	LC..1605..
C6-CFIL-45070-05JETI	03331394	C6	63,0 *2.480*	45,0 *1.772*	70 *2.756*	15,0 *0.591*	195,0 *7.677*	150,0 *2175.6*	1,1 *2.430*	5,0 *0.197*	8,0 *70.8*	LC..1605..
C6-CFIR-45075-06JETI	03331400	C6	63,0 *2.480*	45,0 *1.772*	75 *2.953*	18,0 *0.709*	195,0 *7.677*	150,0 *2175.6*	1,2 *2.650*	6,0 *0.236*	6,0 *53.1*	LC..1606..
C6-CFIL-45075-06JETI	03331395	C6	63,0 *2.480*	45,0 *1.772*	75 *2.953*	18,0 *0.709*	195,0 *7.677*	150,0 *2175.6*	1,2 *2.650*	6,0 *0.236*	6,0 *53.1*	LC..1606..
C6-CFIR-45085-08JETI	03331401	C6	63,0 *2.480*	45,0 *1.772*	85 *3.346*	24,0 *0.945*	195,0 *7.677*	150,0 *2175.6*	1,3 *2.870*	8,0 *0.315*	15,0 *132.8*	LC..3008..
C6-CFIL-45085-08JETI	03331396	C6	63,0 *2.480*	45,0 *1.772*	85 *3.346*	24,0 *0.945*	195,0 *7.677*	150,0 *2175.6*	1,3 *2.870*	8,0 *0.315*	15,0 *132.8*	LC..3008..

Spare Parts, included in delivery

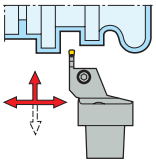
For size	Clamp key	Clamp screw	Duo coolant plug screw	Plug screw
				
CFIR/L..-03	4SMS795	TCEI0513	P6SS4X4	JET-P1/16-5MM
CFIR/L..-04	5SMS795	TCEI0613	P6SS4X4	JET-P1/16-5MM
CFIR/L..-05	5SMS795	TCEI0613	P6SS4X4	JET-P1/16-5MM
CFIR/L..-06	6SMS795	TCEI0815	P6SS4X4	JET-P1/16-5MM
CFIR/L..-08	6SMS795	TCEI1020	P6SS4X4	JET-P1/16-5MM

Accessories

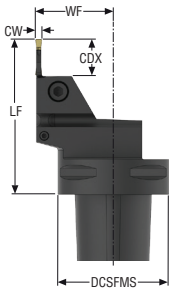
For size	DUO Coolant plug key	Key
		
CFIR/L..-03	2SMS795	–
CFIR/L..-04	2SMS795	4SMS795
CFIR/L..-05	2SMS795	4SMS795
CFIR/L..-06	2SMS795	4SMS795
CFIR/L..-08	2SMS795	4SMS795

C.-CFMR/L...JETI – Toolholders for inserts LCGF, LCGN, LCMF, LCMR – Metric / *Inch*

C.-CFMR/L
KAPR = 90,0 °



C.-CFMR/L...JETI





CTWS



- Right-hand version shown
- For inserts program, see page(s) 858-871, 873-874
- For holder code key, see page(s) 699
- For more information on Jetstream Tooling® and accessories, see page(s) 38, 85-89, 1026
- Max depth of cut for double-sided LCGF/LCMF16.. = 14 mm / *0.551 inch*, LCGF/LCMF30.. = 28 mm / *1.102 inch*
- CW = indicative Cutting Width, may vary depending on the chosen insert
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	DCSFMS	WF	LF	CDX	DCINN3	CP	Weight	CW	TQ	CTWS
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	bar *psi*	kg *lbs*	mm *inch*	Nm *In/Lbs.*	
C4-CFMR-27070-03JETI	03331350	C4	40,0 *1.575*	27,0 *1.063*	70 *2.756*	15,0 *0.591*	195,0 *7.677*	150,0 *2175.6*	0,5 *1.100*	3,0 *0.118*	6,0 *53.1*	LC..1603..
C4-CFML-27070-03JETI	03331348	C4	40,0 *1.575*	27,0 *1.063*	70 *2.756*	15,0 *0.591*	195,0 *7.677*	150,0 *2175.6*	0,5 *1.100*	3,0 *0.118*	6,0 *53.1*	LC..1603..
C4-CFMR-27070-04JETI	03331351	C4	40,0 *1.575*	27,0 *1.063*	70 *2.756*	20,0 *0.787*	195,0 *7.677*	150,0 *2175.6*	0,5 *1.100*	4,0 *0.157*	8,0 *70.8*	LC..1604..
C4-CFML-27070-04JETI	03331349	C4	40,0 *1.575*	27,0 *1.063*	70 *2.756*	20,0 *0.787*	195,0 *7.677*	150,0 *2175.6*	0,5 *1.100*	4,0 *0.157*	8,0 *70.8*	LC..1604..
C5-CFMR-35070-03JETI	03331376	C5	50,0 *1.969*	35,0 *1.378*	70 *2.756*	15,0 *0.591*	195,0 *7.677*	150,0 *2175.6*	0,7 *1.540*	3,0 *0.118*	6,0 *53.1*	LC..1603..
C5-CFML-35070-03JETI	03331372	C5	50,0 *1.969*	35,0 *1.378*	70 *2.756*	15,0 *0.591*	195,0 *7.677*	150,0 *2175.6*	0,7 *1.540*	3,0 *0.118*	6,0 *53.1*	LC..1603..
C5-CFMR-35075-04JETI	03331377	C5	50,0 *1.969*	35,0 *1.378*	75 *2.953*	20,0 *0.787*	195,0 *7.677*	150,0 *2175.6*	0,7 *1.540*	4,0 *0.157*	8,0 *70.8*	LC..1604..
C5-CFML-35075-04JETI	03331373	C5	50,0 *1.969*	35,0 *1.378*	75 *2.953*	20,0 *0.787*	195,0 *7.677*	150,0 *2175.6*	0,7 *1.540*	4,0 *0.157*	8,0 *70.8*	LC..1604..
C5-CFMR-35075-05JETI	03331378	C5	50,0 *1.969*	35,0 *1.378*	75 *2.953*	25,0 *0.984*	195,0 *7.677*	150,0 *2175.6*	0,7 *1.540*	5,0 *0.197*	8,0 *70.8*	LC..1605..
C5-CFML-35075-05JETI	03331374	C5	50,0 *1.969*	35,0 *1.378*	75 *2.953*	25,0 *0.984*	195,0 *7.677*	150,0 *2175.6*	0,7 *1.540*	5,0 *0.197*	8,0 *70.8*	LC..1605..
C5-CFMR-35085-06JETI	03331379	C5	50,0 *1.969*	35,0 *1.378*	85 *3.346*	30,0 *1.181*	195,0 *7.677*	150,0 *2175.6*	0,8 *1.760*	6,0 *0.236*	6,0 *53.1*	LC..1606..
C5-CFML-35085-06JETI	03331375	C5	50,0 *1.969*	35,0 *1.378*	85 *3.346*	30,0 *1.181*	195,0 *7.677*	150,0 *2175.6*	0,9 *1.980*	6,0 *0.236*	6,0 *53.1*	LC..1606..
C6-CFMR-45080-03JETI	03331406	C6	63,0 *2.480*	45,0 *1.772*	80 *3.150*	15,0 *0.591*	195,0 *7.677*	150,0 *2175.6*	1,2 *2.650*	3,0 *0.118*	6,0 *53.1*	LC..1603..
C6-CFML-45080-03JETI	03331402	C6	63,0 *2.480*	45,0 *1.772*	80 *3.150*	15,0 *0.591*	195,0 *7.677*	150,0 *2175.6*	1,2 *2.650*	3,0 *0.118*	6,0 *53.1*	LC..1603..
C6-CFMR-45080-04JETI	03331407	C6	63,0 *2.480*	45,0 *1.772*	80 *3.150*	20,0 *0.787*	195,0 *7.677*	150,0 *2175.6*	1,1 *2.430*	4,0 *0.157*	8,0 *70.8*	LC..1604..
C6-CFML-45080-04JETI	03331403	C6	63,0 *2.480*	45,0 *1.772*	80 *3.150*	20,0 *0.787*	195,0 *7.677*	150,0 *2175.6*	1,1 *2.430*	4,0 *0.157*	8,0 *70.8*	LC..1604..
C6-CFMR-45080-05JETI	03331408	C6	63,0 *2.480*	45,0 *1.772*	80 *3.150*	25,0 *0.984*	195,0 *7.677*	150,0 *2175.6*	1,2 *2.650*	5,0 *0.197*	8,0 *70.8*	LC..1605..
C6-CFML-45080-05JETI	03331404	C6	63,0 *2.480*	45,0 *1.772*	80 *3.150*	25,0 *0.984*	195,0 *7.677*	150,0 *2175.6*	1,1 *2.430*	5,0 *0.197*	8,0 *70.8*	LC..1605..

Designation	Item number	CTMS	DCSFMS	WF	LF	CDX	DCINN3	CP	Weight	CW	TQ	CTWS
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	bar *psi*	kg *lbs*	mm *inch*	Nm *In/Lbs.*	
C6-CFMR-45085-06JETI	03331409	C6	63,0 *2.480*	45,0 *1.772*	85 *3.346*	30,0 *1.181*	195,0 *7.677*	150,0 *2175.6*	1,2 *2.650*	6,0 *0.236*	6,0 *53.1*	LC..1606..
C6-CFML-45085-06JETI	03331405	C6	63,0 *2.480*	45,0 *1.772*	85 *3.346*	30,0 *1.181*	195,0 *7.677*	150,0 *2175.6*	1,2 *2.650*	6,0 *0.236*	6,0 *53.1*	LC..1606..

Spare Parts, included in delivery

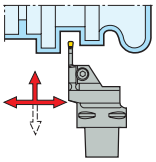
For size	Clamp key	Clamp screw	Duo coolant plug screw	Plug screw
				
CFMR/L..-03	4SMS795	TCEI0513	P6SS4X4	JET-P1/16-5MM
CFMR/L..-04	5SMS795	TCEI0613	P6SS4X4	JET-P1/16-5MM
CFMR/L..-05	5SMS795	TCEI0613	P6SS4X4	JET-P1/16-5MM
CFMR/L..-06	6SMS795	TCEI0815	P6SS4X4	JET-P1/16-5MM

Accessories

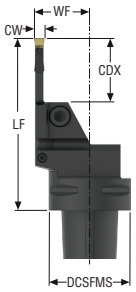
For size	DUO Coolant plug key	Key
		
CFMR/L..-03	2SMS795	–
CFMR/L..-04	2SMS795	4SMS795
CFMR/L..-05	2SMS795	4SMS795
CFMR/L..-06	2SMS795	4SMS795

C.-CFOR/L...JETI – Toolholders for inserts LCGF, LCGN, LCMF, LCMR – Metric / *Inch*

C.-CFOR/L
KAPR = 90,0 °



C.-CFOR/L...JETI





CTWS



- Right-hand version shown
- For inserts program, see page(s) 858-871, 873-874
- For holder code key, see page(s) 699
- For more information on Jetstream Tooling® and accessories, see page(s) 38, 85-89, 1026
- Max depth of cut for double-sided LCGF/LCMF16.. = 14 mm / *0.551 inch*, LCGF/LCMF30.. = 28 mm / *1.102 inch*
- CW = indicative Cutting Width, may vary depending on the chosen insert
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	DCSFMS	WF	LF	CDX	DCINN3	CP	Weight	CW	TQ	CTWS
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	bar *psi*	kg *lbs*	mm *inch*	Nm *In/Lbs.*	
C4-CFOR-27070-03-JETI	03331355	C4	40,0 *1.575*	27,0 *1.063*	70 *2.756*	19,5 *0.768*	195,0 *7.677*	150,0 *2175.6*	0,5 *1.100*	3,0 *0.118*	6,0 *53.1*	LC..1603..
C4-CFOL-27070-03-JETI	03331352	C4	40,0 *1.575*	27,0 *1.063*	70 *2.756*	19,5 *0.768*	195,0 *7.677*	150,0 *2175.6*	0,5 *1.100*	3,0 *0.118*	6,0 *53.1*	LC..1603..
C4-CFOR-27080-04-JETI	03331356	C4	40,0 *1.575*	27,0 *1.063*	80 *3.150*	24,0 *0.945*	195,0 *7.677*	150,0 *2175.6*	0,6 *1.320*	4,0 *0.157*	8,0 *70.8*	LC..1604..
C4-CFOL-27080-04-JETI	03331353	C4	40,0 *1.575*	27,0 *1.063*	80 *3.150*	24,0 *0.945*	195,0 *7.677*	150,0 *2175.6*	0,6 *1.320*	4,0 *0.157*	8,0 *70.8*	LC..1604..
C4-CFOR-27085-05-JETI	03331357	C4	40,0 *1.575*	27,0 *1.063*	85 *3.346*	30,0 *1.181*	195,0 *7.677*	150,0 *2175.6*	0,6 *1.320*	5,0 *0.197*	8,0 *70.8*	LC..1605..
C4-CFOL-27085-05-JETI	03331354	C4	40,0 *1.575*	27,0 *1.063*	85 *3.346*	30,0 *1.181*	195,0 *7.677*	150,0 *2175.6*	0,6 *1.320*	5,0 *0.197*	8,0 *70.8*	LC..1605..
C5-CFOR-35070-03-JETI	03331384	C5	50,0 *1.969*	35,0 *1.378*	70 *2.756*	18,0 *0.709*	195,0 *7.677*	150,0 *2175.6*	0,7 *1.540*	3,0 *0.118*	6,0 *53.1*	LC..1603..
C5-CFOL-35070-03-JETI	03331380	C5	50,0 *1.969*	35,0 *1.378*	70 *2.756*	18,0 *0.709*	195,0 *7.677*	150,0 *2175.6*	0,8 *1.760*	3,0 *0.118*	6,0 *53.1*	LC..1603..
C5-CFOR-35080-04-JETI	03331385	C5	50,0 *1.969*	35,0 *1.378*	80 *3.150*	24,0 *0.945*	195,0 *7.677*	150,0 *2175.6*	0,8 *1.760*	4,0 *0.157*	8,0 *70.8*	LC..1604..
C5-CFOL-35080-04-JETI	03331381	C5	50,0 *1.969*	35,0 *1.378*	80 *3.150*	24,0 *0.945*	195,0 *7.677*	150,0 *2175.6*	0,8 *1.760*	4,0 *0.157*	8,0 *70.8*	LC..1604..
C5-CFOR-35085-05-JETI	03331386	C5	50,0 *1.969*	35,0 *1.378*	85 *3.346*	30,0 *1.181*	195,0 *7.677*	150,0 *2175.6*	0,8 *1.760*	5,0 *0.197*	8,0 *70.8*	LC..1605..
C5-CFOL-35085-05-JETI	03331382	C5	50,0 *1.969*	35,0 *1.378*	85 *3.346*	30,0 *1.181*	195,0 *7.677*	150,0 *2175.6*	0,9 *1.980*	5,0 *0.197*	8,0 *70.8*	LC..1605..
C5-CFOR-35100-06-JETI	03331387	C5	50,0 *1.969*	35,0 *1.378*	100 *3.937*	36,0 *1.417*	195,0 *7.677*	150,0 *2175.6*	0,9 *1.980*	6,0 *0.236*	6,0 *53.1*	LC..1606..
C5-CFOL-35100-06-JETI	03331383	C5	50,0 *1.969*	35,0 *1.378*	100 *3.937*	36,0 *1.417*	195,0 *7.677*	150,0 *2175.6*	0,9 *1.980*	6,0 *0.236*	6,0 *53.1*	LC..1606..
C6-CFOR-45075-03-JETI	03331415	C6	63,0 *2.480*	45,0 *1.772*	75 *2.953*	18,0 *0.709*	195,0 *7.677*	150,0 *2175.6*	1,1 *2.430*	3,0 *0.118*	6,0 *53.1*	LC..1603..
C6-CFOL-45075-03-JETI	03331410	C6	63,0 *2.480*	45,0 *1.772*	75 *2.953*	18,0 *0.709*	195,0 *7.677*	150,0 *2175.6*	1,1 *2.430*	3,0 *0.118*	6,0 *53.1*	LC..1603..
C6-CFOR-45080-04-JETI	03331416	C6	63,0 *2.480*	45,0 *1.772*	80 *3.150*	24,0 *0.945*	195,0 *7.677*	150,0 *2175.6*	1,2 *2.650*	4,0 *0.157*	8,0 *70.8*	LC..1604..
C6-CFOL-45080-04-JETI	03331411	C6	63,0 *2.480*	45,0 *1.772*	80 *3.150*	24,0 *0.945*	195,0 *7.677*	150,0 *2175.6*	1,2 *2.650*	4,0 *0.157*	8,0 *70.8*	LC..1604..

Designation	Item number	CTMS	DCSFMS	WF	LF	CDX	DCINN3	CP	Weight	CW	TQ	CTWS
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	bar *psi*	kg *lbs*	mm *inch*	Nm *In/Lbs.*	
C6-CFOR-45090-05-JETI	03331417	C6	63,0 *2.480*	45,0 *1.772*	90 *3.543*	30,0 *1.181*	195,0 *7.677*	150,0 *2175.6*	1,2 *2.650*	5,0 *0.197*	8,0 *70.8*	LC..1605..
C6-CFOL-45090-05-JETI	03331412	C6	63,0 *2.480*	45,0 *1.772*	90 *3.543*	30,0 *1.181*	195,0 *7.677*	150,0 *2175.6*	1,2 *2.650*	5,0 *0.197*	8,0 *70.8*	LC..1605..
C6-CFOR-45100-06-JETI	03331418	C6	63,0 *2.480*	45,0 *1.772*	100 *3.937*	36,0 *1.417*	195,0 *7.677*	150,0 *2175.6*	1,4 *3.090*	6,0 *0.236*	6,0 *53.1*	LC..1606..
C6-CFOL-45100-06-JETI	03331413	C6	63,0 *2.480*	45,0 *1.772*	100 *3.937*	36,0 *1.417*	195,0 *7.677*	150,0 *2175.6*	1,3 *2.870*	6,0 *0.236*	6,0 *53.1*	LC..1606..
C6-CFOR-45115-08-JETI	03331419	C6	63,0 *2.480*	45,0 *1.772*	115 *4.528*	48,0 *1.890*	195,0 *7.677*	150,0 *2175.6*	1,4 *3.090*	8,0 *0.315*	15,0 *132.8*	LC..3008..
C6-CFOL-45115-08-JETI	03331414	C6	63,0 *2.480*	45,0 *1.772*	115 *4.528*	48,0 *1.890*	195,0 *7.677*	150,0 *2175.6*	1,5 *3.310*	8,0 *0.315*	15,0 *132.8*	LC..3008..

Spare Parts, included in delivery

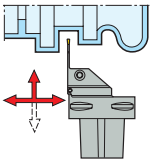
For size	Clamp key	Clamp screw	Duo coolant plug screw	Plug screw
				
CFOR/L..-03	4SMS795	TCEI0513	P6SS4X4	JET-P1/16-5MM
CFOR/L..-04	5SMS795	TCEI0613	P6SS4X4	JET-P1/16-5MM
CFOR/L..-05	5SMS795	TCEI0613	P6SS4X4	JET-P1/16-5MM
CFOR/L..-06	6SMS795	TCEI0815	P6SS4X4	JET-P1/16-5MM
CFOR/L..-08	6SMS795	TCEI1020	P6SS4X4	JET-P1/16-5MM

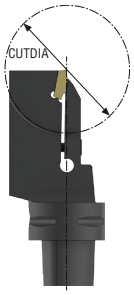
Accessories

For size	DUO Coolant plug key	Key
		
CFOR/L..-03	2SMS795	–
CFOR/L..-04	2SMS795	4SMS795
CFOR/L..-05	2SMS795	4SMS795
CFOR/L..-06	2SMS795	4SMS795
CFOR/L..-08	2SMS795	4SMS795

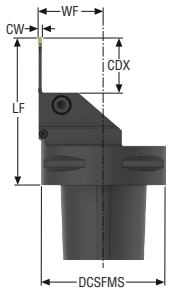
C.-CZFR/L...JETI – Toolholders for inserts LCMF – Metric / *Inch*

C.-CZFR/L
KAPR = 90,0 °

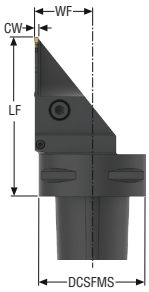




C.-CZFR/L...JETI



C.-CZFR/L...RBJETI





CTWS



- Right-hand version shown
- For inserts program, see page(s) 857
- For holder code key, see page(s) 699
- For more information on Jetstream Tooling® and accessories, see page(s) 38, 85-89, 1026
- * Due to the design, grooving depth is limited, see page(s) 723
- CW = indicative Cutting Width, may vary depending on the chosen insert
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	DCSFMS	WF	LF	CDX	CUTDIA*	CP	Weight	CW	TQ	CTWS
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	bar *psi*	kg *lbs*	mm *inch*	Nm *In/Lbs.*	
C4-CFZR-22075-2802JETI	03331362	C4	40,0 *1.575*	22,0 *0.866*	75,0 *2.953*	26,0 *1.024*	–	150,0 *2175.6*	0,5 *1.100*	2,0 *0.079*	6,0 *53.1*	LC..2802..
C4-CFZL-22075-2802JETI	03331359	C4	40,0 *1.575*	22,0 *0.866*	75,0 *2.953*	26,0 *1.024*	–	150,0 *2175.6*	0,5 *1.100*	2,0 *0.079*	6,0 *53.1*	LC..2802..
C5-CFZR-27075-2802JETI	03331390	C5	50,0 *1.969*	27,0 *1.063*	75,0 *2.953*	26,0 *1.024*	–	150,0 *2175.6*	0,8 *1.760*	2,0 *0.079*	6,0 *53.1*	LC..2802..
C5-CFZL-27075-2802JETI	03331388	C5	50,0 *1.969*	27,0 *1.063*	75,0 *2.953*	26,0 *1.024*	–	150,0 *2175.6*	0,7 *1.540*	2,0 *0.079*	6,0 *53.1*	LC..2802..
C6-CFZR-33075-2802JETI	03331422	C6	63,0 *2.480*	33,0 *1.299*	75,0 *2.953*	26,0 *1.024*	–	150,0 *2175.6*	1,0 *2.200*	2,0 *0.079*	6,0 *53.1*	LC..2802..
C6-CFZL-33075-2802JETI	03331420	C6	63,0 *2.480*	33,0 *1.299*	75,0 *2.953*	26,0 *1.024*	–	150,0 *2175.6*	1,0 *2.200*	2,0 *0.079*	6,0 *53.1*	LC..2802..
C4-CFZR-22075-2802RBJETI	03331363	C4	40,0 *1.575*	22,0 *0.866*	75,0 *2.953*	26,0 *1.024*	52,0 *2.047*	150,0 *2175.6*	0,6 *1.320*	2,0 *0.079*	6,0 *53.1*	LC..2802..
C4-CFZL-22075-2802RBJETI	03331360	C4	40,0 *1.575*	22,0 *0.866*	75,0 *2.953*	26,0 *1.024*	52,0 *2.047*	150,0 *2175.6*	0,6 *1.320*	2,0 *0.079*	6,0 *53.1*	LC..2802..
C5-CFZR-27075-2802RBJETI	03331391	C5	50,0 *1.969*	27,0 *1.063*	75,0 *2.953*	26,0 *1.024*	52,0 *2.047*	150,0 *2175.6*	0,7 *1.540*	2,0 *0.079*	6,0 *53.1*	LC..2802..
C5-CFZL-27075-2802RBJETI	03331389	C5	50,0 *1.969*	27,0 *1.063*	75,0 *2.953*	26,0 *1.024*	52,0 *2.047*	150,0 *2175.6*	0,8 *1.760*	2,0 *0.079*	6,0 *53.1*	LC..2802..
C6-CFZR-33075-2802RBJETI	03331423	C6	63,0 *2.480*	33,0 *1.299*	75,0 *2.953*	26,0 *1.024*	52,0 *2.047*	150,0 *2175.6*	1,2 *2.650*	2,0 *0.079*	6,0 *53.1*	LC..2802..
C6-CFZL-33075-2802RBJETI	03331421	C6	63,0 *2.480*	33,0 *1.299*	75,0 *2.953*	26,0 *1.024*	52,0 *2.047*	150,0 *2175.6*	1,2 *2.650*	2,0 *0.079*	6,0 *53.1*	LC..2802..

Spare Parts, included in delivery

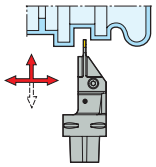
For size	Clamp key	Clamp screw	Duo coolant plug screw	Plug screw
				
CFZR/L..-02	4SMS795	TCEI0513	P6SS4X4	JET-P1/16-5MM

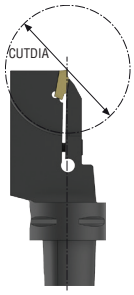
Accessories

For size	DUO Coolant plug key
	
CFZR/L..-02	2SMS795

C.-CF.N-.RBJETI – Toolholders for inserts LCGF, LCGN, LCMF, LCMR – **Metric** / *Inch*

C.-CF.N
KAPR = 90,0 °





C.-CF.N





CTWS



- Neutral version shown
- For inserts program, see page(s) 857-871, 873-874
- For holder code key, see page(s) 699
- For more information on Jetstream Tooling® and accessories, see page(s) 38, 85-89, 1026
- * Due to the design, grooving depth is limited, see page(s) 723
- CW = indicative Cutting Width, may vary depending on the chosen insert
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	DCSFMS	WF	LF	CUTDIA*	CP	Weight	CW	TQ	CTWS
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	bar *psi*	kg *lbs*	mm *inch*	Nm *In/Lbs.*	
C4-CFZN-00075-2802RBJETI	03331361	C4	40,0 *1.575*	1,0 *0.039*	75,0 *2.953*	52,0 *2.047*	150,0 *2175.6*	0,5 *1.100*	2,0 *0.079*	6,0 *53.1*	LC..2802..
C4-CFXN-00090-03RBJETI	03331358	C4	40,0 *1.575*	1,5 *0.059*	90,0 *3.543*	64,0 *2.520*	150,0 *2175.6*	0,6 *1.320*	3,0 *0.118*	6,0 *53.1*	LC..1603..

Spare Parts, included in delivery

For size	Clamp key	Clamp screw	Duo coolant plug screw	Plug screw
				
CFZN/CFXN	4SMS795	TCEI0513	P6SS4X4	JET-P1/16-5MM

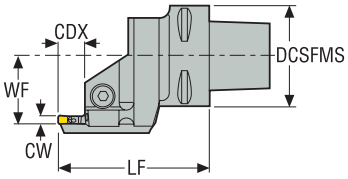
Accessories

For size	DUO Coolant plug key
	
CFZN/CFXN	2SMS795

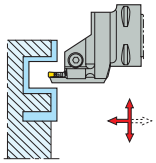
C.-CFIR...L...JET, C.-CFIL...R...JET – Toolholders for inserts LCGF, LCGN, LCMF, LCMR – **Metric** / *Inch*



CFIR...L...JET, CFIL...R...JET



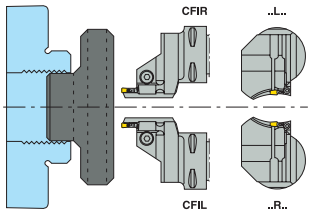
C.-CFIR/L
KAPR = 90,0 °



CTWS



- Right-hand version with left-hand blade shown
- For inserts program, see page(s) 858-863, 873-874
- For holder code key, see page(s) 699
- For more information on Jetstream Tooling® and accessories, see page(s) 38, 85-89, 1026
- Max depth of cut for double-sided LCGF/LCMF16.. = 14 mm / *0.551 inch*, LCGF/LCMF30.. = 28 mm / *1.102 inch*
- CW = indicative Cutting Width, may vary depending on the chosen insert
- For ISO attribute explanation, see page 82



Designation	Item number	CTMS	INPLM	INPLX	DCSFMS	WF	LF	CDX	CP	Weight	CW	TQ	CTWS
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	bar *psi*	kg *lbs*	mm *inch*	Nm *In/Lbs.*	
C4-CFIR-27060-03L080055-JET	02718475	C4	55,0 *2.165*	80,0 *3.150*	40,0 *1.575*	27,0 *1.063*	60 *2.362*	9,0 *0.354*	150,0 *2175.6*	0,5 *1.100*	3,0 *0.118*	5,0 *44.3*	LC..1603..
C4-CFIR-27060-03L100070-JET	02718476	C4	70,0 *2.756*	100,0 *3.937*	40,0 *1.575*	27,0 *1.063*	60 *2.362*	9,0 *0.354*	150,0 *2175.6*	0,5 *1.100*	3,0 *0.118*	5,0 *44.3*	LC..1603..
C4-CFIR-27060-03L130090-JET	02718477	C4	90,0 *3.543*	130,0 *5.118*	40,0 *1.575*	27,0 *1.063*	60 *2.362*	9,0 *0.354*	150,0 *2175.6*	0,5 *1.100*	3,0 *0.118*	5,0 *44.3*	LC..1603..
C4-CFIR-27060-03L170110-JET	02718478	C4	110,0 *4.331*	170,0 *6.693*	40,0 *1.575*	27,0 *1.063*	60 *2.362*	9,0 *0.354*	150,0 *2175.6*	0,4 *0.880*	3,0 *0.118*	5,0 *44.3*	LC..1603..
C4-CFIL-27060-03R080055-JET	02717469	C4	55,0 *2.165*	80,0 *3.150*	40,0 *1.575*	27,0 *1.063*	60 *2.362*	9,0 *0.354*	150,0 *2175.6*	0,5 *1.100*	3,0 *0.118*	5,0 *44.3*	LC..1603..
C4-CFIL-27060-03R100070-JET	02718462	C4	70,0 *2.756*	100,0 *3.937*	40,0 *1.575*	27,0 *1.063*	60 *2.362*	9,0 *0.354*	150,0 *2175.6*	0,5 *1.100*	3,0 *0.118*	5,0 *44.3*	LC..1603..
C4-CFIL-27060-03R130090-JET	02718463	C4	90,0 *3.543*	130,0 *5.118*	40,0 *1.575*	27,0 *1.063*	60 *2.362*	9,0 *0.354*	150,0 *2175.6*	0,5 *1.100*	3,0 *0.118*	5,0 *44.3*	LC..1603..
C4-CFIL-27060-03R170110-JET	02718464	C4	110,0 *4.331*	170,0 *6.693*	40,0 *1.575*	27,0 *1.063*	60 *2.362*	9,0 *0.354*	150,0 *2175.6*	0,4 *0.880*	3,0 *0.118*	5,0 *44.3*	LC..1603..
C4-CFIR-27065-04L080055-JET	02718479	C4	55,0 *2.165*	80,0 *3.150*	40,0 *1.575*	27,0 *1.063*	65 *2.559*	12,0 *0.472*	150,0 *2175.6*	0,5 *1.100*	4,0 *0.157*	5,0 *44.3*	LC..1604..
C4-CFIR-27065-04L100070-JET	02718480	C4	70,0 *2.756*	100,0 *3.937*	40,0 *1.575*	27,0 *1.063*	65 *2.559*	12,0 *0.472*	150,0 *2175.6*	0,4 *0.880*	4,0 *0.157*	5,0 *44.3*	LC..1604..
C4-CFIR-27065-04L130090-JET	02718481	C4	90,0 *3.543*	130,0 *5.118*	40,0 *1.575*	27,0 *1.063*	65 *2.559*	12,0 *0.472*	150,0 *2175.6*	0,4 *0.880*	4,0 *0.157*	5,0 *44.3*	LC..1604..
C4-CFIR-27065-04L170110-JET	02718482	C4	110,0 *4.331*	170,0 *6.693*	40,0 *1.575*	27,0 *1.063*	65 *2.559*	12,0 *0.472*	150,0 *2175.6*	0,4 *0.880*	4,0 *0.157*	5,0 *44.3*	LC..1604..
C4-CFIR-27065-04L230140-JET	02718483	C4	140,0 *5.512*	230,0 *9.055*	40,0 *1.575*	27,0 *1.063*	65 *2.559*	12,0 *0.472*	150,0 *2175.6*	0,5 *1.100*	4,0 *0.157*	5,0 *44.3*	LC..1604..
C4-CFIL-27065-04R080055-JET	02718465	C4	55,0 *2.165*	80,0 *3.150*	40,0 *1.575*	27,0 *1.063*	65 *2.559*	12,0 *0.472*	150,0 *2175.6*	0,5 *1.100*	4,0 *0.157*	5,0 *44.3*	LC..1604..
C4-CFIL-27065-04R100070-JET	02718466	C4	70,0 *2.756*	100,0 *3.937*	40,0 *1.575*	27,0 *1.063*	65 *2.559*	12,0 *0.472*	150,0 *2175.6*	0,4 *0.880*	4,0 *0.157*	5,0 *44.3*	LC..1604..
C4-CFIL-27065-04R130090-JET	02718467	C4	90,0 *3.543*	130,0 *5.118*	40,0 *1.575*	27,0 *1.063*	65 *2.559*	12,0 *0.472*	150,0 *2175.6*	0,4 *0.880*	4,0 *0.157*	5,0 *44.3*	LC..1604..
C4-CFIL-27065-04R170110-JET	02718468	C4	110,0 *4.331*	170,0 *6.693*	40,0 *1.575*	27,0 *1.063*	65 *2.559*	12,0 *0.472*	150,0 *2175.6*	0,4 *0.880*	4,0 *0.157*	5,0 *44.3*	LC..1604..

Designation	Item number	CTMS	INPLM	INPLX	DCSFMS	WF	LF	CDX	CP	Weight	CW	TQ	CTWS
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	bar *psi*	kg *lbs*	mm *inch*	Nm *In/Lbs.*	
C4-CFIL-27065-04R230140-JET	02718469	C4	140,0 *5.512*	230,0 *9.055*	40,0 *1.575*	27,0 *1.063*	65 *2.559*	12,0 *0.472*	150,0 *2175.6*	0,5 *1.100*	4,0 *0.157*	5,0 *44.3*	LC..1604..
C4-CFIR-27065-05L080055-JET	02718484	C4	55,0 *2.165*	80,0 *3.150*	40,0 *1.575*	27,0 *1.063*	65 *2.559*	15,0 *0.591*	150,0 *2175.6*	0,5 *1.100*	5,0 *0.197*	5,0 *44.3*	LC..1605..
C4-CFIR-27065-05L100070-JET	02718485	C4	70,0 *2.756*	100,0 *3.937*	40,0 *1.575*	27,0 *1.063*	65 *2.559*	15,0 *0.591*	150,0 *2175.6*	0,5 *1.100*	5,0 *0.197*	5,0 *44.3*	LC..1605..
C4-CFIR-27065-05L130090-JET	02718486	C4	90,0 *3.543*	130,0 *5.118*	40,0 *1.575*	27,0 *1.063*	65 *2.559*	15,0 *0.591*	150,0 *2175.6*	0,5 *1.100*	5,0 *0.197*	5,0 *44.3*	LC..1605..
C4-CFIR-27065-05L170110-JET	02718487	C4	110,0 *4.331*	170,0 *6.693*	40,0 *1.575*	27,0 *1.063*	65 *2.559*	15,0 *0.591*	150,0 *2175.6*	0,4 *0.880*	5,0 *0.197*	5,0 *44.3*	LC..1605..
C4-CFIL-27065-05L230140-JET	02718488	C4	140,0 *5.512*	230,0 *9.055*	40,0 *1.575*	27,0 *1.063*	65 *2.559*	15,0 *0.591*	150,0 *2175.6*	0,5 *1.100*	5,0 *0.197*	5,0 *44.3*	LC..1605..
C4-CFIL-27065-05R080055-JET	02718470	C4	55,0 *2.165*	80,0 *3.150*	40,0 *1.575*	27,0 *1.063*	65 *2.559*	15,0 *0.591*	150,0 *2175.6*	0,5 *1.100*	5,0 *0.197*	5,0 *44.3*	LC..1605..
C4-CFIL-27065-05R100070-JET	02718471	C4	70,0 *2.756*	100,0 *3.937*	40,0 *1.575*	27,0 *1.063*	65 *2.559*	15,0 *0.591*	150,0 *2175.6*	0,5 *1.100*	5,0 *0.197*	5,0 *44.3*	LC..1605..
C4-CFIL-27065-05R130090-JET	02718472	C4	90,0 *3.543*	130,0 *5.118*	40,0 *1.575*	27,0 *1.063*	65 *2.559*	15,0 *0.591*	150,0 *2175.6*	0,5 *1.100*	5,0 *0.197*	5,0 *44.3*	LC..1605..
C4-CFIL-27065-05R170110-JET	02718473	C4	110,0 *4.331*	170,0 *6.693*	40,0 *1.575*	27,0 *1.063*	65 *2.559*	15,0 *0.591*	150,0 *2175.6*	0,4 *0.880*	5,0 *0.197*	5,0 *44.3*	LC..1605..
C4-CFIL-27065-05R230140-JET	02718474	C4	140,0 *5.512*	230,0 *9.055*	40,0 *1.575*	27,0 *1.063*	65 *2.559*	15,0 *0.591*	150,0 *2175.6*	0,4 *0.880*	5,0 *0.197*	5,0 *44.3*	LC..1605..
C5-CFIR-35060-03L080055-JET	02718508	C5	55,0 *2.165*	80,0 *3.150*	50,0 *1.969*	35,0 *1.378*	60 *2.362*	9,0 *0.354*	150,0 *2175.6*	0,7 *1.540*	3,0 *0.118*	5,0 *44.3*	LC..1603..
C5-CFIR-35060-03L100070-JET	02718509	C5	70,0 *2.756*	100,0 *3.937*	50,0 *1.969*	35,0 *1.378*	60 *2.362*	9,0 *0.354*	150,0 *2175.6*	0,6 *1.320*	3,0 *0.118*	5,0 *44.3*	LC..1603..
C5-CFIR-35060-03L130090-JET	02718510	C5	90,0 *3.543*	130,0 *5.118*	50,0 *1.969*	35,0 *1.378*	60 *2.362*	9,0 *0.354*	150,0 *2175.6*	0,7 *1.540*	3,0 *0.118*	5,0 *44.3*	LC..1603..
C5-CFIR-35060-03L170110-JET	02718511	C5	110,0 *4.331*	170,0 *6.693*	50,0 *1.969*	35,0 *1.378*	60 *2.362*	9,0 *0.354*	150,0 *2175.6*	0,6 *1.320*	3,0 *0.118*	5,0 *44.3*	LC..1603..
C5-CFIL-35060-03R080055-JET	02718489	C5	55,0 *2.165*	80,0 *3.150*	50,0 *1.969*	35,0 *1.378*	60 *2.362*	9,0 *0.354*	150,0 *2175.6*	0,7 *1.540*	3,0 *0.118*	5,0 *44.3*	LC..1603..
C5-CFIL-35060-03R100070-JET	02718490	C5	70,0 *2.756*	100,0 *3.937*	50,0 *1.969*	35,0 *1.378*	60 *2.362*	9,0 *0.354*	150,0 *2175.6*	0,6 *1.320*	3,0 *0.118*	5,0 *44.3*	LC..1603..
C5-CFIL-35060-03R130090-JET	02718491	C5	90,0 *3.543*	130,0 *5.118*	50,0 *1.969*	35,0 *1.378*	60 *2.362*	9,0 *0.354*	150,0 *2175.6*	0,7 *1.540*	3,0 *0.118*	5,0 *44.3*	LC..1603..
C5-CFIL-35060-03R170110-JET	02718492	C5	110,0 *4.331*	170,0 *6.693*	50,0 *1.969*	35,0 *1.378*	60 *2.362*	9,0 *0.354*	150,0 *2175.6*	0,6 *1.320*	3,0 *0.118*	5,0 *44.3*	LC..1603..
C5-CFIR-35065-04L080055-JET	02718512	C5	55,0 *2.165*	80,0 *3.150*	50,0 *1.969*	35,0 *1.378*	65 *2.559*	12,0 *0.472*	150,0 *2175.6*	0,7 *1.540*	4,0 *0.157*	5,0 *44.3*	LC..1604..
C5-CFIR-35065-04L100070-JET	02718513	C5	70,0 *2.756*	100,0 *3.937*	50,0 *1.969*	35,0 *1.378*	65 *2.559*	12,0 *0.472*	150,0 *2175.6*	0,6 *1.320*	4,0 *0.157*	5,0 *44.3*	LC..1604..
C5-CFIR-35065-04L130090-JET	02718514	C5	90,0 *3.543*	130,0 *5.118*	50,0 *1.969*	35,0 *1.378*	65 *2.559*	12,0 *0.472*	150,0 *2175.6*	0,7 *1.540*	4,0 *0.157*	5,0 *44.3*	LC..1604..
C5-CFIR-35065-04L170110-JET	02718515	C5	110,0 *4.331*	170,0 *6.693*	50,0 *1.969*	35,0 *1.378*	65 *2.559*	12,0 *0.472*	150,0 *2175.6*	0,7 *1.540*	4,0 *0.157*	5,0 *44.3*	LC..1604..
C5-CFIR-35065-04L230140-JET	02718516	C5	140,0 *5.512*	230,0 *9.055*	50,0 *1.969*	35,0 *1.378*	65 *2.559*	12,0 *0.472*	150,0 *2175.6*	0,7 *1.540*	4,0 *0.157*	5,0 *44.3*	LC..1604..
C5-CFIL-35065-04R080055-JET	02718493	C5	55,0 *2.165*	80,0 *3.150*	50,0 *1.969*	35,0 *1.378*	65 *2.559*	12,0 *0.472*	150,0 *2175.6*	0,7 *1.540*	4,0 *0.157*	5,0 *44.3*	LC..1604..
C5-CFIL-35065-04R100070-JET	02718494	C5	70,0 *2.756*	100,0 *3.937*	50,0 *1.969*	35,0 *1.378*	65 *2.559*	12,0 *0.472*	150,0 *2175.6*	0,6 *1.320*	4,0 *0.157*	5,0 *44.3*	LC..1604..
C5-CFIL-35065-04R130090-JET	02718495	C5	90,0 *3.543*	130,0 *5.118*	50,0 *1.969*	35,0 *1.378*	65 *2.559*	12,0 *0.472*	150,0 *2175.6*	0,7 *1.540*	4,0 *0.157*	5,0 *44.3*	LC..1604..
C5-CFIL-35065-04R170110-JET	02718496	C5	110,0 *4.331*	170,0 *6.693*	50,0 *1.969*	35,0 *1.378*	65 *2.559*	12,0 *0.472*	150,0 *2175.6*	0,7 *1.540*	4,0 *0.157*	5,0 *44.3*	LC..1604..
C5-CFIL-35065-04R230140-JET	02718497	C5	140,0 *5.512*	230,0 *9.055*	50,0 *1.969*	35,0 *1.378*	65 *2.559*	12,0 *0.472*	150,0 *2175.6*	0,7 *1.540*	4,0 *0.157*	5,0 *44.3*	LC..1604..
C5-CFIR-35065-05L080055-JET	02718517	C5	55,0 *2.165*	80,0 *3.150*	50,0 *1.969*	35,0 *1.378*	65 *2.559*	15,0 *0.591*	150,0 *2175.6*	0,7 *1.540*	5,0 *0.197*	5,0 *44.3*	LC..1605..
C5-CFIR-35065-05L100070-JET	02718518	C5	70,0 *2.756*	100,0 *3.937*	50,0 *1.969*	35,0 *1.378*	65 *2.559*	15,0 *0.591*	150,0 *2175.6*	0,7 *1.540*	5,0 *0.197*	5,0 *44.3*	LC..1605..

Designation	Item number	CTMS	INPLM	INPLX	DCSFMS	WF	LF	CDX	CP	Weight	CW	TQ	CTWS
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	bar *psi*	kg *lbs*	mm *inch*	Nm *In/Lbs.*	
C5-CFIR-35065-05L130090-JET	02718519	C5	90,0 *3.543*	130,0 *5.118*	50,0 *1.969*	35,0 *1.378*	65 *2.559*	15,0 *0.591*	150,0 *2175.6*	0,7 *1.540*	5,0 *0.197*	5,0 *44.3*	LC..1605..
C5-CFIR-35065-05L170110-JET	02718520	C5	110,0 *4.331*	170,0 *6.693*	50,0 *1.969*	35,0 *1.378*	65 *2.559*	15,0 *0.591*	150,0 *2175.6*	0,6 *1.320*	5,0 *0.197*	5,0 *44.3*	LC..1605..
C5-CFIR-35065-05L230140-JET	02718521	C5	140,0 *5.512*	230,0 *9.055*	50,0 *1.969*	35,0 *1.378*	65 *2.559*	15,0 *0.591*	150,0 *2175.6*	0,7 *1.540*	5,0 *0.197*	5,0 *44.3*	LC..1605..
C5-CFIL-35065-05R080055-JET	02718498	C5	55,0 *2.165*	80,0 *3.150*	50,0 *1.969*	35,0 *1.378*	65 *2.559*	15,0 *0.591*	150,0 *2175.6*	0,7 *1.540*	5,0 *0.197*	5,0 *44.3*	LC..1605..
C5-CFIL-35065-05R100070-JET	02718499	C5	70,0 *2.756*	100,0 *3.937*	50,0 *1.969*	35,0 *1.378*	65 *2.559*	15,0 *0.591*	150,0 *2175.6*	0,7 *1.540*	5,0 *0.197*	5,0 *44.3*	LC..1605..
C5-CFIL-35065-05R130090-JET	02718500	C5	90,0 *3.543*	130,0 *5.118*	50,0 *1.969*	35,0 *1.378*	65 *2.559*	15,0 *0.591*	150,0 *2175.6*	0,6 *1.320*	5,0 *0.197*	5,0 *44.3*	LC..1605..
C5-CFIL-35065-05R170110-JET	02718501	C5	110,0 *4.331*	170,0 *6.693*	50,0 *1.969*	35,0 *1.378*	65 *2.559*	15,0 *0.591*	150,0 *2175.6*	0,6 *1.320*	5,0 *0.197*	5,0 *44.3*	LC..1605..
C5-CFIL-35065-05R230140-JET	02718502	C5	140,0 *5.512*	230,0 *9.055*	50,0 *1.969*	35,0 *1.378*	65 *2.559*	15,0 *0.591*	150,0 *2175.6*	0,7 *1.540*	5,0 *0.197*	5,0 *44.3*	LC..1605..
C5-CFIR-35075-06L080055-JET	02718522	C5	55,0 *2.165*	80,0 *3.150*	50,0 *1.969*	35,0 *1.378*	75 *2.953*	18,0 *0.709*	150,0 *2175.6*	0,8 *1.760*	6,0 *0.236*	5,0 *44.3*	LC..1606..
C5-CFIR-35075-06L100070-JET	02718523	C5	70,0 *2.756*	100,0 *3.937*	50,0 *1.969*	35,0 *1.378*	75 *2.953*	18,0 *0.709*	150,0 *2175.6*	0,9 *1.980*	6,0 *0.236*	5,0 *44.3*	LC..1606..
C5-CFIR-35075-06L130090-JET	02718524	C5	90,0 *3.543*	130,0 *5.118*	50,0 *1.969*	35,0 *1.378*	75 *2.953*	18,0 *0.709*	150,0 *2175.6*	0,8 *1.760*	6,0 *0.236*	5,0 *44.3*	LC..1606..
C5-CFIR-35075-06L170110-JET	02718525	C5	110,0 *4.331*	170,0 *6.693*	50,0 *1.969*	35,0 *1.378*	75 *2.953*	18,0 *0.709*	150,0 *2175.6*	0,6 *1.320*	6,0 *0.236*	5,0 *44.3*	LC..1606..
C5-CFIR-35075-06L230140-JET	02718526	C5	140,0 *5.512*	230,0 *9.055*	50,0 *1.969*	35,0 *1.378*	75 *2.953*	18,0 *0.709*	150,0 *2175.6*	0,8 *1.760*	6,0 *0.236*	5,0 *44.3*	LC..1606..
C5-CFIL-35075-06R080055-JET	02718503	C5	55,0 *2.165*	80,0 *3.150*	50,0 *1.969*	35,0 *1.378*	75 *2.953*	18,0 *0.709*	150,0 *2175.6*	0,8 *1.760*	6,0 *0.236*	5,0 *44.3*	LC..1606..
C5-CFIL-35075-06R100070-JET	02718504	C5	70,0 *2.756*	100,0 *3.937*	50,0 *1.969*	35,0 *1.378*	75 *2.953*	18,0 *0.709*	150,0 *2175.6*	0,6 *1.320*	6,0 *0.236*	5,0 *44.3*	LC..1606..
C5-CFIL-35075-06R130090-JET	02718505	C5	90,0 *3.543*	130,0 *5.118*	50,0 *1.969*	35,0 *1.378*	75 *2.953*	18,0 *0.709*	150,0 *2175.6*	0,8 *1.760*	6,0 *0.236*	5,0 *44.3*	LC..1606..
C5-CFIL-35075-06R170110-JET	02718506	C5	110,0 *4.331*	170,0 *6.693*	50,0 *1.969*	35,0 *1.378*	75 *2.953*	18,0 *0.709*	150,0 *2175.6*	0,6 *1.320*	6,0 *0.236*	5,0 *44.3*	LC..1606..
C5-CFIL-35075-06R230140-JET	02718507	C5	140,0 *5.512*	230,0 *9.055*	50,0 *1.969*	35,0 *1.378*	75 *2.953*	18,0 *0.709*	150,0 *2175.6*	0,8 *1.760*	6,0 *0.236*	5,0 *44.3*	LC..1606..
C6-CFIR-45065-03L080055-JET	02718550	C6	55,0 *2.165*	80,0 *3.150*	63,0 *2.480*	45,0 *1.772*	65 *2.559*	9,0 *0.354*	150,0 *2175.6*	1,1 *2.430*	3,0 *0.118*	5,0 *44.3*	LC..1603..
C6-CFIR-45065-03L100070-JET	02718551	C6	70,0 *2.756*	100,0 *3.937*	63,0 *2.480*	45,0 *1.772*	65 *2.559*	9,0 *0.354*	150,0 *2175.6*	1,1 *2.430*	3,0 *0.118*	5,0 *44.3*	LC..1603..
C6-CFIR-45065-03L130090-JET	02718552	C6	90,0 *3.543*	130,0 *5.118*	63,0 *2.480*	45,0 *1.772*	65 *2.559*	9,0 *0.354*	150,0 *2175.6*	1,1 *2.430*	3,0 *0.118*	5,0 *44.3*	LC..1603..
C6-CFIR-45065-03L170110-JET	02718553	C6	110,0 *4.331*	170,0 *6.693*	63,0 *2.480*	45,0 *1.772*	65 *2.559*	9,0 *0.354*	150,0 *2175.6*	1,1 *2.430*	3,0 *0.118*	5,0 *44.3*	LC..1603..
C6-CFIL-45065-03R080055-JET	02718527	C6	55,0 *2.165*	80,0 *3.150*	63,0 *2.480*	45,0 *1.772*	65 *2.559*	9,0 *0.354*	150,0 *2175.6*	1,1 *2.430*	3,0 *0.118*	5,0 *44.3*	LC..1603..
C6-CFIL-45065-03R100070-JET	02718528	C6	70,0 *2.756*	100,0 *3.937*	63,0 *2.480*	45,0 *1.772*	65 *2.559*	9,0 *0.354*	150,0 *2175.6*	1,1 *2.430*	3,0 *0.118*	5,0 *44.3*	LC..1603..
C6-CFIL-45065-03R130090-JET	02718529	C6	90,0 *3.543*	130,0 *5.118*	63,0 *2.480*	45,0 *1.772*	65 *2.559*	9,0 *0.354*	150,0 *2175.6*	1,1 *2.430*	3,0 *0.118*	5,0 *44.3*	LC..1603..
C6-CFIL-45065-03R170110-JET	02718530	C6	110,0 *4.331*	170,0 *6.693*	63,0 *2.480*	45,0 *1.772*	65 *2.559*	9,0 *0.354*	150,0 *2175.6*	1,1 *2.430*	3,0 *0.118*	5,0 *44.3*	LC..1603..
C6-CFIR-45065-04L080055-JET	02718554	C6	55,0 *2.165*	80,0 *3.150*	63,0 *2.480*	45,0 *1.772*	65 *2.559*	12,0 *0.472*	150,0 *2175.6*	1,1 *2.430*	4,0 *0.157*	5,0 *44.3*	LC..1604..
C6-CFIR-45065-04L100070-JET	02718555	C6	70,0 *2.756*	100,0 *3.937*	63,0 *2.480*	45,0 *1.772*	65 *2.559*	12,0 *0.472*	150,0 *2175.6*	1,1 *2.430*	4,0 *0.157*	5,0 *44.3*	LC..1604..
C6-CFIR-45065-04L130090-JET	02718556	C6	90,0 *3.543*	130,0 *5.118*	63,0 *2.480*	45,0 *1.772*	65 *2.559*	12,0 *0.472*	150,0 *2175.6*	1,1 *2.430*	4,0 *0.157*	5,0 *44.3*	LC..1604..
C6-CFIR-45065-04L170110-JET	02718557	C6	110,0 *4.331*	170,0 *6.693*	63,0 *2.480*	45,0 *1.772*	65 *2.559*	12,0 *0.472*	150,0 *2175.6*	1,1 *2.430*	4,0 *0.157*	5,0 *44.3*	LC..1604..
C6-CFIR-45065-04L230140-JET	02718558	C6	140,0 *5.512*	230,0 *9.055*	63,0 *2.480*	45,0 *1.772*	65 *2.559*	12,0 *0.472*	150,0 *2175.6*	1,1 *2.430*	4,0 *0.157*	5,0 *44.3*	LC..1604..

Designation	Item number	CTMS	INPLM	INPLX	DCSFMS	WF	LF	CDX	CP	Weight	CW	TQ	CTWS
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	bar *psi*	kg *lbs*	mm *inch*	Nm *In/Lbs.*	
C6-CFIL-45065-04R080055-JET	02718531	C6	55,0 *2.165*	80,0 *3.150*	63,0 *2.480*	45,0 *1.772*	65 *2.559*	12,0 *0.472*	150,0 *2175.6*	1,1 *2.430*	4,0 *0.157*	5,0 *44.3*	LC..1604..
C6-CFIL-45065-04R100070-JET	02718532	C6	70,0 *2.756*	100,0 *3.937*	63,0 *2.480*	45,0 *1.772*	65 *2.559*	12,0 *0.472*	150,0 *2175.6*	1,1 *2.430*	4,0 *0.157*	5,0 *44.3*	LC..1604..
C6-CFIL-45065-04R130090-JET	02718533	C6	90,0 *3.543*	130,0 *5.118*	63,0 *2.480*	45,0 *1.772*	65 *2.559*	12,0 *0.472*	150,0 *2175.6*	1,1 *2.430*	4,0 *0.157*	5,0 *44.3*	LC..1604..
C6-CFIL-45065-04R170110-JET	02718534	C6	110,0 *4.331*	170,0 *6.693*	63,0 *2.480*	45,0 *1.772*	65 *2.559*	12,0 *0.472*	150,0 *2175.6*	1,1 *2.430*	4,0 *0.157*	5,0 *44.3*	LC..1604..
C6-CFIL-45065-04R230140-JET	02718535	C6	140,0 *5.512*	230,0 *9.055*	63,0 *2.480*	45,0 *1.772*	65 *2.559*	12,0 *0.472*	150,0 *2175.6*	1,1 *2.430*	4,0 *0.157*	5,0 *44.3*	LC..1604..
C6-CFIR-45070-05L080055-JET	02718559	C6	55,0 *2.165*	80,0 *3.150*	63,0 *2.480*	45,0 *1.772*	70 *2.756*	15,0 *0.591*	150,0 *2175.6*	1,1 *2.430*	5,0 *0.197*	5,0 *44.3*	LC..1605..
C6-CFIR-45070-05L100070-JET	02718560	C6	70,0 *2.756*	100,0 *3.937*	63,0 *2.480*	45,0 *1.772*	70 *2.756*	15,0 *0.591*	150,0 *2175.6*	1,1 *2.430*	5,0 *0.197*	5,0 *44.3*	LC..1605..
C6-CFIR-45070-05L130090-JET	02718561	C6	90,0 *3.543*	130,0 *5.118*	63,0 *2.480*	45,0 *1.772*	70 *2.756*	15,0 *0.591*	150,0 *2175.6*	1,1 *2.430*	5,0 *0.197*	5,0 *44.3*	LC..1605..
C6-CFIR-45070-05L170110-JET	02718562	C6	110,0 *4.331*	170,0 *6.693*	63,0 *2.480*	45,0 *1.772*	70 *2.756*	15,0 *0.591*	150,0 *2175.6*	1,1 *2.430*	5,0 *0.197*	5,0 *44.3*	LC..1605..
C6-CFIR-45070-05L230140-JET	02718563	C6	140,0 *5.512*	230,0 *9.055*	63,0 *2.480*	45,0 *1.772*	70 *2.756*	15,0 *0.591*	150,0 *2175.6*	1,1 *2.430*	5,0 *0.197*	5,0 *44.3*	LC..1605..
C6-CFIL-45070-05R080055-JET	02718536	C6	55,0 *2.165*	80,0 *3.150*	63,0 *2.480*	45,0 *1.772*	70 *2.756*	15,0 *0.591*	150,0 *2175.6*	1,1 *2.430*	5,0 *0.197*	5,0 *44.3*	LC..1605..
C6-CFIL-45070-05R100070-JET	02718537	C6	70,0 *2.756*	100,0 *3.937*	63,0 *2.480*	45,0 *1.772*	70 *2.756*	15,0 *0.591*	150,0 *2175.6*	1,1 *2.430*	5,0 *0.197*	5,0 *44.3*	LC..1605..
C6-CFIL-45070-05R130090-JET	02718538	C6	90,0 *3.543*	130,0 *5.118*	63,0 *2.480*	45,0 *1.772*	70 *2.756*	15,0 *0.591*	150,0 *2175.6*	1,1 *2.430*	5,0 *0.197*	5,0 *44.3*	LC..1605..
C6-CFIL-45070-05R170110-JET	02718539	C6	110,0 *4.331*	170,0 *6.693*	63,0 *2.480*	45,0 *1.772*	70 *2.756*	15,0 *0.591*	150,0 *2175.6*	1,1 *2.430*	5,0 *0.197*	5,0 *44.3*	LC..1605..
C6-CFIL-45070-05R230140-JET	02718540	C6	140,0 *5.512*	230,0 *9.055*	63,0 *2.480*	45,0 *1.772*	70 *2.756*	15,0 *0.591*	150,0 *2175.6*	1,1 *2.430*	5,0 *0.197*	5,0 *44.3*	LC..1605..
C6-CFIR-45075-06L080055-JET	02718564	C6	55,0 *2.165*	80,0 *3.150*	63,0 *2.480*	45,0 *1.772*	75 *2.953*	18,0 *0.709*	150,0 *2175.6*	1,1 *2.430*	6,0 *0.236*	5,0 *44.3*	LC..1606..
C6-CFIR-45075-06L100070-JET	02718565	C6	70,0 *2.756*	100,0 *3.937*	63,0 *2.480*	45,0 *1.772*	75 *2.953*	18,0 *0.709*	150,0 *2175.6*	1,1 *2.430*	6,0 *0.236*	5,0 *44.3*	LC..1606..
C6-CFIR-45075-06L130090-JET	02718566	C6	90,0 *3.543*	130,0 *5.118*	63,0 *2.480*	45,0 *1.772*	75 *2.953*	18,0 *0.709*	150,0 *2175.6*	1,1 *2.430*	6,0 *0.236*	5,0 *44.3*	LC..1606..
C6-CFIR-45075-06L170110-JET	02718567	C6	110,0 *4.331*	170,0 *6.693*	63,0 *2.480*	45,0 *1.772*	75 *2.953*	18,0 *0.709*	150,0 *2175.6*	1,1 *2.430*	6,0 *0.236*	5,0 *44.3*	LC..1606..
C6-CFIR-45075-06L230140-JET	02718568	C6	140,0 *5.512*	230,0 *9.055*	63,0 *2.480*	45,0 *1.772*	75 *2.953*	18,0 *0.709*	150,0 *2175.6*	1,1 *2.430*	6,0 *0.236*	5,0 *44.3*	LC..1606..
C6-CFIL-45075-06R080055-JET	02718541	C6	55,0 *2.165*	80,0 *3.150*	63,0 *2.480*	45,0 *1.772*	75 *2.953*	18,0 *0.709*	150,0 *2175.6*	1,1 *2.430*	6,0 *0.236*	5,0 *44.3*	LC..1606..
C6-CFIL-45075-06R100070-JET	02718542	C6	70,0 *2.756*	100,0 *3.937*	63,0 *2.480*	45,0 *1.772*	75 *2.953*	18,0 *0.709*	150,0 *2175.6*	1,1 *2.430*	6,0 *0.236*	5,0 *44.3*	LC..1606..
C6-CFIL-45075-06R130090-JET	02718543	C6	90,0 *3.543*	130,0 *5.118*	63,0 *2.480*	45,0 *1.772*	75 *2.953*	18,0 *0.709*	150,0 *2175.6*	1,1 *2.430*	6,0 *0.236*	5,0 *44.3*	LC..1606..
C6-CFIL-45075-06R170110-JET	02718544	C6	110,0 *4.331*	170,0 *6.693*	63,0 *2.480*	45,0 *1.772*	75 *2.953*	18,0 *0.709*	150,0 *2175.6*	1,1 *2.430*	6,0 *0.236*	5,0 *44.3*	LC..1606..
C6-CFIL-45075-06R230140-JET	02718545	C6	140,0 *5.512*	230,0 *9.055*	63,0 *2.480*	45,0 *1.772*	75 *2.953*	18,0 *0.709*	150,0 *2175.6*	1,1 *2.430*	6,0 *0.236*	5,0 *44.3*	LC..1606..
C6-CFIR-45085-08L130090-JET	02718569	C6	90,0 *3.543*	130,0 *5.118*	63,0 *2.480*	45,0 *1.772*	85 *3.346*	24,0 *0.945*	150,0 *2175.6*	1,2 *2.650*	8,0 *0.315*	5,0 *44.3*	LC..3008..
C6-CFIR-45085-08L170110-JET	02718570	C6	110,0 *4.331*	170,0 *6.693*	63,0 *2.480*	45,0 *1.772*	85 *3.346*	24,0 *0.945*	150,0 *2175.6*	1,2 *2.650*	8,0 *0.315*	5,0 *44.3*	LC..3008..
C6-CFIR-45085-08L230140-JET	02718571	C6	140,0 *5.512*	230,0 *9.055*	63,0 *2.480*	45,0 *1.772*	85 *3.346*	24,0 *0.945*	150,0 *2175.6*	1,2 *2.650*	8,0 *0.315*	5,0 *44.3*	LC..3008..
C6-CFIR-45085-08L500200-JET	02718572	C6	200,0 *7.874*	500,0 *19.685*	63,0 *2.480*	45,0 *1.772*	85 *3.346*	24,0 *0.945*	150,0 *2175.6*	1,1 *2.430*	8,0 *0.315*	5,0 *44.3*	LC..3008..
C6-CFIL-45085-08R130090-JET	02718546	C6	90,0 *3.543*	130,0 *5.118*	63,0 *2.480*	45,0 *1.772*	85 *3.346*	24,0 *0.945*	150,0 *2175.6*	1,2 *2.650*	8,0 *0.315*	10,0 *88.5*	LC..3008..
C6-CFIL-45085-08R170110-JET	02718547	C6	110,0 *4.331*	170,0 *6.693*	63,0 *2.480*	45,0 *1.772*	85 *3.346*	24,0 *0.945*	150,0 *2175.6*	1,2 *2.650*	8,0 *0.315*	10,0 *88.5*	LC..3008..

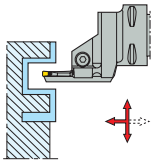
Designation	Item number	CTMS	INPLM	INPLX	DCSFMS	WF	LF	CDX	CP	Weight	CW	TQ	CTWS
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	bar *psi*	kg *lbs*	mm *inch*	Nm *In/Lbs.*	
C6-CFIL-45085-08R230140-JET	02718548	C6	140,0 *5.512*	230,0 *9.055*	63,0 *2.480*	45,0 *1.772*	85 *3.346*	24,0 *0.945*	150,0 *2175.6*	1,2 *2.650*	8,0 *0.315*	10,0 *88.5*	LC..3008..
C6-CFIL-45085-08R500200-JET	02718549	C6	200,0 *7.874*	500,0 *19.685*	63,0 *2.480*	45,0 *1.772*	85 *3.346*	24,0 *0.945*	150,0 *2175.6*	1,1 *2.430*	8,0 *0.315*	10,0 *88.5*	LC..3008..

Spare Parts, included in delivery

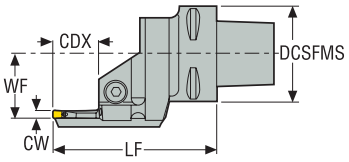
For size	Clamp key	Clamp screw
		
CFIR/L..-03	4SMS795	TCEI0513
CFIR/L..-04	5SMS795	TCEI0613
CFIR/L..-05	5SMS795	TCEI0613
CFIR/L..-06	6SMS795	TCEI0815
CFIR/L..-08	6SMS795	TCEI1020

C.-CFOR...L...JET, C.-CFOL...R...JET – Toolholders for inserts LCGF, LCGN, LCMF, LCMR – Metric / *Inch*

C.-CFOR/L
KAPR = 90,0 °



CFOR...L...JET, CFOL...R...JET

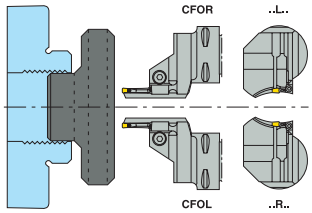




CTWS



- Right-hand version with left-hand blade shown
- For inserts program, see page(s) 858-863, 873-874
- For holder code key, see page(s) 699
- For more information on Jetstream Tooling® and accessories, see page(s) 38, 85-89, 1026
- Max depth of cut for double-sided LCGF/LCMF16.. = 14 mm / *0.551 inch*, LCGF/LCMF30.. = 28 mm / *1.102 inch*
- CW = indicative Cutting Width, may vary depending on the chosen insert
- For ISO attribute explanation, see page 82



Designation	Item number	CTMS	INPLM	INPLX	DCSFMS	WF	LF	CDX	CP	Weight	CW	TQ	CTWS
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	bar *psi*	kg *lbs*	mm *inch*	Nm *In/Lbs.*	
C4-CFOR-27070-03L080055-JET	02718585	C4	55,0 *2.165*	80,0 *3.150*	40,0 *1.575*	27,0 *1.063*	70 *2.756*	18,0 *0.709*	150,0 *2175.6*	0,5 *1.100*	3,0 *0.118*	5,0 *44.3*	LC..1603..
C4-CFOR-27070-03L100070-JET	02718586	C4	70,0 *2.756*	100,0 *3.937*	40,0 *1.575*	27,0 *1.063*	70 *2.756*	18,0 *0.709*	150,0 *2175.6*	0,5 *1.100*	3,0 *0.118*	5,0 *44.3*	LC..1603..
C4-CFOR-27070-03L130090-JET	02718587	C4	90,0 *3.543*	130,0 *5.118*	40,0 *1.575*	27,0 *1.063*	70 *2.756*	18,0 *0.709*	150,0 *2175.6*	0,5 *1.100*	3,0 *0.118*	5,0 *44.3*	LC..1603..
C4-CFOR-27070-03L170110-JET	02718588	C4	110,0 *4.331*	170,0 *6.693*	40,0 *1.575*	27,0 *1.063*	70 *2.756*	18,0 *0.709*	150,0 *2175.6*	0,5 *1.100*	3,0 *0.118*	5,0 *44.3*	LC..1603..
C4-CFOR-27070-03L230140-JET	02718589	C4	140,0 *5.512*	230,0 *9.055*	40,0 *1.575*	27,0 *1.063*	70 *2.756*	18,0 *0.709*	150,0 *2175.6*	0,5 *1.100*	3,0 *0.118*	5,0 *44.3*	LC..1603..
C4-CFOR-27070-03L500200-JET	02718590	C4	200,0 *7.874*	500,0 *19.685*	40,0 *1.575*	27,0 *1.063*	70 *2.756*	18,0 *0.709*	150,0 *2175.6*	0,5 *1.100*	3,0 *0.118*	5,0 *44.3*	LC..1603..
C4-CFOL-27070-03R080055-JET	02718573	C4	55,0 *2.165*	80,0 *3.150*	40,0 *1.575*	27,0 *1.063*	70 *2.756*	18,0 *0.709*	150,0 *2175.6*	0,5 *1.100*	3,0 *0.118*	5,0 *44.3*	LC..1603..
C4-CFOL-27070-03R100070-JET	02718574	C4	70,0 *2.756*	100,0 *3.937*	40,0 *1.575*	27,0 *1.063*	70 *2.756*	18,0 *0.709*	150,0 *2175.6*	0,6 *1.320*	3,0 *0.118*	5,0 *44.3*	LC..1603..
C4-CFOL-27070-03R130090-JET	02718575	C4	90,0 *3.543*	130,0 *5.118*	40,0 *1.575*	27,0 *1.063*	70 *2.756*	18,0 *0.709*	150,0 *2175.6*	0,5 *1.100*	3,0 *0.118*	5,0 *44.3*	LC..1603..
C4-CFOL-27070-03R170110-JET	02718576	C4	110,0 *4.331*	170,0 *6.693*	40,0 *1.575*	27,0 *1.063*	70 *2.756*	18,0 *0.709*	150,0 *2175.6*	0,5 *1.100*	3,0 *0.118*	5,0 *44.3*	LC..1603..
C4-CFOL-27070-03R230140-JET	02718577	C4	140,0 *5.512*	230,0 *9.055*	40,0 *1.575*	27,0 *1.063*	70 *2.756*	18,0 *0.709*	150,0 *2175.6*	0,5 *1.100*	3,0 *0.118*	5,0 *44.3*	LC..1603..
C4-CFOL-27070-03R500200-JET	02718578	C4	200,0 *7.874*	500,0 *19.685*	40,0 *1.575*	27,0 *1.063*	70 *2.756*	18,0 *0.709*	150,0 *2175.6*	0,5 *1.100*	3,0 *0.118*	5,0 *44.3*	LC..1603..
C4-CFOR-27080-04L080055-JET	02718591	C4	55,0 *2.165*	80,0 *3.150*	40,0 *1.575*	27,0 *1.063*	80 *3.150*	24,0 *0.945*	150,0 *2175.6*	0,5 *1.100*	4,0 *0.157*	5,0 *44.3*	LC..1604..
C4-CFOR-27080-04L100070-JET	02718592	C4	70,0 *2.756*	100,0 *3.937*	40,0 *1.575*	27,0 *1.063*	80 *3.150*	24,0 *0.945*	150,0 *2175.6*	0,5 *1.100*	4,0 *0.157*	5,0 *44.3*	LC..1604..
C4-CFOR-27080-04L130090-JET	02718593	C4	90,0 *3.543*	130,0 *5.118*	40,0 *1.575*	27,0 *1.063*	80 *3.150*	24,0 *0.945*	150,0 *2175.6*	0,5 *1.100*	4,0 *0.157*	5,0 *44.3*	LC..1604..
C4-CFOR-27080-04L170110-JET	02718594	C4	110,0 *4.331*	170,0 *6.693*	40,0 *1.575*	27,0 *1.063*	80 *3.150*	24,0 *0.945*	150,0 *2175.6*	0,5 *1.100*	4,0 *0.157*	5,0 *44.3*	LC..1604..
C4-CFOR-27080-04L230140-JET	02718595	C4	140,0 *5.512*	230,0 *9.055*	40,0 *1.575*	27,0 *1.063*	80 *3.150*	24,0 *0.945*	150,0 *2175.6*	0,5 *1.100*	4,0 *0.157*	5,0 *44.3*	LC..1604..

Designation	Item number	CTMS	INPLM	INPLX	DCSFMS	WF	LF	CDX	CP	Weight	CW	TQ	CTWS
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	bar *psi*	kg *lbs*	mm *inch*	Nm *In/Lbs.*	
C4-CFOR-27080-04L500200-JET	02718596	C4	200,0 *7.874*	500,0 *19.685*	40,0 *1.575*	27,0 *1.063*	80 *3.150*	24,0 *0.945*	150,0 *2175.6*	0,5 *1.100*	4,0 *0.157*	5,0 *44.3*	LC..1604..
C4-CFOL-27080-04R080055-JET	02714035	C4	55,0 *2.165*	80,0 *3.150*	40,0 *1.575*	27,0 *1.063*	80 *3.150*	24,0 *0.945*	150,0 *2175.6*	0,5 *1.100*	4,0 *0.157*	5,0 *44.3*	LC..1604..
C4-CFOL-27080-04R100070-JET	02714037	C4	70,0 *2.756*	100,0 *3.937*	40,0 *1.575*	27,0 *1.063*	80 *3.150*	24,0 *0.945*	150,0 *2175.6*	0,5 *1.100*	4,0 *0.157*	5,0 *44.3*	LC..1604..
C4-CFOL-27080-04R130090-JET	02714038	C4	90,0 *3.543*	130,0 *5.118*	40,0 *1.575*	27,0 *1.063*	80 *3.150*	24,0 *0.945*	150,0 *2175.6*	0,5 *1.100*	4,0 *0.157*	5,0 *44.3*	LC..1604..
C4-CFOL-27080-04R170110-JET	02714039	C4	110,0 *4.331*	170,0 *6.693*	40,0 *1.575*	27,0 *1.063*	80 *3.150*	24,0 *0.945*	150,0 *2175.6*	0,5 *1.100*	4,0 *0.157*	5,0 *44.3*	LC..1604..
C4-CFOL-27080-04R230140-JET	02714041	C4	140,0 *5.512*	230,0 *9.055*	40,0 *1.575*	27,0 *1.063*	80 *3.150*	24,0 *0.945*	150,0 *2175.6*	0,5 *1.100*	4,0 *0.157*	5,0 *44.3*	LC..1604..
C4-CFOL-27080-04R500200-JET	02714042	C4	200,0 *7.874*	500,0 *19.685*	40,0 *1.575*	27,0 *1.063*	80 *3.150*	24,0 *0.945*	150,0 *2175.6*	0,5 *1.100*	4,0 *0.157*	5,0 *44.3*	LC..1604..
C4-CFOR-27085-05L080055-JET	02718597	C4	55,0 *2.165*	80,0 *3.150*	40,0 *1.575*	27,0 *1.063*	85 *3.346*	30,0 *1.181*	150,0 *2175.6*	0,5 *1.100*	5,0 *0.197*	5,0 *44.3*	LC..1605..
C4-CFOR-27085-05L100070-JET	02718598	C4	70,0 *2.756*	100,0 *3.937*	40,0 *1.575*	27,0 *1.063*	85 *3.346*	30,0 *1.181*	150,0 *2175.6*	0,5 *1.100*	5,0 *0.197*	5,0 *44.3*	LC..1605..
C4-CFOR-27085-05L130090-JET	02718599	C4	90,0 *3.543*	130,0 *5.118*	40,0 *1.575*	27,0 *1.063*	85 *3.346*	30,0 *1.181*	150,0 *2175.6*	0,5 *1.100*	5,0 *0.197*	5,0 *44.3*	LC..1605..
C4-CFOR-27085-05L170110-JET	02718600	C4	110,0 *4.331*	170,0 *6.693*	40,0 *1.575*	27,0 *1.063*	85 *3.346*	30,0 *1.181*	150,0 *2175.6*	0,5 *1.100*	5,0 *0.197*	5,0 *44.3*	LC..1605..
C4-CFOR-27085-05L230140-JET	02718601	C4	140,0 *5.512*	230,0 *9.055*	40,0 *1.575*	27,0 *1.063*	85 *3.346*	30,0 *1.181*	150,0 *2175.6*	0,5 *1.100*	5,0 *0.197*	5,0 *44.3*	LC..1605..
C4-CFOR-27085-05L500200-JET	02718602	C4	200,0 *7.874*	500,0 *19.685*	40,0 *1.575*	27,0 *1.063*	85 *3.346*	30,0 *1.181*	150,0 *2175.6*	0,5 *1.100*	5,0 *0.197*	5,0 *44.3*	LC..1605..
C4-CFOL-27085-05R080055-JET	02718579	C4	55,0 *2.165*	80,0 *3.150*	40,0 *1.575*	27,0 *1.063*	85 *3.346*	30,0 *1.181*	150,0 *2175.6*	0,5 *1.100*	5,0 *0.197*	5,0 *44.3*	LC..1605..
C4-CFOL-27085-05R100070-JET	02718580	C4	70,0 *2.756*	100,0 *3.937*	40,0 *1.575*	27,0 *1.063*	85 *3.346*	30,0 *1.181*	150,0 *2175.6*	0,5 *1.100*	5,0 *0.197*	5,0 *44.3*	LC..1605..
C4-CFOL-27085-05R130090-JET	02718581	C4	90,0 *3.543*	130,0 *5.118*	40,0 *1.575*	27,0 *1.063*	85 *3.346*	30,0 *1.181*	150,0 *2175.6*	0,5 *1.100*	5,0 *0.197*	5,0 *44.3*	LC..1605..
C4-CFOL-27085-05R170110-JET	02718582	C4	110,0 *4.331*	170,0 *6.693*	40,0 *1.575*	27,0 *1.063*	85 *3.346*	30,0 *1.181*	150,0 *2175.6*	0,5 *1.100*	5,0 *0.197*	5,0 *44.3*	LC..1605..
C4-CFOL-27085-05R230140-JET	02718583	C4	140,0 *5.512*	230,0 *9.055*	40,0 *1.575*	27,0 *1.063*	85 *3.346*	30,0 *1.181*	150,0 *2175.6*	0,5 *1.100*	5,0 *0.197*	5,0 *44.3*	LC..1605..
C4-CFOL-27085-05R500200-JET	02718584	C4	200,0 *7.874*	500,0 *19.685*	40,0 *1.575*	27,0 *1.063*	85 *3.346*	30,0 *1.181*	150,0 *2175.6*	0,5 *1.100*	5,0 *0.197*	5,0 *44.3*	LC..1605..
C5-CFOR-35070-03L080055-JET	02718627	C5	55,0 *2.165*	80,0 *3.150*	50,0 *1.969*	35,0 *1.378*	70 *2.756*	18,0 *0.709*	150,0 *2175.6*	0,7 *1.540*	3,0 *0.118*	5,0 *44.3*	LC..1603..
C5-CFOR-35070-03L100070-JET	02718628	C5	70,0 *2.756*	100,0 *3.937*	50,0 *1.969*	35,0 *1.378*	70 *2.756*	18,0 *0.709*	150,0 *2175.6*	0,7 *1.540*	3,0 *0.118*	5,0 *44.3*	LC..1603..
C5-CFOR-35070-03L130090-JET	02718629	C5	90,0 *3.543*	130,0 *5.118*	50,0 *1.969*	35,0 *1.378*	70 *2.756*	18,0 *0.709*	150,0 *2175.6*	0,7 *1.540*	3,0 *0.118*	5,0 *44.3*	LC..1603..
C5-CFOR-35070-03L170110-JET	02718630	C5	110,0 *4.331*	170,0 *6.693*	50,0 *1.969*	35,0 *1.378*	70 *2.756*	18,0 *0.709*	150,0 *2175.6*	0,7 *1.540*	3,0 *0.118*	5,0 *44.3*	LC..1603..
C5-CFOR-35070-03L230140-JET	02718631	C5	140,0 *5.512*	230,0 *9.055*	50,0 *1.969*	35,0 *1.378*	70 *2.756*	18,0 *0.709*	150,0 *2175.6*	0,7 *1.540*	3,0 *0.118*	5,0 *44.3*	LC..1603..
C5-CFOR-35070-03L500200-JET	02718632	C5	200,0 *7.874*	500,0 *19.685*	50,0 *1.969*	35,0 *1.378*	70 *2.756*	18,0 *0.709*	150,0 *2175.6*	0,7 *1.540*	3,0 *0.118*	5,0 *44.3*	LC..1603..
C5-CFOL-35070-03R080055-JET	02718603	C5	55,0 *2.165*	80,0 *3.150*	50,0 *1.969*	35,0 *1.378*	70 *2.756*	18,0 *0.709*	150,0 *2175.6*	0,7 *1.540*	3,0 *0.118*	5,0 *44.3*	LC..1603..
C5-CFOL-35070-03R100070-JET	02718604	C5	70,0 *2.756*	100,0 *3.937*	50,0 *1.969*	35,0 *1.378*	70 *2.756*	18,0 *0.709*	150,0 *2175.6*	0,7 *1.540*	3,0 *0.118*	5,0 *44.3*	LC..1603..
C5-CFOL-35070-03R130090-JET	02718605	C5	90,0 *3.543*	130,0 *5.118*	50,0 *1.969*	35,0 *1.378*	70 *2.756*	18,0 *0.709*	150,0 *2175.6*	0,7 *1.540*	3,0 *0.118*	5,0 *44.3*	LC..1603..
C5-CFOL-35070-03R170110-JET	02718606	C5	110,0 *4.331*	170,0 *6.693*	50,0 *1.969*	35,0 *1.378*	70 *2.756*	18,0 *0.709*	150,0 *2175.6*	0,7 *1.540*	3,0 *0.118*	5,0 *44.3*	LC..1603..
C5-CFOL-35070-03R230140-JET	02718607	C5	140,0 *5.512*	230,0 *9.055*	50,0 *1.969*	35,0 *1.378*	70 *2.756*	18,0 *0.709*	150,0 *2175.6*	0,7 *1.540*	3,0 *0.118*	5,0 *44.3*	LC..1603..
C5-CFOL-35070-03R500200-JET	02718608	C5	200,0 *7.874*	500,0 *19.685*	50,0 *1.969*	35,0 *1.378*	70 *2.756*	18,0 *0.709*	150,0 *2175.6*	0,7 *1.540*	3,0 *0.118*	5,0 *44.3*	LC..1603..

Designation	Item number	CTMS	INPLM	INPLX	DCSFMS	WF	LF	CDX	CP	Weight	CW	TQ	CTWS
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	bar *psi*	kg *lbs*	mm *inch*	Nm *In/Lbs.*	
C5-CFOR-35080-04L080055-JET	02718633	C5	55,0 *2.165*	80,0 *3.150*	50,0 *1.969*	35,0 *1.378*	80 *3.150*	24,0 *0.945*	150,0 *2175.6*	0,8 *1.760*	4,0 *0.157*	5,0 *44.3*	LC..1604..
C5-CFOR-35080-04L100070-JET	02718634	C5	70,0 *2.756*	100,0 *3.937*	50,0 *1.969*	35,0 *1.378*	80 *3.150*	24,0 *0.945*	150,0 *2175.6*	0,7 *1.540*	4,0 *0.157*	5,0 *44.3*	LC..1604..
C5-CFOR-35080-04L130090-JET	02718635	C5	90,0 *3.543*	130,0 *5.118*	50,0 *1.969*	35,0 *1.378*	80 *3.150*	24,0 *0.945*	150,0 *2175.6*	0,8 *1.760*	4,0 *0.157*	5,0 *44.3*	LC..1604..
C5-CFOR-35080-04L170110-JET	02718636	C5	110,0 *4.331*	170,0 *6.693*	50,0 *1.969*	35,0 *1.378*	80 *3.150*	24,0 *0.945*	150,0 *2175.6*	0,8 *1.760*	4,0 *0.157*	5,0 *44.3*	LC..1604..
C5-CFOR-35080-04L230140-JET	02718637	C5	140,0 *5.512*	230,0 *9.055*	50,0 *1.969*	35,0 *1.378*	80 *3.150*	24,0 *0.945*	150,0 *2175.6*	0,8 *1.760*	4,0 *0.157*	5,0 *44.3*	LC..1604..
C5-CFOR-35080-04L500200-JET	02718638	C5	200,0 *7.874*	500,0 *19.685*	50,0 *1.969*	35,0 *1.378*	80 *3.150*	24,0 *0.945*	150,0 *2175.6*	0,8 *1.760*	4,0 *0.157*	5,0 *44.3*	LC..1604..
C5-CFOL-35080-04R080055-JET	02718609	C5	55,0 *2.165*	80,0 *3.150*	50,0 *1.969*	35,0 *1.378*	80 *3.150*	24,0 *0.945*	150,0 *2175.6*	0,8 *1.760*	4,0 *0.157*	5,0 *44.3*	LC..1604..
C5-CFOL-35080-04R100070-JET	02718610	C5	70,0 *2.756*	100,0 *3.937*	50,0 *1.969*	35,0 *1.378*	80 *3.150*	24,0 *0.945*	150,0 *2175.6*	0,7 *1.540*	4,0 *0.157*	5,0 *44.3*	LC..1604..
C5-CFOL-35080-04R130090-JET	02718611	C5	90,0 *3.543*	130,0 *5.118*	50,0 *1.969*	35,0 *1.378*	80 *3.150*	24,0 *0.945*	150,0 *2175.6*	0,8 *1.760*	4,0 *0.157*	5,0 *44.3*	LC..1604..
C5-CFOL-35080-04R170110-JET	02718612	C5	110,0 *4.331*	170,0 *6.693*	50,0 *1.969*	35,0 *1.378*	80 *3.150*	24,0 *0.945*	150,0 *2175.6*	0,8 *1.760*	4,0 *0.157*	5,0 *44.3*	LC..1604..
C5-CFOL-35080-04R230140-JET	02718613	C5	140,0 *5.512*	230,0 *9.055*	50,0 *1.969*	35,0 *1.378*	80 *3.150*	24,0 *0.945*	150,0 *2175.6*	0,8 *1.760*	4,0 *0.157*	5,0 *44.3*	LC..1604..
C5-CFOL-35080-04R500200-JET	02718614	C5	200,0 *7.874*	500,0 *19.685*	50,0 *1.969*	35,0 *1.378*	80 *3.150*	24,0 *0.945*	150,0 *2175.6*	0,8 *1.760*	4,0 *0.157*	5,0 *44.3*	LC..1604..
C5-CFOR-35085-05L080055-JET	02718639	C5	55,0 *2.165*	80,0 *3.150*	50,0 *1.969*	35,0 *1.378*	85 *3.346*	30,0 *1.181*	150,0 *2175.6*	0,8 *1.760*	5,0 *0.197*	5,0 *44.3*	LC..1605..
C5-CFOR-35085-05L100070-JET	02718640	C5	70,0 *2.756*	100,0 *3.937*	50,0 *1.969*	35,0 *1.378*	85 *3.346*	30,0 *1.181*	150,0 *2175.6*	0,8 *1.760*	5,0 *0.197*	5,0 *44.3*	LC..1605..
C5-CFOR-35085-05L130090-JET	02718641	C5	90,0 *3.543*	130,0 *5.118*	50,0 *1.969*	35,0 *1.378*	85 *3.346*	30,0 *1.181*	150,0 *2175.6*	0,8 *1.760*	5,0 *0.197*	5,0 *44.3*	LC..1605..
C5-CFOR-35085-05L170110-JET	02718642	C5	110,0 *4.331*	170,0 *6.693*	50,0 *1.969*	35,0 *1.378*	85 *3.346*	30,0 *1.181*	150,0 *2175.6*	0,8 *1.760*	5,0 *0.197*	5,0 *44.3*	LC..1605..
C5-CFOR-35085-05L230140-JET	02718643	C5	140,0 *5.512*	230,0 *9.055*	50,0 *1.969*	35,0 *1.378*	85 *3.346*	30,0 *1.181*	150,0 *2175.6*	0,8 *1.760*	5,0 *0.197*	5,0 *44.3*	LC..1605..
C5-CFOR-35085-05L500200-JET	02718644	C5	200,0 *7.874*	500,0 *19.685*	50,0 *1.969*	35,0 *1.378*	85 *3.346*	30,0 *1.181*	150,0 *2175.6*	0,8 *1.760*	5,0 *0.197*	5,0 *44.3*	LC..1605..
C5-CFOL-35085-05R080055-JET	02718615	C5	55,0 *2.165*	80,0 *3.150*	50,0 *1.969*	35,0 *1.378*	85 *3.346*	30,0 *1.181*	150,0 *2175.6*	0,8 *1.760*	5,0 *0.197*	5,0 *44.3*	LC..1605..
C5-CFOL-35085-05R100070-JET	02718616	C5	70,0 *2.756*	100,0 *3.937*	50,0 *1.969*	35,0 *1.378*	85 *3.346*	30,0 *1.181*	150,0 *2175.6*	0,8 *1.760*	5,0 *0.197*	5,0 *44.3*	LC..1605..
C5-CFOL-35085-05R130090-JET	02718617	C5	90,0 *3.543*	130,0 *5.118*	50,0 *1.969*	35,0 *1.378*	85 *3.346*	30,0 *1.181*	150,0 *2175.6*	0,7 *1.540*	5,0 *0.197*	5,0 *44.3*	LC..1605..
C5-CFOL-35085-05R170110-JET	02718618	C5	110,0 *4.331*	170,0 *6.693*	50,0 *1.969*	35,0 *1.378*	85 *3.346*	30,0 *1.181*	150,0 *2175.6*	0,8 *1.760*	5,0 *0.197*	5,0 *44.3*	LC..1605..
C5-CFOL-35085-05R230140-JET	02718619	C5	140,0 *5.512*	230,0 *9.055*	50,0 *1.969*	35,0 *1.378*	85 *3.346*	30,0 *1.181*	150,0 *2175.6*	0,8 *1.760*	5,0 *0.197*	5,0 *44.3*	LC..1605..
C5-CFOL-35085-05R500200-JET	02718620	C5	200,0 *7.874*	500,0 *19.685*	50,0 *1.969*	35,0 *1.378*	85 *3.346*	30,0 *1.181*	150,0 *2175.6*	0,8 *1.760*	5,0 *0.197*	5,0 *44.3*	LC..1605..
C5-CFOR-35100-06L080055-JET	02718645	C5	55,0 *2.165*	80,0 *3.150*	50,0 *1.969*	35,0 *1.378*	100 *3.937*	36,0 *1.417*	150,0 *2175.6*	0,9 *1.980*	6,0 *0.236*	5,0 *44.3*	LC..1606..
C5-CFOR-35100-06L100070-JET	02718646	C5	70,0 *2.756*	100,0 *3.937*	50,0 *1.969*	35,0 *1.378*	100 *3.937*	36,0 *1.417*	150,0 *2175.6*	1,0 *2.200*	6,0 *0.236*	5,0 *44.3*	LC..1606..
C5-CFOR-35100-06L130090-JET	02718647	C5	90,0 *3.543*	130,0 *5.118*	50,0 *1.969*	35,0 *1.378*	100 *3.937*	36,0 *1.417*	150,0 *2175.6*	1,0 *2.200*	6,0 *0.236*	5,0 *44.3*	LC..1606..
C5-CFOR-35100-06L170110-JET	02718648	C5	110,0 *4.331*	170,0 *6.693*	50,0 *1.969*	35,0 *1.378*	100 *3.937*	36,0 *1.417*	150,0 *2175.6*	1,0 *2.200*	6,0 *0.236*	5,0 *44.3*	LC..1606..
C5-CFOR-35100-06L230140-JET	02718649	C5	140,0 *5.512*	230,0 *9.055*	50,0 *1.969*	35,0 *1.378*	100 *3.937*	36,0 *1.417*	150,0 *2175.6*	1,0 *2.200*	6,0 *0.236*	5,0 *44.3*	LC..1606..
C5-CFOR-35100-06L500200-JET	02718650	C5	200,0 *7.874*	500,0 *19.685*	50,0 *1.969*	35,0 *1.378*	100 *3.937*	36,0 *1.417*	150,0 *2175.6*	1,0 *2.200*	6,0 *0.236*	5,0 *44.3*	LC..1606..
C5-CFOL-35100-06R080055-JET	02718621	C5	55,0 *2.165*	80,0 *3.150*	50,0 *1.969*	35,0 *1.378*	100 *3.937*	36,0 *1.417*	150,0 *2175.6*	0,9 *1.980*	6,0 *0.236*	5,0 *44.3*	LC..1606..

Designation	Item number	CTMS	INPLM	INPLX	DCSFMS	WF	LF	CDX	CP	Weight	CW	TQ	CTWS
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	bar *psi*	kg *lbs*	mm *inch*	Nm *In/Lbs.*	
C5-CFOL-35100-06R100070-JET	02718622	C5	70,0 *2.756*	100,0 *3.937*	50,0 *1.969*	35,0 *1.378*	100 *3.937*	36,0 *1.417*	150,0 *2175.6*	1,0 *2.200*	6,0 *0.236*	5,0 *44.3*	LC..1606..
C5-CFOL-35100-06R130090-JET	02718623	C5	90,0 *3.543*	130,0 *5.118*	50,0 *1.969*	35,0 *1.378*	100 *3.937*	36,0 *1.417*	150,0 *2175.6*	1,0 *2.200*	6,0 *0.236*	5,0 *44.3*	LC..1606..
C5-CFOL-35100-06R170110-JET	02718624	C5	110,0 *4.331*	170,0 *6.693*	50,0 *1.969*	35,0 *1.378*	100 *3.937*	36,0 *1.417*	150,0 *2175.6*	1,0 *2.200*	6,0 *0.236*	5,0 *44.3*	LC..1606..
C5-CFOL-35100-06R230140-JET	02718625	C5	140,0 *5.512*	230,0 *9.055*	50,0 *1.969*	35,0 *1.378*	100 *3.937*	36,0 *1.417*	150,0 *2175.6*	1,0 *2.200*	6,0 *0.236*	5,0 *44.3*	LC..1606..
C5-CFOL-35100-06R500200-JET	02718626	C5	200,0 *7.874*	500,0 *19.685*	50,0 *1.969*	35,0 *1.378*	100 *3.937*	36,0 *1.417*	150,0 *2175.6*	1,0 *2.200*	6,0 *0.236*	5,0 *44.3*	LC..1606..
C6-CFOR-45075-03L080055-JET	02718679	C6	55,0 *2.165*	80,0 *3.150*	63,0 *2.480*	45,0 *1.772*	75 *2.953*	18,0 *0.709*	150,0 *2175.6*	1,2 *2.650*	3,0 *0.118*	5,0 *44.3*	LC..1603..
C6-CFOR-45075-03L100070-JET	02718680	C6	70,0 *2.756*	100,0 *3.937*	63,0 *2.480*	45,0 *1.772*	75 *2.953*	18,0 *0.709*	150,0 *2175.6*	1,1 *2.430*	3,0 *0.118*	5,0 *44.3*	LC..1603..
C6-CFOR-45075-03L130090-JET	02718681	C6	90,0 *3.543*	130,0 *5.118*	63,0 *2.480*	45,0 *1.772*	75 *2.953*	18,0 *0.709*	150,0 *2175.6*	1,2 *2.650*	3,0 *0.118*	5,0 *44.3*	LC..1603..
C6-CFOR-45075-03L170110-JET	02718682	C6	110,0 *4.331*	170,0 *6.693*	63,0 *2.480*	45,0 *1.772*	75 *2.953*	18,0 *0.709*	150,0 *2175.6*	1,1 *2.430*	3,0 *0.118*	5,0 *44.3*	LC..1603..
C6-CFOR-45075-03L230140-JET	02718683	C6	140,0 *5.512*	230,0 *9.055*	63,0 *2.480*	45,0 *1.772*	75 *2.953*	18,0 *0.709*	150,0 *2175.6*	1,2 *2.650*	3,0 *0.118*	5,0 *44.3*	LC..1603..
C6-CFOR-45075-03L500200-JET	02718684	C6	200,0 *7.874*	500,0 *19.685*	63,0 *2.480*	45,0 *1.772*	75 *2.953*	18,0 *0.709*	150,0 *2175.6*	1,2 *2.650*	3,0 *0.118*	5,0 *44.3*	LC..1603..
C6-CFOL-45075-03R080055-JET	02718651	C6	55,0 *2.165*	80,0 *3.150*	63,0 *2.480*	45,0 *1.772*	75 *2.953*	18,0 *0.709*	150,0 *2175.6*	1,2 *2.650*	3,0 *0.118*	5,0 *44.3*	LC..1603..
C6-CFOL-45075-03R100070-JET	02718652	C6	70,0 *2.756*	100,0 *3.937*	63,0 *2.480*	45,0 *1.772*	75 *2.953*	18,0 *0.709*	150,0 *2175.6*	1,1 *2.430*	3,0 *0.118*	5,0 *44.3*	LC..1603..
C6-CFOL-45075-03R130090-JET	02718653	C6	90,0 *3.543*	130,0 *5.118*	63,0 *2.480*	45,0 *1.772*	75 *2.953*	18,0 *0.709*	150,0 *2175.6*	1,2 *2.650*	3,0 *0.118*	5,0 *44.3*	LC..1603..
C6-CFOL-45075-03R170110-JET	02718654	C6	110,0 *4.331*	170,0 *6.693*	63,0 *2.480*	45,0 *1.772*	75 *2.953*	18,0 *0.709*	150,0 *2175.6*	1,1 *2.430*	3,0 *0.118*	5,0 *44.3*	LC..1603..
C6-CFOL-45075-03R230140-JET	02718655	C6	140,0 *5.512*	230,0 *9.055*	63,0 *2.480*	45,0 *1.772*	75 *2.953*	18,0 *0.709*	150,0 *2175.6*	1,2 *2.650*	3,0 *0.118*	5,0 *44.3*	LC..1603..
C6-CFOL-45075-03R500200-JET	02718656	C6	200,0 *7.874*	500,0 *19.685*	63,0 *2.480*	45,0 *1.772*	75 *2.953*	18,0 *0.709*	150,0 *2175.6*	1,2 *2.650*	3,0 *0.118*	5,0 *44.3*	LC..1603..
C6-CFOR-45080-04L080055-JET	02718685	C6	55,0 *2.165*	80,0 *3.150*	63,0 *2.480*	45,0 *1.772*	80 *3.150*	24,0 *0.945*	150,0 *2175.6*	1,2 *2.650*	4,0 *0.157*	5,0 *44.3*	LC..1604..
C6-CFOR-45080-04L100070-JET	02718686	C6	70,0 *2.756*	100,0 *3.937*	63,0 *2.480*	45,0 *1.772*	80 *3.150*	24,0 *0.945*	150,0 *2175.6*	1,2 *2.650*	4,0 *0.157*	5,0 *44.3*	LC..1604..
C6-CFOR-45080-04L130090-JET	02718687	C6	90,0 *3.543*	130,0 *5.118*	63,0 *2.480*	45,0 *1.772*	80 *3.150*	24,0 *0.945*	150,0 *2175.6*	1,2 *2.650*	4,0 *0.157*	5,0 *44.3*	LC..1604..
C6-CFOR-45080-04L170110-JET	02718688	C6	110,0 *4.331*	170,0 *6.693*	63,0 *2.480*	45,0 *1.772*	80 *3.150*	24,0 *0.945*	150,0 *2175.6*	1,2 *2.650*	4,0 *0.157*	5,0 *44.3*	LC..1604..
C6-CFOR-45080-04L230140-JET	02718689	C6	140,0 *5.512*	230,0 *9.055*	63,0 *2.480*	45,0 *1.772*	80 *3.150*	24,0 *0.945*	150,0 *2175.6*	1,2 *2.650*	4,0 *0.157*	5,0 *44.3*	LC..1604..
C6-CFOR-45080-04L500200-JET	02718690	C6	200,0 *7.874*	500,0 *19.685*	63,0 *2.480*	45,0 *1.772*	80 *3.150*	24,0 *0.945*	150,0 *2175.6*	1,2 *2.650*	4,0 *0.157*	5,0 *44.3*	LC..1604..
C6-CFOL-45080-04R080055-JET	02718657	C6	55,0 *2.165*	80,0 *3.150*	63,0 *2.480*	45,0 *1.772*	80 *3.150*	24,0 *0.945*	150,0 *2175.6*	1,2 *2.650*	4,0 *0.157*	5,0 *44.3*	LC..1604..
C6-CFOL-45080-04R100070-JET	02718658	C6	70,0 *2.756*	100,0 *3.937*	63,0 *2.480*	45,0 *1.772*	80 *3.150*	24,0 *0.945*	150,0 *2175.6*	1,2 *2.650*	4,0 *0.157*	5,0 *44.3*	LC..1604..
C6-CFOL-45080-04R130090-JET	02718659	C6	90,0 *3.543*	130,0 *5.118*	63,0 *2.480*	45,0 *1.772*	80 *3.150*	24,0 *0.945*	150,0 *2175.6*	1,2 *2.650*	4,0 *0.157*	5,0 *44.3*	LC..1604..
C6-CFOL-45080-04R170110-JET	02718660	C6	110,0 *4.331*	170,0 *6.693*	63,0 *2.480*	45,0 *1.772*	80 *3.150*	24,0 *0.945*	150,0 *2175.6*	1,2 *2.650*	4,0 *0.157*	5,0 *44.3*	LC..1604..
C6-CFOL-45080-04R230140-JET	02718661	C6	140,0 *5.512*	230,0 *9.055*	63,0 *2.480*	45,0 *1.772*	80 *3.150*	24,0 *0.945*	150,0 *2175.6*	1,2 *2.650*	4,0 *0.157*	5,0 *44.3*	LC..1604..
C6-CFOL-45080-04R500200-JET	02718662	C6	200,0 *7.874*	500,0 *19.685*	63,0 *2.480*	45,0 *1.772*	80 *3.150*	24,0 *0.945*	150,0 *2175.6*	1,2 *2.650*	4,0 *0.157*	5,0 *44.3*	LC..1604..
C6-CFOR-45090-05L080055-JET	02718691	C6	55,0 *2.165*	80,0 *3.150*	63,0 *2.480*	45,0 *1.772*	90 *3.543*	30,0 *1.181*	150,0 *2175.6*	1,2 *2.650*	5,0 *0.197*	5,0 *44.3*	LC..1605..
C6-CFOR-45090-05L100070-JET	02718692	C6	70,0 *2.756*	100,0 *3.937*	63,0 *2.480*	45,0 *1.772*	90 *3.543*	30,0 *1.181*	150,0 *2175.6*	1,2 *2.650*	5,0 *0.197*	5,0 *44.3*	LC..1605..

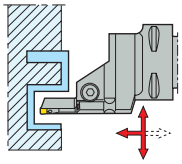
Designation	Item number	CTMS	INPLM	INPLX	DCSFMS	WF	LF	CDX	CP	Weight	CW	TQ	CTWS
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	bar *psi*	kg *lbs*	mm *inch*	Nm *In/Lbs.*	
C6-CFOR-45090-05L130090-JET	02718693	C6	90,0 *3.543*	130,0 *5.118*	63,0 *2.480*	45,0 *1.772*	90 *3.543*	30,0 *1.181*	150,0 *2175.6*	1,2 *2.650*	5,0 *0.197*	5,0 *44.3*	LC..1605..
C6-CFOR-45090-05L170110-JET	02718694	C6	110,0 *4.331*	170,0 *6.693*	63,0 *2.480*	45,0 *1.772*	90 *3.543*	30,0 *1.181*	150,0 *2175.6*	0,9 *1.980*	5,0 *0.197*	5,0 *44.3*	LC..1605..
C6-CFOR-45090-05L230140-JET	02718695	C6	140,0 *5.512*	230,0 *9.055*	63,0 *2.480*	45,0 *1.772*	90 *3.543*	30,0 *1.181*	150,0 *2175.6*	0,9 *1.980*	5,0 *0.197*	5,0 *44.3*	LC..1605..
C6-CFOR-45090-05L500200-JET	02718696	C6	200,0 *7.874*	500,0 *19.685*	63,0 *2.480*	45,0 *1.772*	90 *3.543*	30,0 *1.181*	150,0 *2175.6*	1,2 *2.650*	5,0 *0.197*	5,0 *44.3*	LC..1605..
C6-CFOL-45090-05R080055-JET	02718663	C6	55,0 *2.165*	80,0 *3.150*	63,0 *2.480*	45,0 *1.772*	90 *3.543*	30,0 *1.181*	150,0 *2175.6*	1,2 *2.650*	5,0 *0.197*	5,0 *44.3*	LC..1605..
C6-CFOL-45090-05R100070-JET	02718664	C6	70,0 *2.756*	100,0 *3.937*	63,0 *2.480*	45,0 *1.772*	90 *3.543*	30,0 *1.181*	150,0 *2175.6*	1,2 *2.650*	5,0 *0.197*	5,0 *44.3*	LC..1605..
C6-CFOL-45090-05R130090-JET	02718665	C6	90,0 *3.543*	130,0 *5.118*	63,0 *2.480*	45,0 *1.772*	90 *3.543*	30,0 *1.181*	150,0 *2175.6*	1,2 *2.650*	5,0 *0.197*	5,0 *44.3*	LC..1605..
C6-CFOL-45090-05R170110-JET	02718666	C6	110,0 *4.331*	170,0 *6.693*	63,0 *2.480*	45,0 *1.772*	90 *3.543*	30,0 *1.181*	150,0 *2175.6*	0,9 *1.980*	5,0 *0.197*	5,0 *44.3*	LC..1605..
C6-CFOL-45090-05R230140-JET	02718667	C6	140,0 *5.512*	230,0 *9.055*	63,0 *2.480*	45,0 *1.772*	90 *3.543*	30,0 *1.181*	150,0 *2175.6*	0,9 *1.980*	5,0 *0.197*	5,0 *44.3*	LC..1605..
C6-CFOL-45090-05R500200-JET	02718668	C6	200,0 *7.874*	500,0 *19.685*	63,0 *2.480*	45,0 *1.772*	90 *3.543*	30,0 *1.181*	150,0 *2175.6*	1,2 *2.650*	5,0 *0.197*	5,0 *44.3*	LC..1605..
C6-CFOR-45100-06L080055-JET	02718697	C6	55,0 *2.165*	80,0 *3.150*	63,0 *2.480*	45,0 *1.772*	100 *3.937*	36,0 *1.417*	150,0 *2175.6*	1,0 *2.200*	6,0 *0.236*	5,0 *44.3*	LC..1606..
C6-CFOR-45100-06L100070-JET	02718698	C6	70,0 *2.756*	100,0 *3.937*	63,0 *2.480*	45,0 *1.772*	100 *3.937*	36,0 *1.417*	150,0 *2175.6*	1,4 *3.090*	6,0 *0.236*	5,0 *44.3*	LC..1606..
C6-CFOR-45100-06L130090-JET	02718699	C6	90,0 *3.543*	130,0 *5.118*	63,0 *2.480*	45,0 *1.772*	100 *3.937*	36,0 *1.417*	150,0 *2175.6*	1,3 *2.870*	6,0 *0.236*	5,0 *44.3*	LC..1606..
C6-CFOR-45100-06L170110-JET	02718700	C6	110,0 *4.331*	170,0 *6.693*	63,0 *2.480*	45,0 *1.772*	100 *3.937*	36,0 *1.417*	150,0 *2175.6*	1,3 *2.870*	6,0 *0.236*	5,0 *44.3*	LC..1606..
C6-CFOR-45100-06L230140-JET	02718701	C6	140,0 *5.512*	230,0 *9.055*	63,0 *2.480*	45,0 *1.772*	100 *3.937*	36,0 *1.417*	150,0 *2175.6*	1,3 *2.870*	6,0 *0.236*	5,0 *44.3*	LC..1606..
C6-CFOR-45100-06L500200-JET	02718702	C6	200,0 *7.874*	500,0 *19.685*	63,0 *2.480*	45,0 *1.772*	100 *3.937*	36,0 *1.417*	150,0 *2175.6*	1,3 *2.870*	6,0 *0.236*	5,0 *44.3*	LC..1606..
C6-CFOL-45100-06R080055-JET	02718669	C6	55,0 *2.165*	80,0 *3.150*	63,0 *2.480*	45,0 *1.772*	100 *3.937*	36,0 *1.417*	150,0 *2175.6*	1,4 *3.090*	6,0 *0.236*	5,0 *44.3*	LC..1606..
C6-CFOL-45100-06R100070-JET	02718670	C6	70,0 *2.756*	100,0 *3.937*	63,0 *2.480*	45,0 *1.772*	100 *3.937*	36,0 *1.417*	150,0 *2175.6*	1,4 *3.090*	6,0 *0.236*	5,0 *44.3*	LC..1606..
C6-CFOL-45100-06R130090-JET	02718671	C6	90,0 *3.543*	130,0 *5.118*	63,0 *2.480*	45,0 *1.772*	100 *3.937*	36,0 *1.417*	150,0 *2175.6*	1,3 *2.870*	6,0 *0.236*	5,0 *44.3*	LC..1606..
C6-CFOL-45100-06R170110-JET	02718672	C6	110,0 *4.331*	170,0 *6.693*	63,0 *2.480*	45,0 *1.772*	100 *3.937*	36,0 *1.417*	150,0 *2175.6*	1,3 *2.870*	6,0 *0.236*	5,0 *44.3*	LC..1606..
C6-CFOL-45100-06R230140-JET	02718673	C6	140,0 *5.512*	230,0 *9.055*	63,0 *2.480*	45,0 *1.772*	100 *3.937*	36,0 *1.417*	150,0 *2175.6*	1,0 *2.200*	6,0 *0.236*	5,0 *44.3*	LC..1606..
C6-CFOL-45100-06R500200-JET	02718674	C6	200,0 *7.874*	500,0 *19.685*	63,0 *2.480*	45,0 *1.772*	100 *3.937*	36,0 *1.417*	150,0 *2175.6*	1,0 *2.200*	6,0 *0.236*	5,0 *44.3*	LC..1606..
C6-CFOR-45115-08L130090-JET	02718703	C6	90,0 *3.543*	130,0 *5.118*	63,0 *2.480*	45,0 *1.772*	115 *4.528*	48,0 *1.890*	150,0 *2175.6*	1,5 *3.310*	8,0 *0.315*	10,0 *88.5*	LC..3008..
C6-CFOR-45115-08L170110-JET	02718704	C6	110,0 *4.331*	170,0 *6.693*	63,0 *2.480*	45,0 *1.772*	115 *4.528*	48,0 *1.890*	150,0 *2175.6*	1,5 *3.310*	8,0 *0.315*	10,0 *88.5*	LC..3008..
C6-CFOR-45115-08L230140-JET	02718705	C6	140,0 *5.512*	230,0 *9.055*	63,0 *2.480*	45,0 *1.772*	115 *4.528*	48,0 *1.890*	150,0 *2175.6*	1,4 *3.090*	8,0 *0.315*	10,0 *88.5*	LC..3008..
C6-CFOR-45115-08L500200-JET	02718706	C6	200,0 *7.874*	500,0 *19.685*	63,0 *2.480*	45,0 *1.772*	115 *4.528*	48,0 *1.890*	150,0 *2175.6*	1,4 *3.090*	8,0 *0.315*	10,0 *88.5*	LC..3008..
C6-CFOL-45115-08R130090-JET	02718675	C6	90,0 *3.543*	130,0 *5.118*	63,0 *2.480*	45,0 *1.772*	115 *4.528*	48,0 *1.890*	150,0 *2175.6*	1,5 *3.310*	8,0 *0.315*	10,0 *88.5*	LC..3008..
C6-CFOL-45115-08R170110-JET	02718676	C6	110,0 *4.331*	170,0 *6.693*	63,0 *2.480*	45,0 *1.772*	115 *4.528*	48,0 *1.890*	150,0 *2175.6*	1,1 *2.430*	8,0 *0.315*	10,0 *88.5*	LC..3008..
C6-CFOL-45115-08R230140-JET	02718677	C6	140,0 *5.512*	230,0 *9.055*	63,0 *2.480*	45,0 *1.772*	115 *4.528*	48,0 *1.890*	150,0 *2175.6*	1,4 *3.090*	8,0 *0.315*	10,0 *88.5*	LC..3008..
C6-CFOL-45115-08R500200-JET	02718678	C6	200,0 *7.874*	500,0 *19.685*	63,0 *2.480*	45,0 *1.772*	115 *4.528*	48,0 *1.890*	150,0 *2175.6*	1,5 *3.310*	8,0 *0.315*	10,0 *88.5*	LC..3008..

Spare Parts, included in delivery

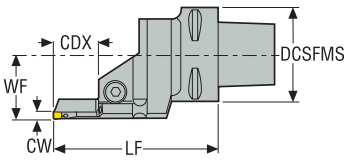
For size	Clamp key	Clamp screw
		
CFOR/L..-03	4SMS795	TCEI0513
CFOR/L..-04	5SMS795	TCEI0613
CFOR/L..-05	5SMS795	TCEI0613
CFOR/L..-06	6SMS795	TCEI0815
CFOR/L..-08	6SMS795	TCEI1020

C.-CFOR...R...JET, C.-CFOL...L...JET – Toolholders for inserts LCGF, LCGN, LCMF, LCMR – Metric / *Inch*

C.-CFOR/L
KAPR = 90,0 °



CFOR...R...JET, CFOL...L...JET

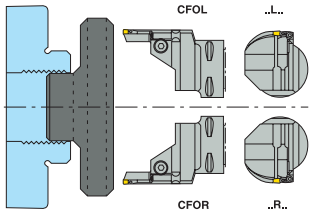




CTWS



- Right-hand version with right-hand blade shown
- For inserts program, see page(s) 858-863, 873-874
- For holder code key, see page(s) 699
- For more information on Jetstream Tooling® and accessories, see page(s) 38, 85-89, 1026
- Max depth of cut for double-sided LCGF/LCMF16.. = 14 mm / *0.551 inch*, LCGF/LCMF30.. = 28 mm / *1.102 inch*
- CW = indicative Cutting Width, may vary depending on the chosen insert
- For ISO attribute explanation, see page 82



Designation	Item number	CTMS	INPLM	INPLX	DCSFMS	WF	LF	CDX	CP	Weight	CW	TQ	CTWS
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	bar *psi*	kg *lbs*	mm *inch*	Nm *In/Lbs.*	
C4-CFOR-27070-03R080055-JET	02718725	C4	55,0 *2.165*	80,0 *3.150*	40,0 *1.575*	27,0 *1.063*	70 *2.756*	18,0 *0.709*	150,0 *2175.6*	0,5 *1.100*	3,0 *0.118*	5,0 *44.3*	LC..1603..
C4-CFOR-27070-03R100070-JET	02718726	C4	70,0 *2.756*	100,0 *3.937*	40,0 *1.575*	27,0 *1.063*	70 *2.756*	18,0 *0.709*	150,0 *2175.6*	0,5 *1.100*	3,0 *0.118*	5,0 *44.3*	LC..1603..
C4-CFOR-27070-03R130090-JET	02718727	C4	90,0 *3.543*	130,0 *5.118*	40,0 *1.575*	27,0 *1.063*	70 *2.756*	18,0 *0.709*	150,0 *2175.6*	0,5 *1.100*	3,0 *0.118*	5,0 *44.3*	LC..1603..
C4-CFOR-27070-03R170110-JET	02718728	C4	110,0 *4.331*	170,0 *6.693*	40,0 *1.575*	27,0 *1.063*	70 *2.756*	18,0 *0.709*	150,0 *2175.6*	0,5 *1.100*	3,0 *0.118*	5,0 *44.3*	LC..1603..
C4-CFOR-27070-03R230140-JET	02718729	C4	140,0 *5.512*	230,0 *9.055*	40,0 *1.575*	27,0 *1.063*	70 *2.756*	18,0 *0.709*	150,0 *2175.6*	0,5 *1.100*	3,0 *0.118*	5,0 *44.3*	LC..1603..
C4-CFOR-27070-03R500200-JET	02718730	C4	200,0 *7.874*	500,0 *19.685*	40,0 *1.575*	27,0 *1.063*	70 *2.756*	18,0 *0.709*	150,0 *2175.6*	0,5 *1.100*	3,0 *0.118*	5,0 *44.3*	LC..1603..
C4-CFOL-27070-03L080055-JET	02718707	C4	55,0 *2.165*	80,0 *3.150*	40,0 *1.575*	27,0 *1.063*	70 *2.756*	18,0 *0.709*	150,0 *2175.6*	0,5 *1.100*	3,0 *0.118*	5,0 *44.3*	LC..1603..
C4-CFOL-27070-03L100070-JET	02718708	C4	70,0 *2.756*	100,0 *3.937*	40,0 *1.575*	27,0 *1.063*	70 *2.756*	18,0 *0.709*	150,0 *2175.6*	0,5 *1.100*	3,0 *0.118*	5,0 *44.3*	LC..1603..
C4-CFOL-27070-03L130090-JET	02718709	C4	90,0 *3.543*	130,0 *5.118*	40,0 *1.575*	27,0 *1.063*	70 *2.756*	18,0 *0.709*	150,0 *2175.6*	0,5 *1.100*	3,0 *0.118*	5,0 *44.3*	LC..1603..
C4-CFOL-27070-03L170110-JET	02718710	C4	110,0 *4.331*	170,0 *6.693*	40,0 *1.575*	27,0 *1.063*	70 *2.756*	18,0 *0.709*	150,0 *2175.6*	0,5 *1.100*	3,0 *0.118*	5,0 *44.3*	LC..1603..
C4-CFOL-27070-03L230140-JET	02718711	C4	140,0 *5.512*	230,0 *9.055*	40,0 *1.575*	27,0 *1.063*	70 *2.756*	18,0 *0.709*	150,0 *2175.6*	0,5 *1.100*	3,0 *0.118*	5,0 *44.3*	LC..1603..
C4-CFOL-27070-03L500200-JET	02718712	C4	200,0 *7.874*	500,0 *19.685*	40,0 *1.575*	27,0 *1.063*	70 *2.756*	18,0 *0.709*	150,0 *2175.6*	0,5 *1.100*	3,0 *0.118*	5,0 *44.3*	LC..1603..
C4-CFOR-27080-04R080055-JET	02718731	C4	55,0 *2.165*	80,0 *3.150*	40,0 *1.575*	27,0 *1.063*	80 *3.150*	24,0 *0.945*	150,0 *2175.6*	0,5 *1.100*	4,0 *0.157*	5,0 *44.3*	LC..1604..
C4-CFOR-27080-04R100070-JET	02718732	C4	70,0 *2.756*	100,0 *3.937*	40,0 *1.575*	27,0 *1.063*	80 *3.150*	24,0 *0.945*	150,0 *2175.6*	0,5 *1.100*	4,0 *0.157*	5,0 *44.3*	LC..1604..
C4-CFOR-27080-04R130090-JET	02718733	C4	90,0 *3.543*	130,0 *5.118*	40,0 *1.575*	27,0 *1.063*	80 *3.150*	24,0 *0.945*	150,0 *2175.6*	0,5 *1.100*	4,0 *0.157*	5,0 *44.3*	LC..1604..
C4-CFOR-27080-04R170110-JET	02718734	C4	110,0 *4.331*	170,0 *6.693*	40,0 *1.575*	27,0 *1.063*	80 *3.150*	24,0 *0.945*	150,0 *2175.6*	0,5 *1.100*	4,0 *0.157*	5,0 *44.3*	LC..1604..
C4-CFOR-27080-04R230140-JET	02718735	C4	140,0 *5.512*	230,0 *9.055*	40,0 *1.575*	27,0 *1.063*	80 *3.150*	24,0 *0.945*	150,0 *2175.6*	0,5 *1.100*	4,0 *0.157*	5,0 *44.3*	LC..1604..

Designation	Item number	CTMS	INPLM	INPLX	DCSFMS	WF	LF	CDX	CP	Weight	CW	TQ	CTWS
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	bar *psi*	kg *lbs*	mm *inch*	Nm *In/Lbs.*	
C4-CFOR-27080-04R500200-JET	02718736	C4	200,0 *7.874*	500,0 *19.685*	40,0 *1.575*	27,0 *1.063*	80 *3.150*	24,0 *0.945*	150,0 *2175.6*	0,5 *1.100*	4,0 *0.157*	5,0 *44.3*	LC..1604..
C4-CFOL-27080-04L080055-JET	02718713	C4	55,0 *2.165*	80,0 *3.150*	40,0 *1.575*	27,0 *1.063*	80 *3.150*	24,0 *0.945*	150,0 *2175.6*	0,5 *1.100*	4,0 *0.157*	5,0 *44.3*	LC..1604..
C4-CFOL-27080-04L100070-JET	02718714	C4	70,0 *2.756*	100,0 *3.937*	40,0 *1.575*	27,0 *1.063*	80 *3.150*	24,0 *0.945*	150,0 *2175.6*	0,5 *1.100*	4,0 *0.157*	5,0 *44.3*	LC..1604..
C4-CFOL-27080-04L130090-JET	02718715	C4	90,0 *3.543*	130,0 *5.118*	40,0 *1.575*	27,0 *1.063*	80 *3.150*	24,0 *0.945*	150,0 *2175.6*	0,5 *1.100*	4,0 *0.157*	5,0 *44.3*	LC..1604..
C4-CFOL-27080-04L170110-JET	02718716	C4	110,0 *4.331*	170,0 *6.693*	40,0 *1.575*	27,0 *1.063*	80 *3.150*	24,0 *0.945*	150,0 *2175.6*	0,5 *1.100*	4,0 *0.157*	5,0 *44.3*	LC..1604..
C4-CFOL-27080-04L230140-JET	02718717	C4	140,0 *5.512*	230,0 *9.055*	40,0 *1.575*	27,0 *1.063*	80 *3.150*	24,0 *0.945*	150,0 *2175.6*	0,5 *1.100*	4,0 *0.157*	5,0 *44.3*	LC..1604..
C4-CFOL-27080-04L500200-JET	02718718	C4	200,0 *7.874*	500,0 *19.685*	40,0 *1.575*	27,0 *1.063*	80 *3.150*	24,0 *0.945*	150,0 *2175.6*	0,5 *1.100*	4,0 *0.157*	5,0 *44.3*	LC..1604..
C4-CFOR-27085-05R080055-JET	02718737	C4	55,0 *2.165*	80,0 *3.150*	40,0 *1.575*	27,0 *1.063*	85 *3.346*	30,0 *1.181*	150,0 *2175.6*	0,5 *1.100*	5,0 *0.197*	5,0 *44.3*	LC..1605..
C4-CFOR-27085-05R100070-JET	02718738	C4	70,0 *2.756*	100,0 *3.937*	40,0 *1.575*	27,0 *1.063*	85 *3.346*	30,0 *1.181*	150,0 *2175.6*	0,5 *1.100*	5,0 *0.197*	5,0 *44.3*	LC..1605..
C4-CFOR-27085-05R130090-JET	02718739	C4	90,0 *3.543*	130,0 *5.118*	40,0 *1.575*	27,0 *1.063*	85 *3.346*	30,0 *1.181*	150,0 *2175.6*	0,5 *1.100*	5,0 *0.197*	5,0 *44.3*	LC..1605..
C4-CFOR-27085-05R170110-JET	02718740	C4	110,0 *4.331*	170,0 *6.693*	40,0 *1.575*	27,0 *1.063*	85 *3.346*	30,0 *1.181*	150,0 *2175.6*	0,5 *1.100*	5,0 *0.197*	5,0 *44.3*	LC..1605..
C4-CFOR-27085-05R230140-JET	02718741	C4	140,0 *5.512*	230,0 *9.055*	40,0 *1.575*	27,0 *1.063*	85 *3.346*	30,0 *1.181*	150,0 *2175.6*	0,5 *1.100*	5,0 *0.197*	5,0 *44.3*	LC..1605..
C4-CFOR-27085-05R500200-JET	02718742	C4	200,0 *7.874*	500,0 *19.685*	40,0 *1.575*	27,0 *1.063*	85 *3.346*	30,0 *1.181*	150,0 *2175.6*	0,5 *1.100*	5,0 *0.197*	5,0 *44.3*	LC..1605..
C4-CFOL-27085-05L080055-JET	02718719	C4	55,0 *2.165*	80,0 *3.150*	40,0 *1.575*	27,0 *1.063*	85 *3.346*	30,0 *1.181*	150,0 *2175.6*	0,5 *1.100*	5,0 *0.197*	5,0 *44.3*	LC..1605..
C4-CFOL-27085-05L100070-JET	02718720	C4	70,0 *2.756*	100,0 *3.937*	40,0 *1.575*	27,0 *1.063*	85 *3.346*	30,0 *1.181*	150,0 *2175.6*	0,5 *1.100*	5,0 *0.197*	5,0 *44.3*	LC..1605..
C4-CFOL-27085-05L130090-JET	02718721	C4	90,0 *3.543*	130,0 *5.118*	40,0 *1.575*	27,0 *1.063*	85 *3.346*	30,0 *1.181*	150,0 *2175.6*	0,5 *1.100*	5,0 *0.197*	5,0 *44.3*	LC..1605..
C4-CFOL-27085-05L170110-JET	02718722	C4	110,0 *4.331*	170,0 *6.693*	40,0 *1.575*	27,0 *1.063*	85 *3.346*	30,0 *1.181*	150,0 *2175.6*	0,5 *1.100*	5,0 *0.197*	5,0 *44.3*	LC..1605..
C4-CFOL-27085-05L230140-JET	02718723	C4	140,0 *5.512*	230,0 *9.055*	40,0 *1.575*	27,0 *1.063*	85 *3.346*	30,0 *1.181*	150,0 *2175.6*	0,5 *1.100*	5,0 *0.197*	5,0 *44.3*	LC..1605..
C4-CFOL-27085-05L500200-JET	02718724	C4	200,0 *7.874*	500,0 *19.685*	40,0 *1.575*	27,0 *1.063*	85 *3.346*	30,0 *1.181*	150,0 *2175.6*	0,5 *1.100*	5,0 *0.197*	5,0 *44.3*	LC..1605..
C5-CFOR-35070-03R080055-JET	02718767	C5	55,0 *2.165*	80,0 *3.150*	50,0 *1.969*	35,0 *1.378*	70 *2.756*	18,0 *0.709*	150,0 *2175.6*	0,7 *1.540*	3,0 *0.118*	5,0 *44.3*	LC..1603..
C5-CFOR-35070-03R100070-JET	02718768	C5	70,0 *2.756*	100,0 *3.937*	50,0 *1.969*	35,0 *1.378*	70 *2.756*	18,0 *0.709*	150,0 *2175.6*	0,7 *1.540*	3,0 *0.118*	5,0 *44.3*	LC..1603..
C5-CFOR-35070-03R130090-JET	02718769	C5	90,0 *3.543*	130,0 *5.118*	50,0 *1.969*	35,0 *1.378*	70 *2.756*	18,0 *0.709*	150,0 *2175.6*	0,7 *1.540*	3,0 *0.118*	5,0 *44.3*	LC..1603..
C5-CFOR-35070-03R170110-JET	02718770	C5	110,0 *4.331*	170,0 *6.693*	50,0 *1.969*	35,0 *1.378*	70 *2.756*	18,0 *0.709*	150,0 *2175.6*	0,7 *1.540*	3,0 *0.118*	5,0 *44.3*	LC..1603..
C5-CFOR-35070-03R230140-JET	02718771	C5	140,0 *5.512*	230,0 *9.055*	50,0 *1.969*	35,0 *1.378*	70 *2.756*	18,0 *0.709*	150,0 *2175.6*	0,7 *1.540*	3,0 *0.118*	5,0 *44.3*	LC..1603..
C5-CFOR-35070-03R500200-JET	02718772	C5	200,0 *7.874*	500,0 *19.685*	50,0 *1.969*	35,0 *1.378*	70 *2.756*	18,0 *0.709*	150,0 *2175.6*	0,7 *1.540*	3,0 *0.118*	5,0 *44.3*	LC..1603..
C5-CFOL-35070-03L080055-JET	02718743	C5	55,0 *2.165*	80,0 *3.150*	50,0 *1.969*	35,0 *1.378*	70 *2.756*	18,0 *0.709*	150,0 *2175.6*	0,7 *1.540*	3,0 *0.118*	5,0 *44.3*	LC..1603..
C5-CFOL-35070-03L100070-JET	02718744	C5	70,0 *2.756*	100,0 *3.937*	50,0 *1.969*	35,0 *1.378*	70 *2.756*	18,0 *0.709*	150,0 *2175.6*	0,7 *1.540*	3,0 *0.118*	5,0 *44.3*	LC..1603..
C5-CFOL-35070-03L130090-JET	02718745	C5	90,0 *3.543*	130,0 *5.118*	50,0 *1.969*	35,0 *1.378*	70 *2.756*	18,0 *0.709*	150,0 *2175.6*	0,7 *1.540*	3,0 *0.118*	5,0 *44.3*	LC..1603..
C5-CFOL-35070-03L170110-JET	02718746	C5	110,0 *4.331*	170,0 *6.693*	50,0 *1.969*	35,0 *1.378*	70 *2.756*	18,0 *0.709*	150,0 *2175.6*	0,7 *1.540*	3,0 *0.118*	5,0 *44.3*	LC..1603..
C5-CFOL-35070-03L230140-JET	02718747	C5	140,0 *5.512*	230,0 *9.055*	50,0 *1.969*	35,0 *1.378*	70 *2.756*	18,0 *0.709*	150,0 *2175.6*	0,7 *1.540*	3,0 *0.118*	5,0 *44.3*	LC..1603..
C5-CFOL-35070-03L500200-JET	02718748	C5	200,0 *7.874*	500,0 *19.685*	50,0 *1.969*	35,0 *1.378*	70 *2.756*	18,0 *0.709*	150,0 *2175.6*	0,7 *1.540*	3,0 *0.118*	5,0 *44.3*	LC..1603..

Designation	Item number	CTMS	INPLM	INPLX	DCSFMS	WF	LF	CDX	CP	Weight	CW	TQ	CTWS
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	bar *psi*	kg *lbs*	mm *inch*	Nm *In/Lbs.*	
C5-CFOR-35080-04R080055-JET	02718773	C5	55,0 *2.165*	80,0 *3.150*	50,0 *1.969*	35,0 *1.378*	80 *3.150*	24,0 *0.945*	150,0 *2175.6*	0,7 *1.540*	4,0 *0.157*	5,0 *44.3*	LC..1604..
C5-CFOR-35080-04R100070-JET	02718774	C5	70,0 *2.756*	100,0 *3.937*	50,0 *1.969*	35,0 *1.378*	80 *3.150*	24,0 *0.945*	150,0 *2175.6*	0,7 *1.540*	4,0 *0.157*	5,0 *44.3*	LC..1604..
C5-CFOR-35080-04R130090-JET	02718775	C5	90,0 *3.543*	130,0 *5.118*	50,0 *1.969*	35,0 *1.378*	80 *3.150*	24,0 *0.945*	150,0 *2175.6*	0,7 *1.540*	4,0 *0.157*	5,0 *44.3*	LC..1604..
C5-CFOR-35080-04R170110-JET	02718776	C5	110,0 *4.331*	170,0 *6.693*	50,0 *1.969*	35,0 *1.378*	80 *3.150*	24,0 *0.945*	150,0 *2175.6*	0,7 *1.540*	4,0 *0.157*	5,0 *44.3*	LC..1604..
C5-CFOR-35080-04R230140-JET	02718777	C5	140,0 *5.512*	230,0 *9.055*	50,0 *1.969*	35,0 *1.378*	80 *3.150*	24,0 *0.945*	150,0 *2175.6*	0,7 *1.540*	4,0 *0.157*	5,0 *44.3*	LC..1604..
C5-CFOR-35080-04R500200-JET	02718778	C5	200,0 *7.874*	500,0 *19.685*	50,0 *1.969*	35,0 *1.378*	80 *3.150*	24,0 *0.945*	150,0 *2175.6*	0,7 *1.540*	4,0 *0.157*	5,0 *44.3*	LC..1604..
C5-CFOL-35080-04L080055-JET	02718749	C5	55,0 *2.165*	80,0 *3.150*	50,0 *1.969*	35,0 *1.378*	80 *3.150*	24,0 *0.945*	150,0 *2175.6*	0,7 *1.540*	4,0 *0.157*	5,0 *44.3*	LC..1604..
C5-CFOL-35080-04L100070-JET	02718750	C5	70,0 *2.756*	100,0 *3.937*	50,0 *1.969*	35,0 *1.378*	80 *3.150*	24,0 *0.945*	150,0 *2175.6*	0,7 *1.540*	4,0 *0.157*	5,0 *44.3*	LC..1604..
C5-CFOL-35080-04L130090-JET	02718751	C5	90,0 *3.543*	130,0 *5.118*	50,0 *1.969*	35,0 *1.378*	80 *3.150*	24,0 *0.945*	150,0 *2175.6*	0,7 *1.540*	4,0 *0.157*	5,0 *44.3*	LC..1604..
C5-CFOL-35080-04L170110-JET	02718752	C5	110,0 *4.331*	170,0 *6.693*	50,0 *1.969*	35,0 *1.378*	80 *3.150*	24,0 *0.945*	150,0 *2175.6*	0,7 *1.540*	4,0 *0.157*	5,0 *44.3*	LC..1604..
C5-CFOL-35080-04L230140-JET	02718753	C5	140,0 *5.512*	230,0 *9.055*	50,0 *1.969*	35,0 *1.378*	80 *3.150*	24,0 *0.945*	150,0 *2175.6*	0,7 *1.540*	4,0 *0.157*	5,0 *44.3*	LC..1604..
C5-CFOL-35080-04L500200-JET	02718754	C5	200,0 *7.874*	500,0 *19.685*	50,0 *1.969*	35,0 *1.378*	80 *3.150*	24,0 *0.945*	150,0 *2175.6*	0,8 *1.760*	4,0 *0.157*	5,0 *44.3*	LC..1604..
C5-CFOR-35085-05R080055-JET	02718779	C5	55,0 *2.165*	80,0 *3.150*	50,0 *1.969*	35,0 *1.378*	85 *3.346*	30,0 *1.181*	150,0 *2175.6*	0,7 *1.540*	5,0 *0.197*	5,0 *44.3*	LC..1605..
C5-CFOR-35085-05R100070-JET	02718780	C5	70,0 *2.756*	100,0 *3.937*	50,0 *1.969*	35,0 *1.378*	85 *3.346*	30,0 *1.181*	150,0 *2175.6*	0,7 *1.540*	5,0 *0.197*	5,0 *44.3*	LC..1605..
C5-CFOR-35085-05R130090-JET	02718781	C5	90,0 *3.543*	130,0 *5.118*	50,0 *1.969*	35,0 *1.378*	85 *3.346*	30,0 *1.181*	150,0 *2175.6*	0,7 *1.540*	5,0 *0.197*	5,0 *44.3*	LC..1605..
C5-CFOR-35085-05R170110-JET	02718782	C5	110,0 *4.331*	170,0 *6.693*	50,0 *1.969*	35,0 *1.378*	85 *3.346*	30,0 *1.181*	150,0 *2175.6*	0,7 *1.540*	5,0 *0.197*	5,0 *44.3*	LC..1605..
C5-CFOR-35085-05R230140-JET	02718783	C5	140,0 *5.512*	230,0 *9.055*	50,0 *1.969*	35,0 *1.378*	85 *3.346*	30,0 *1.181*	150,0 *2175.6*	0,7 *1.540*	5,0 *0.197*	5,0 *44.3*	LC..1605..
C5-CFOR-35085-05R500200-JET	02718784	C5	200,0 *7.874*	500,0 *19.685*	50,0 *1.969*	35,0 *1.378*	85 *3.346*	30,0 *1.181*	150,0 *2175.6*	0,7 *1.540*	5,0 *0.197*	5,0 *44.3*	LC..1605..
C5-CFOL-35085-05L080055-JET	02718755	C5	55,0 *2.165*	80,0 *3.150*	50,0 *1.969*	35,0 *1.378*	85 *3.346*	30,0 *1.181*	150,0 *2175.6*	0,7 *1.540*	5,0 *0.197*	5,0 *44.3*	LC..1605..
C5-CFOL-35085-05L100070-JET	02718756	C5	70,0 *2.756*	100,0 *3.937*	50,0 *1.969*	35,0 *1.378*	85 *3.346*	30,0 *1.181*	150,0 *2175.6*	0,7 *1.540*	5,0 *0.197*	5,0 *44.3*	LC..1605..
C5-CFOL-35085-05L130090-JET	02718757	C5	90,0 *3.543*	130,0 *5.118*	50,0 *1.969*	35,0 *1.378*	85 *3.346*	30,0 *1.181*	150,0 *2175.6*	0,7 *1.540*	5,0 *0.197*	5,0 *44.3*	LC..1605..
C5-CFOL-35085-05L170110-JET	02718758	C5	110,0 *4.331*	170,0 *6.693*	50,0 *1.969*	35,0 *1.378*	85 *3.346*	30,0 *1.181*	150,0 *2175.6*	0,7 *1.540*	5,0 *0.197*	5,0 *44.3*	LC..1605..
C5-CFOL-35085-05L230140-JET	02718759	C5	140,0 *5.512*	230,0 *9.055*	50,0 *1.969*	35,0 *1.378*	85 *3.346*	30,0 *1.181*	150,0 *2175.6*	0,7 *1.540*	5,0 *0.197*	5,0 *44.3*	LC..1605..
C5-CFOL-35085-05L500200-JET	02718760	C5	200,0 *7.874*	500,0 *19.685*	50,0 *1.969*	35,0 *1.378*	85 *3.346*	30,0 *1.181*	150,0 *2175.6*	0,7 *1.540*	5,0 *0.197*	5,0 *44.3*	LC..1605..
C5-CFOR-35100-06R080055-JET	02718785	C5	55,0 *2.165*	80,0 *3.150*	50,0 *1.969*	35,0 *1.378*	100 *3.937*	36,0 *1.417*	150,0 *2175.6*	0,9 *1.980*	6,0 *0.236*	5,0 *44.3*	LC..1606..
C5-CFOR-35100-06R100070-JET	02718786	C5	70,0 *2.756*	100,0 *3.937*	50,0 *1.969*	35,0 *1.378*	100 *3.937*	36,0 *1.417*	150,0 *2175.6*	0,9 *1.980*	6,0 *0.236*	5,0 *44.3*	LC..1606..
C5-CFOR-35100-06R130090-JET	02718787	C5	90,0 *3.543*	130,0 *5.118*	50,0 *1.969*	35,0 *1.378*	100 *3.937*	36,0 *1.417*	150,0 *2175.6*	0,9 *1.980*	6,0 *0.236*	5,0 *44.3*	LC..1606..
C5-CFOR-35100-06R170110-JET	02718788	C5	110,0 *4.331*	170,0 *6.693*	50,0 *1.969*	35,0 *1.378*	100 *3.937*	36,0 *1.417*	150,0 *2175.6*	0,9 *1.980*	6,0 *0.236*	5,0 *44.3*	LC..1606..
C5-CFOR-35100-06R230140-JET	02718789	C5	140,0 *5.512*	230,0 *9.055*	50,0 *1.969*	35,0 *1.378*	100 *3.937*	36,0 *1.417*	150,0 *2175.6*	1,0 *2.200*	6,0 *0.236*	5,0 *44.3*	LC..1606..
C5-CFOR-35100-06R500200-JET	02718790	C5	200,0 *7.874*	500,0 *19.685*	50,0 *1.969*	35,0 *1.378*	100 *3.937*	36,0 *1.417*	150,0 *2175.6*	0,9 *1.980*	6,0 *0.236*	5,0 *44.3*	LC..1606..
C5-CFOL-35100-06L080055-JET	02718761	C5	50,0 *1.969*	80,0 *3.150*	50,0 *1.969*	35,0 *1.378*	100 *3.937*	36,0 *1.417*	150,0 *2175.6*	0,9 *1.980*	6,0 *0.236*	5,0 *44.3*	LC..1606..

Designation	Item number	CTMS	INPLM	INPLX	DCSFMS	WF	LF	CDX	CP	Weight	CW	TQ	CTWS
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	bar *psi*	kg *lbs*	mm *inch*	Nm *In/Lbs.*	
C5-CFOL-35100-06L100070-JET	02718762	C5	70,0 *2.756*	100,0 *3.937*	50,0 *1.969*	35,0 *1.378*	100 *3.937*	36,0 *1.417*	150,0 *2175.6*	0,9 *1.980*	6,0 *0.236*	5,0 *44.3*	LC..1606..
C5-CFOL-35100-06L130090-JET	02718763	C5	90,0 *3.543*	130,0 *5.118*	50,0 *1.969*	35,0 *1.378*	100 *3.937*	36,0 *1.417*	150,0 *2175.6*	0,9 *1.980*	6,0 *0.236*	5,0 *44.3*	LC..1606..
C5-CFOL-35100-06L170110-JET	02718764	C5	110,0 *4.331*	170,0 *6.693*	50,0 *1.969*	35,0 *1.378*	100 *3.937*	36,0 *1.417*	150,0 *2175.6*	0,9 *1.980*	6,0 *0.236*	5,0 *44.3*	LC..1606..
C5-CFOL-35100-06L230140-JET	02718765	C5	140,0 *5.512*	230,0 *9.055*	50,0 *1.969*	35,0 *1.378*	100 *3.937*	36,0 *1.417*	150,0 *2175.6*	0,9 *1.980*	6,0 *0.236*	5,0 *44.3*	LC..1606..
C5-CFOL-35100-06L500200-JET	02718766	C5	200,0 *7.874*	500,0 *19.685*	50,0 *1.969*	35,0 *1.378*	100 *3.937*	36,0 *1.417*	150,0 *2175.6*	1,0 *2.200*	6,0 *0.236*	5,0 *44.3*	LC..1606..
C6-CFOR-45075-03R080055-JET	02718819	C6	55,0 *2.165*	80,0 *3.150*	63,0 *2.480*	45,0 *1.772*	75 *2.953*	18,0 *0.709*	150,0 *2175.6*	1,1 *2.430*	3,0 *0.118*	5,0 *44.3*	LC..1603..
C6-CFOR-45075-03R100070-JET	02718820	C6	70,0 *2.756*	100,0 *3.937*	63,0 *2.480*	45,0 *1.772*	75 *2.953*	18,0 *0.709*	150,0 *2175.6*	1,1 *2.430*	3,0 *0.118*	5,0 *44.3*	LC..1603..
C6-CFOR-45075-03R130090-JET	02718821	C6	90,0 *3.543*	130,0 *5.118*	63,0 *2.480*	45,0 *1.772*	75 *2.953*	18,0 *0.709*	150,0 *2175.6*	1,1 *2.430*	3,0 *0.118*	5,0 *44.3*	LC..1603..
C6-CFOR-45075-03R170110-JET	02718822	C6	110,0 *4.331*	170,0 *6.693*	63,0 *2.480*	45,0 *1.772*	75 *2.953*	18,0 *0.709*	150,0 *2175.6*	1,1 *2.430*	3,0 *0.118*	5,0 *44.3*	LC..1603..
C6-CFOR-45075-03R230140-JET	02718823	C6	140,0 *5.512*	230,0 *9.055*	63,0 *2.480*	45,0 *1.772*	75 *2.953*	18,0 *0.709*	150,0 *2175.6*	1,1 *2.430*	3,0 *0.118*	5,0 *44.3*	LC..1603..
C6-CFOR-45075-03R500200-JET	02718824	C6	200,0 *7.874*	500,0 *19.685*	63,0 *2.480*	45,0 *1.772*	75 *2.953*	18,0 *0.709*	150,0 *2175.6*	1,2 *2.650*	3,0 *0.118*	5,0 *44.3*	LC..1603..
C6-CFOL-45075-03L080055-JET	02718791	C6	55,0 *2.165*	80,0 *3.150*	63,0 *2.480*	45,0 *1.772*	75 *2.953*	18,0 *0.709*	150,0 *2175.6*	1,1 *2.430*	3,0 *0.118*	5,0 *44.3*	LC..1603..
C6-CFOL-45075-03L100070-JET	02718792	C6	70,0 *2.756*	100,0 *3.937*	63,0 *2.480*	45,0 *1.772*	75 *2.953*	18,0 *0.709*	150,0 *2175.6*	1,1 *2.430*	3,0 *0.118*	5,0 *44.3*	LC..1603..
C6-CFOL-45075-03L130090-JET	02718793	C6	90,0 *3.543*	130,0 *5.118*	63,0 *2.480*	45,0 *1.772*	75 *2.953*	18,0 *0.709*	150,0 *2175.6*	1,1 *2.430*	3,0 *0.118*	5,0 *44.3*	LC..1603..
C6-CFOL-45075-03L170110-JET	02718794	C6	110,0 *4.331*	170,0 *6.693*	63,0 *2.480*	45,0 *1.772*	75 *2.953*	18,0 *0.709*	150,0 *2175.6*	1,0 *2.200*	3,0 *0.118*	5,0 *44.3*	LC..1603..
C6-CFOL-45075-03L230140-JET	02718795	C6	140,0 *5.512*	230,0 *9.055*	63,0 *2.480*	45,0 *1.772*	75 *2.953*	18,0 *0.709*	150,0 *2175.6*	1,1 *2.430*	3,0 *0.118*	5,0 *44.3*	LC..1603..
C6-CFOL-45075-03L500200-JET	02718796	C6	200,0 *7.874*	500,0 *19.685*	63,0 *2.480*	45,0 *1.772*	75 *2.953*	18,0 *0.709*	150,0 *2175.6*	1,1 *2.430*	3,0 *0.118*	5,0 *44.3*	LC..1603..
C6-CFOR-45080-04R080055-JET	02718825	C6	55,0 *2.165*	80,0 *3.150*	63,0 *2.480*	45,0 *1.772*	80 *3.150*	24,0 *0.945*	150,0 *2175.6*	1,1 *2.430*	4,0 *0.157*	5,0 *44.3*	LC..1604..
C6-CFOR-45080-04R100070-JET	02718826	C6	70,0 *2.756*	100,0 *3.937*	63,0 *2.480*	45,0 *1.772*	80 *3.150*	24,0 *0.945*	150,0 *2175.6*	1,1 *2.430*	4,0 *0.157*	5,0 *44.3*	LC..1604..
C6-CFOR-45080-04R130090-JET	02718827	C6	90,0 *3.543*	130,0 *5.118*	63,0 *2.480*	45,0 *1.772*	80 *3.150*	24,0 *0.945*	150,0 *2175.6*	1,0 *2.200*	4,0 *0.157*	5,0 *44.3*	LC..1604..
C6-CFOR-45080-04R170110-JET	02718828	C6	110,0 *4.331*	170,0 *6.693*	63,0 *2.480*	45,0 *1.772*	80 *3.150*	24,0 *0.945*	150,0 *2175.6*	1,1 *2.430*	4,0 *0.157*	5,0 *44.3*	LC..1604..
C6-CFOR-45080-04R230140-JET	02718829	C6	140,0 *5.512*	230,0 *9.055*	63,0 *2.480*	45,0 *1.772*	80 *3.150*	24,0 *0.945*	150,0 *2175.6*	1,1 *2.430*	4,0 *0.157*	5,0 *44.3*	LC..1604..
C6-CFOR-45080-04R500200-JET	02718830	C6	200,0 *7.874*	500,0 *19.685*	63,0 *2.480*	45,0 *1.772*	80 *3.150*	24,0 *0.945*	150,0 *2175.6*	1,1 *2.430*	4,0 *0.157*	5,0 *44.3*	LC..1604..
C6-CFOL-45080-04L080055-JET	02718797	C6	55,0 *2.165*	80,0 *3.150*	63,0 *2.480*	45,0 *1.772*	80 *3.150*	24,0 *0.945*	150,0 *2175.6*	1,1 *2.430*	4,0 *0.157*	5,0 *44.3*	LC..1604..
C6-CFOL-45080-04L100070-JET	02718798	C6	70,0 *2.756*	100,0 *3.937*	63,0 *2.480*	45,0 *1.772*	80 *3.150*	24,0 *0.945*	150,0 *2175.6*	1,1 *2.430*	4,0 *0.157*	5,0 *44.3*	LC..1604..
C6-CFOL-45080-04L130090-JET	02718799	C6	90,0 *3.543*	130,0 *5.118*	63,0 *2.480*	45,0 *1.772*	80 *3.150*	24,0 *0.945*	150,0 *2175.6*	1,1 *2.430*	4,0 *0.157*	5,0 *44.3*	LC..1604..
C6-CFOL-45080-04L170110-JET	02718800	C6	110,0 *4.331*	170,0 *6.693*	63,0 *2.480*	45,0 *1.772*	80 *3.150*	24,0 *0.945*	150,0 *2175.6*	1,1 *2.430*	4,0 *0.157*	5,0 *44.3*	LC..1604..
C6-CFOL-45080-04L230140-JET	02718801	C6	140,0 *5.512*	230,0 *9.055*	63,0 *2.480*	45,0 *1.772*	80 *3.150*	24,0 *0.945*	150,0 *2175.6*	1,1 *2.430*	4,0 *0.157*	5,0 *44.3*	LC..1604..
C6-CFOL-45080-04L500200-JET	02718802	C6	200,0 *7.874*	500,0 *19.685*	63,0 *2.480*	45,0 *1.772*	80 *3.150*	24,0 *0.945*	150,0 *2175.6*	1,1 *2.430*	4,0 *0.157*	5,0 *44.3*	LC..1604..
C6-CFOR-45090-05R080055-JET	02718831	C6	55,0 *2.165*	80,0 *3.150*	63,0 *2.480*	45,0 *1.772*	90 *3.543*	30,0 *1.181*	150,0 *2175.6*	1,2 *2.650*	5,0 *0.197*	5,0 *44.3*	LC..1605..
C6-CFOR-45090-05R100070-JET	02718832	C6	70,0 *2.756*	100,0 *3.937*	63,0 *2.480*	45,0 *1.772*	90 *3.543*	30,0 *1.181*	150,0 *2175.6*	1,2 *2.650*	5,0 *0.197*	5,0 *44.3*	LC..1605..

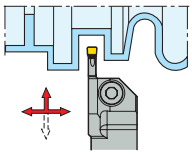
Designation	Item number	CTMS	INPLM	INPLX	DCSFMS	WF	LF	CDX	CP	Weight	CW	TQ	CTWS
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	bar *psi*	kg *lbs*	mm *inch*	Nm *In/Lbs.*	
C6-CFOR-45090-05R130090-JET	02718833	C6	90,0 *3.543*	130,0 *5.118*	63,0 *2.480*	45,0 *1.772*	90 *3.543*	30,0 *1.181*	150,0 *2175.6*	1,2 *2.650*	5,0 *0.197*	5,0 *44.3*	LC..1605..
C6-CFOR-45090-05R170110-JET	02718834	C6	110,0 *4.331*	170,0 *6.693*	63,0 *2.480*	45,0 *1.772*	90 *3.543*	30,0 *1.181*	150,0 *2175.6*	1,2 *2.650*	5,0 *0.197*	5,0 *44.3*	LC..1605..
C6-CFOR-45090-05R230140-JET	02718835	C6	140,0 *5.512*	230,0 *9.055*	63,0 *2.480*	45,0 *1.772*	90 *3.543*	30,0 *1.181*	150,0 *2175.6*	1,2 *2.650*	5,0 *0.197*	5,0 *44.3*	LC..1605..
C6-CFOR-45090-05R500200-JET	02718836	C6	200,0 *7.874*	500,0 *19.685*	63,0 *2.480*	45,0 *1.772*	90 *3.543*	30,0 *1.181*	150,0 *2175.6*	1,2 *2.650*	5,0 *0.197*	5,0 *44.3*	LC..1605..
C6-CFOL-45090-05L080055-JET	02718803	C6	55,0 *2.165*	80,0 *3.150*	63,0 *2.480*	45,0 *1.772*	90 *3.543*	30,0 *1.181*	150,0 *2175.6*	1,2 *2.650*	5,0 *0.197*	5,0 *44.3*	LC..1605..
C6-CFOL-45090-05L100070-JET	02718804	C6	70,0 *2.756*	100,0 *3.937*	63,0 *2.480*	45,0 *1.772*	90 *3.543*	30,0 *1.181*	150,0 *2175.6*	1,2 *2.650*	5,0 *0.197*	5,0 *44.3*	LC..1605..
C6-CFOL-45090-05L130090-JET	02718805	C6	90,0 *3.543*	130,0 *5.118*	63,0 *2.480*	45,0 *1.772*	90 *3.543*	30,0 *1.181*	150,0 *2175.6*	1,2 *2.650*	5,0 *0.197*	5,0 *44.3*	LC..1605..
C6-CFOL-45090-05L170110-JET	02718806	C6	110,0 *4.331*	170,0 *6.693*	63,0 *2.480*	45,0 *1.772*	90 *3.543*	30,0 *1.181*	150,0 *2175.6*	1,2 *2.650*	5,0 *0.197*	5,0 *44.3*	LC..1605..
C6-CFOL-45090-05L230140-JET	02718807	C6	140,0 *5.512*	230,0 *9.055*	63,0 *2.480*	45,0 *1.772*	90 *3.543*	30,0 *1.181*	150,0 *2175.6*	1,2 *2.650*	5,0 *0.197*	5,0 *44.3*	LC..1605..
C6-CFOL-45090-05L500200-JET	02718808	C6	200,0 *7.874*	500,0 *19.685*	63,0 *2.480*	45,0 *1.772*	90 *3.543*	30,0 *1.181*	150,0 *2175.6*	1,2 *2.650*	5,0 *0.197*	5,0 *44.3*	LC..1605..
C6-CFOR-45100-06R080055-JET	02718837	C6	55,0 *2.165*	80,0 *3.150*	63,0 *2.480*	45,0 *1.772*	100 *3.937*	36,0 *1.417*	150,0 *2175.6*	1,2 *2.650*	6,0 *0.236*	5,0 *44.3*	LC..1606..
C6-CFOR-45100-06R100070-JET	02718838	C6	70,0 *2.756*	100,0 *3.937*	63,0 *2.480*	45,0 *1.772*	100 *3.937*	36,0 *1.417*	150,0 *2175.6*	1,4 *3.090*	6,0 *0.236*	5,0 *44.3*	LC..1606..
C6-CFOR-45100-06R130090-JET	02718839	C6	90,0 *3.543*	130,0 *5.118*	63,0 *2.480*	45,0 *1.772*	100 *3.937*	36,0 *1.417*	150,0 *2175.6*	1,4 *3.090*	6,0 *0.236*	5,0 *44.3*	LC..1606..
C6-CFOR-45100-06R170110-JET	02718840	C6	110,0 *4.331*	170,0 *6.693*	63,0 *2.480*	45,0 *1.772*	100 *3.937*	36,0 *1.417*	150,0 *2175.6*	1,0 *2.200*	6,0 *0.236*	5,0 *44.3*	LC..1606..
C6-CFOR-45100-06R230140-JET	02718841	C6	140,0 *5.512*	230,0 *9.055*	63,0 *2.480*	45,0 *1.772*	100 *3.937*	36,0 *1.417*	150,0 *2175.6*	1,3 *2.870*	6,0 *0.236*	5,0 *44.3*	LC..1606..
C6-CFOR-45100-06R500200-JET	02718842	C6	200,0 *7.874*	500,0 *19.685*	63,0 *2.480*	45,0 *1.772*	100 *3.937*	36,0 *1.417*	150,0 *2175.6*	1,3 *2.870*	6,0 *0.236*	5,0 *44.3*	LC..1606..
C6-CFOL-45100-06L080055-JET	02718809	C6	55,0 *2.165*	80,0 *3.150*	63,0 *2.480*	45,0 *1.772*	100 *3.937*	36,0 *1.417*	150,0 *2175.6*	1,2 *2.650*	6,0 *0.236*	5,0 *44.3*	LC..1606..
C6-CFOL-45100-06L100070-JET	02718810	C6	70,0 *2.756*	100,0 *3.937*	63,0 *2.480*	45,0 *1.772*	100 *3.937*	36,0 *1.417*	150,0 *2175.6*	1,4 *3.090*	6,0 *0.236*	5,0 *44.3*	LC..1606..
C6-CFOL-45100-06L130090-JET	02718811	C6	90,0 *3.543*	130,0 *5.118*	63,0 *2.480*	45,0 *1.772*	100 *3.937*	36,0 *1.417*	150,0 *2175.6*	1,4 *3.090*	6,0 *0.236*	5,0 *44.3*	LC..1606..
C6-CFOL-45100-06L170110-JET	02718812	C6	110,0 *4.331*	170,0 *6.693*	63,0 *2.480*	45,0 *1.772*	100 *3.937*	36,0 *1.417*	150,0 *2175.6*	1,3 *2.870*	6,0 *0.236*	5,0 *44.3*	LC..1606..
C6-CFOL-45100-06L230140-JET	02718813	C6	140,0 *5.512*	230,0 *9.055*	63,0 *2.480*	45,0 *1.772*	100 *3.937*	36,0 *1.417*	150,0 *2175.6*	1,3 *2.870*	6,0 *0.236*	5,0 *44.3*	LC..1606..
C6-CFOL-45100-06L500200-JET	02718814	C6	200,0 *7.874*	500,0 *19.685*	63,0 *2.480*	45,0 *1.772*	100 *3.937*	36,0 *1.417*	150,0 *2175.6*	1,3 *2.870*	6,0 *0.236*	5,0 *44.3*	LC..1606..
C6-CFOR-45115-08R130090-JET	02718843	C6	90,0 *3.543*	130,0 *5.118*	63,0 *2.480*	45,0 *1.772*	115 *4.528*	48,0 *1.890*	150,0 *2175.6*	1,3 *2.870*	8,0 *0.315*	10,0 *88.5*	LC..3008..
C6-CFOR-45115-08R170110-JET	02718844	C6	110,0 *4.331*	170,0 *6.693*	63,0 *2.480*	45,0 *1.772*	115 *4.528*	48,0 *1.890*	150,0 *2175.6*	1,5 *3.310*	8,0 *0.315*	10,0 *88.5*	LC..3008..
C6-CFOR-45115-08R230140-JET	02718845	C6	140,0 *5.512*	230,0 *9.055*	63,0 *2.480*	45,0 *1.772*	115 *4.528*	48,0 *1.890*	150,0 *2175.6*	1,3 *2.870*	8,0 *0.315*	10,0 *88.5*	LC..3008..
C6-CFOR-45115-08R500200-JET	02718846	C6	200,0 *7.874*	500,0 *19.685*	63,0 *2.480*	45,0 *1.772*	115 *4.528*	48,0 *1.890*	150,0 *2175.6*	1,4 *3.090*	8,0 *0.315*	10,0 *88.5*	LC..3008..
C6-CFOL-45115-08L130090-JET	02718815	C6	90,0 *3.543*	130,0 *5.118*	63,0 *2.480*	45,0 *1.772*	115 *4.528*	48,0 *1.890*	150,0 *2175.6*	1,3 *2.870*	8,0 *0.315*	10,0 *88.5*	LC..3008..
C6-CFOL-45115-08L170110-JET	02718816	C6	110,0 *4.331*	170,0 *6.693*	63,0 *2.480*	45,0 *1.772*	115 *4.528*	48,0 *1.890*	150,0 *2175.6*	1,5 *3.310*	8,0 *0.315*	10,0 *88.5*	LC..3008..
C6-CFOL-45115-08L230140-JET	02718817	C6	140,0 *5.512*	230,0 *9.055*	63,0 *2.480*	45,0 *1.772*	115 *4.528*	48,0 *1.890*	150,0 *2175.6*	1,3 *2.870*	8,0 *0.315*	10,0 *88.5*	LC..3008..
C6-CFOL-45115-08L500200-JET	02718818	C6	200,0 *7.874*	500,0 *19.685*	63,0 *2.480*	45,0 *1.772*	115 *4.528*	48,0 *1.890*	150,0 *2175.6*	1,4 *3.090*	8,0 *0.315*	10,0 *88.5*	LC..3008..

Spare Parts, included in delivery

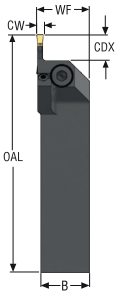
For size	Clamp key	Clamp screw
		
CFOR/L..-03	4SMS795	TCEI0513
CFOR/L..-04	5SMS795	TCEI0613
CFOR/L..-05	5SMS795	TCEI0613
CFOR/L..-06	6SMS795	TCEI0815
CFOR/L..-08	6SMS795	TCEI1020

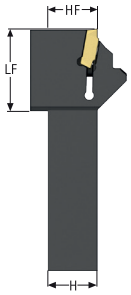
CFIR/L...JETI – Toolholders compatible with JETI adapters for inserts LCGF, LCGN, LCMF, LCMR – Metric

CFIR/L
KAPR = 90,0 °

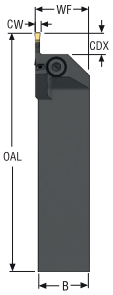


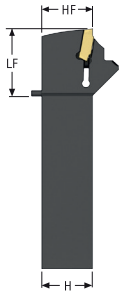
CFIR/L2020...JETI

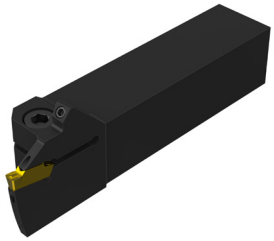




CFIR/L2525...JETI







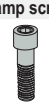
CTWS



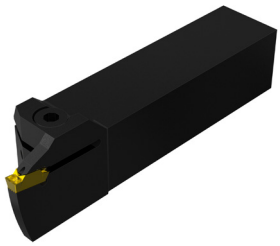
- Right-hand version shown
- For inserts program, see page(s) 858-871, 873-874
- For suitable adapter, see page(s) 986-997
- For holder code key, see page(s) 701-702
- For more information on Jetstream Tooling® and accessories, see page(s) 38, 85-89, 1026
- Max depth of cut for double-sided LCGF/LCMF16.. = 14 mm, LCGF/LCMF30.. = 28 mm
- CW = indicative Cutting Width, may vary depending on the chosen insert
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	OAL	LF	WF	HF	CDX	CP	Weight	CW	TQ	CTWS
		mm	mm	mm	mm	mm	mm	mm	bar	kg	mm	Nm	
CFIR2020X03JETI	03244706	20	20	97	33	21,5	19,95	9,0	200,0	0,3	3,0	6,0	LC..1603..
CFIR2525X03JETI	03244716	25	25	117	33	26,5	24,95	9,0	200,0	0,5	3,0	6,0	LC..1603..
CFIL2020X03JETI	03244721	20	20	97	33	21,5	19,95	9,0	200,0	0,3	3,0	6,0	LC..1603..
CFIL2525X03JETI	03244915	25	25	117	33	26,5	24,95	9,0	200,0	0,5	3,0	6,0	LC..1603..
CFIR2020X04JETI	03244709	20	20	103	39	21,5	19,95	12,0	200,0	0,4	4,0	8,0	LC..1604..
CFIR2525X04JETI	03244722	25	25	123	39	26,5	24,95	12,0	200,0	0,6	4,0	8,0	LC..1604..
CFIL2020X04JETI	03244723	20	20	103	39	21,5	19,95	12,0	200,0	0,3	4,0	8,0	LC..1604..
CFIL2525X04JETI	03244727	25	25	123	39	26,5	24,95	12,0	200,0	0,6	4,0	8,0	LC..1604..
CFIR2020X05JETI	03244732	20	20	104	40	21,5	19,95	15,0	200,0	0,3	5,0	8,0	LC..1605..
CFIR2525X05JETI	03244725	25	25	124	40	26,5	24,95	15,0	200,0	0,6	5,0	8,0	LC..1605..
CFIL2020X05JETI	03244739	20	20	104	40	21,5	19,95	15,0	200,0	0,4	5,0	8,0	LC..1605..
CFIL2525X05JETI	03244726	25	25	124	40	26,5	24,95	15,0	200,0	0,6	5,0	8,0	LC..1605..
CFIR2020X06JETI	03244742	20	20	111	47	21,5	19,95	18,0	200,0	0,4	6,0	8,0	LC..1606..
CFIR2525X06JETI	03244731	16	16	131	47	26,5	24,95	18,0	200,0	0,6	6,0	10,0	LC..1606..
CFIL2020X06JETI	03244745	20	20	111	47	21,5	19,95	18,0	200,0	0,4	6,0	8,0	LC..1606..
CFIL2525X06JETI	03244737	16	16	131	47	26,5	24,95	18,0	200,0	0,6	6,0	10,0	LC..1606..
CFIR2525X08JETI	03244740	16	16	142	58	28,0	24,95	24,0	200,0	0,7	8,0	15,0	LC..3008..
CFIL2525X08JETI	03244744	16	16	142	58	28,0	24,95	24,0	200,0	0,7	8,0	15,0	LC..3008..

Spare Parts, included in delivery

For size	Clamp key	Clamp screw	Plug	Plug screw
				
CFIR/L..-03	4SMS795	TCEI0513	JET-P1/8-5MM	P6SS6X6
CFIR/L..-04	5SMS795	TCEI0613	JET-P1/8-5MM	P6SS6X6
CFIR/L..-05	5SMS795	TCEI0613	JET-P1/8-5MM	P6SS6X6
CFIR/L20..-06	5SMS795	TCEI0613	JET-P1/8-5MM	P6SS6X6
CFIR/L25..-06	6SMS795	TCEI0815	JET-P1/8-5MM	P6SS6X6
CFIR/L..-08	6SMS795	TCEI1020	JET-P1/8-5MM	P6SS6X6

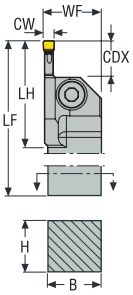
CFIR/L...JET – Toolholders for inserts LCGF, LCGN, LCMF, LCMR – Metric



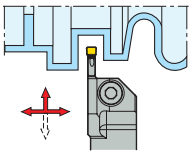
CTWS



CFIR/L...JET



CFIR/L
KAPR = 90,0 °



- Right-hand version shown
- For inserts program, see page(s) 858-871, 873-874
- For holder code key, see page(s) 701-702
- For more information on Jetstream Tooling® and accessories, see page(s) 38, 85-89, 1026
- Max depth of cut for double-sided LCGF/LCMF16.. = 14 mm, LCGF/LCMF30.. = 28 mm
- CW = indicative Cutting Width, may vary depending on the chosen insert
- For ISO attribute explanation, see page 82

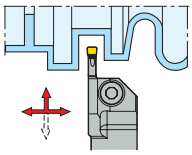
Designation	Item number	H	B	LF	WF	LH	CDX	CP	Weight	CW	TQ	CTWS
		mm	mm	mm	mm	mm	mm	bar	kg	mm	Nm	
CFIR3225P03JET	02599873	32	25	170	26,5	33,0	9,0	275,0	1,1	3,0	6,0	LC..1603..
CFIL3225P03JET	02599874	32	25	170	26,5	33,0	9,0	275,0	1,0	3,0	6,0	LC..1603..
CFIR3225P04JET	02599879	32	25	170	26,5	39,0	12,0	275,0	1,0	4,0	8,0	LC..1604..
CFIL3225P04JET	02599880	32	25	170	26,5	39,0	12,0	275,0	1,0	4,0	8,0	LC..1604..
CFIR3225P05JET	02599886	32	25	170	26,5	40,0	15,0	275,0	1,0	5,0	8,0	LC..1605..
CFIL3225P05JET	02599887	32	25	170	26,5	40,0	15,0	275,0	1,0	5,0	8,0	LC..1605..
CFIR3225P06JET	02599892	32	25	170	26,5	47,0	18,0	275,0	1,0	6,0	8,0	LC..1606..
CFIL3225P06JET	02599893	32	25	170	26,5	47,0	18,0	275,0	1,0	6,0	8,0	LC..1606..
CFIR3225P08JET	02641519	32	25	170	28,0	57,0	24,0	275,0	1,0	8,0	8,0	LC..3008..
CFIL3225P08JET	02641520	32	25	170	28,0	57,0	24,0	275,0	1,0	8,0	8,0	LC..3008..

Spare Parts, included in delivery

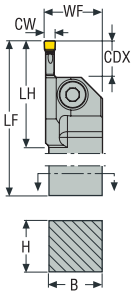
For size	Clamp key	Clamp screw	Plug
			
CFIR/L..-03	4SMS795	TCEI0513	JET-P1/8-5MM
CFIR/L..-04	5SMS795	TCEI0613	JET-P1/8-5MM
CFIR/L..-05	5SMS795	TCEI0613	JET-P1/8-5MM
CFIR/L..-06	6SMS795	TCEI0815	JET-P1/8-5MM
CFIR/L..-08	6SMS795	TCEI1020	JET-P1/8-5MM

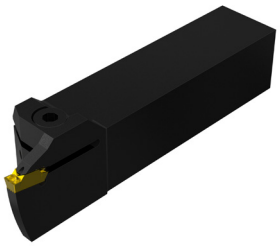
CFIR/L...JET – Toolholders for inserts LCGF, LCGN, LCMF, LCMR – Inch

CFIR/L
KAPR = 90,0 °



CFIR/L...JET





CTWS



- Right-hand version shown
- For inserts program, see page(s) 858-871, 873-874
- For holder code key, see page(s) 701-702
- For more information on Jetstream Tooling® and accessories, see page(s) 38, 85-89, 1026
- Max depth of cut for double-sided LCGF/LCMF16.. = *0.551 inch*, LCGF/LCMF30.. = *1.102 inch*
- CW = indicative Cutting Width, may vary depending on the chosen insert
- For ISO attribute explanation, see page 82

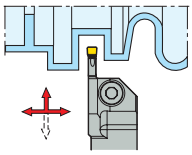
Designation	Item number	H	B	LF	WF	LH	CDX	CP	Weight	CW	TQ	CTWS
		inch	inch	inch	inch	inch	inch	psi	lbs	inch	In/Lbs.	
CFIR07503BJET	02610615	0.750	0.750	4.500	0.807	1.299	0.354	3988.5	0.880	0.118	53.1	LC..1603..
CFIR10003DJET	02610623	1.000	1.000	6.000	1.055	1.299	0.354	3988.5	1.760	0.118	53.1	LC..1603..
CFIR12503DJET	02610636	1.250	1.250	6.000	1.307	1.299	0.354	3988.5	2.650	0.118	53.1	LC..1603..
CFIL07503BJET	02610616	0.750	0.750	4.500	0.807	1.299	0.354	3988.5	0.880	0.118	53.1	LC..1603..
CFIL10003DJET	02610624	1.000	1.000	6.000	1.055	1.299	0.354	3988.5	1.760	0.118	53.1	LC..1603..
CFIL12503DJET	02610638	1.250	1.250	6.000	1.307	1.299	0.354	3988.5	2.650	0.118	53.1	LC..1603..
CFIR07504BJET	02610617	0.750	0.750	4.500	0.807	1.535	0.472	3988.5	0.880	0.157	70.8	LC..1604..
CFIR10004DJET	02610629	1.000	1.000	6.000	1.055	1.535	0.472	3988.5	1.760	0.157	70.8	LC..1604..
CFIR12504DJET	02610639	1.250	1.250	6.000	1.307	1.535	0.472	3988.5	2.650	0.157	70.8	LC..1604..
CFIL07504BJET	02610618	0.750	0.750	4.500	0.807	1.535	0.472	3988.5	0.880	0.157	70.8	LC..1604..
CFIL10004DJET	02610630	1.000	1.000	6.000	1.055	1.535	0.472	3988.5	1.760	0.157	70.8	LC..1604..
CFIL12504DJET	02610640	1.250	1.250	6.000	1.307	1.535	0.472	3988.5	2.650	0.157	70.8	LC..1604..
CFIR07505BJET	02610619	0.750	0.750	4.500	0.807	1.575	0.591	3988.5	1.100	0.197	70.8	LC..1605..
CFIR10005DJET	02610631	1.000	1.000	6.000	1.055	1.575	0.591	3988.5	1.760	0.197	70.8	LC..1605..
CFIR12505DJET	02610641	1.250	1.250	6.000	1.307	1.575	0.591	3988.5	2.650	0.197	70.8	LC..1605..
CFIL07505BJET	02610620	0.750	0.750	4.500	0.807	1.575	0.591	3988.5	0.880	0.197	70.8	LC..1605..
CFIL10005DJET	02610632	1.000	1.000	6.000	1.055	1.575	0.591	3988.5	1.760	0.197	70.8	LC..1605..
CFIL12505DJET	02610643	1.250	1.250	6.000	1.307	1.575	0.591	3988.5	2.650	0.197	70.8	LC..1605..
CFIR10006DJET	02610634	1.000	1.000	6.000	1.055	1.850	0.709	3988.5	1.760	0.236	88.5	LC..1606..
CFIR12506DJET	02610644	1.250	1.250	6.000	1.307	1.850	0.709	3988.5	2.430	0.236	88.5	LC..1606..
CFIL10006DJET	02610635	1.000	1.000	6.000	1.055	1.850	0.709	3988.5	1.760	0.236	88.5	LC..1606..
CFIL12506DJET	02610645	1.250	1.250	6.000	1.307	1.850	0.709	3988.5	2.650	0.236	88.5	LC..1606..
CFIR10008DJET	02641523	1.000	1.000	6.000	1.114	2.244	0.945	3988.5	1.760	0.315	132.8	LC..3008..
CFIR12508EJET	02641526	1.250	1.250	7.000	1.366	2.244	0.945	3988.5	2.650	0.315	132.8	LC..3008..
CFIL10008DJET	02641524	1.000	1.000	6.000	1.114	2.244	0.945	3988.5	1.760	0.315	132.8	LC..3008..
CFIL12508EJET	02641527	1.250	1.250	7.000	1.366	2.244	0.945	3988.5	2.650	0.315	132.8	LC..3008..

Spare Parts, included in delivery

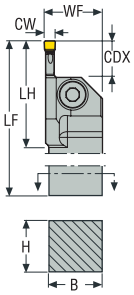
For size	Clamp key	Clamp screw	Plug
			
CFIR/L..-03	4SMS795	TCEI0513	JET-P1/8-5MM
CFIR/L..-04	5SMS795	TCEI0613	JET-P1/8-5MM
CFIR/L..-05	5SMS795	TCEI0613	JET-P1/8-5MM
CFIR/L..-06	6SMS795	TCEI0815	JET-P1/8-5MM
CFIR/L..-08	6SMS795	TCEI1020	JET-P1/8-5MM

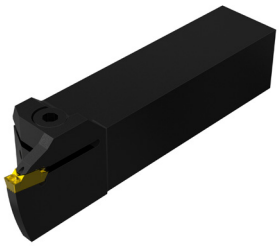
CFMR/L...JET – Toolholders for inserts LCGF, LCGN, LCMF, LCMR – Metric

CFMR/L
KAPR = 90,0 °



CFMR/L...JET





CTWS



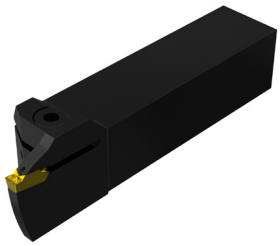
- Right-hand version shown
- For inserts program, see page(s) 858-871, 873-874
- For holder code key, see page(s) 701-702
- For more information on Jetstream Tooling® and accessories, see page(s) 38, 85-89, 1026
- Max depth of cut for double-sided LCGF/LCMF16.. = 14 mm
- CW = indicative Cutting Width, may vary depending on the chosen insert
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF	LH	CDX	CP	Weight	CW	TQ	CTWS
		mm	mm	mm	mm	mm	mm	bar	kg	mm	Nm	
CFMR3225P03JET	02702825	32	25	170	26,5	41,0	15,0	275,0	1,0	3,0	6,0	LC..1603..
CFML3225P03JET	02702829	32	25	170	26,5	41,0	15,0	275,0	1,0	3,0	6,0	LC..1603..
CFMR3225P04JET	02702833	32	25	170	26,5	45,0	20,0	275,0	1,0	4,0	8,0	LC..1604..
CFML3225P04JET	02702837	32	25	170	26,5	45,0	20,0	275,0	1,0	4,0	8,0	LC..1604..
CFMR3225P05JET	02702840	32	25	170	26,5	56,0	25,0	275,0	1,0	5,0	8,0	LC..1605..
CFML3225P05JET	02702843	32	25	170	26,5	56,0	25,0	275,0	1,0	5,0	8,0	LC..1605..
CFMR3225P06JET	02702845	32	25	170	26,5	67,0	30,0	275,0	1,0	6,0	10,0	LC..1606..
CFML3225P06JET	02702848	32	25	170	26,5	67,0	30,0	275,0	0,9	6,0	10,0	LC..1606..

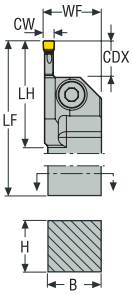
Spare Parts, included in delivery

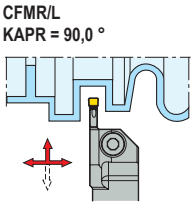
For size	Clamp key	Clamp screw	Plug
			
CFMR/L..-03	4SMS795	TCEI0513	JET-P1/8-5MM
CFMR/L..-04	5SMS795	TCEI0613	JET-P1/8-5MM
CFMR/L..-05	5SMS795	TCEI0613	JET-P1/8-5MM
CFMR/L..-06	6SMS795	TCEI0815	JET-P1/8-5MM

CFMR/L...JET – Toolholders for inserts LCGF, LCGN, LCMF, LCMR – Inch



CTWS





- Right-hand version shown
- For inserts program, see page(s) 858-871, 873-874
- For holder code key, see page(s) 701-702
- For more information on Jetstream Tooling® and accessories, see page(s) 38, 85-89, 1026
- Max depth of cut for double-sided LCGF/LCMF16.. = *0.551 inch*
- CW = indicative Cutting Width, may vary depending on the chosen insert
- For ISO attribute explanation, see page 82

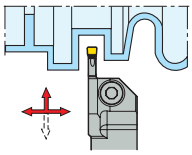
Designation	Item number	H	B	LF	WF	LH	CDX	CP	Weight	CW	TQ	CTWS
		inch	inch	inch	inch	inch	inch	psi	lbs	inch	In/Lbs.	
CFMR07503BJET	02722319	0.750	0.750	4.500	0.800	1.575	0.591	3988.5	0.880	0.118	53.1	LC..1603..
CFMR10003DJET	02722324	1.000	1.000	6.000	1.040	1.575	0.591	3988.5	1.540	0.118	53.1	LC..1603..
CFMR12503DJET	02722325	1.250	1.250	6.000	1.300	1.732	0.591	3988.5	2.430	0.118	53.1	LC..1603..
CFML07503BJET	02722326	0.750	0.750	4.500	0.800	1.575	0.591	3988.5	0.880	0.118	53.1	LC..1603..
CFML10003DJET	02722327	1.000	1.000	6.000	1.040	1.575	0.591	3988.5	1.540	0.118	53.1	LC..1603..
CFML12503DJET	02722328	1.250	1.250	6.000	1.300	1.732	0.591	3988.5	2.430	0.118	53.1	LC..1603..
CFMR07504BJET	02722329	0.750	0.750	4.500	0.800	1.732	0.787	3988.5	0.880	0.157	70.8	LC..1604..
CFMR10004DJET	02722330	1.000	1.000	6.000	1.040	1.732	0.787	3988.5	1.540	0.157	70.8	LC..1604..
CFMR12504DJET	02722331	1.250	1.250	6.000	1.300	1.732	0.787	3988.5	2.430	0.157	70.8	LC..1604..
CFML07504BJET	02722353	0.750	0.750	4.500	0.800	1.732	0.787	3988.5	0.880	0.157	70.8	LC..1604..
CFML10004DJET	02722354	1.000	1.000	6.000	1.040	1.732	0.787	3988.5	1.540	0.157	70.8	LC..1604..
CFML12504DJET	02722355	1.250	1.250	6.000	1.300	1.732	0.787	3988.5	1.980	0.157	70.8	LC..1604..
CFMR10005DJET	02722356	1.000	1.000	6.000	1.252	1.969	0.984	3988.5	1.320	0.197	70.8	LC..1605..
CFMR12505DJET	02722358	1.250	1.250	6.000	1.300	2.165	0.984	3988.5	2.430	0.197	70.8	LC..1605..
CFML10005DJET	02722359	1.000	1.000	6.000	1.252	1.969	0.984	3988.5	1.540	0.197	70.8	LC..1605..
CFML12505DJET	02722360	1.250	1.250	6.000	1.300	2.165	0.984	3988.5	2.430	0.197	70.8	LC..1605..
CFMR10006DJET	02722361	1.000	1.000	6.000	1.040	2.598	1.181	3988.5	1.540	0.236	88.5	LC..1606..
CFMR12506DJET	02722362	1.250	1.250	6.000	1.300	2.598	1.181	3988.5	2.430	0.236	88.5	LC..1606..
CFML10006DJET	02722363	1.000	1.000	6.000	1.040	2.598	1.181	3988.5	1.540	0.236	88.5	LC..1606..
CFML12506DJET	02722364	1.250	1.250	6.000	1.300	2.598	1.181	3988.5	2.430	0.236	88.5	LC..1606..

Spare Parts, included in delivery

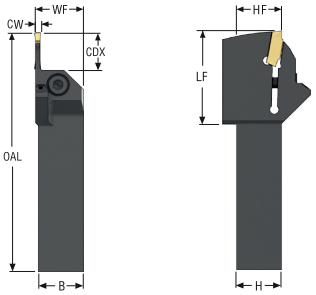
For size	Clamp key	Clamp screw	Plug
			
..03	4SMS795	TCEI0513	JET-P1/8-5MM
..04, ..05	5SMS795	TCEI0613	JET-P1/8-5MM
..-R10, -R12, -L10..06	6SMS795	TCEI0815	JET-P1/8-5MM
..-L12..06	5SMS795	TCEI0613	JET-P1/8-5MM

CFMR/L...JETI – Toolholders compatible with JETI adapters for inserts LCGF, LCGN, LCMF, LCMR – Metric

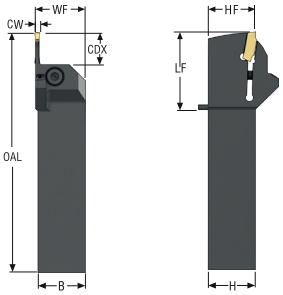
CFMR/L
KAPR = 90,0 °

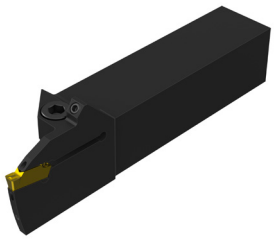


CFMR/L2020...JETI



CFMR/L2525...JETI





CTWS



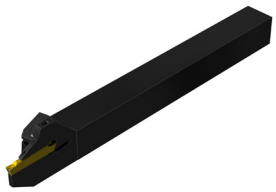
- Right-hand version shown
- For inserts program, see page(s) 858-871, 873-874
- For suitable adapter, see page(s) 986-997
- For holder code key, see page(s) 701-702
- For more information on Jetstream Tooling® and accessories, see page(s) 38, 85-89, 1026
- Max depth of cut for double-sided LCGF/LCMF16.. = 14 mm
- CW = indicative Cutting Width, may vary depending on the chosen insert
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	OAL	LF	WF	HF	CDX	CP	Weight	CW	TQ	CTWS
		mm	mm	mm	mm	mm	mm	mm	bar	kg	mm	Nm	
CFMR2020X03JETI	03244714	20	20	105	41	21,5	19,95	15,0	200,0	0,3	3,0	6,0	LC..1603..
CFMR2525X03JETI	03244710	25	25	125	41	26,5	24,95	15,0	200,0	0,6	3,0	6,0	LC..1603..
CFML2020X03JETI	03244708	20	20	105	41	21,5	19,95	15,0	200,0	0,3	3,0	6,0	LC..1603..
CFML2525X03JETI	03244728	25	25	125	41	26,5	24,95	15,0	200,0	0,5	3,0	6,0	LC..1603..
CFMR2020X04JETI	03244738	20	20	110	46	21,5	19,95	20,0	200,0	0,4	4,0	8,0	LC..1604..
CFMR2525X04JETI	03244718	25	25	130	46	26,5	24,95	20,0	200,0	0,6	4,0	8,0	LC..1604..
CFML2020X04JETI	03244741	20	20	110	46	21,5	19,95	20,0	200,0	0,4	4,0	8,0	LC..1604..
CFML2525X04JETI	03244735	25	25	130	46	26,5	24,95	20,0	200,0	0,5	4,0	8,0	LC..1604..
CFMR2525X05JETI	03244734	25	25	140	56	26,5	24,95	25,0	200,0	0,6	5,0	8,0	LC..1605..
CFML2525X05JETI	03244736	25	25	140	56	26,5	24,95	25,0	200,0	0,5	5,0	8,0	LC..1605..
CFMR2525X06JETI	03244743	25	25	151	67	26,5	24,95	30,0	200,0	0,6	6,0	10,0	LC..1606..
CFML2525X06JETI	03244733	25	25	151	67	26,5	24,95	30,0	200,0	0,6	6,0	10,0	LC..1606..

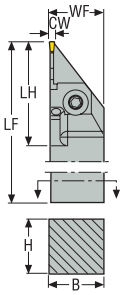
Spare Parts, included in delivery

For size	Clamp key	Clamp screw	Plug	Plug screw
				
CFMR/L..-03	4SMS795	TCEI0513	JET-P1/8-5MM	P6SS6X6
CFMR/L..-04	5SMS795	TCEI0613	JET-P1/8-5MM	P6SS6X6
CFMR/L..-05	5SMS795	TCEI0613	JET-P1/8-5MM	P6SS6X6
CFMR/L..-06	6SMS795	TCEI0815	JET-P1/8-5MM	P6SS6X6

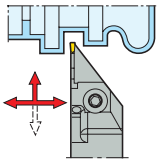
CFOR/L..RBJET – Toolholders for inserts LCMF – Metric



CFOR/L..RBJET



CFOR/L
KAPR = 90,0 °



CTWS



- Right-hand version shown
- For inserts program, see page(s) 857
- For holder code key, see page(s) 701-702
- For more information on Jetstream Tooling® and accessories, see page(s) 38, 85-89, 1026
- * Due to the design, grooving depth is limited, see page(s) 723
- CW = indicative Cutting Width, may vary depending on the chosen insert
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF	LH	CUTDIA*	CP	Weight	CW	TQ	CTWS
		mm	mm	mm	mm	mm	mm	bar	kg	mm	Nm	
CFOR1212K1902RBJET	02828753	12	12	125	12,0	27,0	25,4	275,0	0,2	2,0	5,0	LC..1902..
CFOR1616K1902RBJET	02828755	16	16	125	16,0	27,0	25,4	275,0	0,3	2,0	5,0	LC..1902..
CFOL1212K1902RBJET	02828754	12	12	125	12,0	27,0	25,4	275,0	0,2	2,0	5,0	LC..1902..
CFOL1616K1902RBJET	02828766	16	16	125	16,0	27,0	25,4	275,0	0,3	2,0	5,0	LC..1902..

Spare Parts, included in delivery

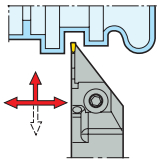
For size	Clamp key	Clamp screw
		
CFOR/L..19	T15P-7S	L85012-T15P

Accessories

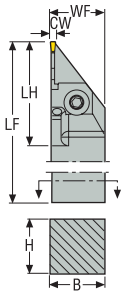
For size	Coolant adapter	Washer
		
CFOR/L..19	JET-ADM6	JET-CS0610

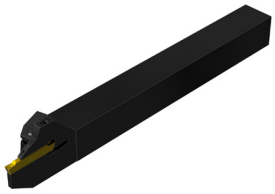
CFOR/L..RBJET – Toolholders for inserts LCMF – Inch

CFOR/L
KAPR = 90,0 °



CFOR/L...JET





CTWS



- Right-hand version shown
- For inserts program, see page(s) 857
- For holder code key, see page(s) 701-702
- For more information on Jetstream Tooling® and accessories, see page(s) 38, 85-89, 1026
- * Due to the design, grooving depth is limited, see page(s) 723
- CW = indicative Cutting Width, may vary depending on the chosen insert
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF	LH	CUTDIA*	CP	Weight	CW	TQ	CTWS
		inch	inch	inch	inch	inch	inch	psi	lbs	inch	In/Lbs.	
CFOR0501902CRBJET	02828756	0.500	0.500	4.921	0.500	1.063	1.000	3988.5	0.440	0.079	44.3	LC..1902..
CFOR0631902CRBJET	02828758	0.500	0.500	4.921	0.500	1.063	1.000	3988.5	0.660	0.079	44.3	LC..1902..
CFOL0501902CRBJET	02828757	0.500	0.500	4.921	0.500	1.063	1.000	3988.5	0.440	0.079	44.3	LC..1902..
CFOL0631902CRBJET	02828767	0.500	0.500	4.921	0.500	1.063	1.000	3988.5	0.660	0.079	44.3	LC..1902..

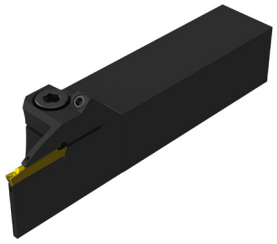
Spare Parts, included in delivery

For size	Clamp key	Clamp screw
		
CFOR/L..-02	T15P-7S	L85012-T15P

Accessories

For size	Coolant adapter	Washer
		
CFOR/L..-02	JET-ADM6	JET-CS0610

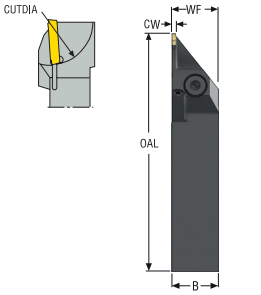
CFSR/L..RBJET – Toolholders for inserts LCMF – Metric



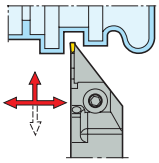
CTWS



CFSR/L..RBJETI



CFSR/L
KAPR = 90,0 °



- Right-hand version shown
- For inserts program, see page(s) 857
- For suitable adapter, see page(s) 986-997
- For holder code key, see page(s) 701-702
- For more information on Jetstream Tooling® and accessories, see page(s) 38, 85-89, 1026
- * Due to the design, grooving depth is limited, see page(s) 723
- CW = indicative Cutting Width, may vary depending on the chosen insert
- For ISO attribute explanation, see page 82

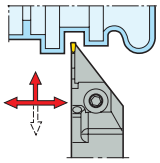
Designation	Item number	H	B	OAL	LF	WF	HF	CUTDIA*	CP	Weight	CW	TQ	CTWS
		mm	mm	mm	mm	mm	mm	mm	bar	kg	mm	Nm	
CFSR2020X1902RBJETI	03244707	20	20	102	38	20,0	19,95	33,0	200,0	0,3	2,0	6,0	LC..1902..
CFSL2020X1902RBJETI	03244713	20	20	102	38	20,0	19,95	33,0	200,0	0,3	2,0	6,0	LC..1902..

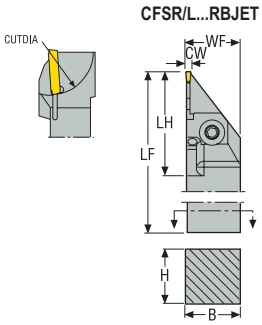
Spare Parts, included in delivery

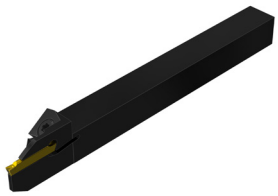
For size	Clamp key	Clamp screw	Plug	Plug screw
				
CFSR/L..-19	4SMS795	TCEI0513	JET-P1/8-5MM	P6SS6X6

CFSR/L..RBJET – Toolholders for inserts LCMF – Inch

CFSR/L
KAPR = 90,0 °







CTWS



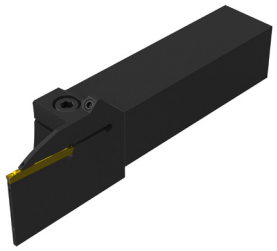
- Right-hand version shown
- For inserts program, see page(s) 857
- For holder code key, see page(s) 701-702
- For more information on Jetstream Tooling® and accessories, see page(s) 38, 85-89, 1026
- * Due to the design, grooving depth is limited, see page(s) 723
- CW = indicative Cutting Width, may vary depending on the chosen insert
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF	LH	CUTDIA*	CP	Weight	CW	TQ	CTWS
		inch	inch	inch	inch	inch	inch	psi	lbs	inch	In/Lbs.	
CFSR0751902DRBJET	02748837	0.750	0.750	6.000	0.750	1.500	1.299	3988.5	0.880	0.079	53.1	LC..1902..
CFSL0751902DRBJET	02748840	0.750	0.750	6.000	0.750	1.500	1.299	3988.5	0.880	0.079	53.1	LC..1902..

Spare Parts, included in delivery

For size	Clamp key	Clamp screw	Plug
			
CFSR/L..-02	4SMS795	TCEI0513	JET-P1/8-5MM

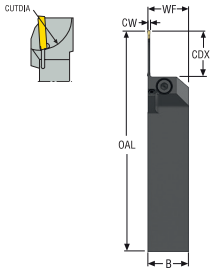
CFZR/L..JETI – Toolholders compatible with JETI adapters for inserts LCMF – Metric



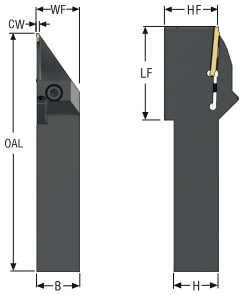
CTWS



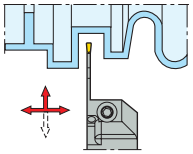
CFZR/L..JETI



CFZR/L..RBJETI



CFZR/L
KAPR = 90,0 °



- Right-hand version shown
- For inserts program, see page(s) 857
- For suitable adapter, see page(s) 986-997
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- * Due to the design, grooving depth is limited, see page(s) 723
- CW = indicative Cutting Width, may vary depending on the chosen insert
- For ISO attribute explanation, see page 82

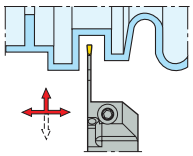
Designation	Item number	H	B	OAL	LF	WF	HF	CDX	CUTDIA*	CP	Weight	CW	TQ	CTWS
		mm	mm	mm	mm	mm	mm	mm	mm	bar	kg	mm	Nm	
CFZR2020X2802JETI	03244729	20	20	115	51	20,0	19,95	26,0	–	200,0	0,3	2,0	6,0	LC..2802..
CFZR2525X2802JETI	03244712	25	25	135	51	25,0	24,95	26,0	–	200,0	0,6	2,0	6,0	LC..2802..
CFZL2020X2802JETI	03244730	20	20	115	51	20,0	19,95	26,0	–	200,0	0,3	2,0	6,0	LC..2802..
CFZL2525X2802JETI	03244719	25	25	135	51	25,0	24,95	26,0	–	200,0	0,6	2,0	6,0	LC..2802..
CFZR2020X2802RBJETI	03244715	20	20	116	52	20,0	19,95	26,0	52,0	200,0	0,4	2,0	6,0	LC..2802..
CFZR2525X2802RBJETI	03244711	25	25	136	52	25,0	24,95	26,0	52,0	200,0	0,6	2,0	6,0	LC..2802..
CFZL2020X2802RBJETI	03244717	20	20	116	52	20,0	19,95	26,0	52,0	200,0	0,4	2,0	6,0	LC..2802..
CFZL2525X2802RBJETI	03244720	25	25	136	52	25,0	24,95	26,0	52,0	200,0	0,6	2,0	6,0	LC..2802..

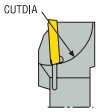
Spare Parts, included in delivery

For size	Clamp key	Clamp screw	Plug	Plug screw
				
CFZR/L..-28	4SMS795	TCEI0513	JET-P1/8-5MM	P6SS6X6

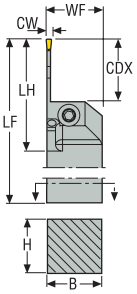
CFZR/L..JETI – Toolholders for inserts LCMF – Inch

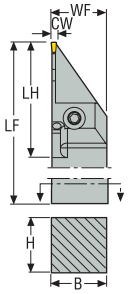
CFZR/L
KAPR = 90,0 °

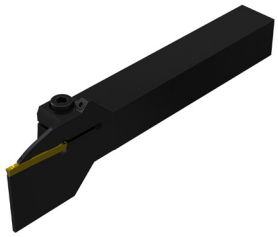




CFZR/L...JET/RBJET







CTWS



- Right-hand version shown
- For inserts program, see page(s) 857
- For suitable adapter, see page(s) 986-997
- For holder code key, see page(s) 701-702
- For more information on Jetstream Tooling® and accessories, see page(s) 38, 85-89, 1026
- * Due to the design, grooving depth is limited, see page(s) 723
- CW = indicative Cutting Width, may vary depending on the chosen insert
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF	LH	CUTDIA*	CP	Weight	CW	TQ	CTWS
		inch	inch	inch	inch	inch	inch	psi	lbs	inch	In/Lbs.	
CFZR0752802DJET	02749013	0.750	0.750	6.000	0.750	1.969	–	3988.5	0.880	0.079	53.1	LC..2802..
CFZR1002802DJET	02749006	1.000	1.000	6.000	1.000	1.969	–	3988.5	1.540	0.079	53.1	LC..2802..
CFZL0752802DJET	02749008	0.750	0.750	6.000	0.750	1.969	–	3988.5	0.880	0.079	53.1	LC..2802..
CFZL1002802DJET	02749010	1.000	1.000	6.000	1.000	1.969	–	3988.5	1.540	0.079	53.1	LC..2802..
CFZR0752802DRBJET	02748941	0.750	0.750	6.000	0.750	2.028	2.047	3988.5	1.100	0.079	53.1	LC..2802..
CFZR1002802DRBJET	02749014	1.000	1.000	6.000	1.000	2.028	2.047	3988.5	1.540	0.079	53.1	LC..2802..
CFZL0752802DRBJET	02749016	0.750	0.750	6.000	0.750	2.028	2.047	3988.5	0.880	0.079	53.1	LC..2802..
CFZL1002802DRBJET	02749017	1.000	1.000	6.000	1.000	2.028	2.047	3988.5	1.540	0.079	53.1	LC..2802..

Spare Parts, included in delivery

For size	Clamp key	Clamp screw	Plug
			
CFZR/L..02	4SMS795	TCEI0513	JET-P1/8-5MM

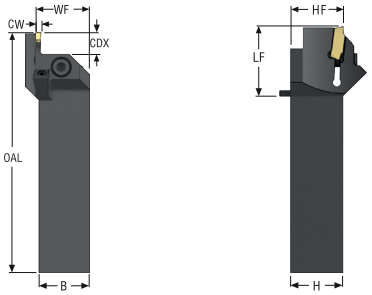
CFIR...L...JET, CFIL...R...JETI – Toolholders compatible with JETI adapters for inserts LCGF, LCGN, LCMF, LCMR – Metric



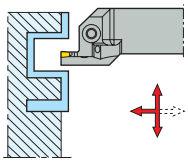
CTWS



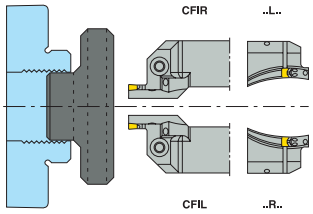
CFIR...L...JETI, CFIL...R...JETI



CFIR/L
KAPR = 90,0 °



- Right-hand version with left-hand blade shown
- For inserts program, see page(s) 858-863, 873-874
- For suitable adapter, see page(s) 986-997
- For holder code key, see page(s) 701-702
- For more information on Jetstream Tooling® and accessories, see page(s) 38, 85-89, 1026
- Max depth of cut for double-sided LCGF/LCMF16.. = 14 mm
- CW = indicative Cutting Width, may vary depending on the chosen insert
- For ISO attribute explanation, see page 82



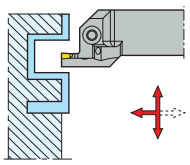
Designation	Item number	INPLM	INPLX	H	B	OAL	LF	WF	HF	CDX	CP	Weight	CW	TQ	CTWS
		mm	mm	mm	mm	mm	mm	mm	mm	mm	bar	kg	mm	Nm	
CFIR2525X03L080055-JETI	03244842	55,0	80,0	25	25	118	34	26,5	24,95	9,0	200,0	0,6	3,0	5,0	LC..1603..
CFIL2525X03R080055-JETI	03244787	55,0	80,0	25	25	118	34	26,5	24,95	9,0	200,0	0,5	3,0	5,0	LC..1603..
CFIL2525X04R080055-JETI	03244776	55,0	80,0	25	25	121	37	26,5	24,95	12,0	200,0	0,5	4,0	5,0	LC..1604..
CFIR2525X04L080055-JETI	03244808	55,0	80,0	25	25	121	37	26,5	24,95	12,0	200,0	0,6	4,0	5,0	LC..1604..
CFIL2525X05R080055-JETI	03244758	55,0	80,0	25	25	125	41	26,5	24,95	15,0	200,0	0,6	5,0	5,0	LC..1605..
CFIR2525X05L080055-JETI	03244904	55,0	80,0	25	25	125	41	26,5	24,95	15,0	200,0	0,6	5,0	5,0	LC..1605..
CFIL2525X06R080055-JETI	03244850	55,0	80,0	25	25	131	47	26,5	24,95	18,0	200,0	0,5	6,0	5,0	LC..1606..
CFIR2525X06L080055-JETI	03244798	55,0	80,0	25	25	131	47	26,5	24,95	18,0	200,0	0,6	6,0	5,0	LC..1606..

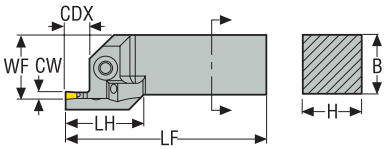
Spare Parts, included in delivery

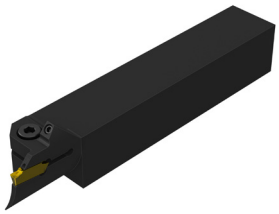
For size	Clamp key	Clamp screw	Plug	Plug screw
				
CFIR/L..-03	4SMS795	TCEI0513	JET-P1/8-5MM	P6SS6X6
CFIR/L..-04	5SMS795	TCEI0613	JET-P1/8-5MM	P6SS6X6
CFIR/L..-05	5SMS795	TCEI0613	JET-P1/8-5MM	P6SS6X6
CFIR/L..-06	6SMS795	TCEI0815	JET-P1/8-5MM	P6SS6X6

CFIR...L...JET, CFIL...R...JETI – Toolholders for inserts LCGF, LCGN, LCMF, LCMR – Inch

KAPR = 90,0 °



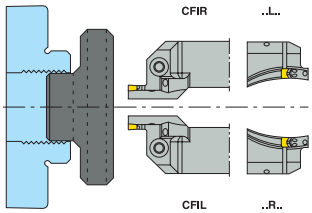




CTWS



- Right-hand version with left-hand blade shown
- For inserts program, see page(s) 858-863, 873-874
- For holder code key, see page(s) 701-702
- For more information on Jetstream Tooling® and accessories, see page(s) 38, 85-89, 1026
- Max depth of cut for double-sided LCGF/LCMF16.. = *0.551 inch*
- CW = indicative Cutting Width, may vary depending on the chosen insert
- For ISO attribute explanation, see page 82

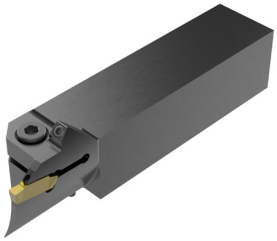


Designation	Item number	INPLM	INPLX	H	B	LF	WF	WF2	LH	CDX	CP	Weight	CW	TQ	CTWS
		inch	inch	inch	inch	inch	inch	inch	inch	inch	psi	lbs	inch	In/Lbs.	
CFIR10003D-L3.102.17-JET	02718983	2.165	3.150	1.000	1.000	6.000	1.043	–	1.299	0.354	3988.5	1.760	0.118	53.1	LC..1603..
CFIR10004D-L3.102.17-JET	02718984	2.165	3.150	1.000	1.000	6.000	1.043	–	1.417	0.472	3988.5	1.760	0.157	70.8	LC..1604..
CFIR10005D-L3.102.17-JET	02718985	2.165	3.150	1.000	1.000	6.000	1.043	–	1.575	0.591	3988.5	1.980	0.197	70.8	LC..1605..
CFIR10006D-L3.102.17-JET	02718986	2.165	3.150	1.000	1.000	6.000	1.043	–	1.811	0.709	3988.5	1.760	0.236	88.5	LC..1606..
CFIL10003D-R3.102.17-JET	02717498	2.165	3.150	1.000	1.000	6.000	1.043	–	1.299	0.354	3988.5	1.760	0.118	53.1	LC..1603..
CFIL10004D-R3.102.17-JET	02718958	2.165	3.150	1.000	1.000	6.000	1.043	–	1.417	0.472	3988.5	1.980	0.157	70.8	LC..1604..
CFIL10005D-R3.102.17-JET	02718981	2.165	3.150	1.000	1.000	6.000	1.043	–	1.575	0.591	3988.5	1.760	0.197	70.8	LC..1605..
CFIL10006D-R3.102.17-JET	02718982	2.165	3.150	1.000	1.000	6.000	1.043	–	1.811	0.709	3988.5	1.760	0.236	88.5	LC..1606..

Spare Parts, included in delivery

For size	Clamp key	Clamp screw	Plug
			
..3D	4SMS795	TCEI0513	JET-P1/8-5MM
..4D	5SMS795	TCEI0613	JET-P1/8-5MM
..5D	5SMS795	TCEI0613	JET-P1/8-5MM
..6D-L	5SMS795	TCEI0613	JET-P1/8-5MM
..6D-R	6SMS795	TCEI0815	JET-P1/8-5MM

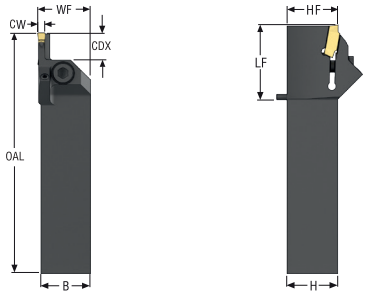
CFIR...R...JETI, CFIL...L...JETI – Toolholders compatible with JETI adapters for inserts LCGF, LCGN, LCMF, LCMR – Metric



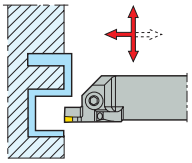
CTWS



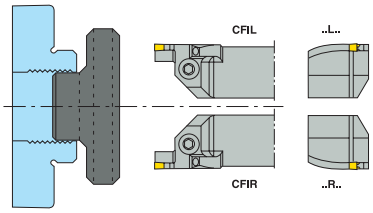
CFIR...R...JETI, CFIL...L...JETI



CFIR/L
KAPR = 90,0 °



- Right-hand version with right-hand blade shown
- For inserts program, see page(s) 858-863, 873-874
- For suitable adapter, see page(s) 986-997
- For holder code key, see page(s) 701-702
- For more information on Jetstream Tooling® and accessories, see page(s) 38, 85-89, 1026
- Max depth of cut for double-sided LCGF/LCMF16.. = 14 mm
- CW = indicative Cutting Width, may vary depending on the chosen insert
- For ISO attribute explanation, see page 82



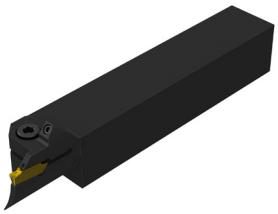
Designation	Item number	INPLM	INPLX	H	B	OAL	LF	WF	HF	CDX	CP	Weight	CW	TQ	CTWS
		mm	mm	mm	mm	mm	mm	mm	mm	mm	bar	kg	mm	Nm	
CFIR2525X03R080055-JETI	03244862	55,0	80,0	25	25	118	34	26,5	24,95	9,0	200,0	0,5	3,0	5,0	LC..1603..
CFIR2525X03R100070-JETI	03244807	70,0	100,0	25	25	118	34	26,5	24,95	9,0	200,0	0,5	3,0	5,0	LC..1603..
CFIR2525X03R130090-JETI	03244843	90,0	130,0	25	25	118	34	26,5	24,95	9,0	200,0	0,5	3,0	5,0	LC..1603..
CFIR2525X03R170110-JETI	03244903	110,0	170,0	25	25	118	34	26,5	24,95	9,0	200,0	0,5	3,0	5,0	LC..1603..
CFIL2525X03L080055-JETI	03244846	55,0	80,0	25	25	118	34	26,5	24,95	9,0	200,0	0,5	3,0	5,0	LC..1603..
CFIL2525X03L100070-JETI	03244879	70,0	100,0	25	25	118	34	26,5	24,95	9,0	200,0	0,5	3,0	5,0	LC..1603..
CFIL2525X03L130090-JETI	03244910	90,0	130,0	25	25	118	34	26,5	24,95	9,0	200,0	0,5	3,0	5,0	LC..1603..
CFIL2525X03L170110-JETI	03244911	110,0	170,0	25	25	118	34	26,5	24,95	9,0	200,0	0,1	3,0	5,0	LC..1603..
CFIR2525X04R080055-JETI	03244809	55,0	80,0	25	25	121	37	26,5	24,95	12,0	200,0	0,5	4,0	5,0	LC..1604..
CFIR2525X04R100070-JETI	03244822	70,0	100,0	25	25	121	37	26,5	24,95	12,0	200,0	0,5	4,0	5,0	LC..1604..
CFIR2525X04R130090-JETI	03244810	90,0	130,0	25	25	121	37	26,5	24,95	12,0	200,0	0,5	4,0	5,0	LC..1604..
CFIR2525X04R170110-JETI	03244844	110,0	170,0	25	25	121	37	26,5	24,95	12,0	200,0	0,1	4,0	5,0	LC..1604..
CFIR2525X04R230140-JETI	03244781	140,0	230,0	25	25	121	37	26,5	24,95	12,0	200,0	0,5	4,0	5,0	LC..1604..
CFIL2525X04L080055-JETI	03244847	55,0	80,0	25	25	121	37	26,5	24,95	12,0	200,0	0,5	4,0	5,0	LC..1604..
CFIL2525X04L100070-JETI	03244912	70,0	100,0	25	25	121	37	26,5	24,95	12,0	200,0	0,5	4,0	5,0	LC..1604..
CFIL2525X04L130090-JETI	03244823	90,0	130,0	25	25	121	37	26,5	24,95	12,0	200,0	0,5	4,0	5,0	LC..1604..
CFIL2525X04L170110-JETI	03244848	110,0	170,0	25	25	121	37	26,5	24,95	12,0	200,0	0,5	4,0	5,0	LC..1604..
CFIL2525X04L230140-JETI	03244799	140,0	230,0	25	25	121	37	26,5	24,95	12,0	200,0	0,5	4,0	5,0	LC..1604..
CFIR2525X05R080055-JETI	03244876	55,0	80,0	25	25	125	41	26,5	24,95	15,0	200,0	0,5	5,0	5,0	LC..1605..
CFIR2525X05R100070-JETI	03244863	70,0	100,0	25	25	125	41	26,5	24,95	15,0	200,0	0,6	5,0	5,0	LC..1605..
CFIR2525X05R130090-JETI	03244877	90,0	130,0	25	25	125	41	26,5	24,95	15,0	200,0	0,5	5,0	5,0	LC..1605..
CFIR2525X05R170110-JETI	03244786	110,0	170,0	25	25	125	41	26,5	24,95	15,0	200,0	0,6	5,0	5,0	LC..1605..
CFIR2525X05R230140-JETI	03244864	140,0	230,0	25	25	125	41	26,5	24,95	15,0	200,0	0,6	5,0	5,0	LC..1605..
CFIL2525X05L080055-JETI	03244913	55,0	80,0	25	25	125	41	26,5	24,95	15,0	200,0	0,5	5,0	5,0	LC..1605..
CFIL2525X05L100070-JETI	03244849	70,0	100,0	25	25	125	41	26,5	24,95	15,0	200,0	0,5	5,0	5,0	LC..1605..
CFIL2525X05L130090-JETI	03244812	90,0	130,0	25	25	125	41	26,5	24,95	15,0	200,0	0,5	5,0	5,0	LC..1605..
CFIL2525X05L170110-JETI	03244880	110,0	170,0	25	25	125	41	26,5	24,95	15,0	200,0	0,6	5,0	5,0	LC..1605..
CFIL2525X05L230140-JETI	03244788	140,0	230,0	25	25	125	41	26,5	24,95	15,0	200,0	0,6	5,0	5,0	LC..1605..
CFIR2525X06R080055-JETI	03244905	55,0	80,0	25	25	131	47	26,5	24,95	18,0	200,0	0,1	6,0	5,0	LC..1606..

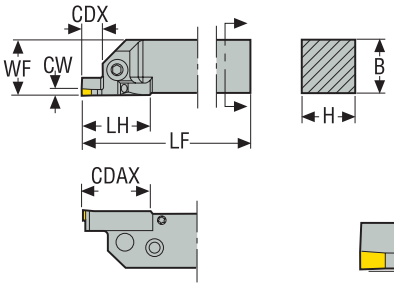
Designation	Item number	INPLM	INPLX	H	B	OAL	LF	WF	HF	CDX	CP	Weight	CW	TQ	CTWS
		mm	mm	mm	mm	mm	mm	mm	mm	mm	bar	kg	mm	Nm	
CFIR2525X06R100070-JETI	03244811	70,0	100,0	25	25	131	47	26,5	24,95	18,0	200,0	0,6	6,0	5,0	LC..1606..
CFIR2525X06R130090-JETI	03244906	90,0	130,0	25	25	131	47	26,5	24,95	18,0	200,0	0,6	6,0	5,0	LC..1606..
CFIR2525X06R170110-JETI	03244878	110,0	170,0	25	25	131	47	26,5	24,95	18,0	200,0	0,6	6,0	5,0	LC..1606..
CFIR2525X06R230140-JETI	03244782	140,0	230,0	25	25	131	47	26,5	24,95	18,0	200,0	0,6	6,0	5,0	LC..1606..
CFIL2525X06L080055-JETI	03244813	55,0	80,0	25	25	131	47	26,5	24,95	18,0	200,0	0,5	6,0	5,0	LC..1606..
CFIL2525X06L100070-JETI	03244881	70,0	100,0	25	25	131	47	26,5	24,95	18,0	200,0	0,6	6,0	5,0	LC..1606..
CFIL2525X06L130090-JETI	03244914	90,0	130,0	25	25	131	47	26,5	24,95	18,0	200,0	0,6	6,0	5,0	LC..1606..
CFIL2525X06L170110-JETI	03244814	110,0	170,0	25	25	131	47	26,5	24,95	18,0	200,0	0,6	6,0	5,0	LC..1606..
CFIL2525X06L230140-JETI	03244894	140,0	230,0	25	25	131	47	26,5	24,95	18,0	200,0	0,6	6,0	5,0	LC..1606..

Spare Parts, included in delivery

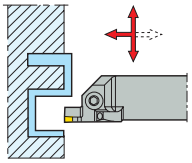
For size	Clamp key	Clamp screw	Plug	Plug screw
				
CFIR/L..-03	4SMS795	TCEI0513	JET-P1/8-5MM	P6SS6X6
CFIR/L..-04	5SMS795	TCEI0613	JET-P1/8-5MM	P6SS6X6
CFIR/L..-05	5SMS795	TCEI0613	JET-P1/8-5MM	P6SS6X6
CFIR/L..-06	6SMS795	TCEI0815	JET-P1/8-5MM	P6SS6X6

CFIR...R...JET, CFIL...L...JET – Toolholders for inserts LCGF, LCGN, LCMF, LCMR – Metric





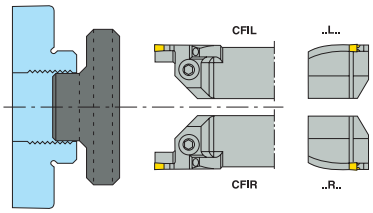
CFIR/L
KAPR = 90,0 °



CTWS



- Right-hand version with right-hand blade shown
- For inserts program, see page(s) 858, 861-863
- For holder code key, see page(s) 701-702
- For more information on Jetstream Tooling® and accessories, see page(s) 38, 85-89, 1026
- Max depth of cut for double-sided LCGF/LCMF30.. = 28 mm
- CW = indicative Cutting Width, may vary depending on the chosen insert
- For ISO attribute explanation, see page 82



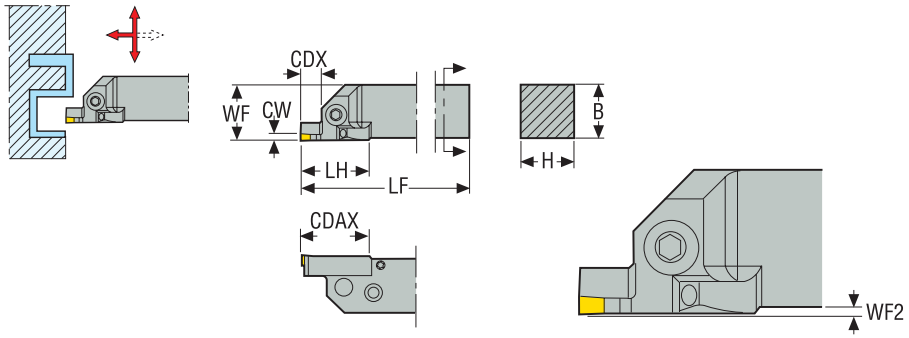
Designation	Item number	INPLM	INPLX	H	B	LF	WF	WF2	LH	CDX	CP	Weight	CW	TQ	CTWS
		mm	mm	mm	mm	mm	mm	mm	mm	mm	bar	kg	mm	Nm	
CFIR3225P08R130090-JET	02703655	90,0	130,0	32	25	170	26,5	1,5	56,0	24,0	275,0	1,0	8,0	10,0	LC..3008..
CFIR3225P08R170110-JET	02703656	110,0	170,0	32	25	170	26,5	1,5	56,0	24,0	275,0	1,0	8,0	10,0	LC..3008..
CFIR3225P08R230140-JET	02703657	140,0	230,0	32	25	170	26,5	1,5	56,0	24,0	275,0	1,0	8,0	10,0	LC..3008..
CFIR3225P08R500200-JET	02703658	200,0	500,0	32	25	170	26,5	1,5	56,0	24,0	275,0	1,0	8,0	10,0	LC..3008..
CFIL3225P08L130090-JET	02703636	90,0	130,0	32	25	170	26,5	1,5	56,0	24,0	275,0	1,0	8,0	10,0	LC..3008..
CFIL3225P08L170110-JET	02703637	110,0	170,0	32	25	170	26,5	1,5	56,0	24,0	275,0	1,0	8,0	10,0	LC..3008..
CFIL3225P08L230140-JET	02703638	140,0	230,0	32	25	170	26,5	1,5	56,0	24,0	275,0	1,0	8,0	10,0	LC..3008..
CFIL3225P08L500200-JET	02703639	200,0	500,0	32	25	170	26,5	1,5	56,0	24,0	275,0	1,0	8,0	10,0	LC..3008..

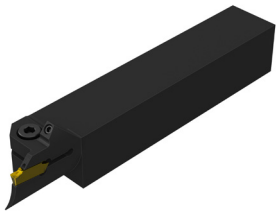
Spare Parts, included in delivery

For size	Clamp key	Clamp screw	Plug
			
CFIR/L..-08	6SMS795	TCEI1020	JET-P1/8-5MM

CFIR...R...JET, CFIL...L...JET – Toolholders for inserts LCGF, LCGN, LCMF, LCMR – Inch

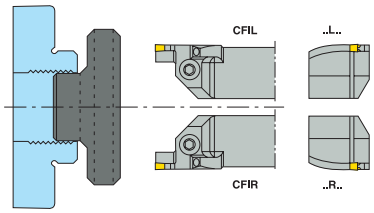
KAPR = 90,0 °





CTWS

- Right-hand version with right-hand blade shown
- For inserts program, see page(s) 858, 861-863
- For holder code key, see page(s) 701-702
- For more information on Jetstream Tooling® and accessories, see page(s) 38, 85-89, 1026
- Max depth of cut for double-sided LCGF/LCMF16.. = *0.551 inch*, LCGF/LCMF30.. = *1.102 inch*
- CW = indicative Cutting Width, may vary depending on the chosen insert
- For ISO attribute explanation, see page 82



Designation	Item number	INPLM	INPLX	H	B	LF	WF	WF2	LH	CDX	CP	Weight	CW	TQ	CTWS
		inch	inch	inch	inch	inch	inch	inch	inch	inch	psi	lbs	inch	In/Lbs.	
CFIR10003D-R3.102.17-JET	02718999	2.165	3.150	1.000	1.000	6.000	1.043	0.059	1.299	0.354	3988.5	1.540	0.118	53.1	LC..1603..
CFIR10003D-R4.002.75-JET	02703515	2.756	3.937	1.000	1.000	6.000	1.043	0.059	1.299	0.354	3988.5	1.540	0.118	53.1	LC..1603..
CFIR10003D-R5.003.50-JET	02703516	3.543	5.118	1.000	1.000	6.000	1.043	0.059	1.299	0.354	3988.5	1.540	0.118	53.1	LC..1603..
CFIR10003D-R6.704.30-JET	02703517	4.331	6.693	1.000	1.000	6.000	1.043	0.059	1.299	0.354	3988.5	1.540	0.118	53.1	LC..1603..
CFIL10003D-L3.102.17-JET	02718995	2.165	3.150	1.000	1.000	6.000	1.043	0.059	1.299	0.354	3988.5	1.760	0.118	53.1	LC..1603..
CFIL10003D-L4.002.75-JET	02703496	2.756	3.937	1.000	1.000	6.000	1.043	0.059	1.299	0.354	3988.5	1.540	0.118	53.1	LC..1603..
CFIL10003D-L5.003.50-JET	02703497	3.543	5.118	1.000	1.000	6.000	1.043	0.059	1.299	0.354	3988.5	1.540	0.118	53.1	LC..1603..
CFIL10003D-L6.704.30-JET	02703498	4.331	6.693	1.000	1.000	6.000	1.043	0.059	1.299	0.354	3988.5	1.540	0.118	53.1	LC..1603..
CFIR10004D-R3.102.17-JET	02719000	2.165	3.150	1.000	1.000	6.000	1.043	0.059	1.417	0.472	3988.5	1.540	0.157	70.8	LC..1604..
CFIR10004D-R4.002.75-JET	02703518	2.756	3.937	1.000	1.000	6.000	1.043	0.059	1.417	0.472	3988.5	1.540	0.157	70.8	LC..1604..
CFIR10004D-R5.003.50-JET	02703519	3.543	5.118	1.000	1.000	6.000	1.043	0.059	1.417	0.472	3988.5	1.540	0.157	70.8	LC..1604..
CFIR10004D-R6.704.30-JET	02703520	4.331	6.693	1.000	1.000	6.000	1.043	0.059	1.417	0.472	3988.5	1.540	0.157	70.8	LC..1604..
CFIR10004D-R9.005.50-JET	02703521	5.512	9.055	1.000	1.000	6.000	1.043	0.059	1.417	0.472	3988.5	1.540	0.157	70.8	LC..1604..
CFIL10004D-L3.102.17-JET	02718996	2.165	3.150	1.000	1.000	6.000	1.043	0.059	1.417	0.472	3988.5	1.540	0.157	70.8	LC..1604..
CFIL10004D-L4.002.75-JET	02703499	2.756	3.937	1.000	1.000	6.000	1.043	0.059	1.417	0.472	3988.5	1.540	0.157	70.8	LC..1604..
CFIL10004D-L5.003.50-JET	02703500	3.543	5.118	1.000	1.000	6.000	1.043	0.059	1.417	0.472	3988.5	1.540	0.157	70.8	LC..1604..
CFIL10004D-L6.704.30-JET	02703501	4.331	6.693	1.000	1.000	6.000	1.043	0.059	1.417	0.472	3988.5	1.540	0.157	70.8	LC..1604..
CFIL10004D-L9.005.50-JET	02703502	5.512	9.055	1.000	1.000	6.000	1.043	0.059	1.417	0.472	3988.5	1.540	0.157	70.8	LC..1604..
CFIR10005D-R3.102.17-JET	02719001	2.165	3.150	1.000	1.000	6.000	1.043	0.059	1.575	0.591	3988.5	1.760	0.197	70.8	LC..1605..
CFIR10005D-R4.002.75-JET	02703522	2.756	3.937	1.000	1.000	6.000	1.043	0.059	1.575	0.591	3988.5	1.540	0.197	70.8	LC..1605..
CFIR10005D-R5.003.50-JET	02703523	3.543	5.118	1.000	1.000	6.000	1.043	0.059	1.575	0.591	3988.5	1.540	0.197	70.8	LC..1605..
CFIR10005D-R6.704.30-JET	02703524	4.331	6.693	1.000	1.000	6.000	1.043	0.059	1.575	0.591	3988.5	1.540	0.197	70.8	LC..1605..
CFIR10005D-R9.005.50-JET	02703525	5.512	9.055	1.000	1.000	6.000	1.043	0.059	1.575	0.591	3988.5	1.540	0.197	70.8	LC..1605..
CFIL10005D-L3.102.17-JET	02718997	2.165	3.150	1.000	1.000	6.000	1.043	0.059	1.575	0.591	3988.5	1.760	0.197	70.8	LC..1605..
CFIL10005D-L4.002.75-JET	02703503	2.756	3.937	1.000	1.000	6.000	1.043	0.059	1.575	0.591	3988.5	1.540	0.197	70.8	LC..1605..
CFIL10005D-L5.003.50-JET	02703504	3.543	5.118	1.000	1.000	6.000	1.043	0.059	1.575	0.591	3988.5	1.540	0.197	70.8	LC..1605..
CFIL10005D-L6.704.30-JET	02703505	4.331	6.693	1.000	1.000	6.000	1.043	0.059	1.575	0.591	3988.5	1.540	0.197	70.8	LC..1605..
CFIL10005D-L9.005.50-JET	02703506	5.512	9.055	1.000	1.000	6.000	1.043	0.059	1.575	0.591	3988.5	1.540	0.197	70.8	LC..1605..
CFIR10006D-R3.102.17-JET	02719002	2.165	3.150	1.000	1.000	6.000	1.043	0.059	1.811	0.709	3988.5	1.760	0.236	88.5	LC..1606..

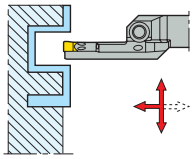
Designation	Item number	INPLM	INPLX	H	B	LF	WF	WF2	LH	CDX	CP	Weight	CW	TQ	CTWS
		inch	inch	inch	inch	inch	inch	inch	inch	inch	psi	lbs	inch	In/Lbs.	
CFIR10006D-R4.002.75-JET	02703526	2.756	3.937	1.000	1.000	6.000	1.043	0.059	1.811	0.709	3988.5	1.540	0.236	88.5	LC..1606..
CFIR10006D-R5.003.50-JET	02703527	3.543	5.118	1.000	1.000	6.000	1.043	0.059	1.811	0.709	3988.5	1.540	0.236	88.5	LC..1606..
CFIR10006D-R6.704.30-JET	02703528	4.331	6.693	1.000	1.000	6.000	1.043	0.059	1.811	0.709	3988.5	1.540	0.236	88.5	LC..1606..
CFIR10006D-R9.005.50-JET	02703529	5.512	9.055	1.000	1.000	6.000	1.043	0.059	1.811	0.709	3988.5	1.540	0.236	88.5	LC..1606..
CFIL10006D-L3.102.17-JET	02718998	2.165	3.150	1.000	1.000	6.000	1.043	0.059	1.811	0.709	3988.5	1.540	0.236	88.5	LC..1606..
CFIL10006D-L4.002.75-JET	02703507	2.756	3.937	1.000	1.000	6.000	1.043	0.059	1.811	0.709	3988.5	1.540	0.236	88.5	LC..1606..
CFIL10006D-L5.003.50-JET	02703508	3.543	5.118	1.000	1.000	6.000	1.043	0.059	1.811	0.709	3988.5	1.540	0.236	88.5	LC..1606..
CFIL10006D-L6.704.30-JET	02703509	4.331	6.693	1.000	1.000	6.000	1.043	0.059	1.811	0.709	3988.5	1.540	0.236	88.5	LC..1606..
CFIL10006D-L9.005.50-JET	02703510	5.512	9.055	1.000	1.000	6.000	1.043	0.059	1.811	0.709	3988.5	1.540	0.236	88.5	LC..1606..
CFIR12508E-R5.003.50-JET	02703530	3.543	5.118	1.250	1.250	7.000	1.043	0.059	2.205	0.945	3988.5	2.650	0.315	132.8	LC..3008..
CFIR12508E-R6.704.30-JET	02703531	4.331	6.693	1.250	1.250	7.000	1.043	0.059	2.205	0.945	3988.5	2.650	0.315	132.8	LC..3008..
CFIR12508E-R9.005.50-JET	02703532	5.512	9.055	1.250	1.250	7.000	1.043	0.059	2.205	0.945	3988.5	2.870	0.315	132.8	LC..3008..
CFIR12508E-R19.78.00-JET	02703533	7.874	19.685	1.250	1.250	7.000	1.043	0.059	2.205	0.945	3988.5	2.650	0.315	132.8	LC..3008..
CFIL12508E-L5.003.50-JET	02703511	3.543	5.118	1.250	1.250	7.000	1.043	0.059	2.205	0.945	3988.5	2.650	0.315	132.8	LC..3008..
CFIL12508E-L6.704.30-JET	02703512	4.331	6.693	1.250	1.250	7.000	1.043	0.059	2.205	0.945	3988.5	2.650	0.315	132.8	LC..3008..
CFIL12508E-L9.005.50-JET	02703513	5.512	9.055	1.250	1.250	7.000	1.043	0.059	2.205	0.945	3988.5	2.870	0.315	132.8	LC..3008..
CFIL12508E-L19.78.00-JET	02765806	7.874	19.685	1.250	1.250	7.000	1.043	0.059	2.205	0.945	3988.5	2.650	0.315	132.8	LC..3008..
CFIL12508E-R19.78.00-JET	02703514	7.874	19.685	1.000	1.000	7.000	1.315	–	2.205	0.945	3988.5	2.870	0.315	132.8	LC..3008..

Spare Parts, included in delivery

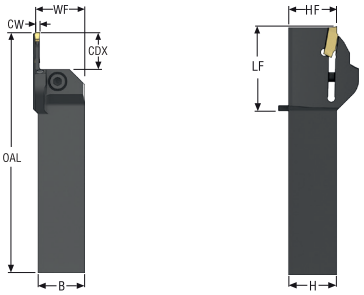
For size	Clamp key	Clamp screw	Plug
			
CFIR/L..-03	4SMS795	TCEI0513	JET-P1/8-5MM
CFIR/L..-04	5SMS795	TCEI0613	JET-P1/8-5MM
CFIR/L..-05	5SMS795	TCEI0613	JET-P1/8-5MM
CFIR/L..-06	6SMS795	TCEI0815	JET-P1/8-5MM
CFIR/L..-08	6SMS795	TCEI1020	JET-P1/8-5MM

CFOR...L...JETI, CFOL...R...JETI – Toolholders compatible with JETI adapters for inserts LCGF, LCGN, LCMF, LCMR – Metric

CFOR/L
KAPR = 90,0 °



CFOR...L...JETI, CFOL...R...JETI

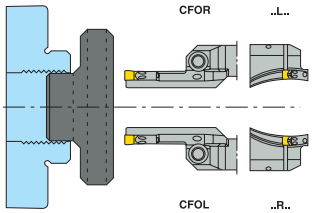




CTWS



- Right-hand version with left-hand blade shown
- For inserts program, see page(s) 858-863, 873-874
- For suitable adapter, see page(s) 986-997
- For holder code key, see page(s) 701-702
- For more information on Jetstream Tooling® and accessories, see page(s) 38, 85-89, 1026
- Max depth of cut for double-sided LCGF/LCMF16.. = 14 mm
- CW = indicative Cutting Width, may vary depending on the chosen insert
- For ISO attribute explanation, see page 82



Designation	Item number	INPLM	INPLX	H	B	OAL	LF	WF	HF	CDX	CP	Weight	CW	TQ	CTWS
		mm	mm	mm	mm	mm	mm	mm	mm	mm	bar	kg	mm	Nm	
CFOR2525X03L080055-JETI	03244830	55,0	80,0	25	25	127	43	26,5	24,95	18,0	200,0	0,5	3,0	5,0	LC..1603..
CFOR2525X03L100070-JETI	03244817	70,0	100,0	25	25	127	43	26,5	24,95	18,0	200,0	0,5	3,0	5,0	LC..1603..
CFOR2525X03L130090-JETI	03244778	90,0	130,0	25	25	127	43	26,5	24,95	18,0	200,0	0,5	3,0	5,0	LC..1603..
CFOR2525X03L170110-JETI	03244818	110,0	170,0	25	25	127	43	26,5	24,95	18,0	200,0	0,6	3,0	5,0	LC..1603..
CFOR2525X03L230140-JETI	03244856	140,0	230,0	25	25	127	43	26,5	24,95	18,0	200,0	0,6	3,0	5,0	LC..1603..
CFOR2525X03L500200-JETI	03244779	200,0	500,0	25	25	127	43	26,5	24,95	18,0	200,0	0,6	3,0	5,0	LC..1603..
CFOL2525X03R080055-JETI	03244869	55,0	80,0	25	25	127	43	26,5	24,95	18,0	200,0	0,6	3,0	5,0	LC..1603..
CFOL2525X03R100070-JETI	03244824	70,0	100,0	25	25	127	43	26,5	24,95	18,0	200,0	0,6	3,0	5,0	LC..1603..
CFOL2525X03R130090-JETI	03244815	90,0	130,0	25	25	127	43	26,5	24,95	18,0	200,0	0,6	3,0	5,0	LC..1603..
CFOL2525X03R170110-JETI	03244896	110,0	170,0	25	25	127	43	26,5	24,95	18,0	200,0	0,6	3,0	5,0	LC..1603..
CFOL2525X03R230140-JETI	03244765	140,0	230,0	25	25	127	43	26,5	24,95	18,0	200,0	0,6	3,0	5,0	LC..1603..
CFOL2525X03R500200-JETI	03244753	200,0	500,0	25	25	127	43	26,5	24,95	18,0	200,0	0,6	3,0	5,0	LC..1603..
CFOR2525X04L080055-JETI	03244755	55,0	80,0	25	25	135	51	26,5	24,95	24,0	200,0	0,6	4,0	5,0	LC..1604..
CFOR2525X04L100070-JETI	03244756	70,0	100,0	25	25	135	51	26,5	24,95	24,0	200,0	0,6	4,0	5,0	LC..1604..
CFOR2525X04L130090-JETI	03244795	90,0	130,0	25	25	135	51	26,5	24,95	24,0	200,0	0,6	4,0	5,0	LC..1604..
CFOR2525X04L170110-JETI	03244875	110,0	170,0	25	25	135	51	26,5	24,95	24,0	200,0	0,6	4,0	5,0	LC..1604..
CFOR2525X04L230140-JETI	03244770	140,0	230,0	25	25	135	51	26,5	24,95	24,0	200,0	0,6	4,0	5,0	LC..1604..
CFOR2525X04L500200-JETI	03244754	200,0	500,0	25	25	135	51	26,5	24,95	24,0	200,0	0,6	4,0	5,0	LC..1604..
CFOL2525X04R080055-JETI	03244816	55,0	80,0	25	25	135	51	26,5	24,95	24,0	200,0	0,6	4,0	5,0	LC..1604..
CFOL2525X04R100070-JETI	03244772	70,0	100,0	25	25	135	51	26,5	24,95	24,0	200,0	0,6	4,0	5,0	LC..1604..
CFOL2525X04R130090-JETI	03244777	90,0	130,0	25	25	135	51	26,5	24,95	24,0	200,0	0,6	4,0	5,0	LC..1604..
CFOL2525X04R170110-JETI	03244802	110,0	170,0	25	25	135	51	26,5	24,95	24,0	200,0	0,6	4,0	5,0	LC..1604..
CFOL2525X04R230140-JETI	03244826	140,0	230,0	25	25	135	51	26,5	24,95	24,0	200,0	0,6	4,0	5,0	LC..1604..
CFOL2525X04R500200-JETI	03244747	200,0	500,0	25	25	135	51	26,5	24,95	24,0	200,0	0,6	4,0	5,0	LC..1604..
CFOR2525X05L080055-JETI	03244764	55,0	80,0	25	25	143	59	26,5	24,95	30,0	200,0	0,6	5,0	5,0	LC..1605..
CFOR2525X05L100070-JETI	03244923	70,0	100,0	25	25	143	59	26,5	24,95	30,0	200,0	0,1	5,0	5,0	LC..1605..
CFOR2525X05L130090-JETI	03244834	90,0	130,0	25	25	143	59	26,5	24,95	30,0	200,0	0,6	5,0	5,0	LC..1605..
CFOR2525X05L170110-JETI	03244859	110,0	170,0	25	25	143	59	26,5	24,95	30,0	200,0	0,6	5,0	5,0	LC..1605..
CFOR2525X05L230140-JETI	03244797	140,0	230,0	25	25	143	59	26,5	24,95	30,0	200,0	0,6	5,0	5,0	LC..1605..

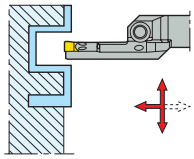
Designation	Item number	INPLM	INPLX	H	B	OAL	LF	WF	HF	CDX	CP	Weight	CW	TQ	CTWS
		mm	mm	mm	mm	mm	mm	mm	mm	mm	bar	kg	mm	Nm	
CFOR2525X05L500200-JETI	03244751	200,0	500,0	25	25	143	59	26,5	24,95	30,0	200,0	0,6	5,0	5,0	LC..1605..
CFOL2525X05R080055-JETI	03244828	55,0	80,0	25	25	143	59	26,5	24,95	30,0	200,0	0,6	5,0	5,0	LC..1605..
CFOL2525X05R100070-JETI	03244899	70,0	100,0	25	25	143	59	26,5	24,95	30,0	200,0	0,6	5,0	5,0	LC..1605..
CFOL2525X05R130090-JETI	03244870	90,0	130,0	25	25	143	59	26,5	24,95	30,0	200,0	0,1	5,0	5,0	LC..1605..
CFOL2525X05R170110-JETI	03244871	110,0	170,0	25	25	143	59	26,5	24,95	30,0	200,0	0,6	5,0	5,0	LC..1605..
CFOL2525X05R230140-JETI	03244853	140,0	230,0	25	25	143	59	26,5	24,95	30,0	200,0	0,6	5,0	5,0	LC..1605..
CFOL2525X05R500200-JETI	03244748	200,0	500,0	25	25	143	59	26,5	24,95	30,0	200,0	0,6	5,0	5,0	LC..1605..
CFOR2525X06L080055-JETI	03244752	55,0	80,0	25	25	154	70	26,5	24,95	36,0	200,0	0,7	6,0	5,0	LC..1606..
CFOR2525X06L100070-JETI	03244780	70,0	100,0	25	25	154	70	26,5	24,95	36,0	200,0	0,7	6,0	5,0	LC..1606..
CFOR2525X06L130090-JETI	03244760	90,0	130,0	25	25	154	70	26,5	24,95	36,0	200,0	0,7	6,0	5,0	LC..1606..
CFOR2525X06L170110-JETI	03244757	110,0	170,0	25	25	154	70	26,5	24,95	36,0	200,0	0,7	6,0	5,0	LC..1606..
CFOR2525X06L230140-JETI	03244761	140,0	230,0	25	25	154	70	26,5	24,95	36,0	200,0	0,7	6,0	5,0	LC..1606..
CFOR2525X06L500200-JETI	03244762	200,0	500,0	25	25	154	70	26,5	24,95	36,0	200,0	0,7	6,0	5,0	LC..1606..
CFOL2525X06R080055-JETI	03244900	55,0	80,0	25	25	154	70	26,5	24,95	36,0	200,0	0,7	6,0	5,0	LC..1606..
CFOL2525X06R100070-JETI	03244804	70,0	100,0	25	25	154	70	26,5	24,95	36,0	200,0	0,6	6,0	5,0	LC..1606..
CFOL2525X06R130090-JETI	03244829	90,0	130,0	25	25	154	70	26,5	24,95	36,0	200,0	0,7	6,0	5,0	LC..1606..
CFOL2525X06R170110-JETI	03244805	110,0	170,0	25	25	154	70	26,5	24,95	36,0	200,0	0,7	6,0	5,0	LC..1606..
CFOL2525X06R230140-JETI	03244774	140,0	230,0	25	25	154	70	26,5	24,95	36,0	200,0	0,7	6,0	5,0	LC..1606..
CFOL2525X06R500200-JETI	03244749	200,0	500,0	25	25	154	70	26,5	24,95	36,0	200,0	0,7	6,0	5,0	LC..1606..

Spare Parts, included in delivery

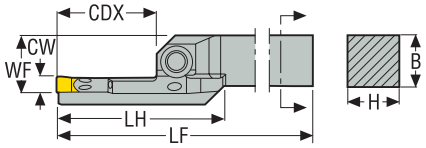
For size	Clamp key	Clamp screw	Plug	Plug screw
				
CFOR/L..-03	4SMS795	TCEI0513	JET-P1/8-5MM	P6SS6X6
CFOR/L..-04	5SMS795	TCEI0613	JET-P1/8-5MM	P6SS6X6
CFOR/L..-05	5SMS795	TCEI0613	JET-P1/8-5MM	P6SS6X6
CFOR/L..-06	6SMS795	TCEI0815	JET-P1/8-5MM	P6SS6X6

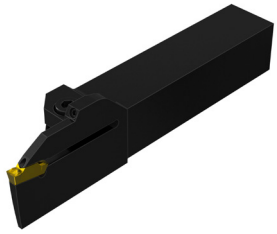
CFOR...L...JET, CFOL...R...JET – Toolholders for inserts LCGF, LCGN, LCMF, LCMR – Metric

CFOR/L
KAPR = 90,0 °



CFOR...L...JET, CFOL...R...JET

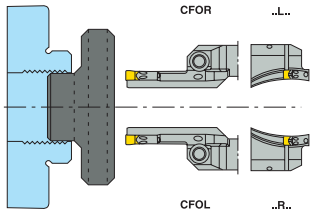




CTWS



- Right-hand version with left-hand blade shown
- For inserts program, see page(s) 858, 861-863
- For holder code key, see page(s) 701-702
- For more information on Jetstream Tooling® and accessories, see page(s) 38, 85-89, 1026
- Max depth of cut for double-sided LCGF/LCMF30.. = 28 mm
- CW = indicative Cutting Width, may vary depending on the chosen insert
- For ISO attribute explanation, see page 82

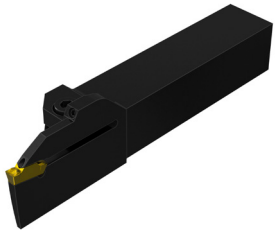


Designation	Item number	INPLM	INPLX	H	B	LF	WF	LH	CDX	CP	Weight	CW	TQ	CTWS
		mm	mm	mm	mm	mm	mm	mm	mm	bar	kg	mm	Nm	
CFOR3225P08L130090-JET	02703569	90,0	130,0	32	25	170	28,0	83,0	48,0	275,0	1,0	8,0	10,0	LC..3008..
CFOR3225P08L170110-JET	02703570	110,0	170,0	32	25	170	28,0	83,0	48,0	275,0	1,0	8,0	10,0	LC..3008..
CFOR3225P08L230140-JET	02703571	140,0	230,0	32	25	170	28,0	83,0	48,0	275,0	1,0	8,0	10,0	LC..3008..
CFOR3225P08L500200-JET	02703572	200,0	500,0	32	25	170	28,0	83,0	48,0	275,0	0,9	8,0	10,0	LC..3008..
CFOL3225P08R130090-JET	02703548	90,0	130,0	32	25	170	28,0	83,0	48,0	275,0	1,0	8,0	10,0	LC..3008..
CFOL3225P08R170110-JET	02703549	110,0	170,0	32	25	170	28,0	83,0	48,0	275,0	1,0	8,0	10,0	LC..3008..
CFOL3225P08R230140-JET	02703550	140,0	230,0	32	25	170	28,0	83,0	48,0	275,0	1,0	8,0	10,0	LC..3008..
CFOL3225P08R500200-JET	02703551	200,0	500,0	32	25	170	28,0	83,0	48,0	275,0	0,9	8,0	10,0	LC..3008..

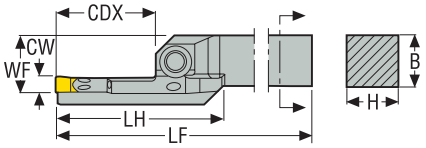
Spare Parts, included in delivery

For size	Clamp key	Clamp screw	Plug
			
CFOR/L..-08	6SMS795	TCEI1020	JET-P1/8-5MM

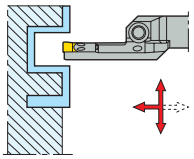
CFOR...L...JET, CFOL...R...JET – Toolholders for inserts LCGF, LCGN, LCMF, LCMR – Inch



CFOR...L...JET, CFOL...R...JET



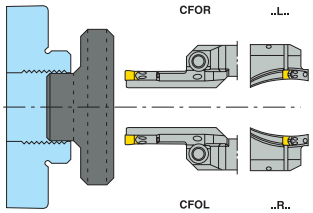
KAPR = 90,0 °



CTWS



- Right-hand version with left-hand blade shown
- For inserts program, see page(s) 858, 861-863
- For holder code key, see page(s) 701-702
- For more information on Jetstream Tooling® and accessories, see page(s) 38, 85-89, 1026
- Max depth of cut for double-sided LCGF/LCMF16.. = *0.551 inch*, LCGF/LCMF30.. = *1.102 inch*
- CW = indicative Cutting Width, may vary depending on the chosen insert
- For ISO attribute explanation, see page 82



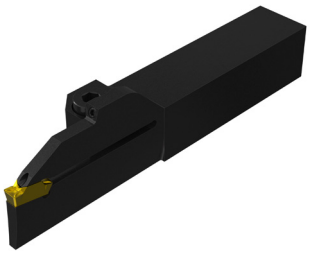
Designation	Item number	INPLM	INPLX	H	B	LF	WF	LH	CDX	CP	Weight	CW	TQ	CTWS
		inch	inch	inch	inch	inch	inch	inch	inch	psi	lbs	inch	In/Lbs.	
CFOR10003D-L3.102.17-JET	02718991	2.165	3.150	1.000	1.000	6.000	1.043	1.693	0.748	3988.5	1.760	0.118	53.1	LC..1603..
CFOR10003D-L4.002.75-JET	02703429	2.756	3.937	1.000	1.000	6.000	1.043	1.693	0.748	3988.5	1.540	0.118	53.1	LC..1603..
CFOR10003D-L5.003.50-JET	02703430	3.543	5.118	1.000	1.000	6.000	1.043	1.693	0.748	3988.5	1.540	0.118	53.1	LC..1603..
CFOR10003D-L6.704.30-JET	02703431	4.331	6.693	1.000	1.000	6.000	1.043	1.693	0.748	3988.5	1.540	0.118	53.1	LC..1603..
CFOR10003D-L9.005.50-JET	02703384	5.512	9.055	1.000	1.000	6.000	1.043	1.693	0.748	3988.5	1.760	0.118	53.1	LC..1603..
CFOR10003D-L19.78.00-JET	02703385	7.874	19.685	1.000	1.000	6.000	1.043	1.693	0.748	3988.5	1.540	0.118	53.1	LC..1603..
CFOL10003D-R3.102.17-JET	02718987	2.165	3.150	1.000	1.000	6.000	1.043	1.693	0.748	3988.5	1.760	0.118	53.1	LC..1603..
CFOL10003D-R4.002.75-JET	02701848	2.756	3.937	1.000	1.000	6.000	1.043	1.693	0.748	3988.5	1.540	0.118	53.1	LC..1603..
CFOL10003D-R5.003.50-JET	02703411	3.543	5.118	1.000	1.000	6.000	1.043	1.693	0.748	3988.5	1.540	0.118	53.1	LC..1603..
CFOL10003D-R6.704.30-JET	02703412	4.331	6.693	1.000	1.000	6.000	1.043	1.693	0.748	3988.5	1.540	0.118	53.1	LC..1603..
CFOL10003D-R9.005.50-JET	02703280	5.512	9.055	1.000	1.000	6.000	1.043	1.693	0.748	3988.5	1.760	0.118	53.1	LC..1603..
CFOL10003D-R19.78.00-JET	02703379	7.874	19.685	1.000	1.000	6.000	1.043	1.693	0.748	3988.5	1.540	0.118	53.1	LC..1603..
CFOR10004D-L3.102.17-JET	02718992	2.165	3.150	1.000	1.000	6.000	1.043	2.008	0.945	3988.5	1.760	0.157	70.8	LC..1604..
CFOR10004D-L4.002.75-JET	02703432	2.756	3.937	1.000	1.000	6.000	1.043	2.008	0.945	3988.5	1.540	0.157	70.8	LC..1604..
CFOR10004D-L5.003.50-JET	02703433	3.543	5.118	1.000	1.000	6.000	1.043	2.008	0.945	3988.5	1.540	0.157	70.8	LC..1604..
CFOR10004D-L6.704.30-JET	02703434	4.331	6.693	1.000	1.000	6.000	1.043	2.008	0.945	3988.5	1.540	0.157	70.8	LC..1604..
CFOR10004D-L9.005.50-JET	02703435	5.512	9.055	1.000	1.000	6.000	1.043	2.008	0.945	3988.5	1.540	0.157	70.8	LC..1604..
CFOR10004D-L19.78.00-JET	02703386	7.874	19.685	1.000	1.000	6.000	1.043	2.008	0.945	3988.5	1.540	0.157	70.8	LC..1604..
CFOL10004D-R3.102.17-JET	02718988	2.165	3.150	1.000	1.000	6.000	1.043	2.008	0.945	3988.5	1.760	0.157	70.8	LC..1604..
CFOL10004D-R4.002.75-JET	02703413	2.756	3.937	1.000	1.000	6.000	1.043	2.008	0.945	3988.5	1.540	0.157	70.8	LC..1604..
CFOL10004D-R5.003.50-JET	02703414	3.543	5.118	1.000	1.000	6.000	1.043	2.008	0.945	3988.5	1.540	0.157	70.8	LC..1604..
CFOL10004D-R6.704.30-JET	02703415	4.331	6.693	1.000	1.000	6.000	1.043	2.008	0.945	3988.5	1.540	0.157	70.8	LC..1604..
CFOL10004D-R9.005.50-JET	02703416	5.512	9.055	1.000	1.000	6.000	1.043	2.008	0.945	3988.5	1.540	0.157	70.8	LC..1604..
CFOL10004D-R19.78.00-JET	02703381	7.874	19.685	1.000	1.000	6.000	1.043	2.008	0.945	3988.5	1.540	0.157	70.8	LC..1604..
CFOR10005D-L3.102.17-JET	02718993	2.165	3.150	1.000	1.000	6.000	1.043	2.299	1.122	3988.5	1.540	0.197	70.8	LC..1605..
CFOR10005D-L4.002.75-JET	02703436	2.756	3.937	1.000	1.000	6.000	1.043	2.299	1.122	3988.5	1.540	0.197	70.8	LC..1605..
CFOR10005D-L5.003.50-JET	02703437	3.543	5.118	1.000	1.000	6.000	1.043	2.299	1.122	3988.5	1.540	0.197	70.8	LC..1605..
CFOR10005D-L6.704.30-JET	02703438	4.331	6.693	1.000	1.000	6.000	1.043	2.299	1.122	3988.5	1.540	0.197	70.8	LC..1605..
CFOR10005D-L9.005.50-JET	02703439	5.512	9.055	1.000	1.000	6.000	1.043	2.299	1.122	3988.5	1.540	0.197	70.8	LC..1605..

Designation	Item number	INPLM	INPLX	H	B	LF	WF	LH	CDX	CP	Weight	CW	TQ	CTWS
		inch	inch	inch	inch	inch	inch	inch	inch	psi	lbs	inch	In/Lbs.	
CFOR10005D-L19.78.00-JET	02703387	7.874	19.685	1.000	1.000	6.000	1.043	2.299	1.122	3988.5	1.540	0.197	70.8	LC..1605..
CFOL10005D-R3.102.17-JET	02718989	2.165	3.150	1.000	1.000	6.000	1.043	2.299	1.122	3988.5	1.540	0.197	70.8	LC..1605..
CFOL10005D-R4.002.75-JET	02703417	2.756	3.937	1.000	1.000	6.000	1.043	2.299	1.122	3988.5	1.540	0.197	70.8	LC..1605..
CFOL10005D-R5.003.50-JET	02703418	3.543	5.118	1.000	1.000	6.000	1.043	2.299	1.122	3988.5	1.540	0.197	70.8	LC..1605..
CFOL10005D-R6.704.30-JET	02703419	4.331	6.693	1.000	1.000	6.000	1.043	2.299	1.122	3988.5	1.540	0.197	70.8	LC..1605..
CFOL10005D-R9.005.50-JET	02703420	5.512	9.055	1.000	1.000	6.000	1.043	2.299	1.122	3988.5	1.540	0.197	70.8	LC..1605..
CFOL10005D-R19.78.00-JET	02703382	7.874	19.685	1.000	1.000	6.000	1.043	2.299	1.122	3988.5	1.540	0.197	70.8	LC..1605..
CFOR10006D-L3.102.17-JET	02718994	2.165	3.150	1.000	1.000	6.000	1.043	2.811	1.496	3988.5	1.540	0.236	88.5	LC..1606..
CFOR10006D-L4.002.75-JET	02703440	2.756	3.937	1.000	1.000	6.000	1.043	2.811	1.496	3988.5	1.540	0.236	88.5	LC..1606..
CFOR10006D-L5.003.50-JET	02703441	3.543	5.118	1.000	1.000	6.000	1.043	2.811	1.496	3988.5	1.540	0.236	88.5	LC..1606..
CFOR10006D-L6.704.30-JET	02703442	4.331	6.693	1.000	1.000	6.000	1.043	2.811	1.496	3988.5	1.540	0.236	88.5	LC..1606..
CFOR10006D-L19.78.00-JET	02703388	7.874	19.685	1.000	1.000	6.000	1.043	2.811	1.496	3988.5	1.540	0.236	88.5	LC..1606..
CFOL10006D-R19.78.00-JET	02703383	7.874	19.685	1.000	1.000	6.000	1.043	2.811	1.496	3988.5	1.540	0.236	88.5	LC..1606..
CFOL10006D-R3.102.17-JET	02718990	2.165	3.150	1.000	1.000	6.000	1.043	2.811	1.496	3988.5	1.540	0.236	88.5	LC..1606..
CFOL10006D-R4.002.75-JET	02703421	2.756	3.937	1.000	1.000	6.000	1.043	2.811	1.496	3988.5	1.540	0.236	88.5	LC..1606..
CFOL10006D-R5.003.50-JET	02703422	3.543	5.118	1.000	1.000	6.000	1.043	2.811	1.496	3988.5	1.540	0.236	88.5	LC..1606..
CFOL10006D-R6.704.30-JET	02703423	4.331	6.693	1.000	1.000	6.000	1.043	2.811	1.496	3988.5	1.540	0.236	88.5	LC..1606..
CFOL10006D-R9.005.50-JET	02703424	5.512	9.055	1.000	1.000	6.000	1.043	2.811	1.496	3988.5	1.540	0.236	88.5	LC..1606..
CFOR10006D-L9.005.50-JET	02703443	5.512	9.055	1.000	1.000	6.000	1.043	2.811	1.496	3988.5	1.540	0.236	88.5	LC..1606..
CFOR12508E-L5.003.50-JET	02703444	3.543	5.118	1.250	1.250	7.000	1.315	3.268	1.890	3988.5	2.650	0.315	132.8	LC..3008..
CFOR12508E-L6.704.30-JET	02703445	4.331	6.693	1.250	1.250	7.000	1.315	3.268	1.890	3988.5	2.650	0.315	132.8	LC..3008..
CFOR12508E-L9.005.50-JET	02703446	5.512	9.055	1.250	1.250	7.000	1.315	3.268	1.890	3988.5	2.650	0.315	132.8	LC..3008..
CFOR12508E-L19.78.00-JET	02703447	7.874	19.685	1.250	1.250	7.000	1.315	3.268	1.890	3988.5	2.650	0.315	132.8	LC..3008..
CFOL12508E-R5.003.50-JET	02703425	3.543	5.118	1.250	1.250	7.000	1.315	3.268	1.890	3988.5	2.650	0.315	132.8	LC..3008..
CFOL12508E-R6.704.30-JET	02703426	4.331	6.693	1.250	1.250	7.000	1.315	3.268	1.890	3988.5	2.650	0.315	132.8	LC..3008..
CFOL12508E-R9.005.50-JET	02703427	5.512	9.055	1.250	1.250	7.000	1.315	3.268	1.890	3988.5	2.650	0.315	132.8	LC..3008..
CFOL12508E-R19.78.00-JET	02703428	7.874	19.685	1.250	1.250	7.000	1.315	3.268	1.890	3988.5	2.650	0.315	132.8	LC..3008..

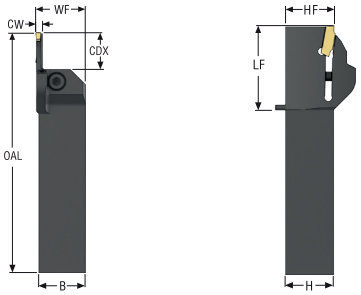
Spare Parts, included in delivery

For size	Clamp key	Clamp screw	Plug
			
CFOR/L..-03	4SMS795	TCEI0513	JET-P1/8-5MM
CFOR/L..-04	5SMS795	TCEI0613	JET-P1/8-5MM
CFOR/L..-05	5SMS795	TCEI0613	JET-P1/8-5MM
CFOR/L..-06	6SMS795	TCEI0815	JET-P1/8-5MM
CFOR/L..-08	6SMS795	TCEI1020	JET-P1/8-5MM

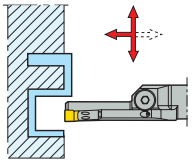
CFOR...R...JETI, CFOL...L...JETI – Toolholders compatible with JETI adapters for inserts LCGF, LCGN, LCMF, LCMR – Metric



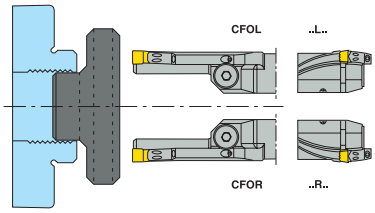
CTWS



CFOR/L
KAPR = 90,0 °



- Right-hand version with right-hand blade shown
- For inserts program, see page(s) 858-863, 873-874
- For suitable adapter, see page(s) 986-997
- For holder code key, see page(s) 701-702
- For more information on Jetstream Tooling® and accessories, see page(s) 38, 85-89, 1026
- Max depth of cut for double-sided LCGF/LCMF16.. = 14 mm
- CW = indicative Cutting Width, may vary depending on the chosen insert
- For ISO attribute explanation, see page 82



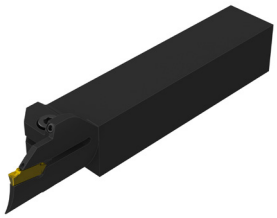
Designation	Item number	INPLM	INPLX	H	B	OAL	LF	WF	HF	CDX	CP	Weight	CW	TQ	CTWS
		mm	mm	mm	mm	mm	mm	mm	mm	mm	bar	kg	mm	Nm	
CFOR2525X03R080055-JETI	03244831	55,0	80,0	25	25	127	43	26,5	24,95	18,0	200,0	0,1	3,0	5,0	LC..1603..
CFOR2525X03R100070-JETI	03244873	70,0	100,0	25	25	127	43	26,5	24,95	18,0	200,0	0,5	3,0	5,0	LC..1603..
CFOR2525X03R130090-JETI	03244832	90,0	130,0	25	25	127	43	26,5	24,95	18,0	200,0	0,5	3,0	5,0	LC..1603..
CFOR2525X03R170110-JETI	03244833	110,0	170,0	25	25	127	43	26,5	24,95	18,0	200,0	0,5	3,0	5,0	LC..1603..
CFOR2525X03R230140-JETI	03244874	140,0	230,0	25	25	127	43	26,5	24,95	18,0	200,0	0,5	3,0	5,0	LC..1603..
CFOR2525X03R500200-JETI	03244794	200,0	500,0	25	25	127	43	26,5	24,95	18,0	200,0	0,5	3,0	5,0	LC..1603..
CFOL2525X03L080055-JETI	03244865	55,0	80,0	25	25	127	43	26,5	24,95	18,0	200,0	0,5	3,0	5,0	LC..1603..
CFOL2525X03L100070-JETI	03244907	70,0	100,0	25	25	127	43	26,5	24,95	18,0	200,0	0,1	3,0	5,0	LC..1603..
CFOL2525X03L130090-JETI	03244866	90,0	130,0	25	25	127	43	26,5	24,95	18,0	200,0	0,5	3,0	5,0	LC..1603..
CFOL2525X03L170110-JETI	03244908	110,0	170,0	25	25	127	43	26,5	24,95	18,0	200,0	0,5	3,0	5,0	LC..1603..
CFOL2525X03L230140-JETI	03244867	140,0	230,0	25	25	127	43	26,5	24,95	18,0	200,0	0,5	3,0	5,0	LC..1603..
CFOL2525X03L500200-JETI	03244895	200,0	500,0	25	25	127	43	26,5	24,95	18,0	200,0	0,5	3,0	5,0	LC..1603..
CFOR2525X04R080055-JETI	03244796	55,0	80,0	25	25	135	51	26,5	24,95	24,0	200,0	0,6	4,0	5,0	LC..1604..
CFOR2525X04R100070-JETI	03244857	70,0	100,0	25	25	135	51	26,5	24,95	24,0	200,0	0,5	4,0	5,0	LC..1604..
CFOR2525X04R130090-JETI	03244768	90,0	130,0	25	25	135	51	26,5	24,95	24,0	200,0	0,6	4,0	5,0	LC..1604..
CFOR2525X04R170110-JETI	03244819	110,0	170,0	25	25	135	51	26,5	24,95	24,0	200,0	0,6	4,0	5,0	LC..1604..
CFOR2525X04R230140-JETI	03244858	140,0	230,0	25	25	135	51	26,5	24,95	24,0	200,0	0,6	4,0	5,0	LC..1604..
CFOR2525X04R500200-JETI	03244763	200,0	500,0	25	25	135	51	26,5	24,95	24,0	200,0	0,6	4,0	5,0	LC..1604..
CFOL2525X04L080055-JETI	03244897	55,0	80,0	25	25	135	51	26,5	24,95	24,0	200,0	0,6	4,0	5,0	LC..1604..
CFOL2525X04L100070-JETI	03244851	70,0	100,0	25	25	135	51	26,5	24,95	24,0	200,0	0,6	4,0	5,0	LC..1604..
CFOL2525X04L130090-JETI	03244800	90,0	130,0	25	25	135	51	26,5	24,95	24,0	200,0	0,6	4,0	5,0	LC..1604..
CFOL2525X04L170110-JETI	03244825	110,0	170,0	25	25	135	51	26,5	24,95	24,0	200,0	0,6	4,0	5,0	LC..1604..
CFOL2525X04L230140-JETI	03244852	140,0	230,0	25	25	135	51	26,5	24,95	24,0	200,0	0,6	4,0	5,0	LC..1604..
CFOL2525X04L500200-JETI	03244801	200,0	500,0	25	25	135	51	26,5	24,95	24,0	200,0	0,6	4,0	5,0	LC..1604..
CFOR2525X05R080055-JETI	03244775	55,0	80,0	25	25	143	59	26,5	24,95	30,0	200,0	0,6	5,0	5,0	LC..1605..
CFOR2525X05R100070-JETI	03244860	70,0	100,0	25	25	143	59	26,5	24,95	30,0	200,0	0,6	5,0	5,0	LC..1605..
CFOR2525X05R130090-JETI	03244901	90,0	130,0	25	25	143	59	26,5	24,95	30,0	200,0	0,6	5,0	5,0	LC..1605..
CFOR2525X05R170110-JETI	03244820	110,0	170,0	25	25	143	59	26,5	24,95	30,0	200,0	0,6	5,0	5,0	LC..1605..
CFOR2525X05R230140-JETI	03244861	140,0	230,0	25	25	143	59	26,5	24,95	30,0	200,0	0,6	5,0	5,0	LC..1605..

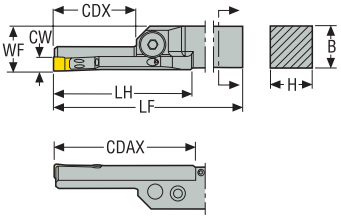
Designation	Item number	INPLM	INPLX	H	B	OAL	LF	WF	HF	CDX	CP	Weight	CW	TQ	CTWS
		mm	mm	mm	mm	mm	mm	mm	mm	mm	bar	kg	mm	Nm	
CFOR2525X05R500200-JETI	03244771	200,0	500,0	25	25	143	59	26,5	24,95	30,0	200,0	0,6	5,0	5,0	LC..1605..
CFOL2525X05L080055-JETI	03244773	55,0	80,0	25	25	143	59	26,5	24,95	30,0	200,0	0,6	5,0	5,0	LC..1605..
CFOL2525X05L100070-JETI	03244909	70,0	100,0	25	25	143	59	26,5	24,95	30,0	200,0	0,6	5,0	5,0	LC..1605..
CFOL2525X05L130090-JETI	03244767	90,0	130,0	25	25	143	59	26,5	24,95	30,0	200,0	0,6	5,0	5,0	LC..1605..
CFOL2525X05L170110-JETI	03244898	110,0	170,0	25	25	143	59	26,5	24,95	30,0	200,0	0,6	5,0	5,0	LC..1605..
CFOL2525X05L230140-JETI	03244827	140,0	230,0	25	25	143	59	26,5	24,95	30,0	200,0	0,6	5,0	5,0	LC..1605..
CFOL2525X05L500200-JETI	03244783	200,0	500,0	25	25	143	59	26,5	24,95	30,0	200,0	0,6	5,0	5,0	LC..1605..
CFOR2525X06R080055-JETI	03244785	55,0	80,0	25	25	154	70	26,5	24,95	36,0	200,0	0,7	6,0	5,0	LC..1606..
CFOR2525X06R100070-JETI	03244840	70,0	100,0	25	25	154	70	26,5	24,95	36,0	200,0	0,6	6,0	5,0	LC..1606..
CFOR2525X06R130090-JETI	03244841	90,0	130,0	25	25	154	70	26,5	24,95	36,0	200,0	0,6	6,0	5,0	LC..1606..
CFOR2525X06R170110-JETI	03244821	110,0	170,0	25	25	154	70	26,5	24,95	36,0	200,0	0,7	6,0	5,0	LC..1606..
CFOR2525X06R230140-JETI	03244902	140,0	230,0	25	25	154	70	26,5	24,95	36,0	200,0	0,7	6,0	5,0	LC..1606..
CFOR2525X06R500200-JETI	03244750	200,0	500,0	25	25	154	70	26,5	24,95	36,0	200,0	0,6	6,0	5,0	LC..1606..
CFOL2525X06L080055-JETI	03244872	55,0	80,0	25	25	154	70	26,5	24,95	36,0	200,0	0,6	6,0	5,0	LC..1606..
CFOL2525X06L100070-JETI	03244854	70,0	100,0	25	25	154	70	26,5	24,95	36,0	200,0	0,6	6,0	5,0	LC..1606..
CFOL2525X06L130090-JETI	03244855	90,0	130,0	25	25	154	70	26,5	24,95	36,0	200,0	0,1	6,0	5,0	LC..1606..
CFOL2525X06L170110-JETI	03244803	110,0	170,0	25	25	154	70	26,5	24,95	36,0	200,0	0,6	6,0	5,0	LC..1606..
CFOL2525X06L230140-JETI	03244769	140,0	230,0	25	25	154	70	26,5	24,95	36,0	200,0	0,7	6,0	5,0	LC..1606..
CFOL2525X06L500200-JETI	03244759	200,0	500,0	25	25	154	70	26,5	24,95	36,0	200,0	0,7	6,0	5,0	LC..1606..

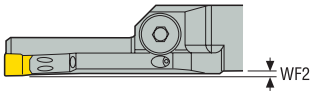
Spare Parts, included in delivery

For size	Clamp key	Clamp screw	Plug	Plug screw
				
CFOR/L..-03	4SMS795	TCEI0513	JET-P1/8-5MM	P6SS6X6
CFOR/L..-04	5SMS795	TCEI0613	JET-P1/8-5MM	P6SS6X6
CFOR/L..-05	5SMS795	TCEI0613	JET-P1/8-5MM	P6SS6X6
CFOR/L..-06	6SMS795	TCEI0815	JET-P1/8-5MM	P6SS6X6

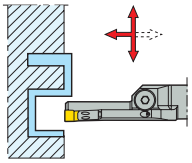
CFOR...R...JET, CFOL...L...JET – Toolholders for inserts LCGF, LCGN, LCMF, LCMR – Metric







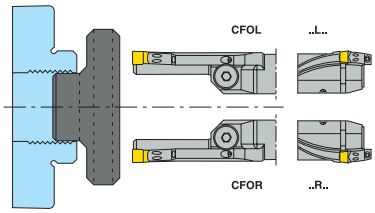
CFOR/L
KAPR = 90,0 °



CTWS



- Right-hand version with right-hand blade shown
- For inserts program, see page(s) 858, 861-863
- For holder code key, see page(s) 701-702
- For more information on Jetstream Tooling® and accessories, see page(s) 38, 85-89, 1026
- Max depth of cut for double-sided LCGF/LCMF30.. = 28 mm
- CW = indicative Cutting Width, may vary depending on the chosen insert
- For ISO attribute explanation, see page 82



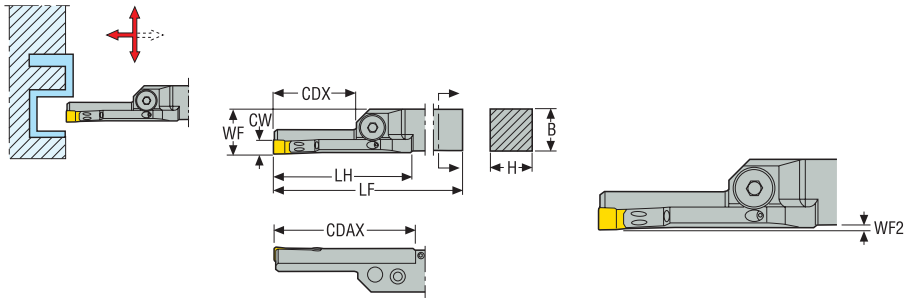
Designation	Item number	INPLM	INPLX	H	B	LF	WF	WF2	LH	CDX	CP	Weight	CW	TQ	CTWS
		mm	mm	mm	mm	mm	mm	mm	mm	mm	bar	kg	mm	Nm	
CFOR3225P08R130090-JET	02703617	90,0	130,0	32	25	170	26,5	1,5	83,0	48,0	275,0	0,9	8,0	10,0	LC..3008..
CFOR3225P08R170110-JET	02703618	110,0	170,0	32	25	170	26,5	1,5	83,0	48,0	275,0	0,9	8,0	10,0	LC..3008..
CFOR3225P08R230140-JET	02703619	140,0	230,0	32	25	170	26,5	1,5	83,0	48,0	275,0	0,9	8,0	10,0	LC..3008..
CFOR3225P08R500200-JET	02703620	200,0	500,0	32	25	170	26,5	1,5	83,0	48,0	275,0	0,9	8,0	10,0	LC..3008..
CFOL3225P08L130090-JET	02703593	90,0	130,0	32	25	170	26,5	1,5	83,0	48,0	275,0	0,9	8,0	10,0	LC..3008..
CFOL3225P08L170110-JET	02703594	110,0	170,0	32	25	170	26,5	1,5	83,0	48,0	275,0	0,9	8,0	10,0	LC..3008..
CFOL3225P08L230140-JET	02703595	140,0	230,0	32	25	170	26,5	1,5	83,0	48,0	275,0	0,9	8,0	10,0	LC..3008..
CFOL3225P08L500200-JET	02703596	200,0	500,0	32	25	170	26,5	1,5	83,0	48,0	275,0	0,9	8,0	10,0	LC..3008..

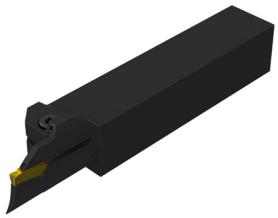
Spare Parts, included in delivery

For size	Clamp key	Clamp screw	Plug
			
CFOR/L..-08	6SMS795	TCEI1020	JET-P1/8-5MM

CFOR...R...JET, CFOL...L...JET – Toolholders for inserts LCGF, LCGN, LCMF, LCMR – Inch

KAPR = 90,0 °

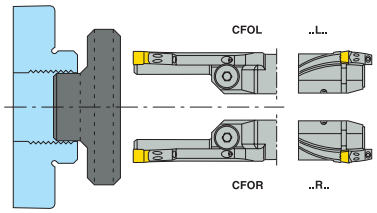




CTWS



- Right-hand version with right-hand blade shown
- For inserts program, see page(s) 858, 861-863
- For holder code key, see page(s) 701-702
- For more information on Jetstream Tooling® and accessories, see page(s) 38, 85-89, 1026
- Max depth of cut for double-sided LCGF/LCMF16.. = *0.551 inch*, LCGF/LCMF30.. = *1.102 inch*
- CW = indicative Cutting Width, may vary depending on the chosen insert
- For ISO attribute explanation, see page 82



Designation	Item number	INPLM	INPLX	H	B	LF	WF	WF2	LH	CDX	CP	Weight	CW	TQ	CTWS
		inch	inch	inch	inch	inch	inch	inch	inch	inch	psi	lbs	inch	In/Lbs.	
CFOR10003D-R3.102.17-JET	02719007	2.165	3.150	1.000	1.000	6.000	1.043	0.059	1.693	0.709	3988.5	1.540	0.118	53.1	LC..1603..
CFOR10003D-R4.002.75-JET	02703472	2.756	3.937	1.000	1.000	6.000	1.043	0.059	1.693	0.709	3988.5	1.540	0.118	53.1	LC..1603..
CFOR10003D-R5.003.50-JET	02703473	3.543	5.118	1.000	1.000	6.000	1.043	0.059	1.693	0.709	3988.5	1.540	0.118	53.1	LC..1603..
CFOR10003D-R6.704.30-JET	02703474	4.331	6.693	1.000	1.000	6.000	1.043	0.059	1.693	0.709	3988.5	1.540	0.118	53.1	LC..1603..
CFOR10003D-R9.005.50-JET	02703475	5.512	9.055	1.000	1.000	6.000	1.043	0.059	1.693	0.709	3988.5	1.540	0.118	53.1	LC..1603..
CFOR10003D-R19.78.00-JET	02703476	7.874	19.685	1.000	1.000	6.000	1.043	0.059	1.693	0.709	3988.5	1.540	0.118	53.1	LC..1603..
CFOL10003D-L3.102.17-JET	02719003	2.165	3.150	1.000	1.000	6.000	1.043	0.059	1.693	0.709	3988.5	1.760	0.118	53.1	LC..1603..
CFOL10003D-L4.002.75-JET	02703448	2.756	3.937	1.000	1.000	6.000	1.043	0.059	1.693	0.709	3988.5	1.540	0.118	53.1	LC..1603..
CFOL10003D-L5.003.50-JET	02703449	3.543	5.118	1.000	1.000	6.000	1.043	0.059	1.693	0.709	3988.5	1.540	0.118	53.1	LC..1603..
CFOL10003D-L6.704.30-JET	02703450	4.331	6.693	1.000	1.000	6.000	1.043	0.059	1.693	0.709	3988.5	1.540	0.118	53.1	LC..1603..
CFOL10003D-L9.005.50-JET	02703451	5.512	9.055	1.000	1.000	6.000	1.043	0.059	1.693	0.709	3988.5	1.540	0.118	53.1	LC..1603..
CFOL10003D-L19.78.00-JET	02703452	7.874	19.685	1.000	1.000	6.000	1.043	0.059	1.693	0.709	3988.5	1.540	0.118	53.1	LC..1603..
CFOR10004D-R3.102.17-JET	02719008	2.165	3.150	1.000	1.004	6.000	1.043	0.059	2.008	0.945	3988.5	1.540	0.157	70.8	LC..1604..
CFOR10004D-R4.002.75-JET	02703477	2.756	3.937	1.000	1.000	6.000	1.043	0.059	2.008	0.945	3988.5	1.540	0.157	70.8	LC..1604..
CFOR10004D-R5.003.50-JET	02703478	3.543	5.118	1.000	1.000	6.000	1.043	0.059	2.008	0.945	3988.5	1.540	0.157	70.8	LC..1604..
CFOR10004D-R6.704.30-JET	02703479	4.331	6.693	1.000	1.000	6.000	1.043	0.059	2.008	0.945	3988.5	1.540	0.157	70.8	LC..1604..
CFOR10004D-R9.005.50-JET	02703480	5.512	9.055	1.000	1.000	6.000	1.043	0.059	2.008	0.945	3988.5	1.540	0.157	70.8	LC..1604..
CFOR10004D-R19.78.00-JET	02703481	7.874	19.685	1.000	1.000	6.000	1.043	0.059	2.008	0.945	3988.5	1.540	0.157	70.8	LC..1604..
CFOL10004D-L3.102.17-JET	02719004	2.165	3.150	1.000	1.000	6.000	1.043	0.059	2.008	0.945	3988.5	1.540	0.157	70.8	LC..1604..
CFOL10004D-L4.002.75-JET	02703453	2.756	3.937	1.000	1.000	6.000	1.043	0.059	2.008	0.945	3988.5	1.540	0.157	70.8	LC..1604..
CFOL10004D-L5.003.50-JET	02703454	3.543	5.118	1.000	1.000	6.000	1.043	0.059	2.008	0.945	3988.5	1.540	0.157	70.8	LC..1604..
CFOL10004D-L6.704.30-JET	02703455	4.331	6.693	1.000	1.000	6.000	1.043	0.059	2.008	0.945	3988.5	1.540	0.157	70.8	LC..1604..
CFOL10004D-L9.005.50-JET	02703456	5.512	9.055	1.000	1.000	6.000	1.043	0.059	2.008	0.945	3988.5	1.540	0.157	70.8	LC..1604..
CFOL10004D-L19.78.00-JET	02703457	7.874	19.685	1.000	1.000	6.000	1.043	0.059	2.008	0.945	3988.5	1.540	0.157	70.8	LC..1604..
CFOR10005D-R3.102.17-JET	02719009	2.165	3.150	1.000	1.000	6.000	1.043	0.059	2.283	1.181	3988.5	1.540	0.197	70.8	LC..1605..
CFOR10005D-R4.002.75-JET	02703482	2.756	3.937	1.000	1.000	6.000	1.043	0.059	2.283	1.181	3988.5	1.540	0.197	70.8	LC..1605..
CFOR10005D-R5.003.50-JET	02703483	3.543	5.118	1.000	1.000	6.000	1.043	0.059	2.283	1.181	3988.5	1.540	0.197	70.8	LC..1605..
CFOR10005D-R6.704.30-JET	02703484	4.331	6.693	1.000	1.000	6.000	1.043	0.059	2.283	1.181	3988.5	1.540	0.197	70.8	LC..1605..
CFOR10005D-R9.005.50-JET	02703485	5.512	9.055	1.000	1.000	6.000	1.043	0.059	2.283	1.181	3988.5	1.540	0.197	70.8	LC..1605..

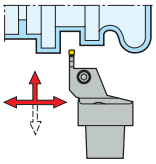
Designation	Item number	INPLM	INPLX	H	B	LF	WF	WF2	LH	CDX	CP	Weight	CW	TQ	CTWS
		inch	inch	inch	inch	inch	inch	inch	inch	inch	psi	lbs	inch	In/Lbs.	
CFOR10005D-R19.78.00-JET	02703486	7.874	19.685	1.000	1.000	6.000	1.043	0.059	2.283	1.181	3988.5	1.540	0.197	70.8	LC..1605..
CFOL10005D-L3.102.17-JET	02719005	2.165	3.150	1.000	1.000	6.000	1.043	0.059	2.283	1.181	3988.5	1.540	0.197	70.8	LC..1605..
CFOL10005D-L4.002.75-JET	02703458	2.756	3.937	1.000	1.000	6.000	1.043	0.059	2.283	1.181	3988.5	1.540	0.197	70.8	LC..1605..
CFOL10005D-L5.003.50-JET	02703459	3.543	5.118	1.000	1.000	6.000	1.043	0.059	2.283	1.181	3988.5	1.540	0.197	70.8	LC..1605..
CFOL10005D-L6.704.30-JET	02703460	4.331	6.693	1.000	1.000	6.000	1.043	0.059	2.283	1.181	3988.5	1.540	0.197	70.8	LC..1605..
CFOL10005D-L9.005.50-JET	02703461	5.512	9.055	1.000	1.000	6.000	1.043	0.059	2.283	1.181	3988.5	1.540	0.197	70.8	LC..1605..
CFOL10005D-L19.78.00-JET	02703462	7.874	19.685	1.000	1.000	6.000	1.043	0.059	2.283	1.181	3988.5	1.540	0.197	70.8	LC..1605..
CFOR10006D-R3.102.17-JET	02719010	2.165	3.150	1.000	1.000	6.000	1.043	0.059	2.756	1.417	3988.5	1.760	0.236	88.5	LC..1606..
CFOR10006D-R4.002.75-JET	02703487	2.756	3.937	1.000	1.000	6.000	1.043	0.059	2.756	1.417	3988.5	1.540	0.236	88.5	LC..1606..
CFOR10006D-R5.003.50-JET	02703488	3.543	5.118	1.000	1.000	6.000	1.043	0.059	2.756	1.417	3988.5	1.540	0.236	88.5	LC..1606..
CFOR10006D-R6.704.30-JET	02703489	4.331	6.693	1.000	1.000	6.000	1.043	0.059	2.756	1.417	3988.5	1.540	0.236	88.5	LC..1606..
CFOR10006D-R9.005.50-JET	02703490	5.512	9.055	1.000	1.000	6.000	1.043	0.059	2.756	1.417	3988.5	1.540	0.236	88.5	LC..1606..
CFOR10006D-R19.78.00-JET	02703491	7.874	19.685	1.000	1.000	6.000	1.043	0.059	2.756	1.417	3988.5	1.540	0.236	88.5	LC..1606..
CFOL10006D-L3.102.17-JET	02719006	2.165	3.150	1.000	1.000	6.000	1.043	0.059	2.756	1.417	3988.5	1.540	0.236	88.5	LC..1606..
CFOL10006D-L4.002.75-JET	02703463	2.756	3.937	1.000	1.000	6.000	1.043	0.059	2.756	1.417	3988.5	1.540	0.236	88.5	LC..1606..
CFOL10006D-L5.003.50-JET	02703464	3.543	5.118	1.000	1.000	6.000	1.043	0.059	2.756	1.417	3988.5	1.540	0.236	88.5	LC..1606..
CFOL10006D-L6.704.30-JET	02703465	4.331	6.693	1.000	1.000	6.000	1.043	0.059	2.756	1.417	3988.5	1.540	0.236	88.5	LC..1606..
CFOL10006D-L9.005.50-JET	02703466	5.512	9.055	1.000	1.000	6.000	1.043	0.059	2.756	1.417	3988.5	1.540	0.236	88.5	LC..1606..
CFOL10006D-L19.78.00-JET	02703467	7.874	19.685	1.000	1.000	6.000	1.043	0.059	2.756	1.417	3988.5	1.540	0.236	88.5	LC..1606..
CFOR12508E-R5.003.50-JET	02703492	3.543	5.118	1.250	1.250	7.000	1.043	0.059	3.268	1.890	3988.5	2.430	0.315	132.8	LC..3008..
CFOR12508E-R6.704.30-JET	02703493	4.331	6.693	1.250	1.250	7.000	1.043	0.059	3.268	1.890	3988.5	2.430	0.315	132.8	LC..3008..
CFOR12508E-R9.005.50-JET	02703494	5.512	9.055	1.250	1.250	7.000	1.043	0.059	3.268	1.890	3988.5	2.430	0.315	132.8	LC..3008..
CFOR12508E-R19.78.00-JET	02703495	7.874	19.685	1.250	1.250	7.000	1.043	0.059	3.268	1.890	3988.5	2.650	0.315	132.8	LC..3008..
CFOL12508E-L5.003.50-JET	02703468	3.543	5.118	1.250	1.250	7.000	1.043	0.059	3.268	1.890	3988.5	2.430	0.315	132.8	LC..3008..
CFOL12508E-L6.704.30-JET	02703469	4.331	6.693	1.250	1.250	7.000	1.043	0.059	3.268	1.890	3988.5	2.430	0.315	132.8	LC..3008..
CFOL12508E-L9.005.50-JET	02703470	5.512	9.055	1.250	1.250	7.000	1.043	0.059	3.268	1.890	3988.5	2.430	0.315	132.8	LC..3008..
CFOL12508E-L19.78.00-JET	02703471	7.874	19.685	1.250	1.250	7.000	1.043	0.059	3.268	1.890	3988.5	2.650	0.315	132.8	LC..3008..

Spare Parts, included in delivery

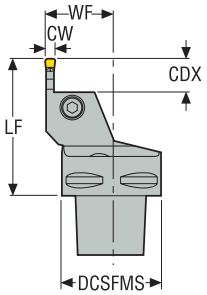
For size	Clamp key	Clamp screw	Plug
			
CFOR/L..-03	4SMS795	TCEI0513	JET-P1/8-5MM
CFOR/L..-04	5SMS795	TCEI0613	JET-P1/8-5MM
CFOR/L..-05	5SMS795	TCEI0613	JET-P1/8-5MM
CFOR/L..-06	6SMS795	TCEI0815	JET-P1/8-5MM
CFOR/L..-08	6SMS795	TCEI1020	JET-P1/8-5MM

C.-CFIR/L – Toolholders for inserts LCGN, LCMF, LCMR – Metric / *Inch*

C.-CFIR/L
KAPR = 90,0 °



C.-CFIR/L





CTWS



- Right-hand version shown
- For inserts program, see page(s) 858-863, 873-874
- For holder code key, see page(s) 699
- Max depth of cut for double-sided LCGF/LCMF16.. = 14 mm / *0.551 inch*, LCGF/LCMF30.. = 28 mm / *1.102 inch*
- CW = indicative Cutting Width, may vary depending on the chosen insert
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	DCSFMS	WF	LF	CDX	DCINN3	Weight	CW	TQ	CTWS
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	kg *lbs*	mm *inch*	Nm *In/Lbs.*	
C4-CFIR-27055-03	00091707	C4	40,0 *1.575*	27,0 *1.063*	55 *2.165*	9,0 *0.354*	195,0 *7.677*	0,4 *0.880*	3,0 *0.118*	3,5 *31.0*	LC..1603..
C4-CFIL-27055-03	00091706	C4	40,0 *1.575*	27,0 *1.063*	55 *2.165*	9,0 *0.354*	195,0 *7.677*	0,4 *0.880*	3,0 *0.118*	3,5 *31.0*	LC..1603..
C4-CFIR-27055-04	00091709	C4	40,0 *1.575*	27,0 *1.063*	55 *2.165*	12,0 *0.472*	195,0 *7.677*	0,4 *0.880*	4,0 *0.157*	5,0 *44.3*	LC..1604..
C4-CFIL-27055-04	00091708	C4	40,0 *1.575*	27,0 *1.063*	55 *2.165*	12,0 *0.472*	195,0 *7.677*	0,4 *0.880*	4,0 *0.157*	5,0 *44.3*	LC..1604..
C4-CFIR-27055-05	00091711	C4	40,0 *1.575*	27,0 *1.063*	55 *2.165*	15,0 *0.591*	195,0 *7.677*	0,4 *0.880*	5,0 *0.197*	5,0 *44.3*	LC..1605..
C4-CFIL-27055-05	00091710	C4	40,0 *1.575*	27,0 *1.063*	55 *2.165*	15,0 *0.591*	195,0 *7.677*	0,4 *0.880*	5,0 *0.197*	5,0 *44.3*	LC..1605..
C5-CFIR-35060-03	00091713	C5	50,0 *1.969*	35,0 *1.378*	60 *2.362*	9,0 *0.354*	195,0 *7.677*	0,6 *1.320*	3,0 *0.118*	3,5 *31.0*	LC..1603..
C5-CFIL-35060-03	00091712	C5	50,0 *1.969*	35,0 *1.378*	60 *2.362*	9,0 *0.354*	195,0 *7.677*	0,6 *1.320*	3,0 *0.118*	3,5 *31.0*	LC..1603..
C5-CFIR-35060-04	00091715	C5	50,0 *1.969*	35,0 *1.378*	60 *2.362*	12,0 *0.472*	195,0 *7.677*	0,6 *1.320*	4,0 *0.157*	5,0 *44.3*	LC..1604..
C5-CFIL-35060-04	00091714	C5	50,0 *1.969*	35,0 *1.378*	60 *2.362*	12,0 *0.472*	195,0 *7.677*	0,6 *1.320*	4,0 *0.157*	5,0 *44.3*	LC..1604..
C5-CFIR-35060-05	00092112	C5	50,0 *1.969*	35,0 *1.378*	60 *2.362*	15,0 *0.591*	195,0 *7.677*	0,6 *1.320*	5,0 *0.197*	5,0 *44.3*	LC..1605..
C5-CFIL-35060-05	00092111	C5	50,0 *1.969*	35,0 *1.378*	60 *2.362*	15,0 *0.591*	195,0 *7.677*	0,6 *1.320*	5,0 *0.197*	5,0 *44.3*	LC..1605..
C5-CFIR-35065-06	02303613	C5	50,0 *1.969*	35,0 *1.378*	65 *2.559*	18,0 *0.709*	195,0 *7.677*	0,7 *1.540*	6,0 *0.236*	10,0 *88.5*	LC..1606..
C5-CFIL-35065-06	02415000	C5	50,0 *1.969*	35,0 *1.378*	65 *2.559*	18,0 *0.709*	195,0 *7.677*	0,7 *1.540*	6,0 *0.236*	10,0 *88.5*	LC..1606..
C6-CFIR-45065-03	00094475	C6	63,0 *2.480*	45,0 *1.772*	65 *2.559*	9,0 *0.354*	195,0 *7.677*	1,0 *2.200*	3,0 *0.118*	3,5 *31.0*	LC..1603..
C6-CFIL-45065-03	00038098	C6	63,0 *2.480*	45,0 *1.772*	65 *2.559*	9,0 *0.354*	195,0 *7.677*	1,0 *2.200*	3,0 *0.118*	3,5 *31.0*	LC..1603..
C6-CFIR-45065-04	00094476	C6	63,0 *2.480*	45,0 *1.772*	65 *2.559*	12,0 *0.472*	195,0 *7.677*	1,1 *2.430*	4,0 *0.157*	5,0 *44.3*	LC..1604..
C6-CFIL-45065-04	00038100	C6	63,0 *2.480*	45,0 *1.772*	65 *2.559*	12,0 *0.472*	195,0 *7.677*	1,1 *2.430*	4,0 *0.157*	5,0 *44.3*	LC..1604..

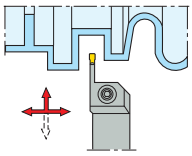
Designation	Item number	CTMS	DCSFMS	WF	LF	CDX	DCINN3	Weight	CW	TQ	CTWS
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	kg *lbs*	mm *inch*	Nm *In/Lbs.*	
C6-CFIR-45065-05	00094477	C6	63,0 *2.480*	45,0 *1.772*	65 *2.559*	15,0 *0.591*	195,0 *7.677*	1,2 *2.650*	5,0 *0.197*	5,0 *44.3*	LC..1605..
C6-CFIL-45065-05	00012730	C6	63,0 *2.480*	45,0 *1.772*	65 *2.559*	15,0 *0.591*	195,0 *7.677*	1,0 *2.200*	5,0 *0.197*	5,0 *44.3*	LC..1605..
C6-CFIR-45065-06	00012338	C6	63,0 *2.480*	45,0 *1.772*	65 *2.559*	18,0 *0.709*	195,0 *7.677*	1,1 *2.430*	6,0 *0.236*	10,0 *88.5*	LC..1606..
C6-CFIL-45065-06	00012340	C6	63,0 *2.480*	45,0 *1.772*	65 *2.559*	18,0 *0.709*	195,0 *7.677*	1,1 *2.430*	6,0 *0.236*	10,0 *88.5*	LC..1606..
C6-CFIR-45075-08	00038107	C6	63,0 *2.480*	45,0 *1.772*	75 *2.953*	24,0 *0.945*	195,0 *7.677*	1,2 *2.650*	8,0 *0.315*	10,0 *88.5*	LC..3008..
C6-CFIL-45075-08	00038106	C6	63,0 *2.480*	45,0 *1.772*	75 *2.953*	24,0 *0.945*	195,0 *7.677*	1,2 *2.650*	8,0 *0.315*	10,0 *88.5*	LC..3008..

Spare Parts, included in delivery

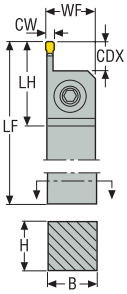
For size	Clamp key	Clamp screw	Coolant nozzle
			
C4..-03	3SMS795	MC6S4X18	CN6
C4..-04	4SMS795	MC6S5X18	CN6
C4..-05	4SMS795	MC6S5X18	CN6
C5..-03	3SMS795	MC6S4X18	CN7
C5..-04	4SMS795	MC6S5X18	CN7
C5..-05	4SMS795	MC6S5X18	CN7
C5..-06	6SMS795	TCEI0815	CN7
CFIR/L..-03	3SMS795	MC6S4X18	CN7
CFIR/L..-04	4SMS795	MC6S5X18	CN7
CFIR/L..-05	4SMS795	MC6S5X18	CN7
CFIR/L..-06	6SMS795	TCEI0815	CN7
CFIR/L..-08	6SMS795	TCEI0825	CN7

CFIR/L – Toolholders for inserts LCGF, LCGN, LCMF, LCMR – Metric

CFIR/L
KAPR = 90,0 °



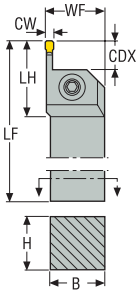
CFIR/L1212../1616..

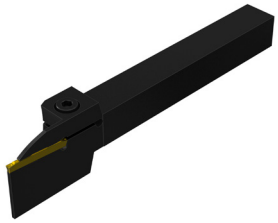


CFIR/L1212..



CFIR/L





CTWS



- Right-hand version shown
- For inserts program, see page(s) 858-871, 873-874
- For holder code key, see page(s) 701-702
- Max depth of cut for double-sided LCGF/LCMF16.. = 14 mm, LCGF/LCMF30.. = 28 mm
- CW = indicative Cutting Width, may vary depending on the chosen insert
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF	LH	CDX	DCINN3	Weight	CW	TQ	CTWS
		mm	mm	mm	mm	mm	mm	mm	kg	mm	Nm	
CFIR1212M03	02435854	12	12	150	12,0	31,0	9,0	–	0,2	3,0	2,5	LC..1603..
CFIR1616H03	00091799	16	16	100	16,0	28,0	9,0	–	0,2	3,0	6,0	LC..1603..
CFIR2020K03	00068771	20	20	125	21,5	28,0	9,0	–	0,4	3,0	6,0	LC..1603..
CFIR2525M03	00068773	25	25	150	26,5	28,0	9,0	195,0	0,7	3,0	6,0	LC..1603..
CFIR3225P03	00013453	32	25	170	26,5	28,0	9,0	195,0	1,0	3,0	6,0	LC..1603..
CFIL1212M03	02435855	12	12	150	12,0	31,0	9,0	–	0,2	3,0	2,5	LC..1603..
CFIL1616H03	00091798	16	16	100	16,0	28,0	9,0	–	0,2	3,0	6,0	LC..1603..
CFIL2020K03	00068770	20	20	125	21,5	28,0	9,0	–	0,4	3,0	6,0	LC..1603..
CFIL2525M03	00068772	25	25	150	26,5	28,0	9,0	195,0	0,8	3,0	6,0	LC..1603..
CFIL3225P03	00013452	32	25	170	26,5	28,0	9,0	195,0	1,0	3,0	6,0	LC..1603..
CFIR1212M04	02435857	12	12	150	12,0	33,0	12,0	–	0,2	4,0	3,5	LC..1604..
CFIR1616H04	00091801	16	16	100	16,0	31,0	12,0	–	0,3	4,0	8,0	LC..1604..
CFIR2020K04	00068783	20	20	125	21,5	31,0	12,0	–	0,4	4,0	8,0	LC..1604..
CFIR2525M04	00068785	25	25	150	26,5	31,0	12,0	195,0	0,7	4,0	8,0	LC..1604..
CFIR3225P04	00091803	32	25	170	26,5	31,0	12,0	195,0	1,0	4,0	8,0	LC..1604..
CFIL1212M04	02435861	12	12	150	12,0	33,0	12,0	–	0,2	4,0	3,5	LC..1604..
CFIL1616H04	00091800	16	16	100	16,0	31,0	12,0	–	0,2	4,0	8,0	LC..1604..
CFIL2020K04	00068782	20	20	125	21,5	31,0	12,0	–	0,4	4,0	8,0	LC..1604..
CFIL2525M04	00068784	25	25	150	26,5	31,0	12,0	195,0	0,7	4,0	8,0	LC..1604..
CFIL3225P04	00091802	32	25	170	26,5	31,0	12,0	195,0	1,0	4,0	8,0	LC..1604..
CFIR2020K05	00068769	20	20	125	21,5	35,0	15,0	–	0,4	5,0	8,0	LC..1605..
CFIR2525M05	00068775	25	25	150	26,5	35,0	15,0	195,0	0,7	5,0	8,0	LC..1605..
CFIR3225P05	00091993	32	25	170	26,5	35,0	15,0	195,0	1,0	5,0	8,0	LC..1605..
CFIL2020K05	00068768	20	20	125	21,5	35,0	15,0	–	0,4	5,0	8,0	LC..1605..
CFIL2525M05	00068774	25	25	150	26,5	35,0	15,0	195,0	0,7	5,0	8,0	LC..1605..
CFIL3225P05	00091804	32	25	170	26,5	35,0	15,0	195,0	1,0	5,0	8,0	LC..1605..
CFIR2020K06	00068781	20	20	125	21,5	42,0	18,0	–	0,4	6,0	10,0	LC..1606..
CFIR2525M06	00068797	25	25	150	26,5	42,0	18,0	195,0	0,7	6,0	10,0	LC..1606..
CFIR3225P06	00068799	32	25	170	26,5	42,0	18,0	195,0	1,0	6,0	10,0	LC..1606..
CFIL2020K06	00068780	20	20	125	21,5	42,0	18,0	–	0,4	6,0	10,0	LC..1606..
CFIL2525M06	00068796	25	25	150	26,5	42,0	18,0	195,0	0,7	6,0	10,0	LC..1606..

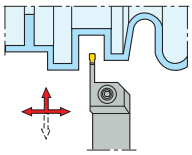
Designation	Item number	H	B	LF	WF	LH	CDX	DCINN3	Weight	CW	TQ	CTWS
		mm	mm	mm	mm	mm	mm	mm	kg	mm	Nm	
CFIL3225P06	00068798	32	25	170	26,5	42,0	18,0	195,0	1,0	6,0	10,0	LC..1606..
CFIR2525M08	00023573	25	25	150	28,0	55,0	24,0	195,0	0,7	8,0	15,0	LC..3008..
CFIR3225P08	00004358	32	25	170	28,0	55,0	24,0	195,0	1,0	8,0	15,0	LC..3008..
CFIL2525M08	00023572	25	25	150	28,0	55,0	24,0	195,0	0,7	8,0	15,0	LC..3008..
CFIL3225P08	00004359	32	25	170	28,0	55,0	24,0	195,0	1,0	8,0	15,0	LC..3008..

Spare Parts, included in delivery

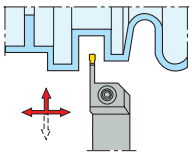
For size	Clamp key	Clamp screw
		
..1212M03	3SMS795	TCEI0409
..1616H03	4SMS795	TCEI0509
..2020K03	4SMS795	TCEI0513
..2525M03	4SMS795	TCEI0513
..3225P03	4SMS795	TCEI0513
..1212M04	3SMS795	TCEI0409
..1616H04	5SMS795	TCEI0609
..2020K04	5SMS795	TCEI0613
..2525M04	5SMS795	TCEI0613
..3225P04	5SMS795	TCEI0613
CFIR/L..-05	5SMS795	TCEI0613
CFIR/L..-06	6SMS795	TCEI0815
CFIR/L..-08	6SMS795	TCEI1020

CFIR/L – Toolholders for inserts LCGF, LCGN, LCMF, LCMR – Inch

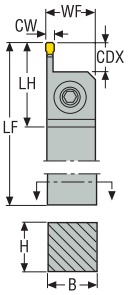
CFIR/L
KAPR = 90,0 °



KAPR = 90,0 °

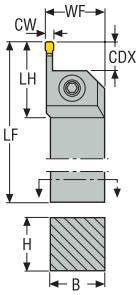


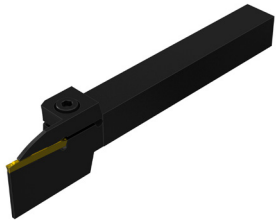
CFIR/L063..





CFIR/L





CTWS



- Right-hand version shown
- For inserts program, see page(s) 858-871, 873-874
- For holder code key, see page(s) 701-702
- Max depth of cut for double-sided LCGF/LCMF16.. = *0.551 inch*, LCGF/LCMF30.. = *1.102 inch*
- CW = indicative Cutting Width, may vary depending on the chosen insert
- For ISO attribute explanation, see page 82

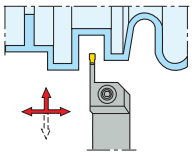
Designation	Item number	H	B	LF	WF	LH	CDX	DCINN3	Weight	CW	TQ	CTWS
		inch	inch	inch	inch	inch	inch	inch	lbs	inch	In/Lbs.	
CFIR06303B	00002795	0.625	0.625	4.500	0.875	1.142	0.354	–	0.660	0.118	53.1	LC..1603..
CFIR07503B	00087626	0.750	0.750	4.500	1.000	1.142	0.354	–	0.880	0.118	53.1	LC..1603..
CFIR10003D	00087628	1.000	1.000	6.000	1.250	1.142	0.354	7.677	1.760	0.118	53.1	LC..1603..
CFIR12503D	00002809	1.250	1.250	6.000	1.500	1.142	0.354	7.677	2.650	0.118	53.1	LC..1603..
CFIL06303B	00002800	0.625	0.625	4.500	0.875	1.142	0.354	–	0.660	0.118	53.1	LC..1603..
CFIL07503B	00087627	0.750	0.750	4.500	1.000	1.142	0.354	–	0.880	0.118	53.1	LC..1603..
CFIL10003D	00087629	1.000	1.000	6.000	1.250	1.142	0.354	7.677	1.760	0.118	53.1	LC..1603..
CFIL12503D	00002811	1.250	1.250	6.000	1.500	1.142	0.354	7.677	2.650	0.118	53.1	LC..1603..
CFIR07504B	00087630	0.750	0.750	4.500	1.000	1.220	0.472	–	0.880	0.157	70.8	LC..1604..
CFIR10004D	00087632	1.000	1.000	6.000	1.250	1.220	0.472	7.677	1.760	0.157	70.8	LC..1604..
CFIR12504D	00002813	1.250	1.250	6.000	1.500	1.220	0.472	7.677	2.650	0.157	70.8	LC..1604..
CFIL07504B	00087631	0.750	0.750	4.500	1.000	1.220	0.472	–	0.880	0.157	70.8	LC..1604..
CFIL10004D	00087633	1.000	1.000	6.000	1.250	1.220	0.472	7.677	1.760	0.157	70.8	LC..1604..
CFIL12504D	00002817	1.250	1.250	6.000	1.500	1.220	0.472	7.677	2.650	0.157	70.8	LC..1604..
CFIR07505B	00089897	0.750	0.750	4.500	1.000	1.417	0.591	–	0.880	0.197	70.8	LC..1605..
CFIR10005D	00090975	1.000	1.000	6.000	1.250	1.299	0.591	7.677	1.760	0.197	70.8	LC..1605..
CFIR12505D	00002821	1.250	1.250	6.000	1.500	1.614	0.591	7.677	2.430	0.197	70.8	LC..1605..
CFIL07505B	00089896	0.750	0.750	4.500	1.000	1.417	0.591	–	0.880	0.197	70.8	LC..1605..
CFIL10005D	00090974	1.000	1.000	6.000	1.250	1.299	0.591	7.677	1.760	0.197	70.8	LC..1605..
CFIL12505D	00002822	1.250	1.250	6.000	1.500	1.614	0.591	7.677	2.430	0.197	70.8	LC..1605..
CFIR10006D	00087634	1.000	1.000	6.000	1.250	1.614	0.709	7.677	1.760	0.236	88.5	LC..1606..
CFIR12506D	00087636	1.250	1.250	6.000	1.500	1.614	0.709	7.677	2.430	0.236	88.5	LC..1606..
CFIL10006D	00087635	1.000	1.000	6.000	1.250	1.614	0.709	7.677	1.760	0.236	88.5	LC..1606..
CFIL12506D	00087637	1.250	1.250	6.000	1.500	1.614	0.709	7.677	2.430	0.236	88.5	LC..1606..
CFIR10008D	00057717	1.000	1.000	6.000	1.250	2.165	0.996	7.677	1.760	0.315	132.8	LC..3008..
CFIR12508E	00057719	1.250	1.250	7.000	1.500	2.165	0.945	7.677	2.870	0.315	132.8	LC..3008..
CFIL10008D	00057718	1.000	1.000	6.000	1.250	2.165	0.996	7.677	1.760	0.315	132.8	LC..3008..
CFIL12508E	00057720	1.250	1.250	7.000	1.500	2.165	0.945	7.677	2.870	0.315	132.8	LC..3008..

Spare Parts, included in delivery

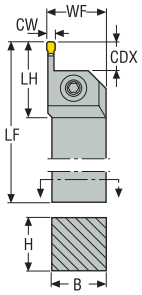
For size	Clamp key	Clamp screw
		
..03	4SMS795	TCEI0509
..03	4SMS795	TCEI0513
..04	5SMS795	TCEI0613
..05	5SMS795	TCEI0613
..06	6SMS795	TCEI0815
..08	6SMS795	TCEI1020

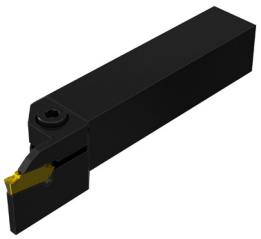
CFMR/L – Toolholders for inserts LCGF, LCGN, LCMF, LCMR – Metric

CFMR/L
KAPR = 90,0 °



CFMR/L





CTWS



- Right-hand version shown
- For inserts program, see page(s) 858-871, 873-874
- For holder code key, see page(s) 701-702
- Max depth of cut for double-sided LCGF/LCMF16.. = 14 mm, LCGF/LCMF30.. = 28 mm
- CW = indicative Cutting Width, may vary depending on the chosen insert
- For ISO attribute explanation, see page 82

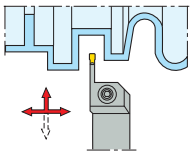
Designation	Item number	H	B	LF	WF	LH	CDX	DCINN3	Weight	CW	TQ	CTWS
		mm	mm	mm	mm	mm	mm	mm	kg	mm	Nm	
CFMR2020K03	00068777	20	20	125	21,5	36,0	15,0	–	0,4	3,0	6,0	LC..1603..
CFMR2525M03	00068779	25	25	150	26,5	36,0	15,0	195,0	0,7	3,0	6,0	LC..1603..
CFMR3225P03	00013460	32	25	170	26,5	36,0	15,0	195,0	1,0	3,0	6,0	LC..1603..
CFML2020K03	00068776	20	20	125	21,5	36,0	15,0	–	0,4	3,0	6,0	LC..1603..
CFML2525M03	00068778	25	25	150	26,5	36,0	15,0	195,0	0,7	3,0	6,0	LC..1603..
CFML3225P03	00013459	32	25	170	26,5	36,0	15,0	195,0	1,0	3,0	6,0	LC..1603..
CFMR2020K04	00068791	20	20	125	21,5	39,0	20,0	–	0,4	4,0	8,0	LC..1604..
CFMR2525M04	00068793	25	25	150	26,5	41,0	20,0	195,0	0,7	4,0	8,0	LC..1604..
CFMR3225P04	00091807	32	25	170	26,5	41,0	20,0	195,0	1,0	4,0	8,0	LC..1604..
CFML2020K04	00068790	20	20	125	21,5	39,0	20,0	–	0,4	4,0	8,0	LC..1604..
CFML2525M04	00068792	25	25	150	26,5	41,0	20,0	195,0	0,7	4,0	8,0	LC..1604..
CFML3225P04	00091806	32	25	170	26,5	41,0	20,0	195,0	1,0	4,0	8,0	LC..1604..
CFMR2020K05	00068789	20	20	125	21,5	50,0	25,0	–	0,4	5,0	8,0	LC..1605..
CFMR2525M05	00068787	25	25	150	26,5	50,0	25,0	195,0	0,7	5,0	8,0	LC..1605..
CFMR3225P05	00091809	32	25	170	26,5	50,0	25,0	195,0	1,0	5,0	8,0	LC..1605..
CFML2020K05	00068788	20	20	125	21,5	50,0	25,0	–	0,4	5,0	8,0	LC..1605..
CFML2525M05	00068786	25	25	150	26,5	50,0	25,0	195,0	0,7	5,0	8,0	LC..1605..
CFML3225P05	00091808	32	25	170	26,5	50,0	25,0	195,0	1,0	5,0	8,0	LC..1605..
CFMR2020M06	00068795	20	20	150	21,5	60,0	30,0	–	0,5	6,0	10,0	LC..1606..
CFMR2525M06	00068801	25	25	150	26,5	60,0	30,0	195,0	0,7	6,0	10,0	LC..1606..
CFMR3225P06	00068803	32	25	170	26,5	60,0	30,0	195,0	1,0	6,0	10,0	LC..1606..
CFML2020M06	00068794	20	20	150	21,5	60,0	30,0	–	0,4	6,0	10,0	LC..1606..
CFML2525M06	00068800	25	25	150	26,5	60,0	30,0	195,0	0,7	6,0	10,0	LC..1606..
CFML3225P06	00068802	32	25	170	26,5	60,0	30,0	195,0	1,0	6,0	10,0	LC..1606..
CFMR2525P08	00023576	25	25	170	28,0	74,0	40,0	195,0	0,8	8,0	15,0	LC..3008..
CFMR3225P08	00004360	32	25	170	28,0	74,0	40,0	195,0	1,0	8,0	15,0	LC..3008..
CFML2525P08	00023574	25	25	170	28,0	74,0	40,0	195,0	0,8	8,0	15,0	LC..3008..
CFML3225P08	00004362	32	25	170	28,0	74,0	40,0	195,0	1,0	8,0	15,0	LC..3008..

Spare Parts, included in delivery

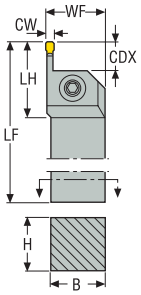
For size	Clamp key	Clamp screw
		
CFMR/L..-03	4SMS795	TCEI0513
CFMR/L..-04	5SMS795	TCEI0613
CFMR/L..-05	5SMS795	TCEI0613
CFMR/L..-06	6SMS795	TCEI0815
CFMR/L..-08	6SMS795	TCEI1020

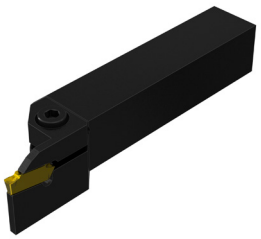
CFMR/L – Toolholders for inserts LCGF, LCGN, LCMF, LCMR – Inch

CFMR/L
KAPR = 90,0 °



CFMR/L





CTWS



- Right-hand version shown
- For inserts program, see page(s) 858-871, 873-874
- For holder code key, see page(s) 701-702
- Max depth of cut for double-sided LCGF/LCMF16.. = *0.551 inch*, LCGF/LCMF30.. = *1.102 inch*
- CW = indicative Cutting Width, may vary depending on the chosen insert
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF	LH	CDX	DCINN3	Weight	CW	TQ	CTWS
		inch	inch	inch	inch	inch	inch	inch	lbs	inch	In/Lbs.	
CFMR07503B	00002849	0.750	0.750	4.500	1.000	1.339	0.591	–	0.660	0.118	53.1	LC..1603..
CFML07503B	00002850	0.750	0.750	4.500	1.000	1.339	0.591	–	0.660	0.118	53.1	LC..1603..
CFMR10003D	00096174	1.000	1.000	6.000	1.250	1.378	0.591	7.677	1.540	0.118	53.1	LC..1603..
CFML10003D	00096175	1.000	1.000	6.000	1.250	1.378	0.591	7.677	1.540	0.118	53.1	LC..1603..
CFMR12503D	00002852	1.250	1.250	6.000	1.500	1.378	0.591	7.677	2.200	0.118	53.1	LC..1603..
CFML12503D	00002863	1.250	1.250	6.000	1.500	1.378	0.591	7.677	2.200	0.118	53.1	LC..1603..
CFMR15003E	00059805	1.500	1.500	7.000	2.000	1.614	0.591	7.677	3.970	0.118	53.1	LC..1603..
CFML15003E	00059806	1.500	1.500	7.000	2.000	1.614	0.591	7.677	3.970	0.118	53.1	LC..1603..
CFMR07504B	00002918	0.750	0.750	4.500	1.000	1.575	0.787	–	0.660	0.157	70.8	LC..1604..
CFML07504B	00002919	0.750	0.750	4.500	1.000	1.575	0.787	–	0.660	0.157	70.8	LC..1604..
CFMR10004D	00096176	1.000	1.000	6.000	1.250	1.614	0.787	7.677	1.540	0.157	70.8	LC..1604..
CFML10004D	00096177	1.000	1.000	6.000	1.250	1.614	0.787	7.677	1.540	0.157	70.8	LC..1604..
CFMR12504D	00002920	1.250	1.250	6.000	1.500	1.614	0.787	7.677	2.430	0.157	70.8	LC..1604..
CFML12504D	00002922	1.250	1.250	6.000	1.500	1.614	0.787	7.677	2.430	0.157	70.8	LC..1604..
CFMR15004E	00059807	1.500	1.500	7.000	2.000	1.969	0.787	7.677	3.750	0.157	70.8	LC..1604..
CFML15004E	00059808	1.500	1.500	7.000	2.000	1.969	0.787	7.677	3.970	0.157	70.8	LC..1604..
CFMR10005D	00096178	1.000	1.000	6.000	1.250	2.008	0.984	7.677	1.540	0.197	70.8	LC..1605..
CFML10005D	00096179	1.000	1.000	6.000	1.250	2.008	0.984	7.677	1.540	0.197	70.8	LC..1605..
CFMR12505D	00002923	1.250	1.250	6.000	1.500	1.969	0.984	7.677	2.430	0.197	70.8	LC..1605..
CFML12505D	00002924	1.250	1.250	6.000	1.500	1.969	0.984	7.677	2.430	0.197	70.8	LC..1605..
CFMR15005E	00059809	1.500	1.500	7.000	2.000	2.244	0.984	7.677	3.750	0.197	70.8	LC..1605..
CFML15005E	00059810	1.500	1.500	7.000	2.000	2.244	0.984	7.677	3.750	0.197	70.8	LC..1605..
CFMR10006D	00096180	1.000	1.000	6.000	1.250	2.362	1.181	7.677	1.540	0.236	88.5	LC..1606..
CFML10006D	00096181	1.000	1.000	6.000	1.250	2.362	1.181	7.677	1.540	0.236	88.5	LC..1606..
CFMR12506D	00002970	1.250	1.250	6.000	1.500	2.362	1.181	7.677	2.200	0.236	88.5	LC..1606..
CFML12506D	00002972	1.250	1.250	6.000	1.500	2.362	1.181	7.677	2.200	0.236	88.5	LC..1606..
CFMR15006E	00059811	1.500	1.500	7.000	2.000	2.598	1.181	7.677	3.750	0.236	88.5	LC..1606..
CFML15006E	00059812	1.500	1.500	7.000	2.000	2.598	1.181	7.677	3.750	0.236	88.5	LC..1606..
CFMR10008D	00059847	1.000	1.000	6.000	1.250	2.795	1.575	7.677	1.540	0.315	132.8	LC..3008..
CFML10008D	00059848	1.000	1.000	6.000	1.250	2.795	1.575	7.677	1.540	0.315	132.8	LC..3008..
CFMR12508E	00059849	1.250	1.250	7.000	1.500	2.795	1.575	7.677	2.650	0.315	132.8	LC..3008..

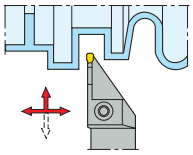
Designation	Item number	H	B	LF	WF	LH	CDX	DCINN3	Weight	CW	TQ	CTWS
		inch	inch	inch	inch	inch	inch	inch	lbs	inch	In/Lbs.	
CFML12508E	00059850	1.250	1.250	7.000	1.500	2.795	1.575	7.677	2.430	0.315	132.8	LC..3008..
CFMR15008E	00059813	1.500	1.500	7.000	2.000	2.795	1.575	7.677	3.750	0.315	132.8	LC..3008..
CFML15008E	00059814	1.500	1.500	7.000	2.000	2.795	1.575	7.677	3.530	0.315	132.8	LC..3008..

Spare Parts, included in delivery

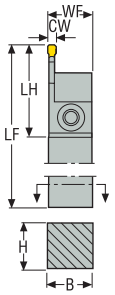
For size	Clamp key	Clamp screw
		
..03	4SMS795	TCEI0513
..04	5SMS795	TCEI0613
..05	5SMS795	TCEI0613
..06	6SMS795	TCEI0815
..08	6SMS795	TCEI1020

CF.R/L – Toolholders for inserts LCGN, LCMR – Metric

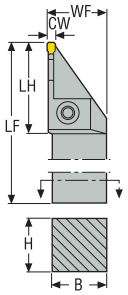
CF.R/L
KAPR = 90,0 °

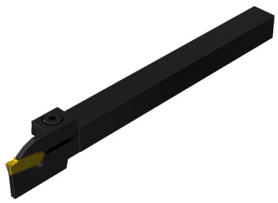


CF..1212, 1616



CF..2020, 2525





CTWS



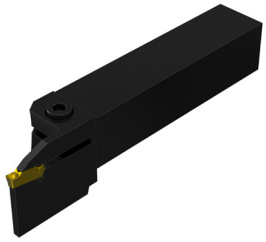
- Right-hand version shown
- For inserts program, see page(s) 858-871, 873-874
- For holder code key, see page(s) 701-702
- * Due to the design, grooving depth is limited, see page(s) 723
- Max depth of cut for double-sided LCGF/LCMF16.. = 14 mm
- CW = indicative Cutting Width, may vary depending on the chosen insert
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF	LH	CUTDIA*	Weight	CW	TQ	CTWS
		mm	mm	mm	mm	mm	mm	kg	mm	Nm	
CFOR1212M03	00053367	12	12	150	12,0	32,1	37,0	0,2	3,0	3,5	LC..1603..
CFOL1212M03	00053357	12	12	150	12,0	32,1	37,0	0,2	3,0	3,5	LC..1603..
CFTR1616M03	00054058	16	16	150	16,0	42,0	50,0	0,3	3,0	6,0	LC..1603..
CFTR2020K03	00054060	20	20	125	21,5	43,0	50,0	0,4	3,0	6,0	LC..1603..
CFTR2525M03	00054066	25	25	150	26,5	42,5	50,0	0,7	3,0	6,0	LC..1603..
CFTL1616M03	00054057	16	16	150	16,0	42,0	50,0	0,3	3,0	6,0	LC..1603..
CFTL2020K03	00054059	20	20	125	21,5	43,0	50,0	0,4	3,0	6,0	LC..1603..
CFTL2525M03	00054063	25	25	150	26,5	42,5	50,0	0,7	3,0	6,0	LC..1603..
CFPR2020K04	00054073	20	20	125	21,5	43,0	50,0	0,4	4,0	8,0	LC..1604..
CFPR2525M04	00054078	25	25	150	26,5	43,0	50,0	0,7	4,0	8,0	LC..1604..
CFPL2020K04	00054071	20	20	125	21,5	43,0	50,0	0,4	4,0	8,0	LC..1604..
CFPL2525M04	00054074	25	25	150	26,5	43,0	50,0	0,7	4,0	8,0	LC..1604..

Spare Parts, included in delivery

For size	Clamp key	Clamp screw
		
CFOR/L..-03	3SMS795	TCEI0409
CFTR/L..-03	4SMS795	TCEI0513
CFPR/L..-04	5SMS795	TCEI0613

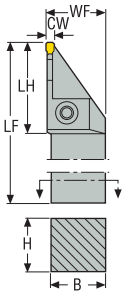
CF.R/L – Toolholders for inserts LCGN, LCMR – Inch



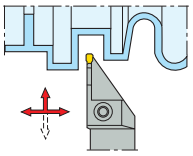
CTWS



CFTR/L



KAPR = 90,0 °



- Right-hand version shown
- For inserts program, see page(s) 858-871, 873-874
- For holder code key, see page(s) 701-702
- * Due to the design, grooving depth is limited, see page(s) 723
- Max depth of cut for double-sided LCGF/LCMF16.. = *0.551 inch*
- CW = indicative Cutting Width, may vary depending on the chosen insert
- For ISO attribute explanation, see page 82

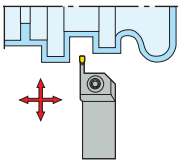
Designation	Item number	H	B	LF	WF	LH	CUTDIA*	Weight	CW	TQ	CTWS
		inch	inch	inch	inch	inch	inch	lbs	inch	In/Lbs.	
CFTR07503C	00086323	0.750	0.750	5.000	1.000	1.654	1.969	0.880	0.118	53.1	LC..1603..
CFTR10003D	00086326	1.000	1.000	6.000	1.250	1.654	1.969	1.540	0.118	53.1	LC..1603..
CFTL07503C	00086332	0.750	0.750	5.000	1.000	1.654	1.969	0.880	0.118	53.1	LC..1603..
CFTL10003D	00086333	1.000	1.000	6.000	1.250	1.654	1.969	1.760	0.118	53.1	LC..1603..
CFPR10004D	00086317	0.626	0.626	6.000	1.250	1.693	1.969	1.760	0.157	70.8	LC..1604..
CFPL10004D	00086320	0.626	0.626	6.000	1.250	1.693	1.969	1.760	0.157	70.8	LC..1604..

Spare Parts, included in delivery

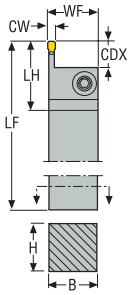
For size	Clamp key	Clamp screw
		
..03	4SMS795	TCEI0513
..04	5SMS795	TCEI0613

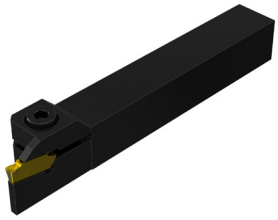
CF.R/L – Toolholders for inserts LCGN, LCMR – Inch

CIIR/L
KAPR = 90,0 °



CIIR/L





CTWS



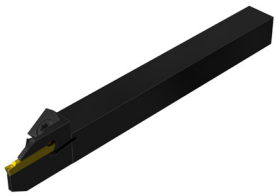
- Right-hand version shown
- For inserts program, see page(s) 858-871, 873-874
- For holder code key, see page(s) 701-702
- CW = indicative Cutting Width, may vary depending on the chosen insert
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF	LH	CDX	Weight	CW	TQ	CTWS
		inch	inch	inch	inch	inch	inch	lbs	inch	In/Lbs.	
CIIR05003D	00057794	0.500	0.500	6.000	0.500	1.142	0.433	0.440	0.118	53.1	LC..1603..
CIIR062503B	00057792	0.625	0.625	4.500	0.625	1.142	0.433	0.660	0.118	53.1	LC..1603..
CIIL05003D	00057795	0.500	0.500	6.000	0.500	1.142	0.433	0.440	0.118	53.1	LC..1603..
CIIL062503B	00057793	0.625	0.625	4.500	0.625	1.142	0.433	0.660	0.118	53.1	LC..1603..

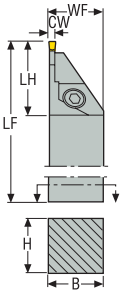
Spare Parts, included in delivery

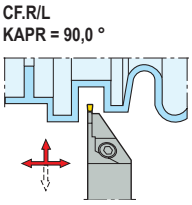
For size	Clamp key	Clamp screw
		
..03	4SMS795	TCEI0509

CF.R/L..RB – Toolholders for inserts LCMF – Metric



CTWS





- Right-hand version shown
- For inserts program, see page(s) 857
- For holder code key, see page(s) 701-702
- * Due to the design, grooving depth is limited, see page(s) 723
- CW = indicative Cutting Width, may vary depending on the chosen insert
- For ISO attribute explanation, see page 82

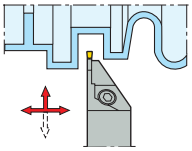
Designation	Item number	H	B	LF	WF	LH	CUTDIA*	Weight	CW	TQ	CTWS
		mm	mm	mm	mm	mm	mm	kg	mm	Nm	
CFOR1212K1902RB	02748517	12	12	125	12,0	22,0	25,4	0,2	2,0	5,0	LC..1902..
CFOR1616K1902RB	02748518	16	16	125	16,0	22,0	25,4	0,3	2,0	5,0	LC..1902..
CFOL1212K1902RB	02748520	12	12	125	12,0	22,0	25,4	0,2	2,0	5,0	LC..1902..
CFOL1616K1902RB	02748523	16	16	125	16,0	22,0	25,4	0,3	2,0	5,0	LC..1902..
CFSR1212K1902RB	02748524	12	12	125	12,0	25,0	33,0	0,2	2,0	5,0	LC..1902..
CFSR1616K1902RB	02748526	16	16	125	16,0	25,0	33,0	0,3	2,0	5,0	LC..1902..
CFSL1212K1902RB	02748528	12	12	125	12,0	25,0	33,0	0,2	2,0	5,0	LC..1902..
CFSL1616K1902RB	02748530	16	16	125	16,0	25,0	33,0	0,3	2,0	5,0	LC..1902..

Spare Parts, included in delivery

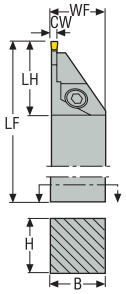
For size	Clamp key	Clamp screw
		
CFOR/L..19	T15P-7S	L85012-T15P
CFSR/L..19	T15P-7S	L85012-T15P

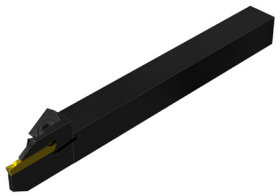
CF.R/L..RB – Toolholders for inserts LCMF – Inch

CF.R/L
KAPR = 90,0 °



CF.R/L..RB





CTWS



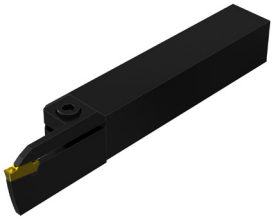
- Right-hand version shown
- For inserts program, see page(s) 857
- For holder code key, see page(s) 701-702
- * Due to the design, grooving depth is limited, see page(s) 723
- CW = indicative Cutting Width, may vary depending on the chosen insert
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF	LH	CUTDIA*	Weight	CW	TQ	CTWS
		inch	inch	inch	inch	inch	inch	lbs	inch	In/Lbs.	
CFOR0501902CRB	02748812	0.500	0.500	5.000	0.500	0.866	1.000	0.440	0.079	44.3	LC..1902..
CFOR0631902CRB	02748816	0.625	0.625	5.000	0.625	0.866	1.000	0.660	0.079	44.3	LC..1902..
CFOL0501902CRB	02748814	0.500	0.500	5.000	0.500	0.866	1.000	0.440	0.079	44.3	LC..1902..
CFOL0631902CRB	02748817	0.625	0.625	5.000	0.625	0.866	1.000	0.660	0.079	44.3	LC..1902..
CFSR0501902CRB	02748820	0.500	0.500	5.000	0.500	0.984	1.299	0.440	0.079	44.3	LC..1902..
CFSR0631902CRB	02748826	0.625	0.625	5.000	0.625	0.984	1.299	0.660	0.079	44.3	LC..1902..
CFSL0501902CRB	02748823	0.500	0.500	5.000	0.500	0.984	1.299	0.440	0.079	44.3	LC..1902..
CFSL0631902CRB	02748828	0.625	0.625	5.000	0.625	0.984	1.299	0.660	0.079	44.3	LC..1902..

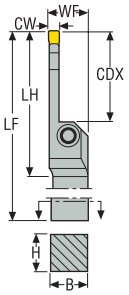
Spare Parts, included in delivery

For size	Clamp key	Clamp screw
		
CF.R/L	T15P-7S	L85012-T15P

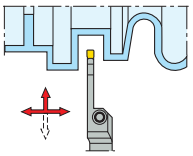
CFSR/L – Toolholders for inserts LCGF, LCGN, LCMF, LCMR – Metric



CFSR/L



CFSR/L
KAPR = 90,0 °



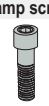
CTWS



- Right-hand version shown
- For inserts program, see page(s) 858-871, 873-874
- For holder code key, see page(s) 701-702
- Max depth of cut for double-sided LCGF/LCMF16.. = 14 mm, LCGF/LCMF30.. = 28 mm
- CW = indicative Cutting Width, may vary depending on the chosen insert
- For ISO attribute explanation, see page 82

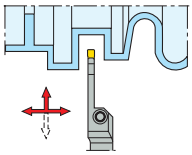
Designation	Item number	H	B	LF	WF	LH	CDX	DCINN3	Weight	CW	TQ	CTWS
		mm	mm	mm	mm	mm	mm	mm	kg	mm	Nm	
CFSR2525M03	02703367	25	25	150	26,5	46,0	24,0	195,0	0,7	3,0	6,0	LC..1603..
CFSR3225P03	02703375	32	25	170	26,1	46,0	24,0	195,0	1,0	3,0	6,0	LC..1603..
CFSL2525M03	02703363	25	25	150	26,5	46,0	24,0	195,0	0,7	3,0	6,0	LC..1603..
CFSL3225P03	02703371	32	25	170	26,1	46,0	24,0	195,0	1,0	3,0	6,0	LC..1603..
CFSR2525P04	00069914	25	25	170	26,5	55,0	32,0	195,0	0,8	4,0	8,0	LC..1604..
CFSR3225P04	02703376	32	25	170	26,5	55,0	32,0	195,0	0,9	4,0	8,0	LC..1604..
CFSL2525P04	02703364	25	25	170	26,5	55,0	32,0	195,0	0,8	4,0	8,0	LC..1604..
CFSL3225P04	02703372	32	25	170	26,5	55,0	32,0	195,0	0,9	4,0	8,0	LC..1604..
CFSR2525P05	02703368	25	25	170	26,5	66,0	40,0	195,0	0,7	5,0	8,0	LC..1605..
CFSR3225P05	02703377	32	25	170	26,5	66,0	40,0	195,0	0,9	5,0	8,0	LC..1605..
CFSL2525P05	02703365	25	25	170	26,5	66,0	40,0	195,0	0,7	5,0	8,0	LC..1605..
CFSL3225P05	02703373	32	25	170	26,5	66,0	40,0	195,0	0,9	5,0	8,0	LC..1605..
CFSR2525R06	02703370	25	25	200	26,5	81,0	48,0	195,0	0,9	6,0	10,0	LC..1606..
CFSR3225R06	02703378	32	25	200	26,5	81,0	48,0	195,0	1,1	6,0	10,0	LC..1606..
CFSL2525R06	02703366	25	25	200	26,5	81,0	48,0	195,0	0,9	6,0	10,0	LC..1606..
CFSL3225R06	02703374	32	25	200	26,5	81,0	48,0	195,0	1,1	6,0	10,0	LC..1606..
CFSR3225R08	02676893	32	25	200	28,0	104,0	64,0	195,0	1,1	8,0	15,0	LC..3008..
CFSL3225R08	02676892	32	25	200	28,0	104,0	64,0	195,0	1,0	8,0	15,0	LC..3008..

Spare Parts, included in delivery

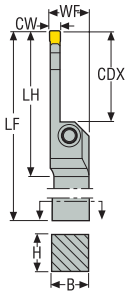
For size	Clamp key	Clamp screw
		
CFSR/L..03	4SMS795	TCEI0513
CFSR/L..04	5SMS795	TCEI0613
CFSR/L..05	5SMS795	TCEI0613
CFSR/L..06	6SMS795	TCEI0815
CFSR/L..08	6SMS795	TCEI1020

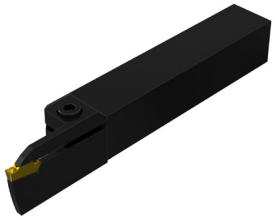
CFSR/L – Toolholders for inserts LCGF, LCGN, LCMF, LCMR – Inch

KAPR = 90,0 °



CFSR/L





CTWS



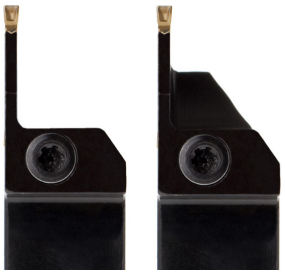
- Right-hand version shown
- For inserts program, see page(s) 858-871, 873-874
- For holder code key, see page(s) 701-702
- Max depth of cut for double-sided LCGF/LCMF16.. = *0.551 inch*, LCGF/LCMF30.. = *1.102 inch*
- CW = indicative Cutting Width, may vary depending on the chosen insert
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF	LH	CDX	DCINN3	Weight	CW	TQ	CTWS
		inch	inch	inch	inch	inch	inch	inch	lbs	inch	In/Lbs.	
CFSR10003D	02703393	1.000	1.000	6.000	1.250	1.811	0.945	7.677	1.540	0.118	53.1	LC..1603..
CFSR12503D	02703401	1.250	1.250	6.000	1.500	1.811	0.945	7.677	2.430	0.118	53.1	LC..1603..
CFSL10003D	02703389	1.000	1.000	6.000	1.250	1.811	0.945	7.677	1.540	0.118	53.1	LC..1603..
CFSL12503D	02703397	1.250	1.250	6.000	1.500	1.811	0.945	7.677	2.200	0.118	53.1	LC..1603..
CFSR10004E	02703394	1.000	1.000	7.000	1.250	2.165	1.260	7.677	1.760	0.157	70.8	LC..1604..
CFSR12504E	02703402	1.250	1.250	7.000	1.500	2.165	1.260	7.677	2.650	0.157	70.8	LC..1604..
CFSL10004E	02703390	1.000	1.000	7.000	1.250	2.165	1.260	7.677	1.980	0.157	70.8	LC..1604..
CFSL12504E	02703398	1.250	1.250	7.000	1.500	2.165	1.260	7.677	2.650	0.157	70.8	LC..1604..
CFSR10005E	02703395	1.000	1.000	7.000	1.250	2.598	1.575	7.677	1.760	0.197	70.8	LC..1605..
CFSR12505E	02703403	1.250	1.250	7.000	1.500	2.598	1.575	7.677	2.650	0.197	70.8	LC..1605..
CFSL10005E	02703391	1.000	1.000	7.000	1.250	2.598	1.575	7.677	1.760	0.197	70.8	LC..1605..
CFSL12505E	02703399	1.250	1.250	7.000	1.500	2.598	1.575	7.677	2.650	0.197	70.8	LC..1605..
CFSR10006F	02703396	1.000	1.000	8.000	1.250	3.189	1.890	7.677	2.200	0.236	88.5	LC..1606..
CFSR12506F	02703404	1.250	1.250	8.000	1.500	3.189	1.890	7.677	2.870	0.236	88.5	LC..1606..
CFSL10006F	02703392	1.000	1.000	8.000	1.250	3.189	1.890	7.677	2.200	0.236	88.5	LC..1606..
CFSL12506F	02703400	1.250	1.250	8.000	1.500	3.189	1.890	7.677	2.870	0.236	88.5	LC..1606..
CFSR12508F	02703406	1.250	1.250	8.000	1.500	4.094	2.520	7.677	2.650	0.315	132.8	LC..3008..
CFSL12508F	02703405	1.250	1.250	8.000	1.500	4.094	2.520	7.677	3.090	0.315	132.8	LC..3008..

Spare Parts, included in delivery

For size	Clamp key	Clamp screw
		
..03	4SMS795	TCEI0513
..04	5SMS795	TCEI0613
..05	5SMS795	TCEI0613
..06	6SMS795	TCEI0815
..08	6SMS795	TCEI1020

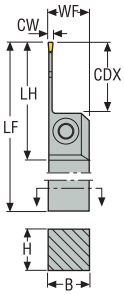
CFZR/L – Toolholders for inserts LCMF – Metric



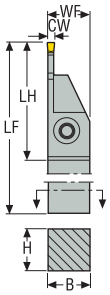
CTWS



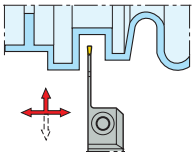
CFZR/L



CFZR/L..RB



CFZR/L
KAPR = 90,0 °



- Right-hand version shown
- For inserts program, see page(s) 857
- For holder code key, see page(s) 701-702
- * Due to the design, grooving depth is limited, see page(s) 723
- CW = indicative Cutting Width, may vary depending on the chosen insert
- For ISO attribute explanation, see page 82

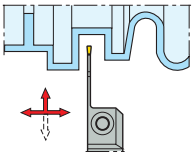
Designation	Item number	H	B	LF	WF	LH	CDX	CUTDIA*	Weight	CW	TQ	CTWS
		mm	mm	mm	mm	mm	mm	mm	kg	mm	Nm	
CFZR1616M2802	02748735	16	16	150	16,0	46,0	26,0	–	0,3	2,0	6,0	LC..2802..
CFZL1616M2802	02748737	16	16	150	16,0	46,0	26,0	–	0,3	2,0	6,0	LC..2802..
CFZR1616M2802RB	02748747	16	16	150	16,0	46,0	27,5	52,0	0,4	2,0	6,0	LC..2802..
CFZL1616M2802RB	02748749	16	16	150	16,0	46,0	27,5	52,0	0,4	2,0	6,0	LC..2802..

Spare Parts, included in delivery

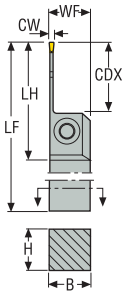
For size	Clamp key	Clamp screw
		
CFZR/L..02	4SMS795	TCEI0513

CFZR/L – Toolholders for inserts LCMF – Inch

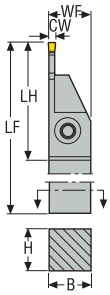
CFZR/L
KAPR = 90,0 °

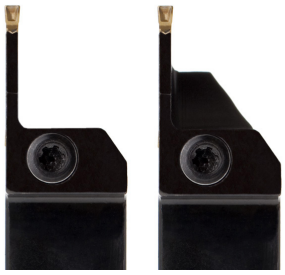


CFZR/L



CFZR/L..RB





CTWS



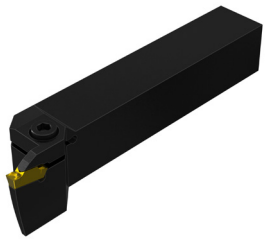
- Right-hand version shown
- For inserts program, see page(s) 857
- For holder code key, see page(s) 701-702
- * Due to the design, grooving depth is limited, see page(s) 723
- CW = indicative Cutting Width, may vary depending on the chosen insert
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF	LH	CDX	CUTDIA*	Weight	CW	TQ	CTWS
		inch	inch	inch	inch	inch	inch	inch	lbs	inch	In/Lbs.	
CFZR0632802D	02748935	0.625	0.625	6.000	0.625	1.811	0.984	–	0.660	0.079	53.1	LC..2802..
CFZL0632802D	02749007	0.625	0.625	6.000	0.625	1.811	0.984	–	0.660	0.079	53.1	LC..2802..
CFZR0632802DRB	02749011	0.625	0.625	6.000	0.625	1.811	1.024	2.047	0.660	0.079	53.1	LC..2802..
CFZL0632802DRB	02749015	0.625	0.625	6.000	0.625	1.811	1.024	2.047	0.660	0.079	53.1	LC..2802..

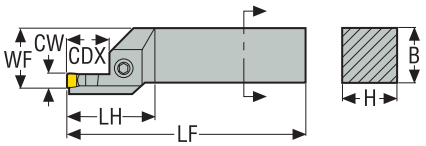
Spare Parts, included in delivery

For size	Clamp key	Clamp screw
		
CFZR/L	4SMS795	TCEI0513

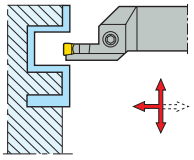
CFIR/L – Toolholders for inserts LCGF, LCGN, LCMF, LCMR – Metric



CFIR/L



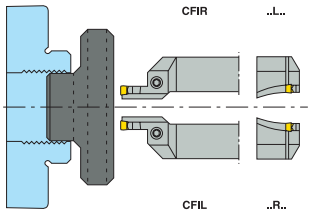
CFIR/L
KAPR = 90,0 °



CTWS



- Right-hand version with left-hand blade shown
- For inserts program, see page(s) 858-863, 873-874
- For holder code key, see page(s) 701-702
- Max depth of cut for double-sided LCGF/LCMF16.. = 14 mm, LCGF/LCMF30.. = 28 mm
- CW = indicative Cutting Width, may vary depending on the chosen insert
- For ISO attribute explanation, see page 82



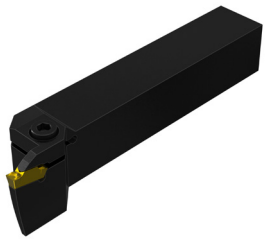
Designation	Item number	INPLM	INPLX	H	B	LF	WF	LH	CDX	Weight	CW	TQ	CTWS
		mm	mm	mm	mm	mm	mm	mm	mm	kg	mm	Nm	
CFIR2525M03L100070	00089733	70	100	25	25	150	26,5	28,0	9,0	0,7	3,0	6,0	LC..1603..
CFIR2525M03L130090	00089907	90	130	25	25	150	26,5	28,0	9,0	0,7	3,0	6,0	LC..1603..
CFIR2525M03L170110	00089735	110	170	25	25	150	26,5	28,0	9,0	0,7	3,0	6,0	LC..1603..
CFIL2525M03R100070	00089734	70	100	25	25	150	26,5	28,0	9,0	0,7	3,0	6,0	LC..1603..
CFIL2525M03R130090	00089906	90	130	25	25	150	26,5	28,0	9,0	0,7	3,0	6,0	LC..1603..
CFIL2525M03R170110	00089736	110	170	25	25	150	26,5	28,0	9,0	0,7	3,0	6,0	LC..1603..
CFIR2525M04L100070	00089899	70	100	25	25	150	26,5	31,0	12,0	0,8	4,0	8,0	LC..1604..
CFIR2525M04L130090	00089901	90	130	25	25	150	26,5	31,0	12,0	0,8	4,0	8,0	LC..1604..
CFIR2525M04L170110	00089903	110	170	25	25	150	26,5	31,0	12,0	0,7	4,0	8,0	LC..1604..
CFIR2525M04L230140	00089905	140	230	25	25	150	26,5	31,0	12,0	0,8	4,0	8,0	LC..1604..
CFIL2525M04R100070	00089898	70	100	25	25	150	26,5	31,0	12,0	0,8	4,0	8,0	LC..1604..
CFIL2525M04R130090	00089900	90	130	25	25	150	26,5	31,0	12,0	0,8	4,0	8,0	LC..1604..
CFIL2525M04R170110	00089902	110	170	25	25	150	26,5	31,0	12,0	0,8	4,0	8,0	LC..1604..
CFIL2525M04R230140	00089904	140	230	25	25	150	26,5	31,0	12,0	0,8	4,0	8,0	LC..1604..
CFIR2525M05L100070	00013448	70	100	25	25	150	26,5	35,0	15,0	0,8	5,0	8,0	LC..1605..
CFIR2525M05L130090	00091813	90	130	25	25	150	26,5	35,0	15,0	0,8	5,0	8,0	LC..1605..
CFIR2525M05L170110	00091815	110	170	25	25	150	26,5	35,0	15,0	0,7	5,0	8,0	LC..1605..
CFIR2525M05L230140	00091817	140	230	25	25	150	26,5	35,0	15,0	0,8	5,0	8,0	LC..1605..
CFIL2525M05R100070	00013447	70	100	25	25	150	26,5	35,0	15,0	0,7	5,0	8,0	LC..1605..
CFIL2525M05R130090	00091812	90	130	25	25	150	26,5	35,0	15,0	0,8	5,0	8,0	LC..1605..
CFIL2525M05R170110	00091814	110	170	25	25	150	26,5	35,0	15,0	0,8	5,0	8,0	LC..1605..
CFIL2525M05R230140	00091816	140	230	25	25	150	26,5	35,0	15,0	0,7	5,0	8,0	LC..1605..
CFIR2525M06L100070	00013451	70	100	25	25	150	26,5	42,0	18,0	0,8	6,0	10,0	LC..1606..
CFIR2525M06L130090	00084469	90	130	25	25	150	26,5	42,0	18,0	0,8	6,0	10,0	LC..1606..
CFIR2525M06L170110	00084471	110	170	25	25	150	26,5	42,0	18,0	0,7	6,0	10,0	LC..1606..
CFIR2525M06L230140	00084473	140	230	25	25	150	26,5	42,0	18,0	0,8	6,0	10,0	LC..1606..
CFIL2525M06R100070	00013449	70	100	25	25	150	26,5	42,0	18,0	0,8	6,0	10,0	LC..1606..
CFIL2525M06R130090	00084470	90	130	25	25	150	26,5	42,0	18,0	0,7	6,0	10,0	LC..1606..
CFIL2525M06R170110	00084472	110	170	25	25	150	26,5	42,0	18,0	0,8	6,0	10,0	LC..1606..

Designation	Item number	INPLM	INPLX	H	B	LF	WF	LH	CDX	Weight	CW	TQ	CTWS
		mm	mm	mm	mm	mm	mm	mm	mm	kg	mm	Nm	
CFIL2525M06R230140	00084474	140	230	25	25	150	26,5	42,0	18,0	0,8	6,0	10,0	LC..1606..
CFIR3225P08L130090	00089160	90	130	32	25	170	28,0	50,0	24,0	1,0	8,0	15,0	LC..3008..
CFIR3225P08L170110	00089162	110	170	32	25	170	28,0	50,0	24,0	1,0	8,0	15,0	LC..3008..
CFIR3225P08L230140	00089164	140	230	32	25	170	28,0	50,0	24,0	1,0	8,0	15,0	LC..3008..
CFIR3225P08L500200	00089166	200	500	32	25	170	28,0	50,0	24,0	1,0	8,0	15,0	LC..3008..
CFIL3225P08R130090	00089161	90	130	32	25	170	28,0	50,0	24,0	1,0	8,0	15,0	LC..3008..
CFIL3225P08R170110	00089163	110	170	32	25	170	28,0	50,0	24,0	1,0	8,0	15,0	LC..3008..
CFIL3225P08R230140	00089165	140	230	32	25	170	28,0	50,0	24,0	1,0	8,0	15,0	LC..3008..
CFIL3225P08R500200	00089167	200	500	32	25	170	28,0	50,0	24,0	1,0	8,0	15,0	LC..3008..

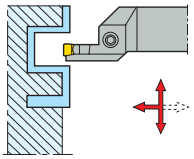
Spare Parts, included in delivery

For size	Clamp key	Clamp screw
		
CFIR/L..03	4SMS795	TCEI0513
CFIR/L..04	5SMS795	TCEI0613
CFIR/L..05	5SMS795	TCEI0613
CFIR/L..06	6SMS795	TCEI0815
CFIR/L..08	6SMS795	TCEI1020

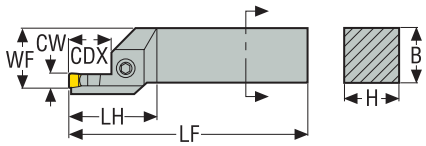
CFIR/L – Toolholders for inserts LCGF, LCGN, LCMF, LCMR – Inch



KAPR = 90,0 °



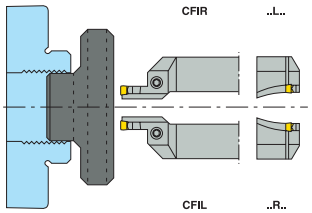
CFIR/L



CTWS



- Right-hand version with left-hand blade shown
- For inserts program, see page(s) 858-863, 873-874
- For holder code key, see page(s) 701-702
- Max depth of cut for double-sided LCGF/LCMF16.. = *0.551 inch*, LCGF/LCMF30.. = *1.102 inch*
- CW = indicative Cutting Width, may vary depending on the chosen insert
- For ISO attribute explanation, see page 82



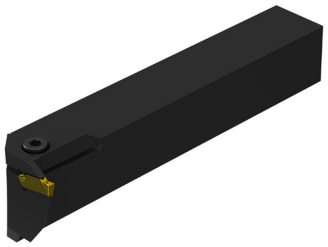
Designation	Item number	INPLM	INPLX	H	B	LF	WF	LH	CDX	Weight	CW	TQ	CTWS
		inch	inch	inch	inch	inch	inch	inch	inch	lbs	inch	In/Lbs.	
CFIR10003D-L4.002.75	00087773	2.756	3.937	1.000	1.000	6.000	1.250	1.142	0.354	1.760	0.118	53.1	LC..1603..
CFIR10003D-L5.003.50	00087777	3.543	5.000	1.000	1.000	6.000	1.250	1.142	0.354	1.760	0.118	53.1	LC..1603..
CFIR10003D-L6.704.30	00002840	4.331	6.693	1.000	1.000	6.000	1.250	1.142	0.354	1.760	0.118	53.1	LC..1603..
CFIL10003D-R4.002.75	00087774	2.756	3.937	1.000	1.000	6.000	1.250	1.142	0.354	1.760	0.118	53.1	LC..1603..
CFIL10003D-R5.003.50	00087778	3.543	5.000	1.000	1.000	6.000	1.250	1.142	0.354	1.760	0.118	53.1	LC..1603..
CFIL10003D-R6.704.30	00002841	4.331	6.693	1.000	1.000	6.000	1.250	1.142	0.354	1.760	0.118	53.1	LC..1603..
CFIR10004D-L4.002.75	00087785	2.756	3.937	1.000	1.000	6.000	1.250	1.299	0.472	1.760	0.157	70.8	LC..1604..
CFIR10004D-L5.003.50	00087789	3.543	5.000	1.000	1.000	6.000	1.250	1.299	0.472	1.760	0.157	70.8	LC..1604..
CFIR10004D-L9.005.50	00002842	5.512	8.976	1.000	1.000	6.000	1.250	1.299	0.472	1.760	0.157	70.8	LC..1604..
CFIL10004D-R4.002.75	00087786	2.756	3.937	1.000	1.000	6.000	1.250	1.299	0.472	1.760	0.157	70.8	LC..1604..
CFIL10004D-R5.003.50	00087790	3.543	5.000	1.000	1.000	6.000	1.250	1.299	0.472	1.760	0.157	70.8	LC..1604..
CFIL10004D-R9.005.50	00002844	5.512	8.976	1.000	1.000	6.000	1.250	1.299	0.472	1.760	0.157	70.8	LC..1604..
CFIR10005D-L4.002.75	00057796	2.756	3.937	1.000	1.000	6.000	1.250	1.417	0.591	1.760	0.197	70.8	LC..1605..
CFIR10005D-L5.003.50	00002828	3.543	5.000	1.000	1.000	6.000	1.250	1.417	0.591	1.760	0.197	70.8	LC..1605..
CFIR10005D-L6.704.30	00002835	4.331	6.693	1.000	1.000	6.000	1.250	1.417	0.591	1.760	0.197	70.8	LC..1605..
CFIR10005D-L9.005.50	00002838	5.512	8.976	1.000	1.000	6.000	1.250	1.417	0.591	1.760	0.197	70.8	LC..1605..
CFIL10005D-R4.002.75	00057797	2.756	3.937	1.000	1.000	6.000	1.250	1.417	0.591	1.760	0.197	70.8	LC..1605..
CFIL10005D-R5.003.50	00002831	3.543	5.000	1.000	1.000	6.000	1.250	1.417	0.591	1.760	0.197	70.8	LC..1605..
CFIL10005D-R6.704.30	00002836	4.331	6.693	1.000	1.000	6.000	1.250	1.417	0.591	1.760	0.197	70.8	LC..1605..
CFIL10005D-R9.005.50	00002839	5.512	8.976	1.000	1.000	6.000	1.250	1.417	0.591	1.760	0.197	70.8	LC..1605..
CFIR10006D-L4.002.75	00059845	2.756	3.937	1.000	1.000	6.000	1.250	1.693	0.709	1.760	0.236	88.5	LC..1606..
CFIR10006D-L5.003.50	00087795	3.543	5.000	1.000	1.000	6.000	1.250	1.693	0.709	1.760	0.236	88.5	LC..1606..
CFIR10006D-L6.704.30	00087799	4.331	6.693	1.000	1.000	6.000	1.250	1.693	0.709	1.760	0.236	88.5	LC..1606..
CFIR10006D-L9.005.50	00092656	5.512	8.976	1.000	1.000	6.000	1.250	1.693	0.709	1.760	0.236	88.5	LC..1606..
CFIL10006D-R4.002.75	00059846	2.756	3.937	1.000	1.000	6.000	1.250	1.693	0.709	1.760	0.236	88.5	LC..1606..
CFIL10006D-R5.003.50	00087796	3.543	5.000	1.000	1.000	6.000	1.250	1.693	0.709	1.760	0.236	88.5	LC..1606..
CFIL10006D-R6.704.30	00092653	4.331	6.693	1.000	1.000	6.000	1.250	1.693	0.709	1.760	0.236	88.5	LC..1606..
CFIL10006D-R9.005.50	00092657	5.512	8.976	1.000	1.000	6.000	1.250	1.693	0.709	1.760	0.236	88.5	LC..1606..
CFIR10008D-L5.003.50	00064884	3.543	5.000	1.000	1.000	6.000	1.250	2.205	0.945	1.760	0.315	132.8	LC..3008..

Designation	Item number	INPLM	INPLX	H	B	LF	WF	LH	CDX	Weight	CW	TQ	CTWS
		inch	inch	inch	inch	inch	inch	inch	inch	lbs	inch	In/Lbs.	
CFIR10008D-L6.704.30	00064886	4.331	6.693	1.000	1.000	6.000	1.250	2.205	0.945	1.760	0.315	132.8	LC..3008..
CFIR10008D-L9.005.50	00064888	5.512	8.976	1.000	1.000	6.000	1.250	2.205	0.945	1.760	0.315	132.8	LC..3008..
CFIR10008D-L19.78.00	00064891	7.992	19.685	1.000	1.000	6.000	1.250	2.205	0.945	1.760	0.315	132.8	LC..3008..
CFIL10008D-R5.003.50	00064885	3.543	5.000	1.000	1.000	6.000	1.250	2.205	0.945	1.760	0.315	132.8	LC..3008..
CFIL10008D-R6.704.30	00064887	4.331	6.693	1.000	1.000	6.000	1.250	2.205	0.945	1.760	0.315	132.8	LC..3008..
CFIL10008D-R9.005.50	00064889	5.512	8.976	1.000	1.000	6.000	1.250	2.205	0.945	1.760	0.315	132.8	LC..3008..
CFIL10008D-R19.78.00	00064892	7.992	19.685	1.000	1.000	6.000	1.250	2.205	0.945	1.760	0.315	132.8	LC..3008..

Spare Parts, included in delivery

For size	Clamp key	Clamp screw
		
..03	4SMS795	TCEI0513
..04	5SMS795	TCEI0613
..05	5SMS795	TCEI0613
..06	6SMS795	TCEI0815
..08	6SMS795	TCEI1020

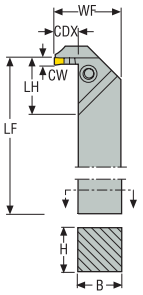
CGIR/L – Toolholders for inserts LCGF, LCGN, LCMF, LCMR – Metric



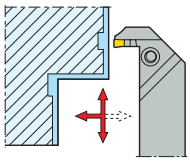
CTWS



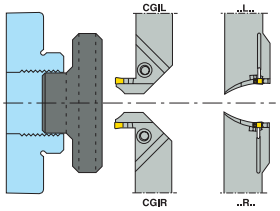
CGIR/L



CGIR/L
KAPR = 90,0 °



- Right-hand version with right-hand blade shown
- For inserts program, see page(s) 858-863, 873-874
- For holder code key, see page(s) 701-702
- Max depth of cut for double-sided LCGF/LCMF16.. = 14 mm, LCGF/LCMF30.. = 28 mm
- CW = indicative Cutting Width, may vary depending on the chosen insert
- For ISO attribute explanation, see page 82



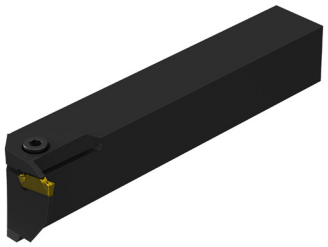
Designation	Item number	INPLM	INPLX	H	B	LF	WF	LH	CDX	Weight	CW	TQ	CTWS
		mm	mm	mm	mm	mm	mm	mm	mm	kg	mm	Nm	
CGIR2525M03R100070	00035346	70	100	25	25	150	35,4	33,0	9,0	0,8	3,0	6,0	LC..1603..
CGIR2525M03R130090	00035347	90	130	25	25	150	35,4	33,0	9,0	0,8	3,0	6,0	LC..1603..
CGIR2525M03R170110	00035348	110	170	25	25	150	35,4	33,0	9,0	0,8	3,0	6,0	LC..1603..
CGIL2525M03L100070	00027656	70	100	25	25	150	35,4	33,0	9,0	0,8	3,0	6,0	LC..1603..
CGIL2525M03L130090	00027657	90	130	25	25	150	35,4	33,0	9,0	0,8	3,0	6,0	LC..1603..
CGIL2525M03L170110	00027658	110	170	25	25	150	35,4	33,0	9,0	0,8	3,0	6,0	LC..1603..
CGIR2525M04R100070	00035349	70	100	25	25	150	38,4	33,0	12,0	0,8	4,0	8,0	LC..1604..
CGIR2525M04R130090	00035350	90	130	25	25	150	38,4	33,0	12,0	0,8	4,0	8,0	LC..1604..
CGIR2525M04R170110	00035351	110	170	25	25	150	38,4	33,0	12,0	0,8	4,0	8,0	LC..1604..
CGIR2525M04R230140	00035352	140	230	25	25	150	38,4	33,0	12,0	0,8	4,0	8,0	LC..1604..
CGIL2525M04L100070	00027659	70	100	25	25	150	38,4	33,0	12,0	0,8	4,0	8,0	LC..1604..
CGIL2525M04L130090	00027660	90	130	25	25	150	38,4	33,0	12,0	0,8	4,0	8,0	LC..1604..
CGIL2525M04L170110	00027661	110	170	25	25	150	38,4	33,0	12,0	0,8	4,0	8,0	LC..1604..
CGIL2525M04L230140	00027662	140	230	25	25	150	38,4	33,0	12,0	0,8	4,0	8,0	LC..1604..
CGIR2525M05R100070	00035353	70	100	25	25	150	41,4	33,0	15,0	0,8	5,0	8,0	LC..1605..
CGIR2525M05R130090	00035354	90	130	25	25	150	41,4	33,0	15,0	0,8	5,0	8,0	LC..1605..
CGIR2525M05R170110	00035355	110	170	25	25	150	41,4	33,0	15,0	0,8	5,0	8,0	LC..1605..
CGIR2525M05R230140	00035356	140	230	25	25	150	41,4	33,0	15,0	0,8	5,0	8,0	LC..1605..
CGIL2525M05L100070	00027663	70	100	25	25	150	41,4	33,0	15,0	0,8	5,0	8,0	LC..1605..
CGIL2525M05L130090	00027664	90	130	25	25	150	41,4	33,0	15,0	0,8	5,0	8,0	LC..1605..
CGIL2525M05L170110	00027666	110	170	25	25	150	41,4	33,0	15,0	0,8	5,0	8,0	LC..1605..
CGIL2525M05L230140	00027668	140	230	25	25	150	41,4	33,0	15,0	0,8	5,0	8,0	LC..1605..
CGIR2525M06R100070	00035357	70	100	25	25	150	44,4	34,0	18,0	0,8	6,0	10,0	LC..1606..
CGIR2525M06R130090	00035358	90	130	25	25	150	44,4	34,0	18,0	0,8	6,0	10,0	LC..1606..
CGIR2525M06R170110	00035359	110	170	25	25	150	44,4	34,0	18,0	0,8	6,0	10,0	LC..1606..
CGIR2525M06R230140	00035360	140	230	25	25	150	44,4	34,0	18,0	0,8	6,0	10,0	LC..1606..
CGIL2525M06L100070	00027669	70	100	25	25	150	44,4	34,0	18,0	0,8	6,0	10,0	LC..1606..
CGIL2525M06L130090	00027670	90	130	25	25	150	44,4	34,0	18,0	0,8	6,0	10,0	LC..1606..
CGIL2525M06L170110	00027671	110	170	25	25	150	44,4	34,0	18,0	0,8	6,0	10,0	LC..1606..

Designation	Item number	INPLM	INPLX	H	B	LF	WF	LH	CDX	Weight	CW	TQ	CTWS
		mm	mm	mm	mm	mm	mm	mm	mm	kg	mm	Nm	
CGIL2525M06L230140	00027672	140	230	25	25	150	44,4	34,0	18,0	0,8	6,0	10,0	LC..1606..
CGIR3225P08R130090	00089152	90	130	32	25	170	50,4	56,7	24,0	1,2	8,0	15,0	LC..3008..
CGIR3225P08R170110	00089154	110	170	32	25	170	50,4	56,7	24,0	1,2	8,0	15,0	LC..3008..
CGIR3225P08R230140	00089156	140	230	32	25	170	50,4	56,7	24,0	1,2	8,0	15,0	LC..3008..
CGIR3225P08R500200	00089158	200	500	32	25	170	50,4	56,7	24,0	1,2	8,0	15,0	LC..3008..
CGIL3225P08L130090	00089153	90	130	32	25	170	50,4	56,7	24,0	1,2	8,0	15,0	LC..3008..
CGIL3225P08L170110	00089155	110	170	32	25	170	50,4	56,7	24,0	1,2	8,0	15,0	LC..3008..
CGIL3225P08L230140	00089157	140	230	32	25	170	50,4	56,7	24,0	1,2	8,0	15,0	LC..3008..
CGIL3225P08L500200	00089159	200	500	32	25	170	50,4	56,7	24,0	1,2	8,0	15,0	LC..3008..

Spare Parts, included in delivery

For size	Clamp key	Clamp screw
		
CGIR/L..03	4SMS795	TCEI0513
CGIR/L..04	5SMS795	TCEI0613
CGIR/L..05	5SMS795	TCEI0613
CGIR/L..06	6SMS795	TCEI0815
CGIR/L..08	6SMS795	TCEI1020

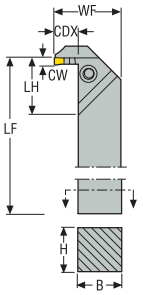
CGIR/L – Toolholders for inserts LCGF, LCGN, LCMF, LCMR – Inch



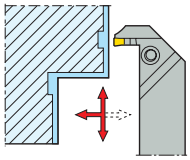
CTWS



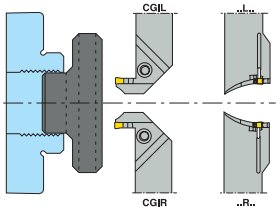
CGIR/L



KAPR = 90,0 °



- Right-hand version with right-hand blade shown
- For inserts program, see page(s) 858-863, 873-874
- For holder code key, see page(s) 701-702
- Max depth of cut for double-sided LCGF/LCMF16.. = *0.551 inch*, LCGF/LCMF30.. = *1.102 inch*
- CW = indicative Cutting Width, may vary depending on the chosen insert
- For ISO attribute explanation, see page 82



Designation	Item number	INPLM	INPLX	H	B	LF	WF	LH	CDX	Weight	CW	TQ	CTWS
		inch	inch	inch	inch	inch	inch	inch	inch	lbs	inch	In/Lbs.	
CGIR10003D-R4.00-2.75	00096157	2.756	3.937	1.000	1.000	6.000	1.433	1.299	0.354	1.760	0.118	53.1	LC..1603..
CGIR10003D-R5.00-3.50	00096159	3.543	5.000	1.000	1.000	6.000	1.433	1.299	0.354	1.540	0.118	53.1	LC..1603..
CGIL10003D-L4.00-2.75	00096158	2.756	3.937	1.000	1.000	6.000	1.433	1.299	0.354	1.760	0.118	53.1	LC..1603..
CGIL10003D-L5.00-3.50	00096160	3.543	5.000	1.000	1.000	6.000	1.433	1.299	0.354	1.540	0.118	53.1	LC..1603..
CGIR10004D-R4.00-2.75	00096161	2.756	3.937	1.000	1.000	6.000	1.531	1.299	0.472	1.760	0.157	70.8	LC..1604..
CGIR10004D-R5.00-3.50	00096163	3.543	5.000	1.000	1.000	6.000	1.531	1.299	0.472	1.760	0.157	70.8	LC..1604..
CGIL10004D-L4.00-2.75	00096162	2.756	3.937	1.000	1.000	6.000	1.531	1.299	0.472	1.760	0.157	70.8	LC..1604..
CGIL10004D-L5.00-3.50	00096164	3.543	5.000	1.000	1.000	6.000	1.531	1.299	0.472	1.760	0.157	70.8	LC..1604..
CGIR10006D-R5.00-3.50	00096165	3.543	5.000	1.000	1.000	6.000	1.811	1.339	0.709	1.540	0.236	88.5	LC..1606..
CGIR10006D-R6.70-4.30	00096167	4.331	6.693	1.000	1.000	6.000	1.811	1.339	0.709	1.980	0.236	88.5	LC..1606..
CGIR10006D-R9.00-5.50	00096169	5.512	8.976	1.000	1.000	6.000	1.811	1.339	0.709	1.540	0.236	88.5	LC..1606..
CGIL10006D-L5.00-3.50	00096166	3.543	5.000	1.000	1.000	6.000	1.811	1.339	0.709	1.540	0.236	88.5	LC..1606..
CGIL10006D-L6.70-4.30	00096168	4.331	6.693	1.000	1.000	6.000	1.811	1.339	0.709	1.980	0.236	88.5	LC..1606..
CGIL10006D-L9.00-5.50	00096170	5.512	8.976	1.000	1.000	6.000	1.811	1.339	0.709	1.540	0.236	88.5	LC..1606..
CGIR10008D-R5.003.50	00064875	3.543	5.000	1.000	1.000	6.000	2.004	2.165	0.945	2.200	0.315	132.8	LC..3008..
CGIR10008D-R6.704.30	00064877	4.331	6.693	1.000	1.000	6.000	2.004	2.165	0.945	2.200	0.315	132.8	LC..3008..
CGIR10008D-R9.005.50	00064879	5.512	8.976	1.000	1.000	6.000	2.004	2.165	0.945	2.200	0.315	132.8	LC..3008..
CGIR10008D-R19.78.00	00064882	7.992	19.685	1.000	1.000	6.000	2.004	2.165	0.945	1.980	0.315	132.8	LC..3008..
CGIL10008D-L9.005.50	00064881	5.512	8.976	1.000	1.000	6.000	2.004	2.165	0.945	1.980	0.315	132.8	LC..3008..
CGIL10008D-L19.78.00	00064883	7.992	19.685	1.000	1.000	6.000	2.004	2.165	0.945	1.980	0.315	132.8	LC..3008..

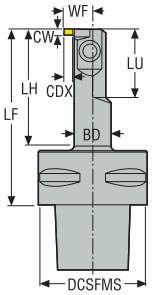
Spare Parts, included in delivery

For size	Clamp key	Clamp screw
		
..03	4SMS795	TCEI0513
..04	5SMS795	TCEI0613
..06	6SMS795	TCEI0815
..08	6SMS795	TCEI1020

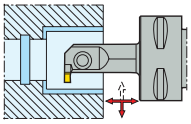
C.-CG.R/L – Toolholders for inserts LCGA, LCGF, LCGN, LCMF, LCMR – **Metric** / *Inch*



CG.R/L



C.-CG.R/L
KAPR = 90,0 °



CTWS



- Right-hand version shown
- For inserts program, see page(s) 854-856, 872
- For holder code key, see page(s) 700
- CW = indicative Cutting Width, may vary depending on the chosen insert
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	BD	DCSFMS	WF	LF	LH	LU	CDX	DCINN	Weight	CW	TQ	CTWS
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	kg *lbs*	mm *inch*	Nm *In/Lbs.*	
C4-CGER-11065-1303	00054084	C4	14,0 *0.551*	40,0 *1.575*	10,2 *0.402*	65 *2.559*	43,0 *1.693*	25,5 *1.004*	3,0 *0.118*	16,0 *0.630*	0,3 *0.660*	3,0 *0.118*	5,0 *44.3*	LC..1303..
C4-CGEL-11065-1303	00054080	C4	14,0 *0.551*	40,0 *1.575*	10,2 *0.402*	65 *2.559*	43,0 *1.693*	25,5 *1.004*	3,0 *0.118*	16,0 *0.630*	0,3 *0.660*	3,0 *0.118*	5,0 *44.3*	LC..1303..
C4-CGFR-15075-1303	00054085	C4	18,0 *0.709*	40,0 *1.575*	14,5 *0.571*	75 *2.953*	53,0 *2.087*	30,5 *1.201*	5,5 *0.217*	20,0 *0.787*	0,4 *0.880*	3,0 *0.118*	5,0 *44.3*	LC..1303..
C4-CGFL-15075-1303	00054083	C4	18,0 *0.709*	40,0 *1.575*	14,5 *0.571*	75 *2.953*	53,0 *2.087*	30,5 *1.201*	5,5 *0.217*	20,0 *0.787*	0,4 *0.880*	3,0 *0.118*	5,0 *44.3*	LC..1303..
C4-CGFR-15075-1304	00054095	C4	18,0 *0.709*	40,0 *1.575*	14,5 *0.571*	75 *2.953*	53,0 *2.087*	30,5 *1.201*	5,5 *0.217*	20,0 *0.787*	0,4 *0.880*	4,0 *0.157*	5,0 *44.3*	LC..1304..
C4-CGFL-15075-1304	00054094	C4	18,0 *0.709*	40,0 *1.575*	14,5 *0.571*	75 *2.953*	53,0 *2.087*	30,5 *1.201*	5,5 *0.217*	20,0 *0.787*	0,4 *0.880*	4,0 *0.157*	5,0 *44.3*	LC..1304..
C5-CGER-11065-1303	00054098	C5	14,0 *0.551*	50,0 *1.969*	10,2 *0.402*	65 *2.559*	43,0 *1.693*	25,5 *1.004*	3,0 *0.118*	16,0 *0.630*	0,5 *1.100*	3,0 *0.118*	5,0 *44.3*	LC..1303..
C5-CGEL-11065-1303	00054097	C5	14,0 *0.551*	50,0 *1.969*	10,2 *0.402*	65 *2.559*	43,0 *1.693*	25,5 *1.004*	3,0 *0.118*	16,0 *0.630*	0,5 *1.100*	3,0 *0.118*	5,0 *44.3*	LC..1303..
C5-CGFR-15075-1303	00054104	C5	18,0 *0.709*	50,0 *1.969*	14,5 *0.571*	75 *2.953*	53,0 *2.087*	30,5 *1.201*	5,5 *0.217*	20,0 *0.787*	0,5 *1.100*	3,0 *0.118*	5,0 *44.3*	LC..1303..
C5-CGFL-15075-1303	00054101	C5	18,0 *0.709*	50,0 *1.969*	14,5 *0.571*	75 *2.953*	53,0 *2.087*	30,5 *1.201*	5,5 *0.217*	20,0 *0.787*	0,5 *1.100*	3,0 *0.118*	5,0 *44.3*	LC..1303..
C5-CGHR-19080-1303	02718397	C5	23,0 *0.906*	50,0 *1.969*	19,0 *0.748*	80 *3.150*	58,0 *2.283*	40,5 *1.594*	7,5 *0.295*	25,0 *0.984*	0,6 *1.320*	3,0 *0.118*	5,0 *44.3*	LC..1303..
C5-CGHL-19080-1303	02717402	C5	23,0 *0.906*	50,0 *1.969*	19,0 *0.748*	80 *3.150*	58,0 *2.283*	40,5 *1.594*	7,5 *0.295*	25,0 *0.984*	0,6 *1.320*	3,0 *0.118*	5,0 *44.3*	LC..1303..
C5-CGJR-26110-1303	02718401	C5	30,0 *1.181*	50,0 *1.969*	25,5 *1.004*	110 *4.331*	88,0 *3.465*	50,5 *1.988*	10,5 *0.413*	32,0 *1.260*	0,8 *1.760*	3,0 *0.118*	5,0 *44.3*	LC..1303..
C5-CGJL-26110-1303	02718400	C5	30,0 *1.181*	50,0 *1.969*	25,5 *1.004*	110 *4.331*	88,0 *3.465*	50,5 *1.988*	10,5 *0.413*	32,0 *1.260*	0,9 *1.980*	3,0 *0.118*	5,0 *44.3*	LC..1303..
C5-CGFR-15075-1304	00054118	C5	18,0 *0.709*	50,0 *1.969*	14,5 *0.571*	75 *2.953*	53,0 *2.087*	30,5 *1.201*	5,5 *0.217*	20,0 *0.787*	0,5 *1.100*	4,0 *0.157*	5,0 *44.3*	LC..1304..
C5-CGFL-15075-1304	00054115	C5	18,0 *0.709*	50,0 *1.969*	14,5 *0.571*	75 *2.953*	53,0 *2.087*	30,5 *1.201*	5,5 *0.217*	20,0 *0.787*	0,5 *1.100*	4,0 *0.157*	5,0 *44.3*	LC..1304..
C5-CGFR-19080-1304	00054120	C5	23,0 *0.906*	50,0 *1.969*	19,0 *0.748*	80 *3.150*	58,0 *2.283*	40,5 *1.594*	7,5 *0.295*	25,0 *0.984*	0,6 *1.320*	4,0 *0.157*	5,0 *44.3*	LC..1304..
C5-CGFL-19080-1304	00054119	C5	23,0 *0.906*	50,0 *1.969*	19,0 *0.748*	80 *3.150*	58,0 *2.283*	40,5 *1.594*	7,5 *0.295*	25,0 *0.984*	0,6 *1.320*	4,0 *0.157*	5,0 *44.3*	LC..1304..
C5-CGHR-26110-1304	02718398	C5	30,0 *1.181*	50,0 *1.969*	25,5 *1.004*	110 *4.331*	88,0 *3.465*	50,5 *1.988*	10,5 *0.413*	32,0 *1.260*	0,8 *1.760*	4,0 *0.157*	5,0 *44.3*	LC..1304..

Designation	Item number	CTMS	BD	DCSFMS	WF	LF	LH	LU	CDX	DCINN	Weight	CW	TQ	CTWS
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	kg *lbs*	mm *inch*	Nm *In/Lbs.*	
C5-CGHL-26110-1304	02718396	C5	30,0 *1.181*	50,0 *1.969*	25,5 *1.004*	110 *4.331*	88,0 *3.465*	50,5 *1.988*	10,5 *0.413*	32,0 *1.260*	0,8 *1.760*	4,0 *0.157*	5,0 *44.3*	LC..1304..
C6-CGER-11065-1303	00054130	C6	14,0 *0.551*	63,0 *2.480*	10,2 *0.402*	65 *2.559*	43,0 *1.693*	25,5 *1.004*	3,0 *0.118*	16,0 *0.630*	0,8 *1.760*	3,0 *0.118*	5,0 *44.3*	LC..1303..
C6-CGEL-11065-1303	00054129	C6	14,0 *0.551*	63,0 *2.480*	10,2 *0.402*	65 *2.559*	43,0 *1.693*	25,5 *1.004*	3,0 *0.118*	16,0 *0.630*	0,8 *1.760*	3,0 *0.118*	5,0 *44.3*	LC..1303..
C6-CGFR-15075-1303	00054134	C6	18,0 *0.709*	63,0 *2.480*	14,5 *0.571*	75 *2.953*	53,0 *2.087*	30,5 *1.201*	5,5 *0.217*	20,0 *0.787*	0,9 *1.980*	3,0 *0.118*	5,0 *44.3*	LC..1303..
C6-CGFL-15075-1303	00054131	C6	18,0 *0.709*	63,0 *2.480*	14,5 *0.571*	75 *2.953*	53,0 *2.087*	30,5 *1.201*	5,5 *0.217*	20,0 *0.787*	0,8 *1.760*	3,0 *0.118*	5,0 *44.3*	LC..1303..
C6-CGHR-19080-1303	02718404	C6	23,0 *0.906*	63,0 *2.480*	19,0 *0.748*	80 *3.150*	56,0 *2.205*	40,5 *1.594*	7,5 *0.295*	25,0 *0.984*	0,9 *1.980*	3,0 *0.118*	5,0 *44.3*	LC..1303..
C6-CGHL-19080-1303	02718402	C6	23,0 *0.906*	63,0 *2.480*	19,0 *0.748*	80 *3.150*	58,0 *2.283*	40,0 *1.575*	7,5 *0.295*	25,0 *0.984*	0,6 *1.320*	3,0 *0.118*	5,0 *44.3*	LC..1303..
C6-CGJR-26110-1303	02718407	C6	30,0 *1.181*	63,0 *2.480*	25,5 *1.004*	110 *4.331*	86,0 *3.386*	50,0 *1.969*	10,5 *0.413*	32,0 *1.260*	1,1 *2.430*	3,0 *0.118*	5,0 *44.3*	LC..1303..
C6-CGJL-26110-1303	02718406	C6	30,0 *1.181*	63,0 *2.480*	25,5 *1.004*	110 *4.331*	86,0 *3.386*	50,0 *1.969*	10,5 *0.413*	32,0 *1.260*	1,5 *3.310*	3,0 *0.118*	5,0 *44.3*	LC..1303..
C6-CGFR-19080-1304	00054140	C6	23,0 *0.906*	63,0 *2.480*	19,0 *0.748*	80 *3.150*	58,0 *2.283*	40,5 *1.594*	7,5 *0.295*	25,0 *0.984*	0,9 *1.980*	4,0 *0.157*	5,0 *44.3*	LC..1304..
C6-CGFL-19080-1304	00054139	C6	23,0 *0.906*	63,0 *2.480*	19,0 *0.748*	80 *3.150*	58,0 *2.283*	40,5 *1.594*	7,5 *0.295*	25,0 *0.984*	0,9 *1.980*	4,0 *0.157*	5,0 *44.3*	LC..1304..
C6-CGHR-26110-1304	02718405	C6	30,0 *1.181*	63,0 *2.480*	25,5 *1.004*	110 *4.331*	86,0 *3.386*	50,5 *1.988*	10,5 *0.413*	32,0 *1.260*	1,1 *2.430*	4,0 *0.157*	5,0 *44.3*	LC..1304..
C6-CGHL-26110-1304	02718403	C6	30,0 *1.181*	63,0 *2.480*	25,5 *1.004*	110 *4.331*	88,0 *3.465*	50,0 *1.969*	10,5 *0.413*	32,0 *1.260*	1,1 *2.430*	4,0 *0.157*	5,0 *44.3*	LC..1304..

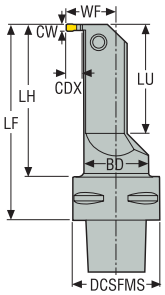
Spare Parts, included in delivery

For size	Clamp key	Clamp screw
		
CG.R/L..-1303	T15P-7	L85011-T15P
CG.R/L..-1304	T15P-7	L85011-T15P

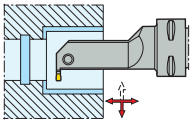
C.-CG.R/L – Toolholders for inserts LCGF, LCGN, LCMF, LCMR – **Metric** / *Inch*



CG.R/L



C.-CG.R/L
KAPR = 90,0 °



CTWS



- Right-hand version shown
- For inserts program, see page(s) 858-871, 873-874
- For holder code key, see page(s) 700
- CW = indicative Cutting Width, may vary depending on the chosen insert
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	BD	DCSFMS	WF	LF	LH	LU	CDX	DCINN	Weight	CW	TQ	CTWS
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	kg *lbs*	mm *inch*	Nm *In/Lbs.*	
C4-CGIR-24090-1603	02718418	C4	30,0 *1.181*	40,0 *1.575*	24,0 *0.945*	90 *3.543*	68,0 *2.677*	50,3 *1.980*	9,0 *0.354*	32,0 *1.260*	0,5 *1.100*	3,0 *0.118*	5,0 *44.3*	LC..1603..
C4-CGIL-24090-1603	02718415	C4	30,0 *1.181*	40,0 *1.575*	24,0 *0.945*	90 *3.543*	68,0 *2.677*	50,3 *1.980*	9,0 *0.354*	32,0 *1.260*	0,5 *1.100*	3,0 *0.118*	5,0 *44.3*	LC..1603..
C4-CGGR-24090-1604	02718424	C4	30,0 *1.181*	40,0 *1.575*	24,0 *0.945*	90 *3.543*	68,0 *2.677*	50,3 *1.980*	9,0 *0.354*	32,0 *1.260*	0,5 *1.100*	4,0 *0.157*	5,0 *44.3*	LC..1604..
C4-CGGL-24090-1604	02718421	C4	30,0 *1.181*	40,0 *1.575*	24,0 *0.945*	90 *3.543*	68,0 *2.677*	50,3 *1.980*	9,0 *0.354*	32,0 *1.260*	0,5 *1.100*	4,0 *0.157*	5,0 *44.3*	LC..1604..
C5-CGIR-24090-1603	02718419	C5	30,0 *1.181*	50,0 *1.969*	24,0 *0.945*	90 *3.543*	68,0 *2.677*	50,3 *1.980*	9,0 *0.354*	32,0 *1.260*	0,7 *1.540*	3,0 *0.118*	5,0 *44.3*	LC..1603..
C5-CGIL-24090-1603	02718416	C5	30,0 *1.181*	50,0 *1.969*	24,0 *0.945*	90 *3.543*	68,0 *2.677*	50,3 *1.980*	9,0 *0.354*	32,0 *1.260*	0,7 *1.540*	3,0 *0.118*	5,0 *44.3*	LC..1603..
C5-CGGR-24090-1604	02718425	C5	30,0 *1.181*	50,0 *1.969*	24,0 *0.945*	90 *3.543*	68,0 *2.677*	49,9 *1.965*	9,0 *0.354*	32,0 *1.260*	0,9 *1.980*	4,0 *0.157*	5,0 *44.3*	LC..1604..
C5-CGGL-24090-1604	02718422	C5	30,0 *1.181*	50,0 *1.969*	24,0 *0.945*	90 *3.543*	68,0 *2.677*	49,9 *1.965*	9,0 *0.354*	32,0 *1.260*	0,6 *1.320*	4,0 *0.157*	5,0 *44.3*	LC..1604..
C5-CGFR-24090-1605	02718431	C5	30,0 *1.181*	50,0 *1.969*	24,0 *0.945*	90 *3.543*	68,0 *2.677*	49,9 *1.965*	9,0 *0.354*	32,0 *1.260*	0,9 *1.980*	5,0 *0.197*	6,0 *53.1*	LC..1605..
C5-CGFL-24090-1605	02718428	C5	30,0 *1.181*	50,0 *1.969*	24,0 *0.945*	90 *3.543*	68,0 *2.677*	49,9 *1.965*	9,0 *0.354*	32,0 *1.260*	0,9 *1.980*	5,0 *0.197*	6,0 *53.1*	LC..1605..
C5-CGFR-24090-1606	02718435	C5	30,0 *1.181*	50,0 *1.969*	24,0 *0.945*	90 *3.543*	68,0 *2.677*	49,9 *1.965*	9,0 *0.354*	32,0 *1.260*	0,6 *1.320*	6,0 *0.236*	6,0 *53.1*	LC..1606..
C5-CGFL-24090-1606	02718433	C5	30,0 *1.181*	50,0 *1.969*	24,0 *0.945*	90 *3.543*	68,0 *2.677*	49,9 *1.965*	9,0 *0.354*	32,0 *1.260*	0,9 *1.980*	6,0 *0.236*	6,0 *53.1*	LC..1606..
C6-CGIR-24095-1603	02718420	C6	30,0 *1.181*	63,0 *2.480*	24,0 *0.945*	95 *3.740*	73,0 *2.874*	50,3 *1.980*	9,0 *0.354*	32,0 *1.260*	1,0 *2.200*	3,0 *0.118*	5,0 *44.3*	LC..1603..
C6-CGIL-24095-1603	02718417	C6	30,0 *1.181*	63,0 *2.480*	24,0 *0.945*	95 *3.740*	73,0 *2.874*	50,3 *1.980*	9,0 *0.354*	32,0 *1.260*	1,0 *2.200*	3,0 *0.118*	5,0 *44.3*	LC..1603..
C6-CGGR-24095-1604	02718426	C6	30,0 *1.181*	63,0 *2.480*	24,0 *0.945*	95 *3.740*	73,0 *2.874*	50,3 *1.980*	9,0 *0.354*	32,0 *1.260*	1,5 *3.310*	4,0 *0.157*	5,0 *44.3*	LC..1604..
C6-CGGL-24095-1604	02718423	C6	30,0 *1.181*	63,0 *2.480*	24,0 *0.945*	95 *3.740*	73,0 *2.874*	50,3 *1.980*	9,0 *0.354*	32,0 *1.260*	1,0 *2.200*	4,0 *0.157*	5,0 *44.3*	LC..1604..
C6-CGFR-24095-1605	02718432	C6	30,0 *1.181*	63,0 *2.480*	24,0 *0.945*	95 *3.740*	73,0 *2.874*	50,3 *1.980*	9,0 *0.354*	32,0 *1.260*	1,0 *2.200*	5,0 *0.197*	6,0 *53.1*	LC..1605..
C6-CGFL-24095-1605	02718429	C6	30,0 *1.181*	63,0 *2.480*	24,0 *0.945*	95 *3.740*	73,0 *2.874*	50,3 *1.980*	9,0 *0.354*	32,0 *1.260*	1,5 *3.310*	5,0 *0.197*	6,0 *53.1*	LC..1605..
C6-CGFR-24095-1606	02718436	C6	30,0 *1.181*	63,0 *2.480*	24,0 *0.945*	95 *3.740*	73,0 *2.874*	50,3 *1.980*	9,0 *0.354*	32,0 *1.260*	1,5 *3.310*	6,0 *0.236*	6,0 *53.1*	LC..1606..
C6-CGFL-24095-1606	02718434	C6	30,0 *1.181*	63,0 *2.480*	24,0 *0.945*	95 *3.740*	73,0 *2.874*	50,3 *1.980*	9,0 *0.354*	32,0 *1.260*	1,5 *3.310*	6,0 *0.236*	6,0 *53.1*	LC..1606..

Spare Parts, included in delivery

For size	Clamp key	Clamp screw
		
CG.R/L..-1603	T15P-7	L85011-T15P
CG.R/L..-1604	T15P-7	L85011-T15P
CG.R/L..-1605	T20P-7	L86015-T20P
CG.R/L..-1606	T20P-7	L86015-T20P

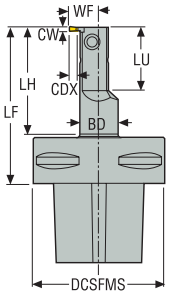
C.-CG.R/L – Toolholders for inserts LCMF
– Metric / *Inch*



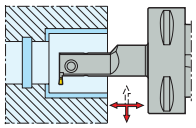
CTWS



CG.R/L



C.-CG.R/L
KAPR = 90,0 °



- Right-hand version shown
- For inserts program, see page(s) 857
- For holder code key, see page(s) 700
- CW = indicative Cutting Width, may vary depending on the chosen insert
- For ISO attribute explanation, see page 82

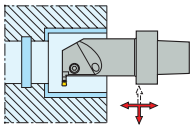
Designation	Item number	CTMS	BD	DCSFMS	WF	LF	LH	LU	CDX	DCINN	Weight	CW	TQ	CTWS
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	kg *lbs*	mm *inch*	Nm *In/Lbs.*	
C4-CGHR-15075-1902	02749181	C4	18,0 *0.709*	40,0 *1.575*	14,5 *0.571*	75 *2.953*	53,0 *2.087*	30,5 *1.201*	5,5 *0.217*	20,0 *0.787*	0,3 *0.660*	2,0 *0.079*	5,0 *44.3*	LC..1902..
C4-CGHL-15075-1902	02749187	C4	18,0 *0.709*	40,0 *1.575*	14,5 *0.571*	75 *2.953*	53,0 *2.087*	30,5 *1.201*	5,5 *0.217*	20,0 *0.787*	0,3 *0.660*	2,0 *0.079*	5,0 *44.3*	LC..1902..
C5-CGHR-15075-1902	02749182	C5	18,0 *0.709*	50,0 *1.969*	14,5 *0.571*	75 *2.953*	53,0 *2.087*	30,5 *1.201*	5,5 *0.217*	20,0 *0.787*	0,5 *1.100*	2,0 *0.079*	5,0 *44.3*	LC..1902..
C5-CGHL-15075-1902	02749188	C5	18,0 *0.709*	50,0 *1.969*	14,5 *0.571*	75 *2.953*	53,0 *2.087*	30,5 *1.201*	5,5 *0.217*	20,0 *0.787*	0,5 *1.100*	2,0 *0.079*	5,0 *44.3*	LC..1902..
C6-CGHR-15075-1902	02749183	C6	18,0 *0.709*	60,0 *2.362*	14,5 *0.571*	75 *2.953*	51,0 *2.008*	30,5 *1.201*	5,5 *0.217*	20,0 *0.787*	0,9 *1.980*	2,0 *0.079*	5,0 *44.3*	LC..1902..
C6-CGHL-15075-1902	02749189	C6	18,0 *0.709*	60,0 *2.362*	14,5 *0.571*	75 *2.953*	51,0 *2.008*	30,5 *1.201*	5,5 *0.217*	20,0 *0.787*	0,9 *1.980*	2,0 *0.079*	5,0 *44.3*	LC..1902..
C4-CGJR-19080-1902	02749184	C4	23,0 *0.906*	40,0 *1.575*	19,0 *0.748*	80 *3.150*	58,0 *2.283*	30,5 *1.201*	7,5 *0.295*	25,0 *0.984*	0,4 *0.880*	2,0 *0.079*	5,0 *44.3*	LC..1902..
C4-CGJL-19080-1902	02749190	C4	23,0 *0.906*	40,0 *1.575*	19,0 *0.748*	80 *3.150*	58,0 *2.283*	30,5 *1.201*	7,5 *0.295*	25,0 *0.984*	0,4 *0.880*	2,0 *0.079*	5,0 *44.3*	LC..1902..
C5-CGJR-19080-1902	02749185	C5	23,0 *0.906*	50,0 *1.969*	19,0 *0.748*	80 *3.150*	58,0 *2.283*	30,5 *1.201*	7,5 *0.295*	25,0 *0.984*	0,6 *1.320*	2,0 *0.079*	5,0 *44.3*	LC..1902..
C5-CGJL-19080-1902	02749191	C5	23,0 *0.906*	50,0 *1.969*	19,0 *0.748*	80 *3.150*	58,0 *2.283*	30,5 *1.201*	7,5 *0.295*	25,0 *0.984*	0,6 *1.320*	2,0 *0.079*	5,0 *44.3*	LC..1902..
C6-CGJR-19080-1902	02749186	C6	23,0 *0.906*	60,0 *2.362*	19,0 *0.748*	80 *3.150*	56,0 *2.205*	30,5 *1.201*	7,5 *0.295*	25,0 *0.984*	0,9 *1.980*	2,0 *0.079*	5,0 *44.3*	LC..1902..
C6-CGJL-19080-1902	02749192	C6	23,0 *0.906*	60,0 *2.362*	19,0 *0.748*	80 *3.150*	56,0 *2.205*	30,5 *1.201*	7,5 *0.295*	25,0 *0.984*	0,9 *1.980*	2,0 *0.079*	5,0 *44.3*	LC..1902..

Spare Parts, included in delivery

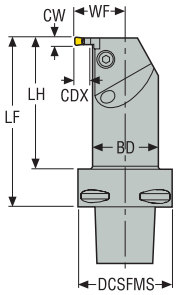
For size	Clamp key	Clamp screw
		
CG.R/L..-1902	T15P-7	L85011-T15P

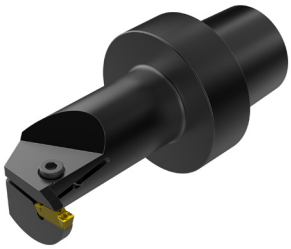
C.-CGGR/L – Toolholders for inserts LCGF, LCGN, LCMF, LCMR – Metric / *Inch*

C.-CGGR/L
KAPR = 90,0 °



CGGR/L





CTWS

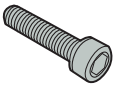


- Right-hand version shown
- For inserts program, see page(s) 858-871, 873-874
- For holder code key, see page(s) 700
- CW = indicative Cutting Width, may vary depending on the chosen insert
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	BD	DCSFMS	WF	LF	LH	CDX	DCINN	Weight	CW	TQ	CTWS
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	kg *lbs*	mm *inch*	Nm *In/Lbs.*	
C4-CGGR-25090-03	00038031	C4	35,0 *1.378*	40,0 *1.575*	25,0 *0.984*	90 *3.543*	70,0 *2.756*	6,0 *0.236*	45,0 *1.772*	0,7 *1.540*	3,0 *0.118*	3,5 *31.0*	LC..1603..
C4-CGGL-25090-03	00038030	C4	35,0 *1.378*	40,0 *1.575*	25,0 *0.984*	90 *3.543*	70,0 *2.756*	6,0 *0.236*	45,0 *1.772*	0,7 *1.540*	3,0 *0.118*	3,5 *31.0*	LC..1603..
C4-CGGR-27090-04	00038037	C4	35,0 *1.378*	40,0 *1.575*	27,0 *1.063*	90 *3.543*	70,0 *2.756*	8,0 *0.315*	45,0 *1.772*	0,7 *1.540*	4,0 *0.157*	5,0 *44.3*	LC..1604..
C4-CGGL-27090-04	00038036	C4	35,0 *1.378*	40,0 *1.575*	27,0 *1.063*	90 *3.543*	70,0 *2.756*	8,0 *0.315*	45,0 *1.772*	0,7 *1.540*	4,0 *0.157*	5,0 *44.3*	LC..1604..
C4-CGGR-28090-05	02718413	C4	32,5 *1.280*	40,0 *1.575*	27,7 *1.091*	90 *3.543*	63,0 *2.480*	10,0 *0.394*	45,0 *1.772*	0,7 *1.540*	5,0 *0.197*	5,0 *44.3*	LC..1605..
C4-CGGL-28090-05	02718408	C4	32,5 *1.280*	40,0 *1.575*	27,7 *1.091*	90 *3.543*	63,0 *2.480*	10,0 *0.394*	45,0 *1.772*	0,5 *1.100*	5,0 *0.197*	5,0 *44.3*	LC..1605..
C5-CGGR-25090-03	00038033	C5	35,0 *1.378*	50,0 *1.969*	25,0 *0.984*	90 *3.543*	70,0 *2.756*	6,0 *0.236*	45,0 *1.772*	0,9 *1.980*	3,0 *0.118*	3,5 *31.0*	LC..1603..
C5-CGGL-25090-03	00038032	C5	35,0 *1.378*	50,0 *1.969*	25,0 *0.984*	90 *3.543*	70,0 *2.756*	6,0 *0.236*	45,0 *1.772*	0,8 *1.760*	3,0 *0.118*	3,5 *31.0*	LC..1603..
C5-CGGR-27090-04	00038039	C5	35,0 *1.378*	50,0 *1.969*	27,0 *1.063*	90 *3.543*	70,0 *2.756*	8,0 *0.315*	45,0 *1.772*	0,9 *1.980*	4,0 *0.157*	5,0 *44.3*	LC..1604..
C5-CGGL-27090-04	00038038	C5	35,0 *1.378*	50,0 *1.969*	27,0 *1.063*	90 *3.543*	70,0 *2.756*	8,0 *0.315*	45,0 *1.772*	0,9 *1.980*	4,0 *0.157*	5,0 *44.3*	LC..1604..
C5-CGGR-28090-05	00071960	C5	32,5 *1.280*	50,0 *1.969*	27,7 *1.091*	90 *3.543*	63,0 *2.480*	10,0 *0.394*	45,0 *1.772*	0,8 *1.760*	5,0 *0.197*	5,0 *44.3*	LC..1605..
C5-CGGL-28090-05	02718414	C5	32,5 *1.280*	50,0 *1.969*	27,7 *1.091*	90 *3.543*	63,0 *2.480*	10,0 *0.394*	45,0 *1.772*	0,9 *1.980*	5,0 *0.197*	5,0 *44.3*	LC..1605..
C5-CGGR-29090-06	02719020	C5	30,5 *1.201*	50,0 *1.969*	28,7 *1.130*	90 *3.543*	62,0 *2.441*	12,0 *0.472*	45,0 *1.772*	0,9 *1.980*	6,0 *0.236*	8,0 *70.8*	LC..1606..
C5-CGGL-29090-06	02719019	C5	30,5 *1.201*	50,0 *1.969*	28,7 *1.130*	90 *3.543*	62,0 *2.441*	12,0 *0.472*	45,0 *1.772*	0,8 *1.760*	6,0 *0.236*	8,0 *70.8*	LC..1606..
C6-CGGR-25095-03	00038035	C6	35,0 *1.378*	63,0 *2.480*	25,0 *0.984*	95 *3.740*	73,0 *2.874*	6,0 *0.236*	45,0 *1.772*	1,2 *2.650*	3,0 *0.118*	3,5 *31.0*	LC..1603..
C6-CGGL-25095-03	00038034	C6	35,0 *1.378*	63,0 *2.480*	25,0 *0.984*	95 *3.740*	73,0 *2.874*	6,0 *0.236*	45,0 *1.772*	1,2 *2.650*	3,0 *0.118*	3,5 *31.0*	LC..1603..
C6-CGGR-27095-04	00038041	C6	35,0 *1.378*	63,0 *2.480*	27,0 *1.063*	95 *3.740*	73,0 *2.874*	8,0 *0.315*	45,0 *1.772*	1,2 *2.650*	4,0 *0.157*	5,0 *44.3*	LC..1604..
C6-CGGL-27095-04	00038040	C6	35,0 *1.378*	63,0 *2.480*	27,0 *1.063*	95 *3.740*	73,0 *2.874*	8,0 *0.315*	45,0 *1.772*	1,2 *2.650*	4,0 *0.157*	5,0 *44.3*	LC..1604..
C6-CGGR-28095-05	00071964	C6	32,5 *1.280*	63,0 *2.480*	27,7 *1.091*	95 *3.740*	68,0 *2.677*	10,0 *0.394*	45,0 *1.772*	1,3 *2.870*	5,0 *0.197*	5,0 *44.3*	LC..1605..

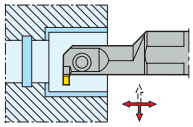
Designation	Item number	CTMS	BD	DCSFMS	WF	LF	LH	CDX	DCINN	Weight	CW	TQ	CTWS
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	kg *lbs*	mm *inch*	Nm *In/Lbs.*	
C6-CGGL-28095-05	00071963	C6	32,5 *1.280*	63,0 *2.480*	27,7 *1.091*	95 *3.740*	68,0 *2.677*	10,0 *0.394*	45,0 *1.772*	1,2 *2.650*	5,0 *0.197*	5,0 *44.3*	LC..1605..
C6-CGGR-29095-06	00070149	C6	30,5 *1.201*	63,0 *2.480*	28,7 *1.130*	95 *3.740*	67,0 *2.638*	12,0 *0.472*	45,0 *1.772*	1,2 *2.650*	6,0 *0.236*	8,0 *70.8*	LC..1606..
C6-CGGL-29095-06	00044935	C6	30,5 *1.201*	63,0 *2.480*	28,7 *1.130*	95 *3.740*	67,0 *2.638*	12,0 *0.472*	45,0 *1.772*	1,1 *2.430*	6,0 *0.236*	8,0 *70.8*	LC..1606..

Spare Parts, included in delivery

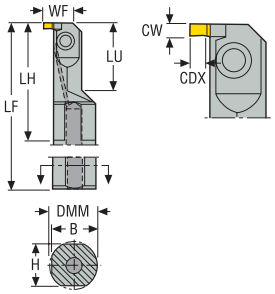
For size	Clamp key	Clamp screw
		
CG.R/L..-03	3SMS795	MC6S4X14
CG.R/L..-04	4SMS795	MC6S5X14
CG.R/L..-05	4SMS795	MC6S5X14
CG.R/L..-06	5SMS795	TCEI0614

CG.R/L – Toolholders for inserts LCGA, LCGF, LCGN, LCMF, LCMR – Metric

CG.R/L
KAPR = 90,0 °



CG.R/L





CTWS



- Right-hand version shown
- For inserts program, see page(s) 854-856, 872
- For holder code key, see page(s) 703-703
- CW = indicative Cutting Width, may vary depending on the chosen insert
- For ISO attribute explanation, see page 82

Designation	Item number	DMM	H	B	LF	LH	LU	WF	CDX	DCINN	Weight	CW	TQ	CTWS
		mm	mm	mm	mm	mm	mm	mm	mm	mm	kg	mm	Nm	
A16Q-CGER1303	00053891	16	15	15,5	180	40,0	25,0	10,2	3,0	16,0	0,3	3,0	5,0	LC..1303..
A16Q-CGEL1303	00053890	16	15	15,5	180	40,0	25,0	10,2	3,0	16,0	0,3	3,0	5,0	LC..1303..
A20R-CGFR1303	00053893	20	18	19,0	200	52,0	30,0	14,5	5,5	20,0	0,4	3,0	5,0	LC..1303..
A20R-CGFL1303	00053892	20	18	19,0	200	52,0	30,0	14,5	5,5	20,0	0,3	3,0	5,0	LC..1303..
A25S-CGHR1303	00053895	25	23	24,0	250	64,0	40,0	19,0	7,5	25,0	0,8	3,0	5,0	LC..1303..
A25S-CGHL1303	00053894	25	23	24,0	250	64,0	40,0	19,0	7,5	25,0	0,8	3,0	5,0	LC..1303..
A32T-CGJR1303	00053910	32	30	31,0	300	77,0	50,0	25,5	10,5	32,0	1,6	3,0	5,0	LC..1303..
A32T-CGJL1303	00053900	32	30	31,0	300	77,0	50,0	25,5	10,5	32,0	1,6	3,0	5,0	LC..1303..
A20R-CGFR1304	00053950	20	18	19,0	200	52,0	30,0	14,5	5,5	20,0	0,4	4,0	5,0	LC..1304..
A20R-CGFL1304	00053945	20	18	19,0	200	52,0	30,0	14,5	5,5	20,0	0,4	4,0	5,0	LC..1304..
A25S-CGFR1304	00053965	25	23	24,0	250	64,0	40,0	19,0	7,5	25,0	0,7	4,0	5,0	LC..1304..
A25S-CGFL1304	00053963	25	23	24,0	250	64,0	40,0	19,0	7,5	25,0	0,7	4,0	5,0	LC..1304..
A32T-CGHR1304	00077780	32	30	31,0	300	77,0	50,0	25,5	10,5	32,0	1,6	4,0	5,0	LC..1304..
A32T-CGHL1304	00053966	32	30	31,0	300	77,0	50,0	25,5	10,5	32,0	1,6	4,0	5,0	LC..1304..

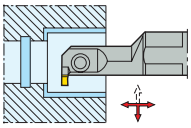
Spare Parts, included in delivery

For size	Clamp key	Clamp screw
		
A16Q-..	T15P-7	L85011-T15P
A20R-..	T15P-7	L85011-T15P
A25S-..	T15P-7	L85011-T15P
A32T-..	T15P-7	L85011-T15P

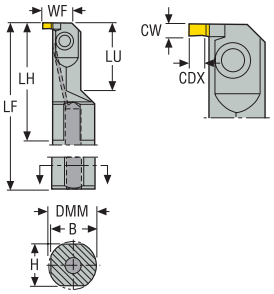
CG.R/L – Toolholders for inserts LCGA, LCGF, LCGN, LCMF, LCMR – Inch



CTWS



CG.R/L



- Right-hand version shown
- For inserts program, see page(s) 854-856, 872
- For holder code key, see page(s) 703-703
- CW = indicative Cutting Width, may vary depending on the chosen insert
- For ISO attribute explanation, see page 82

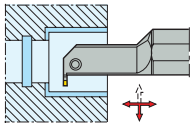
Designation	Item number	DMM	H	B	LF	LH	LU	WF	CDX	DCINN	Weight	CW	TQ	CTWS
		inch	inch	inch	inch	inch	inch	inch	inch	inch	lbs	inch	In/Lbs.	
A10-CGER1303	00061858	0.625	0.586	0.605	7.000	1.620	0.984	0.400	0.118	0.630	0.660	0.118	44.3	LC..1303..
A10-CGEL1303	00061859	0.625	0.586	0.605	7.000	1.620	0.984	0.400	0.118	0.630	0.660	0.118	44.3	LC..1303..
A12-CGFR1303	00061863	0.750	0.671	0.711	8.000	2.010	1.181	0.570	0.216	0.790	0.660	0.118	44.3	LC..1303..
A12-CGFL1303	00061865	0.750	0.671	0.711	8.000	2.010	1.181	0.570	0.216	0.790	0.660	0.118	44.3	LC..1303..
A16-CGHR1303	00061868	1.000	0.921	0.961	10.000	2.600	1.575	0.750	0.295	0.985	1.760	0.118	44.3	LC..1304..
A16-CGHL1303	00061869	1.000	0.921	0.961	10.000	2.600	1.575	0.750	0.295	0.985	1.760	0.118	44.3	LC..1304..
A20-CGJR1303	00061870	1.250	1.171	1.211	12.000	3.090	1.969	1.000	0.413	1.260	3.530	0.118	44.3	LC..1304..
A20-CGJL1303	00061871	1.250	1.171	1.211	12.000	3.090	1.969	1.000	0.413	1.260	3.530	0.118	44.3	LC..1304..
A12-CGFR1304	00061866	0.750	0.671	0.711	8.000	2.010	1.181	0.570	0.216	0.790	0.660	0.157	44.3	LC..1304..
A12-CGFL1304	00061867	0.750	0.671	0.711	8.000	2.010	1.181	0.570	0.216	0.790	1.100	0.157	44.3	LC..1304..
A16-CGFR1304	00055598	1.000	0.921	0.961	10.000	2.600	1.575	0.750	0.295	0.985	1.760	0.157	44.3	LC..1304..
A16-CGFL1304	00055604	1.000	0.921	0.961	10.000	2.600	1.575	0.750	0.295	0.985	1.760	0.157	44.3	LC..1304..
A20-CGHR1304	00061873	1.250	1.171	1.211	12.000	3.090	1.969	1.000	0.413	1.260	3.530	0.157	44.3	LC..1304..
A20-CGHL1304	00061875	1.250	1.171	1.211	12.000	3.090	1.969	1.000	0.413	1.260	3.310	0.157	44.3	LC..1304..

Spare Parts, included in delivery

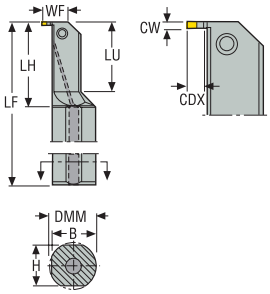
For size	Clamp key	Clamp screw
		
A10-..	T15P-7	L85011-T15P
A12-..	T15P-7	L85011-T15P
A16-..	T15P-7	L85011-T15P
A20-..	T15P-7	L85011-T15P

CG.R/L – Toolholders for inserts LCGF, LCGN, LCMF, LCMR – Metric

CG.R/L
KAPR = 90,0 °



CG.R/L





CTWS



- Right-hand version shown
- For inserts program, see page(s) 858–871, 873–874
- For holder code key, see page(s) 703-703
- CW = indicative Cutting Width, may vary depending on the chosen insert
- For ISO attribute explanation, see page 82

Designation	Item number	DMM	H	B	LF	LH	LU	WF	CDX	DCINN	Weight	CW	TQ	CTWS
		mm	mm	mm	mm	mm	mm	mm	mm	mm	kg	mm	Nm	
A32T-CGIR1603	02717661	32	30	31,0	300	60,0	50,0	24,0	9,0	32,0	1,5	3,0	5,0	LC..1603..
A32T-CGIL1603	02718385	32	30	31,0	300	60,0	50,0	24,0	9,0	32,0	1,5	3,0	5,0	LC..1603..
A32T-CGGR1604	02718382	32	30	31,0	300	60,0	50,0	24,0	9,0	32,0	1,6	4,0	5,0	LC..1604..
A32T-CGGL1604	02718386	32	30	31,0	300	60,0	50,0	24,0	9,0	32,0	1,6	4,0	5,0	LC..1604..
A32T-CGFR1605	02718383	32	30	31,0	300	60,0	50,0	24,0	9,0	32,0	1,6	5,0	6,0	LC..1605..
A32T-CGFL1605	02718387	32	30	31,0	300	60,0	50,0	24,0	9,0	32,0	1,6	5,0	6,0	LC..1605..
A32T-CGFR1606	02718384	32	30	31,0	300	60,0	50,0	24,0	9,0	32,0	1,6	6,0	6,0	LC..1606..
A32T-CGFL1606	02718388	32	30	31,0	300	60,0	50,0	24,0	9,0	32,0	1,6	6,0	6,0	LC..1606..

Spare Parts, included in delivery

For size	Clamp key	Clamp screw
		
CG.R/L..03	T15P-7	L85011-T15P
CG.R/L..04	T15P-7	L85011-T15P
CG.R/L..05	T20P-7	L86015-T20P
CG.R/L..06	T20P-7	L86015-T20P

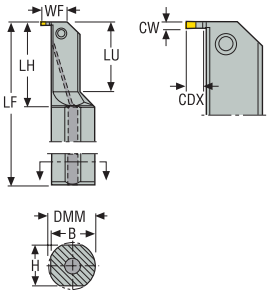
CG.R/L – Toolholders for inserts LCGF, LCGN, LCMF, LCMR – Inch



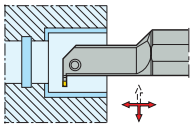
CTWS



CG.R/L



KAPR = 90,0 °



- Right-hand version shown
- For inserts program, see page(s) 858–871, 873–874
- For holder code key, see page(s) 703-703
- CW = indicative Cutting Width, may vary depending on the chosen insert
- For ISO attribute explanation, see page 82

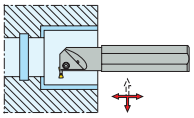
Designation	Item number	DMM	H	B	LF	LH	LU	WF	CDX	DCINN	Weight	CW	TQ	CTWS
		inch	inch	inch	inch	inch	inch	inch	inch	inch	lbs	inch	In/Lbs.	
A20-CGIR03	02717401	1.250	1.171	1.211	12.000	2.362	1.969	0.929	0.354	1.260	3.310	0.118	44.3	LC..1603..
A20-CGIL03	02718392	1.250	1.171	1.211	12.000	2.362	1.969	0.929	0.354	1.260	3.310	0.118	44.3	LC..1603..
A20-CGGR04	02718389	1.250	1.171	1.211	12.000	2.362	1.969	0.929	0.394	1.260	3.310	0.157	44.3	LC..1604..
A20-CGGL04	02718393	1.250	1.171	1.211	12.000	2.362	1.969	0.929	0.394	1.260	3.530	0.157	44.3	LC..1604..
A20-CGFR05	02718390	1.250	1.171	1.211	12.000	2.362	1.969	0.929	0.295	1.260	3.310	0.197	53.1	LC..1605..
A20-CGFL05	02718394	1.250	1.171	1.211	12.000	2.362	1.969	0.929	0.295	1.260	3.530	0.197	53.1	LC..1605..
A20-CGFR06	02718391	1.250	1.171	1.211	12.000	2.362	1.969	0.929	0.295	1.260	3.310	0.236	53.1	LC..1606..
A20-CGFL06	02718395	1.250	1.171	1.211	12.000	2.362	1.969	0.929	0.295	1.260	3.310	0.236	53.1	LC..1606..

Spare Parts, included in delivery

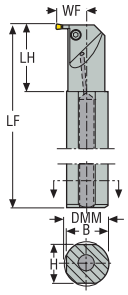
For size	Clamp key	Clamp screw
		
..03	T15P-7	L85011-T15P
..04	T15P-7	L85011-T15P
..05	T20P-7	L86015-T20P
..06	T20P-7	L86015-T20P

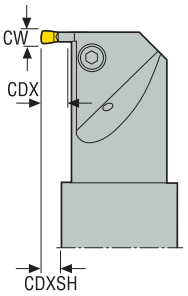
CGGR/L – Toolholders for inserts LCGF, LCGN, LCMF, LCMR – Metric

CGGR/L
KAPR = 90,0 °



CGGR/L







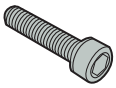
CTWS



- Right-hand version shown
- For inserts program, see page(s) 858-871, 873-874
- For holder code key, see page(s) 703-703
- CW = indicative Cutting Width, may vary depending on the chosen insert
- For ISO attribute explanation, see page 82

Designation	Item number	DMM	H	B	LF	LH	WF	CDX	CDXSH	DCINN	Weight	CW	TQ	CTWS
		mm	mm	mm	mm	mm	mm	mm	mm	mm	kg	mm	Nm	
A40T-CGGR03	00093896	40	37	39	300	60,0	26,0	6,0	5,5	45,0	2,5	3,0	3,5	LC..1603..
A40T-CGGL03	00093897	40	37	39	300	60,0	26,0	6,0	5,5	45,0	2,5	3,0	3,5	LC..1603..
A40T-CGGR04	00093898	40	37	39	300	60,0	27,0	8,0	6,5	45,0	2,4	4,0	5,0	LC..1604..
A40T-CGGL04	00093899	40	37	39	300	60,0	27,0	8,0	6,5	45,0	2,4	4,0	5,0	LC..1604..
A40T-CGGR05	00013456	40	37	39	300	60,0	28,0	10,0	7,5	45,0	2,4	5,0	5,0	LC..1605..
A40T-CGGL05	00013454	40	37	39	300	60,0	28,0	10,0	7,5	45,0	2,4	5,0	5,0	LC..1605..
A40T-CGGR06	00013458	40	37	39	300	60,0	29,0	12,0	8,5	45,0	2,4	6,0	8,0	LC..1606..
A40T-CGGL06	00013457	40	37	39	300	60,0	29,0	12,0	8,5	45,0	2,4	6,0	8,0	LC..1606..

Spare Parts, included in delivery

For size	Clamp key	Clamp screw
		
-..03	3SMS795	MC6S4X14
-..04	4SMS795	MC6S5X14
-..05	4SMS795	MC6S5X14
-..06	5SMS795	TCEI0614

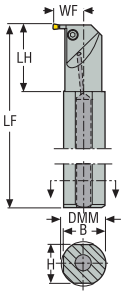
CGGR/L – Toolholders for inserts LCGF, LCGN, LCMF, LCMR – Inch

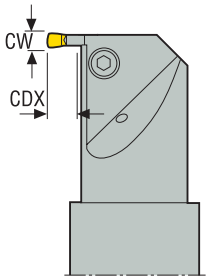


CTWS

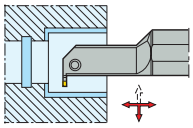


CGGR/L





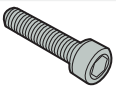
KAPR = 90,0 °



- Right-hand version shown
- For inserts program, see page(s) 858-871, 873-874
- For holder code key, see page(s) 703-703
- CW = indicative Cutting Width, may vary depending on the chosen insert
- For ISO attribute explanation, see page 82

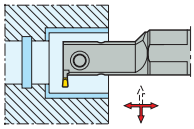
Designation	Item number	DMM	H	B	LF	LH	WF	CDX	DCINN	Weight	CW	TQ	CTWS
		inch	inch	inch	inch	inch	inch	inch	inch	lbs	inch	In/Lbs.	
A24-CGGR03	00003293	1.500	1.382	1.429	12.000	2.362	1.126	0.440	1.800	4.850	0.118	31.0	LC..1603..
A24-CGGL03	00003294	1.500	1.382	1.429	12.000	2.362	1.126	0.440	1.800	5.510	0.118	31.0	LC..1603..
A24-CGGR04	00003296	1.500	1.382	1.429	12.000	2.362	1.126	0.440	1.800	4.850	0.157	44.3	LC..1604..
A24-CGGL04	00003297	1.500	1.382	1.429	12.000	2.362	1.126	0.440	1.800	4.850	0.157	44.3	LC..1604..
A24-CGGR05	00059841	1.500	1.382	1.429	12.000	2.362	1.091	0.440	1.800	4.850	0.197	44.3	LC..1605..
A24-CGGL05	00059842	1.500	1.382	1.429	12.000	2.362	1.091	0.440	1.800	4.850	0.197	44.3	LC..1605..
A24-CGGR06	00059843	1.500	1.382	1.429	12.000	2.362	1.130	0.515	1.800	5.510	0.236	44.3	LC..1606..
A24-CGGL06	00059844	1.500	1.382	1.429	12.000	2.362	1.130	0.515	1.800	5.510	0.236	44.3	LC..1606..

Spare Parts, included in delivery

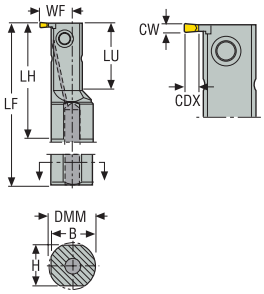
For size	Clamp key	Clamp screw
		
..03	3SMS795	MC6S4X14
..04	4SMS795	MC6S5X14
..05	4SMS795	MC6S5X14
..06	5SMS795	TCEI0614

CG.R/L – Toolholders for inserts LCMF – Metric

CG.R/L
KAPR = 90,0 °



CG.R/L





CTWS



- Right-hand version shown
- For inserts program, see page(s) 857
- For holder code key, see page(s) 703-703
- CW = indicative Cutting Width, may vary depending on the chosen insert
- For ISO attribute explanation, see page 82

Designation	Item number	DMM	H	B	LF	LH	LU	WF	CDX	DCINN	Weight	CW	TQ	CTWS
		mm	mm	mm	mm	mm	mm	mm	mm	mm	kg	mm	Nm	
A20R-CGHR1902	02748762	20	18	19,0	200	52,0	30,0	14,5	5,5	20,0	0,3	2,0	5,0	LC..1902..
A20R-CGHL1902	02748763	20	18	19,0	200	52,0	30,0	14,5	5,5	20,0	0,3	2,0	5,0	LC..1902..
A25S-CGJR1902	02748765	25	23	24,0	250	64,0	40,0	19,0	7,5	25,0	0,7	2,0	5,0	LC..1902..
A25S-CGJL1902	02748766	25	23	24,0	250	64,0	40,0	19,0	7,5	25,0	0,7	2,0	5,0	LC..1902..

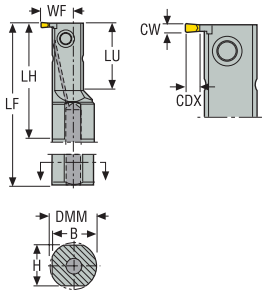
Spare Parts, included in delivery

For size	Clamp key	Clamp screw
		
A20.-..	T15P-7	L85011-T15P
A25.-..	T15P-7	L85011-T15P

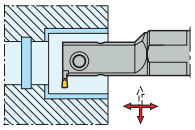
CG.R/L – Toolholders for inserts LCGA, LCGF, LCGN, LCMF, LCMR – Inch



CG.R/L



KAPR = 90,0 °



CTWS



- Right-hand version shown
- For inserts program, see page(s) 854-856, 872
- For holder code key, see page(s) 703-703
- CW = indicative Cutting Width, may vary depending on the chosen insert
- For ISO attribute explanation, see page 82

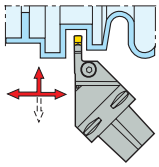
Designation	Item number	DMM	H	B	LF	LH	LU	WF	CDX	DCINN	Weight	CW	TQ	CTWS
		inch	inch	inch	inch	inch	inch	inch	inch	inch	lbs	inch	In/Lbs.	
A12-CGHL1902	02749019	0.750	0.671	0.711	8.000	1.535	1.181	0.551	0.197	0.790	0.660	0.079	44.3	LC..1902..
A12-CGHR1902	02749018	0.750	0.671	0.711	8.000	1.535	1.181	0.551	0.197	0.790	0.660	0.079	44.3	LC..1902..
A16-CGJL1902	02749021	1.000	0.921	0.961	10.000	1.732	1.575	0.748	0.276	0.985	1.760	0.079	44.3	LC..1902..
A16-CGJR1902	02749020	1.000	0.921	0.961	10.000	1.732	1.575	0.748	0.276	0.985	1.760	0.079	44.3	LC..1902..

Spare Parts, included in delivery

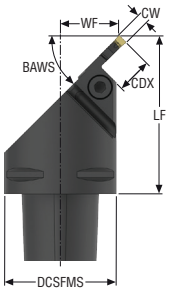
For size	Clamp key	Clamp screw
		
A12-..	T15P-7	L85011-T15P
A16-..	T15P-7	L85011-T15P

C.-CDIR/L – Toolholders for inserts LCGN, LCMF, LCMR – Metric / *Inch*

C.-CDIR/L
KAPR



C.-CFIR/L...JETI





CTWS



- Left-hand version shown
- For inserts program, see page(s) 858-871, 873-874
- For holder code key, see page(s) 699
- For more information on Jetstream Tooling® and accessories, see page(s) 38, 85-89, 1026
- Max depth of cut for double-sided LCGF/LCMF16.. = 14 mm / *0.551 inch*, LCGF/LCMF30.. = 28 mm / *1.102 inch*
- CW = indicative Cutting Width, may vary depending on the chosen insert
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	DCSFMS	WF	LF	CDX	BAWS°	Weight	CW	TQ	CTWS
			mm *inch*	mm *inch*	mm *inch*	mm *inch*		kg *lbs*	mm *inch*	Nm *In/Lbs.*	
C6-CDIR-33090-03JETI	03331429	C6	63,0 *2.480*	33,0 *1.299*	90 *3.543*	9,0 *0.354*	45,0	1,6 *3.530*	3,0 *0.118*	6,0 *53.1*	LC..1603..
C6-CDIL-33090-03JETI	03331424	C6	63,0 *2.480*	33,0 *1.299*	90 *3.543*	9,0 *0.354*	45,0	1,6 *3.530*	3,0 *0.118*	6,0 *53.1*	LC..1603..
C6-CDIR-33090-04JETI	03331432	C6	63,0 *2.480*	33,0 *1.299*	90 *3.543*	12,0 *0.472*	45,0	1,6 *3.530*	4,0 *0.157*	8,0 *70.8*	LC..1604..
C6-CDIL-33090-04JETI	03331427	C6	63,0 *2.480*	33,0 *1.299*	90 *3.543*	12,0 *0.472*	45,0	1,6 *3.530*	4,0 *0.157*	8,0 *70.8*	LC..1604..
C6-CDIR-33090-05JETI	03331431	C6	63,0 *2.480*	33,0 *1.299*	90 *3.543*	15,0 *0.591*	45,0	1,7 *3.750*	5,0 *0.197*	8,0 *70.8*	LC..1605..
C6-CDIL-33090-05JETI	03331426	C6	63,0 *2.480*	33,0 *1.299*	90 *3.543*	15,0 *0.591*	45,0	1,6 *3.530*	5,0 *0.197*	8,0 *70.8*	LC..1605..
C6-CDIR-33090-06JETI	03331430	C6	63,0 *2.480*	33,0 *1.299*	90 *3.543*	18,0 *0.709*	45,0	1,6 *3.530*	6,0 *0.236*	6,0 *53.1*	LC..1606..
C6-CDIL-33090-06JETI	03331425	C6	63,0 *2.480*	33,0 *1.299*	90 *3.543*	18,0 *0.709*	45,0	1,6 *3.530*	6,0 *0.236*	6,0 *53.1*	LC..1606..
C6-CDIR-33090-08JETI	03331433	C6	63,0 *2.480*	33,0 *1.299*	90 *3.543*	24,0 *0.945*	45,0	1,5 *3.310*	8,0 *0.315*	15,0 *132.8*	LC..3008..
C6-CDIL-33090-08JETI	03331428	C6	63,0 *2.480*	33,0 *1.299*	90 *3.543*	24,0 *0.945*	45,0	1,6 *3.530*	8,0 *0.315*	15,0 *132.8*	LC..3008..

Spare Parts, included in delivery

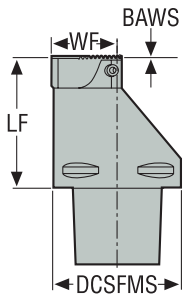
For size	Clamp key	Clamp screw	Duo coolant plug screw	Plug screw
				
CDIR/L..-03	4SMS795	TCEI0513	P6SS4X4	JET-P1/16-5MM
CDIR/L..-04	5SMS795	TCEI0613	P6SS4X4	JET-P1/16-5MM
CDIR/L..-05	5SMS795	TCEI0613	P6SS4X4	JET-P1/16-5MM
CDIR/L..-06	6SMS795	TCEI0815	P6SS4X4	JET-P1/16-5MM
CDIR/L..-08	6SMS795	TCEI1020	P6SS4X4	JET-P1/16-5MM

Accessories

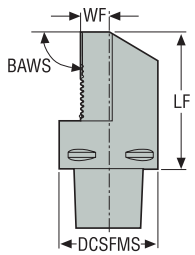
For size	DUO Coolant plug key	Key
		
CDIR/L..-03	2SMS795	–
CDIR/L..-04	2SMS795	4SMS795
CDIR/L..-05	2SMS795	4SMS795
CDIR/L..-06	2SMS795	4SMS795
CDIR/L..-08	2SMS795	4SMS795

Toolholders
– Metric / *Inch*

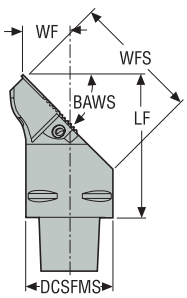
GR/L



FR/L



SR/L





- Right-hand version shown
- For blades program, see page(s) 845-848, 849
- For modular assembly options, see page(s) 720-722
- For ISO attribute explanation, see page 82

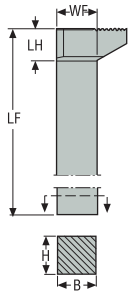
Designation	Item number	CTMS	DCSFMS	WF	WFS	LF	BAWS°	Weight	TQ
			mm *inch*	mm *inch*	mm *inch*	mm *inch*		kg *lbs*	Nm *In/Lbs.*
C4-GR-21050-V21	00026919	C4	40,0 *1.575*	21,0 *0.827*	–	50 *1.969*	0,0	0,6 *1.320*	6,0 *53.1*
C4-GL-21050-V21	00026920	C4	40,0 *1.575*	21,0 *0.827*	–	50 *1.969*	0,0	0,6 *1.320*	6,0 *53.1*
C5-GR-29060-V21	00026921	C5	50,0 *1.969*	26,0 *1.024*	–	60 *2.362*	0,0	0,9 *1.980*	6,0 *53.1*
C5-GL-29060-V21	00026922	C5	50,0 *1.969*	26,0 *1.024*	–	60 *2.362*	0,0	0,9 *1.980*	6,0 *53.1*
C6-GR-39065-V21	00026923	C6	63,0 *2.480*	32,5 *1.280*	–	65 *2.559*	0,0	1,4 *3.090*	6,0 *53.1*
C6-GL-39065-V21	00026924	C6	63,0 *2.480*	32,5 *1.280*	–	65 *2.559*	0,0	1,4 *3.090*	6,0 *53.1*
C4-FR-11055-V21	00026912	C4	40,0 *1.575*	11,6 *0.457*	–	55 *2.165*	90,0	0,5 *1.100*	6,0 *53.1*
C4-FL-11055-V21	00026913	C4	40,0 *1.575*	11,6 *0.457*	–	55 *2.165*	90,0	0,5 *1.100*	6,0 *53.1*
C5-FR-16060-V21	00026914	C5	50,0 *1.969*	16,6 *0.654*	–	60 *2.362*	90,0	0,9 *1.980*	6,0 *53.1*
C5-FL-16060-V21	00026916	C5	50,0 *1.969*	16,6 *0.654*	–	60 *2.362*	90,0	0,9 *1.980*	6,0 *53.1*
C6-FR-23065-V21	00026917	C6	63,0 *2.480*	23,1 *0.909*	–	65 *2.559*	90,0	1,5 *3.310*	6,0 *53.1*
C6-FL-23065-V21	00026918	C6	63,0 *2.480*	23,1 *0.909*	–	65 *2.559*	90,0	1,5 *3.310*	6,0 *53.1*
C4-SR-21065-V21	02721138	C4	40,0 *1.575*	–	59,25 *2.333*	65 *2.559*	45,0	0,5 *1.100*	6,0 *53.1*
C4-SL-21065-V21	02721135	C4	40,0 *1.575*	–	59,25 *2.333*	65 *2.559*	45,0	0,5 *1.100*	6,0 *53.1*
C5-SR-26075-V21	02721139	C5	50,0 *1.969*	–	73,4 *2.890*	75 *2.953*	45,0	0,9 *1.980*	6,0 *53.1*
C5-SL-26075-V21	02721134	C5	50,0 *1.969*	–	73,4 *2.890*	75 *2.953*	45,0	0,9 *1.980*	6,0 *53.1*
C6-SR-33085-V21	02721140	C6	63,0 *2.480*	–	92,48 *3.641*	85 *3.346*	45,0	1,5 *3.310*	6,0 *53.1*
C6-SL-33085-V21	02721136	C6	63,0 *2.480*	–	92,48 *3.641*	85 *3.346*	45,0	1,5 *3.310*	6,0 *53.1*

Spare Parts, included in delivery

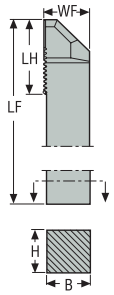
For size	Coolant nozzle	Key	Locking screw	Screw
				
..-V21	CN6	T20P-7L	F85015-T20P	C46017-T20P

Toolholders – Metric

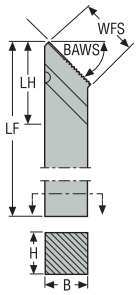
GR/L

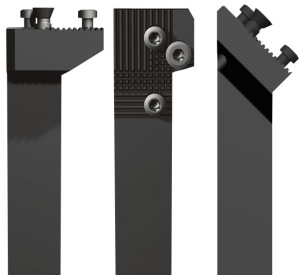


FR/L



SR/L





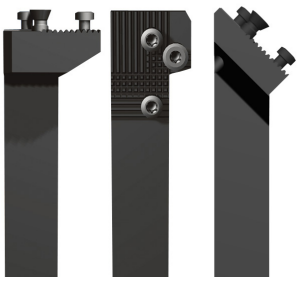
- Right-hand version shown
- For blades program, see page(s) 845-848, 849
- For modular assembly options, see page(s) 720-722
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF	WFS	LH	BAWS°	Weight	TQ
		mm	mm	mm	mm	mm	mm		kg	Nm
GR2020K-V21	00089073	20	20	125	19,9	–	16,0	0,0	0,5	6,0
GL2020K-V21	00089074	20	20	125	19,9	–	16,0	0,0	0,5	6,0
GR2525M-V21	00089075	25	25	150	24,9	–	16,0	0,0	0,8	6,0
GL2525M-V21	00089076	25	25	150	24,9	–	16,0	0,0	0,8	6,0
GR3225P-V21	00089077	32	25	170	24,9	–	16,0	0,0	1,2	6,0
GL3225P-V21	00089078	32	25	170	24,9	–	16,0	0,0	1,2	6,0
FR2020K-V21	00089081	20	20	125	20,8	–	33,64	90,0	0,5	6,0
FL2020K-V21	00089082	20	20	125	20,8	–	33,64	90,0	0,4	6,0
FR2525M-V21	00089083	25	25	150	25,8	–	33,64	90,0	0,8	6,0
FL2525M-V21	00089084	25	25	150	25,8	–	33,64	90,0	0,8	6,0
FR3225P-V21	00089085	32	25	170	25,8	–	33,64	90,0	1,1	6,0
FL3225P-V21	00089086	32	25	170	25,8	–	33,64	90,0	1,1	6,0
SR2020K-V21	02701074	20	20	125	–	34,64	43,5	45,0	0,5	6,0
SL2020K-V21	02701065	20	20	125	–	34,64	43,5	45,0	0,4	6,0
SR2525M-V21	02701075	25	25	150	–	34,64	47,5	45,0	0,8	6,0
SL2525M-V21	02701070	25	25	150	–	34,64	47,5	45,0	0,8	6,0
SR3225P-V21	02701076	32	25	170	–	34,64	47,5	45,0	1,1	6,0
SL3225P-V21	02701072	32	25	170	–	34,64	47,5	45,0	1,1	6,0

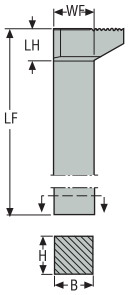
Spare Parts, included in delivery

For size	Key	Locking screw	Screw
			
..-V21	T20P-7L	F85015-T20P	C46017-T20P

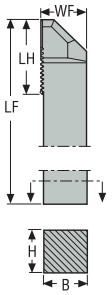
Toolholders – Inch



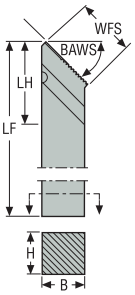
GR/L



FR/L



SR/L



- Right-hand version shown
- For blades program, see page(s) 845-848, 849
- For modular assembly options, see page(s) 720-722
- For ISO attribute explanation, see page 82

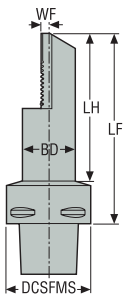
Designation	Item number	H	B	LF	WF	WFS	LH	BAWS°	Weight	TQ
		inch	inch	inch	inch	inch	inch		lbs	In/Lbs.
GR075B-V21	00051869	0.750	0.750	4.500	0.750	–	0.630	0,0	0.880	53.1
GR100D-V21	00051907	1.000	1.000	6.000	1.000	–	0.630	0,0	1.980	53.1
GR125D-V21	00051927	1.250	1.250	6.000	1.250	–	0.630	0,0	2.870	53.1
GL075B-V21	00051879	0.750	0.750	4.500	0.750	–	0.630	0,0	1.100	53.1
GL100D-V21	00051909	1.000	1.000	6.000	1.000	–	0.630	0,0	1.980	53.1
GL125D-V21	00052403	1.250	1.250	6.000	1.250	–	0.630	0,0	2.650	53.1
FR100D-V21	00052447	1.000	1.000	6.000	1.035	–	1.330	90,0	1.760	53.1
FL100D-V21	00052454	1.000	1.000	6.000	1.035	–	1.330	90,0	1.760	53.1
SR075B-V21	02701110	0.750	0.750	4.500	–	1.648	1.648	45,0	0.880	53.1
SR100D-V21	02701111	1.000	1.000	6.000	–	2.002	2.002	45,0	1.760	53.1
SR125D-V21	02701112	1.250	1.250	6.000	–	2.355	2.355	45,0	2.650	53.1
SL075B-V21	02701081	0.750	0.750	4.500	–	1.648	1.648	45,0	0.880	53.1
SL100D-V21	02701107	1.000	1.000	6.000	–	2.002	2.002	45,0	1.760	53.1
SL125D-V21	02701108	1.250	1.250	6.000	–	2.355	2.355	45,0	2.650	53.1

Spare Parts, included in delivery

For size	Key	Locking screw	Screw
			
..-V21	T20P-7L	F85015-T20P	C46017-T20P

Toolholders
– Metric / *Inch*

FR/L





- Right-hand version shown
- For blades program, see page(s) 845-848, 849
- For modular assembly options, see page(s) 720-722
- For ISO attribute explanation, see page 82

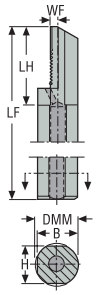
Designation	Item number	CTMS	BD	DCSFMS	WF	LF	LH	Weight	TQ
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	kg *lbs*	Nm *In/Lbs.*
C4-FR-04090-V21	00026925	C4	25,0 *0.984*	40,0 *1.575*	4,0 *0.157*	90 *3.543*	70,0 *2.756*	0,5 *1.100*	6,0 *53.1*
C4-FL-04090-V21	00026926	C4	25,0 *0.984*	40,0 *1.575*	4,0 *0.157*	90 *3.543*	70,0 *2.756*	0,5 *1.100*	6,0 *53.1*
C4-FR-07110-V21	00026927	C4	32,0 *1.260*	40,0 *1.575*	7,0 *0.276*	110 *4.331*	90,0 *3.543*	0,7 *1.540*	6,0 *53.1*
C4-FL-07110-V21	00026928	C4	32,0 *1.260*	40,0 *1.575*	7,0 *0.276*	110 *4.331*	90,0 *3.543*	0,7 *1.540*	6,0 *53.1*
C4-FR-11140-V21	00026929	C4	40,0 *1.575*	40,0 *1.575*	11,0 *0.433*	140 *5.512*	120,0 *4.724*	1,3 *2.870*	6,0 *53.1*
C4-FL-11140-V21	00026930	C4	40,0 *1.575*	40,0 *1.575*	11,0 *0.433*	140 *5.512*	120,0 *4.724*	1,3 *2.870*	6,0 *53.1*
C5-FR-04090-V21	00026931	C5	25,0 *0.984*	50,0 *1.969*	4,0 *0.157*	90 *3.543*	70,0 *2.756*	0,7 *1.540*	6,0 *53.1*
C5-FL-04090-V21	00026932	C5	25,0 *0.984*	50,0 *1.969*	4,0 *0.157*	90 *3.543*	70,0 *2.756*	0,7 *1.540*	6,0 *53.1*
C5-FR-07110-V21	00026933	C5	32,0 *1.260*	50,0 *1.969*	7,0 *0.276*	110 *4.331*	90,0 *3.543*	0,9 *1.980*	6,0 *53.1*
C5-FL-07110-V21	00026934	C5	32,0 *1.260*	50,0 *1.969*	7,0 *0.276*	110 *4.331*	90,0 *3.543*	0,9 *1.980*	6,0 *53.1*
C5-FR-11140-V21	00026935	C5	40,0 *1.575*	50,0 *1.969*	11,0 *0.433*	140 *5.512*	120,0 *4.724*	1,6 *3.530*	6,0 *53.1*
C5-FL-11140-V21	00026936	C5	40,0 *1.575*	50,0 *1.969*	11,0 *0.433*	140 *5.512*	120,0 *4.724*	1,6 *3.530*	6,0 *53.1*
C6-FR-04090-V21	00026937	C6	25,0 *0.984*	63,0 *2.480*	3,5 *0.138*	90 *3.543*	68,0 *2.677*	0,9 *1.980*	6,0 *53.1*
C6-FL-04090-V21	00026938	C6	25,0 *0.984*	63,0 *2.480*	3,5 *0.138*	90 *3.543*	68,0 *2.677*	0,9 *1.980*	6,0 *53.1*
C6-FR-07110-V21	00026939	C6	32,0 *1.260*	63,0 *2.480*	7,0 *0.276*	110 *4.331*	88,0 *3.465*	1,4 *3.090*	6,0 *53.1*
C6-FL-07110-V21	00026940	C6	32,0 *1.260*	63,0 *2.480*	7,0 *0.276*	110 *4.331*	88,0 *3.465*	1,4 *3.090*	6,0 *53.1*
C6-FR-11140-V21	00026941	C6	40,0 *1.575*	63,0 *2.480*	11,0 *0.433*	140 *5.512*	118,0 *4.646*	1,8 *3.970*	6,0 *53.1*
C6-FL-11140-V21	00026942	C6	40,0 *1.575*	63,0 *2.480*	11,0 *0.433*	140 *5.512*	118,0 *4.646*	1,8 *3.970*	6,0 *53.1*

Spare Parts, included in delivery

For size	Coolant nozzle	Key	Locking screw	Screw
				
..-V21	CN6	T20P-7L	F85015-T20P	C46017-T20P

Toolholders – Metric

FR/L





- Right-hand version shown
- For blades program, see page(s) 845-848, 849
- For modular assembly options, see page(s) 720-722
- For ISO attribute explanation, see page 82

Designation	Item number	DMM	H	B	LF	WF	LH	Weight	TQ
		mm	mm	mm	mm	mm	mm	kg	Nm
A25R-FR-V21	00089087	25	23	24,0	200	4,1	43,0	0,6	6,0
A25R-FL-V21	00089088	25	23	24,0	200	4,1	43,0	0,6	6,0
A32S-FR-V21	00089089	32	30	31,0	250	7,6	43,0	1,4	6,0
A32S-FL-V21	00089090	32	30	31,0	250	7,6	43,0	1,4	6,0
A40T-FR-V21	00089091	40	37	38,5	300	11,6	45,0	2,6	6,0
A40T-FL-V21	00089092	40	37	38,5	300	11,6	45,0	2,6	6,0

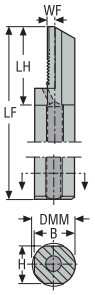
Spare Parts, included in delivery

For size	Key	Locking screw	Screw
			
A25R-	T20P-7L	F85015-T20P	C46017-T20P
A32S-	T20P-7L	F85015-T20P	C46017-T20P
A40T-	T20P-7L	F85015-T20P	C46017-T20P

Toolholders – Inch



FR/L



- Right-hand version shown
- For blades program, see page(s) 845-848, 849
- For modular assembly options, see page(s) 720-722
- For ISO attribute explanation, see page 82

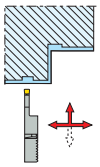
Designation	Item number	DMM	H	B	LF	WF	LH	Weight	TQ
		inch	inch	inch	inch	inch	inch	lbs	In/Lbs.
A16-FR-V21	00055205	1.000	0.921	0.961	8.000	0.169	1.693	1.320	53.1
A16-FL-V21	00055241	1.000	0.921	0.961	8.000	0.169	1.693	1.320	53.1
A20-FR-V21	00055242	1.250	1.171	1.211	10.000	0.294	1.693	2.870	53.1
A20-FL-V21	00055275	1.250	1.171	1.211	10.000	0.294	1.693	3.090	53.1
A24-FR-V21	00055356	1.500	1.339	1.441	12.000	0.420	1.693	7.280	53.1
A24-FL-V21	00055404	1.500	1.339	1.441	12.000	0.420	1.693	5.070	53.1

Spare Parts, included in delivery

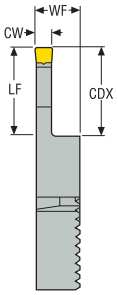
For size	Key	Locking screw	Screw
			
..-V21	T20P-7L	F85015-T20P	C46017-T20P

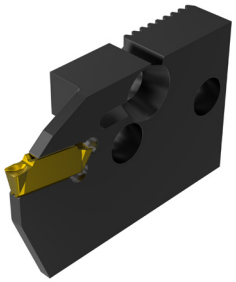
V21-C.R/L – Blades for inserts LCGF, LCGN, LCMF and LCMR – Metric

C.R/L
KAPR = 90,0 °



C.R/L





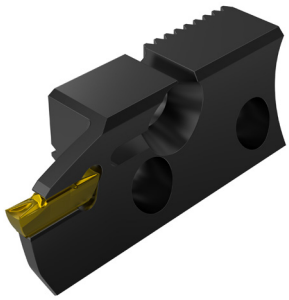
CTWS



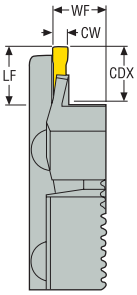
- Right-hand version shown
- For inserts program, see page(s) 854-856, 858-874
- For holders program, see page(s) 837, 838-844
- Max depth of cut for double-sided LCGF/LCMF16.. = 14 mm
- CW = indicative Cutting Width, may vary depending on the chosen insert
- For ISO attribute explanation, see page 82

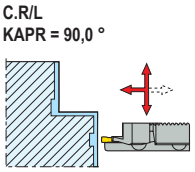
Designation	Item number	LF	WF	CDX	Weight	CW	TQ	CTWS
		mm	mm	mm	kg	mm	Nm	
V21-CIR1303	02717485	10	9,2	9,0	0,1	3,0	6,0	LC..1303..
V21-CIL1303	02718916	10	9,2	9,0	0,1	3,0	6,0	LC..1303..
V21-CMR1303	02718924	16	9,2	15,0	0,1	3,0	6,0	LC..1303..
V21-CML1303	02719033	16	9,2	15,0	0,1	3,0	6,0	LC..1303..
V21-CMR1603	00030310	16	9,2	15,0	0,1	3,0	6,0	LC..1603..
V21-CML1603	02719038	16	9,2	15,0	0,1	3,0	6,0	LC..1603..
V21-CIR1304	02563710	13	9,2	12,0	0,1	4,0	6,0	LC..1304..
V21-CIL1304	02718919	13	9,2	12,0	0,1	4,0	6,0	LC..1304..
V21-CMR1304	02719034	21	9,2	20,0	0,1	4,0	6,0	LC..1304..
V21-CML1304	02719035	21	9,2	20,0	0,1	4,0	6,0	LC..1304..
V21-CMR1604	02719039	21	9,2	20,0	0,1	4,0	6,0	LC..1604..
V21-CML1604	02719040	21	9,2	20,0	0,1	4,0	6,0	LC..1604..
V21-CIR1605	02718920	16	9,2	15,0	0,1	5,0	6,0	LC..1605..
V21-CIL1605	02718921	16	9,2	15,0	0,1	5,0	6,0	LC..1605..
V21-CMR1605	02719041	26	9,2	25,0	0,1	5,0	6,0	LC..1605..
V21-CML1605	02719042	26	9,2	25,0	0,1	5,0	6,0	LC..1605..
V21-CIR1606	02718922	19	9,2	18,0	0,1	6,0	6,0	LC..1606..
V21-CIL1606	02718923	19	9,2	18,0	0,1	6,0	6,0	LC..1606..
V21-CMR1606	02719043	31	9,2	30,0	0,1	6,0	6,0	LC..1606..
V21-CML1606	02719044	31	9,2	30,0	0,1	6,0	6,0	LC..1606..

V21-C.R/L – Blades for inserts LCGF, LCGN, LCMF and LCMR – Metric



CTWS





- Right-hand version with left-hand blade shown
- For inserts program, see page(s) 854-856, 872
- For holders program, see page(s) 837, 838-844
- Max depth of cut for double-sided LCGF/LCMF16.. = 14 mm
- CW = indicative Cutting Width, may vary depending on the chosen insert
- For ISO attribute explanation, see page 82

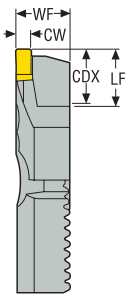
Designation	Item number	INPLM	INPLX	LF	WF	CDX	Weight	CW	TQ	CTWS
		mm	mm	mm	mm	mm	kg	mm	Nm	
V21-CJR1303L030017	00089095	17	30	12	9,2	10,5	0,1	3,0	6,0	LC..1303..
V21-CJR1303L039024	00089099	24	39	12	9,2	10,5	0,1	3,0	6,0	LC..1303..
V21-CKR1303L050033	00089103	33	50	13	9,2	12,0	0,1	3,0	6,0	LC..1303..
V21-CKR1303L060043	00089107	43	60	13	9,2	12,0	0,1	3,0	6,0	LC..1303..
V21-CKR1303L076053	00089111	53	76	13	9,2	12,0	0,1	3,0	6,0	LC..1303..
V21-COR1303L030017	02718887	17	30	19	9,2	18,0	0,1	3,0	6,0	LC..1303..
V21-COR1303L039024	02718888	24	39	19	9,2	18,0	0,1	3,0	6,0	LC..1303..
V21-COR1303L050033	02718889	33	50	19	9,2	18,0	0,1	3,0	6,0	LC..1303..
V21-COR1303L060043	02718890	43	60	19	9,2	18,0	0,1	3,0	6,0	LC..1303..
V21-COR1303L076053	02718891	53	76	19	9,2	18,0	0,1	3,0	6,0	LC..1303..
V21-COR1303L100070	02718910	70	100	19	9,2	18,0	0,1	3,0	6,0	LC..1303..
V21-COR1303L136094	02718911	94	136	19	9,2	18,0	0,1	3,0	6,0	LC..1303..
V21-COR1303L200130	02718912	130	200	19	9,2	18,0	0,1	3,0	6,0	LC..1303..
V21-CJL1303R030017	00089094	17	30	12	9,2	10,5	0,1	3,0	6,0	LC..1303..
V21-CJL1303R039024	00089098	24	39	12	9,2	10,5	0,1	3,0	6,0	LC..1303..
V21-CKL1303R050033	00089102	33	50	13	9,2	12,0	0,1	3,0	6,0	LC..1303..
V21-CKL1303R060043	00089106	43	60	13	9,2	12,0	0,1	3,0	6,0	LC..1303..
V21-CKL1303R076053	00089110	53	76	13	9,2	12,0	0,1	3,0	6,0	LC..1303..
V21-COL1303R030017	02718882	17	30	19	9,2	18,0	0,1	3,0	6,0	LC..1303..
V21-COL1303R039024	02718883	24	39	19	9,2	18,0	0,1	3,0	6,0	LC..1303..
V21-COL1303R050033	02718884	33	50	19	9,2	18,0	0,1	3,0	6,0	LC..1303..
V21-COL1303R060043	02718885	43	60	19	9,2	18,0	0,1	3,0	6,0	LC..1303..
V21-COL1303R076053	02718886	53	76	19	9,2	18,0	0,1	3,0	6,0	LC..1303..
V21-COL1303R100070	02718907	70	100	19	9,2	18,0	0,1	3,0	6,0	LC..1303..
V21-COL1303R136094	02718908	94	136	19	9,2	18,0	0,1	3,0	6,0	LC..1303..
V21-COL1303R200130	02718909	130	200	19	9,2	18,0	0,1	3,0	6,0	LC..1303..
V21-CHR1304L030017	00089115	17	30	11	9,2	10,0	0,1	4,0	6,0	LC..1304..
V21-CHR1304L034021	00089119	21	34	11	9,2	10,0	0,1	4,0	6,0	LC..1304..
V21-CIR1304L040026	00089123	26	40	13	9,2	12,0	0,1	4,0	6,0	LC..1304..
V21-CIR1304L050032	00089127	32	50	13	9,2	12,0	0,1	4,0	6,0	LC..1304..
V21-CIR1304L060042	00089131	42	60	13	9,2	12,0	0,1	4,0	6,0	LC..1304..

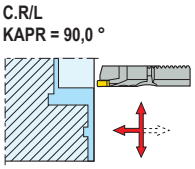
Designation	Item number	INPLM	INPLX	LF	WF	CDX	Weight	CW	TQ	CTWS
		mm	mm	mm	mm	mm	kg	mm	Nm	
V21-CIR1304L075052	00089135	52	75	13	9,2	12,0	0,1	4,0	6,0	LC..1304..
V21-CIR1304L100067	00089139	67	100	13	9,2	12,0	0,1	4,0	6,0	LC..1304..
V21-CMR1304L030017	02718867	17	30	21	9,2	20,0	0,1	4,0	6,0	LC..1304..
V21-CMR1304L034021	02718868	21	34	21	9,2	20,0	0,1	4,0	6,0	LC..1304..
V21-CMR1304L040026	02611685	26	40	21	9,2	20,0	0,1	4,0	6,0	LC..1304..
V21-CMR1304L050032	02718869	32	50	21	9,2	20,0	0,1	4,0	6,0	LC..1304..
V21-CMR1304L060042	02487944	42	60	21	9,2	20,0	0,1	4,0	6,0	LC..1304..
V21-CMR1304L075052	02718870	52	75	21	9,2	20,0	0,1	4,0	6,0	LC..1304..
V21-CMR1304L100067	02718871	67	100	21	9,2	20,0	0,1	4,0	6,0	LC..1304..
V21-CMR1304L135092	02718900	92	135	21	9,2	20,0	0,1	4,0	6,0	LC..1304..
V21-CMR1304L200127	02718901	127	200	21	9,2	20,0	0,1	4,0	6,0	LC..1304..
V21-CHL1304R030017	00089114	17	30	11	9,2	10,0	0,1	4,0	6,0	LC..1304..
V21-CHL1304R034021	00089118	21	34	11	9,2	10,0	0,1	4,0	6,0	LC..1304..
V21-CIL1304R040026	00089122	26	40	13	9,2	12,0	0,1	4,0	6,0	LC..1304..
V21-CIL1304R050032	00089126	32	50	13	9,2	12,0	0,1	4,0	6,0	LC..1304..
V21-CIL1304R060042	00089130	42	60	13	9,2	12,0	0,1	4,0	6,0	LC..1304..
V21-CIL1304R075052	00089134	52	75	13	9,2	12,0	0,1	4,0	6,0	LC..1304..
V21-CIL1304R100067	00089138	67	100	13	9,2	12,0	0,1	4,0	6,0	LC..1304..
V21-CML1304R030017	00030305	17	30	21	9,2	20,0	0,1	4,0	6,0	LC..1304..
V21-CML1304R034021	02531134	21	34	21	9,2	20,0	0,1	4,0	6,0	LC..1304..
V21-CML1304R040026	02718861	26	40	21	9,2	20,0	0,1	4,0	6,0	LC..1304..
V21-CML1304R050032	02718862	32	50	21	9,2	20,0	0,1	4,0	6,0	LC..1304..
V21-CML1304R060042	02718864	42	60	21	9,2	20,0	0,1	4,0	6,0	LC..1304..
V21-CML1304R075052	02718865	52	75	21	9,2	20,0	0,1	4,0	6,0	LC..1304..
V21-CML1304R100067	02718866	67	100	21	9,2	20,0	0,1	4,0	6,0	LC..1304..
V21-CML1304R135092	02718898	92	135	21	9,2	20,0	0,1	4,0	6,0	LC..1304..
V21-CML1304R200127	02718899	127	200	21	9,2	20,0	0,1	4,0	6,0	LC..1304..

V21-C.R/L – Blades for inserts LCGF, LCGN, LCMF and LCMR – Metric



CTWS



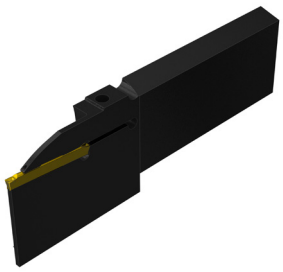


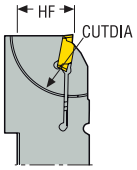
- Right-hand version with right-hand blade shown
- For inserts program, see page(s) 854-856, 872
- For holders program, see page(s) 837, 838-844
- Max depth of cut for double-sided LCGF/LCMF16.. = 14 mm
- CW = indicative Cutting Width, may vary depending on the chosen insert
- For ISO attribute explanation, see page 82

Designation	Item number	INPLM	INPLX	LF	WF	CDX	Weight	CW	TQ	CTWS
		mm	mm	mm	mm	mm	kg	mm	Nm	
V21-CJR1303R030017	00089093	17	30	12	9,2	10,5	0,1	3,0	6,0	LC..1303..
V21-CJR1303R039024	00089097	24	39	12	9,2	10,5	0,1	3,0	6,0	LC..1303..
V21-CKR1303R050033	00089101	33	50	13	9,2	12,0	0,1	3,0	6,0	LC..1303..
V21-CKR1303R060043	00089105	43	60	13	9,2	12,0	0,1	3,0	6,0	LC..1303..
V21-CKR1303R076053	00089109	53	76	13	9,2	12,0	0,1	3,0	6,0	LC..1303..
V21-COR1303R030017	02469196	17	30	19	9,2	18,0	0,1	3,0	6,0	LC..1303..
V21-COR1303R039024	02718892	24	39	19	9,2	18,0	0,1	3,0	6,0	LC..1303..
V21-COR1303R050033	02718893	33	50	19	9,2	18,0	0,1	3,0	6,0	LC..1303..
V21-COR1303R060043	02718894	43	60	19	9,2	18,0	0,1	3,0	6,0	LC..1303..
V21-COR1303R076053	02718895	53	76	19	9,2	18,0	0,1	3,0	6,0	LC..1303..
V21-COR1303R100070	02718913	70	100	19	9,2	18,0	0,1	3,0	6,0	LC..1303..
V21-COR1303R136094	02718914	94	136	19	9,2	18,0	0,1	3,0	6,0	LC..1303..
V21-COR1303R200130	02718915	130	200	19	9,2	18,0	0,1	3,0	6,0	LC..1303..
V21-CJL1303L030017	00089096	17	30	12	9,2	10,5	0,1	3,0	6,0	LC..1303..
V21-CJL1303L039024	00089100	24	39	12	9,2	10,5	0,1	3,0	6,0	LC..1303..
V21-CKL1303L050033	00089104	33	50	13	9,2	12,0	0,1	3,0	6,0	LC..1303..
V21-CKL1303L060043	00089108	43	60	13	9,2	12,0	0,1	3,0	6,0	LC..1303..
V21-CKL1303L076053	00089112	53	76	13	9,2	12,0	0,1	3,0	6,0	LC..1303..
V21-COL1303L030017	02718878	17	30	19	9,2	18,0	0,1	3,0	6,0	LC..1303..
V21-COL1303L039024	02718879	24	39	19	9,2	18,0	0,1	3,0	6,0	LC..1303..
V21-COL1303L050033	02579940	33	50	19	9,2	18,0	0,1	3,0	6,0	LC..1303..
V21-COL1303L060043	02718880	43	60	19	9,2	18,0	0,1	3,0	6,0	LC..1303..
V21-COL1303L076053	02718881	53	76	19	9,2	18,0	0,1	3,0	6,0	LC..1303..
V21-COL1303L100070	02718904	70	100	19	9,2	18,0	0,1	3,0	6,0	LC..1303..
V21-COL1303L136094	02718905	94	136	19	9,2	18,0	0,1	3,0	6,0	LC..1303..
V21-COL1303L200130	02718906	130	200	19	9,2	18,0	0,1	3,0	6,0	LC..1303..
V21-CHR1304R030017	00089113	17	30	11	9,2	10,0	0,1	4,0	6,0	LC..1304..
V21-CHR1304R034021	00089117	21	34	11	9,2	10,0	0,1	4,0	6,0	LC..1304..
V21-CIR1304R040026	00089121	26	40	13	9,2	12,0	0,1	4,0	6,0	LC..1304..
V21-CIR1304R050032	00089125	32	50	13	9,2	12,0	0,1	4,0	6,0	LC..1304..
V21-CIR1304R060042	00089129	42	60	13	9,2	12,0	0,1	4,0	6,0	LC..1304..

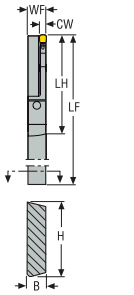
Designation	Item number	INPLM	INPLX	LF	WF	CDX	Weight	CW	TQ	CTWS
		mm	mm	mm	mm	mm	kg	mm	Nm	
V21-CIR1304R075052	00089133	52	75	13	9,2	12,0	0,1	4,0	6,0	LC..1304..
V21-CIR1304R100067	00089137	67	100	13	9,2	12,0	0,1	4,0	6,0	LC..1304..
V21-CMR1304R030017	02718872	17	30	21	9,2	20,0	0,1	4,0	6,0	LC..1304..
V21-CMR1304R034021	02718873	21	34	21	9,2	20,0	0,1	4,0	6,0	LC..1304..
V21-CMR1304R040026	02450834	26	40	21	9,2	20,0	0,1	4,0	6,0	LC..1304..
V21-CMR1304R050032	02718874	32	50	21	9,2	20,0	0,1	4,0	6,0	LC..1304..
V21-CMR1304R060042	02718875	42	60	21	9,2	20,0	0,1	4,0	6,0	LC..1304..
V21-CMR1304R075052	02718876	52	75	21	9,2	20,0	0,1	4,0	6,0	LC..1304..
V21-CMR1304R100067	02718877	67	100	21	9,2	20,0	0,1	4,0	6,0	LC..1304..
V21-CMR1304R135092	02718902	92	135	21	9,2	20,0	0,1	4,0	6,0	LC..1304..
V21-CMR1304R200127	02718903	127	200	21	9,2	20,0	0,1	4,0	6,0	LC..1304..
V21-CHL1304L030017	00089116	17	30	11	9,2	10,0	0,1	4,0	6,0	LC..1304..
V21-CHL1304L034021	00089120	21	34	11	9,2	10,0	0,1	4,0	6,0	LC..1304..
V21-CIL1304L040026	00089124	26	40	13	9,2	12,0	0,1	4,0	6,0	LC..1304..
V21-CIL1304L050032	00089128	32	50	13	9,2	12,0	0,1	4,0	6,0	LC..1304..
V21-CIL1304L060042	00089132	42	60	13	9,2	12,0	0,1	4,0	6,0	LC..1304..
V21-CIL1304L075052	00089136	52	75	13	9,2	12,0	0,1	4,0	6,0	LC..1304..
V21-CIL1304L100067	00089140	67	100	13	9,2	12,0	0,1	4,0	6,0	LC..1304..
V21-CML1304L030017	02452926	17	30	21	9,2	20,0	0,1	4,0	6,0	LC..1304..
V21-CML1304L034021	02717475	21	34	21	9,2	20,0	0,1	4,0	6,0	LC..1304..
V21-CML1304L040026	02611687	26	40	21	9,2	20,0	0,1	4,0	6,0	LC..1304..
V21-CML1304L050032	02718854	32	50	21	9,2	20,0	0,1	4,0	6,0	LC..1304..
V21-CML1304L060042	02576753	42	60	21	9,2	20,0	0,1	4,0	6,0	LC..1304..
V21-CML1304L075052	02718855	52	75	21	9,2	20,0	0,1	4,0	6,0	LC..1304..
V21-CML1304L100067	02718856	67	100	21	9,2	20,0	0,1	4,0	6,0	LC..1304..
V21-CML1304L135092	02718896	92	135	21	9,2	20,0	0,1	4,0	6,0	LC..1304..
V21-CML1304L200127	02718897	127	200	21	9,2	20,0	0,1	4,0	6,0	LC..1304..

CF..ITX-..LRBJET – Blades for inserts LCGF, LCGN, LCMF and LCMR – Metric

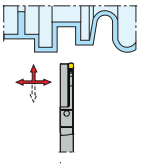




CF..ITX-..LRBJET



CF..ITX-..LRBJET
KAPR = 90,0 °



CTWS



- Left-hand version shown
- For inserts program, see page(s) 857-871, 873-874
- For more information on Jetstream Tooling® and accessories, see page(s) 38, 85-89, 1026
- * Due to the design, grooving depth is limited, see page(s) 723
- Max depth of cut for double-sided LCGF/LCMF16.. = 14 mm
- CW = indicative Cutting Width, may vary depending on the chosen insert
- For ISO attribute explanation, see page 82

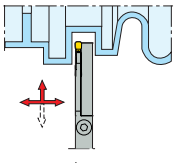
Designation	Item number	H	B	LF	WF	LH	HF	CUTDIA*	CP	Weight	CW	TQ	CTWS
		mm	mm	mm	mm	mm	mm	mm	bar	kg	mm	Nm	
CFXL26ITX-1603LRBJET	02833866	26	8	117,5	8	50,5	21,4	65,0	275,0	0,2	3,0	6,0	LC..1603..
CFXL32ITX-1603LRBJET	02833867	32	8	117,5	8	50,5	24,8	65,0	275,0	0,2	3,0	6,0	LC..1603..
CFTL26ITX-1902LRBJET	02833868	26	8	110,0	8	43,0	21,4	36,0	275,0	0,2	2,0	6,0	LC..1902..
CFZL32ITX-2802LRBJET	02833865	32	8	110,0	8	47,0	24,8	54,0	275,0	0,2	2,0	6,0	LC..2802..

Spare Parts, included in delivery

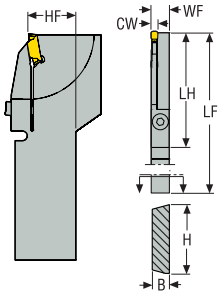
For size	Clamp key	Clamp screw
		
26-32	3SMS795	MC6S4X18

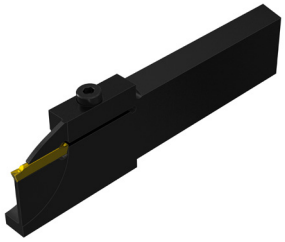
CF..ITX..RB – Blades for inserts LCGF, LCGN, LCMF and LCMR – Metric

CF..ITX
KAPR = 90,0 °



CF..ITX

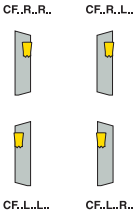




CTWS

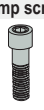


- Right-hand version shown
- For inserts program, see page(s) 857-871, 873-874
- * Due to the design, grooving depth is limited, see page(s) 723
- Max depth of cut for double-sided LCGF/LCMF16.. = 14 mm
- CW = indicative Cutting Width, may vary depending on the chosen insert
- For ISO attribute explanation, see page 82



Designation	Item number	H	B	LF	WF	LH	HF	CUTDIA*	Weight	CW	TQ	CTWS
		mm	mm	mm	mm	mm	mm	mm	kg	mm	Nm	
CFTR26ITX1902RRB	02830353	26	7,85	110,0	8	44,0	20,9	34,0	0,2	2,0	6,0	LCMF1902..
CFTR32ITX1902RRB	02830365	32	7,85	110,0	8	43,0	24,5	34,0	0,2	2,0	6,0	LCMF1902..
CFTR26ITX1902LRB	02830354	26	7,85	110,0	8	44,0	20,9	34,0	0,2	2,0	6,0	LCMF1902..
CFTR32ITX1902LRB	02830366	32	7,85	110,0	8	43,0	24,5	34,0	0,2	2,0	6,0	LCMF1902..
CFTL26ITX1902RRB	02830351	26	7,85	110,0	8	44,0	20,9	34,0	0,2	2,0	6,0	LCMF1902..
CFTL32ITX1902RRB	02830363	32	7,85	110,0	8	43,0	24,5	34,0	0,2	2,0	6,0	LCMF1902..
CFTL26ITX1902LRB	02830352	26	7,85	110,0	8	44,0	20,9	34,0	0,2	2,0	6,0	LCMF1902..
CFTL32ITX1902LRB	02830364	32	7,85	110,0	8	43,0	24,5	34,0	0,2	2,0	6,0	LCMF1902..
CFZR26ITX2802RRB	02830357	26	7,85	119,1	8	51,5	20,9	54,0	0,2	2,0	6,0	LCMF2802..
CFZR32ITX2802RRB	02830369	32	7,85	119,1	8	52,0	32,0	54,0	0,2	2,0	6,0	LCMF2802..
CFZR26ITX2802LRB	02830358	26	7,85	119,1	8	51,5	20,9	54,0	0,2	2,0	6,0	LCMF2802..
CFZR32ITX2802LRB	02830370	32	7,85	119,1	8	52,5	32,0	54,0	0,2	2,0	6,0	LCMF2802..
CFZL32ITX2802RRB	02830367	32	7,85	119,5	8	52,0	24,5	54,0	0,2	2,0	6,0	LCMF2802..
CFZL26ITX2802RRB	02830355	26	7,85	119,1	8	51,5	20,9	54,0	0,2	2,0	6,0	LCMF2802..
CFZL26ITX2802LRB	02830356	26	7,85	119,1	8	51,5	20,9	54,0	0,2	2,0	6,0	LCMF2802..
CFZL32ITX2802LRB	02830368	32	7,85	119,1	8	52,0	24,5	54,0	0,2	2,0	6,0	LCMF2802..
CFXR32ITX1603RRB	02834803	32	7,85	117,5	8	50,5	24,5	65,0	0,2	3,0	6,0	LC..1603..
CFXR32ITX1603LRB	02834804	32	7,85	117,5	8	50,5	24,5	65,0	0,3	3,0	6,0	LC..1603..
CFXL32ITX1603RRB	02834801	32	7,85	117,5	8	50,5	24,5	65,0	0,3	3,0	6,0	LC..1603..
CFXL32ITX1603LRB	02834802	32	7,85	117,5	8	50,5	24,5	65,0	0,2	3,0	6,0	LC..1603..

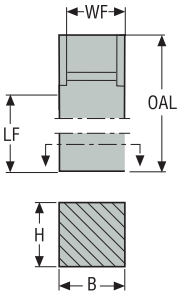
Spare Parts, included in delivery

For size	Clamp key	Clamp screw
		
26-32	3SMS795	TCEI0416

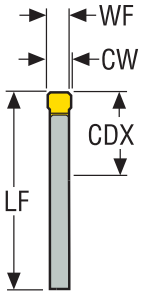
SFN, CF.N – Toolholder and blades for inserts LCGN, LCMF and LCMR – Metric



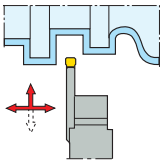
SFN



CF.N



SFN/CF.N
KAPR = 90,0 °



CTWS



- For inserts program, see page(s) 858-871, 873-874
- Max depth of cut for double-sided LCGF/LCMF16.. = 14 mm
- CW = indicative Cutting Width, may vary depending on the chosen insert
- For ISO attribute explanation, see page 82

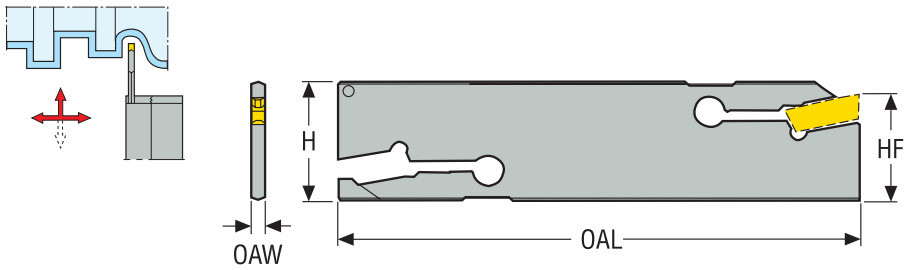
Designation	Item number	H	B	LF	OAL	WF	CDX	Weight	CW	TQ	CTWS
		mm	mm	mm	mm	mm	mm	kg	mm	Nm	
SFN2525N	00023587	25	25	101,2	134	21,7	–	0,7	–	6,0	Blade-GAD
CFLN-03	00036564	–	–	46,4	–	2,6	13,0	0,1	3,0	6,0	LC..1603..
CFKN-04	00027198	–	–	48,6	–	3,6	15,0	0,1	4,0	6,0	LC..1604..
CFNN-04	00027200	–	–	55,0	–	3,6	22,0	0,1	4,0	6,0	LC..1604..
CFIN-05	00027201	–	–	48,6	–	4,6	15,0	0,1	5,0	6,0	LC..1605..
CFHN-06	00027203	–	–	48,6	–	5,6	15,0	0,1	6,0	6,0	LC..1606..
CFJN-06	00027204	–	–	55,0	–	5,6	22,0	0,1	6,0	6,0	LC..1606..

Spare Parts, included in delivery

For size	Key	Locking screw	Screw
			
SFN2525N	T20P-7	C46017-T20P	C45013-T20P

CF.N – Blades for inserts LCGN, LCMF and LCMR – Metric

CF.N
KAPR = 90,0 °





CTWS



- For inserts program, see page(s) 858-871, 873-874
- Max depth of cut for double-sided LCGF/LCMF16.. = 14 mm
- CW = indicative Cutting Width, may vary depending on the chosen insert
- For ISO attribute explanation, see page 82

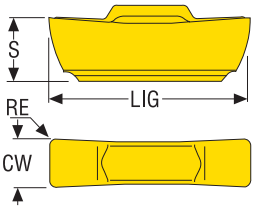
Designation	Item number	OAW	OAL	HF	H	CUTDIA	Weight	CW	CTWS
		mm	mm	mm	mm	mm	kg	mm	
CFMN26-03	00053878	2,4	110	21,4	26	25,0	0,1	3,0	LC..1603..
CFON32-03	00053889	2,4	150	24,8	32	34,0	0,1	3,0	LC..1603..
CFMN32-04	00053883	3,0	150	24,8	32	34,0	0,2	4,0	LC..1604..
CFMN32-05	00053884	4,0	150	24,8	32	48,0	0,2	5,0	LC..1605..
CFKN32-06	00053885	5,0	150	24,8	32	48,0	0,2	6,0	LC..1606..



To be used in standard 150.10 holder

CF..26... to be used in 150.10-...-20JETI
CF..32... to be used in 150.10-...-25JETI

LCMF, LCMR

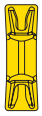


Tolerances:
CW = ±0,05/*0.002*
LIG = ±0,08/*0.003*
S = ±0,05/*0.002*

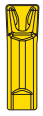
LIG = Distance cutting edge-rear support

For ISO attribute explanation, see page 82

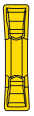
LCMF-FT



LCMR-FT



LCMF-MC



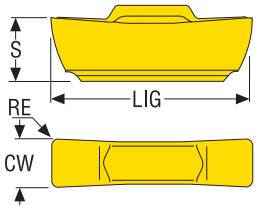
Designation	RE	CW	LIG	S	Grades								
					Coated							Uncoated	
	mm *inch*	mm *inch*	mm *inch*	mm *inch*	CP200	CP500	CP600	TGH1050	TGK1500	TGP25	TGS2050	883	890
LCMF130302-0300-FT	0,2 *0.008*	3,0 *0.118*	12,4 *0.488*	4,0 *0.157*		■							
LCMF130304-0300-FT	0,4 *0.016*	3,0 *0.118*	12,4 *0.488*	4,0 *0.157*		■			■	■			
LCMF130402-0400-FT	0,2 *0.008*	4,0 *0.157*	12,4 *0.488*	4,0 *0.157*		■							
LCMF130404-0400-FT	0,4 *0.016*	4,0 *0.157*	12,4 *0.488*	4,0 *0.157*		■			■	■			
LCMR130302-0300-FT	0,2 *0.008*	3,0 *0.118*	12,4 *0.488*	4,0 *0.157*		■							
LCMR130304-0300-FT	0,4 *0.016*	3,0 *0.118*	12,4 *0.488*	4,0 *0.157*		■							
LCMR130404-0400-FT	0,4 *0.016*	4,0 *0.157*	12,4 *0.488*	4,0 *0.157*		■							
LCMF130304-0300-MC	0,4 *0.016*	3,0 *0.118*	12,4 *0.488*	4,0 *0.157*		■				■			
LCMF130404-0400-MC	0,4 *0.016*	4,0 *0.157*	12,4 *0.488*	4,0 *0.157*		■				■			

LCGF

For ISO attribute explanation, see page 82

Tolerances:
CW = ±0,025/*0.001*
LIG = ±0,025/*0.001*
S = ±0,05/*0.002*

LIG = Distance cutting edge-rear support



LCGF-GG



LCGF-GS



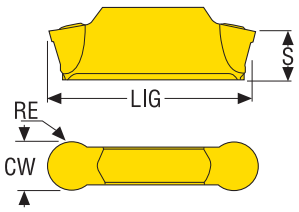
Designation	RE	CW	LIG	S	Grades								
					Coated							Uncoated	
	mm *inch*	mm *inch*	mm *inch*	mm *inch*	CP200	CP500	CP600	TGH1050	TGK1500	TGP25	TGS2050	883	890
LCGF130302-0300-GG	0,2 *0.008*	3,0 *0.118*	12,4 *0.488*	3,9 *0.154*		■							
LCGF130402-0400-GG	0,2 *0.008*	4,0 *0.157*	12,4 *0.488*	3,9 *0.154*		■							
LCGF130302-0300-GS	0,2 *0.008*	3,0 *0.118*	12,4 *0.488*	3,9 *0.154*								■	
LCGF130402-0400-GS	0,2 *0.008*	4,0 *0.157*	12,4 *0.488*	3,9 *0.154*								■	

LCMF, LCMR

For ISO attribute explanation, see page 82

Tolerances:
CW = ±0,05/*0.002*
LIG = ±0,08/*0.003*
S = ±0,05/*0.002*

LIG = Distance cutting edge-rear support



LCGF-RP



LCMF-MP

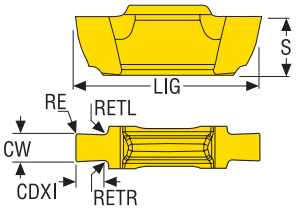


LCMR-MP



Designation	RE	CW	LIG	S	Grades								
					Coated							Uncoated	
	mm *inch*	mm *inch*	mm *inch*	mm *inch*	CP200	CP500	CP600	TGH1050	TGK1500	TGP25	TGS2050	883	890
LCGF1303M0-0300-RP	1,5 *0.059*	3,0 *0.118*	12,4 *0.488*	4,0 *0.157*		■					■		
LCMF1303M0-0300-MP	1,5 *0.059*	3,0 *0.118*	12,4 *0.488*	4,0 *0.157*		■			■	■			
LCMF1304M0-0400-MP	2,0 *0.079*	4,0 *0.157*	12,4 *0.488*	4,0 *0.157*		■			■	■			
LCMR1303M0-0300-MP	1,5 *0.059*	3,0 *0.118*	12,4 *0.488*	4,0 *0.157*		■							
LCMR1304M0-0400-MP	2,0 *0.079*	4,0 *0.157*	12,4 *0.488*	4,0 *0.157*		■							

LCGA



LCGA-FG



Tolerances:
CW = ±0,025/*0.001*
LIG = ±0,025/*0.001*
S = ±0,05/*0.002*

LIG = Distance cutting edge-rear support

For ISO attribute explanation, see page 82
* Toolholders have to be modified

Standard
** =
DIN 471
DIN 472
SMS 1581
SMS 1582

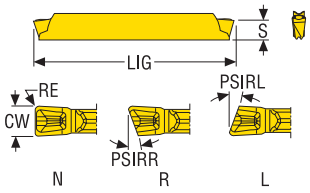
Designation	RE	CW	LIG	S	RETR	RETL	CDXI	For circlip	Note	Standard	Grades								
											Coated							Uncoated	
	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*				CP200	CP500	CP600	TGH1050	TGK1500	TGP25	TGS2050	883	890
LCGA130300-0115-FG	0,0 –	1,15 *0.045*	12,4 *0.488*	4,0 *0.157*	0,3 *0.012*	0,3 *0.012*	1,4 *0.055*	1,00	*	**		■							
LCGA130300-0135-FG	–	1,35 *0.053*	12,4 *0.488*	4,0 *0.157*	0,3 *0.012*	0,3 *0.012*	1,6 *0.063*	1,20	*	**		■							
LCGA130301-0165-FG	0,1 *0.004*	1,65 *0.065*	12,4 *0.488*	4,0 *0.157*	0,3 *0.012*	0,3 *0.012*	1,9 *0.075*	1,50	*	**		■							
LCGA130301-0190-FG	0,1 *0.004*	1,9 *0.075*	12,4 *0.488*	4,0 *0.157*	0,3 *0.012*	0,3 *0.012*	2,15 *0.085*	1,75	*	**		■							
LCGA130301-0215-FG	0,15 *0.006*	2,15 *0.085*	12,4 *0.488*	4,0 *0.157*	0,3 *0.012*	0,3 *0.012*	2,4 *0.094*	2,00	*	**		■							
LCGA130302-0265-FG	0,2 *0.008*	2,65 *0.104*	12,4 *0.488*	4,0 *0.157*	0,2 *0.008*	0,2 *0.008*	2,9 *0.114*	2,50		**		■							
LCGA130301-0300-FG	0,1 *0.004*	3,0 *0.118*	12,4 *0.488*	4,0 *0.157*	–	–	12,39 *0.488*	–		**		■							
LCGA130302-0300-FG	0,2 *0.008*	3,0 *0.118*	12,4 *0.488*	4,0 *0.157*	–	–	12,39 *0.488*	–		**		■							
LCGA130402-0400-FG	0,2 *0.008*	4,0 *0.157*	12,4 *0.488*	4,0 *0.157*	–	–	12,39 *0.488*	–		**		■							

LCMF

For ISO attribute explanation, see page 82

Tolerances:
CW = ±0,05/*0.002*
LIG = ±0,08/*0.003*
S = ±0,05/*0.002*

LIG = Distance cutting edge-rear support



LCMF-FT

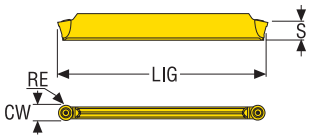
Designation	RE	CW	LIG	S	Grades								
					Coated							Uncoated	
	mm *inch*	mm *inch*	mm *inch*	mm *inch*	CP200	CP500	CP600	TGH1050	TGK1500	TGP25	TGS2050	883	890
LCMF190202-0200-FT	0,2 *0.008*	2,0 *0.079*	18,5 *0.728*	2,85 *0.112*		■	■						
LCMF190202-0200-FTR6	0,2 *0.008*	2,0 *0.079*	18,5 *0.728*	2,85 *0.112*			■						
LCMF190202-0200-FTL6	0,2 *0.008*	2,0 *0.079*	18,5 *0.728*	2,85 *0.112*			■						
LCMF280202-0200-FT	0,2 *0.008*	2,0 *0.079*	28,0 *1.102*	2,85 *0.112*		■	■						
LCMF280202-0200-FTR6	0,2 *0.008*	2,0 *0.079*	28,0 *1.102*	2,85 *0.112*			■						
LCMF280202-0200-FTL6	0,2 *0.008*	2,0 *0.079*	28,0 *1.102*	2,85 *0.112*			■						

LCMF

For ISO attribute explanation, see page 82

Tolerances:
CW = ±0,05/*0.002*
LIG = ±0,08/*0.003*
S = ±0,05/*0.002*

LIG = Distance cutting edge-rear support

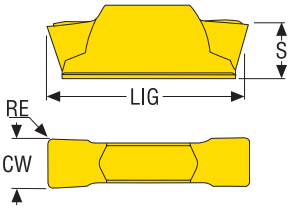


LCMF-MP



Designation	RE	CW	LIG	S	Grades								
					Coated							Uncoated	
	mm *inch*	mm *inch*	mm *inch*	mm *inch*	CP200	CP500	CP600	TGH1050	TGK1500	TGP25	TGS2050	883	890
LCMF1902M0-0200-MP	1,0 *0.039*	2,0 *0.079*	18,5 *0.728*	2,85 *0.112*		■			■				
LCMF2802M0-0200-MP	1,0 *0.039*	2,0 *0.079*	28,0 *1.102*	2,85 *0.112*		■			■				

LCMF



LCMF-FT



Tolerances: Size:
CW = ±0,05/*0.002*
LIG = ±0,08/*0.003*
S = ±0,05/*0.002* 16/*16*
S = ±0,08/*0.003* 30/*30*

LIG = Distance cutting edge-rear support

For ISO attribute explanation, see page 82

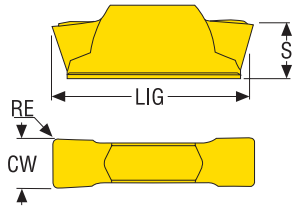
Designation	RE	CW	LIG	S	Grades								
					Coated							Uncoated	
	mm *inch*	mm *inch*	mm *inch*	mm *inch*	CP200	CP500	CP600	TGH1050	TGK1500	TGP25	TGS2050	883	890
LCMF160302-0300-FT	0,2 *0.008*	3,0 *0.118*	15,9 *0.626*	4,5 *0.177*	■	■				■			
LCMF160302-0318-FT	0,2 *0.008*	3,18 *0.125*	15,9 *0.626*	4,5 *0.177*	■	■							
LCMF160304-0300-FT	0,4 *0.016*	3,0 *0.118*	15,9 *0.626*	4,5 *0.177*		■		■		■			
LCMF160402-0400-FT	0,2 *0.008*	4,0 *0.157*	15,9 *0.626*	4,5 *0.177*		■				■			
LCMF160404-0400-FT	0,4 *0.016*	4,0 *0.157*	15,9 *0.626*	4,5 *0.177*	■	■		■		■			
LCMF160408-0400-FT	0,8 *0.031*	4,0 *0.157*	15,9 *0.626*	4,5 *0.177*		■				■			
LCMF160504-0500-FT	0,4 *0.016*	5,0 *0.197*	15,9 *0.626*	4,5 *0.177*	■	■		■		■			
LCMF160505-0476-FT	0,5 *0.020*	4,76 *0.187*	15,9 *0.626*	4,5 *0.177*	■	■							
LCMF160508-0500-FT	0,8 *0.031*	5,0 *0.197*	15,9 *0.626*	4,5 *0.177*		■				■			
LCMF160604-0600-FT	0,4 *0.016*	6,0 *0.236*	15,9 *0.626*	4,5 *0.177*		■				■			
LCMF160605-0635-FT	0,5 *0.020*	6,35 *0.250*	15,9 *0.626*	4,5 *0.177*	■	■							
LCMF160608-0600-FT	0,8 *0.031*	6,0 *0.236*	15,9 *0.626*	4,5 *0.177*	■	■				■			■
LCMF160610-0600-FT	1,0 *0.039*	6,0 *0.236*	15,9 *0.626*	4,5 *0.177*		■				■			
LCMF300804-0800-FT	0,4 *0.016*	8,0 *0.315*	29,1 *1.146*	5,57 *0.219*		■				■		■	
LCMF300808-0800-FT	0,8 *0.031*	8,0 *0.315*	29,1 *1.146*	5,57 *0.219*		■			■	■		■	
LCMF300808-1000-FT	0,8 *0.031*	10,0 *0.394*	29,2 *1.150*	5,57 *0.219*		■				■			
LCMF300812-0800-FT	1,2 *0.047*	8,0 *0.315*	29,1 *1.146*	5,57 *0.219*		■			■	■		■	
LCMF300812-1000-FT	1,2 *0.047*	10,0 *0.394*	29,2 *1.150*	5,57 *0.219*		■						■	

LCMF

For ISO attribute explanation, see page 82

Tolerances:
CW = ±0,05/*0.002*
LIG = ±0,08/*0.003*
S = ±0,05/*0.002*

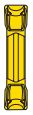
LIG = Distance cutting edge-rear support



LCMF-MT

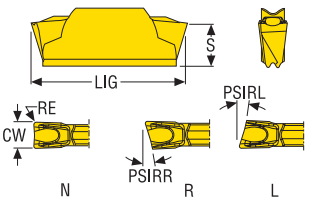


LCMF-MG



Designation	RE	CW	LIG	S	Grades								
					Coated							Uncoated	
	mm *inch*	mm *inch*	mm *inch*	mm *inch*	CP200	CP500	CP600	TGH1050	TGK1500	TGP25	TGS2050	883	890
LCMF160302-0300-MT	0,2 *0.008*	3,0 *0.118*	15,9 *0.626*	4,5 *0.177*		■				■			
LCMF160302-0318-MT	0,2 *0.008*	3,18 *0.125*	15,9 *0.626*	4,5 *0.177*		■							
LCMF160304-0300-MT	0,4 *0.016*	3,0 *0.118*	15,9 *0.626*	4,5 *0.177*		■			■	■		■	
LCMF160404-0400-MT	0,4 *0.016*	4,0 *0.157*	15,9 *0.626*	4,5 *0.177*		■			■	■			
LCMF160408-0400-MT	0,8 *0.031*	4,0 *0.157*	15,9 *0.626*	4,5 *0.177*		■			■	■		■	
LCMF160504-0500-MT	0,4 *0.016*	5,0 *0.197*	15,9 *0.626*	4,5 *0.177*		■			■	■			
LCMF160505-0476-MT	0,5 *0.020*	4,76 *0.187*	15,9 *0.626*	4,5 *0.177*		■							
LCMF160508-0500-MT	0,8 *0.031*	5,0 *0.197*	15,9 *0.626*	4,5 *0.177*		■			■	■		■	
LCMF160604-0600-MT	0,4 *0.016*	6,0 *0.236*	15,9 *0.626*	4,5 *0.177*		■			■	■			
LCMF160605-0635-MT	0,5 *0.020*	6,35 *0.250*	15,9 *0.626*	4,5 *0.177*		■						■	
LCMF160608-0600-MT	0,8 *0.031*	6,0 *0.236*	15,9 *0.626*	4,5 *0.177*		■			■	■		■	
LCMF160610-0600-MT	1,0 *0.039*	6,0 *0.236*	15,9 *0.626*	4,5 *0.177*		■				■			
LCMF160304-0300-MG	0,4 *0.016*	3,0 *0.118*	15,9 *0.626*	4,5 *0.177*		■				■			
LCMF160404-0400-MG	0,4 *0.016*	4,0 *0.157*	15,9 *0.626*	4,5 *0.177*		■				■			
LCMF160504-0500-MG	0,4 *0.016*	5,0 *0.197*	15,9 *0.626*	4,5 *0.177*		■				■			
LCMF160608-0600-MG	0,8 *0.031*	6,0 *0.236*	15,9 *0.626*	4,5 *0.177*		■				■			

LCMF, LCMR



Tolerances:
CW = ±0,05/*0.002*
LIG = ±0,08/*0.003*
S = ±0,05/*0.002*

LIG = Distance cutting edge-rear support

For ISO attribute explanation, see page 82
* Toolholders have to be modified

LCMF-MC



LCMR-MC



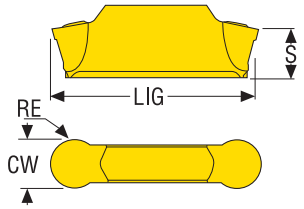
Designation	RE	CW	LIG	S	PSIRR°	PSIRL°	Note	Grades								
								Coated							Uncoated	
	mm *inch*	mm *inch*	mm *inch*	mm *inch*				CP200	CP500	CP600	TGH1050	TGK1500	TGP25	TGS2050	883	890
LCMF160302-0300-MC	0,2 *0.008*	3,0 *0.118*	15,9 *0.626*	4,5 *0.177*	–	–			■	■						
LCMF160302-0300-MCR6	0,2 *0.008*	3,0 *0.118*	15,9 *0.626*	4,5 *0.177*	6,0	–	*		■	■						
LCMF160302-0300-MCL6	0,2 *0.008*	3,0 *0.118*	15,9 *0.626*	4,5 *0.177*	–	6,0	*		■	■						
LCMF160302-0300-MCR15	0,2 *0.008*	3,0 *0.118*	15,9 *0.626*	4,5 *0.177*	15,0	–	*			■						
LCMF160302-0300-MCL15	0,2 *0.008*	3,0 *0.118*	15,9 *0.626*	4,5 *0.177*	–	15,0	*			■						
LCMF160304-0300-MC	0,4 *0.016*	3,0 *0.118*	15,9 *0.626*	4,5 *0.177*	–	–			■	■			■			
LCMF160402-0400-MC	0,2 *0.008*	4,0 *0.157*	15,9 *0.626*	4,5 *0.177*	–	–			■	■						
LCMF160402-0400-MCR6	0,2 *0.008*	4,0 *0.157*	15,9 *0.626*	4,5 *0.177*	6,0	–	*		■	■						
LCMF160402-0400-MCL6	0,2 *0.008*	4,0 *0.157*	15,9 *0.626*	4,5 *0.177*	–	6,0	*			■						
LCMF160402-0400-MCR15	0,2 *0.008*	4,0 *0.157*	15,9 *0.626*	4,5 *0.177*	15,0	–	*			■						
LCMF160402-0400-MCL15	0,2 *0.008*	4,0 *0.157*	15,9 *0.626*	4,5 *0.177*	–	15,0	*			■						
LCMF160404-0400-MC	0,4 *0.016*	4,0 *0.157*	15,9 *0.626*	4,5 *0.177*	–	–			■	■			■			
LCMF160504-0500-MC	0,4 *0.016*	5,0 *0.197*	15,9 *0.626*	4,5 *0.177*	–	–			■	■			■			
LCMF160604-0600-MC	0,4 *0.016*	6,0 *0.236*	15,9 *0.626*	4,5 *0.177*	–	–			■	■			■			
LCMF160608-0600-MC	0,8 *0.031*	6,0 *0.236*	15,9 *0.626*	4,5 *0.177*	–	–			■				■			
LCMR160302-0300-MC	0,2 *0.008*	3,0 *0.118*	15,9 *0.626*	4,5 *0.177*	–	–				■						
LCMR160404-0400-MC	0,4 *0.016*	4,0 *0.157*	15,9 *0.626*	4,5 *0.177*	–	–				■						
LCMR160504-0500-MC	0,4 *0.016*	5,0 *0.197*	15,9 *0.626*	4,5 *0.177*	–	–				■						
LCMR160604-0600-MC	0,4 *0.016*	6,0 *0.236*	15,9 *0.626*	4,5 *0.177*	–	–				■						

LCMF

For ISO attribute explanation, see page 82

Tolerances: Size:
CW = ±0,05/*0.002*
LIG = ±0,08/*0.003*
S = ±0,05/*0.002* 16/*16*
S = ±0,08/*0.003* 30/*30*

LIG = Distance cutting edge-rear support

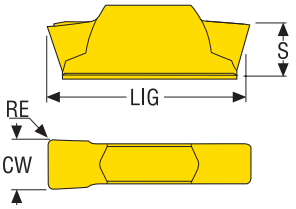


LCMF-MP



Designation	RE	CW	LIG	S	Grades								
					Coated							Uncoated	
	mm *inch*	mm *inch*	mm *inch*	mm *inch*	CP200	CP500	CP600	TGH1050	TGK1500	TGP25	TGS2050	883	890
LCMF1603M0-0300-MP	1,5 *0.059*	3,0 *0.118*	17,0 *0.669*	4,3 *0.169*	■	■		■	■	■		■	■
LCMF160300-0318-MP	1,59 *0.063*	3,18 *0.125*	16,6 *0.654*	4,36 *0.172*	■	■						■	
LCMF1604M0-0400-MP	2,0 *0.079*	4,0 *0.157*	17,1 *0.673*	4,25 *0.167*	■	■		■	■	■		■	■
LCMF1605M0-0500-MP	2,5 *0.098*	5,0 *0.197*	17,8 *0.701*	4,17 *0.164*	■	■		■	■	■		■	■
LCMF160500-0476-MP	2,38 *0.094*	4,76 *0.187*	17,7 *0.697*	4,17 *0.164*	■	■							■
LCMF1606M0-0600-MP	3,0 *0.118*	6,0 *0.236*	18,0 *0.709*	4,12 *0.162*	■	■		■	■	■		■	■
LCMF160600-0635-MP	3,18 *0.125*	6,35 *0.250*	17,6 *0.693*	4,19 *0.165*	■	■						■	
LCMF3008M0-0800-MP	4,0 *0.157*	8,0 *0.315*	30,1 *1.185*	5,42 *0.213*		■			■	■		■	■
LCMF3008M0-1000-MP	5,0 *0.197*	10,0 *0.394*	30,1 *1.185*	5,49 *0.216*	■	■				■			

LCMR



Tolerances: Size:
CW = ±0,05/*0.002*
LIG = ±0,08/*0.003*
S = ±0,05/*0.002* 16/*16*
S = ±0,08/*0.003* 30/*30*

LIG = Distance cutting edge-rear support

For ISO attribute explanation, see page 82

LCMR-FT



LCMR-MT



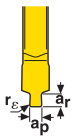
Designation	RE	CW	LIG	S	Grades								
					Coated							Uncoated	
	mm *inch*	mm *inch*	mm *inch*	mm *inch*	CP200	CP500	CP600	TGH1050	TGK1500	TGP25	TGS2050	883	890
LCMR160304-0300-FT	0,4 *0.016*	3,0 *0.118*	15,9 *0.626*	4,5 *0.177*	■	■				■			
LCMR160402-0400-FT	0,2 *0.008*	4,0 *0.157*	15,9 *0.626*	4,5 *0.177*		■							
LCMR160404-0400-FT	0,4 *0.016*	4,0 *0.157*	15,9 *0.626*	4,5 *0.177*	■	■				■			
LCMR160504-0500-FT	0,4 *0.016*	5,0 *0.197*	15,9 *0.626*	4,5 *0.177*	■	■				■			
LCMR160608-0600-FT	0,8 *0.031*	6,0 *0.236*	15,9 *0.626*	4,5 *0.177*	■	■				■			
LCMR300808-0800-FT	0,8 *0.031*	8,0 *0.315*	29,1 *1.146*	5,57 *0.219*		■				■		■	
LCMR300808-1000-FT	0,8 *0.031*	10,0 *0.394*	29,2 *1.150*	5,57 *0.219*		■							
LCMR300812-0800-FT	1,2 *0.047*	8,0 *0.315*	29,1 *1.146*	5,57 *0.219*		■							
LCMR300812-1000-FT	1,2 *0.047*	10,0 *0.394*	29,2 *1.150*	5,57 *0.219*		■							
LCMR160304-0300-MT	0,4 *0.016*	3,0 *0.118*	15,9 *0.626*	4,5 *0.177*		■				■		■	
LCMR160404-0400-MT	0,4 *0.016*	4,0 *0.157*	15,9 *0.626*	4,5 *0.177*		■				■			
LCMR160408-0400-MT	0,8 *0.031*	4,0 *0.157*	15,9 *0.626*	4,5 *0.177*								■	
LCMR160504-0500-MT	0,4 *0.016*	5,0 *0.197*	15,9 *0.626*	4,5 *0.177*		■				■			
LCMR160508-0500-MT	0,8 *0.031*	5,0 *0.197*	15,9 *0.626*	4,5 *0.177*								■	
LCMR160608-0600-MT	0,8 *0.031*	6,0 *0.236*	15,9 *0.626*	4,5 *0.177*		■				■		■	

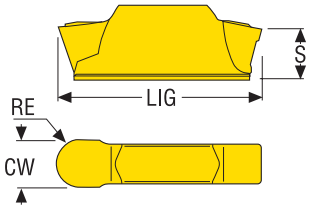
LCMR

For ISO attribute explanation, see page 82

Tolerances: Size:
CW = ±0,05/*0.002*
LIG = ±0,08/*0.003*
S = ±0,05/*0.002* 16/*16*
S = ±0,08/*0.003* 30/*30*

LIG = Distance cutting edge-rear support



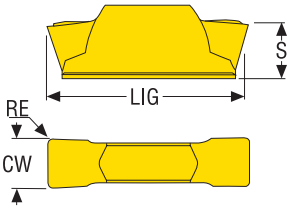


LCMR-MP



Designation	RE	CW	LIG	S	Grades								
					Coated							Uncoated	
	mm *inch*	mm *inch*	mm *inch*	mm *inch*	CP200	CP500	CP600	TGH1050	TGK1500	TGP25	TGS2050	883	890
LCMR1603M0-0300-MP	1,5 *0.059*	3,0 *0.118*	17,0 *0.669*	4,3 *0.169*	■	■				■		■	
LCMR1604M0-0400-MP	2,0 *0.079*	4,0 *0.157*	17,1 *0.673*	4,25 *0.167*	■	■				■		■	
LCMR1605M0-0500-MP	2,5 *0.098*	5,0 *0.197*	17,8 *0.701*	4,17 *0.164*	■	■				■		■	
LCMR1606M0-0600-MP	3,0 *0.118*	6,0 *0.236*	18,0 *0.709*	4,12 *0.162*	■	■				■		■	
LCMR3008M0-0800-MP	4,0 *0.157*	8,0 *0.315*	30,1 *1.185*	5,42 *0.213*		■				■		■	
LCMR3008M0-1000-MP	5,0 *0.197*	10,0 *0.394*	30,1 *1.185*	5,49 *0.216*		■				■			

LCGF



LCGF-GG



LCGF-GS



Tolerances:
CW = ±0,025/*0.001*
LIG = ±0,025/*0.001*
S = ±0,05/*0.002*

LIG = Distance cutting edge-rear support

For ISO attribute explanation, see page 82

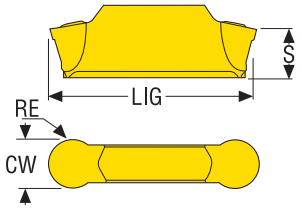
Designation	RE	CW	LIG	S	Grades								
					Coated							Uncoated	
	mm *inch*	mm *inch*	mm *inch*	mm *inch*	CP200	CP500	CP600	TGH1050	TGK1500	TGP25	TGS2050	883	890
LCGF160302-0300-GG	0,2 *0.008*	3,0 *0.118*	16,6 *0.654*	4,25 *0.167*		■							
LCGF160402-0400-GG	0,2 *0.008*	4,0 *0.157*	16,6 *0.654*	4,25 *0.167*		■							
LCGF160502-0500-GG	0,2 *0.008*	5,0 *0.197*	17,1 *0.673*	4,15 *0.163*		■							
LCGF160604-0600-GG	0,4 *0.016*	6,0 *0.236*	17,4 *0.685*	4,2 *0.165*		■							
LCGF300804-0800-GG	0,4 *0.016*	8,0 *0.315*	29,0 *1.142*	5,55 *0.219*		■							
LCGF160302-0300-GS	0,2 *0.008*	3,0 *0.118*	16,6 *0.654*	4,25 *0.167*								■	
LCGF160402-0400-GS	0,2 *0.008*	4,0 *0.157*	16,6 *0.654*	4,25 *0.167*								■	
LCGF160502-0500-GS	0,2 *0.008*	5,0 *0.197*	17,1 *0.673*	4,15 *0.163*								■	
LCGF160604-0600-GS	0,4 *0.016*	6,0 *0.236*	17,4 *0.685*	4,2 *0.165*								■	
LCGF300804-0800-GS	0,4 *0.016*	8,0 *0.315*	29,0 *1.142*	5,55 *0.219*								■	

LCGF

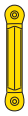
For ISO attribute explanation, see page 82

Tolerances: Size:
CW = ±0,02/*0.0008*
LIG = ±0,04/*0.0016*
S = ±0,05/*0.002* 16/*16*
S = ±0,08/*0.003* 30/*30*

LIG = Distance cutting edge-rear support

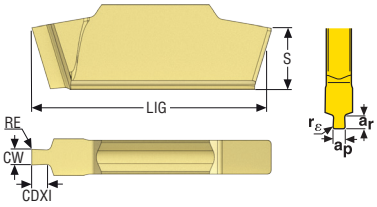


LCGF-RP



Designation	RE	CW	LIG	S	Grades								
					Coated							Uncoated	
	mm *inch*	mm *inch*	mm *inch*	mm *inch*	CP200	CP500	CP600	TGH1050	TGK1500	TGP25	TGS2050	883	890
LCGF1603M0-0300-RP	1,5 *0.059*	3,0 *0.118*	17,0 *0.669*	4,3 *0.169*	■							■	
LCGF160300-0318-RP	1,59 *0.063*	3,18 *0.125*	16,6 *0.654*	4,36 *0.172*	■							■	
LCGF1604M0-0400-RP	2,0 *0.079*	4,0 *0.157*	17,1 *0.673*	4,25 *0.167*	■							■	
LCGF1605M0-0500-RP	2,5 *0.098*	5,0 *0.197*	17,8 *0.701*	4,17 *0.164*	■							■	
LCGF160500-0476-RP	2,38 *0.094*	4,76 *0.187*	17,7 *0.697*	4,17 *0.164*	■								
LCGF1606M0-0600-RP	3,0 *0.118*	6,0 *0.236*	18,0 *0.709*	4,12 *0.162*	■							■	
LCGF3008M0-0800-RP	4,0 *0.157*	8,0 *0.315*	30,1 *1.185*	5,42 *0.213*	■							■	

LCGN, LCGF – Radial grooves



LCGN-FG

LCGF-FG



Tolerances:
CW = ±0,025/*0.001*
LIG = ±0,025/*0.001*
S = ±0,05/*0.002*

LIG = Distance cutting edge-rear support

For ISO attribute explanation, see page 82
* Toolholders have to be modified

Standard
** =
DIN 471
DIN 472
SMS 1581
SMS 1582

Designation	RE	CW	LIG	S	CDXI	For circlip	Note	Standard	Grades								
									Coated							Uncoated	
	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*				CP200	CP500	CP600	TGH1050	TGK1500	TGP25	TGS2050	883	890
LCGN160300-0115-FG	0,0 –	1,15 *0.045*	16,6 *0.654*	4,5 *0.177*	1,4 *0.055*	1,00	*	**		■							
LCGN160300-0135-FG	0,0 –	1,35 *0.053*	16,6 *0.654*	4,5 *0.177*	1,6 *0.063*	1,20	*	**		■							
LCGN160301-0165-FG	0,1 *0.004*	1,65 *0.065*	16,6 *0.654*	4,5 *0.177*	1,85 *0.073*	1,50	*	**		■							
LCGN160301-0190-FG	0,1 *0.004*	1,9 *0.075*	16,6 *0.654*	4,5 *0.177*	2,1 *0.083*	1,75	*	**		■							
LCGN160301-0215-FG	0,1 *0.004*	2,15 *0.085*	16,6 *0.654*	4,5 *0.177*	2,3 *0.091*	2,00	*	**		■							
LCGN160302-0265-FG	0,2 *0.008*	2,65 *0.104*	16,6 *0.654*	4,5 *0.177*	8,0 *0.315*	2,50		**		■							
LCGN160302-0300-FG	0,2 *0.008*	3,0 *0.118*	16,6 *0.654*	4,5 *0.177*	8,0 *0.315*	–		**		■							
LCGN160302-0320-FG	0,2 *0.008*	3,2 *0.126*	16,6 *0.654*	4,5 *0.177*	8,0 *0.315*	3,00		**		■							
LCGN160302-0340-FG	0,2 *0.008*	3,4 *0.134*	16,6 *0.654*	4,5 *0.177*	8,0 *0.315*	–		**		■							
LCGN160402-0400-FG	0,2 *0.008*	4,0 *0.157*	16,6 *0.654*	4,5 *0.177*	8,0 *0.315*	–		**		■							
LCGN160402-0420-FG	0,2 *0.008*	4,2 *0.165*	16,6 *0.654*	4,5 *0.177*	8,0 *0.315*	4,00		**		■							
LCGN160402-0440-FG	0,2 *0.008*	4,4 *0.173*	16,6 *0.654*	4,5 *0.177*	8,0 *0.315*	–		**		■							
LCGN160502-0500-FG	0,2 *0.008*	5,0 *0.197*	17,1 *0.673*	4,5 *0.177*	8,0 *0.315*	–		**		■							
LCGN160502-0520-FG	0,2 *0.008*	5,2 *0.205*	17,1 *0.673*	4,5 *0.177*	8,0 *0.315*	5,00		**		■							
LCGN160602-0600-FG	0,2 *0.008*	6,0 *0.236*	17,6 *0.693*	4,5 *0.177*	8,0 *0.315*	–		**		■							
LCGN160602-0635-FG	0,2 *0.008*	6,35 *0.250*	17,6 *0.693*	4,5 *0.177*	8,0 *0.315*	–		**		■							
LCGF160301-0300-FG	0,1 *0.004*	3,0 *0.118*	16,6 *0.654*	4,5 *0.177*	14,0 *0.551*	–				■							

LCGN – O-ring

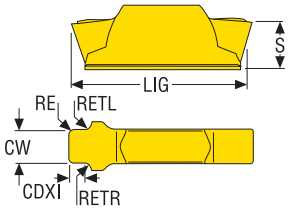
For ISO attribute explanation, see page 82

Standard
* =
SMS 1588, BS 4518

** =
ISO 3601, DIN 3771, BS 1806

Tolerances:
CW = ±0,025/*0.001*
LIG = ±0,025/*0.001*
S = ±0,05/*0.002*

LIG = Distance cutting edge-rear support



LCGN-DY
O-ring, dynamic

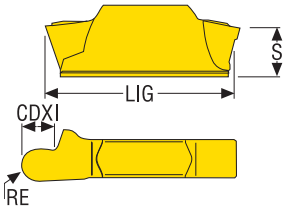


LCGN-ST
O-ring, static



Designation	RE	CW	LIG	S	RETR	RETL	CDXI	For O-ring	Standard	Grades								
										Coated							Uncoated	
	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*		CP200	CP500	CP600	TGH1050	TGK1500	TGP25	TGS2050	883	890
LCGN160305-0180-DY	0,5 *0.020*	2,4 *0.094*	16,6 *0.654*	4,5 *0.177*	0,3 *0.012*	0,3 *0.012*	1,55 *0.061*	1,80 *0.071*	**		■							
LCGN160405-0240-DY	0,5 *0.020*	3,3 *0.130*	16,6 *0.654*	4,5 *0.177*	0,3 *0.012*	0,3 *0.012*	2,0 *0.079*	2,40 *0.094*	*		■							
LCGN160405-0265-DY	0,5 *0.020*	3,6 *0.142*	16,6 *0.654*	4,5 *0.177*	0,3 *0.012*	0,3 *0.012*	2,3 *0.091*	2,65 *0.104*	**		■							
LCGN160410-0300-DY	1,0 *0.039*	4,1 *0.161*	16,6 *0.654*	4,5 *0.177*	0,3 *0.012*	0,3 *0.012*	2,5 *0.098*	3,00 *0.118*	*		■							
LCGN160305-0160-ST	0,5 *0.020*	2,4 *0.094*	16,6 *0.654*	4,5 *0.177*	0,3 *0.012*	0,3 *0.012*	1,2 *0.047*	1,60 *0.063*	*		■							
LCGN160305-0240-ST	0,5 *0.020*	3,2 *0.126*	16,6 *0.654*	4,5 *0.177*	0,3 *0.012*	0,3 *0.012*	1,9 *0.075*	2,40 *0.094*	*		■							
LCGN160410-0300-ST	1,0 *0.039*	3,8 *0.150*	16,6 *0.654*	4,5 *0.177*	0,3 *0.012*	0,3 *0.012*	2,4 *0.094*	3,00 *0.118*	*		■							
LCGN160507-0355-ST	0,75 *0.030*	4,8 *0.189*	17,1 *0.673*	4,5 *0.177*	0,3 *0.012*	0,3 *0.012*	2,8 *0.110*	3,55 *0.140*	**		■							

LCGN – Full radius grooving



Tolerances:
LIG = ±0,025/*0.001*
S = ±0,05/*0.002*

LIG = Distance cutting edge-rear support

Right-hand version shown

For ISO attribute explanation, see page 82
* Toolholders have to be modified

LCGN-R-R



LCGN-L-R



LCGN-R



Designation	RE	LIG	S	CDXI	For radius	Note	Grades								
							Coated							Uncoated	
	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*		CP200	CP500	CP600	TGH1050	TGK1500	TGP25	TGS2050	883	890
LCGN1603M0-0100R-R	1,0 *0.039*	16,6 *0.654*	4,5 *0.177*	2,7 *0.106*	1,0 *0.039*	*		■							
LCGN1603M0-0120R-R	1,2 *0.047*	16,6 *0.654*	4,5 *0.177*	2,7 *0.106*	1,2 *0.047*	*		■							
LCGN1603M0-0100L-R	1,0 *0.039*	16,6 *0.654*	4,5 *0.177*	2,7 *0.106*	1,0 *0.039*	*		■							
LCGN1603M0-0120L-R	1,2 *0.047*	16,6 *0.654*	4,5 *0.177*	2,7 *0.106*	1,2 *0.047*	*		■							
LCGN1603M0-0150-R	1,5 *0.059*	16,6 *0.654*	4,5 *0.177*	–	1,5 *0.059*			■							
LCGN1604M0-0200-R	2,0 *0.079*	16,6 *0.654*	4,5 *0.177*	–	2,0 *0.079*			■							
LCGN1606M0-0300-R	3,0 *0.118*	17,6 *0.693*	4,5 *0.177*	–	3,0 *0.118*			■							

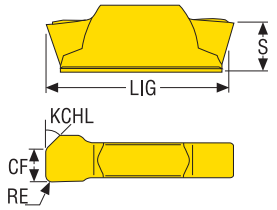
LCGN-D76

For ISO attribute explanation, see page 82
* Toolholders have to be modified

Tolerances:
LIG = ±0,025/*0.001*
S = ±0,05/*0.002*

LIG = Distance cutting edge-rear support

Right-hand version shown



LCGN..L-D76

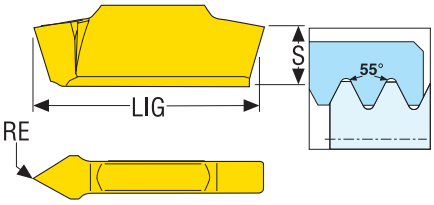


LCGN..R-D76



Designation	RE	CF	LIG	S	For max pitch	KCHR°	KCHL°	Note	Grades								
									Coated							Uncoated	
	mm *inch*	mm *inch*	mm *inch*	mm *inch*					CP200	CP500	CP600	TGH1050	TGK1500	TGP25	TGS2050	883	890
LCGN160306-0100R-D76	0,6 *0.024*	2,2 *0.087*	16,6 *0.654*	4,5 *0.177*	1,0 *0.039*	0,0	45,0	*		■							
LCGN160306-0100L-D76	0,6 *0.024*	2,2 *0.087*	16,6 *0.654*	4,5 *0.177*	1,0 *0.039*	45,0	0,0	*		■							
LCGN160507-0150R-D76	0,75 *0.030*	3,2 *0.126*	17,1 *0.673*	4,5 *0.177*	1,5 *0.059*	0,0	45,0			■							
LCGN160507-0150L-D76	0,75 *0.030*	3,2 *0.126*	17,1 *0.673*	4,5 *0.177*	1,5 *0.059*	45,0	0,0			■							
LCGN160610-0200R-D76	1,0 *0.039*	4,6 *0.181*	17,6 *0.693*	4,5 *0.177*	2,0 *0.079*	0,0	45,0			■							
LCGN160610-0200L-D76	1,0 *0.039*	4,6 *0.181*	17,6 *0.693*	4,5 *0.177*	2,0 *0.079*	45,0	0,0			■							

LCGN – Partial profile 55°



LCGN...-.55

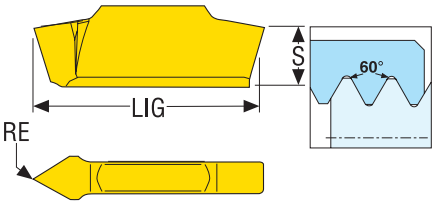


Tolerances:
LIG = ±0,025/*0.001*
RE = ±0,025/*0.001*

For ISO attribute explanation, see page 82

Designation	RE	LIG	S	Pitch mm	TPI	Grades								
						Coated							Uncoated	
	mm *inch*	mm *inch*	mm *inch*			CP200	CP500	CP600	TGH1050	TGK1500	TGP25	TGS2050	883	890
LCGN1603-A55	0,08 *0.003*	16,6 *0.654*	4,5 *0.177*	0,5-1,5	48,0-16,0		■							
LCGN1603-G55	0,18 *0.007*	16,6 *0.654*	4,5 *0.177*	1,75-3,0	14,0-8,0		■							

LCGN – Partial profile 60°



LCGN...-.60



Tolerances:
LIG = ±0,025/*0.001*
RE = ±0,025/*0.001*

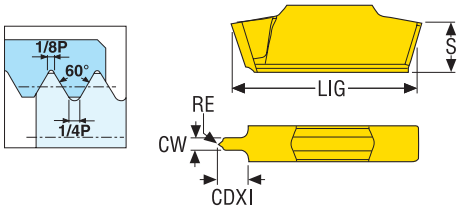
For ISO attribute explanation, see page 82

Designation	RE	LIG	S	Pitch mm	TPI	Grades								
						Coated							Uncoated	
	mm *inch*	mm *inch*	mm *inch*			CP200	CP500	CP600	TGH1050	TGK1500	TGP25	TGS2050	883	890
LCGN1603-A60	0,08 *0.003*	16,6 *0.654*	4,5 *0.177*	0,5-1,5	48,0-16,0		■							
LCGN1603-G60	0,18 *0.007*	16,6 *0.654*	4,5 *0.177*	1,75-3,0	14,0-8,0		■							

LCGN – ISO Metric

For ISO attribute explanation, see page 82
* Toolholders have to be modified

Tolerances:
LIG = ±0,025/*0.001*
S = ±0,05/*0.002*

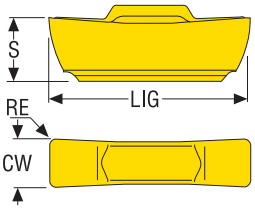


LCGN-ISO



Designation	RE	CW	LIG	S	CDXI	Pitch	Note	Grades								
								Coated							Uncoated	
	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*		CP200	CP500	CP600	TGH1050	TGK1500	TGP25	TGS2050	883	890
LCGN1603-E0.5ISO	0,07 *0.003*	0,75 *0.030*	16,6 *0.654*	4,5 *0.177*	1,9 *0.075*	0,5 *0.020*	*		■							
LCGN1603-E0.8ISO	0,11 *0.004*	1,2 *0.047*	16,6 *0.654*	4,5 *0.177*	3,0 *0.118*	0,8 *0.031*	*		■							
LCGN1603-E1.0ISO	0,13 *0.005*	1,5 *0.059*	16,6 *0.654*	4,5 *0.177*	3,75 *0.148*	1,0 *0.039*	*		■							
LCGN1603-E1.25ISO	0,17 *0.007*	1,88 *0.074*	16,6 *0.654*	4,5 *0.177*	4,2 *0.165*	1,25 *0.049*	*		■							
LCGN1603-E1.5ISO	0,21 *0.008*	2,4 *0.094*	16,6 *0.654*	4,5 *0.177*	0,92 *0.036*	1,5 *0.059*			■							

LCGN



Tolerances:
CW = ±0,025/*0.001*
LIG = ±0,04/*0.0016*
S = ±0,05/*0.002*
RE = ±0,025/*0.001*

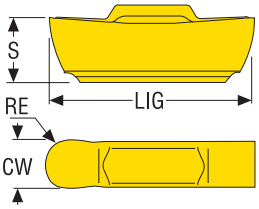
Tip sizes, see page(s) 136
Edge preparation, see page(s) 132
For ISO attribute explanation, see page 82

LCGN-LF



Designation	RE	CW	LIG	S	Grades			
					Coated	Uncoated		
	mm *inch*	mm *inch*	mm *inch*	mm *inch*	CBN170C	CBN010	CBN170	CBN200
LCGN130304-0300S-LF	0,4 *0.016*	3,0 *0.118*	12,3 *0.484*	4,0 *0.157*				■
LCGN1303040300S01025LF	0,4 *0.016*	3,0 *0.118*	12,3 *0.484*	4,0 *0.157*		■		
LCGN130404-0400S-LF	0,4 *0.016*	4,0 *0.157*	12,3 *0.484*	4,0 *0.157*				■

LCGN



Tolerances:
CW = ±0,025/*0.001*
LIG = ±0,04/*0.0016*
S = ±0,05/*0.002*
RE = ±0,025/*0.001*

Tip sizes, see page(s) 136
Edge preparation, see page(s) 132
For ISO attribute explanation, see page 82

LCGN...M0-LF

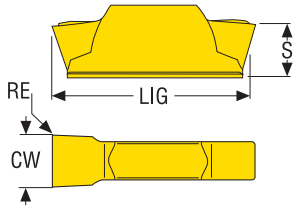


Designation	RE	CW	LIG	S	Grades			
					Coated	Uncoated		
	mm *inch*	mm *inch*	mm *inch*	mm *inch*	CBN170C	CBN010	CBN170	CBN200
LCGN1303M00300S01025LF	1,5 *0.059*	3,0 *0.118*	12,4 *0.488*	4,0 *0.157*		■		
LCGN1304M00400S01025LF	2,0 *0.079*	4,0 *0.157*	12,4 *0.488*	4,0 *0.157*		■		

LCGN

Tip sizes, see page(s) 136
Edge preparation, see page(s) 132
For ISO attribute explanation, see page 82

Tolerances:
CW = ±0,025/*0.001*
LIG = ±0,04/*0.0016*
S = ±0,05/*0.002*
RE = ±0,025/*0.001*



LCGN-LF



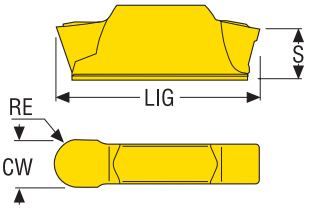
LCGN...M0-LF

LCGN-LF



Designation	RE	CW	LIG	S	Grades			
					Coated	Uncoated		
	mm *inch*	mm *inch*	mm *inch*	mm *inch*	CBN170C	CBN010	CBN170	CBN200
LCGN160304-0300E-LF	0,4 *0.016*	3,0 *0.118*	15,9 *0.626*	4,5 *0.177*		■		
LCGN160304-0300S-LF	0,4 *0.016*	3,0 *0.118*	15,9 *0.626*	4,5 *0.177*				■
LCGN160304-0300S01025LF	0,4 *0.016*	3,0 *0.118*	15,9 *0.626*	4,5 *0.177*		■		
LCGN160404-0400E-LF	0,4 *0.016*	4,0 *0.157*	15,9 *0.626*	4,5 *0.177*		■		
LCGN160404-0400E25-LF	0,4 *0.016*	4,0 *0.157*	15,9 *0.626*	4,5 *0.177*			■	
LCGN160404-0400S-LF	0,4 *0.016*	4,0 *0.157*	15,9 *0.626*	4,5 *0.177*				■
LCGN160404-0400S01025LF	0,4 *0.016*	4,0 *0.157*	15,9 *0.626*	4,5 *0.177*		■		
LCGN160504-0500S-LF	0,4 *0.016*	5,0 *0.197*	15,9 *0.626*	4,5 *0.177*				■
LCGN160504-0500S01025LF	0,4 *0.016*	5,0 *0.197*	15,9 *0.626*	4,5 *0.177*		■		
LCGN160604-0600S-LF	0,4 *0.016*	6,0 *0.236*	15,9 *0.626*	4,5 *0.177*				■
LCGN160604-0600S01025LF	0,4 *0.016*	6,0 *0.236*	15,9 *0.626*	4,5 *0.177*		■		

LCGN



LCGN...M0-LF



Tolerances:
CW = ±0,025/*0.001*
LIG = ±0,04/*0.0016*
S = ±0,05/*0.002*
RE = ±0,025/*0.001*

Tip sizes, see page(s) 136
Edge preparation, see page(s) 132
For ISO attribute explanation, see page 82

Designation	RE	CW	LIG	S	Grades			
					Coated	Uncoated		
	mm *inch*	mm *inch*	mm *inch*	mm *inch*	CBN170C	CBN010	CBN170	CBN200
LCGN1603M0-0300E25-LF	1,5 *0.059*	3,0 *0.118*	16,6 *0.654*	4,4 *0.173*	■	■	■	
LCGN1603M0-0300S-LF	1,5 *0.059*	3,0 *0.118*	16,6 *0.654*	4,4 *0.173*				■
LCGN1603M0-0300S01025LF	1,5 *0.059*	3,0 *0.118*	16,6 *0.654*	4,4 *0.173*		■		
LCGN1604M0-0400E25-LF	2,0 *0.079*	4,0 *0.157*	16,6 *0.654*	4,35 *0.171*		■	■	
LCGN1604M0-0400S-LF	2,0 *0.079*	4,0 *0.157*	16,6 *0.654*	4,35 *0.171*				■
LCGN1604M0-0400S01025LF	2,0 *0.079*	4,0 *0.157*	16,6 *0.654*	4,35 *0.171*		■		
LCGN1605M0-0500E25-LF	2,5 *0.098*	5,0 *0.197*	17,2 *0.677*	4,3 *0.169*	■	■	■	
LCGN1605M0-0500S-LF	2,5 *0.098*	5,0 *0.197*	17,2 *0.677*	4,3 *0.169*				■
LCGN1605M0-0500S01025LF	2,5 *0.098*	5,0 *0.197*	17,2 *0.677*	4,3 *0.169*		■		
LCGN1606M0-0600E25-LF	3,0 *0.118*	6,0 *0.236*	17,2 *0.677*	4,2 *0.165*		■		
LCGN1606M0-0600S-LF	3,0 *0.118*	6,0 *0.236*	17,2 *0.677*	4,2 *0.165*				■
LCGN1606M0-0600S01025LF	3,0 *0.118*	6,0 *0.236*	17,2 *0.677*	4,2 *0.165*		■		



Mini-Shaft™

The Seco Mini-Shaft™ system consists of holders and inserts for internal turning, grooving, precision grooving, profiling, backfacing and threading. It can be used in holes as small as ∅8 mm/ 0.315 inch (Mini-Shaft™ 08) or ∅11 mm/ 0.433 inch (Mini-Shaft™ 11). Seco Mini-Shaft™ also features a unique connection, with a double serration, making the connection both stable and secure. It also gives very good repeatability (±0.02 mm/ 0.0008 inch).

- All toolholders are used for both R and L-handed inserts
- To be used in holes as small as ∅8 mm/ 0.315 inch (Mini-Shaft™ 08) or ∅11 mm/ 0.433 inch (Mini-Shaft™ 11).
- Through coolant possibility.

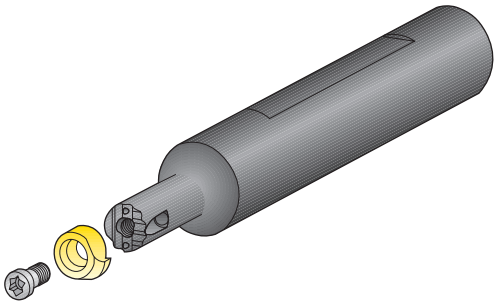
General information

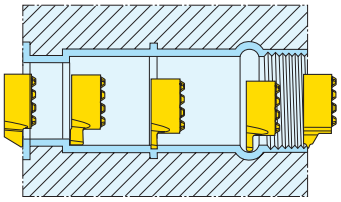
General information

Seco Mini-Shaft™ consists of holders and inserts for internal turning, grooving, precision grooving, profiling, backfacing and threading. To be used in holes as small as ∅8 mm *0.315 inch* (Mini-Shaft™ 08) or 11 mm *0.433 inch* (Mini-Shaft™ 11).

Seco Mini-Shaft™ features a new type of joint, with a double serration, which makes the connection both stable and secure.
It also gives very good repeatability (±0,02 mm *0.0008 inch*).

All toolholders are used for both R and L -handed inserts, and have through coolant possibility.

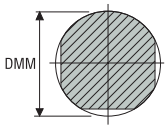
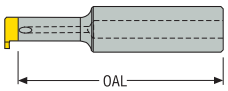


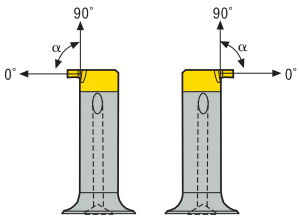


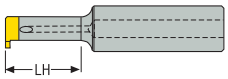
Toolholders



A	12	G	-	S	G	X	N	08	-	20	-	R
1	2	3		4	5	6	7	8		9		10

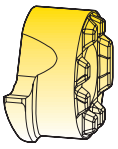
1. Toolholder type	2. Shank diameter	3. Tool length
A = Steel with coolant passage S = Solid steel E = Solid carbide with brazed* cutting head and coolant passage * Brazed or equivalent	 12 = 12 mm	 G = 90 mm H = 100 mm

4. Insert clamping	5. Toolholder setting angle	6. Maximum grooving/turning depth
S = Screw	 G = 0° F = 90°	X = Special

7. Version	8. Insert size	9. Extension length
N = Neutral version	 08 = Insert size	 20 = 20 mm

10. Internal designation
R = Round

Inserts, turning and grooving



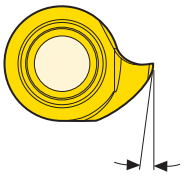
L	C	E	X	08	04	02	-	0150	R	-	FG
1	2	3	4	5	6	7		8	9		10

1. Shape



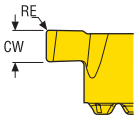
L = Insert shape

2. Front clearance angle



C = 7°

3. Tolerances



Tolerance class
E

Tolerance ± mm
CW 0,025
RE 0,025

4. Insert type

X = Special

5. Insert size

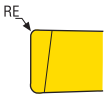


6. Thickness

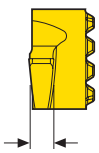


04 = 3,95 mm
05 = 4,85 mm

7. Corner radius



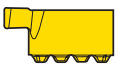
8. Cutting edge width



0075 = 0,75 mm
0080 = 0,80 mm
0090 = 0,90 mm
etc.

9. Version

R



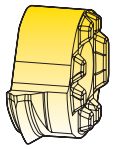
L



10. Insert type code

FG = For lockring
R = Full radius
etc.

Inserts, threading



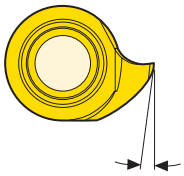
L	C	E	X	11	05	-	1.5	ISO	R
1	2	3	4	5	6		7	8	9

1. Shape



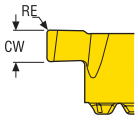
L = Insert shape

2. Front clearance angle



C = 7°

3. Tolerances

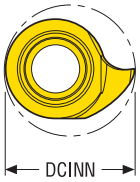


Tolerance class	Tolerance ± mm CW	RE
E	0,025	0,025

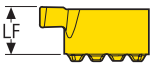
4. Insert type

X = Special

5. Insert size



6. Thickness



04 = 3,95 mm
05 = 4,85 mm

7. Pitch

Full profile (mm)	1.0	1.5	2.0	2.5	3.0
Part profile (mm)	A = 0,50 - 0,75 AG = 0,75 - 1,25 G = 1,25 - 1,75				
Full profile (TPI)	14	19			

etc.

8. Thread profile

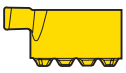
Thread =

60	= V profile 60°
ISO	= ISO, metric
W	= Whitworth, BSW
TR	= Trapezoidal, DIN 103

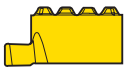
etc.

9. Version

R



L



Technical information

Tool blocks, adapters

Holders should be mounted in standard turrets. Sometimes there is a need for additional set-up devices, such as tool blocks and adapters.

Shown opposite is the Seco solution for bars to be mounted into a turret for standard square shanks 131-.. to be used together with fully cylindrical shanks (-R) and shanks with flats.

Adapters SL16.. to be used with shanks with flats.

Please see page(s) 1009.





Collet chucks

Fully cylindrical shanks (-R) can also be mounted in collet chucks.

– Use collets or reduction sleeves for hydraulic chucks

– Round shanks combined with collets can prevent vibrations

– Shanks with flats may not be used in collets – as there is a risk of damaging the collet



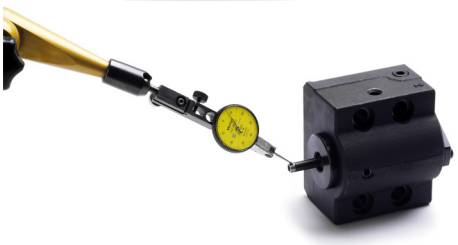
Accessories

Setting gauge	Part No.		
	LCEX	0804-N	■
		1105-N	■

Set-up device for cylindrical shanks

To obtain an accurate centering of the cutting edge use a set-up device.



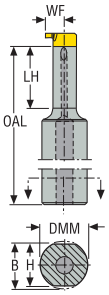


SMG		CW = 0,75-3,00 *CW = 0.028-0.118*	
		f	v_c
P1	CP500	0,022 *0.00085*	150 *490*
P2	CP500	0,022 *0.00085*	150 *490*
P3	CP500	0,020 *0.00080*	130 *425*
P4	CP500	0,020 *0.00080*	115 *375*
P5	CP500	0,020 *0.00080*	110 *360*
P6	CP500	0,020 *0.00080*	120 *395*
P7	CP500	0,020 *0.00080*	115 *375*
P8	CP500	0,020 *0.00080*	110 *360*
P11	CP500	0,020 *0.00080*	110 *360*
P12	CP500	0,014 *0.00055*	70 *230*
M1	CP500	0,022 *0.00085*	90 *295*
M2	CP500	0,020 *0.00080*	65 *215*
M3	CP500	0,016 *0.00065*	41 *135*
M4	CP500	0,014 *0.00055*	27 *90*
M5	CP500	0,014 *0.00055*	22 *70*
K1	CP500	0,022 *0.00085*	160 *520*
K2	CP500	0,020 *0.00080*	130 *425*
K3	CP500	0,020 *0.00080*	110 *360*
K4	CP500	0,020 *0.00080*	105 *345*
K5	CP500	0,018 *0.00070*	65 *215*
K6	CP500	0,020 *0.00080*	105 *345*
K7	CP500	0,018 *0.00070*	85 *280*
N11	CP500	0,028 *0.0011*	95 *310*
S1	CP500	0,014 *0.00055*	18 *60*
S2	CP500	0,014 *0.00055*	15 *49*
S3	CP500	0,013 *0.00050*	13 *43*

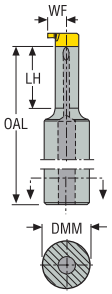
SGXN – Toolholders for inserts LCEX – Metric

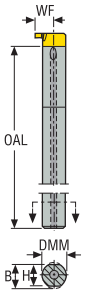


A..-SGXN

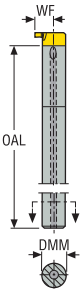


E..-SGXN

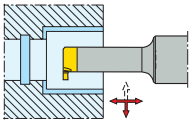




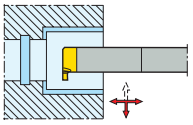
E..-SGXN-R



A..-SGXN
KAPR = 90,0 °



E..-SGXN
KAPR = 90,0 °



- For inserts program, see page(s) 884-895
- For holder code key, see page(s) 877
- For ISO attribute explanation, see page 82

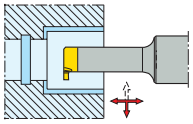
Designation	Item number	DMM	H	B	OAL	WF	LH	DCINN	Weight	CTWS
		mm	mm	mm	mm	mm	mm	mm	kg	
A12G-SGXN08-20	02411140	12	11,0	11,50	86,5	4,8	16,5	8,0	0,1	LCEX0804..
A12G-SGXN08-20-R	02511871	12	–	–	86,5	4,8	16,5	8,0	0,1	LCEX0804..
A16H-SGXN11-25	02411142	16	15,0	15,50	96,0	6,7	21,0	11,0	0,2	LCEX11..
A16H-SGXN11-25-R	02511872	16	–	–	96,0	6,7	21,0	11,0	0,2	LCEX11..
E06G-SGXN08	02411141	6	5,5	5,75	86,5	4,8	–	8,0	0,1	LCEX0804..
E06G-SGXN08-R	02513692	6	–	–	86,5	4,8	–	8,0	0,1	LCEX0804..
E08H-SGXN11	02411143	8	7,3	7,65	96,0	6,7	–	11,0	0,1	LCEX11..
E08H-SGXN11-R	02513696	8	–	–	96,0	6,7	–	11,0	0,1	LCEX11..

Spare Parts, included in delivery

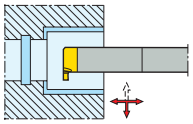
For size	Insert key	Insert screw
		
A12G-..	T08P-2	C02506-T08P
A16H-..	T10P-2	C03509-T10P
E06G-..	T08P-2	C02506-T08P
E08H-..	T10P-2	C03509-T10P

SGXN – Toolholders for inserts LCEX – Inch

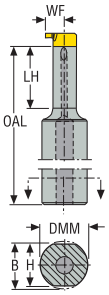
..-SGXN
KAPR = 90,0 °



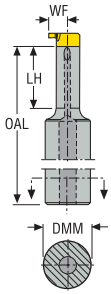
..-SGXN
KAPR = 90,0 °



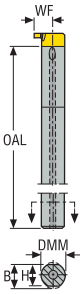
A..-SGXN



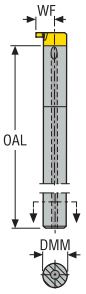
A..-SGXN-R



E..-SGXN



E..-SGXN-R





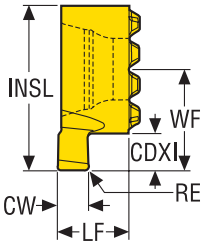
- For inserts program, see page(s) 884-895
- For holder code key, see page(s) 877
- For ISO attribute explanation, see page 82

Designation	Item number	DMM	H	B	OAL	WF	LH	DCINN	Weight	CTWS
		inch	inch	inch	inch	inch	inch	inch	lbs	
A10G-SGXN08-078	02450441	0.625	0.586	0.605	3.406	0.188	0.650	0.315	0.440	LCEX0804..
A10G-SGXN08-078-R	02511873	0.625	–	–	3.406	0.188	0.650	0.315	0.220	LCEX0804..
A10H-SGXN11-098	02450443	0.625	0.586	0.605	3.780	0.264	0.827	0.433	0.440	LCEX1105..
A10H-SGXN11-098-R	02511874	0.625	–	–	3.780	0.264	0.827	0.433	0.440	LCEX1105..
E04G-SGXN08	02450442	0.250	0.217	0.233	3.406	0.189	–	0.315	0.220	LCEX0804..
E04G-SGXN08-R	02513700	0.250	–	–	3.406	0.189	–	0.315	0.220	LCEX0804..
E05H-SGXN11	02450445	0.312	0.287	0.300	3.780	0.264	–	0.433	0.220	LCEX1105..
E05H-SGXN11-R	02513704	0.312	–	–	3.780	0.264	–	0.433	0.220	LCEX1105..

Spare Parts, included in delivery

For size	Insert key	Insert screw
		
A10G-../E04G-..	T08P-2	C02506-T08P
A10H-../E05H-..	T10P-2	C03509-T10P

Turning



Tolerances:
CW = ±0,02/*0.0008*
WF = ±0,01/*0.0004*
LF = ±0,02/*0.0008*
RE = ±0,02/*0.0008*

For ISO attribute explanation, see page 82

..L



..R

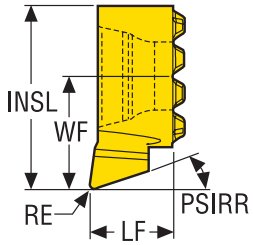


Designation	RE	CW	WF	INSL	CDXI	LF	Grades Coated
	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	CP500
LCEX080401-0200L	0,1 *0.004*	2,0 *0.079*	4,78 *0.188*	7,78 *0.306*	1,70 *0.067*	3,30 *0.130*	■
LCEX080401-0200R	0,1 *0.004*	2,0 *0.079*	4,78 *0.188*	7,78 *0.306*	1,70 *0.067*	3,30 *0.130*	■
LCEX080402-0150L	0,2 *0.008*	1,5 *0.059*	4,78 *0.188*	7,78 *0.306*	1,70 *0.067*	3,30 *0.130*	■
LCEX080402-0150R	0,2 *0.008*	1,5 *0.059*	4,78 *0.188*	7,78 *0.306*	1,70 *0.067*	3,30 *0.130*	■
LCEX110501-0200L	0,1 *0.004*	2,0 *0.079*	6,7 *0.264*	10,70 *0.421*	2,60 *0.102*	4,00 *0.157*	■
LCEX110501-0200R	0,1 *0.004*	2,0 *0.079*	6,7 *0.264*	10,70 *0.421*	2,60 *0.102*	4,00 *0.157*	■
LCEX110502-0150L	0,2 *0.008*	1,5 *0.059*	6,7 *0.264*	10,70 *0.421*	2,60 *0.102*	4,00 *0.157*	■
LCEX110502-0150R	0,2 *0.008*	1,5 *0.059*	6,7 *0.264*	10,70 *0.421*	2,60 *0.102*	4,00 *0.157*	■

Profiling

For ISO attribute explanation, see page 82

Tolerances:
WF = ±0,01/*0.0004*
LF = ±0,02/*0.0008*
RE = ±0,02/*0.0008*



..L-R

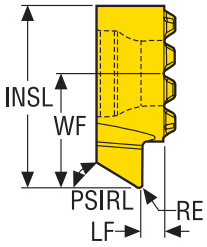


..R-L



Designation	RE	WF	INSL	LF	PSIRR°	PSIRL°	Grades Coated
	mm *inch*	mm *inch*	mm *inch*	mm *inch*			CP500
LCEX080402-0250L-R18	0,2 *0.008*	4,78 *0.188*	7,78 *0.306*	3,55 *0.140*	0,0	18,0	■
LCEX080402-0250L-R47	0,2 *0.008*	4,78 *0.188*	7,78 *0.306*	3,45 *0.136*	0,0	47,0	■
LCEX080402-0250R-L18	0,2 *0.008*	4,78 *0.188*	7,78 *0.306*	3,55 *0.140*	18,0	0,0	■
LCEX080402-0250R-L47	0,2 *0.008*	4,78 *0.188*	7,78 *0.306*	3,45 *0.136*	47,0	0,0	■
LCEX110502-0250L-R47	0,2 *0.008*	6,7 *0.264*	10,70 *0.421*	4,15 *0.163*	0,0	47,0	■
LCEX110502-0250R-L47	0,2 *0.008*	6,7 *0.264*	10,70 *0.421*	4,15 *0.163*	47,0	0,0	■
LCEX110502-0270L-R18	0,2 *0.008*	6,7 *0.264*	10,70 *0.421*	4,25 *0.167*	0,0	18,0	■
LCEX110502-0270R-L18	0,2 *0.008*	6,7 *0.264*	10,70 *0.421*	4,25 *0.167*	18,0	0,0	■

Back facing



Tolerances:
WF = ±0,01/*0.0004*
LF = ±0,02/*0.0008*
RE = ±0,02/*0.0008*

For ISO attribute explanation, see page 82

..L-L

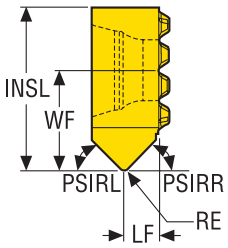


..R-R



Designation	RE	WF	INSL	LF	PSIRR°	PSIRL°	Grades Coated
	mm *inch*	mm *inch*	mm *inch*	mm *inch*			CP500
LCEX080402-0250L-L30	0,2 *0.008*	4,78 *0.188*	7,78 *0.306*	0,75 *0.030*	30,0	0,0	■
LCEX080402-0250R-R30	0,2 *0.008*	4,78 *0.188*	7,78 *0.306*	0,75 *0.030*	0,0	30,0	■
LCEX110502-0270L-L30	0,2 *0.008*	6,7 *0.264*	10,70 *0.421*	1,25 *0.049*	30,0	0,0	■
LCEX110502-0270R-R30	0,2 *0.008*	6,7 *0.264*	10,70 *0.421*	1,25 *0.049*	0,0	30,0	■

Chamfering



Tolerances:
WF = ±0,01/*0.0004*
LF = ±0,05/*0.002*
RE = ±0,02/*0.0008*

For ISO attribute explanation, see page 82

..L



..R

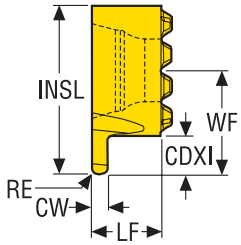


Designation	RE	WF	INSL	LF	PSIRR°	PSIRL°	Grades Coated
	mm *inch*	mm *inch*	mm *inch*	mm *inch*			CP500
LCEX080402-0310L-N45	0,2 *0.008*	4,78 *0.188*	7,78 *0.306*	1,7 *0.067*	45,0	45,0	■
LCEX080402-0310R-N45	0,2 *0.008*	4,78 *0.188*	7,78 *0.306*	1,7 *0.067*	45,0	45,0	■
LCEX110502-0350L-N45	0,2 *0.008*	6,7 *0.264*	10,70 *0.421*	2,2 *0.087*	45,0	45,0	■
LCEX110502-0350R-N45	0,2 *0.008*	6,7 *0.264*	10,70 *0.421*	2,2 *0.087*	45,0	45,0	■

Full radius grooves

For ISO attribute explanation, see page 82

Tolerances:
WF = ±0,01/*0.0004*
LF = ±0,02/*0.0008*
RE = ±0,02/*0.0008*



..L-R

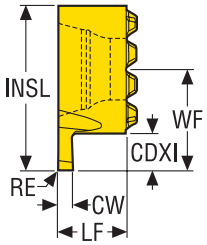


..R-R



Designation	RE	CW	WF	INSL	CDXI	LF	Grades Coated
	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	CP500
LCEX080404-0080L-R	0,4 *0.016*	0,8 *0.031*	4,78 *0.188*	7,78 *0.306*	1,70 *0.067*	3,30 *0.130*	■
LCEX080404-0080R-R	0,4 *0.016*	0,8 *0.031*	4,78 *0.188*	7,78 *0.306*	1,70 *0.067*	3,30 *0.130*	■
LCEX080406-0120L-R	0,6 *0.024*	1,2 *0.047*	4,78 *0.188*	7,78 *0.306*	1,70 *0.067*	3,30 *0.130*	■
LCEX080406-0120R-R	0,6 *0.024*	1,2 *0.047*	4,78 *0.188*	7,78 *0.306*	1,70 *0.067*	3,30 *0.130*	■
LCEX080409-0180L-R	0,9 *0.035*	1,8 *0.071*	4,78 *0.188*	7,78 *0.306*	1,70 *0.067*	3,30 *0.130*	■
LCEX080409-0180R-R	0,9 *0.035*	1,8 *0.071*	4,78 *0.188*	7,78 *0.306*	1,70 *0.067*	3,30 *0.130*	■
LCEX110504-0080L-R	0,4 *0.016*	0,8 *0.031*	6,7 *0.264*	10,70 *0.421*	2,60 *0.102*	4,00 *0.157*	■
LCEX110504-0080R-R	0,4 *0.016*	0,8 *0.031*	6,7 *0.264*	10,70 *0.421*	2,60 *0.102*	4,00 *0.157*	■
LCEX110506-0120L-R	0,6 *0.024*	1,2 *0.047*	6,7 *0.264*	10,70 *0.421*	2,60 *0.102*	4,00 *0.157*	■
LCEX110506-0120R-R	0,6 *0.024*	1,2 *0.047*	6,7 *0.264*	10,70 *0.421*	2,60 *0.102*	4,00 *0.157*	■
LCEX110509-0180L-R	0,9 *0.035*	1,8 *0.071*	6,7 *0.264*	10,70 *0.421*	2,60 *0.102*	4,00 *0.157*	■
LCEX110509-0180R-R	0,9 *0.035*	1,8 *0.071*	6,7 *0.264*	10,70 *0.421*	2,60 *0.102*	4,00 *0.157*	■
LCEX110510-0200L-R	1,0 *0.039*	2,0 *0.079*	6,7 *0.264*	10,70 *0.421*	2,60 *0.102*	4,00 *0.157*	■
LCEX110510-0200R-R	1,0 *0.039*	2,0 *0.079*	6,7 *0.264*	10,70 *0.421*	2,60 *0.102*	4,00 *0.157*	■
LCEX110515-0300L-R	1,5 *0.059*	3,0 *0.118*	6,7 *0.264*	10,70 *0.421*	2,60 *0.102*	4,00 *0.157*	■
LCEX110515-0300R-R	1,5 *0.059*	3,0 *0.118*	6,7 *0.264*	10,70 *0.421*	2,60 *0.102*	4,00 *0.157*	■

Circlip grooves



Tolerances:
CW = ±0,02/*0.0008*
WF = ±0,01/*0.0004*
LF = ±0,02/*0.0008*
RE = ±0,02/*0.0008*

For ISO attribute explanation, see page 82

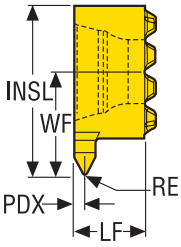
..L ..R



Designation	RE	CW	WF	INSL	CDXI	LF	For lock-ring	Grades Coated
	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	CP500
LCEX080400-0075L-FG	0,0 *0.0*	0,75 *0.030*	4,78 *0.188*	7,78 *0.306*	1,70 *0.067*	3,30 *0.130*	0,70 *0.028*	■
LCEX080400-0075R-FG	0,0 *0.0*	0,75 *0.030*	4,78 *0.188*	7,78 *0.306*	1,70 *0.067*	3,30 *0.130*	0,70 *0.028*	■
LCEX080400-0085L-FG	0,0 *0.0*	0,85 *0.033*	4,78 *0.188*	7,78 *0.306*	1,70 *0.067*	3,30 *0.130*	0,80 *0.031*	■
LCEX080400-0085R-FG	0,0 *0.0*	0,85 *0.033*	4,78 *0.188*	7,78 *0.306*	1,70 *0.067*	3,30 *0.130*	0,80 *0.031*	■
LCEX080400-0095L-FG	0,0 *0.0*	0,95 *0.037*	4,78 *0.188*	7,78 *0.306*	1,70 *0.067*	3,30 *0.130*	0,90 *0.035*	■
LCEX080400-0095R-FG	0,0 *0.0*	0,95 *0.037*	4,78 *0.188*	7,78 *0.306*	1,70 *0.067*	3,30 *0.130*	0,90 *0.035*	■
LCEX080400-0115L-FG	0,0 *0.0*	1,15 *0.045*	4,78 *0.188*	7,78 *0.306*	1,70 *0.067*	3,30 *0.130*	1,00 *0.039*	■
LCEX080400-0115R-FG	0,0 *0.0*	1,15 *0.045*	4,78 *0.188*	7,78 *0.306*	1,70 *0.067*	3,30 *0.130*	1,00 *0.039*	■
LCEX080400-0135L-FG	0,0 *0.0*	1,35 *0.053*	4,78 *0.188*	7,78 *0.306*	1,70 *0.067*	3,30 *0.130*	1,20 *0.047*	■
LCEX080400-0135R-FG	0,0 *0.0*	1,35 *0.053*	4,78 *0.188*	7,78 *0.306*	1,70 *0.067*	3,30 *0.130*	1,20 *0.047*	■
LCEX080401-0165L-FG	0,1 *0.004*	1,65 *0.065*	4,78 *0.188*	7,78 *0.306*	1,70 *0.067*	3,30 *0.130*	1,50 *0.059*	■
LCEX080401-0165R-FG	0,1 *0.004*	1,65 *0.065*	4,78 *0.188*	7,78 *0.306*	1,70 *0.067*	3,30 *0.130*	1,50 *0.059*	■
LCEX110500-0075L-FG	0,0 *0.0*	0,75 *0.030*	6,7 *0.264*	10,70 *0.421*	2,60 *0.102*	4,00 *0.157*	0,70 *0.028*	■
LCEX110500-0075R-FG	0,0 *0.0*	0,75 *0.030*	6,7 *0.264*	10,70 *0.421*	2,60 *0.102*	4,00 *0.157*	0,70 *0.028*	■
LCEX110500-0085L-FG	0,0 *0.0*	0,85 *0.033*	6,7 *0.264*	10,70 *0.421*	2,60 *0.102*	4,00 *0.157*	0,80 *0.031*	■
LCEX110500-0085R-FG	0,0 *0.0*	0,85 *0.033*	6,7 *0.264*	10,70 *0.421*	2,60 *0.102*	4,00 *0.157*	0,80 *0.031*	■
LCEX110500-0095L-FG	0,0 *0.0*	0,95 *0.037*	6,7 *0.264*	10,70 *0.421*	2,60 *0.102*	4,00 *0.157*	0,90 *0.035*	■
LCEX110500-0095R-FG	0,0 *0.0*	0,95 *0.037*	6,7 *0.264*	10,70 *0.421*	2,60 *0.102*	4,00 *0.157*	0,90 *0.035*	■
LCEX110500-0115L-FG	0,0 *0.0*	1,15 *0.045*	6,7 *0.264*	10,70 *0.421*	2,60 *0.102*	4,00 *0.157*	1,00 *0.039*	■
LCEX110500-0115R-FG	0,0 *0.0*	1,15 *0.045*	6,7 *0.264*	10,70 *0.421*	2,60 *0.102*	4,00 *0.157*	1,00 *0.039*	■
LCEX110500-0135L-FG	0,0 *0.0*	1,35 *0.053*	6,7 *0.264*	10,70 *0.421*	2,60 *0.102*	4,00 *0.157*	1,20 *0.047*	■

Designation	RE	CW	WF	INSL	CDXI	LF	For lock-ring	Grades
								Coated
	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	CP500
LCEX110500-0135R-FG	0,0 *0.0*	1,35 *0.053*	6,7 *0.264*	10,70 *0.421*	2,60 *0.102*	4,00 *0.157*	1,20 *0.047*	■
LCEX110501-0165L-FG	0,1 *0.004*	1,65 *0.065*	6,7 *0.264*	10,70 *0.421*	2,60 *0.102*	4,00 *0.157*	1,50 *0.059*	■
LCEX110501-0165R-FG	0,1 *0.004*	1,65 *0.065*	6,7 *0.264*	10,70 *0.421*	2,60 *0.102*	4,00 *0.157*	1,50 *0.059*	■

Threading – Partial profile 60°



Tolerances:
WF = ±0,01/*0.0004*
LF = ±0,05/*0.002*

For ISO attribute explanation, see page 82

..L



..R

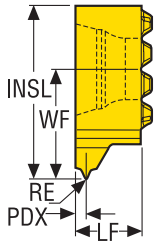


Designation	RE	WF	INSL	LF	PDX	Pitch	Pitch	Grades Coated
	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm	TPI	CP500
LCEX0804-A60L	0,03 *0.001*	4,78 *0.188*	7,78 *0.306*	3,30 *0.130*	0,48 *0.019*	0,5-0,75	36-48	■
LCEX0804-A60R	0,03 *0.001*	4,78 *0.188*	7,78 *0.306*	3,30 *0.130*	0,48 *0.019*	0,5-0,75	36-48	■
LCEX0804-AG60L	0,07 *0.003*	4,78 *0.188*	7,78 *0.306*	3,30 *0.130*	0,73 *0.029*	0,75-1,25	20-36	■
LCEX0804-AG60R	0,07 *0.003*	4,78 *0.188*	7,78 *0.306*	3,30 *0.130*	0,73 *0.029*	0,75-1,25	20-36	■
LCEX0804-G60L	0,12 *0.005*	4,78 *0.188*	7,78 *0.306*	3,30 *0.130*	0,98 *0.039*	1,25-1,75	16-20	■
LCEX0804-G60R	0,12 *0.005*	4,78 *0.188*	7,78 *0.306*	3,30 *0.130*	0,98 *0.039*	1,25-1,75	16-20	■
LCEX1105-A60L	0,03 *0.001*	6,7 *0.264*	10,70 *0.421*	4,00 *0.157*	0,48 *0.019*	0,5-0,75	36-48	■
LCEX1105-A60R	0,03 *0.001*	6,7 *0.264*	10,70 *0.421*	4,00 *0.157*	0,48 *0.019*	0,5-0,75	36-48	■
LCEX1105-AG60L	0,07 *0.003*	6,7 *0.264*	10,70 *0.421*	4,00 *0.157*	0,73 *0.029*	0,75-1,25	20-36	■
LCEX1105-AG60R	0,07 *0.003*	6,7 *0.264*	10,70 *0.421*	4,00 *0.157*	0,73 *0.029*	0,75-1,25	20-36	■
LCEX1105-G60L	0,12 *0.005*	6,7 *0.264*	10,70 *0.421*	4,00 *0.157*	0,98 *0.039*	1,25-1,75	16-20	■
LCEX1105-G60R	0,12 *0.005*	6,7 *0.264*	10,70 *0.421*	4,00 *0.157*	0,98 *0.039*	1,25-1,75	20-16	■

Threading – ISO Metric

For ISO attribute explanation, see page 82

Tolerances:
WF = ±0,01/*0.0004*
LF = ±0,05/*0.002*

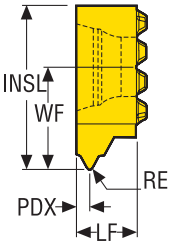


..L ..R



Designation	RE	WF	INSL	LF	PDX	Pitch	Pitch	Grades
								Coated
	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm	TPI	CP500
LCEX1105-1.0ISOL	0,07 *0.003*	6,7 *0.264*	10,70 *0.421*	4,00 *0.157*	0,60 *0.024*	1,0	–	■
LCEX1105-1.0ISOR	0,07 *0.003*	6,7 *0.264*	10,70 *0.421*	4,00 *0.157*	0,60 *0.024*	1,0	–	■
LCEX1105-1.5ISOL	0,12 *0.005*	6,7 *0.264*	10,70 *0.421*	4,00 *0.157*	0,80 *0.031*	1,5	–	■
LCEX1105-1.5ISOR	0,12 *0.005*	6,7 *0.264*	10,70 *0.421*	4,00 *0.157*	0,85 *0.033*	1,5	–	■
LCEX1105-2.0ISOL	0,17 *0.007*	6,7 *0.264*	10,70 *0.421*	4,00 *0.157*	1,10 *0.043*	2,0	–	■
LCEX1105-2.0ISOR	0,17 *0.007*	6,7 *0.264*	10,70 *0.421*	4,00 *0.157*	1,10 *0.043*	2,0	–	■
LCEX1105-2.5ISOL	0,18 *0.007*	6,7 *0.264*	10,70 *0.421*	4,00 *0.157*	1,35 *0.053*	2,5	–	■
LCEX1105-2.5ISOR	0,18 *0.007*	6,7 *0.264*	10,70 *0.421*	4,00 *0.157*	1,35 *0.053*	2,5	–	■
LCEX1105-3.0ISOL	0,21 *0.008*	6,7 *0.264*	10,70 *0.421*	4,00 *0.157*	1,60 *0.063*	3,0	–	■
LCEX1105-3.0ISOR	0,21 *0.008*	6,7 *0.264*	10,70 *0.421*	4,00 *0.157*	1,60 *0.063*	3,0	–	■

Threading – Whitworth, BSW



Tolerances:
WF = ±0,01/*0.0004*
LF = ±0,05/*0.002*

For ISO attribute explanation, see page 82

..L



..R

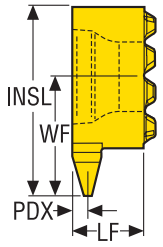


Designation	RE	WF	INSL	LF	PDX	Pitch	Pitch	Grades Coated
	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm	TPI	CP500
LCEX1105-14WL	0,24 *0.009*	6,7 *0.264*	10,70 *0.421*	4,00 *0.157*	1,00 *0.039*	–	14	■
LCEX1105-14WR	0,24 *0.009*	6,7 *0.264*	10,70 *0.421*	4,00 *0.157*	1,00 *0.039*	–	14	■
LCEX1105-19WL	0,15 *0.006*	6,7 *0.264*	10,70 *0.421*	4,00 *0.157*	0,77 *0.030*	–	19	■
LCEX1105-19WR	0,15 *0.006*	6,7 *0.264*	10,70 *0.421*	4,00 *0.157*	0,77 *0.030*	–	19	■

Threading – TR-DIN103

For ISO attribute explanation, see page 82

Tolerances:
WF = ±0,01/*0.0004*
LF = ±0,05/*0.002*



..RL

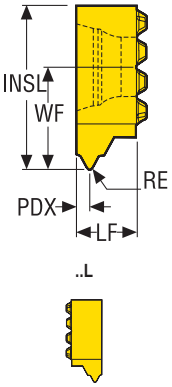


..RR



Designation	RE	WF	INSL	LF	PDX	Pitch	Pitch	Grades Coated
	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm	TPI	CP500
LCEX1105-1.5TRL	0,1 *0.004*	6,7 *0.264*	10,70 *0.421*	4,00 *0.157*	0,80 *0.031*	1,5	–	■
LCEX1105-1.5TRR	0,1 *0.004*	6,7 *0.264*	10,70 *0.421*	4,00 *0.157*	0,80 *0.031*	1,5	–	■
LCEX1105-2.0TRL	0,15 *0.006*	6,7 *0.264*	10,70 *0.421*	4,00 *0.157*	1,10 *0.043*	2,0	–	■
LCEX1105-2.0TRR	0,15 *0.006*	6,7 *0.264*	10,70 *0.421*	4,00 *0.157*	1,10 *0.043*	2,0	–	■
LCEX1105-3.0TRL	0,15 *0.006*	6,7 *0.264*	10,70 *0.421*	4,00 *0.157*	1,60 *0.063*	3,0	–	■
LCEX1105-3.0TRR	0,15 *0.006*	6,7 *0.264*	10,70 *0.421*	4,00 *0.157*	1,60 *0.063*	3,0	–	■

Threading – UN





Tolerances:
WF = ±0,01/*0.0004*
LF = ±0,05/*0.002*

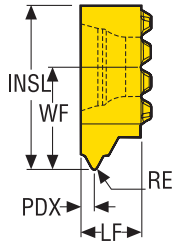
For ISO attribute explanation, see page 82

Designation	RE	WF	INSL	LF	PDX	Pitch	Pitch	Grades Coated
	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm	TPI	CP500
LCEX0804-16UNL	0,13 *0.005*	4,78 *0.188*	7,78 *0.306*	3,30 *0.130*	0,90 *0.035*	–	16	■
LCEX0804-16UNR	0,13 *0.005*	4,78 *0.188*	7,78 *0.306*	3,30 *0.130*	0,90 *0.035*	–	16	■
LCEX0804-20UNL	0,09 *0.004*	4,78 *0.188*	7,78 *0.306*	3,30 *0.130*	0,70 *0.028*	–	20	■
LCEX0804-20UNR	0,09 *0.004*	4,78 *0.188*	7,78 *0.306*	3,30 *0.130*	0,70 *0.028*	–	20	■
LCEX0804-24UNL	0,07 *0.003*	4,78 *0.188*	7,78 *0.306*	3,30 *0.130*	0,60 *0.024*	–	24	■
LCEX0804-24UNR	0,07 *0.003*	4,78 *0.188*	7,78 *0.306*	3,30 *0.130*	0,60 *0.024*	–	24	■
LCEX0804-32UNL	0,04 *0.002*	4,78 *0.188*	7,78 *0.306*	3,30 *0.130*	0,50 *0.020*	–	32	■
LCEX0804-32UNR	0,04 *0.002*	4,78 *0.188*	7,78 *0.306*	3,30 *0.130*	0,50 *0.020*	–	32	■

Threading – NPT

For ISO attribute explanation, see page 82

Tolerances:
WF = ±0,01/*0.0004*
LF = ±0,05/*0.002*



..R

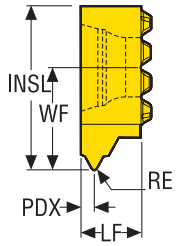


Designation	RE	WF	INSL	LF	PDX	Pitch	Pitch	Grades Coated
	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm	TPI	CP500
LCEX0804-27NPTR	0,03 *0.001*	4,78 *0.188*	7,78 *0.306*	3,30 *0.130*	0,57 *0.022*	–	27	■

Threading – NPTF

For ISO attribute explanation, see page 82

Tolerances:
WF = ±0,01/*0.0004*
LF = ±0,05/*0.002*



..L



..R



Designation	RE	WF	INSL	LF	PDX	Pitch	Pitch	Grades Coated
	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm	TPI	CP500
LCEX0804-27NPTFL	0,04 *0.002*	4,78 *0.188*	7,78 *0.306*	3,30 *0.130*	0,57 *0.022*	–	27	■
LCEX0804-27NPTFR	0,04 *0.002*	4,78 *0.188*	7,78 *0.306*	3,30 *0.130*	0,57 *0.022*	–	27	■



Grooving

The Seco K-Style system is intended for radial and axial as well as external and internal precision grooving. The range of grooving inserts includes inserts for most groove profiles, such as circlip profiles, O-ring profiles, thread undercut and radius grooves.

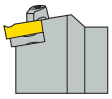
- All toolholders are used for both R and L-handed inserts
- Radial external, radial internal and axial grooving.
- Toolholders have replaceable shims designed to protect the insert seat.

Toolholders



C	E	R	25	25	M	14	Q	HD
1	2	3	4	5	6	7	8	9

1. Insert clamping



C
Clamp

2. External/Internal

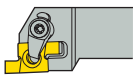
E = External

N = Internal

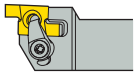
EA = External axial

3. Version

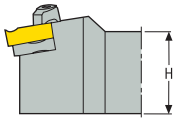
R



L

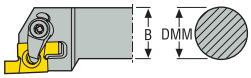


4. Shank height



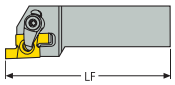
12 = 12 mm
16 = 16 mm
20 = 20 mm
etc.

5. Shank width/diameter



12 = 12 mm
16 = 16 mm
20 = 20 mm
etc.

6. Tool length



H = 100 mm
K = 125 mm
M = 150 mm
P = 170 mm
R = 200 mm

H = 100 mm
K = 125 mm
M = 150 mm
P = 170 mm
R = 200 mm

7. Cutting edge length



If the cutting edge length consists of only one digit, the designation should start with a 0.

Example:
Cutting edge length (LIG) = 9,525 mm
Symbol = 09

8. Other information

A = Steel with coolant passage

D = Holder for deep grooving

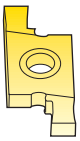
Q = Toolholder/cranked

9. Internal designation

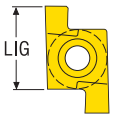
HD = Heavy Duty

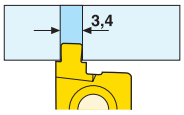
Inserts



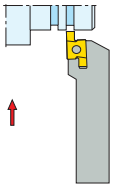
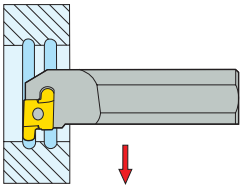
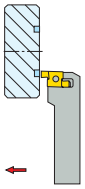


14	E	R	3.4	FG
1	2	3	4	5

1. Cutting edge length	2. External/Internal	3. Version
 If the cutting edge length consists of only one digit, the designation should start with a 0. Example: Cutting edge length (LIG) = 9,525 mm Symple = 09	E = External N = Internal EA = External axial	R  L 

4. Groove width	5. Standard grooves
 Example: 3.4 = 3,4 mm	FG = For radial grooves (CW x 1) FD = For radial deep grooves (CW x 2) D76 = For thread undercuts R = For radius ST = For static O-rings DY = For dynamic O-rings AX = For axial O-rings FA = For axial grooves (CW x 1)

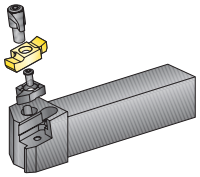
Grooving – Precision grooves, depth/width ratio 1:1 (2:1)

Radial external	Radial internal	Axial
		

Toolholders

The toolholder system is based on the Snap Tap threading system. The toolholders have replaceable shims designed to protect the insert seat.

The system is intended for radial external and internal grooving and for axial grooving. The system enables axial grooves from 16 mm outside diameter and internal radial grooves down to 13 mm diameter to be turned.

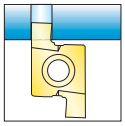


Inserts

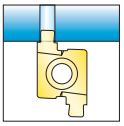
The range of grooving inserts includes inserts for most groove profi les, such as circlip profi les, O-ring profi les, thread undercut and radius grooves. The range of grooving inserts can be used for grooves with a depth/width ratio of up to 1:1.

Inserts with designation FD can be used for grooves with a depth/width ratio of up to 2:1.

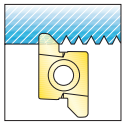
Lockring



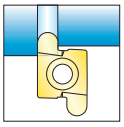
O-ring



Thread undercut

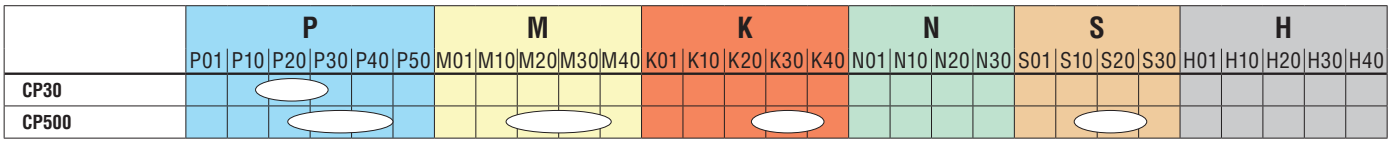


Radius



Indicative ISO classification of the grades

Steel **P**	All kinds of steel and cast steels except stainless steels with austenitic structure.	P01, P10, P20, P30, P40, P50
Stainless steel **M**	Stainless austenitic and austenitic/ferritic steel and cast steel.	M01, M10, M20, M30, M40
Cast iron **K**	Grey cast iron, cast iron with spheroidal graphite, malleable cast iron.	K01, K10, K20, K30, K40
Non-ferrous metals **N**	Aluminium and other nonferrous metals.	N01, N10, N20, N30
Superalloys and titanium **S**	Heat resistant special alloys based on iron, nickel and cobalt, titanium and titanium alloys.	S01, S10, S20, S30
Hard materials **H**	Hardened stel and cast iron materials, chilled cast iron.	H01, H10, H20, H30



CP30
Wear resistant CVD-coated grade intended for grooving in a variety of workpiece materials. Provides good wear resistance and cutting speed capability in steel and cast iron.

CP500
Tough versatile PVD-coated micrograin grade intended for grooving in a variety of workpiece materials. Universal choice.

Ordering specification for custom made K-inserts

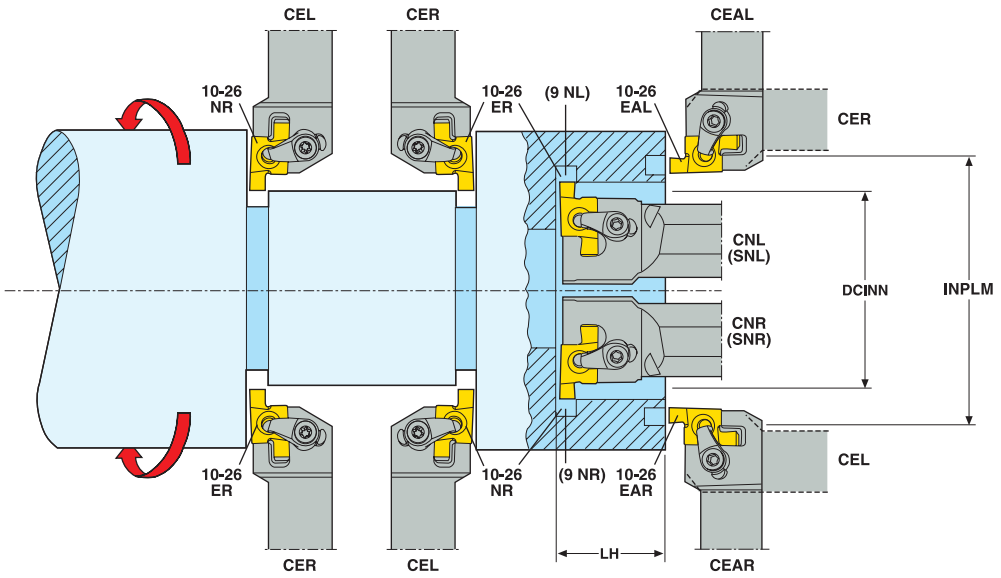
Ordering specification for custom made K-inserts

Internal grooving:

When considering operation NR and NL illustrated below (holder CNR and CNL), always state the diameter of the hole as well as the axial position of the groove = LH. In the case of small hole diameters, however, use holder SNR and SNL with insert 9NR and 9NL respectively.

Axial grooving:

With operation type EAR and EAL (holder CEAR and CEAL) the outer dimension of the groove (INPLM) must be stated.



Set-up machining recommendations

Set-up

– The mounting should be stable.
– The tool should be securely clamped and the overhang should be as small as possible.
– The centre height should never deviate by more than ±0,1 mm from the workpiece centre.

Internal grooving

– Decisive factors for ensuring vibration-free machining are the relationship between the toolholder overhang and its diameter, and the width of the grooving insert.
– In unfavourable circumstances, the cutting speed and feed rate should be reduced below the recommended values

Grooving of radius grooves and grooves with trapezoidal cross-section

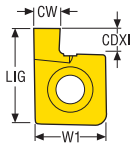
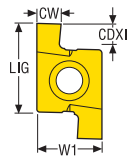
In this type of grooving, different forms of chip problems often occur. The feed rate should therefore be reduced to obtain thin chips and avoid chip build-up and insert fracture.

Formulae for cutting data calculation are found in page(s) 103.

Special inserts for precision grooves

– Ground to specification using the insert blanks shown.
– Blanks available for grade CP30 and CP500.
– Please contact your local representative for price and delivery.

Tolerances for different groove profiles:		
CDXI	CW	RE
±0,025	±0,025	±0,03

Inserts	Dimensions				Shim	Inserts
	LIG	W1	CW	CDXI	Standard KX	
	9,0	6,350	2,7	2,70	–	9NR/NL
	9,0	6,350	2,7	2,70	KX10	10ER/NR 10EAR/EAL
	12,0	6,350	2,7	5,65	KX12	12ER/NR 12EAR/EAL
	14,0	9,525	4,2	4,40	KX14	14ER/NR 14EAR/EAL
	20,0	12,700	6,3	7,30	KX20	20ER/NR 20EAR/EAL
	26,0	15,875	10,0	10,10	KX26	26ER/NR 26EAR/EAL

Cutting speed, v_c (m/min)

In this section a recommended cutting speed is indicated under specified conditions.
Use the tables beginning on page(s) 1030 to classify the workpiece material into a SMG
The cutting data tables provide a start value for feed rate (f) and cutting speed (v_c) for the selected cutting width (CW).
The cutting data tables are based on grooving with full cutting width.
The recommended cutting speeds in the tables are calculated for 15 minutes tool life with use of external flood coolant.
In order to increase the accuracy towards the actual cutting conditions and requirements of the applications the recommendation is to use My Pages – Suggest on www.secotools.com

v_c = cutting speed (m/min)

CW = cutting width (mm)

f = feed rate (mm/rev)

Grade CP30

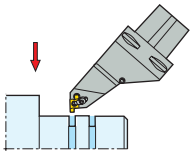
SMG		CW = 0,5-2,0 *CW = 0.020-0.079*		CW = 2,0-4,0 *CW =0.079-0.157*		CW = 4,0-6,0 *CW = 0.157-0.236*		CW = 6,0-8,0 *CW = 0.236-0.315*		CW = 8,0-10,0 *CW = 0.315-0.394*	
		f	v_c	f	v_c	f	v_c	f	v_c	f	v_c
P1	CP30	0,095 *0.0038*	195 *640*	0,15 *0.0060*	165 *540*	0,17 *0.0065*	160 *520*	0,20 *0.0080*	150 *490*	0,22 *0.0085*	140 *460*
P2	CP30	0,10 *0.0040*	190 *620*	0,16 *0.0065*	160 *520*	0,17 *0.0065*	155 *510*	0,20 *0.0080*	145 *475*	0,22 *0.0085*	140 *460*
P3	CP30	0,095 *0.0038*	165 *540*	0,15 *0.0060*	140 *460*	0,17 *0.0065*	135 *445*	0,19 *0.0075*	125 *410*	0,20 *0.0080*	125 *410*
P4	CP30	0,090 *0.0036*	145 *475*	0,14 *0.0055*	125 *410*	0,16 *0.0065*	120 *395*	0,19 *0.0075*	110 *360*	0,20 *0.0080*	110 *360*
P5	CP30	0,090 *0.0036*	140 *460*	0,14 *0.0055*	120 *395*	0,16 *0.0065*	115 *375*	0,18 *0.0070*	110 *360*	0,20 *0.0080*	105 *345*
P6	CP30	0,090 *0.0036*	160 *520*	0,14 *0.0055*	135 *445*	0,16 *0.0065*	130 *425*	0,18 *0.0070*	120 *395*	0,20 *0.0080*	115 *375*
P7	CP30	0,090 *0.0036*	150 *490*	0,14 *0.0055*	125 *410*	0,16 *0.0065*	120 *395*	0,18 *0.0070*	115 *375*	0,20 *0.0080*	110 *360*
P8	CP30	0,095 *0.0038*	140 *460*	0,15 *0.0060*	115 *375*	0,17 *0.0065*	110 *360*	0,19 *0.0075*	105 *345*	0,20 *0.0080*	105 *345*
P11	CP30	0,090 *0.0036*	145 *475*	0,14 *0.0055*	125 *410*	0,16 *0.0065*	115 *375*	0,18 *0.0070*	110 *360*	0,20 *0.0080*	105 *345*
P12	CP30	0,060 *0.0024*	95 *310*	0,095 *0.0038*	85 *280*	0,11 *0.0044*	80 *260*	0,12 *0.0048*	75 *245*	0,14 *0.0055*	70 *230*
M1	CP30	0,10 *0.0040*	220 *720*	0,16 *0.0065*	165 *540*	0,17 *0.0065*	155 *510*	0,20 *0.0080*	135 *445*	0,22 *0.0085*	120 *395*
M2	CP30	0,090 *0.0036*	185 *610*	0,14 *0.0055*	145 *475*	0,16 *0.0065*	130 *425*	0,18 *0.0070*	120 *395*	0,20 *0.0080*	105 *345*
M3	CP30	0,070 *0.0028*	150 *490*	0,11 *0.0044*	130 *425*	0,13 *0.0050*	115 *375*	0,15 *0.0060*	105 *345*	0,16 *0.0065*	100 *330*
M4	CP30	0,065 *0.0026*	115 *375*	0,10 *0.0040*	100 *330*	0,11 *0.0044*	95 *310*	0,13 *0.0050*	85 *280*	0,14 *0.0055*	80 *260*
M5	CP30	0,065 *0.0026*	95 *310*	0,10 *0.0040*	85 *280*	0,11 *0.0044*	80 *260*	0,13 *0.0050*	70 *230*	0,14 *0.0055*	70 *230*

Grade CP500

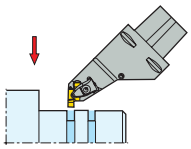
SMG		CW = 0,5-2,0 *CW = 0.020-0.079*		CW = 2,0-4,0 *CW =0.079-0.157*		CW = 4,0-6,0 *CW = 0.157-0.236*		CW = 6,0-8,0 *CW = 0.236-0.315*		CW = 8,0-10,0 *CW = 0.315-0.394*	
		f	v_c	f	v_c	f	v_c	f	v_c	f	v_c
P1	CP500	0,095 *0.0038*	150 *490*	0,15 *0.0060*	125 *410*	0,17 *0.0065*	120 *395*	0,20 *0.0080*	115 *375*	0,22 *0.0085*	110 *360*
P2	CP500	0,10 *0.0040*	145 *475*	0,16 *0.0065*	120 *395*	0,17 *0.0065*	120 *395*	0,20 *0.0080*	110 *360*	0,22 *0.0085*	105 *345*
P3	CP500	0,095 *0.0038*	125 *410*	0,15 *0.0060*	105 *345*	0,17 *0.0065*	100 *330*	0,19 *0.0075*	95 *310*	0,20 *0.0080*	95 *310*
P4	CP500	0,090 *0.0036*	115 *375*	0,14 *0.0055*	95 *310*	0,16 *0.0065*	90 *295*	0,19 *0.0075*	85 *280*	0,20 *0.0080*	85 *280*
P5	CP500	0,090 *0.0036*	105 *345*	0,14 *0.0055*	90 *295*	0,16 *0.0065*	85 *280*	0,18 *0.0070*	85 *280*	0,20 *0.0080*	80 *260*
P6	CP500	0,090 *0.0036*	120 *395*	0,14 *0.0055*	105 *345*	0,16 *0.0065*	100 *330*	0,18 *0.0070*	95 *310*	0,20 *0.0080*	90 *295*
P7	CP500	0,090 *0.0036*	115 *375*	0,14 *0.0055*	95 *310*	0,16 *0.0065*	90 *295*	0,18 *0.0070*	90 *295*	0,20 *0.0080*	85 *280*
P8	CP500	0,095 *0.0038*	105 *345*	0,15 *0.0060*	90 *295*	0,17 *0.0065*	85 *280*	0,19 *0.0075*	80 *260*	0,20 *0.0080*	80 *260*
P11	CP500	0,090 *0.0036*	110 *360*	0,14 *0.0055*	95 *310*	0,16 *0.0065*	90 *295*	0,18 *0.0070*	85 *280*	0,20 *0.0080*	80 *260*
P12	CP500	0,060 *0.0024*	75 *245*	0,095 *0.0038*	65 *215*	0,11 *0.0044*	60 *195*	0,12 *0.0048*	60 *195*	0,14 *0.0055*	55 *180*
M1	CP500	0,10 *0.0040*	170 *560*	0,16 *0.0065*	125 *410*	0,17 *0.0065*	120 *395*	0,20 *0.0080*	100 *330*	0,22 *0.0085*	95 *310*
M2	CP500	0,090 *0.0036*	140 *460*	0,14 *0.0055*	110 *360*	0,16 *0.0065*	100 *330*	0,18 *0.0070*	90 *295*	0,20 *0.0080*	80 *260*
M3	CP500	0,070 *0.0028*	115 *375*	0,11 *0.0044*	100 *330*	0,13 *0.0050*	90 *295*	0,15 *0.0060*	80 *260*	0,16 *0.0065*	75 *245*
M4	CP500	0,065 *0.0026*	85 *280*	0,10 *0.0040*	75 *245*	0,11 *0.0044*	75 *245*	0,13 *0.0050*	65 *215*	0,14 *0.0055*	65 *215*
M5	CP500	0,065 *0.0026*	70 *230*	0,10 *0.0040*	65 *215*	0,11 *0.0044*	60 *195*	0,13 *0.0050*	55 *180*	0,14 *0.0055*	50 *165*
K1	CP500	0,10 *0.0040*	130 *425*	0,16 *0.0065*	110 *360*	0,17 *0.0065*	105 *345*	0,20 *0.0080*	100 *330*	0,22 *0.0085*	95 *310*
K2	CP500	0,090 *0.0036*	115 *375*	0,14 *0.0055*	95 *310*	0,16 *0.0065*	90 *295*	0,18 *0.0070*	85 *280*	0,20 *0.0080*	80 *260*
K3	CP500	0,090 *0.0036*	100 *330*	0,14 *0.0055*	80 *260*	0,16 *0.0065*	75 *245*	0,18 *0.0070*	70 *230*	0,20 *0.0080*	65 *215*
K4	CP500	0,090 *0.0036*	95 *310*	0,14 *0.0055*	75 *245*	0,16 *0.0065*	70 *230*	0,18 *0.0070*	65 *215*	0,20 *0.0080*	65 *215*
K5	CP500	0,080 *0.0032*	60 *195*	0,13 *0.0050*	47 *155*	0,14 *0.0055*	45 *150*	0,16 *0.0065*	42 *140*	0,18 *0.0070*	40 *130*
K6	CP500	0,090 *0.0036*	85 *280*	0,14 *0.0055*	70 *230*	0,16 *0.0065*	65 *215*	0,18 *0.0070*	65 *215*	0,20 *0.0080*	60 *195*
K7	CP500	0,080 *0.0032*	75 *245*	0,13 *0.0050*	60 *195*	0,14 *0.0055*	60 *195*	0,16 *0.0065*	55 *180*	0,18 *0.0070*	50 *165*
N11	CP500	0,13 *0.0050*	90 *295*	0,20 *0.0080*	75 *245*	0,22 *0.0085*	70 *230*	0,26 *0.010*	65 *215*	0,28 *0.011*	65 *215*
S1	CP500	0,065 *0.0026*	18 *60*	0,10 *0.0040*	16 *50*	0,11 *0.0044*	15 *49*	0,13 *0.0050*	15 *49*	0,14 *0.0055*	14 *46*
S2	CP500	0,065 *0.0026*	16 *50*	0,10 *0.0040*	14 *46*	0,11 *0.0044*	13 *43*	0,13 *0.0050*	13 *43*	0,14 *0.0055*	12 *39*
S3	CP500	0,060 *0.0024*	14 *46*	0,090 *0.0036*	12 *39*	0,10 *0.0040*	12 *39*	0,12 *0.0048*	11 *36*	0,13 *0.0050*	11 *36*

C.-CEL – Toolholders for Shallow Grooves – Metric / *Inch*

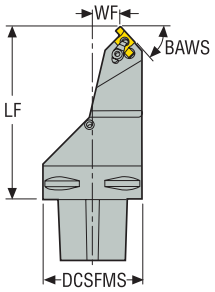
C.-CEL
KAPR = 90,0 °



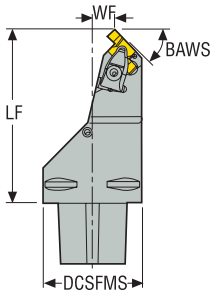
C.-CEL-HD
KAPR = 90,0 °



CEL



CER/L-..HD





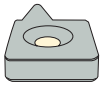
CTWS



- Left-hand version shown
- For inserts program, see page(s) 919-929
- For holder code key, see page(s) 897
- Shim KX12-2 for insert 12..
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	DCSFMS	WF	LF	Weight	BAWS°	CTWS
			mm *inch*	mm *inch*	mm *inch*	kg *lbs*		
C6-CEL-20110-10	02509305	C6	63,0 *2.480*	20,0 *0.787*	110 *4.331*	1,6 *3.530*	45,0	10/12NR
C6-CEL-18110-14	02509306	C6	63,0 *2.480*	18,0 *0.709*	110 *4.331*	1,7 *3.750*	45,0	14NR
C6-CEL-14110-20HD	02509308	C6	63,0 *2.480*	14,0 *0.551*	110 *4.331*	1,7 *3.750*	45,0	20
C6-CEL-07110-26HD	02509309	C6	63,0 *2.480*	7,0 *0.276*	110 *4.331*	1,7 *3.750*	45,0	26

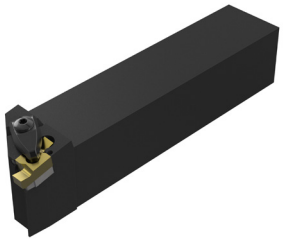
Spare Parts, included in delivery

For size	Cantilever clamp	Clamp key	Clamp kit	Clamp screw	Coolant nozzle	Insert shim (K)	Shim screw	Spring
								
-10	–	T15P-2	CSP16-T15P	–	CN8	KX10-2	CS2507-T07P	–
-14	–	T15P-2	CSP16-T15P	–	CN8	KX14-2	CS3507-T09P	–
-20	CHD22	T20P-7	–	L86025-T20P	CN8	KX20-2	CS4009-T15P	S7616
-26	CHD27	T20P-7	–	L86025-T20P	CN8	KX26-2	C05012-T15P	S7616

Accessories

For size	Insert shim (K) 1	Insert shim (K) 2	Insert shim (K) 3	Insert shim (K) 4	Insert shim (K) 5	Insert shim (K) 6	Insert shim (K) 7	Shim key
								
-10	KX12-2	KX10-99	KX10-0	KX10-1	KX10-3	KX10-4	KX10-5	T07P-2
-14	KX14-0	KX14-1	KX14-3	KX14-4	KX14-5	–	–	T09P-2
-20	KX20-99	KX20-0	KX20-1	KX20-3	KX20-4	KX20-5	–	T15P-2
-26	KX26-99	KX26-0	KX26-1	KX26-3	KX26-4	KX26-5	–	T15P-2

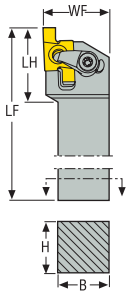
CER/L. – Toolholders for Precision Grooves – Metric



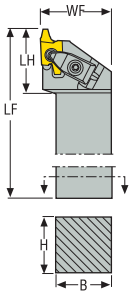
CTWS



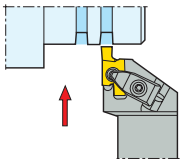
CER/L...D



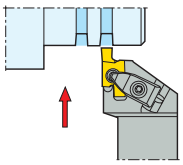
CER/L...QHD



CER/L...D/QHD
KAPR = 90,0 °



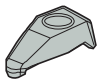
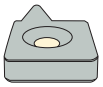
CER/L...D/QHD
KAPR



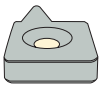
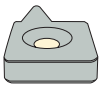
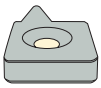
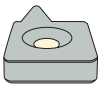
- Right-hand version shown
- For inserts program, see page(s) 919-929
- For holder code key, see page(s) 897
- Shim KX12-2 for insert 12..
- For use with 12 size insert please refer to values in LF2 / LH2 columns
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF 10/14/20/26	LF2 12	WF	LH 10/14/20/26	LH2 12	Weight	CTWS
		mm	mm	mm	mm	mm	mm	mm	kg	
CER1212M10D	02435850	12	12	150	153,0	16	21,5	24,5	0,2	10/12ER
CER1616H10D	02411427	16	16	100	103,0	16	21,5	24,5	0,3	10/12ER
CER2020K10D	02411428	20	20	125	128,0	25	21,5	24,5	0,4	10/12ER
CER2525M10D	02411430	25	25	150	153,0	32	21,5	24,5	0,8	10/12ER
CER3225P10D	02411432	32	25	170	173,0	32	22,5	25,5	1,1	10/12ER
CEL1212M10D	02435852	12	12	150	153,0	16	21,5	24,5	0,2	10/12NR
CEL1616H10D	02411436	16	16	100	103,0	16	21,5	24,5	0,3	10/12NR
CEL2020K10D	02411437	20	20	125	128,0	25	21,5	24,5	0,4	10/12NR
CEL2525M10D	02411438	25	25	150	153,0	32	21,5	24,5	0,8	10/12NR
CEL3225P10D	02411440	32	25	170	173,0	32	22,5	25,5	1,1	10/12NR
CER2525M14QHD	02538606	25	25	150	–	32	26,0	–	0,8	14ER
CER3225P14QHD	02627519	32	25	170	–	32	26,0	–	1,1	14ER
CER3232P14QHD	02627520	32	32	170	–	32	26,0	–	1,4	14ER
CEL2525M14QHD	02627518	25	25	150	–	32	26,0	–	0,8	14NR
CER2525M20QHD	02528502	25	25	150	–	32	34,0	–	0,8	20ER
CER3225P20QHD	02528504	32	25	170	–	32	34,0	–	1,1	20ER
CER3232P20QHD	02528507	32	32	170	–	40	34,0	–	1,4	20ER
CEL2525M20QHD	02528503	25	25	150	–	32	34,0	–	0,8	20NR
CEL3225P20QHD	02528505	32	25	170	–	32	34,0	–	1,1	20NR
CEL3232P20QHD	02528508	32	32	170	–	40	34,0	–	1,4	20NR
CER2525M26QHD	02528509	25	25	150	–	40	44,0	–	0,9	26ER
CER3225P26QHD	02528512	32	25	170	–	40	44,0	–	1,2	26ER
CER3232P26QHD	02528516	32	32	170	–	40	44,0	–	1,4	26ER
CEL2525M26QHD	02528511	25	25	150	–	40	44,0	–	0,9	26NR
CEL3225P26QHD	02528513	32	25	170	–	40	44,0	–	1,2	26NR
CEL3232P26QHD	02528517	32	32	170	–	40	44,0	–	1,4	26NR

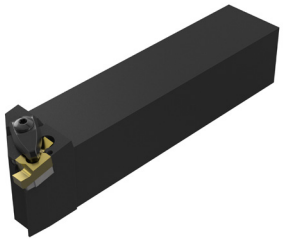
Spare Parts, included in delivery

For size	Cantilever clamp	Clamp key	Clamp kit	Clamp screw	Insert shim (K)	Shim screw	Spring
							
..10	–	T15P-2	CSP16-T15P	–	KX10-2	CS2507-T07P	–
..14	CHD16	T15P-2	–	L85020-T15P	KX14-2	CS3507-T09P	S6912
..20	CHD22	T20P-7	–	L86025-T20P	KX20-2	CS4009-T15P	S7616
..26	CHD27	T20P-7	–	L86025-T20P	KX26-2	C05012-T15P	S7616

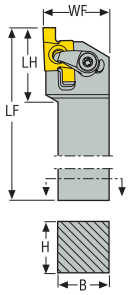
Accessories

For size	Insert shim (K)	Insert shim (K) 1	Insert shim (K) 2	Insert shim (K) 3	Insert shim (K) 4	Insert shim (K) 5	Insert shim (K) 6	Shim key
								
..10	KX12-2	–	–	–	–	–	–	T07P-2
..14	–	KX14-0	KX14-1	KX14-3	KX14-4	KX14-5	–	T09P-2
..20	–	KX20-99	KX20-0	KX20-1	KX20-3	KX20-4	KX20-5	T15P-2
..26	–	KX26-99	KX26-0	KX26-1	KX26-3	KX26-4	KX26-5	T15P-2

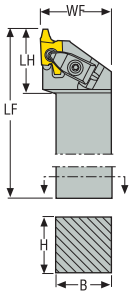
CER/L. – Toolholders for Precision Grooves – Inch



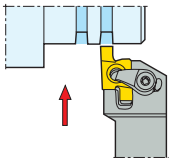
CER/L...D



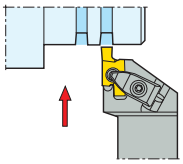
CER/L...QHD



CER/L-Q



CER/L-QHD



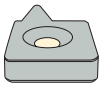
CTWS



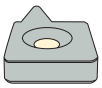
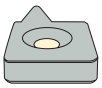
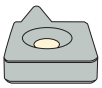
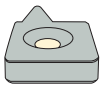
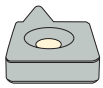
- Right-hand version shown
- For inserts program, see page(s) 919-929
- For holder code key, see page(s) 897
- For use with 12 size insert please refer to values in LF2 / LH2 columns
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF 10/14/20/26	LF2 12	WF	LH 10/14/20/26	LH2 12	Weight	CTWS
		inch	inch	inch	inch	inch	inch	inch	lbs	
CER0504-10Q	00072566	0.500	0.500	4.000	4.118	0.625	0.900	1.018	0.440	10/12ER
CER0755-10Q	00072564	0.750	0.750	5.000	5.118	1.000	0.900	1.018	0.880	10/12ER
CER1006-10Q	00072600	1.000	1.000	6.000	6.118	1.250	0.900	1.018	1.760	10/12ER
CEL0755-10Q	00072559	0.750	0.750	5.000	5.118	1.000	0.900	1.018	1.100	10/12NR
CEL1006-10Q	00072596	1.000	1.000	6.000	6.118	1.250	0.900	1.018	1.760	10/12NR
CER1006-14Q	00072634	1.000	1.000	6.000	–	1.250	1.100	–	1.760	14ER
CEL1006-14Q	00072628	1.000	1.000	6.000	–	1.250	1.100	–	1.980	14NR
CER1006-20QHD	02529045	1.000	1.000	6.000	–	1.250	1.300	–	1.760	20ER
CER1256-20QHD	02529057	1.250	1.250	6.000	–	1.500	1.417	–	2.650	20ER
CEL1006-20QHD	02529053	1.000	1.000	6.000	–	1.250	1.300	–	1.760	20NR
CEL1256-20QHD	02529061	1.250	1.250	6.000	–	1.500	1.300	–	2.870	20NR
CER1006-26QHD	02529063	1.000	1.000	6.000	–	1.250	1.800	–	1.980	26ER
CER1256-26QHD	02529066	1.250	1.250	6.000	–	1.500	1.800	–	2.870	26ER
CER1506-26QHD	02529069	1.500	1.500	6.000	–	1.750	1.800	–	3.970	26ER
CEL1006-26QHD	02529064	1.000	1.000	6.000	–	1.250	1.800	–	2.200	26NR

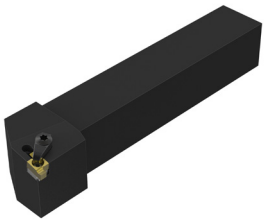
Spare Parts, included in delivery

For size	Cantilever clamp	Clamp key	Clamp kit	Clamp screw	Insert shim (K)	Shim screw	Spring
							
..-10	–	T15P-2	CSP16-T15P	–	KX10-2	CS2507-T07P	–
..-14	–	T15P-2	CSP16-T15P	–	KX14-2	CS3507-T09P	–
..-20	CHD22	T20P-7	–	L86025-T20P	KX20-2	CS4009-T15P	S7616
..-26	CHD27	T20P-7	–	L86025-T20P	KX26-2	C05012-T15P	S7616

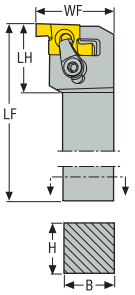
Accessories

For size	Insert shim (K)	Insert shim (K) 1	Insert shim (K) 2	Insert shim (K) 3	Insert shim (K) 4	Insert shim (K) 5	Insert shim (K) 6	Shim key
								
..-10	KX12-2	–	–	–	–	–	–	T07P-2
..-14	–	–	–	–	–	–	–	T09P-2
..-20	–	KX20-99	KX20-0	KX20-1	KX20-3	KX20-4	KX20-5	T15P-2
..-26	–	KX26-99	KX26-0	KX26-1	KX26-3	KX26-4	KX26-5	T15P-2

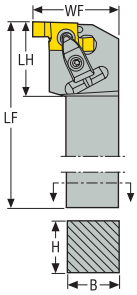
CEAR/L – Toolholders for Precision Axial Grooves – Metric



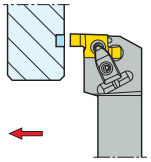
CEAR/L...D



CEAR/L...HD/QHD



CEAR/L..D/HD/QHD
KAPR = 90,0 °



CTWS



- Right-hand version shown
- For inserts program, see page(s) 919-929
- For holder code key, see page(s) 897
- Shim KX12-2 for insert 12..
- For use with 12 size insert please refer to values in WF2 / INPLM2 columns
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF 10../14../20..	WF2 12	LH	INPLM 10../14../20..	INPLM 12..	Weight	CTWS
		mm	mm	mm	mm	mm	mm	mm	mm	kg	
CEAR2525M10D	02411447	25	25	150	35,4	38,4	22	16	18,0	0,8	10/12EAR
CEAL2525M10D	02411448	25	25	150	35,4	38,4	22	16	18,0	0,8	10/12EAL
CEAR2525M14HD	02627517	25	25	150	36,9	–	31	22	–	0,8	14EAR
CEAL2525M14HD	02627516	25	25	150	36,9	–	31	22	–	0,9	14EAL
CEAR2525M20QHD	02528518	25	25	150	39,4	–	35	28	–	0,9	20EAR
CEAL2525M20QHD	02528519	25	25	150	39,4	–	35	28	–	0,9	20EAL

Spare Parts, included in delivery

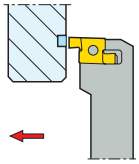
For size	Cantilever clamp	Clamp key	Clamp kit	Clamp screw	Insert shim (KL)	Insert shim (KR)	Shim screw	Spring
								
CEAR..10	–	T15P-2	CSP16-T15P	–	–	AKR10	CS2507-T07P	–
CEAL..10	–	T15P-2	CSP16-T15P	–	AKL10	–	CS2507-T07P	–
CEAR..14	CHD16	T15P-2	–	L85020-T15P	–	AKR14	CS3507-T09P	S6912
CEAL..14	CHD16	T15P-2	–	L85020-T15P	AKL14	–	CS3507-T09P	S6912
CEAR..20	CHD22	T20P-7	–	L86025-T20P	–	AKR20	CS4009-T15P	S7616
CEAL..20	CHD22	T20P-7	–	L86025-T20P	AKL20	–	CS4009-T15P	S7616

Accessories

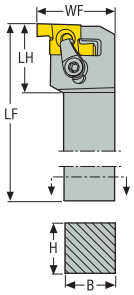
For size	Insert shim (K)	Shim key
		
CEAR..10	KX12-2	T07P-2
CEAL..10	KX12-2	T07P-2
CEAR..14	–	T09P-2
CEAL..14	–	T09P-2
CEAR..20	–	T15P-2
CEAL..20	–	T15P-2

CEAR/L – Toolholders for Precision Axial Grooves – Inch

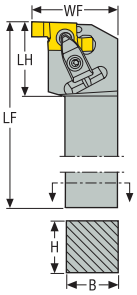
CEAR/L
KAPR = 90,0 °

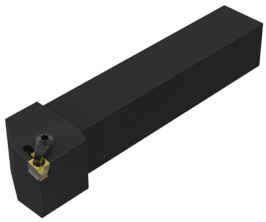


CEAR/L...D



CEAR/L...HD/QHD





CTWS



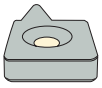
- Right-hand version shown
- For inserts program, see page(s) 919-929
- For holder code key, see page(s) 897
- Shim KX12-2 for insert 12..
- For use with 12 size insert please refer to values in WF2 / INPLM2 columns
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF 10/14	WF2 12	LH	INPLM 10/14	INPLM 12..	Weight	CTWS
		inch	inch	inch	inch	inch	inch	inch	inch	lbs	
CEAR1006-10	00072625	1.000	1.000	6.000	1.392	1.510	1.110	0.630	0.709	2.200	10/12EAR
CEAL1006-10	00072613	1.000	1.000	6.000	1.392	1.510	1.110	0.630	0.709	1.980	10/12EAL
CEAR1006-14	00072623	1.000	1.000	6.000	1.451	–	1.110	0.866	–	2.200	14EAR

Spare Parts, included in delivery

For size	Clamp key	Clamp kit	Insert shim	Insert shim (KL)	Insert shim (KR)	Shim key	Shim screw
							
CEAR..-10	T15P-2	CSP16-T15P	–	–	AKR10	–	CS2507-T07P
CEAL..-10	T15P-2	CSP16-T15P	–	AKL10	–	–	CS2507-T07P
CEAR..-14	T15P-2	CSP16-T15P	AKR14	–	–	T09P-2	CS3507-T09P

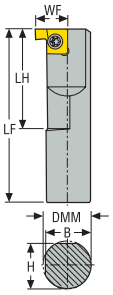
Accessories

For size	Insert shim (K)	Shim key
		
CEAR..-10	–	T07P-2
CEAL..-10	KX12-2	T07P-2
CEAR..-14	–	–

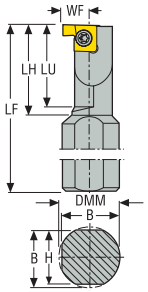
SNR/L – Toolholders for Precision Grooves – Metric



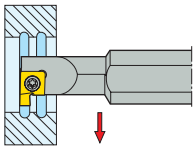
SNR/L..H09



SNR/L



SNR/L
KAPR = 90,0 °



CTWS



- Right-hand version shown
- For inserts program, see page(s) 919-929
- For holder code key, see page(s) 897
- For ISO attribute explanation, see page 82

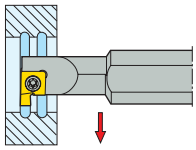
Designation	Item number	DMM	H	B	LF	WF	LH	LU	DCINN	Weight	CTWS
		mm	mm	mm	mm	mm	mm	mm	mm	kg	
SNR0010H9	75025330	10	9,5	9,5	100	7,5	20	–	14	0,1	9NR
SNR0010K9	75025332	16	15,5	15,5	125	6,5	25	23	14	0,2	9NR
SNR0013L9	75025334	16	15,5	15,5	140	8,0	32	30	17	0,2	9NR
SNR0016M9	75025336	16	15,5	15,5	150	9,5	40	38	20	0,3	9NR
SNL0010H9	75025331	10	9,5	9,5	100	7,5	20	–	14	0,1	9NL
SNL0010K9	75025333	16	15,5	15,5	125	6,5	25	23	14	0,2	9NL
SNL0013L9	75025335	16	15,5	15,5	140	8,0	32	30	17	0,2	9NL
SNL0016M9	75025337	16	15,5	15,5	150	9,5	40	38	20	0,3	9NL

Spare Parts, included in delivery

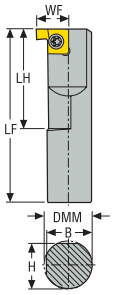
For size	Insert key	Insert screw
		
..9	T07P-2	C02506-T07P

SNR/L – Toolholders for Precision Grooves – Inch

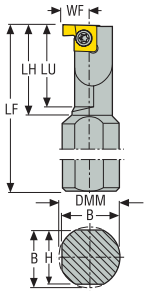
SNR/L
KAPR



SNR/L..H09



SNR/L





CTWS



- Right-hand version shown
- For inserts program, see page(s) 919-929
- For holder code key, see page(s) 897
- For ISO attribute explanation, see page 82

Designation	Item number	DMM	H	B	LF	WF	LH	LU	DCINN	Weight	CTWS
		inch	inch	inch	inch	inch	inch	inch	inch	lbs	
SNR000375-50-9	00072560	0.375	0.625	0.654	5.000	0.266	1.000	–	0.550	0.440	9..
SNR00050-55-9	00072586	0.500	0.441	0.470	5.500	0.319	1.250	–	0.700	0.440	9..
SNR000625-60-9	00072588	0.625	0.566	0.587	6.000	0.378	1.500	–	0.800	0.660	9..
SNL00037540-9	00072552	0.375	0.336	0.350	4.000	0.299	–	–	0.550	0.220	9..
SNL00037550-9	00072595	0.375	0.336	0.350	5.000	0.259	1.000	–	0.550	0.440	9..
SNR000375-60-9H	00072562	0.375	0.441	0.350	6.000	0.299	–	–	0.550	0.660	9..

Spare Parts, included in delivery

For size	Insert key	Insert screw
		
..-9	T07P-2	C02506-T07P

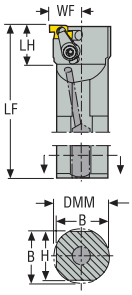
CNR/L – Toolholders for Precision Grooves – Metric



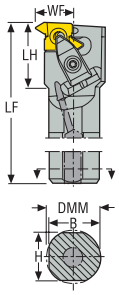
CTWS



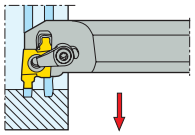
CNR/L...A/DA



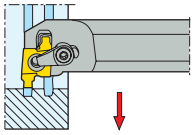
CNR/L...AHD



CNR/L...DA/A
KAPR = 90,0 °



CNR/L...DA/A
KAPR

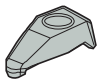
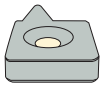


CNR/L...AHD
KAPR

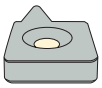
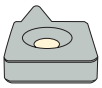
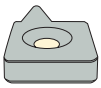
- Right-hand version shown
- For inserts program, see page(s) 919-929
- For holder code key, see page(s) 897
- Shim KX12-2 for insert 12..
- For use with 12 size insert please refer to values in WF2 / DCINN2 columns
- For ISO attribute explanation, see page 82

Designation	Item number	DMM	H	B	LF	WF	WF2 12	LH	DCINN	DCINN2	Weight	CTWS
		mm	mm	mm	mm	mm	mm	mm	mm	mm	kg	
CNR0020P10DA	02411454	20	18	19	170	13,5	16,5	26	26	29	0,4	10/12NR
CNR0025R10DA	02411459	25	23	24	200	16,0	19,0	28	31	34	0,6	10/12NR
CNR0032S10DA	02411467	32	30	31	250	19,5	22,5	31	38	41	1,4	10/12NR
CNL0020P10DA	02411456	20	18	19	170	13,5	16,5	26	26	29	0,4	10/12ER
CNL0025R10DA	02411464	25	23	24	200	16,0	19,0	28	31	34	0,6	10/12ER
CNL0032S10DA	02411468	32	30	31	250	19,5	22,5	31	38	41	1,4	10/12ER
CNR0020P14A	00040041	20	18	19	170	15,0	–	32	30	–	0,4	14..
CNR0025R14A	00040042	25	23	24	200	17,5	–	45	34	–	0,7	14..
CNR0032S14A	00040043	32	30	31	250	21,0	–	48	40	–	1,4	14..
CNR0040T14A	00040044	40	37	39	300	25,0	–	50	48	–	2,6	14..
CNL0020P14A	00040045	20	18	19	170	15,0	–	32	30	–	0,4	14..
CNL0025R14A	00040046	25	23	24	200	17,5	–	45	34	–	0,7	14..
CNL0032S14A	00040047	32	30	31	250	21,0	–	48	40	–	1,4	14..
CNR0025R20AHD	02556131	25	23	24	200	20,5	–	50	38	–	0,7	20..
CNR0032S20AHD	02556132	32	30	31	250	24,0	–	50	44	38	1,4	20..
CNR0040T20AHD	02556133	40	37	39	300	28,0	–	50	51	40	2,6	20..
CNL0025R20AHD	02556134	25	23	24	200	20,5	–	50	38	–	0,7	20..
CNL0032S20AHD	02556135	32	30	31	250	24,0	–	50	44	38	1,4	20..
CNR0032S26AHD	02556136	32	30	31	250	27,0	–	61	50	50	1,5	26..
CNR0040T26AHD	02556137	40	37	39	300	31,0	–	60	55	50	2,6	26..
CNR0050U26AHD	02556138	50	47	49	350	36,0	–	62	65	–	4,9	26..
CNR0063V26AHD	02556139	63	60	62	400	42,5	–	64	80	63	8,9	26..
CNL0040T26AHD	02556140	40	37	39	300	31,0	–	60	55	50	2,6	26..

Spare Parts, included in delivery

For size	Cantilever clamp	Clamp key	Clamp kit	Clamp screw	Insert shim (K)	Shim screw	Spring
							
..10	–	T15P-2	CSP16-T15P	–	KX10-2	CS2507-T07P	–
..14	–	T15P-2	CSP16-T15P	–	KX14-2	CS3507-T09P	–
..20	CHD22	T20P-7L	–	L86025-T20P	KX20-2	CS4009-T15P	S7616
..26	CHD27	T20P-7L	–	L86025-T20P	KX26-2	C05012-T15P	S7616

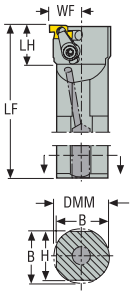
Accessories

For size	Insert shim (K)	Insert shim (K) 1	Insert shim (K) 2	Insert shim (K) 3	Insert shim (K) 4	Insert shim (K) 5	Insert shim (K) 6	Shim key
								
..10	KX12-2	–	–	–	–	–	–	T07P-2
..14	–	–	–	–	–	–	–	T09P-2
..20	–	KX20-99	KX20-0	KX20-1	KX20-3	KX20-4	KX20-5	T15P-2
..26	–	KX26-99	KX26-0	KX26-1	KX26-3	KX26-4	KX26-5	T15P-2

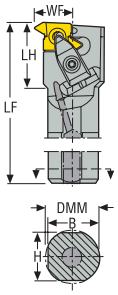
CNR/L – Toolholders for Precision Grooves – Inch



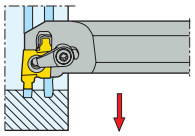
CNR/L...A/DA



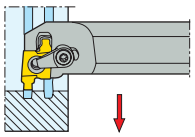
CNR/L...AHD



KAPR = 90,0 °



KAPR



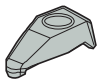
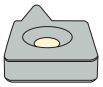
CTWS



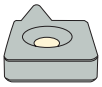
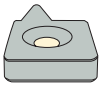
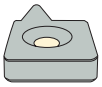
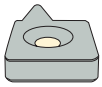
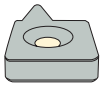
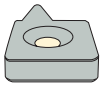
- Right-hand version shown
- For inserts program, see page(s) 919-929
- For holder code key, see page(s) 897
- Shim KX12-2 for insert 12..
- For use with 12 size insert please refer to values in WF2 / DCINN2 columns
- For ISO attribute explanation, see page 82

Designation	Item number	DMM	H	B	LF	WF	WF2 12	LH	DCINN	DCINN2	Weight	CTWS
		inch	inch	inch	inch	inch	inch	inch	inch	inch	lbs	
CNR000757-10	00072573	0.750	0.691	0.707	7.000	0.490	0.608	1.480	0.950	0.950	0.880	10/12NR
CNR001008-10	00072569	1.000	0.921	0.957	8.000	0.618	0.736	2.500	1.200	1.000	1.760	10/12NR
CNR0012510-10	00072563	1.250	1.150	1.209	10.000	0.750	0.868	1.772	1.500	1.250	3.310	10/12NR
CNR0015012-10	00072592	1.500	1.339	1.427	12.008	0.858	0.976	1.772	1.800	1.600	0.440	10/12NR
CNL000757-10	00072624	0.750	0.650	0.707	7.000	0.490	0.608	1.480	0.950	0.950	0.880	10/12ER
CNL001008-10	00072610	1.000	0.902	0.957	8.000	0.620	0.738	1.559	1.200	1.000	1.760	10/12ER
CNR00075010-10-H	00072583	0.750	0.691	0.730	10.000	0.490	–	1.480	0.950	0.950	2.650	10/12NR
CNR000757-14	00072571	0.750	0.691	0.707	7.000	0.570	–	1.693	1.050	1.050	0.880	14..
CNR001008-14	00072567	1.000	0.921	0.957	8.000	0.700	–	1.732	1.300	1.050	1.980	14..
CNL001008-14	00072582	1.000	1.000	0.961	8.000	0.704	–	–	1.182	1.050	1.760	14..
CNR001008-20AHD	02562823	1.000	0.902	0.957	7.992	0.705	–	1.969	1.400	–	1.760	20..
CNR0012510-20AHD	02562824	1.250	1.150	1.209	10.000	0.945	–	2.165	1.700	1.400	3.310	20..
CNR0015012-20AHD	02562825	1.500	1.339	1.427	12.008	1.063	–	2.165	2.000	1.600	5.510	20..
CNL001008-20AHD	02562826	1.000	0.902	0.957	7.992	0.705	–	1.969	1.400	–	1.540	20..
CNL0012510-20AHD	02562827	1.250	1.150	1.209	10.000	0.945	–	2.165	1.700	1.400	2.870	20..
CNL0015012-20AHD	02562828	1.500	1.339	1.427	12.008	1.063	–	2.165	2.000	1.600	5.070	20..
CNR0012510-26AHD	02562830	1.250	1.150	1.209	10.000	1.063	–	2.323	2.000	1.600	3.090	26..
CNR0015012-26AHD	02562831	1.500	1.339	1.427	12.008	1.183	–	2.323	2.100	2.100	5.070	26..
CNR0017514-26AHD	02562832	1.750	1.591	1.677	13.976	1.307	–	2.283	2.300	1.800	8.160	26..
CNR0020014-26AHD	02562833	2.000	1.843	1.929	13.976	1.433	–	2.283	2.500	2.000	11.460	26..
CNR0025016-26AHD	02562834	2.500	2.343	2.429	15.984	1.683	–	2.283	3.000	2.500	20.720	26..
CNL0012510-26AHD	02564043	1.250	1.150	1.209	10.000	1.063	–	2.323	2.000	1.600	3.090	26..
CNL0015012-26AHD	02563555	1.500	1.339	1.427	12.008	1.177	–	2.323	2.100	2.100	4.850	26..
CNL0017514-26AHD	02563563	1.750	1.591	1.677	13.976	1.307	–	2.283	2.300	1.800	8.380	26..
CNL0025016-26AHD	02563564	2.500	2.343	2.429	15.984	1.683	–	2.283	3.000	2.500	20.720	26..

Spare Parts, included in delivery

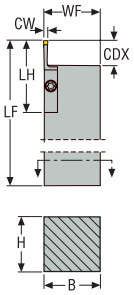
For size	Cantilever clamp	Clamp key	Clamp kit	Clamp screw	Insert shim (K)	Shim screw	Spring
							
..-10	–	T15P-2	CSP16-T15P	–	KX10-2	CS2507-T07P	–
..-10-10-H	–	T15P-2	CSP16-T15P	–	KX10-2	CS2507-T07P	–
..-14	–	T15P-2	CSP16-T15P	–	KX14-2	CS3507-T09P	–
..-20	CHD22	T20P-7	–	L86025-T20P	KX20-2	CS4009-T15P	S7616
..-26	CHD27	T20P-7	–	L86025-T20P	KX26-2	C05012-T15P	S7616

Accessories

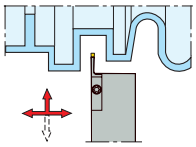
For size	Insert shim (K)	Insert shim (K) 1	Insert shim (K) 2	Insert shim (K) 3	Insert shim (K) 4	Insert shim (K) 5	Insert shim (K) 6	Shim key
								
..-10	KX12-2	–	–	–	–	–	–	T07P-2
..-10-10-H	–	–	–	–	–	–	–	T07P-2
..-14	–	–	–	–	–	–	–	–
..-20	–	KX20-99	KX20-0	KX20-1	KX20-3	KX20-4	KX20-5	T15P-2
..-26	–	KX26-99	KX26-0	KX26-1	KX26-3	KX26-4	KX26-5	T15P-2

CF.R/L-..C – Toolholders for ceramic inserts LPGN – Metric

CF.R/L-..C



CF.R/L-..C
KAPR = 90,0 °



CTWS



- Right-hand version shown
- For inserts program, see page(s) 930
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF	LH	CDX	Weight	CW	CTWS
		mm	mm	mm	mm	mm	mm	kg	mm	
CFOR3244M-0317C	02927353	32	44	150	44,2	56,4	19,4	1,5	3,17	LPGN1204..
CFOL3244M-0317C	02927354	32	44	150	44,2	56,4	19,4	1,6	3,17	LPGN1204..
CFLR3244M-0635C	02464154	32	44	150	44,6	66,6	29,1	1,5	6,35	LPGN1906..
CFLL3244M-0635C	02464113	32	44	150	44,6	66,6	29,1	1,5	6,35	LPGN1906..
CFKR3244M-0952C	02464109	32	44	150	45,0	76,8	38,5	1,5	9,52	LPGN2508..
CFKL3244M-0952C	02544163	32	44	150	45,0	76,8	38,5	1,4	9,52	LPGN2508..

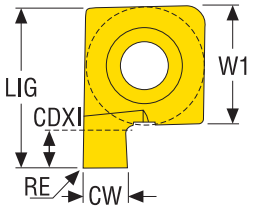
Spare Parts, included in delivery

For size	Clamp	Clamp key
		
-0317C	CER024	T30P-7
-0317C	CEL024	T30P-7
-0635C	CER055	T30P-7
-0635C	CEL055	T30P-7
-0952C	CER087	T30P-7
-0952C	CEL087	T30P-7

Inserts – Precision Grooves, Radial Grooves

For ISO attribute explanation, see page 82

Tolerances:
CW = +0,05/0 / *+0.002/0*
Toolholder range, see page(s) 912, 913



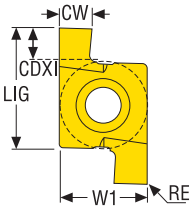
9



Designation Internal right	CW	W1	LIG	CDXI	RE	For circlip	Pitch TPI	Grades Coated	
	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*		CP30	CP500
9NR1.15FG	1,15 *0.045*	6,35 *0.250*	9,0 *0.354*	1,15 *0.045*	0,0 *0.0*	1,00 *0.039*	–	■	■
9NR1.35FG	1,35 *0.053*	6,35 *0.250*	9,0 *0.354*	1,35 *0.053*	0,0 *0.0*	1,20 *0.047*	–	■	■
9NR1.65FG	1,65 *0.065*	6,35 *0.250*	9,0 *0.354*	1,65 *0.065*	0,0 *0.0*	1,50 *0.059*	–	■	■
9NR1.9FG	1,9 *0.075*	6,35 *0.250*	9,0 *0.354*	1,9 *0.075*	0,0 *0.0*	1,75 *0.069*	–	■	■
9NR2.15FG	2,15 *0.085*	6,35 *0.250*	9,0 *0.354*	2,15 *0.085*	0,0 *0.0*	2,00 *0.079*	6TPI	■	■
9NR2.65FG	2,65 *0.104*	6,35 *0.250*	9,0 *0.354*	2,65 *0.104*	0,0 *0.0*	2,50 *0.098*	–	■	■

Designation Internal left	CW	W1	LIG	CDXI	RE	For circlip	Pitch TPI	Grades Coated	
	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*		CP30	CP500
9NL1.15FG	1,15 *0.045*	6,35 *0.250*	9,0 *0.354*	1,15 *0.045*	0,0 *0.0*	1,00 *0.039*	–	■	■
9NL1.35FG	1,35 *0.053*	6,35 *0.250*	9,0 *0.354*	1,35 *0.053*	0,0 *0.0*	1,20 *0.047*	–		■
9NL1.65FG	1,65 *0.065*	6,35 *0.250*	9,0 *0.354*	1,65 *0.065*	0,0 *0.0*	1,50 *0.059*	–		■
9NL1.9FG	1,9 *0.075*	6,35 *0.250*	9,0 *0.354*	1,9 *0.075*	0,0 *0.0*	1,75 *0.069*	–		■
9NL2.15FG	2,15 *0.085*	6,35 *0.250*	9,0 *0.354*	2,15 *0.085*	0,0 *0.0*	2,00 *0.079*	6TPI		■
9NL2.65FG	2,65 *0.104*	6,35 *0.250*	9,0 *0.354*	2,65 *0.104*	0,0 *0.0*	2,50 *0.098*	–	■	■

Inserts – Precision Grooves, Radial Grooves



Tolerances:
CW = +0,05/0 / *+0.002/0*
Toolholder range, see page(s) 905, 906, 907, 908, 909, 914, 915, 916, 917

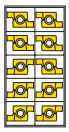
For ISO attribute explanation, see page 82

Toolset 10FG, CP500 contents:
1 pce 10ER1.15FG, 1 pce 10ER1.35FG
1 pce 10ER1.65FG, 1 pce 10ER1.9FG
1 pce 10ER2.15FG, 1 pce 10NR1.15FG
1 pce 10NR1.35FG, 1 pce 10NR1.65FG
1 pce 10NR1.9FG, 1 pce 10NR2.15FG

10/14
20/26



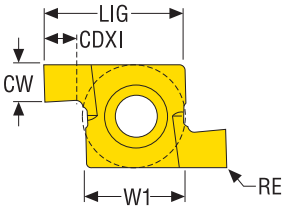
Toolset:
10FG



Designation External right Internal left	CW	W1	LIG	CDXI	RE	For circlip	Pitch TPI	Grades Coated	
	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*		CP30	CP500
10ER1.15FG	1,15 *0.045*	6,35 *0.250*	9,0 *0.354*	1,15 *0.045*	0,0 *0.0*	1,00 *0.039*	–	■	■
10ER1.35FG	1,35 *0.053*	6,35 *0.250*	9,0 *0.354*	1,35 *0.053*	0,0 *0.0*	1,20 *0.047*	–	■	■
10ER1.65FG	1,65 *0.065*	6,35 *0.250*	9,0 *0.354*	1,65 *0.065*	0,0 *0.0*	1,50 *0.059*	–	■	■
10ER1.9FG	1,9 *0.075*	6,35 *0.250*	9,0 *0.354*	1,9 *0.075*	0,0 *0.0*	1,75 *0.069*	–	■	■
10ER2.15FG	2,15 *0.085*	6,35 *0.250*	9,0 *0.354*	2,15 *0.085*	0,0 *0.0*	2,00 *0.079*	6TPI	■	■
10ER2.65FG	2,65 *0.104*	6,35 *0.250*	9,0 *0.354*	2,65 *0.104*	0,0 *0.0*	2,50 *0.098*	–	■	■
14ER3.0FG	3,0 *0.118*	9,525 *0.375*	14,0 *0.551*	3,0 *0.118*	0,0 *0.0*	–	–	■	■
14ER3.2FG	3,2 *0.126*	9,525 *0.375*	14,0 *0.551*	3,2 *0.126*	0,0 *0.0*	3,00 *0.118*	–		■
14ER3.4FG	3,4 *0.134*	9,525 *0.375*	14,0 *0.551*	3,4 *0.134*	0,0 *0.0*	–	4TPI		■
14ER4.0FG	4,0 *0.157*	9,525 *0.375*	14,0 *0.551*	4,0 *0.157*	0,0 *0.0*	–	–	■	■
14ER4.2FG	4,2 *0.165*	9,525 *0.375*	14,0 *0.551*	4,2 *0.165*	0,0 *0.0*	4,00 *0.157*	–		■
20ER4.4FG	4,4 *0.173*	12,7 *0.500*	20,0 *0.787*	4,4 *0.173*	0,0 *0.0*	–	3TPI		■
20ER5.0FG	5,0 *0.197*	12,7 *0.500*	20,0 *0.787*	5,0 *0.197*	0,0 *0.0*	–	–		■
20ER5.2FG	5,2 *0.205*	12,7 *0.500*	20,0 *0.787*	5,2 *0.205*	0,0 *0.0*	5,00 *0.197*	–		■
20ER6.0FG	6,0 *0.236*	12,7 *0.500*	20,0 *0.787*	6,0 *0.236*	0,0 *0.0*	–	–		■
20ER6.35FG	6,35 *0.250*	12,7 *0.500*	20,0 *0.787*	6,35 *0.250*	0,0 *0.0*	–	–		■
26ER8.0FG	8,0 *0.315*	15,875 *0.625*	26,0 *1.024*	8,0 *0.315*	0,0 *0.0*	–	–		■
26ER10.0FG	10,0 *0.394*	15,875 *0.625*	26,0 *1.024*	10,0 *0.394*	0,0 *0.0*	–	–		■
10FG	–	–	–	–	0,0 *0.0*	–	–		

Designation Internal right External left	CW	W1	LIG	CDXI	RE	For circlip	Pitch TPI	Grades	
								Coated	
	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*		CP30	CP500
10NR1.15FG	1,15 *0.045*	6,35 *0.250*	9,0 *0.354*	1,15 *0.045*	0,0 *0.0*	1,00 *0.039*	–	■	■
10NR1.35FG	1,35 *0.053*	6,35 *0.250*	9,0 *0.354*	1,35 *0.053*	0,0 *0.0*	1,20 *0.047*	–	■	■
10NR1.65FG	1,65 *0.065*	6,35 *0.250*	9,0 *0.354*	1,65 *0.065*	0,0 *0.0*	1,50 *0.059*	–	■	■
10NR1.9FG	1,9 *0.075*	6,35 *0.250*	9,0 *0.354*	1,9 *0.075*	0,0 *0.0*	1,75 *0.069*	–	■	■
10NR2.15FG	2,15 *0.085*	6,35 *0.250*	9,0 *0.354*	2,15 *0.085*	0,0 *0.0*	2,00 *0.079*	6TPI	■	■
10NR2.65FG	2,65 *0.104*	6,35 *0.250*	9,0 *0.354*	2,65 *0.104*	0,0 *0.0*	2,50 *0.098*	–	■	■
14NR3.0FG	3,0 *0.118*	9,525 *0.375*	14,0 *0.551*	3,0 *0.118*	0,0 *0.0*	–	–	■	■
14NR3.2FG	3,2 *0.126*	9,525 *0.375*	14,0 *0.551*	3,2 *0.126*	0,0 *0.0*	3,00 *0.118*	–		■
14NR3.4FG	3,4 *0.134*	9,525 *0.375*	14,0 *0.551*	3,4 *0.134*	0,0 *0.0*	–	4TPI		■
14NR4.0FG	4,0 *0.157*	9,525 *0.375*	14,0 *0.551*	4,0 *0.157*	0,0 *0.0*	–	–	■	■
14NR4.2FG	4,2 *0.165*	9,525 *0.375*	14,0 *0.551*	4,2 *0.165*	0,0 *0.0*	4,00 *0.157*	–		■
20NR4.4FG	4,4 *0.173*	12,7 *0.500*	20,0 *0.787*	4,4 *0.173*	0,0 *0.0*	–	3TPI		■
20NR5.0FG	5,0 *0.197*	12,7 *0.500*	20,0 *0.787*	5,0 *0.197*	0,0 *0.0*	–	–	■	■
20NR5.2FG	5,2 *0.205*	12,7 *0.500*	20,0 *0.787*	5,2 *0.205*	0,0 *0.0*	5,00 *0.197*	–		■
20NR6.0FG	6,0 *0.236*	12,7 *0.500*	20,0 *0.787*	6,0 *0.236*	0,0 *0.0*	–	–		■
26NR8.0FG	8,0 *0.315*	15,875 *0.625*	26,0 *1.024*	8,0 *0.315*	0,0 *0.0*	–	–		■
20NR6.35FG	6,35 *0.250*	12,7 *0.500*	20,0 *0.787*	6,35 *0.250*	0,0 *0.0*	–	–		■
26NR10.0FG	10,0 *0.394*	15,875 *0.625*	26,0 *1.024*	10,0 *0.394*	0,0 *0.0*	–	–		■

Inserts – Precision Grooves, Axial Grooves



Tolerances:
CW = +0,05/0 / *+0.002/0*
Toolholder range and INPLM, see page(s) 910, 911

For ISO attribute explanation, see page 82

10



12



14/20



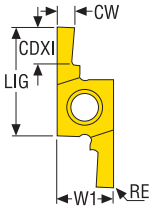
Designation External left	CW	W1	LIG	CDXI	RE	INPLM	For width	Grades Coated	
	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	CP30	CP500
10EAR2.5FA	2,5 *0.098*	6,35 *0.250*	9,0 *0.354*	2,5 *0.098*	0,0 *0.0*	16,0 *0.630*	2,5 *0.098*	■	■
12EAR2.5FD	2,5 *0.098*	6,35 *0.250*	12,0 *0.472*	5,0 *0.197*	0,2 *0.008*	18,0 *0.709*	2,5 *0.098*		■
14EAR4.0FA	4,0 *0.157*	9,525 *0.375*	14,0 *0.551*	4,0 *0.157*	0,0 *0.0*	22,0 *0.866*	4,0 *0.157*	■	■
20EAR6.0FA	6,0 *0.236*	12,7 *0.500*	20,0 *0.787*	6,0 *0.236*	0,0 *0.0*	28,0 *1.102*	6,0 *0.236*	■	■

Designation External left	CW	W1	LIG	CDXI	RE	INPLM	For width	Grades Coated	
	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	CP30	CP500
10EAL2.5FA	2,5 *0.098*	6,35 *0.250*	9,0 *0.354*	2,5 *0.098*	0,0 *–0.0*	16,0 *0.630*	2,5 *0.098*		■
12EAL2.5FD	2,5 *0.098*	6,35 *0.250*	12,0 *0.472*	5,0 *0.197*	0,2 *0.008*	18,0 *0.709*	2,5 *0.098*		■
14EAL4.0FA	4,0 *0.157*	9,525 *0.375*	14,0 *0.551*	4,0 *0.157*	0,0 *–0.0*	22,0 *0.866*	4,0 *0.157*	■	■
20EAL6.0FA	6,0 *0.236*	12,7 *0.500*	20,0 *0.787*	6,0 *0.236*	0,0 *–0.0*	28,0 *1.102*	6,0 *0.236*		■

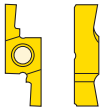
Inserts – Precision Grooves, Deep Radial Grooves

For ISO attribute explanation, see page 82

Tolerances:
CW = ±0,025/*0.001*
CDXI = +0,10/0 / *+0.004/0*
Toolholder range, see page(s) 905, 906, 907, 908, 909, 914, 915, 916, 917



..FD



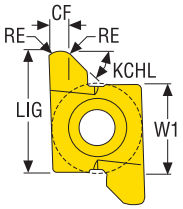
Designation External right Internal left	CW	W1	LIG	CDXI	RE	Grades Coated	
	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	CP30	CP500
10ER0.50FD	0,5 *0.020*	6,35 *0.250*	9,0 *0.354*	1,0 *0.039*	0,0 *0.0*		■
10ER0.80FD	0,8 *0.031*	6,35 *0.250*	9,0 *0.354*	1,6 *0.063*	0,0 *0.0*		■
10ER1.00FD	1,0 *0.039*	6,35 *0.250*	9,0 *0.354*	2,0 *0.079*	0,0 *0.0*		■
12ER1.04FD	1,04 *0.041*	6,35 *0.250*	12,0 *0.472*	2,08 *0.082*	0,0 *0.0*		■
12ER1.20FD	1,2 *0.047*	6,35 *0.250*	12,0 *0.472*	2,4 *0.094*	0,1 *0.004*		■
12ER1.40FD	1,4 *0.055*	6,35 *0.250*	12,0 *0.472*	2,8 *0.110*	0,1 *0.004*		■
12ER1.47FD	1,47 *0.058*	6,35 *0.250*	12,0 *0.472*	2,94 *0.116*	0,1 *0.004*		■
12ER1.50FD	1,5 *0.059*	6,35 *0.250*	12,0 *0.472*	3,0 *0.118*	0,1 *0.004*		■
12ER1.57FD	1,57 *0.062*	6,35 *0.250*	12,0 *0.472*	3,14 *0.124*	0,15 *0.006*		■
12ER1.70FD	1,7 *0.067*	6,35 *0.250*	12,0 *0.472*	3,4 *0.134*	0,15 *0.006*		■
12ER1.96FD	1,96 *0.077*	6,35 *0.250*	12,0 *0.472*	3,92 *0.154*	0,15 *0.006*		■
12ER2.00FD	2,0 *0.079*	6,35 *0.250*	12,0 *0.472*	4,0 *0.157*	0,2 *0.008*		■
12ER2.24FD	2,24 *0.088*	6,35 *0.250*	12,0 *0.472*	4,48 *0.176*	0,2 *0.008*		■
12ER2.30FD	2,3 *0.091*	6,35 *0.250*	12,0 *0.472*	4,6 *0.181*	0,2 *0.008*		■
12ER2.39FD	2,39 *0.094*	6,35 *0.250*	12,0 *0.472*	4,78 *0.188*	0,2 *0.008*		■
12ER2.65FD	2,65 *0.104*	6,35 *0.250*	12,0 *0.472*	5,3 *0.209*	0,2 *0.008*		■

Designation Internal right External left	CW	W1	LIG	CDXI	RE	Grades Coated	
	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	CP30	CP500
10NR0.50FD	0,5 *0.020*	6,35 *0.250*	9,0 *0.354*	1,0 *0.039*	0,0 *0.0*		■
10NR0.80FD	0,8 *0.031*	6,35 *0.250*	9,0 *0.354*	1,6 *0.063*	0,0 *0.0*		■
10NR1.00FD	1,0 *0.039*	6,35 *0.250*	9,0 *0.354*	2,0 *0.079*	0,0 *0.0*		■
12NR1.04FD	1,04 *0.041*	6,35 *0.250*	12,0 *0.472*	2,08 *0.082*	0,0 *0.0*		■
12NR1.20FD	1,2 *0.047*	6,35 *0.250*	12,0 *0.472*	2,4 *0.094*	0,1 *0.004*		■
12NR1.40FD	1,4 *0.055*	6,35 *0.250*	12,0 *0.472*	2,8 *0.110*	0,1 *0.004*		■
12NR1.47FD	1,47 *0.058*	6,35 *0.250*	12,0 *0.472*	2,94 *0.116*	0,1 *0.004*		■
12NR1.50FD	1,5 *0.059*	6,35 *0.250*	12,0 *0.472*	3,0 *0.118*	0,1 *0.004*		■
12NR1.57FD	1,57 *0.062*	6,35 *0.250*	12,0 *0.472*	3,14 *0.124*	0,15 *0.006*		■
12NR1.70FD	1,7 *0.067*	6,35 *0.250*	12,0 *0.472*	3,4 *0.134*	0,15 *0.006*		■
12NR1.96FD	1,96 *0.077*	6,35 *0.250*	12,0 *0.472*	3,92 *0.154*	0,15 *0.006*		■
12NR2.00FD	2,0 *0.079*	6,35 *0.250*	12,0 *0.472*	4,0 *0.157*	0,2 *0.008*		■
12NR2.24FD	2,24 *0.088*	6,35 *0.250*	12,0 *0.472*	4,48 *0.176*	0,2 *0.008*		■
12NR2.30FD	2,3 *0.091*	6,35 *0.250*	12,0 *0.472*	4,6 *0.181*	0,2 *0.008*		■
12NR2.39FD	2,39 *0.094*	6,35 *0.250*	12,0 *0.472*	4,78 *0.188*	0,2 *0.008*		■
12NR2.65FD	2,65 *0.104*	6,35 *0.250*	12,0 *0.472*	5,3 *0.209*	0,2 *0.008*		■

Inserts – Precision Grooves, DIN76

For ISO attribute explanation, see page 82

Tolerances:
RE = ±0,05/*0.002*
Toolholder range, see page(s) 905, 906, 907, 908, 909, 914, 915, 916, 917



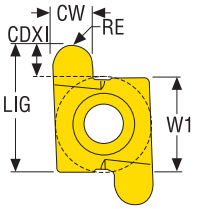
..D76



Designation External right Internal left	CF	W1	LIG	RE	For max pitch	KCHR°	KCHL°	Grades Coated	
	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*			CP30	CP500
10ER1.0D76	2,0 *0.079*	6,35 *0.250*	9,0 *0.354*	0,5 *0.020*	1,0 *0.039*	0	45		■
14ER1.5D76	3,1 *0.122*	9,525 *0.375*	14,0 *0.551*	0,75 *0.030*	1,5 *0.059*	0	45	■	■
20ER2.0D76	4,5 *0.177*	12,7 *0.500*	20,0 *0.787*	1,0 *0.039*	2,0 *0.079*	0	45		■

Designation Internal right External left	CF	W1	LIG	RE	For max pitch	KCHR°	KCHL°	Grades Coated	
	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*			CP30	CP500
10NR1.0D76	2,0 *0.079*	6,35 *0.250*	9,0 *0.354*	0,5 *0.020*	1,0 *0.039*	45	0		■
14NR1.5D76	3,1 *0.122*	9,525 *0.375*	14,0 *0.551*	0,75 *0.030*	1,5 *0.059*	45	0		■
20NR2.0D76	4,5 *0.177*	12,7 *0.500*	20,0 *0.787*	1,0 *0.039*	2,0 *0.079*	45	0		■

Inserts – Precision Grooves, Radius



..R



Tolerances:
RE = ±0,05/*0.002*
Toolholder range, see page(s) 905, 906, 907, 908, 909, 914, 915, 916, 917

For ISO attribute explanation, see page 82

Designation External right Internal left	CW	W1	LIG	CDXI	RE	For radius	Grades Coated	
	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	CP30	CP500
10ER1.0R	2,0 *0.079*	6,35 *0.250*	9,0 *0.354*	2,4 *0.094*	1,0 *0.039*	1,0 *0.039*		■
10ER1.2R	2,4 *0.094*	6,35 *0.250*	9,0 *0.354*	2,4 *0.094*	1,2 *0.047*	1,2 *0.047*		■
14ER1.5R	3,0 *0.118*	9,525 *0.375*	14,0 *0.551*	4,0 *0.157*	1,5 *0.059*	1,5 *0.059*	■	■
14ER2.0R	4,0 *0.157*	9,525 *0.375*	14,0 *0.551*	4,28 *0.169*	2,0 *0.079*	2,0 *0.079*	■	■
20ER3.0R	6,0 *0.236*	12,7 *0.500*	20,0 *0.787*	6,9 *0.272*	3,0 *0.118*	3,0 *0.118*	■	■
26ER4.0R	8,0 *0.315*	15,875 *0.625*	26,0 *1.024*	9,8 *0.386*	4,0 *0.157*	4,0 *0.157*		■
26ER5.0R	10,0 *0.394*	15,875 *0.625*	26,0 *1.024*	9,8 *0.386*	5,0 *0.197*	5,0 *0.197*		■

Designation Internal right External left	CW	W1	LIG	CDXI	RE	For radius	Grades Coated	
	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	CP30	CP500
10NR1.0R	2,0 *0.079*	6,35 *0.250*	9,0 *0.354*	2,4 *0.094*	1,0 *0.039*	1,0 *0.039*		■
10NR1.2R	2,4 *0.094*	6,35 *0.250*	9,0 *0.354*	2,4 *0.094*	1,2 *0.047*	1,2 *0.047*	■	■
14NR1.5R	3,0 *0.118*	9,525 *0.375*	14,0 *0.551*	4,28 *0.169*	1,5 *0.059*	1,5 *0.059*	■	■
14NR2.0R	4,0 *0.157*	9,525 *0.375*	14,0 *0.551*	4,28 *0.169*	2,0 *0.079*	2,0 *0.079*		■
20NR3.0R	6,0 *0.236*	12,7 *0.500*	20,0 *0.787*	6,9 *0.272*	3,0 *0.118*	3,0 *0.118*	■	■
26NR4.0R	8,0 *0.315*	15,875 *0.625*	26,0 *1.024*	9,8 *0.386*	4,0 *0.157*	4,0 *0.157*		■
26NR5.0R	10,0 *0.394*	15,875 *0.625*	26,0 *1.024*	9,8 *0.386*	5,0 *0.197*	5,0 *0.197*		■

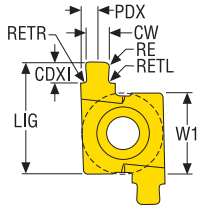
Inserts – Precision Grooves, O-ring Static

For ISO attribute explanation, see page 82

Standard
* =
SMS 1588, BS 4518

** =
ISO 3601, DIN 3771, BS 1806

Tolerances:
CW = +0,07/-0,03 / *+0.003/-0.0012*
RETR/RETL = ±0,05/*0.002*
RE = ±0,15/*0.006*
CDXI = ±0,025/*0.001*
Toolholder range, see page(s) 905, 906, 907, 908, 909, 914, 915, 916, 917



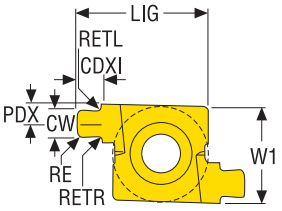
..ST



Designation External right Internal left	CW	PDX	W1	LIG	RETR	RETL	CDXI	RE	For O-ring		Standard	Grades Coated	
	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm	*inch*		CP30	CP500
14ER1.6ST	2,4 *0.094*	2,0 *0.079*	9,525 *0.375*	14,0 *0.551*	0,2 *0.008*	0,2 *0.008*	1,11 *0.044*	0,5 *0.020*	1,60	–	*		■
14ER2.4ST	3,2 *0.126*	2,0 *0.079*	9,525 *0.375*	14,0 *0.551*	0,23 *0.009*	0,23 *0.009*	1,78 *0.070*	0,5 *0.020*	2,40	–	*		■
20ER3.0ST	3,8 *0.150*	3,2 *0.126*	12,7 *0.500*	20,0 *0.787*	0,3 *0.012*	0,3 *0.012*	2,25 *0.089*	1,0 *0.039*	3,00	–	*		■
20ER3.55ST	4,8 *0.189*	3,2 *0.126*	12,7 *0.500*	20,0 *0.787*	0,3 *0.012*	0,3 *0.012*	2,64 *0.104*	0,75 *0.030*	3,55	0.140	**		■
20ER4.1ST	5,1 *0.201*	3,2 *0.126*	12,7 *0.500*	20,0 *0.787*	0,4 *0.016*	0,4 *0.016*	3,19 *0.126*	1,0 *0.039*	4,10	–	*		■
26ER5.7ST	6,5 *0.256*	5,0 *0.197*	15,875 *0.625*	26,0 *1.024*	0,4 *0.016*	0,4 *0.016*	4,56 *0.180*	1,0 *0.039*	5,70	–	*		■

Designation Internal right External left	CW	PDX	W1	LIG	RETR	RETL	CDXI	RE	For O-ring		Standard	Grades Coated	
	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm	*inch*		CP30	CP500
14NR1.6ST	2,4 *0.094*	2,0 *0.079*	9,525 *0.375*	14,0 *0.551*	0,2 *0.008*	0,2 *0.008*	1,11 *0.044*	0,5 *0.020*	1,60	–	*		■
20NR3.0ST	3,8 *0.150*	3,2 *0.126*	12,7 *0.500*	20,0 *0.787*	0,3 *0.012*	0,3 *0.012*	2,25 *0.089*	1,0 *0.039*	3,00	–	*		■
26NR5.7ST	6,5 *0.256*	5,0 *0.197*	15,875 *0.625*	26,0 *1.024*	0,4 *0.016*	0,4 *0.016*	4,56 *0.180*	1,0 *0.039*	5,70	–	*		■

Inserts – Precision Grooves, O-ring Axial



..AX



Tolerances:
CW = +0,07/-0,03 / *+0.003/-0.0012*
RETR/RETL = ±0,05/*0.002*
RE = ±0,15/*0.006*
CDXI = ±0,025/*0.001*
Toolholder range, see page(s) 910, 911

For ISO attribute explanation, see page 82

Standard
* =
SMS 1588, BS 4518

** =
ISO 3601, DIN 3771, BS 1806

Designation External right	CW	PDX	W1	LIG	RETR	RETL	CDXI	RE	For O-ring		Standard	Grades Coated	
	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm	*inch*		CP30	CP500
14EAR2.4AX	3,4 *0.134*	2,0 *0.079*	9,525 *0.375*	14,0 *0.551*	0,2 *0.008*	0,2 *0.008*	1,6 *0.063*	0,5 *0.020*	2,40	–	*		■
14EAR2.65AX	3,6 *0.142*	2,1 *0.083*	9,525 *0.375*	14,0 *0.551*	0,25 *0.010*	0,25 *0.010*	2,07 *0.081*	0,5 *0.020*	3,00	–	*		■
20EAR3.0AX	4,2 *0.165*	3,2 *0.126*	12,7 *0.500*	20,0 *0.787*	0,25 *0.010*	0,25 *0.010*	2,07 *0.081*	1,0 *0.039*	2,65	0.104	**		■
20EAR3.55AX	4,9 *0.193*	3,2 *0.126*	12,7 *0.500*	20,0 *0.787*	0,3 *0.012*	0,3 *0.012*	2,79 *0.110*	0,75 *0.030*	3,55	0.140	**		■

Designation External left	CW	PDX	W1	LIG	RETR	RETL	CDXI	RE	For O-ring		Standard	Grades Coated	
	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm	*inch*		CP30	CP500
14EAL2.4AX	3,4 *0.134*	2,0 *0.079*	9,525 *0.375*	14,0 *0.551*	0,2 *0.008*	0,2 *0.008*	1,6 *0.063*	0,5 *0.020*	2,40	–	*		■

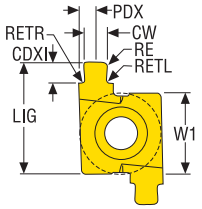
Inserts – Precision Grooves, O-ring Dynamic

For ISO attribute explanation, see page 82

Standard
* =
SMS 1588, BS 4518

** =
ISO 3601, DIN 3771, BS 1806

Tolerances:
CW = +0,07/-0,03 / *+0.003/-0.0012*
RETR/RETL = ±0,05/*0.002*
RE = ±0,15/*0.006*
CDXI = ±0,025/*0.001*
Toolholder range, see page(s) 905, 906, 907, 908, 909, 914, 915, 916, 917



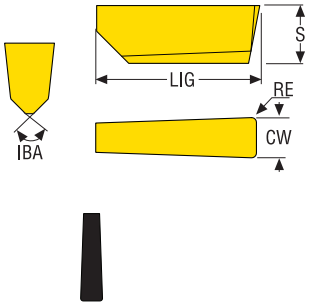
..DY



Designation External right Internal left	CW	PDX	W1	LIG	RETR	RETL	CDXI	RE	For O-ring		Standard	Grades Coated	
	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm	*inch*		CP30	CP500
14ER2.4DY	3,3 *0.130*	2,0 *0.079*	9,525 *0.375*	14,0 *0.551*	0,25 *0.010*	0,25 *0.010*	1,87 *0.074*	0,5 *0.020*	2,40	–	*		■
20ER3.0DY	4,1 *0.161*	3,2 *0.126*	12,7 *0.500*	20,0 *0.787*	0,25 *0.010*	0,25 *0.010*	2,36 *0.093*	1,0 *0.039*	3,00	–	*		■
14ER1.8DY	2,4 *0.094*	2,0 *0.079*	9,525 *0.375*	14,0 *0.551*	0,2 *0.008*	0,2 *0.008*	1,45 *0.057*	0,5 *0.020*	1,80	0.071	**		■
14ER2.65DY	3,6 *0.142*	2,1 *0.083*	9,525 *0.375*	14,0 *0.551*	0,3 *0.012*	0,3 *0.012*	2,16 *0.085*	0,5 *0.020*	2,65	0.104	**		■
20ER3.55DY	4,8 *0.189*	3,2 *0.126*	12,7 *0.500*	20,0 *0.787*	0,3 *0.012*	0,3 *0.012*	2,97 *0.117*	0,65 *0.026*	3,55	0.140	**		■

Designation Internal right External left	CW	PDX	W1	LIG	RETR	RETL	CDXI	RE	For O-ring		Standard	Grades Coated	
	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm	*inch*		CP30	CP500
14NR2.4DY	3,3 *0.130*	2,0 *0.079*	9,525 *0.375*	14,0 *0.551*	0,25 *0.010*	0,25 *0.010*	1,87 *0.074*	0,5 *0.020*	2,40	–	*		■
14NR1.8DY	2,4 *0.094*	2,0 *0.079*	9,525 *0.375*	14,0 *0.551*	0,2 *0.008*	0,2 *0.008*	1,45 *0.057*	0,5 *0.020*	1,80	0.071	**		■

LPGN



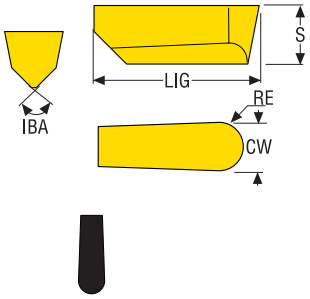
Tolerances:
CW = ±0,025/*0.001*
LIG = ±0,04/*0.0016*
S = ±0,05/*0.002*
RE = ±0,025/*0.001*

For ISO attribute explanation, see page 82
Tip sizes, see page(s) 136
Edge preparation, see page(s) 132

IBA = 90°

Designation	RE	CW	LIG	S	Grades Coated
	mm *inch*	mm *inch*	mm *inch*	mm *inch*	CW100
LPGN120404-03175E	0,381 *0.015*	3,175 *0.125*	12,7 *0.500*	4,5 *0.177*	■
LPGN190608-0635E	0,787 *0.031*	6,35 *0.250*	19,1 *0.752*	6,1 *0.240*	■
LPGN250808-07925E	0,787 *0.031*	7,925 *0.312*	25,4 *1.000*	8,31 *0.327*	■

LPGN



Tolerances:
CW = ±0,025/*0.001*
LIG = ±0,04/*0.0016*
S = ±0,05/*0.002*
RE = ±0,025/*0.001*

For ISO attribute explanation, see page 82
Tip sizes, see page(s) 136
Edge preparation, see page(s) 132

IBA = 90°

Designation	RE	CW	LIG	S	Grades Coated
	mm *inch*	mm *inch*	mm *inch*	mm *inch*	CW100
LPGN1906M0-0635E	3,175 *0.125*	6,35 *0.250*	19,1 *0.752*	6,1 *0.240*	■



Parting-off

Optimized for parting-off applications, the Seco 150.10 consists of a high-speed steel blade that holds the insert and a holder that retains the blade. This setup provides maximum stability, while the heat resistance of the high-speed steel ensures the insert will be securely retained especially when the blade is hot.

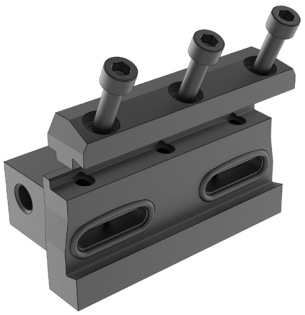
- Inserts in neutral version N are first choice.
- R/L-inserts have a setting angle of 6° in order to eliminate burrs.
- Three different chipbreakers, -12, -14 and -16 depending on workpiece material.

Parting-off

System Designation | Shank width | Jetstream Tooling® integrated coolant inlet

150.10 - 20 20 - 20 JETI

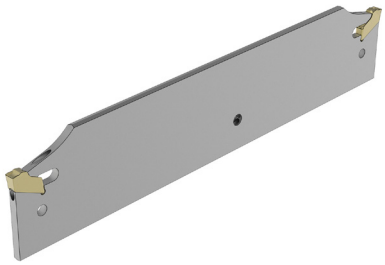
Shank height | Blade height



System Designation | Insert size | Jetstream Tooling® Duo integrated coolant inlet

150.10A - 20 - 4 R JETI

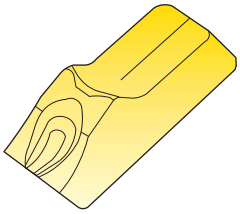
Blade height | R = Right, L = Left



System Designation | Neutral version

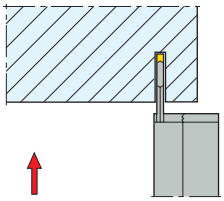
150.10 - 4 N - 14

Insert size | Chipbreaker



For more information on Jetstream Tooling® and accessories, see page(s) 38, 85-89, 1026

Parting-off, up to ∅160 mm



General

Use the highest blade possible (size 25) for maximum stability.

Use the shortest overhang possible for maximum stability and low risk of vibrations.

Make sure that the tool is at 90° to the centre-line of the component to ensure part quality and good tool life.

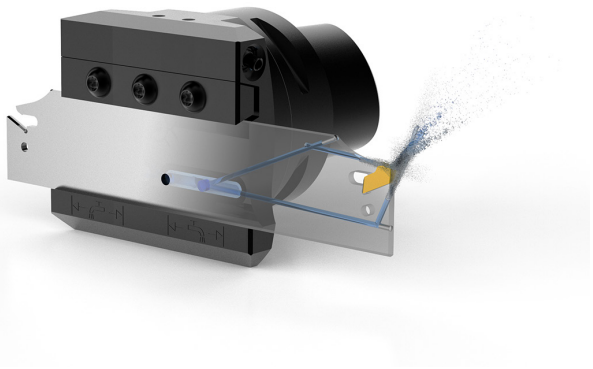
Ideally, parting-off is run with a sub-spindle or part-catcher. In this case the cutting edge will be protected by having the second spindle or a fixture picking up the workpiece.

Parting-off without sub-spindle requires the feed rate to be reduced as the tool approaches centre (by up to 75% about 2 mm before the component centre – depending on workpiece diameter). May also be applied on tubes to reduce burr.

A well-aimed and sufficient flow of coolant, ideally through the blades 150.10JETI, will give long tool life and good surface finish.

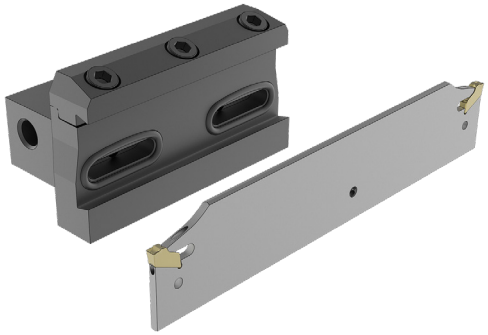
Smaller inserts reduce the material waste and thus reduce material cost. On the other hand wider inserts allow higher feed rates, which increases productivity. The optimum depends on the customer

Seco Jetstream Tooling® Duo holders, yet another innovation introduced to market, feature both a rake face and flank face jet, that may provide even better chip control and significantly longer tool life.



Toolholders

The Seco 150.10A parting-off system consists of a high speed steel blade which holds the insert and a holder which retains the blade. This provides maximum stability, while the hot strength of the high speed steel ensures that the insert will be securely retained even when the blade is hot.

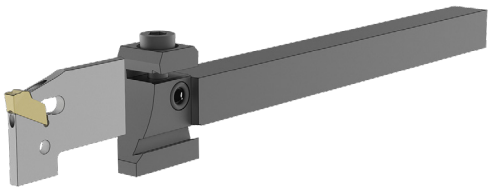


Type 150.10..-20/25JETI basic holder

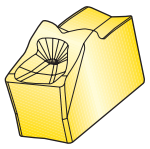
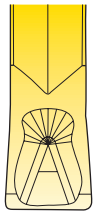
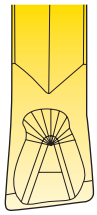
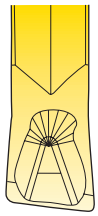
Intended for long, reversible high speed steel blades with a depth of cut of up to 160 mm diameter. The same holder is suitable for both right-hand and left-hand versions. JETI functionality with integrated coolant delivery straight to the cutting edge.

Type 150.10..-15JETI blade holder

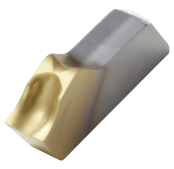
Intended for short high speed steel blades for cutting depths up to 38 mm diameter. The high speed steel blade ensures excellent stability and, due to the compact design, is suitable for machines with limited space, such as automatic lathes. JETI functionality with integrated coolant delivery straight to the cutting edge.



Inserts

Inserts N-/ R- /L-		
Inserts in neutral version N are first choice since they normally achieve increased tool life, better chip control, high surface quality and allow higher cutting data compared to the handed (R-/L-) version. The R-/L-inserts have a setting angle of 6° in order to eliminate burrs and minimize the parting-off pip left on the workpiece. To reduce pip size with N-inserts, use the smallest width possible. The correct centre height is another major factor to avoid pips (control to ±0,1 mm). When using R-/L-inserts, the feed rate should be reduced by approximately 30%. Convex or concave surfaces will be avoided, when using right or left hand inserts, by reducing the feed rate.		
N	**R**	**L**
		

Chipbreakers

Chipbreakers		
First choice for steel at low feed rates. 24° positive cutting rake angle. Excellent chipbreaking.	First choice for stainless steel. First choice for steel at medium-high feed rates. 15° positive cutting rake angle with sharp edge.	First choice for steel and cast iron in difficult conditions and/or high feed rates. 20° positive cutting rake angle. Strong protection chamfer.
-12	**-14**	**-16**
		

Recommended feed rates

Insert width CW (mm)	Chip-breaker	Radial infeed, f (mm/rev)					
		Type N insert			Type R/L insert		
		Recom. initial value	Recom. limit value		Recom. initial value	Recom. limit value	
			min –	max		min –	max
1,40	-12	–	–	–	–	–	–
	-14	0,05	0,04	0,12	–	–	–
	-16	0,06	0,04	0,12	–	–	–
2,0	-12	–	–	–	–	–	–
	-14	0,07	0,05	0,14	–	–	–
	-16	0,08	0,05	0,15	–	–	–
2,25	-12	–	–	–	–	–	–
	-14	0,09	0,05	0,16	–	–	–
	-16	0,10	0,05	0,20	–	–	–
2,5	-12	0,09	0,05	0,18	0,06	0,04	0,13
	-14	0,10	0,07	0,20	0,07	0,05	0,14
	-16	0,13	0,10	0,24	0,09	0,07	0,17
3,1	-12	0,10	0,05	0,20	0,07	0,04	0,14
	-14	0,13	0,08	0,24	0,09	0,06	0,17
	-16	0,18	0,12	0,28	0,13	0,08	0,20
4,1	-12	0,13	0,07	0,22	0,09	0,05	0,15
	-14	0,15	0,09	0,26	0,11	0,06	0,18
	-16	0,20	0,14	0,32	0,14	0,10	0,22
5,1	-12	0,15	0,08	0,26	0,11	0,06	0,18
	-14	0,18	0,10	0,34	0,13	0,07	0,24
	-16	0,23	0,16	0,40	0,16	0,11	0,28
6,3	-12	0,17	0,10	0,30	0,12	0,07	0,21
	-14	0,20	0,14	0,38	0,14	0,10	0,27
	-16	0,25	0,18	0,42	0,18	0,13	0,29

Grades

TGP35
Wear-resistant **Duratomic**® CVD-coated grade intended for parting-off of steel and cast iron at high cutting speeds.

TGP45
Wear-resistant **Duratomic**® CVD-coated grade intended for parting-off of steel and stainless steel at moderate to high cutting speeds.

T25M
Tough versatile CVD-coated grade intended for parting-off of steel, stainless steel and cast iron at moderate cutting speeds.

T350M
Tough versatile CVD-coated grade intended for parting-off in a variety of workpiece materials at moderate cutting speeds.

TGS2050
Hard and wear-resistant PVD-coated micrograin grade intended for parting-off of superalloys. First choice for ISO-S materials and CoCr-alloys.

CP500
Tough, versatile PVD-coated micrograin grade intended for parting-off of steel, stainless steel, superalloys and titanium at low to moderate cutting speeds. First choice in stainless steel. Provides more wear resistance compared to CP600

CP600
Very tough PVD-coated fine-grain grade intended for parting-off of steel, stainless steel, superalloys and titanium at low cutting speeds. Well-suited in interrupted cuts. Universal choice.

HX
Uncoated wear-resistant hard grade intended for parting-off of hardened steels, superalloys, titanium alloys and non-ferrous materials.

Appllication recommendations

Easy conditions: pre-machined surface, shallow grooves etc.

Difficult conditions: raw surface, deep grooves etc.

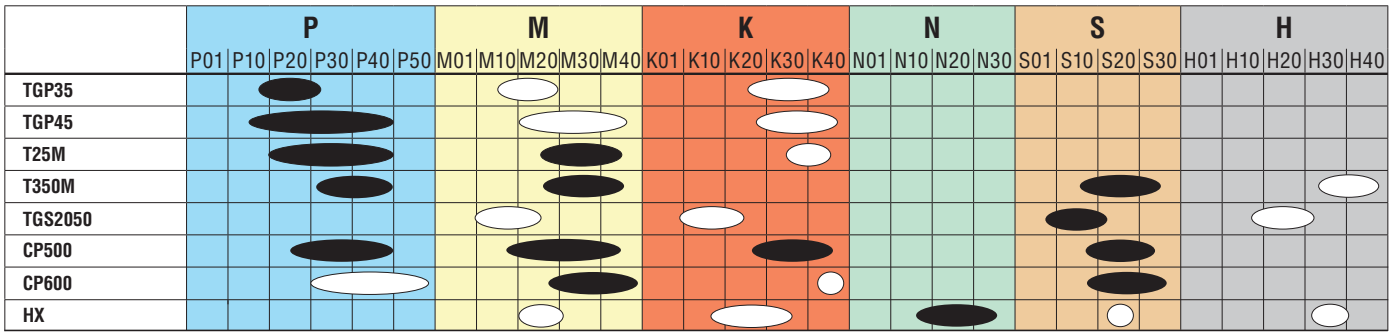
To centre		Tube	
Easy conditions	Difficult conditions	Easy conditions	Difficult conditions
I2 CP500	I6 CP600	I6 TGP45	I6 CP600
I4 CP500	I6 CP600	I4 CP500	I6 CP600
I2 TGP35	I6 T25M	I2 TGP35	I6 TGP45
I4 HX	I6 HX	I4 HX	I6 HX
I6 TGS2050	I4 CP600	I6 TGS2050	I6 CP600
I6 TGS2050	I6 T350M	I6 TGS2050	I6 T350M

Parting-off – Grades Secolor

The chart belows shows application areas for grades available in the Parting-off system 150.10.
The black areas in the chart indicate a grade's main ISO application groups and the white areas indicate other supplementary application groups.

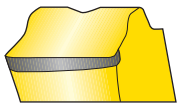
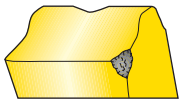
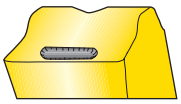
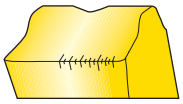
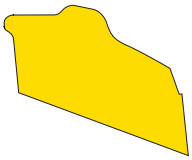
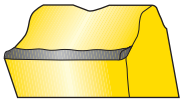
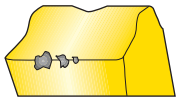
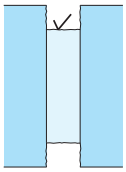
Indicative ISO classification of the grades

Steel **P**	All kinds of steel and cast steels except stainless steels with austenitic structure.	P01, P10, P20, P30, P40, P50
Stainless steel **M**	Stainless austenitic and austenitic/ferritic steel and cast steel.	M01, M10, M20, M30, M40
Cast iron **K**	Grey cast iron, cast iron with spheroidal graphite, malleable cast iron.	K01, K10, K20, K30, K40
Non-ferrous metals **N**	Aluminium and other nonferrous metals.	N01, N10, N20, N30
Superalloys and titanium **S**	Heat resistant special alloys based on iron, nickel and cobalt, titanium and titanium alloys.	S01, S10, S20, S30
Hard materials **H**	Hardened stel and cast iron materials, chilled cast iron.	H01, H10, H20, H30



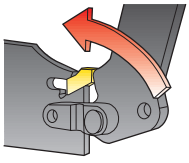
Troubleshooting

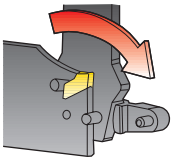
Troubleshooting

Flank wear 	Reduce the cutting speed. Select a more wear resistant grade.	Insert fracture 	Reduce the feed rate. Select a tougher grade. Select a stronger chipbreaker.
Crater wear 	Use a coolant. Select a more wear resistant grade. Reduce the cutting speed. Reduce the feed rate.	Comb cracks 	Reduce the cutting speed. Reduce the feed rate. Ensure that the coolant flow is adequate and constant. If not, shut off the coolant.
Plastic deformation 	Use a coolant. Select a more wear resistant grade. Reduce the cutting speed. Reduce the feed rate.	Built-up edge 	Increase the cutting speed. Increase the feed rate. Do not use coolant.
Edge chipping 	Select a tougher grade. Check the workpiece mounting. Check the cutting speed.	Poor finish 	Reduce the feed rate. Increase the cutting speed. Use a coolant. Improve the stability. Check the alignment of the tool.

Change of insert

Inserts are changed with the aid of key 150.10A-150.





Cutting speed, v_c (m/min)

In this section a recommended cutting speed is indicated under specified conditions.
Use the tables beginning on page(s) 1030 to classify the workpiece material into a SMG.
The cutting data tables provide a recommendation of chipbreaker and a start value for feed rate (f) and cutting speed (v_c) for selected cutting width (CW).
The recommended cutting speeds in the tables are calculated for 15 minutes tool life with use of external flood coolant.
In order to increase the accuracy towards the actual cutting conditions and requirements of the applications the recommendation is to use
My Pages – Suggest on www.secotools.com

v_c = cutting speed (m/min)

CW = cutting width (mm)

f = feed rate (mm/rev)

Grade TGP35

SMG		CW = 2,5 *CW = 0.098*		CW = 3 *CW = 0.118*		CW = 4 *CW = 0.157*		CW = 5-6 *CW = 0.197-0.236*	
		f	v_c	f	v_c	f	v_c	f	v_c
P1	-16 TGP35	0,14 *0.0055*	310 *1025*	0,19 *0.0075*	265 *870*	0,22 *0.0085*	235 *770*	0,28 *0.011*	190 *620*
P2	-16 TGP35	0,14 *0.0055*	305 *1000*	0,20 *0.0080*	250 *820*	0,22 *0.0085*	230 *750*	0,28 *0.011*	185 *610*
P3	-16 TGP35	0,14 *0.0055*	260 *850*	0,19 *0.0075*	220 *720*	0,22 *0.0085*	200 *660*	0,26 *0.010*	170 *560*
P4	-16 TGP35	0,13 *0.0050*	235 *770*	0,18 *0.0070*	200 *660*	0,20 *0.0080*	185 *610*	0,26 *0.010*	150 *490*
P5	-16 TGP35	0,13 *0.0050*	225 *740*	0,18 *0.0070*	190 *620*	0,20 *0.0080*	180 *590*	0,26 *0.010*	140 *460*
P6	-16 TGP35	0,13 *0.0050*	255 *840*	0,18 *0.0070*	215 *710*	0,20 *0.0080*	200 *660*	0,25 *0.010*	165 *540*
P7	-16 TGP35	0,13 *0.0050*	240 *790*	0,18 *0.0070*	205 *670*	0,20 *0.0080*	190 *620*	0,25 *0.010*	155 *510*
P8	-16 TGP35	0,14 *0.0055*	220 *720*	0,19 *0.0075*	185 *610*	0,22 *0.0085*	165 *540*	0,26 *0.010*	140 *460*
P11	-16 TGP35	0,13 *0.0050*	230 *750*	0,18 *0.0070*	200 *660*	0,20 *0.0080*	185 *610*	0,25 *0.010*	150 *490*
P12	-16 TGP35	0,090 *0.0036*	145 *475*	0,12 *0.0048*	140 *460*	0,14 *0.0055*	130 *425*	0,17 *0.0065*	120 *395*
M1	-14 TGP35	0,10 *0.0040*	180 *590*	0,13 *0.0050*	160 *520*	0,15 *0.0060*	145 *475*	0,19 *0.0075*	120 *395*
M2	-14 TGP35	0,090 *0.0036*	150 *490*	0,12 *0.0048*	135 *445*	0,13 *0.0050*	130 *425*	0,18 *0.0070*	100 *330*
M3	-14 TGP35	0,075 *0.0030*	120 *395*	0,095 *0.0038*	110 *360*	0,11 *0.0044*	105 *345*	0,14 *0.0055*	90 *295*
M4	-14 TGP35	0,065 *0.0026*	90 *295*	0,080 *0.0032*	85 *280*	0,095 *0.0038*	85 *280*	0,12 *0.0048*	75 *245*
M5	-14 TGP35	0,065 *0.0026*	75 *245*	0,080 *0.0032*	75 *245*	0,095 *0.0038*	70 *230*	0,12 *0.0048*	65 *215*

Grade TGP45

SMG		CW = 1,4 *CW = 0.055*		CW = 2,0-2,5 *CW = 0.079-0.098*		CW = 3 *CW = 0.118*		CW = 4 *CW = 0.157*		CW = 5-6 *CW = 0.197-0.236*	
		f	v_c	f	v_c	f	v_c	f	v_c	f	v_c
P1	-16 TGP45	0,080 *0.0032*	300 *980*	0,12 *0.0048*	290 *950*	0,19 *0.0075*	235 *770*	0,22 *0.0085*	210 *690*	0,28 *0.011*	165 *540*
P2	-16 TGP45	0,080 *0.0032*	290 *950*	0,13 *0.0050*	275 *900*	0,20 *0.0080*	220 *720*	0,22 *0.0085*	205 *670*	0,28 *0.011*	165 *540*
P3	-16 TGP45	0,075 *0.0030*	250 *820*	0,12 *0.0048*	245 *800*	0,19 *0.0075*	195 *640*	0,22 *0.0085*	175 *570*	0,26 *0.010*	150 *490*
P4	-16 TGP45	0,075 *0.0030*	220 *720*	0,12 *0.0048*	215 *710*	0,18 *0.0070*	180 *590*	0,20 *0.0080*	165 *540*	0,26 *0.010*	130 *425*
P5	-16 TGP45	0,075 *0.0030*	210 *690*	0,11 *0.0044*	210 *690*	0,18 *0.0070*	170 *560*	0,20 *0.0080*	160 *520*	0,26 *0.010*	125 *410*
P6	-16 TGP45	0,070 *0.0028*	230 *750*	0,11 *0.0044*	235 *770*	0,18 *0.0070*	190 *620*	0,20 *0.0080*	175 *570*	0,25 *0.010*	145 *475*
P7	-16 TGP45	0,070 *0.0028*	220 *720*	0,11 *0.0044*	220 *720*	0,18 *0.0070*	180 *590*	0,20 *0.0080*	165 *540*	0,25 *0.010*	140 *460*
P8	-16 TGP45	0,075 *0.0030*	210 *690*	0,12 *0.0048*	205 *670*	0,19 *0.0075*	165 *540*	0,22 *0.0085*	145 *475*	0,26 *0.010*	125 *410*
P11	-16 TGP45	0,070 *0.0028*	210 *690*	0,11 *0.0044*	215 *710*	0,18 *0.0070*	175 *570*	0,20 *0.0080*	160 *520*	0,25 *0.010*	135 *445*
P12	-16 TGP45	0,050 *0.0020*	110 *360*	0,080 *0.0032*	130 *425*	0,12 *0.0048*	125 *410*	0,14 *0.0055*	115 *375*	0,17 *0.0065*	105 *345*
M1	-14 TGP45	0,075 *0.0030*	170 *560*	0,095 *0.0038*	165 *540*	0,13 *0.0050*	140 *460*	0,15 *0.0060*	130 *425*	0,19 *0.0075*	105 *345*
M2	-14 TGP45	0,065 *0.0026*	140 *460*	0,085 *0.0034*	135 *445*	0,12 *0.0048*	120 *395*	0,13 *0.0050*	115 *375*	0,18 *0.0070*	90 *295*
M3	-14 TGP45	0,055 *0.0022*	105 *345*	0,070 *0.0028*	105 *345*	0,095 *0.0038*	100 *330*	0,11 *0.0044*	95 *310*	0,14 *0.0055*	80 *260*
M4	-14 TGP45	0,046 *0.0018*	75 *245*	0,060 *0.0024*	80 *260*	0,080 *0.0032*	75 *245*	0,095 *0.0038*	75 *245*	0,12 *0.0048*	65 *215*
M5	-14 TGP45	0,046 *0.0018*	60 *195*	0,060 *0.0024*	65 *215*	0,080 *0.0032*	65 *215*	0,095 *0.0038*	60 *195*	0,12 *0.0048*	55 *180*

Grade TGS2050

SMG		CW = 1,4 *CW = 0.055*		CW = 2,0-2,5 *CW = 0.079-0.098*		CW = 3 *CW = 0.118*		CW = 4 *CW = 0.157*	
		f	v_c	f	v_c	f	v_c	f	v_c
M1	-14 TGS2050	0,075 *0.0030*	200 *660*	0,095 *0.0038*	195 *640*	0,13 *0.0050*	170 *560*	0,15 *0.0060*	155 *510*
M2	-14 TGS2050	0,065 *0.0026*	160 *520*	0,085 *0.0034*	160 *520*	0,12 *0.0048*	145 *475*	0,13 *0.0050*	135 *445*
M3	-14 TGS2050	0,055 *0.0022*	115 *375*	0,070 *0.0028*	125 *410*	0,095 *0.0038*	120 *395*	0,11 *0.0044*	115 *375*
M4	-14 TGS2050	0,046 *0.0018*	80 *260*	0,060 *0.0024*	90 *295*	0,080 *0.0032*	90 *295*	0,095 *0.0038*	90 *295*
M5	-14 TGS2050	0,046 *0.0018*	70 *230*	0,060 *0.0024*	75 *245*	0,080 *0.0032*	75 *245*	0,095 *0.0038*	75 *245*
S1	-16 TGS2050	0,050 *0.0020*	36 *120*	0,080 *0.0032*	31 *100*	0,13 *0.0050*	27 *90*	0,14 *0.0055*	26 *85*
S2	-16 TGS2050	0,046 *0.0018*	29 *95*	0,060 *0.0024*	27 *90*	0,080 *0.0032*	25 *80*	0,095 *0.0038*	24 *80*
S3	-16 TGS2050	0,044 *0.0017*	26 *85*	0,055 *0.0022*	24 *80*	0,075 *0.0030*	22 *70*	0,085 *0.0034*	21 *70*
S11	-16 TGS2050	0,055 *0.0022*	50 *165*	0,070 *0.0028*	47 *155*	0,095 *0.0038*	43 *140*	0,11 *0.0044*	41 *135*
S12	-16 TGS2050	0,055 *0.0022*	39 *130*	0,070 *0.0028*	36 *120*	0,095 *0.0038*	33 *110*	0,11 *0.0044*	31 *100*
S13	-16 TGS2050	0,046 *0.0018*	31 *100*	0,060 *0.0024*	29 *95*	0,080 *0.0032*	27 *90*	0,095 *0.0038*	25 *80*

Grade T25M

SMG		CW = 2,25-2,5 *CW = 0.089-0.098*		CW = 3 *CW = 0.118*		CW = 4 *CW = 0.157*		CW = 5-6 *CW = 0.197-0.236*	
		f	v_c	f	v_c	f	v_c	f	v_c
P1	-16 T25M	0,14 *0.0055*	250 *820*	0,19 *0.0075*	210 *690*	0,22 *0.0085*	190 *620*	0,28 *0.011*	150 *490*
P2	-16 T25M	0,14 *0.0055*	245 *800*	0,20 *0.0080*	200 *660*	0,22 *0.0085*	185 *610*	0,28 *0.011*	145 *475*
P3	-16 T25M	0,14 *0.0055*	210 *690*	0,19 *0.0075*	175 *570*	0,22 *0.0085*	160 *520*	0,26 *0.010*	135 *445*
P4	-16 T25M	0,13 *0.0050*	190 *620*	0,18 *0.0070*	160 *520*	0,20 *0.0080*	150 *490*	0,26 *0.010*	120 *395*
P5	-16 T25M	0,13 *0.0050*	180 *590*	0,18 *0.0070*	155 *510*	0,20 *0.0080*	140 *460*	0,26 *0.010*	115 *375*
P6	-16 T25M	0,13 *0.0050*	200 *660*	0,18 *0.0070*	170 *560*	0,20 *0.0080*	160 *520*	0,25 *0.010*	130 *425*
P7	-16 T25M	0,13 *0.0050*	190 *620*	0,18 *0.0070*	165 *540*	0,20 *0.0080*	150 *490*	0,25 *0.010*	125 *410*
P8	-16 T25M	0,14 *0.0055*	175 *570*	0,19 *0.0075*	150 *490*	0,22 *0.0085*	135 *445*	0,26 *0.010*	115 *375*
P11	-16 T25M	0,13 *0.0050*	185 *610*	0,18 *0.0070*	160 *520*	0,20 *0.0080*	145 *475*	0,25 *0.010*	120 *395*
P12	-16 T25M	0,090 *0.0036*	115 *375*	0,12 *0.0048*	110 *360*	0,14 *0.0055*	105 *345*	0,17 *0.0065*	95 *310*
M1	-14 T25M	0,10 *0.0040*	145 *475*	0,13 *0.0050*	125 *410*	0,15 *0.0060*	115 *375*	0,19 *0.0075*	95 *310*
M2	-14 T25M	0,090 *0.0036*	120 *395*	0,12 *0.0048*	105 *345*	0,13 *0.0050*	100 *330*	0,18 *0.0070*	80 *260*
M3	-14 T25M	0,075 *0.0030*	95 *310*	0,095 *0.0038*	90 *295*	0,11 *0.0044*	85 *280*	0,14 *0.0055*	75 *245*
M4	-14 T25M	0,065 *0.0026*	70 *230*	0,080 *0.0032*	70 *230*	0,095 *0.0038*	65 *215*	0,12 *0.0048*	60 *195*
M5	-14 T25M	0,065 *0.0026*	60 *195*	0,080 *0.0032*	60 *195*	0,095 *0.0038*	55 *180*	0,12 *0.0048*	50 *165*

Grade T350M

SMG		CW = 2,0-2,25 *CW = 0.079-0.089*		CW = 2,5 *CW = 0.098*		CW = 3 *CW = 0.118*		CW = 4 *CW = 0.157*	
		f	v_c	f	v_c	f	v_c	f	v_c
P1	-16 T350M	0,12 *0.0048*	245 *800*	0,14 *0.0055*	230 *750*	0,19 *0.0075*	195 *640*	0,22 *0.0085*	175 *570*
P2	-16 T350M	0,13 *0.0050*	230 *750*	0,14 *0.0055*	225 *740*	0,20 *0.0080*	185 *610*	0,22 *0.0085*	170 *560*
P3	-16 T350M	0,12 *0.0048*	205 *670*	0,14 *0.0055*	195 *640*	0,19 *0.0075*	165 *540*	0,22 *0.0085*	145 *475*
P4	-16 T350M	0,12 *0.0048*	180 *590*	0,13 *0.0050*	175 *570*	0,18 *0.0070*	150 *490*	0,20 *0.0080*	140 *460*
P5	-16 T350M	0,11 *0.0044*	175 *570*	0,13 *0.0050*	165 *540*	0,18 *0.0070*	145 *475*	0,20 *0.0080*	130 *425*
P6	-16 T350M	0,11 *0.0044*	195 *640*	0,13 *0.0050*	190 *620*	0,18 *0.0070*	160 *520*	0,20 *0.0080*	150 *490*
P7	-16 T350M	0,11 *0.0044*	185 *610*	0,13 *0.0050*	175 *570*	0,18 *0.0070*	150 *490*	0,20 *0.0080*	140 *460*
P8	-16 T350M	0,12 *0.0048*	170 *560*	0,14 *0.0055*	165 *540*	0,19 *0.0075*	140 *460*	0,22 *0.0085*	125 *410*
P11	-16 T350M	0,11 *0.0044*	180 *590*	0,13 *0.0050*	170 *560*	0,18 *0.0070*	145 *475*	0,20 *0.0080*	135 *445*
P12	-16 T350M	0,080 *0.0032*	110 *360*	0,090 *0.0036*	110 *360*	0,12 *0.0048*	105 *345*	0,14 *0.0055*	95 *310*
M1	-14 T350M	0,095 *0.0038*	135 *445*	0,10 *0.0040*	135 *445*	0,13 *0.0050*	120 *395*	0,15 *0.0060*	110 *360*
M2	-14 T350M	0,085 *0.0034*	115 *375*	0,090 *0.0036*	110 *360*	0,12 *0.0048*	100 *330*	0,13 *0.0050*	95 *310*
M3	-14 T350M	0,070 *0.0028*	90 *295*	0,075 *0.0030*	90 *295*	0,095 *0.0038*	85 *280*	0,11 *0.0044*	80 *260*
M4	-14 T350M	0,060 *0.0024*	65 *215*	0,065 *0.0026*	65 *215*	0,080 *0.0032*	65 *215*	0,095 *0.0038*	60 *195*
M5	-14 T350M	0,060 *0.0024*	55 *180*	0,065 *0.0026*	55 *180*	0,080 *0.0032*	55 *180*	0,095 *0.0038*	50 *165*

Grade CP500

SMG		CW = 1,4 *CW = 0.055*		CW = 2,0-2,5 *CW = 0.079-0.098*		CW = 3 *CW = 0.118*		CW = 4 *CW = 0.157*		CW = 5-6 *CW = 0.197-0.236*	
		f	v_c	f	v_c	f	v_c	f	v_c	f	v_c
P1	-16 CP500	0,080 *0.0032*	205 *670*	0,12 *0.0048*	180 *590*	0,19 *0.0075*	150 *490*	0,22 *0.0085*	140 *460*	0,28 *0.011*	125 *410*
P2	-16 CP500	0,080 *0.0032*	200 *660*	0,13 *0.0050*	170 *560*	0,20 *0.0080*	145 *475*	0,22 *0.0085*	140 *460*	0,28 *0.011*	125 *410*
P3	-16 CP500	0,075 *0.0030*	175 *570*	0,12 *0.0048*	150 *490*	0,19 *0.0075*	125 *410*	0,22 *0.0085*	120 *395*	0,26 *0.010*	110 *360*
P4	-16 CP500	0,075 *0.0030*	155 *510*	0,12 *0.0048*	130 *425*	0,18 *0.0070*	115 *375*	0,20 *0.0080*	110 *360*	0,26 *0.010*	95 *310*
P5	-16 CP500	0,075 *0.0030*	145 *475*	0,11 *0.0044*	130 *425*	0,18 *0.0070*	110 *360*	0,20 *0.0080*	105 *345*	0,26 *0.010*	90 *295*
P6	-16 CP500	0,070 *0.0028*	170 *560*	0,11 *0.0044*	145 *475*	0,18 *0.0070*	120 *395*	0,20 *0.0080*	115 *375*	0,25 *0.010*	105 *345*
P7	-16 CP500	0,070 *0.0028*	160 *520*	0,11 *0.0044*	140 *460*	0,18 *0.0070*	115 *375*	0,20 *0.0080*	110 *360*	0,25 *0.010*	100 *330*
P8	-16 CP500	0,075 *0.0030*	145 *475*	0,12 *0.0048*	125 *410*	0,19 *0.0075*	105 *345*	0,22 *0.0085*	100 *330*	0,26 *0.010*	90 *295*
P11	-16 CP500	0,070 *0.0028*	155 *510*	0,11 *0.0044*	135 *445*	0,18 *0.0070*	110 *360*	0,20 *0.0080*	105 *345*	0,25 *0.010*	95 *310*
P12	-16 CP500	0,050 *0.0020*	100 *330*	0,080 *0.0032*	85 *280*	0,12 *0.0048*	75 *245*	0,14 *0.0055*	70 *230*	0,17 *0.0065*	65 *215*
M1	-14 CP500	0,075 *0.0030*	235 *770*	0,095 *0.0038*	225 *740*	0,13 *0.0050*	190 *620*	0,15 *0.0060*	175 *570*	0,19 *0.0075*	145 *475*
M2	-14 CP500	0,065 *0.0026*	190 *620*	0,085 *0.0034*	185 *610*	0,12 *0.0048*	160 *520*	0,13 *0.0050*	155 *510*	0,18 *0.0070*	120 *395*
M3	-14 CP500	0,055 *0.0022*	145 *475*	0,070 *0.0028*	145 *475*	0,095 *0.0038*	135 *445*	0,11 *0.0044*	130 *425*	0,14 *0.0055*	110 *360*
M4	-14 CP500	0,046 *0.0018*	105 *345*	0,060 *0.0024*	110 *360*	0,080 *0.0032*	105 *345*	0,095 *0.0038*	100 *330*	0,12 *0.0048*	90 *295*
M5	-14 CP500	0,046 *0.0018*	90 *295*	0,060 *0.0024*	90 *295*	0,080 *0.0032*	90 *295*	0,095 *0.0038*	85 *280*	0,12 *0.0048*	75 *245*
K1	-16 CP500	0,080 *0.0032*	190 *620*	0,13 *0.0050*	165 *540*	0,20 *0.0080*	140 *460*	0,22 *0.0085*	135 *445*	0,28 *0.011*	125 *410*
K2	-16 CP500	0,075 *0.0030*	165 *540*	0,11 *0.0044*	140 *460*	0,18 *0.0070*	115 *375*	0,20 *0.0080*	105 *345*	0,26 *0.010*	90 *295*
K3	-16 CP500	0,075 *0.0030*	140 *460*	0,11 *0.0044*	120 *395*	0,18 *0.0070*	95 *310*	0,20 *0.0080*	90 *295*	0,26 *0.010*	80 *260*
K4	-16 CP500	0,075 *0.0030*	130 *425*	0,11 *0.0044*	115 *375*	0,18 *0.0070*	90 *295*	0,20 *0.0080*	85 *280*	0,26 *0.010*	75 *245*
K5	-16 CP500	0,065 *0.0026*	80 *260*	0,10 *0.0040*	70 *230*	0,16 *0.0065*	55 *180*	0,18 *0.0070*	55 *180*	0,22 *0.0085*	48 *155*
K6	-16 CP500	0,075 *0.0030*	120 *395*	0,11 *0.0044*	105 *345*	0,18 *0.0070*	90 *295*	0,20 *0.0080*	85 *280*	0,26 *0.010*	80 *260*
K7	-16 CP500	0,065 *0.0026*	105 *345*	0,10 *0.0040*	90 *295*	0,16 *0.0065*	75 *245*	0,18 *0.0070*	70 *230*	0,22 *0.0085*	60 *195*
N11	-14 CP500	0,095 *0.0038*	125 *410*	0,12 *0.0048*	115 *375*	0,16 *0.0065*	105 *345*	0,19 *0.0075*	95 *310*	0,25 *0.010*	85 *280*
S1	-14 CP500	0,046 *0.0018*	26 *85*	0,060 *0.0024*	24 *80*	0,080 *0.0032*	22 *70*	0,095 *0.0038*	21 *70*	0,12 *0.0048*	19 *60*
S2	-14 CP500	0,046 *0.0018*	22 *70*	0,060 *0.0024*	21 *70*	0,080 *0.0032*	19 *60*	0,095 *0.0038*	18 *60*	0,12 *0.0048*	17 *55*
S3	-14 CP500	0,044 *0.0017*	20 *65*	0,055 *0.0022*	18 *60*	0,075 *0.0030*	17 *55*	0,085 *0.0034*	16 *50*	0,12 *0.0048*	14 *46*

Grade CP600

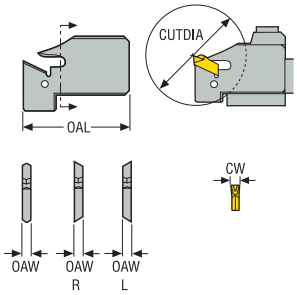
SMG		CW = 1,4 *CW = 0.055*		CW = 2,0-2,5 *CW = 0.079-0.098*		CW = 3 *CW = 0.118*		CW = 4 *CW = 0.157*		CW = 5-6 *CW = 0.197-0.236*	
		f	v_c	f	v_c	f	v_c	f	v_c	f	v_c
M1	-14 CP600	0,075 *0.0030*	240 *790*	0,095 *0.0038*	220 *720*	0,13 *0.0050*	180 *590*	0,16 *0.0065*	150 *490*	0,19 *0.0075*	130 *425*
M2	-14 CP600	0,065 *0.0026*	200 *660*	0,085 *0.0034*	185 *610*	0,12 *0.0048*	155 *510*	0,15 *0.0060*	130 *425*	0,18 *0.0070*	110 *360*
M3	-14 CP600	0,055 *0.0022*	155 *510*	0,070 *0.0028*	150 *490*	0,095 *0.0038*	135 *445*	0,12 *0.0048*	115 *375*	0,14 *0.0055*	105 *345*
M4	-14 CP600	0,046 *0.0018*	110 *360*	0,060 *0.0024*	115 *375*	0,085 *0.0034*	105 *345*	0,10 *0.0040*	95 *310*	0,12 *0.0048*	85 *280*
M5	-14 CP600	0,046 *0.0018*	95 *310*	0,060 *0.0024*	95 *310*	0,085 *0.0034*	90 *295*	0,10 *0.0040*	80 *260*	0,12 *0.0048*	70 *230*

Grade HX

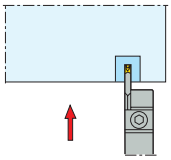
SMG		CW = 1,4 CW = 0.055		CW = 2,0-2,5 CW = 0.079-0.098		CW = 3 CW = 0.118		CW = 4 CW = 0.157		CW = 5-6 CW = 0.197-0.236	
		f	v_c	f	v_c	f	v_c	f	v_c	f	v_c
M1	-14 HX	0,075 *0.0030*	140 *460*	0,095 *0.0038*	125 *410*	0,13 *0.0050*	115 *375*	0,15 *0.0060*	110 *360*	0,19 *0.0075*	100 *330*
M2	-14 HX	0,065 *0.0026*	115 *375*	0,085 *0.0034*	105 *345*	0,12 *0.0048*	95 *310*	0,13 *0.0050*	90 *295*	0,18 *0.0070*	80 *260*
M3	-14 HX	0,055 *0.0022*	90 *295*	0,070 *0.0028*	85 *280*	0,095 *0.0038*	75 *245*	0,11 *0.0044*	75 *245*	0,14 *0.0055*	65 *215*
M4	-14 HX	0,046 *0.0018*	70 *230*	0,060 *0.0024*	65 *215*	0,080 *0.0032*	60 *195*	0,095 *0.0038*	60 *195*	0,12 *0.0048*	55 *180*
M5	-14 HX	0,046 *0.0018*	60 *195*	0,060 *0.0024*	55 *180*	0,080 *0.0032*	50 *165*	0,095 *0.0038*	48 *155*	0,12 *0.0048*	44 *145*
K1	-16 HX	0,080 *0.0032*	140 *460*	0,13 *0.0050*	115 *375*	0,20 *0.0080*	100 *330*	0,22 *0.0085*	95 *310*	0,28 *0.011*	85 *280*
K2	-16 HX	0,075 *0.0030*	120 *395*	0,11 *0.0044*	105 *345*	0,18 *0.0070*	90 *295*	0,20 *0.0080*	85 *280*	0,26 *0.010*	75 *245*
K3	-16 HX	0,075 *0.0030*	105 *345*	0,11 *0.0044*	90 *295*	0,18 *0.0070*	75 *245*	0,20 *0.0080*	70 *230*	0,26 *0.010*	65 *215*
K4	-16 HX	0,075 *0.0030*	100 *330*	0,11 *0.0044*	85 *280*	0,18 *0.0070*	70 *230*	0,20 *0.0080*	70 *230*	0,26 *0.010*	60 *195*
K5	-16 HX	0,065 *0.0026*	60 *195*	0,10 *0.0040*	55 *180*	0,16 *0.0065*	45 *150*	0,18 *0.0070*	43 *140*	0,22 *0.0085*	39 *130*
K6	-16 HX	0,075 *0.0030*	85 *280*	0,11 *0.0044*	75 *245*	0,18 *0.0070*	65 *215*	0,20 *0.0080*	60 *195*	0,26 *0.010*	55 *180*
K7	-16 HX	0,065 *0.0026*	75 *245*	0,10 *0.0040*	70 *230*	0,16 *0.0065*	55 *180*	0,18 *0.0070*	55 *180*	0,22 *0.0085*	50 *165*
N1	-14 HX	0,095 *0.0038*	410 *1350*	0,12 *0.0048*	380 *1250*	0,16 *0.0065*	340 *1125*	0,19 *0.0075*	315 *1025*	0,25 *0.010*	280 *920*
N2	-14 HX	0,095 *0.0038*	330 *1075*	0,12 *0.0048*	305 *1000*	0,16 *0.0065*	275 *900*	0,19 *0.0075*	255 *840*	0,25 *0.010*	225 *740*
N3	-14 HX	0,095 *0.0038*	220 *720*	0,12 *0.0048*	205 *670*	0,16 *0.0065*	180 *590*	0,19 *0.0075*	170 *560*	0,25 *0.010*	150 *490*
N11	-14 HX	0,095 *0.0038*	255 *840*	0,12 *0.0048*	230 *750*	0,16 *0.0065*	210 *690*	0,19 *0.0075*	195 *640*	0,25 *0.010*	170 *560*
S1	-14 HX	0,046 *0.0018*	27 *90*	0,060 *0.0024*	25 *80*	0,080 *0.0032*	23 *75*	0,095 *0.0038*	22 *70*	0,12 *0.0048*	20 *65*
S2	-14 HX	0,046 *0.0018*	22 *70*	0,060 *0.0024*	20 *65*	0,080 *0.0032*	19 *60*	0,095 *0.0038*	18 *60*	0,12 *0.0048*	16 *50*
S3	-14 HX	0,044 *0.0017*	19 *60*	0,055 *0.0022*	18 *60*	0,075 *0.0030*	16 *50*	0,085 *0.0034*	16 *50*	0,12 *0.0048*	14 *46*
S11	-14 HX	0,055 *0.0022*	38 *125*	0,070 *0.0028*	35 *115*	0,095 *0.0038*	32 *105*	0,11 *0.0044*	30 *100*	0,14 *0.0055*	28 *90*
S12	-14 HX	0,055 *0.0022*	29 *95*	0,070 *0.0028*	27 *90*	0,095 *0.0038*	25 *80*	0,11 *0.0044*	23 *75*	0,14 *0.0055*	21 *70*
S13	-14 HX	0,046 *0.0018*	23 *75*	0,060 *0.0024*	22 *70*	0,080 *0.0032*	20 *65*	0,095 *0.0038*	19 *60*	0,12 *0.0048*	18 *60*
H5	-16 HX	0,050 *0.0020*	45 *150*	0,080 *0.0032*	40 *130*	0,12 *0.0048*	35 *115*	0,14 *0.0055*	33 *110*	0,17 *0.0065*	30 *100*

HSS-blade 150.10A-15 JETI for Parting-off
– Metric / *Inch*





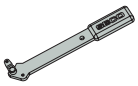
R/L150.10
KAPR = 90,0 °



- Right-hand version shown
- For inserts program, see page(s) 960, 961
- For holder code key, see page(s) 932
- For more information on Jetstream Tooling® and accessories, see page(s) 38, 85-89, 1026
- For Jetstream function Right-hand blade must only be used with Right-hand holder
- For Jetstream function Left-hand blade must only be used with Left-hand holder
- For ISO attribute explanation, see page 82

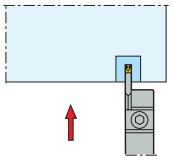
Designation	Item number	OAL	OAW	CUTDIA	CP	Weight	CW	CTWS
		mm *inch*	mm *inch*	mm *inch*	bar *psi*	kg *lbs*	mm *inch*	
150.10A-15-2RJETI	02885702	33 *1.303*	1,8 *0.071*	38,0 *1.496*	200 *2901.0*	0,1 *0.220*	2,0 *0.079*	150.10-2
150.10A-15-2LJETI	02885696	33 *1.303*	1,8 *0.071*	38,0 *1.496*	200 *2901.0*	0,1 *0.220*	2,0 *0.079*	150.10-2
150.10A-15-2.5RJETI	02885690	33 *1.303*	2,0 *0.079*	38,0 *1.496*	200 *2901.0*	0,1 *0.220*	2,5 *0.098*	150.10-2.5
150.10A-15-2.5LJETI	02884781	33 *1.303*	2,0 *0.079*	38,0 *1.496*	200 *2901.0*	0,1 *0.220*	2,5 *0.098*	150.10-2.5
150.10A-15-3RJETI	02885689	33 *1.303*	2,4 *0.094*	38,0 *1.496*	200 *2901.0*	0,1 *0.220*	3,0 *0.118*	150.10-3
150.10A-15-3LJETI	02884780	33 *1.303*	2,4 *0.094*	38,0 *1.496*	200 *2901.0*	0,1 *0.220*	3,0 *0.118*	150.10-3
R150.10A-15-4JETI	02885688	33 *1.303*	3,4 *0.134*	38,0 *1.496*	200 *2901.0*	0,1 *0.220*	4,0 *0.157*	150.10-4
L150.10A-15-4JETI	02884779	33 *1.303*	3,4 *0.134*	38,0 *1.496*	200 *2901.0*	0,1 *0.220*	4,0 *0.157*	150.10-4

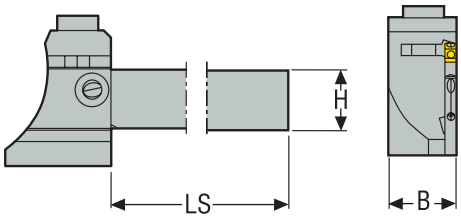
Accessories

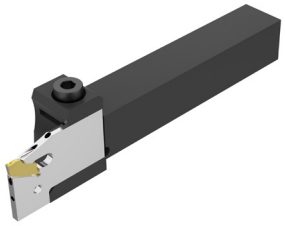
For size	Key
	
150.10A-..	150.10A-150
R/L150.10A-..	150.10A-150

Toolblock R/L150.10-..15 JETI for HSS-blade 150.10A-..15JETI for Parting-off – Metric

R/L150.10
KAPR



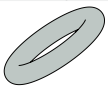
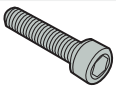




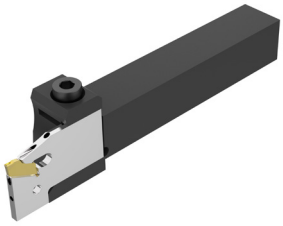
- Right-hand version shown
- For blades program, see page(s) 944
- For holder code key, see page(s) 932
- For more information on Jetstream Tooling® and accessories, see page(s) 38, 85-89, 1026
- For Jetstream function Right-hand blade must only be used with Right-hand holder
- For Jetstream function Left-hand blade must only be used with Left-hand holder
- For ISO attribute explanation, see page 82

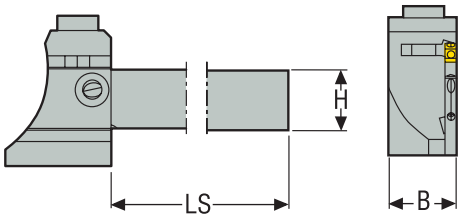
Designation	Item number	H	B	LS	CP	Weight
		mm	mm	mm	bar	kg
R150.10-1010-15JETI	03002477	10	10	136	200	0,2
R150.10-1212-15JETI	03002478	12	12	136	200	0,2
R150.10-1616-15JETI	03002479	16	16	81	200	0,2
L150.10-1010-15JETI	03002482	10	10	136	200	0,2
L150.10-1212-15JETI	03002483	12	12	136	200	0,2
L150.10-1616-15JETI	03002484	16	16	81	200	0,3

Spare Parts, included in delivery

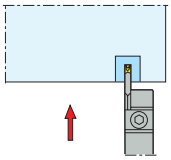
For size	Key	Plug	Ring	Screw
				
R/L150.10-..	4SMS795	P6SS6X5G	ORING-4X1.5	MC6S5X18

Toolblock R/L150.10-..15 JETI for HSS-blade 150.10A-..15JETI for Parting-off – Inch





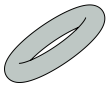
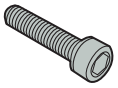
R/L150.10
KAPR



- Right-hand version shown
- For blades program, see page(s) 944
- For holder code key, see page(s) 932
- For more information on Jetstream Tooling® and accessories, see page(s) 38, 85-89, 1026
- For Jetstream function Right-hand blade must only be used with Right-hand holder
- For Jetstream function Left-hand blade must only be used with Left-hand holder
- For ISO attribute explanation, see page 82

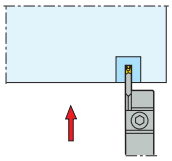
Designation	Item number	H	B	LS	CP	Weight
		inch	inch	inch	psi	lbs
R150.10-0500-15JETI	03128625	0.500	0.500	3.150	2901.0	0.440
R150.10-0625-15JETI	03128627	0.625	0.625	3.150	2901.0	0.660
R150.10-0750-15JETI	03128629	0.750	0.750	3.150	2901.0	0.660
R150.10-1000-15JETI	03128631	1.000	1.000	4.646	2901.0	1.540
L150.10-0500-15JETI	03128626	0.500	0.500	3.150	2901.0	0.440
L150.10-0625-15JETI	03128628	0.625	0.625	3.150	2901.0	0.660
L150.10-0750-15JETI	03128630	0.750	0.750	3.150	2901.0	0.660
L150.10-1000-15JETI	03128632	1.000	1.000	4.646	2901.0	1.540

Spare Parts, included in delivery

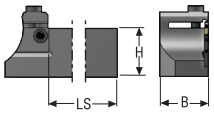
For size	Clamp key	Plug	Ring	Screw
				
...-0500/0625	3/16SMS875	P6SS6X5G	ORING-4X1.5	UC6S1/4UNFX1
...-0750/1000	3/16SMS875	JET-P1/8-5MM	ORING-4X1.5	UC6S1/4UNFX1

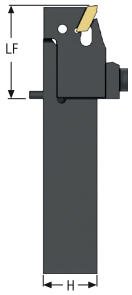
Toolblock R/L150.10-..15JETI for HSS-blade 150.10A..15JETI for Parting-off, compatible with JETI adapters – Metric

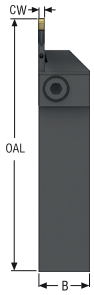
KAPR

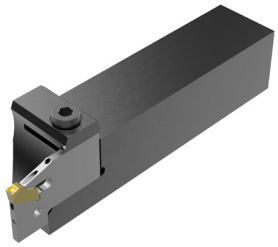


Toolblock R/L 150.10-15-.JETI





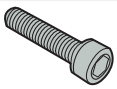
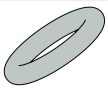




- Right-hand version shown
- For blades program, see page(s) 944
- For suitable adapter, see page(s) 986-997
- For holder code key, see page(s) 932
- For more information on Jetstream Tooling® and accessories, see page(s) 38, 85-89, 1026
- For Jetstream function Right-hand blade must only be used with Right-hand holder
- For Jetstream function Left-hand blade must only be used with Left-hand holder
- For ISO attribute explanation, see page 82

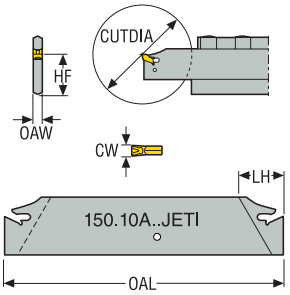
Designation	Item number	H	B	LS	OAL	LF	CP	Weight
		mm	mm	mm	mm	mm	bar	kg
R150.10-2020X-15JETI	03245886	20	20	64	98	34	200	0,3
R150.10-2525X-15JETI	03245888	25	25	84	118	34	200	0,5
L150.10-2020X-15JETI	03245885	20	20	64	98	34	200	0,3
L150.10-2525X-15JETI	03245887	25	25	84	118	34	200	0,5

Spare Parts, included in delivery

For size	Clamp key	Clamp screw	O-ring	Plug	Plug screw
					
R/L150.10-..X	4SMS795	MC6S5X18	ORING-4X1.5	JET-P1/8-5MM	P6SS6X6

HSS-blade 150.10A-20/25 JETI for Parting-off
– Metric / *Inch*



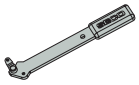


- Right-hand version of blade shown
- For inserts program, see page(s) 960, 961
- For holder code key, see page(s) 932
- For more information on Jetstream Tooling® and accessories, see page(s) 38, 85-89, 1026
- For Jetstream function Right-hand blade must only be used with Right-hand holder
- For Jetstream function Left-hand blade must only be used with Left-hand holder
- For ISO attribute explanation, see page 82

Designation	Item number	OAL	OAW	HF	LH	CUTDIA	CP	Weight	CW	CTWS
		mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	bar *psi*	kg *lbs*	mm *inch*	
150.10A-20-2RJETI	03002649	120 *4.724*	1,8 *0.071*	21,4 *0.843*	24,0 *0.945*	35,0 *1.378*	200 *2901.0*	0,1 *0.220*	2,0 *0.079*	150.10-2
150.10A-20-2.5RJETI	03002651	120 *4.724*	2,0 *0.079*	21,4 *0.843*	24,0 *0.945*	35,0 *1.378*	200 *2901.0*	0,1 *0.220*	2,5 *0.098*	150.10-2.5
150.10A-20-3RJETI	03002653	120 *4.724*	2,4 *0.094*	21,4 *0.843*	–	92,0 *3.622*	200 *2901.0*	0,1 *0.220*	3,0 *0.118*	150.10-3
150.10A-20-4RJETI	03002655	120 *4.724*	3,4 *0.134*	21,4 *0.843*	–	98,0 *3.858*	200 *2901.0*	0,1 *0.220*	4,0 *0.157*	150.10-4
150.10A-20-5RJETI	03002657	120 *4.724*	4,4 *0.173*	21,4 *0.843*	–	98,0 *3.858*	200 *2901.0*	0,1 *0.220*	5,0 *0.197*	150.10-5
150.10A-20-6RJETI	03002659	120 *4.724*	5,7 *0.222*	21,4 *0.843*	–	98,0 *3.858*	200 *2901.0*	0,2 *0.440*	6,0 *0.236*	150.10-6
150.10A-20-2LJETI	03002650	120 *4.724*	1,8 *0.071*	21,4 *0.843*	24,0 *0.945*	35,0 *1.378*	200 *2901.0*	0,1 *0.220*	2,0 *0.079*	150.10-2
150.10A-20-2.5LJETI	03002652	120 *4.724*	2,0 *0.079*	21,4 *0.843*	24,0 *0.945*	35,0 *1.378*	200 *2901.0*	0,1 *0.220*	2,5 *0.098*	150.10-2.5
150.10A-20-3LJETI	03002654	120 *4.724*	2,4 *0.094*	21,4 *0.843*	–	98,0 *3.858*	200 *2901.0*	0,1 *0.220*	3,0 *0.118*	150.10-3
150.10A-20-4LJETI	03002656	120 *4.724*	3,4 *0.134*	21,4 *0.843*	–	98,0 *3.858*	200 *2901.0*	0,1 *0.220*	4,0 *0.157*	150.10-4
150.10A-20-5LJETI	03002658	120 *4.724*	4,4 *0.173*	21,4 *0.843*	–	98,0 *3.858*	200 *2901.0*	0,1 *0.220*	5,0 *0.197*	150.10-5
150.10A-20-6LJETI	03002660	120 *4.724*	5,7 *0.222*	21,4 *0.843*	–	98,0 *3.858*	200 *2901.0*	0,2 *0.440*	6,0 *0.236*	150.10-6
150.10A-25-2RJETI	03002661	150 *5.906*	1,8 *0.071*	25,0 *0.984*	25,0 *0.984*	35,0 *1.378*	200 *2901.0*	0,1 *0.220*	2,0 *0.079*	150.10-2
150.10A-25-2.5RJETI	03002663	150 *5.906*	2,0 *0.079*	25,0 *0.984*	25,0 *0.984*	35,0 *1.378*	200 *2901.0*	0,1 *0.220*	2,5 *0.098*	150.10-2.5
150.10A-25-3RJETI	03002665	150 *5.906*	2,4 *0.094*	24,96 *0.983*	25,0 *0.984*	122,0 *4.803*	200 *2901.0*	0,1 *0.220*	3,0 *0.118*	150.10-3
150.10A-25-4RJETI	03002667	150 *5.906*	3,4 *0.134*	25,0 *0.984*	25,0 *0.984*	122,0 *4.803*	200 *2901.0*	0,1 *0.220*	4,0 *0.157*	150.10-4
150.10A-25-5RJETI	03002669	150 *5.906*	4,4 *0.173*	25,0 *0.984*	–	122,0 *4.803*	200 *2901.0*	0,2 *0.440*	5,0 *0.197*	150.10-5
150.10A-25-6RJETI	03002671	150 *5.906*	5,7 *0.222*	25,0 *0.984*	–	122,0 *4.803*	200 *2901.0*	0,2 *0.440*	6,0 *0.236*	150.10-6

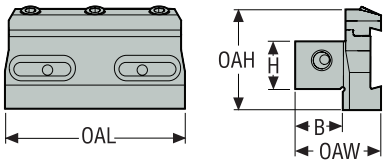
Designation	Item number	OAL	OAW	HF	LH	CUTDIA	CP	Weight	CW	CTWS
		mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	bar *psi*	kg *lbs*	mm *inch*	
150.10A-25-2LJETI	03002662	150 *5.906*	1,8 *0.071*	25,0 *0.984*	25,0 *0.984*	35,0 *1.378*	200 *2901.0*	0,08 *0.180*	2,0 *0.079*	150.10-2
150.10A-25-2.5LJETI	03002664	150 *5.906*	2,0 *0.079*	25,0 *0.984*	25,0 *0.984*	35,0 *1.378*	200 *2901.0*	0,1 *0.220*	2,5 *0.098*	150.10-2.5
150.10A-25-3LJETI	03002666	150 *5.906*	2,4 *0.094*	24,96 *0.983*	25,0 *0.984*	122,0 *4.803*	200 *2901.0*	0,1 *0.220*	3,0 *0.118*	150.10-3
150.10A-25-4LJETI	03002668	150 *5.906*	3,4 *0.134*	25,0 *0.984*	25,0 *0.984*	122,0 *4.803*	200 *2901.0*	0,1 *0.220*	4,0 *0.157*	150.10-4
150.10A-25-5LJETI	03002670	150 *5.906*	4,4 *0.173*	25,0 *0.984*	–	122,0 *4.803*	200 *2901.0*	0,2 *0.440*	5,0 *0.197*	150.10-5
150.10A-25-6LJETI	03002672	150 *5.906*	5,7 *0.222*	25,0 *0.984*	–	122,0 *4.803*	200 *2901.0*	0,2 *0.440*	6,0 *0.236*	150.10-6

Accessories

For size	Key
	
150.10A-..	150.10A-150

Toolblock R/L150.10-..20/25JETI for HSS-blade 150.10A-..20/25JETI for Parting-off – Metric

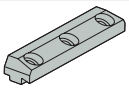
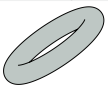




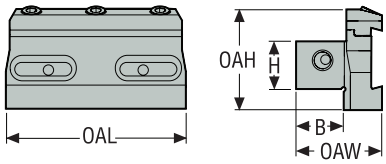
- For blades program, see page(s) 948, 949
- For holder code key, see page(s) 932
- For more information on Jetstream Tooling® and accessories, see page(s) 38, 85-89, 1026
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	OAH	OAL	OAW	CP	Weight	CTWS
		mm	mm	mm	mm	mm	bar	kg	
150.10-1616-20JETI	03191913	16,0	16,0	32,0	95	35,9	200	0,6	Blade-20
150.10-2020-20JETI	03002495	20,0	20,0	32,0	95	39,8	120	0,7	Blade-20
150.10-2020-25JETI	03002498	20,0	20,0	39,0	95	40,8	120	0,8	Blade-25
150.10-2520-25JETI	03191914	25,0	20,0	42,0	95	39,8	120	0,9	Blade-25
150.10-2525-25JETI	03002500	25,0	25,0	42,0	95	44,8	120	1,0	Blade-25
150.10-3232-25JETI	03002502	32,0	32,0	49,0	95	51,8	120	1,4	Blade-25

Spare Parts, included in delivery

For size	Clamp	Key	O-ring	Plug	Screw
					
150.10-..	150.10-260	5SMS795	ORING-20X2	JET-P1/8-5MM	TCEI0620

Toolblock R/L150.10-..20/25JETI for HSS-blade 150.10A-..20/25JETI for Parting-off – Inch

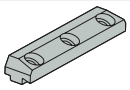
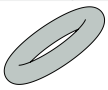




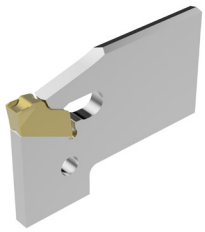
- For blades program, see page(s) 948, 949
- For holder code key, see page(s) 932
- For more information on Jetstream Tooling® and accessories, see page(s) 38, 85-89, 1026
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	OAH	OAL	OAW	CP	Weight	CTWS
		inch	inch	inch	inch	inch	psi	lbs	
150.10-10-20JETI	10005704	0.625	0.625	1.260	3.740	1.409	1741.0	1.320	Blade-20
150.10-12-20JETI	03002496	0.750	0.750	1.260	3.740	1.528	1741.0	1.540	Blade-20
150.10-12-25JETI	03002499	0.750	0.750	1.535	3.740	1.567	1741.0	1.760	Blade-25
150.10-16-20JETI	10005705	1.000	1.000	1.417	3.740	1.772	1741.0	2.200	Blade-20
150.10-16-25JETI	03002501	1.000	1.000	1.654	3.740	1.780	1741.0	2.200	Blade-25
150.10-20-25JETI	03002503	1.250	1.250	1.929	3.740	2.031	1741.0	3.090	Blade-25

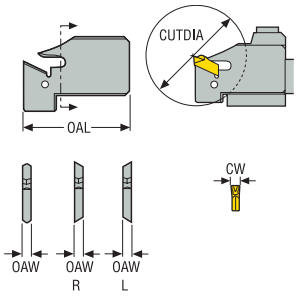
Spare Parts, included in delivery

For size	Clamp	Key	O-ring	Plug	Screw
					
150.10-..	150.10-260	5SMS795	ORING-20X2	JET-P1/8-5MM	TCEI0620

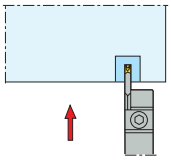
HSS-blade 150.10A-15 for Parting-off – **Metric** / *Inch*



HSS-blade 150.10A-15



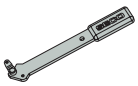
R/L150.10
KAPR = 90,0 °



- For inserts program, see page(s) 960, 961
- For holder code key, see page(s) 932
- For ISO attribute explanation, see page 82

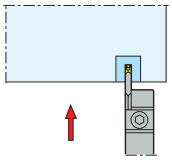
Designation	Item number	OAL	OAW	CUTDIA	Weight	CW	CTWS
		mm *inch*	mm *inch*	mm *inch*	kg *lbs*	mm *inch*	
150.10A-15-1.4	02578572	33 *1.299*	1,2 *0.047*	38,0 *1.496*	0,1 *0.220*	1,4 *0.055*	150.10-1.4
150.10A-15-2	02578575	33 *1.299*	1,8 *0.071*	38,0 *1.496*	0,1 *0.220*	2,0 *0.079*	150.10-2
150.10A-15-2.5	02578577	33 *1.299*	2,0 *0.079*	38,0 *1.496*	0,1 *0.220*	2,5 *0.098*	150.10-2.5
150.10A-15-3	02578578	33 *1.299*	2,4 *0.094*	38,0 *1.496*	0,1 *0.220*	3,0 *0.118*	150.10-3
R150.10A-15-4	02578596	33 *1.299*	3,4 *0.134*	38,0 *1.496*	0,1 *0.220*	4,0 *0.157*	150.10-4
L150.10A-15-4	02578594	33 *1.299*	3,4 *0.134*	38,0 *1.496*	0,1 *0.220*	4,0 *0.157*	150.10-4

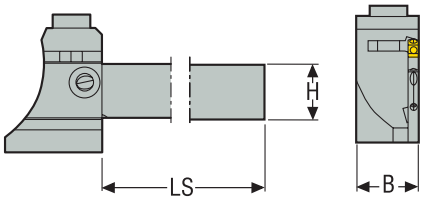
Accessories

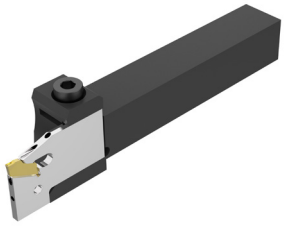
For size	Key
	
150.10A	150.10A-150

Toolblock R/L150.10-..15 for HSS-blade 150.10A-..15 for Parting-off – Inch

R/L150.10
KAPR



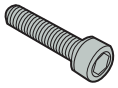




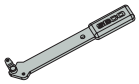
- Right-hand version shown
- For blades program, see page(s) 952
- For holder code key, see page(s) 932
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LS	Weight
		inch	inch	inch	lbs
R150.10-0375-15	00047748	0.375	0.375	3.228	0.440
R150.10-0500-15	00047749	0.500	0.500	3.228	0.440
R150.10-0625-15	00048456	0.625	0.625	3.228	0.660
R150.10-0750-15	00048457	0.750	0.750	3.228	0.880
R150.10-1000-15	00048458	1.000	1.000	4.724	1.760
L150.10-0625-15	00048462	0.625	0.625	3.228	0.880
L150.10-0750-15	00048463	0.750	0.750	3.228	0.660
L150.10-1000-15	00048464	1.000	1.000	4.724	1.760

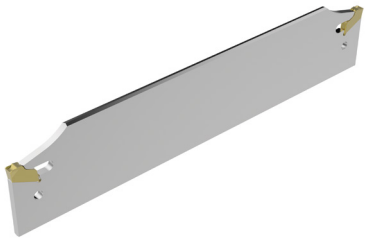
Spare Parts, included in delivery

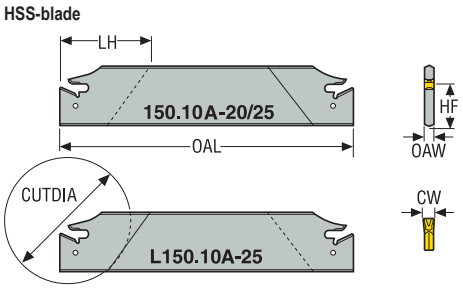
For size	Locking screw
	
R/L150.10-	UC6S1/4UNFX1

Accessories

For size	Key
	
R/L150.10-	150.10A-150

HSS-blade 150.10A-20/25 for Parting-off – **Metric** / *Inch*





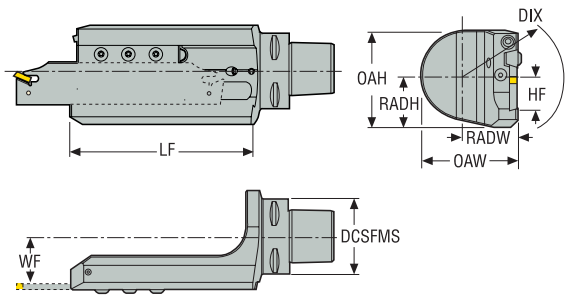
- For inserts program, see page(s) 960, 961
- For holder code key, see page(s) 932
- For ISO attribute explanation, see page 82

Designation	Item number	OAL	OAW	CUTDIA	HF	LH	Weight	CTWS
		mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	kg *lbs*	
150.10A-20-1.4	02578579	120 *4.724*	1,2 *0.047*	35,0 *1.378*	21,4 *0.843*	24,0 *0.945*	0,1 *0.220*	150.10-1.4
150.10A-20-2	02578580	120 *4.724*	1,8 *0.071*	35,0 *1.378*	21,4 *0.843*	24,0 *0.945*	0,1 *0.220*	150.10-2
150.10A-20-2.5	02578581	120 *4.724*	2,0 *0.079*	35,0 *1.378*	21,4 *0.843*	24,0 *0.945*	0,1 *0.220*	150.10-2.5
150.10A-20-3	02578582	120 *4.724*	2,4 *0.094*	90,0 *3.543*	21,4 *0.843*	– –	0,1 *0.220*	150.10-3
150.10A-20-4	02578583	120 *4.724*	3,4 *0.134*	100,0 *3.937*	21,4 *0.843*	– –	0,1 *0.220*	150.10-4
150.10A-20-5	02578584	120 *4.724*	4,4 *0.173*	120,0 *4.724*	21,4 *0.843*	– –	0,1 *0.220*	150.10-5
150.10A-20-6	02578585	120 *4.724*	5,7 *0.222*	120,0 *4.724*	21,4 *0.843*	– –	0,2 *0.440*	150.10-6
150.10A-25-1.4	02578586	150 *5.906*	1,2 *0.047*	35,0 *1.378*	25,0 *0.984*	24,0 *0.945*	0,1 *0.220*	150.10-1.4
150.10A-25-2	02578587	150 *5.906*	1,8 *0.071*	35,0 *1.378*	25,0 *0.984*	24,0 *0.945*	0,1 *0.220*	150.10-2
150.10A-25-2.5	02578588	150 *5.906*	2,0 *0.079*	35,0 *1.378*	25,0 *0.984*	24,0 *0.945*	0,1 *0.220*	150.10-2.5
150.10A-25-3	02578589	150 *5.906*	2,4 *0.094*	120,0 *4.724*	25,0 *0.984*	– –	0,1 *0.220*	150.10-3
150.10A-25-4	02578590	150 *5.906*	3,4 *0.134*	140,0 *5.512*	25,0 *0.984*	– –	0,2 *0.440*	150.10-4
150.10A-25-5	02578592	150 *5.906*	4,4 *0.173*	160,0 *6.299*	25,0 *0.984*	– –	0,2 *0.440*	150.10-5
150.10A-25-6	02578593	150 *5.906*	5,7 *0.222*	160,0 *6.299*	25,0 *0.984*	– –	0,2 *0.440*	150.10-6
L150.10A-25-1.4	02578595	150 *5.906*	1,2 *0.047*	35,0 *1.378*	24,9 *0.980*	24,0 *0.945*	0,1 *0.220*	150.10-1.4

Accessories

For size	Key
	
150.10A	150.10A-150

Adapters C.-R/L150.10-..20/25JETI for Parting-off – Metric / *Inch*

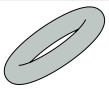
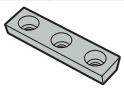
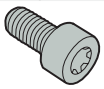




- Right-hand version shown
- For blades program, see page(s) 948, 949
- For holder code key, see page(s) 932
- For more information on Jetstream Tooling® and accessories, see page(s) 38, 85-89, 1026
- For Jetstream function Right-hand blade must only be used with Right-hand adapter
- For Jetstream function Left-hand blade must only be used with Left-hand adapter
- For ISO attribute explanation, see page 82

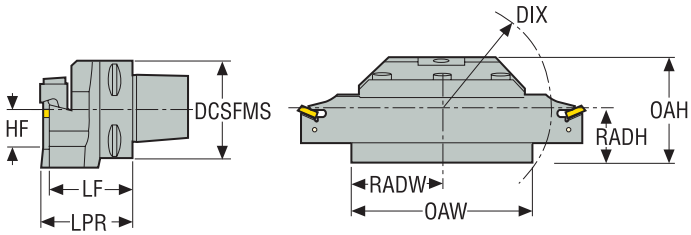
Designation	Item number	CTMS	DCSFMS	DIX	LF	HF	WF	OAW	OAH	RADW	RADH	CP	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	bar *psi*	kg *lbs*
C5-R150.10-122-20JETI	03134584	C5	50,0 *1.969*	85,0 *3.346*	122,0 *4.803*	20,0 *0.787*	26,0 *1.024*	56,0 *2.205*	58,5 *2.303*	31,0 *1.220*	32,0 *1.260*	70,0 *1015.3*	1,4 *3.090*
C5-L150.10-122-20JETI	03134583	C5	50,0 *1.969*	85,0 *3.346*	122,0 *4.803*	20,0 *0.787*	26,0 *1.024*	56,0 *2.205*	58,5 *2.303*	31,0 *1.220*	32,0 *1.260*	70,0 *1015.3*	1,4 *3.090*
C6-R150.10-160-25JETI	03134586	C6	63,0 *2.480*	100,0 *3.937*	160,0 *6.299*	25,0 *0.984*	32,0 *1.260*	69,5 *2.736*	69,0 *2.717*	37,0 *1.457*	37,0 *1.457*	70,0 *1015.3*	2,5 *5.510*
C6-L150.10-160-25JETI	03134585	C6	63,0 *2.480*	100,0 *3.937*	160,0 *6.299*	25,0 *0.984*	32,0 *1.260*	69,5 *2.736*	69,0 *2.717*	37,0 *1.457*	37,0 *1.457*	70,0 *1015.3*	2,5 *5.510*
C8-R150.10-160-25JETI	03134591	C8	80,0 *3.150*	111,0 *4.370*	160,0 *6.299*	25,0 *0.984*	40,5 *1.594*	85,5 *3.366*	69,0 *2.717*	45,5 *1.791*	37,0 *1.457*	70,0 *1015.3*	3,7 *8.160*
C8-L150.10-160-25JETI	03134590	C8	80,0 *3.150*	111,0 *4.370*	160,0 *6.299*	25,0 *0.984*	40,5 *1.594*	85,5 *3.366*	69,0 *2.717*	45,5 *1.791*	37,0 *1.457*	70,0 *1015.3*	3,5 *7.720*

Spare Parts, included in delivery

For size	Coolant nozzle	O-ring	Wedge clamp	Wedge screw
				
C5	CN6	ORING-20X2	5431080-04	5512031-09
C6 / C8	CN7	5641005-74	5431080-02	5512031-09

Adapters C.-150.10-..20/25JETI for Parting-off
– Metric / *Inch*

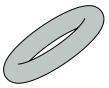
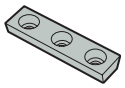
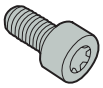




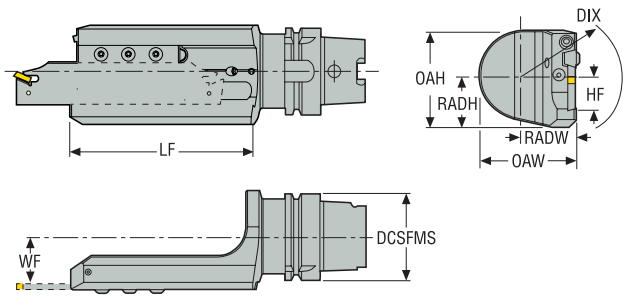
- For blades program, see page(s) 948, 949
- For holder code key, see page(s) 932
- For more information on Jetstream Tooling® and accessories, see page(s) 38, 85-89, 1026
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	DCSFMS	DIX	LF	HF	OAW	OAH	RADW	RADH	CP	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	bar *psi*	kg *lbs*
C5-150.10-040-20JETI	03134581	C5	50,0 *1.969*	96,0 *3.780*	35,0 *1.378*	20,0 *0.787*	80,0 *3.150*	80,0 *3.150*	40,0 *1.575*	30,0 *1.181*	70,0 *1015.3*	0,9 *1.980*
C6-150.10-050-25JETI	03134582	C6	63,0 *2.480*	103,0 *4.055*	45,0 *1.772*	25,0 *0.984*	82,0 *3.228*	82,0 *3.228*	41,0 *1.614*	37,0 *1.457*	70,0 *1015.3*	1,6 *3.530*
C8-150.10-050-25JETI	03134589	C8	80,0 *3.150*	103,0 *4.055*	45,0 *1.772*	25,0 *0.984*	82,0 *3.228*	82,0 *3.228*	41,0 *1.614*	37,0 *1.457*	70,0 *1015.3*	2,6 *5.730*

Spare Parts, included in delivery

For size	Coolant nozzle	O-ring	Wedge clamp	Wedge screw
				
C5	CN6	ORING-20X2	5431080-04	5512031-09
C6 / C8	CN7	ORING-20X2	5431080-02	5512031-09

Adapters E9364-R/L150.10..-25JETI for Parting-off – Metric / *Inch*

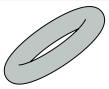
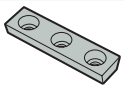
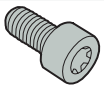




- Right-hand version shown
- For blades program, see page(s) 948, 949
- For holder code key, see page(s) 932
- For more information on Jetstream Tooling® and accessories, see page(s) 38, 85-89, 1026
- For Jetstream function Right-hand blade must only be used with Right-hand adapter
- For Jetstream function Left-hand blade must only be used with Left-hand adapter
- For ISO attribute explanation, see page 82

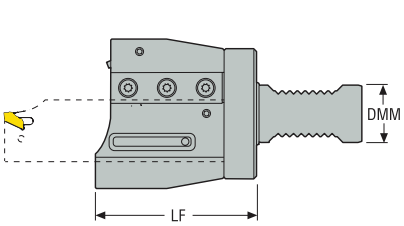
Designation	Item number	CTMS	DCSFMS	DIX	LF	HF	WF	OAW	OAH	RADW	RADH	CP	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	bar *psi*	kg *lbs*
E9364-R150.10-175-25JETI	03134588	HSK-T63	63,0 *2.480*	100,0 *3.937*	175,0 *6.890*	25,0 *0.984*	32,0 *1.260*	69,5 *2.736*	69,0 *2.717*	37,0 *1.457*	37,0 *1.457*	70,0 *1015.3*	2,6 *5.730*
E9364-L150.10-175-25JETI	03134587	HSK-T63	63,0 *2.480*	100,0 *3.937*	175,0 *6.890*	25,0 *0.984*	32,0 *1.260*	69,5 *2.736*	69,0 *2.717*	37,0 *1.457*	37,0 *1.457*	70,0 *1015.3*	2,5 *5.510*

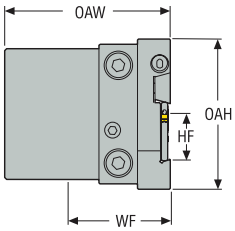
Spare Parts, included in delivery

For size	Coolant nozzle	O-ring	Wedge clamp	Wedge screw
				
E9364-R/L	CN7	5641005-74	5431080-02	5512031-09

Adapters R/L150.10...20/25 for Parting-off – Metric



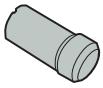
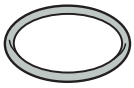
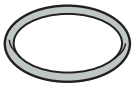
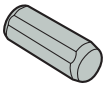
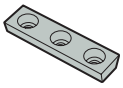
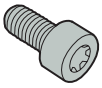




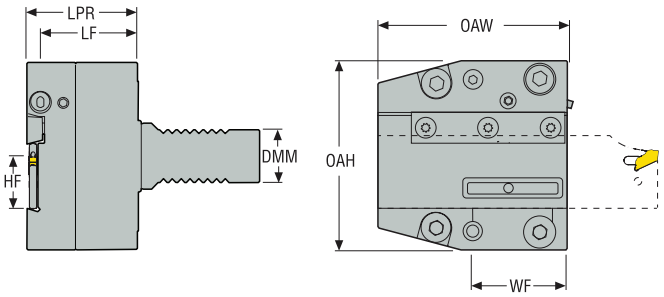
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- For ISO attribute explanation, see page 82

Designation	Item number	DMM	LF	HF	WF	OAW	OAH	CP	Weight
		mm	mm	mm	mm	mm	mm	bar	kg
R150.10-F-VDI25-20JETI	03070436	25,0	83,0	20,0	43,0	73,0	74,0	80,0	1,4
R150.10-F-VDI30-20JETI	03070438	30,0	90,0	20,0	50,0	85,0	74,0	80,0	1,6
R150.10-F-VDI30-25JETI	03070440	30,0	84,0	25,0	51,0	86,0	78,0	80,0	1,8
R150.10-F-VDI40-25JETI	03070442	40,0	80,0	25,0	76,0	118,5	100,0	80,0	3,0
L150.10-F-VDI25-20JETI	03070437	25,0	83,0	20,0	43,0	73,0	74,0	80,0	1,4
L150.10-F-VDI30-20JETI	03070439	30,0	90,0	20,0	50,0	85,0	74,0	80,0	1,6
L150.10-F-VDI30-25JETI	03070441	30,0	84,0	25,0	51,0	86,0	78,0	80,0	1,8
L150.10-F-VDI40-25JETI	03070443	40,0	80,0	25,0	76,0	118,5	100,0	80,0	2,9

Spare Parts, included in delivery

For size	Adjusting screw	Coolant nozzle	Coolant ring	Locking screw	Locking screw 2	O-ring	Pin	Wedge clamp	Wedge screw
									
.-F-..25-20	5333011-01	CN6	5641005-133	MC6S8X16	–	5641005-103	3111020-557	5431115-05	5513015-12
.-F-..30-20	5333011-01	CN6	5641005-133	MC6S8X20	–	5641005-134	3111020-557	5431115-05	5513015-12
.-F-..30-25	5333011-01	CN6	5641005-100	MC6S8X20	–	5641005-134	3111020-557	5431115-05	5513015-12
.-F-..40-25	5333011-01	CN6	5641005-100	MC6S8X25	5512031-10	5641005-135	3111050-609	5431115-09	5513015-12

Adapters R/L150.10...20/25 for Parting-off – Metric

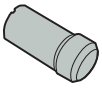
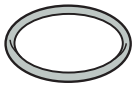
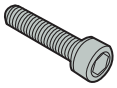
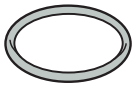
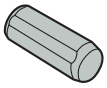
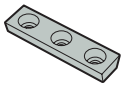
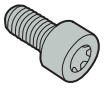




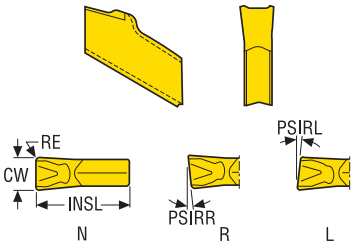
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Designation	Item number	DMM	LF	HF	WF	LPR	OAW	OAH	CP	Weight
		mm	mm	mm	mm	mm	mm	mm	bar	kg
R150.10-G-VDI30-20JETI	03070428	30,0	45,5	20,0	35,0	50,5	70,0	66,0	80,0	2,0
R150.10-G-VDI30-25JETI	03070430	30,0	45,5	25,0	42,5	50,5	85,0	85,0	80,0	2,9
R150.10-G-VDI40-25JETI	03070432	40,0	45,5	25,0	42,5	50,5	85,0	85,0	80,0	3,2
R150.10-G-VDI50-25JETI	03070434	50,0	45,5	25,0	42,5	50,5	85,0	90,0	80,0	3,8
L150.10-G-VDI30-20JETI	03070429	30,0	45,5	20,0	35,0	50,5	70,0	66,0	80,0	2,0
L150.10-G-VDI30-25JETI	03070431	30,0	45,5	25,0	42,5	50,5	85,0	85,0	80,0	2,9
L150.10-G-VDI40-25JETI	03070433	40,0	45,5	25,0	42,5	50,5	85,0	85,0	80,0	3,2
L150.10-G-VDI50-25JETI	03070435	50,0	45,5	25,0	42,5	50,5	85,0	90,0	80,0	3,8

Spare Parts, included in delivery

For size	Adjusting screw	Coolant nozzle	Coolant ring	Locking screw	Locking screw 2	O-ring	Pin	Wedge clamp	Wedge screw
									
.-G-..30-20	5333011-01	CN6	5641005-133	MC6S6X20	MC6S6X25	5641005-134	3111050-611	5431115-09	5513015-12
.-G-..30-25	5333011-01	CN6	5641005-100	MC6S8X25	–	5641005-134	3111050-611	5431115-09	5513015-12
.-G-..40-25	5333011-01	CN6	5641005-100	MC6S8X25	–	5641005-135	3111050-611	5431115-09	5513015-12
.-G-..50-25	5333011-01	CN6	5641005-100	MC6S8X25	–	5641001-119	3111050-611	5431115-09	5513015-12

Inserts – Parting-off, 150.10...-12, -14 and -16

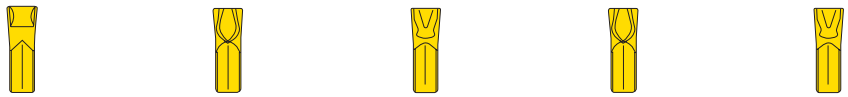


Tolerances: Size:
CW = ±0,05/*0.002* 1,4-2,5/*0.055-0.098*
CW = ±0,08/*0.003* 3-6/*0.120-0.240*

For ISO attribute explanation, see page 82

Toolholder range, see page(s) 944, 948, 949, 952, 954

150.10-12 **150.10-14** **150.10-16** **150.10-14** **150.10-16**



Designation	RE	CW	INSL	PSIRR°	PSIRL°	Grades							
						Coated							Uncoated
	mm *inch*	mm *inch*	mm *inch*			T25M	T350M	CP500	CP600	TGP35	TGP45	TGS2050	HX
150.10-2.5L6-12	0,17 *0.007*	2,5 *0.098*	9,00 *0.354*	–	6,0	■			■				
150.10-2.5N-12	0,17 *0.007*	2,5 *0.098*	9,00 *0.354*	–	–	■	■	■	■	■	■		
150.10-2.5R6-12	0,17 *0.007*	2,5 *0.098*	9,00 *0.354*	6,0	–	■			■			■	
150.10-3L6-12	0,19 *0.007*	3,1 *0.122*	9,00 *0.354*	–	6,0	■			■			■	
150.10-3N-12	0,19 *0.007*	3,1 *0.122*	9,00 *0.354*	–	–	■	■	■	■	■	■	■	
150.10-3R6-12	0,19 *0.007*	3,1 *0.122*	9,00 *0.354*	6,0	–	■			■			■	
150.10-4L6-12	0,23 *0.009*	4,1 *0.161*	9,00 *0.354*	–	6,0	■							
150.10-4N-12	0,23 *0.009*	4,1 *0.161*	9,00 *0.354*	–	–	■	■	■	■	■	■	■	
150.10-4R6-12	0,23 *0.009*	4,1 *0.161*	9,00 *0.354*	6,0	–	■							
150.10-5N-12	0,26 *0.010*	5,1 *0.201*	9,00 *0.354*	–	–	■				■			
150.10-6N-12	0,3 *0.012*	6,35 *0.250*	9,00 *0.354*	–	–	■				■			
150.10-1.4N-14	0,15 *0.006*	1,4 *0.055*	9,00 *0.354*	–	–			■	■			■	■
150.10-2.0N-14	0,15 *0.006*	2,0 *0.079*	9,00 *0.354*	–	–		■	■	■		■	■	■
150.10-2.25N-14	0,15 *0.006*	2,25 *0.089*	9,00 *0.354*	–	–		■	■	■		■		■
150.10-2.5L6-14	0,17 *0.007*	2,5 *0.098*	9,00 *0.354*	–	6,0	■			■				
150.10-2.5N-14	0,17 *0.007*	2,5 *0.098*	9,00 *0.354*	–	–	■		■	■		■		■
150.10-2.5R6-14	0,17 *0.007*	2,5 *0.098*	9,00 *0.354*	6,0	–	■			■		■	■	
150.10-3L6-16	0,19 *0.007*	3,1 *0.122*	9,00 *0.354*	–	6,0	■			■		■	■	
150.10-3N-14	0,19 *0.007*	3,1 *0.122*	9,00 *0.354*	–	–	■	■	■	■	■	■	■	■
150.10-3R6-14	0,19 *0.007*	3,1 *0.122*	9,00 *0.354*	6,0	–	■		■	■		■	■	
150.10-4L6-14	0,23 *0.009*	4,1 *0.161*	9,00 *0.354*	–	6,0	■							
150.10-4N-14	0,23 *0.009*	4,1 *0.161*	9,00 *0.354*	–	–	■	■	■	■	■	■	■	■

Designation	RE	CW	INSL	PSIRR°	PSIRL°	Grades: Coated							Grades: Uncoated
	mm *inch*	mm *inch*	mm *inch*			T25M	T350M	CP500	CP600	TGP35	TGP45	TGS2050	HX
150.10-4R6-14	0,23 *0.009*	4,1 *0.161*	9,00 *0.354*	6,0	–	■							
150.10-5N-14	0,26 *0.010*	5,1 *0.201*	9,00 *0.354*	–	–	■		■	■				
150.10-6N-14	0,3 *0.012*	6,35 *0.250*	9,00 *0.354*	–	–	■		■	■				
150.10-1.4N-16	0,15 *0.006*	1,4 *0.055*	9,00 *0.354*	–	–			■	■		■	■	
150.10-2.0N-16	0,15 *0.006*	2,0 *0.079*	9,00 *0.354*	–	–		■	■	■		■	■	
150.10-2.25N-16	0,15 *0.006*	2,25 *0.089*	9,00 *0.354*	–	–	■	■	■	■		■		■
150.10-2.5L6-16	0,17 *0.007*	2,5 *0.098*	9,00 *0.354*	–	6,0	■			■				
150.10-2.5N-16	0,17 *0.007*	2,5 *0.098*	9,00 *0.354*	–	–	■	■	■	■		■		■
150.10-3N-16	0,19 *0.007*	3,1 *0.122*	9,00 *0.354*	–	–	■	■	■	■	■	■	■	■
150.10-3R6-16	0,19 *0.007*	3,1 *0.122*	9,00 *0.354*	6,0	–	■			■	■	■	■	
150.10-4L6-16	0,23 *0.009*	4,1 *0.161*	9,00 *0.354*	–	6,0	■							
150.10-4N-16	0,23 *0.009*	4,1 *0.161*	9,00 *0.354*	–	–	■	■	■	■	■	■	■	■
150.10-4R6-16	0,23 *0.009*	4,1 *0.161*	9,00 *0.354*	6,0	–	■					■		■
150.10-5L6-16	0,26 *0.010*	5,1 *0.201*	9,00 *0.354*	–	6,0	■							
150.10-5N-16	0,26 *0.010*	5,1 *0.201*	9,00 *0.354*	–	–	■		■	■	■	■		■
150.10-5R6-16	0,26 *0.010*	5,1 *0.201*	9,00 *0.354*	6,0	–	■							
150.10-6N-16	0,3 *0.012*	6,35 *0.250*	9,00 *0.354*	–	–	■		■	■	■	■		■



X4

The Seco X4 system with a 4-cutting-edge insert is optimized for parting-off and grooving primarily small parts. It consists of indexable tangential inserts and a highly stable clamp design. These strong, dependable system components achieve high accuracy, repeatability, productivity and surface quality in external grooving and parting-off operations involving small parts and slim bars and tubes made from a wide variety of work materials.

- Inserts with four cutting edges.
- Easy double access clamping system.
- Good repeatability (±0,025 mm / *0.001 inch*).
- Jetstream Tooling® Duo – improves chip control and tool life of cutting edge.

X4 – General information

The Seco X4 system (multi edge solution) comprises toolholders and inserts for external radial machining.

The system can be used for:

– Grooving

– Parting off

Seco X4 comes in combination with the unique Jetstream Tooling® Duo. A high pressure cooling system which provides directed coolant supply to the cutting edge by two streams: the first to the rake surface and the second to the clearance surface.



The X4 system provides several features:

– Four cutting edges

– Ability to pass free along a shoulder down to the centre

– Easy double access clamping system

– Easy indexing without total extraction of the screw

– Integrity safe in case of edge failure. The inserts can still be used with three broken passive edges

– Good repeatability (±0,025 mm / *0.001 inch*)

– Jetstream Tooling® Duo – improves chip control and tool life of cutting edge



Set-up machining recommendations

The mounting should be stable.

The tool should be securely clamped and the overhang should be as small as possible.

The centre height should never deviate by more than ±0,1 mm / *±0.0039 inch* from the workpiece centre.

Parting-off

An insert with a neutral edge (N) normally results in a longer useful life of the insert.

The useful life of the insert can be increased by reducing the feed rate or stopping the feed entirely before break-through.

Formulae for cutting data calculation can be found in page(s) 103.

Seco Jetstream Tooling® Duo

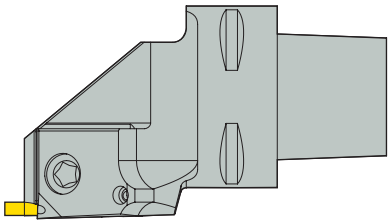
Seco Jetstream Tooling® Duo holders, yet another innovation introduced to market, feature both a rake face and flank face jet, that may provide even better chip control and signif cantly longer tool life. For more information on Jetstream Tooling® and accessories, please see page(s) 85-89, 1026.



Troubleshooting

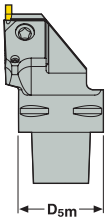
Troubleshooting for X4 inserts, see page(s) 938.

Seco-Capto™ – External toolholders



C4	-	X4	F	R	27	060	-	25	03	JET
1		2	3	4	5	6		7	8	9

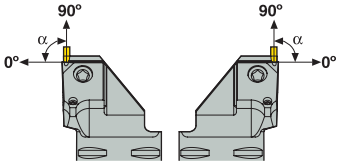
1. Seco-Capto™ size



2. Tool system

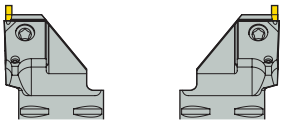
X4

3. Toolholder setting angle



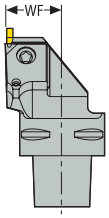
F = 90°
G = 0°

4. Version

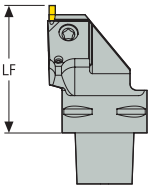


R = Right
L = Left

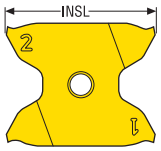
5. WF-dimension



6. LF-dimension



7. Insert length



25 = 25 mm / *0.984 inch*

8. Seat size



03 = 3,1 mm / *0.122 inch*

9. Cooling system

JET = Jetstream Tooling® Duo
JETI/JETI2 = Jetstream Tooling® integrated coolant inlet

External toolholders

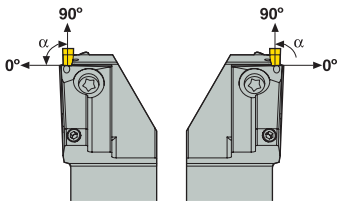


C4	F	R	25	25	M	25	03	JET
1	2	3	4	5	6	7	8	9

1. Tool system

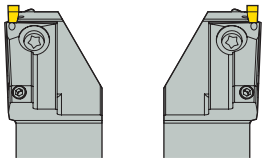
X4

2. Toolholder setting angle



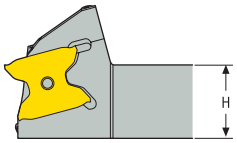
F = 90°
G = 0°

3. Version

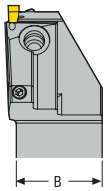


R = Right
L = Left

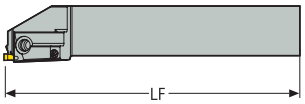
4. Shank height



5. Shank width

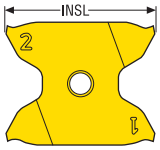


6. Tool length



H = 100 mm / *3.937 inch*
K = 125 mm / *4.921 inch*
M = 150 mm / *5.906 inch*

7. Insert length



25 = 25 mm / *0.984 inch*

8. Seat size

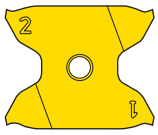


03 = 3,1 mm / *0.122 inch*

9. Cooling system

JET = Jetstream Tooling® Duo

Inserts

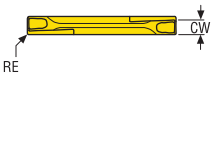


X4	G	K	25	03	010	-	0150	RR15	-	MC
1	2	3	4	5	6		7	8		9

1. Tool system

X4

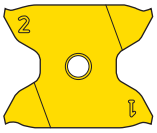
2. Tolerances



Tolerance ± mm

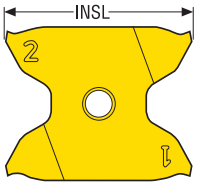
Tolerance class	CW	RE	LIG
G	0,025 / *0.001*	0,03 / *0.0012*	0,025 / *0.001*

3. Insert type



K = four edges with chipbreaker

4. Insert length



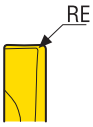
25 = 25 mm / *0.984 inch*

5. Seat size



03 = 3,1 mm / *0.122 inch*

6. Corner radius



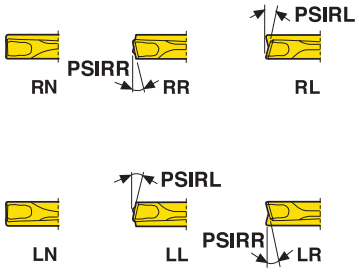
005 = 0,05 mm / *0.0020 inch*
010 = 0,10 mm / *0.0039 inch*
015 = 0,15 mm / *0.0059 inch*
M0 = round

7. Cutting edge width



0050 = 0,5 mm / *0.020 inch*
0300 = 3 mm / *0.120 inch*

8. Version



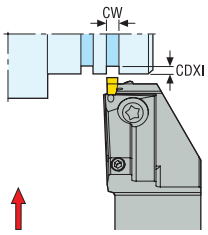
9. Chipbreaker or geometry code

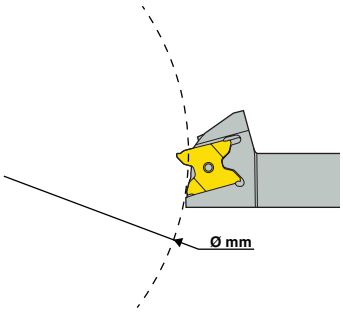
MC = Chipbreaker for medium Parting-off and Grooving
FG = Radial groove
R = Round

X4 – Appliation overview

Grooving

CDXI / Workpiece diameter





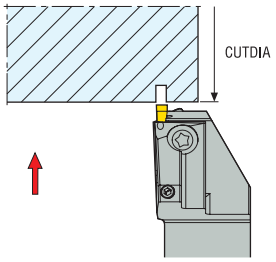
Maximum cutting depth CDXI is limited relative to workpiece diameter to avoid contact between workpiece and toolholder.

X4 Grooving – Cutting depth CDXI

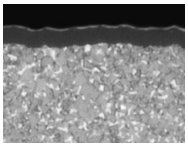
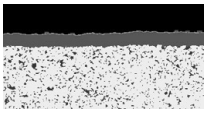
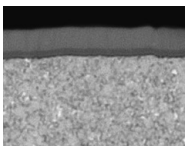
Cutting edge width CW, mm / *inch*	Workpiece diameter, ∅ mm / *inch*									
	0-130 *0-5.118*	130-140 *5.118-5.512*	140-160 *5.512-6.299*	160-180 *6.299-7.087*	180-200 *7.087-7.874*	200-250 *7.874-9.843*	250-300 *9.843-11.811*	300-400 *11.811-15.748*	400-500 *15.748-19.686*	500-1000 *19.686-39.370*
0,5 / *0.020*	2,6 / *0.100*	2,6 / *0.100*	2,6 / *0.100*	2,6 / *0.100*	2,6 / *0.100*	2,6 / *0.100*	2,6 / *0.100*	2,6 / *0.100*	2,6 / *0.100*	2,6 / *0.100*
1,0 / *0.040*	4,3 / *0.169*	4,3 / *0.169*	4,3 / *0.169*	4,3 / *0.169*	4,3 / *0.169*	4,3 / *0.169*	4,3 / *0.169*	4,3 / *0.169*	4,3 / *0.169*	4,0 / *0.160*
1,5 / *0.060*	6,5 / *0.256*	6,4 / *0.252*	6,1 / *0.240*	5,9 / *0.232*	5,5 / *0.217*	5,0 / *0.200*	5,0 / *0.200*	4,5 / *0.177*	4,5 / *0.177*	4,0 / *0.160*
2,0 / *0.080*	6,5 / *0.256*	6,4 / *0.252*	6,1 / *0.240*	5,9 / *0.232*	5,5 / *0.217*	5,0 / *0.200*	5,0 / *0.200*	4,5 / *0.177*	4,5 / *0.177*	4,0 / *0.160*
2,5 / *0.098*	6,5 / *0.256*	6,4 / *0.252*	6,1 / *0.240*	5,9 / *0.232*	5,5 / *0.217*	5,0 / *0.200*	5,0 / *0.200*	4,5 / *0.177*	4,5 / *0.177*	4,0 / *0.160*
3,0 / *0.120*	6,5 / *0.256*	6,4 / *0.252*	6,1 / *0.240*	5,9 / *0.232*	5,5 / *0.217*	5,0 / *0.200*	5,0 / *0.200*	4,5 / *0.177*	4,5 / *0.177*	4,0 / *0.160*

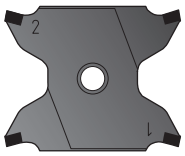
Parting-off

CUTDIA



Maximum workpiece diameter, CUTDIA	
Cutting edge width CW mm / *inch*	Workpiece diameter, CUTDIA mm / *inch*
0,5 / *0.020*	5,2 / *0.205*
1,0 / *0.040*	8,6 / *0.339*
1,5 / *0.060*	13,0 / *0.512*
2,0 / *0.080*	13,0 / *0.512*
2,5 / *0.098*	13,0 / *0.512*
3,0 / *0.120*	13,0 / *0.512*

X4 grades, coated		
CP500		Tough PVD-coated micrograin grade intended for grooving, profiling and parting-off at moderate cutting speeds. Provides more wear resistance compared to CP600. (Ti,Al)N + TiN
CP600		Very tough PVD-coated fine-grain grade, universal choice intended for grooving and parting-off at low to moderate cutting speeds. Well-suited in stainless steel and in interrupted cuts. Tougher alternative to CP500. (Ti,Al)N + TiN
TGH1050		Very hard supermicrograin grade intended for partly hardened steel components as well as generally workpiece materials such as superalloys and cast-iron and due to remarkable edge toughness it also provides high performance in interrupted cuts and hard-surface removal. Ti-Al-Si-N nanolaminate coating

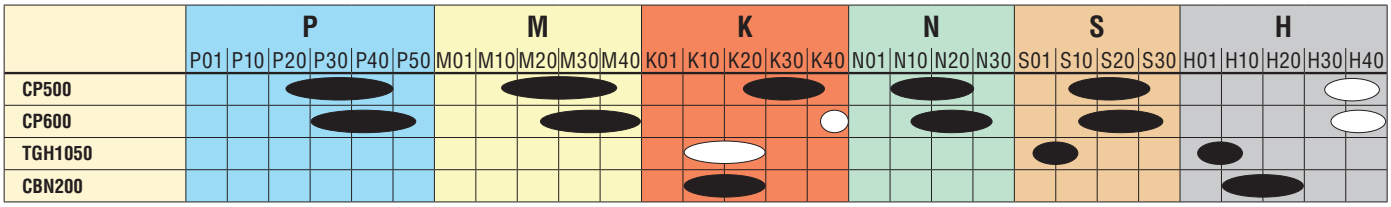
X4 grades, PCBN		
CBN200		Inserts with brazed tips, intended for hardened steels and pearlitic cast iron. Composition: 90% cBN content grade with an average grain size of 3-6 µm and a Al ceramic binder. Coating: No coating.

Indicative ISO classification of the grades

Steel **P**	All kinds of steel and cast steels except stainless steels with austenitic structure.	P01, P10, P20, P30, P40, P50
Stainless steel **M**	Stainless austenitic and austenitic/ferritic steel and cast steel.	M01, M10, M20, M30, M40
Cast iron **K**	Grey cast iron, cast iron with spheroidal graphite, malleable cast iron.	K01, K10, K20, K30, K40
Non-ferrous metals **N**	Aluminium and other nonferrous metals.	N01, N10, N20, N30
Superalloys and titanium **S**	Heat resistant special alloys based on iron, nickel and cobalt, titanium and titanium alloys.	S01, S10, S20, S30
Hard materials **H**	Hardened stel and cast iron materials, chilled cast iron.	H01, H10, H20, H30

The application area for each grade is shown in the chart below.

The black areas in the chart indicate a grade's main ISO application groups and the white areas indicate other supplementary application groups.



Cutting data

Cutting speed v_c (m/min)

In this section a recommended cutting speed is indicated under specified conditions.

Use the tables beginning on page(s) 1030 to classify the workpiece material into a SMG.

The cutting data tables provide a recommendation of chipbreaker and a start value for feed rate (f) and cutting speed (v_c).

The cutting data tables are based on grooving with full cutting width (CW).

The recommended cutting speeds in the tables are calculated for 15 minutes tool life with use of external flood coolant.

In order to increase the accuracy towards the actual cutting conditions and requirements of the applications the recommendation is to use My Pages – Suggest on www.secotools.com

v_c = cutting speed (m/min / *sf/min*)

CW = cutting width (mm / *inch*)

f = feed rate (mm/rev / *in/rev*)

Grade CP500

SMG		CW = 0,5-1,0 *CW = 0.020-0.039*		CW = 1,5-2,0 *CW = 0.059-0.079*		CW = 2,5-3,0 *CW = 0.098-0.118*	
		f	v_c	f	v_c	f	v_c
P1	-MC CP500	0,075 *0.0030*	185 *610*	0,12 *0.0048*	155 *510*	0,15 *0.0060*	140 *460*
P2	-MC CP500	0,075 *0.0030*	180 *590*	0,12 *0.0048*	150 *490*	0,15 *0.0060*	135 *445*
P3	-MC CP500	0,075 *0.0030*	155 *510*	0,11 *0.0044*	130 *425*	0,14 *0.0055*	120 *395*
P4	-MC CP500	0,070 *0.0028*	135 *445*	0,11 *0.0044*	115 *375*	0,14 *0.0055*	105 *345*
P5	-MC CP500	0,070 *0.0028*	130 *425*	0,11 *0.0044*	110 *360*	0,14 *0.0055*	100 *330*
P6	-MC CP500	0,070 *0.0028*	145 *475*	0,11 *0.0044*	125 *410*	0,13 *0.0050*	115 *375*
P7	-MC CP500	0,070 *0.0028*	140 *460*	0,11 *0.0044*	120 *395*	0,13 *0.0050*	110 *360*
P8	-MC CP500	0,075 *0.0030*	130 *425*	0,11 *0.0044*	110 *360*	0,14 *0.0055*	100 *330*
P11	-MC CP500	0,070 *0.0028*	135 *445*	0,11 *0.0044*	115 *375*	0,13 *0.0050*	105 *345*
P12	-MC CP500	0,048 *0.0019*	85 *280*	0,075 *0.0030*	75 *245*	0,095 *0.0038*	70 *230*
M1	-MC CP500	0,075 *0.0030*	205 *670*	0,12 *0.0048*	175 *570*	0,15 *0.0060*	150 *490*
M2	-MC CP500	0,070 *0.0028*	165 *540*	0,11 *0.0044*	145 *475*	0,14 *0.0055*	125 *410*
M3	-MC CP500	0,055 *0.0022*	125 *410*	0,085 *0.0034*	120 *395*	0,11 *0.0044*	110 *360*
M4	-MC CP500	0,050 *0.0020*	90 *295*	0,075 *0.0030*	95 *310*	0,095 *0.0038*	85 *280*
M5	-MC CP500	0,050 *0.0020*	75 *245*	0,075 *0.0030*	80 *260*	0,095 *0.0038*	75 *245*
K1	-MC CP500	0,075 *0.0030*	170 *560*	0,12 *0.0048*	145 *475*	0,15 *0.0060*	130 *425*
K2	-MC CP500	0,070 *0.0028*	145 *475*	0,11 *0.0044*	120 *395*	0,14 *0.0055*	110 *360*
K3	-MC CP500	0,070 *0.0028*	125 *410*	0,11 *0.0044*	100 *330*	0,14 *0.0055*	90 *295*
K4	-MC CP500	0,070 *0.0028*	115 *375*	0,11 *0.0044*	100 *330*	0,14 *0.0055*	85 *280*
K5	-MC CP500	0,065 *0.0026*	70 *230*	0,10 *0.0040*	60 *195*	0,12 *0.0048*	55 *180*
K6	-MC CP500	0,070 *0.0028*	105 *345*	0,11 *0.0044*	90 *295*	0,14 *0.0055*	85 *280*
K7	-MC CP500	0,065 *0.0026*	90 *295*	0,10 *0.0040*	75 *245*	0,12 *0.0048*	70 *230*
N11	-MC CP500	0,10 *0.0040*	110 *360*	0,15 *0.0060*	90 *295*	0,19 *0.0075*	85 *280*
S1	-MC CP500	0,050 *0.0020*	22 *70*	0,075 *0.0030*	19 *60*	0,095 *0.0038*	18 *60*
S2	-MC CP500	0,050 *0.0020*	19 *60*	0,075 *0.0030*	17 *55*	0,095 *0.0038*	16 *50*
S3	-MC CP500	0,046 *0.0018*	17 *55*	0,070 *0.0028*	15 *49*	0,090 *0.0036*	14 *46*

Grade CP600

SMG		CW = 0,5-1,0 *CW = 0.020-0.039*		CW = 1,5-2,0 *CW = 0.059-0.079*		CW = 2,5-3,0 *CW = 0.098-0.118*	
		f	v_c	f	v_c	f	v_c
P1	-MC CP600	0,075 *0.0030*	170 *560*	0,12 *0.0048*	145 *475*	0,15 *0.0060*	130 *425*
P2	-MC CP600	0,075 *0.0030*	165 *540*	0,12 *0.0048*	140 *460*	0,15 *0.0060*	130 *425*
P3	-MC CP600	0,075 *0.0030*	145 *475*	0,11 *0.0044*	125 *410*	0,14 *0.0055*	115 *375*
P4	-MC CP600	0,070 *0.0028*	130 *425*	0,11 *0.0044*	110 *360*	0,14 *0.0055*	100 *330*
P5	-MC CP600	0,070 *0.0028*	125 *410*	0,11 *0.0044*	105 *345*	0,14 *0.0055*	95 *310*
P6	-MC CP600	0,070 *0.0028*	140 *460*	0,11 *0.0044*	115 *375*	0,13 *0.0050*	110 *360*
P7	-MC CP600	0,070 *0.0028*	130 *425*	0,11 *0.0044*	110 *360*	0,13 *0.0050*	105 *345*
P8	-MC CP600	0,075 *0.0030*	120 *395*	0,11 *0.0044*	105 *345*	0,14 *0.0055*	95 *310*
P11	-MC CP600	0,070 *0.0028*	125 *410*	0,11 *0.0044*	105 *345*	0,13 *0.0050*	100 *330*
P12	-MC CP600	0,048 *0.0019*	80 *260*	0,075 *0.0030*	70 *230*	0,095 *0.0038*	65 *215*
M1	-MC CP600	0,075 *0.0030*	190 *620*	0,12 *0.0048*	165 *540*	0,15 *0.0060*	140 *460*
M2	-MC CP600	0,070 *0.0028*	155 *510*	0,11 *0.0044*	140 *460*	0,14 *0.0055*	120 *395*
M3	-MC CP600	0,055 *0.0022*	115 *375*	0,085 *0.0034*	115 *375*	0,11 *0.0044*	105 *345*
M4	-MC CP600	0,050 *0.0020*	85 *280*	0,075 *0.0030*	85 *280*	0,095 *0.0038*	80 *260*
M5	-MC CP600	0,050 *0.0020*	70 *230*	0,075 *0.0030*	75 *245*	0,095 *0.0038*	70 *230*
K1	-MC CP600	0,075 *0.0030*	160 *520*	0,12 *0.0048*	135 *445*	0,15 *0.0060*	125 *410*
K2	-MC CP600	0,070 *0.0028*	135 *445*	0,11 *0.0044*	115 *375*	0,14 *0.0055*	100 *330*
K3	-MC CP600	0,070 *0.0028*	115 *375*	0,11 *0.0044*	95 *310*	0,14 *0.0055*	85 *280*
K4	-MC CP600	0,070 *0.0028*	110 *360*	0,11 *0.0044*	90 *295*	0,14 *0.0055*	80 *260*
K5	-MC CP600	0,065 *0.0026*	65 *215*	0,10 *0.0040*	55 *180*	0,12 *0.0048*	50 *165*
K6	-MC CP600	0,070 *0.0028*	100 *330*	0,11 *0.0044*	85 *280*	0,14 *0.0055*	80 *260*
K7	-MC CP600	0,065 *0.0026*	85 *280*			0,12 *0.0048*	65 *215*
N11	-MC CP600						
S1	-MC CP600						
S2	-MC CP600						
S3	-MC CP600						

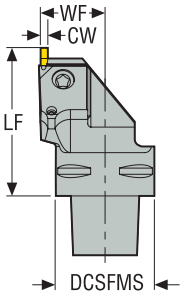
Grade TGH1050

SMG		CW = 0,5-1,0 *CW = 0.020-0.039*		CW = 1,5-2,0 *CW = 0.059-0.079*		CW = 2,5-3,0 *CW = 0.098-0.118*	
		f	v_c	f	v_c	f	v_c
K1	-MC TGH1050	— —	— —	— —	— —	— —	— —
K2	-MC TGH1050	— —	— —	— —	— —	— —	— —
K3	-MC TGH1050	— —	— —	— —	— —	— —	— —
S1	-MC TGH1050	— —	— —	— —	— —	— —	— —
S2	-MC TGH1050	— —	— —	— —	— —	— —	— —
S3	-MC TGH1050	— —	— —	— —	— —	— —	— —
H3	-MC TGH1050	0,032 *0.0013*	49 *160*	0,050 *0.0020*	50 *165*	0,060 *0.0024*	50 *165*
H5	-MC TGH1050	0,048 *0.0019*	95 *310*	0,075 *0.0030*	90 *295*	0,095 *0.0038*	85 *280*
H7	-MC TGH1050	0,032 *0.0013*	49 *160*	0,050 *0.0020*	50 *165*	0,060 *0.0024*	50 *165*
H8	-MC TGH1050	0,036 *0.0014*	90 *295*	0,055 *0.0022*	95 *310*	0,070 *0.0028*	90 *295*
H11	-MC TGH1050	0,048 *0.0019*	120 *395*	0,075 *0.0030*	115 *375*	0,095 *0.0038*	110 *360*
H12	-MC TGH1050	0,036 *0.0014*	105 *345*	0,055 *0.0022*	110 *360*	0,070 *0.0028*	105 *345*
H21	-MC TGH1050	0,036 *0.0014*	90 *295*	0,055 *0.0022*	95 *310*	0,070 *0.0028*	90 *295*
H31	-MC TGH1050	0,032 *0.0013*	70 *230*	0,050 *0.0020*	70 *230*	0,060 *0.0024*	70 *230*

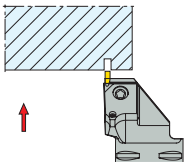
C.-X4FR/L...JET – Toolholders for inserts X4GK
– Metric / *Inch*



C.-X4FR/L...JET



X4FR/L...JET
KAPR = 90,0 °



CTWS



- Right-hand version shown
- For inserts program, see page(s) 979-983
- For holder code key, see page(s) 964
- For more information on Jetstream Tooling® and accessories, see page(s) 38, 85-89, 1026
- Right-hand holder must only be used with Right-hand insert
- Left-hand holder must only be used with Left-hand insert
- For ISO attribute explanation, see page 82

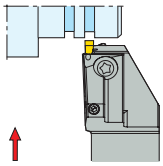
Designation	Item number	CTMS	DCSFMS	WF	LF	CP	Weight	CTWS
			mm *inch*	mm *inch*	mm *inch*	bar *psi*	kg *lbs*	
C4-X4FR-27060-2503JET	02823293	C4	40,0 *1.575*	27,0 *1.063*	60,0 *2.362*	150,0 *2175.6*	0,5 *1.100*	X42503R
C4-X4FL-27060-2503JET	02823290	C4	40,0 *1.575*	27,0 *1.063*	60,0 *2.362*	150,0 *2175.6*	0,5 *1.100*	X42503L
C5-X4FR-35060-2503JET	02823294	C5	50,0 *1.969*	35,0 *1.378*	60,0 *2.362*	150,0 *2175.6*	0,7 *1.540*	X42503R
C5-X4FL-35060-2503JET	02823291	C5	50,0 *1.969*	35,0 *1.378*	60,0 *2.362*	150,0 *2175.6*	0,9 *1.980*	X42503L
C6-X4FR-45065-2503JET	02823295	C6	63,0 *2.480*	45,0 *1.772*	65,0 *2.559*	150,0 *2175.6*	1,3 *2.870*	X42503R
C6-X4FL-45065-2503JET	02823292	C6	63,0 *2.480*	45,0 *1.772*	65,0 *2.559*	150,0 *2175.6*	1,3 *2.870*	X42503L

Spare Parts, included in delivery

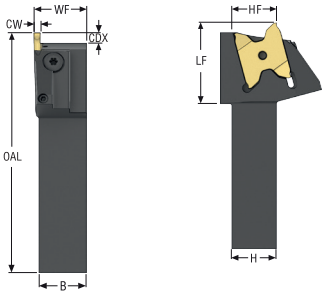
For size	Clamp key	Clamp screw
		
-2503	T15P-7	L85020-T15P

X4FR/L...JETI – Toolholders compatible with JETI adapters for inserts X4GK – Metric

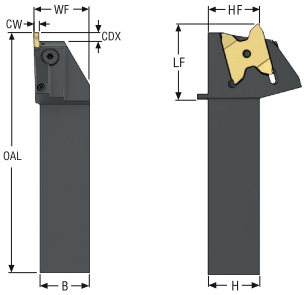
X4FR/L...JETI
KAPR = 90,0 °



X4FR/L2020...JETI



X4FR/L2525...JETI





CTWS



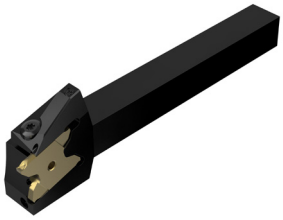
- Right-hand version shown
- For inserts program, see page(s) 979-983
- For holder code key, see page(s) 965
- For more information on Jetstream Tooling® and accessories, see page(s) 38, 85-89, 1026
- Right-hand holder must only be used with Right-hand insert
- Left-hand holder must only be used with Left-hand insert
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	OAL	LF	WF	HF	CP	Weight	CTWS
		mm	mm	mm	mm	mm	mm	bar	kg	
X4FR2020X2503JETI	03244928	20	20	100	36	22,0	20,0	200,0	0,4	X4GK25..RN/RR/RL..
X4FR2525X2503JETI	03244929	25	25	121	37	28,0	25,0	200,0	0,6	X4GK25..RN/RR/RL..
X4FL2020X2503JETI	03244926	20	20	100	36	22,0	20,0	200,0	0,4	X4GK25..LN/LR/LL..
X4FL2525X2503JETI	03244927	25	25	121	37	28,0	25,0	200,0	0,6	X4GK25..LN/LR/LL..

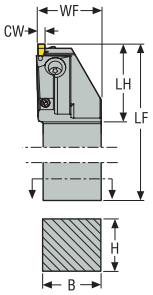
Spare Parts, included in delivery

For size	Clamp key	Clamp screw	Plug	Plug screw
				
-2503	T15P-7	L85020-T15P	JET-P1/8-5MM	P6SS6X6

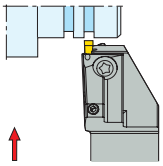
X4FR/L...JET – Toolholders for inserts X4GK – Metric



X4FR/L...JET



X4FR/L...JET
KAPR = 90,0 °



CTWS



- Right-hand version shown
- For inserts program, see page(s) 979-983
- For holder code key, see page(s) 965
- For more information on Jetstream Tooling® and accessories, see page(s) 38, 85-89, 1026
- Right-hand holder must only be used with Right-hand insert
- Left-hand holder must only be used with Left-hand insert
- For ISO attribute explanation, see page 82

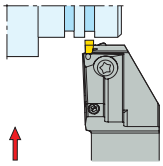
Designation	Item number	H	B	LF	WF	LH	CP	Weight	CTWS
		mm	mm	mm	mm	mm	bar	kg	
X4FR1616M2503JET	02823286	16	16	150	18,0	36,0	275,0	0,4	X4GK25..RN/RR/RL..
X4FL1616M2503JET	02823245	16	16	150	18,0	36,0	275,0	0,4	X4GK25..LN/LR/LL..

Spare Parts, included in delivery

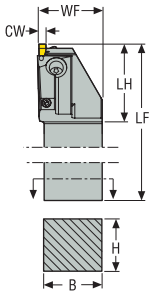
For size	Clamp key	Clamp screw	Plug
			
-2503	T15P-7	L85020-T15P	JET-P1/8-5MM

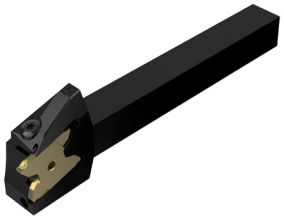
X4FR/L...JET – Toolholders for inserts X4GK – Inch

KAPR = 90,0 °



X4FR/L...JET





CTWS



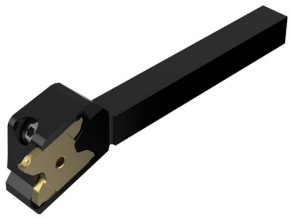
- Right-hand version shown
- For inserts program, see page(s) 979-983
- For holder code key, see page(s) 965
- For more information on Jetstream Tooling® and accessories, see page(s) 38, 85-89, 1026
- Right-hand holder must only be used with Right-hand insert
- Left-hand holder must only be used with Left-hand insert
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF	LH	CP	Weight	CTWS
		inch	inch	inch	inch	inch	psi	lbs	
X4FR0632503DJET	02823299	0.625	0.625	6.000	0.750	1.441	3988.5	0.880	X42503R
X4FR0752503DJET	02823300	0.750	0.750	6.000	0.866	1.441	3988.5	1.100	X42503R
X4FR1002503DJET	02823301	1.000	1.000	6.000	1.102	1.441	3988.5	1.760	X42503R
X4FL0632503DJET	02823296	0.625	0.625	6.000	0.750	1.441	3988.5	0.880	X42503L
X4FL0752503DJET	02823297	0.750	0.750	6.000	0.866	1.441	3988.5	1.100	X42503L
X4FL1002503DJET	02823298	1.000	1.000	6.000	1.102	1.441	3988.5	1.760	X42503L

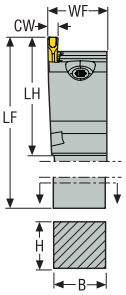
Spare Parts, included in delivery

For size	Clamp key	Clamp screw	Plug
			
-2503	T15P-7	L85020-T15P	JET-P1/8-5MM

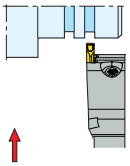
X4FR/L – Toolholders for inserts X4GK – Metric



X4FR/L...JET



X4FR/L
KAPR = 90,0 °



CTWS



- Right-hand version shown
- For inserts program, see page(s) 979-983
- For holder code key, see page(s) 965
- Right-hand holder must only be used with Right-hand insert
- Left-hand holder must only be used with Left-hand insert
- For ISO attribute explanation, see page 82

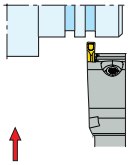
Designation	Item number	H	B	LF	WF	LH	Weight	CTWS
		mm	mm	mm	mm	mm	kg	
X4FR1212K2503	02919944	12	12	125	11,9	36,6	0,2	X4GK25..RN/RR/RL..
X4FR1616K2503	02919937	16	16	125	18,0	36,6	0,3	X4GK25..RN/RR/RL..
X4FR2020M2503	02968134	20	20	150	22,0	36,0	0,6	X4GK25..RN/RR/RL..
X4FR2525M2503	02953258	25	25	150	28,0	36,0	0,8	X4GK25..RN/RR/RL..
X4FL1212K2503	02919935	12	12	125	11,9	36,6	0,2	X4GK25..LN/LR/LL..
X4FL1616K2503	02919936	16	16	125	18,0	36,6	0,3	X4GK25..LN/LR/LL..
X4FL2020M2503	02968135	20	20	150	22,0	36,0	0,5	X4GK25..LN/LR/LL..
X4FL2525M2503	02953259	25	25	150	28,0	36,0	0,8	X4GK25..LN/LR/LL..

Spare Parts, included in delivery

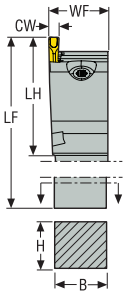
For size	Clamp key	Clamp screw
		
-2503	T15P-7	L85020-T15P

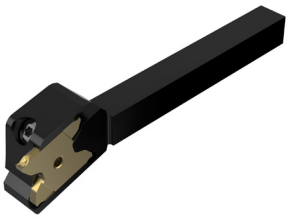
X4FR/L – Toolholders for inserts X4GK – Inch

X4FR/L
KAPR = 90,0 °



X4FR/L...JET





CTWS



- Right-hand version shown
- For inserts program, see page(s) 979-983
- For holder code key, see page(s) 965
- Right-hand holder must only be used with Right-hand insert
- Left-hand holder must only be used with Left-hand insert
- For ISO attribute explanation, see page 82

Designation	Item number	H	B	LF	WF	LH	Weight	CTWS
		inch	inch	inch	inch	inch	lbs	
X4FR050C2503	02933930	0.500	0.500	4.961	0.500	1.441	0.440	X42503R
X4FR063C2503	02933932	0.625	0.625	4.961	0.709	1.441	0.660	X42503R
X4FR0752503D	02968139	0.750	0.750	6.000	0.866	1.417	1.100	X42503R
X4FR1002503D	02968136	1.000	1.000	6.000	1.102	1.417	1.760	X42503R
X4FL050C2503	02933931	0.500	0.500	4.961	0.500	1.441	0.440	X42503L
X4FL063C2503	02933933	0.625	0.625	4.961	0.709	1.441	0.660	X42503L
X4FL0752503D	02968140	0.750	0.750	6.000	0.866	1.417	1.100	X42503L
X4FL1002503D	02968137	1.000	1.000	6.000	1.102	1.417	1.760	X42503L

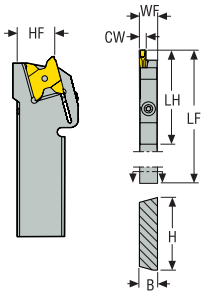
Spare Parts, included in delivery

For size	Clamp key	Clamp screw
		
-2503	T15P-7	L85020-T15P

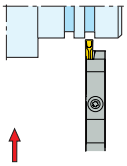
X4FR/L...ITX – Toolholders for inserts X4GK – Metric



X4FR/L...ITX



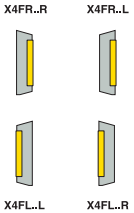
X4FR/L..ITX
KAPR = 90,0 °



CTWS



- Right-hand version shown
- For inserts program, see page(s) 979-984
- For holder code key, see page(s) 965
- Right-hand holder must only be used with Right-hand insert
- Left-hand holder must only be used with Left-hand insert
- For ISO attribute explanation, see page 82



Designation	Item number	H	B	LF	WF	HF	LH	Weight	CTWS
		mm	mm	mm	mm	mm	mm	kg	
X4FR26ITX2503R	02866967	16	16,00	119,5	7,85	21,4	47,0	0,2	X4GK25..RN/RR/RL..
X4FR32ITX2503R	02877941	16	16,00	119,5	7,85	25,0	47,0	0,3	X4GK25..RN/RR/RL..
X4FL26ITX2503R	02870671	16	16,00	119,5	7,85	21,4	47,0	0,2	X4GK25..LN/LR/LL..
X4FL32ITX2503R	02877939	16	16,00	119,5	7,85	25,0	47,0	0,3	X4GK25..LN/LR/LL..
X4FR26ITX2503L	02870670	16	16,00	119,5	7,85	21,4	47,0	0,2	X4GK25..RN/RR/RL..
X4FR32ITX2503L	02877940	16	16,00	119,5	7,85	25,0	47,0	0,3	X4GK25..RN/RR/RL..
X4FL26ITX2503L	02870672	16	16,00	119,5	7,85	21,4	47,0	0,2	X4GK25..LN/LR/LL..
X4FL32ITX2503L	02877938	16	16,00	119,1	7,85	25,0	47,0	0,3	X4GK25..LN/LR/LL..

Spare Parts, included in delivery

For size	Clamp key	Clamp screw
		
26-32	T09P-2	L84017-T09P

X4GK

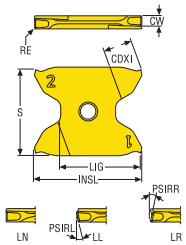
* Maximum cutting depth CDXI is limited relative to workpiece diameter to avoid contact between workpiece and toolholder, see guide page(s) 967

Right-hand insert (RN/RR/RL) must only be used with Right-hand holder

For ISO attribute explanation, see page 82

Tolerances:
CW = ±0,025/*0.001*
CDXI = ±0,1/*0.004*
S = ±0,025/*0.001*
RE = ±0,03/*0.0012*

PSIRR/PSIRL = ±0,25°



RN-MC



RR-MC

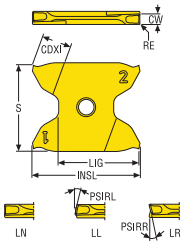


RL-MC



Designation	RE	CW	LIG	INSL	S	CDXI*	PSIRR°	PSIRL°	Grades Coated		
	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*			CP500	CP600	TGH1050
X4GK2503005-0050RN-MC	0,05 *0.002*	0,5 *0.020*	19,0 *0.748*	25,44 *1.002*	20,40 *0.803*	2,6 *0.102*	0	0		■	■
X4GK2503005-0100RN-MC	0,05 *0.002*	1,0 *0.039*	19,0 *0.748*	25,44 *1.002*	20,40 *0.803*	4,3 *0.169*	0	0		■	■
X4GK2503010-0150RN-MC	0,1 *0.004*	1,5 *0.059*	19,0 *0.748*	25,44 *1.001*	20,40 *0.803*	6,5 *0.256*	0	0	■	■	■
X4GK2503010-0200RN-MC	0,1 *0.004*	2,0 *0.079*	19,0 *0.748*	25,44 *1.001*	20,40 *0.803*	6,5 *0.256*	0	0	■	■	■
X4GK2503015-0250RN-MC	0,15 *0.006*	2,5 *0.098*	19,0 *0.748*	25,43 *1.001*	20,39 *0.803*	6,5 *0.256*	0	0	■	■	■
X4GK2503015-0300RN-MC	0,15 *0.006*	3,0 *0.118*	19,0 *0.748*	25,43 *1.001*	20,39 *0.803*	6,5 *0.256*	0	0	■	■	■
X4GK2503020-0150RN-MC	0,2 *0.008*	1,5 *0.059*	19,0 *0.748*	25,44 *1.001*	20,40 *0.803*	6,5 *0.256*	0	0	■		
X4GK2503030-0200RN-MC	0,3 *0.012*	2,0 *0.079*	19,0 *0.748*	25,44 *1.002*	20,40 *0.803*	6,5 *0.256*	0	0	■		■
X4GK2503030-0250RN-MC	0,3 *0.012*	2,5 *0.098*	19,0 *0.748*	25,43 *1.001*	20,39 *0.803*	6,5 *0.256*	0	0	■		■
X4GK2503030-0300RN-MC	0,3 *0.012*	3,0 *0.118*	19,0 *0.748*	25,43 *1.001*	20,39 *0.803*	6,5 *0.256*	0	0	■		■
X4GK2503005-0100RR15-MC	0,05 *0.002*	1,0 *0.039*	19,0 *0.748*	25,40 *1.000*	20,36 *0.802*	4,3 *0.169*	15	0		■	
X4GK2503005-0150RR15-MC	0,05 *0.002*	1,5 *0.059*	19,0 *0.748*	25,37 *0.999*	20,34 *0.801*	6,5 *0.256*	15	0	■		
X4GK2503010-0150RR15-MC	0,1 *0.004*	1,5 *0.059*	19,0 *0.748*	25,37 *0.999*	20,34 *0.801*	6,5 *0.256*	15	0	■	■	
X4GK2503010-0200RR15-MC	0,1 *0.004*	2,0 *0.079*	19,0 *0.748*	25,35 *0.998*	20,32 *0.800*	6,5 *0.256*	15	0		■	
X4GK2503015-0250RR15-MC	0,15 *0.006*	2,5 *0.098*	18,9 *0.744*	25,32 *0.997*	20,30 *0.799*	6,5 *0.256*	15	0		■	
X4GK2503015-0300RR06-MC	0,15 *0.006*	3,0 *0.118*	18,9 *0.744*	25,31 *0.996*	20,28 *0.798*	6,5 *0.256*	6	0		■	
X4GK2503005-0100RL15-MC	0,05 *0.002*	1,0 *0.039*	19,0 *0.748*	25,44 *1.002*	20,40 *0.803*	4,3 *0.169*	0	15		■	
X4GK2503010-0150RL15-MC	0,1 *0.004*	1,5 *0.059*	19,0 *0.748*	25,43 *1.001*	20,39 *0.803*	6,5 *0.256*	0	15	■	■	
X4GK2503010-0200RL15-MC	0,1 *0.004*	2,0 *0.079*	19,0 *0.748*	25,43 *1.001*	20,39 *0.803*	6,5 *0.256*	0	15		■	
X4GK2503015-0250RL15-MC	0,15 *0.006*	2,5 *0.098*	19,0 *0.748*	25,43 *1.001*	20,39 *0.803*	6,5 *0.256*	0	15		■	
X4GK2503015-0300RL06-MC	0,15 *0.006*	3,0 *0.118*	19,0 *0.748*	25,43 *1.001*	20,39 *0.803*	6,5 *0.256*	0	6		■	

X4GK



Tolerances:
CW = ±0,025/*0.001*
CDXI = ±0,1/*0.004*
S = ±0,025/*0.001*
RE = ±0,03/*0.0012*

PSIRR/PSIRL = ±0,25°

* Maximum cutting depth CDXI is limited relative to workpiece diameter to avoid contact between workpiece and toolholder, see guide page(s) 967

Left-hand insert (LN/LR/LL) must only be used with Left-hand holder

For ISO attribute explanation, see page 82

LN-MC



LR-MC



LL-MC



Designation	RE	CW	LIG	INSL	S	CDXI*	PSIRR°	PSIRL°	Grades Coated		
	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*			CP500	CP600	TGH1050
X4GK2503005-0050LN-MC	0,05 *0.002*	0,5 *0.020*	19,0 *0.748*	25,44 *1.002*	20,40 *0.803*	2,6 *0.102*	0	0		■	■
X4GK2503005-0100LN-MC	0,05 *0.002*	1,0 *0.039*	19,0 *0.748*	25,44 *1.002*	20,40 *0.803*	4,3 *0.169*	0	0		■	■
X4GK2503010-0150LN-MC	0,1 *0.004*	1,5 *0.059*	19,0 *0.748*	25,44 *1.001*	20,40 *0.803*	6,5 *0.256*	0	0	■	■	■
X4GK2503010-0200LN-MC	0,1 *0.004*	2,0 *0.079*	19,0 *0.748*	25,44 *1.001*	20,40 *0.803*	6,5 *0.256*	0	0	■	■	■
X4GK2503015-0250LN-MC	0,15 *0.006*	2,5 *0.098*	19,0 *0.748*	25,43 *1.001*	20,39 *0.803*	6,5 *0.256*	0	0	■	■	■
X4GK2503015-0300LN-MC	0,15 *0.006*	3,0 *0.118*	19,0 *0.748*	25,43 *1.001*	20,39 *0.803*	6,5 *0.256*	0	0	■	■	■
X4GK2503020-0150LN-MC	0,2 *0.008*	1,5 *0.059*	19,0 *0.748*	25,44 *1.001*	20,40 *0.803*	6,5 *0.256*	0	0	■		
X4GK2503020-0200LN-MC	0,2 *0.008*	2,0 *0.079*	19,0 *0.748*	25,44 *1.001*	20,40 *0.803*	6,5 *0.256*	0	0	■		
X4GK2503030-0250LN-MC	0,3 *0.012*	2,5 *0.098*	19,0 *0.748*	25,43 *1.001*	20,39 *0.803*	6,5 *0.256*	0	0	■		
X4GK2503030-0300LN-MC	0,3 *0.012*	3,0 *0.118*	19,0 *0.748*	25,43 *1.001*	20,39 *0.803*	6,5 *0.256*	0	0	■		
X4GK2503005-0100LR15-MC	0,05 *0.002*	1,0 *0.039*	19,0 *0.748*	25,44 *1.002*	20,40 *0.803*	4,3 *0.169*	15	0		■	
X4GK2503010-0150LR15-MC	0,1 *0.004*	1,5 *0.059*	19,0 *0.748*	25,43 *1.001*	20,39 *0.803*	6,5 *0.256*	15	0	■	■	
X4GK2503010-0200LR15-MC	0,1 *0.004*	2,0 *0.079*	19,0 *0.748*	25,43 *1.001*	20,39 *0.803*	6,5 *0.256*	15	0		■	
X4GK2503015-0250LR15-MC	0,15 *0.006*	2,5 *0.098*	19,0 *0.748*	25,43 *1.001*	20,39 *0.803*	6,5 *0.256*	15	0		■	
X4GK2503015-0300LR06-MC	0,15 *0.006*	3,0 *0.118*	19,0 *0.748*	25,43 *1.001*	20,39 *0.803*	6,5 *0.256*	6	0		■	
X4GK2503005-0100LL15-MC	0,05 *0.002*	1,0 *0.039*	19,0 *0.748*	25,40 *1.000*	20,36 *0.802*	4,3 *0.169*	0	15		■	
X4GK2503005-0150LL15-MC	0,05 *0.002*	1,5 *0.059*	19,0 *0.748*	25,37 *0.999*	20,34 *0.801*	6,5 *0.256*	0	15	■		
X4GK2503010-0150LL15-MC	0,1 *0.004*	1,5 *0.059*	19,0 *0.748*	25,37 *0.999*	20,34 *0.801*	6,5 *0.256*	0	15	■		
X4GK2503010-0200LL15-MC	0,1 *0.004*	2,0 *0.079*	19,0 *0.748*	25,35 *0.998*	20,32 *0.800*	6,5 *0.256*	0	15		■	
X4GK2503015-0250LL15-MC	0,15 *0.006*	2,5 *0.098*	18,9 *0.744*	25,32 *0.997*	20,30 *0.799*	6,5 *0.256*	0	15		■	
X4GK2503015-0300LL06-MC	0,15 *0.006*	3,0 *0.118*	18,9 *0.744*	25,31 *0.996*	20,28 *0.798*	6,5 *0.256*	0	6		■	

X4GK

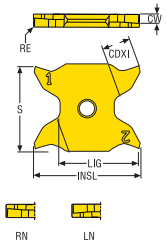
* Maximum cutting depth CDXI is limited relative to workpiece diameter to avoid contact between workpiece and toolholder, see guide page(s) 967

Right-hand insert (RN/RR/RL) must only be used with Right-hand holder

Left-hand insert (LN/LR/LL) must only be used with Left-hand holder

For ISO attribute explanation, see page 82

Tolerances:
CW = ±0,025/*0.001*
CDXI = ±0,1/*0.004*
S = ±0,025/*0.001*
RE = ±0,03/*0.0012*



RN-FG



LN-FG



Designation	RE	CW	LIG	INSL	S	CDXI*	Grades Coated		
	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	CP500	CP600	TGH1050
X4GK2503005-0050RN-FG	0,05 *0.002*	0,5 *0.020*	19,0 *0.748*	25,44 *1.001*	20,40 *0.803*	2,6 *0.102*			■
X4GK2503005-0100RN-FG	0,05 *0.002*	1,0 *0.039*	19,0 *0.748*	25,44 *1.001*	20,40 *0.803*	4,3 *0.169*			■
X4GK2503010-0115RN-FG	0,1 *0.004*	1,15 *0.045*	19,0 *0.748*	25,44 *1.001*	20,40 *0.803*	4,3 *0.169*	■		
X4GK2503010-0135RN-FG	0,1 *0.004*	1,35 *0.053*	19,0 *0.748*	25,44 *1.001*	20,40 *0.803*	4,3 *0.169*	■		
X4GK2503010-0150RN-FG	0,1 *0.004*	1,5 *0.059*	19,0 *0.748*	25,44 *1.001*	20,40 *0.803*	6,5 *0.256*			■
X4GK2503010-0165RN-FG	0,1 *0.004*	1,65 *0.065*	19,0 *0.748*	25,44 *1.001*	20,40 *0.803*	6,5 *0.256*	■		
X4GK2503010-0190RN-FG	0,1 *0.004*	1,9 *0.075*	19,0 *0.748*	25,44 *1.001*	20,40 *0.803*	6,5 *0.256*	■		
X4GK2503010-0200RN-FG	0,1 *0.004*	2,0 *0.079*	19,0 *0.748*	25,44 *1.001*	20,40 *0.803*	6,5 *0.256*			■
X4GK2503015-0215RN-FG	0,15 *0.006*	2,15 *0.085*	19,0 *0.748*	25,43 *1.001*	20,39 *0.803*	6,5 *0.256*	■		
X4GK2503015-0250RN-FG	0,15 *0.006*	2,5 *0.098*	19,0 *0.748*	25,44 *1.001*	20,40 *0.803*	6,5 *0.256*			■
X4GK2503015-0265RN-FG	0,15 *0.006*	2,65 *0.104*	19,0 *0.748*	25,43 *1.001*	20,39 *0.803*	6,5 *0.256*	■		
X4GK2503015-0300RN-FG	0,15 *0.006*	3,0 *0.118*	19,0 *0.748*	25,44 *1.001*	20,40 *0.803*	6,5 *0.256*			■
X4GK2503005-0050LN-FG	0,05 *0.002*	0,5 *0.020*	19,0 *0.748*	25,44 *1.001*	20,40 *0.803*	2,6 *0.102*			■
X4GK2503005-0100LN-FG	0,05 *0.002*	1,0 *0.039*	19,0 *0.748*	25,44 *1.001*	20,40 *0.803*	4,3 *0.169*			■
X4GK2503010-0115LN-FG	0,1 *0.004*	1,15 *0.045*	19,0 *0.748*	25,44 *1.001*	20,40 *0.803*	4,3 *0.169*	■		
X4GK2503010-0135LN-FG	0,1 *0.004*	1,35 *0.053*	19,0 *0.748*	25,44 *1.001*	20,40 *0.803*	4,3 *0.169*	■		
X4GK2503010-0150LN-FG	0,1 *0.004*	1,5 *0.059*	19,0 *0.748*	25,44 *1.001*	20,40 *0.803*	6,5 *0.256*			■
X4GK2503010-0165LN-FG	0,1 *0.004*	1,65 *0.065*	19,0 *0.748*	25,44 *1.001*	20,40 *0.803*	6,5 *0.256*	■		
X4GK2503010-0190LN-FG	0,1 *0.004*	1,9 *0.075*	19,0 *0.748*	25,44 *1.001*	20,40 *0.803*	6,5 *0.256*	■		
X4GK2503010-0200LN-FG	0,1 *0.004*	2,0 *0.079*	19,0 *0.748*	25,44 *1.001*	20,40 *0.803*	6,5 *0.256*			■
X4GK2503015-0215LN-FG	0,15 *0.006*	2,15 *0.085*	19,0 *0.748*	25,43 *1.001*	20,39 *0.803*	6,5 *0.256*	■		

Designation	RE	CW	LIG	INSL	S	CDXI*	Grades Coated		
	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	CP500	CP600	TGH1050
X4GK2503015-0250LN-FG	0,15 *0.006*	2,5 *0.098*	19,0 *0.748*	25,44 *1.001*	20,40 *0.803*	6,5 *0.256*			■
X4GK2503015-0265LN-FG	0,15 *0.006*	2,65 *0.104*	19,0 *0.748*	25,43 *1.001*	20,39 *0.803*	6,5 *0.256*	■		
X4GK2503015-0300LN-FG	0,15 *0.006*	3,0 *0.118*	19,0 *0.748*	25,44 *1.001*	20,40 *0.803*	6,5 *0.256*			■

X4GK

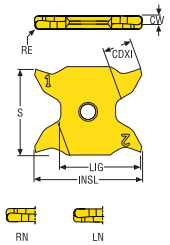
* Maximum cutting depth CDXI is limited relative to workpiece diameter to avoid contact between workpiece and toolholder, see guide page(s) 967

Right-hand insert (RN/RR/RL) must only be used with Right-hand holder

Left-hand insert (LN/LR/LL) must only be used with Left-hand holder

For ISO attribute explanation, see page 82

Tolerances:
CW = ±0,025/*0.001*
CDXI = ±0,1/*0.004*
S = ±0,025/*0.001*
RE = ±0,03/*0.0012*



RN-R

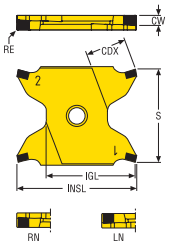


LN-R



Designation	RE	CW	LIG	INSL	S	CDXI*	Grades Coated		
	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	CP500	CP600	TGH1050
X4GK2503M0-0100RN-R	0,5 *0.020*	1,0 *0.039*	19,0 *0.748*	25,24 *0.994*	20,38 *0.802*	4,3 *0.169*	■		
X4GK2503M0-0120RN-R	0,6 *0.024*	1,2 *0.047*	19,0 *0.748*	25,29 *0.996*	20,37 *0.802*	4,3 *0.169*	■		
X4GK2503M0-0150RN-R	0,75 *0.030*	1,5 *0.059*	19,0 *0.748*	25,36 *0.998*	20,37 *0.802*	6,5 *0.256*	■		
X4GK2503M0-0200RN-R	1,0 *0.039*	2,0 *0.079*	19,0 *0.748*	25,39 *1.000*	20,36 *0.801*	6,5 *0.256*	■		
X4GK2503M0-0300RN-R	1,5 *0.059*	3,0 *0.118*	19,0 *0.748*	25,37 *0.999*	20,34 *0.801*	6,5 *0.256*	■		
X4GK2503M0-0100LN-R	0,5 *0.020*	1,0 *0.039*	19,0 *0.748*	25,24 *0.994*	20,38 *0.802*	4,3 *0.169*	■		
X4GK2503M0-0120LN-R	0,6 *0.024*	1,2 *0.047*	19,0 *0.748*	25,29 *0.996*	20,37 *0.802*	4,3 *0.169*	■		
X4GK2503M0-0150LN-R	0,75 *0.030*	1,5 *0.059*	19,0 *0.748*	25,36 *0.998*	20,37 *0.802*	6,5 *0.256*	■		
X4GK2503M0-0200LN-R	1,0 *0.039*	2,0 *0.079*	19,0 *0.748*	25,39 *1.000*	20,36 *0.801*	6,5 *0.256*	■		
X4GK2503M0-0300LN-R	1,5 *0.059*	3,0 *0.118*	19,0 *0.748*	25,37 *0.999*	20,34 *0.801*	6,5 *0.256*	■		

X4G



Tolerances:
CW = ±0,025/*0.001*
CDXI = ±0,1/*0.004*
S = ±0,025/*0.001*
RE = ±0,03/*0.0012*

* Maximum cutting depth CDXI is limited relative to workpiece diameter to avoid contact between workpiece and toolholder, see guide page(s) 967

Right-hand insert (RN/RR/RL) must only be used with Right-hand holder

Left-hand insert (LN/LR/LL) must only be used with Left-hand holder

For ISO attribute explanation, see page 82

RN-D



LN-D



Designation	RE	CW	LIG	INSL	S	CDXI*	Grades Coated
	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	CBN200
X4G2503015S-0215RN-D	0,15 *0.006*	2,15 *0.085*	19,0 *0.748*	25,00 *0.984*	20,36 *0.802*	6,5 *0.256*	■
X4G2503015S-0215LN-D	0,15 *0.006*	2,15 *0.085*	19,0 *0.748*	25,00 *0.984*	20,36 *0.802*	6,5 *0.256*	■



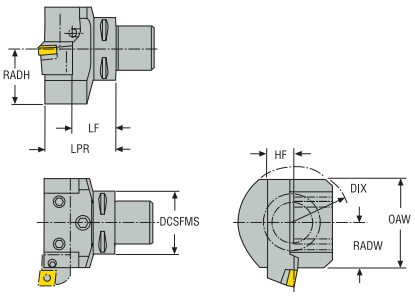
Adapters

Seco offers a comprehensive product range of stationary adapters that can be used in horizontal or vertical lathes, machining centers and sliding-head and multi-tasking machines. These products can be used in spindles, turrets, sub-spindles and half-turrets.

- Shank tools adapters offer a very popular connection for square-shank turning toolholders.
- Boring bars adapters offer several flexible tool sizes in a wide diameter range for rough and fine boring.

C.-ASHA-..JETI
– Metric / *Inch*





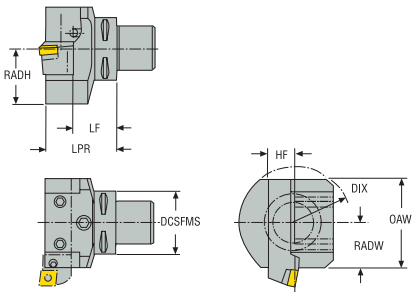
- For more information on Jetstream Tooling® and accessories, see page(s) 38, 85-89, 1026
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	DCSFMS	DIX	LF	HF	LPR	OAW	RADW	RADH	CP	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	bar *psi*	kg *lbs*
C5-ASHA-065-20JETI	03142918	C5	50,0 *1.969*	85,0 *3.346*	45,0 *1.772*	20,0 *0.787*	65,0 *2.559*	64,0 *2.520*	32,0 *1.260*	37,0 *1.457*	150,0 *2175.6*	1,5 *3.310*
C6-ASHA-070-20JETI	03142926	C6	63,0 *2.480*	85,0 *3.346*	50,0 *1.969*	20,0 *0.787*	70,0 *2.756*	64,0 *2.520*	32,0 *1.260*	37,0 *1.457*	150,0 *2175.6*	1,9 *4.190*
C6-ASHA-080-25JETI	03142927	C6	63,0 *2.480*	100,0 *3.937*	55,0 *2.165*	25,0 *0.984*	80,0 *3.150*	76,0 *2.992*	38,0 *1.496*	46,0 *1.811*	150,0 *2175.6*	2,5 *5.510*
C8-ASHA-075-25JETI	03142941	C8	80,0 *3.150*	103,0 *4.055*	50,0 *1.969*	25,0 *0.984*	75,0 *2.953*	80,0 *3.150*	38,0 *1.496*	46,0 *1.811*	150,0 *2175.6*	3,1 *6.830*

Spare Parts, included in delivery

For size	Clamp screw	Coolant nozzle
		
Cx-ASHA	T6SS12X20	CN8

C.-ASHA-..JETI – Inch





- For more information on Jetstream Tooling® and accessories, see page(s) 38, 85-89, 1026
- For ISO attribute explanation, see page 82

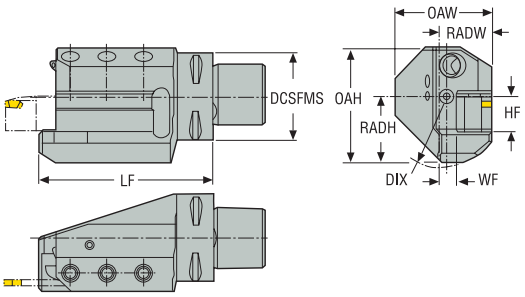
Designation	Item number	CTMS	DCSFMS	DIX	LF	HF	LPR	OAW	RADW	RADH	CP	Weight
			inch	inch	inch	inch	inch	inch	inch	inch	psi	lbs
C5-ASHA-065-12AJETI	10008680	C5	1.969	3.346	1.809	0.750	2.559	2.520	1.260	1.457	2175.6	3.310
C6-ASHA-070-12AJETI	10008679	C6	2.480	3.346	2.006	0.750	2.756	2.520	1.260	1.457	2175.6	4.190
C6-ASHA-080-16AJETI	10008681	C6	2.480	3.937	2.150	1.000	3.150	2.992	1.496	1.811	2175.6	5.510

Spare Parts, included in delivery

For size	Clamp screw	Nozzle
		
C.-ASHA	T6SS12X20	CN8

C.-ASHR/L-...JETI
– Metric / *Inch*





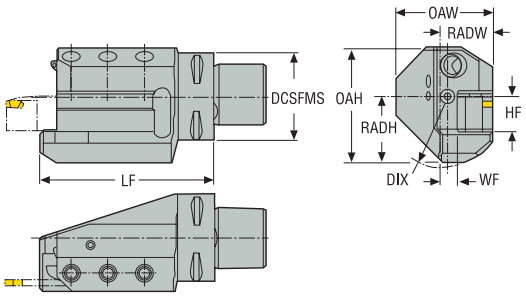
- Right-hand version shown
- For more information on Jetstream Tooling® and accessories, see page(s) 38, 85-89, 1026
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	DCSFMS	DIX	LF	HF	WF	OAH	RADW	RADH	CP	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	bar *psi*	kg *lbs*
C5-ASHR-095-20JETI	03142924	C5	50,0 *1.969*	85,0 *3.346*	95,0 *3.740*	20,0 *0.787*	10,0 *0.394*	69,0 *2.717*	30,0 *1.181*	37,0 *1.457*	150,0 *2175.6*	1,7 *3.750*
C5-ASHL-095-20JETI	03142921	C5	50,0 *1.969*	85,0 *3.346*	95,0 *3.740*	20,0 *0.787*	10,0 *0.394*	69,0 *2.717*	30,0 *1.181*	37,0 *1.457*	150,0 *2175.6*	1,7 *3.750*
C6-ASHR-105-20JETI	03142932	C6	63,0 *2.480*	85,0 *3.346*	105,0 *4.134*	20,0 *0.787*	10,0 *0.394*	69,0 *2.717*	30,0 *1.181*	37,0 *1.457*	150,0 *2175.6*	2,4 *5.290*
C6-ASHR-122-25JETI	03142933	C6	63,0 *2.480*	100,0 *3.937*	122,0 *4.803*	25,0 *0.984*	13,0 *0.512*	78,0 *3.071*	38,0 *1.496*	46,0 *1.811*	150,0 *2175.6*	3,0 *6.610*
C6-ASHL-105-20JETI	03142928	C6	63,0 *2.480*	85,0 *3.346*	105,0 *4.134*	20,0 *0.787*	10,0 *0.394*	69,0 *2.717*	30,0 *1.181*	37,0 *1.457*	150,0 *2175.6*	2,4 *5.290*
C6-ASHL-122-25JETI	03142929	C6	63,0 *2.480*	100,0 *3.937*	122,0 *4.803*	25,0 *0.984*	13,0 *0.512*	78,0 *3.071*	38,0 *1.496*	46,0 *1.811*	150,0 *2175.6*	3,0 *6.610*
C8-ASHR-122-25JETI	03142943	C8	80,0 *3.150*	103,0 *4.055*	122,0 *4.803*	25,0 *0.984*	15,0 *0.591*	86,0 *3.386*	40,0 *1.575*	46,0 *1.811*	150,0 *2175.6*	3,9 *8.600*
C8-ASHL-122-25JETI	03142942	C8	80,0 *3.150*	103,0 *4.055*	122,0 *4.803*	25,0 *0.984*	15,0 *0.591*	86,0 *3.386*	40,0 *1.575*	46,0 *1.811*	150,0 *2175.6*	3,9 *8.600*

Spare Parts, included in delivery

For size	Clamp screw	Coolant nozzle
		
...-095, -105	T6SS10X20	CN8
...-122	T6SS12X20	CN8

C.-ASHR/L-..JETI – Inch





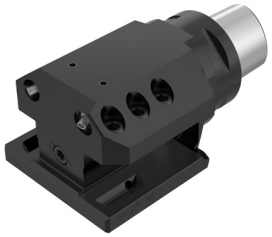
- Right-hand version shown
- For more information on Jetstream Tooling® and accessories, see page(s) 38, 85-89, 1026
- For ISO attribute explanation, see page 82

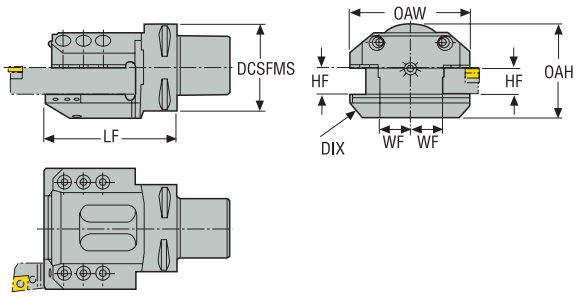
Designation	Item number	CTMS	DCSFMS	DIX	LF	HF	WF	OAH	RADW	RADH	CP	Weight
			inch	inch	inch	inch	inch	inch	inch	inch	psi	lbs
C5-ASHR-095-12AJETI	10008687	C5	1.969	3.346	3.740	0.750	0.431	2.717	1.181	1.457	2175.6	3.750
C5-ASHL-095-12AJETI	10008688	C5	1.969	3.346	3.740	0.750	0.431	2.717	1.181	1.457	2175.6	3.750
C6-ASHR-105-12AJETI	10008685	C6	2.480	3.346	4.134	0.750	0.431	2.717	1.260	1.457	2175.6	5.290
C6-ASHR-122-16AJETI	10008689	C6	2.480	3.937	4.803	1.000	0.496	3.071	1.496	1.811	2175.6	6.610
C6-ASHL-105-12AJETI	10008686	C6	2.480	3.346	4.134	0.750	0.431	2.717	1.260	1.457	2175.6	5.290
C6-ASHL-122-16AJETI	10008690	C6	2.480	3.937	4.803	1.000	0.496	3.071	1.496	1.811	2175.6	6.610

Spare Parts, included in delivery

For size	Clamp screw	Nozzle
		
...-095/105	T6SS10X20	CN8
...-122	T6SS12X20	CN8

C.-ASHS-..JETI
– Metric / *Inch*





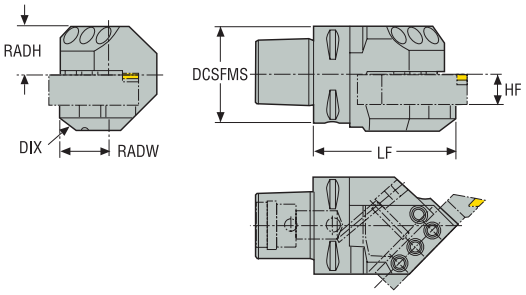
- For more information on Jetstream Tooling® and accessories, see page(s) 38, 85-89, 1026
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	DCSFMS	DIX	LF	HF	WF	OAW	OAH	RADW	CP	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	bar *psi*	kg *lbs*
C6-ASHS-122-25JETI	03142936	C6	63,0 *2.480*	114,0 *4.488*	122,0 *4.803*	25,0 *0.984*	20,0 *0.787*	90,0 *3.543*	78,0 *3.071*	45,0 *1.772*	150,0 *2175.6*	4,2 *9.260*
C8-ASHS-122-25JETI	03142944	C8	80,0 *3.150*	128,0 *5.039*	122,0 *4.803*	25,0 *0.984*	30,0 *1.181*	110,0 *4.331*	78,0 *3.071*	55,0 *2.165*	150,0 *2175.6*	4,8 *10.580*

Spare Parts, included in delivery

For size	Clamp screw	Coolant nozzle
		
Cx-ASHS	T6SS12X20	CN8

C.-ASHR/L-..JETI
– Metric / *Inch*





- Right-hand version shown
- For more information on Jetstream Tooling® and accessories, see page(s) 38, 85-89, 1026
- For ISO attribute explanation, see page 82

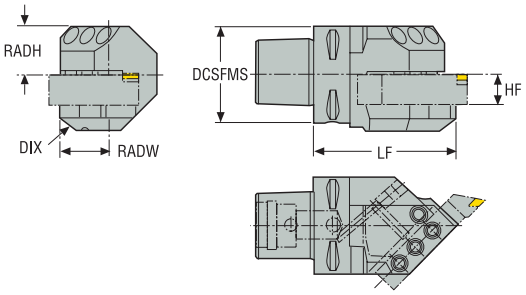
Designation	Item number	CTMS	DCSFMS	DIX	LF	HF	RADW	RADH	CP	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	bar *psi*	kg *lbs*
C5-ASHR45-085-20JETI	03142925	C5	50,0 *1.969*	85,0 *3.346*	85,0 *3.346*	20,0 *0.787*	32,0 *1.260*	37,0 *1.457*	150,0 *2175.6*	1,6 *3.530*
C5-ASHL45-085-20JETI	03142923	C5	50,0 *1.969*	85,0 *3.346*	85,0 *3.346*	20,0 *0.787*	32,0 *1.260*	37,0 *1.457*	150,0 *2175.6*	1,5 *3.310*
C6-ASHR45-095-20JETI	03142934	C6	63,0 *2.480*	85,0 *3.346*	95,0 *3.740*	20,0 *0.787*	32,0 *1.260*	37,0 *1.457*	150,0 *2175.6*	2,2 *4.850*
C6-ASHR45-114-25JETI	03142935	C6	63,0 *2.480*	100,0 *3.937*	114,0 *4.488*	25,0 *0.984*	36,0 *1.417*	46,0 *1.811*	150,0 *2175.6*	2,9 *6.390*
C6-ASHL45-095-20JETI	03142930	C6	63,0 *2.480*	85,0 *3.346*	95,0 *3.740*	20,0 *0.787*	32,0 *1.260*	37,0 *1.457*	150,0 *2175.6*	2,1 *4.630*
C6-ASHL45-114-25JETI	03142931	C6	63,0 *2.480*	100,0 *3.937*	114,0 *4.488*	25,0 *0.984*	36,0 *1.417*	46,0 *1.811*	150,0 *2175.6*	2,9 *6.390*

Spare Parts, included in delivery

For size	Clamp screw	Coolant nozzle
		
...-085, -095	T6SS10X20	CN8
...114	T6SS12X20	CN8

C.-ASHR/L-..JETI
– Inch





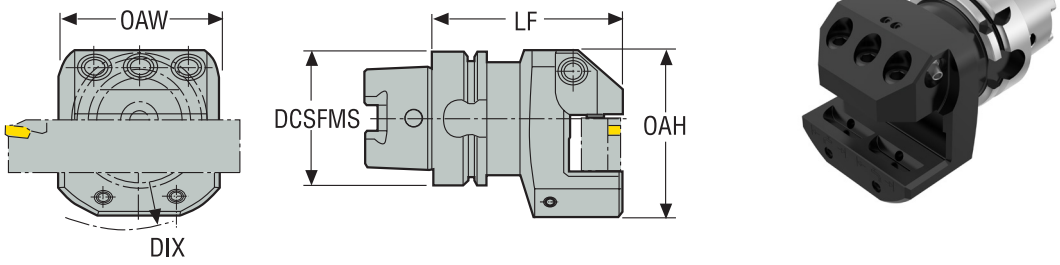
- Right-hand version shown
- For more information on Jetstream Tooling® and accessories, see page(s) 38, 85-89, 1026
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	DCSFMS	DIX	LF	HF	RADW	RADH	CP	Weight
			inch	inch	inch	inch	inch	inch	psi	lbs
C5-ASHR45-085-12AJETI	10008693	C5	1.969	3.346	3.346	0.750	1.260	1.457	2175.6	3.530
C5-ASHL45-085-12AJETI	10008694	C5	1.969	3.346	3.346	0.750	1.260	1.457	2175.6	3.530
C6-ASHR45-095-12AJETI	10008691	C6	2.480	3.346	3.740	0.750	1.260	1.457	2175.6	4.850
C6-ASHR45-114-16AJETI	10008682	C6	2.480	3.937	4.488	1.000	1.417	1.811	2175.6	6.390
C6-ASHL45-095-12AJETI	10008692	C6	2.480	3.346	3.740	0.750	1.260	1.457	2175.6	5.290
C6-ASHL45-114-16AJETI	10008683	C6	2.480	3.937	4.488	1.000	1.417	1.811	2175.6	6.390

Spare Parts, included in delivery

For size	Clamp screw	Nozzle
		
...-085/095	T6SS10X20	CN8
...-114	T6SS12X20	CN8

E9364-ASHA-..JETI – Metric / *Inch*



- For more information on Jetstream Tooling® and accessories, see page(s) 38, 85-89, 1026
- For ISO attribute explanation, see page 82

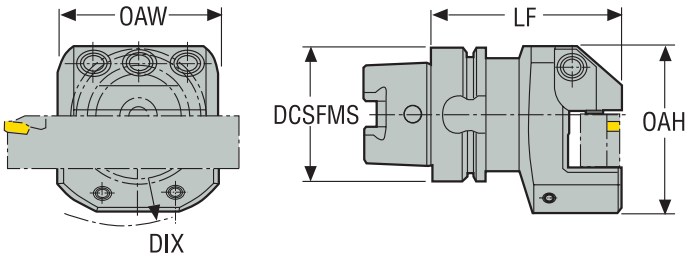
Designation	Item number	CTMS	DCSFMS	DIX	LF	HF	LPR	OAW	OAH	RADW	RADH	CP	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	bar *psi*	kg *lbs*
E9364-ASHA-090-25JETI	03142937	HSK-T63	63,0 *2.480*	100,0 *3.937*	65,0 *2.559*	25,0 *0.984*	90,0 *3.543*	76,0 *2.992*	78,0 *3.071*	38,0 *1.496*	46,0 *1.811*	150,0 *2175.6*	2,3 *5.070*

Spare Parts, included in delivery

For size	Clamp screw	Coolant nozzle
		
E9364-ASHA	T6SS12X20	CN8

E9364-ASHA-..JETI – Inch





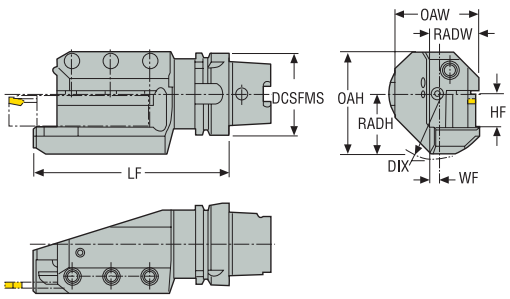
• For more information on Jetstream Tooling® and accessories, see page(s) 38, 85-89, 1026
• For ISO attribute explanation, see page 82

Designation	Item number	CTMS	DCSFMS	DIX	LF	HF	LPR	OAW	OAH	RADW	RADH	CP	Weight
			inch	inch	inch	inch	inch	inch	inch	inch	inch	psi	lbs
E9364-ASHA-090-16AJETI	10008684	HSK-T63	2.478	3.937	2.543	1.000	3.543	2.992	3.071	1.496	1.811	2175.6	5.070

Spare Parts, included in delivery

For size	Clamp screw	Nozzle
		
E9364	T6SS12X20	CN8

E9364-ASHR/L-..JETI – Metric / *Inch*





- Right-hand version shown
- For more information on Jetstream Tooling® and accessories, see page(s) 38, 85-89, 1026
- For ISO attribute explanation, see page 82

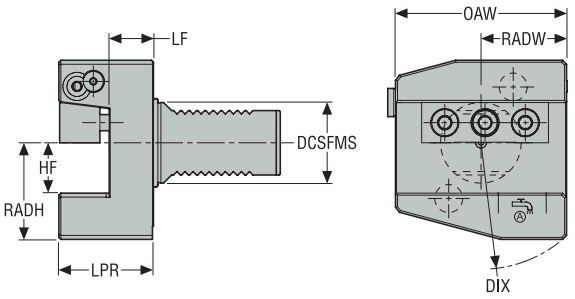
Designation	Item number	CTMS	DCSFMS	DIX	LF	HF	OAW	OAH	RADW	RADH	CP	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	bar *psi*	kg *lbs*
E9364-ASHR-132-25JETI	03142939	HSK-T63	63,0 *2.480*	100,0 *3.937*	132,0 *5.197*	25,0 *0.984*	69,47 *2.735*	78,0 *3.071*	48,0 *1.890*	46,0 *1.811*	150,0 *2175.6*	2,8 *6.170*
E9364-ASHL-132-25JETI	03142938	HSK-T63	63,0 *2.480*	100,0 *3.937*	132,0 *5.197*	25,0 *0.984*	69,47 *2.735*	78,0 *3.071*	48,0 *1.890*	46,0 *1.811*	150,0 *2175.6*	2,8 *6.170*

Spare Parts, included in delivery

For size	Clamp screw	Coolant nozzle
		
E9364-ASHR/L	T6SS12X20	CN8

ASHA-R/L-..-JETI – Metric / *Inch*

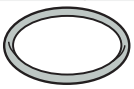
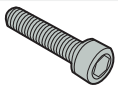
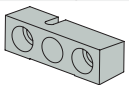




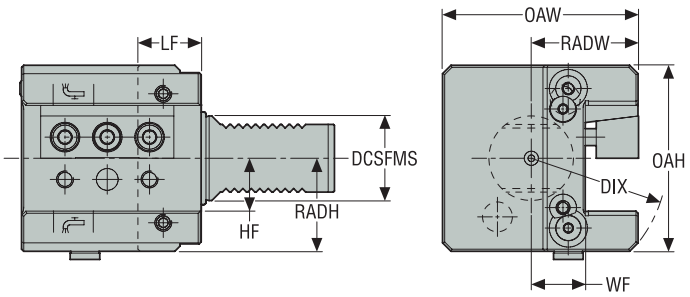
- Right-hand version shown
- Face mounting turret position
- Double sided VDI shank grinding
- Right combined design B1 and B4
- Left combined design B2 and B3
- For more information on Jetstream Tooling® and accessories, see page(s) 38, 85-89, 1026
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	DCSFMS	DIX	LF	HF	LPR	OAW	RADW	RADH	CP	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	bar *psi*	kg *lbs*
ASHA-R-VDI30-20-JETI	03200452	VDI30	30,0 *1.181*	103,0 *4.055*	22,0 *0.866*	20,0 *0.787*	42,0 *1.654*	70,0 *2.756*	35,0 *1.378*	38,0 *1.496*	80,0 *1160.3*	1,6 *3.530*
ASHA-L-VDI30-20-JETI	03200455	VDI30	30,0 *1.181*	103,0 *4.055*	22,0 *0.866*	20,0 *0.787*	42,0 *1.654*	70,0 *2.756*	35,0 *1.378*	38,0 *1.496*	80,0 *1160.3*	1,6 *3.530*
ASHA-R-VDI40-25-JETI	03200453	VDI40	40,0 *1.575*	128,0 *5.039*	22,0 *0.866*	25,0 *0.984*	47,0 *1.850*	85,0 *3.346*	42,5 *1.673*	48,0 *1.890*	80,0 *1160.3*	2,6 *5.730*
ASHA-L-VDI40-25-JETI	03200456	VDI40	40,0 *1.575*	128,0 *5.039*	22,0 *0.866*	25,0 *0.984*	47,0 *1.850*	85,0 *3.346*	42,5 *1.673*	48,0 *1.890*	80,0 *1160.3*	2,7 *5.950*
ASHA-R-VDI50-25-JETI	03200454	VDI50	50,0 *1.969*	142,0 *5.591*	30,0 *1.181*	25,0 *0.984*	55,0 *2.165*	100,0 *3.937*	50,0 *1.969*	50,0 *1.969*	80,0 *1160.3*	4,4 *9.700*
ASHA-L-VDI50-25-JETI	03200457	VDI50	50,0 *1.969*	142,0 *5.591*	30,0 *1.181*	25,0 *0.984*	55,0 *2.165*	100,0 *3.937*	50,0 *1.969*	50,0 *1.969*	80,0 *1160.3*	4,4 *9.700*

Spare Parts, included in delivery

For size	Clamp screw	Coolant adapter	Nozzle	O-ring	Screw	Screw 2	Washer	Wedge
								
VDI30	MC6S6X25	JET-CFP1/8	CN14	5641005-134	MF6S5X12	MC6S6X14	JET-CS1013	5431115-07
VDI40	MC6S8X25	JET-CFP1/8	CN14	5641005-135	MF6S5X12	MC6S8X16	JET-CS1013	5431115-08
R-VDI50	MC6S8X30	JET-CFP1/8	CN13	5641001-119	MF6S6X12	MC6S8X16	JET-CS1013	5431115-08
L-VDI50	MC6S8X30	JET-CFP1/8	CN13	5641001-119	MF6S6X12	MC6S8X16	JET-CS1013	5431115-08

ASHN-...-JETI – Metric / *Inch*

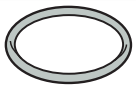
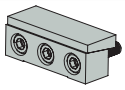




- Neutral version shown
- Star mounting turret position
- Double sided VDI shank grinding
- Neutral combined design C1, C2, C3, C4
- For more information on Jetstream Tooling® and accessories, see page(s) 38, 85-89, 1026
- For ISO attribute explanation, see page 82

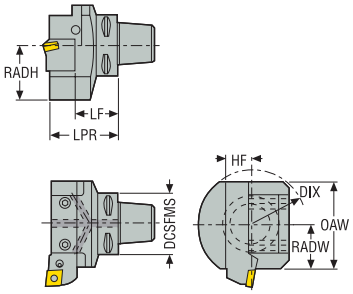
Designation	Item number	CTMS	DCSFMS	DIX	LF	HF	OAW	OAH	RADW	RADH	CP	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	bar *psi*	kg *lbs*
ASHN-VDI30-20-JETI	03200450	VDI30	30,0 *1.181*	65,0 *2.559*	22,0 *0.866*	20,0 *0.787*	85,5 *3.366*	70,0 *2.756*	55,5 *2.185*	35,0 *1.378*	80,0 *1160.3*	2,1 *4.630*
ASHN-VDI40-25-JETI	03200451	VDI40	40,0 *1.575*	64,0 *2.520*	30,0 *1.181*	25,0 *0.984*	92,5 *3.642*	88,0 *3.465*	50,5 *1.988*	44,0 *1.732*	80,0 *1160.3*	3,5 *7.720*

Spare Parts, included in delivery

For size	Coolant adapter	Nozzle	O-ring	Screw	Washer	Wedge set
						
..-20	JET-CFP1/8	CN14	5641005-134	MF6S5X12	JET-CS1013	5431130-02
..-25	JET-CFP1/8	CN13	5641005-135	MF6S6X12	JET-CS1013	5431130-03

C.-ASHA – Metric / *Inch*

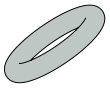




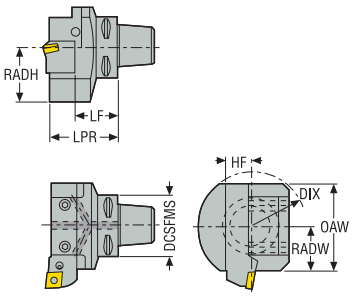
- Neutral version shown
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	DCSFMS	DIX	LF	HF	LPR	OAW	RADW	RADH	CP	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	bar *psi*	kg *lbs*
C6-ASHA-50071-32M	02690506	C6	63,0 *2.480*	130,0 *5.118*	45,0 *1.772*	32,0 *1.260*	71,0 *2.795*	100,0 *3.937*	50,0 *1.969*	65,0 *2.559*	80,0 *1160.3*	3,3 *7.280*

Spare Parts, included in delivery

For size	Bolt	Circlip	Coolant nozzle	O-ring
				
C6	VB23	SGH1510	CN9	ORING-9X2

C.-ASHA – Inch





- Neutral version shown
- For ISO attribute explanation, see page 82

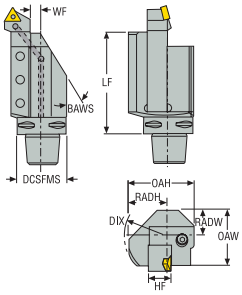
Designation	Item number	CTMS	DCSFMS	DIX	LF	HF	LPR	OAW	RADW	RADH	CP	Weight
			inch	inch	inch	inch	inch	inch	inch	inch	psi	lbs
C8-ASHA-55085-20-A	02594533	C8	3.150	5.591	2.087	1.250	3.346	4.331	2.165	2.559	1160.3	10.360

Spare Parts, included in delivery

For size	Nozzle
	
C8	CN9

C.-ASHR/L – Metric / *Inch*





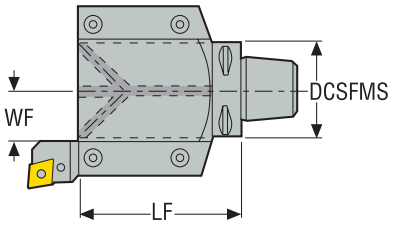
- Right-hand version shown
- For ISO attribute explanation, see page 82

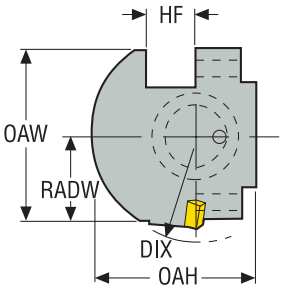
Designation	Item number	CTMS	DCSFMS	DIX	LF	HF	WF	OAW	OAH	RADW	RADH	BAWS°	CP	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*		bar *psi*	kg *lbs*
C8-ASHR-40140-32	02548913	C8	80,0 *3.150*	110,0 *4.331*	140,0 *5.512*	32,0 *1.260*	8,0 *0.315*	80,0 *3.150*	85,0 *3.346*	40,0 *1.575*	55,0 *2.165*	30,0	80,0 *1160.3*	5,1 *11.240*
C8-ASHL-40140-32	02545526	C8	80,0 *3.150*	110,0 *4.331*	140,0 *5.512*	32,0 *1.260*	8,0 *0.315*	80,0 *3.150*	85,0 *3.346*	40,0 *1.575*	55,0 *2.165*	30,0	80,0 *1160.3*	5,1 *11.240*

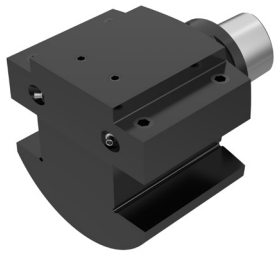
Spare Parts, included in delivery

For size	Coolant nozzle
	
C8	CN10

C.-ASHS – Metric / *Inch*







- Neutral version shown
- For ISO attribute explanation, see page 82

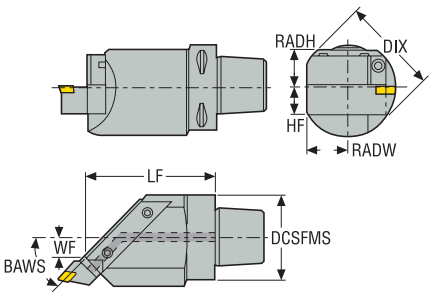
Designation	Item number	CTMS	DCSFMS	DIX	LF	HF	WF	OAW	OAH	RADW	CP	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	bar *psi*	kg *lbs*
C6-ASHS-58115-32	00024834	C6	63,0 *2.480*	140,0 *5.512*	115,0 *4.528*	32,0 *1.260*	33,0 *1.299*	116,0 *4.567*	110,0 *4.331*	58,0 *2.283*	80,0 *1160.3*	7,2 *15.870*

Spare Parts, included in delivery

For size	Coolant nozzle
	
C6	CN9

C.-ASHR/L – Metric / *Inch*





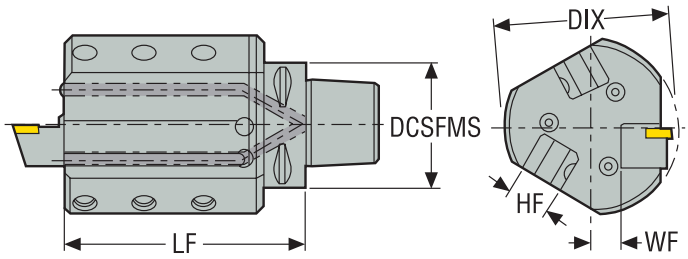
- Right-hand version shown
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	DCSFMS	DIX	LF	HF	RADW	RADH	BAWS°	CP	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*		bar *psi*	kg *lbs*
C8-ASHR45-50135-32	02548915	C8	80,0 *3.150*	140,0 *5.512*	115,0 *4.528*	32,0 *1.260*	45,0 *1.772*	40,0 *1.575*	45,0	80,0 *1160.3*	6,6 *14.550*
C8-ASHL45-50135-32	02590034	C8	80,0 *3.150*	140,0 *5.512*	135,0 *5.315*	32,0 *1.260*	45,0 *1.772*	40,0 *1.575*	45,0	80,0 *1160.3*	6,6 *14.550*

Spare Parts, included in delivery

For size	Coolant nozzle
	
C8	CN9

C.-ASHR/L – Metric / *Inch*





- Right-hand version shown
- For ISO attribute explanation, see page 82

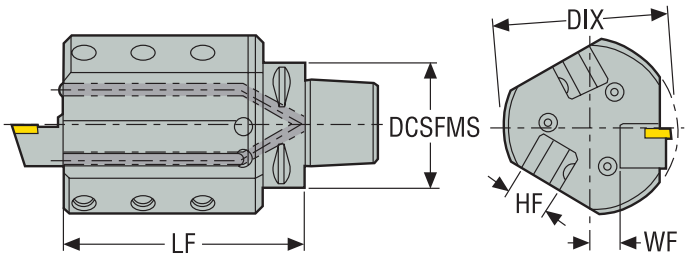
Designation	Item number	CTMS	DCSFMS	DIX	LF	HF	WF	CP	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	bar *psi*	kg *lbs*
C5-ASHR3-36123-20	02590021	C5	50,0 *1.969*	90,0 *3.543*	123,0 *4.843*	20,0 *0.787*	16,0 *0.630*	80,0 *1160.3*	3,7 *8.160*
C6-ASHR3-36125-20	02437460	C6	63,0 *2.480*	90,0 *3.543*	125,0 *4.921*	20,0 *0.787*	16,0 *0.630*	80,0 *1160.3*	3,8 *8.380*
C6-ASHL3-36125-20	02204131	C6	63,0 *2.480*	90,0 *3.543*	125,0 *4.921*	20,0 *0.787*	16,0 *0.630*	80,0 *1160.3*	3,8 *8.380*

Spare Parts, included in delivery

For size	Coolant nozzle
	
C5 / C6	CN2

C.-ASHR/L – Inch





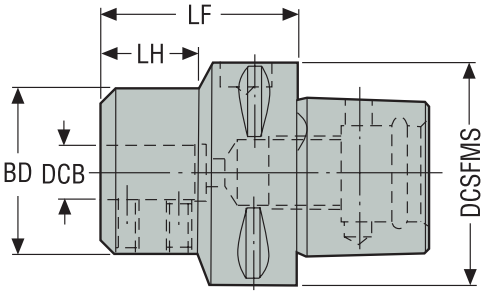
- Right-hand version shown
- For ISO attribute explanation, see page 82

Designation	Item number	CTMS	DCSFMS	DIX	LF	HF	WF	CP	Weight
			inch	inch	inch	inch	inch	psi	lbs
C6-ASHR3-36125-12-A	02594601	C6	2.480	3.543	4.843	0.750	0.614	1160.3	9.040

Spare Parts, included in delivery

For size	Nozzle
	
C6	CN9

C.-131 – Metric / *Inch*





• For ISO attribute explanation, see page 82

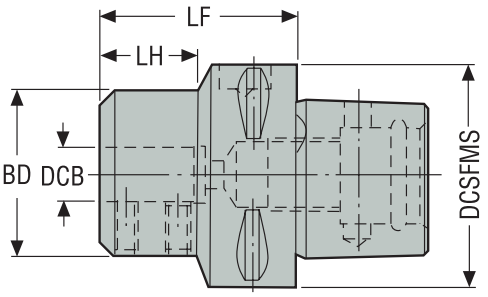
Designation	Item number	CTMS	DCSFMS	DCB	BD	LF	LH	CP	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	bar *psi*	kg *lbs*
C3-131-00035-10	00094677	C3	32,0 *1.260*	10,0 *0.394*	36,0 *1.417*	35,0 *1.378*	20,0 *0.787*	80,0 *1160.3*	0,24 *0.530*
C3-131-00040-12	00094678	C3	32,0 *1.260*	12,0 *0.472*	36,0 *1.417*	40,0 *1.575*	24,0 *0.945*	80,0 *1160.3*	0,29 *0.640*
C4-131-00040-10	00072826	C4	40,0 *1.575*	10,0 *0.394*	36,0 *1.417*	40,0 *1.575*	19,0 *0.748*	80,0 *1160.3*	0,5 *1.100*
C4-131-00045-12	00094679	C4	40,0 *1.575*	12,0 *0.472*	36,0 *1.417*	45,0 *1.772*	24,0 *0.945*	80,0 *1160.3*	0,42 *0.930*
C4-131-00050-16	00094680	C4	40,0 *1.575*	16,0 *0.630*	36,0 *1.417*	50,0 *1.969*	29,0 *1.142*	80,0 *1160.3*	0,4 *0.880*
C5-131-00045-10	00094681	C5	50,0 *1.969*	10,0 *0.394*	36,0 *1.417*	45,0 *1.772*	21,0 *0.827*	80,0 *1160.3*	0,62 *1.370*
C5-131-00045-12	00094682	C5	50,0 *1.969*	12,0 *0.472*	36,0 *1.417*	45,0 *1.772*	22,5 *0.886*	80,0 *1160.3*	0,6 *1.320*
C5-131-00055-16	00094683	C5	50,0 *1.969*	16,0 *0.630*	36,0 *1.417*	55,0 *2.165*	31,0 *1.220*	80,0 *1160.3*	0,65 *1.430*

Spare Parts, included in delivery

For size	Key	Screw
		
...-10	3SMS795	951C0610
...-12	3SMS795	951C0610
...-16	4SMS795	951C0810

C.-131 – Inch

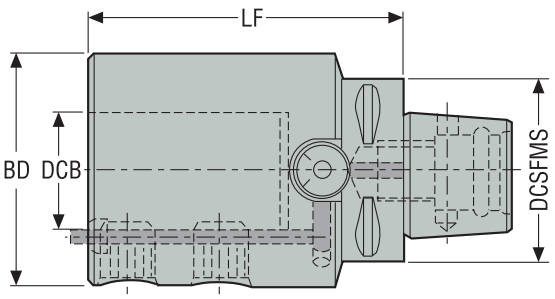




• For ISO attribute explanation, see page 82

Designation	Item number	CTMS	DCSFMS	DCB	BD	LF	LH	CP	Weight
			inch	inch	inch	inch	inch	psi	lbs
C4-131-00050-375	00077762	C4	1.575	0.375	1.417	1.969	1.130	1160.3	1.100
C4-131-00050-500	00077765	C4	1.575	0.500	1.417	1.969	1.130	1160.3	1.010
C4-131-00050-625	00077771	C4	1.575	0.625	1.417	1.969	1.134	1160.3	0.970
C4-131-00060-750	00077772	C4	1.575	0.750	1.417	2.362	1.417	1160.3	1.100
C5-131-00060-500	00077773	C5	1.969	0.500	1.417	2.362	1.575	1160.3	1.610
C5-131-00060-625	00077774	C5	1.969	0.625	1.417	2.362	1.575	1160.3	1.570
C5-131-00060-750	00077775	C5	1.969	0.750	1.417	2.362	1.575	1160.3	1.480
C5-131-00070-1000	00077777	C5	1.969	1.000	2.126	2.756	1.969	1160.3	2.450
C6-131-00065-375	00061733	C6	2.480	0.375	1.417	2.559	0.787	1160.3	2.650
C6-131-00065-500	00061734	C6	2.480	0.500	1.417	1.102	1.020	1160.3	2.650
C6-131-00065-625	00061735	C6	2.480	0.625	1.417	2.559	1.260	1160.3	2.650
C6-131-00065-750	00077778	C6	2.480	0.750	1.417	2.559	1.539	1160.3	2.250
C6-131-00075-1000	00077779	C6	2.480	1.000	2.126	2.953	2.039	1160.3	3.310

C.-131 – Metric / *Inch*





- Sleeves, see page(s) 1008
- For ISO attribute explanation, see page 82

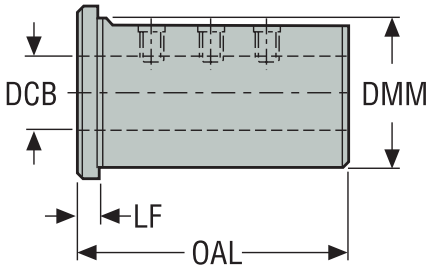
Designation	Item number	CTMS	DCSFMS	DCB	BD	LF	CP	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	bar *psi*	kg *lbs*
C5-131-00100-25	02466940	C5	50,0 *1.969*	25,0 *0.984*	63,0 *2.480*	100,0 *3.937*	80,0 *1160.3*	2,1 *4.630*
C6-131-00098-25	02435607	C6	63,0 *2.480*	25,0 *0.984*	63,0 *2.480*	98,0 *3.858*	80,0 *1160.3*	2,4 *5.290*
C8-131-00098-25	02590011	C8	80,0 *3.150*	25,0 *0.984*	63,0 *2.480*	98,0 *3.858*	80,0 *1160.3*	3,5 *7.720*
C8-131-00112-40	02590013	C8	80,0 *3.150*	40,0 *1.575*	80,0 *3.150*	112,0 *4.409*	80,0 *1160.3*	4,2 *9.260*

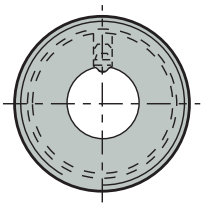
Spare Parts, included in delivery

For size	Locking key	Locking screw
		
C5...-25	8SMS795	LH16020
C6...-25	8SMS795	LH16020
C8...-25	8SMS795	LH16020
C8...-40	10SMS795	LH20020

Reduction sleeves 132N – Metric / *Inch*







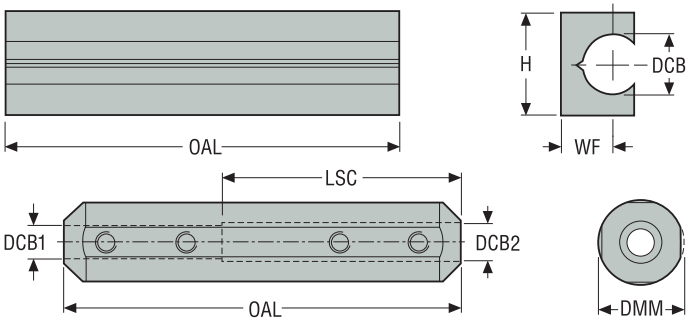
- Holders, see page(s) 1007
- For ISO attribute explanation, see page 82

Designation	Item number	DMM	DCB	LF	OAL	Weight
		mm *inch*	mm *inch*	mm *inch*	mm *inch*	kg *lbs*
132N-2506	02583296	25,0 *0.984*	6,0 *0.236*	5,0 *0.197*	61,0 *2.402*	0,3 *0.660*
132N-2508	02583300	25,0 *0.984*	8,0 *0.315*	5,0 *0.197*	61,0 *2.402*	0,3 *0.660*
132N-2510	02583301	25,0 *0.984*	10,0 *0.394*	5,0 *0.197*	61,0 *2.402*	0,3 *0.660*
132N-2512	02583302	25,0 *0.984*	12,0 *0.472*	5,0 *0.197*	61,0 *2.402*	0,2 *0.440*
132N-2516	02435623	25,0 *0.984*	16,0 *0.630*	5,0 *0.197*	61,0 *2.402*	0,2 *0.440*
132N-2520	02435624	25,0 *0.984*	20,0 *0.787*	5,0 *0.197*	61,0 *2.402*	0,2 *0.440*
132N-4020	02533449	40,0 *1.575*	20,0 *0.787*	5,0 *0.197*	75,0 *2.953*	0,6 *1.320*
132N-4025	02583362	40,0 *1.575*	25,0 *0.984*	5,0 *0.197*	75,0 *2.953*	0,5 *1.100*
132N-4032	02435628	40,0 *1.575*	32,0 *1.260*	5,0 *0.197*	75,0 *2.953*	0,3 *0.660*

Spare Parts, included in delivery

For size	Key	Screw
		
-2506	3SMS795	P6SS6X8
-2508	4SMS795	P6SS8X8
-2510	4SMS795	P6SS8X6
-2512	4SMS795	P6SS8X6
-2516/-2520/4032	–	–
-4020	5SMS795	P6SS10X8
-4025	5SMS795	P6SS10X8

131-, SL Holders and sleeves for boring tools – Metric / *Inch*





• For ISO attribute explanation, see page 82

Designation	Item number	DMM	DCB	DCB1	DCB2	WF	H	OAL	LSC	Weight
		mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	kg *lbs*
131-408	75003148	–	8,0 *0.315*	–	–	–	13,0 *0.512*	110,0 *4.331*	–	0,2 *0.440*
131-410	75003149	–	10,0 *0.394*	–	–	–	16,0 *0.630*	110,0 *4.331*	–	0,2 *0.440*
131-412	75003150	–	12,0 *0.472*	–	–	–	20,0 *0.787*	110,0 *4.331*	–	0,2 *0.440*
131-416	75003151	–	16,0 *0.630*	–	–	–	25,0 *0.984*	110,0 *4.331*	–	0,3 *0.660*
131-420	75003152	–	20,0 *0.787*	–	–	–	32,0 *1.260*	110,0 *4.331*	–	0,328 *0.720*
SL160506	00026511	16,0 *0.630*	–	5,0 *0.197*	6,0 *0.236*	–	–	75,0 *2.953*	45,0 *1.772*	0,1 *0.220*
SL160608	00040435	16,0 *0.630*	–	6,0 *0.236*	8,0 *0.315*	–	–	75,0 *2.953*	45,0 *1.772*	0,09 *0.200*

Spare Parts, included in delivery

For size	Locking screw
	
131-	–
SL16..	P6SS4X4

Accessories

For size	Locking key
	
131-	–
SL16..	2SMS795

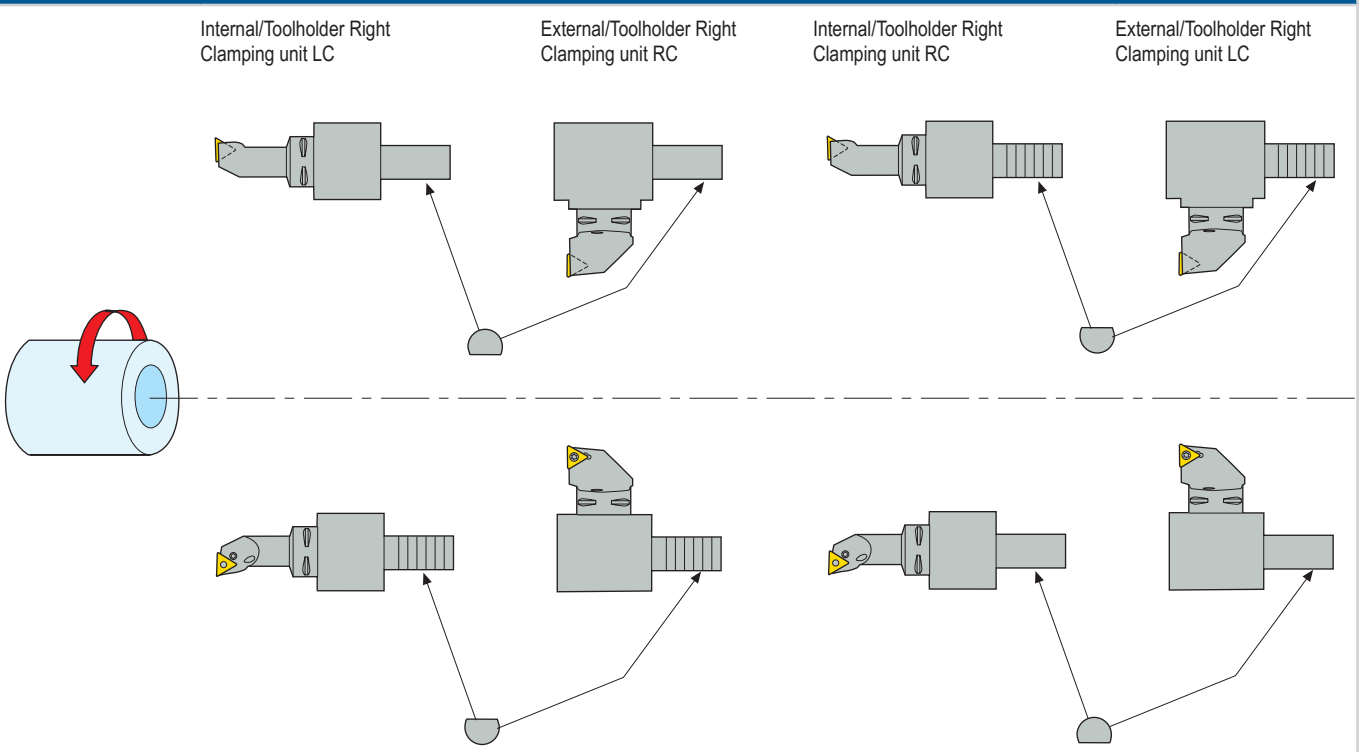


Seco-Capto™ clamping units

Seco-Capto™ clamping units provide a flexible and modular system, whereby the same adapters can be used across different machines and tool assemblies can be built with extensions. The Seco-Capto systems offers high torque transmission, rigidity and accuracy with a strong, self-centering joint within 2 µm. Seco-Capto back ends are available on rotating tools, as well as stationary tools for turning, boring, threading and grooving applications.

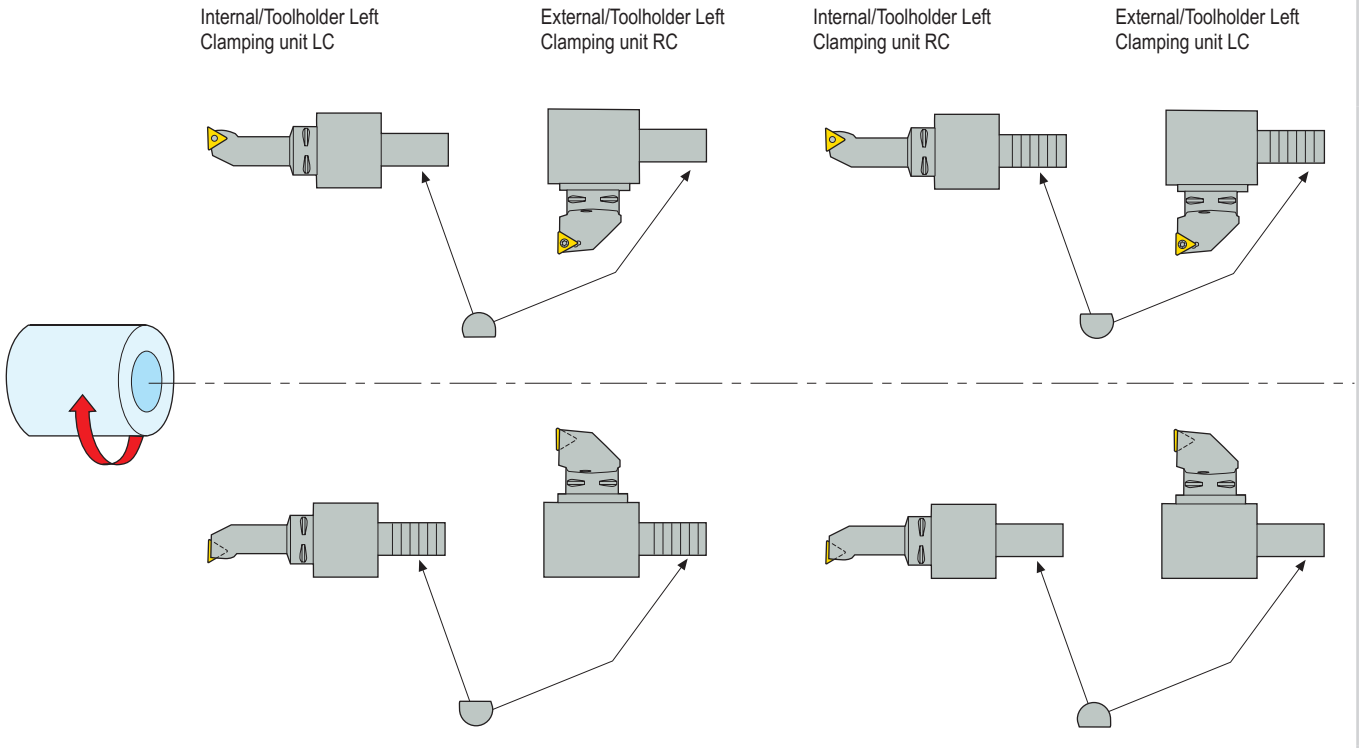
- Type 2085 with straight-shank-type machine-side connection
- Type 2000/3000 with cylindrical machine-side connection.
- VDI Clamping units
- Type 2090 clamping units adapters provide a specific mounting system.

Selection of VDI clamping unit



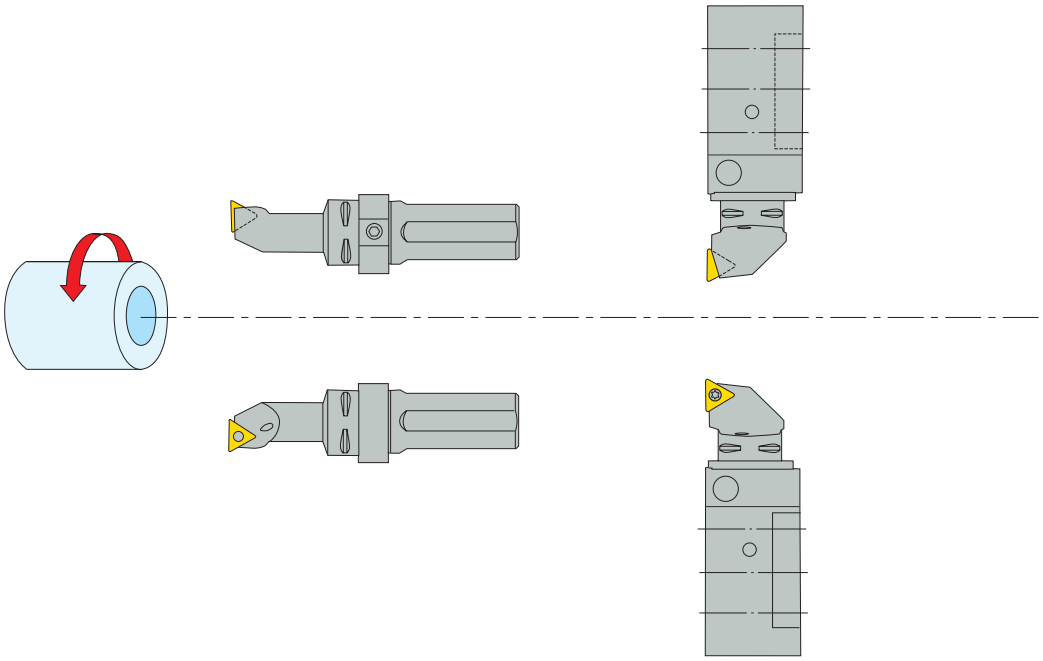
Note: The polygon socket has to be rotated 180°

Selection of VDI clamping unit

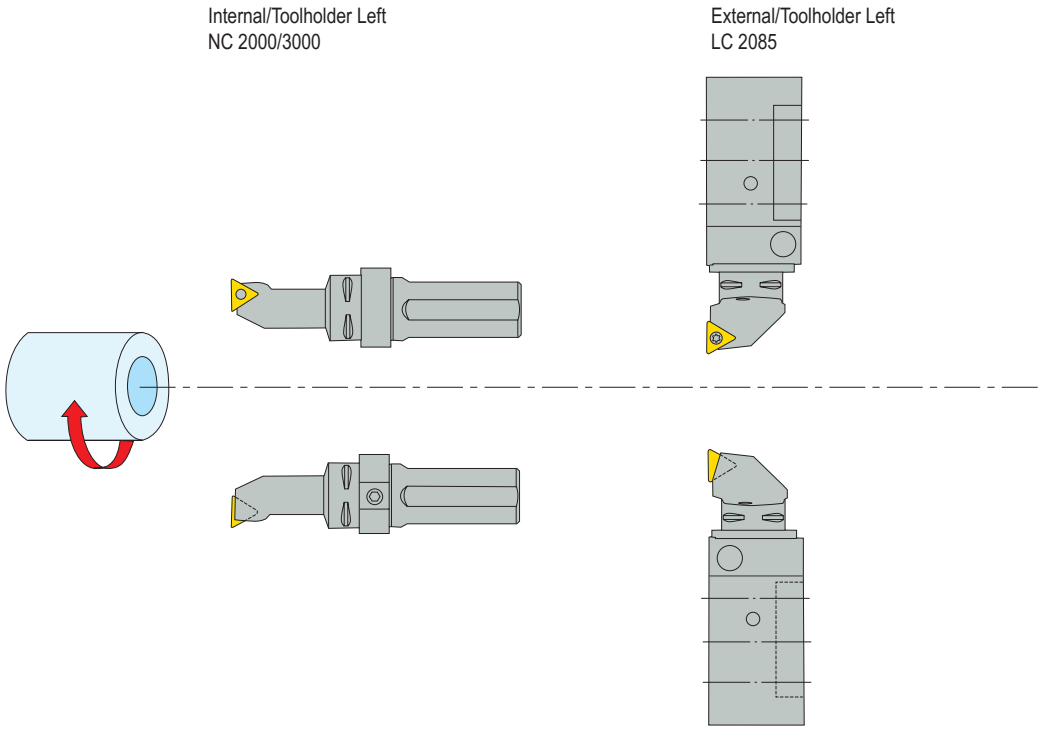


Note: The polygon socket has to be rotated 180°

Selection of clamping unit 2000/3000/2085

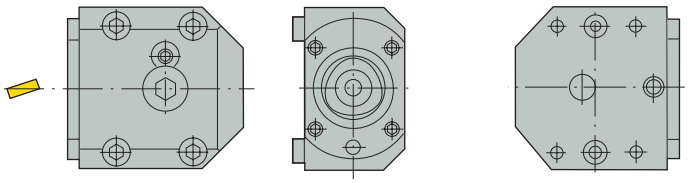


Selection of VDI clamping unit

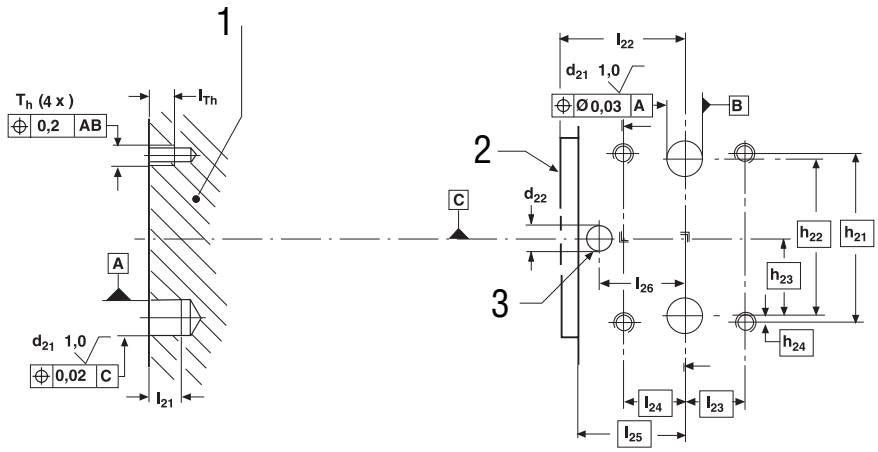


2000 = cylindrical type with drawbar, 3000 = cylindrical type with screw, 2085 = shank type.

Clamping unit 2090 for special applications



Design instruction for application of clamping unit RC/LC 2090



1. Material hardness = 270 HB min
2. Front of clamping unit
3. Coolant outlet

Seco-Capto™ size	Designation	Dimensions in mm/inch													
		d_{21} H7	d_{22}	h_{21}	h_{22}	h_{23}	h_{24}	l_{21} min	l_{22}	l_{23}	l_{24}	l_{25}	l_{26}	l_{Th} min	T_h
C3	C3-R/LC2090-19039M	12 *0.470*	5 *0.200*	42 *1.654*	39 *1.535*	19,5 *0.768*	1,5 *0.060*	8,5 *0.335*	39 *1.535*	19,0 *0.748*	19,0 *0.748*	33,5 *1.319*	28 *1.102*	7,5 *0.295*	M6
C4	C4-R/LC2090-24043A	16 *0.630*	7 *0.280*	60 *2.362*	5 *0.200*	27,5 *1.083*	2,5 *0.098*	11,0 *0.433*	43 *1.693*	19,0 *0.748*	19,0 *0.748*	36,5 *1.437*	30 *1.180*	11,0 *0.433*	M8
C5	C5-R/LC2090-32048A	20 *0.787*	7 *0.280*	70 *2.756*	62 *2.441*	31,0 *1.220*	4,0 *0.160*	12,0 *0.470*	48 *1.890*	21,0 *0.827*	21,0 *0.827*	39,5 *1.555*	33 *1.299*	13,0 *0.512*	M10
C6	C6-R/LC2090-42060	25 *0.984*	10 *0.400*	82 *3.228*	71 *2.795*	35,5 *1.398*	5,5 *0.217*	20,0 *0.787*	60 *2.362*	24,5 *0.965*	24,5 *0.965*	50,0 *1.969*	41 *1.614*	12,0 *0.470*	M10
C8	C8-R/LC2090-50088	32 *1.260*	11 *0.433*	110 *4.331*	92 *3.622*	46,0 *1.811*	9,0 *0.354*	20,0 *0.787*	88 *3.465*	43,0 *1.693*	43,0 *1.693*	76,0 *2.992*	63 *2.480*	14,5 *0.571*	M12

Toolholders

A large range of Seco-Capto™ toolholders is available:

– For external and internal turning with negative inserts.

– For external and internal turning with positive inserts.

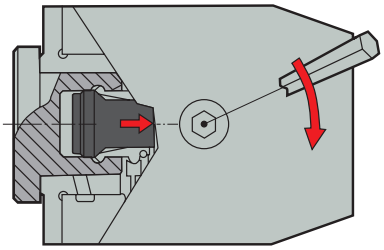
– For external and internal turning with MDT inserts.

– For external and internal threading.

For selection of toolholder use the guidelines for conventional tools.

Cover plug

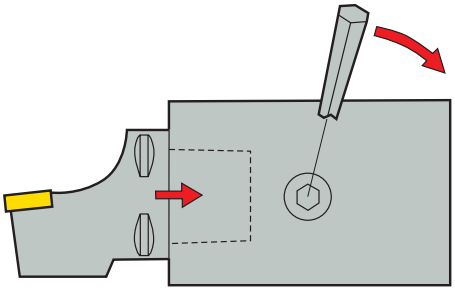
A cover plug should always be used to protect the ground surfaces of the connecting sleeve from dirt or damage to the clamping units when they do not have a cutting unit inserted.



Clamping force

In order to obtain the necessary clamping force (F) the clamping unit should be tightened to the torque value (Mv) as recommended in the table below.

Torque Mv	
Size	Nm
C3	35
C4	50
C5	70
C6	90
C8	130



Turning the cutting tool 180°

If the entire clamping unit has to be rotated 180°, the polygon socket should be rotated 180°.

1. Loosen the screws (2).
2. Dismantle the polygon socket. Use the special tool as described on page(s) 1027 (ordered separately).
3. Move the guiding pin to the opposite side of the clamping unit.
4. Rotate the polygon socket 180° and reassemble. Tap carefully with a plastic mallet.

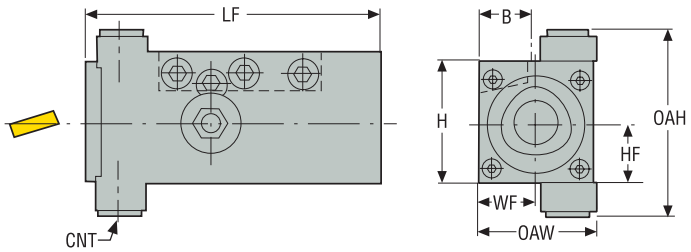
Lubrication

All manual clamping units are lubricated with BP Energrease ACS-2 prior to delivery (Alternative MOBIL Temp Shc 32 or STATOIL Beacon 325). The lubrication should be checked every six months. New grease can be applied via the cam.

1. Remove the screw (1).
2. Assemble grease nipple 5692 012-01.
3. Pump in grease with grease gun until it begins to seep out around the key handle at the cam.
4. Remove grease nipple.
5. Replace screw (1) into the cam.

Note: Clamping unit must be clamped during lubrication.

Straight shank type
– Metric / *Inch*



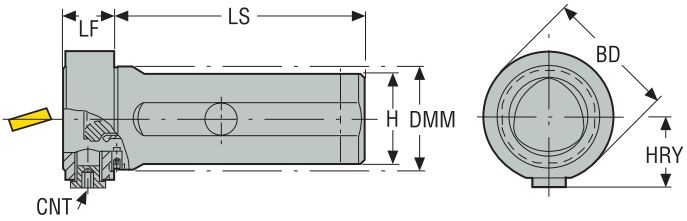


- Right-hand version shown
- Spare Parts, see page(s) 1021
- How to select Clamping unit, see page(s) 1012
- For ISO attribute explanation, see page 82

Designation	Item number	CTWS	Shank	LF	HF	WF	H	B	OAW	OAH	CNT	CP	Weight
				mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*		bar *psi*	kg *lbs*
C3-LC2085-4038M	00093954	C3	2020	95,0 *3.740*	20,0 *0.787*	19,0 *0.748*	40,0 *1.575*	20,0 *0.787*	38,0 *1.496*	62,0 *2.441*	G1/8	80,0 *1160.3*	1,05 *2.310*
C3-RC2085-4038M	00093966	C3	2020	95,0 *3.740*	20,0 *0.787*	19,0 *0.748*	40,0 *1.575*	20,0 *0.787*	38,0 *1.496*	62,0 *2.441*	G1/8	80,0 *1160.3*	1,05 *2.310*
C4-LC2085-5048	00093977	C4	2525	125,0 *4.921*	25,0 *0.984*	24,0 *0.945*	50,0 *1.969*	25,0 *0.984*	48,0 *1.890*	58,0 *2.283*	G1/8	80,0 *1160.3*	2,1 *4.630*
C4-RC2085-5048	75079661	C4	2525	125,0 *4.921*	25,0 *0.984*	24,0 *0.945*	50,0 *1.969*	25,0 *0.984*	48,0 *1.890*	58,0 *2.283*	G1/8	80,0 *1160.3*	2,1 *4.630*
C5-LC2085-6464	00093997	C5	3232	145,0 *5.709*	32,0 *1.260*	32,0 *1.260*	64,0 *2.520*	32,0 *1.260*	64,0 *2.520*	72,0 *2.835*	G1/8	80,0 *1160.3*	4,1 *9.040*
C5-RC2085-6464	75069018	C5	3232	145,0 *5.709*	32,0 *1.260*	32,0 *1.260*	64,0 *2.520*	32,0 *1.260*	64,0 *2.520*	72,0 *2.835*	G1/8	80,0 *1160.3*	4,1 *9.040*

Cylindrical type
– Metric / *Inch*

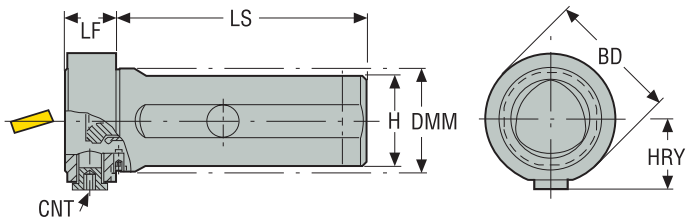




- Neutral version shown
- Spare Parts, see page(s) 1022
- How to select Clamping unit, see page(s) 1012
- Type 2000 locking with drawbar and segment
- Type 3000 locking with centre bolt
- For ISO attribute explanation, see page 82

Designation	Item number	CTWS	DMM	BD	LF	LS	HRY	H	CNT	CP	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*		bar *psi*	kg *lbs*
C3-NC2000-08018-32	00094035	C3	32,0 *1.260*	45,5 *1.791*	18,0 *0.709*	80,0 *3.150*	26,0 *1.024*	30,0 *1.181*	G1/8	80,0 *1160.3*	0,7 *1.540*
C3-NC3000-08018-32	00094037	C3	32,0 *1.260*	45,5 *1.791*	18,0 *0.709*	80,0 *3.150*	26,0 *1.024*	30,0 *1.181*	G1/8	80,0 *1160.3*	0,64 *1.410*
C3-NC3000-10018-40	00093956	C3	32,0 *1.260*	45,5 *1.791*	18,0 *0.709*	100,0 *3.937*	26,0 *1.024*	37,0 *1.457*	G1/8	80,0 *1160.3*	1,11 *2.450*
C4-NC2000-10020-40	00094039	C4	40,0 *1.575*	51,5 *2.028*	20,0 *0.787*	100,0 *3.937*	28,0 *1.102*	37,0 *1.457*	G1/8	80,0 *1160.3*	1,1 *2.430*
C5-NC2000-12024-50	00094045	C5	50,0 *1.969*	61,5 *2.421*	24,0 *0.945*	120,0 *4.724*	33,0 *1.299*	47,0 *1.850*	G1/8	80,0 *1160.3*	2,0 *4.410*
C4-NC3000-10020-40	00094041	C4	40,0 *1.575*	51,5 *2.028*	20,0 *0.787*	100,0 *3.937*	28,0 *1.102*	37,0 *1.457*	G1/8	80,0 *1160.3*	1,1 *2.430*
C5-NC3000-12024-50	00090845	C5	50,0 *1.969*	61,5 *2.421*	24,0 *0.945*	120,0 *4.724*	33,0 *1.299*	47,0 *1.850*	G1/8	80,0 *1160.3*	2,1 *4.630*

Cylindrical type – Inch



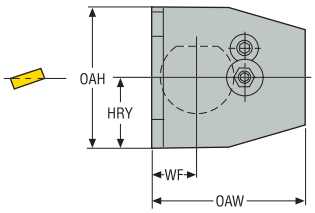


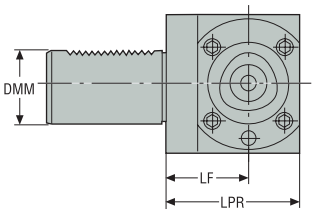
- Neutral version shown
- Spare Parts, see page(s) 1022
- How to select Clamping unit, see page(s) 1012
- Type 2000 locking with drawbar and segment
- Type 3000 locking with centre bolt
- For ISO attribute explanation, see page 82

Designation	Item number	CTWS	DMM	BD	LF	LS	HRY	H	CNT	CP	Weight
			inch	inch	inch	inch	inch	inch		psi	lbs
C4-NC2000-10020-A24	00077739	C4	1.500	2.028	0.787	3.937	1.024	1.457	G1/8	1160.3	2.200
C4-NC2000-12020-A32	00077741	C4	2.000	2.028	0.787	4.724	1.024	1.850	G1/8	1160.3	3.570
C5-NC2000-12024-A32	00077743	C5	2.000	2.421	0.945	4.724	1.220	1.850	G1/8	1160.3	4.630
C4-NC3000-10020-A24	00077745	C4	1.500	2.028	0.787	3.937	1.024	1.378	G1/8	1160.3	2.250
C4-NC3000-12020-A32	00077749	C4	2.000	2.028	0.787	4.724	1.024	1.850	G1/8	1160.3	4.230
C5-NC3000-12024-A32	00077757	C5	2.000	2.421	0.945	4.724	1.220	1.850	G1/8	1160.3	4.670

VDI type angled DIN69880
– Metric / *Inch*



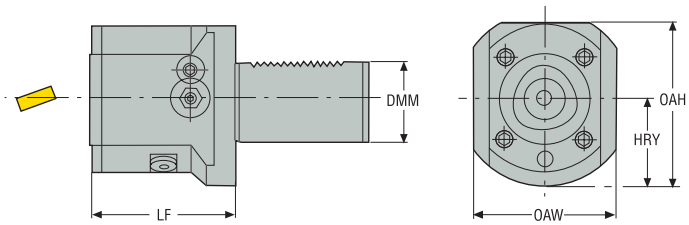




- Right-hand version shown
- Spare Parts, see page(s) 1023
- How to select Clamping unit, see page(s) 1011
- For ISO attribute explanation, see page 82

Designation	Item number	CTWS	DMM	LF	WF	HRY	LPR	OAW	OAH	CP	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	bar *psi*	kg *lbs*
C3-RC2030-41020M	00093958	C3	30,0 *1.181*	41,0 *1.614*	20,0 *0.787*	30,0 *1.181*	60,0 *2.362*	74,0 *2.913*	57,0 *2.244*	80,0 *1160.3*	1,9 *4.190*
C3-LC2030-41020M	00093946	C3	30,0 *1.181*	41,0 *1.614*	20,0 *0.787*	30,0 *1.181*	60,0 *2.362*	74,0 *2.913*	57,0 *2.244*	80,0 *1160.3*	2,1 *4.630*
C3-RC2030-41030M	00093959	C3	30,0 *1.181*	41,0 *1.614*	30,0 *1.181*	30,0 *1.181*	60,0 *2.362*	73,0 *2.874*	57,0 *2.244*	80,0 *1160.3*	2,0 *4.410*
C3-LC2030-41030M	00093947	C3	30,0 *1.181*	41,0 *1.614*	30,0 *1.181*	30,0 *1.181*	60,0 *2.362*	73,0 *2.874*	57,0 *2.244*	80,0 *1160.3*	2,0 *4.410*
C4-RC2040-51030M	75065642	C4	40,0 *1.575*	51,0 *2.008*	30,0 *1.181*	38,0 *1.496*	75,0 *2.953*	86,0 *3.386*	75,0 *2.953*	80,0 *1160.3*	3,9 *8.600*
C4-LC2040-51030M	00093969	C4	40,0 *1.575*	51,0 *2.008*	30,0 *1.181*	38,0 *1.496*	75,0 *2.953*	86,0 *3.386*	75,0 *2.953*	80,0 *1160.3*	3,8 *8.380*
C4-RC2040-51040M	00093982	C4	40,0 *1.575*	51,0 *2.008*	40,0 *1.575*	38,0 *1.496*	75,0 *2.953*	86,0 *3.386*	75,0 *2.953*	80,0 *1160.3*	4,0 *8.820*
C4-LC2040-51040M	00093970	C4	40,0 *1.575*	51,0 *2.008*	40,0 *1.575*	38,0 *1.496*	75,0 *2.953*	86,0 *3.386*	75,0 *2.953*	80,0 *1160.3*	4,2 *9.260*
C5-RC2040-53030M	00094003	C5	40,0 *1.575*	53,0 *2.087*	30,0 *1.181*	41,0 *1.614*	85,0 *3.346*	99,0 *3.898*	82,0 *3.228*	80,0 *1160.3*	4,9 *10.800*
C5-LC2040-53030M	00093986	C5	40,0 *1.575*	53,0 *2.087*	30,0 *1.181*	41,0 *1.614*	85,0 *3.346*	99,0 *3.898*	82,0 *3.228*	80,0 *1160.3*	4,9 *10.800*
C5-RC2040-53040M	00090846	C5	40,0 *1.575*	53,0 *2.087*	40,0 *1.575*	41,0 *1.614*	85,0 *3.346*	99,0 *3.898*	82,0 *3.228*	80,0 *1160.3*	5,0 *11.020*
C5-LC2040-53040M	00093987	C5	40,0 *1.575*	53,0 *2.087*	40,0 *1.575*	41,0 *1.614*	85,0 *3.346*	99,0 *3.898*	82,0 *3.228*	80,0 *1160.3*	5,0 *11.020*
C5-RC2050-53030M	00094005	C5	50,0 *1.969*	53,0 *2.087*	30,0 *1.181*	43,0 *1.693*	85,0 *3.346*	99,0 *3.898*	86,0 *3.386*	80,0 *1160.3*	6,1 *13.450*
C5-LC2050-53030M	00093989	C5	50,0 *1.969*	53,0 *2.087*	30,0 *1.181*	43,0 *1.693*	85,0 *3.346*	99,0 *3.898*	86,0 *3.386*	80,0 *1160.3*	5,8 *12.790*
C5-RC2050-53040M	00092175	C3	50,0 *1.969*	53,0 *2.087*	40,0 *1.575*	43,0 *1.693*	85,0 *3.346*	99,0 *3.898*	86,0 *3.386*	80,0 *1160.3*	6,0 *13.230*
C5-LC2050-53040M	00093990	C5	50,0 *1.969*	53,0 *2.087*	40,0 *1.575*	43,0 *1.693*	85,0 *3.346*	99,0 *3.898*	86,0 *3.386*	80,0 *1160.3*	6,0 *13.230*
C5-RC2060-43040M	00094011	C5	60,0 *2.362*	43,0 *1.693*	40,0 *1.575*	53,0 *2.087*	75,0 *2.953*	99,0 *3.898*	94,0 *3.701*	80,0 *1160.3*	6,8 *14.990*
C5-LC2060-43040M	00093993	C5	60,0 *2.362*	43,0 *1.693*	40,0 *1.575*	53,0 *2.087*	75,0 *2.953*	99,0 *3.898*	94,0 *3.701*	80,0 *1160.3*	7,2 *15.870*
C6-RC2060-53040	00094025	C6	60,0 *2.362*	53,0 *2.087*	40,0 *1.575*	53,0 *2.087*	95,0 *3.740*	122,0 *4.803*	105,0 *4.134*	80,0 *1160.3*	9,7 *21.380*
C6-LC2060-53040	00094018	C6	60,0 *2.362*	53,0 *2.087*	40,0 *1.575*	53,0 *2.087*	95,0 *3.740*	122,0 *4.803*	105,0 *4.134*	80,0 *1160.3*	9,6 *21.160*

VDI type straight DIN69880
– Metric / *Inch*

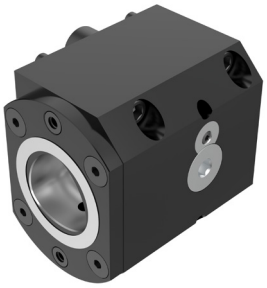


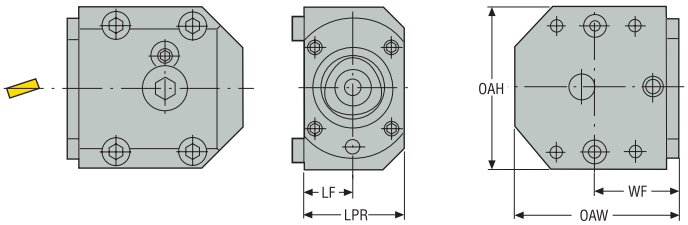


- Right-hand version shown
- Spare Parts, see page(s) 1024
- How to select Clamping unit, see page(s) 1011
- For ISO attribute explanation, see page 82

Designation	Item number	CTWS	DMM	LF	HRY	OAW	OAH	CP	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	bar *psi*	kg *lbs*
C3-RC2030-00060M	00093957	C3	30,0 *1.181*	60,0 *2.362*	34,0 *1.339*	50,0 *1.969*	61,0 *2.402*	80,0 *1160.3*	1,1 *2.430*
C3-LC2030-00060M	00093945	C3	30,0 *1.181*	60,0 *2.362*	34,0 *1.339*	50,0 *1.969*	61,0 *2.402*	80,0 *1160.3*	1,1 *2.430*
C4-RC2040-00075M	75069447	C4	40,0 *1.575*	75,0 *2.953*	41,0 *1.614*	75,0 *2.953*	75,0 *2.953*	80,0 *1160.3*	2,3 *5.070*
C4-LC2040-00075M	75065641	C4	40,0 *1.575*	75,0 *2.953*	41,0 *1.614*	75,0 *2.953*	75,0 *2.953*	80,0 *1160.3*	2,2 *4.850*
C4-RC2050-00065M	75068269	C4	50,0 *1.969*	65,0 *2.559*	49,0 *1.929*	70,0 *2.756*	83,0 *3.268*	80,0 *1160.3*	2,8 *6.170*
C4-LC2050-00065M	00093972	C4	50,0 *1.969*	65,0 *2.559*	49,0 *1.929*	70,0 *2.756*	83,0 *3.268*	80,0 *1160.3*	2,6 *5.730*
C5-RC2040-00085M	00094001	C5	40,0 *1.575*	85,0 *3.346*	41,0 *1.614*	75,0 *2.953*	82,0 *3.228*	80,0 *1160.3*	3,3 *7.280*
C5-LC2040-00085M	75079704	C5	40,0 *1.575*	85,0 *3.346*	41,0 *1.614*	75,0 *2.953*	82,0 *3.228*	80,0 *1160.3*	3,3 *7.280*
C5-RC2060-00075M	00094007	C5	60,0 *2.362*	75,0 *2.953*	58,0 *2.283*	80,0 *3.150*	100,0 *3.937*	80,0 *1160.3*	5,2 *11.460*
C5-LC2060-00075M	00093992	C5	60,0 *2.362*	75,0 *2.953*	58,0 *2.283*	80,0 *3.150*	100,0 *3.937*	80,0 *1160.3*	5,2 *11.460*
C5-RC2050-00085M	00091790	C5	50,0 *1.969*	85,0 *3.346*	49,0 *1.929*	83,0 *3.268*	90,0 *3.543*	80,0 *1160.3*	4,0 *8.820*
C5-LC2050-00085M	00093988	C5	50,0 *1.969*	85,0 *3.346*	49,0 *1.929*	83,0 *3.268*	90,0 *3.543*	80,0 *1160.3*	4,0 *8.820*
C6-RC2060-00095	00094024	C6	60,0 *2.362*	95,0 *3.740*	58,0 *2.283*	84,0 *3.307*	111,0 *4.370*	80,0 *1160.3*	6,9 *15.210*
C6-LC2060-00095	00094017	C6	60,0 *2.362*	95,0 *3.740*	58,0 *2.283*	84,0 *3.307*	111,0 *4.370*	80,0 *1160.3*	6,9 *15.210*

For special applications
– Metric / *Inch*



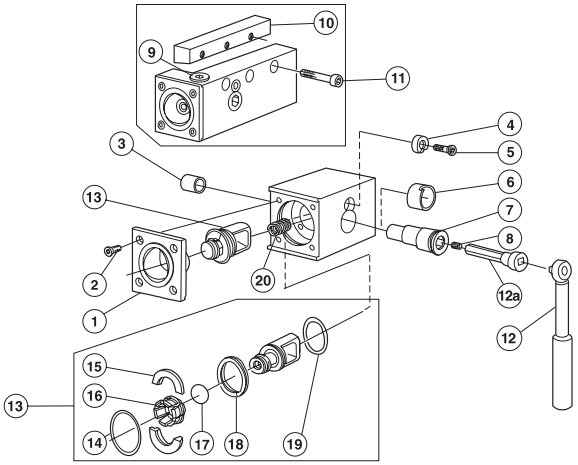


- Right-hand version shown
- Spare Parts, see page(s) 1025
- Mounting dimension / Bolt pattern, see page(s) 1013
- For ISO attribute explanation, see page 82

Designation	Item number	CTWS	LF	WF	LPR	OAW	OAH	CP	Weight
			mm *inch*	mm *inch*	mm *inch*	mm *inch*	mm *inch*	bar *psi*	kg *lbs*
C3-RC2090-19039M	00093967	C3	19,0 *0.748*	39,0 *1.535*	38,0 *1.496*	73,0 *2.874*	54,0 *2.126*	80,0 *1160.3*	1,0 *2.200*
C3-LC2090-19039M	00093955	C3	19,0 *0.748*	39,0 *1.535*	38,0 *1.496*	73,0 *2.874*	54,0 *2.126*	80,0 *1160.3*	1,0 *2.200*
C4-RC2090-24043A	00093984	C4	24,0 *0.945*	43,0 *1.693*	48,0 *1.890*	86,0 *3.386*	77,0 *3.031*	80,0 *1160.3*	1,9 *4.190*
C4-LC2090-24043A	00093978	C4	24,0 *0.945*	43,0 *1.693*	48,0 *1.890*	86,0 *3.386*	77,0 *3.031*	80,0 *1160.3*	1,9 *4.190*
C5-RC2090-32048A	00094015	C5	32,0 *1.260*	48,0 *1.890*	64,0 *2.520*	100,0 *3.937*	92,0 *3.622*	80,0 *1160.3*	3,6 *7.940*
C5-LC2090-32048A	00093998	C5	32,0 *1.260*	48,0 *1.890*	64,0 *2.520*	100,0 *3.937*	92,0 *3.622*	80,0 *1160.3*	3,5 *7.720*
C6-RC2090-42060	00094029	C6	42,0 *1.654*	60,0 *2.362*	84,0 *3.307*	122,0 *4.803*	105,0 *4.134*	80,0 *1160.3*	6,5 *14.330*
C6-LC2090-42060	00094021	C6	42,0 *1.654*	60,0 *2.362*	84,0 *3.307*	122,0 *4.803*	105,0 *4.134*	80,0 *1160.3*	6,4 *14.110*
C8-RC2090-50088	00094034	C8	50,0 *1.969*	88,0 *3.465*	100,0 *3.937*	146,0 *5.748*	133,0 *5.236*	80,0 *1160.3*	12,4 *27.340*
C8-LC2090-50088	00094032	C8	50,0 *1.969*	88,0 *3.465*	100,0 *3.937*	146,0 *5.748*	133,0 *5.236*	80,0 *1160.3*	12,4 *27.340*

Manually operated clamping units

Type 2085



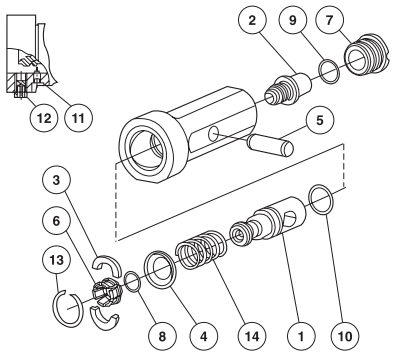
Size	1 Sleeve	2 Screw (4x)	3 Bushing	4 Locking washer	5 Screw
C3	5252015-01	416.1-834	3823010-101	5541030-01	416.1-834
C4	5252015-02	5513020-26	3823010-122	5541030-02	416.1-834
C5	5252015-03	5513020-14	3823010-162	5541030-03	5513020-14

Size	6 Bushing	7 Cam shaft	8 Screw	9 Plug	10 Metric wedge
C3	5638022-01	5333025-01	3214010-355	3611005-180	5431115-01
C4	5638022-02	5333025-02	3214010-355	3611005-180	5431115-02
C5	5638022-03	5333025-03	3214010-355	3611005-180	5431115-03

Size	11 Screw	12 Torque wrench	12a Adapter	20 Compression spring	
C3	3212010-362	BT-TK-02	5680035-05	5561001-71	
C4	3212010-364	C-TK-01	5680035-06	5561001-41	
C5	3212010-416	C-TK-01	5680035-07	5561001-41	

Draw bar set		Parts included in draw bar set					
Size	13 Draw bar set	14 Spiral retaining ring	15 Holder ring (set of 2)	16 Segment (set of 6)	17 O-ring	18 Flat wire spring	19 O-ring
C3	5461100-101	5545039-01	5546001-16	5549120-08	5641005-01	5561015-02	5641005-15
C4	5461100-111	5545039-03	5546001-20	5549120-06	5641005-05	5561015-03	5641005-19
C5	5461100-121	5545039-02	5546001-17	5549120-07	5641005-06	5561015-04	5641005-16

Type 2000

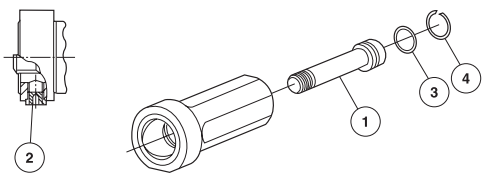


Size	1 Drawbar	2 Clamping screw	3 Holder ring (set of 2)	4 Ring	5 Support pin
C3	5461105-01	5519105-01	5546002-01	5541028-01	5552032-01
C4	5461105-02	5519105-02	5546002-02	5541028-02	5552032-02
C5	5461105-03	5519105-03	5546002-03	5541028-03	5552032-03

Size	6 Segment (set of 6)	7 Thread ring	8 O-ring	9 O-ring	10 O-ring
C3	5549120-08	5512091-03	5641005-01	3671010-118	3671010-124
C4	5549120-06	5512091-01	5641005-05	3671010-120	3671010-126
C5	5549120-07	5512091-02	5641005-06	3671010-124	3671010-128

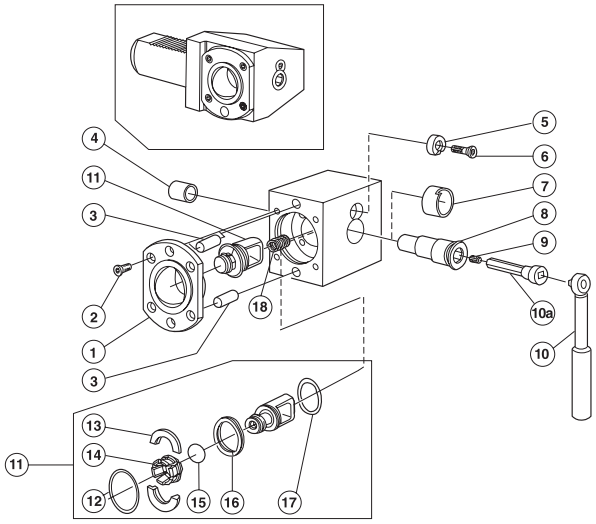
Size	11 Holder ring (set of 2)	12 Ring	13 Support pin	14 Segment (set of 6)	Key (size, mm)
C3	3214020-204	3611005-180	5545042-01	5561001-52	3021013-080 (8,0)
C4	3214020-255	3611005-180	3421105-026	5561001-53	5680010-03 (10,0)
C5	3214020-255	3611005-180	3421105-032	5561001-54	12SMS795 (12,0)

Type 3000



Size	1 Clamping screw	2 Blind plug	3 O-ring	4 Retaining ring	Key (size, mm)
C3	5512096-01	3611005-180	3671010-020	5545040-03	3021013-080 (8,0)
C4	5512096-02	3611005-180	3671010-022	5545040-05	5680010-03 (10,0)
C5	5512096-03	3611005-180	3671010-024	5545040-06	12SMS795 (12,0)

VDI angled design, DIN 69880



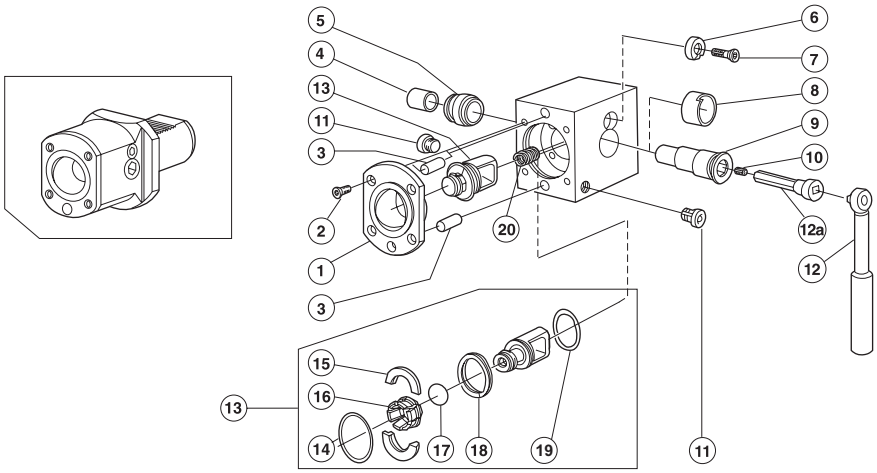
Size	1 Sleeve	2 Screw (4x)	3 Pin	4 Bushing	5 Locking washer
C3	5252010-01	416.1-834	3111050-558	3823010-101	5541030-01
C4	5252010-02	5513020-26	3111050-610	3823010-122	5541030-02
C5	5252010-03	5513020-14	3111050-661	3823010-162	5541030-03
C6	5252010-04	3213010-410	3111050-715	3823010-183	5541030-04

Size	6 Screw	7 Bushing	8 Cam shaft	9 Screw	10 Torque wrench
C3	416.1-834	5638022-01	5333025-01	3214010-355	BT-TK-02
C4	416.1-834	5638022-02	5333025-02	3214010-355	C-TK-01
C5	5513020-14	5638022-03	5333025-03	3214010-355	C-TK-01
C6	5513020-14	5638022-04	5333025-04	3214010-355	C-TK-01

Size	10a Adapter	18 Compression spring
C3	5680035-05	5561001-71
C4	5680035-06	5561001-41
C5	5680035-07	5561001-41
C6	5680035-07	5561001-41

Draw bar set		Parts included in draw bar set					
Size	11 Draw bar set	12 Spiral retaining ring	13 Holder ring (set of 2)	14 Segment (set of 6)	15 O-ring	16 Flat wire spring	17 O-ring
C3	5461100-101	5545039-01	5546001-16	5549120-08	5641005-01	5561015-02	5641005-15
C4	5461100-111	5545039-03	5546001-20	5549120-06	5641005-05	5561015-03	5641005-19
C5	5461100-121	5545039-02	5546001-17	5549120-07	5641005-06	5561015-04	5641005-16
C6	5461100-131	5545039-04	5546001-18	5549120-04	5641005-04	5561015-05	5641005-17

VDI straight design, DIN 69880



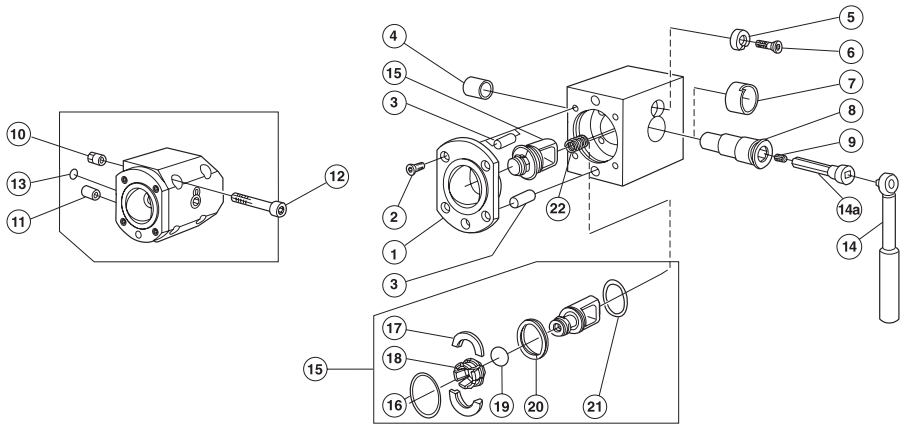
Size	1 Sleeve	2 Screw (4x)	3 Pin	4 Bushing	5 Sleeve
C3	5252010-01	416.1-834	3111050-558	3823010-101	5638024-01
C4	5252010-02	5513020-26	3111050-610	3823010-122	5638024-02
C5	5252010-03	5513020-14	3111050-661	3823010-162	5638024-03
C6	5252010-04	3213010-410	3111050-715	3823010-183	5638024-04

Size	6 Locking washer	7 Screw	8 Bushing	9 Cam shaft	10 Screw
C3	5541030-01	416.1-834	5638022-01	5333025-01	3214010-355
C4	5541030-02	416.1-834	5638022-02	5333025-02	3214010-355
C5	5541030-03	5513020-14	5638022-03	5333025-03	3214010-355
C6	5541030-04	5513020-14	5638022-04	5333025-04	3214010-355

Size	11 Plug	12 Torque wrench	12a Adapter	20 Compression spring	
C3	3611005-180	BT-TK-02	5680035-05	5561001-71	
C4	3611005-180	C-TK-01	5680035-06	5561001-41	
C5	3611005-180	C-TK-01	5680035-07	5561001-41	
C6	3611005-140	C-TK-01	5680035-07	5561001-41	

Draw bar set		Parts included in draw bar set					
Size	13 Draw bar set	14 Spiral retaining ring	15 Holder ring (set of 2)	16 Segment (set of 6)	17 O-ring	18 Flat wire spring	19 O-ring
C3	5461100-101	5545039-01	5546001-16	5549120-08	5641005-01	5561015-02	5641005-15
C4	5461100-111	5545039-03	5546001-20	5549120-06	5641005-05	5561015-03	5641005-19
C5	5461100-121	5545039-02	5546001-17	5549120-07	5641005-06	5561015-04	5641005-16
C6	5461100-131	5545039-04	5546001-18	5549120-04	5641005-04	5561015-05	5641005-17

Type 2090



Size	1 Sleeve	2 Screw (4x)	3 Pin	4 Bushing	5 Locking washer	6 Screw
C3	5252010-01	416.1-834	3111050-558	3823010-101	5541030-01	416.1-834
C4	5252010-02	5513020-26	3111050-610	3823010-122	5541030-02	416.1-834
C5	5252010-03	5513020-14	3111050-661	3823010-162	5541030-03	5513020-14
C6	5252010-04	3213010-410	3111050-715	3823010-183	5541030-04	5513020-14
C8	5252010-05	3213010-462	3111050-769	3823010-225	5541030-05	5513020-14

Size	7 Bushing	8 Cam shaft	9 Screw	10 Locating pin	11 Dowel pin	12 Screw
C3	5638022-01	5333025-01	3214010-355	5552063-05	5552061-07	3212010-363
C4	5638022-02	5333025-02	3214010-355	5552063-07	5552061-09	3212010-414
C5	5638022-03	5333025-03	3214010-355	5552063-06	5552061-08	3212010-466
C6	5638022-04	5333025-04	3214010-355	5552063-03	5552061-05	3212010-469
C8	5638022-05	5333025-05	3214010-355	5552063-04	5552061-06	3212010-521

Size	13 O-ring	14 Torque wrench	14a Adapter	22 Compression spring		
C3	5641001-22	BT-TK-02	5680035-05	5561001-71		
C4	3671010-114	C-TK-01	5680035-06	5561001-41		
C5	3671010-114	C-TK-01	5680035-07	5561001-41		
C6	3671010-119	C-TK-01	5680035-07	5561001-41		
C8	3671010-119	C-TK-02	5680035-07	5561001-41		

Draw bar set		Parts included in draw bar set					
Size	15 Draw bar set	16 Spiral retaining ring	17 Holder ring (set of 2)	18 Segment (set of 6)	19 O-ring	20 Flat wire spring	21 O-ring
C3	5461100-101	5545039-01	5546001-16	5549120-08	5641005-01	5561015-02	5641005-15
C4	5461100-111	5545039-03	5546001-20	5549120-06	5641005-05	5561015-03	5641005-19
C5	5461100-121	5545039-02	5546001-17	5549120-07	5641005-06	5561015-04	5641005-16
C6	5461100-131	5545039-04	5546001-18	5549120-04	5641005-04	5561015-05	5641005-17
C8	5461100-141	5545039-05	5546001-19	5549120-05	5641005-07	5561015-06	5641005-18

Hoses, Designation ordering code includes spare parts

Connection type	Designation	Length mm / inch
Straight fitting 	JET-HOSE100SS	100 / *3.937*
	JET-HOSE150SS	150 / *5.906*
	JET-HOSE200SS	200 / *7.874*
	JET-HOSE250SS	250 / *9.843*
	JET-HOSE300SS	300 / *11.811*
Banjo fitting 	JET-HOSE100BS	100 / *3.937*
	JET-HOSE150BS	150 / *5.906*
	JET-HOSE200BS	200 / *7.874*
	JET-HOSE250BS	250 / *9.843*
	JET-HOSE300BS	300 / *11.811*
Banjo-to-Banjo fitting 	JET-HOSE100BB	100 / *3.937*
	JET-HOSE150BB	150 / *5.906*
	JET-HOSE200BB	200 / *7.874*
	JET-HOSE250BB	250 / *9.843*
	JET-HOSE300BB	300 / *11.811*

All hoses are pressure rated to a maximum of 275 bar / *3990 psi*

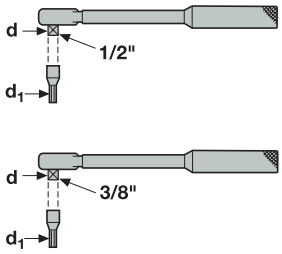
Spare Parts, included in delivery

Designation		...SS	...BS	...BB
JET-CFP1/8BSP		■	■	■
JET-CBP15		■	■	■
JET-AD1/8BSP		■	■	
JET-ADM6		■	■	
JET-ADM10		■		
JET-BBM06			■	■
JET-BBM10			■	■
JET-BB1/8BSP			■	■
JET-C1/4-1/8BSP			■	■
JET-P1/8-5MM		■	■	■
JET-WM10*		■	■	■
JET-CS0610		■	■	
JET-ORING10X1*/**		■	■	■

Designation	
JET-CFP0611	
JET-CFP0613	
JET-CFP0614	
JET-CFP0615	
JET-CLS0608	
JET-CS1115	
JET-CFP1/8BSP14	
JET-CFP1/8BSP12.7	
JET-CFP1/8BSP12	
JET-CFP1/8BSP10	

Pack of 2, except *Pack of 20
** Not suitable for use in inducer
For assembly instructions, see page(s) 89

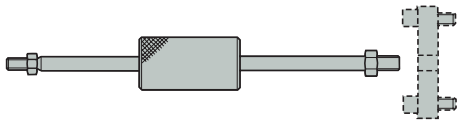
Torque wrench



Size	Nm / *In/Lbs.*	Designation	Spare Parts		
			Adapter*	d	d_1
C3	35 / *309.8*	BT-TK-02	5680035-05	3/8"	8
C4	50 / *442.5*	C-TK-01	5680035-06	1/2"	10
C5	70 / *619.6*	C-TK-01	5680035-07	1/2"	12
C6	90 / *796.6*	C-TK-01	5680035-07	1/2"	12
C8	130 / *1150.6*	C-TK-02	5680035-07	1/2"	12

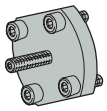
* To be ordered separately

Sliding hammer for dismounting the polygon socket



Size	Designation
C3	CC-ET-01
C4	CC-ET-01
C5	CC-ET-02
C6	CC-ET-02
C8	CC-ET-02

Tool for dismantling the polygon socket on manual clamping unit



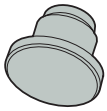
Size	Designation	Spare Parts	
		Centre	Peripheral insert
C3	C3-WDT-01M	3214030-463	5512040-03
C4	C4-WDT-02	3214030-464	5512040-04
C5	C5-WDT-02	3214030-516	5512040-05
C6	C6-WDT-02	3214030-516	5512040-06
C8	C-TK-02	3214030-516	5512072-01

Grease nipple



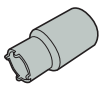
Size	Designation
C3	5692012-01
C4	5692012-01
C5	5692012-01
C6	5692012-01
C8	5692012-01

Cover plug



Size	Designation	
	Type 3000	Other types
C3	C3-CP-11	C3-CP-01
C4	C4-CP-11	C4-CP-01
C5	C5-CP-11	C5-CP-01
C6	–	C6-CP-01
C8	–	C8-CP-01

Key's for changing nozzle

Nozzle key set	Parts included in set			Not included
	Key (T-handle)	Blade	Socket	Use for nozzle
				
NK-CN6	DOUBLE-T	H4B-H5.0	NK07.25-H5.0	CN6
NK-CN7	DOUBLE-T	H4B-H5.0	NK09.25-H5.0	CN7
NK-CN8	DOUBLE-T	H4B-H5.0	NK11.25-H5.0	CN8

Maximum Torque value for clamping screws

Screw designation	Torque Nm / *In/Lbs.*	Torque key
110.26-655	10,0 / *88.5*	H00T-60100
117.26-655	5,0 / *44.3*	H00T-3050
117.26-657	3,0 / *26.6*	H00-2530
170.26-655	6,0 / *53.1*	H00T-4060
C02205-T07P	0,9 / *8.0*	T00-07P09
C02505-T07P	0,9 / *8.0*	T00-07P09
C02506-T07P	0,9 / *8.0*	T00-07P09
C03007-T09P	2,0 / *17.7*	T00-09P20
C03508-T15P	3,0 / *26.6*	T00-15P30
C03509-T15P	3,0 / *26.6*	T00-15P30
C03510-T15P	3,0 / *26.6*	T00-15P30
C03511-T09P	2,0 / *17.7*	T00-09P20
C03512-T15P	3,0 / *26.6*	T00-15P30
C04008-T15P	3,5 / *31.0*	T00-15P35
C04010-T15P	3,5 / *31.0*	T00-15P35
C04011-T15P	3,5 / *31.0*	T00-15P35
C04014-T15P	3,5 / *31.0*	T00-15P35
C04512-T15P	5,0 / *44.3*	T00-15P50
C04518-T15P	5,0 / *44.3*	T00-15P50
C05010-T20P	5,0 / *44.3*	T00-20P50
C05012-T15P	5,0 / *44.3*	T00-15P50
C05013-T20P	5,0 / *44.3*	T00-20P50
C05018-T20P	5,0 / *44.3*	T00-20P50
C11804-T06P	0,5 / *4.4*	T00-06P05
C46017-T20P	6,0 / *53.1*	T00T-20P60
C82204-T06P	0,5 / *4.4*	T00-06P05
CC05	0,9 / *8.0*	H00-1509
CC08P-V13	2,0 / *17.7*	T00-09P20
CC09P-D11	2,0 / *17.7*	T00-09P20
CC12P-S12	3,5 / *31.0*	T00-15P35
CC14	6,0 / *53.1*	H00T-4060
CC16	10,0 / *88.5*	–
CC17P	10,0 / *88.5*	–
CC17P-06	10,0 / *88.5*	–
CC17P-09	10,0 / *88.5*	–
CC20P	10,0 / *88.5*	–
CC20P-V13	10,0 / *88.5*	–
CD09-S09	2,0 / *17.7*	T00-09P20
CD12-S12	3,5 / *31.0*	T00-15P35
CD16-S16	5,0 / *44.3*	T00-20P50
CD19-S19	5,0 / *44.3*	T00-20P50
CD19-V16	5,0 / *44.3*	T00-20P50
CSC8015-T20P	5,0 / *44.3*	T00-20P50
CSC1015-T20P	5,0 / *44.3*	T00-20P50
CSP16-T15P	2,0 / *17.7*	T00-15P20
CSP22-T15P	3,0 / *26.6*	T00-15P30
CSP27-T25P	6,0 / *53.1*	T00T-25P60

Screw designation	Torque Nm / *In/Lbs.*	Torque key
L84017-T09P	2,0 / *17.7*	T00-09P20
L85011-T15P	5,0 / *44.3*	T00-15P50
L85012-T15P	5,0 / *44.3*	T00-15P50
L85017-T09P	2,0 / *17.7*	T00-09P20
L85020-T15P	3,5 / *31.0*	T00-15P35
L85021-T15P	3,5 / *31.0*	T00-15P35
L86015-T20P	6,0 / *53.1*	T00T-20P60
L86025-T20P	6,0 / *53.1*	T00T-20P60
LD1035-T25P	6,0 / *53.1*	T00T-25P60
LD5020-T09P	2,0 / *17.7*	T00-09P20
LD6020-T15P	3,0 / *26.6*	T00-15P30
LD6021-T09P	2,0 / *17.7*	T00-09P20
LD6024-T20P	3,0 / *26.6*	T00-15P30
LD6025-T15P	3,0 / *26.6*	T00-15P30
LD6026-T09P	2,0 / *17.7*	T00-09P20
LD8025-T25P	6,0 / *53.1*	T00T-25P60
LD8030-T25P	6,0 / *53.1*	T00T-25P60
LS0512	2,5 / *22.1*	–
LS0613	3,0 / *26.6*	H00-2530
LS0616	3,0 / *26.6*	H00-2530
LS0818	4,0 / *35.4*	–
LS0822	4,0 / *35.4*	–
LS1027	5,0 / *44.3*	H00T-4050
MC6S4X14	3,5 / *31.0*	–
MC6S4X18	3,5 / *31.0*	–
MC6S5X14	5,0 / *44.3*	H00T-4050
MC6S5X18	5,0 / *44.3*	H00T-4050
MN0909L-T09P	2,0 / *17.7*	T00-09P20
MN1215L-T15P	3,0 / *26.6*	T00-15P30
MN1215R-T15P	3,0 / *26.6*	T00-15P30
MN1215S-T15P	3,0 / *26.6*	T00-15P30
MN1215T-T15P	3,0 / *26.6*	T00-15P30
MN1515-T15P	3,0 / *26.6*	T00-15P30
MN1515SL-T15P	3,0 / *26.6*	T00-15P30
MN1520-T20P	6,0 / *53.1*	T00T-20P60
MN1920-T20P	6,0 / *53.1*	T00T-20P60
MN1925-T25P	5,0 / *44.3*	T00T-25P50
MN2525-T25P	6,0 / *53.1*	T00T-25P60
PL1403-T09P	2,5 / *22.1*	T00-09P20
TCEI0409	3,5 / *31.0*	–
TCEI0509	6,0 / *53.1*	H00T-4060
TCEI0513	6,0 / *53.1*	H00T-4060
TCEI0609	8,0 / *70.8*	H00T-5080
TCEI0613	8,0 / *70.8*	H00T-5080
TCEI0614	8,0 / *70.8*	H00T-5080
TCEI0620	8,0 / *70.8*	H00T-5080
TCEI0815	10,0 / *88.5*	H00T-60100
TCEI0825	10,0 / *88.5*	H00T-60100
TCEI1020	15,0 / *132.8*	–
WS1620-T20P	3,5 / *31.0*	T00-20P35
WS1920-T20P	3,5 / *31.0*	T00-20P35
WS2325-T25P	5,0 / *44.3*	T00T-25P50

For the Seco range of torque keys, please see next page

Torque key range

The range of torque keys with fi xed torque values are available, in combinations key grip/torque value for insert locking, for most of the Seco turning products. By using a torque key you always ensure the correct tightening force when mounting the insert. The torque value is given on page(s) 1028 for each screw. Torque keys are calibrated according to ISO 6789.

Code key: T00-15P35

T00 = Torque screwdriver type for Torx Plus blade
T00T = Torque T-handle type for Torx Plus blade
H00 = Torque screwdriver for hexagonal blade
H00T = Torque T-handle type for hexagonal blade
15P = Torx Plus size
35 = Torque value 3,5 Nm

Torque key*	Replaceable blade	Torx Plus size	Torque value Nm / *In/Lbs.*
T00-06P05	T00-06P	T06P	0,5 / *4.4*
T00-07P05	T00-07P	T07P	0,5 / *4.4*
T00-07P09	T00-07P	T07P	0,9 / *8.0*
T00-08P12	T00-08P	T08P	1,2 / *10.6*
T00-08P20	T00-08P	T08P	2,0 / *17.7*
T00-09P09	T00-09P	T09P	0,9 / *8.0*
T00-09P12	T00-09P	T09P	1,2 / *10.6*
T00-09P20	T00-09P	T09P	2,0 / *17.7*
T00-10P20	T00-10P	T10P	2,0 / *17.7*
T00-10P30	T00-10P	T10P	3,0 / *26.6*
T00-10P35	T00-10P	T10P	3,5 / *31.0*
T00-15P20	T00-15P	T15P	2,0 / *17.7*
T00-15P30	T00-15P	T15P	3,0 / *26.6*
T00-15P35	T00-15P	T15P	3,5 / *31.0*
T00-15P40	T00-15P	T15P	4,0 / *35.4*
T00-15P50	T00-15P	T15P	5,0 / *44.3*
T00-20P35	T00-20P	T20P	3,5 / *31.0*
T00-20P50	T00-20P	T20P	5,0 / *44.3*

*Including blade

Torque key*	Replaceable blade	Torx Plus size	Torque value Nm / *In/Lbs.*
T00T-15P50	T00T-15P	T15P	5,0 / *44.3*
T00T-20P50	T00T-20P	T20P	5,0 / *44.3*
T00T-20P60	T00T-20P	T20P	6,0 / *53.1*
T00T-20P80	T00T-20P	T20P	8,0 / *70.8*
T00T-25P50	T00T-25P	T25P	5,0 / *44.3*
T00T-25P60	T00T-25P	T25P	6,0 / *53.1*
T00T-25P80	T00T-25P	T25P	8,0 / *70.8*
T00T-30P80	T00T-30P	T30P	8,0 / *70.8*

*Including blade

Torque key*	Replaceable blade	Hexagonal size mm / *inch*	Torque value Nm / *In/Lbs.*
H00-1305	H00-1.3	1,3 / *0.050*	0,5 / *4.4*
H00-1505	H00-1.5	1,5 / *0.060*	0,5 / *4.4*
H00-1509	H00-1.5	1,5 / *0.060*	0,9 / *8.0*
H00-2009	H00-2.0	2,0 / *0.080*	0,9 / *8.0*
H00-2016	H00-2.0	2,0 / *0.080*	1,6 / *14.2*
H00-2020	H00-2.0	2,0 / *0.080*	2,0 / *17.7*
H00-2512	H00-2.5	2,5 / *0.098*	1,2 /*10.6*
H00-2530	H00-2.5	2,5 / *0.098*	3,0 / *26.6*
H00-2535	H00-2.5	2,5 / *0.098*	3,5 / *31.0*
H00-3020	H00-3.0	3,0 / *0.120*	2,0 / *17.7*
H00-3030	H00-3.0	3,0 / *0.120*	3,0 / *26.6*
H00-4030	H00-4.0	4,0 / *0.160*	3,0 / *26.6*

*Including blade

Torque key*	Replaceable blade	Hexagonal size mm / *inch*	Torque value Nm / *In/Lbs.*
H00T-3050	H00T-3.0	3,0 / *0.120*	5,0 / *44.3*
H00T-4050	H00T-4.0	4,0 / *0.160*	5,0 / *44.3*
H00T-4060	H00T-4.0	4,0 / *0.160*	5,0 / *44.3*
H00T-5050	H00T-5.0	5,0 / *0.200*	5,0 / *44.3*
H00T-5080	H00T-5.0	5,0 / *0.200*	8,0 / *70.8*
H00T-50100	H00T-5.0	5,0 / *0.200*	10,0 / *88.5*
H00T-60100	H00T-6.0	6,0 / *0.240*	10,0 / *88.5*

*Including blade

Please observe that the blades are not interchangeable between screwdriver type and T-handle type.

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SMG – Introduction

Cutting speed v_c (m/min)

The foundation for SMG is a classification of workpiece materials based on their type rather than their relative machinability and consequently it contains workpiece materials like composites. It is comprehensive enough, but still easy to identify which SMG a particular material belongs.

Each SMG has a specific material standard in a specific condition assigned as reference to allow easy adjustment of cutting data for any actual material compared to any Seco reference material see page(s) 104.

As example the reference materials EN C45E for SMG P4 and EN 42 CrMo 4 for both SMG P5 and SMG H5 see further details in the following tables.

Steels, ferritic and martensitic stainless steels

SMG	Description	Properties	Reference	$k_{c1.1}$	m_c
P1	Free-cutting steels	360 < R_m < 880	11 SMn30 R_m = 385 N/mm^2	1500	0,14
P2	Low-alloy ferritic steels, C < 0.25%wt Low-alloy weldable general structural steels	320 < R_m < 600	S235JRG2 R_m = 420 N/mm^2	1600	0,23
P3	Ferritic & ferritic/pearlitic steels, C < 0.25%wt Weldable general structural steels Case-hardening steels	430 < R_m < 610	16 MnCr 5 R_m = 550 N/mm^2	1800	0,14
P4	Low-alloy general structural steels, 0.25% < C < 0.67%wt Low-alloy Quench & Temper steels	520 < R_m < 1200	C 45E R_m = 660 N/mm^2	2000	0,15
P5	Structural steels, 0.25% < C < 0.67%wt Quench & Temper steels	550 < R_m < 1200	42 CrMo 4 R_m = 700 N/mm^2	2020	0,18
P6	Low-alloy through-hardening steels, C > 0.67%wt Low-alloy spring and bearing steels	520 < R_m < 1200	C 100S R_m = 600 N/mm^2	2100	0,17
P7	Through-hardening steels, C > 0.67%wt Spring and bearing steels	600 < R_m < 1200	100 Cr 6 R_m = 650 N/mm^2	2160	0,17
P8	Tool steels High Speed Steels (HSS)	600 < R_m < 1200	X 40 CrMoV 5 1 R_m = 700 N/mm^2	2400	0,20
P11	Ferritic & martensitic stainless steels	415 < R_m < 1200	X 20 Cr 13 R_m = 675 N/mm^2	2000	0,15
P12	Maraging and precipitation-hardening stainless steels	500 < R_m < 1200	X 5 CrNiCuNb 16 4 R_m = 1100 N/mm^2	2100	0,17

Free-cutting, austenitic and duplex stainless steels

SMG	Description	Properties	Reference	$k_{c1.1}$	m_c
M1	Free-cutting austenitic stainless steels		X 10 CrNiS 18 9	1700	0,14
M2	Low-alloy austenitic stainless steels		X 5 CrNi 18 10	1920	0,18
M3	Medium-alloy austenitic stainless steels		X 2 CrNiMo 18 14 3	2070	0,17
M4	High-alloy austenitic and duplex stainless steels		X 2 CrNiMoN 22 5 3	2230	0,16
M5	Difficult high-alloy austenitic and duplex stainless steels		X 2 CrNiMoN 25 7 4	2510	0,13

Cast irons

SMG	Description	Properties	Reference	$k_{c1.1}$	m_c
K1	Grey cast irons (GCI)		EN-GJL-250	930	0,32
K2	Compacted graphite irons (CGI)		EN-GJV-400	1000	0,35
K3	Malleable cast irons (MCI)		EN-GJMB-550-4	1050	0,37
K4	Nodular cast irons (SGI)		EN-GJS-500-7	1160	0,37
K5	Austempered ductile irons (ADI)		EN-GJS-1000-5		
K6	Austenitic lamellar cast irons		EN-GJLA-XNiCuCr15-6-2		
K7	Austenitic nodular cast irons		EN-GJSA-XNiMn23-4		

Non-ferrous metals

SMG	Description	Properties	Reference	$k_{c1.1}$	m_c
N1	Aluminium alloys, Si < 9%		AW-7075		
N2	Aluminium alloys, 9% < Si < 16%		AC-44200 Si = 12%		
N3	Aluminium alloys, Si >16%		AlSi17Cu5		
N11	Copper alloys		CW614N	740	0,26

Superalloys and titanium

SMG	Description	Properties	Reference	$k_{c1.1}$	m_c
S1	Iron-based superalloys		Discalloy		
S2	Cobalt-based superalloys		Stellite 21		
S3	Nickel-based superalloys		Inconel 718	2530	0,21
S11	Titanium, low alloyed, (α)		Ti		
S12	Titanium, medium alloyed, (α+β)		TiAl6V4	1500	0,24
S13	Titanium, high alloyed, (near β and β)		Ti10V2Fe3Al		

Hard materials

SMG	Description	Properties	Reference	$k_{c1.1}$	m_c
H3	Case-hardened steels	58 < HRC < 62	16 MnCr 5 60 HRC	2070	0,14
H5	Quenched & Tempered steels	38 < HRC < 56	42 CrMo 4 50 HRC	2320	0,18
H7	Quenched & Tempered steels Bearing steels	56 < HRC < 64	100 Cr 6 60 HRC	2480	0,17
H8	Tool steels High Speed Steels (HSS)	38 < HRC < 64	X 40 CrMoV 5 1 50 HRC	2750	0,20
H11	Martensitic stainless steels	38 < HRC < 50	X 20 Cr 13 45 HRC	2300	0,15
H12	Maraged and precipitation-hardened stainless steels	1200 < R_m < 1650	X 5 CrNiCuNb 16 4 R_m = 1450 N/mm^2	2410	0,17
H21	Manganese steels	23 < HRC < 64	X 120 Mn 12 50 HRC		
H31	White cast irons	50 < HRC < 64	EN-GJN-HV600(XCr11) 55 HRC		

Other difficult materials

SMG	Description	Properties	Reference	$k_{c1.1}$	m_c
PM1	Low-alloy PM-materials		F-0008 Fe-0.7C		
PM2	Medium-alloy PM-materials		FLC-4608 Fe2Cu1.8Ni 0.5Mo0.2Mn0.8C		
PM3	High-alloy PM-materials Exhaust valve seat materials, etc.				
HF1	Hardfacing alloys Welded or plasma-deposited iron-based alloys				
HF2	Hardfacing alloys Welded or plasma-deposited cobalt- and nickel-based alloys				
CC1	Sintered tungsten carbide		G50		

Plastics and Composites

SMG	Description	Properties	Reference	$k_{c1.1}$	m_c
TS1	Thermosetting polymers		Urea formaldehyde (UF)		
TS2	Thermosetting carbon-fibre composites		T300 T700 T800 HTA-S IMA - Epoxy (M21)...		
TS3	Thermosetting glass-fibre composites		Epoxy - HX..(42..)/E glass (7781...)...		
TS4	Thermosetting aramide-fibre composites		Kevlar 49		
TP1	Thermoplastic polymers		Polycarbonate (PC)		
TP2	Thermoplastic carbon-fibre composites		PPS/PEEK - T300..		
TP3	Thermoplastic glass-fibre composites		PPS/PEEK - E-glass or A-glass...		
TP4	Thermoplastic aramide-fibre composites				

Graphite

SMG	Description	Properties	Reference	$k_{c1.1}$	m_c
GR1	Graphite		R 8500		

SMG

SMG	EN	EN-Nr	W.-Nr	DIN	AFNOR	BS	UNI	JIS	SS	UNS
	11 SMn 30	1.0715	1.0715	9 SMn 28	S 250	230 M 07	CF 9 SMn 28	SUM 22	1912	G12130
	11 SMnPb 30	1.0718	1.0718	9 SMnPb 28	S 250 Pb		CF 9 SMnPb 28	SUM 22 L	1914	G12134
	10 S 20	1.0721	1.0721	10 S 20	10 F 1	210 M 15	CF 10 S 20			
			1.0722	10 SPb 20	10 PbF 2		CF 10 SPb 20			
P1	15 SMn 13	1.0725	1.0723	15 S 20		210 A 15		SUM 32	1922	
	35 S20	1.0726	1.0726	35 S 20	35 MF 4	212 M 36			1957	G11400
	46 S20	1.0727	1.0727	46 S 20	45 MF 4	212 M 44			1973	G11460
	11 SMn 37	1.0736	1.0736	9 SMn 36	S 300	240 M 07	CF 9 SMn 36			G12150
	11 SMn 37	1.0736	1.0736	9 SMn 36	S 300	240 M 07	CF 9 SMn 36			G12150
	S235JR	1.0037	1.0037	St 37-2	E 24-2		Fe 360 B	STKM 12 C	1311	
	S235JRG2	1.0038	1.0116	St 37-3	E 24-3, E 24-4	4360-40 C	Fe 360 D FF		1312, 1313	
	S275J2G3	1.0144	1.0144	St 44-3 N	E 28-3, E 28-4	4360-43 C	Fe 430 D FF	SM 41 C	1412, 1414	
	C 10	1.0301	1.0301	C 10	34 C 10, XC 10	045 M 10	C 10	S 10 C		G10100
P2			1.0401	C 15	37 C 12, XC 18	080 M 15	C 15, C 16		1350	G10170
	C22	1.0402	1.0402	C 22	C 20	050 A 20	C 20, C 21		1450	G10200
	S355JR	1.0570	1.0570	St 52-3	E 36-3, E 36-4	4360-50 C	Fe 510 B	SM 50 YA	2172, 2132	
	C 15R	1.1141	1.1141	Ck 15	XC 15, XC 18	080 M 15	C 15, C 16	S 15 C, S 15 CK	1370	G10170
			1.1158	Ck 25	XC 25	060 A 25	C 25	S 25 C		G10250
			1.2162	21 MnCr 5	20 NC 5			SCR 420 H		
	16 Mo 3	1.5415	1.5415	15 Mo 3	15 D 3	1501-240	16 Mo 3		2912	
			1.5423	16 Mo 5		1503-245-420	16 Mo 5	SB 450 M		G45200
	14 NiCr 14	1.5752	1.5752	14 NiCr 14	12 NC 15	655 M 13		SNC 815 (H)		G33106
			1.5919	15 CrNi 6	16 NC 6	S 107	16 CrNi 4			
	18 NiCrMo 7 6	1.6587	1.6587	18 CrNiMo 7 6	18 NCD 6	820 A 16	18 NiCrMo 7			
P3	16 MnCr 5	1.7131	1.7131	16 MnCr 5	16 MC 5	527 M 17	16 MnCr 5	SCR 415	2511	G51170
	16 MnCrS 5	1.7139	1.7139	16 MnCrS 5						
	20 MnCr 5	1.7147	1.7147	20 MnCr 5	20 MC 5		20 MnCr 5	SMnC 420 (H)		G51200
	20 MnCrS 5	1.7149	1.7149	20 MnCrS 5	20 MnCrS 5			SMnC 21 H		
	13 CrMo 4 5	1.7335	1.7335	13 CrMo 4 4	15 CD 3.5	1501-620 Gr. 27	14 CrMo 4 5		2216	
			1.7337	16 CrMo 4 4	15 CD 4.5	1501-620 Gr. 27	14 CrMo 4 5		2216	
	10 CrMo 9 10	1.7380	1.7380	10 CrMo 9 10	10 CD 9.10	1501-622 Gr. 31	12 CrMo 9 10		2218	J21890
	C35		1.0501	C 35	55 C 35	060 A 35	C 35		1550	G10350
	E 335	1.0503	1.0503	C 45	65 C 45	80 M 46	C 45	S 45 C	1650	G10430
	C40		1.0511	C 40	60 C 40	080 M 40	C 40	S 40 C		
	E 360	1.0070	1.0535	St 70-2	A 70-2		Fe 690		1655	
	C60	1.0601	1.0601	C 60	CC 55	080 A 62	C 60			G10600
P4			1.1157	40 Mn 4	35 M 5	150 M 36				G10390
	G 28 Mn6	1.1165	1.1165	30 Mn 5		120 M 36		SMn 1 H, SCMn 2		G13300
	C 35E	1.1181	1.1181	Ck 35	XC 38 H1	080 M 36	C 35	S 35 C	1572	G10340
	C 45E	1.1191	1.1191	Ck 45	XC 42	080 M 46	C 45	S 45 C	1672	G10420
	C 60E	1.1221	1.1221	Ck 60	XC 60	080 A 62	C 60	S 58 C	1665, 1678	G10640
			1.1740	C 60 W	Y3 55			SK 7		
	55 SiCr7	1.7100	1.0904	55 Si 7	55 S 7	250 A 53	55 Si 8		2085, 2090	
			1.2330	35 CrMo 4	34 CD 4	708 A 37	35 CrMo 4		2234	T51620
			1.2542	45 WCrV 7		BS 1	45 WCrV 8 KU		2710	T41901
		1.2714	1.2714	56 NiCrMoV 7		BH 224-5	56 NiCrMoV7-KU	SKT 4		T61206
			1.5121	46 MnSi 4						
			1.5710	36 NiCr 6	35 NC 6	640 A 35		SNC 236		
			1.5736	36 NiCr 10	35 NC 11		35 NiCr 9	SNC 631 (H)		
	36 CrNiMo 4		1.6511	36 CrNiMo 4	40 NCD 3	816 M 40	38 NiCrMo 4 (KB)			G98400
P5	34 CrNiMo 6	1.6582	1.6582	34 CrNiMo 6	35 NCD 6	817 M 40	35 NiCrMo 6 (KW)	SNCM 447	2541	G43400
	34 Cr 4	1.7033	1.7033	34 Cr 4	32 C 4	530 A 32	34 Cr 4 (KB)	SCR 430 (H)		G51320
	41 Cr 4	1.7035	1.7035	41 Cr 4	42 C 4	530 M 40	41 Cr 4	SCR 440 (H)		G51400
	25 CrMo 4	1.7218	1.7218	25 CrMo 4	25 CD 4 S	708 M 25	25 CrMo 4 (KB)	SCM 425	2225	G41300
	42 CrMo 4	1.7225	1.7225	42 CrMo 4	42 CD 4	708 M 40	42 CrMo 4	SCM 440 (H)	2244	G41400
	42 CrMo 4	1.7225	1.7225	42 CrMo 4	42 CD 4	708 M 40	42 CrMo 4	SCM 440 (H)	2244	G41400
			1.7361	32 CrMo 12	30 CD 12	722 M 24	32 CrMo 12		2240	
	50 CrV 4	1.8159	1.8159	50 CrV 4	50 CV 4	735 A 50	51 CrV 4	SUP 10	2230	H61500
	41 CrAlMo 7 10	1.8509	1.8509	41 CrAlMo 7	40 CAD 6.12	905 M 39	41 CrAlMo 7	SACM 645	2940	K24065
	C 67S	1.1231	1.1231	Ck 67	XC 68	060 A 67	C 70		1770	G10700
	C 100S	1.1274	1.1274	Ck 101		060 A 96		SUP 4	1870	G10950
P6	C 105U	1.1545	1.1545	C 105 W1	Y1 105		C 100 KU		1880	
			1.1645	C 105 W2	Y1 105		C 100 KU	SK 3		
			1.1663	C 125 W	Y2 120		C 120 KU	SK 2		

SMG

U.N.E./ I.H.A.	AISI / ASTM	GOST	ČSN	Misc. Brands	Condition	Structure
	1213				Annealed	
	12 L 13				Annealed	
	1108				Annealed	
	11 L 08				Annealed	
					Annealed	
	1140	40			Annealed	
	1146				Annealed	
	1215				Annealed	
	12 L 14				Annealed	
		16D			Annealed	
	A573 Grade 58	18kp	11 378		Annealed	
	A573 Grade 70	St14kP	11 448		Annealed	
	1010	10			Annealed	
F.1110	1015	15			Annealed	
	1020, 1023	20	12 024		Annealed	
		17G1S	11 523		Annealed	
F.1511	1015	15			Annealed	
F.1120	1025	25			Annealed	
					Annealed	
	A204 Grade A		15 020		Annealed	
	4520				Annealed	
	3310, 9314	20X2H4A	16 420		Annealed	
	4320		16 220		Annealed	
					Annealed	
F.1516	5115	12KHN2	14 220		Annealed	
		18HG			Annealed	
	5120	20KH	14 221		Annealed	
	5120 H	20KH			Annealed	
	A182-F11, A182-F12	12KHM	15 121		Annealed	
	A387 Grade 12 Cl. 2				Annealed	
F.155	A182-F22	12KH8	15 313		Annealed	
F.1130	1035	35	12 040		Annealed	
F.5110	1045	45	12 050		Annealed	
	1040	40	12 041		Annealed	
F.1150	1055	55			Annealed	
	1060	60	12 061		Annealed	
	1039	40G			Annealed	
	1330	30G2			Annealed	
F.1135	1035	35			Annealed	
F.1140	1045	45	12 050		Annealed	
F.1150	1064	60			Annealed	
	1060	60			Annealed	
F.144	9255	55S2			Annealed	
F.1250	4135	35KHM			Annealed	
F.5241	S1	5KHV2S			Annealed	
	L6	5KHNV			Annealed	
	5045				Annealed	
	3135				Quenched & Tempered	
	3435				Annealed	
	9840				Quenched & Tempered	
F.1280	4340	38H2N2MA	16 343		Annealed	
	5132	35KH			Quenched & Tempered	
	5140	40H	14 140		Quenched & Tempered	
F.1251	4130	20KHM	15 130		Quenched & Tempered	
F.1252	4142, 4140	38HM	15 142		Annealed	
F.1252	4142, 4140	38HM	15 142		Quenched & Tempered	
					Quenched & Tempered	
F.143	6150	50KHFA	15 260		Quenched & Tempered	
F.1740	A355 Cl. A				Annealed	
F.5103	1070	70			Annealed	
F.5117	1095				Annealed	
F.5118	W1	U10A			Annealed	
		U10			Annealed	
	W1	U13			Annealed	

SMG

SMG	EN	EN-Nr	W.-Nr	DIN	AFNOR	BS	UNI	JIS	SS	UNS
P7	107 CrV 3	1.2210	1.2210	115 CrV 3	100 C 3		107 CrV 3 KU			T61202
			1.2510	100 MnCrW 4	90 MWCV 5	BO 1	95 MnWCr 5 KU	SKS 3	2140	T31501
	90 MnCrV 8	1.2842	1.2842	90 MnCrV 8	90 MV 8	BO 2	90 MnVCr 8 KU			T31502
	100 Cr 6	1.3505	1.3505	100 Cr 6	100 C 6	534 A 99	100 Cr 6	SUJ 2	2258	G51986
P8	X 210 Cr 12	1.2080	1.2080	X 210 Cr 12	Z 200 C 12	BD 3	X 210 Cr 13 KU	SKD 1		T30403
			1.2343	X 38 CrMoV 5 1	Z 38 CDV 5	BH 11	X 37 CrMoV 5 1 KU	SKD 6		T20811
	X 40 CrMoV 5 1	1.2344	1.2344	X 40 CrMoV 5 1	Z 40 CDV 5	BH 13	X 40 CrMo 5 1 1 KU	SKD 61	2242	T20813
	X 100 CrMoV 5	1.2363	1.2363	X 100 CrMoV 5 1	Z 100 CDV 5	BA 2	X 100 CrMoV 5 1 KU	SKD 12	2260	T30102
			1.2365	X 32 CrMoV 3 3	32 DCV 28	BH 10	30 CrMoV 12 27 KU	SKD 7		T20810
			1.2436	X 210 CrW 12			X 215 CrW 12 1 KU	SKD 2	2312	
			1.2601	X 165 CrMoV 12			X 165 CrMoW 12 KU		2310	
			1.2713	55 NiCrMoV 6	55 NCDV 7			SKT 4		T61206
	HS 6-5-2-5	1.3243	1.3243	S 6-5-2-5	Z 85 WDKCV 06-05-05-04-02		HS 6-5-2-5	SKH 55	2723	
	HS 2-10-1-8	1.3247	1.3247	S 2-10-1-8	Z 110 DKCWV 09-08-04	BM 42	HS 2-9-1-8	SKH 51		T11342
	HS 18-1-2-5	1.3255	1.3255	S 18-1-2-5	Z 80 WKCV 18-05-04-01	BT 4	HS 18-1-1-5	SKH 3		T12004
	HS 6-5-2	1.3343	1.3343	S 6-5-2	Z 85 WDCV 06-05-04-02	BM 2	HS 6-5-2	SKH 9, SKH 51	2722	T11302
	HS 2-9-2	1.3348	1.3348	S 2-9-2	Z 100 DCWV 09-04-02-02		HS 2-9-2	SKH 58	2782	T11307
	HS 18-0-1	1.3355	1.3355	S 18-0-1	Z 80 WCV 18-04-01	BT 1	HS 18-0-1	SKH 2		T12001
P11	X 6 Cr 13	1.4000	1.4000	X 6 Cr 13	Z 6 C 12	403 S 17	X 6 Cr 13	SUS 403	2301	S41008
	X 12 Cr 13	1.4006	1.4006	X 10 Cr 13	Z 10 C 13	410 S 21	X 12 Cr 13	SUS 410	2302	S41000
	X 6 Cr 17	1.4016	1.4016	X 6 Cr 17	Z 8 C 17	430 S 15	X 8 Cr 17	SUS 430	2320	S43000
	X 20 Cr 13	1.4021	1.4021	X 20 Cr 13	Z 20 C 13	420 S 37	X 20 Cr 13	SUS 420 J 1	2303	S42000
	X 39 Cr 13	1.4031	1.4031	X 40 Cr 13	Z 40 C 14	420 S 45	X 40 Cr 14	SUS 420	2304	S40280
	X 70 CrMo 15	1.4109	1.4109	X 65 CrMo 14	Z 70 D 14			SUS 440 A		S44002
	X 90 CrMoV 18	1.4112	1.4112	X 90 CrMoV 18	Z 2 CND 18 05	409 S 19	X CrTi 12	SUS 440 B	2327	S44003
	X 105 CrMo 17	1.4125	1.4125	X 105 CrMo 17	Z 100 CD 17		X 105 CrMo 17	SUS 440 C		S44004
	X 3 CrNIMo 13 3	1.4313	1.4313	X 5 CrNi 13 4	Z 5 CN 13.4	425 C 11	X 6 CrNi 13 04	SCS 5	2385	S41500
	X 18 CrN 28	1.4749	1.4749	X 18 CrN 28	Z 18 C 25				2322	S44600
P12	X 6 NiCrTiMoV 25 15	1.4534	1.4534	X 3 CrNiMoAl 13 8 2						S13800
	X 4 CrNiCuNb 16 4	1.4540	1.4540	X 4 CrNiCuNb 16 4						S15500
		1.4540	1.4540	X 4 CrNiCuNb 16 4	Z 4 CNUNb 16.4 M					S15500
	X 4 CrNiCuNb 16 4	1.4540	1.4540	X 4 CrNiCuNb 16 4						S15500
	X 5 CrNiCuNb 16 4	1.4542	1.4542	X 5 CrNiCuNb 16 4				SUS 630		S17400
	X 5 CrNiCuNb 17 4	1.4548	1.4542	X 5 CrNiCuNb 17 4	Z 6 CNU 17.4			SCS 24, SUS 630		S17400
	X 7 CrNiAl 17 7	1.4564	1.4564	X 7 CrNiAl 17 7	Z 9 CAN 17.7	301 S 81	X 7 CrNiAl 17 7	SUS 631	2388	S17700
	X 2 NiCoMoTi 18 12 4	1.6356	1.6356	X 2 NiCoMoTi 18 12 4						K93160
	X 2 NiCoMoTi 18 9 5	1.6358	1.6358	X 2 NiCoMoTi 18 9 5	Z 2 NKD 19-09					K93120
	X 2 NiCoMo 18 9 5	1.6358	1.6358	X 2 NiCoMoTi 18 9 5	Z 2 NKD 19-09					K93120
	X 2 NiCoMo 18 8 5	1.6359	1.6359	X 2 NiCoMo 18 8 5		S 162				K92890
	X 2 NiCoMo 18 8 5	1.6359	1.6359	X 2 NiCoMo 18 8 5		S 162				K92890
M1	X 10 CrNiS 18 9	1.4305	1.4305	X 10 CrNiS 18 9	Z 10 CNF 18.09	303 S 31	X 10 CrNi 18 09	SUS 303	2346	S30300
M2	X 2 CrNi 19 11	1.4306	1.4306	X 2 CrNi 19 11	Z 2 CN 18.10	304 S 12	X 3 Cr Ni 18 11	SUS 304 L	2352	S30403
	X 5 CrNi 18 10	1.4301	1.4301	X 5 CrNi 18 10	Z 6 CN 18.09	304 S 31	X 5 CrNi 18 11	SUS 304	2333	S30400
	X 5 CrNiMo 17 12 2	1.4401	1.4401	X 5 CrNiMo 17 12 2	Z 3 CND 17.11.1	316 S 31	X 5 CrNiMo 17 12	SUS 316	2347	S31600
	X 6 CrNiNb 18 10	1.4550	1.4550	X 6 CrNiNb 18 10	Z 6 CNNb 18.10	347 S 31	X 6 CrNiNb 18 11	SUS 347	2338	S34700
	X 9 CrNi 18 8	1.4310	1.4310	X 12 CrNi 17 7	Z 12 CN 17.07	301 S 21	X 12 CrNi 17 07	SUS 301	(2331)	S30100
	X 12 CrNi 18 8	1.4300	1.4300	X 12 CrNi 18 8	Z 12 CN 18	302 S 25		SUS 302	2331	S30200
M3	X 2 CrNiMo 18 14 3	1.4435	1.4435	X 2 CrNiMo 18 14 3	Z 2 CND 17.13	316 S 12	X 2 CrNiMo 17 13 2	SCS 16, SUS 316 L	2353	S31603
	X 2 CrNiMoN 17 13 3	1.4429	1.4429	X 2 CrNiMoN 17 13 3	Z 2 CND 17.13 Az	316 S 62	X 2 CrNiMoN 17 13 3	SUS 316 LN	2375	S31653
	X 2 CrNiN 18 10	1.4311	1.4311	X 2 CrNiN 19 11	Z 2 CN 18 .10 Az	304 S 62	X 2 CrNiN 18 11	SUS 304 LN	2371	S30453
	X 3 CrNiMo 18 12 3	1.4466	1.4466	X 5 CrNi 18 15		317 S 16	X 5 CrNi 18 15	SUS 317	2366	S31700
	X 9 CrNiSiNCe 21 11 2	1.4835	1.4893	X 9 CrNiSiNCe 21 11 2		310 S 31			2368	S30815
	X 12 CrNi 25 21	1.4335	1.4335	X 12 CrNi 25 21	Z 12 CN 25.20	310 S 24	X 6 CrNi 26 20	SUH 310, SUS 310 S	2361	S31008
M4	X 2 CrNiMoN 22 5 3	1.4462	1.4462	X 2 CrNiMoN 22 5	Z 2 CND 22.05 Az	332 S 15	X 2 CrNiMoN 22 5		2377	S31803
	X 2 CrNiMoSi 19 5	1.4424	1.4417	X 2 CrNiMoSi 19 5	Z 2 CND 18.05.03				2376	S31500
	X 2 NiCrMoCu 25 20 5	1.4539	1.4539	X 2 NiCrMoCu 25 20 5	Z 2 NCDU 25 20	904 S 13			2562	N08904
	X 3 CrNiMo 27 5 2	1.4460	1.4460	X 4 CrNiMo 27 5 2	Z 3 CND 25.7 Az		X 3 CrNiMo 27 5 2	SUS 329 J 1	2324	S32900
	X 5 CrNiCuNb 16 4	1.4980	1.4943	X 4 NiCrTi 25 15	Z 6 NCTDV 25.15	HR 51		SUH 660	2570	S66286
M5	X 1 CrNiMoN 20 18 7	1.4547	1.4529	X 1 CrNiMoN 20 18 7	Z 1 CNDU 20.18.05 Az		X 1 CrNiMoN 20 18 7		2778	S31254
	X 1 CrNiMoN 25 22 8	1.4652	1.4652	X 2 CrNiMoN 25 22 7						S32654
	X 10 NiCrAlTi 32 20	1.4876	1.4876	X 10 NiCrAlTi 32 20	Z 10 NC 32.21			NCF 800		N08800
	X 2 CrNiMoN 25 7 4	1.4410	1.4410	X 2 CrNiMoN 25 7 4	Z 3 CND 25.07 Az		X 2 CrNiMoN 25 7 4		2328	S32750

SMG

U.N.E./ I.H.A.	AISI / ASTM	GOST	ČSN	Misc. Brands	Condition	Structure
F.520L	L2	11KHF			Annealed	
F.5220	O1	9KHVG			Annealed	
	O2	9G2F			Annealed	
F.5230	52100	SHKH15	14 109		Annealed	
F.5212	D3	KH12			Annealed	
	H11	4KH5MFS			Annealed	
F.5318	H13	4KH5MF1S			Annealed	
F.5227	A2	9KH5VF			Annealed	
	H10	3KH3M3F			Annealed	
F.5213		KH12			Annealed	
		KH12MF			Annealed	
F.520.S	L6	5KHNM			Annealed	
F.5613	M35	R6M5K5			Annealed	
	M42	R2AM9K5			Annealed	
	T4	R18K5F2			Annealed	
F.5603	M2	R6M5			Annealed	
	M7				Annealed	
	T1	R18			Annealed	
	403	08KH13			Annealed	Ferritic
F.3401	410, CA-15	12KH13, 08KH13			Annealed	Martensitic
F.3113	430	12KH17			Annealed	Ferritic
F.5261	420	20KH13	17 022		Annealed	Martensitic
F.3404	420	40KH13			Annealed	Martensitic
	440 A				Annealed	Martensitic
	440 B	95KH18			Annealed	Martensitic
	440 C	95KH18			Annealed	Martensitic
	A182 F6NM			F6NM	Annealed	Martensitic
	446	15KH28			Annealed	Ferritic
	XM-13			PH 13-8 Mo	Solution annealed	Austenitic
	XM-12			15-5 PH	H1150	Martensitic
	XM-12			15-5 PH	Solution annealed	Martensitic
	XM-12			15-5 PH	H1025	Martensitic
	SAE 630			17-4 PH	H1150	Martensitic
	630			17-4 PH	Solution annealed	Martensitic
	631	09KH17N7YU1		17-7 PH	Solution annealed	Austenitic/Ferritic
	AMS 6515			Marage 350	Solution annealed	Martensitic
	AMS 6521			Marage 300	Solution annealed	Martensitic
	AMS 6514			Marage 300, Vascomax C300	Solution annealed	Martensitic
	AMS 6512			Marage 250	Solution annealed	Martensitic
	AMS 6512			Marage 250, Vascomax C250	Solution annealed	Martensitic
F.3508	303	12KH19N9			Annealed	Austenitic
F.3504	304 L	03KH18N11			Annealed	Austenitic
F.3504	304	08KH18N10	17 240		Annealed	Austenitic
F.3534	316	08KH17H13M2T	17 346		Annealed	Austenitic
F.3524	347	08KH18N12B			Annealed	Austenitic
F.3517	301	07KH16N6			Annealed	Austenitic
	302	12KH18N9			Annealed	Austenitic
F.3533	(316 L)	03KH17N14M3	17 349		Annealed	Austenitic
	316 LN	03KH16N15M3			Annealed	Austenitic
F.3541	304 LN	03KH18N11			Annealed	Austenitic
	317	08KH17H15M3T			Annealed	Austenitic
				253 MA	Annealed	Austenitic
	310 S	12KH25N20			Annealed	Austenitic
	329 LN			SAF 2205	Annealed	Duplex
				3RE60	Annealed	Duplex
	904L				Annealed	Super austenitic
	329				Annealed	Duplex
	660			A286	Solution annealed	Austenitic
				254 SMO	Annealed	Super austenitic
				654 SMO	Annealed	Super austenitic
				Alloy 800	Annealed	Austenitic
	F 53			SAF 2507	Annealed	Super duplex

SMG

SMG	EN	EN-Nr	W.-Nr	DIN	AFNOR	BS	UNI	JIS	SS	UNS
	EN-GJL-150	0.6150	0.6150	GG-15	Ft 15 D	Grade 150	G15	FC 150	01 15-00	F11601
	EN-GJL-200	0.6200	0.6200	GG-20	Ft 20 D	Grade 220	G20	FC 200	01 20-00	F12101
K1	EN-GJL-250	0.6250	0.6250	GG-25	Ft 25 D	Grade 260	G25	FC 250	01 25-00	F12401
	EN-GJL-350	0.6350	0.6350	GG-35	Ft 35 D	Grade 350	G35	FC 350	01 35-00	F13502
	EN-GJL-215			GG-220 HB					02 19	
	EN-GJV-300			GJV-300						
	EN-GJV-350			GJV-350						
K2	EN-GJV-400			GJV-400						
	EN-GJV-450			GJV-450						
	EN-GJV-500			GJV-500						
K3	EN-GJMB-550-4	0.8155		GTS-55-04	P 540/5	P 540/5	P 55-04	PCMP55-04	08 54-00	F24130
	EN-GJS-350-22	0.7033	0.7033	GGG-35.3	FGS 370-17	Grade 350/22		FCD 350-22L	07 17-15	
	EN-GJS-400-15	0.7040	0.7040	GGG-40	FGS 400-12	Grade 420/12	GS 400-12	FCD 400-18L	07 17-02	F32800
K4	EN-GJS-400-18	0.7043	0.7043	GGG-40.3	FGS 370-17	Grade 370/17	GSO 42/17		07 17-12	F32800
	EN-GJS-500-7	0.7050	0.7050	GGG-50	FGS 500-7	Grade 500/7	GS 500-7	FCD 500-7	07 27-02	F33800
	EN-GJS-600-3	0.7060	0.7060	GGG-60	FGS 600-3	Grade 600/3	GS 600-3	FCD 600-3	07 32-03	F34100
	EN-GJS-700-2	0.7070	0.7070	GGG-70	FGS 700-2	Grade 700/2	GS 700-2	FCD 700-2	07 37-01	F34800
										ADI grade 5
	EN-GJS-1000-5			GJS-1000-5						ADI grade 2
K5	EN-GJS-1200-2			GJS-1200-2						ADI grade 3
	EN-GJS-1400-1			GJS-1400-1						ADI grade 4
	EN-GJS-800-8			GJS-800-8						ADI grade 1
	EN-GJLA-XNiCr 20-2	0.6660	0.6660	GGL-NiCr 20 2	FGL Ni20 Cr2	Grade F2			05 23-00	F41002
K6	EN-GJLA-XNiCr 30-3	0.6676	0.6676	GGL-NiCr 30 3	FGL Ni30 Cr3	Grade F3				F41004
	EN-GJLA-XNiCuCr 15-6-2	0.6655	0.6655	GGL-NiCuCr 15 6 2	FGL Ni15 Cu6 Cr2	Grade F1				F41000
	EN-GJSA-XNiMn 13-7	0.7652	0.7652	GGG-NiMn 13 7	FGS Ni13 Mn7	Grade S6			07 72-00	
	EN-GJSA-XNiCr 20-2	0.7660	0.7660	GGG-NiCr 20 2	FGS Ni20 Cr2	Grade S2				F43000
K7	EN-GJSA-XNiMn 23-4	0.7673	0.7673	GGG-NiMn 23 4	FGS Ni23 Mn4	Grade S2M				F43010
	EN-GJSA-XNiCr 30-3	0.7676	0.7676	GGG-NiCr 30 3	FGS Ni30 Cr3	Grade S3				F43003
	EN-GJSA-XNi 35	0.7683	0.7683	GGG-Ni 35	FGS Ni35					F43006
	AW-1050A	Al99.5	3.0255	Al99.5	A-5/1050A	1B		(A1050)	4007	AA1050A
	AW-2011	AlCuBiPb	3.1655	AlCuBiPb	A-U5PbBi/2011	FC1		A2011	4355	AA2011
	AW-2014	AlCuSiMn	3.1255	AlCuSiMn	A-U4SG/2014	H15			4338	AA2014
	AW-5005	AlMg1	3.3315	AlMg1	A-G0.6	N41			4106	AA5005
	AW-6060	AlMgSi0.5	3.3206	AlMgSi0.5	A-GS/6060	(H9)			4103	AA6060
	AW-6063	AlMgSi0.7	3.3210	AlMgSi0.7	A-GSUC/6061	(H10)		(A6063)	4104, 4107	AA6005
	AW-3103	AlMn1	3.0515	AlMn1		N3			4054	AA3103
N1	AW-3003	AlMn1Cu	3.0517	AlMn1Cu	A-M1/3003			A3003		AA3003
	AW-7020	AlZn4.5Mg1	3.4335	AlZn4.5Mg1	A-Z5G/7020	H17			4425	AA7020
	AW-7075		3.4365	AlZnMgCu1.5	A-Z5GU/7075	2L95/2L96		A7075		AA7075
	AC-42000		3.2341	G-AlSi5Mg	A-S7G	LM25	3599	AC 4C	4244	
	AC-46200	AlSi8Cu3(Si)	3.2161	G-AlSi8Cu3					4251	A13800
	MG-P-63	MgAl6Zn	3.5612	G-MgAl6Zn	G-A6-Z1	MAG-E-121				M11600
	MG-P-61	MgAl8Zn	3.5812	G-MgAl8Zn	(G-A7-Z1)					
	MN65120	MgSe3Zn2Zr1	3.5103	G-MgSe3Zn2Zr1	ZRE1	MAG6-TE				M12330
	AC-43400	AlSi10Mg(Fe)	3.2381	G-AlSi10Mg	A-S10G	LM9			4253	A13600
N2	AC-44200	AlSi12	3.2382	GD-AlSi12						
	AW-6082	AlMgSi1	3.2315	AlMgSi1	A-SGM0.7/6082	H30			4212	AA6082
N3		AlSi17Cu5						ADC14		
	CC331G		2.0940.01	CuAl10Fe	CuAl10Fe	AB1			5710	C95200
	CC333G		2.0975.01	CuAl10Ni	CuAl10Ni5Fe5	AB2			5716	C95500
		CuNi10Fe1Mn	2.0872	CuNi10Fe1Mn	CuNi10Fe1Mn	CN102			5667	C70600
				CuNi10Zn45						
		CW408J	2.0790	CuNi18Zn19Pb	CuNi18Zn19Pb1					C76300
	CW352H		2.1176	CuPb10Sn	CuSn10Pb10	LB2			5640	C93700
	CC480K		2.1050.01	CuSn10	CuSn10	CT1			5443	C90700
N11			2.1087	CuSn10Zn					5458	C90500
	CW452K	CuSn6	2.1020	CuSn6	CuSn6	PB103		C5191	5428	C51900
	CW502L	CuZn15	2.0240	CuZn15	CuZn15	CZ102		C2300	5112	C23000
	CW706R	CuZn28Sn1	2.0470	CuZn28Sn1	CuZn29Sn1				5220	C44300
	CW508L	CuZn37	2.0321	CuZn37	CuZn37	CZ108			5150	C27200
	CW717R	CuZn38Sn1	2.0530	CuZn38Sn1						C46400
	CW614N	CuZn39Pb3	2.0401	CuZn39Pb3	CuZn39Pb3	CZ121			5170	C38500
	CW612N	CuZn40Pb2	2.0402	CuZn40Pb2	CuZn39Pb2	CZ120			5168	C37800
	CW622N	CuZn44Pb2	2.0410	CuZn44Pb2		CZ104			5272	C68700

SMG

U.N.E./ I.H.A.	AISI / ASTM	GOST	ČSN	Misc. Brands	Condition	Structure
	A48 25 B	Sc 15	422 415			Grey cast iron (GCI)
	A48 30 B	Sc 20	422 420			Grey cast iron (GCI)
	A48 35 B	Sc 25	422 425			Grey cast iron (GCI)
	A48 50 B	Sc 35				Grey cast iron (GCI)
	G 3500					Grey cast iron (GCI)
	Grade 350					Compacted graphite iron (CGI)
	Grade 400					Compacted graphite iron (CGI)
	Grade 400-15					Compacted graphite iron (CGI)
	Grade 450					Compacted graphite iron (CGI)
	Grade 500					Compacted graphite iron (CGI)
	A220 60004				Tempered	Malleable cast iron (MCI)
						Nodular cast iron (SGI)
FGE 38-17	60-40-18	Vc 42-12	422 304			Nodular cast iron (SGI)
	60-40-18	Vc 42-12				Nodular cast iron (SGI)
FGE 50-7	A536, 80-55-06	Vc 50-2	422 305			Nodular cast iron (SGI)
FGE 60-2	A476, 80-60-03	Vc 60-2	422 306			Nodular cast iron (SGI)
FGE 70-2	A536, 100-70-03	Vc 70-2				Nodular cast iron (SGI)
	1600/1300/-					Austempered ductile iron (ADI)
	1050/700/7					Austempered ductile iron (ADI)
	1200/850/4					Austempered ductile iron (ADI)
	1400/1100/1					Austempered ductile iron (ADI)
	850/550/10					Austempered ductile iron (ADI)
	A436 Type 2			Ni-Resist 2		Austenitic lamellar cast iron
	A436 Type 3			Ni-Resist 3		Austenitic lamellar cast iron
	A436 Type 1			Ni-Resist 1		Austenitic lamellar cast iron
				Nodumag		Austenitic nodular cast iron
	A436 Type D-2			Ni-Resist D-2		Austenitic nodular cast iron
	A439 Type D-2M			Ni-Resist D-2M		Austenitic nodular cast iron
	A436 Type D-3			Ni-Resist D-3		Austenitic nodular cast iron
	A439 Type D-5			Ni-Resist D-5		Austenitic nodular cast iron
	B26					
	A380					
	AZ61A					
	AZ80A					
	AMS 4442					
	B85					
	A413.2					
	B390.0					
	CA952	BrA9ZH3L				
	CA955	BrA10ZH4N4L				
	CA937					
		BrOF6.5-0.15				
		L90				
		LOMsh70-1-0.05				
		LO60-1				
		LAMsh77-2-0.05				

SMG

SMG	EN	EN-Nr	W.-Nr	DIN	AFNOR	BS	UNI	JIS	SS	UNS
S1										
S2										
S3	NiMo30		2.4810							N10002
	NiMo16Cr15W		2.4819							N10276
	NiCr19Fe19Nb5Mo3		2.4668							N07718
			2.4669							N07750
	NiCr20TiAl		2.4631							N07080
	NiCr19Co18Mo4Ti3Al3									N07500
	NiCr20Co13Mo4Ti3Al		2.4654							N07001
S11			3.7024							
										R54620
S12										R56320
	TiAl6V4		3.7164							R56400
S13				TiV10Fe2Al3						
H3	16 MnCr 5	1.7131	1.7131	16 MnCr 5	16 MC 5	527 M 17	16 MnCr 5	SCR 415	2511	G51170
H5	C 67S	1.1231	1.1231	Ck 67	XC 68	060 A 67	C 70		1770	G10700
	C 75S	1.1248	1.1248	Ck 75	XC 75	060 A 78	C 75		1774, 1778	G10780
	C 100S	1.1274	1.1274	Ck 101		060 A 96		SUP 4	1870	G10950
	C 105U	1.1545	1.1545	C 105 W1	Y1 105		C 100 KU		1880	
			1.2550	60 WCrV 7	55 WC 20		55 WCrV 8 KU			
	55 Cr 3	1.7176	1.7176	55 Cr 3	55 C 3	527 A 60	55 Cr 3	SUP 9 (A)	2253	G51550
	42 CrMo 4	1.7225	1.7225	42 CrMo 4	42 CD 4	708 M 40	42 CrMo 4	SCM 440 (H)	2244	G41400
H7	107 CrV 3	1.2210	1.2210	115 CrV 3	100 C 3		107 CrV 3 KU			T61202
			1.2510	100 MnCrW 4	90 MWCV 5	BO 1	95 MnWCr 5 KU	SKS 3	2140	T31501
	90 MnCrV 8	1.2842	1.2842	90 MnCrV 8	90 MV 8	BO 2	90 MnVCr 8 KU			T31502
	100 Cr 6	1.3505	1.3505	100 Cr 6	100 C 6	534 A 99	100 Cr 6	SUJ 2	2258	G51986
H8	X 40 CrMoV 5 1	1.2344	1.2344	X 40 CrMoV 5 1	Z 40 CDV 5	BH 13	X 40 CrMo 5 1 1 KU	SKD 61	2242	T20813
	X 100 CrMoV 5	1.2363	1.2363	X 100 CrMoV 5 1	Z 100 CDV 5	BA 2	X 100 CrMoV 5 1 KU	SKD 12	2260	T30102
	X 155 CrVMo 12 1		1.2379	X 155 CrVMo 12 1	Z 160 CDV 12	BD 2	X 155 CrVMo 12 1 KU	SKD 11		T30402
			1.2436	X 210 CrW 12			X 215 CrW 12 1 KU	SKD 2	2312	
			1.2601	X 165 CrMoV 12			X 165 CrMoW 12 KU		2310	
			1.2713	55 NiCrMoV 6	55 NCDV 7			SKT 4		T61206
	HS 6-5-2-5	1.3243	1.3243	S 6-5-2-5	Z 85 WDKCV 06-05-05-04-02		HS 6-5-2-5	SKH 55	2723	
	HS 2-10-1-8	1.3247	1.3247	S 2-10-1-8	Z 110 DKCWV 09-08-	BM 42	HS 2-9-1-8	SKH 51		T11342
	HS 18-0-1	1.3355	1.3355	S 18-0-1	Z 80 WCV 18-04-01	BT 1	HS 18-0-1	SKH 2		T12001
H11	X 20 Cr 13	1.4021	1.4021	X 20 Cr 13	Z 20 C 13	420 S 37	X 20 Cr 13	SUS 420 J 1	2303	S42000
	X 70 CrMo 15	1.4109	1.4109	X 65 CrMo 14	Z 70 D 14			SUS 440 A		S44002
	X 90 CrMoV 18	1.4112	1.4112	X 90 CrMoV 18	Z 2 CND 18 05	409 S 19	X CrTi 12	SUS 440 B	2327	S44003
	X 105 CrMo 17	1.4125	1.4125	X 105 CrMo 17	Z 100 CD 17		X 105 CrMo 17	SUS 440 C		S44004
H12	X 4 CrNiCuNb 16 4	1.4540	1.4540	X 4 CrNiCuNb 16 4						S15500
	X 5 CrNiCuNb 16 4	1.4542	1.4542	X 5 CrNiCuNb 16 4				SUS 630		S17400
	X 5 CrNiCuNb 16 4	1.4542	1.4542	X 5 CrNiCuNb 16 4				SUS 630		S17400
	X 7 CrNiAl 17 7	1.4568	1.4568	X 7 CrNiAl 17 7	Z 9 CAN 17.7	301 S 81	X 7 CrNiAl 17 7	SUS 631	2388	S17700
	X 8 CrNiMoAl 15 7 5	1.4574	1.4574	X 8 CrNiMoAl 15 7 5						S15700
	X 6 NiCrTiMoV 25 15	1.4980	1.4943	X 4 NiCrTi 25 15	Z 6 NCTDV 25.15	HR 51		SUH 660	2570	S66286
	X 2 NiCoMo 18 8 5	1.6359	1.6359	X 2 NiCoMo 18 8 5		S 162				K92890
	X 2 NiCoMoTi 18 9 5	1.6358	1.6358	X 2 NiCoMoTi 18 9 5	Z 2 NKD 19-09					K93120
	X 2 NiCoMoTi 18 9 5	1.6358	1.6358	X 2 NiCoMoTi 18 9 5	Z 2 NKD 19-09					K93120
	X 2 NiCoMoTi 18 12 4	1.6356	1.6356	X 2 NiCoMoTi 18 12 4						K93160
H21	X 120 Mn 12	1.3401	1.3401	X 120 Mn 12	Z 120 M 12	BW 10		SC MnH 1	2183	
H31	EN-GJN-HV520	0.9620	0.9620	G-X330 NiCr 4 2	FB Ni4 Cr2 BC	Grade 2 A			05 12-00	F45001
	EN-GJN-HV550	0.9625	0.9625	G-X260 NiCr 4 2	FB Ni4 Cr2 HC	Grade 2 B			05 13-00	F45000
	EN-GJN-HV600(XCr11)	0.9630	0.9630	G-X300 CrNiSi 9 5 2	FB Cr9 Ni5	Grade 2 C, D, E			04 57-00	F45003

SMG

U.N.E./ I.H.A.	AISI / ASTM	GOST	ČSN	Misc. Brands	Condition	Structure
				Discalloy	Precipitation hardened	
				Haynes 25		
				Stellite 21		
				Hastelloy C		
		KHN65MV		Hastelloy C-276		
				IN 100		
				Inconel 718		
				Inconel X-750	Solution annealed	
				Nimonic 80A		
				René 41		
				Udimet 500		
				Waspalloy		
				Ti	Commercially pure	Ti (α)
	AMS 4919			Ti 6-2-4-2	Annealed	Ti (α)
	AMS 4943			Ti 3Al-2.5V (grd 9)	Annealed	Ti (α+β)
	AMS 4920, Grade 5	VT6		Ti 6Al-4V	Annealed	Ti (α+β)
	AMS 4986			Ti 10V-2Fe-3Al	Annealed	Ti (β)
F.1516	5115	12KHN2	14 220		Case hardened	
F.5103	1070	70			Quenched & Tempered	
F.5107	1078, 1080	75			Quenched & Tempered	
F.5117	1095				Quenched & Tempered	
F.5118	W1	U10A			Quenched & Tempered	
	S1	5KHV2SF			Quenched & Tempered	
	5155				Quenched & Tempered	
F.1252	4142, 4140	38HM	15 142		Quenched & Tempered	
F.520L	L2	11KHF			Quenched & Tempered	
F.5220	O1	9KHVG			Quenched & Tempered	
	O2	9G2F			Quenched & Tempered	
F.5230	52100	SHKH15	14 109		Quenched & Tempered	
F.5318	H13	4KH5MF1S			Quenched & Tempered	
F.5227	A2	9KH5VF			Quenched & Tempered	
F.5211	D2	KH12MF			Quenched & Tempered	
F.5213		KH12			Quenched & Tempered	
		KH12MF			Quenched & Tempered	
F.520.S	L6	5KHNM			Quenched & Tempered	
F.5613	M35	R6M5K5			Quenched & Tempered	
	M42	R2AM9K5			Quenched & Tempered	
	T1	R18			Quenched & Tempered	
F.5261	420	20KH13	17 022		Quenched & Tempered	Martensitic
	440 A				Quenched & Tempered	Martensitic
	440 B	95KH18			Quenched & Tempered	Martensitic
	440 C	95KH18			Quenched & Tempered	Martensitic
	XM-12			15-5 PH	H900	Martensitic
	SAE 630			17-4 PH	H1025	Martensitic
	SAE 630			17-4 PH	H900	Martensitic
	AMS 5528	09KH17N7YU1		17-7 PH	TH1050	Martensitic
	632			PH 15-7 Mo	TH1050	Martensitic
	660			A286	Precipitation hardened	Austenitic
	AMS 6512			Marage 250	Precipitation hardened	Martensitic
	AMS 6521			Marage 300	Precipitation hardened	Martensitic
	AMS 6521			Marage 300	Precipitation hardened	Martensitic
	AMS 6515			Marage 350	Precipitation hardened	Martensitic
	A128 Grade A			Hadfield		
	A532 IB (NiCr-LC			Ni-Hard 2		White cast iron
	A532 IA (NiCr-HC)			Ni-Hard 1		White cast iron
	A532 ID (Ni-HiCr)			Ni-Hard 4		White cast iron

Cemented carbide inserts and insert carriers

Cemented carbide inserts and cemented carbide insert carriers from Seco Tools are not included in the product range intended for the following requirements.
Nevertheless Seco Tools can make the following declaration.
These products meet all requirements in RoHS (Restriction of the use of certain Hazardous Substances in electrical and electronic equipment), WEEE (Waste Electrical & Electronic Equipment) and ELV (End of Life Vehicles) requirements.
Products do not contain mercury, lead, hexavalent chromium, cadmium, CFC, HCFC, flame retardants or solvents in concentrations that exceed specifications in the regulations.

Regrinding:
Wet or dry grinding can produce potentially hazardous dusts or mists that can irritate skin, eyes, nose, throat and result in lung damage or disease. To avoid injury use proper safety precautions and protective equipment.

Disposal:
Seco Tools will buy back used inserts and solid carbide tools for recycling. Inserts and solid carbide tools should be separated from other metal waste (steel, aluminium, copper etc).
All packing material is fully recyclable.

CBN and PCD inserts

Inserts from Seco Tools are not included in the product range intended for the following requirements. Nevertheless Seco Tools can make the following declaration.
This product meets all requirements in RoHS (Restriction of the use of certain Hazardous Substances in electrical and electronic equipment), WEEE (Waste Electrical & Electronic Equipment) and ELV (End of Life Vehicles) requirements.
Products do not contain mercury, lead, hexavalent chromium, cadmium, CFC, HCFC, flame retardants or solvents in concentrations that exceed specifications in the regulations.

Regrinding:
Wet or dry grinding can produce potentially hazardous dusts or mists that can irritate skin, eyes, nose, throat and result in lung damage or disease. To avoid injury use proper safety precautions and protective equipment.

Disposal:
Seco Tools will buy back used CBN- or PCD-tipped inserts for recycling. Inserts should be separated from other metal waste (steel, aluminium, copper etc). Solid CBN-inserts may be discarded as landfill waste.
All packing material is fully recyclable.

Black oxide insert carriers

Insert carriers from Seco Tools are not included in the product range intended for the following requirements. Nevertheless Seco Tools can make the following declaration.
This product meets all requirements in RoHS (Restriction of the use of certain Hazardous Substances in electrical and electronic equipment), WEEE (Waste Electrical & Electronic Equipment) and ELV (End of Life Vehicles) requirements.
Products do not contain mercury, lead, hexavalent chromium, cadmium, CFC, HCFC, flame retardants or solvents in concentrations that exceed specifications in the regulations.

Disposal:
Used insert carriers may be sent for recycling together with ordinary steel waste (swarf and discarded steel scrap) for recycling.
All packing material is fully recyclable.

Cermet inserts

Inserts from Seco Tools are not included in the product range intended for the following requirements. Nevertheless Seco Tools can make the following declaration.
This product meets all requirements in RoHS (Restriction of the use of certain Hazardous Substances in electrical and electronic equipment), WEEE (Waste Electrical & Electronic Equipment) and ELV (End of Life Vehicles) requirements.
Cermet grade C15M inserts do contain nickel and will leach nickel when in contact with the skin. Amount of leaching is higher than specified in norm SS-EN 1811 Reference test method for release of nickel from products intended to come into direct and prolonged contact with the skin. These norms are intended for products that are in direct and prolonged contact with the skin and are therefore not directly applicable for cermet inserts. Persons with known allergic reactions to nickel are advised to wear protective gloves when handling cermet inserts.

Regrinding:
Wet or dry grinding can produce potentially hazardous dusts or mists that can irritate skin, eyes, nose, throat and result in lung damage or disease. To avoid injury use proper safety precautions and protective equipment.

Disposal:
Used inserts may be recycled. Inserts should be separated from other metal waste (steel, aluminium, copper, etc) including cemented carbide inserts.
All packing material is fully recyclable.

Nickel coated insert carriers

Insert carriers from Seco Tools are not included in the product range intended for the following requirements. Nevertheless Seco Tools can make the following declaration.
This product meets all requirements in RoHS (Restriction of the use of certain Hazardous Substances in electrical and electronic equipment), WEEE (Waste Electrical & Electronic Equipment) and ELV (End of Life Vehicles) requirements.
Products do not contain mercury, lead, hexavalent chromium, cadmium, CFC, HCFC, flame retardants or solvents in concentrations that exceed specifications in the regulations.
Insert carriers do contain nickel and will leach nickel when in contact with the skin. Amount of leaching is not higher then norm SS-EN 1811 Reference test method for release of nickel from products intended to come into direct and prolonged contact with the skin.
These norms are intended for products that are in direct and prolonged contact with the skin and are therefore not directly applicable for insert carriers.
Persons with known allergic reactions to nickel are advised to wear protective gloves when handling nickel coated insert carriers.

Disposal:
Used tools maybe sent for recycling together with ordinary steel waste (swarf and discarded steel scrap) for recycling.
All packing material is fully recyclable.

Intentionally added alloying elements

Grade	Cemented carbide											Coating						
	W	Ti	Ta	Nb	Co	Cr	Ni	Mo	C	N	Ru	Ti	Al	C	N	O	Si	Nb
CP20	■				■				■			■			■			
CP200	■				■	■			■			■	■		■			
CP300	■	■	■	■	■				■			■	■		■			
CP500	■				■	■			■			■	■		■			
CP600	■				■	■			■			■	■		■			
C15M	■	■	■	■	■		■	■	■	■								
CF	■		■		■		■	■	■									
CM	■		■		■		■	■	■									
DP2000	■		■	■	■				■			■	■	■	■	■		
DP3000	■	■	■	■	■				■	■		■	■	■	■	■		
DS2050	■				■	■			■			■	■		■			■
DS4050	■				■	■			■			■	■		■			■
F15M	■				■	■			■			■	■		■			
F25M	■	■	■	■	■				■			■	■		■			
F30M	■				■	■			■			■	■		■			
F40M	■				■	■			■			■	■		■			
HX	■		■		■				■									
H02	■		■		■	■			■									
H15	■				■	■			■									
H25	■				■	■			■									
KX	■				■	■			■									
MH1000	■				■	■			■			■	■		■			
MK1500	■		■		■				■			■	■	■	■	■		
MK2050	■		■		■	■			■			■	■		■		■	
MM4500	■				■	■			■			■	■	■	■	■		
MP1501	■		■	■	■				■			■	■	■	■	■		
MP2050	■				■						■	■	■		■		■	
MP2501	■		■	■	■				■			■	■	■	■	■		
MP3000	■				■	■			■			■	■		■			
MP3501	■		■	■	■				■			■	■	■	■	■		
MS2500	■		■	■	■				■			■	■	■	■	■		
MS2050	■				■	■			■			■	■		■			■
RX1500	■		■		■		■	■	■			■	■		■			
RX2000	■		■		■	■			■			■	■		■			
RM2020	■				■				■			■						
RM2090	■				■	■			■			■	■				■	
RN2010	■				■	■			■									
RS2090	■				■	■			■			■	■				■	
T350M	■		■	■	■				■			■	■	■	■	■		
T25M	■		■	■	■				■			■		■	■			
TGH1050	■				■	■			■			■	■		■		■	
TGK1500	■		■		■				■			■	■	■	■	■		
TGP25	■	■	■	■	■				■			■	■	■	■	■		
TGP35	■		■	■	■				■			■	■	■	■	■		
TGP45	■		■	■	■				■			■	■	■	■	■		
TGS2050	■				■	■			■			■	■		■		■	
TH1000	■				■	■			■			■	■		■		■	
TH1500	■				■	■			■			■	■	■	■	■		
TK0501	■				■	■			■			■	■	■	■	■		
TK1501	■		■		■	■			■			■	■	■	■	■		
TM1501	■	■	■	■	■	■			■	■		■	■	■	■	■		
TM2000	■	■	■	■	■				■	■		■	■	■	■	■		
TM2501	■	■	■	■	■				■	■		■	■	■	■	■		
TM3501	■				■				■			■	■	■	■	■		
TM4000	■	■	■	■	■				■	■		■	■	■	■	■		
TP0501	■	■	■	■	■	■			■			■	■	■	■	■		
TP1020	■	■	■	■	■				■	■								
TP1030	■	■	■	■	■				■	■		■	■		■		■	
TP1501	■	■	■	■	■				■	■		■	■	■	■	■		
TP25	■	■	■	■	■	■			■	■		■	■	■	■	■		
TP200	■	■	■	■	■				■	■		■	■	■	■	■		
TP2501	■	■	■	■	■	■			■	■		■	■	■	■	■		
TP3501	■	■	■	■	■				■	■		■	■	■	■	■		
TP40	■		■	■	■				■			■		■	■			
TS2000	■				■	■			■			■	■		■			
TS2050	■				■	■			■			■	■		■		■	
TS2500	■		■		■				■			■	■		■			
TTP2050	■				■	■			■			■	■		■		■	
T250D	■				■	■			■			■	■		■			
T400D	■				■	■			■			■	■		■			
T100R	■		■		■	■			■			■	■		■			
T60M	■	■	■	■	■				■			■	■		■			
883	■		■		■				■									
890	■				■	■			■									

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